

LORAIN COUNTY LAKEFRONT CONNECTIVITY TLCI PLAN

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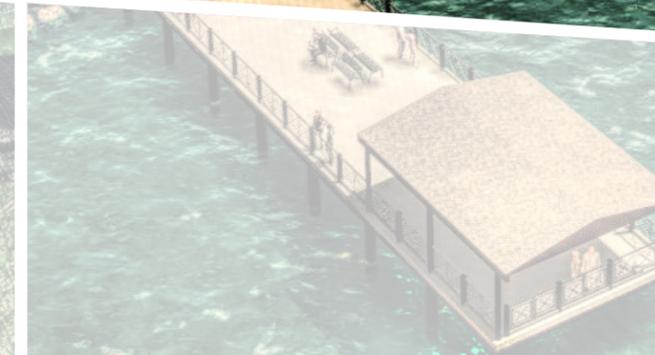
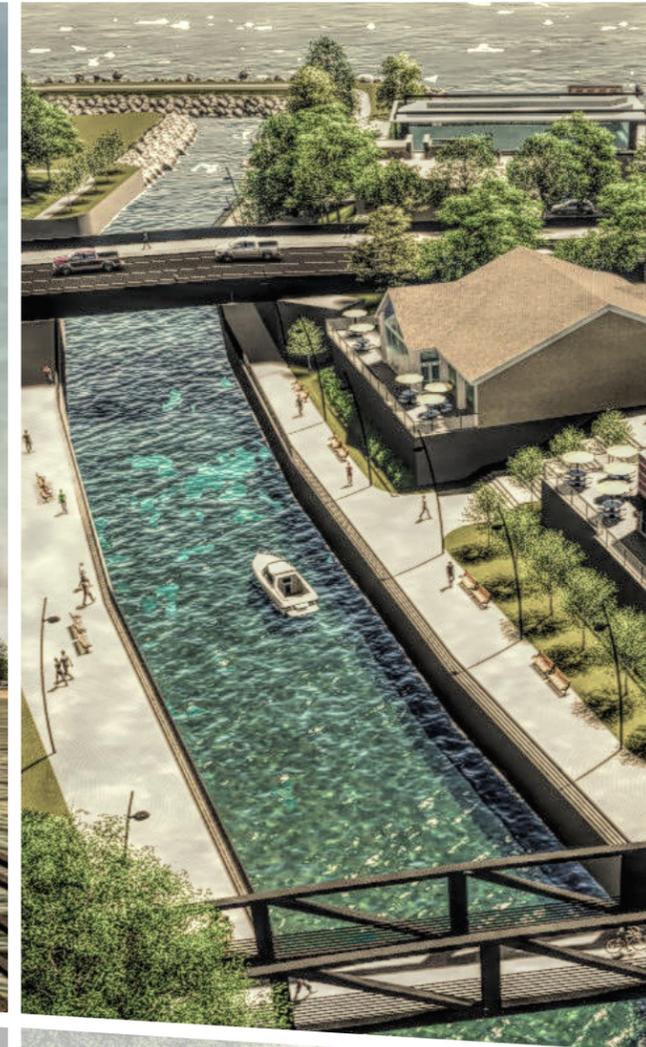
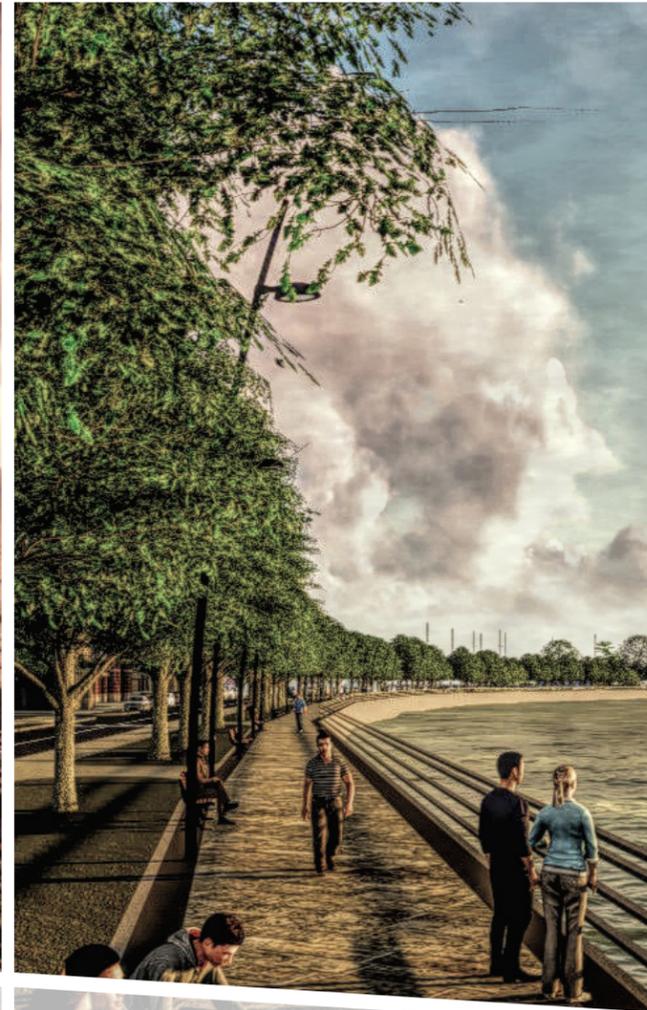
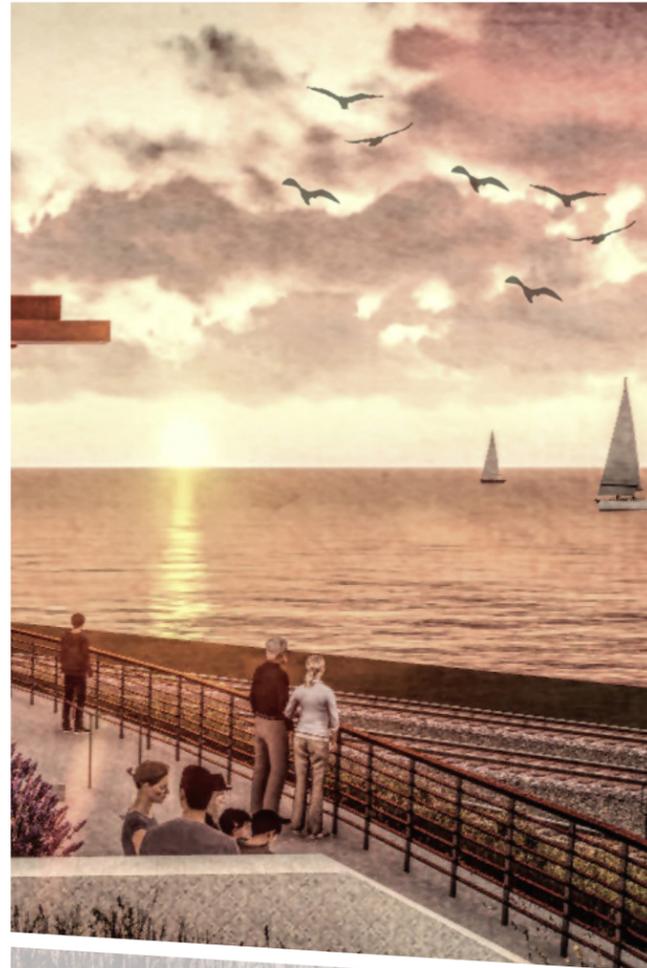




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THE TLCI PROGRAM

In the fall of 2016, the Lorain County Board of Commissioners was awarded competitive federal funds through NOACA's Transportation for Livable Communities Initiative (TLCI) program. The TLCI program provides up to 100% of funds for the program's two components: Planning and Implementation. Planning Awards fund studies that can lead to improvements in transportation systems and the neighborhoods those systems support. Implementation Awards help communities move forward with installing infrastructure recommended by a completed TLCI planning study or a similar community-based plan. The funding is made available to communities and public agencies that seek innovative approaches to create livable communities and provide more travel options.



PROGRAM GOALS

- Develop transportation projects that provide more travel options through complete streets and context sensitive solutions, increase user safety and supporting positive public health impacts
- Promote reinvestment in underutilized or vacant/abandoned properties through development concepts supported by multimodal transportation systems
- Support economic development through place-based transportation and land use recommendations, and connect these proposals with existing assets and investments
- Ensure that the benefits and burdens of growth, change and transportation projects are distributed equitably by integrating accessibility and environmental justice into projects
- Enhance regional cohesion by supporting collaboration between regional and community partners
- Provide people with safe and reliable transportation choices that enhance their quality of life

The Lorain County Board of Commissioners partnered with Lorain County Metro Parks, the City of Avon Lake, the City of Sheffield Lake, the City of Lorain, the City of Vermilion and NOACA (Northeast Ohio Areawide Coordination Agency) to conduct the Lorain County Lakefront Connectivity TLCI (Transportation for Livable Communities Initiative) Plan. The Board received a TLCI grant in the fall of 2016 to develop a lakefront connectivity plan and economic development plan for key sites along Route 6. The study area encompasses US Census Tracts that are adjacent to Lake Erie in Avon Lake, Sheffield Lake, of Lorain, and Vermilion. The study area begins just west of the Vermilion city limits (in Erie County) at the intersection of Reynolds Road and Route 6 in Vermilion Township, and extends to the eastern border of Avon Lake at the Lorain County line. The site touches parts of both Lorain County and Erie County.

One client meeting, three stakeholder

meetings and five public meetings were held for the project. These meetings were conducted to seek information on the preferences users have for on-road, and off-road bike facilities as well as the final redevelopment plans created for each community. They were held throughout the development process to gain valuable feedback as the plan progressed. Private Economic Development Community Interviews were also held to further understand the vision for each community and determine priorities for targeted development sites.

Based on the findings from these meetings by residents, business owners, property owners, and stakeholders, on-road bike lanes were important as well as having a multi-use trail adjacent to the roadway for pedestrians and recreational cyclists. It was also very important to the participants that the final recommendations were located within the public right-of-way.

Final recommendations plan for on-road bike lanes along the Route 6 corridor

and a 10-foot trail along the length of the route wherever feasible. Where a 10-foot trail does not fit within the public right-of-way, the trail will be reduced to an 8-foot widened sidewalk or 5-foot sidewalk.

Each community chose one priority site along Route 6 to be envisioned as a site for economic development/redevelopment. The City of Vermilion chose the IRG Lorain property, north of Route 6, the City of Lorain chose its downtown finger piers, the City of Sheffield Lake chose to redevelop the Shoreway Shopping Center, and the City of Avon Lake chose their priority site as the Artstown Shopping Center.

Multiple plans were developed for each priority site. Designs for each community were based on their individual needs and growth opportunities. Final recommendations exhibit these aspects in various forms ranging from lakefront parks to complete downtown district developments. The proposed recommendations account for the character and unique aesthetics of each community.

EXECUTIVE SUMMARY

THE CORE TEAM

LORAIN COUNTY
COMMISSIONERS



LORAIN COUNTY
METRO PARKS



NORTHEAST
OHIO AREAWIDE
COORDINATING
AGENCY



THE CITY OF AVON LAKE



THE CITY OF LORAIN



THE CITY OF SHEFFIELD LAKE



THE CITY OF VERMILION

STAKEHOLDERS

Avon Lake	Lorain County	NOACA
Avon/Avon Lake Community Resource Services	Lorain County Board of Commissioners	ODOT District 3
Community Foundation of Lorain County	Lorain County, Chamber of Commerce	Office of US Representatives
Elyria Bike Center	Lorain County Public Health	RDS Construction
FireFish	Lorain County Metro Parks	Sheffield Lake
Charleston Village Society, Inc.	Lorain County Port Authority	Vermilion, City of
Lorain, City of	Lorain Port Authority	Vermilion Council
	Lorain County Metro Housing Authority	Visit Lorain County

CONSULTANT TEAM

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 **inSITE**
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Michelle Johnson Environmental Design Group
Ben Mckeeman Environmental Design Group
Caitlin Russell Environmental Design Group
Reneé Whittenberger Environmental Design Group





PROJECT BACKGROUND







PROJECT GOALS

- increase economic activities along the lakefront communities and Lorain County
- improve the health of residents, employees, and visitors to the area
- connect non-lakefront communities in Lorain County to the waterfront
- improve the environmental impacts associated with various forms of transportation and development
- reduce air pollution caused by vehicle traffic and reducing water pollution in Lake Erie caused by storm water runoff
- enhance the region's quality of life



AREA HISTORY

The lakefront communities in the study area each have unique histories and characteristics that can be leveraged and enhanced. Understanding the history of each community can help guide future visions and assist in navigating the many opportunities and challenges they face.

Prior to the purchase and establishment of the Western Reserve, the lakefront area along the corridor was inhabited by Native Americans and European settlers. With the creation of Cuyahoga County to the east in 1810, followed by Lorain County in 1822, the small villages along the lake steadily grew in size.

The City of Avon Lake began as a small township of Cuyahoga County before being absorbed into the newly designated Lorain County in 1822. Avon Lake has its roots in the settlement of European seamen who dotted its coast

with small shipbuilding operations. In 1915 Avon Lake was separated from the surrounding Avon Township and later granted city status in 1960. By 2010, Avon Lake was home to over 22,000 people

Sheffield Lake, the smallest of the cities in the study area, was originally founded as the community of Sheffield in 1815 by its namesake Captain John Day Sheffield from Massachusetts. The land, purchased from the Western Reserve by Captain Sheffield, was historically inhabited by Native American tribes before being settled by European farmers. As of 2010, the city was home to just over 9,000 residents.

The City of Lorain is the most populous of the corridor's communities, being home to more than 64,000 people in 2010. Though much of the city falls outside of the study area boundary, the lakefront downtown

area along Route 6 and the Black River still serves as the heartbeat for this former industrial legacy city. As the largest city in Lorain County, Lorain was impacted by the population and industrial decline typical of Rust Belt cities in the twentieth century.

The City of Vermilion, with a population of more than 10,000 in 2010, began with a rich history as a fishing and boating community reaching back to its settlement in the early 1800s. Located at the mouth of the Vermilion River, it served as a key Lake Erie navigation landmark with the addition of the Vermilion Lighthouse in 1847. Though the city never became an industrial shipping port like its neighbor, Lorain, the city still maintains its maritime roots through the extensive system of recreational boat canals and marinas.

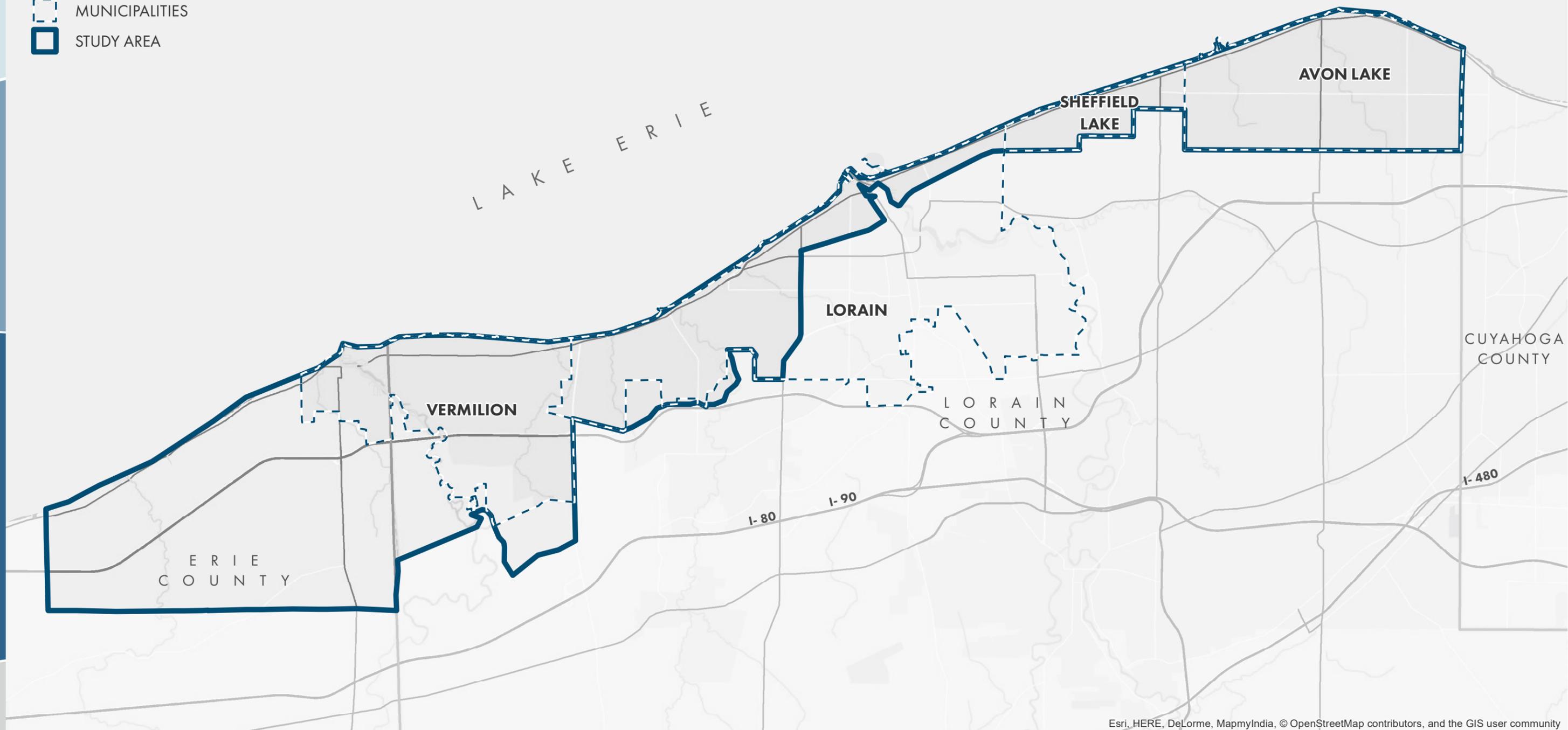
TLCI STUDY AREA



1 in = 2 miles



- MUNICIPALITIES
- STUDY AREA



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The Site

The site is divided into four major municipalities; Vermilion, Lorain, Sheffield Lake, and Avon Lake. The boundaries of the site were determined by census tracts that border Lake Erie, which closely follow the focus corridor of Route 6.

STUDY AREA + CONTEXT

The 67-square mile study area stretches along the southern Lake Erie shoreline, across the coastal areas of Lorain County and a portion of Erie County. Located to the west of Cleveland, this 28-mile long corridor begins in the City of Avon Lake, stretching westward through the City of Sheffield Lake, the City of Lorain, and the City of Vermilion before ending in Vermilion Township.

This corridor is traversed by US Route 6, also known as the Grand Army of the Republic Highway, serving as the primary east-west transportation artery for the study area's 62,000 residents (US Census Bureau, 2012). I-80, I-90, and Ohio Route 2 provide additional east-west connectivity to the surrounding region, south of the corridor.

The portion of US Route 6 located within the study area is part of the Scenic Byway known as the Lake Erie

Coastal Ohio Trail and Great Lakes Circle Tour. The entirety of US Route 6 is currently on the proposed Ohio State Bike Route System and is also on a number of long distance cycling maps produced by the American Cycling Association. This corridor is also addressed in NOACA's Regional Bikeway Priority Network and scores well in the Potential Bikeway Demand model [<http://www.noaca.org/index.aspx?page=52>].

The study area is comprised primarily of residential neighborhoods, with higher densities in the eastern portion of the study area and gradually becoming more rural heading west towards Vermilion Township. Major commercial centers are located immediately along US Route 6, with the largest being downtown Lorain and downtown Vermilion.

City of Avon Lake is home to several major industrial sites including

the NRG coal-fired generation plant, Ford Assembly Plant, and Lubrizol Plant. Additional major industrial areas are centered around the Black River that flows through or just east of downtown Lorain, connecting it to major Great Lakes shipping routes. The City of Vermilion, at the mouth of the Vermilion River, is primarily residential and features a vibrant historic downtown district along US Route 6. West of the City of Vermilion, the landscape gradually changes to a less dense residential and agricultural setting.

All design standards listed within this study follow current American Association of State Highway and Transportation Officials (AASHTO) and American Disabilities Act (ADA) guidelines, which allow for potential federal funding of the recommended design facility.



LORAIN COUNTY
LAKEFRONT CONNECTIVITY TLCI PLAN
VERMILION



Lorain

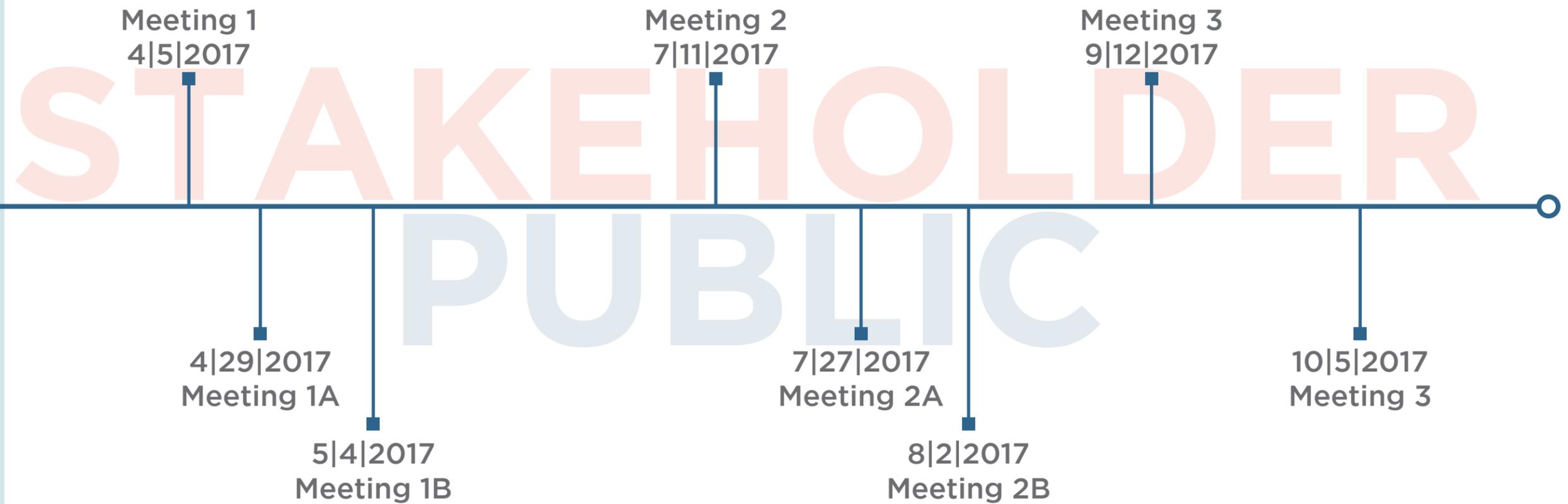
With over
200 locations,
great care is
even closer to you.

PUBLIC + STAKEHOLDER INVOLVEMENT



Public meetings present an opportunity to educate attendees on the technical aspects of planning, such as types of facilities and how each serves unique cyclist user groups.

PUBLIC + STAKEHOLDER INVOLVEMENT TIMELINE



BUILDING CONSENSUS

Successful planning or development studies is often reply upon the creative and thoughtful input gained from community engagement. Project stakeholders, local business leaders, can provide and politicians, and the public at large can provide meaningful ideas and feedback enabling the project to better fulfill the community's needs and objectives.

Engaging these parties into the project from the beginning often raises the status and potential impact of the plan. In the case of this TLCl study, project stakeholders and the public were engaged over the course of nine total formal meetings. The stakeholder meetings provided crucial technical and advisory feedback on the pieces and parts of the plan, and refinement of the ideas to be presented at the subsequent public meetings.

Five public meetings were conducted in each of the four communities (shown as meetings 1a, 1b, 2a, 2b & 3) to make sure that access to the meeting locations were spread throughout the study area. Throughout the planning process, over 300 people participated in the public involvement process for this study. The public meetings provided

opportunities to educate attendees on types of trail and pedestrian connectivity, define user groups, and present alignment ideas for feedback. In addition to providing feedback on the proposed trail network, attendees also had an opportunity to rank project concepts and features in importance and preference. During the third public meeting attendees were provided with a set of \$10 million "project dollars" to spend. The "project dollar" stickers were applied to the various development sites and trail configuration options to gain insight into the public's preferences on funding and implementation priorities.

As the study progressed, all aspects of the public and stakeholder feedback were considered and thoughtfully applied to the study elements to ensure a final product that would generate excitement and consensus from the communities. Public meeting fliers were widely distributed to announce the upcoming public meetings locations and dates for each meeting. Facebook, twitter and various stakeholder websites were also used to advertise the public meetings.



Members of the public spend their project dollars to rank the various proposed facilities and development sites.



Stakeholders are key to providing technical advice and groundtruth knowledge. Work session round tables such as this helped guide transportation facility development.



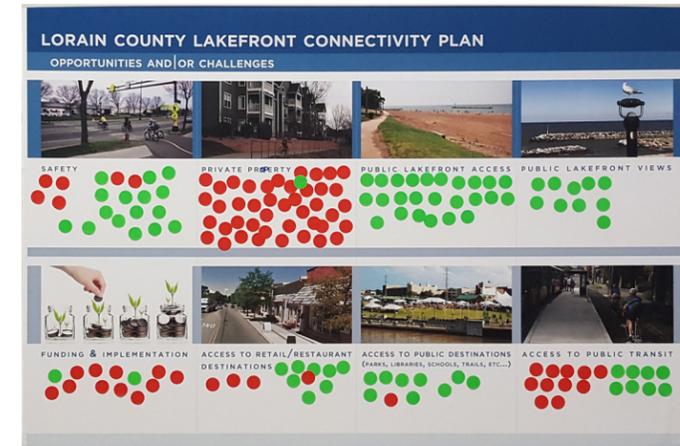
PUBLIC MEETINGS 1a & 1b

Public Meeting 1a was conducted during the day at the Vermilion Gardeners' Fair on April 29, 2017. Public Meeting 1b took place at the Sheffield Lake Community Center in the evening on May 4, 2017.

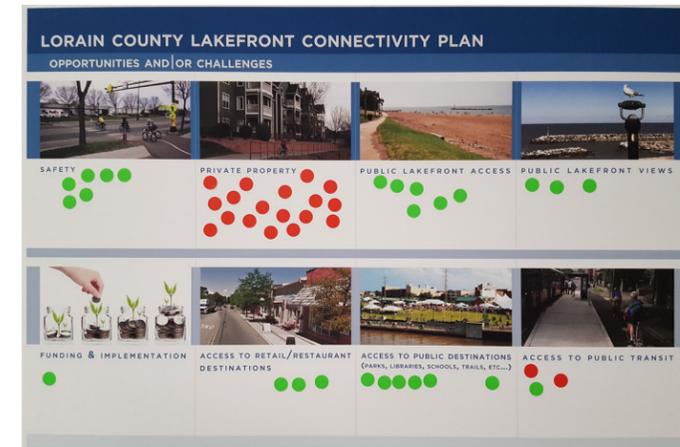
The April 29th meeting was more of 'public involvement' than a formal meeting. People lead busy lives and we have found that participation is much greater for project public involvement when offered a variety of public involvement settings. We go to the people where they are already gathering, vs. holding only evening meetings where we ask people to take time out of their busy schedules to always come to us. This being said, we set up a booth at the Gardeners' Fair to solicit input on the opportunities and strengths of the study area. We gathered this input through a simple and quick Red Dot/Green Dot exercise. Each participating individual was handed two red dot and two green dot stickers to place on the project boards. The placement of a red dot on a concept/theme indicated

that they thought that the item was a challenge or undesirable. The placement of a green dot indicated that they thought that the item was an opportunity or highly desirable. We specifically only handed out two dots of each color so that people had to make a decision and prioritize as to what was most desirable/presented the most opportunity vs. what they thought was the least desirable/presented the most challenges. Because of its simplicity and high participation rate, and as you will see throughout the public involvement section, we frequently used this method of information gathering throughout the planning process.

We gathered the same input at the May 4th meeting in Sheffield Lake. In addition to the Red Dot/Green Dot exercise, we started the sit-down meeting with a formal presentation about the project, had small break-out group discussions, conducted discussion report-outs by each table, and allowed time for general questions and answers about the project.



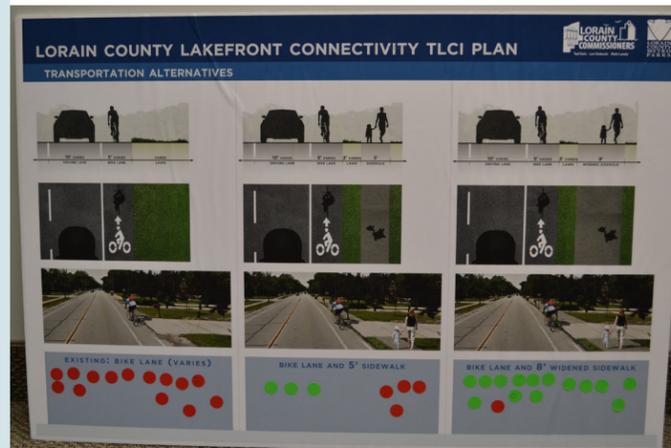
Red Dot/Green Dot results from Public Meeting 1a, held in Vermilion



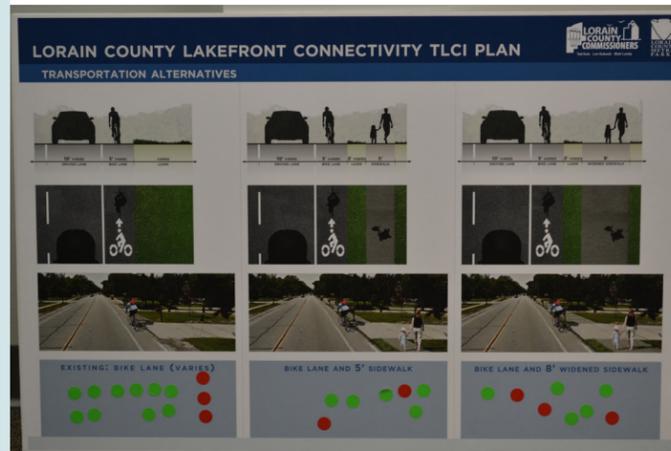
Red Dot/Green Dot results from Public Meeting 1b, held in Sheffield Lake

PUBLIC MEETINGS 2a & 2b

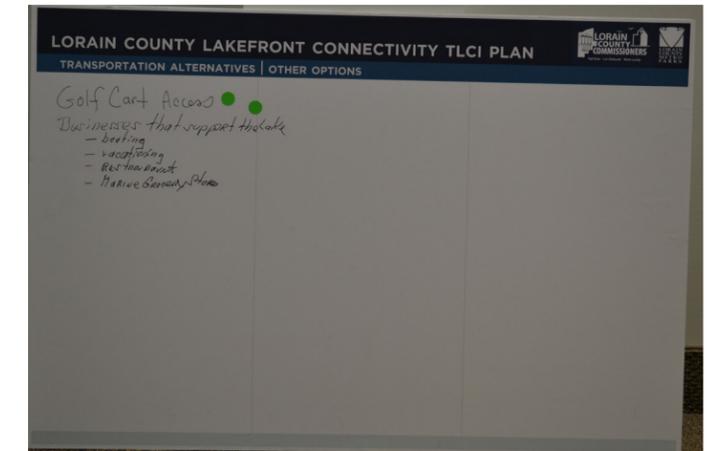
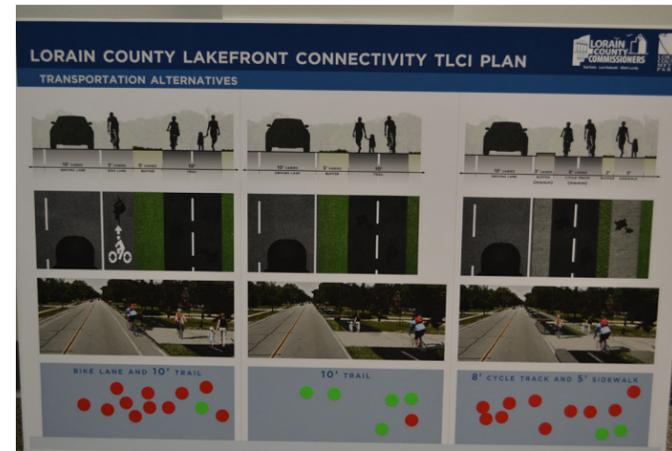
Public Meetings 2a and 2b took place on July 27, 2017 in Lorain and August 2, 2017 in Avon Lake, both as evening meetings. Multi-modal transportation facility types were the main focus of each meeting. Short formal presentations kicked off the meetings to share information on different facility types and different facility users. We then had small break-out group discussions, conducted discussion report-outs by each table, allowed time for general questions and answers about the project, and ended the meeting with the Red Dot/Green Dot voting exercise on preferred facility types for the corridor. (see next page for voting tallies)



Red Dot/Green Dot results from Public Meeting 2a, held in Lorain



Red Dot/Green Dot results from Public Meeting 2b, held in Avon Lake



Misc. Public Comments from Public Meeting 2b

PUBLIC MEETINGS 2a & 2b Results

TRANSPORTATION ALTERNATIVES RED DOT / GREEN DOT VOTE TOTALS

	STAKEHOLDER 2		PUBLIC 2-A		PUBLIC 2-B		TOTAL		%	
EXISTING (BIKE LANE)	12	1	14	0	3	10	29	11	73%	28%
BIKE LANE + 5' SIDEWALK	1	15	4	3	2	5	7	23	23%	77%
BIKE LANE + 8' SIDEWALK	1	6	1	14	3	5	5	25	17%	83%
BIKE LANE + 10' TRAIL	0	8	1	10	11	1	12	19	39%	61%
10' TRAIL	5	6	0	10	1	5	6	21	22%	78%
8' CYCLE TRACK + 5' SIDEWALK	17	0	16	0	10	2	43	2	96%	4%

TRANSPORTATION ALTERNATIVES RED DOT / GREEN DOT VOTE TOTALS

	STAKEHOLDER 2		PUBLIC 2-A		PUBLIC 2-B		TOTAL		%	
EXISTING (BIKE LANE)	12	1	14	0	3	10	29	11	73%	28%
BIKE LANE + 5' SIDEWALK	1	15	4	3	2	5	7	23	23%	77%
BIKE LANE + 8' SIDEWALK	1	6	1	14	3	5	5	25	17%	83%
BIKE LANE + 10' TRAIL	0	8	1	10	11	1	12	19	39%	61%
10' TRAIL	5	6	0	10	1	5	6	21	22%	78%
8' CYCLE TRACK + 5' SIDEWALK	17	0	16	0	10	2	43	2	96%	4%

BIKE LANES + WIDENED SIDEWALK / TRAIL **88**

79%

TRAIL / CYCLE TRACK + SIDEWALK (NO BIKE LANES) **23**

21%

79% of the combined total Green Dot votes preferred some variation of a widened, bi-directional multi-modal facility (i.e. a bike lane with a 8' widened sidewalk, a bike lane with a 10' trail or a stand-alone 10' trail).

Photos from Public Meeting 2a



Photos from Public Meeting 3

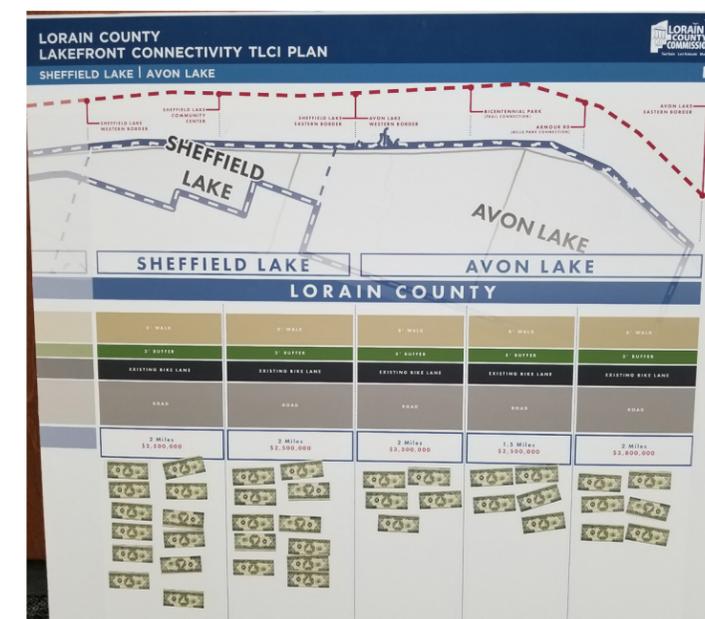
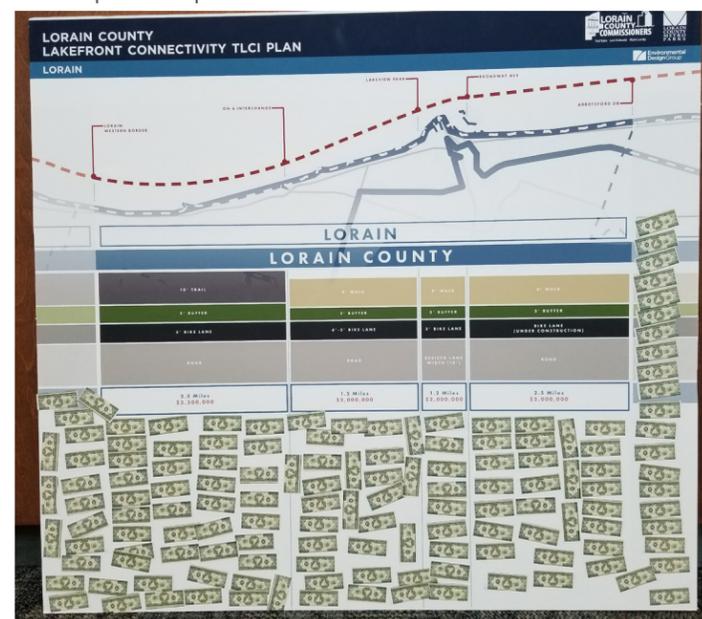
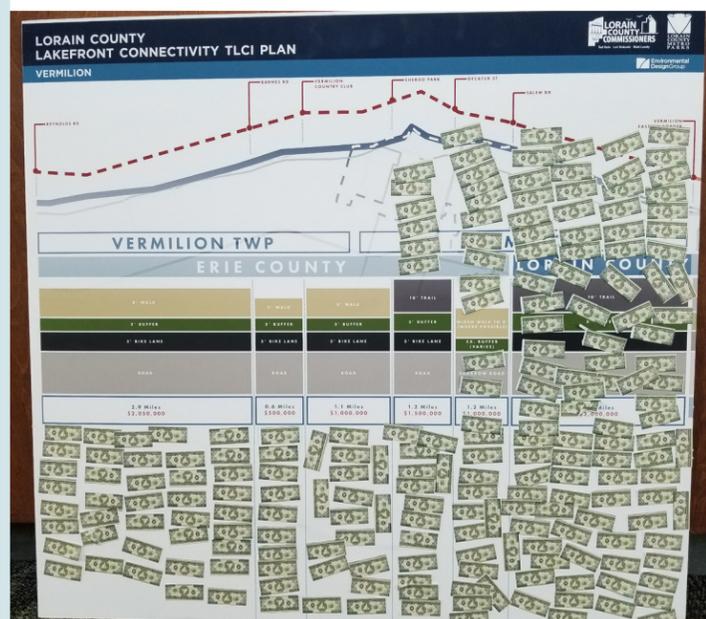


PUBLIC MEETING 3

Public Meeting 3 was extremely well attended (especially given that the Cleveland Indians played in the Major League Baseball playoffs that same night!) and was conducted in Lorain at Lakeview Park on October 5, 2017. The results of Public Meetings 2a and 2b were presented as well as the final recommendations for the multi-modal transportation alternatives along the entire length of the corridor and the final site redevelopment plans for each of the four communities. After the formal

presentation was given, each participant was given ten stickers that each had a \$1 Million dollar bill printed on it (which equaled \$10 Million dollars per person). Participants were instructed to use their \$10 Million dollars to prioritize which segments of the multi-modal alternatives they preferred (as shown on the boards below), but many people chose to place some of their stickers on the redevelopment site plans as a supporting “yes” vote for the conceptual plans.

It should be noted that given that the final public meeting was conducted in Lorain, a strong majority of the participants placed their \$1 Million dollar priority stickers on transportation alternative sections that are proposed within the City of Lorain, which was to be expected with the meeting location. That being said, the redevelopment site plan in Vermilion was the favored project for the evening via the sticker votes.





The Route 6 corridor traverses many unique scales of the built environment, with each presenting unique opportunities and challenges. The downtown Lorain drawbridge is one such feature that requires creativity to be successfully integrated into the larger network.

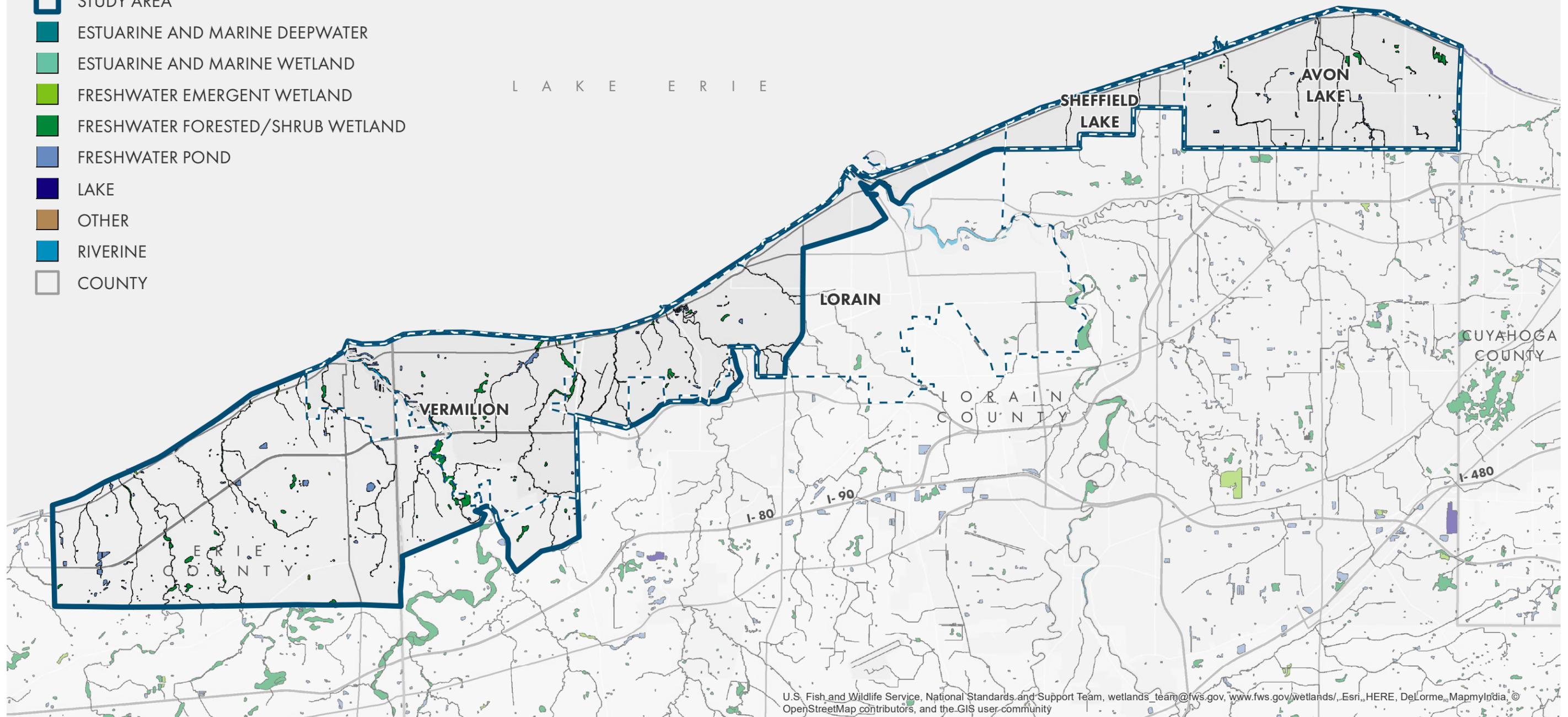
MAPPING + ANALYSIS

WETLAND INVENTORY



1 in = 2 miles
0 0.5 1
Miles

-  MUNICIPALITIES
-  STUDY AREA
-  ESTUARINE AND MARINE DEEPWATER
-  ESTUARINE AND MARINE WETLAND
-  FRESHWATER EMERGENT WETLAND
-  FRESHWATER FORESTED/SHRUB WETLAND
-  FRESHWATER POND
-  LAKE
-  OTHER
-  RIVERINE
-  COUNTY



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, www.fws.gov/wetlands/, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Exploring Natural Constraints

A key aspect of creating a facility alignment is understanding existing natural barriers in the study area. Though numerous creeks, streams, and rivers bisect the corridor there are minimal areas where wetlands pose a challenge. This is helped by the already developed Route 6 corridor.

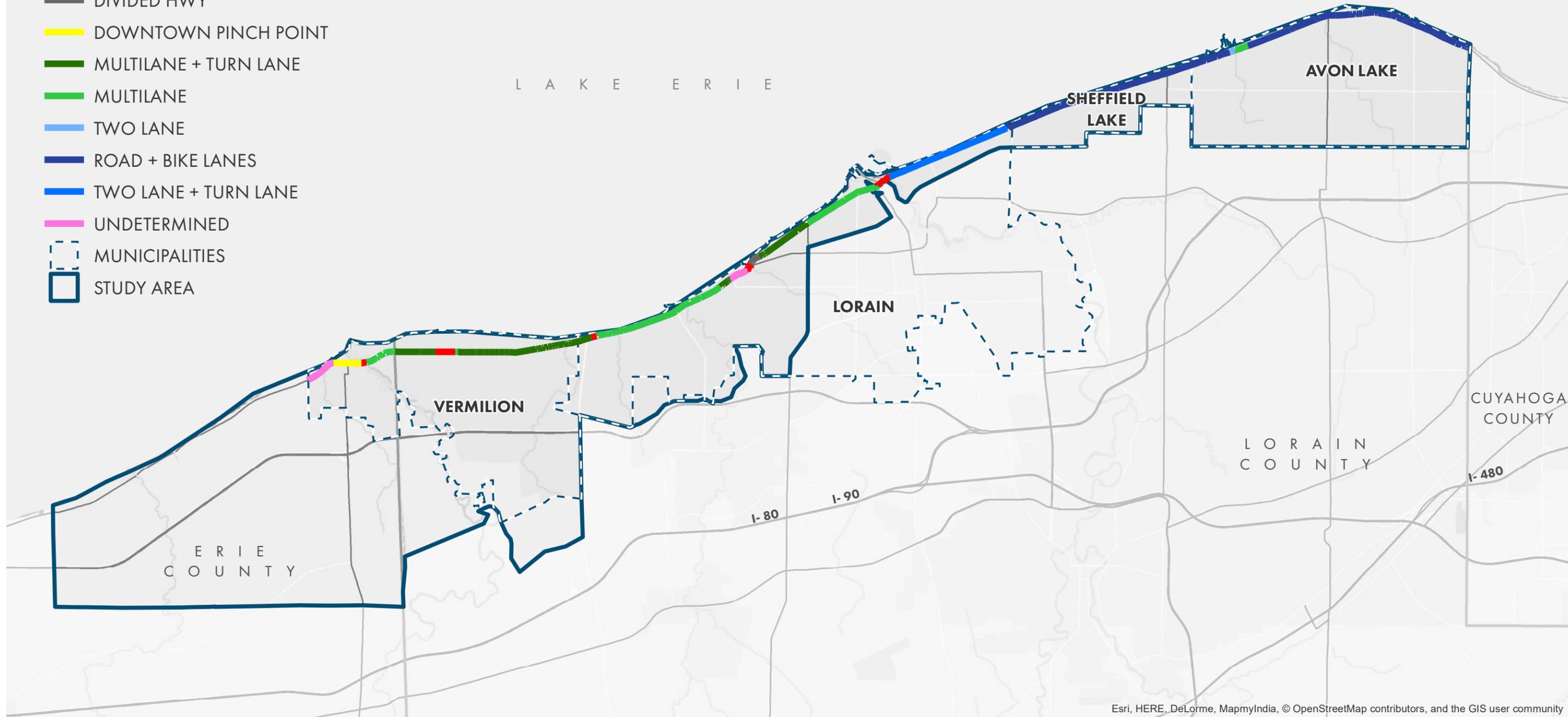
CORRIDOR RIGHT-OF-WAY ANALYSIS

LANE CONFIGURATION AND PINCH POINTS



1 in = 2 miles
0 0.5 1
Miles

- █ BRIDGE PINCHPOINT
- █ DIVIDED HWY
- █ DOWNTOWN PINCH POINT
- █ MULTILANE + TURN LANE
- █ MULTILANE
- █ TWO LANE
- █ ROAD + BIKE LANES
- █ TWO LANE + TURN LANE
- █ UNDETERMINED
- MUNICIPALITIES
- STUDY AREA



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Between the Lines

With a significant amount of development through much of the corridor, understanding public/private property limitations of buildable area within the road right-of-way is necessary. A thorough analysis of the buildable area was conducted to determine what facility types worked best for each stretch of Route 6.

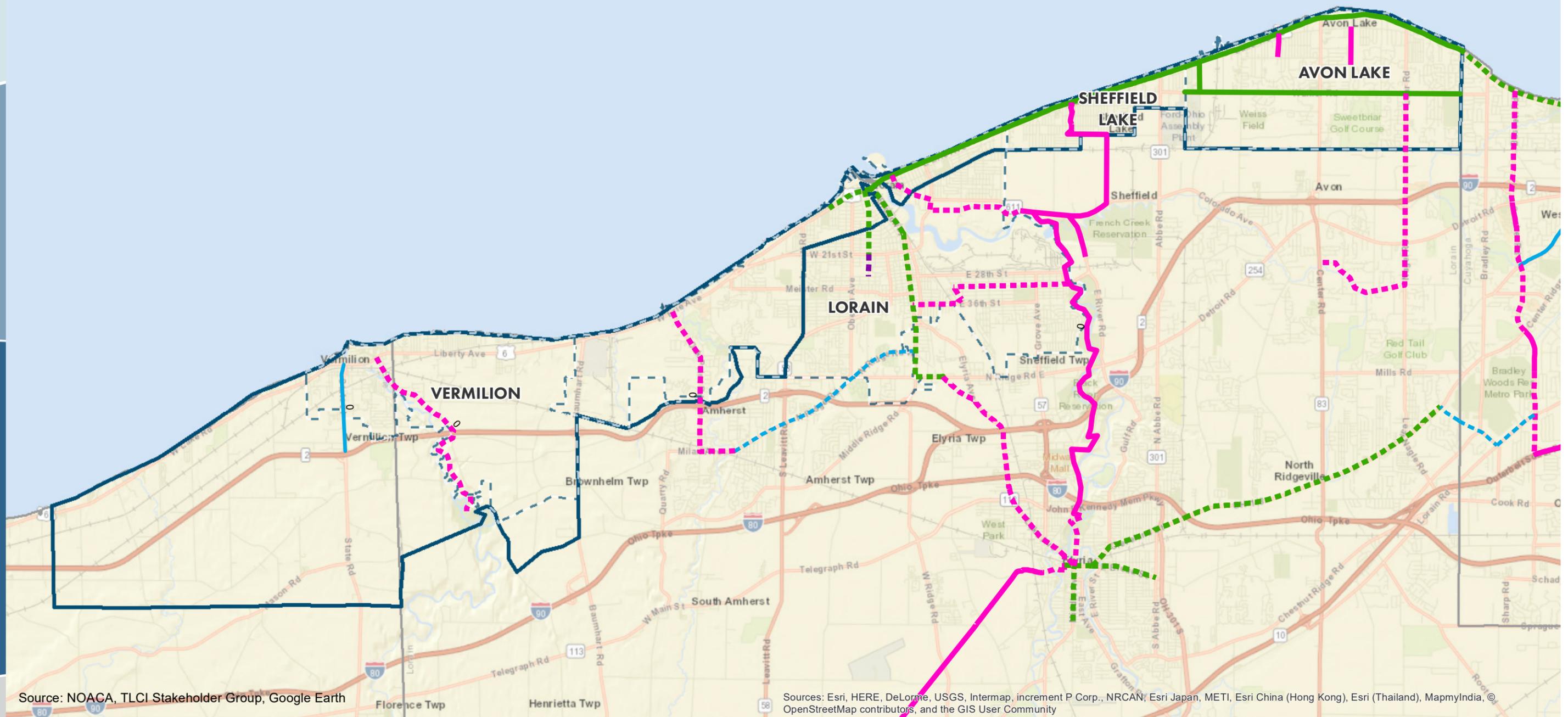
EXISTING + POTENTIAL BIKE / TRAIL CONNECTIONS



1 in = 2 miles

0 0.5 1

Miles



Source: NOACA, TLCI Stakeholder Group, Google Earth

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Leveraging the Network

As seen in the figure above, numerous bike and pedestrian facilities have been, or are under, development in and around the study area. Since many of these focus on north/south connections to bring communities to the lake, a continuous east/west connection along Route 6 fits into the big picture.

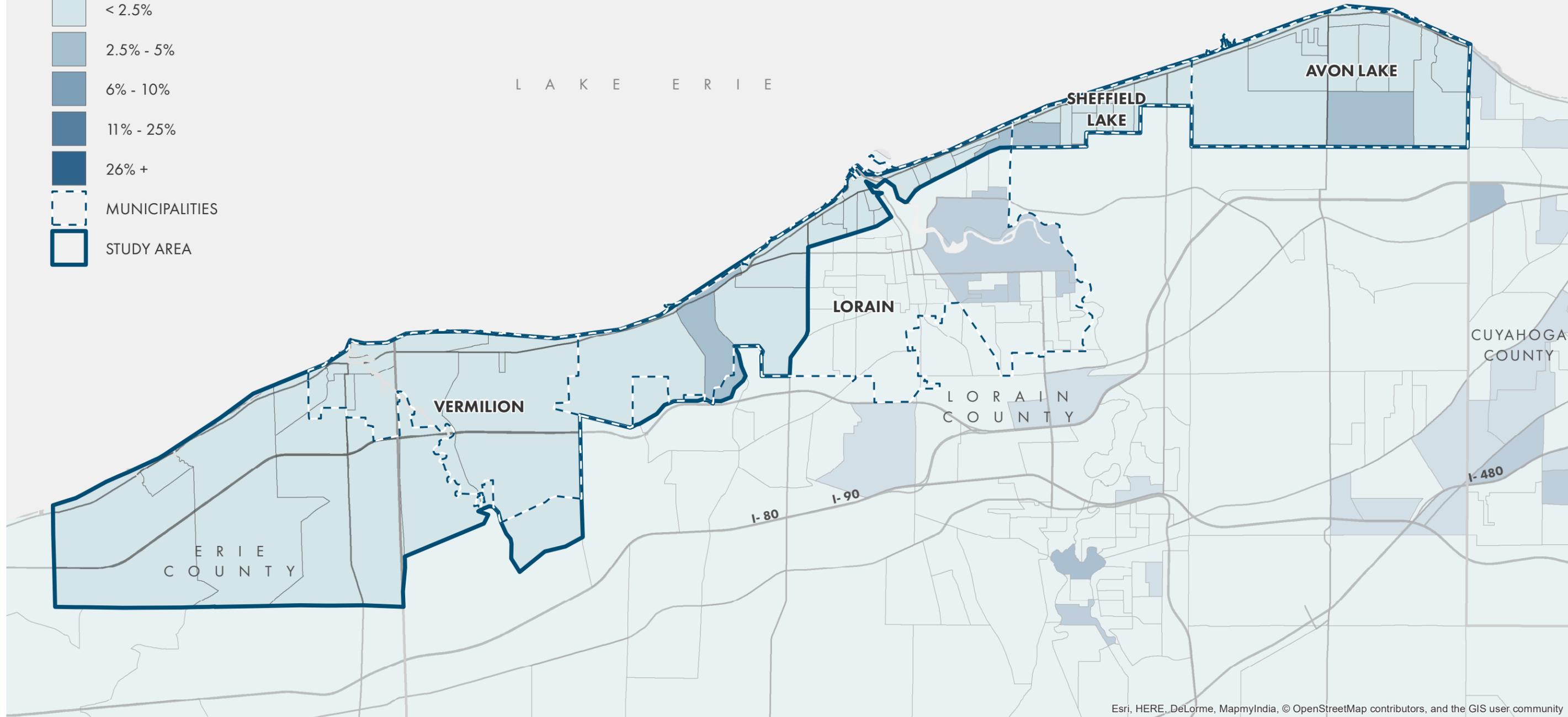
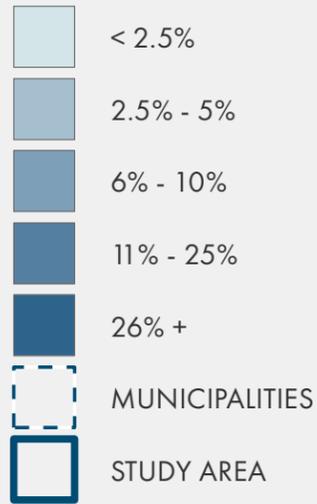
- EXISTING BIKE LANE
- - - PLANNED / POTENTIAL BIKE LANE
- - - POTENTIAL SHARROWS
- EXISTING TRAIL / SIDEPATH
- - - PLANNED / POTENTIAL TRAIL / SIDEPATH
- - - MUNICIPALITIES
- EXISTING WIDENED SIDEWALK
- - - PLANNED WIDENED SIDEWALK
- STUDY AREA

PUBLIC TRANSIT COMMUTERS

PERCENT PER CENSUS BLOCK GROUP (2014 ACS ESTIMATE)



1 in = 2 miles



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Potential Users

In addition to providing recreational opportunities, bicycle and pedestrian networks can also benefit those who rely on public transportation in everyday life. Although vehicle-based transportation is the predominant mode in the study area, there are areas in which transit users can also benefit from increased safety and connectivity.

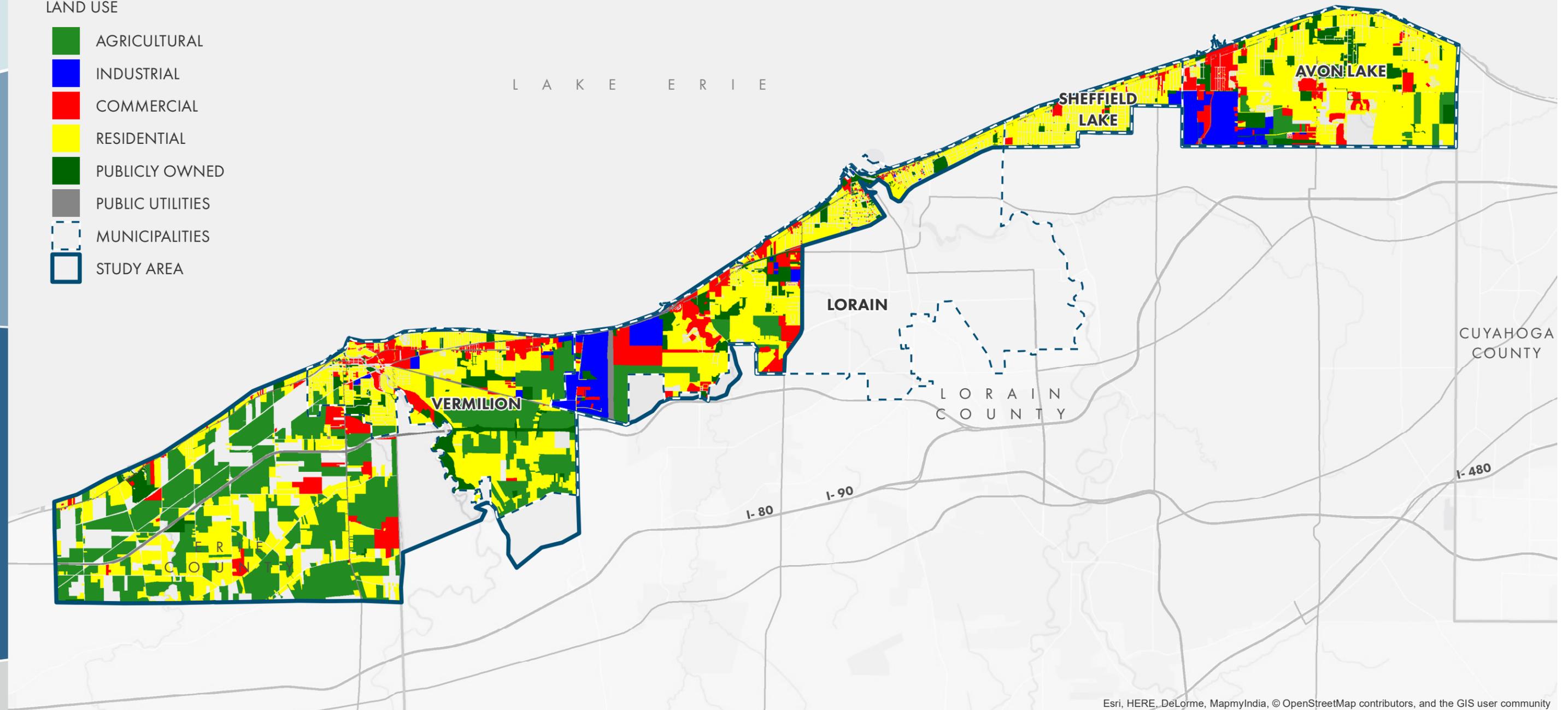
CORRIDOR LAND USE



1 in = 2 miles
0 0.5 1
Miles

LAND USE

- AGRICULTURAL
- INDUSTRIAL
- COMMERCIAL
- RESIDENTIAL
- PUBLICLY OWNED
- PUBLIC UTILITIES
- MUNICIPALITIES
- STUDY AREA



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Land Use Patterns

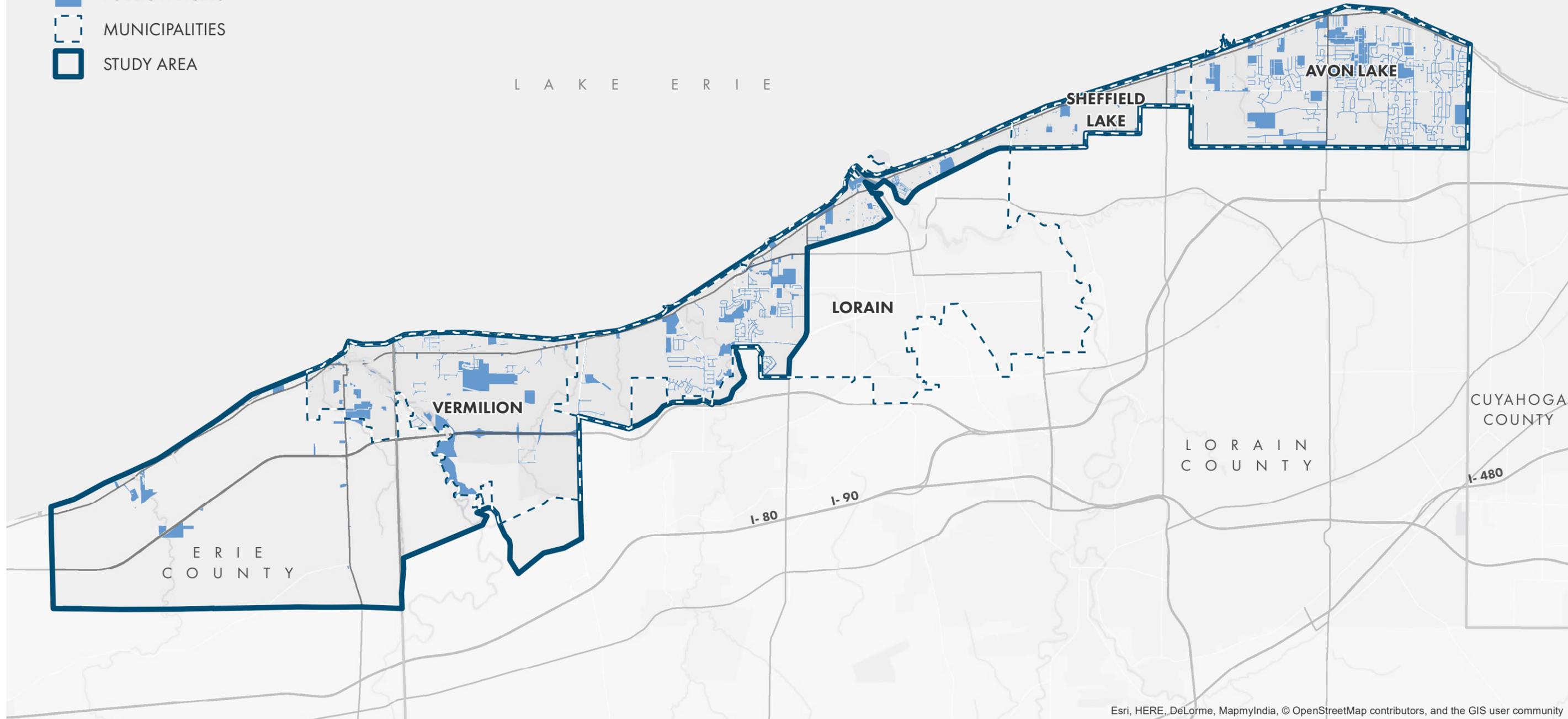
The Route 6 corridor presents many unique landscapes ranging from dense single family residential, to wide-reaching agricultural fields. Industrial sites, while large, are concentrated in limited areas. Commercial districts are centered primarily along Route 6, as well as main north/south arteries.

PUBLIC PROPERTY



1 in = 2 miles
0 0.5 1
Miles

-  PUBLIC PARCELS
-  MUNICIPALITIES
-  STUDY AREA



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Public Property

In addition to the public right-of-way, public property can most easily be leveraged to provide increased connectivity. The numerous public parks and greenspaces within the study area offer many opportunities to tie into existing networks. Additional public property can be assembled to create viable tracts of land for future development sites.

BIKE NETWORK

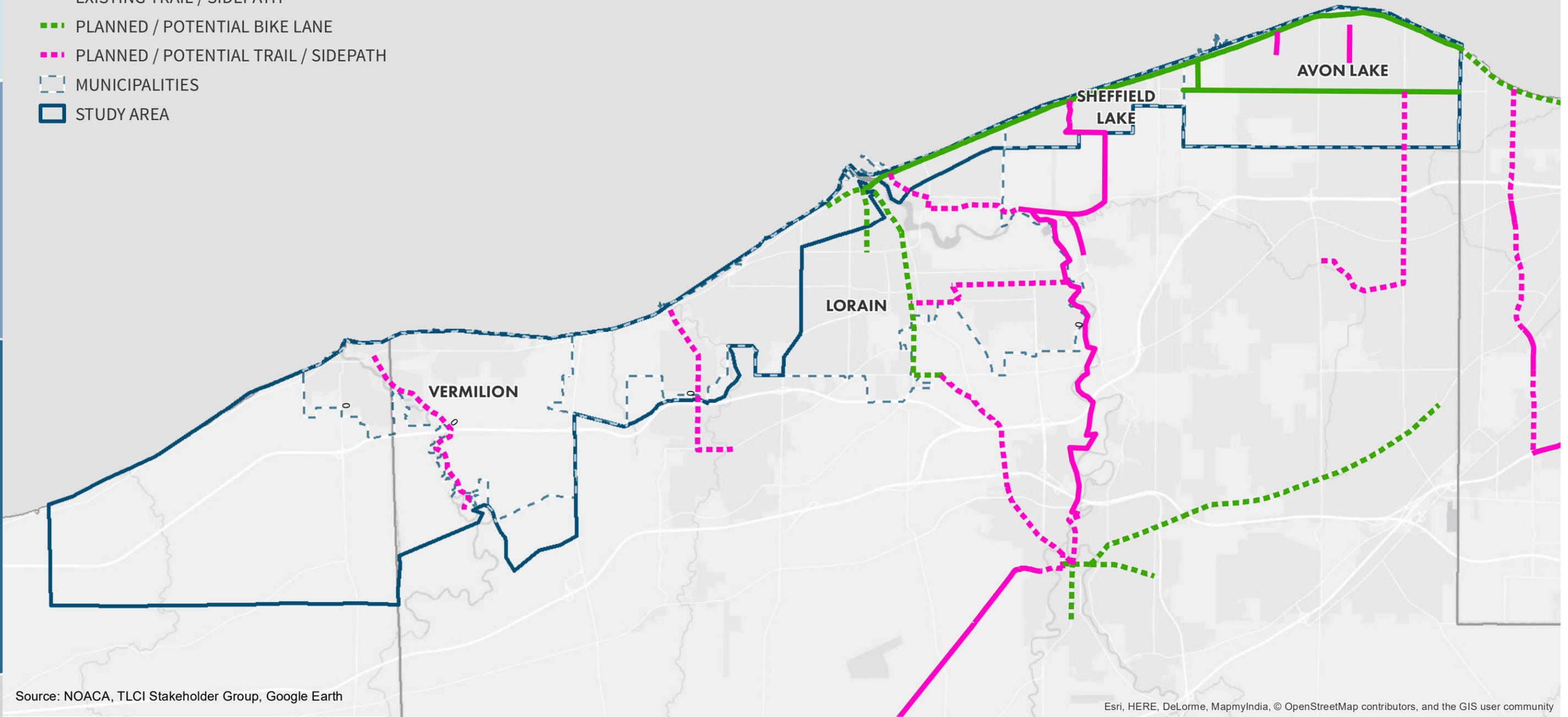


1 in = 2 miles

0 0.5 1

Miles

- EXISTING BIKE LANE
- EXISTING TRAIL / SIDEPATH
- PLANNED / POTENTIAL BIKE LANE
- PLANNED / POTENTIAL TRAIL / SIDEPATH
- MUNICIPALITIES
- STUDY AREA

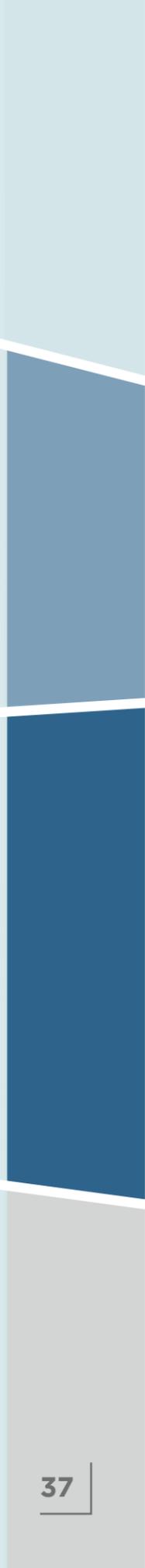


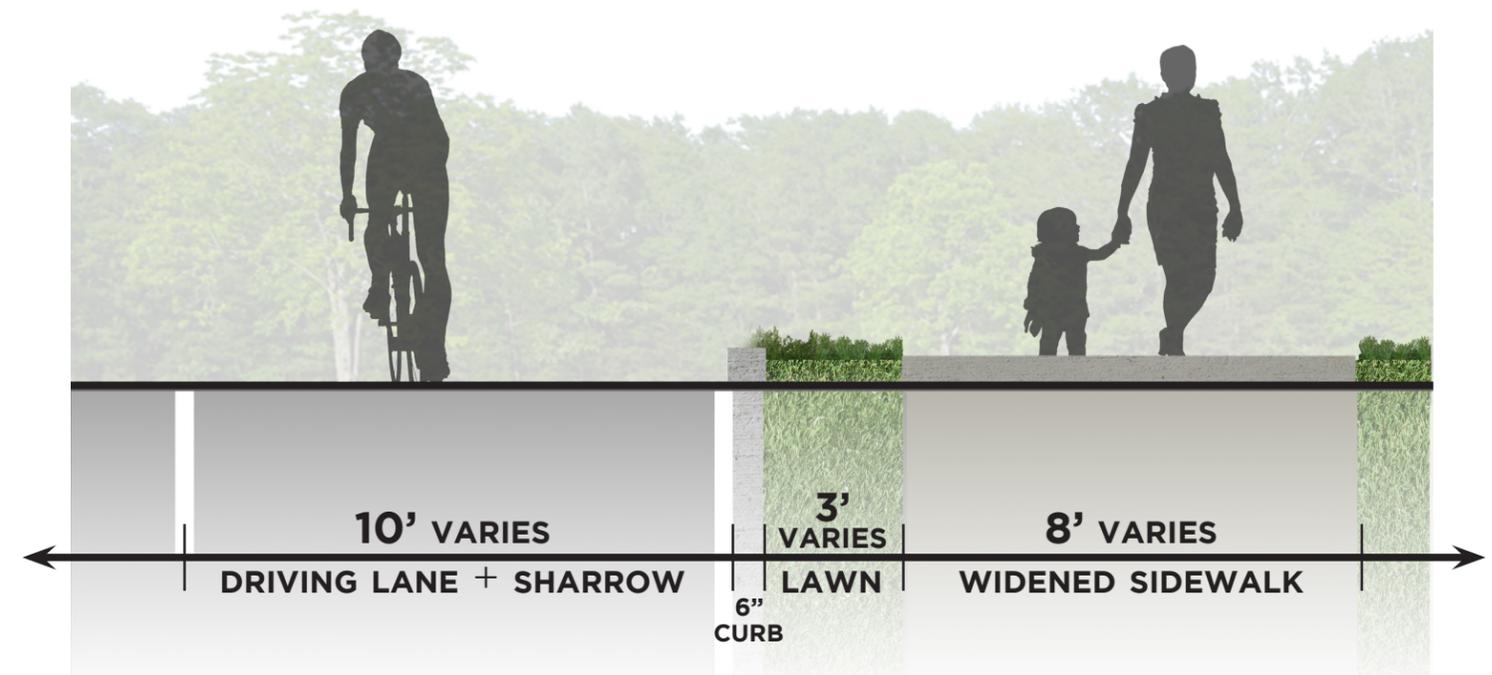
Source: NOACA, TLCI Stakeholder Group, Google Earth

Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Bike Lanes

Much of the study area, including all of Avon Lake and Sheffield Lake, has existing bike lanes already present along Route 6. Lorain has plans to grow its bike lane inventory along Route 6 and city-wide.





Sidewalks/Widened Sidewalks

Sidewalks are intermittent within the study area. The City of Lorain has the most consistent sidewalk network within the study area, but gaps do occur along the Route 6 corridor, especially on the western side of the city.

Sidewalks are typically concrete with joints, but can be decorative and include pavers or stamped concrete.

Newly constructed sidewalks need to be five feet in width and a 1/4 inch or less vertical change per the new ADAAG (American Disabilities Act Accessibility Guidelines) standards. In a sidewalk repair situation, the minimum sidewalk width is four feet and the vertical change needs to be 1/2 inch or less.

Widened sidewalks are typically seven to eight feet wide. Eight feet in width is ideal because it allows for two bicycles, wheelchairs, etc. to safely pass one another when traveling opposite directions. Traditional 5-foot sidewalks and widened 8-foot sidewalks are both recommended within the study.

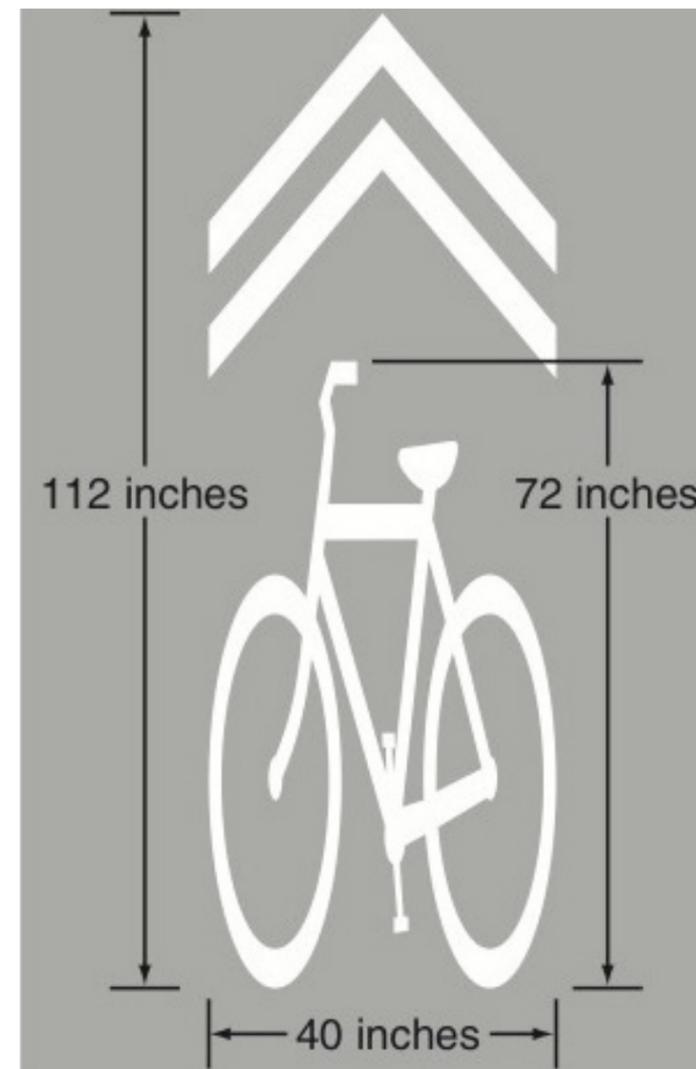
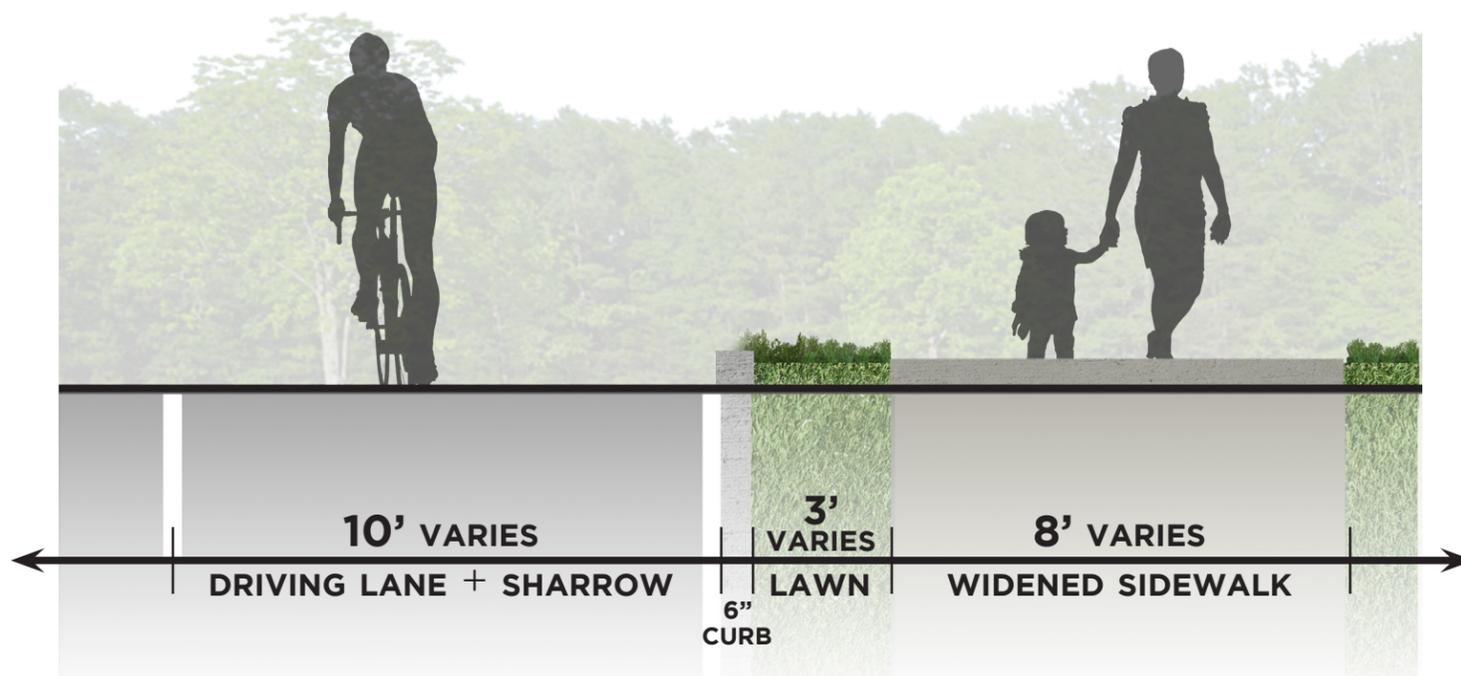


Figure 9C-9. Shared Lane Marking



Sharrows

According to the MUTCD (Manual of Uniform Traffic Devices), on streets with on-street parallel parking, shared-lane markings, or sharrows, should be placed at least 11 feet from the face of the curb, or edge of the traveled way where there is no curb. On streets without on-street parallel parking, shared-lane markings should be placed at least 4 feet from the face of the curb, or edge of the traveled way where there is no curb. Sharrows should be installed immediately after every intersection and every

250 feet after that.

Sharrows require good sight distance and low traffic volumes and are not appropriate for roadways that have a posted speed limit of over 35 mph.

“Bicycles May Use Full Lane” signs should accompany sharrow pavement markings, but the signs do not necessarily need to occur at the frequency of the pavement markings. This sign may be used on roadways without bike lanes or usable shoulders, such as in Downtown

Vermillion, where travel lanes are too narrow for bicyclists and motorists to operate side by side within a lane. Drivers in the front, whether on a bicycle or in a motorized vehicle, have the right-of-way. For the Route 6 corridor, “Bicycles May Use Full Lane” signs are recommended to be installed and coincide with wherever sharrow pavement markings are proposed.

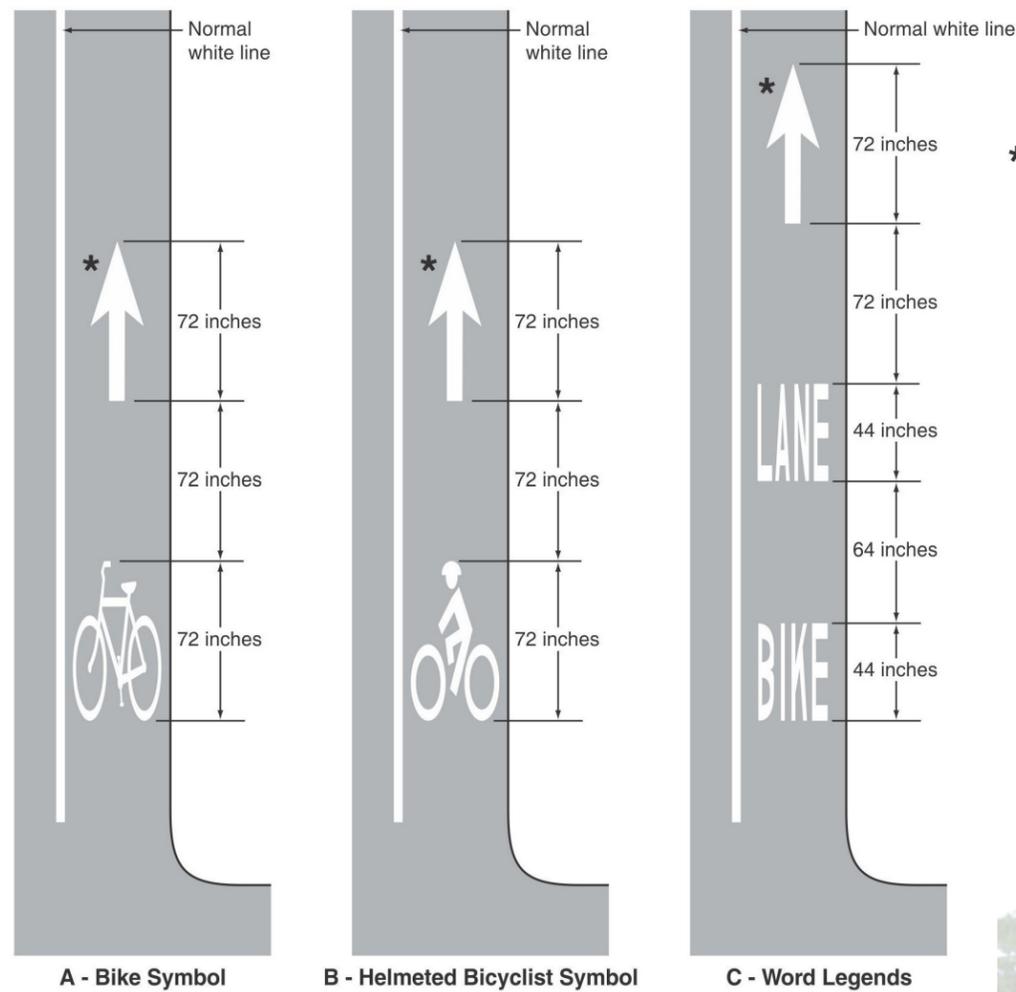
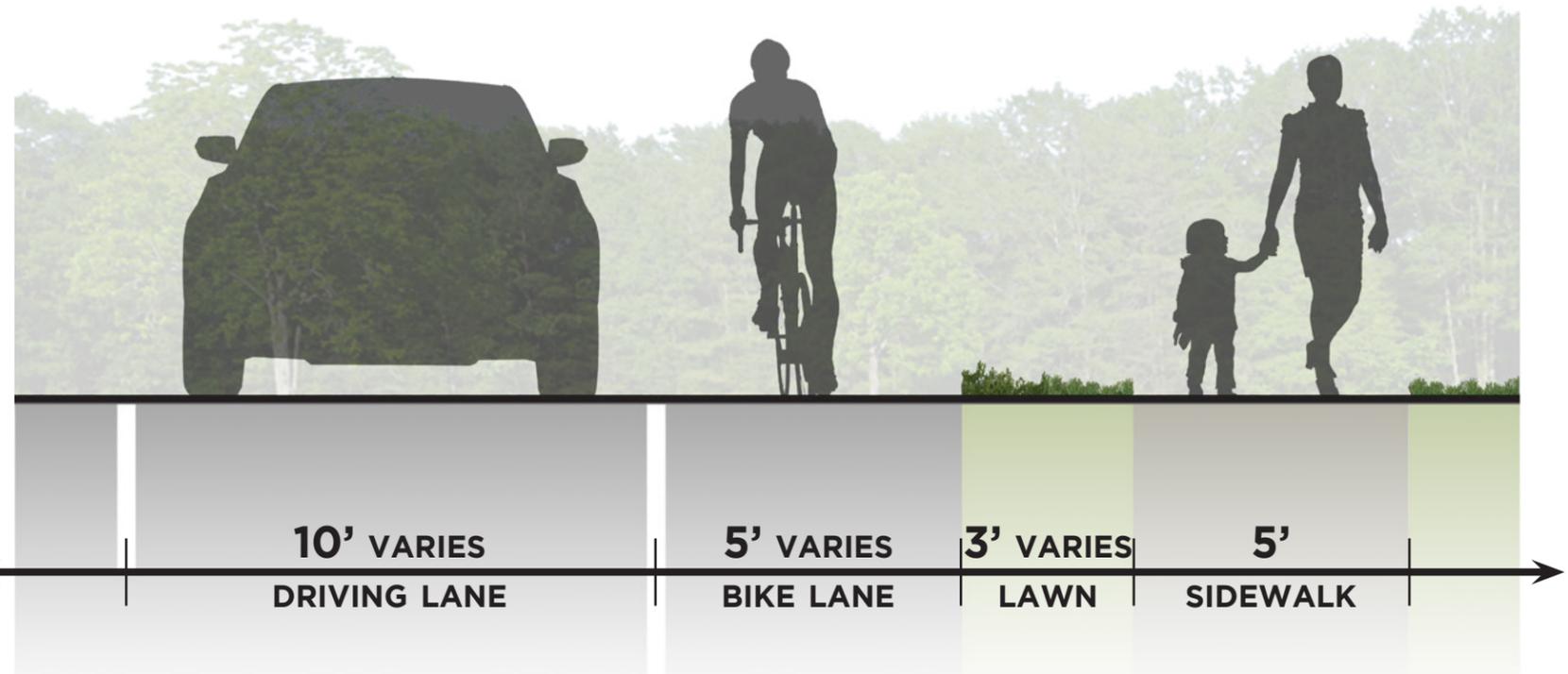


Figure 9C-3. Word, Symbol, and Arrow Pavement Markings for Bicycle Lanes

Legend
* Optional



Bike Lanes

Much of the study area, including all of Avon Lake and Sheffield Lake, has existing bike lanes already present along Route 6. Lorain has plans to grow its bike lane inventory along Route 6 and city-wide.

Bike lanes require a smooth riding surface and are not appropriate for roadways with a posted speed limit of over 45 mph. If a curb is present, bike lanes need to be five feet minimum in width, and four feet minimum in width if a curb is not present. Unlike sharrows, bike lanes are a

designated on-road facility. It is not legal for a pedestrian to walk within a designated bike lane, or a vehicle to drive within it.

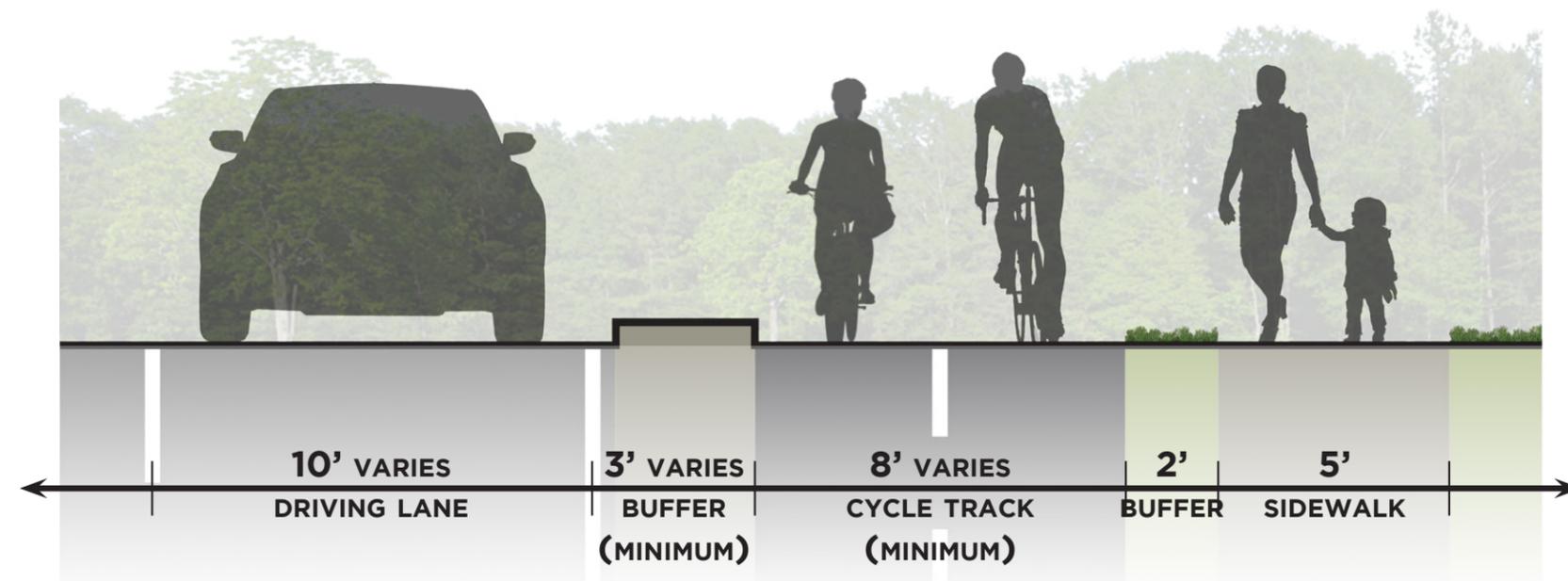
Buffered bike lanes follow the same design guidelines as a traditional bike lane, but include a two to three-foot painted buffer between the bike lanes and roadway, parking lane, sidewalk, etc. The buffer creates additional space between the bicycles from moving vehicles, doors swinging open into the bike lane itself, and provide a

stronger visual cue and identification within the roadway.

Bike lanes are recommended along Route 6 for the entire length of the corridor/study area minus a small section in Downtown Vermilion where the existing right-of-way widths and proximity of the existing buildings to the roadway and sidewalk are too narrow to add additional on-road facilities.



Separated Bike Lanes/Cycle Tracks



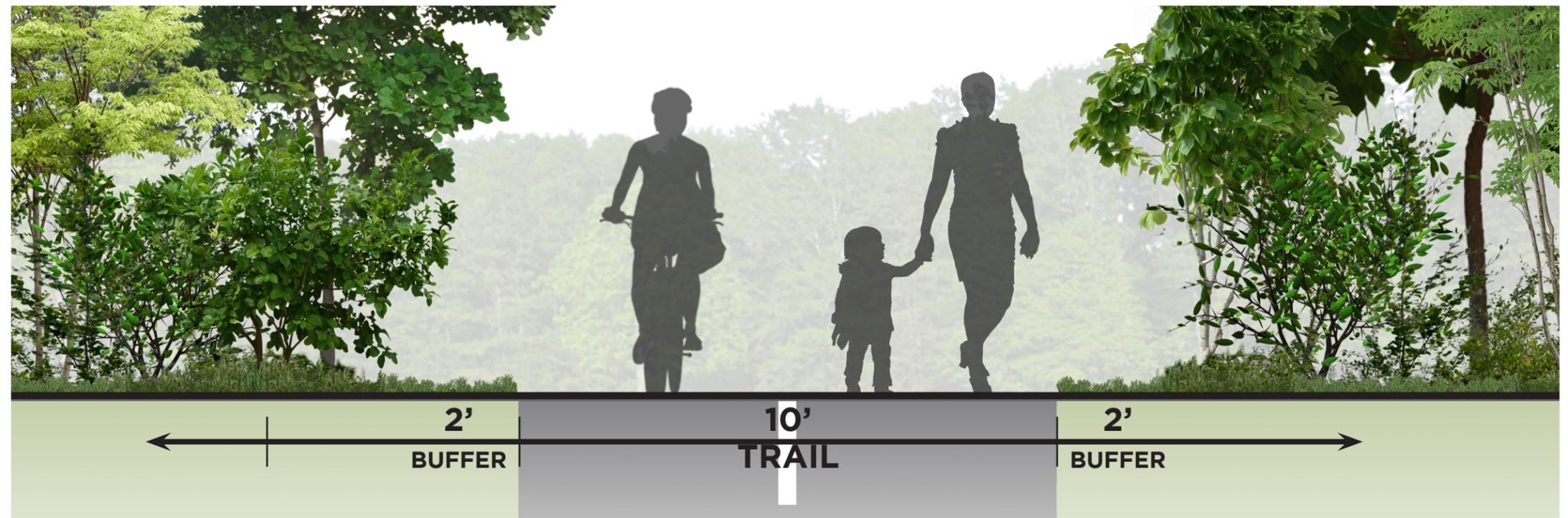
Separated bike lanes, also known as cycle tracks or protected bike lanes, follow the same design guidelines as traditional bike lanes, but they incorporate a designated physical and vertical element between the bike lanes and roadway, parking lane, sidewalk, etc. The buffer zone that contains this vertical element can be painted or physical and should be a minimum of one to two feet in width. That being said, a 3-foot or greater buffer zone is much more desirable from a user standpoint. The separation protects

bicycles from moving vehicles, doors swinging open into the bike lane itself, and provide a stronger visual cue and identification within the roadway. In a 10-city study that documented the safety effects of protected bike lanes vs. traditional bike lanes, “the combined number of fatalities and serious injuries ... fell sharply compared to the number of daily bike commuters reported by the U.S. Census Bureau in its annual American Community Survey.” A researcher from Rutgers University from the same study

stressed the point that per the results of the study, “The more physically separate cycling facilities provided, the more cycling levels grow, and in particular, the more women, children, and seniors are willing to cycle.”

Based on the results of the public involvement conducted for this study, protected bike lanes are not recommended within the study area along the Route 6 corridor.

Source: <https://www.citylab.com/transportation/2016/11/why-protected-bike-lanes-save-lives/508436/>



Shared Use Path/Trail

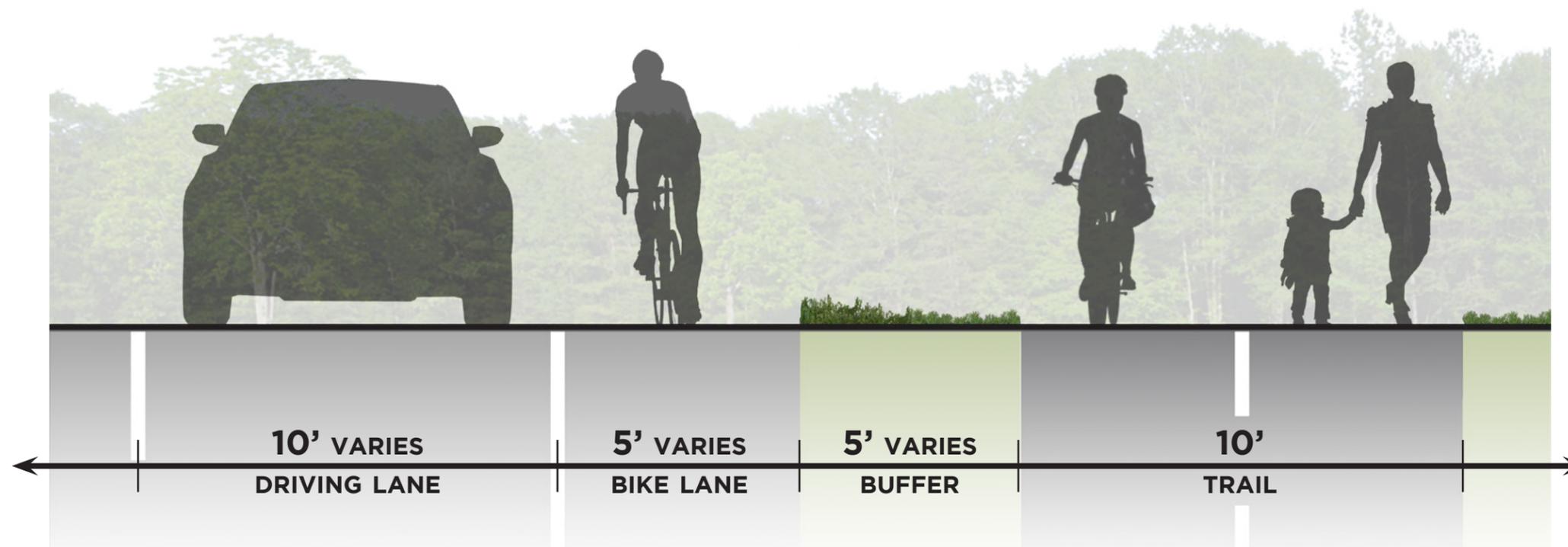
Shared use paths, commonly known as trails, accommodate bicyclists, pedestrians and bi-directional traffic. Shared use paths need to be a minimum of ten feet wide with a two foot clear-zone buffer on either side of the path. If adjacent to a roadway, a 5-foot buffer is required between the roadway and shared use path. ADA compliance requires no greater than a 5% vertical slope and 2% cross-slope. According to FHWA (Federal Highway Administration), roughly 93% of people who

own a bike are only comfortable riding in a completely separated facility, such as a shared use path or sidepath (as described on the next page). While many people associate shared use paths/trails as being for recreational purposes, they are also commonly used for transportation and commuter purposes. Per the MUTCD, signage is very flexible for shared use paths, and often, custom-designed branding, signage, wayfinding and kiosks are developed for path/trail networks.

Per the results of the public involvement conducted as part of this study, shared use paths (shown as sidepaths along Route 6) were the most desirable facility to be included in the study. As shown in the final multi-modal transportation recommendations, shared use paths (shown as sidepaths along Route 6), were incorporated wherever the public right-of-way space allowed.



Sidepath/Trail



Sidepaths are essentially the same facility and design as a shared use path, but in general, they run adjacent to a roadway for long distances at a time.

Given that sidepaths are adjacent to roadways, the 5-foot buffer design is important to address as a case-by-case basis with context-sensitive solutions. On low-volume

roadways, grassy or vegetative buffers are appropriate. Next to higher speed roadways (typically above a posted speed of 35 mph), a more physical separation should be explored for sidepath buffers. These can include raised curbs, planters, bollards, jersey barriers, etc.

Per the results of the public involvement conducted

as part of this study, sidepaths were the most desirable facility to be included in the study. As shown in the final multi-modal transportation recommendations, sidepaths, were incorporated wherever the public right-of-way space allowed.



CONCEPTUAL PLANS

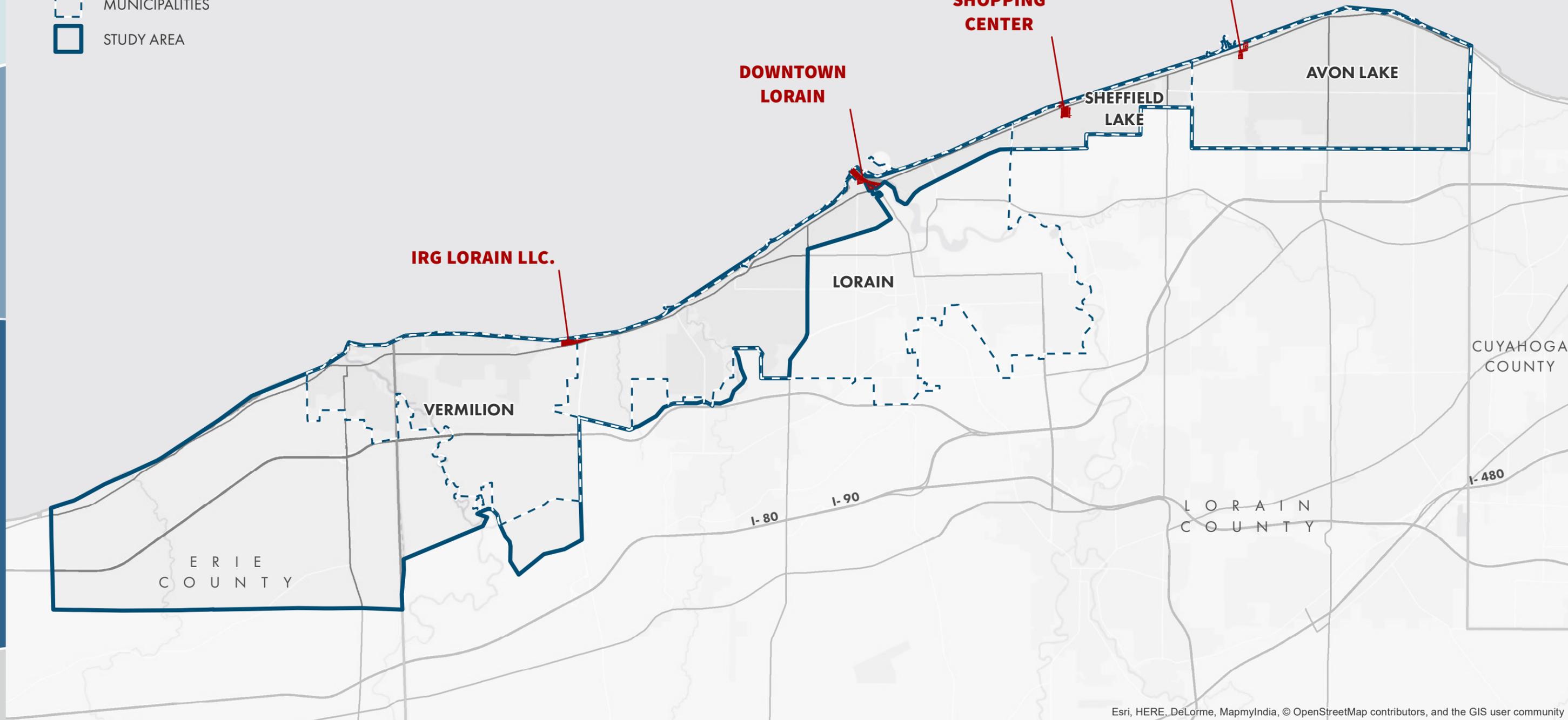


PRIORITY SITES

- PRIORITY SITES
- MUNICIPALITIES
- STUDY AREA



1 in = 2 miles
0 0.5 1
Miles



Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Planning for Development

The four communities all took creative approaches for determining locations where impactful development/redevelopment could occur. Criteria such as land availability, proximity to amenities, and long term economic potential were taken into account.

SITE SELECTION + STAKEHOLDER INTERVIEWS

The economic development plans for each community were developed to create a vision, development potential and overall excitement for each redevelopment site. The process started by first creating a dialogue, conducted by inSITE Advisory Group, with the mayoral administrations and staff of each community. Taking into account multiple factors including zoning, public ownership, location, and unique community characteristics, the administrations each put forth a development location and several potential visions for the sites. These visions differed in scale, use, and intensity on and among the sites.

Taking these visions into account, Environmental Design Group created two site layouts and programming options for each site that were then presented to stakeholders. Input was gathered by the mayoral administrations and staff of each community and applied to sites to refine the design and makeup.

The City of Vermilion proposed an underutilized property owned by IRG Lorain, to

be considered for either high-tech industrial use or a public park. The location of the site straddling the border of Vermilion and the City of Lorain created a unique opportunity to present the location as a gateway.

In Downtown Lorain, the area north of Route 6, comprised of mostly vacant industrial waterfront and the municipal complex, presented an opportunity to transform the mouth of the Black River into a mixed-use development that would bring potential anchor institutions and uses to downtown. The two finger peninsulas reaching out into Lake Erie make for a perfect location for the public to access the vast views it provides.

Sheffield Lake chose to put forth a legacy suburban-style shopping center and waterfront property that was re-imagined as a lakefront lagoon/marina and mixed-use development. The development of various residential structures allows for a higher density population to exist within the new development. The inclusion of public park facilities and promenade would increase access to the water and highlight the

community's rich nautical history.

To the east in Avon Lake, the Artstown Shopping Center was selected to leverage its existing historically significant former train depot, while creatively transforming the surrounding shopping strip property into mixed-use project. Components of the development include residential units on the north side of Route 6 along with a public beach, lakefront park, and fishing pier.

The Lorain County Commissioners, Lorain County Metro Parks and the four communities involved in the plan will be using the conceptual site plans to create excitement around the redevelopment opportunities for their specific sites as well as use this document as a catalyst for zoning changes/updates, grant funding, and conversations with potential developers.

The following pages will highlight the process each site went through from hand sketched concept to final recommendation.

A detailed cost opinion, including shown square footages, for the proposed conceptual site plan is located in the appendix of this report.

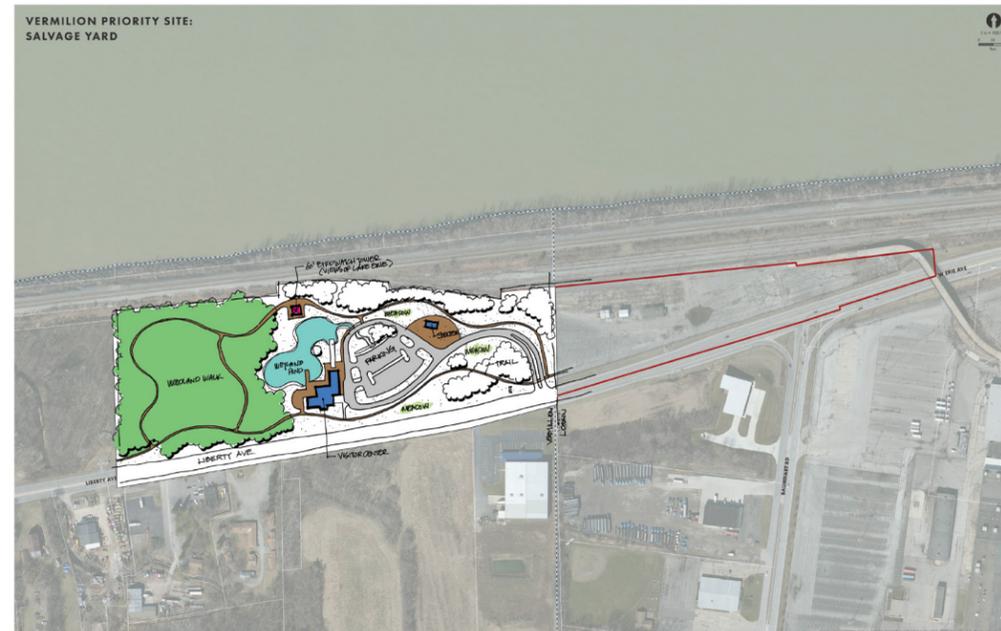
SITE 1: VERMILION

The development site put forth by the City of Vermilion sits along the eastern border with the City of Lorain. The 26-acre site is comprised of two individual parcels, with the eastern parcel in Lorain and the western in Vermilion. The current use of the site is as a salvage yard for automobiles. Prior to this the property was used as a holding area for vehicles produced at the former Ford plant to the south, which closed in 2005. The property is bordered to the north by an active rail line and the bluffs overlooking Lake Erie.

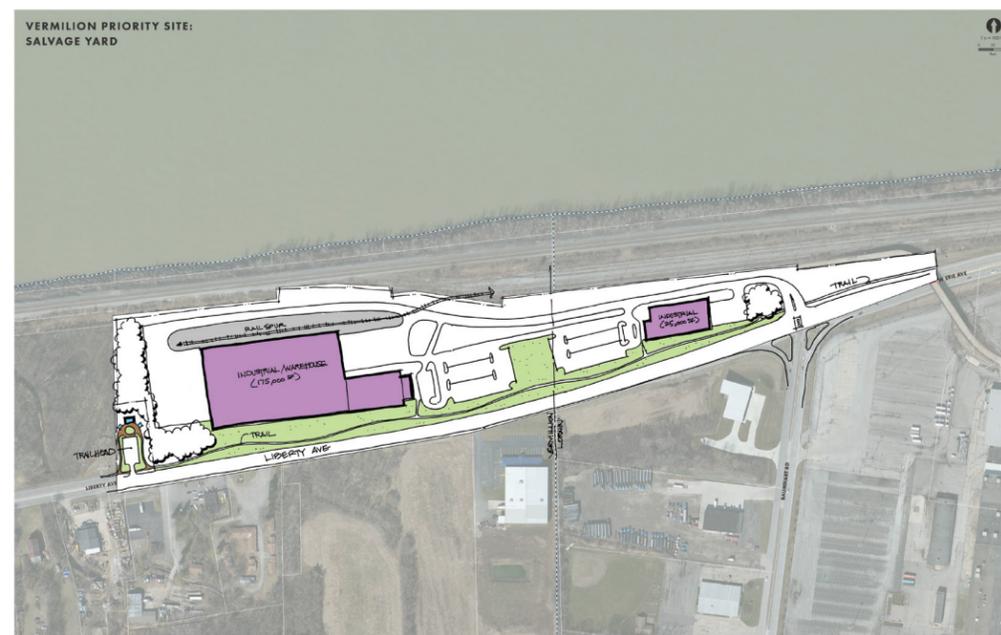
To the south is the Route 6 corridor and the aforementioned Ford plant, now occupied by Trademark Global, Inc., Heidelberg Distributing, and a majority of the property is owned by IRG Lorain LLC. An overpass used by Ford to move inventory from the plant to the holding lot forms the eastern gateway. Wooded vacant property occupies several acres to the west of the property before transitioning to low-density residential lots.



 SITE PARCELS



OPTION 1



OPTION 2

SITE CONCEPTS

The images shown to the left are two concepts developed for Vermilion Lakefront development.

Option one displays a Lakefront Park and Nature Center on the Vermilion side of the site. Connecting the bikeway to a nature park would open up the opportunity for the public to experience the beauty of Lake Erie as well as connect with nature. A woodland nature walk meanders through existing and newly planted forest and meadow, and a wetland pond. The 60-foot tall watchtower invites birders to view migrating species, and visitors to take in the Lake Erie vista. Returning this site back to a more natural state and creatively implementing bioretention elements, it may also serve an educational purpose to understand how nature can filter rain and stormwater runoff.

Option two keeps the site as it is in use today as light industry and an industrial warehouse, making use of the northern railroad for transportation. This option was not selected as it would be in direct competition with the current owners of the site IRG Lorain and the adjacent site, Trademark Global, Inc

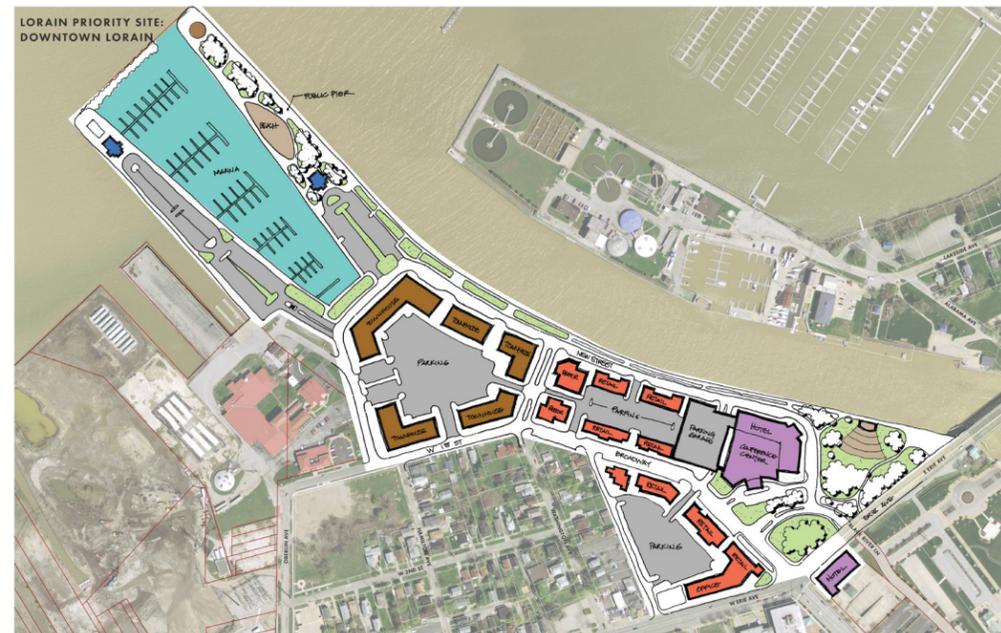
SITE 2: LORAIN

The City of Lorain chose to focus their development visions on Downtown Lorain. On this 31.6-acre site there is a large underutilized shipping facility along the water's edge. In the past, this facility was used to offload many of the ore freighters that sailed the Great Lakes. The other portion of the proposed development site currently houses the Lorain Municipal Court House on the corner of Route 6 and Broadway Avenue.

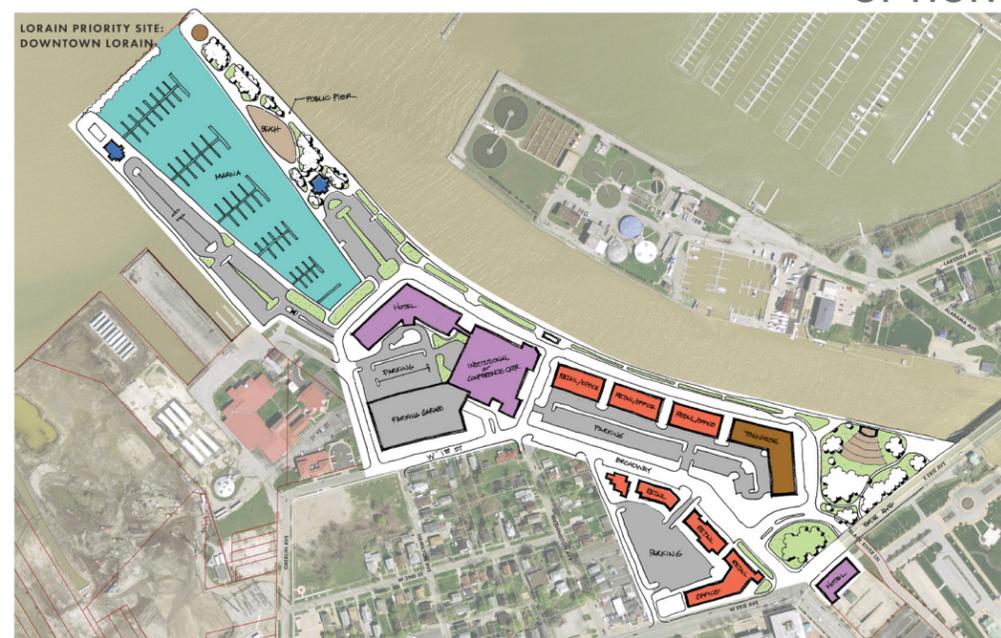
Being that the site is located in the heart of the City of Lorain, the surrounding land use is quite diverse. The entire northern and eastern sides of the site are surrounded by the lakefront. To the west sits the Lorain Water Department facility, and blocks of single-family housing. The southern gateway consists of Veterans Memorial Park, a vacant hotel, and various restaurants and retail along Broadway.



 SITE PARCELS



OPTION 1



OPTION 2

SITE CONCEPTS

The images shown to the left are two concepts developed for Lorain Downtown Riverfront Redevelopment. Both options suggest turning the old ore dock facility into a riverfront park and marina. Currently there are no dock slips in the area which can house larger (55'+) recreational boats. These plans suggest fulfilling that niche market for larger boats. They both also show a connection to the existing entertainment center of the City of Lorain beneath the East Erie Avenue Bridge, down Broadway Avenue and connecting to Black River Landing.

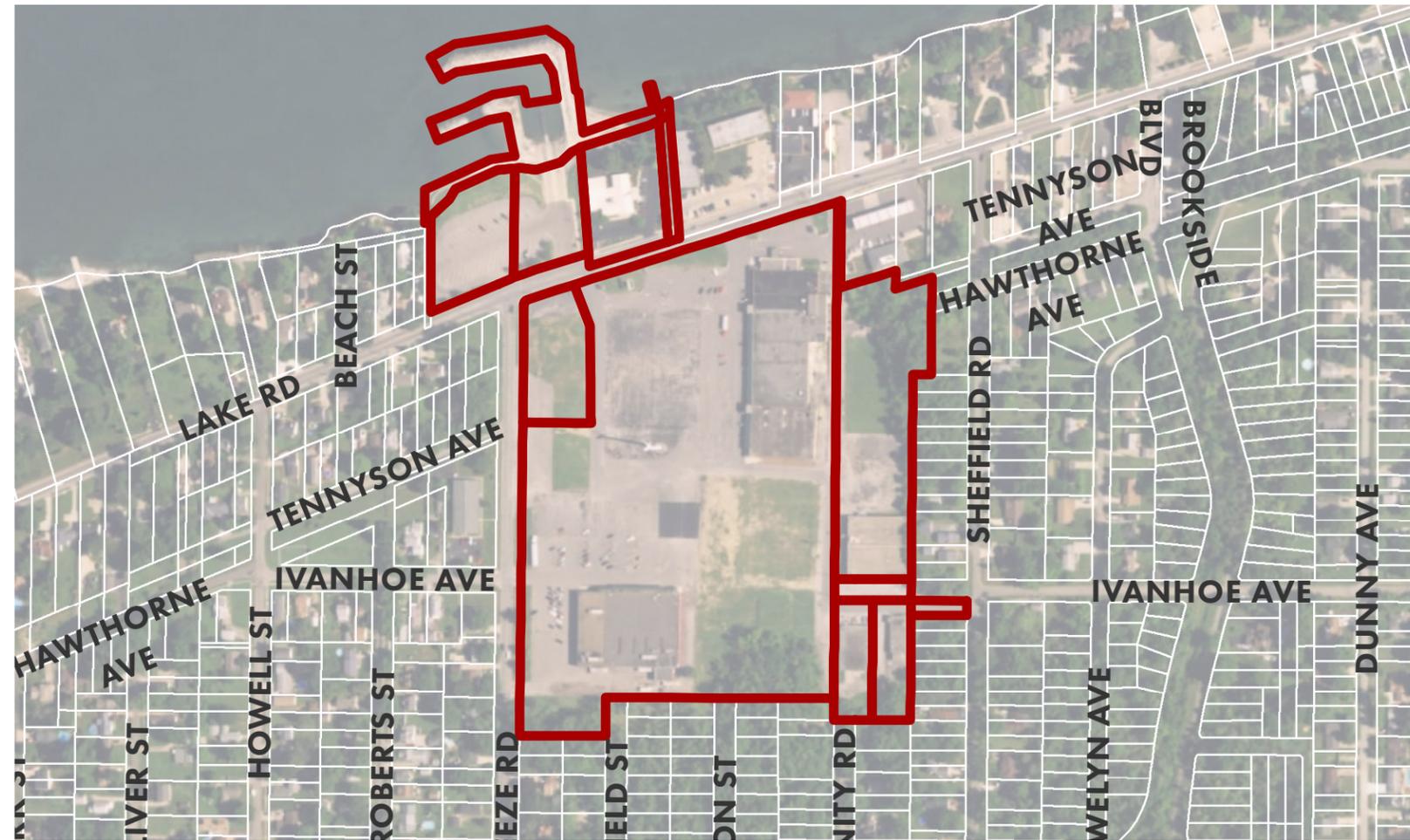
Option one suggests a higher density plan with townhouses that have great views of the lake, various retail along both the riverfront and creates a retail corridor along Broadway Avenue. This retail surrounds a large parking garage that sits next to a Hotel and Conference Center.

Option two contains the same land use but is a less dense version. The number of townhouses is drastically reduced and retail fronts the riverfront but does not create the inner corridor along Broadway Avenue. The location of the Hotel and Conference Center has moved closer to the lake in this scenario, giving the Hotel the views of the lake.

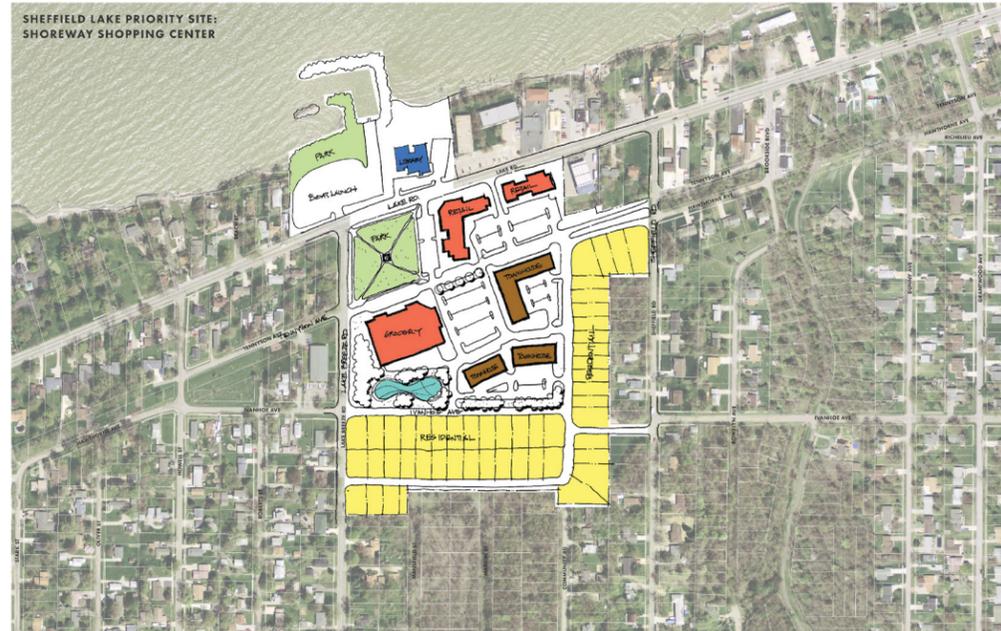
SITE 3: SHEFFIELD LAKE

The city of Sheffield Lake decided on the Shoreway Shopping Center to be redeveloped, located along Route 6 encompassing the existing Sheffield Lake Public Boat Ramp and Beach. The 27.8-acre site encompasses the entirety of the Shopping Center South of Route 6 as well as a number of parcels North of Route 6, incorporating Domonkas Branch Library and the Sheffield Lake Public Boat Ramp and Beach.

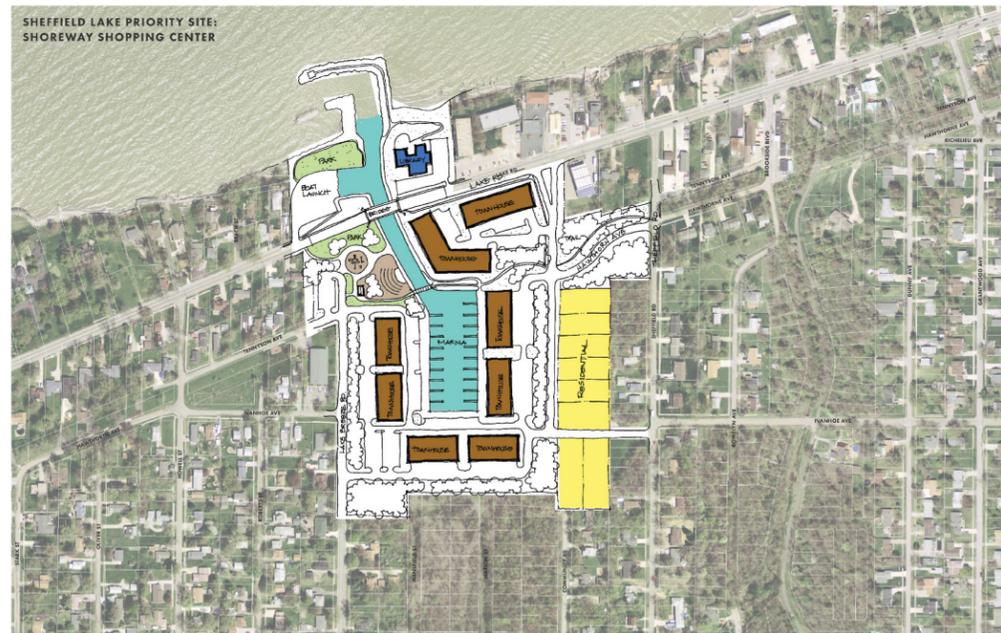
Currently, the site's surrounding land use consists mainly of single family residential. The property is bordered to the north by direct access to Lake Erie. The Northeast corner of the site sits a two story, two building apartment complex. To the east there are a few restaurants as well as a gas station. The Southern most edge is mainly wooded, and nearby to the west the lays Memorial Park.



□ SITE PARCELS



OPTION 1



OPTION 2

SITE CONCEPTS

The images shown to the left are two concepts developed for the Sheffield Lake Lakefront development.

Option one exhibits a less-intense version of the site, leaving the already publicly accessible library and boat ramp as-is. This plan incorporates more residential housing of both single family and townhouses. Along Route 6, retail frontage and a new public park to connect the existing public lands to the north with the newly desired grocery store to the south is shown.

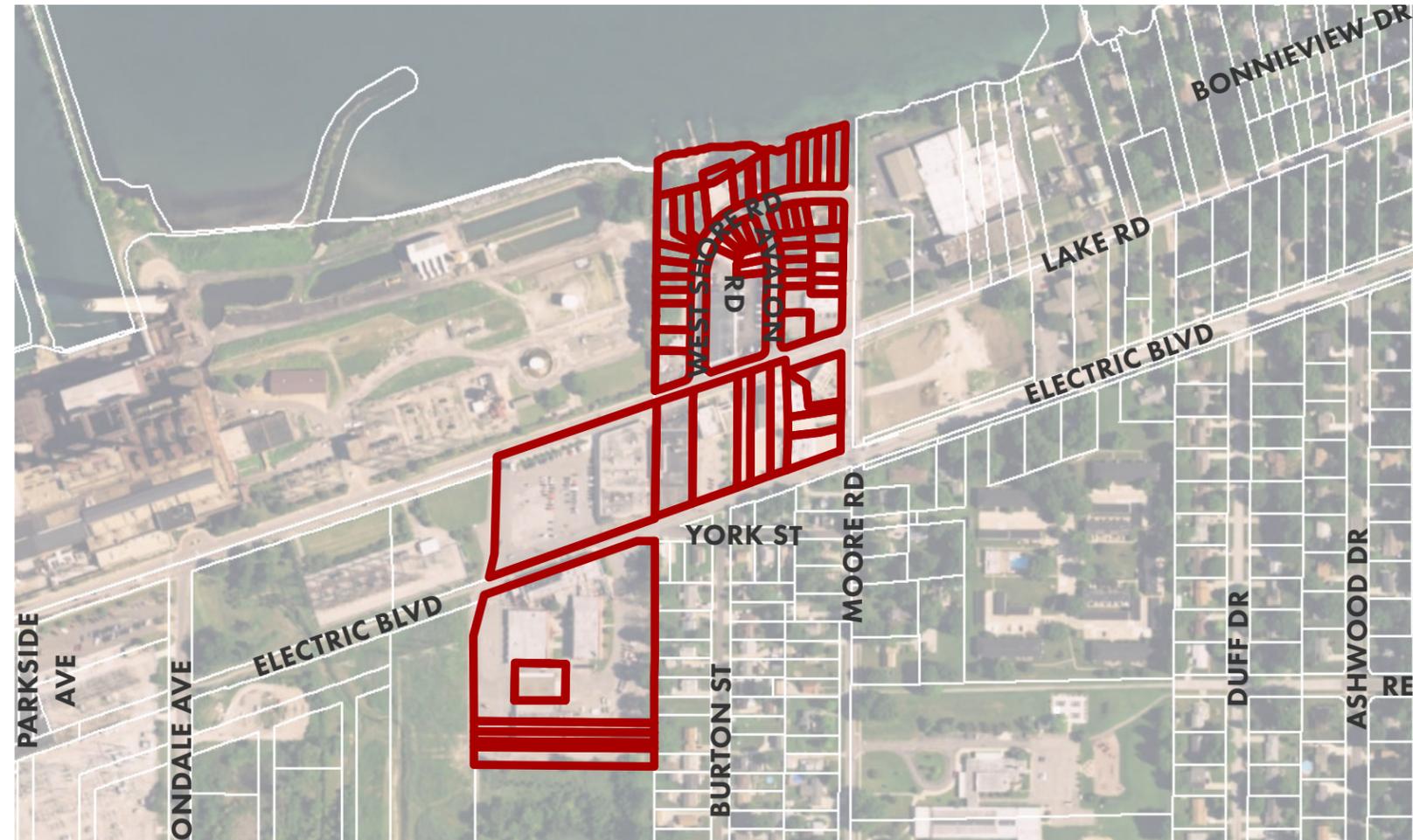
Option two reveals a Sheffield Lake Marina District. This plan is a more ambitious design to create new density of residential demand surrounding the new marina. The park now takes you down to the waters edge and lets you experience Lake Erie at a different level. An inner trail connects residential areas to this new waterfront park.

SITE 4: AVON LAKE

The development site put forth by the City of Avon Lake sits to the east of the Avon Lake Power Plant (NRG Energy complex, a historic plant from 1926). The site, the smallest of the four development sites, sits at 15.6 acres. The site encompasses both the north and south of Route 6.

The parcels to the south of Electric Boulevard include the old train depot. The central part of the site bordered by Electric Boulevard and Route 6 is known as Artstown Shopping Center, currently in use for various retail vendors; gas station, Vapor Lounge, and a Bar and Grill. The section north of Route 6 is made up of single family housing, parking and a restaurant.

Surrounding the site to the Northwest and West is the Avon Lake Power Plant, and to the North east the Avon Lake City Water Plant. East of the site used to sit heavy industry, which now lays vacant. The southern portion of the site is primarily residential.



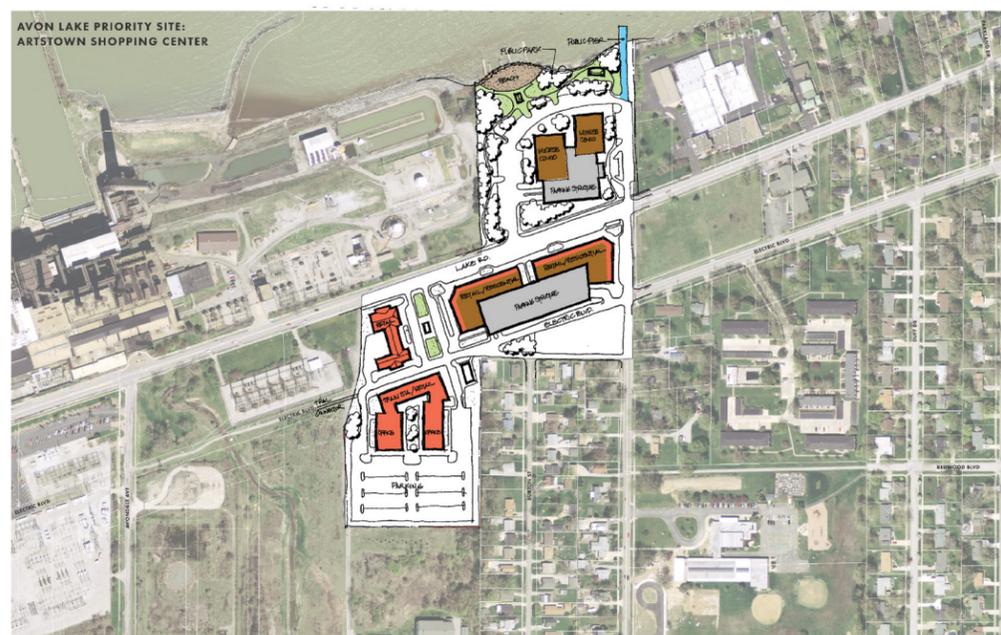
 SITE PARCELS

SITE CONCEPTS

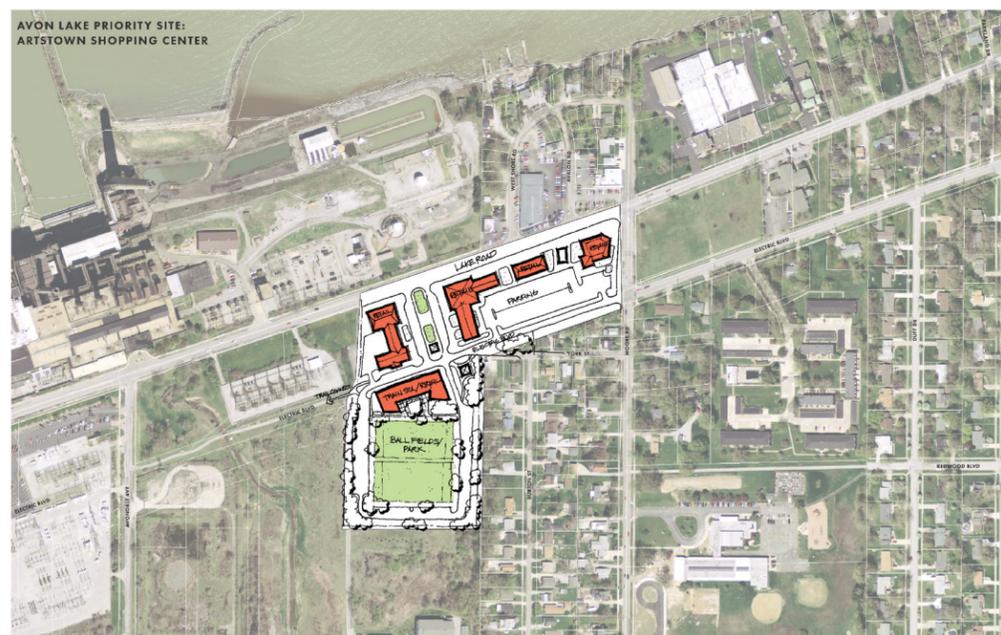
The two plans shown to the left are two concepts developed for Avon Lake Development.

Option one shows the site extending all the way to the waters edge creating a waterfront park and pier, and surrounding multi story condos, which would create a splendid view of the lake. The retail and mixed use south of Route 6 creates a small commercial corridor, perfect for parking in the parking garage and walking from shop to shop. The old train station would remain in-tact and be refurbished into retail and office space.

Option two is a more reserved version. Keeping the small commercial corridor, this plan incorporates no new housing development and minimal surface parking. The lesser density of this concept does allow for the creation of some ball fields or open space south of the old train station.



OPTION 1

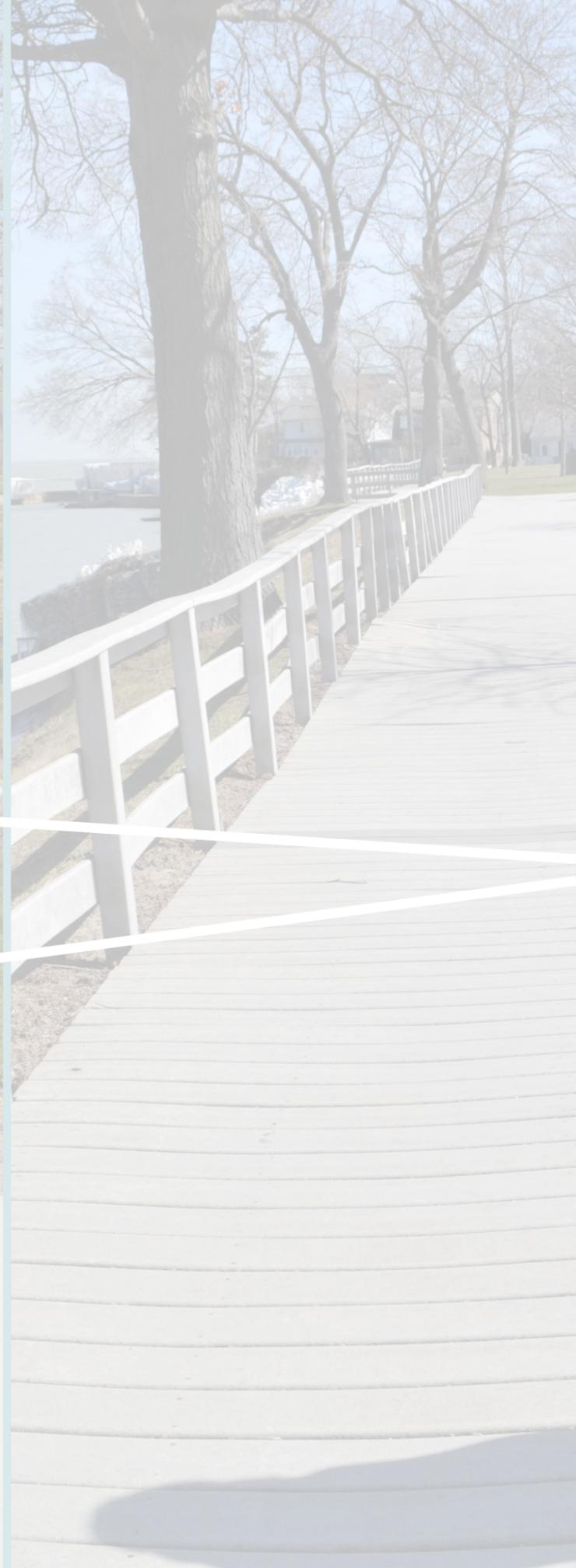
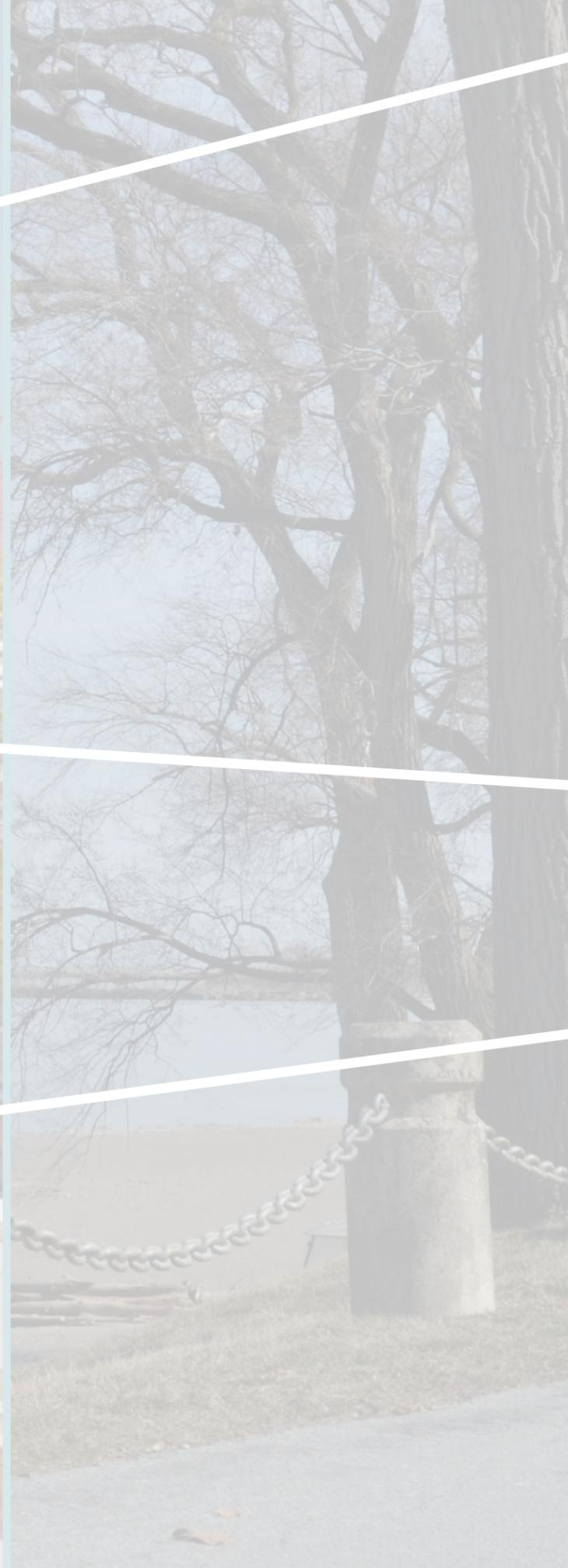


OPTION 2



MULTI-MODAL TRANSPORTATION PLAN





Developing the Lakefront Multi-Modal Transportation Plan

The Route 6 corridor serves as the primary east-west connection along the coast of Lake Erie for the study area. With two counties and four cities to navigate through, creating a cohesive, safe, and successful multi-modal network is a unique challenge. By incorporating information gathered during the base mapping and analysis phase of the study, a linear multi-modal transportation corridor recommendation was created that balanced the needs of existing transportation users, project stakeholders, and the public.

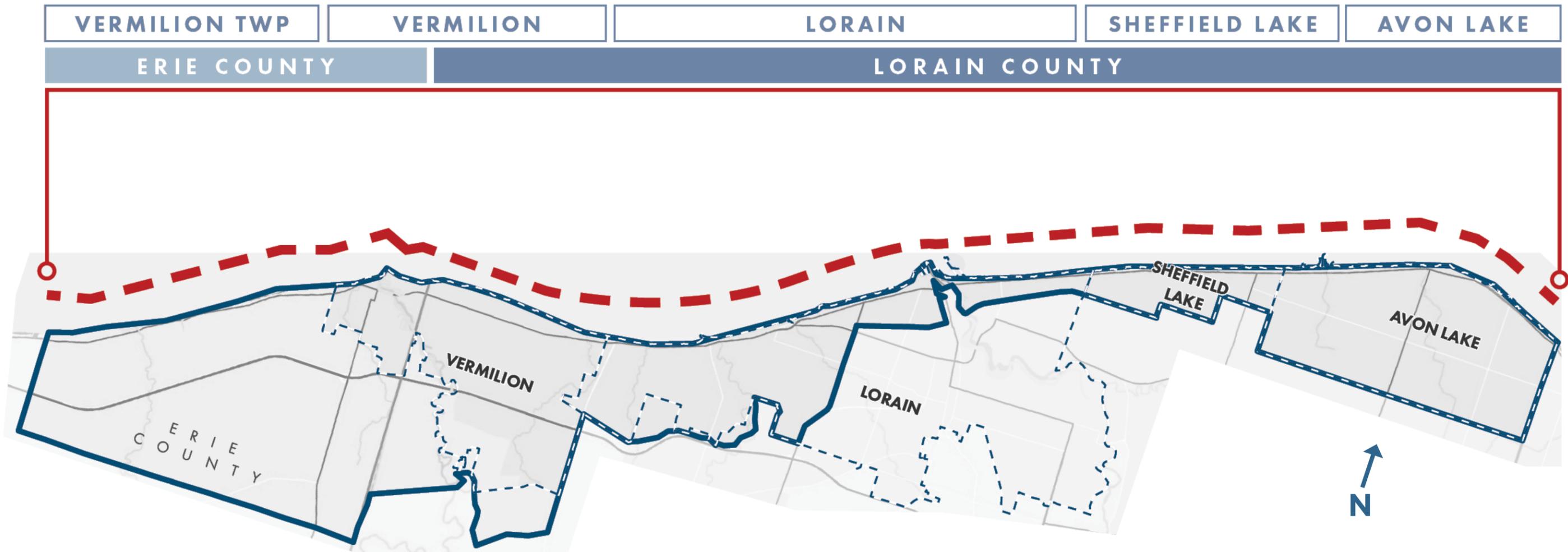
An assortment of facility types was considered

to develop the alignment, taking into account both cost and constructability concerns. Whenever possible, facilities followed local and national standards including the Ohio Department of Transportation (ODOT) and the American Association of State Highway and Transportation Officials (AASHTO). The following series of maps and graphics illustrate the types of facilities recommended, widths of each travel mode, linear length of facility, and the break points between each segment.

Cumulatively, the alignment comprises 28

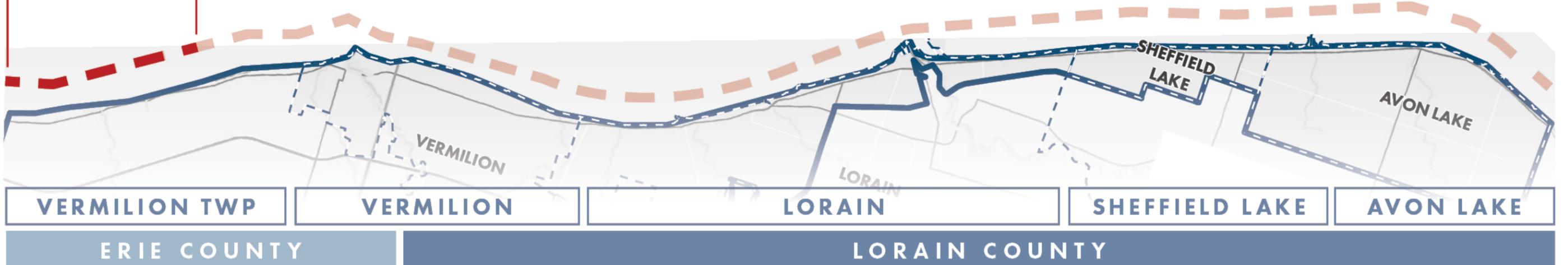
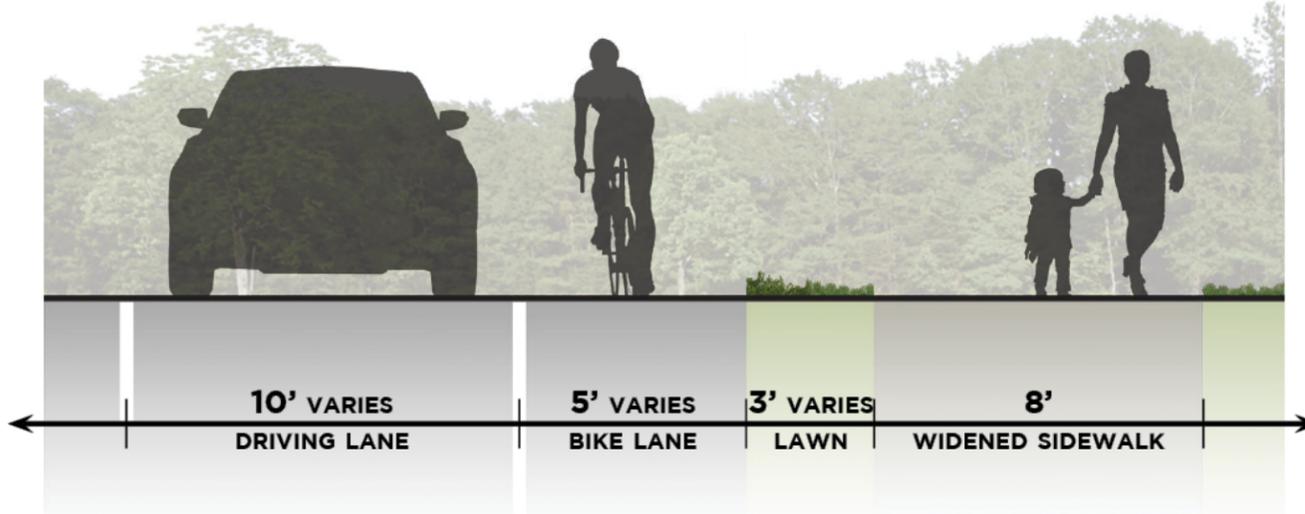
miles of functionally continuous transportation for pedestrians and bicyclists. Major pinch points or barriers are called out along the corridor. The proposed lakefront multi-modal network improves connections for residents and visitors, while also enhancing safety for users. Graphic gross section renderings are also included with each segment diagram to highlight the usability for different transport modes.

A detailed cost opinion for each recommended segment can be found in the appendix of this report.



* ALL RECOMMENDATIONS ARE WITHIN EXISTING RIGHT-OF-WAY

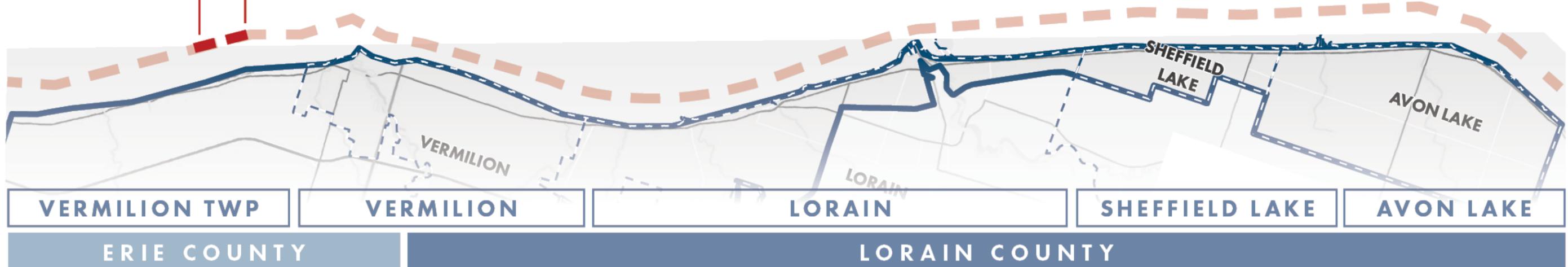
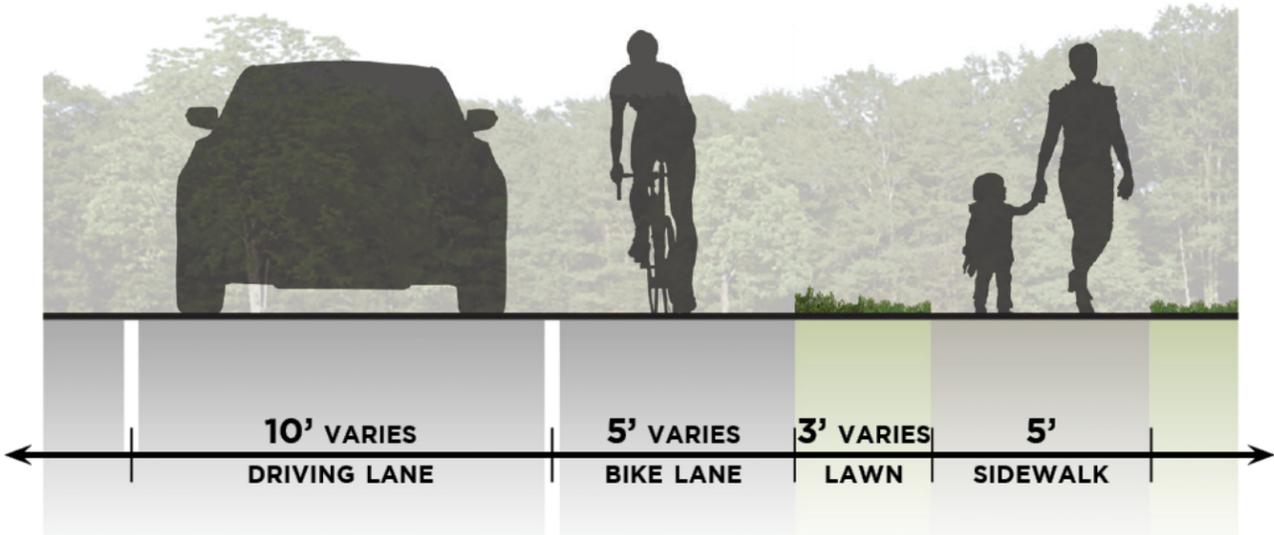
REYNOLDS RD
BARNES RD



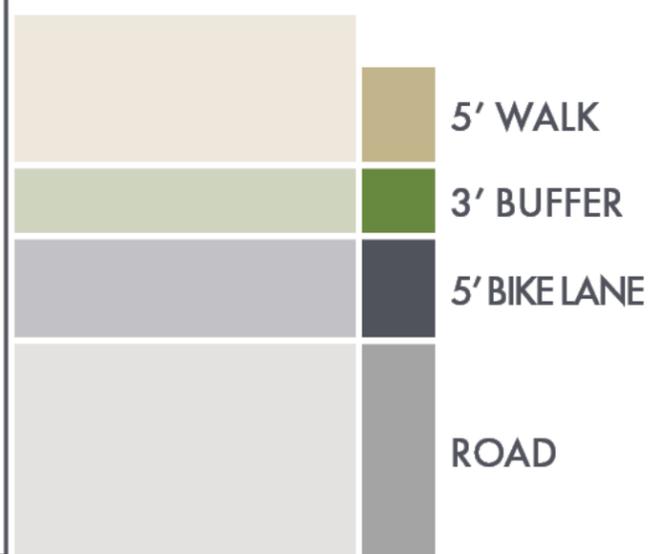
- TRAIL 3 mi.
- WALK
- BUFFER
- BIKE LANE
- ROAD

\$2.05 Million

**BARNES RD
VERMILION
COUNTRY CLUB**



WITHIN EXISTING RIGHT-OF-WAY

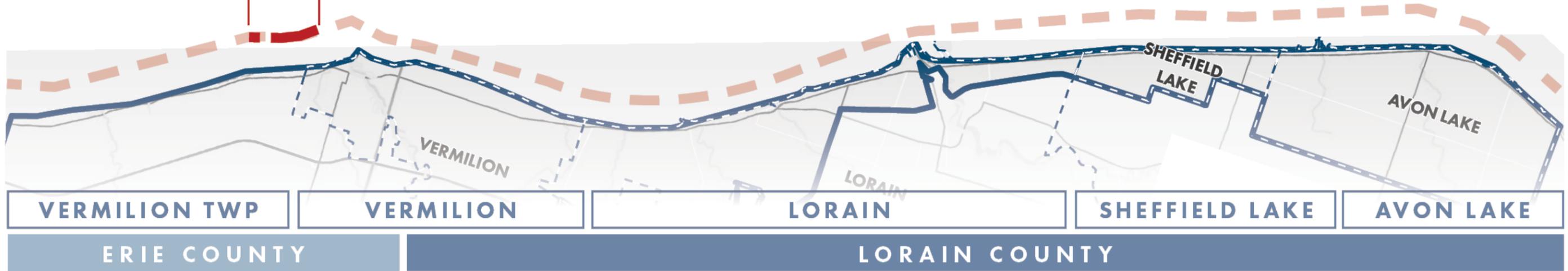
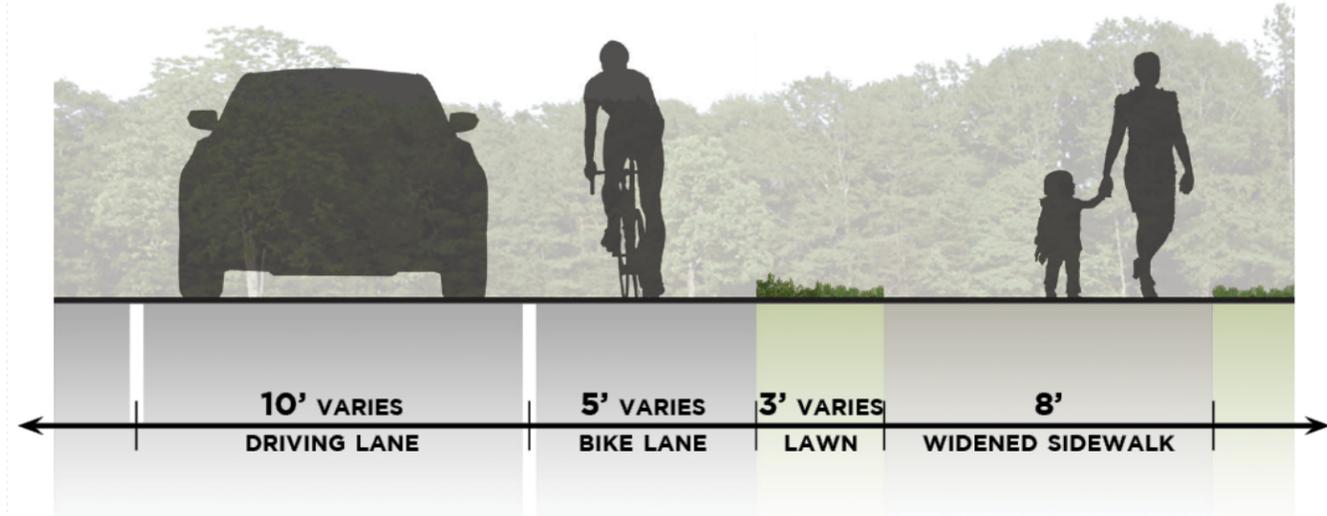


- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

.6 mi.

\$0.5 Million

VERMILION COUNTRY CLUB
SHEROD PARK

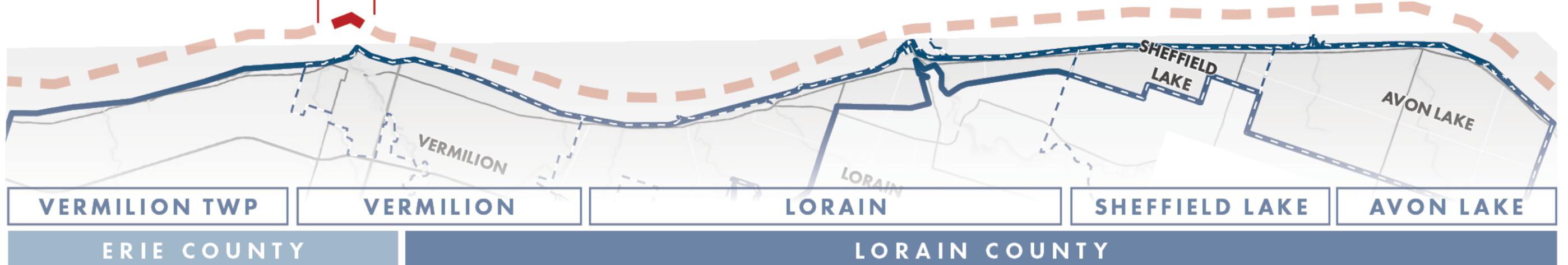
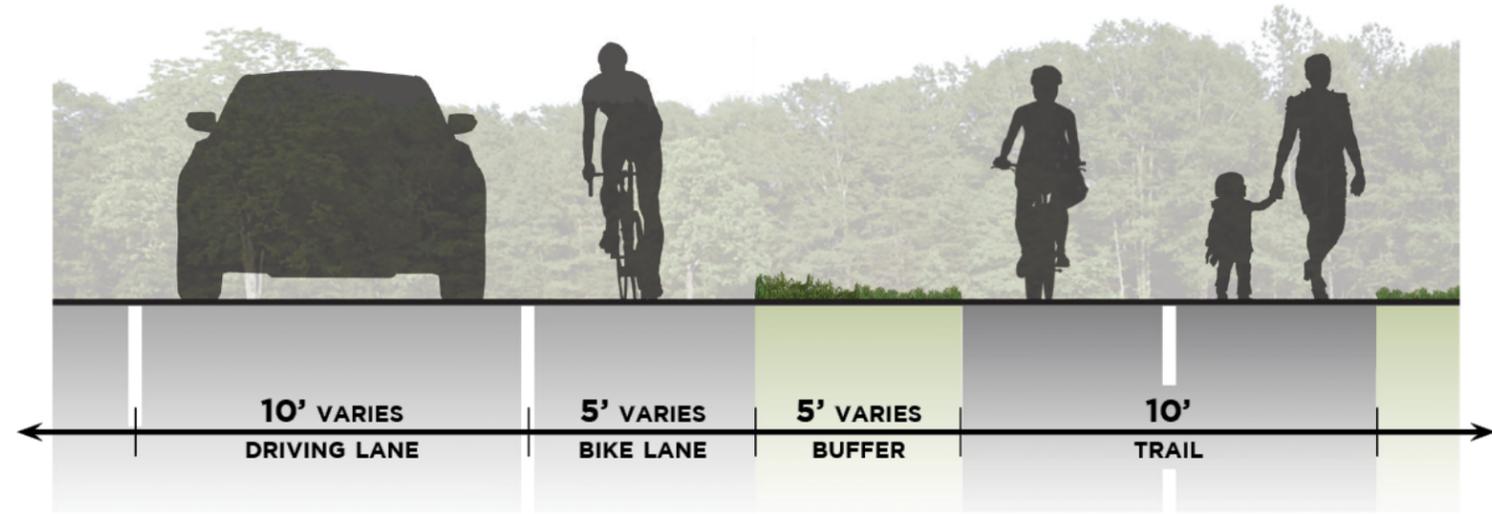


- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

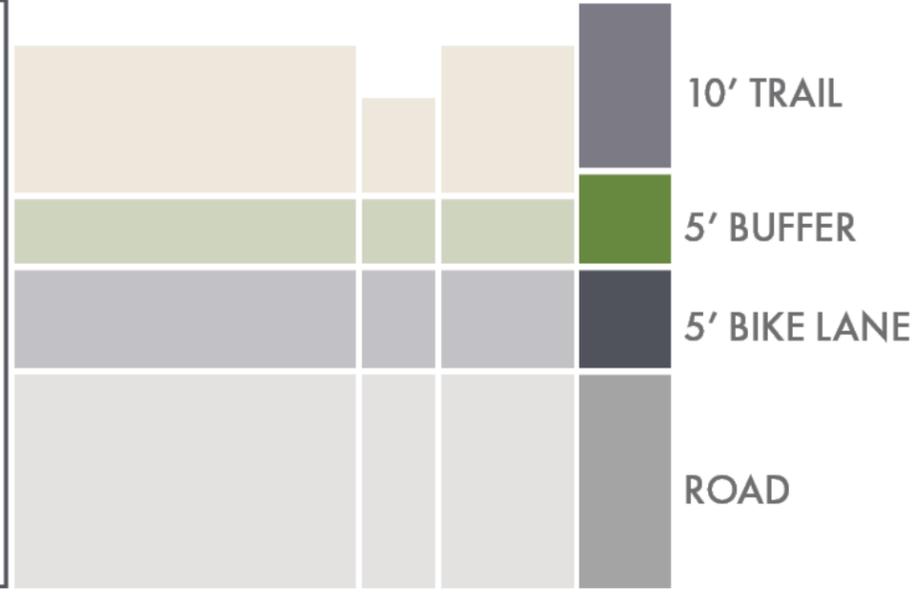
1.2 mi.

\$1.0 Million

SHEROD PARK
DECATUR ST



WITHIN EXISTING RIGHT-OF-WAY



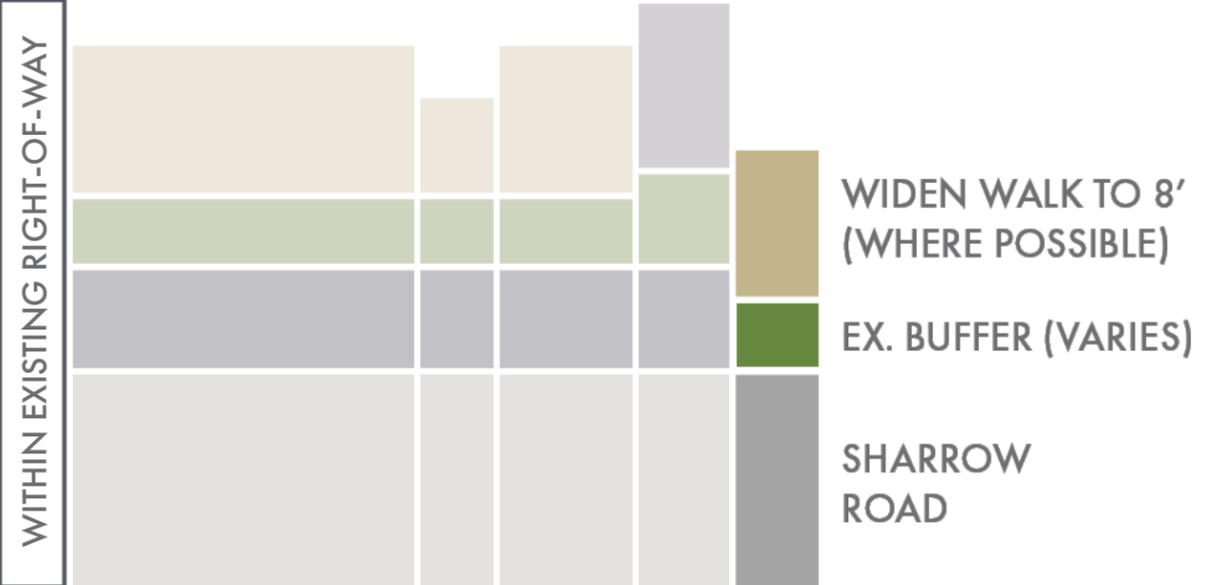
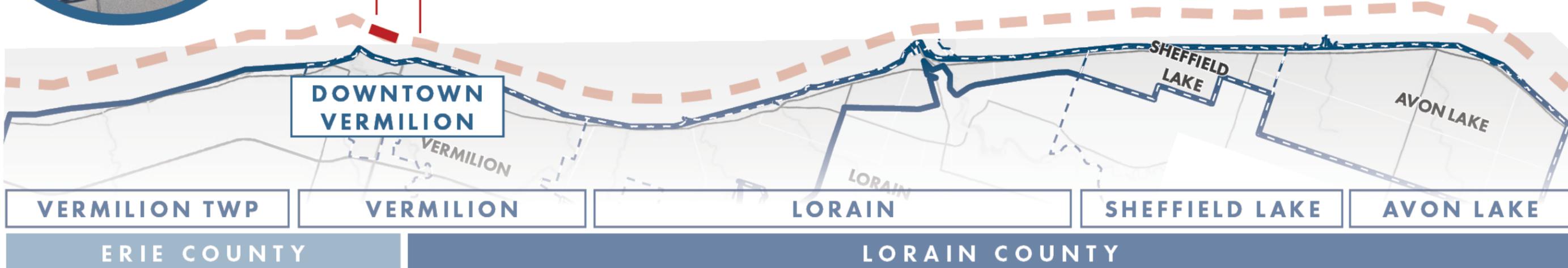
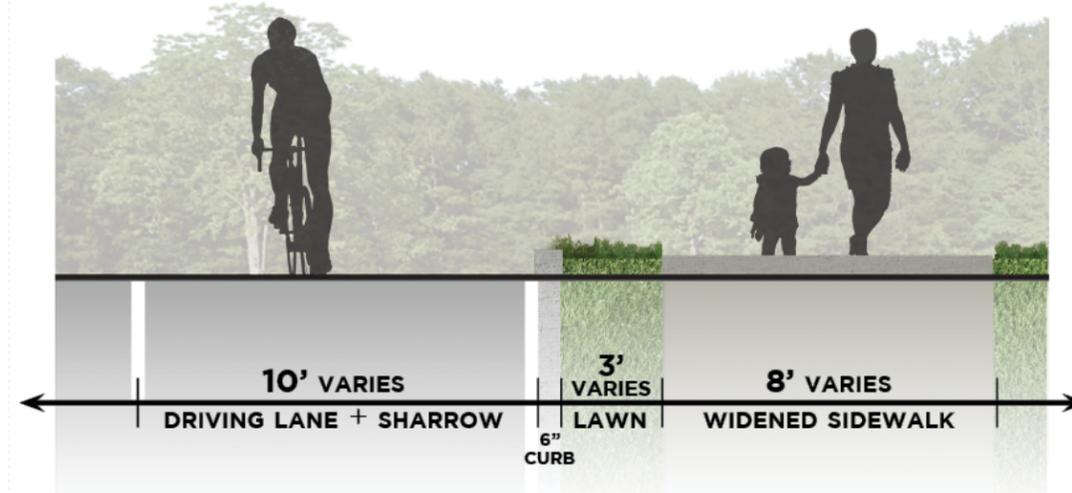
1 mi.

- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

\$1.5 Million



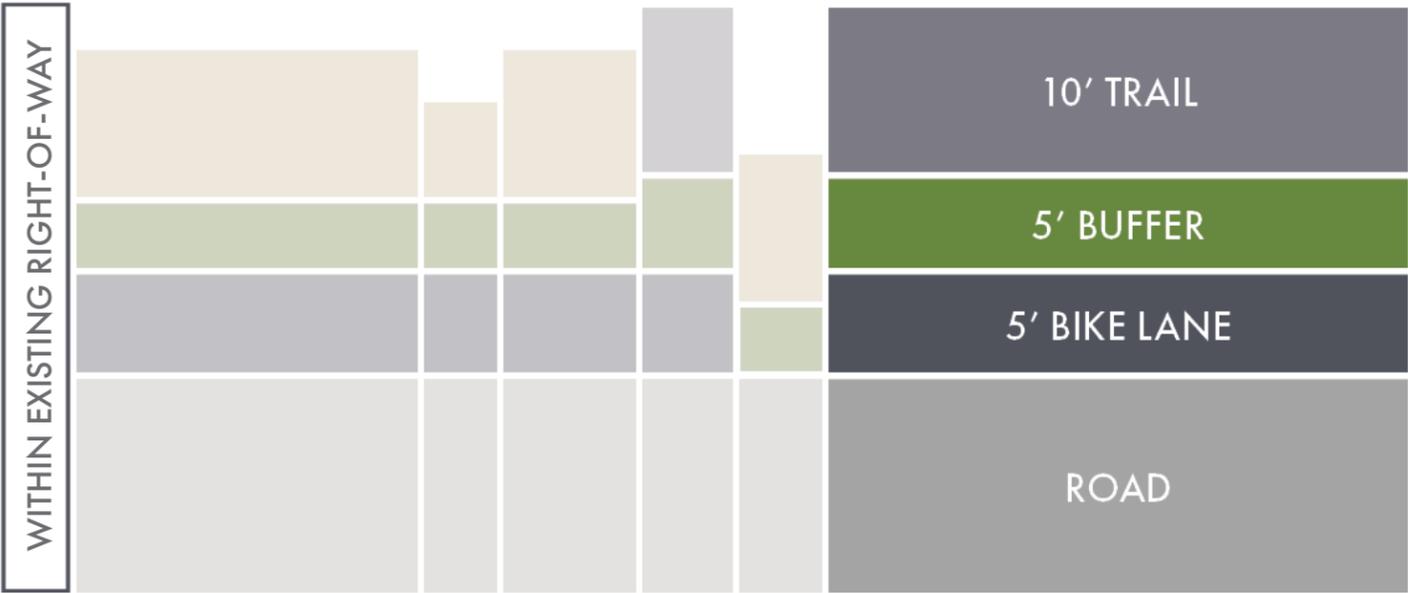
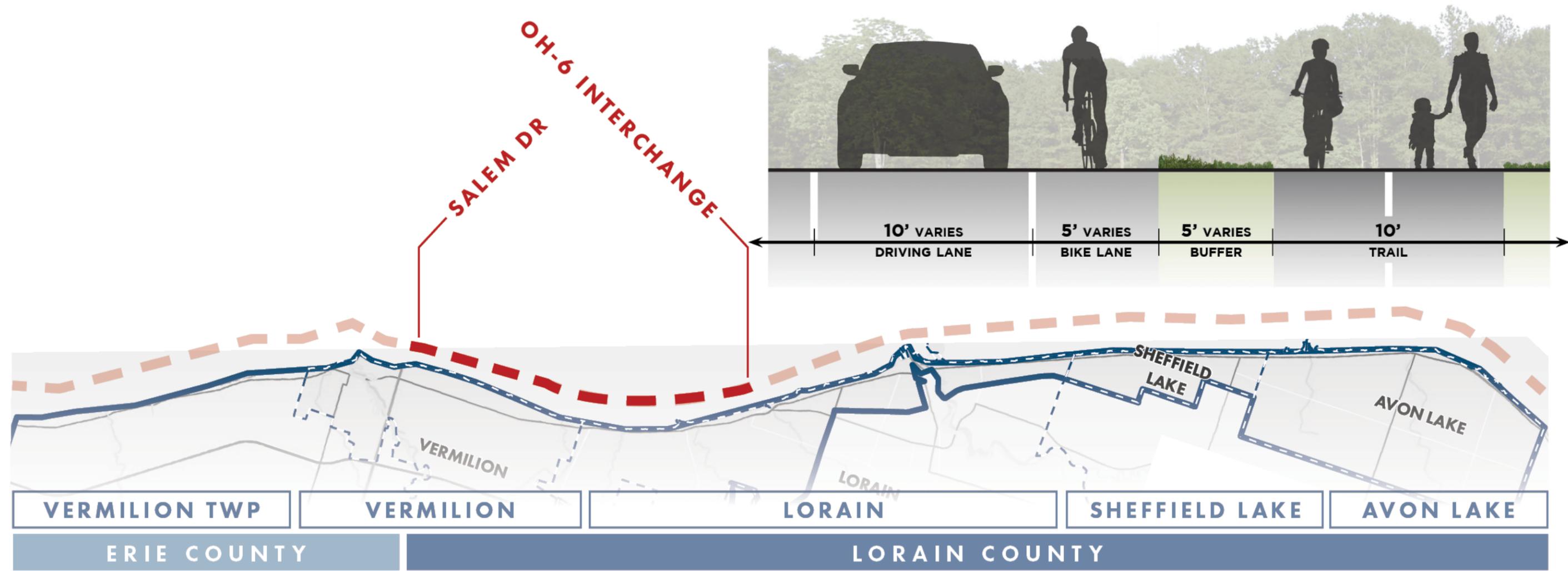
DECATUR ST
SALEM DR



- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

1 mi.

\$1.0 Million

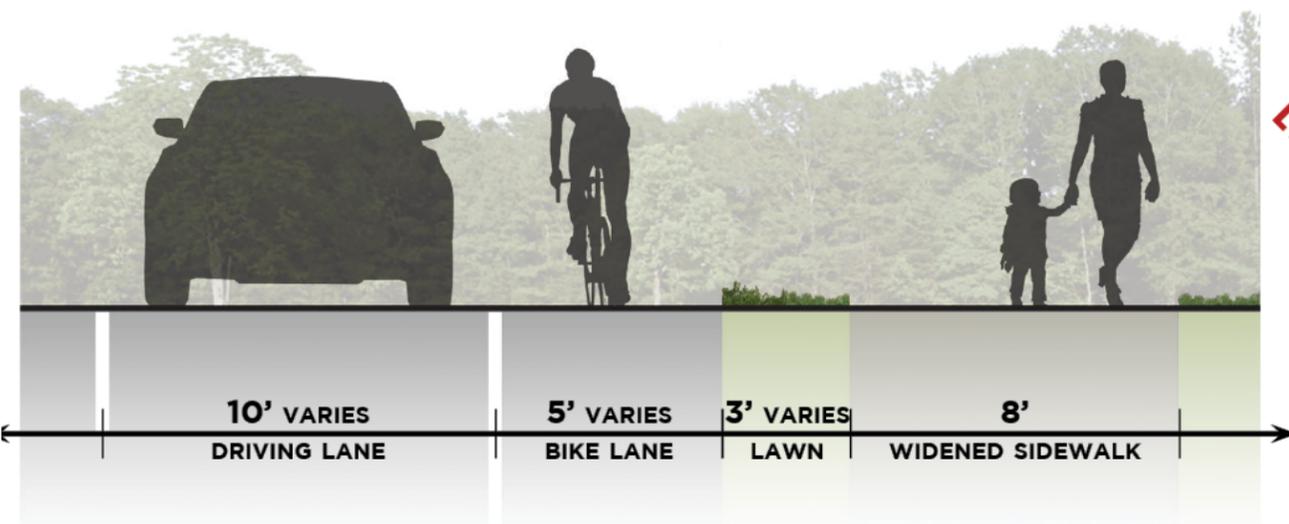


- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

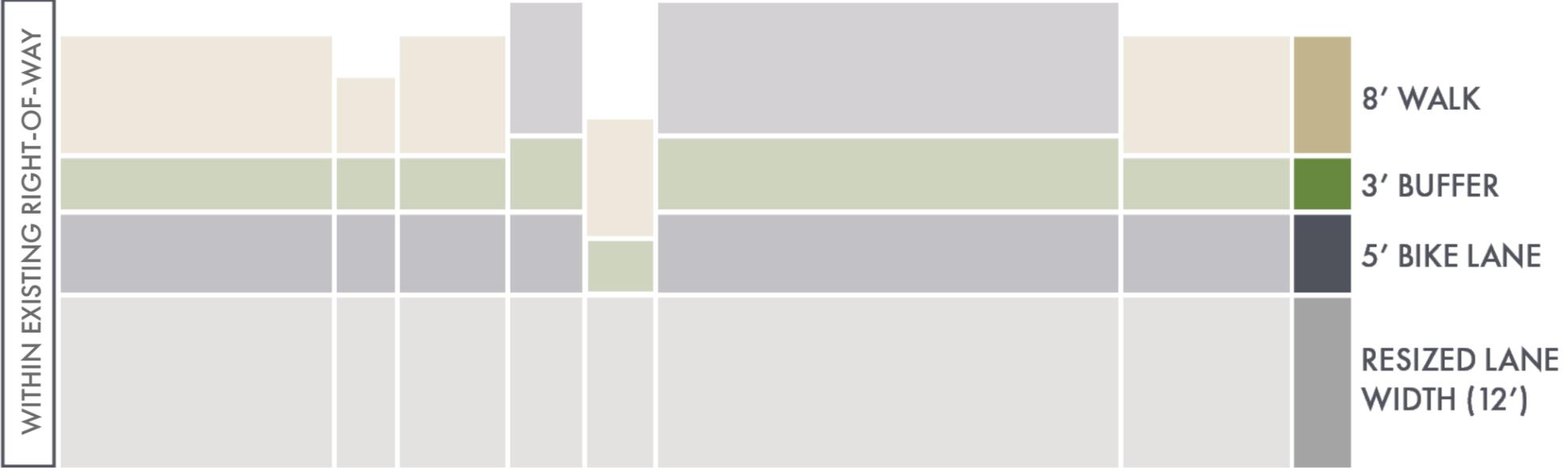
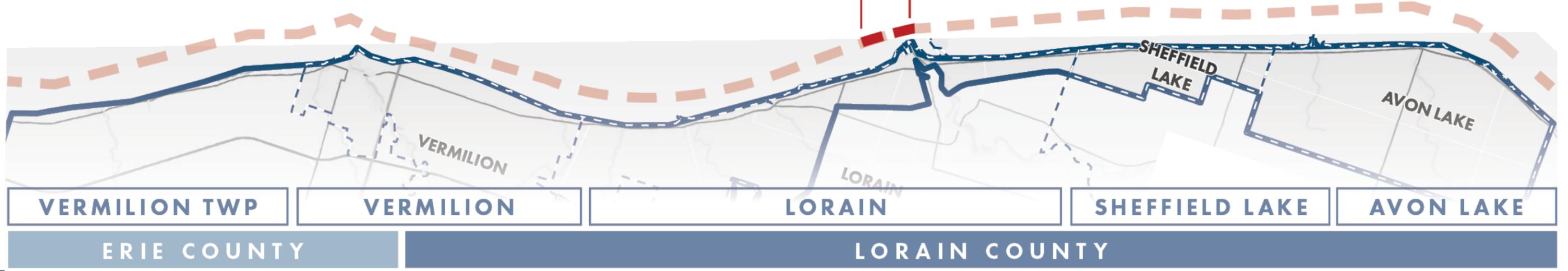
6.5 mi.

VERMILION \$3.0 Million

LORAIN \$2.5 Million



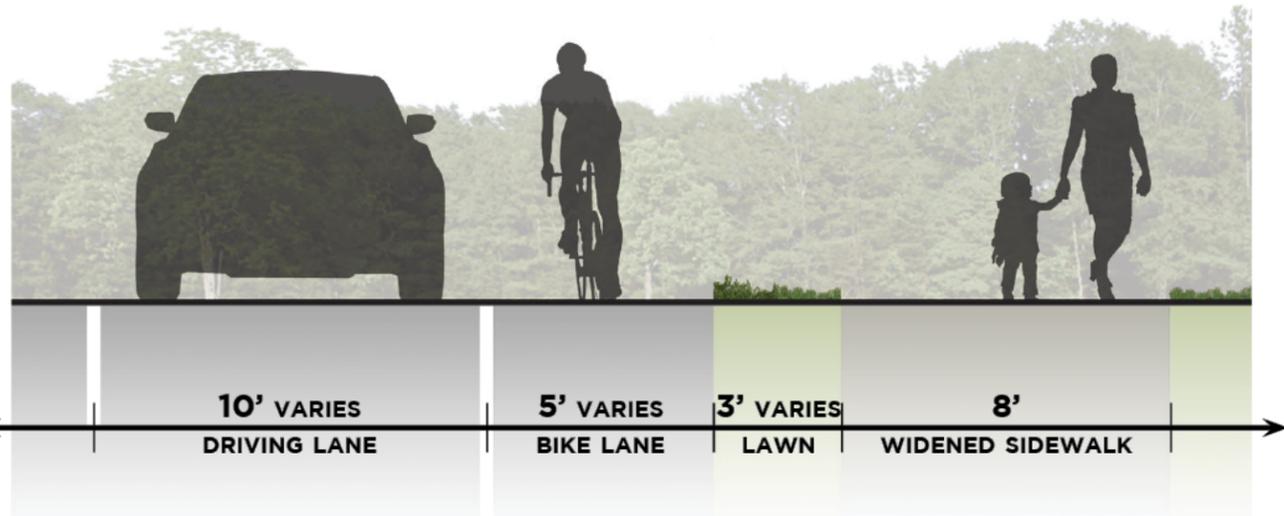
BROADWAY AVE
LAKEVIEW PARK



- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

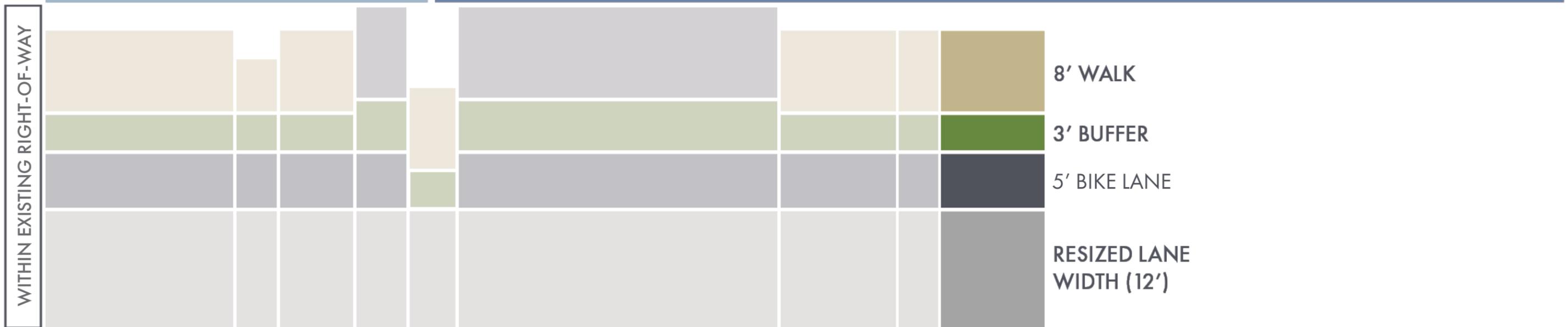
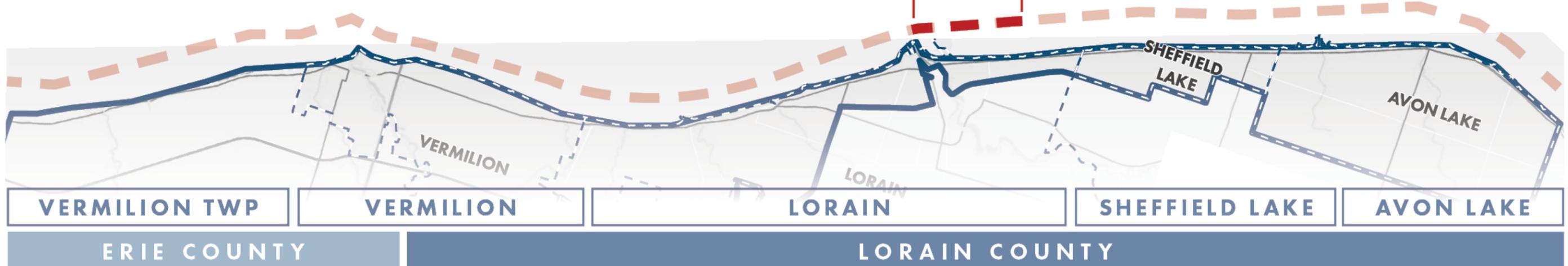
1 mi.

\$2.0 Million



LORAIN BRIDGE

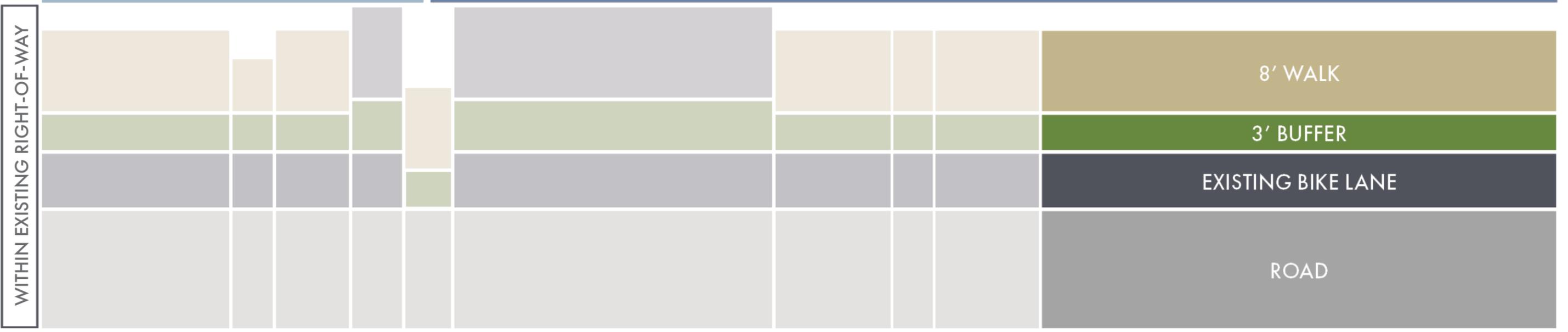
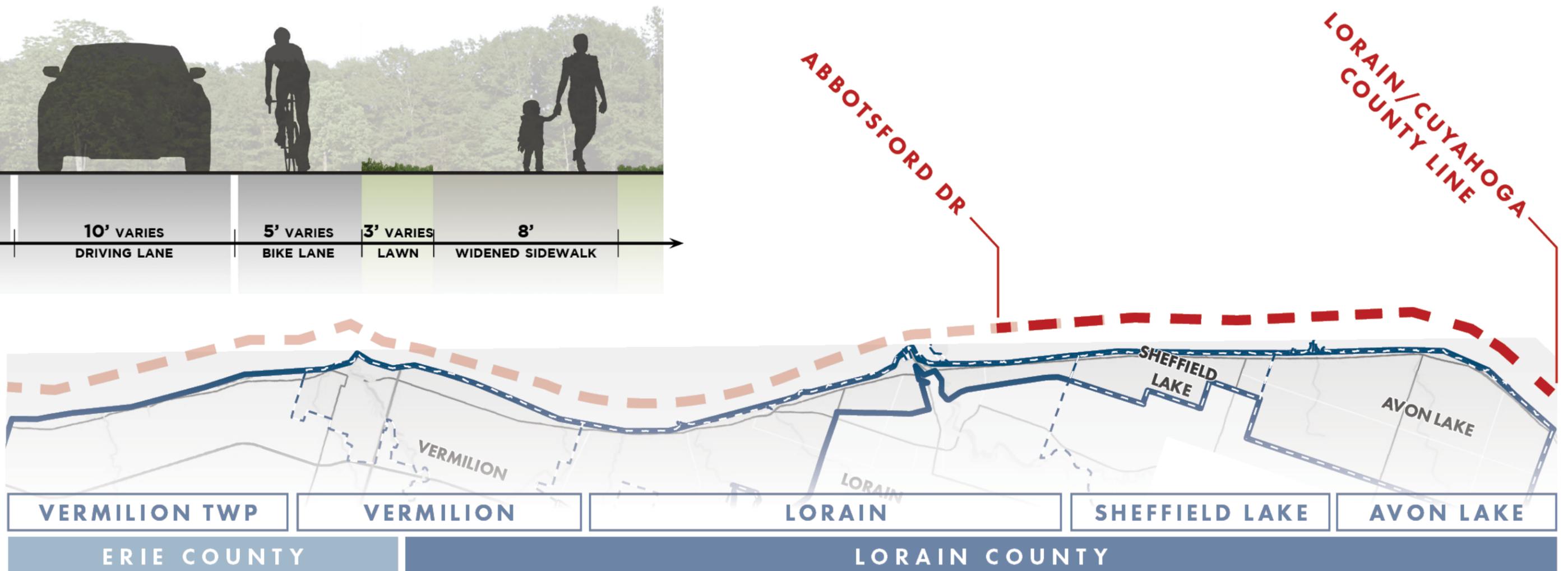
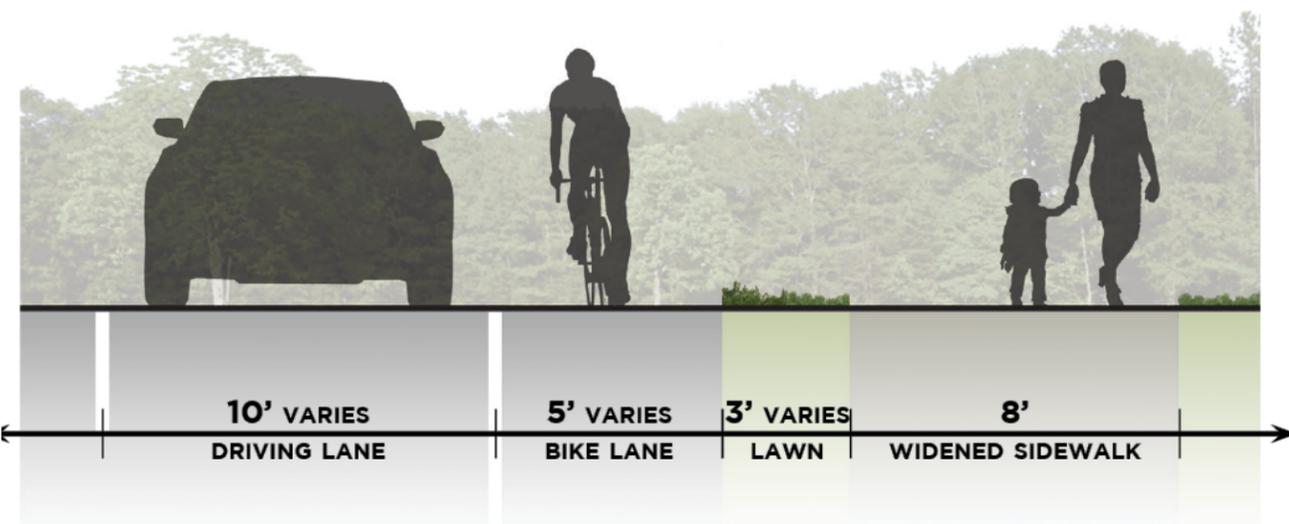
ABBOTSFORD DR



2.4 mi.

\$3.0 Million

- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD



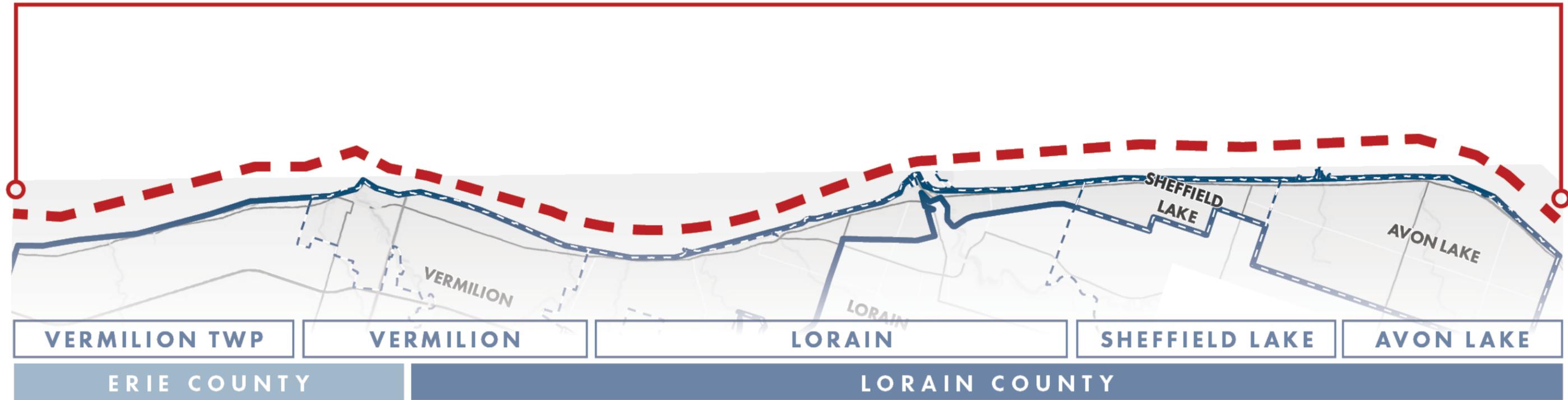
- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

8.7 mi.

SHEFFIELD LAKE \$5 Million

AVON LAKE \$9.6 Million

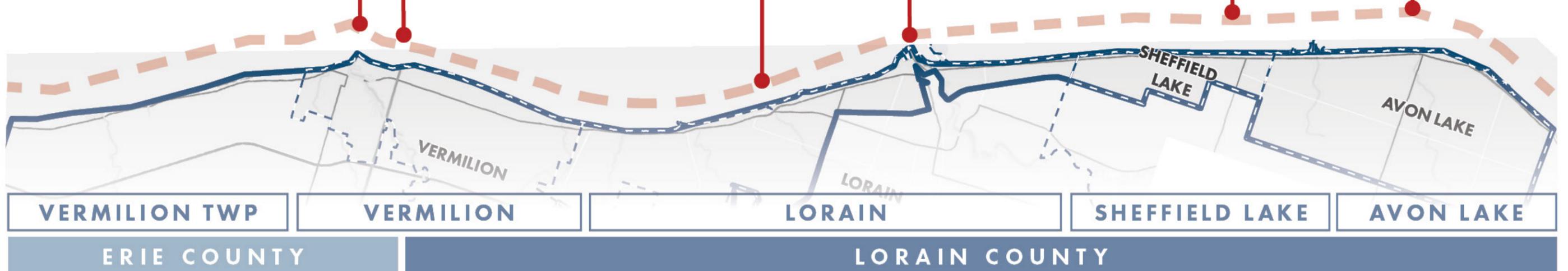
28 MILE CORRIDOR (APPROX)



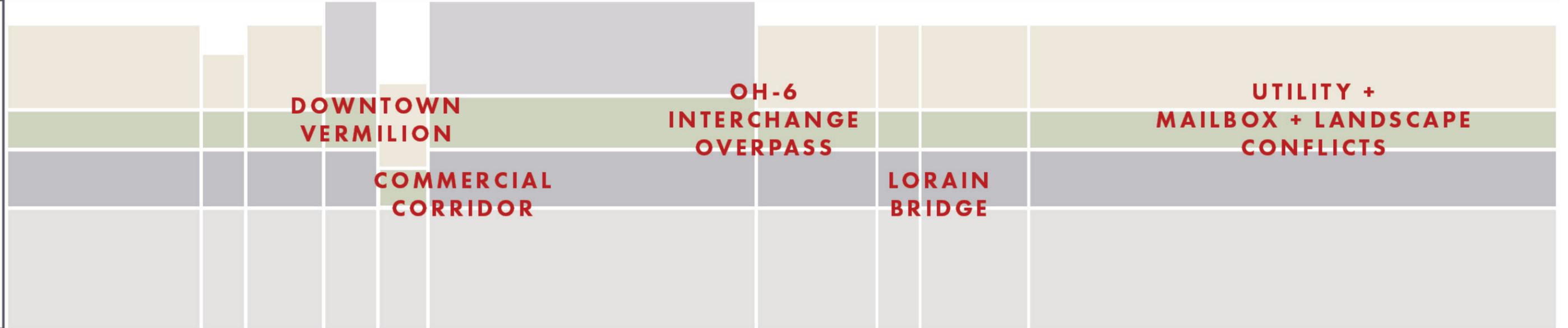
- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

Total \$33.15 Million

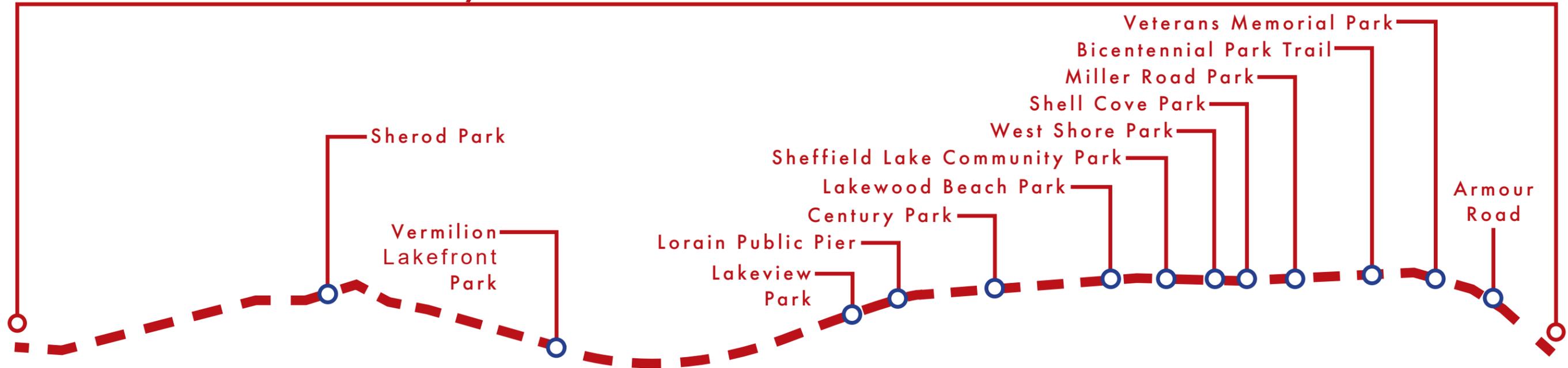
PINCH POINTS



WITHIN EXISTING RIGHT-OF-WAY



NORTH/SOUTH CROSSWALK CONNECTIONS



VERMILION TWP	VERMILION	LORAIN	SHEFFIELD LAKE	AVON LAKE
ERIE COUNTY		LORAIN COUNTY		



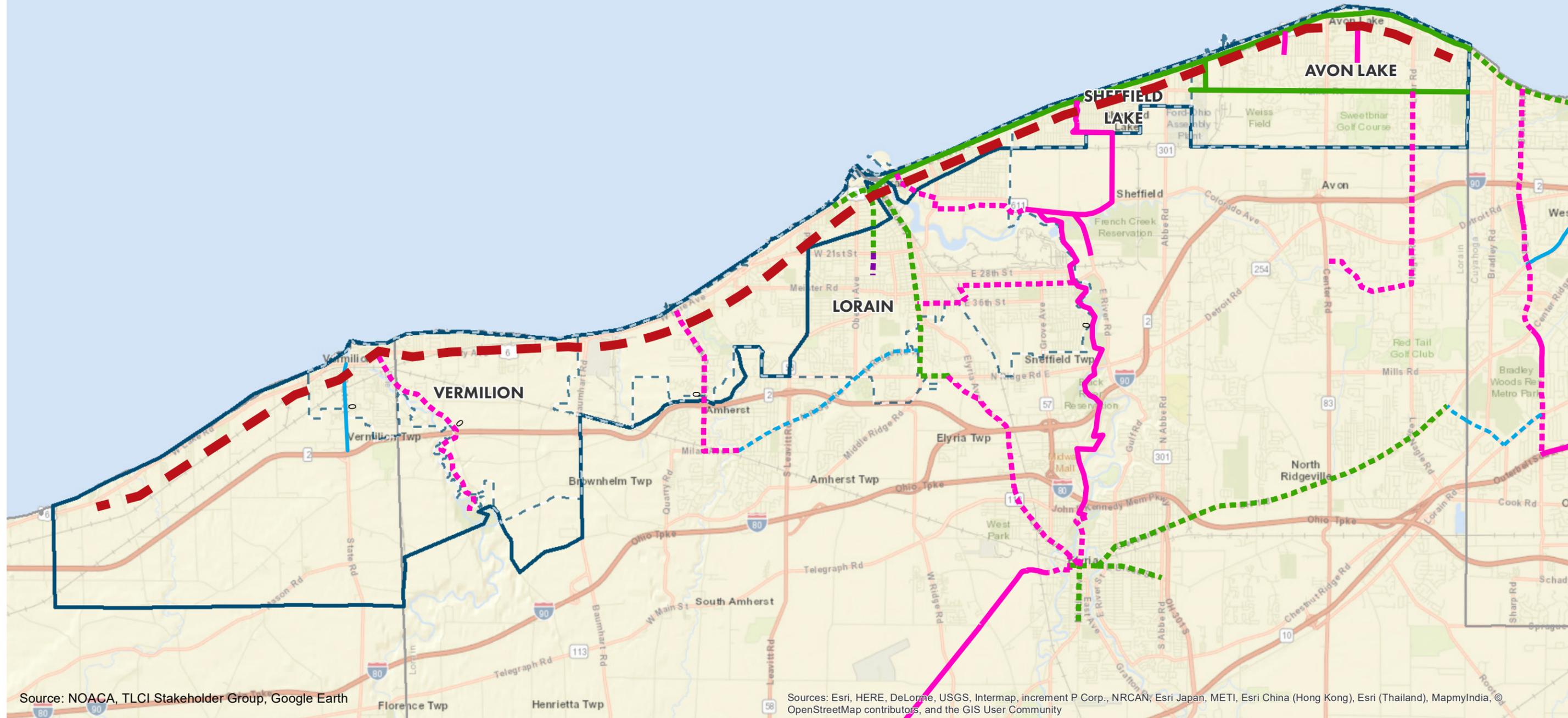
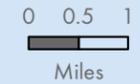
- TRAIL
- WALK
- BUFFER
- BIKE LANE
- ROAD

While Route 6 is an east/west directional route, the north/south connections along this corridor will serve as a critical part in the success of the recommended improvements. The north/south connections to other existing, planned and future multi-modal facilities will leverage existing networks, expand the number of users within these networks, and create a safe, easy and convenient multi-modal options within Lorain (and Erie) County.

EXISTING + POTENTIAL BIKE / TRAIL CONNECTIONS



1 in = 2 miles



Source: NOACA, TLCI Stakeholder Group, Google Earth

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



LORAIN COUNTY
LAKEFRONT
CONNECTIVITY PLAN

- EXISTING BIKE LANE
- EXISTING TRAIL / SIDEPATH
- EXISTING WIDENED SIDEWALK
- - - ROUTE 6 CORRIDOR
- - - PLANNED / POTENTIAL BIKE LANE
- - - PLANNED / POTENTIAL TRAIL / SIDEPATH
- - - PLANNED WIDENED SIDEWALK
- - - POTENTIAL SHARROWS
- MUNICIPALITIES
- STUDY AREA





Burton St

REDEVELOPMENT PLANS

CONCEPTUAL SITE PLANS

VERMILION LAKEFRONT PARK



NATURE CENTER
OUTDOOR PLAZA
PAVILIONS
LAKE ERIE OVERLOOK
WOODLAND WALK
DRIVE AND PARKING
WETLAND PONDS
DOCK
MEADOWS
FOREST CREATION

LORAIN DOWNTOWN RIVERFRONT REDEVELOPMENT



HOTEL AND CONFERENCE CENTER
PARKING GARAGE
RETAIL AND OFFICE
TOWNHOUSES
RESTAURANTS
WATERFRONT PROMENADE
PARK BEACH
PARK SPLASH PAD
PUBLIC PAVILION
MARINA

SHEFFIELD LAKE MARINA DISTRICT

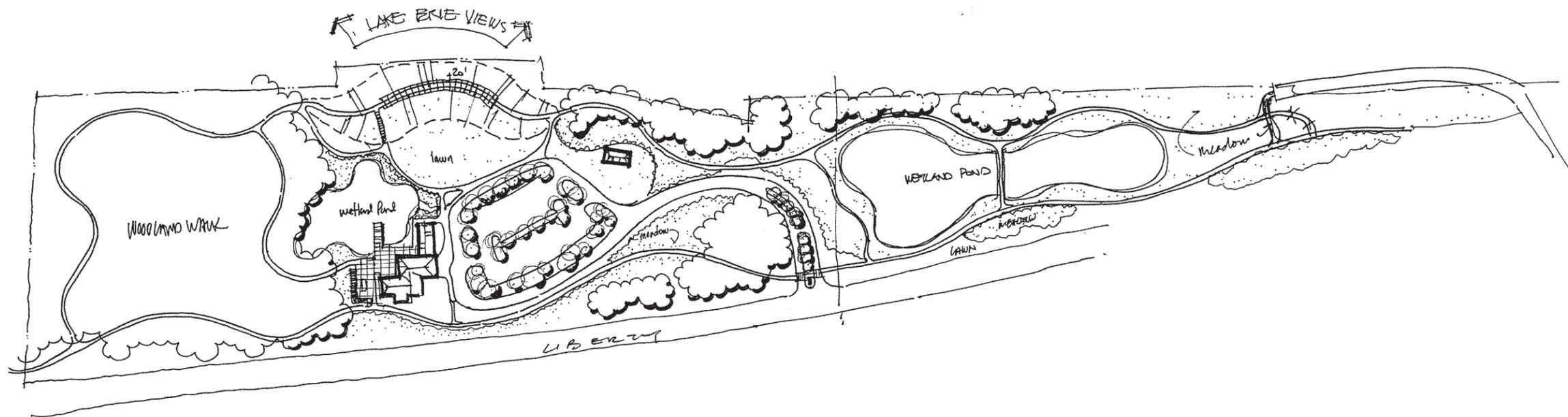


TOWNHOUSES
CLUSTER RESIDENTIAL
RESTAURANTS
GROCERY STORE
LIBRARY
MARINA
BOAT LAUNCH
PEDESTRIAN BRIDGE
CANAL BOARDWALK

AVON LAKE LAKEFRONT DISTRICT



MULTISTORY RESIDENTIAL
MIXED USE RETAIL AND RESIDENTIAL
MIXED USE RETAIL AND OFFICE
PARKING GARAGE
RESTAURANTS
REFURBISHED TRAIN STATION BUILDING AND PARKING
PARK PLAYGROUND
PARK BEACH
PUBLIC PIER



VERMILION LAKEFRONT PARK CONCEPT REFINEMENT

The proposed Vermilion Park transforms the existing automobile salvage yard into a lush, green space for active recreation, peaceful observation, and immersion in natural surroundings. A shared use path, accented by a painted blue dotted line guide, travels the inner perimeter of the park space between the railroad and U.S. Route 6. Parking for 70 vehicles serves visitors seeking use of the open-air pavilion, community rooms, Nature Center, and outdoor facilities. Paved space adjacent to the building provides placemaking with a fire

pit and seating, full size individual swings under pergola shade, and access to the pier over an approximate half acre lily pad pond.

Additional elements enhancing the park include: approximately one and a half acre of a newly created forest, two acres of wetlands traversed by a pedestrian bridge, small rain gardens, and over five acres of prairie grass meadows. These elements serve as green stormwater infrastructure to collect, attenuate, and treat stormwater while also providing natural habitats

for insects, birds, and other species.

A railroad inspired overlook is proposed along the northern edge of the park, providing ADA accessible space to take in views of not only passing trains and ships, but of the stunning vista of Lake Erie spanning the horizon.

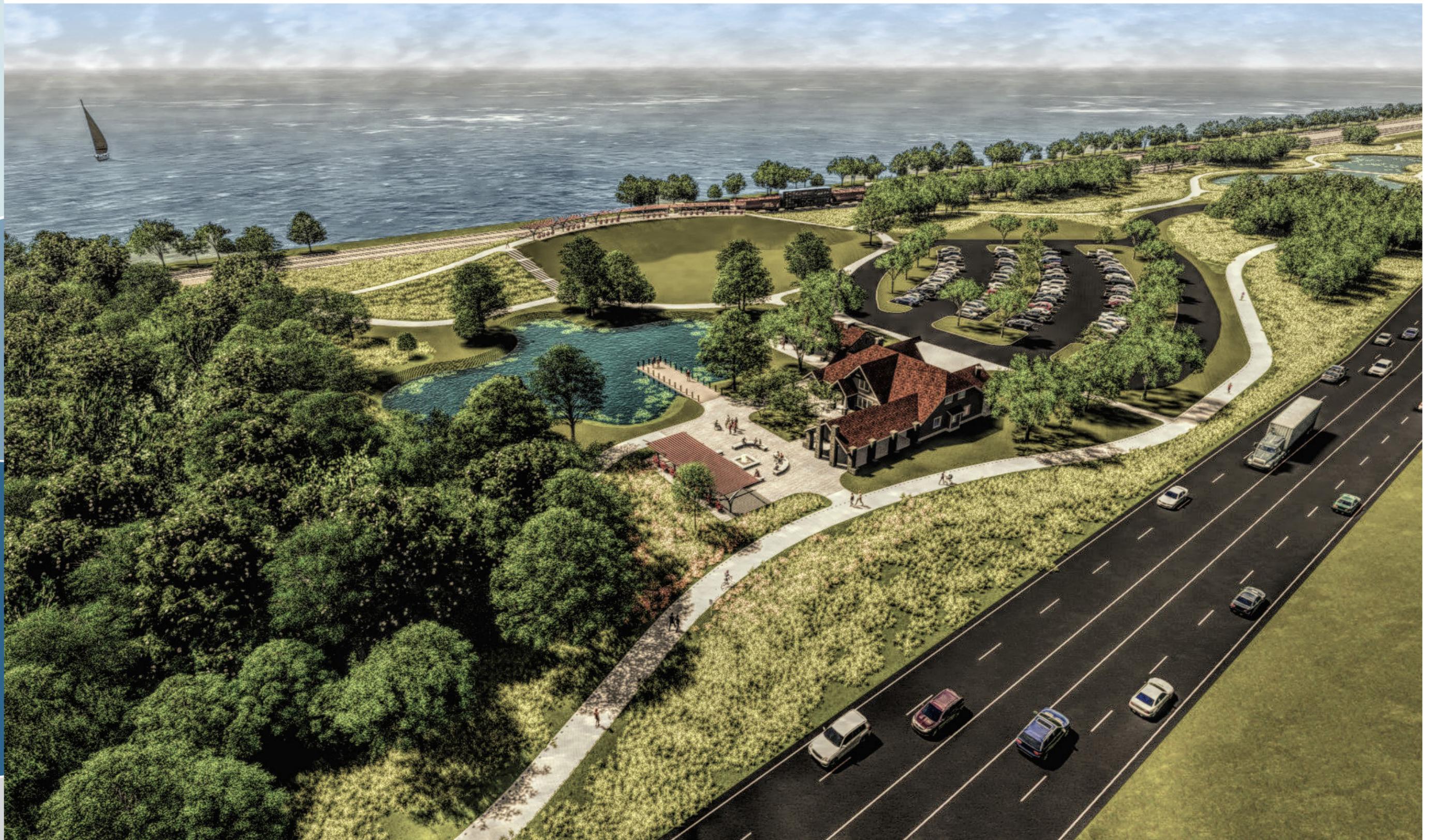
A detailed cost opinion for the proposed conceptual site plan is located in the appendix of this report.



BUILDING + DEVELOPMENT COST \$2,828,000
SITE + UTILITY COST \$8,486,000

Vermilion Development Plan

It is assumed that the Vermilion Lakefront Park will be operated by a public or non-profit entity and will not have commercial or residential real property tax impacts. As a park, the job creation and/or payroll estimates are unknown for this site.



Vermilion Lakefront Park

A 10-foot wide shared use path is proposed throughout the Vermillion Lakefront Park site. The path gives direct access to the proposed amenities of the park and is located on the north side of Route 6. Compared to some of the other proposed multi-modal improvements within the corridor, this portion of the shared use path has a very park-like feel due to its proposed sinuosity and proximity to and incorporation within the proposed park.

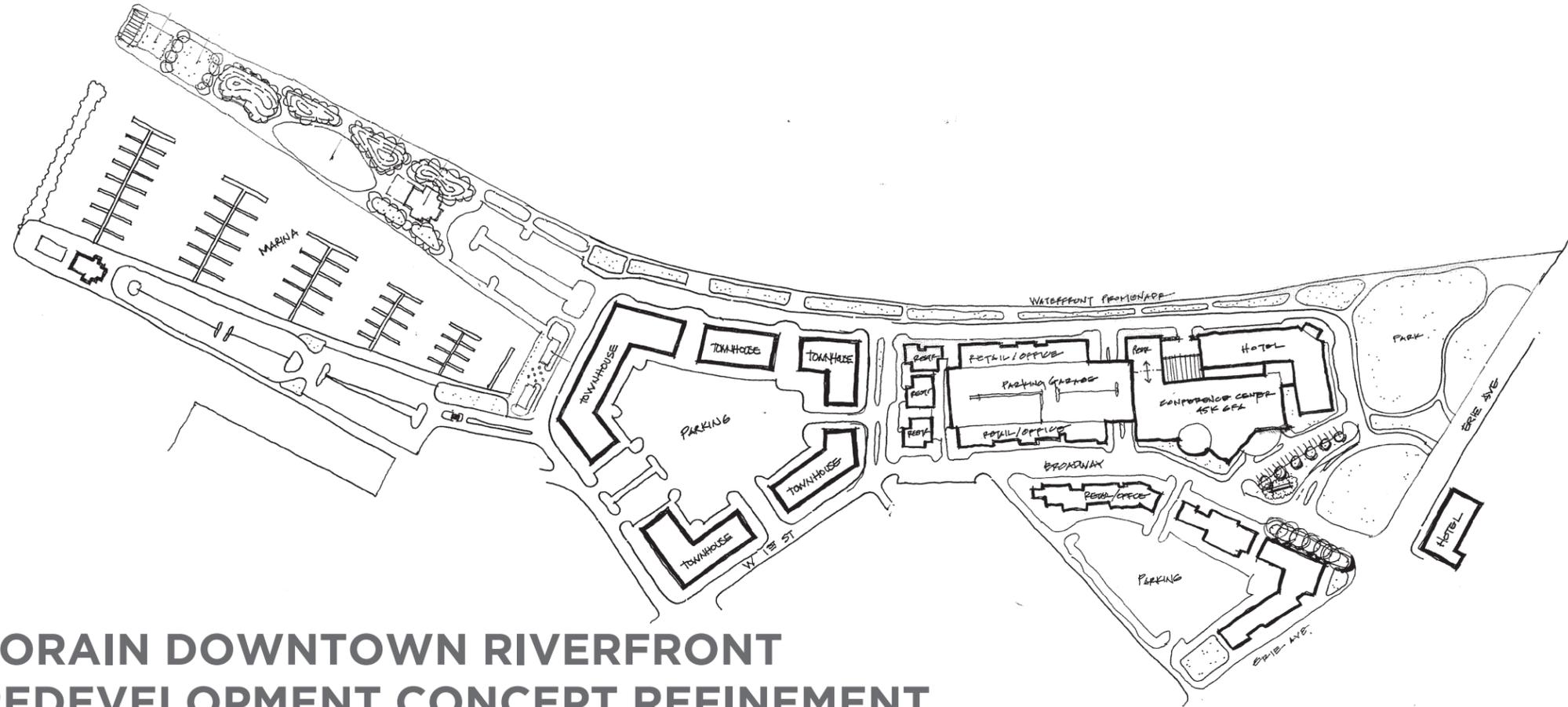


Vermilion Lakefront Park Elevated Overlook





Lorain Lakefront Trail, Vermilion Lakefront Park



LORAIN DOWNTOWN RIVERFRONT REDEVELOPMENT CONCEPT REFINEMENT

The proposed site development of the Lorain Priority Site utilizes the existing underutilized shipping dock as the base of an expansive mixed-use space. Over five acres of surface parking and a 3-level parking garage serve residents and visitors to the development, comprised of townhouses, commercial retail space, restaurants, office space, and over four acres of active and passive recreation. The Conference Center serves as an anchor for business and entertainment, accented by an adjoining hotel on

the eastern side of the development. Based on stakeholder feedback, the amphitheater was removed from the final conceptual site plan.

On the western side, a sea wall calms the waves at the entrance to a 55-slip boat marina. The northern pier hosts an open-air pavilion, public restrooms, a multi-fountain recirculating splash pad, several areas of shaded and benched seating, a one third acre sand beach area with reclined

seating, and a collection of grassed earthen mounds with shade trees. Also proposed are green infrastructure bioretention gardens to sustainably address the stormwater runoff, new roadways to circulate multi-modal traffic, and additional park space on the eastern edge near Erie Avenue.

A detailed cost opinion for the proposed conceptual site plan is located in the appendix of this report.



**BUILDING +
DEVELOPMENT COST
\$193,708,000**

**SITE + UTILITY COST
\$29,438,000**

COMMERCIAL REAL
PROPERTY TAX IMPACT:
\$3,137,000

RESIDENTIAL REAL
PROPERTY TAX IMPACT:
\$783,000

JOB CREATION: 443

PAYROLL ESTIMATES:
\$11,417,000

See Economic Impact Analysis
Overview Appendix page #29

**Lorain
Downtown Riverfront
Redevelopment Plan**



Lorain Downtown Riverfront Redevelopment

An 8' widened sidewalk directly adjacent to Route 6 is proposed on the north side of the roadway for pedestrians and bicyclists to access the Lorain Downtown Riverfront Redevelopment. A 14-foot wide public promenade is proposed adjacent to the Black River along the east side of the redevelopment site provides great views to both the river and Lake Erie, as well as multi-modal access to the 3,215-foot (0.6 mile) long eastern finger pier. Widened sidewalks are proposed throughout the entirety of the redevelopment site.



Lorain Riverfront Promenade



Lorain Pier Park, Beach & Marina



Lorain Hotel and Conference Center

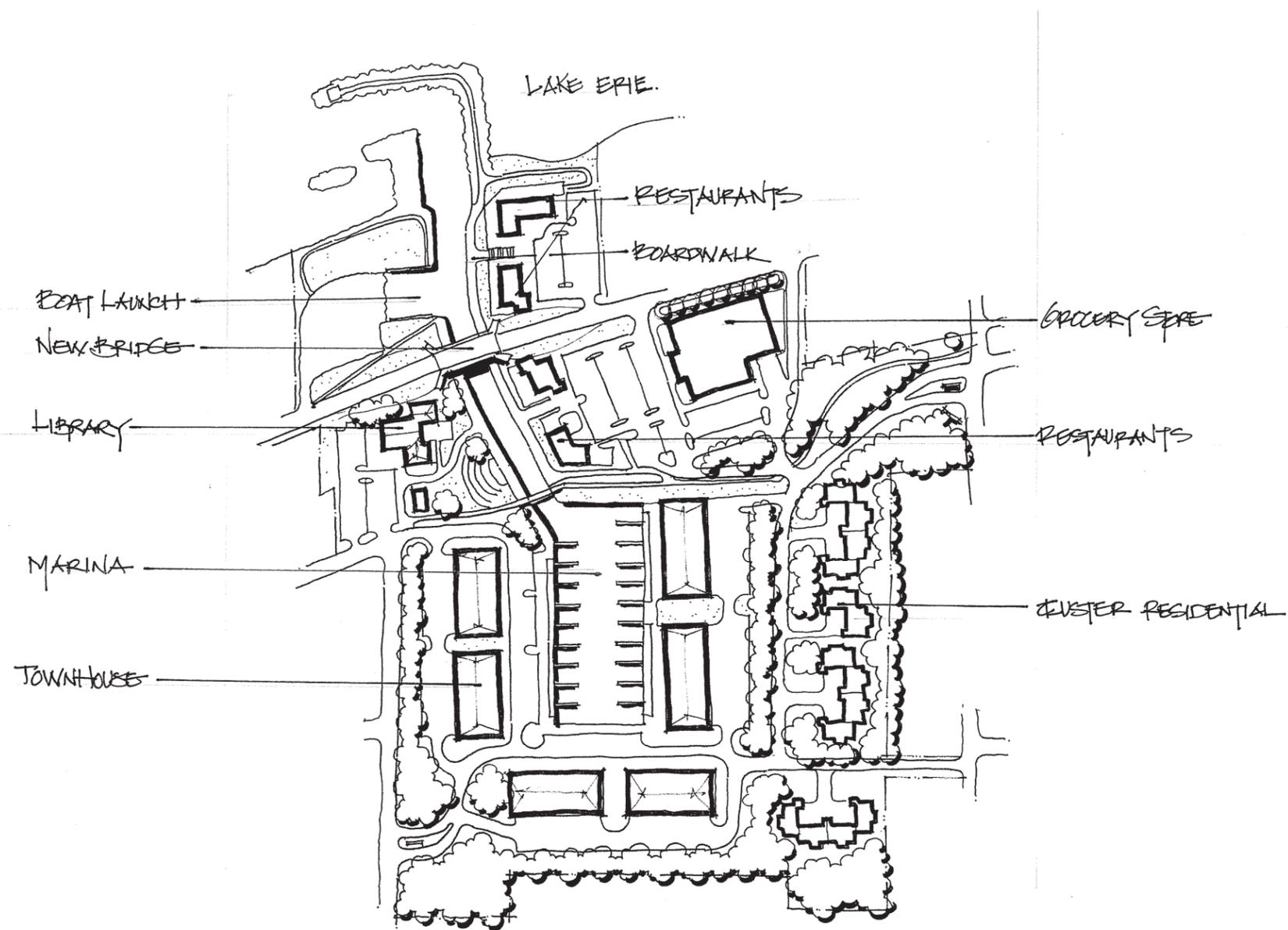
SHEFFIELD LAKE MARINA DISTRICT CONCEPT REFINEMENT

The proposed Sheffield Lake Redevelopment features the creation of a retained earth canal inlet with a 20-slip boat marina. Residential units consisting of townhouses and cluster homes, retail and commercial space including a grocery store, and a new public library surround the marina.

New roadways are added for vehicular access to parking and building frontage throughout the development. Although U.S. Route 6 continues along its existing alignment, complete street elements are added and the profile is raised to accommodate the canal and structures below. In order for Route 6 to cross the new canal approximately 800 ft. of ramped roadway, supported by retaining walls, and a 120 ft. bridge would be added.

An existing windmill is relocated but shall remain in the area for power generation. The boardwalk, peninsula walking path, café seating restaurants, open air pavilions, public restrooms, and bench seating provide placemaking for residents and visitors. The development area is served by approximately six acres of parking, a large boat launch, and temporary dockage.

A detailed cost opinion for the proposed conceptual site plan is located in the appendix of this report.





**BUILDING +
DEVELOPMENT COST
\$66,398,000**

**SITE + UTILITY COST
\$57,800,000**

COMMERCIAL REAL
PROPERTY TAX IMPACT:
\$218,000

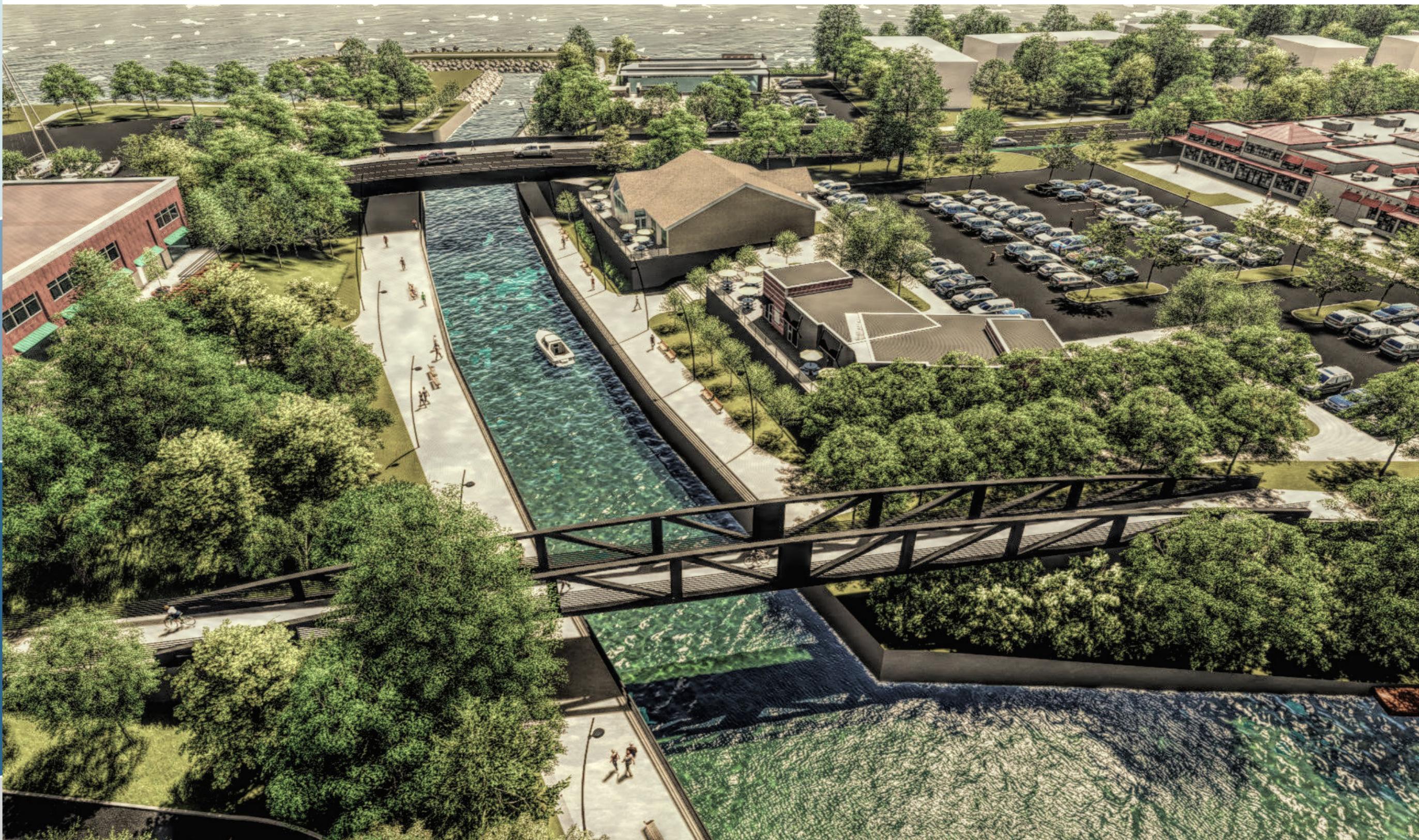
RESIDENTIAL REAL
PROPERTY TAX IMPACT:
\$1,130,000

JOB CREATION: 201

PAYROLL ESTIMATES:
\$2,835,000

See Economic Impact Analysis
Overview Appendix page #29

**Sheffield Lake
Marina District
Redevelopment Plan**

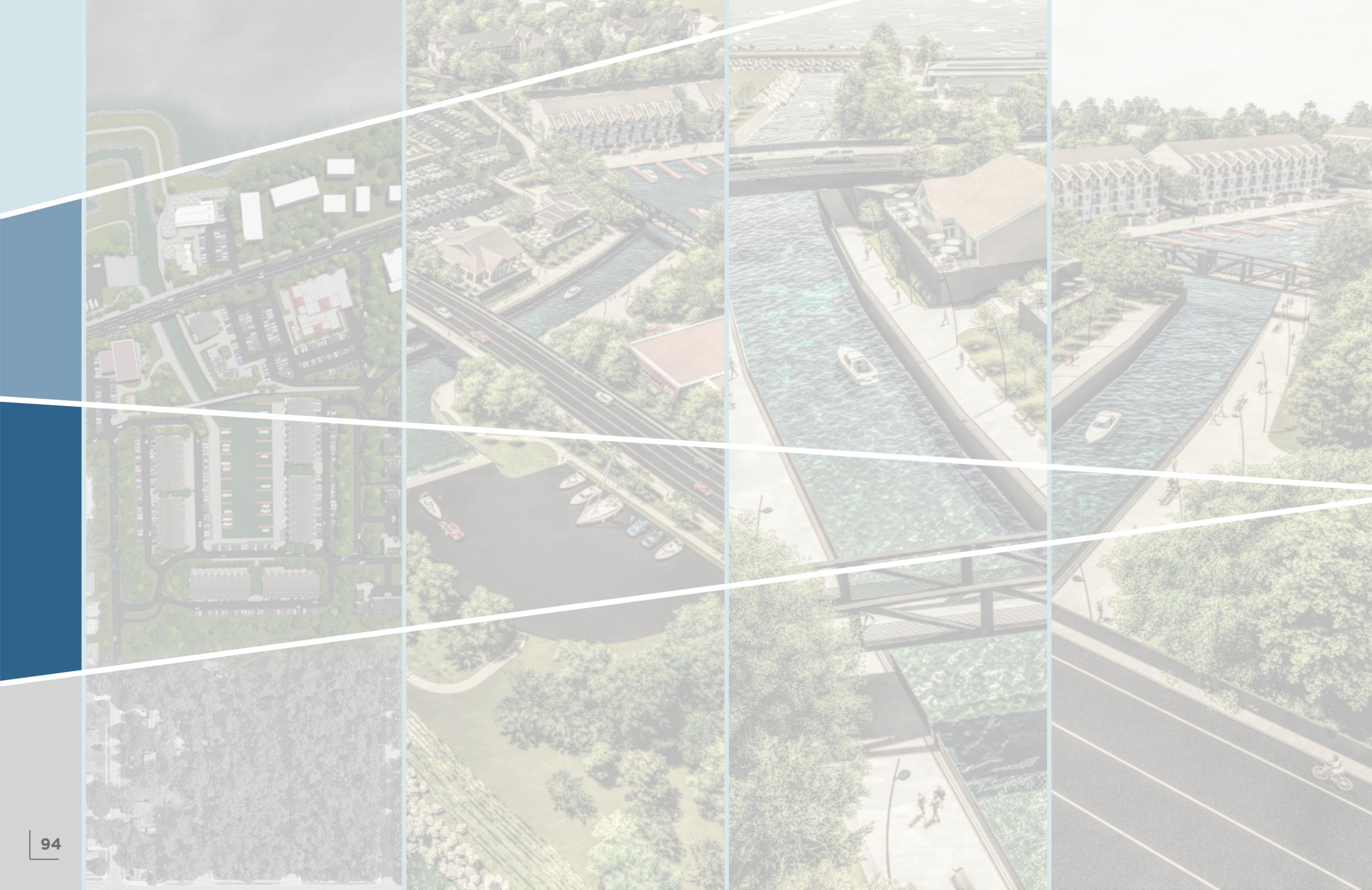


Sheffield Lake Marina District Restaurants, Bicycle/Pedestrian Bridge



Sheffield Lake Marina District & Reconfigured Boat Launch

A 10-foot side path, adjacent to Route 6, is proposed on the north side of the roadway for the length of the Sheffield Lake Marina District plan. A wide public and elevated “canal walk” is proposed along the retaining wall along the proposed canal into the marina development redevelopment, which provides great views to both the canal and Lake Erie, as well as multi-modal access to the proposed restaurants, relocated public library and residential redevelopment. While the boat area of the marina itself is shown as gated, widened sidewalks are proposed throughout the entirety of the redevelopment site for full public access. A secondary shared use path/trail, with a separate bicycle and pedestrian bridge over the canal, is proposed within the redevelopment site to provide additional multi-modal access within the site.





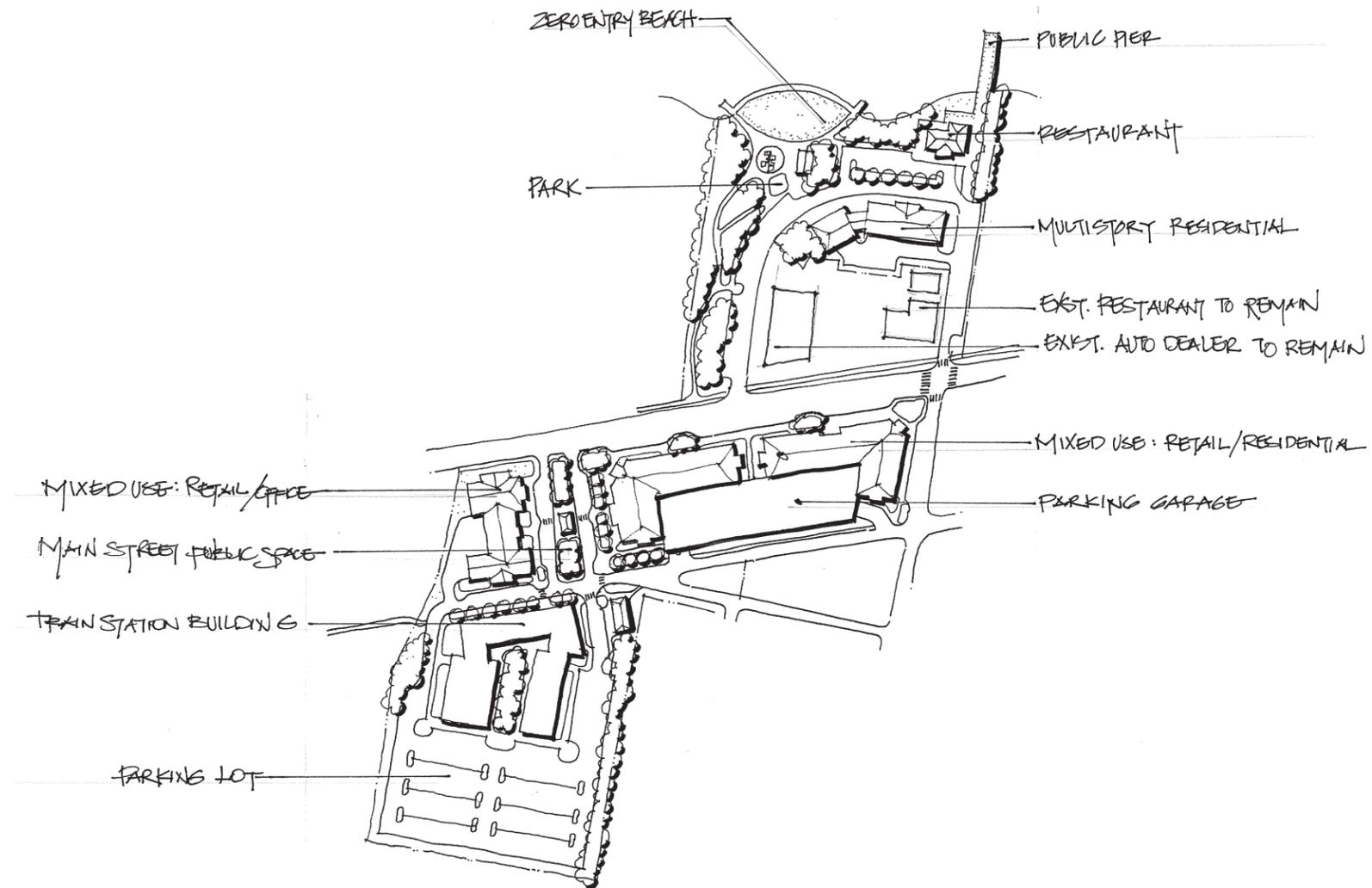
Sheffield Lake Marina District

CONCEPT REFINEMENT

The proposed mixed-use Avon Lake Redevelopment combines new retail, commercial, and residential space with over three acres of unique park features. A one-third acre sandy beach with shaded seating and active recreation space, a restaurant with café seating, and a public pier overlook Lake Erie on the northern coast. Adjacent to these features are a park with active play, shade trees, seating, public restrooms, and an open-air pavilion. An ADA accessible walkway connects the residential units, nearly three acres of parking, office space, existing businesses, and other mixed-use spaces.

A “Main Street inspired” public space provides multi-modal access to open seating, a showpiece fountain surrounded by a railroad inspired pergola, on-street parking, and flowering bioretention rain gardens. Existing roadways are resurfaced and upgraded with complete street essentials such as bike lanes, widened sidewalks, and natural elements.

A detailed cost opinion for the proposed conceptual site plan is located in the appendix of this report.





**BUILDING +
DEVELOPMENT COST
\$74,037,000**

**SITE + UTILITY COST
\$10,751,000**

COMMERCIAL REAL
PROPERTY TAX IMPACT:
\$497,000

RESIDENTIAL REAL
PROPERTY TAX IMPACT:
\$726,000

JOB CREATION: 417

PAYROLL ESTIMATES:
\$13,215,000

See Economic Impact Analysis
Overview Appendix page #29

**Avon Lake
Lakefront District
Redevelopment Plan**



Avon Lake Lakefront District



Avon Lake Lakefront District

A 10-foot side path, adjacent to Route 6, is proposed on the north side of the roadway for the length of the Avon Lake Lakefront District plan. Widened sidewalks, as well as multiple public plaza gathering spaces, are proposed throughout the entirety of the redevelopment site for full public access.

An expansive pier for viewing the lake, fishing, walking and biking jetties into Lake Erie from the northern portion of the redevelopment area, and a widened sidewalk and/or trail is proposed to connect the pier to the proposed elevated beach area (shown on page 98).



Avon Lake Lakefront District



Avon Lake Lakefront District Beach



FUNDING + IMPLEMENTATION



Out-of-the-Gate Implementation

It is recommended that a branding, signage and wayfinding plan and design be developed for the corridor. Users should be able to “follow the yellow brick road” along this new multi-modal network without having to think twice about it. An example of this, as shown in the above rendering, are consistent blue dots along the proposed trails and widened sidewalks, accompanied by cohesively designed and appropriately placed signage.

PHASING

Implementing a 28-mile lakefront multi-modal network will take time and will need to be designed and constructed in phases. As seen on pages 106 and 107, the corridor has been broken down into four implementation phases, with multiple segments listed in each phase. The type of facility, available funding for that specific type of facility, connections and access to and from destinations, and segment connectivity were all taken into account when developing the implementation phasing list.

A detailed list of funding sources is described within this report (beginning on page 108). While all funding sources have nuances related to what types of projects they are eligible for, below are a few important items to note as they relate to this project:

- ODNR (Ohio Department of Natural Resources) Clean Ohio Trail Funds and Recreational Trail funds are not eligible for concrete facilities. There are multiple 8-foot widened sidewalks, which are typically made out of concrete, recommended within this study.
- NOACA manages several

transportation programs which could provide support to both further study and/or implement many of the recommendations of this plan. For updated information, check out the NOACA Funding Guide at funding.noaca.org.

As a short-term/out-of-the-gate step, it is recommended that a branding, signage and wayfinding plan and design be developed for the corridor. It was brought up many times throughout the planning process that the new network of Lorain County lakefront trails, widened sidewalks and bike lanes should have an official name, graphic identity, and signage and wayfinding that is easily recognizable and intuitive to follow. Users should be able to “follow the yellow brick road” along this new multi-modal network without having to think twice about it. A quick and inexpensive first-step to implementing this branding, signage and wayfinding package is by installing banners along the Route 6 corridor and new multi-modal facilities as they are built. Banners can easily be attached to existing light poles and utility poles to save money on the poles themselves and to avoid pole clutter along

the corridor.

Bike Lane striping/painting should be considered as a short-term phasing solution for Route 6 Corridor. Non-slip paint is relatively inexpensive and many of the existing roadway sections in the study area have enough room within the paved right-of-way that bike lane striping could be installed immediately. In addition to immediate bike lane striping, there are three areas within the corridor that buffered bike lanes potentially fit within the existing paved right-of-way and should be considered. These areas include:

- Just east of the Lorain County Line to Baumhart Road (existing pavement ranges from 50' to 75' in width)
- Baumhart Road to Leavitt Road (existing pavement ranges from 54' to 73' in width)
- Leavitt Road to Broadway (existing pavement ranges from 46' to 66' in width)

MULTI-MODAL PHASING RECOMMENDATIONS

PHASE I - \$7.0M

- VERMILION - SHEROD PARK TO DECATUR ST. (\$1.5M)
- VERMILION - SALEM DR. TO VERMILION LAKEFRONT PARK (\$3M)
- LORAIN - VERMILION LAKEFRONT PARK TO ROUTE 6 INTERCHANGE (\$2.5M)

PHASE II - \$8.0M

- LORAIN - ROUTE 6 INTERCHANGE TO LAKEVIEW PARK (\$2M)
- VERMILION - DECATUR ST. TO SALEM DR. (\$1M)
- LORAIN - LAKEVIEW PARK TO BROADWAY AVE. (\$2M)
- LORAIN - BROADWAY AVE. TO ABBOTSFORD DR. (\$3M)



PHASE III - \$8.55M

- SHEFFIELD LAKE - ABBOTSFORD DR. TO EASTERN BORDER WITH AVON LAKE (\$5M)
- VERMILION TWP. - REYNOLDS RD. TO BARNES RD. (\$2.05M)
- VERMILION TWP. - BARNES RD. TO VERMILION COUNTY CLUB (\$0.5M)
- VERMILION - VERMILION COUNTY CLUB TO SHEROD PARK (\$1M)



PHASE IV - \$9.6M

- AVON LAKE - WESTERN BORDER WITH SHEFFIELD LAKE TO EASTERN BORDER WITH CUYAHOGA COUNTY (\$9.6M)



SOURCES FOR FUNDING AND SUPPORT

Local Economic Development Districts/Entities (individual communities may vary)

Funding Name	Issuing Agency	Project Details
Community Improvement Corporations (CIC)	Nonprofit Corporation	Nonprofit corporation to facilitate economic development for municipalities, counties and townships.
Downtown Redevelopment District (DRD)	Local Municipalities	DRD's and Innovation Districts provide a funding opportunity to rehabilitate historic buildings, create jobs, and support technology-oriented businesses. Municipalities are able to divert increases in property tax revenue relating to improvements to certain uses. The exemption may apply to up to 70% of increases in valuation, and it may last up to 10 years.
New Community Authorities (NCA)	Local government and private partner	A public-private partnership between local governments and private developers to achieve development and redevelopment goals. The NCA is designed to align with planning concepts for utilities, open space and other supportive facilities. An NCA is a separate public body that is governed by a board of trustees and they may oversee, coordinate, construct and finance public infrastructure improvements and community facilities for the benefit of the community.
Special Improvement District (SID)	Property Owners, Municipal Corporations	At least 60% of owners of the front footage or at least 75% of owners of the land area within the proposed SID agree to petition the participating political subdivisions for the creation of the SID and the development and implementation of plans for public improvements and public services that benefit the SID. (Ohio Revised Code 1710)
Transportation Improvement Districts (TID)	Local Jurisdictions	A multi-jurisdiction organization that combines government entities with the flexibility of private corporations. The TID may oversee improvements, including construction, repair and maintenance or new and existing transportation infrastructure. (Ohio Revised Code 5540)
Tax Increment Financing	Municipal Corporations	Infrastructure financing tool that dedicates a portion of the incremental property tax payments, derived from the increased property value of the project, to finance bonds issued to pay for certain public infrastructure costs related to the project. http://www.loraincounty.us/commissioners-departments/community-development#

SOURCES FOR FUNDING AND SUPPORT

Local Property Tax Abatement Program <small>(individual communities may vary)</small>		
Funding Name	Issuing Agency	Project Details
Community Reinvestment Area Program	Ohio Development Services Agency	A property tax abatement program benefiting property owners who renovate existing buildings or construct new buildings. Allows municipalities or counties to designate areas where investment has lagged as a CRA to encourage revitalization of the existing housing stock and the development of new structure. https://development.ohio.gov/bs/bs_comreinvest.htm
Undeveloped Property Tax Abatement	Local Jurisdictions	A six-year local property tax exemption for certain unused development sites. The exemption is available for owners of unused development sites qualifying as "newly developable property" or "redevelopment property".

Lorain County Port Authority		
Funding Name	Issuing Agency	Project Details
Bond Reserve Fund	Lorain County Port Authority	The Fund provides long term fixed interest rate financing for qualified industrial, commercial, and public infrastructure projects. https://lcgp.net/FinancingYourBusiness/tabid/62/Default.aspx
Port Lease Structured Finance	Lorain County Port Authority	Large-scale projects - A structured lease involves the Port Authority owning and leasing a project to a company in order to provide financial advantages to a corporate user. https://lcgp.net/FinancingYourBusiness/tabid/62/Default.aspx

SOURCES FOR FUNDING AND SUPPORT

JobsOhio Grant and Loan Programs		
Funding Name	Issuing Agency	Project Details
Economic Development Grant	JobsOhio	<p>The JobsOhio Economic Development Grant was created to promote economic development, business expansion, and job creation by providing funding for eligible projects.</p> <p>http://jobs-ohio.com/why-ohio/incentives/</p>
Growth Fund Loan	JobsOhio	<p>The JobsOhio Growth Fund provides capital for expansion projects to companies that have limited access to capital and funding from conventional, private sources of financing. JobsOhio will consider loans to companies that are in the growth, established or expansion stage, and that have generated revenues through a proven business plan.</p> <p>http://jobs-ohio.com/why-ohio/incentives/</p>
Revitalization Program Loan and Grant Fund	JobsOhio	<p>The JobsOhio Revitalization Program Loan and Grant Fund is designed to support the acceleration of redevelopment sites. An eligible site is an abandoned or under-utilized contiguous property where redevelopment for the immediate and primary purpose of job creation and retention are challenged by significant redevelopment constraints.</p> <p>http://jobs-ohio.com/why-ohio/incentives/</p>
Workforce Grant	JobsOhio	<p>The JobsOhio Workforce Grant was created to promote economic development, business expansion, and job creation by providing funding for the improvement of worker skills and abilities in the State of Ohio.</p> <p>http://jobs-ohio.com/why-ohio/incentives/</p>

SOURCES FOR FUNDING AND SUPPORT

Ohio Development Services Agency		
Funding Name	Issuing Agency	Project Details
Alternative Stormwater Infrastructure Loan Program	Ohio Development Service Agency	Design and construction of green infrastructure as part of economic development projects. The funds can pay for design, demolition, construction, materials and administrative costs associated with the green infrastructure project. https://development.ohio.gov/cs/cs_altstormwater.htm
Local Government Efficiency Program	Ohio Development Service Agency	Financial assistance to implement projects to create more efficient and effective service delivery. Learn and use Lean Six Sigma to improve an identified process resulting in making services simpler, faster, better, and less costly. https://development.ohio.gov/cs/cs_localgovfund.htm
Local Government Innovation Fund	Ohio Development Service Agency	Financial assistance for planning and implementing projects to create more efficient and effective service delivery. Improve business environments and promote community attraction with their plan for efficiency, collaboration, or shared services. https://development.ohio.gov/cs/cs_localgovfund.htm
Ohio Brownfield Fund	Ohio Development Services Agency	The Ohio Brownfield Fund is a collection of funding sources that can be used to help plan, assess, and remediate brownfields throughout the state. The program can provide loans up to \$500,000 for Phase II Environmental Assessment. The program can provide loans up to \$5,000,000 for environment cleanup. https://development.ohio.gov/cs/cs_brownfield.htm

SOURCES FOR FUNDING AND SUPPORT

State of Ohio Tax Credit Programs		
Funding Name	Issuing Agency	Project Details
Job Creation Tax Credit Program (JCTC)	Ohio Development Services Agency	The Ohio JCTC is a refundable tax credit provided to companies generally creating at least 10 new jobs with a minimum annual payroll of \$660,000. The Ohio Tax Credit Authority reviews and approves application and sets the tax credit rate and term. https://development.ohio.gov/bs/bs_jctc.htm
Ohio New Markets Tax Credit Program	Ohio Development Service Agency	The program is a nonrefundable tax credit designed to incentivize investors to fund businesses in qualified active low-income communities. https://development.ohio.gov/cs/cs_onmtcredit.htm
629 Roadwork Development Grant Program	JobsOhio and Ohio Development Services Agency	Funds are available for public roadway improvements, including engineering and design costs. Funds are available for projects primarily involving manufacturing, research and development, high technology, corporate headquarters, and distribution activity. Projects must create or retain jobs. Retail projects are ineligible. https://development.ohio.gov/cs/cs_r629.htm
Ohio Department of Public Safety		
Funding Name	Issuing Agency	Project Details
Section 402 Highway Safety Funds	Ohio Department of Public Safety	Maps, Safety/Education Position, Police Patrol, Helmet Promotion, Safety Brochure/Book and Training http://publicsafety.ohio.gov/grants.stm

SOURCES FOR FUNDING AND SUPPORT

Ohio Department of Natural Resources		
Funding Name	Issuing Agency	Project Details
Clean Ohio Trails Fund	Ohio Department of Natural Resources	Improve outdoor recreational opportunities by funding trails for outdoor pursuits. https://development.ohio.gov/cleanohio/RecreationalTrails/
Coastal Management Assistance Grants	ODNR Office of Coastal Management	The Coastal Management Assistance Grants help implement, administer and enforce the Ohio Coastal Management Program. Outlined in Ohio Revised Code Section 1506.02 (C). The program manages goals for the Ohio's portion of the Lake Erie, the coast and watershed. Those goals are to preserve, protect, develop, restore, enhance and balance the use of the coastal resources. Applicants provide 50% of the project costs. http://coastal.ohiodnr.gov/cmagrants#OVE
Land and Water Conservation Fund	Ohio Department of Natural Resources	Acquisition, development, and rehabilitation of recreational areas http://ohiodnr.gov/grants
NatureWorks Program	Ohio Department of Natural Resources	Acquisition, development, and rehabilitation of recreational areas http://ohiodnr.gov/grants
Recreational Trails Program	Ohio Department of Natural Resources	For development of urban trail linkages, trail head and trailside facilities; maintenance of existing trails; restoration of trail areas damaged by usage; improving access for people with disabilities; acquisition of easements and property; development and construction of new trails; purchase and lease of recreational trail construction and maintenance equipment; environment and safety education programs related to trails http://ohiodnr.gov/grants

SOURCES FOR FUNDING AND SUPPORT

Ohio Department of Transportation		
Funding Name	Issuing Agency	Project Details
Safe Routes to School Program	Ohio Department of Transportation	The purpose of Safe Routes to School is to encourage and enable students in grades k-8 to walk or ride their bicycle to school. Projects can be either engineering (improved crossings, sidewalks, etc.) or non-engineering (education and encouragement programs). www.dot.state.oh.us/saferoutes
State Infrastructure Bank Loans and Bonds (SIB)	Ohio Department of Transportation	The State Infrastructure Bank (SIB) is used as a method of funding 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. Eligible borrowers include any public entity. http://www.dot.state.oh.us/Divisions/Finance/Pages/StateInfrastructureBank.aspx
County Surface Transportation Program	State - Ohio Department of Transportation	The County Surface Transportation Program provides funds to counties, through the County Engineers, for roadway related improvements, including bridges not eligible for the county bridge program, on county maintained roadways. The County Engineers Association of Ohio (CEAO) serves as program manager for project selection and administration. http://noaca.org/index.aspx?page=131

Federal Loan Programs		
Funding Name	Issuing Agency	Project Details
7(a) Loan Program and 504 Loan Program	Small Business Administration (SBA)	The SBA does not make loans itself, but rather guarantees loans made by participating lending institutions. These programs assist small existing businesses and start-ups. https://www.sba.gov/loans-grants/see-what-sba-offers/sba-loan-programs

SOURCES FOR FUNDING AND SUPPORT

The Ohio History Connection		
Funding Name	Issuing Agency	Project Details
Ohio State Historic Preservation Fund Certified Local Government Grants	The Ohio History Connection	Projects that: strengthen community historic preservation, protect and preserve cultural resources, promote economic development. https://www.ohiohistory.org/preserve/state-historic-preservation-office/clg/clggrants
Ohio State Historic Preservation History Fund	The Ohio History Connection	Projects in three categories: Organizational Development, Programs & Collections, and Bricks & Mortar. https://www.ohiohistory.org/preserve/local-history-services/history-fund/history-fund-guidelines

Federal Tax Credit Programs		
Funding Name	Issuing Agency	Project Details
Federal Historic Preservation Tax Credit Program	The National Park Service - U.S. Department of the Interior, Internal Revenue Service and State Historic Preservation Offices	A nonrefundable tax credit for the rehabilitation and re-use of certified historic and older buildings that are income producing properties. The program provides federal income tax incentives. A 20% income tax credit is available for rehabilitation of certified historic, income producing buildings. A 10% tax credit is available for the rehabilitation of non-historic buildings places in service before 1936. https://www.nps.gov/tps/tax-incentives.htm
New Market Tax Credit Program (NMTC)	U.S. Department of The Treasury and Ohio Development Services Agency	The U.S. and Ohio NMTC program provides a tax credit incentive for investors to fund businesses in low-income communities. https://development.ohio.gov/cs/cs_onmtcredit.htm

SOURCES FOR FUNDING AND SUPPORT

Ohio Environmental Protection Agency		
Funding Name	Issuing Agency	Project Details
Grant-Funded Brownfield Assistance	Ohio Environmental Protection Agency	<p>The Site Assistance and Brownfield Revitalization section administers two brownfield assistance programs -Targeted Brownfield Assessment and Technical Assistance. Both programs purpose is to assist local government entities with their goal of transforming blighted properties into economic and community assets. Capitalized by a grant from USEPA, the brownfield assistance programs target community driven projects in need of property assessment and technical assistance. Eligible applicants include local government entities such as counties, cities, villages, townships, port authorities and county land banks.</p> <p>http://epa.ohio.gov/derr/SABR/Grant_Assistance.aspx</p>
Section 319 Grants	Ohio Environmental Protection Agency	<p>Nonpoint source pollution, stream/wetland restoration, agricultural BMP's acid mine drainage, riparian restoration, riparian & wetland protection (conservation easements), other nonpoint source implementation projects.</p> <p>http://epa.ohio.gov/dsw/nps/319Program.aspx</p>
Surface Water Improvement Fund	Ohio Environmental Protection Agency	<p>Stream restoration and renaturalization, riparian restoration and protection, wetland restoration and protection, innovative stormwater demonstration (public property only), lake restoration and protection, agricultural BMP demonstration projects.</p> <p>http://epa.ohio.gov/dsw/nps/swif.aspx</p>
Targeted Brownfield Assessment (TBA)	Ohio Environmental Protection Agency	<p>The TBA program provides property assessment services at no cost to eligible applicants. Services include, Phase I environmental site assessment, asbestos surveys, geophysical surveys and limited or supplemental phase II property assessment.</p> <p>http://epa.ohio.gov/derr/SABR/Grant_Assistance.aspx#150274514-targeted-brownfield-assessment-tba-program</p>

SOURCES FOR FUNDING AND SUPPORT

U.S. Environmental Protection Agency		
Funding Name	Issuing Agency	Project Details
U.S. EPA Brownfield Assessment Grant	U.S. Environmental Protection Agency	Assessment grants provide funding for a grant recipient to inventory, characterize, assess, and conduct planning and community involvement related to brownfield sites. https://www.epa.gov/brownfields/types-brownfields-grant-funding#tab-2
U.S. EPA Brownfield Revolving Loan Fund Grants	U.S. Environmental Protection Agency	Revolving loan fund (RLF) grants provide funding for a grant recipient to capitalize a revolving loan fund and to provide sub-grants to carry out cleanup activities at brownfield sites. Through these grants, EPA seeks to strengthen the marketplace and encourage stakeholders to leverage the resources needed to clean up and redevelop brownfields. When loans are repaid, the loan amount is returned into the fund and re-lent to other borrowers, providing an ongoing source of capital within a community. https://www.epa.gov/brownfields/types-brownfields-grant-funding#tab-3
U.S. EPA Brownfields Cleanup Grants	U.S. Environmental Protection Agency	Cleanup grants provide funding for a grant recipient to carry out cleanup activities at brownfield sites. An eligible entity may apply for up to \$200,000 per site. Due to budget limitations, no entity can apply for funding cleanup activities at more than three sites. These funds may be used to address sites contaminated by petroleum and hazardous substances, pollutants, or contaminants (including hazardous substances co-mingled with petroleum). https://www.epa.gov/brownfields/types-brownfields-grant-funding#tab-3
U.S. EPA Environmental Workforce Development and Job Training	U.S. Environmental Protection Agency	Annual Environmental Workforce Development and Job Training grants allow nonprofit and other organizations to recruit, train, and place predominantly low-income and minority, unemployed and under-employed people living in areas affected by solid and hazardous waste. Residents learn the skills needed to secure full-time, sustainable employment in the environmental field, including assessment and cleanup. These green jobs reduce environmental contamination and build more sustainable futures for communities. https://www.epa.gov/brownfields/types-brownfields-grant-funding#tab-3

SOURCES FOR FUNDING AND SUPPORT

Port Authorities		
Funding Name	Issuing Agency	Project Details
Brownfields Grant Program	Lorain Port Authority,* Lorain County Community Development**	The Lorain Port Authority Brownfield Grant Program is for community-wide assessments of brownfield properties. The grants may be used to assess, identify characterize and plan cleanup activities at potentially contaminated sites.
Conduit Financing Program	Lorain Port Authority,* Lorain County Port Authority	The program provides tax-exempt financing for land and building acquisition, renovations, new construction and equipment purchase. This program can provide up to 100% financing.
Construction Financing Program	Lorain Port Authority,* Lorain County Port Authority	The program can assist qualified businesses to receive a sales tax exemption on all construction materials related to the project. The Port Authority would lease the facility to the company. For federal tax purposes, the owner is the borrower and acquires the project for \$1.00 at the end of the lease term. The borrower retains full control of the property.
Special Assessment Program	Each Community*,**	The program assists developers and business owners in financing public infrastructure projects. Special assessment financing can be used to supplement TIF bonds and the bonds allow the borrower to reduce the amount of equity or conventional financing. The local municipality levies an annual special assessment on the project in an amount sufficient to finance debt issued to pay for certain public infrastructure costs related to the project. This program can provide 100% fixed-rate, tax-exempt financing for 10 to 33 years.

* <https://www.lorainportauthority.com/development/incentive-financing-programs/>
 ** <https://www.loraincounty.us/commissioners-departments/community-development#>

SOURCES FOR FUNDING AND SUPPORT

Port Authorities (continued)		
Funding Name	Issuing Agency	Project Details
Public Assessed Clean Energy Bond	Northeast Ohio Public Energy Council and Lorain Port Authority	<p>These bonds are a financial tool used by property owners to finance energy efficiency and renewable energy improvements on their properties. Variety of energy-related improvements, include updating existing homes, office buildings and warehouses with energy efficiency technologies for existing facilities as well as new energy sources like solar, geothermal, wind, biomass and gasification.</p> <p>http://pacenation.us/pace-in-ohio/ and https://www.nopecinfo.org/</p>

State of Ohio Loan/Bond Programs		
Funding Name	Issuing Agency	Project Details
166 Direct Loan Program	Ohio Development Services Agency	<p>The 166 Direct Loan Program provides low interest loan financing assistance to businesses for the allowable costs of eligible projects. Eligible projects include those related to industry, commerce, and distribution or research activities. For land and building acquisition, construction, expansion, or renovation, and equipment purchases for eligible businesses. The program provides low-interest loans up to 40 percent not to exceed \$1.5 million.</p> <p>http://jobs-ohio.com/why-ohio/incentives/</p>
Regional 166 Direct Loan	Ohio Development Services Agency	<p>The Regional 166 Direct Loan Program provides low-interest loan financing assistance to businesses creating new or preserving existing jobs. Eligible projects include those related to industry, commerce, and distribution or research activities. For land and building acquisition, construction, expansion, or renovation, and equipment purchases for eligible businesses. The program provides low-interest loans up to 40 percent not to exceed \$1.5 million.</p> <p>https://development.ohio.gov/bs/bs_r166dl.htm</p>

SOURCES FOR FUNDING AND SUPPORT

State of Ohio Loan/Bond Programs (continued)

Funding Name	Issuing Agency	Project Details
Minority Business Direct Loan Program	Ohio Development Services Agency	The program provides low-interest rate loans to certified minority-owned businesses that are purchasing or improving fixed assets and creating or retaining jobs. https://development.ohio.gov/bs/bs_ombdlp.htm
Enterprise Bond Fund Program	Ohio Development Services Agency	The Program The Ohio Treasurer issues bonds, the proceeds of which are loaned to businesses for allowable costs of eligible projects. The OEBF Loan provides long-term, fixed-rate project financing for qualifying businesses that create or preserve employment opportunities in Ohio. The OEBF Loan provides capital to developed companies with limited access to funding at costs comparable to those of rated multi-national corporations. https://development.ohio.gov/summary_69ohioenterprisebond.htm
Industrial Revenue Bond Financing (IRB)	Ohio Development Services Agency or Local Subdivision	IRB or Industrial Development Bonds are bonds that are issued by a state or local political subdivision that empower these entities with the ability to issue tax-exempt or taxable bonds on behalf of the company. Manufacturing, Distribution, commercial, or research facilities that utilize the proceeds for various economic development purposes including, but not limited to, the financing of land, the expansion or construction of buildings, and the purchase of machinery and equipment. https://development.ohio.gov/bs/bs_ombdlp.htm
Qualified Energy Conservation Bonds (QECCB)	U.S. Department of Energy Lorain County Port Authority	The QECCB program is a bond that enables qualified state, tribal, and local government issuers to borrow money at attractive rates to fund energy conservation projects. Eligible projects are green community programs which promote both energy efficiency and provide a general public benefit and for projects that reduce energy consumption in publicly owned buildings by at least 20 percent. https://energy.gov/eere/slsc/qualified-energy-conservation-bonds

SOURCES FOR FUNDING AND SUPPORT

Lorain County Community Development Department		
Funding Name	Issuing Agency	Project Details
Brownfield Coalition	Lorain County Community Development Department	The Coalition uses grant funding to assess properties and quantify risks to human health and the environment. Conduct Phase I and II environmental assessments, remedial planning and design and community outreach at properties that are currently underutilized and abandoned. http://www.loraincounty.us/commissioners-departments/community-development
Community Development Block Grant (CDBG)	Lorain County Community Development Department City of Lorain	The Ohio Development Services Agency Community Development Program provides federal funding to communities. Programs that can be funded are as follows; Economic Development Loan Program, Economic Development Public Infrastructure Grant Program, Neighborhood Revitalization, Downtown Revitalization and Critical Infrastructure. https://www.development.ohio.gov/cs/cs_edcgrantee.htm
Enterprise Zone Tax Abatement	Lorain County Community Development Department City of Lorain	The program is administered by municipal and county governments that provides real property, personal property, or real and personal property tax incentives to eligible employers expanding or locating in Ohio. Enterprise Zones are designated areas (zones) of land in which enterprises may receive tax incentives in the form of a tax abatement on eligible new investments. http://www.loraincounty.us/commissioners-departments/community-development#
Foreign Trade Zone (FTZ)	Lorain County Community Development Department	Foreign-Trade Zones are secure areas under U.S. Customs and Border Protection (CBP) supervision that are generally considered outside CBP territory upon activation. Located in or near CBP ports of entry, they are the United States' version of what are known internationally as free-trade zones. Foreign and domestic merchandise may be moved into zones for operations, not otherwise prohibited by law, including storage, exhibition, assembly, manufacturing, and processing. All zone activity is subject to public interest review. Foreign-trade zone sites are subject to the laws and regulations of the United States as well as those of the states and communities in which they are located. http://www.loraincounty.us/commissioners-departments/community-development# and https://www.cbp.gov/border-security/ports-entry/cargo-security/cargo-control/foreign-trade-zones/about

SOURCES FOR FUNDING AND SUPPORT

Lorain County Community Development Department (continued)

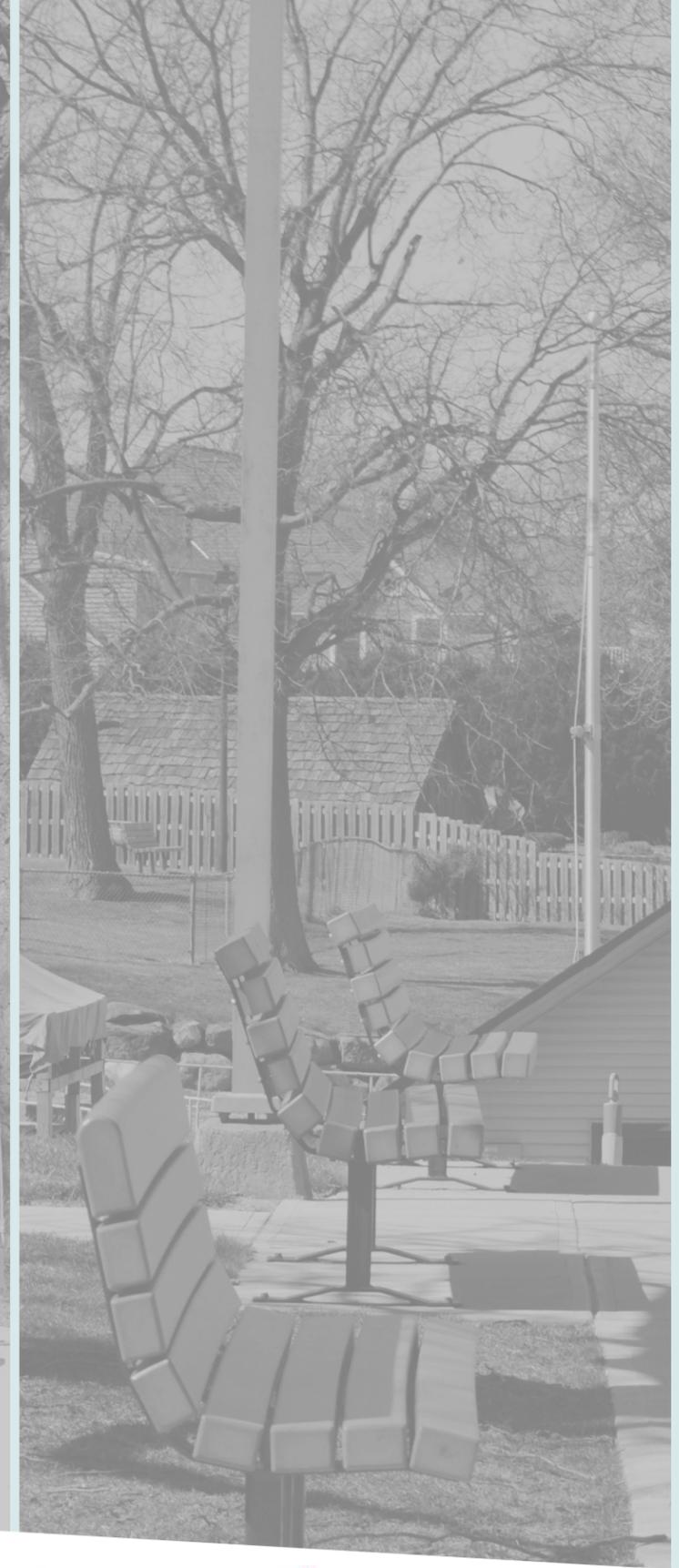
Funding Name	Issuing Agency	Project Details
Land Reutilization Corporation	Lorain County Land Reutilization Corporation	<p>The Land Reutilization Corporation is organized as a Community Improvement Corporation. (1) facilitating the reclamation, rehabilitation and reutilization of vacant, abandoned, tax- foreclosed or other real property within the county for whose benefit the corporation is being organized, but not limited to the purposes described in division (B)(2) of Section 1724.01 of the Ohio Revised Code; (2) efficiently holding and managing vacant, abandoned or tax-foreclosed real property pending its reclamation, rehabilitation and reutilization; (3) assisting governmental entities and other non-profit or for-profit persons to assemble, clear, and clear the title of property described in division (B)(2) of Section 1724.01 of the Ohio Revised Code in a coordinated manner; or (4) promoting economic and housing development of the county or region.</p> <p>http://www.loraincounty.us/commissioners-departments/community-development#</p>
Revolving Loan Fund	Lorain County Community Development Department	<p>A lending program that assists local companies by providing gap financing on approved projects, and can cover up to 50% of overall project costs.</p> <p>http://www.loraincounty.us/commissioners-departments/community-development#</p>
Recycling Revolving Loan Fund	Lorain County Solid Waste Management District	<p>This fund provides low interest loans to Lorain County businesses and organizations that utilize recycled materials either in their building materials or in their manufacturing process.</p> <p>http://www.loraincounty.us/commissioners-departments/solid-waste-management/grant-programs</p>

Northeast Ohio Areawide Coordinating Agency

Funding Name	Issuing Agency	Project Details
Congestion Mitigation and Air Quality	Northeast Ohio Areawide Coordinating Agency	<p>Projects that help reduce traffic congestion and improve air quality. Funds may be used for traffic signal upgrade projects, bus replacements, bike facilities, intelligent transportation system improvements, transit center and Park-N-Ride construction and for conducting NOACA's Air Quality Program.</p> <p>www.noaca.org</p>

SOURCES FOR FUNDING AND SUPPORT

Northeast Ohio Areawide Coordinating Agency (continued)		
Funding Name	Issuing Agency	Project Details
Technical Assistance Program	Northeast Ohio Areawide Coordinating Agency	NOACA's Technical Assistance (TA) Program offers NOACA staff planning expertise on community-based multimodal transportation projects. The program improves the safety, efficiency, and preservation of the transportation system for all users, and improves the quality of life in the region. www.noaca.org
Transportation for Livable Communities Initiative	Northeast Ohio Areawide Coordinating Agency	The TLCI program consists of two components: planning and implementation. The planning studies help local partners develop a plan that identifies transportation countermeasures at specific locations, has a multi-modal focus, and engages the public. The implementation program prioritizes the programming, procurement, and installation of low-cost, multi-modal infrastructure that was recommended in a TLCI planning study or a similar community-based plan. Projects sponsors are encouraged to submit implementation requests of over \$100,000. The planning grant program has led to dozens of completed studies over the past decade. www.noaca.org
Surface Transportation Program	Federal - Northeast Ohio Areawide Coordinating Agency	The Surface Transportation Block Grant program (STBG) provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. http://noaca.org/index.aspx?page=131
Transportation Alternatives Program	Federal - Northeast Ohio Areawide Coordinating Agency	The Transportation Alternatives 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 storm water 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. http://noaca.org/index.aspx?page=131



**LORAIN COUNTY
LAKEFRONT
CONNECTIVITY PLAN**

