Huntington Beach Housing Element

2021 - 2029

Section 1

Introduction

A.Role of the Housing Element

The Housing Element of the Huntington Beach General Plan (the "Housing Element" or "Element") identifies and analyzes the City's existing and projected housing needs and contains a detailed outline and work program of the City's goals, policies, quantified objectives, and programs for the preservation, improvement, and development of housing for a sustainable future. The Housing Element is one of the seven mandatory elements to be included in a City's General Plan. The document establishes the appropriate policies, goals and programs for land use development and planning activity addressing the maintenance and expansion of the housing supply to adequately accommodate households currently living and expected to live in Huntington Beach. Programs and policies are established to guide future decision-making to accommodate the City's Regional Housing Need Assessment (RHNA) goals for all income groups as determined by the Southern California Association of Governments (SCAG) for the 2021-2029 planning period (the "6th Cycle").

B.State Policy and Authorization

1. Background

The Housing Element is a Chapter of the City of Huntington Beach General Plan that identifies and analyzes the City's existing and projected housing needs and contains a detailed outline and work program of the City's goals, policies, and objectives addressing the preservation, improvement, and development of housing. This includes timelines for the City to accomplish each identified action within the Housing Plan. The Housing Element is one of the seven state-required Elements of the General Plan. The Housing Element identifies ways housing needs of current and future residents can be addressed.

2. State Requirements

California State Housing Element Law (California Government Code Article 10.6) establishes the requirements for the Housing Element. California Government Code Section 65588 requires that local governments review and revise the Housing Element of their comprehensive General Plans not less than once every eight years.

The California Legislature has adopted an overall housing goal for the State to ensure every resident has a decent home and suitable living environment. Section 65588 of the California Government Code states:

a. *The availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every Californian, including farmworkers, is a priority of the highest order.*
b. *The early attainment of this goal requires cooperative participation of government and the private sector in an effort to expand housing opportunities and accommodate the housing needs of Californians in all economic levels.*
c. *The provisions of housing affordable to low- and moderate-income households requires the cooperation of all levels of the government.*
d. *Local and State governments have a responsibility to use the powers vested in them to facilitate the improvement and development of housing to make adequate provision for housing needs of all economic segments of the community.*

e. *The Legislature recognizes that in carrying out this responsibility, each local government also has the responsibility to consider economic, environmental, and fiscal factors and community goals set forth in the general plan and to cooperate with other local governments and the state in addressing regional housing needs.*

f. *Designating and maintaining a supply of land and adequate sites suitable, feasible, and available for the development of housing sufficient to meet the locality's housing need for all income levels is essential to achieving the state's housing goals and the purposes of this article.*

Table 1-1 summarizes State Housing Element requirements and identifies location in this document where these requirements are addressed.

Table 1-1: Housing Element Requirements

Housing Element Requirement(s)	Gov. Code Section	Reference in Housing Element
Analysis of employment trends.	Section 65583.a	Section 2.B.1
Projection and quantification of existing and projected housing needs for all income groups.	Section 65583.a	Section 3.C.1
Analysis and documentation of the City's housing characteristics, including cost for housing compared to ability to pay, overcrowding, and housing condition.	Section 65583.a	Section 2.C, D, F
An inventory of land suitable for residential development including vacant sites and sites having redevelopment potential.	Section 65583.a	Appendix B
Analysis of existing and potential governmental constraints upon the maintenance, improvement, or development of housing for all income levels.	Section 65583.a	Section 3.B
Analysis of existing and potential nongovernmental (private sector) constraints upon maintenance, improvement, or development of housing for all income levels.	Section 65583.a	Section 3.A
Analysis concerning the needs of the homeless.	Section 65583.a	Section 2.E.7
Analysis of special housing needs: handicapped, elderly, large families, farm workers, and female-headed households.	Section 65583.a	Section 2.E
Analysis of opportunities for energy conservation with respect to residential development.	Section 65583.a	Section 3.E.2
Identification of Publicly-Assisted Housing Developments.	Section 65583.a	Section 3.C.3
Identification of Units at Risk of Conversion to Market Rate Housing.	Section 65583.a	Section 3.C.3
Identification of the City's goal relative to the maintenance, improvement, and development of housing.	Section 65583.a	Section 4
Analysis of quantified objectives and policies relative to the maintenance, improvement, and development of housing.	Section 65583.b	Section 4
Identification of adequate sites that will be made available through appropriate action with required public services and facilities for a variety of housing types for all income levels.	Section 65583.c(1)	Appendix B
Identification of strategies to assist in the development of adequate housing to meet the	Section 65583.c(2)	Section 4

Table 1-1: Housing Element Requirements		
Housing Element Requirement(s)	**Gov. Code Section**	**Reference in Housing Element**
needs of low and moderate-income households.		
Description of the Public Participation Program in the formulation of Housing Element Goals, Policies, and Programs.	Section 65583.d	Appendix C
Description of the Regional Housing Needs Assessment (RHNA) prepared by the Southern California Association of Governments.	Section 65583.e	Section 3.D
Analysis of Fair Housing, including Affirmatively Furthering Fair Housing.	Section 8899.50	Section 3.C
Review of the effectiveness of the past Element, including the City's accomplishments during the previous planning period.	Section 65583.f	Appendix A
Source: State of California, Department of Housing and Community Development.		

The City's 5th Cycle Housing Element was adopted in October 2013 for the 2013 -2021 planning period and was amended in February 2020 by the City Council. The Housing Element update cycle for jurisdictions within the SCAG region allows for synchronization with the timeline of the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). The Element sets forth an 8-year strategy to address the City's identified housing needs, including specific implementing programs and activities.

Multiple amendments have been made to Housing Element law since the adoption of the City's 5th Cycle Housing Element. These amendments and subsequent housing laws change the required analysis, reporting, and policies contained in the Housing Element. The contents of this updated Housing Element comply with these amendments to state housing law and all other federal, state, and local requirements.

3. Regional Housing Needs Assessment

Section 65583 of the California Government Code sets forth the specific content requirements of a jurisdiction's housing element. Included in these requirements are obligations on the part of local jurisdictions to provide their allocated share of regional housing needs. Local governments and Councils of Governments (COGs) are required to determine existing and future housing need and the allocation of this need must be approved by the California Department of Housing and Community Development (HCD). Huntington Beach is a member agency of SCAG. SCAG is responsible for preparing the Regional Housing Needs Assessment (RHNA) for all jurisdictions within the SCAG region.

HCD established the planning period for the current RHNA from October 15, 2021 to October 15, 2029. For the 2021-2029 planning period the City is allocated a total of 13,368 units, including:

- 3,661 units affordable to very low-income households
- 2,184 units affordable to low-income households
- 2,308 units affordable to moderate-income households
- 5,215 units affordable to above-moderate income households

4. Relationship to Other General Plan Elements

The Housing Element is one Element of the City of Huntington Beach General Plan. The goals, policies, actions, and programs within the Housing Element relate directly to, and are required to be consistent with other elements in the Huntington Beach General Plan. Subsequent actions, separate from the adoption of the housing element, may be required to ensure the elements of the General Plan are compliant. The City's Housing Element identifies programs and resources required for the preservation, improvement, and development of housing to meet the existing and projected needs of its population.

The Housing Element works in tandem with development policies contained in the Land Use Element, most recently amended in 2017. The Land Use Element establishes the location, type, intensity, and distribution of land uses throughout the City, and defines the land use build-out potential. By designating areas for residential development, the Land Use Element places an upper limit on the densities and types of housing units constructed in the City. The Land Use Element also identifies lands designated for a range of other uses, including employment creating uses, open space, and public uses. The presence and potential for jobs affects the current and future demand for housing at the various income levels in the City.

The Circulation Element of the General Plan also affects the implementation of the Housing Element. The Circulation Element establishes policies for a balanced circulation system in the City. Consequently, the Housing Element must include policies and incentives that consider the types of infrastructure essential for residential housing units in addition to mitigating the effects of growth in the City.

The Housing Element has been reviewed for consistency with the City's other General Plan components, and the policies and programs in this Element are consistent with the policy direction contained in other parts of the General Plan. As portions of the General Plan are amended in the future, the Housing Element will be reviewed to ensure that internal consistency is maintained.

5. Public Participation

Section 65583 of the Government Code states that, "The local government shall make diligent effort to achieve public participation of all economic segments of the community in the development of the housing element, and the program shall describe this effort." Meaningful community participation is also required in connection with the City's Assessment of Fair Housing (AFH). A discussion of citizen participation is provided below.

As part of the 6th Cycle Housing Element Update process, the City of Huntington Beach has conducted extensive public outreach activities beginning in early 2021. These recent outreach efforts included presentations, City Council and Planning Commission Study Sessions, Community Workshops, digital media, ads, and noticed Public Hearings. Project materials, including presentations and video recordings from community workshops and public meetings, notices, and draft public review documents are available on the City's website:

Outreach for the 6th Cycle Housing Element to the community includes the following actions:

- **Housing Element Update Webpage**: The website provided information about the update process, key features of the housing element, project timeline and a calendar of events for outreach activities. The website also provided a link to the community survey tool, past

recorded meetings and summaries, as well as the contact information of the City for residents and community members to send additional comments or request additional information.

- **Joint Study Session of the Planning Commission and City Council**: (March 1, 2021 from 4:00 – 6:00 p.m. via Zoom) Presented an overview of the key features of the Housing Element and Housing Element update process to date.
- **Workshop #1- Community Meeting**: (April 22, 2021 from 6 – 7:30 p.m. via Zoom) Presented an overview of the Housing Element Update process, community, and housing characteristics, as well as in engagement activities.
- **Online Community Survey**: The Online Community Survey was live from April 28-May 31, 2021. Participants were asked to consider potential policies and programs to include in the Housing Element, as well as potential housing types and opportunities for housing in the City. The survey also solicited feedback regarding potential barriers to housing access and constraints to the development of housing
- **Spanish Speaking Outreach Event**: (June 5, 2021 from 8:00 a.m. – 10:00 a.m. at the Oak View Neighborhood Cleanup Event (17261 Oak Ln, Huntington Beach, CA 92647) The Outreach Event discussed housing needs and services within Huntington Beach, opportunities to provide housing at all income levels in the community, identifying constraints to building and accessing housing, as well as upcoming community engagement opportunities.
- **Workshop #2- Community Townhall Meeting**: (June 24, 2021 from 6 – 7:30 p.m. held virtually via Zoom) Presented a Housing Element progress, overview of RHNA, community and housing characteristics, and engaged in various activities.
- **Public Scoping Meeting for Preparation of a SEIR**: (August 19, 2021 from 5 – 7:00 p.m. held virtually via Zoom) The City of Huntington Beach held a virtual public Scoping Meeting to solicit comments on the scope of the Subsequent Environmental Impact Report (SEIR) for the Housing Element
- **Meetings with Local Stakeholders**: The City conducted five informal meetings with Local Stakeholders:
    - School Districts (June 1, 2021 via Zoom)
    - Building Industry Association of Southern California (June 6, 2021 via Zoom)
    - Housing Advocates and Community Organizations (June 9, 2021 via Zoom)
    - Housing Developers (June 9, 2021 via Zoom)
    - Faith-Based Organizations (June 17, 2021 via Zoom)

This Housing Element incorporates the meaningful engagement activities listed above that represent all segments of the community into the development of the housing element, including goals and actions. Please refer to Section 3: Constraints and Resources, Section 4: Housing Plan, and Appendix C: Summary of Outreach for detailed incorporation of public input that represents all segments of the community.

As required by Government Code Section 65585(b)(2), all written comments regarding the Housing Element made by the public have previously been provided to each member of the City Council.

Appendix C contains a summary of all public comments regarding the Housing Element received by the City during the update process.

6. Data Sources

The data used for the completion of this Housing Element comes from a variety of sources. These include, but are not limited to:

- 2010 Decennial Census (U.S. Census Bureau)
- 2020 Decennial Census (U.S. Census Bureau)
- 2019 One-Year American Community Survey (U.S. Census Bureau)
- 2019 Five-Year American Community Survey (U.S. Census Bureau)
- Regional Analysis of Impediments to Fair Housing 2020 (Orange County Regional Analysis of Impediments (AI) to Fair Housing)
- 2019 Point-in-Time Final Report (County of Orange)
- 2020 Home Mortgage Disclosure Act (HMDA) Lending Data - MSA/MD Aggregate Reports, Anaheim-Santa Ana-Irvine, Applications by Income, Race, and Ethnicity (Consumer Financial Protection Bureau)
- 2021-2028 Long-Term Occupational Employment Projections (California Department of Economic Development)
- 2013-2017 Comprehensive Housing Affordability Strategy (CHAS) (U.S. Department of Housing and Urban Development)
- 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy, “Connect SoCal” (Southern California Association of Governments)
- Demographics and Growth Forecast Technical Report - 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy, “Connect SoCal” (Southern California Association of Governments).

The data sources represent the best data available at the time this Housing Element Update was prepared. The original source documents contain the assumptions and methods used to compile the data.

7. Housing Element Organization

This Housing Element represents the City’s policy program for the 2021-2029 6th Cycle Planning Period. The Housing Element is comprised of the following Sections:

Section 1: Introduction contains as summary of the content, organization, and statutory considerations of the Housing Element.

Section 2: Community Profile contains an analysis of the City's population, household and employment base, and the characteristics of the housing stock.

Section 3: Housing Constraints, Resources, and Affirmatively Furthering Fair Housing examining governmental and non-governmental constraints on production, maintenance, and affordability of housing and provides a summary of housing resources, including sites identification and funding and financial considerations.

Section 4: Policy Plan addresses Huntington Beach's identified housing needs, including housing goals, policies, and programs.

Appendices provides various appendices with supplementary background resources including:

- **Appendix A** – Review Past Performance of 5th Cycle Housing Element Programs
- **Appendix B** – Summary of Adequate Sites Analysis
- **Appendix C** – Summary of Community Outreach and Engagement

Section 2

Community Profile

The Community Profile discusses characteristics of the City's population and housing stock as a means of better understanding the nature and extent of unmet housing needs. This section lays the foundation for policies and programs within the Housing Element. This section discusses the major components of housing needs in Huntington Beach, including population, household, economic and housing stock characteristics. Each of these components is presented in a regional context, and, where relevant, in the context of other nearby jurisdictions. This assessment serves as the basis for identifying the appropriate goals, policies, and programs for the City to implement during the 2021-2029 Housing Element cycle.

The data used for this community profile has been collected using the most current available data from the Southern California Association of Governments (SCAG), 2010 U.S. Census, 2010-2019 American Community Survey, the California Department of Finance, the California Employment Development Department, and other currently available real estate market data.

A. Population Characteristics

The characteristics of Huntington Beach inform the planning process and help establish policies for current and future needs of the City. Population characteristics affect current and future housing demand in the City. Population growth, age composition, and race/ethnicity influence the type and extent of housing needed and the ability of the local population to afford housing costs. The following section describes and analyzes the various population characteristics and trends in Huntington Beach.

Population Growth

Huntington Beach is a coastal community in Orange County. The 2010 Census reported a total population of 189,992 in the City of Huntington Beach. The 2019 American Community Survey (ACS) 5-year population estimate is 200,259. In August 2011, the Sunset Beach community was annexed into Huntington Beach, adding approximately 970 residents to the City's population.

The SCAG Demographics and Growth Forecast calculates estimates for future population counts and economic and housing trends through 2045. The SCAG data shown in **Table 2-1** estimates a population growth for Huntington Beach of 8,400 individuals, or a 4.3-percent increase, between 2016 and 2045. The growth estimates are similar to Fountain Valley and are about half of the estimated population growth of Newport Beach. The Huntington Beach population is forecasted to grow by about 6.9 percent less than Orange County between 2016 and 2045.

Table 2-1: Population Growth Forecast, 2016-2045

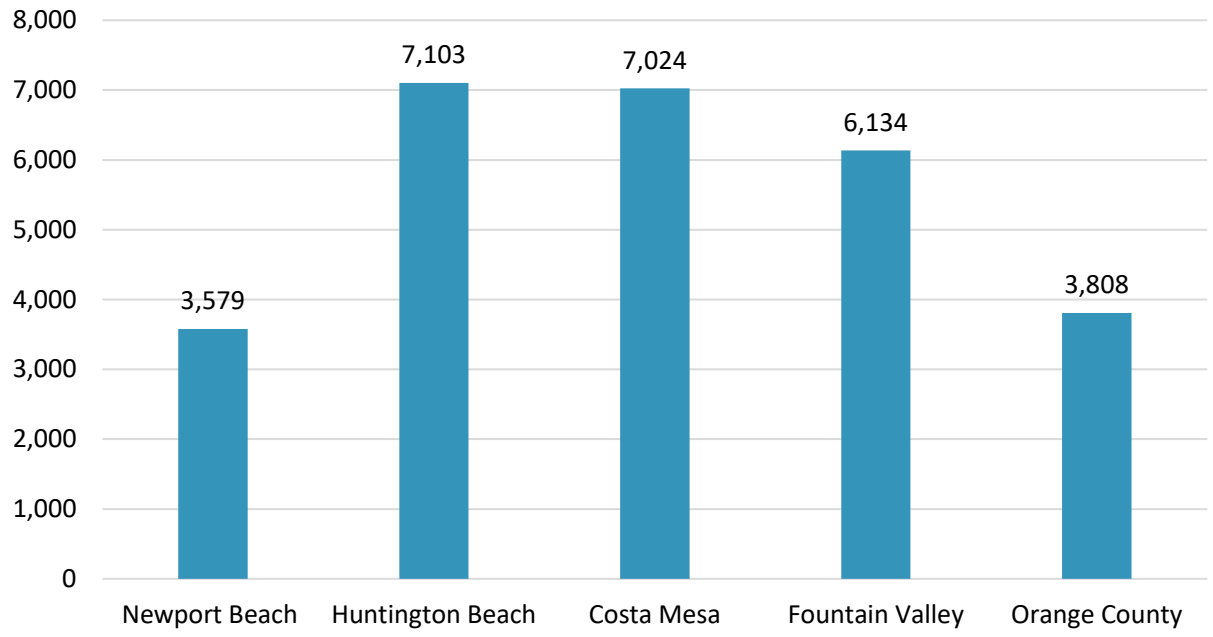
Jurisdictions	Population		Percent Difference
	2016 Actual	2045 Projected	2016-2045
Newport Beach	84,900	92,000	8.4%
Huntington Beach	**196,900**	**205,300**	**4.3%**
Costa Mesa	113,900	123,700	8.6%
Fountain Valley	56,700	59,000	4.1%
Orange County	3,180,000	3,535,000	11.2%

Represents an estimate from the SCAG Connect SoCal 2016-2045 Demographics and Growth Forecast.
Source: SCAG 2020 Connect SoCal Demographics and Growth Forecast.

Population Density

Population density is a measurement of the number of people living in a city per square mile. According to the 2010 Census Data, Huntington Beach's population density was 7,103 persons per square mile. **Figure 2-1** displays that Huntington Beach has the highest population density per square mile in comparison to the surrounding jurisdictions. Furthermore, the City's density per square mile is almost double the amount of the County of Orange.

Figure 2-1: Population Density per Square Mile



Source: United States Census Bureau, 2010

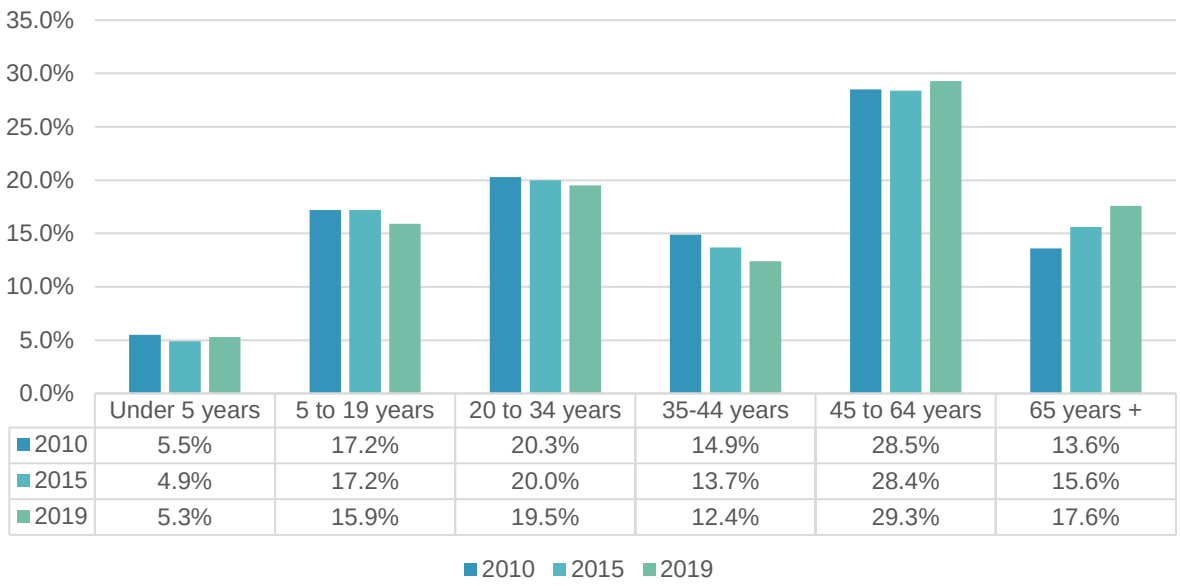
Age Characteristics

Housing need may be affected by a variety of factors and could depend on the age characteristics of residents in the community. Different age groups typically have different lifestyles, income levels, and household sizes that influence housing needs. The age composition of a community affects housing needs because housing demand within the market is often determined by the preferences of certain age groups. For example, young adults tend to favor apartments, low to moderate-cost condominiums, and smaller or more affordable single-unit homes because they tend have less income or have smaller households. As the local population moves through different stages of life, different types of housing are needed to accommodate evolving household characteristics. Providing a variety of housing types is therefore essential for a community to accommodate housing needs for all ages.

Figure 2-2 shows the age composition in Huntington Beach from 2010 to 2019. According to the American Community Survey (ACS), age distribution in Huntington Beach remained generally stable over the past 10 years. As shown in **Figure 2-2**, there was a less than one percent decrease in the under 5 population and a 1.3 percent decline in the 5 to 19 years population. The population aged 20 to 44 declined slightly and there was a less than one percent increase in the population of persons who are 45 to 64 years old over the nine years. Additionally, there was a 4 percent increase in the 65

years and over population which indicates the overall population is aging. ACS data shows the median age in Huntington Beach is 42.4 years old.

Figure 2-2: **Age Distribution in Huntington Beach (2010 – 2019)**



	Under 5 years	5 to 19 years	20 to 34 years	35-44 years	45 to 64 years	65 years +
2010	5.5%	17.2%	20.3%	14.9%	28.5%	13.6%
2015	4.9%	17.2%	20.0%	13.7%	28.4%	15.6%
2019	5.3%	15.9%	19.5%	12.4%	29.3%	17.6%

Source: American community Survey, 5-Year Estimates, 2010, 2015, and 2019.

Table 2-2 below compares the age characteristics of the City of Huntington Beach to the surrounding jurisdictions and Orange County. According the 2019 ACS, Huntington Beach's age demographics are similar to nearby jurisdictions. Key age groups in the housing market include persons aged 25 to 44 as this demographic commonly enters the homebuying market and persons aged 65 years or older as they may have varied housing needs. Compared to nearby jurisdictions, Huntington Beach has the second highest population of persons aged 25 to 44 at 26.7 percent, with Costa Mesa having the highest population for this cohort at (35.7 percent); overall the County of Orange's population is 27.3 percent for persons aged 25 to 44 years. Additionally, Huntington Beach has a smaller percentage of persons considered seniors (age 65 and over) at about 19 percent compared to Newport Beach (21.1 percent) and Fountain Valley (19.6 percent); overall about 15 percent of the County of Orange is age 65 years or over.

Table 2-2: Age Characteristics / Age Distribution

Jurisdiction	Under 5	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 years +
Newport Beach	3.5%	11.3%	4.6%	5.9%	23.1%%	30.7%	21.1%
Huntington Beach	**5.3%**	**10.3%**	**5.6%**	**5.4%**	**26.5%**	**29.3%**	**17.6%**
Costa Mesa	8.7%	10.2%	5.6%	5.5%	35.7%	21.9%	12.5%
Fountain Valley	4.5%	11.1%	6.7%	5.6%	22.6%	29.8%	19.6%
Orange County	5.8%	12.1%	6.4%	6.4%	27.3%	26.7%	15.3%

Source: American Community Survey, 5-Year Estimates, 2019

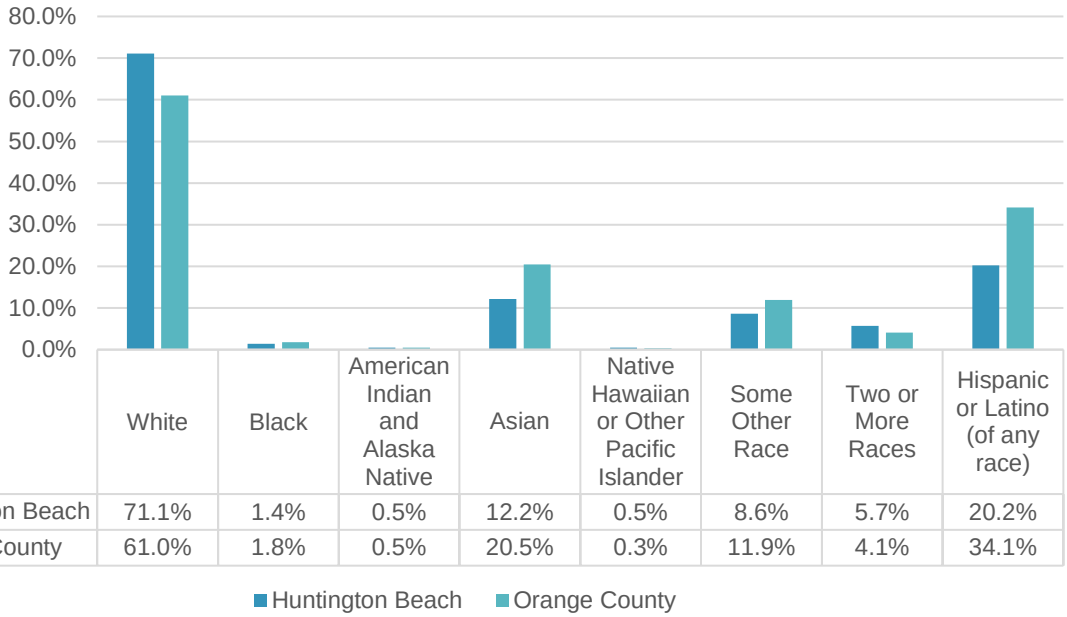
Race/Ethnicity Characteristics

Different racial and ethnic groups may have varying household characteristics, income levels, and cultural backgrounds which can influence their housing needs. Cultural influences may reflect preference for housing location, type, and living situations. Race and ethnicity are important housing indicators and are further discussed in the Affirmatively Furthering Fair Housing portion of Section 3: Housing Constraints, Resources, and Affirmatively Furthering Fair Housing of the Housing Element.

When reading and reviewing data about race and ethnicity, it is important to understand that race and ethnicity are not mutually exclusive. This means a person can identify as one or more race and ethnicity, which may result in an overlap in data counting. For example, a person may identify as Black and Hispanic/Latino or White and Hispanic/Latino.

Figure 2-3 shows the 2019 American Community Survey racial and ethnic compositions data for the City of Huntington Beach and the County of Orange. Over half of the population in Huntington Beach identified as White (71.1 percent). The next largest ethnic population within the City identified as Hispanic or Latino of any race (20.2 percent). The City of Huntington Beach and Orange County both had a low percentage of those who identified as American Indian and Alaska Native or Native Hawaiian or Other Pacific Islander (0.5 percent and 0.3 percent respectively).

Figure 2-3: Racial Ethnic Composition, 2019



	White	Black	American Indian and Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
Huntington Beach	71.1%	1.4%	0.5%	12.2%	0.5%	8.6%	5.7%	20.2%
Orange County	61.0%	1.8%	0.5%	20.5%	0.3%	11.9%	4.1%	34.1%

Source: American Community Survey, 5-Year Estimates, 2019.

The Census and the 2019 ACS report changes in Huntington Beach's racial and ethnic demographics from 2010 to 2019, as shown in **Table 2-3.** The Hispanic population grew from 17.1 percent of the population in 2010 to 20.2 percent in 2019, representing the largest racial/ethnic group increase during the time period. Additionally, the percentage of the population who identified as Native Hawaiian or Other Pacific Islander increased from 0.3 percent in 2015 to 0.5 percent 2019. The percentage of population who identified as Asian increased by 10.9 percent through 2019. The percentage of the

population who identified as Some Other Race decreased by .4 percent through 2015, then increased by 2.3 percent through 2019.

Table 2-3: Huntington Beach Racial/Ethnic Composition 2010 - 2019					
Race/Ethnicity	**2010**	**2015**	**2019**	**Percent Change 2010 to 2015**	**Percent Change 2015 to 2019**
American Indian and Alaska Native	0.4%	0.5%	0.5%	0.1%	0.0%
Asian	10.8%	11.0%	12.2%	0.2%	1.2%
Black	0.7%	1.0%	1.4%	0.3%	0.4%
Native Hawaiian or Other Pacific Islander	0.5%	0.3%	0.5%	-0.2%	0.2%
Some Other Race	6.7%	6.3%	8.6%	-0.4%	2.3%
Two or More Races	2.8%	4.4%	5.7%	1.6%	1.3%
White	78.1%	76.5%	71.1%	-1.6%	-5.4%
Hispanic or Latino	17.2%	19.3%	20.2%	2.1%	0.9%
Source: American Community Survey, 5-Year Estimates, 2015, and 2019, U.S. Census 2010.					

Table 2-4 below displays Racial and Ethnic Composition data for Huntington Beach, Orange County, and surrounding jurisdictions. The populations identifying as White or Hispanic/Latino of any race comprise the largest populations in most of the listed jurisdictions. Huntington Beach has the largest percentage of persons who reported Two or More Races (5.7 percent) compared to surrounding jurisdictions. Persons who reported American Indian and Alaska Native averaged less than one percent in each of the jurisdictions. Similarly, those who reported Native Hawaiian or Other Pacific Islander averaged less than one percent in all shown jurisdictions below.

Table 2-4: Racial/Ethnic Composition 2019								
Jurisdiction	**American Indian and Alaska Native**	**Asian**	**Black**	**Native Hawaiian or Other Pacific Islander**	**Some Other Race**	**Two or More Races**	**White**	**Hispanic or Latino (of any race)[1]**
Newport Beach	0.2%	8%	1%	0.1%	1.9%	2.8%	85.8%	8.8%
Huntington Beach	**0.5%**	**12.2%**	**1.4%**	**0.5%**	**8.6%**	**5.7%**	**71.1%**	**20.2%**
Costa Mesa	0.6%	8.5%	1.8%	0.8%	13.2%	4.1%	71.0%	35.6%
Fountain Valley	0.3%	35.8%	0.7%	0.2%	3.7%	5.1%	54.2%	15.4%
Orange County	.5%	20.5%	1.8%	.3%	11.9%	4.1%	61.0%	34.1%
Source: American Community Survey, 5-Year Estimates, 2019 *Note: (1) Persons of Hispanic or Latino Origin is an ethnicity that may be included in other racial groups*								

B.Economic Characteristics

Reporting and analyzing economic characteristics of a community provides valuable insight into a community's ability to access the housing market. It also assists in identifying financial constraints related to housing needs and accommodations. Incomes associated with different types of employment and the number of workers in a household affect housing affordability and choice. To consider a healthy balance between jobs and housing, the employment characteristics of a community should be included when considering a healthy balance between jobs and housing. Local employment growth is linked to an increase in local housing demand, and the inverse is true when employment opportunities decline.

1. *Employment and Wage Scale*

It is important to consider employment data, wages, occupational characteristics, and economic growth changes to achieve a healthy balance between jobs and housing. **Table 2-5** summarizes projected employment growth for Huntington Beach, surrounding jurisdictions, and Orange County from 2020-2045. These projections are provided by SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal. The report is a long-range plan that considers future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal was adopted on September 3, 2020 by SCAG's Regional Council. From 2016 to 2045, the County of Orange is forecasted to gain 270,000 jobs, an increase of 15.8 percent. From 2016 to 2045, Huntington Beach's employment is projected to increase by 7,400 jobs, an increase of 8.9 percent. Employment in nearby jurisdictions is also expected to increase, but at a lower rate than the forecasted growth in Huntington Beach and the County.

Table 2-5: Employment Growth (2016-2045)

Jurisdiction	2016	2045	Numeric Change 2016-2045	Percent Change 2016-2045
Newport Beach	83,400	84,900	1,500	1.8%
Huntington Beach	**83,400**	**90,800**	**7,400**	**8.9%**
Costa Mesa	95,700	104,000	8,300	8.7%
Fountain Valley	31,600	34,200	2,600	8.2%
Orange County	1,710,000	1,980,000	270,000	15.8%

Source: SCAG 2016-2045 Regional Growth Forecast by Jurisdiction Report.

Analyzing the employment by sector in a city is important to understand growth changes, access to different types of housing, what housing needs may be present, wages, and household income **Table 2-6** identifies employment sectors in Huntington Beach and the changes in employment for each sector between 2010 and 2019. The majority of employed people in Huntington Beach work in education services, healthcare, and social assistance. The second largest employment sector is professional, scientific, management, and administrative services. The largest increases in employment from 2010 to 2019 occurred in the professional, scientific, management, and administrative services industries, and arts, entertainment, recreation, accommodation, and food services sectors.

Table 2-6: Employment by Sector (2010-2019)					
Industry Sector	**2010**		**2019**		**Percent Change 2010-2019**
	# of people employed	**% of City Employment**	**# of people employed**	**% of City Employment**	
Agriculture, forestry, fishing and hunting, and mining	498	0.5%	754	0.7%	**0.2%**
Construction	6,469	6.5%	6,081	5.7%	**-0.8%**
Manufacturing	12,485	12.6%	11,871	11.1%	**-1.5%**
Wholesale trade	4,374	4.4%	3,587	3.4%	**-1.0%**
Retail trade	11,190	11.3%	12,118	11.4%	**0.1%**
Transportation and warehousing, and utilities	4,289	4.3%	4,148	3.9%	**-0.4%**
Information	2,498	2.5%	2,376	2.2%	**-0.3%**
Finance and insurance, and real estate and rental leasing	9,264	9.3%	8,940	8.4%	**-0.9%**
Professional, scientific, management, and administrative services	13,012	13.1%	14,727	13.8%	**0.7%**
Education services, health care, and social assistance	19,261	19.4%	21,339	20.0%	**0.6%**
Arts, entertainment, recreation, accommodation, and food services	8,308	8.4%	11,252	10.6%	**2.2%**
Other services (except public administration)	4,423	4.5%	5,404	5.1%	**0.6%**
Public Administration	3,377	3.4%	4,008	3.8%	**0.4%**
Total	**99,448**	**100%**	**106,605**	**100%**	**--**
Source: American Community Survey, 5-Year Estimates, 2010 and 2019. **Population 16 years and over*					

Table 2-7 displays unemployment data for the City of Huntington Beach, the County of Orange and nearby jurisdictions. Unemployment may affect different housing needs, for example, a lack of income increases the need for available affordable housing. Overall, all jurisdictions had a decrease of unemployment rate from 2010 to 2019. The data shows the Huntington Beach unemployment rate to be consistently lower than the County's unemployment rate. The City of Costa Mesa had the largest decrease in unemployment of all the jurisdictions and Newport Beach had the smallest decrease in unemployment.

Table 2-7: Unemployment Rate, 2010-2019			
Jurisdiction	**Unemployment Rate 2010**	**Unemployment Rate 2019**	**Percent Change 2010-2019**
Newport Beach	4.4%	3.1%	-1.3%
Huntington Beach	**7.0%**	**4.3%**	**-2.7%**
Costa Mesa	7.3%	4.2%	-3.1%
Fountain Valley	6.5%	4.1%	-2.4%
Orange County	7.4%	4.6%	-2.8%
Source: American Community Survey, 5-Year Estimates,2010 and 2019. **Population 16 years and over*			

Based on the data in **Table 2-7**, approximately 4.3% of Huntington Beach residents were without work in 2019 and would therefore be more likely to require affordable housing options. For those that are employed, income level further identifies housing types that may need to be provided within the City. According to the SCAG Final Adopted Regional Housing Needs Assessment (RHNA) Methodology, housing needs by income are broken down into four income levels

Very Low-Income (50 percent or less of the county's median family income)

Low-Income (50-80 percent of the county median family income)

Moderate-Income (80-120 percent of the county median family income)

Above Moderate-Income (120 percent and above of the county median family income)

Table 2-8 displays the mean annual wage for occupations compiled by the California Employment Development Department (EDD) for the Orange County Metropolitan Statistical Area in 2020. Orange County's AMI is $106,700 according to HUD's Median Family Income for 2021. The occupations that fall below 50 percent of this amount are:

- Office and Administration Support
- Production
- Transportation and Material Moving
- Building, Grounds Cleaning, and Maintenance
- Farming, Fishing and Forestry
- Healthcare Support
- Food Preparation and Serving Related

According to the data, the occupations that are above moderate income or provide an income of 120 percent of $106,700 and higher include the following:

- Management occupations
- Legal services

Moderate income earning jobs include architecture/engineering and computer/mathematical occupations. The education sector is the largest employment sector in Huntington Beach. In Orange County, this sector offers salaries slightly below moderate incomes. The data in **Table 2-8** shows that

most occupations in Orange County have an average income that falls within either the low or very low-income categories.

Table 2-8: Mean Salary by Occupation in Orange County, 2020	
Occupation	**Salary**
Management	$139,225
Legal	$147,030
Healthcare Practitioners and Technical	$101,125
Architecture and Engineering	$99,403
Computer and Mathematical	$96,051
Life, Physical and Social Sciences	$84,611
Business and Financial Operations	$80,107
Education, Training and Library	$72,247
Arts, Design, Entertainment, Sports and Media	$65,620
Construction and Extraction	$62,616
Community and Social Service	$58,617
Protective Services	$57,788
Installation, Maintenance and Repair	$56,597
Sales	$51,402
Office and Administration Support	$47,191
Production	$42,181
Transportation and Material Moving	$38,010
Building, Grounds Cleaning, and Maintenance	$35,880
Farming, Fishing and Forestry	$34,876
Healthcare Support	$34,790
Personal Care and Service	$34,724
Food Preparation and Serving Related	$32,613
Source: California Employment Development Division, Occupational Wage data, 2020.	

C.Household Characteristics

The U.S. Census defines a household as all persons who occupy one housing unit. This may include single persons living alone, families related through marriage, blood or adoption, domestic partnerships, and unrelated individuals living together. Not all types of residential living facilities are considered a housing unit. Examples include nursing facilities, residential care facilities, dormitories, other group living settings and the people living with them are not considered a household. Income and affordability are best measured at the household level and can reflect the special needs of certain groups, such as large families, single parent households, or low and extremely low-income households. For example, if a City has a prominent aging population of homeowners that live on fixed incomes, it may consider implementing a home maintenance assistance program.

1. *Household Type*

Table 2-9 displays 2019 American Community Survey data reporting household characteristics in Huntington Beach and nearby jurisdictions. Fountain Valley had the highest percentage of married couple family households, while this category comprised about 49% of households in both Newport Beach and Huntington Beach. Non-family households include persons living in the same house that are not related, such as roommates. Of all nonfamily households in the City, approximately 38.7% are

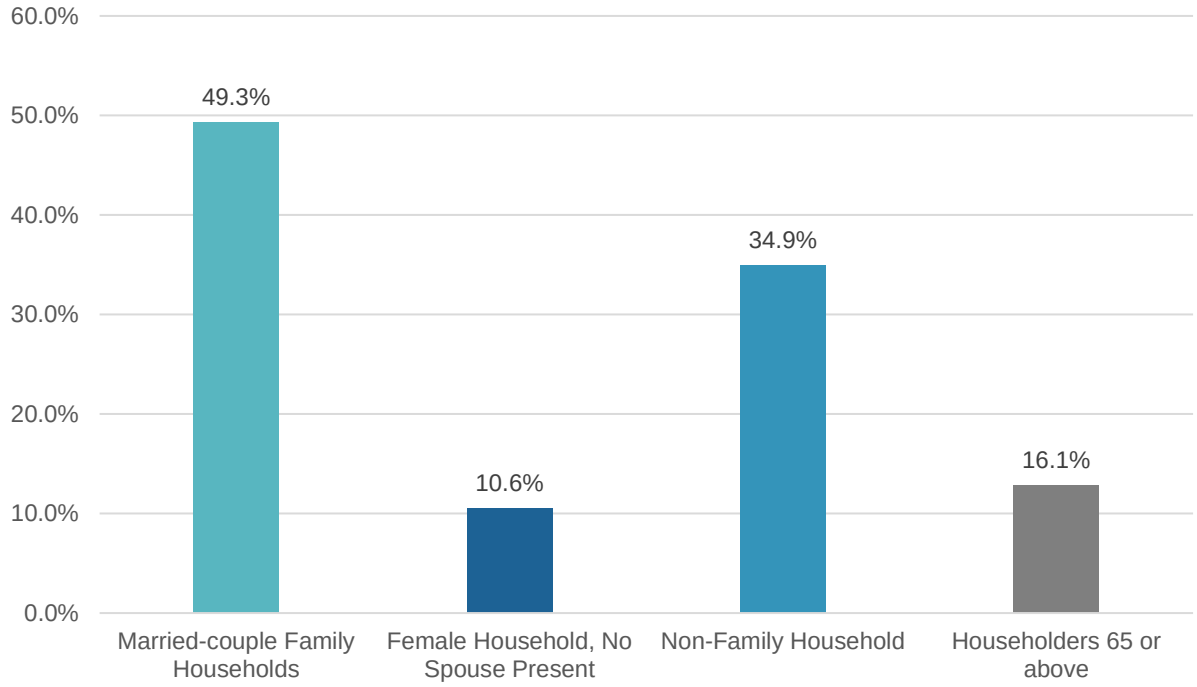
a single householder living alone that is age 65 and over. According to the data, about 35 percent of all households are non-family in Huntington Beach. The cities of Newport Beach and Costa Mesa each have about 40 percent of all households reported as nonfamily, whereas Fountain Valley has approximately 23 percent.

Table 2-9: Household Characteristics (2019)

Jurisdiction	Married-couple Family HH	% of Total HH	Female HH, No Spouse Present	% of Total HH	Non-Family HH	% of Total HH	Total HH
Newport Beach	18,635	49.6%	2,103	5.6%	15,887	42.2%	37,605
Huntington Beach	**37,953**	**49.3%**	**8,120**	**10.6%**	**26,851**	**34.9%**	**76,911**
Costa Mesa	17,714	43.2%	4,132	10.1%	16,597	40.5%	40,986
Fountain Valley	11,274	61.0%	1,899	10.3%	4,250	23.0%	18,469
Orange County	569,260	54.9%	119,719	11.5%	293,481	28.3%	1,037,492

Source: American Community Survey, 5-Year Estimates, 2019.
Notes: HH = Households

Figure 2-4: Huntington Beach Household Characteristics by Percent, 2019



Source: American Community Survey, 5-Year Estimates, 2019

Table 2-10 displays the changes in household types in Huntington Beach from 2010 to 2019. The ACS estimated 48.7 percent of all households to be married-couple family households in 2010, which

increased to 49.3 percent in 2019. Non-family households saw a moderate decrease while female headed households (no spouse present) saw a slight increase over the last nine years. Non-family households decreased from 36.4 percent in 2010 to 34.9 percent in 2019. Overall, total households in Huntington Beach increased from an estimated 75,220 in 2010 to an estimated 76,911 in 2019.

Table 2-10: Changes in Household by Type

Household Types	2010	2015	2019
Married-couple Family Households	48.7%	50.4%	**49.3%**
Female headed Household, No Spouse Present	10.0%	10.6%	**10.6%**
Non-Family Household	36.4%	33.9%	**34.9%**
Householders 65 years or above	13.4%	14.6%	**16.1%**
Total Households	**75,220**	**74,460**	**76,911**

Source: American Community Survey, 5-Year Estimates, 2010, 2015, 2019.
Note: Percentages do not add to 100 percent, there are additional categories and household types that are reported by the Census.

2. Household Size

Household size is an indicator of population growth and represents the most basic unit of demand for housing. The measure of persons per household provides the total number of people residing a housing unit and can include more than one family residing in a single housing unit. Average household size can be an indicator of housing affordability and other household economic conditions. Overcrowding is a result of having inadequate space for all members of a household. Therefore, a jurisdiction should analyze their average person per household size to appropriately respond to the type of housing needs in their community.

Table 2-11 displays the average household size for Huntington Beach as well as surrounding jurisdictions and the County of Orange. According to the ACS 2019 estimates, Huntington Beach's average household size in 2019 was 2.59 persons. Nearby jurisdictions range from 2.27 persons per household in Newport Beach to 3.01 persons per household in the County of Orange. Overall, Huntington Beach has an average household size that is similar to neighboring jurisdictions and smaller than the County.

Table 2-11: Average Household Size

Jurisdiction	Average Persons per Household
Newport Beach	2.27
Huntington Beach	**2.59**
Costa Mesa	2.71
Fountain Valley	3.01
Orange County	3.01

Source: American Community Survey, 5-Year Estimates, 2019.

3. Household Income

Household income is directly connected to housing affordability. As household income increases, it is more likely that the household can afford market rate rental housing units, larger units and/or ownership opportunities. As household income decreases, households tend to pay a disproportionate amount of their income for housing. This may result in increased incidence of overcrowding.

The California State Department of Housing and Community Development (HCD) identified the following income categories based on the Area Median Income (AMI) of Orange County;

- Extremely Low-income: households earning up to 30 percent of the AMI
- Very Low-income: households earning between 31 and 50 percent of the AMI
- Low-income: households earning between 51 percent and 80 percent of the AMI
- Moderate Income: households earning between 81 percent and 120 percent of the AMI
- Above Moderate Income: households earning over 120 percent of the AMI

Combined, the extremely low, very low, and low-income groups are referred as lower income[1]. In 2017, approximately 61.2 percent of Huntington Beach households earned moderate or above moderate incomes (**Table 2-12**), while the remaining 38.8 percent had incomes in the extremely low, very low, and low-income categories.

Household income is a practical measure of a community's affordability levels. The median household income in Huntington Beach is 5.3 percent above than the median income in Orange County. All jurisdictions around Huntington Beach, except for Costa Mesa, exceed the Orange County median household income of $90,234.

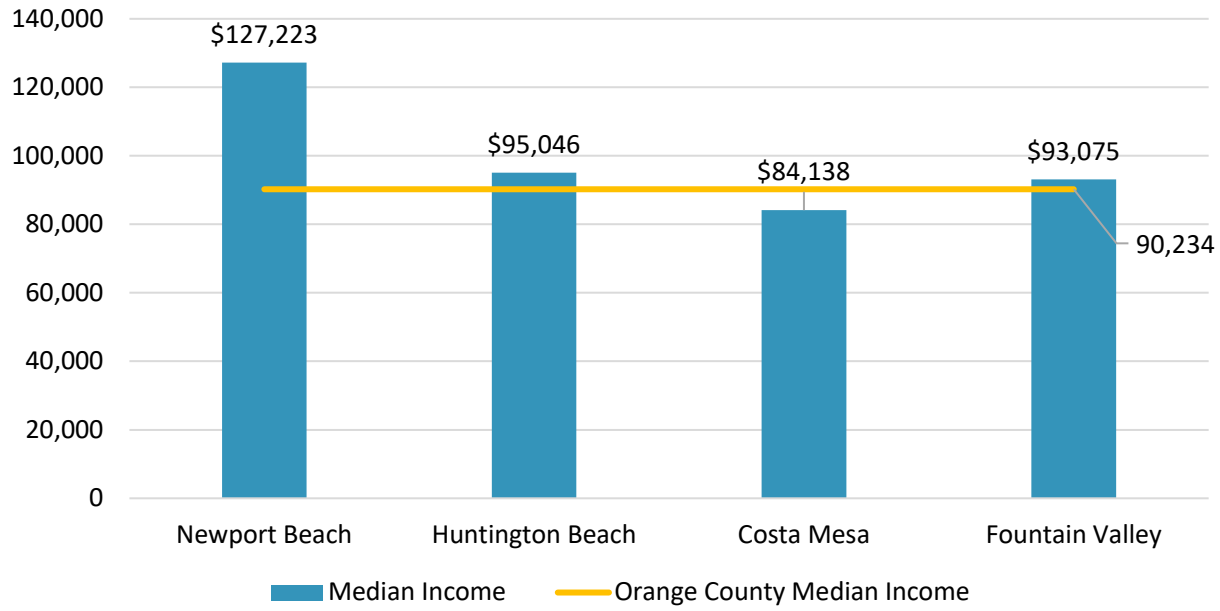
Table 2-12: Households by Income Category, 2013-2017

Income Category (% of County AMI)	Owner		Renter		Households	
	Total	Percent	Total	Percent	Total	Percent
Extremely Low (30% AMI or less)	3,520	7.9%	5,965	18.6%	9,485	12.4%
Very Low (31 to 50% AMI)	3,440	7.7%	4,525	14.1%	7,965	10.4%
Low (51 to 80% AMI)	6,105	13.7%	6,185	19.3%	12,290	16.0%
Moderate or Above (over 80% AMI)	31,660	70.8%	15,310	16.6%	46,970	61.2%
Total	**44,725**	**58.3%**	**31,985**	**41.7%**	**76,710**	**-**

Source: Department of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS), 2013-2017.

[1] HCD 2021 State Income Limits https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/income-limits-2021.pdf

Figure 2-5: Median Household Income by City (2015-2019)



Source: American Community Survey, 5-Year Estimates, 2019.

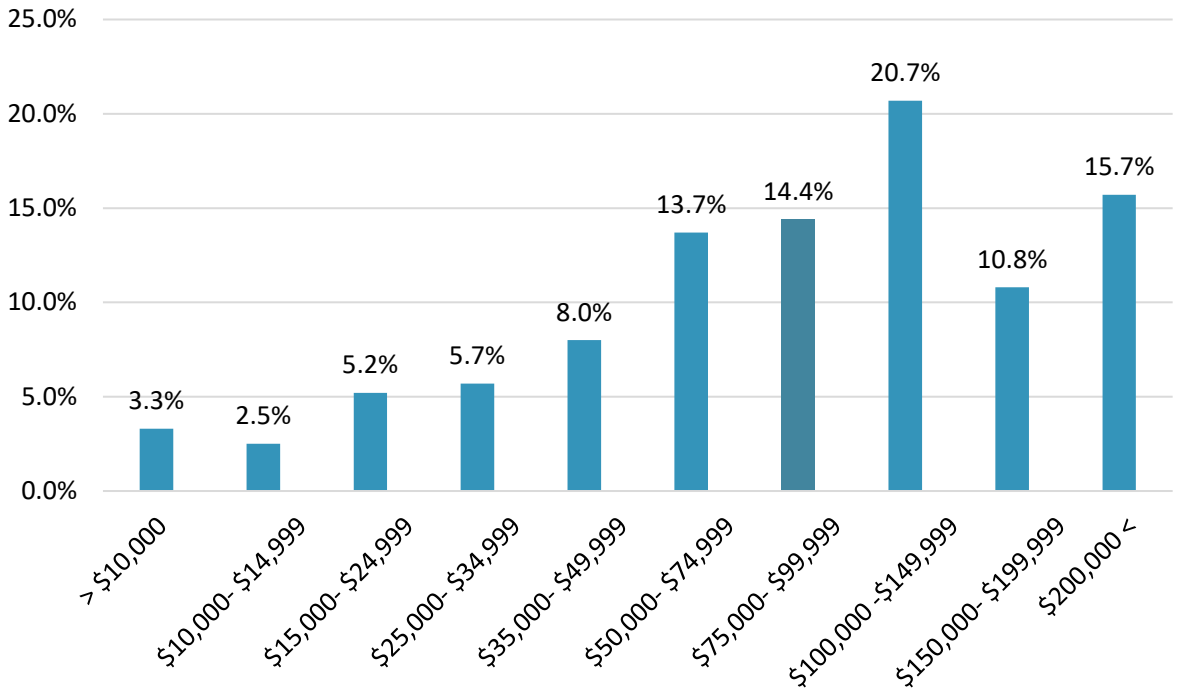
Table 2-13: Median Household Income

Jurisdiction	Median Income	Percent Above/Below Regional Median
Newport Beach	127,223	41%
Huntington Beach	**95,046**	**5.3%**
Costa Mesa	84,138	-6.8%
Fountain Valley	93,075	3.2%
Orange County	90,234	--

Source: American Community Survey, 5-Year Estimates, 2019.

The data displayed in **Figure 2-6** shows that 61.6 percent of households in Huntington Beach have an income of $75,000 or higher. Of the households that made more than $75,000 annually, a majority had a household income between $100,000 and $149,999 per year in 2019. For context, a four-person household earning up to $128,050 in Orange County is considered moderate income and the same size household earning up to $107,550 is considered low income[i]. Approximately 28.1 percent of households earn between $50,000 and $99,999. A four-person household earning up to $67,250 is considered very low income. Additionally, about 11 percent of households made less than $25,000 and about 13.7 percent made $25,000 to $49,999. A four-person household earning up to $40,350 is considered extremely low income. Overall, most of Huntington Beach's households have moderate to above-moderate incomes, which is comparable to Orange County's 2021 AMI of $106,700.

Figure 2-6: Huntington Beach Income Breakdown by Category



Source: American Community Survey, 5-Year Estimates, 2019.

D.Housing Problems

The Comprehensive Housing Affordability Strategy (CHAS) developed by the Census Bureau for the Department of Housing and Urban Development provides detailed information on housing needs by income level for different types of households in Huntington Beach. The most recent available CHAS data for Huntington Beach was published in August 2020 and was based on 2013-2017 ACS data. Housing problems considered by CHAS include:

Units with physical defects (lacking complete kitchen or bathroom);

Overcrowded conditions (housing units with more than one person per room);

Housing cost burdens, including utilities, exceeding 30 percent of gross income; or

Severe housing cost burdens, including utilities, exceeding 50 percent of gross income.

The types of housing problems in Huntington Beach vary according to household income, type, and tenure (**Table 2-14**), including:

Owner-occupied households reported a lower rate of housing problems. Approximately 29.8 percent reported at least one housing problem and 69.4 percent reported no housing problems.

Approximately 50.7 percent of renters reported at least one housing problem and just under 47.9 percent reported no problems.

Additionally, about 30.9 percent of renters and 13.4 percent of owners reported at least one severe housing problem. Overall, renters were disproportionately affected by any housing problems in the City of Huntington Beach.

Table 2-14: Housing Problems Overview, 2013-2017

Housing Problem Overview*	Owner	Percent of Owner Households	Renter	Percent of Renter Households	Total	Percent of Total Households
Household has 0 of 4 Housing Problems	31,045	69.4%	15,315	47.9%	46,360	60.4%
Household has at least 1 of 4 Housing Problems	13,320	29.8%	16,220	50.7%	29,540	38.5%
Cost Burden not available, no other problems	355	0.8%	445	1.4%	800	1.0%
Total	44,725	--	31,985	--	76,710	--
Severe Housing Problem Overview**	**Owner**	**Percent of Owner Households**	**Renter**	**Percent of Renter Households**	**Total**	**Percent of Total Households**
Household has 0 of 4 Severe Housing Problems	38,370	85.8%	21,640	67.7%	60,010	78.2%
Household has at least 1 of 4 Severe Housing Problems	5,995	13.4%	9,895	30.9%	15,890	20.7%
Cost Burden not available, no other problems	355	0.8%	445	1.4%	800	1.0%
Total	44,725	--	31,985	--	76,710	--

Source: U.S. Department of Housing and Urban Development (HUD), Comprehensive Housing Affordability Strategy (CHAS) 2013-2017.
Note: "% of total HH" = Percent of total Households in the City of Huntington Beach
** The four housing problems are: incomplete kitchen facilities, incomplete plumbing facilities, more than 1 person per room, and cost burden greater than 30%.*
*** The four severe housing problems are: incomplete kitchen facilities, incomplete plumbing facilities, more than 1.5 persons per room, and cost burden greater than 50%.*

1. *Overcrowding*

Overcrowding is generally defined as a housing unit occupied by more than one person per room, including living rooms and dining rooms, but excluding hallways, kitchen, and bathrooms. Factors that may contribute to household overcrowding include a need for available housing units of adequate size which may result in more than one household living together to reduce costs. Overcrowding can indicate that a community does not have an adequate supply of affordable housing, especially for large families.

Overcrowded and severely overcrowded households can lead to neighborhood deterioration due to the intensive use of individual housing units leading to excessive wear and tear, and the potential cumulative overburdening of community infrastructure and service capacity. Furthermore, overcrowding in neighborhoods can lead to an overall decline in social cohesion and environmental

quality. Such decline can often spread geographically and impact quality of life, economic value of property, and the vitality of commerce within a city. A combination of low incomes and high housing costs can result in a household living in an overcrowded housing unit.

Table 2-15 below displays data for overcrowding in Huntington Beach by tenure in 2019. The ACS reported a total of 2,878 overcrowded units in Huntington Beach in 2019. Of the overcrowded units, 26.8 percent were severely overcrowded. The data also shows that renters were disproportionately affected by overcrowding as nearly 87 percent of all overcrowded units were occupied by renters.

Table 2-15: Overcrowding by Tenure in Huntington Beach, 2019

Tenure	Overcrowded Housing Units (1.0 to 1.50 persons/room)		Severely Overcrowded Housing Units (>1.51 persons/room)		Total Overcrowded Occupied Housing Units	
	Number of Units	Percent of Total Occupied Housing Units	Number of Units	Percent of Total Occupied Housing Units	Number of Units	Percent of Total Occupied Housing Units
Owner Occupied	462	0.6%	96	0.1%	558	0.7%
Renter Occupied	1,646	2.1%	674	0.8%	2,320	3.0%
Total	**2,108**	**2.7%**	**770**	**1.0%**	**2,878**	**3.7%**

Source: American Community Survey, 5-Year Estimates, 2019.

Table 2-16 below compares overcrowding in Huntington Beach to nearby jurisdictions and the County of Orange. According to the data, Huntington Beach and each surrounding jurisdiction experienced higher rates of overcrowding among renters and lower rates among homeowners. Huntington Beach's rate of overcrowding was lower than the county's for both owner occupied units and renter occupied units. Overall, surrounding jurisdictions as well as the County of Orange displayed overcrowding as a burden which disproportionately affects renters.

Table 2-16: Overcrowded Housing Units by Tenure, 2019

Jurisdiction	Owner Occupied Overcrowded Units (>1.0 persons/room)		Renter Occupied Overcrowded Units (>1.0 persons/room)	
	Count	Percent of Total Occupied Housing Units	Count	Percent of Total Occupied Housing Units
Newport Beach	111	0.3%	551	1.5%
Huntington Beach	**558**	**0.7%**	**2,320**	**3.0%**
Costa Mesa	331	0.8%	3,297	8.0%
Fountain Valley	306	1.7%	431	2.3%
Orange County	21,886	2.1%	69,796	6.7%

Source: American Community Survey, 5-Year Estimates, 2019.

2. Overpayment (Cost Burden) In Relationship to Income

State and federal standards indicate that a household allocating more than 30 percent of its income for housing costs is overpaying. Overpayment for housing can cause an imbalance on the remainder of a household's budget.

As reported by the CHAS data and presented in **Table 2-17**, households in Huntington Beach experience some type of overpayment.[2] Owner and renter households in the extremely low, very low, and low-income categories experienced a higher rate of cost burden than the moderate-income category. The data in **Table 2-17** show that renters were disproportionately affected by cost burden, where 31.9 percent reported a 30 percent or higher housing cost burden and 55.2 percent reported a 50 percent or higher housing cost burden. For renters, a lower household income correlates to a higher rate of cost burden. For example, renters with household incomes less than or equal to 30 percent AMFI experienced cost burden at a much higher rate than homeowners in the same income category. Homeowners with household incomes greater than 100 percent of AMFI experienced the highest rate of cost burden among all homeowner income categories.

Table 2-17: Summary of Housing Overpayment by Tenure, 2013-2017

Income by Cost Burden*	Owner				Renter			
	Cost Burden > 30%	% of Owner HH	Cost Burden > 50%	% of Owner HH	Cost Burden > 30%	% of Renter HH	Cost Burden > 50%	% of Renter HH
Household Income is less-than or = 30% AMFI	2,510	5.7%	2,040	4.6%	4,815	14.4%	4,465	13.4%
Household Income >30% to less-than or = 50% AMFI	1,830	4.2%	1,105	2.5%	4,115	12.3%	2,540	7.6%
Household Income >50% to less-than or = 80% AMFI	2,690	6.1%	1,335	3.0%	4,095	12.2%	975	2.9%
Household Income >80% to less-than or = 100% AMFI	1,780	4.0%	485	1.1%	1,200	3.6%	110	0.3%
Household Income >100% AMFI	4,115	9.4%	530	1.2%	865	2.6%	0	0.0%
Total	**12,925**	**29.6%**	**5,495**	**12.6%**	**15,090**	**45.2%**	**8,090**	**24.2%**

Source: Source: U.S. Department of Housing and Urban Development (HUD), Comprehensive Housing Affordability Strategy (CHAS) 2013-2017.

** Cost burden is the ratio of housing costs to household income. For renters, housing cost is gross rent (contract rent plus utilities). For owners, housing cost is "select monthly owner costs", which includes mortgage payment, utilities, association fees, insurance, and real estate taxes.*

Note: HAMFI = HUD Area Median Family Income, this is the median family income calculated by HUD for each jurisdiction, to determine Fair Market Rents (FMRs) and income limits for HUD programs. HAMFI will not

[2] Values may double count households who reported a cost burden, for example a household may have a 50 percent cost burden and reported both a 30 percent and a 50 percent cost burden.

Table 2-17: Summary of Housing Overpayment by Tenure, 2013-2017								
Income by Cost Burden*	Owner				Renter			
	Cost Burden > 30%	% of Owner HH	Cost Burden > 50%	% of Owner HH	Cost Burden > 30%	% of Renter HH	Cost Burden > 50%	% of Renter HH
necessarily be the same as other calculations of median incomes (such as a simple Census number), due to a series of adjustments that are made.								

E. Special Needs Groups

State law recognizes that certain households may have more difficulty in finding adequate and affordable housing due to special circumstances, including economic status, age, disability, household size and household type. Special needs populations include seniors, persons with disabilities, single-parent households, large households, people living in poverty, farmworkers, and people experiencing homelessness. Sometimes these special needs groups may overlap. For example, seniors may also have some type of a disability. **Table 2-18** summarizes the special needs populations in Huntington Beach. Each of these population groups and their housing needs are described in the following section.

Table 2-18: Special Needs Groups in Huntington Beach			
Special Needs Groups	# of Persons or Households	Percent of Total Population	Percent of Total Households
Households with Seniors (60 years and over)	32,456 Households	--	42.2%
Seniors Living Alone	8,383 Households	--	10.9%
Persons with Disabilities	19,003 Persons	9.5%	--
Large Households (5 or more persons per household)	5,872 Households	--	7.6%
Single-Parent Households	3,712 Households	--	4.8%
Single-Parent, Female Headed Households with Children (under 18 years)	2,666 Households	--	3.5%
People Living in Poverty	16,065 Persons	8%	--
Farmworkers[1]	754 Persons	0.4%	--
Homeless*	349 Persons	0.2%	--
Source: American Community Survey, 5-Year Estimates, 2019, and Orange County Point in Time Count, Everyone Counts Report **The Everyone Counts Report is updated annually. The most recent available data is from 2019.* *1. Farmworkers include persons employed in agriculture forestry, fishing, and hunting*			

1. *Seniors*

The senior population is generally defined as those 65 years of age and over. This population often has several concerns that may include limited and fixed incomes, relatively higher health care costs, transit dependency, higher incidence of mobility and self-care limitations, and living alone. Specific housing needs of the senior population include affordable housing, supportive housing (such as intermediate care facilities), group homes, and other housing that includes a service.

Table 2-19 compares Huntington Beach's senior population to Orange County and nearby jurisdictions. According to the ACS, 17.6 percent of Huntington Beach's population is comprised of seniors which is higher than surrounding jurisdictions. Further, ACS data shows that approximately 79% of seniors own their residence and 21% rent their residence. However, the percentage of the City's overall population who are seniors is lower (17.6 percent) than in Newport Beach (23.1 percent) and Fountain Valley (19.6 percent). Overall, there is a high number of seniors in the City who may need accessible and/or affordable housing.

Table 2-19: Persons Age 65 and Over

Jurisdiction	Population Count	Percent
Newport Beach	19,773	23.1%
Huntington Beach	**35,237**	**17.6%**
Costa Mesa	12,795	11. 3%
Fountain Valley	10,990	19.6%
Orange County	455,105	14.4%

Source: American Community Survey, 5-Year Estimates, 2019.

Key Challenges and Resources to Address Senior Housing Needs

Seniors in Huntington Beach generally have exhibited the following unique challenges to housing:

- Having Limited and fixed incomes
- Disproportionately higher healthcare costs, adding to monthly living costs
- Higher incidence of mobility and self-care limitations requiring customized housing features
- Transit dependency
- Limited in-home support, due to living alone

To address these challenges, the City must consider a variety of solutions to address the above issues: these may include:

- More affordable housing options for Seniors
- Supportive City programs to help sustain decent, safe, and affordable housing for dependent Seniors
- Housing with included supportive services
- Group Homes options for persons with self-care limitations

Resources currently available in the City includes a robust Senior program ran by the Huntington Beach Council on Aging (HBCOA).

To address unique needs of senior residents living in the City, the following programs have been included in **Section 4**:

- **Program 1B**. Multi-Family Acquisition and Rehabilitation
- **Program 1D.** Preservation of Assisted Rental Housing
- **Program 1E.** Housing Authority Rental Assistance
- **Program 1F.** Tenant-Based Rental Assistance
- **Program 1G.** Mobile Home Park Preservation

- **Program 2C.** Accessory Dwelling Units:

The City will continue providing housing resources to its senior population through community partnerships and by facilitating the development of senior housing units.

2. Persons with Physical and Developmental Disabilities

Physical and developmental disabilities can hinder a person's access to traditionally designed housing units. Physical, mental, and/or developmental disabilities may limit a person's ability to earn income, restrict mobility, or make self-care difficult. Persons with disabilities often have special housing needs, lack accessible and affordable housing, and have higher health costs associated with a disability. Additionally, some residents suffer from disabilities that require living in a supportive or institutional setting.

Although no current comparisons of disability with income, household size, or race/ethnicity are available, it is reasonable to assume that a portion of persons with disabilities would have annual incomes within Federal and State income limits for affordable housing and related services, especially those households not in the labor force. Many lower income persons with disabilities are likely to require housing assistance and services. Housing needs for disabled persons are compounded by design issues and location factors, which can often be costly. For example, special needs of households with wheelchair-bound or semi-ambulatory individuals may require ramps, holding bars, special bathroom designs, wider doorways, lower cabinets, elevators, and other interior and exterior design features. Housing opportunities for persons with disabilities can be addressed through the provision of affordable, barrier-free housing. Rehabilitation assistance can be targeted toward renters and homeowners with disabilities for unit modification to improve accessibility.

The 2019 ACS identifies six types of disabilities: hearing disability, vision disability, cognitive disability, ambulatory disability, self-care disability, and independent living disability. The Census and the ACS provide clarifying questions to determine persons with disabilities and differentiate disabilities within the population. The ACS defines a disability as a report of one of the six disabilities identified by the following questions:

Hearing Disability: Is this person deaf or does he/she have serious difficulty hearing?

Visual Disability: Is this person blind or do they have serious difficulty seeing even when wearing glasses?

Cognitive Difficulty: Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions?

Ambulatory Difficulty: Does this person have serious difficulty walking or climbing stairs?

Self-Care Difficulty: Does this person have difficulty dressing or bathing?

Independent Living Difficulty: Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?

According to the 2019 ACS, about 9.5 percent of Huntington Beach's populations reported one or more disabilities as shown in **Table 2-20**. Of the total population identified to have a disability, persons with ambulatory difficult comprised the largest percentage while the population with a vision difficulty was the smallest. Overall, 28.6% of persons over the age of 65 reported experiencing at least one

disability, making them the largest group of disabled persons. For the population under the age of 18, the most common reported disability was cognitive disabilities. Similarly, for those between the ages of 18 and 64, the most common reports disabilities were a cognitive difficulty and an independent living difficulty.

Table 2-20: Disability Status, 2019

Disability Type	Under 18 with a Disability	18 to 64 with a Disability	65 years and Over with a Disability	Total	Percent of Total Population
Population with a Hearing Difficulty	276	1,250	4,366	5,892	2.9%
Population with a Vision Difficulty	342	1,504	1,454	3,300	1.7%
Population with a Cognitive Difficulty	678	3,537	2,545	6,760	3.6%
Population with an Ambulatory Difficulty	35	2,911	5,848	8,794	4.6%
Population with a Self-care Difficulty	196	1,451	2,296	3,943	2.1%
Population with an independent Living Difficulty	--	3,080	4,112	7,192	4.5%
Total	**1,527**	**13,733**	**20,621**	**35,881***	

Source: American Community Survey, 5-Year Estimates, 2019.
**This number may double count as some persons report having one or more disabilities, therefore this total number differs from the total number of persons with a disability in Table 2- 18.*

Persons with Developmental Disabilities

State law requires that the Housing Element discuss the housing needs of persons with developmental disabilities. As defined by federal law, "developmental disability" means a severe, chronic disability of an individual that:

- Is attributable to a mental or physical impairment or combination of mental and physical impairments,
- Is manifested before the individual attains age 22,
- Is likely to continue indefinitely,
- Results in substantial functional limitations in three or more of the following areas of major life activity: a) self-care; b) receptive and expressive language; c) learning; d) mobility; e) self-direction; f) capacity for independent living; or g) economic self-sufficiency; and
- Reflects the individual's need for a combination and sequence of special, interdisciplinary, or generic services, individualized supports, or other forms of assistance that are of lifelong or extended duration and are individually planned and coordinated.

Many people with developmental disabilities can live and work independently within a conventional housing environment. Individuals with more severe developmental disabilities require a group living environment where supervision is provided. The most severely affected individuals may require an

institutional environment where medical attention and physical therapy are provided. Because developmental disabilities exist before adulthood, the first issue in supportive housing for persons with developmental disabilities is the transition from the person's living situation as a child to an appropriate level of independence as an adult.

There are several housing types for people living with a development disability: rent subsidized homes, licensed and unlicensed single-family homes, inclusionary housing, Section 8 vouchers, special programs for home purchase, HUD housing, and SB 962 (veterans) homes. The design of housing-accessibility modifications, the proximity to services and transit, and the availability of group living opportunities represent some of the types of considerations that are important in serving the needs of this group. Incorporating 'barrier-free' design in all, new multi-family housing (as required by California and Federal Fair Housing laws) is especially important to provide the widest range of choices for residents with disabilities. Special consideration should also be given to the affordability of housing, as people with disabilities may be living on a fixed income.

According to the Regional Center of Orange County's (RCOC) Total Annual Expenditures and Authorized Services for Fiscal Year 2019-2020, a total of 25,163 individuals received services. RCOC represents the fifth largest regional center in California and has over 300 service coordinators. Of those who received services, 31.6 percent reported their race as White, 16 percent reported their race as Asian, 16.1 percent reported their race as Other Ethnicity or Race/Multi-Cultural, and 2 percent reported their race as Black/African American. Approximately 34 percent of those who received services also reported their ethnicity as Hispanic or Latino. Of the 25,163 individuals receiving services, 21.1 percent were 2 years or younger, 39.9 percent were ages 3 to 21 years, and 39 percent over the age of 22. The majority of those who received services lived at the home of a parent or guardian (82.3 percent), 6.8 percent lived in a Community Care Facility and 5.6 percent lived in Independent Living or Supported Living. Diagnoses reported by the individuals who received services include the following:

Intellectual Disability: 37.6%	Autism: 31%
Cerebral Palsy: 2.5%	Epilepsy: 1%
Category 5: 3.9%	Other: 24.1%

For Huntington Beach, the California Department of Developmental Services provides estimates of persons with developmental disabilities in Huntington Beach. As of June 2019, 1,073 juvenile persons and 514 adults have been identified as have a developmental disability. The majority of these residents are juveniles who live at home with a parent or guardian.

Table 2-21: Developmental Disability Status, 2019

Disability Type	# of Residents
BY RESIDENT	
Home of Parent/Guardian	922
Independent/Supported Living	103

Community Care Facility	23
Intermediate Care Facility	0
Foster/Family Home	20
Other	5
BY AGE	
0-17 Years Old	1073
18* Years Old	514
CA DDS data by ZIP Code, June 2019.	

Key Challenges and Resources to Address Housing Needs of Disabled Persons

Persons with physical and developmental disabilities in Huntington Beach have exhibited the following unique challenges to housing:

- Need for specialized housing to accommodate disabilities
- Need for supportive services
- Higher incidence of dependent living needs
- High incidence of unemployment

To address these challenges, the City must consider a variety of solutions to address the above issues: these may include:

- Regional coordination and support for services
- Permitting of housing for persons with disabilities
- Prioritization of services for disabled persons
- Local supportive services to supplement physical housing needs
- Housing regulations/accommodation of unique housing needs
- Group Homes options for persons with self-care limitations

Resources to address the above needs include local General Fund revenue to fund Policy Actions described in Chapter 4, and partnership with the Orange County Regional Center, who provides and coordinates lifelong support and services to persons with disabilities. The City's existing permit procedures, regulations and policies further support physical and developmental disabilities through the granting of uses and facilities to accommodate the needs of persons disabilities. The City also has a reasonable accommodation procedure that is intended to grant accommodations for persons with disabilities with the expressed intent not to cause additional cost to the requestee.

The City will review and prioritize housing and supportive services for persons with developmental disabilities, as well as explore regulatory incentives for projects that address the needs of persons with developmental disabilities.

To address unique needs of disabled residents living in the City, the following programs have been included in **Section 4**:

- **Program 1E.** Housing Authority Rental Assistance

- **Program 5A.** Affirmatively Further Fair Housing
- **Program 5B.** Housing Opportunities for Persons Living with Developmental Disabilities

The City will continue providing housing resources to its disabled population through community partnerships.

3. Large Households

Large Households are defined as those households consisting of five or more persons. These households are categorized as a special needs group because many communities have a limited supply of adequately sized and affordable housing units. It is common for lower income large households to reside in smaller units with an inadequate number of bedrooms to save for other necessities such as food, clothing, and medical care, which frequently results in overcrowding and can contribute to increased rates of deterioration.

Securing housing large enough to accommodate all members of a household is more challenging for renters because multi-family rental units are typically smaller than single-unit ownership homes. It is common for apartment complexes to offer two- and three-bedroom units, while apartments with four or more bedrooms are rare. It is more likely that a large family will experience overcrowding in comparison to smaller families. Throughout the SCAG region, single-unit homes with higher bedroom counts, whether rental or ownership units, are generally less affordable than lower income households.

Table 2-22 displays the data for large households in Huntington Beach by tenure and household size. According to the ACS 2019 estimates, Huntington Beach had 5,603 large households. The majority of all large households were 5-person households (60.0 percent). In general, the data shows that 5-persons households are more commonly owner occupied and 7-persons households are more commonly renter occupied, which may indicate that while 5-person households may be in a position to purchase a home, larger households may experience overcrowding as renter occupied units tend to be smaller with a lower number of rooms.

Table 2-22: Large Households by Tenure, 2019

Household Size	Owner		Renter		Total Large HH	
	Count	Percent of Total Owner HH	Count	Percent of Total Renter HH	Count	Percent of Total HH
5-Person Household	2,276	5.2%	1,770	5.3%	4,046	5.2%
6-Person Household	627	1.4%	627	1.8%	1,254	1.6%
7-or-More Person Household	151	0.3%	421	1.2%	572	0.7%
Total	**3,054**	**7.0%**	**2,818**	**8.4%**	**5,872**	**7.5%**

Source: American Community Survey, 5-Year Estimates, 2019.
Notes: HH= Households

Key Challenges and Resources to Address Large household Housing Needs

Large Person Households in Huntington Beach have exhibited the following unique challenges to housing:

- Lack of available housing with sufficient bedroom counts
- Options for larger bedroom counts in rental units
- Higher monthly cost burdens
- Affordable options for large family households
- Childcare needs for working families

To address these challenges, the City must consider a variety of solutions to address the above issues: these may include:

- Permitting of larger bedroom counts in ownership and rental units
- Affordable housing options for large family households
- Prioritization of family-sized units in affordable housing developments
- Leveraging of Grant/Funding opportunities

Resources to address the above needs include Policy Actions that support the leveraging State, Federal and private funds focused on multiple family development. Regional resources include OCHFA, SCHFA funding, Orange County Continuum of Care and Orange County Housing Authority Funding.

The City has included the following programs that will provide standards and provisions that will support the provision of larger sized family units:

- **Program 1A.** Housing Rehab Loan Program
- **Program 1B.** Multi-Family Acquisition and Rehabilitation
- **Program 1D.** Preservation of Assisted Rental Housing
- **Program 1E.** Housing Authority Rental Assistance
- **Program 1F.** Tenant-Based Rental Assistance
- **Program 3A.** Affordable Housing Program and Housing Trust Fund
- **Program 3B.** Affordable Housing Development Assistance
- **Program 3C.** Childcare Facilities
- **Program 4A.** Affordable Housing Density Bonus
- **Program 5A.** Affirmatively Further Fair Housing

4. *Single-Parent Households*

Single-parent households often require special consideration and assistance due to their greater need for affordable and accessible day care, health care, and other supportive services. Many female-headed households with children are susceptible to having lower incomes than similar two-parent households. Single, female mothers often face social marginalization pressures that often limit their occupational choices and income earning potential, housing options, and access to supportive services.

The majority of single parent households in Huntington Beach are female headed as shown in **Table 2-22** below. Overall, there were 3,712 single parent households living in Huntington Beach. Of the total single parent households, approximately 4.9 percent lived in poverty, which is slightly lower than the County of Orange which had approximately 5.2 percent of the single parent population living below the poverty line.

Table 2-23: Single Parent Households								
Jurisdiction	Single Parent-Male, No Partner Present		Single Parent-Female, No Partner Present		Single Parent Households Living in Poverty		Single Parent Households	
	Count	% of Single Parent HH	Count	% of Single Parent HH	Count	% of Single Parent HH	Count	% of Total Households
Huntington Beach	**1,046**	**1.4%**	**2,666**	**3.5%**	**3,712**	**4.9%**	**3,712**	**4.8%**
Orange County	12,508	1.2%	41,777	4.0%	54,285	5.2%	54,285	5.2%
Source: American Community Survey, 5-Year Estimates, 2019.								

Key Challenges and Resources to Address Single-Parent Housing Needs

Single Parent Households in Huntington Beach have exhibited the following unique challenges to housing:

- Affordable Housing Options
- Rental and For Sale Housing Options
- Higher monthly cost burdens with one income families
- Childcare needs for working families

To address these challenges, the City must consider a variety of solutions to address the above issues: these may include:

- Affordable housing options for single income families
- Accessibility to childcare options
- Leveraging of Grant/Funding opportunities

To address unique needs of Single-Parent households in the City, the following programs have been included in **Section 4**:

- **Program 1D.** Preservation of Assisted Rental Housing
- **Program 1E.** Housing Authority Rental Assistance
- **Program 2C.** Accessory Dwelling Units
- **Program 3A.** Affordable Housing Program and Housing Trust Fund
- **Program 3C.** Childcare Facilities
- **Program 5A.** Affirmatively Further Fair Housing

5. *Farmworkers*

Farmworkers are defined as persons whose primary incomes are earned through agricultural work. Farmworkers have special housing needs because they earn lower incomes than many other occupations and move throughout the year from one harvest location to the next. Permanent workers are defined as those who work 150 days or more annually and seasonal workers are those who work less than 150 days annually. Currently, the City of Huntington Beach has 754 persons employed in

agriculture forestry, fishing, and hunting **(Table 2-6).** The median annual wage for these industries is $25,487 which is below 72 percent of the median income for Orange County.

The United States Department of Agriculture, National Agriculture Statistics provides data on hired farm labor across the United States. The data is compiled at the State and County level. Within Orange County, a total of 99 farms reportedly hired 1,772 workers in 2017. Permanent workers represent the largest category of farmworkers with 1,106 people employed in the industry (62 percent). A total of 666 workers (38 percent) are considered seasonal workers. Orange County reported 340 full time migrant workers (19 percent) and 176 unpaid workers in 2017.

Key Challenges and Resources to Address Farmworker Housing Needs

Farmworker Households in Huntington Beach have exhibited the following unique challenges to housing:

- Affordable Housing Options
- Higher incidents of cost burden for housing
- Rental and For Sale Housing Options
- Childcare needs for working families

Like other special needs groups, Farmworkers needs are focused on affordability of housing and access to services that support lower monthly overall costs. To address these challenges, the City must consider a variety of solutions to address the above issues: these may include:

- Affordable housing options for farmworkers
- Accessibility to childcare options
- Leveraging of Grant/Funding opportunities

To address unique needs of Farmworker households in the City, the following programs have been included in **Section 4**:

- **Program 5E.** Farmworker Housing
- **Program 3C.** Childcare Facilities
- **Program 5A.** Affirmatively Further Fair Housing

6. *Extremely Low-income Households and Poverty Status*

Very low-income households earn 50 percent or less of the median family income (MFI) for Orange County. Extremely low-income households earn less than 30 percent of the MFI. **Table 2-12** shows that there are approximately 9,485 extremely low-income households and 7,965 very low-income households in Huntington Beach. **Table 2-24** includes data characterizing affordability and cost burden for various income groups. The four housing problems as identified by the 2013-2017 CHAS report are: [3]

- Incomplete kitchen facilities

[3] HUD Comprehensive Housing Affordability Strategy 2013-2017 ACS

- Incomplete plumbing facilities
- More than 1 person per room (overcrowding)
- Cost burden greater than 30%

To calculate the projected housing needs, the City assumed 50 percent of its very low-income regional housing need are extremely low-income households. Calculating from the very low-income need of 3,661 units, the City has an estimated need of 1.831 housing units for extremely low-income households.

Extremely low-income household needs will predominately serve rental housing need and are more prone to overpayment, overcrowding or substandard housing conditions. Extremely-low income households are more likely to include transitional and supportive housing.

Table 2-24 indicates that 20.9 percent more renters than owners live with at least one housing problem in Huntington Beach. Approximately 38.5% of all households reported experiencing at least one housing problem while just over 60% of all households did not report any housing problems.

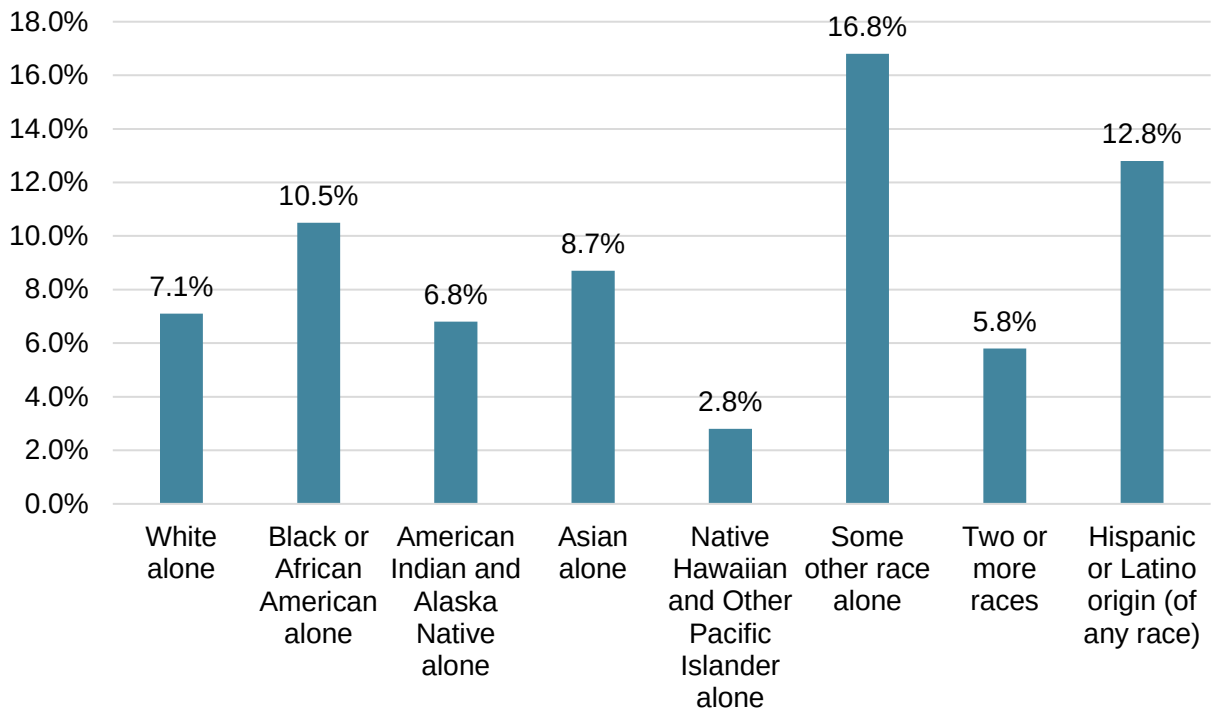
Table 2-24: Housing Problems for All Households (by Income Category), 2013-2017

Income Category	Household has at least 1 of 4 Housing Problems	% of Owner House holds	Household has 0 of 4 Housing Problems	% of Owner House holds	Cost Burden not available, no other Housing Problem	% of Owner HH
	Owner					
Household Income is less-than or = 30%	2,535	5.6%	630	1.4%	355	0.8%
Household Income >30% to less-than or = 50% HAMFI	1,845	4.1%	1,590	3.5%	0	-
Household Income >50% to less-than or = 80% HAMFI	2,720	6.08%	3,390	7.5%	0	-
Household Income >80% to less-than or = 100% HAMFI	1,820	4.0%	2,775	6.2%	0	-
Household Income >100% HAMFI	4,405	9.8%	22,660	50.6%	0	-
Total	13,320	29.8%	31,045	69.4%	355	0.8%
Income Category	**Household has at least 1 of 4 Housing Problems**	**% of Renter House holds**	**Household has 0 of 4 Housing Problems**	**% of Renter House holds**	**Cost Burden not available, no other Housing Problem**	**% of Renter HH**
	Renter					
Household Income is less-than or = 30%	4,865	15.2%	650	2.0%	445	1.4%
Household Income >30% to less-than or = 50% HAMFI	4,255	13.3%	270	0.8%	0	-

Table 2-24: Housing Problems for All Households (by Income Category), 2013-2017						
Income Category	**Household has at least 1 of 4 Housing Problems**	**% of Owner House holds**	**Household has 0 of 4 Housing Problems**	**% of Owner House holds**	**Cost Burden not available, no other Housing Problem**	**% of Owner HH**
	Owner					
Household Income >50% to less-than or = 80% HAMFI	4,495	14.0%	1,690	5.3%	0	-
Household Income >80% to less-than or = 100% HAMFI	1,325	4.1%	2,150	6.7%	0	-
Household Income >100% HAMFI	1,280	4.0%	10,555	33%	0	-
Total	16,220	50.7%	15,315	47.9%	445	1.4%
Total Households (Owner and Renter)	**29,540**	**38.5%**	**46,360**	**60.4%**	**800**	**1.0%**
Source: Source: U.S. Department of Housing and Urban Development (HUD), Comprehensive Housing Affordability Strategy (CHAS) 2013-2017.						

According the 2019 ACS, 16,065 persons were reported to be living in poverty, 8 percent of the population. **Figure 2-7** displays the percent of persons living in poverty by race or ethnicity and Hispanic or Latino origin, based on own race/ethnicity. While representing only 0.3 percent of the Huntington Beach population, people who identify as Some Other Race have the highest rates of poverty in the City.

Figure 2-7: Percent below Poverty Level, by Race and Hispanic or Latino Origin



Source: American Community Survey, 5-Year Estimates, 2019.

Housing Extremely Low Income households (those with incomes less than 30 percent of the Orange County Median income) is generally challenging in Huntington Beach, Extremely Low Income Housing Needs. **Table 2-25** illustrates there are 9,410 persons in Huntington Beach with incomes less than 30 percent of the Area Median Income. Persons of Hispanic origin experience the highest rates of extremely low income, represent 19.7 percent of the total Extremely Low Income Population. This income category is generally distributed evenly amongst racial groups. Renters tend to have a higher incidents (19.6 percent) of Extremely Low Income in Huntington Beach.

Table 2-25: Extremely Low Income Household Needs

	# Households <30% MFI	% Share <30% MFI
White, Non-Hispanic	5,730	10.7%
Black, Non-Hispanic	115	15.3%
Asian and Other Non-Hispanic	1,425	14.0%
Hispanic	2,140	19.7%
TOTAL	**9,410**	**12.5%**
Renter Occupied	6,150	19.6%
Owner Occupied	3,280	7.4%
Source: HUYD CHAS, 2012-2016		

Key Challenges and Resources to Address Extremely Low-Income Household Housing Needs

Extremely Low-Income Households in Huntington Beach have exhibited the following unique challenges to housing:

- Need for increased affordable housing options
- Markedly Higher incidents of cost burden for housing
- Rental Assistance
- Higher incidents of homelessness
- Higher likelihood for transitional and supportive housing

Extremely Low-income household needs are focused on affordability of housing and access to subsidies and services that support lower monthly overall costs. To address these challenges, the City must consider a variety of solutions to address the above issues: these may include:

- Affordable housing options for Extremely Low Income households
- Preservation of subsidized housing units
- Creation of additional subsidized housing units
- Inclusionary policies
- Housing with a service component
- Transitional, Supportive and Homeless housing options

Resources to address the needs of Extremely Low-Income households include a variety of federal, state and regional programs, such as Section 8, HUD, LIHTC USDA, CalHFA and other public and private funding sources.

To address unique needs of Extremely Low-Income households in the City, the following programs have been included in **Section 4**:

- **Program 1B.** Multi-Family Acquisition and Rehabilitation
- **Program 1D.** Preservation of Assisted Rental Housing
- **Program 1E.** Housing Authority Rental Assistance
- **Program 1F.** Tenant-Based Rental Assistance
- **Program 1G.** Mobile Home Park Preservation
- **Program 2B.** Establish Affordable Housing Overlay Zone
- **Program 2C.** Accessory Dwelling Units
- **Program 3A.** Affordable Housing Program and Housing Trust Fund
- **Program 3B.** Affordable Housing Development Assistance:
- **Program 3C.** Childcare Facilities
- **Program 5A.** Affirmatively Further Fair Housing
- **Program 5C.** Homeless Assistance
- **Program 5D.** Low Barrier Navigation Center

7. Persons Experiencing Homelessness

Homelessness has become an increasingly important issue throughout the SCAG region. Factors contributing to a rise in the incidence of homelessness include unemployment and underemployment, a need for housing units affordable to lower and moderate-income households (especially for extremely low-income households), reductions in public funding allocations directed to the poor, and the de-institutionalization of persons who are mentally ill.

State law mandates that municipalities address the special needs of persons experiencing homelessness within their jurisdictional boundaries. The U.S. Department of Housing and Urban Development (HUD) has recently updated their definition of "homelessness." The following list includes the updated descriptions for what constitutes "homelessness" and explains how the HUD definition changed:

People who are living in a place not meant for human habitation, in emergency shelter, in transitional housing, or are exiting an institution where they temporarily resided. The only significant change from existing practice is that people will be considered homeless if they are exiting an institution where they resided for up to 90 days (it was previously 30 days) and were in shelter or a place not meant for human habitation immediately prior to entering that institution.

People who are losing their primary nighttime residence, which may include a motel or hotel or a doubled-up situation, within 14 days and lack resources or support networks to remain in housing. HUD had previously allowed people who were being displaced within 7 days to be considered homeless. The regulation also describes specific documentation requirements for this category.

Families with children or unaccompanied youth who are unstably housed and likely to continue in that state. This is a new category of homelessness that applies to families with children or unaccompanied youth who have not had a lease or ownership interest in a housing unit in the last 60 or more days, have had two or more moves in the last 60 days, and who are likely to continue to be unstably housed because of disability or multiple barriers to employment.

People who are fleeing or attempting to flee domestic violence, have no other residence, and lack the resources or support networks to obtain other permanent housing. This category is similar to the current practice regarding people who are fleeing domestic violence.

- The HUD definition does not include the following:
- Persons living in substandard housing (unless it has been officially condemned)
- Persons living in overcrowded housing (for example, doubled up with others)
- Persons being discharged from mental health facilities (unless the person was homeless when entering and is considered to be homeless at discharge)
- Persons who may be at-risk of homelessness (for example, living temporarily with family or friends)

The Point in Time Count is conducted by the County of Orange in accordance with the HUD guidelines to provide information on where individuals experiencing homelessness are located within the County. Approximately 1,167 volunteers across the County counted 6,860 individuals experiencing homelessness. Of those, 2,899 were sheltered and 3,961 were unsheltered. The 2020 Final Point in Time Report was not yet publicly available in Summer 2021; therefore, the data below is based on the latest Count conducted in January 2019. The results of individual cities are shown in **Table 2-26**. Of

the nearby jurisdictions, Huntington Beach recorded the greatest percentage of the County homeless population at 5.1 percent. The greatest number of people experiencing homelessness were counted in Santa Ana (1,769 people) and Anaheim (1,202 people). Of all those reported in Orange County, 5 percent were veterans, 4 percent were transitional youth ages 18 to 24, and 9 percent were seniors over the age of 65.

Table 2-26: Homelessness in Huntington Beach and Surrounding Jurisdictions (Central Service Planning Area), 2019

Jurisdiction	Unsheltered	Sheltered	Total	% of County
Newport Beach	64	0	64	0.9%
Huntington Beach	**289**	**60**	**349**	**5.1%**
Costa Mesa	187	6	193	2.8%
Fountain Valley	28	14	42	0.6%
Orange County	3,961	2,899	6,860	100%

Source: Orange County Point in Time Count, Everyone Counts Report 2019.

Key Challenges and Resources to Address Persons Experiencing Homelessness

In December 2020, the City opened a 174 bed Navigation Center to provide shelter and supportive services for people experiencing homelessness. Due to local health orders, the Navigation Center currently has a reduced maximum occupancy rate of 132 persons and a seven-day average of 104 enrolled clients[4]. The enrolled clients are generally 61percent single males, 35 percent single females, 6 percent couples, and 2 percent non-binary persons.

Beginning in 2015, the City assigned a full-time officer dedicated to homeless issues and has continued to allocate resources to persons experiencing homelessness. The City's efforts have grown to include a Homeless Task Force comprised of four Case Managers and four Homeless Liaison Officers from the Police Department. The Police Department is also in the process of training more than a dozen additional officers to support homeless response and outreach efforts. The Homeless Task Force works collaboratively to connect homeless and at-risk individuals with resources such as shelter, family reunification, mental and physical health services, addiction services, social services, and government benefits. Since 2015, the City's Homeless response efforts have helped more than 275 individuals obtain permanent shelter and assisted more than 70 individuals in reconnecting with their families.

Additionally, the City has established a Crisis Assessment Response Effort (CARE) to evaluate non-exigent calls for service related to mental health that may be better served through deployment of various resources. The City partnered with Huntington Beach Hospital as the designated facility to transport patients through the CARE program. The City also partnered with OC Health Care Agency to integrate with the County's broader range of mental health/addiction treatment programs.

In March 2021, the City began a Mobile Crisis Response Program (MCRP) as a component of the CARE program. BeWell OC was selected as the first service provider for Police Department calls for service related to mental health and/or homelessness. Through the MCRP, trained responders from BeWell OC provide a direct response and support to Police Department calls for service related to

[4] HB Homeless Solutions Navigation Center Weekly Report https://www.hbhomelesssolutions.com/uncategorized/navigation-center-stats-ending-august-11-2021/

mental health and/or homelessness, which comprise approximately 10 percent of the City's annual volume of calls for service.

To address unique needs of persons experiencing homelessness in the City, the following programs have been included in **Section 4**:

- **Program 5C.** Homeless Assistance
- **Program 5D.** Low Barrier Navigation Center
- **Program 1E.** Housing Authority Rental Assistance
- **Program 1F.** Tenant-Based Rental Assistance

8. *Students*

Student housing can produce a temporary housing need based on the duration of the educational institution students are enrolled in. The impact upon housing demand is critical in jurisdictions that are home to institutions of higher education and the surrounding communities. Golden West Community College is located within the City limits. Huntington Beach is also within commuting distance of Orange Coast College, University of California, Irvine, Vanguard University, Concordia University, and California State University, Long Beach. The 2019 ACS reported that an estimated 15,171 persons in Huntington Beach were enrolled in college or graduate school, about 7.6% percent of the population. While many of the City's college aged students likely reside with their parents, some adult students may reside in Huntington Beach in their own independent housing unit. Typically, students live on fixed or lower incomes and can be affected by a lack of affordable housing, especially within commuting distance from campus. Therefore, it is important for the City to consider and accommodate the student population within the community. Students may seek shared housing situations to decrease expenses and can be assisted through roommate referral services offered on and off campus. A need for affordable housing also influences choices students make after graduating. The City of Huntington Beach recognizes that lack of affordable housing may create a burden on students in the City.

Key Challenges and Resources to Address Student Housing Needs

Typically, students are low-income and are, therefore, affected by a lack of affordable housing, especially within easy commuting distance from campus, therefore it is important for the City to consider and accommodate the student population within the community. They often seek shared housing situations to decrease expenses and can be assisted through roommate referral services offered on and off campus. A lack of affordable housing also influences choices students make after graduating.

The City is dedicated to providing affordable housing options for all populations in Huntington Beach.

F. Housing Stock Characteristics

Characteristics of housing stock such as unit type, availability, tenure, age, condition, and affordability are important in determining housing needs for the community. This section details the housing stock characteristics of Huntington Beach to identify how well the current housing stock meets the needs of its current and future residents.

1.Housing Growth

As a community with very few vacant parcels, Huntington Beach experienced modest housing stock growth from 2010 to 2019. **Table 2-27** below displays American Community Survey data from 2010 to 2019 showing housing unit growth over the eight-year period.

In 2010, the City had an estimated 79,166 housing units, which steadily increased over nine years to an estimated 81,494 units. Overall, Huntington Beach experienced a 4.1 percent growth in total housing units over the nine-year period. Huntington Beach and the County of Orange experienced the highest rates of housing unit growth from 2010-2019 among each of the jurisdictions shown in Table 2-25. The data in the table is an estimate, projected from census data and then is adjusted each year it is updated. The data shows that most local jurisdictions experienced a reduced rate of housing unit growth from 2010 to 2015. However, this does not indicate demolition of housing but rather an adjusted estimate based on revised projections.

Table 2-27: Housing Unit Growth Trends, 2010-2019

Jurisdiction	2010	2015	2019	Percent Change 2010 to 2015	Percent Change 2015 to 2019
Newport Beach	43,503	43,690	44,586	0.4%	2.1%
Huntington Beach	**79,166**	**78,252**	**81,494**	**-1.2%**	**4.1%**
Costa Mesa	42,867	43,030	43,122	0.4%	0.2%
Fountain Valley	19,170	19,292	18,948	0.6%	-1.8%
Orange County	1,042,254	1,064,642	1,100,449	2.1%	3.4%

Source: American Community Survey, 5-Year Estimates, 2010, 2015, and 2019.

2. Housing Type

Table 2-28 below depicts the availability of each housing type in Huntington Beach compared to Orange County overall. The category for attached single-unit housing includes townhomes and condos. Huntington Beach's housing stock primarily consists of attached and detached single-unit housing, which comprises nearly 60 percent of all housing units. Huntington Beach also has 18 mobile home parks with just under 3,100 mobile home units, comprising four percent of the City's housing. Among the approximately 650 housing units within Sunset Beach, 60% are single-family and 40% are multi-family. The City has a larger supply of multi-unit dwellings and mobile homes compared to the County.

Table 2-28: Total Housing Units by Type

Jurisdiction	Single- Unit Detached		Single-Unit Attached		Multi-Unit		Mobile Homes	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Huntington Beach	**39,185**	**48.1%**	**9,465**	**11.6%**	**29,577**	**36.4%**	**3,244**	**4.0%**
Orange County	556,681	50.6%	134,920	12.3%	378,043	34.3%	30,189	2.7%

Source: American Community Survey, 5-Year Estimates, 2019.

3. Housing Availability and Tenure

Housing tenure refers to whether a housing unit is owned, rented, or vacant. Housing tenure and vacancy rates generally influence the supply and cost of housing. The tenure characteristics of a community can be indicators of housing market conditions, such as affordability, household stability, and availability of unit types. In many communities, tenure distribution generally correlates with household income, composition, and age of the householder.

In 2019, approximately 71 percent of single-unit detached housing was owner-occupied and 17 percent was renter occupied, shown below in **Table 2-29.** More than half of multi-unit housing was occupied by renter households, which is common due to nonfamily households such as roommates occupying this type of housing. The data also shows that mobile homes are more commonly owner occupied.

Table 2-29: Occupied Housing Units by Type and Tenure, 2019

Tenure	Single- Unit Detached	Single-Unit Attached	Multi-Unit	Mobile Homes	Total Occupied Units[1]
Owner Occupied	71.7%	14.1%	14.1%	6.0%	56.7%
Renter Occupied	17.9%	8.8%	71.9%	1.4%	43.3%
Total	48.4%	11.8%	35.8%	4.0%	100%

Notes: 1. The data shows the percent of total occupied units
Source: American Community Survey, 5-Year Estimates, 2019.

As shown in **Table 2-30**, renters had a slightly larger average household size than owners in Huntington Beach. Homeowners and renters in Huntington Beach also have the second smallest number of people per household after Newport Beach with 2.45 people per owner-occupied home and 2.02 people per renter occupied home.

Table 2-30: Average Household Size by Tenure, 2019

Jurisdiction	Owner Occupied Households (% of Total Households)	Average Owner Household Size	Renter Occupied Households (% of Total Households)	Average Renter Household Size
Newport Beach	21,331	2.45	16,274	2.02
Huntington Beach	**43,584**	**2.57**	**33,327**	**2.62**
Costa Mesa	15,707	2.79	25,279	2.67
Fountain Valley	12,954	3.03	5,515	2.95
Orange County	595,272	2.98	442,220	3.05

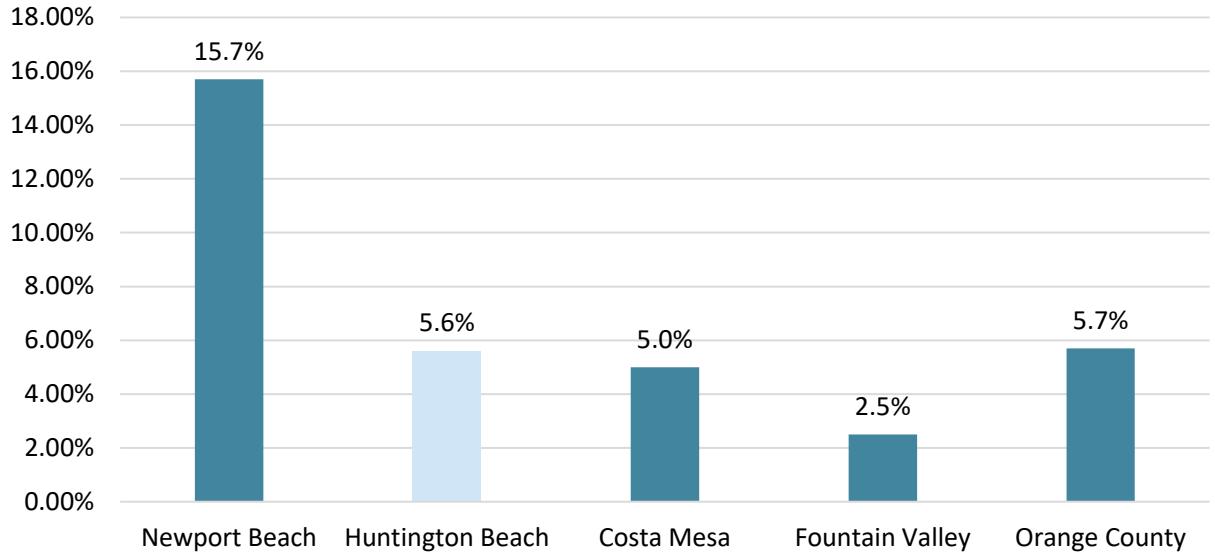
Source: American Community Survey, 5-Year Estimates, 2019

4. Vacancy Rates

Vacancy rates indicate the degree of housing choice available in a community. High vacancy rates usually indicate low demand and/or high supply conditions in the housing market. Too high of a vacancy rate can be difficult for owners trying to sell or rent their units. Low vacancy rates usually indicate high demand and/or low supply conditions in the housing market. Too low of a vacancy rate

can force prices up making it more difficult for lower and moderate-income households to find housing. A vacancy rate between two to three percent is usually considered healthy for ownership housing, and a rate of five to six percent is usually considered healthy for rental housing. However, vacancy rates are not the sole indicator of market conditions. They must be viewed in the context of all the characteristics of the local and regional housing market. **Figure 2-8** shows the overall housing vacancy rate in Huntington Beach, the County and nearby jurisdictions. Vacancy rates include data regarding housing for long term and short-term availability. Vacancy rates tend to be higher in coastal regions due to second homes or vacation rentals that are not occupied during travel off-seasons. According to the ACS data, in 2019 Newport Beach had the highest rental vacancy rate at 15.7 percent. Huntington Beach had a 5.6 percent rental vacancy rate, comparable to Costa Mesa and Orange County.

Figure 2-8: Vacancy Rate by Jurisdiction, 2019



Source: American Community Survey, 5-Year Estimates, 2019

The most common reason for vacancies in Huntington Beach is due to housing units being used seasonally or for recreation or occasional use, as shown in **Table 2-31**. These 2,080 units are not permanent residences and may remain empty for most or part of the year. Units available for rent are the second most common reason for vacancies in the City, meaning that many of the vacant homes in Huntington Beach are on the market, and listed for residents looking to rent.

Table 2-31: Vacant Housing Units by Type

Type of Housing	Estimate	Percent
For rent	835	18.2%
Rented, not occupied	286	6.2%
For sale only	430	9.4%
Sold, not occupied	177	3.9%
For seasonal, recreational, or occasional use	2,080	45.4%
For migrant workers	0	0.0%
Other vacant	775	16.9%
Total	**4,583**	**100.0%**

Source: American Community Survey, 5-Year Estimates, 2019.

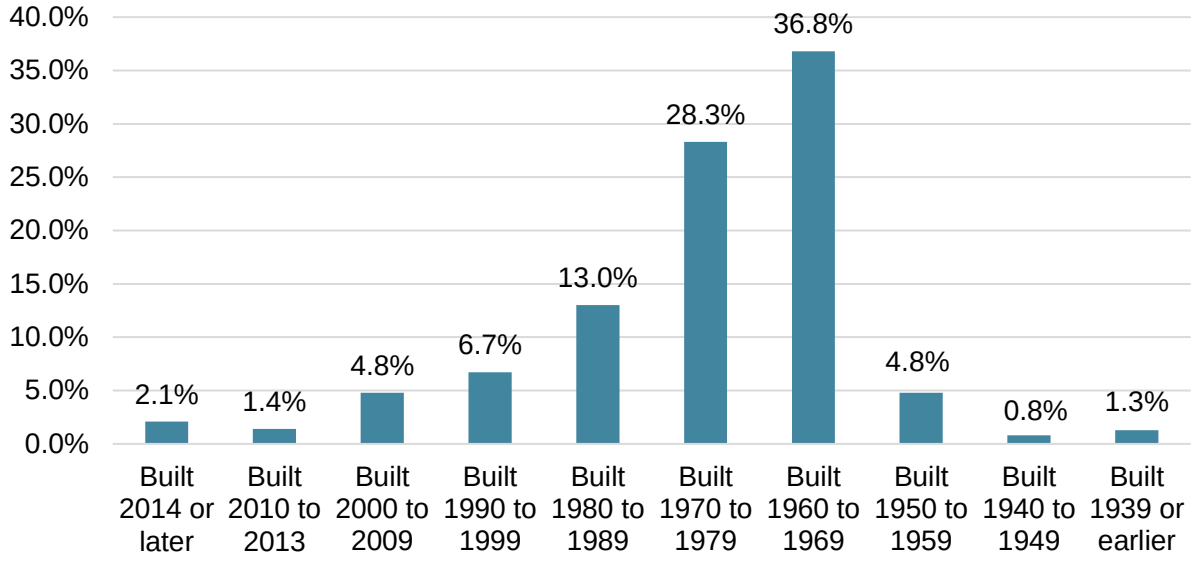
5.Housing Age and Condition

Housing age can be an indicator of housing condition within a community. Typical housing over 30 years old is likely to have rehabilitation needs that may include new plumbing, roof repairs, foundation work and other repairs. Many federal and state programs also use the age of housing as one factor in determining housing rehabilitation needs. As illustrated in **Figure 2-9**, the majority of Huntington Beach's housing stock exceeds this 30-year benchmark.

In Huntington Beach, 78 percent of the existing housing stock was constructed between 1960 and 1989. The City continued its steady track record of housing production and constructed about 13 percent of its existing housing stock between 1990 and 2009. A small number of homes (about 2.1

percent) were built in 2014 or later. Like many jurisdictions, Huntington Beach experienced a decrease in production during the Great Recession from 2010 to 2013. By 2014, the City's local housing production recovered to half the rate experienced in 2000 to 2009. Overall, Huntington Beach's housing stock is primarily older, meaning that the cost of updates and maintenance could be higher for residents.

Figure 2-9: Housing Stock Age in Huntington Beach



Source: American Community Survey, 5-Year Estimates, 2019.

The Huntington Beach Code Enforcement Department regularly conducts windshield surveys of housing units in need of repair. Code Enforcement notifies households that they are in violation and they are given a timeline to come into compliance. Housing units in need of significant repair are often given a reasonable amount of time to come into compliance. Housing units may be in violation for a variety of reasons such as parking on front lawns, trash accumulation, overgrown or dead vegetation, unpermitted dwellings, and hazardous or unsanitary living conditions. Violations may not always be related to housing conditions, but violations may be a useful indicator of the total housing units in need of repair or replacement in the City.

From 2019 to 2020, 1,346 housing units were in violation of building codes. On average, households took 26.3 days to come into compliance. From 2020 to 2021, 1,112 housing units were in violation of building codes. On average, households took 25.1 days to come into compliance. Of the 1,112 housing units in violation of building codes in the 2020 to 2021 period, 898 of the cases were abated. Approximately 214 households did not come into compliance during the 2020 to 2021 period. The 214 housing units that did not abate their violation may indicate that those housing units may be in need of significant repair or replacement.

An August 2007 Citywide windshield survey determined that 318 units in the City needed significant repair or replacement. The current estimate of units in need of significant repair or replacement is significantly less than in 2007. The City is determined to keep housing units in compliance and monitor units in need of repair or replacement.

6.Housing Costs and Affordability

Housing costs reflect the supply and demand of housing in a community. This section summarizes the cost and affordability of the housing stock to Huntington Beach's residents.

The median home value in Huntington Beach is $771,100 as shown in **Table 2-32;** which is moderately higher than the median home value of $679,300 in Orange County. Newport Beach has a significantly higher home value in the area at 1.7 times the County median. Overall, each of the surrounding jurisdictions had a median home value higher than Orange County.

Table 2-32: Median Home Value by Community

Jurisdiction	Median Home Value
Newport Beach	$1,898,900
Huntington Beach	**$771,100**
Costa Mesa	$749,400
Fountain Valley	$734,800
Orange County	$679,300
Source: American Community Survey, 5-Year Estimates, 2019.	

Table 2-33 depicts the average price of rent in Huntington Beach and how it has changed between 2014 and 2020. Rentals prices experienced an increase from 2014 to 2020 (31.3 percent). **Table 2-34** depicts the average monthly price of rent in Huntington Beach and how it has changed between January and June 2021.

Table 2-33: Average Cost of Rental Unit

Unit Type	2014	2015	2016	2017	2018	2019	2020	Percent Change from 2014 to 2020
Multi Family Homes	1,829	1,957	2,081	2,191	2,287	2,375	2,401	31.3%
Source: Zillow Observed Rent Index (ZORI)								

Table 2-34: Average Cost of Rental Unit, Monthly 2021

Unit Type	January	February	March	April	May	June
Multi Family Homes	2,417	2,422	2,428	2,433	2,439	2,445
Source: Zillow Observed Rent Index (ZORI)						

Housing affordability is identified by comparing the cost of renting or owning a home in the City with the maximum affordable housing costs for households at different income levels. Taken together, this information can generally show who can afford what size and type of housing and indicate the type of households most likely to experience overcrowding and overpayment.

The Federal Department of Housing and Urban Development (HUD) conducts annual household income surveys nationwide to determine a household's eligibility for federal housing assistance. The California Department of Housing and Community Development (HCD) utilizes the survey to develop income limits based on the Area Median Income (AMI), which can be used to determine the maximum price that could be affordable to households in the upper range of their respective income category. Households in the lower end of each category can afford less by comparison than those at the upper

end. The maximum affordable homes and rental prices for residents in Orange County are shown in **Table 2-35** and **Table 2-36**. The data shows the maximum amount that a household can pay for housing each month without becoming cost burdened. This amount can be compared to current housing asking prices for-sale units (**Table 2-32**) and market rental rates (**Table 2-33**) to determine what types of housing opportunities a household can afford.

Extremely Low-income Households

Extremely low-income households earn less than 30 percent of the County AMI – up to $28,250 for a one-person household and up to $43,600 for a five-person household in 2021. Extremely low-income households cannot afford market-rate rental or ownership housing in Huntington Beach without assuming a substantial cost burden.

Very Low-income Households

Very low-income households earn between 31 percent and 50 percent of the County AMI – up to $47,100 for a one-person household and up to $72,650 for a five-person household in 2021. A very low-income household can generally afford an ownership unit priced between $180,600 and $243,000, adjusting for household size. A very low-income household at the maximum income limit can afford to pay approximately $1,178 to $1,816 in monthly rental housing costs, depending on household size. Given the cost of housing in Huntington Beach, persons or households of very low-income could not afford a market-rate rental or ownership unit in the City.

Low-income Households

Low-income households earn between 51 percent and 80 percent of the County's AMI - up to $75,300 for a one-person household and up to $116,200 for a five-person household in 2021. The affordable home purchase price for a low-income household at the maximum income limit ranges from $312,000 to $446,400. A one-person low-income household could afford to pay up to $1,883 in rental housing costs per month and a five-person low-income household could afford to pay as much as $2,905. Low-income households in Huntington Beach may not be able to find adequately sized affordable apartment units. Based on the maximum affordable purchase price and monthly rental housing costs, persons or households of low-income could not afford Huntington Beach market rate prices.

Moderate income Households

Persons and households of moderate income earn between 81 percent and 120 percent of the County's AMI – up to $138,300 for a five-person household in 2021. The maximum affordable home price for a moderate-income household is $378,900 for a one-person household and $549,500 for a five-person household. Moderate income households in Huntington Beach cannot afford to purchase a market-rate unit in the City. The maximum affordable monthly housing costs for moderate income renter households is between $2,241 and $3,458 per month. Appropriately sized market-rate rental housing is generally affordable to some households in this income group. For example, the average market rate monthly rent for a one-bedroom unit is less than the affordable monthly rent for a one-person household. The average market rate monthly rent for a two-bedroom unit is also less than the affordable monthly rent for a two-person household. Larger moderate-income households may have difficulty finding appropriately sized rental units they can afford, which may result in overcrowding or cost burdening.

Table 2-35: Affordable Monthly Housing Cost for Renters in Orange County, 2021				
Annual Income		**Rent**	**Utilities[1]**	**Total Affordable Monthly Housing Cost**
Extremely Low-income (30% of AMI)				
1-Person	$28,250	$569	$137	$706
2-Person	$32,300	$621	$187	$808
3-Person	$36,350	$662	$247	$909
4-Person	$40,350	$699	$310	$1,009
5-Person	$43,600	$715	$375	$1,090
Very Low-income (50% of AMI)				
1-Person	$47,100	$1,041	$137	$1,178
2-Person	$53,800	$1,158	$187	$1,345
3-Person	$60,550	$1,267	$247	$1,514
4-Person	$67,250	$1,371	$310	$1,681
5-Person	$72,650	$1,441	$375	$1,816
Low-income (80% AMI)				
1-Person	$75,300	$1,746	$137	$1,883
2-Person	$86,050	$1,965	$187	$2,152
3-Person	$96,800	$2,173	$247	$2,420
4-Person	$107,550	$2,379	$310	$2,689
5-Person	$116,200	$2,530	$375	$2,905
Moderate Income (120% AMI)				
1-Person	$89,650	$2,104	$137	$2,241
2-Person	$102,450	$2,374	$187	$2,561
3-Person	$115,250	$2,634	$247	$2,881
4-Person	$128,050	$2,891	$310	$3,201
5-Person	$138,300	$3,083	$375	$3,458

Source: Orange County Housing Authority, 2021 Utility Allowance Schedule and California Department of Housing and Community Development Official State Income Limits for 2021.

Notes:
2021 Income Limits and Kimley Horn and Associates Assumptions: 2021 HCD income limits; 30% gross household income as affordable housing cost; 15% of monthly affordable cost for taxes and insurance; 10% down payment; and 4.5% interest rate for a 30-year fixed-rate mortgage loan.

1. *Utilities based on Orange County Utility Allowance. Utilities includes basic electric, water, sewer, heating, and water heating.*

Table 2-36: Affordable Housing Costs for Owners in Orange County, 2021						
Annual Income		**Mortgage**	**Utilities[1]**	**Tax and Insurance**	**Total Affordable Monthly Housing Cost**	**Affordable Purchase Price**
Extremely Low-income (30% of AMI)						
1-Person	$28,250	$423	$177	$106	$706	$92,800
2-Person	$32,300	$454	$232	$121	$808	$99,500
3-Person	$36,350	$475	$297	$136	$908	$104,100
4-Person	$40,350	$493	$364	$151	$1,009	$108,100
5-Person	$43,600	$494	$433	$164	$1,091	$108,300
Very Low-Income (50% of AMI)						
1-Person	$47,100	$824	$177	$177	$1,178	$180,600
2-Person	$53,800	$911	$232	$202	$1,345	$199,700
3-Person	$60,550	$990	$297	$227	$1,514	$217,000
4-Person	$67,250	$1,065	$364	$252	$1,681	$233,500
5-Person	$72,650	$1,111	$433	$272	$1,816	$243,500
Low-income (80% AMI)						
1-Person	$75,300	$1,423	$177	$282	$1,882	$312,000
2-Person	$86,050	$1,597	$232	$323	$2,152	$350,200
3-Person	$96,800	$1,760	$297	$363	$2,420	$385,900
4-Person	$107,550	$1,921	$364	$403	$2,688	$421,200
5-Person	$116,200	$2,036	$433	$436	$2,905	$446,400
Moderate Income (120% AMI)						
1-Person	$89,650	$1,728	$177	$336	$2,241	$378,900
2-Person	$102,450	$1,945	$232	$384	$2,561	$426,500
3-Person	$115,250	$2,152	$297	$432	$2,881	$471,900
4-Person	$128,050	$2,357	$364	$480	$3,201	$516,800
5-Person	$138,300	$2,506	$433	$519	$3,458	$549,500

Source: Orange County Housing Authority, 2021 Utility Allowance Schedule and California Department of Housing and Community Development.

Notes:
2021 Income Limits and Kimley Horn and Associates Assumptions: 2021 HCD income limits; 30% gross household income as affordable housing cost; 15% of monthly affordable cost for taxes and insurance; 10% down payment; and 4.5% interest rate for a 30-year fixed-rate mortgage loan.

1. *Utilities based on Orange County Utility Allowance. Utilities includes basic electric, cooking, heating, water heating, water, sewer/trash, refrigerator, and stove.*

Section 3

Housing Constraints, Resources, and Affirmatively Furthering Fair Housing (AFFH)

Section 3: Housing Constraints, Resources, and Affirmatively Furthering Fair Housing (AFFH)

As common in many communities, a variety of constraints affect the provisions and opportunities for adequate housing in the City of Huntington Beach. Housing constraints consist of both governmental and nongovernmental constraints. Governmental constraints include but are not limited to development standards and building codes, land use controls, and permitting processes. Nongovernmental or market constraints, include but are not limited to land costs, construction costs, and availability of finances. Combined, these factors create barriers to availability and affordability of new housing, especially for lower and moderate-income households.

A.Nongovernmental Constraints

Nongovernmental constraints largely affect the cost of housing in Huntington Beach and can produce barriers to housing production and affordability. These constraints include the availability and cost of land for residential development, the demand for housing, the availability of financing and lending, construction costs, and labor, which can make it expensive for developers to build any housing, particularly affordable housing. The following discussion highlights the primary market factors that affect the production of housing in Huntington Beach.

1. Land Costs and Construction Costs

Construction Costs

Construction costs vary widely according to the type of development, with multi-family housing generally less expensive to construct than single-family homes on a square-foot and per unit basis. However, there is variation within each construction type, depending on the size of the unit and the number and quality of amenities provided. An indicator of construction costs is Building Valuation Data compiled by the International Code Council (ICC). The ICC was established in 1994 with the goal of developing a single set of national model construction codes, known as the International Codes, or I-Codes. The ICC updates the estimated cost of construction at six-month intervals and provides estimates for the average cost of labor and materials for typical Type VA wood-frame housing. Estimates are based on “good-quality” construction, providing for materials and fixtures well above the minimum required by state and local building codes. In February 2021, the ICC estimated that the average per square-foot cost for good-quality housing was approximately $125.18 for multi-family housing, $138.79 for single-family homes, and $156.95 for residential care/assisted living facilities. Construction costs for custom homes and units with extra amenities run even higher. Construction costs are also dependent upon materials used and building height, as well as regulations set by the City’s adopted Development Code, Building Code and Fire Code. For example, according to the ICC, an accessory dwelling unit (ADU) or converting a garage using a Type VB wood framed unit would cost about $130.58 per square foot.

The California Construction Cost index, as reported the by Department of General Services, is developed based upon Building Cost Index (BCI) cost indices average for San Francisco and Los Angeles. According to the data, construction costs increased by 3.6 percent in 2019, an additional 2.8 percent in 2020 and from December 2020 to May 2021 an estimated 8 percent. It is important to take the significant cost increase from 2020 into 2021 into consideration when determining construction

cost constraints. Although construction costs are a significant portion of the overall development cost, they are consistent throughout the region and are not considered a major constraint to housing production in Huntington Beach.

Land Costs

Land costs can also pose a significant constraint to the development of affordable and middle-income housing and represents a significant cost component in residential development. Land costs may vary depending on whether the site is vacant or has an existing use that must be removed. Similarly, site constraints such as environmental issues (e.g., soil stability, seismic hazards, flooding) can also be factored into the cost of land. In July 2021, vacant lots sold or for sale showed eight vacant or partially vacant lots sold within the last 3 years ranging from 0.06 acres sold for $595,000 to 0.18 acres sold for $810,000. Based on the prices the vacant lots were sold at, the estimated average cost of land per square foot in the City is about $214.58 per square foot, on average. The City conducted outreach meetings to the Building Industry Association (BIA), housing advocates/nonprofit developers, and local housing developers with experience developing projects in the City and Orange County. Participants cited construction and land costs as a concern in the economics of building housing.

2. Available Financing

The availability of financing in a community depends on several factors, including the type of lending institutions active in a community, lending practices, rates and fees charged, laws and regulations governing financial institutions, and equal access to such loans. The primary concern in a review of lending activity is to determine whether home financing is available to all residents of a community. The data presented in this section includes the disposition of loan applications submitted to financial institutions for home purchase, home improvement, and refinancing in the Anaheim-Santa Ana-Irvine MSA/MD.

Table 3-1 below displays the disposition of loan applications for the Anaheim-Santa Ana-Irvine MSA/MD per the 2020 Home Mortgage Disclosure Act report. Included is information on loan applications that were approved and originated, denied, and other which includes withdrawn by the applicant, or incomplete. The information shows that applicants with an income of less than 50 percent of the County median income saw lower loan approval rates overall, specifically applicants who identified as American Indian and Alaska Native (37.9 percent approval rate), Hispanic or Latino (46.3 percent approval rates) and Black or African American (51.6 percent approval rates). Approval rates for applicants in the lowest income category averaged around 52 percent. Applicants who earned 100 percent of the County median income had higher rates of loan approval, specifically those who identified as White and Asian. Overall, persons who identified as White had higher rates of loan applications and application approvals.

Table 3-1: Disposition of Loan Applications by Race/Ethnicity – Anaheim-Santa Ana-Irvine MSA/MD				
Applications by Race/Ethnicity	**Percent Approved**	**Percent Denied**	**Percent Other**	**Total (Count)**
LESS THAN 50% OF MSA/MDMEDIAN				
American Indian and Alaska Native	37.9%	38.9%	23.2%	95
Asian	59.6%	22.7%	17.8%	3651
Black or African American	51.6%	23.8%	24.6%	122
Native Hawaiian or other Pacific Islander	68.9%	18.9%	12.2%	90
White	50.0%	24.9%	25.1%	7923
Hispanic or Latino	46.3%	28.8%	24.9%	2317
50-79% OF MSA/MD MEDIAN				
American Indian and Alaska Native	46.2%	26.9%	26.9%	119
Asian	65.5%	13.6%	20.9%	7365
Black or African American	51.5%	24.3%	24.3%	268
Native Hawaiian or other Pacific Islander	64.4%	19.5%	16.1%	87
White	65.9%	13.3%	20.8%	16661
Hispanic or Latino	60.2%	17.7%	22.1%	5354
80-99% OF MSA/MD MEDIAN				
American Indian and Alaska Native	62.0%	22.0%	16.0%	50
Asian	69.4%	10.0%	20.6%	3335
Black or African American	63.4%	13.4%	23.2%	112
Native Hawaiian or other Pacific Islander	66.7%	15.7%	17.6%	51
White	70.2%	10.7%	19.1%	7289
Hispanic or Latino	65.7%	12.6%	21.8%	1981
100-119% OF MSA/MD MEDIAN				
American Indian and Alaska Native	59.9%	16.9%	23.2%	142
Asian	70.8%	9.1%	20.2%	10984
Black or African American	65.7%	13.2%	21.1%	341
Native Hawaiian or other Pacific Islander	67.8%	15.1%	17.1%	146
White	72.8%	8.6%	18.6%	25106
Hispanic or Latino	66.5%	10.9%	22.6%	5527
120% OR MORE OF MSA/MD MEDIAN				
American Indian and Alaska Native	55.8%	15.5%	28.7%	317
Asian	68.5%	8.9%	22.6%	33015
Black or African American	64.1%	10.5%	25.4%	913
Native Hawaiian or other Pacific Islander	68.1%	10.2%	21.7%	373
White	72.0%	8.0%	20.0%	80404
Hispanic or Latino	67.7%	9.7%	22.5%	9180

Table 3-1: Disposition of Loan Applications by Race/Ethnicity – Anaheim-Santa Ana-Irvine MSA/MD				
Applications by Race/Ethnicity	**Percent Approved**	**Percent Denied**	**Percent Other**	**Total (Count)**
Source: Consumer Financial Protection Bureau, Disposition of loan applications, by Ethnicity/Race of applicant, 2020.				

3. Economic Constraints

Market forces on the economy and changes in the construction industry can act as a barrier to housing development and especially to affordable housing construction. It is estimated that housing price growth will continue in the City and the region for the foreseeable future. Moving into 2020, the economy was growing, California was seeing a 1.6 percent growth in jobs from 2019 and experiencing all-time lows for unemployment rates. The COVID-19 pandemic created rippling effects on the market as well as the construction industry as stay-at-home orders affected the global working industries. The long-term effects of the COVID-19 pandemic on housing are not yet known. However, it is assumed that as job markets slowed and closed, there may be both a long-term effect on both development and housing needs.

A 2021 California Association of Realtors (CAR) report found that homes on the market in Orange County experienced a 31.8 percent year to year increase and cost an average of $1,100,000 in May 2021 which is roughly $281,740 higher than the State median home price in the same month ($818,260). According to the CAR First Time Buyer Housing Affordability Index, the median value of a home in Orange County was $850,000 with monthly payments (including taxes and insurance) of $4,150, requiring an average qualifying income of $124,500. Homes and cost of living in Huntington Beach were reported higher than the State median housing and living costs. According to July 2021 data from Redfin, the median cost of a home on the market in Huntington Beach is $906,000. Home values in the city have increased about 19 percent over the past year. The same report found that in July 2021 the median list price per square foot in Huntington Beach is $517, which is equal to the County of Orange average of $517.

B.Governmental Constraints

In addition to market constraints, local policies and regulations also affect the price and availability of housing and the provision of affordable housing. For example, State and Federal regulations affect the availability of land for housing and the cost of housing production, making it difficult to meet the demand for affordable housing and limiting supply in a region. Regulations related to environmental protection, building codes, and other topics have significant, often adverse, impacts on housing cost and availability.

While the City of Huntington Beach has no control over State and Federal Laws that affect housing, local laws including land use controls, site improvement requirements, fees and exactions, permit processing procedures, and other factors can constrain the maintenance, development, and improvement of housing by creating barriers to housing. All information detailing the City's zoning, development standards, and fees is available to the public on the City of Huntington Beach's website.

1. Land Use Controls

In the State of California, cities are required to prepare a comprehensive, long term General Plan to guide future development. The Land Use Element of the General Plan establishes land uses and density of development within the City of Huntington Beach. The Land Use Element sets policies and regulations for guiding local development. These policies, together with existing zoning regulations, establish the amount and distribution of land to be allocated for different uses within the City. The Land Use Element can be found on the City's webpage. The Land Use Element of the General Plan identifies the following residential land use designations, and the Zoning Code identifies their existing allowed densities:

- **Low Density Residential** (0-7.0 dwelling units per acre) - The Low-Density Residential designation provides for traditional detached single-family housing, zero-lot-line developments, mobile home parks, low-density senior housing, and accessory dwelling units or "granny" flats.

- **Medium Density Residential** (7.0-15.0 dwelling units per acre) - The Medium Density Residential designation provides for uses allowed with the Low-Density Residential designation, as well as smaller lot detached single-family housing, zero-lot-line developments, attached single-family housing (e.g., duplexes, townhomes), and lower-density multiple-family housing, such as garden apartments.

- **Medium High Residential** (15.0-25.0 dwelling units per acre) - The Medium High Density Residential designation provides for uses allowed in the Low and Medium Density Residential designations as well as attached single-family housing (e.g., townhomes), and a limited range of multiple-family housing (e.g., garden apartments, lofts).

- **High Density Residential** (>30.0 dwelling units per acre) - The High-Density Residential designation provides for uses allowed in the Low, Medium, and Medium High Density Residential designations as well as a broad range of multiple-family housing types (e.g., apartments, condominiums, lofts). The maximum density allowed within the area designated with the High-Density Residential land use is prescribed on the Land Use Map for individual parcels/areas or within an adopted specific plan that covers the High Density Residential designated area.

- **Mixed-Use** (Building FAR range and residential densities are established per specific plan) **-** The Mixed-Use designation provides for any combination of commercial uses; offices; attached single-family housing, multiple-family housing, and live work units; institutional uses; cultural facilities; developments including an open space component; and/or civic facilities. Mixing of these uses may occur in a vertical and/or horizontal orientation. Maximum FAR and residential density standards are established within individual specific plan areas. For some specific plans, FAR and density are not prescribed for individual properties or developments. In these cases, the overlaying specific plan includes a maximum development capacity for each land use.

Overlay Districts

An overlay district is a regulatory tool where the City creates and places a special zoning district over an existing or "base" zone. The overlay zone may identify special provisions in addition to or instead of the provisions of the underlying zone. The City uses overlay zones for a variety of purposes, including but not limited to increasing environmental resource protection, permit housing in specific

areas, or create transit-oriented areas for development. The section below summarizes the overlay zones effective in the City of Huntington Beach.

- **Oil Production Overlay District (O)** - No land division or development shall occur on land subject to an O or O1 Overlay District unless it is in accord with a plan for the disposition or treatment of any existing or proposed oil wells or oil operations within the district that has been approved in writing by the oil operator or lessee and approved by the director, Zoning Administrator or Planning Commission in accord with Section 220.10.

- **Coastal Zone Overlay District (CZ)** – The intent of this overlay zone is to provide supplementary provisions and specify permitted uses within the City's coastal zone, consistent with the California Coastal Act of 1976 (Division 20 of the Public Resources Code), the General Plan, and the Local Coastal Program Land Use Plan.

- **Floodplain Overlay District (FP) –** The intent of this overlay zone is to protect all areas of special flood hazard within the City. If not controlled, periodic inundation results in loss of life and property, health and safety hazards, disruption of commerce and government services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

- **Interim Study Overlay District (IS)** - The intent of this zone is to allow discretionary review of development proposals in areas where changes in zoning provisions are contemplated or under study.

- **Neighborhood Conservation Overlay District (NC)** - The intent of this zone is to allow property owners to initiate and implement programs for the revitalization or conservation of older areas or districts possessing distinctive features, identity, or character worthy of retention and enhancement. The NC District takes effect through adoption of a Conservation Plan and a set of provisions that will facilitate maintenance and upgrading of the neighborhood and development of vacant or underused lots, while reducing or eliminating incompatible mixes of uses.

- **Planned Area Development Overlay District (PAD)** – The intent of this overlay zone is to permit flexibility in land use controls and development standards where flexibility or coordinated planning for a large site or a site under multiple ownership which will enhance the potential for superior urban design.

- **High-Rise Overlay District (H)** - The intent of this overlay zone is to allow taller, high-rise buildings at appropriate locations.

- **Mobile Home Park Overlay District (MHP)** – The intent of this overlay zone is to permit parcels of land developed with mobile home parks and zoned with a base zoning district designation and provide a transition from the present mobile home park use to the uses permitted in the base zoning district.

- **Senior Residential Overlay District (SR)** – The intent of this overlay zone is to promote the maintenance and viability of existing mobile home parks through appropriate zoning. It is an overlay district where mobile home parks are established as the primary land use in order to limit conversion of existing affordable housing to other land uses. The Senior Residential Overlay District may overlay any property which provides for mobile home park developments. The Senior Residential Overlay District is established and shall be designated by the symbol (SR). The (SR) designation applies to all of the 10 senior residential mobile home parks that existed in the City of Huntington Beach as of the approval on August 5, 2013 of the City's moratorium ordinance regarding senior mobile home park conversions.

2. Residential Development Standards

The City of Huntington Beach Zoning Code establishes residential zoning districts that permit a variety of developments and land uses in accordance with the General Plan Land Use Element. **Table 3-2** provides the development standards established for each zoning district to guide appropriate development. The development standards include minimum lot size requirements, building setbacks, and lot coverage.

- **Low Density Residential District (RL) -** The intent of the "RL" Low Density Residential District is to provide opportunities for single-family residential land use in neighborhoods, subject to appropriate standards. Cluster development is allowed. Maximum density is seven units per acre. Minimum lot size of 6,000 square feet.

- **Medium Density Residential District (RM) -** The intent of the "RM" Medium Density Residential District is to provide opportunities for housing of a more intense nature than single-family detached dwelling units, including duplexes, triplexes, town houses, apartments, multi-dwelling structures, or cluster housing with landscaped open space for residents' use. Single-family homes, such as patio homes, may also be suitable. Maximum density is 15 units per acre. Minimum lot size of 6,000 square feet.

- **Medium High Density Residential District (RMH) -** The intent of the "RMH" Medium High Density Residential District is to provide opportunities for a more intensive form of development than is permitted under the medium density designation while setting an upper limit on density that is lower than the most intense and concentrated development permitted in the City. One subdistrict has been identified with unique characteristics where separate development standards shall apply: RMH-A Small Lot. Maximum density is 25 units per acre. Minimum lot size of 2,500 square feet in RMH-A Subdistrict and 6,000 Square feet in RMH District.

- **High Density Residential District (RH) -** The intent of the "RH" High Density Residential District is to provide opportunities for the most intensive form of residential development allowed in the City, including apartments in garden type complexes and high rise where scenic and view potential exists, subject to appropriate standards and locational requirements. Maximum density is 35 units per acre. Minimum lot size of 6,000 square feet.

- **Residential Manufactured Home Park District (RMP) -** The intent of the "RMP" Residential Manufactured Home Park District is to provide sites for mobile home or manufactured home parks, including parks with rental spaces and parks where spaces are individually owned. Maximum density is nine spaces per acre. Minimum lot size of 10 acres

- **Mixed-Use Transit Center District (MU-TC)** - The purpose of the Mixed Use-Transit Center District is to implement the General Plan Land Use Plan mixed-use land use designation. This district provides areas for high density residential and commercial uses within one-quarter mile of established transit centers as determined by the Community Development Director. Transit centers, serving buses or other modes of transportation, are facilities where passengers transfer from one route to another. This district provides for pedestrian-friendly, transit-oriented
- development in areas adjacent to existing transit infrastructure. Minimum lot size of 1 acre.

Table 3-2: Residential Development Standards

Zoning District	Density	Min. Building Site (sq. ft)	Width (ft)	Setbacks (ft.)			Max Height (ft/stories)	Max. Lot Coverage
				Front (ft)	Rear (ft)	Side (ft)		
RL	7 DU/Acre	6,000	60	15	10	3; 5	35 ft[1]	50%
RM	15 DU/Acre	6,000	60	15	10	3; 5	35 ft[1]	50%
RMH-A	25 DU/Acre	2,500	25	12	7.5	3; 5	35 ft[1]	50%
RMH	25 DU/Acre	6,000	60	10	10	3; 5	35 ft[1]	50%
RH	35 DU/Acre	6,000	60	10	10	3; 5	35 ft[1]	50%
RMP	9 Spaces /Acre	10 Acres	NA	10	NA	NA	35 ft[1]	75%
MU-TC	*	43,560	100	5	10	10	75 ft	75%

Source: City of Huntington Beach Zoning Code.
Notes:
*Specific Plan Determines Density
1. Single-family dwellings in all residential districts.

Yard Requirements

Yards allow for open space, landscaping and greenery, emergency access, and pedestrian and vehicular circulation on a site. Requirements are set in order to ensure there is adequate available space designated to these elements on a property when considering new development or improvements. Included in these requirements are setbacks areas that are located between a setback line and the property line and must remain unobstructed. Setbacks provide the following:

- Visibility and traffic safety
- Access to and around structures
- Access to natural light and ventilation
- Separation of incompatible land uses
- Space for privacy, landscaping, and recreation
- Protection of natural resources
- Safety from fire and geologic hazard

Lot Coverage and FAR

Lot coverage and floor area ratio (FAR) standards are intended to control bulk, mass, and intensity of a use. Lot coverage limits a building's footprint and is defined as the percentage between the ground floor area of building(s) and the net area of a lot. FAR limits the total usable floor area and is expressed as a ratio between the bulk floor area of building(s) and gross lot area. Floor area ratio is a supplementary device that under some conditions improves upon (but does not necessarily replace) the traditional means of relating bulk of building to land, to other buildings in the vicinity, and to public

facilities. It permits variable dimensions within an over-all volume limit and it offers a way of predicting the ratio of persons to a unit of land in office building districts of high land use intensity.

Maximum Building Height

Building heights are identified and intended to maintain healthy and safe residential development. Maximum building heights are set and defined in the City's Zoning Code to maintain symmetry and compatibility between existing and proposed developments. The height is measured as the vertical distance from the grade of the pad to the highest part of the structure, including protective guardrails and parapet walls.

Usable Open Space

The City's Zoning Code defines Usable Open Space as any usable area designed and/or to be used for outdoor living, recreation or landscaping which shall be unobstructed and unoccupied from the ground upward to the sky except for landscape materials. In addition, outdoor living space may include an unenclosed balcony, roof deck, patio, swimming pool and open cabana in single-family zones as long as one side of the structure remains entirely open.

Parking Standards

Sufficient off-street parking shall be provided to avoid street overcrowding. This is maintained through the establishment on parking requirements, which fluctuate depending on the land use/housing type and the number of bedrooms. **Table 3-3, Table 3-4**, **and Table 3-5** provide the parking requirements specific to the City of Huntington Beach.

Table 3-3: Single-Family Parking Requirements

Number of Bedrooms	Parking Spaces Required
Four or fewer Bedrooms[1]	2 enclosed and 2 open
Five or more Bedrooms[1]	3 enclosed per unit and 3 open per unit
Four or fewer Bedrooms[2]	2 enclosed and 2 open[3]
Five or more Bedrooms[2]	2 enclosed per unit and 3 open per unit[3]
RMH-A District	2 enclosed spaces per unit with up to 3 bedrooms, and 1 space for each additional bedroom; 1 additional space per dwelling where no on-street parking is allowed

1. *New Construction (1994 and later)*
2. *Existing Dwellings*
3. *Open spaces may be behind any required spaces and/or on a street adjacent to the property. On-street parking may not be reserved for residents and/or guests but must be available to the general public on a first-come, first-serve basis.*

Source: City of Huntington Beach Zoning Code Section 231.04

Table 3-4: Multi-Family Parking Requirements

Number of Bedrooms	Parking Spaces Required
Studio Unit/One Bedroom	1 enclosed space per unit
Two Bedrooms	2 spaces (1 enclosed) per unit
Three or More Bedrooms	2.5 spaces (1 enclosed) per unit
Guests	0.5 space per unit

Source: City of Huntington Beach Zoning Code Section 231.04

Table 3-5: Senior Housing Parking Requirements

Number of Bedrooms	Parking Spaces Required
Studio Unit/One Bedroom	1 covered space per unit

Two Bedrooms	1.5 spaces per unit (1 covered)
Source: City of Huntington Beach Zoning Code Section 231.04	

Developing at Maximum Density

Projects in the City of Huntington Beach often develop at or above maximum density permitted in their respective zones. **Appendix B** of this Housing Element assumes that projects develop at 80 percent density based on the City's historical development trends. An analysis of Pipeline Projects and Past Performance of Residential Development at Maximum Density concluded that all projects are consistent with **Appendix B's** assumption of developing at 80 percent density. An additional analysis of past residential projects concluded that out of 13 projects, 9 were developed at maximum density and four projects were constructed above maximum density due to Density Bonus provisions and constructed deed-restricted affordable housing units on-site (see Appendix B, Table B-4). HCD's Sites Inventory Guidebook[1] notes that "because of the use of density bonus provisions, it may be possible that trends demonstrate typical densities higher than the maximum allowable densities, especially for housing affordable to lower income households. On a case-by-case basis, it may be appropriate to utilize increased densities due to density bonuses when determining the adjustment factor in the capacity methodology." Even though the City has demonstrated a successful past performance of residential projects constructed at maximum permitted density and above maximum permitted density, **Appendix B** of this Housing Element conservatively assumes that projects proposed on the identified sites inventory will develop at 80 percent of the maximum permitted density.

Cumulatively, the development standards described above such as height limits and required parking have the potential to affect the cost and supply of housing. For example, while a height limit exists in the RH Zone, it has not proved to be a constraint to housing. The 35 foot height limit enables construction to reach three stories, which lends itself to an architectural design for a variety of housing types such as townhomes, condominiums, or apartments, all of which are more affordable than single family residences by design due to their smaller unit size. Further, enclosed parking spaces may be provided in either a parking garage, private garage assigned to the unit, or another type of enclosure. Guest parking spaces are not required to be enclosed and may be provided in open stalls. Even though a per-unit parking requirement and guest parking requirement exists, they have not resulted in a constraint to constructing housing as analyzed above. Overall, the existing development standards as analyzed above have proved to not be a hindrance on the development of housing in accordance with permitted maximum densities and required development standards.

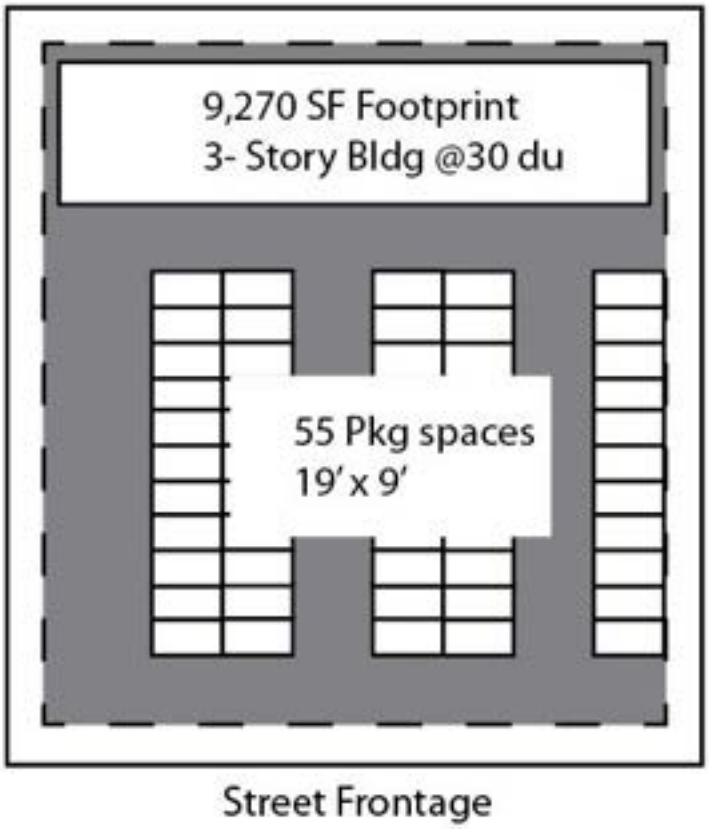
In order to further demonstrate that the RH Zone development standards are not constraints to developing at maximum permitted density, a sample project is described below.

The RH zone includes various development standards, such as lot coverage, height limits, and parking requirements. Any site development criteria and the combination of these criteria may inhibit the full use of the site to achieve the maximum density of 30 du/ac. The City conducted an analysis of a prototype RH site to demonstrate that the maximum permitted density can be achieved during the site planning process. The following table provides an analysis of current site development requirements in the RH Zone to determine if the maximum permitted density can be achieved.

[1] HCD Housing Element Sites Inventory Guidebook (June 10, 2020) pg. 21 https://www.hcd.ca.gov/community-development/housing-element/housing-element-memos/docs/sites_inventory_memo_final06102020.pdf

Table 3-6 Analysis of RH Zone Requirements – Prototype Site Development	
Development Standard	Project
Prototype Project Site size	1.0 ac 43,560 SF
Net site size w/required setbacks	35,604 SF
Maximum site volume at 3 story height	106,812 SF
Maximum lot coverage at 50%	21,780 SF max bldg. footprint
Maximum Permitted Density	30 units/acre
• 1 bdrm (781 sf)	20 units
• 2 bdrm (1073 sf)	10 units
Unit square footage total	27,810 SF
Parking Requirements	
20 1-bdrm units @ 1 sp/unit	20 spaces
10 2 bdrm units @ 2 sp/unit	20 spaces
Guest: 30 units @ 0.5 sp/unit	15 spaces
Total Parking Required:	55 spaces
Square Footage for Parking (200 sf/space)	11,000 SF
Total SF to Accommodate Project	38,810 SF
Total Excess Available SF	+68,002 SF
Notes: (1) lot utilization is for building footprint. Parking is not counted in the lot coverage requirements.	

Figure 3-1: 1.0 Acre Prototype Site Plan



The above analysis concludes that a prototypical 30 du/ac project is feasible in the RH Zone when applying the current development standards. As shown in Table 3-6 above, additional on-site space remains available to increase the maximum dwelling unit yield and/or to provide amenities (pool, clubhouse, open space, etc.) that improve quality of life and increase a feeling a community, particularly for projects that provide affordable housing units. The City will continue to encourage higher density development on the parcels identified in the inventory that are in the RH Zone. It is therefore demonstrated and adequately supported that all sites within the RH Overlay exhibit a realistic capacity for development at maximum density, even though development at 80% of maximum density has been assumed in the sites inventory in accordance with HCD's preferences.

Additionally, the City may sometimes receive requests for development at lower densities than permitted. In these instances, the City actively encourages the project applicant to revise the site plan to propose a unit type and layout that achieves a higher density. For example, the City recently received a conceptual proposal to construct medium-density townhomes on Edinger Ave., a major high density corridor within the Beach-Edinger Corridors Specific Plan (SP14) that does not include a maximum density on any parcel. The City actively encouraged the applicant to redesign the site and achieve a higher density that is compatible with other high density residential development in the vicinity. The applicant returned with a higher density townhome project that proposed several smaller unit types and reduced excess parking facilities in order to achieve a higher density development.

3. Local Coastal Plan and Housing in the Coastal Zone

The California Coastal Act directs each local government lying wholly or partly within the Coastal Zone, as defined by the Coastal Act, to prepare a Local Coastal Program for its portion of the Coastal Zone. Local Coastal Programs are used to carry out the policies and requirements of the Coastal Act by local governments. Local Coastal Programs must be reviewed and certified by the California Coastal Commission before being implemented by a local government.

The City of Huntington Beach has a certified Local Coastal Program, which is divided into two components: A Coastal Element and an Implementation Program. The Coastal Element includes a land use plan and goals and policies to be used by decision-makers when reviewing coastal related issues and proposed development within the Coastal Zone boundary. The Huntington Beach Coastal Element was initially certified by the California Coastal Commission in 1985 and last comprehensively updated in 2001 and has been amended various times since 2001. The Implementation Program includes the Huntington Beach Zoning and Subdivision Ordinance (HBZSO), zoning map, and specific plans that include areas within the Coastal Zone. The City's coastal zone includes eight specific plan areas, six of which have been certified by the Coastal Commission. The Implementation Program must be consistent with the goals and policies of the Coastal Element and Land use plan.

Housing in the Coastal Zone

The Coastal Zone boundary in Huntington Beach runs from the northern city limit at Seal Beach, south nine miles to the Santa Ana River at the Huntington Beach/Newport Beach boundary. It extends inland from the mean high tide line from 1,000 yards to over one mile in some areas. It encompasses approximately five square miles of land and water, or about 17 percent of the total area of the city.

The Huntington Beach Coastal Zone includes a wide variety of land uses including open shoreline, parks and recreational facilities, habitat areas, residential, commercial and industrial uses, as well as energy and oil extraction facilities. At the north end of the Coastal Zone is Huntington Harbour, a man-made residential and marina development with residences oriented toward the waterways. The next largest segment of residential development within the Coastal Zone is the downtown area, with narrow but deep lots for single-family homes as well as larger apartment and condominium developments. The City's California Coastal Commission (CCC) certified Local Coastal Program does not permit residential uses in the Commercial Visitor zone.

California Government Code (Section 65588) requires the Housing Element to take into account any low or moderate income housing provided or required in the coastal zone pursuant to the Mello Act (Section 65590).[1] Within the Review and Revise section of the Housing Element, coastal zone localities are required to include the following information:

- *Number of new housing units approved for construction within the coastal zone since January 1982*
- *Number of housing units for low or moderate income households required to be provided in new housing within the coastal zone, or within three miles*
- *Number of existing residential units occupied by low or moderate income households within the coastal zone or within three miles that have been authorized to be demolished or converted since January 1982*
- *Number of housing units for low and moderate income households that have been required for replacement (of those being demolished or converted) in the coastal zone or within 3 miles of the coastal zone.*

The 1989 and 2000 Huntington Beach Housing Elements provide the following information on

housing in the Coastal Zone for the period between 1982 - 1997:

Table 3-6: Residential Activity in the Huntington Beach Coastal Zone 1982-1997				
Time	**Total Units Demolished**	**Units Required to Be Demolished**	**Total New Units Built**	**Affordable Units Built**
1982-1989:	• 73 affordable units demolished in Coastal Zone • 1,086 replacement units low to moderate income households built			
June 1989-1997	• 112 affordable units demolished in Coastal Zone • 141 replacement units low to moderate income households built			

The City has met the replacement requirement of 185 affordable units through provision of 1,227 new affordable units. **Table 3-4** documents residential development activity in the Huntington Beach coastal zone during the two most recent Housing Element periods (between January 1998 – November 2012), including the number of affordable housing units built in the City within three miles of the coastal zone.

Table 3-7: Residential Activity in the Huntington Beach Coastal Zone 1998-2012				
Location	**Total Units Demolished**	**Units Required to Be Demolished**	**Total New Units Built**	**Affordable Units Built**
Within Coastal Zone	91	4	790	--
Within 3 miles of Coastal Zone	--	--	--	804
*Note: * The Coastal Act requires replacement of low and moderate income units demolished in Coastal Zone projects with 3 or more units. Of the 95 units removed in Huntington Beach during this period, 89 were single-family homes and 2 were within a duplex. Only 4 units were within a fourplex, meeting the size threshold criteria for potential replacement.*				

As illustrated by this Table, between 1998-2012, 91 market rate units were removed from the Huntington Beach coastal zone: 53 units in Huntington Harbour, 37 units in Downtown, and 1 in Southeast Huntington Beach. Four of these units were within a fourplex, thus meeting the size threshold for potential replacement under the Mello Act. While the fourplex units were not deed restricted as affordable and were located within a high cost area two blocks from the beach, they were in an older property (1973) and could potentially have been rented at rates affordable to moderate income households.

During this same 1998-2012 time period, 804 new deed-restricted affordable units were built (or under construction) within a three mile radius of the City's coastal zone, more than offsetting the 67 market-rate units removed from the coastal zone. Affordable housing projects completed during this time frame include :

- Cape Ann - 146 moderate income units
- Promenade - 80 moderate income units
- Pacific Landing - 5 moderate income units
- Greystone Keys - 12 moderate income units (11 additional moderate units built in 1997)
- 17201 Ash - 6 moderate income units
- The Tides - 12 moderate income units
- The Fountains - 55 very low, 25 low, 191 moderate income units
- Siena Apartments (Main Place) - 26 low income units
- Ellis SRO – 27 very low, 59 low income units

- Bowen Court - 20 very low income units
- Habitat Units - 5 very low and 1 low income unit
- Tuscany – 5 moderate income units
- The Villas – 4 moderate income units
- Pacific Shores – 10 moderate income and 2 low income units
- Pacific Sun – 6 very low income units
- Bella Terra Apartments – 43 moderate and 28 very low income units
- Numerous smaller projects containing 3 or fewer affordable units.

Huntington Beach has complied with the requirements of the Mello Act. To ensure continued compliance, the City will continue to monitor residential development activities within its coastal zone, including the Sunset Beach community annexed to the City in 2011.

4. Variety of Housing Types Permitted

California Housing Element Law mandates jurisdictions must make sites available through zoning and development standards to promote the development of a variety of housing types for all socioeconomic levels of the populations. Housing types include single-family homes, multi-family housing, accessory dwelling units, factory-built homes, mobile-homes, employee and agricultural work housing, transitional and supportive housing, single-room occupancy (SROs), and housing for persons with disabilities. **Table 3-6** shows the various housing types permitted throughout the City of Huntington Beach.

Table 3-8: Various Housing Types Permitted in Residential Zones													
Housing Types	**Single Family Residential**	**Multi-Family**				**Commercial**			**Industrial**			**Public-Semi-Public**	**Mixed-Use Transit Center**
	RL	**RM**	**RMH**	**RH**	**RMP**	**CO**	**CG**	**CV**	**IG**	**IL**	**RT**	**PS**	**MU-TC**
Single-Family Dwellings	P	P	P	P	P	N	N	N	N	N	N	N	N
Multi-Family Dwellings													
- 2-4 Units	ZA	P	P	P	N	N	N	PC	N	N	N	N	PC
- 5-9 Units	ZA	ZA	ZA	ZA	N	N	N	PC	N	N	N	N	PC
- 10 or more Units	PC	PC	PC	PC	N	N	N	PC	N	N	N	N	PC
Manufactured Home Parks	ZA	ZA	N	N	ZA	N	N	N	N	N	N	N	NA
Planned residential unit developments	PC	PC	PC	PC	PC	N	N	N	N	N	N	N	PC
SRO (efficiency units)	NA	NA	NA	NA	NA	N	PC	N	N	N	N	N	NA
Supportive/Transitional Housing	L-7	L-7	L-7	L-7	L-7	N	N	N	N	N	N	N	N
Accessory Dwelling Unit(s)	P	P	P	P	P	N	N	N	N	N	N	N	P
Emergency Shelters	NA	NA	NA	NA	NA	N	L-2	N	P	P	P	N	NA
Residential Care Facility	P/PC	P/PC	P/PC	P/PC	P/PC	ZA	ZA	N	N	N	N	PC	NA
Group Homes (including Sober Living Homes)	L-8	L-8	L-8	L-8	L-8	PC	PC	PC	PC	PC	PC	N	NA
Group Residential	N	N	PC	PC	N	PC	PC	PC	PC	PC	PC	N	NA
Day Care, General	P	P	P	P	P	L-3	L-3	N	ZA	ZA	ZA	PC	ZA
Agricultural Workers Quarters	NA	NA	NA	NA	NA	N	N	N	N	N	N	N	NA
Low Barrier Navigation Centers	NA	NA	NA	NA	NA	N	N	N	N	N	N	N	NA

Source: City of Huntington Beach Zoning Code

P= Permitted by Right
PC = Conditional use permit approved by Planning Commission
ZA = Conditional use permit approved by Zoning Administrator
N= Not Permitted

Table 3-8: Various Housing Types Permitted in Residential Zones													
Housing Types	**Single Family Residential**	**Multi-Family**				**Commercial**			**Industrial**			**Public-Semi-Public**	**Mixed-Use Transit Center**
	RL	**RM**	**RMH**	**RH**	**RMP**	**CO**	**CG**	**CV**	**IG**	**IL**	**RT**	**PS**	**MU-TC**
L-2 Allowed with a conditional use permit from the Zoning Administrator if the space is 5,000 square feet or less; allowed with a conditional use permit from the Planning Commission if the space exceeds 5,000 square feet. (See Section 230.52, Emergency Shelters.)													
L-3 Allowed with a conditional use permit from the Zoning Administrator if the space is 2,500 square feet or less; allowed with a conditional use permit from the Planning Commission if the space exceeds 2,500 square feet.													
L-7= Supportive housing and transitional housing shall be considered a residential use of property and shall be subject only to those restrictions and processing requirements that apply to other residential dwellings of the same type in the same zone.													
L-8= **A.** A group home or sober living home with six or fewer residents in the RL, RM, RMH, RH, RMP, a Specific Plan Residential, or a Specific Plan Mixed Use zone shall require a Special Use Permit from the Community Development Director, and: 1. As measured from the property line to property line, a sober living home shall be at least 1,000 feet from any other property that contains a group home, sober living home, or State-licensed residential care facility. Refer to the procedures and location requirements of Section 230.28. **B.** A group home or sober living home with seven or more residents is not permitted in the RL zone. In the RM, RMH, RH, RMP, Specific Plan Residential, or Specific Plan Mixed Use zone, a group home or sober living home with seven or more residents shall require a Conditional Use Permit from the Planning Commission, and: 1. As measured from the property line to property line, the group home or sober living home shall be at least 1,000 feet from any other property that contains a group home, sober living home, or State-licensed residential care facility. 2. An application for an operator's permit that complies with Chapter 5.110 of the Huntington Beach Municipal Code (HBMC) shall be required for and may be granted to permit the operation of a group home or sober living home. **C.** An applicant may seek relief from the strict application of this section by submitting a reasonable accommodation application to the Community Development Director setting forth specific reasons as to why accommodation over and above this section is necessary under State and Federal laws, pursuant to Chapter 17.77 of the Huntington Beach Municipal Code.												

Accessory Dwelling Units

The Huntington Beach Zoning and Subdivision Ordinance (HBZSO) defines an Accessory Dwelling Unit (ADU) as a fully equipped dwelling unit which is ancillary and subordinate to a principal dwelling unit located on the same lot in the RL zone. Also known as second dwelling unit or "granny unit." ADU legislation has evolved annually since the City adopted its ADU ordinance and thus some portions of the City's existing ordinance may be outdated. The City has included a program in **Section 4: Housing Plan** to update the City's ADU Ordinance in accordance with updated legislation.

Junior ADUs (JADUS) and ADUs typically do not require entitlements for construction and only need ministerial building permit review. However, development in the Coastal Zone may require a Coastal Development Permit.

The fees associated with ADUs include the following:

- Plan check and inspection fees.
- For ADUs less than 750 square feet in size there are no impact fees required by the City, a special district, or local agency. However, there may be other "non-impact" fees by special districts or local agencies.
- For ADUs more than 750 square feet in size there are impact fees. These fees are proportionate to the square footage of the primary dwelling unit but have been reduced 75%.
- Connection fees and capacity charges based on either the ADU's square footage or the number of its drainage fixture unit values.

The ADU should provide one off-street parking space in addition to that required for the main dwelling unit unless the ADU meets any of the six conditions below:

- The ADU is within half a mile walking distance from public transit.
- The ADU is within an architecturally and historically significant historic district.
- The ADU is in an area where on-street parking permits are required, but not offered to the occupant of the ADU.
- The ADU is located within one block of a care share area.
- The ADU is a part of the proposed or existing primary residence or an accessory structure.
- The dwelling unit is a Junior Accessory Dwelling Unit as defined under Government Code 65852.2 and 6585.22.

The design standards for attached and detached AUDs shall meet the setback and square footage provisions consistent with Government Code 65852.2. If the ADU is proposed within the parameters of an existing or proposed single-family dwelling or an existing accessory structure, any proposed expansion shall be consistent with Government Code 65852.2. All ADUs are required to meet fire and safety standards per Government Code 65852.2. Additionally, the architecture standards for ADUs at single-family and multi-family locations shall incorporate the same features as the main dwelling unit, existing building, or nearest building regarding their exterior roofing, trim, walls, windows, and color pallet. All restroom and kitchen facilities as well as access for ADUs shall be provided consistent Government Code 65852.2.

The City of Huntington Beach also allows JADU everywhere ADUs are permitted. JADUs are defined as a unit that is no more than 500 square feet in size and contained entirely within a single-family residence. A JADU may include separate sanitation facilities or may share sanitation facilities with the existing structure. JADUs do not require off-street parking. The design standards for JADUs shall meet the setback and square footage provision consistent with Government Code 65852.2 and 65852.22. If the JADU is proposed within the parameters of an existing or proposed single-family dwelling, any

proposed expansion shall be consistent with Government Code 65852.2. All JADUs are required to meet fire and safety standards per Government Code 65852.2. Additionally, the architecture standards for JADUs at single-family locations shall incorporate the same features as the main dwelling unit regarding its exterior roofing, trim, walls, windows, and color pallet. All restroom and kitchen facilities as well as access for JADUs shall be provided consistent Government Code 65852.2 and 65852.22.

Single-Family Dwellings

The HBZSO defines a Single-Family Dwelling as a detached building designed primarily for use as a single dwelling, no portion of which is rented as a separate unit, except as permitted by this Code. Attached single-family dwellings shall be considered as multifamily. Single Family residential units are permitted as a primary use in RL, RM, RMH, RH, RMP zones.

Multiple Family Dwellings

The HBZSO defines a Multi-Family Dwelling as a building or buildings designed with two or more dwelling units. This designation may include duplexes, triplexes and fourplexes (individual structures containing two, three, or four housing units, respectively), apartments (five or more units under one ownership in a single structure), townhouse development (three or more attached single-family dwellings where no unit is located over another unit), senior citizen multi-family housing; single-and common ownership, attached unit projects (such as condominiums).

Multi-Family residential developments with 2-4 units are permitted as a primary use in the RM, RMH, and RH zones and with a conditional use permit approved by Planning Commission in the CV and MU-TC zone. Multi-Family residential developments with 5-9 units are permitted with a conditional use permit approved by Zoning Administrator in the RL, RM, RMH, and RH zones and with a conditional use permit approved by Planning Commission in the PC and MU-TC zone. Multi-Family residential developments with 10 or more units are allowed with a conditional use permit approved by Planning Commission in the RL, RM, RMH, RH, CV, and MU-TC zones.

Manufactured Home/Mobile Home

The HBZSO defines a Manufactured Home as a structure transportable in sections which is a minimum of 8 feet in width and 40 feet in length, built on a permanent chassis, and designed to be a dwelling with or without a permanent foundation. Manufactured homes include mobile homes.

Manufactured housing units and mobile home parks are permitted as a primary use in RL, RM, RMP, and MU-TC zones.

Assisted Living Facilities and Convalescent Facilities

The HBZSO defines a Convalescent Facility as an establishment licensed by the State of California providing care on a 24-hour basis for persons requiring personalized supportive services and health related care, but excluding facilities providing surgical or emergency medical services. This classification includes assisted living facilities. Convalescent facilities are conditionally permitted in the CO zone.

Emergency Shelter

The HBZSO defines an Emergency Shelter as housing with minimal supportive services for homeless persons that is limited to occupancy of six months or less by a homeless person. No individual or household may be denied emergency shelter because of an inability to pay.

Emergency shelters are permitted by-right, without discretionary action, in the IG, IL, and RT zones. Emergency shelters are subject only to written objective standards, as provided in Section 230.52 of the HBZSO. Objective standards include occupancy requirements, on-site management, staffing

ratios, lighting requirements, among others. Parking requirements shall be provided in the ratio of one staff per staff member plus one space for every five beds and an additional one-half space for each bedroom for families with children. The parking requirement may be in conflict with the provisions of AB 139. A program has been added to this Housing Element to review and revise parking standards for emergency shelters in compliance with AB 139.

Emergency Shelters are conditionally approved in the CG zone. Conditional permits in the CG Zone are approved administratively through the Zoning Administrator if the space is less than 5,00 square feet and Planning Commission fi the space exceeds 5,000 square feet. Conditions of Approval may only be imposed as necessary to protect health, safety and general welfare, compatibility of uses and consistency with the General Plan.

Supportive/Transitional Housing

The HBZSO defines Supportive Housing as housing with no limit on length of stay that is occupied by the target population and is linked to on-site or off-site services that assist residents to retain the housing, improving his or her health status, and maximizing his or her ability to live and, when possible, work in the community. On-site and off-site services may include, but are not limited to, after-school tutoring, childcare, and career counseling. Supportive Housing is permitted/conditionally permitted as a primary use in the RL, RM, RMH, RH and RMP zones.

The HBZSO defines Transitional Housing as buildings configured as rental housing developments but operated under program requirements that call for the termination of assistance and recirculation of the assisted unit to another eligible program recipient at some predetermined future point in time, which shall be no less than six months. Transitional Housing is permitted/conditionally permitted as a primary use in the RL, RM, RMH, RH and RMP zones.

Agricultural Workers Quarters

The HBZSO does not define Agricultural Workers Quarters or similar by name in the Zoning Code. A program in **Section 4: Housing Plan** provides the necessary accommodations for farm worker housing per state law.

Low Barrier Navigation Centers

AB 101 states that “The Legislature finds and declares that Low Barrier Navigation Center developments are essential tools for alleviating the homelessness crisis in this state and are a matter of statewide concern-.” Low Barrier Navigation Centers are defined as a Housing First, low-barrier, service-enriched shelter focused on moving people into permanent housing that provides temporary living facilities while case managers connect individuals experiencing homelessness to income, public benefits, health services, shelter, and housing. Low Barrier Navigation Centers are required as a use by right in areas zoned for mixed uses and nonresidential zones permitting multifamily uses if it meets specified requirements. The HBZSO does not address Low Barrier Navigations Centers by definition. A program is included in **Section 4: Housing Plan** to ensure the City’s development standards allow Low Barrier Navigation Centers by-right in all zones that permit mixed-uses and non-residential uses. Also as noted in Section 4, the City permitted a Navigation Center by-right in the Beach and Edinger Corridors Specific Plan that opened in December 2020.

5. Planned Residential Development

The HBZSO also includes supplemental standards and provisions for Planned Unit Developments (PUD) to permit flexibility in land use controls and development standards where flexibility or coordinated planning for a large site which will enhance the potential for superior urban design. A

PUD shall provide a mutual benefit for the residents of the project as well as the general public. Examples of public benefits that may be provided in a planned unit development includes but are not limited to the creation of permanent open space, usable and appropriately located recreation facilities, the conservation of natural elements, land features and energy, and other public improvements.

6. Local Ordinances

An ordinance is a law passed by a municipal government, in this case, the City of Huntington Beach. Local ordinances are enacted to maintain or improve public safety, health, and general welfare. Below is an ordinance that may influence housing stock in the City.

Short-Term Rental Ordinance – Short-term rentals have become very popular in the last few years. Short-term rentals are defined as a residential unit rented for a term of thirty (30) or fewer consecutive nights. In 2020, the Huntington Beach City Council voted to approve Ordinance No. 4224 amending the Huntington Beach Municipal Code (HBMC) by adding Chapter 5.120 Short-Term Rentals (STRs). Final approval of Ordinance No. 4224 (Short-Term Rentals) was on January 19, 2021. The Ordinance was effective on February 19, 2021. The STR Permit fee resolution was adopted on March 1, 2021.

The purpose of the Short-Term Rental Ordinance is to establish regulations, standards, and a permitting process governing the renting or leasing of privately owned visitor serving residential dwelling units on a short-term basis in order to maintain the long-term rental housing stock in the City; ensure the collection and payment of Transient Occupancy Taxes ("TOT"); safeguard the residents of the City of Huntington Beach by ensuring that short-term rental activities do not threaten the character of residential neighborhoods; and ensuring that such short-term rental activities do not become a nuisance, or threaten the public health, safety, or welfare of neighboring properties. The ordinance establishes two zones in the City where short-term rentals are permitted. Zone 1 consists of all areas of the City excluding Sunset Beach. Zone 2 consists of Sunset Beach. In Zone 1 and Zone 2, short-term rentals are permitted in owner occupied residential dwelling units. In Zone 2 short-term rentals are permitted for existing owner "unoccupied" residential dwelling units who obtain a permit within six months of the effective date of the resolution establishing the permit fee(s). After six months, no new permits for owner unoccupied residential dwelling units will be issued.

Growth Management Measures

Growth management measures are techniques used by a government to regulate the rate, amount, and type of development. Growth management measures are typically adopted by cities through voter initiatives to regulate development and density throughout the City. Growth management measures allow cities to grow responsibly and orderly, however, if overly restricted can produce constraints to the development of housing, including accessible and affordable housing. The City of Huntington Beach does not have any growth management measures that would affect or hinder the development of housing in the City.

7. Specific Plans

The purpose of a Specific Plan is to implement the goals and objectives of a city's General Plan in a more focused and detailed manner that is area and project specific. A Specific Plan promotes consistent and an enhanced aesthetic levels throughout the project community. Specific Plans contain their own development standards and requirements that address specific issues and reflect the vision for a particular area. The following sections provide brief descriptions of the City of Huntington Beach's adopted Specific Plans which affect the development of housing.

North Huntington Center

The purpose of the Specific Plan is to provide for the orderly development of North Huntington Center Specific Plan area, which is bound by McFadden Avenue to the north, San Diego Freeway to the east, Center Drive to the south and the Southern Pacific Railroad to the west. Site I shall not exceed 34.85 dwelling units per acre and on Site II, the number of single-family dwelling units shall not exceed forty-five (45).

Seabridge

The purpose of the Specific Plan is to provide for the orderly development of the 60+ acres of land located at the southeast corner of Adams Avenue and Beach Boulevard. The area east of the Orange County Flood Control Channel to the existing single-family residential tracts be of a low-density residential design with an adequate setback to buffer the two projects. The area east and immediately adjacent to the flood control channel be of a medium density residential design. All units east of the flood control channel be clustered to allow for a maximum amount of open space. Total units not to exceed four hundred twenty-two (422) east of the channel. The area west of the flood control channel be of a high-density residential design. This concept should take advantage of the natural topography for development. Area west of the flood control channel be of a medium density residential design. Residential units be clustered throughout the project area which also accommodate the continuation of resource production activities. Total units for the overall project not to exceed eight hundred (800).

Huntington Harbor Bay Club

The purpose of the Specific Plan is to provide for a mix of open space and recreational uses, commercial uses, residential uses, a public marina, parking, and uses incidental to these activities within the Specific Plan area. The Specific Plan area consists of 5.33 acres of land plus a public marina. Total units for the overall project not to exceed forty-two attached residential units (42).

Downtown

The purpose of the Specific Plan is to create a unique and identifiable downtown for Huntington Beach that capitalizes on the unique location and features of the City's beachside downtown and is an economically vibrant, pedestrian-oriented destination for residents and visitors alike. The Specific Plan was originally adopted in 1983 and most recently comprehensively updated in 2011 as part of a City-lead effort to ensure that planning regulations and guidelines provide direction with flexibility to accommodate both current and future development opportunities in the downtown area. An overall goal of the Specific Plan is to promote orderly and viable development that meets the community's vision for the future of the downtown.

Seacliff

The purpose of the Specific Plan is to serve as a general set of conditions and regulations that will promote the orderly development of the property and provide direction for preparing a plan for development while providing sufficient flexibility to permit design creativity. The Specific Plan area is generally bounded by Garfield Avenue on the north, Goldenwest Street on the east, Pacific Coast Highway on the south and the City boundary on the west. Total units for the overall project not to exceed 164 detached residential units.

Ellis-Goldenwest

The purpose of the Specific Plan is to implement the Estate Residential General Plan land use designation and to coordinate all development in the Ellis-Goldenwest quarter section by way of a comprehensive strategy tailored to the unique characteristics of the site. The Specific Plan permits estate residential (single family detached residences) on large lots with sensitivity towards the existing

topography and provide equestrian amenities within the quarter section. The density of any project shall be a maximum of three units per acre.

Meadowlark

The purpose of the Specific Plan is to establish the framework for the development of a high-quality planned community. Total units for the overall project not to exceed 345 detached residential units.

Holly-Seacliff

The purpose of the Specific Plan is to provide for distribution of planned residential uses, define permitted housing types, and provision of a diversity of housing types. The purpose of the Specific Plan is to implement the goals of the Holly-Seacliff master plan, including: Location, character and intensities of planned commercial, industrial and mixed development uses; alignments and design of arterial highways and locations of traffic control devices; design of community open spaces, parks, trails and recreation facilities; grading guidelines; design of required public facilities to serve existing and proposed development; and design and implementation of the community theme elements.

Magnolia Pacific

The purpose of the Specific Plan is to provide for the orderly development of Magnolia Pacific which consists of 39.4 acres in the southern portion of Huntington Beach. Total units for the overall project not to exceed 502 residential units in a mixture of single-family detached homes and multi-family units.

McDonnell Centre Business Park

The purpose of the Specific Plan is to establish planning concept, design theme, development regulations and administrative procedures necessary to achieve an orderly and compatible development of the specific plan area; and to implement the goals, policies, and objectives of the Huntington Beach General Plan. The intent is to establish a public private partnership to enable the creation of a “Campus-Park” industrial setting and achieve a high-level quality in individual building design.

Palm/Goldenwest

The purpose of the Specific Plan is to provide for is to establish zoning and standards for the development of the 150-acre site consistent with the City’s General Plan, the Local Coastal Program, the Conceptual Master Plan (CMP), and compatible with surrounding land uses. The Specific Plan provides consistency with the goals, policies, and criteria of the City’s General Plan, including policies related to land use, urban design, economic development, circulation, and public facilities. The intent of the Specific Plan is to guide and coordinate the future design and development of the Palm/Goldenwest Specific Plan Area. Total units for the overall project not to exceed 315 residential units in a mixture of single-family detached homes and multi-family units.

Bella Terra

The purpose of the Specific Plan is to establish a visitor serving, regional-commercial shopping and mixed- use high density residential setting and achieve a high quality in residential, retail and entertainment design. The Bella Terra Specific Plan identifies the location, character and intensities for a regional commercial complex and a mixed-use high density residential and regional commercial. The Specific Plan creates a compatible design theme for the project areas and establishes the development regulations necessary to accomplish the identified objectives.

Beach and Edinger Corridors

The purpose of the Specific Plan is to orchestrate private and public investment activities along the Beach Boulevard and Edinger Avenue Corridors, and to support and promote investment that will enhance the beauty and vitality of these, the City’s primary commercial corridors. This Specific Plan

presents the community's vision for the evolution and continued growth of the two corridors, and it establishes the primary means of regulating land use and development within the Specific Plan Area. Finally, the Plan contains a program of planned actions and investments that the community intends to implement to stimulate and complement private investment along the corridors.

Brightwater Specific Plan

The Brightwater Specific Plan establishes specific zoning and site development standards for the Brightwater site consistent with land use entitlements previously approved by the County of Orange and California Coastal Commission. The Brightwater Specific Plan area is located on the Bolsa Chica Mesa and is a former unincorporated County island that was annexed into the City of Huntington Beach in multiple phases as homes were constructed. The Brightwater Specific Plan guides the future design of residential additions, remodels, replacements from fire or other events, and any and all other private and public land development within the Brightwater Specific Plan Area.

Windward

The Windward Specific Plan area is a 5-acre site located at the southeast corner of Bolsa Chica Street and Los Patos Avenue on the Bolsa Chica Mesa. The Specific Plan was certified by the Coastal Commission and requires preservation and conveyance of open space areas and allows for allows for medium density residential development with a maximum of 36 residential dwelling units on a portion of the site.

Sunset Beach

The purpose of the Specific Plan is to provide clear and comprehensive descriptions of land use, circulation, infrastructure, and site development standards in Sunset Beach. The Sunset Beach Specific Plan establishes the development regulations and administrative procedures for the approximately 134-acre Sunset Beach area.

8. Housing for Persons with Disabilities

Both the federal Fair Housing Amendment Act (FHAA) and the California Fair Employment and Housing Act direct local governments to make reasonable accommodations (that is, modifications or exceptions) in their zoning laws and other land use regulations when such accommodations may be necessary to afford disabled persons an equal opportunity to use and enjoy a dwelling. State law also requires cities to analyze potential and actual constraints to the development, maintenance, and improvement of housing for persons with disabilities.

The Housing Element Update must also include programs that remove constraints or provide reasonable accommodations for housing designed for persons with disabilities. The analysis of constraints must touch upon each of three general categories: 1) zoning/land use; 2) permit and processing procedures; and 3) building codes and other factors, including design, location, and discrimination, which could limit the availability of housing for disabled persons.

Land Use Controls

Under State law, small licensed residential care facilities for six or fewer persons shall be treated as regular residential uses and permitted by right in all residential districts.

Definition of Family

A restrictive definition of "family" that limits the number of unrelated persons and differentiates between related and unrelated individuals living together is inconsistent with the right of privacy established by the California Constitution. The Huntington Beach Zoning Code defines "family" as a single individual or two or more persons living together as a single housekeeping unit in a dwelling unit.

Group Homes

On July 6, 2020, the City Council approved a "Group Home" Ordinance to benefit disabled persons who live in a group setting as well as maintaining residential zoning standards. The Ordinance enhances the protections granted under the federal Fair Housing Act, Fair Housing Act Amendments (42 U.S.C. Section 3601) and other state and federal laws (i.e. Americans with Disabilities Act) provided to persons with disabilities, and also helps maintain the residential character of City neighborhoods.

A Group Home is a facility that is being used as a supportive living environment for persons who are considered disabled under State or Federal law. A group home operated by a single operator or service provider (whether licensed or unlicensed) constitutes a single facility, whether the facility occupies one or more dwelling units. Group homes shall not include the following: (1) residential care facilities; (2) any unit operating as a single housekeeping unit.

A Sober Living Home is a group home for persons who are recovering from a drug and/or alcohol addiction and who are considered disabled under State or Federal law. Sober Living Homes shall not include the following: (1) residential care facilities; (2) any unit operating as a single housekeeping unit.

A Referral Facility is a residential care facility, group home, or sober living home where one or more person's residency in the facility is pursuant to a court order or directive from an agency in the criminal justice system.

The purpose of the Ordinance is to allow disabled persons to live in one of the above residential settings while ensuring that their facilities are operated in a manner that: provides an environment most conducive to successful recovery including integration into the community by maintaining the character of surrounding neighborhoods, does not recreate an institutional environment that would defeat the purpose of community-based care, and facilities serving the disabled by operating in compliance with Federal state and City laws/regulations.

To achieve the purpose of the Ordinance, including providing disabled persons with an equal opportunity to use and enjoy a dwelling in the City's residential zoning districts, Group Homes and Sober Living Homes (a subcategory of Group Homes) with six or fewer persons are permitted with a Special Use Permit in all residential-zones (RL, RM, RMH, RH, RMP, and all Specific Plans with a residential or mixed use zone). In addition to a Special Use Permit, Group Homes and Sober Living Homes with seven or more persons are permitted with a Conditional Use Permit in residential-zones (RM, RMH, RH, RMP, and all Specific Plans with a residential or mixed use zone). Additionally, Group Homes and Sober Living Homes may seek relief from the requirements by requesting a reasonable accommodation from the City.

The location and permitting requirements applicable to larger Group Homes (7 or more occupants) are intended to avoid overconcentration so as to maintain the residential character of a neighborhood, which if lost would have an adverse effect on the welfare of the individuals' receiving services from a residential care facility and defeat the purpose of community-based recovery. The American Planning Association's Policy Guide on Community Residences, which supports residential care facilities, states that residential care facilities should be scattered throughout residential districts rather than being concentrated on any single block or in any single neighborhood. If several residential care facilities are located next to one another, or are placed on the same block, the ability of the residential care facilities to achieve normalization and community integration would be compromised. The same holds true for Group Homes.

Also, the Departments of Justice and Housing and Urban Development have stated that a neighborhood composed largely of residential care facilities could adversely affect individuals with disabilities and would be inconsistent with the objective of integrating persons with disabilities into the community. The California Research Bureau similarly found that facilities should be scattered throughout residential districts, and facilities so densely clustered as to recreate an institutional environment would defeat the purpose of community-based care. Again, the same holds true for Group Homes.

Huntington Beach has a significant number of group homes compared to other communities. According to the California Department of Health Care Services (DHCS) and City records updated in May 2020, there are 65 state-licensed group homes and an additional 112 unlicensed group homes in Huntington Beach, which has a population of approximately 200,259 people (2019 ACS). As a measure of comparison, Sacramento contains only 8 state-licensed group homes. Sacramento's 2019 population was 500,930 people. As set forth above, the City has a significant number of group homes when compared to other cities. Under the current regulations, there are significant portions of the City that can accommodate additional group homes.

In addition, the City has a well-defined Reasonable Accommodation procedure (fully detailed below) that further ensures individuals with disabilities are protected. Specifically, Chapter 17.77 – Reasonable Accommodation Procedures of the Huntington Beach Municipal Code (HBMC) provides an application process and review requirements for a Reasonable Accommodation request from the City's zoning and land use regulations, policies, and practices when necessary to provide an individual with a disability an equal opportunity to use and enjoy a dwelling. Chapter 17.77 ensures that reasonable accommodation requests are processed efficiently without imposing costs on the applicant. The City does not assess a fee for reasonable accommodation requests and does not require a public hearing. The administrative approval of reasonable accommodations is an expatiated, objective decision-making process. The findings the City must make to provide a reasonable accommodation are based on the objective need to provide an individual with a disability an equal opportunity to use and enjoy a dwelling.

The City's Zoning Code treats group homes preferentially over other types of group residential uses occupied by two or more persons not living as a single housekeeping unit (e.g. dormitories, fraternities, sororities, and private residential clubs). The City allows these group homes while dormitories, fraternities, sororities, and private residential clubs are not permitted within residential districts. By providing an opportunity to establish group homes with a special use permit, conditional use permit, or reasonable accommodation to disabled groups, the Zoning Code gives more favorable treatment to disabled groups not living as single housekeeping units than it gives to non-disabled groups that are not living as a single housekeeping unit. Therefore, groups of disabled individuals are distinguished only to the extent they are treated preferentially and to ensure that the City's processes are not a significant constraint.

Program 5D has been included in Section 4: Housing Plan to ensure the permitting process for larger group homes in the Zoning Code will be evaluated to address constraints for persons with disabilities and ensure objectivity in the approval process consistent with State fair housing laws.

Residential Care Facilities

The Group Homes ordinance described above also included provisions for Residential Care Facilities. While Residential Care Facilities are commonly referred to interchangeably with Group Homes, they are separately defined and described within the Zoning Code in accordance with State laws.

A Residential Care Facility is licensed by the State where care, services, or treatment is provided to persons living in a supportive community residential setting. Residential care facilities include, but may not be limited to, the following: intermediate care facilities for the developmentally disabled (Health & Safety Code §§ 1267.8 and 1267.9); community care facilities (Health & Safety Code § 1500 et seq.); residential care facilities for the elderly (Health & Safety Code § 1569 et seq.); residential care facilities for the chronically ill (22 C.C.R. § 87801(a)(5); Health & Safety Code § 1568.02); alcoholism and drug abuse facilities (Health & Safety Code §§ 11834.02—11834.30); pediatric day health and respite care facilities (Health & Safety Code § 1760 et seq.); residential health care facilities, including congregate living health facilities (Health & Safety Code §§ 1265—1271.1, 1250(i), 1250(e), (h)); family care home, foster home, group home for the mentally disordered or otherwise disabled persons or dependent and neglected children (Welfare & Institutions Code §§ 5115—5120). In an effort to protect the populations served by Residential Care Facilities from being exploited or abused, State law requires that care providers be licensed.

The City treats Residential Care Facilities for six or fewer persons as a single-unit residence permitted by-right in all residential-zones (RL, RM, RMH, RH, RMP, and all Specific Plans with a residential or mixed use zone). Residential care facilities for seven or more persons are permitted with a Conditional Use Permit in all residential-zones (RL, RM, RMH, RH, RMP, and all Specific Plans with a residential or mixed use zone). The Conditional Use Permit process provides a path for approval of large (seven or more) residential care facilities to ensure that these facilities are appropriately operated and maintained according to their intended purpose of providing a comfortable living environment for disabled persons. The Conditional Use Permit requirement provides transparency in the approval process and enables objective consideration of a quasi-residential facility operating in a residential zoning district. Since residential care facilities are either permitted by right or with a CUP in all residential zones, the City's approval process is not a constraint to the availability of housing choices for persons with disabilities.

Reasonable Accommodation

Both the Federal Fair Housing Act and the California Fair Employment and Housing Act direct local governments to make reasonable accommodations (that is, modifications or exceptions) to their zoning laws and other land use regulations when such accommodations may be necessary to afford disabled persons an equal opportunity to use and enjoy a dwelling. For example, it may be reasonable to accommodate requests from persons with disabilities to waive a setback requirement or other standard of the Zoning Code to ensure that homes are accessible for the mobility impaired. Whether a particular modification is reasonable may depend on the circumstances. Chapter 17.77 – Reasonable Accommodation Procedures of the Huntington Beach Municipal Code (HBMC) provides an application process and review requirements for a Reasonable Accommodation request.

Purpose and Intent

Chapter 17.77 of Title 17 of the Huntington Beach Municipal Code states that the purpose of the chapter is to establish procedures for individuals with disabilities to make requests for reasonable accommodation in the application of the City's land use, zoning and building standards, regulations, policies, and procedures and to establish criteria for consideration of such requests.

Any person may request a modification or exception to eliminate regulatory barriers and provide a person with a disability equal opportunity to housing of their choice. A person with a disability is any person who has a medical condition, physical disability, or mental disability that substantially limits one or more of the person's major life activities, as those terms are defined in the California Fair

Employment and Housing Act (Government Code Section 12900 et seq.) and Federal Fair Housing Amendments Act.

Application Requirements

Reasonable accommodation in the land use and zoning context means providing individuals with disabilities or developers of housing for people with disabilities, flexibility in the application of land use and zoning and building regulations, policies, practices and procedures, or even waiving certain requirements, when it is necessary to eliminate barriers to housing opportunities. For example, it may be reasonable to accommodate requests from persons with disabilities to waive a setback requirement or other standard of the Zoning Code to ensure that homes are accessible for the mobility impaired. Whether a particular modification is reasonable depends on the circumstances.

Chapter 17.77.040 (Reasonable Accommodation) of the Huntington Beach Municipal Code provides a procedure and sets standards for disabled persons seeking a reasonable accommodation in the provision of housing and is intended to comply with federal and state fair housing laws. Chapter 17.77.040 ensures that reasonable accommodation requests are processed efficiently without imposing costs on the applicant. The City does not assess a fee for reasonable accommodation requests. The applications are approved administratively by the Community Development Director and a public hearing is not required, which helps establish an apolitical and more objective decision-making authority, and results in a more expedited processing. Administrative applications are routinely acted upon within 30 days of receipt of a complete application. As outlined in Chapter 17.77.040, the application shall include the following information:

- A brief written narrative describing the basis for the claim that the individual is considered disabled under the Acts. However, any information related to disability status and identified by an applicant as confidential shall be retained in a manner so as to respect the privacy rights of the applicant and shall not be made available for public inspection. The narrative will also include a description of the reasonable accommodation request and the zoning or building standard, regulation, policy, or procedure from which the reasonable accommodation is being requested. It will also include a statement why the reasonable accommodation request is necessary for the disabled individual to use and enjoy the dwelling.

Approval Process

Reasonable Accommodation requests are approved administratively by the Community Development Director. A public hearing is not part of the application process. No fee is charged to submit an application for a Reasonable Accommodation request. Administrative applications are routinely acted upon within 30 days of receipt of a complete application. The Community Development Director will take action on the application, based on the findings outlined below.

Findings and Decision

In granting a request for reasonable accommodation, the reviewing authority may impose conditions of approval deemed reasonable and necessary to ensure that the reasonable accommodation would comply with the findings required by this chapter. Conditions may include (but are not limited to) those that would ensure that any removable structures or physical design features that are constructed or installed in association with the reasonable accommodation be removed once those structures or physical design features are no longer necessary to afford the disabled individual for whom the reasonable accommodation was granted the use and enjoyment of the dwelling.

Section 17.77.050 of the Huntington Beach Municipal Code states that a request for reasonable accommodation may be approved or conditionally approved if, on the basis of the application, plans, materials, and testimony submitted, the reviewing authority finds that:

- The housing, which is the subject of the request for reasonable accommodation, will be used by an individual protected under the Acts.
- The request for reasonable accommodation is necessary to make specific housing available to an individual protected under the Acts.
- The requested reasonable accommodation will not impose an undue financial or administrative burden on the City.
- The requested reasonable accommodation will not require a fundamental alteration to the nature of a City program, or to the City's zoning or building laws, policies, or procedures.
- For housing located in the coastal zone, a request for reasonable accommodation pursuant to this chapter may be approved or conditionally approved by the City if, in addition to the findings set forth in subsections, it is consistent with the City's certified Local Coastal Program and the California Coastal Act to the extent feasible, and there are no feasible alternatives for providing an accommodation at the dwelling that would provide greater consistency with the certified Local Coastal Program.

Appeal to Findings

Approval of a reasonable accommodation shall become effective 10 days after action by the reviewing authority unless appealed. Appeals of decisions to approve, conditionally approve, or deny a reasonable accommodation request shall be made pursuant to the provisions of Title 24, Chapter 248 of the Huntington Beach Zoning and Subdivisions Code.

The Huntington Beach review and decision process for requests for reasonable accommodation is outlined with clear requirements in the City's Municipal Code. The requirements for approval are objective and do not allow for subjective comments or design requirements as a condition of approval. Therefore, the City's Reasonable Accommodation procedures do not create challenges or barriers to the development of housing accessible for persons with disabilities. Reasonable accommodation generates practical opportunity and increased feasibility for the creation of accessible housing and the City process is not considered a constraint to the development of housing for all persons.

9. Development Fees

Residential developers are subject to a variety of permitting, development, and impact fees in order to access services and facilities as allowed by State law. The additional cost to develop, maintain, and improve housing due to development fees result in increased housing unit cost, and therefore is generally considered a constraint to housing development. However, fees are necessary to provide planning and public services in all jurisdictions, including Huntington Beach.

The location of projects and housing type result in varying degrees of development fees. The presumed total cost of development is also contingent on the project meeting city policies and regulations and the circumstances involved in a particular development project application.

All Development Fees can be found on the City's webpage.

Table 3-7 and **Table 3-8** summarizes the most common planning and development impact fees for the City of Huntington Beach.

Table 3-9: City of Huntington Beach Planning and Development Fees	
Application/Permit	**Fee**
Planning Commission Actions	
Annexation	$39,220 + fully burdened costs *
Coastal Development Permit**	$8,938 *
Conditional Use Permit	
• New Residential	$12,653 *
• Commercial/Industrial/Mixed Use less than ½ Block	$13,457 *
• Alcohol, Dancing or Live Entertainment	$5,823 *
• Mixed Use, ½ Block or Greater	$29,433 *
• Group Homes	$5,051 *
Entitlement Continuance	$650[1] *
Development Agreement	Full Hourly Cost
• Original Contract or Significant Amendment	$34,980 Deposit + costs *
• Minor Amendment	$12,990 *
• Annual Review (PC Hearing)	$4,640 *
• Annual Review (Administrative)	$2,784 *
Entitlement Plan Amendment	
• New Hearing	$6,359 *
• No Change to Conditions – Director Review	$3,474 *
General Plan Amendment (Major)	$61,572 *
General Plan Amendment (Minor)	$34,749 *
Local Coastal Program Amendment	$25,640 *
Revision to Acreage	$6,469 *
Special Permit	$4,975 each *
Tentative Tract Map	$32,212 + $93/lot *
Variance****	$5,299 *
Zoning Map Amendment*****	$37,023 *
• Precise Plan of Street Alignment	$21,077 *
• Mobile Home Park Conversion Review	$54,220 *
Zone Text Amendment (Major)	$47,909 *
Zone Text Amendment (Minor)	$20,127 *
Zoning Administrator Actions	
Coastal Development Permit**	
• Single Family Dwelling	$4,883 *
• All Others	$6,334 *
• Sunset Beach Approval in Concept	$1,479
Conditional Use Permit	$7,303 *
Conditional Use Permit - Fences	$2,418 *

Table 3-9: City of Huntington Beach Planning and Development Fees	
Application/Permit	**Fee**
Entitlement Continuance	$464[1] *
Entitlement Plan Amendment	
• New Hearing	$3,329 *
• No Change to Conditions – Director Review	$2,118 *
Tentative Parcel Map	$7,927 *
Tentative Parcel Map Waiver	$3,484
Tentative Tract Map	$12,813 + $94/lot *
Variance****	$4,835 *
Environmental Review	
Environmental Assessment • Historic Structures • Focused EA	Deposit = Actual Cost based on Time and Material #
Mitigation Monitoring • Mitigated Negative Declaration • Environmental Impact Report	Deposit = Actual Cost based on Time and Material *
Environmental Impact Report (consultant prepared)	Deposit = Actual Cost based on Time and Material*
Final Map Amendment	
Staff Review	
Administrative Permit	$0-$2,410*
Address Assignment	$1,825/project *
Categorical Exclusion Letter (Coastal)	$464 *
CC&R Review	$1,509 *
Certificate of Compliance	$1,425 *
Design Review Board	
• Minor- approved by DRB Secretary • Others	$1,736 * $3,474 *
Extension of Time	$557 *
Final Parcel Map	$1,456
Final Tract Map	$2,080
Initial Plan, Zoning Review (land use changes, zone changes, conceptual plans)	$928 *
Lot Line Adjustment/Lot Merger	$1,206
Preliminary Plan Review • Single Family Residential • Multi-Family Residential up to 9 units • Multi-Family Residential 10+ units • Non-Residential	 $1,291 $2,269 $3,561 $4,184
Site Plan Review • Major – PC Review	 $12,871

Table 3-9: City of Huntington Beach Planning and Development Fees		
Application/Permit	**Fee**	
• Minor– Façade Remodel/Auto Dealerships	$5,313	
Zoning Letter • Flood Verification • Staff Review	 $93 $279	
Zoning Research/Information	$175/hr. (min. 1 hr.)	
Planning Consultation/Meeting Fee (per planner)	$175/hr. (min. 1 hr.)	
Appeals		
To **Planning Commission** • Single family owner appealing decision of own property • Others • Appeal of Director's Decision (PC Public Hearing) • Appeal of Director's Interpretation (PC Non-Public)	 $3,102 * $4,281 * $2,983 * $2,233 *	
To **City Council** (file w/ City Clerk's Office) • Single family owner appealing decision of own property • Others	 $2,353 * $3,778 *	
Affordable Housing In-Lieu Fee	**Ownership Housing**	**Rental Apartments**
3 Unit Projects	$2.54/sq. ft.	$3.58/sq. ft.
4 Unit Projects	$3.38/sq. ft.	$4.77/sq. ft.
5 Unit Projects	$4.23/sq. ft.	$5.97/sq. ft.
6 Unit Projects	$5.07/sq. ft.	$7.16/sq. ft.
7 Unit Projects	$5.92/sq. ft.	$8.35/sq. ft.
8 Unit Projects	$6.76/sq. ft.	$9.55/sq. ft.
9 Unit Projects	$7.61/sq. ft.	$10.74/sq. ft.
10 Unit Projects	$8.45/sq. ft.	$11.93/sq. ft.
11 Unit Projects	$9.30/sq. ft.	$13.13/sq. ft.
12 Unit Projects	$10.14/sq. ft.	$14.32/sq. ft.
13 Unit Projects	$10.99/sq. ft.	$15.51/sq. ft.
14 Unit Projects	$11.84/sq. ft.	$16.71/sq. ft.
15 Unit Projects	$12.68/sq. ft.	$17.90/sq. ft.
16 Unit Projects	$13.53/sq. ft.	$19.09/sq. ft.
17 Unit Projects	$14.37/sq. ft.	$20.29/sq. ft.
18 Unit Projects	$15.22/sq. ft.	$21.48/sq. ft.
19 Unit Projects	$16.06/sq. ft.	$22.67/sq. ft.
20 Unit Projects	$16.91/sq. ft.	$23.87/sq. ft.
21 Unit Projects	$17.75/sq. ft.	$25.06/sq. ft.
22 Unit Projects	$18.60/sq. ft.	$26.25/sq. ft.

Table 3-9: City of Huntington Beach Planning and Development Fees		
Application/Permit	**Fee**	
23 Unit Projects	$19.44/sq. ft.	$27.45/sq. ft.
24 Unit Projects	$20.29/sq. ft.	$28.64/sq. ft.
25 Unit Projects	$21.13/sq. ft.	$29.83/sq. ft.
26 Unit Projects	$21.98/sq. ft.	$31.03/sq. ft.
27 Unit Projects	$22.83/sq. ft.	$32.22/sq. ft.
28 Unit Projects	$23.67/sq. ft.	$33.41/sq. ft.
29 Unit Projects	$24.52/sq. ft.	$34.61/sq. ft.
30+ Unit Projects	$25.36/sq. ft.	$35.80/sq. ft.
Other Fees		
Downtown Specific Plan Fee	$831 per acre	
Traffic Impact Fee	Hourly	
General Plan Maintenance Fee	$0.27 per sq. ft new construction	
Beach Edinger Corridor Fees • Net new commercial or office • Net new industrial • Remodels/façade improvements (commercial) • Remodels/façade improvements (industrial) • New residential units (MFR) • New residential units (SFR) • New hotel room	 $0.30/sq. ft. $0.30/sq. ft. $0.08/sq. ft. $0.08/sq. ft. $300/unit $300/unit $300/room	
Landscape Plan Check (SFD)	$ 683 *	
Landscape Plan Check (Multi-family)	$1,365 *	
Landscape Plan Check (Commercial, Industrial, Tract Map)	$1,365 *	
Mills Act Fee • Application Fee • Annual Fee	 $500 $175	
Public Works -Grading Plan Check and Inspection		
(0-300 cubic yards)	$4,500 Deposit	
(301-5,000 cubic yards)	$8,025 Deposit	
(Greater than 5,001 cy) Max. Deposit	$12,025 Deposit	
Public Works -Public Improvement Plan Check		
Plans and Specifications	$ 0.10 per copy per PRA or actual cost of plans	
Research Requests	Hourly	
Final Parcel Map Check	$3,775 Deposit	
Final Tract Map Check	$5,200 Deposit	
Source: City of Huntington Beach Community Development Department Fee Schedule updated July 1, 2021		
** Includes 6% automation fee* *1.Plus costs for Notice of Publication, if applicable*		

Table 3-10: Development Impact Fees

Land Use	Law Enforcement Facilities	Fire Suppression Facilities	Circulation System (Streets, Signals, Bridges)	Public Library Facilities	Park Land/Open Space & Facilities (No Tract Map)
Detached Dwelling Units (per Unit)	$362.05	$844.11	$2,385	$1,179.72	$16,554.73
Attached Dwelling Units (per Unit)	$746.48	$349.85	$1,597	$866.48	$12,732.84
Mobile Home Dwelling Units (per unit)	$337.64	$1,449.23	$1,248	$708.85	$10,222.88

The estimated total development and impact fees for a typical single-family residential unit, assuming it is not part of a subdivision and is consistent with existing city policies and regulations, can range from $32,283.61 to $37,283.61 . Estimated total development and impact fees for a typical multi-family residential project with ten units, assuming it is consistent with existing city policies and regulations range from $497,533.50 to $502,533.50.

10. State Density Bonus Law

The City's Zoning Ordinance identifies the purpose of a Density Bonus as the granting of density bonus housing units and regulatory concessions and incentives to a developer of a housing development, childcare facilities, or for the donation of land for housing, where the developer agrees to construct a specified percentage of housing for lower income households, very low-income households, moderate income households or qualifying residents. State density bonus law has evolved over time since the City first adopted its Density Bonus Ordinance in 2005. The information contained in the existing Density Bonus Ordinance may be outdated. The City has included a program in **Section 4: Housing Plan** to update the City's Density Bonus Ordinance in accordance with the updated requirements.

Density bonuses are available to four categories of housing developments.

- Very low income units: Five percent of the total units of the housing development as target units affordable to very low-income households; or
- Low Income Units: Ten percent of the total units of the housing development as target units affordable to low-income households; or
- Moderate Income Units: Ten percent of the total units of a newly constructed condominium project or planned development as target units affordable to moderate-income households, provided all the units are offered for purchase; or
- Senior Units: A senior citizen housing development. The density bonus shall be 20%.

The following density bonus calculations in **Table 3-9** and **Table 3-10** will be applied to housing developments that meet the above criteria:

Table 3-11: Density Bonus for Very Low-Income Households	
Percentage Very Low-Income Units	**Percentage Density Bonus**
5	20
6	22.5
7	25
8	27.5
9	30
10	32.5
11	35
Source: City of Huntington Beach Zoning Code, Title 23, 230.14	

Table 3-12: Density Bonus for Low-Income Households	
Percentage Lower Income Units	**Percentage Density Bonus**
10	20
11	21.5
12	23
13	24.5
14	26
15	27.5
16	29
17	30.5
18	32
19	33.5
20	35
Source: City of Huntington Beach Zoning Code, Title 23, 230.14	

Table 3-13: Density Bonus for Moderate Income Households	
Percentage Moderate Income Units	**Percentage Density Bonus**
10	5
11	6
12	7
13	8
14	9
15	10
16	11
17	12
18	13
19	14
20	15
21	16
22	17
23	18
24	19
25	20
26	21

Table 3-13: Density Bonus for Moderate Income Households	
Percentage Moderate Income Units	**Percentage Density Bonus**
27	22
28	23
29	24
30	25
31	26
32	27
33	28
34	29
35	30
36	31
37	32
38	33
39	34
40	35
Source: City of Huntington Beach Zoning Code, Title 23, 230.14	

Until 2021, under Government Code Section 65915, known as the Density Bonus Law, the maximum bonus was 35%. California state law AB 2345 states that all jurisdictions in California are required to process projects proposing up to 50 percent additional density as long as those projects provide the additional Below Market Rate units (BMR) in the "base" portion of the project, unless the locality already allows a bonus above 35 percent. The bill also lowered the BMR thresholds for concessions and incentives for projects with low income BPRs. As of 2021, Government Code Section 65915 authorizes an applicant to receive two incentives or concessions for projects that include at least 17 percent of the total units for lower income households, at least 10 percent of the total units for very low-income households, or at least 20 percent for persons or families of moderate income in a common interest development. It also allows an applicant to receive three incentives or concessions for projects that include at least 24 percent of the total units for lower income households, at least 15 percent of the total units for very low-income households, or at least 30 percent for persons or families of moderate income in a common interest development.

The City's Density Bonus program allows a maximum of 35 percent density increase; however, AB 2345 requires an allowance of up to 50 percent density bonus when the base BMR is proposed. The City has included a program in **Section 4: Housing Plan** to update the City's Density Bonus Ordinance in accordance with this legislation.

11. On/Off-Site Improvements

Site improvements in the City consist of those typically associated with development for on-site improvements (street frontage improvements, curbs, gutters, sewer/water, and sidewalks), and off-site improvements caused by project impacts (drainage, parks, traffic, schools, and sewer/water). Because residential development cannot take place without the addition of adequate infrastructure, site improvement requirements are considered a regular component of development of housing within the City and may also influence the sale or rental price of housing. The majority of cost associated with on, and off-site improvements is undertaken by the City and recovered in the City's development and impact fees.

Specific required improvements that can be found in **Title 25 – Subdivisions** of the Huntington Beach Zoning Code. Common required improvements include:

- Subdividers shall grade and improve the frontage of each parcel to its ultimate adopted geometric section, including street structural section, curbs, sidewalks, driveway approaches and transitions.
- Subdividers shall provide all necessary easements and rights-of-way to accommodate all streets, drainage, flood-control structures and facilities, public utilities, and sewer systems extending beyond the boundaries of the subdivision.
- Subdividers shall pave all streets in compliance with city standards.
- Subdividers shall install all drainage and flood-control structures and facilities. The storm drain system shall be designed for ultimate development of the watershed. The storm drain system shall provide for the protection of abutting and off-site properties that would be adversely affected by any increase in runoff attributed to the development. Off-site storm drain improvements may be required to satisfy this requirement.
- Any improvements shall conform to either the City's adopted Local Coastal Program, General Plan, or any applicable Specific Plan.
- Subdividers shall provide and install adequate sanitary sewer facilities, either within or outside of the subdivision, in compliance with the requirements of the applicable water district.
- Each unit or parcel within the subdivision shall be served by an approved domestic water system.
- Each unit or parcel within the subdivision shall be served by gas (if required), electric, telephone and cablevision facilities.
- All proposed utilities within the subdivision and along frontage streets shall be placed underground consistent with Chapter 17.64 of the Huntington Beach Municipal Code. Existing utilities within the subdivision shall be placed underground unless specifically exempted by Public Utilities Commission regulations.
    - The developer may request that the Planning Commission, or the Zoning Administrator, as the case may be, waive the requirement to underground existing or proposed utilities along frontage streets. The Planning Commission or Zoning Administrator, may, at its discretion, require a fee in lieu of the undergrounding.
- Other improvements such as streetlights, fire hydrants, signs, street trees and shrubs, and monuments, or fees in lieu of any of the foregoing, shall also be required as determined by the City Engineer in accord with this Code and City standards and specifications.
- When office, commercial or industrial uses abut property zoned or used for residential, a six-foot-high solid six-inch concrete block or masonry wall shall be required. If a wall meeting these standards already exists on the abutting residential property, protection from vehicle damage shall be provided by a method approved by the Director. The maximum fence height shall be eight feet at the common property line, subject to the same design standards and setback requirements as specified for six-foot-high fences.
- Landscaping along secondary or larger roads for residential subdivision shall provide an increase landscaped area in the parkway. Landscaped lots along the parkway shall be designated a lettered lot per the City's Municipal Code and maintained by a property owners association or other legal entity for maintenance in perpetuity. Lots shall have a minimum depth of ten feet and may be part of the monument lot. Meandering sidewalks and enhances landscaping shall be encouraged for secondary and major roads and required for arterial or larger roads.

Street and Parkway Improvements are required to comply with Public Works Department Standard Plans. The Standard Plans can be found on the City's website under the Public Works Department page.

Building Codes and Compliance

The City of Huntington Beach's construction codes are based upon the California Code of Regulations, Title 24 that includes the California Administrative Code, Building Code, Residential Code, Electrical Code, Mechanical Code, Plumbing Code, Energy Code, Historical Building Code, Fire Code, Existing Building Code, Green Building Standards Code, and California Referenced Standards Code. These are considered to be the minimum necessary requirements to protect the public health, safety, and welfare of the City's residents. In compliance with State law, the California Building Standards Code is revised and updated every three (3) years. The City uses the newest edition of the California Building Standards Code which is the 2019 edition with an effective date of January 1, 2020.

Code compliance is conducted by the City and is based on enforcement in areas of concern and on a complaint basis throughout the City. The mission of the City's Code Enforcement Division is to protect the health, safety, and welfare of community members by obtaining compliance with the Huntington Beach Municipal and Zoning Code. The Division also seeks to enhance the appearance of neighborhoods and business districts to prevent blight, protect property values and enhance economic conditions. Their goal is to obtain voluntary compliance, whenever possible, by communication and education, while operating in a business-like manner.

12. Local Processing and Permit Procedures

The development community commonly cites the permit processing time as a contributor to the high cost of housing. Depending on the magnitude and complexity of the development proposal, the time that elapses from application submittal to project approval may vary considerably. Factors that can affect the length of development review on a proposed project include the completeness of the development application and the responsiveness of developers to staff comments and requests for information. Approval times are lengthened for projects that are not exempt from the California Environmental Quality Act (CEQA) or require rezoning, a General Plan Amendment, or a Local Coastal Program Amendment. Applicants for all permits or reviews are recommended to request a pre-application meeting with the respective department to discuss City requirements as they apply to the proposed project, the City's review process, possible project alternatives or revisions, and identify information and materials the City will require with the application, and any necessary technical studies and information relating to the environmental review of the project. All entitlement applications are first reviewed by Staff for completeness. Discretionary applications must then receive a recommendation through a staff report prior to a review by the appropriate reviewing body. Many entitlement applications may also require public noticing and a public hearing.

The typical proposal for a single-family or multi-family residential development entitlement review and permit processing varies depending on the complexity of the project as noted above. The review may be 20 business days if only plan check and building permits are required. The process may take up to 12 months if an Environmental Impact Report (EIR), Zone Change, General Plan Amendment, or Local Coastal Program Amendment is required. The City works to limit building permit plan check review to one or two cycles, which assists developers in obtaining a building permit within 2-3 months. The City provides current processing times on their website. The Building and Safety Division webpage provides processing times and various submittal applications required for different scopes of work. Generally, plan check review times for building permits are 20 business days for the first submittal, 10

business days for the second submittal, and 5 business days for the third and any subsequent submittals, if needed.

All permit applications are first reviewed by City Staff for completeness, and discretionary applications must then receive a recommendation through a staff report prior to a review by the appropriate authority. Various applications may also require public noticing and a public hearing. **Table 3-12** shows types of applications and their appropriate authority in the application review process.

Table 3-14: Planning Application Review Process

Type of Application	Public Hearing Required	Community Development Director	Planning Commission	City Council
Certificates of Compliance		X		
Conditional Use Permits	X	X	X	
Development Agreements	X	Advisory	Advisory	X
Final Maps	X	Advisory	Advisory	X
General Plan Amendments	X	Advisory	Advisory	X
Home Occupation Permits		X		
Lot Line Adjustments	X	Advisory	X	X
Parcel Maps	X		X	X
Parcel Mergers	X	Advisory	X	X
Reversions to Acreage	X	Advisory	X	X
Specific Plans	X	Advisory	Advisory	X
Temporary Use Permits		X		
Time Extensions		X		
Tract Maps	X	Advisory	X	X
Variance	X	Advisory	X	X
Vesting Maps	X	Advisory	X	X
Zoning Map Amendments	X	Advisory	Advisory	X

Source: City of Huntington Beach Zoning Code

Permit Processing and Approval Times

Processing times between when a project receives approval and submittal of an application for building permits varies due to a multitude of factors. These including the size of a project, construction type, financing considerations, seasonal factors, engineering, design and architectural complexity. The timeline can from days to weeks, depending on these factors, f the project is small and uncomplicated (e.g., ADU/JADU) it may take just days, compared to months for large-scale, modern construction projects. The City Huntington Beach observes that longer timeframes are necessary for larger, more complicated projects and does view this as a hinderance to the construction of housing or introducing unnecessary delays. In most all cases for current and past residential projects, the timeline from receiving approval to submitting for building permits is solely dictated by the project applicant and not constrained by any City requirements placed upon the applicant.

Conditional Use Permits in Residential Zoning

The purpose and intent of Conditional Use Permits in residential zoning districts, as identified by the Huntington Beach Zoning Code, section 241.02 for use classifications typically having unusual site development features or operating characteristics requiring special consideration so that they may be designed, located, and operated compatibly with uses on adjoining properties and in the surrounding area.

The Conditional Use permit provides for the following required findings:

1. The establishment, maintenance and operation of the use will not be detrimental to the general welfare of persons working or residing in the vicinity nor detrimental to the value of the property and improvements in the neighborhood.
2. The granting of the conditional use permit will not adversely affect the General Plan.
3. The proposed use will comply with the provisions of the base district and other applicable provisions in Titles 20 through 25 and any specific condition required for the proposed use in the district in which it would be located.

Residential Housing is primarily permitted as a matter of right in most residential zones. Projects consisting of five of more units require Zoning Administrator approval and projects of 10 or greater units require review by the Planning Commission. Conditional Use permit requirements focus only on protection of general welfare and not the actual use. Therefore, any conditions may only be imposed pursuant to the above required findings. Therefore, it is reasonable to assume larger scale projects have unique considerations that must be evaluated in the context of adjacent property impacts. While the City requires a Conditional Use Permit process, it is not considered an impediment to the construction of housing, as the conditional use permit process does not deny the use, but rather ensures that development standards or unique site conditions are considered in the design and development process. The Conditional Use Permit therefore is not considered a constraint to the construction of residential uses.

An application for a conditional use permit, meeting all the requirements required by Section 241.02, is then reviewed by the Director to ensure that the proposal complies with all applicable requirements. Additionally, all conditional use permit applications require a public hearing and a public notice of the hearing. The review authority identified in **Table 3-12** above is designated to approve, conditionally approve, or deny applications for conditional use permits in residential zoning districts.

To promote certainty in meeting the findings of conditional use permit review, the City offers mandatory pre-application meetings to assist project applicants through the application process. These meetings provide feedback on the project's ability to meet the objective code requirements and findings. The City has an electronic submittal process for the processing of all planning applications and does not require visiting City Hall to submit applications. This is a convenient 24/7 online HB ACA submittal system.

Supportive housing and transitional housing are considered a residential use of property and shall be subject only to those restrictions and processing requirements that apply to other residential dwellings of the same type in the same zone.

Any applicant may seek relief from the strict application of requirements by submitting a reasonable accommodation application to the Community Development Director setting forth specific reasons as to why accommodation over and above City requirements is necessary under State and Federal laws, pursuant to Chapter 17.77 of the Huntington Beach Municipal Code. As described in more detail in section 8 of this Chapter, in the event that conditional use permit process proves to be a barrier or constraint to the development of housing for disabled, Section 17.77 of the Zoning Code provides

procedures for obtaining reasonable accommodation from the permitting requirements. With a reasonable accommodation, any disabled individual can reside in any district zoned for residential use without the need for a conditional use permit, but rather an alternative, no-cost, and objective reasonable accommodation process.

Fees for Conditional Use Permits are generally a fixed fee per application and are generally consistent with regional averages and are not considered a constraint to housing development. Fees are based upon a nexus study are only charged to cover associated costs of development impacts. The City also offers a homebuilder guide to assist homebuilders and contractors through the entitlement process. Therefore, fees associated with Conditional Use Permits are not considered a constraint to housing development.

As described in the previous section, timelines can range from 20 days to 12 months to process a CUP application, with longer timelines associated with more complicated projects requiring CEQA review, Coastal Development Permits or other state and federal approvals. The City seeks to streamline the timelines for approval by providing a variety of online services and other materials to facilitate streamlined processing. The City provides a summary on the City's website of expected timeframes for all development application and permit types. Generally, the City's entitlement process is similar to adjacent jurisdictions and is not considered a constraint to the development of housing.

Permit Processing

The Zoning Code states that requests for permits, licenses, appeals, amendments, approvals, and other discretionary actions required or allowed require that a permit application form be filled out in its entirety and be submitted to the Community Development Department. In addition, other materials, reports, dimensioned plans, or other information required to take an action on the application must be submitted with the application. A minimum, all development applications, regardless of type, must include an application form, a project/site description, paid fees, general conditions sheet, and a site plan. The application checklist of required items for each type of application is available on the Plan Check Application at the department.

Applications must be determined complete by the Director before they are processed, as outlined in the Development Code, a complete application consists of the following:

- The application form with all applicable information included on, or attached to, the form;
- Other information or forms required for implementation of the CEQA) in compliance with city and state guidelines for the implementation of CEQA;
- A statement indicating that the applicant is the owner of the property or is the legal representative of the property owner(s);
- If the application requires a public hearing, a list of the names and addresses of all owners and occupants within the required noticing area of the property in compliance with Chapter 248 (Notices, Hearings. Findings, and Appeals) of the Zoning Code;
- Payment in full of the required fees and/or deposit for processing the application; and
- Any other information required by the director.

The City conducted outreach meetings to the Building Industry Association (BIA), housing advocates/nonprofit developers, and local housing developers with experience developing projects in the City and Orange County. Participants expressed appreciation for recent improvements in the City's project submittal process. In April 2020, the City began accepting electronic plan submittals for

permits and Planning applications. The participants also noted concerns regarding development application processing times, clarity in development standards, and development fees as potential constraints.

Senate Bill 35

California Senate Bill 35 (SB 35), codified at Government Code Section 65913.41, was signed on September 29, 2017 and became effective January 1, 2018. SB 35 will automatically sunset on January 1, 2026 (Section 65913.4(m)). The intent of SB 35 is to expedite and facilitate construction of affordable housing. SB 35 applies to cities and counties that have not made sufficient progress toward meeting their affordable housing goals for above moderate- and lower-income levels as mandated by the State. In an effort to meet the affordable housing goals, SB 35 requires cities and counties to streamline the review and approval of certain qualifying affordable housing projects through a ministerial process.

When a jurisdiction has made insufficient progress toward their Lower income or Above Moderate income RHNA and/or has not submitted the latest Housing Element Annual Progress Report, a qualifying project is subject to the streamlined ministerial approval process (SB 35 (Chapter 366, Statutes of 2017) streamlining) for proposed developments with at least 50 percent affordability. All projects, that propose at least 50 percent affordable units within Huntington Beach are eligible for ministerial approval under SB 35 as determined by the SB 35 Statewide Determination Summary. To be eligible for SB 35 approval, proposed projects must meet certain criteria, including:

- A multifamily housing development (at least two residential units) in an urbanized area;
- Located where 75% of the perimeter of the site is developed;
- Zoned or designated by the general plan for residential or mixed use residential;
- In a location where the locality's share of regional housing needs has not been satisfied by building permits previously issued;
- One that includes affordable housing in accordance with SB 35 requirements;
- Consistent with the local government's objective zoning and design review standards; and
- Willing to pay construction workers the state-determined "prevailing wage."

A project does not qualify for SB 35 streamlined processing if:

- It is located in a coastal zone, conservation lands, or habitat for protected species;
- It contains prime farmland or farmland of statewide importance;
- It contains wetlands or lands under conservation easement;
- It is located in a very high fire hazard severity zone;
- It contains a hazardous waste site;
- It is located in an earthquake fault zone;
- It is located in a flood plain or floodway;
- It is a site with existing multi-family housing that has been occupied by tenants in the last ten years or is subject to rent control; or
- It is a site with existing affordable housing.[2]

[2] JD Supra Knowledge Center, "How California's SB 35 Can Be Used to Streamline Real Estate Development Projects", Accessed March 26, 2021.

The City of Huntington Beach's streamlined ministerial approval procedure is initiated when projects submit an application specifically requesting SB 35 processing. The City has 60 days to determine if a project meets the criteria to be eligible for SB 35 processing if it proposes 150 or fewer units and 90 days if the project proposes more than 150 units. Once a project is found to be eligible for SB 35 processing, the City must hold a design review or public overview, consider any information requested of the applicant for ministerial review, and reach a final approval within either 90 day from project application submittal for projects with 150 or fewer units or within 180 days from project application submittal for projects with more than 150 units. Since SB 35 projects are ministerial, they do not require public hearings nor are they subject to CEQA. The City can only require that an applicant abide by objective design and planning standards that were in effect before the SB 35 application was submitted. Projects approved under SB 35 will not expire where 50 percent of the units are affordable to households making below 80 percent of the area median income. If a project does not meet the standard above its SB 35 approval will expire after three years. All projects approved under SB 35 shall remain valid for three years or as long as vertical construction has begun and is in process. A one-year extension to the original three-year period may be granted if the project is making progress toward construction. IN July 2021, the City received notifications of tribal consultation for two proposed SB 35 projects. These two projects are the first to be proposed pursuant to SB 35.

13. Infrastructure Constraints

- Another factor that could constrain new residential construction is the requirement and cost to provide adequate infrastructure (major and local streets, water and sewer lines, street lighting, etc.) needed to serve new residential development. In most cases where new infrastructure is required, it is funded by the developer and then dedicated to the City, which is then responsible for its maintenance. Because the cost of these facilities is generally borne by developers, it increases the cost of new construction, with much of that increased cost often "passed on" to the consumer as part of home rental or sales rates.

The City of Huntington Beach's infrastructure requirements are outlined within the City's Municipal Code, Title 12 Streets and Sidewalks, and Title 14 Water and Sewers. Additionally, Huntington Beach has a Public Services and Infrastructure Element in the General Plan and has a Capital Improvement Program (CIP) that that seeks to enhance the quality of life for local residents and businesses. The CIP is a multi-year plan that identifies future public infrastructure and facility improvements within the city and provides information concerning needs, timing, costs, and funding sources. Infrastructure improvements and requirements are standard items throughout the SCAG region and are not considered an unnecessary burden on the development of housing.

Dry utilities are the installation of the electric, telephone, TV, internet, and gas in a community. The City must plan to provide necessary resources, such as electric and gas, to new housing units.

Electricity

Southern California Edison (SCE) provides electricity to the City. According to the California Energy Commission, SCE consumed approximately 80,912 million kilowatts per hour (kWh) of electricity in 2019. Southern California Edison provides renewable energy as part of its energy portfolio, with wind and geothermal providing the most energy of the renewable sources. The City has also installed 2.13 megawatts of solar panels at City Hall and the Central Library, helping to reduce City costs and providing the City more control over its energy supplies. SCE is responsible for providing service to all existing and future development in Huntington Beach.

Natural Gas

The Southern California Gas Company (SCGC) provides natural gas service to Huntington Beach and is the nation's largest natural gas utility provider with more than to 21.8 million consumers across 24,000 square miles throughout Central and Southern California. As public utilities, SCGC is under the jurisdiction of the California Public Utilities Commission (CPUC), which regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipelines system, storage, procurement, metering, and billing. Most of California's natural gas supply comes from out of the state. SCGC is responsible for providing service to residential, industrial, and commercial customers in Huntington Beach.

Water Supply

The City provides water to over 53,000 service connections. The Metropolitan Water District of Southern California (Metropolitan) and the Municipal Water District of Orange County (MWDOC) provide water to Huntington Beach. The City's water comes from a combination of groundwater (approximately three-fourths) and imported water resources (approximately one-fourth) purchased from Metropolitan through the MWDOC. Metropolitan's principal sources of water are the Colorado River and the Lake Oroville watershed in Northern California, and this water is treated at the Robert B. Diemer Filtration Plant located north of Yorba Linda. The Orange County Water District (OCWD) manages the groundwater in the Orange County Basin and allocates a proportion of that groundwater for Huntington Beach.

The Utilities Division of the City Public Works Department oversees and maintains the water infrastructure owned by the City. City crews perform routine maintenance and repairs necessary to keep the system operating at peak performance levels. The City's main source of water supply is groundwater from the Lower Santa Ana River Groundwater Basin, also known as the Orange County Groundwater Basin. Groundwater is currently pumped from eight active wells operated by the City. Water is stored in four storage and distribution reservoirs, also operated by the City, located throughout Huntington Beach. Providing safe water to meet the needs of residents and businesses is one of the primary infrastructure goals for the City, and maintaining adequate, cost-effective, and well-maintained delivery systems is an important part of reaching that goal.

Water Demand

According to the City's 2020 Urban Water Management Plan, total water demand in Huntington Beach is forecasted to increase by roughly 1 percent from 2020 to 2045, with the increase being met using a combination of groundwater sources and imported water based on the OCWD-established Basin Pumping Percentage. **Table 3-13** identifies expected planning area retail demands (i.e., the amount of water used by residential and nonresidential water customers, and unaccounted water loss) through 2045.

Table 3-15: Retail: Total Gross Water Use (2020–2045)

Water Use Sector	2020	2025	2030	2035	2040	2045
Total Acre-Feet per Year	25,966	26,399	26,524	26,339	26,093	26,054

Source: City of Huntington Beach, Urban Water Management Plan, 2020.

A key component of the 2020 UWMP is to provide insight into the City's future water demand outlook. The City's current water demand is 25,996 AFY, met through locally pumped groundwater and

purchased imported water from MWDOC. **Table 3-14** is a projection of the City's water demand for the next 25 years by use type.

Table 3-16: Projected Demands for Potable and Raw Water (2020–2040)

Use Type	2025	2030	2035	2040	2045
Single Family	11,714	11,525	11,339	11,127	11,090
Multi-Family	5,950	5,826	5,731	5,603	5,603
Institutional/Governmental	125	139	142	146	146
Commercial	3,115	3,465	3,551	3,640	3,640
Industrial	588	654	670	687	687
Landscape	3,412	3,412	3,412	3,412	3,412
Losses	1,496	1,503	1,492	1,478	1,476
Total (In Acre-Feet Per Year)	**26,399**	**26,524**	**26,339**	**26,093**	**26,054**

Source: City of Huntington Beach, Urban Water Management Plan, 2020.

As required by state law the City of Huntington Beach will continue to monitor water supply and demand in the updated urban water management plan at least once every five years. Through this monitoring and regular update schedule the City can account for and plan for future water demands to all sectors of the community.

Water Quality

Metropolitan is responsible for providing high quality potable water throughout its service area. Over 300,000 water quality tests are performed per year on Metropolitan's water to test for regulated contaminants and additional contaminants of concern to ensure the safety of its waters. Metropolitan's supplies originate primarily from the Colorado River Aqueduct (CRA) and from the State Water Project (SWP). A blend of these two sources, proportional to each year's availability of the source, is then delivered throughout Metropolitan's service area. Metropolitan's primary water sources face individual water quality issues of concern. The CRA water source contains higher total dissolved solids (TDS) and the SWP contains higher levels of organic matter, lending to the formation of disinfection byproducts. To remediate the CRA's high level of salinity and the SWP's high level of organic matter, Metropolitan blends CRA and SWP supplies and has upgraded all of its treatment facilities to include ozone treatment processes. In addition, Metropolitan has been engaged in efforts to protect its Colorado River supplies from threats of uranium, perchlorate, and chromium VI while also investigating the potential water quality impact of emerging contaminants, N-nitroso dimethylamine (NDMA), and pharmaceuticals and personal care products (PPCPs). While unforeseeable water quality issues could alter reliability, Metropolitan's current strategies ensure the deliverability of high-quality water.

OCWD is responsible for managing the OC Basin. To maintain groundwater quality, OCWD conducts an extensive monitoring program that serves to manage the OC Basin's groundwater production, control groundwater contamination, and comply with all required laws and regulations. A network of nearly 700 wells provides OCWD a source for samples, which are tested for a variety of constituents. OCWD collects 600 to 1,700 samples each month to monitor Basin water quality. These samples are collected and tested according to approved federal and state procedures as well as industry-recognized quality assurance and control protocols.

Wastewater

The Utilities Division of the City Public Works Department oversees and maintains the wastewater infrastructure owned by the City. City crews perform routine maintenance and repairs necessary to

keep the wastewater collection system operating at peak performance levels. The City owns and maintains most sewer collection pipelines, although many of the pipelines in the Sunset Beach area are owned and maintained by the Sunset Beach Sanitary District (SBSD). The SBSD contracts with the City to convey all sewage collected by the SBSD through City pipelines to the OCSD for treatment. All sewage collected by City pipelines is transported to OCSD collection mains and is then transported to OCSC Treatment Plant No. 2 at Brookhurst Street and Pacific Coast Highway. Funding upgrades and regular maintenance of the wastewater system are challenges faced by many communities, and the City is dedicated to keeping wastewater collection and treatment infrastructure effective and cost-efficient.

The City's sewer system includes 360 miles of sewer lines ranging from 6 inches to 30 inches in diameter, 10,000 manholes and 27 lift stations. OCSD has an extensive system of gravity flow sewers, pump stations, and pressurized sewers.

Stormwater Management

The Orange County Flood Control District coordinates with the City's storm drainage system to accommodate stormwater runoff and prevent flooding.

The Storm Water Maintenance Division is responsible for cleaning the 135 miles of storm water pipes as well as the 1,700 catch basins that can fill with rain, trash or materials from residents and businesses. This function is extremely important, as without proper storm water control, some areas of the City may flood during storms.

Utilities Operations is responsible for maintaining 15 runoff water pump stations. During dry weather, all water entering pump stations is diverted into the sewer system. If the runoff water were not diverted, it would have been pumped into a County channel that drains directly into the ocean. This diversion is done to help keep our ocean and beaches cleaner.

Fire, Marine Safety and Emergency Medical Services

The Huntington Beach Fire Department (HBFD) provides fire, technical rescue, hazardous materials, and marine safety response and emergency medical services for the City. In addition to emergency response, the HBFD provides prevention services, including construction plan review and inspections, fire safety inspections, and public education. Fire station locations and response vehicle allocation provides effective response to emergency calls in the City a majority of the time. The HBFD is dedicated to providing the highest quality fire, marine safety, and emergency medical services to protect its community. The HBFD has standards for both fire and emergency medical services and strives to adhere to them at all times. Tailoring these standards to the Huntington Beach service area, utilizing modern facilities and advanced technology, and being involved in development and right-of-way projects help to ensure continued fire and emergency medical services.

The Emergency Response Division provides a professionally trained and well-equipped emergency force for fire, medical, rescue, and hazardous materials incidents. Eight fire stations are strategically located to provide quick emergency response. Paramedic engine companies are located in each station and staffed by four personnel, a configuration that allows the department to meet the needs of the City's rapidly increasing annual call volume. Additionally, two truck companies, a State Office of Emergency Services engine, a hazardous materials response vehicle, a mobile decontamination unit, an urban search and rescue/light and air vehicle, six emergency medical transport units and a Battalion Chief/shift commander complete the 24-hour emergency response capabilities.

The primary goal and purpose of Marine Safety is to provide quality open water and beach safety through education, prevention, and emergency response. Marine Safety provides year-round lifeguard services on the City's beach, including medical aid and code enforcement services, manages the summer Junior Lifeguard Program and provides staffing as required. Lifeguard services are also provided to Sunset Beach. The Division is comprised of 14 permanent Marine Safety Officers and management staff and is supported by more than 150 recurrent ocean lifeguards.

Police Services

The Huntington Beach Police Department (HBPD) provides law enforcement services for the 27.3-square-mile Huntington Beach area. The HBPD consists of three divisions: Administrative Operations, Uniform, and Investigation Divisions. The Administrative Operations Division provides oversight, management, and administrative duties. The Uniform Division is responsible for patrol, air support, traffic enforcement, and special enforcement. The Investigation Division is composed of the Detective, Special Investigation, and Jail Bureaus, providing follow-up on crimes, undercover investigations, and detention facilities, respectively. The Huntington Beach police station is located at City Hall. In addition, three police substations are located on Beach Boulevard, Bella Terra, and 5th Street. The HBPD focuses on providing adequate services to the community it serves. Ensuring plentiful staffing, effective response times, and updated technology are ongoing goals for police services in Huntington Beach

14. Environmental Constraints

Like most Southern California cities, Huntington Beach faces a diverse array of potential natural hazards such as earthquakes, fire hazards, and flooding hazards. The City of Huntington Beach plans and engages mitigation techniques through the City's Local Hazard Mitigation Plan and Natural and Environmental Hazards Element. Environmental Hazards that may pose a constraint to the development of housing in Huntington Beach are detailed below.

Geologic and Seismic Hazards

Huntington Beach is located in an area considered to be seismically active, similar to most Southern California cities. Active and potentially active faults are located in and adjacent to Huntington Beach.

Seismic Hazards

Like much of California, Huntington Beach is located in a seismically active area. The Newport-Inglewood Fault Zone runs through the community, and other faults, including the San Andreas Fault, the Elsinore Fault, and the San Jacinto Fault, are located within approximately 50 miles. These faults and many others are capable of causing major earthquakes which could impact the planning area.

Faults

The City is susceptible to fault rupture and ground shaking caused by multiple nearby earthquake fault zones. The following are the most significant faults affecting Huntington Beach, although damage is possible from earthquakes along other faults, including faults not previously identified.

The only known fault in Huntington Beach is the Newport-Inglewood fault, which extends from Santa Monica to Newport Beach, and then continues offshore as far south as Oceanside. The last major rupture of this fault, the 1933 Long Beach earthquake, did not cause any surface rupture. Although no onshore surface fault rupture has taken place since 1769, the Newport-Inglewood fault zone is considered capable of generating an earthquake with a magnitude of 6.9 on the Richter Scale.

Figure 3-1.1: Geologic and Seismic Hazard Zones and Identified Sites Map

Other major faults near Huntington Beach include: San Joaquin Hills Fault, Palos Verdes Fault, Puente Hills Fault, Whittier Fault, Elsinore Fault, San Jacinto Fault, and San Andreas Fault. The various faults near Huntington Beach vary in length and Maximum Probable Earthquake strength.

Huntington Beach has experienced numerous ground shaking events from earthquakes in the past and will almost certainly continue to experience such hazards. The proximity of several major fault lines makes it inevitable that Huntington Beach will be affected by a major earthquake in future years.

While there are some candidate sites near or on Alquist-Priolo Zone Faults, all future housing development would be subject to environmental review in order to avoid unnecessary exposure to dangerous environmental conditions. Additionally, modern building codes and construction techniques employed in Huntington Beach as a requirement for building occupancy greatly enhance building safety in the event of a seismic event. These standards and provisions enhance safety and are not viewed as a constraint to the development of housing in the community.

Flooding

Flooding in the planning area can be caused by a number of natural events, including heavy rains and coastal storms. Less often, floods can be caused by high tides (tidal flooding), or tsunamis. Flood events can also happen as a result of infrastructure failure; for example, if a water tank breaks. Flooding is the most common hazard in the planning area.

Areas at an elevated risk of flooding are generally divided into 100-year flood zones and 500-year flood zones. The planning area has areas within both flood zones. As land uses and climate conditions shift and as improvements are made to flood control channels, the size of these flood zones is likely to change.

100-Year Floods

One-hundred-year floods are those that have a 1/100 or one percent chance of occurring in any given year. The 100-year flood is a regulatory standard used by Federal agencies and most states to administer floodplain management programs and is also used by the National Flood Insurance Program (NFIP) as the basis for flood insurance requirements nationwide. Flood insurance rates are based on FEMA designations of flood zones. Standard practice is to avoid or restrict construction within 100-year flood zones, or to engage in flood-proofing techniques such as elevating building pads or constructing walls, dams, and levees. Large portions of the City of Huntington Beach are located within a 100-year flood plain, primarily along wetlands, coastal areas, rivers, channels, and storm drains in the City. Approximately one-third of the City is located within the 100-Year to 500-Year Flood Zone.

Figure 3-2 illustrates the FEMA flood zones that are within the City of Huntington Beach in relation to the sites selected for future housing. Some of the candidate sites identified in the City's adequate sites analysis, outlined in Appendix B, are within a flood zone. However, flooding is not considered a major hazard or constraint to the development of housing. Several housing developments have been constructed within the floodplain and achieved approval by constructing improvements to surrounding flood channel infrastructure. Additionally, all future housing development facilitated by this Housing Element Update would be subject to environmental review and flood protections avoid putting potential residents at risk of environmental conditions.

Figure 3-2: Flood Zones and Identified Sites Map

Source: FEMA, Flood Zones SCAG, published by Southern California Association of Governments, 2019, accessed October 2021.

Hazardous Materials and Waste

Huntington Beach is located in an area considered to be seismically active, similar to most Southern California cities. Active and potentially active faults are located in and adjacent to Huntington Beach.

Methane Hazards

Despite its usefulness for energy production, methane is extremely flammable, potentially explosive, and may cause asphyxiation in high enough concentrations. The City's General Plan has identified Methane Hazard Overlay Districts where soils are likely to contain increased areas of methane. Future development sites located in these districts must be tested for elevated levels of methane in the soil prior to construction, and future development or reuse projects may be required to include vent systems and/or barriers to reduce the level of methane to a safe concentration. There is no difference in requirements between the two districts.

As shown below, Methane District 2 covers a larger area of the City than Methane District 1. While the majority of sites are not in either Methane District, there are a some either adjacent to or in Methane

District 2. While the sites within the district are at higher risk, environmental review would be required before the development of housing would take place. Therefore, environmental impacts from methane would not be significant and would not act as a constraint to housing.

Figure 3-3: Methane Districts and Identified Sites Map

Hazardous Materials

A number of sites identified in the sites inventory may contain hazardous materials storage, containment or within soils. Most soils contamination is related to methane gas, and petroleum related activities that have historically existed in the area. As the City has a long history of petroleum and gas extraction, these activities have not had a demonstrated effect on the feasibility of residential development. The City's Local Hazard Mitigation Plan, General Plan and Municipal Code provide for the necessary protections to ensure the health and safety of residents in the community.

All potential sites for residential development have been generally reviewed for their potential to expose the public to hazardous materials. These include toxic chemicals, flammable and corrosive materials, petroleum and petroleum related products, and unstable or reactive materials. These are typically associated with legacy heavy industrial and manufacturing activities, of which there are no known sites in the inventory containing these activities. Of the industrial sites identified in the inventory, most are light industrial, warehousing and light manufacturing and specific regulation for the sequestration, storage, mitigation and emission of hazardous materials is provided through local, state

and federal regulations. The City believes existing regulations and protections will not preclude development of residential uses on candidate sites identified, should hazardous materials be present

Fire Hazards

Fires can occur in urban environments and can also impact unpopulated areas that may contain brush or grasslands. As an urbanized area surrounded by other urbanized communities, Huntington Beach does not face the wildfire risks that are a threat to other areas of California. Urban fires are the primary fire hazard in the planning area, which can be caused by electrical faults, unattended cooking, or flammable or combustible materials exposed to a heat source, among other causes. Several areas and activities pose unique urban fire challenges due to the age of buildings, the size and density of structures, and the presence of flammable or combustible materials. As a result, the City must continue to address the growing need to defend both persons and property from fires.

Wildland Fires

A wildland fire is an uncontrolled fire spreading through vegetative fuels that may expose or consume structures. Huntington Beach is not located within or adjacent to a wilderness area where wildfires could occur.

Urban Fires

Structural and automobile fires are the most common types of urban fires, and they can be caused by a variety of human, mechanical, and natural factors. Urban fires can spread to other structures or areas, particularly if not extinguished promptly. Proactive efforts, such as fire sprinkler systems, fire alarms, fire resistant roofing and construction methods, can help reduce the frequency and severity of urban fires. In newer structures, these safety requirements help confine structural fires to the building or property of origin. In the older areas of Huntington Beach, where building materials may not be fire rated and structures are not fitted with fire sprinklers, the probability of structural fires spreading to adjacent buildings is much higher. Structural fires are of particular concern in high-density areas, where the potential for fire to spread from one building to the next is greater.

The City's General Plan Safety Element requires the City to identify land designated as a State Responsibility Area for fire services and land designated within a very high fire severity zone. There is no land with either designation located in the areas planned for residential development in Huntington Beach.

C. Affirmatively Furthering Fair Housing (AFFH)

Beginning January 1, 2019, AB 686 established new requirements for all California jurisdictions to ensure that local laws, programs, and activities affirmatively further fair housing. All Housing Elements due on or after January 1, 2021 must contain an Assessment of Fair Housing (AFH) consistent with the core elements of the analysis required by the federal Affirmatively Further Fair Housing Final Rule of July 16, 2015.

Fair housing is a condition in which individuals of similar income levels in the same housing market have like ranges of choice available to them regardless of race, color, ancestry, national origin, age, religion, sex, disability, marital status, familial status, source of income, sexual orientation, or any other arbitrary factor. Under State law, affirmatively further fair housing means "taking meaningful actions, in addition to combatting discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics." These characteristics can include, but are not limited to race, religion, sec, marital status, ancestry, national origin, color, familiar status, or disability.

The Regional Analysis of Impediments (AI) to Fair Housing Choice, prepared for the County of Orange, examines local housing conditions, economics, policies, and practices in order to ensure that housing choices and opportunities for all residents are available in an environment free from discrimination. The AI assembles fair housing information, identifies any existing impediments that limit housing choice, and proposes actions to mitigate those impediments. The Regional AI examines fair housing issues in the County's unincorporated areas and cooperating cities from 2019 to 2024, it includes additional fair housing issues and data for the City of Huntington Beach.

1. Needs Assessment

The AI contains a Countywide analysis of demographic, housing, and specifically fair housing issues for all the cities in Orange County, including Huntington Beach. The City's demographic and income profile, household and housing characteristics, housing cost and availability, and special needs populations were discussed in the previous **Section 2: Community Profile.**

2019-2024- AI Outreach

The Regional AI conducted several outreach workshops and events were hosted, including the following:

- Outreach by the Lawyers' Committee to tenants, landlords, homeowners, fair housing organizations, civil rights and advocacy organizations, legal services provers, social services providers, housing developers, and industry groups;
- Stakeholder and focus group meetings organized by the Lawyers' Committee in Mission Viejo, Westminster/Garden Grove, Santa Ana, and Fullerton;
- Community meetings across Orange County with additional outreach to members of protected classes, including the Latino and Vietnamese communities; and
- Virtual public hearings and City Council meetings.

Housing Element Outreach

Additionally, as a part of the 2021 -2029 Housing Element, the City provided the following community engagement opportunities:

- Three virtual community workshops prior to the release of the public review draft Housing Element
- An online community survey available from April 28-May 31, 2021 (offered both in English and Spanish)
- A publicly available joint Study Session with the Planning Commission and City Council
- Spanish-language outreach and information booth at the June 5, 2021 Oakview Neighborhood Cleanup
- A public review draft of the Housing Element available for comment for 30 days prior to HCD submittal and throughout the 60-day HCD review
- Virtual Public Scoping Meeting for preparation of a Subsequent EIR

The City made diligent efforts inform and engage the community about the update process, and to gather insight into key housing challenges that exist in Huntington Beach. In addition to the workshops, survey, and public review draft, City staff met with local organizations, residential developers, service providers, and affordable housing developers to increase the feasibility of housing at all income ranges in the City. Local organizations and developers include the following:

- Local School Districts
- The Olsen Company
- Red Oak Investments
- First Christian Church
- Refuge Calvary Chapel
- HomeAid OC
- Oakview Family Resource Center
- Beach Cities Interfaith Services
- Shea Homes
- Self-Help Interfaith Program
- Homeless United HB
- Equity Residential
- OC YIMBY
- Building Industry Association of Southern California
- SoCal Multihousing
- St. Bonaventure Church
- SAS Development
- Habitat for Humanity OC
- HB Council on Aging
- Bridge Housing
- Families Forward
- Brookfield Residential
- Orange County Community Housing Corporation
- OC United Way
- Radiant Health Centers

Key challenges and themes identified through community engagement and feedback include the following:

- Preserving existing affordable housing units and increasing the affordable housing stock
- Making existing affordable housing more safe

  Upgrading existing housing

Key issues and constraints related to housing development and access (in order of priority) include:

- Developable space
- Development Standards
- Affordability
- Housing fees
- Access to housing
- Access to funding
- Information availability and lack of resources

Summary of the Community Survey

The Community Survey was distributed starting April 28, 2021 and closed May 31, 2021. In that time, the City collected approximately 2,151. Of the 2,151 survey responses received, 10 were submitted via the Spanish language survey. The Community survey covers various areas of interest such as interest in buying or renting, barriers to buying or renting housing, interest in types of housing, and many more topics. Key issues and constraints related to housing development and access (in order of priority) include:

- Desire for more senior housing
- Desire for more accessible housing units
- Costs and Fees are the biggest barrier to affordable housing development

More details about the Community Survey are in **Appendix C: Summary of Outreach.**

Please refer to Table C-1: Key Issues and Opportunities Identified within Appendix C for a summary of the feedback provided during the community engagement process. Section C.3 – Stakeholder Outreach Meetings includes more information on feedback provided. Section C.6 – Online Community Survey Materials includes detailed information about the community survey, a summary and conclusions of the responses provided, and a table with all responses received. Analysis and information is provided for both the English and Spanish responses received.

Participants at the City's Spanish-language outreach event at the Oakview Neighborhood Cleanup provided the following input:

- The City needs more safe, affordable housing for all income levels
- More police vigilance/surveillance is needed
- Existing low income units should be repaired and upgraded
- Units considered affordable are still not affordable for many

Please refer to Table C-1: Key Issues and Opportunities Identified within Appendix C for a summary of the feedback provided during the community engagement process. Section C.2 – Spanish Speaking Outreach Event Materials includes all event marketing materials, photos from the event, and a complete list of all Spanish-language input received, which is also translated into English.

Fair Housing Issues

Within the legal framework of federal and state laws and based on the guidance provided by the HUD Fair Housing Planning Guide, impediments to fair housing choice can be defined as:

- Any actions, omissions, or decisions taken because of age, race, color, ancestry, national origin, age, religion, sex, disability, marital status, familial status, source of income, sexual orientation, or any other arbitrary factor which restrict housing choices or the availability of housing choices; or
- Any actions, omissions, or decisions which have the effect of restricting housing choices or the availability of housing choices on the basis of age, race, color, ancestry, national origin, age, religion, sex, disability, marital status, familial status, source of income, sexual orientation, or any other arbitrary factor.

Local Contributing Factors Identified within the Regional AI

The Regional AI lists fair housing issues within the County of Orange, the AI also explicitly includes the following fair housing issues in the City.

- **Housing Discrimination-** The Regional AI identified Housing Discrimination as an impediment to fair housing. Housing Discrimination is the refusal to rent to or inform a potential tenant about the availability of housing. Housing discrimination also applies to buying a home or getting a loan to buy a home. The Fair Housing Act makes it illegal to discriminate against a potential tenant/buyer/lender based on that person's race, class, sex, religion, national origin, or familial status. The City's Code Enforcement staff provides fair housing information and referrals to tenants in the field.

- **Racial and Ethnic Segregation-** The Regional AI identified Racial and Ethnic Segregation as an impediment to fair housing. The City has successfully implemented an Inclusionary Housing Ordinance that has resulted in the geographic dispersion of affordable units across the City. Additionally, Section 4: Housing Plan discusses a new Housing Overlay with affordability requirements and expands the existing SP14 Affordable Housing Overlay, which will further assist in the geographic dispersion of new affordable units. The City also established a tenant based rental assistance (TBRA) program to address racial and ethnic segregation in Huntington Beach.

Lending Patterns

Availability of financing affects a person's ability to purchase or improve a home. The analysis of the lending patterns and practices within a community or city help to identify persons who are regularly experience disproportionate roadblocks to home ownership. **Table 3-15** below identifies the lending patterns by race and ethnicity, as well as income category for the Anaheim-Santa Ana-Irvine MSA. According to the data, applicant in the highest income category were more likely to have a loan approved, compared to applicants in the lower income categories. Within each income category, applicants who identified as White consistently had higher rates of approval than applicant of color. Overall, applicants who identified as Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and Black/African American had the lowest rates of loan approval in all income categories.

Table 3-17: Disposition of Loan Applications by Race/Ethnicity – Anaheim-Santa Ana-Irvine MSA/MD

Applications by Race/Ethnicity	Percent Approved	Percent Denied	Percent Other	Total (Count)
LESS THAN 50% OF MSA/MDMEDIAN				
American Indian and Alaska Native	37.9%	38.9%	23.2%	95
Asian	59.6%	22.7%	17.8%	3651
Black or African American	51.6%	23.8%	24.6%	122
Native Hawaiian or other Pacific Islander	68.9%	18.9%	12.2%	90
White	50.0%	24.9%	25.1%	7923
Hispanic or Latino	46.3%	28.8%	24.9%	2317
50-79% OF MSA/MD MEDIAN				
American Indian and Alaska Native	46.2%	26.9%	26.9%	119
Asian	65.5%	13.6%	20.9%	7365
Black or African American	51.5%	24.3%	24.3%	268

Table 3-17: Disposition of Loan Applications by Race/Ethnicity – Anaheim-Santa Ana-Irvine MSA/MD				
Applications by Race/Ethnicity	**Percent Approved**	**Percent Denied**	**Percent Other**	**Total (Count)**
Native Hawaiian or other Pacific Islander	64.4%	19.5%	16.1%	87
White	65.9%	13.3%	20.8%	16661
Hispanic or Latino	60.2%	17.7%	22.1%	5354
80-99% OF MSA/MD MEDIAN				
American Indian and Alaska Native	62.0%	22.0%	16.0%	50
Asian	69.4%	10.0%	20.6%	3335
Black or African American	63.4%	13.4%	23.2%	112
Native Hawaiian or other Pacific Islander	66.7%	15.7%	17.6%	51
White	70.2%	10.7%	19.1%	7289
Hispanic or Latino	65.7%	12.6%	21.8%	1981
100-119% OF MSA/MD MEDIAN				
American Indian and Alaska Native	59.9%	16.9%	23.2%	142
Asian	70.8%	9.1%	20.2%	10984
Black or African American	65.7%	13.2%	21.1%	341
Native Hawaiian or other Pacific Islander	67.8%	15.1%	17.1%	146
White	72.8%	8.6%	18.6%	25106
Hispanic or Latino	66.5%	10.9%	22.6%	5527
120% OR MORE OF MSA/MD MEDIAN				
American Indian and Alaska Native	55.8%	15.5%	28.7%	317
Asian	68.5%	8.9%	22.6%	33015
Black or African American	64.1%	10.5%	25.4%	913
Native Hawaiian or other Pacific Islander	68.1%	10.2%	21.7%	373
White	72.0%	8.0%	20.0%	80404
Hispanic or Latino	67.7%	9.7%	22.5%	9180
Source: Consumer Financial Protection Bureau, Disposition of loan applications, by Ethnicity/Race of applicant, 2020.				

Hate Crimes

Hate crimes are violent acts against people, property, or organizations because of the group to which they belong or identify with. The Federal Fair Housing Act makes it illegal to threaten, harass, intimidate, or act violently toward a person who has exercised their right to free housing choice. **Table 3-16** below displays the reported hate crimes in Huntington Beach between 2014 and 2019. From 2014-2019 a total of 27 hate crimes were reported in the City, which were motivated by race, ethnicity, or ancestry, religion, sexual orientation, disability, and gender identity. As shown in the table, Race and ethnicity as well as religion were the top motives for perpetrators to commit hate crimes.

Table 3-18: City of Huntington Beach, Reported Hate Crimes by Bias Motivation (2015-2019)

Year	Race/ Ethnicity/ Ancestry	Religion	Sexual orientation	Disability	Gender	Gender identity	Total
2014	1	1	0	1	0	0	3
2015	0	2	1	0	0	1	4
2016	3	3	0	0	0	0	6
2017	2	0	0	0	0	0	2
2018	2	2	0	0	0	0	4
2019	4	3	1	0	0	0	8
Total	**12**	**11**	**2**	**1**	**0**	**1**	**27**

Source: Federal Bureau of Investigation, Uniform Crime Reporting. Hate Crime Statistics Report, 2014, 2015, 2016, 2017, 2018, and 2019.

Fair Housing Enforcement and Outreach Capacity

The City of Huntington Beach currently partners with the Fair Housing Foundation to provide fair housing services for the City. The Fair Housing Foundation provides landlord-tenant counseling and mediation, rental housing counseling, and community outreach and education. In addition, the Foundation screens fair housing complaints, investigates through testing, and will engage in conciliation or mediation efforts or refer the complaints to the appropriate administrative agencies where appropriate. Services provided include:

- Responding to discrimination inquiries and complaints, documenting, and investigating discrimination complaints, and resolving or mediating discrimination complaints
- A comprehensive, extensive, and viable education and outreach program, including:
    - Fair Housing Workshop
    - Certificate Management Training
    - Walk-In Clinics
    - Rental Housing Counseling Workshop
    - Community presentations, staff training, and workshops
    - Community events, booths, networking, etc.
- Landlord and tenant counseling on responsibilities and rights
- Rental counseling

The Fair Housing Foundation offers regular walk-in counseling sessions, in addition to resources fairs, informational workshops (accessible in multiple languages), landlord and tenant workshops, and other outreach efforts. The Fair Housing Foundation also provides virtual workshops available online to Huntington Beach residents.

The 2019-2020 Consolidated Annual Performance and Evaluation Report (CAPER) reported that the City provided needed community services to 3,520 low-moderate income persons utilizing $75,000 from CDBG funds during the 2016-2020 Consolidated Plan period. Community services included the Oak View Literacy Program, Children's Bureau, Fair Housing Foundation, and OCCHC Stepping Up. The 2020-2024 Consolidated Plan states that the City of Huntington Beach plans to allocate $1,437,224 CDBG Funds and $432,790 HOME Funds to Housing and Community Development Needs, which includes funding to the Fair Housing Foundation.

Summary of the 2020-2021 Fair Housing Annual Report

The Fair Housing Foundation (FHF) also provides the City of Huntington Beach with an annual report meant to describe their last year in fair housing. The most recent document (2020-2021) reported that

the Fair Housing Foundation helped 222 unduplicated clients with the majority being White--Non-Latinx(85 percent). Of the 222 people assisted, 75 percent were considered very low to low income earners and 51 percent identified as part of a special group. The document also reports the number of clients assisted with Fair Housing cases as well as how each case had been handled. At the time the report was issued in 2021, approximately 57 percent of cases from 2020-21 are pending, 14 percent ended in successful conciliation, and 29 percent concluded with educational resources and options.

The annual report also gives a summary of outreach and events put on by the organization. During the 2020-2021 FY, the Fair Housing Foundation had directly reached approximately 720 people, held 28 virtual workshops, distributed four newsletters, 12 public service announcements, and two press releases. Below is a list of community groups, local institutions, and agencies within the City that the Fair Housing Foundation worked with directly in order to reach as many residents as possible:

- Anges L. Smith Elementary School
- Boys & Girls Club- Oak View Branch
- Build Futures
- Cielo
- Clegg Elementary
- Dr. Ralph E. Hawes Elementary
- Horizon Pregnancy Clinic
- Huntington Beach Adult School
- Huntington Beach Coordinating Council
- Huntington Beach Police Department
- John R. Peterson Elementary
- Kids Club & F.L.Y.
- Moffat Elementary
- Oak View Family Resource Center
- Oak View Collaborative
- Schroeder Elementary
- Seacliff Elementary
- Senior Center in Central Park
- Stacey Middle School

The Fair Housing Foundation has provided the City annual reports with similar information since at least 2013. The City will continue its partnership with the Fair Housing Foundation in order to continue supporting special needs groups and people experiencing issues with fair housing.

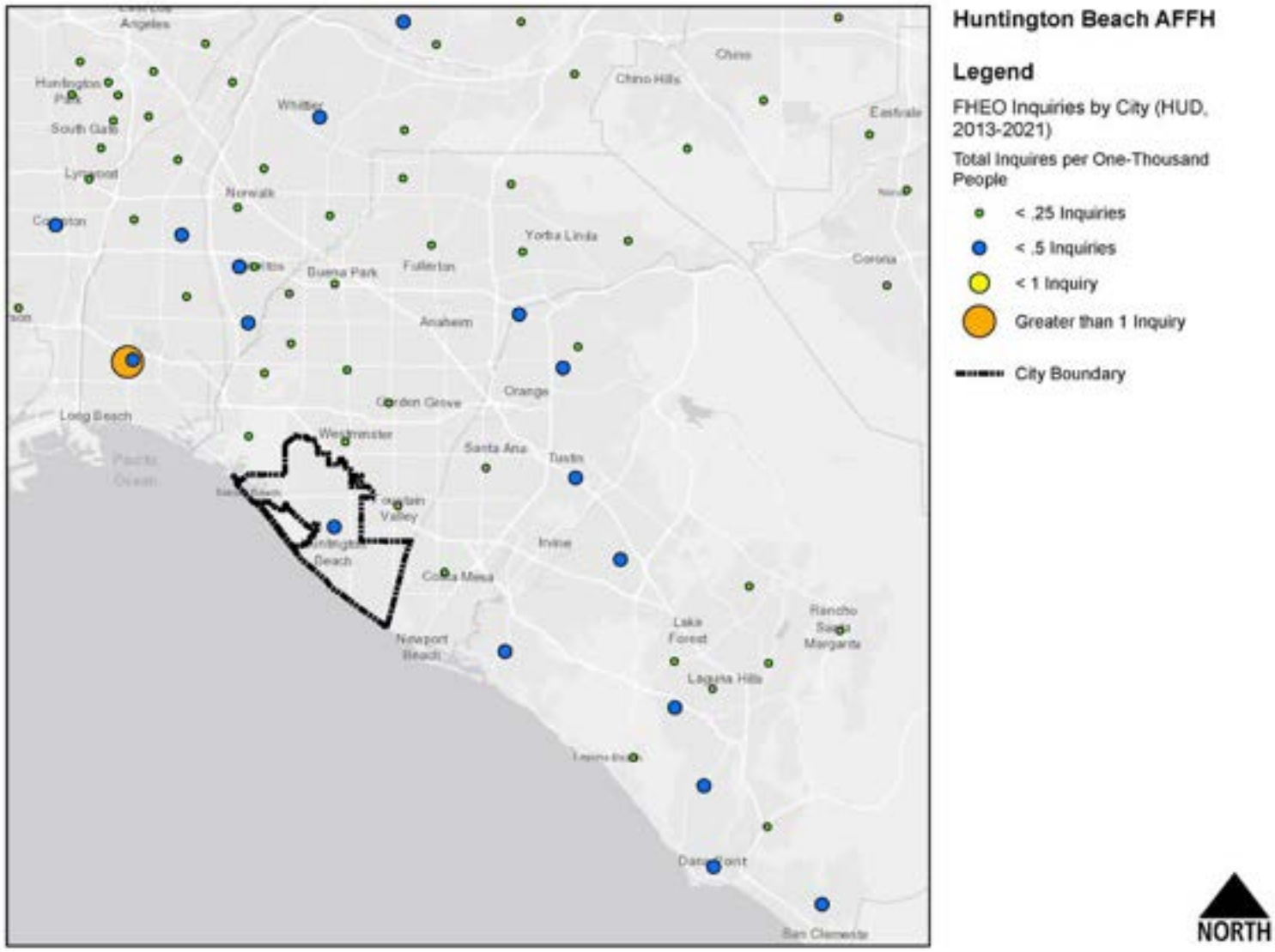
FHEO INQUIRIES BY CITY (HUD, 2013-2021)

Figure 3-4 depicts Fair Housing Inquiries (FHEO) in the City of Huntington Beach from 2013 through 2021. It should be noted that inquiries are not official cases. Inquiries may have been dropped by the resident for a number of reasons, and there is value to identify concerns that residents have about possible discrimination through the analysis of these inquiries.

In the City of Huntington Beach, there were a total of 59 inquiries made over eight years, or 0.29 inquires per one-thousand people. Of the 59 inquiries, 18 were identified as non-valid issues, one was not pursued by the issuant, and 31 failed to respond after the inquiry was made. When inquiries are made, they are categorized and approved into different protected classes such as disability, race, and religion among others. HUD reported ten inquiries related to disability, one related to race, five related to familial status, four related to national origin, and one related to sex. One individual inquiry may be classified in multiple protected groups.

In comparison to surrounding jurisdictions, Huntington Beach's inquires per one-thousand people is generally higher than cities such as Costa Mesa (0.23 per one-thousand), Fountain Valley (0.09 per one-thousand), and Irvine (0.28 per one-thousand). However, Huntington Beach is lower than Newport Beach (0.40) and Long Beach (0.40). Surrounding cities generally fall under <0.5 inquiries per one-thousand people.

Figure 3-4: FHEO Inquiries by City (HUD, 2013-2021)



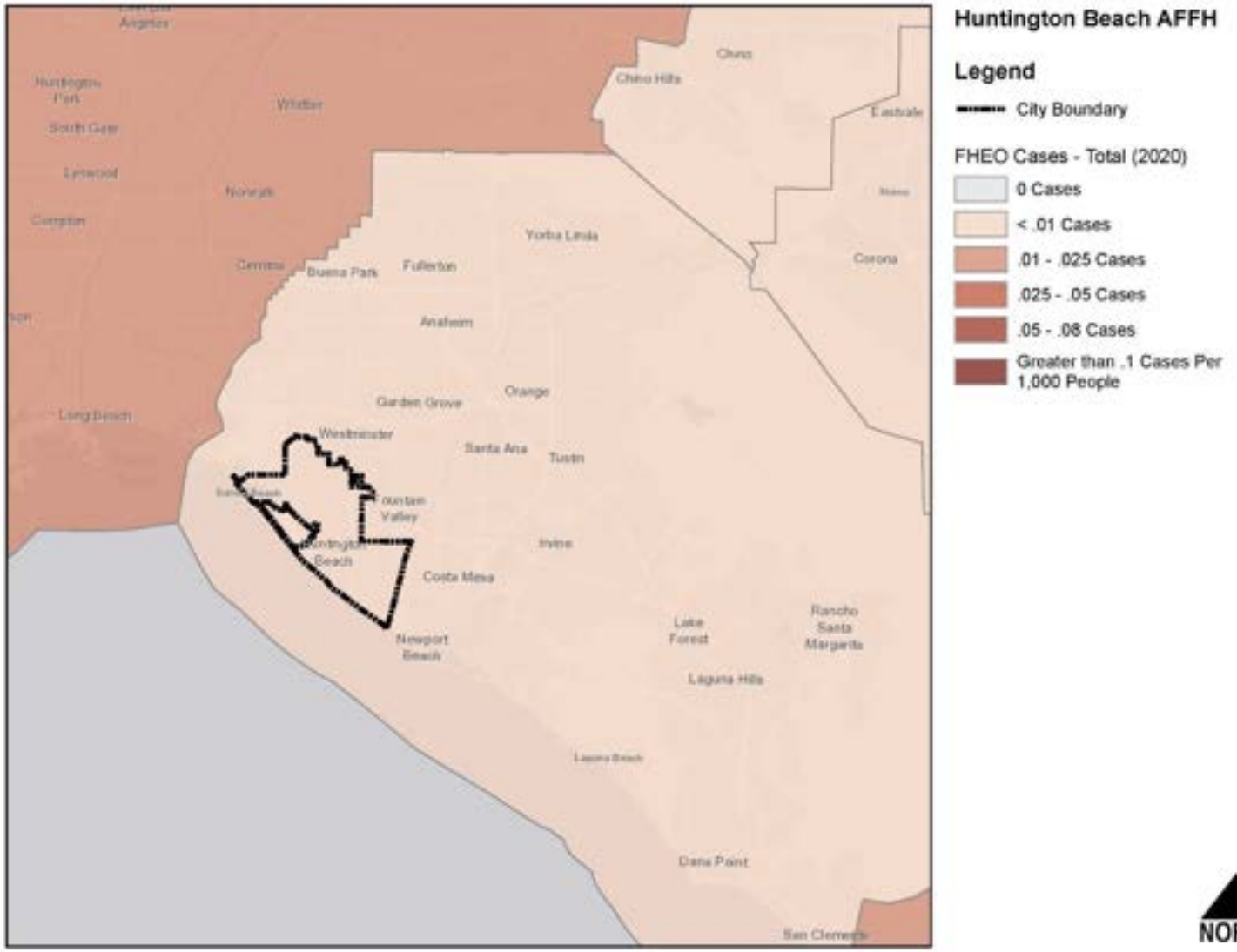
Source: California Department of Housing and Community Development – AFFH Data Viewer

COUNTY OF ORANGE: FHEO CASES TOTAL 2020

Figure 3-5 depicts the amount of Title VIII fair housing cases filed by FHEO from January 1, 2006 through June 30, 2020 in Orange County. Cases are categorized into protected classes. Some of the classes such as race are more specifically broken down (i.e. Race- Asian). It should be noted that one case may fall into multiple protected classes.

In the 14 year data collection period, a total of 28 Title VIII fair housing cases have been filed. Of the 28, approximately three cases identified a racial bias as a barrier to fair housing, 17 identify a disability bias, and four identify a familial status bias. The majority of cases, approximately 61 percent, had identified a disability bias as a barrier to fair housing. Surrounding counties such as Riverside and San Bernardino also experienced a similar number of cases filed.

Figure 3-5: FHEO Cases Total (2006-2020)



Source: California Department of Housing and Community Development – AFFH Data Viewer

Summary of Needs Assessment

The Regional AI, Housing Element Update public engagement, and other data sources referenced throughout this section inform the overall housing needs assessment. This assessment has led to the following conclusions:

- Huntington Beach residents want to increase and preserve the City's affordable housing stock
- Residents want to make existing affordable housing safer
- There is a desire in the City for increased Senior housing
- There is a need to continue and expand the City's response to homelessness

The following fair housing issues occur in the City:

- Outreach and Enforcement: Lack of knowledge of fair housing and associated laws; Insufficient online fair housing material in Spanish.
- Segregation and Integration: Housing mobility for lower income households and limited access to opportunity
- Access to Opportunity: Affordability of housing in high opportunity areas; high rates of housing cost burden; housing opportunities for special needs groups and persons with disabilities
- Disproportionate Housing Needs and Displacement Risk: need to maintain and preserve existing deed-restricted affordable housing units; displacement of residents due to economic pressures; extremely low income housing face the greatest risk of displacement

Additionally, please refer to **Table 4-1: Contributing Factors and Meaningful Actions Matrix** at the end of **Section 4** for a complete list.

2. Analysis of Federal, State, and Local Data and Knowledge

Integration and Segregation Patterns and Trends

The dissimilarity index is the most used measure of segregation between two groups, reflecting their relative distributions across census tracts. The index represents the percentage of the minority group that would have to move to new neighborhoods to achieve perfect integration of that group. An index score can range in value from 0 percent, indicating complete integration, to 100 percent, indicating complete segregation. An index number above 60 is considered to show high similarity and a segregated community.

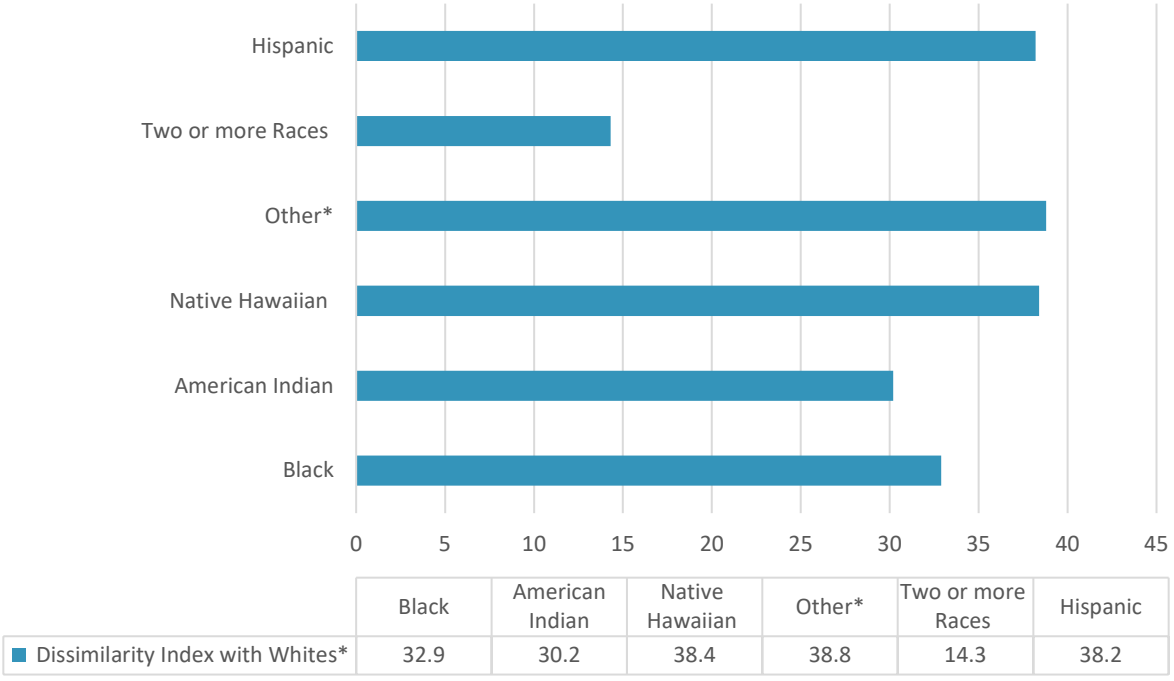
It is important to note that segregation is a complex topic, difficult to generalize, and is influenced by many factors. Individual choices can be a cause of segregation, with some residents choosing to live among people of their own race or ethnic group. For instance, recent immigrants often depend on nearby relatives, friends, and ethnic institutions to help them adjust to a new country.[3] Alternatively, when white residents leave neighborhoods that become more diverse, those neighborhoods can become segregated. Other factors, including housing market dynamics, availability of lending to different ethnic groups, availability of affordable housing, and discrimination can also cause residential segregation.

Figure 3-6 shows the dissimilarity between each if the identified race and ethnic groups and Huntington Beach's White population. The higher number indicates higher levels of segregation among those racial and ethnic groups. The White (non-Hispanic or Latino) population makes up most of the City's population at approximately 71.1 percent according to the 2019 ACS estimates. According to the figure, the highest levels of segregation within Huntington Beach are Other Race (38.8), Native Hawaiian (38.4), Black (32.9), Hispanic (38.2) and Native Indian (30.2). The scores correlate with the percentage of people within that racial or ethnic group that would need to move into a predominately White census tract in order to achieve a more integrated community. For instance, 30.2 percent of the Native Hawaiian population would need to move into predominately white census tract areas to achieve "perfect" integration.

The Department of Housing and Community Development (HCD) considers dissimilarity index scores above 30 as moderate segregation and scores above 60 high segregation. According to **Figure 3-6** below, while the City of Huntington Beach has no racial or ethnic populations with a dissimilarity index above 60, all populations (with the exception of the two or more races population) have a score above 30, meaning all groups experience moderate segregation from the White population. While segregation may be a result of ethnic enclaves or persons of similar cultures living in community, there is often increased likelihood segregated populations will have fewer access to essential resources. As a part of Huntington Beach's efforts to further fair housing, the City will consider increased targeted outreach to the City's minority residents.

[3] Allen, James P. and Turner, Eugene. "Changing Faces, Changing Places: Mapping Southern California". California State University, Northridge, (2002).

Figure 3-6: Dissimilarity Index with Whites – Huntington Beach– 1990-2020



	Black	American Indian	Native Hawaiian	Other*	Two or more Races	Hispanic
Dissimilarity Index with Whites*	32.9	30.2	38.4	38.8	14.3	38.2

Source: Census Scope, Social Science Data Analysis Network

Racial and ethnic predominance signifies a majority of the population is of the same race or ethnicity. Predominance can range anywhere from having a slim gap (less than 10 percent) to predominant (greater than 50 percent). In areas where racial predominance is high, minority racial and ethnic groups can experience discrimination and can often be looked over during the planning process. As shown in **Figure 3-7** below, all census tracts with the exception of two (Census Tract: 060590994.02 and 060590997.03) have populations with White predominance at or above what is considered a "sizeable gap". As census tracts get closer to the coast, White predominance increases. Median income trends tend to increase in a similar way to increasing White predominance. **Table 3-16** shows that the average White resident of Huntington Beach makes approximately $56,472 as an individual, which is about $6,000 more than the next most affluent racial group (Asian).

Census Tract 060590994.02 has a sizeable Hispanic majority and is one of the less affluent areas of the City. It is located in the center of the City, southeast of the Warner Avenue and Goldenwest Street intersection and northwest of the Talbert Avenue and Beach Boulevard intersection. The area is characterized by a mixture of park space (Huntington Beach Central Park), Ocean View High School, industrial centers, commercial businesses and single-family neighborhoods. **Figure 3-9** shows that median incomes of census block groups within this census tract are some of the lowest in the City. Additionally, **Table 3-16** shows that Hispanic residents make the least individually when compared to other racial and ethnic groups even though they make up about 20 percent of the City's residents. Lack of affordable housing in other parts of the City may isolate lower income earning, Hispanic households in census tracts that have more affordable housing, which highlights income segregation in the communities. The local contributing factor to this segregation is low housing mobility within the City and is further addressed later on in this section (AB 686).

Census Tract 060590997.03 has a slim Asian majority. It is located on the northeastern border of the City, northeast of the Edinger Avenue and Union Pacific intersection. This area is characterized by

high density, mixed-used housing and the Bella Terra Outdoor Mall. Residents within this census tract have a moderate median income compared to the rest of the City,

Figure 3-7a shows neighborhood segregation for Huntington Beach and surrounding communities as reported by the UC Berkeley Urban Displacement Project. As shown, 13 census tracts report Latinx-White racial typology and three census tracts report Asian-White racial typology. The remainder of the City reports Asian-Latinx-White. Census tract 60590994.02 has the highest Latinx population percentage at 65.9 percent and the nearby census tract 60590992.46 has the highest Asian population percentage at 21.2 percent. Additionally, **Figure 3-7c** illustrates the diversity index for the City of Huntington Beach and surrounding communities by block group. The figure shows the city progressively becomes less diverse closer to the coast. Eight pockets of low diversity exist throughout the City, closer to the coast than to the north-east.

Overall, the City of Huntington Beach is predominantly white and high income earning. However, two census tracts within the City that are predominantly non-white and are not high income earning comparatively to the rest of the City.

Compared to the region, the coastal cities of Orange County tend to have higher proportions of White residents, while the cities more inland tend to have populations that are mostly comprised of people of color.

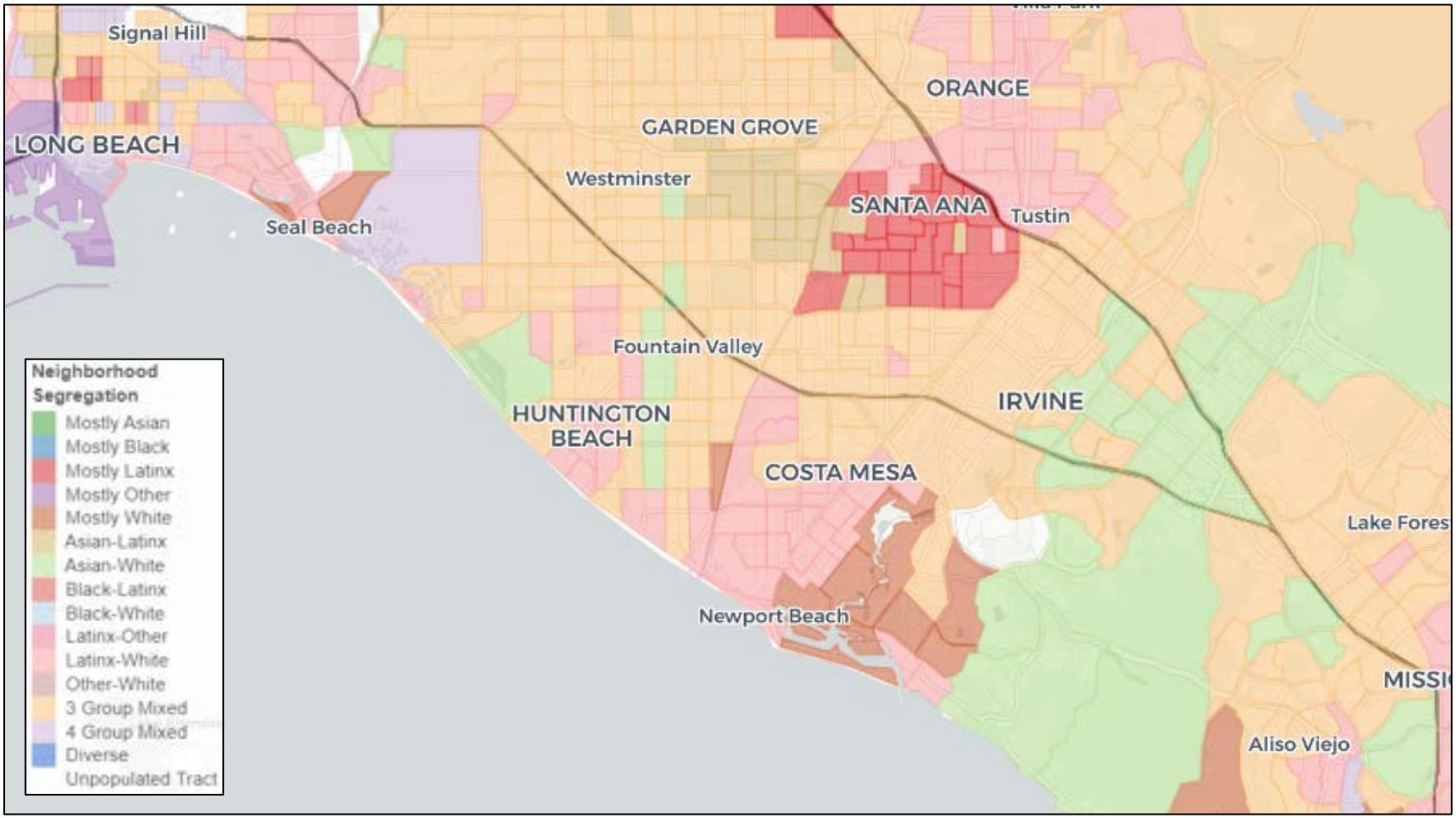
Neighboring cities directly east such as Westminster and Fountain Valley are characterized by populations with Asian predominance that are not seen in the City of Huntington Beach. Other cities to the east and the northeast such as Santa Ana, Orange, and Anaheim are typically characterized by populations with higher proportions of Hispanic residents.

Table 3-19: City of Huntington Beach, Individual Income by Race and Ethnicity, 2019

Racial or Ethnic Group	Population	Percent of Population	Median Income
White	142,449	71.1%	$53,533
Black or African American	2,846	1.4%	$40,039
American Indian and Alaska Native	1,024	0.5%	$32,459
Asian	24,430	12.2%	$50,068
Native Hawaiian and Other Pacific Islander	994	0.5%	$48,938
Some other race	17,146	8.6%	$22,983
Two or more races	11,370	5.7%	$28898
Hispanic or Latino origin (of any race)	40,404	20.2%	$28,188
White alone, not Hispanic or Latino	123,099	61.5%	$56,472

Source: ACS 2019, 5-Year Estimate, S1902

Figure 3-7a: Neighborhood Segregation

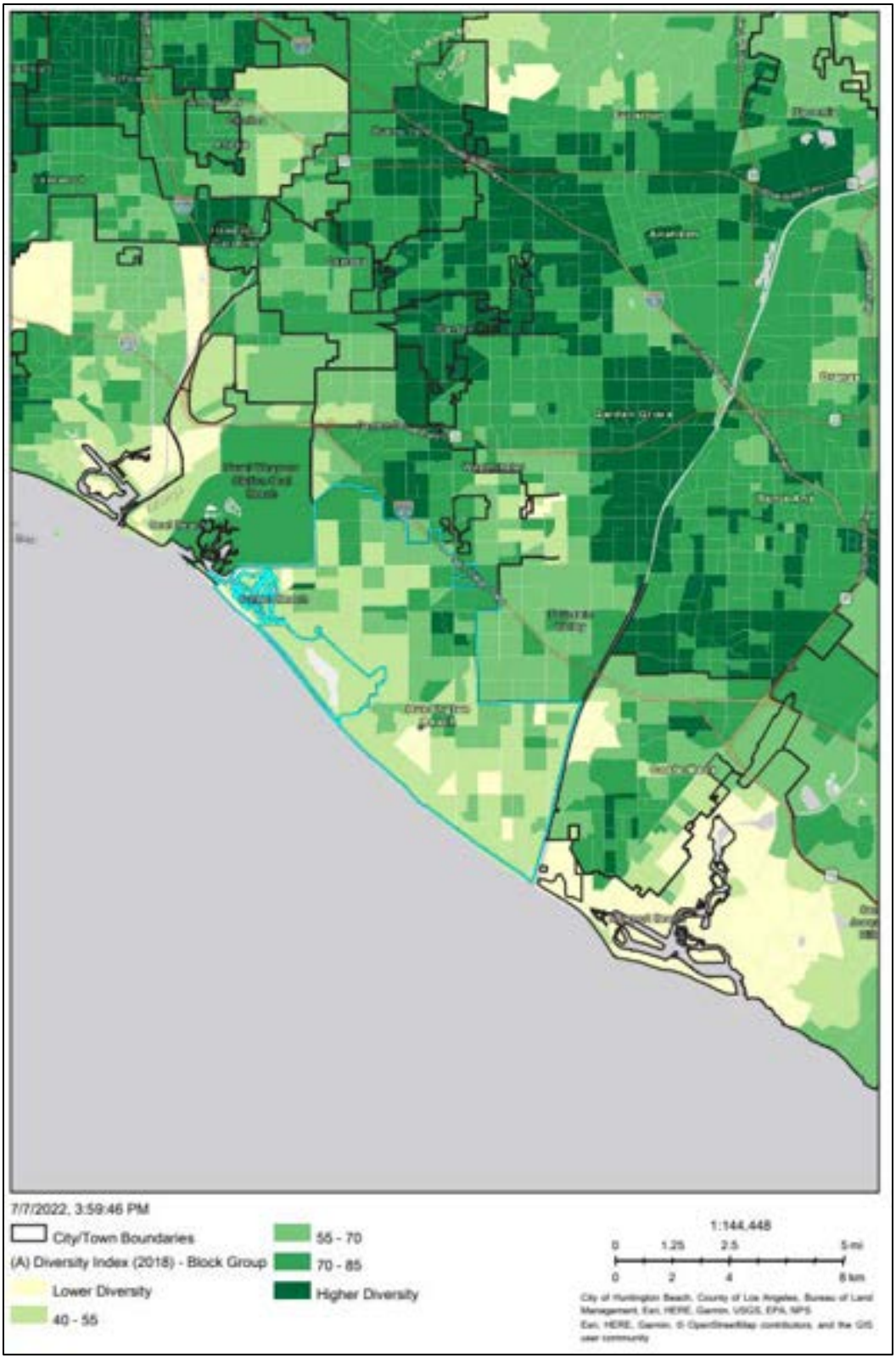


Source: Urban Displacement Project, University of California Berkeley.

Figure 3-8b: Racial Predominance in the City of Huntington Beach

Source: California Department of Housing and Community Development – AFFH Data Viewer.

Figure 3-9c: Diversity Index



Source: California Department of Housing & Community Development

Racially or Ethnically Concentrated Areas of Poverty (R/ECAP)

To assist communities in identifying racially/ethnically concentrated areas of poverty (R/ECAPs), HUD has developed a census tract-based definition of R/ECAPs. The definition involves a racial/ethnic concentration threshold and a poverty test. The racial/ethnic concentration threshold is straightforward: R/ECAPs must have a non-white population of 50 percent or more. Regarding the poverty threshold, Wilson (1980) defines neighborhoods of extreme poverty as census tracts with 40 percent or more of individuals living at or below the poverty line. Because overall poverty levels are substantially lower in many parts of the country, HUD supplements this with an alternate criterion. Thus, a neighborhood can be a R/ECAP if it has a poverty rate that exceeds 40% or is three or more times the average tract poverty rate for the metropolitan/micropolitan area, whichever threshold is lower.

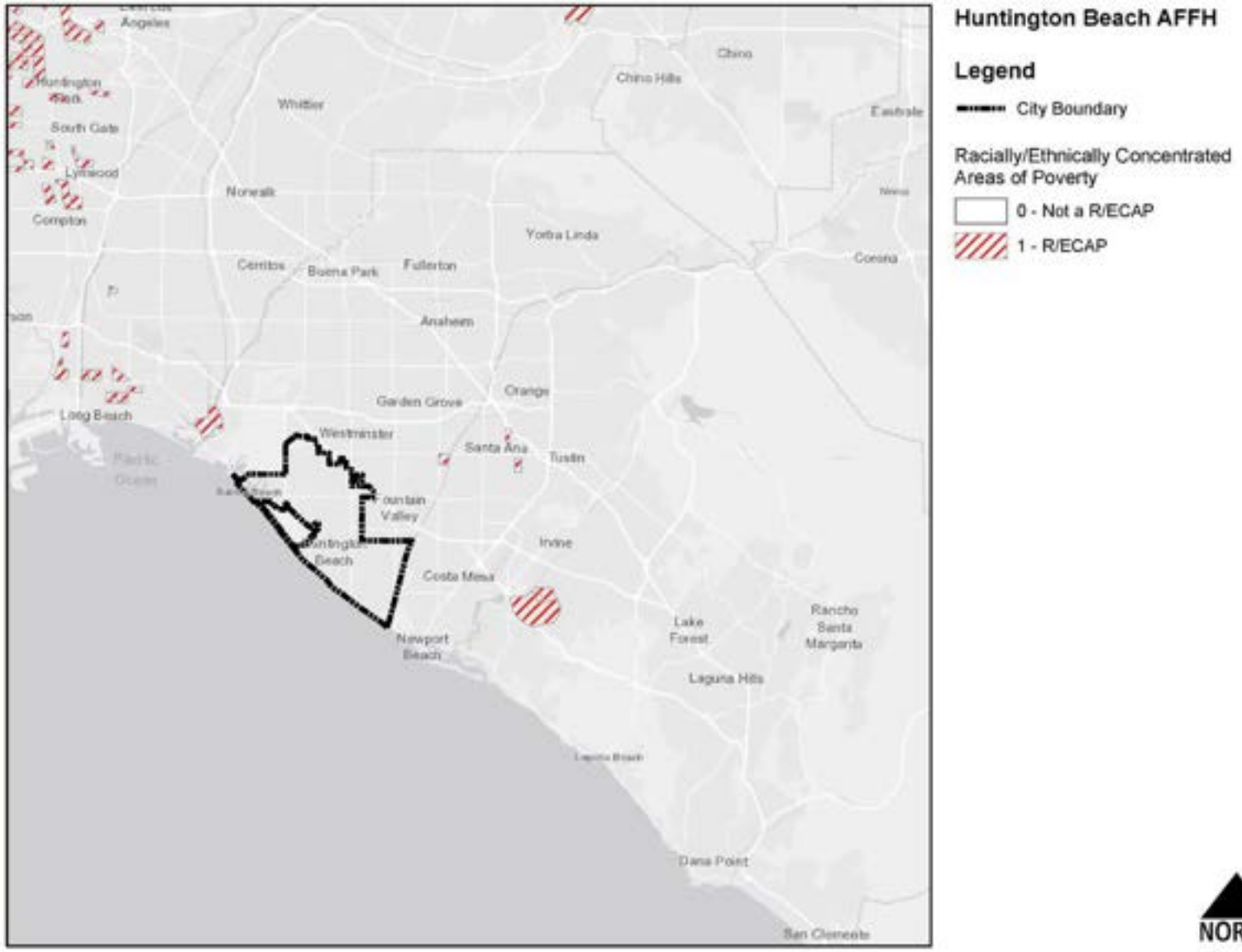
Location of residence can have a substantial effect on mental and physical health, education opportunities, and economic opportunities. Urban areas that are more residentially segregated by race and income tend to have lower levels of upward economic mobility than other areas. Research has found that racial inequality is thus amplified by residential segregation.[4] However, these areas may also provide different opportunities, such as ethnic enclaves providing proximity to centers of cultural significance, or business, social networks, and communities to help immigrants preserve cultural identify and establish themselves in new places. Overall, it is important to study and identify these areas in order to understand patterns of segregation and poverty in a City. The 2020 AI performed an analysis of R/ECAPs within Orange County and found four R/ECAPs, none of which were found in Huntington Beach, all are located in Irvine or Santa Ana.

Figure 3-8 below displays the R/ECAP analysis of the Huntington Beach area. The low poverty index captures the depth and intensity of poverty in a given neighborhood. The index uses both family poverty rates and public assistance receipt, in the form of cash-welfare, such as Temporary Assistance for Needy Families (TANF). The poverty rate and public assistance for neighborhoods are determined at the census tract level, and the higher the score, the less exposure to poverty in a neighborhood. HUD provides data for the entire Orange County region, and not Huntington Beach specific, as shown in the map. **Figure 3-8** shows that Huntington Beach has a pocket of concentrated Hispanic population towards the central region of the City (refer to Section 3.C.2 for details at the Census Tract level). The majority of the City is shown to be mostly made up of White, Non-Hispanic, population.

There are no R/ECAP areas within the City and no (R)TCAC areas of High Segregation and Poverty in the City shown in **Figure 3-8**. The area shown in Figure 3-9 is a TCAC low resource area. This area is characterized by Hispanic predominance and is one of the lowest earning areas in the City. **Figure 3-8** also shows one R/ECAP in the nearby City of Irvine surrounding the University of California – Irvine campus. According to the AI, it is likely that this area qualifies as a R/ECAP due to the high proportion of students in the census tract. The City of Huntington Beach is committed to increasing housing mobility opportunities for City residents and in Orange County as a whole. **Chapter 4: Housing Plan** of this Housing Element outlines housing opportunity, affordable housing, and fair housing strategies to increase opportunities to all households.

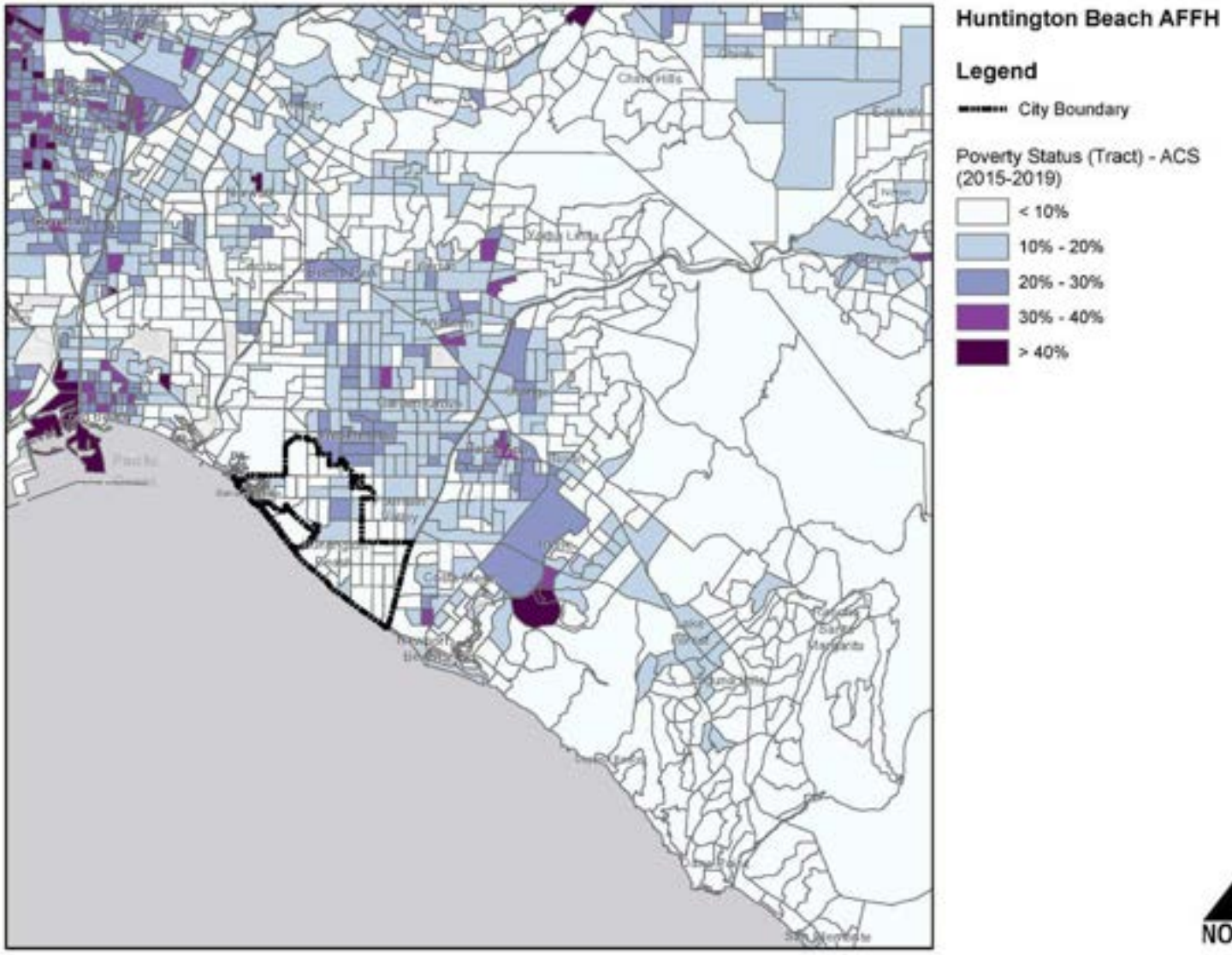
[4] Orange County, Analysis of Impediments to Fair Housing Choice, April 2020 DRAFT.

Figure 3-10: Low Poverty Index with Race/Ethnicity and R/ECAPs, Huntington Beach



Source: California Department of Housing and Community Development – AFFH Data Viewer

Figure 3-11: ***Poverty Status (ACS, 2015-2019)- Tract***



Source: California Department of Housing and Community Development – AFFH Data Viewer

Racially Concentrated Areas of Affluence

In addition to identifying and analyzing racially/ethnically concentrated areas of poverty (R/ECAPs), it is also important to analyze racially concentrated areas of affluence (RCAAs) to better evaluate patterns and address fair housing issues. Based on research performed by scholars at the University of Minnesota Humphrey School of Public Affairs[5], RCAAS are defined as Census tracts where 80 percent or more of the population is white and the median household income is $125,000 or greater.

A standard definition for RCAAs has yet to be published by HCD or HUD and thus, this fair housing assessment uses the percent non-Hispanic White population and median household income identified by scholars at the University of Minnesota Humphrey School of Public Affairs as proxies to identify potential areas of affluence.

Table 3-17 below shows local (Huntington Beach) and regional (Orange County) context for the median household incomes of white residents.

Table 3-20: Median Household Income by Race

Race	Huntington Beach		Orange County	
	Median Income	Population	Median Income	Population
White	$97,434[1]	77.5%	$94,082[1]	67.1%
All Households	$95,048	--	$90,234	--

Notes: 1. Median household income in the past 12 months (in 2019 inflation-adjusted dollars).
Source: American Community Survey, 5-Year Estimates, 2019.

The City of Huntington Beach has a few areas with a high White population located in the southeastern and southwestern parts of the City. The area also reports a larger percentage of households who earn a median annual income of at least $125,000. However, there is no overlap of high racial concentrations (those who identify as White) and high incomes which results in no RCAA classification, as shown in **Figure 3-10**.

[5] Racially Concentrated Areas of Affluence: A Preliminary Investigation. University of Minnesota. Edwards Goets, Damiano, Williams. 2019.

Figure 3-12: Racially Concentrated Areas of Affluence (RCAA)

Source: California Department of Housing and Community Development – AFFH Data Viewer

Disparities in Access to Opportunity

- Regional Opportunity Index (ROI)

The UC Davis Center for Regional Change and Rabobank partnered to develop the Regional Opportunity Index (ROI) intended to help communities understand local social and economic opportunities. The goal of the ROI is to help target resources and policies toward people and places with the greatest need to foster thriving communities. The ROI incorporates both "'people' and 'place' components, integrating economic, infrastructure, environmental, and social indicators into a comprehensive assessment of the factors driving opportunity."

The ROI: People is a relative measure of people's assets in education, the economy, housing, mobility/transportation, health/environment, and civic life as follows:

- **Education Opportunity:** Assesses people's relative success in gaining educational assets, in the form of a higher education, elementary school achievement, and regular elementary school attendance.
- **Economic Opportunity:** Measures the relative economic well-being of the people in a community, in the form of employment and income level.
- **Housing Opportunity:** Measures the relative residential stability of a community, in the form of homeownership and housing costs.
- **Mobility/Transportation Opportunity:** Contains indicators that assess a community's relative opportunities for overcoming rural isolation.
- **Health/Environment Opportunity**: Measures the relative health outcomes of the people within a community, in the form of infant and teen health and general health.
- **Civic Life Opportunity:** A relative social and political engagement of an area, in the form of households that speak English and voter turnout.

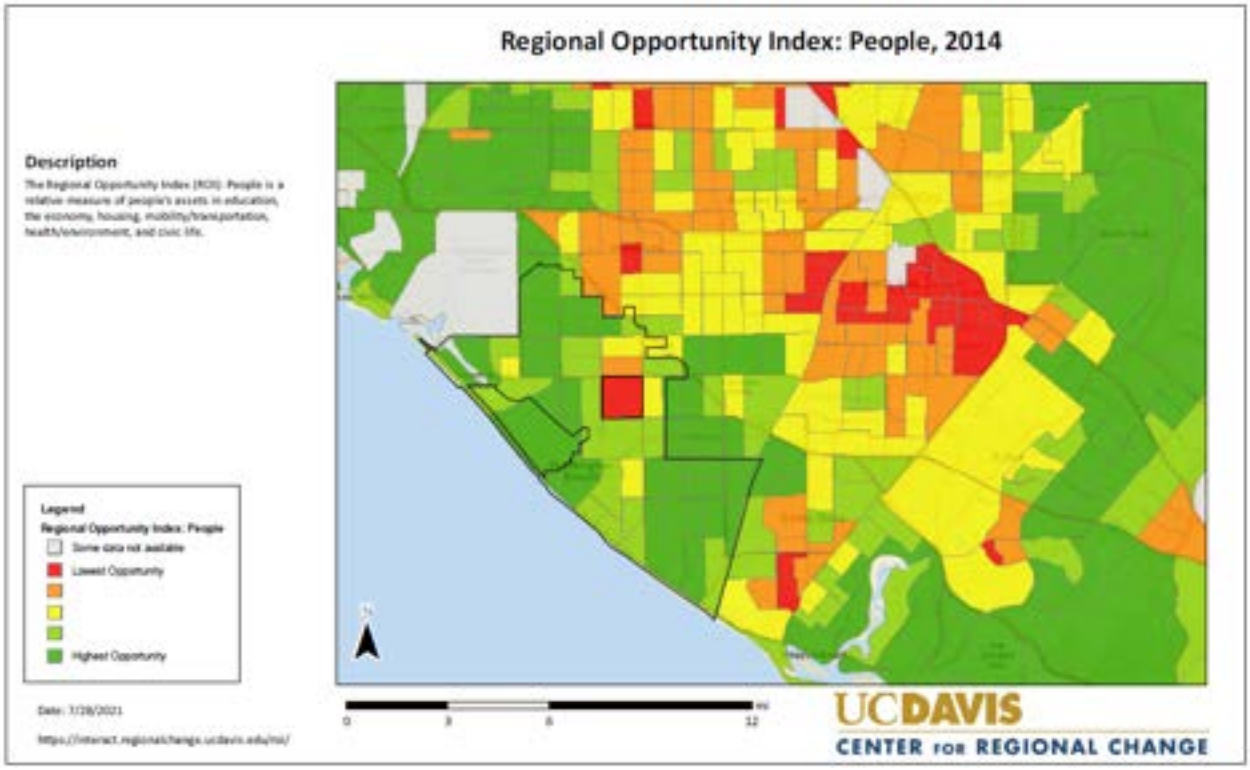
The ROI: Place is a relative measure of an area's assets in education, the economy, housing, mobility/transportation, health/environment, and civic life.

- **Education Opportunity:** Assesses a census tract's relative ability to provide educational opportunity, in the form of high-quality schools that meet the basic educational and social needs of the population.
- **Economic Opportunity**: Measures the relative economic climate of a community, in the form of access to employment and business climate.
- **Housing Opportunity:** Measures relative availability of housing in a community, in the form of housing sufficiency and housing affordability
- **Health/Environment Opportunity:** A relative measure of how well communities meet the health needs of their constituents, in the form of access to health care and other health-related environments.
- **Civic Life Opportunity:** Measures the relative social and political stability of an area, in the form of neighborhood stability (living in the same residence for one year) and US citizenship.

As shown in **Figure 3-11 and Figure 3-12** below, the majority of the City of Huntington Beach is classified as a high opportunity zone. This indicates a high level of relative opportunities that people can achieve as well as a high level of relative opportunities that Huntington Beach provides. While most of the census tracts within the City are areas of high opportunity, there are four census tracts within the ROI People Index shown as yellow, identifying a low opportunity area and one census tract within the ROI People Index shown as red, identifying the lowest opportunity area. The data for census tract with the lowest opportunity show high mobility/transportation and low civic life, health, economic and education access, and housing access. Census Tract 060590994.02, in red, has Hispanic

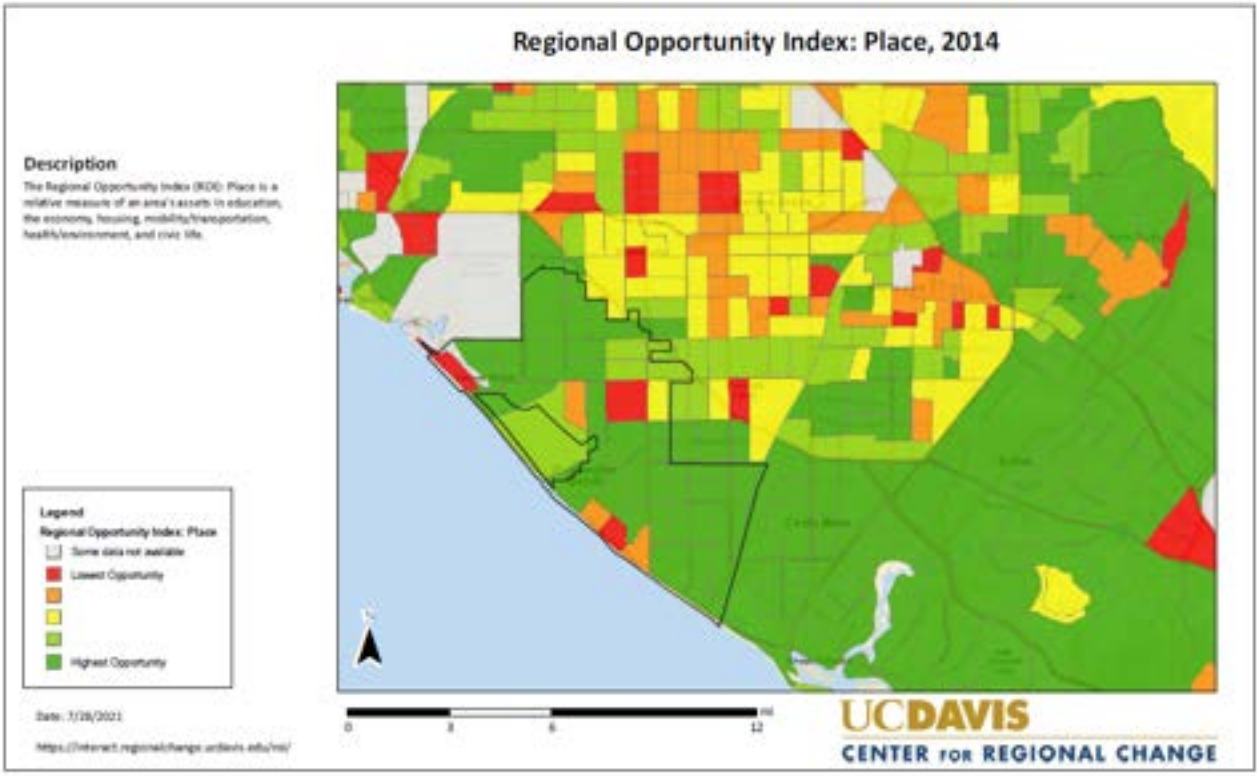
predominance and higher poverty rates compared to the rest of the City. This census tract experiences low opportunities in relation to both people and place. This census tract scores low in opportunities for housing, civic life and health and health resources (place) and in relation to people, the area is low scoring in civic life, health and health resources, housing, economy, and education. Additionally Census Tracts 060590993.11 and 060590995.13 experience the lowest opportunity in regard to place. Both census tracts are low scoring in health and health resources as well as housing opportunities. Therefore, the consideration and identification of these areas for housing affordable to low and very low-income households will provide increased housing options in high opportunity and high resource areas.

Figure 3-13: Regional Opportunity Index: People, 2014



Source: UC Davis Center for Regional Change and Rabobank, 2014

Figure 3-14: Regional Opportunity Index: Place, 2014



Source: UC Davis Center for Regional Change and Rabobank, 2014

Additionally, **Table 3-18** below displays the data for Regional Opportunity Index in Huntington Beach overall compared to the State of California. The data shows the following key findings:

- City residents have higher educational proficiency and access than the County and State overall. Local residents have high math and English proficiency levels and UC/CSU eligibility. The elementary truancy rate is lower in Huntington Beach and the high school discipline rate is half that of the State.
- Employment rates are the slightly higher for Huntington Beach than the State, and Huntington Beach residents receive a significantly greater minimum basic income than both the County and State. Huntington Beach offers less job availability and currently reports comparable quality jobs and job growth to the State.
- Huntington Beach has a greater homeownership percentage amongst local residents, but residents experience higher housing cost burdens. Housing adequacy is overall very high in the City compared to the State.
- Residents in Huntington Beach have higher access to vehicles and commute less than overall residents across the County and State.
- Environmental and health opportunities are fairly high amongst Huntington Beach residents. The City itself has slightly lower overall air quality than the County and State, and has higher prenatal care, access to supermarkets, and health care availability.
- Huntington Beach has high percentages of English speakers and US citizenship, and experiences higher voter rates than the County and State.

In summary, Huntington Beach is considered a high opportunity area with high achievement rates amongst residents with the exception of two census tracts. The data shows that there are high rates of cost burden in the City and lower access to job availability. The City should focus on increasing access to affordable housing options to reduce cost burden and increase housing options in areas close to public transit and freeways to improve access to jobs.

Table 3-21: Opportunity Indicators – Huntington Beach and California				
	ROI Indicator	Huntington Beach	Orange County	California
Education	**People**			
	College Educated Adults	**51.7%**	44%	38%
	Math Proficiency	**85.5%**	77%	70%
	English Proficiency	**84%**	72%	65%
	Elementary Truancy	**16.8%**	16%	24%
	Place			
	High School Graduation Rate	**93.6%**	92%	83%
	UC/CSU Eligibility	**50.8%**	48%	41%
	Teacher Experience	**61.2%**	54%	36%
	High School Discipline Rate	**3.4%**	4%	6%
Economic	**People**			
	Employment Rate	**92.1%**	92%	89%
	Minimum Basic Income	**81.1%**	70%	64%
	Place			
	Job Availability	**675**	859.93	701.75
	Job Quality	**39.3%**	42%	40%
	Job Growth	**3.3%**	2%	3%
	Bank Accessibility	**0.28**	0.27	0.24
Housing	**People**			
	Home Ownership	**62.2%**	58%	55%
	Housing Cost Burden	**57.4%**	52%	52%
	Place			
	Housing Adequacy	**97.2%**	89%	91%
	Housing Affordability	**0.15**	0.16	0.19
Mobility	**People**			
	Vehicle Availability	**93.3%**	90%	86%
	Commute Time	**56.1%**	61%	60%
	Internet Access	**4.93**	4.7	4
Health/Environmental	**Place**			
	Infant Health	**95.2%**	95%	95%
	Birth to Teens	**2.61%**	5%	7%
	Years of Life Lost	**26.4**	23.37	29.8
	Place			
	Air Quality	**9.85**	10.44	10.01
	Prenatal Care	**92.3%**	90%	83%
	Access to Supermarket	**53.5%**	53%	53%
	Health Care Availability	**2.52**	2.28	1.76
Civic Life	**People**			
	Voting Rates	**37.1%**	31%	31%
	English Speakers	**96.3%**	87%	88%
	Place			
	US Citizenship	**93.4%**	81%	83%
	Neighborhood Stability	**87.8%**	85%	85%

Source: *UC Davis Center for Regional Change and Rabobank, 2014.*

As Huntington Beach is considered a high opportunity region, the City is committed to implementing policies and programs to encourage new opportunities and access to existing and future residents.

Section 4: Housing Plan identifies the strategies the City will explore in order to provide opportunity and housing for persons within the Huntington Beach region.

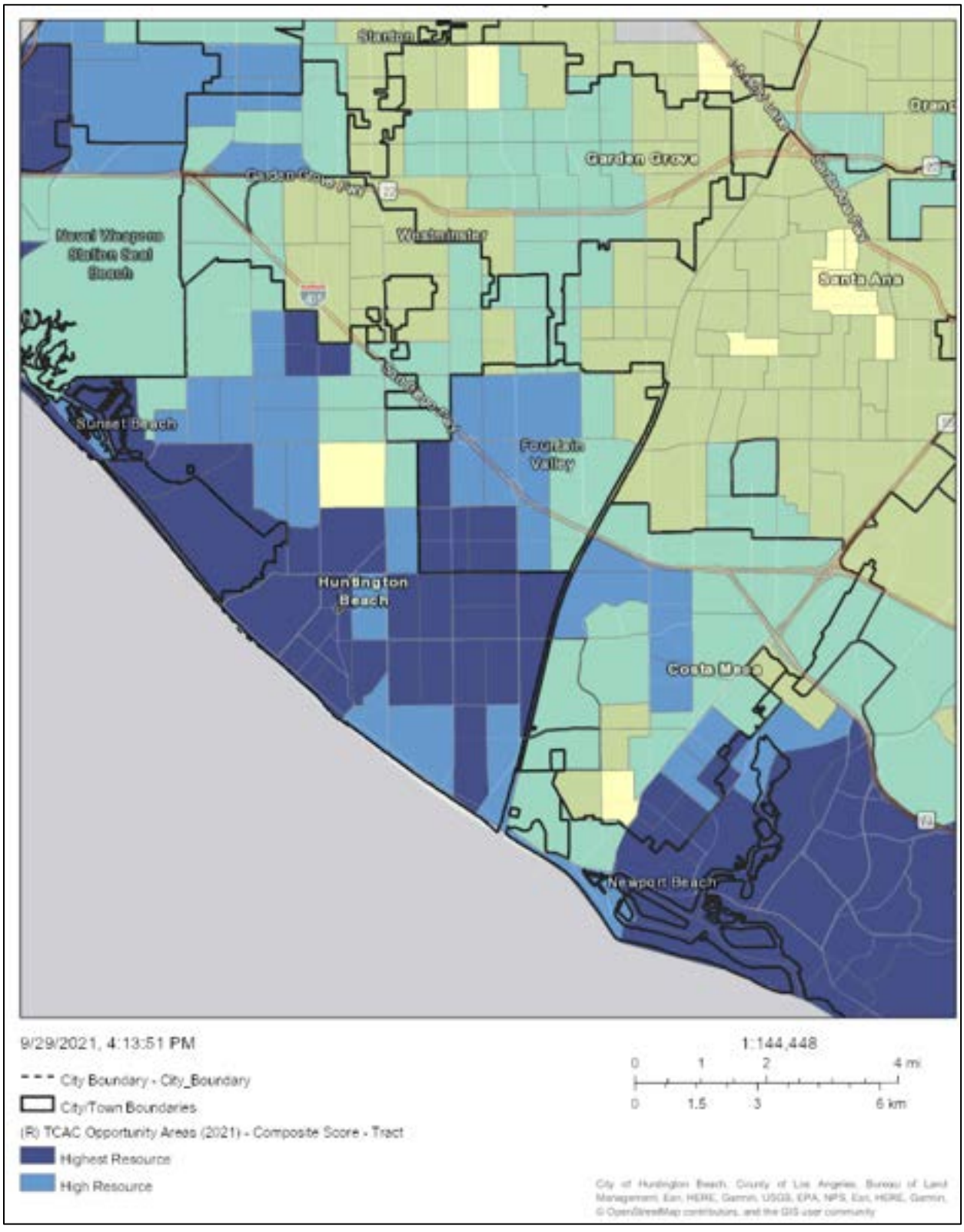
California Tax Credit Allocation Committee/HCD Distribution of Private and Public Resources

The Department of Housing and Community Development (HCD) together with the California Tax Credit Allocation Committee (TCAC) established the California Fair Housing Task Force to provide research, evidence-based policy recommendations, and other strategic recommendations to HCD and other related state agencies/departments to further the fair housing goals as defined by HCD. The Task force developed the TCAC/HCD opportunity Area Maps to understand how public and private resources are spatially distributed. The Task force defines opportunities as pathways to better lives, including health, education, and employment. Overall, opportunity maps are intended to display which areas, according to research, offer low-income children and adults the best chance at economic advancement, high educational attainment, and good physical and mental health.

According to the Task Force's methodology, the tool allocates 20 percent of the tracts in each region with the highest relative index scores to the "Highest Resource" designation and the next 20 percent to the "High Resource" designation. Each region then ends up with 40 percent of its total tracts as "Highest" or "High" resource. These two categories are intended to help State decision-makers identify tracts within each region that the research suggests low-income families are most likely to thrive, and where they typically do not have the option to live—but might, if given the choice. As shown in **Figure 3-13** below**,** nearly all of Huntington Beach is classified as moderate, high, and highest resource. According to 2022 TCAC Opportunity Maps[6], the City contains 0 census tracts classified as high segregation and poverty. There are two census tracts in the central portion of Huntington Beach classified as low resource areas. The census tract scores identify low economic resources, educational resources, and environmental resources. As concluded in the previous section, this census tract also is designated as an area with access to lowest opportunity.

[6] 2022 TCAC Opportunity Maps https://belonging.berkeley.edu/2022-tcac-opportunity-map

Figure 3-15: TCAC/HCD Opportunity Area Maps, Huntington Beach (2020)



Source: California Department of Housing and Community Development – AFFH Data Viewer

Opportunity Indicators

Access to neighborhoods with higher levels of opportunity can be more difficult due to discrimination and when there may not be a sufficient range and supply of housing in such neighborhoods. In addition, the continuing legacy of discrimination and segregation can impact the availability of quality infrastructure, educational resources, environmental protections, and economic drivers, all of which can create disparities in access to opportunity.

The Department of Housing and Urban Development (HUD) developed the opportunity indicators to help inform communities about disparities in access to opportunity, the scores are based on nationally available data sources and assess resident's access to key opportunity assets in the City. **Table 3-19** provides the index scores (ranging from zero to 100) for the following opportunity indicator indices:

- **Low Poverty Index:** The low poverty index captures poverty in a given neighborhood. The poverty rate is determined at the census tract level. The higher the score, the less exposure to poverty in a neighborhood.
- **School Proficiency Index:** The school proficiency index uses school-level data on the performance of 4th grade students on state exams to describe which neighborhoods have high-performing elementary schools nearby and which are near lower performing elementary schools. The higher the score, the higher the school system quality is in a neighborhood.
- **Labor Market Engagement Index:** The labor market engagement index provides a summary description of the relative intensity of labor market engagement and human capital in a neighborhood. This is based upon the level of employment, labor force participation, and educational attainment in a census tract. The higher the score, the higher the labor force participation and human capital in a neighborhood.
- **Transit Trips Index:** This index is based on estimates of transit trips taken by a family that meets the following description: a three-person single-parent family with income at 50% of the median income for renters for the region (i.e., the Core-Based Statistical Area (CBSA)). The higher the transit trips index, the more likely residents in that neighborhood utilize public transit.
- **Low Transportation Cost Index:** This index is based on estimates of transportation costs for a family that meets the following description: a three-person single-parent family with income at 50 percent of the median income for renters for the region/CBSA. The higher the index, the lower the cost of transportation in that neighborhood.
- **Jobs Proximity Index:** The jobs proximity index quantifies the accessibility of a given residential neighborhood as a function of its distance to all job locations within a region/CBSA, with larger employment centers weighted more heavily. The higher the index value, the better the access to employment opportunities for residents in a neighborhood.
- **Environmental Health Index:** The environmental health index summarizes potential exposure to harmful toxins at a neighborhood level. The higher the index value, the less exposure to toxins harmful to human health. Therefore, the higher the value, the better the environmental quality of a neighborhood, where a neighborhood is a census block-group.

Table 3-19 below displays the opportunity indices by race and ethnicity for persons living in the City of Huntington Beach. **Table 3-19** shows poverty among the City's Hispanic and Native American, Non-Hispanic, populations. Almost all racial and ethnic groups in the City are reported having moderate to high scores for school proficiency, labor market, transit, low transportation costs. The Black and Hispanic population in the City experience the lowest scores in Poverty and School Proficiency. Overall, scores were lower for the population below the federal poverty line. All racial and ethnic groups

in the City are reported having low scores in job proximity. The City's whole population are subject to fairly low levels of environmental health.

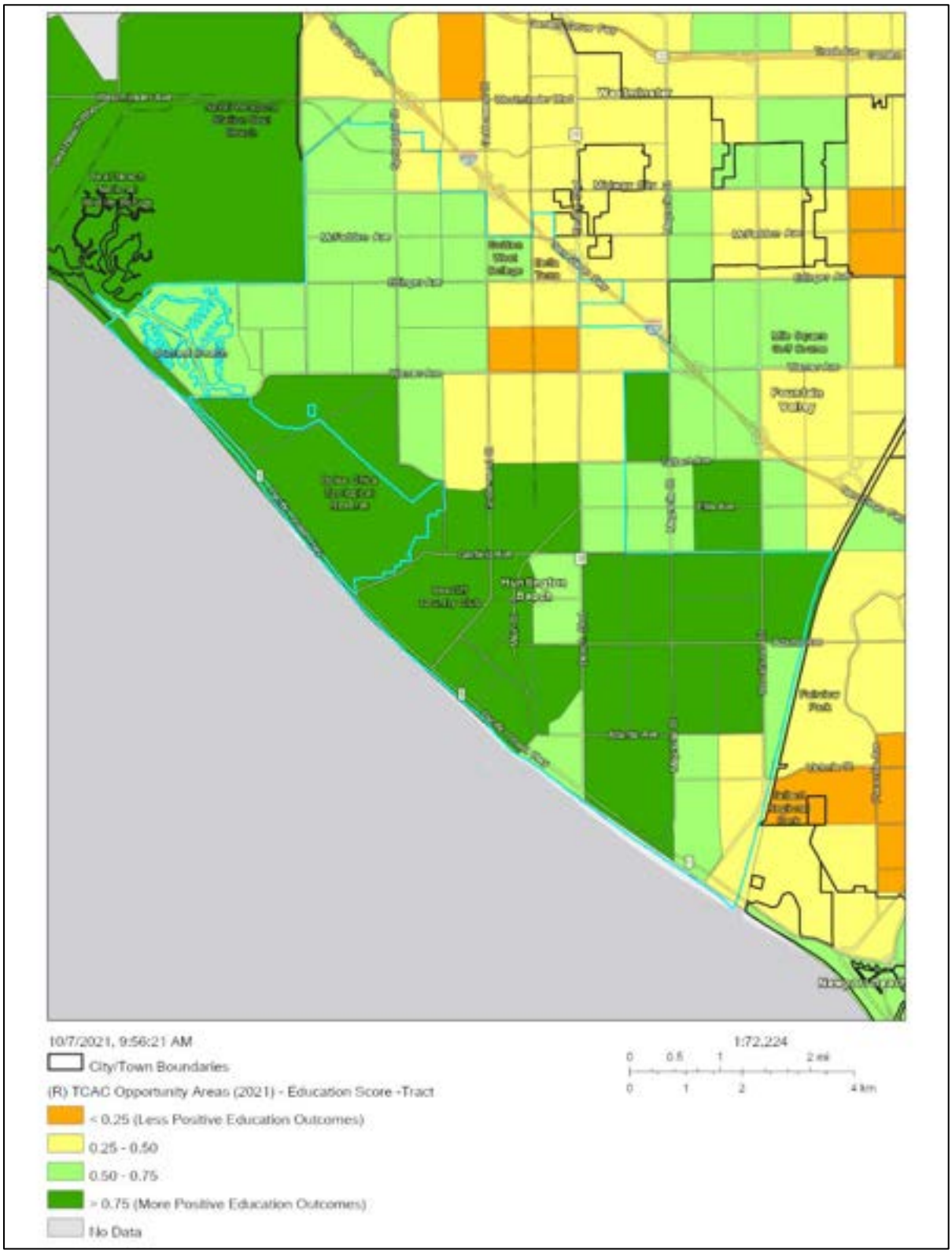
Table 3-22: Opportunity Indices by Race/Ethnicity, Huntington Beach							
(Huntington Beach CA CDBG) Jurisdiction	**Low Poverty Index**	**School Proficiency Index**	**Labor Market Index**	**Transit Index**	**Low Transportation Cost Index**	**Jobs Proximity Index**	**Environmental Health Index**
Total Population							
White, Non-Hispanic	73.22	76.09	73.4	86.19	75.11	39.88	27.16
Black, Non-Hispanic	66.28	64.48	68.38	86.93	77.62	44.2	22.24
Hispanic	56.39	62.72	61.5	86.96	78.62	46.28	19.14
Asian or Pacific Islander, Non-Hispanic	70.78	72.77	69.79	85.78	74.36	43.09	23.36
Native American, Non-Hispanic	69.29	73.74	70.28	86.49	76.42	41.44	25.86
Population below federal poverty line							
White, Non-Hispanic	70.07	73.38	72.99	86.92	77.44	38.84	27.86
Black, Non-Hispanic	46.9	56.51	58.56	88.62	80.11	43.69	17.85
Hispanic	42.73	56.09	51.58	87.45	81.23	47.75	14.39
Asian or Pacific Islander, Non-Hispanic	61.4	65.76	67	86.92	78.76	42.4	23.92
Native American, Non-Hispanic	72.02	78.94	63.69	86	64.39	36.61	26.65
Source: Department of Housing and Urban Development, Affirmatively Furthering Fair Housing Online Mapping tool, Decennial Census; ACS; Great Schools; Common Core of Data; SABINS; LAI; LEHD; NATA							

School Proficiency

TCAC and HCD charged the Task Force with creating an opportunity map to identify areas in every region of the state whose characteristics have been shown by research to support positive economic, educational, and health outcomes for low-income families—particularly long-term outcomes for children.[7] The TCAC reviews elementary school test scores, graduation rates for high schools and demographic attributes related to race, ethnicity and poverty for school enrollment to create the school proficiency indicator.[8] **Figure 3-14** shows that a majority of Huntington Beach is considered high proficiency. Census tracts in the northern and northeastern parts of the City experience moderate to low proficiency. This pattern mirrors that of White predominance and income distributions within the City. Residents in the northern and northeastern parts of the City are more likely to have lower annual incomes and to be Non-White.

[7] California Fair Housing Task Force, Methodology for the 2021 TCAC/HCD Opportunity Map, December 2020. Accessed online September 2021.
[8] Ibid.

Figure 3-16: Education Score – TCAC Opportunity Areas, Huntington Beach



Source: California Department of Housing and Community Development – AFFH Data Viewer

Jobs Proximity Index and Economic Score

In additional to school proficiency, the TCAC opportunity maps identify economic indicators such as job proximity and economic opportunity. The economic domain of the TCAC studies the following indicators to identify economic opportunities in a city:

- Poverty Indicator: The Task Force chose to use 200 percent of the poverty line to reflect the higher cost of living in California. Because each indicator in this domain is designed to measure opportunity in a positive sense, this indicator is measured as the percent of a tract's or rural block group's residents who live above 200 percent of the federal poverty line.[9]
- Adult Education Indicator: This indicator was measured by calculating the percent of adults 25 years and older who have earned at least a bachelor's degree in each tract and rural block group.
- Employment Indicator: The employment rate was calculated as the percent of individuals in each tract and rural block group age 20-64 who are employed in either the civilian labor force or the armed forces. The Task Force opted to use the employment rate because the unemployment rate does not account for individuals who have dropped out of the labor force due to disillusionment with their job prospects.
- Proximity to Jobs Indicator: This indicator was calculated in two stages. The first stage uses Longitudinal Employer Household Dynamics Origin-Destination Employment Statistics (LEHD-LODES) data from 2017 to calculate the population-weighted median distance traveled by workers earning $1,250 a month or less (or the equivalent of $15,000 a year).[10] The second stage calculates the number of "proximate" jobs by aggregating the number of jobs filled by individuals without bachelor's degrees that fall within the typical commute distance.

Figure 3-15 displays the TCAC economic indicators score. The map shows that majority of the City has a positive economic score with only two census tracts receiving a low score (less than 0.25). Both census tracts are located in the central part of the City where White predominance is lower than areas directly on the coast. These census tracts also experience fewer positive educational outcomes as shown in the above School Proficiency discussion.

Figure 3-16 displays the TCAC data for job proximity. The maps shows that a majority of the City has low job proximity and overall higher commute times. Job proximity increases as distance from the coastline increases. This is likely attributed to increased access to freeways and highways, which are further from the coastline. **Table 3-20** below identifies the census block groups that experience the lowest job proximity and reports the median income for each block group. Of the nine census block groups that experience the furthest job proximity in the City, four are characterized by median incomes that are below the citywide average of $95,046. Residents of Census Block Group 0605909924.42 generally have an annual income of $56,318, which is approximately $39,000 less than the City's median income. Residents of this area tend to be senior citizens that live within Huntington Landmark Senior Adult Community. While Seniors tend to have lower incomes than the general population, Huntington Beach seniors generally have higher retirement incomes than those of the County and the State by about $5,000. Overall, job proximity in the City is low. In the areas where job proximity are the lowest, incomes are relatively high with the exception of a few census block groups.

Table 3-23: Lowest Job Proximity by Census Block in Huntington Beach

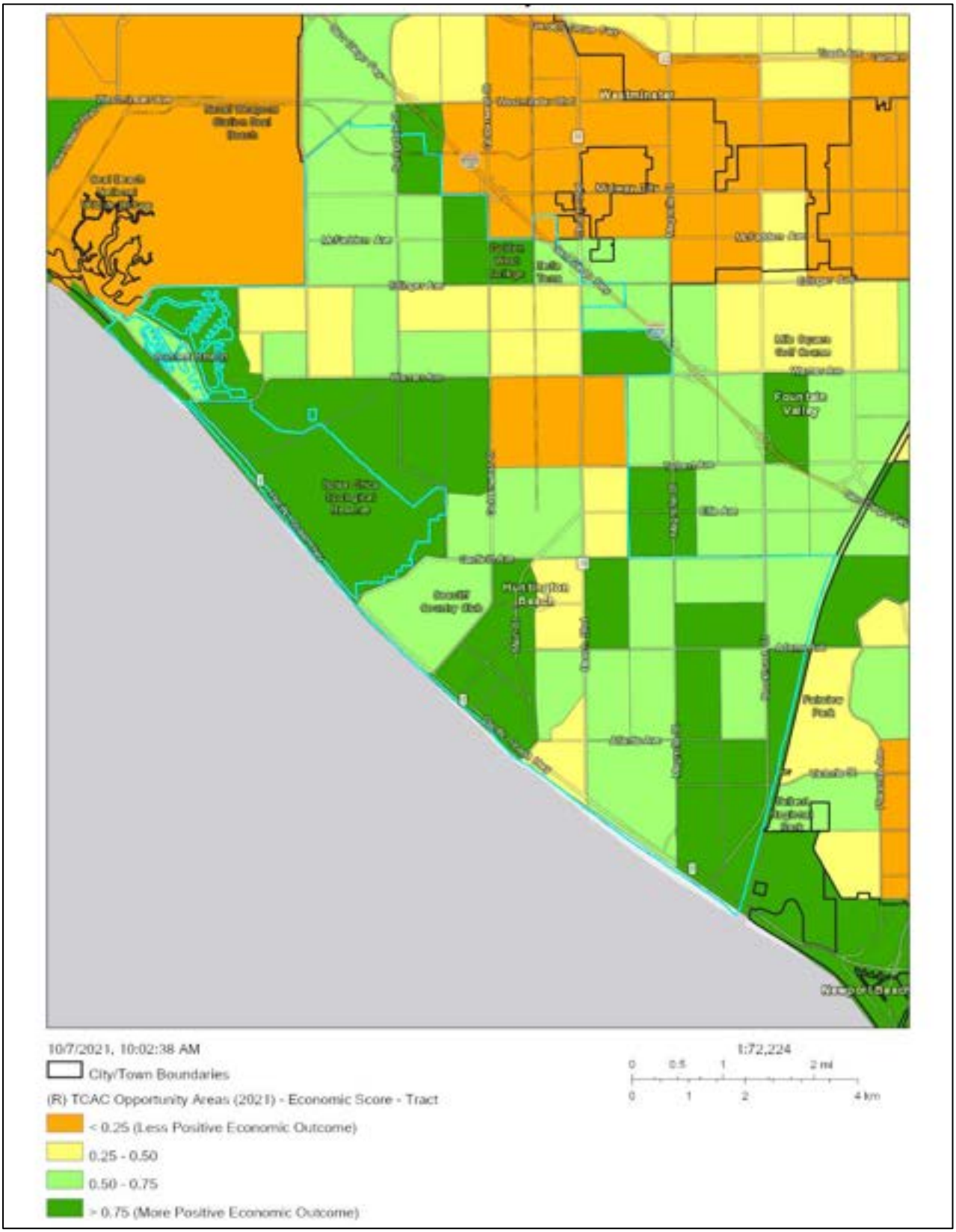
[9] California Fair Housing Task Force, Methodology for the 2021 TCAC/HCD Opportunity Map, December 2020. Accessed online September 2021.

[10] Note: The Task Force chose this benchmark in recognition that low-wage workers tend to commute shorter distances than higher-wage employees due to constraints on mode and cost of travel.

Census Block Group	Index Score[1]	Median Income[2]
0605909924.31	17	$81,780
0605909924.41	17	$149,392
0605909924.42	18	$56,318
0605909924.61	20	$103,964
0605909930.61	19	$78,569
0605909930.63	20	$85,550
0605909930.64	19	$100,234
0605909930.65	19	$111,458
0605909930.72	20	$106,447

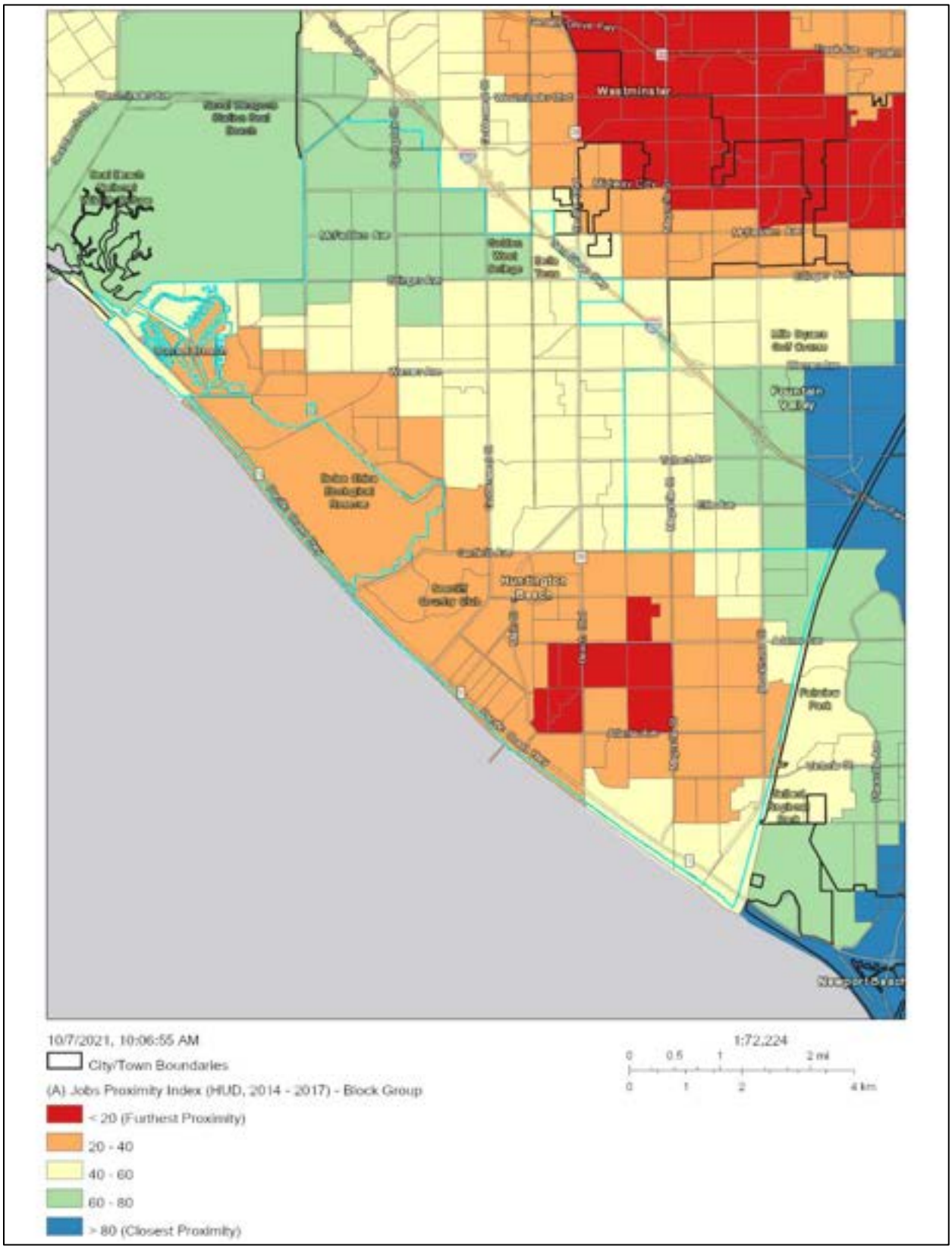
Source:
AFFH Data Viewer
[1]Jobs Proximity Index (HUD, 2014-2017)- Block Group
[2] Median Income (ACS, 2015-2019)- Block Group

Figure 3-17: Economic Score – TCAC Opportunity Areas, Huntington Beach



Source: California Department of Housing and Community Development – AFFH Data Viewer

Figure 3-18: Jobs Proximity Index, Huntington Beach



Source: California Department of Housing and Community Development – AFFH Data Viewer

Access to Transit

AllTransit explores metrics that reveal the social and economic impact of transit, specifically looking at connectivity, access to jobs, and frequency of service. According to the data provided, Huntington Beach scored a 4.4 All Transit performance score, illustrating a low combination of trips per week and number of jobs accessible that enable a low number of people to take transit to work. Transit availability within the census block groups with extremely low job proximity is also low. Lack of transit in these areas may contribute to longer commute times and lower job proximity.

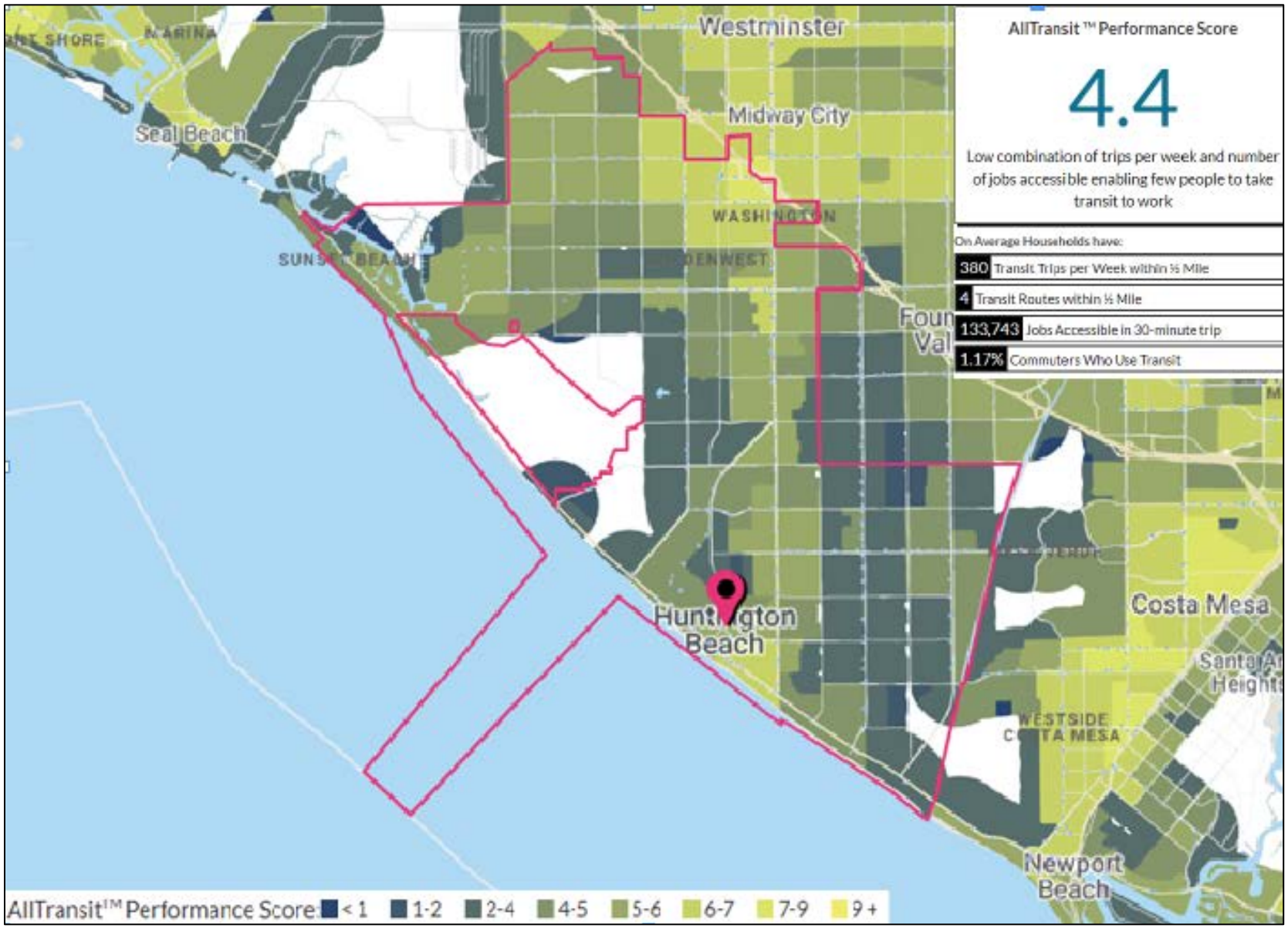
The City scored lower than average in comparison to neighboring cities – Newport Beach scores a 5.4, Costa Mesa scored a 4.4, and Fountain Valley scored a 5.4. Access to transportation increases both the economic and environmental/health opportunities. The City should emphasize planning for housing development in areas with higher access to transportation in order to increase job proximity for residents of all income levels. Planning for housing with these factors in mind may improve upward economic mobility and produce better environmental/health opportunities for low and moderate income households.

Table 3-24: Opportunity Indicator – Transit

Jurisdiction	All Transit Performance Score	Transit Trips Per Week within 1/2 Mile	Jobs Accessible in 30-min trip	Commuters Who Use Transit	Transit Routes within 1/2 Mile
Huntington Beach	4.4	380	133,743	1.17%	4

Source: AllTransit Fact Sheet, Huntington Beach, 2021.

Figure 3-19: AllTransit Performance Score – Huntington Beach



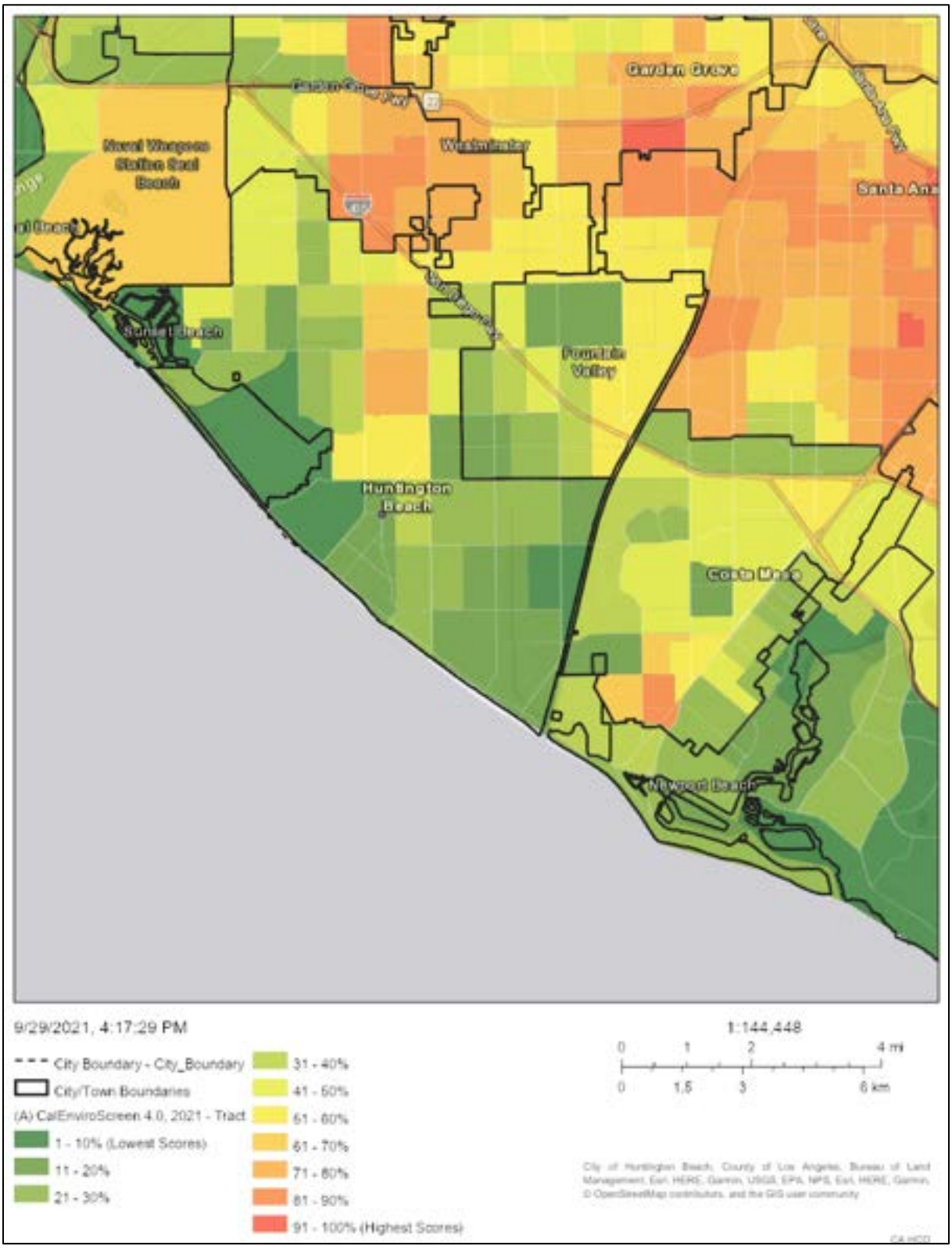
Environmental Justice

The California Office of Environmental Health Hazard Assessment (OEHHA) developed a screening methodology to help identify California communities disproportionately burdened by multiple sources of pollution called the California Communities Environmental Health Screening Tool (CalEnviroScreen). In addition to environmental factors (pollutant exposure, groundwater threats, toxic sites, and hazardous materials exposure) and sensitive receptors (seniors, children, persons with asthma, and low birth weight infants), CalEnviroScreen also takes into consideration socioeconomic factors. These factors include educational attainment, linguistic isolation, poverty, and unemployment. Research has shown a heightened vulnerability of people of color and lower socioeconomic status to environmental pollutants.

Figure 3-18 below displays mapped results for the CalEnviroScreen in Huntington Beach and the Orange County region. High scores signify high levels of pollution burdens and low scores signify low levels of pollution. The map shows that Huntington Beach is primarily low-moderate-scoring, with higher-scoring census tracts in central and northeastern Huntington Beach. Areas with higher White predominance and median incomes experience lower exposure to high CalEnviroScreen Scores. This may be due to their proximity to the coast and increased distance from freeways and highways.

Residents of Census Tract 060590994.02 experience the highest pollution levels in the City. As previously discussed, this census tract is one of the lowest income earning areas within Huntington Beach and is the only census tract with Hispanic predominance. The area is characterized by industrial and commercial uses as well as some residential neighborhoods and open space. The area has a higher density of non-residential uses than most places in the City, which may contribute to the elevated levels of pollutants in the area. The City should emphasize engagement with this Census Tract to discuss methods to reduce health risk/burden factors identified by CalEnviro Screen. The City has started this process through monthly Oak View community clean-up efforts sponsored by the City. Monthly clean-ups also provide informational booths with participants from the City's Public Works and Fire Departments. As a result of public engagement, the Public Works department is implementing traffic calming measures in proximity to Oak View Elementary School within the Census Tract to provide safe routes to school. The City plans to continue these efforts to engage the Census Tract and should expand them to reduce health risk/burden factors identified by CalEnviro Screen.

Figure 3-20: CalEnviroScreen, Huntington Beach



Source: California Department of Housing and Community Development – AFFH Data Viewer

Table 3-22 and Table 3-23 below identifies the CalEnviroScreen scores for the highest and lowest scoring census tracts in Huntington Beach, respectively.

Table 3-25: CalEnviroScreen 3.0 – Highest Scoring Census Tract (60590994.02)			
Pollutant	**Percentile***	**Health Risk/Burden**	**Percentile***
Ozone	40	Asthma	26
PM 2.5	66	Low Birth Weight	35
Diesel	44	Cardiovascular Rate	34
Pesticides	5	Education	93
Toxic Releases	93	Linguistic Isolation	83
Traffic	62	Poverty	96
Drinking Water	24	Unemployment	61
Cleanups	66	Housing Burden	85
Groundwater Threats	77		
Hazardous Waste	84		
Impaired Water	15		
Solid Waste	99		
*Percentile derived using a weighted scoring system to determine average pollution burden/ socioeconomic scores relative to other census tracts. *Source: CalEnviroScreen 3.0 Map Tool, June 2018 Update. Accessed August 2, 2021.*			

Table 3-26: CalEnviroScreen 3.0 – Lowest Scoring Census Tract (60590639.05)			
Pollutant	**Percentile***	**Health Risk/Burden**	**Percentile***
Ozone	40	Asthma	9
PM 2.5	66	Low Birth Weight	1
Diesel	16	Cardiovascular Rate	18
Pesticides	0	Education	14
Toxic Releases	90	Linguistic Isolation	17
Traffic	50	Poverty	2
Drinking Water	29	Unemployment	21
Cleanups	77	Housing Burden	5
Groundwater Threats	68		
Hazardous Waste	0		
Impaired Water	41		
Solid Waste	80		
*Percentile derived using a weighted scoring system to determine average pollution burden/ socioeconomic scores relative to other census tracts. *Source: CalEnviroScreen 3.0 Map Tool, June 2018 Update. Accessed August 2, 2021.*			

Key Observations

The analysis conducted in this section regarding fair housing issues within Huntington Beach yielded the following conclusions about constraints in the City:

- There are no racially or ethnically concentrated census tracts (R/ECAPs) within Huntington Beach as identified by HUD. There are no census tracts within the City with a non-white population of 50 percent or more or any census tracts that have a poverty rate that exceeds 40% or is three or more times the average tract poverty rate for the metropolitan area. However, there is one Census Tract 060590994.02 identified as areas of high segregation and experiencing poverty.

- The City does not contain any racially concentrated areas of affluence (RCAA).

The data points above indicate that the City's existing inclusionary and affordable housing policies and strategies have been successful to create mixed-income neighborhoods in all areas of the City. The City will continue to implement these policies.

- There are two Census Tracts (060590994.02 and 060590994.11) identified as low resource areas. The UC Davis Regional Opportunity Index shows that the majority of residents within Huntington Beach have a moderate to high level of access to opportunity throughout the City. Additionally, analysis of the TCAC/HCD opportunity Area Maps show that these census tracts have low access to opportunity for both People and Place. This indicates that these census tracts may lack essential mobility, retail/food, economic, housing, or civic resource that may promote upward mobility and result in healthier neighborhoods.

  The City recognizes that these Census Tracts are susceptible to displacement and gentrification. The City will continue to implement its existing inclusionary housing policies to facilitate the production of on-site affordable housing if new development is proposed in the Census Tracts. The City will contact property owners of deed-restricted affordable units in the Census Tracts with affordability restrictions expiring during the planning period. This effort will focus on extending the affordability period of existing deed-restricted units. Refer to Program 1C for further details regarding the use of CDBG funds, the Neighborhood Preservation Program, and Programs 8A, 8B, and 9B regarding additional City efforts within these low resource areas.

- The City contains census tracts that have White predominance of over 80 percent and others that have median incomes of over $125,000.

  The City recognizes that these census tracts may overlap with TCAC areas of high opportunity and resources related to education, low rates of poverty, and high rates of labor market engagement. The City will continue to implement existing inclusionary and affordable housing policies to facilitate the production of affordable units in new developments. This will build upon the City's track record of creating mixed-income developments and increasing the number of mixed-income neighborhoods to increase access to high-resource areas.

- Overall, the City is characterized by high access to opportunity and generally scores well in most categories. However, Census Tract 060590994.02 is identified multiple times throughout the analysis as not having the same levels of opportunity, median income, and housing availability as other areas in the City.

Other Relevant Factors and Local Information

While this section focuses on the analysis of race, income distribution, and disparities in access to opportunities and their effects on fair housing availability, other relevant factors such as discriminatory lending patterns, restrictive zoning, environmental constraints, and non-governmental constraints could in work tandem and have a cumulative effect on the availability of fair housing. Zoning/land use, and permit processing procedures were identified in earlier in **Section 3** as constraints to fair housing.

As Huntington Beach has grown over time, various portions of the City have been annexed into the jurisdiction. The Oak View area was originally under the authority of the County of Orange and its land use/zoning standards. In 1957, the County land use designations in the area included Light Industrial where the current Rainbow/Republic Waste Facility is located. When the area was annexed in 1959, the City was left to make the most appropriate zoning with the County's prior land use decisions and existing uses in mind. Over time, the adjacent residential areas were improved with

multi-family residences and streets were dedicated in the southern portion of Oak View in 1963. As the area developed, the City envisioned investments in a complete community neighborhood and zoned the central portion of the neighborhood in 1970 to Community Facility and Park to develop the Oak View Elementary School and Park. As the Oak View community expanded, the waste facility operations continued. The associated impacts of the community's proximity to the waste facility may have contributed a lack of private investment in development and potential disparities in access to opportunity. The City recognizes these other relevant factors to affirmatively furthering fair housing and implements "Goal 8: Improve quality of life and promote placemaking with an emphasis on improving access to opportunities in low-resource areas" and its associated implementation programs within Section 4 to specifically address affirmatively furthering fair housing in the Oak View community.

City Code Enforcement officers assigned to the Oak View area have a unique understanding of the community's needs. As noted throughout this section, this community is predominantly Hispanic and has a Spanish-speaking population. The Code Enforcement officers in Oak View are fluent in Spanish and are able to communicate with residents in Spanish if they prefer. Discussions with these officers indicated that the most common issues reported by residents includes illegal dumping of large items, trash/debris, lack of parking, and graffiti. Further outreach to local community groups resulted in the City renting a large roll-off dumpster for monthly community cleanup events. This enables residents to safely dispose of large items like mattresses and furniture instead of dumping them next to sidewalks or alleys. The Oak View officers also noted that they receive some reports of mobile vendors operating during late night hours. Some mobile vendors may create hazards by plugging their equipment into a residential building and traversing the electrical wiring across the sidewalk. While micro-enterprise is important for upward economic mobility, education and outreach to mobile vendors can be conducted to ensure they operate safely.

Further, other listening sessions held by City staff with the Oak View community addressed the need for additional parking. As noted throughout this section, data demonstrates that households in this community experience overcrowding and cost burden. Households with multiple occupants that drive cars may have parking needs that exceed the available on-site parking. Residents must use street parking to park their cars. When this effect is felt by a multitude of households, there is a significant increase in the quantity of cars parked on the street. When the street parking fills up quickly, residents spend more time driving around looking for parking and are forced to park farther away from their residence or in areas not suitable for vehicular parking (e.g. - blocking drive aisles or obstructing intersection visibility). To help address the parking issues, the City rented parking spaces in a nearby structure and offered them at a subsidized monthly rate for Oak View residents. This effort in concert with the Safe Routes to School improvements described in Program 8A seek to alleviate a concern raised by residents of the neighborhood and enhance the overall quality of life in the community.

The City operates a year-round 174 bed Navigation Center to provide shelter and supportive services to people experiencing homelessness. The County of Orange conducts an annual "Point in Time Count." The Point In Time (PIT) is a biennial count and survey of people experiencing homelessness within the County.[11] The 2022 PIT count conducted the sheltered count the night of Monday, February 21, 2022 and the unsheltered count occurred from Tuesday, February 22 through Thursday, February 24, 2022. The 2022 Point in Time count report[12] concludes that there were 188 unsheltered persons

11 Everyone Counts OC Point in Time Count https://www.everyonecountsoc.org
12 2022 Point in Time Report https://www.ochealthinfo.com/sites/hca/files/2022-05/2022%20PIT%20Data%20Infographic%20-%205.10.2022%20Final.pdf

and 142 sheltered persons within the City for a total of 330 persons identified. Comparatively, the 2019 PIT concluded there were 289 unsheltered persons and 60 sheltered persons within the City for a total of 349 persons identified. Since 2019, the number of unsheltered persons was reduced by 101 persons (-34.95%), the number of sheltered persons increased by 82 persons (+136.67%), and the overall number of persons identified in the PIT was reduced by 19 persons (-5.44%).

Specific information regarding cost burden, overcrowding, and other factors is not able to be gathered at the local level by the City. Data on these topics is provided by the applicable Census and other data sources utilized throughout this report. Census information regarding these factors can be found in Section 2: Community Profile.

3. Discussion of Disproportionate Housing Needs

The analysis of disproportionate housing needs within Huntington Beach evaluated existing housing need, need of the future housing population, and units within the community at-risk of converting to market-rate.

Future Housing Need

The City's future housing need is based on the RHNA allocation of 3,661 very low and 2,184 low-income units within the 2021-2029 planning period. **Appendix B** of this Housing Element shows the City's ability to meet its 2021-2029 RHNA allocation at all income levels.

Existing Needs

The Orange County Housing Authority (OCHA) administers Section 8 Housing Choice vouchers within the City of Huntington Beach. As of July 2021, OCHA has administered 729 Section 8 Housing Vouchers to residents within the community, including 190 for families, 121 for persons with disabilities, and 418 for seniors.

Additionally, a variety of affordable housing opportunities currently exist in the City. In Orange County, each category of publicly supported housing (public housing, Project Based Section 8, Other Multi-unit Housing, Housing Choice Vouchers, and Low-Income Housing Tax Credit [LIHTC] units) is represented, although that representation varies greatly depending on the individual municipality. **Table 3-24** below identifies the variety of publicly supported housing, by percent, in the City of Huntington Beach.

Table 3-24 below displays the demographics of all publicly supported housing in Huntington Beach. The data shows that majority of persons who utilize and receive public housing support identify as White. Even though Hispanic populations within the City make up the second largest ethnic group and are one of the lowest earning when compared to White and Asian residents, Hispanic residents typically do not receive housing assistance at the same rates other predominant racial and ethnic groups do. Therefore, there is a higher need for allocating housing assistance in the Hispanic community of Huntington Beach.

Table 3-27: Publicly Supported Housing Demographics, Huntington Beach

Housing Type	White		Black		Hispanic		Asian or Pacific Islander	
	#	%	#	%	#	%	#	%
Project-Based Section 8	150	39.68%	4	1.06%	41	10.85%	182	48.15%

HCV Program	448	43.92%	35	3.43%	163	15.98%	370	36.27%
LIHTC	580	53.51%	50	4.61%	356	32.84%	45	4.15%
Total Households	**54,285**	**73.20%**	**558**	**0.75%**	**10,165**	**13.71%**	**7,589**	**10.23%**

Source: County of Orange, Analysis of Impediments
Notes:
***HCV** = Housing Choice Voucher*
***LIHTC** = Low Income Housing Tax Credit*

Housing Needs in Huntington Beach

A variety of factors affect housing needs for different households. Most commonly, disability, household income, and household characteristics shape the type and size of housing needed, as well as accessibility based on existing units in a City. **Table 3-26** and **Table 3-31** display data for demographic characteristics of Huntington Beach, as compared to Orange County and the State of California. Additional detailed analysis of the Huntington Beach community is provided in **Chapter 2: Community Profile**.

Special Needs Groups

RACE AND ETHNICITY

Table 3-25 below identifies the racial and ethnic composition of the City of Huntington Beach as compared to the County of Orange and the surrounding jurisdictions. All jurisdictions have White majorities. Additionally, Huntington Beach has the second highest proportion of White residents, second to Newport Beach. Huntington Beach has the largest percentage of persons who reported Two or More Races (5.7 percent) compared to surrounding jurisdictions. Persons who reported American Indian and Alaska Native averaged less than one percent in each of the jurisdictions. Similarly, those who reported Native Hawaiian or Other Pacific Islander averaged less than one percent in all shown jurisdictions below.

Table 3-28: Racial/Ethnic Composition 2019

Jurisdiction	American Indian and Alaska Native	Asian	Black	Native Hawaiian or Other Pacific Islander	Some Other Race	Two or More Races	White	Hispanic or Latino (of any race)[1]
Newport Beach	0.2%	8%	1%	0.1%	1.9%	2.8%	85.8%	8.8%
Huntington Beach	**0.5%**	**12.2%**	**1.4%**	**0.5%**	**8.6%**	**5.7%**	**71.1%**	**20.2%**
Costa Mesa	0.6%	8.5%	1.8%	0.8%	13.2%	4.1%	71.0%	35.6%
Fountain Valley	0.3%	35.8%	0.7%	0.2%	3.7%	5.1%	54.2%	15.4%
Orange County	.5%	20.5%	1.8%	.3%	11.9%	4.1%	61.0%	34.1%

Source: American Community Survey, 5-Year Estimates, 2019
Note: (1) Persons of Hispanic or Latino Origin is an ethnicity that may be included in other racial groups

DISABILITY

Table 3-26 displays the data for persons with disabilities in the City, County, and State. Overall, about 10.6 percent of the California population has at least one disability. Orange County and the City of Huntington Beach both have lower percentages by about two and one percent less persons with disabilities. Ambulatory, Independent Living, and Cognitive Difficulties are the top three most common disabilities for all three jurisdictions, in order starting from most common. These figures may be reflective of disabilities commonly found amongst the senior population. Reasonable accommodation requests as well as increased opportunity for accessible housing can provide more stable housing security for the population with disabilities.

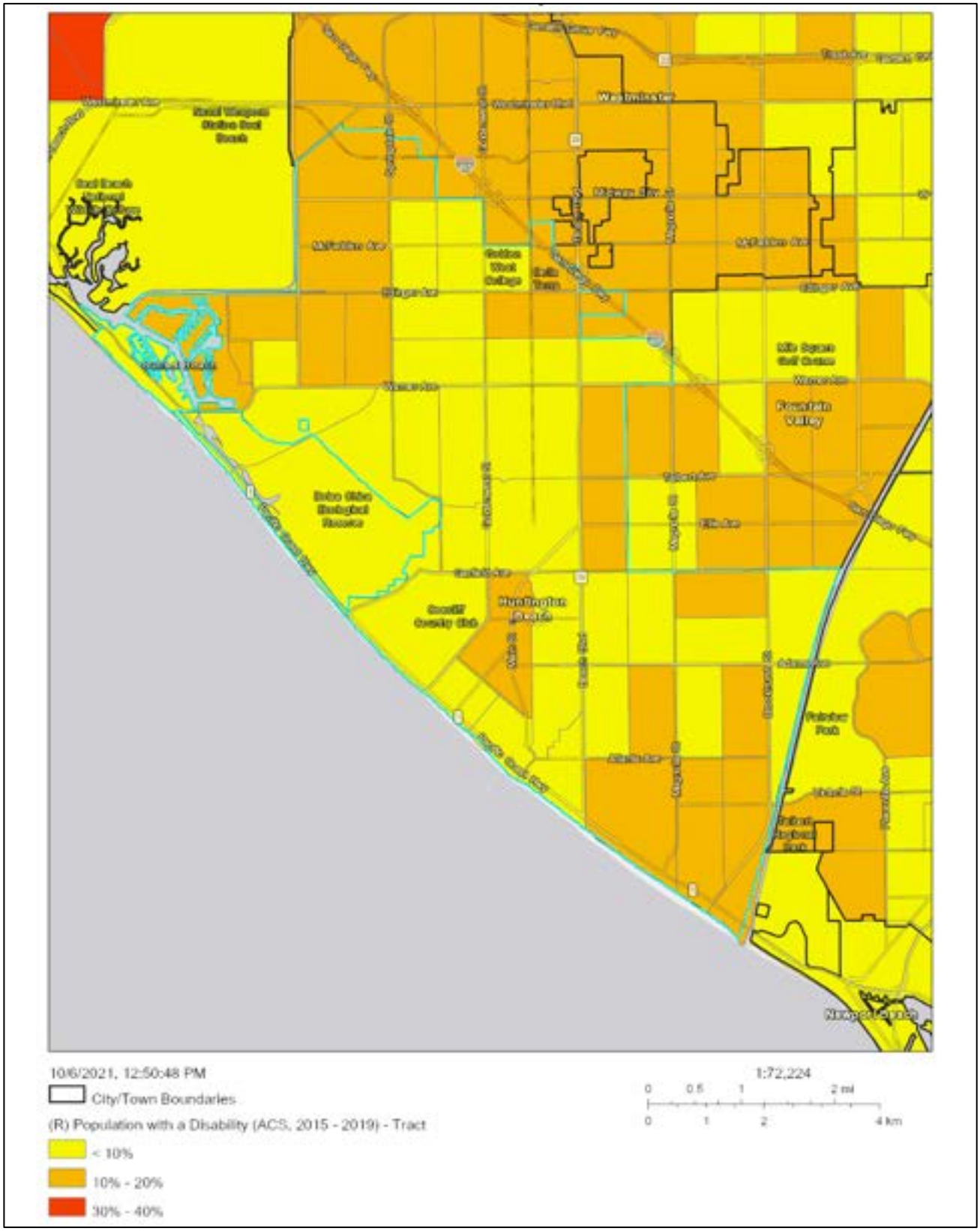
Table 3-29: Population by Disability Type by Geography, 2019

Disability Type	Huntington Beach	Orange County	California
Hearing Difficulty	2.9%	2.5%	2.9%
Vision Difficulty	1.7%	1.5%	2%
Cognitive Difficulty	3.6%	3.4%	4.3%
Ambulatory Difficulty	4.6%	4.5%	5.8%
Self-Care Difficulty	2.1%	2.2%	2.6%
Independent Living Difficulty	4.5%	4.3%	5.5%
Total with a Disability*	**9.5%**	**8.5%**	**10.6%**

* Total of noninstitutionalized population with at least one disability.
Source: American Community Survey, 5-Year Estimates, 2019.

Figure 3-19 below identifies the percentage of persons with disabilities living in Huntington Beach, according to 2019 ACS data. As the figure illustrates, the City of Huntington Beach has a fairly low disabled population, with census tracts towards the edges of the City containing 10 to 20 percentage. Candidate housing sites identified in Appendix B are located within census tracts with a greater representation of persons with disabilities compared to the rest of the City. Candidate housing sites in these areas may potentially provide additional opportunities for affordable housing in conjunction with or near services for populations with special needs.

Figure 3-21: Huntington Beach Population with a Disability



Source: California Department of Housing and Community Development – AFFH Data Viewer

FAMILIAL STATUS

Table 3-27 and **Table 3-28** displays household type and income data for the State, County, and City. Overall, Orange County has the largest percentage of family households (71.7 percent) and Huntington Beach has the smallest percentage with about six points less.

Table 3-30: Population by Familial Status by Geography, 2019

Familial Status	Huntington Beach	Orange County	California
Family Households	**65.1%**	71.7%	68.7%
Married-Couple Family Households	**49.3%**	54.9%	49.8%
With Related Children Under 18	**27.2%**	34.1%	34%
Female Households, No Spouse	**10.6%**	11.5%	13%
Non-Family Households	**34.9%**	28.3%	31.3%
Households with One or More People 65 Years+	**12.8%**	24.5%	14.0%
Total Households	**76,911**	**1,037,492**	**13,044,266**

Source: American Community Survey, 5-Year Estimates, 2019.

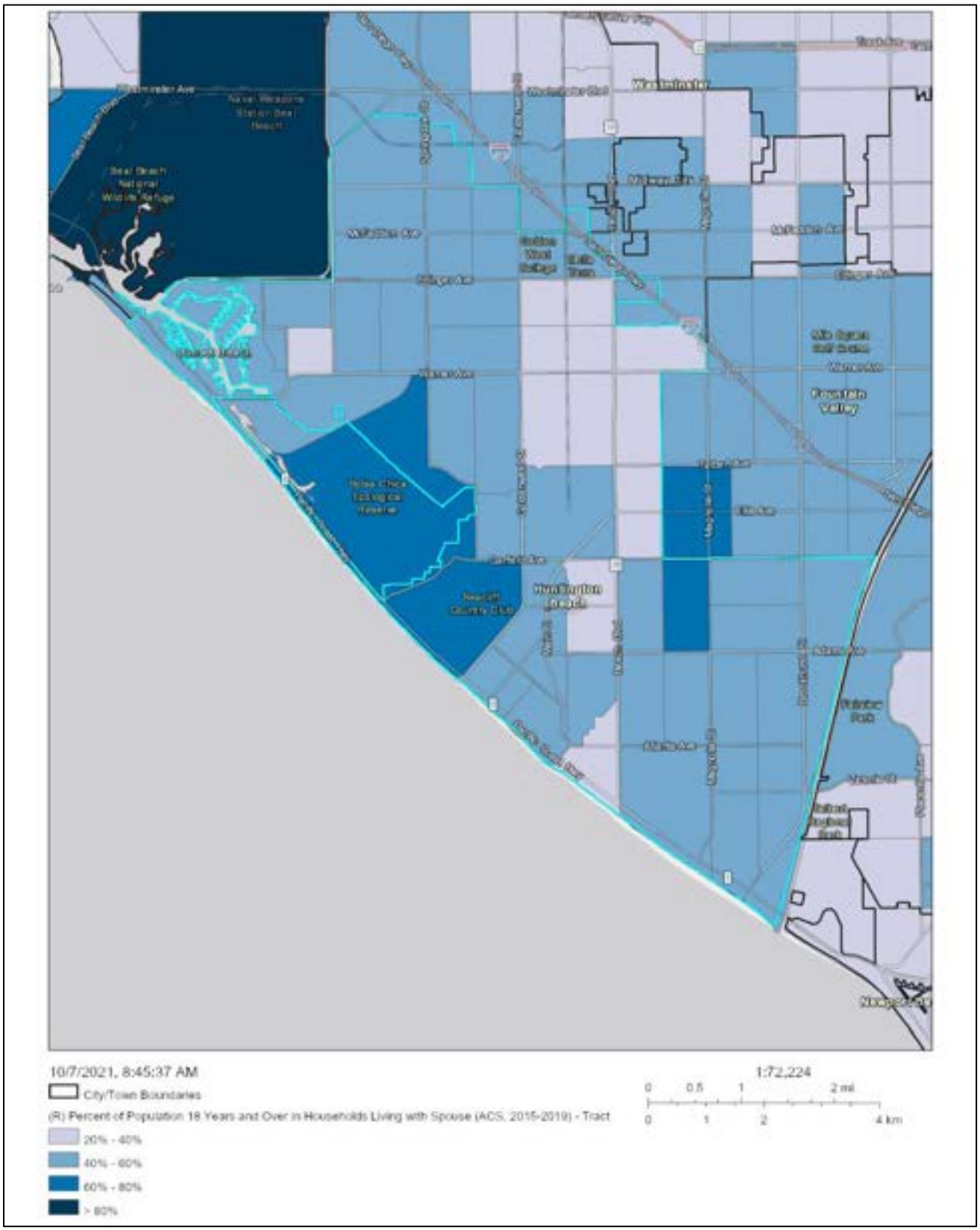
Huntington Beach has the highest percentage of female households without a spouse. As shown in **Figure 3-20**, most of the Census tracts within the City score in the less than or equal to the 20 percent range. However, eight census tracts within the City score between 20 and 40 of households having a single, female head of household. There is no particular income pattern associated with the areas with high proportions of female headed households.

Figure 3-22: Huntington Beach- Children in Female-Headed Households with no Spouse Present

Source: California Department of Housing and Community Development – AFFH Data Viewer

Non-family households represent the second largest household type in Huntington Beach at 34.9 percent, which is about three percent more than California and six percent more than Orange County. **Figure 3-21** below shows that a large portion of census tracts are comprised of 40 to 60 percent married-couple households. A few census tracts experience higher rates of married-couple households. Census tracts with the City's lowest percentage of married-couple households are located along major nonresidential corridors, consisting primarily of retail and other commercial land uses with relatively fewer residential neighborhoods.

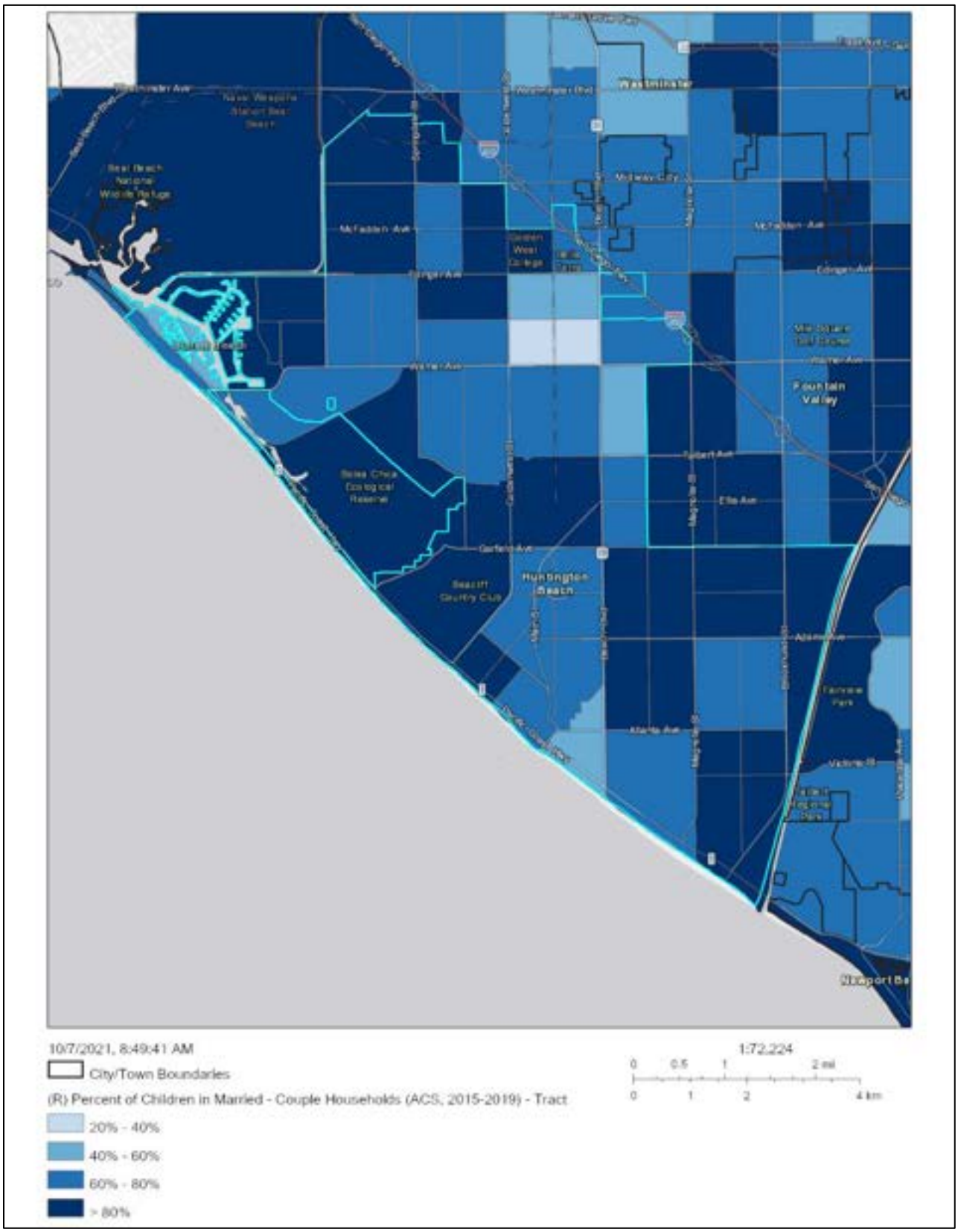
Figure 3-23: Huntington Beach- Married-Couple Households



Source: California Department of Housing and Community Development – AFFH Data Viewer

Figure 3-22 illustrates the density of children in married-couple family households throughout Huntington Beach. As the figure shows, the propensity of children aligns with the percentages of married-couple households, as shown in **Figure 3-21**. Census Tract 060590994.11, which was also identified for having a large proportion of single parent, female headed households, has the lowest proportion of households characterized by married couples with children in the City. Only 27 percent of households in this area are characterized as married with children. This Census Tract has a variety of household types and is not dominated by one in particular.

Figure 3-24: Huntington Beach- Children in Married-Couple Households



Source: California Department of Housing and Community Development – AFFH Data Viewer

Figure 3-23 shows very low percentages of persons over 18 years of age living alone throughout the entire City. This is similar to neighboring cities, which are also comprised of less than 20 percent individuals living alone. Different household types have varying housing needs – senior households may benefit from reasonable accommodation procedures and being located near medical facilities, single-parent households may benefit from affordable housing options due to limited income, and family households may benefit from larger housing units located near community areas and schools.

Figure 3-25: Huntington Beach- Households Living Alone

Source: California Department of Housing and Community Development – AFFH Data Viewer

As concluded in **Section 2: Community Profile**, seniors make up approximately 17.6 percent of the City's population, which is about four percent higher than the State's (13.9 percent) and about 2.5 percent higher than the County's (15.4). With such a large senior population, the City has a higher proportion of households with persons 65 years and older compared to both the State and County. About 24 percent of the State and County households have at least one person above the age of 65, while about 28 percent of households in Huntington Beach with at least one person over the age of 65.[13] Huntington Beach also has the highest rates of householders living alone that are 65 years old and older (10.9 percent) by about 1.5 percent when compared to the State and County. [14] Additionally, since the City's median age (42.2) is the 17th highest in the County out of 41 cities, the proportion of seniors in the population of the City may increase during the planning period.[15]

Housing Cost and Tenure

Table 3-28 provides a breakdown on incomes for the State, County, and City. Income distribution is similar among the City, County and State. A majority of households in each region earn between $100,000 and $200,000 annually. Orange County has a median income at $90,234, about $4,812 less than Huntington Beach and $15,000 more than for California as a whole. While the City is generally high income earning, people of color, especially persons of Hispanic ethnicity, seniors, and single parents within the community are more likely to earn lower incomes than White residents. Approximately 11 percent of Huntington Beach households are considered extremely-low income (30% of the average median income). For example, the median household income of a Hispanic family of the City is approximately $77,408, which is approximately $21,502 less than what the average White (non-Hispanic) household of the City made in 2019.[16]

Table 3-31: Households by Income by Geography, 2019

Household Income	Huntington Beach	Orange County	California
Less than $10,000	3.3%	4.2%	4.8%
$10,000-$14,999	2.5%	2.7%	4.1%
$15,000-$24,999	5.2%	5.6%	7.5%
$25,000-$34,999	5.7%	6%	7.5%
$35,000-$49,999	8.0%	8.8%	10.5%
$50,000-$74,999	13.7%	14.6%	15.5%
$75,000-$99,999	14.4%	12.8%	12.4%
$100,000-$149,999	20.7%	18.6%	16.6%
$150,000-$199,999	10.8%	11.1%	8.9%
$200,000 or More	15.7%	15.5%	12.2%
Median Income	**$95,046**	**$90,234**	**$75,235**

Source: American Community Survey, 5-Year Estimates, 2019.

Table 3-29 below shows the data for households experiencing overpayment or cost burden in the State, County, and City. Housing cost burden can mainly cause displacement, which may create limited access to essential goods and community, as well as employment by potentially increasing commute times. The percentages of households that experience a cost burden greater than 30 percent is overall similar amongst the State, and County, however Huntington Beach had a lower percentage. Huntington Beach experiences lower rates of cost burden than the County by about 21 percent. The City also has the smallest percentage of households with a cost burden over 50 percent at about 17.7

[13] American Community Survey, 5-Year Estimates, 2019. Table S0103.
[14] American Community Survey, 5-Year Estimates, 2019. Table S1101.
[15] Data Commons. (2020) Huntington Beach. Available at https://datacommons.org/place/geoId/0636000?utm_medium=explore&mprop=age&popt=Person&hl=en.
[16] American Community Survey, 5-Year Estimates, 2019. Table S1903.

percent, compared to about 19 percent in both the State and County. Increased opportunity for affordable housing and housing assistance funds help to prevent cost burden on households.

Table 3-32: Household Overpayment by Geography, 2019			
Overpayment	**Huntington Beach**	**Orange County**	**California**
Cost Burden > 30%	18.8%	40.5%	40.1%
Cost Burden > 50%	17.7%	19.3%	19.4%
Cost Burden Not Available	1.1%	1.4%	1.4%
Source: HUD Consolidated Planning/CHAS Data, 2013-2017.			

Table 3-30 displays data for household tenure (homeowners and renters) for the State, County, and City. Homeownership is a crucial foundation for households with low incomes to build strength, stability, and independence. The opportunity for transition into the homebuyer's market is important in a healthy housing market. **Table 3-30** shows that the City of Huntington Beach has a slightly lower percentage of homeowners than the County and a higher percentage than the State, reporting about 56.7 percent, compared to 57 percent in the County but a higher percentage than State (55 percent). Huntington Beach also has higher rates of renter than the County at 43.3 percent, compared to 42.6 percent in the County and lower rate than the State (45 percent).

Table 3-33: Households by Tenure by Geography, 2019			
Household Tenure	**Huntington Beach**	**Orange County**	**California**
Owner Households	56.7%	57.4%	54.8%
Renter Households	43.3%	42.6%	45.2%
Total Occupied Housing Units	**76,911**	**1,037,492**	**13,044,266**
Source: American Community Survey, 5-Year Estimates, 2019.			

Additionally, **Table 3-31** displays data for overcrowding. Overcrowding is defined as between 1.01 and 1.5 persons per room in a household, and severe overcrowding is defined as more than 1.51 persons per room. Overcrowding often occurs when nonfamily members combine incomes to live in one household, such as college students and roommates. Overcrowding also occurs when there are not enough size-appropriate housing options for large or multigenerational households. The City has the lowest percentages of owner-occupied households with overcrowded and severely overcrowded households compared to the County and State. Renters in Huntington Beach are disproportionately affected by overcrowding when compared to homeowners. Overall, across all three regions, owners were less affected by overcrowding and severe overcrowding.

Table 3-34: Households by Overcrowding by Geography, 2019			
Overcrowding and Tenure	**Huntington Beach**	**Orange County**	**California**
Owner Households			
Overcrowded	0.6%	1.5%	1.6%
Severely Overcrowded	0.1%	0.6%	0.6%
Renter Households			
Overcrowded	2.1%	4.2%	3.6%
Severely Overcrowded	0.9%	2.6%	2.4%
Source: American Community Survey, 5-Year Estimates, 2019.			

Housing Stock in Huntington Beach

Table 3-32 and **Table 3-33** display comparative housing stock data for the State, County, and City. **Table 3-32** below shows data for occupied housing units by type. A variety of housing stock provides increased opportunity in communities for different sizes and household types. The majority of housing

stock in Huntington Beach is single family housing unit developments (48.1 percent). Comparatively, single family units represent about 50.6 percent and 57.7 percent of the housing stock in the County and the State, respectively.

Table 3-35: Occupied Housing Units by Type by Geography, 2019			
Housing Unit Type	**Huntington Beach**	**Orange County**	**California**
1-Unit, Detached	48.1%	50.6%	57.7%
1-Unit, Attached	11.6%	12.3%	7.0%
2 Units	1.7%	1.6%	2.4%
3 or 4 Units	11.5%	6.9%	5.5%
5 to 9 Units	6.7%	6.7%	6.0%
10 to 19 Units	4.0%	5.4%	5.2%
20 or More Units	12.5%	13.7%	12.3%
Mobile Home	4.0%	2.7%	3.7%
Boat, RV, Van, etc.	0.0%	0.1%	0.1%
Source: American Community Survey, 5-Year Estimates, 2019.			

Table 3-33 below displays housing stock by year built for the City, County, and State. Older housing units generally require more upkeep, regular maintenance, and may cause a cost burden on both renters and homeowners. Older housing can also indicate a barrier to persons with disabilities as these housing units were not built in compliance with modern accessibility standards, The majority of Huntington Beach housing stock (69.9 percent) was built between 1950 and 1979. Overall, increased numbers of older housing can lead to displacement, cost burden, and substandard living conditions. An analysis of the City's housing stock is provided in **Chapter 2: Huntington Beach Community Profile**.

Table 3-36: Housing Unit by Year Built by Geography, 2019			
Year Built	**Huntington Beach**	**Orange County**	**California**
Built 2014 or later	2.1%	2.7%	1.7%
Built 2010 to 2013	1.4%	2.0%	1.7%
Built 2000 to 2009	4.8%	8.3%	11.2%
Built 1990 to 1999	6.7%	11.7%	10.9%
Built 1980 to 1989	13.0%	14.9%	15.0%
Built 1970 to 1979	28.3%	23.3%	17.6%
Built 1960 to 1969	36.8%	19.5%	13.4%
Built 1950 to 1959	4.8%	13.0%	13.4%
Built 1940 to 1949	0.8%	2.1%	5.9%
Built 1939 or earlier	1.3%	2.5%	9.1%
Source: American Community Survey, 5-Year Estimates, 2019.			

4. Displacement Risk

The potential for economic displacement risk can result from a variety of factors, including large-scale development activity, neighborhood reinvestment, infrastructure investments, and changes in local and regional employment opportunity. Economic displacement can be an inadvertent result of public and private investment, where individuals and families may not be able to keep pace with increased property values and market rental rates.

Urban Displacement Analysis

The Urban Displacement Project and the University of California, Berkeley developed a neighborhood change database to map neighborhood transformations and identify areas vulnerable to gentrification

and displacement. This data was developed to assist local decision makers and stakeholders better plan for existing communities and provide additional resources to areas in need or at-risk of displacement and gentrification. The typologies are detailed below:[17]

- Low-Income/Susceptible to Displacement
  - Low or mixed low-income tract in 2018.
- Ongoing Displacement of Low-Income Households
  - Low or mixed low-income tract in 2018.
  - Absolute loss of low-income households, 2000-2018.
- At Risk of Gentrification
  - Low or mixed low-income tract in 2018.
  - Housing affordable to low or mixed low-income households in 2018.
  - Didn't gentrify 1990-2000 OR 2000-2018.
  - Marginal change in housing costs OR Zillow home or rental value increases in the 90th percentile between 2012-2018.
  - Local and nearby increases in rent were greater than the regional median between 2012-2018 OR the 2018 rent gap is greater than the regional median rent gap.
- Early/Ongoing Gentrification
  - Low or mixed low-income tract in 2018.
  - Housing affordable to moderate or mixed moderate-income households in 2018.
  - Increase or rapid increase in housing costs OR above regional median change in Zillow home or rental values between 2-12-2018.
  - Gentrified in 1990-2000 or 2000-2018.
- Advanced Gentrification
  - Moderate, mixed moderate, mixed high, or high-income tract in 2018.
  - Housing affordable to middle, high, mixed moderate, and mixed high-income households in 2018.
  - Marginal change, increase, or rapid increase in housing costs.
  - Gentrified in 1990-2000 or 2000-2018.
- Stable Moderate/Mixed Income
  - Moderate, mixed moderate, mixed high, or high-income tract in 2018.
- At Risk of Becoming Exclusive
  - Moderate, mixed moderate, mixed high, or high-income tract in 2018.
  - Housing affordable to middle, high, mixed moderate, and mixed high-income households in 2018.
  - Marginal change or increase in housing costs.
- Becoming Exclusive
  - Moderate, mixed moderate, mixed high, or high-income tract in 2018.

[17] *Urban Displacement Project, University of California Berkeley (2021).*

  - Housing affordable to middle, high, mixed moderate, and mixed high-income households in 2018.
  - Rapid increase in housing costs.
  - Absolute loss of low-income households, 2000-2018.
  - Declining low-income in-migration rate, 2012-2018.
  - Median income higher in 2018 than in 2000.

- Stable/Advanced Exclusive
  - High-income tract in 2000 and 2018
  - Affordable to high or mixed high-income households in 2018.
  - Marginal change, increase, or rapid increase in housing costs.

Figure 3-24 below displays the mapped results of the above typologies in Huntington Beach. The map shows the following results:

- The maps shows that majority of Huntington Beach is at risk of becoming exlusive or vecoming excluive, meaning that most of the City is moderate to mixed-high income with a marginal change or increase in housing cost. The categories also mean that there may be a spike in housiong costs as well as a decline in low income in-migration, meaning low income households are not likely to move into these areas.
- The west and southwest portions of the city are primarily stable and advanced excluside. The data shows that these areas have high incomes and are only affordable to high or mixed income households, it also shows that there are likely rapid increases in hosuing costs.
- There is one area identified as low income/susceptable to displacement. The are is in the northern central portion of the City, and is surrounded by areas which are at risk of gentrification. The data shows that households within this area are an income that is below 50% of the median household income for the County of Orange.

- 99 proposed sites to accommodate the RHNA allocation (totaling 7,391 potential units, or 36 percent of the total potential units) are located within block groups designated as 'Stable Moderate/Mixed Income'. Of those units, 99 are proposed as affordable to low and very low incomes.

- 193 proposed sites to accommodate the RHNA allocation (totaling 7,991 potential units, or 39 percent of the total potential units) are located within block groups designated as 'At Risk of Becoming Exclusive'. Of those units, 2,052 are proposed as affordable to low and very low incomes.

- 83 proposed sites to accommodate the RHNA allocation (totaling 3,102 potential units, or 15 percent of the total potential units) are located within block groups designated as 'Low-Income/Susceptible to Displacement'. Of those units, 793 are proposed as affordable to low and very low incomes.

- 22 proposed sites to accommodate the RHNA allocation (totaling 1,999 potential units, or 10 percent of the total potential units) are located within block groups designated as 'Stable/Advanced Exclusive'. Of those units, 22 are proposed as affordable to low and very low incomes.

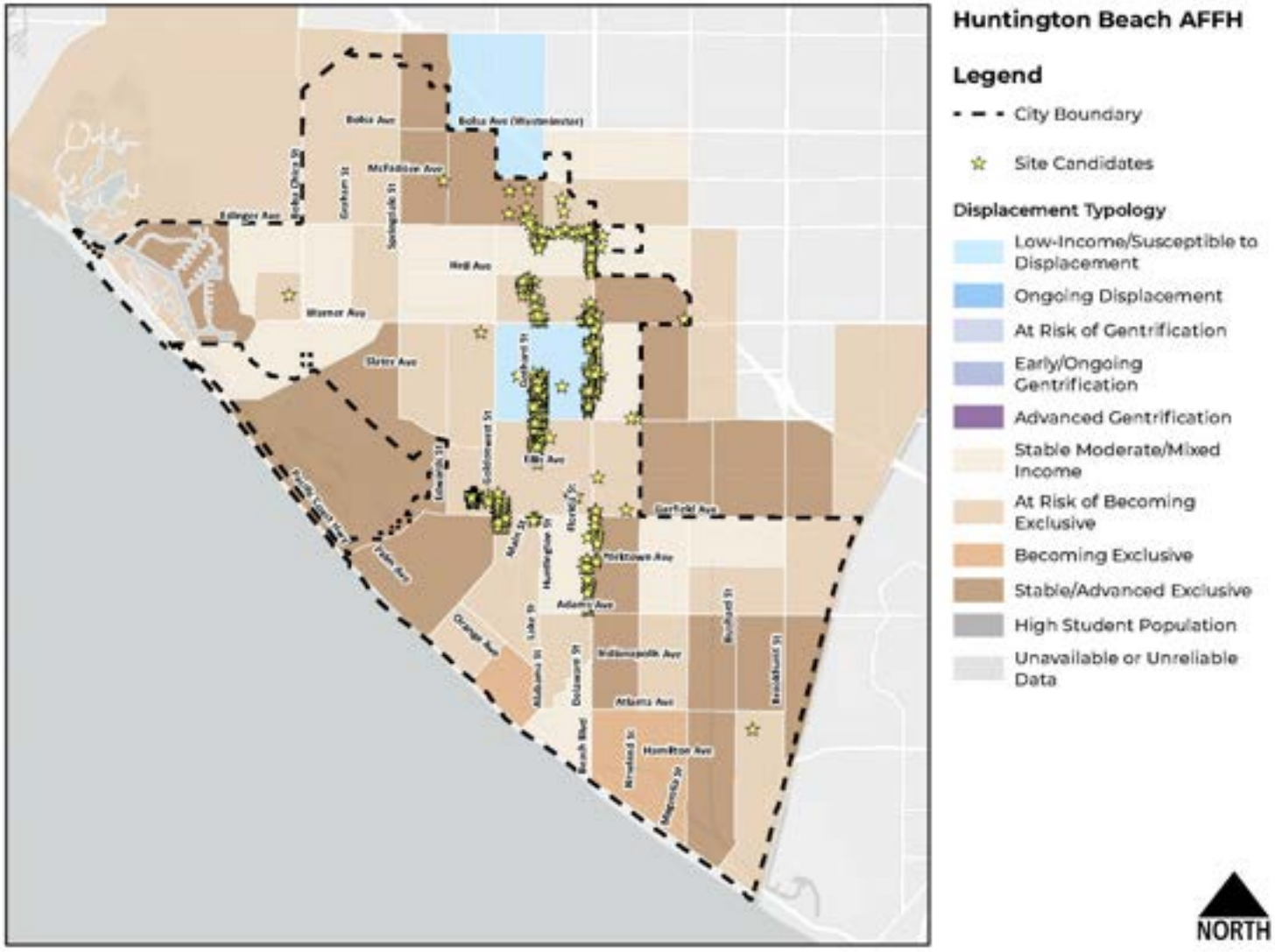
While the candidate housing sites are concentrated along a few corridors in the City, they are distributed in all categories as defined by the Urban Displacement Project. By choosing candidate

housing sites in areas that are considered “Stable/Advanced Exclusive”, there is potential to diversify the housing market in these areas, which would reduce the exclusivity of the area as well.

In relation to fair housing, the City should:

- Prioritize the preservation of existing affordable units.
- Review proposed developments in the area identified as susceptable to displacement and gentrification. Discuss the Inclusionary Housing Ordinance requirements with project applicants as developments are proposed to provide housing for a range of income levels and create mixed-income projects.
- Continue to implement its Inclusionary Housing Ordinance to bolster the creation of affordable housing in new development projects in all areas of the City, particularly areas of high opportunity.

Figure 3-26: Urban Displacement Analysis



Source: UC Berkeley Urban Displacement Project, Accessed Online December 12, 2021.

Analysis of At-Risk Units

Affordability covenants help to ensure that certain housing units remain affordable to persons of modest incomes for an extended period of time. Covenants help balance the housing market in a community and provide lasting affordable options to lower income households. The City of Huntington Beach currently has approximately 377 ownership housing units and 2,028 rental housing units which include affordability covenants.

Assisted Units "At-Risk" of Conversion

Jurisdictions are required by State Housing Element Law to analyze government-assisted housing that is eligible to convert from affordable rates to market rate housing during the planning period. State law identifies housing assistance as a rental subsidy, mortgage subsidy or mortgage insurance to an assisted housing development. Government assisted housing may convert to market rate housing for several reasons, including expiring subsidies, mortgage repayments, or expiration of affordability restrictions. Consistent with the requirements to analyze the impacts of the potential conversion of affordable units to market-rate units, this section provides an analysis of preservation of assisted housing units at-risk of conversion.

During the planning period, 247 deed-restricted affordable units are at-risk of conversion to market rates. Of these units, 48 are for seniors and 199 do not have age requirements.

Table 3-37: Affordable Housing Units in Huntington Beach with Covenants										
Name	Assessor Parcel Number & Address	Number of Affordable Units	Units by Bedroom Size					Year Built/ Rehabilitated	Funding Source	Covenant Recordation Number	Covenant Expiration
			Studio	1 BR	2 BR	3 BR	4 BR				
Beach Grove Apartments	142-211-51 16851 Nichols St.	80			2 BR: 80			1997	Set-Aside CDBG	CCR 01-19-96 No. 19960029682 CCR 03-18-02 No. 20020316059	2027
O.C. Community Housing Corporation Keelson	165-234-02 17372 Keelson Ln.	4			2 BR: 4			1994	HOME	Reg Agmt 02-28-94 No. 94-0665984	2024
O.C. Community Housing Corporation Queens	165-233-06 17422/17432 Queens Ln.	8			2 BR: 8			1996	HOME	Reg Agmt Nos. 19960658655; 19960658659	2026
Oceanaire Garden Apartments	165-181-19 7811 Talbert Ave.	65			2 BR: 65			1997	None – Inclusionary Housing Program	CCR 04-15-96 No. 19960251558 Amended 03-31-97 No. 19980144760	2027
Sea Air Apartments	025-191-29 725/729/733 Utica Ave.	36			2 BR: 36			1996	Set-Aside	AH Agmt/CCR No. 19970315244 Assumption Agmt 2008000293559	2026
Shelter for the Homeless American Family Housing Barton 1	165-223-03 7802 Barton Dr.	4			2 BR: 4			1994	HOME	Reg Agmt No. 94-0674362	2024
Shelter for the Homeless American Family Housing Barton 2	165-223-04 7812 Barton Dr.	4			2 BR: 4			1994	HOME	Reg Agmt No. 2000-0225132	2024

Table 3-37: Affordable Housing Units in Huntington Beach with Covenants										
Name	**Assessor Parcel Number & Address**	**Number of Affordable Units**	**Units by Bedroom Size**					**Year Built/ Rehabilitated**	**Funding Source**	**Covenant Recordation Number**	**Covenant Expiration**
			Studio	**1 BR**	**2 BR**	**3 BR**	**4 BR**				
Shelter for the Homeless American Family Housing Keelson	165-234-03 17382 Keelson Ln.	4	2 BR: 3 3 BR: 1					1995	HOME	Reg Agmt No. 95-0103395	2025
Sher Lane Apartments	142-111-38 16112 Sher Ln.	66	1 BR: 33 2 BR: 33					2003	Set-Aside HOME	Reg Agmt/CCR No. 19980669841 Reg Agmt No. 2003001431349	2028
Five Points Senior Apartments	159-092-07 18561 Florida St.	48	1 BR: 46 2 BR: 2					1993	1991 Series A Bonds. Set-Aside; CDLAC Reso 91-49	AH Agmt/CCR No. 94-0018299 First Amend to CCRs No. 2020000298800	2026
Source: City of Huntington Beach, 2021											

Cost to Preserve Affordable Units

While there are many options to preserving units including providing financial incentives to project owners to extend lower income use restrictions, purchasing affordable housing units by a non-profit or public agency, or providing local subsidies to offset the difference between the affordable and market rate units, the strategy considered below is to provide local rental subsidy to residents. The rent subsidy would provide financial assistance to residents if their affordable units converted to market rate. To determine the subsidy needed, Fair Market Rents were compared to market rate rents.

Table 3-38: 2022 HUD Fair Market Rent

Size of Unit	Fair Market Rent
Efficiency	$1,716
1-Bedroom	$1,905
2-Bedroom	$2,324
3-Bedroom	$3,178
4-Bedroom	$3,674

HUD FY 2022 Fair Market Rent Documentation System – Santa Ana-Anaheim-Irvine MSA

Table 3-39: Estimated Monthly Subsidy to Preserve "At-Risk" Units

Unit Size	Monthly Rents		Number of Units At-Risk	Difference	Monthly Subsidy	Annual Subsidy
	Fair Market Rents[1]	Market Rate[2]				
Efficiency	$1,716	$2,436	0	$720	$0	$0
1-Bedroom	$1,905	$2,229	79	$324	$25,596	$307,152
2-Bedroom	$2,324	$2,965	239	$641	$153,199	$1,838,388
3-Bedroom	$3,178	$3,669	1	$491	$491	$5,892
4-Bedroom	$3,674	$4,321	0	$647	$0	$0
					TOTAL	**$2,151,432**

Source:
1. HUD FY 2022 Fair Market Rent Documentation System – Santa Ana-Anaheim-Irvine MSA
2. Kimley-Horn and Associate Analysis – based on apartments listed for rent across ten properties on September 22, 2021.

Cost to Replace Affordable Units

The City can also consider the cost of replacing at-risk units with new construction. Construction cost estimates include all hard and soft costs associated with construction in addition to per unit land costs. The analysis assumes the replacement units are apartments with concrete block with steel frame buildings and parking provided on-site. Square footage estimates are based on estimated size of units to be replaced and assume housing units are developed on properties zoned for multi-family residential development. Land costs have been determined on a per unit basis.

Table 3-40: Replacement Cost by Unit Type

Size of Unit	Cost Per Square Foot[1]	Average Square Foot/Unit[2]	Replacement Cost/Unit	Number of Units	Total Replacement Cost
Efficiency	$125.18	657	$82,181	0	$0
1-Bedroom	$125.18	781	$97,748	79	$7,722,068
2-Bedroom	$125.18	1,073	$134,327	239	$32,104,172
3-Bedroom	$125.18	1,463	$183,192	1	$183,192

4-Bedroom	$125.18	2,049	$256,438	0	$0
				TOTAL	**$40,009,433**

Source:
1. International Code Council – August 2020 Report.
2. Kimley-Horn and Associate Analysis – based on apartments listed for rent across ten properties on September 22, 2021.

Resources to Preserve At-Risk Units

A variety of programs exist to help cities acquire, replace, or subsidize at-risk affordable housing units. The following summarizes financial resources available:

- **Community Development Block Grant (CDBG)** – CDBG funds are awarded to cities on a formula basis for housing activities. The primary objective of the CDBG program is the development of viable communities through the provision of decent housing, a suitable living environment and economic opportunity for principally low- and moderate-income persons. Eligible activities include administration, fair housing, energy conservation and renewable energy sources, assistance for economic development, public facilities and improvements and public services.
- **HOME Investment Partnership** – Local jurisdictions can receive funds through a formula calculation from the Department of Housing and Urban Development (HUD) to increase the supply of decent, safe, sanitary, and affordable housing to lower income households. Eligible activities include housing acquisition, rehabilitation, and development, homebuyer assistance, and rental assistance.
- **Section 8 Rental Assistance Program** – The Section 8 Rental Assistance Program provides rental assistance payments to owners of private, market rate units on behalf of very low-income tenants, senior citizens, disabled and/or handicapped persons, and other individuals for securing affordable housing.
- **Section 202/811 Program** – Non-profit and consumer cooperatives can receive no-interest capital advances from HUD under the Section 202 program for the construction of very low-income rental housing with the availability of supportive services for seniors and persons with disabilities. These funds can be used in conjunction with Section 811, which can be used to develop group homes, independent living facilities and immediate care facilities. The capital advance funding can also provide project rental assistance for the properties developed using the funds. Eligible activities include acquisition, rehabilitation, new construction, and rental assistance.
- **California Housing Finance Agency (CalHFA) Multifamily Programs** – CalHFA's Multifamily Programs provide permanent financing for the acquisition, rehabilitation, and preservation of new construction of rental housing that includes affordable rents for low- and moderate-income families and individuals. One of the programs is the Preservation Loan program, which provides acquisition/rehabilitation and permanent loan financing designed to preserve or increase the affordability status of existing multifamily housing projects.
- **Low-Income Housing Tax Credit (LIHTC)** – This program provides tax credits to individuals and corporations that invest in low-income rental housing. Tax credits are sold to those with high tax liability and proceeds are used to create housing. Eligible activities include new construction, rehabilitation, and acquisition of properties.
- **California Community Reinvestment Corporation (CCRC)** – The California Community Reinvestment Corporation is a multifamily affordable housing lender whose mission is to

increase the availability of affordable housing for low-income families, seniors, and residents with special needs by facilitating private capital flow from its investors for debt and equity to developers of affordable housing. Eligible activities include new construction, rehabilitation, and acquisition of properties.

Qualified Entities to Preserve At-Risk Units

Many affordable housing developers are capable and have the capacity to potentially assist in the preservation of at-risk units. The following organizations have experience constructing and operating affordable housing units in the City:

- Southern California Housing Development Corporation
- Jamboree Housing Corporation
- AMCAL

SB 330

Effective January 1, 2020, Senate Bill 330 (SB 330) aims to increase residential unit development, protect existing housing inventory, and expedite permit processing. Under this legislation, municipal and county agencies are restricted in ordinances and polices that can be applied to residential development. The revised definition of "Housing Development" now contains residential projects of two or more units, mixed-use projects (with two-thirds of the floor area designated for residential use), transitional, supportive, and emergency housing projects. SB330 sets a temporary 5-year prohibition of residential density reduction associated with a "housing development project", from January 1, 2020, to January 1, 2025. For example, during this temporary prohibition, a residential triplex cannot be demolished and replaced with a duplex as this would be a net loss of one unit. The City does not currently have a specified process for projects pursuant to SB 330 and defers to state regulations.

5. Assessment of Contributing Factors to Fair Housing in Huntington Beach

The AI identifies the following regional goals for mitigating impediments to fair housing within jurisdictions in Orange County:

- **Goal 1**: Increase the supply of affordable housing in high opportunity areas.
- **Goal 2**: Prevent displacement of low- and moderate-income residents with protected characteristics, including Hispanic residents, Vietnamese residents, other seniors, and people with disabilities.
- **Goal 3**: Increase community integration for persons with disabilities.
- **Goal 4**: Ensure equal access to housing for persons with protected characteristics, who are disproportionately likely to be lower-income and to experience homelessness.
- **Goal 5**: Expand access to opportunity for protected classes.

As identified by the County AI and the above analysis the City of Huntington Beach experiences the following local contributing factors to fair housing:

- **Housing Discrimination** – The 2020 AI identified housing discrimination as an impediment to fair housing choice in the City. The AI reports that the City's Code Enforcement staff provides fair housing information and referrals to tenants in the field.

- **Discrimination Based on Disability:** Complaints received by the City's contracted fair housing service provider based on disability continue to be the leading basis of all discrimination complaints. This demonstrates a lack of understanding and sensitivity of the fair housing rights of the disabled by the housing industry.

- **Reasonable Accommodation:** A significant portion of the housing in Huntington Beach was built before the advent of modern accessibility standards, thus modifications to homes may be needed to allow access by a disabled person.
- **Racial and Ethnic Segregation** – The 2020 Analysis above identifies moderate segregation through the dissimilarity index analysis. Persons who identify as Hispanics, Other, Native Hawaiian, American Indian, and Black experience over 30 percent dissimilarity with the white population in Huntington Beach. The R/ECAP analysis did not identify R/ECAPs in the City, there is one low resource area in the City consisting of primarily Hispanic population.
  - The City's Affordable Housing Ordinance allows for developers to be eligible for reduced fees if projects exceed the minimum (10%) inclusionary requirements on-site.
  - In early 2020, the City established an Affordable Housing Overlay within the Beach and Edinger Corridors Specific Plan, which allows for ministerial (by-right) project approval and other development incentives for projects providing a minimum of 20% of the total units affordable to lower income households on-site.
  - Since 2016, the City has approved four density bonus projects.
  - In fiscal year 2015/16, the City established a tenant based rental assistance (TBRA) program. Assistance includes security deposit and rental assistance paid directly to the landlord as well as housing relocation and stabilization services, case management, outreach, housing search and placement, legal services, and financial management/credit repair.
- **Density Bonus Incentives -** The 2020 AI identified Density Bonus Incentives as an impediment to fair housing choice in Huntington Beach. Although Huntington Beach has not updated its zoning code to reflect current state regarding density bonus, the City has implemented the state law regarding density bonus. Also, the City has received and approved four projects proposing density bonus requests since 2016.

Local Contributing Factors

Locally-derived contributing factors were developed through the lens of Affirmatively Furthering Fair Housing in response to community participation in outreach events, analysis conducted in the sites inventory, and feedback on the draft Housing Element data, analysis, and policy programs. The contributing factors to AFFH are the foundational pieces of Section 4: Housing Plan. The City identifies the following local contributing factors to fair housing issues:

1. **Composition and Location** – The City encompasses approximately 27.3 square miles and features 9.5 miles of shoreline. Huntington Beach is central to several major job centers (approximately 37 miles southeast of downtown Los Angeles and within one hour driving distance of employment hubs in Irvine, Newport Beach, Costa Mesa, and Anaheim), making it an attractive location within the SCAG region for all types of development, including housing. The City's relative proximity to high-earning jobs and location on the coastline pose unique fair housing challenges. The composition and location of the City may contribute to increased demand for housing, high cost of housing, risk of homelessness, and potential for displacement and gentrification. To address this, Program 1D commits the City to preserving 254 existing affordable housing units that are at-risk of conversion to market rates during the planning period. Program 1E commits the City

to providing housing choice vouchers to special needs groups and low-income residents. Program 1F commits the City to utilizing HOME funds for tenant-based rental assistance for people experiencing homelessness and people at- risk of homelessness, with a preference to veterans, seniors, and victims of domestic violence in Huntington Beach. Goal 3 specifically recognizes this local contributing factor and works to address the high cost of housing by enhancing housing affordability in the City.

2. **Aging Housing Stock and Housing Conditions** – As detailed in Section F: Housing Stock Characteristics within the Community Profile, approximately 43.7% of the City's housing stock is over 50 years old. These units may need repairs or upgrades to alleviate substandard living conditions. Lower-income households residing in older housing units may not have the resources necessary to make repairs to their homes. Additionally, renters within older housing units may also experience housing cost and affordability challenges even though their unit is older. The City received comments during the Spanish-language outreach event that expressed concern for existing units to repaired and upgraded. To address the aging housing stock and housing conditions, Program 1A continues the City's commitment to utilize CDBG and HOME funding for the Single-Family Home Improvement Loan and the Multi-Family Rental Housing Rehab Loan. The City will lend homeowners up to $75,000 to pay for rehabilitation costs for a single-family home, townhouse, condominium or mobile home. Grants are also available to low income households whose estimated repair costs do not exceed $10,000. For the Multi-Family Rental Housing Rehab Loan, the City provides up to $75,000 for repairs to duplex, triplex, or fourplex properties. Loan repayment is deferred until the home is resold or refinanced. Additionally, Policy 1.2 addresses the City's aging housing stock and conditions by supporting the long-term maintenance and improvement of existing housing through code enforcement and housing rehabilitation programs.

3. **Senior Housing** – As detailed in Section E: Special Needs Groups within the Community Profile, approximately 42% of households in the City have a member age 60 and over. Multiple comments were received during the public input process that emphasized a need for housing affordable to the senior community (refer to Appendix C). Seniors are predominately on fixed incomes and represent a large group of residents in need of support to address high housing costs and unique housing needs. To address this, Program 1G commits the City to preserve existing mobile home parks, including those within the Senior Overlay. Mobile homes are typically a more affordable housing option and can assist in meeting the housing needs of the senior population. Programs 1E and 1F commit the City to providing rental assistance to special needs groups and some programs provide preference to seniors. Additionally, Policy 5.2 supports the development and maintenance of affordable senior rental/ownership housing and supportive services to maximize the ability of seniors to remain in their homes and/or in the community.

4. **High Cost of Housing** - Multiple comments were received during the public input process that emphasized a need for lower cost housing and developing variety of housing types, including ADUs, that are more affordable (refer to Appendix C). As detailed in Section F: Housing Stock Characteristics within the Community Profile, the cost of housing in Huntington Beach typically increases annually for both renters and perspective home buyers. To address this, Program 1D commits the City to preserving 254 existing affordable housing units that are at-risk of conversion to market rates during the planning period. Goal 7: System of Care and Housing for People Experiencing Homelessness includes several programs that commit the City to prioritizing increasing the supply of affordable housing, including permanent supportive housing and other housing types affordable to low and extremely low income households. These programs will help

to boost affordable housing production, which will in turn boost affordable housing stock to help offset higher housing costs. Programs 2C and 2D commits the City to supporting, promoting, and increasing the development of ADUs, which are naturally lower-cost due to their smaller size.

5. **Lower Income Access to Opportunity** – As detailed in Section B: Economic Characteristics within the Community Profile, high local employment in the retail sector and service industry at hotels and other tourist-serving businesses contributes to the need for housing affordable to lower income households. Public input received during the Spanish language outreach emphasized a need for housing in safer areas for households making $30,000 or less annually (refer to Appendix C). Additionally, 9% of respondents to the public input survey noted that they were looking for housing in Huntington Beach due to schools, which indicates that City schools are perceived as providing upward opportunities for residents. Survey participants also indicated that barriers to finding housing (rental or purchase) included access to transit/mobility issues, distance from current job/economic opportunity, and overall cost (Appendix C).

   In Appendix B, the City has identified an inventory sites of available for housing development that will increase lower income access to opportunity. This includes an emphasis of new housing development in corridors with SCAG-designated HQTA along Beach Boulevard. The sites identified in the Beach Blvd. and Edinger Ave. corridors are along main arterials in the City with efficient access to SCAG-designated HQTA, the Goldenwest Transit Center, and car travel via the 405 freeway. The Beach Blvd. and Edinger Ave. corridors have a mixed use vision that provide access to high resource areas to meet needs of residents such as high-performing schools, public transit, and a variety of jobs in retail, medical (Hoag, Huntington Beach Hospital, Kaiser, etc.), and other industries. Further, development of housing on the Golden West College property on Edinger Ave. will provide lower income households access to education, technical certificates to increase household income and improve labor market engagement, and high-quality jobs on the college campus.

   Further, Appendix B identifies sites along the Gothard St. corridor that will create a new mixed use (industrial/residential) area. Development of the Gothard St. corridor will give residents access to high quality jobs as this area retains the most employment centers in the City and high-performing schools. The Gothard Ave. corridor is also adjacent to Huntington Central Park. The park is a key recreational resource in the City as it is the largest city-owned park in Orange County covering over 350 acres of land. Development of affordable housing in this area will enhance quality of life, contribute to healthy lifestyles, and improve environmental justice for lower income households.

   Appendix B also identifies existing industrial properties within the Holly-Seacliff Specific Plan (HSSP). The HSSP area is one of the highest resource areas of the City with particular emphasis on high-performing schools, low rates of poverty, and a healthy environmental justice score. Development of these sites with residential uses will increase lower income access to opportunity within this high resource area.

   To ensure the sites identified in Appendix B provide for the development of affordable housing in addition to market rate housing, Program 2A commits the City to creating the Housing Overlay (HO) Zone to be applied on sites within the Gothard Corridor/HSSP and expanding the application of the Beach-Edinger Corridor Specific Plan's existing Affordable Housing Overlay to the sites identified in Appendix B. Program 2B establishes a new Citywide Affordable Housing Overlay Zone that will assist the City in accommodating its RHNA allocation of 5,845 lower income units and 2,308 moderate income units throughout the City.

Additionally, Policy 6.3 commits the City to promoting healthy living for households at all income levels through decisions in the location, site planning, and design of housing and mixed use development. Policy 6.4 commits the City to incorporate public transit or active transportation methods into the design of new development, including affordable housing, particularly in areas within a half-mile of SCAG-designated HQTA. Policy 6.5 commits the City to encouraging links between housing and jobs by providing housing opportunities affordable to the modest and lower income workforce in areas with a variety of job opportunities.

The City recognizes the fair housing issues that exist within the community and is committed to reducing barriers to housing affordable to all persons. The City outlines programs to address fair housing issues and prioritizes these contributing factors in Section 4: Housing Plan.

6. Analysis of Sites Pursuant to AB 686

AB 686 requires that jurisdictions identify sites throughout the community in a manner that is consistent with its duty to affirmatively further fair housing. The site identification requirement involves not only an analysis of site capacity to accommodate the RHNA (provided in **Appendix B**), but also whether the identified sites serve the purpose of replacing segregated living patterns with truly integrated and balanced living patterns, transforming racially and ethnically concentrated areas of poverty into areas of opportunity.

Figure 3-25 through Figure 3-30 below identify the sites to accommodate future housing, as identified in the adequate sites analysis, overlaid on demographic data using the 2019 American Community Survey 5-Years Estimates.

- **Figure 3-25**– Huntington Beach Proposed RHNA Sites, Hispanic/Latino, 2019
- **Figure 3-26**– Huntington Beach Proposed RHNA Sites, Non-White Population, 2019
- **Figure 3-27**– Huntington Beach Proposed RHNA Sites, Low and Moderate Income, 2019
- **Figure 3-28**– Huntington Beach Proposed RHNA Sites, RECAP areas
- **Figure 3-29**– Huntington Beach Proposed RHNA Sites, RCAA areas
  Figure 3-30– Huntington Beach Proposed RHNA Sites, TCAC Opportunity Areas

Figure 3-25 shows the proposed candidate sites to meet the City's RHNA in relation to the location of residents of Hispanic origin. These sites take into consideration access to vital goods, services, and public transportation and are therefore ideal areas for the City to focus much of its future housing growth. It is anticipated that accessory dwelling unit (ADU) growth, including growth for affordable ADUs, will occur in the less dense areas of the community.

Figure 3-25 shows the following findings:

- 83 proposed sites to accommodate the RHNA allocation (totaling 2,999 potential units, or 16 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as Hispanic above 70 percent. Of the 2,999 potential units, 836 units will be affordable to low and extremely low-income residents, which is approximately 15 percent of all low and extremely-low income units.
- 138 proposed sites to accommodate the RHNA allocation (totaling 8,615 potential units, or 46 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as Hispanic between 20 and 40 percent. Of the

8,615 potential units, 2,667 units will be affordable to low and extremely low-income residents, which is approximately 48 percent of all low and extremely low-income units.

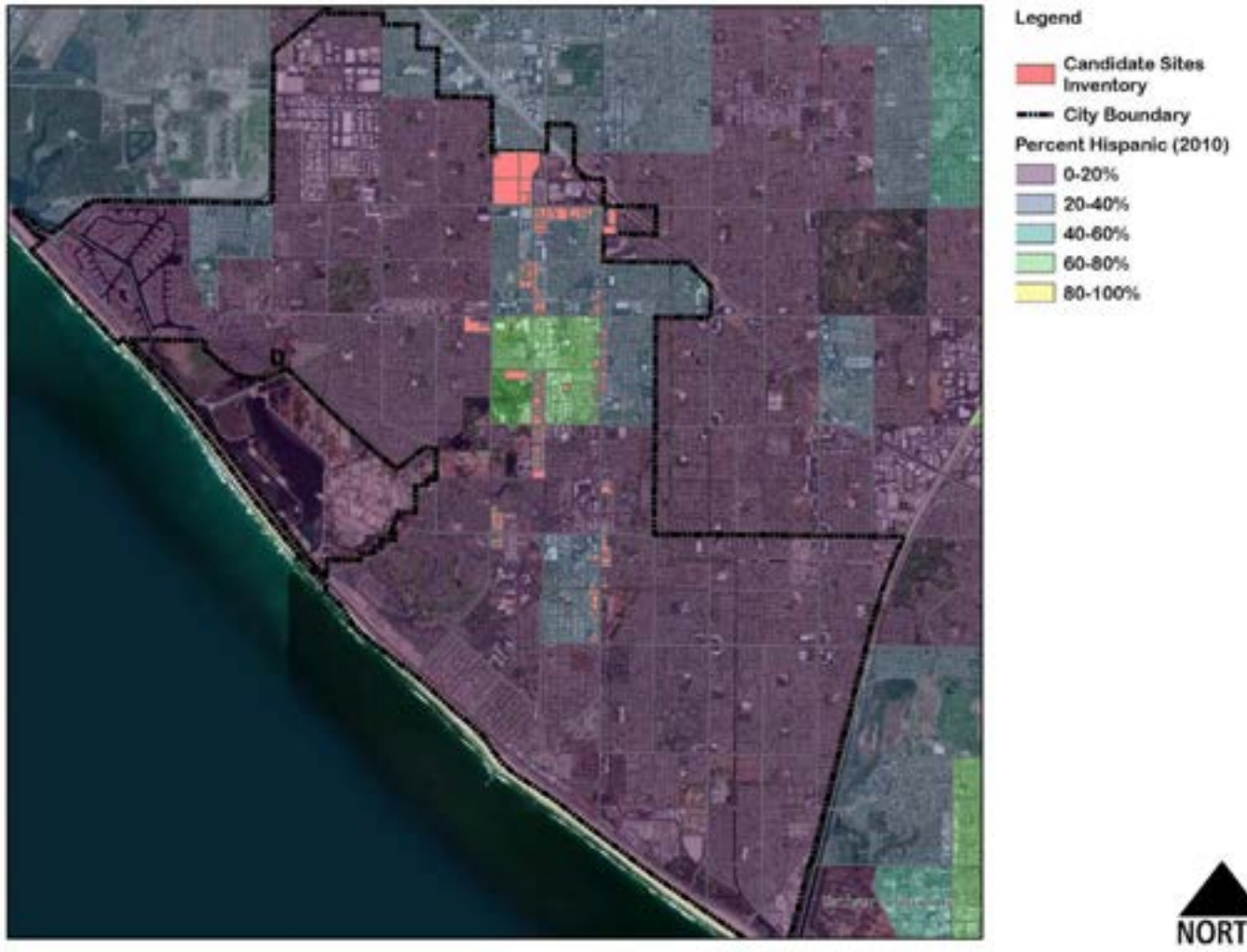
- 156 proposed sites to accommodate the RHNA allocation (totaling 3,858 potential units, or 38 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as Hispanic below 20 percent. Of the 3,858 potential units, 2,064 units will be affordable to low and extremely low-income residents, which is approximately 37 percent of all low and extremely low-income units.

Projected units have the potential to further integrate Huntington Beach communities in regard to income and race. Areas within the City that are characterized as predominantly Hispanic (Census Tract 060590994.02) often have lower median incomes and less access to resources than those with higher concentrations of White residents (See discussion in Integration and Segregation Patterns and Trends). Approximately 85 of all low and extremely low-income units are in areas of the City with less than 40 percent of the population identifying as Hispanic. As a result, households with lower median incomes would have more opportunities to live in higher income areas that have access to more resources. Additionally, by proposing above moderate and moderate income housing in areas with higher Hispanic predominance, median incomes in the area would rise. This could have the potential to attract developer interest, increase private investment, and can result in improved access to resources for these areas.

The data shows that the proposed candidate sites to meet the very low- and low-income RHNA allocation are dispersed throughout the City. The location of sites along the main corridors of the City, , including Beach Blvd. Edinger Ave., and Gothard St, serves to increase access to high resource areas and improve job proximity, which were identified as areas for improvement in the Disparities in Access to Opportunity analysis within this section. The placement of sites in these areas will improve conditions for households at all income levels, particularly those of lower incomes. These areas have the highest opportunity and resource ratings, high level of access to important public services, and the highest transit connectivity. The distribution of proposed candidate sites does not disproportionately impact areas with larger concentrations of the Hispanic population.

Please refer to Section 7: Summary of Fair Housing Analysis below for a complete analysis of the sites inventory through the lens of affirmatively furthering fair housing.

Figure 3-27: Huntington Beach Candidate Housing Sites, Hispanic Population



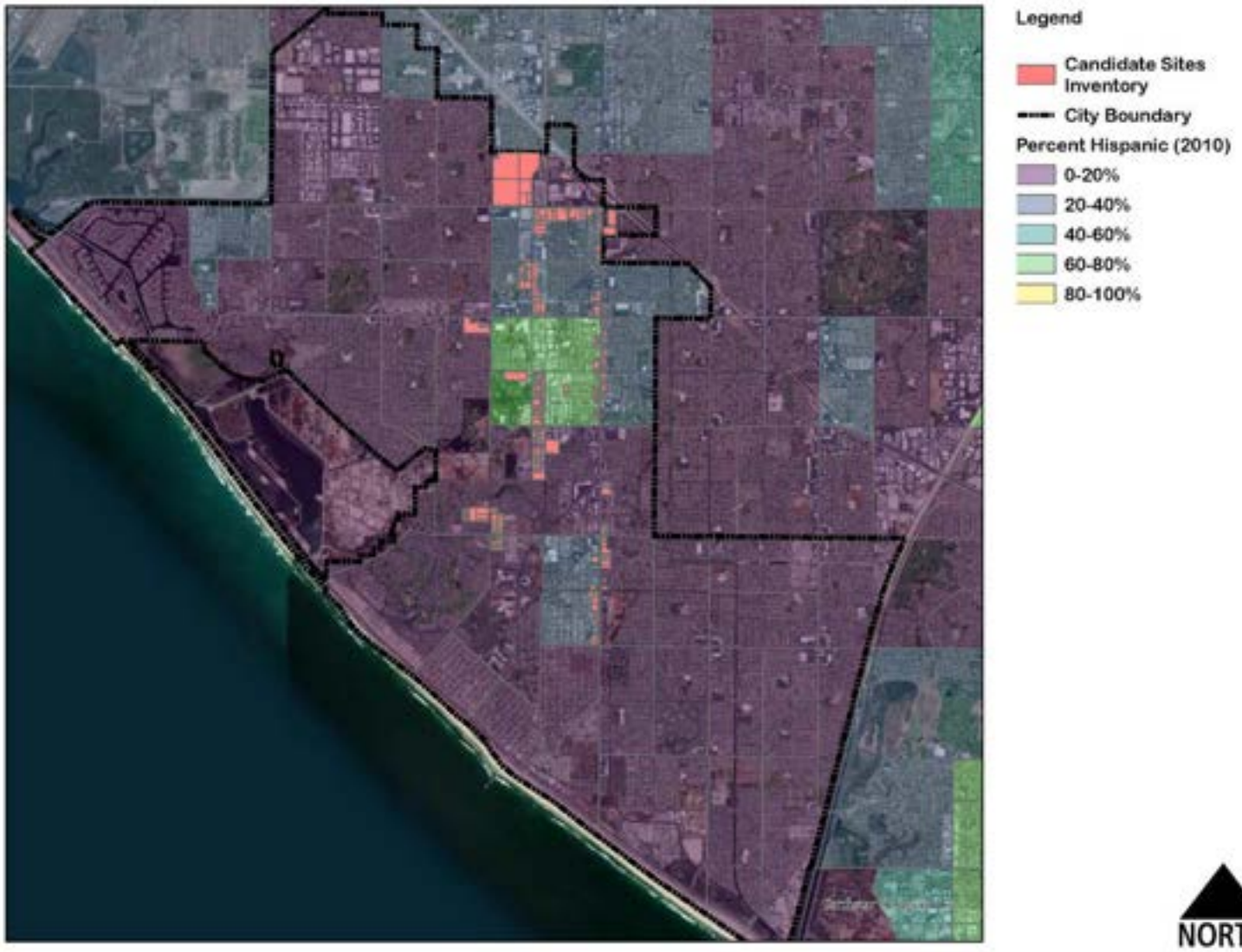

Legend
Candidate Sites Inventory
City Boundary
Percent Hispanic (2010)
0-20%
20-40%
40-60%
60-80%
80-100%
NORTH

Figure 3-26 shows the proposed candidate sites to meet the RHNA for Huntington Beach in relation with census data showing the percentage of the population within each block group that is non-white.

Figure 3-26 shows the following findings:

- 10 proposed sites to accommodate the RHNA allocation (totaling 401 potential units, or 2 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as non-white above 80 percent. Of the 401 potential units, 12 units will be affordable to low and extremely low-income residents, which is approximately 2 percent of all low and extremely low-income units.
- 115 proposed sites to accommodate the RHNA allocation (totaling 5,577 potential units, or 30 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as non-white between 60 and 80 percent. Of these potential units, 1,757 units will be affordable to low and extremely low-income residents, which is approximately 32 percent of all low and extremely low-income units.
- 96 proposed sites to accommodate the RHNA allocation (totaling 7,203 potential units, or 39 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as non-white between 40 and 60 percent. Of these potential units, 2,190 units will be affordable to low and extremely low-income residents, which is approximately 39 percent of all low and extremely low-income units.
- 156 proposed sites to accommodate the RHNA allocation (totaling 5,467 potential units, or 29 percent of the total potential units) are located within block groups that have a percentage of the population that identifies as non-white less than 40 percent. Of these potential units, 1,499 units will be affordable to low and extremely low-income residents, which is approximately 27 percent of all low and extremely low-income units.

The majority of all low and extremely low-income units (85 percent) are in areas with Non-White populations less than 60 percent, which is the majority of the census tracts in the City. While approximately 32 of all potential units are in areas with populations characterized as having greater than 60 percent of Non-White residents, the majority of these units are moderate and above moderate, which would raise the median income in these areas. This could result in furthering developer interest in these neighborhoods and could bring in more resources to the community. No single community is overburdened by proposed candidate housing sites and would not experience further segregation. Placement of the proposed candidate housing sites would further integrate incomes of varying levels throughout of the community and would result in a wider variety of housing opportunities for low income households, which builds upon the City's successful track record of creating diverse, mixed-income neighborhoods. The data shows that the proposed candidate sites to meet the very low- and low-income RHNA allocation are dispersed throughout the community with a focus on the main corridors of the City. These areas have the highest opportunity and resource ratings, high level of access to important public services, and the highest transit connectivity. The distribution of proposed candidate sites does not disproportionately impact areas with larger concentrations of non-white populations.

Please refer to Section 7: Summary of Fair Housing Analysis below for a complete analysis of the sites inventory through the lens of affirmatively furthering fair housing.

Figure 3-28: Huntington Beach Candidate Housing Sites, Non-White population

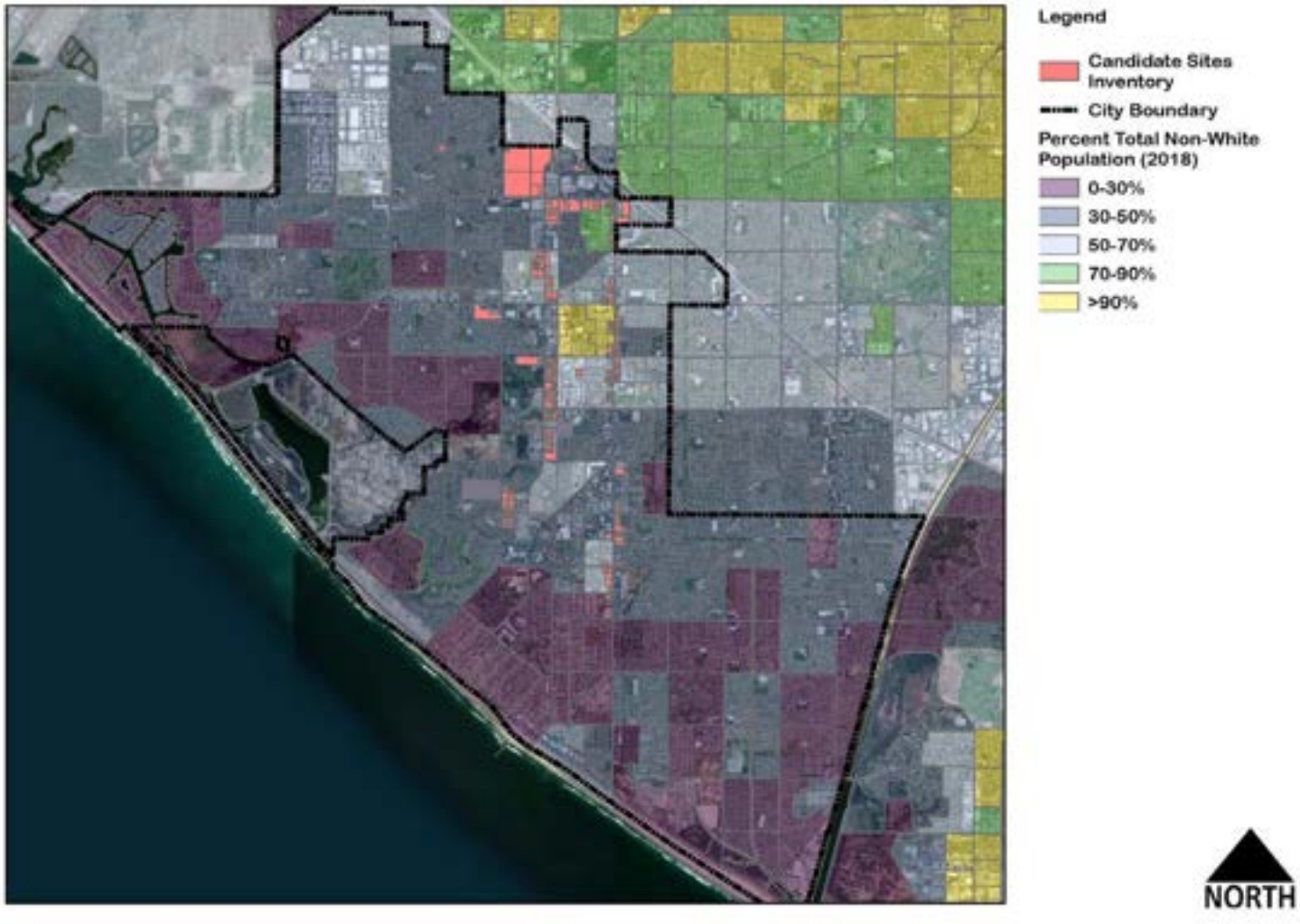


Figure 3-27 shows the location of proposed candidate sites to meet RHNA for Huntington Beach in comparison with census data showing the percentage of the population within each block group who is categorized as low income or moderate by the American Community Survey.

Figure 3-27 shows the following findings:

- 73 proposed sites to accommodate the RHNA allocation (totaling 4,400 potential units, or 21.5 percent of the total potential units) are located within block groups that have a percentage of the population that is low- and moderate-income greater than 75 percent. Of these potential units, 1,255 units will be affordable to low and extremely low-income residents.
- 155 proposed sites to accommodate the RHNA allocation (totaling 8,087 potential units, or 39.5 percent of the total potential units) are located within block groups that have a percentage of the population that is low- and moderate-income between 50 and 75 percent. Of these potential units, 2,275 units will be affordable to low and extremely low-income residents.
- 37 proposed sites to accommodate the RHNA allocation (totaling 3,751 potential units, or 18.3 percent of the total potential units) are located within block groups that have a percentage of the population that is low- and moderate-income between 25 and 50 percent. Of these potential units, 905 units will be affordable to low and extremely low-income residents.
- 72 proposed sites to accommodate the RHNA allocation (totaling 2,116 potential units, or 10.3 percent of the total potential units) are located within block groups that have a percentage of the population that is low- and moderate-income between 10 and 25 percent. Of these potential units, 816 units will be affordable to low and extremely low-income residents.
- 60 proposed sites to accommodate the RHNA allocation (totaling 2,129 potential units, or 10.4 percent of the total potential units) located within block groups that have a percentage of the population that is low- and moderate-income below 10 percent. Of these potential units, 605 units will be affordable to low and extremely low-income residents.

The data shows that the proposed candidate sites to meet the very low- and low-income RHNA allocation are dispersed throughout the community with a focus on the main corridors of the City. These areas have the highest opportunity and resource ratings, high level of access to important public services, and the highest transit connectivity. The distribution of proposed candidate sites provides increased opportunities for affordable housing in areas with higher rates of lower income persons.

Please refer to Section 7: Summary of Fair Housing Analysis below for a complete analysis of the sites inventory through the lens of affirmatively furthering fair housing.

Figure 3-29: Huntington Beach Candidate Housing Sites, Low- and Moderate-Income Block Groups

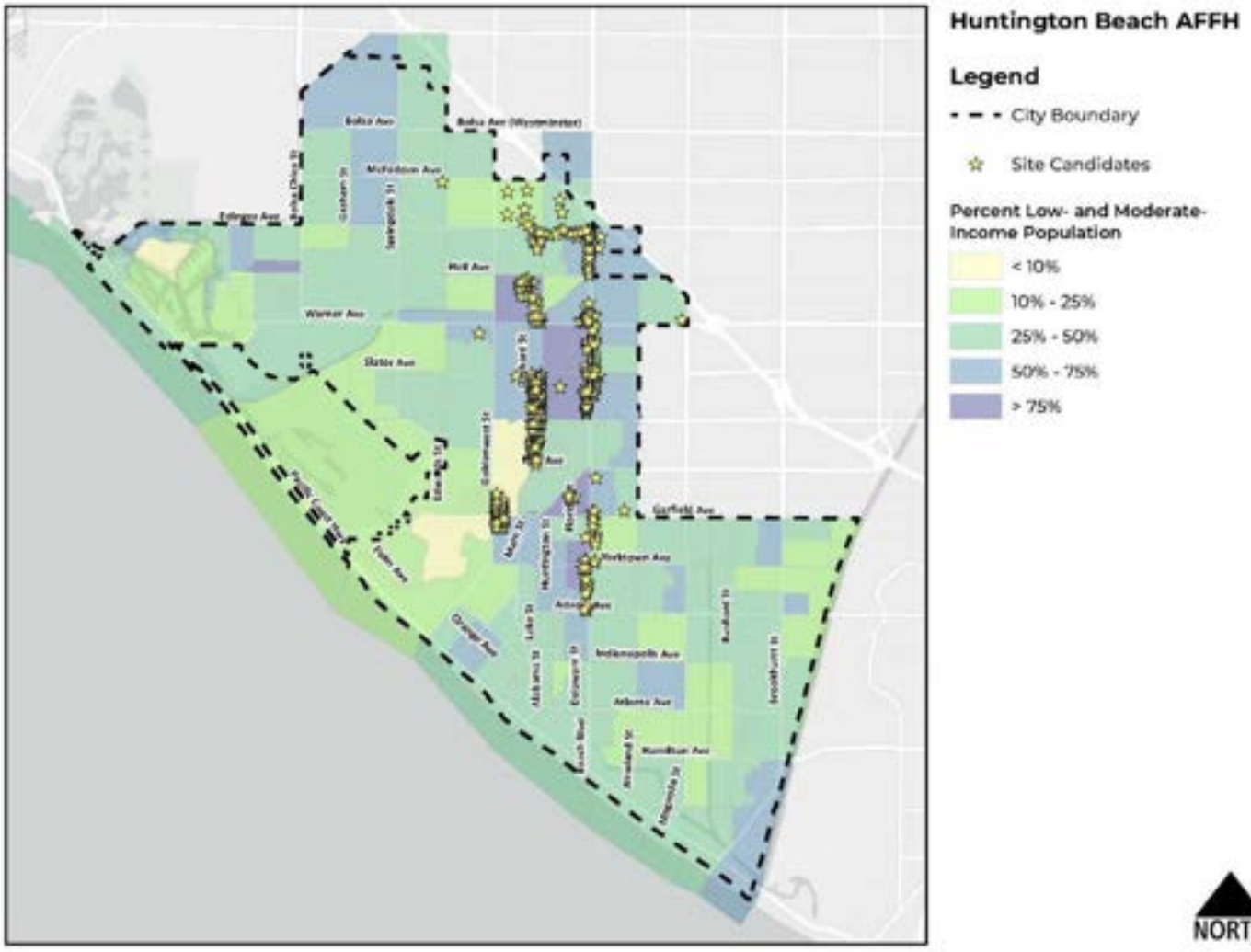


Figure 3-28 shows the location of proposed candidate sites to meet RHNA for Huntington Beach in comparison with data showing R/ECAP areas within the City. R/ECAPs are racially or ethnically concentrated areas of poverty; they are marked in red hatchings. The goal of the AB 686 analysis is to analyze how the sites identified to accommodate the RHNA allocation may exacerbate or mitigate existing fair housing issues. **Figure 3-28** shows there are no R/ECAPs located within the City of Huntington Beach. Therefore, no proposed candidate sites are located in a R/ECAP.

RCCAs are racially or ethnically concentrated areas of affluence. They are identified as areas with a White Non-Hispanic population greater than 80 percent and a median household income greater than $125,000.

There are two block groups with a White Non-Hispanic population greater than 80 percent as well as several block groups with a median income greater than $125,000. However, these areas are not identified in **Figure 3-29** as they do not meet the criteria to be categorized as RCAAs, as provided by the AFFH Data Viewer.

Please refer to Section 7: Summary of Fair Housing Analysis below for a complete analysis of the sites inventory through the lens of affirmatively furthering fair housing.

Figure 3-30: Huntington Beach Candidate Housing Sites, R/ECAP

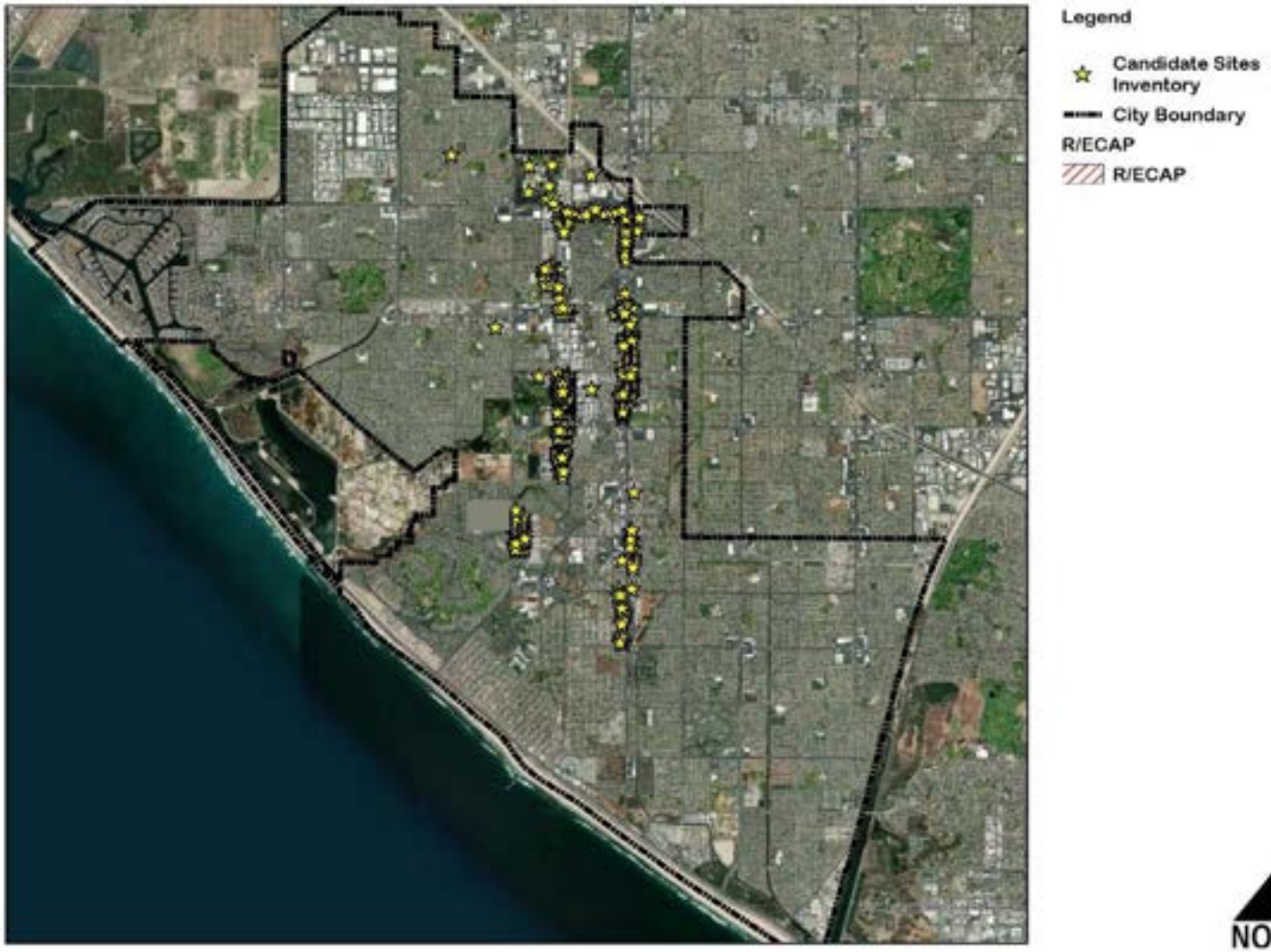


Figure 3-31: Huntington Beach Candidate Housing Sites, RCAA Area

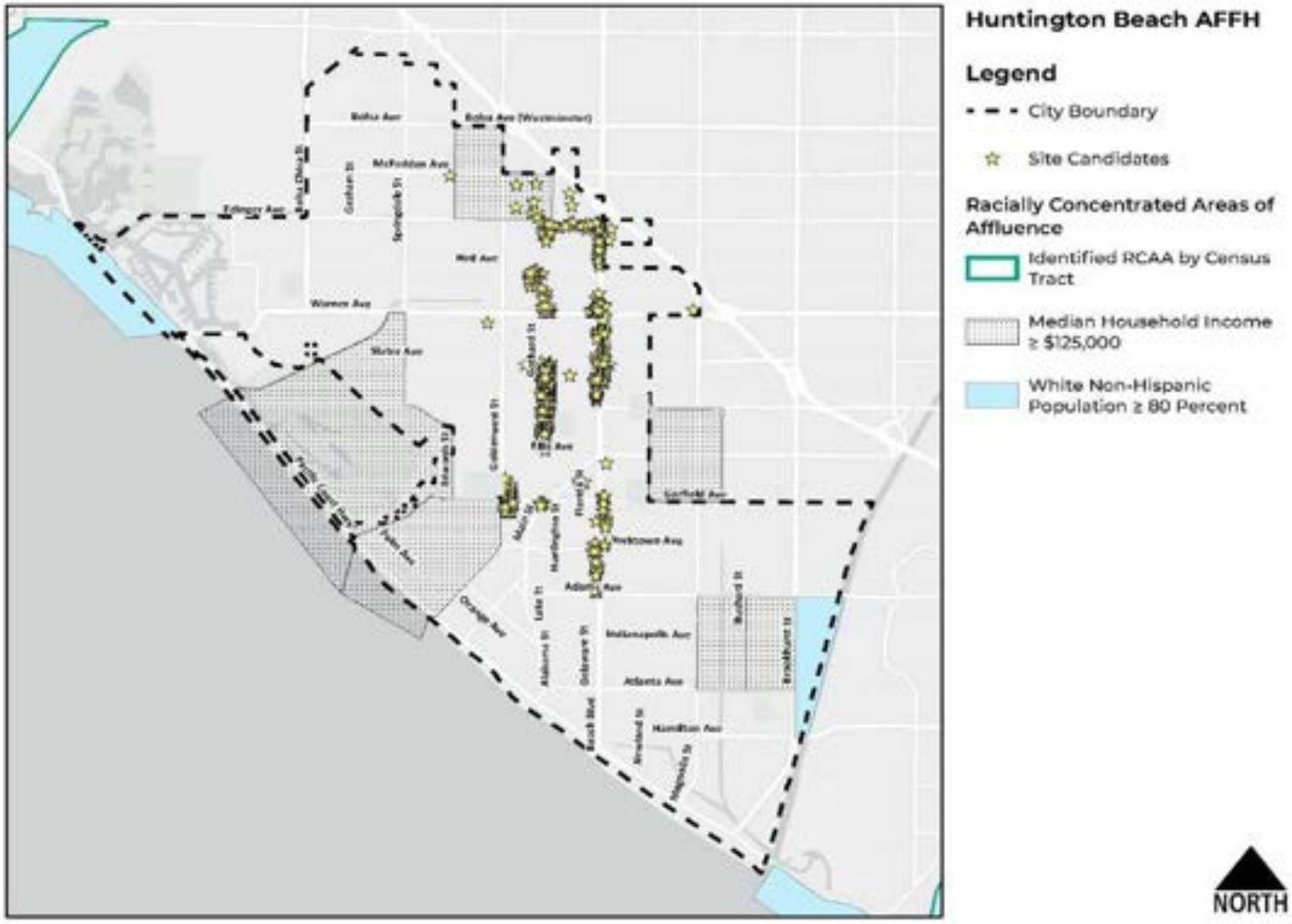


Figure 3-30 shows proposed candidate sites to meet the City's RHNA in relation to the TCAC/HCD Opportunity areas within the City. TCAC is the California Tax Credit Allocation Committee/Housing and Community Development Opportunity Area Maps that show how resources are spatially distributed throughout the City. The City of Huntington Beach is a high opportunity City, as demonstrated by many census tracts ranking at the high and highest resource levels.

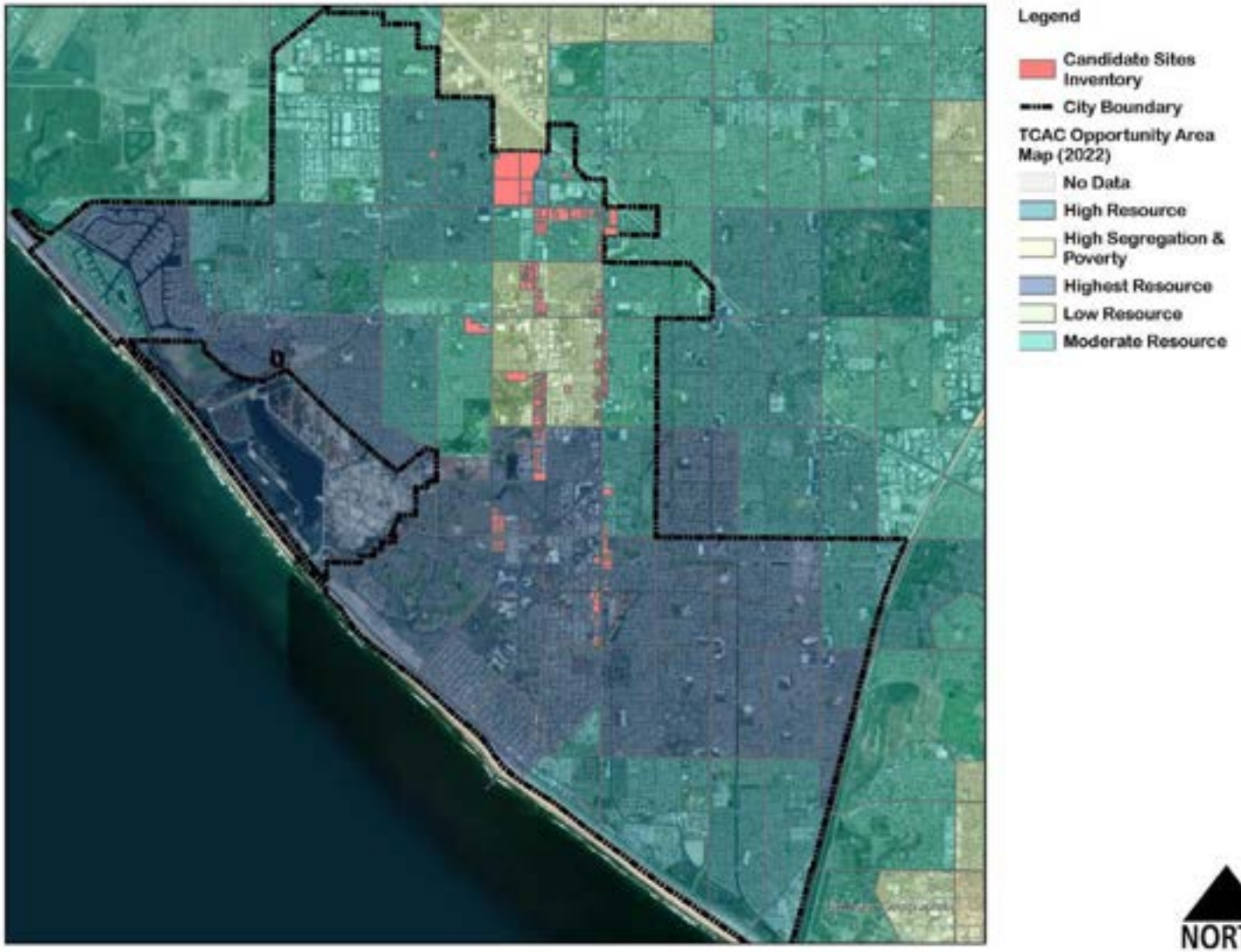
Figure 3-30 shows the following findings:

- 157 proposed sites to accommodate the RHNA allocation (5,097 potential units or 27 percent of the total capacity) are located within the Highest Resource region of the City. Of these potential units, 1,420 units will be affordable to low and extremely low-income residents, which is approximately 26 percent of all low and extremely low-income units.
- 12 proposed sites to accommodate the RHNA allocation (1,753 potential units or 9 percent of the total capacity) are located within the High Resource region of the City. Of these potential units, 514 units will be affordable to low and extremely low-income residents which is approximately 9 percent of all low and extremely low-income units.
- 81 proposed sites to accommodate the RHNA allocation (6,251 potential units or 34 percent of the total capacity) are located within the Moderate Resource region of the City. Of these potential units, 2,034 units will be affordable to low and extremely low-income residents which is approximately 37 percent of all low and extremely low-income units.
- 127 proposed sites to accommodate the RHNA allocation (5,547 potential units or 30 percent of the total capacity) are located within the low resource area of the City. Of these potential units, 1,599 will be affordable to low and extremely low-income residents, which is approximately 29 percent of all low and extremely low-income units.

The majority of the City is categorized as Moderate to Highest Resource, and the majority of proposed candidate housing sites are in areas designated as such. Additionally, 71 percent of all low and extremely low-income units are proposed to be in areas characterized as Moderate to Highest Resource. As a result, an increased number of lower income households would have access to housing in areas that would provide better resources to residents. Above moderate and moderate income units are proposed in the City's Low Resource areas, which would raise the median income of these areas. This would have the potential to attract future development and could increase resources available in these neighborhoods.

Please refer to Section 7: Summary of Fair Housing Analysis below for a complete analysis of the sites inventory through the lens of affirmatively furthering fair housing.

Figure 3-32: Huntington Beach Candidate Housing Sites, TCAC Opportunity Areas



7. Summary of Fair Housing Analysis

The City of Huntington Beach is identified as a majority high resource area with increased economic, civic life, health, and transit opportunities and access. The existing demographic of the community of Huntington Beach are mixed income residents which can be attributed to the high opportunities of the area with pockets of low opportunity areas. The City is committed to creating channels to open opportunities to residents in surrounding communities, especially those who work in Huntington Beach.

The analysis conducted in this section regarding fair housing issues within Huntington Beach yielded the following conclusions:

- There are not racially or ethnically concentrated census tracts (RECAPs) within Huntington Beach as identified by HUD. This indicates that there are no census tracts within the City with a non-white population of 50 percent or more or any census tracts that have a poverty rate that exceeds 40% or is three or more times the average tract poverty rate for the metropolitan area.
- The UC Davis Regional Opportunity Index shows that the majority of residents within Huntington Beach have a moderate to high level of access to opportunity throughout the City. Additionally, analysis of the TCAC/HCD opportunity Area Maps show that a majority of census tracts in Huntington Beach are classified with the "Highest Resource" and "High Resource" designation. Pockets of the City are classified with the "Moderate Resource (Rapidly Changing)" designation. This indicates that these census tracts may have moderate to high essential mobility, retail/food, economic, housing, or civic resource that may promote upward mobility and result in healthier neighborhoods. Zero tracts are classified as "High Segregation and Poverty." Two tracts are classified as "Low Resource," which the City addresses in **Section 4: Housing Plan.**
- The analysis of the TCAC/HCD opportunity Area Maps show that most census tracts in Huntington Beach are classified with the "High Resource" designation. There are three census tracts that experience "Lowest opportunity". This indicates a discrepancy among census tracts' access to opportunity. As for the high scoring census tracts, these are within the top forty percent in the region in terms of areas that lower-income residents may thrive if given the opportunity to live there.
- The Opportunity Indices identify overall moderate to high access to quality resources for White residents in the City. Hispanic residents, who make up the second largest racial and ethnic group in the City score lower in all categories except for Transit index and Job Proximity. Hispanic residents also experience the highest amount of poverty in the population.
- The City has demonstrated the ability to meet the anticipated future affordable housing needs of the community through the designation of sites to meet the very low and low income RHNA need (Appendix B: Adequate Sites). These sites are dispersed throughout the community.
- There 315 current units with affordable covenants at risk of converting to market rate before the year 2029 in the City.
- The CalEnviroScreen mapping tool (2018) identified that a majority of Huntington Beach is primarily low scoring on average, with the exception of a couple census tracts in the north. Overall, low scoring signifies low pollution burdens in the City.

There are a number of factors and elements that contribute to and cause fair housing issues. Please refer to Section 3.C.5: Assessment of Contributing Factors to Fair Housing in Huntington Beach for a

complete analysis and discussion of locally contributing factors. The following summarizes a number of contributing factors within the City of Huntington Beach:

- **Availability of Affordable Housing and High Cost of Housing** – Section 2.C.3 of this Housing Element provides details on household income throughout the City of Huntington Beach. Approximately 38.8 percent of households in the City are categorized as earning a lower income (less than 80 percent of the MFI). This represents 29,841 total households. In comparison, the City currently has approximately 377 ownership housing units and 2,028 rental housing units which include affordability covenants. While the City's median income is 5.3 percent above the regional median, higher income residents in Huntington Beach may cause an increase in the overall median income. In Appendix B, the City has identified an inventory sites of available for housing development that will affirmatively further fair housing. Specifically, the City commits to provide zoning capacity that exceeds its RHNA for lower income housing units. Of the 19,528 potential units in Huntington Beach, 5,731 units or approximately 29.3 percent will be affordable to low and extremely low-income residents, which experience high levels of cost burden.

- **Access to Opportunity with an Emphasis on Households with Lower Incomes; Composition and Location**- Various indices in this analysis highlight that census tracts in the central quadrant of the City experiences lower access to opportunities, higher poverty, higher segregation, lower median household incomes, and higher CalEnviroScreen scores. Census tracts in the central quadrant experience the lowest resource and opportunity classification in the City. Additionally, the tracts in the central quadrant also experience the lowest median income in the City. The central part of the City also experiences the poorest environmental pollution. **Figure 3-18** shows that the central quadrant of the City experiences the highest CalEnviroScreen scores. Overall, higher scores signifies high pollution burdens in the City.
  Section 4: Housing Plan and Appendix B: Sites Inventory include specific and significant actions that adequately promote community revitalization and conservation, and replace segregated living patterns to foster more inclusive and equitable communities. The sites inventory strategy intentionally plans for development of housing at all income levels within the lowest resource and opportunity Census Tract. In this Census Tract, new housing at higher income levels will revitalize the community with potentially higher-performing schools, reduced blight, and increased investment at surrounding commercial properties that can provide additional jobs and resources within the area. Higher income housing in this area will be balanced by allocating approximately 26% of the new units as affordable to lower income households. The City also commits to conserving any existing deed-restricted affordable housing in the Census Tract that have affordability covenants expiring during the planning period.

  The City's relative proximity to job centers, high-earning jobs, and location on the coastline pose unique fair housing challenges for lower income households. A high percentage of the City is designated as high and highest resource by TCAC opportunity indices. Approximately 40% of the City's total RHNA is intentionally sited within census tracts with these designations, and 60% of these units are designated as affordable housing. The City is also committed to preserving its existing affordable housing stock by conserving all existing deed-restricted affordable units in the City that have affordability covenants expiring during the planning period.

The City recognizes the fair housing issues that exist within the community and is committed to reducing barriers to housing affordable to all persons. The City outlines programs to address fair housing issues and prioritizes these contributing factors in Section 4: Housing Plan.

The analysis conducted in this section regarding the identification of sites to accommodate the City's RHNA yielded the following conclusions:

- The placement of sites intentionally improves conditions for lower income households within Huntington Beach. The sites strategy specifically seeks to disperse the RHNA sites throughout the community. Appendix B identifies properties within the Holly-Seacliff Specific Plan (HSSP) for development of housing at all income levels. The HSSP area is one of the highest resource areas of the City and also one of the highest market-rate housing cost areas. The HSSP has access to many high resource opportunities with particular emphasis on high-performing schools, low rates of poverty, and a healthy environmental justice score. Development of these sites with residential uses will increase lower income access to opportunity within this high resource area. Notably, the HSSP has an existing 15% affordable housing requirement, which will be applied to all proposed development projects within this planning area. Intentionally allocating the City's RHNA in this high resource area will improve conditions within the City for lower income households and affirmatively further fair housing.
- The sites strategy intentionally increases access to opportunity within the City by transforming an existing industrial area along the Gothard Ave. corridor to a new mixed use (industrial/residential) area. Development of the Gothard Ave. corridor will give residents access to high quality jobs as this area retains the most employment centers in the City and high-performing schools. The Gothard Ave. corridor is also adjacent to Huntington Central Park. The park is a key recreational resource in the City as it is the largest city-owned park in Orange County covering over 350 acres of land. Development of affordable housing in this area will enhance quality of life, contribute to healthy lifestyles, and improve environmental justice for lower income households.
- The RHNA by income group is dispersed throughout the City and no single income group is concentrated in area of the City. Approximately 39% of the City's total RHNA is allocated to the City's census tracts with highest and high resource designations. The sites strategy intentionally allocates 60% of the units in these areas as affordable to lower income households. The City's lengthy history of successful inclusionary housing policies will be built upon to foster an increasingly diverse and equitable community.
- The identified sites in Appendix B serve the purpose of dispersing the regional housing needs allocation throughout the City while also reducing cost burden, improving access to high resource areas, and increasing job proximity and access to transit, which were identified as areas for improvement in the Disparities in Access to Opportunity analysis.
- The development of ADUs and JADUs is permitted Citywide on any single-family or multi-family residential property. The City's past performance of ADU/JADU development indicates that these units are primarily constructed in high opportunity areas. The small unit size and inherent affordability of ADUs will result in additional affordable housing opportunities within high resource and high opportunity areas of the City.

Section 4: Housing Plan and Appendix B: Sites Inventory work together strategically and intentionally to promote community revitalization and conservation. These strategies seek to replace segregated living patterns with particular emphasis on two Census Tracts that are low resource and have high rates of segregation and poverty. Overall, the Housing Element includes new and revised actions that will build upon the City's track record of successful inclusionary housing policies, lengthy commitment

to affirmatively furthering fair housing, and providing affordable housing in all areas of the City to create diverse, mixed-income, high-resource areas. The City is committed to fostering an inclusive and equitable community.

8. Analysis of Fair Housing Priorities and Goals

To enhance mobility, promote inclusion for protected classes, and give underserved residents more opportunity the chief strategy included in this Housing Element is to provide sites suitable for affordable housing in high-resource, high opportunity areas, as demonstrated by the analysis of the housing resource sites contained in this section. Programs that affirmatively further fair housing include:

- Program 1B. Multi-Family Acquisition and Rehabilitation
- Program 1C. Neighborhood Preservation
- Program 1D. Preservation of Assisted Rental Housing
- Program 1E. Housing Authority Rental Assistance
- Program 1F. Tenant-Based Rental Assistance
- Program 1G. Mobile Home Park Preservation
- Program 2B. Establish Affordable Housing Overlay Zone
- Program 3A Affordable Housing Program and Housing Trust Fund
- Program 3B Affordable Housing Development Assistance
- Program 5A. Housing Opportunities for Persons Living with Special Needs and/or Developmental Disabilities
- Program 5B. Low Barrier Navigation Center
- Program 7A. System of Care and Housing for People Experiencing Homelessness
- Program 7B. Homeless Task Force
- Program 7C. Mobile Crisis Response Program.
- Program 7D. Services for People Experiencing or At-Risk of Homelessness.
- Program 7E. Huntington Beach Navigation Center and Permanent Supportive Housing.
- Program 7F. Proactively Seek and Leverage All Funding Options to Increase the Supply of Affordable Housing.
- Program 7G. Proactively Seek Funding for Hotel/Motel Conversions to Transitional and Supportive Housing.
- Program 8A. Implement Funded Projects that Improve Quality of Life, Placemaking, and Access to Opportunity in Low Resource Areas.
- Program 8B. Proactively Seek all Funding Sources to Improve Quality of Life, Placemaking, and Access to Opportunity in Low Resource Areas.
- Program 9A. Provide Fair Housing Information and Education to Residents on the City's Website in English and Spanish
- Program 9B. Actively Engage with Community Members and Organizations in Low Resource Areas.
- Program 9C. Density Bonus Projects.

- Program 9D. Coordinate with School Districts to Promote Access to Resources and Opportunities for Students Experiencing or At-Risk of Homelessness.
- Program 9E. Fair Housing Outreach and Enforcement.

Each of these programs commits the City to specific actions that will combat constraints to fair housing and further integrate affordable and accessible housing into high opportunity areas of the City. For details about each Program and the actions the City has committed to, see **Section 4.**

D.Housing Resources

1. Regional Housing Needs Allocation

This section of the Housing Element provides an overview of the resources available to the City to meet the Regional Housing Needs Allocation (RHNA). The City of Huntington Beach is required to plan for the following 2021-2029 RHNA allocation:

Future Housing Needs

Future housing need refers to the share of the regional housing need that has been allocated to the City. The State Department of Housing and Community Development (HCD) has provided a regional housing goal to the Southern California Association of Governments (SCAG). SCAG was then required to allocate the housing goal to each jurisdiction within the region through a RHNA Plan. In allocating the region's future housing needs to jurisdictions, SCAG is required to take the following factors into consideration pursuant to Section 65584 of the State Government Code:

- Market demand for housing;
- Employment opportunities;
- Availability of suitable sites and public facilities;
- Commuting patterns;
- Type and tenure of housing;
- Loss of units in assisted housing developments;
- Over-concentration of lower income households; and
- Geological and topographical constraints.

HCD allocates units to each region across California through its determination process. It is then up to each region to determine a methodology and process for allocating units to each jurisdiction within that region. SCAG adopted its Regional Housing Needs Allocation (RHNA) in March 2021. This RHNA covers an 8-year planning period (2021 - 2029) and allocates to each city and county a "fair share" of the region's projected housing needs by household income group. The major goal of the RHNA is to assure a fair distribution of housing among cities and counties within the SCAG region so that every community provides an opportunity for a mix of housing for all economic segments.

As shown in **Table 3-38**, Huntington Beach's allocation of the SCAG RHNA is 13,368 housing units for the 6th Cycle planning period (2021-2029).

Table 3-41: Housing Needs for 2021-2029		
Income Category	**Percent of Median Family Income (MFI)**	**Huntington Beach RHNA Allocation for the 2021-2029 Planning Period**

Very Low Income	0-50% MFI	3,661 units
Low Income	51-80% MFI	2,184 units
Moderate Income	81-120% MFI	2,308 units
Above Moderate Income	>120% MFI	5,215 units
	Total	**13,368 units**

Selection of Sites

The analysis to accommodate the City's RHNA utilizes a variety of methods, including:

- Identification of sites suitable for residential through rezoning
- Identification of sites suitable for residential through overlay zoning
- Identification of sites with opportunity for conversion from motel/hotel to residential
- Future development of accessory dwelling units (ADUs)

The City has identified a total ~~3~~ 1 sites for rezoning, ~~372~~ 318 sites for a designated housing overlay, and **3** sites for motel or hotel conversion to affordable housing units. The identified candidate housing sites are shown in **Figure 3-31.** The candidate housing sites have been evaluated based on surrounding and existing onsite development to determine the extent to which on-site uses are likely to redevelop with housing units during the planning period. **Table B-9** within **Appendix B** of this Housing Element lists each candidate housing site within Huntington Beach's sites inventory and provides a complete analysis of redevelopment and capacity.

Figure 3-33: Sites Inventory Overview

Adequacy of Sites for RHNA

The City of Huntington Beach conducted a thorough analysis of all parcels within the City to determine which areas may have the most realistic potential to redevelop for residential uses within the planning period. The analysis included an in depth look at the following site characteristics for each parcel within the inventory:

- Address
- Ownership
- Zoning (including Specific Plan areas, Urban Plans, and Overlays, if applicable)
- Size (Net developable acres removing known development constraints)
- Density
- Vacancy status
- Previous Housing Element identification
- Potential Development Capacity (Dwelling Units) by income category
- Description of existing use

Rezone and Overlay Strategy

The City of Huntington Beach is a built-out community with little vacant land available as well as majority of non-vacant residential land zoned for low density, single family uses. Therefore, the City has identified the following rezone and overlay strategies to create feasible residential infill opportunities.

- **Beach and Edinger Corridors Specific Plan (SP 14) – 20% Affordable Overlay**: This strategy intends to increase affordable housing options in the existing Beach and Edinger Corridors Specific Plan by expanding the 20% Affordable Overlay that was established in 2020. The overlay permits residential projects which propose at least 20 percent lower income units on site by-right. The SP-14 – Affordable Housing Overlay will expand the provisions of the existing affordable housing overlay to 151 additional parcels within the SP14 area, which can accommodate the following housing units:
    - 3,276 Low and Very Low-Income Units
    - 1,539 Moderate Income Units
    - 5,827 Above Moderate-Income Units

- **Affordable Housing Overlay:** This strategy intends to create housing opportunities primarily in well-connected nonresidential areas of the City. The City has identified ~~167~~ 145 parcels to apply the Affordable Housing Overlay, which can accommodate the following housing units:
    - 2,034~~222~~ Low and Very Low-Income Units
    - 991~~,083~~ Moderate Income Units
    - 3,533~~889~~ Above Moderate-Income Units

- **RH Overlay:** This strategy utilizes the City's existing RH land use designation to create housing opportunities in existing areas within the Holly-Seacliff Specific Plan (SP9)~~Ellis Goldenwest Specific Plan (SP7)~~. This area is approximately ~~18~~ 14 acres total and ~~a majority of it was~~ is occupied by oil-related uses, outdoor storage, and a self-storage facility. ~~an~~

~~outdoor landscape supply business; a portion of it is vacant.~~ The sites in ~~SP7~~ SP9 are currently designated as ~~estate density residential (3 du/ac)~~ Industrial and surrounded by residentially developed and/or designated land uses. The City has received many inquiries for residential development over the years, but the ~~specific plan requires a minimum of 10 acres in order to develop a tract~~ existing non-residential land use designations precluded residential development from proceeding. ~~This essentially meant that potential developers had to wait for the landscape business property to become available. The landscape business has closed and moved off the identified sites in 2021. Development interest is high even at the existing low density regulations.~~ The City anticipates that redesignating the site within the SP to RH-30 will result in a project built in this area within the planning period as it has had substantial development interest, is in close proximity to existing trails and parks, and is located along a primary arterial in the City's circulation plan.

The City has identified ~~53~~ 22 parcels to be designated with the ~~as~~ RH Overlay to increase residential development opportunities within the specific plan area., ~~which~~ The overlay can accommodate the following housing units:

- ~~111~~ 123 Low and Very Low-Income Units
- ~~89~~ 69 Moderate Income Units
- 23~~9~~1 Above Moderate-Income Units

- **RMH**: This rezone strategy utilizes the City's existing RMH zone to create housing opportunities in areas where residential development is appropriate. The City has identified ~~3~~ 1 parcel~~s~~ for rezone to RMH. The site~~s~~ can accommodate the following housing units:
  - ~~128~~ 11 Moderate Income Units
  - ~~300~~ 25 Above Moderate-Income Units

A complete description of unit calculation is available within Appendix B of this document.

Summary of Sites Inventory and RHNA Obligations

As described in this section and in further detail in Appendix B, the City of Huntington Beach has identified adequate sites to accommodate the 2021-2029 RHNA obligation. These candidate housing sites, in combination with the programs stated in **Section 4**, will help to facilitate the development of future housing within the City.

Table 3-42: Summary of Sites Inventory and RHNA Obligations

	Very Low Income	Low Income	Moderate Income*	Above Moderate Income
RHNA (2021-2029)	3,661	2,184	2,308	5,215
Projects in the Pipeline (Application, Entitled, Permitted or in construction since June 30, 2021)	17	285	~~61~~82	1,371~~262~~
Remaining Unmet RHNA	**3,644**	**1,899**	**2,22647**	**3,844~~953~~**
Capacity on Site Inventory				
Capacity on Sites identified for Rezone	0		11~~28~~	~~302~~25

Table 3-42: Summary of Sites Inventory and RHNA Obligations				
	Very Low Income	Low Income	Moderate Income*	Above Moderate Income
Capacity on Sites identified under Overlay Zones	5,433~~584~~		2,599~~792~~	~~10,238~~9,591
Capacity on Hotel and Motel Conversions	41~~56~~		0	0
Projected ADU Construction				
Projected ADU Construction	~~354~~307		170~~97~~	10~~2~~

E. Financial Resources

Providing an adequate supply of decent and affordable housing requires funding from various sources. The City has access to the following funding sources and opportunities.

1. Section 8 Housing Choice Vouchers

The Section 8 Housing Choice Voucher program is a Federal government program to assist very low-income families, the elderly, and the disabled with rent subsidy payments in privately owned rental housing units. Section 8 participants are able to choose any housing that meets the requirements of the program and are not limited to units located within subsidized housing projects. Section 8 participants typically pay 30 to 40 percent of their income for rent and utilities The Orange County Housing Authority (OCHA) administers the Federal Section 8 housing assistance program in Huntington Beach. As of July 2021, a total of 729 Huntington Beach households receive Housing Choice Vouchers: 190 are Family Unification Vouchers, 121 are for the disabled, and 418 are for the elderly.

Community Development Block Grants (CDBG)

The Community Development Block Grant program provides annual grants on a formula basis to cities to develop viable urban communities by providing a suitable living environment and by expanding economic opportunities, principally for low- and moderate-income persons (up to 80 percent AMI). CDBG funds can be used for a wide array of activities, including:

- Housing rehabilitation
- Lead-based paint screening and abatement
- Acquisition of buildings and land
- Construction or rehabilitation of public facilities and infrastructure
- Public services for low-income households and those with special needs.

Each year, the City of Huntington Beach receives Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development. These funds must be used to develop viable communities by promoting integrated approaches that provide items such as decent housing, a suitable living environment, and expand economic opportunities for low- and moderate-income persons.

Investment of CDBG funds in the community is guided by the City's Five-Year Consolidated Plan that identifies the housing, community, and economic development needs of the community, the resources available, and strategies to address identified needs. Each Annual Action Plan describes the activities to be undertaken using CDBG funds to address Consolidated Plan strategies. Subsequent to each program year, the City prepares a Consolidated Annual Performance and Evaluation report detailing the results of CDBG activities.

HOME Investment Partnership Program (HOME)

The HOME program provides Federal funds for the development and rehabilitation of affordable rental and ownership housing for households with incomes that do not exceed 80 percent of the area median income. The program gives local governments the flexibility to fund a wide range of affordable housing activities through housing partnerships with private industry and non-profit organizations. HOME funds can be used for activities that promote affordable rental housing and homeownership by low-income households. The City of Huntington Beach reports it expects to receive $618,233 in HOME funds for fiscal year 2021-2022.

SB2 Grant

To supplement the cost of the City's effort to update the streamlining process of affordable housing, the City has been awarded an SB 2 Planning Grant Program grant from HCD. The SB 2 program includes improvements to expedite local planning processes. The City of Huntington Beach is slated to receive approximately $550,000 per year from this source which can be used to leverage CDBG and HOME funds in the areas of affordable housing and homelessness.

Local Early Action Planning (LEAP) Grant

The City of Huntington Beach applied for and received a total of $500,000 from the California Department of Housing and Community Development (HCD). LEAP Grants provide funding opportunities for jurisdictions to update their planning documents and implement process improvements that will facilitate or accelerate housing productions to meet the 6th Cycle Regional Housing Needs Assessment (RHNA).

2. Energy Conservation

The primary uses of energy in urban areas are for transportation lighting, water heating, and space heating and cooling. The high cost of energy demands that efforts be taken to reduce or minimize the overall level of urban energy consumption. Energy conservation is important in preserving non-renewable fuels to ensure that these resources are available for use by future generations. There are also a number of benefits associated with energy conservation including improved air quality and lower energy cost.

Title 24

The City abides by Title 24 standards as mandated by the State. Title 24 establishes energy efficiency standards for residential and nonresidential buildings (new structures and additions) to reduce energy consumption. The standards are updated every three years to achieve greater efficiency.

Energy Use and Providers

Southern California Gas Company (SCGC) provides natural gas service for the City. Natural gas is a "fossil fuel" and is a non-renewable resource. Most of the major natural gas transmission pipelines within the City are owned and operated by SCGC. SCGC has the capacity and resources to deliver

gas except in certain situations that are noted in state law. As development occurs, SCGC will continue to extend its service to accommodate development and supply the necessary gas lines.

Electricity is provided on an as-needed basis to customers within existing structures in the City. Southern California Edison Company (SCE) is the distribution provider for electricity in Huntington Beach. Every year SCE expands and improves existing facilities according to demand.

Utility companies serving Huntington Beach offer programs to promote the efficient energy use and assist lower-income customers. Huntington Beach customers can receive utility payment assistance on their electric bill through the California Alternate Rates for Energy (CARE) Family Electric Rate Assistance (FERA) programs.

Huntington Beach has adopted the California Green Building Standards Code (CALGREEN) in its entirety. In addition, the City requires green building practices for all new development within the adopted Downtown Specific Plan and Beach/Edinger Corridors Specific Plan.

The City offers an Energy Efficient Permit Fee Waiver for energy efficient heating, cooling, water and solar systems meeting specified criteria. In 2017, the City adopted a Qualified Greenhouse Gas Reduction Program (GGRP) in conjunction with a comprehensive update to the General Plan. In addition, the 2017 General Plan Update included policies adopted to support implementation of the GGRP and reduce GHG emissions consistent with state goals. The GGRP highlights notable accomplishments to date, including adoption of a Recycling Market Development Zone (RMDZ), a Sustainable Business Certification program, LED Streetlight Conversion, and adoption of a Bicycle Master Plan.

Section 4

Housing Plan

A. Housing Plan

The Housing Plan describes the City of Huntington Beach 2021-2029 policy programs. The Housing Plan describes the specific goals, policies, and programs to assist City decision makers in achieving the long-term housing objectives set forth in the Huntington Beach Housing Element.

This Plan identifies goals, policies, and programs aimed at providing additional housing opportunities, removing governmental constraints to affordable housing, improving the condition of existing housing, and providing equal housing opportunities for all residents across all income categories. These goals, policies, and programs further the City's overall housing policy goal to inspire a more diverse, sustainable, and balanced housing stock. Implementation of these strategies and programs that may help inform decisions which result in economically and socially diversified housing choices that preserve and enhance the special character of Huntington Beach.

Regional Housing Needs Assessment

The Southern California Association of Governments (SCAG) has conducted a Regional Housing Needs Assessment (RHNA) to determine the City's local share of regional housing need by income category. Income categories are based on the most current Median Family Income (MFI) for Orange County. The current 2021 MFI (for an assumed family of 4 persons) in Orange County is $106,700. The MFI is updated on an annual basis and may change based on the most recently available data. The City's 2021-2029 RHNA of 13,368 housing units is allocated to the following income categories:

B. 3,661 units - Very low income (0-50% County MFI)
C. 2,184 units - Low income (51-80% of County MFI)
D. 2,308 units - Moderate income (81-120% of County MFI)
E. 5,215 units - Above moderate income (120% or more of County MFI)

13,368 units - Total

F. Housing Goals and Policies

This section of the Housing Element sets forth the goals and policies the City intends to implement to address Huntington Beach's housing needs.

Housing Goal #1.
Maintain and enhance the quality and affordability of existing housing in Huntington Beach.

Policy 1.1 Neighborhood Character
Preserve the character, scale and quality of established residential neighborhoods.

Policy 1.2 Property and Housing Conditions
Address the City's aging housing stock and housing condition by supporting the long-term maintenance and improvement of existing housing through code enforcement and housing rehabilitation programs.

Policy 1.3 Multi-family Housing Acquisition and Improvement
Coordinate with non-profit housing providers in the acquisition, rehabilitation, and maintenance of older apartment complexes as long-term affordable housing.

Policy 1.4 Protection of Existing Affordable Housing
Work with property owners, tenants, and non-profit purchasers to facilitate preservation of assisted rental housing at-risk of conversion to market rents.

Policy 1.5 Rental Assistance
Research and publicize informational materials on available rental assistance programs for lower income and special need households. Recognize that providing rental assistance enables lower income and special need households to achieve upward economic mobility.

Policy 1.6 Conservation of Mobile Home Parks
Encourage retention of existing mobile home parks and continue to enforce the mobile home conversion ordinance focused on preserving the City's existing mobile home communities.

Policy 1.7 Neighborhood Vitality
Maintain an adequate level of community facilities, such as childcare centers, and municipal services accessible to residents.

Housing Goal #2
Provide adequate sites to accommodate projected housing unit needs at all income levels identified by the 2021-2029 RHNA.

Policy 2.1 Variety of Housing Choices
Provide site opportunities for development of housing that responds to diverse community needs in terms of housing types, cost and location, emphasizing locations that are near services, transit, promote walkability, and are moderate to highest resource areas.

Policy 2.2 Mixed Use Development
Facilitate the efficient use of land by allowing and encouraging a mix of commercial and residential uses on the same property in both horizontal and vertical mixed-use configurations.

Policy 2.3 Housing Overlay
Facilitate the provision of housing affordable to lower income households through creation of a citywide housing overlay on sites identified within the housing element.

Policy 2.4 Beach and Edinger Corridors Specific Plan
Facilitate the provision of housing affordable to lower income households within the Beach and Edinger Corridors Specific Plan, which has higher access to public transit/freeways and employment opportunities in a variety of sectors to assist increasing job proximity for residents of all income levels.

Policy 2.5 Surplus Public Land
Utilize surplus publicly owned land for residential uses when appropriate and consistent with the City's General Plan.

Policy 2.6 Maintenance of Adequate Sites. Maintain the inventory of adequate sites through appropriate land use, zoning and specific plan designations throughout the planning period. Prioritize maintaining an adequate inventory of sites that will meet the City's lower income regional housing need and provide lower income access to opportunity.

Policy 2.7 Accessory Dwelling Units
Support the provision of accessory dwelling units consistent with State law to provide affordable housing units throughout the community.

Housing Goal #3.
Provide for safe and decent housing for all economic segments of the community.

Policy 3.1 Housing Diversity
Encourage the production of housing that addresses the diverse housing needs of all economic segments of the community, including low, moderate, and above moderate-income households.

Policy 3.2 Mixed Income Housing
Utilize the City's Affordable Housing Ordinance as a tool to integrate affordable units within market rate developments. Continue to prioritize the construction of affordable units on-site for rental projects, with provision of units off-site or payment of an in-lieu housing fee as a less preferred alternative.

Policy 3.3 Affordable Housing Incentives
Facilitate the development of affordable housing through use of regulatory incentives and concessions, density bonuses, financial assistance, or other methods. Funding priority should be granted to projects providing extremely low income units. Proactively seek out new methods and approaches in the provision of affordable housing.

Policy 3.4 Public/Private Partnerships
Develop collaborative partnerships with non-profit organizations, market-rate developers, affordable housing developers, the business community and governmental agencies in the provision of affordable housing.

Policy 3.5 Financial Resources
Pursue regional, State, and Federal funding and financing resources to support affordable housing production in Huntington Beach's local workforce and special needs populations.

Housing Goal #4.
Reduce governmental constraints to housing production, with an emphasis on improving processes for projects that provide on-site affordable units.

Policy 4.1 Regulatory Incentives for Affordable Housing
Support the use of density bonus as permitted in applicable regulations, to offset or reduce the costs of developing affordable housing while addressing potential impacts per the City's standard review process.

Policy 4.2 Flexible Development Standards
Encourage flexibility in development standards to accommodate a variety of housing types affordable to all income levels, such as transit-oriented development, mixed use development and live/work housing.

Policy 4.3 Efficient Development Processing
Explore continued improvements in the project entitlement process to further streamline and coordinate the processing of permits, design review and environmental clearance with emphasis on streamlining processes for housing developments that provide on-site affordable units.

Housing Goal #5.
Promote equal housing opportunities for all residents, including Huntington Beach's special needs populations.

Policy 5.1 Fair Housing
Continue to enforce fair housing laws prohibiting arbitrary discrimination in the building, financing, sales or rental of housing on the basis of race, religion, family status, national origin, physically disability or other factors.

Policy 5.2 Housing Options for Seniors
Support development and maintenance of affordable senior rental and ownership housing and supportive services to facilitate maximum independence and the ability of seniors to remain in their homes and/or in the community.

Policy 5.3 Housing for Persons with Disabilities
Support the provision of permanent, affordable and accessible housing that supports independent living for persons with disabilities. Provide assistance to residents in need of accessibility improvements to their homes.

Policy 5.4 Self-Sufficiency for Single Parents
Assist low income, single-parents in attaining the life skills necessary to achieve economic independence and improved access to housing.

Housing Goal #6.
Promote a healthy and sustainable Huntington Beach through support of housing at all income levels that minimizes reliance on natural resources and automobile use.

Policy 6.1 Green Building
Implement the City's Green Building Program to ensure new development is energy and water efficient.

Policy 6.2 Energy Efficiency and Alternative Energy Sources
Promote modifications to increase energy efficiency and the use of alternative energy sources such as solar energy, cogeneration, and non-fossil fuels.

Policy 6.3 Healthy Community
Promote healthy living and physical activity for households at all income levels through decisions in the location, site planning and design of housing and mixed-use development.

Policy 6.4 Transportation Alternatives and Walkability
Incorporate transit and other transportation alternatives including walking and bicycling into the design of new development, including affordable housing, particularly in areas within a half mile of High-Quality Transit Areas.

Policy 6.5 Jobs/Housing Balance
Encourage a link between housing and jobs in the community, including housing opportunities affordable to Huntington Beach's modest and lower income workforce in areas with a variety of job opportunities.

Housing Goal #7
Maximize solutions for those experiencing or at risk of homelessness.

Policy 7.1 Homeless Housing and Services
Implement continued efforts to support the Orange County Continuum of Care for the homeless. Coordinate with local social service providers and notify them of available City funding to address the needs of the homeless population.

Policy 7.2 Pursue Available Funding
Leverage available State and Federal grant funding (e.g., PLHA, HomeKey, grant funds) and local sources to fund housing solutions.

Policy 7.3 County Coordination
Coordinate with the County of Orange, other public agencies, non-profits, service providers, and surrounding cities to identify and support long-term services and housing for those experiencing homelessness.

Policy 7.4 System of Care
Maintain and expand the City's System of Care for the homeless through the existing Navigation Center property.

Policy 7.5 Reduce Barriers
Reduce barriers to the development of emergency, transitional, and permanent supportive housing.

Housing Goal #8
Improve quality of life and promote placemaking.

Policy 8.1 Placemaking
Encourage placemaking and public spaces in new development to serve residents of all incomes, interests, ages, physical abilities, and cultures.

Policy 8.2 Active Transportation

Encourage development that includes active transportation infrastructure, such as new and wider sidewalks, trails, and protected bike lanes.

Policy 8.3 Open Space and Community Facilities
Identify and provide funding for existing open space areas and community facilities in need of rehabilitation in low resource areas of the City.

Policy 8.4 Community Amenities
Encourage development that brings new community amenities and services like community meeting spaces, community health clinics, after school programs, and childcare.

Policy 8.5 Child Care Facilities
Encourage the inclusion of space for childcare in new housing developments, including affordable housing developments.

Housing Goal #9
Affirmatively further fair housing.

Policy 9.1 Equal Housing Opportunities
Ensure equal housing opportunities for all residents, regardless of their special characteristics as protected under State and Federal fair housing laws.

Policy 9.2 Enforce Fair Housing Laws
Continue to support ongoing efforts of the State and Orange County to enforce fair housing laws.

Policy 9.3 Housing Opportunities for all People
Promote housing opportunities for all people regardless of race, color, sex, national origin, religion, sexual orientation, disability, family status, marital status, income, ancestry, or other barriers that can prevent access to housing.

Policy 9.4 Range of Housing Types
Encourage the provision of housing to meet the needs of families of all sizes and ages.

Policy 9.5 Increase Public Participation
Facilitate increased participation among traditionally underrepresented and linguistically isolated groups in the public decision-making process.

Policy 9.6 Spanish Language Outreach and Education
Provide outreach and education in Spanish for the broader community of residents, residential property owners, and operators regarding fair housing practices and requirements.

Policy 9.7 Fair Housing Providers
Strengthen the City's relationship with its fair housing providers and explore ways to expand their services to residents.

Policy 9.8 Local Contributing Factors
Recognize that the City's local contributing factors pose unique fair housing challenges.

G. Housing Program Actions

This Housing Element expresses the City's overall housing goals, supporting policies, and program actions to achieve them. The stated Housing Program Actions are based on a review of past performance of the 5th Cycle Housing Element, analysis of current constraints and resources, and input from Huntington Beach residents and stakeholders through the community input process (Appendix C). The City's Housing Element programs encompass existing programs that are continued from the previous housing cycle, programs revised in response a review of past performance of housing policies, and new programs addressing 2021-2029 housing needs and new statutory requirements.

Goal 1: Maintain and enhance the quality and affordability of existing housing in Huntington Beach.

Program 1A. Housing Rehab Loan Program

The City offers two different types of home improvement loans: the Single-Family Home Improvement Loan and the Multi-Family Rental Housing Rehab Loan. For Single-Family Home Improvement Loans, the City will lend up to $75,000 to pay for rehabilitation costs for a single-family home, townhouse, condominium or mobile home. Grants are also available to low income households whose estimated repair costs do not exceed $10,000. For the Multi-Family Rental Housing Rehab Loan, the City provides up to $75,000 for repairs to duplex, triplex, or four-plex properties. Loan repayment is deferred until the home is resold or refinanced. Lead based paint abatement, energy efficiency and accessibility improvements are eligible expenses.

Schedule of Action: Assist 10 lower income households on an annual basis, with a goal to assist a total of 80 households over the eight-year planning period.

Program 1B. Multi-Family Acquisition and Rehabilitation

A key program in Huntington Beach's overall strategy to provide affordable housing to lower income households has historically been through the acquisition and rehabilitation of existing apartment complexes. Since 1994, the City and its former Redevelopment Agency have funded non-profit housing developers to acquire, rehabilitate and operate rental properties throughout the City, including within the Oak View neighborhood, providing over 500 units of housing affordable to extremely low, very low- and low income households. Properties are acquired in relation to one another as part of an overall effort to upgrade living conditions and to increase the supply of affordable rental housing across all income levels, ranging from very low to moderate income households. Covenants are placed on properties acquired by the non-profit to ensure long-term affordability and strong property management.

In May 2015, the City issued a Notice of Funding Availability (NOFA) identifying nearly $2.5 million in available affordable housing funds. The City's goal was to obtain proposals for affordable housing projects as well as a proposed Tenant-Based Rental Assistance (TBRA) program. The City identified residents experiencing homelessness, those at risk of homelessness, veterans, seniors, and victims of domestic violence as the population for which the housing programs should be targeted. The NOFA was available on the City's website and was disseminated to local

CHDO's in the area. The City received five (5) proposals: three (3) proposals for affordable housing projects, and two (2) proposals for TBRA programs. Because the May 2015 NOFA proved unsuccessful in negotiating the development of an affordable housing project, the City issued a new NOFA, after which it opted to work with the local CHDO, Orange County Community Housing Corporation (OCCHC) to develop a rental four-plex located at 7792 Barton Drive in Huntington Beach. The project was awarded $781,220 in HOME funding in October 2016 via substantial amendment to the FY 2016/17 Annual Action Plan. The project is complete.

Schedule of Action: The acquisition/rehabilitation program will continue to be a part of the City's affordable housing program. The City intends to direct the majority of its housing funds towards new construction of affordable housing (refer to **Goals 3 and 5**). The City's goal is to assist in the acquisition/rehabilitation of a minimum of 30 units across all income levels with a focus on housing available at the very low and low-income levels over the planning period.

Program 1C. Neighborhood Preservation Program

For several years now, Huntington Beach has implemented a neighborhood preservation program, shifting the focus of code enforcement activities away from being primarily reactionary and punitive, to being more proactive and educational in nature. Neighborhood preservation looks towards education, empowerment, and the establishment of community partnerships to help address neighborhood conditions and improve the quality of life. The City tracks code enforcement activities through an automated software and database, generating reports on a monthly basis to evaluate the types and location of violations and the actions taken, using this information to make appropriate program adjustments.

For program year 2020/21, the City conducted a visual survey of CDBG eligible areas to determine a Special Code Enforcement Target Area. The target area encompass 28 census tracts serving 46,650 residents, of which 69.44% are lower or moderate income. The boundaries of the target area are Bolsa Chica Street to the west, Bolsa Avenue to the north, Brookhurst Street to the east, and Atlanta Avenue to the south.

The City has recently expanded its Code Enforcement program. By the end of FY 21/22, the City will have 10 full time Code Enforcement Officers, two of which are assigned to CDBG reporting districts. Code Enforcement Officers assigned to CDBG areas work proactively to identify and resolve potential Health and Safety Code violations. During FY 20/21, Code Enforcement received 1,825 cases within the CDBG areas and approximately 1,112 housing units were inspected for potential Health and Safety Code violations. CDBG officers responded to 77% of cases within 48 hours and resolved cases within an average of 25 days.

The City supports the establishment of residential community groups within these neighborhood areas, such as the Oak View Task Force, and facilitates resident forums to discuss specific neighborhood issues and provide information on various resources for rehabilitation assistance.

The City has completed a Livability Study in the Oak View neighborhood and is planning to conduct significant improvements within the area. One opportunity enhancing neighborhood flow by improving connectivity with Oak View Elementary School. A proposed improvement includes providing safe, walkable routes to school via traffic calming measures and safety enhancements for pedestrians at key intersections. Oak View Elementary School students also completed a Walkability Audit with the OC Health Care Agency that provides suggested improvements on safe routes to school. The Oak View Community Center will also be reimagined to better serve the needs of residents.

Code Enforcement also endeavors to expand its Neighborhood Preservation activities within CDBG areas. Code Enforcement Officers attend a monthly neighborhood cleanup event in the Oak View community to provide information and establish connections with community members. Code Enforcement Officers also attend regular Oak View Community Meetings to take resident feedback and provide updates on neighborhood improvements and issues in the area.

Schedule of Action: Conduct neighborhood improvement activities within the CDBG designated target areas to improve the quality of life and condition of housing within these neighborhoods. Through collaborations with the Oak View Task Force, the Oak View School Collaborative and various City and County agencies, facilitate annual forums for residents of these communities to discuss specific neighborhood issues and provide information on various resources for rehabilitation assistance. Convene quarterly meetings of the Public Nuisance Task Force, comprised of representatives from various City departments, with the goal to expedite the abatement of properties that are considered public nuisances. Attend at least four Oak View community events per year as they occur, such as the current Oak View neighborhood monthly cleanup event. Events may change and evolve to address community needs throughout the planning period.

Program 1D. Preservation of Assisted Rental Housing

Huntington Beach contains nine rental projects which include affordable units at risk of conversion to market rate during the 2021-2029 planning period.

1. Beach Grove (80 affordable units)
2. O.C. Community Housing Corporation Keelson (4 affordable units)
3. O.C. Community Housing Corporation Queens (8 affordable units)
4. Oceanaire Garden Apartments (65 affordable units)
5. Sea Air Apartments (36 affordable units)
6. Shelter for the Homeless American Family Housing Barton 1 (4 affordable units)
7. Shelter for the Homeless American Family Housing Barton 2 (4 affordable units)
8. Shelter for the Homeless American Family Housing Keelson (4 affordable units)
9. Sher Lane Apartments (66 affordable units)
10. Five Points Senior Apartments (48 affordable units)

Total: 319 units

Five of these projects are owned and operated by affordable housing developers/organizations whose purpose is to provide affordable housing to moderate- and lower-income households. Those projects have a lower risk of conversion to market-rate housing than projects that are not owned by affordable housing developers/organizations. Five of the ten projects are owned by private, for-profit entities (Beach Grove, Oceanaire Garden Apartments, Sea Air Apartments, Sher Lane Apartments, and Five Points Senior Apartments). Two projects (Beach Grove and Sher Lane Apartments) are owned by the same for-profit entity, which will enable the City to have productive and expedited conversations regarding continued affordability of these units. The City will undertake the following specific actions to preserve at-risk rental housing:

- **Monitor At-Risk Units:** The City will contact property owners of housing units at-risk of conversion to market rates within the first year of the planning period to discuss City's desire to preserve existing affordable housing units.
- **Extend Affordability Periods:** The City will contact property owners to discuss an extension of the existing affordable housing covenants at least one year prior to contract

expiration. If the project owner is not interested in continuing ownership of the affordable property, the City will solicit participation of entities/agencies interested in purchasing and/or managing the units at-risk. The City will work with these entities/agencies to provide funding assistance, which can be leveraged with locally available sources to either transfer ownership, or provide rent subsidies to maintain affordability. The City has previously collaborated with qualified entities such as Jamboree Housing, AMCAL, and American Family Housing.

- **Tenant Education:** if the affordability period cannot be extended for a project, the City will assist with tenant education in conjunction with the property owner's notice of opt out of low income use restrictions. Based on California law, property owners are required to give a nine month notice of their intent to opt out of low income use restrictions. The City will work with tenants, and as necessary contract with specialists like the California Housing Partnership and other non-profits, to provide education regarding tenant rights and conversion procedures. Assist tenants with searching for replacement affordable housing.

Schedule of Action: Begin outreach to property owners in the first year of the planning period; ongoing outreach to property owners one year prior to affordability contract expiration. Ongoing identification of qualified entities to acquire and manage preserved affordable units. Utilize funding sources such as HOME; Section 8; Permanent Local Housing Allocation (PLHA); Housing Trust Fund; other outside sources; all available federal, state, and local financing subsidy programs identified in paragraph (9) of subdivision (a) of Government Code Section 65583, except where the community has other urgent needs for which alternative funding sources are not available.

Program 1E. Housing Authority Rental Assistance

The Orange County Housing Authority (OCHA) administers the Section 8 Housing Choice Voucher program on behalf of the City, providing rent subsidies to extremely low and very low income households, including families, seniors, veterans and the disabled. The program offers a voucher that pays the difference between the current fair market rent (FMR) as established by HUD and what a tenant can afford to pay (i.e. 30% of household income). As of July 2021, a total of 729 Huntington Beach households were receiving tenant-based Housing Choice Vouchers: 190 were Family Unification Vouchers, 121 were for the disabled, and 418 were for the elderly. Based on HUD regulations, 75 percent of households admitted to the program must have incomes less than 30 percent of the area median, making Section 8 a key way in which the City addresses the needs of extremely low income households. Additional rental assistance to Huntington Beach households was administered by OCHA. The Continuum of Care Program provided vouchers to 31 people, 9 received vouchers through the Family Self Sufficiency Program, 15 received vouchers through the Family Unification Program, 1 person received a voucher through the Non-Elderly Disabled Program, and 88 people received a voucher from the Veterans Affairs Supportive Housing Program.

Schedule of Action: Provide additional rental assistance for residents from OCHA, and coordinate with OCHA to identify additional apartment projects for participation in the Section 8 program. Continue to participate in meetings of the Cities Advisory to OCHA to maintain ongoing communication about the Section 8 program and other affordable housing activities.

Program 1F. Tenant-Based Rental Assistance

Beginning in fiscal year 2015/16, the City initiated a Tenant-Based Rental Assistance (TBRA) Program utilizing HOME funds. Program assistance is dedicated to extremely low income (<30% AMI) homeless and households at-risk of becoming homeless, with preference to veterans,

seniors, and victims of domestic violence. In addition to financial assistance consisting of security deposit and rental assistance paid directly to the landlord, the TBRA contractor will provide housing relocation and stabilization services to participants, including case management, outreach, housing search and placement, legal services, financial management/credit repair, and employment assistance.

The City is currently partnering with two TBRA contractors including Mercy House and Families Forward. The program will continue to target people experiencing homelessness and people at-risk of homelessness, with a preference to veterans, seniors, and victims of domestic violence in Huntington Beach. The program assisted 314 households between FY 15/16 and FY 20/21.

Schedule of Action: Continue the TBRA program with qualified service providers and assist 200 households during the eight-year planning period.

Program 1G. Mobile Home Park Preservation

The City recognizes that the approximately 3,000 mobile homes in Huntington Beach provide affordable housing for many seniors and lower-income families. In 2004, the City adopted a Mobile Home Park Conversion Ordinance. The Ordinance seeks to facilitate preservation of existing mobile home parks by establishing the findings required to be made by the City Council to: remove the General Plan Mobile Home Park (MHP) overlay, rezone from Residential Mobile Home Park (RMP), or allow a change in use. Among the findings required include:

- That the mobile home park conversion does not have an adverse effect upon the goals and policies for provision of adequate housing for all economic segments, as set forth in the Housing Element
- That the property would be more appropriately developed in accordance with uses permitted by the underlying zoning, or proposed zoning
- That the proposed zoning is consistent with the General Plan, and for projects in the Coastal Zone, with the Local Coastal Program
- That a notice of intent to change the use and relocate mobile home park tenants was delivered at least 18 months prior to the park closure

In 2014, the City adopted a Senior Mobile Home Overlay designation. The Senior Mobile Home Overlay district was established to protect ten mobile home parks primarily occupied by seniors 55 years of age and older from conversion to family (non age-restricted) parks. The overlay preserves additional housing options for senior citizens by retaining two existing senior parks as an affordable residential option for seniors.

The City has also established a Mobile Home Advisory Board (MHAB) to ensure the quality of life in mobile home parks. The MHAB provides a forum for communication among mobile home residents, park owners, and the City Council, and meets on a quarterly basis, with additional special meetings as needed.

Schedule of Action: Implement the Mobile Home Park Conversion Ordinance as a means of preserving mobile home parks as long-term housing in the community. For residents/tenants interested in purchasing their park, provide information on available State Mobilehome Park Rehabilitation and Resident Ownership Program (MPRROP) funding and assist with the subdivision map waiver process consistent with the Subdivision Map Act.

Goal 2: Provide adequate sites to accommodate projected housing unit needs at all income levels identified by the 2021-2029 RHNA.

Program 2A. Adequate Sites:

In February 2020, the City of Huntington Beach established an Affordable Housing Overlay within the BECSP to accommodate its remaining lower income RHNA target for the 5th cycle. The Overlay identified six sites that provided "by right" approval and other regulatory incentives for projects providing a minimum of 20% lower income units on site. The Overlay has been successful in the production of lower income units in that five of the six sites are in varying stages of development and at least two of the sites will be developed with 100 percent lower income units. As such, the City is proposing to accommodate a majority of its 6th Cycle RHNA targets through the expansion of the BECSP Affordable Housing Overlay and establishment of a citywide Affordable Housing Overlay zoning district which includes sites within the Holly Seacliff Specific Plan. Sites within the expanded Affordable Housing Overlay can be developed by-right and with other regulatory incentives if the project provides a minimum of 20% lower income units on-site.

The City of Huntington Beach has identified sites (located within **Appendix B** of the Housing Element, which when rezoned as identified in **Table B-8**, represent adequate sites to meet the City's 2021-2029 Regional Housing Needs Allocation (RHNA). Pursuant to State Housing Element statutes, sites identified to address a lower income RHNA shortfall shall meet the following requirements:

- Accommodate 100% of the RHNA for very low- and low income units
- Permit owner-occupied and rental multi-family uses "by right" when 20% of units proposed are available on vacant sites identified in two previous housing elements and non-vacant sites identified in one or more previous housing elements (see **Program 2E**)
- Allow a minimum of 16 units per site (Note: Candidate housing sites may be made up of multiple parcels and are identified in the consolidation analysis)

To address these requirements, the City will undertake the following adequate sites program:

- Identify parcels within the Beach and Edinger Corridors Specific Plan (BECSP) that are subject to the previously established "Affordable Housing Overlay," requiring a minimum of 20% of units to be designated as affordable to lower income households. The overlay will assist the City in accommodating its RHNA allocation of 5,845 lower income units.
- Establish a citywide "Affordable Housing Overlay" zone (HO) which permits residential development with allowable density to accommodate the assumed capacity for each identified site. The HO is intended to apply to the applicable areas identified within the sites analysis and may have differing development characteristics depending on site location and existing conditions. The HO is described in more detail in **Program 2B**.
- Rezone properties as identified within **Appendix B** of the Housing Element to RH, which permits residential development at a maximum of 35 dwelling units per acre, and rezone identified properties to RMH, which permits residential development at a maximum of 25 dwelling units per acre.

Development within the Affordable Housing Overlay proposing 20% lower income units ~~qualify~~ qualifies for by-right approval, density bonus and other development incentives, concessions and waivers (e.g. – parking, setbacks, etc.) consistent with State density bonus law. The City will also support eligible affordable projects within the overlays using available Housing Trust fund monies. As a means of facilitating the development of affordable housing on identified residential and mixed-use sites, the City offers a variety of financial and regulatory incentives, described in **Program 3B** (Affordable Housing Development Assistance), and **Program 4A** (Affordable Housing Density Bonus). In addition, the City's affordable housing ordinance requires projects with three or more units to provide at least ten percent of the proposed units as affordable to modest income households.

Schedule of Action: Update the BECSP sites to apply the Affordable Housing Overlay concurrently with City adoption of the Housing Element Update. Implement the Affordable Housing Overlay and all other necessary rezoning actions by October 15, 2022. Continually monitor candidate housing sites and overall development within the City to ensure overall development capacity is maintained via the Annual Progress Reporting process. If the City's remaining inventory falls below its remaining housing needs, the City will take the appropriate actions to identify additional sites to accommodate the shortfall.

Program 2B. Establish Affordable Housing Overlay Zone

The City of Huntington Beach will establish a new Affordable Housing Overlay (HO) zone which will be applied to specific candidate housing sites identified within the Housing Element. Residential development proposed pursuant to the Housing Overlay will assist the City in accommodating its RHNA allocation of 5,845 lower income units and 2,308 moderate income units.

The HO is proposed on existing residential and non-residential properties. Establishment of the HO will provide existing non-residential property owners the ability to entitle and develop housing on their parcels and does not replace the existing base zoning. A parcel identified within the HO that has a current non-residential base zoning will not be considered nonconforming if it is improved with a use that complies with the base zoning. Development within the Housing Overlay proposing lower income units qualifies for by-right approval, density bonus and other development incentives, concessions, and waivers (e.g. – parking, setbacks, etc.) consistent with State density bonus law, provided at least 20% of the units in each project are lower income units.

Through implementation of this program, the City will identify the development standards associated with the Housing Overlay zone. Subsequent creation, adoption, and application of the Housing Overlay zone to sites identified within **Appendix B** of this document will occur within 36 months of adoption of the Housing Element Update.

Schedule of Action: Draft the development standards and regulations related to the Affordable Housing Overlay and adopt that zone by October 15, 2022.

Program 2C. Replacement Housing:

Existing non-vacant sites included within the sites inventory may contain vacant or demolished residential units that were occupied by lower income households or households subject to affordability requirements within the last five years. Pursuant to Government Code section 65915, the City will adopt replacement housing requirements to ensure the replacement of any existing units occupied by lower income households or households subject to affordability requirements in the last five years that are demolished to construct new housing units. .

Schedule of Action: Develop replacement housing program requirement and update the HBZSO within two years of Housing Element adoption.

Program 2D. Actively Promote, Encourage, and Facilitate the Development of Accessory Dwelling Units. The City will support and accommodate the construction of at least 563 ADUs by a variety of methods, including but not limited to:

- Developing and implementing a public awareness campaign for construction of ADUs with a systematic approach utilizing all forms of the City's media and outreach distribution, including social media, the City Manager's Report, the City's website, and HB3 TV.
- Facilitate the provision of accessory dwelling units for seniors, caregivers, and other lower income households through dissemination of the City's public awareness campaign by conducting focused education to the senior population through the Huntington Beach Council on Aging (COA) and Senior Center in Central Park. The City will provide information and flyers for the COA's website and printed copies at the Senior Center in Central Park targeted for the senior community.
- Preparing and maintaining a user-friendly website committed to information related to codes, processes, and incentives pertaining to the development of ADUs and JADUs in the City.
- Analyzing and assessing the appropriateness of additional incentives to encourage ADU development.
- Approve permit-ready standard plans to permit new ADU construction to minimize design costs, expedite permit processing, and provide development certainty for property owners.
- Conduct updates to the Accessory Dwelling Unit section of the HBZSO to comply with state ADU laws.

Schedule of Action: Begin outreach and website updates by December 2022. Approve permit-ready standard ADU plans by December 2023. Ongoing analysis of additional incentives to reflect market needs. Ongoing Zoning Code updates as changes to legislation occur.

Program 2E. ADU Monitoring Program. The Housing Element describes the total ADU production assumptions over the eight-year period. In order to monitor affordability levels of ADUs developed within the planning period, the City of Huntington Beach will develop an ADU monitoring program consistent with the 2021-2029 ADU production goals. If ADUs are not being permitted as assumed in the Housing Element, the City will take proactive actions within 6 months of completion of the ADU review support the production of ADUs. These actions may include additional incentives for ADU development or identification of adequate sites to meet the City's identified unaccommodated need.

Schedule of Action: Create a monitoring program to track ADU and JADU development and affordability levels utilizing SCAG's HCD certified pre-approved affordability assumptions throughout the planning period by December 2022. Review ADU and JADU development progress annually to ensure production estimates are achieved. If the City finds they are not meeting proportionate ADU development, the City will determine if this creates a shortfall in remaining capacity to meet RHNA. If this is the case, the City will take the required actions needed to supplement the shortfall in capacity within the required 180 days.

Program 2F. Candidate Sites Identified in Previous Housing Elements

Pursuant to State Housing law, candidate sites identified in this Housing Element to accommodate a portion of the City's low- and very low income RHNA that were identified in previously adopted Housing Elements must be a permitted use by right when a project applicant proposes at least 20 percent of the units affordable to lower income households. Pursuant to HCD guidance, "by right" shall mean the jurisdiction may not require the following discretionary actions, except if the project requires a subdivision:

- A Conditional Use Permit
- Other discretionary, local-government review or approval that would constitute a "project"

The City may impose objective design review standards on projects. The City has identified as part of this Housing Element update vacant and nonvacant sites that were used in previous Housing Elements to meet the current RHNA need. To accommodate the provisions of State law, the City shall identify sites within the Housing Element which meet the following criteria:

- nonvacant sites included in a prior Housing Element and;
- vacant sites included in two or more consecutive planning periods

Identification of these sites shall indicate that they are permitted by right development when projects meet the requirements of State housing law. These sites are identified in **Appendix B.**

Schedule of Action: The City will identify candidate housing sites within the sites inventory which may be subject to by right provisions if the criteria outlined above is met and the development provides at least 20% of the proposed units affordable to lower income households concurrently with implementation of the overall rezoning program.

Program 2G. Safety Element Update and Environmental Justice Policies

SB 1035 requires that the City, after the initial revision of the Safety Element to identify flood hazards and address the risk of fire in certain lands upon each revision of the Housing Element, review and, if necessary, revise the Safety Element to identify new information relating to flood and fire hazards that was not previously available during the previous revision of the Safety Element. SB 1000 (2018) requires that the City incorporate environmental justice policies within the General Plan.

Schedule of Action: The City will revise the current Safety Element and take the document to City Council for adoption within 12 months of adoption of the 6th Cycle Housing Element. The City will also amend applicable portions of the General Plan to include environmental justice policies within 12 months of adoption of the 6th Cycle Housing Element.

Program 2H. Water and Sewer Service Providers

Pursuant to Chapter 727, Statues of 2005 (SB 1087), the City of Huntington Beach is required to deliver its adopted Housing Element and any amendments thereto to local water and sewer service providers. This legislation allows for coordination between the City and water and sewer providers when considering approval of new residential projects. Additionally, cooperation with local service providers will support the prioritization of water and sewer services for future residential development, including units affordable to lower-income households.

Schedule of Action: Within 6 months following the adoption of the 6th Cycle Housing Element, the City will submit the identified candidate housing sites to local water and sewer providers.

Program 2I. Golden West College.

Golden West College is an identified site to accommodate the RHNA. Discussions with GWC Administration and GWC's 2030 Comprehensive Master Plan demonstrate that GWC is planning to operate a community college campus and residential apartments simultaneously during the 6th Cycle planning period. The parcels will be part of the Citywide Affordable Housing Overlay, which enables the GWC campus to continue operating as a higher education institution while planning and developing underutilized areas with housing and other campus buildings pursuant to the Master Plan. Applying the overlay to the site removes the most significant constraint to housing development on the property.

Schedule of Action: The City will facilitate housing development on the Golden West College property by applying the Affordable Housing Overlay to the site by December 2022. City staff will meet with GWC Administration in 2023 and offer technical assistance with the RFP. City staff will commit to meeting with potential housing developers during the RFP period to answer questions and provide information on the Affordable Housing Overlay. City staff will maintain contact with GWC administration and be available to meet to discuss housing and development opportunities on the campus throughout the planning period. As stated in Program 2A: Adequate Sites, the City will continually monitor candidate housing sites, including the Golden West College site, and overall development within the City to ensure overall development capacity is maintained via the Annual Progress Reporting process. If the City's remaining inventory falls below its remaining housing needs, the City will take the appropriate actions to identify additional sites to accommodate the shortfall.

Goal 3: Provide for safe and decent housing for all economic segments of the community.

Program 3A Affordable Housing Program and Housing Trust Fund:

Zoning Ordinance Section 230.26 sets forth Huntington Beach's Affordable Housing requirements for providing affordable units within market rate developments. The City has recently completed an update to the Affordable Housing Ordinance to provide updated and additional options for projects to meet affordable housing requirements. The program requires new residential projects with three or more units to provide at least 10 percent of the total units for lower or moderate-income households at an affordable housing cost. Rental units must be made available to lower income households. Ownership units must be made available to moderate income households. Affordable units are permitted to be provided at an off-site location (unless otherwise outlined as part of a specific plan project), and may be new construction, substantial rehabilitation, or preservation of assisted rental housing at-risk of conversion or mobile homes. Projects which choose to fulfill the affordable housing requirements through onsite production of affordable units are eligible for other incentives such as a density bonus.

The Affordable Housing Program permits the affordable housing obligation to be fulfilled by payment of an in-lieu fee for all residential ownership projects and residential rental projects with 100 or fewer units. The in-lieu fee is updated annually and these monies are placed into the City's Affordable Housing Trust Fund (AHTF). AHTF revenues shall be used for projects with a minimum 50 percent of units affordable to very low- and low income households, with at least 20 percent affordable to very low income households. The funds may, at the discretion of the City Council, be used for pre-development costs, land or air rights acquisition, rehabilitation, land write

downs, administrative costs, gap financing, or to lower the interest rate of construction loans or permanent financing. To date, the AHTF has funded the construction of 119 deed-restricted housing units affordable to lower income households. This includes 41 extremely low, 41 very low, and 37 low income housing units.

Schedule of Action: Continue to utilize the Affordable Housing Ordinance as a tool to integrate affordable housing within market rate developments, or alternatively, to generate fees in support of affordable housing in off-site locations.

Program 3B Affordable Housing Development Assistance:

The City can play an important role in facilitating the development of quality, affordable and mixed-income housing through the provision of regulatory incentives and direct financial assistance. The following are among the types of incentives the City would offer:

- Reduction in development fees
- Flexible development standards
- Density bonuses
- City support for County, State, and Federal financing programs
- Financial assistance, with priority given to projects which incorporate units affordable to extremely low income households.

The City also provides technical assistance to developers in support of affordable housing development, including: evaluation of projects for appropriate use of funding sources; assistance with funding applications; and assistance in moving projects forward through the public review process.

Schedule of Action: Ongoing monitoring and adjustments to fees, development standards, incentives, and development review processes, where legally and financially feasible, to ensure such requirements do not unduly constrain housing development. Incorporate these revisions as part of the first Zoning Code Maintenance amendment by December 2025 and the second Zoning Code Maintenance amendment by June 2029. Ongoing financial and technical assistance for the development of affordable and mixed-income housing as development projects are submitted and prospective developers present inquiries to the City throughout the planning period. Financial sources may include HOME, Housing Trust Fund, PLHA, former RDA housing set-aside funds, Tax Credits, and other outside sources.

Program 3C: Residential Development on City Owned Property

Public/private partnerships involve collaboration between a government agency and private-sector company that can be used to finance, build and operate projects. The City is considering various options to leverage its land resources for residential and/or mixed-use development. The City will evaluate City owned sites, including the Civic Center/City Hall and the Corporate Yard, for potential conversion to residential uses during the planning period. The City has started the process of evaluating the Civic Center site. Various development scenarios of the Civic Center may include a City Hall building, a Police Department Headquarters building, a Fire Station, and approximately 500-1,000 residential dwelling units, including affordable units.

Schedule of Action: In 2023, the City will evaluate the feasibility of rezoning City owned properties for future residential development and present this information to the City Council.

Goal 4: Reduce governmental constraints to housing production with an emphasis on improving processes for projects that provide on-site affordable units.

Program 4A. Actively Promote the City's Development Assistance Team. The City's Development Assistance Team (DAT) is composed of staff from the Engineering, Traffic, Water, Fire, Planning, and Building Divisions. The DAT meets bi-weekly to review development applications submitted to the City. The City offer free pre-application DAT meetings to housing developers in order to provide applicants feedback on their housing projects from all City departments prior to submitting a formal application. This pre-entitlement review reduces time and costs by identifying site issues, infrastructure requirements, and plan check issues that can be addressed prior to an applicant preparing full plans and other submittal requirements as well as paying application fees. The City will actively promote DAT service through its mainstream advertising channels (City website, City Manager's Report, etc.) and direct email outreach to regional housing developers, industry groups, and non-profit affordable housing developers.

Schedule of Actions: Begin by December 2022; ongoing outreach activities annually.

Program 4B. Actively Promote the Electronic Permitting Process (Online Permit Center). The City's electronic permitting process enables developers to access the Permit Center online services 24 hours a day, 7 days a week. The online Permit Center, launched in 2021, allows developers to submit applications, pay fees, review application status, and request inspections in an expedited manner without waiting in line at City Hall. The City will actively promote the online Permit Center through its mainstream advertising channels (City website, City Manager's Report, etc.) and direct email outreach to regional housing developers, industry groups, and non-profit affordable housing developers.

Schedule of Actions: Begin by December 2022; ongoing outreach activities annually.

Program 4C. Monitor Legislative Changes. The CDD will monitor legislative changes to ensure that City policies and regulations comply with State and Federal laws regarding development of housing at all income levels, including legislation regarding ADUs and Density Bonus.

Schedule of Action: Annually.

Program 4D. Small Lot Ordinance Amendment. While the City's residential development standards have not been a constraint to the development of housing, the City's small lot ordinance is out of date and has not been utilized by developers in over 10 years. The small lot ordinance was adopted more than 20 years ago as a tool for housing developers to provide different housing product types in multi-family residential districts and extend home ownership opportunities to more families and households in the community. However, the City has not had a development proposed pursuant to the small lot ordinance in over a decade. Over the years, the City has promoted the small lot ordinance to some developers proposing residential projects, but the standards of the ordinance did not fit the needs of their projects. Although the City was able to assist these developers in ultimately getting their projects approved and developed, it is clear that the small lot ordinance is no longer a useful tool for the provision of housing in the City. The City will review and amend the existing Small Lot Ordinance to accommodate contemporary housing

and subdivision lot configurations, as well as more attainable housing products and feasible project financing. The City will engage with stakeholders during the amendment process to ensure the new ordinance will be a useful tool for the provision of housing, including affordable housing, in the City.

Schedule of Action: Complete amendment by December 2025.

Program 4E. Zoning Code Maintenance. The City routinely amends the zoning code as part of its ongoing maintenance to ensure the code stays up to date with land use trends, clarifies vague language, removes obsolete standards and uses, and eliminates unnecessary or overly burdensome entitlement requirements. During the 5th Cycle, the City completed three phases of Zoning Code amendments that, in part, reduced constraints to the provision of housing. This included eliminating a vague code requirement for residential privacy standards that was difficult to implement and would result in plan check and entitlement delays. During the 6th cycle planning period, the City will particularly focus zoning code maintenance amendments on residential sections of the code to ensure that standards are clear and objective. The City will assess residential processing procedures and other residential code provisions and propose amendments that will result in reduced processing times and costs.

Schedule of Action: Complete first Zoning Code Maintenance amendment by December 2025; Complete second Zoning Code Maintenance amendment by June 2029.

Goal 5: Promote equal housing opportunities for all residents, including Huntington Beach's special needs populations.

Program 5A. Housing Opportunities for Persons Living with Special Needs and/or Developmental Disabilities:

The City of Huntington Beach understands the unique housing needs faced by people with special needs and/or disabilities and their families. The Orange County Regional Center (OCRC) reports that nearly 60 percent of their adult clients with developmental disabilities live with their parents, and as these parents age, their adult disabled children will require alternative housing options. The OCRC has identified several community-based housing types appropriate for persons living with a developmental disability, including: licensed community care facilities and group homes; supervised apartment settings with support services; and for persons able to live more independently, rent subsidized, affordable housing. The City will work with the OCRC to implement an outreach program informing Huntington Beach families of housing and services available for persons with developmental disabilities, including making information available on the City's website.

Huntington Beach supports the provision of housing for its disabled population, including persons with developmental disabilities, through several means, including:

- By-right zoning for licensed residential care facilities (6 or fewer residents) in all residential zones, and provisions for larger care facilities (7 or more residents) in residential and commercial zones subject to a conditional use permit
- Adoption of Ordinance 3856 in February 2010 to specifically define supportive housing as a residential use of property, and to permit in all residential zone districts subject only to those restrictions and processing requirements that apply to other residential dwellings of the same type in the same zone.

- Adoption of Municipal Code Chapter 17.77 in February 2013, establishing a procedure for an individual with a disability to request a reasonable accommodation from zoning and building standards. No special permit or fee is required.
- Provision of residential rehabilitation loans and grants for lower income households which may be used for accessibility improvements.
- Programs to facilitate affordable housing, including Inclusionary Zoning, Multi-family Acquisition/Rehabilitation through Non-Profit Developers, Density Bonuses, and Affordable Housing Development Assistance.

The City will conduct the following specific actions:

1. Conduct outreach to affordable housing developers when funding is available to explore opportunities for affordable housing. Outreach should include developers with experience in development projects that include units affordable to extremely low-income households and households with special needs.

2. The City will actively and directly support a variety of housing types to help address the diverse needs of persons living with developmental disabilities, and work in cooperation with the OCRC to publicize information on available resources for housing and services. The City will create educational marketing materials within 12 months of Housing Element adoption for community distribution and conduct a minimum of annual outreach with the OCRC to maximize collaboration.

3. The City will pursue State and Federal funds available for supportive housing and services in future affordable housing projects, and apply for funds at least twice during the planning period.
4. The City will conduct at least annual meetings with prospective affordable housing developers in the City to support their ability to set-aside affordable units for persons living with disabilities in housing projects and contact supportive housing providers regarding the City's desire to expand the supply of housing to serve the developmentally disabled population.
5. As housing is developed or identified, the City will collaborate with OCRC to implement an outreach program informing individuals and families within the City of housing and services available for persons with developmental disabilities. The City will provide information at City Hall and on the City's website.

Schedule of Action: Ongoing, contact housing developers when funding is available. Provide annual meetings with developers and support at least two applications for funding during the planning period.

Program 5B. Low Barrier Navigation Center

State law has been updated to require approval 'by right' of supportive housing with up to 50 units and low barrier navigation centers that meet the requirements of State law. Low barrier navigation centers are generally defined as service-enriched shelters focused on the transition of persons into permanent housing.

Low barrier navigation centers provide temporary living facilities for persons experiencing homelessness. To comply with State law, the City will adopt policies, procedures, and regulations

for processing this type of use to establish a non-discretionary local permit approval process that must be provided to accommodate supportive housing and lower barrier navigation centers per State law. In the interim, any submitted application for this use type will be processed in accordance with State law.

The City will provide for annual monitoring of the effectiveness and appropriateness of existing adopted policies. Should any amendments be warranted to existing policies pursuant to State law, the City will modify its existing policies, as appropriate.

Schedule of Action: The City will adopt an ordinance to be compliant with State law regarding the definition, processing, and approval process for Low Barrier Navigation Centers within 18 months of adoption of the Housing Element Update.

Program 5C. Farmworker Housing

The City of Huntington Beach will update Title 21 Chapter 210 of the Huntington Beach Zoning Code to comply with provisions for farmworker housing in compliance with the Employee Housing Act (Sections 17000-17062.5 of the California Health and Safety Code), which states the following:

- Any employee housing providing accommodations for six or fewer employees shall be deemed a single-family structure with a residential land use.
- Any employee housing consisting of no more than 36 beds in a group quarters or 12 units or spaces designed for use by a single family or household shall be deemed an agricultural land use.
- Additionally, no conditional use permit, zoning variance, or other zoning clearance shall be required of employee housing that serves six or fewer employees and employee housing developments which are located on land classifies as agricultural may be subject to a streamlined, ministerial approval process, and is not subject to a conditional use permit
- Employee housing that serves six or fewer employees or is deemed an agricultural land use shall not be subject to any business taxes, local registration fees, use permit fees, or other fees to which other family dwellings of the same type in the same zone are not likewise subject.

Schedule of Action: Revise the Zoning Code within 18 months of adoption of the Housing Element update.

Program 5D. Group Homes. On July 6, 2020, the City Council approved a Group Home Ordinance to benefit disabled persons who live in a group setting as well as maintaining residential zoning standards. The Ordinance enhances the protections granted under the federal Fair Housing Act, Fair Housing Act Amendments (42 U.S.C. Section 3601) and other state and federal laws (i.e. Americans with Disabilities Act) provided to persons with disabilities, and also helps maintain the residential character of City neighborhoods.

The purpose of the Ordinance is to allow disabled persons to live in a residential setting while ensuring that their facilities are operated in a manner consistent with the residential character of surrounding neighborhoods, do not recreate an institutional environment that would defeat the purpose of community-based care, and that facilities serving the disabled are operating in compliance with City and state laws/regulations. The Ordinance created definitions for several types of facilities and associated permitting processes, where applicable. Under the current regulations, there are significant portions of the City that can accommodate additional facilities.

In addition, the City has a well-defined Reasonable Accommodation procedure (fully detailed below) that further ensures individuals with disabilities are protected. Specifically, Chapter 17.77 – Reasonable Accommodation Procedures of the Huntington Beach Municipal Code (HBMC) provides an application process and review requirements for a Reasonable Accommodation request from the City's zoning and land use regulations, policies, and practices when necessary to provide an individual with a disability an equal opportunity to use and enjoy a dwelling.

The City will review the zoning, permitting procedures, application requirements, and development standards applicable to Group Homes to ensure consistency with state and federal laws, including constraints on housing for persons with disabilities (Gov. Code section 65583, subdivision (a)(5)) and affirmatively furthering fair housing (Government Code sections 8899.50 and 65583, subdivision (c)(10)(A)) to create housing opportunities for persons with disabilities, and amend zoning to allow group homes for seven or more persons in all residential zones and modify permit procedures with objective standards to facilitate approval certainty, as appropriate to ensure there are no constraints on housing choice for persons with disabilities.

Schedule of Action: Review within 6 months of adopting the Housing Element update and amend the HBZSO/HBMC in the following 6 months.

Goal 6: Promote a healthy and sustainable Huntington Beach through the support of housing at all income levels that minimizes reliance on natural resources and automobile use.

Program 6A. Green Building and Sustainability

Green buildings are structures that are designed, renovated, re-used or operated in a manner that enhances resource efficiency and sustainability. These structures reduce water consumption, improve energy efficiency, generate less waste, and lessen a building's overall environmental impact. The 2019 California Building Standards Code establishes mandatory Statewide green building standards; Huntington Beach has adopted the California Green Building Standards Code (CALGREEN) in its entirety. In addition, the City requires green building practices for all development within the adopted Downtown Specific Plan and Beach/Edinger Corridors Specific Plan.

The City offers an Energy Efficient Permit Fee Waiver for energy efficient heating, cooling, water and solar systems meeting specified criteria. In 2017, the City adopted a Qualified Greenhouse Gas Reduction Program (GGRP) in conjunction with a comprehensive update to the General Plan. In addition, the 2017 General Plan Update included policies adopted to support implementation of the GGRP and reduce GHG emissions consistent with state goals. The GGRP highlights notable accomplishments to date, including: adoption of a Recycling Market Development Zone (RMDZ), a Sustainable Business Certification program, LED Streetlight Conversion, and adoption of a Bicycle Master Plan.

Schedule of Action: Provide outreach and education to developers, architects and residents with information on the CALGREEN code, and ways to incorporate sustainability in project design and in existing structures. Implement the Greenhouse Gas Reduction Program (GGRP) pursuant to the goals and policies of the General Plan.

Goal 7: Maximize solutions for those experiencing or at risk of homelessness.

Program 7A. System of Care and Housing for People Experiencing Homelessness. The City's Community Development, Police, and Community Services Departments work together to maximize resources to serve the local population of people experiencing homelessness and are active in the Orange County Continuum of Care and its regional approach to assist homeless persons transition towards self-sufficiency. The City's strategy is to continue to support a continuum of programs, including homeless support services, emergency shelter, transitional housing, permanent affordable housing, and homeless prevention services. Specific City support into the County's annual Continuum of Care funding application to HUD includes:

- Data compilation on homeless services and facilities;
- Providing official letters of support for the funding applications; and
- Participation in meetings of the Orange County Cities Advisory Committee, responsible for the regional Continuum of Care Homeless Strategy, and meetings of the Continuum of Care Board as necessary.

In 2015, the City assigned a full-time officer dedicated to homeless issues and has continued to allocate resources to address issues regarding homelessness. The City's efforts have grown to include a Homeless Task Force (with five full-time officers, 1 program coordinator, and up to 4 case managers) and construction of the Navigation Center that provides shelter for eligible people experiencing homelessness with ties to Huntington Beach. The City has also recruited a new Deputy Director of Homelessness and Behavioral Health to continue its System of Care development in addressing the needs of the homeless population. This multi-pronged approach is accomplished in a variety of ways such as weekly outreach to engage homeless individuals and determine their needs, reuniting individuals with family members, assisting with eviction prevention, and working within the County's Coordinated Entry System to match individuals and families with housing opportunities. Since 2015, the City's Homeless response efforts have helped more than 275 individuals obtain permanent shelter and assisted more than 70 individuals in reconnecting with their families.

Schedule of Action: Ongoing. The City will continuously evaluate the effectiveness of its continuum of care and services for people experiencing homelessness in order to improve internal processes and systems to produce positive outcomes for persons experiencing or at-risk of homelessness.

Program 7B. Homeless Task Force. The Police Department's Homeless Task Force is supplemented by BeWell OC – Huntington Beach crisis counselors to conduct street outreach to people experiencing homelessness. These teams assess each potential client and may refer people to the City's Navigation Center for shelter and supportive services. In 2021, the Task Force conducted 4,411 outreach contacts with an average of 368 contacts per month. During the planning period, the City will continue to support the Task Force through adequate staffing to maintain these levels of service and expand services when funding is available.

Schedule of Action: Ongoing. The City will continuously evaluate the effectiveness of the Task Force in order to improve internal processes and systems to produce positive outcomes for persons experiencing or at-risk of homelessness.

Program 7C. Mobile Crisis Response Program. In March 2021, the City established Be Well OC – Huntington Beach, a Mobile Crisis Response Program (MCRP) funded by the City of Huntington Beach and staffed by Be Well OC to provide 24/7 community-based assessment and stabilization of individuals experiencing mental health crises, challenges related to substance use, and other medical and non-medical emergency challenges. Each team consists of two crisis counselors who de-escalate a situation and provide a compassionate response to those experiencing a mental health crisis in their homes, on the streets or at a public location with the end goal of linkage to ongoing behavioral health support services. The program diverts calls from a law enforcement response to trained clinical responders that can engage more effectively with individuals. The City will establish annual quantified goals regarding volume of calls, services provided, case management follow-ups, and referrals in accordance with available funding and program status.

Schedule of Action: Ongoing. The City will continuously evaluate the effectiveness of the Be Well OC – Huntington Beach MCRP in order to improve internal processes and systems to produce positive outcomes for persons experiencing or at-risk of homelessness. The City will establish quantified goals each year regarding data metrics for the MCRP pursuant to current trends and needs.

Program 7D. Services for People Experiencing or At-Risk of Homelessness. The City will continue to make information about services for people experiencing or at-risk of homelessness available on the City's website and at City facilities. The City will continue to provide resources for non-profits that provide transitional housing, motel vouchers, food pantry, emergency rent and utility payment assistance, life-skills counseling and clothing. The City will continue to provide CDBG grant funding to non-profits such as Families Forward, South County Outreach, Human Options, and Stand Up for Kids that provide these services. Information on these resources is included in the City's Affordable Housing Guide and the City's website. The City will coordinate with the Homeless Task Force to determine if there are changing needs of the Navigation Center clients and explore methods/services to support these needs.

Schedule of Action: Ongoing. Update website materials as new resources are available.

Program 7E. Huntington Beach Navigation Center and Permanent Supportive Housing. In December 2020, the City opened the 174 bed Navigation Center to provide shelter and supportive services for people experiencing homelessness. In 2021, the Navigation Center matched 71 persons with housing vouchers and 45 people were permanently housed. The City will establish annual quantified goals regarding services provided, number of clients housed or reunited with family, housing navigation sessions, and referrals in accordance with available funding and program status.

During the planning period, the City will endeavor to identify partners in developing and operating a Healing Center on the property. In March 2022, the City issued an RFQ for development of the Healing Center. The City envisions building a permanent facility that provides wraparound supportive services to support individuals from street to home. The Healing Center will tentatively include a Navigation Center, mental and physical health services, substance use treatment support, and transitional and supportive housing units.

Schedule of Action: Ongoing. Annually evaluate the Navigation Center in order to improve internal processes and systems to produce positive outcomes for persons experiencing or at-risk of homelessness. The City will establish quantified goals each year regarding data metrics for the

Navigation Center. Seek funding to construct the Healing Center annually as opportunities become available.

Program 7F. Proactively Seek and Leverage All Funding Options to Increase the Supply of Affordable Housing. The City will proactively pursue relevant State and Federal funding sources to provide additional options for developers of lower-income housing that serve veterans, seniors, individuals, families, and other special populations at-risk of and currently experiencing homelessness in the City. The City will ensure that such housing options will include reasonable accommodations and supportive services for people with disabilities. Additionally, the City will continue to be a member of the Orange County Housing Finance Trust (OCHFT), a joint power authority composed of multiple Orange County cities. The OCHFT can provide additional funding options for affordable housing developers. The City will ensure that housing options will include reasonable accommodations and supportive services for people with disabilities.

Schedule of Action. Ongoing as funding is released and available.

Program 7G. Proactively Seek Funding for Hotel/Motel Conversions to Transitional and Supportive Housing. Project Homekey continues a statewide effort to sustain and rapidly expand housing for the target population- persons experiencing homelessness or at-risk of homelessness. In FY 2021-22, HCD made approximately $1.4 billion in grant funding available to local public entities, including cities, within California. The City, in collaboration with the County of Orange and American Family Housing, has received approval for Project Homekey funding to implement the Hotel/Motel Conversion Overlay at one of the identified Homekey sites, Quality Inn and Suites located at 17251 Beach Blvd. This ensures that the City's overlay will be successful even though State funding is limited. The City will identify development partners and coordinate with the County of Orange on joint applications for funding for the two other sites identified in the Hotel/Motel Conversion Overlay during the planning period.

Schedule of Action: Begin construction at site with Homekey funding by December 2022; Ongoing outreach to potential development partners to coordinate and submit applications for the two identified sites as funding is released and available.

Goal 8: Improve quality of life and promote placemaking with an emphasis on improving access to opportunities in low-resource areas.

Program 8A. Implement Funded Projects that Improve Quality of Life, Placemaking, and Access to Opportunity in Low Resource Areas. The City has received a $5 million Clean California Grant from the Department of Transportation for quality of life improvements in the Oak View neighborhood, which is a low resource area. This project implements neighborhood enhancements including Safe Routes to School infrastructure improvements, beautification, landscaping, lighting, sidewalks/crosswalks, and other placemaking improvements. Additionally, the City's Capital Improvement Program (CIP) has identified multiple projects within the Oak View neighborhood that will improve quality of life and promote placemaking, including rehabilitating the Oak View Community Center and Library.

Schedule of Action: Complete Safe Routes to School by June 2024; Implement CIP projects according to CIP schedules.

Program 8B. Proactively Seek all Funding Sources to Improve Quality of Life, Placemaking, and Access to Opportunity in Low Resource Areas. The City is working collaboratively with the Ocean View School District and the general community to prepare a master plan to guide improvements in the Oak View neighborhood. The master plan will revitalize the Oak View area and address the unique needs of this community. Preliminary improvements include redeveloping the Community Center and adjacent Oak View Park, as well as expand and modernize Oak View Library to better meet the needs of this neighborhood. Upon completion of the master plan, the City will proactively seek all funding sources in order to implement the identified improvements. The City has recently met with HUD regarding possible funding options and HUD expressed their support for improvement projects in Oak View.

Schedule of Action: Ongoing. Analyze feasibility of taking a HUD Section 108 loan by December 2023. Apply for funding twice during the planning period, by December 2025 and December 2027.

Program 8C Childcare Facilities

The City of Huntington Beach recognizes that finding adequate and convenient child care is critical to maintaining quality of life for many households. The City allows large family day care uses (up to 12 children[1]) administratively in residential and commercial zoning districts. General day care centers are also permitted in residential, commercial and industrial zones, subject to a conditional use permit. The City's Zoning Code (Section 230.14.G) provides additional density bonuses and incentives for the inclusion of childcare facilities in affordable housing projects. Additionally, other General Plan elements incorporate policies to facilitate the provision of child care facilities in the City.

The City currently allocates a portion of its CDBG funding to help subsidize childcare costs for low income families. To further the commitment to providing adequate child care opportunities, the City will work with project applicants to evaluate the demand for child care in new housing developments and establish incentives for the inclusion of child care in housing developments. Additionally, the Oak View neighborhood revitalization projects discussed in Programs 8A and 8B include redeveloping the existing child care program building into a new larger and modern facility that can accommodate more children and a broader range of youth age groups.

Schedule of Action: Ongoing. Analyze the feasibility and necessity of providing incentives for housing development projects that provide child care facilities by October 2024.

Goal 9: Affirmatively further fair housing.

Program 9A. Provide Fair Housing Information and Education to Residents on the City's Website in English and Spanish. As part of the City's comprehensive website update, the City will provide links to Fair Housing Foundation (a nonprofit the City currently contracts with) to provide residents with information regarding fair housing law, and tenant and landlord rights (including information on mediation services). The City will also provide information and

[1] Up to 14 children are permitted where at least two are six years of age or older.

resources for the reporting suspected violations and obtaining remedies on the City's website in English and Spanish to ensure residents with Limited English Proficiency have accessible information.

Schedule of Action: Upload existing printed copies of Spanish-language fair housing resources by December 2022. Ongoing updates to website as new information is available. Complete the Housing website update as part of the comprehensive City website update during the planning period.

Program 9B. Actively Engage with Community Members and Organizations in Low Resource Areas. The City will prioritize engagement with residents, community members, and community organizations representing low resource areas. This engagement and outreach will emphasize understanding new and evolving issues/needs within these areas, including community housing needs. Following engagement, the City will evaluate feasibility of options to support the community and provide solutions. The City will engage with organizations that provide services or information about services to any special needs and linguistically isolated groups

Schedule of Action: Ongoing attendance at Oak View Task Force meetings, Oak View Community Cleanup events, and new events within the Oak View community as they occur.

Program 9C. Density Bonus Projects. The City will connect developers of projects with affordable density bonus units and local non-profits/community organizations to coordinate efforts and determine if the units could be set aside, where feasible, for special groups including but not limited to seniors, Veterans, and special need adults. The City will encourage preferences for special groups during project processing.

Schedule of Action: Ongoing as density bonus projects are submitted.

Program 9D. Coordinate with School Districts to Promote Access to Resources and Opportunities for Students Experiencing or At-Risk of Homelessness. The City will contact all School Districts operating public schools with attendance boundaries within the City limits. The purpose of this outreach is to share knowledge and provide coordination between City resources, facilities, and services and School Districts serving students under the McKinney-Vento Act. This will produce better outcomes for students and families experiencing or at-risk of homelessness.

Schedule of Action: Coordinate with School Districts annually and on as-needed basis when new issues and solutions arise.

Program 9E. Fair Housing Outreach and Enforcement.
Pursuant to AB 686, Chapter 958, Statutes 2018, Huntington Beach will affirmatively further fair housing by taking meaningful actions in addition to resisting discrimination, that overcomes patterns of segregation and fosters inclusive communities free from barriers that restrict access to opportunity based on protected classes, as defined by State law.

To accomplish this, the City or designated contracted organization will collaborate with local and regional organizations to review any housing discrimination complaints, assist in dispute resolution, and, where necessary, refer complainants to appropriate state or federal agencies for further investigation, action, and resolution.

Section 3 of this Housing Element contains an analysis of fair housing activities in Huntington Beach and the Orange County region.

The City uses the services of the Fair Housing Foundation to implement the regional Fair Housing Plan (AI), and to offer the following services:

- Fair Housing Community Education
- Fair Housing Enforcement
- Tenant Legal Assistance
- Housing Dispute Evaluation and Resolution
- Mediation Program

The Fair Housing Foundation (FHF) assists approximately 250 Huntington Beach residents annually with issues regarding tenant/landlord matters, and handles over a dozen fair housing cases each year on behalf of residents. Between FY 15/16 and FY 19/20, the FHF assisted 901 residents with housing related issues. FHF provides fair housing education and outreach within Huntington Beach, including presentations to groups such as the Oak View neighborhood, realtor groups, apartment managers, City staff, and others on request. In addition to the availability of counselors by toll-free telephone number and walk-in assistance at one of their two offices Monday-Friday, FHF also provides on-site walk-in counseling at Huntington Beach City Hall one time per month. FHF also regularly schedules certification and training programs locally for apartment owners and managers. FHF also provides bi-lingual outreach once or twice a year at scheduled events and distributes fair housing information to owners of rental property in the Oak View neighborhood.

The City's affordable housing unit stock is dispersed throughout all areas of the City. This is due in part to successful inclusionary zoning policies implemented in the early 1990's. As future affordable housing development opportunities arise, the City will endeavor to continue its successful history of fair geographic distribution.

Schedule of Action: Continue to contract for fair housing services, including education, mediation, discrimination investigation and resolution. Promote fair housing practices through participation of City's fair housing provider at community events, inclusion of fair housing criteria in City housing agreements, and assistance in dissemination of fair housing educational information to the public through distribution of brochures at City community centers, libraries, and on the City's website.

Table 4-1: Contributing Factors and Meaningful Actions Matrix

Identified Fair Housing Issue	Contributing Factor	Priority (high, medium, low)	Meaningful Action
9.1 Outreach and Enforcement			
Access to information and services Housing Mobility	Lack of knowledge of fair housing and associated laws. Insufficient online fair housing material in Spanish.	Medium	Continue to utilize the services of the Fair Housing Foundation and other service providers to conduct fair housing outreach and enforcement (Program 9E)

			Provide information on the City's website regarding fair housing information in Spanish (Program 9A)
9.2 Segregation and Integration			
Housing Mobility	High cost of housing limits access to lower income households of all races/ethnicities Certain existing land use and zoning designations do not permit residential construction	High	Continue to fund the Tenant-Based Rental Assistance (TBRA) program to prevent homelessness and address the high cost of housing (Program 1F). Creation of the Housing Overlay will permit residential development, including affordable housing, in existing non-residential areas that have improved access to opportunities (Program 2B). Maximize solutions for those experiencing or at risk of homelessness while maintaining/expanding a continuum of housing affordable at all income levels for people to navigate as they achieve upward economic mobility (Programs 7A, 7B, 7C, 7D, 7E, 7F 7G, 9C, 9D,
9.3 R/ECAP			
There are no RECAPs in Huntington Beach. In Orange County, there are RECAP tracts in Santa Ana and Irvine.	Regionally high costs of housing and development patterns	Low	To foster social equity, the RHNA methodology assigns the City a higher proportion of lower income households to be responsible for than others in the SCAG region. The City meets this requirement by providing lower income housing opportunities in its adequate sites inventory.(Program 2A, 2B, 2C) As projects are submitted and constructed, implementation of inclusionary housing policies, the newly expanded BECSP Affordable Housing Overlay, and the new Citywide Affordable Housing Overlay will ensure that affordable housing units are constructed on-site to create diverse, mixed-income neighborhoods (Programs 2A, 2B).

9.4 Access to Opportunity			
Housing Mobility Affordability in high opportunity areas High housing cost High rates of housing cost burden Housing opportunities for special needs groups and persons with disabilities	Location and type of affordable housing Need for continued infrastructure improvements and community placemaking improvements in low resource areas Lack of private investments High rents and rates of cost burden Disparities in Access to Opportunities	High	Encourage private investment in low resource areas and maintain/expand housing choice and affordable housing opportunities via the BECSP Affordable Housing Overlay (Program 2A) Implement the Affordable Housing Overlay on existing non-residential parcels identified in the sites inventory to spur private investment while expanding the available locations and types of affordable housing (Program 2B) Implement rezoning of sites identified in high resource areas to RH (Residential High Density) to increase housing choices affordability in high opportunity areas (Program 2A) Implement the adequate sites strategy by identifying sites that are located in areas of high quality transit access, job proximity, medical services, and retail needs to improve lower income access to opportunity (Program 2A, 2B) Continue to work with the Orange County Housing Authority to administer the City's Section 8 Housing Choice Voucher program to address the high cost of housing and rates cost burden (Program 1E) As housing for persons with special needs and/or developmental disabilities is developed or identified, the City will collaborate with OCRC to implement an outreach program informing individuals and families within the City of housing and services available for these groups. The City will also provide information on its website. (Program 5B) Continue to fund the Tenant-Based Rental Assistance (TBRA)

			program to prevent homelessness and address the high cost of housing (Program 1F). Implement place-based strategies to preserve and revitalize low resource areas. Continue public investments in low resource areas to improve quality of life and promote placemaking (Programs 8A, 8B, 9B)
9.5 Disproportionate Housing Needs and Displacement Risk			
Anti-Displacement City faces a high cost burden, but also has a percentage of higher income households. Need to maintain and preserve existing deed-restricted affordable housing units Extremely Low-Income Rental households face the greatest risk of displacement	Displacement of residents due to economic pressure Age of Housing Stock Cost of repairs or rehabilitation Projects with affordability restrictions expiring during the planning period	High	Pursuant to Government Code section 65915, the City will adopt replacement housing requirements to ensure the replacement of any existing units occupied by lower income households or households subject to affordability requirements in the last five years that are demolished to construct new housing units (Program 2C) As projects are submitted and constructed, implementation of inclusionary housing policies, the newly expanded BECSP Affordable Housing Overlay, and the new Citywide Affordable Housing Overlay will ensure that affordable housing units are constructed on-site to reduce the risk of displacement in compliance with Gov Code 65915 (Programs 2A, 2B). Maximize solutions for those experiencing or at risk of homelessness while maintaining/expanding a continuum of housing affordable at all income levels, including extremely-low income, for people to navigate as they achieve upward economic mobility (Programs 7A, 7B, 7C, 7D, 7E, 7F 7G, 9C, 9D, Continue to fund the Single Family and Multi-Family Housing Rehab Loan Program to address aging housing stock, conditions, and costs of repairs. Loan repayment is deferred until the property is sold

			or refinanced. Continue to fund rehabilitation grants for low income households that do not require loan repayment. (Program 1A) Preserve existing deed-restricted affordable housing units with affordability restrictions expiring during the planning period to reduce risks of displacement and maintain the existing supply of affordable housing (Program 1D)

H. Quantified Objectives

Table 4-2 summarizes the City of Huntington Beach's quantified objectives with regard to the construction, rehabilitation, and preservation of housing. These objectives are established based on the City's resources available over the planning period.

TABLE 4-2 QUANTIFIED OBJECTIVES (2021-2029)

	Extremely Low Income	Very Low Income	Low Income	Moderate Income	Above Moderate Income	TOTALS
New Construction	1,831	3,661	2,184	2,308	5,215	13,368
Rehabilitation	---	---	5	5	20	30
Conservation and 'At-Risk'	---	152	90	77	---	319
Section 8	---	300	428	---	---	728

Appendix A

Review of Past Performance

A. Review of Past Performance

The following chart is a review of the City of Huntington Beach's housing project and program performance in the 2013-2021 Planning cycle. It is an evaluation of the 5th cycle's Policy Program and considers all current and existing programs and projects as well as the most current accomplishments, effectiveness and appropriateness.

Program Evaluation

The City of Huntington Beach has demonstrated a significant effort in pursuit of accomplishing many of the objectives set for the programs of the past Housing Element planning cycle. During the fifth cycle, the City completed a number of key programs to support housing opportunity and made substantial progress towards many of its programs. The City's successful programs have been identified as continued for the sixth cycle, due to their success in the fifth cycle.

As a part of analyzing prior programs, the Housing Element must evaluate the effectiveness of goals, policies, and related action in meeting the housing needs of special needs populations. The summary below provides an overview of Huntington Beach's prior program accomplishments and achievements related to special needs populations. Individually and collectively, these programs have a real and demonstrable in providing for the needs of special needs populations in Huntington Beach:

- **Seniors:** The City of Huntington Beach created a senior mobile home program that provided funding and preservation of eight mobile home parks. Mobile homes play a significant role in continuing affordability options for seniors in the community. Additionally, rental assistance programs, including Section 8 and local TRBA programs have had a demonstratable impact on providing and preserving affordable housing for senior-aged residents. The City will continue to implement these programs for the sixth cycle. Policy 5.2 Supports housing policy options for seniors and is implemented through the Program 1B, which prioritizes multiple family acquisition and rehabilitation. The City will also focus preservation efforts on the deed-restricted 48 unit Five Points Senior Apartments and provide continued implementation of the Senior Mobile Home Overlay to retain affordable options for seniors. The City has also established permanent supportive housing for seniors experiencing homelessness and those earning less than 50% of County MFI.

- **Persons with Disabilities:** The City of Huntington Beach supported persons with disabilities through the implementation of Fair Housing policies and programs. The City will continue to partner with OCRC to facilitate the needs of persons with disabilities throughout the sixth cycle Program 5B prioritizes housing for persons with physical and developmental disabilities and provides direct consultation to preserve and extend affordability covenants for housing serving this population.

- **Large Households:** To support large households the City of Huntington Beach implemented a programs that provided housing opportunities . These include facilitating of child care facilities to accommodate the needs of large households, project self-sufficiency programs assisted single parent households achieve independence due to cost issues associated with large households. The City will continue to fund and assist these programs in the sixth cycle.

- **Farm workers:** Traditionally farmworkers are not a group in need of assistance in the community. With the transition to an urban, builtout community, farmworker related activities does not create significant demand or justify the need for specialized housing. The city's existing assistance programs, via Section 8 and other rental and housing assistance program provide the necessary support to persons who are in farmworker professions. All of which are not associated with large scale, viable farm-related activities. To comply with new requirements, the City will amend its Zoning Code to comply with new provisions for farmworker housing and employee housing in compliance with the Employee Housing Act.

- **Single-Parent Households:** The City of Huntington Beach supported single-parent households through a variety of programs that increased the affordable housing stock, provided supportive services, and made information regarding affordable housing resources easily accessible. Throughout the 5th cycle the City provided support for a self-sufficiency program for single parents and direct assistance to families in need to long-term and temporary assistance. These programs will continue to be offered in the sixth cycle. Policy 5.4 provides for assistance to enhance self-sufficiency for single parents and is implemented through Program 5C, providing assistance for single parent households through emergency, transitional and supportive services to further support self-sufficiency.

  Additionally, the City annually allocated financial resources to various non-profits to provide residents with the following services that would support special needs populations including single-parent households:
  - Food and supplementary resource assistance
  - Transitional support services for low-income residents
  - Programs for at-risk children and families
  - Assistance to families experiencing domestic violence
  - Assistance for child care
  - Support programs, counseling programs
  - Outpatient health services

- **Homeless Persons:** The City supported persons experiencing homelessness through participation in the Continuum of Care program. The City opened a 124-bed Navigation Center to support shelter and support services. The city also began a Mobile Crisis

Response Program to community needs. Emergency shelter programs and policies also provide direct assistance to person experiencing homelessness. The City also maintains a homeless persons coordinator to ensure services are maintained and available through coordination with local and regional providers. Policy 5.5 addresses homeless housing and services and is implemented through Programs 1C, 1D, 1F, 5C which continues to support Homeless persons by providing temporary, and long term housing and support services.

- **Extremely low-income households:** The City of Huntington Beach supported extremely low-income households through a variety of programs that provided housing resources, information about supportive services, and funding, Throughout the 5th cycle the City helped support a variety of assistance programs supporting persons with incomes less than 30 Percent of the County Median Income. These included Section 8, homeless assistance programs, self-sufficiency programs, fair housing support services, transitional and support housing programs and inclusionary programs targeted for this cohort.

  Additionally, the City annually allocated CDBG funding to groups providing residents with the following services that supported extremely low-income households:
  - Food and supplementary resource assistance
  - Clothing for low-income residents
  - Programs for at-risk children and families
  - Assistance to families experiencing domestic violence
  - Assistance for child care

The City successfully supports extremely low income households through the following 5th Cycle Programs: Program 1B, for acquisition and rehab of multi-family units, Housing Authority rental assistance (Program 1E), Tenant Based Rental Assistance (Program 1F), fee assistance to developers for extremely low income unit construction (Program 3B and 4B),

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
Goal: Existing Housing Quality and Affordability			
1. Housing Rehab Loan Program	Assist 20 lower income households annually, or 160 over planning period	The City successfully assisted lower-income households during each fiscal year of the planning period: • FY 2014-15: 4 households • FY 2015-16: 9 households • FY 2016-17: 7 households • FY 2017-18: 7 households • FY 2018-19: 8 households • FY 2019-20: 2 households Funding from FY 2019-20 is reserved for 5 additional lower income households which put their home improvements on hold due to the COVID-19 pandemic.	**Ongoing with Minor Modifications:** While the City did not reach its target of 160 households, the City was still able to assist 42 households during the planning period. This program remains appropriate due to the ongoing need for maintenance of the City's aging housing stock. The City will continue to assist lower income households through its loan program annually through the planning period. The City will continue to assist lower income households through its loan program annually through the planning period.
2. MFR Acquisition/rehab through Non-Profit Developers	Acquire, rehabilitate, and establish affordability covenants on 20 to 40 rental units.	The City assisted in the acquisition/rehab and establishment of affordability covenants for one rental four-plex. In FY 2016/17, the City entered into an affordable housing agreement with a local CHDO, Orange County Community Housing Corporation (OCCHC), to acquire and rehabilitate a rental four-plex located at 7792 Barton Drive. The project was granted $781,220 in HOME funds and was completed in April 2018.	**Ongoing:** The City of Huntington Beach will continue to assist in rehab and MFR Acquisition when feasible in the 6th cycle. The City's 2020-2025 Consolidated Plan lists acquisition as an approved use of HOME and CDBG funding.

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
		13 Housing Units (OCCHC Affordable Housing Project: 9 housing units; 7792 Barton Street Project; 4 housing units)	
3. Neighborhood Preservation	Conduct improvement activities in CDBG target areas. Conduct public forums for residents to discuss specific neighborhood issues and provide information on resources, including rehabilitation assistance	The City maintained two full time code enforcement officers in the CDBG target areas throughout the planning period. During the 2018 calendar year, 3,591 inspections were conducted and 3,279 cases were successfully abated. During FY 20-21, 1,825 inspections were conducted and 77% of cases were inspected within 48 hours of receiving the complaint. The City has also funded improvements to the Oak View Family Resource Center. The Oak View Task Force continues to have quarterly meetings. The City has worked with the Oak View community to organize cleanup events and coordinate large item/trash removal by Republic Waste Services. Three cleanup events took place in FY 2020.	**Ongoing:** The City's 2020-2025 Consolidated Plan includes a Goal regarding Sustaining and Strengthening Neighborhoods. Using CDBG funds, the City will sustain and strengthen neighborhoods by eliminating unsafe conditions and blight while improving the quality of life of residents within the community. Specific projects noted include the Owner-Occupied Single Family, Condo, and Mobile Home Grant Program; Owner-Occupied Single-Family Rehabilitation Loan Program; Housing Rehab Loan Administration; and Special Code Enforcement. The City will continue to conduct public forums for residents to discuss specific neighborhood issues and provide information on resources, including rehabilitation assistance. The City will also seek to improve

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
			and expand activities in CDBG target areas.
4. Preservation of Assisted Housing	Continue to monitor Section 8 contract renewals in Huntington Villa Yorba and Huntington Gardens. As necessary, explore outside funding and preservation options; offer preservation incentives to owners; provide technical assistance and education to affected tenants.	In December 2013, the Huntington Beach City Council conducted a public hearing under the Tax and Equity Fiscal Responsibility Act (TEFRA) in support of a tax exempt bond issuance by the California Statewide Communities Development Authority (CSCDA) for the acquisition of Huntington Villa Yorba by Preservation Partners Management Group. A second TEFRA hearing was held by the City in August 2015 to approve the issuance of $13 million in bonds to allow the new property owner to refinance the property at a lower interest rate and maintain its affordability. Preservation Partners has agreed to the preservation of all 192 units - 10% at 50% area median income (AMI), and 90% at 60% AMI.	**Modify:** The City's Consolidated Plan 2020-25 the includes a map of Section 8 contracts that are set to expire. Preserving assisted housing renewals can help reduce the number of cost burdened households within the City. The City will continue to monitor Section 8 contracts that are up for renewals. .
5a. Rental Assistance - Section 8	Continue current levels of Section 8; coordinate with OCHA; encourage landlords to register units.	As of July 2021, a total of 729 Huntington Beach households were receiving tenant-based Housing Choice Vouchers: 19 were Family Unification Vouchers, 121 were for the disabled, and 418 were for the elderly. Based on HUD regulations, 75 percent of households admitted to the program must have incomes less than 30 percent of the area median, making Section 8 a key way in which the City addresses the needs of extremely low income households.	**Ongoing:** The City's 2020-2025 Consolidated Plan states that there is participation of over 1,000 low and extremely low-income Huntington Beach households in the Housing Choice Rental Assistance Voucher Program. The City of Huntington Beach will continue coordination with OCHA for distribution of Section 8 vouchers and assistance as long as funding and vouchers remain available to the City.

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
5b. Rental Assistance - TBRA	Initiate local TBRA program, with goal to assist 168 households, with preference given to veterans, seniors and victims of domestic violence.	Since the inception of the TBRA program, the City has partnered with three TBRA contractors including Interval House, Mercy House and Families Forward. The program will continue to target homeless, persons at risk of homelessness, veterans, seniors, and victims of domestic violence in Huntington Beach. To date, the program has assisted 314 households between FY 15/16 and FY 20/21.	**Ongoing:** Although the City did not reach its target of 168 households, the City was still able to assist 165 households during the planning period. This program remains appropriate due to the ongoing need for the City's rental households. The City will continue to partner with TBRA contractors to provide rental assistance for veterans, seniors and victims of domestic violence.
6. Mobile Home Park Preservation	Implement MHP Conversion Ordinance. Utilize Advisory Board to assist in resolving issues. Provide tenants info on MPRROP funding. Assist tenants with subdivision map waiver process	The Mobile Home Advisory Board continues to meet quarterly and is made up of MHP owners, residents and at-large citizens; in 2014, the City adopted a Senior Residential mobile Home Park Overlay and designated 8 mobile home parks in the City with the objective to retain existing affordable housing options for seniors	**Complete:** The City of Huntington Beach successfully completed this program by adopting a Senior Residential mobile Home Park Overlay and designating 8 mobile home parks in the City with the objective to retain existing affordable housing options for seniors. The City will continue to provide tenants info on MPRROP funding and assist in the subdivision map waiver process
Goal: Provision of Adequate Sites			

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
7. Residential and Mixed-Use Inventory	Maintain current inventory of vacant and underutilized development sites and provide to developers along with information on incentives. Monitor sites to ensure an adequate inventory is maintained to accommodate the RHNA, including rezoning as necessary.	The City developed as part of the 5th cycle Housing Element a sites inventory as shown in Table IV-4 of the 2013-2021 Housing Element. In 2020, the City adopted an amendment to the Housing Element, which included a revision of the residential sites inventory that included updates to the inventory. Sites were updated as necessary. The Housing Element including the sites inventory continues to be made available on the City's website and at the zoning counter. The City tracks vacant sites available citywide through GIS. The vacant sites inventory is updated periodically.	**Modify:** The City will modify this program to support development of vacant and underutilized sites to ensure an adequate inventory is maintained to accommodate the RHNA. This will be part of the overall sites strategy established as part of the 6th Cycle Housing Element Update. The City has also included a goal maintaining Residential and Mixed-Use inventory and provide developers along with information on incentives.
8. Adequate Sites Program	1) Draft zoning text amendment to define Affordable Housing Overlay in BECSP; 2) Conduct public hearings on BECSP Amendment 3) Commence comprehensive review and revision of the BECSP.	In Feb. 2020, the City adopted an amendment to the BECSP to implement this program. in line with the program objectives. Of the six sites designated within the Affordable Housing Overlay, three will be developed with 100% affordable projects and one is proposed to be developed with 20% lower income units pursuant to the provisions of the Overlay. This program was successful in facilitating the development of lower income affordable housing units.	**Complete**: In 2020 the City adopted an amendment to establish an Affordable Housing Overlay in the BECSP and designated sites within the Overlay to accommodate the City's remaining lower income RHNA.
9. Accessory Dwelling Units	Implement State law to accommodate accessory dwelling units, and educate public on availability, including focused outreach to the senior community.	Several new ADU laws have been passed by the legislature starting in 2017. The City continues to modify its ADU permitting procedures to keep up with the changing state laws and will continue to update its educational materials to reflect current permitting procedures and requirements.	**Modify:** The City acknowledges that there an increase in the applications for ADU's that will continue onto the next planning cycle making this program. This program

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
		Since the new laws have taken effect, the City has experienced an increase of 962% in ADU applications and anticipates this increase to continue into the next planning period.	remains appropriate due to the ongoing need for ADU's in the City. The City of Huntington Beach will revise its ADU permitting procedures to be compliant with state law and include the required monitoring and reporting programs within the 6th Cycle Housing Element Update.
Goal: Provision of Affordable Housing			
10. Inclusionary Housing Program and Housing Trust Fund	Continue implementation and reevaluate Ordinance to provide consistency with case law and market conditions. Establish in-lieu fee amount for projects between 10-30 units. Once moderate income RHNA is met, require at least half of on-site inclusionary units for lower income households.	The City utilizes the current in-lieu fee methodology adopted by the City Council to calculate in-lieu fees for projects up to 30 units as well as fractional units. The City recently commenced an update to the Inclusionary Housing Ordinance and is currently preparing technical documents to evaluate the current in-lieu fee, project thresholds, affordability requirements, covenant periods and options for fulfilling inclusionary obligations and anticipates adopting an updated ordinance in by the end of 2021. The inclusionary housing program has been an important part of the City's affordable housing strategy in facilitating the provision of low and moderate income units in market rate developments as well as through the collection of in-lieu fees which can be leveraged with other funding sources to provide deeper affordability levels in projects.	**Ongoing:** The City's 2020-2025 Consolidated Plan includes a goal regarding an Inclusionary Program and Housing Trust Fund. Using Department Budget and Housing Trust Fund, the City will continue to implement and reassess the Ordinance to provide consistency with case law and market conditions.
11. Affordable Housing Development Assistance	Provide financial and regulatory assistance in support of affordable housing. Provide	In January 2021, the City committed approximately $2.83 million in HOME funding~~,~~ and $169,302 from the Housing Trust Fund (inclusionary housing money) toward the acquisition of one of the sites	**Ongoing:** In the City's 2020-2025 Consolidated Plan includes a survey that indicates a lack of

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
	information on incentives to development community	within the Affordable Housing Overlay for the development of a 43-unit very low and low income senior housing development. The HOME funding replaced previously committed LMIHAF and Housing Trust Funds approved by City Council in November 2019. The City also implemented an Affordable Housing Overlay in the BECSP that provides regulatory incentives and by right approvals for affordable projects. In addition, the City provides information to developers and applicants on the state density bonus law and other laws that provide streamlining benefits and other regulatory incentives.	affordable housing development as a barrier in the community. This program remains fitting due to the ongoing need for assistance for affordable housing. The City of Huntington Beach will continue to offer Affordable Housing Development Assistance by providing regulatory and financial assistance.
12. Child Care Facilities	Continue to provide zoning for family day care, child care centers and density bonuses, and evaluate other potential childcare incentives.	The City continues to implement its large family day care ordinance, which exempts an applicant from planning application fees and submittal of architectural plans. The City requires at least one amenity, such as tot lots and playgrounds, sports courts, clubhouses, outdoor cooking and picnic facilities, and swimming pools, for all projects over 20 units. The City has approved multiple projects with amenities that would benefit children including dedication of park space, common open space areas, tot lots and clubhouses; however, no child care facilities have been included in projects as a zoning incentive or density bonus	**Ongoing:** Although this program did not result in child care facilities included in new projects, the City will continue to maintain zoning for child care facilities and explore other possible childcare incentives.
Goal: Removal of Governmental Constraints			
13. Affordable Housing Density Bonus	Continue to offer density bonus incentives consistent with State law	The City has approved 4 density bonus ownership projects during the planning period resulting in 10 deed restricted moderate income units and 1 low income unit. One project has been constructed while the other three are entitled.	**Ongoing:** The City successfully approved 11 deed restricted units ranging from low income to moderate. This program remains appropriate attributable to the

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
			ongoing need for affordable housing within the City. The City will continue to offer density bonus incentives in line with State law to promote affordable housing
14. Development Fee Assistance	Continue to offer fee reductions to incentivize affordable housing. Specify the waiver of 100% of application processing fees in the Code for projects with 10% ELI units.	The City's inclusionary ordinance has provisions that allow for projects that exceed inclusionary requirements on-site to be eligible for reduced City fees. In 2013, the City provided over one million dollars in Development Impact Fee exemptions for a 78- unit affordable rental project (8 ELI, 32 VL, 37 Low).	**Ongoing:** The City effectively implemented the inclusionary ordinance by providing over 1 million dollars development fee assistance for a 78-unit affordable rental project. The City will continue to provide development fee assistance to incentivize affordable housing through waiving processing fees in the code for projects with 10% ELI units.
15. Residential Processing Procedures	Provide non-discretionary development review for sites in the Affordable Housing Overlay within the Beach and Edinger Corridors Specific Plan. Adopt streamlined review procedures for multifamily development on a Citywide basis.	The City adopted an Affordable Housing Overlay in the BECSP which provides for non-discretionary project approval for residential projects with a minimum of 20% lower income units on-site. In 2018, the City commenced a multi-phased comprehensive zoning code update. The City has completed two phases to date and will evaluate streamlined review procedures for multi-family development for inclusion in future phases.	**Ongoing:** The City successfully completed two phases of the multi-phased comprehensive zoning code update. The City will continue to work on this program during the planning period.
16. Zoning for Transitional and	Provide for transitional and supportive housing within the CV zone. Prepare a Policy Memo to clarify such	Residential is not a permitted use within the CV General Plan land use designation. As such, the code has not been amended. While the City has not amended the specific plans to expressly add	**Complete:** The City's process for permitting supportive and transitional housing in specific plans is the same as other

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
Supportive Housing	uses are to be accommodated within zone districts similar to other residential uses within the Beach and Edinger Corridors, Downtown and Bella Terra specific plans	supportive and transitional housing uses, the City treats these uses as residential uses for zoning purposes and would permit them in the same way residential uses are permitted. As an example, the City recently approved funding toward the acquisition of a property in the BECSP to be developed with affordable housing with supportive services.	residential uses. As such, this program is complete and not necessary to include in the 6th cycle.
Goal: Equal Housing Opportunities and Special Needs			
17. Fair Housing	Contract with Fair Housing provider; invite to speak at public events; assist in distributing brochures in community locations. Provide walk-in fair housing counseling at City Hall on a monthly basis.	The Fair Housing Foundation (FHF) assists approximately 250 Huntington Beach residents annually with issues regarding tenant/landlord matters and handles over a dozen fair housing cases each year on behalf of residents. In addition to the availability of counselors by toll-free telephone number and walk-in assistance at one of their two offices Monday-Friday, FHF also provides on-site walk-in counseling at Huntington Beach City Hall one time per month. FHF also regularly schedules certification and training programs locally for apartment owners and managers.	**Ongoing:** The City partnered with Fair Housing Foundation and successfully assisted approximately 250 residents annually with fair housing. This program remains appropriate due to the ongoing need for fair housing assistance for the City's residents. Huntington Beach will continue to partner with a Fair Housing provider to host public events. The City will continue to provide funding for fair housing counseling in the 6th Cycle.
18. Housing Opportunities for Persons Living with Developmental Disabilities	Work with OCRC to publicize information on resources. Pursue State and Federal funding; meet with current affordable housing providers regarding options to serve	The City regularly meets with a variety of housing providers and supports various programs that address shelter and transitional housing needs of homeless individuals and families. The City has not obtained funding specific to this program but will continue to monitor funding opportunities/availability and pursue funding if feasible.	**Ongoing:** While the City did not obtain funding specific to this program, the City regularly meet with housing providers and supported a various programs that provided

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
	disabled population in existing housing; contact supportive housing providers re: expanding the supply of housing for the developmentally disabled		housing opportunities for persons living with developmental disabilities during the planning period. This program remains appropriate due to the ongoing need for development disability housing in the City. The City will continue to partner with OCRC to advertise information on resources for housing opportunities for persons living with developmental disabilities.
19. Homeless Assistance	Continue participation in Regional Committee for the Continuum of Care. Annually allocate funds to agencies serving the homeless and at-risk population. Maintain a City Homeless Coordinator to serve as the City's point person on homelessness	The City has and will continue to address the emergency shelter and transitional housing needs of homeless and homeless families through support of homeless programs such as the Huntington Beach Youth Emergency Shelter; Interval House and Collette's Children's Home transitional housing for battered/homeless mothers with children; American Family Housing transitional housing and supportive housing rental assistance; Project Self-Sufficiency transitional housing for single parent families; and tenant-based rental assistance (TBRA) for homeless and persons at imminent risk of homelessness. Beginning in 2015, the City assigned a full-time officer dedicated to homeless issues and has continued to allocate resources as the number of homeless continues to grow. The City's efforts have grown to include a Homeless Task Force comprised of four case managers and	**Ongoing:** The City will continue to partake in Regional Committee for the Continuum of Care to address the needs of homeless. The City of Huntington Beach will continue to allocate funds to agencies that serve the at-risk and homeless population while maintaining a City homeless coordinator that would aid in the City's point person on homelessness. The City recognizes that there are other organizations throughout Orange County that have specific training to better address the unique needs

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
		four Homeless Liaison Officers from the Police Department. The Police Department is also in the process of training more than a dozen additional officers to support homeless response and outreach efforts. The Homeless Task Force works collaboratively to connect homeless and at-risk individuals with resources such as shelter, family reunification, mental and physical health services, addiction services, social services, and government benefits. Since 2015, the City's Homeless response efforts have helped more than 275 individuals obtain permanent shelter and assisted more than 70 individuals reconnect with their families. In December 2020, the City opened a 174 bed Navigation Center to provide shelter and supportive services for people experiencing homelessness. Additionally, the City has established a Crisis Assessment Response Effort (CARE) to evaluate non-exigent calls for service related to mental health that may be better served through deployment of various resources. The City partnered with Huntington Beach Hospital as the designated facility to transport patients through the CARE program. The City also partnered with OC Health Care Agency to integrate with the County's broader range of mental health/addiction treatment programs. In March 2021, the City began a Mobile Crisis Response Program (MCRP) as a component of CARE. BeWell OC was selected as the first service	associated with mental health services and a partnership via the CARE program can result in better outcomes for all. The City will continue to foster these partnerships, evaluate the program success, and expand the program as funding allows.

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
		provider for Police Department calls for service related to mental health and/or homelessness. Through the MCRP, trained responders from BeWell OC will provide a direct response and support to Police Department calls for service related to mental health and/or homelessness, which comprise approximately 10% of the annual volume of calls for service.	
20. Project Self Sufficiency	Assist 90 households annually	Effective March 1, 2018, the Project Self Sufficiency program began operating independently as a non-profit program, separate from the City of Huntington Beach. The Project Self Sufficiency program has transitioned away from the use of CDBG funding and is now operating through the support of other resources to provide services to single parents with children. The City continued to support the Project Self-Sufficiency program with non-CDBG funds for employment training and other supportive services. This program aims to assist low income single parents with children to achieve economic independence from public assistance through personal development, education, and job training. Participants were encouraged to attend a monthly support meeting focusing on providing skills, abilities, and resources to promote self-sufficiency.	**Complete:** The City understands the importance of project self-sufficiency. The City will continue to support and provide funding to low - income single parents to gain economic independence.
Goal: Energy Efficiency and Sustainability			
21. Green Building and Sustainability	Provide education/outreach to residents and development community on new Green Building Program. Implement comprehensive “HB Goes	Many green/sustainable programs have been implemented and marketed to the public citywide including: a Sustainable Business Certification Program, Recycling Market Development Zone, streamlined permitting for EV chargers, and expedited solar plan review. The City also provides	**Ongoing:** The City successfully implemented several green building and sustainability programs as well as providing information and incentives on the City’s

Policy Action	Objective	Program Accomplishments	Effectiveness and Status for Sixth Cycle
	Green Program" to promote sustainable energy and water conservation, recycling, open space and transportation practices	information on programs and incentives of other agencies and companies on its website. In addition, in 2017, the City adopted a qualified Greenhouse Gas Reduction Program that would allow for streamlined CEQA review for development projects.	website in the last planning cycle. This program remains appropriate because of the need for Green Building and Sustainability programs throughout the City. The City will continue to offer outreach and education to residents and development community on new and ongoing sustainable programs that the City sponsors or participates in.

Appendix B

Adequate Sites Analysis

A. Appendix B: Adequate Sites Analysis

1. Candidate Sites Analysis Overview

The Housing Element is required to identify potential candidate housing sites by income category to meet the City's RHNA Allocation. The sites identified within the Housing Element represent the City of Huntington Beach's ability to plan for housing at the designated income levels within the 6th housing cycle planning period (2021-2029). The identified sites were analyzed for realistic capacity and potential for redevelopment. The City of Huntington Beach is a built-out community, with little to no vacant land for new development. It is most likely that future residential will come in the form of infill development, therefore the City has focused the Sites strategy on areas with potential for redevelopment, access to essential resources, proximity to transit or access to highway and road connectivity and overall future residential opportunity.

This appendix describes the strategy the City of Huntington Beach will take to create the viable opportunity to housing and to accommodate the City's Regional Housing Needs Assessment (RHNA) allocation.

2. Housing Needs

Future housing need refers to the share of the regional housing need that has been allocated to the City. The State Department of Housing and Community Development (HCD) has supplied a regional housing unit goal to the Southern California Association of Governments (SCAG). SCAG then allocated the housing unit goal to each jurisdiction within the region through the Regional Housing Needs Assessment (RHNA) process. In allocating the region's future housing needs to jurisdictions, SCAG is required to take the following factors into consideration pursuant to Section 65584 of the State Government Code:

- Market demand for housing
- Employment opportunities
- Availability of suitable sites and public facilities
- Commuting patterns
- Type and tenure of housing
- Loss of units in assisted housing developments
- Over-concentration of lower income households
- Geological and topographical constraint

Huntington Beach's share of the SCAG regional growth allocation is 13,368 new units for the current planning period (2021-2029). **Table B-1** indicates the City's RHNA need for the stated planning period.

Table B-1: RHNA Allocation 2021-2029

Income Category	Percent of Median Family Income	RHNA Allocation
Very Low Income	0-50% MFI	3,661units
Low Income	51-80% MFI	2,180 units
Moderate Income	81-120% MFI	2,308 units
Above Moderate Income	>120% MFI	5,215 units
	Total	**13,368 units**

3. Selection of Sites

Table B-2 shows the City's 2021-2029 RHNA need by income category as well as a summary of the sites identified to meet that need. The analysis within this appendix shows that the City of Huntington Beach has the capacity to meet their 2021-2029 RHNA allocation through a variety of methods, including:

- Identification of sites suitable for residential through rezone
- Identifications of sites suitable for residential through overlay zoning
- Identification of sites with opportunity for conversion from motel/hotel to residential
- Future development of accessory dwelling units (ADUs)

The City has identified a total of ~~3~~ 1 site~~s~~ to rezone, 3~~7~~18 sites for a designated housing overlay, and 3 sites with opportunity for motel or hotel conversion. The identified sites are shown **Figure B-14**, and they have been evaluated based on surrounding and existing onsite development to determine the extent to which on-site uses are likely to redevelop within the planning period. Many of the uses are in multi-tenant commercial centers with single ownership, on small adjacent parcels with single ownership, in under-utilized industrial uses, or show little to no evidence of recent investment or redevelopment.

Table B-14 (at the end of this appendix) identifies each candidate housing site within the City's sites inventory. The sites are identified by assessor parcel number (APN) as well as a unique identifier used to track sites within the inventory. Additionally, the following information is provided for each parcel.

- Address
- General Plan Land use
- Rezone designation
- Maximum Density
- Vacancy status
- Potential Development Capacity (Dwelling Units) by income category
- Existing Zoning
- Size (Net developable acres removing known development constraints)
- Assumed Density
- Previous Housing Element identification
- Description of existing use

Table B-2: Summary of Available Sites

	Very Low Income	Low Income	Moderate Income	Above Moderate Income
RHNA (2021-2029)	3,661	2,184	2,308	5,215
Projects in the Pipeline (Application, Entitled, Permitted or in construction since June 30, 2021)	17	285	82	1,371
Remaining Unmet RHNA	**3,644**	**1,899**	**2,226**	**3,844**
Capacity on Site Inventory				
Capacity on Sites identified for Rezone	0		~~128~~ 11	~~300~~25
Capacity on Sites identified under Overlay Zones	5,43~~77~~		2,599~~620~~	9,591~~785~~

Table B-2: Summary of Available Sites				
	Very Low Income	**Low Income**	**Moderate Income**	**Above Moderate Income**
Capacity on Hotel and Motel Conversions	415		0	0
Projected ADU Construction				
Projected ADU Construction	307		170	10

Figure B-1: Sites to Accommodate the 2021-2029 RHNA

Figure B-2: Projects in the Pipeline

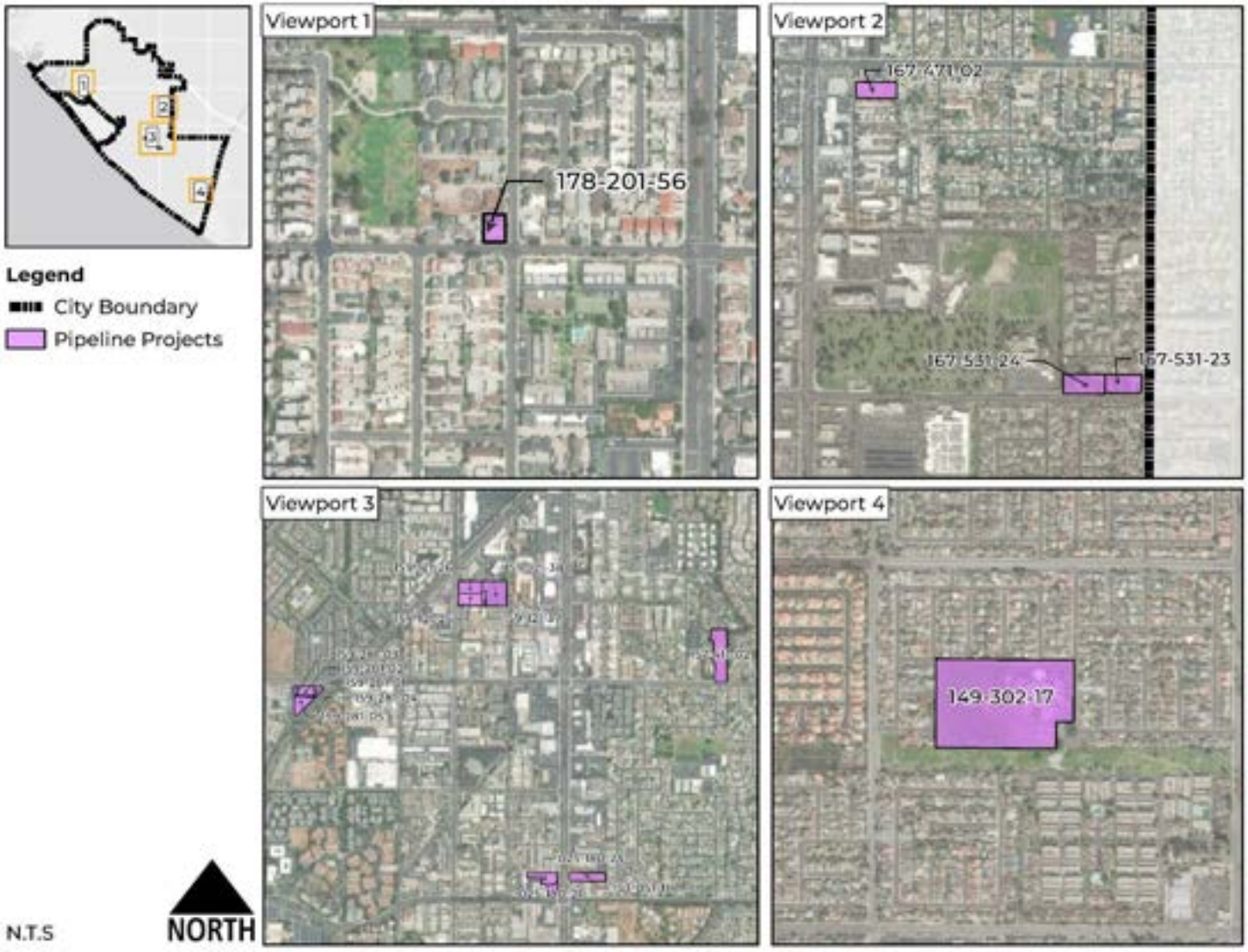


Figure B-3: Projects in the Pipeline

Table B-3: Summary of Pipeline Projects						
Project Name/Location	**Very Low Income Units**	**Low Income Units**	**Moderate Income Units**	**Above Moderate Income Units**	**Status**	**Determination of Affordability**
Cameron Lane Townhomes	-	-	2	16	Approved by PC 10/12/2021	10% inclusionary units on-site for sale (mod)
Former Gisler School SFD	-	-	-	85	Approved by CC 10/19/2021	inclusionary in-lieu fees
Olson Townhomes	-	-	3	31	Approved by CC 6/7/2022	10% inclusionary units on-site for sale (mod)
Pearce Drive Condos	-	-	2	18	Submitted, not scheduled for public hearing	10% inclusionary units on-site for sale (mod)
HB Tri Townhomes	-	-	5	30	Approved by CC 6/21/2022	15% inclusionary units on-site for sale (mod) - inclusionary req. 15% due to project within a specific plan
Bella Terra Apartments (Area B2)	17	-	28	255	Submitted, not scheduled for public hearing	15% inclusionary units on-site - inclusionary req. 15% due to project within a specific plan (the affordability mix reflects the applicant's proposal)
Garfield SFD	-	-	-	10	Submitted, not scheduled for public hearing	inclusionary in-lieu fees
NEC Beach &Yorktown	-	82	21	1	Submitted, not scheduled for public hearing	project submitted pursuant to SDBL (affordability levels reflect applicant's proposal)
NWC Beach &Yorktown	-	90	-	91	Submitted, not scheduled	project submitted pursuant to SDBL (affordability levels

Table B-3: Summary of Pipeline Projects						
Project Name/Location	**Very Low Income Units**	**Low Income Units**	**Moderate Income Units**	**Above Moderate Income Units**	**Status**	**Determination of Affordability**
					for public hearing	reflect applicant's proposal)
18750 Delaware	-	70	-	276	Ministerial approval 3/16/22 via SP14 Affordable Housing Overlay	20% inclusionary units on-site rental (low) - inclusionary req. 20% low income due to project location within the BECSP Affordable Housing Overlay
7225 Edinger/ Brandywine Townhomes			13	117	Submitted, not scheduled for public hearing	10% on-site deed-restricted moderate income units in compliance with current Citywide inclusionary housing requirements
Georgia Townhomes (910 Georgia St.)				18	PC approved 1-26-2021	
Jamboree Housing Senior Apartments (18431 Beach Blvd.)		43			Under construction	100% affordable development by Jamboree Housing submitted pursuant to SP14 Affordable Housing Overlay
Magnolia Tank Farm (21845 Magnolia Ave.)				250	CC approved 1-21-2021	
Windward Townhomes (17202 Bolsa Chica)				36	Zoning Administrator approved 4-7-2021	
1620 Pacific Coast Hwy Apartments				4	Building permit review phase	

Table B-3: Summary of Pipeline Projects						
Project Name/Location	**Very Low Income Units**	**Low Income Units**	**Moderate Income Units**	**Above Moderate Income Units**	**Status**	**Determination of Affordability**
Gothard Townhomes (19100 Gothard St.)			3	18	Under construction	10% on-site deed-restricted moderate income units in compliance with current Citywide inclusionary housing requirements
Holly Townhomes (19200 Holly Ln.)			5	27	Under construction	10% on-site deed-restricted moderate income units in compliance with current Citywide inclusionary housing requirements
Main St. Mixed Use (414 Main St.)				20	Under construction	
LeBard (20451 Craimer Ln.)				15	Under construction	
712/714 Pacific Coast Hwy.				3	Building permit review phase	
7852 Ronald Dr.				3	Building permit review phase	
712 Utica				3	Building permit review phase	
7851 Holt				4	Under construction	
7792 Liberty				4	Building permit finaled 12-3-2021	
7262 Garfield				10	Building permit finaled 4-14-2021	

Table B-3: Summary of Pipeline Projects						
Project Name/Location	**Very Low Income Units**	**Low Income Units**	**Moderate Income Units**	**Above Moderate Income Units**	**Status**	**Determination of Affordability**
718 Williams				4	Building permit finaled 8-31-2021	
Parkside Estates				22	Building permit finaled 9-23-2021	
TOTAL	17	285	82	1,371	1,755	

4. Rezone Strategy

As mentioned above, the City of Huntington Beach is a built-out community with little vacant land available as well as majority of non-vacant residential land zoned for low density, single family uses. Therefore, the City has identified the following rezone strategies to create feasible residential infill opportunities.

- **SP 14 – Affordable Housing Overlay**: This strategy intends to increase affordable housing options in the existing Beach and Edinger Corridors Specific Plan. The existing Affordable Housing Overlay permits residential projects that propose at least 20 percent lower income units on site by-right. The SP-14 – Affordable Housing Overlay will expand the provisions of the existing affordable housing overlay to additional areas of the Beach and Edinger Corridors Specific Plan (SP 14). Currently the Specific Plan is the zoning for the applicable parcels within the SP 14 boundary. More specifically, the Affordable Housing Overlay within SP14 is an additional entitlement for the identified parcels. The existing development standards will remain applicable as they do not currently have a maximum density. Realistic capacity assumptions are set at 80 dwelling units per acre based on an analysis of recent developments within SP14 and their dwelling unit yield as identified in Table B-4. There are no inconsistencies with the base zoning or General Plan Land Use created by the expansion of this overlay. The Maximum Amount of New Development (MAND) in SP14 will not act as an impediment to the application of the Overlay. As specified in the existing overlay, residential projects proposed pursuant to the overlay are not subject to the residential MAND. The Overlay will be updated to state that development within the Overlay will allow for the construction of the unit quantities listed below.
  The City has identified 151 parcels to expand the overlay which can accommodate the following potential units through redevelopment:
  - **3,276 Low and Very Low-Income Units**
  - **1,539 Moderate Income Units**
  - **5,827 Above Moderate-Income Units**

- **Affordable Housing Overlay**: This rezone strategy intends to create housing opportunities in well-connected nonresidential areas of the City. The assumed density of the overlay zone will permit residential uses at a range of 55-65 dwelling units per acre. The Affordable Housing Overlay will not replace the existing zoning but will be an additional entitlement to these properties that looks to promote the development of affordable housing through higher density

development and the City's existing inclusionary housing policy. As with the existing BECSP Affordable Housing Overlay, residential projects that propose at least 20 percent lower income units on-site will be permitted by-right. This is a new overlay within the City of Huntington Beach and development standards will be created within input from the community, experienced developers, and City decision makers. These development standards will be based on historical development within the City and will support development at the densities identified in this housing element. The development standards in this overlay will be conducive for sites to achieve development at maximum density and will not be substantially less than those of existing higher density zones. There are no inconsistencies with the base zoning or General Plan Land Use created by the implementation of this overlay.

The TCAC/HCD Opportunity Indices Maps designates all of the Affordable Housing Overlay ~~all~~ parcels identified within the Holly-Seacliff Specific Plan (SP9) and 36 parcels identified within the Research and Technology (RT) Zone as within a Highest Resource area. Approximately 38% of units for moderate income and below within the Affordable Housing Overlay are located in High and Highest Resource areas.

The City has identified ~~166~~ 145 parcels to rezone with the Overlay which can accommodate the following potential units:

- **2,034~~222~~ Low and Very Low-Income Units**
- **991~~1,083~~ Moderate Income Units**
- **3,533~~889~~ Above Moderate-Income Units**

- **RH Overlay**: This strategy utilizes the City's existing RH land use designation to create housing opportunities in existing areas within the Holly-Seacliff Specific Plan (SP9)~~Ellis Goldenwest Specific Plan (SP7)~~. This area is approximately ~~18~~ 14 acres total and ~~a majority of it was~~is occupied by oil-related uses, outdoor storage, and a self-storage facility. ~~an outdoor landscape supply business; a portion of it is vacant~~. The sites in ~~SP7~~ SP9 are currently designated as Industrial ~~estate density residential (3 du/ac)~~ and surrounded by residentially developed and/or designated land uses. The City has received many inquiries for residential development over the years, but the ~~specific plan requires a minimum of 10 acres in order to develop a tract~~ existing low density and non-residential land use designations precluded residential development from proceeding. ~~This essentially meant that potential developers had to wait for the landscape business property to become available. The landscape business has closed and moved off the identified sites in 2021. Development interest is high even at the existing low density regulations.~~ The City anticipates that redesignating the site within the SP to RH-3~~0~~ will result in a project built in this area within the planning period as it has had a substantial amount of development interest, is in close proximity to existing trails and parks, and located along a primary arterial in the City's circulation plan. The TCAC/HCD Opportunity Indices Maps designates all of these parcels as within a Highest Resource area.

These parcels have been identified due to their potential to redevelop ~~for~~ to residential uses when permitted to develop under standards which match the City's existing RH zone. The City is proposing to permit development which is consistent with existing standards that the City knows to be effective in resulting in residential units being built within the City. The following developments have occurred within the RH zone:

- The Fountains (271 senior apartments; 32 du/acre)
- Pacific City Residential (516 multi-family rental/apartments; 30 du/acre)

These development examples demonstrate the ~~feasibility of the~~ City's existing RH development standards can successfully facilitate multifamily residential development. This ~~housing element~~ strategy proposes that ~~focused~~ this area~~s~~ within the Specific Plan will have the option to propose multifamily residential development in accordance with the~~se~~ RH development standards~~, applied~~ which will increase the developable potential of the identified sites ~~within the inventory~~. The~~se sites City~~ will ~~apply~~ be able to propose residential development pursuant to the~~se additional entitlements through an~~ RH Affordable Housing overlay, which will not change the base zoning established within the specific plan. As with the existing BECSP Affordable Housing Overlay, residential projects that propose at least 20 percent lower income units on-site will be permitted by-right. There are no inconsistencies with the base zoning or General Plan Land Use created by the implementation of this overlay.

The City has identified ~~53~~ 22 parcels to be designated with the RH Overlay to increase residential development opportunities within the specific plan area. The overlay can accommodate the following potential units:

- **12311 Low and Very Low-Income Units**
- **869 Moderate Income Units**
- **2391 Above Moderate-Income Units**

- **RMH**: This rezone strategy utilizes the City's existing RMH zone to create residential capacity at a maximum of 25 dwelling units per acre in areas where residential development is appropriate. The City has identified ~~3~~ 1 parcel~~s~~ for rezone to RMH. The TCAC/HCD Opportunity Indices Maps designates ~~all of these parcels~~this parcel as within a Highest Resource area. The sites can accommodate the following potential units:
  - ~~128~~ 11 **Moderate Income Units**
  - ~~300~~ 25 **Above Moderate-Income Units**

5. Calculation of Unit Capacity

Total unit capacity for the sites identified was calculated on a per-parcel basis. Net unit capacity per parcel was calculated by evaluating for buildable acreage, multiplying by an assumed buildout density based on zoning, and subtracting any existing units (if applicable). An example of density calculation is shown below:

- **APN**: 111-140-32
- **ACRES**: 1.81 Ac
- **BUILDABLE ACREAGE** (REDEVELOPMENT): 1.81 (opportunity for redevelopment on underutilized site, previously used for storage)
- **REZONE DESIGNATION:** RH-30
- **MAX DENSITY**: 35
- **ASSUMED DENSITY**: 30
- **TOTAL NET UNITS**: 53 UNITS
  - *TOTAL LOWER INCOME UNITS (25 percent of net units): 13 units*
  - *TOTAL MODERATE-INCOME UNITS (15 percent of net units): 8 units*
  - *TOTAL ABOVE MODERATE-INCOME UNITS (60 percent of net units): 32 units*

Assumed Density

HCD recommends that sites identified in the inventory to accommodate the RHNA do not assume build at maximum density. While there is feasible opportunity for maximum density in different areas of the city, land constraints, costs, development regulations and other construction or market

constraints make maximum density a challenge for redevelopment. Therefore, the City of Huntington Beach assumes a conservative density of 80 percent of maximum permitted; this was calculated using the following steps:

- Identification of maximum density
- Review of current projects in the pipeline and past development performance
- Estimated 80 percent of maximum density assumed to be consistent with existing development trends

Additionally, the City anticipates that developers will more commonly utilize density bonus to increase development opportunity on residential sites. Finally, while the 80 percent is a conservative assumed density, the City recognizes that potentially all projects may be proposed at the maximum permitted density. The City does not typically receive requests to develop lower than permitted densities.

Potential constraints, to the extent they are known, such as environmentally sensitive areas and steep slopes were considered, and deductions were made where those factors decreased the net buildable area of a parcel.

Realistic Capacity

As noted throughout this section, the Housing Element assumes that the identified sites will be developed at 80% of the maximum permitted density. To support this assumption, **Table B-4** below lists 14 recent residential developments that were constructed at the maximum permitted density, except for one specific plan area that does not set a maximum density per parcel. Additional analysis on this topic follows the table below.

Table B-4: Past Performance of Residential Development at Maximum Density

Project Address/ APN/Project Name	Site Size	Total # of Units	Built Density	Maximum Density	Zoning
167-492-05, -06/ Newland Condos	0.829 acres	13	13 du/ac	12 du/ac	Residential Medium (RM)
18502 Beach Blvd./ 157-471-33/Elan	2.74 acres	274	100 du/ac	None	Beach and Edinger Corridors Specific Plan (SP14)
111-150-47,-13/ Garfield Condos	0.636 acres	10	10 du/ac	9 du/ac	Holly-Seacliff Specific Plan (SP9)
7290 Edinger/ 142-321-19/Luce (Monogram)	8.36 acres	510	60 du/ac	None	Beach and Edinger Corridors Specific Plan (SP14)
7400 Center Avenue/142-074-06/Avalon (HB Lofts)	3.78 acres	378	100 du/ac	None	Beach and Edinger Corridors Specific Plan (SP14)
024-271-06/ Pacific City Apartments	17.23 acres	516	30 du/ac	30 du/ac	RH (Residential High Density)

Table B-4: Past Performance of Residential Development at Maximum Density					
Project Address/ APN/Project Name	**Site Size**	**Total # of Units**	**Built Density**	**Maximum Density**	**Zoning**
14422 Hammon/ Windbourne (Sea Dance)	7.6 acres	53	7 du/ac	7 du/ac	Residential Low Density (RL)
Holly Triangle	2.11 acres	35	16.5 du/ac	15 du/ac	Holly-Seacliff Specific Plan (SP9)
Holly Townhomes	1.93 acres	32	16.5 du/ac	15 du/ac	Holly-Seacliff Specific Plan (SP9)
Gothard Townhomes	1.28 acres	21	16.4 du/ac	15 du/ac	Holly-Seacliff Specific Plan (SP9)
7601 Edinger Ave./142-075-01/Bella Terra Residences	10.1 acres	467	45 du/ac	45 du/ac	Bella Terra Specific Plan (SP13)

The rezone strategy discussed in Section 4 describes three overlays. There are a few differences between each of the overlays. The SP14 Affordable Housing Overlay currently exists within the SP14 document and is proposed to be applied on the identified candidate sites. The Citywide Affordable Housing Overlay (HO) is a new overlay that intends to create housing opportunities in well-connected nonresidential areas of the City. The RH overlay utilizes the City's existing Residential High Density (RH) land use designation to create housing opportunities in existing areas within the Holly-Seacliff Specific Plan (SP9)~~Ellis Goldenwest Specific Plan (SP7)~~. Each of the overlays is discussed below in reference to the ability of development within these overlays to achieve construction at the maximum permitted density.

SP14 Affordable Housing Overlay

The SP14 Affordable Housing Overlay expands an existing overlay within SP14 to be applied throughout the entire specific plan area, including the identified sites inventory. The application of the SP14 Affordable Housing Overlay does not change the existing Zoning and General Plan designations of these sites. SP14 is a mixed-use specific plan that already permits the development of residential uses. The purpose of the overlay is to incentivize residential development by providing for a ministerial entitlement process in addition to regulatory relief of other standards for projects that propose to provide a minimum of 20% of the total units as deed-restricted lower income affordable units. Residential development is still permitted if any of the identified sites were to be developed utilizing the underlying zoning rather than the overlay. As depicted in Table B-4 above, SP14 does not limit density and no maximum density is established within the entire specific plan area. The analysis in Table B-5 describes how the density for each SP14 project was derived. For some projects, the maximum achievable density was determined based on the specific plan's form-based code and specific lot configurations. For other projects, the resulting density was a product of market and/or financing conditions at the time of development. It is therefore demonstrated and adequately supported that all sites within the SP14 Affordable Housing Overlay exhibit a realistic capacity for achieving development at densities as high as 100 units per acre, with an average of 86 du/ac constructed by these projects. Based on this past performance, the Housing Element assumes development of the SP14 Affordable Housing Overlay sites at 80 du/ac. In addition, the City is currently reviewing a residential project in the existing Overlay proposing a density of 87 units per acre. As such, for purposes of this analysis, an assumption of 80 units per acre is a reasonable and realistic assumption for the SP14 Overlay.

The projects in Table B-4 share several common characteristics with the sites identified for development during the planning period. These characteristics include: existing development consisting of aging commercial buildings (primarily constructed in the 1960's, '70's and 80's) with the same use types and similar occupancy rates; assemblage of consolidated lots; large areas of surface parking; similar site layouts consisting of one and two story buildings generally within a FAR range of 0.2 to 0.4; and location along a SCAG-designated HQTA. The characteristics of the properties already developed within SP14 established a development trend that has extended to sites that are currently under review by the City. For example, one residential project is proposed on the site of an existing surface parking lot while another residential project under review is proposed on a site with a mix of commercial uses including commercial recreation/entertainment, restaurants, and retail within aging buildings constructed in 1970. Given the similarities between the previously developed SP14 past performance sites, the sites under review and the sites identified in the site inventory, the City expects that the development trend will continue into the planning period.

Citywide Affordable Housing Overlay (HO)

The Citywide Affordable Housing Overlay (HO) is a new overlay that will be applied to properties with existing Zoning designations of Holly-Seacliff Specific Plan (SP9), Research and Technology (RT), and Commercial General (CG). The Affordable Housing Overlay will not replace the existing Zoning or General Plan Land Use designations but will be an additional entitlement available to these properties that looks to promote the development of affordable housing through higher density development and the City's existing inclusionary housing policy. There are no inconsistencies with the base Zoning or General Plan Land Use created by the implementation of this overlay. As supported by the City's Economic Memo, several factors such as high land value and market forces contribute to the likelihood that these sites will be sold, on-site uses will discontinue, and residential development will occur. The projects in Table B-4 share several common characteristics with the identified sites, such as occupied with oil-oriented uses, non-residential uses, and location along major arterial roads. It is therefore demonstrated and adequately supported that all sites within the Citywide Affordable Housing Overlay exhibit a realistic capacity for development at maximum density, even though 80% of maximum density has been assumed in accordance with HCD's preferences.

RH Overlay

The Residential High Density Overlay (RH) utilizes the City's existing RH land use designation to create housing opportunities in an existing area within the Holly-Seacliff Specific Plan (SP9)~~Ellis-Goldenwest Specific Plan (SP7)~~. This area is approximately ~~18~~ 14 contiguous acres total and is occupied by oil-related uses, outdoor storage, and a self-storage facility.~~a majority of it was occupied by an outdoor landscape supply business; a portion of it is vacant. The landscape supply business has now closed and the site is not actively occupied.~~ The existing General Plan and Zoning designation for the site is SP9~~7- Estate Residential (3 du/ac)~~Industrial. Application of the RH Overlay will not replace the existing Zoning or General Plan Land Use designations but will be an additional entitlement available to this property to promote the development of housing through higher density development. Table B-4 depicts the City's past performance of development at maximum density within the RH zone. The Pacific City Apartments project has many characteristics to the SP9~~7~~ site, including a large contiguous lot size. Additionally, residential development within the vicinity of the SP9~~7~~ site has occurred at higher densities, demonstrating that market demand for housing at higher densities is present. Refer to Section 3: Constraints and Resources for an analysis of the RH Zone development standards and prototype project demonstrating that these requirements do not act as a constraint to achieving the maximum permitted density.

Further, Program 2A: Adequate Sites within Section 4: Housing Plan also requires the City to continually monitor candidate housing sites and overall development within the City to ensure overall development capacity is maintained via the Annual Progress Reporting process. If the City's remaining inventory falls below its remaining housing needs, the City will take the appropriate actions to identify additional sites to accommodate the shortfall. Implementation of Program 2A ensures that replacement sites will be identified if any of the candidate sites are developed with non-residential uses or with a project that is lower than the maximum permitted density. The City is committed to the success of the identified sites; however, if timely development of the candidate sites is not achieved, Program 2A is in place to ensure that the sites inventory will be updated to meet the required RHNA capacity.

Affordability Calculations

Huntington Beach's 2021-2029 Housing Element sites analysis assumed that each identified candidate housing site will develop at a range of income levels. Primarily it is assumed that sites identified within **Table B-14** will redevelop with the following affordability characteristics:

Identified sites which are nonvacant and permit at least 30 du/acre:

- 30% of units available to residents in the low and very low-income categories
- 15% of units available to residents in the moderate-income category
- 55% of units available to residents in the above moderate-income category

Identified sites which are nonvacant and permit less than 30 du/acre:

- 0% of units available to residents in the low and very low-income categories
- 30% of units available to residents in the moderate-income category
- 70% of units available to residents in the above moderate-income category

Identified sites which are City own and permit at least 30 du/acre:

- 100% of units available to residents in the low and very low-income categories
- 0% of units available to residents in the moderate-income category
- 0% of units available to residents in the above moderate-income category

Huntington Beach recognizes that not all sites within the inventory will develop such that they meet the exact affordability assumptions identified. For example, some sites may develop at a higher density or with varying affordability levels using density bonus incentives, and some may develop with a higher rate of market rate units (units affordable to the moderate and above moderate-income households). For this reason, the City has included an overall buffer of 5~~2~~2~~7~~ percent on the total number of units to assist in accommodating potential differences in future housing development. The strategy also includes the following buffers by income category:

- A buffer of ~~**11**~~ **10.4 percent** to accommodate low and very low-income units
- A buffer of ~~**30**~~ **24 percent** to accommodate moderate Income units
- A buffer of ~~**120**~~ **111 percent** to accommodate above moderate-income units

Additionally, the City has established goals, policies, and programs within the Housing Element to identify funding opportunities and work with housing developers to increase opportunities to develop 100 percent affordable projects and increase the overall production of housing at all income levels in the City.

6. Redevelopment of Nonvacant Sites for Residential Use

The City of Huntington Beach does not have sufficient vacant land available to accommodate 50 percent of the low/very-low income RHNA. To accommodate the need at all income levels, the City has analyzed sites within non-residentially zoned/developed areas for rezoning to permit residential at a variety of densities.

Lease analysis

The City does not have access to leasing information as these are generally private documents but has conducted an analysis to identify sites that show characteristics indicating they are likely to redevelop within the planning period. The City has had discussions with some property owners to determine interest in redevelopment for residential uses, and on occasion received formal requests to rezone a property. A Loopnet.com (commercial real estate website) survey conducted in May 2022 indicated that approximately 20 sites within the Beach Edinger Corridor SP and 6 sites along the Gothard St. corridor are vacant and actively marketed for lease. The viability of brick and mortar commercial businesses has significantly decreased in the past decade with the rise of e-commerce. Redevelopment can often occur in "phases" as the first non-residential property to convert to residential takes the biggest risk. Risk decreases as additional property owners follow suit and more residential development occurs.

Past Performance of Redevelopment of Non-Residential Uses

As part of the candidate housing sites analysis, the City has evaluated recent projects that have redeveloped within non-residentially zoned and developed areas that included residential units. Those projects, including the zoning, use prior to redevelopment, and a project analysis of the approved development plan, are shown in **Table B-5.** The City's analysis showed that prior uses on these redeveloped sites were similar in nature to the existing uses on sites identified within the sites inventory in **Table B-14** (mainly commercial and light industrial in nature).

The following residential development projects have been constructed on parcels that were either non-residentially zoned or had an existing non-residential use on-site within Huntington Beach. The City has identified primarily commercial parcels within the inventory in Table B-13. The table below is included within the housing element to demonstrate the suitability of the nonvacant sites within the inventory by drawing direct comparisons between the types of parcels the City has seen develop recently in non-residential areas, including both commercial and industrial sites, with the sites in the inventory. As shown in the project analysis, these sites had previous uses which included large commercial centers, gas stations, restaurants, retail stores, car rental/sales lots, multi-tenant strip commercial centers, and offices. These uses are common within the City of Huntington Beach and the City has a history of redeveloping these types of sites for high density residential uses up to 100 dwelling units per acre.

Table B-5: Example Development of Non-Vacant Sites for Residential Uses

Project Address/ APN/Project Name	Density	Affordable Units/ Total Units	Zoning	Use Prior to Redevelopment	Project Analysis
7441 Edinger Ave./ 142-074-04, -17/Boardwalk	38 du/ac	Very Low: 10 Moderate: 47 Total Units: 487	Beach and Edinger Corridors Specific Plan (SP14)	The site was improved with a 240,000 square-foot Levitz furniture building that was built in 1969. The Levitz lease was not renewed and the	The project EIR was done by the property owner and contemplated 984 units on the site based on the Specific Plan zoning and

Table B-5: Example Development of Non-Vacant Sites for Residential Uses					
Project Address/ APN/Project Name	**Density**	**Affordable Units/ Total Units**	**Zoning**	**Use Prior to Redevelopment**	**Project Analysis**
				commercial building was demolished to construct 8 residential buildings and 2 residential/commercial mixed-use buildings.	development standards, which would have achieved approximately 80 du/acre. The project developer ultimately came in with a project with lower capacity than what was supported by the zoning and development standards for private financing and marketability reasons.
18502 Beach Blvd./ 157-471-33/Elan	100 du/ac	Moderate: 27 Total Units: 274	Beach and Edinger Corridors Specific Plan (SP14)	The site was improved with a gas station, multi-tenant commercial building, and restaurant. All leases were canceled/not renewed and the onsite structures were demolished to construct the proposed project.	The project site is located on a corner and has good access. The site is within an area of the specific plan that contemplated higher density and intensity of development. The project was constructed at 100 du/acre, which was likely at, or close to, the maximum capacity supported by the Specific Plan zoning and development standards based on the unit sizes and bedroom mix that was constructed.
7290 Edinger/ 142-	60 du/ac	Low: 8	Beach and Edinger	The site was improved with a five-	The project site is a corner site

Table B-5: Example Development of Non-Vacant Sites for Residential Uses					
Project Address/ APN/Project Name	**Density**	**Affordable Units/ Total Units**	**Zoning**	**Use Prior to Redevelopment**	**Project Analysis**
321-19/Luce (Monogram)		Moderate: 43 Total Units: 510	Corridors Specific Plan (SP14)	building mixed commercial and industrial center. All leases were canceled/not renewed and the onsite structures were demolished to construct the proposed project.	with good access and no constraints. The specific plan does not have maximum density limitations and it is likely that the site could have yielded more units based on the zoning, development standards and site access. However, the project developer constructed the project based on market and financing conditions at the time.
18151 Beach Blvd./159-271-68/Oceana	39 du/ac	Extremely Low: 8 Very Low: 32 Low: 37 Total Units: 78	Beach and Edinger Corridors Specific Plan (SP14)	Car rental and sales business in a single-story commercial building was sold and demolished to develop a 78-unit 100% affordable (lower income) project	The specific plan zoning and development standards allowed for more capacity than the project proposed. As an interior lot with narrow frontage, capacity may have achieved approximately 80 du/acre rather than 100 du/acre that we saw with corner lots and wider street frontages. As a 100% affordable lower income project, the developer initially proposed 100 units. However,

Table B-5: Example Development of Non-Vacant Sites for Residential Uses					
Project Address/ APN/Project Name	**Density**	**Affordable Units/ Total Units**	**Zoning**	**Use Prior to Redevelopment**	**Project Analysis**
					the developer reduced the number of units twice during the process to be more competitive for tax credit funding. Ultimately, the project constructed 78 units.
7400 Center Avenue/142-074-06/Avalon (HB Lofts)	100 du/ac	Moderate: 39 Total Units: 378	Beach and Edinger Corridors Specific Plan (SP14)	A multi-building, multi-tenant commercial center consisting of occupied retail and office uses was demolished to construct the project. All leases were canceled/not renewed.	The project site is located on a corner and has good access. The project was constructed at 100 du/acre, which was likely at, or close to, the maximum capacity supported by the Specific Plan zoning and development standards based on the unit sizes and bedroom mix that was constructed.
19891 Beach Blvd./025-200-72/Beach and Ocean	54 du/ac	Moderate: 17 Total Units: 173	Beach and Edinger Corridors Specific Plan (SP14)	Two multi-story office buildings were demolished to construct the project. All leases were canceled/not renewed.	The project site was constrained by an earthquake fault trace that runs through the southwest portion of the site. The specific plan zoning and development standards would have yielded a higher capacity than the project that was

Table B-5: Example Development of Non-Vacant Sites for Residential Uses					
Project Address/ APN/Project Name	**Density**	**Affordable Units/ Total Units**	**Zoning**	**Use Prior to Redevelopment**	**Project Analysis**
					constructed on the property. Earlier project concepts on the site were for approx. 250 units at 79 du/acre.
7601 Edinger Ave./142-075-01/Bella Terra Residences	45 du/ac	Very Low: 28 Moderate: 43 Total Units: 467	Bella Terra Specific Plan (SP13)	A retail department store and auto repair business were demolished to construct the project. All leases were canceled/not renewed.	The project achieved the maximum density and unit capacity allowed by the zoning.
167-492-05, -06/ Newland Condos	13 du/ac	Moderate: 2 Total Units: 13	Residential Medium (RM)	A single family residence, commercial daycare, and surface parking lot were demolished to construct the project. All leases were canceled/not renewed.	The project site consolidated two small infill lots with access to a major arterial street. The project provided moderate income ownership opportunities while developing the site at maximum density permitted.
111-150-47,-13/ Garfield Condos	10 du/ac	Moderate: 1 Total Units: 10	Holly-Seacliff Specific Plan (SP9)	An industrial and vehicle storage business and seasonal agricultural sales business were demolished to construct the project. All leases were canceled/not renewed.	The project site is a corner parcel with a history of industrial uses. The project provided moderate income ownership opportunities while developing the site at maximum density permitted.
024-271-06/ Pacific City Apartments	30 du/ac	Moderate: 51	RH (Residential High Density)	A motel, restaurant building, and industrial oil-related uses were demolished to construct the	The economics of residential development are highly lucrative and market

Table B-5: Example Development of Non-Vacant Sites for Residential Uses					
Project Address/ APN/Project Name	**Density**	**Affordable Units/ Total Units**	**Zoning**	**Use Prior to Redevelopment**	**Project Analysis**
		Total Units: 516		project. All leases were canceled/not renewed.	demand is high. This resulted in the on-site uses being discontinued to construct the project.
14422 Hammon/ Windbourne (Sea Dance)	7 du/ac	Moderate: 1 Total Units: 53	Residential Low Density (RL)	A former elementary school and surface parking lot were demolished to construct the project. All leases were canceled/not renewed.	A local school district ceased operations at one of their campuses. The property was sold, the structures were demolished, and the residential project (including moderate ownership) was constructed.
APN 159-282-19/ Holly Townhomes	16.5 du/ac	Moderate: 5 Total Units: 32	Holly-Seacliff Specific Plan (SP9)	An industrial and vehicle storage business were demolished to construct the project. All leases were canceled/not renewed.	The project site consolidated several small infill lots with a history of industrial uses. The project provided moderate income ownership opportunities while developing the site at maximum density permitted.
APN 111-150-85/ Gothard Townhomes	16.4 du/ac	Moderate: 3 Total Units: 21	Holly-Seacliff Specific Plan (SP9)	An industrial and vehicle storage business were demolished to construct the project. All leases were canceled/not renewed.	The project site consolidated several small infill lots with a history of industrial uses. The project provided moderate income ownership opportunities while developing the site at

Table B-5: Example Development of Non-Vacant Sites for Residential Uses					
Project Address/ APN/Project Name	**Density**	**Affordable Units/ Total Units**	**Zoning**	**Use Prior to Redevelopment**	**Project Analysis**
					maximum density permitted.
Source: City of Huntington Beach, 2021.					

Existing Use on Candidate Sites

The City has also conducted a parcel specific analysis of existing uses for each of the identified sites. This analysis of existing uses, including indicators of a likelihood that the existing use will redevelop within the next eight years, are provided in **Table B-14.** This analysis is based on information readily available to the City and research that can be found through online research. The City does not typically have access to private lease information but has included information that property owners have shared regarding individual sites. Additionally, aerial maps with site IDs are provided after **Table B-14** showing existing conditions on each site and confirming opportunity for redevelopment.

Market Demand

In addition to an on-the-ground existing use analysis, the City of Huntington Beach has market conditions to facilitate the redevelopment of non-vacant sites for residential. **Table B-5** above shows that a total of 1,900 dwelling units have been constructed through redevelopment in the City. Additionally, a California Association of Realtors report for Historic Housing trends shows that the average time a unit spends on the market in Orange County is just 18.6 days in the last four years (2017-2021) and just 13.3 days in the last two years.[1] Additionally, according to the CAR Current Sales and Price Statistical Survey, the median cost of a home for sale in Orange County increased by 20 percent from 2020-2021 (from $930,000 in October 2020 to $1,120,000 in October 2021).[2] Both indicators signify an increased market demand for new housing.

To further demonstrate that market and economic conditions exist to support the redevelopment of the non-vacant sites, the City commissioned an economic memo for two prototype sites (Appendix D). Each of the prototype sites is currently developed with structures occupied by various uses (retail, place of worship, surface parking, and industrial outdoor storage). The analysis determined that residential development can be supported on properties that are currently developed with non-residential uses (non-vacant sites). Based on the results of the analysis, the memo concludes that economic characteristics of residential development are strong enough to support redevelopment of existing non-vacant sites. Specifically, the memo determined via pro-forma analysis that developer profit is projected to fall within the typical range currently seen in the market place for residential development. Three development scenarios were analyzed: a project constructing 100% market-rate units, a project constructing 20% lower-income and 80% market-rate units, and a project constructing 10% very-low income and 90% market-rate units. The pro-forma determined that in all three scenarios, the City's development incentives and development impact fee waivers that are offered to projects that construct affordable housing units completely offset any financial impacts created by the affordable housing requirements.

The greatest return on investment was generated by the project constructing 10% very-low income units. However, the memo concluded that the ministerial approval incentive offered to projects

[1] Median time on Market of Existing Detached Homes, Historical Data, California Association of Realtors (CAR), Accessed online: September 28, 2021. https://www.car.org/marketdata/data

[2] Current Sales and Price Statistics, California Association of Realtors (CAR), Accessed online: September 28, 2021. https://www.car.org/marketdata/data

allocating 20% of the units to lower-income households provides benefits that justify accepting a lower threshold return on investment. Overall, this economic memo and pro-forma analysis determines that the existing uses are not an impediment to residential development during the planning period, these uses are likely to discontinue during the planning period, and provides real-world analysis and support for the identification of the non-vacant properties in the sites inventory

Relating Past Development Trends to Identified Sites Inventory

The sum of the analysis throughout this section regarding redevelopment of nonvacant sites for residential uses supports the conclusion that the existing uses will likely discontinue and are not an impediment to residential development during the planning period. Further, as shown in Table B-3: Summary of Pipeline Projects, the City is experiencing continued market demand for residential development during the 6th Cycle. As discussed throughout each section of the Housing Element, Huntington Beach is a predominantly built-out City with a limited supply of vacant land available for development. The sites inventory relies substantially on the redevelopment of non-vacant sites to fulfill RHNA requirements, including lower income housing. The sum of the analysis throughout Appendix B presents substantial evidence that existing uses will not act as impediments to residential development and are likely to discontinue during the planning period.

All non-vacant parcels in the site inventory were chosen because they contain at least two of the following characteristics: low physical utilization of the parcel, existing uses are marginal or discontinued, large surface parking area, vehicular access to a main road, availability of infrastructure/utilities, existing uses do not include condominiums, and redevelopment can accommodate residential development (including lower-income housing).

Table B-5 summarizes residential projects that were constructed or entitled in the City during the 5th Cycle. All of these projects were developed on non-vacant sites and constructed deed-restricted affordable housing units.

During the 5th Cycle, non-vacant sites comprised the vast majority of the proposed residential development in the City. Existing uses that were redeveloped include:

- Single-Family Detached
- Industrial
- Outdoor Storage
- Auto Repair
- Gas Station
- Commercial
- Mixed Commercial/Office
- Mixed Commercial/Industrial
- Educational/School Sites

A majority of the currently entitled and pending projects anticipated for the 6th Cycle (Table B-3) are also proposed on non-vacant sites. These projects include:

- Cameron Ln. Townhomes: SFD
- Gisler SFD: Former Gisler Elementary School
- Olson Townhomes: MFD (3 detached units)
- Pearce Drive Condos: MFD (9 detached units)
- HB Tri Townhomes: Industrial glass cutting shop and auto storage
- Bella Terra Apartments: 182,332 sf anchor tenant retail & commercial units (all occupied)
- Garfield SFD: SFD
- NWC Beach & Yorktown: 2 single-story commercial buildings (1 occupied) with surface parking

- 18750 Delaware: Single story medical and office building with surface parking
- 7225 Edinger: 2 single-story commercial buildings with surface parking

These projects demonstrate the continued development trend of residential intensification on non-vacant sites. A majority of the sites identified for the 6th Cycle are non-vacant. Uses that are anticipated to be redeveloped include:

- Industrial
- Auto Repair
- Auto Storage
- Gas Station
- Commercial
- Multi-Family Residential (Note: Only two identified sites are developed with existing MFR. A cumulative total of four rental units are developed between the two parcels.)
- Mixed Commercial/Office
- Mixed Commercial/Industrial
- Educational/School Sites

For any site within the inventory that includes residential development, redevelopment will at minimum double the number of existing on-site dwelling units. Additionally, none of the identified sites are currently developed with condominiums.

These projects in the housing development pipeline demonstrate the continued trend of redevelopment and intensified residential development into the 6th Cycle. In order to continue facilitating and encouraging the redevelopment of non-vacant sites for residential uses, Program 4E establishes direction for the City to continue to promote development on underutilized land and remove barriers to infill development.

Based on the development trends observed during the 5th and 6th Cycles, declining demand for commercial/industrial space, high market demand and developer profitability for residential development, and policies and programs included in the Housing Element, non-vacant sites are likely to discontinue during the planning period.

Several key sites that were selected as most representative of the properties within the identified sites inventory are described in more detail on the following pages.

MIXED COMMERCIAL & INDUSTRIAL

Site Aerial

Street View Image

Description: These five parcels total approximately 1.78 acres in size and have an identified capacity of 42 lower income units and 56 above moderate income units for a total of 98 dwelling units (APNs 165-312-16, -17, -18, -20). These parcels are held by two owners and located within the Beach-Edinger Corridor Specific Plan (SP14), which does not have a maximum density. Based on past performance of residential development in SP14, Appendix B assumes an average density of 80 du/ac. The site is currently developed with two commercial buildings, an auto repair building, surface parking lots, industrial outdoor storage, and detached multi-family dwellings. The site is underutilized. The surrounding area is developed with multi-family residential and commercial uses. It is also across the street from Huntington Beach Hospital and its associated medical pavilion complex and is one block west of Huntington Central Park. The parcels have vehicular access to Beach Boulevard, Newman Avenue, and Liberty Drive. Further, Beach Boulevard is a SCAG-designated High-Quality Transit Area (HQTA).

Relating Past Residential Development Trends to the Identified Sites Inventory

These parcels share characteristics with several projects identified in Table B-5: Example Development of Non-Vacant Sites for Residential Uses. For example, the site is located within SP14, has frontage on an arterial street, and is located within a SCAG-designated HQTA. Past residential projects within Table B-5 that share these characteristics include Boardwalk, Elan, Monogram, Oceana, HB Lofts, and Beach and Ocean, which cumulatively constructed 1,900 dwelling units, including deed-restricted affordable units in all income categories (Extremely Low: 8 units, Very Low: 42 units, Low: 45 units, Moderate: 173 units; Total: 268 affordable units). This is an average of 15% affordable units developed throughout the SP14 area. Each of these projects also had frontage on a major street (Beach Blvd. or Edinger Ave.), access to utilities, and were occupied with marginal uses similar to these five parcels, including a furniture store, multi-tenant commercial, mixed-commercial and industrial, single-story commercial buildings, and large areas of surface parking.

Further, as shown in Table B-4: Summary of Pipeline Projects, the 18750 Delaware project is located within the SP14 Affordable Housing Overlay. The project was approved ministerial because it proposed to construct 20% of the proposed units as deed-restricted affordable housing. These five parcels identified within the sites inventory are also proposed to be included within the SP14 Affordable Housing Overlay. Ministerial approval is an incentive to develop a high-quality project that also provides on-site affordable units. The 18750 Delaware project also shares other characteristics similar

to the five identified parcels, including frontage on a major street, access to utilities, and was occupied with a commercial building that had a large amount of surface parking area.

COMMERCIAL

Site Aerial

Street View Image

Description: This parcel (142-191-47) totals approximately 1.68 acres in size and has an identified capacity of 60 lower income units and 73 above moderate income units for a total of 133 dwelling units. This parcel is held by a single owner and located within the Beach-Edinger Corridor Specific Plan (SP14), which does not have a maximum density. Based on past performance of residential development in SP14, Appendix B assumes an average density of 80 du/ac. The site is currently developed with one freestanding restaurant building, an in-line commercial tenant building, and a surface parking lot. The site is underutilized and does not contain any existing residential units. As depicted above, the multi-tenant commercial building is primarily unoccupied and some of the units are boarded up. End-cap units in multi-tenant buildings are highly sought after and both end-cap units in this building are vacant. The surrounding area is developed with multi-family residential and commercial uses. It is also less than half a mile from local services such as drugstores, grocery stores, restaurants, and banks. The parcel has vehicular access to Beach Boulevard, which is a SCAG-designated High-Quality Transit Area (HQTA).

Relating Past Residential Development Trends to the Identified Sites Inventory
This parcel shares characteristics with several projects identified in Table B-5: Example Development of Non-Vacant Sites for Residential Uses. For example, the site is located within SP14, has frontage on an arterial street, and is located within a SCAG-designated HQTA. Past residential projects within

Table B-5 that share these characteristics include Boardwalk, Elan, Monogram, Oceana, HB Lofts, and Beach and Ocean, which cumulatively constructed 1,900 dwelling units across all income categories from Extremely Low income to Above Moderate income. Each of these projects also had frontage on a major street (Beach Blvd. or Edinger Ave.), access to utilities, and were occupied with marginal uses similar to this parcel, including a furniture store, multi-tenant commercial, single-story commercial buildings, and large areas of surface parking.

Further, as shown in Table B-5: Summary of Pipeline Projects, the 18750 Delaware project is located within the SP14 Affordable Housing Overlay. The project received ministerial approval because it proposed to construct 20% of the proposed units as deed-restricted affordable housing. This parcel identified within the sites inventory is also proposed to be included within the SP14 Affordable Housing Overlay. Ministerial approval is an incentive to develop a high-quality project that also provides on-site affordable units. The 18750 Delaware project also shares other characteristics similar to this parcel, including frontage on a major street, access to utilities, and was occupied with a commercial building that had a large amount of surface parking area.

Overall, the above analysis demonstrates and supports that the existing on-site uses are not an impediment to residential development during the planning period. Market demand for the existing on-site uses is marginal while market demand for residential development is very strong. Past trends and the City's performance in conversion of non-vacant sites to residential development adequately support the conclusion that the non-vacant parcels identified in the sites inventory will be successfully developed with residential development, including deed-restricted affordable units.

INDUSTRIAL

Site Aerial

Street View Image

Description: These two parcels total approximately 0.96 acres in size and have an identified capacity of 22 lower income units and 28 above moderate income units for a total of 50 dwelling units (APNs 165-392-43 and 165-392-44). These two parcels are held by a single owner and currently occupied with outdoor vehicle storage, two industrial businesses, and surface parking areas. The site is underutilized and does not contain any existing residential units. The parcels have vehicular access to Gothard Street (a secondary arterial) and access to utilities. The surrounding area is developed with industrial uses to the east and single-family residential to the northwest. It is also across the street from Huntington Central Park and less than half a mile from Ocean View High School and local services such as drugstores, grocery stores, restaurants, and banks.

Relating Past Residential Development Trends to the Identified Sites Inventory

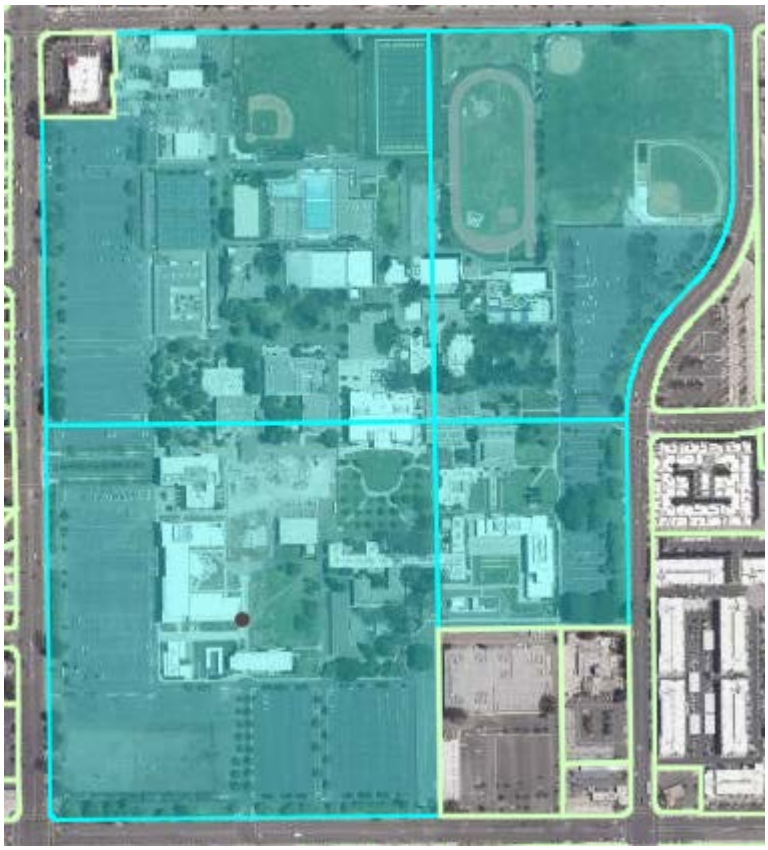
This parcel shares characteristics with several projects identified in Table B-5: Example Development of Non-Vacant Sites for Residential Uses. For example, the site is currently occupied with various industrial uses (including outdoor vehicle storage), has frontage on an arterial street, and has access to utilities. Past residential projects within Table B-5 that share these characteristics include Holly

Townhomes, Gothard Townhomes, and Garfield Condos, which cumulatively constructed 63 dwelling units, including deed-restricted affordable ownership units. Each of these past project sites were occupied with industrial uses, including outdoor vehicle storage and other industrial businesses. Each of these projects also had immediate vehicular access to a street, access to utilities, and were occupied with industrial uses similar to these two parcels, including outdoor vehicle storage and other industrial businesses. Additionally, the Luce/Monogram project was also developed with occupied industrial buildings on a portion of the site. As shown in Table B-4: Past Performance of Residential Development Maximum Density, each of the past performance projects constructed a residential development above the maximum permitted density. Additionally, the Garfield project consolidated three small parcels that were acquired by a single owner into a single 0.56 acre parcel for development, similar to the two identified parcels that are each less than 0.50 acres but are collectively held under a single owner.

Further, as shown in Table B-6: Summary of Pipeline Projects, the HB Tri Townhomes project is occupied with an industrial glass cutting shop and auto storage. The HB Tri Townhomes project requested approval of a General Plan Amendment, Zoning Map Amendment, and Specific Plan Amendment to change the existing non-residential designation to residential. The two parcels are part of the proposed Citywide Affordable Housing Overlay, which will not require approval of the entitlements listed above in order to construct residential development. The HB Tri Townhomes project also shares other characteristics similar to this parcel, including frontage on a major street, access to utilities, and was occupied with an operating industrial business and outdoor vehicle storage. Additionally, Table B-4: Past Performance of Residential Development at Maximum Density shows that the HB Tri Townhomes project developed a residential project above the maximum permitted density. The HB Tri Townhomes project also consolidated 12 small parcels that were acquired by a single owner into a single parcel for development, similar to the two identified parcels that are each less than 0.50 acres but are collectively held under a single owner.

Overall, the above analysis demonstrates and supports that the existing on-site uses are not an impediment to residential development during the planning period. Market demand for the existing on-site uses is marginal while market demand for residential development is very strong. Past trends and the City's performance in conversion of non-vacant sites to residential development adequately support the conclusion that the non-vacant parcels identified in the sites inventory will be successfully developed with residential development, including deed-restricted affordable units.

EDUCATIONAL/SCHOOL SITES



Site Aerial

Street View Image

Description: These four parcels total approximately 107 acres in size and have an identified capacity of 272 lower income units and 328 above moderate income units for a total of 600 dwelling units (APNs 142-072-05, -11, -02, -03). These four parcels are part of the Golden West College (GWC) campus, which is owned by the Coast Community College District. The existing General Plan land use designation is Public and the Zoning designation is Public-Semipublic. The existing designations do not permit residential development. These parcels will be part of the Citywide Affordable Housing Overlay, which enables the GWC campus to continue operating as a higher education institution while capitalizing on vast underutilized areas, such as the parking lots pictured above in the street view image. As shown in the site aerial image above, the GWC campus also has extensive surface parking that fronts Edinger Avenue, Goldenwest Street, and Gothard Street.

The surrounding area is developed with multi-family residential, commercial, single-family residential, and mixed-use properties. It is also located immediately across Gothard Street from the Goldenwest

Transportation Center, which is a bus depot/park and ride center owned and operated by the Orange County Transportation Authority (OCTA). The parcels also have vehicular access to Edinger Avenue, Goldenwest Street, and Gothard Street.

Relating Past Residential Development Trends to the Identified Sites Inventory

These parcels share characteristics with several projects identified in Table B-5: Example Development of Non-Vacant Sites for Residential Uses. For example, the site has a General Plan land use designation of Public and the Zoning designation is Public-Semipublic. The Sea Dance residential project site was developed with the former Franklin Elementary School. The General Plan land use designation was Public and the Zoning designation was Public-Semipublic. The City Council approved the project's request for a General Plan Amendment and Zoning Map Amendment to change the applicable designations to Residential Low Density to construct the project. The GWC parcels are part of the proposed Citywide Affordable Housing Overlay, which will not require a General Plan Amendment or Zoning Map Amendment in order to construct residential development.

Additionally, the GWC parcels share other common characteristics with the Sea Dance site, such as large parcel size, vehicular access to several improved streets, and access to utilities. The Sea Dance project constructed a residential development at the maximum permitted density and included on-site affordable ownership housing.

Further, as shown in Table B-7: Summary of Pipeline Projects, the Former Gisler School project site was developed with the former Gisler Elementary School. The General Plan land use designation was Public and the Zoning designation was Public-Semipublic. Similar to the Sea Dance project, the Gisler School project required approval of a GPA and ZMA to proceed. The GWC parcels are part of the proposed Citywide Affordable Housing Overlay, which will not require a General Plan Amendment or Zoning Map Amendment in order to construct residential development. The Gisler School project developed the site at the maximum permitted density. The Gisler School project also shares other characteristics similar to the GWC parcels, including large parcel size (14 acres), vehicular access to several improved streets, and access to utilities.

Overall, the above analysis demonstrates and supports that the existing on-site uses are not an impediment to residential development during the planning period. Market demand for residential development is very strong within the City of Huntington Beach. Discussions with GWC Administration and GWC's Comprehensive Master Plan demonstrate that GWC is planning to operate a community college campus and residential apartments simultaneously during the 6th Cycle planning period. Past trends and the City's performance in conversion of non-vacant sites to residential development adequately support the conclusion that the non-vacant parcels identified in the sites inventory will be successfully developed with residential development, including deed-restricted affordable units.

INDUSTRIAL

Site Aerial

Street View Image

Description: These six parcels total approximately 1.85 acres in size and have an identified capacity of ~~43~~ 25 lower income units and ~~51~~ 30 above moderate income units for a total of ~~94~~ 55 dwelling units (APNs 111-120-29, -20, -19, -18, -17, -16). These six parcels are held by a single owner and currently occupied with outdoor vehicle storage and industrial oil-related uses. The parcels are underutilized and do~~es~~ not contain any existing residential units. The parcels have vehicular frontage to a major arterial street (Garfield Ave.) in addition to Stewart Lane; the sites also have access to utilities. The surrounding area is developed with industrial uses to the north, east, and south; single-family residential and commercial development is located to the west. The parcels are less than half a mile from Seacliff Elementary School and local services such as grocery stores, gyms, hair salons, restaurants, and banks.

Relating Past Residential Development Trends to the Identified Sites Inventory

These parcels share characteristics with several projects identified in Table B-5: Example Development of Non-Vacant Sites for Residential Uses. For example, the parcels are located within the Holly-Seacliff Specific Plan (SP9). A large portion of the specific plan area is developed with residential uses on former industrial and oil land. The SP9 area has a past performance of residential

development at (or above) maximum density. Recent past residential projects within Table B-5 including Holly Townhomes, Gothard Townhomes, and Garfield Condos are all located within SP9 and were constructed at or above the maximum permitted density. This demonstrates that market demand for residential development exists within the SP9 area and land values have supported the conversion of occupied industrial properties to multi-family residential.

The six identified parcels share several characteristics with the Holly Townhomes, Gothard Townhomes, and Garfield Condos projects, including occupied with various industrial uses (outdoor vehicle storage and oil-related uses), frontage on an arterial street and/or local street, and has access to utilities. The SP9 past performance projects cumulatively constructed 63 dwelling units, including deed-restricted affordable ownership units. Additionally, the Garfield project consolidated three small parcels that were acquired by a single owner into a single 0.56 acre parcel for development. This is similar to the six identified parcels; five of the six are less than 0.50 acres but are collectively held under a single owner. Each of the SP9 past performance projects constructed residential development above the maximum permitted density, as listed in Table B-4: Past Performance of Residential Development at Maximum Density

Further, as shown in Table B-8: Summary of Pipeline Projects, the HB Tri Townhomes project is occupied with an industrial glass cutting shop and auto storage. The HB Tri Townhomes project requested approval of a General Plan Amendment, Zoning Map Amendment, and Specific Plan Amendment to change the existing non-residential designation to residential. The six parcels are part of the proposed ~~Citywide Affordable Housing~~ RH Overlay, which will not require approval of the entitlements listed above in order to construct residential development. The HB Tri Townhomes project also shares other characteristics similar to this site, including frontage on a major street, access to utilities, and was occupied with an operating industrial business and outdoor vehicle storage. Additionally, the HB Tri Townhomes project consolidated 12 small parcels that were acquired by a single owner into a single parcel for development. This is similar to the six identified parcels; five of the six are less than 0.50 acres but are collectively held under a single owner. The HB Tri Townhomes project constructed residential development above the maximum permitted density, as listed in Table B-4: Past Performance of Residential Development at Maximum Density.

Overall, the above analysis demonstrates and supports that the existing on-site uses are not an impediment to residential development during the planning period. Market demand for the existing on-site uses is marginal while market demand for residential development is very strong. Past trends and the City's performance in conversion of non-vacant sites to residential development adequately support the conclusion that the non-vacant parcels identified in the sites inventory will be successfully developed with residential development, including deed-restricted affordable units.

Replacement Analysis

A total of one of the nonvacant sites (identified to accommodate the lower income RHNA) have existing residential units. **Table B-14** contains a detailed description of the existing use. The site is currently a market rate housing development, the owner has expressed desire to increase density and redevelopment for new or additional housing. The site does not include affordable deed restricted housing units. Additionally, unit capacity on this site was calculated by removing existing units from the net total units if the site were to be redeveloped. Therefore, any existing residential units would not be displaced by the City's capacity assumptions.

7. Development of Small and Large Site Parcels

Small Sites

The City of Huntington Beach has identified a total of 186 candidate housing sites that are smaller than half an acre in size, total 831 units in the lower income category, 372 units in the moderate-income category and 1,598 units in the above moderate-income category. Assembly Bill 1397 identifies general size requirements for candidate housing sites of greater than half an acre and less than 10 acres in size. The City has only identified sites smaller than half an acre that show the likelihood of redeveloping in conjunction with other parcels that collectively meet the half acre requirement. The likelihood of redevelopment was based primarily on common ownership amongst adjacent parcels that share a property line or developer interest in lot consolidation, shared owner, and development propensity analysis for sites smaller than .5 acres can be found in **Table B-5** below. Table B-5 lists 31 "clusters" of adjacent small site parcels. **Figure B-14 through Figure B-19** displays aerial images of the small sites. The images and Table B-5 show the following results:

- Each site is well connected to a street or highway grid
- Each small site is adjacent to additional small sites which have a high opportunity for consolidation and redevelopment
- Majority of the small sites are adjacent to sites which are at least one acre, many of which are primarily pave surface parking in commercial or business centers
- The maps show that the small sites chosen are not islands, instead they well connected to existing infrastructure and one another. Though they are not larger than .5 acres, each can be consolidated and redeveloped for residential or mixed uses.
- 12 of the small site parcel clusters are held by a single owner, which supports the likelihood of redevelopment.

Small site parcel clusters with more than one owner are likely to redevelop due to:

- High land value that is currently underutilized
    - Clusters are under-performing properties (i.e. sea of surface parking, single-tenant commercial buildings, aging industrial, outdoor storage, etc.)
- Existing uses are likely to discontinue during the planning period as property owners seek to capitalize on high land value
- Site-specific low barriers to redevelopment
    - All clusters have street frontage access to at least one major street and ability to utilize existing utilities/infrastructure
    - All clusters are within the Beach Edinger Corridor Specific Plan (SP14) Affordable Housing Overlay, Citywide Affordable Housing Overlay, or Residential High Density Zone, which allow for the development of higher density residential projects. The development potential permitted by these zoning designations supports the economics of site redevelopment into new higher density residences.
- Past Performance with Lot Consolidation
    - Several past projects required acquisition of land from multiple property owners and the sites were also non-vacant.
    - The economic potential of redeveloping these sites incentivized developers to acquire adjacent small sites for consolidation into a larger residential project.

Additionally, the City has a past performance of lot consolidation for single use development on small parcels, past performance is shown below in **Table B-6.**

Table B-6: Past Performance with Lot Consolidation					
APNs	**Project Name**	**Project Type**	**Total Units**	**Affordable Units**	**Site Description**
157-471-04, -05	Elan	Mixed-Use (Rental Residential)	274	Moderate: 27 (Inclusionary Zoning)	The site was improved with a gas station, multi-tenant commercial building, and restaurant. Any active leases were terminated and all onsite structures were demolished to construct the proposed project. This parcel has street frontage/access on Beach Blvd. and Ellis Ave.
167-492-05, -06	Newland Condos	Residential (Ownership)	13	Moderate: 2 (Inclusionary Zoning)	The northern parcel was improved with three detached multi-family units that were demolished to construct the project. The southern parcel was not utilized by the owner, unimproved, and contained no permanent structures. This infill parcel has street frontage/access on Newland St.
142-321-01, -02, -10, -12, -13	Luce	Residential (Rental)	510	Low: 8 Moderate: 43 Total: 51 (Inclusionary Zoning)	The site was improved with a five-building mixed commercial and industrial center. Any active leases were terminated and all onsite structures were demolished to construct the proposed project. This parcel has street frontage/access on Gothard St. and Edinger Ave.
111-150-47,-13	Garfield Condos	Residential (Ownership)	10	Moderate: 1 (Inclusionary Zoning)	The site was utilized primarily for seasonal sales and was otherwise unoccupied throughout the year.

Table B-6: Past Performance with Lot Consolidation					
APNs	**Project Name**	**Project Type**	**Total Units**	**Affordable Units**	**Site Description**
					The site contained no permanent structures. The site has street frontage on Garfield Ave. and Gothard St.
Source: City of Huntington Beach, 2021.					

Table B-7: Analysis of Candidate Housing Sites Under 0.5 Acres					
APN	**Unique ID**	**Larger Adjacent Sites**	**Proposed Zoning**	**Consolidated Size (ac)**	**Use Description**
142-081-02, 142-081-03, 142-081-17, 142-081-16, 142-081-26, 142-081-25	156, 162, 166, 167, 174, 183		SP 14: Affordable Housing Overlay	1.60	Commercial buildings with surface parking; Street frontages on Beach Blvd., Edinger Ave., and Aldrich Dr. near 405 freeway and HQTA; across the street from jobs/resources at Bella Terra regional shopping center
165-181-40, 165-181-39, 165-302-22, 165-302-21	175, 202, 279, 321		SP 14: Affordable Housing Overlay	1.4	Commercial buildings with surface parking; Street frontages on Beach Blvd. and Ronald Dr. near 405 freeway and HQTA
165-301-23, 165-301-24, 165-301-22	136, 143, 165		SP 14: Affordable Housing Overlay	0.51	Two small commercial buildings with surface parking; Street frontages on Beach Blvd. and Newman Ave. near 405 freeway and HQTA; across the street from jobs/resources at Huntington Beach Hospital medical plaza
165-312-18, 165-312-17, 165-312-16, 165-312-20	154, 270, 285, 299	APN 165-312-19	SP 14: Affordable Housing Overlay	1.86	Single property owner acquired several of these parcels with expressed interest in multi-family residential development; three commercial buildings with surface parking/outdoor storage, boat/industrial storage, two residences; frontage on Beach Blvd., Newman Ave., Liberty Ave.; near 405 freeway and HQTA; across the street from jobs/resources at Huntington Beach Hospital medical plaza
167-472-04, 167-472-05, 167-472-06	146, 155, 206, 225, 226, 278, 310, 327, 328	APN 167-472-17, 167-472-03, 167-472-07	SP 14: Affordable Housing Overlay	3.03	Single property owner holds 40% of this land; aging commercial/medical buildings with surface parking; street frontage on Beach Blvd. and Cameron Ln.; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
167-472-10, 167-472-11, 167-472-12, 167-472-13, 167-472-15, 167-472-14,		APN 167-472-07	SP 14: Affordable Housing Overlay	2.26	Aging strip commercial/medical buildings with surface parking; street frontage on Beach Blvd., Newman Ave., and Cameron Ln.; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
142-111-18	193	Sites 211-214	SP 14: Affordable Housing Overlay	0.27	Same property owner as adjacent 3.51 ac site APN 142-11-32; Single-tenant retail pad building that was parceled off from larger adjacent retail center; street

					frontage on Edinger Ave. and Sher Ln.; near 405 freeway and HQTA; across the street from jobs/resources at Bella Terra regional shopping center; walking distance to Sun View Park
142-082-02, 142-082-22, 142-082-35, 142-082-26	86, 152, 195, 271	Site 196	SP 14: Affordable Housing Overlay	0.85	Single property owner holds 60% of this land; aging commercial/medical buildings with surface parking; street frontage on Beach Blvd. and Aldrich Dr.; near 405 freeway and HQTA; walking distance to Sun View Park and jobs/resources at Bella Terra regional shopping center
142-083-04	153	Site 193	SP 14: Affordable Housing Overlay	0.17	Aging single-tenant building with surface parking; street frontage on Beach Blvd. and Holt Dr.; near 405 freeway and HQTA; walking distance to Sun View Park and jobs/resources at Bella Terra regional shopping center
142-091-09, 142-091-32	144, 187	Site 87	SP 14: Affordable Housing Overlay	0.41	Two aging medical buildings with surface parking; street frontage on Beach Blvd. and Holt Dr.; near 405 freeway and HQTA; walking distance to Sun View Park and jobs/resources at Bella Terra regional shopping center
142-091-18, 142-091-33	173, 185	Site 87	SP 14: Affordable Housing Overlay	0.50	Single tenant fast food restaurant building with surface parking; street frontage on Beach Blvd. and Macdonald Dr.; near 405 freeway and HQTA; walking distance to Sun View Park and jobs/resources at Bella Terra regional shopping center
142-102-19	100	Site 186	SP 14: Affordable Housing Overlay	0.12	Remnant parcel that serves adjacent site as a driveway/parking lot; single-tenant commercial building with surface parking; street frontage on Beach Blvd., Alhambra Dr., and Glencoe Dr.; near 405 freeway and HQTA; walking distance to Sun View Park and jobs/resources at Bella Terra regional shopping center
142-492-03, 142-492-02, 142-491-04, 142-491-05, 142-491-03, 142-492-07, 142-492-08, 142-492-09, 142-491-06, 142-492-06	171, 172, 234, 267, 277, 284, 301, 333, 335, 341	Sites 12, 16, 335, 10, 37	Affordable Housing Overlay	3.83	Aging single-story industrial buildings with surface parking and outdoor storage; street frontage on Gemini Ln., Mars Dr., Saturn Dr.; walking distance to Murdy Park and Community Center, Ocean View High School, HB Adult School, Spring View Middle School and Park, and College View Elementary and Park; access to high quality jobs along the Gothard Ave. Corridor
142-221-21, 142-221-20, 142-221-19, 142-221-18	369, 370, 371, 372	Sites 373, 59, 55, 62	Affordable Housing Overlay	1.02	Single property owner; Aging single-story mixed retail/industrial buildings with surface parking; walking distance to Huntington Central Park, Ocean View High

					School, HB Adult School, Spring View Middle School and Park, and Oak View Elementary and Community Center/Park; access to high quality jobs along the Gothard Ave. Corridor
142-191-24,142-191-12, 142-191-15, 142-191-43, 142-191-01, 142-191-14, 142-191-27, 142-191-34, 142-191-42	81, 84, 85, 95, 151, 266, 268, 269, 287	Sites 233, 287	SP 14: Affordable Housing Overlay	1.86	Small sites adjacent to one another are remnant parcels held in common ownership – four property owners total; street frontage on Beach Blvd. and Warner Ave.; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
107-100-80	198	Site 236	SP 14: Affordable Housing Overlay	0.28	Same owner as adjacent Site 236; single-tenant commercial building with surface parking; street frontage on Beach Blvd., Robidoux Dr., and A Ln.; moderate resource area; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
167-324-14	352	Site 351	SP 14: Affordable Housing Overlay	0.25	Single-tenant retail building with surface parking; street frontage on Warner Ave. and A Ln.; moderate resource area; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
167-325-16, 167-325-17, 167-325-18	354, 355, 356	Site 353	SP 14: Affordable Housing Overlay	1.36	Single property owner holds adjacent Site 353 and APN 167-325-16; aging medical/commercial buildings with surface parking; moderate resource area; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
165-283-14, 165-283-13, 165-283-16, 165-283-17, 165-283-05, 165-283-04	345, 346, 347, 348, 349, 350	Site 123	SP 14: Affordable Housing Overlay	2.26	Aging retail buildings/outdoor storage and surface parking; vacant former Subway building; street frontage on Beach Blvd. and Cypress Dr.; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Ocean View High School, HB Adult School, Oak View Elementary, and Huntington Central Park and Library
167-311-04	362	Site 361	SP 14: Affordable Housing Overlay	0.34	Aging single-tenant commercial building with surface parking; street frontage on Beach Blvd. and Holland Dr.; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical

					plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
167-312-04, 167-312-05, 167-312-06	366, 367, 368	Sites 363-365	SP 14: Affordable Housing Overlay	0.86	Single property owner holds adjacent Site 365 and APN 167-312-04; street frontage on Beach Blvd. and Slater Ave.; aging commercial center and gas station; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Lake View Elementary School and Park
165-234-07, 165-234-08	343, 344	Site 342	SP 14: Affordable Housing Overlay	0.52	Single property owner holds adjacent Site 342 and these small parcels that comprise an aging commercial center with surface parking; street frontage on Beach Blvd. and Slater Ave.; near 405 freeway and HQTA; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser; walking distance to Ocean View High School, HB Adult School, Oak View Elementary and Community Center/Park, and Huntington Central Park and Library
165-392-60, 165-401-12, 165-401-10, 165-391-43, 165-392-52, 165-401-16, 165-401-15, 165-401-14, 165-401-17, 165-401-11, 165-392-64, 165-392-63, 165-401-06, 165-392-71, 165-391-44, 165-401-09, 165-391-39, 165-391-40, 165-401-07, 165-391-45, 165-392-26, 165-392-70, 165-392-69, 165-401-20, 165-392-72, 165-401-13, 165-401-08, 165-401-19, 165-401-23, 165-392-62, 165-392-44, 165-392-43	159, 199, 200, 209, 215, 227, 228, 229, 235, 237, 274, 276, 281, 288, 289, 291, 292, 293, 300, 304, 305, 306, 307, 311, 315, 322, 325, 326, 330, 331, 332, 334	Sites 38-46, 51-54, 63-66, 322, 323, 326	Affordable Housing Overlay	12.53	Aging industrial buildings with surface parking and outdoor storage; mini-storage/ personal storage; many small lots are remnant parcels under common ownership - northwest corner of Gothard and Slater is 20 separate parcels with only five property owners; street frontage on Gothard St. and Slater Ave.; access to high quality jobs along the Gothard St. Corridor; walking distance to Ocean View High School, HB Adult School, Oak View Elementary and Community Center/Park, Mesa View Middle School and Park, Golden View Elementary School and Park; across Gothard St. from Huntington Central Park and Library
159-201-12, 159-201-04, 159-201-01, 159-201-13, 159-201-05, 159-201-36, 159-201-39, 159-201-40, 159-201-32, 159-201-31,	88, 92, 93, 96, 147, 168, 169, 197, 207, 282, 283, 295, 298, 314, 329	Sites 26, 33-35	Affordable Housing Overlay	4.14	Highest Resource Area; attendance zone for high-performing Hope View Elementary; Aging industrial buildings with surface parking and outdoor storage; street frontage on Talbert Ave., Gothard St., Harriman Cir., and Vincent Cir.; existing cul-de-sac streets are highly conducive for residential and community place-

159-201-34, 159-201-33, 159-201-38, 159-201-28, 159-201-27					making; across Gothard St. from Huntington Central Park and Library; access to high quality jobs along the Gothard St. Corridor; walking distance to Terry Park
159-212-10, 159-212-09, 159-211-16, 159-211-13, 159-211-14, 159-211-15	203, 208, 290, 308, 309, 312	Sites 21-23, 27-30	Affordable Housing Overlay	2.32	Highest Resource Area; attendance zone for high-performing Hope View Elementary; Aging industrial buildings with surface parking and outdoor storage; street frontage on Gothard St., Mountjoy Dr., and Enterprise Ln.; across Gothard St. from Huntington Central Park and Library; access to high quality jobs along the Gothard St. Corridor; walking distance to Terry Park, Green Park, and Baca Park
~~110-221-02, 110-221-03, 110-221-04, 110-221-05, 110-221-06, 110-221-07, 110-221-08, 110-221-09, 110-221-10, 110-221-11, 110-221-12, 110-221-13, 110-221-14, 110-221-15, 110-221-16, 110-221-17, 110-221-18, 110-221-19, 110-221-20, 110-221-21, 110-221-22, 110-221-23, 110-221-24, 110-221-25, 110-221-26, 110-222-01, 110-222-02, 110-222-03, 110-222-04, 110-222-05, 110-222-06, 110-222-07, 110-222-08, 110-222-09, 110-222-10, 110-222-11, 110-222-13, 110-222-14, 110-222-15, 110-222-16, 110-222-17, 110-222-18, 110-222-19, 110-222-20, 110-222-21, 110-222-22, 110-222-23, 110-222-24, 110-222-29, 110-222-30, 107-231-10~~	~~399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449~~	~~Sites 395-398~~	~~RH30~~	~~7.74~~	~~All small sites are remnant parcels held by a single property owner with adjacent sites 395-398 that has expressed interest in developing multi-family residential here; Highest Resource Area; attendance zone for high-performing Seacliff Elementary, Dwyer Middle School, and Huntington Beach High School; outdoor storage/former nursery with supporting structures dispersed throughout the site; street frontage on Goldenwest St.; walking distance to Seacliff Elementary, Baca Park, Green Park, and Huntington Central Park and Library~~
111-120-11, 111-120-15, 111-120-17, 111-	83, 110, 111, 121, 122, 126,	Sites 238-240, 244-249, 302	~~Affordable Housing Overlay~~RH35	1.54	All small sites are remnant parcels held by a single property owner with adjacent sites that has expressed

120-18, 111-120-19, 111-120-14, 111-120-13, 111-120-12, 111-120-20, 111-120-16	127, 129, 182, 231				interest in developing multi-family residential here; Highest Resource Area; attendance zone for high-performing Seacliff Elementary, Dwyer Middle School, and Huntington Beach High School; outdoor storage with supporting structures dispersed throughout the site; street frontage on Goldenwest St., Garfield Ave., and Stewart Ln.; walking distance to Seacliff Elementary, Baca Park, Green Park, and Huntington Central Park and Library
111-130-01, 111-130-06, 111-130-05, 111-130-02, 111-130-26, 111-130-31, 111-130-32, 111-130-33, 111-130-35, 111-130-36	125, 131, 137, 160, 161, 385, 386, 387, 389, 390		Affordable Housing Overlay	2.96	All small sites are remnant parcels held by a single property owner with adjacent sites that has expressed interest in developing multi-family residential here; Highest Resource Area; attendance zone for high-performing Smith Elementary, Dwyer Middle School, and Huntington Beach High School; outdoor storage with supporting structures dispersed throughout the site; street frontage on Garfield Ave. and Stewart Ln.; walking distance to Seacliff Elementary, Baca Park, Green Park, and Huntington Central Park and Library
153-041-29	179	Sites 77-79	SP 14: Affordable Housing Overlay	0.25	Highest Resource Area; attendance zone for high-performing Peterson Elementary, Dwyer Middle School, and Huntington Beach High School; single-tenant commercial pad building that was parceled off from adjacent large sites that comprise the overall commercial center held by single property owner; street frontage on Beach Blvd.; near HQTA; walking distance to Perry Park; walking distance to jobs/resources at Huntington Beach Hospital medical plaza, Walmart, Kaiser.
025-191-42, 025-191-32	91, 190	Sites 105-109, 112	SP 14: Affordable Housing Overlay	0.36	A single-tenant commercial building with surface parking held by single property owner; Highest Resource Area; attendance zone for high-performing Peterson Elementary, Dwyer Middle School, and Huntington Beach High School; street frontage on Beach Blvd.; near HQTA; walking distance to McCallen Park, Bartlett Park, and Boys and Girls Club of Huntington Valley; across Beach Blvd. from jobs/resources at Hoag medical plaza and Newland Center retail
025-200-62, 025-200-61	157, 280	Sites 97, 260	SP 14: Affordable Housing Overlay	0.60	Two single-tenant auto repair buildings with surface parking held by single property owner; Highest Resource Area; attendance zone for high-performing Peterson Elementary, Dwyer Middle School, and Huntington Beach High School; street frontage on

					Beach Blvd. and Utica Ave.; near HQTA; walking distance to McCallen Park, Bartlett Park, and Boys and Girls Club of Huntington Valley; across Beach Blvd. from jobs/resources at Hoag medical plaza and Newland Center retail
025-200-50, 025-200-51	294, 296	Sites 98, 101	SP 14: Affordable Housing Overlay	0.83	Highest Resource Area; attendance zone for high-performing Peterson Elementary, Dwyer Middle School, and Huntington Beach High School; gas station and single-tenant auto repair building with surface parking; street frontage on Beach Blvd. and Adams Ave.; near HQTA; walking distance to McCallen Park, Bartlett Park, and Boys and Girls Club of Huntington Valley; across Beach Blvd. from jobs/resources at Hoag medical plaza and Newland Center retail

Large Sites

The City has identified five sites in the site inventory to accommodate 370 units estimated to affordable to low and very low-income households. The City will work with local developers, market rate and affordable, to utilize the opportunity sites to their highest potential for new housing. Additionally, the City of Huntington Beach is a built-out community, with few lots larger than 10 acres remaining, however, as development continues the large sites provide the most opportunity for subdivision and redevelopment as they provide an appropriate amount of land.

Golden West College

Three of the large sites are part of Golden West College (GWC). Through discussions with GWC administration, the sites inventory has identified a maximum of 600 units that could develop across the GWC site during the planning period, in accordance with GWC's Comprehensive Master Plan that has a horizon year of 2030. GWC has several potential locations to develop units on the site due to the property's large size. Development of residential units at GWC will build upon Coast Community College District's successful development of a multi-family residential project on the Orange Coast College (OCC) campus in Costa Mesa. Similar to the OCC development, GWC will construct and operate the housing units on its property. The housing units on the GWC site are intended to be available to the general public.

The GWC site is located in a high resource area. GWC's location along the Edinger Ave. corridor has efficient access to SCAG-designated HQTA, the Goldenwest Transit Center, and car travel via the 405 freeway. Development of housing on the GWC property will provide lower income households access to education, technical certificates to increase household income and improve labor market engagement, and immediate proximity to high-quality jobs on the college campus and surrounding area. Intentionally planning for development of residential units on this site will improve upward mobility for lower income households and continue to foster diverse, mixed-income areas throughout all areas of the City.

Regency Palms Redevelopment

This site is identified due to property owner interest in redeveloping the site at a higher density. Development of the site with additional housing units will improve conditions for lower income households. The site is located in a moderate resource area and adjacent to high resource areas. Identification of this site to accommodate a portion of the City's lower income RHNA will improve upward economic mobility and produce better environmental/health opportunities for low and moderate income households.

The property owner submitted a letter of interest in site redevelopment and support of a higher zoning designation for the site. In addition, the property owner has shared site plan concepts showing how the site would be reconfigured to accommodate the proposed units. The site does not currently contain any deed-restricted affordable housing units. Site redevelopment will trigger the City's inclusionary housing ordinance, thus creating new deed-restricted affordable housing units and increasing the City's affordable housing stock.

The redevelopment of the site will occur in compliance with SB 330 requirements. Pursuant to SB 330, any developer of a proposed project on this site is required to provide occupants residing in existing protected units relocation benefits and a right of first refusal for a comparable unit available in the new housing development affordable to the household at an affordable rent or affordable housing cost.

Frontier Industrial Yard

Lastly, APN 111-010-39 is 10.1 acres and currently occupied as an industrial service yard with a large portion of vacant land and few buildings. This site has been identified due to several years of developer interest in pursuing a residential project. Prior discussions with the property owner have focused on potential site development and that the existing land use designation is non-residential. While there was express developer interest in constructing multifamily residential on the site, the existing industrial land use designation prevented potential projects from starting the development process. The City will reduce associated barriers to multifamily residential development such as risk, time, and cost by including the site in the Affordable Housing Overlay. Applying the Affordable Housing Overlay to the site means that the Zoning to permit a multifamily residential project will be in place and applications for land use changes are not necessary. This results in at least $100,000 in cost savings and at least 12 months of review time savings for developers. The Affordable Housing Overlay streamlines the entitlement process for multifamily residential development by providing a ministerial review process. A ministerial review process does not require a public hearing, which reduces developer risk and decreases project time to construction.

Development pursuant to the Affordable Housing Overlay requires a minimum of 20% of the units to be deed-restricted affordable units. The incentive of ministerial review and other provisions of the Affordable Housing Overlay assists developers in providing lower income units as part of a residential project. The site's large size is attractive to developers because Huntington Beach is a built-out community with few lots larger than 10 acres remaining. This site provides the most opportunity for subdivision and redevelopment as it provides an appropriate amount of land to accommodate a cohesive mixed-income development that includes lower income units.

The 10.17 acre size of the site will facilitate multi-family residential development, including the provision of affordable (lower income) residential, due to availability of utilities, vehicular access to two arterial streets, and Housing Element programs that facilitate innovative lot subdivision configurations and streamline the residential review process. The property has immediate availability of utilities including water, sewer, and electric. The site is just over 10 acres (10.17 acres). The site has vehicular access to two primary arterial streets, Slater Ave. and Gothard St. The property has over 1,000 feet of street frontage along Slater Ave. The wide frontage makes the property uniquely ideal for a lot split or multiple lot splits to potentially tailor a site for competitive funding to develop a 100 percent affordable project. It also allows for construction of a variety of multifamily residential product types. The City is committed to facilitating lot splits during the planning period by implementing Program 4D: Small Lot Ordinance Amendment and Program 4E: Zoning Code Maintenance. Program 4D will review and amend the existing Small Lot Ordinance to accommodate contemporary housing and subdivision lot configurations, as well as more attainable housing products and feasible project financing. Program 4E will focus on residential processing procedures and other residential code provisions and propose amendments that will result in reduced processing times and costs. Both of these programs will help facilitate multifamily residential development on the Frontier site. These programs are intended to streamline the development process while facilitating innovative subdivision lot configurations. Further, Table B-8 demonstrates that the City has a track record in facilitating lot splits, including the Brightwater, Fairwind, and Pacific Shores residential developments.

Additionally, there are no environmental constraints known that would constrain the development of housing on the Frontier site during the planning period. Aerial imagery of the site demonstrates the site is primarily utilized as parking/fleet vehicle storage with a few large storage containers. The fleet vehicles (small vans) are kept at the site until they are dispatched to other areas. The majority of business activity at the site occurs within the four office buildings.

Further, the site is able to accommodate a portion of the City's RHNA for lower income households. As detailed in Table B-5 below, the City's past performance with residential development on sites at least 10 acres in size resulted in on-site production of affordable housing units, including units available to very low income households. Development of this site will affirmatively further fair housing for lower income households because of its proximity to key resources, including high-performing schools, jobs along the adjacent Gothard St. corridor~~., and~~ The site directly abuts Huntington Central Park, a 350-acre park with many community facilities such as the Central Library, Senior Center, Sports Complex, an Urban Forest, Nature Center, fitness and walking trails and multiple passive and active recreation areas to promote healthy lifestyles and improve environmental justice. For example, the site is approximately 0.4 miles (within walking distance) to Golden View Elementary School, Mesa View Middle School, and Ocean View High School. The Ocean View High School campus also includes the Huntington Beach Adult School (HBAS). HBAS provides educational resources for adults that allow them to achieve career and educational goals, such as GED programs, English learner classes, and career training classes in diverse fields like medical assistant, accounting clerk, and notary public. The Frontier site's proximity to these educational resources will assist lower income households in achieving upward economic mobility through education and career training.

The Frontier site is located along the Gothard Street corridor. The City's Economic Development Division has noted that this area has the highest concentration of jobs within the City. Close proximity to a wide variety of jobs will benefit lower income households by improving their financial and economic conditions. The site is also one block from Beach Boulevard. This area of Beach Boulevard provides many job opportunities and daily needs, including Huntington Beach Hospital and its medical complex, offices, retail, grocery stores, and other services. The walkability of this area will benefit working families that can walk to nearby schools (elementary through high school), jobs, and businesses for daily needs.

Additionally, the Frontier site is immediately adjacent to Huntington Central Park. Huntington Central Park is home to the City's Central Library and Senior Center. These facilities provide community resources and programming, including meals and health screenings for seniors, afterschool homework help for junior high students, and inclusive bilingual Spanish/English story time for kids and parents. Huntington Central Park also provides a multitude of recreational amenities, including four playgrounds, a nature center, disc golf course, horseshoes, dog park, and an equestrian center. Immediate access to Huntington Central Park, the Senior Center, and Central Library will promote healthy lifestyles and improve environmental justice for lower income households.

Overall, development of the Frontier site will affirmatively further fair housing for lower income households because of its proximity to key community resources. This includes being walking distance to high-performing schools, jobs, services, and daily needs along the adjacent Gothard St. corridor and nearby Beach Blvd. Access to these types of resources will contribute to upward economic mobility. The Frontier site is also adjacent to Huntington Central Park, Central Library, and Senior Center. Proximity to these community resources and facilities promote healthy lifestyles and improve environmental justice. Identification of the Frontier site to accommodate the RHNA intentionally improves conditions for lower income households.

In addition~~al,~~ to the analysis above, the City has a past performance of subdividing and developing sites larger than ten acres, as shown in **Table B-8** below.

Table B-8: Past Performance with Residential Development on 10+ acre sites					
APN/Address	**Project Name**	**Project Type**	**Total Units**	**Affordability**	**Project details or description**
024-271-06	Pacific City Apartments	MFR (rental)	516	Moderate: 51	17.2 acres; on-site construction of 51 units deed-restricted affordable housing in the Coastal Zone per inclusionary zoning ordinance
163-312-82	Brightwater Residential	SFR	349	Developed under County of Orange jurisdiction	105.3 acres
10251 Yorktown	Fairwind	SFR	81	Paid proportionate fees toward development of Oceana (100% affordable rental MFD)	PUD (reduced size SFR lots); 11.65 acres; closed school site
21471 Newland	Pacific Shores	MFR (ownership)	201	Low: 3 Moderate: 18 Total: 21	23 acres; on-site construction of 21 units deed-restricted affordable housing in the Coastal Zone per inclusionary zoning ordinance
142-075-01	Bella Terra Residential	MFR (rental)	467	Very Low: 28 Moderate: 43 Total: 71	10.4 acres; on-site construction of 71 units deed-restricted affordable housing (28 very low and 43 moderate)
14422 Hammon	Windbourne	SFR	51	Moderate: 1 Funding for acquisition & rehab of 4 off-site units	PUD (reduced size SFR lots); 8.745 acres + 1.3 acre public park; closed school site
163-362-51	Parkside Estates	SFR	111	Acquisition and rehab of off-site units	23 acre site with preserved, restored, and enhanced open space, 1.6-acre neighborhood park and public trails

Table B-8: Past Performance with Residential Development on 10+ acre sites					
APN/Address	**Project Name**	**Project Type**	**Total Units**	**Affordability**	**Project details or description**
142-074-04	Boardwalk	MFR (rental)	487	Very Low: 10 Moderate: 47 Total: 57	12.5 acres; on-site construction of 57 units deed-restricted affordable housing (10 very low and 47 moderate); 15% affordable units due to location in a redevelopment area
9191 Pioneer	Truewind	SFR	49	Paid proportionate fees toward development of Oceana (100% affordable rental MFD)	PUD (reduced size SFR lots); 8.35 acres plus land dedication for parking lot for adjacent park; closed school site
Source: City of Huntington Beach, 2021.					

The City's past performance with development of residential projects on large sites demonstrates that the sites identified in this section can adequately assist the City in accommodating its RHNA for lower-income housing. Past projects on large sites have been on vacant and non-vacant sites, provided on-site affordable housing, acquired/rehabilitated off-site affordable units, and constructed both rental and ownership units. The past performance large sites identified above were developed prior to newer housing legislation and incentives for development, such as Density Bonus. The three large sites identified are likely to produce affordable units due to the City's inclusionary zoning requirements, the incentives associated with the proposed zoning designations for these sites, and the higher densities permitted by the zoning designations. Factors such as high cost of land, construction materials, and labor contribute to the likelihood that projects on the identified large sites will utilize the incentives of the proposed zoning designations to construct housing units on the properties, including affordable units as required by the City's inclusionary zoning ordinance as well as the proposed zoning designations. The City's inclusionary zoning ordinance requires a minimum of 10% of all new dwelling units to be reserved as deed-restricted affordable units. All proposed developments, including on the three identified large sites, will be required to satisfy any and all inclusionary zoning requirements.

The City has extensive experience in developing housing units on educational properties. While many past projects were developed on closed school sites, the GWC site is an active education facility that will provide increased opportunities to lower income households. The development of multi-family housing on the GWC campus will provide housing available to households of all income levels in a high resource area, which assists the City in affirmatively furthering fair housing. This development can realistically accommodate its assumed portion of the City's lower income RHNA as it builds upon Coast Community College District's successful development of a multi-family residential project on the Orange Coast College campus in Costa Mesa.

8. Accessory Dwelling Units

Accessory dwelling units, or ADUs, are housing units that may be developed in addition to an existing single- or multi-family residential use. These housing units can be free-standing or attached to a primary structure and are intended to provide additional housing on an existing residential lot. Often ADUs provide housing for family members or are rented to members of the community. In accordance with State law, ADUs are allowed in all zones that allow single dwelling unit or multiple dwelling unit development in the City; Junior Accessory Dwelling Units (JADUs) are permitted only in single dwelling unit zones.

As a result of new legislation and an increased effort by the City to promote ADUs, Huntington Beach has seen an average year over year ADU increase of 80 percent from 2018 to 2020. In 2018, the City permitted 13 ADUs, followed by 28 in 2019 and 31 in 2020 – a total increase of 138 percent between 2018 and 2020. In 2021, the City experienced a year over year increase of 90 percent with 59 permitted ADUs.

The City of Huntington Beach has determined based on past performance that it is appropriate to anticipate the development of 487 ADUs from 2021 to 2029. **Table B-9** below displays the calculation and estimated projection for the 8-year planning period. This estimation is based off the following calculations:

- Total ADU permitting increase from 2018 to 2020: 138 percent
- Average increase from 2018 to 2020: 80 percent
- 2020-2021 Increase of 70 percent
- 32 ADUs permitted from 1/1/2022 – 5/12/2022

Table B-9: Accessory Dwelling Unit Production Assumptions

Year	Percent Increase	ADU Permitted
Projection Period Total:	**--**	**487 units**
2028 (projected)	--	50 units
2027 (projected)	--	50 units
2026 (projected)	--	50 units
2025 (projected)	--	50 units
2024 (projected)	--	50 units
2023 (projected)	--	50 units
2022 (projected)	--	50 units
2021 (actual)	70%	59 units
2020 (actual)	11%	31 units
2019 (actual)	115%	28 units
2018 (actual)	117%	13 units
2017 (actual)	--	6 units

ADU Past Performance

Table B-9 provides conservative production targets for ADUs during the 6th Cycle planning period. The following information is provided to support the City's production assumptions for the planning period, including past permit data since 2017 when state ADU laws were implemented to streamline the process and increase ADU production. The information also includes data covering the 6th Cycle planning period from October 15, 2021 through July 8, 2022 to demonstrate that the City is on track to exceed the ADU production assumptions listed in Table B-9.

The City is actively monitoring its ADU performance during the 6th Cycle planning period. The data below in Table B-10 demonstrates that the City's ADU performance is on track to exceed the projections assumed to satisfy the RHNA requirements. The City has received applications to develop 90 ADUs between January 1, 2022 and July 8, 2022. The ADU production assumptions in Table B-9 are conservative because they were developed based on ADU permit data from January 1, 2022 through May 12, 2022 while Table B-10 below demonstrates that the City has received a significant increase in ADU permit volume since May 12, 2022. Further, ADU permit data from 2017-2019 indicates that an average of 74% of all ADU applications received are "finaled", meaning that the ADU is constructed and ready for residential occupancy. Using this average, the City is on track to produce 66 ADUs in the first half of 2022, which exceeds the entire calendar year projection of 62 ADUs.

Table B-10: 6th Cycle Accessory Dwelling Unit Performance

	ADU Applications Received	Total # of ADUs Proposed by Applications
October 15, 2021 – December 31, 2021	30	33
January 1, 2022 – July 8, 2022	85	90
Total	115	123

The City's 6th Cycle performance further demonstrates and supports the ADU production assumptions in Table B-9. As depicted in Table B-10, the City has received 115 applications to construct a total of 123 ADUs thus far in the 6th Cycle. The City's past performance ADU construction average supports the assumption that of the 123 ADUs proposed during the planning period to date, at least 74% (91 ADUs) will be constructed and approved for occupancy. Program 2E commits the City to monitoring ADU production annually to ensure that production estimates are achieved.

Permit Process

In the first six months of 2022 (through July 8, 2022), permits were initiated for 90 ADUs, which are in various stages of the permit process. Many ADU applications are submitted by residential property owners that do not have experience with construction or the permitting process. Lack of familiarity with the plan review process and requirements can lead to increased time and costs due to plan check corrections and multiple rounds of plan submittals. To expedite the time experienced from permit application submittal to permit issuance, the City will implement Program 2D to provide permit-ready ADU plans. This will provide property owners with an accessible and simple path to begin construction on their ADU even faster. The permit process will also become more efficient for City staff because the plans are pre-approved and require less staff review time. Based on the volume of permit applications received thus far in the 6th Cycle, the City anticipates a continued substantial annual increase in ADU permit volume throughout the planning period. The permit-ready ADU plans provided by Program 2D will enable City staff to absorb the higher volume of permit activity with its existing staff resources. Overall, the quantity of ADU permit applications received so far in the 6th Cycle and the City's successful track record regarding ADU construction in conjunction with Program 2D support the ADU assumptions in Table B-9 and will result in an expedited ADU permit process.

Local ADU Trends

Several other local trends support ADU development during the planning period. For example, local trends in ADU development demonstrate that an increased number of multi-family properties are constructing ADUs. 6th Cycle permit monitoring data indicates that approximately 40% of all ADU applications and total quantity of ADUs are proposed on parcels that have a multi-family zoning designation.

Other local trends in ADU development support the assumptions in Table B-9. Recent permit data demonstrates that many newly constructed ADUs are sited above existing garages in small lot areas. Additionally, many single-family properties on standard lots propose to convert their existing garage to ADUs, convert existing living space to an ADU, or construct a detached ADU in the front or rear yard. Further, while some property owners may choose to finance ADU construction themselves, market conditions are optimal for ADU financing. High household incomes combined with high land values incentivize property owners to capitalize on their home equity and generate a return on their investment by constructing an ADU. These local trends in ADU development and other local factors further supports the ADU assumptions to achieve the RHNA.

For the purposes of this projection exercise, the City assumes a percentage of ADUs develop affordably based on ADU Affordability Assumptions produced by the Southern California Association of Governments (SCAG). SCAG conducted analysis consists of the following steps:

- Calculating maximum rent limits for RHNA income categories for one-person and two person households by county
- Conduct survey of rents for ADUs in the SCAG region
- Use survey data to determine proportion of ADUs within each income category
- Create assumption of how many persons will occupy each ADU, finalize proportions

Using the proportions SCAG created for Orange County, the City has allocated the following ADUs for each income category:

Table B-11: Accessory Dwelling Unit Projections by Income Category	
Income Category	**Units**
Low and Very Low Income (63%)	307 units
Above Moderate Income (2%)	10 units
Moderate Income (35%)	170 units
Total	**487 units**

To assist in reaching the City's ADU development projections, Huntington Beach has included ***Programs 2D and 2E***, which explores actions the City will take to promote and incentivize the development of ADUs during the planning period. As outlined in the program, these actions may include:

- Implementation of a permit ready ADU program
- Waiving specific permitting fees to make ADU development more feasible
- Creating an expedited plan check review process to ease the process for homeowners
- Explore potential State and Regional funding sources for affordable ADUs

9. Lodging, Hotel, and Motel Conversion

In addition to the sites identified for development and redevelopment, the City has also identified 3 sites for opportunity for Hotel/Motel Conversion. HCD allocates funding for the redevelopment of hotel and motel properties for permanent housing. Per HCD's website, "Homekey" is an opportunity for state, regional, and local public entities to develop a broad range of housing types, including but not limited to hotels, motels, hostels, single- family homes and multifamily apartments, adult residential facilities, and manufactured housing, and to convert commercial properties and other existing buildings to Permanent or Interim Housing for the Target Population. The City anticipates the use of Project HomeKey funds on several properties within Huntington Beach.

On December 28th, 2021, the City submitted an application for funds in order to obtain its first HomeKey property. On February 16th, 2022, the City was awarded $17 million for their project and are planning to use seed funds to acquire the property by the summer of 2022. After acquisition, the City plans to rehab the property and would use it for transitional housing for at least five years. Eventually, the development would be used for permanent supportive housing for the City.

The following sites have been identified for opportunity for conversion to residential at a low and very low-income affordability.

Table B-12: Hotel/Motel Conversion to Accommodate RHNA		
APN	**Address**	**Existing Use/Justification for Redevelopment**
142-342-18	7667 Center Ave	Hotel/Hotel Huntington Beach. The City will conduct ongoing outreach to potential development partners to coordinate and submit applications for the site as funding is released and available.
142-081-29	7872 Edinger Ave	Hotel/Springhill Suites. The City will conduct ongoing outreach to potential development partners to coordinate and submit applications for the site as funding is released and available.

165-225-10	17251 Beach Blvd	Motel/Quality Inn & Suites. Funding has been awarded by HCD for this site on February 16th, 2022. Please refer to discussion above.

B.Water, Sewer and Dry Utility Availability

1. Water Service

The City of Huntington Beach's water service area population was 201,327 in 2020 and is projected to increase to 207,402 by 2040[3]. Additionally, the RHNA allocation as determined by HCD and SCAG projects a total growth need of 13,368 units through 2029. The City relies on a combination of local groundwater, and imported water to meet its water needs. The City works with three primary agencies, Metropolitan Water District of Southern California (Metropolitan), Municipal Water District of Orange County (MWDOC), and Orange County Water District (OCWD) to ensure reliable water supply. The City of Huntington Beach relies primarily on groundwater wells located throughout the City for water supply. The City pays a replenishment assessment to the Orange County Water District for each acre-foot of water taken from the groundwater basin. The balance of the City's water demand is met with imported water delivered by the Metropolitan Water District of Southern California.

As the City has developed, it has correspondingly increased its number of connections, installed more wells, built a series of reservoirs, and greatly expanded the transmission and distribution system to meet the water service requirements of a growing number of customers. Additionally, all sites identified within this section to accommodate the City's RHNA allocation are within the City's water service area or are already connected to the system (non-vacant sites). The City will work with the water providers to ensure that housing developed for low and very low-income households received priority service connection (**Program 2G**).

2. Sewer Service

The City operates and maintains the local sewer system consisting of approximately 360 miles of pipeline and 27 sewer lift stations that connect to OCSD's trunk system to convey wastewater to OCSD's treatment plants.[4] The City's main plants have the following capacity:

- Plant No. 2 in Huntington Beach: 312 MGD

3. Dry Utilities

Utilities services for gas are provided by Southern California Gas Company (SCGC) and electricity are provided by Southern California Edison (SCE). In accordance with the California Public Utilities Commission and in compliance with SCE's "Rules for the sale of electric energy" all electric and gas service will be provided for future development in the City of Huntington Beach as requested.

C.Adequate Sites Table and Supplemental Maps

Table B-14 below displays the sites identified to accommodate Huntington Beach's RHNA at all income levels. Following the sites table, additional maps are provided which display all the sites identified to accommodate the City's RHNA allocation.

[3] City of Huntington Beach, Urban Water Management Plan (1.2.2 Water Supply), 2020. Accessed online September 2021.
[4] City of Huntington Beach, Sewer System Management Plan), 2021. Accessed online September 2021.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
2	107-781-07	16152 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	5.82	No maximum	80	100	0	No	No	139	69	255	465	463	Commercial office building with associated surface parking lot. This is an underutilized site with low FAR. Located at the Beach/Edinger intersection, this site has good access to the 405 freeway and is near 2 transit stops. The City has met with the property owner to discuss potential residential development opportunities.
~~**3**~~	~~159-302-07~~	~~7600 Redondo Cir~~	~~I~~	~~IL~~	~~Limited Industrial District~~	~~RMH~~	~~9.52~~	~~0.75~~	~~20~~	~~25~~	~~0~~	~~No~~	~~No~~	~~0~~	~~57~~	~~133~~	~~190~~	~~190~~	~~Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). The site is used for storage of construction materials (lumberyard) with rail access along west property line. The City has met with the property owner to discuss residential development potential on the site. The site borders single family residential to the south and multi-family residential and a City park to the east.~~
4	111-010-39	7292 Slater Ave	I	IG	General Industrial District	~~RMH~~HO70	10.17	0.75	~~20~~56	~~25~~70	0	No	No	1700	~~60~~85	~~142~~312	~~203~~	~~202~~567	The site is currently designated Industrial and is occupied by Frontier for primarily storage, vehicle maintenance and offices. A large portion of the site is undeveloped without permanent structures. The site is underutilized with a low existing FAR. The City has met with brokers to discuss residential development opportunities on the site and previously reviewed a conceptual plan for residential development. The site is located within proximity to key resources, including high-performing schools, jobs along the adjacent Gothard St. corridor, and Huntington Central Park to promote healthy lifestyles and improve environmental justice.
5	145-272-41	15511 Edwards St	CN	CG	General Commercial District	RMH	1.87	1.5	20	25	0	No	No	0	11	25	37	36	High Resource Area. Chuck E Cheese commercial building with associated surface parking lot. Adjacent to residential uses and gas station. Located on SW corner of W McFadden Ave and Edwards St (arterial streets). Located near 2 transit stops. The City has met with a residential developer to discuss residential development a potential 20- du/ac residential project on the site.
6	165-081-08	17111 Goldenwest St	CG	RMH	Medium High Density Residential District	HO70	14.05	25	56	70	311	No	No	235	117	121	786	473	Residential use - apartment homes. Adjacent to residential homes and multiple commercial uses (drive-thru, Autozone, Sprouts grocery store, and strip mall with associated surface parking lot). Located along main roads Warner Ave and Goldenwest St. Located near 6 transit stops. The City has met with the owner of the site to discuss a project to reconfigure the existing complex and add several hundred units to the site.
7	142-501-09	16761 Burke Ln	RT	RT	Research and Technology District	HO70	0.77	1	56	70	0	No	No	12	6	23	43	41	Lot contains corporate, single-story office building with associated parking. Adjacent uses - office/industrial uses. This site is in common ownership with Site #8.
8	142-501-10	16791 Burke Ln	RT	RT	Research and Technology District	HO70	0.91	1	56	70	0	No	No	15	7	27	50	49	Use type - Industrial. Lot contains office/industrial, single-story facility with parking. Adjacent uses - office/industrial uses. located on Prince Dr, which is connected to Gothard Street. This site is in common ownership with Site #7.
9	142-143-10	16562 Gothard St	RT	RT	Research and Technology District	HO70	3.33	1	56	70	0	No	No	55	27	102	186	184	Commercial buildings with associated surface parking lot surrounding the buildings. Located at SWC of Heil Ave and Gothard St. Adjacent uses are commercial businesses.
10	142-491-01	16601 Gothard St	RT	RT	Research and Technology District	HO70	2.13	1	56	70	0	No	No	35	17	65	119	117	Commercial buildings with associated surface parking lot surrounding the buildings. Located along Gothard St. Adjacent uses are commercial businesses.
11	142-501-11	16662 Gothard St	RT	RT	Research and Technology District	HO70	3.11	1	56	70	0	No	No	52	26	95	174	173	Commercial buildings with associated surface parking lot surrounding the buildings. Located along Gothard St. Adjacent uses are commercial businesses.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
12	142-492-11	16691 Gothard St	RT	RT	Research and Technology District	HO70	2.64	1	56	70	0	No	No	44	22	80	147	146	Commercial office buildings with small associated warehouse. Associated parking surrounding lot. Adjacent uses include residential homes, commercial industrial uses, and an RV parking lot. Located along Gothard St.
13	142-491-02	7272 Mars Dr	RT	RT	Research and Technology District	HO70	0.54	1	56	70	0	No	No	9	4	16	30	29	Commercial building with associated fenced-in small warehouse. Adjacent lots are similar uses. Located along Mars Dr, which is connected to Gothard St.
14	142-502-07	7372 Prince Dr	RT	RT	Research and Technology District	HO70	0.96	1	56	70	0	No	No	15	7	29	53	51	Two-story office building with associated ground parking reserved for office tenants. Adjacent uses are similar uses to the north and east, residential single-family homes to the west, and a storm drain/waterway to the south. Located along Gothard St.
15	142-502-06	7402 Prince Dr	RT	RT	Research and Technology District	HO70	0.76	1	56	70	0	No	No	12	6	23	42	41	Commercial building with associated parking and behind-store (small) warehouse area. Most street parking is taken by commercial business's products (De Lorean Motor Cars). Located along Prince Dr, which is connected to Gothard Street.
16	142-492-10	7252 Saturn Dr	RT	RT	Research and Technology District	HO70	2.57	1	56	70	0	No	No	43	21	79	144	143	Storage facility with associated RV parking lot. Adjacent uses include single-family residential homes, office uses, and baseball field.
17	142-511-06	16102 Gothard St	RT	RT	Research and Technology District	HO70	0.79	1	56	70	0	No	No	12	6	23	43	41	Industrial warehouse with associated parking. Located near similar uses along Gothard Street. Across Gothard Street is high-density residential housing and more similar warehouse uses.
18	142-511-07	7409 Lorge Cir	RT	RT	Research and Technology District	HO70	0.80	1	56	70	0	No	No	13	6	24	44	43	Industrial warehouse with associated parking. Located near similar uses along Lorge Cir, which is connected to Gothard Street.
19	142-511-08	7451 Lorge Cir	RT	RT	Research and Technology District	HO70	0.93	1	56	70	0	No	No	15	7	28	52	50	Commercial building with multiple businesses and associated parking. Located near similar uses and industrial warehouses. Low connectivity, located in a cul de sac on Lorge Cir, which is connected to Gothard Street. East side adjacent to railroad.
20	159-201-22	18202 Enterprise Ln	RT	RT	Research and Technology District	HO70	0.68	1	56	70	0	No	No	11	5	20	38	36	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial/industrial warehouse located along Enterprise Ln, which is connected to Gothard St. Adjacent uses include similar uses of commercial/industrial and a church to the north.
21	159-202-05	18211 Enterprise Ln	RT	RT	Research and Technology District	HO70	1.14	1	56	70	0	No	No	19	9	35	64	63	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial/industrial warehouse with businesses located along Enterprise Ln, which is connected to Gothard St. Adjacent uses include similar uses of commercial/industrial and a church to the north.
22	159-211-01	18261 Enterprise Ln	RT	RT	Research and Technology District	HO70	0.57	1	56	70	0	No	No	9	4	17	32	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Automobile parts warehouse with associated parking along Enterprise Ln, which is connected to Gothard St. Adjacent lots include similar uses.
23	159-211-03	18321 Enterprise Ln	RT	RT	Research and Technology District	HO70	0.57	1	56	70	0	No	No	9	4	17	31	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial business with small warehouse (Printing/Graphics/Signage company) and associated parking. Adjacent lots include similar warehouse uses.
24	159-211-11	18341 Enterprise Ln	RT	RT	Research and Technology District	HO70	1.30	1	56	70	0	No	No	21	10	39	72	70	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Huntington Valley Industrial Center with associated parking. Adjacent to commercial industrial businesses and warehouses.
25	159-211-12	18371 Enterprise Ln	RT	RT	Research and Technology District	HO70	0.98	1	56	70	0	No	No	16	8	30	55	54	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial warehouses adjacent to commercial/industrial businesses.
26	159-201-26	18072 Gothard St	RT	RT	Research and Technology District	HO70	0.81	1	56	70	0	No	No	13	6	24	45	43	Industrial/commercial warehouse with associated fenced-in parking. Adjacent lots are of similar uses - industrial/commercial warehouses, churches, and baseball fields Located along Gothard Street near one transit stop.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
27	159-202-03	18192 Gothard St	RT	RT	Research and Technology District	HO70	0.57	1	56	70	0	No	No	9	4	17	31	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Small industrial warehouse with associated parking. Adjacent lots are similar uses with storage facilities. North of site is a church and across Gothard St from the site is vacant, open space.
28	159-202-04	18222 Gothard St	RT	RT	Research and Technology District	HO70	0.57	1	56	70	0	No	No	9	4	17	32	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial/commercial warehouse. Adjacent lots are similar uses.
29	159-211-10	18262 Gothard St	RT	RT	Research and Technology District	HO70	0.57	1	56	70	0	No	No	9	4	17	32	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Automotive care center warehouse for RVs. Adjacent to industrial/commercial warehouses.
30	159-211-08	18302 Gothard St	RT	RT	Research and Technology District	HO70	0.57	1	56	70	0	No	No	9	4	17	31	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Automobile repair center. Adjacent to Huntington Valley Industrial Center and other industrial/commercial warehouses and businesses.
31	159-212-08	18460 Gothard St	RT	RT	Research and Technology District	HO70	4.99	1	56	70	0	No	No	83	41	153	279	277	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial warehouse with associated surface parking. Adjacent to industrial/commercial warehouses and businesses to the north and west and residential to the east and south across railroad tracks and Ellis Ave, respectively.
32	159-212-07	7402 Mountjoy Dr	RT	RT	Research and Technology District	HO70	0.61	1	56	70	0	No	No	10	5	18	34	33	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Automobile detailing/industrial warehouse with industrial warehouses adjacent to site along Gothard St.
33	159-201-37	7462 Talbert Ave	RT	RT	Research and Technology District	HO70	0.63	1	56	70	0	No	No	10	5	19	35	34	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial manufacturing warehouse with similar uses adjacent to site along Talbert Ave. Located near three transit stops.
34	159-201-30	7442 Vincent Cir	RT	RT	Research and Technology District	HO70	0.90	1	56	70	0	No	No	15	7	27	50	49	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial/industrial warehouse with businesses, including Branches HB (church use) in the Vincent Cir cul de sac. Adjacent uses are industrial/commercial warehouses to the north and east and Seabreeze Church and its associated parking and recreational structures to the south.
35	159-201-29	7441 Vincent Cir	RT	RT	Research and Technology District	HO70	0.94	1	56	70	0	No	No	15	7	28	52	50	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial/industrial building with associated parking. Located in Vincent Cir cul de sac, which is connected to Gothard St. Nearby 3 transit stops. Adjacent uses include commercial and industrial uses.
36	142-492-05	16561 Gemini Ln	P	RT	Research and Technology District	HO70	1.35	1	56	70	0	No	No	22	11	41	75	74	Industrial manufacturing warehouse with similar uses adjacent to site along Gemini Ln, which is connected to Gothard St.
37	142-492-01	16541 Gothard	RT	RT	Research and Technology District	HO70	1.62	1	56	70	0	No	No	27	13	49	90	89	Commercial business center with associated surface parking. SWC Heil Ave and Gothard St. Adjacent uses are commercial/industrial uses.
38	165-391-41	17592 Metzler Ln	RT	RT	Research and Technology District	HO70	0.55	1	56	70	0	No	No	9	4	16	30	29	Commercial/industrial business warehouse building. Adjacent to similar use. Railroad to east of Site. Located near one transit stop along Slater Ave and one along Gothard St.
39	165-391-23	17622 Metzler Ln	RT	RT	Research and Technology District	HO70	0.55	1	56	70	0	No	No	9	4	16	30	29	Commercial/industrial business warehouse building. Adjacent to similar use. Railroad to east of Site. Located near one transit stop along Slater Ave and one along Gothard St.
40	165-392-25	17671 Metzler Ln	RT	RT	Research and Technology District	HO70	1.14	1	56	70	0	No	No	18	9	34	63	61	Commercial/industrial business warehouse buildings with associated surface parking. Adjacent to similar use. Located near one transit stop along Slater Ave and one along Gothard St.
41	165-391-46	17752 Metzler Ln	RT	RT	Research and Technology District	HO70	0.53	1	56	70	0	No	No	8	4	15	29	27	Commercial/industrial business warehouse. Adjacent to similar use. Railroad to east of Site. Located near

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																			one transit stop along Slater Ave and one along Gothard St.
42	165-391-47	17762 Metzler Ln	RT	RT	Research and Technology District	HO70	0.52	1	56	70	0	No	No	8	4	15	29	27	Commercial/industrial business warehouse. Adjacent to similar use. Railroad to east of Site. Located near one transit stop along Slater Ave and one along Gothard St.
43	165-392-73	17531 Metzler Ln	RT	RT	Research and Technology District	HO70	1.03	1	56	70	0	No	No	17	8	31	57	56	Industrial manufacturing warehouse with associated surface parking. Adjacent to industrial warehouse facilities. Located along Metzler Ln, which is connected to Slater Ave. Nearby two transit stops.
44	165-391-38	17632 Metzler Ln	RT	RT	Research and Technology District	HO70	0.55	1	56	70	0	No	No	9	4	16	30	29	Two story industrial/commercial business office building with associated parking. Adjacent to industrial warehouses/commercial businesses. Railroad to east of Site. Located near one transit stop along Slater Ave and one along Gothard St.
45	165-401-01	17800 Gothard St	RT	RT	Research and Technology District	HO70	2.44	1	56	70	0	No	No	40	20	74	136	134	Industrial manufacturing warehouse with associated surface parking. Adjacent to industrial warehouse facilities. Located along Belva Dr, which is connected to Gothard St. Nearby two transit stops.
46	165-401-24	17832 Gothard St	RT	RT	Research and Technology District	HO70	0.87	1	56	70	0	No	No	14	7	26	48	47	Industrial manufacturing warehouse with associated surface parking. Adjacent to similar uses. Across Gothard St is HB Central Park. Nearby three transit stops.
47	165-401-25	17852 Gothard St	RT	RT	Research and Technology District	HO70	0.59	1	56	70	0	No	No	9	4	18	33	31	Commercial office/Industrial warehouse use with associated parking. located at end of cul de sac. Near two transit stops.
48	165-401-26	17872 Gothard St	RT	RT	Research and Technology District	HO70	0.73	1	56	70	0	No	No	12	6	22	41	40	Office and warehouse with surface parking. Includes a CrossFit center. Located adjacent to similar uses. Located near three transit stops.
49	165-401-27	17892 Gothard St	RT	RT	Research and Technology District	HO70	0.75	1	56	70	0	No	No	12	6	22	41	40	Office and warehouse building with associated surface parking. Located adjacent to similar uses. Streetview shows low utilization. Located near three transit stops.
50	165-401-28	17912 Gothard St	RT	RT	Research and Technology District	HO70	0.61	1	80	100	0	No	No	14	7	26	49	47	Office and warehouse building with associated surface parking. Located adjacent to similar uses. Located near three transit stops.
51	165-401-03	17922 Gothard St	RT	RT	Research and Technology District	HO70	1.32	1	80	100	0	No	No	31	15	57	105	103	Strip mall/warehouses for automobile/manufacturing businesses with associated parking. Located adjacent to storage warehouse and industrial warehouse uses. Located near three transit stops.
52	165-401-04	17952 Gothard St	RT	RT	Research and Technology District	HO70	2.64	1	80	100	0	No	No	63	31	116	211	210	Storage warehouse. Located adjacent to industrial/commercial warehouses. Good connectivity - located NEC Gothard and Talbert. Located near three transit stops.
53	165-401-22	7451 Talbert Ave	RT	RT	Research and Technology District	HO70	0.67	1	80	100	2	No	No	15	7	29	53	51	Office and warehouse use with associated parking. Located adjacent to storage/industrial warehouses. Located near three transit stops.
54	165-401-21	7491 Talbert Ave	RT	RT	Research and Technology District	HO70	0.51	1	80	100	0	No	No	12	6	22	40	40	Office building with associated parking. Located near other offices and storage/industrial warehouses. Located near three transit stops.
55	142-221-23	16892 Gothard St	RT	RT	Research and Technology District	HO70	2.03	1	80	100	1	No	No	48	24	89	162	161	Commercial office/Industrial warehouse use with associated parking. located NEC Gothard and Warner. Located near four transit stops.
56	142-511-12	16130 Gothard St	RT	RT	Research and Technology District	HO70	0.78	1	56	70	2	No	No	12	6	23	43	41	Industrial warehouse with associated parking. Connected to Gothard St. Located near three transit stops.
57	142-511-13	16182 Gothard St	RT	RT	Research and Technology District	HO70	2.93	1	56	70	1	No	No	49	24	90	164	163	Commercial offices with warehouses. Connected to Gothard street, nearby three transit stops. Located adjacent to warehouse and commercial/industrial facilities.
58	142-511-16	16212 Gothard St	RT	RT	Research and Technology District	HO70	2.85	1	56	70	2	No	No	47	23	87	159	157	Storage warehouse. Located adjacent to industrial/commercial warehouses. Located near four transit stops along Edinger Ave, which is connected to Gothard St.
59	142-221-22	16882 Gothard St	RT	RT	Research and Technology District	HO70	2.06	1	80	100	1	No	No	49	24	90	164	163	Commercial strip mall located NEC Gothard St and Warner Ave. Located near four transit stops. Nearby uses include commercial businesses, storage

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																			warehouses, residential uses, and schools. Held under same ownership as sites 55, 59, 62, and 369 - 373.
60	142-511-11	7436 Lorge Cir	RT	RT	Research and Technology District	HO70	0.80	1	80	100	2	No	No	18	9	34	63	61	Commercial office/industrial manufacturing warehouse (construction businesses) located at end of cul de sac at Lorge Cir which is connected to Gothard St. located adjacent to similar uses.
61	142-511-10	7452 Lorge Cir	RT	RT	Research and Technology District	HO70	0.96	1	80	100	0	No	No	22	11	41	76	74	Commercial and industrial offices located at end of cul de sac at Lorge Cir, which is connected to Gothard St. Located adjacent to similar uses.
62	142-221-24	7471 Warner Ave	RT	RT	Research and Technology District	HO70	2.18	1	80	100	0	No	No	52	26	95	174	173	Commercial/Industrial office and warehouse with associated parking. Located adjacent to similar uses. Located on Lorge Cir, which is connected to Gothard St. Held under same ownership as sites 55, 59, 62, and 369 - 373.
63	165-392-40	17616 Gothard St	RT	RT	Research and Technology District	HO70	0.66	1	80	100	0	No	No	15	7	28	52	50	Commercial business with small warehouse (car services) and associated parking. Adjacent lots include similar warehouse uses. Located near one transit stop.
64	165-392-39	17682 Gothard St	RT	RT	Research and Technology District	HO70	0.54	1	56	70	0	No	No	9	4	16	30	29	Commercial office/industrial warehouse with associated parking located along Gothard St. Located adjacent to similar uses. Across Gothard St is Huntington Central Park East. Located near one transit stop.
65	165-392-38	17712 Gothard St	RT	RT	Research and Technology District	HO70	0.54	1	80	100	0	No	No	12	6	23	43	41	Commercial/Manufacturing facility with associated parking. Located adjacent to similar uses. Across Gothard St is Huntington Central Park East. Located near one transit stop.
66	165-392-15	17577 Metzler Ln	RT	RT	Research and Technology District	HO70	0.53	1	80	100	0	No	No	12	6	23	42	41	Industrial warehouse located adjacent to similar uses. Located along Metzler Ln, which is connected to Slater Ave. Located near one transit stop.
67	153-051-14	19476 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.81	No maximum	80	100	0	No	No	19	9	35	64	63	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map).Commercial business with associated surface parking. Located adjacent to gas station, open space, and residential housing. NEC Beach Blvd and Yorktown Ave. Located near three transit stops.
68	157-471-06	18582 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	3.64	No maximum	80	100	0	No	No	87	43	160	291	290	Strip mall of commercial businesses with associated surface parking. Located adjacent to residential uses and commercial businesses. Located along Beach Blvd and near two transit stops.
69	153-051-24	19240 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.63	No maximum	80	100	0	No	No	39	19	71	130	129	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial business (Hotel) with associated parking. Adjacent uses are residential and similar uses. Located along Beach Blvd and near two transit stops.
70	153-041-17	19232 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.32	No maximum	80	100	0	No	No	55	27	101	185	183	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial business (car dealership) with associated parking. Located along Beach Blvd. Located adjacent to similar uses, residential uses, and near two transit stops.
71	153-041-16		M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.02	No maximum	80	100	0	No	No	24	12	44	81	80	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Parking lot for car dealership (same ownership as 153-041-17). Located adjacent to similar uses along Beach Blvd and near two transit stops.
72	153-041-15	19202 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.83	No maximum	80	100	0	No	No	19	9	36	66	64	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Vacant retail building (former car dealership); site is currently used by a car dealership in the City (Toyota of HB) for inventory lot. Located adjacent to similar uses along Beach Blvd and near two transit stops. Under same ownership as site #73.
73	153-041-14		M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.11	No maximum	80	100	0	No	No	26	13	48	88	87	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Parking lot for car dealership (same ownership as 153-041-14). Located

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																			adjacent to similar uses along Beach Blvd and near two transit stops.
74	157-452-03	18972 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.51	No maximum	56	70	0	No	No	8	4	15	28	27	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Gas station with convenience store located NEC Beach Blvd and Garfield Ave. Near two transit stops. Located adjacent to commercial strip mall.
75	157-452-41	18900 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.27	No maximum	56	70	0	No	No	21	10	39	71	70	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial strip mall with associated surface parking located NEC Beach Blvd and Garfield Ave. Near two transit stops. Adjacent uses include commercial businesses, gas station/convenience store, and residential condos.
76	157-452-42	18922 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.68	No maximum	56	70	0	No	No	11	5	20	38	36	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Drive through Starbucks and commercial businesses located in associated strip mall (157-452-41). Adjacent to gas station and commercial businesses.
77	153-041-34	19002 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.73	No maximum	56	70	0	No	No	12	6	22	40	40	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Taco Bell drive through with associated surface parking. Located at SEC Garfield Ave and Beach Blvd. Near one transit stop. Adjacent uses are residential and commercial.
78	153-041-28	19072 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	3.40	No maximum	56	70	0	No	No	57	28	104	190	189	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial strip mall with associated surface parking along Beach Blvd. Near one transit stops. Adjacent uses are residential and commercial.
79	153-041-18	19008 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.78	No maximum	56	70	0	No	No	12	6	23	43	41	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial building with associated surface parking. Adjacent uses include similar commercial uses/strip mall and residential uses. Located SEC Garfield and Beach Blvd. and near two transit stops.
81	142-191-24		M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.03	No maximum	80	100	0	No	No	0	0	1	2	1	Private parking of tenant. Adjacent uses are commercial businesses. Located near two transit stops.
83	111-120-11		I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.05	0.75	56	70	0	No	No	0	0	1	2	1	Vacant lot. Located adjacent to other vacant lots and industrial/manufacturing yard. Near three transit stops. NEC Garfield Ave and Goldenwest St.
84	142-191-12	7891 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.06	No maximum	80	100	0	No	No	1	0	2	4	3	Parking spaces associated with Wahoo's restaurant. Located adjacent to commercial businesses (Wahoo's), residential uses, and parking. Nearby three transit stops along Warner Ave.
85	142-191-15	7911 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.06	No maximum	80	100	0	No	No	1	0	2	4	3	Private lot of tenant. Adjacent uses are commercial businesses. Located near two transit stops.
86	142-082-02	7952 ALDRICH DR	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.06	No maximum	80	100	1	No	No	0	0	1	3	1	Single-family residential home. Located adjacent to commercial building and residential uses. Near two transit stops along Beach Blvd.
88	159-201-12	7401 Harriman Cir	RT	RT	Research and Technology District	HO70	0.06	1	56	70	0	No	No	0	0	1	3	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Small industrial warehouse. Located adjacent to similar uses. Near one transit stop. Located on Harriman Circle, which is connected to Gothard St.
91	025-191-42		M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.10	No maximum	80	100	0	No	No	2	1	3	7	6	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Yamaha Motorcycle commercial business with associated parking. Located nearby two transit stops along Beach Blvd. Adjacent uses are residential uses and 7-Eleven convenience store.
92	159-201-04	7404 TALBERT AVE	RT	RT	Research and Technology District	HO70	0.10	1	56	70	0	No	No	1	0	2	5	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial business located adjacent to similar uses (auto center, auto

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																			care). Near two transit stops. Located along Talbert Ave and Gothard St.
93	159-201-01	7452 TALBERT AVE	RT	RT	Research and Technology District	HO70	0.10	1	56	70	0	No	No	1	0	2	5	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto repair shop located near industrial/commercial warehouses/similar uses along Talbert Ave. Near two transit stops.
94	165-293-01	17623 Jacquelyn Ln	I	IG	General Industrial District	HO70	1.64	0.75	56	70	0	No	No	27	13	50	91	90	Auto repair shops with businesses. Lot includes automobile junkyard. Adjacent to industrial facilities and residential housing.
95	142-191-43	7923 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.11	No maximum	80	100	0	No	No	2	1	4	9	7	Single tenant building with associated surface parking. Located adjacent to similar uses (single tenant/commercial businesses). Near 4 transit stops along Beach Blvd.
96	159-201-13	7403 HARRIMAN CIR	RT	RT	Research and Technology District	HO70	0.12	1	56	70	0	No	No	1	0	3	6	4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Single tenant building surrounded by similar single tenant buildings with industrial uses. Located on Harriman Circle, which is connected to Gothard St.
97	025-200-64	19791 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.96	No maximum	80	100	0	No	No	23	11	42	77	76	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). American Tire Depot/Auto Service business with associated surface parking. Located adjacent to residential housing and similar auto repair shops. Near two transit stops along Beach Blvd.
98	025-200-68	19901 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.06	No maximum	80	100	0	No	No	25	12	46	84	83	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Strip mall with associated surface parking. Adjacent uses are similar commercial businesses/auto repair shops and residential housing. Near two transit stops along Beach Blvd and Adams Ave.
100	142-102-19	16391 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.12	No maximum	80	100	0	No	No	2	1	4	9	7	Surface parking lot Located adjacent to commercial building and residential.
101	025-200-69	807 Adams Ave	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.10	No maximum	80	100	0	No	No	26	13	47	87	86	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Single tenant building and associated surface parking. Located adjacent to commercial businesses (gas station, convenience store, strip mall) and residential uses.
102	159-161-04	19231 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.93	No maximum	80	100	0	No	No	46	23	84	154	153	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Church with associated surface parking. Located along Beach Blvd, adjacent to Honda Dealership. Near two transit stops.
103	142-072-08	15861 GOTHARD ST	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.23	No maximum	80	100	0	No	No	53	26	97	178	176	Strip mall/farmer's market with associated parking lot. Located near three transit stops. Adjacent uses are commercial businesses (car wash, restaurants, etc.).
104	142-072-09	7351 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.86	No maximum	80	100	0	No	No	20	10	37	68	67	H2Go Car wash and retail businesses (restaurants). Located adjacent to strip mall/farmer's market. Located near three transit stops. NEC Gothard St and Edinger Ave.
105	025-191-44	7950 YORKTOWN AVE	CG	CG	General Commercial District	HO70	1.19	1.5	80	100	0	No	No	28	14	52	95	94	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Small industrial warehouses (commercial manufacturing, auto repair shops, smog check stations) with associated surface parking. Adjacent to commercial offices and residential housing. Near three transit stops. Located along Yorktown Ave.
106	025-191-54	19521 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.53	No maximum	80	100	0	No	No	12	6	23	42	41	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Physical Therapy/Martial Arts studio. Located near small industrial warehouses/commercial businesses and Walgreens. Near three transit stops.
107	025-191-53	19501 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.13	No maximum	80	100	0	No	No	27	13	49	90	89	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Drive through Walgreens with associated parking. Located near two transit stops. SWC of Beach Blvd and Yorktown Ave.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
																			Adjacent uses are commercial businesses and storage yard.
108	025-191-03	19601 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.12	No maximum	80	100	0	No	No	50	25	92	169	167	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Private yard with associated small buildings. Located adjacent to office building, drive through Walgreens, and residential housing. Near three transit stops along Beach Blvd.
109	025-191-51	19671 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.12	No maximum	80	100	0	No	No	50	25	92	169	167	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office building with associated parking. Located near commercial businesses, industrial yards, and residential housing. Near two transit stops along Beach Blvd.
110	111-120-15		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO~~70RH30	0.13	0.75	~~56~~30	~~70~~35	0	No	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
111	111-120-17		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO~~70RH30	0.13	0.75	~~56~~30	~~70~~35	0	No	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
112	025-191-43	19731 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.53	No maximum	80	100	0	No	No	12	6	23	42	41	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). 7-Eleven convenience store and bicycle store with associated parking. Located adjacent to commercial businesses and residential housing. Near two transit stops along beach Blvd.
113	142-481-12	16775 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.29	No maximum	80	100	0	No	No	30	15	56	103	101	Strip retail mall with associated parking. Near two transit stops along Beach Blvd. Adjacent uses are commercial businesses and residential housing.
114	142-481-11	16811 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.84	No maximum	80	100	0	No	No	44	22	80	147	146	Single tenant commercial building with associated surface parking lot. Adjacent uses are commercial businesses and residential housing. Near two transit stops along Beach Blvd.
116	142-342-18	7667 Center Ave	M-sp(35 du/ac)	SP1	North Huntington Center Specific Plan	100% Affordable Lodging Conversion Overlay	2.20	No maximum	N/A	N/A	N/A	No	No	64	0	0	65	64	Hotel and associated parking. Located adjacent to office uses and commercial businesses. Near three transit stops along Center Ave.
117	165-181-37	17911 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.60	No maximum	80	100	0	No	No	14	7	26	48	47	Funeral/chapel services. Located adjacent to office uses and commercial businesses. Near three transit stops along Beach Blvd.
118	142-081-29	7872 Edinger Ave	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay/100% Affordable Lodging Conversion Overlay	1.85	No maximum	N/A	N/A	N/A	No	No	224	0	0	224	224	Hotel and associated parking. Located adjacent to commercial businesses. Near two transit stops along Edinger Ave.
119	165-181-38	17881 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.55	No maximum	80	100	0	No	No	13	6	24	44	43	Vacant retail/office building with associated parking. Located adjacent to similar uses. Near one transit stop along Beach Blvd.
121	111-120-18		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO~~70RH30	0.13	0.75	~~56~~30	~~70~~35	0	No	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
122	111-120-19		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO~~70RH30	0.13	0.75	~~56~~30	~~70~~35	0	No	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
123	165-225-10	17251 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay/100% Affordable Lodging Conversion Overlay	0.91	No maximum	N/A	N/A	N/A	No	No	127	0	0	127	127	Motel/Quality Inn & Suites. Located near Hibachi Grill and car dealership. Near three transit stops along Beach Blvd.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
125	111-130-01		I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.13	0.75	56	70	0	No	No	2	1	3	7	6	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). RV and vehicle storage facility with surface parking. Adjacent to similar use.
126	111-120-14		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.13	0.75	~~56~~30	~~70~~35	0	No	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
127	111-120-13		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.13	0.75	~~56~~30	~~70~~35	0	No	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
129	111-120-12		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.13	0.75	~~56~~30	~~70~~35	0	Yes	No	~~2~~1	1	~~3~~2	~~7~~	~~6~~4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Vacant lot. Located adjacent to other vacant lots and industrial/manufacturing yard. Near three transit stops. NEC Garfield Ave and Goldenwest St.
130	025-180-22	7971 Yorktown	CG	CG	General Commercial District	HO70	1.12	1.5	80	100	0	No	No	26	13	48	89	87	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Huntington Suites Motel with associated parking. Located near vacant commercial office building and residential homes.
131	111-130-06		I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.13	0.75	56	70	0	No	No	2	1	3	7	6	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial yard/storage adjacent to repair business and yard storage (similar use). Near 2 transit stops along Garfield Ave and Goldenwest St.
133	165-312-19	17731/17741 Beach Blvd.	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.52	No maximum	80	100	0	No	No	12	6	22	41	40	Commercial businesses (pawn shops and smog checks) with associated parking. Adjacent uses are storage yards, residential homes, and commercial business. Near two transit stops along Beach Blvd.
136	165-301-23	17751 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.14	No maximum	80	100	0	No	No	3	1	6	11	10	Dental office (single tenant) with associated parking. Adjacent uses are lot are single tenant (psychic reader) building and associated parking. Located near 2 transit stops
137	111-130-05	7072 GARFIELD AVE	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.15	No maximum	56	70	0	No	No	2	1	4	8	7	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Enclosed single tenant building with storage yard. Located adjacent to industrial/RV storage yard. Near two transit stops along Garfield Ave and Goldenwest St.
139	165-311-16	7942 SPEER DR	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.52	No maximum	80	100	0	No	No	12	6	22	41	40	Single family residential with large storage yard and vacant space. Located adjacent to single family residential and commercial spaces (Dog training, bakery). Near one transit stop along Beach Blvd.
140	165-321-05	17501 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.55	No maximum	80	100	0	No	No	12	6	23	43	41	Del Taco drive through with associated parking. Adjacent uses are residential housing and Enterprise car business. Near two transit stops. SWC Slater Ave and Beach Blvd.
141	167-472-17	17522 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.29	No maximum	80	100	0	No	No	30	15	56	103	101	Drive through Walgreens with associated parking. Located near two transit stops. SEC of Beach Blvd and Slater Ave. Adjacent uses are commercial businesses and residential uses
142	167-472-03	17552 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.78	No maximum	80	100	0	No	No	18	9	34	62	61	Strip retail mall with associated parking. Near two transit stops along Beach Blvd. Adjacent uses are commercial businesses.
143	165-301-24	17781 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.15	No maximum	80	100	0	No	No	3	1	6	11	10	Single tenant pad building (psychic) adjacent to commercial businesses and residential housing. Located near two transit stops along beach Blvd.
144	142-091-09	16261 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.15	No maximum	80	100	0	No	No	3	1	6	12	10	Dentist office with surface parking. Adjacent to Comfort Suites. Near two transit stops along Beach Blvd.
145	167-472-07	17612 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.79	No maximum	80	100	0	No	No	18	9	34	63	61	2 story medical/professional office building. Adjacent to office/commercial uses and vacant space. Near two transit stops along Beach Blvd.
146	167-472-04	17555 CAMERON LN	M-sp	SP14	Beach and Edinger	SP 14 - 20% affordable overlay	0.15	No maximum	80	100	0	No	No	3	1	6	12	10	Single tenant building with storage warehouse. Located adjacent to office building and retail strip. Near two transit stops along Beach Blvd.

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ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
					Corridors Specific Plan														
147	159-201-05	7400 TALBERT AVE	RT	RT	Research and Technology District	HO70	0.15	1	56	70	0	No	No	2	1	4	8	7	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial/manufacturing business building. Located adjacent to similar uses/commercial uses (auto care). Near one transit stop along Talbert Ave and Gothard St.
151	142-191-01	16861 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.17	No maximum	80	100	0	No	No	3	1	7	13	11	Single tenant pad building (smog check). Adjacent to commercial businesses and storm drain. Near one transit stop along Beach Blvd.
152	142-082-22	16121 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.17	No maximum	80	100	0	No	No	3	1	7	13	11	Medical office use. Adjacent to Medical Plaza/similar uses. Near one transit stop along Beach Blvd.
153	142-083-04	16191 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.17	No maximum	80	100	0	No	No	3	1	7	13	11	Pet Hospital located adjacent to commercial uses. Located near one transit stop along Beach Blvd.
154	165-312-18	17685 BEACH BLVD.	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.17	No maximum	80	100	0	No	No	3	1	7	13	11	Parking lot for liquor/retail stores. Adjacent to commercial services (smog, repair, car shops). Near one transit stop along Beach Blvd.
155	167-472-05	17591 CAMERON LN	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.19	No maximum	80	100	0	No	No	4	2	8	15	14	Parking lot for commercial building. Adjacent uses are residential and commercial uses. Near two transit stops along Beach Blvd.
156	142-081-02	7942 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.20	No maximum	80	100	0	No	No	4	2	8	15	14	Arby's adjacent to associated parking lot and Mobil gas station. Near two transit stops along Edinger Ave and Beach Blvd.
157	025-200-62	19751 Beach Blvd.	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.20	No maximum	80	100	0	No	No	4	2	8	15	14	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Car auto shop/oil change with associated parking. Adjacent to similar commercial uses. Near two transit stops along Beach Blvd.
159	165-392-60	7461 Talbert Ave	RT	RT	Research and Technology District	HO70	0.20	1	56	70	0	No	No	3	1	6	11	10	Auto care shop adjacent to residential housing and storage yards. SEC Slater Ave and Gothard St.
160	111-130-02		I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.20	0.75	56	70	0	No	No	3	1	6	11	10	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). RV and vehicle storage facility with surface parking. Adjacent to similar use.
161	111-130-26		I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.20	0.75	56	70	0	No	No	3	1	6	11	10	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). RV and vehicle storage facility with surface parking. Adjacent to similar use.
162	142-081-03	7942 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.20	No maximum	80	100	0	No	No	4	2	8	16	14	Parking lot for adjacent use (Arby's). Near two transit stops along Edinger Ave and Beach Blvd.
165	165-301-22	7952 NEWMAN AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.22	No maximum	80	100	0	No	No	5	2	9	17	16	Single family residential located adjacent to residential uses. Located on Newman Ave, which is connected to Beach Blvd (near two transit stops on Beach Blvd).
166	142-081-17	7945 ALDRICH DR	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.22	No maximum	80	100	0	No	No	5	2	9	17	16	Great Adventures Learning Center with parking. Adjacent to commercial businesses. Near two transit stops along Edinger Ave and Beach Blvd.
167	142-081-16	7945 ALDRICH DR	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.22	No maximum	80	100	0	No	No	5	2	9	17	16	Parking lot associated with Great Adventures Learning Center (142-081-17). Adjacent to commercial businesses. Near two transit stops along Edinger Ave and Beach Blvd.
168	159-201-36	7415 HARRIMAN CIR	RT	RT	Research and Technology District	HO70	0.23	1	56	70	0	No	No	3	1	6	12	10	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Industrial single tenant building with associated parking. Located adjacent to similar uses. Near two transit stops.

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ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
169	159-201-39	7412 TALBERT AVE	RT	RT	Research and Technology District	HO70	0.23	1	56	70	0	No	No	3	1	6	12	10	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto Collision Repair center. Adjacent to industrial/manufacturing buildings. Near two transit stops along Talbert Ave and Gothard St.
170	142-103-17	16471 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.23	No maximum	80	100	0	No	No	5	2	9	18	16	Metro car tint shop located adjacent to commercial businesses and residential housing. Near two transit stops along Beach Blvd.
171	142-492-03	7261 MARS DR	RT	RT	Research and Technology District	HO70	0.23	1	56	70	0	No	No	3	1	7	13	11	Industrial/manufacturing office building located adjacent to similar uses. Located on Mars Dr which is connected to Gothard St.
172	142-492-02	7271 MARS DR	RT	RT	Research and Technology District	HO70	0.23	1	56	70	0	No	No	3	1	7	13	11	Industrial/manufacturing office building located adjacent to similar uses. Located on Mars Dr which is connected to Gothard St.
173	142-091-18	16311 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.24	No maximum	80	100	0	No	No	5	2	9	18	16	Jack in the Box parking lot adjacent to commercial and residential uses. Near two transit stops along Beach Blvd.
174	142-081-26	16071 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.24	No maximum	80	100	0	No	No	5	2	10	19	17	Parking lot associated with Car Wash. Adjacent to commercial uses. Near one transit stop along Beach Blvd.
175	165-181-40	17855 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.25	No maximum	80	100	0	No	No	5	2	10	19	17	Single tenant retail (ConRev) adjacent to commercial businesses. Near one transit stop along Beach Blvd.
179	153-041-29	19102 Beach Blvd.	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.25	No maximum	80	100	0	No	No	5	2	10	19	17	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Popeyes drive through. Adjacent to commercial retail and associated parking. Near one transit stop along Beach Blvd.
182	111-120-20		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.26	No maximum	~~56~~30	~~70~~35	0	No	No	~~4~~2	~~2~~1	~~7~~5	~~14~~	~~13~~8	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
183	142-081-25	16061 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.26	No maximum	80	100	0	No	No	6	3	11	20	20	Car wash. Adjacent to car wash (same ownership) and Great Adventures Learning Center. Near one transit stop along Beach Blvd.
184	142-081-18	16061 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.26	No maximum	80	100	0	No	No	6	3	11	20	20	Car wash. Adjacent to car wash (same ownership) and Great Adventures Learning Center. Near one transit stop along Beach Blvd.
185	142-091-33	16311 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.26	No maximum	80	100	0	No	No	6	3	11	20	20	Jack in the Box drive through adjacent to associated parking lot and Comfort Suites. Located near two transit stops along Beach Blvd.
186	142-102-56	16431 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.88	No maximum	80	100	0	No	No	21	10	38	70	69	Verizon store and separate single tenant building with associated parking for both buildings. Located near one transit stop along beach Blvd. Adjacent uses are residential and commercial uses.
187	142-091-32	16271 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.26	No maximum	80	100	0	No	No	6	3	11	20	20	Physical therapy building adjacent to Dentist and Comfort Inn/Motel. Located near two transit stops along Beach Blvd.
188	142-101-14	16371 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.70	No maximum	80	100	0	No	No	16	8	30	55	54	Office Building adjacent to Burger King and residential uses. Near one transit stop along Beach Blvd.
189	142-092-15	16331 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.67	No maximum	80	100	0	No	No	15	7	29	53	51	Burger King adjacent to residential and office uses. Near one transit stop along Beach Blvd.
190	025-191-32	19721 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.26	No maximum	80	100	0	No	No	6	3	11	21	20	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto sales shop (motorcycles) with associated parking. Adjacent to similar commercial auto uses and office building. Near one transit stop along Beach Blvd.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
193	142-111-18	7672 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.27	No maximum	80	100	0	No	No	6	3	11	21	20	Vitamin Shoppe with associated parking. Adjacent to commercial uses. Near one transit stop along Edinger Ave.
194	142-083-25	16241 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.67	No maximum	80	100	0	No	No	15	7	29	53	51	Chipotle with associated parking lot. Adjacent to residential uses and Pet Hospital. Near two transit stops along Beach Blvd.
195	142-082-35	16091 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.27	No maximum	80	100	0	No	No	6	3	11	21	20	Sleep number mattress store. Adjacent to medical plaza and residential housing. Near two transit stops along Beach Blvd.
196	142-082-27	16141 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.72	No maximum	80	100	0	No	No	17	8	31	57	56	Union bank with associated parking. Adjacent to Medical Plaza and residential housing. Nearby one transit stop along Beach Blvd.
197	159-201-40	7383 HARRIMAN CIR	RT	RT	Research and Technology District	HO70	0.28	1	56	70	0	No	No	4	2	8	15	14	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Cross Fit center adjacent to manufacturing/industrial warehouses/buildings. Near one transit stop along Gothard St.
198	107-100-80	16866 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.28	No maximum	80	100	0	No	No	6	3	12	22	21	McDonald's restaurant and surface parking lot. Adjacent to residential.
199	165-401-12	7401 Harriman Cir	RT	RT	Research and Technology District	HO70	0.28	1	56	70	0	No	No	4	2	8	15	14	Office manufacturer building with associated parking. Adjacent to railroad and similar uses.
200	165-401-10	7952 Aldrich Dr	RT	RT	Research and Technology District	HO70	0.30	1	56	70	0	No	No	4	2	8	16	14	Office manufacturer building with associated parking. Adjacent to railroad and similar uses.
202	165-181-39	17871 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.30	No maximum	80	100	0	No	No	7	3	13	24	23	Two story office building with surface parking in front and rear. Adjacent to strip mall and office building.
203	159-212-10	7442 MOUNTJOY DR	RT	RT	Research and Technology District	HO70	0.30	1	56	70	0	No	No	4	2	8	16	14	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Manufacturer or warehouse use with surface parking lot. Adjacent to similar uses.
204	142-081-01	16001 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.50	No maximum	80	100	0	No	No	12	6	22	40	40	Mobil gas station and convenience store on the corner of Edinger and Beach Blvd. Adjacent to car wash facility and Arby's restaurant.
205	107-782-08	16242 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	5.01	No maximum	80	100	0	No	No	120	60	220	400	400	Total Wine and Bobs Furniture with large surface parking lot on the corner of Beach Blvd and Stark Dr.
206	167-472-15	17732 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.31	No maximum	80	100	0	No	No	7	3	13	24	23	Dentist office with surface parking. Adjacent to medical building and funeral home.
207	159-201-32	7392 VINCENT CIR	RT	RT	Research and Technology District	HO70	0.31	1	56	70	0	No	No	5	2	9	17	16	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
208	159-212-09	7422 MOUNTJOY DR	RT	RT	Research and Technology District	HO70	0.31	1	56	70	0	No	No	5	2	9	17	16	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). manufacture or warehouse use with surface parking lot. Adjacent to similar uses.
209	165-391-43	7492 Slater Ave.	RT	RT	Research and Technology District	HO70	0.31	1	56	70	0	No	No	5	2	9	17	16	Auto repair shop with surface parking lot. Adjacent to auto repair shop.
210	142-111-42	7830 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.37	No maximum	80	100	0	No	No	32	16	59	109	107	Large Chase bank building adjacent to NuVision Credit Union building.
211	142-111-27	7812 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.68	No maximum	80	100	0	No	No	40	20	73	134	133	NuVision Credit Union building with large multi-level parking lot in rear. Adjacent to Chase Bank building.

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ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
212	142-111-39		M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.78	No maximum	80	100	0	No	No	18	9	34	62	61	Large surface parking lot adjacent to Chase bank.
213	142-111-34	7800 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.85	No maximum	80	100	0	No	No	68	34	124	227	226	Large church (Refuge Calvary Chapel) with surface parking lot. Adjacent to HomeGoods store.
214	142-111-32	7700 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	3.51	No maximum	80	100	0	No	No	84	42	154	281	280	HomeGoods store with attached strip mall and large surface parking on the corner of Edinger and Sher Ln. Adjacent to church.
215	165-392-52	17532 Gothard	RT	RT	Research and Technology District	HO70	0.31	1	56	70	0	No	No	5	2	9	17	16	SFR with large lot potentially used for storage. Adjacent to auto repair shop and storage lot.
216	142-112-05	7662 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.51	No maximum	80	100	0	No	No	12	6	22	40	40	Arizona Leather pad building with surface parking lot on corner of Edinger and Sher Ln. Located adjacent to Edinger Plaza.
217	142-112-10	7600 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	7.55	No maximum	80	100	0	No	No	180	90	331	603	601	Edinger Plaza/large shopping center with large surface parking lot.
218	142-112-08	7542 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.50	No maximum	80	100	0	No	No	59	29	109	199	197	Edinger Plaza/large shopping center with large surface parking lot.
219	142-112-09	7490 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	3.41	No maximum	80	100	0	No	No	81	40	150	273	271	Edinger Plaza/large shopping center with large surface parking lot.
220	142-511-17	7450 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	2.92	No maximum	80	100	0	No	No	69	34	128	233	231	Taco Bell drive through restaurant with surface parking located within large shopping center with various tenants. Adjacent to rail.
221	142-511-03	7402 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.06	No maximum	80	100	0	No	No	25	12	46	84	83	Mexican Food restaurant with surface parking. Located adjacent to mattress store and CrossFit gym.
222	142-511-05	16072 GOTHARD ST	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.32	No maximum	80	100	0	No	No	31	15	57	105	103	Auto parts and accessories shop with surface parking lot. Adjacent to mattress store and CrossFit gym.
223	142-511-04	7362 EDINGER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.82	No maximum	80	100	0	No	No	19	9	35	65	63	OC Mattress and CrossFit with surface parking on the corner of Edinger and Gothard. Located adjacent to restaurant.
224	142-191-48	16961 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.03	No maximum	80	100	0	No	No	24	12	45	82	81	CVS pharmacy with surface parking lot on the corner of Beach Blvd and Warner Ave. Adjacent to two story office building and strip mall.
225	167-472-14	17702 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.32	No maximum	80	100	0	No	No	7	3	13	25	23	Funeral home with surface parking. Adjacent to two story office building and dentist office.
226	167-472-11	17682 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.33	No maximum	80	100	0	No	No	7	3	14	26	24	Two story office building with surface parking. Adjacent to medical building and funeral home.
227	165-401-16	17792 Metzler	RT	RT	Research and Technology District	HO70	0.33	1	56	70	0	No	No	5	2	9	18	16	Office and warehouse with surface parking. Located adjacent to similar uses.
228	165-401-15	17802 Metzler Ln	RT	RT	Research and Technology District	HO70	0.33	1	56	70	0	No	No	5	2	9	18	16	Office and warehouse with surface parking. Located adjacent to similar uses.

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ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
229	165-401-14	17812 Metzler	RT	RT	Research and Technology District	HO70	0.33	1	56	70	0	No	No	5	2	9	18	16	Office and warehouse with surface parking. Located adjacent to similar uses.
230	142-191-23	7891 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.56	No maximum	80	100	0	No	No	13	6	24	44	43	Wahoo's restaurant with surface parking. Adjacent to Woody's restaurant and realtor's office.
231	111-120-16		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.33	0.75	~~56~~30	~~70~~35	0	No	No	~~5~~3	2	~~9~~5	~~18~~	~~16~~10	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
233	142-191-47	16929 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	1.68	No maximum	80	100	0	No	No	40	20	73	134	133	Strip mall with surface parking lot. Various tenants. Located adjacent to restaurant and CVS pharmacy.
234	142-491-04	16632 GEMINI LN	RT	RT	Research and Technology District	HO70	0.33	1	56	70	0	No	No	5	2	9	18	16	Office and warehouse with surface parking. Located adjacent to similar uses.
235	165-401-17	17782 Metzler	RT	RT	Research and Technology District	HO70	0.34	1	56	70	0	No	No	5	2	9	18	16	Office and warehouse with surface parking. Located adjacent to similar uses.
236	107-100-79	16866 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.72	No maximum	80	100	0	No	No	17	8	31	57	56	McDonald's restaurant and surface parking lot. Adjacent to residential.
237	165-401-11	17892 Metzler	RT	RT	Research and Technology District	HO70	0.34	1	56	70	0	No	No	5	2	9	18	16	Office building with surface parking. Adjacent to office building and restaurant.
238	111-120-22		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	1.00	0.75	~~56~~30	~~70~~35	0	No	No	~~16~~9	~~8~~5	~~30~~16	~~5~~5	~~30~~54	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
239	111-120-27	7012 Ernest Dr	I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	1.79	0.75	~~56~~30	~~70~~35	0	No	No	~~30~~16	~~15~~8	~~55~~30	~~10~~0	~~100~~54	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Self-storage facility with surface parking. Adjacent to similar uses.
240	111-120-26	18801 Stewart Ln	I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	1.00	0.75	~~56~~30	~~70~~35	0	No	No	~~16~~9	~~8~~5	~~30~~16	~~5~~5	~~54~~30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Self-storage facility with surface parking. Adjacent to similar uses.
244	111-120-25		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	1.00	0.75	~~56~~30	~~70~~35	0	No	No	~~16~~9	~~8~~5	~~30~~16	~~5~~5	~~54~~30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Storage lot and oil producer. Adjacent to similar uses.
245	111-120-24	18851 Stewart Ln	I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	1.00	0.75	~~56~~30	~~70~~35	0	No	No	~~16~~9	~~8~~5	~~30~~16	~~5~~5	~~54~~30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
246	111-120-06		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.90	0.75	~~56~~30	~~70~~35	0	No	No	~~15~~8	~~7~~4	~~27~~15	~~5~~0	~~49~~27	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
247	111-120-08		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.90	0.75	~~56~~30	~~70~~35	0	No	No	~~15~~8	~~7~~4	~~27~~15	~~5~~0	~~49~~27	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
248	111-120-09		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.73	0.75	~~56~~30	~~70~~35	0	No	No	~~12~~6	~~6~~3	~~22~~12	~~4~~0	~~40~~21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
249	111-120-29	18931 Stewart Ln	I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.87	0.75	~~56~~30	~~70~~35	0	No	No	~~14~~7	~~7~~4	~~26~~14	~~4~~8	~~47~~25	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Vehicle storage facility with surface parking. Adjacent to similar use.
250	111-120-07		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.90	0.75	~~56~~30	~~70~~35	0	No	No	~~15~~8	~~7~~4	~~27~~15	~~5~~0	~~49~~27	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
254	111-130-24	19065 Stewart Ln	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	1.00	0.75	56	70	0	No	No	16	8	30	55	54	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). RV and vehicle storage facility with surface parking. Adjacent to similar use.
266	142-191-14	7911 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.34	No maximum	80	100	0	No	No	8	4	14	27	26	Office building with surface parking. Adjacent to office building and restaurant.
267	142-491-05	16652 GEMINI LN	RT	RT	Research and Technology District	HO70	0.34	1	56	70	0	No	No	5	2	10	19	17	Offices and warehouses on the corner of Gemini Ln and with surface parking. Located adjacent to similar uses.

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268	142-191-27	16871 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.34	No maximum	80	100	0	No	No	8	4	14	27	26	Restaurant with surface parking lot. Adjacent to vacant restaurant and auto repair shop.
269	142-191-34	7871 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.34	No maximum	80	100	0	No	No	8	4	14	27	26	Woody's restaurant with surface parking lot. Adjacent to restaurant and residential.
270	165-312-17	17701 Beach Blvd.	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.34	No maximum	80	100	0	No	No	8	4	14	27	26	Liquor store with surface parking lot on the corner of Beach Blvd and Liberty Dr. Adjacent to residential.
271	142-082-26	16111 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.34	No maximum	80	100	0	No	No	8	4	14	27	26	Two store medical building with surface parking. Adjacent to pharmacy and mattress store
274	165-392-64	16661 Gemini Ln	RT	RT	Research and Technology District	HO70	0.35	1	56	70	0	No	No	5	2	10	19	17	Gym with surface parking. Adjacent to auto repair shop and warehouse.
276	165-392-63	17592 Gothard St	RT	RT	Research and Technology District	HO70	0.38	1	56	70	0	No	No	6	3	11	21	20	Auto repair shop with surface parking. Adjacent to warehouse.
277	142-491-03	16622 GEMINI LN	RT	RT	Research and Technology District	HO70	0.38	1	56	70	0	No	No	6	3	11	21	20	Office and warehouse with surface parking. Located adjacent to similar uses.
278	167-472-12	17692 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.38	No maximum	80	100	0	No	No	9	4	16	30	29	Two story office building with surface parking. Adjacent to medical building and funeral home.
279	165-302-22	17851 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.40	No maximum	80	100	0	No	No	9	4	17	31	30	Strip mall located on the corner of Beach Blvd and Ronald Dr. Located adjacent to pawn shop, hookah lounge, and adult store with surface parking.
280	025-200-61	19761 Beach Blvd.	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.40	No maximum	80	100	0	No	No	9	4	17	31	30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto repair shop with surface parking on the corner of Beach Blvd and Utica Ave. Adjacent to tire shop.
281	165-401-06	17925 Metzler Ln	RT	RT	Research and Technology District	HO70	0.40	1	56	70	0	No	No	6	3	12	22	21	Office and warehouse with surface parking. Located adjacent to similar uses.
282	159-201-31	7422 VINCENT CIR	RT	RT	Research and Technology District	HO70	0.40	1	56	70	0	No	No	6	3	12	22	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
283	159-201-34	18042 GOTHARD ST	RT	RT	Research and Technology District	HO70	0.40	1	56	70	0	No	No	6	3	12	22	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto repair shop with surface parking. Adjacent to gym.
284	142-492-07	16631 GEMINI LN	P	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	22	21	Office and warehouse with surface parking. Located adjacent to similar uses.
285	165-312-16	7912 Liberty Ave.	CG	CG	General Commercial District	HO70	0.41	1.5	80	100	0	No	No	9	4	17	32	30	Three separate single family residences on the same lot. Adjacent to MFH and liquor store.
286	111-130-25	19061 STEWART LN	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.61	0.75	56	70	0	No	No	9	4	18	33	31	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). RV and vehicle storage facility with surface parking. Adjacent to similar use.
287	142-191-42	7923 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.41	No maximum	80	100	0	No	No	9	4	17	32	30	Two story office building with surface parking. Adjacent to realtor office and CVS pharmacy.
288	165-392-71	17582 Gothard St	RT	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
289	165-391-44	17532 Metzler Ln	RT	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.

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290	159-211-16	18281 ENTERPRISE LN	RT	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	23	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
291	165-401-09	17932 Metzler Ln	RT	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
292	165-391-39	17662 Metzler Ln	RT	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
293	165-391-40	17682 Metzler Ln	RT	RT	Research and Technology District	HO70	0.41	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
294	025-200-50	19971 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.42	No maximum	80	100	0	No	No	9	4	18	33	31	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Gas station and convenience store located on the corner of Beach Blvd and Adams Ave. Located adjacent to auto repair shop and Mexican restaurant.
295	159-201-33	18112 GOTHARD ST	RT	RT	Research and Technology District	HO70	0.42	1	56	70	0	No	No	6	3	12	23	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
296	025-200-51	7211 Garfield Ave	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.42	No maximum	80	100	0	No	No	9	4	18	33	31	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto repair shop with surface parking. Adjacent to gas station and strip mall.
298	159-201-38	7442 TALBERT AVE	RT	RT	Research and Technology District	HO70	0.42	1	56	70	0	No	No	6	3	12	23	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Auto repair shop with surface parking. Adjacent to auto repair shops.
299	165-312-20	7911 Newman Ave.	CG	CG	General Commercial District	HO70	0.42	1.5	80	100	0	No	No	9	4	18	33	31	Auto storage lot with manufactured home. Adjacent to apartment building and pawn shop.
300	165-401-07	17905 Metzler Ln	RT	RT	Research and Technology District	HO70	0.42	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
301	142-492-08	16651 GEMINI LN	P	RT	Research and Technology District	HO70	0.42	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
302	111-120-23		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	1.00	~~No maximum~~0.75	~~56~~30	~~70~~35	0	No	No	~~16~~9	~~8~~5	~~30~~16	~~5~~5	~~54~~30	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Oil operator on large lot. Adjacent to storage and industrial yards.
304	165-391-45	17552 Metzler Ln	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
305	165-392-26	17711 Metzler Ln	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
306	165-392-70	18921 Gothard St	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
307	165-392-69	17631 Metzler	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	6	3	12	23	21	Office and warehouse with surface parking. Located adjacent to similar uses.
308	159-211-13	18282 GOTHARD ST	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	6	3	12	23	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
309	159-211-14	18292 GOTHARD ST	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	6	3	12	23	21	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
310	167-472-06	17610 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.43	No maximum	80	100	0	No	No	10	5	18	34	33	Two story office building with surface parking. Adjacent to office building and strip mall.
311	165-401-20	7481 Talbert Ave	RT	RT	Research and Technology District	HO70	0.43	1	56	70	0	No	No	7	3	13	24	23	Office and warehouse with surface parking. Located adjacent to similar uses.
312	159-211-15	18291 ENTERPRISE LN	RT	RT	Research and Technology District	HO70	0.44	1	56	70	0	No	No	7	3	13	24	23	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
314	159-201-28	7421 VINCENT CIR	RT	RT	Research and Technology District	HO70	0.44	1	56	70	0	No	No	7	3	13	24	23	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
315	165-392-72	17741 Metzler Ln	RT	RT	Research and Technology District	HO70	0.44	1	56	70	0	No	No	7	3	13	24	23	Office and warehouse with surface parking. Located adjacent to similar uses.
317	142-072-05	15744 Goldenwest St	P	PS	Public-Semipublic District	HO70	37.35	1.5	56	70	0	No	No	45	23	83	NA	150	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Part of Goldenwest College with surface parking.
318	142-072-11	15744 Goldenwest St	P	PS	Public-Semipublic District	HO70	35.40	1.5	56	70	0	No	No	45	23	83	NA	150	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Part of Goldenwest College with various sport fields, lecture halls and surface parking.
319	142-072-02	15744 Goldenwest St	P	PS	Public-Semipublic District	HO70	25.57	1.5	56	70	0	No	No	45	23	83	NA	150	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Part of Goldenwest College with various sport fields, Boys and Girls Club and surface parking.
320	142-072-03	15744 Goldenwest St	P	PS	Public-Semipublic District	HO70	9.58	1.5	56	70	0	No	No	45	23	83	NA	150	High Resource Area (2022 TCAC/HCD Opportunity Indices Map). Part of Goldenwest College with surface parking.
321	165-302-21	17831 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.45	No maximum	80	100	0	No	No	10	5	19	35	34	Pawn shop, hookah lounge, and adult store with surface parking located on the corner of Beach Blvd and Ronald Dr. Located adjacent to strip mall.
322	165-401-13	17862 Metzler Ln	RT	RT	Research and Technology District	HO70	0.45	1	56	70	0	No	No	7	3	13	25	23	Office and warehouse with surface parking. Located adjacent to similar uses.
323	165-391-27	17702 Metzler Ln	RT	RT	Research and Technology District	HO70	0.53	1	56	70	0	No	No	8	4	15	29	27	Auto repair shop with surface parking. Located Adjacent to warehouses.
325	165-401-08	17875 Metzler Ln	RT	RT	Research and Technology District	HO70	0.45	1	56	70	0	No	No	7	3	13	25	23	Office and warehouse with surface parking. Located adjacent to similar uses.
326	165-401-19	7471 TALBERT AVE	RT	RT	Research and Technology District	HO70	0.45	1	56	70	0	No	No	7	3	13	25	23	Office and warehouse with surface parking. Located adjacent to similar uses.
327	167-472-13	8041 NEWMAN AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.46	No maximum	80	100	0	No	No	10	5	19	36	34	Two store medical building with surface parking. Adjacent to dentist office.
328	167-472-10	17672 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.46	No maximum	80	100	0	No	No	11	5	20	37	36	Multi-use medical and office building with surface parking. Adjacent to similar mixed-use office building and vehicle storage lot.
329	159-201-27	7391 VINCENT CIR	RT	RT	Research and Technology District	HO70	0.46	1	56	70	0	No	No	7	3	13	25	23	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Office and warehouse with surface parking. Located adjacent to similar uses.
330	165-401-23	7461 Talbert Ave	RT	RT	Research and Technology District	HO70	0.47	1	56	70	0	No	No	7	3	14	26	24	Office and warehouse with surface parking. Located adjacent to similar uses.
331	165-392-62	16662 Gemini Ln	RT	RT	Research and Technology District	HO70	0.47	1	56	70	0	No	No	7	3	14	26	24	Advanced cutting tools manufacturer with surface parking. Adjacent to vintage auto repair shop and basic auto repair shop.
332	165-392-44	17582 Gothard St	RT	RT	Research and Technology District	HO70	0.47	1	56	70	0	No	No	7	3	14	26	24	Warehouse with surface parking. Located Adjacent to auto repair shop and tow yard.
333	142-492-09	16661 GEMINI LN	RT	RT	Research and Technology District	HO70	0.49	1	56	70	0	No	No	8	4	14	27	26	Offices and warehouses on the corner of Gemini Ln and with surface parking. Located adjacent to similar uses.
334	165-392-43	17592 Gothard St	RT	RT	Research and Technology District	HO70	0.49	1	56	70	0	No	No	8	4	14	27	26	Auto repair shop with surface parking. Located Adjacent to auto repair shop and warehouses.
335	142-491-06	16662 GEMINI LN	RT	RT	Research and Technology District	HO70	0.49	1	56	70	0	No	No	8	4	14	27	26	Offices and warehouses on the corner of Gemini Ln and with surface parking. Located adjacent to similar uses.
337	165-311-17	17671 BEACH BLVD	M-sp	SP14	Beach and Edinger	SP 14 - 20% affordable overlay	0.50	No maximum	80	100	0	No	No	11	5	21	39	37	Strip mall on the corner of Beach Blvd and Liberty Dr with surface parking lot. Tenants include Mexican

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					Corridors Specific Plan														restaurant, donut shop, and dog training school. Located adjacent to residential.
341	142-492-06	16611 GEMINI LN	RT	RT	Research and Technology District	HO70	0.50	1	56	70	0	No	No	8	4	14	27	26	Warehouse or light manufacturing with surface parking. Located adjacent to similar uses.
342	165-234-18	17401 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	2.39	No maximum	80	100	0	No	No	57	28	105	191	190	Vista Center Strip mall with large surface parking lot located on the corner of Beach Blvd and Slater Ave. Located adjacent to Hole Mole restaurant and strip mall. 165-234-18 and 165-234-07 under same ownership.
343	165-234-07	17473 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.27	No maximum	80	100	0	No	No	6	3	11	21	20	Strip mall with surface parking lot. Various tenants ranging from HBPD to meat market. Located adjacent to Hole Mole restaurant and strip mall. 165-234-18 and 165-234-07 under same ownership.
344	165-234-08	17491 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.26	No maximum	80	100	0	No	No	6	3	11	20	20	Hole Mole restaurant with surface parking lot on the corner of Beach Blvd and Slater Ave. Adjacent to surface parking and strip mall.
345	165-283-14	17221 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.26	No maximum	80	100	0	No	No	6	3	11	21	20	Hibachi grill restaurant with surface parking (same ownership as 165-283-13). Located adjacent to vacant building and Quality Inn and Suites.
346	165-283-13	17231 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.26	No maximum	80	100	0	No	No	6	3	11	20	20	Parking lot for Hibachi grill restaurant (same ownership as 165-283-14). Located adjacent to vacant building and Quality Inn and Suites.
347	165-283-16	17211 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.48	No maximum	80	100	0	No	No	11	5	20	38	36	Single tenant vacant building with surface parking. Former tenant was Subway. Located adjacent to Huntington Valley Tool Rental/outdoor storage and restaurant.
348	165-283-17	17191 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.48	No maximum	80	100	0	No	No	11	5	20	38	36	Huntington Valley Tool Rental and outdoor storage located along Beach Blvd. Adjacent to Sherwin Williams store and vacant restaurant building.
349	165-283-05	17171 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.48	No maximum	80	100	0	No	No	11	5	20	38	36	Sherwin Williams store with surface parking located on the corner of Beach Blvd and Cypress Dr. Connected to auto repair shop and share parking.
350	165-283-04	17151 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.31	No maximum	80	100	0	No	No	7	3	13	24	23	Auto repair shop with surface parking located on the corner of Beach Blvd and Cypress Dr. Connected to Sherwin Williams store and share parking.
351	167-324-11	17042 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.57	No maximum	80	100	0	No	No	13	6	24	45	43	Drive through car wash facility located on Beach Blvd in between the corners of Warner Ave and Blaylock Dr. Adjacent to residential in rear.
352	167-324-14	8022 WARNER AVE	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.25	No maximum	80	100	0	No	No	5	2	10	19	17	Shoe City store with surface parking located on the corner of Beach Blvd and Warner Ave. Adjacent to drive through car wash facility and residential.
353	167-325-15	17122 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.91	No maximum	80	100	0	No	No	21	10	39	72	70	Medical building with various health-related tenants located on the corner of Beach Blvd and Blaylock Dr. Large surface parking. Adjacent to Taco Bell restaurant.
354	167-325-16	17122 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.45	No maximum	80	100	0	No	No	10	5	19	36	34	Surface parking lot for medical building. Adjacent to Taco Bell restaurant.
355	167-325-17	17182 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.45	No maximum	80	100	0	No	No	10	5	19	36	34	Taco Bell drive through restaurant with surface parking. Adjacent to two story office and retail building and surface parking lot for medical building.
356	167-325-18	17220 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.45	No maximum	80	100	0	No	No	10	5	19	36	34	Two story office and retail building with possible residence in the back structure. Surface parking throughout. Adjacent to vacant lots and Taco Bell restaurant.

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ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
361	167-311-03	17288 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	1.18	No maximum	80	100	0	No	No	28	14	51	94	93	Strip mall with large surface parking lot. Various tenants ranging from bar to salon. Located adjacent Pizza Hut restaurant
362	167-311-04	17342 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.34	No maximum	80	100	0	No	No	8	4	14	27	26	Pizza Hut restaurant with surface parking lot on the corner of Beach Blvd and Holland Dr. Adjacent to strip mall.
363	167-312-01	17362 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.56	No maximum	80	100	0	No	No	13	6	24	44	43	Salvation Army with surface parking lot on the corner of Beach Blvd and Holland Dr. Adjacent to strip mall.
364	167-312-02	17404 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.71	No maximum	80	100	0	No	No	17	8	31	57	56	Strip mall with large surface parking lot. Various tenants ranging from law offices to nail salon. Located adjacent to strip mall and Salvation Army building.
365	167-312-03	17424 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.57	No maximum	80	100	0	No	No	13	6	24	45	43	Strip mall with large surface parking lot. Various tenants ranging from bar to gym. Located adjacent to medical building and Chevron gas station.
366	167-312-04	17436 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.18	No maximum	80	100	0	No	No	4	2	7	14	13	Restaurant with surface parking. Located within a strip mall and adjacent to Chevron gas station. Held in common ownership with Site #365.
367	167-312-05	17472 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.40	No maximum	80	100	0	No	No	9	4	17	32	30	Gas station and convenience store located on the corner of Beach Blvd and Slater Ave. Located adjacent to medical building and Mexican restaurant.
368	167-312-06	17444 BEACH BLVD	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.28	No maximum	80	100	0	No	No	6	3	12	22	21	Medical building with physical therapy, dentistry, and pediatric tenants. Surface parking located in front of property. Located adjacent to Chevron gas station and strip mall.
369	142-221-21	7451 WARNER AVE	RT	RT	Research and Technology District	HO70	0.40	1	56	70	0	No	No	6	3	12	22	21	Strip mall on the corner of Warner Ave and Gothard St with surface parking. Various tenants. Self-storage facility and office/warehouses located behind strip mall.
370	142-221-20	Warner and Gothard	RT	RT	Research and Technology District	HO70	0.08	1	56	70	0	No	No	1	0	2	4	3	Self-storage facility on the corner of Warner Ave and Gothard St with surface parking. Located behind street-facing strip mall. Located between rail and storm wash. Held under same ownership as sites 55, 59, 62, and 369 - 373.
371	142-221-19	Warner and Gothard	RT	RT	Research and Technology District	HO70	0.48	1	56	70	0	No	No	7	3	14	26	24	Strip mall on the corner of Warner Ave and Gothard St with surface parking. Various tenants. Self-storage facility and office/warehouses located behind strip mall. Held under same ownership as sites 55, 59, 62, and 369 - 373.
372	142-221-18	Warner and Gothard	RT	RT	Research and Technology District	HO70	0.06	1	56	70	0	No	No	0	0	1	3	1	Offices and warehouses on the corner of Warner Ave and Gothard St with surface parking. Located behind street-facing strip mall. Various tenants ranging from working training facility to nutritional supplement distribution. Self-storage facility behind. Held under same ownership as sites 55, 59, 62, and 369 - 373.
373	142-221-17	Warner and Gothard	RT	RT	Research and Technology District	HO70	0.61	1	56	70	0	No	No	10	5	18	34	33	Strip mall on the corner of Warner Ave and Gothard St with surface parking. Various tenants ranging from MMA gym to dentist offices. Self-storage facility and office/warehouses located behind strip mall. Held under same ownership as sites 55, 59, 62, and 369 - 373.
374	167-472-09	17642 Beach Blvd	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.79	No maximum	80	100	0	No	No	63	0	0	63	63	City owned site - currently LBNC
375	167-472-08	17631 Cameron Ln	M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% Affordable Overlay	0.79	No maximum	80	100	0	No	No	63	0	0	63	63	City owned site - currently LBNC

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384	111-130-41	19052 Goldenwest	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.90	0.75	56	70	0	No	No	12	7	30	50	49	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Bixby Plaza Carpets & Flooring office/warehouse and another office building with associated surface parking, which covers approximately 50% of the underutilized site. Nearby existing residential uses. Several nearby transit stops.
385	111-130-31	7021 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.47	0.75	56	70	0	No	No	6	3	15	26	24	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story office building with associated surface parking, which covers 40% of the site. Nearby existing residential and commercial uses. Several nearby transit stops.
386	111-130-32	7047 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.48	0.75	56	70	0	No	No	6	4	16	27	26	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story office building with associated surface parking. Nearby existing residential and commercial uses. Several nearby transit stops.
387	111-130-33	7071 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.44	0.75	56	70	0	No	No	6	3	14	24	23	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story Gaetano Hardwood Floors, Inc. office building with associated surface parking. Nearby existing residential and commercial uses. Several nearby transit stops.
388	111-130-34	7080 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.59	0.75	56	70	0	No	No	8	4	19	33	31	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story office building with associated surface parking. Directly adjacent to residential uses to the south and nearby existing commercial uses. Several nearby transit stops.
389	111-130-35	7056 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.38	0.75	56	70	0	No	No	5	3	12	21	20	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story office building with associated surface parking. Directly adjacent to residential uses to the south and nearby existing commercial uses. Several nearby transit stops.
390	111-130-36	7042 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.38	0.75	56	70	0	No	No	5	3	12	21	20	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story office building with associated surface parking, which covers approximately 50% of the underutilized site. Directly adjacent to residential uses to the south and nearby existing commercial uses. Several nearby transit stops.
391	111-130-37	7028 Kearny Dr	I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.51	0.75	56	70	0	No	No	7	4	17	28	28	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Two-story office building with associated surface parking. Directly adjacent to residential uses to the south and nearby existing commercial uses. Several nearby transit stops.
393	111-120-01	18742 Goldenwest St	RL-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.89	7 du/ac	~~56~~30	~~70~~35	0	No	No	~~12~~8	~~7~~4	~~29~~15	~~49~~	~~48~~27	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Site is currently being used as plant nursery, with associated small structures and equipment. The majority of the site is not paved and is covered with several types of plants. Directly adjacent to residential uses to the north and east. A church is located directly northwest of the site. Several nearby transit stops along Goldenwest Street.
394	111-120-31	18782 Golden West St	RL-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.62	7 du/ac	~~56~~30	~~70~~35	0	No	No	~~8~~5	~~5~~3	~~20~~10	~~34~~	~~33~~18	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Greer Storage for RVs, boats, and vehicles. Approximately 50% of the site is not being utilized for storage. The site is directly adjacent to residential uses to the east and a church is to the northwest. Several nearby transit stops along Goldenwest Street.
~~**395**~~	~~110-220-02~~	~~18851 Goldenwest St~~	~~RL-sp (3 du/ac)~~	~~SP7~~	~~Ellis-Goldenwest Specific Plan~~	~~RH30~~	~~4.59~~	~~0~~	~~30~~	~~35~~	~~0~~	~~No~~		~~34~~	~~20~~	~~82~~	~~137~~	~~136~~	~~Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). General Patton American Museum which involves several types of vehicles being parked throughout the site. Only approximately 40% of the underutilized site is being utilized. Nearby existing residential and commercial uses. Several nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and~~

Table B-14: Adequate Sites to Accommodate the RHNA

ID	APN	ADDRESS	GPLU	ZONE	ZONE LEGEND	REZONE	ACRES	EXISTING MAX DENSITY/FAR	REZONE ASSUMED DENSITY	REZONE MAX DENSITY	EXISTING RESIDENTIAL UNITS	VACANT	USED IN PREVIOUS CYCLE	LOW/VERY LOW UNITS	MODERATE UNITS	ABOVE MODERATE UNITS	TOTAL SITE CAPACITY	TOTAL NET	EXISTING USE ANALYSIS
																			may be consolidated. Sites 395-448 are held by two owners.
396	110-220-03	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	2.78	0	30	35	0	No		20	12	50	83	82	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Storage yard for South Coast Supply, a landscaping supply store, to the south of the site. Currently, South Coast Supply is temporarily closed. Only approximately 30% of the site is being used for storage, while the rest of it is covered in dirt. Nearby existing residential uses and transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
397	110-220-04	18791 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	1.80	0	30	35	0	No		13	8	32	53	53	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Long warehouse and several smaller structures, associated with South Coast Supply, a landscaping supply store, north of the site, that occupy the majority of the site along with associated landscaping. Currently, South Coast Supply is temporarily closed. Directly adjacent to residential uses to the south. Nearby transit stops along Goldenwest Street. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
398	110-220-05	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	5.02	0	30	35	0	No		37	22	90	150	149	**Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map).** Commercial yard associated with the General Patton American Museum and South Coast Supply, which sells landscaping materials. Currently, South Coast Supply is temporarily closed. The Site does not have any built structures and is mostly used as parts of the museum exhibits and storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
399	110-221-02	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.15	0	30	35	0	No		1	0	2	4	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Landscaping and road cover the majority of the site. Directly adjacent to residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
400	110-221-03	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No		0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Landscaping and road cover the majority of the site. Directly adjacent to residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
401	110-221-04	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No		0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Landscaping and road cover the majority of the site. Directly adjacent to residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
402	110-221-05	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No		0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
403	110-221-06	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No		0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest

																	Street has nearby transit stops. Sites 395-448 are held by two owners.
404	110-221-07	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road, landscaping, and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
405	110-221-08	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road, landscaping, and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
406	110-221-09	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road, landscaping, and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
407	110-221-10	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road, landscaping, and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
408	110-221-11	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
409	110-221-12	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road, landscaping, and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
410	110-221-13	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
411	110-221-14	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
412	110-221-15	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
413	110-221-16	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest

																	Street has nearby transit stops. Sites 395-448 are held by two owners.
414	110-221-17	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). No structures are present on the site. Road and remnants of lumber activities, including tree stumps and wood chips, appear to cover the majority of the site. Nearby residences to the north and west. Goldenwest Street has nearby transit stops. Sites 395-448 are held by two owners.
415	110-221-18	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
416	110-221-19	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
417	110-221-20	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
418	110-221-21	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
419	110-221-22	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
420	110-221-23	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.

421	110-221-24	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
422	110-221-25	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
423	110-221-26	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the west. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
424	110-222-01	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the west. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
425	110-222-02	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
426	110-222-03	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.15	0	30	35	0	No	1	0	2	4	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
427	110-222-04	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.15	0	30	35	0	No	1	0	2	4	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.

428	110-222-05	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
429	110-222-06	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.15	0	30	35	0	No	1	0	2	4	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
430	110-222-07	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
431	110-222-08	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
432	110-222-09	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.14	0	30	35	0	No	1	0	2	4	3	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
433	110-222-10	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.29	0	30	35	0	No	2	1	5	8	8	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
434	110-222-11	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.22	0	30	35	0	No	1	0	3	6	4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.

435	110-222-13	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
436	110-222-14	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
437	110-222-15	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
438	110-222-16	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the west. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
439	110-222-17	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the west. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
440	110-222-18	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
441	110-222-19	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the south. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.

442	110-222-20	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.22	0	30	35	0	No	1	0	3	6	4	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the south. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
443	110-222-21	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the south. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
444	110-222-22	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the south. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
445	110-222-23	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the south. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
446	110-222-24	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and abuts a residential neighborhood to the south. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
447	110-222-29	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.
448	110-222-30	18851 Goldenwest St	RL-sp (3 du/ac)	SP7	Ellis-Goldenwest Specific Plan	RH30	0.07	0	30	35	0	No	0	0	1	2	1	Highest Resource Area (2022 TCAC/HCD Opportunity Indices Map). Commercial site associated with South Coast Supply, which sells landscaping materials. Currently this business is temporarily closed. The Site does not have any built structures and is mostly used as storage for landscaping materials. Residential uses surround the business in all directions. Goldenwest Street has 2 nearby transit stops. Additionally, parcels near this site have been selected for the sites inventory and may be consolidated. Sites 395-448 are held by two owners.

449	107-213-10	16931 Magnolia St	CG	CG	Commercial General	HO70	3.21	0	56	70	0	No		44	26	107	179	177	Commercial businesses (Brookstreet Plaza) as well as a parking on the site. Residential homes exist north and west of the strip mall. There are 2 transit stops near the site.
~~**450**~~	~~110-222-31~~	~~18851 Goldenwest St~~	~~RL-sp (3 du/ac)~~	~~SP7~~	~~Ellis-Goldenwest Specific Plan~~	~~RH30~~	~~0.21~~	~~0~~	~~30~~	~~35~~	~~0~~	~~No~~	~~No~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~Part of larger site identified as former South Coast Supply. Held by same two owners are Sites 395-448.~~
451	111-120-30		I-sp	SP9	Holly-Seacliff Specific Plan	~~HO70~~RH30	0.06	0.75	~~56~~30	~~70~~35	0	No	No	0	0	0	0	0	Remnant parcel that is part of a larger industrial property. Held by same owner of Sites 245 – 250.
452	111-130-27		I-sp	SP9	Holly-Seacliff Specific Plan	HO70	0.07	0.75	56	70	0	No	No	0	0	0	0	0	Remnant parcel used as rv/auto storage. Held by same owner of Sites 125 and 160.
453	159-201-06	7382 Talbert Ave.	RT	RT	Research and Technology District	HO70	0.12	1	56	70	0	No	No	0	0	0	0	0	Single tenant auto repair building with surface parking located along an arterial street.
454	142-191-33		M-sp	SP14	Beach and Edinger Corridors Specific Plan	SP 14 - 20% affordable overlay	0.03	No maximum	80	100	0	No	No	0	0	0	0	0	Remnant parcel located on the north side of Site 269. Currently used as surface parking lot for building on Site 269.

Figure B-4: Site Inventory

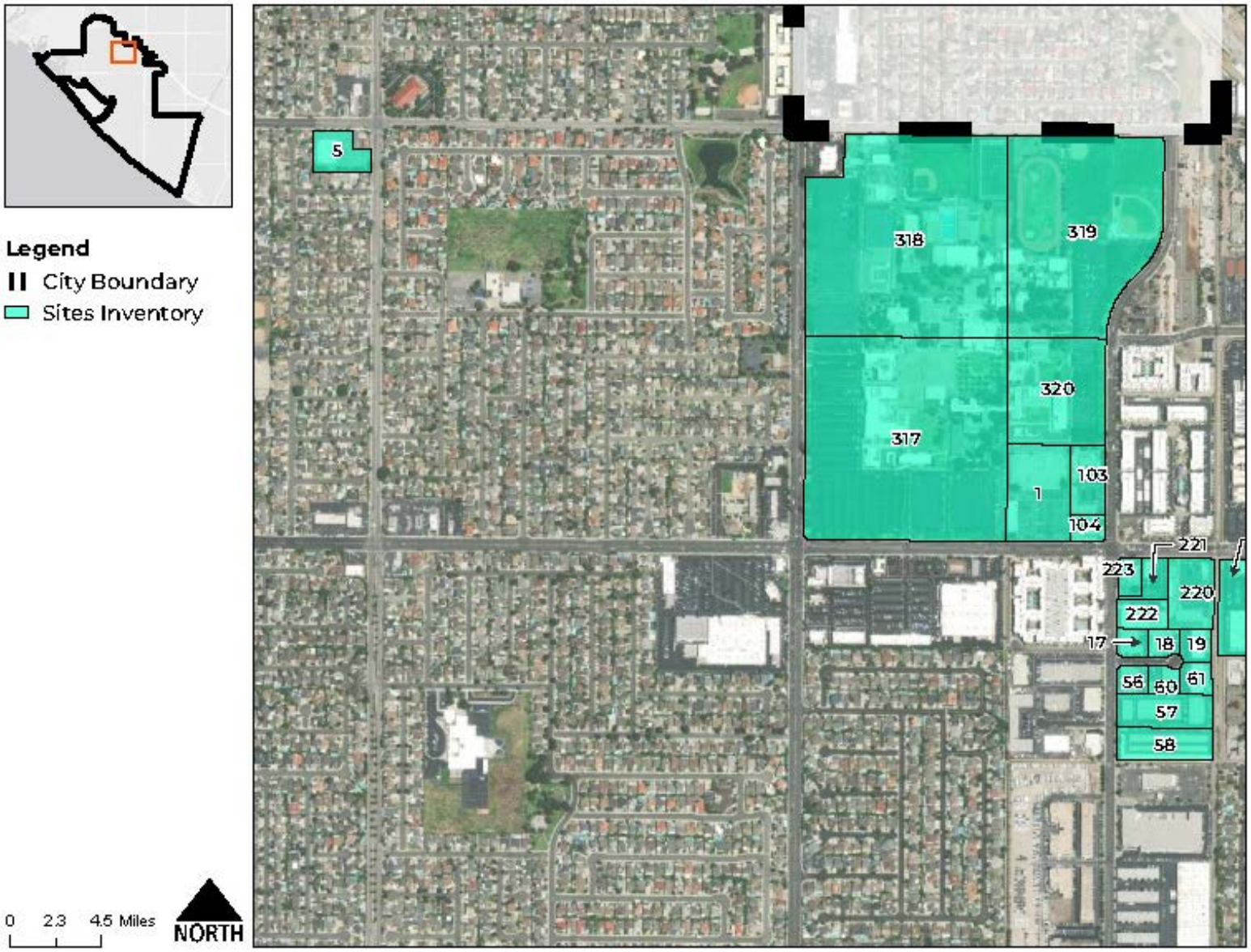


Figure B-5: Site Inventory

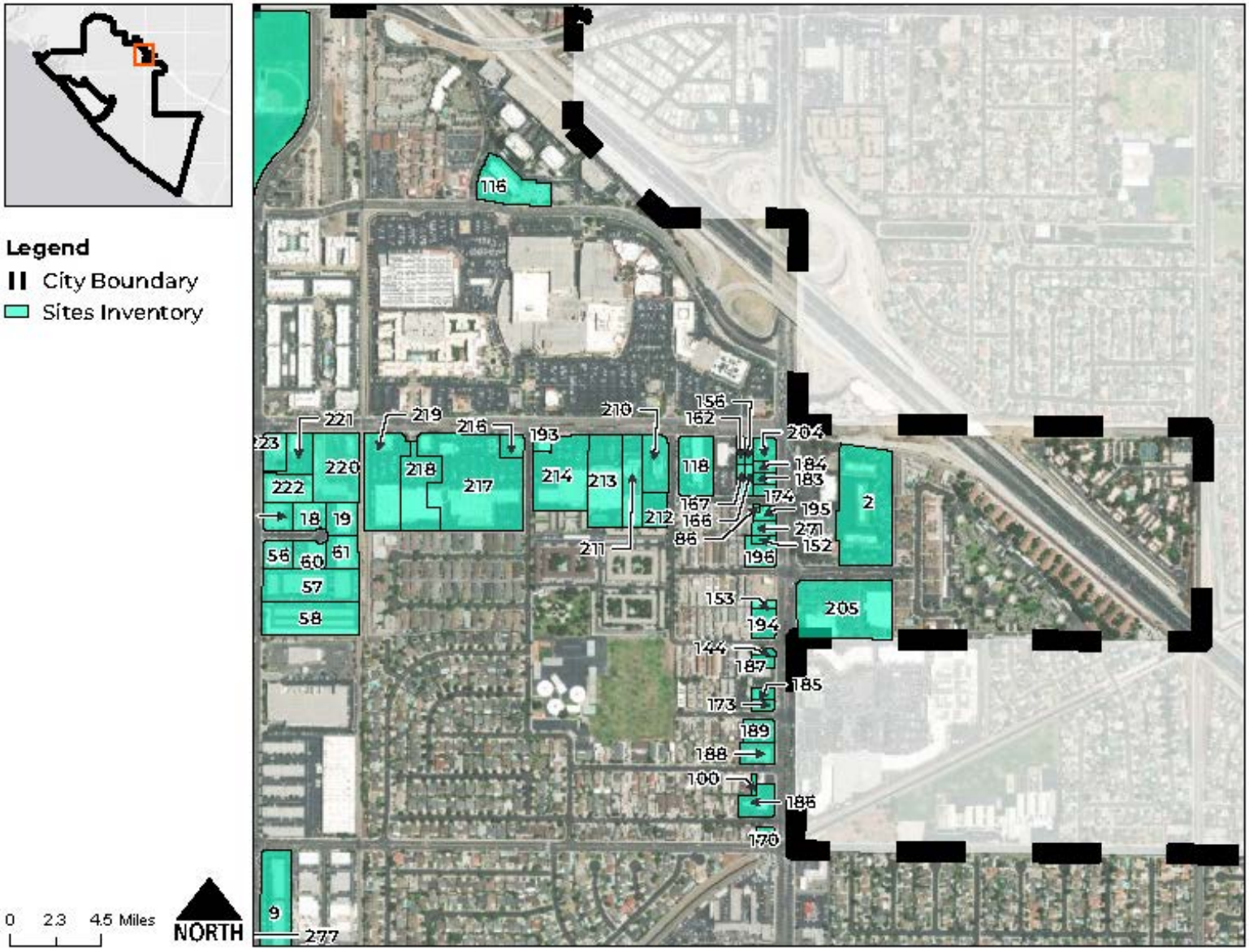


Figure B-6: Site Inventory

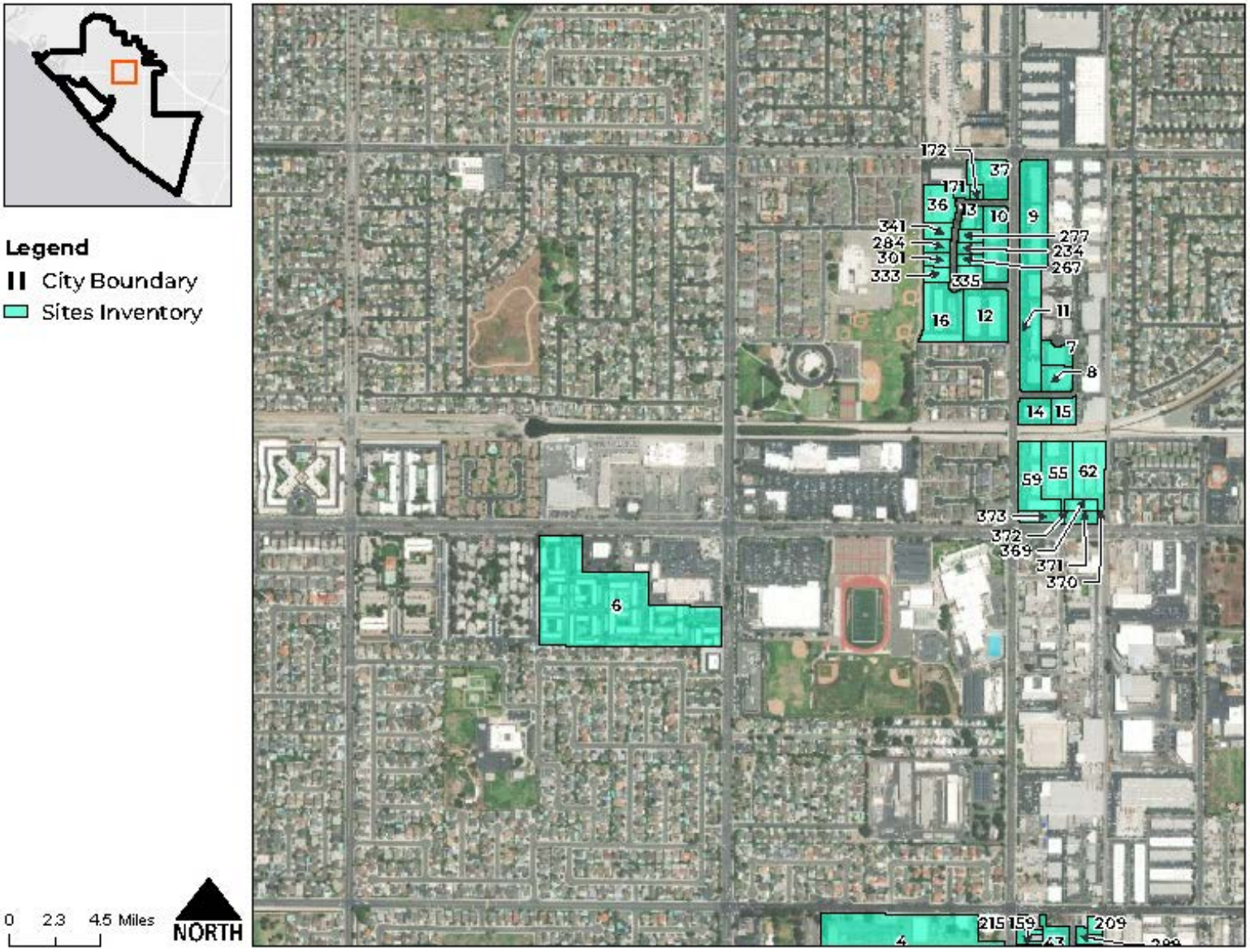


Figure B-7: Site Inventory

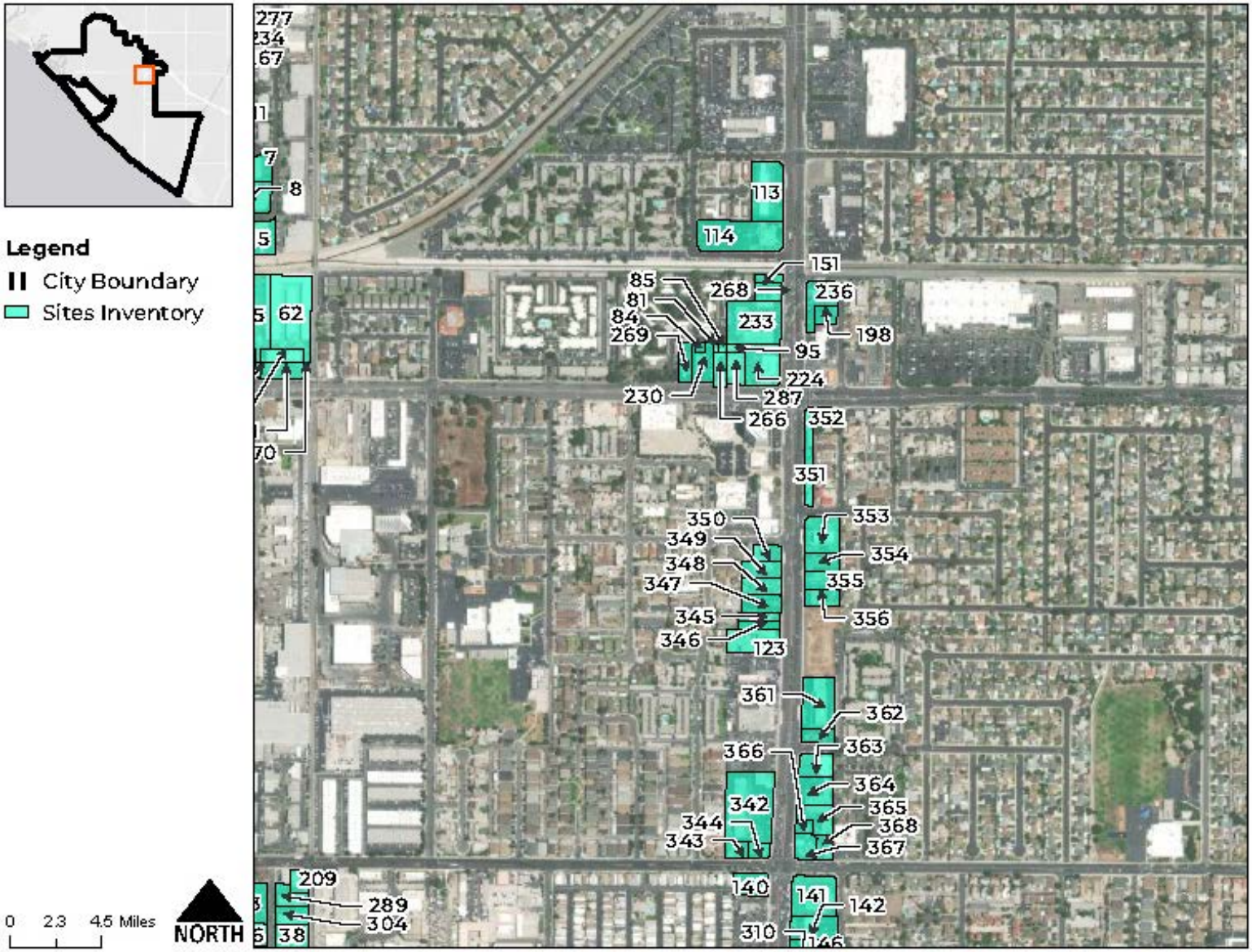


Figure B-8: Site Inventory

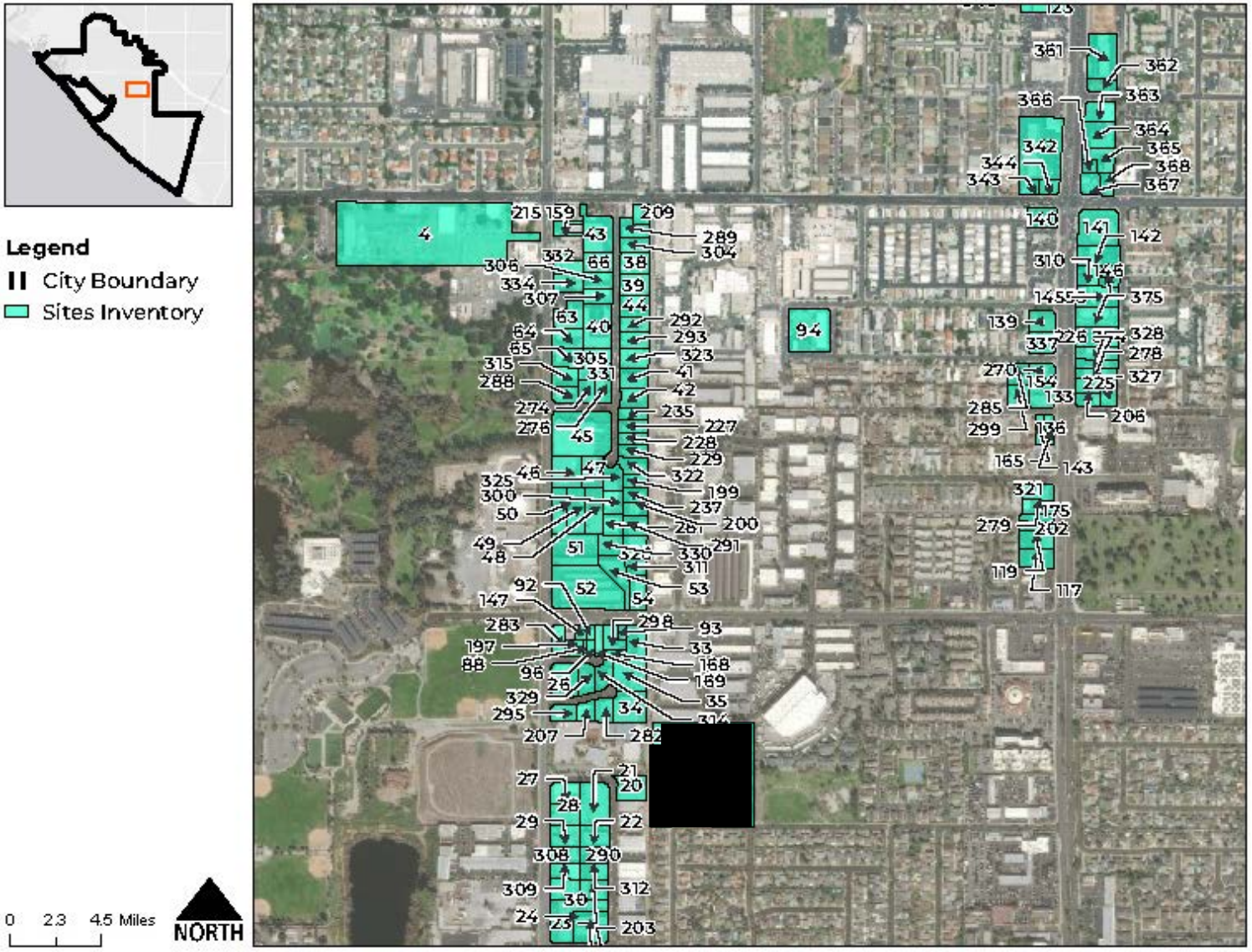


Figure B-9: Site Inventory

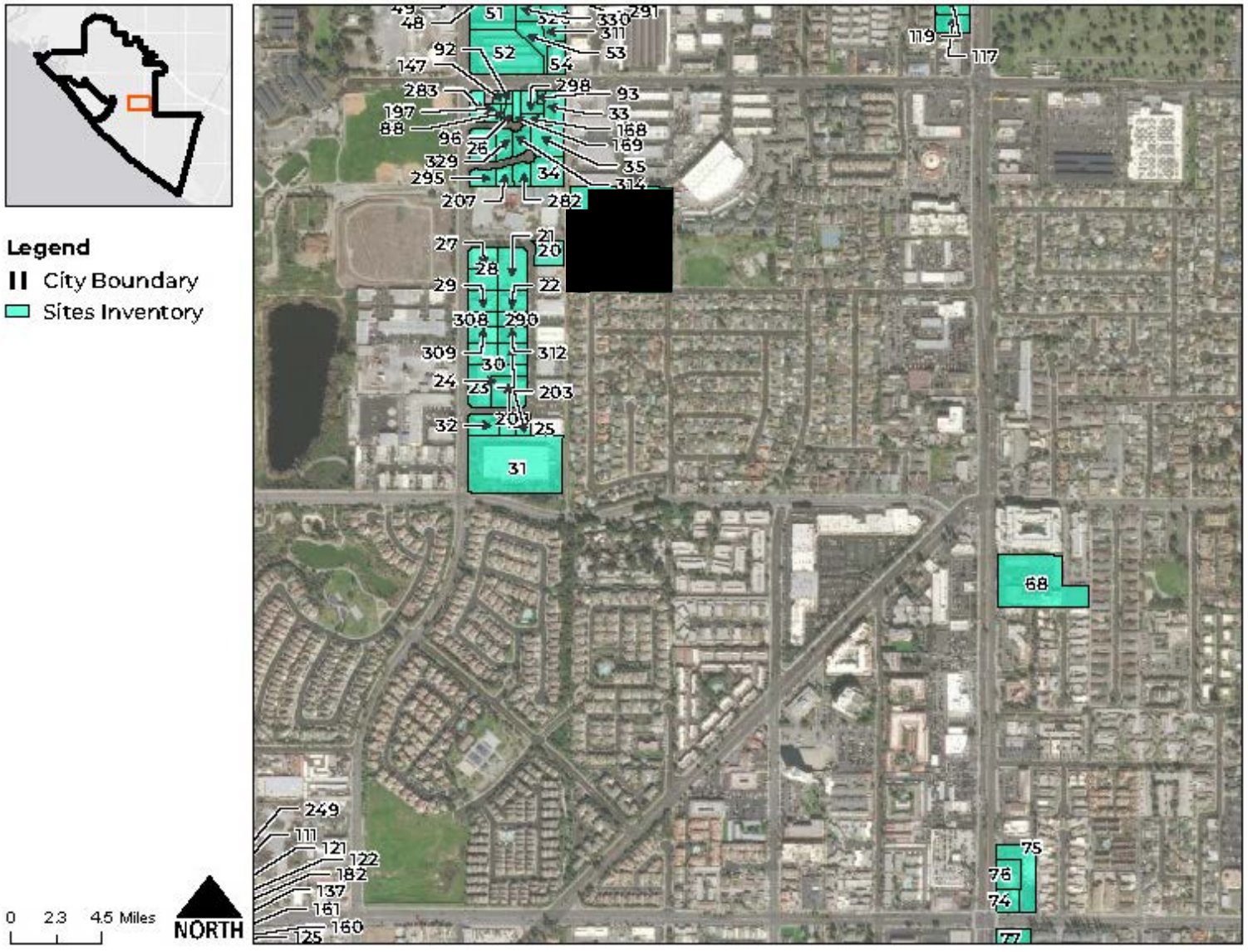


Figure B-10: Site Inventory

Figure B-11: Site Inventory

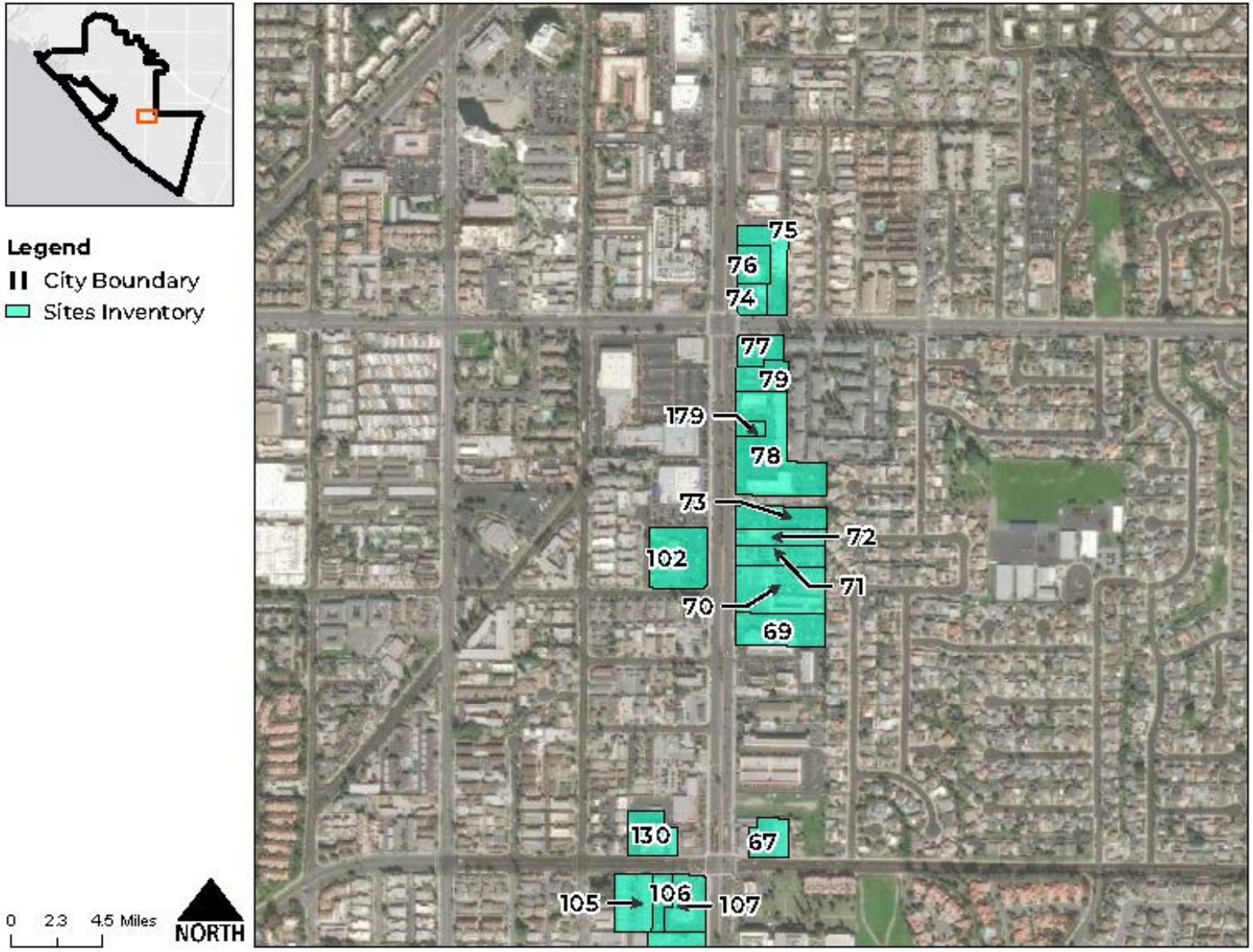


Figure B-12: Site Inventory

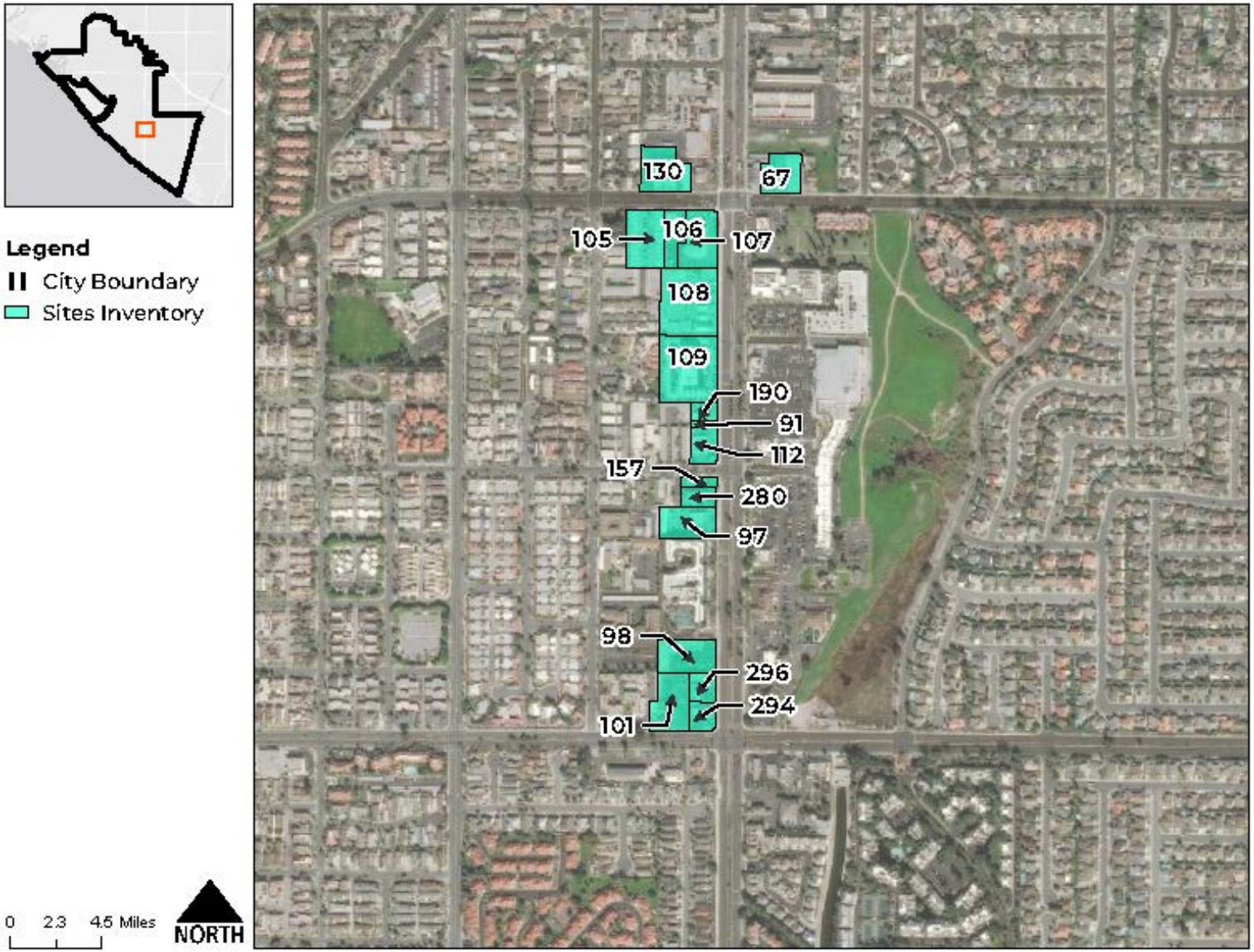


Figure B-13: Site Inventory

D.Small Sites Consolidation Maps

Figure B-14: Small Site Inventory

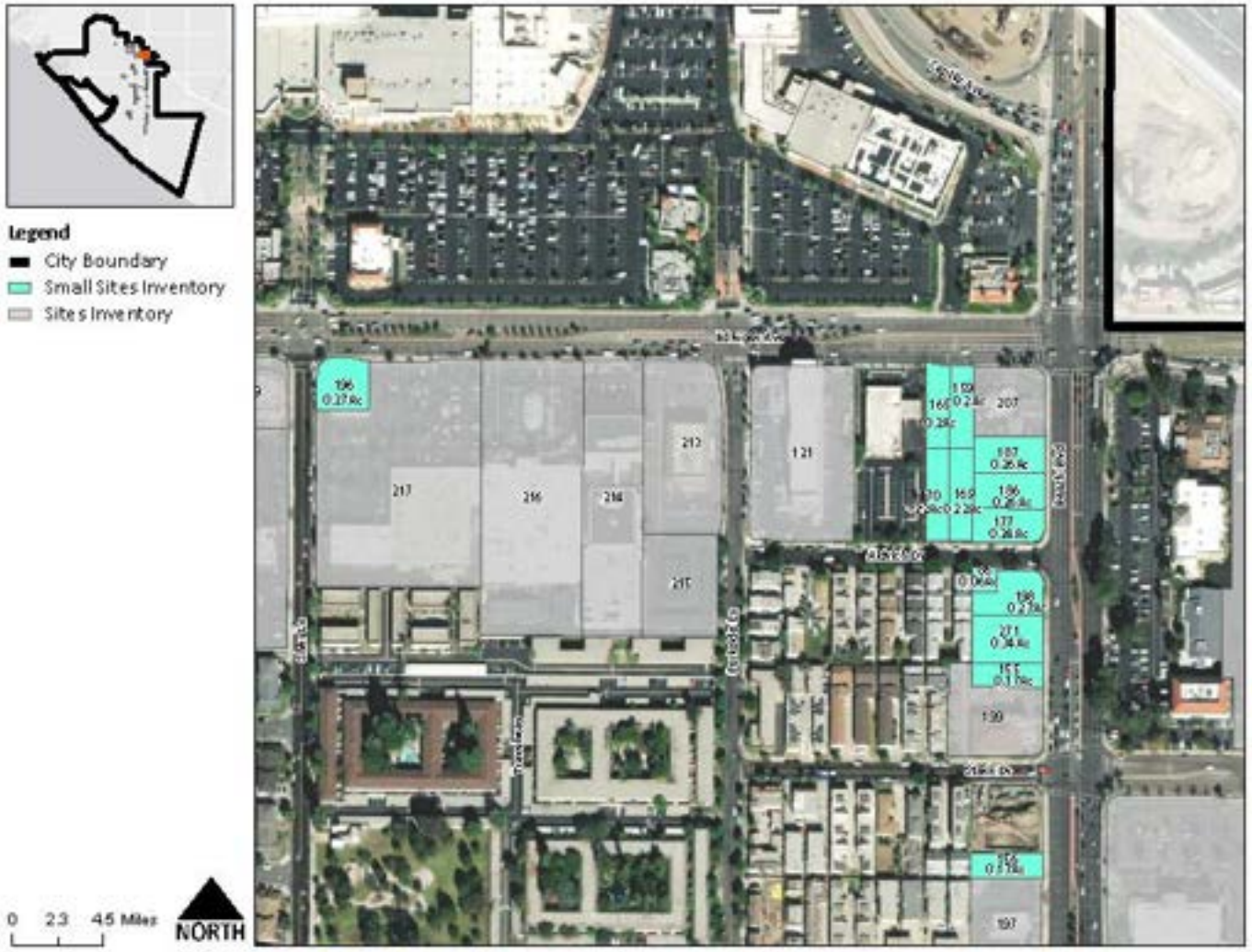


Figure B-15: Small Site Inventory

Figure B-16: Small Site Inventory

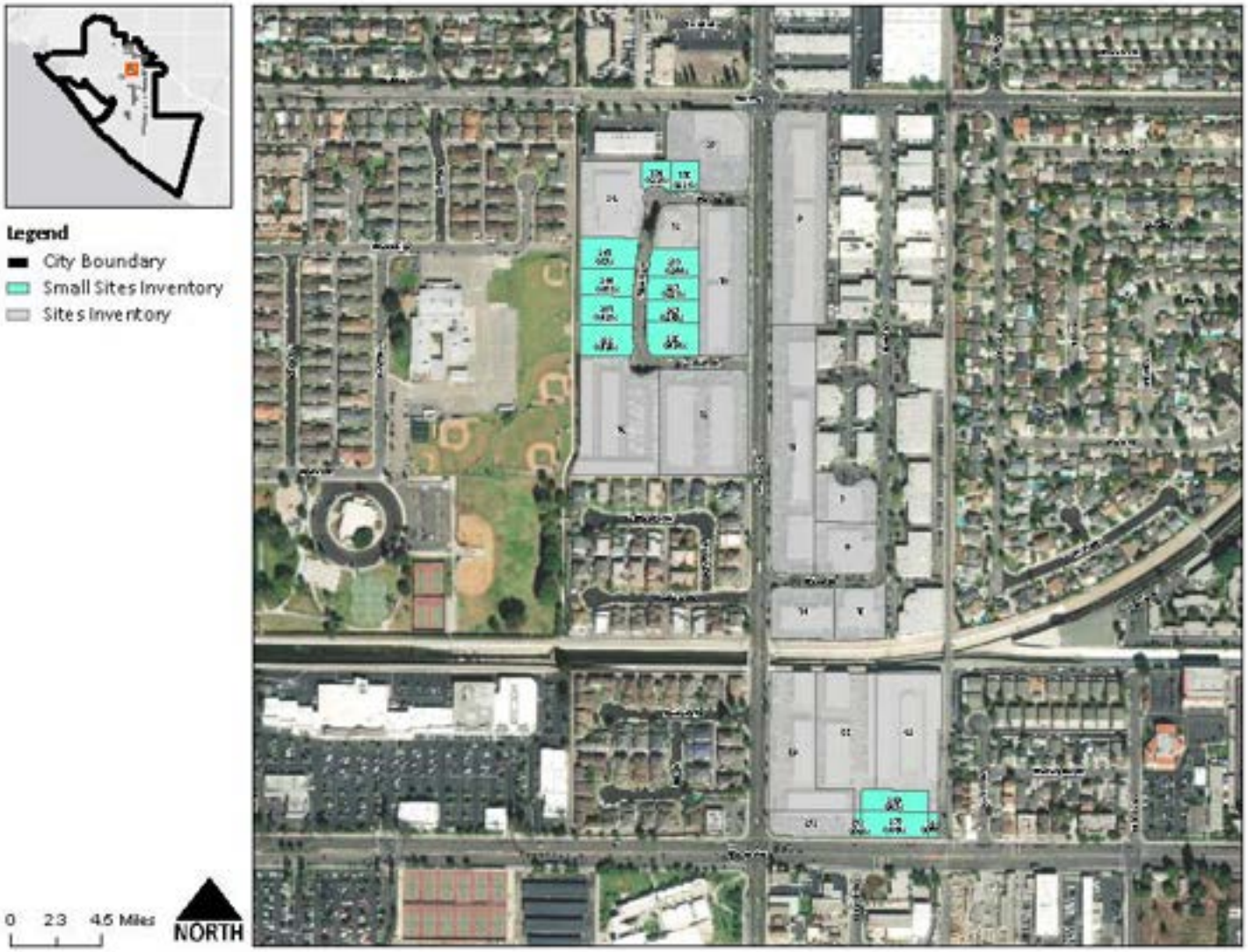


Figure B-17: Small Site Inventory

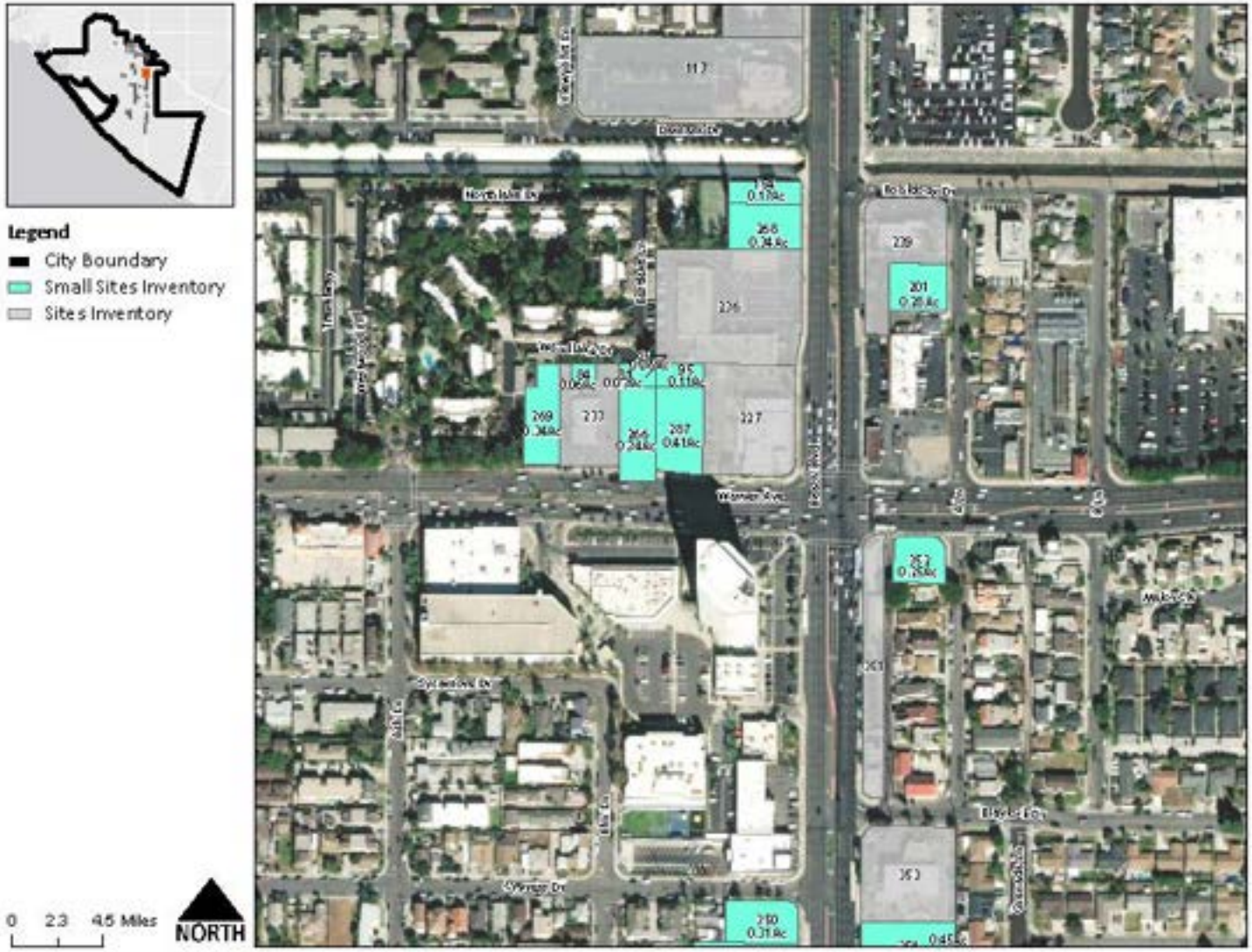


Figure B-18: Small Site Inventory

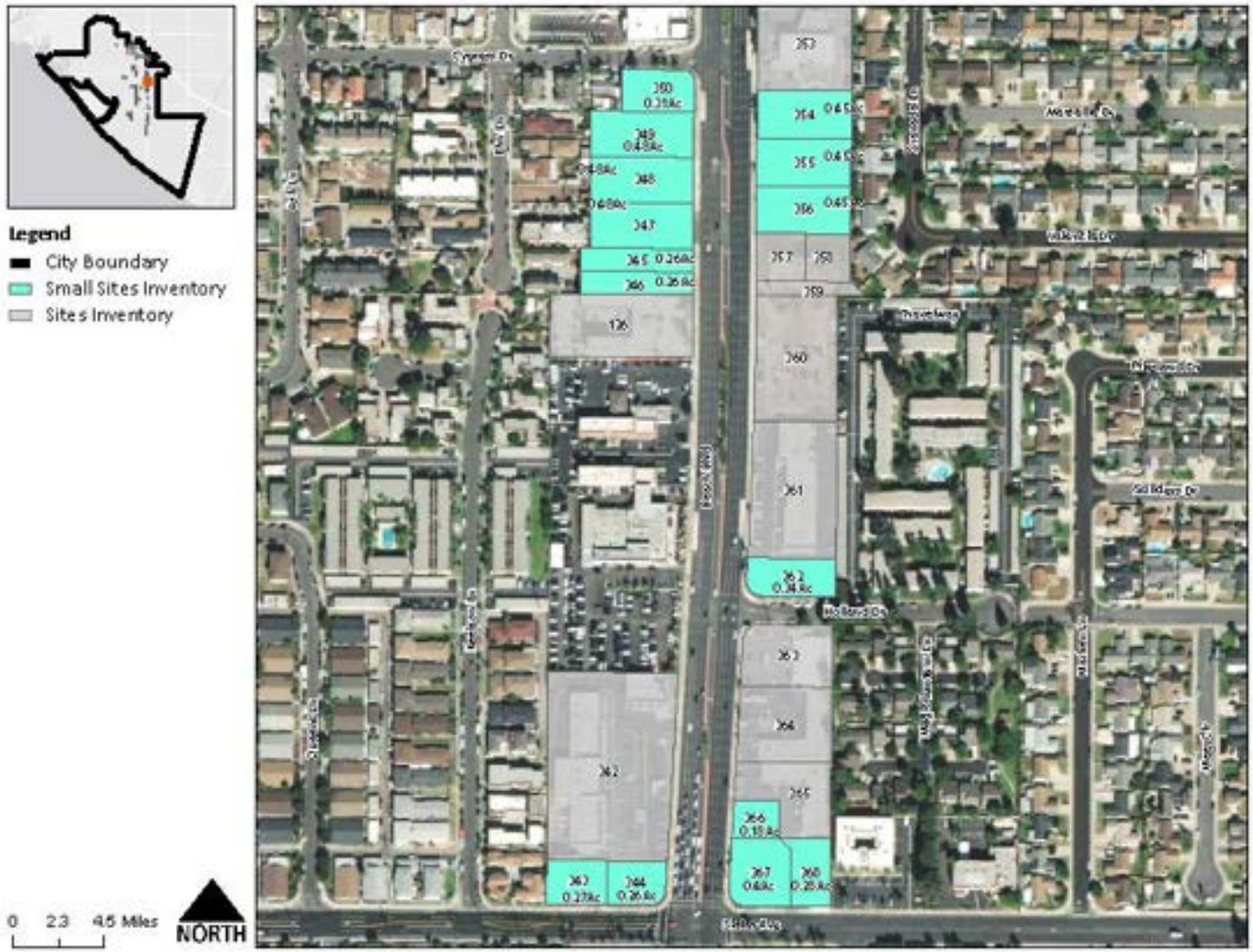


Figure B-19: Small Site Inventory

Figure B-20: Small Site Inventory

Figure B-21: Small Site Inventory

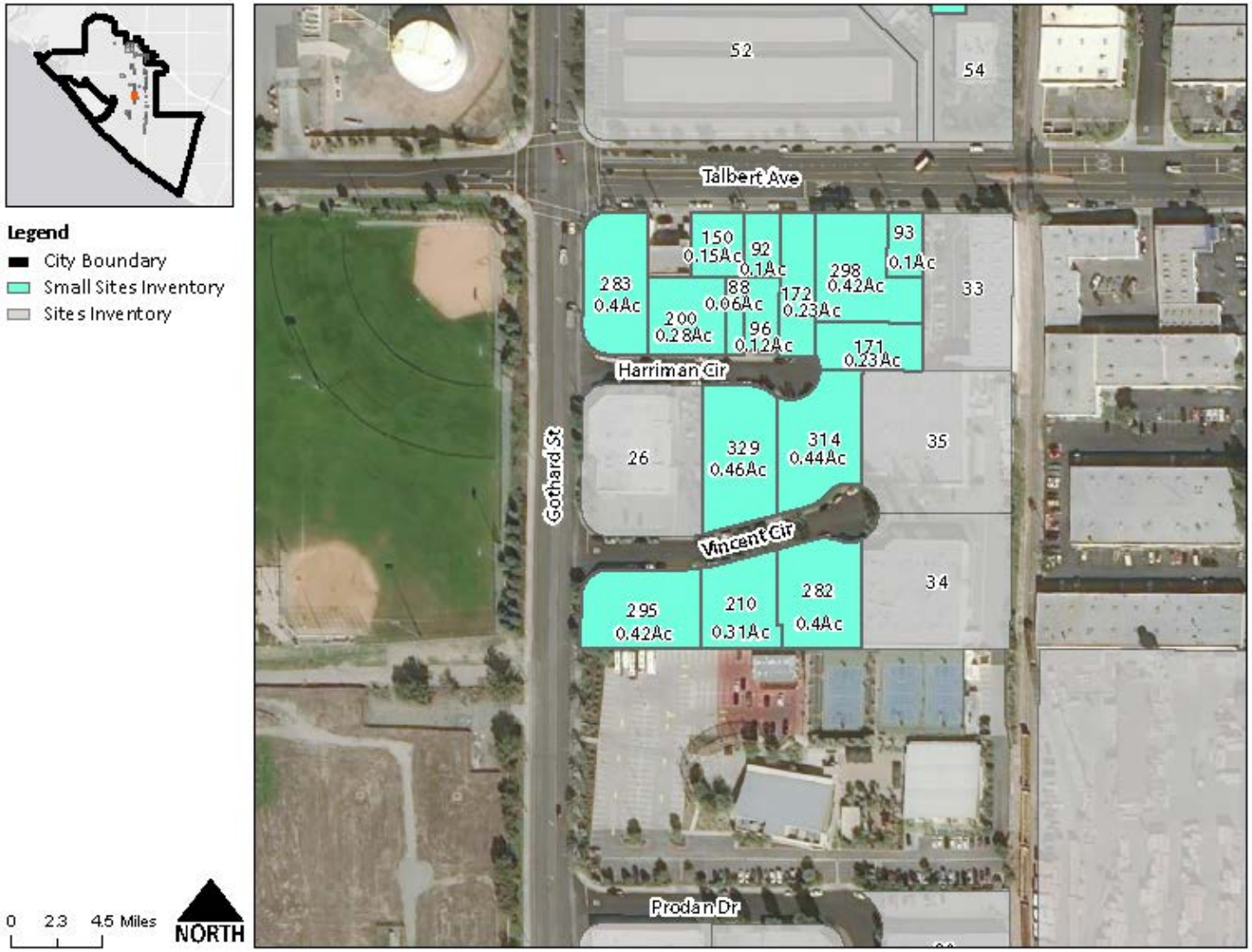


Figure B-22: Small Site Inventory

Figure B-23: Small Site Inventory

Figure B-24: Small Site Inventory

Figure B-25: Small Site Inventory

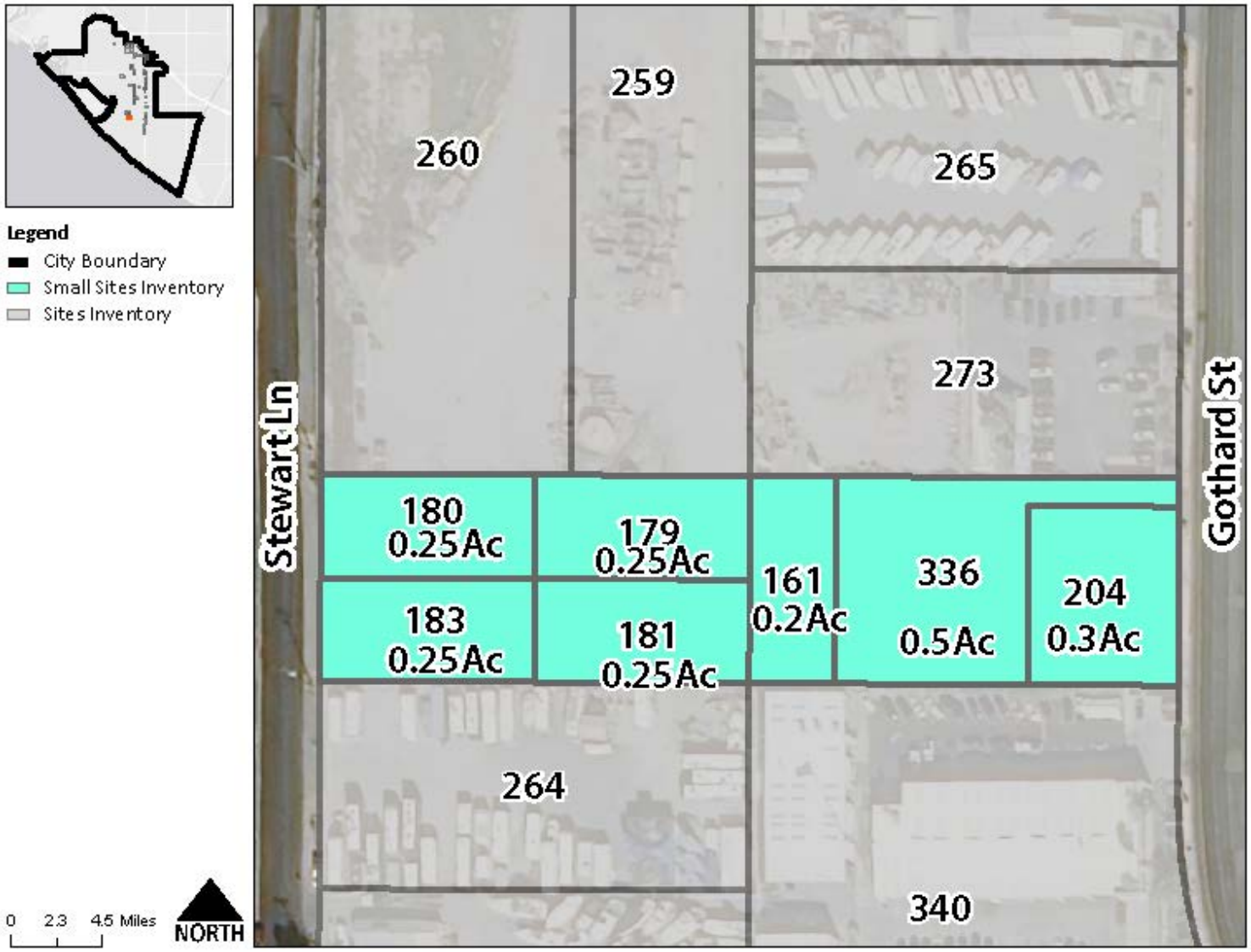


Figure B-26: Small Site Inventory

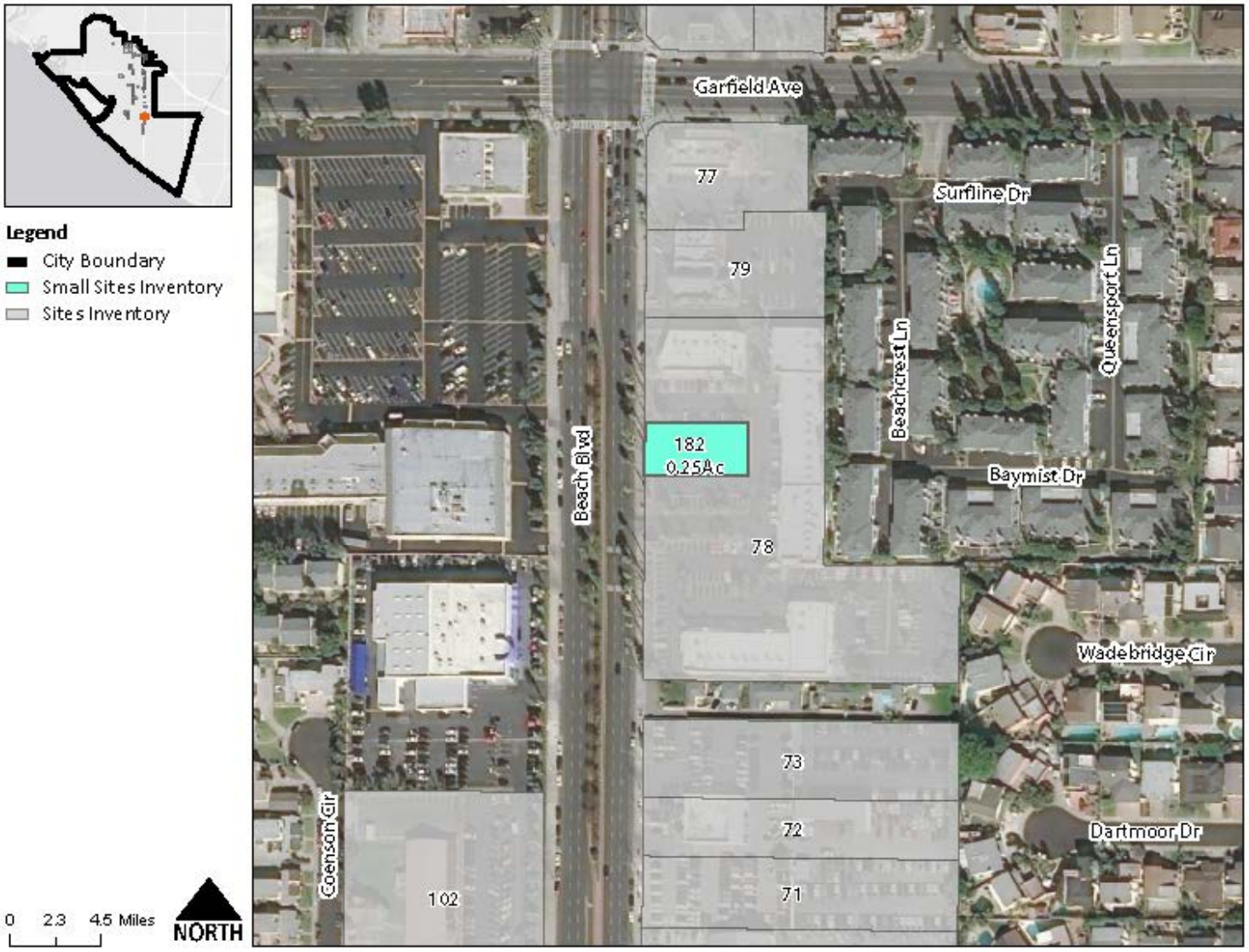
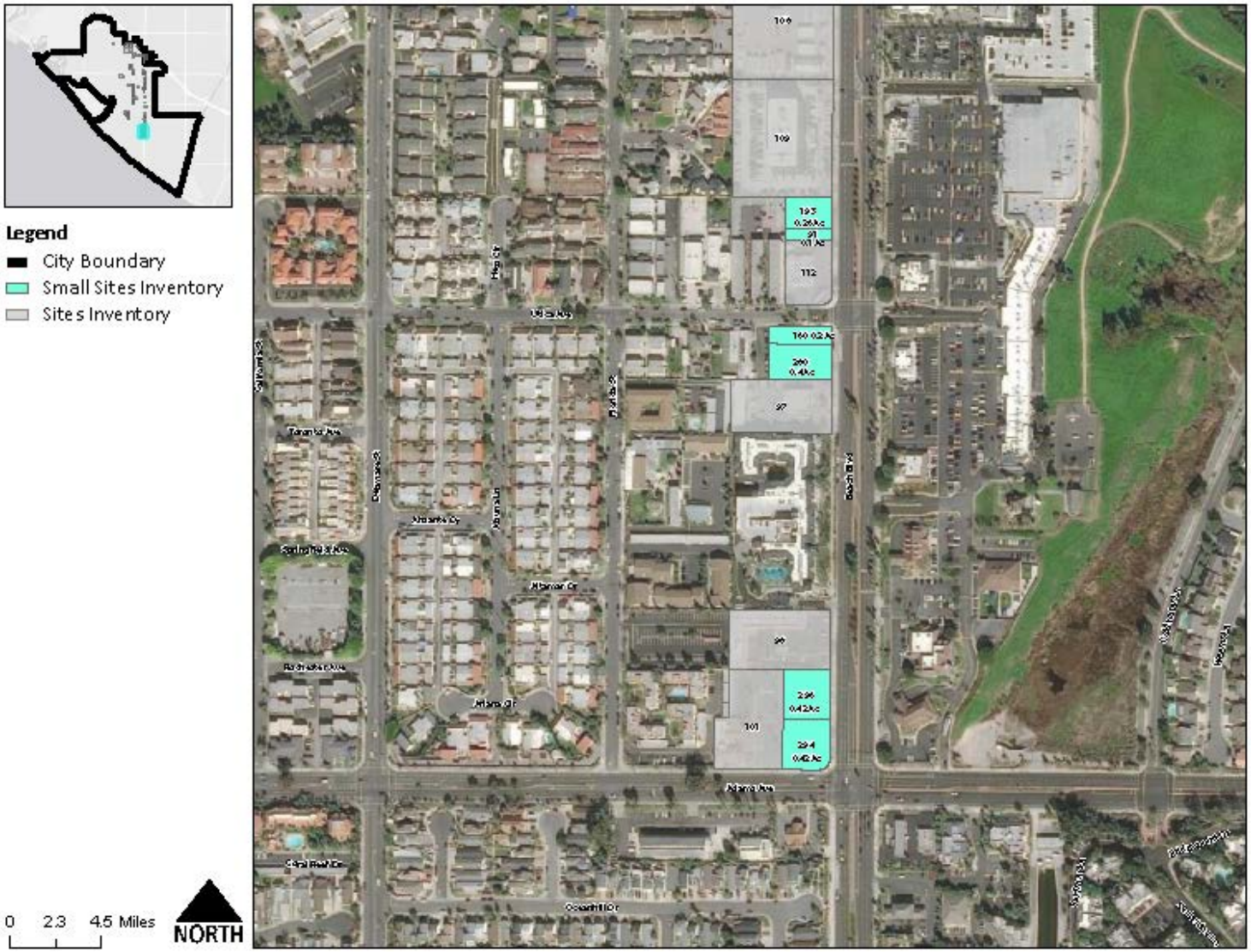


Figure B-27: Small Site Inventory



Appendix C

Community Outreach and Engagement

Summary of Community Outreach

Section 65583 of the Government Code sates that, "the local government shall make diligent effort to achieve public participation of all economic segments of the community in the development of the housing element, and the program shall describe this effort." Meaningful community participation is also required in connection with the City's Assessment of Fair Housing (AFH). A summary of citizen participation is provided below.

As part of the 6th Cycle Housing Element Update process, the City of Huntington Beach has conducted extensive public outreach activities beginning in early 2021. In April 2021, the City hosted the first of a series of 2021-2029 Housing Element Update Community Workshops meant to guide and inform the Housing Element Update. The goal of Community Workshops is to hear from a broad spectrum of community members on community values and interests, assess the current Housing Element, and provide recommendations for the Housing Element Update. Community Workshops were guided by the consultant team and City staff. The following series of Community Workshops and outreach occurred throughout the City:

- **Joint Study Session** –The City held a joint Study Session of the Planning Commission and City Council on March 1st, 2021 from 4:00 p.m. – 6:00 p.m. virtually via Zoom. During the Study Session, the project team provided a presentation with an overview of the key features of the Housing Element and the update process to date. The Study Session group reviewed the RHNA allocation and also established a Community Engagement Timeline for future community engagement activities. Community members had the opportunity to give public comments.

- **Workshop #1- Community Meeting** – The City conducted a community workshop on April 22, 2021 from 6:00 p.m. – 7:30 p.m. virtually via Zoom. Advertising and promotion of the Workshop was done to increase participation by a variety of stakeholders representing a diverse cross-section of the Huntington Beach community. The Workshop was conducted in English and Spanish. The recorded Workshop is available for viewing at https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/. The 55 workshop participants were provided an overview of the Housing Element Update process, community and housing characteristics, and participated in engagement activities. Community input from the workshop includes the following:
    - Participants wanted clarification on what RHNA is and the methodology behind it;
    - Participants wanted to know how long the Housing Element Cycle is;
    - Desire for more low and very-low income units;
    - Some participants believed there is not enough developable space to meet RHNA; and
    - Questions regarding RHNA progress monitoring.

  Online Community Survey – The City of Huntington Beach launched an online community survey to gather additional feedback regarding the Housing Element Update. The Online Community Survey was live from April 28-May 31, 2021. Participants were asked to consider potential policies and programs to include in the Housing Element, as well as potential housing types and opportunities for housing in the City. The survey also solicited feedback regarding

potential barriers to housing access and constraints to the development of housing. Advertising for the survey included posting a digital ad on the Golden West College electronic marquees at the intersections of Goldenwest/Edinger, Gothard/Center, and Goldenwest/McFadden; emails to the City's general distribution list, Housing Element Update subscription list, HB Chamber of Commerce, Downtown BID, and Visit HB; posting information in the bi-weekly City Manager's Report; information played on HBTV; distribution of fliers via the Senior Center meal distribution program; announcing the survey on the project website and City website; and distributing details via social media channels including Facebook, Instagram, and Twitter.

- **Spanish- Language Outreach Event** – The City conducted a Citywide Spanish-Language community outreach event on June 5, 2021 from 8:00 a.m. – 10:00 a.m. at the Oak View Neighborhood Cleanup Event (17261 Oak Ln, Huntington Beach, CA 92647). Advertising for the workshop included distribution of doorhangers at residences in the Oakview Community, emails to the City's distribution list, social media posts, creating an item on the City's calendar, and announcing the event on the project website. Approximately 30 members of the community attended the event and approximately 17 community members provided comments or suggestions. The outreach event staff was available to provide information to the public in both Spanish and English. The staff discussed many topics related to the Housing Element Update, housing needs and services within Huntington Beach, opportunities to provide housing at all income levels in the community, identifying constraints to building and accessing housing, as well as upcoming community engagement opportunities. The Outreach Event provided opportunities for the public to discuss options and provide feedback. Community input from the event includes the following:

    - The City needs more safe, affordable housing for all income levels;
    - The City would benefit from more police vigilance/surveillance;
    - Existing low income units should be repaired and upgraded; and
    - Participants believe units considered affordable are still not affordable for many.

- **Community Townhall Meeting** – The City conducted a Townhall Meeting on June 24, 2021 from 6:00 p.m. – 7:30 p.m. virtually via Zoom. Advertising and promotion of the Workshop was done to increase participation by a variety of stakeholders representing a diverse cross-section of the Huntington Beach community. The Workshop was conducted in English and Spanish. The recorded Workshop is available for viewing at https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/. Approximately 51 community members attended the meeting. Staff and the consultant team provided workshop participants with updates on the Housing Element process and preliminary data from the public input survey regarding community and housing characteristics. The public also participated in engagement activities including a visual survey of housing developments at varying densities. Community input from the workshop includes the following:
    - Concerns that RHNA is too high and environmental constraints will not allow for that much development;
    - Desire for an increase in inclusionary housing;
    - Participants asked if the option for rezoning, overlays, and upzoning are feasible; and
    - Need for upgrading of existing units.

- **Public Scoping Meeting** – The City of Huntington Beach held a public Scoping Meeting to solicit comments on the scope of the Subsequent Environmental Impact Report (SEIR) on August 19, 2021 from 5:00 p.m. – 7:00 p.m. held virtually via Zoom. The 18 participants were provided an overview of the California Environmental Quality Act (CEQA), the CEQA process, CEQA requirements, and CEQA's relationship to the Housing Element Update process. Community input from the Public Scoping Meeting includes the following:
    - Concerns about hazmat sites;
    - Concerns regarding loss of open space;
    - Need for preservation and/or upgrading of existing housing stock;
    - Concerns with traffic impacts due to additional housing units;
    - Concerns about loss in property values; and
    - Environmental Justice concerns.

- **Meetings with Local Stakeholders** – The City conducted four informal meetings with Local Stakeholders to draw upon the technical expertise and input of certain groups that have worked with the City of Huntington Beach. The goal of the Local Stakeholder meetings was to have a listening session to broadly collect information and actionable steps the City can use with the end goal of creating programs that promote the development of housing at all income levels. The Local Stakeholder groups consisted of representatives from:
    - School Districts (June 1, 2021 via Zoom)
    - Building Industry Association of Southern California (June 2, 2021 via Zoom)
    - Housing Advocates and Community Organizations (June 3, 2021 via Zoom)
    - Housing Developers (June 3, 2021 via Zoom)
    - Faith-Based Organizations (June 17, 2021 via Zoom)

- **Workshop #2 – Community Meeting -** The City conducted a community workshop on November 10 22, 2021 from 6:00 p.m. – 7:30 p.m. virtually via Zoom. Advertising and promotion of the Workshop was done to increase participation by a variety of stakeholders representing a diverse cross-section of the Huntington Beach community. The Workshop was conducted in English and Spanish. The recorded Workshop is available for viewing at https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/. The 45 workshop participants were provided an overview of the Housing Element Update process, community outreach efforts to date, and the public review draft. Community input from community meeting #2 includes the following:
    - Comments regarding mobile home preservation and the importance of mobile homes for affordable housing,
    - A focus of senior housing specifically affordable senior housing,
    - Questions about how to review and submit comments on the draft document,
    - Concerns about the rezoning and effects on the commercial and retail industry

- **Housing Element Update Website** – A website was developed for public consumption and can be accessed at https://www.huntingtonbeachca.gov/housingelement. The website provides information about the update process, RHNA requirements and documents, key features of the Housing Element, and links to informational resources from HCD and SCAG. The website also hosted a link to the community survey tool, community meeting presentations

and videos, as well as City contact information for residents and community members to send comments, ask questions, or request additional information.

As required by Government Code Section 65585(b)(2), all written comments regarding the Housing Element made by the public have been provided to each member of the City Council.

1. Key Issues and Opportunities

The goal of community engagement is to understand key issues and opportunities in the City and to gather input to directly impact the goals, policies, and programs of the Housing Element. Throughout the engagement process, the City gathered an array of diverse ideas and opinions, the table below summarizes the key issues and opportunities identified.

Table C-1: Key Issues and Opportunities Identified

Theme	Key Issues	Key Opportunities
Access to Opportunities	Displacements	Safety
	Missing Middle	Diverse Housing
Affordable Housing	Lack of Affordable Housing	More Multifamily Options
	Wait Lists	ADU's
	Remove Exclusionary Zoning	Mixed Use Zoning
		Live/Work Buildings
Amenities and infrastructure	Unfriendly Neighborhoods	Walkable Neighborhoods
	Lack of Green Space	Protecting Pedestrians and Bikers
		Parking
		Affordable Housing
		More Trees
Environmental	Hazmat Sites	Environmental Justice
	Overcrowding	Sustainable and Eco-Friendly Methods of Building and Maintaining New Housing
	Loss of open space	
	Traffic	
	Property Values	

2. Summary of Public Comments

The City of Huntington Beach released a draft of the 2021-2029 Housing Element, available for public comment from October 28 to November 29, 2021. Below is a summary of public comments received during the 30-day Public Draft Review period.

Table C-2: Comments on the Public Review Draft

Comment	Response
The ADU projection within the Housing Element is unrealistic	The city recognizes that the ADU projections are above the safe harbor recommended by HCD, however, combined with Programs established in Section 4: Housing Plan and recently passed state legislation, the City believes these numbers area attainable.
The Project Pipeline includes housing units that have been "applied for" together with those that have been entitled or permitted, leaving the impression that these "applied for" units are guaranteed	The Pipeline Projects are categorized as those in the application through building permit stage. Because only units with building permits may count towards the RHNA, the units categorized as pipeline do not reduce the City's total RHNA but instead act as sites with the most feasible development opportunity. To clarify this further, a map of the sites identified as Pipeline Projects has been included at the end of **Appendix B**.
Likelihood of Development: The city is assuming that 80% of the of the sites in the site inventory will be developed during the 8-year planning period, but there is insufficient evidence to support that claim.	This comment is received. The assumptions were based on passed development and current market trends., as well as HCD guidance.
Inclusionary housing policy is too high.	The 20% policy is an existing policy in the Beach and Edinger Specific Plan, as a part of the Housing Element it will be expanded to additional regions of the specific plan. If a developer provides 20% of all units to be affordable, the project will be approved through by right development standards. The City will closely track the performance and appropriateness of the 20% policy.
Some of the sites are not good candidates for new housing and it is doubtful they will become available for development in the 6th cycle time frame.	The City reviewed and utilized the SCAG HELPR tool to identify high resources areas, followed by an on-site analysis for opportunity with these areas. The City had a primary goal of not creating displacement for existing residents and utilized existing specific plans, sites near economic resources and city own sites to accommodate the RHNA.
The constraints analysis (starting on p 3-10) is disingenuous.	The City has reviewed the constraints analysis for consistency with state law
There is a mismatch between the zoned capacity in the Holly-Seacliff area and the presumed affordability levels those parcels will yield.	The City plans to work with developers and affordable developers to create affordable housing on each site identified in the Housing Element Analysis.
The combination of site locations and the city's inclusionary housing policy may reinforce economic and racial segregation, which violates AFFH Law.	The worked diligently to identified high resource and high opportunity areas for housing opportunity. Section 3 contains an analysis of the sites through a fair housing lens.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
The city conducted one Housing Element survey and three community workshops, one of which was exclusively for Spanish-speakers.[1] There were 106 total participants in workshops #1 and #3 and 30 participants in the workshop for Spanish speakers. The city does not provide information on the number of survey respondents, nor does it report how many of these residents were low-income residents or renters.	A summary of the online community survey is available on the City's website, the survey included demographic questions regarding income, living situation, preferred housing options and challenges to accessing housing. The survey is available here: https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/
Program 1B - Multi-Family Acquisition and Rehabilitation: Recommendation: The Multi-Family Acquisition and Rehabilitation program should prioritize the extremely low, very low-, and low-income levels, not moderate. Given the City's deficit of lower income housing, the city should also prioritize increasing new construction of affordable housing at the lower income levels.	Revised language to focus on the very-low and low-income levels in the stated objective.
Program 1D - Preservation of Assisted Rental Housing - Recommendation: In addition to the City's proposed strategies to preserve existing affordable housing, the City should also consider creating a program that facilitates the creation of a Community Land Trust or Tenant Opportunity to Purchase policy that gives tenants in at-risk units the opportunity to own their building and, thus, ensure that these units remain affordable in perpetuity.	This City will consider potential strategies for this in the future but are not adding a program at this time.
Program 2A - Adequate Sites and Program 2E - Candidate Sites Identified in Previous Housing Elements: Recommendation: The City's site analysis is insufficient. Despite the City acknowledging that it will use housing sites that were used in the previous 4th and 5th Cycles, the city does not indicate which sites are reused from previous cycles in Table B-8 in Appendix B of the draft Housing Element. Table B has a column for "Previous Cycle (4th or 5th)" and all sites on that table have "No" in this column. As it is unclear if the city is including previously identified sites in its inventory, we are unable to determine if the city has an adequate program for previously identified sites. The city needs to provide an updated analysis and provide additional analysis on the likelihood these sites will be developed for affordable housing in the 6th Cycle.	Appendix B does not note that sites from a previous cycle are used, as no sites from a previous cycle are identified in this analysis. Column 3 of Table B-8 (please note table ID may change with new edits) of Appendix B is titled "Used in a Previous Cycle (4th or 5th)" and identifies whether each sites was previously used in the 4th or 5th cycle housing elements. A note for clarification has been to explicitly outline that "No" means the Site was not used in the 4th or 5th cycle, if a site were to be used in a 4th or 5th cycle, the column would identify which cycle.
Program 2B - Establishing Affordable Housing Overlay Zone: **Recommendations:** While creating the HO is an important step towards facilitating the production of lower income housing, the City needs to go beyond	The City understands that a focus on affordability at the very low- and low-income levels is important to meeting their RHNA and building affordable housing in the community. Development of a new overlay requires careful

[1] City of Huntington Beach 2021-2029 Draft Housing Element, p. 5-6, C-2 to C-4, October 2021.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
ensuring there are sufficient housing sites to meet its lower RHNA allocation. As the lack of production at the very low- and low-income level during the 5th Cycle indicates, the City needs to include policies that will more effectively create affordable housing during the 6th Cycle. The Commission recommends that sites under the HO have an inclusionary requirement that sets aside 15%-20% of all units in residential projects at the very low- and low-income level. Furthermore, the City should draft the development standards regulations related to the HO zone and adopt that zone within the first two years of the adoption of the Housing Element Update, not 3 years as proposed by the City.	consideration, analysis, and community outreach. The City will strive to complete rezones associated with the housing element in advance of the stated timelines while developing standards that can facilitate affordable housing development and not inhibit certain building types or developer creativity.
Program 2C Accessory Dwelling Units (Program 2D Monitoring Program): Recommendation: The City should lower its ADU and JADU protection of 769 units to a maximum of 192 units, as recommended by HCD's Safe Harbor Rule #1. The latter is a more realistic projection. Alternatively, if the city chooses to retain its 769 projection, then the city should evaluate ADU and JADU production levels within one year of the adoption of the Housing Element Update given the large number of ADUs it proposes to count towards its lower income RHNA allocation, 524 units. If the City finds that production at affordable levels is lower than anticipated, the City should rezone additional sites to meet its lower income housing needs and ensure that these sites have additional policies, like inclusionary requirements, that will better facilitate the production of affordable housing.	The City believes that there is an upward trend in ADU development beyond the safe harbor assumptions based on recent development. If it is found that ADU development within the City is not meeting expectations, the City will evaluate any potential shortfall at that time and identify additional candidate sites if necessary as required by State law.
Program 3A - Affordable Housing Program and Housing Trust Fund: **Recommendation:** Given the large deficit of lower income housing produced in the 5th Cycle, the city should strengthen its Affordable Housing Program by increasing the percentage of units projects are required to set aside for lower income housing to 15%-20%. The city should also provide the option of paying an in-lieu fee to projects with 100 units or less.	The City recently completed an update to the Affordable Housing Program, including market analysis to determine an affordability requirement that could result in affordable housing being built in Huntington Beach without placing a constraint on the development of all housing. The City will periodically review the affordability requirements to determine if those percentages may be able to change. As stated in Program 3A, both residential ownership and rental projects proposing 100 or fewer units currently have the option to pay an in-lieu fee.
Program 4A- Affordable Housing Density Bonus: Recommendation: HBZSO is not consistent with California Government Code Section 65915, which was amended in 2020 and went into effect in January 2021. For instance, the city ordinance has a maximum allowable density bonus of 35%, but the State law has increased this maximum to 50% . The ordinance states that two onsite parking	Revised the program timeframe to state that the City will evaluate and amend the ordinance annually to remain consistent with State law.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
spaces are required for a unit that has two to three bedrooms; The State has reduced this ratio to 1.5 parking spots. The ordinance also has outdated incentives and concessions. For example, the State law requires two incentives and concessions for projects that include at least 17% of the total units for lower income households and three incentives and concessions for 24% of the total units for lower income households. The ordinance states 20% and 30%, respectively. Accordingly, the City's general objective in the Housing Element draft relating to density bonus to "amend the density bonus ordinance to maintain consistency with State law throughout the eight-year planning period" is not sufficient. We recommend that the city revise the objective to include a commitment to revise the City's current density bonus ordinance to be in alignment with State law within 18 months. In addition, the city should also analyze the effectiveness of the updated density bonus in proposed overlays or areas of rezoning that give away development incentives and higher density without requiring affordable housing. by giving away the higher density and incentives without requiring affordable housing the city will circumvent the goal and implementation of the density bonus law.	
Program 5A - Affirmatively Further Fair Housing: **Recommendation:** While the City addresses housing discrimination complaints, the city fails to propose strategies that will address patterns of segregation and displacement concerns. The city claims that the City's affordable housing stock is dispersed throughout the City, and thus, there is no visible pattern of segregation. Yet, for the 6th Cycle, many of the housing sites have been identified in the lower or moderate-income areas in the City whereas very few have been identified in the higher income areas. The City needs to ensure sufficient affordable housing is created and that it is dispersed throughout the entire City, especially in the more affluent areas. Furthermore, the City's AFFH analysis does not provide an analysis on the risk of displacement and gentrification in the City, nor does it provide any programs that will address these issues. In addition, the City's Consolidated Plan identifies the Oak View Neighborhood as an area that is impacted by severe economic and housing instability as compared with the rest of the city. The city should do further analysis and develop recommendations on how it will address these disparities. This program should be revised to address these concerns.	The City considers many factors when identifying potential candidate housing sites to meet their RHNA, balancing an equitable distribution of housing and meeting recommended criteria for site identification which includes adjacency to needed job-creating uses, goods, services, and public transportation. These factors must all be considered in tandem so that future affordable housing does not isolate residents who potentially have limited accessibility to personal transportation options in areas of low opportunity and without access to necessary goods and services. The City has added an urban displacement analysis to the existing displacement risk analysis within Section 3 of the Housing Element.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
The element must include an analysis demonstrating the potential for redevelopment of non-vacant sites. To address this requirement, the element should describe and support the potential for additional development in the planning period and consider additional factors such as the age of structure, presence of expiring leases, condition of the structure, and expressed interest in development.	Appendix B has been updated to include this information and analysis.
With the exception of a few sites, the City does not provide information on whether the property owners of the identified sites have expressed explicit interest in redeveloping their properties for multifamily residential use during the 6th Cycle.	Only a portion of property owners reached out with specific interest, other sites were identified using the criteria outline in Appendix B
Parcels that are smaller than half an acre or larger than 10 acres are presumed to be inadequate to accommodate lower income housing, unless the City makes an additional showing as to why such development on these sites is realistic or feasible.	Appendix B has been updated to include additional analysis under this section.
The Housing Element has some basic information on demographics and overall scores for access to opportunity. However, the element generally does not address AFFH. The Housing Element needs to include outreach, an assessment of fair housing, identification and prioritization of contributing factors to fair housing issues and goals and actions sufficient to overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity.	The noted information can be found on the following pages in Section 3: • Outreach: Page 3-43 “Housing Element Outreach” • Assessment of fair housing: Page 3-44 “Local Contributing Factors” and 3-86 “Assessment of Contributing Factors to Fair Housing in Huntington Beach” • Goals and actions: Page 3-100 “Analysis of Fair Housing Goals and Priorities”
The City has identified one (R)TCAC area of high segregation and poverty located in the north-central area of the city, which also has a higher concentration of Hispanic population[2]. The city does not indicate which programs outlined in the Chapter 4: Housing Plan will specifically address segregation and poverty patterns or how these programs, which were also outlined in the 5th Cycle Housing Element, will increase housing opportunities.	The City has a variety of programs outline in Section 4 to increase opportunity in lower resource and lower income areas.
The identified sites are concentrated along or adjacent to the 39 highway and furthest from the shoreline. This is concerning given that the CalEnviro Screen	The City chose these areas as they show most opportunity to be redeveloped based on development trends, majority of Huntington Beach is built out single

[2] City of Huntington Beach, Draft Housing Element, October 2021, p. 3-51.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
map, Figure 3-12, shows that the census tracts in much of this area have higher levels of pollution than other areas in the city. Furthermore, the city must ensure that sites are identified in varying locations in the city to reduce concentration of affordable housing construction and income segregation. The identified housing sites are predominantly located census tracts with the lowest to moderate levels of opportunity in the city	family residential community. The City provides a fair housing analysis of the sites in Section 3, “Analysis of Sites Pursuant to AB 686”.
Additionally, the city does not provide a thorough analysis of displacement and gentrification trends in the city, as required by AFFH. The City must conduct this analysis and present it to the public and it must provide policies and programs that will help address potential displacement and gentrification.	An urban gentrification and displacement analysis has been added to this section.
The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and mitigate greenhouse gas, air quality and transportation impacts.	This comment has been considered.
I own property in the Holly-Seacliff Industrial corridor, which with the new proposed draft Housing Element, it has a new Residential housing over lay, I am against any type of Housing Element adjacent to industrial property, the two property uses are not compatible, there is also no parking or current infrastructure to accommodate any level of new density housing within the Industrial corridor.	The sites are identified for an overlay, the existing base zone will remain and there will be no non-conforming uses.
In its Housing Element, Huntington Beach says that it has 1612 housing units in the housing pipeline but does not list them. I talked to Jennifer Villasenor, the Deputy Director of Community Development, who assures me this number is correct. (Thanks for talking to me, Jennifer.) But. This is a very big number for a city that, according to its 2020 Annual Progress Report, has only permitted 2754 homes in the whole 5th RHNA cycle through 2020. The city needs to list these pipeline projects so that interested parties can check them out.	A map displaying the projects in the pipeline has been added to Appendix B.
Realizing that we are a built-out city, is that the reason for most of the affordable housing sites located along Beach Blvd. and Gothard?	That is correct, along with considerations about access to transit, resources and essential retail.
The site list indicates that staff spoke with some property owners regarding the future use of their properties. • What assurances did the city receive from property owners that their property is available to develop housing as identified? • Did these property owners provide enough insight to allow the City to feel that there was a possibility for these properties to be used for affordable housing?	The sites were selected based on HCD criteria for density, size, propensity for redevelopment. Property owners reached out with interested in housing for a number of sites, others were selected based on the criteria above.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
• Does the California Department of Housing and Community Development (HCD) accept potential properties for meeting RHNA? • What criteria must the City provide to HCD that these properties would become available for affordable use?	
Will rezoning properties in commercial and industrial areas to residential damage our economy and tax base?	The City will utilize overlay zones to provide additional opportunity for housing while still permitting the uses as outline in the base zone.
How has the city's historical zoning contributed to housing discrimination and how can this wrong be corrected?	The Fair Housing analysis in Section 3 provide essential analysis to understand segregation, discrimination and displacement issues in Huntington Beach.
What is the difference between rezoning a property and an Affordable Housing Overlay?	Rezoning a property will change the permitted uses in the base zone – if a site is zone for commercial and is rezoned to residential, the site will not longer permit commercial uses. However, a site is zone for commercial use, and an overlay is applied, the site now permits the uses in the base commercial zone, as well as residential. This expands a developer and property owner's opportunity on a site.
does not appear to be any consideration of aged and deteriorating properties to rehabilitate and maintain them as affordable housing units.	Section 2 reviews housing age and condition, Programs 1.A Housing Rehab Loan Program and 1.B Multi-Family Acquisition and Rehabilitation support efforts to rehab deteriorating or dilapidated units.
Why has the document combined the Low/Very Low-Income Assessment into one number of units?	For the purpose of the sites analysis, the density which is consider feasible for Low and Very Low income units is the same, 30 du/acre.
Do you know whether HCD will accept the conversion of properties that are now various uses?	Yes, conversion of nonresidential uses to residential units (so long as they meet the requirements for a unit as defined by HCD) can be counted towards a portion of the RHNA.
What can the State do to a city that does not comply with their Site List in the Housing Element after the 8-year period? Are there periodic reviews by HCD to monitor compliance with a city's Housing Element? Will there be fines for non-compliance?	Potential repercussions include loss of funding and resources as well as potential loss of local control. The State reviews Annual Progress Reports (APRs) which are submitted to HCD by every jurisdiction in California.
Three sites are on the Goldenwest College Campus, and they represent 19% of the total RHNA allocation. How did the city identify these sites and what is the involvement of the city to see these projects through? Is the acreage identified on the Site List accurate (35, 25, 37.4 acres)	The calculation of units on these sites has since been adjusted, per public comment and consideration. Goldenwest expressed interest in residential opportunity, there is no total acreage, and the units may occur across the campus in different areas by site was identified to accommodate a total of 600 units.
Is there any effort to identify sites along other transportation corridors (Magnolia, Brookhurst, PCH, Warner, Adams)? We are concerned that this draft Site List	This comment has been considered.

Table C-2: Comments on the Public Review Draft	
Comment	**Response**
does not Affirmatively Affordable Housing and therefor is not equitable in the distribution of sites throughout the city.	
Has the city confirmed with hotel operators and property owners this conversion to permanent housing? Would these units be SRO's or one bedroom with a small kitchen?	The sites identified for potential conversion are the most viable for residential use, if conversion were to occur it would be through Project HomeKey.
Note: The matrix above includes summaries of key themes from comment letters received, all comment letters are attached in Section C.8 below.	

C.1 Workshop #1 Community Meeting Materials

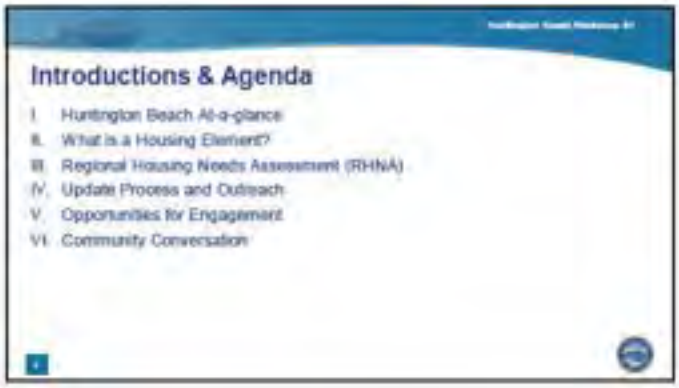
This section contains all the related materials from the Virtual Community Workshop #1. This includes the outreach flyer, materials provided to participants, and the workshop summary were provided in English and Spanish. Comments were received in the chat box, polling questions, and open-ended questions with typed responses. Video recording of the workshop and verbal comments are available at https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/.

Housing Element Update
2021-2029
Workshop 1
When April 22, 2021, at 6 PM
Where Virtual, Zoom

1

Guide for a Productive Workshop
We are excited you can join us
Actively participate – we need your input!
Be respectful and respect differences
Listen for understanding
Share your ideas with room for others
Have fun!
This presentation will be recorded and available on the City's website:
www.huntingtonbeachca.gov/housing-element-update

2


Introductions & Agenda
I. Huntington Beach At-a-glance
II. What is a Housing Element?
III. Regional Housing Needs Assessment (RHNA)
IV. Update Process and Outreach
V. Opportunities for Engagement
VI. Community Conversation

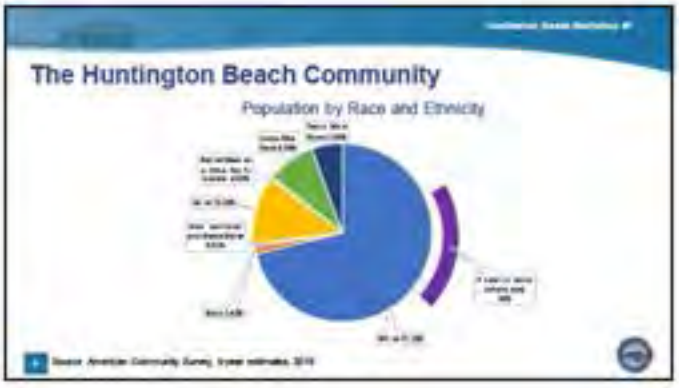
3

Thank you for participating in today's workshop!
To ask a question please:
Use the Chat feature to send your question to staff
Raise your hand, you will be asked to unmute and ask your question/provide your comment to staff

4

Huntington Beach At-a-Glance

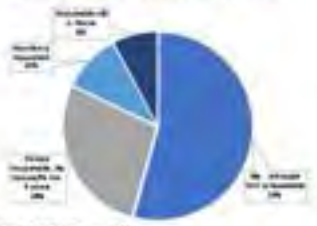
5


The Huntington Beach Community
Population by Race and Ethnicity

6

The Huntington Beach Community

Huntington Beach Households by Type



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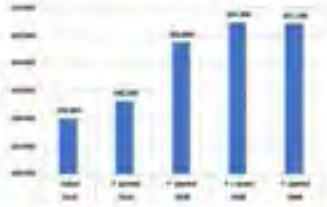
The Huntington Beach Community

Population Projections, 2000-2040

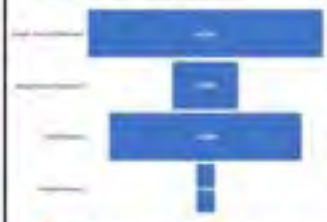


Owner vs Renter

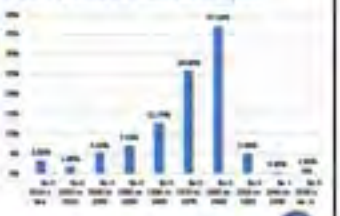
8

Housing in Huntington Beach

Housing by Type, Huntington Beach



Housing Units by Year Constructed



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What is a Housing Element?

- Required Chapter of the Huntington Beach General Plan
- Identifies current housing need and guides future growth to meet all income levels in Huntington Beach
- Requires certification by the state department of housing and community development (HCD) for consistency with state housing law
- Engages the community of Huntington Beach in the planning process

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Housing Element Features

- Population and housing profile of Huntington Beach
- Evaluation of housing constraints and resources
- Evaluation of existing programs and policies
- Identification of sites appropriate to accommodate the City's RHNA Allocation
- Policies, programs and quantified objectives to achieve the City's housing goals

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What is RHNA?

- Initiates the Housing Element Update process
- Statewide determination of housing units to accommodate current and project needs
- Based on future growth in population, employment and households, access to essential needs and transportation
- Quantifies housing needs, by income category, within each County and City in California

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How is RHNA determined?

Department of Housing and Community Development

HCD determines and distributes the State's housing need to all the regional councils of government

Southern California Association of Governments

SCAG develops methodology to determine "fair share" distribution of the region's housing need to local jurisdictions

City of Huntington Beach

RHNA Allocation, 2021-2029

11,760 units

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Huntington Beach RHNA Numbers

Income Category	% of Median Family Income	Annual Income Range*	
		Min.	Max.
Very Low Income	0 - 50% MFI	–	$61,300
Low Income	51 – 80% MFI	$62,100	$82,400
Moderate Income	81 – 120% MFI	$83,400	$123,900
Above Moderate Income	>120% MFI	$123,900	>$123,900
			Total:

1. Each income category is defined as a range of household income that represents a percentage of the Median Family Income (MFI). The MFI for a family of four in the Orange County region is $123,000.

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Community Engagement Timeline

Community Workshop #1 - April 22, 2021

Online Survey - Spring 2021

PC/EC Meetings - Spring 2021

Community Workshop #2 - Early Summer 2021

Planning Commission and City Council Meetings - Late Summer 2021

Public Hearings - Fall 2021

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Mentimeter

Using your phone or computer go to **www.Menti.com**

Insert the code: **2221 0240**

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How Can You Engage?

Your participation is vital to the Housing Element Update

There are numerous opportunities for participation including:

- Workshop #2, Summer
- Online Community Survey
- City Council and Planning Commission Meetings
- Review of the Public Review Draft

The City will continue to provide detailed information and dates for additional community engagement, visit: www.huntingtonbeachca.gov/housing-element-update/

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Subscribe to Updates!

- Visit the City's Webpage.
- Click on one of the information tabs.
- Click "*Subscribe to the Housing Element Update*" shown on the right.
- Enter your email and click "*Subscribe Now*"

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We Want Your Input!

Participate in the Housing Element Survey!

Go to:

www.huntingtonbeachca.gov/housing-element-update/

Click the link titled "Take Survey" to begin

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How to use the Survey

1. Click the link provided on the City's website using either your phone or a desktop/laptop
2. Click the Check Mark to start the survey
3. Carefully read the instructions on each slide
4. Respond to the provided prompts with your ideas and input
5. Complete slide five and click "*Finish*" to complete the survey and submit all responses

The survey provides the City with important community feedback to help shape goals and policies within the Housing Element. Your input is very important!

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Thank you!

Staff is available until the end of the meeting to answer questions.

For additional or follow up questions, please reach out to the Housing Element Update Team at:

housingelement@surfcity-hb.org

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Thank you for participating in today's workshop!

To ask a question please:

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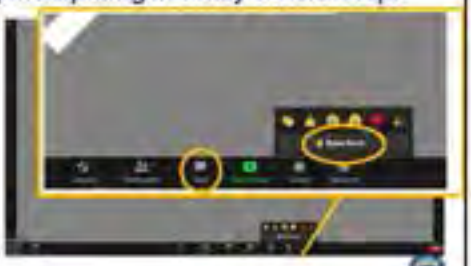

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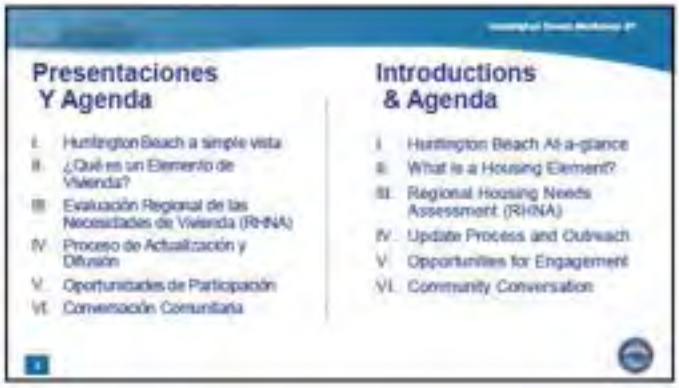
Actualización del Elemento de Vivienda 2021-2029
Taller #1
Fecha: 22 de abril a las 6 PM
Lugar: Virtual, por Zoom
Housing Element Update 2021-2029
Workshop #1
When: April 22, 2021, at 6 PM
Where: Virtual, Zoom

1


Presentaciones Y Agenda
I. Huntington Beach a simple vista
II. ¿Qué es un Elemento de Vivienda?
III. Evaluación Regional de las Necesidades de Vivienda (RHNA)
IV. Proceso de Actualización y Difusión
V. Oportunidades de Participación
VI. Conversación Comunitaria
Introductions & Agenda
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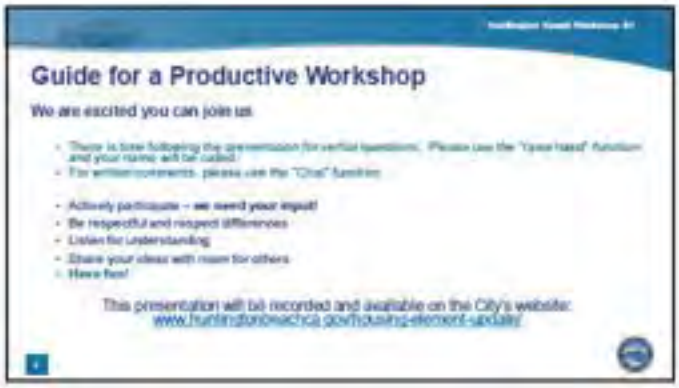
2


Guide for a Productive Workshop
We are excited you can join us
Actively participate – we need your input!
Be respectful and respect differences
Listen for understanding
Share your ideas with room for others
Have fun!
This presentation will be recorded and available on the City's website:
www.huntingtonbeachca.gov/housing-element-update/

3

Guía para un Taller Productivo
¿Estamos entusiasmados de que pueda acompañarnos
¡Participe de forma activa – necesitamos su opinión!
Sea respetuoso y respete las diferencias
Escuche para comprender
Comparta sus ideas dejando espacio para otros
¡Diviértase!
Esta presentación se grabará y estará disponible en el sitio web de la ciudad:
www.huntingtonbeachca.gov/housing-element-update/

4

English Breakout Room

5

English Breakout Room

6

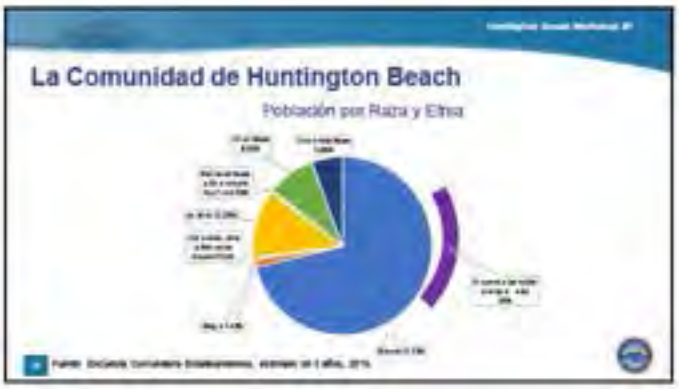
7

¡Gracias por participar en el taller de hoy!
Para hacer alguna pregunta:
• Utilice la función del chat para enviar su pregunta al personal
• Levante la mano, se le pedirá que abra el micrófono y haga su pregunta o proporcione su comentario al personal

8

Huntington Beach A Simple Vista

9


La Comunidad de Huntington Beach
Población por Raza y Etnia

10

La Comunidad de Huntington Beach
Hogares en Huntington Beach por Tipo

11

La Comunidad de Huntington Beach
Proyecciones de Población: 2000-2040
Propietario o Arrendatario

12

La Vivienda en Huntington Beach

Viviendas por Tipo, Huntington Beach

Unidades de Vivienda por Año de Construcción

13

14

¿Qué es el Elemento de Vivienda?

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Características del Elemento de Vivienda

- Perfil de población y vivienda de Huntington Beach
- Evaluación de los recursos y las limitaciones para la vivienda
- Evaluación de los programas y políticas existentes
- Identificación de los sitios apropiados para adaptar la Distribución RHNA de la ciudad
- Guías, programas y objetivos cuantificados para lograr las metas de vivienda de la ciudad

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¿Qué es el RHNA?

- Inicia el proceso de Actualización del Elemento de Vivienda
- Es la determinación estatal de unidades habitacionales para adaptar las necesidades actuales y de proyectos
- Está basada en el crecimiento futuro de la población, el empleo y los hogares, en el acceso a las necesidades esenciales y en el transporte
- Cuantifica las necesidades de los hogares, por categoría de ingreso, dentro de cada condado y cada ciudad de California

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¿Cómo se Determina el RHNA?

Departamento de Vivienda y Desarrollo Comunitario

El HCD determina y distribuye la necesidad de vivienda del estado a todos los ayuntamientos regionales del gobierno

Asociación de Gobiernos del Sur de California

SCAG desarrolla una metodología para determinar la distribución "justa" de la necesidad de vivienda de la región en las jurisdicciones locales

Ciudad de Huntington Beach Distribución del RHNA 2021-2029

13,368 unidades

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Números del RHNA para Huntington Beach

Categoría de Ingresos	% del Ingreso Medio Familiar (MFI)	Rango de Ingreso Anual*		Distribución del RHNA (Unidades cuantificadas)
		Mín.	Máx.	
Ingresos muy Bajos	0 – 50% MFI	–	$51,300	3,661 unidades
Ingresos Bajos	51 – 80% MFI	$51,530	$82,400	2,184 unidades
Ingresos Moderados	81 – 120% MFI	$82,430	$123,900	2,309 unidades
Ingresos por encima de Ingresos Moderados	>120% MFI	$123,900	>$123,900	5,215 unidades
			Total:	13,368 unidades

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Cronograma de Participación Comunitaria

Taller Comunitario #1 – Abril 13 del 2021

Encuesta en Línea – Primavera del 2021

Sesión de Estudio del PC/TC – Primavera del 2021

Sesión de Estudio del PC/TC – Verano del 2021

Audiencias Públicas – Otoño del 2021

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Mentimetro

Utilizando su teléfono o su computadora vaya a **www.Menti.com**

Ingrese el Código: **86 19 36 8**

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¿Cómo puede participar?

Su participación es vital para la Actualización del Elemento de Vivienda

Existen muchas oportunidades para su participación que incluyen:

- Talleres
- Encuestas
- Reuniones de la Comisión de Planificación y el Concejo de la Ciudad
- La Revisión del Borrador de la Revisión Pública

La ciudad continuará proporcionando información detallada y fechas de participación comunitaria adicionales, visite: www.huntingtonbeachca.gov/housing-element-update/

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¡Suscríbase para Actualizarse!

- Visite la Página Web de la Ciudad
- Haga clic en una de las pestañas de información
- Haga clic en "*Subscribe to the Housing Element Update*" que se muestra a la derecha
- Ingrese su correo electrónico y haga clic en "*Subscribe Now*"

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¡Queremos sus Comentarios!

¡Participe en la Encuesta del Elemento de Vivienda!

Vaya a: www.huntingtonbeachca.gov/housing-element-update/

Haga clic en el enlace titulado "Llenar Encuesta" para comenzar.

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Cómo usar la Encuesta

1. Haga clic en el enlace que se le proporciona en el sitio web de la ciudad utilizando, ya sea su teléfono o su computadora de escritorio o computador portátil
2. Haga clic en la marca de verificación para iniciar la encuesta
3. Lea atentamente todas las instrucciones en cada diapositiva
4. Responda a las preguntas o indicaciones con sus ideas y sus comentarios
5. Complete la diapositiva cómo y haga clic en "Enviar Preguntas Finales" para completar la encuesta y enviar todas sus respuestas

La encuesta proporciona a la ciudad los comentarios importantes de la comunidad lo cual ayuda a crear los metas y las guías para el Elemento de Vivienda. ¡Sus comentarios son muy importantes!

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¡Gracias!

El personal esta disponible hasta el final de la reunión para contestar sus preguntas.

Para preguntas adicionales o de seguimiento, por favor comuníquese con el Equipo de la Actualización del Elemento de Vivienda a:

housingelement@surfcity-hb.org

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¡Gracias por participar en el taller de hoy!
Para hacer alguna pregunta:
• Utilice la función del chat para enviar su pregunta al personal
• Levante la mano, se le pedirá que abra el micrófono y haga su pregunta o proporcione su comentario al personal
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CITY OF HUNTINGTON BEACH

2021-2029 Housing Element Update Virtual Community Meeting

The City of Huntington Beach is beginning the process of updating the 2021-2029 Housing Element!

Please join us remotely to learn about what happens when the City updates its Housing Element, why the City is required to do so, and what opportunities community members have to give feedback.

The virtual meeting will focus on:

- Housing needs and services within Huntington Beach
- Opportunities to provide housing at all income levels in the community
- Identifying constraints to building and accessing housing
- Upcoming community engagement opportunities

WHEN: Thursday, April 22, 2021 at 6 PM

WHERE: A Zoom link will be available on the City's Housing Element Update webpage

WEBSITE: huntingtonbeachca.gov/housingelement

For questions, please contact:
housingelement@surfcity-hb.org

CIUDAD DE HUNTINGTON BEACH

Taller Comunitario de la Actualización del Elemento de Vivienda 2021-2029

¡La ciudad de Huntington Beach está iniciando el proceso para actualizar el Elemento de Vivienda 2021-2029!

Únase a nosotros de forma remota para conocer qué sucede cuando la ciudad actualiza su Elemento de Vivienda, por qué la ciudad debe hacerlo y qué oportunidades tienen los miembros de la comunidad para proporcionar sus comentarios.

La reunión virtual se enfocará en lo siguiente:

- Necesidades de vivienda y servicios dentro de Huntington Beach
- Oportunidades para proporcionar vivienda a todos los niveles de ingreso en la comunidad
- Identificar las limitaciones para la construcción y el acceso a la vivienda
- Próximas oportunidades de participación comunitaria

FECHA: Jueves, 22 de abril del 2021 a las 6 PM

LUGAR: Un enlace de Zoom estará disponible en la Actualización del Elemento de Vivienda en la página web de la ciudad

SITIO WEB: huntingtonbeachca.gov/housingelement

Si tiene preguntas, por favor comuníquese a:
housingelement@surfcity-hb.org

CITY OF HUNTINGTON BEACH

2021-2029 Housing Element Update

The City of Huntington Beach is in the process of updating the 2021-2029 Housing Element. This Fact Sheet answers commonly asked questions and provides information about the update process.

What is a Housing Element?

The Housing Element is one of the required elements of the Huntington Beach General Plan. The Housing Element provides policies, programs, and actions that support and encourage housing growth at all income levels.

Key Sections of the Housing Element:

- Population and housing analysis for Huntington Beach
- Evaluation of constraints to building housing and identifying potential resources for housing development
- Evaluation of 2013-2021 Housing Element programs and policies to determine what worked and what needs to be changed
- Analysis of potential housing sites that can accommodate Huntington Beach's anticipated housing needs in the next eight years
- Development of policies, programs, and quantified objectives for the 2021-2029 planning period

Why is the City Updating the Housing Element?

The City of Huntington beach is required by State law to update its Housing Element every eight years. The current adopted Housing Element is for the 2013-2021 planning period. The City is now planning for the 2021-2029 planning period.

Importance of Updating the Housing Element:

- Allows the community to provide feedback to guide the future of housing in Huntington Beach
- Ensures the City complies with State housing laws
- Allows the City to become eligible for State grants and funding sources
- Demonstrates the ability to meet future anticipated housing growth needs

What is the Regional Housing Needs Assessment (RHNA) Process?

The RHNA process is mandated by state law and lays out the number of housing units in different income categories that Huntington Beach must plan for. The RHNA is determined by the State Department of Housing and Community Development (HCD) and distributed by the Southern California Association of Governments (SCAG) for each city in the Southern California region. For the 2021-2029 Planning Period, the City of Huntington Beach is allocated 13,368 housing units based on the income categories listed below. The Housing Element is required by the State to identify sites to accommodate this estimated growth.

2021 - 2029 City of Huntington Beach RHNA Housing Needs Allocation

Income Category	% of Area Median Income (AMI)	Income Range*		RHNA Allocation (Housing Units)
		Min.	Max.	
Very Low Income	0-50%	- -	$51,500	3,661 units
Low Income	51-80%	$52,501	$82,400	2,184 units
Moderate Income	81-120%	$83,401	$133,900	2,308 units
Above Moderate Income	>120%	$133,901	- -	5,215 units
			Total	13,368 units

*Income range is based on the 2020 HUD Area Median Income (AMI) for Orange County of $103,000.

What is Included in the Update Process?

The update process is community-based and will include a variety of activities to interface with the Huntington Beach community. Key features include:

- A series of community workshops and other community engagement opportunities
- Comprehensive review of the community to analyze existing conditions
- Identification of sites to meet 2021-2029 RHNA
- Public Hearings before the Planning Commission and City Council

How Can You Participate in the Update Process?

- Virtual Workshop will be held on April 22, 2021 for community members to come and learn about the process and provide their feedback to the City. This workshop will be hosted in English and in Spanish.
- Sign up to be placed on the interest contact list.
- Submit written comments to the email address provided below.
- Once all public comments are collected, a Public Review Draft will be available for review and comments in Summer 2021.

For more information and details on upcoming events. please visit:
huntingtonbeachca.gov/housingelement
or contact: housingelement@surfcity-hb.org.

CIUDAD DE HUNTINGTON BEACH

Actualización del Elemento de Vivienda 2021-2029

La ciudad de Huntington Beach está en proceso de actualizar el Elemento de Vivienda 2021-2029. Esta Hoja Informativa responde a las preguntas más frecuentes y proporciona información sobre el proceso de actualización.

¿Qué es un Elemento de Vivienda?

El Elemento de Vivienda es uno de los elementos requeridos por el Plan General de la ciudad de Huntington Beach. El elemento de vivienda proporciona normas, programas y acciones que apoyan y fomentan el crecimiento de la vivienda en todos los niveles de ingreso.

Secciones Clave del Elemento de Vivienda:

- Análisis de población y vivienda para Huntington Beach
- Evaluación de las limitaciones para la construcción de viviendas e identificación de recursos potenciales para el desarrollo de viviendas
- Evaluación de las normas y programas del Elemento de Vivienda 2013-2021 para determinar qué funcionó y que debe cambiarse
- Análisis de sitios de vivienda potenciales que pueden adaptarse para las necesidades de vivienda que se anticipan en Huntington Beach en los próximos ocho años
- Desarrollo de normas, programas y objetivos cuantificados para el periodo de planificación 2021-2029

¿Por qué la ciudad está actualizando el Elemento de Vivienda?

La ley estatal requiere que la ciudad de Huntington Beach actualice su Elemento de Vivienda cada ocho años. El Elemento de Vivienda adoptado actualmente es para el periodo de planificación 2013-2021. La ciudad ahora está planificando para el periodo de planificación 2021-2029.

La Importancia de Actualizar el Elemento de Vivienda:

- Permite a la comunidad proporcionar comentarios para orientar el futuro de la vivienda en Huntington Beach
- Garantiza que la ciudad cumpla con las leyes estatales de vivienda
- Permite que la ciudad sea elegible para subvenciones estatales y fuentes de financiación
- Demuestra la capacidad de satisfacer las necesidades futuras de crecimiento de vivienda previstas

¿Qué es el Proceso de Evaluación de Necesidades de Vivienda Regional (RHNA)?

El proceso RHNA es un mandato de la ley estatal y establece la cantidad de unidades de vivienda en diferentes categorías de ingresos para las que Huntington Beach debe planificar. El RHNA se determina por el Departamento de Vivienda y Desarrollo Comunitario del Estado (HCD) y se distribuye por la Asociación de Gobiernos del Sur de California (SCAG) para cada ciudad en la región del sur de California. Para el período de planificación 2021-2029, a la ciudad de Huntington Beach se le asignaron 13,368 unidades de vivienda basándose en las categorías de ingresos que se enumeran a continuación. El estado requiere que el Elemento de la Vivienda identifique los sitios que se adapten a este crecimiento estimado.

Distribución de las Necesidades de Vivienda del RHNA para el 2021-2029

Categoría de Ingresos	% de Ingreso Familiar Rango Medio (MFI)	Escala de Ingresos*		Distribución del RHNA
		Min.	Max.	
Ingresos muy bajos	0-50%	- -	$51,500	3,661 unidades
Ingresos bajos	51-80%	$52,501	$82,400	2,184 unidades
Ingresos moderados	81-120%	$83,401	$133,900	2,308 unidades
Ingresos por encima de moderados	>120%	$133,901	- -	5,215 unidades
			Total	13,368 unidades

*El rango de ingresos se basa en el HUD Ingreso Familiar Rango Medio (MFI) del Condado de Orange de $103,000.

¿Qué se Incluye en el Proceso de Actualización?

El proceso de actualización se basa en la comunidad e incluirá una variedad de actividades para interactuar con la comunidad de Huntington Beach. Las características clave incluyen:

- Una serie de talleres comunitarios y otras oportunidades de participación
- Una revisión integral de la comunidad para analizar las condiciones existentes
- La identificación de sitios para cumplir con el RHNA 2021-2029
- Audiencias Públicas ante la Comisión de Planificación y el Concejo de la Ciudad

¿Cómo Puede usted Participar en el Proceso de Actualización?

- El Taller Virtual se llevará a cabo el 22 de abril del 2021 para que los miembros de la comunidad vengan y aprendan acerca del proceso y proporcionen sus comentarios a la ciudad. Este taller se llevará a cabo en inglés y en español.
- Regístrese para ser incluido en la lista de contactos interesados
- Envíe sus comentarios por escrito a la dirección de correo electrónico que se proporciona a continuación.
- Una vez que se hayan recopilado todos los comentarios públicos, un Borrador de la Revisión Pública estará disponible para revisión y comentarios en el verano del 2021.

Para más información y detalles sobre los próximos eventos, por favor visite:
huntingtonbeachca.gov/housingelement
o comuníquese con: housingelement@surfcity-hb.org.

C.2 Spanish Speaking Outreach Event Materials

This section contains the summary and public comments from the Spanish Speaking Outreach Event. Participants discussed housing needs and services within Huntington Beach, opportunities to provide housing at all income levels in the community, identifying constraints to building and accessing housing, as well as upcoming community engagement opportunities. The Outreach Event provided opportunities for the public to discuss options and provide feedback specific to the Spanish-speaking community in Huntington Beach. The event summary can be found at: https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/.

CITY OF HUNTINGTON BEACH

PLANNING DIVISION

SPANISH SPEAKING OUTREACH EVENT

TO: **Spanish Speaking Residents**

DATE: **Saturday June 5, 2021**

SUBJECT: **Spanish Speaking Booth at the Oak View Neighborhood Cleanup Event - 2021-2029 Housing Element Update**

We need your input! Please join us at the Oak View Neighborhood Cleanup Event for information about the City's Housing Element Update, new State requirements, and to share your ideas about the future of housing in Huntington beach.

The City will have a booth at the Oak View Neighborhood Cleanup Event on Saturday June 5, 2021 from 8 AM to 10 AM.

For more information, please visit the City's Housing Element Update website at:

https://www.huntingtonbeachca.gov/housing-element-update/

Should you have questions, please contact the City of Huntington Beach Housing Element Update Team at housingelement@surfcity-hb.org

CIUDAD DE HUNTINGTON BEACH

DIVISIÓN DE PLANIFICACIÓN

EVENTO DE ALCANCE COMUNITARIO EN ESPAÑOL

PARA: **Residentes**

FECHA: **Sábado 5 de junio de 2021**

TEMA: **Caseta para personas de habla hispana en el Evento de Limpieza del Vecindario de Oak View de la Actualización del Elemento de Vivienda 2021-2029**

¡Necesitamos su opinión! Por favor únase a nosotros en el evento de limpieza del vecindario de Oak View para obtener más información sobre la Actualización del Elemento de Vivienda de la ciudad, los nuevos requisitos, y para compartir sus ideas acerca del futuro de la vivienda en Huntington Beach.

El Evento de Limpieza del Vecindario de Oak View en Español se llevará a cabo el sábado 5 de junio de 8 am a 10 am.

Para obtener instrucciones de cómo obtener acceso a la reunión, por favor visite el sitio web de la Actualización del Elemento de Vivienda de la ciudad en:

https://www.huntingtonbeachca.gov/housing-element-update/

Si tiene alguna pregunta, por favor comuníquese con el Equipo de la Actualización del Elemento de Vivienda en housingelement@surfcity-hb.org

CIUDAD DE HUNTINGTON BEACH

Actualización del Elemento de Vivienda
Evento de Alcance Comunitario en Español

¡La ciudad de Huntington Beach está en el proceso de actualización del Elemento de Vivienda 2021-2029!

La ciudad está instalando una caseta en el Evento de Limpieza del Vecindario de Oak View para la comunidad de habla hispana de Huntington Beach para conocer la actualización del Elemento de Vivienda de la ciudad. Únase a nosotros para aprender acerca del proceso de actualización y cómo es que puede involucrarse para proporcionar sus comentarios e ideas. Por favor visite la caseta entre las 8 AM y las 10 AM para hablar con el equipo del proyecto ¡Esperamos verlo!

El evento se enfocará en lo siguiente:

- Las necesidades y servicios referentes a la vivienda dentro de Huntington Beach
- Las oportunidades para proporcionar vivienda para todos los niveles de ingreso en la comunidad
- Identificar las limitaciones para el acceso y la construcción de viviendas
- Próximas oportunidades de participación comunitaria

FECHA: Sábado 5 de junio de 2021 a las 8 AM

LUGAR: 17261 Oak Ln, Huntington Beach, CA 92647

SITIO WEB: huntingtonbeachca.gov/housingelement

Si tiene alguna pregunta, por favor comuníquese con:
housingelement@surfcity-hb.org

CITY OF HUNTINGTON BEACH

2021-2029 Housing Element Update
Spanish Speaking Outreach Event

The City of Huntington Beach is in the process of updating the 2021-2029 Housing Element!

The City is setting up a booth at the Oak View Neighborhood Cleanup Event for Huntington Beach's Spanish speaking community to learn about the City's Housing Element update. Please join us to learn about update process and how you can get involved to provide your thoughts and ideas. Please stop by the booth any time from 8am to 10am to talk with the project team. We look forward to seeing you!

The event will focus on:

- Housing needs and services within Huntington Beach
- Opportunities to provide housing at all income levels in the community
- Identifying constraints to building and accessing housing
- Upcoming community engagement opportunities

WHEN: Saturday June 5, 2021 at 8 AM

WHERE: 17261 Oak Ln, Huntington Beach, CA 92647

WEBSITE: huntingtonbeachca.gov/housingelement

For questions, please contact:
housingelement@surfcity-hb.org

CIUDAD DE HUNTINGTON BEACH

Encuesta del Elemento de Vivienda 2021-2029

¡La ciudad de Huntington Beach está en proceso de actualizar su Elemento de Vivienda y ha creado una encuesta para recopilar sus comentarios. Escanee el código QR a continuación para participar en la encuesta!

CÓDIGO QR PARA ENCUESTA EN INGLES:

CÓDIGO QR PARA ENCUESTA EN ESPAÑOL:

Si tiene preguntas, por favor comuníquese a:
housingelement@surfcity-hb.org

CITY OF HUNTINGTON BEACH

2021-2029 Housing Element Survey

The City of Huntington Beach is in the process of updating their housing element and has created a survey to gather your feedback. Please scan the QR code below to participate in the survey!

ENGLISH SURVEY QR CODE:

SPANISH SURVEY QR CODE:

For questions, please contact:
housingelement@surfcity-hb.org

City of Huntington Beach/ Ciudad de Huntington Beach
Oakview Outreach Event Summary/Resumen del Evento de Alcance de Oakview
June 5, 2021/5 de Junio de 2021

Outreach Summary/Resumen de Alcance

On June 5, 2021 the City of Huntington Beach participated in a community pop-up event in the Oakview community. The purpose of the event was to provide information on the Housing Element update process and to gather input from the public, which will shape the goals, policies, and programs in the Housing Element for the Spanish speaking community.

El 5 de Junio de 2021, la Ciudad de Huntington Beach participó en un evento comunitario en la comunidad de Oakview. El propósito del evento fue proporcionar información sobre el proceso de actualización del Elemento de Vivienda y recopilar opiniones del público. El plan dará forma a las metas, políticas y programas del Elemento de Vivienda para la comunidad.

Summary of Comments (Sticky Note Exercise)- English

During the event participants were asked to share their ideas on challenges and opportunities for housing. The participants said safety and housing affordability within the community are the biggest challenges for housing. Participants felt that there is opportunity in developing community gathering areas whether that be a community garden soccer arena or a bigger playground and provide low-income housing.

Durante el evento, los participantes compartieron sus ideas sobre los desafíos y oportunidades para la vivienda. Los participantes dijeron que la seguridad y el precio de la vivienda dentro de la comunidad son los mayores desafíos para la vivienda. Los participantes sintieron que existe la oportunidad de desarrollar áreas de reunión comunitarias, como un campo de fútbol, un jardín comunitario, un patio de juegos más grande y proporcionar viviendas para personas de bajos ingresos.

English

Challenges	Opportunities
More green grass	Soccer arena
Less trash	Community garden
Less people driving fast	Less racism
Nicer alleys	More goals program
Better people	Better food at school
Nicer plants	Bigger playgrounds
	More flowers

Spanish Comments Translated into English

Challenges	Opportunities
We want low income housing that is safe. .... For 29-30 years.	Two-story housing with subterranean parking
We need affordable housing that is safe	Green building materials and renewable energy
Housing for people who are employed because we don't want to live with bad people	We need more housing for people of low income, seniors, and large households with an income less than $30,000 a year

City of Huntington Beach/ Ciudad de Huntington Beach
Oakview Outreach Event Summary/Resumen del Evento de Alcance de Oakview
June 5, 2021/5 de Junio de 2021

Challenges	Opportunities
We have children who can't play outside on the yard because of bad people in the neighborhood	Pay for them and my daughters and I can live better lives
More police surveillance. Make owners of apartments provide more trash cans	Housing for low income families so our community can live in homes with less people per household
Bigger .... MCD	
We need more police surveillance during the day and night because there's shootings at night	
Most of us in the community are low income and it would benefit us greatly if apartments were upgraded and repaired. That would help the Spanish speaking community	
We need affordable housing for households that make less than $30,000 a year	
High Price	
Space	

Spanish

Desafios Para La Vivienda	Oportunidades Para La Vivienda
Quermos bajas rentas pero seguras teno mo ululendo aqoíenla comunidor por 29-30 años	Edificios de dos pisos con garage subterraneo
Necesitamos viviendas para bajos recursos pero seguras	Usar materials de energia verde
Para Personas que trabajan porque no queremos vivir con gente mal viviente	Necisitamos mas viviendas para personas de bajos recursos y para personas adultos y viviendas para families con muchos miembros en su familia que tengan un ingreso de 30,000 0 menos
Tenamos hijos que no pueden salir a jugar a las yardas por la gente mal viviente	Pagar por ellas y podamos vivir major nuestras hijas
Mas vigilancia policia y ciudad y los dueños de los departamentos tenga botes de basura	Nesesitasmos viviendas de bajos recursos para que nuestras comonidades vivamos menos gente en ellas que podemos
Mas Grandes Coradras MCD	
Necesitamos mas vigilancia con policias por el dia y noche porque hay muchos tiroteos por la noche	
Todos en la comunidad somos bajos recursos nos aquedarian si pueden ayudar a mejorar los apratamentos si construer, pero es major ayudar al hispano	

City of Huntington Beach/ Ciudad de Huntington Beach
Oakview Outreach Event Summary/Resumen del Evento de Alcance de Oakview
June 5, 2021/5 de Junio de 2021

Desafíos Para La Vivienda	Oportunidades Para La Vivienda
Necisitamos viviendas de bajos recursos que esten en buen estado que ganan menos de $30,000	
Precio alto	
Espacio	

City of Huntington Beach/ Ciudad de Huntington Beach
Oakview Outreach Event Summary/Resumen del Evento de Alcance de Oakview
June 5, 2021/5 de Junio de 2021

Photos/Fotos

City of Huntington Beach/ Ciudad de Huntington Beach
Oakview Outreach Event Summary/Resumen del Evento de Alcance de Oakview
June 5, 2021/5 de Junio de 2021

C.3 Stakeholder Outreach Meeting Materials

This section contains the summary and public comments from the various Stakeholder Meetings. Participants discussed housing needs and services within Huntington Beach, opportunities to provide housing at all income levels in the community, identifying constraints to building and accessing housing, as well as upcoming community engagement opportunities. The meeting provided the opportunity for various housing developers and advocates to discuss options and provide feedback specific to housing needs and development in Huntington Beach.

Housing Element Update Stakeholder Outreach Meeting Summaries

Meeting 1

1. Group: Local School Districts Stakeholder Meeting June 1, 2021
2. Attendees included representatives from:
    a. Huntington Beach Union High School District
    b. Fountain Valley School District
    c. Ocean View School District
    d. Huntington Beach City School District
    e. Westminster School District

3. Summary:
   Representatives from each organization operate public schools within the City of Huntington Beach. Discussion included the Mckinney-Vento Act, potential reuse of former school sites, and housing challenges faced by the population served by the Districts.

Meeting 2

1. Group: Building Industry Association of Southern California Stakeholder Meeting June 2, 2021
2. Attendees included representatives from: Building Industry Association of Southern California
3. Summary:
   Discussion and commentary included flexibility and incentives for development and the Orange County market. Issues and concerns included fees, processing times, construction costs, and sustainability.

Meeting 3

1. Group: Housing Advocates and Community Organizations Stakeholder Meeting June 3, 2021
2. Attendees included representatives from:
    a. HB Council on Aging
    b. Beach Cities Interfaith Services
    c. St. Bonaventure Catholic Church
    d. Families Forward
    e. Self-Help Interfaith Program (SHIP)
    f. OC Community Housing Corp
    g. First Christian Church
    h. Homeless United HB
    i. OC United Way
    j. Regional Center of Orange County (RCOC)
    k. Habitat for Humanity OC
    l. HomeAid OC
    m. HB Interfaith Council
    n. Robyne's Nest
    o. Abode Communities
    p. American Family Housing
    q. People for Housing OC
    r. Oak View Family Resources Center

s. Radiant Health Centers

3. Summary:
   Discussion and commentary included a need for affordable housing, housing for seniors, people with disabilities, and smaller housing options. Issues and concerns included walkable/transit accessible development with access to economic opportunities, preserving open space, and ensuring housing development has a connection to the larger community.

Meeting 4

1. Group: Local Housing Developers Stakeholder Meeting June 3, 2021
2. Attendees included representatives from:
   a. The Olson Company
   b. SoCal Multihousing
   c. Red Oak Investments
   d. Shea Homes
   e. Brookfield Residential
   f. SAS Development
   g. Equity Residential
   h. Sapetto Real Estate Solutions
   i. Province Group
3. Summary:

Discussion and commentary included the Orange County market, economics of constructing housing, support for the recent improvements to the City's electronic plan submittal process. Issues and concerns included development application processing times, clarity in development standards, and fees.

Meeting 5

1. Group: Local Faith-Based Organizations Stakeholder Meeting June 17, 2021
2. Attendees included representatives from:
   a. St. Bonaventure Catholic Church
   b. Refuge Calvary Chapel
   c. First Christian Church
3. Summary:

Discussion and commentary included community services/outreach that each organization provides, a need for affordable housing, and a need for appropriate housing for seniors and/or people with disabilities. Issues and concerns included affordable housing for seniors/widows, methods to connect people in need with applicable services, and a need for increased rental assistance.

C.4 Virtual Townhall Meeting Materials

This section contains the summary and public comments from the Virtual Townhall Meeting. Participants were presented with Housing Element progress, overview of RHNA, community and housing characteristics, and engaged in various activities. Spanish translations are available for the Townhall Meeting through a breakout room. The recording, discussion notes, and activities are provided in the workshop summary which can be found at:
www.huntingtonbeachca.gov/housing-element-update/public-outreach/.

Housing Element Update 2021-2029
Huntington Beach Townhall Meeting
Actualización del Elemento de Vivienda 2021-2029
Reunión del Ayuntamiento de Huntington Beach

1

Guide for a Productive Workshop
We are excited you can join us
Actively participate – we need your input!
Be respectful and respect differences
Listen for understanding
Share your ideas with room for others
Have fun!
This presentation will be recorded and available on the City's website:
www.huntingtonbeachca.gov/housing-element-update

2

Guía Para un Taller Productivo
Estamos emocionados de que puedas unirte a nosotros
Participe activamente, ¡necesitamos su opinión!
Sea respetuoso y respete las diferencias
Escuche para comprender
Comparta sus ideas y abra espacio para otras
Diviértete
Esta presentación se grabará y estará disponible en el sitio web de la Ciudad:
www.huntingtonbeachca.gov/housing-element-update

3

Introductions & Agenda
I. Housing Element Progress to Date
II. Regional Housing Needs Assessment (RHNA) Overview
III. Housing Density and Product Types
IV. Housing Density Exercise
V. Housing Element Sites Selection
VI. Update Process and Outreach
VII. Next Steps
VIII. Q&A
Presentaciones Y Agenda
I. Progreso del Elemento de Vivienda Hasta la Fecha
II. Descripción General de la Evaluación de Necesidades de Vivienda Regional (RHNA, por sus siglas en inglés)
III. Densidad de Viviendas y Tipos de Productos
IV. Ejercicio de Densidad de Viviendas
V. Selección de Sitios para Elementos de Vivienda
VI. Proceso de Actualización y Divulgación
VII. Próximos Pasos
VIII. Preguntas y Respuestas

4

Thank you for participating in today's workshop!
To ask a question, please:
Use the Chat feature to send your question to staff
Raise your hand. You will be asked to unmute and ask your question/provide your comment

5

¡Gracias por participar en el taller de hoy!
Para hacer alguna pregunta:
Utilice la función del chat para enviar su pregunta al personal
Levante la mano, se le pedirá que abra el micrófono y haga su pregunta o proporcione su comentario al personal

6

Spanish Breakout Room

7

Spanish Breakout Room

8

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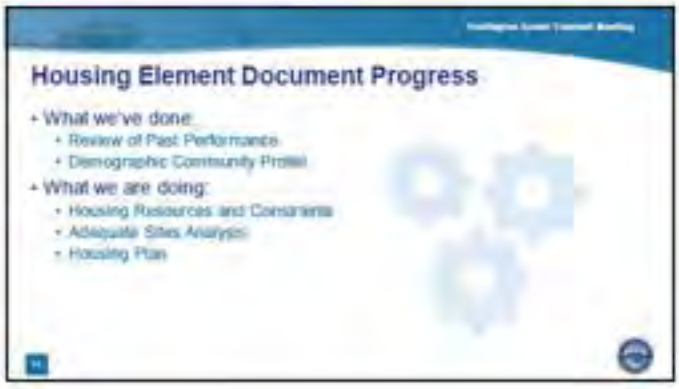
Housing Element
Progress to Date

10


Housing Element Document Progress
• What we've done:
• Review of Past Performance
• Demographic Community Profile
• What we are doing:
• Housing Resources and Constraints
• Adequate Sites Analysis
• Housing Plan

11

Regional Housing Needs
Assessment Overview

12

Huntington Beach RHNA

Income Category	% of Median Family Income	Annual Income Range		RHNA Allocation (Housing Units)
		Min.	Max.	
Very Low Income	0 - 50% MFI	--	$53,350	3,661 units
Low Income	51 – 80% MFI	$53,350	$85,360	2,284 units
Moderate Income	81 – 120% MFI	$85,360	$128,040	2,305 units
Above Moderate Income	>120% MFI	>$128,040	--	5,215 units
			Total:	13,368 units

1. Each income category is defined as a range of household incomes that represents a percentage of the Median Family Income (MFI). The MFI for a family of four in the Orange County region is $106,700 for the year 2021.

13

14

What is Density?

- Density is expressed in units per net acre for residential uses.

Source: League of California Cities, https://www.calcities.org/Resource-Documents/Education-and-Events-Section/Planners-Institute/2015-Session-Materials/Understanding-Density-And-Development-Impacts

15

Housing Developments Types

16

17

Mentimeter

Using your phone or computer go to **www.Menti.com**

Insert the code: **7438 6130**

18

19

Sites Selection Analysis Overview

- All parcels within the City are reviewed for their housing growth potential
- The existing and potential future capacity of the following areas are analyzed during the site analysis process:
  - Vacant sites
  - Underutilized parcels
  - Underused parking lots
  - Existing commercial properties with mixed-use potential
  - Existing light industrial/business parks
  - Proximity to transit corridors

20

Community Input

Community members provided feedback using an online survey, letting us know where and what type of housing they would like to see.

21

Existing Housing Types within Huntington Beach

- Single-family attached
- Duplex/Condominiums
- Townhouses
- Apartments
- Senior Living
- Mixed-Use
- Accessory Dwelling Units

22

Identifying Existing Capacity For Housing

- Existing capacity is the number of units that can be built based on the existing zoning designation
- The State determines density that affordable housing units are likely to be built at, aka "default density"
  - Huntington Beach: 30 dwelling units per acre (du/ac)

23

Potential Rezoning of Sites to Accommodate RHNA

- Rezoning changes the existing zoning of a property designation of a parcel
- Parcels may change:
  - From a non-residential zone (ex: commercial) to a residential zone to allow the development of housing in new areas
  - From one residential zone to another residential zone which permits a different future housing yield/number of units

24

Affirmatively Furthering Fair Housing (AFFH)

- Fair and equitable distribution of housing at all income levels throughout the community
- Protects against communities being overburdened
- Takes into consideration:
  - A variety of housing types (single-family, apartment, townhome, etc.)
  - Mix of affordability levels
  - Access to transportation and employment
  - Community resources

25

26

Community Engagement Timeline

27

28

How Can You Engage?

Your participation is vital to the Housing Element Update!

There are numerous opportunities for participation including:

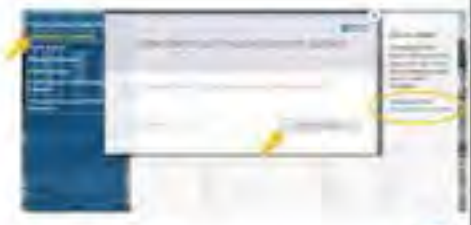
- City Council and Planning Commission Meetings
- Read and submit comments on the Public Review Draft

The City will continue to provide detailed information and dates for additional community engagement; visit: www.huntingtonbeachca.gov/housing-element-update/

29

Subscribe to Updates!

- Visit the City's Webpage
- Click on one of the information tabs.
- Click "*Subscribe to the Housing Element Update*" shown on the right
- Enter your email and click "*Subscribe Now*"



30

Thank you!

Staff is available until the end of the meeting to answer questions.

For additional or follow up questions, please reach out to the Housing Element Update Team at:

housingelement@surfcity-hb.org

31

32

Thank you for participating in today's workshop!

To ask a question, please:

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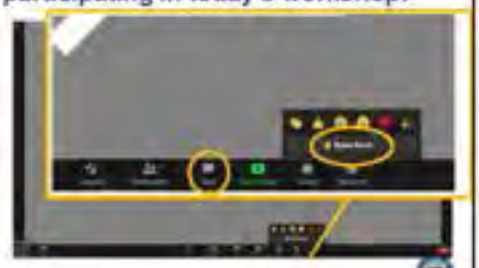

33

Actualización del Elemento de Vivienda 2021-2029

Reunión del Ayuntamiento de Huntington Beach

Fecha: 24 de junio del 2021, 6:00 PM- 7:30 PM
Lugar: Zoom Virtual

1

Guía Para un Taller Productivo

Estamos emocionados de que puedas unirte a nosotros

- Hay tiempo después de la presentación para preguntas verbales. Utilice la función "levantar la mano" y se le llamará por su nombre.
- Para comentarios o preguntas por escrito, utilice la función "Chat".

- Participe activamente, ¡necesitamos su opinión!
- Sea respetuoso y respete las diferencias
- Escuche para comprender
- Comparte tus ideas y abre espacio para otras
- Diviértete

Esta presentación se grabará y estará disponible en el sitio web de la Ciudad:
www.huntingtonbeachca.gov/housing-element-update/

2

Presentaciones y Agenda

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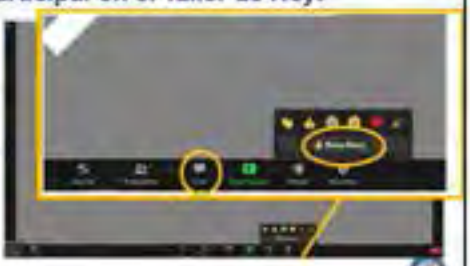
¡Gracias por Participar en el Taller de Hoy!

Para hacer una pregunta, por favor:

- Utilice la función de "Chat" para enviar su pregunta al personal
- Levante la mano, se le pedirá que active el sonido del micrófono y haga su pregunta/ proporcione su comentario al personal



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Progreso del Documento del Elemento de Vivienda

- Lo que hemos hecho
  - Revisión del Desempeño Pasado
  - Perfil de la Comunidad Demográfica
- Lo que estamos haciendo
  - Recursos y Restricciones de Vivienda
  - Análisis de Sitios Adecuados
  - Plan de Vivienda

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Números de RHNA para Huntington Beach

Categoría de Ingresos	% del Ingreso Familiar Medio (MFI, por sus siglas en inglés)	Rango de Ingresos Anuales[1]		Distribución de RHNA (Unidades Habitacionales)
		Mín.	Máx.	
Ingresos Muy Bajos	0 – 50% MFI	–	$53,350	3,461 unidades
Ingresos Bajos	51 – 80% MFI	$53,351	$85,360	2,184 unidades
Ingresos Moderados	81 – 120% MFI	$85,361	$128,040	2,308 unidades
Ingresos Superiores a Ingresos Moderados	>120% MFI	>$128,041	–	5,215 unidades
			Total:	13,168 unidades

1. Esta categoría de ingresos se define como una escala de ingresos familiares que representa un porcentaje del ingreso familiar medio (MFI por sus siglas en inglés). La MFI de 2021 para una familia de cuatro en la región del Condado de Orange es de $106,700.

8

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¿Qué es la Densidad?

- La densidad se expresa en unidades por acre neto para usos residenciales.

Fuente: League of California Cities, https://www.calcities.org/Resources-Documents/Education-and-Events-Section/Planners-Institute/2019-Session-Materials/Understanding-Density-And-Development-Intensity

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Mentimetro

Utilizando su teléfono o su computadora vaya a **www.Menti.com**

Ingrese el código:

6887 3308

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Descripción General del Análisis de Selección de Sitios

- Todas las parcelas dentro de la ciudad se revisan para determinar su potencial de crecimiento de viviendas.
- La capacidad futura existente y potencial de las siguientes áreas se analiza durante el proceso de análisis del sitio:
  - Sitios vacantes
  - Parcelas infrautilizadas
  - Estacionamientos infrautilizados
  - Propiedades comerciales existentes con potencial de uso mixto
  - Parques industriales / comerciales ligeros existentes
  - Proximidad a los corredores de tránsito

15

Contribución de la Comunidad

Los miembros de la comunidad proporcionaron comentarios mediante una encuesta en línea, y nos informaron dónde y qué tipo de vivienda les gustaría ver.

16

Tipos de Viviendas Existentes en Huntington Beach

- Casa Para Una Sola Familia
- Dúplex / Condominio
- Casas Adosadas
- Apartamentos
- Viviendas para Personas Mayores
- Usos Mixtos
- Unidades de Vivienda Adicionales (ADU, por sus siglas en inglés)

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Identificación de la Capacidad Existente para la Vivienda

- La capacidad existente es la cantidad de unidades que se pueden construir según la designación de zonificación existente.
- El estado determina la densidad en la que es probable que se construyan las unidades de vivienda asequible, también conocida como "densidad predeterminada"
  - Huntington Beach, 30 unidades de vivienda por acre (du/ac, por sus siglas en inglés)

18

Posible Rezonificación de Sitios para Acomodar RHNA

- La rezonificación cambia la zonificación existente de la designación de una propiedad de una parcela
- Las parcelas pueden cambiar:
  - De una zona no residencial (ej., comercial) a una zona residencial para permitir el desarrollo de viviendas en nuevas áreas
  - De una zona residencial a otra zona residencial que permita un rendimiento futuro de vivienda / número de unidades diferente

19

Promoviendo Afirmativamente la Vivienda Justa (AFFH, por sus siglas en inglés)

- Distribución justa y equitativa de la vivienda en todos los niveles de ingresos en toda la comunidad.
- Protege contra las comunidades sobrecargadas
- Toma en consideración:
  - Una variedad de tipos de viviendas (casa para una sola familia, apartamentos, casas adosadas, etc.)
  - Mezcla de niveles de asequibilidad
  - Acceso al transporte y al empleo
  - Recursos de la comunidad

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Cronograma para la Participación Comunitaria

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¿Cómo Puede Participar?

¡Su participación es vital para la Actualización del Elemento de Vivienda!

Hay numerosas oportunidades de participación, incluyendo:

- Reuniones con el Consejo de la Ciudad y la Comisión de Planificación
- Revisión del Borrador de Revisión Pública

La ciudad continuará proporcionando información detallada y fechas para participación comunitaria adicional, visite:
www.huntingtonbeachca.gov/housing-element-update/

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¡Inscríbase para Recibir Información Actualizada!

- Visite la página web de la ciudad.
- Haga clic en una de las pestañas de información.
- Haga clic en "*Subscribe to the Housing Element Update*" que se muestra a la derecha.
- Proporcione su correo electrónico y haga clic en "*Subscribe Now*"

25

¡Gracias!

El personal estará disponible hasta al final de la reunión para contestar sus preguntas.

Si tiene preguntas adicionales o complementarias, por favor comuníquese con el Equipo de la Actualización del Elemento de Vivienda a:

housingelement@surfcity-hb.org

26

27

¡Gracias por Participar en el Taller de Hoy!

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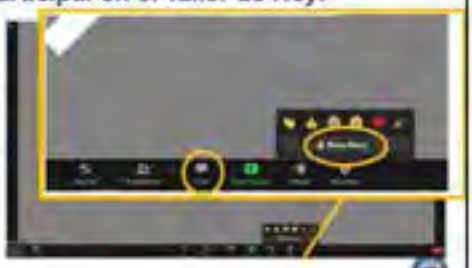

28

Project Name: Downtown Superior
Location: Superior, CO
Density: 56 DU/AC

Project Name: Dana Strand Senior Apartments
Location: Wilmington, CA
Density: 46 DU/AC

Project Name: Solaira At Pavilion Park
Location: Irvine, CA
Density: 31 DA/AC

Project Name: Camden at Playa Vista
Location: Playa Vista, CA
Density: 24 DU/AC

Project Name: AMLI Uptown Orange
Location: Orange, CA
Density: 60 DU/AC

CITY OF HUNTINGTON BEACH

2021-2029 Housing Element Update Virtual Townhall Meeting

The City of Huntington Beach is the process of updating the 2021-2029 Housing Element!

Please join us to learn more about the City's Housing Element update and the candidate sites analysis process. This is an opportunity to learn about different housing types within the City and provide the project team with valuable community input.

The virtual meeting will focus on:

- Brief Overview of a Housing Element
- Housing Types and Densities
- Candidate Housing Sites Analysis
- Upcoming Community Engagement Opportunities

WHEN:	Thursday, June 24, 2021 at 6 PM
WHERE:	Online Meeting Via Zoom, Click the link below: https://kimley-horn.zoom.us/j/99058438628
MEETING ID:	990 58843 8628
CALL-IN NUMBER:	+1 669 900 6833
WEBSITE:	huntingtonbeachca.gov/housingelement

For questions, please contact:
housingelement@surfcity-hb.org

CIUDAD DE HUNTINGTON BEACH

Reunión Virtual del Ayuntamiento de la Actualización del Elemento de Vivienda 2021-2029

¡La ciudad de Huntington Beach está en proceso de actualizar el Elemento de Vivienda 2021-2029!

Por favor únase a nosotros para obtener más información sobre la actualización del Elemento de Vivienda de la ciudad y el proceso de análisis de los sitios candidatos. Esta es una oportunidad para aprender acerca de los diferentes tipos de viviendas dentro de la ciudad y para proporcionar información valiosa de la comunidad al equipo del proyecto.

La reunión virtual se enfocará en lo siguiente:

- Una Descripción Breve de un Elemento de Vivienda
- Los Tipos y las Densidades de Viviendas
- Un Análisis de los Sitios Candidatos para Viviendas
- Próximas Oportunidades de Participación Comunitaria

FECHA: Jueves 24 de junio de 2021 a las 6 PM

LUGAR: Reunión Virtual via Zoom - pulse el enlace a continuación:

https://kimley-horn.zoom.us/j/99058438628

CÓDIGO: 990 58843 8628

PARA PARTICIPAR POR TELÉFONO: +1 669 900 6833

SITIO WEB: huntingtonbeachca.gov/housingelement

Si tiene preguntas, favor de comunicarse a:
housingelement@surfcity-hb.org

C.5 Public Scoping Materials

This section contains the summary and public comments from the Public Scoping Meeting. The City of Huntington Beach held a virtual public Scoping Meeting to solicit comments on the scope of the Subsequent Environmental Impact Report (SEIR). Oral and written questions or comments regarding the Scoping Meeting or any environmental issues to be considered were directed to Senior Analyst, Nicolle Aube and provided here.

Housing Element Update
2021-2029

Subsequent Environmental Impact Report – Scoping Meeting

When: August 19, 2021, 5:00 PM to 7:00 PM
Where: Virtual, Zoom Meeting

1

Guide for a Productive Scoping Meeting

We are excited you can join us!

- There is time following the presentation for verbal questions/comments.
- Actively participate – we need your input.
- Be respectful and respect differences.
- Listen for understanding.
- Share your ideas with room for others.
- Have fun.

This presentation will be recorded and available on the City's website:
www.huntingtonbeachca.gov/housing-element-update/

2

Thank you for participating in today's meeting!

To ask a question/ submit a comment, please:

- Use the Chat function to submit in writing.
- Use the Raise Hand function to submit verbally - *you will be asked to unmute and ask your question/ provide your comment.*

3

Meeting Agenda

I. Roles and Responsibilities
II. What is CEQA?
III. CEQA Process
IV. CEQA Requirements
V. Environmental Topics to be Analyzed in the E.I.R.
VI. Housing Element Overview
VII. Regional Housing Needs Assessment (RHNA) Overview
VIII. Opportunities for Public Comments
IX. Contact Information
X. Public Comments

4

Roles and Responsibilities

- City of Huntington Beach
  - "Lead Agency" for Project's CEQA review
  - Responsible for the adequacy and objectivity of the Project's CEQA document
- Kimley-Horn and Associates
  - Retained by City to prepare the Project's environmental documentation

5

6

CEQA's Purpose

- Inform decision-makers and public about potential environmental effects of proposed activities
- Identify ways to avoid or reduce potential environmental effects
- Analyze alternatives to the Project
- Disclose to public reasons for approval of projects with significant environmental effects

7

CEQA Process

8

Notice of Preparation

- Contents:
  - Brief Project description and location
  - States where documents relating to the Project can be found
- Notifies responsible agencies and other interested parties that an SEIR will be prepared
- Solicits public input regarding the scope, focus, and content of the upcoming SEIR
- Distributed for a 30-day public review period

9

Purpose of Scoping Meeting

- Describe the Project
- Receive input from the public and interested agencies on the environmental issues to be addressed in the SEIR

10

What does CEQA Require?

- Consideration of a project's components, including construction and operations
- Comparison of existing environmental conditions to future conditions with Project implementation
- Mitigation of significant impacts
- Evaluation of Alternatives to the proposed Project

11

What Does CEQA Require (cont.)?

- Environmental Impacts:
  - Direct and indirect
  - Short-term (e.g., construction)
  - Long-term (e.g., operations)
  - Cumulative
  - Growth-inducing
  - Unavoidable

12

Subsequent Environmental Impact Report (SEIR)

- An SEIR, as described more fully in State CEQA Guidelines, Article 11, means an EIR prepared after certification of a previous project EIR to address changes to a project or environment affected by a project.
- This EIR is an SEIR to the previously adopted *City of Huntington Beach General Plan Update Program Environmental Impact Report, SCH No. 2015101032*.

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Environmental Topics to be Analyzed in the SEIR

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

14

15

What is a Housing Element?

16

Housing Element Features

- Profiles Huntington Beach population and housing
- Evaluates housing constraints and resources
- Evaluates existing programs and policies
- Identifies candidate sites appropriate to accommodate the City's RHNA Allocation
- Includes policies, programs and quantified objectives to achieve the City's housing goals

17

18

What is RHNA?

- Initiates the Housing Element Update process
- Statewide determination of housing units to accommodate current and projected needs
- Based on future growth in population, employment, and households; considers access to essential needs and transportation
- Quantifies housing needs, by income category, within each County and City in California

19

How is RHNA determined?

Department of Housing and Community Development

HCD determined and distributed the State's housing need to all the regional councils of government

Southern California Association of Governments

SCAG developed a methodology to determine "fair share" distribution of the region's housing need to local jurisdictions

City of Huntington Beach

RHNA Allocation, 2021-2029

13,368 units

20

Huntington Beach RHNA Allocation

Income Category	% of Median Family Income	Annual Income Range[1]		RHNA Allocation (Housing Units)
		Min.	Max.	
Very Low Income	0 - 50% MFI	--	$53,350	3,661 units
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			Total	13,368 units

1. Each income category is defined as a range of household incomes that is a percentage of the Median Family Income (MFI). The 2021 MFI for an Orange County family of four is $106,700.

21

22

How Can You Engage?

Your participation is vital to the Housing Element Update

Opportunities for participation:

- Notice of Preparation
- Scoping Meeting (today)
- During the 45-day Draft SEIR Public Comment Period
- Planning Commission and City Council Public Hearings

The City will continue to provide detailed information and dates for additional community engagement; visit: www.huntingtonbeachca.gov/housing-element-update/

23

NOP Opportunities for Public Comment

- Tonight's Scoping Meeting
  - You are encouraged to comment
  - Please focus comments on environmental issues for analysis in the SEIR
  - Notice of Preparation Comment Period will end

September 7, 2021, at close of business (5:00 PM)

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NOP Opportunities for Public Comment (cont'd)

- Speakers are invited to use the "raise hand" function to speak and inform the City of environmental issues to be considered in the SEIR
- Written comments may also be submitted via:
  - U.S. Mail (address provided on next slide)
  - Email (address provided on next slide)

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Public Comment Contact Information

- Please submit written comments (or e-mails) to:

Nicolle Aubé, AICP, Senior Analyst
City of Huntington Beach
Department of Community Development
2000 Main Street
Huntington Beach, California 92648
nicolle.aube@surfcity-hb.org
(714) 374-1529

26

Public Comments & Questions

27

Thank you for attending!

For additional or follow up questions, please reach out to the Housing Element Update Team:

housingelement@surfcity-hb.org

Visit the Housing Element Update webpage for more information:

www.huntingtonbeachca.gov/housingelement

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C.6 Online Community Survey Materials

This section contains the summary of survey results for the English and Spanish Surveys. The Online Community Survey was live from April 28-May 31, 2021.

Community Survey

On April 28, 2021 the City of Huntington Beach launched an online community survey to gather additional feedback regarding potential housing needs, housing experiences, vision for future housing, which housing types and housing opportunities to include in the Housing Element. The survey also solicited feedback regarding potential barriers or constraints to housing access and the development of housing. The survey was live through April 28, 2021 to May 31 2021 and was available on the City's webpage, https://www.huntingtonbeachca.gov/housing-element-update/. In total, there were 2,141 survey participants, below is a summary of their responses and the survey's results.

Slide 2: Housing Needs

Participants were provided a variety of questions about housing experiences, housing constraints and housing types. The charts below identify all participant responses and display the total number and percentages of participants who ranked housing experience by number and percentage scale.

Figure 1 displays data results for participant responses to when they looked for housing in Huntington Beach. Based on the data, participants were looking the most in the last two years as well as the last six to ten years. In **Figure 2** participants were asked why they were looking for housing and majority stated "other"(37 percent) following close with participants needing a "larger house"(26 percent) and job relocation(10 percent). People who were looking housing because of addition of new household member downsizing and school districts all had the same percentages (9 percent respectively).

Figure 1: Have you or a close family member recently looked for housing?

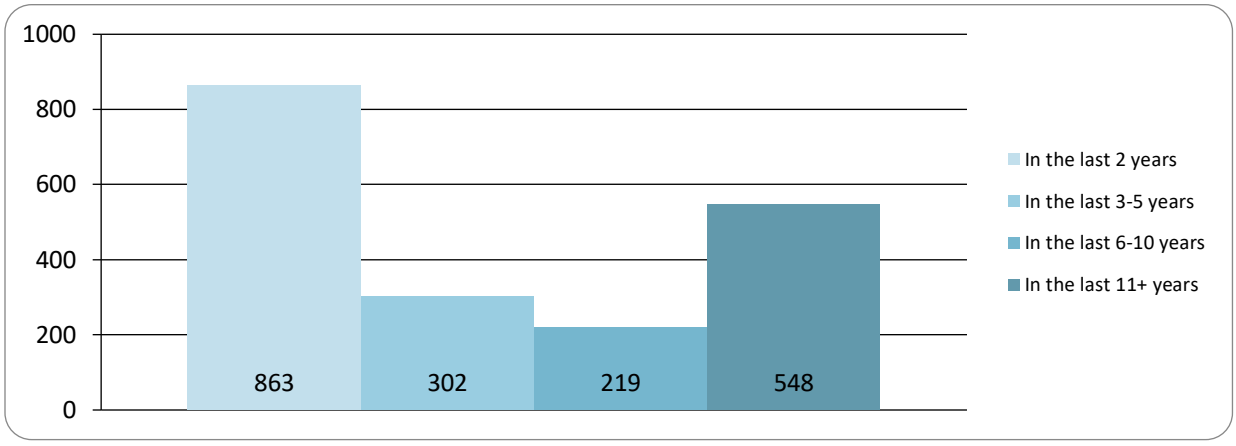
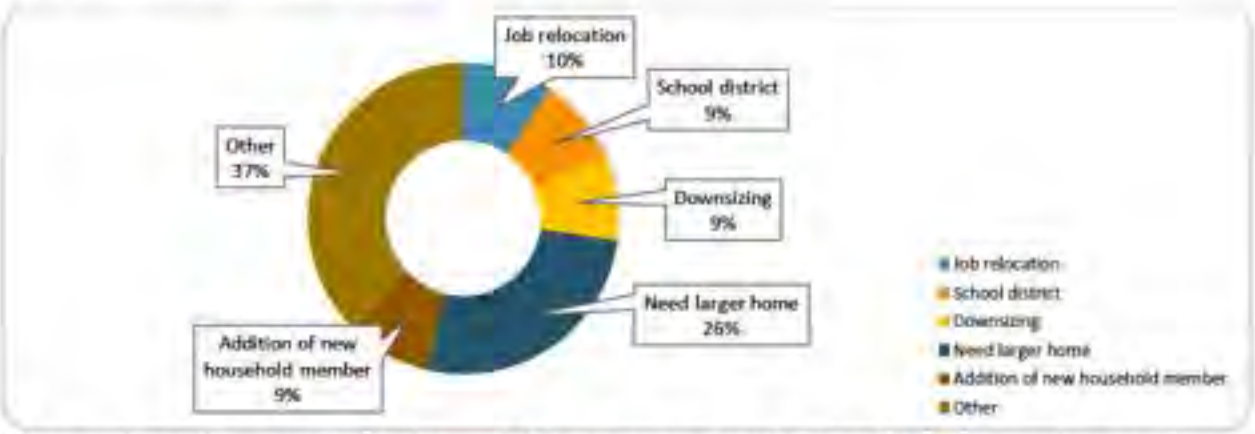


Figure 2: Why were you looking for housing?



When participants were asked in **Figure 3** if they were looking for a unit to buy or rent, majority were looking to buy in the City of Huntington beach (1,329 participants) while 405 participants were looking to rent, and 167 participants had not looked for housing recently. **Figure 4** asked participants what barriers to finding appropriate housing when trying to buy a house, majority felt that price, long term affordability was biggest constraint(823 participants). Participants also felt that cost, availabilities of finance was another barrier in finding appropriate housing (675 participants). **Figure 5** asked participants what barriers to finding appropriate housing when trying to rent in Huntington Beach, participants felt that the cost of rent is too high(443 participants), cost of security deposit(242 participants) and number of bedrooms were the biggest constraints(398 participants).

Figure 3: Where were you looking for a unit to buy or to rent?

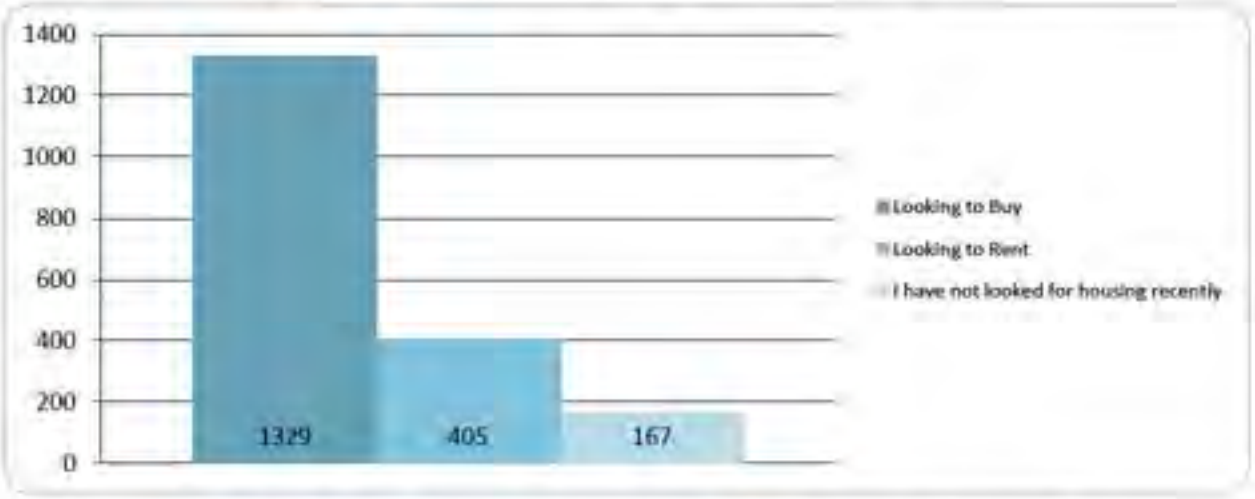


Figure 4: If for sale, what were barriers to finding appropriate housing?

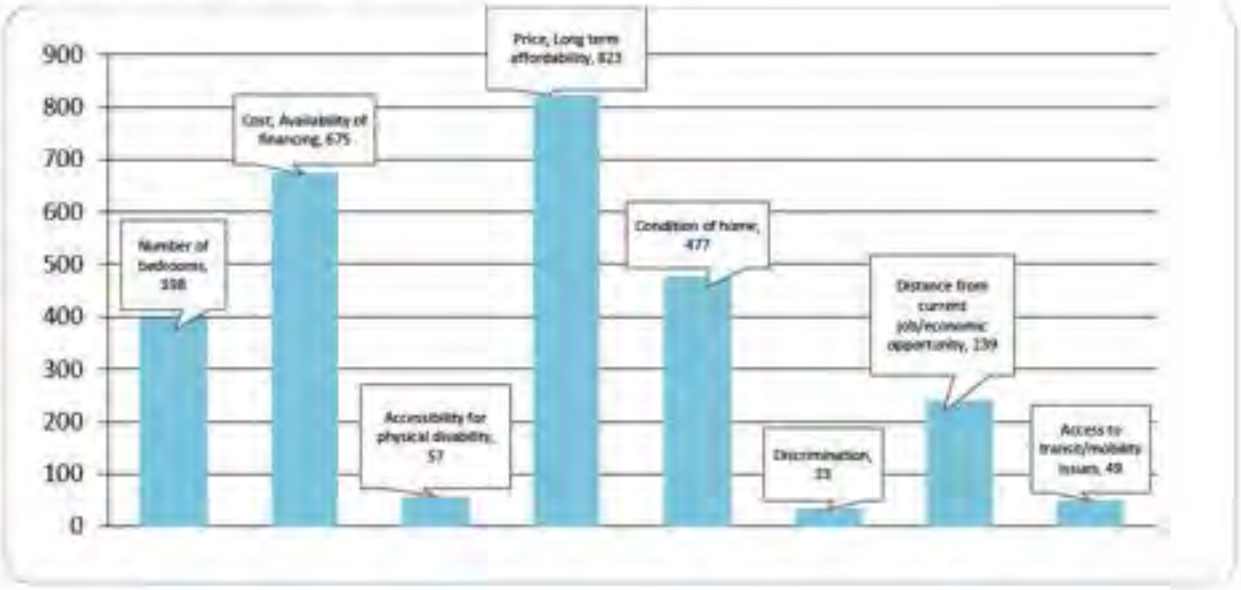

900
800
700
600
500
400
300
200
100
0
Number of bedrooms, 398
Cost, Availability of financing, 675
Accessibility for physical disability, 57
Price, Long term affordability, 823
Condition of home, 477
Discrimination, 33
Distance from current jobs/economic opportunity, 239
Access to transit/mobility issues, 49

Figure 5: If for rent, what were barriers to finding appropriate housing?

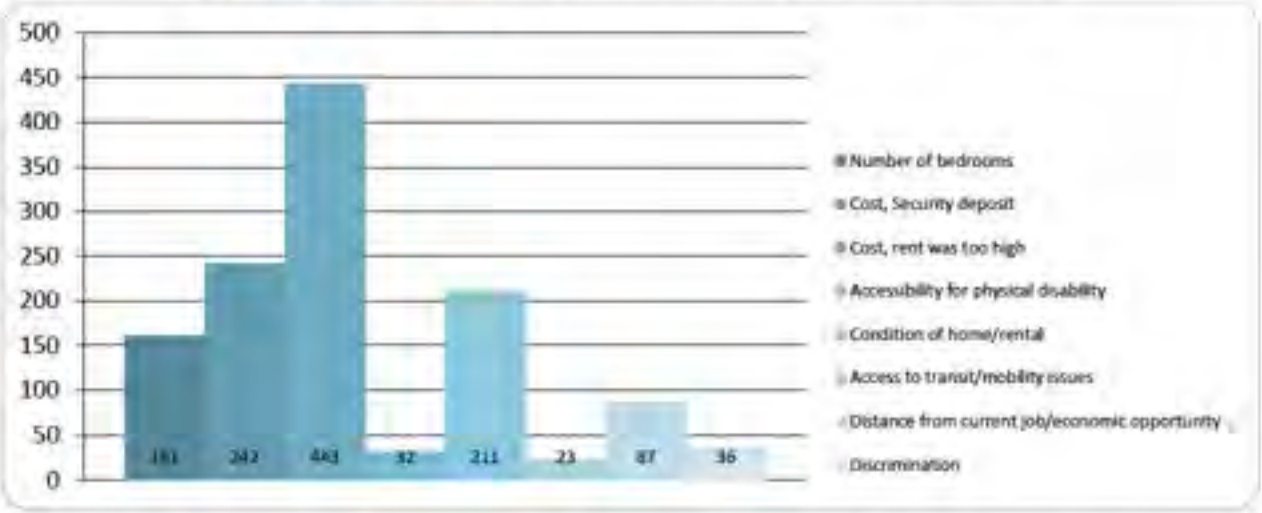


Figure 6 asked participants if they were looking for a new home today, what type of housing they would consider and most of the participants felt that single family detached(50 percent) and single family attached(12 percent). **Figure 7** shows the data responses of the type of single-family housing best help Huntington Beach provide housing for all residents in the community and majority felt that tradition single family homes would be the best fit (1,494 people). **Figure 8** asked participants which type of Single-Family Homes best provide housing for Huntington Beach residents majority of the participants found that 3-4 bedrooms to be the most popular response(1,248 people). **Figure 9** displays the data of the types of multi-family housing that best help Huntington Beach provide housing for all residents in the community and the participants felt condominiums(1,078 people), apartments(752 people) and Mixed uses (582 people).

Figure 6: If you were looking for a new home today, what type of housing would you consider?

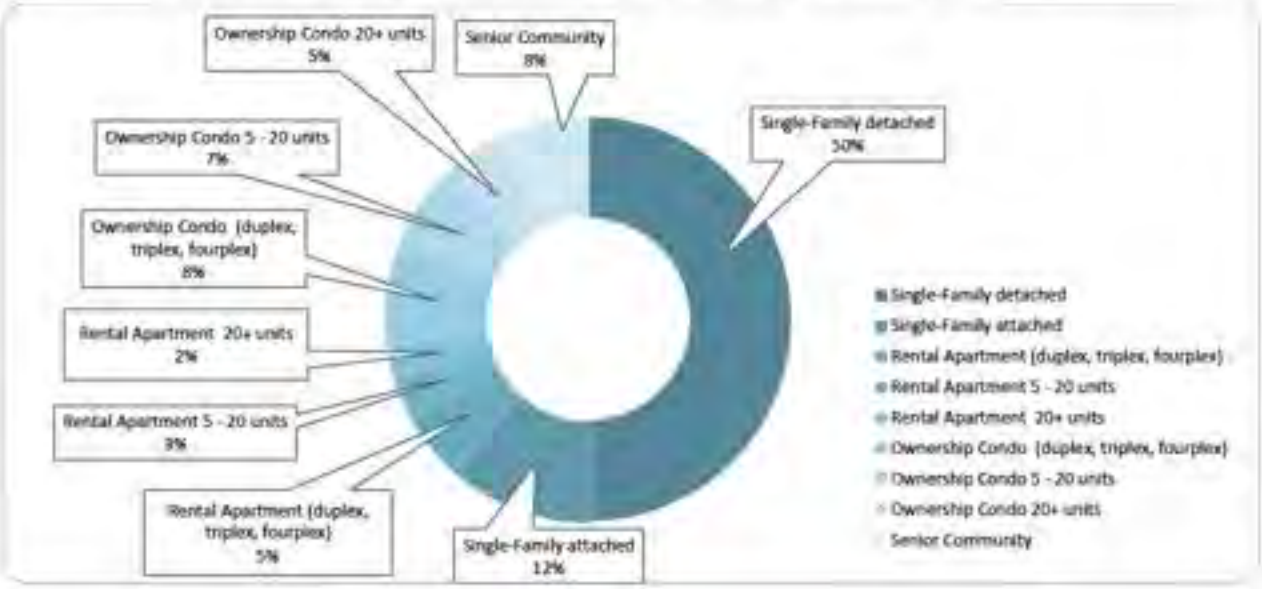


Figure 7: What types of Single-Family Housing best help Huntington Beach provide housing for all residents in the community?

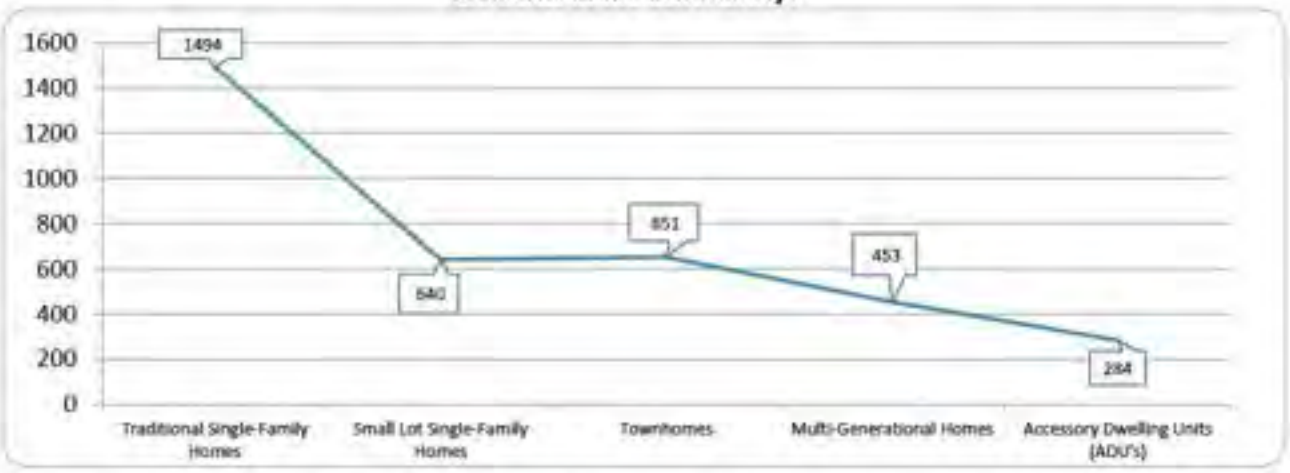


Figure 8: Which type of Single-Family Homes best provide housing for Huntington Beach residents?

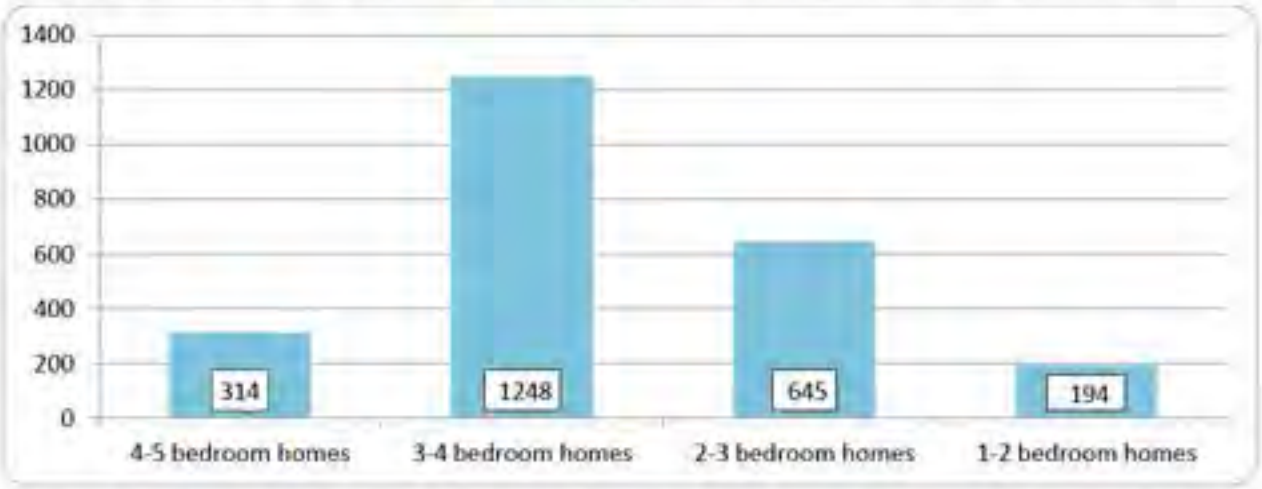


Figure 9: What types of multi-family housing best help Huntington Beach provide housing for all residents in the community?

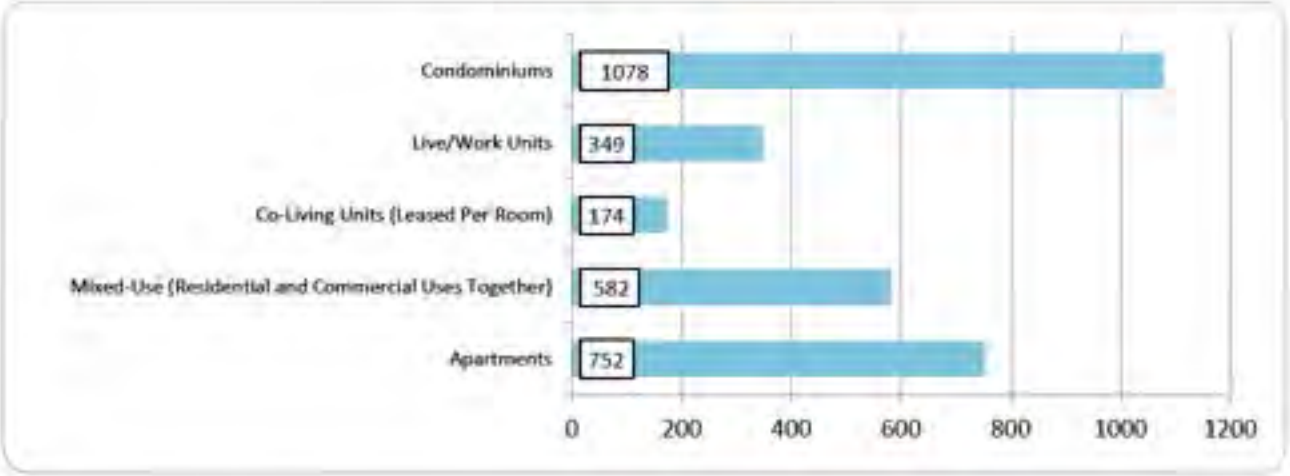


Figure 10 showcases the statistics for the types of multi-family apartment style building that participants felt would best provide housing for all residents in the community, majority felt that garden/courtyard apartments(33 percent) would be the multi-family apartments in the community. **Figure 11** asks participants what special needs housing groups need additional housing in the City, majority felt senior housing(1,008 participants), affordable housing (770 participants) and persons with disabilities(590 participants) were the options participants felt were most important. **Figure 12** asked participants the type of barriers or constraints to housing development in Huntington Beach, majority felt that affordable land(30 percent), cost/fees(25 percent) and community opposition(19 percent).

Figure 10: What types of multi-family apartment style building best provide housing for all residents in the community?

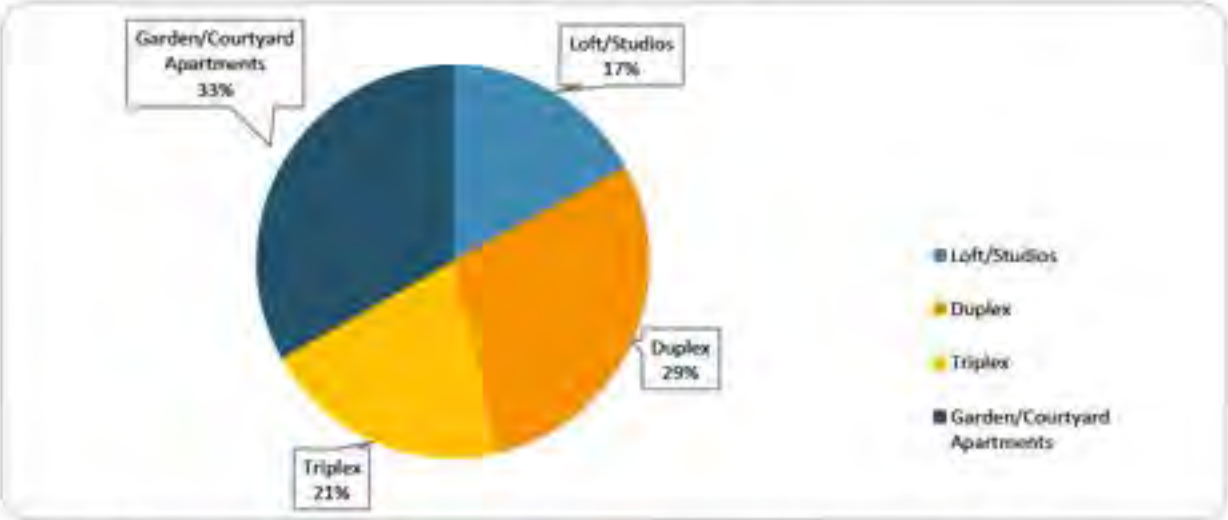


Figure 11: Special needs housing groups are those who may require housing modifications or specific housing accommodations.

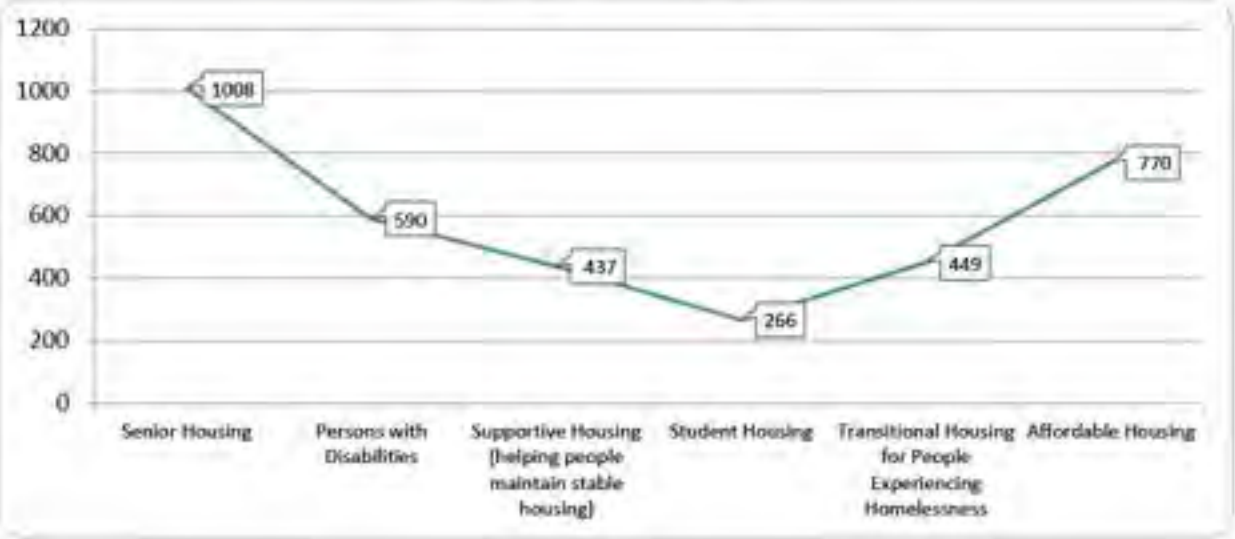
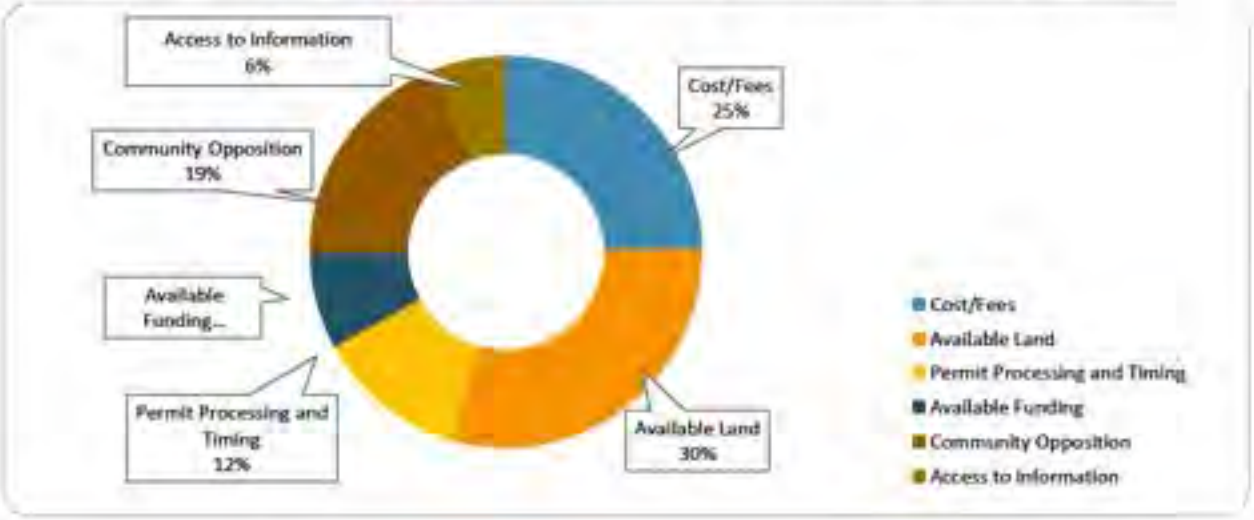


Figure 12: What are some barriers or constraints to housing development in Huntington Beach?



Slide 3: Vision- What is your vision for housing in Huntington Beach?

In Slide 3 the participants were asked what their vison for housing in Huntington Beach is in the form of an open ended response. A total of 832 responded on the slide and the answers provided a large range of ideas for their visions for housing in the City. Participants comments that are of similar opinion are listed as topics below with several public comments listed underneath. There is a separate appendix that contains all the responses,

- Single family homes
  - Affordable single family housing
  - Single family house
  - Single family dwellings, single family homes for families! Not apartments. Houses that people buy and live in making better neighborhoods
- No large housing/no multi family
  - No more multi residential buildings like bellaterra and surround area. These are ugly monstrosities that bring crime and traffic. Stick with single family.
  - Keep the suburban style of housing. NO MORE HIGH DENSITY, multi-story units crammed close together and built right up to the curbs with no setbacks. These new high rise apartment buildings are causing major traffic issues and they are UGLY!
  - Less high density housing. More single familyhousing.
- Include more Multi-Family
  - More affordable units, multi level housing
- Lack of parking is a concern
  - There is a severe lack of parking in densely built neighborhoods so please consider that. I also see the need for more affordable housing and not huge houses that house few and disproportionately use scarce resources. Also, condo ownership which should be an entry level to owning a home is unattainable because HOA fees are outrageous. There are very few options for people to move except to leave the city.

  - Good planning with open areas, abundant parking, recreation areas with multiple entrances and exits
  - Housing with laundry facilities in individual units and ample parking for the units.
- Diverse mix of housing for every need (diversity and inclusion)
  - We need all types of housing. Affordable, multiuse, etc to meet the various needs of Huntington Beach
  - HB needs to become creative in finding and developing homes to satisfy all income and diverse groups.
  - a fair, inclusive, and diverse city with a variety of housing options.
- Less development/no more development
  - To remain as is. No more additional development in HB especially multi-family dwellings. HB is already much more crowded today than 18 years ago when we first moved here. We chose HB for the relaxed, suburban atmosphere it provided. Since then, hotels (e.g., the Hyatt, Paseo) and hundreds of new homes on the wetlands have been built. No more development in HB in order to maintain the clean, safe and close-knit city that it is/was!
- Affordable housing- families, senior, vets, lower wage workers, homeless
  - In order to meet the needs of the community housing would have to take a few forms; single-family, multi-family, apartment, etc., and hope this survey will give you clues on what format is best. At the moment I am priced out of housing due to the recent crazy increases in price, limited inventory, etc, and though I love HB not sure I can afford to live here much longer.
  - Affordable housing available for folks who working our city, without public opposition.
- Maintaining existing housing stock/ updating existing
  - We are already a large city with limited open space area. Expansion of housing should not be a priority. Improvement of existing housing should be considered but not gentrified to the point where there are no affordable options.
  - Single family homes that increase in value overtime. Improvements made to existing homes that increase property value.
- Maintaining the environmental
  - Improved open space near the coastal areas. Additional parks. Enhance landscaping on Beach, and a master plan for trees, green space and flowers in the city - where multi family housing is created. Require open space for large housing developments are created.
  - STOP DESTROYING THE ENVIRONMENT AND ECOSYSTEM THAT IS ALREADY ESTABLISHED HERE IN OUR CITY BY ADDING MORE HOUSING AND TAKING AWAY NATURAL HABITATS!
  - Majority single family homes to maintain the small coastal city atmosphere.
- Programs that help first time home buyers,
  - Programs that help first time home buyers availability for affordable housing and improvement of current apartments that are not up to par with livable standards, yet they are charging well over $1,500 for an apartment.
  - More starter homes to ownership. More diversity. More welcoming of visitors to affordable housing on a short term basis. My parents moved to Fullerton in 1959 when I was age 3. They bought a brand new home on my dad's salary as a manager of a tire store. That probably couldn't happen today, without financial help from family, which may have benefitted from generational wealth. We need to give our younger generation a pathway to ownership.
- Keep/preserve small town feel/ Maintaining the culture of the community

  - Huntington Beach should stay true to its existing culture, a suburban beach community where people come to raise a family with quality schools and abundant recreation. We have a moral obligation to protect this special culture since once lost can never be re-gained. There are plenty of areas to development high density apartments that are consistent with those communities. There is no reason to force the culture of Huntington Beach to change based on an over-reaching agenda from Sacramento.
  - Maintain traditional single family neighborhoods to retain the style and culture of the city. Long term this keeps property values stable and the residents/citizens of the community will have good reason to support the city along with the elected officials.
- No low income housing/no homeless shelters
  - Less low income housing, less homeless shelters. More detached single family homes on traditional lots. Small lot homes have many of the disadvantages apartments.
  - Get rid of low income
  - Keep HB the relatively small beach community that it has been for decades. Low income and homelessness should not be the highest priority for our community. This is an issue for both tha federal and state governments to deal with.
- Transportation /Traffic concerns /Road conditions
  - Mixed use residential and commercial. More green spaces and developed parks (parks are dated). Walking around bolds Chica wetlands near Magnolia and Brookhurst. Huntington Beach should be more pedestrian and bike friendly. Roads have too many lanes and speed limits are too high
  - There isn't any land left to develop and the roads are absurdly crowed making this city not so great anymore. STOP CRAMMING MORE PEOPLE INTO A CROWED AREA !!!! It takes TOO long to drive a short distance already!!
  - I've lived here for 6 yrs., having lived further inland in OC for 30+ yrs. In that time, I've seen a remarkable decline in quality of life and will move out of the area when a time comes that I can't walk or bike to where I need to go. The traffic and drivers are out of control and enforcement is inconsistent at best. Roads are in disrepair. Parks no longer maintained at a desirable level seemingly because there is not enough manpower. We need much improved Infrastructure before more development!
  - HB, especially downtown, is already pedestrian and bike heavy. This is the direction we need to go. Creating spaces in HB that people can easily walk or bike to without the need for parking and driving. I would love to see more mixed use development happen in this city. Mixed use development allows people to live, eat, and play all within their immediate area. Mixed use development also gives the city much more tax revenue, rather than having just a single household on the lot.

Slide 4: Potential Housing Locations

Participants were asked to identify areas that could be potential housing locations within the City in **Figure 12.** Figure 12 contains 5 different housing type which is indicated through various colors: red dots indicate assisted living housing, the orange dots indicate condos/townhomes, the green dots indicate multifamily units/apartments, the purple dots indicate senior housing and yellow indicates single family housing. In **Figure 12** there is an even disperse of types of housing within the boundaries of Huntington Beach as well

as outside of Huntington Beach. Although the majority of the participants placed housing within Huntington Beach, there were a few participants that felt that potential housing sites would be better suited outside of city limits. **Figure 13** displays the summary of the map markers, participants felt that single family houses(1,560 markers) was the best fit the community's needs. Multi family units/ apartments(834 markers) and condos/townhomes(740 markers) are types of housing that participants felt were a good fit in the community.

Figure 12: Map Marker

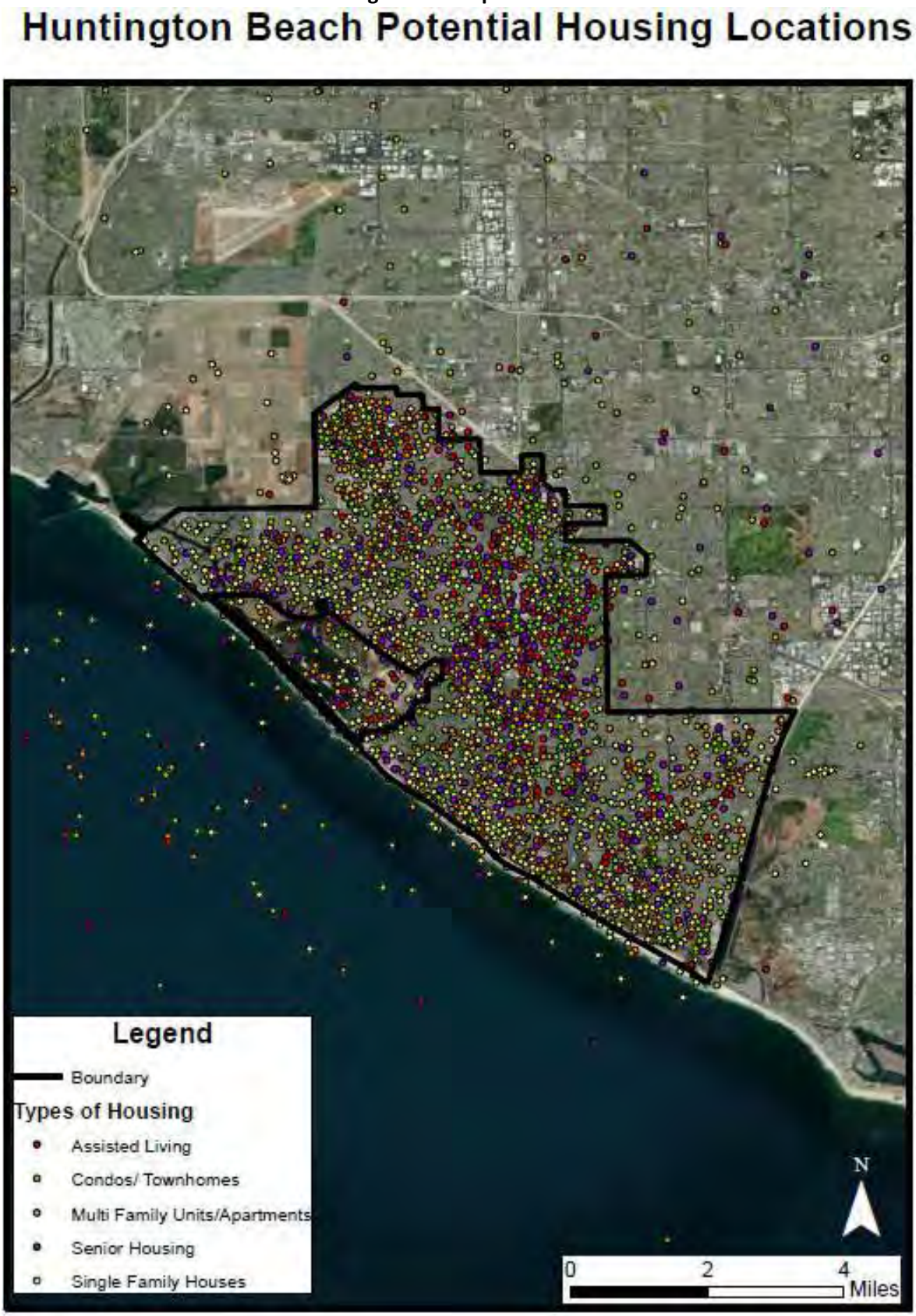
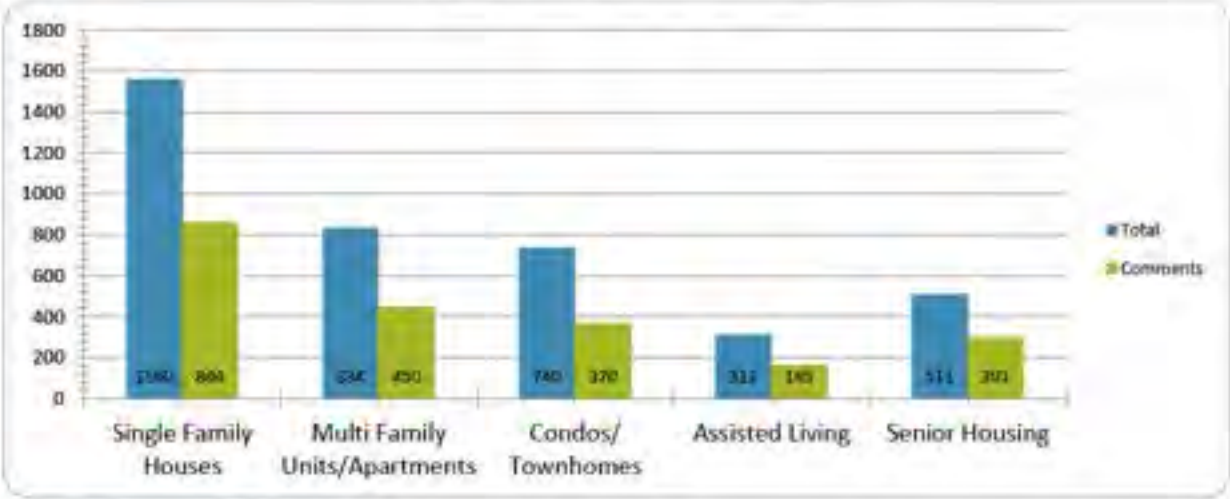


Figure 13: Map Marker Summary



Slide 5: Demographics

The final slide included demographic questions to provide a deeper understanding of participants' background. The questions collected information about current residence, housing tenure, and business and property ownership. **Figure 14** displays the data for participants' who live in the City. Majority of survey participants live in Huntington Beach (64 percent). **Figure 15** identifies participant tenure; majority of survey respondents owned their home (78 percent). **Figure 16**identifies participants how many people are in their household in the City, 40 percent of participants lived with one other person. **Figure 17** identifies participants total income in Huntington Beach, majority of participants stated their annual income was greater than 133,901 (50 percent). **Figure 18** identifies participants interest in housing in Huntington Beach and majority of the participants were residents of the City (96 percent)

Figure 14: Do you live or work in Huntington Beach?

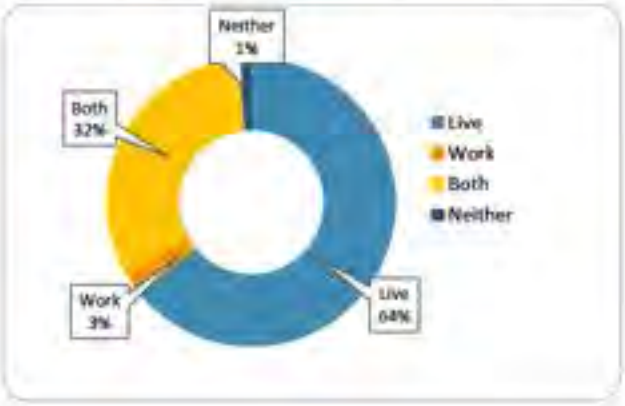


Figure 15: Do you rent or own your home?

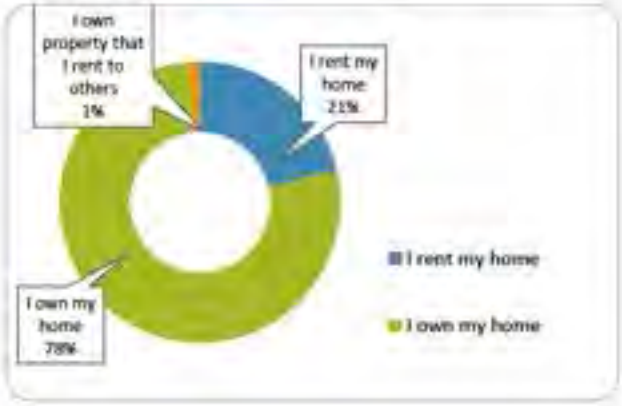


Figure 16: How many people are in your household?

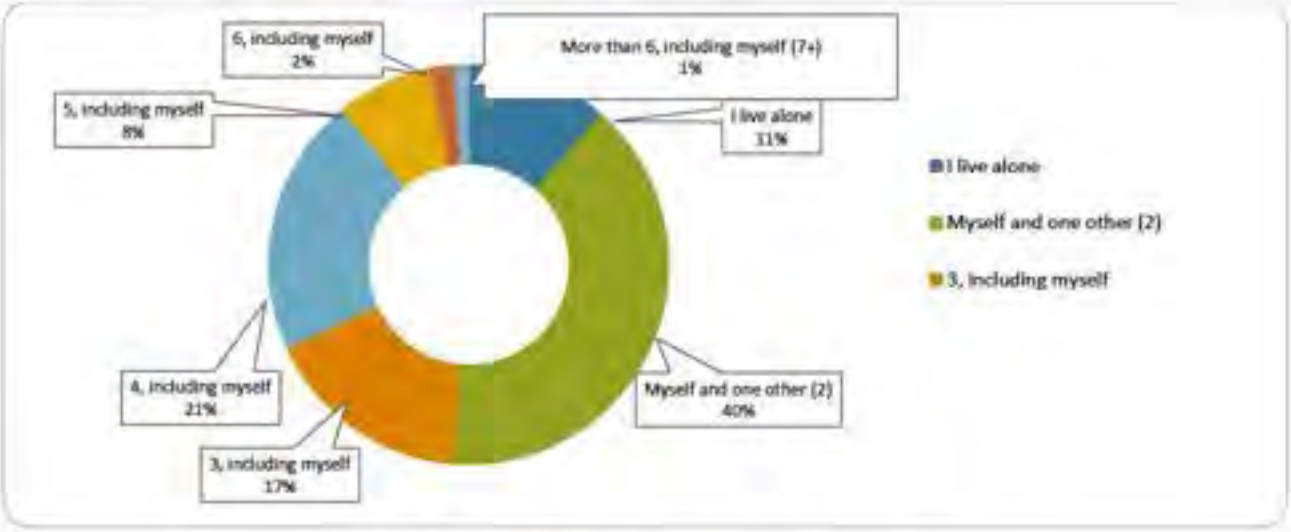
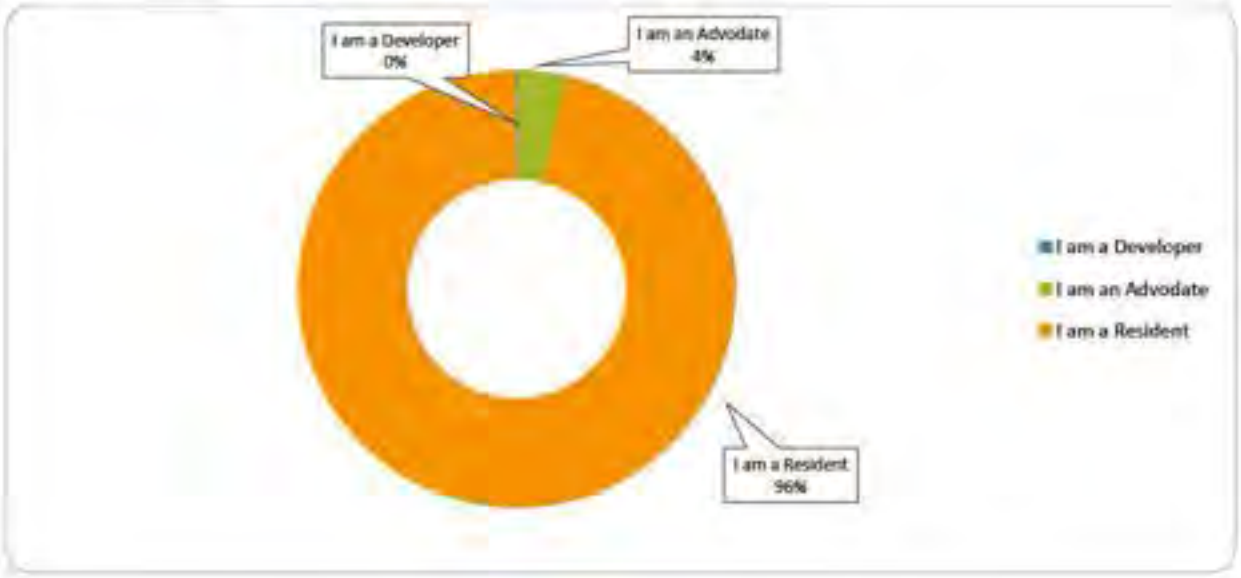


Figure 17: What is your total household income?

Figure 18: What is your interest in housing in Huntington Beach?


I am a Developer
0%
I am an Advodate
4%
I am a Resident
96%
I am a Developer
I am an Advodate
I am a Resident

Slide 3 Vision Responses, Complete List
We shouldn't expect neighboring cities to bear the weight of our housing stressors. We have a diverse community here with wildly varying needs, and I hope we do our best to address that.
More single family homes
I believe the city needs to really consider diversity for all products of homes and different levels of price ranges
high density housing is not the answer. This strains the infrastructure and clogs the already busy streets with more traffic. California's housing demands should be solved by building in areas that still have miles of open undeveloped space, notin already developed and populated cities.
Stop over development.
I believe that we must provide housing for every need that we have....homeless, low cost housing, mixed use.
I would like to see housing that meets the environmental challenges we face to curb global warming and satisfy the demographic needs of our region.
Most of the housing that I see being built is either apartments or expensive large homes. I would like to see more homes and condominiums that people with middle class wages could afford to purchase.
There should be a mix of housing
I believe that the most important factor is lowcost housing. Also housing that is done by a non-profit to provide housing and services. After that permanent low cost housing is necessary.
There is a severe lack of parking in densely built neighborhoods so please consider that. I also see the need for more affordable housing and not huge houses that house few and disproportionately use scarce resources. Also, condo ownership which should be an entry level to owning a home is unattainable because HOA fees are outrageous. There arevery few options for people to move except to leave the city.
The varied examples previously listed demonstrated an opportunity of thinking out of the box. There are lots of abandoned buildings or motels/hotels that could use some renovation or possible change to living spaces for singles, families, especially our seniors, and vets. Diversity of all family configuration should feel a sense of belonging inthis very conservative community.
Programs that help first time home buyers, availability for affordable housing and improvement of current apartments that are not up to par with livable standards yet they are charging well over $1,500 for an apartment.
Affordable housing for all classes of income
Clean safe city without homeless and high density living
Affordable
It would be nice to have more affordable housing options for lower wage workers. Often neighbors are closed minded when it comes to low income housing. If they understood the tenant/buyer application process they would see these are families andseniors that have "pride of ownership".
Affordable, decent housing! Period. For everyone.
Keeping it a nice balanced community. Not OVERbuilding and creating the high density hell that is LA county and elsewhere.
Limit population growth. Single family homes orsmaller housing developments. The city does not have road/highways to support any more additional high density housing.
No more building unless it is large since family homes. Leave the low income houseing to Santa Ana and Long Beach. We don't need any more problems in HB. And if u are putting up more of that housing... plan to hire more police

Continued gentrification of old housing in thecoastal communities, increased multi family mixed residential/commercial housing in more inland neighborhoods. HB needs to capitalize on its prime coastal location to increase affluence and tax generation, while providing lower income families with opportunities for a positive housing experience further off the coast.
Live in a community where diversity and safetyare obvious.
Cease large apartment developments such as those at Bella Terra on Edinger. Our streets are all too small for such large scale development. Need bike lanes and wider sidewalks!
Single family, low density housing. No stack and pack apartments.
years I have lived here I have witnessed this. We should not be considering further housing asthe population of HB has been stagnant for 5 years and in the past year fell. We will end up withvacant units, which results in environmental and fiscal waste. We will also end up with increased pollution if these units do fill.
No high density housing. City should not be beholden to arbitrary state recommendations Population in state is not growing.
More safe affordable housing for moderate and low income families an students without huge barriers to qualify to secure housing. New developmentswould go in place of tearing down old run down neighborhoods An vacant commercial real estate
Centralize high density in one area of city. Provide substantial public infrastructure to support transit in that area. Rehabilitate blighted areasthat need rejuvenation.
Please tell Sacramento to go F themselves.
Maybe some duplex some single-family homes youdon’t wanna build too high block the view
Continue with family housing and atmosphere that does not attract people that just want a free ride and do not contribute to a safe place to live
No more high density apartment building in HB
I’ve lived here for 6 yrs, having lived further inland in OC for 30+ yrs. In that time, I’ve seen a remarkable decline in quality of life and will move out of the area when a time comes that I can’t walk or bike to where I need to go. The traffic and drivers are out of control and enforcement is inconsistent at best. Roads are in disrepair. Parks no longer maintained at a desirable level seemingly because there is not enough manpower. Weneed much improved Infrastructure before more development!
Single family homes.
Affordable housing available for folks who workin our city, without public opposition.
To STOP BUILDING!!! We have more than enough already around here. There is no place to put more apartments or the traffic that comes from it. Bad enough the places added over the years and what its done. No one should tell the city to build more when there is no place for it either!
HB is overcrowded. I can't imagine more housingbeing developed in already high traffic areas.
Do not mess with it
My vision is Single family homes. Please do notclutter our community with more housing.
Consideration of environmental and green space.We are getting far too many housing units next to our residential single family neighborhoods. Ourtraffic is not being considered when granting new multi housing permits. The homeless situation hasbecome a serious overload on our City. This is an additional health and safety issue for our youth and seniors.

Maintain a residual community with a small townfeel. Large complexes are a blight.
As is. You should've fought this. Thanks for nothing. Oh wait, not nothing... enthusiastically desyroying our community. Shame on all of you.
I don’t care. Let the market dictate what gets built.
no high density developments, detracts from quality of life in existing neighborhoods.
We should continue to have SINGLE FAMILY and 2to 4 family housing opportunities. Nothing more. This isn't a high rise city and we don't want tobe that. We are a laid back family beach city with miles of public beaches and land dotted with parks of all shapes and sizes. It serves the needs of young and old alike . . . WHEN GOVERNMENT AND BUSINESSES ARE FULLY OPEN. PCH has already been destroyed; don't do more of that!
No more attached or large condo/ apartment. More single family detached houses homes. Population is in decline however houses are difficult to find
Would like to see the VERY old, TINY houses near the coast, demolished and turned in to show pieces (homes) that are in keeping with the ambiance of coastal living. People who can afford to live at the coast (became they stayed in school for MANYadditional years and did without back then) and/or those who have successfully built businesses thatemploy many people, should be REWARDED with living near other productive “achievers” like themselves! They are the people who build our society!
No high rise no low income
Less dense, more landscaping and trees, ample parking.
Huntington Beach is a suburban beach town, thatis single family homes and condos, not these high density developments like fuck face Moser, Carr,Posey and Kalmick would like to see
No more high density housing! Not necessary!
SINGLE FAMILY DETACHED
Single family homes. Tree lines streets wherechildren can play. Not places where people are packed in like sardines!
We have done plenty of building in the last tenyears. Since population is decreasing, time to slow down and reevalute what the needs really are.
No high density
Same as it is now. No more density. It is expensive to live here but I pay it because I don’t want to live in a crowded city full of high density housing.
Only serve people who can afford to live here.Those who can't afford should live somewhere else
Keep Huntington Beach a smaller bedroom community with safe neighborhoods. More police services.
The housing should stay AS IT IS!! There is already too much HDD in our city as it is!!
No high density!!! Build single family homes with back yards. Stop building houses with no space between them. Stop over crowding. There are othercities that have more available land to build on. HB is full!!!
My vision for housing in Huntington Beach is the same vision I had when I purchased my single family, detached home here in 1986 - a pleasant beachcommunity that is not cluttered with monstrosity apartment complexes, traffic, toxic fumes, parkingnightmares, crime, homeless by choice, etc.
No more hdd. Our city is built out
NO MORE HOUSING DEVELOPMENT. STOP OVER BUILDING. STOP DESTROYING OUR CITY.
Keep a traditional small town feel.

I think that SCAG and their HDD push is everything we as a city Must Fight we need to take this fight to the highest courts. We must do all we canto keep our city low rise and low density.
There isn't an appreciation for the "old" beach cottages. Tear downs and 3500 square foot luxury housing and high rise condos is an affront to apeaceful
We want more single family detached homes. No more apartments, condos, or low income housing.
Single family homes.
A quaint beach community of low density development and NO HDD
Keeping the suburban feel with a balance of triplex. Fourplexes, single family homes and safe neighborhoods.
No HDD
I want hb to maintain its small town feel and close knit community. I do NOT want massive housing structures with rental apartments coming in.
Keep HB a suburban beach town. No more building! No HDD and preserve our single family neighborhoods.
No more HDD. Keep community flavor with small complexes that include open space and adequate parking (1-2 spaces per bedroom). Provide good setbackfrom roads (unlike Elan and near Bella Terra). Land is a premium, but going taller and denser is not a good fit in HB.
Single family home environment
Leave open space. Incentivize via subsidies toapartments & landlords to help with low / mid income renters
Add more duplex and triplex units throughout SFH communities. This easily increases density while preserving housing values and provides more housing options. Check out how this has been done throughout Sacramento area for years.
ONLY SINGLE FAMIKY HOMES. Enough already with the apartments etc. bringing too many people to this city & the traffic & crime is already terrible!
Compete with the best areas in the entire country for the best places to raise a family. Great schools + safe/well maintained public spaces.
No more HD housing, fight SCAG on their biasedhousing requirements on HB
Housing here is too expansive. The schools havelow enrollment because of this. Housing needs to be made more affordable. hDD doesn’t bring kidsto
The city can’t take care of the homeless lessproblem we have now and bringing in low income housing to me would be an issue
My vision for Huntington Beach is to maintain the traditional single family suburban neighborhood. Less people, less traffic. More open space.
Single family homes
Single family homes
Leave it alone
Enough of the huge apartment complexes like atBella Terra and on Beach Blvd. They are so ugly and cram so many units into a small space. They alsodon’t have green space. Our streets and infrastructure are a mess yet we keep adding more housing.
We need to consider the investment made by CURRENT residents and not lower their standard of living by crowding and caving to builders providing inadequate parking and spillover into neighborhoods.
Casitas 1 or 2 bedroom at a cost of $50 to $75Kexcluding land costs. All areas must have a casitas. Need enforcement and you use drugs you are kicked out and transported elsewhere for rehab. Mental problems transfered to Fairview State Hosp inCosta Mesa
My vision is to keep HB uncluttered: single-family homes, cozy beach community with low crime and easy access to what the community has to offer. The streets are becoming way too overcrowded, newer stores with high- rise housing are too difficultto navigate because of all the traffic. It's sad, but it's just easier to avoid those areas.

Unattached single family units located on theirown land. Very low density housing.
The city is already overcrowded.
No more mega apartment complexes! More detachedsingle family home. Or duplexes. That's it!
To many businesses are going up and only last acouple of years which does not make areas remain stable a familiar. Single homes housing bring in permanent residents in contrast to rentals apartments etc where people come and go and do not buildup nor create stable environments.
All single family homes
No additional housing being built. Everyone doesn't get to live at the beach. We don't have the infrastructure to support more housing especially when the school district keeps closing schools and selling the land. Our housing is too crowdedand congested now.
Stop building high density. Add more SFR detached housing. High density monstrosities that don't have enough parking changes the landscape of ourtown negatively. They are not affordable, look unsightly, and ruin entire corridors of Huntington Beach. The traffic is a nuisance in these areas. You should have fought this requirement to build thirteen thousand plus units in the first place. We elected you to keep local control and represent us.Not to ruin the city for years to come.
Single family home detached and new build apartments with less than 200 units Tiny home community options
Single family detached homes and small apartment complexes allowing residents to have a home and yard and not a bunch of ugly high rise condos or apartments destroying our city. We do not have wide enough roads for the high density development thecity council wants so badly.
Many older homeowners live in homes too large for their needs. If it were easier to buy something smaller and retain the tax breaks and affordobility in their new place it would make room for younger families to move into homes with larger yardsand more rooms high density leads to high crime case in
To have less apartments that only house a smallpercentage to low incomes then raise the rents for the remaining units and then raises rents in other available rentals
Single family tracts
Affordable housing for everyone. Everyone is complaining about multi story apartments but the really problem is million dollar gated communities
Less high density.
Spacious single family homes with at least 6,000 lots
Nice family owned homes where you can raise kids without being surrounded by drugs!!
I think we have enough housing. Building uglymass apartment buildings degrades our city. It is already loud and there are constant sirens, adding more housing will make this worse.
Ideally, I would like to continue to see localcontrolled slow-growth SF home development in HB. Sadly, since unrealistic housing units have beendictated by SCAG, I suggest the HB rezone and replace vacant commercial sites in northwest HB with LDD & MDD developments, i.e. Boeing plant. This will provide housing that is close to freeways for commuters. Additionally, developing low profile, mixed-use complexes along the downtown/PCH corridorwould help us comply with requirements.
Housing with laundry facilities in individual units and ample parking for the units.
No more HDD
Less than the proposed 13k forced on our community by Sacramento

My vision for housing in Huntington Beach is that we are done with all the over building. There simply isn't any more room in Orange County for this magnitude of growth. We already have crowded streets, freeways and overloaded utility usage. It'stime for a new desert city where people can flourish.
We don’t need more people packed into HB viahigh density housing. We should be preserving our open space and schools for the existing population
Single family housing. Leaving current mobilehome park's in the city. We have plenty of apartment complex’s.
Stop building. My vision of Huntington Beach isnot that of the City Council so this survey is a waste of time and not even applicable to current residents.
More housing near open spaces of parks and schools
Quality housing options for various individualsand groups regardless of income levels.
That the city is well maintained so the property values will continue increase.
All these Hugh density projects are out of control. Traffic is horrible, accidents everywhere. Schools over crowded. Can’t even find parking at stores and a table at a local restaurant past 5:00. We are not LA or Miami. Stop trying to be.
No more stacked units in a busy area- like Bella Terra or at Beach and Ellis.
No more housing developments. You are ruining our beautiful city.
I would like funding (HUD/CDBG) to be availablefor the creation of ADUs.
theoutrageous cost of rent. In 2005 I rented a large two bedrom detached garage apartment on Greens St. for $1300/month. That amount has doubled but I only make $1.00 more an hour. How in the world canthat be justified? There is no reason for rent to be so high! I love HB and wish I could still livein my hometown
Affordable, walkable, access to parks and otherpublic spaces. Mixed use residential/commercial
Single family homes
No more 2 or 3 story apartments
No more multi unit buildings!
No more high rises! Housing prices are crazy high for the little you get. Upgrade areas of the city to get fair rent (so people can fet something decent)
Improving/expanding on existing housing/units.Building up.
True equal opportunity. Discrimination againstworking families is a huge issue with landlords openly not wanting kids in certain age ranges livingin their units. Discrimination against people with disabilities trying to bring Licensed TrainedEmotional Support Animals and Service Animals.
ballgames, walks barefoot on the beach and in parks WITHOUT CONCERN for NEEDLES, preserves habitat for both animals AND HUMANS, etc. Our beach city is best with single family homes with a garage. A few duplexes, triplexes, and four-plexes can be helpful. NO high density anything. Require plenty ofparking.
Stop building on top of each other. We need space and room for quality living.
Adding so many units will require additional city resources and upgrades for police, fire, cable/internet, sewer, gas, trash, electric, more frequent street maintenance, etc.. Additional staff will be needed at city hall too. If the city cannotbudget for these additional costs, then it does not make sense to build that many units. This is just basic city planning. How is the city to fund all this and still meet the needs of it's existing and new citizens and pay for the pension funds?
Single family homes with fewer drug attics andhomeless wandering around
Single family homes need to stay as they are

To be more affordable and to have new housing in standard size lots instead of tiny lots.
Leave the beach area a beach and HB with its natural beauty
Single family detached homes
Detached single family homes with yards.
I would like to see more single family homes and less HD housing.
More single family homes
My vision is NOT high density housing! Nor isit rezoning R1 neighborhoods into R2, R3 or R4 !
Single family homes
single family homes
Housing options that provide for a good qualityof life (backyards, proximity to parks, public spaces). Housing that does not further negatively impact traffic, like on Beach and on Edinger. I am concerned that additional housing could further burden our resources and sensitive ecological areas, like the wetlands and along the coast.
I believe the city is over built. We should kept the little open land we have left open. We differently do not need more apartments
Less high density. It drives housing costs up for all renters. Low cost housing in these units is a joke. Affordable units to buy like condos are abetter option for everyone.
Single family homes. No more HDD
Keep our community as it is. My vision does notinclude multi- family homes on every corner. Too much traffic and congestion as it is. Single family homes should be the priority. Population going down not up. People are moving out because of thisre-shaping our our town. This must stop. Do your jobs and focus of crime, homelessness and roads! Weare all watching and this is the worst CC in 25 years.
No hobo or affordable housing
MODULAR HOMES on City Operated land lease.... Not getting gouged by a private park. there is No diversity right now because it’s economic discrimination...
I don’t want low income housing. My husband and I have worked hard to be able to afford to buy in HB. We currently own a townhome/PUD & are saving to buy a detached home in the future. Before we bought our home we lived in a different city because we could not afford it. People should live where they can afford to live. Period.
Different housing available in each neighborhood, creating “15 minute” neighborhoods with easy access to grocery stores and other amenities sothat people don’t have to drive 10+ minutes just to buy food. Less parking lots using our limitedland
Single family home
More affordable
More single family homes. Like old town Huntington Beach, beach community
No more highrise apartments
Quit building on top of each other
Stop the growth. Stop destroying the history ofHB.

Affordable housing that becomes available at the very low income level within two years or ten year waits Create own HUD vouchers just for hb
My vision is to NOT EVER see another high density unit built in Huntington Beach. The neighborhood where I live has been negatively impacted by many high density units. The traffic is horrid. The noise and congestion has ruined our neighborhood. It is no longer a nice place to live. Is that your goal? to ruin our city with high density.
The large increase in population over the yearshas made Huntington Beach a less enjoyable place to live.
I don't care because I'd like to leave ASAP. Never knew until Trump how racist this city is
Affordable housing for California residents.Price of housing based on condition of house, not zip code
Keep it as is. This is a family community and more housing is turning our beautiful beach town into downtown LA
The residents of the city do NOT want more housing.
No one in my family has needed public housing,but it breaks my ♡ when I see the people sleeping on the streets. Our city should help the homeless.
I would like to see available housing for all who need it.
Let’s increase the number of units available.Let’s get rid of huge lots.
I would like to see more affordable housing.
Diverse affordable housing
single-family unattached housing only. No morelow-income housing.
Affordable single family homes. No one actually wants to live an apartment long term.
Fewer HDD, more duplexes or fourplexes
Mixed use with single and multi unit homes.
Single-family homes are the ideal housing option as they better create a sense of community compared to large, high-density type housing. Single-family homes = neighborhoods and pride of ownership as well as space for children to play and neighbors get out and about to know each other. High-density housing promotes isolation and results in over-crowding and unwanted congestion.
It sounds simple, but a vision for housing needs to include forethought on the impact of traffic.
I don't want HB to become exclusively for the well-off and the elderly. Most of my peers (30s) have already been pushed out and I'm not far behindthem.
More housing in terms of: >amount (more totaldwelling units) >variety (more housing options) >affordability (varying price points) HB shouldprovide a broad mix of housing options in a wide variety of locations throughout the City.
Affordable housing and transportation for all who live and work in HB Fewer luxury homes

I don't want to live in another Venice.....Thecity planners are crowding our streets with too many apartments/condos. Also, sober living and these granny pads are a blight. They are ugly and ruin streets. We have million dollar homes and thensome corporations buys a property and runs it like a business ruining our streets and communities.These are our homes, we have worked hard to live here and now we are seeing it go down the tubes.
Single family homes is preferable. New housingisn't adding infrastructure and creating congestion.
I have lived here over 30 years. There is verylittle affordable housing available. I'm retired and living in a home that's become too big and would downsize if smaller properties in the area were available. Tracts need families with kids to fillthe classrooms , not retired couples/singles living in
Multiple small units for homeless Affordable housing for low income famlies
low density
bike to without the need for parking and driving. I would love to see more mixed use development happen in this city. Mixed use development allows people to live, eat, and play all within theirimmediate area. Mixed use development also gives the city much more tax revenue, rather than havingjust a single household on the lot.
allow existing residents to add on their house,including allowing owners of existing zero lot homes to build without having to pay the variance tax.
Single family or duplex or small apartmenys
The city has done a good job of developing parks and the beach area for families. I do hope that this tradition continues as our population grows.Affordable housing is preferable to the luxury housing currently being built. The community should continiue to be a pretty place.
Any additoinal housing needs to address the needs of the community including schools, grocery stores, etc.
More starter homes to ownership. More diversity. More welcoming of visitors to affordable housing on a short term basis. My parents moved to Fullerton in 1959 when I was age 3. They bought a brand new home on my dad's salary as a manager of a tire store. That probably couldn't happen today, without financial help from family, which may have benefitted from generational wealth. We need to give our younger generation a pathway to ownership.
Most housing seems to be along traffic corridors. I would like to see less large homes and more smaller affordable homes with more green space preserved. Also housing with gardens and trees in balconies and roofs to help clean the air. Housingshould be set back from traffic corridors and
that is affordable for all income levels and these homes would be in safe, clean and healthy areas. There would be programs that allowed people with lower incomes to purchase or rent property. There wouldn't be segregation, people with low incomes would be next door neighbors to someone withhigh income.
A broad range of options to allow for a diverseand vibrant community.
There is not enough room in HB for housing. Itstoo dense as it is. However, there is a lack of available starter homes. You have to go from singlein an apartment to large, expensive house made for established families and those with advanced careers.
Single Family Homes
A place for anyone that needs one.
We need to amend the charter and make quality of life a higher priority. This constant building puts a strain on the infrastructure.
I Huntington Beach is starting to feel over crowded. We don't need to build any more housing, especially vertically. Work with the current ownersof apartments and duplex owners to fill all units

Housing seems to be most geared to home ownership but it is much too expensive and some don't want to own nor will have the ability to maintain ahome. The apartments are too small or are not family oriented.
More single family homes
No high density keep it as beach city
Keeping the HB skyline as is. Building highriseunits will cause folks to lose the ocean breeze that keeps the homes cool. Building 2 or more storyunits will cause more people to require air conditioning in the home or unit, which is bad for theenvironment.
A balance of housing and open space.
See two boxes of feedback provided prior to this box
Places for senior adults that are affordable, not just tiny dwellings that are costly and hard to get in in to.
If people see Assisted housing done by Jamboree, they will not be resistant to having that kind of transitional housing.
I am a father of 3 kids. Work in healthcare. Mygirlfriend works minimum wage retail. Dont bring in much. Please help families like us. Affordableplease.
Low density
Affordable single family homes, townhouse, apartments
My vision is to not ruin Huntington Beach anymore with mixed use apartments! Traffic is awful and you keep increasing the amount of apartment rentals by stacking on top of each other. Sorry, I'm one of those persons who liked HB as it used to be-a sleepy little beach town! Now it's ruined by making it like Santa Monica. No more building apartments! Too much traffic!
retire i have to move away. Paid taxes to ths city 45 years this is my home but now that I'm a senior Im priced out. My two kids had to move out of state to be able to buy a home. Even rent os too high here and whats up with pet rent? Are you kidding me? Inacceptable. Seems like council ismore concerned about tourism than its citizens.
I don't have a vision but I know we have road/traffic issues so dense housing just packs more people onto our limited roads.
Create only MANDATED affordable housing as fareast as possible. Dont spread it out, keep the units in a general area. Don't turn us into VeniceBeach! Arrest and remove homeless if they wont accept help.
Less high density/high rise apartments and moreresidential homes. Keeping the city a family vibe.
I think that HB will lose its ambiance if we start adding high density housing. There is not much open space left. And there are quite a few placesthat need updating before they turn into slum areas. Can't we work on improving those places? I know they are paying comparable rents. It's a shame the landlords are not reinvesting in the property. With many families in 1 small space so they can afford the rent.
A well coordinated plan that shifts us from 60ssuburbia to livable, 21st century development.
I couldn't find an affordable place for my mom in OC after she had leukemia & was forced to retire on SSI. The County had zero HUD or limited income housing available. It was frightening for her and our family. She had to move to LA County to find a HUD senior bldg. The drive makes caregiving harder for us. It's inexcusable that our wealthy County, cities, don't provide for disabled, seniors, limited income families. We can create many types of housing that contribute to a vibrant community.
Lower house costs, no one can afford to buy here anymore.
Not to over build
More affordable quality housing for middle class families

No more zoning changes in our city.
Substantial housing for all economic background
Huntington Beach needs to be a city of inclusion that recognizes that there are many shapes and sizes of families. Everyone should have the opportunity to experience home ownership, but not everyone wants to. With that in mind, we need housing that is flexible to accommodate the different needs. Our businesses need customers. We want to attractmore, but the old guard is afraid of loosing in the long run.
Equality
All types of housing from high-end detached tolow income multiple units is acceptable. What is not acceptable is homeless people hanging out in our
Stop building large apartment complexes that donot have the infrastructure to support the traffic/ number of people within the building. Also, subdivided lots are ruining the look of the downtown area by aligning with the look and feel of Los Angeles beach communities (Venice/ Playa del Rey).
Overcrowding and over populated the City has hurt the qualify of live in HB. It is being over built and taking away are landscape and pushing wildlife into neighborhoods. Stop corporate own housing that turns them into high price rental and puts adrain on the current housing market
Keep HB the relatively small beach community that it has been for decades. Low income and homelessness should not be the highest priority for our community. This is an issue for both tha federal and state governments to deal with.
No more low income/homeless housing
This city, like many others, has just expandedas housing is needed without plans for transportation. There is no reason that we can't try to fight the expansion of housing. There are other places in the state that could be developed, why overcrowd cities that are already crowded
No more high density housing.
tolive, they can't all stay here. New developments in outlying areas often have lots of kids to growup with, which I think is better for kids overall. The beach area is attractive, but everyone who "wants" to live here can't live here. People who live here have worked hard all their lives to be able to afford to live here.
To stop! You're turning HB into LA. Do you think anyone here wants that?
Keeping the beach cottages and not tearing themdown to build 3 story monstrosities
Shopping malls and movie theaters are becomingunnecessary in our society. Take advantage of that real estate to build real, affordable communities. Condos do not need expensive amenities with HOA dues over $300! We have the beach for recreation. Smaller, affordable "starter homes" would benefit many needs. Also, lack of a livingwage is part of the problem. If Walmart can open their parking lots to the homeless at night (a good thing), can they supply employee housing/assistance?
Leave single family how it is. Provide new housing my continuing to mix use witb residential above commercial like by the new Costco or by Beach and
STOP DESTROYING THE ENVIRONMENT AND ECOSYSTEM THAT IS ALREADY ESTABLISHED HERE IN OUR CITY BY ADDING MORE HOUSING AND TAKING AWAY NATURAL HABITATS!
Providing affordable housing to those in need while maintaining appropriate property values for those who are already home owners
We have far too many high density complexes. This is ruining our town, increasing traffic and bringing in an element having a negative impact on HB. I hope the perceptions that this is a result of city officials getting kick backs is not the case, but fearful, given what I've seen in the 30+ years I've lived here, that may be the case. Ourofficials are not looking out for the best interest of the citizens. I've had friends & neighbors leave as a result.

Do not combine different type of housing in same neighborhoods. Different type of housing demands different needs!
It’s important to have a mix of housing available, but high density housing is not acceptable. It’s too expensive fir what it is and it’s ugly.
Prefer single-family homes. I do you not wantlarge complexes.
Not cramming people so close together. There is not enough water for everyone now. What will happen if you are able to add 50% more people who need to shower, wash their clothes, water their plants and lawn,
Suburbia, Single family residences, townhomes not city style mass stacked complexes.
HB is already overcrowded. No more developmentshould be approved.
Stop building! There is no room for more people. Our streets are full of traffic and more people cause more pollution. Tell Newson that his stupidmore housing idea is killing our state and our planet.
Affordable single-family detached homes for families with various incomes. It is difficult for many families with young children to buy homes withthe current housing prices.
Affordable.
Reduce traffic, preserve skyline, develop morenature and hiking spots for nature, birds, bobcats
Safety for families. Minimize shelters for homelessness
Less high priced rent apartment buildings and more single family homes.
more integrated village type areas where you can walk down from apt/condo to shops/stores so that you don't have to drive everywhere for everything
We all live peacefully together while we acceptour differences we embrace our humanness. We are kind and loving towards each other. There is enough housing for all needs and the trash and Sewer are working correctly and there is medical care foreveryone who wants or needs it. Everyone who wants a home can live in one. Rather that be an apartment or studio or mansion.
Not too many high rises. Keep character of single family homes.
No more high density housing!!! Just look at the mess created around Bella terra!
More affordable single family homes as well asmore affordable rentals including security deposits required.
To increase our available housing without impinging on our parks or natural resources. There won't be a one-size-fits-all solution to increasing housing in Orange County, but HB should do it's part to help out in the larger scheme of housing in the county. We need to include low-cost housing, and very low-cost housing so that we have a mix of available housing for our citizens.
Single family housing and smaller condo complexes in north Huntington beach area.
Stop building up and blocking the sun
Leave established single family neighborhoods alone. Concentrate multifamily and higher density small lot development along major corridors, similarly to apartment projects on Beach, Edinger, and at Bella Terra.
A variety of housing opportunities that can besustained as families grow and change - actually for all of Orange County where the cities work together instead of trying to outdo each other.
I think HB needs to move homeless support awayfrom police to another, better suited department. And push for funds from BOS. And communicate withresidents better. Currently the residents and homeless representatives are just talking at each other— they need to get real.
Single family

Housing is currently at a premium in H.B. for two reasons: 1. Availability to land for building new structures...of any kind. 2. Affordabilityto existing structures...for rent or buying.
Housing availability/affordable for the peoplewho work here, and convenient public transportation. Neighborhoods-areas with several types of housing rather than segregated areas. More housing downtown.
There are plenty of SFD homes in HB. Need moreattached and multi-family
No more high rises
i envision Huntington Beach builing "some" Condos. but not to the extent of trying to make it a LARGER city. Also, if HB planners put "low income" housing in our city, YOU WILL EVENTUALLY DESTROY IT. And that's a F A C T.
Large single family housing is owned by seniorpopulation that cannot afford to move and young families cannot afford to buy.
Affordable housing. Housing for students so wecan go back to generational living in HB. It is too expensive for people's children to live here during/after
That we have homes that are affordable for families making less than $100k can afford.
Good planning with open areas, abundant parking, recreation areas with multiple entrances and exits
more open space - less density
There are already many options and opportunities for housing in HB. There is only so much land available. Don't crowd and overpopulate our cityany more than it already has been.
My vision for housing is to return to a housingtemplate as we had it ten years ago. Huntington Beach should return to the sleepy beachside community it was once famous for.
Single family dwellings. HB is pretty well built out, full. Lower fees & taxes so people can add on to single family houses and easily add ADU's.
I see needs for larger homes, luxury communities, over 50 communities and smaller entry level homes or townhomes
Clean, space efficient, no HOA
This is a great city and its coastal location creates great demand for housing. Please allow natural supply and demand to dictate the types of housing resources needed in the city. Social engineering is the root of many current problems
Clean affordable
What happened to America's Safest City? Mostof the real estate and commercial decisions that have been made have brought down the quality of life for residents in HB. We have lived here for decades and the current state of affairs are sad andvery disappointing. Used to be so proud to live here. Need more focus on correcting all the current problems instead of a 10 year plan.
Huntington Beach should stay true to its existing culture, a suburban beach community where people come to raise a family with quality schools andabundant recreation. We have a moral obligation to protect this special culture since once lost cannever be re-gained. There are plenty of areas to development high density apartments that are consistent with those communities. There is no reason to force the culture of Huntington Beach to change based on an over-reaching agenda from Sacramento.

I don't want to be one of the "I've got mine but I don't want you to get any of this" people But the massive buildings for "people storage" like the ones at Gothard and Edinger, Beach and Ellis and Utica and Beach may one day look like something from a bad movie when they go out of style Find a way to fight SCAG & their dictatorial edictsabout housing needs The people leaving California may increase Then who will these overpriced units rent to? Or just do what they say and ruin this place...
No more additional housing, lets build something for our children, a waterpark, more parks, somewhere for them to go and enjoy some greenery!!!
Affordability. Take care of your neighbors.
No growth in number of units. Maintain existingnumber and types of housing units.
Single family only! No more stack and pack!!
Less people
Family friendly and upscale housing
High density afoldable units in appropriate areas such as Beach corridor, Edinger and along Warner. Maintain existing neighbor hoods.
Less low income housing and apartments. More single family homes.
Single Family low density family oriented
Huntington Beach have a combination of single family homes and too many apartment communities. To add charm to the city I believe having nice condos and possibly few lofts will make it more attractive and more accessible to young families and single young people. That will bring new life and attractiveness to this beautiful city.
a fair, inclusive, and diverse city with a variety of housing options.
single family housing
Single family detached homes that reflect traditional neighborhoods.
Affordable
Need more affordable housing.
In order to meet the needs of the community housing would have to take a few forms; single-family, multi-family, apartment, etc., and hope this survey will give you clues on what format is best. At the moment I am priced out of housing due tothe recent crazy increases in price, limited inventory, etc, and though I love HB not sure I can afford to live here much longer.
Keep it traditional. Don’t bow down to the politicians that think we have to give money to people who want to live for free where we worked hardto establish a life.
A vibrant, exciting city with urban-style mixed-use communities, parks, beaches, and world class schools.
I love Huntington Beach. There is enough housing as it is. If you put more apartments and condos in it will be too crowded. No more high rise appartments. Keep HB as a small town feel with tourists. Thank you!
stick with single family housing, stable residents, keeps population controlled, good tax base
No more building and no more apartments. Everytime a new building is built it raises the rents for all the other rentals in the area.

local business and I work for you a local nonprofit. Why can’t good citizens who make aliving serving others afford to stay and live in the city they grew up in. Our elderly parents arehere and our kids are in school. We don’t want to be bought out of every home by wealthy people. We don’t have a chance ☹
Keep the city a single family home area. I don't like high density projects.
Affordable
Safe and ckean
Affordable Jr 1BR's, or full studios would be great for all the single people in HB.
No more housing, we need more parks, recreationareas, baseball diamonds, not housing.
Single family detached homes. Something needs to be done with the homeless situation that is out of control in Huntington Beach!
To stop increasing housing. Our town used to bea sleepy little town. Now we are "on the map" so visitation is high. The amount of increased housing over the years has taxed our infrastructure. I think we should stop adding more housing so the CURRENT residents can enjoy their community without The growing negative impact due to increased population.
It seems that HB needs more affordable type housing (e.g. apts., condos, shared housing, etc.)
Leave it as is, the city is too packed and becoming unlivable.
No more multi residential budilings like bellaterra and surround area. These are ugly monstrosities that bring crime and traffic. Stick with single family.
prices for the local people born here and wantto stay.
Put it back to the awesome surf city it was years ago more like seal beach still is. Not the crap sauce they are turning this city into.
friendly & neighborly not nosey and gossipy
Perfect! Huntington Beach Fountain Glen
To be more affordable and so many of the current homes need a ton of updating. Just really outdated properties.
Lots of open land for hiking, nature walks, horse trails, less mass units
Beach housing with residential by the free wayand not crowding PCH/the Beach
More condos and single family homes
Beach houses and townhomes and apartments.
There needs to be additional housing added, however, it needs to be done so that all residents are safe. Maybe adding a security patrol if the police are not going to be appropriately funded.
Single family
We need more single family homes and townhomes.Less apartments. We have too many as is, many complexes of which add to density and are less
No more apartments! If developers want to build, it needs to be FOR SALE units, whether condos or SFRs. Developers playing big landlord only keeps people impoverished and uses up our valuable land. It’s unethical.
Housing in HuntingtonBeach used to be a suburban feel in a beach city. Thar should be the vision. Now, it is overcrowded and traffic is way worse.
No more building, please. If someone can’t find a place to live here, too bad. Try another city. It’s too crowded here already. No more building!
Stop over-developing our city. You're ruiningthe character of the city. We do not want to become Santa Monica.

To keep it the same as it has been. To not create more multi family housing as this adds to congestion on our streets and devalues our neighborhood
Affordable housing that is in a desirable areaif the city, not being priced out by more luxury homes where the residents turn around and oppose any type of affordable housing because they don't want those people to bring down their property value
Huntington Beach is a varied community - thereare multi million dollar homes and apartment units. Affordable housing is almost non- existent. Adding ADUs to single family neighborhoods creates a parking nightmare. Apartments with adequate parking for multi family households is probably the best option. Bella Terra is a good example. But make them affordable.
Single family dwellings, single family homes for families! Not apartments. Houses that people buy and live in making better neighborhoods
Since it seems that land/space is becoming limited, Huntington Beach will need to allow multi-unit housing; however, there must be certain limitations to protect our infrastructure from becoming overwhelmed!
DON'T NEED MORE HOUSES IN HUNTINGTON BEACH! Too many over these last 5-10 years!
Survey seems to be oriented to getting the answer someone wants. The answer they appear ti be looking for is slanted toward the liberal agenda thatsays we taxpayers need to foot the bill for people who would prefer not to work and are fine livingon the street.
Single family homes and townhomes/condominiums
Hoping it can stay mostly single family. Best for the city and community in my opinion.
13,000 more housing units? Who is the moron agreeing to this? In your effort to emulate Santa Monica you are losing what it was that made H.B. Youwant to plan for the future? Then you shouldn't be allowing multi story developments to be sited literally inches from the curb. You have not allowed for any expansion of Beach Bl or Edinger Ave. Thisis not planning. This is stuffing. More traffic on streets that are already crowded. The electionsare coming soon and we will remember to vote you out.
A place where all families can afford to live in peace and security
Less low income housing, less homeless shelters. More detached single family homes on traditional lots. Small lot homes have many of the disadvantages apartments.
No more apartments for large families with multiple people and excess cars living in one unit
Single family units and triplex units when necessary. Affordable housing in HB should be in keeping with a chill, family friendly vibe. It doesn’t have to be large but yards and PARKING (not street), should be included.
We are already a large city with limited open space area. Expansion of housing should not be a priority. Improvement of existing housing should be considered but not gentrified to the point where there are no affordable options.
Less high density, high rent
Less if the McMansions, more smaller homes
I’d like hb to be like it was 15-20 years agobefore it got overdeveloped. The city is now a city and full of traffic. Our neighborhoods aren’tsafe but you want to pile more people on too of one another. It takes 30 min to get from one side of the city to the other. The schools aren’t good like they used to be. Stop the high density building please.
Low density
More affordable and low income housing. Peoplethat grew up here are consistently getting priced out of owning or even renting within the city.
AFFORDABLE single family homes (4 bedrooms) that don’t require you to become a millionaire to live in.

Less apartments and more single family homes
To keep it a great place for families to live without overcrowding
A place where income is not a barrier to livingin the city. Where housing is open to all citizens regardless of race or creed. A city where peoplecan go to main street and the pier without fear of intimidation.
Avoid overcrowding by limiting the number of multi-family units. Enforce parking requirements on new construction with no exceptions. No more “pay a fee to not having to build enough parking spaces”.
Huntington Beach has changed dramatically in the 18 years we’ve lived here and not really for the better. Overcrowding is a huge issue. Rentersdon’t typically take pride in the city they live and landlords don’t spend the money to keep their rentals looking good. I know the state is mandating a lot of new housing but it’s going to crush a city that’s already overcrowded. It’s very sad.
Return to a more beach town atmosphere. Stop the massive apartment complexes.Our city resources are being abused by the number of people now
That it is a place where I can afford to live
Affordable “smart” housing
It should be affordable for everyone with opportunities for affordable housing as defined by HUD. If that’s already available maybe work on waysto get the word out.
I would love to see the availability of homes for first time buyers or people looking to downsize to become available. Our city has plenty of rentals and currently plenty of vacant retail space. We need homes that people can purchase and begin tobuild wealth with or a property they can pass down to their heirs. Homeowners care about maintainingthe landscape of our city. That’s what we need more of. Thank you, for your consideration.
I see HB becoming more affluent over time. WhenHB was developed, a huge number of single family houses were built. Many of the smaller ones shouldbe updated to better justify the value of the land they occupy. Some high quality apartment complexes may make sense. More people will work from their home in the future. Although tourism in HB seemsto be a growth area, it may not be the future for HB. I do not see HB becoming the next Miami Beach. I see it becoming more like Newport Beach.
I would like to see more single family units and less multi family. The area seems very overcrowded with housing.
More affordable units, multi level housing
City residents self determine what housing needs are and how best to satisfy those needs rather than unelected agencies and State Government
Eventually I would love to purchase a condo ortownhouse in Huntington Beach. Right now prices are way to high for single income home
Affordable housing for more people. The pricesin HB are ridiculous and ive tried to live here all my life, but might have to move out of my beloved home
More inclusive diverse community with opportunities for young families to purchase homes.
Reduction of mobile home parks and increased number of townhomes and condos with wider streets that flow to the freeway better.
Huntington Beach is building too many living spaces!!!
Where ever you find property that can be purchased and put together so that it can be protected and the people inside the property protected but how can you do it?
I hope to God the overdevelopment of this oncebeautiful city will stop. HB is not meant to be affordable for anyone in the world who wants to live here. I had to wait until I could afford to move here. I loved the traditional houses & neighborhoods. Now, I don’t even recognize parts of the city anymore. You are ruining this great beach town.

We need all types of housing. Affordable, multiuse, etc to meet the various needs of Huntington Beach
Housing with adequate parking, green space, easy access to public transportation, easy access to shopping and churches.
Stop building mix use housing. There isn't ahousing crisis in HB.
All single family homes no sober living peoplemove the homeless to nearby cities or slab city
A mixture of single family homes, rooms for single or homeless and apartments
I would love to see more affordable Single family detached homes with access to updated parks and recreational facilities.
short term rentals are not the enemy! They area alternative to costly, inefficient hotels and motels allow people who would normally not be ableto have a wonderful vacation in HB to have a short good time in your town. Open up the STRs and stop stiffling them.
Unfortunately, high density housing is a poor option with its inherent increased traffic and noise. Schools and other public resources are full. We need to improve infrastructure and support services prior to increase housing.
Tough to put into words now
Single Family nice neighborhoods.
I think we should fight against akd discouragemulti unit housing and "low income" housing. There are plenty of cities inland that offer thesealternatives. Protect the current HB qualities that draw people here with traditional single familyresidences.
No more multi family and apartment needed. Moreaffordable single family housing
HB is already over crowded, so no more homes should be built. Sales should be limited to US citizens to prevent more Chinese money from taking over our community. Don't get me wrong I love all people, but do you realize the magnitude of cash they have to snap up our homes?
Condos and Townhomes as the last land is used!The city is almost built out!
I would like not to see any new developments inHuntington Beach. Roads are very crowded as is.
Adding to exiting home and permits being available
Keep the suburban style of housing. NO MORE HIGH DENSITY, multi-story units crammed close together and built right up to the curbs with no setbacks. These new high rise apartment buildings are causing major traffic issues and they are UGLY!
Affordable housing for generation improvementsthat will continue to develop and adapt as HB continue to be an inclusive and diverse landscape
Affordable housing for all.
Maintain recreational areas for our children and accessible school opinions for future generations
No homelessness and affordable housing that cancreate generational wealth for all peoples of color and ethnic backgrounds
Affordable
To keep HB as a predominantly single family neighbor hood. To limit over development
As I said prior, we don't need any more development! Open space is what we need more of.
Housing for seniors
Single Family
Housing is available for all income levels. Housing is maintained and improves our community for all residents.
I like Huntington Beach the way it is now. Thatis why I live here. We don't need more high rise apartments or more gated communities.
No large scale high density. No increase in traffic

Diversity, character, neighborhood personality,places for different like minded groups to gather and/or live. Artist, musician, craftspeople etc live/work
50-70 duas
A neighborhood where there in no homeless wandering the streets and parks at night breaking into cars every night
Affordable RV Living
Make it more affordable
Less density
Stop building. We are crowded enough.
A range of housing options that will diversifyour city.
Affordable housing, preferably without homelessliving on the residential street, in their car!
Get rid of low income
We like the small town feeling of our fairly large city. Not a lot of high density housing.
Thiscommunity is by the beach and you would expect it to be expensive, as are all of the communities along the Pacific Coast. I think it is a mistake to try build so-called affordable housing. There arelots of much more affordable communities only a few miles inland, really within bicycle distance ofthe ocean.
Affordable housing to rent and buy.
Stop high density development . The city is already too crowded and traffic is bad.
Affordable single family homes
City council is approving too many high cost apartments. I wish the HB locals were more welcoming to newcomers.
I would like to see more lower prices to rent apartments or houses for couples or families and more security.
Redesign old apartment buildings for rentals. Eliminate trailers complex and build new housings there. Build affordable housing in the outskirts of the
NO to anymore high-density housing
Keep things as they are and improve what we already have. Keep our beach town simple. The monstrosities at Bella Terra are unsightly and the traffic is horrendous. I never shop in that area because of it. Too congested. Let's not make HB like Bella TERROR.
I am aware that cities like to build commercialand high density housing for the benefit of taxes. However, it lowers the value of other homes of hard working tax payers who invested in their dream homes. By building increased commercial properties and high density housing, it depreciates everyone's investments and damages the charm of HB.
Emergency access
finished
More single family detached residences and lesshigh density living units.
To have housing available for women with smallchildren
Newer homes with larger lots
Primarily single family detached and low density condominium buildings. No high density buildings at all.
Diversity and affordability.
variety of price ranges with great quality places

Maintain mix of housing. No more high densityhousing--infrastructure cannot support it.
Repurpose under utilized commercial areas for mixed use, residential, apartments, condo/townhomes, moderate income housing. Build it like NewportBeach does so we don't make the projects not look well thought out and cheap.
Affordable
Mixture of detached homes and condo units. Butthere is a clear shortage of housing units available at more affordable price ranges that has causedsome people to move out of the city. Even rental units are out of control at present. My rent has increased over 50% in the 15 years I have been in my apartment and it is practically the same apartment. There should be more affordable housing in HB.
Just the way it is. Single family residence. Ifthe city allows high density in or around my neighborhood, I will move to Texas. That would be thefinal straw to California insanity.
Some senior citizens don't have the income to pay the high rent and have no options.
Less high density housing. More single familyhousing.
I think we need many different types of housingto help solve the housing issue, but I'm more interested in keeping HB a desirable place to live. Isee too many vagrants living in the parks and parking lots. Many people with mental illness and substance abuse problems that are trashing our city. Unkept homes that claim to be halfway houses and those who keep trash and old cars sitting on front driveways & lawns making our city look like a third world country. I think that is the biggest problem.
Keep up the good work!
I don’t want to live here.
We need more affordable options for townhousesin HB. Currently, the cost of rent is too high for our family's financial needs.
Convert some of the auto/industrial stuff to housing.
Carefully planned, creating a harmonious environment with small businesses and homes in somewhat close proximity without increasing traffic, burdenon the existing infrastructure. Keeping the vibe that we all know and love in hb. Apartments are not the main or only answer. Creativity with be needed to answer the call.
Keeping housing affordable for the different income levels that live in this city.
Lots of homeless
We definitely don't need to be adding more highdensity living. The city is way over populated now. The homeless do not need to be provided housing either. I don't pay high property taxes and state taxes to pay for those lying around on the street and supporting their drug habits.
Huntington Beach has become a developer’s wasteland and the heart of Huntington Beach has turned into an overpriced nightmare. Keep high rise “live work play” luxury apartments out of Huntington Beach. Keep historical homes historic. Make stricter permits for people doing remodels on historic homes. Develop a committee.
Improved open space near the coastal areas. Additional parks. Enhance landscaping on Beach, and a master plan for trees, green space and flowers in the city - where multi family housing is created. Require open space for large housing developments are created.
Affordable
Diversity and inclusiveness
Single family homes, no more apartments.

Everyone wants to live in Huntington Beach. Itis an upper middle class community and should remain that way. Right now we are cramming people into less than perfect conditions. It is impacting the city. We now have too many people packed intoall the apartment structures.
Affordable housing for single families
More high rise apartment buildings that are affordable where many small strip malls and buildings are. We don't need 2 CVS stores one street awayfrom each other. We need affordable housing for people.
There seems to be a need for well segmented housing. There should be fewer conventional detached homes on large lots but detached housing can be provided at higher densities with creative site planning. Creative mixed-use projects are currently found along Main St. close to PCH, along Beach Blvd. & around Bella Terra. Higher density close to freeway access makes sense and in pedestrian friendly areas such as Main St.
Opportunities for first time home buyers and affordable loans to go with them.
More affordable
No more housing is needed! Lots of open space between CA & Las Vegas!
Affordable, rent controlled, property tax rateincrease control
Single family dwellings with park access and bike trails. Condos, 4 story or less, in established areas with street improvements to keep high flowtraffic out of single family neighborhoods. No low income housing unless there are local jobs and public transportation to support the population. Increased firefighters, paramedics, and police officers to accommodate growth and maintain public safety. Increased infrastructure spending to supportthe population.
No business home joint units
I can tell you what it's not and that is eithera bunch of high-rise rental units and/or homogenous housing tracks.
As a 30 year retired resident I would like to see affordable housing for my children and grandchildren.
My vision is for HB to stop developing of highdensity housing. To try and maintain small beach town but that's too late because of money grubbingcity council members. It's too late for HB. We also need to avoid anymore sober living houses. Whata disgrace those are.
Housing for homeless/abuse victims needs to accept pets.
Small affordable homes
More single family detached housing and less homeless housing.
Mixed use. Walkable neighborhoods
I think as long as housing costs continue to climb and community resistance to change increase, the city is going to stagnate and will eventually no longer support a service or even upper middle class. The lack of close freeway access to the downtown area will be unattractive to anyone seeking employment and the city will be cut off from all butthe very wealthiest, but with no one to serve them. By providing housing affordability, you increase opportunity, support diversity and inclusion.
As a long-time resident, my preference is fewerapartments, multi-unit buildings as I feel it has detracted from the beach feeling of the city. More single-family homes, more families, more community is my preference. However, as I have watched "my" city over the last few decades, I fear it will continue to resemble Santa Monica with multi-leevel apartment buildings, which is not my ideal vision of HB housing. Quite the opposite.
I like the old style beach cottages and was disappointed to see variances issued for multi story homes in those neighborhoods.

Minimal apartments, minimal section 8. Small community type affordable housing.
Nice single family homes with yards. Family neighborhoods. No high rise buildings.
Additionally single family housing from a reduction in commercially zoned areas.
Affordable for everyone with less backyard andmore living space. No grass or CA drought resistant plants or succulent
Suburban single family detached homes
HBCSD school distirict needs some affordable housing. Especially after covid 19.
Easy access to good schools and well maintainedparks.
More single family houses/condos for people toown, not to rent because rental properties are always being trashed by irresponsible people. This city has a reputation for nice communities who care for each other and take good care of things.
Single family homes
Single family homes that increase in value overtime. Improvements made to existing homes that increase property value.
Meets the needs of first-time buyers
Add more parks & green spaces where possible when adding new construction.
Too crowded, stop building high density complexes everywhere. City doesn't need any further building!!!
Single family homes.
Maintain single family tract homes as they exist today. Density levels in multi family properties should not impact traffic levels on surroundingstreets.
Leave single family homes alone. Established single family homes SHOULD NOT be replaced by apartments. That will lead to over-crowded
Single family residences
Not building high density housing. Build smaller communities of housing.
I think HB has large areas designed for the Blue collar working family. I think more areas should be set up for higher end homes working towards
NO more high density developments!!!!!!
Stop building. It's already so crowded. Leave HB as is. There is plenty of choices for all individuals.
Slow growth. Condominiums or single family housing
More SFR, condos, home ownership of property
More allowance for senior citizens who has lowincome.
I feel the home owners should be able to add ADU units without city interference and restrictions. Additionally, the city needs many more extremely low income units for families and older adults with limited incomes. Many seniors are unable to stay in the city has so few units. Last time I checked the wait list was over 7 years. Additionally, families are forced to leave the city due to extremely high rents.
No more growth!
To stop the over development of the city. TheBella Terra area is so congested due to the over growth that has been allowed to take place that traffic is a nightmare. All the "East coast" high density style developments are destroying the soulof Huntington Beach.
Affordable Housing

Stop building apartments and homes. We're already crowded. If we continue building we going to destroy our beautiful town.
Affordable
To raise my kids and have them be able to afford to live here and raise their families here too.
Hugh High density, increased crowding and bland development causes me to be open minded about leaving. Also, city's political reputation is a significant negative taint.
Older neighborhoods are not being maintained byowner, this needs to be addressed. Apartment complexes & duplex owners do not take care of property & charge outrageous amounts of money. This happens especially in areas where English is not a first language, owners take extreme advantage folks & exploit them. Living in squalor & on top of each other. I want fair housing & owners who rent out to care for their property & fair to tenants.
I feel it is a ridiculous demand that prime, beachfront cities provide an inordinate number of low-income housing units. Most of these cities haveneither the available land nor the infrastructure to support these types of developments. It seemswe citizens of Huntington Beach are being punished for not conforming to the desires of Sacramento!
more commercial/residential, like Bella Terra
high rise condominiums and apartments could be built in their place. We have to make sure we keepa balance. We need to add some housing. But we also need our recreational areas. Public golf courses, which we only have one , parks, tennis, pickle ball, baseball, and soccer fields. It can't allbe about the beach.
Having enough housing for people to live in Huntington Beach and not having to see people who grew up in Huntington Beach leave because there is nothing available for them.
Affordable
My kids go to school in HB I have heard of wonderful options in Irvine but can't transition there SA does a lot but is an unsafe place CM as well. It just seems there's more that could be done to create affordable homes to rent or finance if there is I don't have the info and would greatly appreciate
No more growth
More affordable housing for everyone. Young people cannot afford to live here on their own.
Single family houses
Beautiful neighborhoods that are well maintained. Buildings in mixed use settings have adequate setback from the street..
More open space; safe green spaces
Huntington Beach is a prime location for housing. Therefore,We cannot randomly start building affordable housing where there is available land because by doing so There is a potential for depreciation for existing homes in the community. Just likeI'm sure there's no affordable housing in Malibu or Bel Air.
Affordable housing for upper middle class folks. Housing with at 3 bedroom 2.5 bathrooms under a million
More ADU's can help affordable housing.

Mixed use residential and commercial. More green spaces and developed parks (parks are dated). Walking around bolds chica wetlands near magnoliaand brookhurst. Huntington Beach should be more pedestrian and bike friendly. Roads have too manylanes and speed limits are too high
Fewer large apartment, condo, multi unit largestructures. The community feeling disappears when large dwelling structures overtake smaller homes and neighborhoods
Maintain primarily single family detached housing. Stop the high density construction which brings not only traffic issues but over population andresulting problems for schools, etc.
A combination of improvement in mass transit and development of mixed use retail/residential building in certain corridors.
Single Family homes with property and access toschools and parks.
Go back to small beach community with single family homes. No high rise, no 3 story condos, no 10 story luxury apartments.
Build where there is already development—butno further sprawl.
A variety of homes... build up to 4 story apartments in areas where appropriate and where it does not cause infrastructure problems.
Single family, condo with small yards that areattached, single story homes and condos for our senior citizens, who want to live independently.
Anyone who wants to live here can live here, not just millionaires.
Affordable family homes.
No more high density housing. The city doesn't need to keep growing exponentially in terms of population. Just creates more congestion/traffic and
Affordable single family housing
City Council listens to the needs of lower income/middle class or less fortunate to resolve homelessness & housing issues
City is full no need for Change.
Build where there is more natural water. Not ina semi arid desert.
Available housing that is affordable even if you aren't making well over $100k. When looking for a new home, anything under $1m in HB needed extensive remodeling and was typically very small (under 1500 sq. ft.). I ended up buying outside HB despite an income of over $150k/yr because there was no options for SFRs that were remotely affordable.
You did not even mention walkability but that was our top priority in selecting a home!!!
Less construction of dense housing and allow HBto be a place where people have their own space - while still being close to the beach. If thischanges too much, my family (3rd generation HB) will leave.
Stop the growth and building. Our infrastructure of services can't support what we are currently dealing with. Fix that first, and you might get more citizens to support this growth plan. The city is old. Update Update!!! Update the streets, sewer, water, electrical, Police, Fire and many more!
High quality housing
HB is a beach community. We are a small town feel with a larger population. Od like to see that maintained.
To stop building homeless/inexpensive housing for people who can't afford to live by beach Expensive to live in hb. Have a much better life inland
Affordable

Huntington Beach is a beautiful city with a lotof hard working individuals who have earned the houses that they are in. Maintain that environmentand you will to continue to have the tax dollars need to run the city. Provide housing to those inneed in cities that the cost is less. Government fails at programs like these because the money iswasted and government is not efficient.
I would like to see more small family homes (2-3 bedrooms). I would like to see more Senior housing similar to Leisure World but without the high HOA
Single family homes. Stop building high densityapartments. It's turning the city into a mess with riots, drug use , and crime.
No more high density housing. It's starting tolook like LA and the commute schemes don't match anything in the city. Looks ridiculous, by Bella terra.
Single family house
tiny house community for low living cost.
Reducw the high rise and apartment community volume. It is too saturated and kids have less and less green space to grow and play. More single family
Less densities, we are already overcrowded. Small detached one story homes of 3-4 bedrooms!!!!
We need to gentrify HB and do what Manhattan beach , Laguna and Long Beach have done . Better housing to bring in better demographics. The city needs a facelift with more investors
Huntington Beach is fine as it is.
Single family
The city needs to have affordable housing for the younger generation who will have kids and populate schools, instead of closing a public school every
Limit the tall multi unit apartments and HUD housing. Unfortunately HUD housing is not monitored and criminals take advantage of it. Require owners to keep their housing areas clean, safe, and in good working conditions.
Single families being able to afford a standard3 bedroom home for rent or to purchase. Pricing is way too expensive.
HOA-free, and affordable
Huntington Beach is an up-scale residential community that is nearly built-out and it is special because it is comprised of up-scale single familyresidences and is afforded a special way of life. High density housing simply adds congestion and degrades the quality of life.
The city is already pretty overcrowded.... no sure I want more apartment buildings.
No more splitting lots in downtown. No more 3 storied houses downtown. No more massive developments inland. Preferential lending practices to long-time residents not investors. Incentives for single-family purchases of existing houses versus demolishing and rebuilding 2 in a single lot with no yard and not affordable.
I'd like to see affordable housing options for young adults and families.
Less high density
HB should be thinking of adding affordable housing of the multi story variety but take into account parking availability & especially traffic congestion. We all want a beautiful area to live in but not traffic gridlock & no parking.
We have plenty of single family detached homesthat are already way overpriced. I'd like to see some other options. Like newer moderately pricedtownhomes with lower costing HOA's
Single family homes, condos, and small apartment buildings. Keep the high density development properties out
Housing is way too expensive in HB. There needsto be some affordable options. Most of these homes aren't worth a million dollars.
Tourism and high rise apartments. If you wanta beach bungalow like it used to be consider mexico and central America. Demand is too high here.

Do not ruin current neighborhoods with high rise apartments, clean up Slater Slums, don't create more low income areas, spread it out away from
Affordable housing with ADEQUATE parking
More multi-level or high-rise condominium complexes with retails on the ground floor. Better public transportation for within Huntington Beach. These will reduce vehicle traffic, allow for more affordable housing without an excessive use of land.It can also create smaller communities that watches out for each other; safety and a sense of community.
No new development. Keep the open spaces thatwe currently have.
Homes and apartments for all…from wealthy totransitioning from homelessness. Special consideration for those coming out of rehab so they have aplace to live while joining the community again
Perhaps abandoned buildings could be fashionedinto housing rather than building more high density boxes
Stop building large apt complexes
Housing above commercial property.
high density, cost effective, low maintenance
H.B. is a residential beach community don,t make it a Santa Monica
Some consistency in the types of occupancy within a neighborhood. Not mixing rehab housing into a family oriented neighborhood.
I wish the future would be a lot of sleepy SFRs but population pressure snd homelessness will preclude that. So I just hope for preservation ofgreen spaces, multiunit developments with some open space or easy access to green spaces. City maintenance of greenery on roadways could be increased. Housing for homeless in repurposed areas. Transportation to relieve pressure on densely populated areas.
would like to see city of HB to be the best place to live, currently I see the homeless in down town area, we need to help them and and control itwe don't want the homeless situation like LA
Population growth should be limited to what theinfrastructure can support. Indefinite and unlimited growth should not be required.
Rent control for apartments and lower rent forhomes with 3 or more bedrooms.
Make use of vacant buildings to create more affordable housing.
I would like to see affordable housing for manydifferent income levels not just the very high earners or very low earners. I work at UCI and makein the 70,000's and find it a struggle to live in Huntington Beach. I'm happy renting and would like to see additional apartment built and/or other non
Smaller houses, commercial/housing mix
We do not want to look like Long Beach. Do notcreate incentives to double-up existing single-family housing. Exercise caution when permitting high-density housing and the impact on exiting infrastructure:traffic, water, electricity, school capacity. HB already has numerous and diverse types of
As long as our city is a desirable place to live, more people will want to live here and pay well to do it. Let the free market determine how housing develops in our city and who will live here.
HB is and should be safe community for young families with working parents. as well as a welcoming community for visitors and Tourists. To implement this vision, long term planning must consider population density, along with the supportive infrastructure and safety.
Single family housing with green belts

I have liived in Orange County my whole life.I have never been in the position to buy a home. Rents are out of control in Huntington Beach. Myvision would be for real affordable housing. Not the high rise apartments that that city keeps approving to be built. I do not know how the average resident of Huntington Beach can afford to live in them. They are very expensive!!
More residential homes, less apartment buildings.
houses
Any type of housing as long as its affordable
No more new apartment that have overloaded thecity I. The last 6 yrs.
Slow down the apartments too much traffic
Be welcoming to all, actually build affordablehousing
More affordable single family homes for sale
Let "ginormous" apartment complexes with retail on the bottom floor. More affordable housing for low income, hard working families.
Exclusive
Upscale single family housing near commercial centers with some mixed zoning condominiums and luxury apartments.
Bigger is not necessarily better. Why more,more,more. Is being a beach community out of the concept? Lots of people are leaving California, that's ok
Communal housing for homeless individuals, perhaps in large commercial adjacent areas.
I would not construct any more new housing units in this city. 14,077 square miles of california's 163,696 square miles is developed. Most of HB's 28.33 sq miles is already developed and sufficiently congested. Go build somewhere else - California has the space.
The concept of "affordable housing" in a California beach community is absurd. Affordable housing can be found in Fresno, Bakersfield, etc. nota popular beach community....anywhere throughout Southern California. This survey is ridiculous
Safe environment for all. Access to schools and parks. A village atmosphere.
Costal beach.
Keep it the same.
Peaceful and tranquility
get back to beach community and no more building too many high rise apartments
We have run out of land and the existing complexes are still at minimum capacity
Fair
and investment in HB. There are already more than enough apartment buildings and garden apartment type homes (multi-resident housing) in HB, some of which are poorly maintained. These apartmentslower the quality of housing in HB and therefore affects the amount of money residents are willing to invest in the city.
I HAVE LIVED IN A HOME SINCE 1986 I PREFER ONE AND TWO STORY NOT ANY TALL BUILDING OVER THREE FLOORS...
Housing should remain a residential area, withsingle family detached and condos - NON high density. This city was not built on city dwelling and should not pursue high density / congested living.

My vision would include the housing we alreadyhave with no additional housing. Updating and/or upgrading older housing and maintaining a great place
While I support creative solutions to the needfor additional affordible housing in Huntington Beach it should not come at the expense of existingresidents by eliminating parking or set back requirements. Height and density can be more flexible in my opinion. Assumptions about the number of vehicles owned by residents should not be less than one for residents over 16 years of age.
There should be no outside influence in our country; no goals and visioning of the United Nations Agenda 21 A communist organization. The citizens& the city/ county fathers who represent the people are intelligent enuff to make their own plans based upon input from those they represent. Miles of apartments so tall they block the sun, & jam people together in ghetto-like conditions is not an American dream. Adopting goals of a socialist organization removes power/representation from The People.
Affordable housing for middle and low income people
We should try to be more like the city of Seal Beach; a quiet seaside town. We need toincrease the size of the police force and their resources to clamp down on all of the petty crime and to evict the homeless and less desirables from our city. Our parks are great, but could be much nicer. Improve the bluffs at the dog beach.
Affordable housing
Single family units No small lot modifications, less density
To keep it low density and maintain the value of homes
Less government regulation = more liberty & prosperity
Single family housing, owned/rented condominium.
When planning housing, also plan space for parking the two or three cars that every family has.
I feel we have enough housing
Affordable and safe
Keep high density housing away from beach
Affordable housing means: You can afford the housing. If you cannot afford the housing, you must look elsewhere. It is not the role or responsibility of government to provide housing. It’s proper role is to provide equal opportunity, andthat’s it.
Really need to make use of "industrial" landthat id not being used. Can be repurposed (current buildings) into housing
We don't need any more population. All of thisia about power and money!
New families moving in, single family homes (not high rise apartments), affordable smaller homes not just the massive million dollar homes no one can

Single family detached dwellings should be theonly housing considered. We are already being told we need to conserve water, yet we continue to build more high density, multi family buildings. We have rolling blackouts because of high electricityconsumption, yet we continue to build more high density, multi family buildings. When will common sense prevail and we realize we can not support more dwellings than we already have? To build new, itshould be one unit for one existing removed.
Affordable on a sustainable basis; for middle class wage earners - teachers, public safety, healthcare, etc. - who serve our community. We need transitional for the homeless, which should be addressed on a regional basis but with HB doing its part - like the Navigation Center - and apartments for those who could be housed here for work, a freshstart, etc.
hospital type setting for the homeless. They need to b protected and given medicines & care that theydeserve. At this point HB has a large amount of high density housing. Our infrastructure can nothandle the large amount of traffic. Traffic is unbearable. I live 4.5 mi. from the 405, it takes me most days 45min. This is too much
Less high rise apartment buildings, More condos for senior citizens.
None. We don't need more housing. People do notneed to live here just because the state says we need to make room for more. There are 50 states inthis country, multiple counties and cities in each state and millions, yes millions of undevelopedacres in this land. If you want to live near the beach, pay the price like we did. If you can't afford it, live elsewhere. Stop crowding us into the ocean. Tell the state to take a hike.
The large percentage of housing, and hence landuse, is based on a housing and society model that probably does not represent our requirements of mid 21st century. We as a society need to determine what all that we are looking for from housing, besides just a roof over our heads. Then we need an evolutionary plan to meet all these housing goals.
like we have now
Maintain the current environment.
Housing moving forward I hope does not go up any more in stature and in price and why do we have to fill every inch. Make it varied and let it be.
More single family housing, more Condo/town houses, more commercial building
single family and apartment housing should be developed and available for the population WITHOUT overcrowding the city's streets, parks, and beaches.
Somewhere for everyone to live, no matter what.
Affordable, maintainable housing for everyone.An inclusive community for all.
More affordable housing for all.
Rent controlled housing. Limots to fees that are chsrged
Keep H.B. a beach town
Single family homes..no high rises, no condos,no drug rehab homes.
Single family homes
To remain as is. No more additional developmentin HB especially multi-family dwellings. HB is already much more crowded today than 18 years ago when we first moved here. We chose HB for the relaxed, suburban atmosphere it provided. Since then, hotels (e.g., the Hyatt, Paseo) and hundreds of new homes on the wetlands have been built. No more development in HB in order to maintain the clean, safe and close-knit city that it is/was!
Keep Huntington Beach a bedroom community.. itis already over crowded
More affordable single-family homes

I don't believe any more single family homes should be built because there isn't any land available. If you fill up every square inch of free space in HB then the city becomes difficult to live in and not enjoyable. I don't like the idea of multi story condominiums being built either because it feels like driving in a cave, like the one on Beach and Ellis. I think HB has enough different types of housing for its size.
There isn't any land left to develop and theroads are absurdly crowed making this city not so great anymore. STOP CRAMMING MORE PEOPLE INTO A CROWED AREA !!!! It takes TOO long to drive a short distance already!!
High density housing needs to provide enough parking (2 spaces) per unit. Traffic issues need to be addressed when locating high density units. High density should not be incorporated in or adjacent to single family housing.
Absolutely NO more high density development!!!!
A community of residents from diverse ethnicity. Inviting work from home professions which can bring families with kids. In turn retains stronger schools and promotes local small businesses.
Accommodating to those in need without taking advantage of those of us paying tens of thousands a year in property tax that don't want to live ina
years ago was a quiet beach community. Now everyone thinks they have the right to live where they want without earning it. Live within your means and earn your way to live in a nice place. Stopgiving handouts, stop the transients and thief's. Give the police and fire a raise. Stop with the low income nonsense.
affordable housing
We need to stop trying to squeeze as many houses/units as possible on pieces of land. My vision would be nice neighborhoods with single family houses that have front and backyards. In addition, multi-family units and plenty of green space and parking. Homes would have garages and adequate parking
A mix of condos, townhomes, and single family units that are affordable for those residence who WORK in HB
Stop building and stop more people from movingin! It's already packed enough. We don't want homeless people getting free housing, we don't want rehab/transitional housing in our neighborhoods, and we definitely don't want section 8.
Single family
I want Huntington Beach to remain the communityof single-family homes that I chose to move to years ago.
That there is nice, affordable housing for all.
Maintain traditional single family neighborhoods to retain the style and culture of the city. Long term this keeps property values stable and the residents/citizens of the community will have good reason to support the city along with the electedofficials.
Affordable senior single level units, in a community atmosphere with amenities that accommodate physical limitations.
In ADDITION to existing options, somebody mightfind it lucrative—and good publicity—to build and rent out "efficiency apartments"—studio/SRO type—to the many (mostly-) working people, students, etc. who don't quite qualify for "housing subsidies". With AFFORDABLE rents. Historically, economists have said no one should spend more than 1/3 of income on housing! Well, even if that's not quite feasible...something at least within reach? Like $500-$1000 per room—with PRIVATE toilet-shower-sink?

Not turning into a Waikiki. My husband and I were blessed to purchase a home in the same town we grew up in as kids. We want to raise our childrenin these residential neighborhoods, but are concerned with it turning into an over populated, too- touristy destination that is attracting riffraff
Single-family homes or Townhomes are ideal forthe City of HB. As residents close to Bella Terra/Beach-Edinger area, we have experienced increasedcongestion and find it 'unpleasurable' to venture out, except for necessary errands. The addition of more apartments and HDD throughout the city will only make Huntington Beach less desirable. Weprefer not to emulate Santa Monica.
Less violence.
Stop large high density housing before our cityis ruined.
way too close to the street. The Beach & Ocean complex is beautiful along with the complex in Bella Terra. New single family homes need to be on much smaller lots due to land availability. There really needs to be more options of multi unit housing that doesn't include so many amenities that therent is unaffordable to many.
Single family homes in a community setting. Nomixed use. Look at the mess that Bela Terra has created. High density, limited access, no parking.....
Make it more affordable. Rent and house pricesare driving middle class families out of a wonderful city where they're raising their children andhave roots in the community.
Single family homes
More affordable housing for families.
Housing that is well-maintained with transportation and work accessibility. That is, employers should be encouraged to locate in Huntington Beach.Concealed parking (multi-story decks or underground garages) should be part of high density apartments and condos. Use of bicycles as an alternative to cars should be encouraged by city street infrastructure and housing facilities.
Please don't make Huntington Beach overcrowded!
To have multiple neighborhoods that reflect thediversity of the city while ensuring their housing needs are met.
Stop building high density complexes, there aretoo many, and it's getting too crowded
I see more high rises of condos and apartments,but taking an outdoor lifestyle into consideration. Which would include things like set backs for visibility and light. Also walking paths, or wide side walks. And as the population becomes more condensed we need better/ safer bike paths and reliable public transportation. Ideally a train that could connect us to to the rest of OC's commuter trains.
When we moved here to HB 20 years ago, we liked the family friendly quiet residential feeling. It felt like a small town where we can put down roots with our children. Since then, HB has developed into a city and feels very urban. Now that thereare couple of big developments with affordable housing and rental for all it is time to pause and not continue to developed further and preserve the small town feeling that Huntington Beach has had.
Maintain a beach community feel. We are not a large city, like LA or NYC, and overbuilding will lose the feel and distract visitors if it's impossible to drive, park or enjoy the beautiful beaches.
Stop building so many complexes that have so many units that is putting way too many people in the city
Less urban high rise apartments near the mall.
We need innovative solutions that city, state,and nonprofits can help solve with the affordability shortage, including inclusionary zoning, removing parking minimums, changing building codes to make it easier to rehab older buildings, and malls,with new creative funding models. "There is no silver bullet," we must get creative and get serious about solving the issues, solutions can take shape.

HB needs to become creative in finding and developing homes to satisfy all income and diverse groups.
The market should decide. People pay good moneyand taxes to live by the beach in a desirable community. There is no "right" to live by the beachor in a "nice" area. That is why different cities and locations offer different levels of housingand service.
I like it just the way it is. Maybe modify motels for the homeless.
reasonably spaced affordable housing for all -ridiculous increases/pricing need to be done away with.
Apartments with adequate parking
More housing for homeless to get them off the street
Diversity, more community involved projects. Weseem to come together only for special holidays and events. But much of that is organized by fire department and volunteers, more outreach programs for more volunteers within the community would be great. I'm a CERT member and always supporting these events would allow if approved to run surveys, connect and invite for more participation from the community. The last POD held May 1 and May 22 at Oak View could have had reach out information, thanks.
single family beach community like Seal Beach old town main street we dont need a flood of people i/e recent Tic Toc riot
Not overdeveloped or overcrowded, keeping traffic down and access open to beaches. Not exclusive to wealthy people, should be reasonably accessibleto middle class.
There is no need for any additional housing.
Multi-family neighborhood units surrounding (orsurrounded by) open space/park, locally owned restaurant/cafe, grocery market. Smaller parcels requiring boats, trailers, RVs or surplus vehicles to be garaged elsewhere. Therefore some sort of vehicle storage garage (covered) should support these
Affordable housing so families can grow in HB without fear of having to change schools.
Stop building high density housing! Single families homes, or even duplex’s are so much better for families! Don’t forget parking, people have way too many cars and that needs to be taken into account when planning for future residents (parking is needed)!
No more apartments
Resist overthrow of our city government by a self-interested, decietful city counci alined with the progressives seeking power and a subservient
More homeless making safety a major problem.
I'd like to see HB continue to be a place wherefamilies can live cradle to senior years with affordable house for the next generation and being good neighbors to those with housing insecurity.
Single family homes that are affordable for those who can afford to live here. Single family homes are what the people want. They are already here.You don’t need to redone to steal our homes from us. Go to Barstow and build your stacknpacs
I would like families to be able to live in neighborhoods with single-family homes and no apartments or party houses in the middle of them. I would like there to be sufficient apartments so that individuals or small families could find a place tolive at a reasonable cost. I like mixed retail/housing near
Stop the High Density Housing! You are killingour city with traffic.
You have jammed too many people into this cityand have ruined it. Residents are growing angry because you can't go anywhere without getting stuckin crowd or a traffic jam. When is enough going to be enough for you?
Huntington Beach has grown up as a suburban beach community over the past 75 years. Change that and yo will lose Huntington Beach.

More spacious affordable housing with parking
My vision is for any newer housing to not causeexisting home prices to decline as a result. Any new housing should maintain/ increase current
There should be no further building and no further housing development in the city of Huntington Beach ever! It is over developed and crowded and you are ruining our beautiful city!
An increase in affordable housing that promotesdiversity in our city.
Affordable housing for low middle class families. Housing for homeless
We rent a single family ranch home here in HB and we hate it. It was convenient while our kids were in school, and for our pets, but we are movingas soon as they are done. The lot footprint wastes so much space - there is no benefit to the water sucking lawns, while the house is too small. Suburban sprawl is outdated, and ugly. Walkable communities, well thought out homes, better public transit, more parks and green spaces, safer bike trails - this is what is making communities desirable.
Please stop all the development. I don't wantour wonderful Huntington Beach city to become Santa Monica or Venice.
No more high rise buildings. No more dwellingsthat do not provide adequate parking (at least 2 spaces for a 1 bedroom unit). Limit to homes in existing neighborhoods that allow "granny flats" without a designated parking space. Too many cars parking on the streets.
The city is already built up. I live here because it's nice and not overpopulated.
Lived in HB my entire life. There is no more land available to build more homes or apts. it’s already too congested with people and traffic. Willsoon be looking to move out of HB and Calif. One more house will be available then.
Multi generational or ADU’s but with consideration for parking required for these units would likely receive less push back from the community. The concern is new developments provide narrow drive ways that don’t really accommodate 2 cars andnarrow garages. If there are enforceable regulations for new housing that provides enough parking and requires those with ADU’s or multigenerational homes to use only their assigned parking then thefear of streets looking like DTLA would be appeased
Single Family Residence
a single detached family home that is affordable and quiet area
Huntington Beach has grown up from a small surfing/beach town to a bedroom community to a tourist destination. I has evolved quite well but the Elan and other developments with nothing but curb squeeze are ugly and monstrous. STOP IT!!!!
Impossible to afford.
Small quite downtown beach town area that doesn’t have high density housing and tons of people and cars crammed in
more single story housing for retirees
I want HB to be cleaned up.
A place where working class people that make less than $50k/year can live close to the beach. There needs to be more young people with housing thatwill stay in Huntington to keep the city alive with energy.
New Small cottages built and existing cottagesrefurbished and protected- no more three story ugly houses!!! More 2 beds with small private yard. More people living here full time instead of Uber rich people taking our land and limited propertiesand only using it as a vacation home- bring back

We need to address the homelessness and find way to get prof the streets. Set up a program where homelessness can work for in exchange for room and board
It would be so nice to see different architectural style. Right now all we see by the ocean is boring semi-spanish style. What makes areas beautiful is different styles. Our forefathers created Garden style communities in Los Angeles. It would benice to see some buildings like that.
My vision is to look in the rear-view mirror .. .
To not over build and try to keep a smaller city
Paint all exteriors light tints to reflect theSun's ultraviolet radiation. Less concrete, build over parking lots. Keep as much greenspace and fruit (orange) trees as possible. Mixed-use residences for 9:-5: businesses. Use wood termites least like to build new homes. Zone industrial businesses near the 405 frwy. No more plastic playground equipment at the beach; use park space for park equipment.
Semi affordable homes that provides opportunities to grow
Mixed housing from apts to condos to townhomesto single family housing to housing areas with garden area. A must have is parks, trails and exercise
and may not impact traffic as building near a freeway or bush shopping plaza will (like whatis happening at Bella Terra). I think the city has really old parts that's need major facelifts and pockets of homelessness (whether intentional or circumstantial). Instead of throwing money at it,we need to improve services.
Planned communities, two story or three story condominium developments, and better use of vacant lots (of which there appear to be many in this
Single family houses
No more tall apartment structures. Our city isbecoming to crowded. Single family homes is the way to go.
Single family housing
Leave HB alone. Please don't ruin it with high density housing
Housing and Hotels with pickleball courts.
If costs can be lowered
Single family detached residences
I would like to see all kinds of affordable housing for every age group, including rentals and ownership opportunities of duplexes.
Huntington Beach needs to stop building so manyhigh rise buildings if anything, they could add parks or something to benefit the environment, notharm
Low density single family homes to maintain theintegrity of the history, lifestyle, and environment that make HB a safe and enjoyable place to live.
My vision is affordability for all families andmore diversity. More things should be organized downtown like summertime events to invite more diverse crowds not just keeping it old fashioned and hometown like make it more touristy, have more thanjust the surf championships have things like chili cook offs or different bands not just country music were a beach community not a cattle ranch!
Single family homes
I would like to keep it clean and safe. Not sooverbuikt that it becomes like LA
Housing should be limited to maximise the diminishing open areas of the city. e.g. many schools and playing fields are being lost to housing developments without replacements for athletic activity.
Stop building in HB

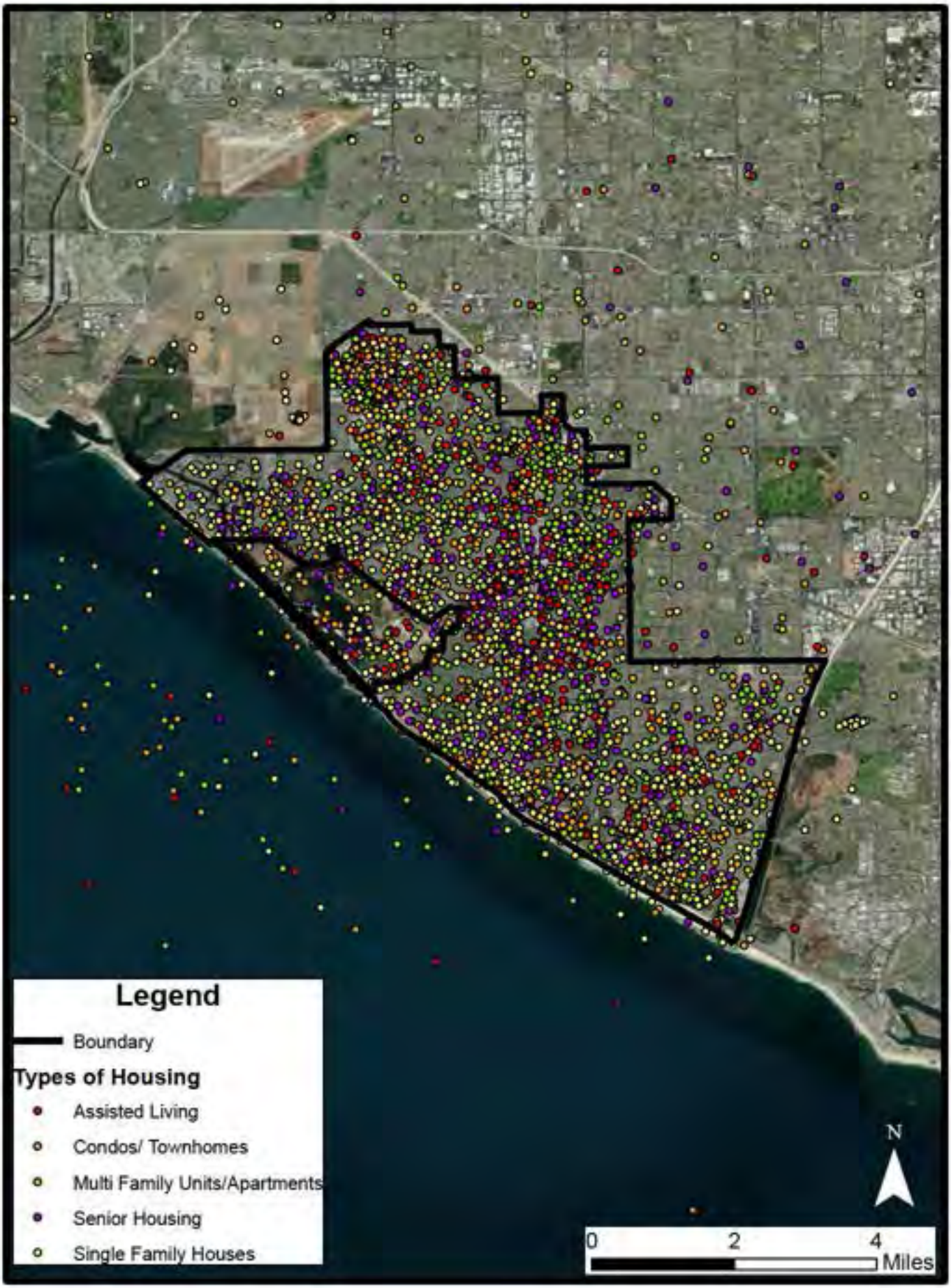
Affordable housing for everyone.
More affordable housing is desperately needed for seniors as well as low income families. I think co-living units could possible work very well for many seniors; also more townhome/condominiums as well as small lot single family homes, duplexes and triplexes. We have more than enough large single
Less apartments being built so close to each other, taking away open space and creating more traffic problems.
It's already too crowded
Preserving single story single family dwellingswhich many seniors seek. Many seniors physical difficulties (knees/backs/feet) climbing stairs toaccess second stories. Would like to maintain single story housing and discourage/prevent remodeling same to two or three story dwellings.
Leave things alone like they are.
Single family homes
Just single family homes. Maybe affordable forthe retired people.
Less crowding, less apartments crammed into every available space
Housing should be equally distributed to the income levels in the city. If we have more persons with higher incomes that need housing assistance than it should speak to that. Or same with if we have a large low income population that can not afford housing more units should be available for that population. Right now available rental units aremostly 2 bedroom, which does not work for a family of 3 or 4. Buying is not an option for many. We need more affordable condors, not 2 bdrm apts.
Single detached affordable housing or attachedaffordable housing.
more single story homes. We don't need more hidensity building and more hi levels of traffic!
To keep it a low density residential area.
Stop over building and return the city to the quaint beach town it once was. If people can’t afford to live here there are plenty of places theyHAVE THE CHOICE to live in.
Maintain beach atmosphere three physical milesfrom the sand and increase building height as you get closer to the freeway. In fact build highrisehousing over the freeway and make the freeway and housing as as tunnel to inhibit and limit noise. Technology should be able to easily solve the problems if government would get out of the way.
I keep asking but never receive an answer.....why do you feel we need high density housing ? Why do we need more housing of any kind...can't you just let are city try to remain a nice beach city not LA
HB is crowded and there is no land . High Density just adds to the problem. We should legally fight SCAG as their decision is extremely biased andunfair.
Our city needs to remain a low density, qualitycommunity that is by majority single family homes. The reality is this — there is land to developinland. Build in the empty areas.
Single family homes only. Don’t crowd peopleon top of each other.
Affordability, it’s so hard to afford to livehere.
convert storage containers to small houses

Housing in HB needs to reflect the infrastructure already here or expand infrastructure at the same time as new units. Requiring 10% affordable units in new rental properties has caused the rents to increase overall for the city. The apartments tend to be luxury apartments to justify the increased costs, and most people just need a decent placeto live, not luxury apartments with their exorbitant rents. When new luxury rentals are $2500/month,older rentals previously at $1650, now rent for $2k
The way it was in 1975.
Majority single family homes to maintain the small coastal city atmosphere.
Please see my response to previous question...Ielaborated there.
Get rid of multi-family units in all forms. Huntington Beach is more crowed now than is desirable. Eliminate all high density housing in all forms.
More affordable.
To not be any more congested and overcrowded that it already is!!!
A community filled primarily with single family homes.
Provide more affordable housing for those in need & first time buyers. Allow more ADUs with easier plan checks & some variances to easements. Provide transitional housing for homeless with accountability for no drug use. Maintain park spaces and ensure homeless do not take over these areas.
Prop 50 did have the right idea...single familyhousing on large properties do not help the need. When population decreases by 2050 these mansionswill be unneeded
More garden apartments, co-living units and mixed use housing.
More entry-level homes for young families providing a path to homeownership.
Enough with the outrageous rental prices for these so called fancy apartments. There is nothing affordable for the average person. Throwing in acouple of affordable housing units per new apartment complex is not enough. You got requirements from the state to build more housing..how about you focus strictly on supplying new housing for low income Seniors and the average person busting their butt working 40+ hours a week making only min wage. No more overpriced Elan, Pacific City apartments.
Affordability and availability
No more huge apartment complexes are needed. Wehave more than enough. If people can't afford to live in our city, they have to look elsewhere.I had to buy my first home in Westminster. Then sold after 13 years and bought a condo in HuntingtonBeach. Lived there for 13 years and then bought my three bedroom home in Huntington Beach. And yesI had long drives to and from work.
Allow people to put a unit in their back yards.And keep out tall apartments
family oriented, maintaining safe neighborhoods, developing affordable family living
WHY why do we need to expand our population ?WHY do we have to answer people who live 400 miles away ?
were low cost housing then maybe the city would get some kind of tax break or qualify forother funding/grants etc. There should be something in this city for everyone.Also, along Beach inthe area of Terry, it would be nice if there were stores on the bottom and apartments on top. Not quite as big as Elan though, that is an eye sore.
I'd like to see smaller groups of duplex or condominium options that help to foster neighborhood and community life. Less apartment style high rises
Single family detached

That we only build up housing by the 405/Westminster. We are a thriving community, but the more urban we become, the more opportunity for crime/homelessness. We need to protect the values and quintessential beach town that is Huntington Beach
Less super high apartments/condos as on Beach Blvd. Need more smaller, affordable apartments and condos.
Keep the traditional family feel
By building at so much at Bella Terra in the last few years, I find it way too congested for me. I as told that the theory was going that you wouldwork and play in the same place but people outside that particular area are taking their business elsewhere, mine included, to avoid all the congestion. If this is what you are trying to do at BellaTerra it is failing.
I have not thought about it.
Housing with adequate parking and parks for leisure and relaxation
I have been in my single family home in the last 25 years and I am not looking for a home.
We already have excessive multiple family dwellings. Any more would ruin our unique beach community..
Homes should be available for everyone, with every source of income in every city. H.b has become too expensive, even in the rental market. Movingforward, Huntington beach should lead be example by providing all forms of housing for all people, with various levels of income. Including
states or areas. I was in that position myself going through a divorce with two kids and no support. I've been a resident and member of this community for 30 years and almost had to leave, except family took me in. By no means am I close to the poverty line, but still couldn't afford to stayhere solo. There has to be a solution.
We already have excess multiple family residences. This city has already been built out.
Affordable
Need to elevate the reputation of HB. Known asa blue collar town.
Affordable housing based on income.
More affordable housing and opportunities for families to enjoy the environment (beach , parks , hiking trails).
No more development. We can't support and provide sufficient infrastructure to support what we currently Jacob free rt
A mix of uses where both I and my children canafford housing.
Single family homes with park enhancements fordowntown area - focus on building where there is more land - more inland so new residents can affordto rent or buy.
and walking paths. Stop attracting the undesirable folks who bring noise and unrest to our communities. Downtown has become unruly and is loosing its safe, small town feel. Better schools. Clean upthe beach bathrooms, walkways and fences. Our beach front is ugly and embarrassing to bring peopleto visit.
Family friendly SAFE neighborhoods with parks and clean streets with bike lanes to ride to the beach
2-3 bedroom condo
To keep Huntington Beach without any more highdensity housing. There is already too much, and the population is not growing. Please do not ruin Huntington Beach at the expense of paying for government pension plans that need the funding through high density, which will ultimately fail anyway as the population is decreasing. We need to get realabout the situation and amend the pension plan funding requirements.

My vision is for the city to remain about the same. I didn't move to H. B. to live in a crowded, congested city with 4 story plus housing that can look into my back yard. I will strong oppose any such efforts to radically change the city and oppose any council members who seek to change the character of H. B. Nearly all of my neighbors have expressed the same feelings to me. Keep the city the way it is.
NO MORE HIGH DENSITY HOUSING causing too muchcongestion
Housing for all income levels, a variety of different kinds of housing, for all ages and ability levels
As a single parent working full time outside the home, I'm unable to afford to buy/rent without living in a multi-generational household. Givingthat many folks are combining households/generations, nearly all developments are dramatically underparked! Open space/green space is so important to mental health. Cramming as many units as possibleinto a small parcel of land does not allow for adequate outdoor space. Children should be able to play in their neighborhod w/out being driven to a park.
Reduced homeless population. Less density. Moreopen land. Bigger lots. Less renters. They have no vested interest in the community. Give the Localcommunity the power todevide density. Not the state. If there isnt enoughhousing, then folks need to go to neighboring community. It IS NOT UP TO HB TO HOUSE EVERYONE. PEOPLE NEEX TO EARN ENOUGHT LIVE HERE. LIVNG IN BY THE BEACH IS A PRIVLEDGE. NOT A RIGHT.
Affordable, affordable, affordable...
I'd like development to slow down and I'd like the high density development to stop completely. I understand that cities have to grow and adjust to housing demands but HB is being ruined by massive development.
Single family homes, condos. No more large apartments, it's too congested and becoming a less desirable place to live.

Huntington Beach Potential Housing Locations



Spanish Community Survey

On April 28, 2021 the City of Huntington Beach launched an online community survey to gather additional feedback regarding potential housing needs, housing experiences, vision for future housing, which housing types and housing opportunities to include in the Housing Element. The survey also solicited feedback regarding potential barriers or constraints to housing access and the development of housing. The survey was live through April 28, 2021 to June 23 2021 and was available on the City's webpage, https://www.huntingtonbeachca.gov/housing-element-update/. In total, there were 10 survey participants, below is a summary of their responses and the survey's results.

Slide 2: Housing Needs

Participants were provided a variety of questions about housing experiences, housing constraints and housing types. The charts below identify all participant responses and display the total number and percentages of participants who ranked housing experience by number and percentage scale.

Figura 1 displays data results for participant responses to the Spanish survey to when they looked for housing in Huntington Beach. Based on the data, participants were looking the most in the last two years as well as the last three to five years. In **Figura 2** participants were asked why they were looking for housing and majority stated "other"(33 percent) following close with participants having an "addition of a new household member" (25 percent) and job relocation(17 percent), and needing a larger home (17 percent).

Figura 1: ¿Ha usted o algún familiar cercano buscado vivienda recientemente?

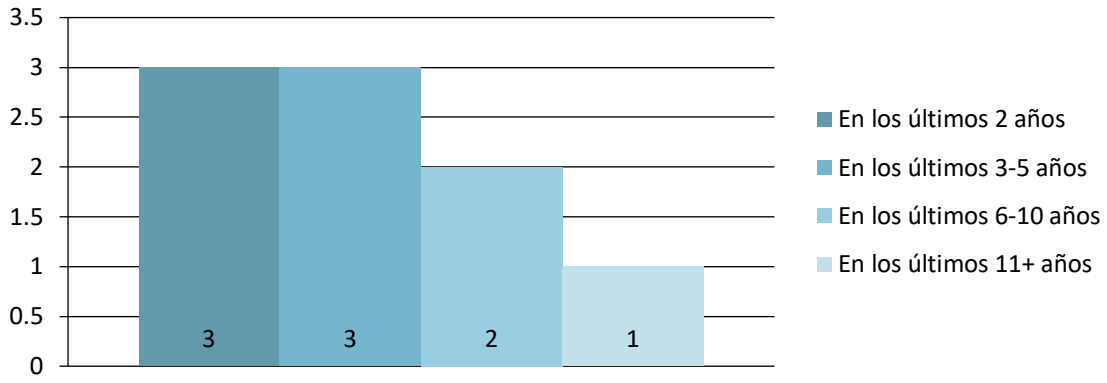
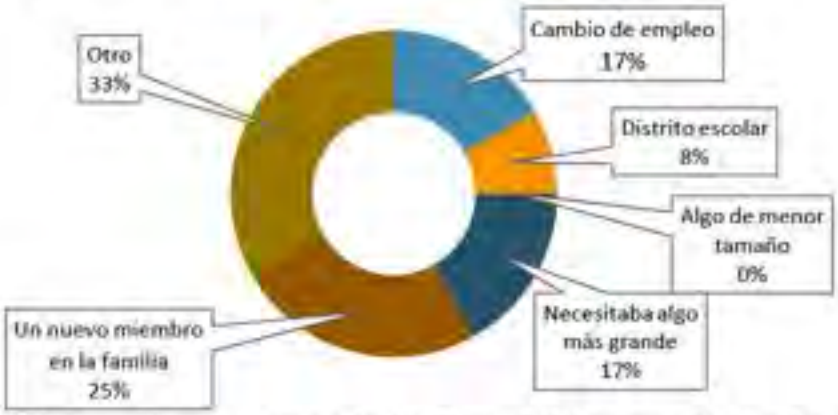


Figura 2: ¿Por qué buscaba vivienda? Elija todos los que apliquen



When participants of the Spanish survey were asked in **Figura 3** if they were looking for a unit to buy or rent, majority were looking to rent in the City of Huntington Beach (7 participants) while 2 participants were looking to buy. **Figura 4** asked participants what barriers to finding appropriate housing when trying to buy a house, majority felt that condition of home was biggest constraint (3 participants). **Figura 5** asked participants what barriers to finding appropriate housing when trying to rent in Huntington Beach, participants felt that cost of security deposit (7 participants) and the high cost of rent (6 participants) were the biggest constraints.

Figura 3: ¿Buscaba una unidad de renta o venta?

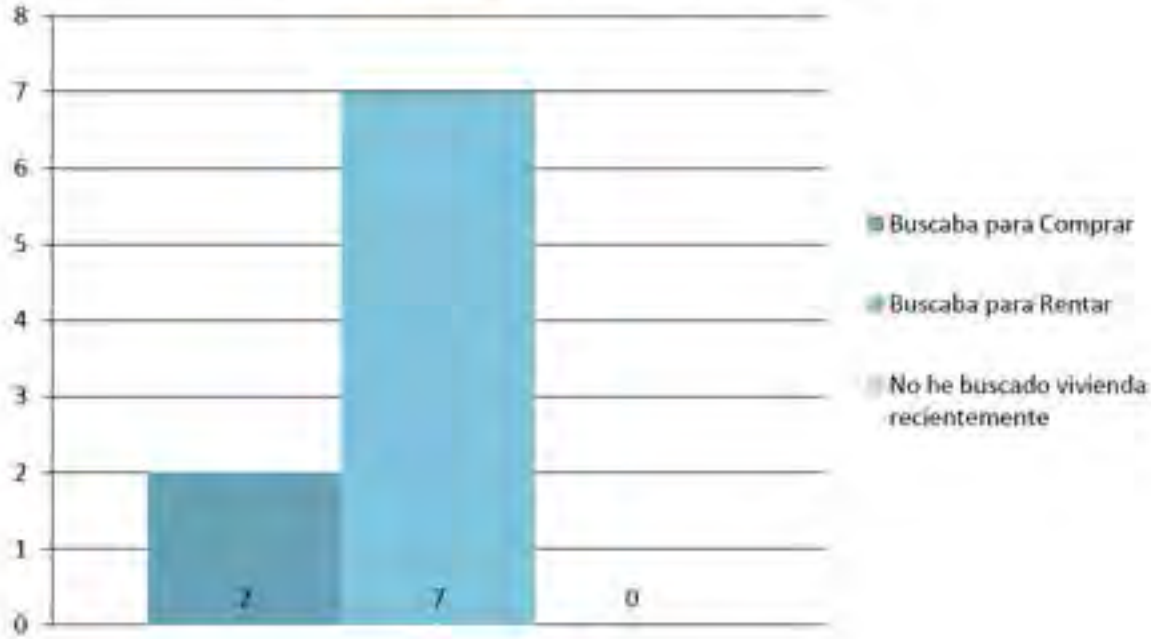


Figura 4: Si buscaba de venta, ¿qué obstáculos tuvo para encontrar la vivienda apropiada?

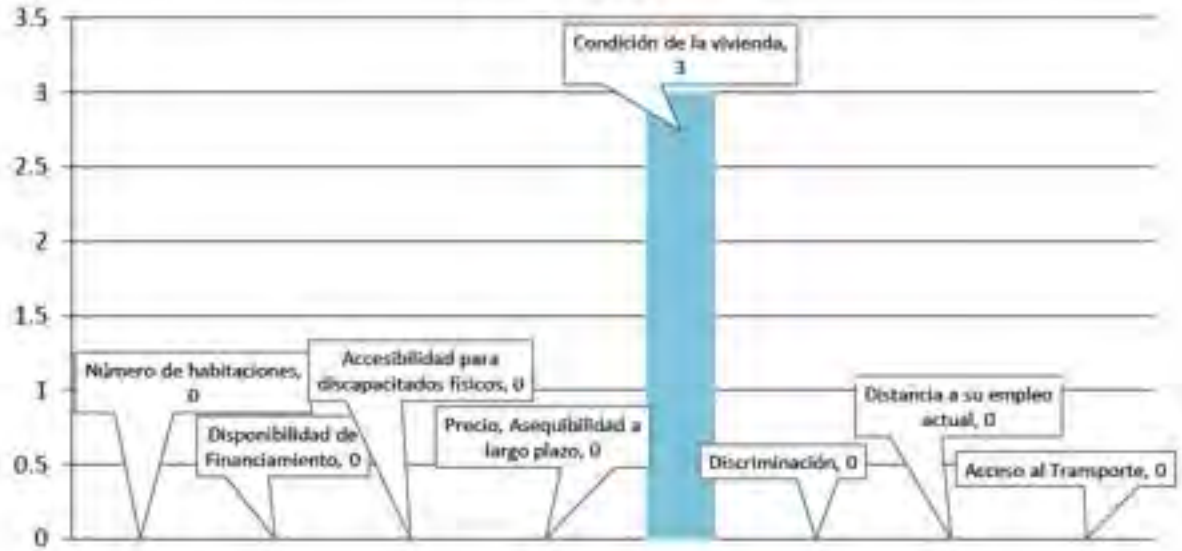


Figura 5: Si buscaba de renta, ¿qué obstáculos tuvo para encontrar la vivienda apropiada?

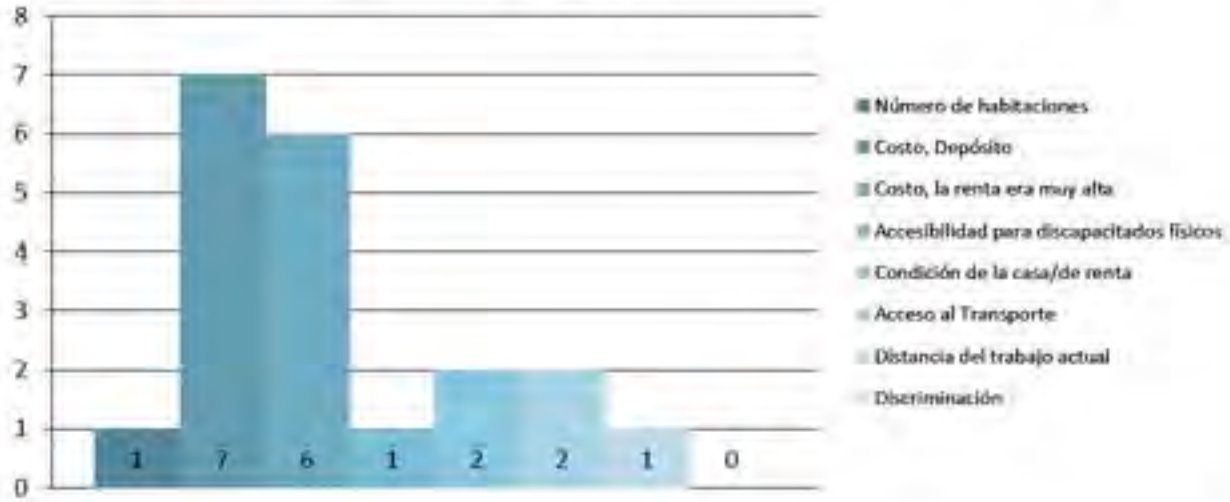


Figura 6 asked participants of the Spanish survey if they were looking for a new home today, what type of housing they would consider and most of the participants preferred single family detached (46 percent) and ownership condos (36 percent). **Figura 7** shows the data responses of the type of single-family housing best help Huntington Beach provide housing for all residents in the community and majority felt that tradition single family homes would be the best fit (6 participants). **Figura 8** asked participants which type of Single-Family Homes best provide housing for Huntington Beach residents majority of the participants found that 3-4 bedrooms to be the most popular response (7 participants). **Figura 9** displays the data of the types of multi-family housing that best help Huntington Beach provide housing for all

residents in the community and the participants felt apartments (5 participants) and condominiums (3 people) would be the best fit.

Figura 6: Si estuviera usted buscando una vivienda el día de hoy, ¿qué tipo de vivienda consideraría? Elija todas las que apliquen

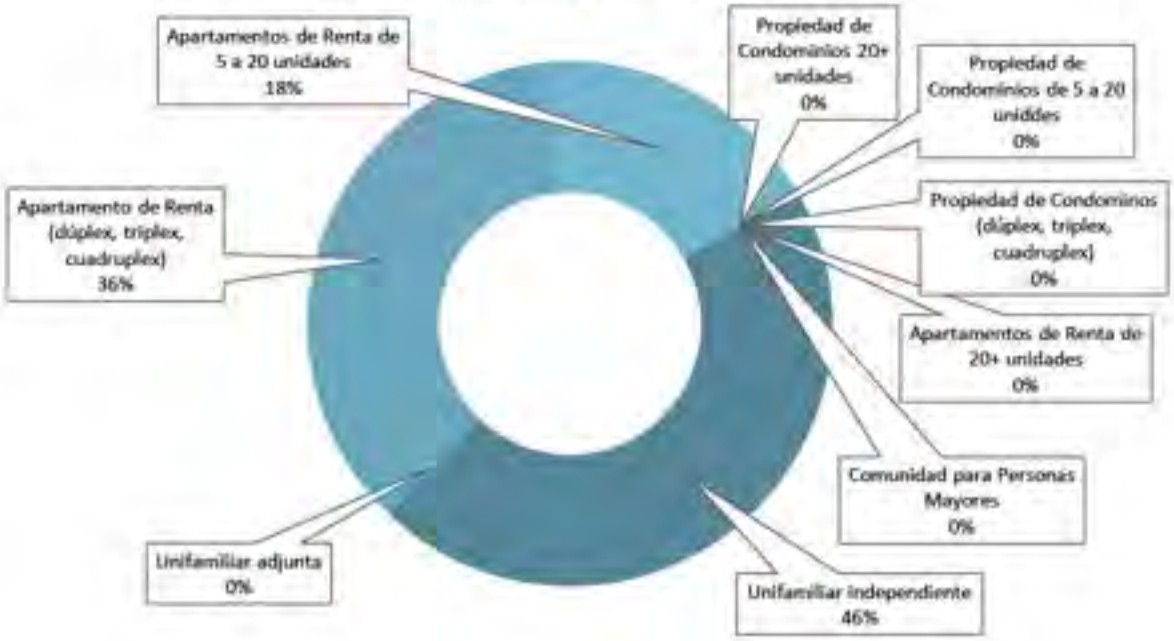


Figura 7: ¿Qué tipos de viviendas unifamiliares ayudan mejor a Huntington Beach a proporcionar vivienda a todos los residentes de la comunidad? Por favor elija todos los respuestas que apliquen.

Figura 8: ¿Qué tipo de casas unifamiliares proporciona mejor vivienda para los residentes de Huntington Beach?

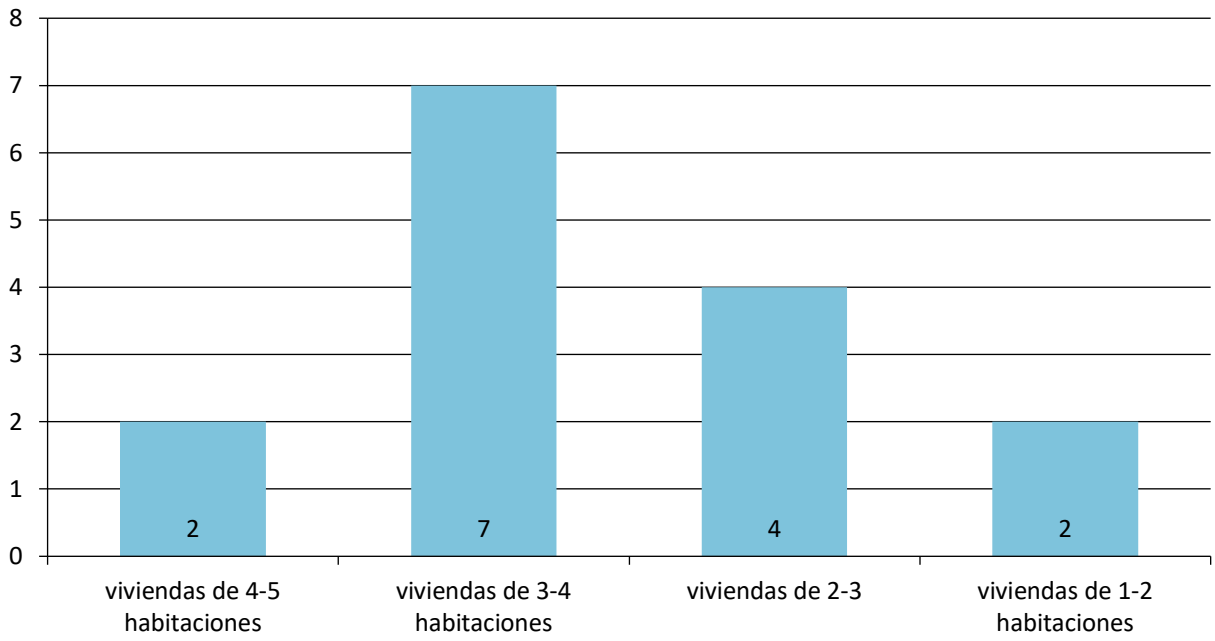


Figura 9: ¿Qué tipos de vivivendas multifamiliares ayudan mejor a Huntington Beach a proporcionar vivienda a todos los residentes de la comunidad? Por favor elija todos los que apliquen.

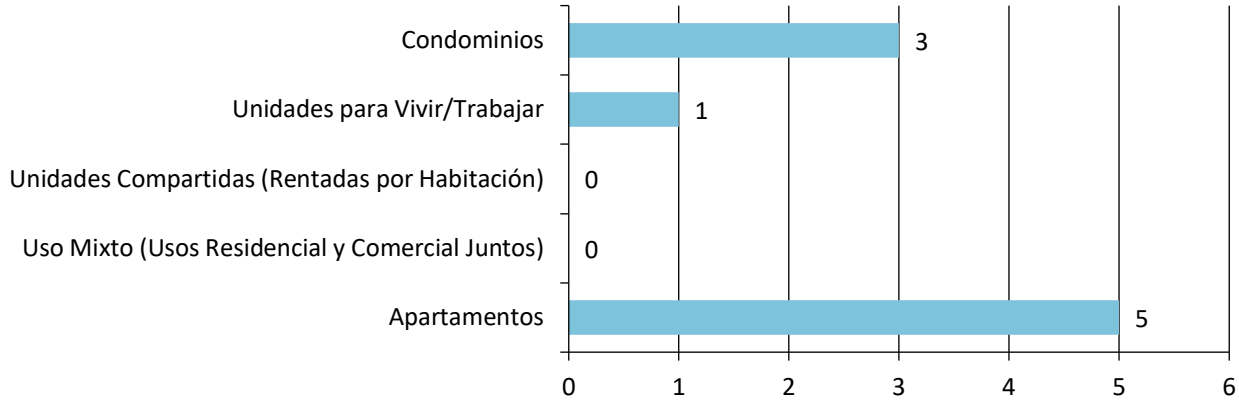


Figura 10 showcases the statistics for the types of multi-family apartment style building that participants of the Spanish survey felt would best provide housing for all residents in the community, majority felt that garden/courtyard apartments (50 percent) would be the multi-family apartments in the community. **Figura 11** asks participants what special needs housing groups need additional housing in the City, majority felt affordable housing (5 participants), senior housing (4 participants), supportive housing (4 participants) and students (4 participants) were the options participants felt were most important. **Figura 12** asked participants what they believe are the biggest barriers or constraints to housing development in Huntington Beach. The data shows that majority felt that cost (40 percent), access to information (30

percent) and available funds (20 percent) were the biggest barriers or constraints to housing development in the City.

Figura 10: ¿Qué tipos de edificios de apartamentos multifamiliares ofrecen mejor vivienda a todos los residentes de la comunidad? Por favor elija todos los que apliquen.

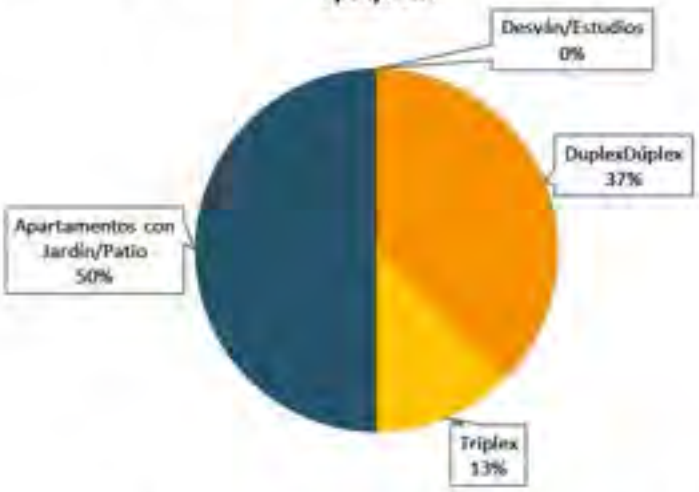


Figura 11: Los grupos de viviendas para necesidades especiales son aquellos que pueden requerir modificaciones o adaptaciones especificas. Selecione todos los grupos que considere necesitan vivienda adicional en la ciudad.

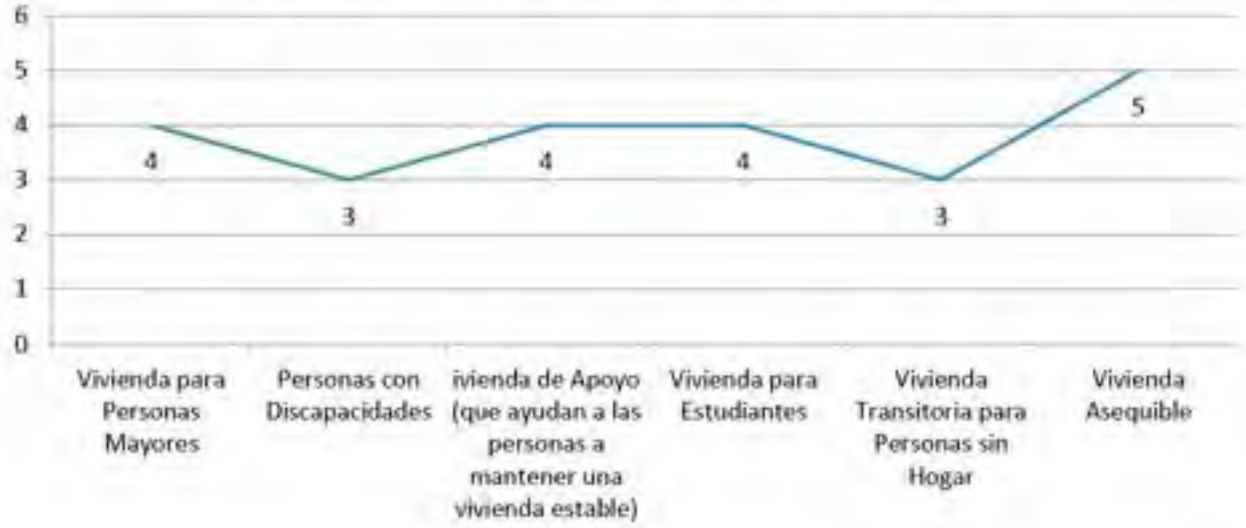
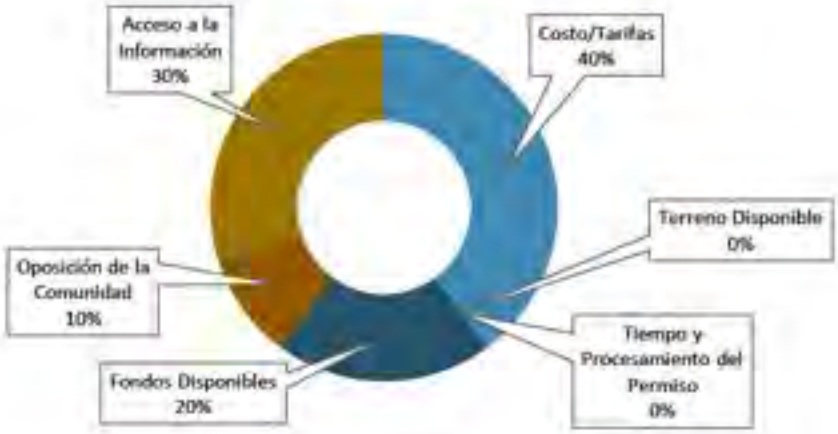


Figura 12: ¿Cuáles son algunas barreras o limitaciones para el desarrollo de viviendas en Huntington Beach?



Slide 3: Vision- What is your vision for housing in Huntington Beach?

In Slide 3 of the Spanish survey, the participants were asked what their vison for housing in Huntington Beach is in the form of an open-ended response. A total of 3 responded on the slide and the answers provided a range of ideas for their visions for housing in the City. Participants comments that are of similar opinion are listed as topics below with several public comments listed underneath. There is a separate appendix that contains all the responses,

- **Affordable Housing**
  - Viviendas asequible para personas de bajos recursos. Control de renta (Affordable housing for low income people. Rent control.)

- **Dignified Housing**
  - Mi visión es de departamentos duplex de 3 recamaras con acceso a un patio particular para la salud mental y dignificacion de los residentes. Una póliza de igualdad y respeto que la desempeñe una tercera identidad para mitigar los desacuerdos entre inquilino y propietario. (My vision is three-bedroom duplexes with patio access for better mental health and dignity of residents. Policies of equality and respect that is carried out by a third party to mitigate disagreements between tenants and owner.)
  - Viviendas con nueva infraestructura, viviendasmás ecológicas, ahí muchas viviendas muy antiguas y les hace falta reparaciones. (Homes with updated infrastructure, "greener" homes, there are lots of old houses that need repairs.)

Slide 4: Potential Housing Locations

Participants were asked to identify areas that could be potential housing locations within the City in **Figura 12. Figura 12** contains five different housing type which is indicated through various colors: red dots indicate assisted living housing, the orange dots indicate condos/townhomes, the green dots indicate multifamily units/apartments, the purple dots indicate senior housing and yellow indicates single family housing. In **Figura 12** there is five potential housing sites near Beach Boulevard that participant best suited the community. Of the five potential sites , four of those sites indicate a multifamily as the best fit for the communities need while one marker indicated single family . **Figura 13** displays the summary of

the map markers, participants felt that multi-family houses(4 markers) was the best fit the community's needs.

Figura 12: Map Marker

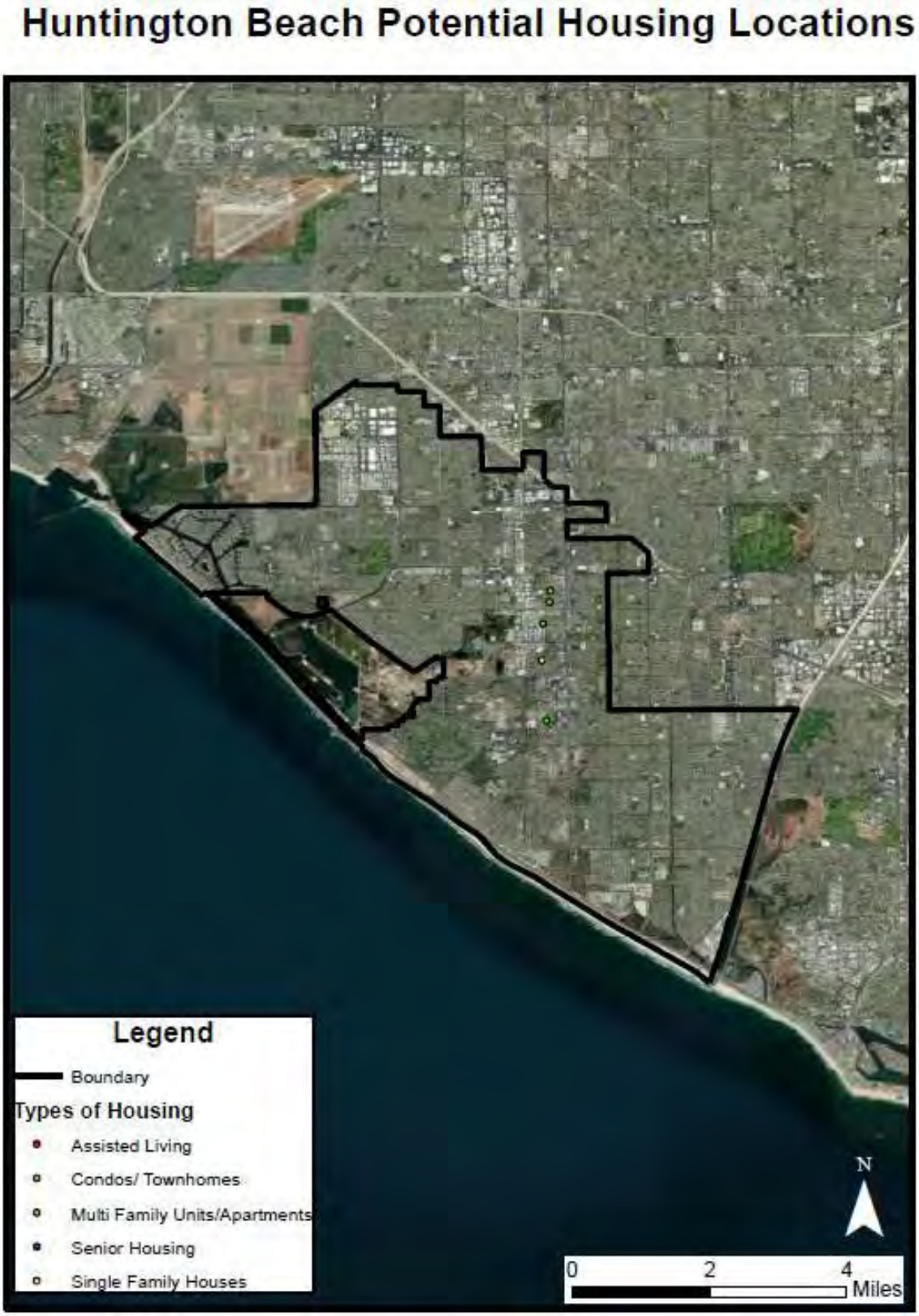
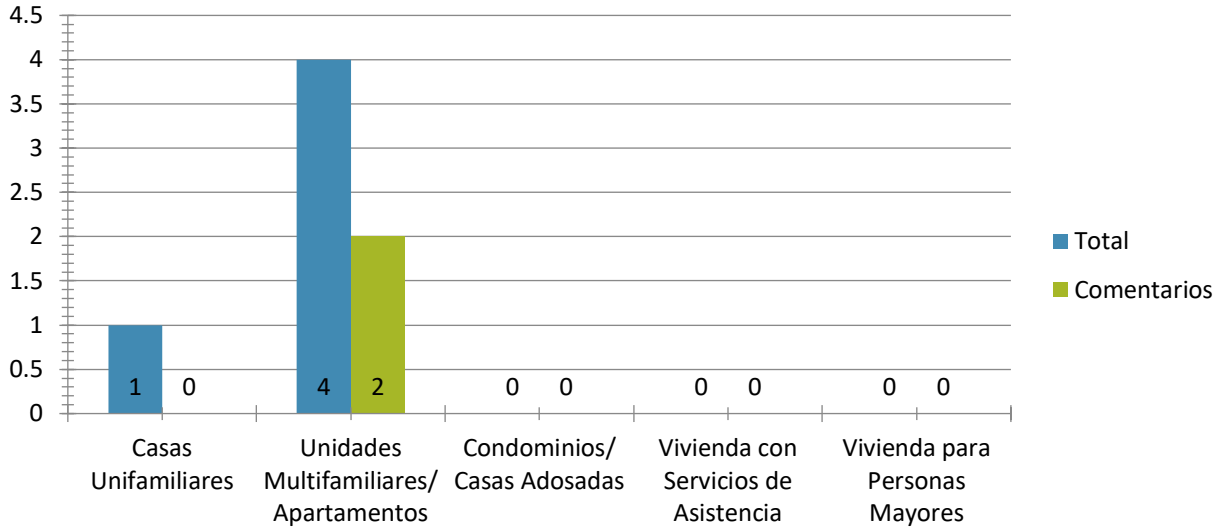


Figura 13: Creador de Mapas



Slide 5: Demographics

The final slide of the Spanish survey included demographic questions to provide a deeper understanding of participants' background. The questions collected information about current residence, housing tenure, and business and property ownership. **Figura 14** displays the data for participants' who live in the City. Majority of survey participants live in Huntington Beach (67 percent). **Figura 15** identifies participant tenure; majority of survey respondents rented their home (100 percent). **Figura 16** identifies household size in the City, 34 percent of participants lived with two other persons, 33 percent lived with 3 other people, and 33 percent lived with 4 other people. **Figura 17** identifies participants total income in Huntington Beach, majority of participants stated their annual income was $52,501 to $82,400 (67percent). **Figura 18** identifies participants **i**nterest in housing in Huntington Beach and all of the participants were residents of the City (100 percent).

Figura 14: ¿Vive o trabaja usted en Huntington Beach?

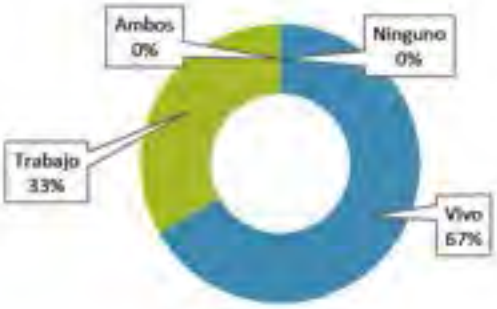


Figura 15: ¿Renta o es propietario de su casa?

Figura 16: ¿Cuánta gente vive en su hogar?

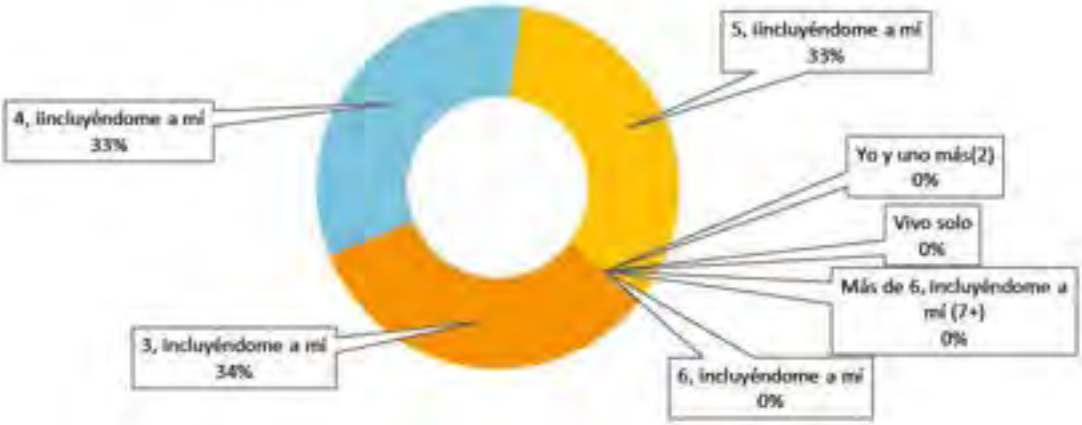


Figura 17: ¿Cuál es el ingreso total de su hogar?

Figura 18: ¿Por qué está interesado en la vivienda en Huntington Beach?

Huntington Beach Potential Housing Locations

C.7 Joint Study Session Materials

This section contains the summary presentations and minutes for Study Sessions before the Planning Commission and City Council occurring in 2021. All recordings, agendas, and minutes can be found on the City's website at https://www.huntingtonbeachca.gov/housing-element-update/meeting-information/.

Huntington Beach's Planning Commission and City Council Study Session

When March 1, 2021 at 4 PM
Where Virtual

1

Agenda

I. Background
II. Regional Housing Needs Assessment (SCHNA)
III. Housing Legislation
IV. Community Engagement
V. Next Steps

2

Background

3

What is a Housing Element

- Required Chapter of the Huntington Beach General Plan
- Provides goals, policies, programs and objectives to guide future housing growth to meet the needs of residents of all income levels in Huntington Beach
- Identifies projected housing needs by income category
- Requires certification by the state department of housing and community development (HCD) for compliance with state housing laws

4

Housing Element Benefits

- Demonstrates Huntington Beach's ability to meet current and future growth and housing needs
- Further engages the community in the planning process
- Ensures the City is in compliance with state laws
- Creates opportunity for state grants and funding sources

5

Housing Element Features

6

Regional Housing Needs Assessment

7

Huntington Beach RHNA Numbers

Income Category	% of Median Family Income	Annual Income Range*		RHNA Allocation (Housing Units)*
		Min.	Max.	
Very Low Income	0 - 50% MFI	—	$51,500	3,661 units
Low Income	51 – 80% MFI	$52,550	$82,400	2,184 units
Moderate Income	81 – 120% MFI	$83,480	$153,900	2,408 units
Above Moderate Income	>120% MFI	$153,900	>$153,900	5,715 units
			Total:	13,968 units

1. Each income category is defined as a range of household incomes that represents a percentage of the median family income (MFI). The MFI for a family of four in the Orange County region is $103,000.
2. RHNA Allocation is in draft form based on HCD- approved final RHNA methodology (2/16/2021)

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5th Cycle vs 6th Cycle Allocation

Income Category	% of Median Family Income	5th Cycle RHNA Allocation (Housing Units)	6th Cycle RHNA Allocation (Housing Units)	Unit Allocation Difference
Very Low Income	0 - 50% MFI	313 units	3,661 units	+3,348 units
Low Income	51 – 80% MFI	220 units	2,184 units	+1,964 units
Moderate Income	81 – 120% MFI	248 units	2,308 units	+2,060 units
Above Moderate Income	>120% MFI	572 units	5,215 units	+4,643 units
	Total:	1,353 units	13,368 units	+12,015 units

9

Housing Legislation

10

New Senate and Assembly Bills

Senate Bill
- SB 35
- SB 165

Assembly Bill
- AB 1397
- AB 72
- AB 686

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Senate Bills

- SB 35
  - Allows developers to request streamlining provided certain criteria are met. This means the City will need to evaluate the entitlement procedures to permit and track the adherence to the law. In an SB 35 City, approval of a qualifying housing development on a qualifying site is a ministerial act, without CEQA review or Public Hearings.
- SB 166
  - Requires that jurisdictions "at all times" maintain the Housing Element Land Use Inventory and Site Identification Program that can accommodate the City's unmet need.

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Assembly Bills

- AB 1397
  - Further defines the obligations in Housing Element Law that housing elements identify and zone sufficient sites to address a community's share of need for lower income housing. Focuses on:
    - availability of sites;
    - "by right" requirement for sites previously used;
    - size requirements for previously used sites; and
    - limitations on accessory unit capacity.
- AB 72
  - New HCD review of Housing Elements permitting HCD to engage in enforcement activities mid-cycle. If found out of compliance, HCD may revoke its prior approval of a jurisdiction's Housing Element until actions are taken to bring the jurisdiction back into substantial compliance with the law.

13

Assembly Bill

- AB 686
  - Requires a public agency to administer its programs and activities relating to housing and community development in a manner to affirmatively further fair housing and not take any action that is inconsistent with this obligation. "Affirmatively furthering fair housing" means, among other things, "taking meaningful actions... that overcome patterns of segregation and foster inclusive communities" and "addresses significant disparities in housing needs and in access to opportunity." Additionally, an assessment of fair housing practices must now be included in upcoming Housing Elements.

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Senate and Assembly Bill List

- **Funding Measures**
  - SB 2
  - SB 3
- **Streamlining Measures**
  - SB 540
  - AB 73
  - AB 2753
  - SB 765
  - SB 330
  - AB 1485
  - SB 744
- **Accountability Measures**
  - SB 167
  - AB 678
  - AB 1515
  - AB 1255
- **ADU Measures**
  - SB 69
  - AB 881
  - SB 13
  - AB 587
  - AB 670
  - AB 671
- **Other Measures**
  - AB 2372
  - SB 1227
  - AB 3194
  - AB 2263
  - AB 2162
  - AB 829
  - AB 2913
  - AB 1763
  - AB 1483
  - AB 101

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HCD Definition of "By Right"

- By right means the jurisdiction shall not require:
  - A conditional use permit
  - A planned unit development permit
  - Other discretionary, quasi-government review or approval that would constitute a "project" as defined by CEQA

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Community Engagement

17

Community Engagement Timeline

18

Housing Element Schedule

- Two (2) Community Workshops
- Fact Sheets and Informational Flyers
- A Designated Housing Element Update Website
- An Online Survey
- Multiple Study Sessions with Elected/Appointed Officials

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Next Steps

20

Thank you!

Questions?

Please Contact
Nicolle Aubé, AICP, Associate Planner
By Phone: 714-374-1529
Or, by email at nicolle.aube@surfcity-hb.org

21

C.8 Workshop #2

This section contains all the related materials from the Virtual Community Workshop #2. This includes the outreach flyer, materials provided to participants, and the workshop summary were provided in English and Spanish. Comments were received in the chat box, polling questions, and open-ended questions with typed responses. Video recording of the workshop and verbal comments are available at https://www.huntingtonbeachca.gov/housing-element-update/public-outreach/.

Housing Element Update
2021-2029
Workshop #2
November 10, 2021 at 6PM
Virtual, Zoom

Agenda

I. Housing Element Background
II. Community Outreach Efforts to Date
III. Public Review Draft
IV. Sites Analysis Process Overview
V. Policy Plan Considerations
VI. Community Conversation
VII. Next Steps

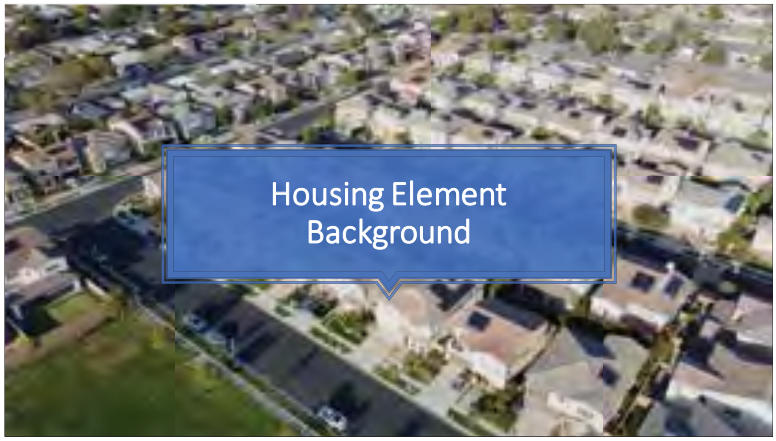
Guide for a Productive Workshop

We are excited you can join us!

- There is time following the presentation for verbal questions. Please use the "raise hand" function and your name will be called.
- For written comments, please use the "Chat" function.

- Actively participate – we need your input!
- Be respectful and respect differences
- Listen for understanding
- Share your ideas with room for others
- Have fun!

This presentation will be recorded and available on the City's website: www.huntingtonbeachca.gov/housing-element-update/



What is a Housing Element?

- Required Chapter of the Huntington Beach General Plan
- Identifies current housing need and guides future growth to meet all income needs in Huntington Beach
- Requires certification by the state department of housing and community development (HCD) for compliance with state housing laws
- Engages the community of Huntington Beach in the planning process

Huntington Beach RHNA Numbers

Income Category	% of Median Family Income	Annual Income Range[1]		RHNA Allocation (Housing Units)
		Min.	Max.	
Very Low Income	0 - 50% MFI	--	$51,500	3,661 units
Low Income	51 – 80% MFI	$52,530	$82,400	2,184 units
Moderate Income	81 – 120% MFI	$83,430	$133,900	2,308 units
Above Moderate Income	>120% MFI	$133,900	>$133,900	5,215 units
			Total:	**13,368 units**

1. Each income category is defined as a range of household incomes that represents a percentage of the Median Family Income (MFI). The MFI for a family of four in the Orange County region is $103,000.

Outreach Efforts to Date

- Community Workshop #1
  - Hosted Virtually on April 22, 2021
- Online Community Survey
  - Available online in both Spanish and English beginning on April 28, 2021
  - Closed May 31, 2021
  - Total of 2,151 participants
- Spanish Language Outreach Event
  - Citywide Spanish-Language community outreach event on June 5, 2021 at the Oak View Neighborhood Cleanup Event
- Community Townhall Meeting
  - Hosted Virtually on June 24, 2021
- Local Stakeholders Discussions
  - Hosted virtually throughout June to gather feedback from housing advocates, housing developers, faith-based organizations, and technical stakeholders
- Public Scoping Meeting
  - Hosted virtually on August 19, 2021

Community Feedback

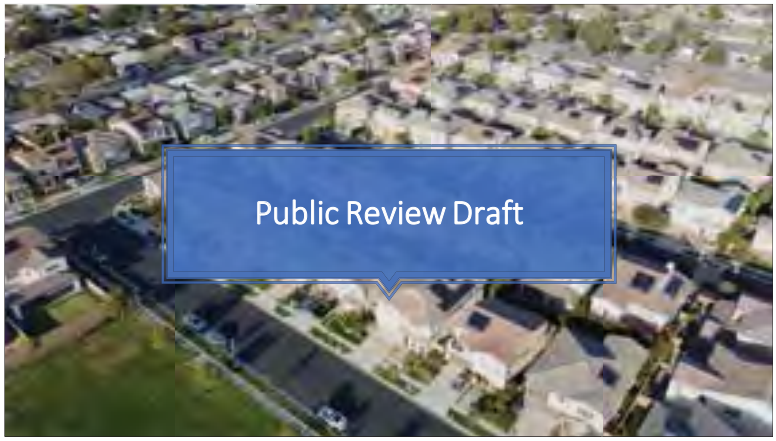
- Major themes gathered during phase one of community outreach include the following:
  - There is a lack of affordable housing in Huntington Beach
  - It is difficult to get into the affordable units that exist
  - ADUs, Multi-family housing, and Mixed-use zoning can be an opportunity for increased housing, specifically affordable housing
  - Need for safer streets and safer communities
  - Community centered housing and environmental considerations

Online Community Survey

- Available to the public from April 28 to May 31, 2021.
- Collected feedback on:
  - Suggested policies and programs
  - Opportunity areas for housing and housing types
  - Potential barriers to housing access and the development of housing
  - General demographic information was also gathered.
- The survey was anonymous.
- Total Participants: **2,151**
- Feedback received help guide the direction of goals, policies and programs

Survey Outreach

- The City informed the public of the survey in the following ways:
  - Distributing details in English and Spanish via social media channels including Facebook, Instagram, and Twitter
  - Advertised at Workshop #1
  - Information on the HEU website and the Planning landing page
  - Emails to the City's general distribution list, HB Chamber of Commerce, Downtown BID, and Visit HB
  - Digital ad on the Golden West College electronic marquees at the intersections of Goldenwest/Edinger, Gothard/Center, and Goldenwest/McFadden
  - Posting information in the bi-weekly City Manager's Report
  - Information played to Huntington Beach on HBTV
  - Distribution of fliers via the Senior Center meal distribution program



Public Review Draft

- The City released the public review draft of the Housing Element on October 28, 2021.
- The Document includes the following sections:
  - Section 1: Introduction
  - Section 2: Community Profile
  - Section 3: Housing Constraints, Resources and Affirmatively Furthering Fair Housing
  - Section 4: Housing Plan
  - Appendix A: Review of Past Performance
  - Appendix B: Adequate Sites Analysis
  - Appendix C: Summary of Community Engagement
- The Document is available for comment by email at housingelement@surfcity-hb.org or on the City's webpage through November 29.

Community Profile and Demographics

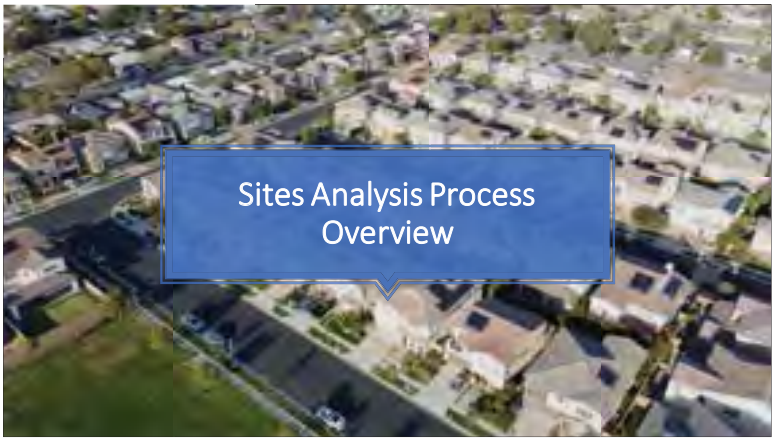
- The Community Profile uses a variety of data to analyze:
  - Populations Demographics and trends
  - Special Needs Groups
    - Seniors
    - Students
    - Persons with Disabilities
    - Unhoused
    - Single Parent Households
    - Farmworkers
  - Household income and Economics
  - Household characteristics
    - Overcrowding
    - Housing problems
    - Overpayment
  - Housing Unit Stock and conditions

Housing Constraints

- The Housing Constraints analysis considers:
  - Non-governmental housing barriers
    - Land costs
    - Construction costs
    - Availability of financing
  - Governmental housing barriers
    - Land use regulations
    - Development standards
    - Local ordinances and initiatives
    - Permitting and impact fees
  - Environmental Constraints
    - Fire hazards
    - Flood hazards
    - Geologic and seismic hazards

Affirmatively Furthering Fair Housing

- Fair housing is the equal access to housing opportunity regardless of protected class status, source of income, or identity – per California law
- The Analysis reviews:
  - Dissimilarity and segregation
  - Concentrated areas of poverty and affluence
  - Access to transit, education and economic opportunity
  - Existing housing needs and current fair housing issues
  - Risk of displacement
  - Analysis of the sites strategy through a fair housing lens



Planning for RHNA

The Sites Analysis Process:

- Identifies appropriate land to accommodate the RHNA at all incomes
- Considers key legislation, existing land regulations, community needs and fair housing
- Huntington Beach's RHNA: 13,368 units

Sites Selection Analysis Overview

- All parcels within the City are reviewed for their housing growth potential
- During the site analysis process, the following are analyzed:
  - Appropriate zoning
  - Vacant sites
  - Non-vacant with opportunity for redevelopment
  - Existing commercial properties with mixed-use potential
  - Existing light industrial/business parks
  - Proximity to transit corridors
  - Near Community Services
  - Availability of Shopping & Restaurants (Goods & Services)
  - Access to Jobs/Economic Opportunity

Sites Analysis Key Strategies

- Projects in the Pipeline (Application, Entitled, Permitted or in construction since June 30, 2021)
- Estimated Accessory Dwelling Unit (ADU) Production
- Capacity on Sites for Rezone
- Capacity on Sites identified under Overlay Zones
- Capacity of Hotel/Motel Conversions

Accessory Dwelling Units

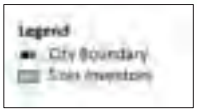
- Accessory dwelling units, or ADUs, are housing units that may be developed in addition to an existing single- or multi-family residential use.
- Based on past performance, the City estimates a total of **769** ADUs can be permitted/developed through 2029.
- SCAG created a survey and methodology for estimating affordability of potential ADUs.

Income Category	Units
Low and Very Low Income	524
Above Moderate Income	230
Moderate Income	15
Total	**769**

Rezone and Overlay Strategies

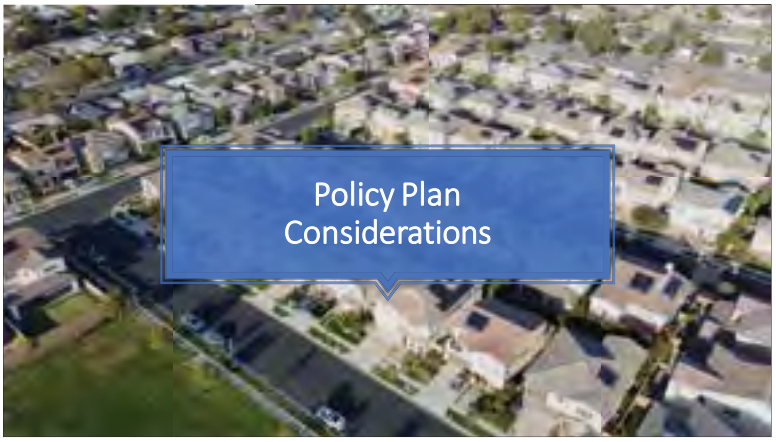
- SP 14 – Affordable Housing Overlay: This strategy intends to increase affordable housing options in the existing Beach and Edinger Corridors Specific Plan.
- Affordable Housing Overlay: This strategy intends to create housing opportunities in well-connected nonresidential areas of the City (55-66 du/acre).
- Holly Seacliff RH Overlay: This strategy utilizes the City's existing RH land use designation to create residential capacity at a maximum density of 35 dwelling units per acre in existing Industrial areas within the Holly Seacliff Specific Plan (SP9).
- RMH: This rezone strategy utilizes the City's existing RMH zone to create residential capacity at a maximum of 25 dwelling units per acre in areas where residential development is appropriate.

Map of Sites



Summary of Sites

	Very Low Income	Low Income	Moderate Income	Above Moderate Income
RHNA (2021-2029)	3,661	2,184	2,308	5,215
Projects in the Pipeline (Application, Entitled, Permitted or in construction since June 30, 2021)	0	282	5	1,325
Remaining Unmet RHNA	3,661	1,902	2,303	3,890
Capacity on Site Inventory				
Capacity on Sites identified for Rezone	0		129	301
Capacity on Sites identified under Overlay Zones	4,997		2,930	12,254
Capacity on Hotel and Motel Conversions	349		0	0
Projected ADU Construction				
Projected ADU Construction	524		230	15



Policy Plan Considerations

Housing Element Guiding Principles

- Guiding Principles and policy strategies are broad guidelines that determine a course of action
- The Housing Element provides policy tools to promote the development and accessibility of housing at all income levels

Current Housing Element Goals

Housing Goal #1. Maintain and enhance the quality and affordability of existing housing in Huntington Beach.

Housing Goal #2. Maintain an inventory of adequate housing sites through appropriate land use, zoning and specific plan designations to accommodate Huntington Beach's allocation of regional housing needs for the 2021-2029 planning period.

Housing Goal #3. Increase the affordable housing stock so that households with modest incomes continue to be an integral part of the Huntington Beach community.

Housing Goal #4. Reduce governmental constraints to housing production and affordability.

Housing Goal #5. Promote equal housing opportunities for all residents, including Huntington Beach's special needs populations.

Housing Goal #6. Promote a healthy and sustainable Huntington Beach through support of housing that minimizes reliance on natural resources and automobile use.

What do Housing Element Programs do?

- Programs implement Huntington Beach's guiding principles and strategies

Reflect:	Include:
• The results and analysis of the jurisdiction's local housing needs • Available land and financial resources • The mitigation of identified constraints	• Specific actions • Timeframe and funding for implementation • The agencies or officials responsible for implementation

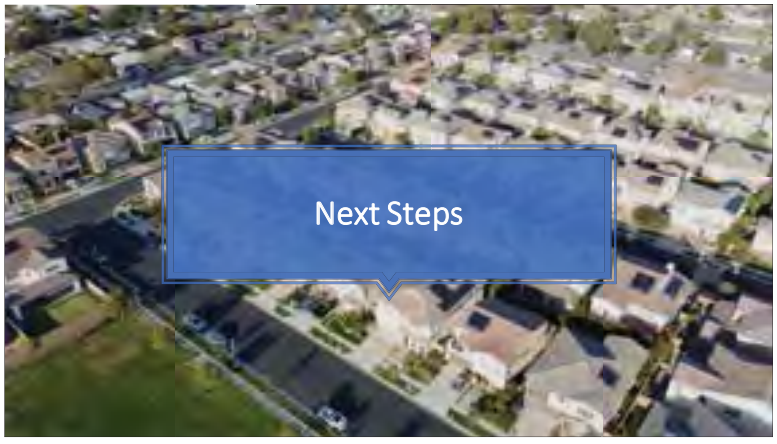
Program 2D. ADU Monitoring Program

The 2021-2029 Housing Element describes the total ADU production assumptions over the eight-year period. In order to monitor affordability levels of ADUs developed within the planning period, the City of Huntington Beach will develop an ADU monitoring program consistent with the 2021-2029 ADU production goals. If ADUs are not being permitted as assumed in the Housing Element, the City will take proactive actions within 6 months of completion of the ADU review support the production of ADUs. These actions may include additional incentives for ADU development or identification of adequate sites to meet the City's identified unaccommodated need.

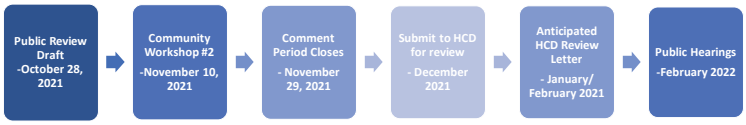
2021-2029 Objective: The City will create a monitoring program to track ADU and JADU development and affordability levels throughout the planning period. This will allow the City to monitor the development of accessory units at all income levels. Additionally, the City will review their ADU and JADU development progress within 2 years of the adoption of the 6th cycle Housing Element to evaluate if production estimates are being achieved.

If the City finds they are not meeting proportionate ADU development, the City will determine if this creates a shortfall in remaining capacity to meet RHNA. If this is the case, the City will take the required actions needed to supplement the shortfall in capacity within the required 180 days.

Timeframe: Ongoing
Responsible Agency: Community Development Department
Funding Source: Department Budget

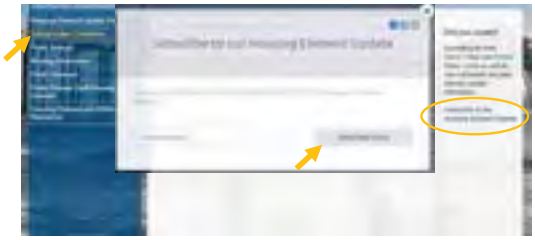


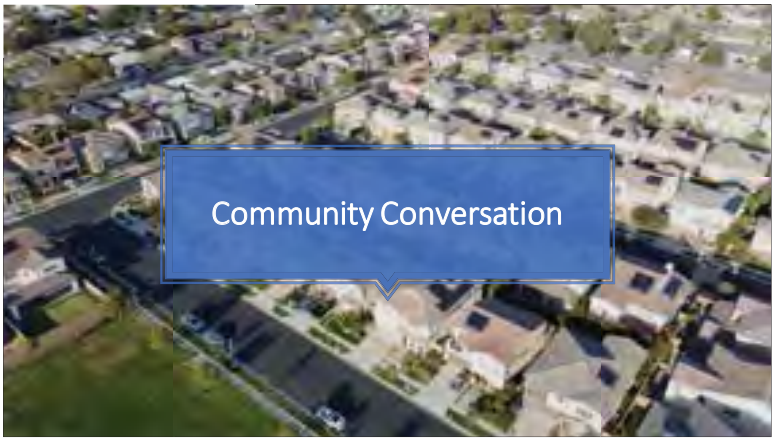
Tentative Project Timeline



Subscribe to Updates!

- Visit the City's Webpage.
- Click on one of the information tabs.
- Click "***Subscribe to the Housing Element Update***" shown on the right.
- Enter your email and click "***Subscribe Now***"

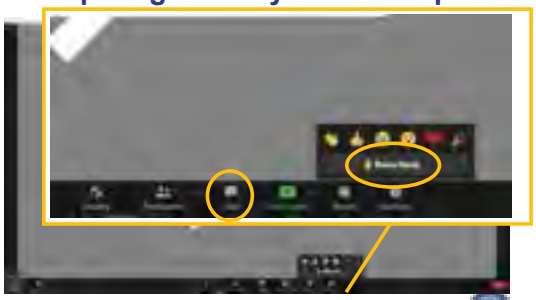




Thank you for participating in today's workshop!

To ask a question please:

- Use the Chat feature to send your question to staff
- Raise your hand, you will be asked to unmute and ask your question/provide your comment to staff



Thank you!

- For additional or follow up questions, please reach out to the Housing Element Update Team at:

housingelement@surfcity-hb.org

The City will continue to provide detailed information and dates for additional community engagement, visit:
www.huntingtonbeachca.gov/housing-element-update/

Actualización del Elemento de Vivienda 2021-2029

Taller #2

10 de noviembre de 2021 a las 6PM
Virtual, Zoom

Agenda

I. Antecedentes del Elemento de Vivienda
II. Esfuerzos de Participación Comunitaria hasta la fecha
III. Documento Preliminar para Revisión Pública
IV. Descripción General del Análisis de Sitios
V. Consideraciones de las Politicas del Plan
VI. Conversación Comunitaria
VII. Próximos Pasos

Guía Para un Taller Productivo

¡Nos da mucho gusto que pueda acompañarnos!
- Habrá tiempo después de la presentación para que haga sus preguntas verbalmente. Por favor utilice la función de "levantar la mano" y se llamará su nombre.
- Para comentarios por escrito, por favor utilice la función de "Chat".

- **Sus ideas servirán para lo siguiente:**
  - Ayudar a guiar el análisis y la actualización del Elemento de Vivienda
  - Dirigir las metas habitacionales establecidas en el documento
  - Guiar las políticas y programas que el personal desarrollará para la revisión del Concejo Municipal.
- Participe de manera activa – ¡necesitamos su opinion!
- Sea respetuoso y respete las diferencias
- Escuche para que pueda comprender
- Comparta sus ideas dejando espacio para que otros lo hagan
- ¡Diviértase!

Esta presentación se grabará y estará disponible en el sitio web de la ciudad:
www.huntingtonbeachca.gov/housing-element-update/

¿Qué es un Elemento de Vivienda ?

- Es una Sección requerida por el Plan General de Huntington Beach
- Identifica la necesidad actual de vivienda y guía el crecimiento futuro para satisfacer todas las necesidades de ingresos en Huntington Beach
- Requiere la certificación del Departamento Estatal de Vivienda y Desarrollo Comunitario (HCD, por sus siglas en inglés) para cumplir con las leyes estatales de vivienda
- Involucra a la comunidad de Huntington Beach en el proceso de planificación

Números de RHNA de Huntington Beach

Categoría de Ingresos	% con Ingreso Familiar Medio	Escala de Ingreso Anual[1]		Distribución RHNA (Unidades Habitacionales)
		Min.	Max.	
Ingreso Muy Bajo	0 - 50% MFI	--	$51,500	3,661 unidades
Ingreso Bajo	51 – 80% MFI	$52,530	$82,400	2,184 unidades
Ingreso Moderado	81 – 120% MFI	$83,430	$133,900	2,308 unidades
Superior al Ingreso Moderado	>120% MFI	$133,900	>$133,900	5,215 unidades
			Total:	**13,368 unidades**

1. Cada categoría de ingresos se define como una escala de ingresos familiares que representa un porcentaje del ingreso familiar medio (IMF, por sus siglas en inglés). El IMF para una familia de cuatro en la región del Condado de Orange es de $103,000.

Esfuerzos de Alcance hasta la Fecha

- Taller Comunitario #1
  - Se llevó a cabo de forma virtual el 22 de abril de 2021
- Encuesta Comunitaria en Línea
  - Estubo disponible en línea en español e inglés a partir del 28 de abril de 2021
  - Se Cerró el 31 de mayo de 2021
  - Total de 2,151 participantes
- Evento de Alcance en Español
  - Evento de alcance comunitario en español para toda la ciudad el 5 de junio de 2021 durante el Evento de Limpieza del Vecindario de Oak View
- Reunión Comunitaria con el Ayuntamiento
  - Se llevó a cabo de forma virtual el 24 de junio de 2021
- Discusión de las Partes Interesadas Locales
  - Se llevó a cabo de forma virtual durante el mes de junio para recopilar comentarios de defensores de vivienda, desarrolladores de viviendas, organizaciones religiosas, y partes técnicas interesadas
- Reunión de Alcance Público
  - Se llevó a cabo de forma virtual el 19 de agosto de 2021

Comentarios de la Comunidad

- Los principales temas reunidos durante la fase uno de alcance comunitario incluyen lo siguiente:
  - Hay una falta de viviendas asequibles en Huntington Beach
  - Es difícil tener acceso a las unidades asequibles existentes
  - Las ADUs, las viviendas multifamiliares y la zonificación de uso mixto pueden ser una oportunidad para aumentar el número de viviendas, específicamente viviendas asequibles
  - Necesidad de calles y comunidades más seguras
  - Consideraciones ambientales y habitacionales centradas en la comunidad

Encuesta Comunitaria en Línea

- Disponible al Público del 28 de abril al 31 de mayo de 2021.
- Se recolectaron comentarios acerca de:
  - Políticas y programas
  - Áreas de oportunidad para viviendas y tipos de viviendas
  - Posibles barreras para el acceso a viviendas y el desarrollo de viviendas
  - También se recopiló información demográfica general
- La encuesta fue anónima.
- Total de Participantes: **2,151**
- Los comentarios recibidos ayudan a orientar la dirección de las metas, las políticas y los programas

Alcance de la Encuesta

- La ciudad informó al público sobre la encuesta de las siguientes maneras:
  - Distribuyó los detalles en inglés y en español a través de canales de redes sociales, incluyendo Facebook, Instagram, y Twitter
  - Se anunció durante el Taller #1
  - A través de información en el sitio web de la Actualización del Elemento de Vivienda (HEU, por sus siglas en inglés) y en su página de Planificación
  - Por medio de correos electrónicos enviados a personas en la lista de distribución general, la Cámara de Comercio de Huntington Beach, El Distrito de Mejoras a Negocios del Centro de Huntington Beach (BID, por sus siglas en inglés), y a través del sitio web de Visite Huntington Beach
  - Por medio de un anuncio electrónico digital en el colegio Golden West en las intersecciones de Goldenwest/Edinger, Gothard/Center, y Goldenwest/McFadden
  - Publicando información en el Informe bisemanal del Regente de la Ciudad
  - Información transmitida a Huntington Beach en HBTV
  - A través de la distribución de volantes por medio del programa de distribución de comidas del Centro para Personas Mayores

Documento Preliminar de Revisión Pública

- La ciudad publicó el documento preliminar de revisión del Elemento de Vivienda el 28 de octubre de 2021.
- El documento incluye las siguientes secciones:
  - Sección 1: Introducción
  - Sección 2: Perfil de la Comunidad
  - Sección 3: Restricciones para la Vivienda, Recursos y Promoción Afirmativa de la Vivienda Justa
  - Sección 4: Plan de Vivienda
  - Apéndice A: Revisión del Desempeño Anterior
  - Apéndice B: Análisis de Sitios Adecuados
  - Apéndice C: Resumen de la Participación Comunitaria
- El documento está disponible para comentarios ya sea enviando un correo electrónico a mailto:housingelement@surfcity-hb.org o a través de la página web de la ciudad hasta el 29 de noviembre.

Perfil y Demografía de la Comunidad

- El Perfil de la Comunidad utiliza una variedad de datos para analizar:
  - La Demografía y las tendencias de las Poblaciones
  - Grupos con Necesidades Especiales
    - Personas Mayores
    - Estudiantes
    - Personas con Discapacidades
    - Sin Hogar
    - Hogares monoparentales
    - Trabajadores Agrícolas
  - El Ingreso y la Economía del Hogar
  - Características del Hogar
    - Viviendas con demasiados habitantes
    - Problemas de Vivienda
    - Sobrepago
  - Inventario y Condiciones de la Vivienda

Restricciones para la Vivienda

- El Análisis de las Restricciones para la Vivienda considera:
  - Barreras no gubernamentales para la vivienda
    - Costo del terreno
    - Costo de construcción
    - Disponibilidad de financiamiento
  - Barreras gubernamentales para la vivienda
    - Regulaciones para el uso del terreno
    - Estándares para el desarrollo
    - Ordenanzas e iniciativas locales
    - Tarifas para permisos e impactos
  - Limitaciones Ambientales
    - Riesgo de incendios
    - Riesgo de inundaciones
    - Riesgos geológicos y sísmicos

Promoción Afirmativa de la Vivienda Justa

- La vivienda justa es el acceso equitativo a la oportunidad de vivienda independientemente del estatus de clase protegida, fuente de ingresos o identidad – de acuerdo a la ley de California
- El Análisis revisa:
  - Disimilitud y segregación
  - Áreas concentradas de pobreza y afluencia
  - Acceso al transporte público, a la educación y a las oportunidades económicas
  - Necesidades existentes de vivienda y problemas actuales de vivienda justa
  - Riesgo de desplazamiento
  - Análisis de la estrategia de los sitios a través de un lente para la vivienda justa

Planificando para la RHNA

El Proceso del Análisis de los Sitios:

- Identifica el terreno apropiado para acomodar la RHNA en todos los ingresos
- Considera legislación que sea clave, las regulaciones existentes para los terrenos, las necesidades de la comunidad y la vivienda justa
- La RHNA para Huntington Beach es de: 13,368 unidades

Descripción General del Análisis para la Selección de Sitios

- Todas las parcelas dentro de la ciudad se revisan para determinar su potencial de crecimiento de viviendas.
- Durante el proceso del análisis de sitios, se analiza lo siguiente
  - Zonificación apropiada
  - Sitios vacantes
  - No vacantes con oportunidad de reurbanización
  - Propiedades comerciales existentes con potencial para uso mixto
  - Centros existentes de oficinas/de uso industrial ligero
  - Proximidad a corredores con transporte público
  - Cerca de Centros de Servicios Comunitarios
  - Disponibilidad de Tiendas y Restaurantes (Bienes y Servicios)
  - Aceso a Trabajos/Oportunidades Económicas

Estrategias Clave para el Análisis de Sitios

- Proyectos en Trámite (con Solicitud, en proceso de Título, Con Permiso a partir de junio de 2021)
- Producción Estimada de Unidades de Viviendas Accesorias (ADUs)
- Capacidad en Sitios para Rezonificación
- Capacidad en Sitios identificados como Zonas pra ser Superpuestas
- Capacidad en Conversión de Hoteles/Moteles

Unidades de Viviendas Accesorias

- Las unidades de vivienda accesorias, o ADUs, por sus siglas en inglés, son unidades de vivienda que se pueden desarrollar además de un uso residencial unifamiliar o multifamiliar existente.
- Con base en el desempeño pasado, la ciudad estima que se puede permitir / desarrollar un total de 769 ADUs hasta el 2029.
- SCAG creó una encuesta y una metodología para estimar la asequibilidad de las ADUs potenciales.

Categoría de Ingresos	Unidades
Ingreso Bajo y Muy Bajo	524
Superior al Ingreso Moderado	230
Ingreso Moderado	15
Total	**769**

Estrategias de Rezonificación y Superposición

- SP 14 - Superposición para Viviendas Asequibles: Esta estrategia tiene la intención de aumentar las opciones de viviendas asequibles en el Plan Específico de los corredores existentes de Beach and Edinger.
- Superposición para Viviendas Asequibles: esta estrategia tiene la intención de crear oportunidades de vivienda en áreas no residenciales bien conectadas de la ciudad (55-66 unidades de vivienda por acre, du/acre por sus siglas en inglés).
- Superposición de Holly Seacliff RH: Esta estrategia utiliza la designación de uso del terreno RH existente de la Ciudad para crear capacidad residencial a una densidad máxima de 35 unidades de vivienda por acre en áreas industriales existentes dentro del Plan Específico de Holly Seacliff (SP9).
- RMH: Esta estrategia de rezonificación utiliza la zona RMH existente de la Ciudad para crear capacidad residencial a un máximo de 25 unidades de vivienda por acre en áreas donde el desarrollo residencial es apropiado.

Mapa de Sitios

Leyenda

Límite de la Ciudad

Inventario de Sitios

Resumen de Sitios

	Ingreso Muy Bajo	Ingreso Bajo	Ingreso Moderado	Superior al Ingreso Moderado
RHNA (2021-2029)	3,661	2,184	2,308	5,215
Proyectos en Trámite (con Solicitud, en proceso de Título, Con Permiso o en construcción desde junio 30 de 2021)	0	282	5	1,325
RHNA Restante que no se ha Cumplido	3,661	1,902	2,303	3,890
Capacidad en el Inventario de Sitios				
Capacidad en Sitios Identificados para Rezonificación	0		129	301
Capacidad en Sitios identificados como Zonas para ser Superpuestas	4,997		2,930	12,254
Capacidad en Conversión de Hoteles/Moteles	349		0	0
Construcción de ADUs Proyectada				
Construcción de ADUs Proyectada	524		230	15

Principios Rectores del Elemento de Vivienda

- Los Principios Rectores y las estrategias de política son pautas generales que determinan un curso de acción.
- El Elemento de Vivienda proporciona herramientas de política para promover el desarrollo y la accesibilidad a la vivienda en todos los niveles de ingresos.
- Las estrategias de política se coordinarán entre la vivienda y la infraestructura.

Metas Actuales del Elemento de Vivienda

Meta de Vivienda #1. Mantener y mejorar la calidad y asequibilidad de las viviendas existentes en Huntington Beach

Meta de Vivienda #2. Mantener un inventario de los sitios de vivienda adecuados a través del uso apropiado del terreno, la zonificación y las designaciones de planes específicos para acomodar la asignación de las necesidades regionales de vivienda de Huntington Beach para el período de planificación 2021-2029.

Meta de Vivienda #3. Aumentar el inventario de viviendas asequibles para que los hogares con ingresos modestos continúen siendo parte integral de la comunidad de Huntington Beach.

Meta de Vivienda #4. Reducción de las restricciones gubernamentales para la producción y asequibilidad de viviendas.

Meta de Vivienda #5. Promover la igualdad de oportunidades de vivienda para todos los residentes, incluidas las poblaciones con necesidades especiales de Huntington Beach.

Meta de Vivienda #6. Promover un Huntington Beach saludable y sostenible mediante el apoyo a la vivienda que minimice la dependencia de los recursos naturales y el uso del automóvil.

¿Qué hacen los Programas de Elementos de Vivienda?

- Los programas implementan los principios rectores y las estrategias de Huntington Beach.

Reflejan:	Incluyen:
• Los resultados y el análisis de las necesidades locales de vivienda de la jurisdicción. • Terrenos disponibles y recursos financieros • La mitigación de las limitaciones identificadas	• Acciones específicas • Plazo y financiación para la implementación • Las agencias o funcionarios responsables de la implementación

Programa 2D. Programa de Monitoreo de ADUs

El elemento de vivienda 2021-2029 describe los estimados de producción total de ADUs durante el período de ocho años. Para monitorear los niveles de asequibilidad de las ADUs desarrolladas dentro del período de planificación, la ciudad de Huntington Beach desarrollará un programa de monitoreo de ADUs consistente con los objetivos de producción de ADUs 2021-2029. Si no se permiten las ADUs como se asume en el Elemento de Vivienda, la ciudad tomará acciones proactivas dentro de los 6 meses posteriores a la finalización de la revisión de ADUs para respaldar la producción de ADUs. Estas acciones pueden incluir incentivos adicionales para el desarrollo de ADUs o la identificación de sitios adecuados para satisfacer la necesidad no acomodada identificada de la Ciudad.

Objetivo 2021-2029: La Ciudad creará un programa de monitoreo para rastrear el desarrollo de ADUs y JADUs y los niveles de asequibilidad durante el período de planificación. Esto permitirá a la ciudad monitorear el desarrollo de unidades accesorias en todos los niveles de ingresos. Además, la ciudad revisará su progreso de desarrollo de ADUs y JADUs dentro de los 2 años posteriores a la adopción del Elemento de Vivienda del sexto ciclo para evaluar si se están logrando los estimados de producción. Si la ciudad descubre que no están cumpliendo con el desarrollo proporcional de ADUs, la ciudad determinará si esto crea un déficit en la capacidad restante para cumplir con la RHNA. Si este es el caso, la ciudad tomará las acciones necesarias para complementar la falta de capacidad dentro de los 180 días requeridos.

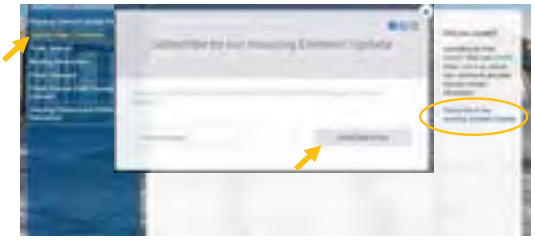
Plazo: En curso
Agencia Responsable: Departamento de Desarrollo Comunitario
Fuente de Financiación: Presupuesto del Departamento

Cronograma Tentativo del Proyecto

- **Documento Preliminar de Revisión Pública** - 28 de octubre de 2021
- **Taller Comunitario # 2** -10 de noviembre de 2021
- **Cierra el Período para Comentarios** - 29 de noviembre de 2021
- **Enviar al HCD para su Revisión** - diciembre de 2021
- **Carta de Revisión Anticipada del HCD** - enero / febrero de 2021
- **Audiencias Públicas** • - febrero de 2021

¡Suscríbase para Recibir Información Actualizada!

- Visite la página web de la ciudad.
- Haga clic en una de las pestañas de información.
- Haga Clic en "***Inscribirse en la Actualización del Elemento de Vivienda***" como se muestra a la derecha
- Anote su correo electrónico y oprima "***Inscribirse Ahora***"



¡Gracias por Participar en el Taller del día de Hoy!

Para hacer alguna pregunta, por favor:

- Utilice la función de Chat para enviar su pregunta al personal
- Levante la mano, se le pedirá que deje de silenciar el micrófono y haga su pregunta/ proporcione su comentario al personal

¡Gracias!

- El personal está disponible hasta el final de la reunión para responder preguntas.
- Si tiene alguna otra pregunta o comentario adicional por favor comuníquese con el Equipo de Actualización del Elemento de Vivienda a:

housingelement@surfcity-hb.org

La ciudad continuará proporcionando información detallada y fechas para participación comunitaria adicional, visite :

www.huntingtonbeachca.gov/housing-element-update/

C.9 Public Comments

This section contains a complete list of public comments received by the City. Personal information such as emails and addresses have been redacted for privacy purposes.

COMPLETED

IP address : [redacted]
Response ID : [redacted]
Start time : Aug 23, 2022 20:02:26
Completion time : Aug 23, 2022 20:06:51
Time taken : 4 mins 25 secs
Collector : Housing

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Lauren
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

It is not fair that that the hardworking citizens of Huntington Beach who have lived here for decades should be forced to cohabitate with those who will live in low-income apartments. The idea that Pleasant View Park at 16650 Landau Lane—a park where neighborhood children play, neighbors walk their dogs and have picnics together—should be demolished. What are we teaching our youth? That it’s wrong to have a park near by with fresh air and trees to sit under because some some people “deserve” to have an apartment built there to live in? Please rethink this, city officials! Our population is dense enough!

COMPLETED

IP address : [redacted]
Response ID : [redacted]
Start time : May 23, 2022 21:40:37
Completion time : May 23, 2022 21:42:30
Time taken : 1 min 53 secs
Collector : Housing

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Samuel
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

To say You're in All American City to say your surf City don't you think a company that is run by the United States government federally or state should have to use all American vehicles American products American everything but yet Toyota is the sponsor for the Huntington Beach lifeguards Toyota it's not American car might be built here but it's not an American car and I understand they give you $40 for free I understand that but it's not an American vehicle at American city you claim to be you also got to park them on the pier so they can be seen and you got to go to certain shows with the trucks to represent it why couldn't you do that with American vehicles we need to keep our money in America just cuz the realtor the main money still goes back to their countries so if you want to be a true American city by American products for no other reason because provide for America thank you

COMPLETED

IP address : [redacted]
Response ID : [redacted]
Start time : Jun 29, 2022 17:01:51
Completion time : Jun 29, 2022 17:03:20
Time taken : 1 min 29 secs
Collector : Housing

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Cynthia
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

Keep GWC as a community college. It is valuable to our graduating high school students who get 2 years free college. Plus the theater department is fantastic.

P: [redacted]
F: [redacted]
E: [redacted]

Mitchell [redacted]
Attorney At Law

[redacted]
[redacted] California 91101

VIA E-MAIL

June 3, 2022

City of Huntington Beach
6650 Beach Blvd.
Buena Park, CA 90622
Em: housingelement@surfcity-hb.org

RE: City of Huntington Beach 2021-2029 Housing Element Update

To Whom it May Concern,

On behalf of the Southwest Regional Council of Carpenters ("**Southwest Carpenters**" or "**SWRCC**"), my Office is submitting these comments on the City of Huntington Beach's ("**City**") Revised Draft 6th Cycle Housing Element Update ("**Project**").

The Southwest Carpenters is a labor union representing more than 50,000 union carpenters in six states and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects.

Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

SWRCC incorporates by reference all comments raising issues regarding the EIR submitted prior to certification of the EIR for the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has objected

to the Project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWRCC requests that the Lead Agency provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act ("**CEQA**"), Cal Public Resources Code ("**PRC**") § 21000 *et seq*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

The City should require the use of a local skilled and trained workforce to benefit the community's economic development and environment. The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California.

Community benefits such as local hire and skilled and trained workforce requirements can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> . . . labor should be considered an investment rather than a cost – and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Local skilled and trained workforce requirements and policies have significant environmental benefits since they improve an area's jobs-housing balance, decreasing the amount of and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2]

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the City of Hayward 2040 General Plan requires the City to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3]

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to requiring that the City "[c]ontribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf.

developments to require contractors to utilize apprentices from state-approved, joint labor-management training programs, . . ."[4] In addition, the City of Hayward requires all projects 30,000 square feet or larger to "utilize apprentices from state-approved, joint labor-management training programs."[5]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6]

In addition, local hire mandates as well as skill training are critical facets of a strategy to reduce vehicle miles traveled. As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions since the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing." The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When

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[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://www.hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.

[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).

[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and mitigate greenhouse gas, air quality and transportation impacts.

Sincerely,

_____

Mitchell [redacted]
Attorneys for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

[redacted]
[redacted] 90405

Matt [redacted]

Paul [redacted]

March 8, 2021

Mitchell [redacted]
[redacted] 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. [redacted]

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt [redacted]

Paul [redacted]

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
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Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
[redacted]
[redacted] 90405
Attn: Paul [redacted]
Mobil: [redacted]
Office: [redacted]
Fax: [redacted]
Email: [redacted]

Paul [redacted]

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

[redacted]
Tel: [redacted]
Email: [redacted]

Matthew [redacted]

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

www.kennedycommission.org
[redacted]
Irvine, CA 92614
[redacted]

November 29th, 2021

Ms. Ursula Luna-Reynosa
Director of Community Development
City of Huntington Beach
Planning Administration
2000 Main Street
Huntington Beach, CA 92648

RE: Initial Comments to City of Huntington Beach's Draft Housing Element dated October 2021

City of Huntington Beach Planning Division:

Thank you for the opportunity to review and comment on the City of Huntington Beach's 2021-2029 initial draft Housing Element. We have reviewed the draft and are submitting this letter to provide public comments.

The Kennedy Commission (the Commission) is a broad-based coalition of residents and community organizations that advocates for the production of homes affordable for families earning less than $27,000 annually in Orange County. Formed in 2001, the Commission has been successful in partnering and working with Orange County jurisdictions to create effective housing and land-use policies that have led to the construction of homes affordable to lower-income working families.

Public Engagement

Public engagement is a necessary component of the Housing Element process. As California Housing Element law states that the local government shall "include a diligent effort by the local government to achieve public participation of all economic segments of the community in the development of the housing element..."[1] Broad participation and true engagement of the public increase the likelihood that the community members involved in the discussion and planning processes will support new housing strategies and housing developments. Public engagement should include participation from residents of diverse communities, housing consumers, service providers, and advocates.

The city conducted one Housing Element survey and three community workshops, one of which was exclusively for Spanish-speakers.[2] There were 106 total participants in workshops #1 and #3 and 30 participants in the workshop for Spanish speakers. The city does not provide information on the number of survey respondents, nor does it report how many of these residents were low-income residents or renters. This information is necessary to understand the effectiveness and adequacy of the City's community outreach, particularly with low-income communities who are particularly vulnerable to the housing crisis.

1 Cal. Gov. Code § 65583, subd. (c)(9).

2 City of Huntington Beach 2021-2029 Draft Housing Element, p. 5-6, C-2 to C-4, October 2021.

Community Needs

The city uses data from 2013 to 2017 to describe its community needs. The Commission suggests that the city use more recent data to describe its community needs, like the US Department of Housing and Urban Development 2014 to 2018 Consolidated Planning/CHAS Data. According to this data, there are a total of 32,415 renter-occupied households in Huntington Beach, and 44.3% of renter-households in the city spend thirty percent or more of their gross income on housing costs.[3] Additionally, 48.5% of the City's renter households spent more than fifty percent of their gross income on rent. Approximately 38.8% of households have incomes below 80% of the area median income, of which the majority are renters.[4] Low-income renters in the city cannot afford the average cost of rent in Huntington Beach, which is $2,401, as indicated by Table 2-31a.[5] Low-income residents are in urgent need of housing at extremely low, very low-, and low-income levels.

Employment:
The city should take into account its local economy and offer healthy and affordable housing options that the current market-rate housing development is not offering. Comparing Table 2-6, which provides a breakdown of the prevalence of each employment sector in the city, and Table 2-8, which provides the average salaries of major occupational categories in Orange County, it is apparent that a substantial number of those employed in the city fall within the lower income levels. The city could improve its analysis by describing employment trends by industry and how changes either recent or anticipated can affect the housing market and discuss opportunities for improving work-housing balance, such as affordable mixed-use developments to facilitate housing that is located near jobs.[6] Affordable housing for lower income households should be prioritized to meet the housing needs of the workforce.

Past Performance

5th Cycle RHNA:
During the 5th Cycle Housing Element (5th Cycle), the city had a total Regional Housing Needs Assessment (RHNA) of 1,353 units: 313 very low-income units, 220 low-income, 248 moderate, and 572 above moderate. To date, the city has approved 294 moderate units and 2,754 above moderate.[7] The City has approved 57 units at very-low income and 60 at low-income. The city has exceeded the 5th Cycle target for the above moderate-income level, permitting an excess of 2,182 units, and for the moderate-income level, permitting an excess of 46 units. However, it has a deficit of very low and low housing units of 416 units total. The number of above moderate units approved in the last seven years was over 23 times more than those at the very low- and low-income levels. This clearly demonstrates that the 5th Cycle affordable housing policies have not been effective and need to be strengthened.

5th Cycle Housing Opportunity Sites:

3 City of Huntington Beach 2021-2029 Draft Housing Element, p.2-17 - 2-20, October 2021.

4 City of Huntington Beach 2021-2029 Draft Housing Element, p.2-14, October 2021.

5 HUD 2014-2018 Consolidated Planning/CHAS Data, released September 29, 2021.

6 HCD Housing Element Building Blocks, Population, Employment, and Household Characteristics.

7 City of Huntington Beach 2020 Housing Element Annual Progress Report, Table B.

The disparity in production in the 5th Cycle is evidence that it is not enough to identify sites with the appropriate densities. If not accompanied by robust affordable housing policies, the higher density zoning circumvents the efforts of the State density bonus law to include affordable housing in exchange for development incentives and increases in density. Since developers receive all the incentives and density increases by-right, they do not need to include affordable housing in their projects. This clearly shows the need for strong affordable housing policies. The city should consider strengthening its Inclusionary Housing Ordinance so that it requires that 15%-20% of units in all residential projects be set at the very low- and low-income level.

5th Cycle Policies:
The city must review the previous element to evaluate the appropriateness, effectiveness, and progress in implementation, and reflect the results of this review in the revised element.[8] While the element includes a program-by-program review of implementation in the prior planning period, the review of past programs should also analyze the cumulative effectiveness of programs on addressing special housing needs over the previous planning period. As the City's 5th Cycle RHNA performance indicates, the City's housing policies have not produced enough housing at the very low- and low-income level, and instead have prioritized the development of market-rate housing over housing for low-income families. For the upcoming 6th Cycle, we recommend that the City include policies with stronger affordability requirements instead of relying on the market to deliver affordable housing just by identifying higher density sites for lower-income RHNA needs.

Housing Policies to Increase Affordable Housing in the 6th Cycle

In the 5th Cycle, the city produced very little housing at the very low- and low-income levels, while producing more housing at the moderate-income level and above moderate-income level. To address this imbalance in production, the city should revise **Housing Goal #3 so that it prioritizes increasing the affordable housing stock for very low- and low-income families instead of "households with modest incomes"** as the city proposes. Furthermore, to ensure that affordable housing is incentivized on the sites identified in the 6th Cycle Housing Element, the City needs to include policies and programs that will encourage affordable housing. The programs proposed in the 6th Cycle should be improved in the following ways:

- **Program 1B - Multi-Family Acquisition and Rehabilitation:** The City aims to continue its acquisition/rehabilitation program and has set a goal of assisting a minimum of 30 units for income levels ranging from very low to moderate income households over the planning period. **Recommendation:** The Multi-Family Acquisition and Rehabilitation program should prioritize the extremely low, very low-, and low-income levels, not moderate. Given the City's deficit of lower income housing, the city should also prioritize increasing new construction of affordable housing at the lower income levels.

- **Program 1D - Preservation of Assisted Rental Housing:** The City plans to preserve the 240 units at-risk of becoming market-rate through monitoring of at-risk units, individual negotiations with property owners and parties interested in affordable housing development, and tenant education.

8 Cal. Gov. Code § 65588 (a) and (b).

Recommendation: In addition to the City's proposed strategies to preserve existing affordable housing, the City should also consider creating a program that facilitates the creation of a Community Land Trust or Tenant Opportunity to Purchase policy that gives tenants in at-risk units the opportunity to own their building and, thus, ensure that these units remain affordable in perpetuity.

- **Program 2A - Adequate Sites and Program 2E - Candidate Sites Identified in Previous Housing Elements:** In program 2A, the city plans to provide adequate sites by expanding the SP14 Overlay to sites in the Beach and Edinger Corridors Specific Plan to accommodate lower income housing. The overlay establishes affordable housing sites based on default densities for assumed site capacity with very little additional analysis. In compliance with State law, Program 2E will allow the housing projects by-right on sites used in the 4th or 5th Cycle if 20% of the units proposed in the project are set aside for lower income housing.

Recommendation: The City's site analysis is insufficient. Despite the City acknowledging that it will use housing sites that were used in the previous 4th and 5th Cycles, the city does not indicate which sites are reused from previous cycles in Table B-8 in Appendix B of the draft Housing Element. Table B has a column for "Previous Cycle (4th or 5th)" and all sites on that table have "No" in this column. As it is unclear if the city is including previously identified sites in its inventory, we are unable to determine if the city has an adequate program for previously identified sites. The city needs to provide an updated analysis and provide additional analysis on the likelihood these sites will be developed for affordable housing in the 6th Cycle.

Program 2B - Establishing Affordable Housing Overlay Zone: The proposed HO zone will be implemented within the HBZO and will allow for affordable housing development on both existing and non-residential properties.

Recommendations: While creating the HO is an important step towards facilitating the production of lower income housing, the City needs to go beyond ensuring there are sufficient housing sites to meet its lower RHNA allocation. As the lack of production at the very low- and low-income level during the 5th Cycle indicates, the City needs to include policies that will more effectively create affordable housing during the 6th Cycle. The Commission recommends that sites under the HO have an inclusionary requirement that sets aside 15%-20% of all units in residential projects at the very low- and low-income level. Furthermore, the City should draft the development standards regulations related to the HO zone and adopt that zone within the first two years of the adoption of the Housing Element Update, not 3 years as proposed by the City.

- **Program 2C Accessory Dwelling Units (Program 2D Monitoring Program):** The City plans to monitor ADU and JADU development and affordability levels throughout the planning period and evaluate within two years of the 6th Cycle Housing Element if the City's production estimates are being achieved.

Recommendation: The City should lower its ADU and JADU protection of 769 units to a maximum of 192 units, as recommended by HCD's Safe Harbor Rule #1. The latter is a more realistic projection. Alternatively, if the city chooses to retain its 769 projection, then the city should evaluate ADU and JADU production levels within one year of the adoption of the Housing Element Update given the large number of ADUs it proposes to count towards its lower income RHNA allocation, 524 units. If the City finds that production at affordable levels is lower than anticipated, the City should rezone additional sites to meet its lower income housing needs and ensure that these

sites have additional policies, like inclusionary requirements, that will better facilitate the production of affordable housing.

- **Program 3A - Affordable Housing Program and Housing Trust Fund:** The Affordable Housing Program requires new residential projects with three or more units to provide a minimum of 10% of the total units at the lower or moderate-income level, onsite or offsite. Alternatively, developers can choose to pay an in-lieu fee instead of providing the affordable units if it is an ownership project or a rental project of 100 units or less.

Recommendation: Given the large deficit of lower income housing produced in the 5th Cycle, the city should strengthen its Affordable Housing Program by increasing the percentage of units projects are required to set aside for lower income housing to 15%-20%. The city should also provide the option of paying an in-lieu fee to projects with 100 units or less.

- **Program 4A- Affordable Housing Density Bonus:** Under this program, the city states that the "HBZSO Section 230.14 sets forth the City's density bonus incentives consistent with State law."[9]

Recommendation: HBZSO is not consistent with California Government Code Section 65915, which was amended in 2020 and went into effect in January 2021.[10] For instance, the city ordinance has a maximum allowable density bonus of 35%,[11] but the State law has increased this maximum to 50%[12]. The ordinance states that two onsite parking spaces are required for a unit that has two to three bedrooms;[13] The State has reduced this ratio to 1.5 parking spots.[14] The ordinance also has outdated incentives and concessions. For example, the State law requires two incentives and concessions for projects that include at least 17% of the total units for lower income households and three incentives and concessions for 24% of the total units for lower income households.[15] The ordinance states 20% and 30%, respectively.[16] Accordingly, the City's general objective in the Housing Element draft relating to density bonus to "amend the density bonus ordinance to maintain consistency with State law throughout the eight-year planning period"[17] is not sufficient. We recommend that the city revise the objective to include a commitment to revise the City's current density bonus ordinance to be in alignment with State law within 18 months. In addition, the city should also analyze the effectiveness of the updated density bonus in proposed overlays or areas of rezoning that give away development incentives and higher density without requiring affordable housing. by giving away the higher density and incentives without requiring affordable housing the city will circumvent the goal and implementation of the density bonus law.

- **Program 5A - Affirmatively Further Fair Housing:** The City plans to affirmatively further fair housing and overcome patterns of segregation in the city under this program primarily

9 City of Huntington Beach 2021-2029 Draft Housing Element Update, p. 4-17, October 2021.

10 Other places in the Housing Element draft appear to recognize that revision is needed to bring ordinance into compliance with state law. See, e.g., City of Huntington Beach, 2021-2029 Housing Element Update Draft, at 3-30, October, 2021.

11 Huntington Beach, Cal., Code 230.14(C)(1) (2018).

12 See, e.g., Cal. Gov. Code Section 65915 (f)(1).

13 Huntington Beach, Cal., Code 230.14 (D)(1)(A)(I) (2018).

14 Cal. Gov. Code Section 65195 (p)(1)(B).

15 Cal. Gov. Code Section 65915 (d)(2)(B)-(C).

16 Huntington Beach, Cal., Code 230.14 (D)(2)(b)-(c) (2018).

17 City of Huntington Beach, 2021-2029 Housing Element Update Draft, at 4-17, October, 2021.

consist of working with local and regional organizations to review and help in resolving any housing discrimination complaints.
Recommendation: While the City addresses housing discrimination complaints, the city fails to propose strategies that will address patterns of segregation and displacement concerns. The city claims that the City's affordable housing stock is dispersed throughout the City, and thus, there is no visible pattern of segregation. Yet, for the 6th Cycle, many of the housing sites have been identified in the lower or moderate-income areas in the City whereas very few have been identified in the higher income areas. The City needs to ensure sufficient affordable housing is created and that it is dispersed throughout the entire City, especially in the more affluent areas. Furthermore, the City's AFFH analysis does not provide an analysis on the risk of displacement and gentrification in the City, nor does it provide any programs that will address these issues. In addition, the City's Consolidated Plan identifies the Oak View Neighborhood as an area that is impacted by severe economic and housing instability as compared with the rest of the city. The city should do further analysis and develop recommendations on how it will address these disparities. This program should be revised to address these concerns.

The Kennedy Commission provides additional policy recommendations in the recommendations section below that will help the City increase its production of affordable housing in the 6th Cycle Housing Element.

Housing Element Opportunity Sites Inventory

As part of the analysis of adequate sites, the city has identified opportunity sites for lower-income households on the Beach and Edinger Corridors Specific Plan (SP 14), the Affordable Housing Overlay, and the Holly Seacliff RH Overlay. The sites identified for lower-income categories are predominantly identified based on default densities for lower income units, rezoning, and inclusion in the housing overlays. As evident from the City's lack of affordable housing production in the 5th Cycle, relying solely on these factors without implementing specific policies does not produce affordable housing. Instead, it gives market-rate projects larger densities and land use permission without incentivizing the inclusion of affordable units.

Suitability of Non-vacant Sites:
The element must include an analysis demonstrating the potential for redevelopment of non-vacant sites. To address this requirement, the element should describe and support the potential for additional development in the planning period and consider additional factors such as the age of structure, presence of expiring leases, condition of the structure, and expressed interest in development. If the element relies on non-vacant sites for more than 50% of the lower-income RHNA, it must make findings of substantial evidence that the existing use does not constitute an impediment to development, and that the existing use is likely to discontinue. The majority of sites the city identified to meet its lower income RHNA are non-vacant sites and, thus, require a more thorough analysis.

The following are the Commissions concerns with the identified sites and the information provided in the sites inventory drafted by the city:

- With the exception of a few sites, the City does not provide information on whether the property owners of the identified sites have expressed explicit interest in redeveloping their

properties for multifamily residential use during the 6th Cycle. The city also states that it is unable to provide information on the leases of current commercial tenants on these sites and does not provide information on the potential cost and plan for relocating these commercial tenants if they are displaced by a new development project. Knowing whether property owners are interested is important to understand the likelihood of redevelopment for residential use, given that most of these are being actively used and property owners might not be interested in changing their use. In addition, the city should provide more information on the sites to help us understand potential development and environmental constraints of each site. Most of these sites are identified for affordable housing purely on estimates of higher density without much analysis to support that conclusion. This information is especially important for sites:

○ **#1, #2, #6** which have some of the highest unit capacities for lower income housing, 112, 116, and 196 units, respectively. The City states it has met with the property owner of these sites to discuss redevelopment of the sites but does not state whether the owners are interested in redevelopment for residential use during the 6th Cycle. Additional site analysis is required to understand the feasibility of these sites and how proposed densities can be achieved.

○ **#103** (44-unit capacity), **#216-217** (total 126-unit capacity), #**219-222** (total 277-unit capacity), **#342-344** (total 57-unit capacity), **#345-350** (total 43-unit capacity). These sites are strip malls or businesses adjacent to each other and the city does not state if the sites have one or multiple owners or whether the single or multiple owners are interested in redevelopment. Additional site analysis is required to understand the feasibility of these sites and how proposed densities can be achieved.

○ **#208** has a unit capacity of 100 units for lower income. This site has a higher low-income allocation than most other identified sites. The basic description identifies it as a commercial site with high functioning national tenants, Bob's Furniture and Total Wine. Additional site analysis is required to understand the feasibility of this site to be developed and how proposed densities can be achieved.

○ **#223** which is currently a Taco Bell in a strip mall on the corner of Gothard Street and Edinger Avenue. This is a strip mall that seems to be actively used and, thus, information on whether there is one or multiple owners and if there is a stated interest in redeveloping this property during the 6th Cycle is important. Additional site analysis is required to understand the feasibility of this site and how proposed densities can be achieved.

○ **#317-320** are all sites that are part of Golden West College (GWC). Again, the city does not provide any information on GWC's level interest in developing these sites. This is important for site #317, given that it is the site that has the highest unit capacity for lower income housing. Furthermore, these sites are 37.4 acres, 35.4 acres, and 25.4 acres in size, respectively. This is well beyond the maximum 10 acres recommended for the development of affordable housing. Despite the large size of these properties, the City fails to provide any sort of program for subdivision of large properties or any other strategies to incentivize the development of affordable housing on large sites. Additional site analysis is required to understand the feasibility of these sites and how densities can be achieved.

● Multiple sites on the Holly Seacliff Specific Plan were identified for lower income housing that have some sort of oil production use (e.g., oil pumps, oil operators, and oil producers). These

are sites **#110 #111, #161, #184, #185, #234, #241, #247-251, #253, #258, #261, #263-265, #272, #273, #275, #297, #302,** and **#336.** The city provides no information on whether these are safe for residential use or a plan for environmental remediation of the sites. This is particularly important given the CalEnviron Screen 4.0 shows that lower income families in Huntington Beach suffer disproportionate levels of environmental pollution. Without a thorough environmental analysis, it is not possible to determine if the city should be counting these sites towards their lower income RHNA allocation. Additional site analysis is required to understand the feasibility of these sites and how densities can be achieved.

- There are other sites that require the city to provide more information on whether or not they are safe for residential use or need environmental remediation, including sites related to industrial uses, automobile repair, and gas stations. The city states the following sites have industrial uses: **#18, #20 #21 #24 #25-28, #31, #33-36, #38-47, #60-62, #64, #105, #134,** and **#150.** The city states these sites have a use related to automobile repair: **#29, #30, #32, #93, #94, #160, #162, #166, #256, #276, #280, #283, #296, #298, #334, #340,** and **#350.** The following sites currently have a gas station on them: **#74 #294,** and **#367**. Without a thorough environmental analysis, it is not possible to determine if the city should be counting these sites towards their lower income RHNA allocation. Additional site analysis is required to understand the feasibility of these sites and how densities can be achieved.

- The city needs to clarify how sites **#80-83, #110-111, #171-175, #204,** and **#207** will help it address its RHNA obligations. These sites are 0.0 acres in size with an assumed density of 30 units per acres according to the inventory, and even includes a 0.0-acre site—described as "[p]rivate parking of tenants'"— with an assumed density of 80 units per acre. No explanation is given as to how sites that are 0.0 acres in size will have an assumed density of 30 du/ac to 80 du/ac.

- The city identifies the following sites for hotel/motel conversions to lower income housing: **#87, #121, #123, #126, #127, #131, #133, and #324.** The City does not provide information indicating that the property owners of these sites are interested in redeveloping their properties. This is particularly important in a city like Huntington Beach that has a strong tourism industry. For example, sites **#119** (The Hotel Huntington Beach), **#121** (SpringHill Marriott Suite), and **#123** (Comfort Suites) are 2–3-star hotels that seem to be actively used. Given their high unit capacities, 224 units, 127 units and 106 units, respectively, it is important the City provides evidence that it is likely the sites will be redeveloped during the 6th Cycle. The remaining sites have similar issues, but smaller unit capacities. Furthermore, the City needs to conduct a study of how many long-term low-income residents might be living on these properties that would need relocation assistance or a one-to-one unit replacement but provides no information of such plans. In addition, the city should consider the likelihood of the availability of funds for motel/hotel conversions throughout the 6th cycle. While funding for Project HomeKey funding is projected to be available in the next year, it has been supported by federal stimulus funding that may not be available for the coming years. Without this funding these developments are not feasible.

- Parcels that are smaller than half an acre or larger than 10 acres are presumed to be inadequate to accommodate lower income housing, unless the City makes an additional showing as to why such development on these sites is realistic or feasible.[18] In Table B-8, the City has included at least five sites greater than 10 acres, including site **#6** (14 acres), **#317** (37.4 acres), **#318** (35.4

18 Cal. Gov. Code 65583.2(c)(2); see also HCD Building Blocks: Site Inventory Analysis - Analysis of Sites and Zoning (ca.gov).

acres), and **#319** (25.6 acres), and more than 150 sites that are less than half an acre (including 4 sites that are listed as "0.0" acres). The City has failed to provide the required explanation for these parcels.

For example, for the listed sites over 10 acres, the city has provided no explanation at all for why these parcels are adequate. As to the listed sites that are less than half an acre, the City's explanation is limited to an assertion that it has identified only those sites "that show the likelihood of redeveloping in conjunction with other parcels that collectively meet the half acre requirement," based on "common ownership amongst adjacent parcels that share a property line or developer interest in lot consolidation."[19] The City also notes it has a past performance of lot consolidation for single use development on small parcels, as demonstrated by Table B-4.[20] HCD provides specific guidelines for lots that are anticipated to be consolidated, and the City's cursory explanation is insufficient.[21] First, according to Table B-8, only a handful of these sites have common ownership with adjacent parcels, and there is no indication of specific lots that developers have an interest in consolidating. Second, Table B-4 does not include the size of the parcels listed or other details such as the year of consolidation, making it difficult to assess the City's past performance regarding lot consolidation. Third, the City does not discuss its policies or incentives offered or proposed to encourage lot consolidation. Fourth, Section 4 of the City's proposed housing element does not include any programs "promoting, incentivizing, and supporting lot consolidations and/or small lot development."[22] Regarding the four sites listed as 0.0 acres, one of which is described as "Private parking of tenant" with an assumed density of 80 (ID 81), the City does not explain how these sites are appropriate for affordable housing and how the assumed densities are realistic.

We urge the city to update its analysis to comply with the additional requirements applicable to parcels greater than 10 acres or less than half an acre. Additional site analysis is required to understand the feasibility of these sites and how densities can be achieved.

Traditional Funding for Affordable Housing:
In addition, identified affordable housing sites should also be evaluated for their viability to compete for traditional funding to create affordable housing. These funding sources prioritize development sites that promote access to community resources and services, such as schools, public transportation, medical services and access to parks. The City should identify its local funding sources and how it will use those funding sources to secure State tax credits and other affordable housing funds at the State and Federal level. Prioritizing city owned land and local funding for affordable housing is vital to compete for this funding and make affordable housing more feasible.

No Net Loss:
The city will also have to consider No Net Loss when it identifies sites. It is crucial that affordable housing moves along with market-rate housing, given the limited sites that are available. Considering the state's, No Net Loss requirements, if the sites identified for affordable housing are

19 City of Huntington Beach 2021-2029 Draft Housing Element Update, p. B-10, October 2021.

20 City of Huntington Beach 2021-2029 Draft Housing Element Update, p. B-10, October 2021.

21 HCD Building Blocks: Site Inventory Analysis - Analysis of Sites and Zoning (ca.gov).

22 Building Blocks: Site Inventory Analysis - Analysis of Sites and Zoning (ca.gov).

developed for market-rate housing, the city will have to rezone new sites for the appropriate density.[23]

It is important that the city address the concerns we raised with the site inventory for the 6th Cycle Housing Element and further evaluate constraints to and the likelihood of the development of affordable housing on these sites. Moreover, the city must not solely rely on default densities, rezoning, and inclusion in housing overlays as it did in the 5th Cycle. Instead, it must identify affordable housing policies and programs that will equitably facilitate the production of housing at the extremely low, very low and low-income level on these sites. One example would be by strengthening its Affordable Housing Program so that it requires 15%-20% of all units in residential projects, and not 10% as the city proposes, be set aside for very low- and low-income housing.

Accessory Dwelling Units (ADUs)

Looking at the City's calculation for lower income ADUs, we believe that the projected affordable housing opportunities in ADUs seem to be high and not supported by local housing costs for rentals and annual production. The City assumes a projection of 769 ADUs in the upcoming 6th Cycle, with 524 at the lower income levels.[24] Using the number of ADUs issued permits by the City from 2018 to 2020, which was a total of 72 ADUs, the Safe Harbor Formula #1 recommends the City's projection should be a maximum of approximately 192 ADUs for the entire 6th Cycle, far lower than the City's projection. The city should either reduce the number of ADUs or include additional analysis and programs to support a projection higher than 192 ADUs in the next eight years. The City must significantly lower the number of ADUs it anticipates for the 6th Cycle or provide policies and programs that will effectively achieve this number.

Looking at the City's projection of 524 ADUs at the very low- and low-income level, we believe that affordable housing opportunities in ADUs seem to be high and not supported by local housing costs for rentals and annual production. Relying on SCAG's analysis of affordability of ADUs in Orange County is not sufficient to justify the assumption that 524 ADUs of 769 ADUs projected will be affordable to very low- and low-income families in Huntington Beach. The City must provide more effective strategies to ensure ADUs will be affordable to low-income residents, especially very low-income residents, if it plans on counting such a high number of ADUs to meet its lower income RHNA or lower the number of projected ADUs at this income level.

Affirmatively Furthering Fair Housing (AFFH)

The Housing Element has some basic information on demographics and overall scores for access to opportunity. However, the element generally does not address AFFH. The Housing Element needs to include outreach, an assessment of fair housing, identification and prioritization of contributing factors to fair housing issues and goals and actions sufficient to overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity.

Based on the City's AFFH analysis, there is a clear segregation pattern present in the city. Because all populations (with the exception of the two or more races population) have a score above 30, meaning all groups experience moderate segregation from the White population, and the White non-Hispanic or Latino population makes up most of the City's population at approximately 71.1%, the

23 Cal. Gov. Code § 65863.

24 City of Huntington Beach, Draft Housing Element, p. 3-105, October 2021.

City must provide adequate policies and programs on how the City will address contributing factors to segregation in the City outside of only "consider[ing] increased targeted outreach to the City's minority residents."[25] The City has identified one (R)TCAC area of high segregation and poverty located in the north-central area of the city, which also has a higher concentration of Hispanic population[26]. The city does not indicate which programs outlined in the Chapter 4: Housing Plan will specifically address segregation and poverty patterns or how these programs, which were also outlined in the 5th Cycle Housing Element, will increase housing opportunities.

The identified sites are concentrated along or adjacent to the 39 highway and furthest from the shoreline. This is concerning given that the CalEnviro Screen map, Figure 3-12, shows that the census tracts in much of this area have higher levels of pollution than other areas in the city.[27]Furthermore, the city must ensure that sites are identified in varying locations in the city to reduce concentration of affordable housing construction and income segregation. The identified housing sites are predominantly located census tracts with the lowest to moderate levels of opportunity in the city[28] and higher concentrations of low to moderate income residents.[29] Only a small number of housing sites are located on census tracts with high levels of opportunity in the city and lower levels of low to moderate income residents, located to the south and northwest of the city. While the City provided an AFFH analysis, it has not provided an adequate plan for how it will address contributing factors to fair housing issues in the City and overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity**.**

Additionally, the city does not provide a thorough analysis of displacement and gentrification trends in the city, as required by AFFH. The City must conduct this analysis and present it to the public and it must provide policies and programs that will help address potential displacement and gentrification. As a reminder, AFFH requires the following actions:

- An analysis and summary of fair housing issues utilizing available federal, state, and local data and knowledge. The analysis must include a variety of factors, such as trends and patterns within the locality and in comparison, to the broader region.
- The analysis must address integration and segregation; racially or ethnically concentrated areas of poverty; disparities in access to opportunity, including for persons with disabilities.
- Disproportionate housing needs (this may include things like overpayment, overcrowding, housing conditions disproportionately affecting protected classes) and displacement risk.
- Identified sites serve the purpose of replacing segregated living patterns with truly integrated and balanced living patterns, transforming racially and ethnically concentrated areas of poverty into areas of opportunity.
- Identification and prioritization of fair housing contributing factors; and
- Programs with a schedule of actions with timelines and specific commitment to have a "beneficial impact" within the planning period to achieve the goals and objectives of addressing contributing factors to fair housing issues.[30]

25 City of Huntington Beach, Draft Housing Element, October 2021, p. 3-50.

26 City of Huntington Beach, Draft Housing Element, October 2021, p. 3-51.

27 City of Huntington Beach, Draft Housing Element, October 2021, p. 3-70.

28 City of Huntington Beach, Draft Housing Element, October 2021, p. 3-56 - 3-57.

29 City of Huntington Beach, Draft Housing Element, October 2021, p. 3-94.

30 Cal. Gov. Code § 65583, (c)(10)(A).

We ask that the city prioritize the housing needs of low, very low and extremely low-income residents, who encounter difficulties in finding decent, affordable housing.

Recommendations

As the City moves forward with the Housing Element update, the Commission urges the city to support the development of affordable homes. The City needs to ensure opportunity sites are not simply upzoned or rezoned without including affordable housing policies that will capture the financial and land use incentives being given to property owners and market rate developers. The Commission would like to provide the following recommendations to the city:

1. To meet the city's RHNA in a balanced manner, the city should revise its Affordable Housing Program so that it requires 15%-20% of all units to be affordable at the very low- and low-income level. The City's current program requires that only 10% of units be set aside for lower income housing.
2. Identify city-owned sites and surplus land and prioritize these sites for the development of housing exclusively at the extremely low, very low- and low-income level. The city acquired a property on Beach Blvd in 2020 with housing funds. The city has set up a Navigation Center to provide shelter for the homeless. The city needs to identify the timeframe for the site to transition to permanent affordable housing.
3. Prioritize affordable housing funding and programs to increase affordable housing options for families of lower incomes, especially at very low and extremely low-income.
4. Incentivize the development of 100% affordable housing development at lower income to help meet the city's housing needs that are not met be the market.
5. Ensure that development sites being identified and discussed in the initial draft are realistic and available during the planning period. Greater analysis is needed on the potential transition and feasibility of sites proposed to meet the lower income needs.
6. Ensure housing opportunity sites identified are not simply upzoned, rezoned or become part of overlays or specific plans that give away higher density and development incentives, without capturing the increase in financial gain and land use incentives being given to property owners and market rate developers. A 15%-20% affordable housing inclusion at very low and low-income is necessary on these sites in exchange for these enhanced development opportunities and incentives.
7. The city should also further analyze the City's development patterns, zoning, housing policies and land use that have led to such a disparity in creating new housing opportunities. This disparity is demonstrated by the city's RHNA progress in the current planning period.
8. The city should provide an adequate analysis and recommendations on how the city will Affirmatively Further Fair Housing (AFFH). Most of the affordable housing development opportunities have been identified and planned in the lower and moderate resource areas of the city. AFFH requires that cities promote the creation of affordable housing in high resource areas that provide important amenities such as schools, grocery stores, and medical services while also encouraging investment and conservation in low resource areas. The city needs to provide better strategies to facilitate affordable housing in higher resource areas, especially on the 6th Cycle Housing Element sites identified in this area. Furthermore, under AFFH, the City should also include anti-displacement policies that protect low-income residents from rising rents and commit to reinvesting in low resource areas to improve the quality of living of residents in those areas.

9. The City's Consolidated Plan identifies the Oak View Neighborhood as an area that is impacted by severe economic and housing instability as compared with the rest of the city. The city should do further analysis and develop recommendations on how it will address these disparities.

The Commission looks forward to partnering with the City of Huntington Beach to create opportunities to increase affordable homes for lower income households in the city. If you have any questions, please feel free to contact me at [redacted] or [redacted].

Sincerely,

Cesar [redacted]
Executive Director

cc: Paul McDougall, Manager, Housing Policy, CA Housing and Community Development
Megan Kirkeby, Deputy Director, Housing Policy Development, CA Housing and Community Development

UNITE TOGETHER | FIND SOLUTIONS | MAKE AN IMPACT

Ursula Luna-Reynosa, Director of
Community Development
City of Huntington Beach
Planning Department

November 9, 2021
via email: housingelement@surfcity-hb.org

Dear Ms. Luna-Reynosa,

Thank you for this opportunity to submit questions and comments regarding the recent Draft Housing Element – 6th Cycle (the Draft).

Homeless United Huntington Beach's mission is to advocate for housing and services for those experiencing homelessness within our community and we support proactive programs that prevent homelessness from happening in the first place. Appendix B of the Draft includes a detailed Site List for prospective development within the city that could provide creative solutions to meet housing needs, affordability, and enhance neighborhoods and boulevards that are pedestrian and bicycle friendly. Our city is blessed with a great infrastructure of parks, beaches, libraries, schools, shopping. These new housing developments will provide needed affordable housing at all income levels and abate overcrowding, traffic and pollution problems and strain on utilities. The need for affordable housing in our city is demonstrated by long wait lists for existing affordable housing. Sadly, these lists are closed to new applicants. It takes years for qualified people to move into to an affordable residence. In addition, the city housing stock is aging and in need of rehabilitation.

We have reviewed sections of the Draft and paid particular attention to the Appendix B: Adequate Site Analysis. It appears that the city has identified sufficient sites to meet its RHNA numbers. Our questions in general are How likely these sites will be developed to meet our housing needs? Does the Site List distribute affordable housing equally throughout the city? And finally, there are some technical questions.

1. Realizing that we are a built-out city, is that the reason for most of the affordable housing sites located along Beach Blvd. and Gothard?

2. The site list indicates that staff spoke with some property owners regarding the future use of their properties.

    a. What assurances did the city receive from property owners that their property is available to develop housing as identified?
    b. Did these property owners provide enough insight to allow the City to feel that there was a possibility for these properties to be used for affordable housing?
    c. Does the California Department of Housing and Community Development (HCD) accept potential properties for meeting RHNA?
    d. What criteria must the City provide to HCD that these properties would become available for affordable use?

3. Will rezoning properties in commercial and industrial areas to residential damage our economy and tax base?

4. How has the city's historical zoning contributed to housing discrimination and how can this wrong be corrected?

5. What is the difference between rezoning a property and an Affordable Housing Overlay?

6. There does not appear to be any consideration of aged and deteriorating properties to rehabilitate and maintain them as affordable housing units.

7. Why has the document combined the Low/Very Low-Income Assessment into one number of units?

8. Do you know whether HCD will accept the conversion of properties that are now various uses?

9. What can the State do to a city that does not comply with their Site List in the Housing Element after the 8-year period? Are there periodic reviews by HCD to monitor compliance with a city's Housing Element? Will there be fines for non-compliance?

10. Three sites are on the Goldenwest College Campus, and they represent 19% of the total RHNA allocation. How did the city identify these sites and what is the involvement of the city to see these projects through? Is the acreage identified on the Site List accurate (35, 25, 37.4 acres)?

11. Is there any effort to identify sites along other transportation corridors (Magnolia, Brookhurst, PCH, Warner, Adams)? We are concerned that this draft Site List does not Affirmatively Affordable Housing and therefor is not equitable in the distribution of sites throughout the city.

12. Has the city confirmed with hotel operators and property owners this conversion to permanent housing? Would these units be SRO's or one bedroom with a small kitchen?

We appreciate all your work to meet the RHNA goals. We hope that we can accomplish this over the next eight years.

Homeless United HB Housing Element Review Committee:
Karen [redacted]
Shirley [redacted]
Former Mayor, City of Huntington Beach
Gigi [redacted]
Pat [redacted]
Laura [redacted]

Nicolle Aubé, AICP
Senior Analyst
Department of Community Development
City of Huntington Beach
nicolle.aube@surfcity-hb.org
Cc: housingelements@hcd.ca.gov

November 9, 2021

Re: Comments on Huntington Beach 6th Cycle Housing Element

Dear Ms. Aube,

In conjunction with the Campaign for Fair Housing Elements, we have reviewed the draft housing element, and would like to share the following feedback:

Our concerns are centered around the sites inventory. The city says it will meet its RHNA target from ADUs, existing pipeline projects, and new projects on sites in the site inventory, including whole blocks that are currently oil wells (B-3). However, the city assumes an unrealistic production of ADUs and an unrealistic assumption of the likelihood of development on multiple sites, including low income housing in Residential Medium High (RMH) zoned sites. Taken together, these issues mean the number of sites is insufficient to provide the 15-30% buffer for affordable housing needed to ensure No Net Loss. Lastly, we are concerned the city's inclusionary housing policy is too high and will serve to stifle new housing development. We are also concerned that as it is currently applied, the inclusionary policy concentrates the majority of the higher-density, and therefore lower-income affordable housing, in one area of the city.

1) **The ADU projection within the Housing Element is unrealistic** (B-11). The city is assuming 796 ADUs will be developed during the planning period. The city permitted 13 ADUs in 2018, 28 in 2019, and 31 in 2020, for an average of 24, which would only yield 192 total ADUs if projected out over eight years. The city assumes that ADU permits will increase 25% year over year for the entire cycle. That level of exponential growth is highly improbable without major policy changes or outside investment like grants to homeowners, yet the city has no firm policy commitments or housing element programs to increase the production of ADUs (B-11). Rather, the housing element lists only possible actions (*city's actions "may include"*), which are expressly discouraged by HCD. It is essential that ADU projections be accurate because the city is relying on them to support a 19% development buffer for lower-income housing, which is consistent with the 15% to 30% buffer recommended by HCD. However, the 19% buffer is reduced to less than 10% if ADU production is reduced to realistic projections based on HCD's safe harbor.

2) **The Project Pipeline includes housing units that have been "applied for" together with those that have been entitled or permitted, leaving the impression that these "applied for" units are guaranteed** (B-3). The city claims 282 low-income units in the pipeline, 5, moderate, and 1325 above-moderate, and this includes projects that have been "applied for," as well as those that have been entitled and permitted. In contrast, **during the entirety of the 5th cycle, the city only permitted 50 VLI, 60 LI, 294 MI,** and 2754 AMI units, as per the city's Annual Progress Reports filed with HCD through 2020. Based on these past project approvals, it is unreasonable to assume that all the lower income units and projects "applied for" will indeed be built. If the city wants to count the "applied for" units, then the housing element should substantiate this pipeline claim by listing the details of every pipeline project and the stage it's in, and justify why the units / project categorized as "applied for" is more likely to be approved than others in the 5th cycle. What will the city do differently that will result in a different outcome from the previous cycle? Also, we would be negligent not to point out the present challenging political climate in Huntington Beach, where five of the seven

councilmembers (including the mayor) are facing a recall over residents' concerns regarding approval of high-density housing and the city's "loss of local control" in land use decision making. This political environment makes project approvals of higher density or lower-income housing all the more challenging and adds to our rationale that the city provide a more detailed analysis of all the "applied for" projects claimed in the pipeline. The foregoing notwithstanding, we remain uncertain that any rationale exists to overcome statutory requirements with regard to counting of *applied for* but not yet entitled or permitted units on or before the June 30, 2021 6th cycle RHNA projection period.

3) **Likelihood of Development: The city is assuming that 80% of the of the sites in the site inventory will be developed during the 8-year planning period, but there is insufficient evidence to support that claim.** How does the city justify the assumption that such a high proportion (80%) of sites will be developed? What policy changes will make development on those parcels more feasible than it is now? How will the city incentive development and reduce barriers? Examples could include increasing zoning, reducing or eliminating city development fees, eliminating FAR rules, reducing parking requirements, and eliminating or minimizing set back and open space requirements. Particularly for nonvacant sites, such as with existing housing or productive if not destructive uses, such as oil production, what steps has the city undergone to incentivize discontinuation of use and to facilitate new housing development? None of these questions are sufficiently answered in the housing element.

4) **Inclusionary housing policy is too high.** Just under half the sites in the inventory have non-residential zoning in the Beach and Edinger Corridors Specific Plan. Some time in the next 3 years, the city proposes to apply an overlay that allows by-right zoning at a high density provided the project includes 20% low-income units. This is a substantial inclusionary zoning requirement, which makes development by for-profit developers much more challenging and project proformas less likely to pencil out. The city must undertake an economic feasibility study to identify a threshold at which development is still profitable. If the threshold is less than 20%, and the city stil wishes or is otherwise required to maintain this level of inclusionary

housing, then the city must identify what policy changes it will enact to reduce other costs, such as increasing zoning, reducing or eliminating city development fees, eliminating FAR rules, reducing parking requirements, and eliminating or minimizing set back requirements and open space, to facilitate and incentivize development. The Housing Element justifies the 20% low income requirement by saying that the city applied this requirement to six sites in February of 2020, and five of the six are already in development. This is disingenuous. At least two of these projects were already in development: the project by Jamboree Housing at 18431 Beach Blvd., a 100% affordable project by a not-for-profit developer, and the Navigation Center at 17642 Beach Blvd., which is a homeless shelter and not the same as permanent housing or conventional rental housing.

The discussion of the other Affordable Housing Overlay (p. B-6 and elsewhere) is silent on what the inclusionary requirement will be for those sites. If those sites are also required to have 20% low-income units, then development may be infeasible for for-profit builders. Between them, the Beach and Edinger Corridors Specific Plan and the Affordable Housing Overlay comprise 92% of the city's RHNA allocation; if both of these areas have the 20% low income requirement, then it will be almost impossible for Huntington Beach to achieve its RHNA. Lastly, in the absence of a feasibility study, the city should commit to a mid-cycle review of the 20% inclusionary requirement, if not biennial reviews, as well as automatic constraint remediation. Alternatively, tighter timelines for completing rezoning programs, such as within one year following the 2023 biennial review of housing production after the potential certification of the 2021 housing element, would ensure people are not left waiting through half the planning period before the city takes any action.

5) **Some of the sites are not good candidates for new housing and it is doubtful they will become available for development in the 6th cycle time frame.** The Housing Element says the city "conducted a parcel specific analysis of existing uses for each of the identified sites" (B-9), but, in fact, a glance at the maps the city provides starting on p. B-48 shows the city

rezoned entire blocks, without any evident site-specific analysis. Such a broad brush approach is inherently in conflict with a “parcel specific” approach, and the approach the city pursued in identifying sites needs significantly more detail and analysis to support the 6th cycle housing element being a useful document.

For example, sites 83, 110, 111, 124, 125, 129, 130, 132, 185, 234, 241, 242, 243, 247, 248, 249, 250, 251, 252, 253, and 302, pictured on p B-49, at the NE corner of Garfield and Goldenwest, form a city block where there are currently two oil wells. The city gives itself three years to complete its rezoning. The remaining five years of the 6th cycle is too short a time frame in which to consolidate the sites, complete the environmental review and mitigation, and issue building permits. The 344 units identified for this area are unlikely to be permitted by the end of the 6th cycle, which further reduces the zoned capacity of the city, drives down the city’s buffer, and exacerbates AFFH issues. This is just one example of the city’s long list of implausible and/or infeasible sites. See the photo below regarding active oil production facilities that will supposedly become housing during this planning period.

Ayres Self Storage
Goldenwest St
Stewart Ln
Stewart Ln
Garfield Ave
Garfield Ave

Oil well sites on the parcel on the NE Corner of Garfield & Golden West.

6) **The constraints analysis (starting on p 3-10) is disingenuous.** It concludes that height restrictions, floor-area-ratio (FAR), setbacks, parking standards, and usable open space standards are not constraints to building more housing. This is a questionable conclusion for obvious reasons. Developers freely share that the biggest constraint on how many units of housing that can be located on a site is directly tied to parking requirements. Take as evidence that market-rate developments that make use of a density bonus to provide some affordable housing within their project are entitled to one or more development concessions. More often than not, the concession requested most is a reduction in the parking requirements.

7) **There is a mismatch between the zoned capacity in the Holly-Seacliff area and the presumed affordability levels those parcels will yield.** The parcels in the Holly-Seacliff Specific Plan were rezoned from non-residential to residential at 35 du/acre. These sites, shown on p. B-49, are in an area near the beach. Their proximity to the beach combined with their relatively lower-density zoning means the projects built here are more likely to be for-sale / ownership developments. (By comparison, the density levels needed to build multifamily rental projects with affordable units in inland locations are typically a minimum of 45 du / acre,

and preferably 60+ du / acre.) The result is that if the density on the beach is less than the density in interior areas but the land costs and extraordinary development costs on the beach are higher than in inland areas, there will be zero new affordable housing built in the beach areas under the current planning scheme.

Huntington Beach's inclusionary housing policy requires 10% of the units in rental projects to be priced for low-income households (20% in the Beach / Edinger Specific Plan Area). By comparison, in for-sale / ownership projects, such as those that will likely be built in the Holly-Seacliff area, the requirement is for 10% of the units to be priced for moderate-income households; there is no requirement for low-income units in for-sale projects. While these requirements may be consistent with the way project financing is structured, the policy means that the parcels in the Holly-Seacliff area are very unlikely to yield any low-income units. Nevertheless, the Housing Element projects 25% of the new units in the Holly-Seacliff area will be for low-income households and another 15% will be for moderate-income households. This yield is highly implausible given the structure of the city's Inclusionary Zoning policy and the known and predictable forces of the market. In total, approximately 1,200 projected units—about 10% of the city's total RHNA—are projected to come from the Holly-Seacliff Area; therefore, any inaccuracies in the projections will have significant implications on the city's ability to meet it's RHNA targets and actually facilitate the construction of housing the region and the state expect it to.

8) **The combination of site locations and the city's inclusionary housing policy may reinforce economic and racial segregation, which violates AFFH Law.** It should be noted that the more desirable sites in the site inventory, the Holly-Seacliff areas and the three RMH (Residential Medium-High-Density) zoned sites (3, 4, and 5) lie in close proximity to the beach. The city rezoned these sites for a relatively lower density than other sites in the inventory, which means those sites are more likely to be built as for-sale single-family houses or townhomes. This excludes lower-income residents from these more-desirable, potentially

higher-resourced communities, especially because there is no requirement for low-income units within for-sale projects. The city should take a closer look at where they have the concentration of higher density housing (Beach-Edinger Corridor) compared with relatively lower density (RMH) sites (Holly-Seacliff Area), as this concentration may further exclude lower-income renters from high-opportunity neighborhoods, which conflicts with the city's duty to AFFH. Without sufficiently intermixing the higher- and lower-density sites, the city's inclusionary zoning ordinance serves to reinforce economic and racial segregation within the city, which is a violation of AFFH law.

Thank you for all of your efforts to create a fair and legally compliant housing element. As frequent attendees in community meetings, we understand the city has many difficult choices to make with regard to its 6th Cycle Housing Element. We encourage the Huntington Beach City Council to develop an exemplary housing element that will comply with both the spirit and letter of state housing element law and to use the housing element planning process to implement land use decisions that create diverse and inclusive neighborhoods.

Best regards,
Elizabeth [redacted]
Co-Founder and Director

People for Housing Orange County is a network of housing advocates fighting for more inclusive housing policies in Orange County's high opportunity communities. By legalizing the construction of multifamily housing, streamlining the permitting of all housing, increasing funding for subsidized affordable housing, we believe a future of abundant housing is possible. We envision an integrated society where every person has access to a safe, affordable home near jobs, services, and opportunity.

COMPLETED

IP address	: 73.241.154.222
Response ID	: 9ABUM2pq
Completion time	: Oct 28, 2021 12:05:22
Time taken	: 1 min 39 secs

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Anne
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

Fix the spelling.

p 3-14 AUDs -> ADUs, pallet -> palette
"The design standards for attached and detached AUDs shall meet the setback and square footage provisions consistent with Government Code 65852.2. If the ADU is proposed within the parameters of an existing or proposed single-family dwelling or an existing accessory structure, any proposed expansion shall be consistent with Government Code 65852.2. All ADUs are required to meet fire and safety standards per Government Code 65852.2. Additionally, the architecture standards for ADUs at single-family and multi-family locations shall incorporate the same features as the main dwelling unit, existing building, or nearest building regarding their exterior roofing, trim, walls, windows, and color pallet. All restroom and kitchen facilities as well as access for ADUs shall be provided consistent Government Code 65852.2. "

From: Anne [redacted]
To: housingelement@surfcity-hb.org
Subject: Affordable Housing Overlay
Date: Wednesday, November 3, 2021 3:43:47 PM

Hi,

I've been reading your Draft Housing Element and have a couple of questions. I see that the Beach and Edinger Affordable Housing Overlay requires that projects have 20% low income units. Will the other Affordable Housing Overlay also require 20% low income units? Will any of these low income units be required to be Very Low Income?

Thanks.

-- Anne [redacted]

COMPLETED

IP address	: 73.241.154.222
Response ID	: moBUAmjb
Completion time	: Nov 18, 2021 16:27:19
Time taken	: 39 mins

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Anne
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

I sent the following two public comments to HCD. I didn't have an email address for Huntington Beach, or I would have sent them to you folks as well.
****
In its Housing Element, Huntington Beach says that it has 1612 housing units in the housing pipeline, but does not list them. I talked to Jennifer Villasenor, the Deputy Director of Community Development, who assures me this number is correct. (Thanks for talking to me, Jennifer.)

But. This is a very big number for a city that, according to its 2020 Annual Progress Report, has only permitted 2754 homes in the whole 5th RHNA cycle through 2020. The city needs to list these pipeline projects so that interested parties can check them out.
****
n its Housing Element, Huntington Beach says that its ADU production will increase 25% per year, every year—exponential growth. They say they will get 796 ADUs over the cycle.

Huntington Beach permitted 13 ADUs in 2018, 28 in 2019 and 31 in 2020, for an average of 24 per year. Their safe harbor is therefore 24*8, or 192 units for the 6th cycle. They commit to no programs to increase their ADU production at all, let alone to quadruple it.

Huntington Beach should not be allowed to make up a number for ADU production. They must use the safe harbor or justify a bigger number.

COMPLETED

IP address	: 104.35.194.55
Response ID	: CaB3tNZi
Start time	: Mar 28, 2022 17:54:03
Completion time	: Mar 28, 2022 21:52:37
Time taken	: 3 hrs 59 mins
Collector	: Housing

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Ada
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

I feel strongly that mobile homes (MH) should be included in the Housing Element as one type of affordable housing. The City of San Juan Capistrano (a city similar to Huntington Beach except for size) has included it in theirs for many years. I have a copy of its Housing Element if you would care to see it. Email me and I'll attach it.
The city wrote that MHs represent valuable resources for the provision of affordable housing. In a section about Residential Zoning and Overlay Districts, the City Council wrote that it wanted to promote & maintain the viability of existing MH parks through appropriate zoning and limit conversion of MH parks.
Because the City Council is on record attesting to the viability of MHs as affordable housing, it is entirely appropriate for it to be elaborated on in the Housing Element.

From: [redacted]
To: housingelement@surfcity-hb.org
Subject: Fw: Commercial Vacant for more than 3 years
Date: Tuesday, August 17, 2021 10:05:35 AM

Subject: Commercial Vacant for more than 3 years can become residential

Dear sir or madam:

I own a property at 7561 center ave #36 Huntington beach CA 92647. This is a PUD (I own my Lot)
I am trying to make a ADU to live in my unit and I have researched the laws and saw that maybe I still can.

Please read the attached link of the legislature

In my case my property has been unoccupied more than 60% (had no tenant in the commercial part) for over 5 years

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB6

Attached are also pictures of the text of the bill that allows for residential use in a bussinesses that has been not occupied more than 50% for more than 3 years .

That is my case , my bussinesses was never open due to the huge obstacles imposed by the city and HOA,and being swindled by contractors...

Please allow it to be my residence I don't have where else to live . I'm paying mortgage for that unit for over 5 year without being able to use the commercial part of it.

Please read the link to the bill and advise
Thank you
Patricia

COMPLETED

IP address	: 75.83.152.15
Response ID	: XHCCC5Kz
Completion time	: Nov 22, 2021 16:08:55
Time taken	: 27 mins

Page 1 : 6TH CYCLE HOUSING ELEMENT UPDATE

PUBLIC COMMENTS

Q1.

Field label	Response
First Name	Michael
Last Name	[redacted]

Q2. Email

[redacted]

Q3. General Public Comment

I own property in the Holly-Seacliff Industrial corridor, which with the new proposed draft Housing Element, it has a new Residential housing over lay, I am against any type of Housing Element adjacent to industrial property, the two property uses are not compatible, there is also no parking or current infrastructure to accommodate any level of new density housing within the Industrial corridor.

I also question why all Industrial property owners were not notified of this potential zone change, and have had NO input with the new draft Housing Element report.

When will this go to the Planning Commission for adoption, and then on to the HB City Council for final adoption.

Thank you,

Michael [redacted]

P: [redacted]
F: [redacted]
E: [redacted]

Mitchell [redacted]
Attorney At Law

[redacted]
Pasadena, California 91101

VIA E-MAIL

November 9, 2021

Planning Department
City of Huntington Beach
2000 Main Street
Huntington Beach, CA
Em: housingelement@surfcity-hb.org

RE: City of Huntington Beach's 6th Cycle Housing Element Update.

To Whom It May Concern,

On behalf of the Southwest Regional Council of Carpenters ("**Southwest Carpenter**" or "**SWRCC**"), my Office is submitting these comments for the City of Huntington Beach's ("**City**") November 10, 2021 Community Meeting for its draft 2021-2029 update to the City's General Plan Housing Element ("**Project**").

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states, including California, and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects.

Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

SWRCC incorporates by reference all comments raising issues regarding the EIR submitted prior to certification of the EIR for the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has objected to the Project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWRCC requests that the Lead Agency provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act ("**CEQA**"), Cal Public Resources Code ("**PRC**") § 21000 *et seq*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

The City should require the use of a local skilled and trained workforce to benefit the community's economic development and environment. The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California.

Community benefits such as local hire and skilled and trained workforce requirements can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce

Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> . . . labor should be considered an investment rather than a cost – and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Local skilled and trained workforce requirements and policies have significant environmental benefits since they improve an area's jobs-housing balance, decreasing the amount of and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2]

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the City of Hayward 2040 General Plan requires the City to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3]

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to requiring that the City "contribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential developments to require contractors to utilize apprentices from state-approved, joint labor-management training programs, . .

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf.

."[4] In addition, the City of Hayward requires all projects 30,000 square feet or larger to "utilize apprentices from state-approved, joint labor-management training programs."[5]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6]

In addition, local hire mandates as well as skill training are critical facets of a strategy to reduce vehicle miles traveled. As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions since the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing." The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about

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[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://www.hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.

[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).

[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

negotiating corporate participation in First Source as a condition of approval for development permits.

The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and mitigate greenhouse gas, air quality and transportation impacts.

Sincerely,

_____

Mitchell [redacted]
Attorneys for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

[redacted]
Santa Monica, CA 90405

Matt [redacted]

Paul [redacted]

March 8, 2021

Mitchell [redacted]
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. [redacted],

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt [redacted].

Paul [redacted]

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
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Paul [redacted]

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. [redacted] has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. [redacted] has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. [redacted] has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. [redacted] also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. [redacted] directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

[redacted]
Santa Monica, California 90401
Tel: [redacted]
Email: [redacted]

Matthew [redacted], P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

P: [redacted]
F: [redacted]
E: [redacted]

Mitchell [redacted]
Attorney At Law

[redacted]
Pasadena, California 91101

VIA E-MAIL

November 23, 2021

City of Huntington Beach
6650 Beach Blvd.
Buena Park, CA 90622
Em: housingelement@surfcity-hb.org

RE: City of Huntington Beach 2021-2029 Housing Element Update

To Whom it May Concern,

On behalf of the Southwest Regional Council of Carpenters ("**Southwest Carpenters**" or "**SWRCC**"), my Office is submitting these comments on the City of Huntington Beach's ("**City**") Draft Housing Element for the 6th Cycle RHNA Housing Element Update ("**Project**").

The Southwest Carpenters is a labor union representing more than 50,000 union carpenters in six states and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects.

Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

SWRCC incorporates by reference all comments raising issues regarding the EIR submitted prior to certification of the EIR for the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has objected

to the Project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWRCC requests that the Lead Agency provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act ("**CEQA**"), Cal Public Resources Code ("**PRC**") § 21000 *et seq*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

The City should require the use of a local skilled and trained workforce to benefit the community's economic development and environment. The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California.

Community benefits such as local hire and skilled and trained workforce requirements can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> . . . labor should be considered an investment rather than a cost – and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Local skilled and trained workforce requirements and policies have significant environmental benefits since they improve an area's jobs-housing balance, decreasing the amount of and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2]

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the City of Hayward 2040 General Plan requires the City to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3]

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to requiring that the City "[c]ontribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf.

developments to require contractors to utilize apprentices from state-approved, joint labor-management training programs, . . ."[4] In addition, the City of Hayward requires all projects 30,000 square feet or larger to "utilize apprentices from state-approved, joint labor-management training programs."[5]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6]

In addition, local hire mandates as well as skill training are critical facets of a strategy to reduce vehicle miles traveled. As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions since the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing." The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When

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[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://www.hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.

[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).

[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and mitigate greenhouse gas, air quality and transportation impacts.

Sincerely,

_____

Mitchell [redacted]
Attorneys for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell [redacted] re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

[redacted]
Santa Monica, CA 90405

Matt [redacted] P.G, C.Hg.
[redacted]

Paul [redacted]
[redacted]

March 8, 2021

Mitchell [redacted]
[redacted]
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. [redacted]

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt [redacted] P.G., C.Hg.

Paul [redacted], Ph.D.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
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Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
[redacted]
Santa Monica, California 90405
Attn: Paul [redacted], Ph.D.
Mobil: [redacted]
Office: [redacted]
Fax: [redacted]
Email: [redacted]

Paul [redacted], Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. [redacted] has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. [redacted] has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. [redacted] has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. [redacted] also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. [redacted] directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

[redacted]
Santa Monica, California 90401
Tel: [redacted]
Email: [redacted]

Matthew [redacted], P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

From: Aube, Nicolle on behalf of housingelement@surfcity-hb.org
To: Pascua, Kiera
Cc: Mendoza, Molly
Subject: FW: Extra Housing in Hunt B
Date: Monday, October 18, 2021 1:35:41 PM

You don't often get email from housingelement@surfcity-hb.org. Learn why this is important

From: C [redacted]
Sent: Saturday, May 8, 2021 11:14 AM
To: housingelement@surfcity-hb.org
Subject: Extra Housing in Hunt B

Extra Housing in Hunt B
1) we are having a drought again - don't add any housing
2) better to teach a man to fish, than give him a fish
3) Looking at a map of HTB and the oil wells - there are no safe places in the entire city, that will not provide for a future lawsuit due to toxic environment.
https://huntingtonbeach.maps.arcgis.com/apps/Viewer/index.html?appid=47827245017247a3a3835cb6d0d58dde&fbclid=IwAR2aNIkNMqdHWg4qR1DEq0UFnrr3g6iQUo6qphczuapShCRB8cKyhTB_hUo
think: Exide lawsuits
4) tell me again why Newport Beach doesn't have the same mandate for 13K homes.
5) if we change governors will make that mandate drop off?
6) please don't do it

thanks for listening
carol a - resident / voter HTB

Eddy, Clara

From:	Aube, Nicolle <nicolle.aube@surfcity-hb.org> on behalf of housingelement@surfcity-hb.org
Sent:	Monday, October 18, 2021 1:31 PM
To:	Pascua, Kiera
Cc:	Mendoza, Molly
Subject:	FW: Huntington Beach

[You don't often get email from housingelement@surfcity-hb.org. Learn why this is important at http://aka.ms/LearnAboutSenderIdentification.]

-----Original Message-----
From: Sherry [redacted]
Sent: Tuesday, May 11, 2021 11:39 AM
To: housingelement@surfcity-hb.org
Subject: Huntington Beach

NO MORE HOMES , APARTMENTS, HIGH RISES ETC IN HUNTINGTON BEACH.

Sherry [redacted]

Eddy, Clara

From: Aube, Nicolle <nicolle.aube@surfcity-hb.org> on behalf of housingelement@surfcity-hb.org
Sent: Monday, October 18, 2021 1:32 PM
To: Pascua, Kiera
Cc: Mendoza, Molly
Subject: FW: My comments for housing element plans

You don't often get email from housingelement@surfcity-hb.org. Learn why this is important

From: Monika [redacted]
Sent: Friday, May 14, 2021 3:27 PM
To: housingelement@surfcity-hb.org
Subject: My comments for housing element plans

My name is Monika [redacted] and my family are residents in Huntington Beach, CA. My comments to the HB housing element update:

- When considering future HB plans for this law, please consider a new approach to housing by including increased affordable units/housing for low income, poor people, mentally ill, and homeless people in our City. The City should build these affordable simple units, not just leave it to builders. This is done all the time in European countries/cities and ends in a win/win situation for cities and poor people.

- Also additionally consider low-rate financial assisted loans for buying these units, and/or rent assistance for the above-mentioned HB citizens.

- The City's board and City staff need to be more transparent in planning on housing and in all actions taken for all Huntington Beach matters.

- The City needs to increase and update its public outreach and notifications of planned meetings for the above subject especially and other related actions the City is considering and/or planning. My family and I have **NOT seen any notices or public outreaches** by the City on any subject at all. Suggestions for this could be perhaps mailing out pertinent newsletters, etc. In the same vane as the City mails out "Sands Community Guides", which are excellent.

I appreciate the opportunity to voice my suggestions and requests for this deeply important subject on affordable housing.

By HB resident Monika [redacted]
[redacted]

Eddy, Clara

From: Aube, Nicolle <nicolle.aube@surfcity-hb.org> on behalf of housingelement@surfcity-hb.org
Sent: Monday, October 18, 2021 1:32 PM
To: Pascua, Kiera
Cc: Mendoza, Molly
Subject: FW: Public Input to Survey (6th Cycle Housing Element)

You don't often get email from housingelement@surfcity-hb.org. Learn why this is important

From: Jim [redacted]
Sent: Thursday, May 27, 2021 3:52 PM
To: housingelement@surfcity-hb.org
Subject: Public Input to Survey (6th Cycle Housing Element)

Hi, I reviewed these documents as I can understand them.

The Powerpoints are somewhat Vague, and seem concerned with getting State or Federal Matching Grants for expanding the housing supply. Multiple questions come to mind:

1. Aside from Grants; there's no information on how much each resident will have an increased property tax to "get the Grants". The Money obviously doesn't come for free; there has to be some match from the City (read the Taxpayers); as well as the State or Federal Government having taken it from their Taxpayers.

2. Again the PPT's are vague on why the need for this study and "New Policies to Accommodate the City's housing needs at all income Levels". The city should be interested only in providing a Safe Environment, Security in terms of Police and Firefighters, and value for our Tax Dollars.

3. Location of increased housing: Past plans have seemed to target the areas of HB near Westminster, Fountain Valley and Garden Grove; or on Beach Blvd; which is already substantially populated. There's vast lands in the tracts near the ocean, particularly near Bolsa Chica Beach, that could support vast Homeless Camps (temporary). If it's good enough for Venice Beach, it should be good enough for HB.

--
Best Regards,
Jim [redacted]

Eddy, Clara

From: Aube, Nicolle <nicolle.aube@surfcity-hb.org> on behalf of housingelement@surfcity-hb.org
Sent: Monday, October 18, 2021 1:33 PM
To: Pascua, Kiera
Cc: Mendoza, Molly
Subject: FW: Public Comments to Housing Element Survey

You don't often get email from housingelement@surfcity-hb.org. Learn why this is important

From: [redacted]
Sent: Monday, May 31, 2021 10:28 AM
To: housingelement@surfcity-hb.org
Cc: Chi, Oliver <oliver.chi@surfcity-hb.org>
Subject: Public Comments to Housing Element Survey

I am submitting this as Public Comment to the so-called Housing Element Survey.

What a complete and utter joke and waste of valuable time, money and resources. Why on earth bother with a survey when the questions are so bias and options for answer are so bias as to force a desired outcome?? I guess I shouldn't be surprised and nor are many in the community who have found this to be an ongoing practice at City Hall: provide the "illusion" that you seek community input all while pursuing whatever agenda supports the desires of the special interests who run City Hall. I suspect this survey was a "requirement" of the Housing Element so the goal was to construct a "bullet-proof" survey that forced a desired outcome.

This survey was perhaps the most shameful I have experienced thus far. I'm sure there will be a great sense of pride among the staff and leaders at City Hall who seek to destroy the quality of life and a once-wonderful community to live and raise a family. Hats off to the city hall "wrecking crew"....what a sad legacy!

Sincerely,
Cari [redacted]
Huntington Beach Resident and Home Owner

Eddy, Clara

From: Aube, Nicolle <nicolle.aube@surfcity-hb.org> on behalf of housingelement@surfcity-hb.org
Sent: Monday, October 18, 2021 1:33 PM
To: Pascua, Kiera
Cc: Mendoza, Molly
Subject: FW: Public Comments to Housing Element Survey

You don't often get email from housingelement@surfcity-hb.org. Learn why this is important

From: Michelle [redacted]
Sent: Monday, May 31, 2021 7:22 PM
To: housingelement@surfcity-hb.org; CITY COUNCIL <city.council@surfcity-hb.org>
Cc: Chi, Oliver <oliver.chi@surfcity-hb.org>
Subject: Public Comments to Housing Element Survey

I am truly offended by the Housing Element Survey. It was quite obvious that you want agreement rather than input. No doubt you spent a lot of tax payer dollars to come up with the slanted survey. You should be ashamed of yourselves. What happened to government reflecting the will of the people? My trust in elected officials is officially done, your support and preference for special interests and big money is obvious.

Sincerely,
Michelle [redacted]
Huntington Beach Resident and Home Owner

Eddy, Clara

From: Aube, Nicolle <nicolle.aube@surfcity-hb.org> on behalf of housingelement@surfcity-hb.org
Sent: Monday, October 18, 2021 1:34 PM
To: Pascua, Kiera
Cc: Mendoza, Molly
Subject: FW: Comment on Housing Element Survey

You don't often get email from housingelement@surfcity-hb.org. Learn why this is important

From: [redacted]
Sent: Tuesday, June 1, 2021 7:15 PM
To: housingelement@surfcity-hb.org
Subject: Comment on Housing Element Survey

Hello

Please consider the following input:

Huntington Beach should not convert to a high density city in which "all people "should have the ability or inherent right to live in it". Economic variances in life are a fact, people have different earning abilities, desire and potential. Variety of people in HB is fantastic however, if you can't afford to buy a home or rent a home in HB then landowners and housing providers should not be forced into rent control and/or other restrictions on types of housing or be forced to provide high density living facilities so that all walks of life can have the opportunity to live in HB.

Thank you.
Janet [redacted]

Appendix D

Economic Memo

KEYSER MARSTON ASSOCIATES
ADVISORS IN PUBLIC/PRIVATE REAL ESTATE DEVELOPMENT

MEMORANDUM

ADVISORS IN:
Real Estate
Affordable Housing
Economic Development

BERKELEY
A. Jerry Keyser
Debbie M. Kern
David Doezema

LOS ANGELES
Kathleen H. Head
James A. Rabe
Gregory D. Soo-Hoo
Kevin E. Engstrom
Julie L. Romey
Tim R. Bretz

SAN DIEGO
Paul C. Marra

To: Ursula Luna-Reynosa, Community Development Director
City of Huntington Beach

From: Kathleen Head

Date: July 12, 2022

Subject: Housing Element Site Analysis

At your request, Keyser Marston Associates, Inc. (KMA) prepared case study financial analyses of two sites located in the Beach and Edinger Corridors. The purpose of these analyses is to determine whether it is reasonable to assume that residential development can be supported on properties that are currently developed with commercial uses.

BACKGROUND

In May 2022, the City of Huntington Beach (City) submitted a draft Housing Element of the Huntington Beach General Plan (Draft Housing Element) to the California Housing and Community Development Department (HCD). The Draft Housing Element includes an assumption that identified underutilized commercial properties will be rezoned to allow for residential development. In their response, HCD requested validation that the development economics will support the recycling of commercial properties into residential development sites.

Key factors in the City's rezoning assumptions are:

1. There are currently several underutilized commercial properties in the Beach and Edinger Corridors Specific Plan area.

2. The City created the SP 14 Affordable Housing Overlay (SP 14) which provides the following incentives to residential development:

a. Projects in which at least 20% of the units are set aside for low income households are permitted to be developed by right.

b. No density limits are imposed on the properties located within the SP 14 area.

c. Developers may choose to use the Government Code Section 65915 et seq. (Section 65915) density bonus in order to receive concessions or incentives, parking relief and development standards waivers as needed.

The City selected the following two sites for evaluation:

"Super Pawn" Site			
Address	Site Size (Gross Acres)	Current Use	Building Area (Square Feet)
17701 Beach Blvd.		One story liquor store and smoke shop	3,516
17721 Beach Blvd.		2 one story buildings:	
		Pawn, CBD and payday loan shops	4,552
		Auto repair and smog check	1,141
7911 Newman Ave.		Approximately 80% of the lot is outdoor storage. Also one story residential unit	Unknown
7912 Liberty Dr.		3 one story residential units and one detached garage	3,540
Totals	1.86		12,749 [1]

[1] The total excludes the building area for the property located at 7911 Newman Avenue.

"Church in Huntington Beach" Site			
Address	Site Size (Gross Acres)	Current Use	Building Area (Square Feet)
19231 Beach Blvd.	1.93	Church and Parsonage	10,438

MAJOR ASSUMPTIONS

Prototype Development Scopes

The two development sites being analyzed are approximately the same size at 1.86 and 1.93 acres, respectively. To maximize the benefits of this analysis, KMA varied the residential density between the two development prototypes as follows:

1. The prototype development scope for the 1.86 acre site is based on a density of 80 units per acre.

2. The prototype development scope for the 1.93 acres site is based on a density of 60 units per acre.

Income and Affordability Standards

KMA tested three income and affordability scenarios for each site. The scenarios can be described as follows:

1. A market rate scenario which is based on the following assumptions:

    a. All the units are allowed to be rented at unrestricted market rents.

    b. The prototype projects comport with all the applicable City development standards, including the parking requirements imposed on SP 14 properties.

    c. In this scenario it is assumed that all public permits and fees costs plus the applicable Inclusionary Housing In-Lieu Fee are paid.

2. One scenario in which 20% of the units are set aside at low income rents, and one scenario in which 10% of the units are set aside at very low income rents:

    a. In both scenarios the rents are calculated under the methodology defined in California Health and Safety Code (H&SC) Section 50053.

    b. It is assumed that Section 65915 concessions/incentives and development standards waivers are provided as needed to achieve the defined development scope.

    c. The parking requirements are based on the ratios provided in Section 65915 (p).

    d. In both scenarios the affordable units fulfill the City's Inclusionary Housing requirements. [2]

    e. Established City waivers for specific impact fee categories are applied.

EXECUTIVE SUMMARY

The purpose of the KMA financial analysis is to determine whether it is reasonable to conclude that residential development is feasible on the SP 14 sites that are currently improved with underutilized commercial uses. This evaluation is based on pro forma analyses that estimate the order-of-magnitude profit that a developer can anticipate receiving under the development scenarios being analyzed.

The tables on the following two pages of this memorandum summarize the major assumptions and findings of the analysis.

[2] The 2013 appellate court ruling in *Latinos Unidos del Valle de Napa y Solano v. County of Napa,* 217 Cal. App. 4th 1160 held that jurisdictions must agree to count the affordable units used to fulfill the Section 65915 density bonus requirements towards the jurisdiction's Inclusionary Housing requirements (*Napa*).

SUMMARY TABLE #1

SUPER PAWN SITE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

		MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT	20% LOW INCOME ALTERNATIVE	10% VERY LOW INCOME ALTERNATIVE
I.	**Project Description**			
	A. Site Area (Sf)	81,022	81,022	81,022
	B. Total Units	149	149	149
	C. Density (Units/Acre)	80	80	80
	D. Unit Mix - %			
	Studio Units	10	10	10
	One Bedroom Units	70	70	70
	Two Bedroom Units	57	57	57
	Three Bedroom Units	12	12	12
	Total Units	149	149	149
	E. Gross Building Area (Sf)	191,798	191,798	191,798
	F. Number of Parking Spaces Provided	379	184	184
	Parking Spaces Per Unit	2.5	1.2	1.2
II.	**Development Costs**			
	A. Property Acquisition Costs	$12,153,000	$12,153,000	$12,153,000
	Per Square Foot of Land Area	$150	$150	$150
	B. Direct Costs	$50,930,000	$45,440,000	$45,440,000
	Per Square Foot of GBA	$266	$237	$237
	C. Indirect + Financing Costs	$21,915,000	$14,489,000	$14,489,000
	As a % of Direct Costs	43%	32%	32%
	Total Development Cost	$84,998,000	$72,082,000	$72,082,000
	Per Unit	$570,460	$483,770	$483,770
III.	**Stabilized Net Operating Income**	$4,515,300	$3,885,400	$4,176,300
IV.	**Project Value @ a 4.5% Capitalization Rate**	$100,340,000	$86,342,000	$92,807,000
V.	**Project Costs**			
	Total Development Cost	$84,998,000	$72,082,000	$72,082,000
	Costs of Sale @ 2.0% of Project Value	2,007,000	1,727,000	1,856,000
	Total Project Costs	($87,005,000)	($73,809,000)	($73,938,000)
VI.	**Developer Profit**	$13,335,000	$12,533,000	$18,869,000
	As a % of Project Value	13.3%	14.5%	20.3%

SUMMARY TABLE #2

CHURCH IN HB SITE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

		MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT	20% LOW INCOME ALTERNATIVE	10% VERY LOW INCOME ALTERNATIVE
I.	**Project Description**			
	A. Site Area (Sf)	84,071	84,071	84,071
	B. Total Units	116	116	116
	C. Density (Units/Acre)	60	60	60
	D. Unit Mix - %			
	Studio Units	8	8	8
	One Bedroom Units	55	55	55
	Two Bedroom Units	44	44	44
	Three Bedroom Units	9	9	9
	Total Units	116	116	116
	E. Gross Building Area (Sf)	162,276	162,276	162,276
	F. Number of Parking Spaces Provided	295	143	143
	Parking Spaces Per Unit	2.5	1.2	1.2
II.	**Development Costs**			
	A. Property Acquisition Costs	$12,611,000	$12,611,000	$12,611,000
	Per Square Foot of Land Area	$150	$150	$150
	B. Direct Costs	$40,295,000	$36,491,000	$36,491,000
	Per Square Foot of GBA	$248	$225	$225
	C. Indirect + Financing Costs	$17,818,000	$11,730,000	$11,730,000
	As a % of Direct Costs	44%	32%	32%
	Total Development Cost	$70,724,000	$60,832,000	$60,832,000
	Per Unit	$609,690	$524,410	$524,410
III.	**Stabilized Net Operating Income**	$3,856,800	$3,305,300	$3,550,200
IV.	**Project Value @ a 4.5% Capitalization Rate**	$85,707,000	$73,451,000	$78,893,000
V.	**Project Costs**			
	Total Development Cost	$70,724,000	$60,832,000	$60,832,000
	Costs of Sale @ 2.0% of Project Value	1,714,000	1,469,000	1,578,000
	Total Project Costs	($72,438,000)	($62,301,000)	($62,410,000)
VI.	**Developer Profit**	$13,269,000	$11,150,000	$16,483,000
	As a % of Project Value	15.5%	15.2%	20.9%

Based on the results of the analyses, KMA reached the following conclusions:

1. The developer profit is sufficient to incentivize residential development on SP 14 sites that are currently developed with underutilized commercial uses.

2. The combination of the impact fees waivers and parking standards relief are sufficient to offset the financial impacts created by the imposition of income and affordability covenants.

3. The 10% very low income scenarios demonstrate stronger financial returns than the 20% low income scenarios. Because of this, some developers may elect to pursue the very low income scenario while others may place significant value on the fact that projects that set aside 20% of the units for low income households can be developed by right.

ANALYSIS

Prototype Development Scopes

The development prototypes used in this analysis were created based on the results of the KMA market surveys, and a review of projects that have recently been constructed in Huntington Beach. The KMA market surveys were also used to estimate the achievable market rate rents for the prototype projects.

The prototypes used in this analysis are described in the following table:

Development Scope Summaries		
	1.86 Acre Scenario	1.93 Acre Scenario
Density (Units Per Acre)	80	60
Total Number of Units	149	116
Unit Mix		
Studio Units	10	8
One-Bedroom Units	70	55
Two-Bedroom Units	57	44
Three-Bedroom Units	12	9

Development Scope Summaries		
	1.86 Acre Scenario	1.93 Acre Scenario
Gross Building Area	191,798	162,276
Parking Spaces Per Unit		
Market Rate Scenario	2.5	2.5
Affordable Scenario	1.2	1.2

Development Cost Assumptions

Property Acquisition Costs

KMA compiled sales data for commercial properties located in the Beach/Edinger corridor. The results of this survey are presented in Appendix A – Exhibit I. Based on the survey results KMA estimated the property acquisition costs at $150 per square foot of land area.

Direct Costs

1. The on-site improvements and landscaping costs are estimated at $20 per square foot of land area.

2. The parking costs are estimated as follows:

Parking Type	Cost Per Space
At Grade Spaces	$5,000
Above-Ground Podium	$25,000
1st Level Subterranean	$35,000

3. The building costs are estimated per square foot of gross building area (GBA), which includes the amenities spaces. The costs are estimated at $165 per square foot for the 80 unit per acre scenario, and $155 per square foot for the 60 unit per acre scenario.

4. A 20% allowance is provided for contractor costs, profit and contingencies.

INDIRECT COSTS

1. The architecture, engineering and consulting costs are estimated at 6% of direct costs.

2. The public permits and fees costs are estimated as follows:

Unit Type	Fees
Market Rate Scenario	
General Fees	$31,500 / Unit
Inclusionary Housing In-Lieu Fee	$35.80 / Sf of GLA
Affordable Scenarios	$28,600 / Unit

3. The taxes, insurance, legal and accounting costs are estimated at 2.0% of direct costs.

4. The marketing and leasing fees are estimated at $1,000 per unit.

5. The Developer Fee is set at 5.0% of direct costs.

6. An indirect cost contingency allowance equal to 5% of other indirect costs is provided.

FINANCING COSTS

The construction period interest costs are based on the following assumptions:

1. A 15 month construction period following the receipt of entitlements;

2. An average interest rate of 5%; and

3. The average outstanding loan balances are set as follows:

    a. A 100% average outstanding balance on the property acquisition costs; and

b. A 60% average outstanding balance on the construction costs.

4. The loan origination fees are estimated at 1.5 points, and the loan amount is based on a 60% loan to cost ratio.

Stabilized Net Operating Income

The following section of this analysis outlines the assumptions that were used to estimate the stabilized net operating income for the two case studies being analyzed:

Unit Mixes

Unit Mix Assumptions				
	1.86 Acre Scenario		1.93 Acre Scenario	
Unit Type	% of Units	Sf of GLA	% of Units	Sf of GLA
Studio Units	7%	659	7%	690
One Bedroom Units	47%	811	47%	912
Two Bedroom Units	38%	1,169	38%	1,277
Three Bedroom Units	8%	1,624	8%	1.645
Total/Weighted Average	100%	1,003	100%	1,090

Rent Assumptions

Projected Market Rents

In the June 2022, KMA surveyed apartment projects that received four stars in the CoStar quality ranking system (Appendix A – Exhibit II). The purpose of this survey was to derive estimates of the currently achievable market rents for the types of projects likely to be constructed in Huntington Beach. However, the characteristics of actual projects will vary to some degree from the prototype being evaluated.

The market rate rent estimates that are used in this Inclusionary Evaluation are presented in the following table:

Projected Average Monthly Market Rate Rents		
	1.86 Acre Scenario	1.93 Acre Scenario
Studio Units	$2,603	$2,724
One-Bedroom Units	$3,042	$3,422
Two-Bedroom Units	$4,029	$4,400
Three-Bedroom Units	$6,468	$6,551
Average Rent / Sf. of GLA [3]	$3.65	$3.65

AFFORDABLE RENT CALCULATIONS

1. The household income information used in the calculations is based on 2022 income statistics for Orange County as a whole. The household incomes are published annually by the United States Department of Housing and Urban Development (HUD) and are distributed by HCD.

2. The household size appropriate for the unit is based on the H&SC Section 50052.5 standard of the number of bedrooms in the home plus one. This is a benchmark for calculation purposes only. It is neither an occupancy minimum nor a maximum.

3. For the purposes of setting the Affordable Rents, the household income is set at 50% of area median income (AMI) for very low income households and 60% of AMI for low income households.

4. Thirty percent (30%) of defined household income is allocated to housing-related expenses.

5. KMA's calculations are based on the assumption that the tenants will be required to pay for gas heating, cooking and water heating; basic electric services; and air conditioning. The Orange County Housing Authority utilities allowances, effective as of December 1, 2021, were applied to this analysis.

[3] GLA = gross leasable area.

The resulting Affordable Rents are presented in the following table:

Affordable Rent Calculations		
	Low Income	Very Low Income
Studio Units		
Maximum Monthly Housing Cost	$1,250	$1,042
(Less) Monthly Utility Allowance	(67)	(67)
Affordable Rent	$1,183	$975
One-Bedroom Units		
Maximum Monthly Housing Cost	$1,430	$1,191
(Less) Monthly Utility Allowance	(77)	(77)
Affordable Rent	$1,353	$1,114
Two-Bedroom Units		
Maximum Monthly Housing Cost	$1,608	$1,340
(Less) Monthly Utility Allowance	(107)	(107)
Affordable Rent	$1,501	$1,233
Three-Bedroom Units		
Maximum Monthly Housing Cost	$1,787	$1,489
(Less) Monthly Utility Allowance	(137)	(137)
Affordable Rent	$1,650	$1,352

Pro Forma Analyses

KMA prepared pro forma analyses for the two development sites under the following three alternative income and affordability scenarios:

1. A 100% market rate project;

2. A scenario that includes 80% market rate units and 20% low income units; and

3. A scenario that includes 90% market rate units and 10% very low income units.

The pro forma tables are organized as follows:

Pro Forma Analyses	
Table 1:	Estimated Development Costs
Table 2:	Estimated Stabilized Net Operating Income
Table 3:	Estimated Developer Return

1.86 Acre Scenario

The pro forma analyses for the 1.86 Acre Scenarios are found in Appendix C. The results of the financial analyses are presented in the following table:

	MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT	20% LOW INCOME ALTERNATIVE	10% VERY LOW INCOME ALTERNATIVE
Development Costs			
Property Acquisition Costs	$12,153,000	$12,153,000	$12,153,000
Per Square Foot of Land Area	$150	$150	$150
Direct Costs	$50,930,000	$45,440,000	$45,440,000
Per Square Foot of GBA	$266	$237	$237
Indirect + Financing Costs	$21,915,000	$14,489,000	$14,489,000
As a % of Direct Costs	43%	32%	32%
Total Development Cost	$84,998,000	$72,082,000	$72,082,000
Per Unit	$570,460	$483,770	$483,770
Stabilized Net Operating Income	$4,515,300	$3,885,400	$4,176,300
Project Value @ a 4.5% Capitalization Rate	$100,340,000	$86,342,000	$92,807,000
Project Costs			
Total Development Cost	$84,998,000	$72,082,000	$72,082,000
Costs of Sale @ 2.0% of Project Value	2,007,000	1,727,000	1,856,000
Total Project Costs	($87,005,000)	($73,809,000)	($73,938,000)
Developer Profit	$13,335,000	$12,533,000	$18,869,000
As a % of Project Value	13.3%	14.5%	20.3%

1.93 Acre Scenario

The pro forma analyses for the 1.93 Acre Scenarios are found in Appendix D. The results of the financial analyses are presented in the following table:

	MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT	20% LOW INCOME ALTERNATIVE	10% VERY LOW INCOME ALTERNATIVE
Development Costs			
Property Acquisition Costs	$12,611,000	$12,611,000	$12,611,000
Per Square Foot of Land Area	$150	$150	$150
Direct Costs	$40,295,000	$36,491,000	$36,491,000
Per Square Foot of GBA	$248	$225	$225
Indirect + Financing Costs	$17,818,000	$11,730,000	$11,730,000
As a % of Direct Costs	44%	32%	32%
Total Development Cost	$70,724,000	$60,832,000	$60,832,000
Per Unit	$609,690	$524,410	$524,410
Stabilized Net Operating Income	$3,856,800	$3,305,300	$3,550,200
Project Value @ a 4.5% Capitalization Rate	$85,707,000	$73,451,000	$78,893,000
Project Costs			
Total Development Cost	$70,724,000	$60,832,000	$60,832,000
Costs of Sale @ 2.0% of Project Value	1,714,000	1,469,000	1,578,000
Total Project Costs	($72,438,000)	($62,301,000)	($62,410,000)
Developer Profit	$13,269,000	$11,150,000	$16,483,000
As a % of Project Value	15.5%	15.2%	20.9%

CONCLUSIONS

Based on the results of the analyses, KMA reached the following conclusions:

1. The developer profit is projected to fall within the typical range currently seen in the market place for large scale apartment projects.

2. The SP 14 development incentives, combined with the concessions/incentives provided by the Section 65915 density bonus and City's the impact fees waivers, completely offset the financial impacts created by the imposition of income and affordability covenants.

3. As can be seen in the preceding tables, the 10% very low income scenarios demonstrate the strongest financial returns of any of the scenarios tested in this

analysis. However, many developers will potentially determine that the ability to develop by right if 20% of the units are allocated to low income households provides benefits that justify accepting a lower threshold return on investment.

The purpose of the preceding analysis was to determine whether it is reasonable to assume that residential development can be supported on properties that are currently developed with commercial uses. Based on the results of the case study analyses, it is KMA's conclusion that the current economic characteristics of apartment development are strong enough to support residential development on SP 14 sites that are currently developed with underutilized commercial uses.

APPENDIX A

MARKET SURVEYS
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX A - EXHIBIT I

PROPERTY SALES SURVEY [1]
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

Address	Sale Date	Existing Use	Site Size (SF)	Building Area (SF)	Sales Price Total	Sales Price Per SF Site Area	Sales Price Per SF Building Area
17941 Beach Blvd.	12/30/21	3 Star Strip Center	38,768	10,694	$7,600,000	$196	$711
19471 Beach Blvd.	5/27/21	2 Star Office	20,038	2,200	$3,200,000	$160	$1,455
17881 Beach Blvd.	10/5/21	2 Star Retail/Office	23,958	6,500	$3,500,000	$146	$538
17931 Beach Blvd.	10/14/21	2 Star Strip Center	22,216	6,905	$3,200,000	$144	$463
19431 Beach Blvd.	5/27/21	2 Star Retail	39,640	13,284	$5,000,000	$126	$376
17672 Beach Blvd.	2/3/21	2 Star Office	20,038	7,200	$1,715,888	$86	$238
17685-17701 Beach Blvd.	4/3/21	2 Star Retail	22,651	2,982	$1,700,000	$75	$570
17682 Beach Blvd.	1/25/21	2 Star Office	14,375	3,500	$834,112	$58	$238
Minimum			14,375		$834,112	$58	$238
Maximum			39,640		$7,600,000	$196	$1,455
Weighted Average			25,211		$3,343,750	$133	$502
19432 Beach Blvd.	Under Contract	Vacant Land (C-4)	44,431		$6,500,000	$146	

Source: Costar; June 2022

APPENDIX A - EXHIBIT II

RENT SURVEY - 4 STAR PROPERTIES
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

Name	Address	# of Units	Unit Size (SF)	Average Effective Rent Total	Average Effective Rent Per SF	Year Built
		Studio Units				
Avalon Huntington Beach	7400 Center Avenue	62	690	$2,777	$4.02	2017
Elan Huntington Beach	18504 Beach Boulevard	26	576	$2,244	$3.90	2015
LUCE	7290 Edinger Avenue	26	670	$2,556	$3.81	2018
	Minimum		576	$2,244	$3.81	
	Maximum		690	$2,777	$4.02	
	Weighted Average		659	$2,605	$3.95	
		One-Bedroom Units				
Avalon Huntington Beach	7400 Center Avenue	196	777	$2,999	$3.86	
Elan Huntington Beach	18504 Beach Boulevard	130	791	$2,372	$3.00	
LUCE	7290 Edinger Avenue	245	759	$2,633	$3.47	
Residences at Pacific City	21040 Pacific City Circle	216	912	$4,038	$4.43	2018
	Minimum		759	$2,372	$3.00	
	Maximum		912	$4,038	$4.43	
	Weighted Average		811	$3,067	$3.75	
		Two-Bedroom Units				
Avalon Huntington Beach	7400 Center Avenue	120	1,191	$4,044	$3.40	
Elan Huntington Beach	18504 Beach Boulevard	118	1,092	$2,799	$2.56	
LUCE	7290 Edinger Avenue	219	1,111	$3,533	$3.18	
Residences at Pacific City	21040 Pacific City Circle	180	1,277	$5,593	$4.38	
	Minimum		1,092	$2,799	$2.56	
	Maximum		1,277	$5,593	$4.38	
	Weighted Average		1,169	$4,075	$3.45	
		Three-Bedroom Units				
LUCE	7290 Edinger Avenue	20	1,498	$4,661	$3.11	
Residences at Pacific City	21040 Pacific City Circle	120	1,645	$6,790	$4.13	
	Minimum		1,498	$4,661	$3.11	
	Maximum		1,645	$6,790	$4.13	
	Weighted Average		1,624	$6,486	$3.98	

Source: Costar; June 2022

APPENDIX B

AFFORDABLE RENT CALCULATIONS
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX B

AFFORDABLE RENT CALCULATIONS
2022 INCOME STANDARDS
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

			Studio Units	One Bedroom Units	Two Bedroom Units	Three Bedroom Units
I.	**General Assumptions**					
	Area Median Income (AMI)	[1]	$83,350	$95,300	$107,200	$119,100
	Monthly Utilities Allowance	[2]	$67	$77	$107	$137
II.	**Low Income - Rent Based on 60% AMI**	[3]				
	Benchmark Annual Household Income		$50,010	$57,180	$64,320	$71,460
	Percentage of Income Allotted to Housing Expenses		30%	30%	30%	30%
	Monthly Income Available for Housing Expenses		$1,250	$1,430	$1,608	$1,787
	(Less) Monthly Utilities Allowance		(67)	(77)	(107)	(137)
	Maximum Allowable Rent		$1,183	$1,353	$1,501	$1,650
III.	**Very Low Income - Rent Based on 50% AMI**	[3]				
	Benchmark Annual Household Income		$41,675	$47,650	$53,600	$59,550
	Percentage of Income Allotted to Housing Expenses		30%	30%	30%	30%
	Monthly Income Available for Housing Expenses		$1,042	$1,191	$1,340	$1,489
	(Less) Monthly Utilities Allowance		(67)	(77)	(107)	(137)
	Maximum Allowable Rent		$975	$1,114	$1,233	$1,352

[1] Based on the 2022 Orange County household incomes published by the California Housing & Community Development Department (HCD). The benchmark household size is set at the number of bedrooms in the unit plus one.

[2] Based on the Orange County Housing Authority utilities allowances effective as of 12/1/21. Assumes: Gas Heating, Gas Cooking, and Gas Water Heater; Basic Electric; and Air Conditioning.

[3] Based on the California Health & Safety Code Section 50053 calculation methodology.

APPENDIX C

PRO FORMA ANALYSES
SUPER PAWN SITE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX C - EXHIBIT I

PRO FORMA ANALYSIS
MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX C - EXHIBIT I - TABLE 1

ESTIMATED DEVELOPMENT COSTS
MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Property Acquisition Costs**	[1]	81,022	Sf of Land	$150	/Sf of Land		$12,153,000
II.	**Direct Costs**	[2]						
	On-Site Improvements/Landscaping		81,022	Sf of Land	$20	/Sf of Land	$1,620,000	
	Parking	[3]						
	At-Grade Spaces		75	Spaces	$5,000	/Space	375,000	
	Above-Ground Spaces		184	Spaces	$25,000	/Space	4,600,000	
	1st Level Subterranean		120	Spaces	$35,000	/Space	4,200,000	
	Building Costs		191,798	Sf of GBA	$165	/Sf of GBA	31,647,000	
	Contractor/DC Contingency Allow	[4]	20%	Other Direct Costs			8,488,000	
	Total Direct Costs		191,798	Sf of GBA	$266	/Sf of GBA		$50,930,000
III.	**Indirect Costs**							
	Architecture, Engineering & Consulting		6%	Direct Costs			$3,056,000	
	Public Permits & Fees	[5]	149	Units	$31,500	/Unit	4,694,000	
	Inclusionary Housing In-Lieu Fee		149,495	Sf of GLA	$35.80	/Sf of GLA	5,352,000	
	Taxes, Insurance, Legal & Accounting		2%	Direct Costs			1,019,000	
	Marketing		149	Units	$1,000	/Unit	149,000	
	Developer Fee		5%	Direct Costs			2,547,000	
	Soft Cost Contingency Allowance		5%	Other Indirect Costs			841,000	
	Total Indirect Costs							$17,658,000
IV.	**Financing Costs**							
	Interest During Construction							
	Land	[6]	$12,153,000	Cost	5.0%	Avg Rate	$760,000	
	Construction	[7]	$72,845,000	Cost	5.0%	Avg Rate	2,732,000	
	Loan Origination Fees		60%	Loan to Cost	1.5	Points	765,000	
	Total Financing Costs							$4,257,000
V.	**Total Construction Cost**		149	Units	$489,000	/Unit		$72,845,000
	Total Development Cost		149	Units	$570,000	/Unit		$84,998,000

[1] Based in part on the sales survey provided in APPENDIX A - EXHIBIT I.
[2] Based on the estimated costs for similar uses.
[3] The parking is based on 2.0 space for Studio Units; 2.0 space for One Bedroom Units; 2.0 spaces for Two Bedroom Units; 2.5 spaces for Three Bedroom Units; and 0.50 space per unit for Guest Parking.
[4] Includes contractors' fees, general requirements, builder's risk insurance and a direct cost contingency allowance.
[5] Based on fee calculation methodologies provided by the City staff.
[6] Based on a 15 month construction period following receipt of entitlements, and a 100% average outstanding loan balance.
[7] Based on a 15 month construction period following receipt of entitlements, and a 60% average outstanding loan balance.

APPENDIX C - EXHIBIT I - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Gross Income**					
	A. Market Rate Units [1]					
	Studio Units	10	Units @	$2,603 /Unit/Month	$312,400	
	One Bedroom Units	70	Units @	$3,042 /Unit/Month	2,555,100	
	Two Bedroom Units	57	Units @	$4,029 /Unit/Month	2,756,000	
	Three Bedroom Units	12	Units @	$6,468 /Unit/Month	931,300	
	B. Laundry & Miscellaneous Income	149	Units @	$50 /Unit/Month	89,400	
	Total Gross Income					$6,644,200
	Vacancy & Collection Allowance	5%	Gross Income			(332,200)
II.	**Effective Gross Income**					$6,312,000
III.	**Operating Expenses**					
	General Operating Expenses	149	Units @	$4,500 /Unit	$670,500	
	Property Taxes	149	Units @	$7,400 /Unit	1,103,800	
	Replacement Reserve Deposits	149	Units @	$150 /Unit	22,400	
	Total Operating Expenses					($1,796,700)
IV.	**Stabilized Net Operating Income**					$4,515,300

[1] Based in part on the rent survey presented in APPENDIX A - EXHIBIT II. The weighted average monthly rent equates to $3.65 per square foot of leasable area.

APPENDIX C - EXHIBIT I - TABLE 3

ESTIMATED DEVELOPER RETURN
MARKET RATE ALTERNATIVE - IN-LIEU FEE PAYMENT
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Project Value**			
	Stabilized Net Operating Income	See APPENDIX C - EXHIBIT I - TABLE 2	$4,515,300	
	Capitalization Rate		4.5%	
	Total Project Value			$100,340,000
II.	**Project Costs**			
	Total Development Cost	See APPENDIX C - EXHIBIT I - TABLE 1	$84,998,000	
	Costs of Sale	2.0% of Total Project Value	2,007,000	
	Total Project Costs			($87,005,000)
III.	**Developer Profit**	13.3% of Total Project Value		$13,335,000

APPENDIX C - EXHIBIT II

PRO FORMA ANALYSIS
20% LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX C - EXHIBIT II - TABLE 1

ESTIMATED DEVELOPMENT COSTS
20% LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Property Acquisition Costs**	[1]	81,022	Sf of Land	$150	/Sf of Land		$12,153,000
II.	**Direct Costs**	[2]						
	On-Site Improvements/Landscaping		81,022	Sf of Land	$20	/Sf of Land	$1,620,000	
	Parking	[3]						
	At-Grade Spaces		0	Spaces	$5,000	/Space	0	
	Above-Ground Spaces		184	Spaces	$25,000	/Space	4,600,000	
	1st Level Subterranean		0	Spaces	$35,000	/Space	0	
	Building Costs		191,798	Sf of GBA	$165	/Sf of GBA	31,647,000	
	Contractor/DC Contingency Allow	[4]	20%	Other Direct Costs			7,573,000	
	Total Direct Costs		191,798	Sf of GBA	$237	/Sf of GBA		$45,440,000
III.	**Indirect Costs**							
	Architecture, Engineering & Consulting		6%	Direct Costs			$2,726,000	
	Public Permits & Fees	[5]	149	Units	$28,600	/Unit	4,261,000	
	Taxes, Insurance, Legal & Accounting		2%	Direct Costs			909,000	
	Marketing		149	Units	$1,000	/Unit	149,000	
	Developer Fee		5%	Direct Costs			2,272,000	
	Soft Cost Contingency Allowance		5%	Other Indirect Costs			516,000	
	Total Indirect Costs							$10,833,000
IV.	**Financing Costs**							
	Interest During Construction							
	Land	[6]	$12,153,000	Cost	5.0%	Avg Rate	$760,000	
	Construction	[7]	$59,929,000	Cost	5.0%	Avg Rate	2,247,000	
	Loan Origination Fees		60%	Loan to Cost	1.5	Points	649,000	
	Total Financing Costs							$3,656,000
V.	**Total Construction Cost**		149	Units	$402,000	/Unit		$59,929,000
	Total Development Cost		149	Units	$484,000	/Unit		$72,082,000

[1] Based in part on the sales survey provided in APPENDIX A - EXHIBIT I.
[2] Based on the estimated costs for similar uses.
[3] The parking is based on 2.0 space for Studio Units; 2.0 space for One Bedroom Units; 2.0 spaces for Two Bedroom Units; 2.5 spaces for Three Bedroom Units; and 0.50 space per unit for Guest Parking.
[4] Includes contractors' fees, general requirements, builder's risk insurance and a direct cost contingency allowance.
[5] Based on fee calculation methodologies provided by the City staff.
[6] Based on a 15 month construction period following receipt of entitlements, and a 100% average outstanding loan balance.
[7] Based on a 15 month construction period following receipt of entitlements, and a 60% average outstanding loan balance.

APPENDIX C - EXHIBIT II - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
20% LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Gross Income**					
	A. Market Rate Units [1]					
	Studio Units	8	Units @	$2,603 /Unit/Month	$249,900	
	One Bedroom Units	56	Units @	$3,042 /Unit/Month	2,044,100	
	Two Bedroom Units	46	Units @	$4,029 /Unit/Month	2,224,100	
	Three Bedroom Units	9	Units @	$6,468 /Unit/Month	698,500	
	B. Low Income Units [2]					
	Studio Units	2	Units @	$1,183 /Unit/Month	28,400	
	One Bedroom Units	14	Units @	$1,353 /Unit/Month	227,200	
	Two Bedroom Units	11	Units @	$1,501 /Unit/Month	198,100	
	Three Bedroom Units	3	Units @	$1,650 /Unit/Month	59,400	
	C. Laundry & Miscellaneous Income	149	Units @	$50 /Unit/Month	89,400	
	Total Gross Income					$5,819,100
	Vacancy & Collection Allowance	5%	Gross Income			(291,000)
II.	**Effective Gross Income**					$5,528,100
III.	**Operating Expenses**					
	General Operating Expenses	149	Units @	$4,500 /Unit	$670,500	
	Property Taxes	149	Units @	$6,400 /Unit	949,800	
	Replacement Reserve Deposits	149	Units @	$150 /Unit	22,400	
	Total Operating Expenses					($1,642,700)
IV.	**Stabilized Net Operating Income**					$3,885,400

[1] Based in part on the rent survey presented in APPENDIX A - EXHIBIT II. The weighted average monthly rent equates to $3.65 per square foot of leasable area.

[2] Under Section 50053, the low income rent calculations are based on household income at 60% of AMI, with 30% of income allotted to housing related expenses. See APPENDIX B.

APPENDIX C - EXHIBIT II - TABLE 3

ESTIMATED DEVELOPER RETURN
20% LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Project Value**			
	Stabilized Net Operating Income	See APPENDIX C - EXHIBIT II - TABLE 2	$3,885,400	
	Capitalization Rate		4.5%	
	Total Project Value			$86,342,000
II.	**Project Costs**			
	Total Development Cost	See APPENDIX C - EXHIBIT II - TABLE 1	$72,082,000	
	Costs of Sale	2.0% of Total Project Value	1,727,000	
	Total Project Costs			($73,809,000)
III.	**Developer Profit**	14.5% of Total Project Value		$12,533,000

APPENDIX C - EXHIBIT III

PRO FORMA ANALYSIS
10% VERY LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX C - EXHIBIT III - TABLE 1

ESTIMATED DEVELOPMENT COSTS
10% VERY LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Property Acquisition Costs**	[1]	81,022	Sf of Land	$150	/Sf of Land		$12,153,000
II.	**Direct Costs**	[2]						
	On-Site Improvements/Landscaping		81,022	Sf of Land	$20	/Sf of Land	$1,620,000	
	Parking	[3]						
	At-Grade Spaces		0	Spaces	$5,000	/Space	0	
	Above-Ground Spaces		184	Spaces	$25,000	/Space	4,600,000	
	1st Level Subterranean		0	Spaces	$35,000	/Space	0	
	Building Costs		191,798	Sf of GBA	$165	/Sf of GBA	31,647,000	
	Contractor/DC Contingency Allow	[4]	20%	Other Direct Costs			7,573,000	
	Total Direct Costs		191,798	Sf of GBA	$237	/Sf of GBA		$45,440,000
III.	**Indirect Costs**							
	Architecture, Engineering & Consulting		6%	Direct Costs			$2,726,000	
	Public Permits & Fees	[5]	149	Units	$28,600	/Unit	4,261,000	
	Taxes, Insurance, Legal & Accounting		2%	Direct Costs			909,000	
	Marketing		149	Units	$1,000	/Unit	149,000	
	Developer Fee		5%	Direct Costs			2,272,000	
	Soft Cost Contingency Allowance		5%	Other Indirect Costs			516,000	
	Total Indirect Costs							$10,833,000
IV.	**Financing Costs**							
	Interest During Construction							
	Land	[6]	$12,153,000	Cost	5.0%	Avg Rate	$760,000	
	Construction	[7]	$59,929,000	Cost	5.0%	Avg Rate	2,247,000	
	Loan Origination Fees		60%	Loan to Cost	1.5	Points	649,000	
	Total Financing Costs							$3,656,000
V.	**Total Construction Cost**		149	Units	$402,000	/Unit		$59,929,000
	Total Development Cost		149	Units	$484,000	/Unit		$72,082,000

[1] Based in part on the sales survey provided in APPENDIX A - EXHIBIT I.
[2] Based on the estimated costs for similar uses.
[3] The parking is based on 2.0 space for Studio Units; 2.0 space for One Bedroom Units; 2.0 spaces for Two Bedroom Units; 2.5 spaces for Three Bedroom Units; and 0.50 space per unit for Guest Parking.
[4] Includes contractors' fees, general requirements, builder's risk insurance and a direct cost contingency allowance.
[5] Based on fee calculation methodologies provided by the City staff.
[6] Based on a 15 month construction period following receipt of entitlements, and a 100% average outstanding loan balance.
[7] Based on a 15 month construction period following receipt of entitlements, and a 60% average outstanding loan balance.

APPENDIX C - EXHIBIT III - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
10% VERY LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Gross Income**					
	A. Market Rate Units [1]					
	Studio Units	9	Units @	$2,603 /Unit/Month	$281,100	
	One Bedroom Units	63	Units @	$3,042 /Unit/Month	2,299,600	
	Two Bedroom Units	51	Units @	$4,029 /Unit/Month	2,465,900	
	Three Bedroom Units	11	Units @	$6,468 /Unit/Month	853,700	
	B. Very Low Income Units [2]					
	Studio Units	1	Unit @	$975 /Unit/Month	11,700	
	One Bedroom Units	7	Units @	$1,114 /Unit/Month	93,600	
	Two Bedroom Units	6	Units @	$1,233 /Unit/Month	88,800	
	Three Bedroom Units	1	Unit @	$1,352 /Unit/Month	16,200	
	C. Laundry & Miscellaneous Income	149	Units @	$50 /Unit/Month	89,400	
	Total Gross Income					$6,200,000
	Vacancy & Collection Allowance	5%	Gross Income			(310,000)
II.	**Effective Gross Income**					$5,890,000
III.	**Operating Expenses**					
	General Operating Expenses	149	Units @	$4,500 /Unit	$670,500	
	Property Taxes	149	Units @	$6,900 /Unit	1,020,800	
	Replacement Reserve Deposits	149	Units @	$150 /Unit	22,400	
	Total Operating Expenses	149	Units @	$11,501 /Unit		($1,713,700)
IV.	**Stabilized Net Operating Income**					$4,176,300

[1] Based in part on the rent survey presented in APPENDIX A - EXHIBIT II. The weighted average monthly rent equates to $3.66 per square foot of leasable area.

[2] Under Section 50053, the very low income rent calculations are based on household income at 50% of AMI, with 30% of income allotted to housing related expenses. See APPENDIX B.

APPENDIX C - EXHIBIT III - TABLE 3

ESTIMATED DEVELOPER RETURN
10% VERY LOW INCOME ALTERNATIVE
SUPER PAWN SITE: 2.37 FAR / 80 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Project Value**			
	Stabilized Net Operating Income	See APPENDIX C - EXHIBIT III - TABLE 2	$4,176,300	
	Capitalization Rate		4.5%	
	Total Project Value			$92,807,000
II.	**Project Costs**			
	Total Development Cost	See APPENDIX C - EXHIBIT III - TABLE 1	$72,082,000	
	Costs of Sale	2.0% of Total Project Value	1,856,000	
	Total Project Costs			($73,938,000)
III.	**Developer Profit**	20.3% of Total Project Value		$18,869,000

APPENDIX D

PRO FORMA ANALYSES
CHURCH IN HB SITE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX D - EXHIBIT I

PRO FORMA ANALYSIS
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX D - EXHIBIT I - TABLE 1

ESTIMATED DEVELOPMENT COSTS
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Property Acquisition Costs**	[1]	84,071	Sf of Land	$150	/Sf of Land		$12,611,000
II.	**Direct Costs**	[2]						
	On-Site Improvements/Landscaping		84,071	Sf of Land	$20	/Sf of Land	$1,681,000	
	Parking	[3]						
	At-Grade Spaces		58	Spaces	$5,000	/Space	290,000	
	Above-Ground Spaces		184	Spaces	$25,000	/Space	4,600,000	
	1st Level Subterranean		53	Spaces	$35,000	/Space	1,855,000	
	Building Costs		162,276	Sf of GBA	$155	/Sf of GBA	25,153,000	
	Contractor/DC Contingency Allow	[4]	20%	Other Direct Costs			6,716,000	
	Total Direct Costs		162,276	Sf of GBA	$248	/Sf of GBA		$40,295,000
III.	**Indirect Costs**							
	Architecture, Engineering & Consulting		6%	Direct Costs			$2,418,000	
	Public Permits & Fees	[5]	116	Units	$31,500	/Unit	3,654,000	
	Inclusionary Housing In-Lieu Fee		126,484	Sf of GLA	$35.80	/Sf of GLA	4,528,000	
	Taxes, Insurance, Legal & Accounting		2%	Direct Costs			806,000	
	Marketing		116	Units	$1,000	/Unit	116,000	
	Developer Fee		5%	Direct Costs			2,015,000	
	Soft Cost Contingency Allowance		5%	Other Indirect Costs			677,000	
	Total Indirect Costs							$14,214,000
IV.	**Financing Costs**							
	Interest During Construction							
	Land	[6]	$12,611,000	Cost	5.0%	Avg Rate	$788,000	
	Construction	[7]	$58,113,000	Cost	5.0%	Avg Rate	2,179,000	
	Loan Origination Fees		60%	Loan to Cost	1.5	Points	637,000	
	Total Financing Costs							$3,604,000
V.	**Total Construction Cost**		116	Units	$501,000	/Unit		$58,113,000
	Total Development Cost		116	Units	$610,000	/Unit		$70,724,000

[1] Based in part on the sales survey provided in APPENDIX A - EXHIBIT I.
[2] Based on the estimated costs for similar uses.
[3] The parking is based on 2.0 space for Studio Units; 2.0 space for One Bedroom Units; 2.0 spaces for Two Bedroom Units; 2.5 spaces for Three Bedroom Units; and 0.50 space per unit for Guest Parking.
[4] Includes contractors' fees, general requirements, builder's risk insurance and a direct cost contingency allowance.
[5] Based on fee calculation methodologies provided by the City staff.
[6] Based on a 15 month construction period following receipt of entitlements, and a 100% average outstanding loan balance.
[7] Based on a 15 month construction period following receipt of entitlements, and a 60% average outstanding loan balance.

APPENDIX D - EXHIBIT I - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Gross Income**						
	A. Market Rate Units [1]						
	Studio Units	8	Units @	$2,724	/Unit/Month	$261,500	
	One Bedroom Units	55	Units @	$3,422	/Unit/Month	2,258,300	
	Two Bedroom Units	44	Units @	$4,400	/Unit/Month	2,323,100	
	Three Bedroom Units	9	Units @	$6,551	/Unit/Month	707,500	
	B. Laundry & Miscellaneous Income	116	Units @	$50	/Unit/Month	69,600	
	Total Gross Income						$5,620,000
	Vacancy & Collection Allowance	5%	Gross Income				(281,000)
II.	**Effective Gross Income**						$5,339,000
III.	**Operating Expenses**						
	General Operating Expenses	116	Units @	$4,500	/Unit	$522,000	
	Property Taxes	116	Units @	$8,100	/Unit	942,800	
	Replacement Reserve Deposits	116	Units @	$150	/Unit	17,400	
	Total Operating Expenses						($1,482,200)
IV.	**Stabilized Net Operating Income**						$3,856,800

[1] Based in part on the rent survey presented in APPENDIX A - EXHIBIT II. The weighted average monthly rent equates to $3.65 per square foot of leasable area.

APPENDIX D - EXHIBIT I - TABLE 3

ESTIMATED DEVELOPER RETURN
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Project Value**			
	Stabilized Net Operating Income	See APPENDIX D - EXHIBIT I - TABLE 2	$3,856,800	
	Capitalization Rate		4.5%	
	Total Project Value			$85,707,000
II.	**Project Costs**			
	Total Development Cost	See APPENDIX D - EXHIBIT I - TABLE 1	$70,724,000	
	Costs of Sale	2.0% of Total Project Value	1,714,000	
	Total Project Costs			($72,438,000)
III.	**Developer Profit**	15.5% of Total Project Value		$13,269,000

APPENDIX D - EXHIBIT II

PRO FORMA ANALYSIS
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX D - EXHIBIT II - TABLE 1

ESTIMATED DEVELOPMENT COSTS
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Property Acquisition Costs**	[1]	84,071	Sf of Land	$150	/Sf of Land		$12,611,000
II.	**Direct Costs**	[2]						
	On-Site Improvements/Landscaping		84,071	Sf of Land	$20	/Sf of Land	$1,681,000	
	Parking	[3]						
	At-Grade Spaces		0	Spaces	$5,000	/Space	0	
	Above-Ground Spaces		143	Spaces	$25,000	/Space	3,575,000	
	1st Level Subterranean		0	Spaces	$35,000	/Space	0	
	Building Costs		162,276	Sf of GBA	$155	/Sf of GBA	25,153,000	
	Contractor/DC Contingency Allow	[4]	20%	Other Direct Costs			6,082,000	
	Total Direct Costs		162,276	Sf of GBA	$225	/Sf of GBA		$36,491,000
III.	**Indirect Costs**							
	Architecture, Engineering & Consulting		6%	Direct Costs			$2,189,000	
	Public Permits & Fees	[5]	116	Units	$28,600	/Unit	3,318,000	
	Taxes, Insurance, Legal & Accounting		2%	Direct Costs			730,000	
	Marketing		116	Units	$1,000	/Unit	116,000	
	Developer Fee		5%	Direct Costs			1,825,000	
	Soft Cost Contingency Allowance		5%	Other Indirect Costs			409,000	
	Total Indirect Costs							$8,587,000
IV.	**Financing Costs**							
	Interest During Construction							
	Land	[6]	$12,611,000	Cost	5.0%	Avg Rate	$788,000	
	Construction	[7]	$48,222,000	Cost	5.0%	Avg Rate	1,808,000	
	Loan Origination Fees		60%	Loan to Cost	1.5	Points	547,000	
	Total Financing Costs							$3,143,000
V.	**Total Construction Cost**		116	Units	$416,000	/Unit		$48,221,000
	Total Development Cost		116	Units	$524,000	/Unit		$60,832,000

[1] Based in part on the sales survey provided in APPENDIX A - EXHIBIT I.
[2] Based on the estimated costs for similar uses.
[3] The parking is based on 2.0 space for Studio Units; 2.0 space for One Bedroom Units; 2.0 spaces for Two Bedroom Units; 2.5 spaces for Three Bedroom Units; and 0.50 space per unit for Guest Parking.
[4] Includes contractors' fees, general requirements, builder's risk insurance and a direct cost contingency allowance.
[5] Based on fee calculation methodologies provided by the City staff.
[6] Based on a 15 month construction period following receipt of entitlements, and a 100% average outstanding loan balance.
[7] Based on a 15 month construction period following receipt of entitlements, and a 60% average outstanding loan balance.

APPENDIX D - EXHIBIT II - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Gross Income**					
	A. Market Rate Units [1]					
	Studio Units	7	Units @	$2,724 /Unit/Month	$228,800	
	One Bedroom Units	44	Units @	$3,422 /Unit/Month	1,806,600	
	Two Bedroom Units	35	Units @	$4,400 /Unit/Month	1,847,900	
	Three Bedroom Units	7	Units @	$6,551 /Unit/Month	550,300	
	B. Low Income Units [2]					
	Studio Units	1	Unit @	$1,183 /Unit/Month	14,200	
	One Bedroom Units	11	Units @	$1,353 /Unit/Month	178,500	
	Two Bedroom Units	9	Units @	$1,501 /Unit/Month	162,100	
	Three Bedroom Units	2	Units @	$1,650 /Unit/Month	39,600	
	C. Laundry & Miscellaneous Income	116	Units @	$50 /Unit/Month	69,600	
	Total Gross Income					$4,897,600
	Vacancy & Collection Allowance	5%	Gross Income			(244,900)
II.	**Effective Gross Income**					$4,652,700
III.	**Operating Expenses**					
	General Operating Expenses	116	Units @	$4,500 /Unit	$522,000	
	Property Taxes	116	Units @	$7,000 /Unit	808,000	
	Replacement Reserve Deposits	116	Units @	$150 /Unit	17,400	
	Total Operating Expenses					($1,347,400)
IV.	**Stabilized Net Operating Income**					$3,305,300

[1] Based in part on the rent survey presented in APPENDIX A - EXHIBIT II. The weighted average monthly rent equates to $3.65 per square foot of leasable area.

[2] Under Section 50053, the low income rent calculations are based on household income at 60% of AMI, with 30% of income allotted to housing related expenses. See APPENDIX B.

APPENDIX D - EXHIBIT II - TABLE 3

ESTIMATED DEVELOPER RETURN
20% LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Project Value**			
	Stabilized Net Operating Income	See APPENDIX D - EXHIBIT II - TABLE 2	$3,305,300	
	Capitalization Rate		4.5%	
	Total Project Value			$73,451,000
II.	**Project Costs**			
	Total Development Cost	See APPENDIX D - EXHIBIT II - TABLE 1	$60,832,000	
	Costs of Sale	2.0% of Total Project Value	1,469,000	
	Total Project Costs			($62,301,000)
III.	**Developer Profit**	15.2% of Total Project Value		$11,150,000

APPENDIX D - EXHIBIT III

PRO FORMA ANALYSIS
10% VERY LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

APPENDIX D - EXHIBIT III - TABLE 1

ESTIMATED DEVELOPMENT COSTS
10% VERY LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Property Acquisition Costs**	[1]	84,071	Sf of Land	$150	/Sf of Land		$12,611,000
II.	**Direct Costs**	[2]						
	On-Site Improvements/Landscaping		84,071	Sf of Land	$20	/Sf of Land	$1,681,000	
	Parking	[3]						
	At-Grade Spaces		0	Spaces	$5,000	/Space	0	
	Above-Ground Spaces		143	Spaces	$25,000	/Space	3,575,000	
	1st Level Subterranean		0	Spaces	$35,000	/Space	0	
	Building Costs		162,276	Sf of GBA	$155	/Sf of GBA	25,153,000	
	Contractor/DC Contingency Allow	[4]	20%	Other Direct Costs			6,082,000	
	Total Direct Costs		162,276	Sf of GBA	$225	/Sf of GBA		$36,491,000
III.	**Indirect Costs**							
	Architecture, Engineering & Consulting		6%	Direct Costs			$2,189,000	
	Public Permits & Fees	[5]	116	Units	$28,600	/Unit	3,318,000	
	Taxes, Insurance, Legal & Accounting		2%	Direct Costs			730,000	
	Marketing		116	Units	$1,000	/Unit	116,000	
	Developer Fee		5%	Direct Costs			1,825,000	
	Soft Cost Contingency Allowance		5%	Other Indirect Costs			409,000	
	Total Indirect Costs							$8,587,000
IV.	**Financing Costs**							
	Interest During Construction							
	Land	[6]	$12,611,000	Cost	5.0%	Avg Rate	$788,000	
	Construction	[7]	$48,221,000	Cost	5.0%	Avg Rate	1,808,000	
	Loan Origination Fees		60%	Loan to Cost	1.5	Points	547,000	
	Total Financing Costs							$3,143,000
V.	**Total Construction Cost**		116	Units	$416,000	/Unit		$48,221,000
	Total Development Cost		116	Units	$524,000	/Unit		$60,832,000

[1] Based in part on the sales survey provided in APPENDIX A - EXHIBIT I.
[2] Based on the estimated costs for similar uses.
[3] The parking is based on 2.0 space for Studio Units; 2.0 space for One Bedroom Units; 2.0 spaces for Two Bedroom Units; 2.5 spaces for Three Bedroom Units; and 0.50 space per unit for Guest Parking.
[4] Includes contractors' fees, general requirements, builder's risk insurance and a direct cost contingency allowance.
[5] Based on fee calculation methodologies provided by the City staff.
[6] Based on a 15 month construction period following receipt of entitlements, and a 100% average outstanding loan balance.
[7] Based on a 15 month construction period following receipt of entitlements, and a 60% average outstanding loan balance.

APPENDIX D - EXHIBIT III - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
10% VERY LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Gross Income**						
	A. Market Rate Units	[1]					
	Studio Units		7	Units @	$2,724	/Unit/Month	$228,800
	One Bedroom Units		49	Units @	$3,422	/Unit/Month	2,011,900
	Two Bedroom Units		40	Units @	$4,400	/Unit/Month	2,111,900
	Three Bedroom Units		8	Units @	$6,551	/Unit/Month	628,900
	B. Very Low Income Units	[2]					
	Studio Units		1	Unit @	$975	/Unit/Month	11,700
	One Bedroom Units		6	Units @	$1,114	/Unit/Month	80,200
	Two Bedroom Units		4	Units @	$1,233	/Unit/Month	59,200
	Three Bedroom Units		1	Unit @	$1,352	/Unit/Month	16,200
	C. Laundry & Miscellaneous Income		116	Units @	$50	/Unit/Month	69,600
	Total Gross Income						$5,218,400
	Vacancy & Collection Allowance		5%	Gross Income			(260,900)
II.	**Effective Gross Income**						$4,957,500
III.	**Operating Expenses**						
	General Operating Expenses		116	Units @	$4,500	/Unit	$522,000
	Property Taxes		116	Units @	$7,500	/Unit	867,900
	Replacement Reserve Deposits		116	Units @	$150	/Unit	17,400
	Total Operating Expenses		116	Units @	$12,132	/Unit	($1,407,300)
IV.	**Stabilized Net Operating Income**						$3,550,200

[1] Based in part on the rent survey presented in APPENDIX A - EXHIBIT II. The weighted average monthly rent equates to $3.65 per square foot of leasable area.

[2] Under Section 50053, the very low income rent calculations are based on household income at 50% of AMI, with 30% of income allotted to housing related expenses. See APPENDIX B.

APPENDIX D - EXHIBIT III - TABLE 3

ESTIMATED DEVELOPER RETURN
10% VERY LOW INCOME ALTERNATIVE
CHURCH IN HB SITE: 1.93 FAR / 60 UNITS/ACRE
PROTOTYPE DEVELOPMENT PROJECTS
SP-14 - 20% OVERLAY ZONING
HUNTINGTON BEACH, CALIFORNIA

I.	**Project Value**			
	Stabilized Net Operating Income	See APPENDIX D - EXHIBIT III - TABLE 2	$3,550,200	
	Capitalization Rate		4.5%	
	Total Project Value			$78,893,000
II.	**Project Costs**			
	Total Development Cost	See APPENDIX D - EXHIBIT III - TABLE 1	$60,832,000	
	Costs of Sale	2.0% of Total Project Value	1,578,000	
	Total Project Costs			($62,410,000)
III.	**Developer Profit**	20.9% of Total Project Value		$16,483,000