

Lorain Road Corridor Study City of North Olmsted | Planning Report | 10.09.23

ACKNOWLEDGMENTS

Special thanks to all who provided their input and expertise to the development of this vision.

Residents of North Olmsted City of North Olmsted -Mayor Nicole Daily Jones Department of Economic and Community Development Max Upton, MPA, Director Nahid Parsipour, Planner Steve Holowicki, Economic & Community Development Coordinator Marilyn Wilson, Executive Assistant Safety Departments Jennifer Scofield, Safety Director Steering Committee Cuyahoga County Executive Cuyahoga County Planning Northeast Ohio Areawide Coordinating Agency Greater Cleveland Regional Transit Authority Team NEO Cleveland Metroparks City of Cleveland Planning Commission City of Fairview Park West Park / Kamm's Neighborhood Development Consultant Team WSP - Traffic Engineering Nancy Lyon-Stadler, PE, PTOE Vice President, Cleveland Business Leader Nora Anderson, PE, PTOE, Ohio Traffic and ITS Lead City Architecture – Planning and Urban Design Michelle Bandy-Zalatoris, AICP, LEED AP, Director of Planning and Urban Design Julia Bohlen, Planner & Designer Alex Pesta, AIA, AICP, LEED-AP, Principal

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Lorain Road's history is that of a connector. Historically developed as an interurban (electric rail-car) transit line, it connected a string of communities along its length from North Olmsted to downtown Cleveland, providing opportunities for commerce. The nation's expansion to the suburbs in the 1940s and 50s brought outward growth to the community in terms of significant residential and commercial development. The patterns of that period represented a new focus on designing around the automobile, resulting in wide roadways, expansive parking lots, and excessive curb cuts that many communities are seeking to right-size today.

While Lorain Road remains a major arterial within the region's transportation system, there is a desire to re-balance the corridor in a way that better supports a range of mobility options and new development patterns. This study explores these options.

PROJECT DESCRIPTION

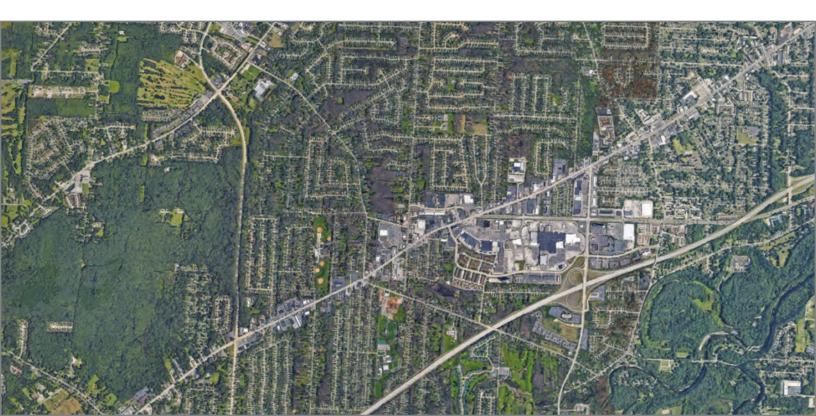
This plan for the corridor's future is a culmination of a year-long community-focused planning process that explored the opportunities, challenges, and constraints that exist here, as well as the potential for transformative change. It starts with community goals as communicated through outreach activities and identifies a series of focused near term and long term strategies to achieve these goals.

The project team included experts in planning, urban design, and transportation engineering. This ensures that proposed solutions are realistic and implementable, while incorporating aspirational approaches to position the City of North Olmsted as a visionary leader in rethinking suburban development patterns.

This work evolved from the belief that physical improvements to the Lorain Road corridor have

the ability to impact the greater region. The communities that are connected by the corridor have much more to benefit from working together to create and support a collective vision.

The City of North Olmsted recognized this and has structured the project to serve a greater role - a local example of how to reposition aging infrastructure to support a more sustainable and equitable vision.



PROJECT SCHEDULE & TIMELINE

•	2022	City of North Olmsted issues RFQ; hires City Architecture and WSP to conduct Lorain Road Corridor Study
•		City Architecture and WSP complete initial existing conditions analysis and traffic analysis
•	2023	Community Meeting #1 and launch of online engagement platform, ZenCity, to collect ongoing community input
•		Coordination between Lorain Road Corridor Study project team, North Olmsted safety departments, elementary school design / development team
•		Development of initial design concepts
		Community Meeting #2 and ongoing ZenCity engagement with community to collect feedback on design concepts
		Refinement of design concepts
		Community Meeting #3 and finalization of plan documents and deliverables
•	2024	Anticipated applications for implementation funding
•		Implementation activities

This is intended to serve as a guide book and tool for the City of North Olmsted. Solutions identified herein will need further study and design as they move toward implementation, but this planning process has identified key priorities and strategies with which to move forward. Near and long term visions are provided, as well as a variety of tools and funding sources to begin to build toward these visions.

Chapter 1: Introduction

The first chapter provides the background and foundation for this work, recognizing city leadership's desire to use this initiative to set a more proactive and sustainable path for the community.

Chapter 2: Understand

Provides a summary of the significant physical

analysis and community outreach that was undertaken to guide potential solutions.

Chapter 3: Envision

Explores a range of corridor-wide design solutions that can be applied at various scales, which together transform the way the corridor looks and functions.

Chapter 4: Transform

Identifies site-specific applications of the corridor-wide recommendations at each of the key nodes. This includes intermediate and long-term solutions.

Chapter 5: Implement

Provides tools to support next steps toward implementation, including prioritization and potential funding sources.

OPPORTUNITIES FOR CHANGE

Lorain Road is North Olmsted's main street connecting the community's numerous civic and commercial assets while linking the community to the greater region. It is well positioned.

But the Lorain Road corridor is challenged. Changing demographics, an aging population, changing retail patterns, and decades of autofocused details have created an environment that is inhospitable at best for those who cannot or who chose not to move through the community by car.

The City of North Olmsted received funding for a corridor repaving project, but considered the logic of merely repaving and perpetuating the infrastructure patterns that continue to limit the city's long-term growth. City leadership saw the opportunity to do more; to leverage the improvements associated with repaving to begin to transform the corridor for a different future.

This plan signals a shift to pursuing the possibilities that exist when experience is valued over efficiency.

In recent decades, there has been a notable shift towards more mixed-use and pedestrianfriendly suburban commercial developments. This transformation has been driven by a desire for greater walkability, reduced traffic congestion, and a sense of community. Traditional downtown areas have experienced revitalization, with a resurgence of locally-owned shops and restaurants.

The advent of e-commerce has forced suburban retail centers to adapt. Many suburban malls have been repurposed into lifestyle centers, emphasizing experiences over pure retail. These centers incorporate entertainment options, green spaces, and diverse dining choices to attract visitors.

This is a critical moment in the City's history. The changing nature of transportation and commercial development means that the City of North Olmsted is well positioned to adopt an intentional approach of building for the future. There is road work ahead.

NORK

HEAD

WHY PLACE MATTERS

Why does place matter? It matters because it shapes our experiences, identities and well-being.

Cultural Identity: Places often hold historical, cultural, and social significance. They are repositories of our collective memory and heritage, allowing people to connect with their roots, traditions, and cultural identities.

Community and Social Bonds: Places offer opportunities for people to come together, interact, and build social connections. Vibrant public spaces, such as parks, plazas, and community centers are vital for fostering a sense of community and social cohesion.

Economic Prosperity: Well-designed places can drive economic growth. Thriving business districts and attractive neighborhoods attract investment, tourism, and talent, leading to job creation and

increased property values.

Environmental Impact: How we design and use places has a significant impact on the environment. Sustainable urban planning can reduce carbon footprints, conserve natural resources, and promote green spaces, mitigating the effects of climate change.

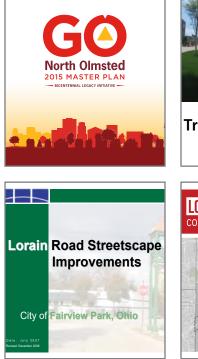
Physical and Mental Health: Access to safe, well-maintained places promotes physical activity and mental well-being. Walkable neighborhoods, parks, and recreational areas encourage healthier lifestyles and reduce stress.

Quality of Life: Places influence our overall quality of life. A well-designed, inclusive, and accessible built environment contributes to a higher standard of living, with access to essential services, education, and healthcare.

PLANNING PROCESS

An early part of the planning process was the study of both the city-wide plans and TLCI plans already conducted by the City of North Olmsted and the City of Fairview Park, which identify similar initiatives and goals. The following themes emerged:

- The acknowledgment of the community's values and history and the need for a cohesive community identity;
- The desire for the creation of a town center and strengthening of the quality of place;
- The need for safety improvements along the corridor to support pedestrian/bicycle use and accessibility;
- The introduction of sustainable infrastructure projects along the length of the corridor;
- The importance connections to local and regional assets;
- The development of standards for buildings, frontage, signage, etc.







CONNECT

REGIONAL STEERING COMMITTEE



The City of North Olmsted identified the opportunity to position this project within a more regional framework. Recognizing the role of the Lorain Road as a connector, the team engaged a Steering Committee of communities and partners along the corridor to think collectively about its future. This provides important opportunities to pursue and leverage funding on a larger scale.

In reviewing the plans of neighboring communities, the City of North Olmsted saw a significant amount of overlap between goals for the corridor.

In response, this study can serve as a catalyst to test and champion ideas that can be applied along its length. This approach has led to the formation of the Lorain Corridor Transformation Coalition.

Through this work, members have expressed a commitment to support one another in funding

pursuits and project implementation, while seeking new and creative ways to partner.

Early initiatives considered by this group include the following:

- A corridor-wide tree planting program
- The pursuit of a planning grant to study Transit Oriented Development (TOD)
- The creation of identifiable nodes of focused development and common details that bring the corridor together

ALIGNED GOALS

- 1. A comprehensive **transportation network** to support **sustainable development** and **livable communities** through the safe and efficient integration of various modes of transportation.
- 2. Improved **transit accessibility** with safe, reliable, and accessible transportation options via the RTA system and other transportation facilities.
- 3. Elimination of unnecessary curb cuts to **improve traffic flow and safety** and decrease disruption.
- 4. Creation of a **vibrant**, **walkable**, **mixed-use neighborhood center** by promoting a variety of uses and a safe environment for pedestrians.
- 5. **Enhanced economic viability** to strengthen the area as a destination and promote storefront renovation.
- Reconnection of the area to the neighboring communities to the east and west to support a connected region.
- 7. Enhancement of **community identity** through

placemaking efforts and improvements to an area's physical appearance, including public art, green space, gateway elements, and signage.

- 8. Streetscape enhancement to foster a strong pedestrian environment with benches, trash receptacles, bike racks, and landscaping.
- 9. **Community clean up events** to foster a sense of ownership, pride, and community among local residents, businesses, and organizations.
- 10. Improvement of non-motorized traffic with improvements to **pedestrian and bicycle connections** and safety through new crosswalks, frontage screening, lighting, and additional safety measures.
- 11. **Beautification** of the area to reduce visual clutter, improve landscaping and other visual enhancements.
- 12. Enhancement of **sustainable planning** through increased tree canopy and **green infrastructure**.

MISSION: To work collectively to elevate the role of the Lorain Corridor as a pioneering regional connector of people, resources, and places.



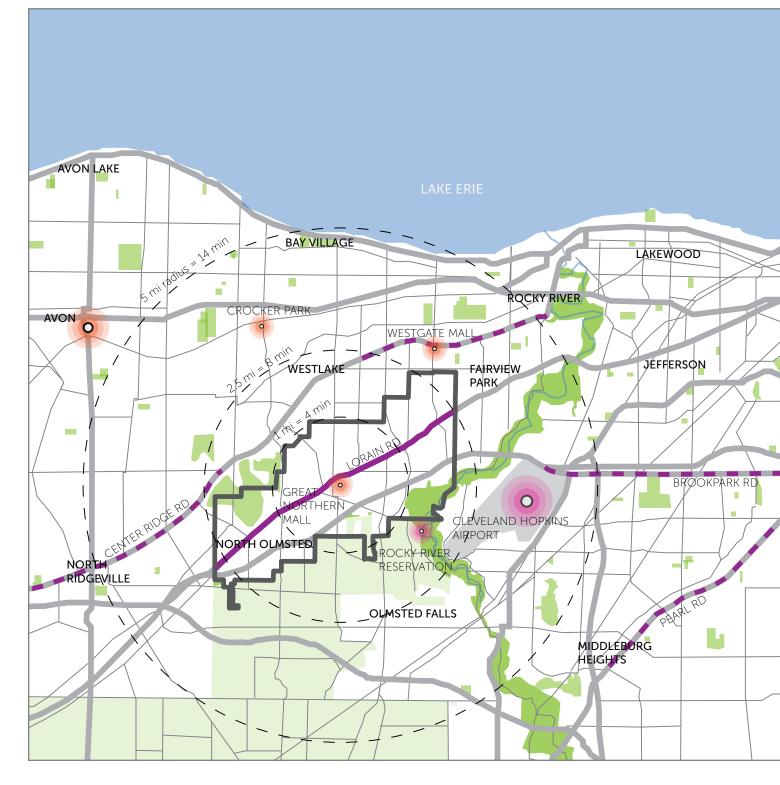


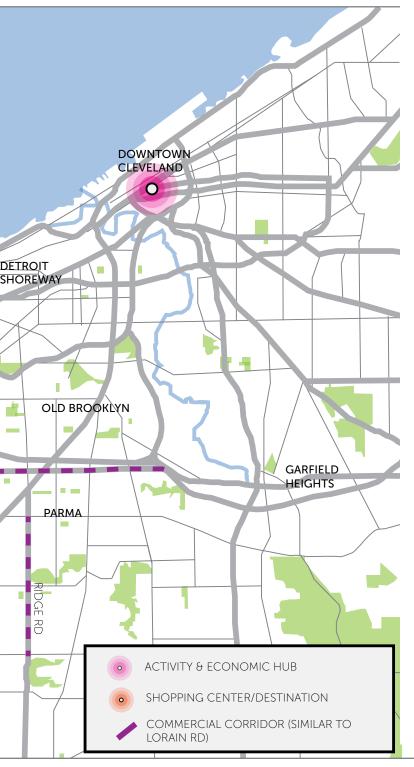


Numerous factors will shape how the Lorain Road Corridor evolves: regional development, societal trends, changes in commercial and residential markets and more. It is critical to understand the physical context and community aspirations to be proactive in providing a framework for change.

A separate document of detailed analysis is a companion to this plan, but this chapter provides an overview and highlights that foundational work.

STUDY STUDY AREA CONTEXT





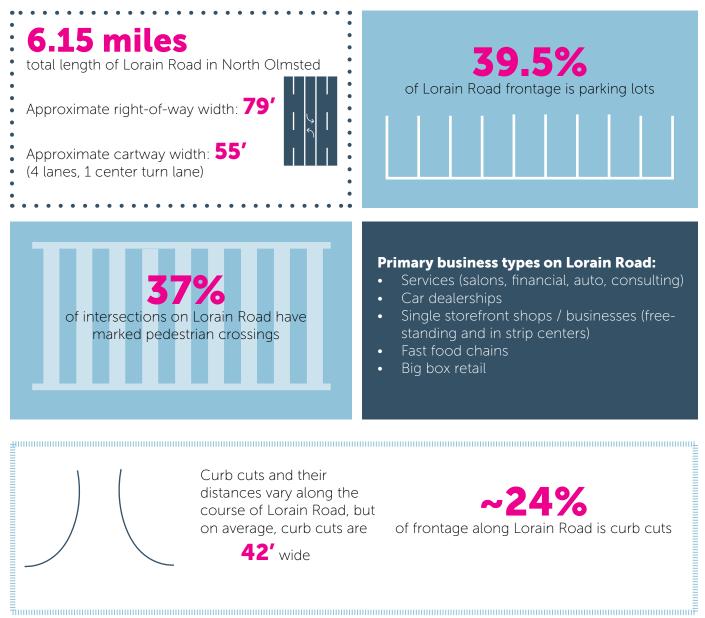
North Olmsted's 6.15 mile portion of Lorain Road is a significant piece of the Lorain Road corridor, a major arterial from the county line to the City of Cleveland. The road is surrounded by many regional assets and is well-connected to surrounding cities.

Despite its physical connections, the corridor does not currently function in a cohesive way, with each community reflecting a different range of standards and development patterns and competing for investment. A more comprehensive approach to the corridor as a shared regional asset would be beneficial to all.

The City of North Olmsted is home to the Great Northern Mall, an evolving commercial center for the region. Today, the mall sits partially vacant and the stores that remain compete with other similar commercial centers around the region. The remainder of the Lorain Road corridor is made up of a mix of strip malls, family businesses and services, car dealerships, and other commercial spaces. Only the portion of Lorain Road west of Stearns Road is residential.

UNDERSTAND: CONDITIONS

LORAIN ROAD: QUICK FACTS



The Lorain Road Corridor Study began with a high level analysis of the corridor, studying its physical conditions through both on-site analysis and technical mapping. The information highlighted above reflects some of the key details that help to build an understanding of the patterns along the corridor: development patterns, roadway configurations, and high level safety concerns.

ON AND OFF-CORRIDOR ASSETS

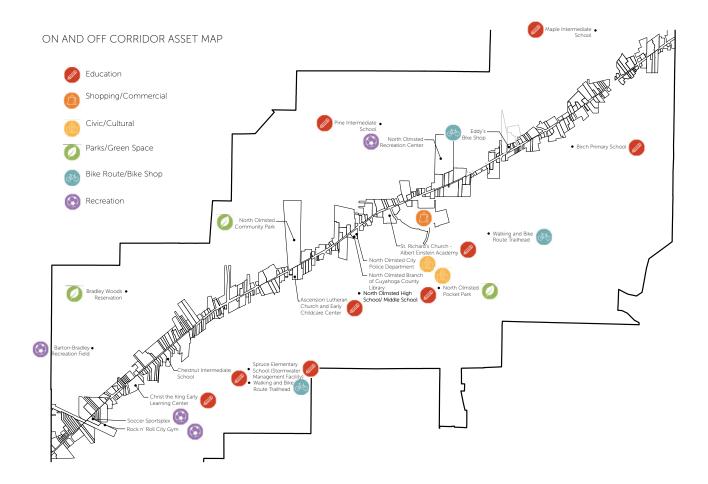
Mapping the assets of the City of North Olmsted was one of the first exercises performed as part of the study to understand several key components:

- WHERE assets are located throughout the city and along the corridor

- WHICH destinations residents and visitors to North Olmsted are visiting, including places where people may be walking and/or biking

- HOW development is distributed across the city

A study of these factors in North Olmsted revealed that development has been fairly evenly distributed across the city (i.e. it is not concentrated in one specific area), and that there is a diverse range of community assets, including strong schools, commercial and civic centers, recreation spaces, and more. A further comparison of these assets with other factors, including residential neighborhoods, crosswalks, and green spaces, reveals opportunities to improve the safety of the Lorain Road Corridor and better connect residents and visitors with the assets of the community and the surrounding cities.



TRANSIT

Public transportation is one factor in the complete streets equation. Transit provides mobility options to people of all backgrounds, reduces harmful emissions, and supports equitable economic development.

The physical safety of transit passengers while using and accessing transit facilities is crucial to the success of a transit system. Every transit passenger is also a pedestrian and travels some distance by foot to a stop. Roadways used to access transit facilities should be safe and feel safe for all roadway users.

Route 55 operates on Lorain Road between W. 210th Street and Industry Parkway (County Line), and it is the only transit service from GCRTA within the study area of this project. Route 55 is the main branch of GCRTA's second BRT service – Route 55-55B-55C Cleveland State Line, constructed in 2014, Cleveland State Line uses low floor, articulated 63 feet buses on all of its branches.

Cleveland State Line operates as a BRT service on Clifton Avenue connecting suburbs in the west to downtown Cleveland at Stephanie Tubbs Jones Transit Center. West of W. Clifton Boulevard, the route branches out onto three different corridors:

 The main branch -- Route 55 operates on Lorain Avenue to Industrial Parkway in North Olmsted. This branch is the most frequent among the three, operating every 30 minutes from 4:00 AM to 7:00 PM, then hourly until midnight. This branch deviates to serve North Olmsted Park-n-Ride on eastbound trips during AM peak hours -- buses arriving at the Park-n-Ride lot every 30 minutes from 5 AM to 8 AM; and on westbound trips during PM peak hours - buses arriving at the lot every 30 minutes from 4 PM to 7:30 PM.

- Route 55B operates primarily on Lake Avenue and Wolf Road to Cahoon Park in Bay Village during peak hours.
- Route 55C operates primarily on Detroit Road to Crocker Park in Westlake during peak hours.

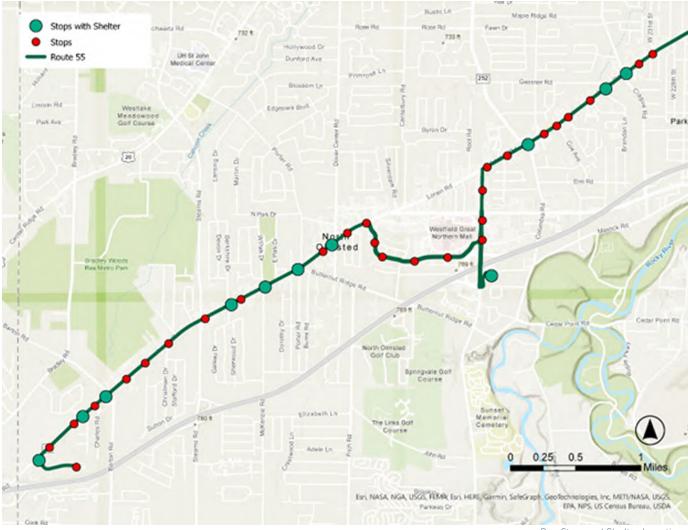
The figure below shows the alignment of the Cleveland State Line.

There are 78 stops within the study area, including 76 local stops, 1 park-n-ride stop (North Olmsted Park-n-Ride), and a terminal stop that consists of a bus pullout bay near the end of Industrial Parkway. WSP conducted a visual analysis using satellite images for these stops and noticed that out of these stops, only 11 of them, including the parkn-ride, have shelters. Most of the shelters are at eastbound stops due to how passengers use the service.

It is worth noting that at the time this report was drafted, GCRTA was conducting a study to optimize bus stop location and placement on Lorain Road, and the results have yet to be finalized.



GCRTA Cleveland State Line



RTA provided average weekday passenger boardings and alightings at stop level, estimated using data collected from automatic passenger counting (APC), Masabi (mobile ticketing solution provider), and farebox, between April 3rd 2023 and April 11th 2023. RTA estimated a total of about 250 boardings and 290 alightings within the study area. Only two stops recorded over 20 boardings per day – eastbound Great Northern Boulevard & Brookpark Road where the Great Northern Mall is located, and eastbound Lorain Road & Columbia Road where there's a relatively high concentration level of multi-family housing. GCRTA also noted that boardings and alightings data is not reliable at stops with long layovers, such as terminal stops and park-n-ride stops due to APC counting operators getting on/off as boardings/alightings.

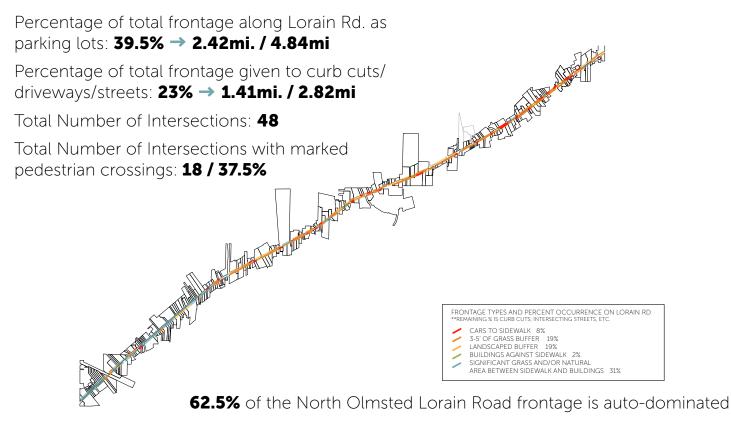
Bus Stop and Shelter Locations



Transit Shelter in North Olmsted

UNDERSTAND: CHALLENGES

CAR PRIORITIZATION



A study of the types of frontages located along the corridor revealed several interesting characteristics about Lorain Road and its safety for pedestrians and drivers, as well as the identity it communicates to those who experience its conditions. dominated nature, with the majority of its frontage having minimal protection of the sidewalk from cars. A significant percentage of the corridor was directly adjacent to parking lots, with frontages that are more favorable for safety and community character (buildings adjacent to the sidewalk and green spaces) much less common.

Its frontage types further reveal a heavily auto-

Type 1: No edge; cars to sidewalk





Type 2: 3-5' edge;

buffer

Type 3: landscaping Type 4: buildings

adjacent





Type 5: Green edges



DEVELOPMENT PATTERNS

Development patterns along the corridor are reflective of various eras and intensities. As such, four primary focus areas were identified that reflect these differences and set the stage for different design approaches.

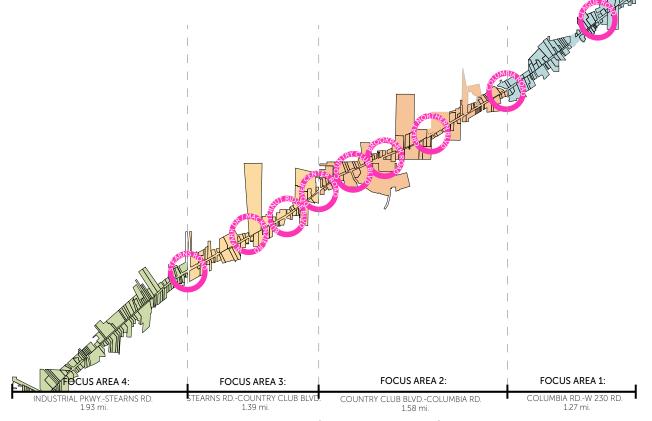
- Focus Area 1 is characterized by older, smaller scale commercial buildings and strip shopping centers.
- Focus Area 2 is characterized by larger-scale retail Great Northern Mall and clusters of big box retail stores with large surface parking lots.
- Focus Area 3 is a mix of civic and commercial uses, with a significant number of car dealerships
- Focus Area 4 is more rural in nature, with less intensive retail and office uses mixed with residential.

These nuanced differences guide an approach that values adaptable design and development solutions.







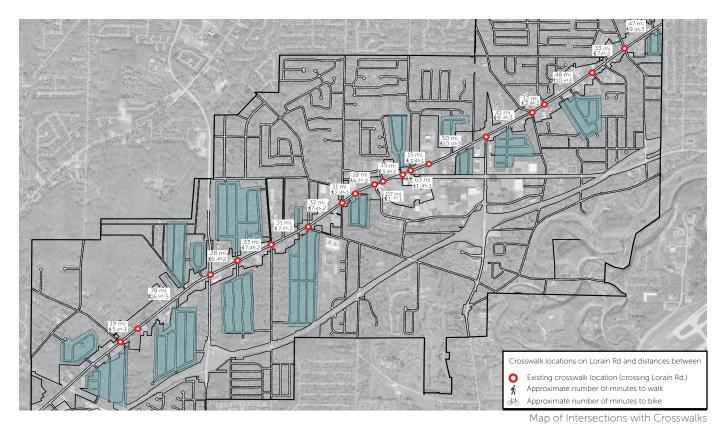


PEDESTRIAN AND BICYCLE SAFETY

There is potential for growth in vibrancy and economic viability in North Olmstead and focusing on improving mobility will play an important role in shaping the future of the area in a very positive manner. Currently, Lorain Road is auto dominant and not aligned with livability concepts that emphasize the importance of comfortable multimodal travel, including bicycling, walking and transit travel. Lorain Road is wide with multiple lanes and large intersections that do not favor bicycle and pedestrian travel. The transportation network should be treated holistically; the system must work for everyone traveling in the area, whether in a car, bus, on foot, or by bicycle.

Despite the corridor's unfavorable pedestrian conditions, as revealed by the frontage types and an analysis of crosswalk locations and distances, a number of pedestrians still use the corridor for walking and biking. Only a fraction of intersections along the corridor have marked crossings with crosswalks, and these intersections are a significant distance apart, often lacking connection to the residential neighborhoods directly adjacent to the corridor.

Studies have shown that support for and investment in pedestrian and bicycle infrastructure improvements results in economic benefits for individuals, businesses, and communities. Expanding and improving this infrastructure means ensuring that a network of infrastructure is in place to make bicycling or walking viable modes of travel. It also means ensuring the infrastructure is safe and comfortable to use.





School Access Planning – With the construction of a new combined elementary school along Lorain Road, additional attention should be given to the pedestrian and bicycle environment at the entrance and surrounding intersections to improve operations and safety for pedestrians and bicyclists. Parent drop-off will impact the traffic conditions along Lorain Road during the AM peak and direct access to Lorain Road increases the safety concern of children walking and biking to school. In addition to working with the school to ensure pedestrian and bicycle safety at this current development, it is recommended that North Olmsted update their Safe Routes to School plan to further study safety improvements for the new site.

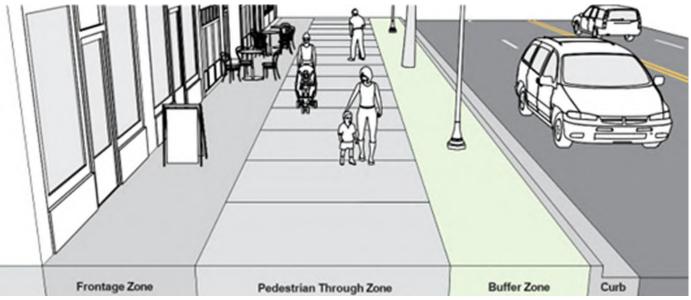


Figure 1. ODOT Multimodal Design Guide - Pedestrian Zone for a Curbed Roadway

TRAFFIC SAFETY

Traffic safety was highlighted as a key concern along the corridor. A high-level crash analysis was conducted using ODOT's GCAT crash tool for years 2017-2021. During that period, 1,279 crashes occurred along the approximately six miles of Lorain Road through North Olmsted and at the Lorain Road intersections in North Olmsted. Of those 1,279 crashes, there were two fatalities and 28 serious injuries. **Overall, 21.3% of crashes resulted in a type of injury (fatal, serious injury, minor injury, injury possible).** Of the two fatal crashes, one occurred at the intersection of Lorain Rd and Columbia Rd and the other occurred in front of the US Post Office at 28475 Lorain Rd between Berkshire Dr and West Park Dr/Mackenzie Rd.

The top three crash types were rear ends, angle, and sideswipe – passing. These are common crash types seen along multi-lane, undivided urban corridors caused by congestion. The stop-and-go pattern of congestion along a busy corridor can lead to rear-end accidents, as one vehicle hits another due to inattention, lack of sufficient stopping distance, or distraction/confusion. Angle and left turn crashes are often caused by obstructed view while turning (very common with multiple opposing lanes of traffic) and misjudgment of opposing vehicle speeds/available time to turn. Most sideswipe passing crashes happen due to blind spots and lack of attention while changing lanes. This data aligns with the community feedback collected on traffic safety. During public engagement, five major intersections along Lorain Road emerged as hot spots for near misses and other safety issues.

Intersections	Near Miss	Crossing Difficulty	Left-Turn Issues
Butternut Ridge	Х	Х	Х
Great Northern Blvd	Х		
Columbia Rd	Х	Х	Х
Clague Rd	Х	Х	
Dover Center Rd		Х	Х

43 of the 1,279 crashes (3.4%) involved a pedestrian or bicycle. **Of those 43 pedestrian or bicycle crashes, 34 (79%) resulted in an injury.** All but one of the 43 crashes occurred east of Sterns Rd, with a concentration of pedestrian crashes happening between Dover Center Rd and Brookpark Rd. The pedestrian and bicycle crash rate for Lorain Road (1.49% and 1.88% respectively) is higher than the statewide average (1.29% and 0.90% respectively). While these numbers may seem small, they are not insignificant. Both numbers exceed the stage average, and the number of crashes involving a bicycle is more than twice the state average. This indicates the clear need for improved bicycle and pedestrian infrastructure along the corridor.

OVERHEAD UTILITIES

A safety concern noted by the City of North Olmsted's Safety Department was that of existing utility lines along the corridor. Low mounting heights frequently result in downed lines and damage from delivery vehicles, causing road closures.

A similar safety concern is the close proximity of utility poles to the roadway - an issue in regard to vehicular crashes and potential damage.

Finally, the visual clutter of the numerous overhead lines and poles along the Lorain Corridor is impactful to community perceptions.

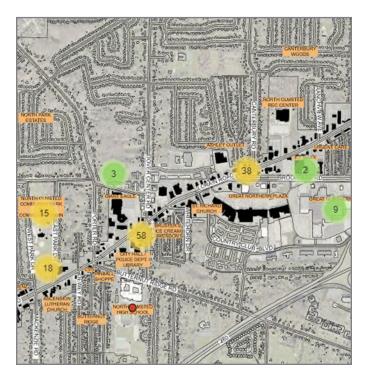
The burial of overhead utilities can address many of these concerns. While this is an expensive option that may be challenging to implement along the entire corridor, the creation of a pilot area for burial between Country Club Boulevard and Great Northern Boulevard is recommended.

COMMUNITY IDENTITY

Many participants in this study communicated the need to improve the identity of the community along the Lorain Road corridor. As detailed throughout this section, the combination of outdated commercial development patterns, auto-dominated uses and lack of placemaking elements build an experience along the city's main street that lacks character and feels indistinguishable from other commercial districts in the region. The corridor acts more as a passthrough than a place.

The richness of the community must be translated into its built environment. The best places to start include the area that residents describe as the heart of North Olmsted (the civic campus, library, middle and high school campus) and the town center (Great Northern Mall / Brookpark Road area).





LISTEN

COMMUNITY EVENTS SUMMARY

The team sought to connect the community to the process in a range of ways, including three community open house events and an online presence that included multiple surveys. Materials for the events were provided in Spanish, Arabic and Farsi, to engage the community's multi-cultural population.

Event 1: Community Open House #1 North Olmsted Community Cabin; February, 2023

The first community event gave residents the chance to learn about the Lorain Road Corridor Study and weigh in on several topics of importance, including safety, community character, transit, destinations, among others. The project team learned more about the community's priorities for Lorain Road which included safety concerns at specific locations, the lack of community identity and lacking town center, and the desire for safer details that reflect the character of the community of North Olmsted.

Event 2: Community Open House #2

North Olmsted Rec Center; May, 2023

The second community event offered the opportunity to dive more deeply into both the safety concerns on the corridor and the details that help to improve safety and add a sense of identity to the community. Residents tended to prefer street character details that are traditional in style, and favored corridor components including multi-use paths, medians, and green edges. Residents were also able to identify where they believe the "heart" of North Olmsted should be located and what it should include. This meeting also introduced the community to the regional steering committee.

Event 3: Community Open House #3

North Olmsted branch of Cuyahoga County Library; July, 2023

The third and final community event provided the opportunity to review previous feedback received at engagement events and weigh in on proposed design concepts and priorities for the corridor. The event, partnered with Bike With A Mayor, was wellattended. Residents were pleased with concepts for nodes along the corridor that showed improved landscaping and frontage, safety improvements to intersections, and placemaking details. The Dover Center intersection was noted as a priority for change, and details including expanded sidewalks, green frontage, a multi-use path, and others, were named as priorities for the corridor.





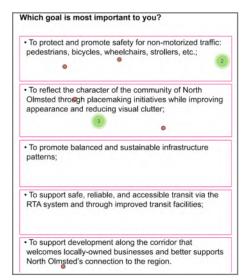
Community Open House #2



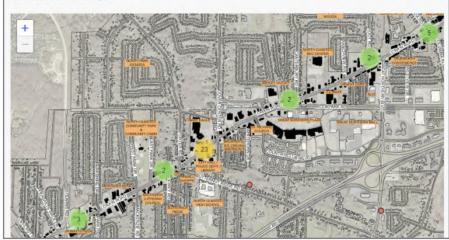


ONLINE ENGAGEMENT: ZENCITY

Zencity, an online engagement platform hosted by the City of North Olmsted, gave the opportunity for community engagement to extend beyond the traditional engagement activities held throughout the planning process. Online engagements were open for several weeks and were published in a similar format to traditional in-person engagements. They gave residents the chance to weigh in on similar topics and for the city to collect additional information about what residents would like to see implemented. The Zencity platform proved to be greatly successful in expanding the number of people who were able to participate in the process, collecting over 1,200+ responses over the course of the study. The volume of responses allowed for greater community participation and helped the study collect a diverse range of perspectives to inform the design recommendations.



DRIVERS: Where is it difficult to make a left turn on Lorain Road (scroll / pan on the map to see the full extent of Lorain Road)?



Transit	Infrastructure	Aesthetics
More bus routes	Improve traffic flow	Placemaking (unique)
Increase convenience of RTA system	Keep traffic moving	Landscaping
Add a Rapid stop	Repave the road	Beautify city
Increase transit to downtown/east side/other suburbs	Improve signal timing	Personality for city
Local North Olmsted buses throughout NO	Increase crosswalk signs	Neighborhood feel
Multi modal transit	Decrease number of drivers	
NO bus shuttle for special events	Install storm drains	
Bussing for high school	Improve intersection safety	
More bus stops	Increase speed limit	
Better advertised transit	Improve mall areas	
	Decrease construction	
Bikeability/Walkability	Add lanes	Community
Interconnecting bike path	Combine business ingress/egress	Improve safety (general and driving)
Do not let bikes interfere with car/roadway	Difficulty making left turns	Enforce laws
Increase pedestrian movement		Family events/activities
Better non-vehicle use	Business	Share amenities with other cities (rec center
Better accessibility for travel by foot	Business stability	Increase destinations/nodes
Keep bikes on sidewalks	Business variety	Community space to draw people to NO
Connect 480 path with other amenities	Signage to promote small businsses	Clean it up
Create more scenic walk/bike routes	Pedestrian friendly environment near businesses	Community clean up events
Bike lanes	Destination shops	Community gardens
More inviting places to walk	Stores that encourage people to walk	
Connect paths with metroparks	Businesses that reflect North Olmsted	
Places with bike locks	Businesses to attract people to the city	

The first engagement collected over 600+ responses from the community to the question "What should change along the Lorain Road Corridor?" Responses were categorized into the themes shown to the left.

ENGAGEMENT TAKEAWAYS

Despite the differences between traditional engagement activities and the Zencity platform, results from both tended to yield similar results and feedback, and once responses were combined, revealed the following sentiments:

- Desire for Lorain Road to reflect the character of the community of North Olmsted through street character details, locally-owned businesses, and placemaking initiatives;
- Concern for pedestrian / bicycle safety and accessibility along the length of the corridor, particularly along sidewalk and around the intersections of Columbia Road, Brookpark Road, Dover Center Road, Porter / Brookpark Roads, Stearns Road;
- Preference for traditional and/or "green" street character furnishings and details;

- Favoring of corridor components that include expanded sidewalks, a multi-use path, green frontage, and improved bicycle facilities throughout;
- Priority for change around Dover Center intersection through the enhancement of the Heart of North Olmsted and/or creation of a town center near the Great Northern Mall

TOTAL RESIDENTS IN STUDY AREA	WEBSITE: https://north- olmsted-oh. civilspace.io/ en/projects/ lorain-road- transportation- and-land-use- masterplan		T LANGUAGES
	ENGAGEMENT ACTIVITIES	Date	Participants
ENGAGEMENT RESULTS	Transportation Survey	1/20/2023-3/01/2023	709
	Community Open House #1	2/02/2023	32
	ZenCity Engagement 1	1/15/2023-2/28/2023	423
	Community Open House #2	05/11/2023	22
194+ 1,409	ZenCity Engagement 2		12
IN PERSON ONLINE	ZenCity Engagement 3: The Heart of North Olmsted		250+
PARTICIPANTS PARTICIPANTS	Community Open House #3	07/27/2023	140+

PROJECT GOALS AND PRIORITIES

Through the analysis of existing physical conditions on the corridor and with input from the residents of North Olmsted and the regional steering committee, the following goals were developed for the Lorain Road Corridor Study to respond to challenges with safety, identity / community character, transit, mobility / accessibility, and sustainable infrastructure.

1. To protect and promote safety for non-motorized traffic: pedestrians, bicycles, wheelchairs, strollers, etc.

Lorain Road is a regional connector that should provide safe movement for all types of travel.

2. To reflect the character of the community of North Olmsted through placemaking initiatives while improving appearance and reducing visual clutter.

Residents have indicated that the current character of the Lorain Road corridor is not representative of how the community would like to be perceived.





3. To promote balanced and sustainable infrastructure patterns.

Greening the corridor through environmental and technology improvements will provide positive impacts on health, safety, property values and community perceptions.

4. To support safe, reliable, and accessible transit via the RTA system and through improved transit facilities.

91% of North Olmsted's working residents leave the city for work, which means that most jobs within the community are filled by nonresidents. Increased service and improved transit waiting areas are critical for providing equitable access and increasing ridership.

5. To support development along the corridor that welcomes locally-owned businesses and better supports North Olmsted's connection to the region.

While North Olmsted is viewed as a center for all scales of retail, it is the small, locally-owned shops and restaurants that are valued by the community and that provide a unique draw.











The vision for the Lorain Road Corridor is a response to the goals and priorities identified by the community. These are applied to the physical realities of the corridor to explore possibilities for change. The work balances aspirational details with engineering requirements to achieve a series of realitybased recommendations for transformation.

These details include:

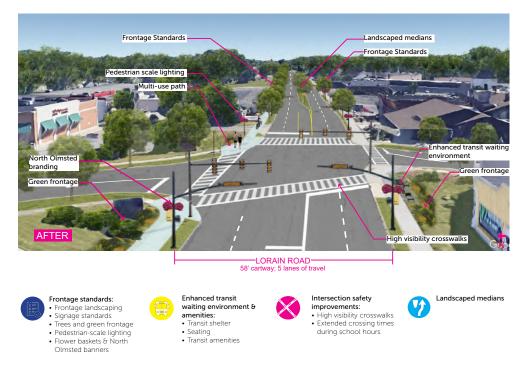
- Roadway improvements
- Transit opportunities
- Greening the corridor
- Frontage improvements
- Connections and bike infrastructure
- Corridor character
- Placemaking

EXPLORING IDEAS

Achieving the goals identified in the previous sections requires an approach that explores a range of strategies that are both aspirational and achievable. The project team conducted studies to explore the application of design solutions as described herein. While the breadth of the corridor prohibits the use of a one-size-fits-all approach, the identification of corridor-wide solutions that provide flexibility is the first step in the process. These can build to site specific applications, as demonstrated below.



58' cartway; 5 lanes of travel



LORAIN ROAD CORRIDOR STUDY

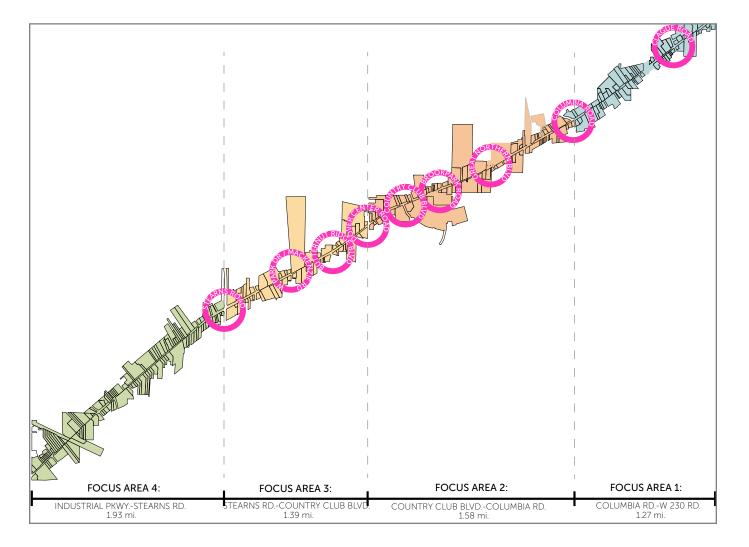
FOCUS AREAS & CORRIDOR NODES

Through the engagement process and the study of existing conditions, four primary sections of the corridor emerged with differing physical conditions. These included traffic volumes and patterns, intensity, types of businesses, development patterns and eras of development, number of curb cuts, among others.

Additionally, the establishment of key intersections, outlined below and later narrowed to five key nodes, was important in understanding areas with higher traffic volumes, challenging an unsafe intersection geometry, areas of focus for commercial development, and opportunities for community identity and placemaking elements.

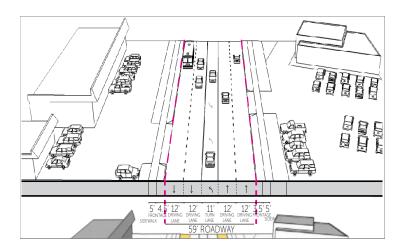
Dividing the corridor into areas of focus and five specific nodes allowed the project team to develop details that can be applied to the entire length of the corridor as well as respond to challenges noted at each of the following nodes:

- Clague Road intersection
- Columbia Road intersection
- Brookpark Road intersection
- Dover Center Road intersection
- Stearns Road intersection.



ROADWAY IMPROVEMENTS

As part of the overall strategy for the corridor, the team considered a range of roadway improvements. Incorporating effective multimodal transportation options within the study area will rely heavily on provision of infrastructure that safely and comfortably accommodates all road users, connecting people with destinations along Lorain Road in a manner that is useful and appropriate.



High visibility crosswalks:

Resident feedback indicated that they would like to walk more and improve the walkability of Lorain Road. For multi-lane roadway crossings where vehicle volumes are in excess of 10,000 Average Annual Daily Traffic (AADT), a marked crosswalk alone is typically not sufficient. High-visibility crosswalks can reduce pedestrian injury crashes up to 40% by utilizing patterns that are visible to both the driver and pedestrian from farther away compared to the existing transverse parallel lines. Provision of enhanced pedestrian crossings at existing signalized intersections will improve the pedestrian safety and facilitate better access to businesses and neighborhoods along Lorain Road.





Medians:

Raised medians separate opposing directions of travel. They benefit the vehicle operator by providing freedom from interference of opposing traffic. Medians can be strategically placed along Lorain Road to facilitate access management while still providing storage for left-turning vehicles. Raised medians provide additional benefits above and beyond separating opposing directions of travel, including:

- Reducing motor vehicle crashes by 15 percent.⁴
- Decreasing delays (>30 percent) for motorists.⁵
- Increasing capacity (>30 percent) of roadways.⁵
- Reducing vehicle speeds on the roadway.
- Providing space for landscaping within the right-of-way.
- Providing space to install additional roadway lighting, further improving roadway safety.
- Providing space to allow for supplemental signage on multi-lane roadways.
- Costing less to build and maintain than paved medians.⁷

Medians are especially important at transit stop locations. Transit stops not located near an intersection create the opportunity for pedestrians to cross the roadway at an uncontrolled location. Providing medians can make these crossings safer and more appealing to existing and potential transit users. A pedestrian refuge island within a median is located in or near a pedestrian crossing to aid and protect pedestrians crossing a roadway. On wide streets, a median refuge can provide a safe location for those who begin crossing too late or are only capable of walking exceptionally slow. Pedestrian refuge islands or medians can also be used at intersections or mid-block locations with shorter crossing distances, where a need has been recognized.

Reduction in roadway widths/corner curb modifications:

Narrowing corner radii reduces vehicle turning speeds as well as pedestrian crossing distances. Minimizing turning speeds is crucial to pedestrian safety. Longer pedestrian crossings take more time to cross, increasing pedestrian exposure to risk and diminishing safety. Minimizing the size of a corner radius is critical to creating safe and compact intersections. A smaller corner radius also expands the pedestrian area, allowing for better pedestrian ramp alignment.



Decreasing curb cuts & access management:

Access management refers to the regulation of interchanges, intersections, driveways, and median openings to a roadway to help improve operational safety and reduce driver confusion. It is generally beneficial to control the number of driveways and, in some cases, turning movements that are allowed. Walking or bicycling along the corridor does not feel safe or pleasant, it feels scary and almost impossible. As plans are advanced for the potential future redevelopment along Lorain Road, access management strategies should be implemented as part of the redevelopment plans; considerations and accommodations for safe, comfortable bicycle and pedestrian should be prioritized. These strategies should also be implemented elsewhere throughout the study area as development and redevelopment initiatives move forward.





Leading pedestrian intervals:

A leading pedestrian interval (LPI) gives pedestrians an advance walk signal before motorists get a green signal, giving the pedestrian several seconds to start walking in the crosswalk before a concurrent signal is provided to vehicles. This makes pedestrians more visible to motorists and motorists more likely to yield to them. Typically, LPI settings provide 3 to 6 seconds of advance walk time.



Multi-use paths:

Given the desires of the community coupled with the need expressed through the survey data and public meetings, there is a distinct need for the creation of bicycle facilities and a preference for off-road facilities. A multi-use path is the preferred path configuration because it provides separation between pedestrians and bicycles and the roadway, resulting in a more comfortable and safe walking experience. Multi-use paths are most commonly designed for two-way travel, allowing bicycle users to travel off the vehicular roadway if desired.

Roadway options considered but determined infeasible:

On-road Bicycle Facilities:

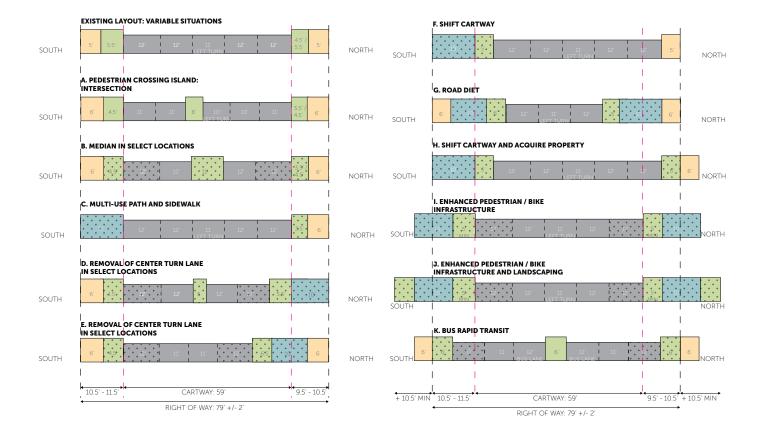
Based on the traffic volumes and engagement responses, in-road non-separated bicycle facilities were removed from consideration for Lorain Road in favor of off-road bicycle facilities to increase the safety of bicyclists.

Road diet:

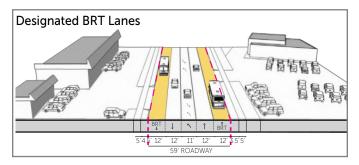
A road diet is a roadway configuration that reduces the overall number of travel lanes to accommodate potential uses such as two-way left-turn lanes, parking, or bicycle facilities. When implemented in the right location, road diets do not impact traffic flow and improve safety. A road diet generally does not benefit roads with especially high traffic volumes (20,000+ Average Daily Traffic) and was thus dismissed from consideration for Lorain Road.

Mid-block crossings:

Mid-block pedestrian crossings may be appropriate in a variety of contexts based on pedestrian desire lines, transit stop locations, land use context, and intersection spacing; however, motorists are more likely to expect pedestrians at intersection locations and often drive at higher speeds in mid-block locations. Focus was prioritized on the enhancement of crosswalks at existing intersections but as redevelopment opportunities arise, controlled mid-block crossings, such as Pedestrian Hybrid Beacons should be considered.



TRANSIT OPPORTUNITIES







This Lorain Road corridor project has spurred broader interest with the neighboring communities of Fairview Park and Cleveland to a unified approach for corridor improvement with a multimodal focus and potential BRT service for this regional corridor. RTA has identified Lorain Road as a priority corridor for future BRT service. Cuyahoga County has stepped up to lead this regional corridor planning effort.

RTA stop consolidation program includes Lorain Road, which will be studied in the future. It would be beneficial and appropriate for the city to participate in RTA's assessment of stop locations along the corridor and incorporate stop relocations to accommodate changes in land use.

Transit Waiting Environments (TWE): In coordination with RTA, the city should seek to enhance TWEs with amenities to serve transit riders, particularly at the busier stop locations. Amenities could include shelters or benches, signage, lighting, trash cans, and other streetscape features. As the county progresses with the regional multimodal corridor project, it should include a unified approach to TWE configuration and treatments.

GREENING THE CORRIDOR

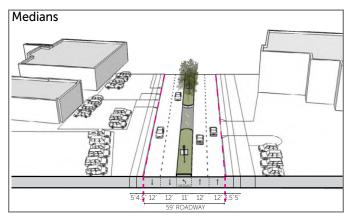




Image from Urban Land Institute

A challenge in suburban commercial corridors is that of visual clutter - distractions in the environment from signage, varied uses, varying building setbacks and un-buffered surface parking lots that contribute to traffic safety concerns. A green edge reduces these distractions while providing significant additional benefits.

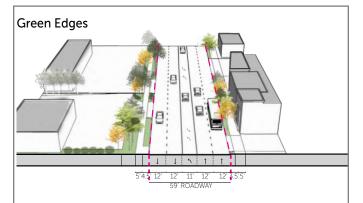
Enhancing a roadway environment with natural infrastructure such as trees and plants has been shown to:

- Increase levels of walking, bicycling, and public transit use
- Reduce the urban heat island effect
- Enhance social interactions.
- Improve adjacent property values
- Positively impact mental and physical health

Design details around natural infrastructure must take into account maintenance and long-term sustainability - including the use of native plants, new technologies for watering and stormwater management.

Additional green considerations include emerging technologies that support pavement maintenance, street lighting options that reduce light pollution and limit negative impact to wildlife migratory patterns, vegetated roofs for transit shelters, and smart signal technology that prioritizes emergency and transit access.

FRONTAGE IMPROVEMENTS





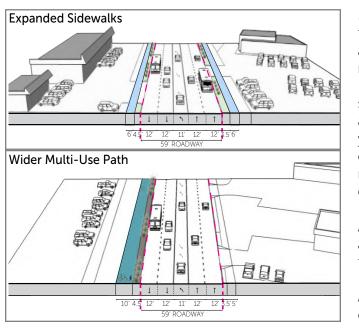
Frontage improvements cover a range of details that impact perception, access and use. The corridor is characterized by large sections of unbuffered surface parking lots, unregulated signage, and excessive curb cuts (in both number and size).

A focus on reallocating a 10'-20' deep zone adjacent to the sidewalk along the private property side will allow the ability to include:

- enhanced landscaping
- green infrastructure
- street trees
- expanded transit waiting areas

From a transportation perspective, frontage improvements should address access management considerations – consolidating driveways to better organize traffic flow and safety along the corridor.

Once implemented, this frontage zone will help to reduce visual clutter along the corridor, calm traffic, and provide safer interactions between cars and pedestrians.



CONNECTIONS AND BIKE INFRASTRUCTURE



Modifications to the existing sidewalks to improve the pedestrian space and provide bicyclists with an off-road facility is important to the growth of non-motorized transportation in North Olmsted. Pedestrians and bicyclists are dependent on path safety, accessibility, comfort, and convenience at all hours of the day and during all seasons of the year. Implementing these improvements along the entire corridor is vital in providing access for all residents of North Olmsted to the businesses and destinations along Lorain Road.

An effective bicycle network connects people of all abilities to recreational, educational, civic, and the community's commercial assets.

And while the development patterns in an established suburban community like North Olmsted make the creation of off-road bike facilities more challenging, the community has been clear in expressing a desire for these facilities.

Investments in biking infrastructure provides numerous benefits -

- Increased livability access
- Increased revenue and customer traffic for businesses located along the trail system
- Greater opportunities for attracting talent
- Reduction for smaller, localized trips
- Increased property values
- Improved community health

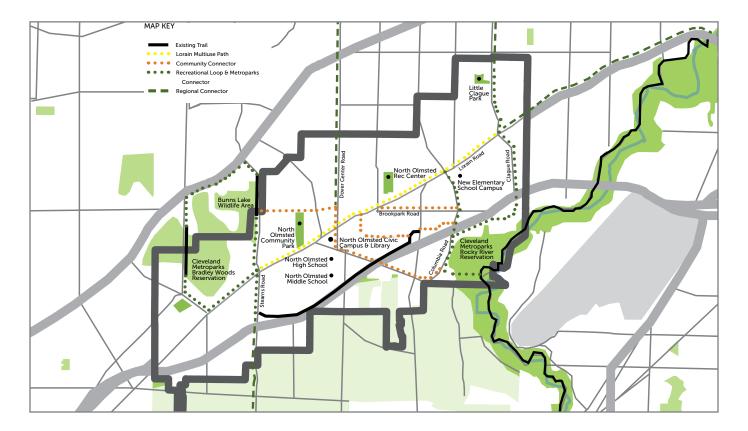
The Cuyahoga County Greenways plan explored connected bike networks throughout the county, and provides the basis for a comprehensive bike network for the City of North Olmsted.

Four types of paths have been identified to connect riders to existing trails and key destinations.

- COMMUNITY CONNECTOR paths are designed to link key civic, educational and other assets via a safe, off-road option. These are envisioned to support safe routes to school.
- LORAIN MULTI-USE CONNECTOR is the multi-use path envisioned for the Lorain Road corridor to accommodate expanded pedestrian use and safer bike access.

- RECREATIONAL LOOP AND METROPARKS CONNECTOR will serve as a continuous trail for residents of North Olmsted to enjoy trekking within their city to nearby Cleveland Metroparks and other recreational assets.
- REGIONAL CONNECTOR paths provide access to surrounding communities and additional recreational assets in Cuyahoga County.

These paths are envisioned to work together to create a comprehensive approach to nonmotorized community connections. The path sections can be completed in phases and should seek to build from existing infrastructure for maximum impact.



CORRIDOR CHARACTER / IDENTITY

The community has identified character improvements along the corridor as a priority. To convey a consistent identity the following package of improvements should be utilized on all public property along the corridor and private property as desired:

- Branded gateway and wayfinding signage
- Raised planters
- Hanging planters
- Benches
- Trash receptacles
- Bike racks

Through interactive activities during the process, a preference for a classic / timeless language for streetscape elements was identified.

Public art is another important element for building a unique community identity. North Olmsted is

fortunate to be a home to a wide mix of cultures, and these cultures should be celebrated through the community's public art. Opportunities and locations for incorporating public art along the corridor include the following:

- Artistic crosswalks at side streets (this detail is not currently allowed on state routes)
- Murals on blank building facades
- Artist-designed fencing for landscape screening areas
- Gateway sculptures
- Artist-designed planters
- Banners
- Unique elements for transit waiting environments

The community's 1% for the Arts pilot program can be paired with larger-scale infrastructure projects to fund impactful arts initiatives.

STREETSCAPE ELEMENTS PACKAGE



FROM PASS-THROUGH TO PLACE

Placemaking is the art and practice of transforming public spaces into vibrant, engaging, and people-centered environments. It involves the collaborative efforts of communities, urban planners, and designers to create places that reflect the unique character and aspirations of a locale. Placemaking focuses on fostering a sense of belonging, social interaction, and cultural identity within these spaces.

Successful placemaking projects often incorporate elements such as public art, green spaces, seating, and programming for community events. Ultimately, placemaking enhances the quality of life in cities and towns by making public spaces more enjoyable, functional, and reflective of the needs and desires of the people who use them.

The community expressed a desire to develop more intentional public spaces along the corridor

that can serve as a town center and 'heart' of the community. Two locations for this were identified:

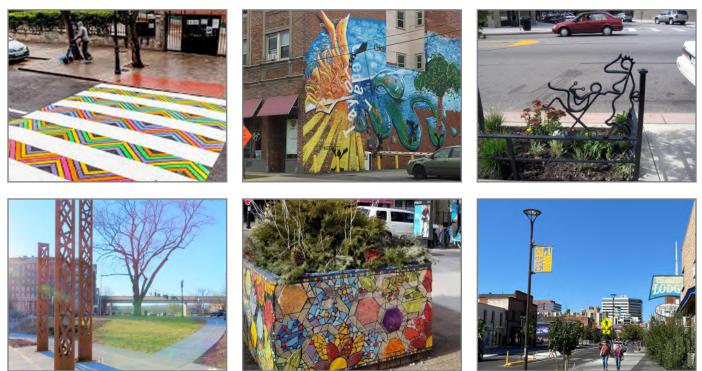
North Olmsted's Civic Center

The collection of civic uses near Dover Center Road include City Hall, safety departments, the library, the high school, the middle school and historical buildings. A comprehensive look at this campus is needed to improve functionality, access and relationships.

Great Northern Mall area

Underutilized commercial spaces within this district could accommodate redevelopment to create a town square, mixed-use buildings and a range of new uses.

PUBLIC ART EXAMPLES



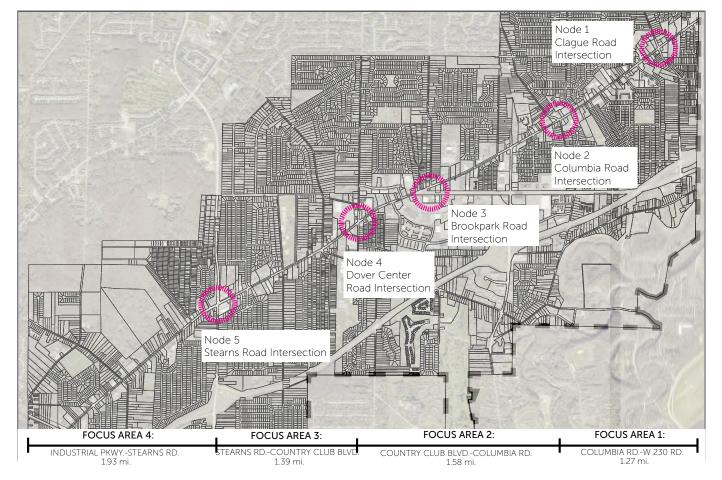


Place-based application of design concepts at the corridor's nodes demonstrate how the various ideas can come together to transform these areas and reflect the priorities of the community.

The node concept has been identified by the Lorain Corridor Transformation Coalition as a strategy to tie the communities together through shared details. Continued coordination will be required to refine these concepts further.

TRANSFORM EXPLORING DESIGN IDEAS

NODES



At 6.15 miles within the city of North Olmsted, design solutions for the Lorain Road corridor cannot be a one-size-fits-all approach. The development of key nodes along the length allows the focused application of design concepts that reflect the community's goals and priorities.

Nodes are the places where many of the corridor's biggest challenges come together, and where a comprehensive look at a variety of improvements can have the greatest impact.



INTERSECTION REALIGNMENT / RECONFIGURATION

Lorain Road crosses North Olmsted at an angle which means that some intersections along the corridor occur at angles that impact visibility and safety. In extreme cases, intersection realignment is recommended.

TRANSIT STOP ENHANCEMENTS & AMENITIES

Enhanced transit waiting areas are helpful in supporting improved transit ridership. This is achieved through the provision of shelter from the elements, seating, lighting, signage, landscaping, and more to support safety and comfort. A more robust emphasis on transit aligns with the Greater Cleveland Regional Transit Authority's focus on Lorain Road as its next priority corridor.

FRONTAGE STANDARDS AND CITY IDENTITY LOCATION

Surface parking lots along the corridor detract from its appearance and create negative perceptions of the community. Visual buffers that include trees and landscaping along these edges will help calm traffic and improve property values.



PRIORITY REDEVELOPMENT OPPORTUNITY

Commercial vacancies along the corridor provide opportunities to support the corridor's growth through more intensive development. Redevelopment in these areas can be particularly impactful, and transit oriented development should be considered wherever possible.



METROPARKS-THEMED TRAILHEAD LOCATION

The Lorain Road corridor provides important access to multiple parks within the Cleveland Metroparks system, including Rocky River Reservation and Bradley Woods Reservation. The opportunity exists to connect downtown Cleveland residents to these amenities via Lorain Corridor transit. A potential partnership with the Metroparks to create trailhead-themed transit stops with supportive amenities and improved trail connections can become a regional feature.

MEDIAN



Landscaped medians can be helpful in calming traffic and in providing an improved perception of a community (which supports higher property values, community marketing and investment). While the nature of the corridor does not currently support medians along the current length, they should be considered wherever feasible. Nodes 1, 2, and 5 are currently the best locations.

CLAGUE ROAD INTERSECTION : GATEWAY NODE

Clague Road is currently a high volume intersection along the Lorain Road corridor as it connects to I-480. This is the easternmost major intersection for Lorain Road in the city of North Olmsted so it serves as one of the first impressions for North Olmsted to anyone entering the City from the east and south. Traffic volumes and auto-dominated uses around the intersection prioritize vehicular access and movement. Despite its challenging pedestrian environment, many still use the corridor (and intersection) for recreational walking and biking.

Recommendations focus on right-sizing the north/ south approaches to the intersection, a reduction in curb cuts, pedestrian and bicycle improvements and the development of public art, branding and placemaking details to support this area's role as a gateway to the city.

I

PRIORITIES

- Trailhead transit stop
- Green frontage enhancements at vacant parcel and flooring store
- Street trees
- New branded North Olmsted signage
- Mixed-use redevelopment at former garden center site
- High visibility crosswalks
- Removal of excess receiving lanes on Clague Road
- Medians on Lorain Road near intersection
- Reduction/removal of excess curb cuts at intersection

WHY THIS WORKS:

Both the northern and southern approaches at the Clague Road intersection have two receiving lanes that narrow down to one lane within 500-feet but only one entry lane for the corresponding approaches. The Synchro analysis does not show a reduction in Levelof-Service with the reduction of the lanes at the intersection.

B	FRONTAGE STANDARDS
(ENHANCED TRANSIT AMENITIES
Ø	TRAILHEAD-THEMED TRANSIT STOP
Ø	MEDIAN
	REDEVELOPMENT OPPORTUNITY
8	INTERSECTION REALIGNMENT







Existing

- Excessive pavement (right turn receiving lanes)
- Excessive curb cuts
- Auto-dominated frontage
- Potential redevelopment sites
- Gateway intersection
- Proximity to Rocky River Reservation

Intermediate

- Medians on Lorain RoadNorth Olmsted branding /
- placemaking
 Incorporation of public art that reflects the cultures of the community
- High visibility identity crosswalks (public art) & pedestrian safety features
- Frontage standards (street trees, green frontage)
- Reduction in width of curb cuts / removal of curb cuts closest to intersection
- Enhanced transit stop & amenities
- Multi-use path on north side connecting to Little Clague Park

Long Term

In addition to intermediate steps:

- Priority redevelopment
 sites
- Reclaim far-side right turn lanes - add landscaping, green infrastructure, multi-use path and reduce crossing distances

COLUMBIA ROAD INTERSECTION - TRAILHEAD NODE

The Columbia intersection has been highlighted by both residents and safety officials as being particularly high risk for both cars and pedestrians. Traffic safety issues at this location are of particular concern due to the school's proximity. Increased AM peak volumes and the addition of pedestrian and bicycle traffic to the area necessitates details that will make this intersection as safe as possible. This is the result of its non-perpendicular geometry. The intersection is also within close proximity to upcoming development (the new consolidated North Olmsted elementary school) in the city.

"Columbia has always been an area of concern due to alignment." - North Olmsted Safety Team

Recommendations for this node focus on safety improvements, a Metroparks connection, and development opportunities.

PRIORITIES

- Trailhead transit stop.
- Enhanced transit waiting environment.
- Lorain Road multi-use path.
- Street trees.
- Green frontage enhancements at surface parking lots.
- Intersection realignment.
- High visibility crosswalks.
- Signal modification leading pedestrian interval.

WHY THIS WORKS:

A right angle (90 degrees) intersection provides the most favorable conditions for intersecting and turning traffic movements. The right angle provides:

- o The shortest crossings distance for vehicles, bicycles, and pedestrians.
- o Sight Lines which optimize corner sight distance and the ability of motorists to judge the relative position and speed of approach traffic.
- o Intersection geometry that can reduce vehicle turning speeds so collisions are more easily avoided, and the severity of collisions are minimized.

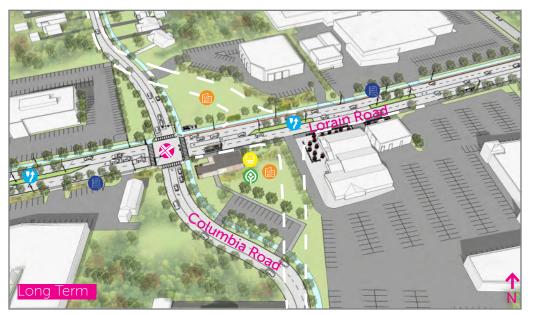




Existing

- Alignment of intersection creates safety issues
- Lack of visual buffers for surface parking lots along frontage
- Proximity to consolidated elementary school site
- Proximity to Rocky River Reservation





Intermediate

- High visibility crosswalks & pedestrian safety features
 & extended crossing times during school hours
- Multi-use path connecting to Rocky River Reservation and on north side of Lorain Road
- Medians on approach of Lorain Road
- Frontage standards (street trees, green frontage)
- Reduction in curb cuts /
 curb cut consolidation
- Enhanced transit stops and amenities

Long-Term

In addition to intermediate steps:

- Intersection realignment
 create 90 degree
 intersection
- Trailhead-themed transit stop with connection to Metroparks
- Creation of new redevelopment sites
- Signal modification leading pedestrian interval

BROOKPARK INTERSECTION: TOWN CENTER NODE

Brookpark Road intersects Lorain Road, connecting two major regional corridors. This intersection sits at the heart of the community's regional commercial activity. The geometry of the intersection has created a very unsafe environment for drivers and pedestrians alike, and the economic challenges of the mall have provided the opportunity to study the area for potential redevelopment.

NOACA's current Trip-Based Travel Demand model for 2045 shows decreases in housing and employment numbers in the traffic analysis zones around Great Northern Mall, and increases at the western end of the corridor. Development typically takes the path of least resistance. This means that if the City of North Olmsted wants to refocus development in the core nodes, it will need to be intentional in supporting redevelopment here. In other words, the city must take a proactive approach to achieve the types of high-quality spaces to which it aspires.

PRIORITIES

- Lorain multi-use path
- Green frontage improvements at parking
 lot

11

- Street trees
- Mall area redevelopment plan
- Mixed-use redevelopment at vacant commercial sites
- Buried utility pilot area
- Extension of Brookpark Road median
- High visibility crosswalks
- Re-route westbound Brookpark Road at Canterbury

WHY THIS WORKS:

Realigning westbound Brookpark with Canterbury Road or Recreation Center Drive intersection will improve the operations and decrease conflict points at the Lorain Road and Brookpark Road intersection and redirect the westbound traffic to an already existing signal. This realignment would allow for the removal of the signal at Lorain Road and Brookpark Road, improving the overall signal spacing along the corridor. This would improve the turn lane storage for the eastbound left turn lane at Silverdale Road.









Existing

- Confusing intersections and traffic patterns
- Development patterns that contribute to visual clutter
- Underutilized commercial properties
- High traffic volumes

Intermediate

- Extension of Brookpark Road median to reduce paved area at intersection
- Buried utilities pilot area
- Reduction in width of curb cuts / removal of curb cuts closest to intersection
- Frontage and signage standards (street trees, green frontage)
- High visibility crosswalks & pedestrian safety features
- Multi-use path along North side of street

Long-Term

In addition to intermediate steps:

- Intersection realignment
 and creation of new
 intersections
- Creation of new redevelopment sites: mixed use, multi-family town center development
- Re-routing of west-bound
 Brookpark to align with
 Canterbury intersection
- Strengthened connection to Rec Center
- New parks & public spaces
- New transit center with BRT
 and airport loop connection

DOVER CENTER INTERSECTION: CIVIC CENTER NODE

Dover Center is repeatedly identified for its challenged car and pedestrian environments. This intersection is also located at the heart of North Olmsted's civic amenities and within close proximity to North Olmsted High School, Middle School, and library. These are sources and destinations for a significant amount of pedestrian transit and bike traffic.

Recommendations for this node focus on details that improve traffic and pedestrian safety while highlighting the civic assets here. This is the place to demonstrate commitment to a rebalanced corridor.

WHY THIS WORKS:

o Pedestrian only signal phase: A pedestrianonly signal phase or exclusive pedestrian phasing refers to a pedestrian phase that is active only when all conflicting vehicle movements are stopped across an approach to an intersection. When vehicles are stopped on all approaches to an intersection while pedestrians are given a WALK indication, the phasing is referred to as "exclusive." Intersections with exclusive pedestrian phases often feature pedestrian crossing markings indicating pedestrians may walk diagonally across the intersection. Exclusive pedestrian timings have been shown to reduce pedestrian crashes by up to 50%.

o No Right Turn on Red: Where right turn on red is allowed, motorists may overlook the presence of pedestrians and/or do not yield to them.

PRIORITIES

- Community Connector multi-use path
- Lorain Road multi-use path
- Green infrastructure demonstration areas at civic campus
- Street trees
- Green frontage standards at civic campus
- Culturally representative public art at civic campus
- Removal of access drive north of GetGo station.
- Right turn only in/out at Starbucks
 driveway
- High visibility crosswalks
- Signial modification leading pedestrian interval.









Existing

- Excessive curb cuts and access drives (number and size)
- Auto-focused uses limit
 placemaking opportunities
- Concentrated bike and pedestrian area with few supportive details

Intermediate

- High visibility crosswalks and pedestrian light timing including a pedestrian-only crossing cycle during key hours (leading pedestrian interval)
 Removal of excess access
 - Removal of excess access drives and curb cuts near intersection
- Green infrastructure demonstration area and pocket park in southwest corner
- Medians at approach on
 Dover Center Road
- Enhanced transit stops and amenities
- Frontage standards (street trees, green frontage)

Long-Term

In addition to intermediate steps:

- Reimagined civic campus with civic park at corner
- Green infrastructure around civic campus
- Consideration of improvements/ realignment at the Porter Road intersection on the western edge of this node

STEARNS ROAD INTERSECTION: GATEWAY NODE

Stearns Road is a major arterial designed to move significant traffic volumes throughout North Olmsted and the region. The road is currently designed for a high capacity, but presents a dangerous environment for both pedestrians and cars. The traffic-focused intersection is also not reflective of the character that many would like to associate with North Olmsted, as it emphasizes the pass-through nature of the area.

Recommendations here are focused on rebalancing and connecting to nearby assets. Intentional placemaking details can help to communicate a much more positive image of the community here. Additionally, the idea of a roundabout was tested.

WHY THIS WORKS:

o Traffic speed at any road or intersection is vitally important to the safety of everyone, and especially non-motorized users. Lower speed is associated with better yielding rates, reduced vehicle stopping distance, and lower risk of collision injury or fatality. Also, the speed of traffic through a roundabout is more consistent with comfortable bicycle riding speed.

o Landscaping features can be used to elicit more driver caution and alertness and to reduce speeds, but it must be carefully designed to screen only unnecessary information, such as the view of vehicles beyond the immediate conflict areas, while allowing the driver to focus on driving tasks, non-motorized users, and appropriate yielding.

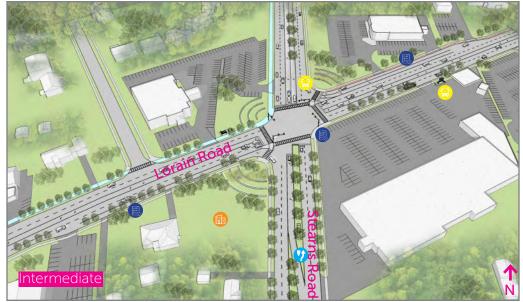
o Provide multi-use path for bicycles and pedestrians around the roundabout.

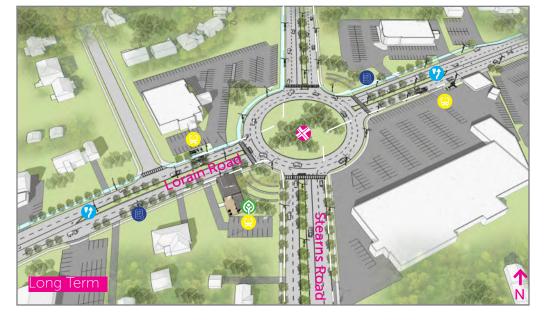
PRIORITIES

- Park connector multi-use path
- Bradley Woods parking lot / access at Lorain Road
- Lorain Road multi-use path west of Stearns to Elmhurst
- Sound wall improvements
- Green infrastructure demonstration areas
- Green frontage standards at parking lots
- Street trees
- Branded community signage
- Culturally representative public art
- High visibility crosswalks.









Existing

- Overscaled roadway (double slip-lanes) with excessive pavement
- Large highway-style sound
 walls north of intersection
- Connection to I-480
- Proximity to Bradley Woods Metroparks

Intermediate

- Green infrastructure demonstration areas and pocket parks around corners of the intersection
- Multi-use path on northwest side connecting to nearby parks
- Gateway elements (art / signage) at corners
- Physical improvements to
- sound walls to support improved experience for pedestrians
- High visibility crosswalks and pedestrian safety features
- Enhanced transit stops and amenities
- Frontage standards (street trees, green frontage)
- Medians on Stearns Road
- Multi-use path on north side connecting to Little Clague Park

Long-Term

In addition to intermediate steps:

- Consideration of roundabout
- Gateway elements (art / signage) around corners and roundabout
- Medians at roundabout approaches
- Trailhead-themed transit stop with connection to Metroparks





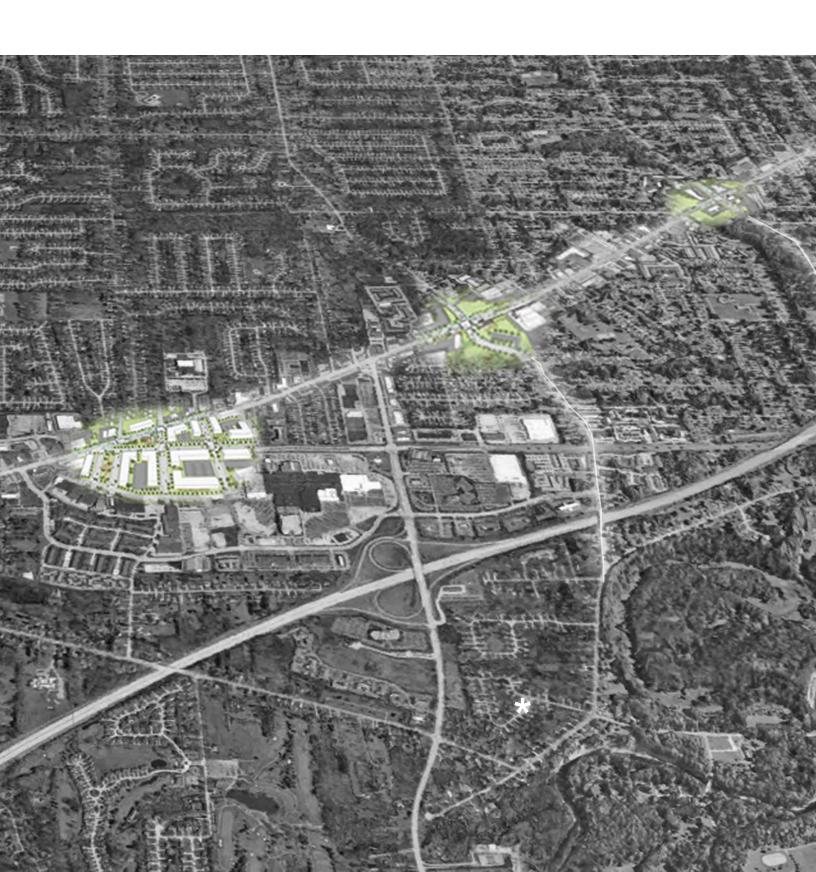
The plan's success will lie in its implementation. This is intended to inspire action, with the following representing critical next steps:

- 1. FORMALIZE RECOMMENDATIONS AND APPLY THEM TO NEW DEVELOPMENT.
- 2. LEVERAGE THE PARTNERSHIPS OF THE STEERING COMMITTEE TO PURSUE TRANSFORMATIONAL FUNDING.
- 3. BEGIN TO IMPLEMENT THE SMALL BUT IMPORTANT DETAILS.
- 4. REPOSITION LARGE COMMERCIAL PROPERTIES IN THE CORE FOR MIXED-USE REDEVELOPMENT TO BEGIN TO BUILD A TOWN CENTER
- 5. DEVELOP A TOWN CENTER PLAN WITH PHASING TO ADDRESS UNDERUTILIZED COMMERCIAL PROPERTIES
- 6. UPDATE ZONING TO FORMALIZE FRONTAGE STANDARDS

This section provides tools to support these actions.

TRANSFORMING THE CORRIDOR





PRIORITY INITIATIVES: MOBILITY

The desire for a rebalanced corridor is at the core of this work. Mobility priorities address details to support improved walkability, bikeability, and transit use.

A complete streets approach supports improved safety and access for those who are unable to drive, those with disabilities, school children, seniors, and those without access to a car, and improved health for those who choose to walk or bike in place of car trips.

INITIATIVE	TIMEFRAME	PROJECTED BUDGET	KEY
Comprehensive crosswalk program at all intersections along	Immediate	\$\$\$	\$ = \$0 - \$100,000
Lorain Road			\$\$ = \$100,000 - \$1 M
Transit waiting area improvements	Immediate	\$\$	\$\$\$ = \$1M - \$5 M
Park connector bike paths	Immediate	\$\$\$	\$\$\$\$ = Over \$5 M
Lorain Road multi-use path	Near term	\$\$\$]
Brookpark Road - airport shuttle	Near term	\$\$	
Community connector bike paths	Near term	\$\$\$	1
Bus Rapid Transit corridor development	Long term	\$\$\$\$	



PRIORITY INITIATIVES: GREEN

The community has identified "greening the corridor" as a main area of focus. This includes landscape-focused initiatives as well as sustainable technologies. A general greening of the corridor has multiple benefits, including traffic calming, reduced visual distractions, reduced energy use, environmental health, and increased property values.

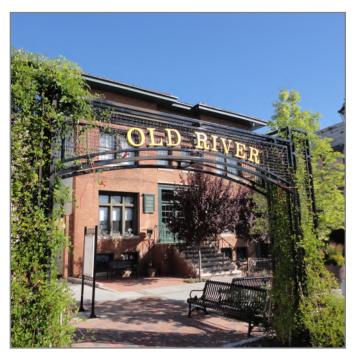
INITIATIVE	TIMEFRAME	PROJECTED BUDGET	KEY
Green edge policy for private property owners	Immediate	\$	\$ = \$0 - \$100,000
Dark sky / light pollution standards for new corridor development	Immediate	\$	\$\$ = \$100,000 - \$1 M
Stormwater management zones	Near term	\$\$	\$\$\$ = \$1M - \$5 M
LED pedestrian-scale streetlights	Near term	\$\$\$\$	\$\$\$\$ = Over \$5 M
Smart pavement technology test area (pavement condition monitors, embedded traffic sensors, etc.)	Near term	\$\$\$\$	
Street tree program with integrated stormwater irrigation system	Long term	\$\$\$	
Public transit-supportive details / transit hub	Long term	\$\$\$\$	



PRIORITY INITIATIVES: IDENTITY

North Olmsted is a highly desirable suburban community, but the quality of life that exists here is not conveyed along its main street. Priorities aimed at improving identity along Lorain Road include community branding, art, and landscape details.

INITIATIVE	TIMEFRAME	PROJECTED BUDGET	KEY
Update community branding	Immediate	\$	\$ = \$0 - \$100,000
Community gateway signs	Immediate	\$	\$\$ = \$100,000 - \$1 M
Signature planters and hanging planters - focus at five nodes and expand as desired	Immediate	\$	\$\$\$ = \$1M - \$5 M
Banner program	Near term	\$	\$\$\$\$ = Over \$5 M
Culturally-representative public art at community gateway loca- tions (Clague, Stearns, etc.)	Near term	\$\$	
Community branded shelters and expanded transit waiting envi- ronments at transit stops	Long term	\$\$	
Development of Lorain Road multi-use path	Long term	\$\$\$	





PRIORITY INITIATIVES: TRAFFIC & SAFETY

Traffic and safety improvements are at the core of this work. As a major arterial for the region, it is imperative to prioritize safe movement through and along the corridor. Recommendations reflect comments by the City Safety team and the community.

INITIATIVE	TIMEFRAME	PROJECTED BUDGET	КЕҮ
Policy updates to discourage adding additional right turn lanes along the corridor	Immediate	\$	\$ = \$0 - \$100,000
Smart signals for first responders	Immediate	\$\$	\$\$ = \$100,000 - \$1 M
Addition of pedestrian leading interval signalization at Dover Center Road and Columbia Road intersections	Immediate	\$	\$\$\$ = \$1M - \$5 M \$\$\$\$ = Over \$5 M
Columbia Road intersection configuration	Near term	\$\$\$\$	
Curb cut removal and narrowing	Near term	\$	
Medians (where feasible)	Near term	\$\$	1
Porter Road intersection improvements	Near term	\$\$\$\$	
Removal of far side right turn lanes at Clague Road intersection	Near term	\$\$	1
Buried utility pilot area	Long term	\$\$\$	1



PRIORITY INITIATIVES: DEVELOPMENT

Development priorities are focused on repositioning underutilized land assets and improved livability. An overall approach of increasing development density (including multifamily housing and mixed use projects) along the corridor can begin to transform it to better support future development opportunities. New patterns must support improved opportunities for local businesses - a key priority identified by the community.

INITIATIVE	TIMEFRAME	PROJECTED BUDGET	KEY
Mall area mixed-use development plan	Immediate	\$	\$ = \$0 - \$100,000
Programs to support smaller, local businesses	Immediate	\$\$	\$\$ = \$100,000 - \$1 M
Continued coordination with Steering Committee	Immediate	\$	\$\$\$ = \$1M - \$5 M
Conduct zoning review and update to review any exclusionary zoning policies that may exist in the city's code	Immediate	s	\$\$\$\$ = Over \$5 M
Adopt Transit-Oriented Development guidelines for corridor properties	Near term	\$	
Reposition vacant and underutilized parcels at Clague Road intersection to support dense, mixed-use development	Near term	\$\$\$	
Civic campus master plan	Near term	\$	
New higher-density housing along corridor redevelopment sites	Long term	\$\$\$\$	1





FOCUS AREA PRIORITY RECOMMENDATIONS

A series of priority projects have been identified for each of the nodes. These reflect a range of traffic safety, mobility, development, identity and frontage initiatives to reflect desired standards.

KEY
\$ = \$0 - \$100,000
\$\$ = \$100,000 - \$1 M
\$\$\$ = \$1M - \$5 M
\$\$\$\$ = Over \$5 M

CLAGUE ROAD INTERSECTION

INITIATIVE	TIMEFRAME	PROJECTED BUDGET
Trailhead transist stop	Immediate	\$\$
Removal of excess receiving lanes on Clague Road	Immediate	\$
Medians on Lorain Road near intersection	Immediate	\$
Street trees	Immediate	\$
New branded North Olmsted signage	Immediate	\$
Mixed-use redevelopment at former nursery site	Near term	\$\$\$
High-visibility crosswalk	<u>Near term</u>	\$
Reduction/removal of excess curb cuts at intersection	Long term	\$
Green frontage enhancements at vacant parcel and flooring store	Long term	\$

COLUMBIA ROAD INTERSECTION

INITIATIVE	TIMEFRAME	PROJECTED BUDGET
Trailhead transit stop	Immediate	\$\$
High visibility crosswalks	Immediate	\$
Lorain multi-use path	Immediate	\$\$
Street trees	Immediate	\$
Green frontage enhancement at surface parking lots	Near term	\$
Intersection realignment	Long term	\$\$\$\$
Signal modification – leading pedestrian interval	Long term	\$
Enhanced transit waiting environment	Long-term	\$

BROOKPARK ROAD INTERSECTION

INITIATIVE	TIMEFRAME	PROJECTED BUDGET
Lorain multi-use path	Immediate	\$\$
Extension of Brookpark Road median	Immediate	\$
Street trees	Immediate	\$\$
Mall area redevelopment plan	Immediate	\$
Mixed-use redevelopment at vacant commercial sites	Near term	\$\$\$\$
Buried utility pilot area	Near term	\$\$\$
High-visibility crosswalks	Near term	\$
Green frontage improvements at parking lot	Long term	\$
Re-route westbound Brookpark Road at Canterbury	Long-term	\$\$\$

DOVER CENTER ROAD INTERSECTION

INITIATIVE	TIMEFRAME	PROJECTED BUDGET
Community Connector multi-use path	Immediate	\$\$
High visibility crosswalks	Immediate	\$
Green infrastructure demonstration areas at civic campus	Immediate	\$
Culturally representative public art at civic campus	Immediate	\$
Removal of access to drive north of GetGo station	Near term	\$\$
Right-turn only in/out Starbucks driveway	Near term	\$
Signal modification – leading pedestrian interval	Near term	\$
Lorain multi-use path	Long term	\$\$
Civic campus reorganization / updates	Long term	\$\$\$\$

STEARNS ROAD INTERSECTION

INITIATIVE	TIMEFRAME	PROJECTED BUDGET
Park connector multi-use path	Immediate	\$\$
High visibility crosswalks	Immediate	\$
Sound wall improvements	Immediate	\$
Green infrastructure demonstration areas	Immediate	\$
Culturally representative public art	Immediate	\$
Branded community signage	Immediate	\$
Street trees	Near term	\$\$
Bradley Woods parking lot/access at Lorain Road	Near term	\$\$
Green frontage standards at parking lots	Near term	\$
Lorain Road multi-use path west of Stearns to Elmhurst	Long term	\$\$

PLANNING TOOLS: DESIGN GUIDELINES

The following pages provide a clear, concise and digestible set of Design Guidelines that reflect the foundational elements and priorities for the corridor.

These suggested guidelines remain high-level, stopping short of being regulated. This means that community and city leadership will need to determine whether or not to commit to these ideas.

At this stage in the future planning of the corridor, it is important to leave flexibility for continued evolution while providing basic parameters for future design.



DESIGN GUIDELINES: LORAIN ROAD FRONTAGE

DESIGN DETAILS FOR BUILDING EXTERIORS AND STREET LEVEL RELATIONSHIPS

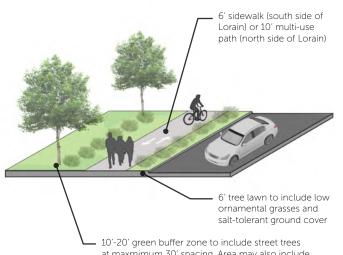
Goal: All properties along the corridor should shape, enclose, and define streets and public spaces to provide a cohesive and appealing environment through a combination of built form and landscaping.

- Extend the existing "build-to" line or edge with a connected frontage (physical or visual) along North Olmsted, limiting curb cuts and driveway.
- A variety of materials should be employed, including storefront windows, to create animated facades, streetscape rhythm and transparency.
- Ground floor spaces must feel linked, with direct access and visual connection to the surrounding streets and public spaces, while back-of-house spaces can be considered

without connection.

- Building signage should be complementary of the architecture and contribute to the overall quality of the district, with signage type, mounting, lighting and application fitting with the character of the district. Pin-mounted or channel-mounted letters are strongly encouraged. Cabinet signs are discouraged.
- Awnings are strongly encouraged to provide protection from the weather, create groupings of color, and add to the district's composition. For Sites
- A landscaped zone of 10'-20' shall be provided between the back edge of the sidewalk and any surface parking.
- Green infrastructure such as bioswales can be considered for this zone to support stormwater management best practices.
- Trees, shrubs, and grasses are strongly encouraged in this area to provide a visual buffer.

FOCUS AREA 1 COLUMBIA RD. TO WEST 230 ST.



 10°-20° green buffer zone to include street trees at maxmimum 30° spacing. Area may also include landscape beds, low shrubs & ornamental fencing

FOCUS AREA 3 STEARNS RD. TO COUNTRY CLUB BLVD.



 10-20 green buffer zone to include street trees at maxmimum 30' spacing. Area may also include landscape beds, low shrubs & ornamental fencing FOCUS AREA 2 COUNTRY CLUB BLVD. TO COLUMBIA RD.



6' permeable paver area (brick or concrete pavers) with space for aboveground planters & bollards

 10'-20' green buffer zone to include street trees at maxmimum 30' spacing. Area may also include landscape beds, low shrubs & ornamental fencing

FOCUS AREA 4 INDUSTRIAL PKWY. TO STEARNS RD.



 10-20 green buffer zone to include street trees at maxmimum 30' spacing. Area may also include landscape beds, low shrubs & ornamental fencing

GREEN FRONTAGE DIAGRAMS BY FOCUS AREA

As stated previously, the vision for Lorain Road is that buildings and non-built frontages contribute to an improved and more consistent visual experience. These diagrams reflect the preferred approach for non-building frontage in each of the focus areas along the corridor. They include details to screen parking lots and provide improved space for bikes, pedestrians and transit facilities.

space. The City of North Olmsted recognizes that the implementation of this vision will be challenging, but is committed to taking the incremental steps to achieve it. This will require long-term coordination with property owners along the corridor, and may include easements, property acquisition, design assistance programs and other tools to support frontage updates.

development of these details will require additional

Lorain Road has a narrow right-of-way and the

DESIGN GUIDELINES: STREETSCAPE & SIGNAGE

ENHANCING PEDESTRIAN EXPERIENCE

- Street trees should be provided along frontage
- Native planting materials should be incorporated to reduce maintenance and irrigation efforts.
- Landscape materials must offer visual interest in all seasons.
- Amenities such as benches, bike racks, waste/recycling receptacles, etc. must be all part of the overall district's aesthetic and be coordinated from a predetermined amenities package defined by the neighborhood.
- Signage/wayfinding elements must be considered holistically, and if installations occur in phases or over time, they must be coordinated with the established district aesthetic and signage/wayfinding

design language.

 Free-standing signs should utilize post and panel or monument style design.
 Pole-mounted or pylon signs are strongly discouraged. Landscaping should be provided at the base of all free-standing signs.

DESIGN GUIDELINES: OUTDOOR GATHERING SPACE

CREATING OPPORTUNITIES FOR ACTIVE PUBLIC SPACES

- Outdoor area designed and maintained for public use including outdoor seating and small event/festival programming.
- Public gathering spaces should be equipped with utility hook-ups (water and electricity) that are easily accessible to promote ease of use for programming.
- Spaces must be designed to serve multiple generations and activities (passive and active spaces).
- The provision of power sources and Wi-Fi to enable the use of outdoor technology, such as internet access and lighting, is strongly encouraged.

DESIGN GUIDELINES: PARKING

PROVIDING SAFE, CONVENIENT, AND ACCESSIBLE PARKING AREAS

- Parking should be placed in rear of buildings throughout the district.
- Parking lot perimeters must include a visual buffer (ornamental fencing, landscaping/trees, or other elements)
- Ample pedestrian pathways must be provided, well-lit and ADA accessible connecting pedestrians to buildings' front/main entrances (building cut-throughs are permitted at key locations.)
- On-street parking should be maximized and considered for side streets where shopping, dining, residential, or other commercial spaces are envisioned.
- Incorporation of porous surfaces and vegetation/trees must be included at surface parking lots to reduce storm water run-off-,

- urban heat-island effect, and minimize visual impacts.
- Signage, wayfinding, and lighting must be included in parking areas in coordination with overall development and with sensitivity to upper floors uses, especially residents.
- Accommodations for various mobility options must be made available, including charging stations and bike racks.

DESIGN GUIDELINES: MAINTENANCE & PROGRAMMING PLAN

ENSURING LONG-TERM UPKEEP AND SUCCESS

- A separate but designed structure should be developed that serves to support maintenance activity in the programmable spaces within the districts, while also preserving the quality of the physical condition.
- The incorporation of natural vegetation, including tree planters, hanging baskets, shrubs and more require a specific maintenance and care plan unique to species type. Selection of comparable species and applying appropriate the care will serve to maintain the desired aesthetic.
- Similarly, a maintenance and care plan for any unique furnishing and streetscape details, such as unit pavers or painted concrete, also require ongoing care, which should be established upon selection of materials.

PLANNING TOOLS: ZONING UPDATES

The development patterns identified as necessary to create greater density and mixture of uses along the corridor can be achievable without a full overhaul of the existing code.

While this project did not include a full zoning analysis, these high-level recommendations can be explored to support more desirable development patterns.

- Overlay zoning
- Removal of parking minimums
- Expanded uses within zoning districts
- Provision of density/height bonuses

It should be noted that any zoning tools utilized must eliminate exclusionary zoning practices. Policies such as minimum lot size requirements, residential parking minimums, and strict zoning regulations hinder economic mobility, perpetuate inequality, and diminish social cohesion. This ultimately undermines the health and prosperity of cities and their residents.

Many existing zoning codes have remnants of these exclusionary policies, and any zoning updates should seek to eliminate them.



PLANNING TOOLS: INCENTIVE PROGRAMS

The plan recommends physical improvements to the frontage zone along the corridor. As this is privately-owned land in most locations, a policy of incentivizing these upgrades for existing owners is encouraged.

An incentive approach could include:

- Partial reimbursement for physical improvements
- Planning and design assistance for frontage updates
- Easement to provide maintenance assistance
- Green infrastructure grants
- Sewer fee reduction for reduced pavement area
- Public purchase of frontage zone area
- Good neighbor or "Corridor Champion" awards for property owners who undertake frontage improvements

Examples of incentive programs:

https://stormwater.wef.org/2013/01/

five-types-of-green-infrastructure-incentive-programs/

https://cortlandbusiness.com/wp-content/uploads/Cortland-County-BDC-Sign-Facade-Street-Frontage-Grant-Program-FINAL-with-Application. pdf

https://www.georgetownclimate.org/adaptation/toolkits/green-infrastructure-toolkit/incentive-based-tools.html

https://www.epa.gov/sites/default/files/2015-10/ documents/gi_munichandbook_incentives.pdf



FUNDING SOURCES

Description & Link	Eligible Applicants	Categories	Local Match
FEDERAL PROGRAMS			
Infrastructure Investment and Jobs Act (IIJA / Bipartisan Infrastructu	ire Law (BIL)		
The Bipartisan Infrastructure Law is a once-in-a-generation investment in our infrastructure that will help grow the economy, enhance U.S. competitiveness, create good jobs, and build our safe, resilient, and equitable transportation future. It is the largest long-term investment in our infrastructure and economy in our Nation's history. It provides \$550 billion over fiscal years 2022 through 2026 in new Federal investment in infrastructure, including in roads, bridges, and mass transit, water infrastructure, resilience, and broadband.	Depends on specific program being applied for	Depends on specific program being applied for	Not Provided
https://www.fhwa.dot.gov/bipartisan-infrastructure-law/			
Rebuilding American Infrastructure with Sustainability and Equity (R	AISE) Discretiona	I Grant Program	
The Rebuilding American Infrastructure with Sustainability and Equity, or RAISE Discretionary Grant program, provides a unique opportunity for the DOT to invest in road, rail, transit and port projects that promise to achieve national objectives. Previously known as the Better Utilizing Investments to Leverage Development (BUILD) and Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants, Congress has dedicated nearly \$9.9 billion for thirteen rounds of National Infrastructure Investments to fund projects that have a significant local or regional impact.	Counties, Municipalities, Port Authorities, MPOs, Tribal governments	Bike/Pedestrian, Bikeways, Bridge, Pedestrian, Road, Road/ Bridge, Transit, Transit Capital, Transit Center Facilities	20%
https://www.transportation.gov/RAISEgrants/about			
EDA Planning Program and Local Technical Assistance			
Through its Planning and Local Technical Assistance programs, EDA assists eligible recipients in developing economic development plans and studies designed to build capacity and guide the economic prosperity and resiliency of an area or region. The Planning program helps support organizations, including District Organizations, Indian Tribes, and other eligible recipients, with Short Term and State Planning investments designed to guide the eventual creation and retention of high-quality jobs, particularly for the unemployed and underemployed in the Nation's most economically distressed regions. As part of this program, EDA supports Partnership Planning investments to facilitate the development, implementation, revision, or replacement of Comprehensive Economic Development Strategies (CEDS), which articulate and prioritize the strategic economic goals of recipients' respective regions. The Local Technical Assistance program strengthens the capacity of local or State organizations, institutions of higher education, and other eligible recipients to undertake and promote effective economic development programs through projects such as feasibility studies and impact analyses	Non Profits, Institutions of higher education, County governments, City or township governments, State governments	Economic Development	Not Provided
https://www.eda.gov/funding/funding-opportunities/fiscal-year-2021-2023-eda-planning-and-local-technical-assistance			
https://eda.gov/pdf/about/Local-TA-and-UC-Program-1-Pager.pdf			

Description & Link	Eligible Applicants	Categories	Local Match
AMATS Resurfacing Program			
Resurfacing projects on non-state routes using AMATS STP funds	Communities within the AMATS region.	Principal and minor arterials, urban collectors and major rural collectors that are not on a state route.	20%
Transportation Alternatives (TA Set-Aside)			
The Fixing America's Surface Transportation (FAST) Act replaced the former Transportation Alternatives Program (TAP) with a set-aside of funds under the Surface Transportation Block Grant Program(STBG). For administrative purposes, the Federal Highway Administration (FHWA) will refer to these funds as the TA Set-Aside. The TA Set-Aside authorizes funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways.	States, Local Governments, Regional Transportation Authorities, Transit Agencies, Natural Resource or Public Land Agencies, School Districts, Local Education Agencies or Schools, Tribal Governments, Nonprofit entities responsible for the administration of local transportation safety programs, other Local or Regional Governmental entity responsible for transportation or recreational trails	All projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.	0-20%
Surface Transportation Program		1	-
STP funds are the most versatile and may be used for any project that is recommended in or consistent with the AMATS Regional Transportation Plan. STP funds can be used on any federal-aid roadway classified above a local road or a rural minor collector and bridge projects on any public road	Counties, Municipalities	Highway projects and bridge improvements (construction, reconstruction, resurfacing, restoration, and operational), transportation system management, public transit capital improvement projects, commuter rail, carpool projects, bus terminals and facilities, bikeways, pedestrian facilities and planning studies	20%
Congestion Mitigation and Air Quality Improvement Program			
Congestion Mitigation and Air Quality (CMAQ) funds can only be used for projects that help reduce traffic congestion and improve air quality. These funds may be used for traffic signal upgrade projects, bus replacements, bike facilities, intelligent transportation system improvements, transit center and Park-and-Ride construction. <u>https://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/2013_guidance/</u>	Counties, Metroparks, Municipalities, Port Authorities, Transit Agencies	Bike/Pedestrian, Bikeways, Communications Equipment, Computer Hardware/Software, Congestion, Intelligent Transportation Systems, Pedestrian, Road, Road/ Bridge Safety, Traffic Signal Upgrade, Transit Capital, Transit Center Facility, Vehicles	0%-25%

Description & Link	Eligible Applicants	Categories	Local Match
Community Development Block Grant State Administered CDBG and the Neighborhood Stabilization Progra	am		
The Community Development Block Grant (CDBG) program is a flexible program that provides communities with resources to address a wide range of unique community development needs. Federal funding through Housing and Urban Development (HUD) for public facilities: road resurfacing, crosswalks, street lights, traffic/pedestrian signals, barrier removal for handicap accessibility (e.g., sidewalks, curb ramps), and street furniture. The annual CDBG appropriation is allocated between states and local jurisdictions called "non-entitlement" and "entitlement" communities respectively. Entitlement communities are comprised of central cities of Metropolitan Statistical Areas (MSAs); metropolitan cities with populations of at least 50,000; and qualified urban counties with a population of 200,000 or more (excluding the populations of entitlement cities). States distribute CDBG funds to non-entitlement localities not qualified as entitlement communities. Check HUD's, County's, or City's website to see if funding is eligible in your location.	Counties, Municipalities	Bike/Pedestrian, Bikeways, Bridge, Pedestrian, Road, Road/ Bridge, Safety	Varies
https://www.hud.gov/program_offices/comm_planning/ communitydevelopment			
Mobility on Demand (MOD) Sandbox Program			
This program provides funding for new service options in combination with available technologies that allow for greater individual mobility. <u>https://www.transit.dot.gov/research-innovation/mobility-demand-mod-sandbox-program.html</u>	Non-Profits, Transit Agencies, State and Local Governments	Eligible activities include all activities leading to the demonstration of the innovative MOD and transit integration concept, such as planning and developing business models, obtaining equipment and service, acquiring/ developing software and hardware interfaces to implement the project, and operating the demonstration.	Up to 80%
Capital Investment Grant (5309)	1	[4004
FTA's primary grant program for funding major transit capital investments along separate corridor lines, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. It requires steps over several years to be eligible. <u>https://www.transit.dot.gov/funding/grants/capital-investment- grants-5309</u>	Counties, Municipalities, Port Authorities, Transit Agencies	Transit, Transit Capital, Transit Center Facility, Vehicles	40%
Building Blocks for Sustainable Communities (USEPA)	1		
Local land use decisions, such as transportation options, housing type and location, stormwater management, and issues of equity, all have direct impacts on the health and environment of our communities. Founded in 2011, the Building Blocks for Sustainable Communities program works with local communities across the United States, including tribes and territories, to develop smart growth solutions and strategies in ways that benefit human health and the environment. The program uses an inclusive and locally-led process that strengthens local capacity, facilities partnerships, and creates a path forward to achieve community-identified goals. <u>https://www.epa.gov/smartgrowth/building-blocks-sustainable- communities</u>	Local, county, or tribal governments, or nonprofit organizations that have the support of the local government on whose behalf they are applying.	Sustainable Communities, tribes and territories	Not Provided

Description & Link	Eligible Applicants	Categories	Local Match
Highway Safety Improvement Program (HSIP)			
The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State- owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance. https://highways.dot.gov/safety/hsip/guidance-legislation-policy	State and local governments	Intersection safety improvements for the safety of all road users, railway-highway grade crossing safety projects, traffic calming, installation or upgrades of traffic control devices for pedestrians and bicyclists, roadway improvements that provide separation between motor vehicles and bicyclists, pedestrian security features designed to slow or stop a motor vehicle.	10%
Promoting Resilient Operations for Transformative, Efficient, and Cos	st-saving Transp	ortation (PROTECT)	
The BIL establishes the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program to help make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk costal infrastructure. A competitive grant program is also available.	State Governments; Local Governments; Federally Recognized Tribes and Affiliated Groups; Planning and Project Organizations; U.S. Territories	Extreme weather resilience and emergency response infrastructure	0-20%
Bicycle and Pedestrian Planning, Program, and Project Development			
Improving safety and infrastructure for bicycling and walking creates an integrated, intermodal transportation system that provides travelers with a real choice of transportation modes. Bicyclists and pedestrians have the same origins and destinations as other transportation system users. It is important for all users to have safe and convenient access to airports, ports, ferry services, transit stations and stops, and other intermodal facilities as well as access to jobs, education, health care, and other essential services. Transportation professionals should plan, design, construct, and maintain transportation facilities for all users, including bicyclists and pedestrians. <u>https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/ guidance_2019.cfm</u>	State and local governments	Sidewalks and trails, especially those for transportation over recreation; pedestrian crossing islands, hybrid beacons, and leading interval signals; paved shoulders; restriping for crosswalks or on- street bike lanes; transit vehicles with pre- installed bike racks	20%
Active Transportation Infrastructure Investment Program	A		
This new program was authorized in the Bipartisan Infrastructure Law. The program establishes competitive connectivity grants that strategically invest in projects that connect active transportation networks, accelerating local and regional plans to create safe and convenient routes to everyday destinations. This program is not yet funded. <u>https://www.railstotrails.org/policy/trailstransform/active-transportation- infrastructure-investment-program/</u>	Local or regional governmental organizations (including metropolitan planning organizations or regional planning organizations and councils), Multicounty special district, States, Multistate group of governments, Tribal governments	Active transportation projects and planning grants that build upon a local/regional/state network; Networks focused around essential and popular community destinations and integrated with transit facilities	Not Provided

Description & Link	Eligible Applicants	Categories	Local Match
Carbon Reduction Program			
This new program was authorized in the Bipartisan Infrastructure Law. Can be used to fund complete street designs that allow communities to access essential and popular destinations and integrate into public transit	States, and can be re- apportioned ot other programs	Planning, designing, and building a wide variety of multimodal on- and off-road projects	0-20%
https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet. cfm		that support carbon reduction.	
STATE PROGRAMS			
County Highway Safety Program (County Engineers Association of Or	nio)		
The County Safety Program provides grant funds to counties, through the County Engineers, for safety related improvements, on county maintained roadways. The County Engineers Association of Ohio (CEAO) serves as program manager for project selection and administration.	Ohio Counties	Wide variety of safety project including congestion, planning, safety, traffic signal upgrades	0-20%
http://www.ceao.org/aws/CEAO/asset_manager/get_file/52318			
Clean Ohio Green Space Conservation Fund (Ohio Public Works Com	nission)	<u> </u>	
This program is dedicated to environmental conservation including acquisition of green space and the protection and enhancement of river and stream corridors. Grant recipients agree to maintain the properties in perpetuity so that they can be enjoyed and cherished for generations to come. <u>https://pwc.ohio.gov/Programs/Clean-Ohio-Application</u>	Counties, Metroparks, Municipalities, Non Profits, Port Authorities, Sewer Districts, Transit Agencies	Bike/Pedestrian, Bikeways, Environmental, Natural Habitat Preservation and Restoration, Pedestrian, Resilience Efforts, Storm Water Improvements	Varies
Clean Ohio Trails and Recreational Trails (Ohio Department of Natura	l Resources)		
A standalone bicycle and/or pedestrian project can be funded with Clean Ohio Trails, and Recreational Trails Program funds.	Municipalities	Bike/Pedestrian	Varies
https://ohiodnr.gov/buy-and-apply/apply-for-grants/grants			
Clean Ohio Fund (Ohio)			
The Clean Ohio Fund restores, protects, and connects Ohio's important natural and urban places by preserving green space and farmland, improving outdoor recreation, and cleaning up brownfields to encourage redevelopment and revitalize communities. This program includes Brownfield Revitalization, Farmland Preservation, Green Space Conservation and Recreational Trails. The program supports improved outdoor recreational opportunities by funding trails for outdoor pursuits including land acquisition for a trail, trail development, trailhead facilities, engineering and design.	Counties, Metroparks, Municipalities, Non Profits, Port Authorities	Bike/Pedestrian, Bikeways, Environmental, Natural Habitat Preservation and Restoration, Pedestrian	25%
https://development.ohio.gov/cleanohio/			
Community Development Block Public Infrastructure Grant Program	(Ohio)	· · · ·	
Community Development Block Public Infrastructure Grant Funds are granted to local government applicants for both economic development loan and public infrastructure projects. Public off-site infrastructure funds are retained as a grant by the local government. In the case of a loan, the local government grantee loans the funds to the beneficiary business for fixed asset financing projects and the funds are repaid to the local government Revolving Loan Fund. <u>https://development.ohio.gov/community</u>	Counties, Municipalities	Bike/Pedestrian, Bikeways, Bridge, Community Water System Improvements, Environmental, Pedestrian, Road, Road/Bridge, Sewer Construction, Storm Water Improvements, Wastewater Treatment Plant Improvements	Not Provided

Description & Link	Eligible Applicants	Categories	Local Match
Economic Development Loan and Public Infrastructure Grant Progra	m (Ohio)		
Eligible activities include provision of financial assistance, through eligible units of general local government, for public off-site infrastructure improvements and fixed asset financing for land, building, machinery and site preparation directly and primarily related to the creation, expansion or retention of a particular business that results in job creation and retention for persons of low- and moderate-income. <u>https://development.ohio.gov/community/economic-development/2- economic-development</u>	Counties must apply on behalf of villages and townships; counties may also apply on behalf of cities within their	Economic development loan and public infrastructure projects	Not Provided
Jobs & Commerce (Ohio Department of Transportation)	jurisdiction.		
Eligible activities include provision of financial assistance, through eligible units of general local government, for public off-site infrastructure improvements and fixed asset financing for land, building, machinery and site preparation directly and primarily related to the creation, expansion or retention of a particular business that results in job creation and retention for persons of low- and moderate-income.	Counties, Municipalities	Bike/Pedestrian, Pedestrian, Road, Road/ Bridge	Not required
https://www.transportation.ohio.gov/programs/jobs-commerce/jobs- commerce			
Land and Water Conservation Fund (Ohio Department of Natural Res	ources)		
This program provides funding for acquisition, development, and rehabilitation of recreational areas. http://realestate.ohiodnr.gov/outdoor-recreation-facility-grants	Counties, Metroparks, Municipalities,	Bike/Pedestrian, Bikeways, Environmental, Natural	50%
The frequestate of Iourn gov/outdoor recreation facility grants	Port Authorities	Habitat Preservation and Restoration, Pedestrian	
Natureworks Grants (Ohio Department of Natural Resources)	-		-
This program provides funding for acquisition, development, and rehabilitation of recreational areas. https://ohiodnr.gov/buy-and-apply/apply-for-grants/grants	Counties, Municipalities	Bike/Pedestrian, Bikeways, Environmental, Natural Habitat Preservation and Restoration, Pedestrian, Resilience Efforts	25%
Ohio State Infrastructure Bank (SIB) (Ohio Department of Transporta	l tion)		l
"The Ohio State Infrastructure Bank provides loans to fund highway, rail, transit, intermodal, and other transportation facilities and projects which produce revenue to amortize debt while contributing to the connectivity of Ohio's transportation system and further the goals such as corridor completion, economic development, competitiveness in a global economy, and quality of life.	Counties, Municipalities, Port Authorities, Transit Agencies	Bike/Pedestrian, Bikeways, Bridge, Congestion, Freight, Pedestrian, Road, Road/ Bridge, Safety, Traffic Signal Upgrade, Transit, Transit Capital, Transit Center Facility, Vehicles	N/A
https://www.transportation.ohio.gov/programs/state-infrastructure-bank			L
ODOT Program Resource Guide (Bicycle and Pedestrian) Bicycle and Pedestrian facilities can be eligible for funding in a variety	Municipalities	Riko Safatu Drogram	0%-20%
of transportation funding programs if they are appurtenances to the roadway project itself. A standalone bicycle and/or pedestrian project can be funded with Transportation Alternative, Clean Ohio Trails, and Recreational Trails Program funds. The projects must relate to transportation, i.e., getting somewhere, with logical termini at each end. ODOT administers and funds projects in the rural areas of Ohio with Transportation Alternatives funding, while the Metropolitan Planning Organizations selects Transportation Alternative projects in urban areas.	Municipalities	Bike Safety Program, Bike/Pedestrian, Bikeways, Safety	0% 20%
https://www.transportation.ohio.gov/programs/local-programs			
Recreational Trails Program (Ohio Department of Natural Resources)	1	1	
Includes development of urban trail linkages, trailhead & trailside facilities, acquisition of easements & property, development and construction of new trails. https://ohiodnr.gov/buy-and-apply/apply-for-grants/grants/recreational-	Counties, Metroparks, Municipalities, Non Profits, Dart Authorities	Bike Safety Program, Bike/Pedestrian, Bikeways, Pedestrian, Pedestrian Safety	20%
trails-program	Port Authorities	Program	

Eligible	C ala service	Local
Applicants	Categories	Match
Municipalities, Non Profits, School Districts	Bike Safety Program, Bike/Pedestrian, Bikeways, Helmets, Pedestrian, Pedestrian Safety, Program Planning, Road, Road/ Bridge, Safety	<u>0%</u>
		001 0001
Municipalities	Bike Safety Program, Bike/Pedestrian, Bikeways, Safety	0%-20%
Counties, Cities, Villages, Townships	Road and Bridge Improvements	0%
Counties, Municipalities, Sewer Districts	Bridge, Community Water System Improvements, Road, Road/Bridge, Sewer Construction, Storm Water Improvements, Wastewater Treatment Plant Improvements	0%-50
	<u> </u>	1
Counties, Municipalities	Bridge, Road, Road/ Bridge	20%
	Municipalities, Non Profits, School Districts Municipalities Municipalities Counties, Cities, Villages, Townships Counties, Sewer Districts	ApplicantsCategoriesMunicipalities, Non Profits, School DistrictsBike Safety Program, Bike/Pedestrian, Bikeways, Helmets, Pedestrian, Redestrian Safety, Program Planning, Road, Road/ Bridge, SafetyMunicipalitiesBike Safety Program, Bike/Pedestrian, Bike/Pedestrian, Bike/Pedestrian, Bike/Pedestrian, Bike/Pedestrian, Bike/Pedestrian, Bikeways, SafetyMunicipalitiesBike Safety Program, Bike/Pedestrian, Bike/Pedestrian, Bikeways, SafetyCounties, Cities, Villages, TownshipsRoad and Bridge ImprovementsCounties, Sewer DistrictsBridge, Community Water System Improvements, Road, Road/Bridge, Sewer Construction, Storm Water Improvements, Wastewater Treatment Plant Improvements, Wastewater Treatment

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Description & Link	Eligible Applicants	Categories	Local Match
OTHER PROGRAMS			
Eaton Corporation Charitable Fund			
The Eaton Charitable Fund is dedicated to supporting programs that improve the quality of life in communities where the company operates. The Fund gives primary consideration to requests for programs located in an Eaton community, recommended by an Eaton manager and where our employees demonstrate leadership involvement. Programs selected for funding will have clearly defined objectives, measurable end results, and provide a positive return on investment.	Communities within where the company operates.	Arts and culture, education, health, cancer, housing, disaster relief, human services, and community development. Special emphasis is directed toward organizations	Not Provided
https://www.eaton.com/us/en-us/company/sustainability/community- involvement.html		with which employees of Eaton are involved.	
Rockefeller Foundation Grants			
The Rockefeller Foundation works to spread the benefits of globalization to more people in more places around the world. Funding inquiries must fit within these core areas: Health, Food, Power, Resilient Cities,Innovation and Co-Impact. Resilient Cities focuses on helping cities worldwide build better and build back to improve the lives and well-being of urban populations.	Counties, Metroparks, Municipalities, Non Profits, Port Authorities, School Districts, Sewer Districts, Transit Agencies	Environmental, Helmets, Intelligent	N/A
		Planning, Resilience Efforts, Storm Water Improvement, Transit, Transit Center Facility	
The George Gund Foundation			
The George Gund Foundation's guidelines reflect a deep commitment to place, to the Greater Cleveland Community. Their philanthropic stewardship of this region reflects a long-standing interests in the arts, economic development and community revitalization, education, environment and human services because these areas embrace most of the major issues that any community must address. While much of their work is within these program areas, there is increasing awareness that many issues and, therefore, many grant proposals do not fit neatly into one program category so they are becoming ever more interdisciplinary.	Counties, Metroparks, Non Profits, Port Authorities, School Districts, Sewer Districts, Transit Agencies	Bike Safety Program, Bike/ Pedestrian, Bikeways, Environmental, Helmets, Natural Habitat Preservation and Restoration, Nutrient Reduction, Pedestrian, Planning, Resilience Efforts, Storm Water Improvement	N/A
https://gundfoundation.org/			
Goodyear Community Support	1	1	
Goodyear's grant program is designed to utilize resources to build and support collaborative programs within our community investment focus areas. Our key focus areas reflect the global and local nature of our business and where Goodyear can make the greatest impact including: promoting safe mobility to make our communities stronger (safe); inspiring people to reach their potential in school and prepare for careers (smart); and, reducing waste and conserving energy for our planet (sustainable).	Organizations that demonstrate competency and effectiveness	Promoting safe mobility to make our communities stronger (safe), and reducing waste and energy conservation (sustainable).	N/A
<u>https://corporate.goodyear.com/en-US/responsibility/community/</u> community-support.html			

