City of Petoskey

Agenda

CITY COUNCIL AND PLANNING COMMISSION

January 30, 2023

Special Joint Meeting

1. Call to Order - 6:00 P.M. – City Council Chambers
2. Recitation - Pledge of Allegiance to the Flag of the United States of America
3. Roll Call
4. New Business
   (a) Ethics Training – Matt Cross, Plunkett & Cooney
   (b) Darling Parking Lot - Walker Parking Study
5. Public Comment
6. Adjournment

Alternatively, join the meeting via the Zoom platform

https://us02web.zoom.us/j/87190699801

Meeting ID: 871 9069 9801

+1 646 558 8656 US (New York)

Persons with disabilities who require assistance in order to participate in the electronic public meeting should contact the City Clerk at the earliest opportunity by emailing sbek@petoskey.us or by calling 231-347-2500 to request assistance.

Persons interested in addressing the City Council during the meeting under public comment period can press the “raise hand” button or send a chat message in Zoom or by phone press *9.

Public meetings are being monitored and violations of statutes will be prosecuted.

Prepared for Downtown Petoskey

City of Petoskey Darling Lot Platform Parking Structure

August 19, 2022

WALKER CONSULTANTS

WALKER CONSULTANTS

151 South Rose Street, Suite 800
Kalamazoo, MI 49007

269.381.6080
walkerconsultants.com

August 19, 2022

Ms. Becky Goodman, Downtown Director
216 Park Avenue
Petoskey, MI 49770

Re: *City of Petoskey Darling Lot Platform Parking Structure Report*

Becky:

The enclosed report will provide you, Downtown Management Board members and City officials with detailed information regarding constructing a platform parking structure on the downtown Darling Parking Lot site. Included in the report is a parking layout for the basement and supported levels of the structure. An isometric and cross section of the roof covering the structure is also included. These elements, along with the report's detailed opinion of the probable costs for constructing the parking structure and roof, will provide you with the basic information and understanding needed to make informed and effective decisions regarding adding structured parking to the Darling Lot site.

At your request, we have also provided a source for information about various parking/mobility-related topics. In this report's appendix are three articles authored by Walker subject matter experts. Also included in the appendix is a link to Walker Consultant's website where a wide range of parking/mobility articles and presentations are located. New articles and presentations are continually added to this source.

Walker Consultants greatly values the long work history we have with you, the DMB and the City. We sincerely appreciate being able to continue our work with Petoskey on this project. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,
WALKER CONSULTANTS

Rick G. Klein, PE
Vice President

R. Jake Jeppesen
Principal

Contents

01 Conceptual Design

Section I – Conceptual Design

INTRODUCTION

City officials and the Petoskey Downtown Management Board (DMB), wishing to add more spaces to downtown Petoskey's parking supply, retained Walker Consultants to perform a conceptual design feasibility analysis for a platform parking structure located on the Darling parking lot. This surface parking lot is a prime parking location in downtown and currently provides 127 parking spaces. A key design objective for the proposed platform parking structure is to add as many new parking spaces as possible to the Darling Lot site.

This report includes the conceptual design of a platform parking structure, including design elements desired by the DMB and City officials. An opinion of the probable costs to construct the platform structure and desired elements is also included. Walker's feasibility study will provide the DMB and City officials with a clear understanding of the how the platform can deliver additional parking, its impact on the site and immediate surroundings, and the probable costs for building the platform structure. It will enable you to make informed and cost-effective decisions regarding constructing a parking platform structure on the Darling Lot site.

SITE

The site is located in downtown Petoskey. It is bordered on the west by Petoskey Street; the alley to the north, which is located behind the businesses along East Mitchel Street; the abandoned railroad tracks to the east; and Michigan Street to the south. The site is currently occupied by the City's Darling Parking Lot and provides 127 public surface parking spaces. The site generally slopes downward toward Little Traverse Bay with a 10' elevation difference from the high point of the site at its southeast corner to the low point at the northwest corner.

CONCEPTUAL DESIGN OBJECTIVES

Walker had initial discussions in January 2022 with the DMB Executive Director about platform parking structure development options for the Darling Lot site. These discussions were general in nature and centered on identifying the overall objective of the structure, which was adding more downtown parking spaces, and key design elements initially desired by the DMB. In addition to adding more spaces to downtown parking the initial design elements included:

- **Covered Parking** - This included consideration of a roof fully covering each parking bay, or partial roofs covering just the parking spaces in each bay. In addition to traditional roof options, the DMB wished to also understand the costs associated with installing and maintaining a "sustainable green roof" for the structure.

- **Structure Height** - The conceptual design of the platform structure should strive to minimize the overall height of the structure wherever possible.

- **Structure Façade** - Because the platform structure will be located in a prime area of downtown, an exterior look which complements its surroundings is desired. An expensive, high-end façade and roof treatment is not desired, nor is a very plain, concrete-only “look”. The DMB anticipates that a basic facade treatment coupled with landscaping opportunities will provide the desired effect.

- **Sustainable Design** -This included considering the option of installing a solar panel array atop the platform structure to harvest energy and act as a “roof” for parked vehicles. Other sustainable features were considered including efficient lighting, specialized fans for ventilation (if required) and energy harvesting options. Another consideration was installing a sustainable "green" roof.

- **Future Development/Repurposing** - The DMB wished to better understand and evaluate potential opportunities to design the platform structure so it can be used for a different purpose or purposes in the future.

CONCEPTUAL DESIGN

Background

After establishing the initial key design objectives for the parking structure, Walker initially identified several conceptual layouts which could incorporate the desired design objectives for the parking structure. Through its internal evaluation process, Walker selected two parking design concepts that efficiently addressed the project objectives. One concept provided angled parking with one-way vehicular travel. The other concept provided 90 degree parking with two-way vehicular traffic.

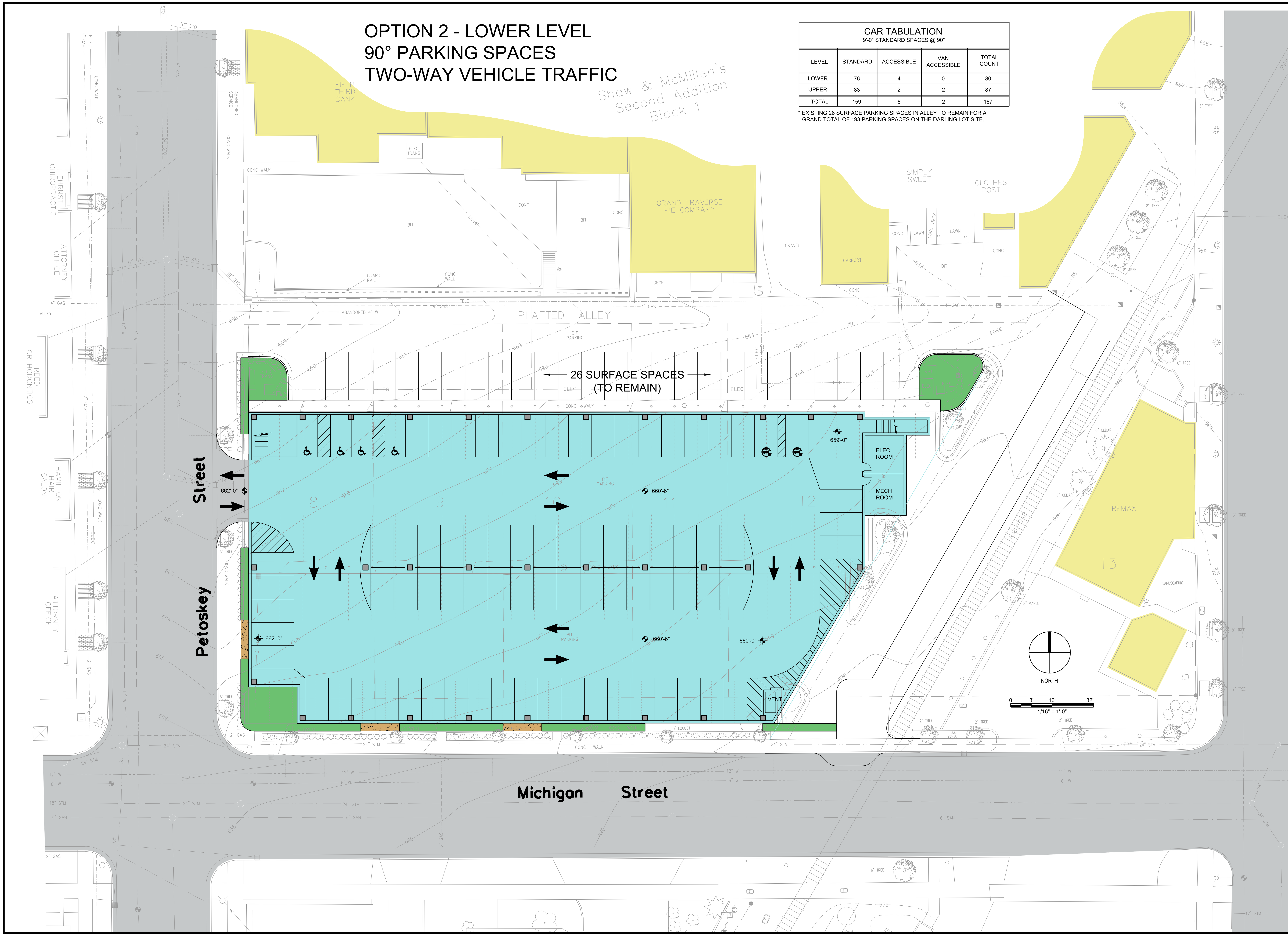
These initial concepts were presented and discussed at a joint meeting at City Hall with the DMB and City Council. The two conceptual parking layouts were presented along with information about each desired design objective. Conceptual cost ranges were presented for each design objective. At the conclusion of the meeting, it was determined that City Council and the DMB would review and further discuss the concepts and desired objectives. After that deliberation, Walker was provided with the decisions for the desired parking layout and design objectives. The key decisions included selecting the 90 degree, two-way parking layout, covered parking over the entire upper level, mid-level architectural facade treatment for the structure, and minimizing the height of the parking structure as much as possible. The City Council and DMB also decided on the design elements not desired. This included eliminating three of the identified design objectives: sustainable “green roof”, solar panel array, and repurposing design.

Conceptual Design – Platform Parking Structure

The platform parking structure concept is shown on the following documents:

- Parking Layout Sheet A-201 (Lower Level)
- Parking Layout Sheet A-202 (Upper Level)
- Parking Rendering Sheet A-203 (Parking Structure Exterior Appearance from Northwest)
- Parking Rendering Sheet A-204 (Parking Structure Exterior Appearance from Southwest)
- Building Section Sheet A-205 (Parking Structure Roof Isometric and Building Cross Section)

OPTION 2 - LOWER LEVEL
90° PARKING SPACES
TWO-WAY VEHICLE TRAFFIC



CAR TABULATION 9'-0" STANDARD SPACES @ 90°				
LEVEL	STANDARD	ACCESSIBLE	VAN ACCESSIBLE	TOTAL COUNT
LOWER	76	4	0	80
UPPER	83	2	2	87
TOTAL	159	6	2	167

* EXISTING 26 SURFACE PARKING SPACES IN ALLEY TO REMAIN FOR A GRAND TOTAL OF 193 PARKING SPACES ON THE DARLING LOT SITE.

WALKER PARKING CONSULTANTS
525 Avis Drive
Suite 1
Ann Arbor, MI 48108
734.663.1070 Ph
734.663.1717 Fax
www.walkerparking.com

Walker Parking Consultants/Engineers, Inc.
Firm Certificate of Authority Number: XXXXXX

Printed Name & Discipline
EOR / AOR License Number: xxxxx

DO NOT USE FOR CONSTRUCTION

DOWNTOWN PETOSKEY
PARKING STRUCTURE CONCEPT
PETOSKEY MICHIGAN

MARK	DATE	DESCRIPTION

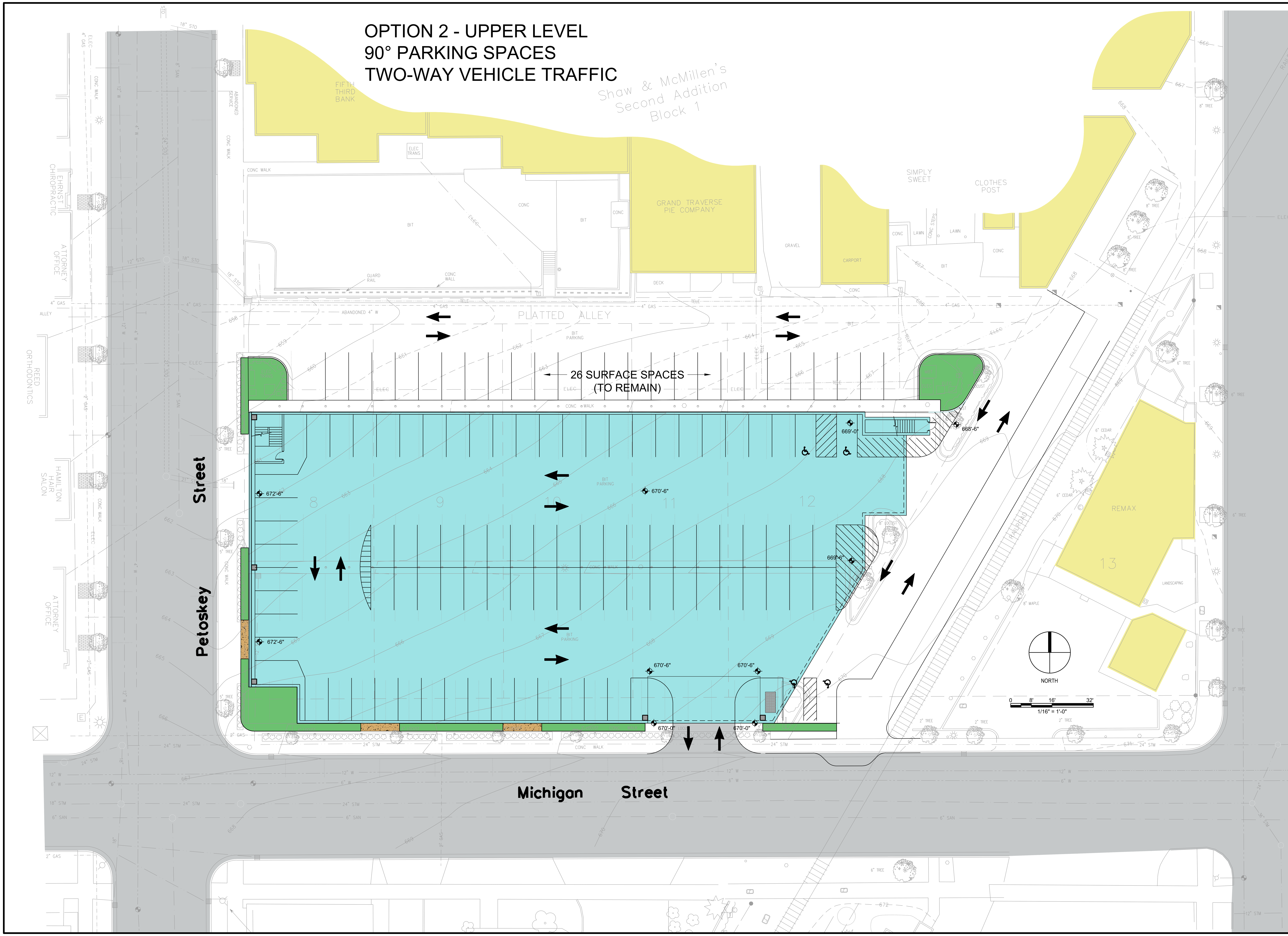
ISSUE:

PROJECT NO: 20-2320.00
DRAWN BY: KJW
CHECKED BY: RGK

SHEET TITLE:
OPTION 2 LOWER LEVEL PLAN

A-201

K:\GENERAL\ACAD\KEVIN\PETOSKYA-201.DWG 5/4/2022 8:57:44 AM WYLIE, KEVIN



WALKER PARKING CONSULTANTS
525 Avis Drive
Suite 1
Ann Arbor, MI 48108
734.663.1070 Ph
734.663.1717 Fax
www.walkerparking.com

Walker Parking Consultants/Engineers, Inc.
Firm Certificate of Authority Number: XXXXXX

Printed Name & Discipline
EOR / AOR License Number: xxxxx

DO NOT USE FOR CONSTRUCTION

DOWNTOWN PETOSKEY
PARKING STRUCTURE CONCEPT
PETOSKEY MICHIGAN

MARK	DATE	DESCRIPTION
		ISSUE:

PROJECT NO: 20-2320.00
DRAWN BY: KJW
CHECKED BY: RGK
SHEET TITLE:
OPTION 2
UPPER LEVEL
PLAN

A-202

K:\GENERAL\ACAD\KEVIN\PETOSKEY\A-202.DWG 5/4/2022 8:59:14 AM WYLIE, KEVIN

WALKER
PARKING CONSULTANTS
525 Avis Drive
Suite 1
Ann Arbor, MI 48108
734.663.1070 Ph
734.663.1717 Fax
www.walkerparking.com

Walker Parking Consultants/Engineers, Inc.
Firm Certificate of Authority Number: XXXXXX

Printed Name & Discipline
EOR / AOR License Number: xxxxx

DO NOT USE
FOR CONSTRUCTION

DOWNTOWN PETOSKEY
PARKING STRUCTURE CONCEPT

PETOSKEY MICHIGAN

MARK	DATE	DESCRIPTION

ISSUE:

PROJECT NO: 20-2320.00
DRAWN BY: KJW
CHECKED BY: RGK
SHEET TITLE:

RENDERING
VIEW FROM
NORTHWEST

A-203

K:\GENERAL\ACAD\KEVIN\PETOSKY\A-203.DWG 8/9/2022 8:34:22 AM WYLIE, KEVIN

WALKER
PARKING CONSULTANTS
525 Avis Drive
Suite 1
Ann Arbor, MI 48108
734.663.1070 Ph
734.663.1717 Fax
www.walkerparking.com

Walker Parking Consultants/Engineers, Inc.
Firm Certificate of Authority Number: XXXXXX

Printed Name & Discipline
EOR / AOR License Number: xxxxx

DO NOT USE
FOR CONSTRUCTION

DOWNTOWN PETOSKEY
PARKING STRUCTURE CONCEPT

PETOSKEY MICHIGAN

MARK	DATE	DESCRIPTION

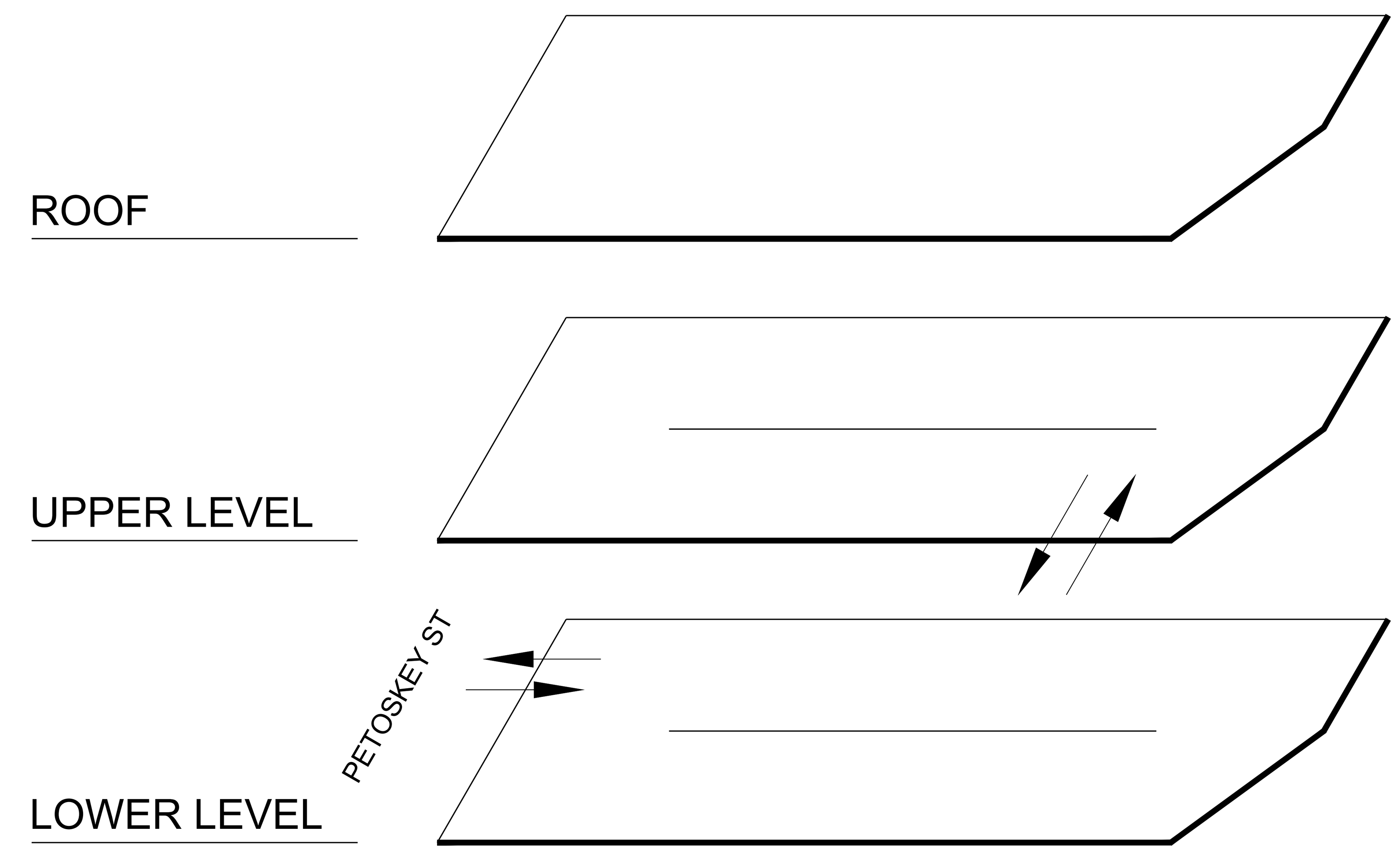
ISSUE:

PROJECT NO: 20-2320.00
DRAWN BY: KJW
CHECKED BY: RGK
SHEET TITLE:

RENDERING
VIEW FROM
SOUTHWEST

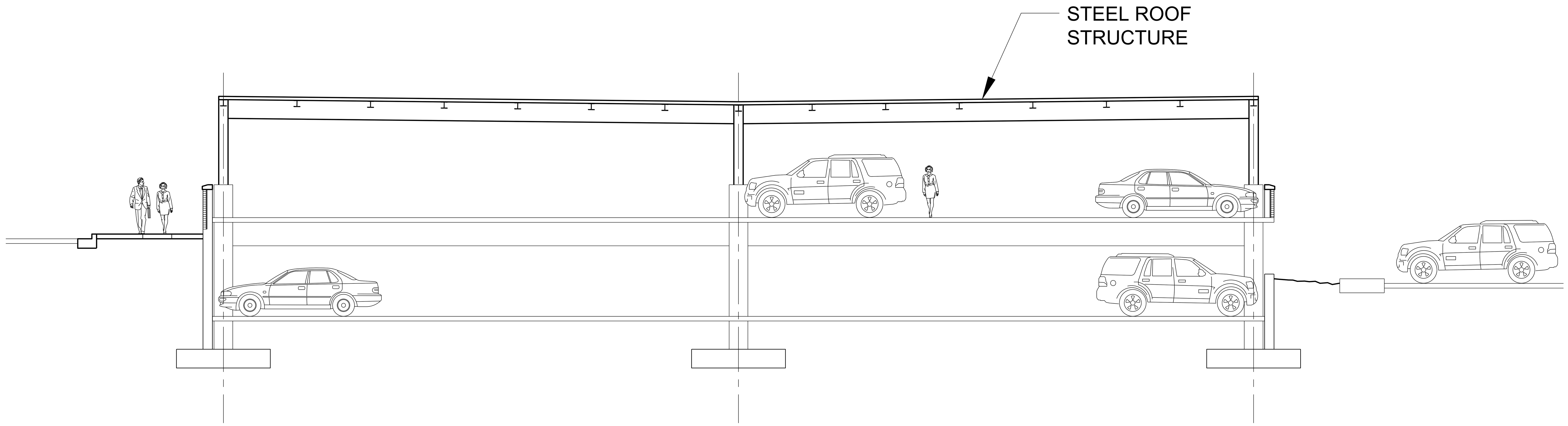
A-204

K:\GENERAL\ACAD\KEVIN\PETOSKY\A-204.DWG 8/9/2022 10:01:32 AM WYLIE, KEVIN



ISOMETRIC

NORTH



BUILDING SECTION

WALKER
PARKING CONSULTANTS
525 Avis Drive
Suite 1
Ann Arbor, MI 48108
734.663.1070 Ph
734.663.1717 Fax
www.walkerparking.com

Walker Parking Consultants/Engineers, Inc.
Firm Certificate of Authority Number: XXXXXX

Printed Name & Discipline
EOR / AOR License Number: xxxxx

DO NOT USE
FOR CONSTRUCTION

DOWNTOWN PETOSKEY
PARKING STRUCTURE CONCEPT
PETOSKEY MICHIGAN

MARK	DATE	DESCRIPTION

ISSUE:

PROJECT NO: 20-2320.00
DRAWN BY: KJW
CHECKED BY: RGK
SHEET TITLE:

OPTION 2
BUILDING
SECTION

A-205

K:\GENERAL\ACAD\KEVIN\PETOSKEY\A-205.DWG 8/9/2022 9:51:49 AM WYLIE, KEVIN

Parking

The conceptual design of the parking platform structure presented in this report was selected by the DMB and City Council. There currently are 127 parking spaces in the Darling Lot. The conceptual parking structure occupies most of the Darling Surface Lot with the exception of the Lot's northern row of parking spaces by the alley (refer to sheet A-201 Lower Level). The parking layout includes two separate levels of parking with 90 degree parking spaces. Two-way vehicular travel is provided on each parking level.

The design concept takes advantage of the sloping of the site which generally slopes downward toward Little Traverse Bay with an 10' elevation difference from the high point of the site at its southeast corner to the low point at the northwest corner. This sloping, combined with excavation of a portion of the site that will occupy the lower level of the structure, eliminates the need and expense for an elevator between the two floors of the structure. It also eliminates the need for interior ramping for vehicular access between the upper and lower levels of the structure.

Vehicular traffic enters and exits the lower level of the structure from Petoskey Street (see sheet A-201 Lower Level). Vehicular traffic enters and exits the upper level parking spaces from Michigan Street (see sheet A-202 Upper Level). Vehicular entry/exit access to the 26 remaining surface parking spaces adjacent to the alley is from Petoskey Street. The alley entry/exit can also be used to access parking spaces on the upper level of the structure (see sheet a-202 Upper Level.

This concept provides a total of 193 parking spaces. This includes 6 accessible and 2 van accessible Americans with Disabilities Act (ADA) required spaces; 2 electrical vehicle charging stations are included on the lower level. The net gain of additional parking for the site is 66 parking spaces (193 total spaces – 127 existing spaces = 66 net added spaces).

Parking Structure Height

The conceptual design of the parking structure takes advantage of the natural sloping of the site from the southeast to the northwest. Partial excavation of the ground (basement) level enables minimizing the overall height of the structure.

- At northeast corner of the site, the height of the parking structure (without the roof) is approximately 3' from the sidewalk to the top of the bumper wall located at that corner.
- At the corner of Petoskey and Michigan streets, the height of the structure from the sidewalk (without the roof) is approximately 8' to the top of the bumper wall.
- At the northwest corner of the structure, the height of the structure from the sidewalk to the top of the bumper wall (without the roof) is approximately 14'.

Utilizing a "flat roof" with a slight inverse pitch for drainage enables the structure to achieve the lowest profile height. This eliminates interior columns in the parking bays which impede drivers when they park in the spaces. Considered a “flat roof”, the roof has a slight inverse pitch in the center to assist in drainage (see Sheet A-205). This configuration was chosen in order to keep the overall height of the structure as low as possible.

When including the parking structure’s roof:

- The overall height of the parking structure at the southeast corner of the site is approximately 11’ from the sidewalk.
- The overall height of the parking structure at the corner of Petoskey and Michigan Streets is approximately 15’ from the sidewalk.
- The overall height of the structure at the northwest corner of the site is approximately 22’ from the sidewalk.

Pedestrian Pathways

Stair towers providing access to both levels of the parking structure are located at the Northwest corner of the structure on Petoskey Street and the northeast corner of the structure adjacent to the alley. Because the majority of patrons parking in the Darling lot typically walk to the main downtown area, it was decided to place both stair towers on the north side of the parking structure. With pedestrian walking access to each parking level from outside the structure, an elevator tower is not required.

Exterior Appearance

Because the platform structure will be located in a prime area of downtown, The DMB and City Council desires an exterior treatment which complements its surroundings. In discussion with the DMB and City Council it was clear that an expensive, high-end façade was not desired, nor was a very plain, concrete-only “look”. DMB anticipates that a mid-level facade treatment coupled with landscaping opportunities around the perimeter of the platform structure will provide the desired effect.

Parking Rendering Sheet A-203 and Parking Rendering Sheet A-204 were created by Walker to illustrate, in a very basic way, how a façade treatment and appropriate landscaping could combine to make the parking platform a positive addition to the downtown landscape in terms of appearance. PLEASE NOTE: these images are intended only to provide an example of mid-level façade treatment and the areas which could be landscape if the parking platform is constructed. Walker recommends the City retain qualified façade design and landscaping professionals if or when the decision to proceed with design and construction is made.

Parking Platform Roof

During the initial development of the platform parking structure, Walker presented the DMB, and City Council with various ways to provide covered parking for the structure. This included sustainable roofing options, solar panel arrays, and steel roofs. After presenting these options, the DMB and City Council decide that a steel roof covering the entire upper level of parking was desired.

The platform parking structure concept includes a steel-framed structure with metal pan decking which will cover the entire upper level of parking. The metal pan decking will support the roofing membrane system and will be sloped inward to roof drains located along the center line of the roof. The supporting steel columns will be aligned with the parking structure concrete columns below to provide unobstructed vehicle circulation and parking below. It will consist of long span construction which supports the roof with columns located at the perimeter of the structure. This eliminates interior columns in the parking bays which impede drivers when they park in the spaces. Considered a “flat roof”, the roof has a slight inverse pitch in the center to assist in drainage (see Sheet A-205). This “flat roof” configuration was chosen in order to keep the overall height of the structure as low as possible.

02 Opinion of Probable Costs

OPINION OF PROBABLE COST

Walker Consultants has established the conceptual cost for building the platform parking structure at approximately $6,248,000. This includes approximately $5,680,000 for construction and a 10% contingency fund of approximately $568,000. The conceptual per-parking-space cost is approximately $37,400. This includes the cost of the steel roof covering the upper level of parking. If the cost of the roof is removed, the cost-per-space for the structure is reduced to $29,300.

This opinion of probable construction cost is detailed in the cost opinion spreadsheet which completes this section of the report.

The total conceptual cost for constructing the parking structure and steel roof is included in the opinion. This is a conceptual-level cost opinion for major divisions of work and is based mainly on typical square foot costs from Walker's database of similar projects and current economic conditions.

Design Costs

In addition to construction costs, design fees and other soft costs must be included when considering total project cost. When evaluating the total project costs for the platform parking structure, we recommend that an additional 5% -7% of the construction cost be allocated for design fees. Also, an additional 5% - 10% should be allocated for project soft costs, such as the city's administration of the project, geotechnical study, permitting, and materials testing and inspection during construction.

Conceptual Opinion of Probable Construction Cost For:

9-Aug-22

Petoskey Street Parking Structure - OPTION 2 90-DEGREE PARKING

Petoskey, Michigan

20-2320.00

CIP P/T 236 L x 113' W	GRADE (SF)	SUPPORTED (Excludes Stairs & Rooms)	CARS	STAIRS	Utility ROOMS
PARKING LEVELS:					
GROUND TIER	26,540		80	350	300
SECOND TIER		26,540	87	350	
SubTotals	26,540	26,540	167	700	300
TOTAL SQUARE FOOTAGE (grade and supported)	53,080		-	700	300
EFFICIENCY (SF per Car)	315	(Excludes Stairs and Rooms)			

ITEM	DESCRIPTION	UNIT	TYPICAL COST/UNIT	QUANTITY	COST	$/SF
1	SITE DEMOLITION	LS	$90,000.00	1	**$90,000**	$1.66
2	TEMPORARY RETAINING WALL	LF	$1,000.00	430	**$430,000**	$7.95
3	EXCAVATION	CY	$30.00	9,000	**$270,000**	$4.99
4	BACKFILL	CY	$45.00	900	**$40,500**	$0.75
5	FOUNDATIONS	LS	$420,000.00	1	**$420,000**	$7.77
6	WALLS	CY	$650.00	270	**$175,500**	$3.25
7	SIDEWALK and ASPHALT	LS	$115,000.00	1	**$115,000**	$2.13
8	LANDSCAPE, PLANTERS AND PLANTINGS	LS	$40,000.00	1	**$40,000**	$0.74
8	SITE UTILITIES ALLOWANCE	LS	$50,000.00	1	**$50,000**	$0.92
9	CONCRETE SLAB-ON-GRADE	SF	$8.00	26,840	**$214,720**	$3.97
10	CIP P/T SLABS, BEAMS, COLUMNS	SF	$48.00	26,840	**$1,288,320**	$23.82
11	ROOF OVER UPPER LEVEL	SF	$42.00	26,540	**$1,114,680**	$20.61
12	STAIRS	SF	$85.00	700	**$59,500**	$1.10
13	ARCHITECTURAL PRECAST SPANDRELS	SF	$75.00	2,400	**$180,000**	$3.33
14	CURTAIN WALLS (stairs)	SF	$75.00	1,300	**$97,500**	$1.80
15	DOORS AND HARDWARE	SF	$2,500.00	5	**$12,500**	$0.23
16	STAIRTOWERS - Railings	LF	$250.00	80	**$20,000**	$0.37
17	SEALANTS AND CAULK	LF	$6.00	1,200	**$7,200**	$0.13
18	TRAFFIC TOPPING - rooms, CJ's and perimeter	SF	$6.00	2,700	**$16,200**	$0.30
19	FLOOR SEALER	SF	$0.50	26,540	**$13,270**	$0.25
20	FOUNDATION WATERPROOFING	SF	$7.00	4,500	**$31,500**	$0.58
21	STAIR ROOFING	SF	$25.00	400	**$10,000**	$0.18
22	STRIPING & SIGNAGE	LS	$0.25	53,080	**$13,270**	$0.25
23	PLUMBING - floor drains and washdown system	SF	$1.10	53,080	**$58,388**	$1.08
24	FIRE PROTECTION (Sprinkler system)	SF	$4.00	26,840	**$107,360**	$1.99
25	MECHANICAL VENTILATION	LS	$15,000.00	1	**$15,000**	$0.28
26	FIRE EXTINGUISHERS	EA	$350.00	10	**$3,500**	$0.06
27	ELECTRICAL	SF	$4.00	53,080	**$212,320**	$3.93
28	PARKING EQUIPMENT - MULTIMETERS	EACH	$15,000.00	2	**$30,000**	$0.55
29	VEHICLE CHARGING STATIONS	EACH	$7,500.00	2	**$15,000**	$0.28
30	CLEARANCE HEIGHT BARS	LS	$5,000.00	3	**$15,000**	$0.28
31	GENERAL CONDITIONS	LS	10%	1	**$513,623**	$9.50
		SUBTOTAL			**$5,679,851**	**$105.03**
		DESIGN CONTINGENCY	**10%**		**$567,985**	**$10.50**
		TOTAL			**$6,247,836**	**$115.53**
		Cost /Space =	**$37,412**			

Notes:

1. Costs shown in 2022 dollars.

2. Engineering fees and other soft costs are not included.

Appendix

APPENDIX

PARKING TRENDS

The Downtown Management Board continually strives to meet consumers needs and expectations for parking in downtown Petoskey. To keep abreast of these needs and expectations, The DMB requested Walker to provide information about current and future parking/technology/mobility programs and management.

One of the best sources for current and future parking/mobility information is Walker's website. It contains a library of recent articles and presentations about topics ranging from new parking design to parking operations/technology/mobility and management to the care and maintenance of existing parking facilities. This library is continually updated. New articles are posted in our news section with many of the articles discussing current and future trends in the parking/mobility industry. The link to Walker's news articles is: https://walkerconsultants.com/news/

Examples of the types of articles which can be found online at Walker's website are included below. All three are authored by Walker Consultants subject matter experts:

- ***The Future is Electrifying*** – Jon Martens, Walker Consultants
- ***A Primer on Parklets*** – Johnathan Wicks, Crissy Mancini, Walker Consultants
- ***8 Ways to Launch Your Parking Strategy*** – John Dorsett and Chrissy Mancini, Walker Consultants

8 Ways to Launch Your Parking Strategy

Curb management relies on a successful parking plan. Here's how your community can start building one.

1. CREATE A HOLISTIC, DATA-BASED PLAN.

Parking is not an island in itself; it's one element of a transportation program. On-street and off-street parking, transit, walking, biking, and curb management must be connected to plan for how many vehicles — and more importantly people — are provided access. An example of a holistic program is one that aligns transportation with access, equity, economic development, climate, and financial goals. Seattle's Flex zones, for example, prioritize these curb goals through policies and practices that support uses of the curb that go far beyond providing only on-street parking. Specific Flex zone functions include mobility, access for people, access for commerce, activation, greening, and storage. All of these functions are considered, and this space is regulated based on the city's comprehensive plan and adjacent land uses.

In Redwood City, Calif., Cleverciti's parking system will be applied to 400 on-street spaces, seven surface lots, and 11 garages, totaling more than 4,500 parking spaces and will integrate with multiple payment apps. Photo courtesy of Cleverciti.

2. EMBRACE TECHNOLOGY TO COMMUNICATE AND ACCEPT PAYMENT.

When we ask people what they want out of parking and curb management, we routinely hear two words: easy and convenient. A spectrum of technology tools can help make that happen as we transition to a dynamic curb.
In Redwood City, California, easy-to-understand wayfinding and signage were installed to educate people about whe

1

re and how to park. Now, the city is using Automated Parking Guidance System (APGS) technology to show people where parking is available to reduce circling and save time.

Many cities like Atlanta are proving that mobile payments are another way technology can make payments easier and more convenient, encourage compliance with policies and regulations, increase revenue, and reduce capital and operating costs by reducing the need for physical equipment. Mobile payment platforms can also integrate payments for multiple forms of transportation, setting the stage for future curb management. Omaha, Detroit, and Charlotte, for example, are testing the use of one mobile payment system for parking both vehicles and scooters, making for a more seamless customer experience and streamlined city process.

3. VALUE THE SPACE WITH APPROPRIATE PRICING.

Curb space has become an undervalued free-for-all, and cities are leaving billions in revenue on the table. Adequately pricing parking in high-demand areas increases capacity, manages access, and conveys the value of the curb to the community — plus helps cities prepare to price for other uses like commercial delivery and passenger pickup. Pricing should vary by demand, day, time, and location. Rates can be set to recoup program costs and even fund mobility and access improvements but should primarily be used to efficiently manage and allocate a scarce resource.

Demand-based parking pricing has been implemented in San Francisco, Seattle, and Washington, D.C. through programs backed by utilization data that is used to adjust meter rates based on occupancy targets. Pricing based on demand ensures that at least one spot per block is available to increase convenience, prevent cruising for a spot, and utilization.

Key to the success of a demand-based parking pricing program is granting policy flexibility for the transportation director to increase or decrease rates based on established metrics and data, such as an occupancy goal of between 60 to 80 percent. What does not work: when city council must approve every single parking rate amendment. It's inefficient and tends to lead to decisions based primarily on politics.

Demand-based pricing can be intensive to administer. It's important to have a clear understanding of the infrastructure and data available for implementation. After receiving a $25 million grant from the U.S. Department of Transportation, San Francisco now has a very sophisticated data infrastructure warehouse used to automatically change parking rates by block based on demand. Rates are adjusted every three months in $0.25 increments.

Such a program is hard to replicate without similar resources and in a smaller city and without the benefit of a $25 million federal grant. Seattle's more achievable, lower-budget program originally relied on annual data collection of parking occupancy across the city and an annual rate adjustment. Now, the city uses historical data to model demand with on-the-ground data collection in some areas for validation. Rates are adjusted quarterly and vary by neighborhood instead of per block. Washington, D.C., meanwhile, uses cameras and payment data sampling to update pricing.

Demand-based pricing in Washington, D.C adjusts meter rates based on utilization data. Parking meter rates on individual blocks range from $1.00 to $6.50 and vary by time period. 2019 map courtesy of District Department of Transportation.

Zonal-based pricing can be a lower-intensive pricing strategy that acknowledges the variance in curb value throughout the city by levying higher or lower pricing based on parking demand and geography. For example, Sacramento's zonal-based program prices parking by area and hour: four zones have rates ranging from $1.75 to $3.75 per hour, depending on the location and length of stay. For example, in Zone 1, the area with the most parking demand, the base hourly meter rate is $1.75 and increases to $3.00 in the second hour, and $3.75 per hour for three or more hours.

Flex pricing allows cities to productively influence consumer behaviors by lowering rates in the early morning and late afternoon and increasing them at lunch, dinner, and during events. Des Moines, Iowa charges higher rates for parking after 5 pm in its Historic Court Avenue entertainment zone to create consistent utilization and ensure supply, helping to increase retail and dining revenues for business owners and contribute to a more vibrant area.

Evenings and weekend pricing is another lucrative approach. Businesses wouldn't give away a prime asset during times of high demand, and neither should cities. Places motivated to provide higher levels of customer service charge for on-street parking during evenings and weekends, some of the busiest times in areas chock full of restaurants, shops, and entertainment. Denver even charges for overnight parking in response to requests from business.

4. PRICE TO RECOUP COSTS AND ENCOURAGE MODES OTHER THAN DRIVING.

It is good parking policy to set rates to recoup infrastructure, administrative, and enforcement costs, which will only grow as more people vie for curb space.

But parking pricing is about more than just revenue. Because people respond to both pricing and convenience, charging for parking or even limiting supply is one of the best ways to support sustainability goals by increasing the number of people who walk, bike, or use available transit.

If you do limit supply, be sure to give people other travel options. Austin, for example, permits residents and businesses to create parking management districts with a portion of the revenue (less city expenses) allocated to local improvements that increase walking, cycling, and transit use. Remember: The destination is the draw. Swapping land devoted to parking for something that creates greater public interest can be a significant win for residents, businesses, and the city.

The coordinated parking rates in Madison, Wisconsin, create higher on-street parking rates for short-term access to the curb. Lauralyn Rosenberger, left, and Mason Purtell, use a "smart" meter to pay for their downtown parking space. Photo by Amber Arnold/State Journal.

5. COORDINATE ON-STREET AND OFF-STREET RATES TO SUPPORT A "PARK ONCE" STRATEGY.

Parking spaces at the curb are premium real estate for consumers who need convenient and short-term access to a business. Employees and other long-term parkers should not monopolize that asset. Instead, these spaces should be priced higher to reflect their value (in many cities, the opposite is currently happening).

An example of a city doing it right is Madison, Wisconsin. Madison prices parking in most off-street facilities at lower rates than on-street spaces. This allows more vehicles to park during the day in the most desirable locations and encourages employees and other long-term parkers to use spaces on the periphery that may otherwise sit empty.

This policy is also a "park once" strategy, giving long-term visitors time to spend in a commercial area without concern over moving their vehicle. At the same time, there is more short-term parking capacity in the highest demand areas to make it easier to park in those spaces, increasing the total number of people able to park in front of storefronts.

6. ENSURE EQUITY.

Mobility goals should be aligned with equity goals. To that end, parking revenue can be allocated to fund more travel options for low-income residents and visitors. For example, Boulder, Colorado, funds its EcoPass, a low-cost or free transit pass, with parking revenue. Reduced rates at periphery parking can ensure that people across the income range who need to drive and park can also afford to do so. Austin's Affordable Parking Program supports service and entertainment industry workers by providing low-cost evening parking permits. This helps to create parking equity and encourage the efficient use of off-street facilities.

7. ALIGN ON-STREET PARKING PRICING WITH OFF-STREET PARKING REQUIREMENTS.

Any policy of reducing or eliminating parking minimums must be combined with targeted on-street parking pricing and management policies to eliminate street spill-over and make the policy work. When San Francisco eliminated parking minimums, it could bank on SFPark, the city's demand-based parking pricing program to keep residents and employees from migrating to prime curb spaces needed for local business customers.

The best run parking enforcement programs encourage compliance with fees that are high enough to discourage overtime parking, and even higher for violations that impede travel, like parking in bike lanes. Photo by Westhoff/E+/Getty Images.

8. ENFORCE THE RULES.

Curbs are a finite commodity and need turnover to ensure that spaces are available for customers. A city can create turnover through time limits, pricing, or both, but without enforcement, it is unlikely either will work. Enforcement is less about revenue and more about efficiently allocating a scarce resource. The best run programs have staff with a dedicated focus and a customer service approach to ensure people adhere to regulations.

Fines should be set at an amount that encourages compliance. For example, fines for parking at an expired parking meter in Annapolis ($40), Honolulu ($50), Phoenix ($84), and Trenton, New Jersey, ($70) are at a point high enough to discourage overtime parking.

We typically recommend an amount equal to at least 1.5 times the rate for the daily maximum price for overtime parking. For example, using an on-street rate of $2.00 per hour with 10-hours of operation, the parking citation fine amount would be $30. Parking fines should be set higher for violations that impede travel choice, like parking in a bike lane and increase for repeat offenders.

Before we can tackle the growing demands of the curb, we must first learn what has worked for its most prominent use: parking. Goal setting, pricing, enforcement, infrastructure, equity, technology, and customer service are all lessons that cities can take as they pave their curb management journey to plan for today's digital curbs.

Chrissy Mancini Nichols is Walker Consultant's national director of curb management and new mobility. John Dorsett, AICP, heads up Walker's parking and mobility planning and operations/technology practice, which helps clients right-size and optimize parking and mobility assets.

Never more popular, tiny park spaces are seeing more use than ever next to the curb. Here's everything you need to know to launch a parklet program in your operation, including parklet design elements.

By Jonathan Wicks, CAPP, and Chrissy Mancini Nichols – Walker Consultants

---

IF THE CURB IS THE GATEWAY TO YOUR CITY, then a parklet might be a business's front porch. What are some parklet design considerations for creating safe and comfortable parklets to visit with family and friends? Read on to find out what you might want to consider for your parklet program planning. General Considerations for Parklet Design.

Parklets generally entail the conversion of one or more parallel or angled parking spaces. The number of spaces varies according to the site, context, and desired character of the installation. A parklet can serve one or multiple businesses depending on what's desired as your city or campus allows. Safety elements at the outside corners of the parklet, such as flexible posts or bollards, alert drivers to the presence of a parklet, which may not have existed the last time they parked in this neighborhood. Wheel stops installed on either end of the parklet also serve as a buffer between parking and sitting spaces.

Streets maintain drainage so parklets must maintain stormwater drainage to curbs. A parklet flush with the curb (no more than 1/2-inch gap), level with the adjacent sidewalk, and accessible at several locations by pedestrians may be accessible without the addition of a ramp. Minimize horizontal and vertical gaps between the curb and the parklet surface to have a seamless connection with the existing curb to meet ADA requirements. Additional street design elements such as fire hydrants, transit stops, driveways, manholes, or public utility valves/covers will also need clearance.

Sight Line Elements

Avoid creating a buffer or obstacles in between the outside edge and railings where sightlines are needed for pedestrians to safely enter and exit the space. In no case shall any portion of the parklet, or any furniture placed upon it, obstruct the view of a traffic control device. Parklet designs should provide sufficient space and gaps to allow for fire department to be able to attack a fire in the adjacent buildings is critical. Check with the local fire department for requirements.

A one-foot setback from the edge of an adjacent bike lane or vehicle travel lane creates an edge to buffer the street. This edge can take the form of planters, railing, cabling, or some other appropriate buffer. The height and scale of the buffer required will vary de pending on the site's context. The parklet frame should be a freestanding structural foundation that rests on the street surface or curb. No features or structural components may be permanently attached to the street, curb, or adjacent planting strip. Parklets must be designed for ADA compliance and shall be easily removable if/when necessary.

Single-level parklets shall only be installed on streets with a grade less than 5 percent. Multi-level parklets can handle steeper grades but will need at least one accessible entryway. In general, parklets should be placed at least one parking space from corners. The presence of a bulb-out, an on-street bicycle corral, or some other physical barrier may allow placement closer than that. Parklets shall be placed no closer than 15 feet from catch basins or fire hydrants.

The parklet design must ensure visibility to passing traffic and pedestrians and not create a visual barrier. The parklet shall maintain a visual connection to the street. The parklet should have a notable, defined edge along the side of the parklet facing the roadway and adjacent parking stalls to protect parklet users from moving traffic. This can be accomplished via a continuous railing, planter, fence, or similar structure. The height of the outside wall is dependent on the context but should be between 30 inches minimum on the street side to a maximum of 42 inches. A minimum 1-foot buffer should be maintained between the parklet features and the travel lane to increase safety adjacent to moving traffic.

Parklet Design in Loading Zones or Short-term Spaces

If you are considering putting a parklet or streatery in a loading zone or other specialty designated space, it is recommended you first look for a nearby location to move that zone and then notify other businesses on the block of your desire to do so. Consideration can be given to removing the special zone with acknowledgment from the impacted block's other property managers, owners, street-level businesses, and/or residential property associations. There may be a public hearing requirement in some jurisdictions for the removal of special zones.

PARKLET AMENITIES

Seating
All parklets are encouraged to provide built-in seating, which can be integrated in a variety of creative ways. These seats can be a part of the structure, planters, or creative features within the parklet. Comfortable places to sit are important to creating welcoming and inviting public spaces. Additional movable seating is recommended as well. This seating can be removed and stored at the end of the day or locked with cables to the parklet structure.

Landscaping
Your parklet design should consider some type of landscaping. Landscape plantings help soften the space and can serve as a pleasant buffer along the street-facing edge. Landscape elements may be incorporated as planter boxes, hanging planters, green walls, raised beds, or similar features. Drought-tolerant and native plants are good choices for ease of maintenance. Edible plants and plants with fragrance, texture, and seasonal interest are also recommended.

Signs
Jurisdictions should consider requiring signage indicating the space is public. In the case of streateries, the sign must explain the hours when the streatery is for the use of the adjacent business and when it's available to the general public. These signs should be mounted to both ends of the parklet and should be visible from the adjacent sidewalk. Signs acknowledging sponsorship, logos, or designs that "brand" the parklet must comply with local codes or regulations.

Heating and Gas Power
Outdoor heaters and elements that use gas or propane fuel can help to make your parklet more comfortable throughout the year. Heating and gas-powered features are allowed in parklets/streateries but will require an additional permit.

Lighting
Lighting is allowed but may require a permit, depending on what you propose. Self-contained low-voltage systems, such as solar or battery-powered lights, are a good choice. Decorative or seasonal lighting may be allowed in street trees near the parklet.

Plan Submittal Elements
Plans should include sufficient detail as to allow for adequate review. Consider including these items on plan submittals and permit applications:

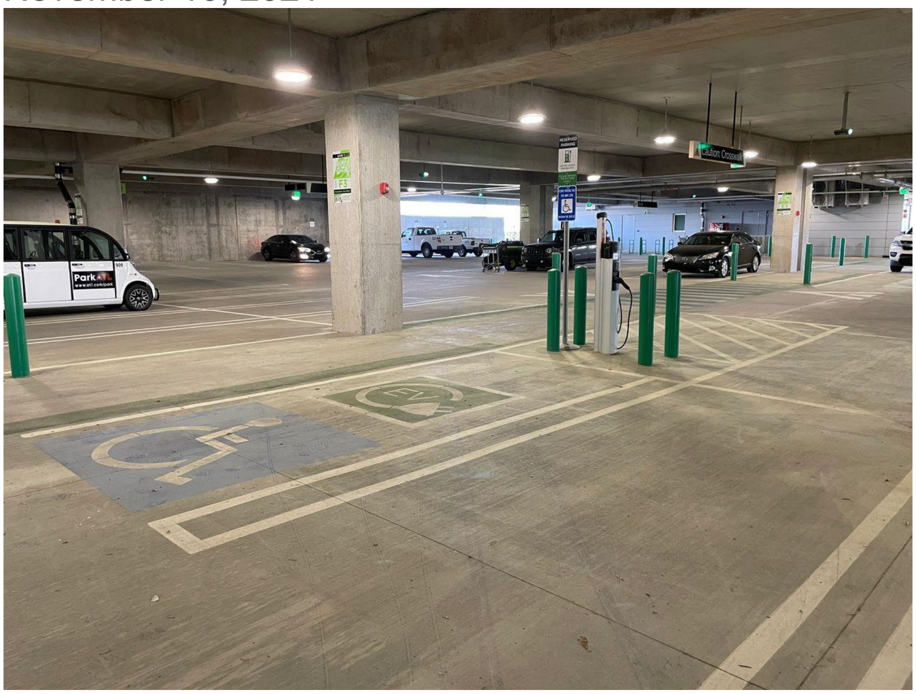
- Location on the street.
- Street and sidewalk utilities (i.e., manholes, water valves, etc.).
- Street poles and signs.
- Fire hydrants and Fire Department connections on adjacent buildings.
- Street furniture (litter cans, benches, etc.).
- Street trees, including tree surrounds.
- Sidewalk and street grade elevations.
- Parklet dimensions.

- Parklet materials and details as necessary.
- Parklet planting plan.
- Flexible delineator posts and wheel stops.
- Material, design elements, or other proposed features.

WALKER
CONSULTANTS

The Future is Electrifying

November 16, 2021



Jon Martens, AICP, CAPP
Walker Consultants

We park cars, and cars are changing! The plug-in Electric Vehicle “EV” market continues to expand, with Rivian Automotive being the latest pure EV car company to go public. Both Amazon and Ford have an investment in Rivian, with Amazon alone hoping to have 10,000 Rivian delivery vehicles on the road in 2022 and 100,000 by 2030. All the major vehicle manufacturers have or have plans to roll out EV’s with huge investments for new factories and commitments to bring new vehicle lineups. Ford recently announced an EV conversion kit for some internal combustion engine “ICE” vehicles and highlighted a classic 1978 F-100 converted into an EV.

Charging EV’s is likely to continue to be a hot topic and area of interest for EV Owners, even with improved battery life and improved vehicle range. The good news is that EV’s typically provide the driver with excellent information on their range. Mobile apps and the cars themselves help EV drivers know where to find the stations, and when the station is connected to the cloud can tell them if it is available before they arrival. Parking facilities can play a critical part in keeping this growing transition rolling by providing options for potential EV owners that don’t have access to a home charging solution or for current owners to extend their driving range.

Many communities are either starting to or have already instituted some EV infrastructure requirements for new developments. In some cases it is only to provide an EV “ready” solution so chargers can be more easily added in the future. This includes providing sufficient power and pathways to handle the load. As an extreme example, Boston, Massachusetts requires certain projects to provide 25% of the spaces with EV charging when built and the reminding 75% to be EV ready. Other municipalities have no EV requirement, and plenty fall in between nothing and Boston’s requirement.

Organizations should be proactively considering their EV strategy. Certainly, the growth in EV’s is clear and the recent passing of the Federal Infrastructure Bill provides funds to help off-set the costs of installing EV charging systems. Your strategy should start by considering your users. Are they parking all day, over multiple days, or do they tend to be short-term parkers? Are they traveling locally or coming from potentially long distances? Do they have access to home charging (estimates are that 80% of charging activity occurs at home)?

EV chargers come in three main configurations, Level 1, 2, and DC Fast Charging (sometimes referred to as Level 3 chargers). Each offers varying levels of efficiency and infrastructure requirements:
· Level 1 charger requires a basic 120 V, 15 Amp circuit and provides 2-5 miles of range per hour of charging.
· Level 2 charger requires 240 V, 40 Amp circuit (similar to the high demand appliances like your dryer or electric oven), providing 10-20 miles of range per hour of charging.
· DC charger requires 480 V, AC input, DC output.
The most common charger in use per the Department of Energy is the Level 2 charger, representing about 81% of all chargers in use today.

As the EV charging discussions develop, it is important to be ready to discuss your ability to accept the power demand loads or to at least ask for funding to investigate. This may be an opportunity to complete a review of power usage and reduce current demand through lighting upgrades (if this has not already been done) and to fully understand the ability and cost to add the required power sources.

Another factor to consider when developing your EV parking strategy, is including a portion of EV charging stations for ADA spaces as well as controlling the use of the EV space by managing the space to limit it to active charging sessions. This may include staff to move vehicles or at least monitoring the spaces more closely than non-EV spaces.

This is an electrifying time to be in the parking industry as the EV evolution occurs. Let’s be proactive and energetic in knowing as well as communicating how our assets can benefit society as this change occurs.