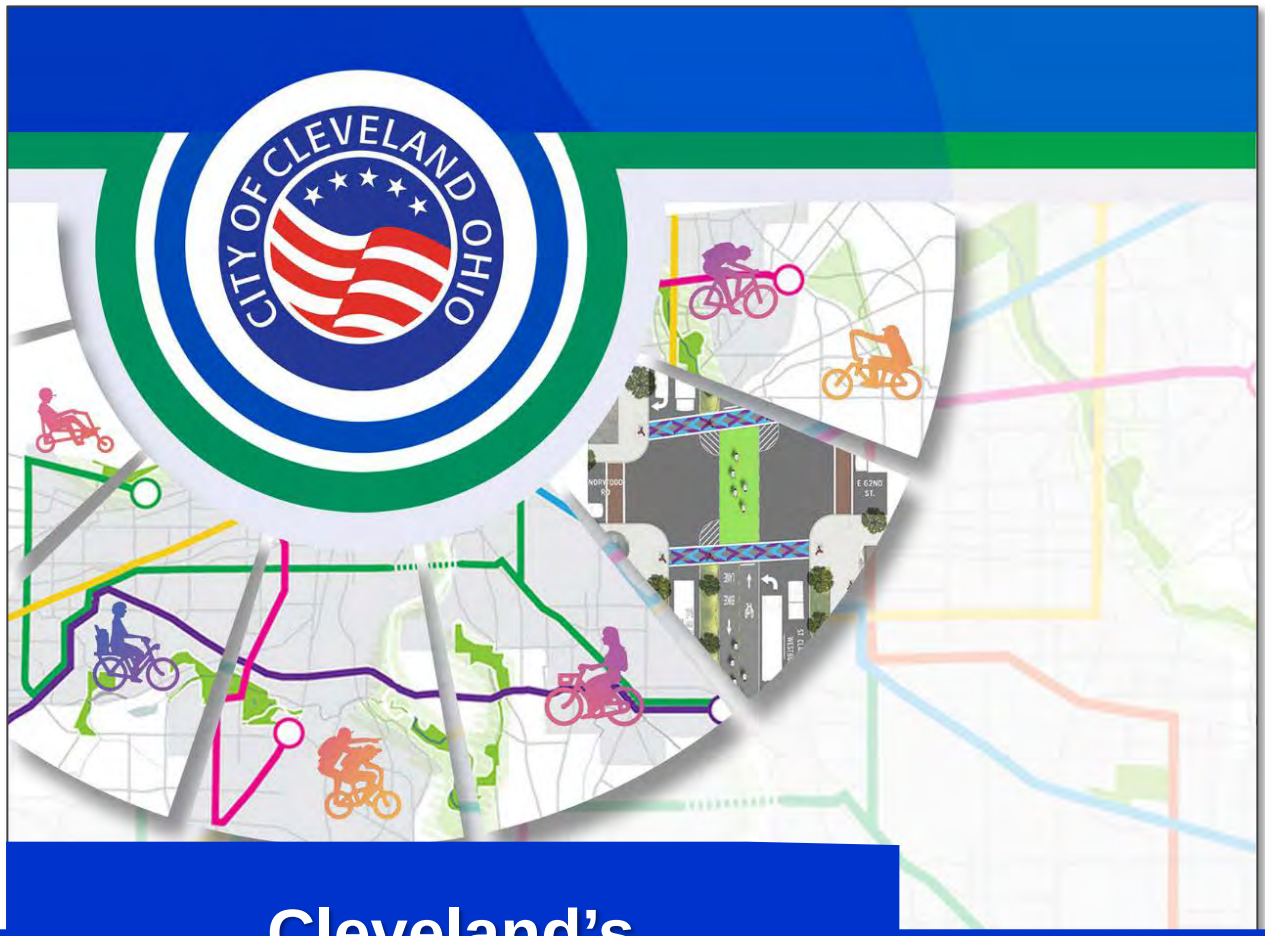



# Cleveland's Midway Cycle Track Plan

*Prepared for:*

Cleveland Planning Commission
NOACA

*Prepared by:*

WSP
SmithGroupJJR

**December 2017**

# Table of Contents

**Acknowledgements** ..... ii
**Executive Summary** ..... iii
**1.0 Introduction and Background** ..... 7
**2.0 Project Vision, Goals and Objectives** ..... 9
2.1 Vision ..... 9
2.2 Goals and Objectives ..... 9
2.3 Evaluation Criteria ..... 9
**3.0 Plan Development Process** ..... 10
**4.0 Community Engagement** ..... 11
4.1 Project Team ..... 11
4.2 Steering Committee ..... 11
4.3 Technical Committee ..... 12
4.4 Public Meetings ..... 12
4.5 Public Engagement Online Survey ..... 12
4.6 Project Meetings ..... 13
4.7 Pop-Up Meetings ..... 15
**5.0 Midway Design Concept Development** ..... 16
5.1 Midway Cycle Track Technical Workshop ..... 16
**6.0 Midway Cycle Track Corridors** ..... 21
6.1 Corridor Identification ..... 21
6.2 Evaluation Criteria ..... 22
6.3 Concept Development Workshop ..... 23
6.4 Priority Midway Corridors ..... 29
**7.0 Pilot Corridor** ..... 30
7.1 Corridor Identification and Evaluation ..... 30
7.2 Cost Estimate ..... 32
**8.0 Next Steps** ..... 32
**9.0 Midway Cycle Track Images** ..... 34
**10.0 Appendix** ..... 37
9.1 Appendix A: Technical Workshop Memo ..... A
9.2 Appendix B: Concept Development Workshop Summary ..... B
9.3 Appendix C: Cost Estimate ..... C
9.4 Appendix D: Survey Results ..... D
9.5 Appendix E: Project Meetings ..... E

# Acknowledgements

Many thanks to the hard work, creativity, technical expertise, dedicated effort and teamwork by all those involved in the development of the design concept and plan for Cleveland's innovative Midway Cycle Track Plan, and to the project funders: Northeast Ohio Areawide Coordinating Agency (NOACA), YMCA of Greater Cleveland and the City of Cleveland.

## Midway Project Team

Cleveland Planning Commission
- Freddy L. Collier Jr., Director
- Sharonda Whatley, Project Manager
- Donn Angus
- Marty Cader
- Marka Fields
- Arthur Schmidt

Cleveland Traffic Engineering
- Andrew R. Cross, PE, PTOE
- Rob Mavec

Cleveland Mayor's Office of Sustainability
- Matt Gray
- Jenita McGowan

Greater Cleveland Regional Transit Authority
- Mike Schipper
- Amy Snell

Northeast Ohio Areawide Coordinating Agency
- Ryan Noles
- Melissa Thompson

WSP
- Nancy Lyon-Stadler, PE, PTOE
- Scarlett Sharpe

SmithGroupJJR
- Neal Billetdeaux, RLA, ASLA, LEED BD+C
- Oliver Kiley

## Midway Steering Committee

Bike Cleveland
- Jacob VanSickle

Cleveland Engineering & Construction.

Cleveland Mayor's Office
- Charles Slife

City of Cleveland/Cleveland Metropolitan School District
- Calley Mersmann

Cleveland Metroparks
- Sara Burns Maier

Cuyahoga County Planning Commission
- Jim Sonnhalter

Cleveland Neighborhood Progress
- Wayne Mortenson

Northeast Ohio Regional Sewer District
- Matt Schamer

Ohio Department of Transportation, District 12
- John Motl

YMCA of Greater Cleveland
- Barb Clint

Midway Project Team (shown at left)

## Midway Technical Committee

Bike Cleveland
- Jacob VanSickle

Cleveland Planning Commission
- Freddy L. Collier Jr., Director
- Sharonda Whatley, Project Manager
- Donn Angus
- Marty Cader
- Marka Fields
- Arthur Schmidt

Cleveland Traffic Engineering
- Andrew R. Cross, PE, PTOE

Cuyahoga County Planning Commission
- Jim Sonnhalter

Cuyahoga County Public Works
- Brian Sowers, PE

GCRTA
- Amy Snell

NOACA
- Melissa Thompson

ODOT District 12
- John Motl

WSP
- Nancy Lyon-Stadler, PE, PTOE
- Scarlett Sharpe

SmithGroupJJR
- Neal Billetdeaux, RLA, ASLA, LEED BD+C

# Executive Summary

*A Midway Cycle Track is a two-way bicycle facility that runs down the middle of a roadway. It is separated from vehicle travel lanes with a buffered area on each side. Intersections are controlled by traffic signals.*

The Midway Cycle Track Plan was developed with the intent of incorporating Midway Cycle Tracks as a new type of separated bicycle facility in Cleveland. It will be an instrumental component in the continuing transformation of Cleveland's multimodal infrastructure to accommodate, facilitate, and encourage active transportation. The ultimate objective of the Plan is to foster equitable positive transportation that encourages economic and health benefits. Equity was an integral component of the planning process.

The study area covers the entire City of Cleveland, encompassing approximately 82.5 square miles, and includes a diversity of neighborhoods, interests and needs. The Midway Plan is geared toward attracting the estimated 60% of potential bicyclists that prefer a separate and distinct bicycle facility for their use. This group represents the "average" bicyclist or potential bicyclist that characterizes the majority of potential cyclists. It also aligns with the current industry objective of accommodating riders age 8 to 80, targeting a level of bicycling skill and comfort that includes the vast majority of bicyclists. The recommended Midway Cycle Track corridors and facilities will accommodate those who are interested in bicycling for both transportation and recreation.

## Project Vision, Goals and Objectives

The purpose of the plan is to identify potential Midway Cycle Track corridors based on the design standards that were developed as part of the planning process for the project. The intent is to integrate Midway Cycle Track facilities into Cleveland's Bikeway Master Plan as an alternative type of bicycle infrastructure that provides an interconnected system with a variety of bicycle facility types in conjunction with of the overall network.

***Vision***

Create a network of 'Midway Cycle Track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development, social cohesion and placemaking throughout Cleveland.

**Goals and Objectives**

- *Locate Midway Cycle Track corridors within appropriate roadways (i.e., sufficient width and configuration).*
- *Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.*
- *Develop prototypical design concepts and standards for Midway Cycle Track, focusing on operational safety and minimizing conflicts with other travel modes.*
- *Identify and rank corridors that have the potential to accommodate a Midway Cycle Track.*
- *Determine the technical feasibility, engineering requirements, programming, prototypical planning level cost estimate and strategic multi-phase implementation of dedicated Midway Cycle Track corridors.*

- *Identify a "model section" as a community example to demonstrate value and scale.*
- *Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland (www.clevelandgis.org/apps/bikeways/ and www.midwaycle.org).*

## Plan Development

The plan development process incorporated technical analysis and community engagement to develop the design concept, to identify feasible Midway Cycle Track corridors, and to identify and prioritize the Midway Cycle Track pilot corridors and network. An illustration and a rendering of the Midway Cycle Track design concept are shown in Figures 1 and 2.

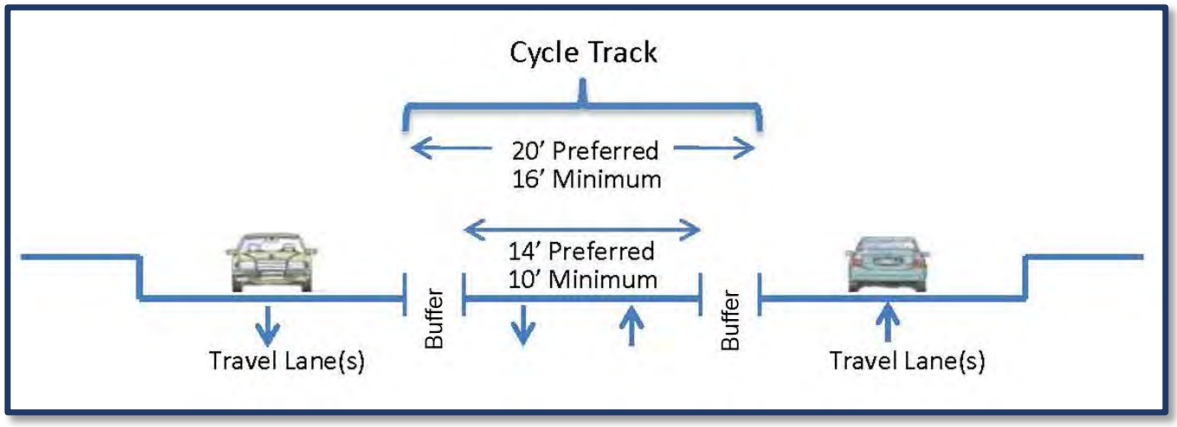



***Figure 1. Midway Cycle Track Design Concept Cross Section***

## Midway Cycle Track Corridors

The entire City of Cleveland roadway network was assessed to determine which corridors could feasibly accommodate a Midway Cycle Track based on the design and evaluation criteria developed as part of this project. A roadway width of 52 feet is the established minimum; this would accommodate the minimum

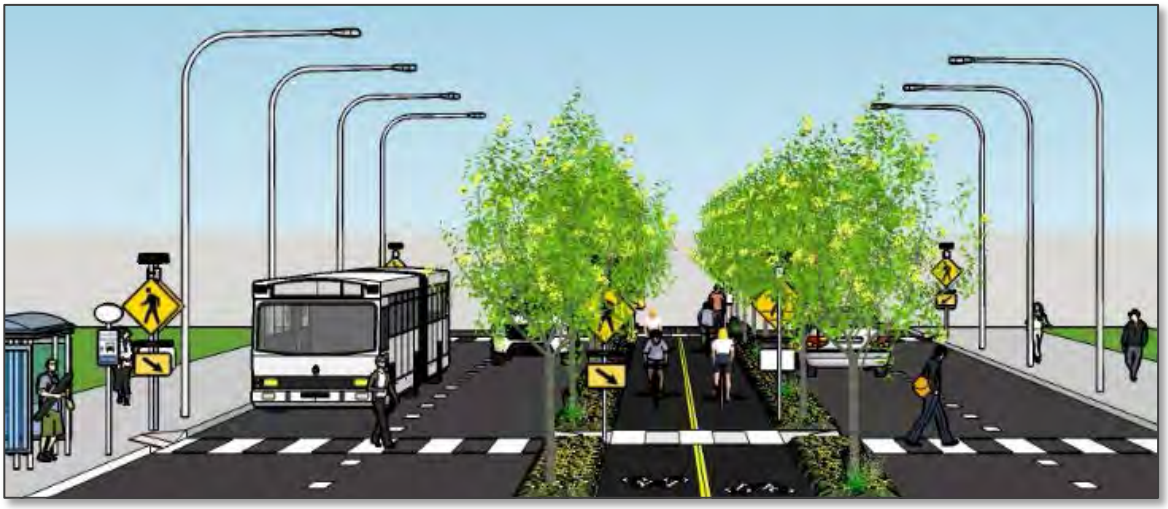


***Figure 2. Midway Cycle Track Illustration***

width Midway Cycle Track .and two travel lanes in each direction. A total of 32 corridors and corridor segments were identified as potential Midway Cycle Track corridors. Due to some identified limitations, 29 corridors and corridor segments were recommended for consideration of other types of bicycle infrastructure. One corridor was removed from consideration. The fifteen highest priority Midway Cycle Track corridors are listed below.

| | |
|---|---|
| Buckeye | Woodland to Opportunity Corridor (E.93rd St), Buckeye-Woodhill Station |
| Chester | E.12th St to E.93rd St (Opportunity Corridor) |
| Community College | E.22nd St to E.35th St |
| E. 12th St | Lakeside to Chester |
| E. 55th St | Lakefront to I-490 (north of Opportunity Corridor) |
| Fulton | Bush to Memphis |
| Lakeshore | E.140th St to E.171st St |
| Lakeside | W.3rd St to E.13th St |
| Lorain | Rocky River Bridge (City Limit) to W.65th St |
| Payne | E.13th St to E.55th St and E.55th St to MLK |
| Pearl | Cypress to Brookpark (City Limit) |
| Rocky River | Lorain to Brook Park |
| St. Clair | W.9th St to Hayden |
| Superior | Detroit-Superior Veterans Memorial Bridge to E.55th St |
| Woodland | E.22nd St to E.89th St |

Constructing the initial Midway Cycle Track as a pilot corridor would demonstrate proof of concept, preferably built in a location viewed as being fairly centrally located and accessible to the majority of Cleveland. With input from City Hall leadership, the recommendation for the pilot corridor is Superior between Public Square (East Roadway) and E.55th Street. The rationale behind this selection is to connect key anchor assets along Superior, including Public Square, Cleveland State University, and the St. Clair-Superior neighborhood. The expectation is the places in between the existing destinations along the corridor would be activated with construction of the Midway Cycle Track. In addition, the project identified a pilot network that extends beyond the Superior pilot corridor. Should sufficient funding be procured for a larger project, the Project Team and Steering Committee believed there would be significant value in constructing a larger network as Cleveland's first Midway Cycle Track. The recommended pilot network is:

| | |
|---|---|
| Superior | Detroit-Superior Veterans Memorial Bridge to E.55th St |
| E.55th St | Lake Erie lakefront to Superior |
| St. Clair | E.55th St to MLK |

## Cost Estimate

The estimated construction cost for a Midway Cycle Track is roughly $1 million per mile. This cost represents the construction cost for the raised median which carries the Midway Cycle Track, with landscaping; it does not include signal improvements, utilities, drainage, lighting, right-of-way, or other costs that would vary based upon corridor location and characteristics.

The pilot corridor, identified as Superior between Public Square (East Roadway) and E.55th Street, is approximately 2.4 miles in length, 80 feet wide, and includes 22 signalized intersections. The cost to design and construct the Midway Cycle Track pilot corridor is estimated at roughly$18.4 million, if signalized intersections are being reconstructed, with escalation of costs to reflect construction in State Fiscal Year 2020). This cost could be reduced to $11.2 million, if signalized intersections are being retrofitted with bicycle signals rather than complete reconstruction. Removing unwarranted signals could further reduce the cost. A breakdown of the cost estimate is provided in the Appendix.

## Next Steps

The study team recognizes that the City of Cleveland's Capital Improvement Plan (CIP) is not funded to the degree that it can support implementation of Midway Cycle Track facilities on the identified Midway Corridors. However, it is feasible to use funds identified in the CIP for roadway and related infrastructure repair, rehabilitation and reconstruction as the local match for external funding that could be procured for construction of Midway Cycle Track facilities. As such, the Cleveland Planning Commission has formed an ad hoc task force to research external funding opportunities. The effort is being led by the YMCA of Greater Cleveland and committee consists of members from Cleveland Planning Commission, Cleveland Traffic Engineering, Bike Cleveland, Cleveland Neighborhood Progress, Historic Gateway Neighborhood, and WSP. The highly collaborative, multi-agency team approach was an integral part of the planning process and critical to the study's successful completion. Continued teamwork will be an important factor in successfully identifying and acquiring external funding and constructing Midway Cycle Track facilities.

## Illustrations

***Figure 3. Midway Cycle Track Renderings***

# 1.0 Introduction and Background

*A Midway Cycle Track is a two-way bicycle facility that runs down the middle of a roadway. It is separated from vehicle travel lanes with a buffered area on each side. Intersections are controlled by traffic signals.*

Development of the Midway Cycle Track Plan is intended to be an instrumental component in continuing the transformation of Cleveland's transportation infrastructure to accommodate, facilitate and encourage active transportation, with the ultimate objective being positive transportation, economic and health benefits. The City of Cleveland has taken several steps in the development of its bicycle network to get to this point. For many years, the City has maintained a Bikeway Master Plan which identifies existing and planned bicycle infrastructure. Following passage of their complete and green streets policy, the City prepared the *Cleveland Complete and Green Streets (CC&GS) Typologies Plan* in 2013. The CC&GS plan categories the city's roadway network into specific corridor types and notes how each corridor type contributes to the overall complete and green streets system: The plan identifies specific "primary" corridors for implementation of bicycle infrastructure facilities. Following completion of the CC&GS plan, the City and associated stakeholder organizations studied the infrastructure network, identifying bicycle facility types for some of the corridors and prioritizing those corridors for implementation through the City's Capital Improvement Program (CIP), documented at *www.clevelandGIS.org*; the corridors are identified as existing, to be CIP implementation in specified years, not yet programmed, or not a city project.

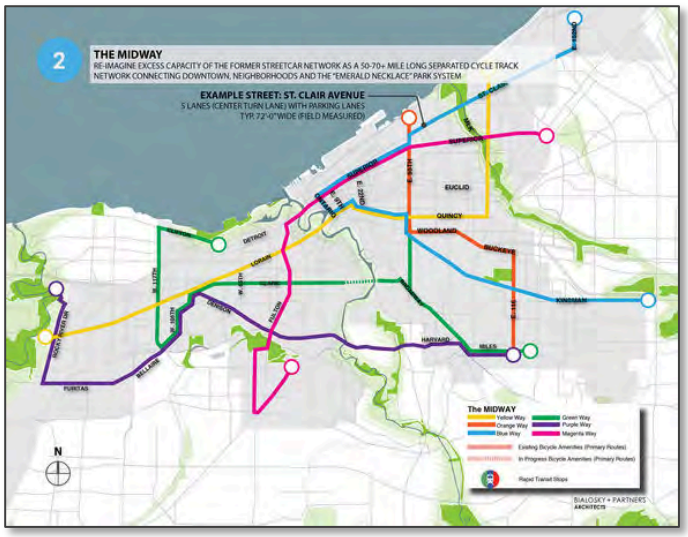



***Figure 4. Midway Initiative Concept Map***
*(source: http://www.bikecleveland.org/midway/)*

Concurrently, Bike Cleveland and the YMCA of Greater Cleveland developed a concept plan to install a midway cycle track network on wide city streets located along the center of roadway corridors, several of which formerly housed streetcars. Bike Cleveland is credited

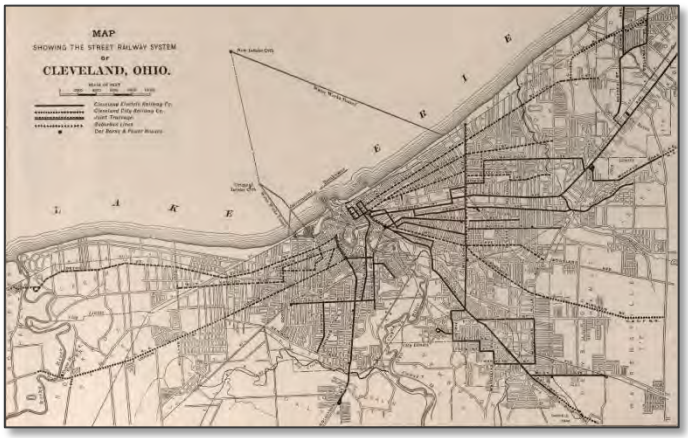



***Figure 4. Cleveland's Streetcar Network, 1900***
*(source: Street Railway Journal, circa 1900)*

as being the first organization in the City of Cleveland to support and promote a Midway Bicycle Facility in the City with its grassroots initiative termed "The Midway" which proposes establishing two-way cycle track facilities which run down the middle of the road, much like the streetcars of yesteryear and today's Healthline Bus Rapid Transit (BRT) system which operates on Euclid Avenue.

The Midway Cycle Track Plan has grassroots support and helped motivate this study. Since the initial idea, steps have been taken to further the Midway concept. This plan represents the latest step. Through funding from the Northeast Ohio Areawide Coordinating Agency (NOACA) Transportation for Livable Initiative (TLCI), the Midway Cycle Track idea was investigated in detail to develop a design concept and to identify corridors within the city of Cleveland where a Midway Cycle Track would be feasible and appropriate. This TLCI study builds on previous work and brings the concept closer to implementation.

The study area includes the entire City of Cleveland, covering roughly 82.5 square miles with a diversity of neighborhoods, interests and needs. The Midway Plan is geared toward attracting the estimated 60% of potential bicyclists that prefer a separate and distinct bicycle facility for their use, an "average" bicyclist or potential bicyclist, representing the majority of potential cyclists. This aligns with the current industry objective of accommodating riders age 8 to 80, targeting a level of bicycling skill and comfort that includes the vast majority of bicyclists. In addition, equity was an integral component of the planning process. The recommended corridors and facilities will accommodate those who are interested in bicycling for both transportation and recreation.

The potential Midway Cycle Track corridors identified by this plan are intended to supplement the City's Bikeway Master Plan. An update to Cleveland's Bikeway Master Plan will begin in 2017; the update will incorporate the recommendations from this Midway Plan. The Midway Plan focuses on the midway cycle track corridors and concepts, rather than addressing the City's Bikeway Master Plan in its entirety. Corridors that are identified as good connectors but are not feasible as a Midway Cycle Track were documented and retained for consideration for other potential bicycle facility treatments as part of the Bikeway Master Plan update.

The Midway Plan was undertaken with the collaboration of numerous organizations, stakeholders and individuals that were invaluable to the success of the planning process. Members of the Project Team and Steering Committee represented diverse expertise needed for the planning process. Their overarching spirit of collaboration coupled with focus on the purpose to provide a new type of bicycle infrastructure that will accommodate multiple levels and ages of bicyclists led to the development of a well-defined and implementable Midway Cycle Track design concept as well as a broad list of feasible midway corridors based on thorough evaluation of the Cleveland roadway network.

# 2.0 Project Vision, Goals and Objectives

The purpose of the plan is to identify potential Midway Cycle Track corridors based on the design standards that would be developed as part of the planning process for this project. The intent is not to create a bicycle network of interconnected Midway Cycle Tracks. This would not be practical given the geometric requirements that limit the feasible corridors. Rather, implementation of Midway Cycle Track facilities would be integrated into Cleveland's Bikeway Master Plan as another type of bicycle infrastructure, a part of the overall network that provides an interconnected system with a variety of bicycle facility types. Building from this general purpose, the Midway Cycle Track Study vision, goals and objectives were developed by the Project Team, with input from the Steering Committee.

## 2.1 Vision

*Create a network of 'Midway Cycle Track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development, social cohesion and placemaking throughout Cleveland.*

## 2.2 Goals and Objectives

- *Locate Midway Cycle Track corridors within appropriate roadways (i.e., sufficient width and configuration).*
- *Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.*
- *Develop prototypical design concepts and standards for Midway Cycle Track, focusing on operational safety and minimizing conflicts with other travel modes.*
- *Identify and rank corridors that have the potential to accommodate a Midway Cycle Track.*
- *Determine the technical feasibility, engineering requirements, programming, prototypical planning level cost estimate and strategic multi-phase implementation of dedicated Midway Cycle Track corridors.*
- *Identify a "model section" as a community example to demonstrate value and scale.*
- *Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland (www.clevelandgis.org/apps/bikeways/ and www.midwaycle.org).*

## 2.3 Evaluation Criteria

The project's objectives were established to identify goals that would result in the location, concept and feasibility of placing a Midway Cycle Track within the City of Cleveland that would be equitable, promote economic development and be compatible with surrounding land uses. To achieve these objectives, evaluation criteria were established by the Project Team and Steering Committee that would allow a fair and informed decision on the placement of Midway Cycle Track facilities. The evaluation process methodically assessed the 57 corridors originally identified feasible corridors and narrowed the selection to 15 preferred corridors after the first round of criteria were applied. From those 15 preferred corridors, three corridors were identified as potential pilot corridors, after much deliberation and input from the Project Team, Steering Committee and the public. The evaluation criteria and evaluation process are discussed further in Section 4.

# 3.0 Plan Development Process

The Plan Development Process followed the schedule shown in Figure 5, which integrated multiple levels of community engagement, described in Section 4.0.

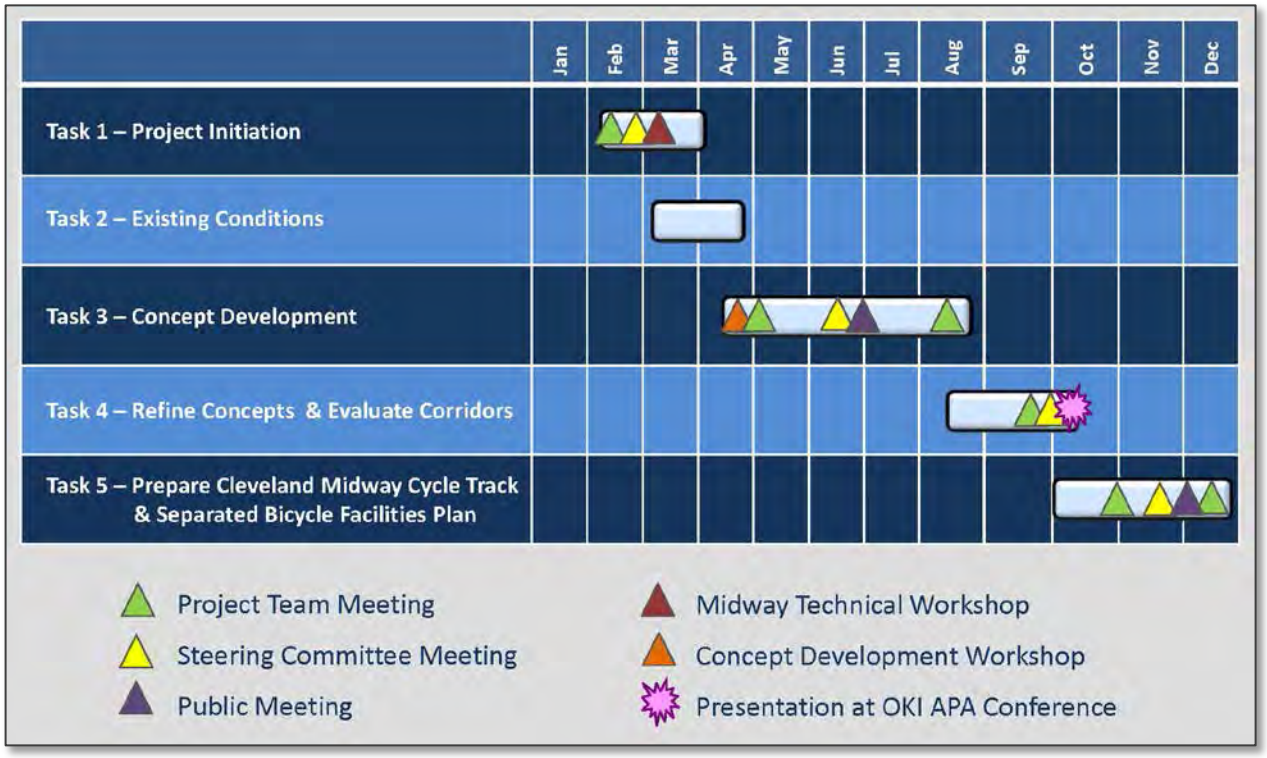



***Figure 5. Project Schedule***

The plan development process commenced with outlining of these key milestones:

- Project Initiation
- Understanding Existing Conditions
- Midway Cycle Track Design Concept Development
- Corridor Evaluation
- Plan Development

Project initiation began with the identification of Steering Committee and Technical Workshop members. The Steering Committee consisted of interested and involved agencies who would guide the development of the plan. The Technical Committee consisted of technical experts in areas relevant to Midway Cycle Track design elements and considerations. The Technical Committee would develop the prototypical design standards for Midway Cycle Track facilities. Design concept development was conducted concurrently with the gathering of relevant existing plans and Geographic Information Systems (GIS) data. The Midway Technical Workshop was followed by a two-day Concept Development Workshop to identify and review potential Midway Cycle Track corridors. Evaluation criteria based on the projects vision and goals and objectives was then applied to prioritize the corridors.

Public outreach consisted of two phases. The first phase presented the concepts and potential corridors to the public at a series of three public meetings, accompanied by an online survey. Several 'pop-up' public outreach events were held at various locations around the City to expand the outreach. Two public meetings were held to present the draft plan to the public.

# 4.0 Community Engagement

Community engagement is crucial for the success of any public infrastructure project – it builds support by providing information about the project and incorporating public input into plan development. Development of the Midway Cycle Track Plan involved multiple levels of engagement, with the Project Team, Steering Committee, Technical Committee and the general public. More than a dozen project meetings were held, including a Concept Development Workshop and a Technical Workshop.

## 4.1 Project Team

The Project Team was responsible for managing and developing the Plan and included:

- **Project Sponsors** City of Cleveland Planning Commission
  NOACA
- **Advisory Members** City of Cleveland Division of Traffic Engineering
  City of Cleveland Office of Sustainability
- **Technical Consultants** WSP
  SmithGroupJJR

## 4.2 Steering Committee

The Steering Committee was involved throughout the plan development process, providing invaluable input, guidance and feedback, and generally assisting the Project Team with plan development. The Steering Committee consisted of members from a cross section of interested and affected agencies and organizations:

- Bike Cleveland
- Cleveland Engineering and Construction
- Cleveland Regional Development
- Cleveland Metropolitan School District
- Cleveland Metroparks
- Cleveland Neighborhood Progress
- Cuyahoga County Planning Commission
- Northeast Ohio Regional Sewer District (NEORSD)
- Ohio Department of Transportation (ODOT)
- YMCA of Greater Cleveland
- Project Team

## 4.3 Technical Committee

Due to the operational complexities associated with the Midway Cycle Track concept, a Technical Committee was formed with the specific mission to develop the Midway Cycle Track design concept for corridor configuration and intersection operations. Technical committee members provided expertise in traffic operations, roadway design, transit operations, and bicycle facility design. Technical Committee members represented these agencies:

- Bike Cleveland
- City of Cleveland Planning Commission
- City of Cleveland Division of Traffic Engineering
- City of Cleveland Office of Sustainability
- Cuyahoga County Planning
- Cuyahoga County Department of Public Works
- Greater Cleveland Regional Transit Authority
- NOACA
- ODOT
- YMCA of Greater Cleveland

## 4.4 Public Meetings

Public meetings were held a two key points during the plan development process. The first meeting was held during the corridor identification and evaluation phase to get input on public preferences as well as an understanding of levels of interest in the project and other related subjects. The second public meeting was held toward the end of the plan development process to present the draft plan and gather public feedback.

## 4.5 Public Engagement Online Survey

An interactive online survey was developed as part of the public engagement process to build understanding and support for the project, and to gather input on a variety of topics related to the project. The survey ran live from June 29, 2016 through September 30, 2016. Key information is summarized below and the complete survey results are provided in the Appendix.

- A total of 540 persons responded to the survey.
- Most survey respondents identified themselves as cyclists (491 of 522; 94%).
- Most survey respondents stated they prefer to ride in a designated bicycle facility, such as a bike lane, cycle track or trail (426 of 454; 94%)


***Figure 6. Online Survey Landing Page***

- Survey respondents expressed a preference for cycle tracks over the other types of bicycle facilities, which included bike lanes, trails, and "sharrows" (234 of 454; 52%)
- 90 percent of survey respondents stated that they would like to ride in a Midway Cycle Track.
- Approximately 72 percent of survey respondents regularly ride a bicycle (daily, almost daily, more than once a week, or about once a week), with an even split between whether they ride for transportation or recreation.
- Lack of bicycle facilities was cited as the top factor that keeps survey respondents from riding a bicycle as often as they would like. Secondary reasons included weather, car traffic, personal safety and security, pavement condition and distance.
- The survey gathered information on origins and destinations in the study area. This information was used to inform plan development.
- Participants were asked to identify their top five potential Midway Cycle Track corridors from the list (and illustration) of the 15 preferred corridors. In order of preference, the top six corridors reported by the results of the survey are:
    1) Lorain Avenue
    2) Superior Avenue
    3) E. 55th Street
    4) Chester Avenue
    5) Lakeside Avenue
    6) St. Clair Avenue

## 4.6 Project Meetings

A total of ten Project Team meetings, four Steering Committee meetings, two workshops, and two sets of public meetings were held for this project. An overview is provided below, with meetings listed in sequential order by date. Documentation of all meetings is provided in the Appendix.

**Project Team Meeting 1** *February 8, 2016*

The objectives were to gain consensus on Project Team and Steering Committee members, the project development process and schedule, and to establish the plans goals, objectives, and vision statement. The meeting also established the initial project corridors to be assessed.

**Steering Committee Meeting 1** *March 1, 2016*

The Steering Committee Kick-off meeting introduced the participants to the project vision, goals and objectives were which revised according the committee's input. The initial corridors identified at Project Team Meeting 1 were discussed with several being added for further consideration.

**Midway Cycle Track Technical Workshop** *March 10, 2016*

The purpose of this workshop was to establish the design concept prototype for the Midway Cycle Track corridor cross section and intersection operations.

**Concept Development Workshop** *April 13-14, 2016*

This workshop evaluated and prioritized the potential Midway Cycle Track corridors.

**Project Team Meeting 2** *April 25, 2016*

The meeting focused on evaluating the initial prioritization of Midway Cycle Track corridors from the Concept Development Workshop. The corridors were organized based on their location (west side,

downtown, and eastside) then further analyzed and ranked based on numerous criteria that reflected the project goals and objectives.

**Steering Committee Meeting 2** *June 24, 2016*
The purposed of this meeting was to prepare for the first set of Public Meetings. This included a review of the corridors and the draft online survey.

**Public Meeting 1**
*June 29, 2016 (midday) at Cleveland Public Library Main Branch in downtown Cleveland*
*June 29, 2016 (evening) at Fairhill Partners Auditorium on the east side of Cleveland*
*June 30, 2016 (evening) at Zone Recreation Center on the west side of Cleveland*
The public meeting format consisted of a formal presentation, followed by an informal open house where meeting participants could view project boards and take the online survey. In addition, take-away cards were provided for those that wanted to complete the survey later and/or share the survey with others. Laptops were provided at all three meeting for attendees to complete the survey with the assistance of the Project Team in attendance. The survey is described in more detail below.

**Project Team Meeting 4** *August 10, 2016*
The objective of this meeting was to review the online survey data received to date. The online survey was launched prior to Public Meetings 1 on June 28, 2016. A total of 105 respondents had taken the survey at the time of Project Team Meeting 4. At the meeting, it was determined that the Team needed to market the survey through Pop-Up events, social media and the Steering Committee to get a greater response rate. The meeting participants also discussed evaluation criteria for further prioritization of the corridors.

**Cleveland City Hall Leadership Meeting 1** *September 14, 2016*
Cleveland Planning Commission staff met with representatives from City Hall leadership to discuss the Midway Cycle Track plan and recommendations. At this meeting, they expressed a preference for the potential pilot corridor on Lakeside Avenue.

**Project Team Meeting 5** *September 20, 2016*
The online survey data was reviewed. The Project Team also discussed evaluation criteria information needed to complete the evaluation of the corridors.

**Steering Committee Meeting 3** *September 27, 2016*
The survey results were reviewed, followed by a review of the evaluation criteria and corridor prioritization efforts completed to date. The Steering Committee provided input on corridor rankings and evaluation criteria.

**Project Team Meeting 6** *November 3, 2016*
The results of the completed online survey were reviewed. The evaluation criteria were revised based on input from the Steering Committee. The Project Team discussed and agreed on the pilot corridor and also identified a pilot network.

**Steering Committee Meeting 4** *November 10, 2016*
Information from the previous Steering Committee meeting was reviewed, focusing on a discussion of the proposed pilot corridor and network. At Steering Committee 3 the pilot corridor was defined as Superior Avenue between the Detroit-Superior Bridge and E. 55th Street. The pilot network built

from the pilot network and added E. 55th Street from Superior Avenue to the lakefront and St. Clair Avenue from E. 55th Street to MLK Boulevard. Based on discussions concerning the transit zone on Superior Avenue between W. 3rd Street and E. 9th Street, another pilot corridor was identified: Lakeside Avenue between W. 3rd Street and E.9th Street. The pilot project was modified to include Superior Avenue from the Detroit-Superior Bridge to Public Square and Lakeside. Justification for this shift was discussed and all were in agreement.

**Project Team Meeting 7** *November 23, 2016*

This meeting included a small subset of the Project Team. The report outline for the Midway Cycle Track plan was developed.

**Project Team Meeting 8** *December 6, 2016*

The purpose of this meeting was to review the presentation for the second set of Public Meetings. The agreed upon pilot corridors that would be presented to the public were: 1) Superior Avenue between the Detroit-Superior Bridge and Public Square, 2) Lakeside Avenue between W. 3rd Street and E. 9th Street, and 3) Community College Avenue between E. 22nd Street and E.35th Street.

**Public Meeting 2**

*December 7, 2016 (midday) at Cleveland Public Library Main Branch in downtown Cleveland*
*December 7, 2016 (evening) at Cleveland Public Library Main Branch in downtown Cleveland*

The public meeting format consisted of a formal presentation, followed by an informal open house where meeting participants could view project boards and share feedback.

**Project Team Meeting 9** *December 20, 2016*

The Project Team reviewed the outcomes from the Public Meetings and discussed the comments received at the meetings. The public feedback was very positive. Follow-up presentations include the City of Cleveland Planning Commission per the project scope and Bike Cleveland as suggested by Director Collier. The final report outline was also reviewed for final input.

**Cleveland City Hall Leadership Meeting 2** *February 1, 2017*

Members of Cleveland Planning Commission met with Cleveland City Hall leadership to review the plan recommendations and potential pilot corridors. The consensus recommendation was the identification of the pilot corridor as Superior Avenue between Public Square (East Roadway) and E.55th Street. The rationale behind this selection is to connect key anchor assets along Superior, including Public Square, Cleveland State University, and the St. Clair-Superior neighborhood. The expectation is the places in between the existing destinations along the corridor would be activated with construction of the Midway Cycle Track. The recommendation for the pilot network remained as Superior Avenue between the Detroit-Superior Bridge and E.55th Street, E.55th Street between Superior Avenue and the lakefront, and St. Clair Avenue between E.55th Street and MLK Boulevard.

**Project Team Meeting 10** *February 8, 2017*

The Project Team reviewed the recommendations from the Cleveland City Hall Leadership meeting and discussed project wrap up and next steps.

## 4.7 Pop-Up Meetings

In an effort to reach many people and as broad a cross section of Cleveland as possible, Project Team members presented project information and the survey at several public events held throughout the City.

Project information boards were shown and laptops provided for use by the public to complete the online survey. Take-away cards with the survey link were also provided. These "Pop-Up" meetings were held:

- August 13, 2016: Mayor's Back to School Fair & Youth Summit
- August 13, 2016: CiCLEvia
- August 14, 2016: Gather in Glenville
- September 8, 2016: CLEvia
- September 17, 2016: Vital Neighborhoods Annual Potluck In the Park

In addition to the Pop-Up meetings, project related information and the survey link was distributed at the E. 55th Street Marina and at Merwin's Wharf (Metroparks restaurant), included in Mayor Jackson's email-blast for approximately three weeks, and posted on social media outlets belonging to the Cleveland Planning Commission, Bike Cleveland, and NOACA.

# 5.0 Midway Design Concept Development

## 5.1 Midway Cycle Track Technical Workshop

*Figure 7. Technical Committee Representatives*

The purpose of the Technical Workshop was to develop the Midway Cycle Track design concept prototype and design standards. This included cross-section requirements (cycle track width, buffer, etc.) relevant to the linear features along the corridor as well as integration of the Midway Cycle Track at intersections along the corridor. These requirements would be used to establish parameters to assess the feasibility and appropriateness of the roadways that were identified as potential Midway corridors and to evaluate design considerations and criteria for project implementation. The criteria established included the cycle track width, clear zone width, types of separation between the cycle track and travel lanes, accommodating transit, intersection treatments, on-street parking, and entering and exiting the cycle track. Refer to the technical memo summarizing the workshop proceedings, analysis and results, which is provided in the Appendix. The Technical Committee also developed an extensive list of considerations to be incorporated into the Midway Cycle Track corridor evaluation criteria.

References and guidelines used by the Technical Committee included:

- American Association of State Highway and Transportation Official's (AASHTO) Guide for the Development of Bicycle Facilities
- ODOT's Shared Path Design Guide (TEM section 702)
- Federal Highway Administration's (FHWA) Separated Bike Lane Planning and Design Guide

- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide.

The Technical Committee worked together in a highly collaborative manner to develop the recommended design concepts for the midway cycle track including:

1. **Corridor Design Prototype:** Establish the roadway cross-section requirements for the midway cycle track and minimum roadway widths required to accommodate a Midway Cycle Track.
2. **Intersection Design Prototype:** Develop an intersection prototype, identifying traffic control requirements and associated elements.

**Corridor Design Prototype**

An illustration of the Midway Cycle Track concept is provided in Figure 9. The Technical Committee determined that the Midway Cycle Track should have a minimum width of 10 feet (5 feet for each direction of bicycle travel) with a preferred width of 14 feet (7 feet for each direction of bicycle travel). The Technical Committee addressed a variety of potential roadway configurations, as shown in Table 1. A minimum of two travel lanes in each direction is required for a Midway Cycle Track corridor to accommodate transit and emergency vehicles. The minimum pavement width required to accommodate a Midway Cycle Track is 52 feet. Physical separation between the Midway Cycle Track and the adjacent vehicle travel lanes is necessary for operational safety. This separation is provided by a buffer with a minimum width of three feet, as indicated in the Midway Cycle Track cross section shown in Figure 9.

*Figure 8. 'Before' and 'After' Views of a Midway Cycle Track Corridor*

At the workshop, two options for the cycle track were discussed: 1) Midway Cycle Track and adjacent buffers configured with the entire section as a raised median (buffers and cycle track raised at curb height above the vehicular travel lanes), and 2) Midway Cycle Track at grade with the adjacent vehicular travel lanes with raised buffers on both sides of the cycle track (raised buffer would look like narrow raised medians alongside the cycle track). In meetings that followed the Technical Workshop, the Steering Committee determined that the first configuration, with the entire cycle track and buffers on a raised median, is preferred based on visibility, operational safety, effective available width, and cost. Figure 9 illustrates the design concept and Figure 10 illustrates the typical section for a Midway Cycle Track.

**Table 1. Midway Cycle Track Corridor Prototypes**

| Midway Cycle Track Corridor Prototype | Corridor Width (curb-to-curb) | Parking Lane | Travel Lane(s) | Buffer | Cycle Track | Buffer | Travel Lane(s) | Parking Lane |
|---|---|---|---|---|---|---|---|---|
| **Two Travel Lanes** | | | | | | | | |
| Minimum | 48' | - | 16' | 3' | 10' | 3' | 16' | - |
| Preferred | 52' | | | | 14' | | | |
| **Two Travel Lanes with Transit** | | | | | | | | |
| Minimum | 52' | - | 18' | 3' | 10' | 3' | 18' | - |
| Preferred | 56' | | | | 14' | | | |
| **Two Travel Lanes with Parking (both sides)** | | | | | | | | |
| Minimum (flush) | 52' | 7' | 11' | 3' | 10' | 3' | 11' | 7' |
| Minimum (raised) | 54' | | 12' | | 10' | | 12' | |
| Preferred (flush) | 56' | | 11' | | 14' | | 11' | |
| Preferred (raised) | 58' | | 12' | | 14' | | 12' | |
| **Two Travel Lanes with Parking (one side)** | | | | | | | | |
| *(assumes transit corridor)* Minimum (flush) | 52' | 7' | 11' | 3' | 10' | 3' | 18' | - |
| Minimum (raised) | 53' | | 12' | | 10' | | 18' | |
| Preferred (flush) | 56' | | 11' | | 14' | | 18' | |
| Preferred (raised) | 57' | | 12' | | 14' | | 18' | |
| **Four Travel Lanes (State/US/County)** | | | | | | | | |
| *Designated Truck Route* Minimum | 64' | - | 24' | 3 | 10' | 3' | 24' | - |
| *Non-Truck Route* Minimum | 62' | | 23' | ' | 10' | | 23' | |
| Preferred | 68' | | 24' | | 14' | | 24' | |
| **Four Travel Lanes (Local)** | | | | | | | | |
| Minimum | 56' | - | 20' | 3' | 10' | 3' | 20' | - |
| Preferred | 60' | | | | 14' | | | |

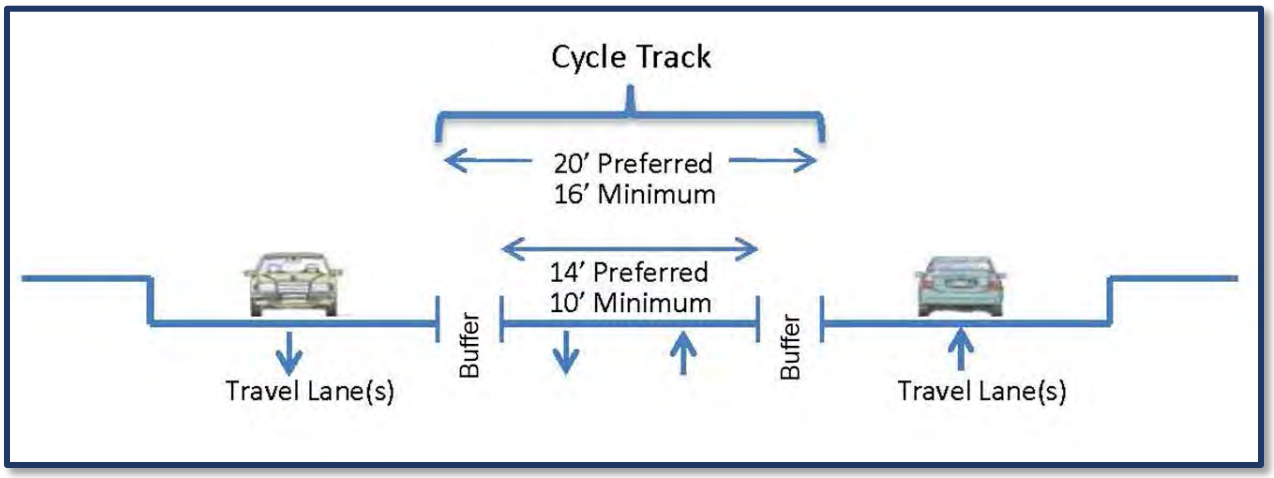



*Figure 9. Midway Cycle Track Design Concept Cross Section*

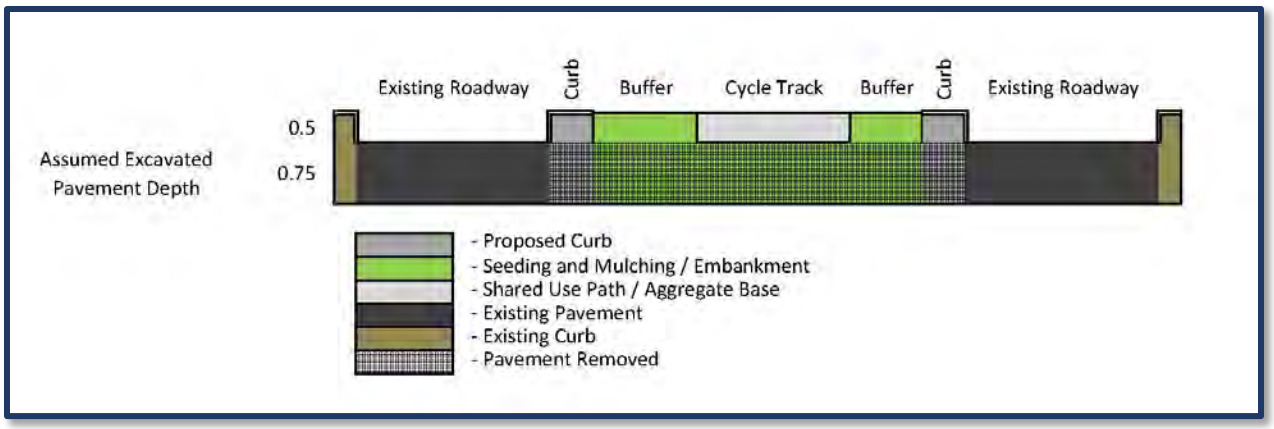



*Figure 10. Midway Cycle Track Typical Section*

**Intersection Design Prototype**

To ensure operational safety, the Technical Committee concluded that intersections with cross streets that that travel across a Midway Cycle Track would be signalized. Intersections on a Midway corridor that are not signalized would be divided by the cycle track and converted into two T-intersections, with the Midway Cycle Track functioning as an uninterrupted median. Operational assessment of the resulting traffic circulation impacts should be evaluated for proposed Midway corridors. The Technical Committee agreed that treatment of unsignalized intersections on lower volume roadways could be addressed on an individual basis for the potential use of stop control, considering intersection traffic volume, roadway geometrics, and other relevant operational details to determine if a 4-way stop controlled intersection would be feasible.

Intersection prototypes were developed to determine how to safely accommodate bicyclists traveling through and turning at signalized intersections. Several typical sections were established for bicycle crossings at intersections and multiple intersection types were addressed in the workshop including those that allow U-turns. Refer to Table 2 for Intersection Design Prototype information. Intersection prototype elements are:

- Traffic signal phasing (motorized vehicles, bicycles, pedestrians)
- Left turn accommodations and treatments (with and without left turn pocket)
- With and without transit/transit stop(s)
- Advance warning (as appropriate)
- Detection (motorized vehicles, bicycles, pedestrians)

**Table 2. Technical Workshop Intersection Prototype Information**

| Midway Cycle Track Intersection Prototype WITH LEFT TURN POCKET | Corridor Width (curb-to-curb) | Travel & Parking Lanes | Left Turn Lane | Buffer | Cycle Track | Buffer | (Left Turn Lane) | Travel & Parking Lanes |
|---|---|---|---|---|---|---|---|---|
| **Two Travel Lanes** | | | | | | | | |
| Flush (City) | 43' | 10' | 10' | 3' | 10' | 0' | - | 10' |
| Flush (State/County) | 47' | 12' | | | | 0' | | 12' |
| Raised (City) | 46' | 10' | | | | 3' | | 10' |
| Raised (State/County) | 50' | 12' | | | | 3' | | 12' |
| **Two Travel Lanes with Transit** | | | | | | | | |
| Flush (City) | 43' | 10' | 10' | 3' | 10' | 0' | - | 10' |
| Flush (State/County) | 47' | 12' | | | | 0' | | 12' |
| Raised (City) | 46' | 10' | | | | 3' | | 10' |
| Raised (State/County) | 50' | 12' | | | | 3' | | 12' |
| **Two Travel Lanes & Parking (2 sides)** | | | | | | | | |
| **(MINIMUM)** Flush (City) | 55' | 17' | 10' | 3' | 8' | 0' | - | 17' |
| Flush (State/County) | 59' | 19' | | | | 0' | | 19' |
| Raised (City) | 58' | 17' | | | | 3' | | 17' |
| Raised (State/County) | 62' | 19' | | | | 3' | | 19' |
| **Two Travel Lanes & Parking (2 sides)** | | | | | | | | |
| **(PREFERRED)** Flush (City) | 57' | 17' | 10' | 3' | 10' | 0' | - | 17' |
| Flush (State/County) | 61' | 19' | | | | 0' | | 19' |
| Raised (City) | 60' | 17' | | | | 3' | | 17' |
| Raised (State/County) | 64' | 19' | | | | 3' | | 19' |
| **Two Travel Lanes & Parking (1 side)** | | | | | | | | |
| **(MINIMUM)** *(with transit)* Flush (City) | 56' | 17' | 10' | 3' | 8' | 0' | - | 18' |
| Flush (State/County) | 58' | 19' | | | | 0' | | 18' |
| Raised (City) | 59' | 17' | | | | 3' | | 18' |
| Raised (State/County) | 61' | 19' | | | | 3' | | 18' |
| **Two Travel Lanes & Parking (1 side)** | | | | | | | | |
| **(PREFERRED)** Flush (City) | 58' | 17' | 10' | 3' | 10' | 0' | - | 18' |
| Flush (State/County) | 60' | 19' | | | | 0' | | 18' |
| Raised (City) | 61' | 17' | | | | 3' | | 18' |
| Raised (State/County) | 63' | 19' | | | | 3' | | 18' |
| **Four Travel Lanes** | | | | | | | | |
| **(MINIMUM)** Flush (City) | 61' | 20' | 10' | 3' | 8' | 0' | - | 20' |
| Flush (State/County) | 67' | 23' | | | | 0' | | 23' |
| Flush (Truck Route) | 69' | 24' | | | | 0' | | 24' |
| Raised (City) | 64' | 20' | | | | 3' | | 20' |
| Raised (State/County) | 70' | 23' | | | | 3' | | 23' |
| **Four Travel Lanes** | | | | | | | | |
| **(PREFERRED)** Flush (City) | 63' | 20' | 10' | 3' | 10' | 0' | - | 20' |
| Flush (State/County) | 71' | 24' | | | | 0' | | 24' |
| Raised (City) | 66' | 20' | | | | 3' | | 20' |
| Raised (State/County) | 74' | 24' | | | | 3' | | 24' |

# 6.0 Midway Cycle Track Corridors

## 6.1 Corridor Identification

From 1860 to 1954, Clevelanders relied on streetcars as their primary means of transportation to move around the City. When streetcars ceased operations in 1954, the streetcar area in the middle of the wide boulevard streets were converted to travel lanes for automobiles. As the population of Cleveland has declined in the past few decades, the traffic on these wide boulevards has also declined, leaving excess capacity with ample opportunities to reconfigure the roadways to accommodate bicycle facilities.

***Figure 11. Superior Avenue Public Square Streetcar Center*** *(source: www.lakeshorerailmaps.com)*

The Project Team identified 51 potential Midway Cycle Track corridors that consisted of more than 200 corridor segments. The corridors are located within Cleveland's city limits, an area covering 85 square miles. The initial corridors were selected based on the value of the connections they would provide for bicycle travel along with characteristics including the existing pavement width (face-of-curb to face-of-curb), available right-of-way, location, connectivity to area destinations and other existing and planned bicycle facilities, and equity. The initial potential midway corridors are listed below and illustrated in Figure 12.

| | | | |
|---|---|---|---|
| Bellaire | E.55th St | Madison | St. Clair |
| Broadview | E.78th-E.79th St | Memphis | State |
| Broadway | E.93rd St | Miles | Superior |
| Buckeye | E.152nd-Ivanhoe- | MLK | Union |
| Carnegie | Noble | N&S Moreland | W.25th St |
| Chester | E.156th St | Ontario | W.105th St |
| Community College | Fulton | Payne | W.117th St |
| Corlett | Harvard | Pearl | W.130th St |
| Denison | Kinsman | Prospect | W.140th St |
| Detroit | Lake | Puritas | W.150th-Warren |
| E.12th St | Lakeshore | Quincy | Wade Park |
| E.22nd St | Lakeside | Rocky River | West |
| E.40th St | Lorain | Shaker | Woodland |

## 6.2 Evaluation Criteria

The initial corridors were evaluated to determine their viability as a Midway Cycle Track. The evaluation was a two-step process and the evaluation criteria were developed as part of the Technical Workshop. The purpose of the first round evaluation was to develop the list of the top 15 preferred corridors to be presented to the public for their input on preferences. The criteria in the second round of evaluation were applied to the 15 corridors identified in Round 1 to develop recommendations for the preferred pilot corridor. The pilot corridor would be of a manageable length to demonstrate proof of concept. The Round 1 Evaluation Criteria included:


*Figure 12. Initial Midway Cycle Track Corridors*

- **Household Income** –Would a corridor be accessible to low-income communities? Based on demographic information. Ranked 1-5 (1 being low and 5 being high).
- **Car Ownership** - Would a corridor be accessible to communities that have only one or no car? Based on demographic information. Ranked 1-5 (1 being low and 5 being high).
- **Proximity to Transit** – Would a corridor be accessible to populations that rely on transit? Based on demographic information and Greater Cleveland Regional Transit Authority (GCRTA) route information. Ranked 1-5 (1 being low and 5 being high).
- **Land Use Density** – Would a corridor be located in an area with high land use densities? Based on demographic information and City of Cleveland land use maps. Ranked Low, Medium, or High.
- **Tree Canopy Impact** (removal) – Would a corridor require the removal of trees? Based on aerial mapping and field reviews. Ranked Yes/Maybe/No.
- **Safe Routes to Schools (SRTS) Priority Corridor** - Would a corridor be accessible to schools with SRTS sidewalks in place or programmed? Based on the City of Cleveland SRTS program. Ranked 1-5 (1 being low and 5 being high).
- **NOACA Bikeway Demand Potential** – How did a corridor place according to the NOACA Bikeway Demand Scores? Ranked Low/Medium/High.
- **Safety (NOACA Bike Crash Data)** – Is the corridor identified as a high bike crash corridor? Based on NOACA bike crash data. Ranked Low/Medium/High.
- **Regional Connectivity** – Would a corridor provide regional connectivity by linking to other bicycle facilities? Based on existing and planning bicycle facilities. Ranked Low/Medium/High.

- **Connects Land Use and Survey Destinations** - Would a corridor be assessable to areas with appropriate land uses and popular survey destinations? Based on City of Cleveland Land Use Maps and online survey origin/destination responses. Ranked Low/Medium/High.
- **City Capital Plan** – Is a corridor located on the City of Cleveland City Capital Plan? Ranked Yes/No.
- **NEORSD Priority Area** (Stormwater) - Is a corridor located within a NEORSD priority stormwater area? Based on NEORSD priority area mapping. Ranked Yes/No.

The second set of evaluation criteria, listed below, were analyzed by the Project Team and Steering Committee. The initial recommendations were reviewed and discussed at meetings with City officials.

- **Roadway Jurisdiction** – Is the corridor on a federal, state or local route?
- **External Funding Potential** – Is the corridor on a roadway where potential outside funding for a Midway Cycle Track could be realized?
- **Community Support** – Is there community support for the corridor?
- **Political Support** - Is the corridor on the City's Bikeway Master Plan?
- **Traffic Impacts** (access, circulation, etc.) – Would the placement of a Midway Cycle Track on a corridor greatly impact traffic patterns as a result of changes in access, circulation, etc.?
- **GCRTA Benefit** – Would the placement of a Midway Cycle Track on a corridor provide a benefit to the GCRTA system?
- **GCRTA Negative Impact** - Would the placement of a Midway Cycle Track on a corridor provide a negative impact to the GCRTA system?

## 6.3 Concept Development Workshop

The purpose of the Concept Development Workshop was to refine, evaluate and categorize the initial Midway Cycle Track corridors. The initial corridors were identified based on their importance as segments within the city's network of bicycle infrastructure; therefore, providing some type of bicycle infrastructure on each of these corridors would be of value. At the workshop, the corridors were assessed to determine their feasibility and appropriateness for implementation of a Midway Cycle Track based on the evaluation criteria, as presented in Section 6.2. The corridors were evaluated and sorted into tiers based on their characteristics and their viability to accommodate a Midway Cycle Track.

- Tier 1 corridors meet the parameters for a Midway Cycle Track as established at the Midway Technical Workshop. These corridors have existing pavement widths of 52 feet or more, and traffic volumes that are expected to accommodate needed roadway capacity reductions associated with implementation of a Midway Cycle Track.
- Tier 2 corridors did not meet the Tier 1 criteria; however, they could accommodate a Midway Cycle Track with roadway widening within the existing right-of-way. These corridors could also accommodate another type of bicycle facility.
- Tier 3 corridors would not be appropriate for a Midway Cycle Track; however, an alternative type of bicycle facility should be considered for the corridor.

- Tier 4 corridors would not need designated bicycle facilities given the corridor characteristics.

At the workshop, several of the original corridors were divided into shorter segments based on their characteristics. Those corridors were evaluated and categorized into the tiers listed above. The Midway Cycle Track Concept Development Memo details all corridor considerations and prioritization and is included in the Appendix. The corridors are shown in Table 3.

**Table 3. Corridors Identified and Prioritized by Tiers**

| Road | Section | Pvmt Width [1] (feet) | ADT [2] (veh/day) | Notes |
|---|---|---|---|---|
| **Tier 1: Feasible Midway Corridor** (Midway fits within existing available pavement width) | | | | |
| **West Side** | | | | |
| **Fulton** | Bush to Memphis | 40-66 | 14,800 | – Existing bike lanes Park to Bush<br>– Connection to Cleveland Metroparks Zoo |
| **Pearl** | Cypress to Brookpark (City Limit) | 55-57 | 7,200-16,900 | – Connection is of limited value |
| **Downtown** | | | | |
| **Chester** | E.12th St to E.93rd St (Opportunity Corridor) | 55-95 | 10,000-31,700 | – Median east of I-90 to E.93rd St (left turn lanes encroach)<br>– Direct connection between Downtown and University Circle |
| **Lakeside** | W.3rd St to E.13th St | 58-60 | - | – Downtown circulation, connects to Lakefront<br>– Includes tourist and civic destinations<br>– Corridor narrows east of E.13th St (40 ft width) |
| **Payne** | E.13th St to E.55th St | 56 | 5,500-5,600 | – Low volume corridor<br>– No interchange at I-90<br>– Northern edge of Cleveland State University |
| **St. Clair** | W.9th St to E.55th St | 56-60 | 5,300-9,500 | – Connects downtown, neighborhoods, commercial districts |
| **Superior** | Detroit-Superior Bridge to E.55th St | 76-90 | 8,000-15,600 | – Connects east side and west side through heart of downtown Cleveland<br>– Existing bike lanes between E.18th St and E.55th St<br>– Consider transit zone and transit operations<br>– Integration of Public Square needs to be considered |
| **W.25th St** | Detroit to Bridge | 66-78 | 14,300 | – Bike lanes recently installed<br>– Corridor widens north of CMHA Riverview Tower |
| **Woodland** | E.22nd St to E.55th St | 62-64 | 16,100-18,100 | – Connects E.22nd St ,Tri-C, neighborhoods<br>– Road narrows west of E.30th St (34 ft) but it is one-way and carries three travel lanes |
| **East Side** | | | | |
| **Community College** | E.22nd St to E.35th St | 62 | 7,200 | – Connects Tri-C and underserved neighborhoods<br>– Wide road, excess pavement, low traffic volume<br>– Existing bike lanes<br>– E.35th St to E.40th St is too narrow (±36 ft) |

| Road | Section | Pvmt Width [1] (feet) | ADT [2] (veh/day) | Notes |
|---|---|---|---|---|
| **E.55th St** | Lakefront to I-490 (north of Opportunity Corridor) | 52-66 | 15,000 | – Anticipate significant traffic volume reduction with opening of Opportunity Corridor<br>– One of very few potential north-south corridors on east side<br>– Sidewalks set back (some segments)<br>– Constrained railroad underpasses (south of SR-2, north of Euclid)<br>– Rail bridge constrained (north of I-490) |
| **St. Clair** | E.55th St to Hayden | 55-74 | 9,500-*23,500* | – Initial corridor identified by Midway grassroots initiative<br>– Connects Downtown and University Circle<br>– Excess capacity |
| **Lakeshore** | E.140th St to E.171st St | 55-58 | 4,700-6,800 | – Connection to residential, commercial and tourist destinations<br>– Existing bike lanes |
| **Tier 2: Possible Midway Corridor**<br>(Midway fits within corridor right-of-way but roadway widening is needed) | | | | |
| **West Side** | | | | |
| **Bellaire** | W.140th St to W.105th St | 37-75 | 8,900 | – Sidewalks setback for much of corridor, both sides of the street (W.140th St to W.130th St, Leeila to 120th St, W.117th St to W.105th St).<br>– Existing bike lanes W.140th St to W.130th St<br>– Most of corridor is too narrow for a Midway Cycle Track |
| **Detroit** | W.117th St to W.25th St | 36-70 | 10,000-16,800 | – Existing bike lanes most of W.74th St to W.25th St |
| **Fulton** | Memphis to Pearl | 40 | 9,100 | – Sidewalks with large setbacks, both sides of street<br>– Some large trees in tree lawn |
| **Lorain** | Rocky River Bridge (City Limit) to W.65th St | 36-58 | 10,900-14,600 | – Good regional connection<br>– Attached sidewalks<br>– Existing bike lanes W.150th St to W.125th St |
| **Lorain** | W.65th St to W.20th St | 46-70 | 10,900-11,400 | – Incorporated in another project (Lorain Cycle Track) |
| **Memphis** | Ridge (City Limit) to Fulton Pkwy | 44-56 | 7,900 | – Sidewalks setback, both sides of the street |
| **Rocky River** | Lorain to Brook Park | 48-54 | 12,500-19,300 | – Good north-south connection, links residences and commercial areas with access to Rocky River Reservation connections<br>– Sidewalk setback, both sides of street<br>– Wider corridor Homeway to Cleveland Pkwy (62 ft for this short section)<br>– North of Lorain is narrow and constrained by right-of-way and geography (west side drops into Rocky River valley) |

| Road | Section | Pvmt Width [1] (feet) | ADT [2] (veh/day) | Notes |
|---|---|---|---|---|
| **State** | Pearl to Brookpark (City Limit) | 42-58 | 7,500-15,700 | – Detached sidewalks, both sides of street, for all but north end of corridor<br>– Interchange at I-480 |
| **West** | Detroit to Jasper | 35-64 | - | – Detached sidewalks, both sides of street, with large setbacks south of Madison<br>– Existing northbound sharrow and southbound bike lane south of Lorain to Jasper<br>– Existing bike lanes both sides north of Lorain to I-90 West frontage road<br>– Existing mix of sharrows and bike lanes north of I-90 West frontage road to Madison<br>– Interchange at I-90 |
| **Downtown** | | | | |
| **E.12th St** | Lakeside to Chester | 70 | - | – Recently reconstructed<br>– Midway would require reconstruction and elimination of new median |
| **E.22nd St** | Carnegie to Orange | 72 | - | – Recently reconstructed with bike lanes and streetscape |
| **East Side** | | | | |
| **Buckeye** | Woodland to Opportunity Corridor (E.93rd St) and Buckeye-Woodhill Station | 48-56 | 10,900 | – Short corridor<br>– Sizable sidewalk setback, both sides of the street<br>– Connection to Buckeye-Woodhill Station |
| **E.55th St** | I-490 to Broadway (south of Opportunity Corridor) | 36-57 | 12,800 | – Part of this section of the corridor is too narrow for Midway Cycle Track without roadway widening<br>– Some demand for on-street parking |
| **Lakeshore** | E.171st St to E.185th St (City Limit) | 50-52 | 6,800 | – Connection to residential, commercial and tourist destinations<br>– Sidewalks set back, both sides of street<br>– Existing bike lanes |
| **MLK** | E.116th St (Harvey Rice Elementary) to E.116 St (at Farringdon) | 38-42 | 6,900 | – Sidewalks set back, both sides of street; large trees in tree lawn<br>– Connects to MLK bike facilities to north |
| **MLK** | E.116 St (at Farringdon) to Harvard | 86-88 | - | – Median divided boulevard to bend at south end, at E.116th St; short section to Harvard is 40 ft with large tree lawns<br>– Sidewalks set back, both sides of street |
| **North & South Moreland** | Fairhill to Griffing | 74-100 | 11,700 | – Connects to and through Shaker Square<br>– Median divided boulevard with large trees<br>– Midway may fit in existing median |

| Road | Section | Pvmt Width [1] (feet) | ADT [2] (veh/day) | Notes |
|---|---|---|---|---|
| **Shaker** | Buckeye-Woodhill to Van Aken | 154-156 | 14,000 | – Median divided boulevard, two lanes each way, with light rail transit running in the median<br>– Corridor provides good regional connection but another type of facility would function better than Midway due to due rail transit |
| **Woodland** | E.55th St to E.89th St | 48-56 | 17,200 | – Sidewalks setback, both sides of street |
| **Tier 3: Consider Another Type of Bikeway Facility**<br>(Midway is not appropriate/does not fit within the corridor) | | | | |
| **West Side** | | | | |
| **Broadview** | Pearl to Brookpark (City Limit) | 42-50 | 7,600 | – Too narrow for Midway Cycle track<br>– Existing bike lanes Pearl to Brookpark (City Line) |
| **Denison** | Lorain to Cuyahoga River (City Line) | 33-66 | 7,500-10,300 | – Existing bike lanes W.18th St to W.65th St<br>– Existing sharrows west of W.23rd St |
| **Lake** | Clifton to Detroit | 45-52 | 4,100 | – Short corridor, minimal connectivity opportunities<br>– Most of corridor is too narrow, including the railroad underpass |
| **Madison** | W.117th St (City Limit) to W.65th St | 38-40 | 3,700-8,800 | – Mix of attached and detached sidewalks<br>– Rail line underpass constrains roadway width<br>– Connect to Lakewood bike lanes to west<br>– Existing sharrows |
| **Puritas** | Valley Parkway (City Limit) to W.140th St | 40-67 | 10,400-*16,700* | – Existing bike lanes west of W.160th St<br>– Existing bike trail west of Grayton to Rocky River Reservation<br>– Most of corridor is too narrow for a Midway Cycle Track |
| **W.105th St** | Lorain to Jasper-Bellaire | 40-56 | - | – Detached sidewalks with small setbacks, both sides of street |
| **W.117th St** | Edgewater to Bellaire | 54-56 | 28,100-35,600 | – I-90 interchange<br>– High traffic volume |
| **W.130th St** | Lorain to Brookpark | 40-50 | 13,800 | – Narrow corridor |
| **W.140th St** | Triskett to Lorain | 50-54 | 13,400 | – Attached sidewalks<br>– Industrial land use |
| **W.140th St** | Lorain to Puritas | 28 | 13,400-16,700 | – Narrow roadway<br>– Detached sidewalks with large setbacks, both sides<br>– Residential<br>– Elementary and high schools on corridor |
| **Warren-W.150th St** | Lakewood Heights to Brookpark | 40 | 13,900-26,500 | – Detached sidewalks, both sides<br>– I-90 interchange<br>– I-71 interchange |
| **Downtown** | | | | |
| **Carnegie** | Ontario to MLK (City Limit) | 54-76 | 11,400-31,000 | – High traffic volume |

| Road | Section | Pvmt Width [1] (feet) | ADT [2] (veh/day) | Notes |
|---|---|---|---|---|
| **Ontario** | South Roadway (Public Square) to Carnegie | 66-116 | 19,300-28,000 | – Concern for bicycle ingress/egress safety with roadway configuration, traffic behavior and traffic volume (between Huron and Carnegie) |
| **Prospect** | Superior to E.55th St | 42-68 | 8,000 | – Existing sharrows between Ontario and E.14th St<br>– Existing bike lanes between E.14th St and E.22nd St |
| **East Side** | | | | |
| **Broadway** | Pershing to Miles | 42-55 | 13,200-18,100 | – Majority of corridor is too narrow for Midway Cycle Track (Pershing to E.65th St)<br>– Some buildings with limited setbacks<br>– Study corridor for road diet and bike lanes<br>– North of Pershing is addressed by other projects (planned Slavic Village Downtown Connector Trail) |
| **E.40th St** | South Marginal to Woodland | 40 | 4,800 | – Too narrow for Midway Cycle Track |
| **E.78-79th St** | St Clair to Union | 24-40 | 3,200 | – Detached sidewalks, both sides of street |
| **E.93rd St** | Woodhill to Broadway | 39-55 | - | – TIGER study is underway |
| **E.105th St (Opportunity Corridor)** | MLK to Quincy | 42-68 | 11,000 | – Opportunity Corridor is underway<br>– TIGER study is underway |
| **E.152nd St-Ivanhoe-Noble** | Lakeshore to Euclid | 30-55 | 6,800-22,300 | – Ivanhoe is narrow, industrial, buildings set close to street<br>– Noble has mix of residential and businesses |
| **E.156th St** | Lakeshore to Waterloo | 35-38 | - | – Short corridor<br>– Detached sidewalks with small setbacks, both sides of street |
| **Harvard** | Jennings to | 24-56 | 6,600-15,000 | – Existing sharrows Jennings to Towpath Trail<br>– Existing bike lanes, E.154th St to E.190th St<br>– Connects to Towpath Trail<br>– I-77 interchange |
| **Kinsman** | Woodland to E.154th St | 40-52 | 15,900 | – Regional connection serves residential and commercial areas |
| **Miles** | Broadway to E.175th St (City Limit) | 36-50 | 10,800-16,200 | – Detached sidewalks for much of corridor |
| **Quincy** | E.40th St to Woodhill | 38-60 | - | – E.40th St to E.55th St is wide, but it is a short section<br>– Underserved neighborhoods, Juvenile Justice Center<br>– Apparent on-street parking demand<br>– Sidewalk set back E.40th St to E.71st St |
| **Superior** | E.55th St to Euclid | 40-50 | 11,700 | – Mix of detached and attached sidewalks |
| **Union** | Broadway to Kinsman | 38-40 | 6,500-7,200 | – Narrow corridor<br>– Attached sidewalks |

| Road | Section | Pvmt Width [1] (feet) | ADT [2] (veh/day) | Notes |
|---|---|---|---|---|
| **Wade Park** | E.55th St to E.118th St | 40-46 | 5,900 | – Current effective terminus at E.65th St; provide connection to E.55th St<br>– Mix of detached and attached sidewalks<br>– Connects Downtown and University Circle |
| **Woodland** | E.89th St to MLK | 40-44 | 6,700 | – Connects to MLK bikeway |
| **Tier 4: Remove from List**<br>(Midway is not appropriate/does not fit and it may not be necessary to install another type of bikeway facility) | | | | |
| **East Side** | | | | |
| **Corlett** | MLK to E.131st St | 42 | - | – Narrow corridor<br>– Corridor is short and like other adjacent neighborhood streets |

1. *Pavement width is approximate; estimated off Google Earth measurements.*
2. *ADT data sources: ODOT Traffic Data Management System and NOACA's Cuyahoga County Highway Traffic Counts. ODOT count data is recorded as 2015-2016. NOACA counts are older (2006-2009); they are provided where ODOT counts are not available. NOACA counts are shown in italics. Ranges are shown where data is available for multiple locations along the corridor.*

## 6.4 Priority Midway Corridors

The Project Team identified the top 15 potential Midway corridors based on their initial evaluation results and the anticipated ease of implementation. This list was subsequently reviewed and approved by the Steering Committee. The corridors were then provided to the public for input on prioritization through the online survey which was made available at public meetings and other outreach events, as well as via email and social media venues. The top 15 corridors are listed below and illustrated in Figure 13.

| | |
|---|---|
| Buckeye | Woodland to Opportunity Corridor (E.93rd St), Buckeye-Woodhill Station |
| Chester | E.12th St to E.93rd St (Opportunity Corridor) |
| Community College | E.22nd St to E.35th St |
| E. 12th St | Lakeside to Chester |
| E. 55th St | Lakefront to I-490 (north of Opportunity Corridor) |
| Fulton | Bush to Memphis |
| Lakeshore | E.140th St to E.171st St |
| Lakeside | W.3rd St to E.13th St |
| Lorain | Rocky River Bridge (City Limit) to W.65th St |
| Payne | E.13th St to E.55th St and E.55th St to MLK |
| Pearl | Cypress to Brookpark (City Limit) |
| Rocky River | Lorain to Brook Park |
| St. Clair | W.9th St to Hayden |
| Superior | Detroit-Superior Veterans Memorial Bridge to E.55th St |
| Woodland | E.22nd St to E.89th St |


*Figure 13. Midway Cycle Preferred Corridors Map*

# 7.0 Pilot Corridor

## 7.1 Corridor Identification and Evaluation

At the project kickoff meeting, the Project Team established a goal of selecting a pilot corridor, with the intent of implementing it as the first Midway Cycle Track as a means to demonstrate the configuration and function of the Midway Cycle Track (proof of concept). This initial corridor was to be in a location that would be accessible to a majority of Clevelanders. The pilot corridor would be selected from the list of 15 priority corridors, as these were determined to be the most feasible and easily implemented. The Project Team, and subsequently the Steering Committee, met to review the corridors based on the evaluation criteria with consideration of the public preferences obtained from the online survey. In addition, members of the Cleveland Planning Commission met with City Hall leadership during the later phases of the project where City Hall leadership weighed in on the selection of the pilot corridor.

Initial discussions regarding identification of the potential pilot corridor(s) took place while the survey was still open (September 2016). At the first City Hall Leadership meeting (held in mid-September), the project was reviewed and the 15 priority corridors discussed. During the meeting, a preference for Lakeside was expressed based on its proximity to City Hall and its value to tourists in the vicinity of the Huntington Convention Center and the adjacent hotels.

Once the survey was closed and the data recorded, the Project Team and Steering Committee evaluated the 15 priority corridors to recommend the pilot corridor. The initial assessment was based on a scoring mechanism which rated the corridors A, B or C. The ratings were dependent on the assessed value of the corridor and relative ease of implementation, based on the evaluation criteria. During the Steering Committee evaluation discussions, the group decided to combine the Buckeye and Woodland corridors. The Buckeye corridor is short but valued due to its ability to provide a connection to Opportunity Corridor and the Buckeye-Woodhill Station; additionally, it is unlikely that a Midway Cycle Track would be constructed on Buckeye in isolation; it would be a more valuable facility if built in conjunction with the adjacent corridor on Woodland. The results of the priority corridor evaluation are shown in Figure 14.

**MIDWAY CYCLE TRACK CORRIDOR EVALUATION - PART 1**

| Corridor | West / South Limit | East / North Limit | Household Income 1-5 | Car Ownership 1-5 | Proximity to Transit 1-5 | Land Use Density Low Med High | Tree Canopy Impact (removal?) Y Maybe N | SRTS Priority Corridor 1-5 | NOACA Bikeway Demand Potential Low Med High | Safety (NOACA Bike Crash Data) Low Med High | Regional Connectivity Low Med High | Connects Land Use & Survey Destinations Low Med High | City Capital Plan Y / N | NEORSD Priority Area (Stormwater) Y / N | PRIORITY A / B / C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Buckeye * | Woodland Ave | Opportunity Corridor | | | | Low | | | Medium | | | | | | A |
| Chester | E.12th St | E.93rd St | | | | Medium | | | | | | | | | B |
| Comm College | E.22nd St | E.35th St | | | | | | | | | | | | | B |
| E. 12th St | Euclid Ave | Lakeside Ave | | | | | | | | | | | | | C |
| E. 55th St | Broadway Ave | Lakefront (N.Marginal) | | | | Medium | | | | | | | | | A |
| Fulton | Memphis Ave | Bush Ave | | | | Medium | Maybe | | | | | | | | C |
| Lakeshore | City Limit (Bratenahl) | E.185th St | | | | | | | | | | | Complete | | B |
| Lakeside | W.3rd St | E.26th St | | | | | | | | | | | | | B |
| Lorain | City Limit (west) | W.65th St | | | | | | | | | | | | | A |
| Payne | E.13th St | E. 55th St | | | | Medium | | | | | | | | | B |
| Pearl | City Limit (south) | Cypress Ave | | | | Medium | Maybe | | | | | | | | C |
| Rocky River | Brookpark Rd | Lorain Ave | | | | Medium | | | | | | | | | B |
| St. Clair | W.10th St | City Limit (east) | | | | | Maybe | | | | | | Complete | | A |
| Superior | Public Square | E.55th St | | | | | Maybe | | | | | | | | A |
| Woodland * | E.22nd St | MLK | | | | | Maybe | | | | | | | | A |

** Corridors combined and evaluated as a single Midway Cycle Track corridor*

***Figure 14. Midway Cycle Track Pilot Corridor Evaluation***

The Steering Committee agreed that the pilot corridor should be located in downtown Cleveland, based on its visibility within the city and the fairly universal access to what was termed "Cleveland's living room". Due to the perceived value of a number of corridors, the Project Team and Steering Committee agreed to

present three potential pilot corridors to the public at the December public meetings. Understanding that a number of factors would be considered in determining which corridor would ultimately be selected, these corridors would be termed "recommended" with the understanding that there may be other overriding factors as the decision-making moved forward.

As the Steering Committee debated the merits of the corridors, some discussion centered on the limits of each corridor, realizing that it may be easier to start with a shorter section due to cost considerations. The three pilot corridors identified by the Steering Committee and presented to the public are:

| | |
|---|---|
| Superior | Detroit-Superior Veterans Memorial Bridge to Public Square |
| Lakeside | W.3rd St to E.9th St |
| Community College | E.22nd St to E.35th St |

As a counterpoint to that consideration, the Steering Committee did not want to artificially limit the potential value of the first Midway Cycle Track project should funding be achieved for a pilot network. External funding sources may see greater value in a pilot network rather than the shorter pilot corridor. As a result, the Steering Committee identified a potential pilot network consisting of the corridors listed below. The pilot network expands the Superior Avenue pilot corridor, providing enhanced regional connectivity and value.

| | |
|---|---|
| Superior | Detroit-Superior Veterans Memorial Bridge to E.55th St |
| E.55th St | Lake Erie lakefront to Superior |
| St. Clair | E.55th St to MLK |

The recommended pilot corridors and the pilot network were reviewed with City Hall leadership prior to being presented at the Public Meetings on December 7, 2016. Following that meeting, the Project Team met to review the outcomes from the Public Meeting. As the feedback was positive, the recommendations were retained. However, when Planning Commission staff met with City Hall leadership on February 1, 2017, they recommended the preferred pilot corridor as Superior Avenue between Public Square (East Roadway) and E.55th Street. The rationale behind this selection is to connect key anchor assets along Superior, including Public Square, Cleveland State University, and the St. Clair-Superior neighborhood. The expectation is the places in between the existing destinations along the corridor would be activated with construction of the Midway Cycle Track. The recommendation for the pilot network remained as Superior Avenue between the Detroit-Superior Bridge and E.55th Street, E.55th Street between Superior Avenue and the lakefront, and St. Clair Avenue between E.55th Street and MLK Boulevard.

## 7.2 Cost Estimate

The estimated construction cost for a Midway Cycle Track is roughly $1 million per mile. This cost represents the construction cost for the raised median which carries the Midway Cycle Track, with landscaping; it does not include signal improvements, utilities, drainage, lighting, right-of-way, or other costs that would vary based upon corridor location and characteristics.

The pilot corridor, identified as Superior between Public Square (East Roadway) and E.55th Street, is approximately 2.4 miles in length, 80 feet wide, and includes 22 signalized intersections. The cost to design

and construct the Midway Cycle Track pilot corridor is estimated at roughly $13.3 to $18.4 million, with escalation of costs to reflect construction in State Fiscal Year 2020, and depending on the level of landscaping and the number of signals requiring reconstruction versus modification. The cost estimate incorporates reconstruction of the traffic signals, roadway repaving, bridge deck modification, maintenance of traffic, and mobilization. These costs are not included in the $1 million per mile cost previously defined, which solely reflects the costs associated with median construction. This cost could be reduced to an estimated $11.2 million, if signalized intersections are being retrofitted with bicycle signals rather than complete reconstruction of the traffic signals. Removing unwarranted signals could further reduce the cost. In addition, to further reduce the initial cost of implementation, construction of the pilot corridor could be phased. The first phase could connect Public Square with Cleveland State University, major destinations along the corridor. A breakdown of the cost estimate data for the Superior pilot corridor is provided in the Appendix.

# 8.0 Next Steps

The Project Team and Steering Committee achieved the objectives of developing a design concept prototype for the proposed Midway Cycle Track and they identified corridors within the Cleveland that could feasibly accommodate a Midway Cycle Track. Further, they identified the prioritized corridors based on corridor characteristics and public input, and, together with City Hall leadership, they identified the preferred pilot corridor and network. The study team recognizes that the City of Cleveland's Capital Improvement Plan (CIP) is not funded to the degree that it can support implementation of Midway Cycle Track facilities on the identified Midway Corridors. However, it is feasible to use funds identified in the CIP for roadway and related infrastructure repair, rehabilitation and reconstruction as the local match for external funding that could be procured for construction of Midway Cycle Track facilities. As such, the Cleveland Planning Commission has formed an ad hoc task force to research external funding opportunities. The effort is being led by the YMCA of Greater Cleveland and committee consists of members from Cleveland Planning Commission, Cleveland Traffic Engineering, Bike Cleveland, Cleveland Neighborhood Progress, Historic Gateway Neighborhood, and WSP.

The highly collaborative, multi-agency team approach that was an integral part of the plan development process for this study was critical to its successful completion. Continuation of this teamwork will be an important factor in successfully identifying and acquiring external funding and constructing Midway Cycle Track facilities.

# 9.0 Midway Cycle Track Images

Renderings of the Midway Cycle Track concept are illustrated in the images below.

*Figure 15. Midway Cycle Track, View A*

*Figure16. Midway Cycle Track, View B*

***Figure17. Midway Cycle Track, View C***

***Figure 15. Midway Cycle Track, View D***

***Figure 16. Midway Cycle Track, View E***

# 10.0 Appendix

- Appendix A: Technical Workshop Memo
- Appendix B: Concept Development Workshop Summary
- Appendix C: Cost Estimate
- Appendix D: Survey Results
- Appendix E: Project Meetings

## 10.1 Appendix A: Technical Workshop Memo

# Midway Cycle Track Technical Committee Workshop

March 10, 2016

## 1. Attendance

| Name | Organization | Name | Organization |
|---|---|---|---|
| Fred Collier | Cleveland, Planning | Jacob Van Sickle | Bike Cleveland |
| Sharonda Whatley | Cleveland, Planning | Amy Snell | GCRTA |
| Donn Angus | Cleveland, Planning | Melissa Thompson | NOACA |
| Marty Cader | Cleveland, Planning | John Motl | ODOT District 12 |
| Marka Fields | Cleveland, Planning | Barb Clint | YMCA |
| Arthur Schmidt | Cleveland, Planning | Nancy Lyon-Stadler | Parsons Brinckerhoff |
| Andy Cross | Cleveland, Traffic | Scarlett Sharpe | Parsons Brinckerhoff |
| Jim Sonnhalter | Cuyahoga County Planning | Neal Billetdeaux | SmithGroupJJR |
| Brian Sowers | Cuyahoga County Public Works | | |

## 2. Workshop Purpose

The development of the City of Cleveland *Midway Cycle Track and Separated Bicycle Facilities Plan* will be an instrumental component in the continuing transformation of the City's transportation infrastructure. The Plan will identify corridors for midway cycle track facilities. The first step in the process is to identify potential corridors; that was accomplished at the first Project Team and Steering Committee meetings. Next, the corridors must be assessed to determine the feasibility and appropriateness of the corridors for midway cycle tracks. To achieve this, the Technical Committee met to develop the midway cycle track design concept and identify the required parameters for midway cycle track facilities. This work was accomplished at the Technical Committee Workshop which was held on March 10, 2016 at 2016 from 10 a.m. - 5p.m. in the Parsons Brinckerhoff Conference Room located at 1660 W. 2nd Street, Suite 820, Cleveland, Ohio 44113. These minutes summarize the workshop discussions, recommendations and outcomes.

The Technical Committee worked together in a highly collaborative manner to develop the recommended design concepts for the midway cycle track. The goal of the workshop was two-fold:

1. **Corridor Design Prototype:** Establish the roadway cross-section requirements for the midway cycle track and minimum roadway widths required to accommodate a midway cycle track.
2. **Intersection Design Prototype:** Develop an intersection prototype, identifying traffic control requirements and associated elements.

**Project Vision**: Create a network of 'midway cycle track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development; social cohesion and placemaking throughout Cleveland.

**Objectives:**

- Locate midway cycle track corridors within appropriate roadways (i.e., sufficient width and configuration).
- Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.
- Develop prototypical design concepts and standards for midway cycle track and separated bicycle lanes, focusing on operational safety and minimizing conflicts with other travel modes.
- Identify and rank corridors that have the potential to accommodate a midway cycle track.
- Determine the technical feasibility, engineering requirements, programming, planning level cost estimates and strategic multi-phase implementation of dedicated midway cycle track corridors.
- Identify a "model section" as a community example to demonstrate value and scale.
- Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland. *(www.clevelandgis.org/apps/bikeways/ and www.midwaycle.org)*.

# 3. Terminology

A variety of terms have been used to describe various types of bicycle facilities. For standardization and to align with industry terms, the following definitions and clarifications were reviewed and agreed upon by the Midway Technical Committee.

**Separated Bikeway**: An exclusive facility for bicyclists that is located within or directly adjacent to the roadway and that is physically separated from motor vehicle traffic with a vertical element. The term "separated" is used instead of "protected" because bicycle movements are not protected at intersections where bicycles and motorized vehicles cross paths and mix. The term "protected" is no longer used in industry.

**Buffered Bike Lanes**: Similar to standard bike lanes, they provide additional separation ("buffer") between the edge of the traveled way and the edge of the bike lane, without any element of vertical separation.

**Cycle Track**: A one- or two-way facility that is for the exclusive use of bicycles located within or adjacent to the roadway.

**Midway Cycle Track**: A two-way cycle track that runs along the middle of a roadway, located between the opposing travel lanes, like the way street cars would function.

**Flush Cycle Track**: The Midway Technical Committee defines this as a cycle track with a buffer that is at the same level as the cycle track and the vehicle travel lanes. An example is a striped buffered space with bollards placed at regular intervals.

**Raised Cycle Track**: The Midway Technical Committee defines this as a midway cycle track with a raised buffer between the cycle track and the vehicle travel lanes. It would look like a narrow raised median on both sides of the midway cycle track. Although the entire cycle track could be raised at

the same height as the buffer spaces, the Midway Technical Committee did not view this option as viable.

*It should be noted, in meetings that followed the Technical Workshop, the Steering Committee determined that the entire cycle track and buffers on a raised median is preferred based on visibility, operational safety, effective available width, and cost.*

# 4. Corridor Design Prototype

The Technical Committee developed design concepts with prototypes for corridors with one travel lane in each direction, one travel lane with a bus route/emergency vehicle considerations, one travel lane with parking, and two travel lanes in each direction.

## 4.1 Design Considerations

At the start of the workshop, the Technical Committee developed a list of considerations, shown below, that would affect midway cycle track design and implementation.

- *Access management*
- *Accessibility*
- *Cross street treatments*
  - *Signalized intersections*
  - *Unsignalized intersections*
- *Cycle track at-grade or raised*
- *Design standards*
- *Land use*
- *Lighting*
- *Loading and unloading the cycle track*
- *Loading zones*
- *Maintenance*
- *Nighttime operations*
- *Parking (on-street)*
- *Pavement surface*
- *Pedestrians and other street users*
- *Raised elements and their potential uses (i.e. islands)*
- *Ramps (potential use)*
- *Roadway capacity impacts*
- *Roadway drainage*
- *Roadway grades and cross slope*
- *Stormwater management*
- *Traffic composition*
  - *Transit*
  - *Trucks*
  - *Emergency vehicles*
- *Traffic volumes*
- *Transit (operations and bus stops)*
- *Transitions (beginning/end of cycle track)*
- *User expectations (drivers & cyclists)*

## 4.2 Criteria

The Technical Committed focused on developing the following design criteria:

- Cycle track width
- Clear zone width
- Travel lane width
- Forms of separation between cycle track and travel lanes
- Accommodating transit within the corridor
- Intersection treatments
- On-street parking
- Entering/exiting the cycle track

## 4.3 Industry Guidelines

**References and Guidelines**

Information available in several relevant references was reviewed and discussed, including:

- AASHTO's Guide for the Development of Bicycle Facilities
- ODOT Shared Path Design Guide (TEM section 702)
- FHWA's Separated Bike Lane Planning and Design Guide
- NACTO Urban Bikeway Design Guide

## AASHTO Guide for the Development of Bicycle Facilities, 2012, Fourth Edition

### Chapter 5: Design of Shared Use Paths

### 5.2.1 Width and Clearance

- The minimum paved width for a two-directional shared use path is 10 ft. Typical widths range from 10 to 14 ft., with the wider values applicable to areas with high use and/or a wider variety of user groups.
- In very rare circumstances, a reduced with of 8 ft. may be used where the following conditions prevail:
  - Bicycle traffic is expected to be low, even on peak days or during peak hours.
  - Pedestrian use of the facility is not expected to be more than occasional
  - Horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities.
  - The path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage.
- In addition, a path width of 8 ft. may be used for a short distance due to a physical constraint such as an environmental feature, bridge abutment, utility structure, fence, and such.
- Ideally, a graded shoulder area at least 3 to 5 ft. wide with a maximum cross-slope of 1V:6H, which should be recoverable in all weather conditions, should be maintained on each side of the pathway. At a minimum, a 2 ft. graded area with a maximum 1V:6H slope should be provided for clearance from lateral obstructions such as bushes, large rocks, bridge piers, abutments, and poles. The MUTCD requires a minimum 2 ft. clearance to post-mounted signs or other traffic control devices. Where "smooth" features such as bicycle railings or fences are introduced with appropriate flaring end treatments (as described below), a lesser clearance (not less than 1 ft.) is acceptable. If adequate clearance cannot be provided between the path and lateral obstructions, then warning signs, object markers, or enhanced conspicuity and reflectorization of the obstruction should be used.

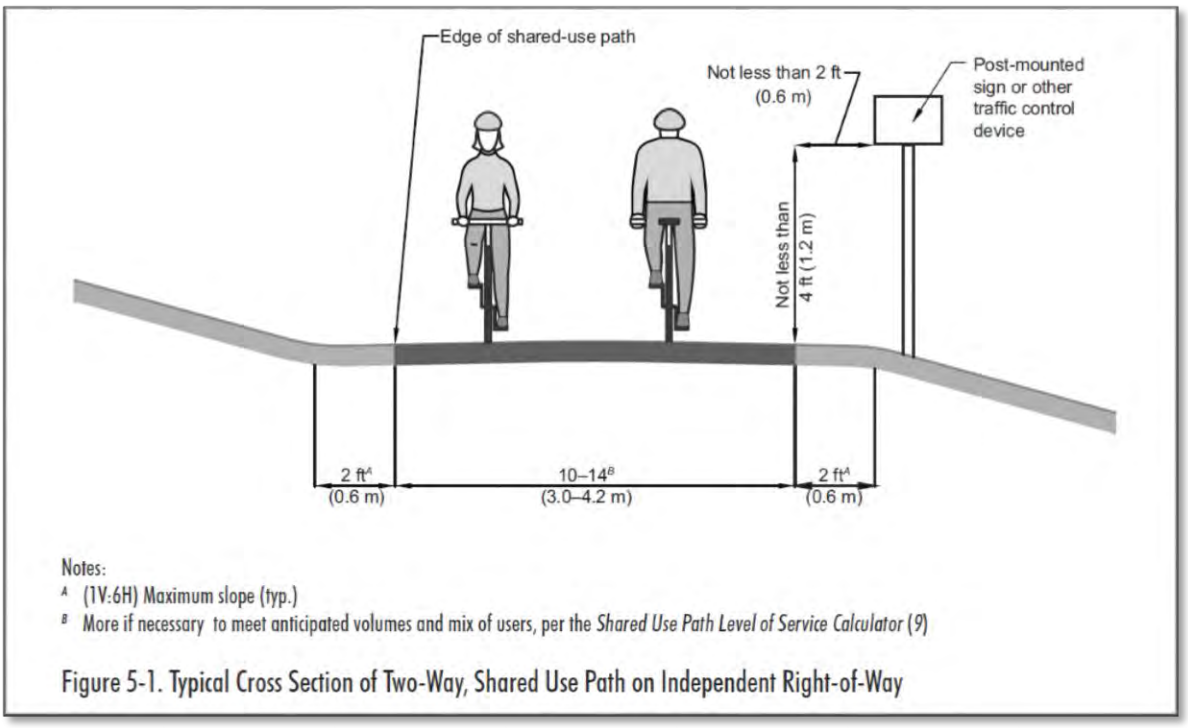



Figure 5-1. Typical Cross Section of Two-Way, Shared Use Path on Independent Right-of-Way

### 5.2.2 Shared Use Paths Adjacent to Roadways (Sidepaths)

- A sidepath should satisfy the same design criteria as shared use paths in independent rights-of-way.
- The minimum recommended distance between a path and the roadway curb (i.e., face of curb) or edge of traveled way (where there is no curb) is 5 ft.
- Where a paved shoulder is present, the separation distance begins at the outside edge of the shoulder. Thus, a paved shoulder is not included as part of the separation distance… however, an unpaved shoulder (i.e., a gravel shoulder) can be considered part of the separation.
- Where the separation is less than 5 ft., a physical barrier or railing should be provided between the path and the roadway. A barrier or railing between a shared use path and a roadway should not impair sight distance at intersections, and should be designed to limit the potential for injury to errant motorists and bicyclists. The barrier or railing need not be of size and strength to redirect errant motorists toward the roadway, unless other conditions indicate the need for a crashworthy barrier.

## ODOT Shared Path Design Guide (TEM section 702)

### 702.2.1 Width and Clearance

- The minimum paved width for a two-directional shared use path is 10 ft. Typically, widths range from 10 ft. to 14 ft., with wider widths applicable to areas with high use and/or a wider variety of user groups.
- Ideally, a graded should width at least 3 to 5 ft. wide with a maximum cross slope of 6:1 should be provided on each side of the pathway. At a minimum, a 2 ft. graded area with a maximum slope of 6:1 should be provided for clearance from lateral obstructions.

## FHWA Separated Bike Lane Planning and Design Guide

A separated bike lane is an exclusive facility for bicyclists that is located within or directly adjacent to the roadway and that is physically separated from motor vehicle traffic with a vertical element.

### Design Recommendations: Four Step Design Process

1. **Establish Directional and Width Criteria**
   - The decision of one-way and two-way separated bike lanes should be based on traffic lane configurations, turning movement conflicts, parking requirements, and surrounding bicycle route network options and destinations.
   - Width considerations include expected bicycle volumes, required buffer width, and maintenance requirements.
   - Alignment decisions for running the separated bike lane on the right-side, left-side, or in the center of the road, include transit stop conflicts, intersection and driveway conflicts, locations of destinations, and parking placement.
2. **Select Forms of Separation**
   - Separation type decisions should be based on the presence of on-street parking, street width, cost, aesthetics, maintenance, motorized traffic volumes and speeds.
3. **Identify Mid-Block Design Challenges and Solutions**
   - There are several potential conflicts that may occur at midblock locations along a separated bike lane.
   - Transit stops occurring on the same side of the street as the separated bike lane present a challenge due to interactions among cyclists, transit vehicles, and those accessing transit stops.
   - Locating accessible parking spaces may require additional design adjustments.
   - Loading zones should be well-located and designed to minimize conflicts.
   - Driveways present concerns due to challenges with sight distance and driver expectations that can be minimized through design treatments and driveway consolidation.

4. **Develop Intersection Design**
   - Intersection design should focus on the safety of all users with additional consideration on delay, queuing, user expectations, motorized traffic volumes and speeds.
   - Sufficient sight distance for all street users at intersection approaches should be provided.
   - Designs should protect or provide safe interactions between separated bike lane users and conflicting turning movements.
   - Signs and markings should be included to appropriately guide and prompt safe behaviors through intersections.

### Direction and Width Characteristics

**Central Median Alternative**: An alternative design places separated bike lanes adjacent to a median. This design can be considered when there are significant conflicts due to turning movements, transit activity, or other conflicting curbside uses. Depending on the width of the median, this design may result in intersection design challenges, particularly in how bicyclist right- and left-turns are made.
*http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/separatedbikelane_pdg.pdf (pg. 82)*

## Center Orientation Alternative

An alternative design places a two-way separated bike lane in the center of the street. This design is uncommon and can be considered when there are significant conflicts due to turning movements, transit activity, or other conflicting curbside uses. Depending on the width of the roadway and the amount of space that can be allocated to the separated bike lane and buffer, this design may result in intersection design challenges, particularly on how bicyclist right- and left-turns are made.

*Figure 13*


01 A continuously raised buffer is preferred to reduce the chance of U-turns across the separated bike lane.

For further guidance on buffer selection and installation, see page 83.

02 A centerline to separate the two-way bicycle traffic marked in accordance with the MUTCD (2009).

03 For further guidance on typical signs and markings for separated bike lanes, see page 127.

**Forms of Separation:** The Technical Committee reviewed the various identified types of separation and discussed their relevance, potential application to midway cycle tracks, and Committee preferences.
*http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/separatedbikelane_pdg.pdf (pg. 83-88)*

CHAPTER 5 | MENU OF DESIGN RECOMMENDATIONS

FORMS OF SEPARATION

## Delineator Posts



San Francisco, CA. (Source: Dianne Yee)

Flexible delineator posts are one of the most popular types of separation elements due to their low cost, visibility, and ease of installation. However, their durability and aesthetic quality can present challenges and agencies may consider converting these types of buffers to a more permanent style when design and budgets allow. Delineators can be placed in the middle of the buffer area or to one side or the other as site conditions dictate (such as street sweeper width or vehicle door opening).

## Bollards



Indianapolis, IN (Source: PeopleForBikes)

Bollards are a rigid barrier solution that provides a strong vertical element to the buffer space. Depending on how frequently the bollards are placed, this form of separation may result in an increased cost compared to others, and may not be as appropriate on higher speed streets.

84

CHAPTER 5 | MENU OF DESIGN RECOMMENDATIONS

FORMS OF SEPARATION

## Concrete Barrier



Seattle, WA. (Source: Seattle DOT)

Concrete barriers provide the highest level of crash protection among these separation types. They are less expensive than many of the other treatments and require little maintenance. However, this barrier type may be less attractive and may require additional drainage and service vehicle solutions. A crash cushion should be installed where the barrier end is exposed.

## Raised Median



Austin, TX (Source: City of Austin)

Concrete curbs can either be cast in place or precast. This type of buffer element is more expensive to construct and install but provides a continuous raised buffer that is attractive with little long-term maintenance required. Mountable curbs are an option where emergency vehicle access may be required.

85

CHAPTER 5 | MENU OF DESIGN RECOMMENDATIONS

FORMS OF SEPARATION

## Raised Lane



Cambridge, MA. (Source: City of Cambridge)

Separated bike lanes may also be designed as raised facilities, either at sidewalk grade or at an intermediate grade. If designed at the sidewalk level, the use of different pavement types, markings, or buffers may be necessary to keep bicyclists and pedestrians separated. If placed at an intermediate level, a 3 inch mountable curb may be used to permit access of sweeping equipment.

## Planters



Portland, OR (Source: Oregon Transportation Research and Education Consortium)

This form of separation provides an aesthetic element to the streetscape, a suitable vertical barrier, and is quick to install. However, depending on the placement, this treatment is more expensive than other solutions, requires maintenance of the landscaping, and may not be as appropriate on higher speed streets.

86

CHAPTER 5 | MENU OF DESIGN RECOMMENDATIONS

FORMS OF SEPARATION

## Parking Stops



Baseline Road separated bike lane in Boulder, CO. (Source: City of Boulder)

Parking stops and similar low linear barriers are inexpensive buffer solutions that offer several benefits. These barriers have a high level of durability, can provide near continuous separation, and are a good solution when minimal buffer width is available. However, using the minimum width will not provide the same level of comfort and protection due to their low height and bicyclists' proximity to traffic.

## Parked Cars



Parked cars provide separation in Seattle, WA. (Source: Seattle DOT)

While not a barrier type on its own, parked cars can provide an additional level of protection and comfort for bicyclists. A minimum buffer width of 3 feet is required to allow for the opening of doors and other maneuvers. Additional vertical elements such as periodic delineator posts should be paired with this design. Barrier types that obstruct the opening of car doors or create tripping hazards should be avoided.

87

CHAPTER 5 | MENU OF DESIGN RECOMMENDATIONS

FORMS OF SEPARATION

**Combination of Treatments**

Separation types can be used in combination to realize the full benefits of several treatments at a lower overall cost. For example, delineator posts can be alternated with parking stops or other low, linear barriers to provide both horizontal and vertical elements. Planters or rigid barriers and bollards may be used at the start of a block to more clearly identify the separated bike lane and provide an aesthetic treatment, with more inexpensive treatments used midblock.

*A raised lane combined with curbside bicycle and car parking provide vertical and horizontal separation from vehicular traffic on Higgins Street in Missoula, MT. (Source: City of Missoula)*

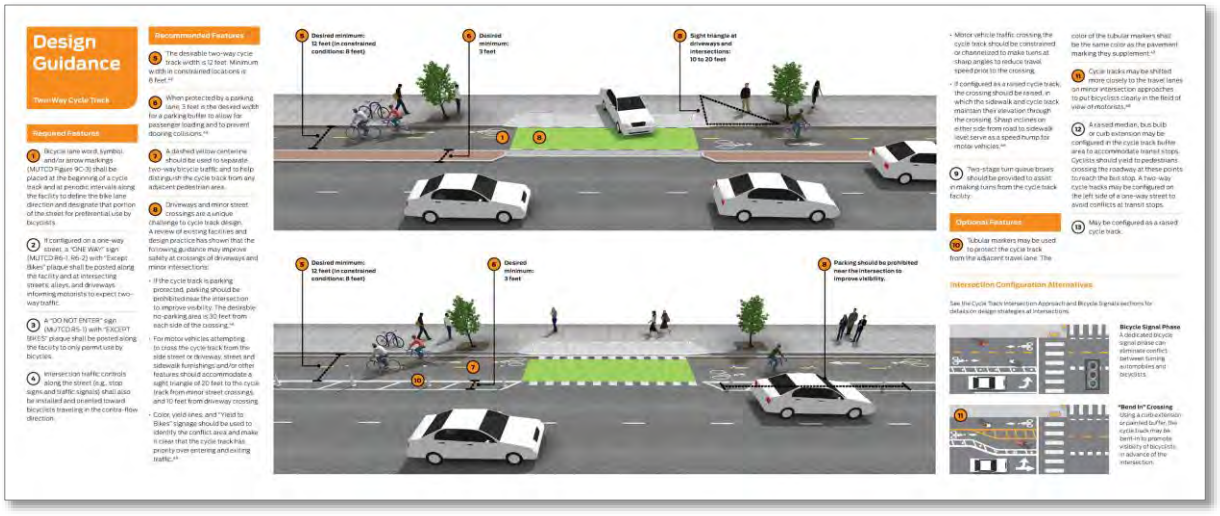
*Raised curb islands at intersections combined with flexible delineator posts and parked cars midblock on 9th Avenue in New York City, NY (Source: NYC DOT)*

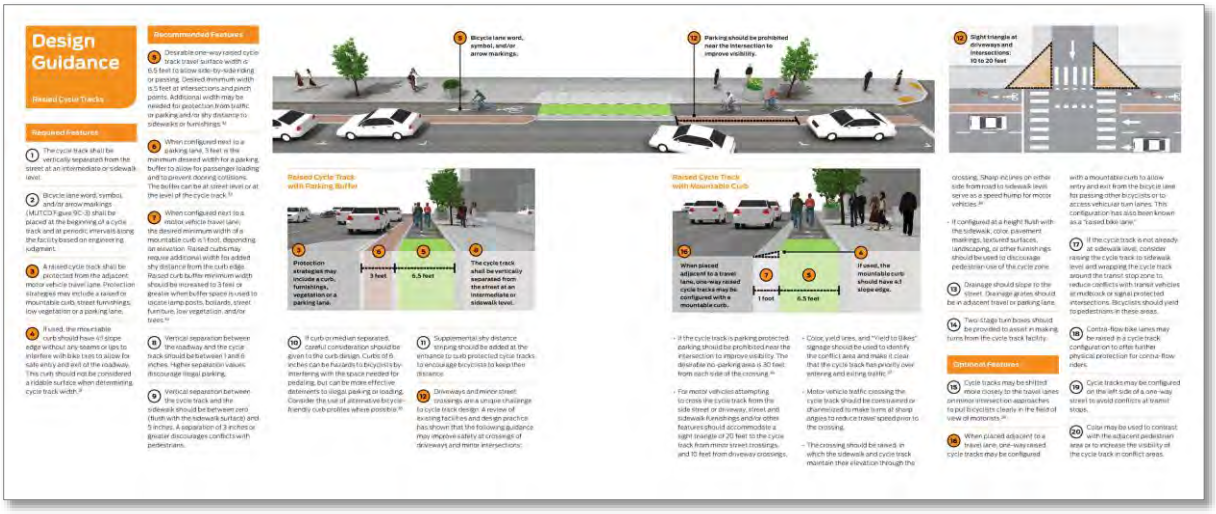
88

## NACTO Urban Bikeway Design Guide

The Technical Committee referred to NACTO cycle track guidance, particularly the figures, during the development of the midway cycle track prototype designs.

*http://nacto.org/publication/urban-bikeway-design-guide/cycle-tracks/two-way-cycle-tracks/*






## 5. Intersection Design Prototype

Intersection prototypes were developed to determine how to safely accommodate the cycle track users traveling through and turning at signalized intersections. Several typical sections were established for bicycle crossings at intersections and multiple intersection types were addressed in the workshop including those that allow U-turns. Intersection prototype elements are:

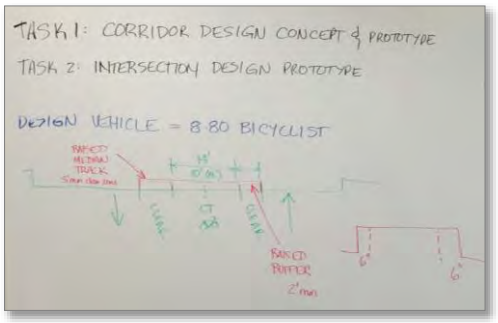
- Traffic signal phasing (motorized vehicles, bicycles, pedestrians)
- Left turn accommodation and treatments (with and without left turn pocket)
- With and without transit/transit stop(s)
- Advance warning (as appropriate)
- Detection (motorized vehicles, bicycles, pedestrians)

The Technical Committee concluded that cross streets that are permitted to cross a midway cycle track corridor must do so at a signalized intersection to safely accommodate all users and clearly assign right of way to approaching motorized and non-motorized travelers. Median cycle track intersections will be restricted to signalized intersection operations. As such, the cycle track will function as a median at unsignalized intersections, restricting cross street access to right in/right out. This design decision is based on operational safety at intersections.

# 6. Recommended Design Prototype - Corridor

**Midway Cycle Track Typical Prototypes**

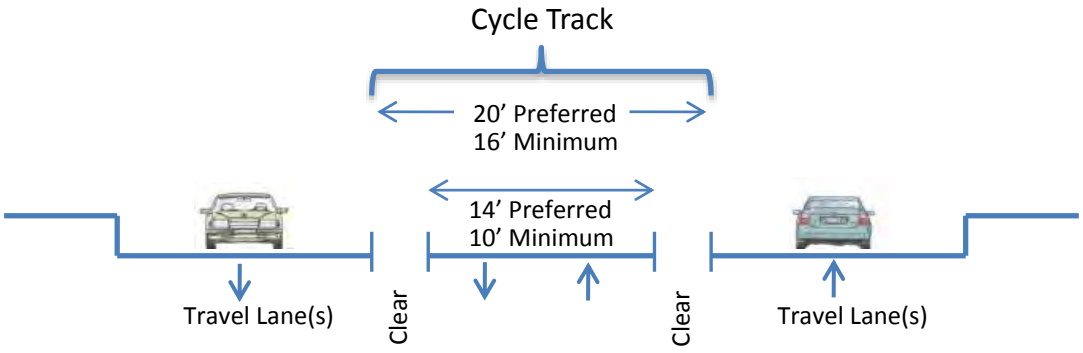
The Technical Committee developed corridor design prototypes with concepts ranging from the most basic to complete enhancement of a midway cycle track corridor. The design prototypes for midway cycle track typical cross sections and intersections are outlined below. Although a raised midway cycle track concept was discussed, it was dismissed as not feasible based on cost. For this reason, the concepts defined below are all developed for and applicable to flush midway cycle tracks, at the same level as the roadway surface.




Based on the reference documents, the Committee determined that a midway cycle track should have a minimum width of 10 ft. (5 ft. for each direction of bicycle travel) with a preferred width of 14 ft. (7 ft. for each direction of bicycle travel).

The viability of an 8 ft. wide cycle track was discussed. The Technical Committee agreed that this narrow width would be acceptable for use only in rare circumstances where the corridor width is constrained, and only for short distances. This circumstance would be treated as a design exception.

A raised buffer is the preferred method of providing vertical separation between the median cycle track and the vehicle travel lanes. The minimum width is 3 ft. The raised buffer would be located on each side of the cycle track. The median cycle track and clear area could be configured with the entire section as a raised facility (clear area and cycle track both raised at curb height above the vehicular travel lanes) or with just the clear are is raised (raised buffer would look like a narrow raised median between the travel lanes and the midway cycle track). The Technical Committee anticipates wider application of the second version, raised buffer only, due to cost considerations.

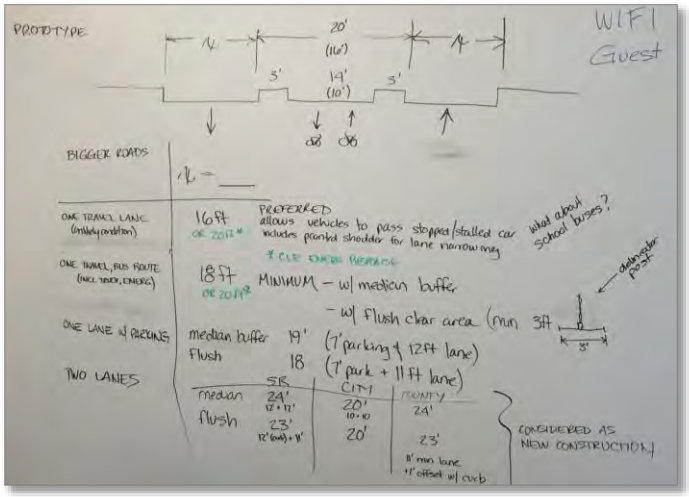



An overview of minimum width requirements is provided in the table below, with more detailed information for each corridor type in the following sub-sections. The Technical Committee prefers to base corridor width and configuration considerations and decisions based on the "with transit" dimensions to allow for greatest system flexibility and to limit potential negative impacts to RTA route alignments and operations.

| Midway Cycle Track Corridor Prototype | Corridor Width (curb-to-curb) | Parking Lane | Travel Lane(s) | Buffer | Cycle Track | Buffer | Travel Lane(s) | Parking Lane |
|---|---|---|---|---|---|---|---|---|
| **Two Travel Lanes** | | | | | | | | |
| Minimum | 48’ | - | 16’ | 3’ | 10’ | 3’ | 16’ | - |
| Preferred | 52’ | | | | 14’ | | | |
| **Two Travel Lanes with Transit** | | | | | | | | |
| Minimum | 52’ | - | 18’ | 3’ | 10’ | 3’ | 18’ | - |
| Preferred | 56’ | | | | 14’ | | | |
| **Two Travel Lanes with Parking (both sides)** | | | | | | | | |
| Minimum (flush) | 52’ | 7’ | 11’ | 3’ | 10’ | 3’ | 11’ | 7’ |
| Minimum (raised) | 54’ | | 12’ | | 10’ | | 12’ | |
| Preferred (flush) | 56’ | | 11’ | | 14’ | | 11’ | |
| Preferred (raised) | 58’ | | 12’ | | 14’ | | 12’ | |
| **Two Travel Lanes with Parking (one side)** | | | | | | | | |
| *(assumes transit corridor)* Minimum (flush) | 52’ | 7’ | 11’ | 3’ | 10’ | 3’ | 18’ | - |
| Minimum (raised) | 53’ | | 12’ | | 10’ | | 18’ | |
| Preferred (flush) | 56’ | | 11’ | | 14’ | | 18’ | |
| Preferred (raised) | 57’ | | 12’ | | 14’ | | 18’ | |
| **Four Travel Lanes (State/US/County)** | | | | | | | | |
| *Designated Truck Route* Minimum | 64’ | - | 24’ | 3 | 10’ | 3’ | 24’ | - |
| *Non-Truck Route* Minimum | 62’ | | 23’ | ’ | 10’ | | 23’ | |
| Preferred | 68’ | | 24’ | | 14’ | | 24’ | |
| **Four Travel Lanes (Local)** | | | | | | | | |
| Minimum | 56’ | - | 20’ | 3’ | 10’ | 3’ | 20’ | - |
| Preferred | 60’ | | | | 14’ | | | |

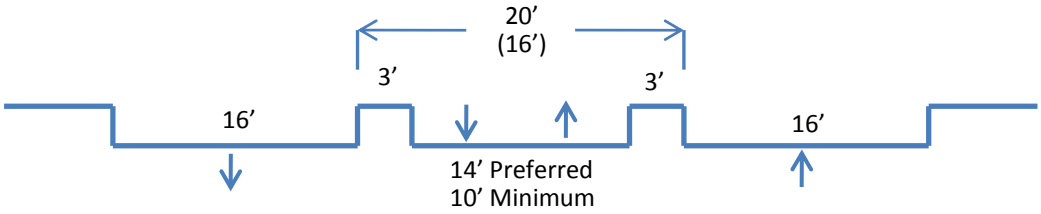
## 6.1 Midway Cycle Track with Two Travel Lanes

This configuration has the midway cycle track positioned in the middle of the roadway between two travel lanes, one in each direction. Due to emergency requirements (i.e., emergency vehicle passing traffic, traffic passing disabled vetches), a minimum travel lane width of 16 ft. is required for this configuration. This width is greater than a standard travel lane width of 10-13 ft. so turns out of driveways should be accommodated without issue. For purposes of defining width requirements for a midway cycle track, “corridor” refers to the face-of-curb to face-of-curb dimension needed to accommodate the identified roadway lanes, cycle track, buffers, etc.




***The total corridor width is 52 ft. (preferred) and 48 ft. (minimum)***, as illustrated below. The Technical Committee agreed that this configuration is relatively unlikely given the

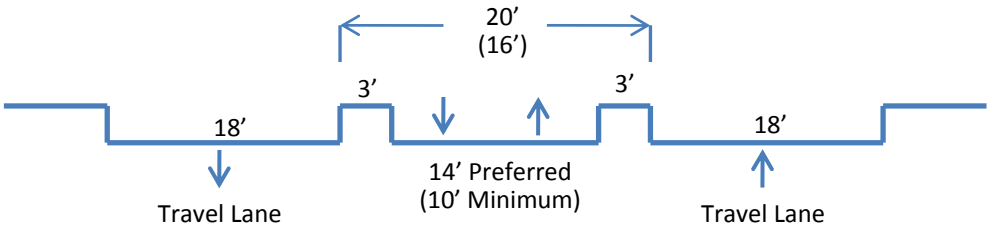
propensity of vehicles to squeeze two travel lanes into the 16 ft. lane width, resulting in questionable driver behavior.




**Midway Cycle Track with Two Travel Lanes**

## 6.2 Midway Cycle Track with Two Travel Lanes and Transit

This configuration has the midway cycle track positioned in the middle of the roadway between two travel lanes, one in each direction. To accommodate transit vehicles, a minimum travel lane width of 18 ft. is required for this configuration. (Note: Buses are 10 ft. wide, mirror to mirror.) This width would also accommodate emergency vehicles and truck traffic. The additional 2 ft. of lane width would allow motorized vehicles to pass buses that have pulled to the curb at bus stops. ***The total corridor width for this configuration is 56 ft. (preferred) and 52 ft. (minimum), as illustrated below.***

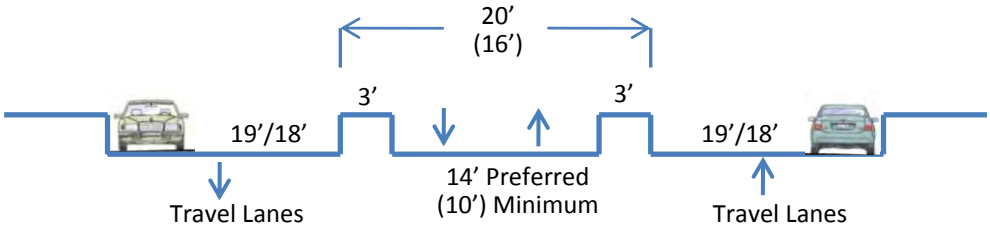



**Midway Cycle Track with Two Travel Lanes and Transit**

## 6.3 Midway Cycle Track with Two Travel Lanes and Parking

This configuration has the midway cycle track positioned in the middle of the roadway between two travel lanes, one in each direction, with on-street parking. This configuration would require a 19 ft. lane width on each side of the cycle track, with a 12 ft. travel lane and a 7 ft. parking lane adjacent to the cycle track's raised median buffer. Should a flush median be used instead of a raised median, the lane width could be reduced to 18ft, with an 11 ft. travel lane and a 7 ft. parking lane.

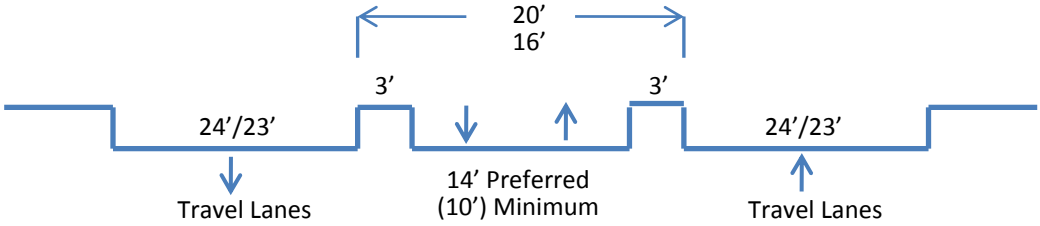
***The preferred corridor width is 58 ft. (raised median buffer) or 56 ft. (flush median buffer), with comparable minimum widths of 54 ft. and 52 ft., as illustrated below***. If parking is only on one side of the road, the overall dimension would be reduced by 7 ft. for a flush median and by 6 ft. for a raised median.




**Midway Cycle Track with Two Travel Lanes and Parking**

## 6.4 Midway Cycle Track with Four Travel Lanes

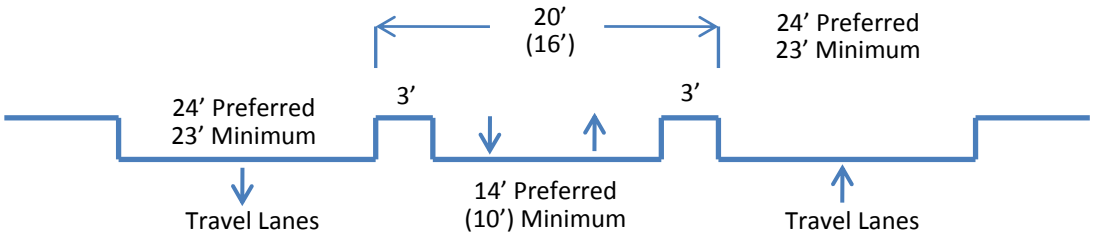
This configuration has the midway cycle track positioned in the middle of the roadway between four travel lanes, two in each direction. The width requirements vary depending on whether the roadway is a City road, County road, or a State or US Route. Given the design distinctions between repair and new construction, reconstruction of a corridor to provide a midway cycle track would be considered new construction.




**Midway Cycle Track with Four Travel Lanes**

**State or US Route**

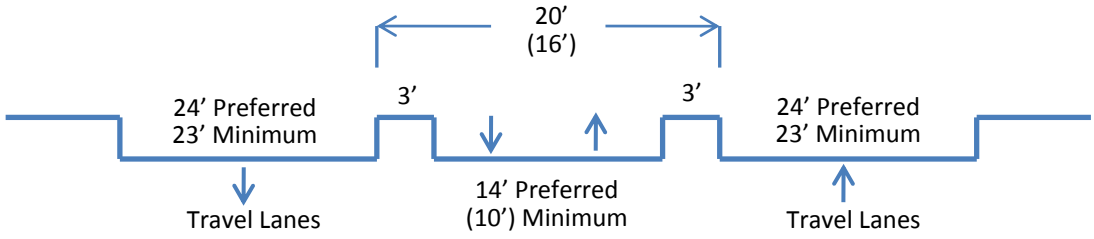
The preferred width on a State road is 12 ft., or 24 ft. for two travel lanes. The minimum width is 23 ft. (11-ft lane plus 1 ft. curb + 11 ft. lane). For a State or US road that is designated as a truck route, the minimum outside lane width is 13 ft. (12 ft. lane plus 1 ft. curb) revising the minimum width to 24 ft. ***The total corridor width needed on a State or US Route to implement the preferred 14 ft. cycle track is 68 ft.; the minimum width is 62 ft. (64 ft. for a designated truck route).***




**State Route**

**County Road**

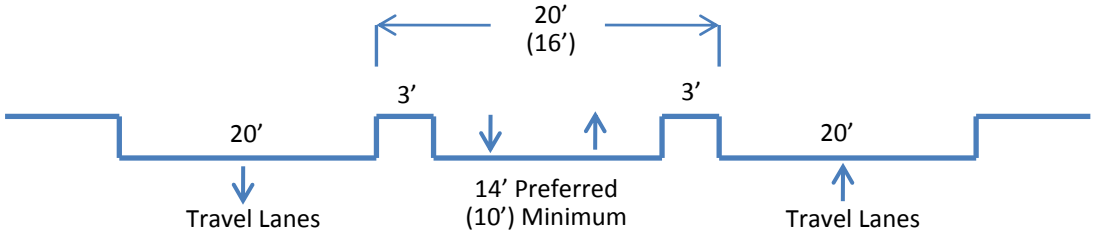
The preferred width on a County road is 12 ft., or 24 ft. for two travel lanes. The minimum width is 23 ft. (11-ft lane plus a 1 ft. curb + 11 ft. lane). ***The total corridor width needed on a County road to implement the preferred 14 ft. cycle track is 68 ft.; the minimum width is 62 ft.***




**County Route**

**Local Road**

The lane width on a local (city) road is 10 ft., or 20 ft. for two travel lanes. ***The total corridor width needed on a Local roadway to implement the preferred 14-ft cycle track is 60 ft.; the minimum width is 56 ft.***

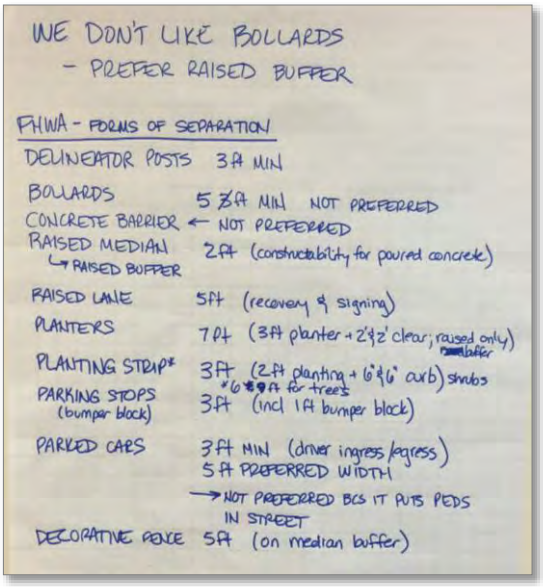



**Local (City) Road**

## 6.5 Buffers

Several buffer types were reviewed and assessed for their applicability for use with a median cycle track. The Technical Committee would prefer to avoid or minimize the use of barriers and bollards. Cyclists tend to shy away from barriers, effectively reducing the available width of the cycle track. It would be acceptable to use barriers on wide midway cycle tracks or for other extenuating reasons. The Technical Committee would prefer to avoid the use of bollards for aesthetic reasons.

- Delineator Posts: 3-ft minimum width
- Bollards: 5-ft minimum (Not Preferred)
- Concrete Barrier: (Not Preferred)
- Raised Lane: 5-ft minimum width (recovery and signage)
- Planters: 7-ft minimum width (3-ft planter + 2-ft & 2-ft clear, raised only buffer)
- Planting Strips: 3-ft minimum width (2-ft planting + 6-inch & 6-inch curb); shrubs and other low-growth weather and road salt tolerant plantings
- Parking Stops (bumper block): 3-ft minimum width (include 1-ft bumper block)
- Parked Cars: 3-ft minimum width (driver ingress/egress), 5-ft minimum width (Not Preferred, puts pedestrians in the street)
- Decorative Fencing: 5-ft minimum width (on median buffer)



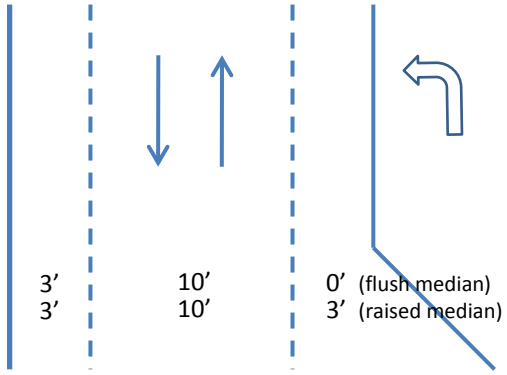
# 7. Recommended Design Prototype - Intersection

The Technical Committee considered a variety of intersection configurations for a midway cycle track, including: With and without a left turn pocket, and with and without the allowance of U-turns. It is safer and operationally more efficient to provide left turn bays to accommodate left turning vehicles, however, that will add to the required overall minimum width of the corridor. The Technical Committee agreed that permitting left turns at intersections without left turn pockets would be permitted on a case-by-case basis, depending on roadway capacity and anticipated operational impacts.

## 7.1 Left Turns & U-Turns

**Left Turn Pocket, No U-Turns**

A left turn pocket is an exclusive left turn lane that is developed as an additional lane to the left of the adjacent through lane, also called a left turn bay. For intersections with left turn pockets and where U-turns are not permitted, the cycle track width narrows to a minimum width of 13 ft. since a buffer is not needed adjacent to the left turn pocket.




The width of the left turn lane (pocket) would be 10 ft. for a flush cycle track (no raised buffer/curb) and 11 ft. for a cycle track with raised buffer (curbed).

The preferred cycle track width is 16 ft. (10 ft. minimum width cycle track with two 3 ft. buffers). If a cycle track width of 10 ft. is provided at an intersection, the remainder of the corridor will be able to accommodate the corridor cycle track preferred width of 14 ft. (as identified above) will fit within the extra 10 ft. of space from the left turn pocket. A cycle track width of 8 ft. adjacent to a left turn pocket could be considered in a constrained corridor. This situation would be considered as a design exception.

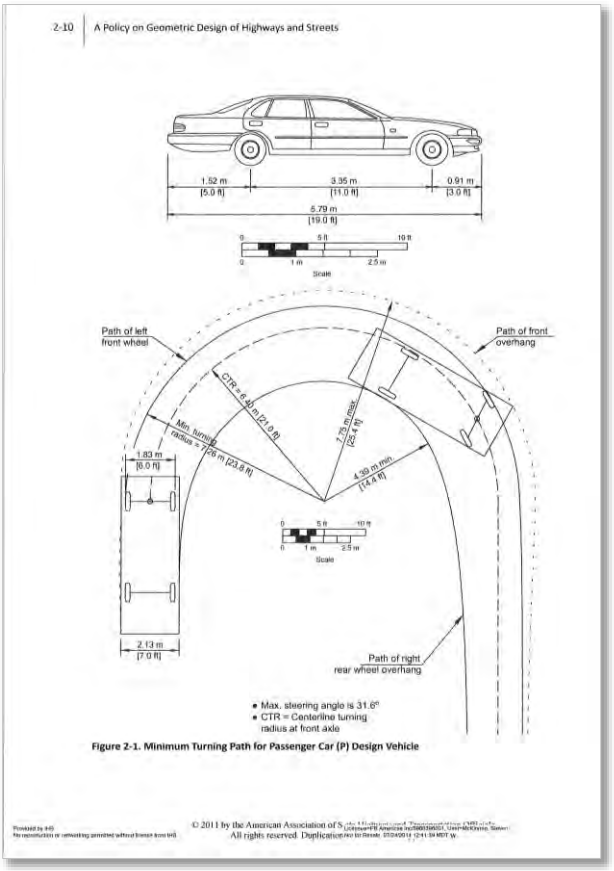
Widths for a midway cycle track with a left turn pocket and U-turns prohibited are as shown below. The opposing left turns are assumed to take up the same space within the corridor, with the cycle track shifting alignment through the intersection. Additionally, space for the left turn pocket is taken from the travel lane, retaining a minimum 12’ travel lane at the intersection. Note that the travel lane can be reduced to 10 ft. on city roads that are not US, state, or county routes.

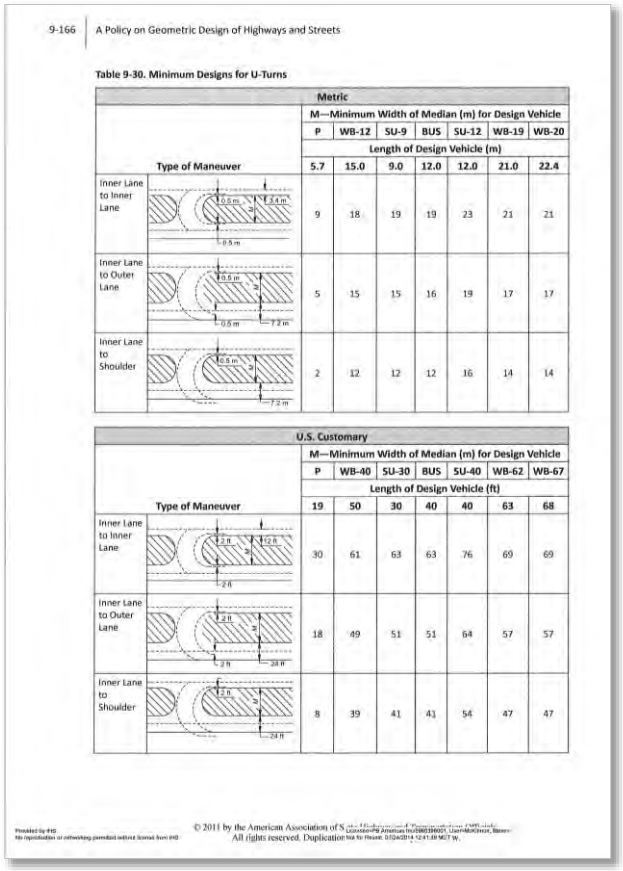
| Midway Cycle Track Intersection Prototype WITH LEFT TURN POCKET | Corridor Width (curb-to-curb) | Travel & Parking Lanes | Left Turn Lane | Buffer | Cycle Track | Buffer | (Left Turn Lane) | Travel & Parking Lanes |
|---|---|---|---|---|---|---|---|---|
| **Two Travel Lanes** | | | | | | | | |
| Flush (City) | 43′ | 10′ | 10′ | 3′ | 10′ | 0′ | - | 10′ |
| Flush (State/County) | 47′ | 12′ | | | | 0′ | | 12′ |
| Raised (City) | 46′ | 10′ | | | | 3′ | | 10′ |
| Raised (State/County) | 50′ | 12′ | | | | 3′ | | 12′ |
| **Two Travel Lanes with Transit** | | | | | | | | |
| Flush (City) | 43′ | 10′ | 10′ | 3′ | 10′ | 0′ | - | 10′ |
| Flush (State/County) | 47′ | 12′ | | | | 0′ | | 12′ |
| Raised (City) | 46′ | 10′ | | | | 3′ | | 10′ |
| Raised (State/County) | 50′ | 12′ | | | | 3′ | | 12′ |
| **Two Travel Lanes & Parking (2 sides) (MINIMUM)** | | | | | | | | |
| Flush (City) | 55′ | 17′ | 10′ | 3′ | 8′ | 0′ | - | 17′ |
| Flush (State/County) | 59′ | 19′ | | | | 0′ | | 19′ |
| Raised (City) | 58′ | 17′ | | | | 3′ | | 17′ |
| Raised (State/County) | 62′ | 19′ | | | | 3′ | | 19′ |
| **Two Travel Lanes & Parking (2 sides) (PREFERRED)** | | | | | | | | |
| Flush (City) | 57′ | 17′ | 10′ | 3′ | 10′ | 0′ | - | 17′ |
| Flush (State/County) | 61′ | 19′ | | | | 0′ | | 19′ |
| Raised (City) | 60′ | 17′ | | | | 3′ | | 17′ |
| Raised (State/County) | 64′ | 19′ | | | | 3′ | | 19′ |
| **Two Travel Lanes & Parking (1 side) (MINIMUM)** *(with transit)* | | | | | | | | |
| Flush (City) | 56′ | 17′ | 10′ | 3′ | 8′ | 0′ | - | 18′ |
| Flush (State/County) | 58′ | 19′ | | | | 0′ | | 18′ |
| Raised (City) | 59′ | 17′ | | | | 3′ | | 18′ |
| Raised (State/County) | 61′ | 19′ | | | | 3′ | | 18′ |
| **Two Travel Lanes & Parking (1 side) (PREFERRED)** | | | | | | | | |
| Flush (City) | 58′ | 17′ | 10′ | 3′ | 10′ | 0′ | - | 18′ |
| Flush (State/County) | 60′ | 19′ | | | | 0′ | | 18′ |
| Raised (City) | 61′ | 17′ | | | | 3′ | | 18′ |
| Raised (State/County) | 63′ | 19′ | | | | 3′ | | 18′ |
| **Four Travel Lanes (MINIMUM)** | | | | | | | | |
| Flush (City) | 61′ | 20′ | 10′ | 3′ | 8′ | 0′ | - | 20′ |
| Flush (State/County) | 67′ | 23′ | | | | 0′ | | 23′ |
| Flush (Truck Route) | 69′ | 24′ | | | | 0′ | | 24′ |
| Raised (City) | 64′ | 20′ | | | | 3′ | | 20′ |
| Raised (State/County) | 70′ | 23′ | | | | 3′ | | 23′ |
| **Four Travel Lanes (PREFERRED)** | | | | | | | | |
| Flush (City) | 63′ | 20′ | 10′ | 3′ | 10′ | 0′ | - | 20′ |
| Flush (State/County) | 71′ | 24′ | | | | 0′ | | 24′ |
| Raised (City) | 66′ | 20′ | | | | 3′ | | 20′ |
| Raised (State/County) | 74′ | 24′ | | | | 3′ | | 24′ |

**Left Turn Pocket, U-Turns Permitted**

Given that some cross streets may be blocked by a midway cycle track (i.e., at former unsignalized intersections) and to allow for improved access for motorized vehicles, the Technical Committee prefers to permit U-turns at intersections where left turn bays are provided. Based upon AASHTO design standards, passenger vehicles require an inside diameter of 18 ft. to execute a U-turn. Trucks require a much larger diameter (49-64 ft., depending on the type of truck), so trucks likely would not be permitted to make U-turns. The outside diameter is 32 ft. for passenger vehicles and 65-80 ft. for trucks; this reflects the inside diameter plus the prescribed width of the design vehicle. Refer to the AASHTO Green Book figures and tables below for additional information.

Based on the midway cycle track dimensions in the table above, all corridor configurations meet the minimum dimensions required to accommodate U-turns by passenger vehicles. If a design exception is permitted for a midway cycle track corridor, the dimensions should be verified if U-turns are permitted.



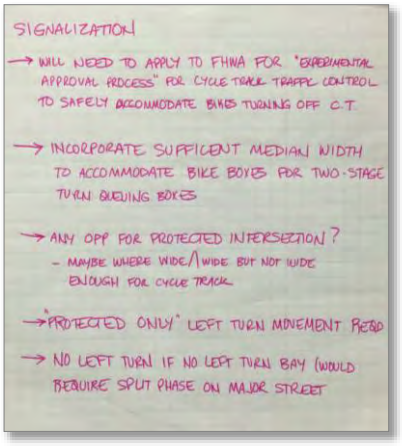



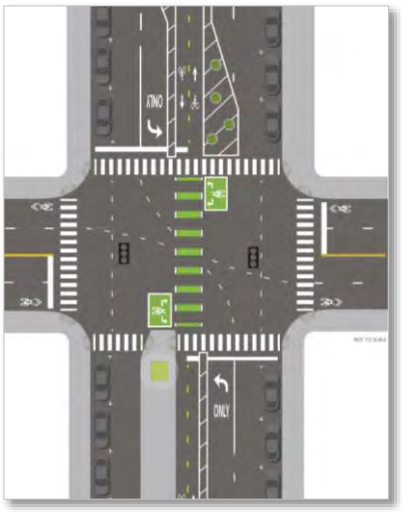

## 7.2 Intersection Operations & Signalization

**Signalized Intersections**

The Technical Committee agreed that cross street intersections along a midway cycle track corridor will be signalized to provide safe traffic operations. A relevant example is the Healthline Bus Rapid Transit (BRT) corridor along Euclid Avenue. From a Traffic control standpoint, the Healthline (as designed) is an excellent prototype for a midway cycle track. As such, signal phasing for a midway cycle track will be comparable to Healthline operations: Bicycle movements will be controlled with separate bicycle signals

with their own operational phase(s), as Healthline buses are controlled with their own signal heads and phases. Note that Protected Only left turn phasing will be required for motorized vehicle operations. U-turns for passenger vehicles may be permitted for select intersections with left turn pockets. This may require legislation as special provisions to law were made to allow U-turns along Euclid to improve efficiency. For midway intersections without left turn pockets, split phasing would be needed to accommodate left turn movements. Split phasing generally provides inefficient intersection operations so it may be appropriate to prohibit left turns rather than implement split phasing.




**Two-Stage Turn Box**
*Source: FHWA Separated Bike Lane Planning and Design Guide*

The midway cycle track design prevents bicyclists from merging into traffic to turn, as such, two-stage queue boxes should be provided at signalized intersections to orient bicyclists properly for safe crossings when the bicyclists want to turn to the right or left to leave the cycle track. Multiple positions are available for queuing boxes, depending on intersection configuration. The median must be of sufficient width to accommodate bike boxes for two-stage turn queuing. Bike boxes at intersections should be no less than 8-ft in length to accommodate larger bicycle configurations such as bicyclists pulling child carriers, recumbent and/or tandem bicycles. Additionally, pedestrian push buttons could be use to provide cyclists with the opportunity to "call" their signal phase, which could enhance operational efficiency.

Where possible, implementation of protected intersection operations should be considered for corridors that could accommodate separated bicycle facilities but are not wide enough for a midway cycle track.

*Note: Since intersection operations for a midway cycle track are not addressed in existing literature and design guidance, the City will need to apply to the Federal Highway Administration's (FHWA) experimental approval process for permission to implement the proposed traffic operations for a midway cycle track to safely accommodate traffic traveling through and across intersections along a midway cycle track corridor.*

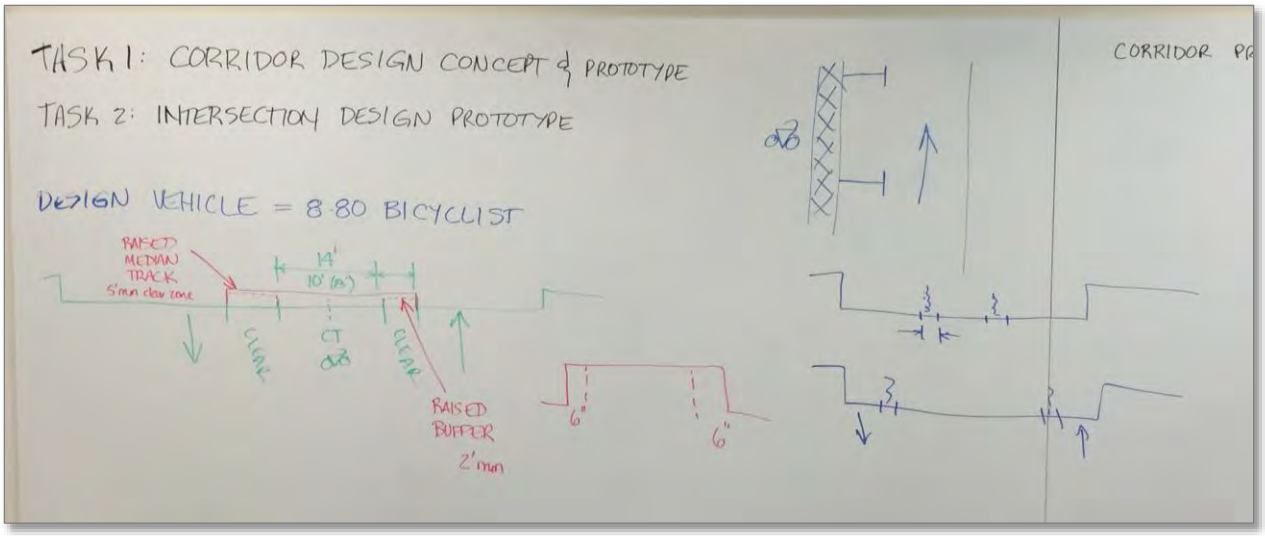
**Unsignalized Intersections**

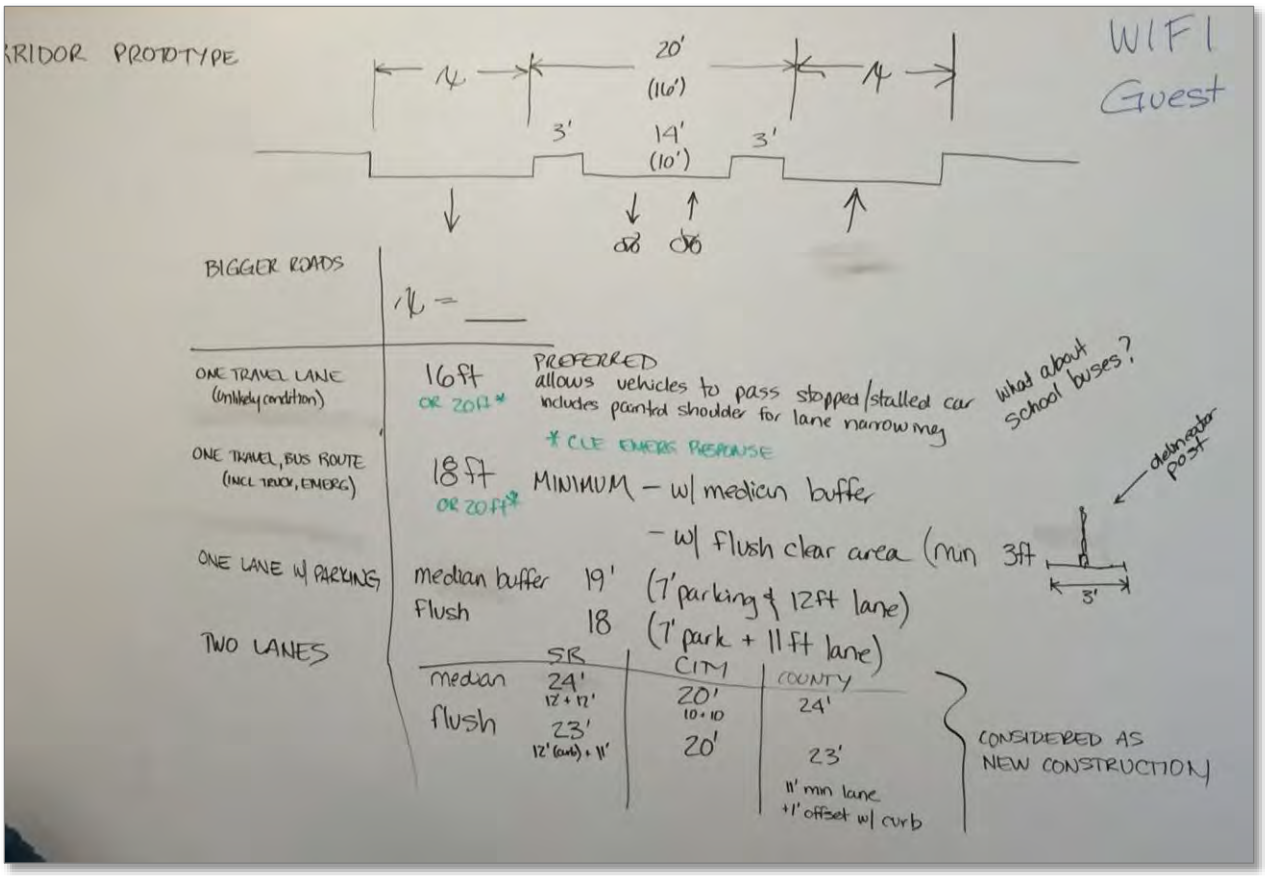
In general, unsignalized intersections that are not converted to signalized intersections would become effective T-intersections where the cross street meets a midway cycle track corridor, with the midway cycle track functioning as an uninterrupted median. However, treatment of unsignalized intersections could be addressed on a case-by-case basis for the potential use of stop control, considering intersection traffic volume, roadway geometrics, and appropriate operational details. It may be feasible to create an effective 4-way stop intersection for the cycle track and the cross street. A relevant example is the multi-use trail crossing at Big Creek.

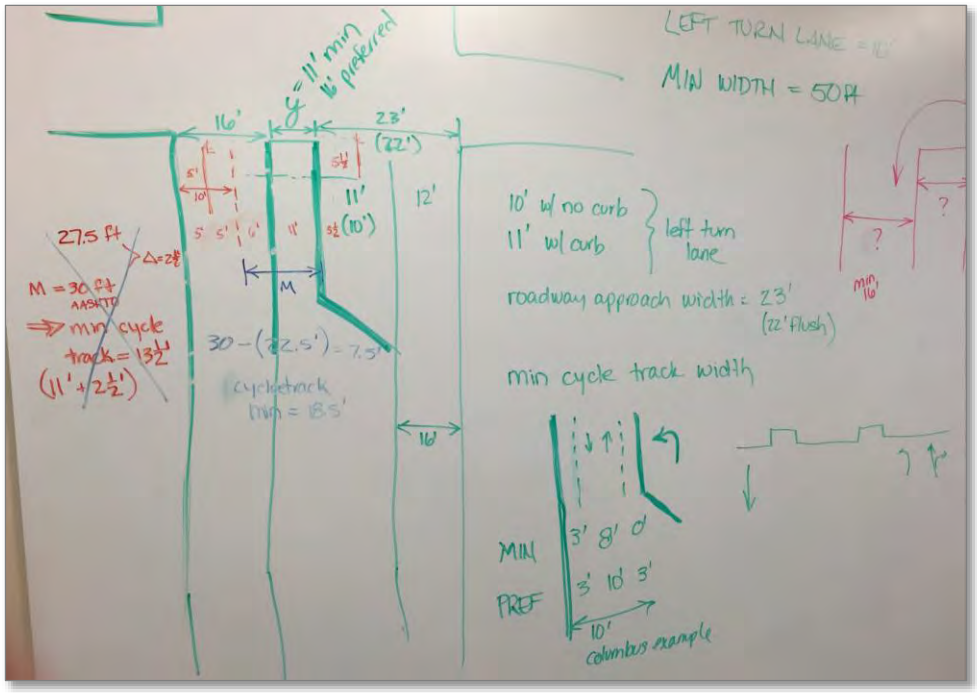
# Appendix: Working Drawings, Boards and Handouts

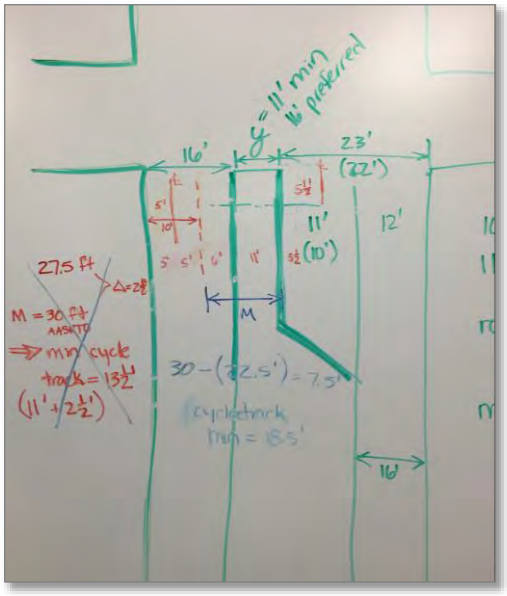
1. **Images of Working Drawings and Boards**
2. **Development of Design Concept and Prototypes**
3. **NACTO Two-Way Cycle Track Design Guidance**

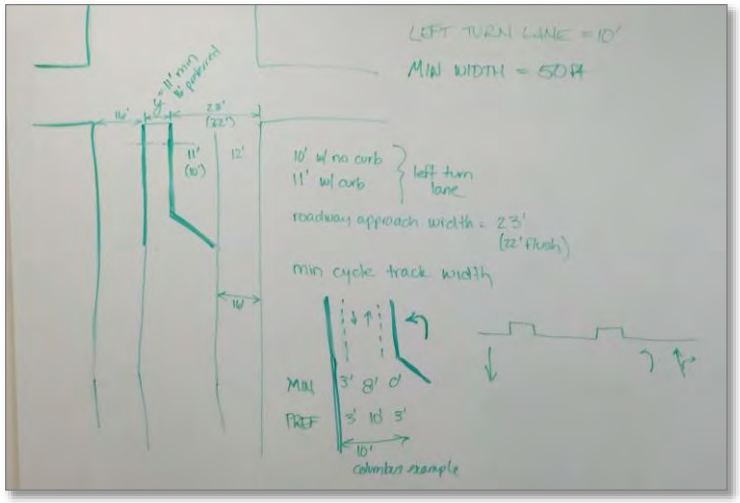
**1. Images of Working Drawings and Boards**

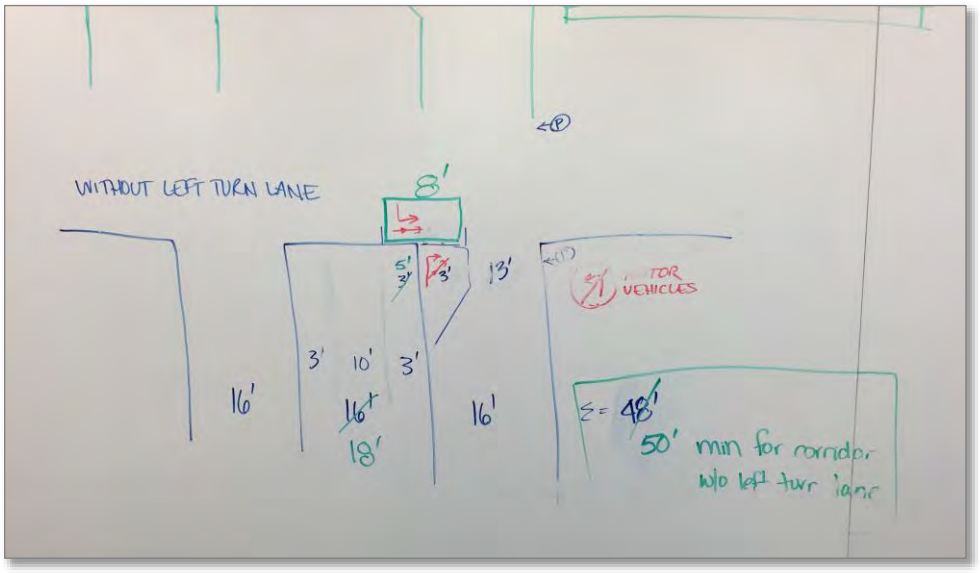


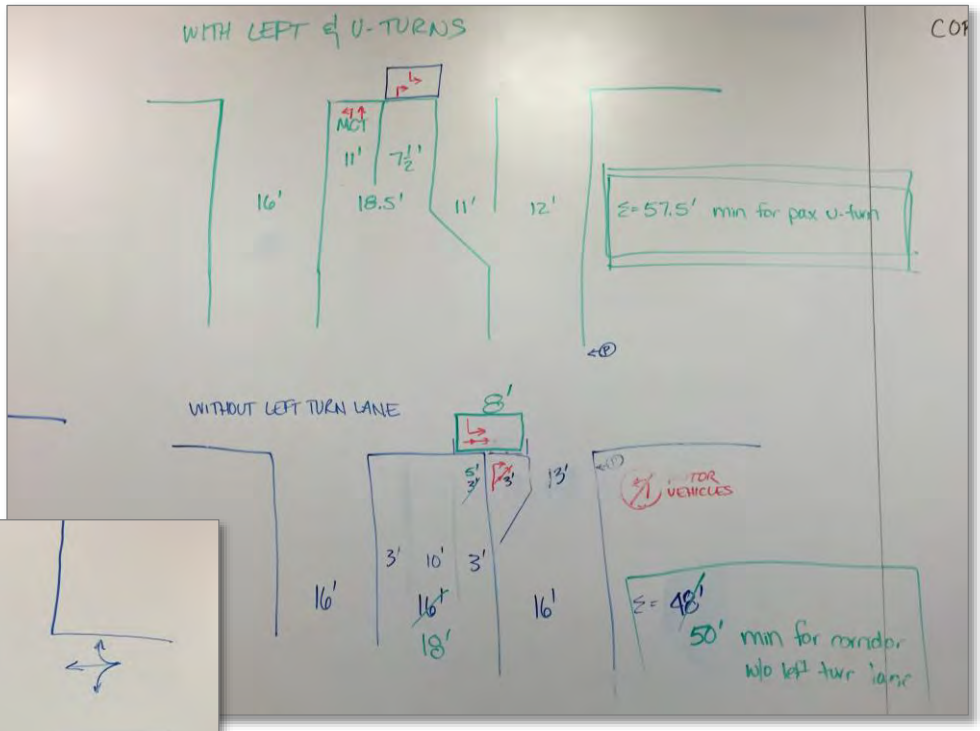



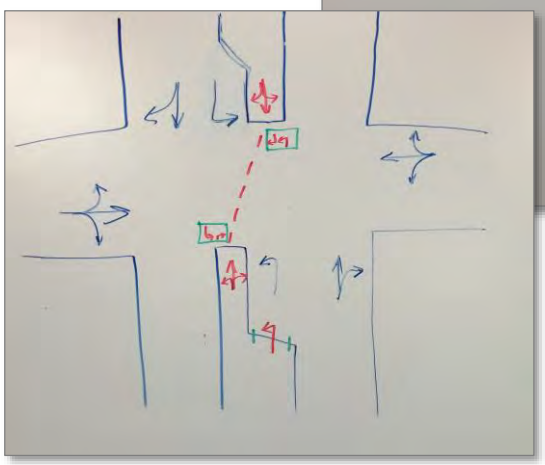

LEFT TURN LANE = 10'
MIN WIDTH = 50 ft
y = 11' min 12' preferred
16'
23' (22')
11' (10')
12'
27.5 ft
Δ = 28°
M = 30 ft AASHTO
⇒ min cycle track = 13½' (11' + 2½')
30 − (27.5') = 7.5'
cycletrack min = 18.5'
16'
10' w/ no curb
11' w/ curb
left turn lane
roadway approach width = 23' (22' flush)
min 16'
min cycle track width
MIN 3' 8' 0'
PREF 3' 10' 3'
10'
columbus example


y = 11' min 12' preferred
16'
23' (22')
11' (10')
12'
27.5 ft
Δ = 28°
M = 30 ft AASHTO
⇒ min cycle track = 13½' (11' + 2½')
30 − (27.5') = 7.5'
cycletrack min = 18.5'
16'


LEFT TURN LANE = 10'
MIN WIDTH = 50 ft
y = 11' min 12' preferred
16'
23' (22')
11' (10')
12'
10' w/ no curb
11' w/ curb
left turn lane
roadway approach width = 23' (22' flush)
min cycle track width
16'
MIN 3' 8' 0'
PREF 3' 10' 3'
10'
columbus example


WITHOUT LEFT TURN LANE
8'
5'
3'
3'
13'
3'
10'
3'
16'
16'
18'
16'
≥ 48'
50' min for corridor
w/o left turn lane


WITH LEFT & U-TURNS
NOT
11'
7½'
16'
18.5'
11'
12'
≥ 57.5' min for pax u-turn
WITHOUT LEFT TURN LANE
8'
5'
3'
3'
13'
3'
10'
3'
16'
16'
18'
16'
≥ 48'
50' min for corridor
w/o left turn lane



## CONSIDERATIONS

ACCESS MGT
ACCESSIBILITY
CROSS STREETS
- SIGNALIZED
- UNSIGNALIZED
CYCLE TRACK
- AT GRADE / RAISED
DESIGN STDS
LAND USE
LIGHTING
ENTER/EXIT CYCLE TRACK
LOADING ZONES
MAINTENANCE
NIGHTTIME OPS
PARKING
PAVEMENT SURFACE
PEDS & OTHER STREET USERS

RAISED ELEMENTS (i.e. ISLANDS)
RAMPS (POTENTIAL USE)
ROADWAY CAPACITY
ROADWAY DRAINAGE
ROADWAY GRADES & CROSS SLOPE
STORMWATER MANAGEMENT
TRAFFIC COMPOSITION
- TRANSIT
- TRUCKS
- EMERGENCY
TRAFFIC VOLUME
TRANSIT OPS & BUS STOPS
TRANSITIONS (@ ENDS)
USER EXPECTATIONS
- DRIVER & CYCLIST
CYCLIST SPEED
ROADWAY SPEED LIMIT
CONSIDER MANHOLES & TRY TO AVOID W/ MCT ALIGNMENT

## INTERSECTION PROTOTYPE

- TRAFFIC SIGNAL PHASING
  - → MOTORIZED VEHICLES
  - → BICYCLES
  - → PEDESTRIANS
- LEFT TURNS
  - → TREATMENTS
  - → PHASING
- ADVANCED WARNING
- DETECTION

UNSIGNALIZED - CONSIDER STOP CONTROL INSTEAD OF CLOSING X-STREET ACCESS
- NEED TO DEVELOP OPERATIONAL DETAILS
- CASE-BY-CASE
- EFFECTIVELY 4-WAY STOP FOR CT & X-STREET (BIG CREEK)

## CORRIDOR PROTOTYPE ELEMENTS

- CYCLE TRACK WIDTH
- CLEAR ZONE
- TRAVEL LANE WIDTH
- LEFT TURN TREATMENT
- ENTERING / EXITING CYCLE TRACK
- PAVEMENT MARKINGS
- SIGNING
- WAYFINDING

~~MID-BLOCK~~ / UNSIGNALIZED / T-INT.
PED XING & BIKE ACCESS

LEGAL X-WALK
- MEDIAN BREAK
- COULD MARK OR UNMARKED

## CORRIDOR DESIGN CONCEPT PROTOTYPE

- ROADWAY CROSS SECTION
- PREFERRED DIMENSIONS
- MINIMUM DIMENSIONS
  - → WITHOUT LEFT TURN POCKET
  - → WITH LEFT TURN POCKET
  - → WITHOUT TRANSIT
  - → WITH TRANSIT
  - → WITH LEFT TURN & WITH TRANSIT

LEFT TURNS - CONSIDER ALIGNMENT ACROSS THE INTERSECTION

UNSIGNALIZED INTERSECTION
- → ADDRESS HOW TO TREAT PED XING
  - SUGGEST X-WALK ON CYCLE TRACK

## WE DON'T LIKE BOLLARDS
- PREFER RAISED BUFFER

FHWA - FORMS OF SEPARATION

| | |
|---|---|
| DELINEATOR POSTS | 3 ft MIN |
| BOLLARDS | 5 3 ft MIN NOT PREFERRED |
| CONCRETE BARRIER | ← NOT PREFERRED |
| RAISED MEDIAN ↳ RAISED BUFFER | 2 ft (constructability for poured concrete) |
| RAISED CURB | 5 ft (recovery & signing) |
| PLANTERS | 7 ft (3 ft planter + 2'-2' clear; raised only) |
| PLANTING STRIP* | 3 ft (2 ft planting + 6"/6" curb) *6 ft for trees |
| PARKING STOPS (bumper block) | 3 ft (incl 1 ft bumper block) |
| PARKED CARS | 3 ft MIN (driver ingress/egress) 5 ft PREFERRED WIDTH → NOT PREFERRED BCS IT PUTS PEDS IN STREET |
| DECORATIVE FENCE | 5 ft (on median buffer) |

## SIGNALIZATION

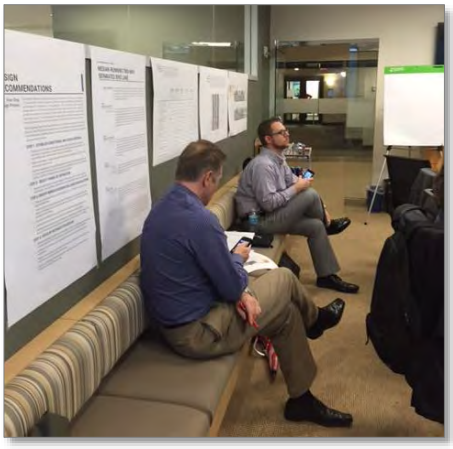
→ WILL NEED TO APPLY TO FHWA FOR "EXPERIMENTAL APPROVAL PROCESS" FOR CYCLE TRACK TRAFFIC CONTROL TO SAFELY ACCOMMODATE BIKES TURNING OFF C.T.

→ INCORPORATE SUFFICENT MEDIAN WIDTH TO ACCOMMODATE BIKE BOXES FOR TWO-STAGE TURN QUEUING BOXES

→ ANY OPP FOR PROTECTED INTERSECTION?
- MAYBE WHERE WIDE/WIDE BUT NOT WIDE ENOUGH FOR CYCLE TRACK

→ "PROTECTED ONLY" LEFT TURN MOVEMENT REQD

→ NO LEFT TURN IF NO LEFT TURN BAY (WOULD REQUIRE SPLIT PHASE ON MAJOR STREET



## 2. Development of Design Concept and Prototypes

*Midway Technical Workshop*
*Development of Design Concept and Prototype*

### Task 1: Develop Corridor Design Concept Prototype

- Roadway cross section
- Preferred and minimum dimensions
- With and without left turn pocket
- With and without transit
- Consideration of heavy vehicles with respect to corridor considerations and feasibility

**Design Prototype Elements**

- ◇ Cycle track width and clear zone
- ◇ Travel lane width(s)
- ◇ Left turn treatments (with/without left turn pocket)
- ◇ Loading and unloading (entering/exiting the cycle track)
- ◇ Pavement markings
- ◇ Signing
- ◇ Wayfinding

### Task 2: Develop Intersection Design Prototype

- Signal phasing to safely and efficiently accommodate motorized vehicles and bicyclists
- With and without left turn pocket
- With and without transit/transit stop(s)

*Note: Median cycle tracks will only permit signalized intersection operations. As such, the cycle track will function as a median at unsignalized intersections, restricting cross street access to right in/right out. This design decision is based on operational safety at intersections.*

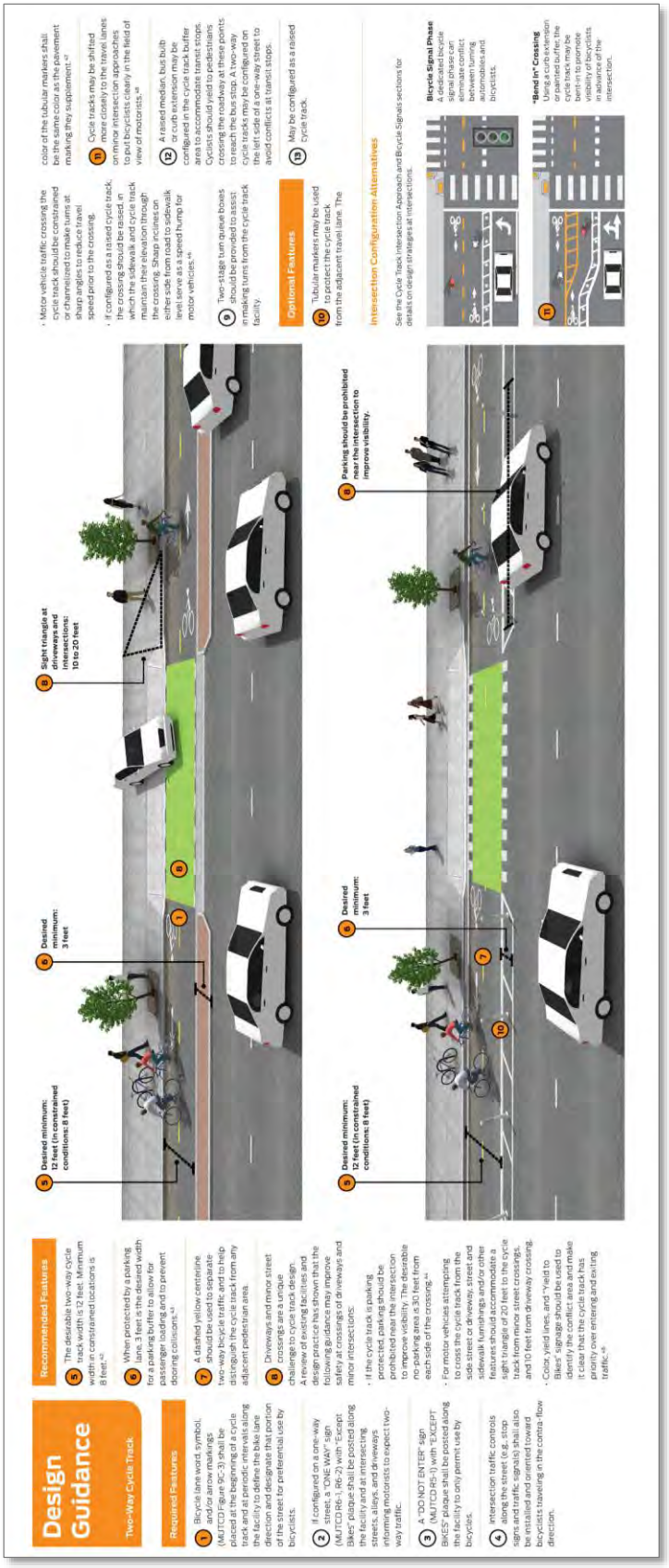
**Intersection Prototype Elements**

- ◇ Traffic signal phasing (motorized vehicles, bicycles, pedestrians)
- ◇ Left turn accommodation and treatments
- ◇ Advance warning (as appropriate)
- ◇ Detection (motorized vehicles, bicycles, pedestrians)

### Considerations

- Access management
- Accessibility
- Cross streets
  - Signalized intersection treatments
  - Unsignalized intersection treatments
- Cycle track at-grade or raised
- Design standards (pavement markings, signing, signals)
- Land use
- Lighting
- Loading and unloading the cycle track
- Loading zones
- Maintenance
- Nighttime operations
- Parking (on-street)
- Pavement surface
- Pedestrians and other street users
- Raised elements and potential uses (i.e., islands)
- Ramps, potential use
- Roadway capacity impacts
- Roadway drainage
- Roadway grades and cross slope
- Stormwater management
- Traffic composition
  - Transit
  - Trucks
  - Emergency vehicles
- Traffic volume
- Transit (operations and bus stops)
- Transitions (at beginning and end of cycle track)
- User expectations
  - Drivers
  - Cyclists

## 3. NACTO Two-Way Cycle Track Design Guidance



## 10.2 Appendix B: Concept Development Workshop Summary

# Midway Cycle Track Concept Development Workshop

April 13 & 14, 2016

## 1. Attendance

| Name | Organization | Name | Organization |
|---|---|---|---|
| Freddy Collier | Cleveland, Planning | Jenita McGowan | Cleveland, Sustainability |
| Sharonda Whatley | Cleveland, Planning | Jacob Van Sickle | Bike Cleveland |
| Donn Angus | Cleveland, Planning | Barb Clint | YMCA |
| Marty Cader | Cleveland, Planning | Melissa Thompson | NOACA |
| Marka Fields | Cleveland, Planning | Nancy Lyon-Stadler | Parsons Brinckerhoff |
| Arthur Schmidt | Cleveland, Planning | Scarlett Sharpe | Parsons Brinckerhoff |
| Rob Mavec | Cleveland, Traffic | Oliver Kiley | SmithGroupJJR |
| Andy Cross | Cleveland, Traffic | Neal Billetdeaux | SmithGroupJJR |

## 2. Workshop Purpose

The *Midway Cycle Track and Separated Bicycle Facilities Plan* Concept Development Workshop was conducted to rank the potential corridors identified at the initial Project Team and Steering Committee meetings. The identified corridors were assessed by group discussion to determine their feasibility and appropriateness for a Midway Cycle Track based on the parameters identified in the Midway Cycle Track Technical Workshop. The workshop was held on April 13, 2016 from 12 p.m. – 5 p.m. and April 14, 2016, from 9 a.m. – 2 p.m. in the WSP|Parsons Brinckerhoff Conference Room located at 1660 W. 2nd Street, Suite 820, Cleveland, Ohio 44113. These minutes summarize the workshop discussions, recommendations and outcomes.

## 3. Summary Recommendations

A total of 62 roadway corridors were initially identified for further consideration. The initial corridors were chosen based on location, connectivity to area destinations and other bicycle facilities, existing and planned. At the end of the Concept Development Workshop day one, 21 corridors had been placed in the top tier ranking, 20 corridors were ranked in the second tier and 21 corridors were ranked in the bottom tier.

Tier 1 corridors are those that meet all the Midway Cycle Track parameters as established at the Midway Technical Workshop held on March 10, 2016. They have pavement widths of 52-feet or more, and have traffic volumes of 15,000 vehicles per day or less. These corridors could easily be converted to include a cycle track either in the middle of the roadway or on one side.

Tier 2 corridors are those that do not meet the Tier 1 criteria; however, they have potential to provide a north/south or east/west connectivity to a other facilities. These corridors would provide some 'other' type of bicycle facility such as separated bicycle lanes, sharrows, or simply share the road signage. They would most likely require reconstruction of the roadway pavement curb to curb section to retrofit a bicycle facility.

Tier 3 corridors are those that do not meet the Tier 1 criteria and would not be suitable for a retrofit associated with the Tier 2 corridors. These corridors are no longer under consideration.

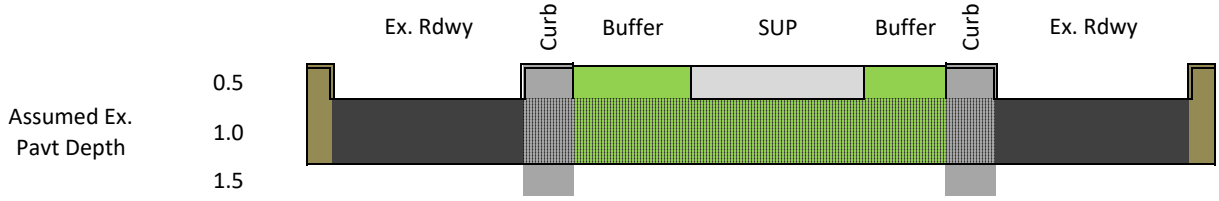
At the end of the Concept Development Workshop day two, a total of 16 corridors were ranked in Tier 1, 11 corridors were ranked in Tier 2 and 44 corridors were placed in Tier 3. The total number of corridors at the end of day two was 71. This number is larger than the initial corridor count as several of the original corridors were broken down into smaller segments.

It is a priority of the project team to identify equitable corridors throughout the City of Cleveland. Should a roadway not meet the Tier 1 parameters of a Midway Cycle Track, other bicycle treatments will be considered for these areas.

## 10.3 Appendix C: Cost Estimate

**Midway Cycle Track Pilot Corridor**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total Cycle Track Widths | Minimum | 16.0' | | | | | |
| | Preferred | **20.0'** | | | | | |
| Width Break Down | Minimum | 0.5' | 2.5' | 10.0' | 2.5' | 0.5' | |
| | Preferred | **0.5'** | **2.5'** | **14.0'** | **2.5'** | **0.5'** | |




| | | |
|---|---|---|
| | - Proposed Curb | 3 ft high |
| | - Seeding and Mulching / Embankment | |
| | - Shared Use Path / Aggregate Base | 3 in thick |
| | - Existing Pavement | |
| | - Existing Curb | |
| | - Pavement Removed | |

*estimate based upon preferred widths
**Using minimum widths will reduce Cycle track costs but increase resurfacing costs

| Length | | | |
|---|---|---|---|
| 1 | Mile | 5280 | FT |

## Not included

Drainage
Utilities
Lighting
Stormwater management infrastructure
Right-of-way acquisition
Permitting

## Project Data

Roadway length: East Roadway to E. 55th Street
13,070 ft *

Roadway Width:
80 ft

Cycle track is 20 ft (preferred width)

Non-Cycle Track Roadway Width:
60 ft = 5 lanes

5th lane provides space for left turns at intersections; will be striped buffer or parking lane between intersections

Roadway Paving Area:
823,410 SF incl. +5% for side streets
91,490 SY
12.4 Lane Miles

* neglect differences in intersections

**Midway Cycle Track Pilot Corridor, with Signal Reconstruction**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

| *Preferred Cycle Track Width= 20'* | | *Unit* | *Quantity* | *Cost* | *Total* | *Comments* |
|---|---|---|---|---|---|---|
| Item 202 | Pavement Removed | SY | 29,045 | $ 9.50 | $ 275,927.50 | Existing pavement buildups unknown, assumes some streetcar track removal and some simpler asphalt removal. Removal for median cycle track area only (not entire roadway) |
| Item 203 | Embankment | CY | 10,408 | $ 12.40 | $ 129,059.20 | |
| Item 304 | Aggregate Base | CY | 3,026 | $ 59.35 | $ 179,593.10 | |
| Item 441 | 3" Asphalt Concrete Pavement | CY | 1,695 | $ 159.35 | $ 270,098.25 | |
| Item 609 | Curb, Type 6 | FT | 26,140 | $ 14.00 | $ 365,960.00 | |
| Item 644 | Lane Line | MILE | 2.48 | $ 1,518.60 | $ 3,759.11 | |
| Item 644 | Lane Arrow | EA | 999 | $ 110.00 | $ 109,890.00 | Assume 3 per lane per intersection |
| Item 644 | Bike Lane Marking Symbol | EA | 88 | $ 316.00 | $ 27,808.00 | Assumed 300' Spacing each way |
| Item 659 | Seeding and Mulching | SY | 7,262 | $ 2.50 | $ 18,155.00 | |
| Item 661 | Special - Landscaping | LS | - | $ 980,250.00 | $ 980,250.00 | Assumed $75/FT incl both sides |
| Item 511 | I-90 Bridge Modification | LS | 1 | $ 200,000.00 | $ 200,000.00 | Requires doweling into deck for cycle track |
| Item 832 | Erosion Control | LS | - | $ 50,000.00 | $ 50,000.00 | |
| Item 611 | Drainage | NIC | - | - | - | Not analyzed for cost (assume cycle track drains to roadway edges) |
| Item 638 | Utilities | NIC | - | - | - | Not analyzed for cost (Cleveland Water and CPP would be only potential considerations for cost) |
| Item 539 | Lighting | NIC | - | - | - | Not analyzed for cost |
| - | Performance Bond | LS | - | $ 495,483.86 | $ 495,483.86 | 0.5% Construction |
| Item 624 | Mobilization | LS | - | $ 200,000.00 | $ 200,000.00 | |
| Item 623 | Survey Layout | LS | - | $ 495,483.86 | $ 495,483.86 | 0.5% Construction |
| Item 614 | MOT | LS | - | $ 335,109.86 | $ 335,109.86 | Assume 3.5% total |
| Item 630 | Signs | MILE | 2.48 | $ 250,000.00 | $ 618,844.70 | |
| Item 632 | Major Urban Traffic Signal3 Leg | EA | 4 | $ 200,000.00 | $ 800,000.00 | |
| Item 633 | Major Urban Traffic Signal4 Leg | EA | 16 | $ 250,000.00 | $ 4,000,000.00 | |
| Item 634 | Major Urban Traffic Signal2 Leg | EA | 1 | $ 100,000.00 | $ 100,000.00 | |
| Item 635 | School Zone Signal | EA | 1 | $ 50,000.00 | $ 50,000.00 | |
| Item 661 | Resurfacing Superior Avenue | SY | 91,490 | $ 15.25 | $ 1,395,222.50 | Mill & fill (curb to curb, excluding cycle track median) |
| | | | | Construction Subtotal | $ 11,100,644.94 | |
| Engineering | | | | | $ 1,110,064.49 | Assume 10% Construction Total |
| Construction Services | | | | | $ 1,110,064.49 | Assume 10% Construction Total |
| 30% Contingency | | | | $ 3,330,193.48 | $ 16,650,967.40 | |
| Inflation to Construction Year 2020 | | | | | $ 18,424,891.78 | ODOT Inflation Calculator |

** Item costs were acquired from ODOT's Estimator program (costs for Cuyahoga County) or are based on current ODOT procedure for Budget Estimating*

**Midway Cycle Track Pilot Corridor, w/ Signal Reconstruction, & Potential Unwarranted Signal Removal**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

*NOTE:* There is a potential cost savings if some traffic signals are not warranted and could therefore be removed. This estimate assumes that 7 signals are unwarranted. An engineering warrant analysis would be required to determine if and/or how many signals can be removed to quantify the actual cost savings on the corridor.

| *Preferred Cycle Track Width= 20'* | | *Unit* | *Quantity* | *Cost* | *Total* | *Comments* |
|---|---|---|---|---|---|---|
| Item 202 | Pavement Removed | SY | 29,045 | $ 9.50 | $ 275,927.50 | Existing pavement buildups unknown, assumes some streetcar track removal and some simpler asphalt removal. Removal for median cycle track area only (not entire roadway) |
| Item 203 | Embankment | CY | 10,408 | $ 12.40 | $ 129,059.20 | |
| Item 304 | Aggregate Base | CY | 3,026 | $ 59.35 | $ 179,593.10 | |
| Item 441 | 3" Asphalt Concrete Pavement | CY | 1,695 | $ 159.35 | $ 270,098.25 | |
| Item 609 | Curb, Type 6 | FT | 26,140 | $ 14.00 | $ 365,960.00 | |
| Item 644 | Lane Line | MILE | 2.48 | $ 1,518.60 | $ 3,759.11 | |
| Item 644 | Lane Arrow | EA | 999 | $ 110.00 | $ 109,890.00 | Assume 3 per lane per intersection |
| Item 644 | Bike Lane Marking Symbol | EA | 88 | $ 316.00 | $ 27,808.00 | Assumed 300' Spacing each way |
| Item 659 | Seeding and Mulching | SY | 7,262 | $ 2.50 | $ 18,155.00 | |
| Item 661 | Special - Landscaping | LS | - | $ 980,250.00 | $ 980,250.00 | Assumed $75/FT incl both sides |
| Item 511 | I-90 Bridge Modification | LS | 1 | $ 200,000.00 | $ 200,000.00 | Requires doweling into deck for cycle track |
| Item 832 | Erosion Control | LS | - | $ 50,000.00 | $ 50,000.00 | |
| Item 611 | Drainage | NIC | - | - | - | Not analyzed for cost (assume cycle track drains to roadway edges) |
| Item 638 | Utilities | NIC | - | - | - | Not analyzed for cost (Cleveland Water and CPP would be only potential considerations for cost) |
| Item 539 | Lighting | NIC | - | - | - | Not analyzed for cost |
| - | Performance Bond | LS | - | $ 421,740.11 | $ 421,740.11 | 0.5% Construction |
| Item 624 | Mobilization | LS | - | $ 200,000.00 | $ 200,000.00 | |
| Item 623 | Survey Layout | LS | - | $ 421,740.11 | $ 421,740.11 | 0.5% Construction |
| Item 614 | MOT | LS | - | $ 285,234.86 | $ 285,234.86 | Assume 3.5% total |
| Item 630 | Signs | MILE | 2.48 | $ 250,000.00 | $ 618,844.70 | |
| Item 632 | Major Urban Traffic Signal3 Leg | EA | 1 | $ 200,000.00 | $ 200,000.00 | |
| Item 633 | Major Urban Traffic Signal4 Leg | EA | 12 | $ 250,000.00 | $ 3,000,000.00 | |
| Item 634 | Major Urban Traffic Signal2 Leg | EA | 1 | $ 100,000.00 | $ 100,000.00 | |
| Item 635 | School Zone Signal | EA | 1 | $ 50,000.00 | $ 50,000.00 | |
| | Unwarranted Signal Removal | EA | 7 | $ 25,000.00 | $ 175,000.00 | Includes signal removal cost, & extension of Midway through an 80' intersection |
| Item 661 | Resurfacing Superior Avenue | SY | 91,490 | $ 15.25 | $ 1,395,222.50 | Mill & fill (curb to curb, excluding cycle track median) |
| | | | | Construction Subtotal | $ 9,478,282.44 | |
| Engineering | | | | | $ 947,828.24 | Assume 10% Construction Total |
| Construction Services | | | | | $ 947,828.24 | Assume 10% Construction Total |
| 30% Contingency | | | | $ 2,843,484.73 | $ 14,217,423.65 | |
| Inflation to Construction Year 2020 | | | | | $ 15,732,088.46 | ODOT Inflation Calculator |

** Item costs were acquired from ODOT's Estimator program (costs for Cuyahoga County) or are based on current ODOT procedure for Budget Estimating*

**Midway Cycle Track Pilot Corridor, with Signal Reconstruction**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

*Replace existing signalization with new mast arm signals and signals for bicycles on Midway Cycle Track.*

| *Pay Item* | | *Unit* | *Quantity* | *Cost* | *Total* | *Comments* |
|---|---|---|---|---|---|---|
| Item 632 | Major Urban Traffic Signal<br>3 Leg | EA | 4 | $ 200,000 | $ 800,000 | 3-way:<br>E. 3rd,<br>E. 33rd<br>E 36th<br>E. 43rd |
| Item 632 | Major Urban Traffic Signal<br>4 Leg | EA | 16 | $ 250,000 | $ 4,000,000 | 4-way:<br>East Roadway<br>E. 6th<br>E. 9th<br>E. 12th<br>E. 13th<br>E. 17th<br>E. 18th<br>E .21st<br>E. 24th<br>E. 26 / I-90 WB<br>I-90 EB (no signal today; anticipate future need)<br>E. 30th<br>E. 40th<br>E. 49th<br>E. 52nd<br>E. 55th |
| Item 632 | Major Urban Traffic Signal<br>2 Leg | EA | 1 | $ 100,000 | $ 100,000 | 2-way:<br>Arcade/Library |
| Item 632 | School Zone Signal | EA | 1 | $ 50,000 | $ 50,000 | School Flashers near E. 40th |
| | | | | | $ - | |
| Red text indicates signals that are potentially unwarranted. Future study is required to determine if the signals are unwarranted. | | | | | | |

**Midway Cycle Track Pilot Corridor, w/ Signal Retrofits.**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

| *Preferred Cycle Track Width= 20'* | | *Unit* | *Quantity* | *Cost* | *Total* | *Comments* |
|---|---|---|---|---|---|---|
| Item 202 | Pavement Removed | SY | 29,045 | $ 9.50 | $ 275,927.50 | Existing pavement buildups unknown, assumes some streetcar track removal and some simpler asphalt removal. Removal for median cycle track area only (not entire roadway) |
| Item 203 | Embankment | CY | 10,408 | $ 12.40 | $ 129,059.20 | |
| Item 304 | Aggregate Base | CY | 3,026 | $ 59.35 | $ 179,593.10 | |
| Item 441 | 3" Asphalt Concrete Pavement | CY | 1,695 | $ 159.35 | $ 270,098.25 | |
| Item 609 | Curb, Type 6 | FT | 26,140 | $ 14.00 | $ 365,960.00 | |
| Item 644 | Lane Line | MILE | 2.48 | $ 1,518.60 | $ 3,759.11 | |
| Item 644 | Lane Arrow | EA | 999 | $ 110.00 | $ 109,890.00 | Assume 3 per lane per intersection |
| Item 644 | Bike Lane Marking Symbol | EA | 88 | $ 316.00 | $ 27,808.00 | Assumed 300' Spacing each way |
| Item 659 | Seeding and Mulching | SY | 7,262 | $ 2.50 | $ 18,155.00 | |
| Item 661 | Special - Landscaping | LS | - | $ 980,250.00 | $ 980,250.00 | Assumed $75/FT incl both sides |
| Item 511 | I-90 Bridge Modification | LS | 1 | $ 200,000.00 | $ 200,000.00 | Requires doweling into deck for cycle track |
| Item 832 | Erosion Control | LS | - | $ 50,000.00 | $ 50,000.00 | |
| Item 611 | Drainage | NIC | - | - | - | Not analyzed for cost (assume cycle track drains to roadway edges) |
| Item 638 | Utilities | NIC | - | - | - | Not analyzed for cost (Cleveland Water and CPP would be only potential considerations for cost) |
| Item 539 | Lighting | NIC | - | - | - | Not analyzed for cost |
| - | Performance Bond | LS | - | $ 296,246.36 | $ 296,246.36 | 0.5% Construction |
| Item 624 | Mobilization | LS | - | $ 200,000.00 | $ 200,000.00 | |
| Item 623 | Survey Layout | LS | - | $ 296,246.36 | $ 296,246.36 | 0.5% Construction |
| Item 614 | MOT | LS | - | $ 200,359.86 | $ 200,359.86 | Assume 3.5% total |
| Item 630 | Signs | MILE | 2.48 | $ 250,000.00 | $ 618,844.70 | |
| Item 632 | Major Urban Traffic Signal3 Leg | EA | 4 | $ 50,000.00 | $ 200,000.00 | Retrofitting bike signals only |
| Item 633 | Major Urban Traffic Signal4 Leg | EA | 16 | $ 50,000.00 | $ 800,000.00 | Retrofitting bike signals only |
| Item 634 | Major Urban Traffic Signal2 Leg | EA | 1 | $ 50,000.00 | $ 50,000.00 | Retrofitting bike signals only |
| Item 635 | School Zone Signal | EA | 1 | $ 50,000.00 | $ 50,000.00 | Retrofitting bike signals only |
| Item 661 | Resurfacing Superior Avenue | SY | 91,490 | $ 15.25 | $ 1,395,222.50 | Mill & fill (curb to curb, excluding cycle track median) |
| | | | | Construction Subtotal | $ 6,717,419.94 | |
| Engineering | | | | | $ 671,741.99 | Assume 10% Construction Total |
| Construction Services | | | | | $ 671,741.99 | Assume 10% Construction Total |
| 30% Contingency | | | | $ 2,015,225.98 | $ 10,076,129.90 | |
| Inflation to Construction Year 2020 | | | | | $ 11,149,598.61 | ODOT Inflation Calculator |

** Item costs were acquired from ODOT's Estimator program (costs for Cuyahoga County) or are based on current ODOT procedure for Budget Estimating*

**Midway Cycle Track Pilot Corridor, w/ Signal Retrofits, & Potential Unwarranted Signal Removal**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

NOTE: There is a potential cost savings if some traffic signals are not warranted and could therefore be removed. This estimate assumes that 7 signals are unwarranted. An engineering warrant analysis would be required to determine if and/or how many signals can be removed to quantify the actual cost savings on the corridor.

| *Preferred Cycle Track Width= 20'* | | *Unit* | *Quantity* | *Cost* | *Total* | *Comments* |
|---|---|---|---|---|---|---|
| Item 202 | Pavement Removed | SY | 29,045 | $ 9.50 | $ 275,927.50 | Existing pavement buildups unknown, assumes some streetcar track removal and some simpler asphalt removal. Removal for median cycle track area only (not entire roadway) |
| Item 203 | Embankment | CY | 10,408 | $ 12.40 | $ 129,059.20 | |
| Item 304 | Aggregate Base | CY | 3,026 | $ 59.35 | $ 179,593.10 | |
| Item 441 | 3" Asphalt Concrete Pavement | CY | 1,695 | $ 159.35 | $ 270,098.25 | |
| Item 609 | Curb, Type 6 | FT | 26,140 | $ 14.00 | $ 365,960.00 | |
| Item 644 | Lane Line | MILE | 2.48 | $ 1,518.60 | $ 3,759.11 | |
| Item 644 | Lane Arrow | EA | 999 | $ 110.00 | $ 109,890.00 | Assume 3 per lane per intersection |
| Item 644 | Bike Lane Marking Symbol | EA | 88 | $ 316.00 | $ 27,808.00 | Assumed 300' Spacing each way |
| Item 659 | Seeding and Mulching | SY | 7,262 | $ 2.50 | $ 18,155.00 | |
| Item 661 | Special - Landscaping | LS | - | $ 980,250.00 | $ 980,250.00 | Assumed $75/FT incl both sides |
| Item 511 | I-90 Bridge Modification | LS | 1 | $ 200,000.00 | $ 200,000.00 | Requires doweling into deck for cycle track |
| Item 832 | Erosion Control | LS | - | $ 50,000.00 | $ 50,000.00 | |
| Item 611 | Drainage | NIC | - | - | - | Not analyzed for cost (assume cycle track drains to roadway edges) |
| Item 638 | Utilities | NIC | - | - | - | Not analyzed for cost (Cleveland Water and CPP would be only potential considerations for cost) |
| Item 539 | Lighting | NIC | - | - | - | Not analyzed for cost |
| - | Performance Bond | LS | - | $ 287,190.11 | $ 287,190.11 | 0.5% Construction |
| Item 624 | Mobilization | LS | - | $ 200,000.00 | $ 200,000.00 | |
| Item 623 | Survey Layout | LS | - | $ 287,190.11 | $ 287,190.11 | 0.5% Construction |
| Item 614 | MOT | LS | - | $ 194,234.86 | $ 194,234.86 | Assume 3.5% total |
| Item 630 | Signs | MILE | 2.48 | $ 250,000.00 | $ 618,844.70 | |
| Item 632 | Major Urban Traffic Signal3 Leg | EA | 1 | $ 50,000.00 | $ 50,000.00 | Retrofitting bike signals only |
| Item 633 | Major Urban Traffic Signal4 Leg | EA | 12 | $ 50,000.00 | $ 600,000.00 | Retrofitting bike signals only |
| Item 634 | Major Urban Traffic Signal2 Leg | EA | 1 | $ 50,000.00 | $ 50,000.00 | Retrofitting bike signals only |
| Item 635 | School Zone Signal | EA | 1 | $ 50,000.00 | $ 50,000.00 | Retrofitting bike signals only |
| | Unwarranted Signal Removal | EA | 7 | $ 25,000.00 | $ 175,000.00 | Includes signal removal cost, & extension of Midway through an 80' intersection |
| Item 661 | Resurfacing Superior Avenue | SY | 91,490 | $ 15.25 | $ 1,395,222.50 | Mill & fill (curb to curb, excluding cycle track median) |
| | | | | Construction Subtotal | $ 6,518,182.44 | |
| Engineering | | | | | $ 651,818.24 | Assume 10% Construction Total |
| Construction Services | | | | | $ 651,818.24 | Assume 10% Construction Total |
| | 30% Contingency | | | $ 1,955,454.73 | $ 9,777,273.65 | |
| | Inflation to Construction Year 2020 | | | | $ 10,818,903.47 | ODOT Inflation Calculator |

** Item costs were acquired from ODOT's Estimator program (costs for Cuyahoga County) or are based on current ODOT procedure for Budget Estimating*

**Midway Cycle Track Pilot Corridor, with Signal Retrofits**
**Superior Avenue (East Roadway to E. 55th Street)**
Planning Level Estimate of Project Costs

*Retrofit existing signalized intersections with signals for bicycles on Midway Cycle Track.*

| *Pay Item* | | *Unit* | *Quantity* | *Cost* | *Total* | *Comments* |
|---|---|---|---|---|---|---|
| Item 632 | Major Urban Traffic Signal<br>3 Leg | EA | 4 | $ 50,000 | $ 200,000 | 3-way:<br>E. 3rd,<br>E. 33rd<br>E 36th<br>E. 43rd |
| Item 632 | Major Urban Traffic Signal<br>4 Leg | EA | 16 | $ 50,000 | $ 800,000 | 4-way:<br>East Roadway<br>E. 6th<br>E. 9th<br>E. 12th<br>E. 13th<br>E. 17th<br>E. 18th<br>E .21st<br>E. 24th<br>E. 26 / I-90 WB<br>I-90 EB (no signal today; anticipate future need)<br>E. 30th<br>E. 40th<br>E. 49th<br>E. 52nd<br>E. 55th |
| Item 632 | Major Urban Traffic Signal<br>2 Leg | EA | 1 | $ 50,000 | $ 50,000 | 2-way:<br>Arcade/Library |
| Item 632 | School Zone Signal | EA | 1 | $ 50,000 | $ 50,000 | School Flashers near E. 40th |
| | | | | | $ - | |
| Red text indicates signals that are potentially unwarranted. Future study is required to determine if the signals are unwarranted. | | | | | | |

# Signal Cost Research

| | | |
|---|---|---|
| **Unwarranted Signal** | **$ 25,000.00** | Including cost to extend the Midway (using highest per-mile cost) through an assumed 80' intersection, and cost to remove existing signal. Round Up to $25,000 |
| *Signal Removal Cost* | $ 2,375.92 | from ODOT Estimator |
| *Extend Midway 80'* | $ 15,597.55 | Per Mile Midway cost, divided by 5280', multiplied by 80' |

| | | |
|---|---|---|
| **Retrofit Bicycle Signal** | **$ 50,000.00** | Used a value of $50,000/intersection, based on the research below. |
| *Retrofit Bicycle Signal* | $ 52,201.00 | Cost to retrofit 1 existing signalized intersection with Bicycle Signals. Cost Analysis of Bicycle Facilities, 2013. https://activelivingresearch.org/sites/default/files/Dill_Bicycle_Facility_Cost_June2013.pdf |
| | | |
| *Retrofit Bicycle Signal* | $ 35,000.00 | Cost to retrofit 5 existing signalized intersections, Canton OH Case Study. Based on most expensive construction bid, **multiplied by 2**, because this case study was a one-way street. All bids ranged from $18,000 to $35,000 per intersection. |
| | | |
| *Retrofit Bicycle Signal* | $ 42,439 | Cost to retrofit 6 existing signalized intersections, Columbus OH Case Study. Based on most expensive construction bid total Traffic Signals cost, divided by 6 intersections that included bicycle signal retrofits. This cost is a conservative per-intersection calculation, because the Traffic Signals cost included additional signal work at 10 other intersections outside the scope of the 6 bicycle signal retrofit intersections. All bids ranged from $40,000 to $43,000 per intersection. |

## 10.4 Appendix D: Survey Results

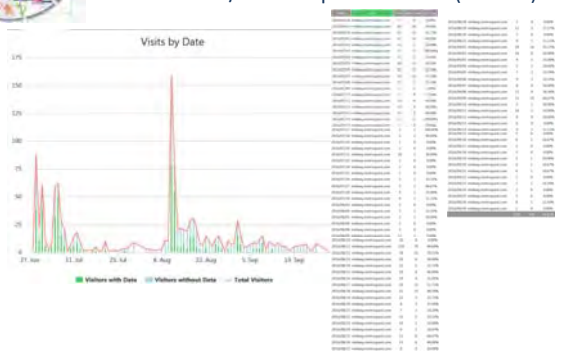
# Midway Cycle Track and Separated Bicycle Facilities Plan

## MetroQuest Survey Summary

Results from
June 28, 2016 – September 30, 2016

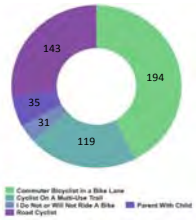
## Survey Visits through September 30, 2016

Total Visits 1205/Total Respondents 540 (44.81%)




## Screen 2 - Help Us Plan

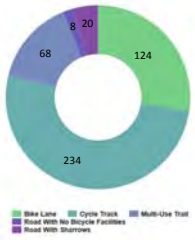
Tab 1 - Bicyclist Type
What image best represents you on a bicycle?




| Value | Respondents | Percent |
|---|---|---|
| Commuter Bicyclist in a Bike Lane | 194 | 37.16% |
| Cyclist On A Multi-Use Trail | 119 | 22.80% |
| I Do Not or Will Not Ride A Bike | 31 | 5.94% |
| Parent With Child | 35 | 6.70% |
| Road Cyclist | 143 | 27.39% |
| Totals | 522 | |

## Screen 2 - Help Us Plan

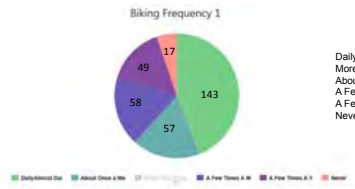
Tab 2 – Bicycle Facility Type
On what bicycle facility would you prefer to ride?




| Value | Respondents | Percent |
|---|---|---|
| Bike Lane | 124 | 27.31% |
| Cycle Track | 234 | 51.54% |
| Multi-Use Trail | 68 | 14.98% |
| Road With No Bicycle Facilities | 8 | 1.76% |
| Road With Sharrows | 20 | 4.41% |
| Totals | 454 | |

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency
Question 1- I bike for fun, exercise, and/or transportation.

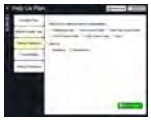



Daily Almost Daily – 143
More Than Once A Week – 114
About Once a Week – 57
A Few Times a Month – 58
A Few Times a Year - 49
Never - 17

A table was not provided for this graphic.

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency
Question 2 - I bike for:



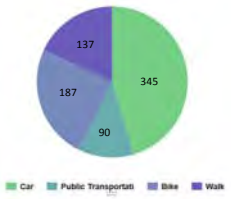

Recreation - 348
Transportation - 256

A table was not provided for this graphic.

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes

Question 1 - How do you usually get around?



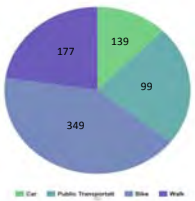

Car - 345
Public Transportation - 90
Bike – 187
Walk – 137

A table was not provided for this graphic.

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes

Question 2 - How would you like to get around?



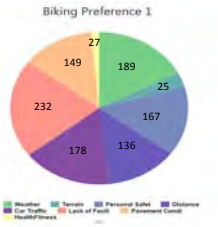

Car – 139
Public Transportation – 176
Bike – 349
Walk - 177

A table was not provided for this graphic.

## Screen 2 - Help Us Plan

Tab 5 – Biking Preferences

Question 1 - What keeps you from cycling as often as you want?



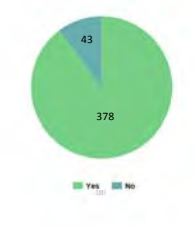

Weather – 18995
Terrain – 25
Personal Safety/Security – 167
Distance – 136
Car Traffic – 178
Lack of Facilities (Bike Lanes, Trails, Etc.) - 232
Pavement Condition – 149
Health/Fitness Limitations – 27

A table was not provided for this graphic.

## Screen 2 - Help Us Plan

Tab 5 – Biking Preferences

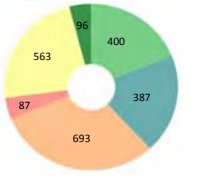
Question 2 - Do you want to ride in a Midway Cycle Track?




Yes - 378
No – 43

No table was provided for this graphic.

## Screen 3 - Where Do You Go?

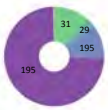



| Marker Type | Times dropped | Percent |
|---|---|---|
| Home | 400 | 17.97% |
| SchoolWork | 387 | 17.39% |
| ShopDineFun | 693 | 31.13% |
| Health Care | 87 | 3.91% |
| ParkRecreation | 563 | 25.29% |
| Other | 96 | 4.31% |
| Total | 2226 | |

## Screen 3 - Where Do You Go?

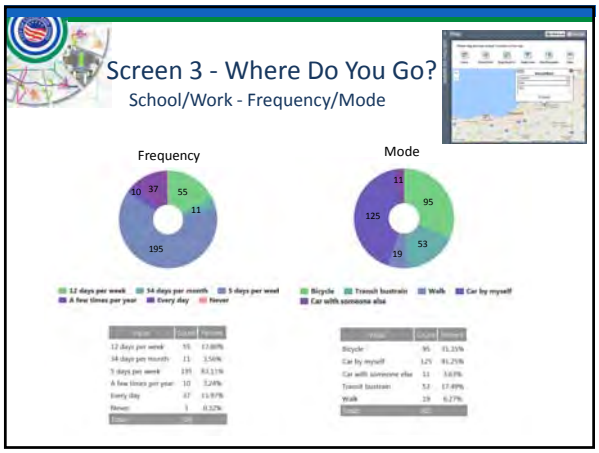
Home - Frequency/Mode

Frequency

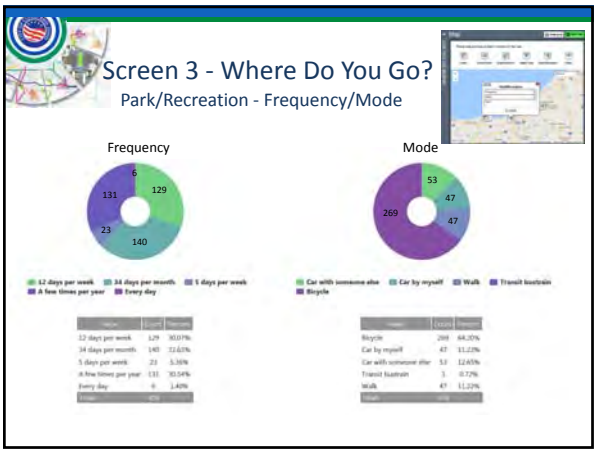



Mode

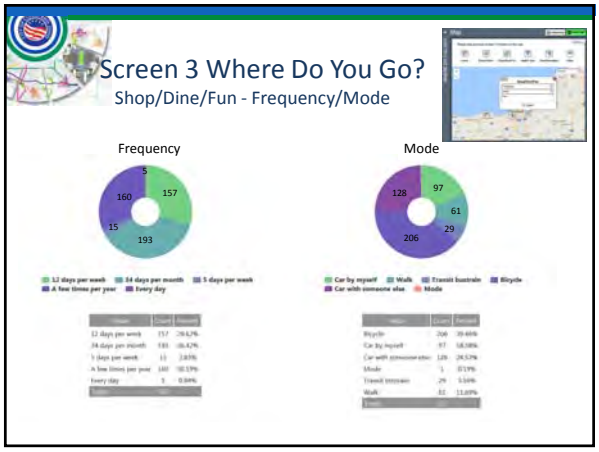
## Screen 3 - Where Do You Go?
School/Work - Frequency/Mode



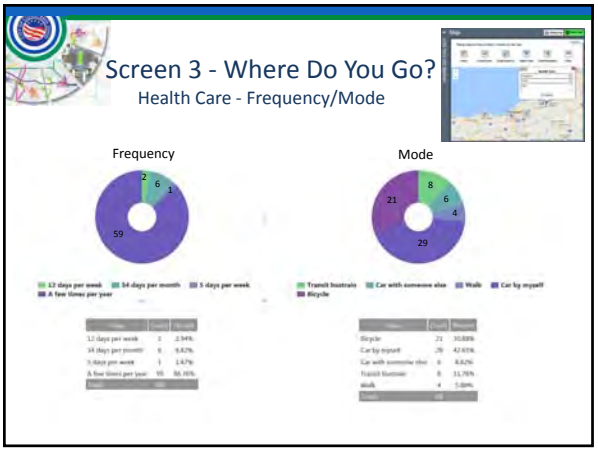

## Screen 3 - Where Do You Go?
Park/Recreation - Frequency/Mode




## Screen 3 Where Do You Go?
Shop/Dine/Fun - Frequency/Mode




## Screen 3 - Where Do You Go?
Health Care - Frequency/Mode




## Screen 3 - Where Do You Go?
Other- Frequency/Mode

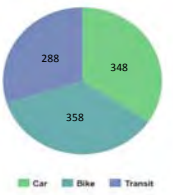
There is no frequency or mode information for the 'Other' Marker. Comments include:

## Screen 4 - Which Corridors Matter Most ?

| | |
|---|---|
| Rocky River Dr | 91 |
| Woodland Ave | 84 |
| Pearl Road | 82 |
| Lakeshore Blvd | 80 |
| Payne Ave | 74 |
| Fulton Rd | 11 |
| Comm Coll Ave | 54 |
| E 12th St | 108 |
| Buckeye Rd | 40 |
| Chester Ave | 125 |
| Lakeside Ave | 114 |
| E 55th St | 130 |
| St Clair Ave | 114 |
| Lorain Ave | 170 |
| Superior Ave | 142 |
| Total | 1419 |

## Screen 5 – Thank You

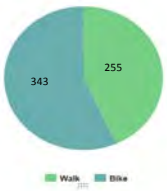
Please Tell Us About Yourself
Question 1 – I have access to:




| Option | Responses |
|---|---|
| Car | 348 |
| Bike | 358 |
| Transit | 288 |

## Screen 5 – Thank You

Please Tell Us About Yourself
Question 2 – I like to:

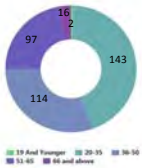



| Option | Responses |
|---|---|
| Walk | 255 |
| Bike | 343 |

## Screen 5 – Thank You

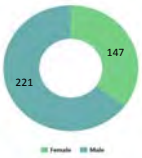
Please Tell Us About Yourself
Demographics

Age




| Value | Respondents | Percent |
|---|---|---|
| 19 And Younger | 2 | 0.54% |
| 20-35 | 143 | 38.44% |
| 36-50 | 114 | 30.65% |
| 51-65 | 97 | 26.08% |
| 66 and above | 16 | 4.30% |
| Totals | 372 | |

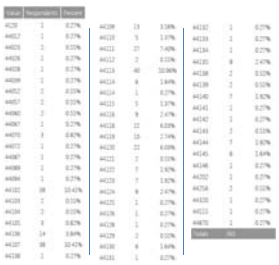
Gender




| Value | Respondents | Percent |
|---|---|---|
| Female | 147 | 39.95% |
| Male | 221 | 60.05% |
| Totals | 368 | |

## Screen 5 – Thank You

Please Tell Us About Yourself
Zip Code Information



## 10.5 Appendix E: Project Meetings

# Project Team Meeting 1
# February 8, 2016

# MEETING MINUTES

**Project Team Kickoff Meeting**
**February 8, 2016, 10:30 a.m.**
**City of Cleveland Planning Commission**

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Freddy Collier, Director | City of Cleveland Planning Commission | 216-664-3468 | fcollier@city.cleveland.oh.us |
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Rob Mavic | City of Cleveland Engineering | 216-664-3195 | rmavic@city.cleveland.oh.us |
| Melissa Thompson | NOACA | 216-241-2414 x344 | mthompson@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Scarlett Sharpe | WSP \| Parsons Brinckerhoff | 216-928-8327 | sharpesd@pbworld.com |
| Neil Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |

## Welcome and Introductions

Dir. Collier started the meeting with discussion of making the project team more 'city rich'.

- Need to add Jenita McGowan City of Cleveland Chief of Sustainability to the project team.
- Barb Clint with YMCA and Jacob Van Sickle with Bike Cleveland will be co-chairs of the Steering Committee. The project team will guide the process with the co-chairs being consulted as the project develops.
- Safe Routes to Schools – need to look at locations of SRTS projects/priority streets (K-8 and High School) within the City

Nancy Lyon-Stadler facilitated the meeting.

- Jacob Van Sickle has received funding for public outreach on another activity. He is willing to let us tag along on his meetings to expand outreach. Need to have follow-up conversation with him.

**Plan Development Process**

<u>Task 1 – Project Initiation</u>

- Project Team Meeting #1
- Steering Committee meeting #1
- Midway Technical Workshop

Project Team and Steering Committee meetings are to set the framework with the project goals and objectives, and identify the Midway Corridors.

Midway Technical Workshop is to come up with design concept prototypes. How a Midway Cycle Track would work within any roadway in terms of cross section dimensions and operations/crossings at signalized/non-signalized intersections. Workshop will be one full day or two half days.

Buffered Bike Lane Component

- Identify corridors for Midway Cycle Tracks. If a corridor is identified but does not appear to be feasible once it's investigated further then look at the opportunity for a buffered bike lane.
- Do not look citywide at where to put buffered bike lanes
- *All in the meeting were in agreement that this is the vision for the project*

Task 2 - Existing Conditions

- Look at documentation of existing corridor characteristics using available GIS information
  - Neal has existing information from the Eastside Greenway GIS database
- Project Team Meeting #2 will look at existing conditions and walk through in greater detail the Midway Cycle Track corridors and buffered bike lane corridors
- Wrap the Project Team Meeting #2 into the Concept Development Workshop

Task 3 – Concept Development

- Concept Development Workshop will take the information from the Technical Workshop and will go into each corridor and determine if a Midway concept will work. Outcome will be whether the corridors we are fit a Midway Concept or a buffered bike lane
- MetroQuest Community Engagement Survey - important due the size of the study area and reach of the online survey
  - Survey will take about a month to create
  - Need to determine the information we want to gather then formulate questions
  - Survey will go live at the first public meeting
  - Survey will run at least a month possibly two during the time of the Republic National Convention
- Steering Committee Meeting #2
  - To prepare for Public Meeting #1 (PM #1 to be held in three different locations)
  - Share what will be shown to the public
  - Demonstrate the survey
  - Comments will be taken from Steering Committee on survey to be incorporated before it goes live
- Project Team Meeting #4
  - Review the survey results
  - Determine evaluation criteria
  - Prioritization on which corridor should be looked at first, not necessarily input on specific concept for corridor; will a Midway Concept work or would a buffered bike lane be better

Task 4 – Refine Concepts/Evaluate Corridors

- Based on public input, evaluation criteria, and other factors (ease of installation, cost, schedule on CIP)
  - Question by Dir. Collier – In regard to identifying priority corridors, how will we go about that from a City perspective? If you wanted to implement something, where is the best chance for it to be implemented and be successful?
    - We look at all factors, cost would be one
    - Need to look in terms of are there corridors that jump out as being most impactful, even if they cost a little more;
    - If a corridor provides connectivity to existing and planned areas

  - Prioritization needs to be reflected in how the corridors are scored; they will all matter, but how easy/hard or important are they will be part of the prioritization

Task 5 – Finalize Plan

- Mapping
- Prioritization and Implementation Strategy (Per scope - Planning level cost estimate, operations and maintenance considerations, potential funding sources and strategies, corridor concepts and prioritization)
  - Question by Mr. Angus – How early on will you see the corridors prioritized?
    - Will start at the beginning, but will change as we gather input from the public from survey based on a weighted ranking
    - Public will not be the only criteria
    - Mr. Cader believes technical analysis would be better (traffic volumes, roadway width, on street parking or not, lanes, etc.)
    - Starting point is the existing mapping (City GIS Bikeway Plan, CIP), not the City street grid
    - Neal stated the same process was used for the Eastside Greenway, where streets were identified based on technical evaluation criteria; they then asked the public through MQ survey and meetings. Priorities did not line up; thus, the project team had to balance the priorities. Some that were not high priorities in the beginning became high priorities in the end
  - Question by Mr. Angus – Is the goal then to have a design guideline for the leading candidates to go right into implementation rather than going through the fee looking at a mile long list when there are only three or four true cycle track locations?
    - NLS stated the concept for implementation will be developed at the Concept Development Workshop so we can focus our energies on the corridors that will work.

  - Question by Dir. Collier – Conflict between BRT versus having a protected facility, two questions, one can they coexist, or will we be in a situation where one outweighs the other? Example: When talking about improving access and multi-modes of transportation, BRT is a great example, but expensive; when you think about how BRTs are configured, they are in the middle of the road, which negates the Midway concept; when you think of the prioritization of those they probably have the same prioritization criteria; how do you balance that conflict?
    - NLS – We don't recommend it for Midway or for Clifton, we would look at parallel facilities; if a BRT facility already has bike facilities, like Euclid, then do we need a Midway that parallels it?; as we look at the City we don't look at the streets in isolation, we look at the network and we don't try to be all things to all modes on a given corridor if it makes sense to separate them out; we get people to the same destinations, but on a different road; advantageous when it's possible.
    - Mr. Cader - Does RTA have a list of prioritized BRT corridors we can get?
    - NLS - They have a list. Warrensville Center is a priority as well as Lorain Avenue. The list is something we can get.

- Public Meeting #2 to be held in a central location (Tower City, City Hall, somewhere easy for people to get to and accessible to transit)
  - Dir. Collier – Would like to have a meeting in an extreme public place, where there is activity around the meeting; like Tower City by fountain; somewhere open to capture a broader audience by people wondering what is going on

- NLS – At Eastside Greenway meetings there were meetings were people could eat and drink; attendance was much greater at this type of meeting
- Neal Billetdeaux - other people joined the meeting that weren't at the location for the meeting
- Value in going to where the people are already; events at the Nature Center, Metroparks, etc.

- Schedule
  - Midway Technical Workshop in early March gives time to do existing conditions information gathering
  - Concept Development Workshop mid April
  - Public Meetings mid June and mid November
  - Dir. Collier would like the meeting schedule hammered out early to get all on calendars for the year
    - The consultant team worked with Sharonda after meeting to get this done

- Community Engagement
  - All typical with the exception of the Technical Committee meeting; this meeting (Midway Technical Workshop) will make sure we don't come up with concepts that have operational challenges when we go to implement

- Steering Committee
  - Add CMSD (Cleveland Metro School District)
  - Add Cuyahoga County Department of Public Works
  - Do we want to add council representatives?
    - Need to include Councilman Mr. Keane (head of Cleveland Transportation Committee and also on NOACA Board) and Councilman Tony Brancatelli (Cleveland Planning and Sustainability Committee)
  - Add CDC's (number unknown as some are more active than others)

- Technical Committee
  - Add City of Cleveland Department of Public Works
  - Add YMCA (Barb Clint)
  - Changed consultants to Project Team
  - Changed ODOT D12 to D12 Traffic Engineering

- Vision and Objectives
  - Dir. Collier stated we need to focus on health, equity, and sustainability; NLS incorporated the last bullet of draft objectives into the vision statement
    - Last bullet - *Identify bicycle related strategies and treatments that have the potential to promote economic development, enhance cycle-related connectivity, improve quality of life, promote healthy living, diversify modal choice and minimize bicycle related safety hazards.*
  - Vision and objectives needs to focus on the Midway Plan not a city-wide bicycle plan
  - Additional comments and revisions were incorporated into the Vision and Objectives to culminate into the Final Vision Statement of: *Create a network of 'midway cycle track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development through Cleveland*
  - Objectives revised to read:

  - Locate midway cycle track corridors within appropriate roadways (i.e., sufficient width and configuration)
  - Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland (*www.clevelandgis.org/apps/bikeways/* and *www.midwaycle.org*)
  - Develop prototypical design concepts and standards for midway cycle track and protected bicycle lanes, focusing on operational safety and minimizing conflicts with other travel modes
  - Identify and rank corridors that have the potential to accommodate amidway cycle track
  - Determine the technical feasibility, engineering requirements, programming, planning level cost estimates and strategic multi-phase implementation of dedicated midway cycle track corridors
  - Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses
  - Identify a "model section" as a community example for demonstration value and scalability

- Project Sub-Areas
  - To create sub-areas for public engagement not for the Midway corridors
  - East/West/Central (downtown)
  - Suggestions - Downtown (Tower City), East (Harvey Rice auditorium, Shaker Cinema), West (Capital Theatre, Zone Rec Center Gym, Battery Park, West Side Ecumenical, Urban Community School, Metro Hospital)

- Midway Corridors Map
  - Per Melissa Thompson the map is several years old; Midway Plan routes are based on roadway characteristics, qualitative considerations, destinations
  - Could rework at workshop to have alternate routes based on mapping information
  - The Cleveland Bike Plan was taken into consideration when developing the Midway Plan map routes
  - Dir. Collier – City of Cleveland Master Bikeway Implementation Plan had a hierarchy of different types of trails, it was completed as an effort to accelerate bicycling activity; most of the corridors in the implementation plan have to do with stripping.
    - Mr. Mavic - Implementation Plan looked at capital projects that would be happening between 2014-2016 on the bikeway network; additional funding was obtained to stripe lanes not on the bikeway plan; nothing specific to facility; none of the projects were reconstructions
    - Dir. Collier – How can we begin to accelerate bicycle activity, in the implementation plan it was through stripping (low hanging fruit)
  - NLS – Is there a way to eliminate Midway corridors based on roadway width in the GIS data?
    - Neal - County GIS does not have roadway width data available; does have ROW data
    - Ms. Thompson – NOACA data has roadway width that is reliable
  - NLS – Do not want to measure every city street; would like to have existing conditions information at the Concept Development Workshop that provides a map highlighting the city street grid with roads of a certain width; then use traffic volume data for those roads as a starting point
    - Mr. Cader stated all street widths are provided in the Cleveland Complete and Green Streets Typology Manual; this information is in GIS

- Discussion: preference to include Lakeshore Blvd – low traffic volumes, regional, connects beaches, mix of land uses, identified in Eastside Greenway
- Dir. Collier – need to include the Safe Routes to Schools as a layer
  - Priority SRTS corridors have been identified and will be supplied to us
- Question by Ms. Fields – Why if it's a protected byway why does it need to be low traffic volumes?
  - NLS - for ease of installation and implementation at cross streets/intersections to keep cyclists away from cars; also it's easier to accommodate taking a travel lane for a cycle track
  - Mr. Mavic – Funding is a component of any project; do not want to take lanes from an corridor that would push the LOS past what is fundable
- Discussion on Chester: Chester is a wide street that could be used as protected. People speed down this road it's so wide and straight; has equitable component as large pockets of poor and no transit options on this road
- Will go through the list of potential corridors once we get more information on roadway width

- Dir. Collier – What about doing a scaled up Midway Cycle Track (Cadillac version) concept something smaller for a few miles or less as a test segment; do one that is so well done you can point to it and grow it
  - Mr. Cader stated this was done in Indianapolis (Cultural Trail); built a model block that gained public consensus
  - NLS – should we include identifying a model block section to the objectives?
    - Dir. Collier – yes
  - Dir. Collier – City is discussing with the Cleveland Clinic special treatment to the area of the Opportunity Corridor that is in front of their hospital on E. 105th Street; concrete path, off-road; would like a Midway in this area at some point if there is sufficient pavement width
  - Dir. Collier – near term future investment would be to include a small segment of E. 79th Street from Kinsman to rail stations that are to be renovated; trying to layer citywide activity to change place; more we can reinvest and concentrate activity to gain synergy in areas
    - NLS – TIGER project on E. 105th Street and TLCI on E. 79th Street (station to station) both starting up soon; Mr. Collier and NLS on both project teams and sees no reason to not be able to layer all in; makes great sense

Dir. Collier showed slides from Cleveland GIS on health, equity issues; would like these populations to have access to the protected facilities; create land uses that are health centric when talking about connectivity; think beyond the facility itself and think about what we are trying to do overall; overlay maps shown

- obesity
- minority populations
- populations with no vehicle access
- poverty rate (low income areas)
- etc.

The City is to provide us with the maps of the slides shown.

Dir. Collier discussion on safety

- Crime prevention through environmental design

- Would like signage, surveillance, lighting, etc to attract people and make the trail nice so people do not want to destroy it
- Would like City of Cleveland Police have a bicycle patrol to ride the routes
- Need to change the culture of cycling by doing ancillary things to attract people; it's not just about infrastructure

Dir. Collier discussion on maintenance

- Would like to address the maintenance of the facilities, public works needs funding to train to know how to maintain the infrastructure
- NLS - would like to talk to other communities with cycle tracks to see what their policies are in regard to maintenance
- NLS - would like to talk to other communities to review their policies.

Dir. Collier would like to investigate funding from special improvement districts, council funds; NLS suggested Gunn Foundation as they are involved with Lorain.

Would we consider Lorain as an independent facility? No. Community is already sold on the Lorain project.

Melissa - Administration condition that a status memo is sent monthly.

**Action Items:**

1. Obtain BRT list from RTA
2. Obtain Cleveland Complete and Green Streets Typologies from City Planning for roadway widths
3. Obtain list of priority SRTS corridors from City Planning
4. Obtain slides presented by Director Collier from City Planning

# Midway Cycle Track &

## Protected Bicycle Facilities Plan

Project Team Kick-off Meeting

February 8, 2016

## Plan Development Process

- Task 1 – Project Initiation
  - Project Team Kick-Off Meeting (PT #1), 2/8/16
    - *Goals & Objectives*
    - *Project Corridors*
  - Steering Committee Kickoff Meeting (SC #1), 2/25/16
  - Midway Technical Workshop, 3/10/16
    - *Design Concept Prototypes*
      - Midway Cycle Track
      - Buffered Bike Lanes

## Welcome and Introductions

### Project Team

- Cleveland Planning Commission
- Cleveland, Division of Traffic Engineering
- Cleveland, Mayor's Office of Sustainability
- Northeast Ohio Areawide Coordinating Agency (NOACA)
- Consultant Team
  - Parsons Brinckerhoff
  - SmithGroupJJR

## Plan Development Process

- Task 2 – Existing Conditions
  - Document Corridor Characteristics
  - Project Team Meeting #2 (PT #2) combine with Concept Development Workshop
    - *Review Existing Conditions*
    - *Identify Midway Corridors*
    - *Identify Buffered Bike Lane Corridors*

## Meeting Agenda

1. Welcome and Introductions
2. Plan Development Process
3. Schedule
4. Community Engagement
5. Steering Committee Members
6. Technical Committee Members
7. Vision and Objectives
8. Project Sub-Areas
9. Midway Corridors
10. Cleveland Bikeway Plan Corridors (GIS map)
11. Next Steps

## Plan Development Process

- Task 3 – Concept Development
  - Concept Development Workshop (2 days) (Project Team) 3/13-14/16
    - *Review Midway Technical Workshop Outcomes & Project Mapping*
    - *Assess Midway and Buffered Bike Lane Corridors*
    - *Identify Potential Treatment Alternatives*
  - Develop Community Engagement Survey
    - *Project Team Meeting #3 (PT #3) 4/25/16*
  - Steering Committee Meeting #2 (SC#2) 5/31/16
  - Public Meeting #1 (PM #1), 3 locations (early June)
    - *Survey Runs Live*
    - *Supported by "Pop Up" Outreach (CDCs & other support organizations)*
  - Project Team Meeting #4 (PM#4) 8/10/16
    - *Review Survey Data*
    - *Develop Evaluation Criteria*

# Plan Development Process

- Task 4 – Refine Concepts & Evaluate Corridors
  - Project Team Meeting #5 (PT #5) 9/15/16
    - ◇ *Evaluate Corridors*
    - ◇ *Review Public Input*
    - ◇ *Review Other Factors*
      - ~ Ease of Installation
      - ~ Cost
      - ~ Roadway Maintenance Schedule
    - ◇ *Develop and Document Draft Recommendations*

# Community Engagement

1. Project Team
   - Manage and direct plan development
2. Technical Committee
   - Midway Technical Workshop
   - Develop guidelines for design concept prototypes
3. Steering Committee
   - Provide insights, information, guidance and feedback on plan development
4. Public
   - Provide input and feedback on plan
   - Bike Cleveland involvement

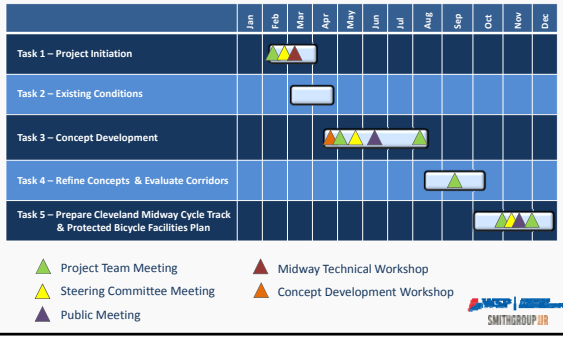
# Plan Development Process

- Task 5 – Prepare Cleveland Midway Cycle Track & Protected Bicycle Facilities Plan
  - Prepare Draft Plan
    - ◇ *Mapping of Concepts and Recommendations*
    - ◇ *Prioritization of the Corridors*
    - ◇ *Draft Implementation Strategy*
      - ~ Planning Level Cost Estimates
      - ~ Operations and Maintenance Considerations
      - ~ Potential Funding Sources and Strategies
  - Project Team Meeting #6 (PM#6)
  - Steering Committee Meeting #3 (SC#3) 11/10/16
  - Public Meeting #2 (PM#2) 11/17/16
    - ◇ *Present Draft Recommendations & Solicit Feedback*
  - Project Team Meeting #7 (PT#7) 12/6/16
    - ◇ *Review and Incorporate Feedback*
  - Finalize Plan

# Steering Committee

- Midway Project Team
- Bike Cleveland
- Cleveland Engineering & Construction
- Cleveland Regional Development
- Cleveland Traffic Engineering
- Cleveland City Council Transportation Committee (Councilman Marty Keane)
- Development, Planning & Sustainability Committee (Councilman Tony Brancatelli)
- CMSD (Cleveland Metropolitan School District)
- Cleveland Metroparks
- Cleveland neighborhood CDCs
- Cuyahoga County Planning Comm.
- Cuyahoga County Public Works
- GCRTA
- CNP (Cleveland Neighborhood Progress)
- NEORSD
- ODOT
- YMCA

# Schedule




# Technical Committee

- Bike Cleveland
- Cleveland Planning Commission
- City of Cleveland - Sustainability
- City of Cleveland - Traffic Engineering
- City of Cleveland - Department of Public Works
- Cuyahoga County Department of Public Works
- GCRTA
- NOACA
- ODOT District 12, Traffic Engineering
- YMCA
- Consultant Team

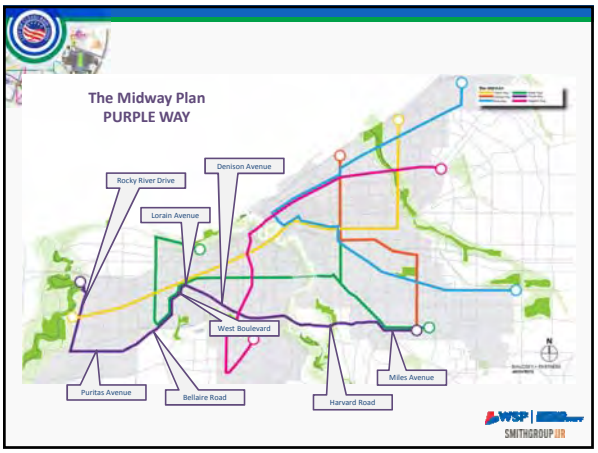
# Vision and Objectives

**VISION**

Create a network of 'midway cycle track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development throughout Cleveland.

**OBJECTIVES**

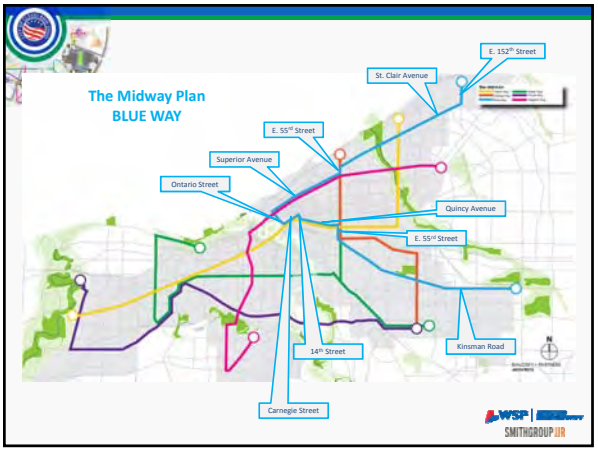
- Locate midway cycle track corridors within appropriate roadways (i.e., sufficient width and configuration).
- Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.
- Develop prototypical design concepts and standards for midway cycle track and protected bicycle lanes, focusing on operational safety and minimizing conflicts with other travel modes.
- Identify and rank corridors that have the potential to accommodate a midway cycle track.
- Determine the technical feasibility, engineering requirements, programming, planning level cost estimates and strategic multi-phase implementation of dedicated midway cycle track corridors.
- Identify a "model section" as a community example to demonstrate value and scale.
- Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland. (*www.clevelandgis.org/apps/bikeways/* and *www.midwaycle.org*).



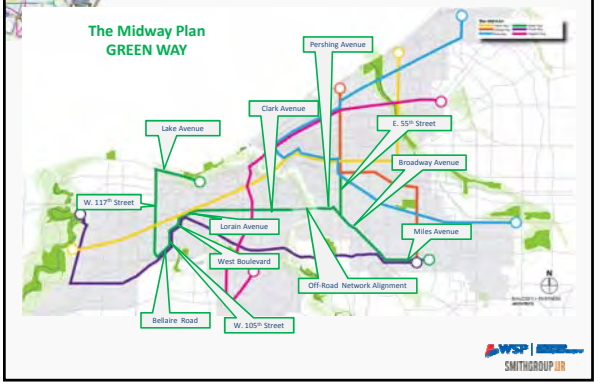

# Project Sub-Areas

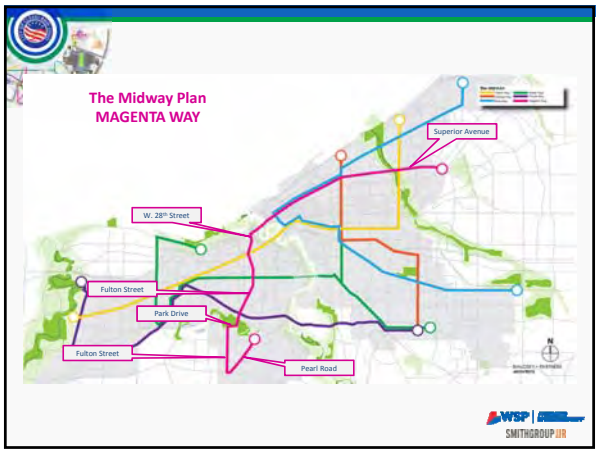


Identify 3 Sub-Areas to correspond with 3 public meeting locations (PM#1)

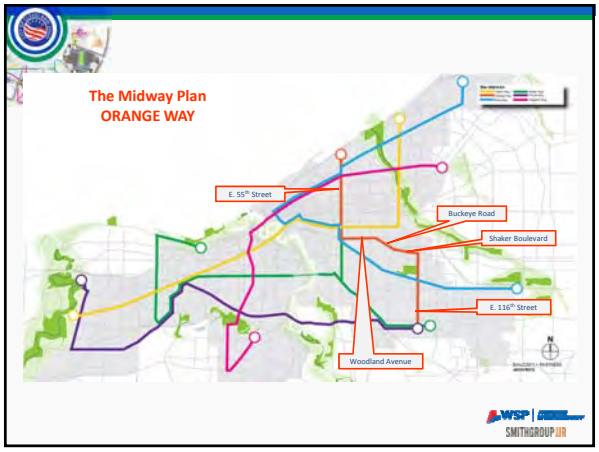



# Midway Corridors

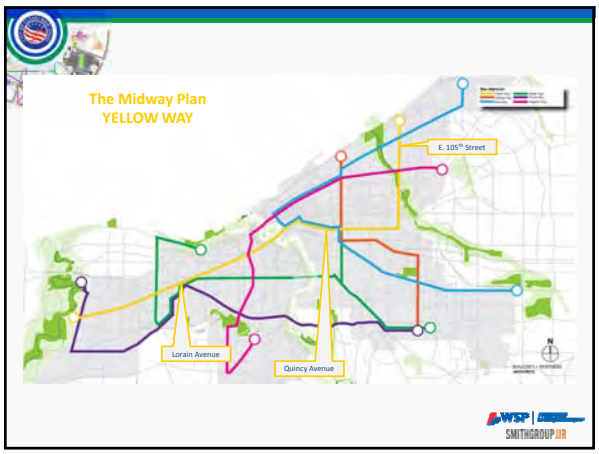




The Midway Plan
MAGENTA WAY
Superior Avenue
W. 28th Street
Fulton Street
Park Drive
Fulton Street
Pearl Road
WSP | SMITHGROUP JJR

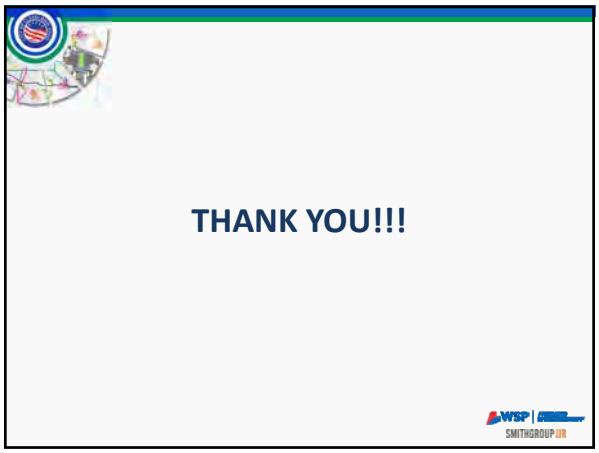

Cleveland Bikeway Plan


The Midway Plan
ORANGE WAY
E. 55th Street
Buckeye Road
Shaker Boulevard
E. 116th Street
Woodland Avenue
WSP | SMITHGROUP JJR


Cleveland Bikeway Plan
City of Cleveland GIS Bikeway Plan
Name
Type
Range From
Range To
Length (ft)
Programmed for 2016-2017
WSP | SMITHGROUP JJR


The Midway Plan
YELLOW WAY
E. 105th Street
Lorain Avenue
Quincy Avenue
WSP | SMITHGROUP JJR


Next Steps
Prepare for Steering Committee Meeting #1
Prepare for Midway Technical Workshop
Initiate Existing Conditions Inventory
WSP | SMITHGROUP JJR


THANK YOU!!!
WSP
SMITHGROUP JJR

# Steering Committee Meeting 1
# March 1, 2016

# Midway Cycle Track and Protected Bicycle Facilities Plan

## MEETING MINUTES

**Steering Committee Kickoff Meeting**
**March 1, 2016, 10:30 a.m.**
**NOACA 3rd Floor Conference Room**

---

### Attendance

| Name | Organization | Email |
|---|---|---|
| Freddy Collier, Director | City of Cleveland Planning Commission | fcollier@city.cleveland.oh.us |
| Sharonda Whatley | City of Cleveland Planning Commission | swhatley@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | mfields@city.cleveland.oh.us |
| Don Angus | City of Cleveland Planning Commission | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | aschmidt@city.cleveland.oh.us |
| Rob Mavic | City of Cleveland Engineering | rmavic@city.cleveland.oh.us |
| Melissa Thompson | NOACA | mthompson@mpo.noaca.org |
| Ryan Noles | NOACA | rnoles@mpo.noaca.org |
| Sara Maier | Cleveland Metroparks | sbm@clevelandmetroparks.com |
| Amy Snell | RTA | asnell@gcrta.org |
| Jacob Van Sickle | Bike Cleveland | jacob@bikecleveland.org |
| Calley Mersmann | CMSD | calley.mersmann@clevelandmetroschools.com |
| John Motl | ODOT D12 | john.motl@dot.ohio.gov |
| Charles Slife | City of Cleveland Mayor's Office | cslife@city.cleveland.oh.us |
| Matt Schamer | NEORSD | schamerm@neorsd.org |
| Chris Alvarado | Slavic Village Development – Ward 12 | chrisa@slavicvillage.org |
| Andrew Cross | City of Cleveland Traffic Engineering | across@city.cleveland.oh.us |
| James Sonnhalter | Cuyahoga County Planning Commission | jsonnhalter@cuyahogacounty.us |
| Jenita McGowan | City of Cleveland Sustainability | jmcgowan@city.cleveland.ohio.us |
| Wayne Mortensen | Cleveland Neighborhood Progress | wmortenson@clevelandnp.org |
| Barb Clint | YMCA | bclint@clevelandymca.org |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | Lyon-StadlerN@pbworld.com |
| Scarlett Sharpe | WSP \| Parsons Brinckerhoff | sharpesd@pbworld.com |
| Neil Billetdeaux | SmithGroupJJR | Neal.Billetdeaux@smithgroupjjr.com |

### Welcome and Introductions

Director Collier started the meeting with a presentation on Health, Equity and Sustainability

- All are important to the City's administration
- We must be sensitive to communities with minorities and income disparity
- Health means more than just the absence of disease
- A population's health is not one dimensional; we must understand the social determinants of health; social, economic, and environment conditions influence the health of individuals in jurisdictions as a whole
- Place matters when talking about health
- The City has a 'health in all policies' approach; we need to create fair opportunities for all communities
- When looking at Equity we need to look at incorporating disadvantaged neighborhoods (Buckeye, Slavic Village, etc.)
- Need to educate people on bicycles and encourage bicycling as a mode of transportation

- Need connections to community facilities
- There are many factors included in this project; it is not solely about providing a Midway Cycle Track
- Safety and sustainability – lighting (solar vs. LED)
- Climate Change – improving the tree canopy; reduce carbon footprint; may be part of the project, if applicable

Nancy Lyon-Stadler facilitated the meeting.

**Community Engagement**

- **Project Team** manages, directs and oversees plan development.
- **Steering Committee** is a broad cross section of agencies that will have a role in plan development through regular meetings during the plan development process and opportunities for outreach with their constituencies.
- **Technical Committee** is unique to this project. Committee members will engage in a workshop identify the design concept and prototypes for the Midway Cycle Track, specifically roadway cross section configuration and intersection configuration, function and treatments. Technical committee members are those with expertise in traffic operations, and roadway design, and bicycle facility design. The Midway Cycle Track needs to work for safely and efficiently for bicycle and vehicular traffic
- **Public** input will be solicited at two public meetings. The first meeting will be a set of meetings that will be held in three locations within the City with the objective of obtaining input on plan elements. The second meeting will be held at one central location toward the end of the project to present the draft plan and solicit feedback.

Project Vision and Objectives

- Vision and objectives were drafted at the first Project Team meeting.
- Focus is on Midway Cycle Track facilities; other types of bicycle facilities will be looked at for a corridor if a Midway will not work
- Steering Committee input:
  - Jenita McGowan commented she was surprised to see emphasis on the Midway concept over other types of protected bicycle facilities. She believed the project would be looking at where we can put protected bicycle infrastructure with the Midway being one of those options; not just looking at where a Midway would fit. Does not understanding the hierarchy of a Midway Cycle Track over other protected bicycle facilities.
    - ~ Nancy stated it's about balancing resources and determining the primary focus. TLCI application focused on the midway cycle track concept, inspired by the idea of putting such facilities within corridors where street cars used to run. Cleveland is roughly 85 square miles and this project is not able to support developing a city-wide separated bikeway master plan.
    - ~ Dir. Collier agreed that this plan will be part of something broader; not just looking at Midway, but due to the project limitations, the City needed to figure out what element will serve us best. The Midway rose to the top. Dir. Collier stated he understands Jenita's concerns, but the question is where we are going to focus with this project.
    - ~ Jenita stated she is fine with the project scope being limited to where we can put a Midway, but it needs to be clear that this is not a comprehensive separated bikeway plan and will not identify everywhere separated bicycle facility would work.
  - Jenita stated that the terminology needs to be clarified (separated vs. protected).

- Nancy stated that bicycle facility terminology is evolving. The transportation industry (FHWA, AASHTO, ITE, others) has adopted the term 'separated' to replace 'protected' because the bicycle facilities are not protected at intersections where conflicts between bicycles and motor vehicles exist.
- Dialogue followed on intersection movements and the challenges involved with placing a cycle track facility on the side of the road where there are more potential conflicts. A Midway concept is the easiest to sell in terms of operational considerations because it is easier to more safely control traffic movements (all modes) and there are fewer points of conflict.
- Andy Cross stated the terms 'protected' and 'separated' are not interchangeable. 'Separated' means there are no conflicts, like turning conflicts. The City is going to make the distinction between protected and unprotected. The term '; separated can apply to both as it can a Midway; a Midway is easier to protect; City will focus on a truly protected facility
- Jacob Van Sickle agreed that if a Midway does not work for a roadway, other types of bicycle facilities should be considered for the corridor.

- Barb Clint suggested adding to the Vision statement: community building and place making as related to economic development. Project will have the ability to bring people together and celebrate the uniqueness of each neighborhood promoting economic development. Jacob added the suggestion to make the text read: economic development, social cohesion and placemaking. Nancy edited the Vision statement within the presentation.
- Jacob asked if implementation would be incorporated into the plan. Marty Cader stated he sees implementation as a subset of the City's Bicycle Master Plan.
- Consensus on the Vision and

Consensus approval of the modified Vision statement and Objectives, shown below:

**VISION**

Create a network of 'midway cycle track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development; social cohesion and placemaking throughout Cleveland.

**OBJECTIVES**

- Locate midway cycle track corridors within appropriate roadways (i.e., sufficient width and configuration).
- Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.
- Develop prototypical design concepts and standards for midway cycle track and protected bicycle lanes, focusing on operational safety and minimizing conflicts with other travel modes.
- Identify and rank corridors that have the potential to accommodate a midway cycle track.
- Determine the technical feasibility, engineering requirements, programming, planning level cost estimates and strategic multi-phase implementation of dedicated midway cycle track corridors.
- Identify a "model section" as a community example to demonstrate value and scale.
- Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland. (*www.clevelandgis.org/apps/bikeways/* and *www.midwaycle.org*).

**Plan Development Process**

- Task 1 Project Initiation.

  - The Project Team kick off meeting was held on February 8, 2016. The project vision and objectives were drafted and potential corridors were identified.
  - The Technical Committee Workshop will be held on March 10th.
- Task 2 Existing Conditions.
  - Data gathering and assessment of corridors to identify which could accommodate a midway cycle track and which should be considered for an alternative treatment.
- Task 3 Concept Development.
  - The Project Team will be engaged in a concept development workshop, taking the outcomes (design standards) from the Technical Committee workshop, identifying corridors that could accommodate a midway cycle track, and identifying other treatments for corridors where a midway will not fit.
  - MetroQuest survey will be developed to facilitate community engagement. The survey will be used to gather input on destinations, help prioritize corridors and other issues for public input. The survey will go live during the first public meeting and it will run for two months.
- Task 4 Refine Concepts and Evaluate Corridors. Other factors to be addressed in this task are looking at ease of installation, relative cost, and roadway maintenance schedule and what is on the capital improvement plan; then prepare the draft documentation.
- Task 5 Prepare Final Document. During this phase, we will go back to the public to present the draft plan and get feedback. We will then refine and finalize the draft plan, incorporating pubic feedback, as appropriate.

**Schedule**

- The various meetings (Project Team, Steering Committee, etc.) are clustered throughout the plan development process
- Public meeting 1 will consist of three meetings at different locations in Cleveland, west/central/east. The same information will be presented at each meeting.
- The plan will be finalized and the project will be complete by December 2016.

**Potential Corridors**

- The Cleveland Bikeway Plan map identifies existing and planned corridors as well as those that are not City owned. This map was a starting point for corridor identification. Similarly, the Midway Corridors mapping shows corridors identified by the Midway grassroots efforts of Bike CLE. The Project Team reviewed data from both sources and determined that they do not capture the extent of what we what to look at for this project.

- Following Project Team Meeting #1, Cleveland Traffic Engineering provided a list of corridors they felt would fit the Midway concept based on traffic volumes, roadway characteristics, etc. as a starting point. St. Clair was added as it was one of the original corridors identified by the grassroots effort.

- Corridors include:
  - *Lakeshore Boulevard.* Popular road for cyclist; ties into the downtown Cleveland Bikeway system
  - *E. 156th Street*. Lakeshore to Waterloo Boulevard; residential connection
  - *Payne Avenue*. E. 13th St to E. 55th Street; works in partnership with Wade Park corridor to get to University Circle
  - *Wade Park*. Park does not connect to proposed corridor would need a little land acquisition to connect to University Circle area
  - *Lake Avenue.* Detroit Avenue to Clifton Avenue

- *Fulton Road.* From the bridge over the zoo, which has bike lanes, to Memphis Avenue
- *MLK*. Farringdon Avenue to Harvard Avenue
- *Corlett Road*. MLK to E. 131st Street
- *Shaker Boulevard*. Buckeye Road to Van Aken Boulevard; adjacent to blue/green line
- *North and South Moreland*. Griffing Avenue to Fairhill Road; connects to Fairhill Road through Shaker Square

- Dir. Collier stated some of the streets are obvious; some with a considerable median in the middle; great opportunities. Asked if Chester is on the list. He also stated Shaker Boulevard is a bad example as the median is occupied by rapid transit. Nancy thought that perhaps the idea behind Shaker Boulevard is to look at traffic volumes and perhaps the roadway capacity could be reduced.

- Euclid corridor was discussed. Traffic volumes dropped on it after adding BRT. Installing a Midway Cycle Track may result in a similar shift in vehicular traffic. It would be best to locate Midways on corridors where there are alternate roadways for cars to minimize diversions through neighborhoods.

- Given the relatively limited coverage of the study area by the initial corridors identified by Traffic Engineering, others were added, as shown in the presentation.
  - Jenita observed that there is a lack of north/south connections. Current bike plan marginally addresses this issue; would like to see one really good north/south bike route. Likes E. 55th as a north/south
  - E.55th Street was discussed. With the construction of Opportunity Corridor, traffic volumes on E.55th Street will be reduced, potentially making it a viable option as a Midway corridor. Barb noted that during construction two lanes were taken and it was operational; it also has regional connectivity and connects to the Towpath Trail in Slavic Village.
  - *Ontario Avenue* – Public Square to Carnegie; there is a new section of trail that gets you to the ped signal between the Q and Progressive Field built as part of the Innerbelt project; Carnegie didn't seem like a logical choice; but could be left on the list
  - Melissa Thompson suggested adding the Step-Up Downtown Plan to the maps like the Lorain Cycle Track. She is to send the plan to us.
  - *Clifton Boulevard* removed from the list; was on list prior to the implementation of BRT; it's not possible to take any additional capacity from Clifton.
  - *Clark Avenue* was a TLCI study that looked at the community needs of the corridor; the solution implemented sharrows with on-street parking (was a reflection of what the community stated they wanted).
  - *Broadway Avenue* – approximately Pershing to Miles Avenue; closer to I-77 there is a lot of truck traffic; makes sense to avoid the Broadway Bridge over I-77; this bridge will eventually be replaced as part of the Innerbelt project and the new bridge will accommodate bicycles.
  - Vehicles per day information has been added to the slides; rule of thumb for a road diet from four lanes to three is VPD must be less than 15,000

  - Question was asked if fluctuations between peak hour volumes were considered. Nancy explained peak hour is typically between 10-12 percent of the total volume. Total vehicles per day (ADT) is a starting point.

  - *Kinsman Road* – E. 55th Street to Corp. Limit; 17,000 VPD is a high volume, but there is a lot of opportunity along the corridor. Andy added that when we get into design criteria a lot of the

corridors will fall off; curb to curb width alone; Midway would be approximately 20 feet wide: Kinsman is 38-feet from E. 79th Street to approximately E. 55th Street leaving approximately 18-feet. Broadway is approximately 40 to 44-feet; one lane on Broadway may work but there will not be any room for turn slots; keep in mind 20 feet is a rule of thumb; you are taking two travel lanes not one.

- Has Opportunity Corridor been incorporated into volumes? Traffic will shift off E. 55th was it is completed. John Motl stated traffic on Kinsman will not be affected; may affect E. 55th more. Request to have John Motl provided traffic projections for Opportunity Corridor (Kinsman, Woodland, E. 55th Street configuration. If volumes drop then all of E. 55th Street could be an option

- *Detroit-Superior* – Lake Avenue to Corp. Limit; challenges associated with this segment. Detroit will have many challenges including traffic volumes. Parking in Gordon Square is in high demand; the City couldn't put bike lanes on Detroit in this area due to parking. Bicycle travel is accommodated via the Lakefront Bikeway. Retain this option until design parameters are developed by the Technical Committee.

- *Union Avenue* – Broadway Avenue to Kinsman Road; previous TLCI completed that addressed bike lanes
- *Harvard Avenue* – E. 55th Street to the Corp. Limit
- *Miles Avenue* - Broadway Avenue to the Corp. Limit
- *Denison Avenue* – Lorain Avenue to Corp. Limit; goes past the zoo
- *E. 93rd – E. 105th Street* – Broadway Avenue to Corp. Limit; TIGER grant planning study to be underway soon
- *Woodland Avenue* – E. 22nd Street to MLK; useful to know with CCG3 what the configuration will be and volume projections
- *Buckeye Road* – Woodland Avenue to Corp. Limit; challenges with on-street parking in the corridor
- *E. 116th Street* – MLK to MLK
- *Comm. College - Quincy* - E. 22nd Street to Woodhill Road
- *Memphis Avenue* – Corp. Limit to Pearl Road
- *W. 150th Street - Warren Road* – Corp. Limit to Corp. Limit
- *W. 140th Street - Puritas Avenue* to Corp. Limit
- W. *130th Street* - Lorain Avenue to Brook Park Road
- *W. 117th Street* - Edgewater to Corp. Limit; very busy road
- *Rocky River Road* – Corp Limit to Brook Park Road
- *Madison Avenue* – Corp. Limit to W. 65th Street
- *Lake Avenue (west of Clifton)* – Corp. Limit to Clifton
- *Bellaire-Puritas* – Rocky River to W. 105th Street
- *Fulton Road* – Zoo to Lorain Avenue
- *Lorain Avenue* - W. 65th Street to Corp. Limit

- Dir. Collier observed that most north/south routes are small segments. It would it make sense to overlay what are connection points, community assets; so people understand even though it's a small stretch it gets you to a destination

  - Nancy stated that falls into the next step; first need to figure out where they can fit; then prioritize based on connections
  - Marty stated it would be beneficial to also overlay existing facilities
  - Nancy stated with all things being equal it is also important to consider connecting to the Midway once it's already there

- Question: As looking at assets and community facilities; there are a lot of parallel streets in the neighborhoods that are more pleasant to ride on; can we look at these streets?
  - Nancy stated the amount of area needed to implement a Midway could take a whole neighborhood street; would be appropriate for some sort of bicycle facility, but not a Midway. Jacob noted it also would take the economic development aspect from the project if put into a neighborhood. Nancy mentioned that signalized intersections have been discussed as a requirement for Midway corridors to establish safer crossings.

- What is missing??
  - North/south connection in the Collinwood area
  - E. 152nd Street - Ivanhoe
  - W. 25th Street to connect to Pearl Road (TLCI implementation grant underway to add bike lanes on Pearl)

  Downtown possibilities
  - Superior Avenue – could be a good option; bus lanes to remain; connects to public square; diverges from Euclid; wide street; new developments
  - Rockwell /Frankfort;
  - St. Clair Avenue; from the Flats; there is a peak hour bus lane; riders are allowed in the bike lane except for on Euclid Avenue
  - Lakeside Avenue
  - Ontario Avenue; could go up Carnegie to west side of Ontario and cross by the bike station
  - Look for other option north/south in downtown
  - Lakefront Greenway conversations are still underway; will feed into this plan for regional connections; takes you to E. 55th Street; provides a crossing of SR 2 at E. 40th Street; E. 40th will get you to Woodland Avenue
  - E. 12th Street could be a good north/south

**Next Steps**
- Technical Workshop is March 10th
- Existing Conditions Inventory

**Action Items:**
- Melissa Thompson to provide Step-Up Downtown plan
- John Motl to provide Opportunity Corridor traffic volumes
- City Planning to provide Public Square plan
- Overlay ESG mapping routes on the east side
- Overlay SRTS corridors and schools
- Add E. 55th Street, E. 152nd Street/Ivanhoe, Chester Avenue, Superior Avenue
- Confirm Dir. Collier's mapping aligns with our mapping

# Midway Cycle Track &

## Protected Bicycle Facilities Plan

Steering Committee Kick-off Meeting

March 1, 2016

## Agenda

1. Welcome *(Director Collier)*
2. Introductions *(Co-Chairs Jacob VanSickle & Barb Clint)*
3. Cleveland's Midway Presentation *(PB/SGJJR Team)*
4. Midway Corridor Discussion *(PB/SGJJR & Co-Chairs)*
5. Next Steps *(Project Team & Co-Chairs)*

## Presentation Outline

1. Community Engagement
2. Project Team
3. Steering Committee
4. Technical Committee
5. Project Vision & Objectives
6. Plan Development Process
7. Schedule
8. Project Sub-Areas
9. Potential Midway Corridors
10. Next Steps

## Community Engagement

1. Project Team
   - Manage and direct plan development
2. Technical Committee
   - Midway Technical Workshop
   - Develop guidelines for design concept prototypes
3. Steering Committee
   - Provide insights, information, guidance and feedback on plan development
4. Public
   - Provide input and feedback on plan
   - Bike Cleveland involvement

## Project Team

### Project Team

- Cleveland Planning Commission
- Cleveland, Division of Traffic Engineering
- Cleveland, Mayor's Office of Sustainability
- Northeast Ohio Areawide Coordinating Agency (NOACA)
- Consultant Team
  - Parsons Brinckerhoff
  - SmithGroupJJR

## Steering Committee

- Midway Project Team
- Bike Cleveland
- Cleveland Engineering & Construction
- Cleveland Regional Development
- Cleveland Traffic Engineering
- Cleveland City Council Transportation Committee (Councilman Marty Keane)
- Development, Planning & Sustainability Committee (Councilman Tony Brancatelli)
- CMSD (Cleveland Metro. School Dist.)
- Cleveland Metroparks
- Cuyahoga County Planning Comm.
- GCRTA
- CNP (Cleveland Neighborhood Progress)
- NEORSD
- ODOT
- YMCA

## Technical Committee

- Bike Cleveland
- Cleveland Planning Commission
- City of Cleveland - Sustainability
- City of Cleveland - Traffic Engineering
- City of Cleveland - Department of Public Works
- Cuyahoga County Planning Commission
- GCRTA
- NOACA
- ODOT District 12, Traffic Engineering
- YMCA
- Consultant Team

## Project Vision & Objectives

**VISION**

Create a network of 'midway cycle track' facilities (a type of separated bicycle facility) to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development; social cohesion and placemaking throughout Cleveland.

**OBJECTIVES**

- Locate midway cycle track corridors within appropriate roadways (i.e., sufficient width and configuration).
- Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.
- Develop prototypical design concepts and standards for midway cycle track and protected bicycle lanes, focusing on operational safety and minimizing conflicts with other travel modes.
- Identify and rank corridors that have the potential to accommodate a midway cycle track.
- Determine the technical feasibility, engineering requirements, programming, planning level cost estimates and strategic multi-phase implementation of dedicated midway cycle track corridors.
- Identify a "model section" as a community example to demonstrate value and scale.
- Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland. (*www.clevelandgis.org/apps/bikeways/* and *www.midwaycle.org*).

## Plan Development Process

- Task 1 – Project Initiation
  - Project Team Kick-Off Meeting (PT #1) 2/8/16
    - ◇ *Goals & Objectives*
    - ◇ *Project Corridors*
  - Steering Committee Kickoff Meeting (SC #1) 3/1/16
  - Midway Technical Workshop 3/10/16
    - ◇ *Design Concept Prototypes*
      - ~ Midway Cycle Track
      - ~ Buffered Bike Lanes

## Plan Development Process

- Task 2 – Existing Conditions
  - Document Corridor Characteristics
  - Project Team Meeting #2 (PT #2)
    combine with Concept Development Workshop
    - ◇ *Review Existing Conditions*
    - ◇ *Identify Midway Corridors*
    - ◇ *Identify Buffered Bike Lane Corridors*

## Plan Development Process

- Task 3 – Concept Development
  - Concept Development Workshop (2 days, Project Team) 4/13-14/16
    - ◇ *Review Midway Technical Workshop Outcomes & Project Mapping*
    - ◇ *Assess Midway and Buffered Bike Lane Corridors*
    - ◇ *Identify Potential Treatment Alternatives*
  - Develop Community Engagement Survey
    - ◇ *Project Team Meeting #3 (PT #3)* 4/25/16
  - Steering Committee Meeting #2 (SC#2) 5/31/16
  - Public Meeting #1 (PM #1), 3 locations (early June)
    - ◇ *Survey Runs Live*
    - ◇ *Supported by "Pop Up" Outreach (CDCs & other support organizations)*
  - Project Team Meeting #4 (PM#4) 8/10/16
    - ◇ *Review Survey Data*
    - ◇ *Develop Evaluation Criteria*

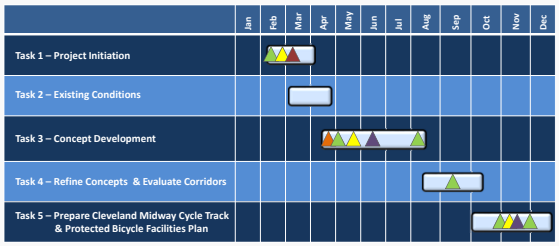
## Plan Development Process

- Task 4 – Refine Concepts & Evaluate Corridors
  - Project Team Meeting #5 (PT #5) 9/15/16
    - ◇ *Evaluate Corridors*
    - ◇ *Review Public Input*
    - ◇ *Review Other Factors*
      - ~ Ease of Installation
      - ~ Cost
      - ~ Roadway Maintenance Schedule
    - ◇ *Develop and Document Draft Recommendations*

## Plan Development Process

- Task 5 – Prepare Cleveland Midway Cycle Track & Protected Bicycle Facilities Plan
  - Prepare Draft Plan
    - *Mapping of Concepts and Recommendations*
    - *Prioritization of the Corridors*
    - *Draft Implementation Strategy*
      - Planning Level Cost Estimates
      - Operations and Maintenance Considerations
      - Potential Funding Sources and Strategies
  - Project Team Meeting #6 (PM#6)
  - Steering Committee Meeting #3 (SC#3) 11/10/16
  - Public Meeting #2 (PM#2) 11/17/16
    - *Present Draft Recommendations & Solicit Feedback*
  - Project Team Meeting #7 (PT#7) 12/6/16
    - *Review and Incorporate Feedback*
  - Finalize Plan

## Schedule



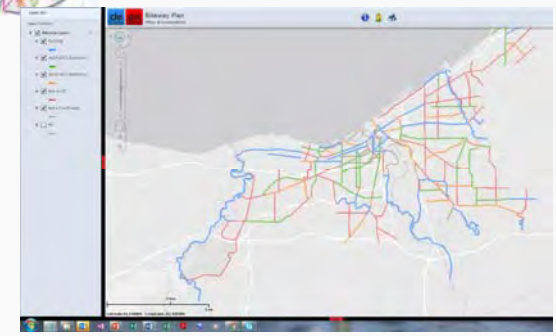

- Project Team Meeting
- Steering Committee Meeting
- Public Meeting
- Midway Technical Workshop
- Concept Development Workshop

## Project Sub-Areas



Identify 3 Sub-Areas to correspond with 3 public meeting locations (PM#1)

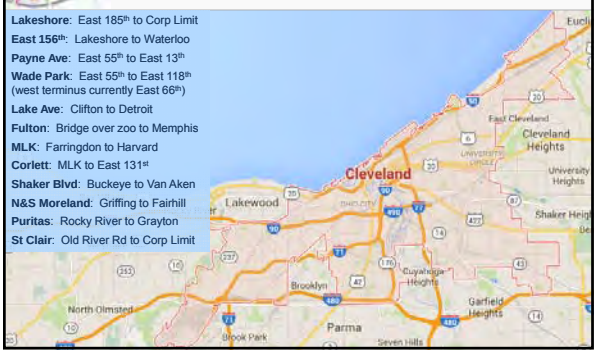
## Cleveland Bikeway Plan



## Midway Corridors


## Potential Midway Corridors

**Lakeshore**: East 185th to Corp Limit
**East 156th**: Lakeshore to Waterloo
**Payne Ave**: East 55th to East 13th
**Wade Park**: East 55th to East 118th (west terminus currently East 66th)
**Lake Ave**: Clifton to Detroit
**Fulton**: Bridge over zoo to Memphis
**MLK**: Farringdon to Harvard
**Corlett**: MLK to East 131st
**Shaker Blvd**: Buckeye to Van Aken
**N&S Moreland**: Griffing to Fairhill
**Puritas**: Rocky River to Grayton
**St Clair**: Old River Rd to Corp Limit

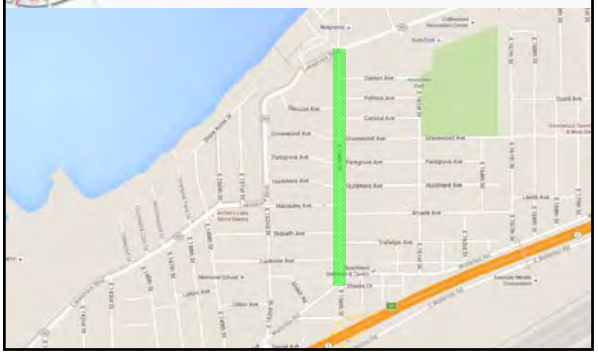


## Lakeshore Blvd

East 185th Street to Corp Limit

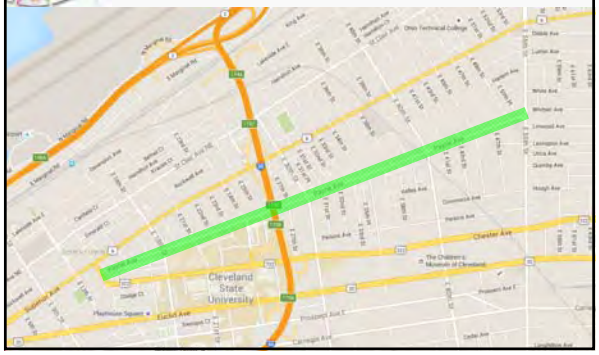
## East 156th Street

Lakeshore to Waterloo



## Payne Ave

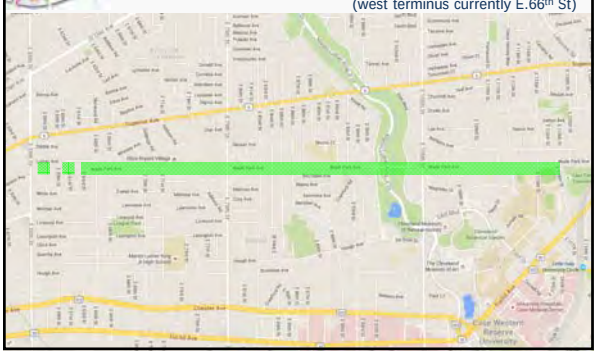
East 13th to East 55th Street




## Wade Park

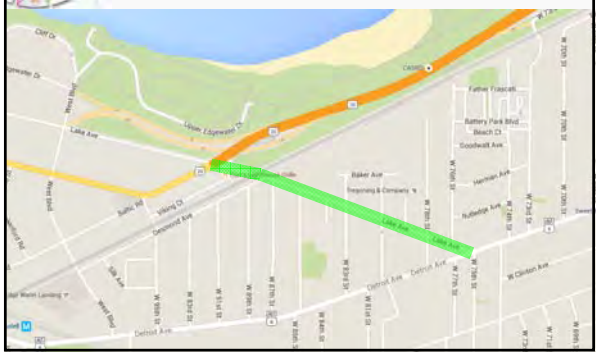
E.55th to E.118th Street

(west terminus currently E.66th St)



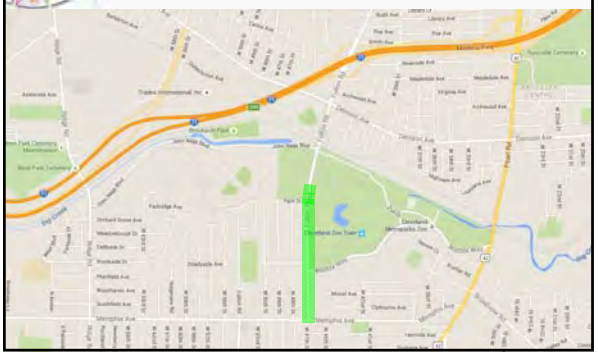
## Lake Ave

Clifton to Detroit



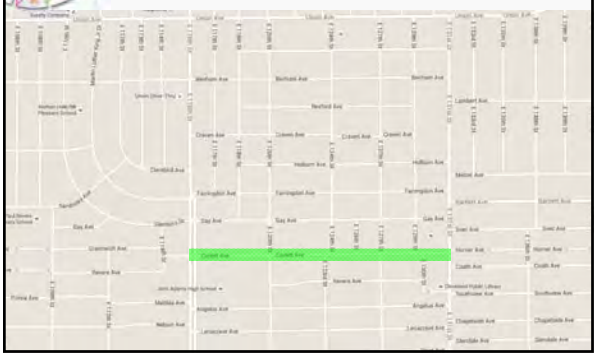
## Fulton Rd

Bridge over Zoo to Memphis

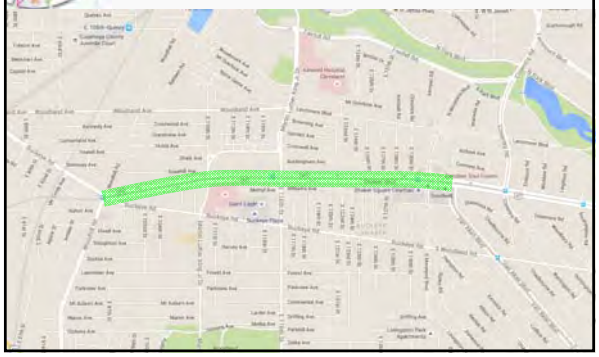


## MLK
Farringdon to Harvard

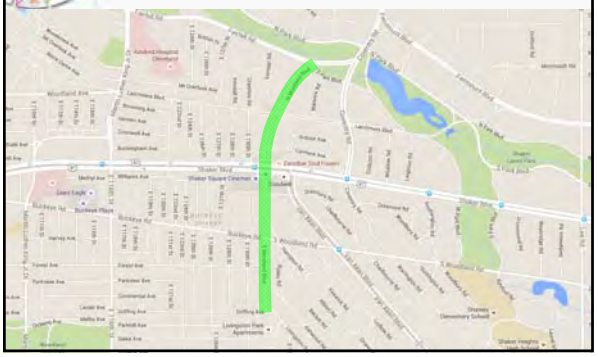
## Corlett
MLK to East 131st Street



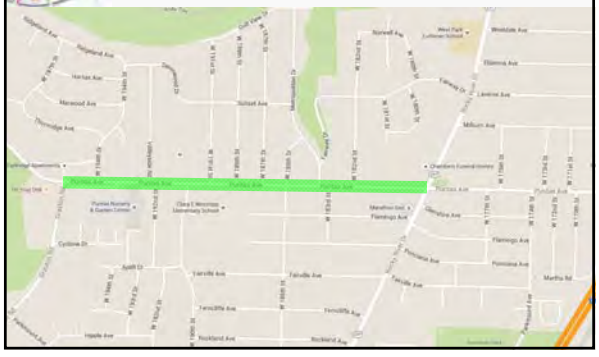
## Shaker Blvd
Buckeye to Van Aken



## North & South Moreland
Griffing to Fairhill

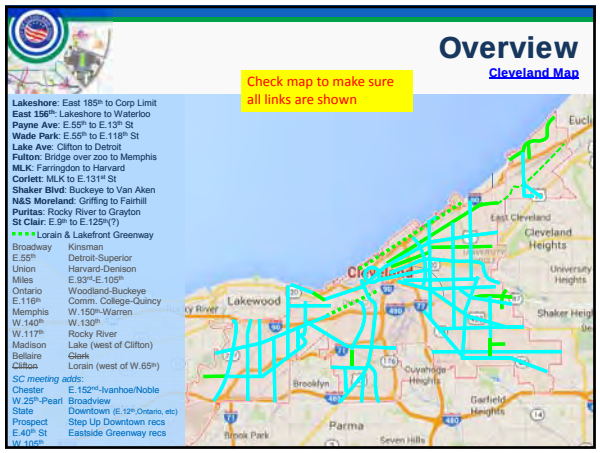


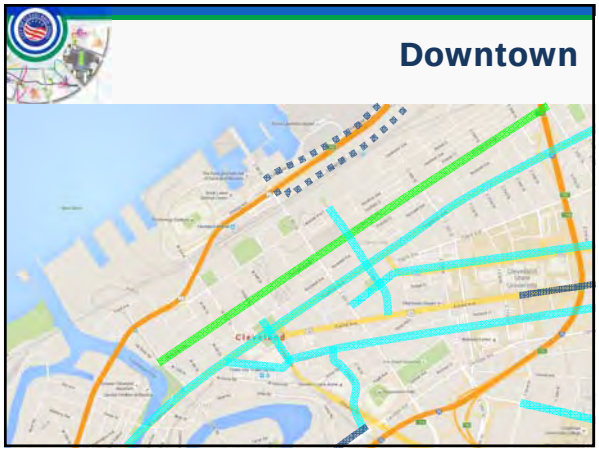
## Puritas
Rocky River to Grayton

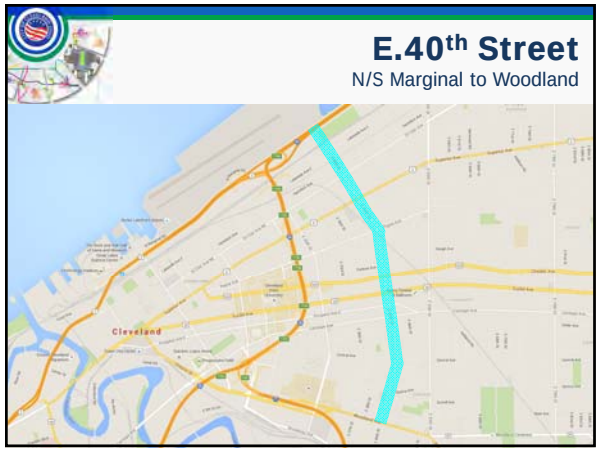


## St Clair Ave
E.9th to E.125th St (or farther)


Overview
Cleveland Map
Lakeshore: East 185th to Corp Limit
East 156th: Lakeshore to Waterloo
Payne Ave: E.55th to E.13th St
Wade Park: E.55th to E.118th St
Lake Ave: Clifton to Detroit
Fulton: Bridge over zoo to Memphis
MLK: Farringdon to Harvard
Corlett: MLK to E.131st St
Shaker Blvd: Buckeye to Van Aken
N&S Moreland: Griffing to Fairhill
Puritas: Rocky River to Grayton
St Clair: E.9th to E.125th(?)
Lorain & Lakefront Greenway
Cleveland
Lakewood
Westlake
North Olmsted
Parma
Brook Park
Brooklyn
Cuyahoga Heights
Garfield Heights
Seven Hills
Cleveland Heights
East Cleveland
University Heights
Shaker Heights


Overview
Cleveland Map
Check map to make sure all links are shown
Lakeshore: East 185th to Corp Limit
East 156th: Lakeshore to Waterloo
Payne Ave: E.55th to E.13th St
Wade Park: E.55th to E.118th St
Lake Ave: Clifton to Detroit
Fulton: Bridge over zoo to Memphis
MLK: Farringdon to Harvard
Corlett: MLK to E.131st St
Shaker Blvd: Buckeye to Van Aken
N&S Moreland: Griffing to Fairhill
Puritas: Rocky River to Grayton
St Clair: E.9th to E.125th(?)
Lorain & Lakefront Greenway
Broadway Kinsman
E.55th Detroit-Superior
Union Harvard-Denison
Miles E.93rd-E.105th
Ontario Woodland-Buckeye
E.116th Comm. College-Quincy
Memphis W.150th-Warren
W.140th W.130th
W.117th Rocky River
Madison Lake (west of Clifton)
Bellaire Clark
Clifton Lorain (west of W.65th)
SC meeting adds:
Chester E.152nd-Ivanhoe/Noble
W.25th-Pearl Broadview
State Downtown (E.12th,Ontario, etc)
Prospect Step Up Downtown recs
E.40th St Eastside Greenway recs
Lakewood
Brooklyn
Cuyahoga Heights
Garfield Heights
Parma
Brook Park
Seven Hills
Cleveland Heights
East Cleveland
University Heights


Downtown


E.40th Street
N/S Marginal to Woodland
Cleveland


E.55th Street (post O.C.)
E.55th St Marina to Broadway
Cleveland

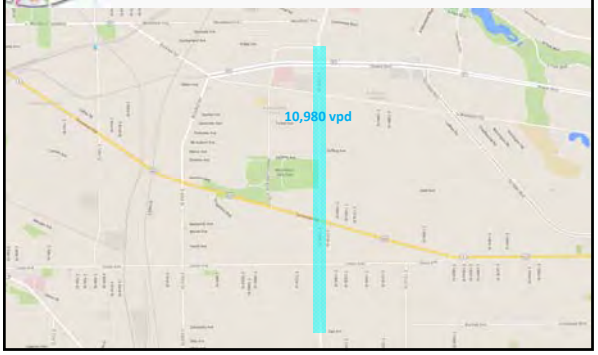

E.79th Street
St. Clair to Union
Cleveland

## E.93rd-E.105th Street

Broadway to Corp Limit

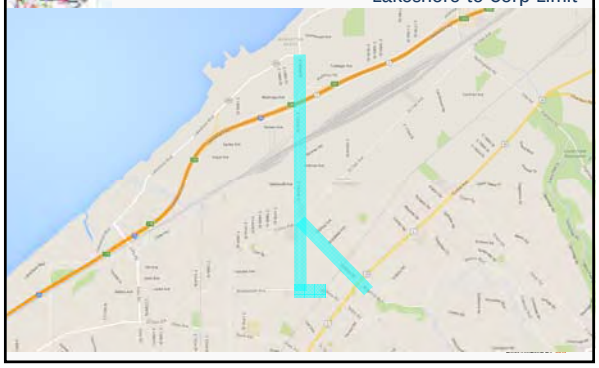

## E.116th Street

MLK to MLK



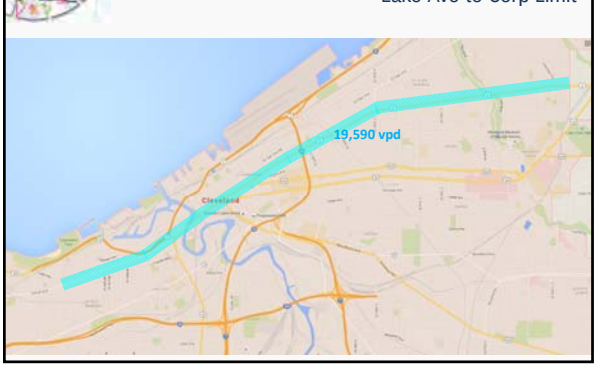

## E.152nd-Ivanhoe/Noble

Lakeshore to Corp Limit



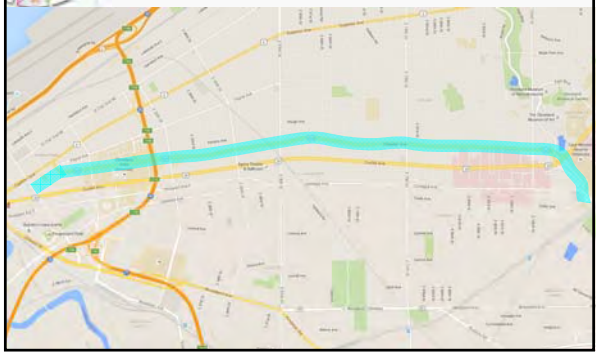
## Detroit-Superior

Lake Ave to Corp Limit



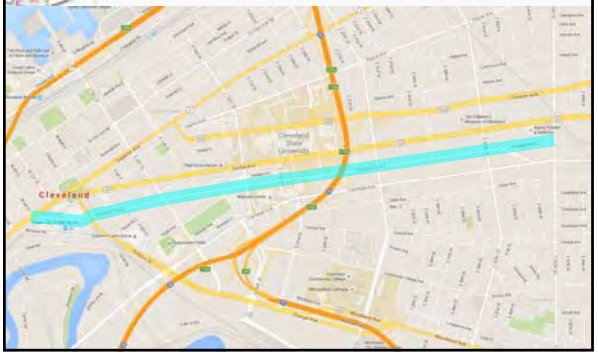

## Chester

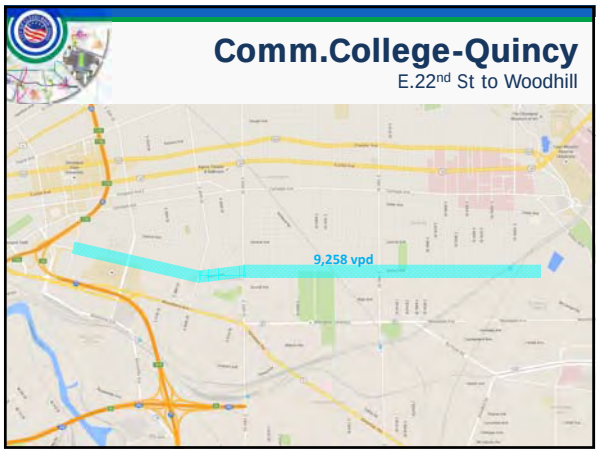
E.9th St to MLK

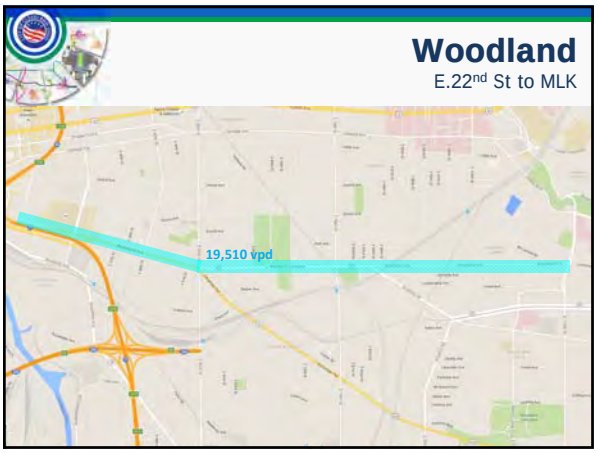


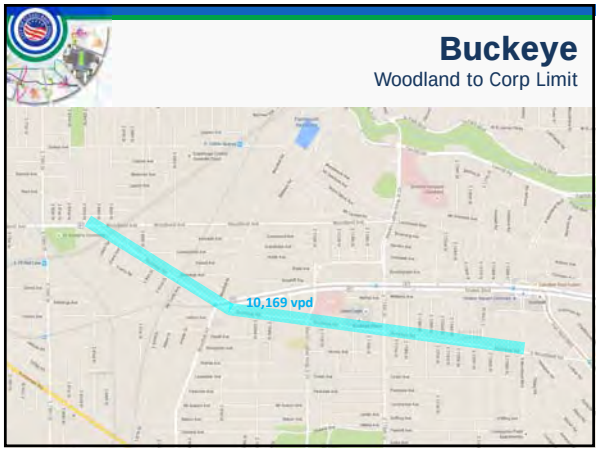
## Prospect

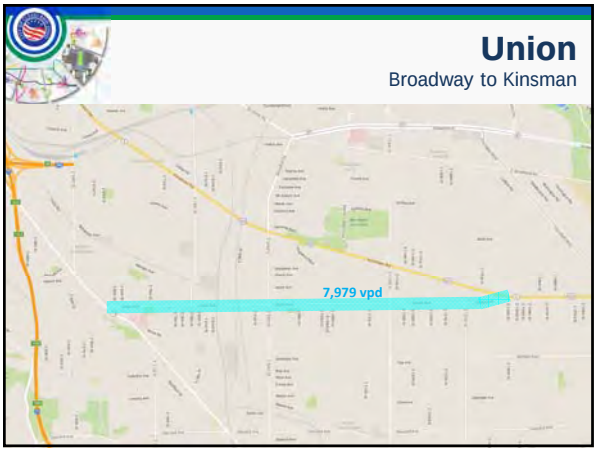
Superior to E.55th St



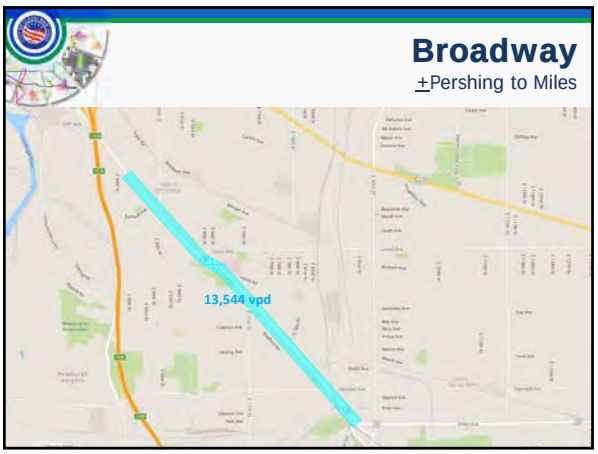

Comm.College-Quincy
E.22nd St to Woodhill
9,258 vpd

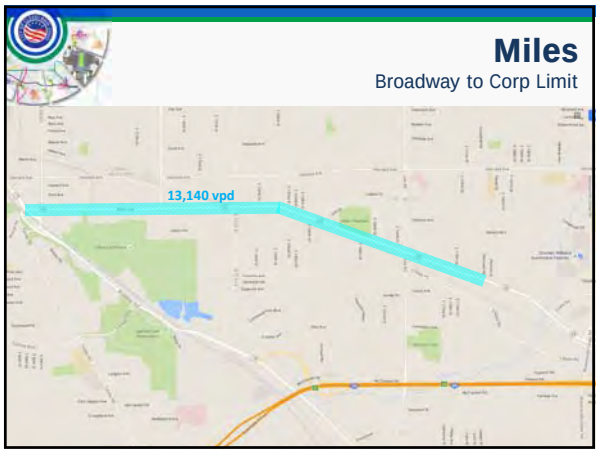

Woodland
E.22nd St to MLK
19,510 vpd

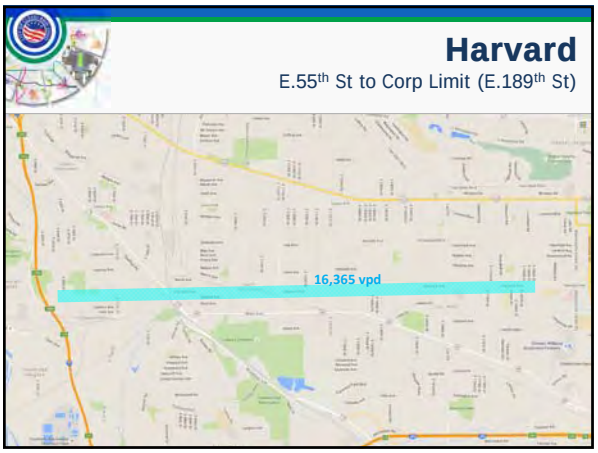

Buckeye
Woodland to Corp Limit
10,169 vpd

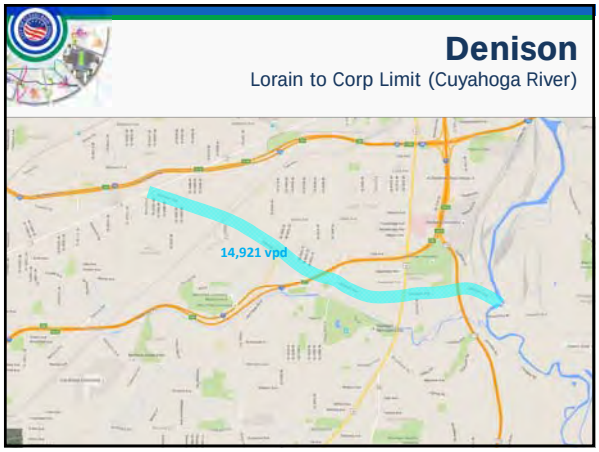

Union
Broadway to Kinsman
7,979 vpd

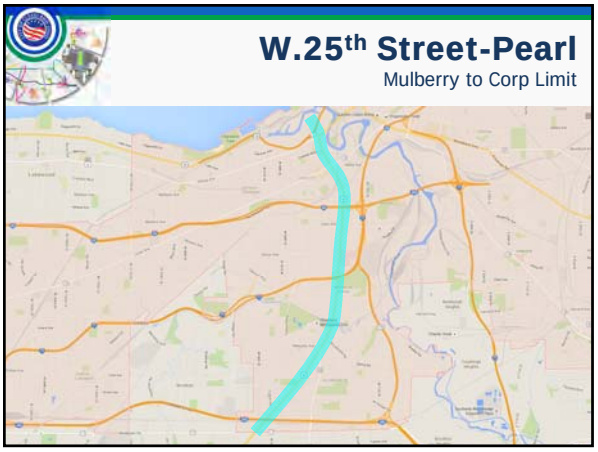

Kinsman
E.55th St to Corp Limit
17,010 vpd

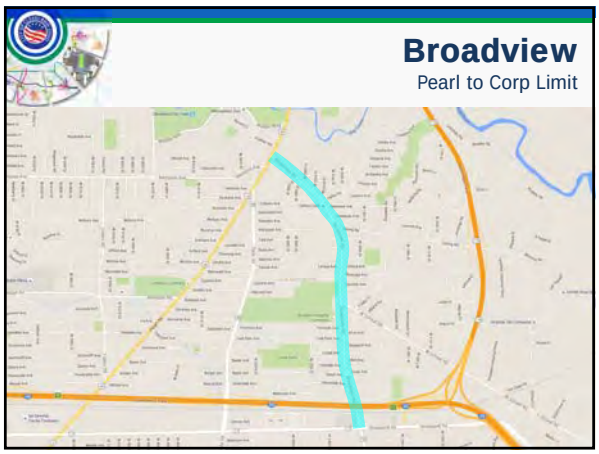

Broadway
±Pershing to Miles
13,544 vpd

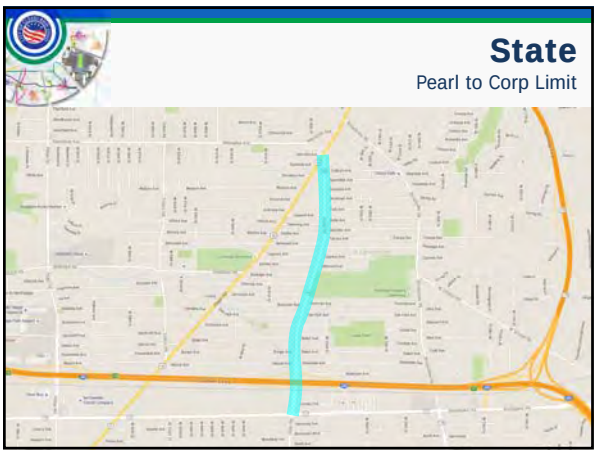

Miles
Broadway to Corp Limit
13,140 vpd

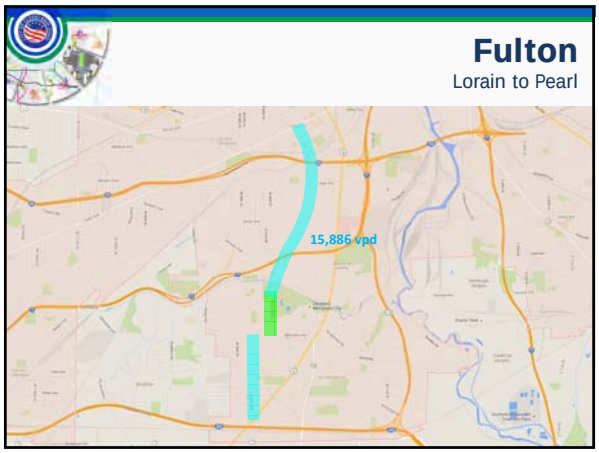

Harvard
E.55th St to Corp Limit (E.189th St)
16,365 vpd

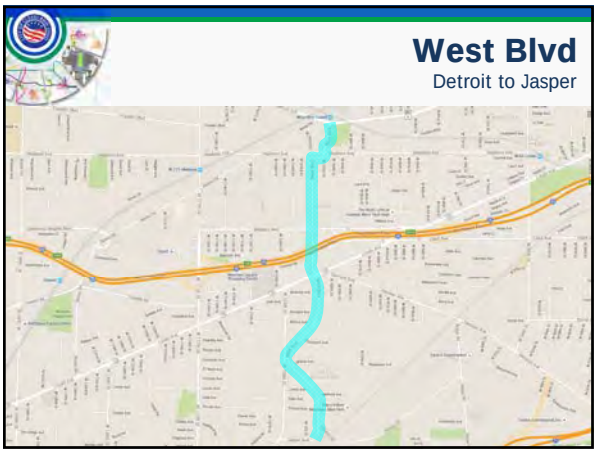

Denison
Lorain to Corp Limit (Cuyahoga River)
14,921 vpd

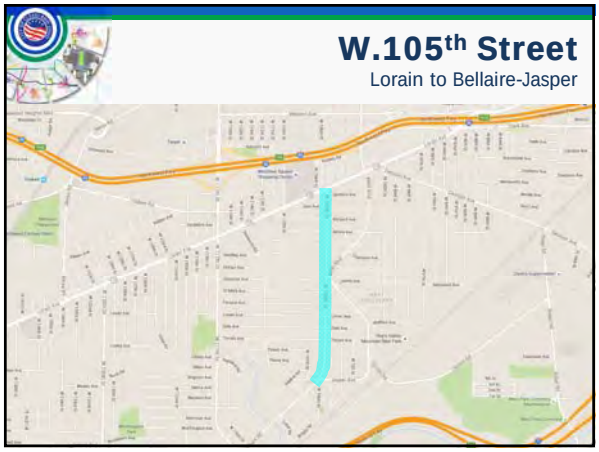

W.25th Street-Pearl
Mulberry to Corp Limit

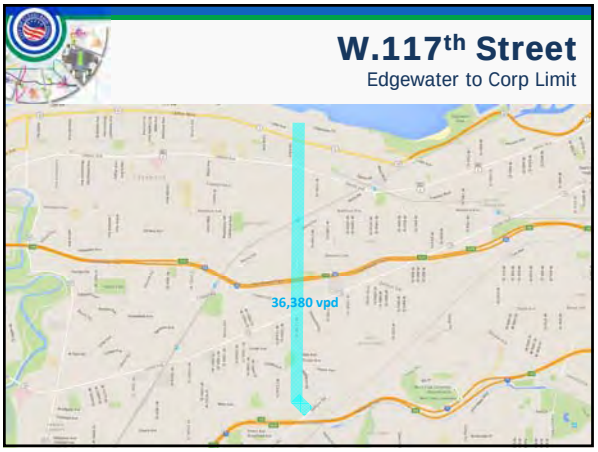

Broadview
Pearl to Corp Limit

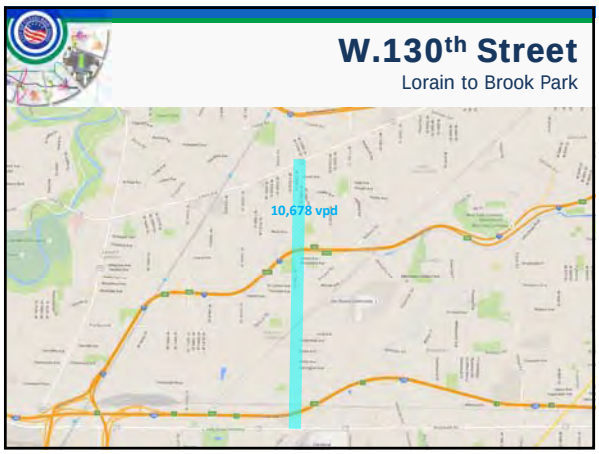

State
Pearl to Corp Limit

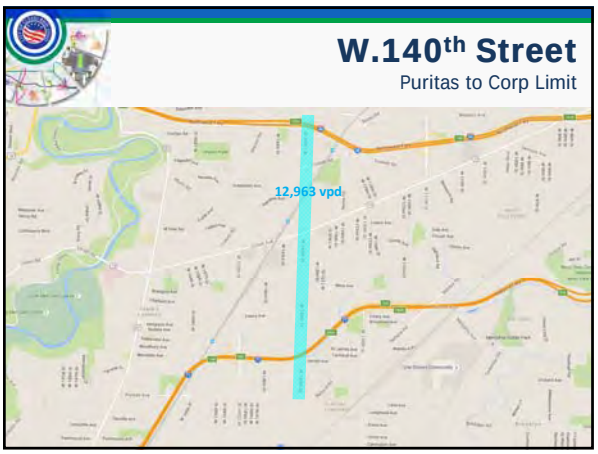

Fulton
Lorain to Pearl
15,886 vpd

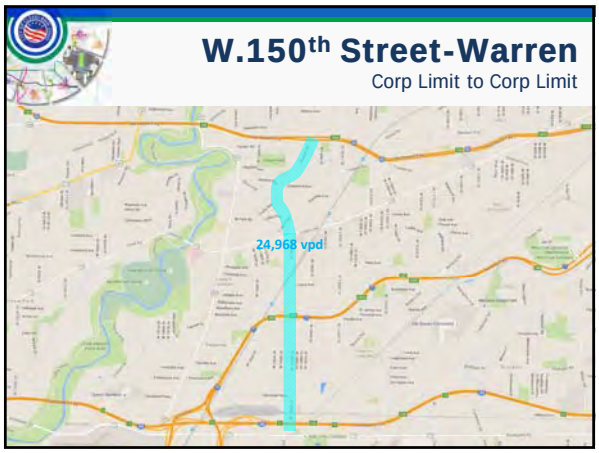

West Blvd
Detroit to Jasper

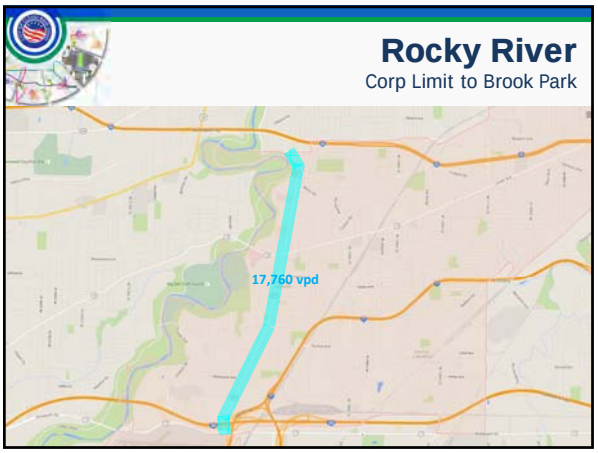

W.105th Street
Lorain to Bellaire-Jasper

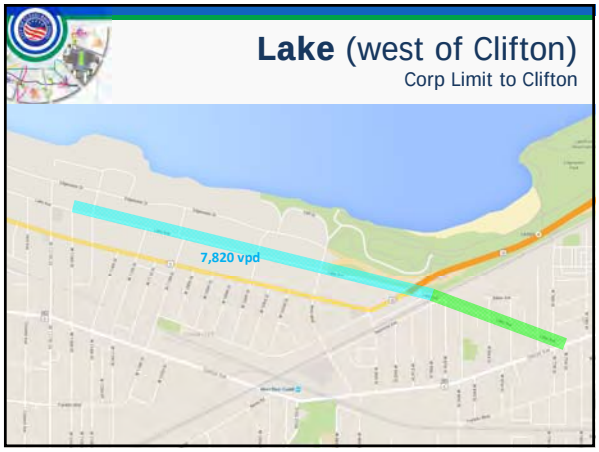

W.117th Street
Edgewater to Corp Limit
36,380 vpd

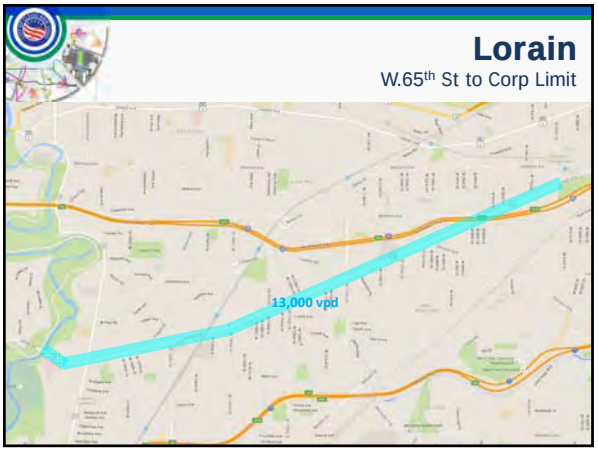

W.130th Street
Lorain to Brook Park
10,678 vpd

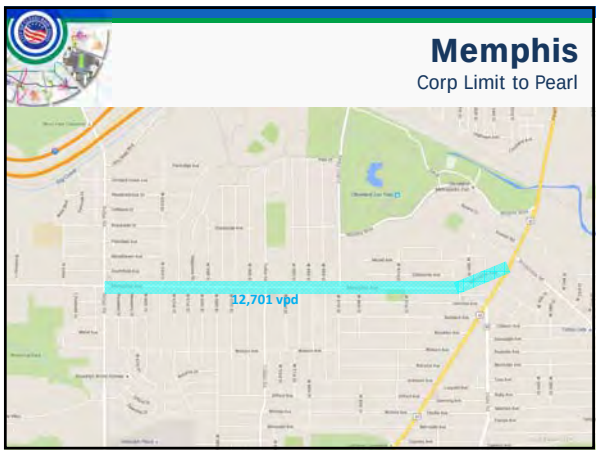

W.140th Street
Puritas to Corp Limit
12,963 vpd

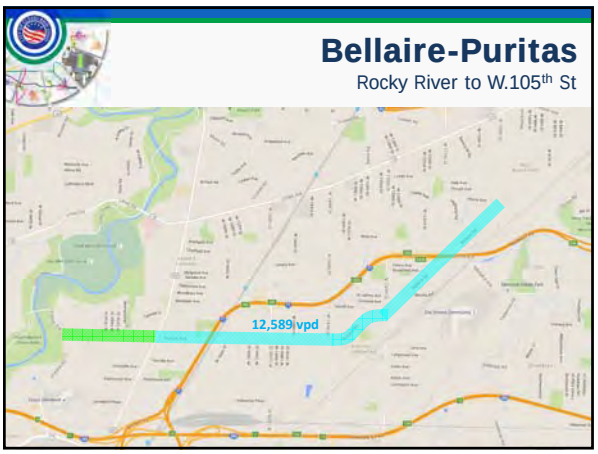

W.150th Street-Warren
Corp Limit to Corp Limit
24,968 vpd


Rocky River
Corp Limit to Brook Park
17,760 vpd


Lake (west of Clifton)
Corp Limit to Clifton
7,820 vpd

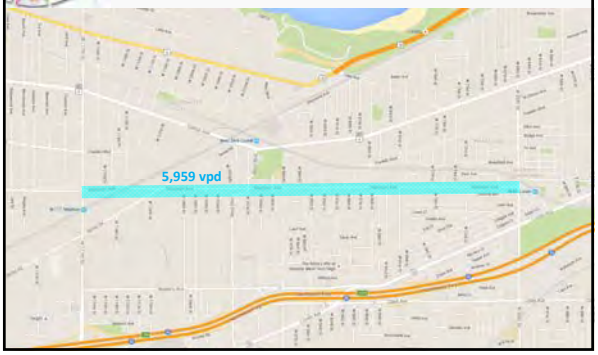

Lorain
W.65th St to Corp Limit
13,000 vpd


Memphis
Corp Limit to Pearl
12,701 vpd


Bellaire-Puritas
Rocky River to W.105th St
12,589 vpd

## Madison

Corp Limit to W.65th St




## Next Steps

- Prepare for Midway Technical Workshop (3/10/16)
- Initiate Existing Conditions Inventory

## THANK YOU !

# Project Team Meeting 2
# April 25, 2016

# MEETING MINUTES

**Project Team Meeting #2**
**April 25, 2016, 2:00 p.m.**
**City of Cleveland Planning Commission**

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Andy Cross | City of Cleveland Engineering | 216-664-3195 | across@city.cleveland.oh.us |
| Jenita McGowan | City of Cleveland Office of Sustainability | 216-664-2455 | jmcgowan@city.cleveland.oh.us |
| Ryan Noles | NOACA | 216-241-2414 | rnoles@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Neil Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |

## Welcome and Introductions

Nancy Lyon-Stadler facilitated the meeting. The focus on the meeting was to establish an initial prioritization of possible Midway Cycle Track (MCT) corridors. Refer to the attached spreadsheet for additional information on the priority rankings and justification.

## Corridor Prioritization – Priority 1 (A MCT fits within the pavement limits of the corridor.)

### WEST SIDE

Fulton Road

Fulton Road from Memphis Avenue to Bush Avenue is to remain going forward as a priority 1.

Lake Avenue

The segment of Lake Avenue from Clifton Boulevard to Detroit Road was considered to be too short; however, it was felt that this roadway could be qualified as it is wider from Detroit Avenue to Clifton Road.

West of Clifton Boulevard is ranked as a priority 3 corridor.

Rocky River Drive

Right-of-way on Rocky River Drive north of Lorain Avenue is constrained. A TLCI study conducted for Rocky River Drive recommended buffered bike lanes as there is a trail connection to Brook Park Road and potentially CLE Hopkins International Airport.

- A MCT south of Puritas Avenue could connect to an off road path with a potential link to the airport.

There is a center turn lane on Rocky River Drive that has a lot of heavy turn movements.

It was stated there is no right-of-way available in this area for an off road trail.

- Consider widening on west side
- The Rocky River TLCI placed a roundabout at top of hill

It was determined that investigating an off road trail to Hopkins International Airport is outside of the scope of the midway concept.

Rocky River Drive from Lorain Avenue to Brookpark Road is ranked as a priority 2 corridor (north or Lorain Avenue).

<u>W. 25th Street/Pearl Road</u>
W. 25th Street is a very short segment, but could be a multi-use trail?

To get to Loraine Avenue there is a lot of automobile traffic (carmageddon!!!) – It was determined that the previous W. 25th Street TLCI should be reviewed for additional traffic volume information.

W. 25th Street is constrained. Cannot take the existing sidewalk as there are too many cafes/restaurants that use the sidewalk.

There is a Neighborhood Progress Plan to upgrade the bus service in this area.

Past efforts to get through West Market parking lot have failed.

Group discussion stated it makes more sense to utilize W. 25th than Lake Avenue for a short trail.

- Would be tough to get people on and off
- Worth taking to public??? If not seriously considering, do not show it

There is a study forthcoming on the Shoreway Trail to the Detroit-Superior Bridge.

<u>Pearl Road</u>
Pearl Road is a Neighborhood Progress transit corridor – little concern south of Broadview Road.

South of Scranton Road is not on the CLE bike map. It is mostly residential with some commercial. There are three travel lanes, two bike lanes, and one parking lane in the plans for Pearl Road.

No critical mass/interest as there are no destination on Pearl Road (parks/schools, etc.). It is unconnected leading only to the City of Parma. (No man's land)

**Summary:**
Advance Rocky River Drive south of Lorraine and Fulton Road to the bridge.

- Best to coordinate with existing bike lanes/plans

NOACA will be maintaining a master bicycle map – accurate, existing and planned.

Lorain Avenue from the end of the proposed cycle track could be a midway or a 'do something else' corridor.

- Going west is an important connection

W. 140th Street

W. 140th Street from Puritas Avenue to the CLE corporate boundary change to a priority 3. This roadway is considered a 'do something else' corridor.

W. 140th Street south of Triskett Road is a priority 2 corridor.

## DOWNTOWN

Needs a cohesive downtown plan (holistic view). There is a lot of capacity east/west to create a MCT EDG has looked at some loop options for TPL.

There is concern about the Huron Road/Superior Avenue intersection.

City Engineering shared a draft downtown bicycle loop - Protected, separated trail with curb – similar to cultural trail.

E. 18th Street is not wide enough for a MCT.

E. 12th Street is a good north/south route with good connectivity. It is included in the CLE Bikeway Master Plan

E. 13th Street is not wide enough. This roadway is considered a 'do something else' corridor.

Ontario Street

It is important to get from the end of the Lorain Avenue-Carnegie Avenue Bridge to connect existing bicycle facilities in downtown.

Discussion is to consider from Huron Road on the north end of Ontario Street.

It was determined that Ontario Street should not be considered for a MCT. This roadway is a 'do something else' corridor.

Chester Avenue

Chester Avenue is close to an existing facility on Euclid Avenue.

Lakeside Avenue

Lakeside is only wide enough up to E. 13th Street.
The group decided to let the evaluation process eliminate this corridor.

Payne Avenue

Payne Avenue from E. 13th Street to E. 55th Street is to remain going forward as a priority 1 corridor.

Superior Avenue
Superior Avenue is a no brainer; however, there is a problem with the RTA bus lanes downtown.

- Does RTA need these lanes?

St. Clair Avenue
A bicycle facility on St. Clair Avenue would connect to the bike lanes on E. 72nd Street.

Could potentially start a bike facility on St. Clair Avenue at E. 55th Street where it starts to split from Superior Avenue.

There is no interchange with I-90 on St. Clair Avenue.

**Summary:**
Lakeside Avenue, St. Clair Avenue, Superior Avenue remain moving forward as priority 1 corridors.

Change Carnegie Avenue to a priority 3.

## EAST SIDE

Woodland Avenue
E. 22nd Street to E. 55th Street should be a priority 1. From E. 55th Street to MLK Boulevard should be a priority 2.

There is a possible new trail from Opportunity Corridor?

Buckeye Road
Buckeye Road from Woodland Avenue to Opportunity Corridor is to remain going forward as a priority 1.

Commumity College Avenue/Quincy Avenue
This corridor is 40-feet to 55 feet wide, but narrows at Quincy Avenue past Cuyahoga Community College.

Lakeshore Avenue
Lakeshore Boulevard rom E. 185th Street to the Cleveland corporate boundary is to remain going forward as a priority 1 corridor.

E. 22nd Street
E. 22nd Street from Carnegie Avenue to Orange Avenue is to remain going forward as a priority 1.

E 55th Street
E. 55th Street from the marina at the lakefront to Broadway Avenue has a constraint with the bridge at the I-90. The bridge is a future ODOT replacement project.

Keep this corridor as priority 1.

E. 93rd Street
E. 93rd Street from Union Avenue to Nelson Avenue narrows at the south end of the RTA green line.

Shaker Boulevard
Shaker Boulevard from Buckeye Road/Woodhill Road to Van Aken Boulevard is a 'do something else' corridor. Group felt it was not suitable for a MCT.

There is a suggestion to cap the RTA trench.

- Severed neighborhood

## Corridor Prioritization – Priority 2 (A MCT fits into the constraints of the corridor but reconstruction would be needed.)

### WEST SIDE

Memphis Avenue
This corridor is to remain going forward as a priority 2.

Rocky River Drive
Rocky River Drive from Loraine Avenue to I-90 is to remain a priority 2.

W. 140th Street
Puritas Avenue to City corporate boundary to remain a priority 25. North of Triskett Road should be a priority 3.

### DOWNTOWN

Carnegie Avenue
Carnegie Avenue from E. 9th Street to E. 55th Street is to remain going forward as a priority 2.

Ontario Street
Ontario Street from Huron Road to Public Square is to remain going forward as a priority 2.

Superior Avenue
Superior Avenue from E. 55th Street to E. 115th Street is to remain going forward as a priority 2.

St. Clair Avenue
St. Clair Avenue from E. 79th Street to E. 82nd Street is to remain going forward as a priority 2.

Chester Avenue
Chester Avenue from E. 93rd Street to Euclid Avenue is to remain going forward as a priority 2.

E 12th Street
E. 12th Street from Lakeside Avenue to Euclid Avenue is to remain going forward as a priority 2.

### EAST SIDE

Woodland Avenue
Woodland Avenue from E. 22nd Street to MLK Boulevard is to remain going forward as a priority 2.

Buckeye Road
Buckeye Road from Woodland Avenue to the CLE corporate boundary is to remain going forward as a priority 2.

## Corridor Prioritization – Priority 3 (A MCT would be challenging, but could be worth it. Retain for consideration.)

### WEST SIDE

Lorain Avenue
Lorain Avenue from W. 65th Street to the CLE corporate boundary is to remain going forward as a priority 3.

### DOWNTOWN

W. 3rd Street
W. 3rd Street from State Route 2 to Superior Avenue is to remain going forward as a priority 3.

E 9th Street
E. 9th Street from the CLE Memorial Shoreway to State Route 2/I-90 is to remain going forward as a priority 3.

E 13th Street
E. 13th Street from Lakeside Avenue to Euclid Avenue is to remain going forward as a priority 3.

Superior Avenue
Superior Avenue from the Detroit-Superior Bridge to Public Square and E. 115th Street to Euclid Avenue is to remain going forward as a priority 3.

### EAST SIDE

Community College Avenue/Quincy Avenue
Community College Avenue/Quincy Avenue from E. 22nd Street to E. 105th Street is to remain going forward as a priority 3.

Miles Road
Should be retained for a 'do something else' corridor. It is part of a rails to trail project line in Portage - Randall Secondary Line.

MLK Boulevard
MLK Boulevard from E. 115th Street/Harvey Rice Elementary School (north of Shaker Boulevard) to Harvard Road is to remain going forward as a priority 3.

North and South Moreland Boulevard
North and South Moreland Boulevard from Griffing Avenue to Fairhill Road is to remain going forward as a priority 3.

Shaker Boulevard
Shaker Boulevard from Buckeye Road/Woodhill Road to Van Aken Boulevard is to remain going forward as a priority 3.

St. Clair Avenue
St. Clair Avenue from W. 9th Street to the CLE corporate boundary is to remain going forward as a priority 3.

Wade Park Avenue
The group was in agreement that Wade Park Avenue is a 'do something else' corridor.

E 55th Street
E. 55th Street from the marina at the lakefront to Broadway Avenue is to remain going forward as a priority 3.

E. 116th Street
E. 116th Street from Farrington Avenue to Corlett Avenue is to remain going forward as a priority 3.

**PRIORITY 3'S TO BE REMOVED**
Bellaire Avenue
Puritas Avenue

# Project Team Meeting 4
# August 10, 2016

# MEETING MINUTES

Project Team Meeting #4
August 10, 2016, 2:00 p.m.
City of Cleveland Planning Commission

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Freddy Collier, Director | City of Cleveland Planning Commission | 216-664-3468 | fcollier@city.cleveland.oh.us |
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Matt Gray | City of Cleveland Office of Sustainability | 216-664-2246 | mgray@city.cleveland.oh.us |
| Rob Mavic | City of Cleveland Engineering | 216-664-3194 | rmavic@city.cleveland.oh.us |
| Amy Snell | GCRTA | 216-566-5100 | asnell@gcrta |
| Melissa Thompson | NOACA | 216-241-2414 x344 | mthompson@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Scarlett Sharpe | WSP \| Parsons Brinckerhoff | 216-928-8327 | sharpesd@pbworld.com |
| Neal Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |

Nancy Lyon-Stadler facilitated the meeting.

MetroQuest Survey
The MetroQuest survey results to date were reviewed.

The survey has been running since June 28th. There was a lot of participation after the initial public meetings, but it has dropped significantly since that time.

A total of 105 respondents say they are commuters with 57 stating they are road cyclists. These numbers do not represent the general population. We need more of a cross section of the population. Daily riders represent approximately 2/3 of the respondents.

The map on Screen 3 (Where Do You Go?) can be overlaid on the corridors map to generate an image of the corridors where people are going.

- Jacob Van Sickle stated he does not understanding why Chester is being chosen as a priority since Euclid is parallel and most cyclist already use Euclid.

Pop-up events are needed to get to more people completing the survey. The project team, steering committee, etc. will need to man the pop-up events.

The survey will be extended through Labor Day. Beyond that will be a challenge to finish the project.

Melissa Thompson asked if there is a different way to market the survey.

- Nancy stated pop-up events will capture people where they are which will provide a better cross section.
- Jim Sonnhalter suggested putting something together for city council members to email to their wards so that they can get the word out to their constituents.
    - Email blast from CDC Directors to their neighborhoods
    - Email blast from Steering Committee members to their organizations employees
- Re-spam social media (Facebook and Twitter)
- Gift Card if email is provided

Pop-up event location ideas included:

- Wade Oval Wednesdays
- Mayor's Youth Summit and Back to School
- Cyclovia (Pop-up Midway)
- Gather in Glenville
- Kinsman Labor Day Parade
- City Hall in atrium area
- 5th Street Atrium
- Public Square
- Recreation Centers (early evening)
- Heinen's Atrium (lunch)
- Constantino's
- Edgewater Park
- Wendy Park
- Merwin's Wharf
- Tower City
- Food Truck Fridays

Melissa suggested providing a one page project description with the survey link to hand out at events. Provide the link so people can complete the survey at their convenience.

Three additional boards are needed for the pop-up events. (Action item completed)

Evaluation Criteria

*Criteria 1*

- *Demographic information* (household income, car ownership, proximity to transit, life expectancy) we can get from SGJJR GIS capabilities to determine proximity of a corridor to the areas of interest.
- *Tree Canopy Impact* (Would the implementation of a corridor result in the removal of trees?) - Yes/No
- *SRTS Priority Corridor* (Is a MCT corridor an SRTS corridor or in close proximity to an SRTS corridor?) - Yes/No
    - Sharonda to send the recently approved SRTS Corridor list to Nancy
- *NOACA Bikeway Demand Potential* – Melissa stated demand potential is divided into three to four categories ranked by low/median/high with a composite score of these corridors.
    - Melissa to help with this information.
- *Bike Crash Data* - Melissa to provide a GIS file that contains 2011-2015 data.
- *Regional Connectivity* - Overlay corridors on top of marker map to determine which corridors are currently being utilized by people in their daily travels
- *City of Cleveland Capital Plan* (Is a corridor in the City's Capital Plan?) - Yes/No
    - Sharonda to provide Nancy with a copy of the plan.
- *Connects Land Use Destinations* (Does the corridor connect land uses?) - Low/Medium/High
- *Storm water* (Is the corridor in an NEORSD priority area?) - Yes/No
    - Sharonda and/or Arthur can provide the priority areas map.

Traffic volumes were incorporated into the original corridor selection process. For this reason, it has been removed from the evaluation criteria.

Bike/Walk scores only reflect existing conditions not what would be should a Midway Cycle Track be implemented. All stated they were in agreement to removing this criteria from the evaluation list.

The City Bikeway Plans should be part of evaluation criteria 1.

- Nancy added: Integrate/compliment Bikeway Master Plan – Yes/No

*Criteria 2 - Ease of Implementation*
Roadway Jurisdiction (Is the road a state, county or city roadway?)
External Funding Potential – Low/Medium/High
Community Support – (Is a Midway Cycle Track corridor supported by the community where it will be placed? NIMBY?) – Low/Medium/High
Political Support (Does the corridor have support/approval from the areas political entities?) – Low/Medium/High
Traffic impacts
GCRTA Benefit – Possibly increase ridership through increased connections via bicycle lanes. (Low/Medium/High)
GCRTA Negative Impact - Future GCRTA plans need to be looked at to see if a corridor is a potential GCRTA or BRT corridor. Examples of RTA corridors Euclid Avenue center lane configuration and Clifton Boulevard side lane configuration. – Low/Medium/High

Rob Mavic suggested someone consolidate all the TLCI plans to show what corridors have been studied for bike lanes. Melissa stated an inventory has been completed but they need to incorporate the TLCI work completed in the last two years. It is only complete up to 2014. She is to provide GIS of roadways.

It was suggested that cost be an evaluation criteria. Could look at the potential to move curbs. If it impacts roadway edges there will be a cost. Will the corridor need a retrofit or a rebuild? Rob stated it should be assumed that all will need to be reconstructed.

- Nancy added Relative Cost (Would the Midway be within the existing roadway or would it be necessary to move curbs). Is reconstruction necessary? – Yes/No

Demonstration Corridor
Rob stated he would like to use Euclid Avenue as a test. Nancy stated the demonstration corridor would not be a temporary. The demonstration corridor will be the first Midway implemented.

Melissa stated a shorter corridor be implemented initially as we may want to tweak the design on future Midways.

Nancy stated the demonstration corridor may need to be a section of a larger corridor or one of the shorter corridors.

Arthur Schmidt stated if we build a small section of a larger corridor and wait five years for funding it could be conceived as a failure.

Nancy changed title of demonstration/pilot corridor to Phase 1 corridor so it will be perceived as more coming.

If Chester Avenue is chosen, the entire corridor will need to do completed at one time to connect downtown Cleveland with University Circle.

- Nancy stated Chester Avenue will get cycle commuters, but if you use St. Clair, a shorter corridor, there are other things going on that could benefit.

Sharonda suggested that a Midway with fewer amenities be implemented so people could see the functionality of a Midway before doing a full scale track. This would save money initially.

Action Items:
~~Print three additional boards for Pop-up meetings~~ (completed)
Sharonda to send the recently approved SRTS Corridor list to Nancy
Melissa to provide Bikeway Demand Potential for each corridor
Melissa to provide a GIS file that contains 2011-2015 crash data.
Sharonda to provide the City Capital Plan to Nancy
Sharonda and/or Arthur to provide the NEORSD priority areas map.
Melissa to provide GIS of all TLCI roadways studied for bike lanes

# Midway Cycle Track and Separated Bicycle Facilities Plan

Project Team Meeting #4
August 10, 2016

## Agenda

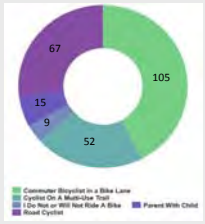
- Interim Survey Data
- Pop-Up Meetings
  - Survey Close
- Proposed Evaluation Criteria
- Potential Demonstration Corridors
- Schedule & Next Steps

## Interim Survey Results

**Survey Visits through August 4, 2016**
Total Visits 466/Total Respondents 251 (53.86%)

## Screen 2 - Help Us Plan

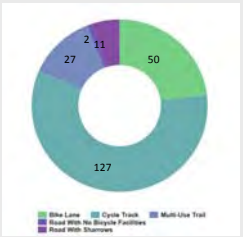
Tab 1 - Bicyclist Type
What image best represents you on a bicycle?




| Value | Respondents | Percent |
|---|---|---|
| Commuter Bicyclist in a Bike Lane | 105 | 42.34% |
| Cyclist On A Multi-Use Trail | 52 | 20.97% |
| I Do Not or Will Not Ride A Bike | 9 | 3.63% |
| Parent With Child | 15 | 6.05% |
| Road Cyclist | 67 | 27.02% |
| Totals: | 248 | |

## Screen 2 - Help Us Plan

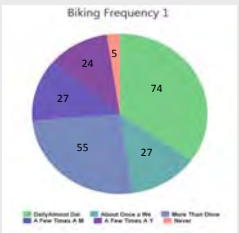
Tab 2 – Bicycle Facility Type
On what bicycle facility would you prefer to ride?




| Value | Respondents | Percent |
|---|---|---|
| Bike Lane | 50 | 23.04% |
| Cycle Track | 127 | 58.53% |
| Multi-Use Trail | 27 | 12.44% |
| Road With No Bicycle Facilities | 2 | 0.92% |
| Road With Sharrows | 11 | 5.07% |
| Totals: | 217 | |

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency
Question 1: I bike for fun, exercise, and/or transportation…

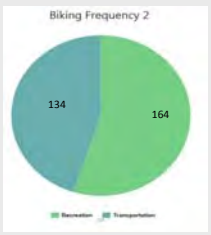



Daily / Almost Daily – 74
More Than Once A Week – 55
About Once a Week – 27
A Few Times a Month – 27
A Few Times a Year - 24
Never - 5

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency
Question 2: I bike for…

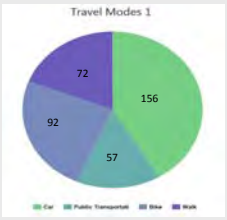



Recreation - 164
Transportation - 134

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes
Question 1: How do you usually get around?

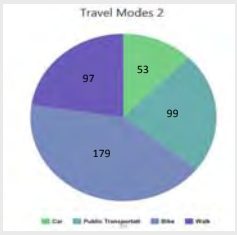



Car - 156
Bike – 92
Walk – 72
Public Transportation - 57

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes
Question 2: How would you like to get around?




Bike – 179
Public Transportation – 99
Walk - 97
Car – 53

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

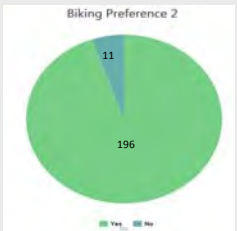
Tab 5 – Biking Preferences
Question 1: What keeps you from cycling as often as you want?


Lack of Facilities (Bike Lanes, Trails, Etc.) - 114
Weather – 95
Car Traffic – 90
Personal Safety/Security – 80
Pavement Condition – 72
Distance – 71
Terrain – 17
Health/Fitness Limitations – 8

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

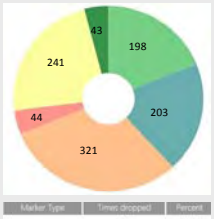
Tab 5 – Biking Preferences
Question 2: Do you want to ride in a Midway Cycle Track?



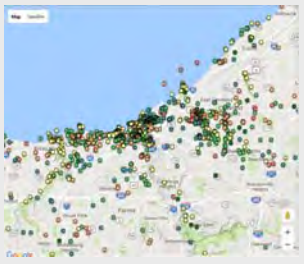

Yes - 196
No – 11

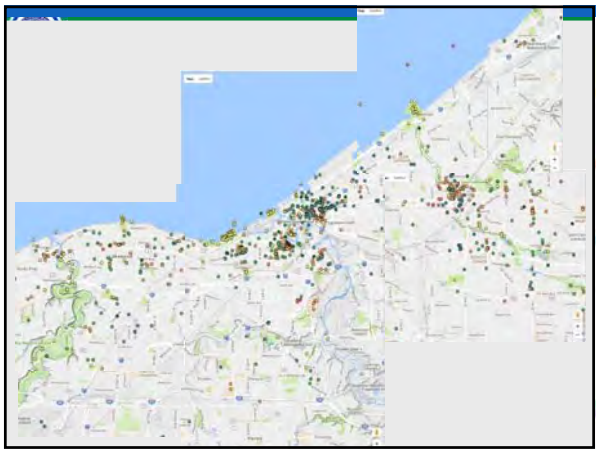
*No table was provided for this graphic.*

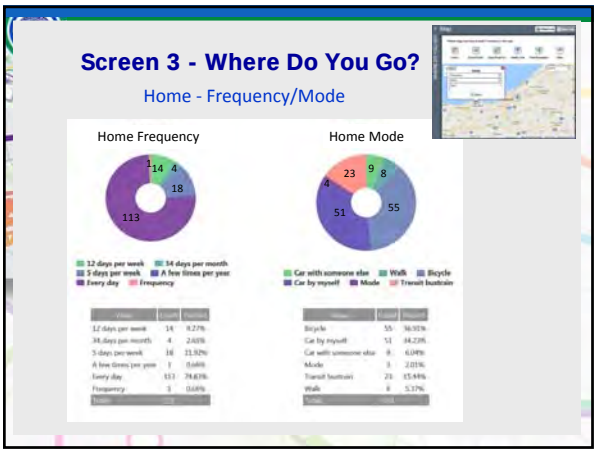
## Screen 3 - Where Do You Go?

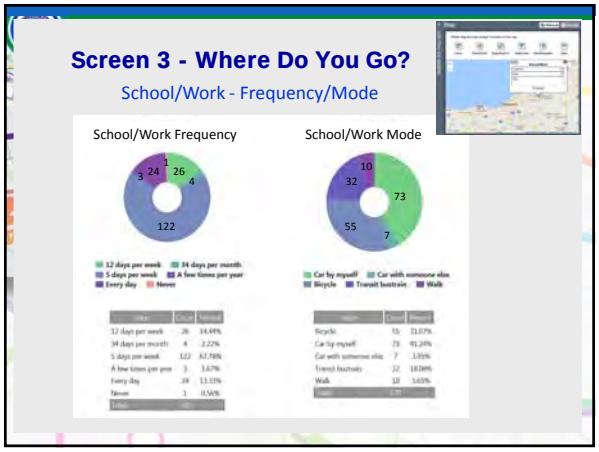


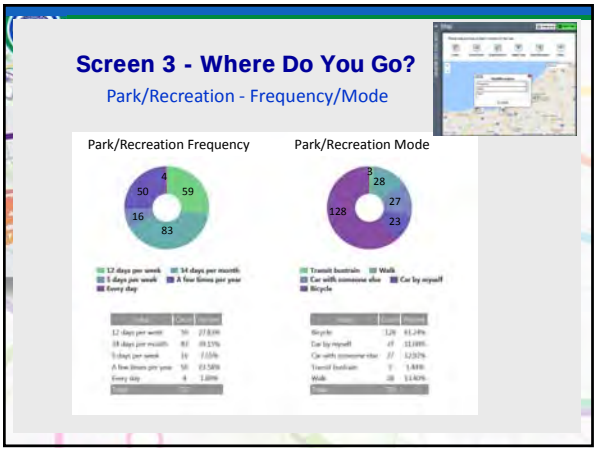

| Marker Type | Times dropped | Percent |
|---|---|---|
| Home | 198 | 18.86% |
| SchoolWork | 203 | 19.33% |
| ShopDineFun | 321 | 30.57% |
| Health Care | 44 | 4.19% |
| ParkRecreation | 241 | 22.95% |
| Other | 43 | 4.10% |
| Total | 1050 | |

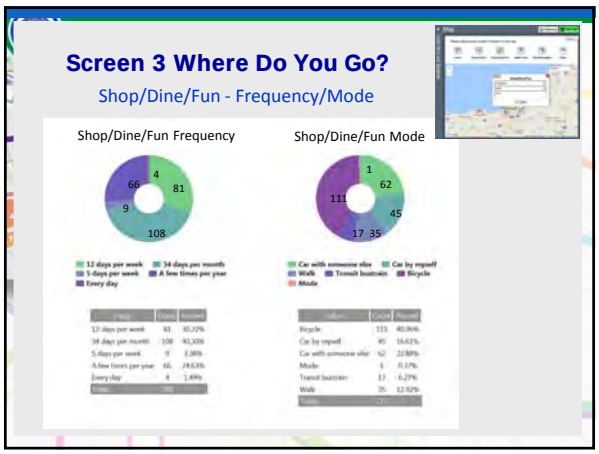


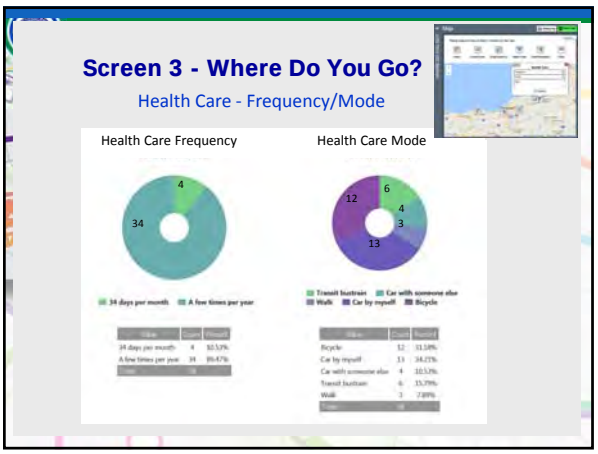



Screen 3 - Where Do You Go?
Home - Frequency/Mode
Home Frequency
Home Mode


Screen 3 - Where Do You Go?
School/Work - Frequency/Mode
School/Work Frequency
School/Work Mode


Screen 3 - Where Do You Go?
Park/Recreation - Frequency/Mode
Park/Recreation Frequency
Park/Recreation Mode


Screen 3 Where Do You Go?
Shop/Dine/Fun - Frequency/Mode
Shop/Dine/Fun Frequency
Shop/Dine/Fun Mode


Screen 3 - Where Do You Go?
Health Care - Frequency/Mode
Health Care Frequency
Health Care Mode

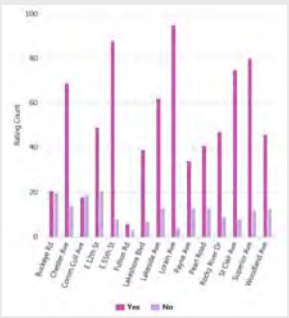
## Screen 3 - Where Do You Go?

Other- Frequency/Mode

*There is no frequency or mode information for the 'Other' Marker. Comments include:*

| Time of Visit | Comment |
|---|---|
| 6/28/2016 | Church - we try to bike during the summer |
| 7/1/2016 | Bike to Detroit Shoreway Community Development for Board Meetings |
| 7/1/2016 | SPACES new location - bike and transit from downtown. Use car when from home |
| 7/1/2016 | Barber-vocations- bike |
| 7/1/2016 | Culture- once every other month- car with others or redline |
| 7/1/2016 | Family home- once every three months- in a car with someone else |
| 7/2/2016 | Critical Mass monthly |
| 7/2/2016 | Buckeye Breakaway annual fundraiser MS-150 |
| 7/2/2016 | Buckeye Breakaway annual fundraiser MS-150 |
| 7/4/2016 | I bike here to catch the rapid and then bike back home. I either lock my bike up here, at Tower City, or sometimes I take it all the way to work. |
| 7/4/2016 | I go to church here every week and bike the whole way in the warmer months. I use transit on cold, snowy days. |
| 7/4/2016 | I rent a zipcar to visit my family about once a week. |
| 7/4/2016 | I rent a zipcar to visit my family a few times a month. |
| 7/5/2016 | Bike Cleveland Board meeting |
| 7/6/2016 | Recreation |
| 7/6/2016 | cemetery |
| 7/6/2016 | post office |
| 7/6/2016 | Public library |
| 7/6/2016 | ceiling |
| 7/6/2016 | Friend's house. Sometimes bike here, approx. once a month in good weather. |
| 7/6/2016 | Frequently road cycle down route 21 |
| 7/6/2016 | Road cycle via the canal path. |
| 7/6/2016 | groceries by bike |
| 7/7/2016 | Family |
| 7/7/2016 | Child's daycare |
| 7/7/2016 | Gym |
| 7/7/2016 | library - it would be nice to ride my bicycle here, but there is too much auto traffic |
| 7/8/2016 | Library |
| 7/12/2016 | church |
| 7/12/2016 | Family house |

## Screen 4 - Which Corridors Matter Most ?

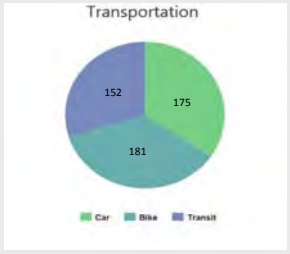



| Item | Yes (1) |
|---|---|
| Lorain Ave | 95 |
| Rocky River Dr | 47 |
| E 55th St | 88 |
| Superior Ave | 80 |
| St Clair Ave | 75 |
| Lakeshore Blvd | 39 |
| Chester Ave | 69 |
| Lakeside Ave | 62 |
| Fulton Rd | 6 |
| E 12th St | 49 |
| Woodland Ave | 46 |
| Pearl Road | 41 |
| Payne Ave | 34 |
| Buckeye Rd | 21 |
| Comm Coll Ave | 18 |

## Screen 5 – Thank You

Please Tell Us About Yourself

Question 1: I have access to…




Bike – 181

Car – 175

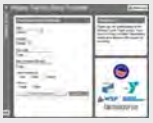
Transit – 152

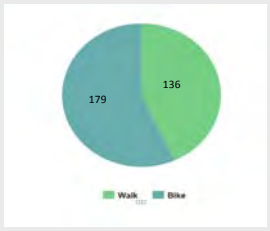
*No table was provided for this graphic.*

## Screen 5 – Thank You

Please Tell Us About Yourself

Question 2: I like to…






Bike - 179

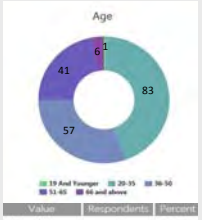
Walk - 136

*No table was provided for this graphic.*

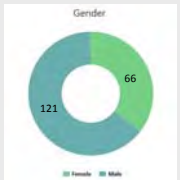
## Screen 5 – Thank You

Please Tell Us About Yourself

Demographics




| Value | Respondents | Percent |
|---|---|---|
| 19 And Younger | 1 | 0.53% |
| 20-35 | 83 | 44.15% |
| 36-50 | 57 | 30.32% |
| 51-65 | 41 | 21.81% |
| 66 and above | 6 | 3.19% |
| Totals | 188 | |




| Value | Respondents | Percent |
|---|---|---|
| Female | 66 | 35.29% |
| Male | 121 | 64.71% |
| Totals | 187 | |

## Screen 5 – Thank You

Please Tell Us About Yourself

Zip Code Information

| Value | Respondents | Percent |
|---|---|---|
| 44012 | 1 | 0.55% |
| 44023 | 2 | 1.09% |
| 44026 | 1 | 0.55% |
| 44060 | 1 | 0.55% |
| 44070 | 1 | 0.55% |
| 44072 | 1 | 0.55% |
| 44087 | 1 | 0.55% |
| 44102 | 23 | 12.57% |
| 44104 | 2 | 1.09% |
| 44105 | 1 | 0.55% |
| 44106 | 7 | 3.83% |
| 44107 | 22 | 12.02% |
| 44109 | 6 | 3.28% |
| 44110 | 2 | 1.09% |
| 44111 | 10 | 5.46% |
| 44113 | 21 | 11.48% |
| 44114 | 3 | 1.64% |
| 44114 | 1 | 0.55% |
| 44115 | 3 | 1.64% |
| 44116 | 4 | 2.19% |
| 44118 | 14 | 7.65% |
| 44119 | 2 | 1.09% |
| 44120 | 13 | 7.10% |
| 44121 | 2 | 1.09% |
| 44122 | 4 | 2.19% |
| 44123 | 2 | 1.09% |
| 44124 | 4 | 2.19% |
| 44126 | 1 | 0.55% |
| 44128 | 1 | 0.55% |
| 44129 | 1 | 0.55% |
| 44130 | 3 | 1.64% |
| 44131 | 1 | 0.55% |
| 44133 | 1 | 0.55% |
| 44135 | 5 | 2.73% |
| 44138 | 2 | 1.09% |
| 44139 | 1 | 0.55% |
| 44140 | 4 | 2.19% |
| 44144 | 2 | 1.09% |
| 44145 | 4 | 2.19% |
| 44146 | 1 | 0.55% |
| 44202 | 1 | 0.55% |
| 44320 | 1 | 0.55% |
| Totals | 183 | |

## Pop-Up Meetings

- Brainstorm events
- Commitments to support
- Pop-Up Meetings
- Survey Close

## Proposed Evaluation Criteria (1)

*To assess the positive impact and potential benefit of the 15 corridors*

- Demographic considerations (Community Analyst data)
  - *Household income*
  - *Car ownership*
  - *Proximity to transit*
  - *Life expectancy*
- Tree canopy
  - *Are we removing trees to implement (Y/N)*
- SRTS priority corridor (Y/N)
- NOACA bikeway demand potential (from NOACA?)
- Bike crash data (from NOACA?)
- Regional connectivity (low/medium/high)
- City capital plan (Y/N)
- Connects land use/destinations (low/medium/high)
- Stormwater/NEORSD priority area (Y/N)

Others (eliminate?)

- Walk Score/Bike Score
  *https://www.walkscore.com/bike-score-methodology.shtml*
- Traffic volume
  *(integrated with identification of 15 feasible corridors)*

## Bike Score™

https://www.walkscore.com/bike-score-methodology.shtml

Our Bike Score service measures whether a location is good for biking on a scale from 0 - 100 based on four equally weighted components:

- Bike lanes
- Hills
- Destinations and road connectivity
- Bike commuting mode share

Like Walk Score and Transit Score, our goal with Bike Score is to provide an easy way to evaluate bikeability at a specific location. Bike Score can be used by people looking for a bikeable place to live or urban planners looking to do research on bikeability.

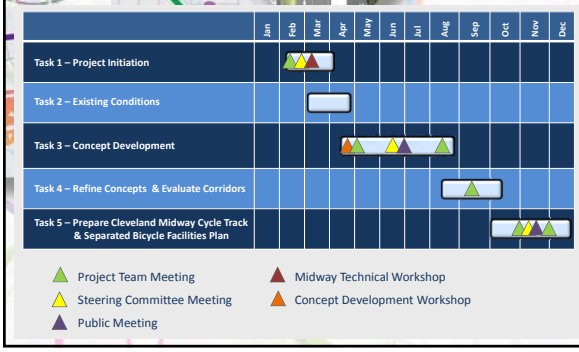
## Proposed Evaluation Criteria (2)

*To assess the ease of implementation of the 15 corridors*

- Roadway jurisdiction
  - *City*
  - *State/County*
- External funding potential (low/medium/high)
- Community support (low/medium/high)
- Political support (low/medium/high)
- Traffic impacts (low/medium/high)
  - *Access, circulation, etc.*
- RTA benefit (low/medium/high)
- Negative RTA impact (low/medium/high)

## 'Demonstration' Corridor


## Schedule & Next Steps



# Project Team Meeting 5
# September 20, 2016

# MEETING MINUTES

Project Team Meeting #5
September 20, 2016, 10:00 a.m.
City of Cleveland Planning Commission

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Freddy Collier, Director | City of Cleveland Planning Commission | 216-664-3468 | fcollier@city.cleveland.oh.us |
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Jacob Van Sickle | Bike Cleveland | 216-245-3101 | jacob@bikecleveland.org |
| Amy Snell | GCRTA | 216-566-5100 | asnell@gcrta.org |
| Ryan Nolan | NOACA | 216-241-2414 x273 | rnoles@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Neal Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |
| Scarlett Sharpe (phone) | WSP \| Parsons Brinckerhoff | 216-928-8327 | sharpesd@pbworld.com |

Nancy Lyon-Stadler facilitated the meeting.

MetroQuest Survey Results to Date
The survey is set to close today (09/21/2016). Will request it be extended until Friday September 23rd.

A total of 536 respondents have provided data to date. Spikes in the number of respondents indicate times when pop-up events took place.

- Mayor's Back to School Fair and Youth Summit
- CyCLEvia

Screen 2 Top Responses include:
Tab 1. Bicyclist Type – Commuter Cyclist in a Bike Lane (191 respondents), Road Cyclist (143 respondents), Cyclist on a Multi-Use Trail (119 respondents)
Tab 2. Bicycle Facility Type - Cycle Track (234 respondents), Bike Lane (124 respondents)
Tab 3. Q1. Biking Frequency - Daily/almost daily (143 respondents), More than Once a Week (113 respondents)
Tab 3. Q2. I bike for: - Recreation (346 respondents), Transportation (256 respondents)
Tab 4. Q1. Travel Modes/How do you get around? – Car (156 respondents), Bicycling (92 respondents)
Tab 4. Q2. Travel Modes/How would you like to get around? – Bike (348 respondents), Walk (176 respondents), Transit (175 respondents)
Tab 5. Q1. Biking Preferences/What keeps you from cycling as often as you want? - Lack of facilities (231 respondents), Weather (188 respondents), Car Traffic (176 respondents)
Tab 5. Q2. Biking Preferences – Do you want to ride in a Midway Cycle Track? - Yes (377 respondents), No (42 Respondents)

Screen 3 - Where do you go? – Very telling, clustering will help determine priority corridors. Need a map showing the entire project area.

Screen 4 – Corridor prioritization

- Lorain Avenue – 168 respondents yes
- Superior Avenue – 141 respondents yes
- E. 55th Street - 130 respondents yes
- Chester Avenue – 124 respondents yes
- Lakeside Avenue – 114 respondents yes
- St. Clair Avenue – 113 respondents yes

- Some streets have already had a reinvestment – Sharonda to get a list of streets.

- If a corridor has been reconstructed already it shouldn't be moved lower on the list; however, if reconstruction would be necessary for implementation it could be moved lower.
- There are other types of buffers that could be used that would not cause you to reconstruct.
- Would have to add signal heads for bikes (not considered reconstruction).

Screen 5 – Access to Bike, Car and Transit is evenly spread (Bike 355, Car 345, and Transit 285)
Zip codes shows a decent distribution of respondents throughout the city.
Areas with the largest participation include: 44102, 44107, 44111, 44113, 44118, and 44120
Demographics – fairly even distribution with slightly more males responding

Director Collier asked if there is a cost to keep the survey up and running

- Yes, after September 28th there would be an additional cost
- Suggestion to do this annually to update bicycle plan

Evaluation Criteria
*Phase 1 evaluation*
Need to add SRTS priority corridors. These have been provided in GIS format.

Need to add crash data – was suggested that this is not complete, as not all crashes get recorded.

Regional connectivity – being considered as cycle track use only, not access to other transit types

- Change Lakeshore Avenue to high
- Identify key destinations for Lorain Avenue

Need to generate a list of biking destinations for each corridor and link to transit

Capital Plan to be submitted by Sharonda for inclusion.

*Phase 2 evaluation*
Add Federal Aid Truck Routes

Need to overlay corridors that have had recent reconstruction/repaving

Need to look at areas with equity issues to maybe look for funding opportunities.

Need to overlay existing facilities – bike lanes and above, no sharrows

RTA – Positive impact would be improved ridership. Negative would be if a route is affected.

- Need to look at RTA corridors and see if any changes are coming that would affect the cycle tract selection of a corridor.
- Amy Snell stated that we need to keep bus lanes on Superior Avenue from Public Square to E. 18th Street and on St Clair Avenue from Ontario Avenue to E. 13th Street.

Doesn't make sense to place the pilot in an area without political support.

Potential Demonstration Corridors in order – Lorain Avenue, Superior Avenue, E, 55th Street and Chester Avenue

Question was asked if everyone was okay with the progress to date. All were in agreement, yes.

Schedule & Next Steps
A Steering Committee meeting is scheduled for next week to review evaluation criteria with them.

- Ideal to select three corridors with the Steering Committee, then move into prototype design

Suggest meeting with Grace Gallucci at NOACA and City leadership regarding relationship between funded projects (TIP or Asset Management Program) and the results of this project. Director Collier stated the City is committed through NOACA. Pet projects are on the books that Ms. Gallucci is aware of and are a priority of hers. Would be beneficial to have a conversation to make sure NOACAs priorities and the projects priorities are the same.

Opportunity to do something that doesn't cost a lot that provides a function versus a multi-million trail. Priority corridor should be done right the first time.

Director Collier stated at City Hall meeting there was interest in Lorain Avenue and E. 55th Street. They (City Officials) were not excited about Chester Avenue, *this was not expected*. However, they felt Lakeside would make a political statement.

- Emphasized that the Five Year Capital Improve Program (CIP) have commitments for the next five years.
- Should not looking at for funding from the CIP in the next five years. Should look to it for future projects.
- City Officials were receptive to the cycle track, want to know how it will be implemented.
- Does implementation require reconstruction
    - A raised facility would require reconstruction
    - Paint with bollards and bicycle signals would not
- Nancy asked if the information on the corridors could be shared.
    - Will reaffirm once double checked. There are those that he (Dir. Collier) thought should be eliminated.
- Nancy state that even though the public has weighed in there are other factors to consider for the Pilot Project. Roads that the public liked not chosen for a separated facility will be considered for some other type of treatment.
- Director Collier will get the list to Nancy before the 7th of October.

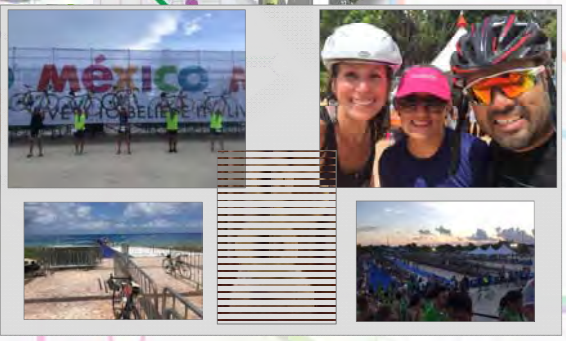
Jacob Van Sickle asked if we have a list of roads that could have a road diet?

- Nancy stated we didn't do more than a very gross look at traffic volumes for potential road diets.
- Could do a temporary road diet using MOT implementations and see how it performs.
- W. 25th Street had a popup street closure recently. Went well, but had to shut it down early though due to weather.

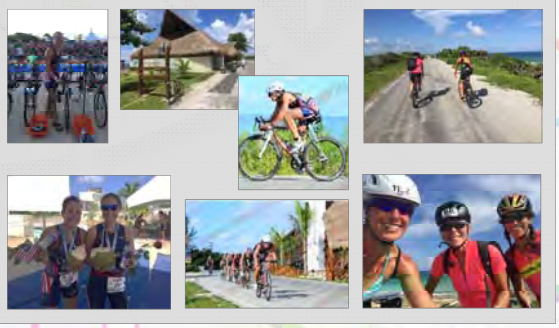
# Midway Cycle Track and Separated Bicycle Facilities Plan

Project Team Meeting #5
September 20, 2016

## Race Report




## Race Report



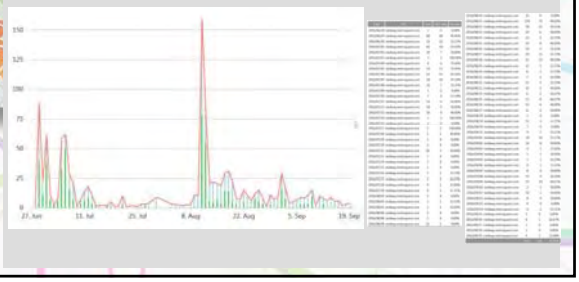
## Playa del Carmen

## Agenda

- Survey Data Summary
- Evaluation Criteria
- Potential Demonstration Corridors
- Schedule & Next Steps

## Survey Results

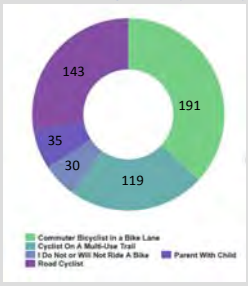
**Survey Visits through September 19, 2016**
Total Visits 1164/Total Respondents 536 (46%)



## Screen 2 - Help Us Plan

Tab 1 - Bicyclist Type

What image best represents you on a bicycle?

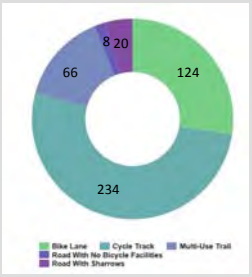



| Value | Respondents | Percent |
|---|---|---|
| Commuter Bicyclist in a Bike Lane | 191 | 41.87% |
| Cyclist On A Multi-Use Trail | 119 | 32.97% |
| I Do Not or Will Not Ride A Bike | 30 | 5.79% |
| Parent With Child | 35 | 6.78% |
| Road Cyclist | 143 | 27.61% |
| Totals | 518 | |

## Screen 2 - Help Us Plan

Tab 2 – Bicycle Facility Type

On what bicycle facility would you prefer to ride?

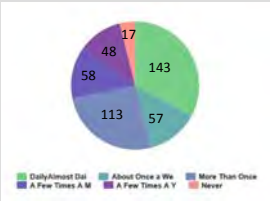



| Value | Respondents | Percent |
|---|---|---|
| Bike Lane | 124 | 27.43% |
| Cycle Track | 234 | 51.77% |
| Multi-Use Trail | 66 | 14.60% |
| Road With No Bicycle Facilities | 8 | 1.77% |
| Road With Sharrows | 20 | 4.42% |
| Totals | 452 | |

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency

Question 1: I bike for fun, exercise, and/or transportation…




Daily / Almost Daily - 143 (33%)

More Than Once A Week - 113 (26%)

About Once a Week - 57 (13%)

A Few Times a Month - 58 (13%)

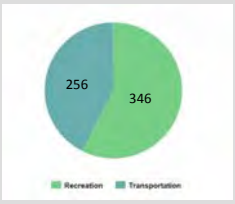
A Few Times a Year - 48 (11%)

Never - 17 (4%)

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency

Question 2: I bike for…




Recreation - 346 (57%)

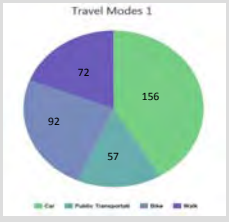
Transportation – 256 (43%)

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes

Question 1: How do you usually get around?




Car - 156 (42%)

Bike - 92 (24%)

Walk - 72 (19%)

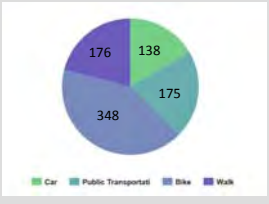
Public Transportation – 57 (15%)

*No table was provided for this graphic.*

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes

Question 2: How would you like to get around?




Bike – 348 (42%)

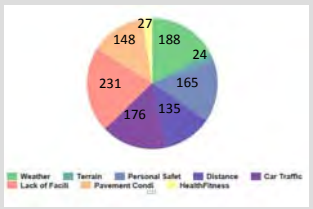
Public Transportation – 175 (21%)

Walk – 176 (21%)

Car – 138 (16%)

## Screen 2 - Help Us Plan

Tab 5 – Biking Preferences
Question 1: What keeps you from cycling as often as you want?




Lack of Facilities (bike lanes, trails, etc.) - 231 (21%)
Weather - 188 (17%)
Car Traffic - 176 (16%)
Personal Safety/Security - 165 (15%)
Pavement Condition - 148 (13%)
Distance - 135 (12%)
Terrain - 24 (2%)
Health/Fitness Limitations - 27 (2%)

*No table was provided for this graphic.*

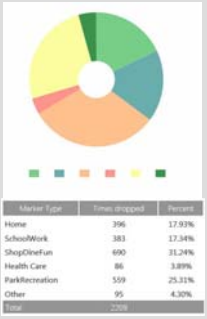
## Screen 2 - Help Us Plan

Tab 5 – Biking Preferences
Question 2: Do you want to ride in a Midway Cycle Track?

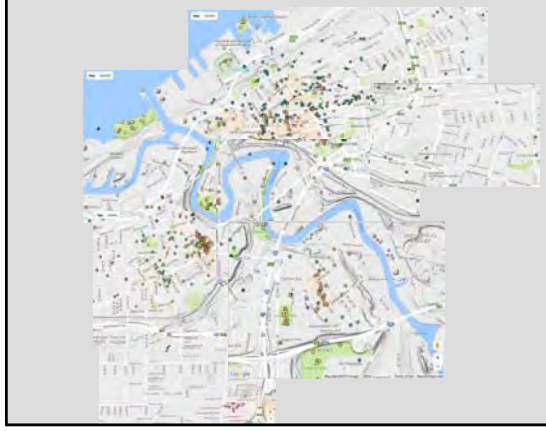

Yes - 377 (90%)
No - 42 (10%)

*No table was provided for this graphic.*

## Screen 3 - Where Do You Go?

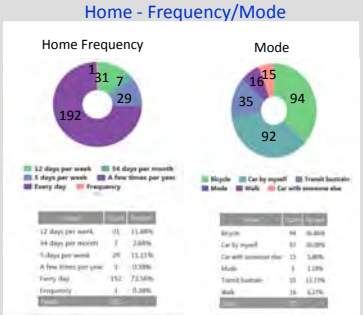


| Marker Type | Times dropped | Percent |
|---|---|---|
| Home | 396 | 17.93% |
| SchoolWork | 383 | 17.34% |
| ShopDineFun | 690 | 31.24% |
| Health Care | 86 | 3.89% |
| ParkRecreation | 559 | 25.31% |
| Other | 95 | 4.30% |
| Total | 2209 | |



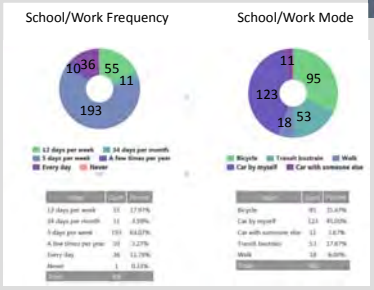
## Screen 3 - Where Do You Go?

Home - Frequency/Mode



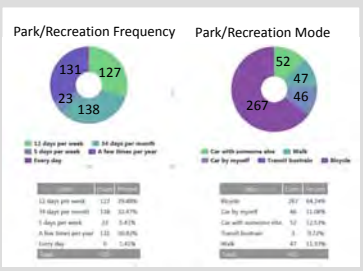

## Screen 3 - Where Do You Go?

School/Work - Frequency/Mode



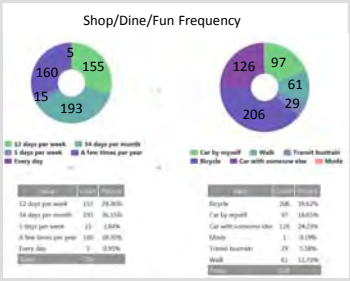
## Screen 3 - Where Do You Go?

Park/Recreation - Frequency/Mode



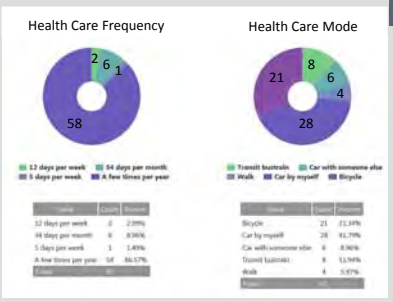

## Screen 3 Where Do You Go?

Shop/Dine/Fun - Frequency/Mode




## Screen 3 - Where Do You Go?

Health Care - Frequency/Mode



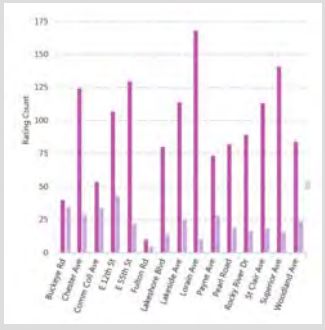

## Screen 3 - Where Do You Go?

Other- Frequency/Mode

*There is no frequency or mode information for the 'Other' Marker.*
*Comments include:*

| | |
|---|---|
| 136131 Church - we try to bike during the summer | 141195 I'd like a nice bike path from Euclid to my parents' house in Middleburg Heights. They are near Bug Creek Parkway but there's no nice connection to that from downtown. The zoo could be included on that route, which would be nice for lots of people. |
| 136189 Bike to Detroit Shoreway Community Development for Board Meetings | 141202 Shop Dine Fun |
| 136196 SPACES new location - bike and transit from downtown. Use car when from home | 141206 Visit |
| 136208 Barber--once/mo- bike | 141217 city hall meetings |
| 136209 Culture--once every other month--car with others or redline | 141219 museum |
| 136211 Family home--once every three months--in a car with someone else | 141234 vet appointments for my unhealthy cat. A few times a month, always by car |
| 136221 Critical Mass monthly | 141249 LIBRARY |
| 136225 Buckeye Breakaway annual fundraiser: MS-150 | 1-2x/month by bike and car |
| 136226 Buckeye Breakaway annual fundraiser: MS-150 | 141258 Red Line to Airport used a few times/year |
| 136252 I bike here to catch the rapid and then bike back home. I either lock my bike up here, at Tower City, or sometimes I take it all the way to work. | 141260 Greyhound station dropped off by car a few times/ year |
| 136255 I go to church here every week and bike the whole way in the warmer months. I use transit on cold, snowy days. | 141239 Drive to visit relatives. |
| 136260 I rent a zipcar to visit my family about once a week. | 141240 Drive to visit relative. |
| 136261 I rent a zipcar to visit my family a few times a month. | 141246 Drive to church once per week. |
| 136311 Bike Cleveland Board meeting | 141270 Shopping |
| 136331 Recreation | 141453 Church, 2-3 times per week |
| 136337 cemetery | 141516 I drive to church once/twice a week. |
| 136344 post office | 141556 Volunteering |
| 136347 Public library | 141738 I bike around downtown just for fun and to meet friends who work downtown |
| 136377 sailing | 141742 visiting family |
| 136413 Friend's house. Sometimes bike here, approx once a month in good weather. | 141757 Fitness |
| 136424 Frequently road cycle down route 21 | 141771 Visit |
| 136425 Road cycle via the canal path. | 141841 Visit Friend/Family |
| 136463 groceries by bike | Car with others |
| 136501 Family | 1-2 per week |
| 136510 Child's daycare | 141855 culture, cma, outdoor music, shops, coffee shops, cafes *univ. circle. mostly take rta but drive to trekkett rapid and park. |
| 136525 Gym | 141881 Volunteer: Cleveland Botanical Garden, MetroParks and even Holden Arboretum. |
| 136623 library - it would be nice to ride my bicycle here, but there is too much auto traffic | 141908 In-laws house. |
| 136702 Library | Bike about 2x/mo |
| 137196 church | 142051 work |
| 137232 Family house | 142062 shopping/errands |
| 141157 Family | 143207 I bike here with my wife on Sundays to worship and serve at Velocity Church. |
| 141158 Family | |
| 141162 Church | |
| 141166 Shoppin | |
| 141183 Ride bicycle into Cleveland | |

## Screen 4 - Which Corridors Matter Most ?

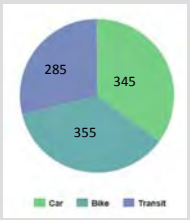



| | |
|---|---|
| Rocky River Dr | 89 |
| Woodland Ave | 84 |
| Pearl Road | 82 |
| Lakeshore Blvd | 80 |
| Payne Ave | 73 |
| Comm Coll Ave | 54 |
| Fulton Rd | 10 |
| E 12th St | 107 |
| Buckeye Rd | 40 |
| Chester Ave | 124 |
| Lakeside Ave | 114 |
| E 55th St | 130 |
| St Clair Ave | 113 |
| Lorain Ave | 148 |
| Superior Ave | 141 |
| Total | 1,407 |

## Screen 5 – Thank You

Please Tell Us About Yourself

Question 1: I have access to…




Bike - 355 (36%)

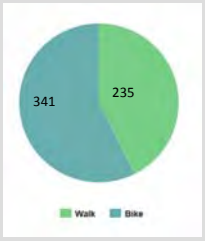
Car - 345 (35%)

Transit - 285 (29%)

## Screen 5 – Thank You

Please Tell Us About Yourself

Question 2: I like to…



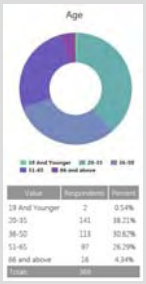

Bike - 341 (59%)

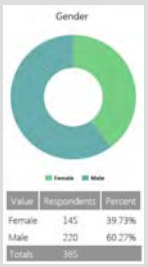
Walk - 235 (41%)

## Screen 5 – Thank You

Please Tell Us About Yourself

Demographics




## Screen 5 – Thank You

Please Tell Us About Yourself

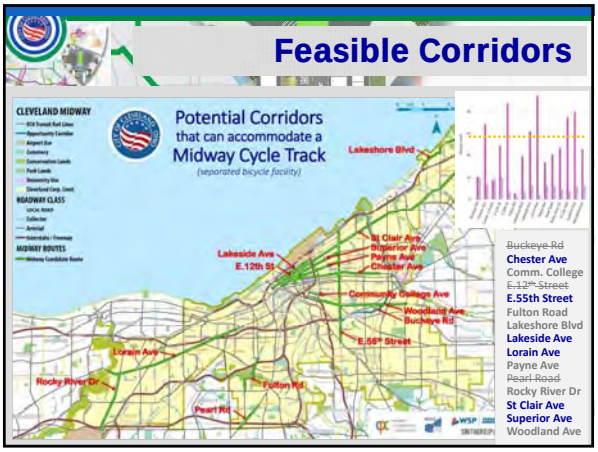
Zip Code Information

## Pop-Up Meetings

UPDATE

- List of events

## Feasible Corridors




## Criteria (Phase 1)

*To assess the positive impact and potential benefit of the 15 corridors*

- Demographic considerations (Community Analyst data)
  - *Household income*
  - *Car ownership*
  - *Proximity to transit*
  - *Life expectancy*
- Tree canopy
  - *Are we removing trees to implement (Y/N)*
- SRTS priority corridor (Y/N)
- NOACA bikeway demand potential (from NOACA?)
- Bike crash data (from NOACA?)
- Regional connectivity (low/medium/high)
- City capital plan (Y/N)
- Connects land use/destinations (low/medium/high)
- Stormwater/NEORSD priority area (Y/N)

Others (eliminate?)

- Walk Score/Bike Score
  *https://www.walkscore.com/bike-score-methodology.shtml*
- Traffic volume
  *(integrated with identification of 15 feasible corridors)*

## Evaluation Criteria (Phase 2)

*To assess the ease of implementation of the 15 corridors*

- Roadway jurisdiction
  - *City*
  - *State/County*
- External funding potential (low/medium/high)
- Community support (low/medium/high)
- Political support (low/medium/high)
- Traffic impacts (low/medium/high)
  - *Access, circulation, etc.*
- RTA benefit (low/medium/high)
- Negative RTA impact (low/medium/high)

## Pilot Corridor


## Pilot Corridor Assessment

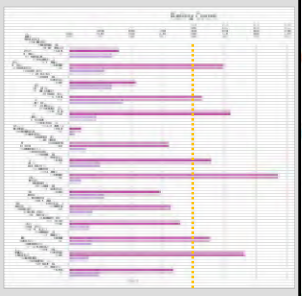
**Public Priorities**

Lorain Ave
E.55th Street
Superior Ave
St Clair Ave
Chester Ave
Lakeside Ave
E.12th Street
Rocky River Dr
Woodland Ave
Pearl Road
Lakeshore Blvd
Payne Ave
Buckeye Rd
Comm. College
Fulton Road

**Project Team Priorities**

Buckeye Rd
Chester Ave
Comm. College
E.12th Street
E.55th Street
Fulton Road
Lakeshore Blvd
Lakeside Ave
Lorain Ave
Payne Ave
Pearl Road
Rocky River Dr
St Clair Ave
Superior Ave
Woodland Ave

UPDATE



## Schedule & Next Steps


- Project Team Meeting
- Steering Committee Meeting
- Public Meeting
- Midway Technical Workshop
- Concept Development Workshop

# Steering Committee Meeting 3
# September 27, 2016

# MEETING MINUTES

Steering Committee Meeting #3
September 27, 2016, 8:30-11:30 a.m.
NOACA

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Andy Cross | City of Cleveland Traffic Engineering | 216-664-3194 | across@city.cleveland.oh.us |
| Matt Gray | City of Cleveland Office of Sustainability | 216-664-2246 | mgray@city.cleveland.oh.us |
| Calley Mersmann | Cleveland Safe Routes to Schools | 216-838-4981 | calley.mersmann@clevelandmetroschools.org |
| Jacob Van Sickle | Bike Cleveland | 216-245-3101 | jacob@bikecleveland.org |
| Barb Clint | Greater Cleveland YMCA | 216-263-6293 | bclint@clevelandymca.org |
| Amy Snell | GCRTA | 216-566-5100 | asnell@gcrta.org |
| Ryan Noles | NOACA | 216-241-2414 x273 | rnoles@mpo.noaca.org |
| John Motl | ODOT District 12 | 216-584-2085 | john.motl@dot.ohio.gov |
| Wayne Mortensen | Cleveland Neighborhood Progress | 216-830-2770 | wmortenson@clevelandnp.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Neil Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |
| Scarlett Sharpe (phone) | WSP \| Parsons Brinckerhoff | 216-928-8327 | sharpesd@pbworld.com |

Nancy Lyon-Stadler facilitated the meeting.

## MetroQuest Survey Results

Survey closed Friday September 23, 2016.

A total of 540 respondents have provided data to date. Spikes in the number of respondents indicate times when pop-up events took place.

- Mayor's Back to School Fair and Youth Summit
- CyCLEvia
- Gather in Glenville
- Others

Screen 2 Top Responses include:

Tab 1. Bicyclist Type – Commuter Cyclist in a Bike Lane (194 respondents), Road Cyclist (143 respondents), Cyclist on a Multi-Use Trail (119 respondents)

Tab 2. Bicycle Facility Type - Cycle Track (234 respondents/52% of respondents), Bike Lane (124 respondents)

Tab 3. Q1. Biking Frequency - Daily/almost daily (143 respondents), More than Once a Week (114 respondents)

- Approximately ¾ for the survey respondents regularly ride a bicycle.

Tab 3. Q2. I bike for: - Recreation (346 respondents), Transportation (256 respondents)

Tab 4. Q1. Travel Modes/How do you get around? – Car (345 respondents), Bicycling (187 respondents), Walk (137 respondents)

- Car travel is the most common travel mode, but bike, walk, and public transportation reflect more than half the survey responses.

Tab 4. Q2. Travel Modes/How would you like to get around? – Bike (349 respondents), Walk (177 respondents), Transit (176 respondents)

- Respondents indicated they prefer to travel by bike, walk or transit over cars by a ratio of 6:1.

Tab 5. Q1. Biking Preferences/What keeps you from cycling as often as you want? - Lack of facilities (232 respondents), Weather (189 respondents), Car Traffic (178 respondents)

Tab 5. Q2. Biking Preferences – Do you want to ride in a Midway Cycle Track? - Yes (378 respondents), No (43 respondents)

Screen 3 - Where do you go? – Map indicates that destination are scattered throughout with some concentrations where you would expect them (downtown Cleveland, University Circle, some other less concentrated areas). The area that is most notably without dots is southeast of downtown Cleveland, east of I-77 and north of I-480, in the general area around Kinsman.

Screen 4 – Corridor prioritization

- Lorain Avenue – 170 respondents yes/10 no
- Superior Avenue – 142 respondents yes/16 no
- E. 55th Street - 130 respondents yes/22 no
- Chester Avenue – 125 respondents yes/29 no
- Lakeside Avenue – 114 respondents yes/27 no
- St. Clair Avenue – 114 respondents yes/18 no

Screen 5 – Access to Bike, Car and Transit is evenly spread (Bike 358, Car 348, and Transit 288)

- Almost all respondents have access to a car and/or a bicycle. 75% have access to transit.
- Zip codes shows a good distribution of respondents throughout the city.

## Corridor Evaluation

Evaluation Criteria were developed at the Concept Development Workshop with some additional criteria added at the September 20th Project Team meeting. The criteria and corridors are listed in the evaluation spreadsheet.

### Phase 1 Evaluation Criteria

Household Income – higher value = lower income

Car Ownership – higher rating = fewer cars/household

Proximity to Transit – higher rating = fewer stops in proximity to a cycle track priority corridor

Life Expectancy – We do not have access to this data but there is a correlation between life expectancy and household income

Tree Canopy – Would we be removing trees for a projects implementation?

SRTS Priority Corridor – higher rating = higher SRTS corridor overlap with a cycle track priority corridor

Bikeway Demand – Provided by NOACA data

Safety – NOACA looked at corridors in terms of crashes.

- Less than five = low
- Five to 15 crashes = medium
- Greater than 15 crashes or with fatalities = high

Regional Connectivity – A reflection of the length of a corridor and what destinations it would link within Cleveland

Capital Improvement Program (CIP) – Is corridor a City priority projects? Yes/No

- Change Buckeye Road to a 'no'.

NEORSD – Is corridor located in a green infrastructure priority area? Yes/No

Matt Gray asked if there was any way to capture the no. of curb cuts on a corridor.

- Nancy Lyon-Stadler stated this information could be captured with the Level 2 traffic impact criteria but has not yet been incorporated.

John Motl suggested considering density in Land Use Density.

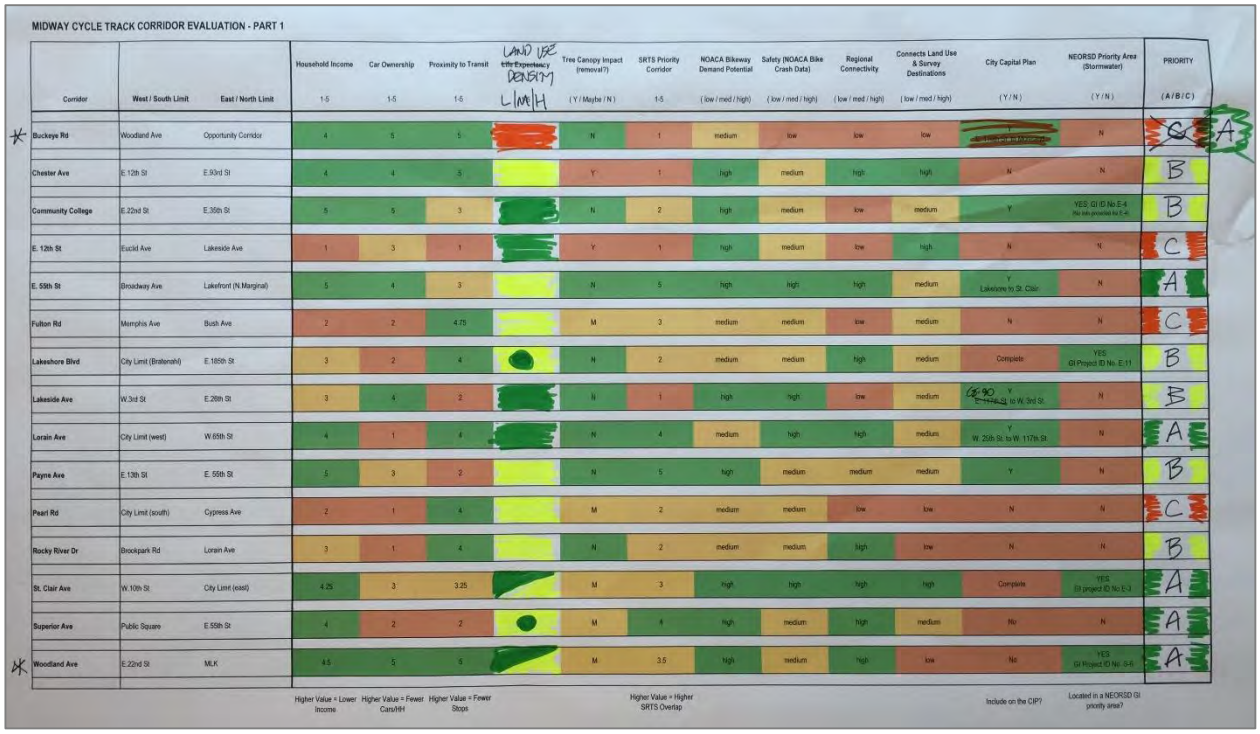
- If no one lives there, is anybody going there?
- Is there a nearby transit route?

Remove Life Expectancy from Phase 1 criteria it is closely tied to Median Family Income – County has the data and has not shared it to date.

Discussion on land use rating (high/med/low) to ensure agreement with proposed ratings. Some rating were revised.

## Phase 1 Corridor Evaluation

The results of the Steering Committee corridor evaluation are shown in the spreadsheet image below. Discussion of the factors contributing to the land use scoring is provided in the subsequent table.




| EVALUATION OF CORRIDOR LAND USE & DISCUSSION NOTES | | |
|---|---|---|
| Buckeye Road | low | The corridor is dense, but there are a lot of vacancies. Will connect to Opportunity Corridor. This needs to be factored into rating. |
| Chester Avenue | medium | There is a lot of variation in this corridor. Goes through campus and ends in residential areas; however, there are several blocks were there is nothing of interest. |
| Community College | high | |
| E. 12th Street | high | |
| E. 55th Street | medium | |
| Fulton Road | medium | |
| Lakeshore Boulevard | medium/high | high side of medium based on high density residential but not as dense as downtown |
| Lakeside Avenue | high | |

| | | |
|---|---|---|
| Lorain Avenue | high | |
| Payne Avenue | medium | |
| Pearl Road | medium | |
| Rocky River Drive | medium | |
| St. Clair Avenue | medium/high | Corridor varies from the west end at the East Bank, through downtown and out to the east |
| Superior Avenue | medium/high | high side of medium |
| Woodland Avenue | medium/high | split corridor, high density & social equity west of E.55th, a bit less dense E.55th to MLK |

Corridor Prioritization (A/B/C)

Each corridor was reviewed based on the evaluation criteria scoring. All corridors are viewed as being appropriate and valuable for implementation of future midway cycle track facilities, but the prioritization process was used to determine which corridors should be implemented first first due to public preference and perceived value as a midway. The highest priority corridors were identified as Priority A; those identified as Priority C should be done later and Priority B is in between.

Andy Cross suggested adding corridor width as a criteria.

- This was integrated into the initial corridor selection process.

Buckeye Road and Woodland Avenue - Woodland Avenue and Buckeye Road were combined to make one corridor as they connect to one another. Buckeye Road alone is short and considered the least feasible corridor on the list.

- Both the Buckeye Road TLCI and the E. 22nd Street plans supported bicycles.
- Amy Snell stated that the Buckeye Road/Woodland Avenue corridor would be good as it would connect to a transit station.
- These two corridors were merged into one midway corridor moving forward.

Community College – It was suggested to eliminate this corridor from the list of potential pilot corridors.

- Andy Cross suggested that the pilot corridor should be longer in distance. Community College is only two blocks in length. There are also a lot of turning conflicts in and out of the Cleveland State Campus.
- E. 22nd Street has bike lanes that a pilot corridor on Community College could connect to as well as the Lakeside Trail.

Lakeside Avenue – This corridor does not connect to anything past E. 12th Street. Superior Avenue is also a priority corridor and it is only two blocks south of Lakeside Avenue.

Lorain Avenue is west of the planned Lorain Cycle Track.

Pearl Road is a short segment and is next to the interstate (I-90).

E. 55th Street ranked high in the public survey rankings, however, this corridor should not be completed until Opportunity Corridor is complete. It is the only north/south corridor. It has City Hall (Chiefs) support.

St. Clair Avenue is the focus of the grass roots effort.

The public ranked Superior Avenue high in the survey. This corridor should extend from the Detroit Superior Bridge to E. 55th Street for the Pilot Corridor.

The results of the corridor prioritization are:

| A Corridors (5) | B Corridors (6) | C Corridors (3) |
|---|---|---|
| Woodland Avenue/Buckeye Road | Chester Avenue | E. 12th Street |
| E. 55th Street | Community College | Fulton Road |
| Lorain Avenue | Lakeshore Boulevard | Pearl Road |
| St. Clair Avenue | Lakeside Avenue | |
| Superior Avenue | Payne Avenue | |
| | Rocky River Drive | |

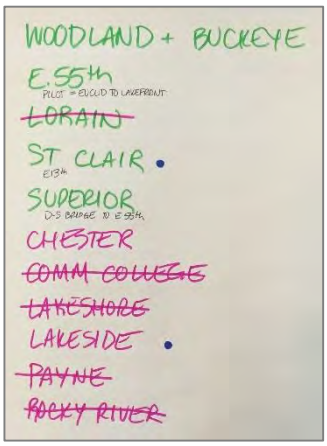
## Phase 2 Evaluation Criteria

Phase 2 criteria is more specific and was used to further help to identify the pilot corridor.

- NOACA TIP category reflects projects with funding opportunities
- Political Support – City Hall Department Heads meeting took place mid-September with preferences voiced; however, we do not have the information to date.
- RTA Impacts – Benefits
  - Increased ridership
  - TOD opportunities
  - Eliminate Bus/Bike collisions
  - Safer operations ( pedestrian crossing near bus stops)
  - Smooth Roadway
  - Bus Stop pads
  - Eliminate bus/bike collisions
- RTA Impacts – Negative
  - Removal of existing bus lanes – St. Clair Avenue and Superior Avenue bus lanes must remain in place
  - Take away right-of-way for future improvements for a BRT lite type of operation that correspond to our priority corridors.
  - Hurt operations of existing services included pedestrian access
- Funding will be hard to determine. Some corridors will be easier to fund than others. Cannot look to CIP for funding in the next five years because funds have been allocated in CIP through this timeframe, however, it would be a good idea to look for external funding to pair with projects in the CIP with CIP dollars potentially applicable as local match funding for corridor enhancements that add midway cycle track.

## Identification of the Pilot Corridor

Corridors prioritized as 'A' or 'B' could be the potential Pilot Corridor. 'C' corridors are not viable as a Pilot Corridor. The Steering Committee shortened the list of potential pilot corridors as show in the image to the right.




Discussion followed on eliminating corridors based on the results of the Phase 2 Evaluation Criteria.

The Steering Committee agreed that that Payne Avenue, Community College and Rocky River Drive in the B corridors should be eliminated.

It was stated that Lorain Avenue could not get bike lanes five years ago. There was no political support. It was discussed that this would take convincing but could possibly be approved today.

Lakeside Avenue and Lorain Avenue should not be considered for the pilot corridor. These do have value for a cycle track; however, they should not be the first midway corridor. The group noted that Lakeside Avenue is a favorite of City Hall. However, Barb Clint noted that Lakeside offers no connectivity to the existing bikeway network and it does

not address equity. Marty Cader stated that Lakeside Avenue and Superior Avenue would be supported by Cleveland Bike Share stations.

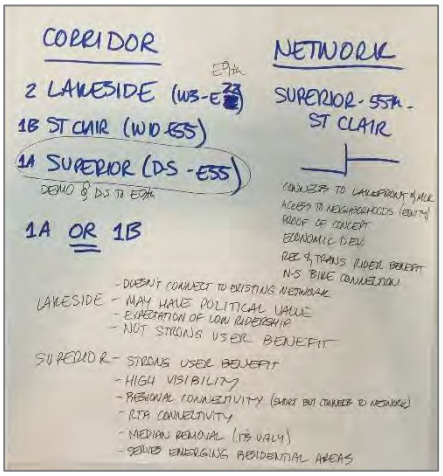
E. 55th Street is a long corridor and would be an aggressive pilot corridor. It was suggested that that E. 55th Street be broken into smaller segments. Group consensus was to start with the section from Superior to the Lakefront.

St. Clair is also a long corridor. Similarly, the Steering Committee recommended breaking this corridor into smaller segments. The initial segment would be W. 13th Street to E. 79th Street or MLK or consider E. 55th Street to MLK.

Further Discussion:

- Sharonda Whatley stated the initial goal is to identify a demonstration corridor; suggest Lakeside Avenue
- What is project's goal – if to generate political capital/rebrand of City then the pilot corridor should be Lakeside Avenue.
  - If no one used the cycle track due it being placed on Lakeside it would be considered a fail. There is no retail or commercial on Lakeside in downtown and nothing at all past the bus station.
  - Would be used by people visiting the Convention Center.
- Superior Avenue goes were people want to go (regional connectivity) even with a short segment. High visibility. Heart of the City If it is to be functional part of the overall network then Superior Avenue has a great argument due to Public Square.

There was much discussion of the potential pilot corridors. As the conversation progressed, a new idea emerged to propose a pilot network as well as a pilot corridor. There is greater inherent value in the pilot network based on the length, connectivity and the belief of how it will be perceived. The identified Pilot Network is Superior Avenue from the Detroit-Superior Bridge to E.55th Street, E.55th Street from Superior to the Lakefront, and St Clair Avenue from E.55th Street to MLK. If funding cannot be secured for the entire Pilot Network, the Steering Committee identified the Pilot Corridor as Superior Avenue from the Detroit-Superior Bridge to E.55th Street. Additionally, if funding is constrained then the minimum length pilot corridor was identified as Superior Avenue from the Detroit-Superior Bridge to E.9th Street.




Decision to have a 1A, 1B and a 2 going forward for analysis.

1A - Superior Avenue from the Detroit-Superior Bridge to E. 55th Street

- Connects across the Cuyahoga River
- Goes through the heart of downtown, strong user benefit
- High visibility, goes where people want to go – regional connectivity
- Connectivity to RTA services
- Need to remove median
- Superior is considered the "heart" of the City.


1B – St. Clair Avenue (W. 10th Street to E. 55th Street)

2 – Lakeside Avenue (Flats to E. 9th Street)

- May have political value but not strong user benefit

- Lakeside Avenue and E. 9th Street intersection could "blow up"
- Expectation of low ridership (check data from bike share at convention center) NOACA has counts (Ryan)
- Doesn't connect to existing network

PILOT NETWORK
Superior from Detroit-Superior Bridge to E. 55th
St. Clair Avenue from E. 55th Street to MLK
E. 55th Street from Superior to the lakefront.

PILOT MIDWAY CORRIDOR
Superior Avenue from the Detroit-Superior Bridge to E. 55th Street.
Justification:

- Can expand to network identified above
- Connections to the lakefront and MLK
- Access to targeted neighborhoods – social equity
- Promotes economic development
- Proof of concept
- Multi-jurisdictional
- Will attract range of riders – recreation/transportation benefit
- Will connect to north/south bike connections
- Enhances the impact of Public Square
- Serves emerging residential areas
- Demonstration section – if needed, could be from the Detroit-Superior Bridge to E. 9th Street.

Additional discussion of assessment of Lakeside and Superior corridors and the Pilot Networks

*Lakeside*
Does not connect to existing bikeway network
Not a strong user benefit
Expectation of low ridership/use
May have political value (but that may deteriorate with anticipated low use)
Short length limits value as pilot corridor

*Superior*
Strong user benefit
Connects existing bicycle facility (Detroit-Superior Bridge) through the heart of downtwown
High visibility
Regional connectivity
RTA connectivity
Likely requirement to remove median (east of Public Square)
Serves emerging residential areas in downtown Cleveland
Need to accommodate RTA and bus lane

*Pilot Network*
Connects downtown to Lakefront and MLK
Access to neighborhoods (equity)
Proof of concept (connectivity)
Economic development potential
Benefits to recreational AND transportation uses
Provides north-south bikeway connection

# Midway Cycle Track and Separated Bicycle Facilities Plan

Steering Committee Meeting #3
September 27, 2016

## Playa del Carmen

## Agenda

- Review Survey Data
- Review Corridor Evaluation Criteria & Scoring
- Prioritize Corridors
- Review Potential Prototype Corridors
- Identify Prototype Corridor
- Review Schedule & Next Steps

## Pop-Up Meetings

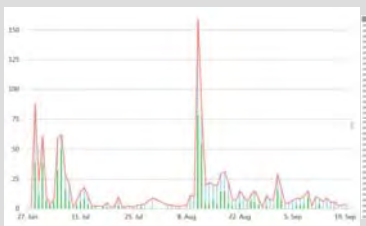
Aug 13, 2016 Mayor's Back to School Fair & Youth Summit
Aug 13, 2016 CiCLEvia
Aug 14, 2016 Gather in Glenville
Sept 8, 2016 CiCLEvia
Sept 17, 2016 Vital Neighborhoods Annual Potluck in the Park

- Info left at E. 55th Marina & Merwin's Wharf (Metroparks)
- Posted in the Mayor's E-blast for about 3 weeks
- Posted on the social media accounts of City Planning, BikeCleveland, and NOACA

## Survey Results

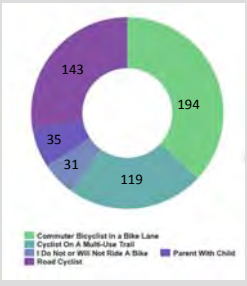
**Summary of Survey Visits**
(through survey close on Monday, September 26, 2016)

Total Visits 1201/Total Respondents 540 (45%)



## Screen 2 - Help Us Plan

Tab 1 - Bicyclist Type
What image best represents you on a bicycle?

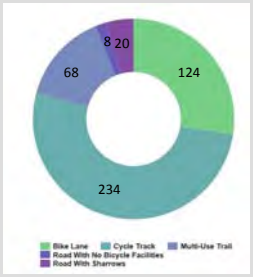



| Value | Respondents | Percent |
|---|---|---|
| Commuter Bicyclist in a Bike Lane | 194 | 37.16% |
| Cyclist On A Multi-Use Trail | 119 | 22.80% |
| I Do Not or Will Not Ride A Bike | 31 | 5.94% |
| Parent With Child | 35 | 6.70% |
| Road Cyclist | 143 | 27.39% |
| Totals | 522 | |

Total = 522

## Screen 2 - Help Us Plan

Tab 2 – Bicycle Facility Type
On what bicycle facility would you prefer to ride?




| Value | Respondents | Percent |
|---|---|---|
| Bike Lane | 124 | 27.31% |
| Cycle Track | 234 | 51.54% |
| Multi-Use Trail | 68 | 14.98% |
| Road With No Bicycle Facilities | 8 | 1.76% |
| Road With Sharrows | 20 | 4.41% |
| Totals | 454 | |

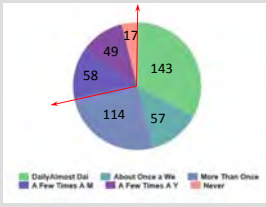
Total = 454

*Most survey respondents prefer to ride in a designated bicycle facility (426 of 454 or 94%)*

*Survey respondents expressed a strong preference for cycle tracks over the other bicycle facility types (52%)*

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency
Question 1: I bike for fun, exercise, and/or transportation...




*No table was provided for this graphic.*

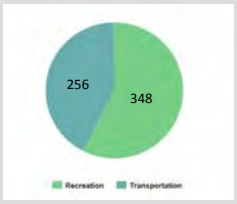
Daily / Almost Daily - 143 (33%)
More Than Once A Week - 114 (26%)
About Once a Week - 57 (13%)
A Few Times a Month - 58 (13%)
A Few Times a Year - 48 (11%)
Never - 17 (4%)

Total = 437

*Approximately ¾ of survey respondents regularly ride a bicycle*

## Screen 2 - Help Us Plan

Tab 3 – Biking Frequency
Question 2: I bike for...




*No table was provided for this graphic.*

Recreation - 348 (65%)
Transportation – 256 (48%)

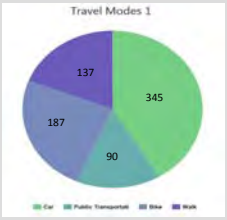
Total = 536

*Respondents were able to select one or both responses. For this reason, the percentages were calculated using the total number of survey responses of 536 for this page.*

*There is a fairly even split between riding for recreation and riding for transportation*

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes
Question 1: How do you usually get around?




*No table was provided for this graphic.*

Car - 345 (64%)
Bike - 187 (35%)
Walk - 137 (26%)
Public Transportation – 90 (17%)

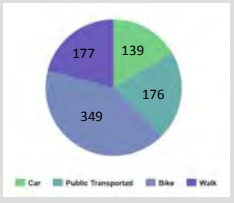
Total = 536

*Respondents were able to select more than one travel mode. For this reason, the percentages were calculated using the total number of survey responses of 536 for this page.*

*Car travel is the most common travel mode, but bike, walk and public transportation reflect more than half the survey responses.*

## Screen 2 - Help Us Plan

Tab 4 – Travel Modes
Question 2: How would you like to get around?




Bike – 349 (65%)
Public Transportation – 176 (33%)
Walk – 177 (33%)
Car – 139 (26%)

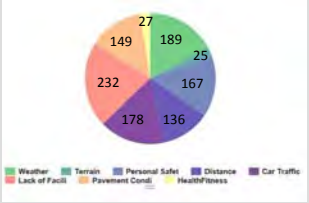
Total = 536

Respondents were able to select more than one travel mode. For this reason, the percentages were calculated using the total number of survey responses of 536 for this page.

*Survey respondents indicate that they would prefer to travel by bike, transit and walking over cars by a ratio of approximately 6:1 (139/841)*

## Screen 2 - Help Us Plan

Tab 5 – Biking Preferences
Question 1: What keeps you from cycling as often as you want?




*No table was provided for this graphic.*

Lack of Facilities (bike lanes, trails, etc.) - 232 (43%)
Weather - 189 (35%)
Car Traffic - 178 (33%)
Personal Safety/Security - 167 (31%)
Pavement Condition - 149 (26%)
Distance - 136 (25%)
Terrain - 25 (5%)
Health/Fitness Limitations - 27 (5%)

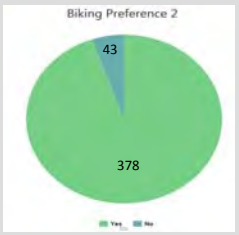
Total = 536

*Respondents were able to select more than one response. For this reason, the percentages were calculated using the total number of survey responses of 536 for this page*

*There are several factors that hinder bicycling with the leading cause being lack of bicycle facilities..*

## Screen 2 - Help Us Plan

Tab 5 – Biking Preferences
Question 2: Do you want to ride in a Midway Cycle Track?




Yes - 378 (90%)

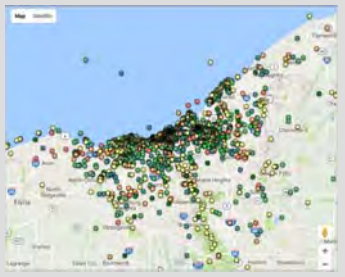
No - 43 (10%)

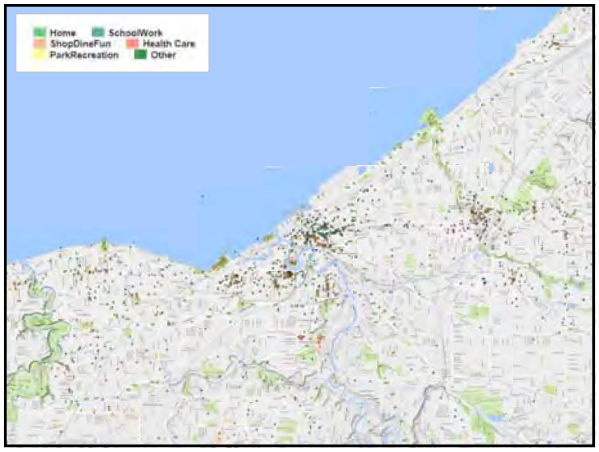
Total = 421

*The vast majority of survey respondents (90%) would like to bicycle in a midway cycle track.*

*No table was provided for this graphic.*

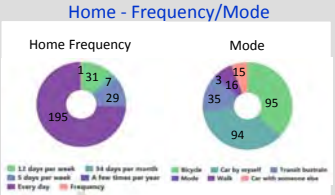
## Screen 3 - Where Do You Go?




## Screen 3 - Where Do You Go?

Home - Frequency/Mode




| Value | Count | Percent |
|---|---|---|
| 12 days per week | 31 | 11.74% |
| 34 days per month | 7 | 2.65% |
| 5 days per week | 29 | 10.98% |
| A few times per year | 1 | 0.38% |
| Every day | 195 | 73.86% |
| Frequency | 1 | 0.38% |
| Totals | 264 | |

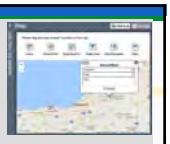
Total = 264

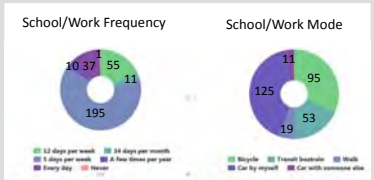
| Value | Count | Percent |
|---|---|---|
| Bicycle | 95 | 36.82% |
| Car by myself | 94 | 36.43% |
| Car with someone else | 15 | 5.81% |
| Mode | 3 | 1.16% |
| Transit bustrain | 35 | 13.57% |
| Walk | 16 | 6.20% |
| Totals | 258 | |

Total = 258

## Screen 3 - Where Do You Go?

School/Work - Frequency/Mode






| Value | Count | Percent |
|---|---|---|
| 12 days per week | 55 | 17.80% |
| 34 days per month | 11 | 3.56% |
| 5 days per week | 195 | 63.11% |
| A few times per year | 10 | 3.24% |
| Every day | 37 | 11.97% |
| Never | 1 | 0.32% |
| Totals | 309 | |

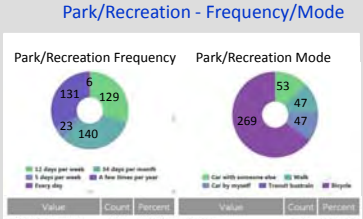
Total = 309

| Value | Count | Percent |
|---|---|---|
| Bicycle | 95 | 31.35% |
| Car by myself | 125 | 41.25% |
| Car with someone else | 11 | 3.63% |
| Transit bustrain | 53 | 17.49% |
| Walk | 19 | 6.27% |
| Totals | 303 | |

Total = 303

## Screen 3 - Where Do You Go?

Park/Recreation - Frequency/Mode




| Value | Count | Percent |
|---|---|---|
| 12 days per week | 129 | 30.07% |
| 34 days per month | 140 | 32.63% |
| 5 days per week | 23 | 5.36% |
| A few times per year | 131 | 30.54% |
| Every day | 6 | 1.40% |
| Totals | 429 | |

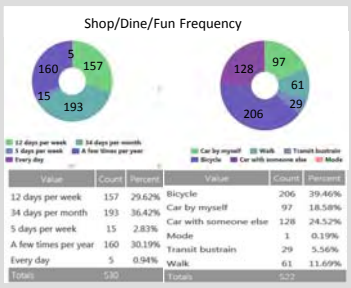
Total = 429

| Value | Count | Percent |
|---|---|---|
| Bicycle | 269 | 64.20% |
| Car by myself | 47 | 11.22% |
| Car with someone else | 53 | 12.65% |
| Transit bustrain | 3 | 0.72% |
| Walk | 47 | 11.22% |
| Totals | 419 | |

Total = 419

## Screen 3 Where Do You Go?

Shop/Dine/Fun - Frequency/Mode




| Value | Count | Percent |
|---|---|---|
| 12 days per week | 157 | 29.62% |
| 34 days per month | 193 | 36.42% |
| 5 days per week | 15 | 2.83% |
| A few times per year | 160 | 30.19% |
| Every day | 5 | 0.94% |
| Totals | 530 | |

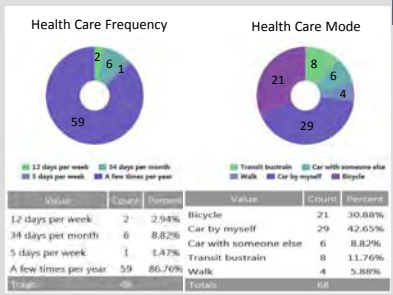
| Value | Count | Percent |
|---|---|---|
| Bicycle | 206 | 39.46% |
| Car by myself | 97 | 18.58% |
| Car with someone else | 128 | 24.52% |
| Mode | 1 | 0.19% |
| Transit bustrain | 29 | 5.56% |
| Walk | 61 | 11.69% |
| Totals | 522 | |

Total = 530

Total = 522

## Screen 3 - Where Do You Go?

Health Care - Frequency/Mode




| Value | Count | Percent |
|---|---|---|
| 12 days per week | 2 | 2.94% |
| 34 days per month | 6 | 8.82% |
| 5 days per week | 1 | 1.47% |
| A few times per year | 59 | 86.76% |
| Totals | 68 | |

| Value | Count | Percent |
|---|---|---|
| Bicycle | 21 | 30.88% |
| Car by myself | 29 | 42.65% |
| Car with someone else | 6 | 8.82% |
| Transit bustrain | 8 | 11.76% |
| Walk | 4 | 5.88% |
| Totals | 68 | |

Total = 68

Total = 68

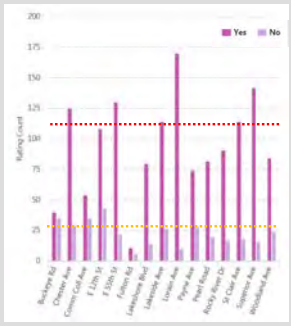
## Screen 3 - Where Do You Go?

Other- Frequency/Mode

*'Other' Marker comments include:*

| | |
|---|---|
| 141162 | Church |
| 141166 | Shoppin |
| 141183 | Ride bicycle into Cleveland |
| 141195 | I'd like a nice bike path from Euclid to my parents' house in Middleburg Heights. They are near Bug Creek Parkway but there's no nice connection to that from downtown. The zoo could be included on that route, which would be nice for lots of people. |
| 141202 | Shop Dine Fun |
| 141206 | Visit |
| 141217 | city hall meetings |
| 141219 | museum |
| 141234 | vet appointments for my unhealthy cat. A few times a month, always by car |
| 141249 | LIBRARY<br>1-2x/month by bike and car |
| 141258 | Red Line to Airport used a few times/year |
| 141260 | Greyhound station dropped off by car a few times/ year |
| 141239 | Drive to visit relatives. |
| 141240 | Drive to visit relative. |
| 141246 | Drive to church once per week. |
| 141270 | Shopping |
| 141453 | Church, 2-3 times per week |
| 141516 | I drive to church once/twice a week. |
| 141596 | Volunteering |
| 141738 | I bike around downtown just for fun and to meet friends who work downtown |
| 141742 | visiting family |
| 141757 | Fitness |
| 141771 | Visit |
| 141841 | Visit Friend/Family; Car with others; 1-2 per week |
| 141855 | culture, cma, outdoor music, shops, coffee shops, cafes *univ. circle. mostly take rta but drive to tinkett rapid and park. |
| 141883 | Volunteer: Cleveland Botanical Garden, MetroParks and even Holden Arboretum. |
| 141908 | In-laws house; Bike about 2x/mo; |
| 142051 | work |
| 142062 | shopping/errands |
| 142207 | I bike here with my wife on Sundays to worship and serve at Velocity Church. |
| 143402 | My company doesn't provide parking, so i commute via car to the flats district then walk 15 minutes to the office. My total commute is typically an hour or so in length. I'd rather bike the whole thing and skip out on rush hour traffic. |
| 136131 | Church - we try to bike during the summer |
| 136189 | Bike to Detroit Shoreway Community Development for Board Meetings |
| 136196 | SPACES new location - bike and transit from downtown. Use car when from home |
| 136208 | Barber--once/mo- bike |
| 136209 | Culture--once every other month--car with others or redline |
| 136211 | Family home--once every three months--in a car with someone else |
| 136221 | Critical Mass monthly |
| 136225 | Buckeye Breakaway annual fundraiser: MS-150 |
| 136226 | Buckeye Breakaway annual fundraiser: MS-150 |
| 136252 | I bike here to catch the rapid and then bike back home. I either lock my bike up here, at Tower City, or sometimes I take it all the way to work. |
| 136255 | I go to church here every week and bike the whole way in the warmer months. I use transit on cold, snowy days. |
| 136260 | I rent a zipcar to visit my family about once a week. |
| 136261 | I rent a zipcar to visit my family a few times a month. |
| 136311 | Bike Cleveland Board meeting |
| 136331 | Recreation |
| 136337 | cemetery |
| 136344 | post office |
| 136347 | Public library |
| 136377 | sailing |
| 136413 | Friend's house. Sometimes bike here, approx once a month in good weather. |
| 136424 | Frequently road cycle down route 21 |
| 136425 | Road cycle via the canal path. |
| 136463 | groceries by bike |
| 136501 | Family |
| 136510 | Child's daycare |
| 136525 | Gym |
| 136623 | library - it would be nice to ride my bicycle here, but there is too much auto traffic |
| 136702 | Library |
| 137196 | church |
| 137232 | Family house |
| 141157 | Family |
| 141158 | Family |

## Screen 4 - Which Corridors Matter Most ?



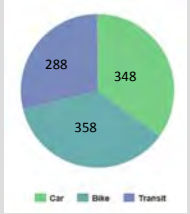

| Item | Yes (1) | No (2) |
|---|---|---|
| Rocky River Dr | 91 | 17 |
| Woodland Ave | 84 | 24 |
| Pearl Road | 82 | 20 |
| Lakeshore Blvd | 80 | 14 |
| Payne Ave | 74 | 28 |
| Fulton Rd | 11 | 6 |
| Comm Coll Ave | 54 | 35 |
| E 17th St | 108 | 43 |
| Buckeye Rd | 40 | 35 |
| Chester Ave | 125 | 29 |
| Lakeside Ave | 114 | 27 |
| E 55th St | 130 | 22 |
| St Clair Ave | 114 | 18 |
| Lorain Ave | 170 | 10 |
| Superior Ave | 142 | 16 |
| Grand Total | 1419 | 344 |

Screen 4 completions: 232

## Screen 5 – Thank You

Please Tell Us About Yourself

Question 1: I have access to…




Bike - 358 (94%)

Car - 348 (92%)

Transit - 288 (76%)

Total = 379

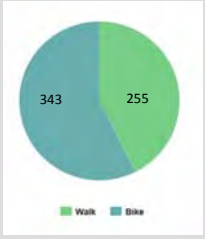
Respondents were able to select more than one response. For this reason, the percentages were calculated using the total number of survey respondents of 379 for this page.

*Almost all survey respondents have access to a car and/or a bicycle, and a 75% majority have access to transit.*

## Screen 5 – Thank You

Please Tell Us About Yourself

Question 2: I like to…




Bike - 343 (91%)

Walk - 255 (67%)

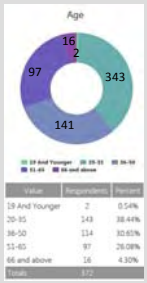
Total = 379

Respondents were able to select more than one response. For this reason, the percentages were calculated using the total number of survey respondents of 379 for this page.

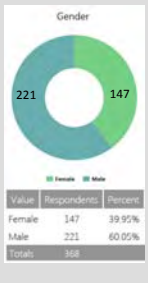
*Generally, survey respondents like to bike and walk, but they exhibit a preference for bicycling over walking.*

## Screen 5 – Thank You

Please Tell Us About Yourself
Demographics



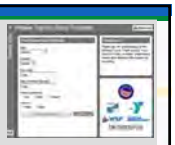

| Value | Respondents | Percent |
|---|---|---|
| 19 And Younger | 2 | 0.54% |
| 20-35 | 143 | 38.44% |
| 36-50 | 114 | 30.65% |
| 51-65 | 97 | 26.08% |
| 66 and above | 16 | 4.30% |
| Totals | 372 | |




| Value | Respondents | Percent |
|---|---|---|
| Female | 147 | 39.95% |
| Male | 221 | 60.05% |
| Totals | 368 | |

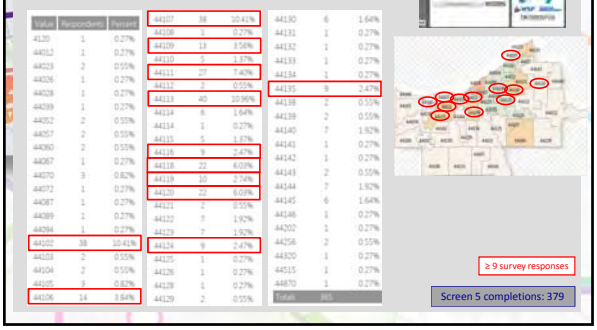
Total = 372

Total = 368



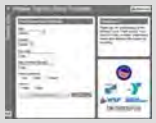
## Screen 5 – Thank You

Please Tell Us About Yourself
Zip Code Information

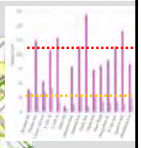


≥ 9 survey responses

Screen 5 completions: 379



## Feasible Corridors

~~Buckeye Rd~~
~~Chester Ave~~
~~Comm. College~~
~~E.12th Street~~
**E.55th Street**
Fulton Road
Lakeshore Blvd
**Lakeside Ave**
**Lorain Ave**
~~Payne Ave~~
Pearl Road
Rocky River Dr
**St Clair Ave**
**Superior Ave**
Woodland Ave

## Criteria (Phase 1)

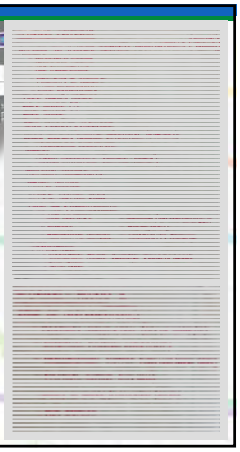
*To assess the positive impact and potential benefit of the 15 corridors*

- Demographic considerations
  - *Household income*
  - *Car ownership*
  - *Proximity to transit*
  - *Life expectancy*
- Tree canopy
  - *Are we removing trees to implement (Y/N)*
- SRTS priority corridor (Y/N)
- NOACA bikeway demand potential
- Safety (NOACA bike crash data)
- Regional connectivity (low/medium/high)
- Connects land use/identified survey destinations
- City capital plan (Y/N)
- Stormwater/NEORSD priority area (Y/N)

## Evaluation Criteria (Phase 2)

*To assess the ease of implementation of the 15 corridors*

- Roadway jurisdiction
  - *City*
  - *State/County*
- Federal Aid Truck Route
- Listed on NOACA TIP
- NOACA asset management program
- External funding potential
- Community support
- Political support
- City Hall Chiefs' Preferences
- Traffic impacts
  - *Access, circulation, etc.*
- RTA benefit (ridership, etc.)
- Negative RTA impact (operations, etc.)



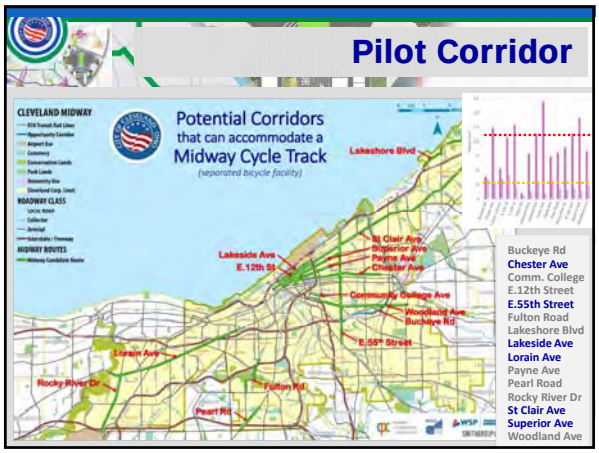
## Evaluation Criteria (Phase 2 - RTA)

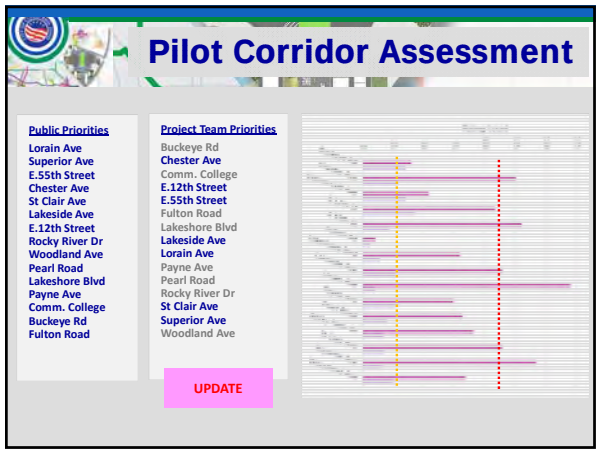
**Benefit to RTA**

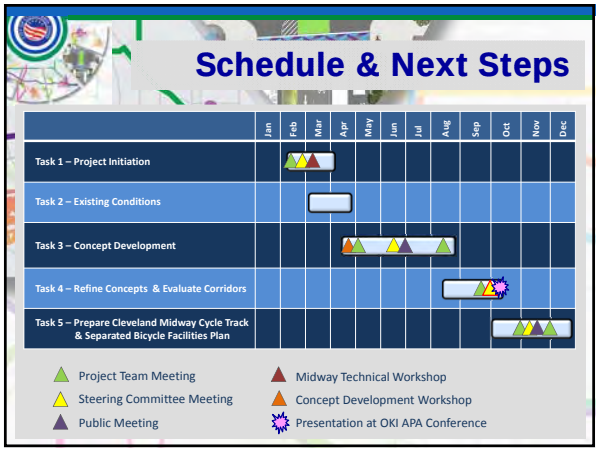
- Increase ridership
- TOD opportunities
- Increase safe operations
  - *Pedestrian crossings near bus stops*
- Smooth roadway
- Bus stop pads
- Eliminate bus/bike collisions

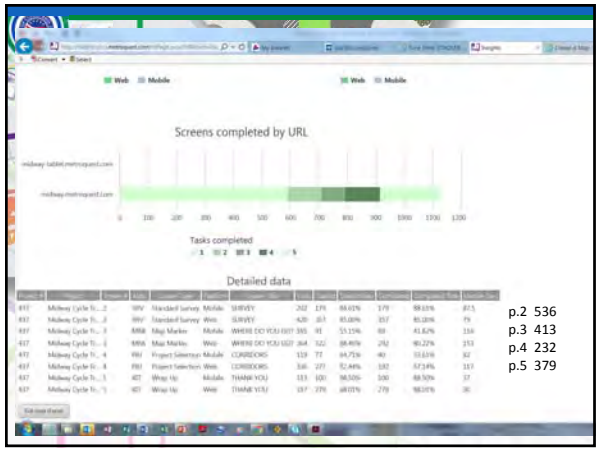
**Negative RTA Impact**

- Removal of existing bus lanes
  - *St. Clair bus lane in downtown area must remain*
  - *Superior bus lane in downtown area must remain*
- Hurt operations of existing services - including pedestrian access
- Takes away ROW for future improvements for a BRT lite-type operations that correspond to our Priority Corridors




p.2 536
p.3 413
p.4 232
p.5 379

# Project Team Meeting 6
# November 3, 2016

# MEETING MINUTES

**Project Team Meeting #6**
**November 3, 2016, 10:00 a.m.**
**WSP | Parsons Brinckerhoff Conference Room**

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Freddy Collier, Director | City of Cleveland Planning Commission | 216-664-3468 | fcollier@city.cleveland.oh.us |
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Jacob Van Sickle | Bike Cleveland | 216-245-3101 | jacob@bikecleveland.org |
| Mike Schipper | GCRTA | 216-566-5100 | mschipper@gcrta.org |
| Melissa Thompson | NOACA | 216-241-2414 x344 | mthompson@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Neal Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |
| | | | |

Nancy Lyon-Stadler facilitated the meeting.

## Overview of MetroQuest Survey Results

A total of 540 respondents provided data with a total of 1201 site visits (45% of site visitors provided input). Spikes in the number of respondents indicate times when pop-up events took place.

Results summary:

- Most respondents ride a bicycle (94%)
- Most survey respondents prefer to ride in a designated bicycle facility (94%)
- Approximately ¾ of survey respondents regularly ride a bicycle (once a week or more)
- Fairly even split between recreational and transportation riding (survey allowed selection of both)
- Car travel is the most common travel mode but bike, walk and public transportation reflect more than half the survey responses (survey allowed selection of multiple modes)
- Barriers to bicycling were clustered. Lack of facilities was highest followed by weather, car traffic, personal safety/security with scores that were clustered together. Pavement condition and distance followed. Terrain and health/fitness limitations were low scoring.
- The vast majority of survey respondents (90%) would like to ride in a Midway Cycle Track
- Destinations spread throughout city limits with clusters at employment centers (downtown, University Circle)
- Corridor prioritization - top 6
    1. Lorain Avenue
    2. Superior Avenue
    3. E. 55th Street
    4. Chester Avenue
    5. Lakeside Avenue
    6. St. Clair Avenue

- Corridor prioritization – do not prioritize, bottom 6
  1. E.12th Street
  2. Buckeye Road
  3. Community College Avenue
  4. Chester Avenue
  5. Lakeside Avenue
  6. Payne Avenue
- Interesting to note that Chester and Lakeside are on both the top 6 and the bottom 6
- Access to Bike, Car and Transit is evenly spread (survey allowed selection of multiple modes
- Participation is fairly spread throughout the Cleveland and the first ring suburbs

## Corridor Evaluation (from Steering Committee Meeting #3)

- Corridor prioritization:

| **"A" Corridors** | **"B" Corridors** | **"C" Corridors** |
|---|---|---|
| *Woodland/Buckeye Avenues* | *Chester Avenue* | Pearl Avenue |
| *Superior Avenue* | Community College | Fulton Avenue |
| *St. Clair Avenue* | Lakeshore Avenue | E. 12th Street |
| *E. 55th Street* | *Lakeside Avenue* | |
| Lorain Avenue | Payne Avenue | |
| | Rocky River Drive | |

- Pilot corridor and pilot network
  - Intent of pilot corridor:
    - ~ Minimize hurdles for implementation
    - ~ Get people familiar with a cycle track prototype
    - ~ Proof of concept
  - Pilot Corridor: Superior Avenue from the Detroit-Superior Bridge (W.9th Street-Huron Road intersection) to W.55th Street
  - Pilot Network: Superior (pilot corridor) plus E.55th Street (lakefront to Superior) and St Clair Avenue (W.55th to MLK)
  - Other potential pilot corridors are:
    - ~ Chester
    - ~ E.12th Street
    - ~ Lakeshore
    - ~ Lakeside
    - ~ Lorain
    - ~ St Clair
    - ~ Woodland-Buckeye

## Superior Avenue as Pilot Corridor

- RTA expressed concerns with Superior Avenue as the potential pilot corridor
  - W. 3rd Street to E. 18th Street is an identified Transit Zone
  - Superior Transit Zone

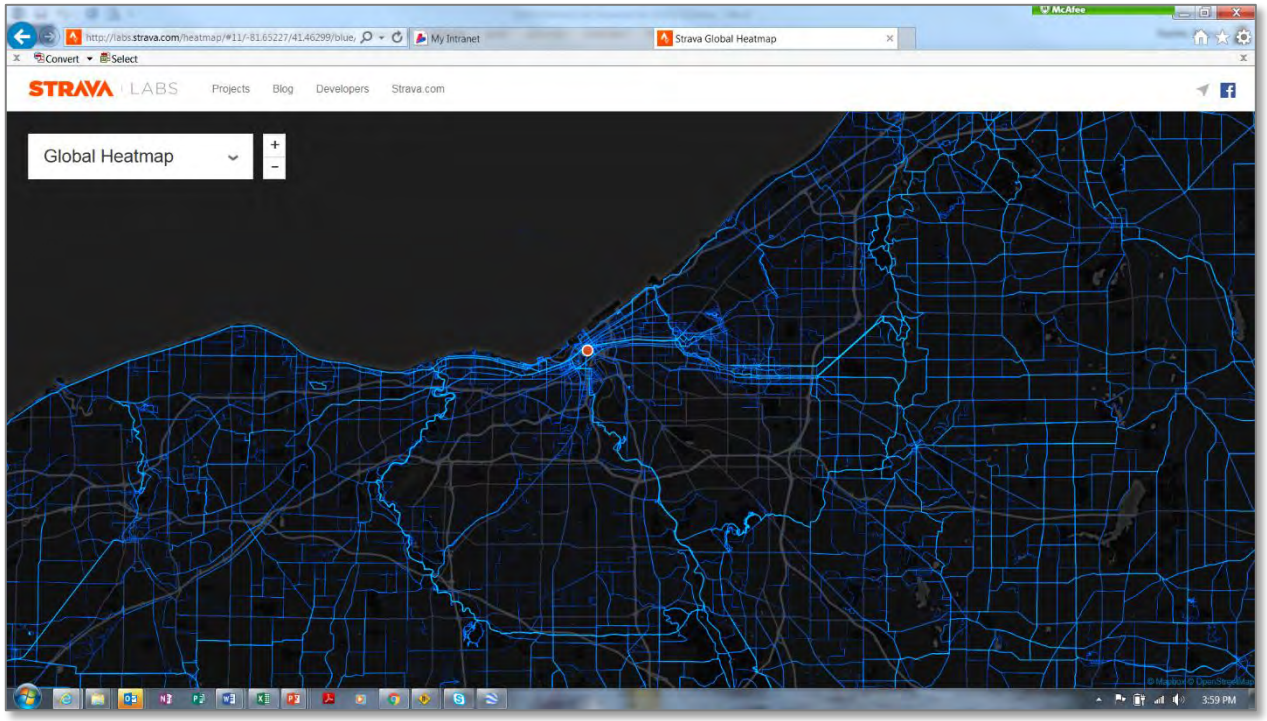
  - ~ Bus only curb lane 24/7 including Public Square. This is a right-of-way commitment, with a lifetime of 100 years as stipulated in the New Starts program, from the full funding agreement associated with HealthLine
- – Bikes are permitted to travel in the exclusive bus lanes (with OMUTCD signage)
- – Is there enough room for a midway and bus lanes in this zone? RTA is ok with Superior as a midway corridor as long as the bus only lanes are maintained
- – Bus lane width is minimum 13 feet for the curb lane
- – Concern with section to the east of Public Square
  - ~ Median would need to be removed
  - ~ Not sure there is enough width for everything to fit
- – Implementation of a midway on Superior would require traffic analysis.

- Suggestion to consider another corridor as the pilot segment
  - – Many disagree, we have identified constraints but not barriers for Superior

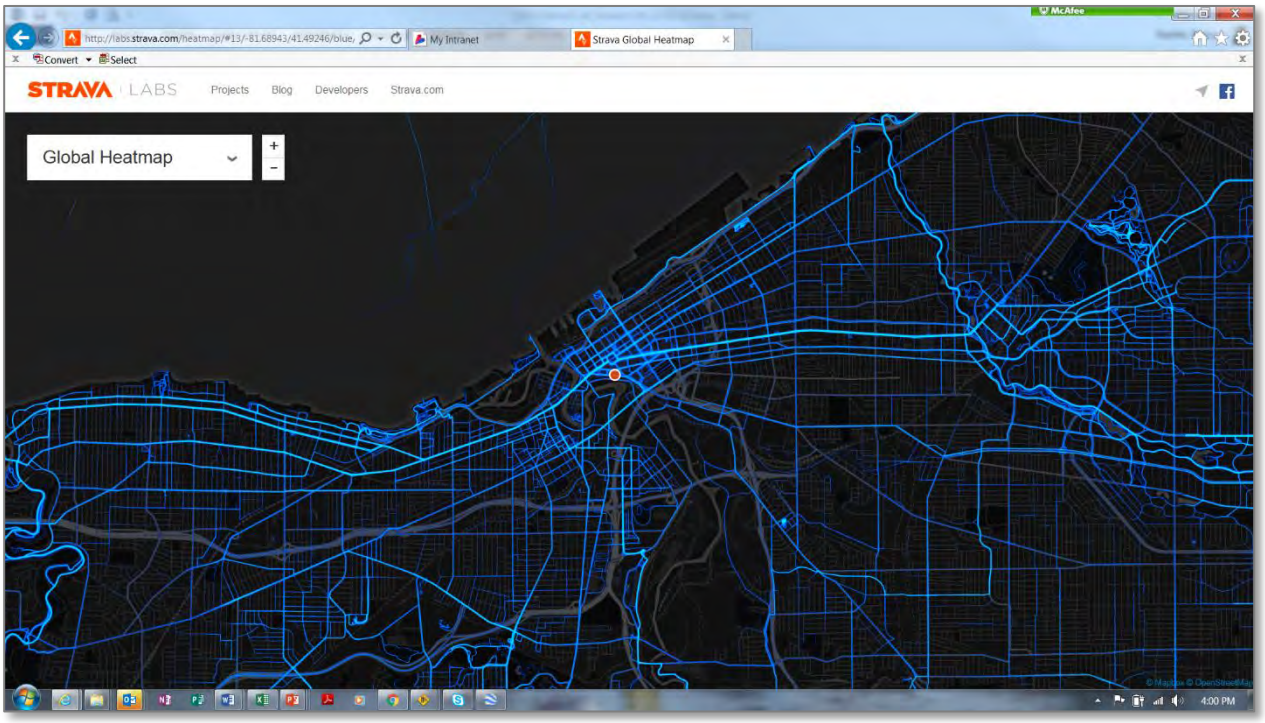
- Consensus that the pilot corridor should be located in downtown Cleveland

- Reviewed Strava Heat map images which is a reflection the routes of people who ride who also report their data to Strava (www.strava.com) (*www.strava.com/heatmap*)
  - – This reflects only Strava user data, which is not a broad cross section of cyclist types
  - – To some degree, this information is a reflection of the location of existing bicycle facilities users.

***Greater Cleveland Regional Strava Heat Map (11/3/2016)***



***Cleveland Strava Heat Map (11/3/2016)***




## Proposed Pilot Network (Superior-E.55th-St Clair)

- There was consensus that the pilot network would consist of the pilot corridors plus the E.55th Street corridor (lakefront to the pilot corridor) and St Clair Avenue (E.55th Street to MLK).

- Discussion of E.55th Street and implementation challenges
  - There are pinch points that will prevent implementation of a continuous midway at the north end of E.55th Street
    - ~ Railroad underpass immediately north of the Euclid Avenue/E.55th Street intersection
    - ~ Railroad underpass south of the Shoreway (SR-2) and South Marginal Road. This railroad bridge is included as part of a later phase of the Cleveland Innerbelt program, but project funding and schedule have not been determined.
  - South of Carnegie is expected to be influenced by Opportunity Corridor; this segment will not be feasible until the anticipated shifts in traffic volumes and patterns are achieved with construction of Opportunity Corridor.
  - The pilot network along E.55th Street may not be possible until there is a workaround for the northern railroad underpass.

- There was no discussion of the St Clair Avenue section of the proposed pilot network.

## Lakeside from W. 3rd Street to E. 9th Street

***Qwick Kurb Lane Separation***

- There was discussion of replacing Superior with Lakeside as the pilot corridor. The discussion evolved into retaining Superior as the pilot corridor but adding Lakeside as a demonstration corridor. The consensus was that the Lakeside corridor would be relatively easy to implement, it contains all the elements that would need to be addressed with operational considerations, it serves the public (particularly visitors), it has political support, and the physical challenges are limited. This corridor could be an easy win that would demonstrate function and value, and help procure funding for the midway program and future midway corridors.
  - It should be fully built, as the "full blown concept", but could be implemented with paint and bollards as an inexpensive first step that demonstrates the concept.
    - A midway cycle track on the Lakeside corridor could be done quickly with paint and bollards (i.e., Qwick Kurb)
  - Lakeside is valuable as a demonstration corridor
  - Demonstrate operations. The corridor includes signalized intersections and transit operations, but is not overly complex.
  - Political support.
  - City Hall and GCRTA support a midway on this corridor.
    - Real and perceived value with a midway cycle track literally at the front door of City Hall.
  - Operational considerations.
    - Removal of on-street parking would be needed; this would also benefit bus operations.
    - The midway will act like a median divider between intersections so access impacts needs to be considered. The grid street network provides multiple alternate routes for access so although full movement on-street access will no longer be available, vehicles will be able to access properties on the north and south side of Lakeside via alternate routes, as needed.
    - Traffic volumes are not high. Based on recent closures (i.e., construction, RNC), removal of travel lanes is not problematic.
    - Utilities are not located in the middle of the street.
    - The road is crowned in the middle so there would not be significant drainage impacts.
    - There are not many curb cuts (driveways, etc.).
    - Transit operations include bus and trolley routes.
      - RTA does some staging and layovers on Lakeside, but it would be possible to move those to other locations on the transit network if it is an issue for midway operations. This will depend on the roadway geometrics and what can be accommodated in the roadway space that is not occupied by the midway.
      - Superior is a much busier transit corridor than Lakeside.
    - Presence of the midway cycle track will serve as a median; this will facilitate pedestrian crossings at mid-block and unsignalized crosswalks.
    - Midway crossing designs would be implemented at the Ontario and E.6$^{th}$ Street intersections. Figuring out how this will work, and the user experience during operations,

will be simpler at these t-intersections than at a standard 4-legged intersection. This will be valuable as this new type of facility is introduced to the community.
  - ~ Transition into and out of the midway at the W.3rd Street and E.9th Street intersections.
  - ~ Of all the potential midway corridors in the downtown area, Lakeside has the fewest challenges for immediate implementation.
  - ~ Lakeside pavement is in relatively good condition. Superior would need to be constructed at/near W.9th Street (as a minimum) due to poor pavement condition.
  - ~ Ontario Avenue bike lanes would connect Lakeside with Public Square
- The Lakeside corridor has independent utility for even the short section with connection to W. 3rd Street to E. 9th Street
  - ~ It provides the southern portion of a loop connection that circles W.3rd Street (future complete street, per city plans), Alfred Lerner Way and the Lakefront Trail, and E.9th Street.
  - ~ It provides a connection to the new Pedestrian Bridge that will cross between downtown Cleveland and the lakefront.
- User benefit. Discussion during the corridor evaluation that was part of Steering Committee Meeting #3 centered on the belief that Lakeside would be of less user benefit than Superior or other downtown corridors. However, the group looked into data sources to understand current bike volumes and usage along and near Lakeside. The data shows that Lakeside is currently used and the group noted that with the convention center and several nearby hotels, it would likely be a valuable asset for visitors to the community.
  - ~ It is expected to be valuable for recreational (non-road) cyclists
  - ~ It provides a good connection between the Mall, convention center civic facilities, and nearby hotels
  - ~ Tourism asset
- UH Bikes data on bike share usage indicates that the bike share location on Lakeside by the convention center is well-used.
  - ~ Since the last meeting, Marka has been observing usage at that bike share location and noted that there are often only one or two bikes parked at that station
  - ~ Jacob reviewed the HUBS Report from the UH Bikes bikeshare program; Lakeside Avenue/Convention Center hub is very well used (see table with data showing September 2016 usage).
    - ◇ Busier locations are highlighted in yellow; the Convention Center/City Hall (CC/CH) location is highlighted in yellow.
    - ◇ The CC/CH location was busier than several downtown locations and about as busy as the Public Square location.

***UH Bikes Bike Share Data, September 2016***

| Name | Rentals Total | Rentals Out | Rentals In |
|---|---|---|---|
| Public Square | 237 | 108 | 129 |
| St. Clair / W. Mall | 164 | 85 | 79 |
| Uptown | 0 | 0 | 0 |
| Tremont 11th St & Fairfield Ave Virtual Station/Drop Zone | 0 | 0 | 0 |
| E. 4th / Euclid Virtual Station/Drop Zone | 53 | 26 | 27 |
| W. 9th / St. Clair | 310 | 153 | 157 |
| Platform Beer Co. Drop Zone | 23 | 8 | 15 |
| Bike Cleveland Drop Zone | 0 | 0 | 0 |
| Happy Dog Drop Zone | 9 | 1 | 8 |
| Market Square | 0 | 0 | 0 |
| E. 9th / Prospect | 129 | 62 | 67 |
| Wade Oval South | 0 | 0 | 0 |
| Tony Brush Park | 0 | 0 | 0 |
| Cedar-University RTA Station | 0 | 0 | 0 |
| Stadiums on Ontario | 0 | 0 | 0 |
| W.O. Walker Hospital | 0 | 0 | 0 |
| Euclid / E. 9th | 423 | 217 | 206 |
| Convention Center & City Hall | 216 | 107 | 109 |
| E. 14th / Euclid | 423 | 229 | 194 |
| Main / W. 11th | 214 | 96 | 118 |
| E. 9th / St. Clair | 169 | 75 | 94 |
| Superior / E. 6th | 147 | 70 | 77 |
| Nano Brew Drop Zone | 75 | 28 | 47 |

- There was some discussion of including bike facilities to connect Lakeside to the Detroit-Superior Bridge (via Ontario or W.3rd Street and the section of Superior), but the group decided that doing so would complicate the ease of implementation that is desired with the Lakeside demonstration project.

- St. Clair Avenue, like Superior, is a designated Transit Zone between W.3rd Street and E.12th Street, with the associated constraints during peak hours.

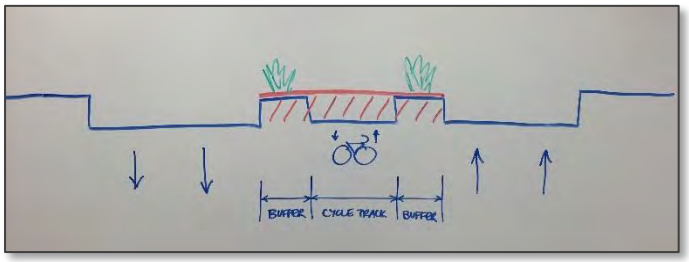
## Summary of Initial Implementation of Vision

- Based on the discussions at this meeting, the team would like to move forward with:
  - Demonstration Project: Lakeside between W.3rd Street and E.9th Street
  - Pilot Corridor: Superior between the Detroit-Superior Bridge and E.9th Street
  - Pilot Network: Superior pilot corridor plus the E.55th Street corridor (lakefront to the pilot corridor) and St Clair Avenue (E.55th Street to MLK).

- Melissa noted that the implementation of the "full blown" midway concept on Lakeside should not preclude the bare bones (paint and Qwick Kurb) implementation as a first step.

## Midway Cycle Track Cross-Section

- Nancy stated that she has been thinking about the midway cross section. For ease of use and maintenance, as well as visibility of users, she recommended modifying the cross section to being entirely raised, rather than just raising the buffer area (for the full blown concept). This would be the cross section for the minimum and the preferred configurations. The team agreed with her recommendation and the design concept, as currently summarized in the technical memo, will be revised accordingly.




***Raised Midway Cycle Track***

  - Mike suggested including the possibility of providing a lower curb (i.e., 4" height instead of the standard 6" height) as a lower-cost option. His recommendation will be incorporated into the design concept.
    - ~ Plant material does better with a 6-inch curb height
    - ~ Donn stated 2' to 4' is required for a planting zone
    - ~ Clifton Boulevard has an 8-foot planting zone with 6-inch straight curb working well

## Additional Discussion

- Director Collier stated that Ken Silliman has a preference for E. 55th Street (called it a showpiece)
  - Recommendation to call Lakeside Avenue a demonstration = showpiece

- Summary discussion in favor of Lakeside as the demonstration corridor:
  - Costs  Lower cost for this corridor (smaller/shorter, pavement is in better condition)
  - Hotel Access: Will be a point of discussion; access is preserved via alternate routing and preventing left turns in/out will be safer (access management)
  - W. 3rd Street is not on the list of potential midway corridors (traffic volume, insufficient width). The connection between Lakeside and Superior/Public Square is better via Ontario (bike lanes) and/or the Mall.
  - Congestion. Midway will help mitigate emissions.
  - Big events and associated impacts with a midway on Lakeside is a concern that will be raised and we need to be able to address that concern.
    - ~ Not restricting access to parking lots (although routes to get there may be altered
    - ~ Improving safety with provision of the midway (median)
    - ~ Midway as access management tool
  - Sustainability
  - Equity
    - ~ City Hall is the People's House
    - ~ All Council meets there (location does not favor one Ward over another)
    - ~ Connects east and west sides of CLE
  - Big Events. Convention Center. Hotel. Justice Center.
    - ~ Enticement to attract national bike conferences (and other national conferences)
    - ~ Expected to helps attract conventions and other visitors
  - Functionality
  - Aesthetics
    - ~ Needs to be styled like the Cultural Trail, functional and visually appealing, attractive landscape aesthetic
  - Existing bike share facility – good usage near the Convention Center
  - Maintains stormwater flow, not a drainage infrastructure impediment
  - Lakeside is a low volume roadway within downtown Cleveland
    - ~ Lakeside capacity can be reduced without negative impact, as evidenced by the road closures associated with the RNC and recent construction projects.
  - Utilities are not located in the middle of the road

## Next Steps

- PB will map the Lakeside and Superior corridors, confirm the curb-to-curb roadway dimensions, and determine the potential cross sections to accommodate a midway cycle track.
  - Geometry is a consideration moving forward.
  - Signal operations are not a critical consideration at this point.
  - The concepts will be drafted for discussion at the November 10th Steering Committee meeting.

- May be beneficial to do an assessment of parking impact
  - Identify on-street parking spaces to be removed
  - Identify ingress and egress traffic patterns to parking facilities along the corridor

  - ~ Willard Garage as well as other driveways are unsignalized so they would be convert to right in/right out access.
  - ~ It may be possible to allow U-turns at E. 6th Street intersection (not trucks, like Healthline on Euclid)

- Would like to develop a conceptual rendering to illustrate the midway design concept. Would like to get beyond the original image that has been published to more accurately portray the current design concept. City staff will look into developing an updated image.

- Upcoming meetings
  - Steering Committee meeting on November 10, 2016
  - Public meeting late November/early December
    - ~ Hold one midday, another after work/evening (same day)

# Steering Committee Meeting 4
# November 10, 2016

# MEETING MINUTES

Steering Committee Meeting #4
November 10, 2016, 10:000 a.m.-12:00 p.m.
NOACA, 3rd Floor Conference Room

## Attendance

| Name | Organization | Email |
|---|---|---|
| Director Collier | City of Cleveland Planning Commission | fcollier@city.cleveland.oh.us |
| Don Angus | City of Cleveland Planning Commission | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | mcader@city.cleveland.oh.us |
| James Sonnhalter | Cuyahoga County Planning Commission | jsonnhalter@cuyahogacounty.us |
| Melissa Thompson | NOACA | mthompson@mpo.noaca.org |
| Michael Kubek | NOACA | mkubek@mpo.noaca.org |
| John Motl | ODOT District 12 | john.motl@dot.ohio.gov |
| Andy Cross | City of Cleveland Engineering | across@city.cleveland.oh.us |
| Calley Mersmann | City of Cleveland SRTS | calley.mersmann@clevelandmetroschools.org |
| Amy Snell | GCRTA | asnell@gcrta.org |
| Mike Schipper | GCRTA | mschipper@gcrta.org |
| Kelly Coffman | Cleveland Metroparks | kbc@clevelandmetroparks.com |
| Matt Gray | City of Cleveland Office of Sustainability | mgray@city.cleveland.oh.us |
| Barb Clint | Greater Cleveland YMCA | bclint@clevelandymca.org |
| Wayne Mortensen | Cleveland Neighborhood Progress | wmortenson@clevelandnp.org |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | lyon-stadlern@pbworld.com |
| Neal Billetdeaux | SmithGroupJJR | neal.billetdeaux@smithgroupjjr.com |

Nancy Lyon-Stadler facilitated the meeting.

### Review of Steering Committee Meeting 3

Superior Avenue from the Detroit-Superior Bridge to E. 55th Street was initially selected as the pilot corridor with St. Clair Avenue from E. 55th Street to MLK Boulevard and E. 55th Street from Superior Avenue to the lakefront completing a pilot network.

*Further discussions that took place since SC Meeting 3 around the transit coordination caused a shift to Lakeside Avenue as the pilot corridor.*

The original 15 corridors that can accommodate a Midway Cycle Track were meet criteria were reiterated. The potential pilot corridors in the area of downtown Cleveland were identified including:
Lakeside Avenue
St. Clair Avenue
Superior Avenue
Chester Avenue

### Usage Data

*Strava Heat Maps* were used to assuage concerns that Lakeside Avenue would not attract users.

- Strava maps track GPS and are limited to users with Garmin
- Are a reflection of where bike infrastructure currently exists

Superior Avenue, St. Clair Avenue, Lakeside Avenue and N. Marginal Road all showed as high usage areas.

*University Hospital Bike Share Data* from September 2016 was also examined.

- The Convention Center/City Hall bike share hub revealed 216 total rentals.

The only sites that had higher rentals are:

- Public Square (237 total rentals)
- W. 9th Street at St. Clair Avenue (310 total rentals)
- Euclid Avenue at E. 9th Street and Euclid Avenue at E. 14th Street (423 total rentals each).

It is suspected that Euclid Avenue has high rentals and bike share usage as Euclid Avenue is a 24/7 transit zone facility that bicycles are allowed to use.

Review of Project Team Meeting 6 (November 3. 2016) Results

Lakeside Avenue was determined to be the Demonstration Corridor.
Superior Avenue was determined to the Pilot Corridor.

Question: For a Demonstration Corridor how would success be defined?

- Operationally through the integration of the cycle track with signals and transit (Buses)
- Through educating cyclists and drivers on how the cycle track is used and how they can easily co-exist
- Through showcasing the cycle track to generate interest and potential funding for additional cycle track implementations in Cleveland
- Bike counts from cyclists using the cycle track

Question: If the cycle track is deemed a success, would it remain as permanent installation? Yes

- Could be installed with paint/bollards in the initial phase

Suggestion: Modify the proposed section from buffers to an entire raised Midway with 4-inch rolled curbs for better visibility.

Discussion about 6-inch barrier curb versus a 4-inch rolled curb

Discussion about access points on Lakeside Avenue with heavy left turn volumes

- Would require new travel patterns on Lakeside Avenue
- Superior Avenue does not have as many heavy left turn movements

There was concern voiced about first time drivers being impacted by impacted access.

- People will need to change their travel patterns on Lakeside Avenue
- Need to provide appropriate wayfinding signage
- Allow U-turns for cars, not trucks

Lakeside Avenue is not on Mayor's Bikeway Implementation Plan; therefore, was not considered a desirable through bike route.

- Lakeside Avenue is a useable route from W. 3rd Street to E. 13th Street
- Superior Avenue is on the Mayor's Bikeway Implementation Plan
    - Lakeside Avenue would be easier to implement that Superior Avenue
    - Superior Avenue would require a long lag time toward implementation due to identifying funding and transit constraints
    - Lakeside Avenue could be implemented much easier
        - Limit it from W. 3rd Street to E. 9th Street
        - Would connect to the lake and south via existing facilities (ClevLink, Downtown Connector)
        - Can work in parallel on both Lakeside Avenue and Superior Avenue
- Transit operations on Superior Avenue make this route more complicated
- The pavement on Superior Avenue by the Detroit-Superior Bridge is in bad shape
- Audience we are trying to capture is the less confident/unexperienced rider which would be better served on Lakeside Avenue

NOACA stated they are not sold on the fact that funding for Lakeside Avenue could identified faster that Superior Avenue.

The City Planning Director stated the plan needs to be presented to the decision-makers with the best option.

- Break down benefits of both Superior Avenue and Lakeside Avenue
- Corridor needs high visibility to make a political statement
- Hit several assets in a short space to change mindset in the City about non-motorized transportation

The Steering Committee will not make final decision.

- The pilot corridor could be neither or both

Downtown is everybody's living room. It is a convergence of demographics.

- A manageable, high impact, demonstration corridor is critical

The Steering Committee is to present both corridors with benefits and challenges identified, rank them.

- There will be contention for either
- Need to identify solutions for potential barriers

Need to consider this study within the context of the Protected Bike Network plus other plans going on in the City. This is a much bigger planning study.

Need to consider City Hall as residents living room, many are low income and need low cost parking.

- This project needs to be a success not a detriment

The transit zone on Superior Avenue is from E. 3rd Street to W. 18th Street.

- There do not appear to be transit conflicts east of Public Square
- The median on Superior Avenue between E. 6th Street and E. 9th Street would need to be removed
- Superior Avenue cannot accommodate a pop-up application
- Superior Avenue has parking garage issues
- Parking in front of the Downtown Cleveland Library
- Superior Avenue has an existing bike lane facility that can be used today, Lakeside Avenue does not have an existing bike facility

Lorain Avenue has funding for a separated bike facility.

Stripped bike lanes will not give the City the culture shift needed for bicycle infrastructure to be accepted. This requires a variety of bike facility types. The City needs:

- Protected Bike Facilities
- A Midway Cycle Track Facility
- Off-Road Bicycle Facilities

Lakeside Avenue connects to numerous assets

- Park to Park.

A cycle track on Lakeside Avenue would not be just a bike facility, but would turn Lakeside Avenue into a boulevard.

The Trust for Public Land and the City are looking at how to connect downtown Cleveland

- Concepts have been developed
- City version of the Indianapolis Cultural Trail

Superior Avenue has existing users going cross town.

- Existing users would benefit
- Would have a more immediate impact

## Demonstration Project

Superior Avenue from W. 9th Street to Public Square (this is a major multimodal road reconstruction) and Lakeside Avenue from W. 3rd Street to E. 9th Street

- Utility in each section
- Logical Termini for both corridors
- Would need to eliminate parking – parking is an operational issue for RTA
    - Need to consider parking with a single travel lane

## Next phase

Superior Avenue from Public Square to E. 9th Street

## Recommendation

*The pilot project is Superior Avenue from the Detroit-Superior Bridge to Public Square and Lakeside Avenue from W. 3rd Street to E. 9th Street.*

Do not use the word “demonstration” as this term applies a temporary situation.

# Project Team Meeting 8
# December 6, 2016

# MEETING MINUTES

**Project Team Meeting #8**
**December 6, 2016, 10:00 a.m.**
**City of Cleveland Planning Commission**

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Freddy Collier, Director | City of Cleveland Planning Commission | 216-664-3468 | fcollier@city.cleveland.oh.us |
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Marty Cader | City of Cleveland Planning Commission | 216-664-2952 | mcader@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Andy Cross | City of Cleveland Engineering | 216-664-2381 | across@city.cleveland.oh.us |
| Melissa Thompson | NOACA | 216-241-2414 x344 | mthompson@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Neal Billetdeaux | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |

Nancy Lyon-Stadler facilitated the meeting.

## Overview of Public Meeting Presentation

An overview of the project vision and goals and a definition of a Midway Cycle Track is being provided as there may be audience attendees that are new to the Midway project.

Corridor Design Prototypes are then being presented to show the audience the requirements to fit a cycle track into an existing Cleveland roadway.

Intersection Design Prototypes are being presented to explain how the cycle track will operate with existing traffic at intersections.

Initial corridors are being presented to show that the initial corridors were selected from a citywide perspective.

Online survey results are presented to show general public input into the planning process and the prioritization of the top corridors. A total of 540 respondents (45%). Spikes occurred as Pop-Up meetings were taking place.

Map showing the feasible corridors going forward.

Phase 1 evaluation criteria to show the potential benefits of the initial 15 corridors.

**A Corridors include:**
E. 55th Street
Lorain Avenue
St. Clair Avenue

Superior Avenue
Woodland Avenue – Buckeye Road

**B Corridor Include**:
Chester Avenue
Community College Avenue
Lakeshore Boulevard
Lakeside Avenue
Payne Avenue
Rocky River Drive

**C Corridors include:**
E. 12th Street
Fulton Road
Pearl Road

From the evaluation criteria five corridors moved forward including St. Clair, Superior, Chester, Lakeside, and Payne.

Pilot Corridor(s) will familiarize people with a cycle track prototype. Focus will be downtown. Identified through the Evaluation Criteria 2.

**Pilot Corridors include:**
Lakeside Avenue from W. 3rd Street to E. 9th Street
Superior Avenue from the Detroit Superior Bridge to Public Square

**Pilot Network includes:**
Superior Avenue from the Detroit Superior Bridge to E. 55th Street
E. 55th Street from the lakefront to Superior Avenue
St. Clair Avenue from E. 55th Street to MLK Boulevard

Bike Share information is presented to show the high number of users in the downtown area.

No major changes to the presentation were made during the Project Team Meeting.

# Project Team Meeting 9
# December 20, 2016

# MEETING MINUTES

**Project Team Meeting #9**
**December 20, 2016, 10:00 a.m.**
**Parsons Brinckerhoff Office, Tower City**

---

## Attendance

| Name | Organization | Phone | Email |
|---|---|---|---|
| Sharonda Whatley | City of Cleveland Planning Commission | 216-664-3806 | swhatley@city.cleveland.oh.us |
| Donn Angus | City of Cleveland Planning Commission | 216-664-3815 | dangus@city.cleveland.oh.us |
| Arthur Schmidt | City of Cleveland Planning Commission | 216-664-3817 | aschmidt@city.cleveland.oh.us |
| Marka Fields | City of Cleveland Planning Commission | 216-664-3465 | mfields@city.cleveland.oh.us |
| Andy Cross (phone) | City of Cleveland Traffic Engineering | 216-664-2381 | across@city.cleveland.oh.us |
| Matt Gray | City of Cleveland Sustainability | 216-664-2246 | mgray@city.cleveland.oh.us |
| Amy Snell | GCRTA | 216-771-4144 | ASNELL@gcrta.org |
| Melissa Thompson | NOACA | 216-241-2414 x344 | mthompson@mpo.noaca.org |
| Consultant Team | | | |
| Nancy Lyon-Stadler | WSP \| Parsons Brinckerhoff | 216-928-8338 | Lyon-StadlerN@pbworld.com |
| Neal Billetdeaux (phone) | SmithGroupJJR | 734-669-2708 | Neal.Billetdeaux@smithgroupjjr.com |
| Scarlett Sharpe (phone) | WSP \| Parsons Brinckerhoff | 813-520-4339 | SharpeSD@pbworld.com |

Nancy Lyon-Stadler facilitated the meeting.

Review of Public Meetings

- Two meetings were held, midday and after work, on December 7, 2016.
- Renderings were very helpful. Nancy suggested modifying the center line to a dashed center line rather than a solid line on the Midway graphics for accuracy (passing will be permitted). Arthur will modify the images and resend all for inclusion in the final report.
- Discussion of public participation
    - There was a lot of public comment and discussion at the two public meetings. No negative comments were received.
    - Did not ask people to vote on a priority corridor as it will not be the public's opinion because it would not aid the process. The first corridor will be based on a number of factors, including the evaluation criteria and public input documented to date. The ultimate decision will be made by City Hall based on the top priority corridors identified through the study.
- All thought the public meetings were successful.
- Steve Litt article in the Plain Dealer was favorable *http://www.cleveland.com/architecture/index.ssf/2016/12/citys_planning_department_zero.html*

Follow-Up Presentations

- Presentation to the Planning Commission, in accordance with the TLCI process and the contract scope. Based on conversations with Barb Clint after the public meetings, Director Collier suggested a meeting with Bike Cleveland, either the board or the entire membership.
- Would like to have the report completed and reviewed prior to presenting

Schedule

- The project is essentially complete; the report is being finalized.

- Melissa Thompson is to check with Ryan Noles to get a project deadline extension, if necessary.
- If an extension is not needed, PB will submit a final invoice showing 100% complete.

Cost Estimate

- Costs were developed in three general areas:
  - Cost per mile for median construction (est. $1M/mile)
    - Includes trees, placed at approximately 40 ft intervals
  - Signal work for Midway intersections (signals only, not reconstruction)
    - $100k for signal modifications to accommodate the Midway Cycle Track
    - $200k for new/reconstructed signal
  - Exclusions (due to corridor-specific variations)
    - Drainage
    - Utilities
    - Roadway reconstruction
    - Stormwater management infrastructure
    - Right-of-way acquisition (expected to be minimal or N/A)
    - Permitting
    - Design (engineering, construction documents)
- Nancy showed the simple illustration used to develop the cost data:


- If a Midway Cycle Track is part of a larger roadway project, the Midway costs will likely be lower.
- If the City has identified capital funding for a roadway project, that funding could be leveraged as the local match for external funding to build a Midway Cycle Track.
- The report will include the planning level cost elements and what is included. There is great variety between the identified Midway corridors (length, intersections, drainage, utilities, etc.), so the overall cost per linear foot will vary.
- We do not have the linear foot price for other types of facilities to compare to the Midway costs.

Report Outline

- Nancy presented the report outline for discussion and approval. Minor modifications were made.

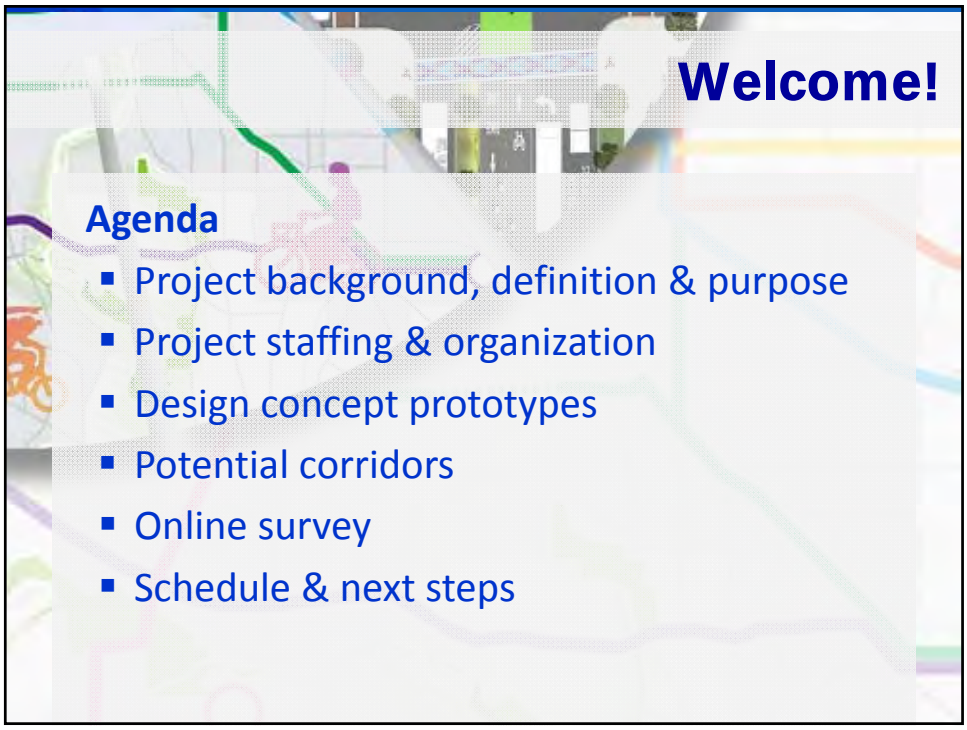
- The results of the Midway report are to be incorporated into the revised CLE Bike Master Plan (to commence in 2017). Current implementation plan is in effect 2014-2017. The Midway Cycle Track plan will inform the update to the City's Bicycle Master Plan.
- The report Appendix will include all meeting minutes, presentations, Technical Concept Workshop minutes, and the design cost estimate spreadsheet.
  - The Technical Workshop Memo to be included in the appendix will have the project specifics (width, transit corridors, etc.)
  - The survey data in its entirety will be compiled into a comprehensive report for appendix. This will show all the results, not just the highlights that were shared in the project meetings.
- The Project Team agreed that the report should include an executive summary containing:
  - Purpose
  - Recommendations
  - Illustrations
- The Midway corridors will be identified within the overall evaluation spreadsheet, which will be included in the Appendix. The table will include an additional column that indicates "Viable as a Midway – Yes/No".
- The report should also include Next Steps.
  - Melissa stated people will want to know what is coming
  - Address funding
  - Steps to get a pilot project on the ground
- Changed recommendations section to Midway Recommendations and Pilot Corridor(s)
- Report will be as visually appealing as possible, given the content and all the data involved in the process.
- Arthur will send updated before and after renderings illustrating the Midway design concept.

<u>Other Discussion</u>

- Question raised: How do we need to coordinate with Bike Cleveland?
  - Dir. Collier will coordinate
- The team reviewed the Macon Midway article that Melissa distributed.
  - We [this project] appear to have done more and will do more than what they show in the Macon midway pop-up.
  - The Macon documentation does not show any detail design concept and/or how intersections are addressed.
  - Shows great interest in the Midway concept.
- Place "DRAFT" on all report documents until the plan has been finalized and approved by the Cleveland Planning Commission.
- Tom Starinsky (Historic Warehouse District) called Nancy for a project update because he was unable to attend the public meetings. Tom asked to be invited to all future meetings since two of the three pilot corridors are in the Warehouse District.

# Public Meetings 1
# June 29 and 30, 2016


CITY OF CLEVELAND OHIO
Midway Cycle Track
Separated Bicycle Facilities Plan
Public Meeting #1
June 29 & 30, 2016


Welcome!
Agenda
Project background, definition & purpose
Project staffing & organization
Design concept prototypes
Potential corridors
Online survey
Schedule & next steps

## Background

- Midway concept – grassroots initiative
  - Facilitate safe bicycle travel through infrastructure enhancement
  - Inspired by streetcars
- City TLCI grant to move forward with planning
  - Develop design concept prototype
  - Identify feasible corridors
  - Midway Cycle Track

## Project Vision

***Create a network of 'midway cycle track' facilities*** (a type of separated bicycle facility) to promote ***healthy living***, enhance bicycle network ***connectivity***, support equitable ***modal choice***, and ensure ***sustainable*** bicycling opportunities which will promote ***economic*** development; ***social cohesion*** and ***placemaking*** throughout Cleveland.

# Project Organization

**Project Team**

- Cleveland Planning Commission
- Cleveland Traffic Engineering
- Mayor's Office of Sustainability
- NOACA
- WSP|Parsons Brinckerhoff
- SmithGroupJJR

**Steering Committee**

- Bike Cleveland
- Cleveland Engineering & Const.
- Cleveland Regional Development
- Cleveland City Council Transportation Committee *(Councilman Marty Keane)*
- Development, Planning & Sustainability Committee *(Councilman Tony Brancatelli)*
- CMSD (Cleveland Metro. School Dist.)
- Cleveland Metroparks
- Cuyahoga Co. Planning Comm.
- GCRTA
- CNP (Cleveland Neighborhood Progress)
- NEORSD
- ODOT
- YMCA

# Technical Committee

- Cleveland Planning Commission
- Cleveland Traffic Engineering
- Cleveland Sustainability
- Cuyahoga Co. Planning Commission
- Cuyahoga County Public Works
- Bike Cleveland
- GCRTA
- NOACA
- ODOT District 12
- YMCA
- Parsons Brinckerhoff
- SmithGroupJJR

**Purpose**

Develop design concepts for Midway Cycle Tracks.

- Corridor Design Prototype
- Intersection Design Prototype

# Why are we here today?


*Source: FHWA Separated Bike Lane Planning and Design Guide*

- Understanding the project
  - What is a Midway Cycle Track?
  - How does it work?
  - Why middle of the road?
  - Where would it/they go?
  - How does it fit in Cleveland?
    - *Bikeway Master Plan*
    - *City roads & available width*
- Provide input to inform the process

# Definitions

**Midway Cycle Track**

- Two-way facility for exclusive use by bicyclists
- Runs down the middle of the road between opposing travel lanes
- Operates like RTA's Healthline
  - Signalization of cross street intersections
  - Signal phasing to accommodate bicyclists

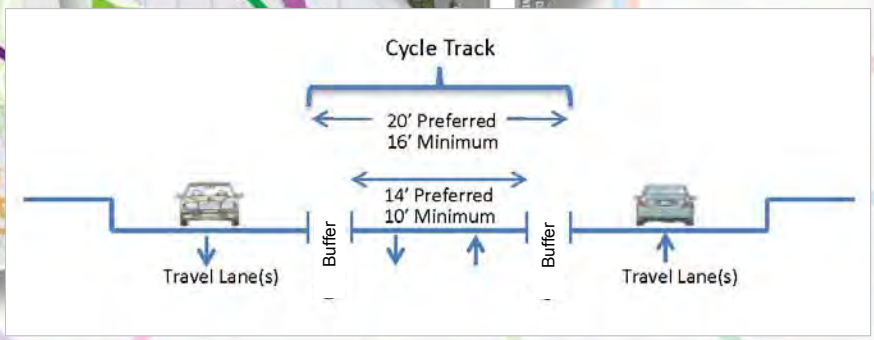
# Corridor Design Prototype

Establish the roadway cross-section requirements for a Midway Cycle Track and minimum roadway widths required to accommodate a Midway Cycle Track.

**Criteria**
- Cycle track width
- Clear zone width
- Travel lane width
- Forms of separation between cycle track and travel lanes
- Accommodating transit
- Intersection treatments
- On-street parking
- Entering/exiting the cycle track

**Industry Guidelines**
- **FHWA**'s Separated Bike Lane Planning and Design Guide
- **AASHTO**'s Guide for the Development of Bicycle Facilities
- **ODOT** Shared Path Design Guide (TEM section 702)
- **NACTO** Urban Bikeway Design Guide

# Corridor Design Prototype




**Examples**

| | | |
|---|---|---|
| 56 ft | *(52 ft min)* | Two travel lanes with transit |
| 68 ft | *(64 ft min)* | Four travel lanes, truck route (State/US/Co) |
| 60 ft | *(56 ft min)* | Four travel lanes (local) |

# Intersection Design Prototype

Develop an intersection prototype, identifying traffic control requirements and associated elements.

**Intersection Prototype Elements**

- Traffic signal phasing
  - Motorized vehicles
  - Bicycles
  - Pedestrians
- Left turn treatments
  - With and without left turn lanes

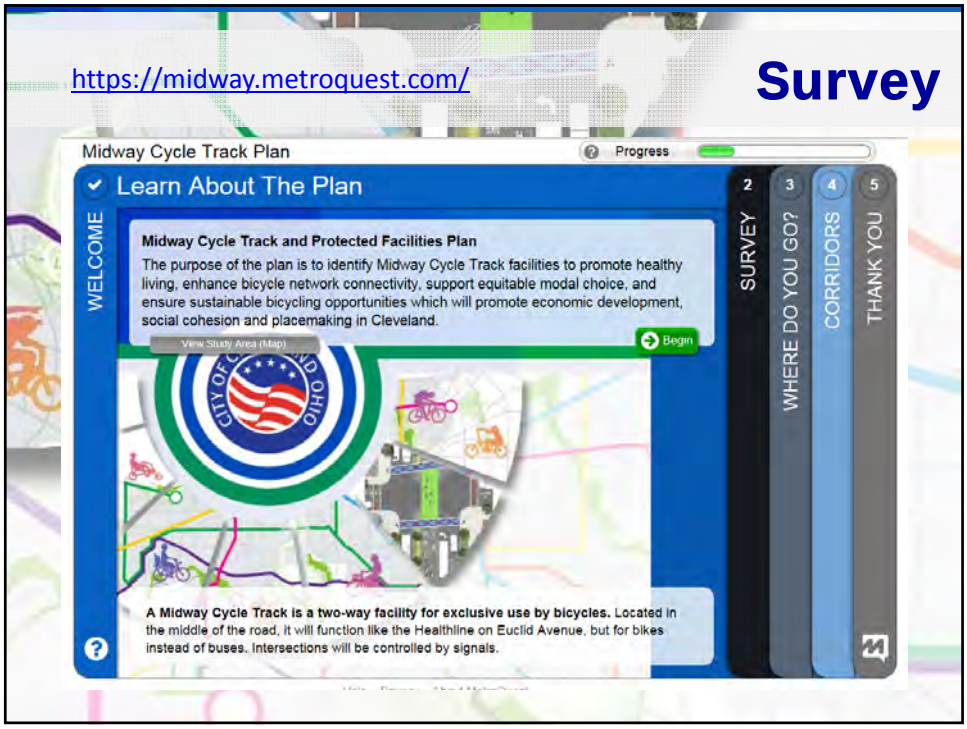
*Source: FHWA Separated Bike Lane Planning and Design Guide*

# Potential Midway Corridors

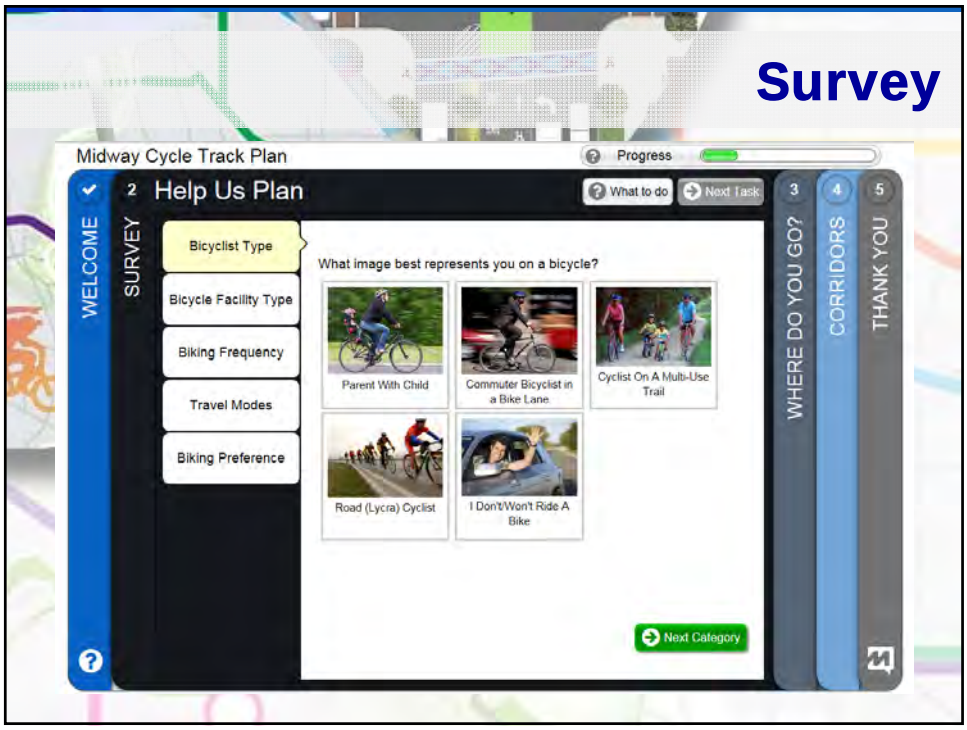
**Buckeye Rd**
**Chester Ave**
**Comm. College Ave**
**E.12th Street**
**E.55th Street**
**Fulton Road**
**Lakeshore Blvd**
**Lakeside Ave**
**Lorain Ave**
**Payne Ave**
**Pearl Road**
**Rocky River Drive**
**St Clair Ave**
**Superior Ave**
**Woodland Ave**

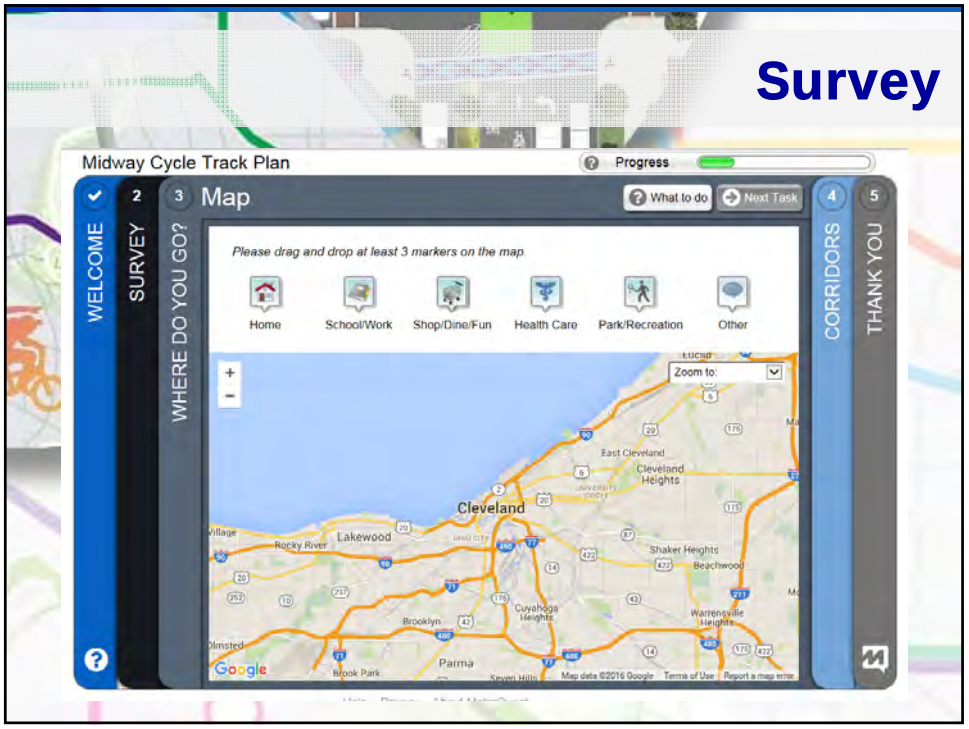
https://midway.metroquest.com/

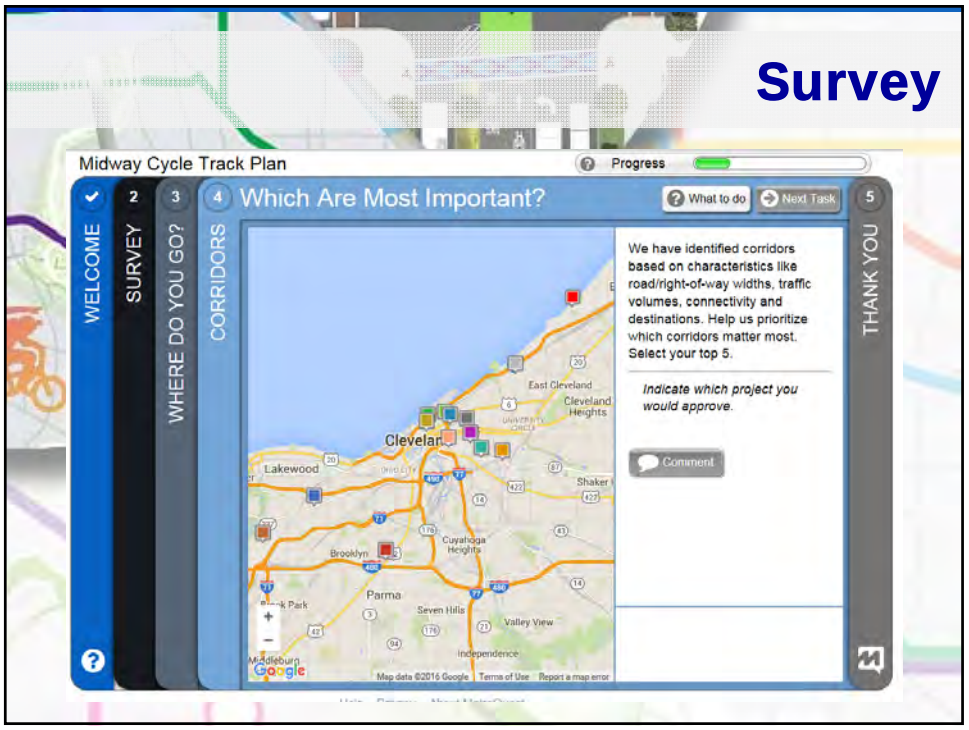
# Survey



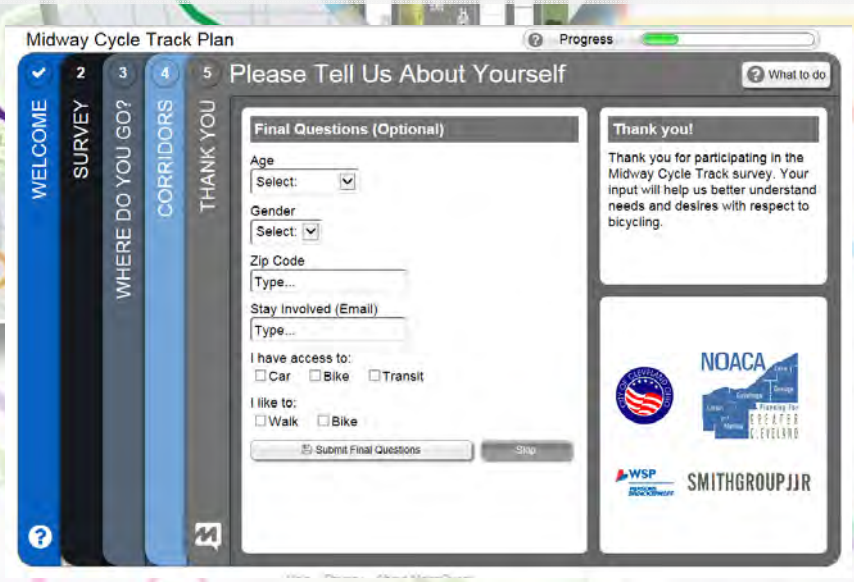

# Survey




Survey
Midway Cycle Track Plan
Progress
WELCOME
SURVEY
WHERE DO YOU GO?
Map
What to do
Next Task
CORRIDORS
THANK YOU
Please drag and drop at least 3 markers on the map.
Home
School/Work
Shop/Dine/Fun
Health Care
Park/Recreation
Other
Zoom to:
Cleveland
East Cleveland
Cleveland Heights
Lakewood
Rocky River
Shaker Heights
Beachwood
Brooklyn
Cuyahoga Heights
Warrensville Heights
Parma
Brook Park
Google


Survey
Midway Cycle Track Plan
Progress
WELCOME
SURVEY
WHERE DO YOU GO?
CORRIDORS
Which Are Most Important?
What to do
Next Task
THANK YOU
We have identified corridors based on characteristics like road/right-of-way widths, traffic volumes, connectivity and destinations. Help us prioritize which corridors matter most. Select your top 5.
Indicate which project you would approve.
Comment
East Cleveland
Cleveland Heights
Cleveland
Lakewood
Shaker
Brooklyn
Cuyahoga Heights
Parma
Seven Hills
Valley View
Independence
Google

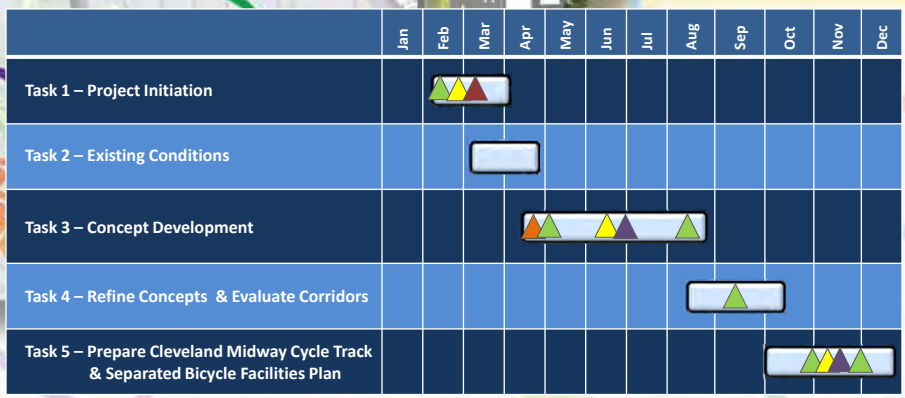
# Survey




# Next Steps

- Survey will run through mid-August
  - Public meetings & "pop up" events
- Analyze results & incorporate into plan development
  - Prioritize potential corridors
  - Identify demonstration corridor
- Prepare draft plan & recommendations
- Public meeting
- Finalize plan

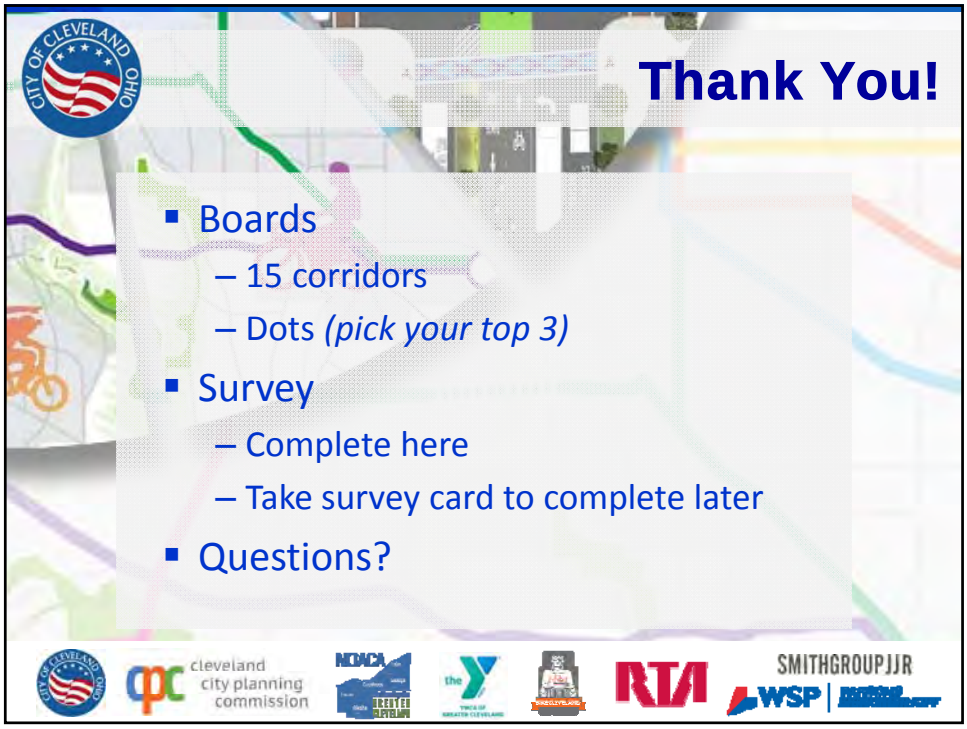
# Schedule




- Project Team Meeting
- Steering Committee Meeting
- Public Meeting
- Midway Technical Workshop
- Concept Development Workshop

# Evaluation Criteria

- City's capital plan
- Ease of implementation
- External funding opportunity
- Land use & destinations
  - *Community assets*
  - *Entertainment*
  - *Job centers*
  - *Recreation*
  - *Residential centers*
  - *Schools*
  - *Shopping*
- Neighborhood support
- NOACA bikeway demand potential
- Regional connectivity
- Roadway jurisdiction
- RTA impacts
- Safety (crash data)
- Social equity (access to under served populations)
- SRTS priority corridor
- Stormwater
- Traffic impact
  - *Access*
  - *Circulation*
- Traffic volume
- Tree canopy


Thank You!
Boards
– 15 corridors
– Dots (pick your top 3)
Survey
– Complete here
– Take survey card to complete later
Questions?
cleveland city planning commission
SMITHGROUPJJR
WSP


Objectives
Locate Midway Cycle Track corridors within appropriate roadways (i.e., sufficient width and configuration).
Connect to existing and planned bicycle facilities, related infrastructure, and appropriate land uses.
Develop prototypical design concepts and standards for Midway Cycle Track and separated bicycle facilities, focusing on operational safety and minimizing conflicts with other travel modes.
Identify and rank corridors that have the potential to accommodate a Midway Cycle Track.

# Objectives (cont'd)

- Determine the technical feasibility, engineering requirements, programming, planning level cost estimates and strategic multi-phase implementation of dedicated midway cycle track corridors.
- Identify a "model section" as a community example to demonstrate value and scale.
- Build upon work accomplished via Cleveland's Bicycle Master Plan and Midway Cleveland. *(www.clevelandgis.org/apps/bikeways/ and www.midwaycle.org).*

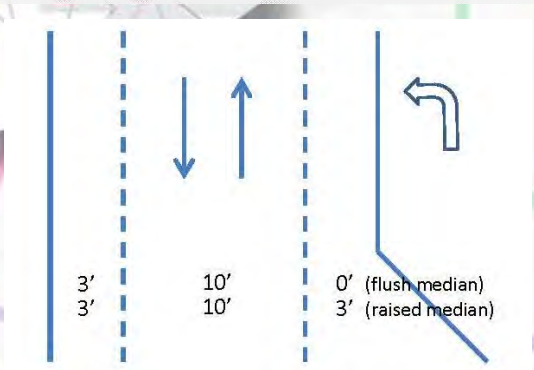
# Corridor Design Prototype

| Midway Cycle Track Corridor Prototype | Corridor Width (curb-to-curb) | Parking Lane | Travel Lane(s) | Buffer | Cycle Track | Buffer | Travel Lane(s) | Parking Lane |
|---|---|---|---|---|---|---|---|---|
| **Two Travel Lanes** | | | | | | | | |
| Minimum | 48' | - | 16' | 3' | 10' | 3' | 16' | - |
| Preferred | 52' | | | | 14' | | | |
| **Two Travel Lanes with Transit** | | | | | | | | |
| Minimum | 52' | - | 18' | 3' | 10' | 3' | 18' | - |
| Preferred | 56' | | | | 14' | | | |
| **Two Travel Lanes with Parking (both sides)** | | | | | | | | |
| Minimum (flush) | 52' | 7' | 11' | 3' | 10' | 3' | 11' | 7' |
| Minimum (raised) | 54' | | 12' | | 10' | | 12' | |
| Preferred (flush) | 56' | | 11' | | 14' | | 11' | |
| Preferred (raised) | 58' | | 12' | | 14' | | 12' | |
| **Two Travel Lanes with Parking (one side)** | | | | | | | | |
| *(assumes transit corridor)* Minimum (flush) | 52' | 7' | 11' | 3' | 10' | 3' | 18' | - |
| Minimum (raised) | 53' | | 12' | | 10' | | 18' | |
| Preferred (flush) | 56' | | 11' | | 14' | | 18' | |
| Preferred (raised) | 57' | | 12' | | 14' | | 18' | |
| **Four Travel Lanes (State/US/County)** | | | | | | | | |
| *Designated Truck Route* Minimum | 64' | - | 24' | 3 | 10' | 3' | 24' | - |
| *Non-Truck Route* Minimum | 62' | | 23' | ' | 10' | | 23' | |
| Preferred | 68' | | 24' | | 14' | | 24' | |
| **Four Travel Lanes (Local)** | | | | | | | | |
| Minimum | 56' | - | 20' | 3' | 10' | 3' | 20' | - |
| Preferred | 60' | | | | 14' | | | |

X

# Intersection Design Prototype

- With and without left turn pockets
- With and without allowing U-turns




*Left Turn Pocket, No U-Turn*

# Intersection Design Prototype

| Midway Cycle Track Intersection Prototype WITH LEFT TURN POCKET | Corridor Width (curb-to-curb) | Travel & Parking Lanes | Left Turn Lane | Buffer | Cycle Track | Buffer | (Left Turn Lane) | Travel & Parking Lanes |
|---|---|---|---|---|---|---|---|---|
| **Two Travel Lanes** | | | | | | | | |
| Flush (City) | 43′ | 10′ | 10′ | 3′ | 10′ | 0′ | – | 10′ |
| Flush (State/County) | 47′ | 12′ | | | | 0′ | | 12′ |
| Raised (City) | 46′ | 10′ | | | | 3′ | | 10′ |
| Raised (State/County) | 50′ | 12′ | | | | 3′ | | 12′ |
| **Two Travel Lanes with Transit** | | | | | | | | |
| Flush (City) | 43′ | 10′ | 10′ | 3′ | 10′ | 0′ | – | 10′ |
| Flush (State/County) | 47′ | 12′ | | | | 0′ | | 12′ |
| Raised (City) | 46′ | 10′ | | | | 3′ | | 10′ |
| Raised (State/County) | 50′ | 12′ | | | | 3′ | | 12′ |
| **Two Travel Lanes & Parking (2 sides) (MINIMUM)** | | | | | | | | |
| Flush (City) | 55′ | 17′ | 10′ | 3′ | 8′ | 0′ | – | 17′ |
| Flush (State/County) | 59′ | 19′ | | | | 0′ | | 19′ |
| Raised (City) | 58′ | 17′ | | | | 3′ | | 17′ |
| Raised (State/County) | 62′ | 19′ | | | | 3′ | | 19′ |
| **Two Travel Lanes & Parking (2 sides) (PREFERRED)** | | | | | | | | |
| Flush (City) | 57′ | 17′ | 10′ | 3′ | 10′ | 0′ | – | 17′ |
| Flush (State/County) | 61′ | 19′ | | | | 0′ | | 19′ |
| Raised (City) | 60′ | 17′ | | | | 3′ | | 17′ |
| Raised (State/County) | 64′ | 19′ | | | | 3′ | | 19′ |
| **Two Travel Lanes & Parking (1 side) (MINIMUM)** *(with transit)* | | | | | | | | |
| Flush (City) | 56′ | 17′ | 10′ | 3′ | 8′ | 0′ | – | 18′ |
| Flush (State/County) | 58′ | 19′ | | | | 0′ | | 18′ |
| Raised (City) | 59′ | 17′ | | | | 3′ | | 18′ |
| Raised (State/County) | 61′ | 19′ | | | | 3′ | | 18′ |
| **Two Travel Lanes & Parking (1 side) (PREFERRED)** | | | | | | | | |
| Flush (City) | 58′ | 17′ | 10′ | 3′ | 10′ | 0′ | – | 18′ |
| Flush (State/County) | 60′ | 19′ | | | | 0′ | | 18′ |
| Raised (City) | 61′ | 17′ | | | | 3′ | | 18′ |
| Raised (State/County) | 63′ | 19′ | | | | 3′ | | 18′ |
| **Four Travel Lanes (MINIMUM)** | | | | | | | | |
| Flush (City) | 61′ | 20′ | 10′ | 3′ | 8′ | 0′ | – | 20′ |
| Flush (State/County) | 67′ | 23′ | | | | 0′ | | 23′ |
| Flush (Truck Route) | 69′ | 24′ | | | | 0′ | | 24′ |
| Raised (City) | 64′ | 20′ | | | | 3′ | | 20′ |
| Raised (State/County) | 70′ | 23′ | | | | 3′ | | 23′ |
| **Four Travel Lanes (PREFERRED)** | | | | | | | | |
| Flush (City) | 63′ | 20′ | 10′ | 3′ | 10′ | 0′ | – | 20′ |
| Flush (State/County) | 71′ | 24′ | | | | 0′ | | 24′ |
| Raised (City) | 66′ | 20′ | | | | 3′ | | 20′ |
| Raised (State/County) | 74′ | 24′ | | | | 3′ | | 24′ |

# Intersection Design Prototype


**Two-Stage Turn Box**

*Source: FHWA Separated Bike Lane Planning and Design Guide*

# Potential Corridors
## that can accommodate a
# Midway Cycle Track
*(separated bicycle facility)*

**CLEVELAND MIDWAY**

- RTA Transit Rail Lines
- Opportunity Corridor
- Airport Use
- Cemetery
- Conservation Lands
- Park Lands
- University Use
- Cleveland Corp. Limit

**ROADWAY CLASS**

- LOCAL ROAD
- Collector
- Arterial
- Interstate / Freeway

**MIDWAY ROUTES**

- Midway Candidate Route

0 0.5 1 2 Miles

N

Lakeshore Blvd

St Clair Ave

Superior Ave

Payne Ave

Chester Ave

Lakeside Ave

E.12th St

Community College Ave

Woodland Ave

Buckeye Rd

E.55th Street

Lorain Ave

Rocky River Dr

Fulton Rd

Pearl Rd

cleveland city planning commission

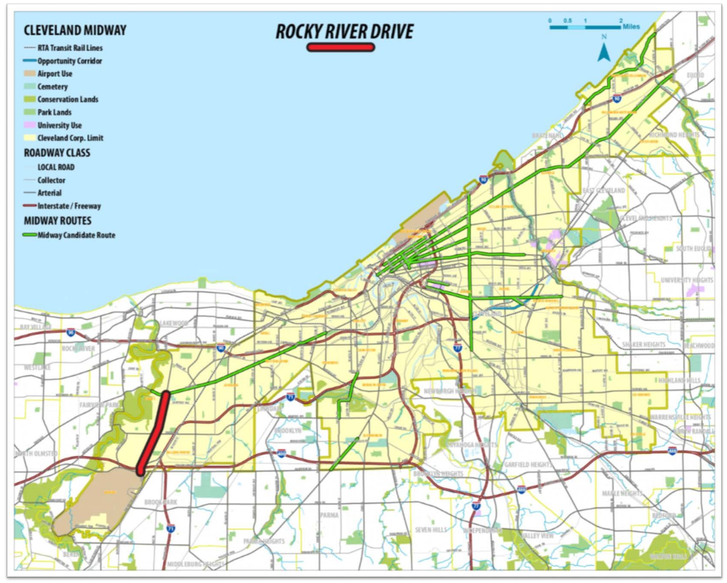
NOACA

WSP | PARSONS BRINCKERHOFF

SMITHGROUPJJR

# Rocky River Drive

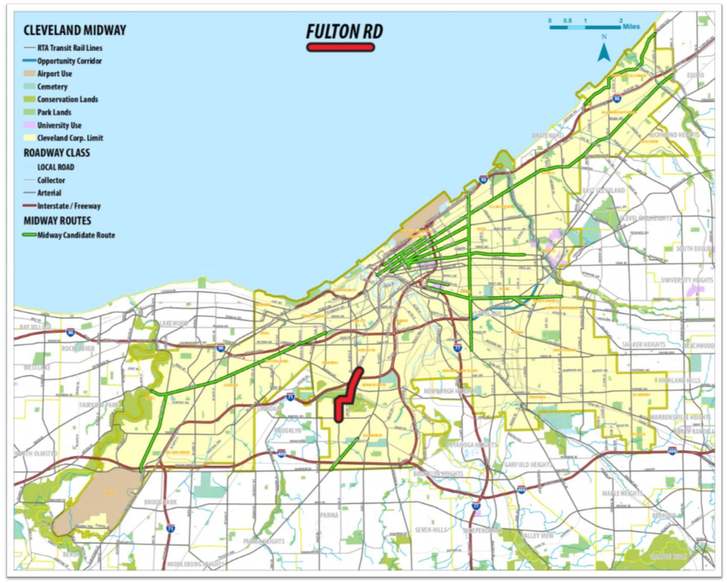
## Lorain to Brook Park




*North of Puritas, looking north*

# Fulton Road

## Memphis to Bush

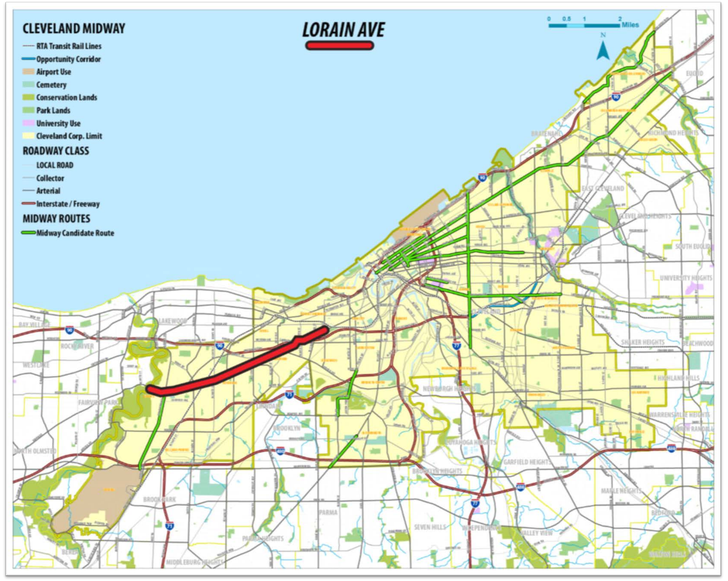




*North of Memphis, looking north*

# Lorain Avenue

## W.65th St to City Line





*East of W.140th Street, looking west*

cleveland city planning commission

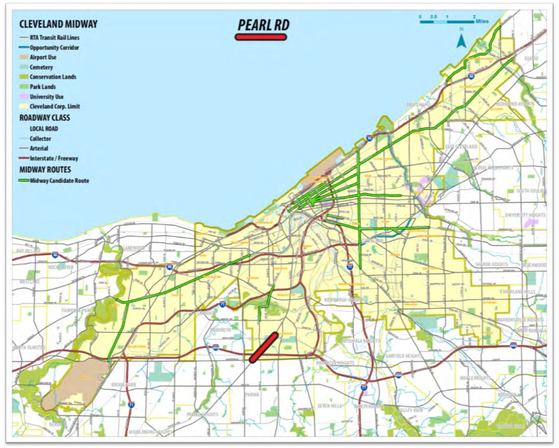
NOACA

WSP | PARSONS BRINCKERHOFF

SMITHGROUPJJR

# Pearl Road

Cypress to City Line

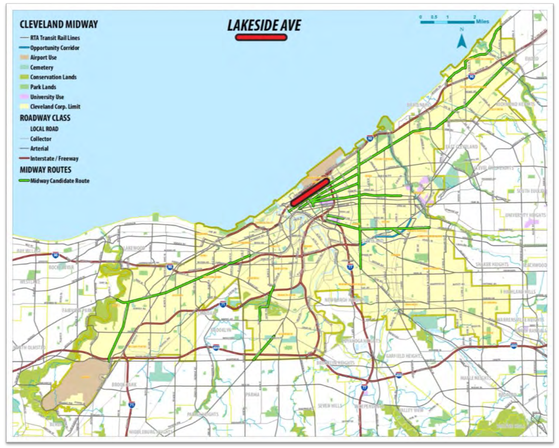




*North of North Cliff, looking north*

# Lakeside Avenue

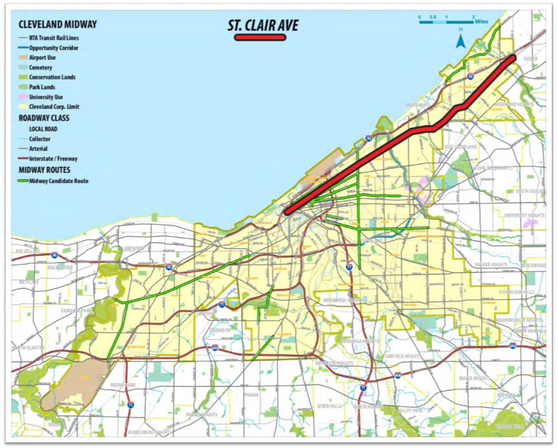
W.3rd St to E.26th St




*East of E.18th Street, looking east*

# St. Clair Ave

W.10th St to City Line

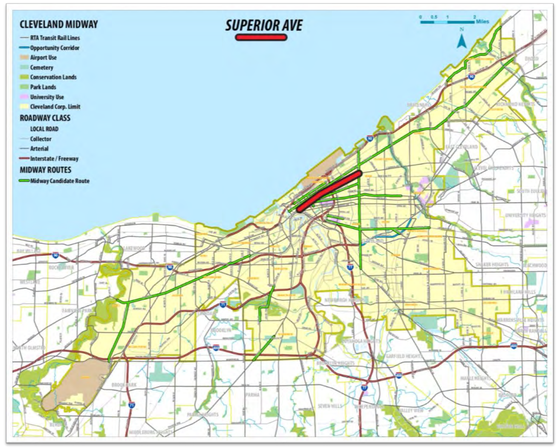




*East of E.40th Street, looking west*

# Superior Ave

Public Square to E.55th St

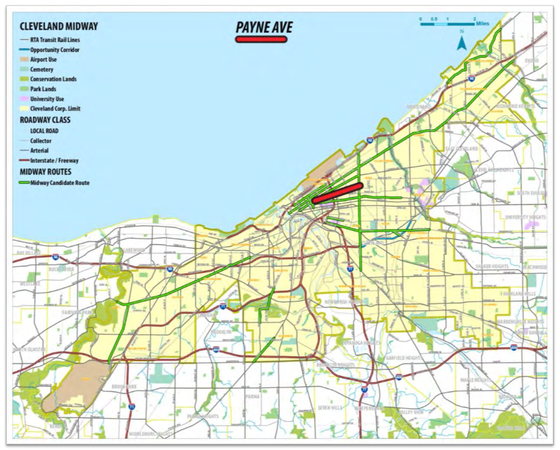


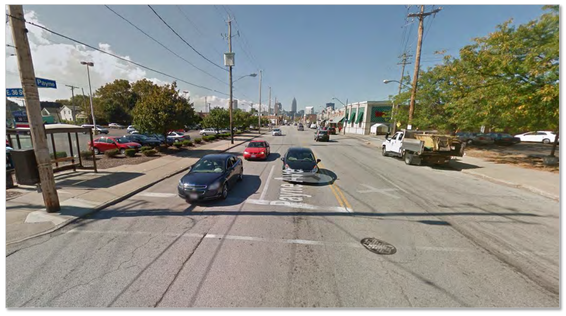


*West of E.36th Street, looking west*

# Payne Ave

E.13th St to E.55th St

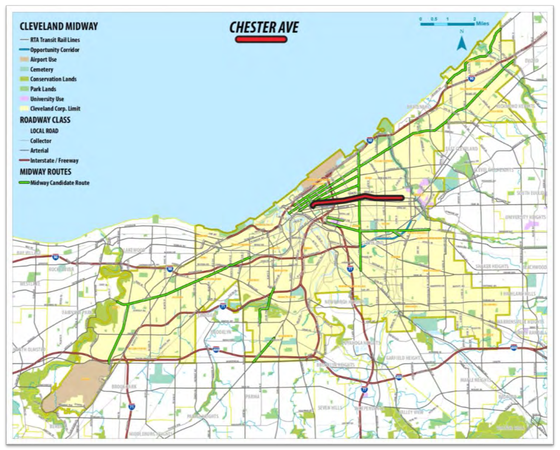



*West of E.36th Street, looking west*

# Chester Ave

E.12th St to E.93rd St





*West of E.55th Street, looking west*

cleveland city planning commission

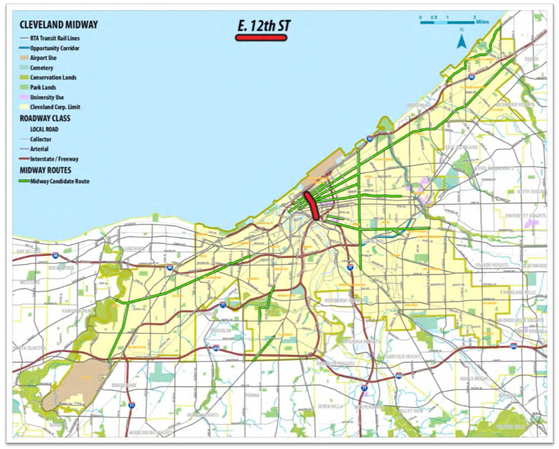
NOACA

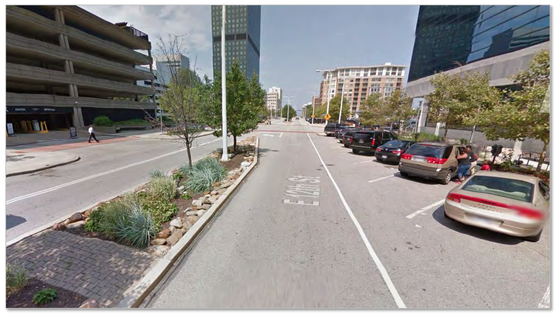
WSP | PARSONS BRINCKERHOFF

SMITHGROUPJJR

# E.12th Street

## Lakeside to Euclid

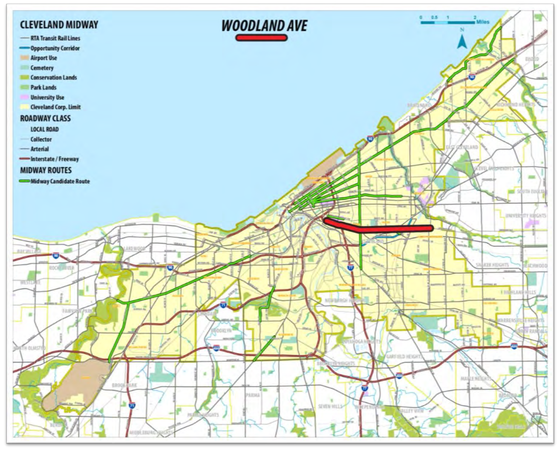



*North of Superior, looking north*

# Woodland Avenue

## E.22nd to MLK

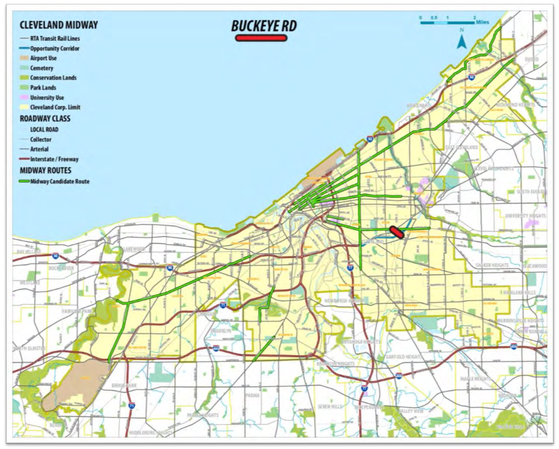




*West of E.55th Street, looking west*

# Buckeye Road

## Woodland to Opp Corridor





*West of E.90th Street, looking east*

cleveland city planning commission

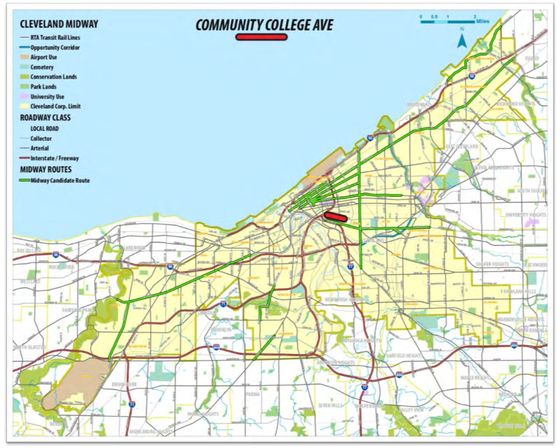
NOACA

WSP | PARSONS BRINCKERHOFF

SMITHGROUPJJR

# Community College Ave

E.22nd St. to E.35th St



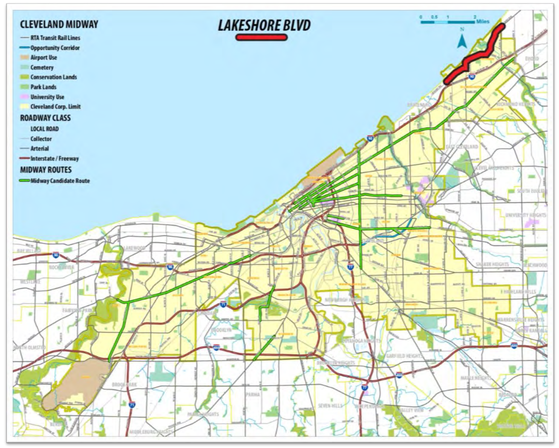


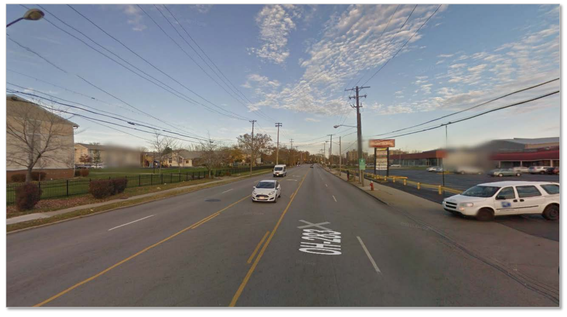
*West of E.24th Street, looking west*

Comments:

# Lakeshore Blvd

E.185th St to City Line



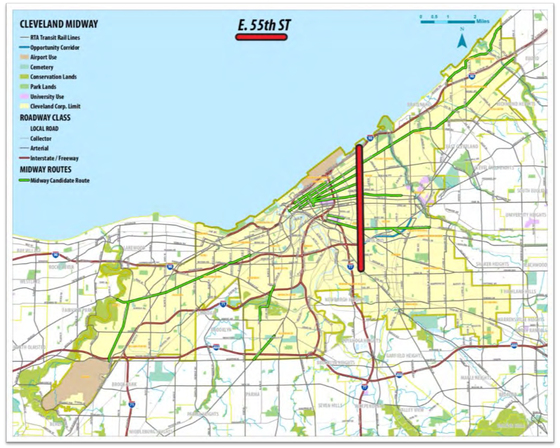




*East of E.159th Street looking east*

Comments:

# E.55th Street

E.55th Marina to Broadway





*South of Central, looking south*

Comments:

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: CLEVELAND PUBLIC LIBRARY Date & Time: JUNE 29, 2016 midday

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| WAYNE MORRISSEY | WMORRISSEY@CLEVELANDNP.ORG | NP.ORG NTHOOD PROJECTS | 453.1443 |
| THADDEUS GREGORY | ANATTA1111@GMAIL | NTH CONSULTANTS | 216 344 4059 |
| Scott Godwin | ZENSTYLE@SBCGLOBAL.NET | Ohio city | 219-939-2260 |
| STEVE LITT | LITTSTEVE@GMAIL.COM | AD | 216-903 5924 |
| GEORGE KAMEN | GEORGEKAMEN2004@YAHOO.COM | SHAKER HTS. | 216.235.6231 |
| Anna Miller | fmiller26@sbcglobal.net | | |
| Holly KASKEY | hkaskey@gmail.com | PENINSULA | |
| JON ECKERLE | JECKERLE@gmail | Ohio City / Lakewood | 440.281.1944 |
| | | | |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: CLEVELAND PUBLIC LIBRARY Date & Time: JUNE 29, 2016 midday

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Tim Kovach | tkovach@mpo.nuaca.org | NUACA | (216) 241-2414 x 399 |
| Jennifer Coleman | jcoleman@gundfdn.org | Geo. Gund Fdn | 216 241.3114 |
| John Mustaf | Jmitterholzer@gundfdn.org | " " | " " |
| Marissa Williams | mwilliams@gundfdn.org | " " | " " |
| Marc Lefkowitz | Mlefkowitz@cmnh.org | | |
| Ryan Manthey | rmanthey@downtowncleveland.com | Downtown Cleveland Alliance | 216 325 0995 |
| Eileen Ziegler | eziegler@warehousedistrict.org | HWDC | 216.344.3937 |
| Kevin Cronin | kevin@kevincronin.us | Attorney | 216 377 0615 |
| W. Ziefles | | City of Cleveland photo | |
| Antoine Buie | abuie@gcrta.org | GCRTA | 216-781-4530 |
| Valerie Shea | vshea@gcrta.org | GCRTA | (216) 566-5260 |
| Andy Ng | ngandy1000@hotmail.com | Asia Town | 216-212-8758 |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: CLEVELAND PUBLIC LIBRARY Date & Time: JUNE 29, 2016 midday

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Carl F Rimmer | cfrimmer@gmail.com | Kamms Corners | 216-256-9624 |
| Mike Gazdak | mikegazdake gmail | Playhouse | 216 696 5461 |
| Ronaldo Rodriguez | ronrodjr@icloud.com | City of Cleveland | 216 6772426 |
| Al Gerayeli | alireza.gerayeli@gmail.com | Michael Baker International | 216-6780405 |
| Jacob VanSickle | Jacob@bikecleveland.org | Bike Cleveland | 216-245-3101 |
| JAMES SONNHALTER | JSONNHALTER@CUYAHOGACOUNTY.US | COUNTY PLANNING | (216) 443-3713 |
| Melissa Thompson | mthompson@mpo.noaca.org | NOACA | 216-241-2414 x344 |
| Ken Schneider | Kschneider@canalwaypartners.com | Canalway Partners | 216)520-1825 |
| Annie Pease | APease@universitycircle.org | UCI / OHIO CITY | 670-882-1260 |
| CHRISTIAN ROADMAN | CHRISTIAN.ROADMAN@SHAKERONLINE.COM | City of Shaker Heights | 216.491.1433 |
| Anneliese Colena | anneliese_30@yahoo.com | Bike Cleveland | |
| MARTY CADER | MCader@city.cleveland.oh.US | CITY PLANNING | (216)664-2952 |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: CLEVELAND PUBLIC LIBRARY Date & Time: JUNE 29, 2016 MIDDAY

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Patricia Terstenyak | pterstenyak@clevelandymca.org | YMCA | 216 244-2398 |
| Tiffany Graham Charkosky | tgraham@land-studio.org | LAND Studio | 216.621.5413 x106 |
| Carla Wainwright | bg192905@gmail.com | Black Girls Do Bike Cycle Club | 216-322-2664 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: FAIRHILL PARTNERS Date & Time: JUNE 29, 2016 EVENING

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Erika Weliczko | erika@repowersolutions.com | CHALK | |
| Bryan Townley | b.townley@vikes.csuohio.edu | Shaker Square | (614) 353-5869 |
| MARTY CADER | MCADER@city.cleveland.oh.us | CLE CITY PLANNING | (216) 664.2952 |
| Karen McKeehan | Kmckeehan@sbcglobal.net | Corydon Rd., Cleve Hts. | 216-421-1350 |
| Ryan Niles | rniles@mpo.noaca.org | NOACA | 216-241-2414 x273 |
| Michelle Bandy-Zalatoris | Michelle@cityarch.com | City Architecture | 216.881.2444 |
| [illegible] | | CR | |
| Pauline Terebuh | pterebuh@yahoo.com | Huntington Rd, Shaker Hts | 216-938-9306 |
| Ian Wisneski | ianwisneski@yahoo | larchmere | – |
| Jacob VanSise | Jacob@bikecleveland | Bike Cle | 216-245-3101 |
| | | | |
| | | | |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: FAIRHILL PARTNERS Date & Time: JUNE 29, 2016 EVENING

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Patricia Terstenyak | pterstenyak@clevelandymca.org | YMCA of Greater Clev | 216 241-2395 |
| Jim Nicks | jnicks11@gmail.com | Cleveland Heights | — |
| Luke Gould | LLG30@CASE.EDU | Cleveland Heights | 216 235-6974 |
| Stephanie Falkner | sfalkreek@gmail.com | E. 127th | 2165331361 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: FAIRHILL PARTNERS Date & Time: JUNE 29, 2016, EVENING

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Chris Stoulng | Christopher.Stocking@gmail.com | — | 440-376-8400 |
| Beulah Carter | Beulah.carter@bcgjobs.org | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: ZONE REC Date & Time: JUNE 30, 2016 PM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Sara Maier | sbm@clevelandmetroparks.com | Cleveland Metroparks | 216-635-3259 |
| Arthur Schmidt | aschmidt@clevelandohio.gov | City Planning | 216 664 3882 |
| Greg Querberg | gquerberg@ | City Planning | 216 664 3882 |
| THERESE TELZROW | THERESE.TELZROW@ICLOUD.COM | BIKE CLEVELAND MEMBER | 216-548-0359 |
| Danny Drees | ddrees17@gmail.com | cle heights/ Dt shaker | 216-372-6249 |
| EMILY POOR | emilypoor11@gmail.com | Ohio City | |
| Melissa Thompson | mthompson@gmail.com | NOACA | 216 241 2414 x 344 |
| Maribeth Feke | mfeke@gcrta.org | mfeke@gcrta.org | 216-566-5160 |
| Kazmierski family | | bike | 216-631-6109 |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track and Separated Bicycle Facilities Plan
## Public Meeting

Meeting Location: ZONE REC Date & Time: JUNE 30, 2016 PM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Calley Mersmann | Calley.mersmann@clevelandmetroschools.org | Safe Routes / Franklin | 770 906 7919 |
| Tim Moore | Mooretic@gmail.com | Northeast Shores | |
| John M. Motl | john.motl@dot.ohio.gov | ODOT D-12 | 216-584-2085 |
| MARTY CADER | MCADER@city.cleveland.oh.us | CITY PLANNING | (216) 664-2952 |
| Rob Thompson | rob@bikecleveland.org | Bike Cleveland | 216 245 3101 |
| JOHN ZAYAC | jmzayacc theprojectgroup.net | | |
| Trevor Hunt | thunt@city.cleveland.oh.us | City Planning | |
| Stephen Love | ~~Stephen.love2@gmail.com~~ | - | 216-571-0855 |
| James Watson | jamestwatson3@gmail.com | Affordable Bikes Recyclery | 216-780-9264 |
| | | | |
| | | | |
| | | | |

# Public Meetings 2
# December 7, 2016

# Midway Cycle Track

## Separated Bicycle Facilities Plan

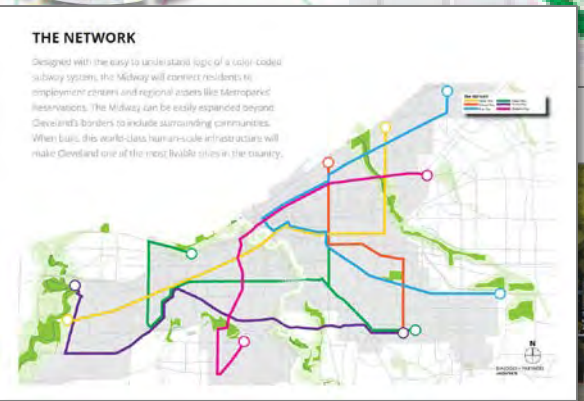
Public Meeting #2

December 7, 2016

# Agenda

- Project Purpose
- Plan development
- Corridor Identification & Assessment
- Public Input & Survey Results
- Corridor Evaluation
- Midway Corridors
- Next Steps

# What is a Midway Cycle Track?




*www.midwaycle.org*

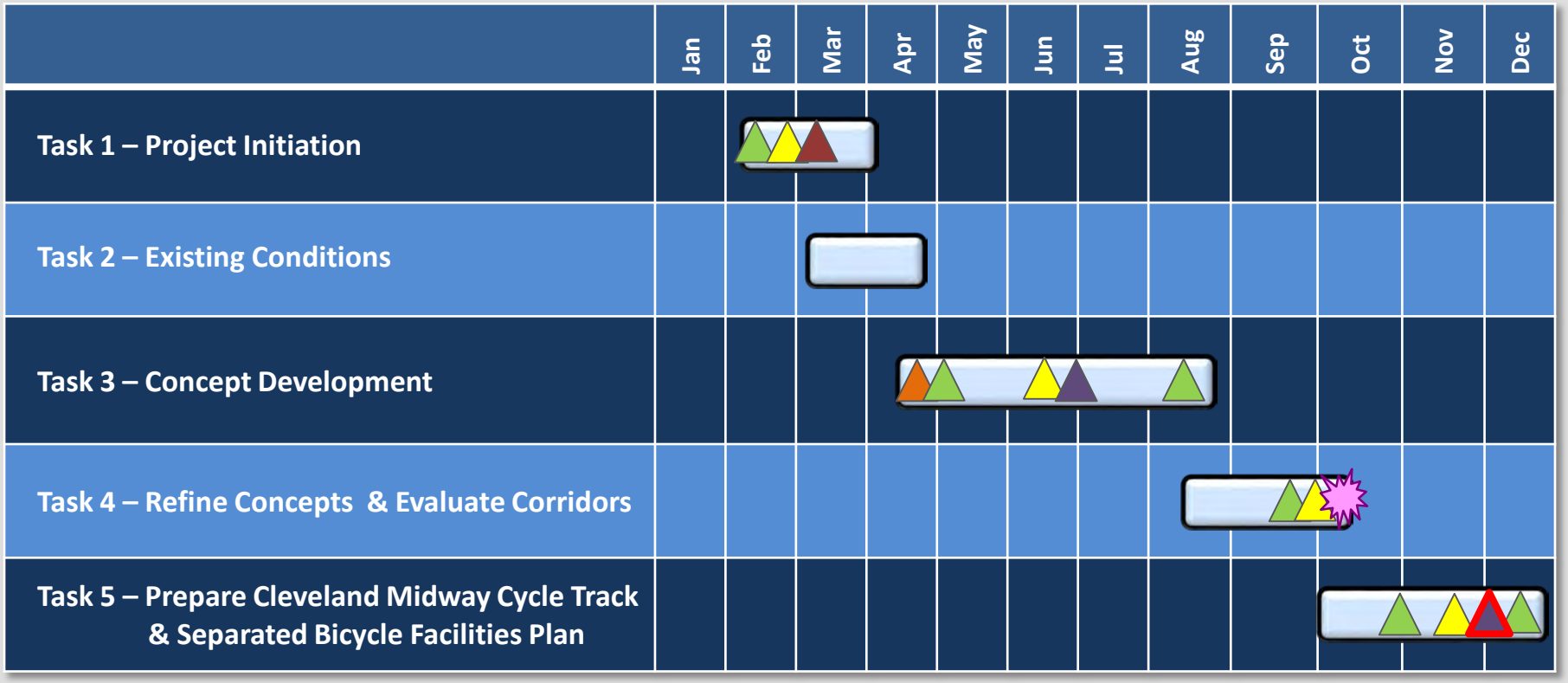

Midway concept – grassroots initiative

NOACA (MPO) planning grant to move concept forward

# Project Vision

***Create a network of 'midway cycle track' facilities*** (a type of separated bicycle facility) to promote ***healthy living***, enhance bicycle network ***connectivity***, support equitable ***mode choice***, and ensure ***sustainable*** bicycling opportunities which will promote ***economic*** development; ***social cohesion*** and ***placemaking*** throughout Cleveland.

# Schedule




- Project Team Meeting
- Steering Committee Meeting
- Public Meeting
- Midway Technical Workshop
- Concept Development Workshop
- Presentation at OKI APA Conference

# Project Involvement

## Project Team

Cleveland-Planning
Cleveland-Traffic Engr
Cleveland-Sustainability
GCRTA
NOACA
Consultant Team

## Steering Committee

Bike Cleveland
Cleveland-Engineering
Cleveland Regional Dev
CMSD
Cleveland Metroparks
CLE Neighborhood Progress
Cuyahoga County Planning
NEORSD
ODOT
YMCA
Project Team

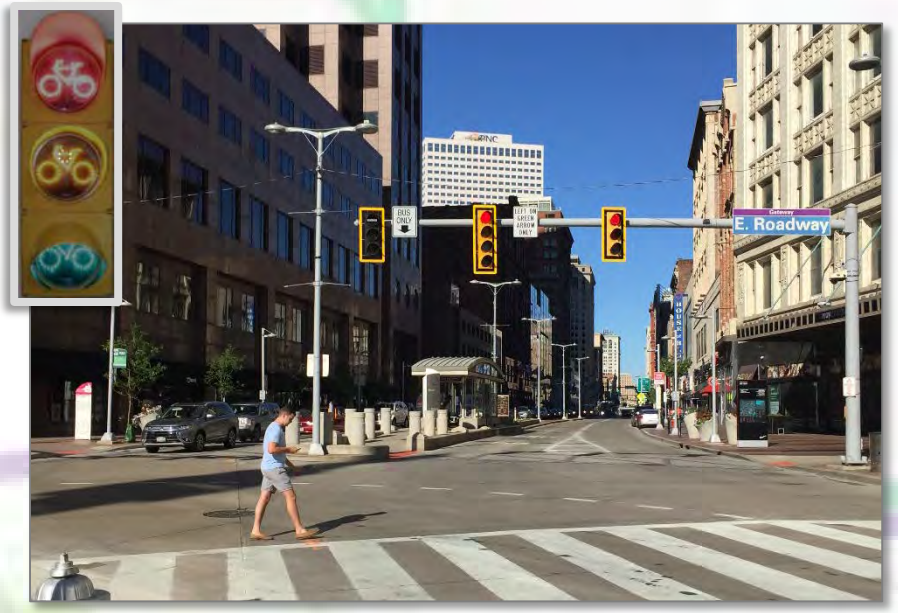
## Technical Committee

Bike Cleveland
Cleveland-Planning
Cleveland-Traffic Engr
Cleveland-Sustainability
Cuyahoga County Planning
Cuyahoga Cty Public Works
GCRTA
NOACA
ODOT
YMCA

*The General Public (YOU!)*

# Midway Cycle Track

- Two-way facility for exclusive use by bicyclists
- Runs down the middle of the road between opposing travel lanes
- Operates like RTA's Healthline BRT
  - *Signalization of cross street intersections*
  - *Signal phasing to accommodate bicyclists*

# Corridor Design Prototype

## Establish roadway cross-section and intersection requirements for a Midway Cycle Track

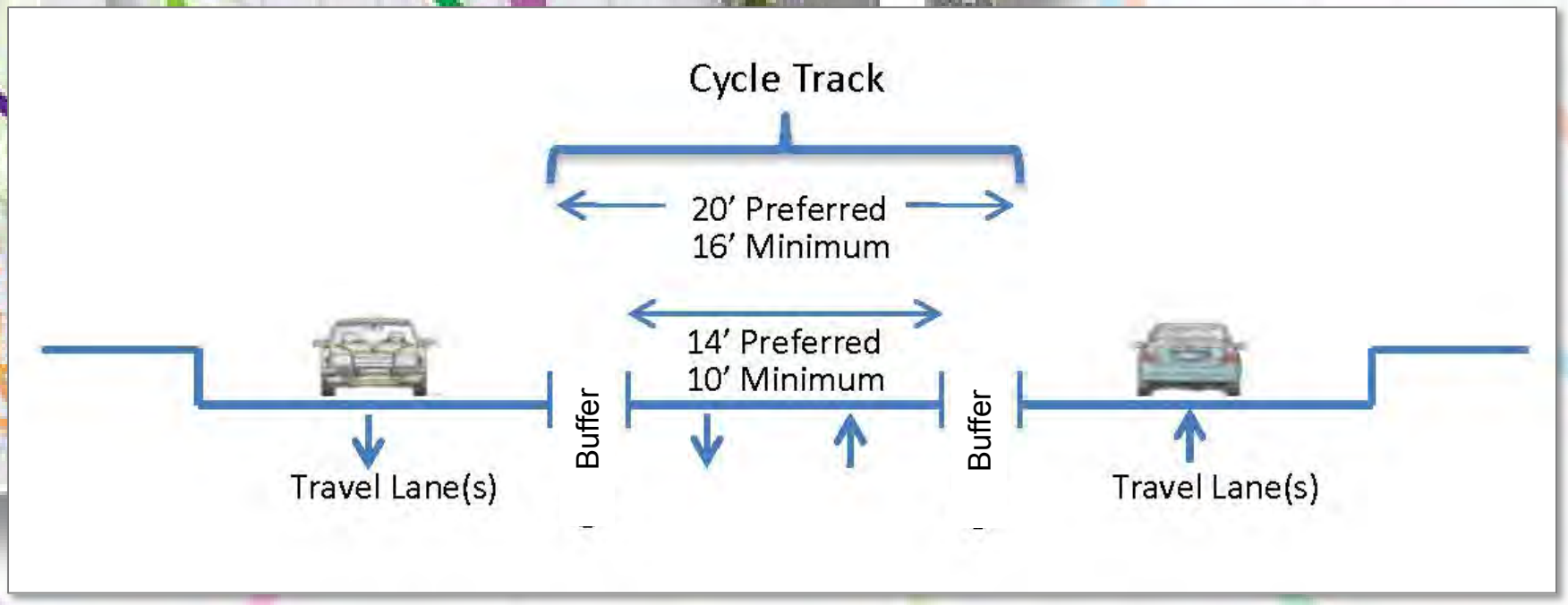
**Criteria**

- Cycle track width
- Clear zone width
- Travel lane width
- Forms of separation between cycle track and travel lanes
- Accommodating transit
- Intersection treatments
- On-street parking
- Entering/exiting the cycle track

**Industry Guidelines**

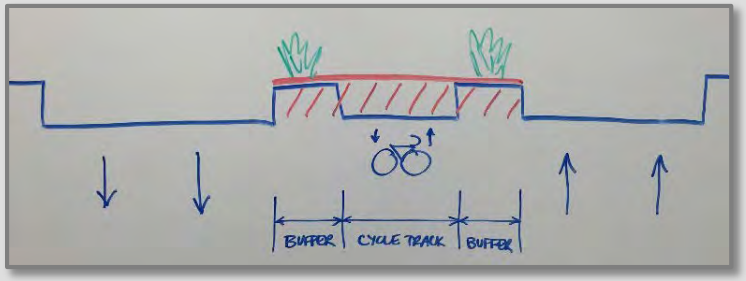
- **FHWA**'s Separated Bike Lane Planning and Design Guide
- **AASHTO**'s Guide for the Development of Bicycle Facilities
- **ODOT** Shared Path Design Guide (TEM section 702)
- **NACTO** Urban Bikeway Design Guide

# Corridor Design Prototype




**Examples**

| | | |
|---|---|---|
| 56 ft | *(52 ft min)* | Two travel lanes with transit |
| 68 ft | *(64 ft min)* | Four travel lanes, truck route (State/US/Co) |
| 60 ft | *(56 ft min)* | Four travel lanes, local road |



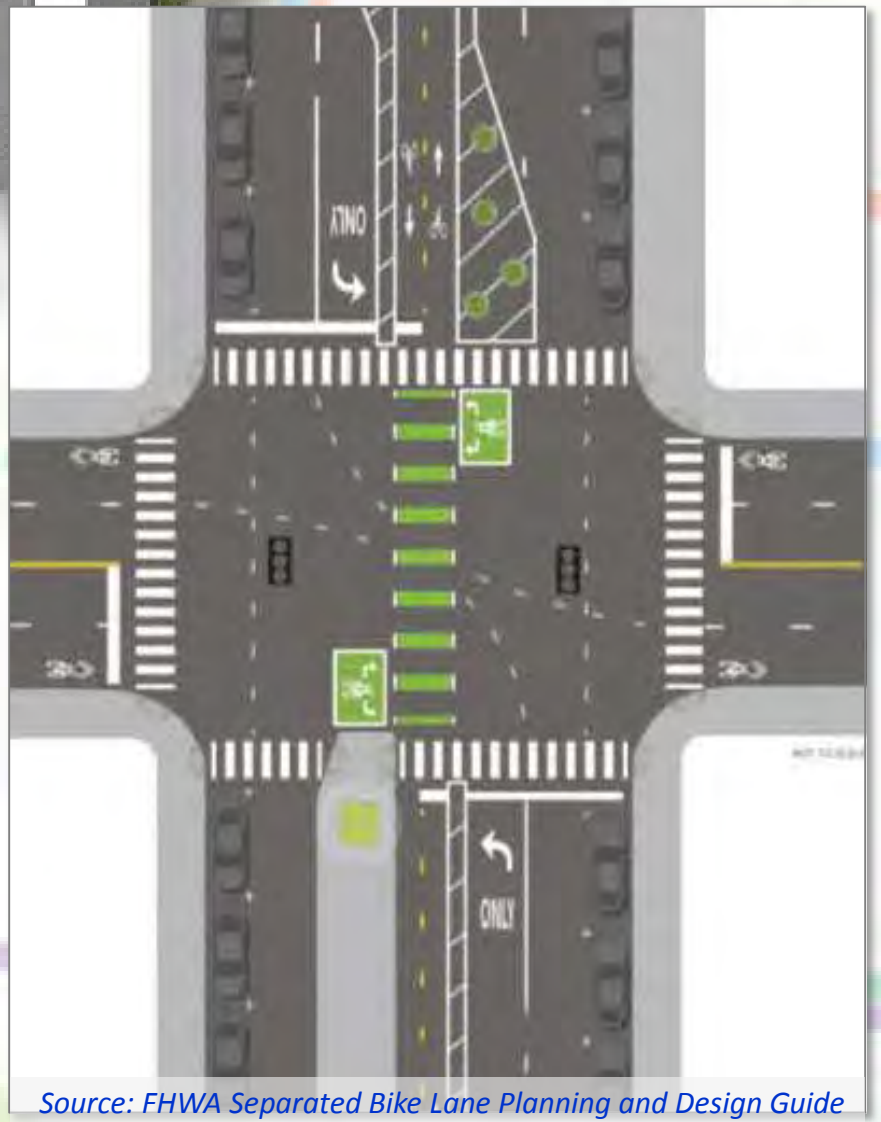
# Intersection Design Prototype

## Intersection Prototype Elements

- Traffic signal phasing
  - *Motorized vehicles*
  - *Bicycles*
  - *Pedestrians*
- Left turn treatments
  - *With and without left turn lanes*

## Traffic Control, Access, Circulation

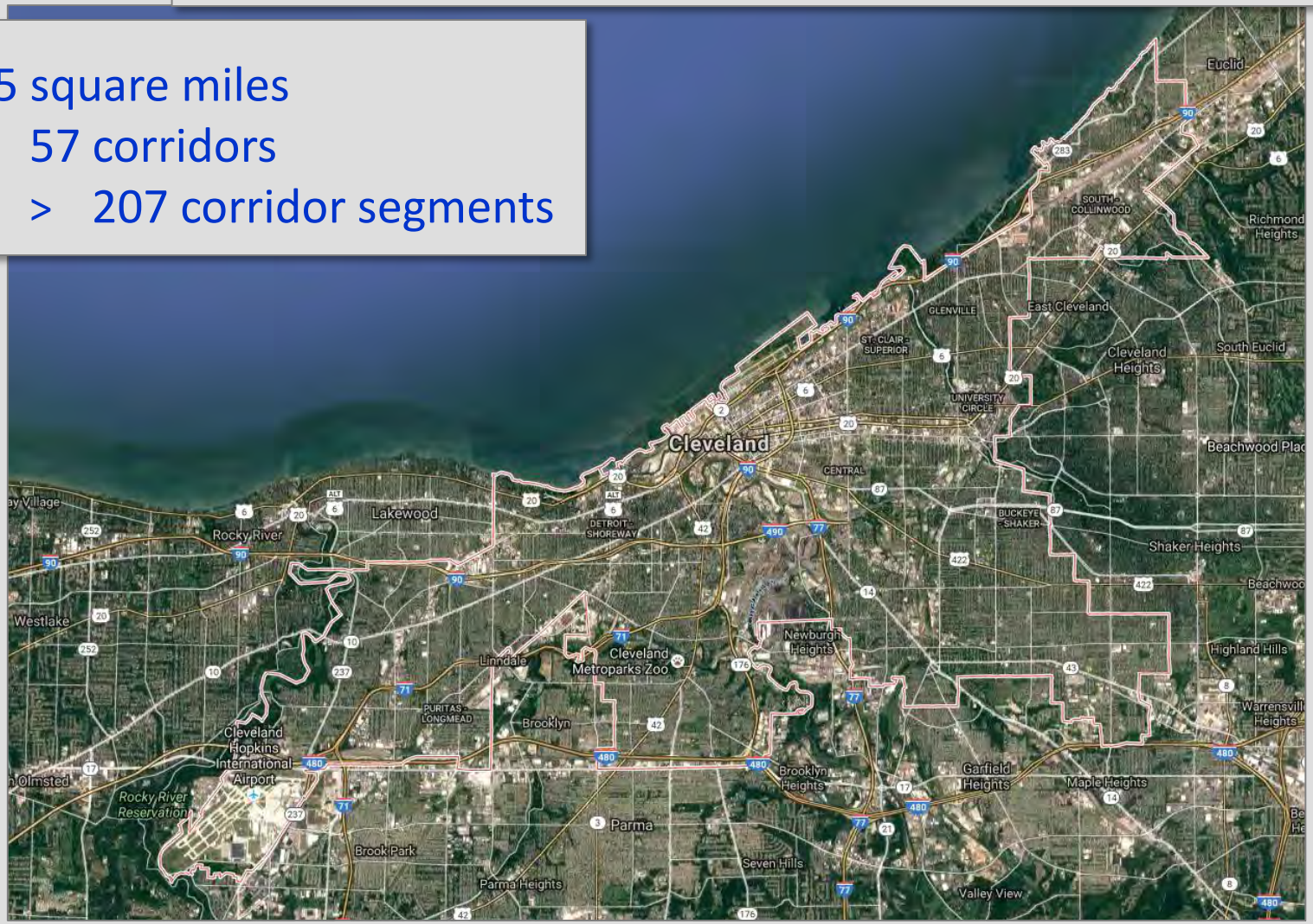
- Intersections are signalized
- Unsignalized intersections
  - *Convert to two T-intersections*
  - *Midway cycle track is median*
- Traffic access & circulation impacts




*Source: FHWA Separated Bike Lane Planning and Design Guide*

# Identification of Potential Midway Corridors

- 85 square miles
  - 57 corridors
    - > 207 corridor segments



# Initial Potential Corridors

- Bellaire
- Broadview
- Broadway
- Buckeye
- Chester
- Community College
- Corlett
- Denison
- Detroit
- E.12th St
- E.40th St
- E.55th St
- E.93rd St
- E.105th St
- E.116th St
- E.152nd-Ivanhoe-Noble
- E.156thSt
- Fulton
- Harvard
- Kinsman
- Lake
- Lakeshore
- Lorain
- Madison
- Memphis
- Miles
- MLK
- N&S Moreland
- Ontario
- Payne
- Prospect
- Puritas
- Quincy
- Rocky River
- Shaker
- St Clair
- State
- Superior
- Union
- Wade Park
- W.25th St-Pearl
- W.105th St
- W.117th St
- W.130th St
- W.140th St
- W.150th St-Warren
- Woodland

Lorain Ave & Lakefront Greenway

## **Evaluation Criteria** (Phase 1)

*Assess positive impact and potential benefit of the 15 corridors*

- Street width
- Right-of-way
- Traffic Volume

---

- Demographic considerations
  - *Household income*
  - *Car ownership*
  - *Proximity to transit*
  - *Life expectancy*
- Tree canopy
  - *Are we removing trees to implement*
- SRTS priority corridor
- NOACA bikeway demand potential
- Safety (NOACA bike crash data)
- Regional connectivity
- Connects land use/identified survey destinations
- City capital plan
- Stormwater/NEORSD priority area

## **Evaluation Criteria** (Phase 2)

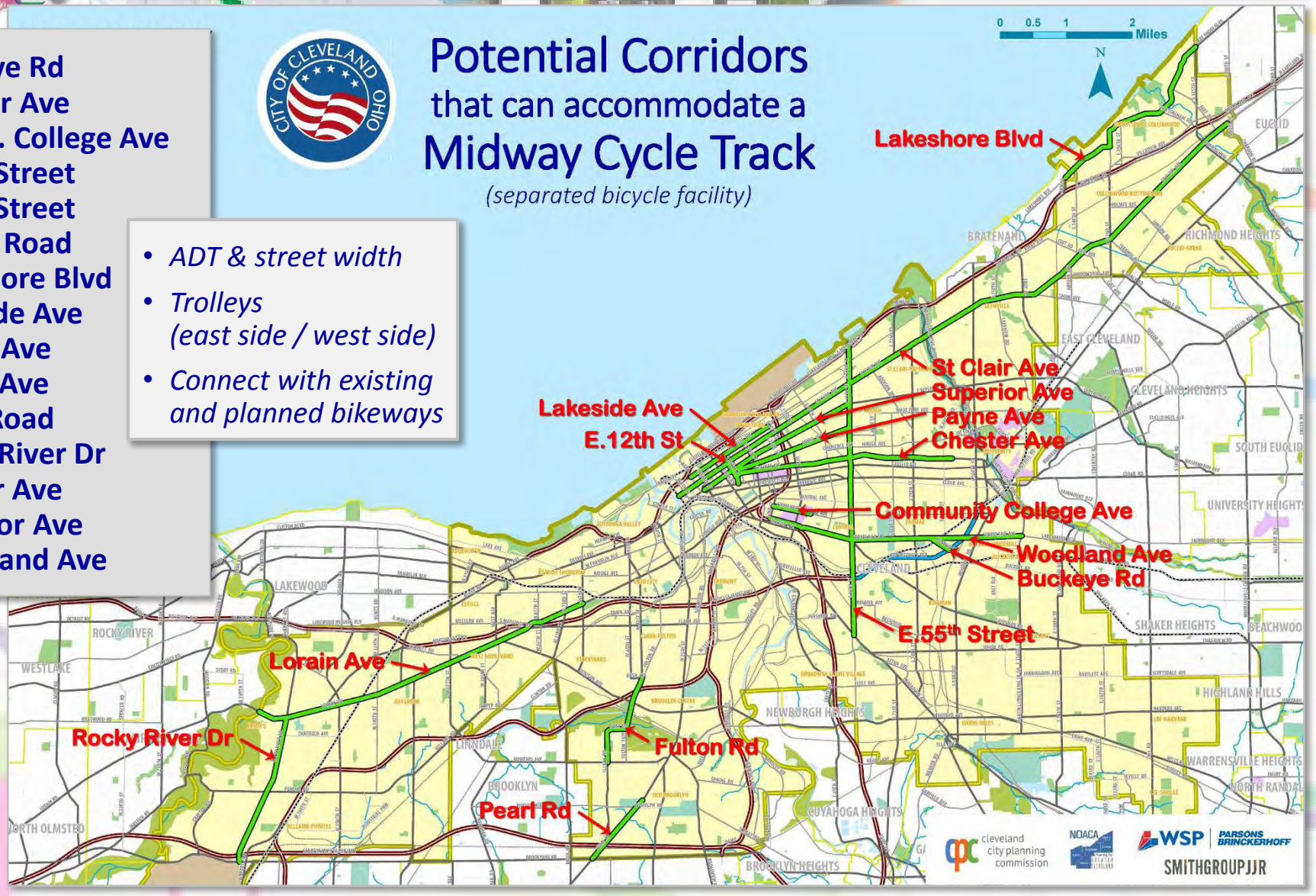
*Assess ease of implementation of the 15 corridors*

- Roadway jurisdiction & Federal Aid Truck Route
- NOACA TIP & NOACA asset management program
- External funding potential
- Commun support
- ritical rt
- C
- T
- destrians)
  - Bu stop ads
  - *Mitigate bus/bike collisions*
- Negative RTA impact (operations, etc.)
  - *Removal of existing bus lanes (St Clair & Superior req'd)*
  - *Hurt operations of existing services - including ped access*
  - *Takes away ROW for future improvements for BRT (lite) operations on Priority Corridors*

**Identify Preferred Midway Corridors**

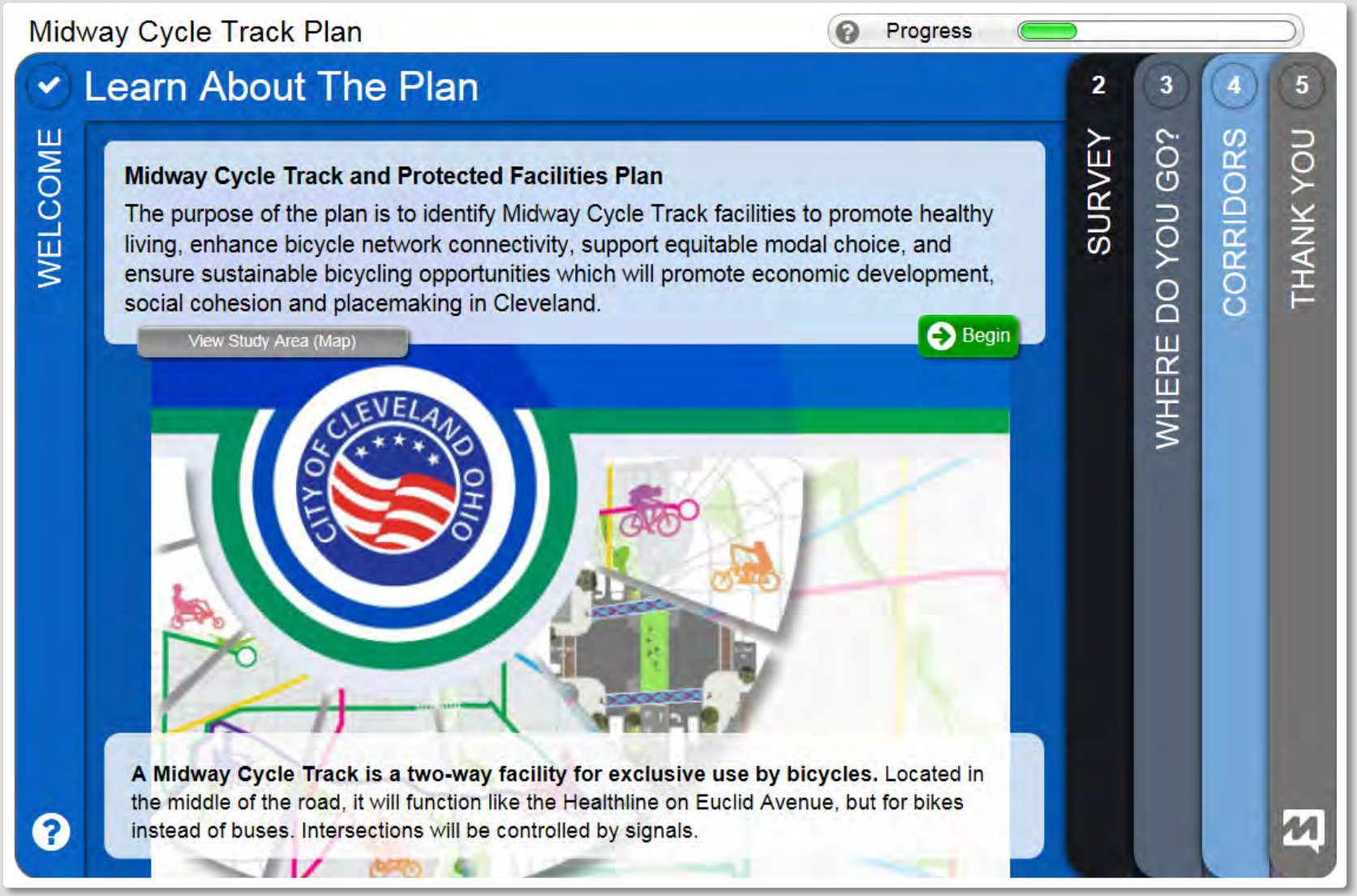
# Preferred Midway Corridors

- Buckeye Rd
- Chester Ave
- Comm. College Ave
- E.12th Street
- E.55th Street
- Fulton Road
- Lakeshore Blvd
- Lakeside Ave
- Lorain Ave
- Payne Ave
- Pearl Road
- Rocky River Dr
- St Clair Ave
- Superior Ave
- Woodland Ave




- *ADT & street width*
- *Trolleys (east side / west side)*
- *Connect with existing and planned bikeways*

# Survey


Midway Cycle Track Plan
Progress
Learn About The Plan
WELCOME
Midway Cycle Track and Protected Facilities Plan
The purpose of the plan is to identify Midway Cycle Track facilities to promote healthy living, enhance bicycle network connectivity, support equitable modal choice, and ensure sustainable bicycling opportunities which will promote economic development, social cohesion and placemaking in Cleveland.
View Study Area (Map)
Begin
A Midway Cycle Track is a two-way facility for exclusive use by bicycles. Located in the middle of the road, it will function like the Healthline on Euclid Avenue, but for bikes instead of buses. Intersections will be controlled by signals.
2 SURVEY
3 WHERE DO YOU GO?
4 CORRIDORS
5 THANK YOU

# Public Outreach

## Public Meetings

June 29 & 30, 2016 Public Meetings

## ‘Pop-Up’ Meetings

| | |
|---|---|
| Aug 13, 2016 | Mayor’s Back to School Fair & Youth Summit |
| Aug 13, 2016 | CiCLEvia |
| Aug 14, 2016 | Gather in Glenville |
| Sept 8, 2016 | CiCLEvia |
| Sept 17, 2016 | Vital Neighborhoods Potluck in the Park |

## Other Outreach

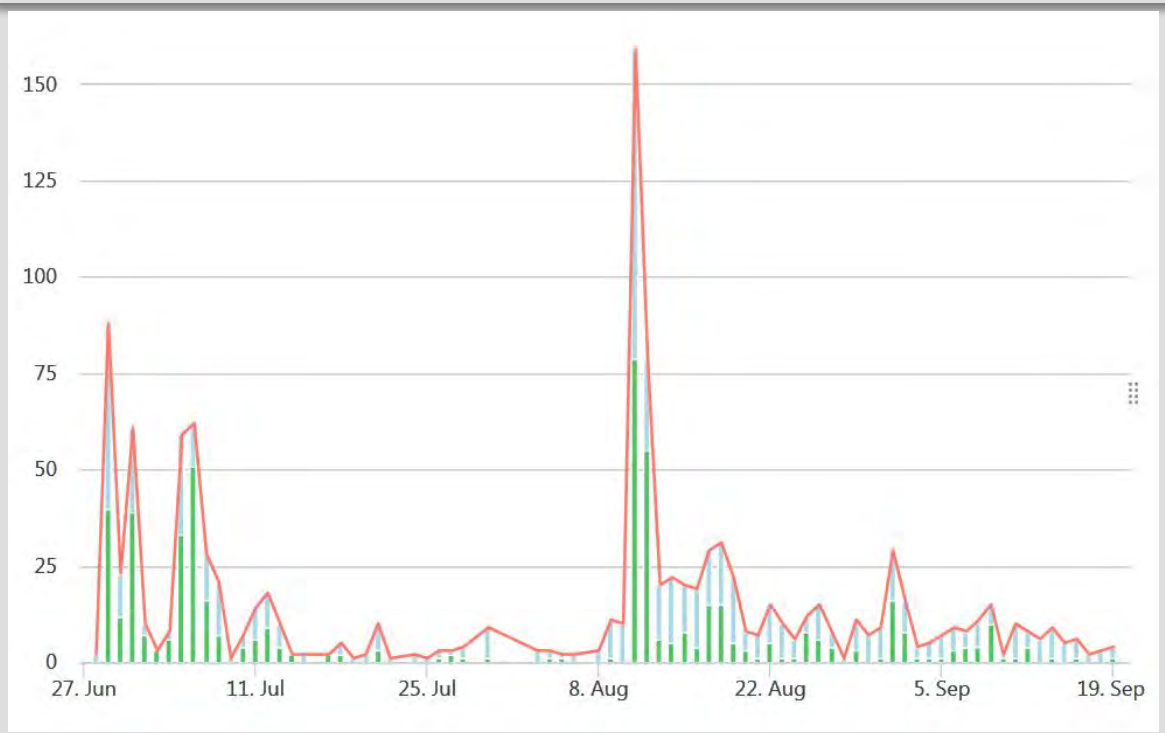
- Info left at E. 55th Marina & Merwin’s Wharf (Metroparks)
- Posted in Mayor’s E-blast for about 3 weeks
- Posted on social media: City Planning, Bike Cleveland, NOACA

# Survey Results

## Summary of Survey Visits

(through survey close on Monday, September 26, 2016)

Total Visits 1201/Total Respondents 540 (45%)



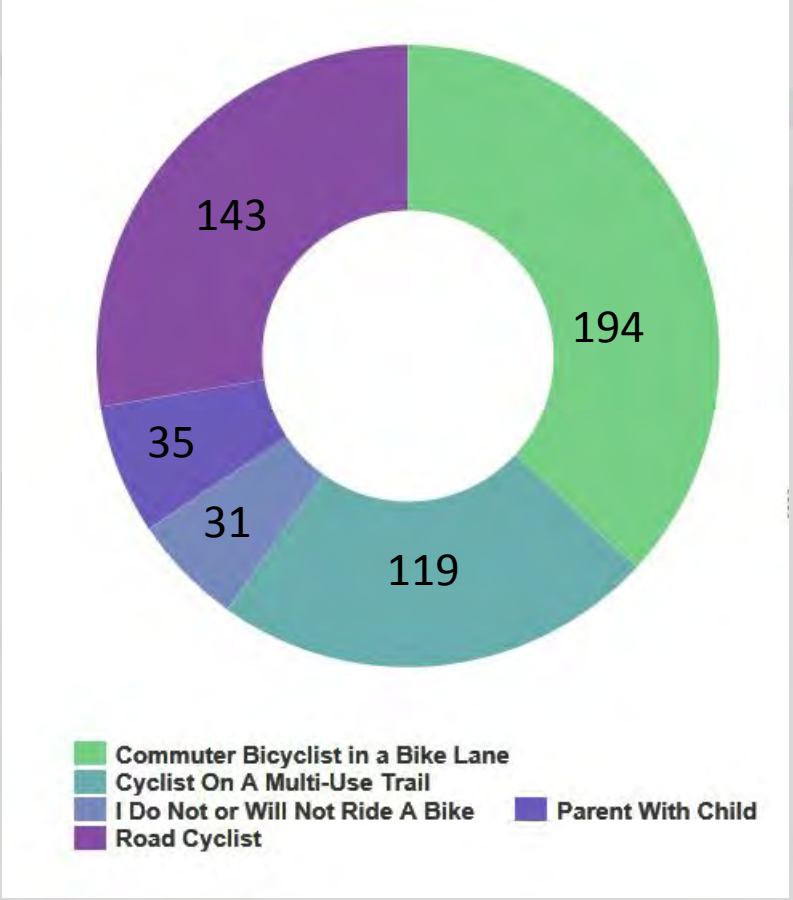

| Date | URL | Visits | With Data | % Data |
|---|---|---|---|---|
| 2016/06/28 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/06/29 | midway.metroquest.com | 88 | 40 | 45.45% |
| 2016/06/30 | midway.metroquest.com | 23 | 12 | 52.17% |
| 2016/07/01 | midway.metroquest.com | 61 | 39 | 63.93% |
| 2016/07/02 | midway.metroquest.com | 10 | 7 | 70.00% |
| 2016/07/03 | midway.metroquest.com | 3 | 3 | 100.00% |
| 2016/07/04 | midway.metroquest.com | 8 | 6 | 75.00% |
| 2016/07/05 | midway.metroquest.com | 59 | 33 | 55.93% |
| 2016/07/06 | midway.metroquest.com | 62 | 51 | 82.26% |
| 2016/07/07 | midway.metroquest.com | 28 | 16 | 57.14% |
| 2016/07/08 | midway.metroquest.com | 21 | 7 | 33.33% |
| 2016/07/09 | midway.metroquest.com | 1 | 0 | 0.00% |
| 2016/07/10 | midway.metroquest.com | 7 | 4 | 57.14% |
| 2016/07/11 | midway.metroquest.com | 14 | 6 | 42.86% |
| 2016/07/12 | midway.metroquest.com | 18 | 9 | 50.00% |
| 2016/07/13 | midway.metroquest.com | 10 | 4 | 40.00% |
| 2016/07/14 | midway.metroquest.com | 2 | 2 | 100.00% |
| 2016/07/15 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/07/17 | midway.metroquest.com | 2 | 2 | 100.00% |
| 2016/07/18 | midway.metroquest.com | 5 | 2 | 40.00% |
| 2016/07/19 | midway.metroquest.com | 1 | 0 | 0.00% |
| 2016/07/20 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/07/21 | midway.metroquest.com | 10 | 3 | 30.00% |
| 2016/07/22 | midway.metroquest.com | 1 | 0 | 0.00% |
| 2016/07/24 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/07/25 | midway.metroquest.com | 1 | 0 | 0.00% |
| 2016/07/26 | midway.metroquest.com | 3 | 1 | 33.33% |
| 2016/07/27 | midway.metroquest.com | 3 | 2 | 66.67% |
| 2016/07/28 | midway.metroquest.com | 4 | 1 | 25.00% |
| 2016/07/30 | midway.metroquest.com | 9 | 1 | 11.11% |
| 2016/08/03 | midway.metroquest.com | 3 | 0 | 0.00% |
| 2016/08/04 | midway.metroquest.com | 3 | 1 | 33.33% |
| 2016/08/05 | midway.metroquest.com | 2 | 1 | 50.00% |
| 2016/08/06 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/08/08 | midway.metroquest.com | 3 | 0 | 0.00% |
| 2016/08/09 | midway.metroquest.com | 11 | 1 | 9.09% |

| Date | URL | Visits | With Data | % Data |
|---|---|---|---|---|
| 2016/08/10 | midway.metroquest.com | 10 | 0 | 0.00% |
| 2016/08/11 | midway.metroquest.com | 159 | 79 | 49.69% |
| 2016/08/12 | midway.metroquest.com | 78 | 55 | 70.51% |
| 2016/08/13 | midway.metroquest.com | 20 | 6 | 30.00% |
| 2016/08/14 | midway.metroquest.com | 22 | 5 | 22.73% |
| 2016/08/15 | midway.metroquest.com | 20 | 8 | 40.00% |
| 2016/08/16 | midway.metroquest.com | 19 | 4 | 21.05% |
| 2016/08/17 | midway.metroquest.com | 29 | 15 | 51.72% |
| 2016/08/18 | midway.metroquest.com | 31 | 15 | 48.39% |
| 2016/08/19 | midway.metroquest.com | 22 | 5 | 22.73% |
| 2016/08/20 | midway.metroquest.com | 8 | 3 | 37.50% |
| 2016/08/21 | midway.metroquest.com | 7 | 1 | 14.29% |
| 2016/08/22 | midway.metroquest.com | 15 | 5 | 33.33% |
| 2016/08/23 | midway.metroquest.com | 10 | 1 | 10.00% |
| 2016/08/24 | midway.metroquest.com | 6 | 1 | 16.67% |
| 2016/08/25 | midway.metroquest.com | 12 | 8 | 66.67% |
| 2016/08/26 | midway.metroquest.com | 15 | 6 | 40.00% |
| 2016/08/27 | midway.metroquest.com | 8 | 4 | 50.00% |
| 2016/08/28 | midway.metroquest.com | 1 | 0 | 0.00% |
| 2016/08/29 | midway.metroquest.com | 11 | 3 | 27.27% |
| 2016/08/30 | midway.metroquest.com | 7 | 0 | 0.00% |
| 2016/08/31 | midway.metroquest.com | 9 | 1 | 11.11% |
| 2016/09/01 | midway.metroquest.com | 29 | 16 | 55.17% |
| 2016/09/02 | midway.metroquest.com | 16 | 8 | 50.00% |
| 2016/09/03 | midway.metroquest.com | 4 | 1 | 25.00% |
| 2016/09/04 | midway.metroquest.com | 5 | 1 | 20.00% |
| 2016/09/05 | midway.metroquest.com | 7 | 1 | 14.29% |
| 2016/09/06 | midway.metroquest.com | 9 | 3 | 33.33% |
| 2016/09/07 | midway.metroquest.com | 8 | 4 | 50.00% |
| 2016/09/08 | midway.metroquest.com | 11 | 4 | 36.36% |
| 2016/09/09 | midway.metroquest.com | 15 | 10 | 66.67% |
| 2016/09/10 | midway.metroquest.com | 2 | 1 | 50.00% |
| 2016/09/11 | midway.metroquest.com | 10 | 1 | 10.00% |
| 2016/09/12 | midway.metroquest.com | 8 | 4 | 50.00% |
| 2016/09/13 | midway.metroquest.com | 6 | 0 | 0.00% |
| 2016/09/14 | midway.metroquest.com | 9 | 1 | 11.11% |
| 2016/09/15 | midway.metroquest.com | 5 | 0 | 0.00% |
| 2016/09/16 | midway.metroquest.com | 6 | 1 | 16.67% |
| 2016/09/17 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/09/18 | midway.metroquest.com | 3 | 0 | 0.00% |
| 2016/09/19 | midway.metroquest.com | 5 | 1 | 20.00% |
| 2016/09/20 | midway.metroquest.com | 6 | 1 | 16.67% |
| 2016/09/21 | midway.metroquest.com | 6 | 1 | 16.67% |
| 2016/09/22 | midway.metroquest.com | 7 | 0 | 0.00% |
| 2016/09/23 | midway.metroquest.com | 7 | 1 | 14.29% |
| 2016/09/24 | midway.metroquest.com | 2 | 0 | 0.00% |
| 2016/09/25 | midway.metroquest.com | 3 | 0 | 0.00% |
| 2016/09/26 | midway.metroquest.com | 5 | 1 | 20.00% |
| | | 1201 | 540 | 44.96% |

# Screen 2 - Help Us Plan


## Tab 1 - Bicyclist Type

### What image best represents you on a bicycle?




| Value | Respondents | Percent |
|---|---|---|
| Commuter Bicyclist in a Bike Lane | 194 | 37.16% |
| Cyclist On A Multi-Use Trail | 119 | 22.80% |
| I Do Not or Will Not Ride A Bike | 31 | 5.94% |
| Parent With Child | 35 | 6.70% |
| Road Cyclist | 143 | 27.39% |
| Totals | 522 | |

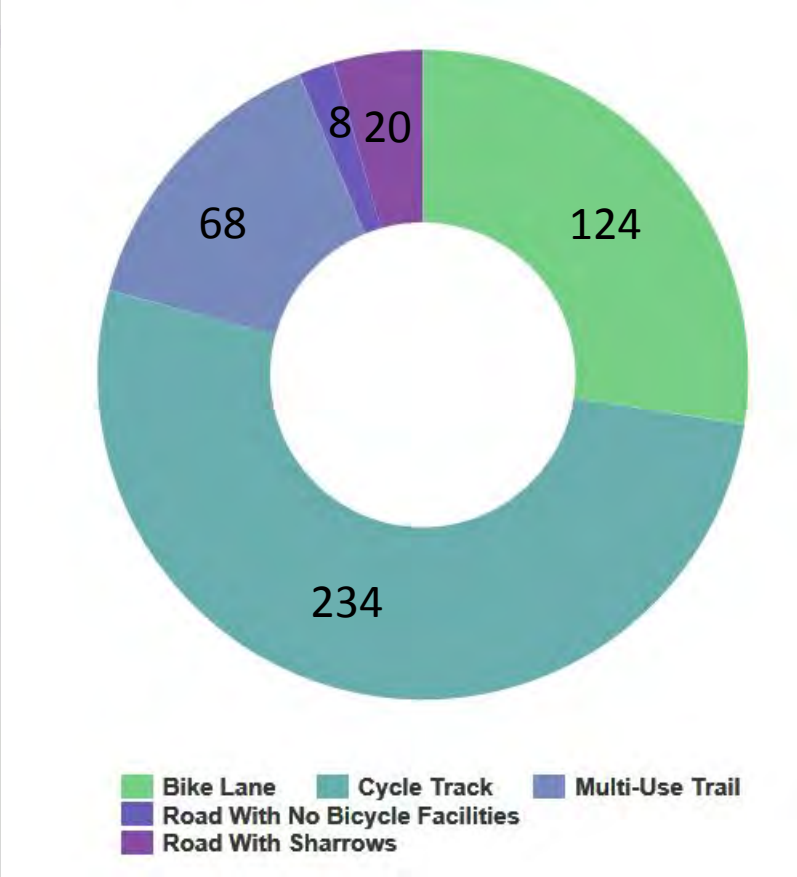
Total = 522

*Most survey respondents are cyclists*

*Variety of cyclist types*

# Screen 2 - Help Us Plan

## Tab 2 – Bicycle Facility Type
## On what bicycle facility would you prefer to ride?


| Value | Respondents | Percent |
|---|---|---|
| Bike Lane | 124 | 27.31% |
| Cycle Track | 234 | 51.54% |
| Multi-Use Trail | 68 | 14.98% |
| Road With No Bicycle Facilities | 8 | 1.76% |
| Road With Sharrows | 20 | 4.41% |
| Totals | 454 | |

Total = 454

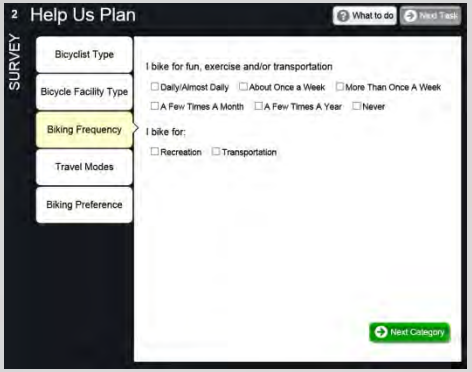
*Most survey respondents prefer to ride in a designated bicycle facility (426 of 454 or 94%)*

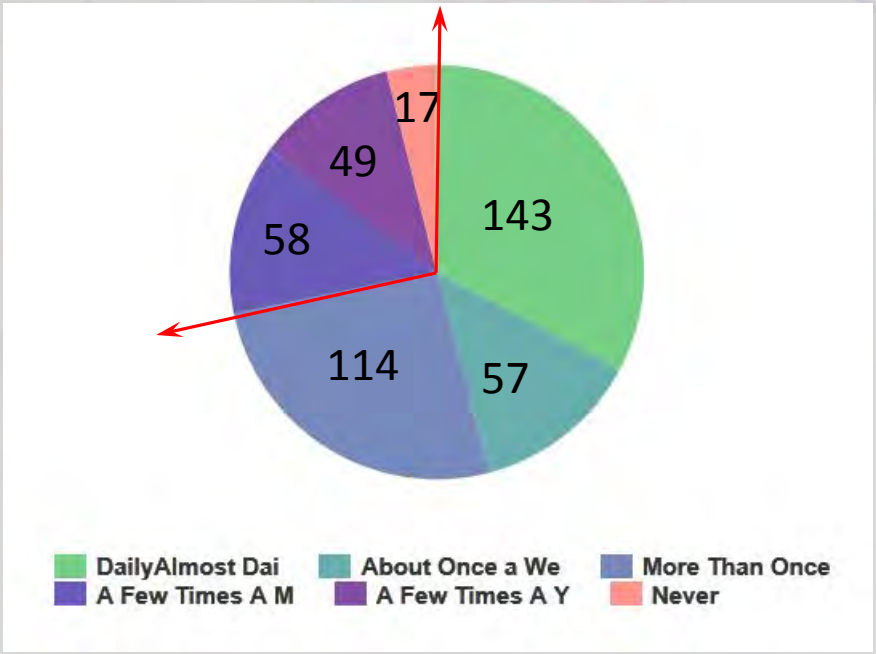
*Survey respondents expressed a strong preference for cycle tracks over the other bicycle facility types (52%)*

# Screen 2 - Help Us Plan

## Tab 3 – Biking Frequency

### Question 1: I bike for fun, exercise, and/or transportation…




*No table was provided for this graphic.*

Daily / Almost Daily - 143 (33%)

More Than Once A Week - 114 (26%)

About Once a Week - 57 (13%)

A Few Times a Month - 58 (13%)

A Few Times a Year - 48 (11%)

Never - 17 (4%)

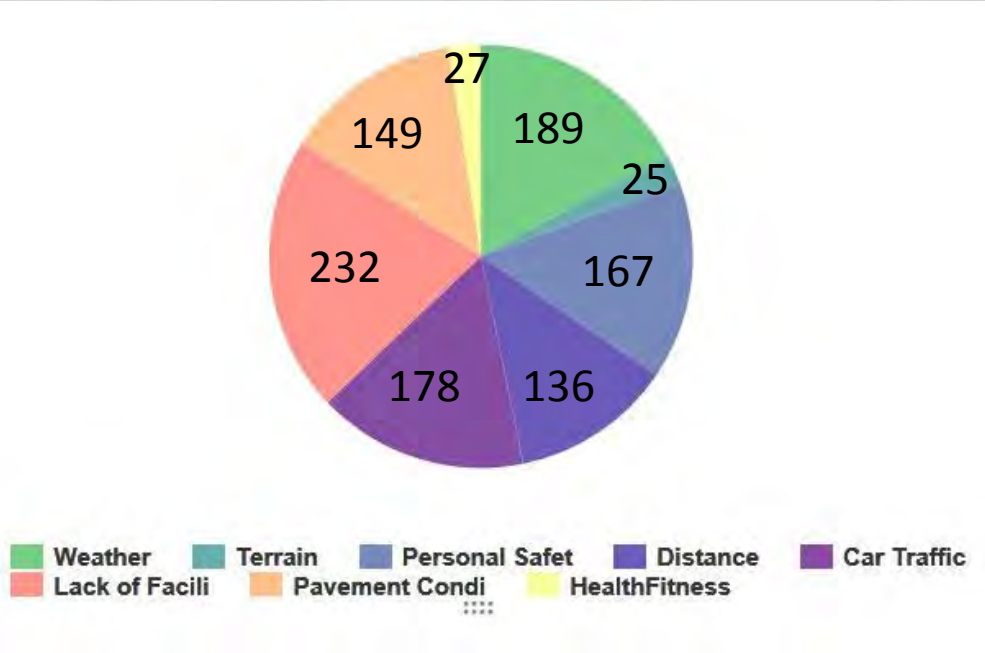
Total = 437

*Approximately ¾ of survey respondents regularly ride a bicycle*

# Screen 2 - Help Us Plan


## Tab 5 – Biking Preferences

## Question 1: What keeps you from cycling as often as you want?




*No table was provided for this graphic.*

Lack of Facilities (bike lanes, trails, etc.) - 232 (43%)

Weather - 189 (35%)

Car Traffic - 178 (33%)

Personal Safety/Security - 167 (31%)

Pavement Condition - 149 (26%)

Distance - 136 (25%)

Terrain - 25 (5%)

Health/Fitness Limitations - 27 (5%)

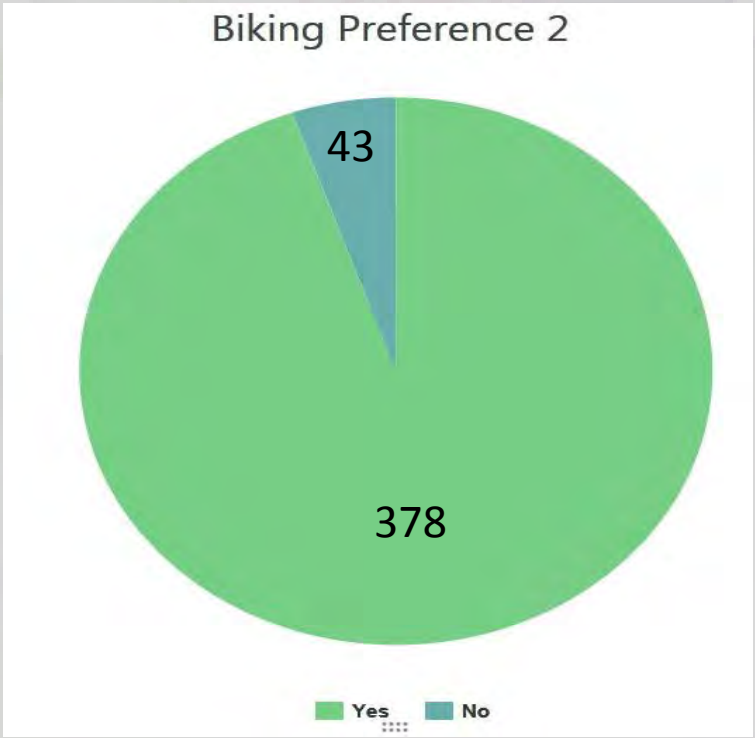
Total = 536

*Respondents were able to select more than one response. For this reason, the percentages were calculated using the total number of survey responses of 536 for this page*

*There are several factors that hinder bicycling with the leading cause being lack of bicycle facilities..*

# Screen 2 - Help Us Plan


## Tab 5 – Biking Preferences
## Question 2: Do you want to ride in a Midway Cycle Track?




*No table was provided for this graphic.*

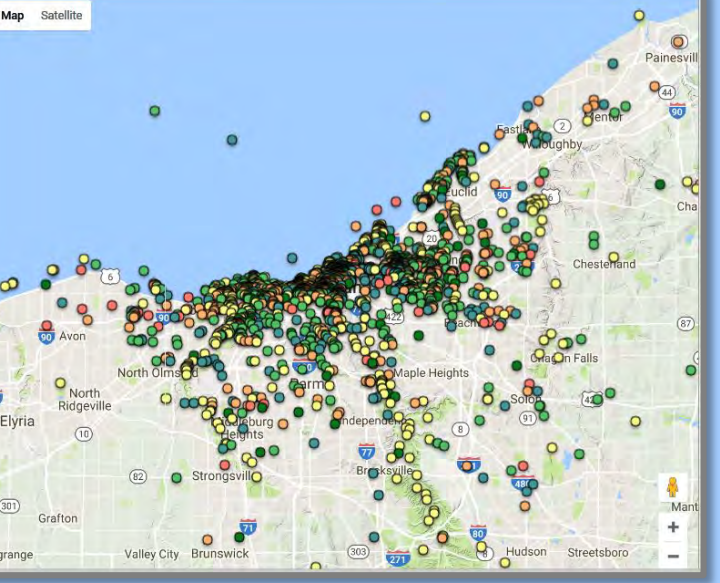
Yes - 378 (90%)

No - 43 (10%)

Total = 421

*The vast majority of survey respondents (90%) would like to bicycle in a midway cycle track.*

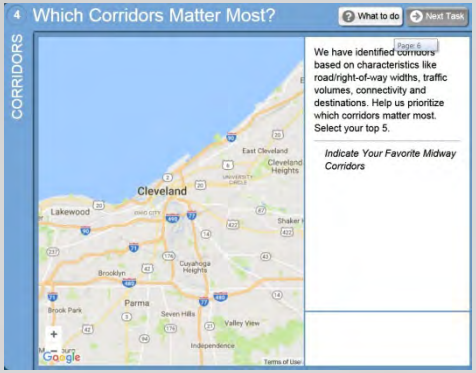
# Screen 3
# Where Do You Go?

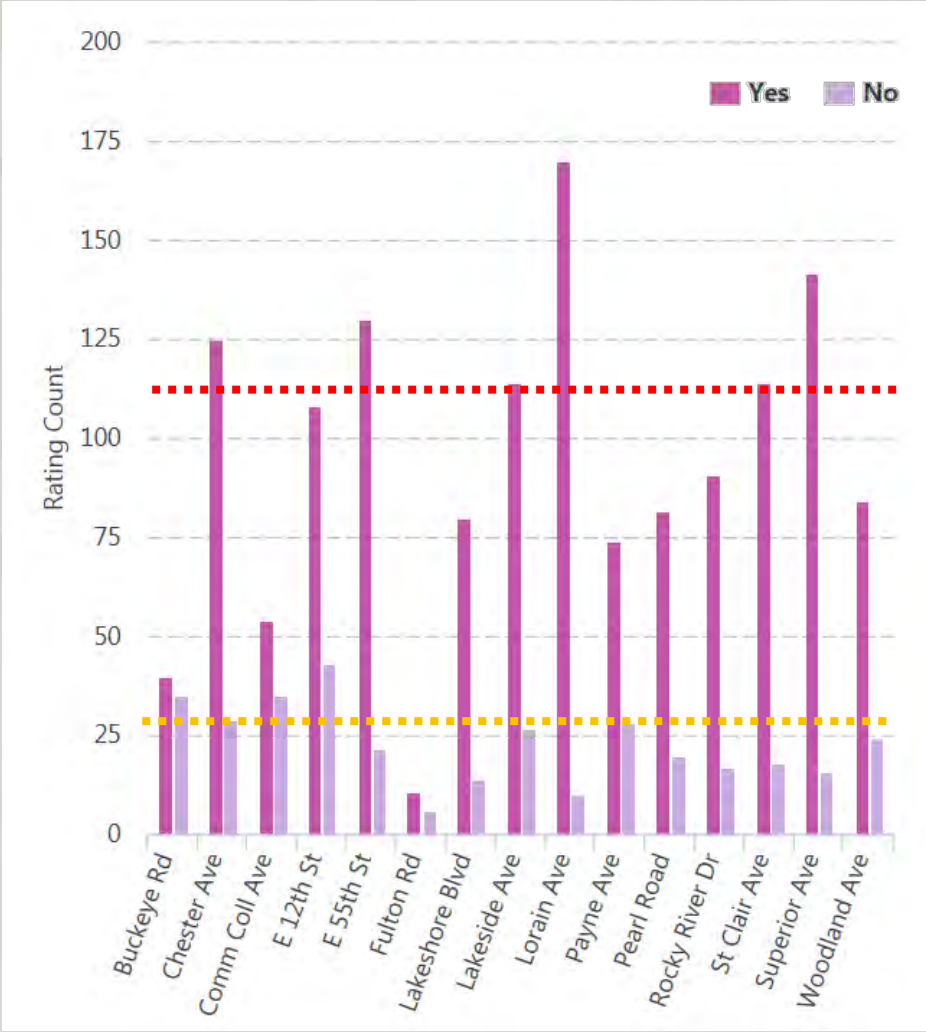



Home
SchoolWork
ShopDineFun
Health Care
ParkRecreation
Other

| Marker Type | Times dropped | Percent |
|---|---|---|
| Home | 400 | 17.97% |
| SchoolWork | 387 | 17.39% |
| ShopDineFun | 693 | 31.13% |
| Health Care | 87 | 3.91% |
| ParkRecreation | 563 | 25.29% |
| Other | 96 | 4.31% |
| Total | 2226 | |

# Screen 4 – Public Preferences



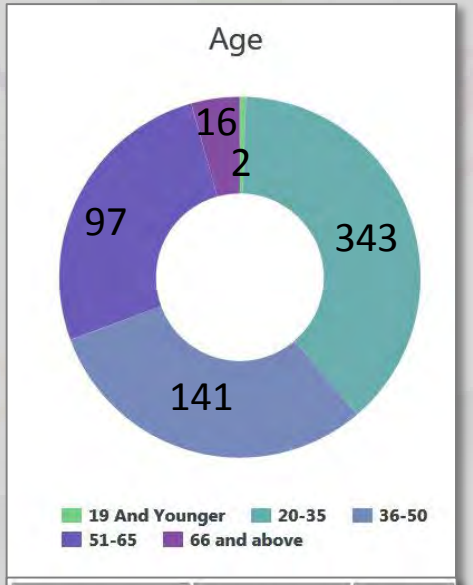




| Item | Yes (1) | No (2) |
|---|---|---|
| Rocky River Dr | 91 | 17 |
| Woodland Ave | 84 | 24 |
| Pearl Road | 82 | 20 |
| Lakeshore Blvd | 80 | 14 |
| Payne Ave | 74 | 28 |
| Fulton Rd | 11 | 6 |
| Comm Coll Ave | 54 | 35 |
| E 12th St | 108 | 43 |
| Buckeye Rd | 40 | 35 |
| Chester Ave | 125 | 29 |
| Lakeside Ave | 114 | 27 |
| E 55th St | 130 | 22 |
| St Clair Ave | 114 | 18 |
| Lorain Ave | 170 | 10 |
| Superior Ave | 142 | 16 |
| Total | 1419 | 344 |

Screen 4 completions: 232

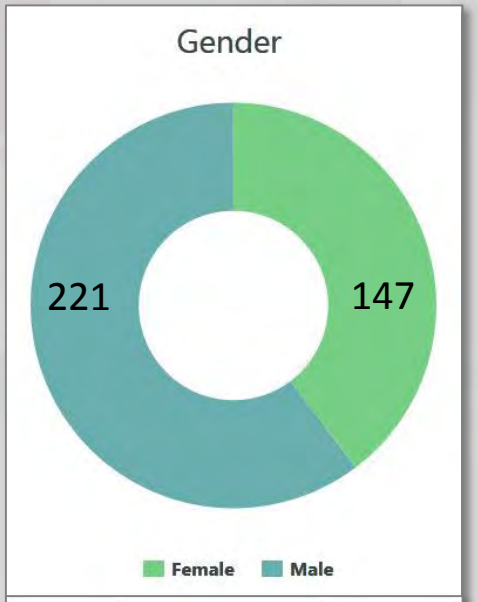
# Screen 5 – Thank You

## Please Tell Us About Yourself Demographics

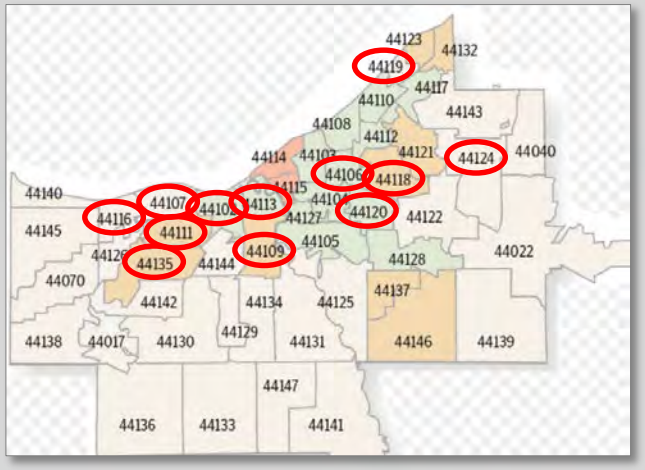

| Value | Respondents | Percent |
|---|---|---|
| 19 And Younger | 2 | 0.54% |
| 20-35 | 143 | 38.44% |
| 36-50 | 114 | 30.65% |
| 51-65 | 97 | 26.08% |
| 66 and above | 16 | 4.30% |
| Totals | 372 | |

Total = 372

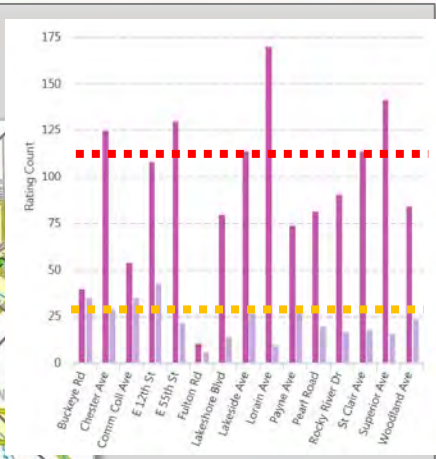



| Value | Respondents | Percent |
|---|---|---|
| Female | 147 | 39.95% |
| Male | 221 | 60.05% |
| Totals | 368 | |

Total = 368



# Preferred Midway Corridors


- Buckeye Rd
- Chester Ave
- Comm. College
- E.12th Street
- E.55th Street
- Fulton Road
- Lakeshore Blvd
- Lakeside Ave
- Lorain Ave
- Payne Ave
- Pearl Road
- Rocky River Dr
- St Clair Ave
- Superior Ave
- Woodland Ave

## **Evaluation Criteria** (Phase 1)

*Assess positive impact and potential benefit of the 15 corridors*

- Street width
- Right-of-way
- Traffic Volume

- Demographic considerations
  - *Household income*
  - *Car ownership*
  - *Proximity to transit*
  - *Life expectancy*
- Tree canopy
  - *Are we removing trees to implement*
- SRTS priority corridor
- NOACA bikeway demand potential
- Safety (NOACA bike crash data)
- Regional connectivity
- Connects land use/identified survey destinations
- City capital plan
- Stormwater/NEORSD priority area

## **Evaluation Criteria** (Phase 2)

*Assess ease of implementation of the 15 corridors*

Roadway jurisdiction & Federal Aid Truck Route
NOACA TIP & NOACA asset management program
External funding potential
Community support
Political support
- City Hall Chief's Prefer
- Traffic impacts
- R[illegible]A benefit
  - *In[illegible]*
  - *TOD op[illegible]*
  - *Increase[illegible]*
  - *Sm[illegible]*
  - *Bus stop[illegible]*
  - *Mitigate[illegible]*

Negative RTA impact (o[illegible]eratio[illegible]s, etc.)
- *Removal of existing bus lanes (St Clair & Superior req'd)*
- *Hurt operations of existing services - including ped access*
- *Takes away ROW for future improvements for BRT (lite) operations on Priority Corridors*

**Prioritize Preferred Midway Corridors**

# Evaluation Criteria (Phase 1)

## Preferred Midway Corridors

**A**
- E.55th Street
- Lorain
- St Clair
- Superior
- Woodland-Buckeye

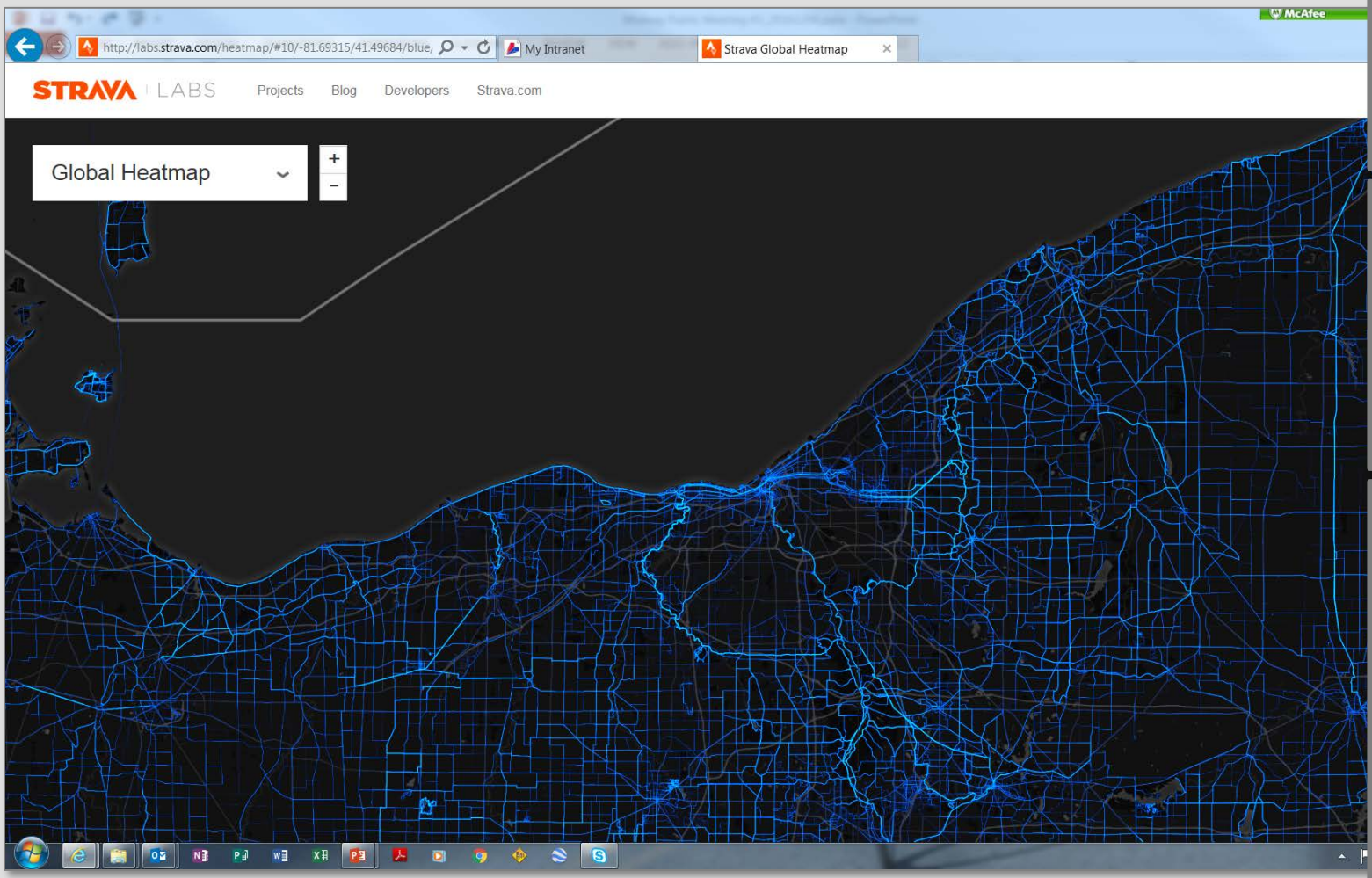
**B**
- Chester
- Community College
- Lakeshore
- Lakeside
- Payne
- Rocky River

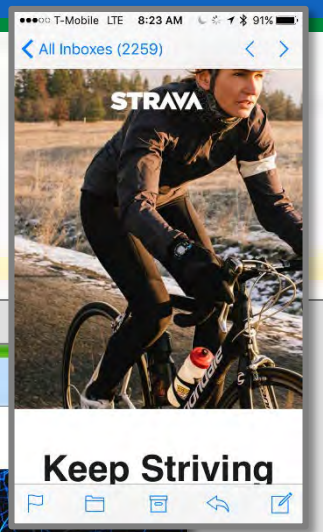
**C**
- E.12th Street
- Fulton
- Pearl

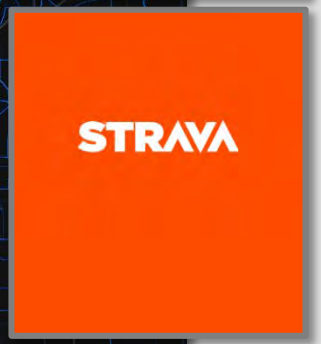
MIDWAY CYCLE TRACK CORRIDOR EVALUATION - PART 1

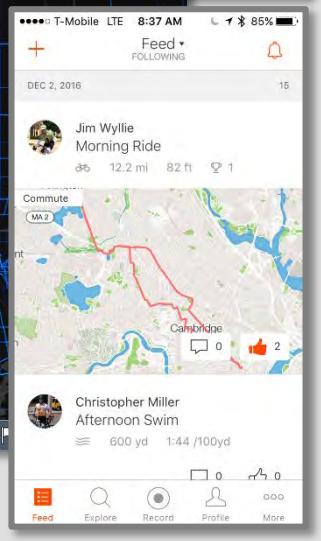
| Corridor | West / South Limit | East / North Limit | Household Income 1-5 | Car Ownership 1-5 | Proximity to Transit 1-5 | Land Use Density Low Med High | Tree Canopy Impact (removal?) Y Maybe N | SRTS Priority Corridor 1-5 | NOACA Bikeway Demand Potential Low Med High | Safety (NOACA Bike Crash Data) Low Med High | Regional Connectivity Low Med High | Connects Land Use & Survey Destinations Low Med High | City Capital Plan Y / N | NEORSD Priority Area (Stormwater) Y / N | PRIORITY A / B / C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Buckeye * | Woodland Ave | Opportunity Corridor | 4 | 5 | 5 | Low | N | 1 | Medium | Low | Low | Low | N | N | A |
| Chester | E.12th St | E.93rd St | 4 | 4 | 5 | Medium | Y | 1 | High | Medium | High | High | N | N | B |
| Comm College | E.22nd St | E.35th St | 4 | 4 | 3 | High | N | 2 | High | Medium | Low | Medium | Y | Y | B |
| E. 12th St | Euclid Ave | Lakeside Ave | 1 | 3 | 1 | High | Y | 1 | High | Medium | Low | High | N | N | C |
| E. 55th St | Broadway Ave | Lakefront (N.Marginal) | 5 | 4 | 3 | Medium | N | 5 | High | High | High | Medium | Y | N | A |
| Fulton | Memphis Ave | Bush Ave | 2 | 2 | 4.75 | Medium | Maybe | 3 | Medium | Medium | Low | Medium | N | N | C |
| Lakeshore | City Limit (Bratenahl) | E.185th St | 3 | 2 | 4 | ● | N | 2 | Medium | Medium | High | Medium | Complete | Y | B |
| Lakeside | W.3rd St | E.26th St | 3 | 4 | 2 | High | N | 1 | High | High | Low | Medium | Y | N | B |
| Lorain | City Limit (west) | W.65th St | 4 | 1 | 4 | High | N | 4 | Medium | Medium | High | Medium | Y | N | A |
| Payne | E.13th St | E. 55th St | 5 | 3 | 4 | Medium | N | 5 | High | Medium | Medium | Medium | Y | N | B |
| Pearl | City Limit (south) | Cypress Ave | 2 | 1 | 4 | Medium | Maybe | 2 | Medium | Medium | Low | Low | N | N | C |
| Rocky River | Brookpark Rd | Lorain Ave | 3 | 1 | 4 | Medium | N | 2 | Medium | Medium | High | Low | N | N | B |
| St. Clair | W.10th St | City Limit (east) | 4.25 | 3 | 3.25 | ◢ | Maybe | 3 | High | High | High | High | Complete | Y | A |
| Superior | Public Square | E.55th St | 4 | 2 | 2 | ● | Maybe | 4 | High | Medium | High | Medium | N | N | A |
| Woodland * | E.22nd St | MLK | 4.5 | 5 | 5 | ◢ | Maybe | 3.5 | High | Medium | High | Low | N | Y | A |

# Strava



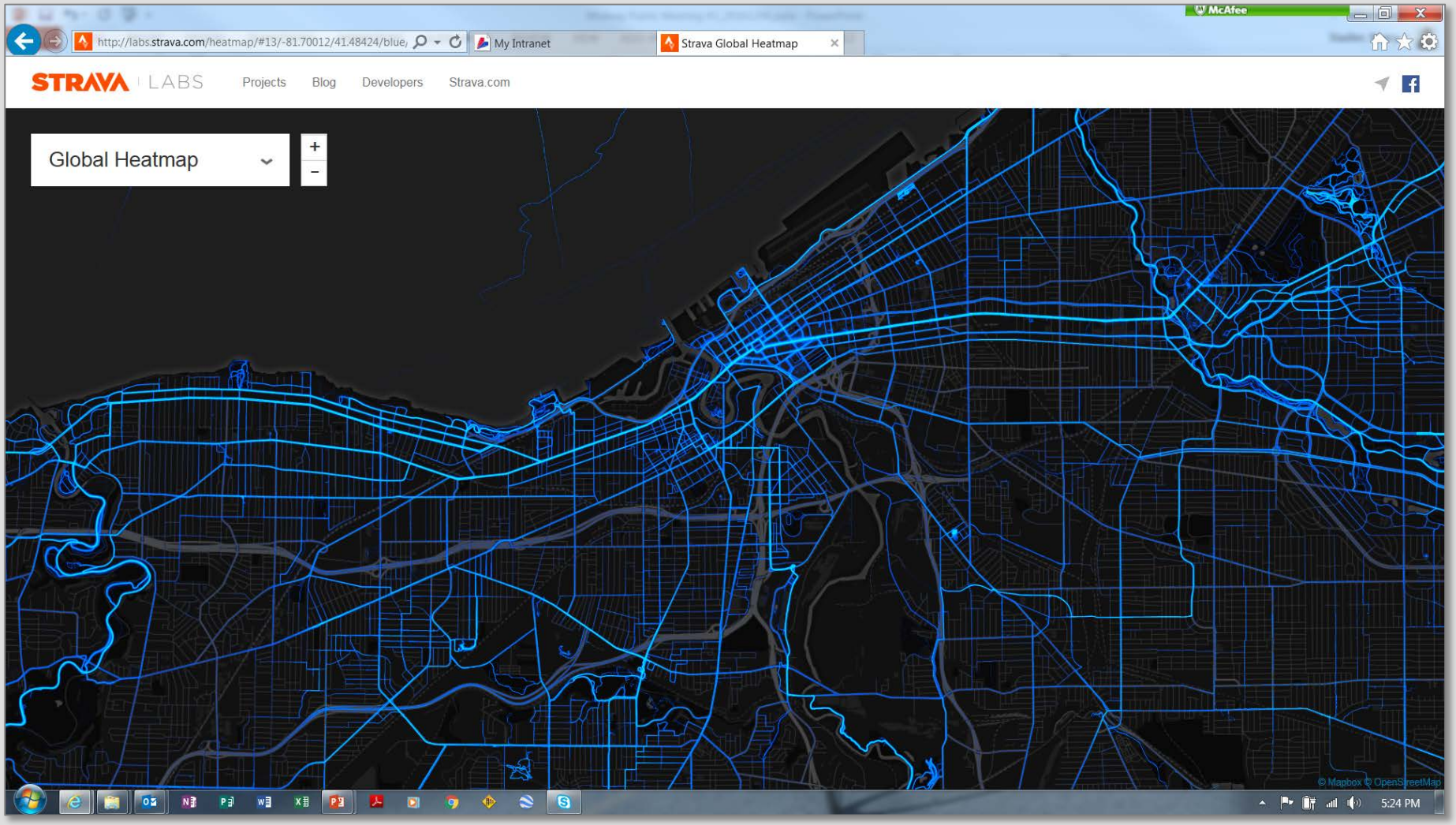




*Greater Cleveland Regional Strava Heat Map (12/6/2016)*

# Strava




*Cleveland Strava Heat Map (12/6/2016)*

# Primary Corridors

**Preferred Midway Corridors**

A
- E.55th Street
- Lorain
- St Clair
- Superior
- Woodland-Buckeye

B
- Chester
- Community College
- Lakeshore
- Lakeside
- Payne
- Rocky River

- Proof of concept
- Familiarize area population with a cycle track prototype
  - Accommodate all cyclist types
- Location: Place-based focus
  - Population center
  - Accessible to everyone (not east side / west side)
  - High visibility, make a political statement
  - Convergence of demographics
- Phase 2 Evaluation Criteria
- Minimize hurdles for implementation
  - Manageable, high impact demonstration corridor

## **Evaluation Criteria** (Phase 1)

*Assess positive impact and potential benefit of the 15 corridors*

- Street width
- Right-of-w
- Tr ffic Vo
- Der
- – *Are we removing trees to implement*
- SRTS priority corridor
- NOACA bikeway demand potential
- Safety (NOACA bike crash data)
- Regional connectivity
- Connects land use/identified survey destinations
- City capital plan
- Stormwater/NEORSD priority area

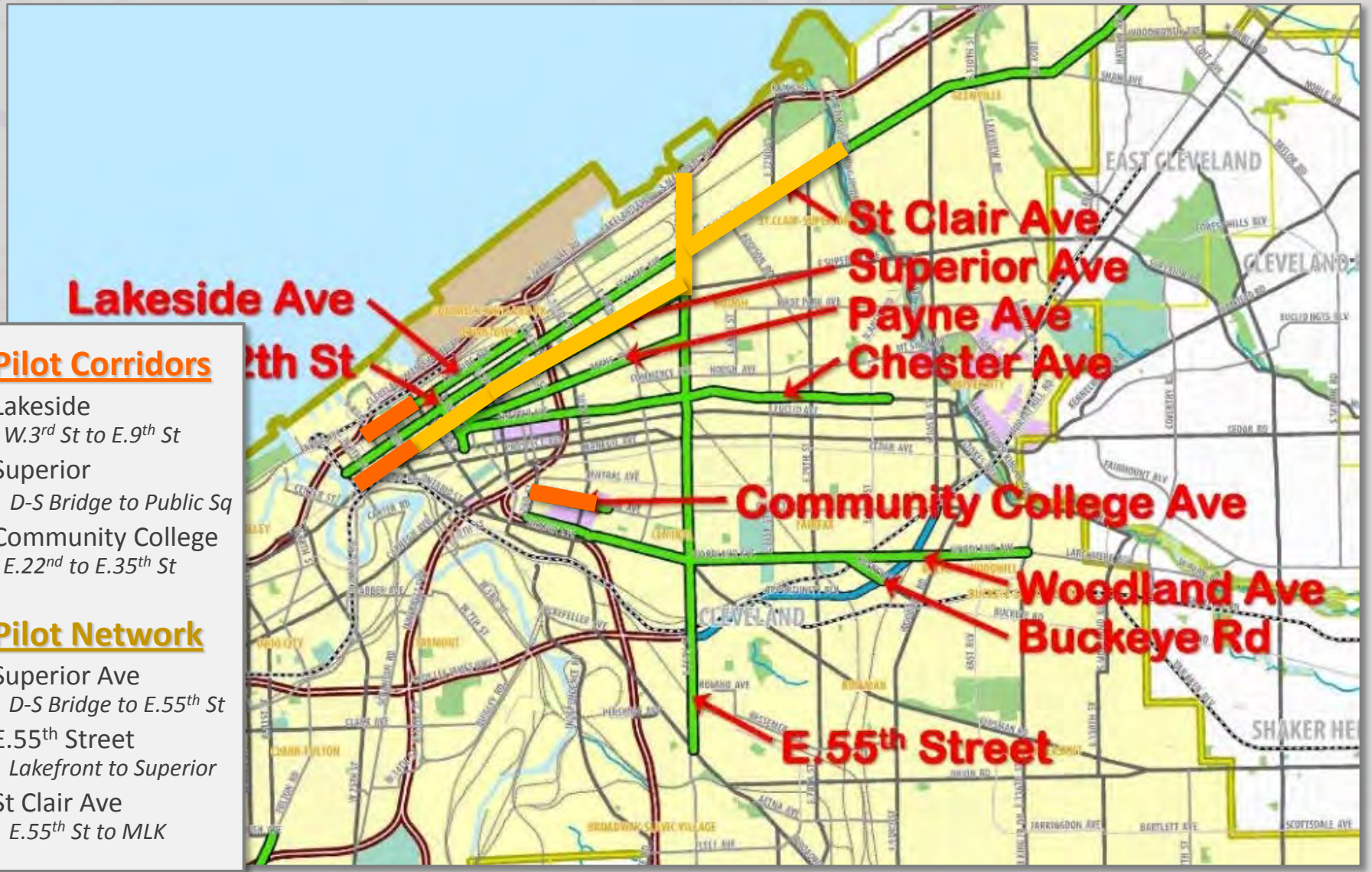
**Identify Potential Pilot Corridor(s)**

## **Evaluation Criteria** (Phase 2)

*Assess ease of implementation of the 15 corridors*

- Roadway jurisdiction & Federal Aid Truck Route
- NOACA TIP & NOACA asset management program
- External funding potential
- Community support
- Political support
- City Hall Chiefs' Preferences
- Traffic impacts
- RTA benefit
  - – *Increase ridership*
  - – *TOD opportunities*
  - – *Increase safe operations (pedestrians)*
  - – *Smooth roadway*
  - – *Bus stop pads*
  - – *Mitigate bus/bike collisions*
- Negative RTA impact (operations, etc.)
  - – *Removal of existing bus lanes (St Clair & Superior req'd)*
  - – *Hurt operations of existing services - including ped access*
  - – *Takes away ROW for future improvements for BRT (lite) operations on Priority Corridors*

# Potential Pilot Corridors




## Pilot Corridors

Lakeside
*W.3rd St to E.9th St*

Superior
*D-S Bridge to Public Sq*

Community College
*E.22nd to E.35th St*

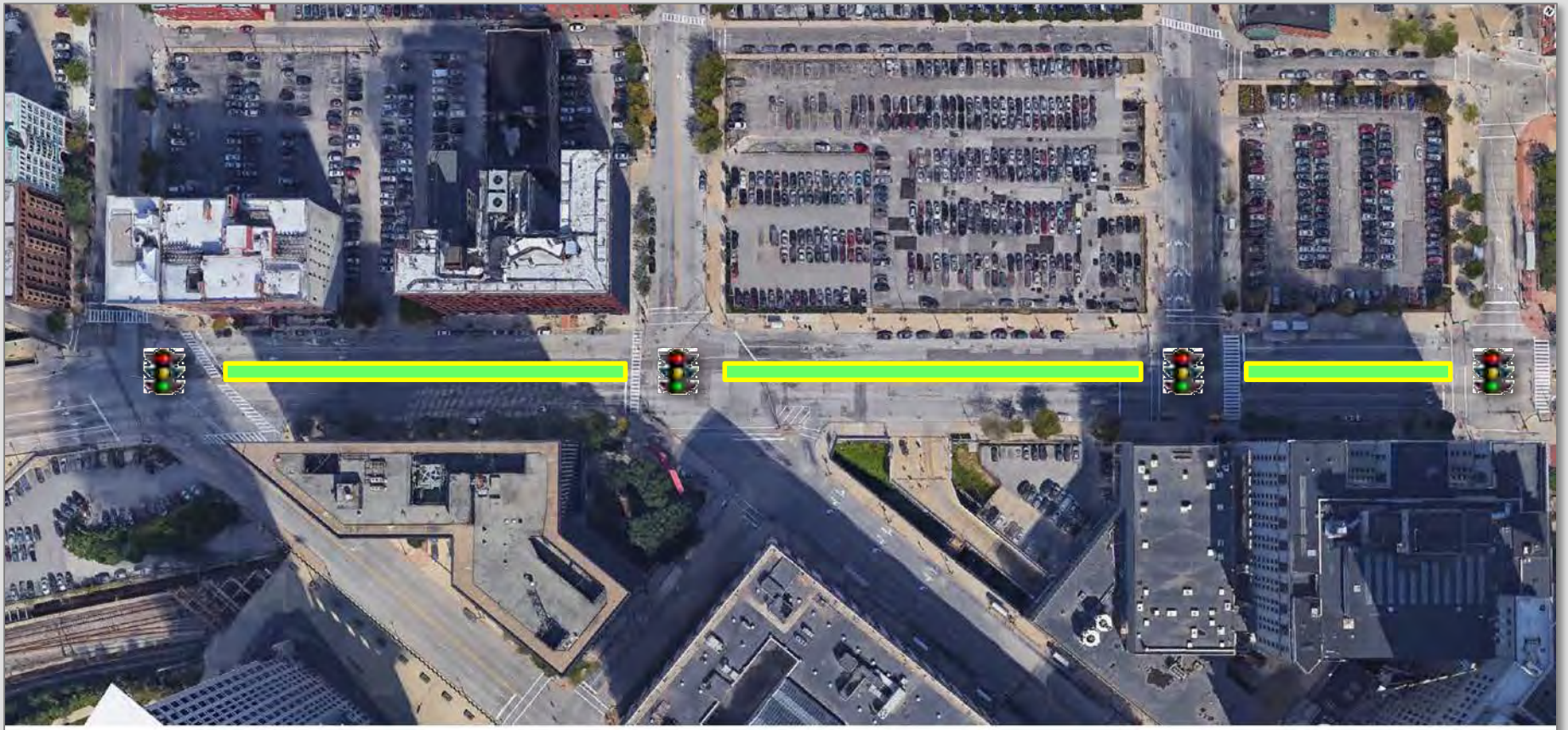
## Pilot Network

Superior Ave
*D-S Bridge to E.55th St*

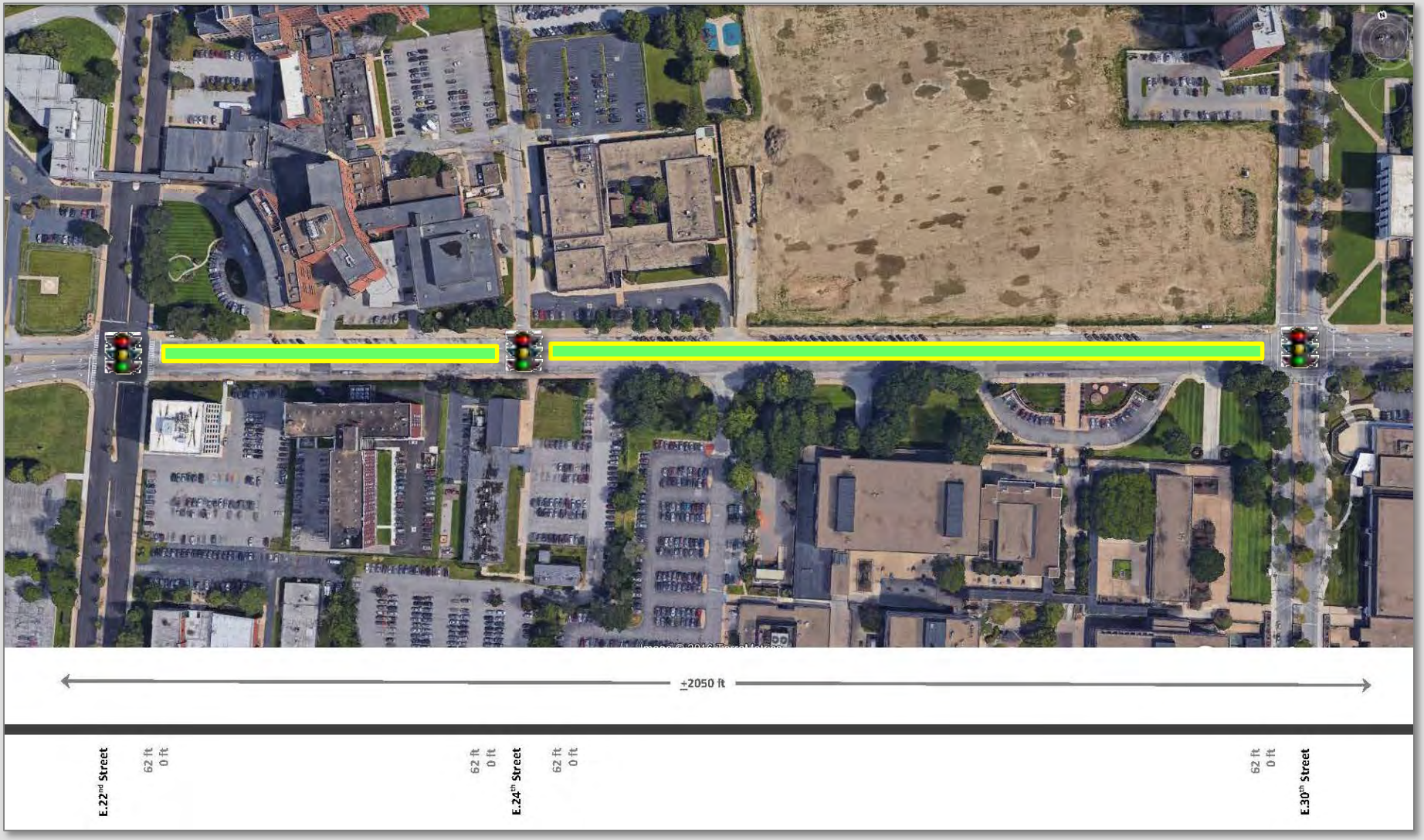
E.55th Street
*Lakefront to Superior*

St Clair Ave
*E.55th St to MLK*

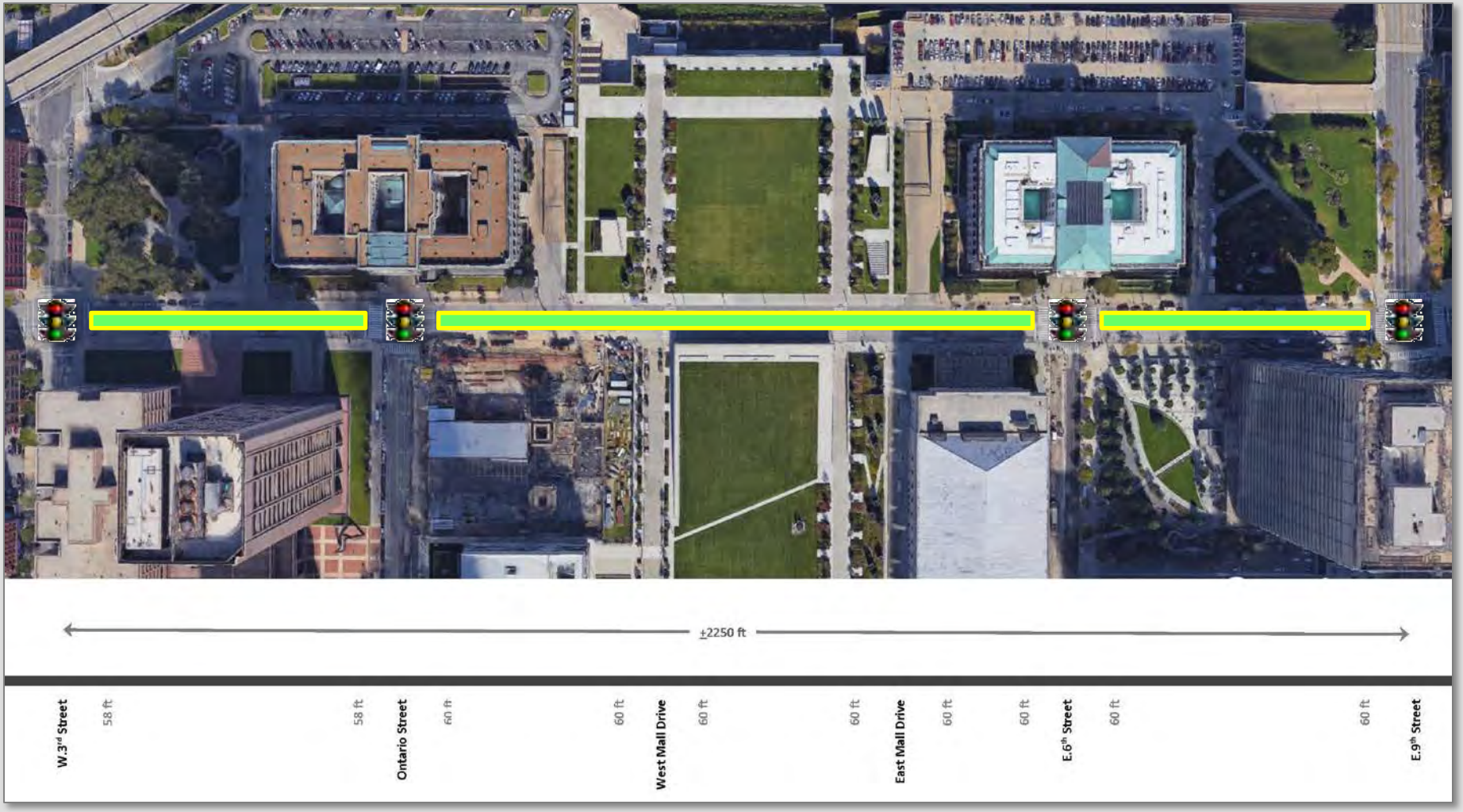
# Superior


±1400 ft
W.9th Street-
Huron Road
88 ft
(1000 ft)
88 ft
(1000 ft)
W.6th Street-
Prospect Ave
92 ft
92 ft
0 ft
W.3rd Street
92 ft
0 ft
92 ft
0 ft
W. Roadway
(Public Square)

# Community College

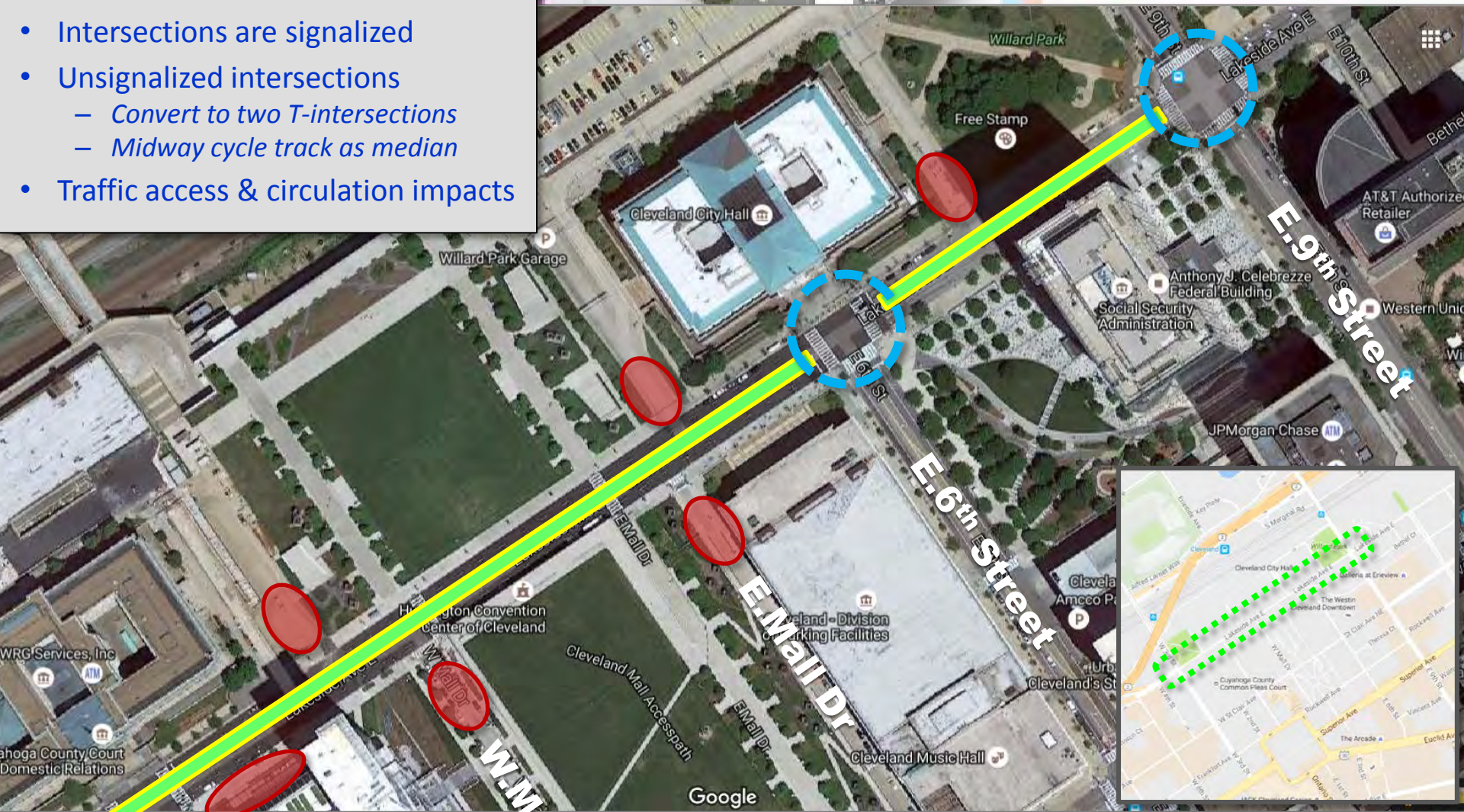


# Lakeside


±2250 ft
W.3rd Street
58 ft
58 ft
Ontario Street
60 ft
60 ft
West Mall Drive
60 ft
60 ft
East Mall Drive
60 ft
60 ft
E.6th Street
60 ft
60 ft
E.9th Street

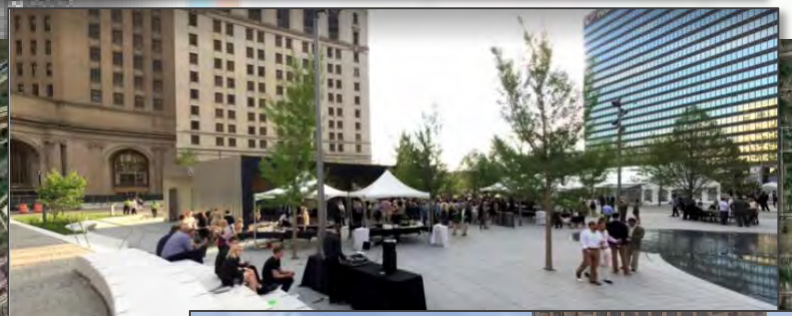
# Access & Circulation

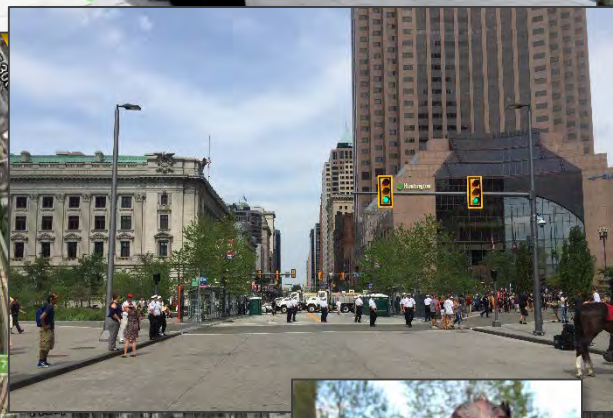
- Intersections are signalized
- Unsignalized intersections
  - *Convert to two T-intersections*
  - *Midway cycle track as median*
- Traffic access & circulation impacts

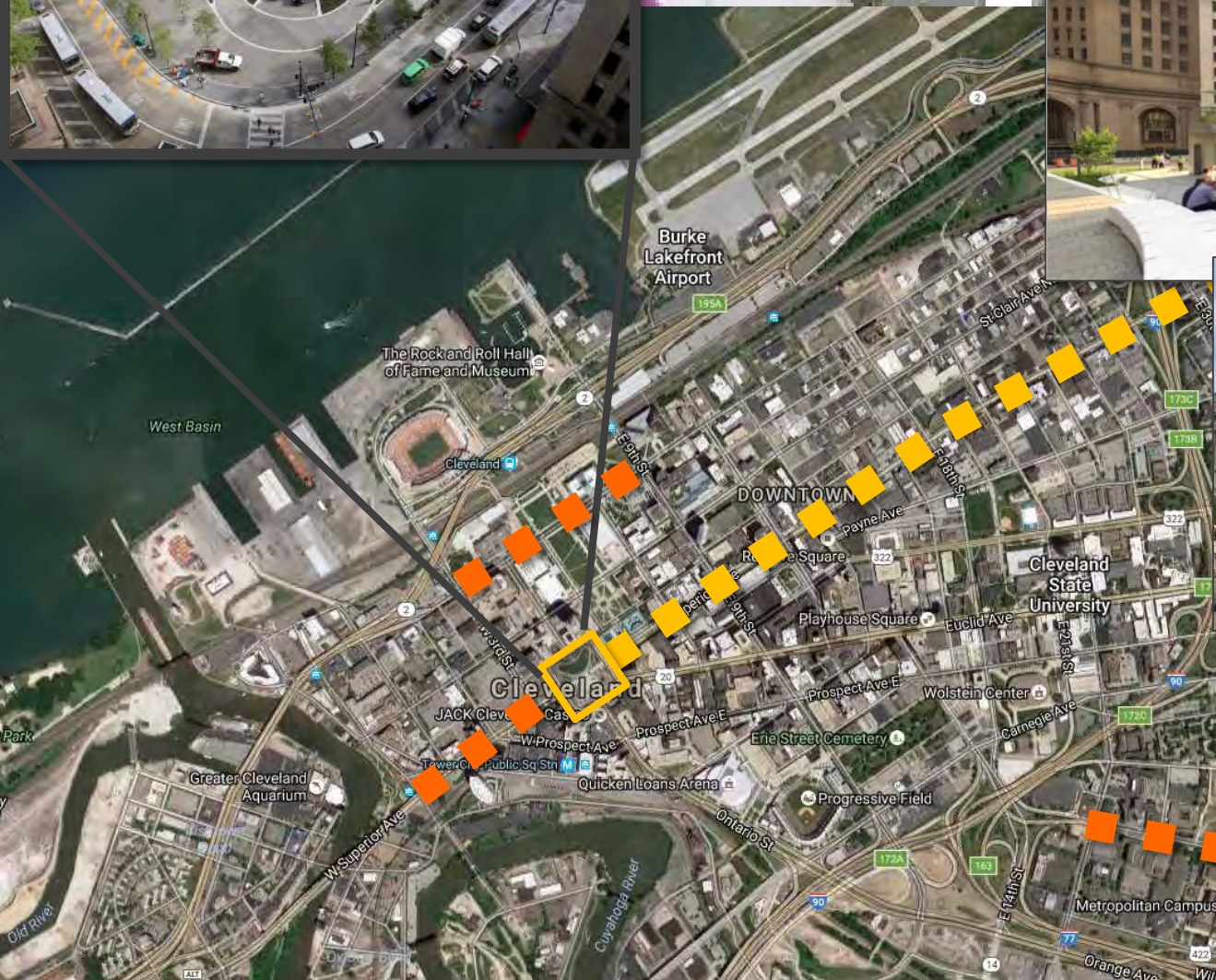


# Midway Illustrations

# Connecting Cleveland ...by Bike!







# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 11:30 AM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| BUD PICKENS | wrang/r812@.com | | |
| THERESE TELZROW | THERESE.TELZROW@DAD.COM | BIKE CLEVELAND. | |
| GEORGE KAMEN | GEORGEKAMEN2004@YAHOO.COM | | |
| Donn Anbus | City Planning. | | |
| JAMES CAMPBELL | POLEJIMMY@AOL.COM | W.C.D.C. | (216) 476-9216 |
| JACK CIFRANIC | J_CIFRANIC@AOL.COM | LORAIN AVE | |
| Tiffany Graham | tgraham@land-studio.org | LAND Studio | |
| MARTY CADER | MCADER@city.cleveland.oh.US | | |
| Annie Pease | APease@universitycircle.org | UCI | |
| Brad Masi | bradmasi444@gmail.com | Blue Heron Productions | 440-935-3100 |
| Anna Thornton | abt11@case.edu | Larchmere | |
| Catondra Nuye | cnuye@fairfaxcdc.org | FRDC | |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 11:30 AM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Mitch Zimmer | MZIMMER130@Hotmail | Bike Cleveland | |
| Jacob Van Sickle | Jacob@bikecleveland | Bike Cleveland | |
| Mike Schipper | mschipper@gcrta.org | GCRTA | |
| Ryan Niles | rniles@mpo.noaca.org | NOACA | |
| Arthur Schmidt | aschmidt@city.cleveland.oh.us | CPC | |
| Stacy Albin | salbin@city.cleveland.oh.us | Mayors Office of Sustainability | |
| Nancy Desmond | nd@clevelandmetroparks.com | | |
| Terry Schwarz | tschwarz@kent.edu | Cuy Urb Design Collab. | |
| Jim Sheehan | Jim@OhioCityCycles.org | Bike Co-op | 216 830 2667 |
| Richard Miller | rwm216@gmail | Downtown | |
| | | | |
| | | | |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 11:30 AM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Alex Baca | alex.baca@uhbikes.com | UHbikes bikeshare | (470)303-9092 |
| MIKE D. DOMENICO | MJD8000@GMAIL | EUCLID | |
| Calley Mersmann | | SRTS - CMSD | (770) 906-7919 |
| JASON KUHN | JASON@EDDYS.COM | EDDY'S BIKE SHOP | (4)779-1097 |
| Patricia Testeryak | ptesteryak@clevelandymca.org | YMCA | 716.244.2398 |
| JOHN BORSI | jpb114@case.edu | UC | (703) 343-6159 |
| Chris Heitmann | kibbitz77@gmail.com | Cleveland Heights | 917-902-5089 |
| Amy Snell | asnell@gcrta.org | RTA | 216 771 4144 |
| Audrey Kinsella | aek9@case.edu | PRCHN | |
| David Stack | Escrooge@sbcglobal.net | Resident | 216-476-3823 |
| | | | |
| | | | |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 11:30 AM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Kim Scott | kscott@city.cleveland.oh.us | City Planning | 664-3803 |
| Marka Fields | mfields@city.cleveland.oh.us | CPC | 1064-3465 |
| Kelly Coffman | kbc@clevelandmetroparks.com | Cleveland Metroparks | 635-3299 |
| Barb Clipp | bclipp@clevelandymca.org | YMCA | 216 385-5114 |
| Andy Leveto | andyleveto@gmail.com | University Circle | 814-282-1879 |
| Joyce Huang | jhuang@midtowncleveland.org | MIDTOWN CLE. | 216-391-5080 x103 |
| Tristan Wheeler | tristan.wheeler@gmail.com | Cleveland Public Library | 216-577-7079 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 11:30 AM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| TERRY METTER | TERRYMETTERJR @GMAIL.COM | DETROIT SHOREWAY | 216 369 9007 |
| Kerry McCormack | kmccormack@clevelandcitycouncil.org | Cle City Council | 664-2604 |
| JOHN DIPO | TRH5512 @YAHOO.COM | OCBC | 216 262 7341 |
| JOHN MCGOVERN | JOHNMMCGOVERN@GMAIL.COM | CLIFTON-BALTIC | 216 375-0450 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 4:00 PM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Greg Overberg | goverberg@city.cleveland.oh.us | City Planning | 216-664-3812 |
| DAVE LAWRENCE | DLAWRENCE599@GMAIL.COM | OCBC | |
| "Bro" Bob Saffold | garth_saffold@attnet | Nazareth, Inc | 216.333.7299 |
| Elise Yablonsky | eyablonsky@universitycircle.org | University Circle, Inc. | 216-707-4602 |
| Lawrence Kuh | Kuhfamily@gmail.com | Bay Village Bike to School | ——— |
| Jon Eckerle | JEckerle@GMail.com | Stow R&I | 440.281.1944 |
| Jessica Trinisonno | jess.trinisonno@gmail.com | ~~Euclid~~ Euclid | |
| ~~JAMES~~ SONNHALTER | JSONNHALTER@CUYAHOGACOUNTY.US | COUNTY PLANNING | (216)443-3713 |
| Krissie Wells | Kwells54@gmail | Ohio City | 4193029574 |
| Adam Davenport | adam.f.davenport@gmail.com | DSEDO | 440 334 3086 |
| Chris Stocking | Christopher.Stalling@gmail.com | Cle for Transit | 440-376-8400 |
| Rosemary Mudry | rosemarym@oldbrooklyn.com | Old Brooklyn CDC | 216 459 1000 |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 4:00 PM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| ALYSSA WEBB | alyssawebb@hotmail.com | bike cleveland member Lakewood off Madison | 216 408 0038 |
| T SOMMERFELT | tsommerfelt@gmail.com | THE FRANKLIN CHATEAU | |
| Melissa Thompson | mthompson@mpo.noaca.org | NOACA | 216 241 2414 |
| ALISA BOLES | alisa.boles@gmail.com | EUCLID | 216 650 0055 |
| M.L. CADER | MCADER@CITY.CLEVELAND.OH.US | | (216)-664-2957 |
| Paola Balbo | Paola.balbo@clr.org | CPL | 216-623-2838 |
| Ken Schneider | Kschneider@canalwaypartners.com | Canalway Partners | 216/520-1825 |
| John Motl | john.motl@dot.ohio.gov | ODOT | (216) 584-2085 |
| Kevin Cronin | kevin@kevincronin.us | AHA | 216 377 0615 |
| Angelo Trivisonno | | Euclid Ave | |
| Chris Garland | cgarland@clevelandohio.gov | CPC | 216 664-3819 |
| TIM CARROLL | bikedork@protonmail.com | (BIKE CLEVELAND MEMBER) SUPERIOR AVE | 216 386 0172 |

# Midway Cycle Track Public Meeting

Cleveland Public Library

December 7, 2016 at 4:00 PM

| Name | Email | Organization or Neighborhood/Street | Phone |
|---|---|---|---|
| Jordan Abbott | ABBott.JordanD8@gmail.com | Old Brooklyn - Valley Rd | 716-969-9877 |
| Deltrece Daniels | 3deecycles@gmail.com | | |
| Tasmin Andres | tasminandres@gmail | Foundation Center | 440 983 7452 |
| Joshua Goran | joshuagoran@gmail.com | Detroit-Shoreway JOY MACHINES | 330-474-9515 |
| Kort Dakin | *Sockgloves@gmail.com | | 330-221-1871 |
| Bruce Mathis | bruce.mathis@ymail | | |
| Rob Thompson | rthompson2491@gmail.com | Spin Bike Shop | 216 308 1447 |
| Alusan Lukacsy Love | alukacsy.love@gmail.com | | |
| | | | |
| | | | |
| | | | |
| | | | |