

TREMONT PEDESTRIAN AND BICYCLE LINKAGES

Introduction: 2

PROJECT CONTEXT

Project Description: The project will provide plans and strategies to improve existing roadways and create new pathways to enhance multi-modal transportation; and to improve the pedestrian and bicycle linkages throughout the Tremont neighborhood and to the future Ohio & Erie Canal Towpath Trail.

Project Goals:

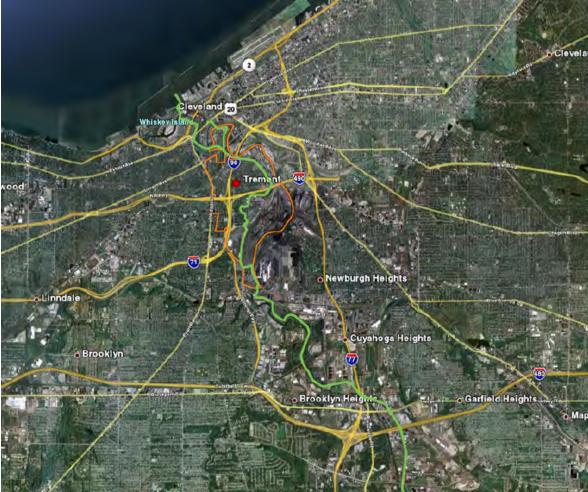
- To create strategies and standards for the improvement of safe pedestrian and bicycle access on roadways and sidewalks, particularly in designated key corridors.
- To identify locations and strategies for creating new off-road paths that will enhance the pedestrian and bicycle connections to key neighborhood amenities.
- To locate connection opportunities to the future route of the Towpath Trail and the Train Avenue Greenway, and to designate specific strategies for implementing these connections.

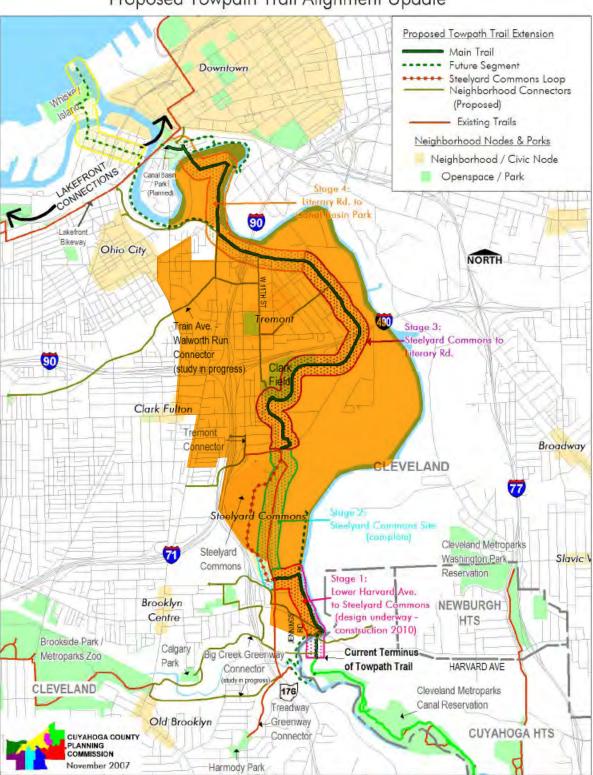
Project Boundaries:

- Abbey Avenue at the north, which is a connector to the West 25th Street Rapid Transit Station.
- The Cuyahoga River, and the Towpath Trail to the east, which will eventually travel along a currently unused West 4th Street.
- MetroHealth Medical Center and Steelyard Commons to the south.
- West 25th Street and the Train Avenue Greenway to the west.









Proposed Towpath Trail Alignment Update

INRegional/towpathtrailed/Working Map/TowpathAlignmentDd. WOR

Analysis & Inventory: 6

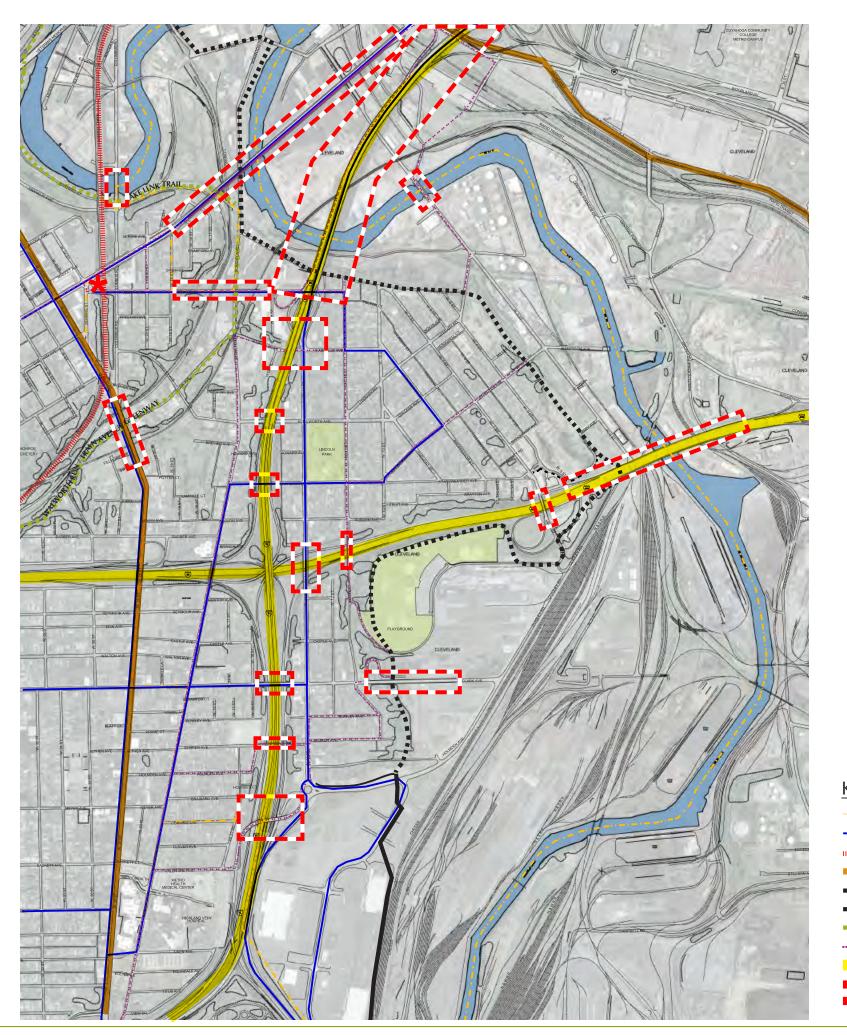
TRANSPORTATION INFRASTRUCTURE

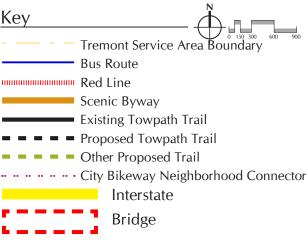
In addition to topographic conditions along the river bluffs, interstate highway corridors have created significant barriers to pedestrian movement. The interstates I-90, I-71, and I 490 cut through the neighborhood in various vertical alignments; above grade along the west edge of Central Tremont and deeply below grade as I-490 bisects the neighborhood north of Clark Avenue. The I-90 bridge over the Cuyahoga River is slated to be replaced by 2013. The proposed new span will create an impact along the northern edge of the neighborhood. The highway system, while serving the vehicular needs of the entire region, brings people and goods to and from Tremont. Unfortunately, highway right-of-ways are extremely wide in most locations, that has impacted the overall fabric of the neighborhood and will be an urban design challenge to mend. Pedestrian bridges occur at West 11th street over I-490 and Buhrer Avenue over I-71 and provide vital although under utilized linkages.

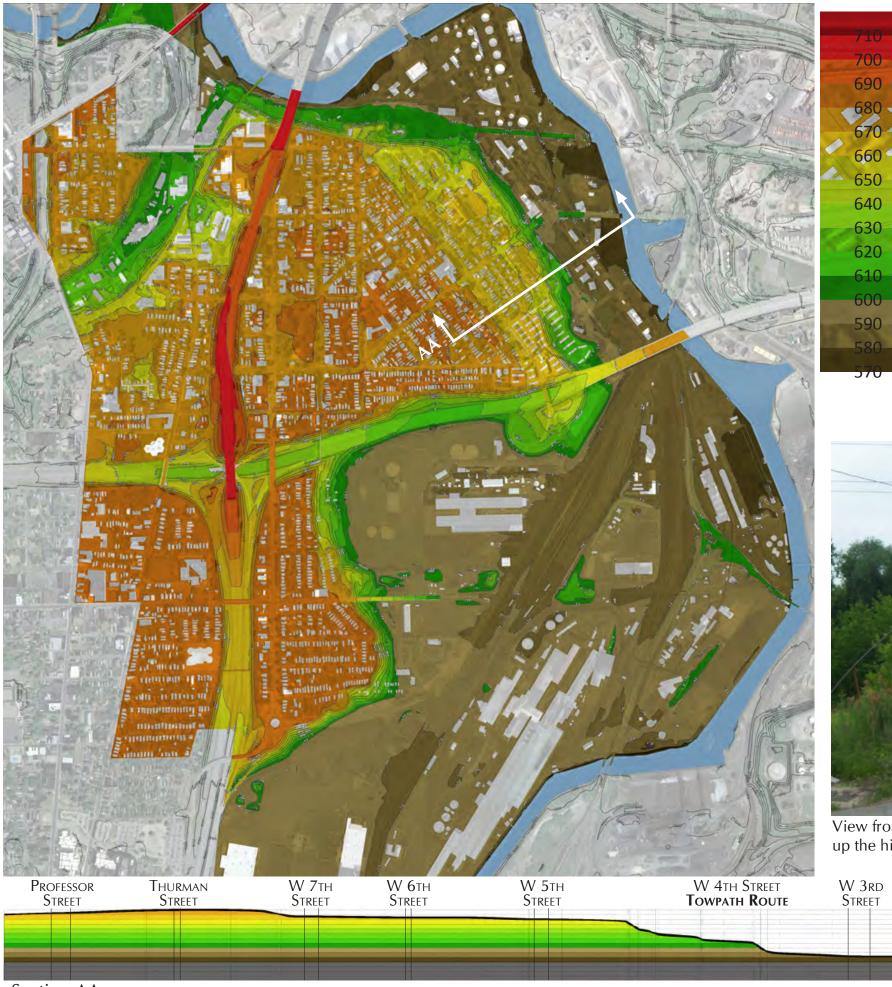
In addition to highways, bridges along Abbey and Clark, reconstructed in the 1980s have provide important pedestrian linkages to Duck Island and the West 25th Street business district and the Flats respectively.

North / South Bus routes operated by the Greater Cleveland Regional Transit Authority are available along West 25th street, while the 81 route serves the Tremont neighborhood, providing public transportation to downtown and the Rapid Transit Redline Station at Lorain Avenue and West Twenty-fifth Street.









Highest Elevations Highway overpasses and bridges

Up slope Elevations Relatively flat. Urban grid streets forming residential neighborhoods.

Slopes

660

370

Transition from Floodplain to Up slope. Some residential, mostly too steep to inhabit.

Floodplain Elevations

Flat area adjacent to Cuyahoga River. Historic industrial valley, now some retail.



View from 3rd and Jefferson looking uphill, the Towpath Trail will intersect Jefferson midway up the hill.



TOPOGRAPHY

This map shows the relative elevations throughout Tremont. There is the floodplain valley and the up slope plateau separated by an steep elevation difference of 50' or more.

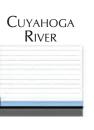
The challenge of the topography is that access to other neighborhoods and the river is dependent upon bridges or other larger engineered solutions to navigating the topography.

The Towpath Trail will be located midslope throughout most of its Tremont section. The challenge of this location is making connections to the neighborhood that are bike-able and also bringing some of the neighborhood flair to the trail.

TREMONT

LINKAGES

PEDESTRIAN AND BICYCLE



Analysis & Inventory: 8

Neighborhood Amenities

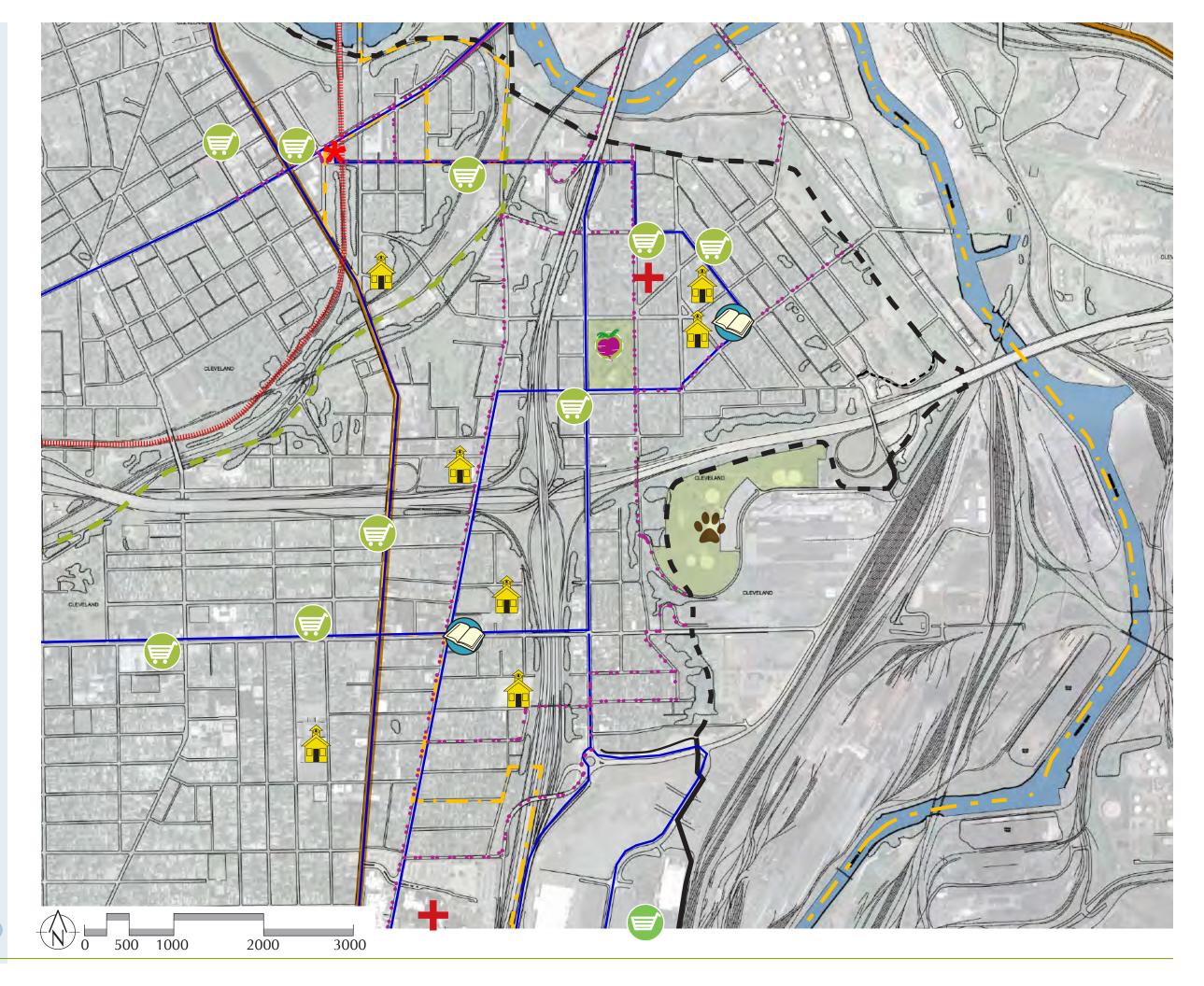
For residents, these are some of the key locations that they travel to and from on a regular basis.

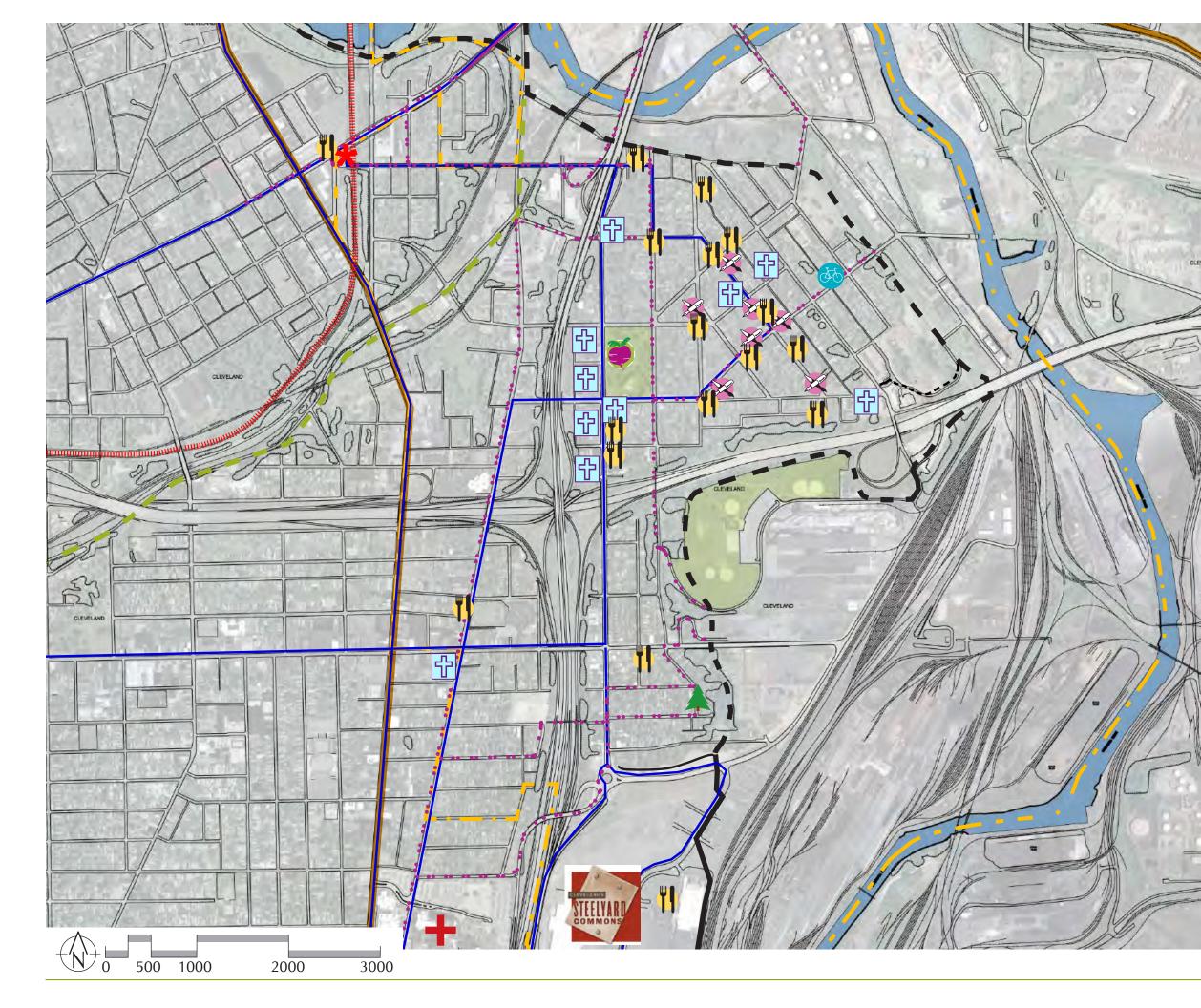
The two libraries serve Tremont on either side of the highway, and both are on bus routes.

The schools are relatively well distributed throughout the neighborhood, although in cases such as the Buhrer school, children need to be able to cross the highway safely and comfortably.

While there are many small markets throughout the neighborhood, the West Side Market and Dave's are where many people do their grocery shopping. Access across the Abbey Avenue bridge is a key link to this part of neighboring Ohio City. This is also where the W. 25th Street Rapid station is located, which provides access to the airport, downtown Cleveland and beyond.







VISITOR ATTRACTIONS

The renaissance of the neighborhood has spawned numerous fine restaurants, taverns, coffee shops and confectioners. The neighborhood is home to fascinating historic churches of diverse denominations. Art galleries and boutiques proliferate, a weekly farmer's market and special events during the summer months are found in Lincoln Park, emergency medical facilities are available, and a bike repair shop awaits the trail users. No other community adjacent to the Towpath Trail will feature such a diversity of amenities for the trails users.



Historic Church



1 or more restaurants



1 or more art galleries



Summer Farmer's Market



Hospital



Steelyard Commons Shopping Center



A Christmas Story House and Museum



Bicycle Shop

TREMONT PEDESTRIAN AND BICYCLE LINKAGES

Analysis & Inventory: 10

GROWTH AND DEVELOPMENT

Tremont continues to boast a diversity of new and renovated housing stock. Steelyard Commons provides for citywide shopping needs. The new K-8 Buhrer Elementary School will open in 2009, just west of the I-71 / Buhrer pedestrian bridge.

The replacement of the Innerbelt bridge into downtown Cleveland will have a significant impact on the neighborhood. Construction is anticipated to last several years. Views into the neighborhood from the elevated highways afford some of the most intimate portraits of Cleveland's neighborhoods for through-travelers. Under the elevated highway and bridges the neighborhood's side streets need to function for the community. On and off ramps are vital to providing access, yet the interface of the ramps with the neighborhood are of paramount design importance. Safe pedestrian crossings, traffic management, and clear directional orientation are all important design considerations for bridge related development.

CURRENT/ RECENT DEVELOPMENT



Steelyard Commons Shopping Center

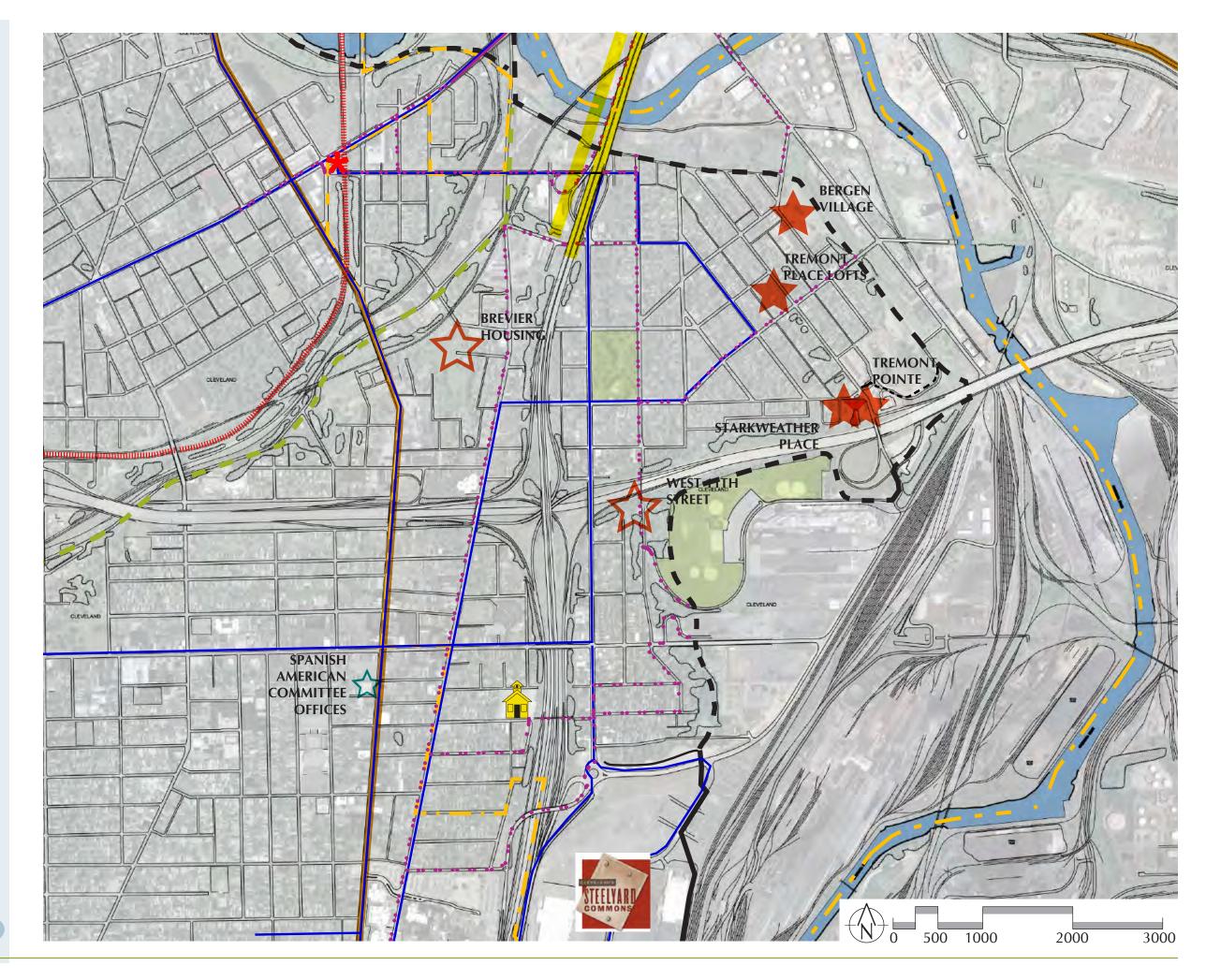
New Housing

New School

Planned Future Development



PEDESTRIAN AND BICYCLE LINKAGES

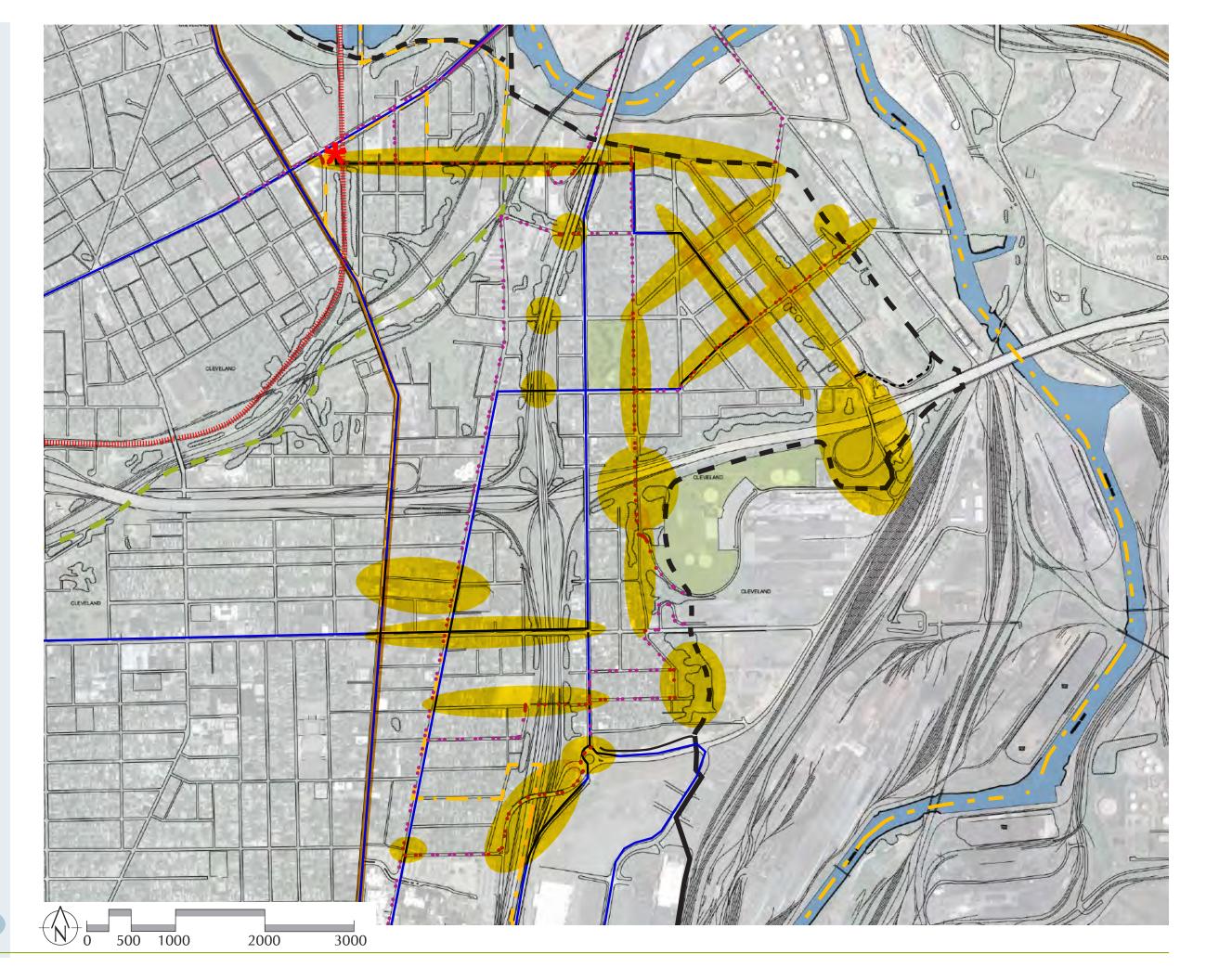


Analysis & Inventory: 12

BLOCK CLUB AREAS OF CONCERN

This map highlights areas of concern mentioned at the initial block club meetings.

The range of issues affecting these areas was wide ranging, and most require very specific interventions. People focused on issues related to the quality of the streetscape experience on the side- and neighborhood-streets, as well as at key connection nodes. The main automobile routes were less often areas of concern to the residents, except where they came into conflict with non-automobile routes of travel, such as at the 14th Street roundabout. Issues raised regarding the neighborhood streets addressed concerns about safety, accessibility and aesthetic improvements.







Accessibility, in all weather



Narrow barricaded sidewalks, and steep slopes



Sidewalks in poor repair



Missing Sidewalks - Steep Slopes







Missing street trees



Pedestrian and bike access on bridges



Dead tree removal



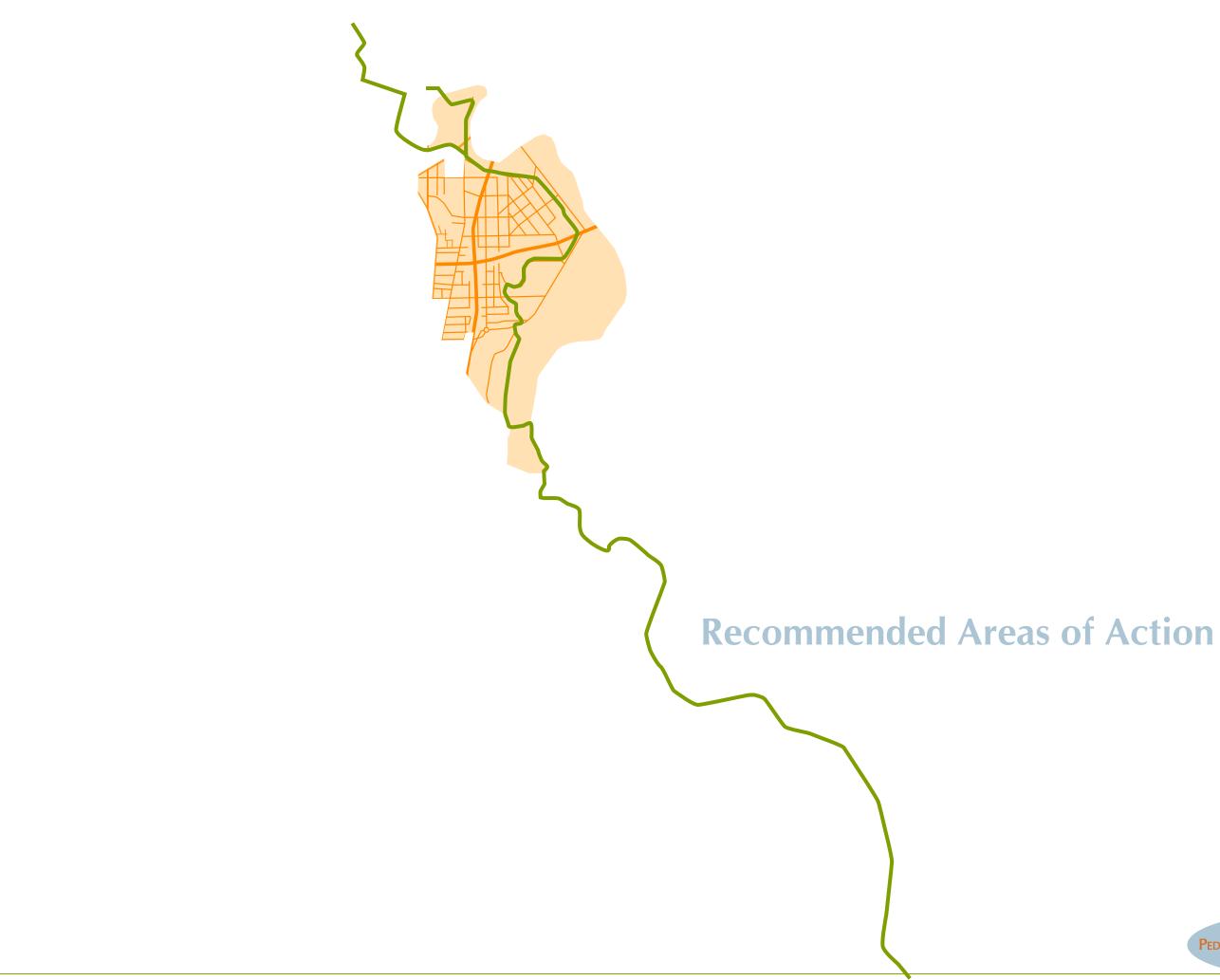
Safe route to W25th Rapid Transit Station

Neighborhood Wide Concerns

Some comments were repeated by numerous block clubs, or were not specific to one area, but represented more general concerns about Tremont's pedestrian infrastructure.



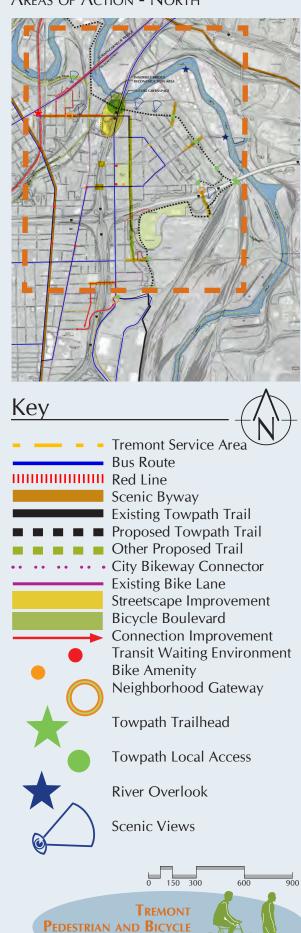






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Areas of Action - North



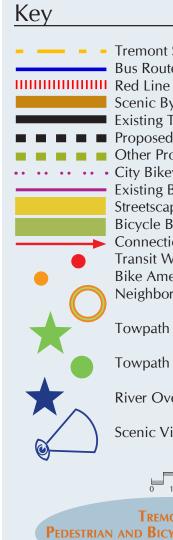
LINKAGES



Towpath Trail - Clark Field



Areas of Action - South



- Tremont Service Area Bus Route Scenic Byway Existing Towpath Trail Proposed Towpath Trail Other Proposed Trail ••••• City Bikeway Connector Existing Bike Lane Streetscape Improvement Bicycle Boulevard Connection Improvement Transit Waiting Environment Bike Amenity Neighborhood Gateway

Towpath Trailhead

Towpath Local Access

River Overlook

Scenic Views









- Lincoln Park.
- parking.
- W 11th and Buhrer.



• Complete W 7th gateway and pedestrian crosswalks. • Complete transit waiting environments on W 14th at

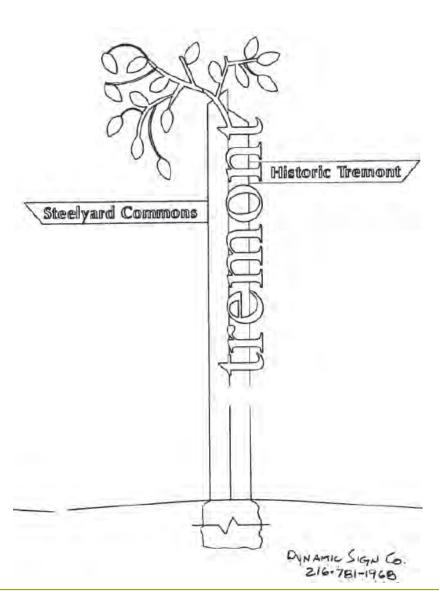
• Begin addition of bike route signage and lane marking. • Begin to implement bicycle amenities such as maps and

• Visibility and access improvements to pedestrian bridges at

• Begin curb ramp installation.

• Implement standard crosswalk detail and begin re-striping. • Reconfigure roundabout signage and striping.

Phasing - 1 Year Goals



Action Strategy For Phased Implementation - 1 year goals

- Complete W 7th gateway and pedestrian crosswalks.
- Complete transit waiting environments on W 14th at Lincoln Park.
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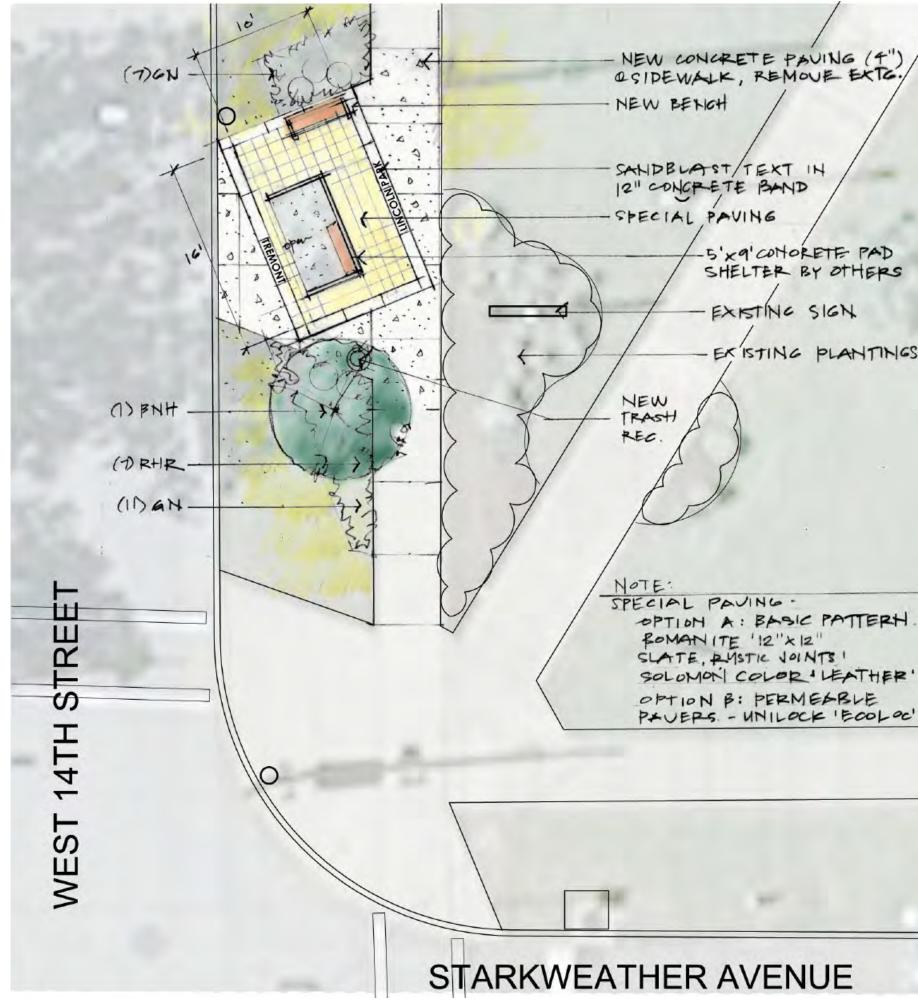


Phasing: 23

ACTION STRATEGY FOR PHASED IMPLEMENTATION - 1 YEAR GOALS

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TREMONT **PEDESTRIAN AND BICYCLE** LINKAGES



-5'x9' CONORETE PAD SHELTER BY OTHERS

EXISTING PLANTINGS









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Phasing: 25

Action Strategy For Phased IMPLEMENTATION - 1 YEAR GOALS

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Existing W 11th Bridge Entry















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Phasing: 27

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NO CROSSWALKS





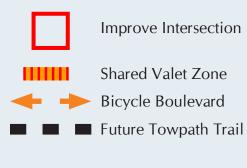


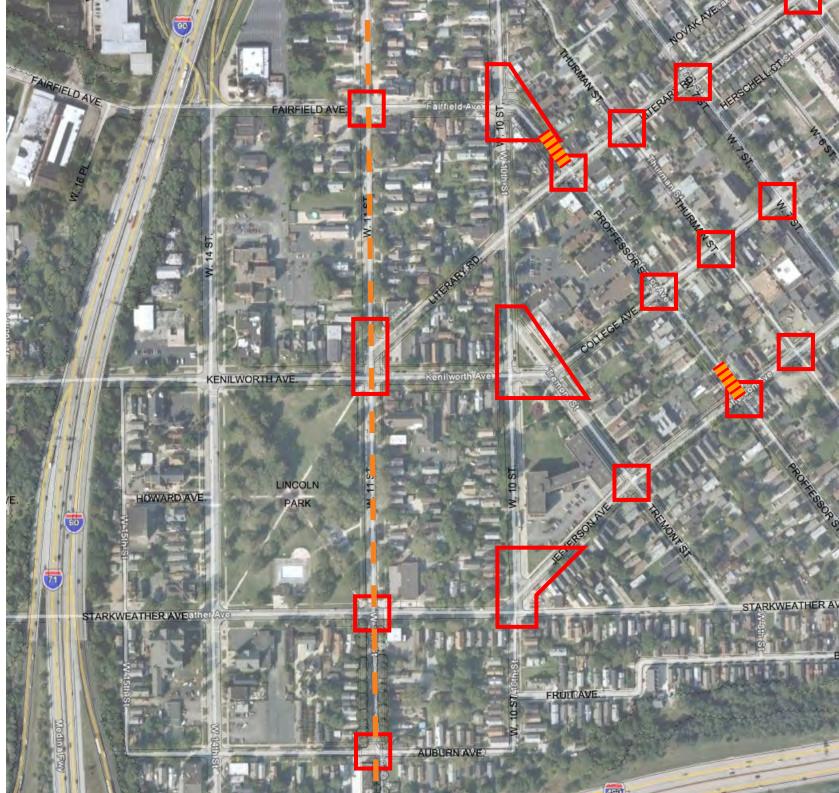
Overall Map of Intersection Improvements

Intersections present a high level of risk for cars, pedestrians and bicyclists. These improvements are designed to alleviate the conditions that increase those risks, including poor sight lines and long, akward crossings.

Adding bump-outs improves clear sight lines at intersections by keeping parked cars back from the corner, and they also allow shorter crossing distances for pedestrians. This also provides the opportunity to install ADA compliant curb ramps and crosswalks throughout the neighborhood.

The grid of Tremont shifts in the middle of the neighborhood creating a series of angled intersections along West 10th Street. These intersections can be disorienting for drivers, but are even more challenging for pedestrians faced with extremely wide crossing distances. Again, bump-outs are beneficial to the safety of the intersections. Additionally, where possible the existing angeled intersections are revised to safer 90-degree versions.





TREMONT PEDESTRIAN AND BICYCLE LINKAGES





Typical Professor Intersection with Streetscape Bump-Out Options

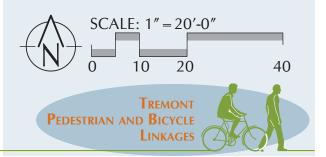
Return Bump-Out at Curb Drain Inlet This option preserves the existing curb drain.

Tree Lawn Biofiltration with Curb Scupper

This option envelopes the existing drain in a new biofiltration zone contiguous with the existing planted area of the tree lawn. Water enters through a slot, or scupper, in the curb, is absorbed and filtered by the new plantings, and the overflow goes down the drain.

Urban Biofiltration with Curb Scupper This is similar to the Tree Lawn Biofiltration, but the planted area is contained within a planter. Water enters through a scupper, is absorbed and filtered, then overflow exits through the drain.

Slotted Curb / Gutter with Cover This option allows the curb bump-out to expand past the existing curb drain without requiring moving the drain.



Perspective of the North-West Corner of Professor and Jefferson



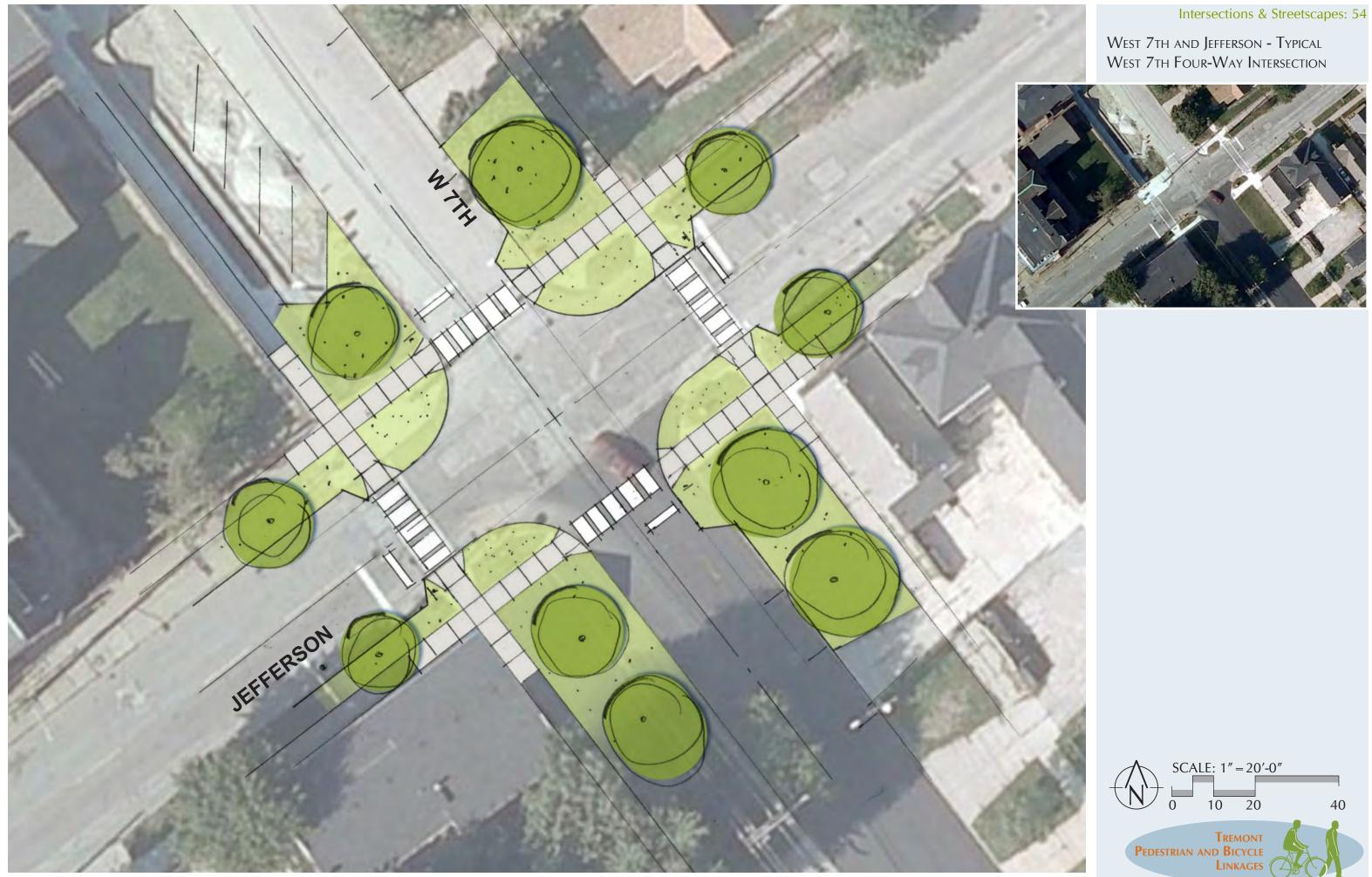
Existing Corner



Example of stencil over standard crosswalk striping

PEDESTRIAN AND BICYCLE LINKAGES



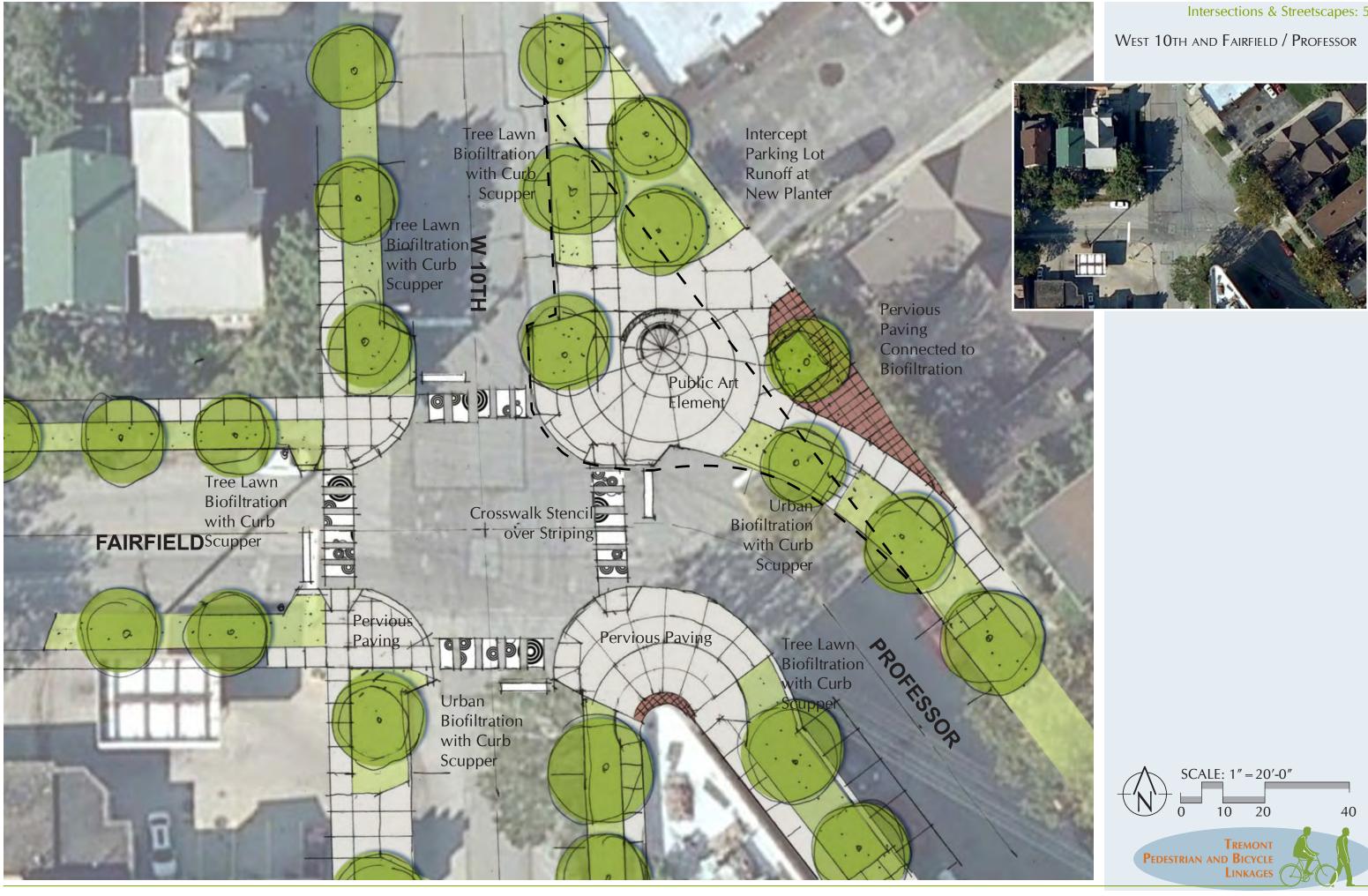


West 7th and College (with driveway extensions)









Starkweather and Professor Transition of 2-way to 1-way Street

SCALE: 1" = 20'-0"

40

0 10 20

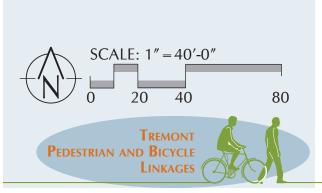
TREMONT PEDESTRIAN AND BICYCLE LINKAGES





West 10th At Jefferson and Starkweather - Traffic Circle









West 10th At Jefferson and Starkweather - Separate Intersections



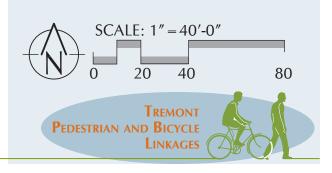










Photo Courtesy of Plain Press



Action Strategy For Phased Implementation - 1 year goals

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TREMONT

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PEDESTRIAN AND BICYCLE



West 14th at Roundabout



SCALE: 1" = 100'-0"

100

200

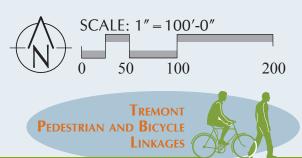
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TREMONT PEDESTRIAN AND BICYCLE LINKAGES



VIADUCT CONNECTION TO VALENTINE









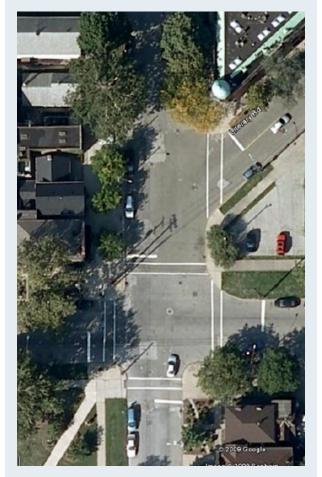
- Improvements

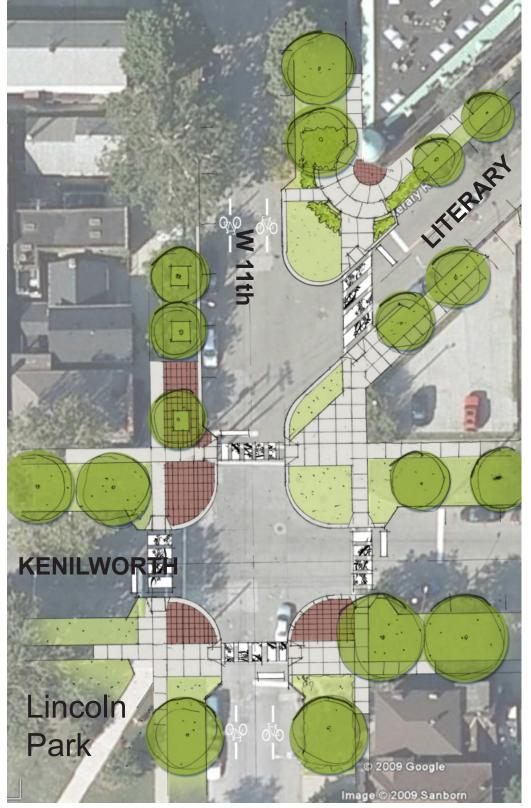


• Bicycle Boulevard improvements University to Clark Field Buhrer Pedestrian Bridge
Abbey Avenue Streetscape and Bridge Pedestrian / Bicycle

Phasing - 3 Year Goals

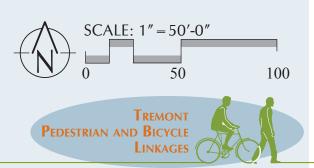
West 11th Bicycle Boulevard at Kenilworth and Literary













Bicycle boulevards are low-volume and Bicycle boulevards are low-volume and low-speed streets that have been opti-mized for bicycle travel through treat-ments such as traffic calming and traffic re-duction, signage and pavement markings, and intersection crossing treatments. These treatments allow through movements for cyclists while discouraging similar through trips by non-local motorized traffic. Mo-tor vehicle access to properties along the tor vehicle access to properties along the route is maintained.

(Funamentals of Bicycle Boulevard Planning and Design, Walker et. al., 2009)

Example of Bicycle Boulevard in Portland

West 11th Between Lincoln Park and Clark Field - 11th and Starkweather







Pedestrian Refuge at Crossing

West 11th Bicycle Boulevard

West 11th Bicycle Boulevard Between Lincoln Park and Clark Field

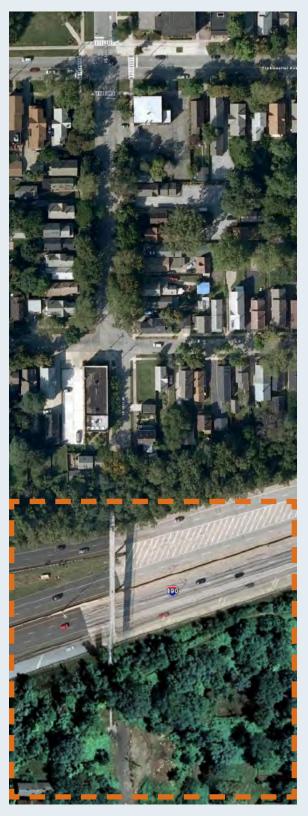








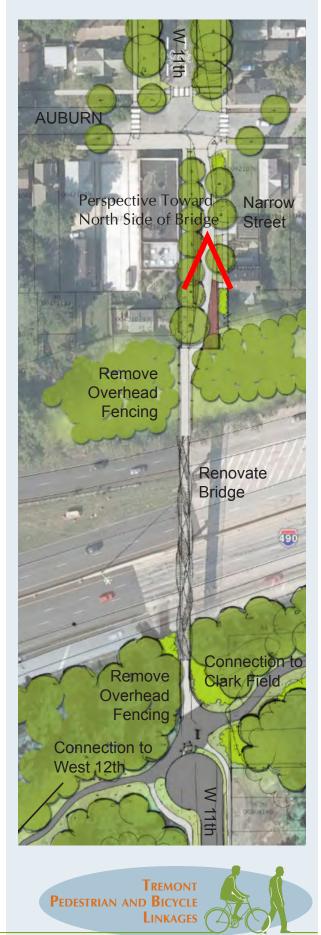
West 11th Between Lincoln Park and Clark Field - Pedestrian Bridge







West 11th Pedestrian Bridge





Buhrer and West 11th Pedestrian Bridges

Bridges: 42



Existing Conditions at Pedestrian Bridges

These two bridges provide vital links over the interstates which divide Tremont. Both the Buhrer pedestrian bridge over I-71 and the West 11th bridge over I-490 are 8' wide bridges with chain link vandal fence the entire length. The bridges are accessed via dead-end roads. Their entrances are currently in line with the existing sidewalks, but this location makes them difficult to see from the other end of the street. Additionally, there are no signs indicating the presence of the bridges. Bollards at both ends of the bridges are designed to prevent people driving onto the bridges, but they also make it difficult for bicycles, wheelchairs and baby strollers to get by. The chain link fencing is low overhead and makes the bridge feel very oppressive.



East side of Buhrer bridge



West side of Buhrer bridge







On West 11th bridge looking south



Historic Rail Bridge style



Sculptural frame covered in chain link with decorative metal railing when bridge is not over roadway



Lace Fence - woven patterns in chain link product





Tubular tunnel

TREMONT PEDESTRIAN AND BICYCLE LINKAGES

West 11th Pedestrian Bridge

The West 11th pedestrian bridge provides a critical neighborhood link across I-490, and it will only become more important when the Towpath Trail is constructed. The current bridge is run down, narrow and has a low chain link railing overhead for the entire length of the bridge. Both entrances are obscured from sight and riddled with obstructions that make walking access difficult and bicycle access even more so.

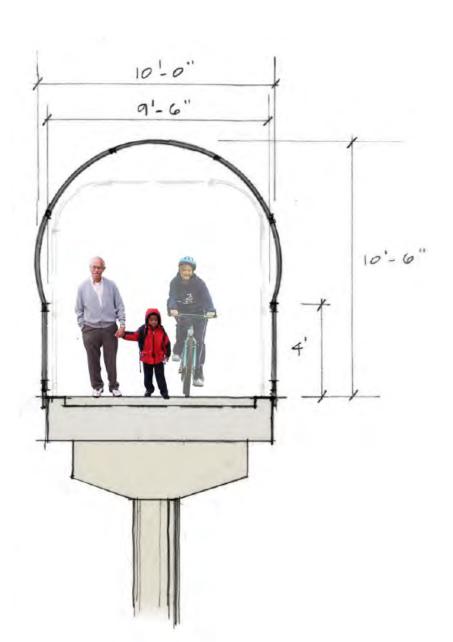
Proposed changes include ways to create a wider bridge and new railings that are less constricting while still providing the necessary safety.

TREMONT

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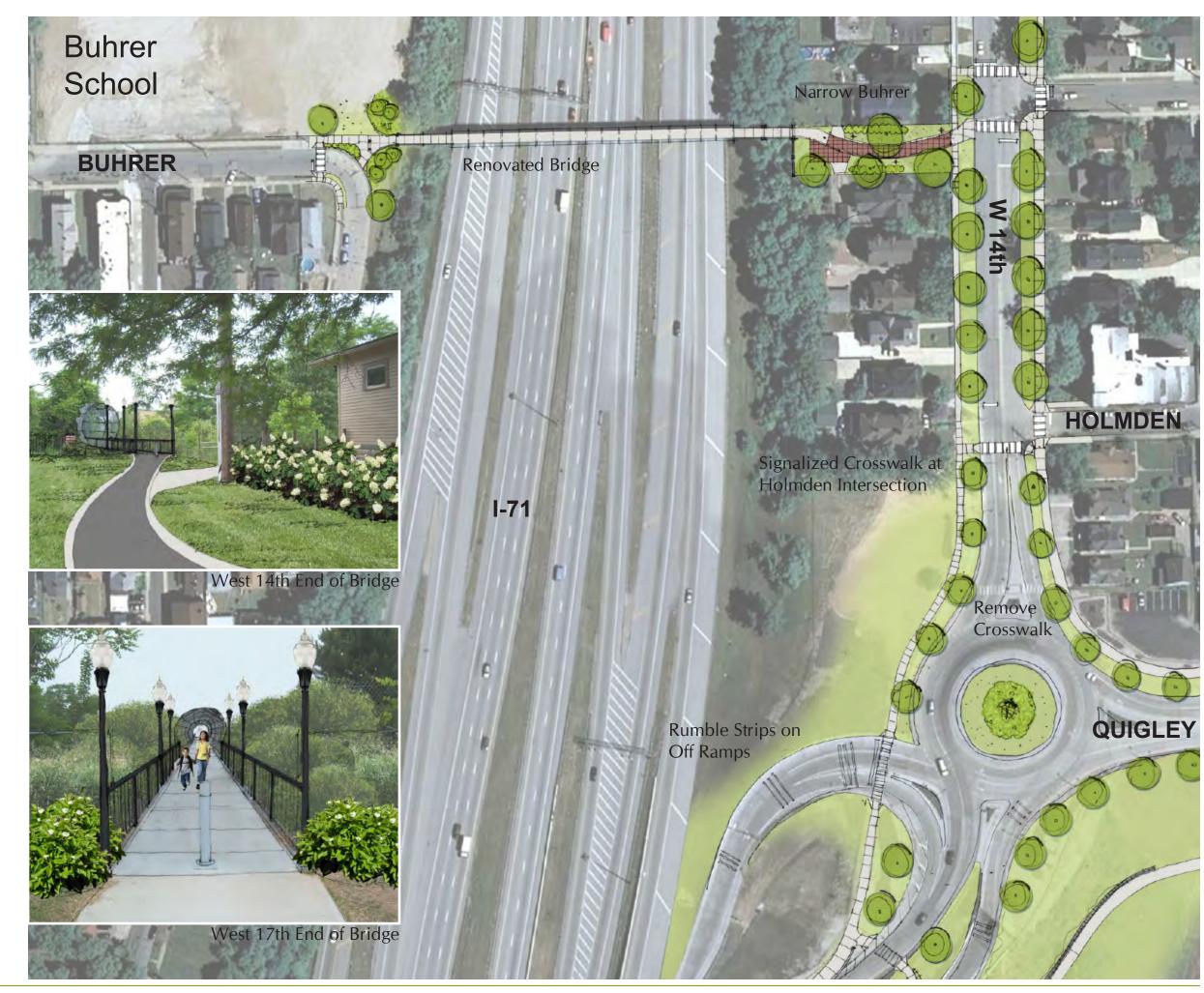
Existing Bridge Section

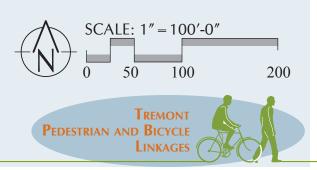
Option 1 Bridge Section - Fill between existing curbs, place new railing on outside of structure, gaining 16" width. New overhead railing is raised to 10'-6" height, creating a less constricted feeling. Option 2 Bridge Section - Place new deck with 8" cantilever on top of existing bridge deck. !0'-0" clear to overhead beams.



West 14th and Buhrer







Buhrer Pedestrian Bridge



Existing Bridge Section

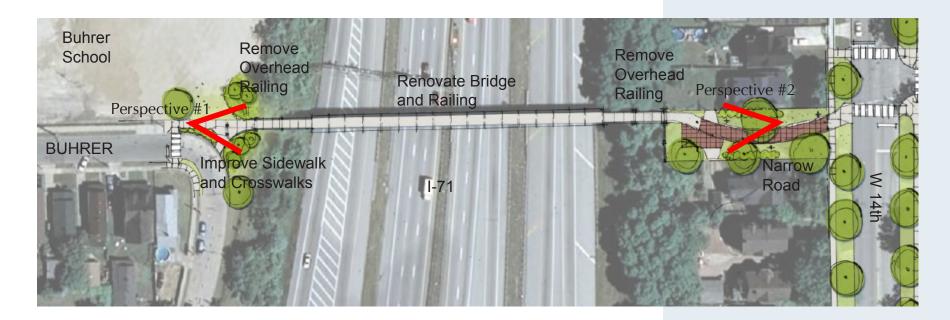
Option 1 Bridge Section - Fill between existing curbs, place new railing on outside of structure, gaining 12" width. New overhead railing is raised to 10'-0" height. Option 2 Bridge Section - Place new deck with 15" cantilever on top of existing bridge deck. 12'-0" clear to overhead fencing.



TREMONT PEDESTRIAN AND BICYCLE LINKAGES







Perspective #1: West Side of Bridge near Buhrer School



Existing Conditions



Buhrer Pedestrian Bridge



Existing Conditions

TREMONT PEDESTRIAN AND BICYCLE LINKAGES





Abbey Avenue and Viaduct











Abbey Avenue provides the main connection between Tremont and many key destinations, including: The RTA Red Line Station; groceries at the West Side Market and Dave's; and bicycle access to the Lorain-Carnegie Bridge. This connection will become even more critical when the new Innerbelt bridge is under construction. It is also a major gateway for people entering Tremont from the west side of Cleveland.

Current conditions on the viaduct are unsightly and dangerous for bicyclists and pedestrians. The crash barriers along the sidewalks trap trash and debris, and in the winter fill with snow and ice. Bicyclists complain that the large drains along both sides of the road are extremely dangerous and force them to swerve into traffic.

From an aesthetic standpoint, Abbey Avenue and Abbey Viaduct present amazing opportunities to create a Tremont gateway into the neighborhood that showcases the incredible view of downtown Cleveland from the bridge and sets the tone for bicycle and pedestrian accommodations throughout Tremont.

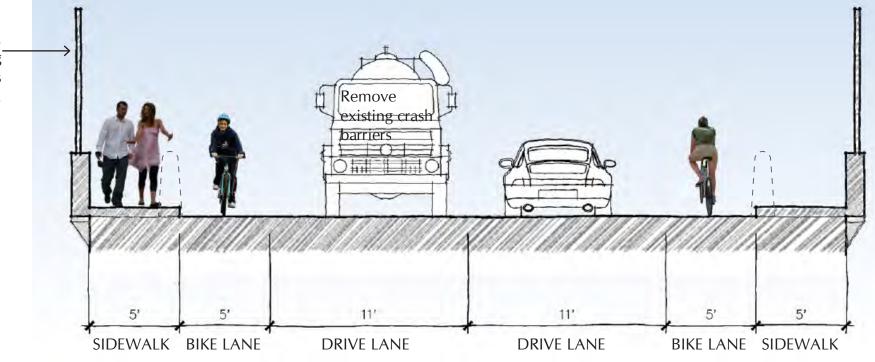
> TREMONT PEDESTRIAN AND BICYCLE LINKAGES

Abbey Viaduct

Abbey Viaduct gets new bike lanes, decorative lighting, the barriers between the road and sidewalk are removed, and the fencing is replaced with new 48" height decorative railings with vandal fencing only where necessary.



Widen bridge, replace existing parapet walls and fence.



The renovated bridge over the RTA Red Line Tracks, three blocks to the west, provides a model for how the viaduct gets renovated.









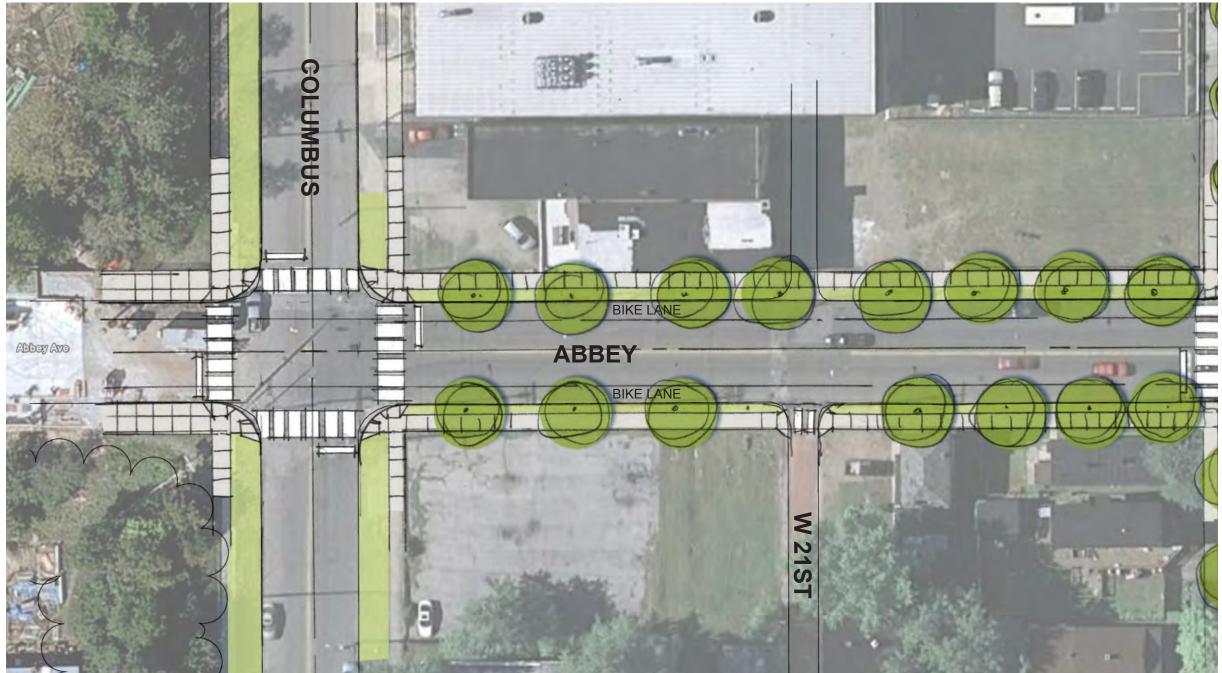
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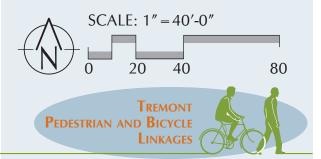






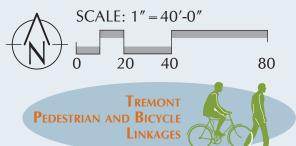


Abbey Avenue



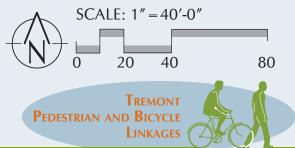
Abbey Avenue



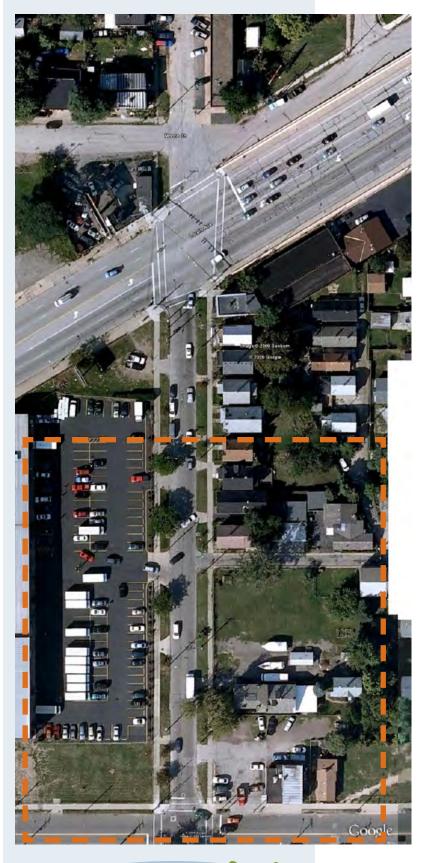




Abbey Avenue

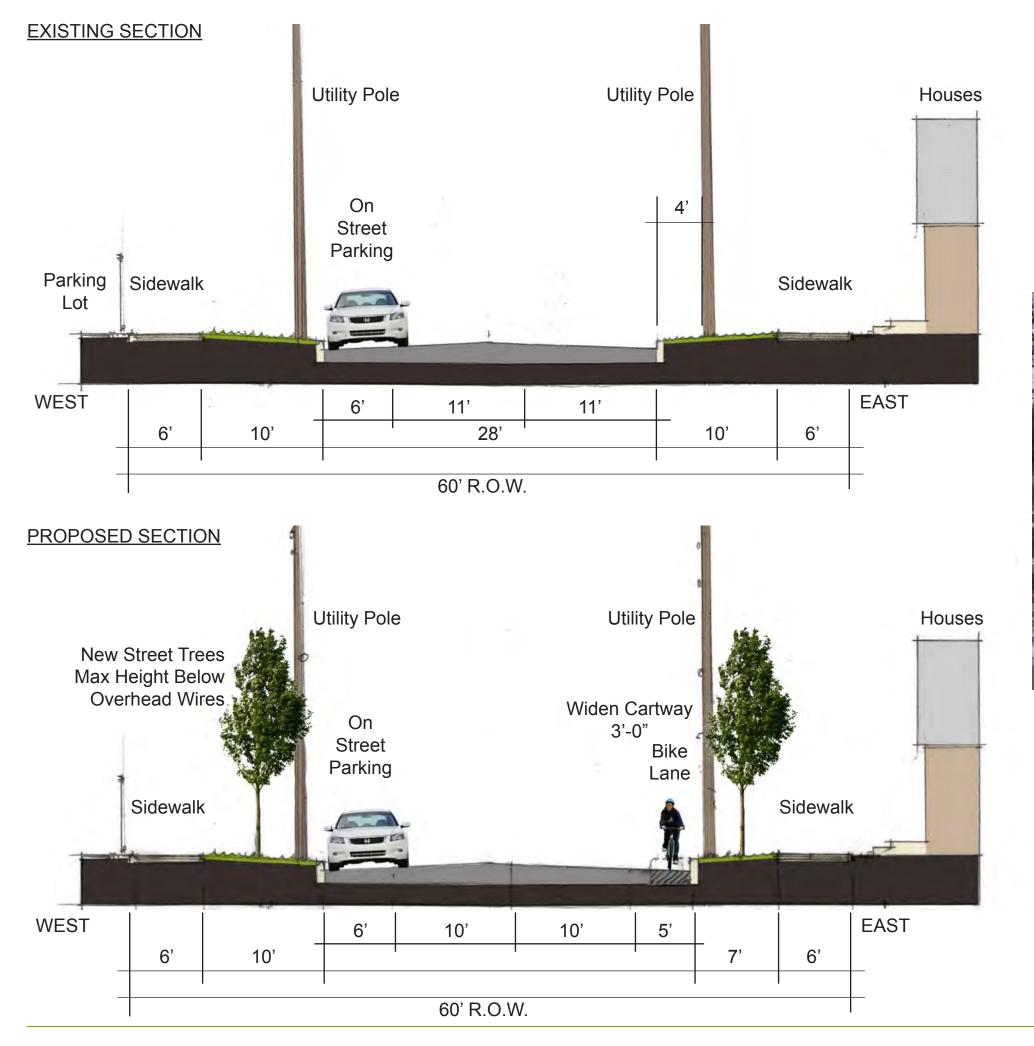


West 20th Connection to Lorain







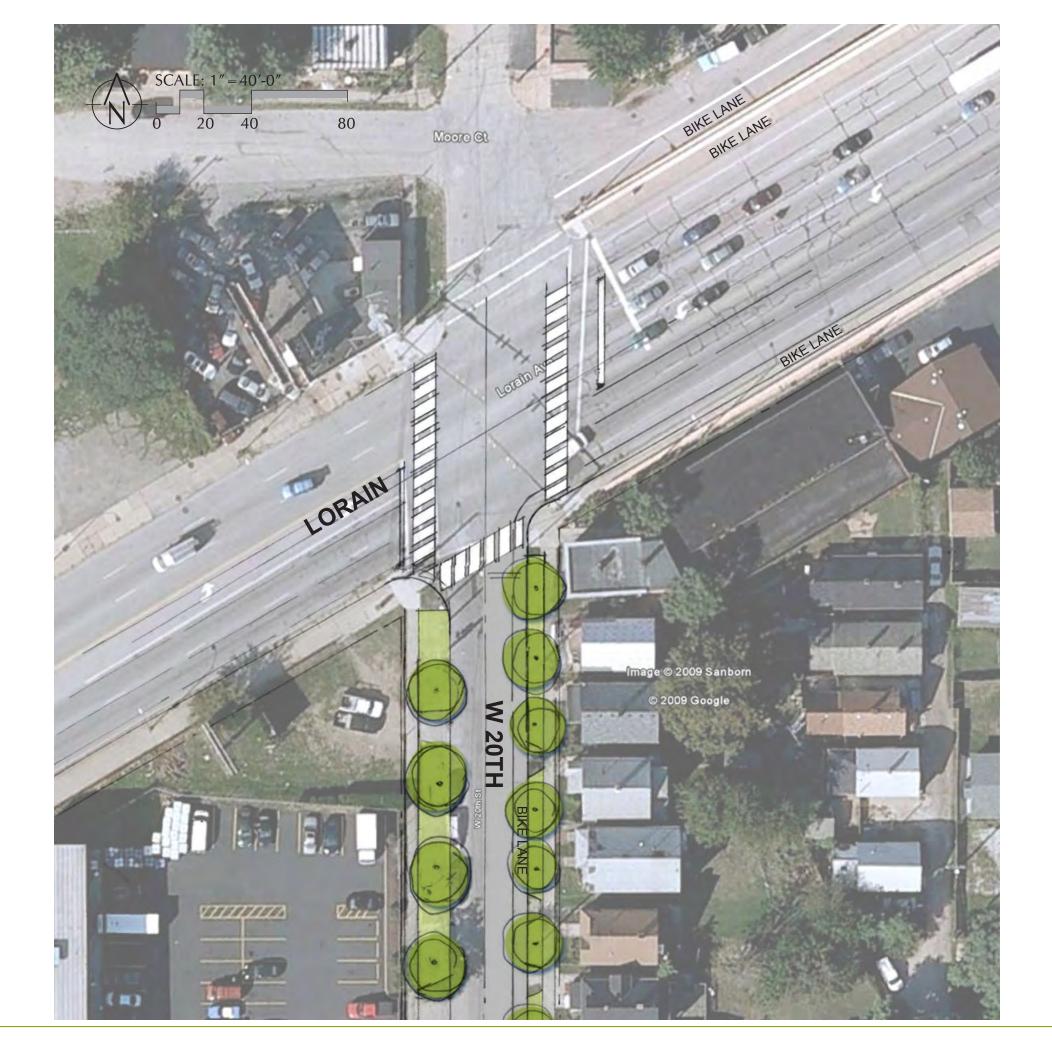


West 20th Connection to Lorain

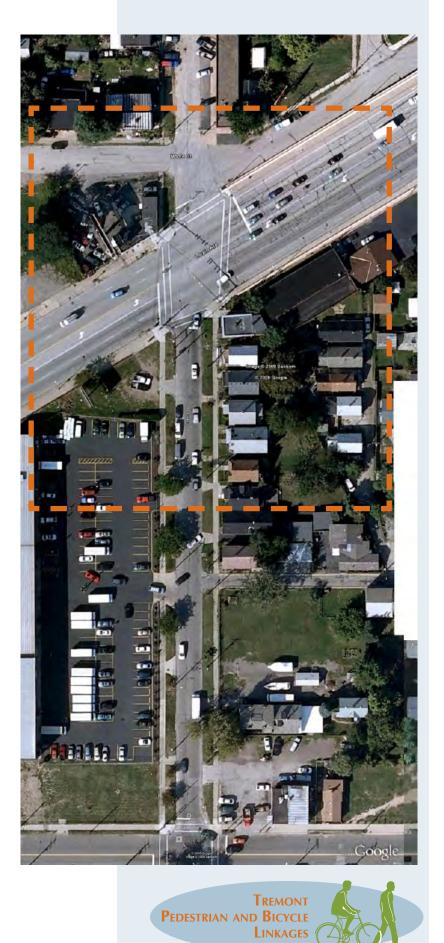
West 20th Street is currently a narrow street, but could be widened by three feet without moving any existing power poles. This would allow for the addition of a bike lane connecection between Abbey and Lorain.







West 20th Connection to Lorain





Phasing: 30

• Towpath Connectors • Phase 1 Innerbelt Bridge improvements including new art wall and parking lots.

Phasing - 5 + Year Goals







I-90 / Innerbelt Bridge Zone









Existing Conditions

TREMONT PEDESTRIAN AND BICYCLE LINKAGES

Innerbelt Bridge Phase 1

The new Innerbelt Bridge will create many changes within Tremont. It will necessitate removing buildings and reconfiguring a number of roads. These changes provide opportunities for additional parking, neighborhood beautification and new pedestrian connections.



TREMONT PEDESTRIAN AND BICYCLE LINKAGES



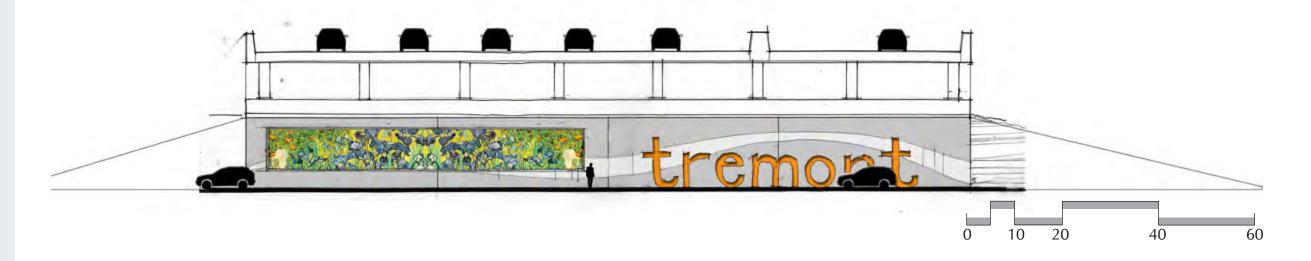
Innerbelt Bridge Phase 2

Phase 2 entails tearing down the existing bridge and building a new bridge in its place. The enhancements started in Phase 1 continue with Phase 2. Additional parking needs can be evaluated at this time to ascertain if additional parking is desirable. Links to the Towpath Trail should be finalized.



Wall Treatment

The new bridges will require a series of large walls. Tremont residents were shown a number of options for these walls, and the preferred scheme was a combination of a Tremont identifier and an art element.





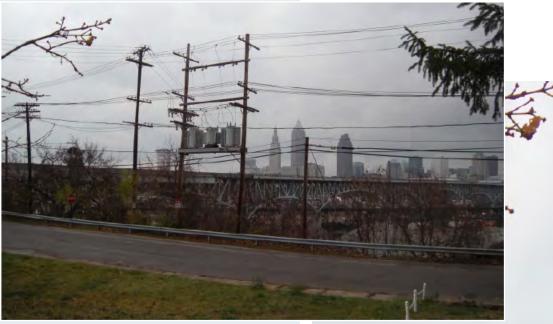






University Between West 11th and West 7th

Remove numerous power poles and bury the wires and transformers for an unobstructed view of the bridge and downtown.

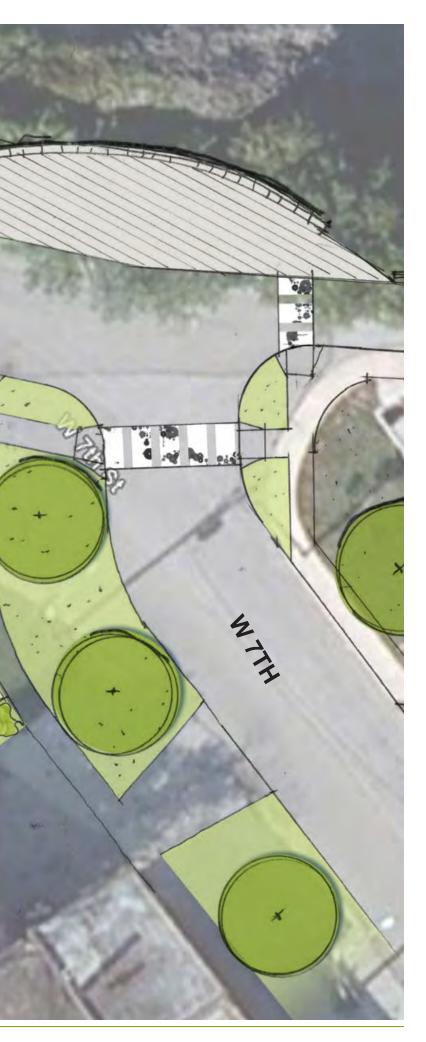






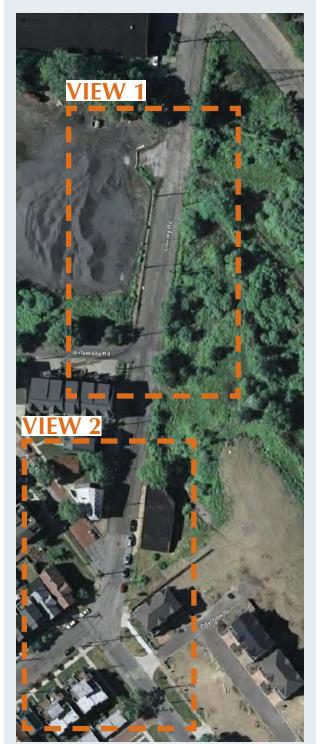
Camp Cleveland - University / RAILWAY BETWEEN WEST 10TH AND West 7th

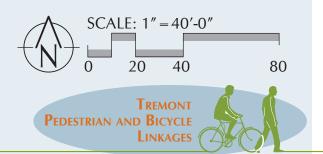






Literary Between West 5th and West 3rd









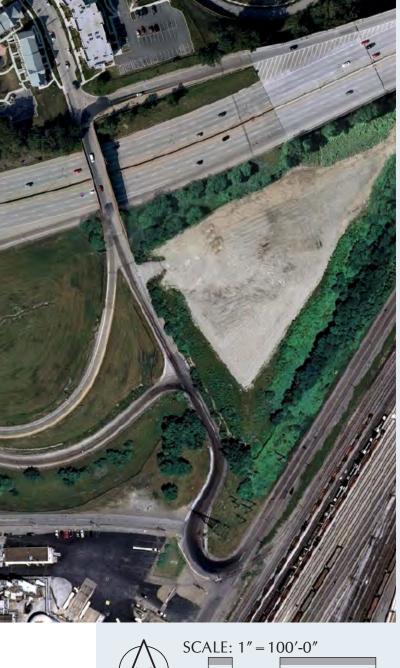
Literary Looking Toward West 5th

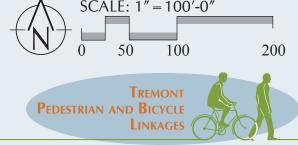




West 7th Over I-490 to Quigley

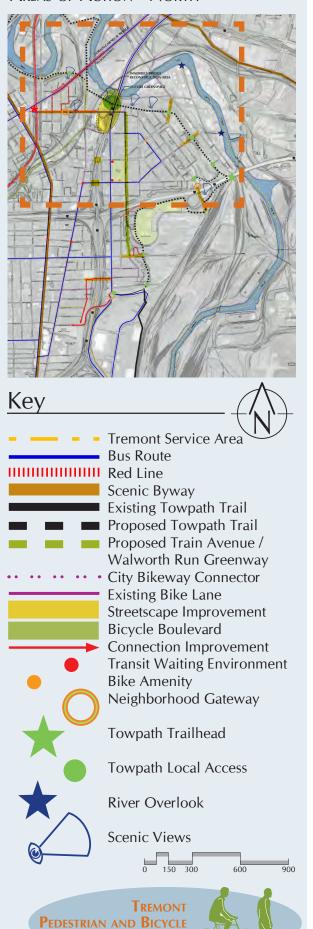
Sidewalks along this stretch of road are broken or nonexistant. The road here is steep, curvy and heavily traveled by trucks. The Towpath Trail will bridge over West 7th, and create a overlook at the high point of the hill.



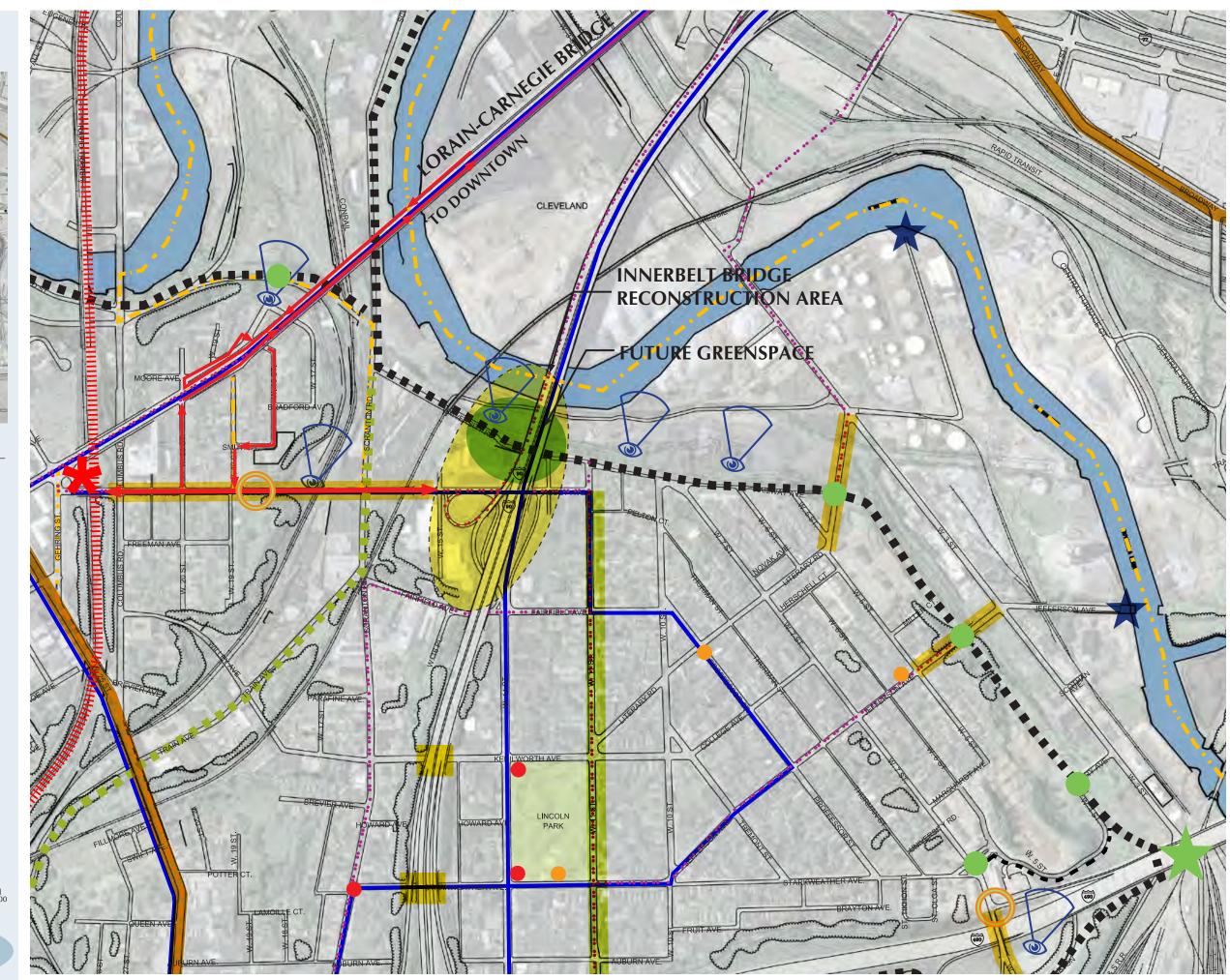


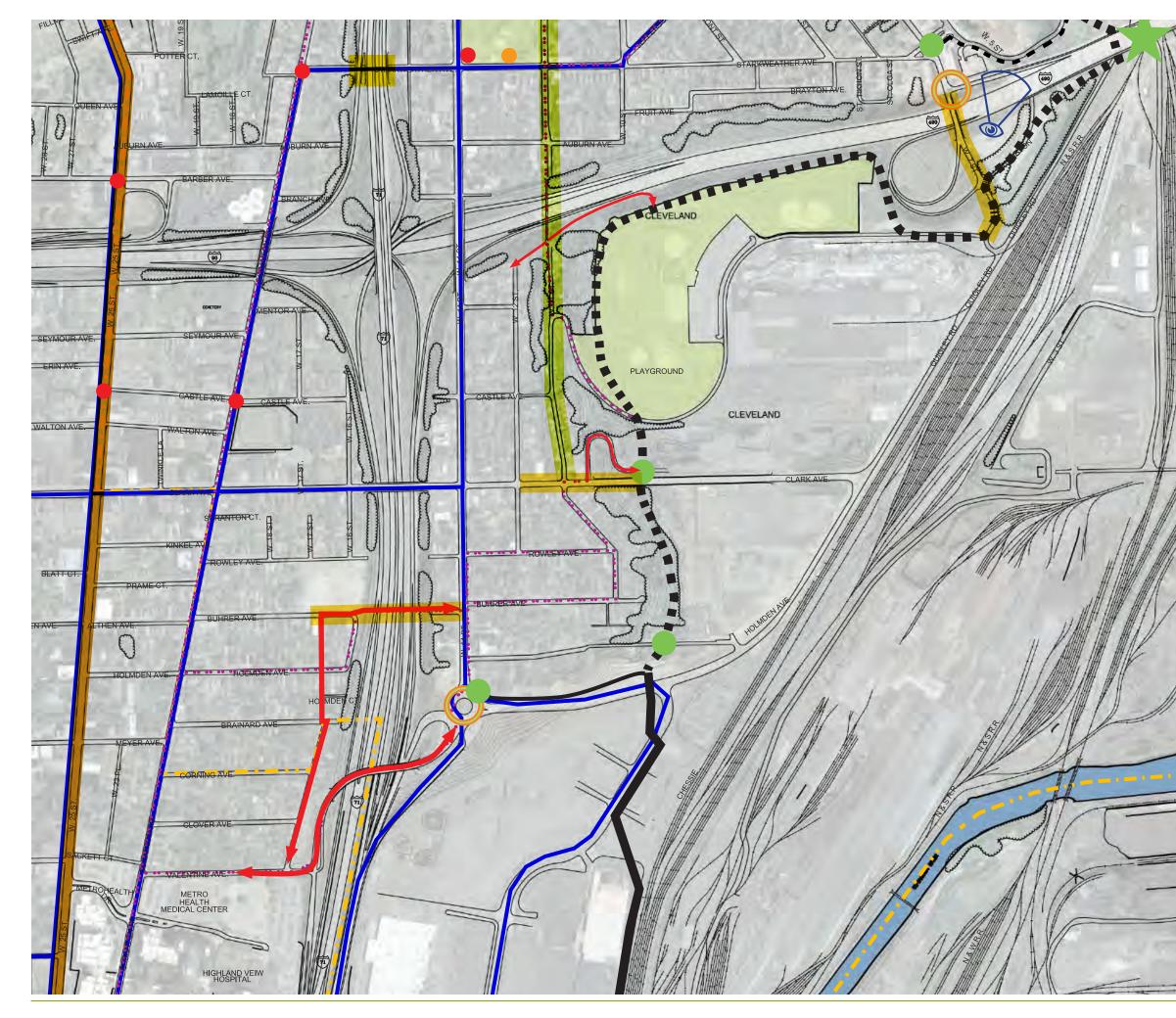
Recommendation Summary: 18

Areas of Action - North



LINKAGES





Recommendation Summary: 19

