

US-23 (I-94 to M-14) Coordination Meeting

Agency and Government Group
Local Advisory Group



May 22, 2024

AGENDA

1. Introductions
2. Project Direction Change
3. Engagement Update
4. Project Study Area and Scope Revisions
5. New Alternatives
6. Bridges
7. The Interchanges
8. Evaluation and Environmental Update
9. Aesthetic Guide - Themes
10. Schedule and Next Steps



Agency and Government Group
Local Advisory Group

PROJECT DIRECTION CHANGE

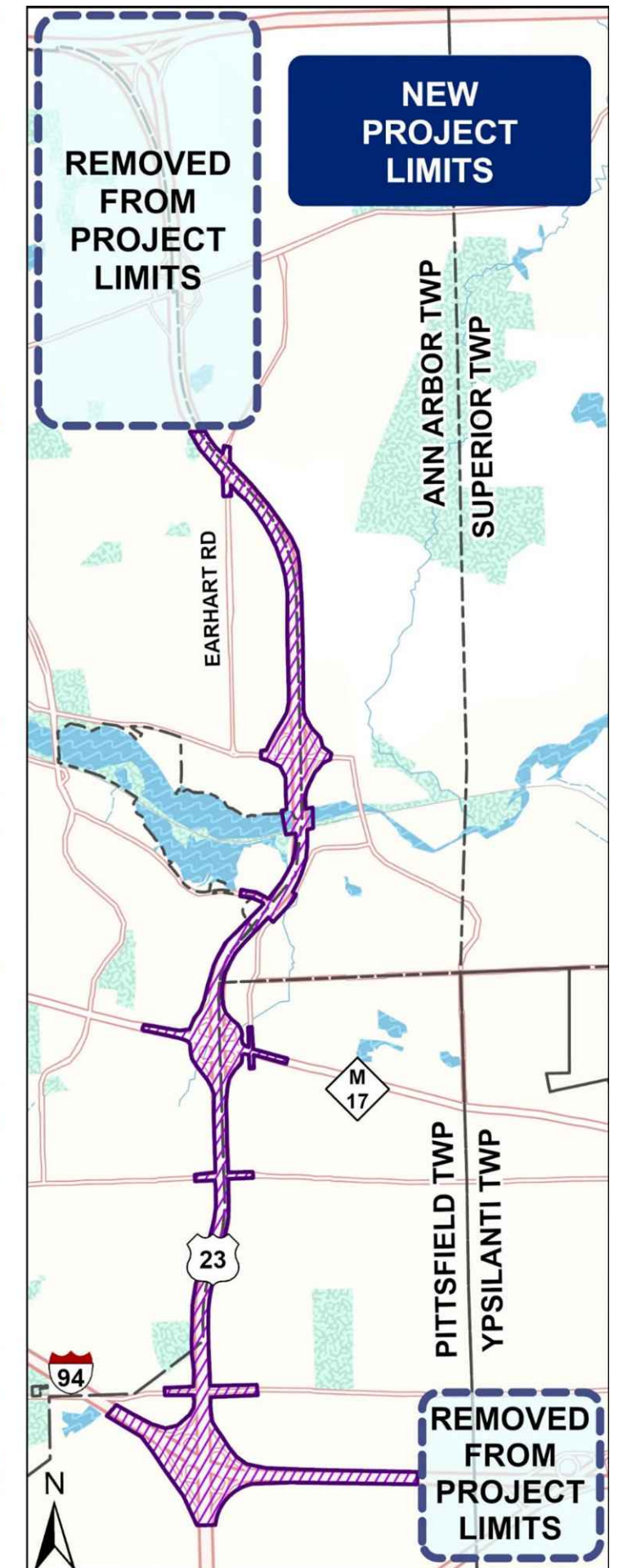
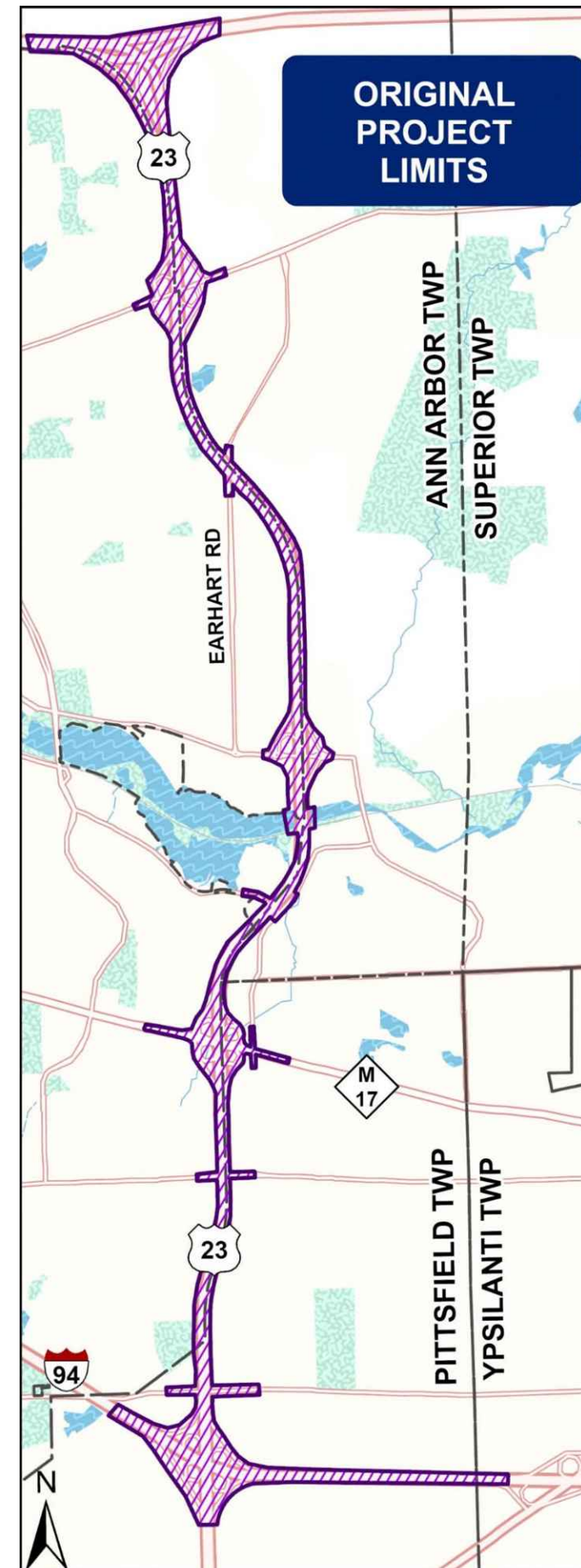


May 22, 2024

PROJECT DIRECTION CHANGE

Through agency, stakeholder, and public feedback, the direction of the project has changed:

- Three US-23 freeway mainline alternatives dismissed.
- Revised limits along I-94, east of US-23 interchange.
 - New limits will still accommodate ramp improvements.
- Revised limits on US-23. New northern study limit will end just north of Earhart Road.
 - US-23 freeway improvements from I-94 to south side of Geddes Road.



RATIONALE FOR REMOVAL OF FREEWAY ALTERNATIVES

- Public input received online and at the public in-person workshops.
- MDOT region funding focus is shifting from capacity improvements to maintaining existing infrastructure.
- Continue to address bridge condition.
- Opinions expressed by municipal officials concerned about:
 - Potential induced additional traffic.
 - Multimodal connectivity and accommodations.
 - Concern about increased impervious pavement.
- Remote commuter lots for transit to Ann Arbor could reduce traffic volumes along US-23. The Ride would be unlikely to use US-23 between Plymouth and M-17.
- Changes have been discussed with FHWA. MDOT will continue to coordinate this project with FHWA.

ENGAGEMENT UPDATE

May 22, 2024

ENGAGEMENT UPDATE

Ann Arbor Township Meeting #2

- Overview of environmental review process, traffic volumes, and US-23 freeway and interchange alternatives
- Multimodal connections

Ann Arbor Parks Advisory Commission

- Temporary impact to Gallup Park Pathway
- Concepts being developed for trail detour and construction access

TheRide Coordination Meetings #2 and #3

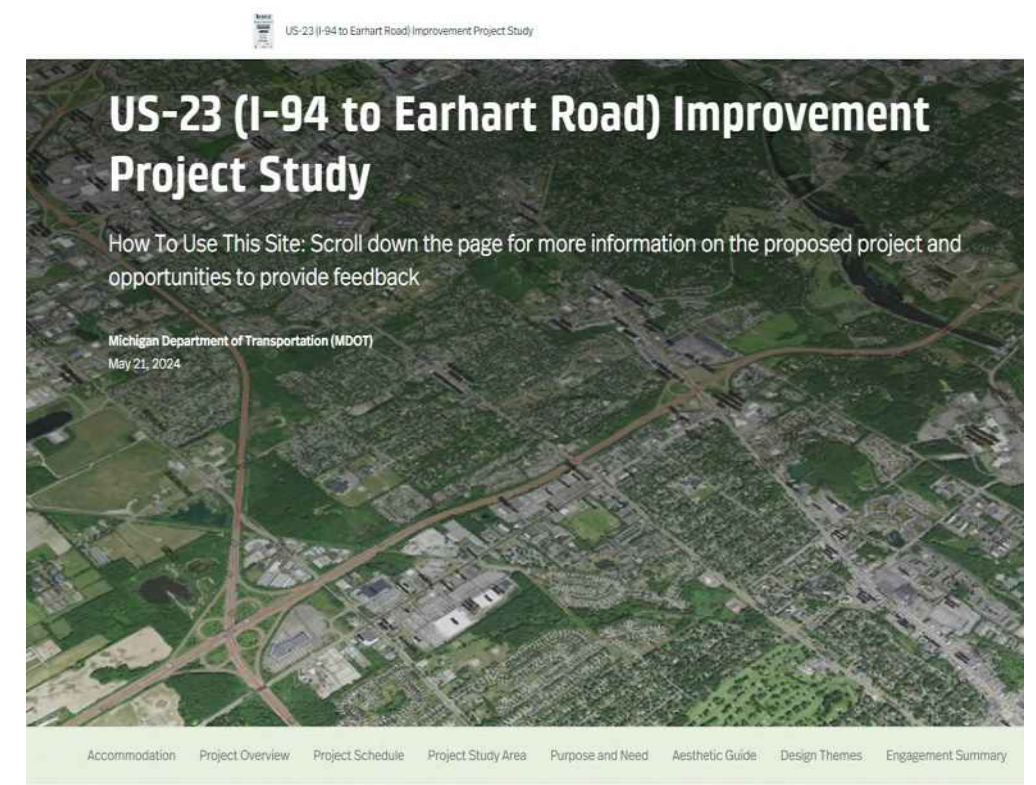
- Temporary trail closure with transit detour
- Carpool lot vision

Public Open House #2

- More than 183 attendees and 350 comments received
- Workshop boards with content on US-23 freeway and interchange alternatives, existing conditions and aesthetic guide
- StoryMap was opened Feb. 2, 2024

Online Communications

- Aesthetics Survey - 32 responses
- E-mail, website and StoryMap - 331 comments
- Social Pinpoint feedback - 290 comments



PROJECT STUDY AREA AND SCOPE REVISIONS



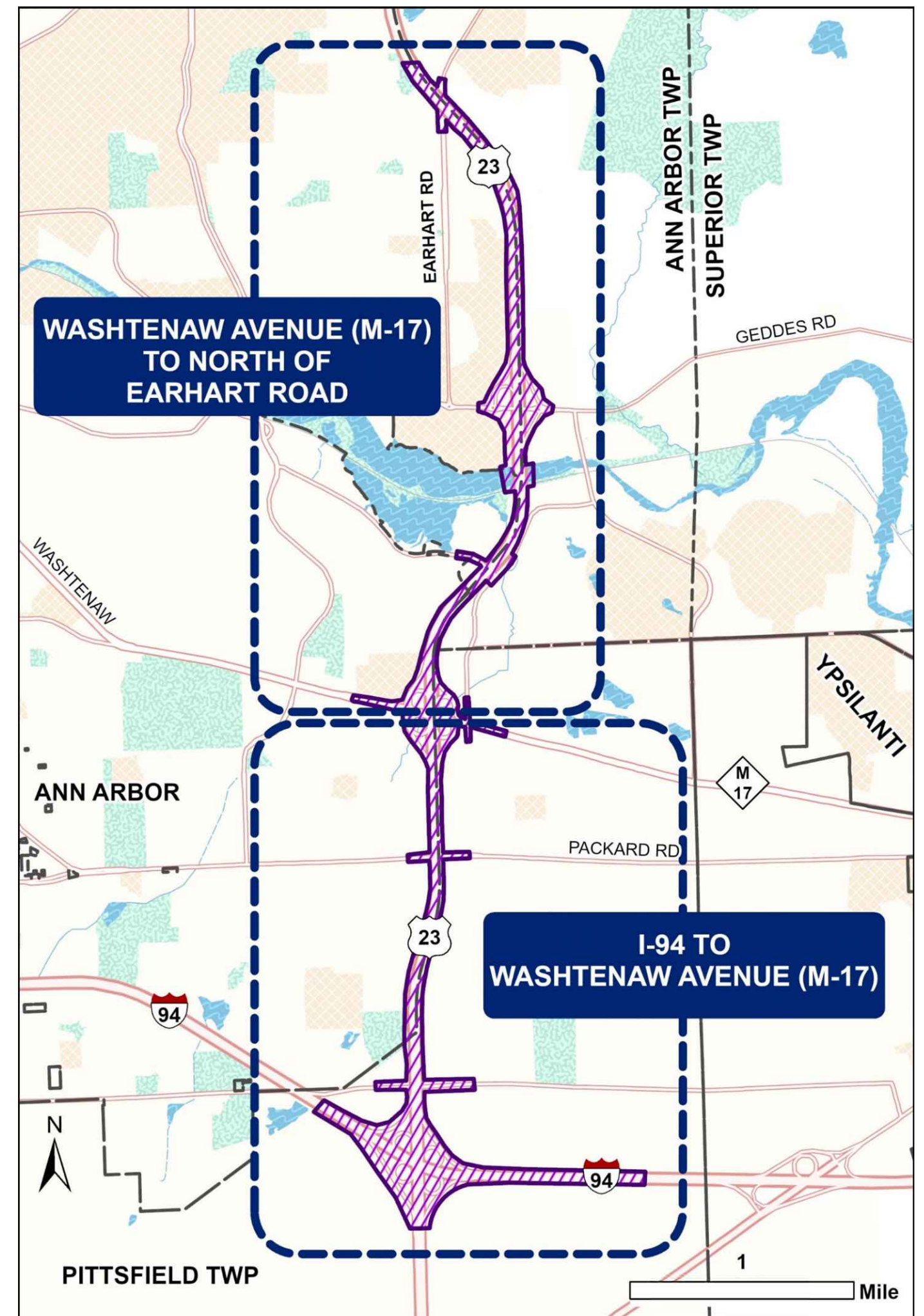
PROJECT STUDY AREA

Details of Changes

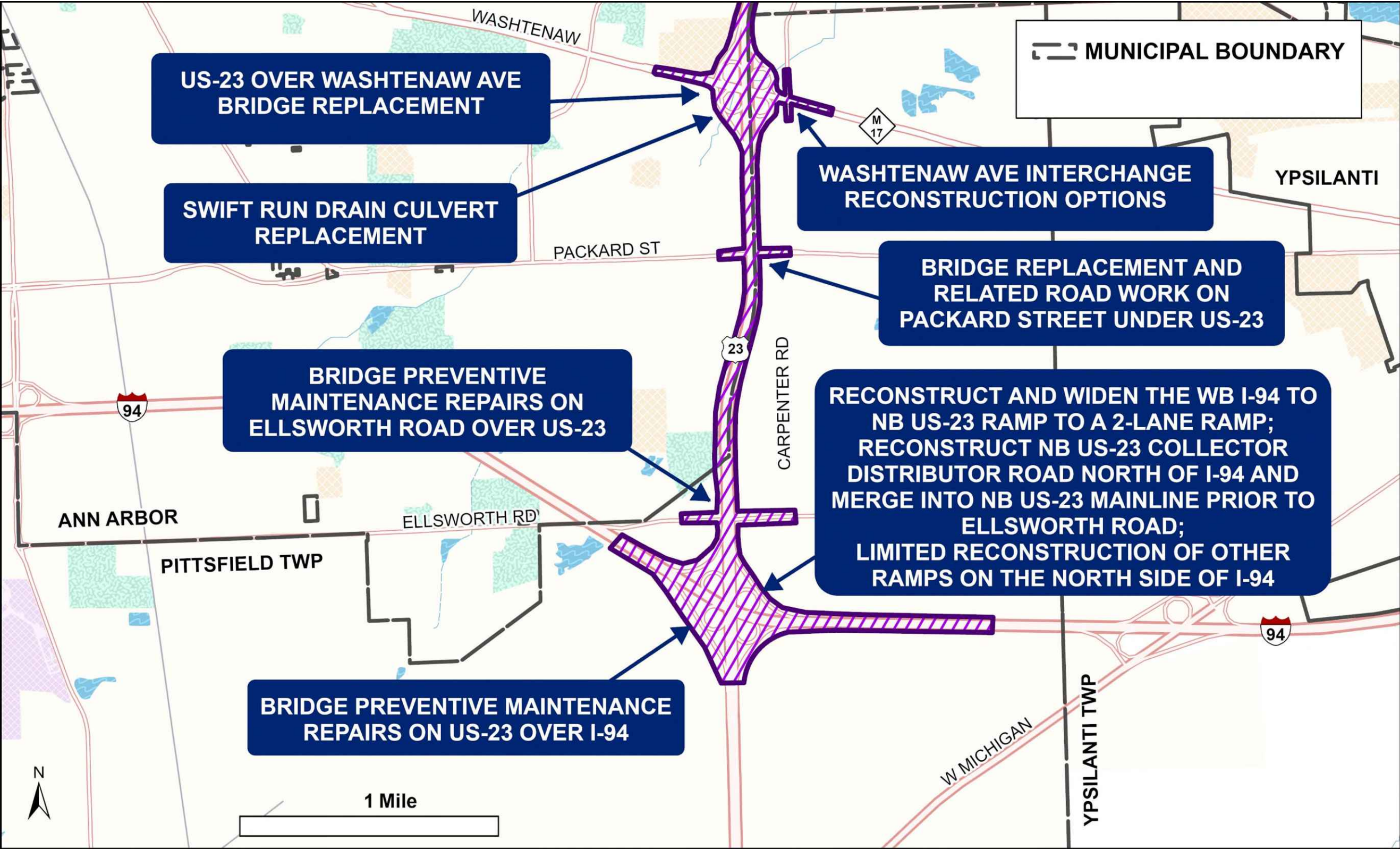
- Revised project study limits
- Dismiss flex lane, high-occupancy vehicle lane, and general-purpose Lane build alternatives
- Added work on several bridges, including planned accommodations for multimodal needs
- Environmental Assessment (EA) document will include "future project considerations" such as pedestrian improvements to the US-23 bridge at Plymouth Road

Northbound and Southbound US-23 Bridge Replacement Locations

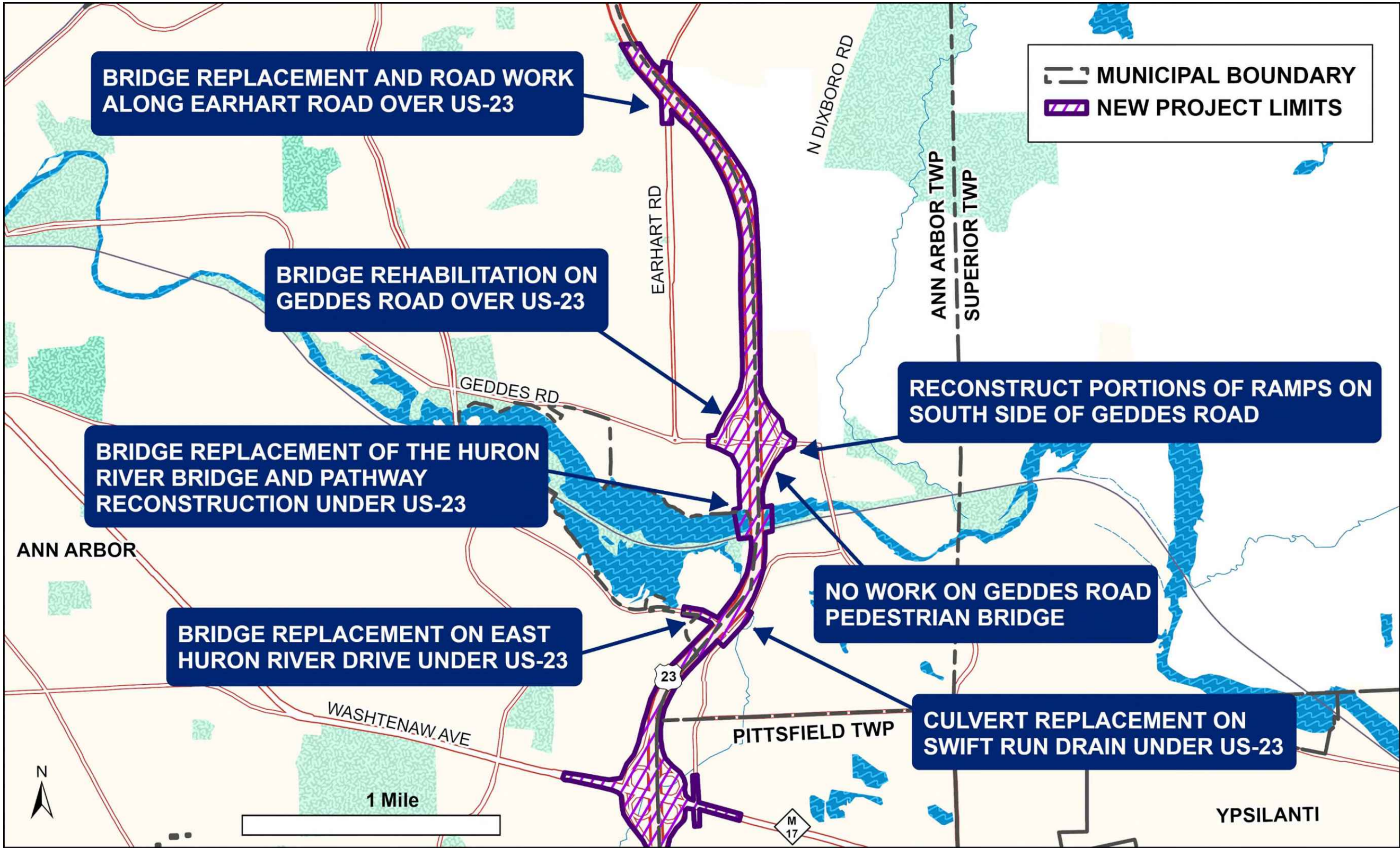
- Earhart Road
- Packard Street
- M-17 (Washtenaw Avenue)
- East Huron River Drive
- Huron River



PROJECT STUDY AREA: US-23 FROM I-94 TO M-17 (WASHTENAW AVENUE)



PROJECT STUDY AREA: US-23 FROM M-17 (WASHTENAW AVENUE) TO EARHART ROAD



ALTERNATIVES

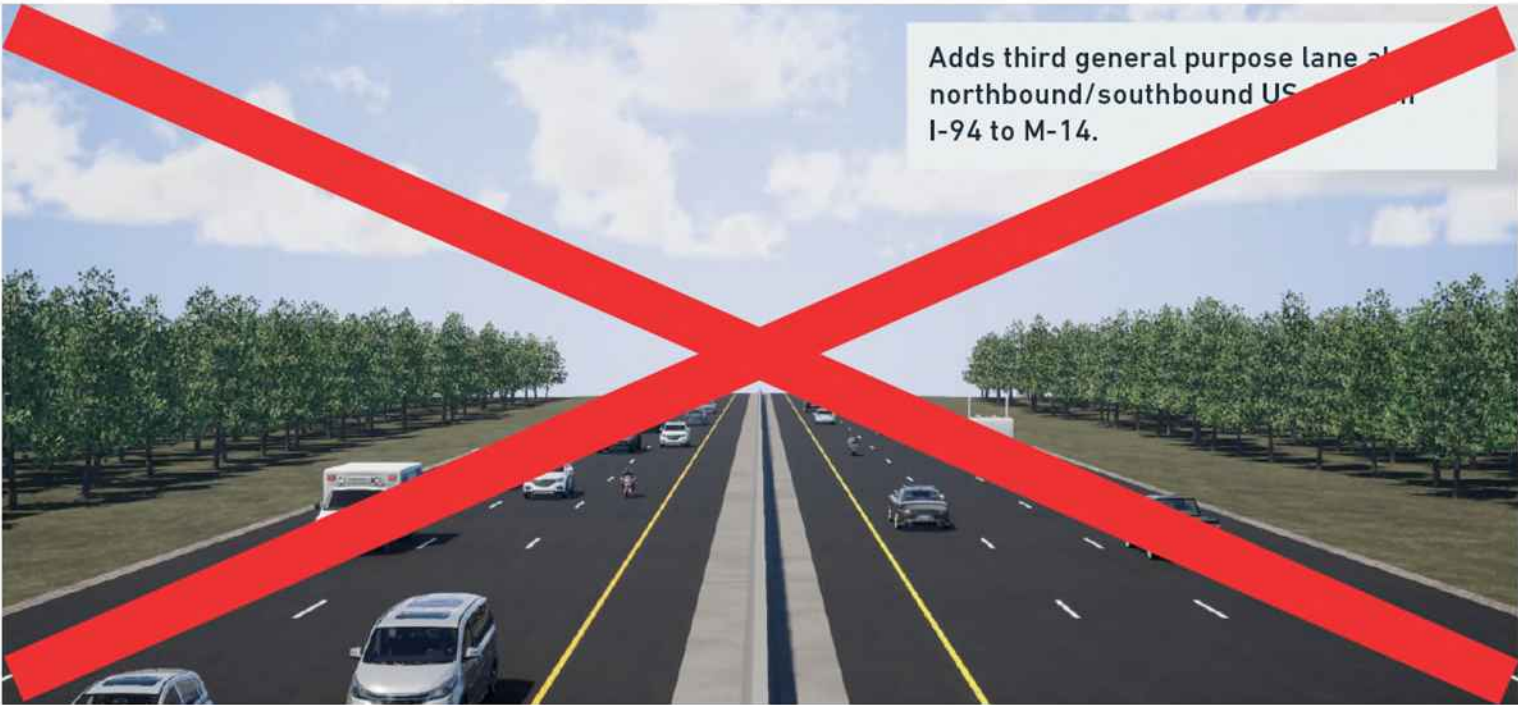


ORIGINAL MAINLINE FREEWAY ALTERNATIVES

NO BUILD (DO NOTHING)



GENERAL PURPOSE LANE



HIGH-OCCUPANCY VEHICLE (HOV LANE)



FLEX LANE



 Eliminated from consideration moving forward

THE RIDE'S LONG-TERM TRANSIT STRATEGY

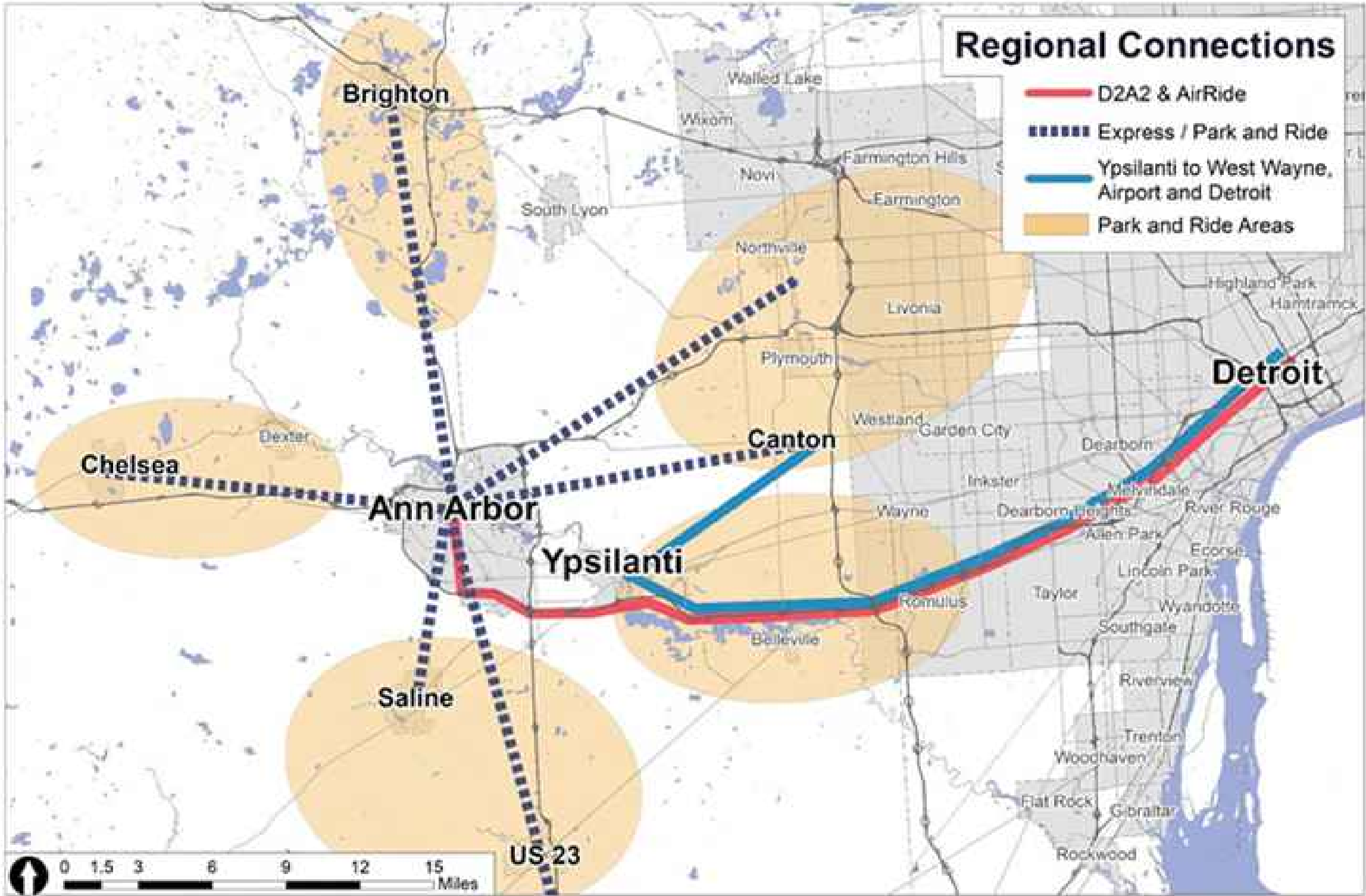


Figure 33 – TheRide Recommended Regional Connections in 2045



MDOT AND THE RIDE TRANSIT ALTERNATIVES MEETING

1. Estimate the number of vehicles that would need to be transferred to transit to eliminate the need for additional through-lanes on US-23 between I-94 and M-14.
2. Review US-23 EA evaluation criteria.
3. Bus-on-shoulder operations.
4. Safety-based alternatives.
5. US-23/M-17(Washtenaw Avenue) interchange alternatives and transit operations.
6. Stand-alone transit alternative.
7. MDOT environmental screen of potential carpool lots.

MDOT AND THE RIDE TRANSIT ALTERNATIVES MEETING



2. The current US-23 EA evaluation criteria is being reviewed to determine whether additions or edits are needed pertaining to transit.



3. Bus-on-shoulder operations will be explored further.



5. The MDOT consultant team is reviewing each of the US-23/M-17(Washtenaw Avenue) interchange alternatives with respect to their ability to accommodate future transit plans along Washtenaw Avenue.

These action items **are** being further explored and will be further discussed with TheRide staff.

MDOT AND THE RIDE TRANSIT ALTERNATIVES MEETING



7. MDOT will review the carpool lots generally and provide a “desktop” or scoping review to look at high-risk areas (threatened and endangered species, cultural resources, historic preservation, etc.).

Three candidate locations were reviewed by the MDOT NEPA team

Site 1. Within the US-23/Willis Road interchange, York Township

Site 2. US-23/US-12 (Michigan Avenue) area, Pittsfield Township

Site 3. Within the M-14/Gottfredson Road interchange, Salem Township

- All sites are potentially usable in the future using federal funds with certain restrictions and mitigation.
- The desktop scan will be shared with The Ride and included in the EA document.

MDOT AND THE RIDE TRANSIT ALTERNATIVES MEETING



1. The MDOT consultant team will estimate the number of vehicles that would need to be transferred to transit to eliminate the need for additional through-lanes on US-23 between I-94 and M-14.



4. An additional safety alternative to be looked at based on agency and stakeholder feedback, plus funding issues, to address safety issues that could positively enhance transit use.



6. A new stand-alone transit alternative was also discussed.

These action items have **not** been further explored due to the following:

1. Requires additional feasibility outside of the EA work to determine if there are enough fiscal and operational opportunities to include as reasonable and feasible in the EA.
2. MDOT changes to the project scope and alternatives.
 - a. It will be noted in the EA that there may need to be other future regional transportation studies led by a regional planning agency.

NEW ALTERNATIVE



A NEW US-23 MAINLINE FREEWAY ALTERNATIVE



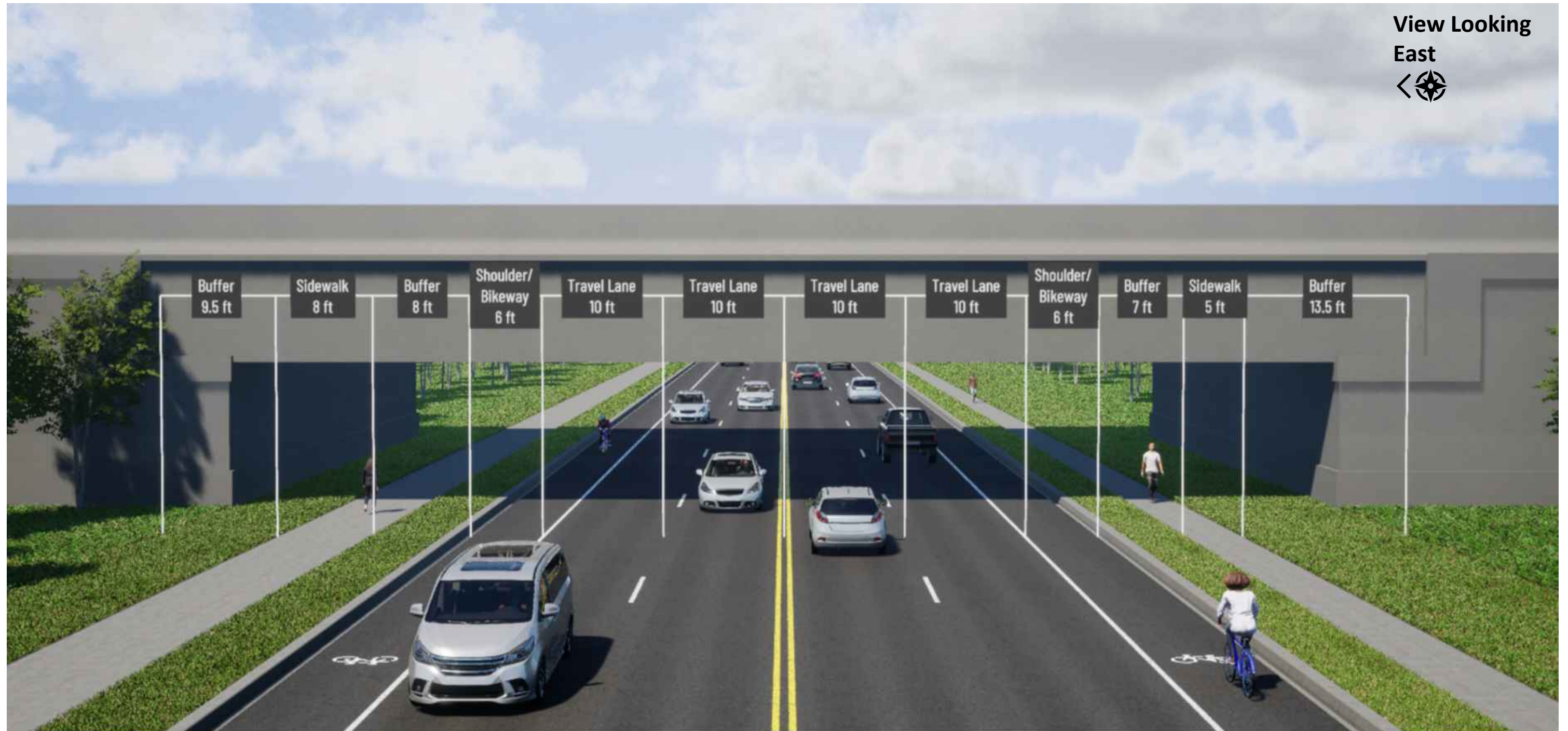
Safely Connecting Communities Alternative

- Rebuild two lanes in each direction.
- Improve to accommodate future transit plans (I-94 to M-17).
- Improve the westbound I-94 ramp to northbound US-23.
- Rebuild bridges to accommodate multimodal improvements.
- Address geometric deficiencies and safety issues.

BRIDGES

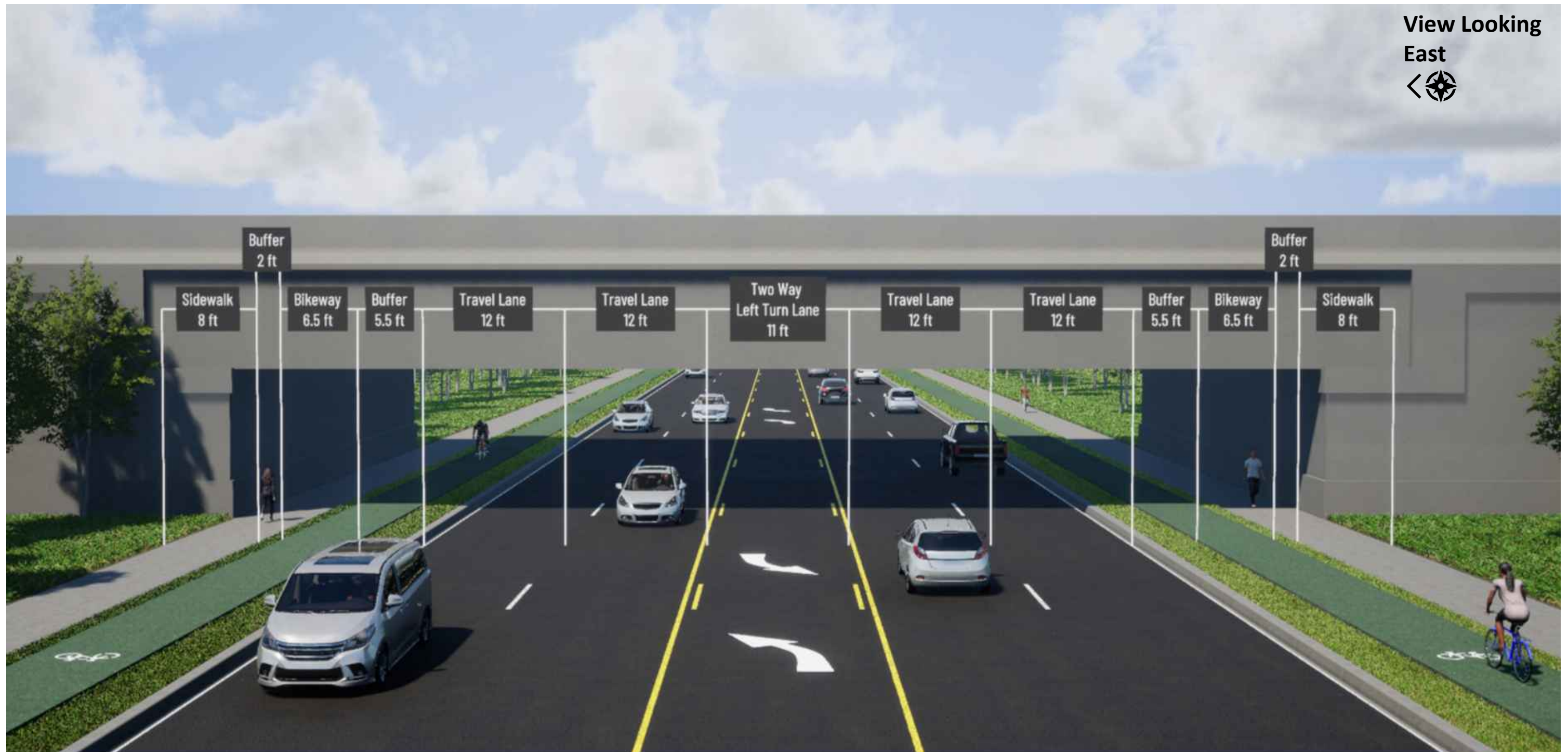


US-23 BRIDGE OVER PACKARD STREET (WHAT MDOT WILL DO)



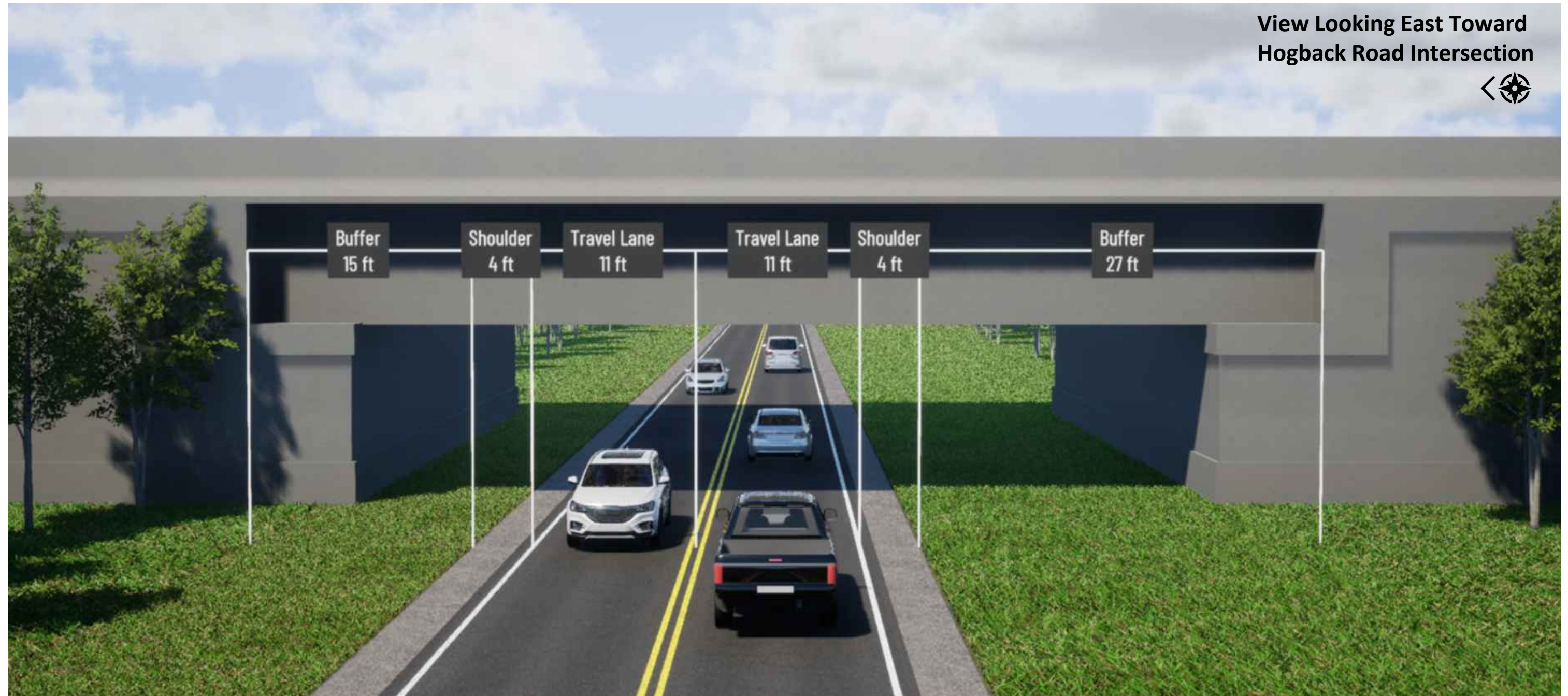
- Proposed bridge will accommodate future configuration of Packard Street under US-23.
- The proposed work on Packard Street will be limited to what is needed to replace the bridge.
- Rebuilding Packard Street lanes is not anticipated as part of this project.

US-23 BRIDGE OVER PACKARD STREET (MDOT, CITY AND COUNTY)



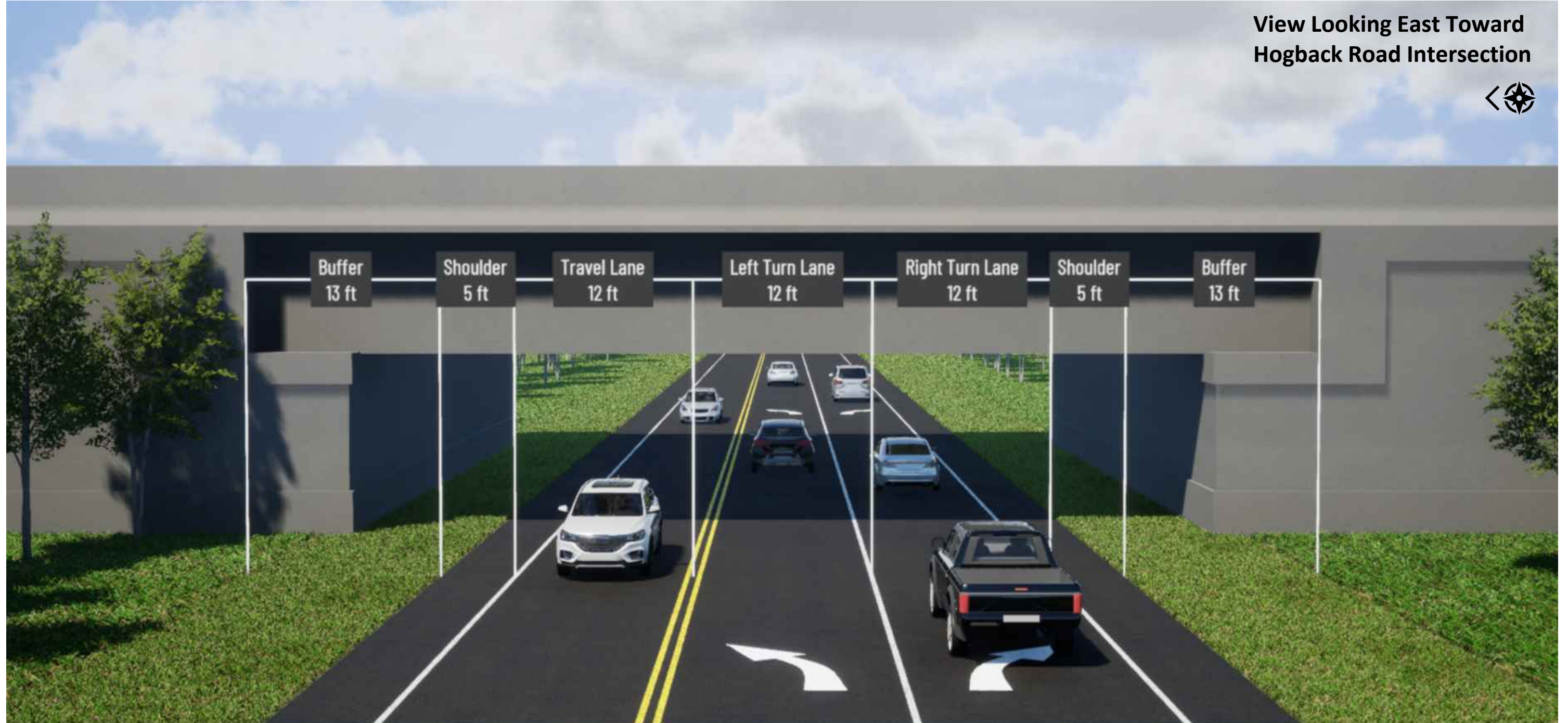
- Proposed bridge will accommodate future configuration of Packard Street under US-23.

US-23 BRIDGE OVER EAST HURON RIVER DRIVE (WHAT MDOT WILL DO)



- Proposed bridge will accommodate future configuration of East Huron River Drive under US-23.
- The proposed work on East Huron River Drive with this project will be limited to what is needed to replace the bridge.
- Rebuilding East Huron River Drive lanes is not anticipated as part of this project.

US-23 BRIDGE OVER EAST HURON RIVER DRIVE (MDOT AND COUNTY)



- Proposed bridge will accommodate future configuration of East Huron River Drive under US-23.

EARHART ROAD BRIDGE (WHAT MDOT WILL DO)



- Bridge will provide accommodation for cyclists, connecting the city of Ann Arbor bike lanes with the township bike-friendly shoulders.
- Bridge abutments and piers will be built wide enough to accommodate the addition of a sidewalk in the future.

EARHART ROAD BRIDGE (MDOT AND COUNTY)

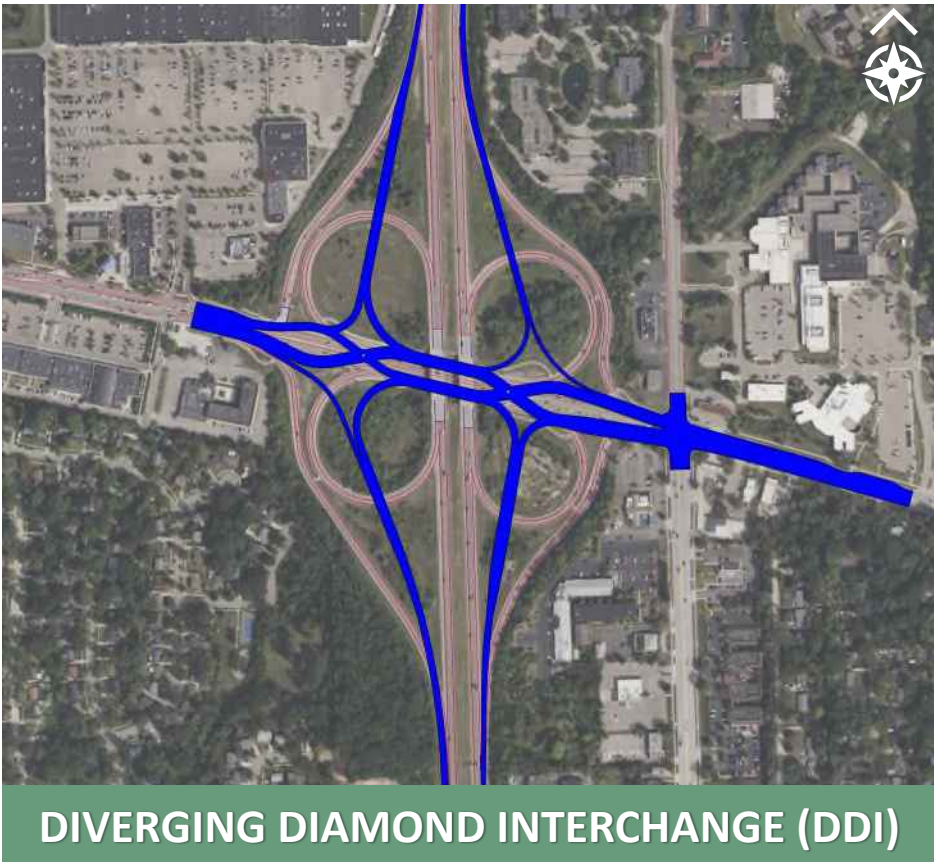
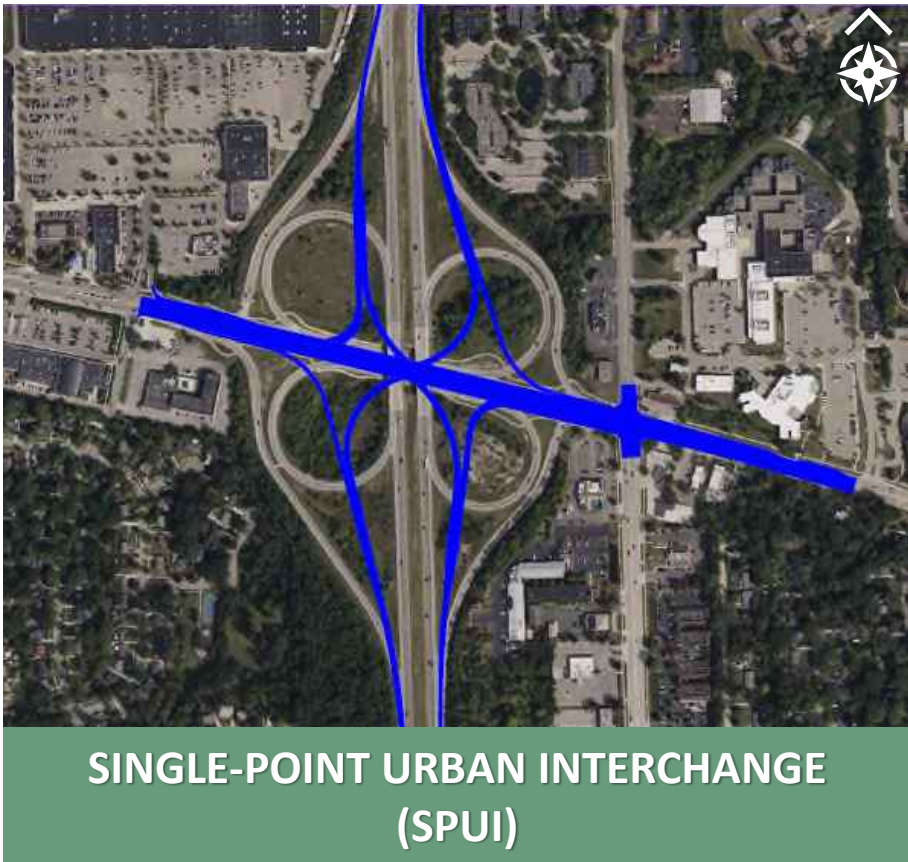
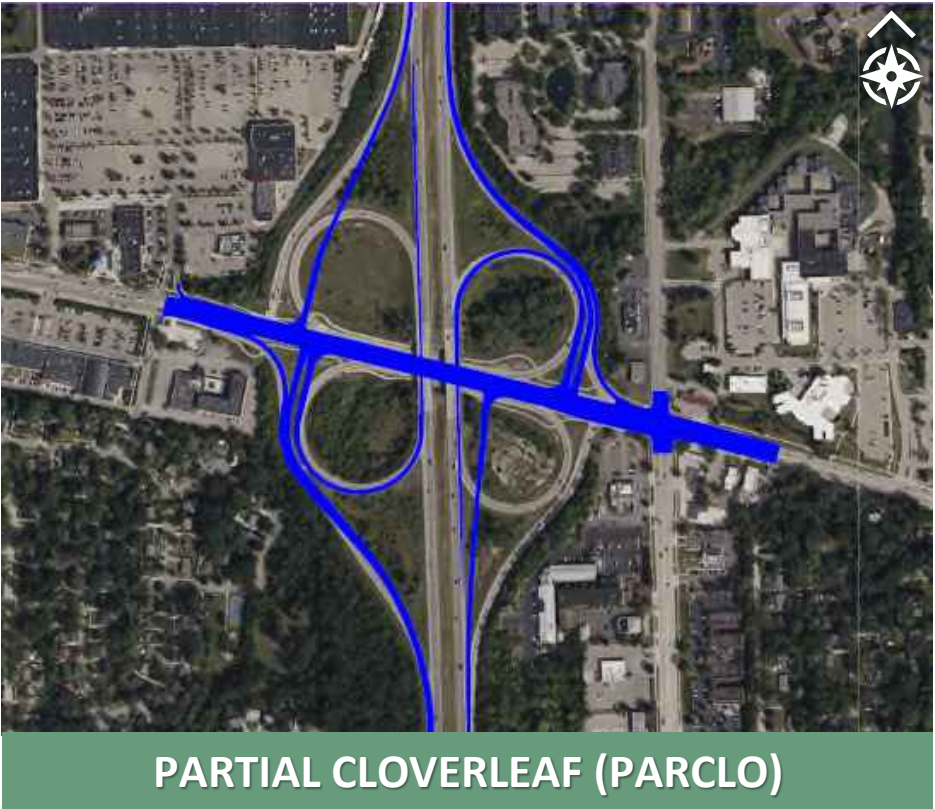


- Sidewalk can be added in the future with additional beam and deck added on to the east side of bridge.

THE INTERCHANGES



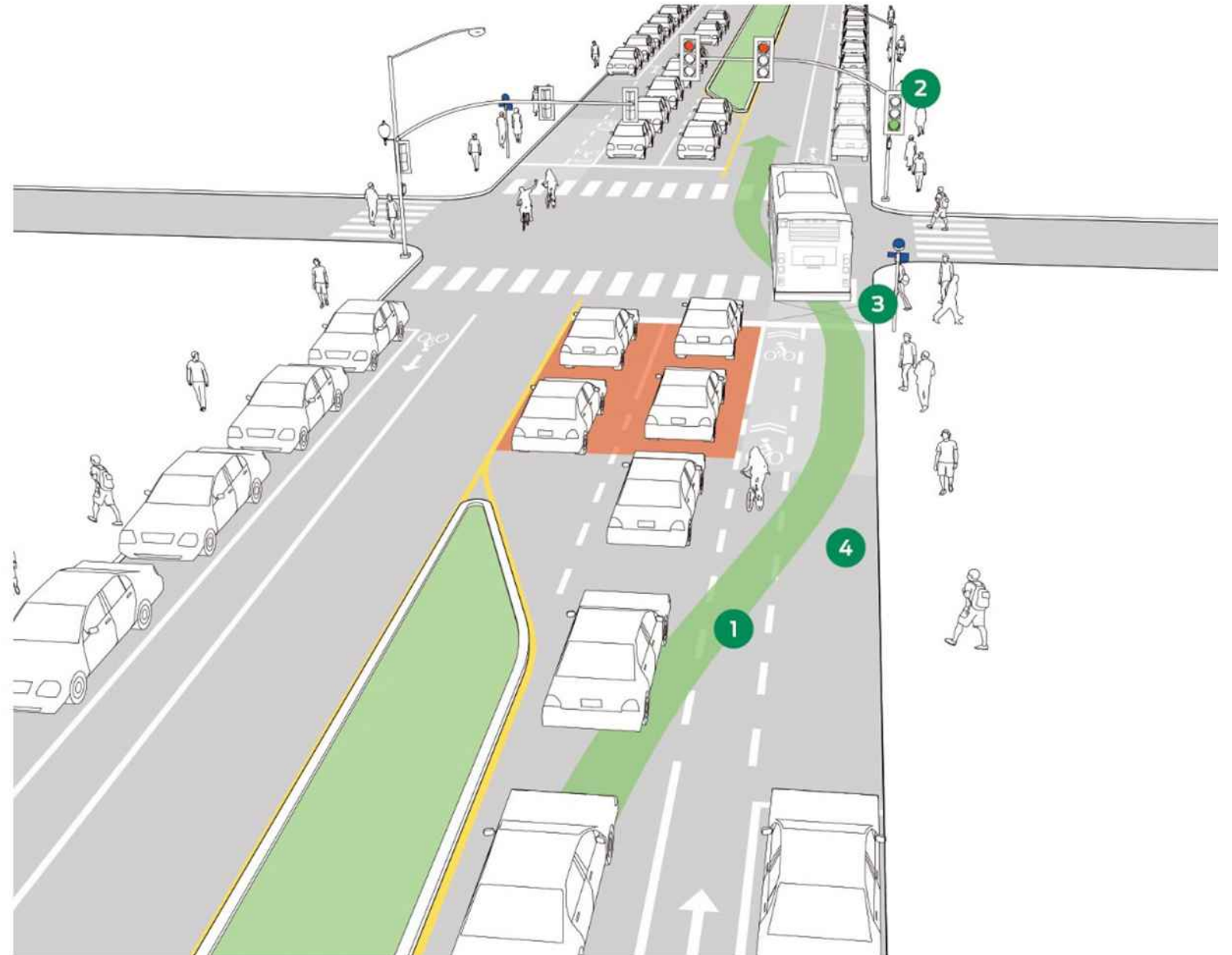
M-17 INTERCHANGE ALTERNATIVES (NO CHANGE)



TRANSIT CONSIDERATIONS IN THE INTERCHANGE

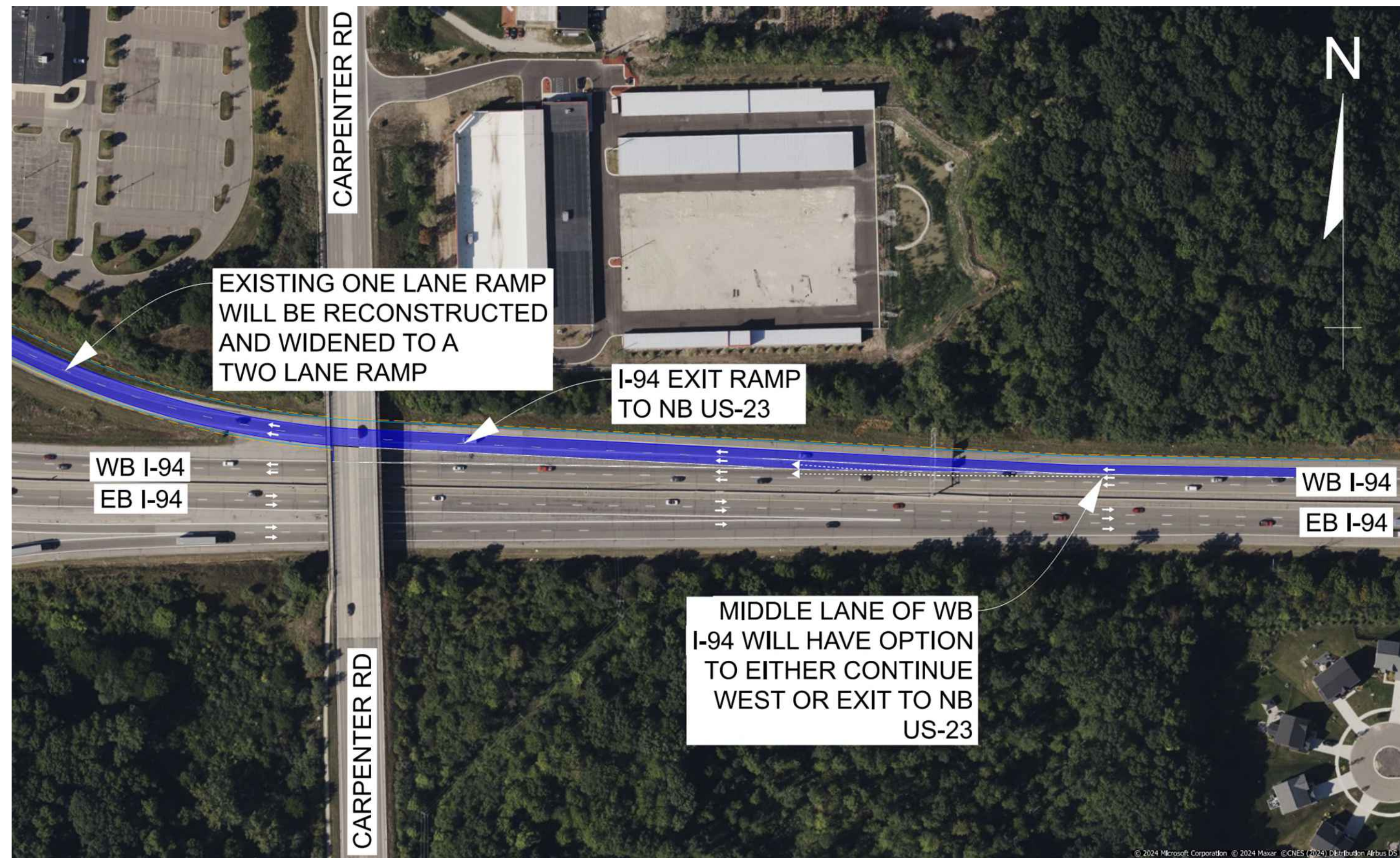
M-17 (Washtenaw Avenue) interchange alternatives are being evaluated to determine the future impacts of:

- Queue-jump lanes along Washtenaw Avenue at Carpenter Road and Yost Boulevard (Arborland) to allow transit to start before traffic leaving the intersection
- Dedicated eastbound and westbound transit lanes
- Reviewing impacts on multimodal path of adding transit lanes

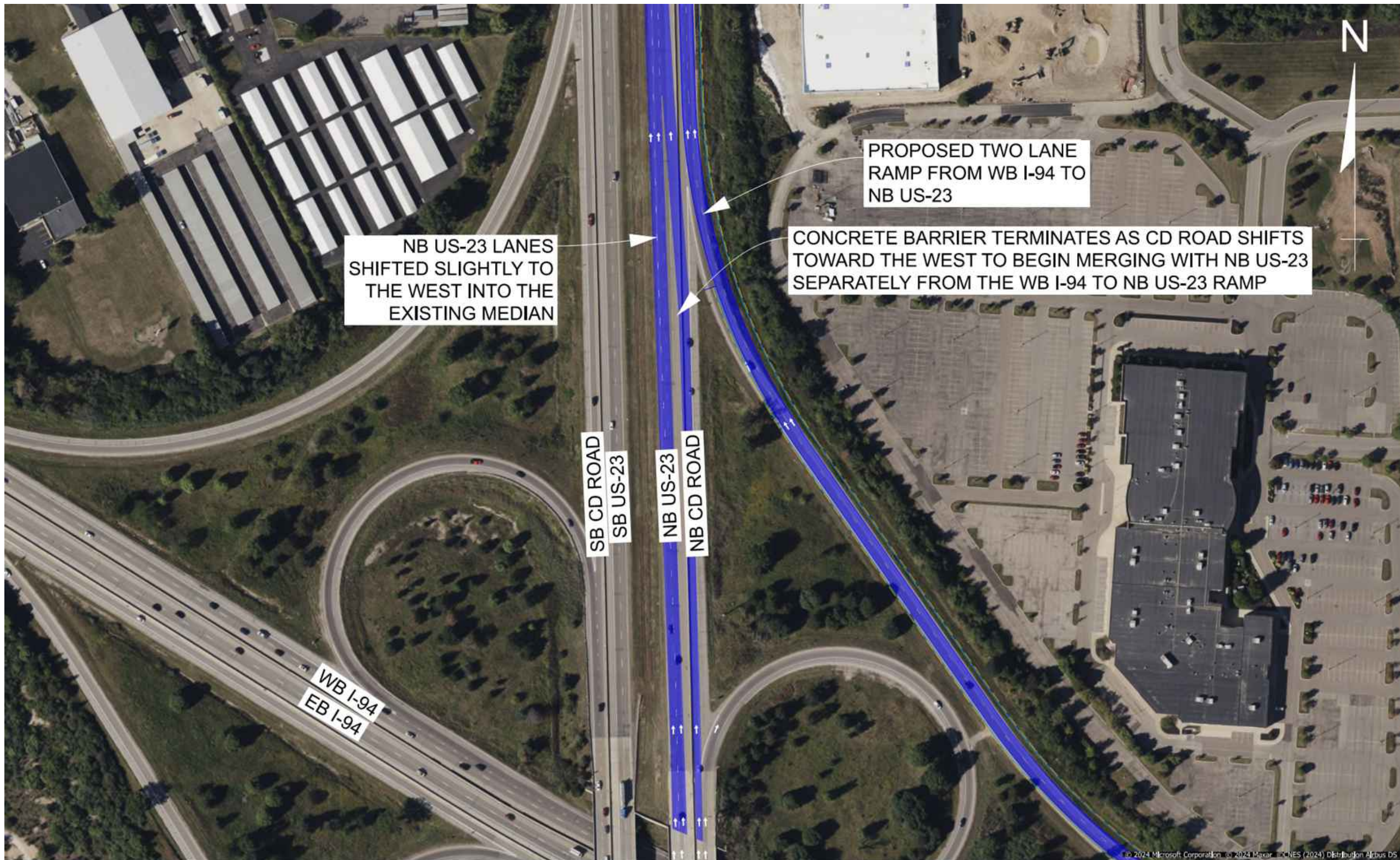


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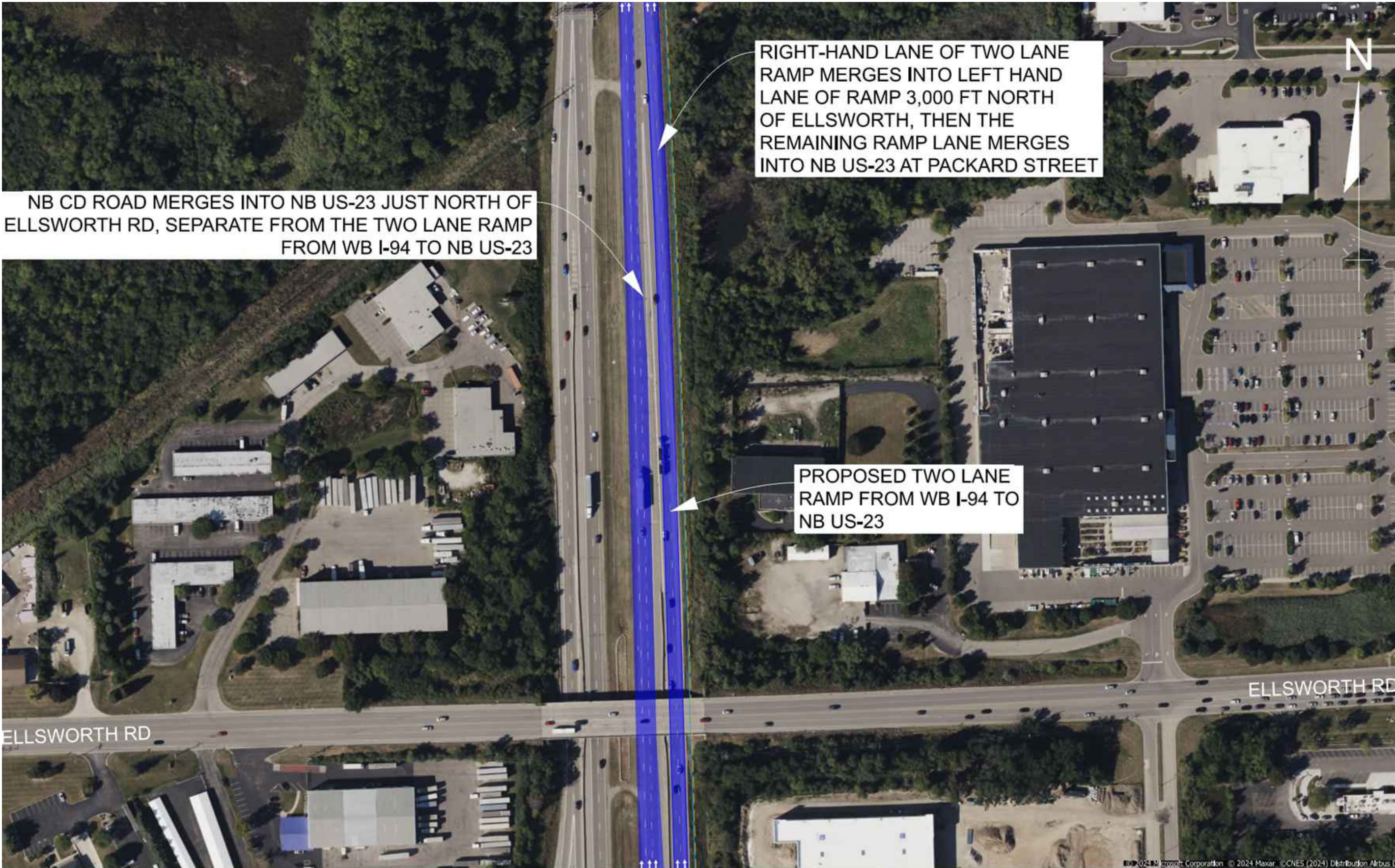
US-23/I-94 INTERCHANGE MODIFICATIONS



US-23/I-94 INTERCHANGE MODIFICATIONS



US-23/I-94 INTERCHANGE MODIFICATIONS



NEW COMBINED ALTERNATIVES FOR THE EA

Moving forward, the EA will evaluate the Safely Connecting Communities Alternative with upgrades to the bridges, I-94 ramp improvements, and the four interchange options for the M-17 (Washtenaw Avenue) interchange:

- No build (do nothing)
- Partial cloverleaf
- DDI
- SPUI

EVALUATION AND ENVIRONMENTAL UPDATE



PURPOSE AND GOALS



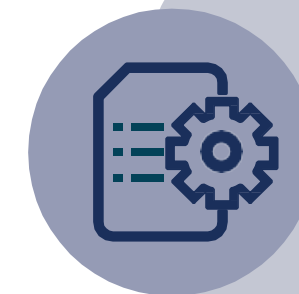
Safe operations for all users along and crossing the corridor.



Address safety ~~and peak-hour congestion~~ along the corridor and at key interchanges.



Embrace the Michigan Department of Transportation's Moving Michigan Toward Zero Deaths initiative.



Create aesthetically pleasing infrastructure and landscape elements, with community input, to complement the communities.



Provide an adaptive series of solutions to meet changing mobility needs, including use of transit ~~and existing park and ride lot~~.



Embrace the Ann Arbor Moving Together Toward Vision Zero Comprehensive Transportation Plan.

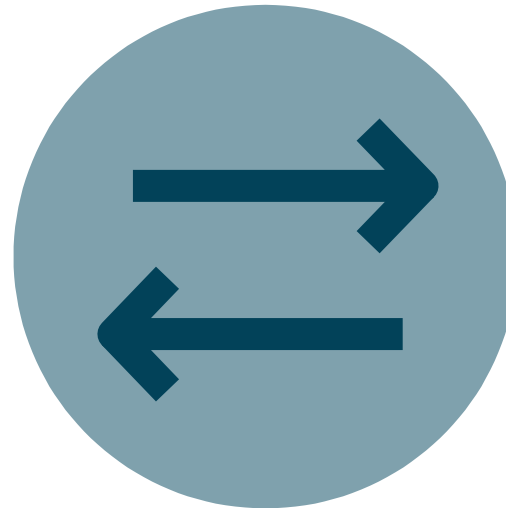


Offer multiple opportunities for input from agencies, stakeholders, the communities, and the public in selection of a preferred alternative.

UPDATED EVALUATION CRITERIA



**MOBILITY,
~~OPERATIONS~~ AND
SAFETY**



**COMMUNITY
ACCESS AND
CIRCULATION**



**SOCIAL AND
ECONOMIC**



ENVIRONMENT



COST

ORIGINAL EVALUATION CRITERIA

US-23 Mainline:

Evaluation Categories	Evaluation Criteria
Mobility, Operations, & Safety for All Users	
Operations	Based on traffic projections, does the alternative reduce congestion and if so, to what degree would it be reduced?
Vehicular Safety	Does the project alternative improve safety for motorized users?
Transit Mobility	Does the project alternative provide opportunities for improved transit service?
Non-Motorized Safety & Mobility	Does the project alternative improve connectivity, circulation, accessibility, and safety for the non-motorized network?
Truck Mobility	Does the project alternative improve goods movement?
Community Access and Circulation	
Vehicular	Does the project improve community circulation in and around the corridor?
Transit	Does the project alternative improve circulation and accessibility for transit users?
Environment	
Noise	How does the project alternative affect noise to the surrounding land uses?
Air Quality	How does the project alternative potentially affect air quality to the community?
Wetlands	Does the project alternative affect additional wetlands?
Sensitive Plants/Animals	Does the project alternative affect threatened and endangered plants/animals in the corridor?
Resiliency	Does the project alternative provide a climate resilient solution?
Water Quality	Does the project alternative improve water quality?
4(f)/6(f)	Does the project alternative affect the Gallup Park trailway or waterway differently?
Historic Preservation	Does the project alternative affect historic properties/districts?
Social and Economic	
Environmental Justice	Does the project alternative disproportionately affect areas of persistent poverty?
Right-of-Way (ROW)	Does the project alternative affect ROW, the comparative cost of ROW acquisition, and any relocations?
Local Plans	Is the project alternative consistent with regional and municipal agency policies and plans?
Local Advisory & Government Agency Group Consensus	Do the Local Advisory and Government Agency Group have a preponderance of support for the alternative?
Public Consensus	Does the public have a preponderance of support for the alternative?
Costs	
Maintenance Cost	What is the comparative estimated cost to maintain the alternative?
Construction Cost	What is the relative construction cost compared to other alternatives?
ITS Cost	What are the intelligent transportation system (ITS) costs compared to the other alternatives?

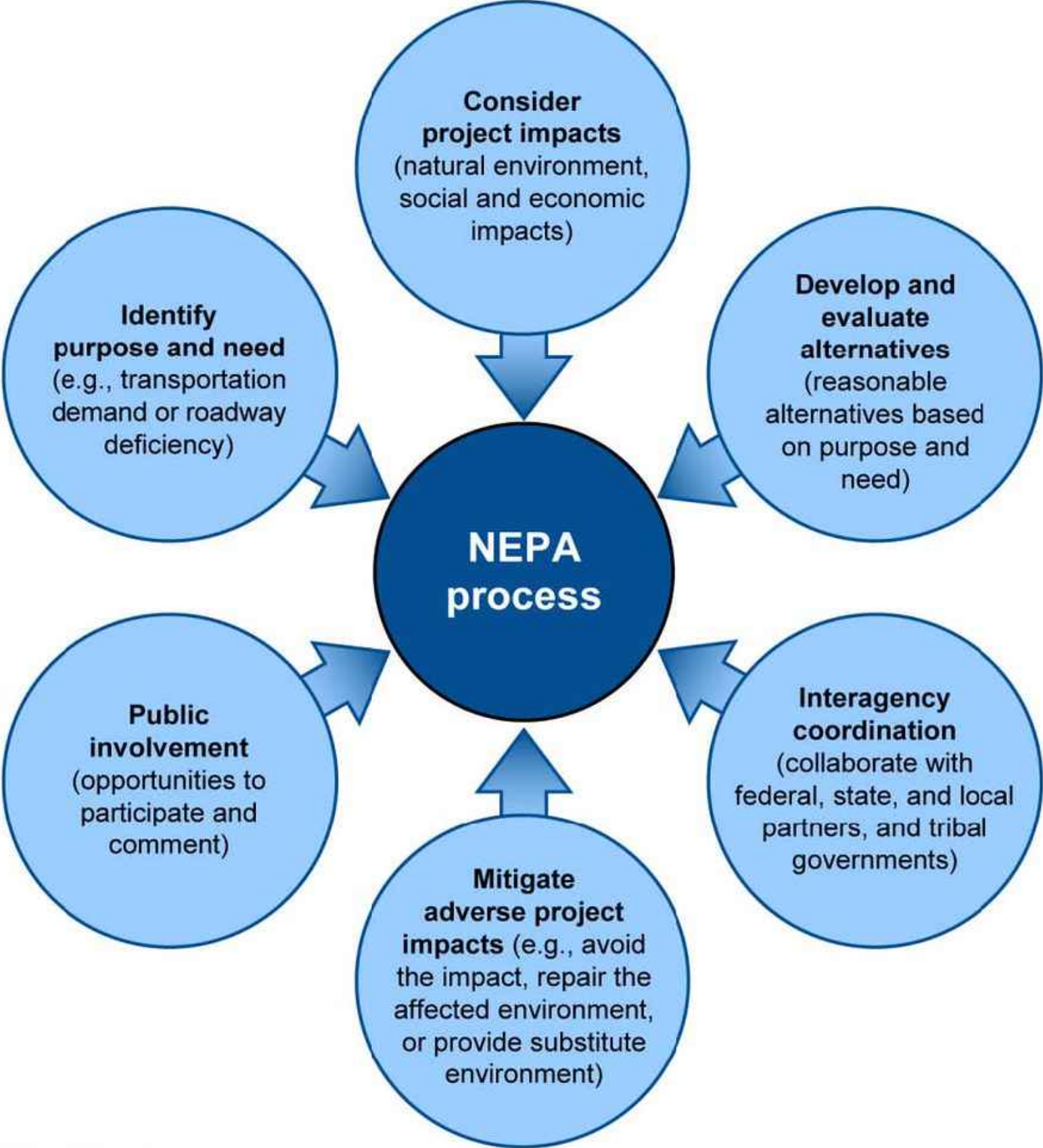
US-23/M-17 Interchange:

Evaluation Categories	Evaluation Criteria
Mobility, Operations & Safety for All Users	
Operations	Based on traffic projections, does the alternative reduce congestion and if so, to what degree would it be reduced?
Vehicular Safety	Does the project alternative improve safety for motorized users?
Transit Mobility	Does it provide opportunities for improved transit service?
Non-Motorized Safety & Mobility	Does the project alternative improve safety and mobility for non-motorized users?
Truck Mobility	Does the project alternative improve goods movement?
Community Access and Circulation	
Vehicular	Does the project improve community circulation in and around the corridor?
Non-motorized	Does the project alternative improve connectivity, circulation, and accessibility for the non-motorized network?
Transit	Does the project alternative improve circulation and accessibility for transit users?
Environment	
Noise	How does the project alternative affect noise to the surrounding land uses?
Air Quality	How does the project alternative potentially affect air quality to the community?
Wetlands	Does the project alternative affect additional wetlands?
Sensitive Plants/Animals	Does the project alternative affect threatened and endangered plants/animals in the corridor?
Resiliency	Does the project alternative provide a climate resilient solution?
Water Quality	Does the project alternative improve water quality?
4(f)/6(f)	Does the project alternative affect any lands or facilities acquired with Land and Water Conservation Act funds under the State Assistance program?
Historic Preservation	Does the project alternative affect historic properties/districts?
Social and Economic	
Environmental Justice	Does the project alternative disproportionately impact areas of persistent poverty?
Right-of-Way (ROW)	Does the project alternative impact ROW, the comparative cost of ROW acquisition, and any relocations?
Local Plans	Is the project alternative consistent with regional and municipal agency policies and plans?
Local Advisory & Government Agency Group Consensus	Do the Local Advisory and Government Agency Group have a preponderance of support for the alternative?
Public Consensus	Does the public have a preponderance of support for the alternative?
Costs	
Maintenance Cost	What is the comparative estimated cost to maintain the alternative?
Construction Cost	What is the relative construction cost compared to other alternatives?

COMBINED UPDATED EVALUATION CRITERIA

Evaluation Categories	Evaluation Criteria
Mobility, Operations , & Safety for All Users	
Operations	Based on traffic projections, does the alternative reduce congestion and if so, to what degree would it be reduced?
Vehicular Safety & Mobility	Does the project alternative improve safety <u>and mobility</u> for motorized users?
Transit Mobility	Does the project alternative provide opportunities for improved transit service?
Non-Motorized Safety & Mobility	Does the project alternative improve connectivity, circulation, accessibility, and safety for the non-motorized network? Does the project alternative improve safety and mobility for non-motorized users?
Truck Mobility	Does the project alternative improve goods movement?
Community Access and Circulation	
Vehicular	Does the project improve community circulation in and around the corridor?
Non-Motorized	Does the project alternative improve connectivity, circulation, and accessibility for the non-motorized network?
Transit	Does the project alternative improve circulation and accessibility for transit users?
Environment	
Noise	How does the project alternative affect noise to the surrounding land uses?
Air Quality	How does the project alternative potentially affect air quality to the community?
Wetlands	Does the project alternative affect additional wetlands?
Sensitive Plants/Animals	Does the project alternative affect threatened and endangered plants/animals in the corridor?
Resiliency	Does the project alternative provide a climate resilient solution?
Water Quality	Does the project alternative improve water quality?
4(f)/6(f)	Does the project alternative affect the Gallup Park railway or waterway differently?
Historic Preservation	Does the project alternative affect historic properties/districts?
Social and Economic	
Environmental Justice	Does the project alternative disproportionately affect impact areas of persistent poverty?
Right-of-Way (ROW)	Does the project alternative affect ROW, the comparative cost of ROW acquisition, and any relocations?
Local Plans	Is the project alternative consistent with regional and municipal agency policies and plans?
Local Advisory & Government Agency Group Consensus	Do the Local Advisory and Government Agency Groups <u>s</u> have a preponderance of support for the alternative?
Public Consensus	Does the public have a preponderance of support for the alternative?
Costs	
Maintenance Cost	What is the comparative estimated cost to maintain the alternative?
Construction Cost	What is the relative construction cost compared to other alternatives?
ITS Cost	What are the intelligent transportation system (ITS) costs compared to the other alternatives?

ENVIRONMENTAL ASSESSMENT PROCESS



Source: GAO. | GAO-15-71

ENVIRONMENTAL UPDATE

Noise

- Computer models are being developed for the revised project alternatives to determine if noise walls are deemed feasible and reasonable.

Wetlands, Water Quality and Water Quantity

- MDOT and Michigan Department of Environment, Great Lakes and Energy are coordinating.
- The project team is coordinating with the Water Resource Commission to assess county drain impact and overall water quality and quantity.

Archaeology

- A Phase I field reconnaissance will be performed to identify cultural resources that could be impacted by the proposed project work.

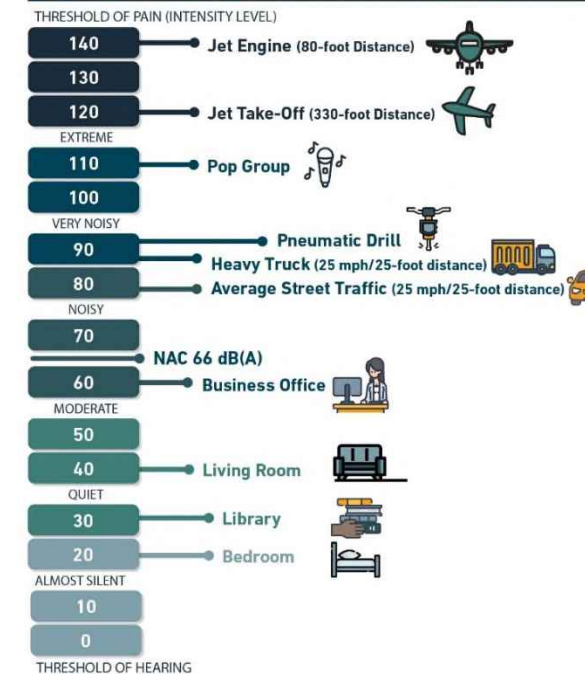
Mussels

- Formal report is being drafted for submittal to MDOT and regulatory agencies in mid 2024.

4(f)/6(f)

- Replacement of bridges over the Huron River will result in unavoidable temporary impacts on the Gallup Park Pathway.
- The project team has met with the Michigan Department of Natural Resources, The Ride, and Ann Arbor Parks Advisory Commission regarding mitigation and detour options.

SOUND LEVELS OF TYPICAL NOISE SOURCES



AESTHETIC GUIDE - THEMES

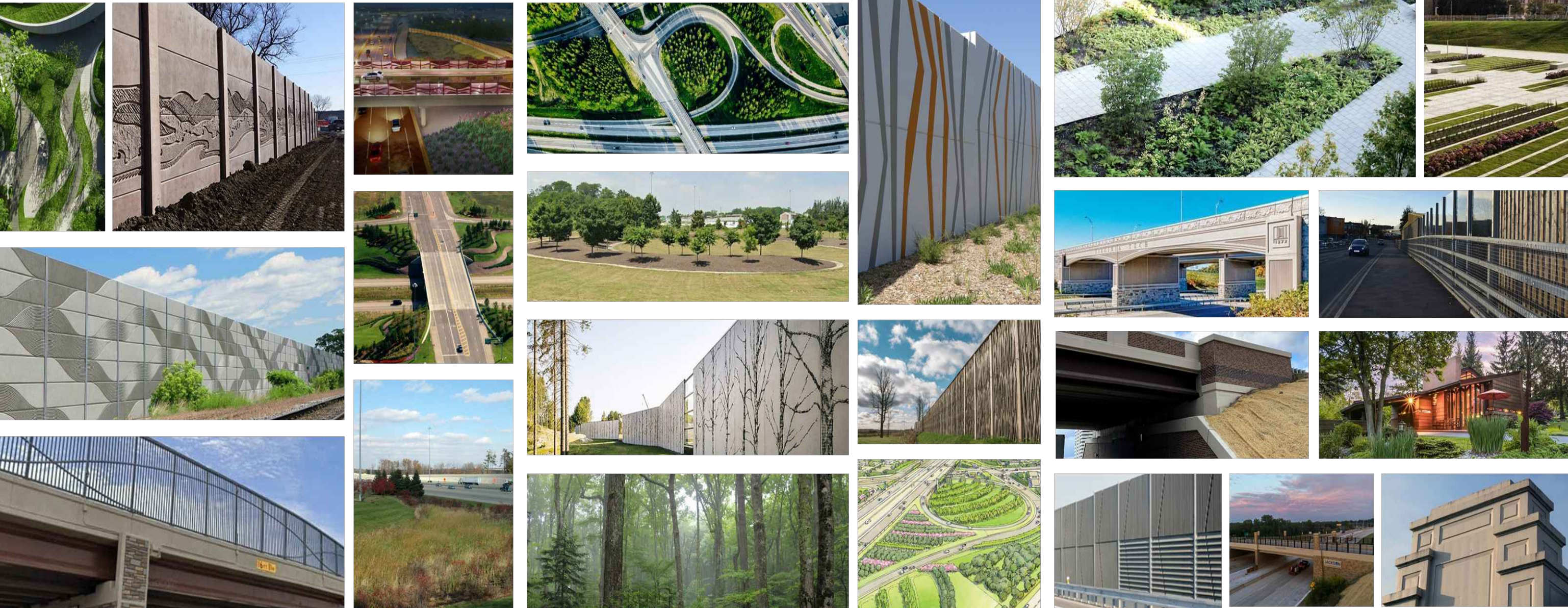


AESTHETIC GUIDE - HOW IT WILL BE USED

- Developed with community input
- Address the aesthetic and landscape elements
- Complement and integrate elements with the physical contexts along the corridor
- Corridor Aesthetic Vision
- Recommendations implemented during the design and construction of the project



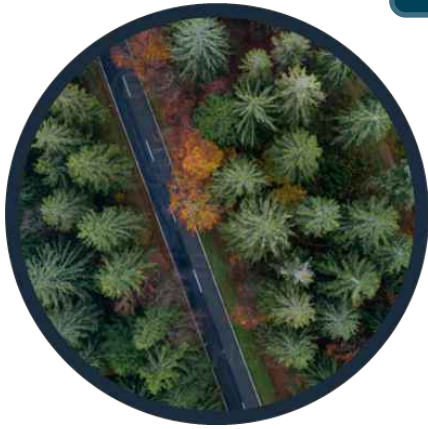
AESTHETIC GUIDE - ORIGINAL THEMES



Preferred Options



HURON
RIVER



INDIGENOUS
ARBOR

Not Preferred



LOCAL
ARCHITECTURE

AESTHETIC GUIDE - UPDATED THEMES



HURON RIVER

Aesthetic Character

- Curvilinear design
- Movement, riffle, current
- Rhythmic and continuous patterns
- Blues, cool grays, white colors



HURON ARBOR

Aesthetic Character

The Huron Arbor theme is an intermingling of the Huron River’s rhythmic and curvilinear movement among the woodland stands of Ann Arbor’s bur oak, symbolizing the indigenous forest footprint.



INDIGENOUS ARBOR

Aesthetic Character

- Vertical elements incorporated in design
- Organic design emulating woodland pockets native to southeast Michigan
- Color palette: greens, yellows, browns

AESTHETIC GUIDE - UPDATED THEMES



HURON
RIVER



HURON
ARBOR

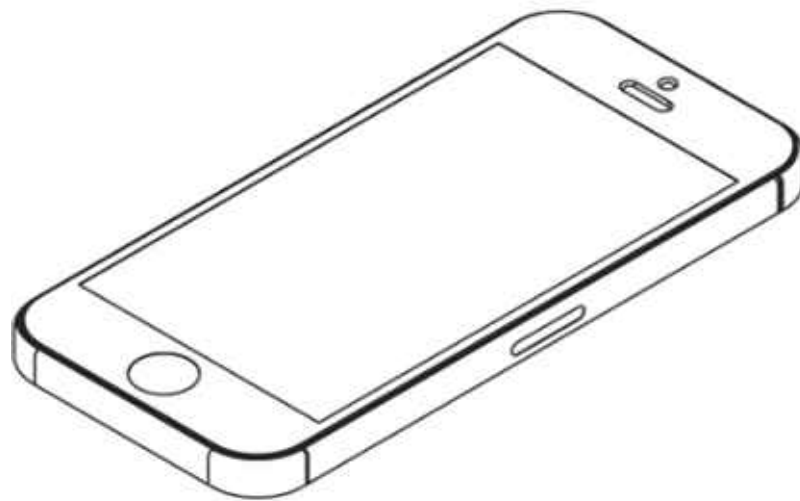


INDIGENOUS
ARBOR

AESTHETIC GUIDE - INTERACTIVE EXERCISE

1

GRAB YOUR PHONE



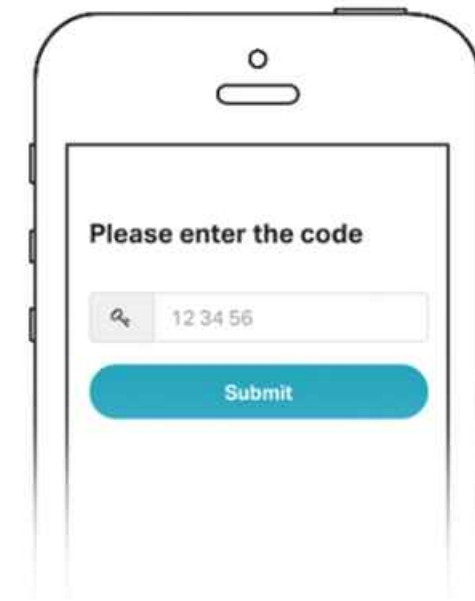
2

GO TO MENTI.COM

www.menti.com|

3

ENTER THE CODE



AESTHETIC GUIDE - INTERACTIVE EXERCISE

The project team wants your feedback on which design theme the community prefers best. The chosen design theme will help create consistency and sense of place throughout the corridor. Draw a checkmark in the box of the design theme you prefer!



INDIGENOUS ARBOR

- Vertical elements incorporated in design
- Organic design emulating woodland pockets native to southeast Michigan
- Color palette: greens, yellows, browns

☐

HURON ARBOR

- The Huron Arbor theme is an intermingling of the Huron River’s rhythmic and curvilinear movement among the woodland stands of Ann Arbor’s bur oak, symbolizing the indigenous forest footprint.

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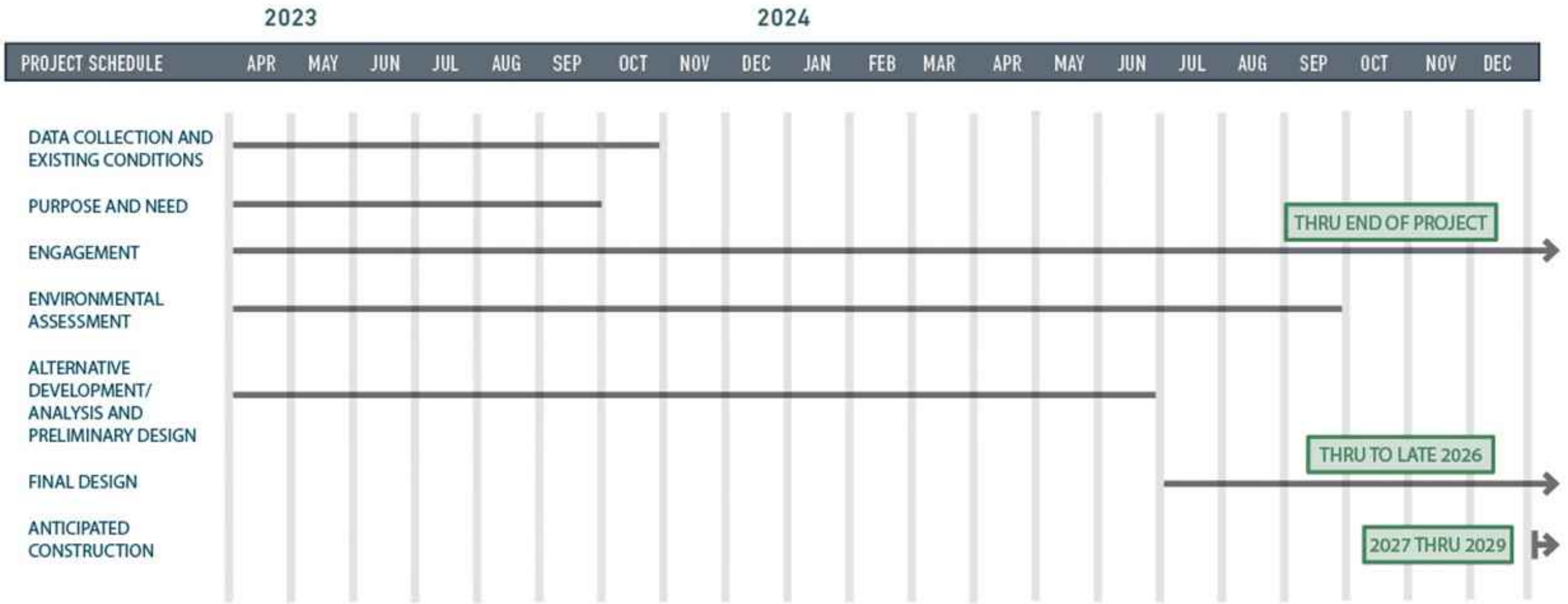
HURON RIVER

- Curvilinear design
- Movement, riffle, current
- Rhythmic and continuous patterns
- Blues, cool grays, white colors

☐

SCHEDULE AND NEXT STEPS

PROJECT SCHEDULE



NEXT STEPS

Immediate Communications

- News release on project changes
- Notice to municipalities and agencies
- Update MDOT website and StoryMap

Future Schedule

- Ongoing small stakeholder meetings
- Complete alternatives analysis
- Meeting with AGG/LAG (late summer)
- Public open house (tentatively September)





COMMENTS OR QUESTIONS?

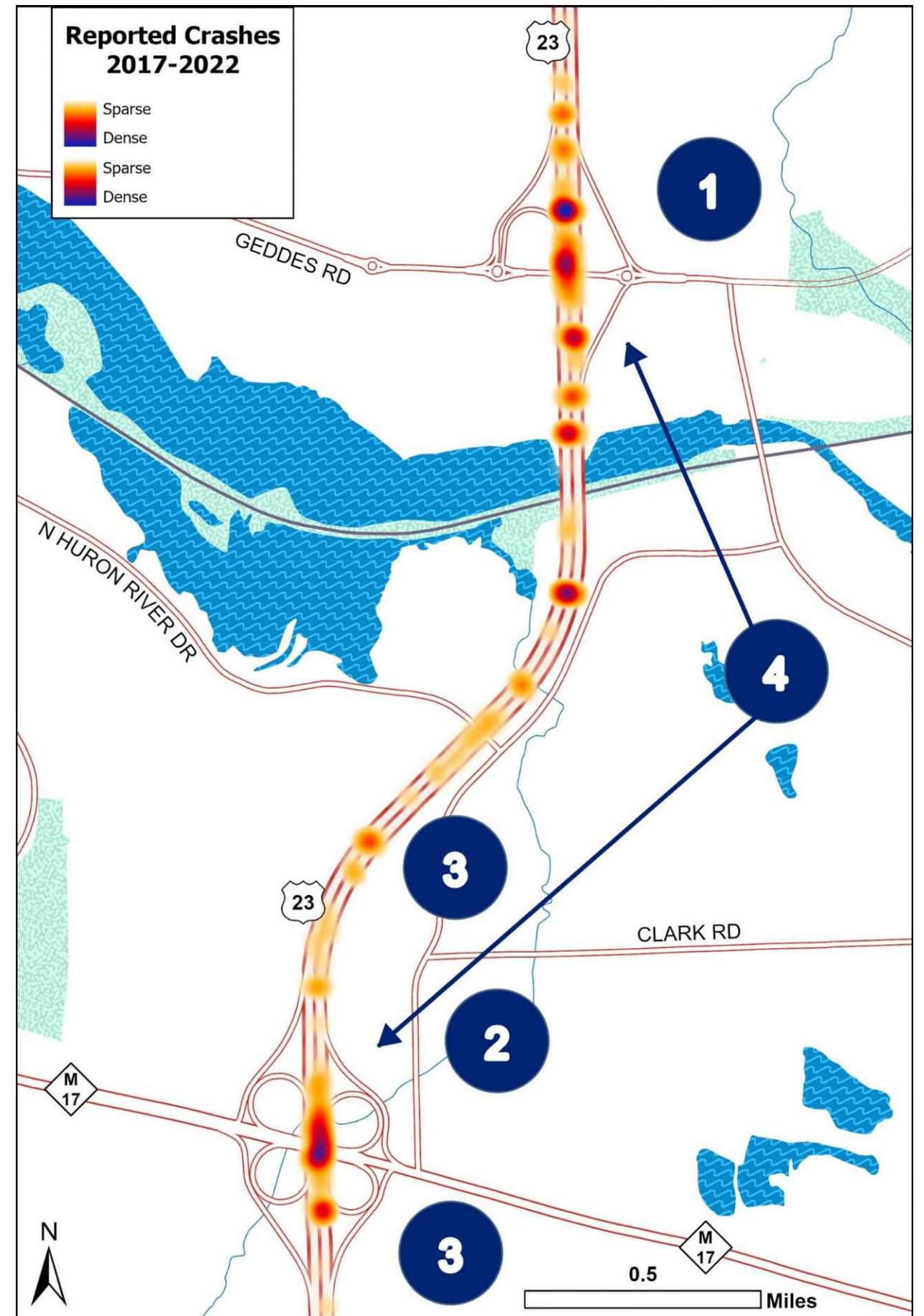
APPENDIX



SAFETY EXISTING CONDITIONS

Crash hotspot highlights:

1. Head-on crash concentration north of Geddes Road due to congestion and horizontal/vertical curves shortening sight distance
2. US-23/M-17 interchange has short weaving segment
3. Westbound M-17 congestion in the morning creates spillback onto northbound US-23, north and south of the interchange
4. Congestion between the interchanges during peak hours

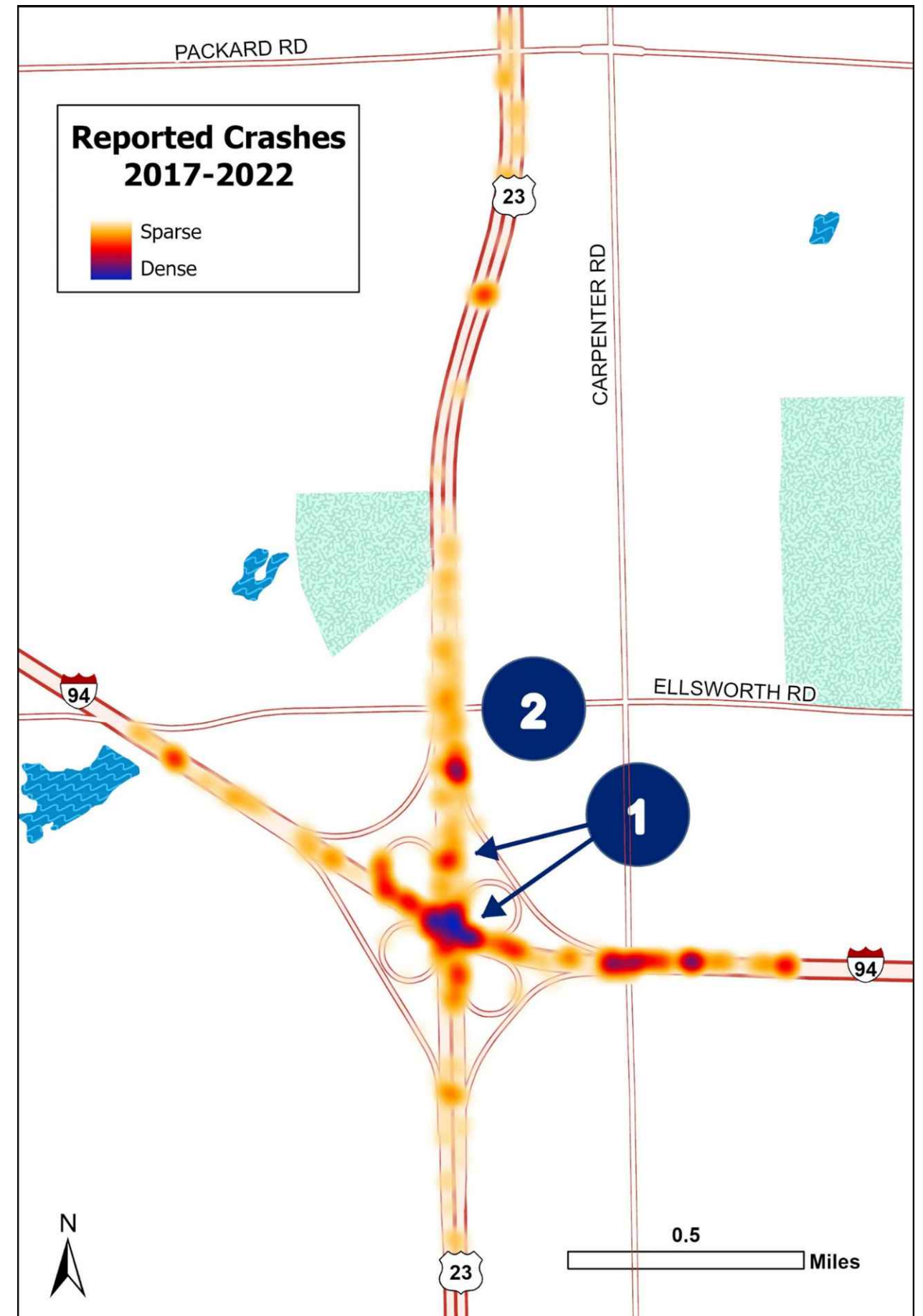


SAFETY EXISTING CONDITIONS

Crash hotspot highlights:

1. Northbound US-23 at I-94 interchange has rear-end crash concentrations due to vertical curve after overpass
2. Westbound I-94 ramp to northbound US-23 will be improved as part of this project

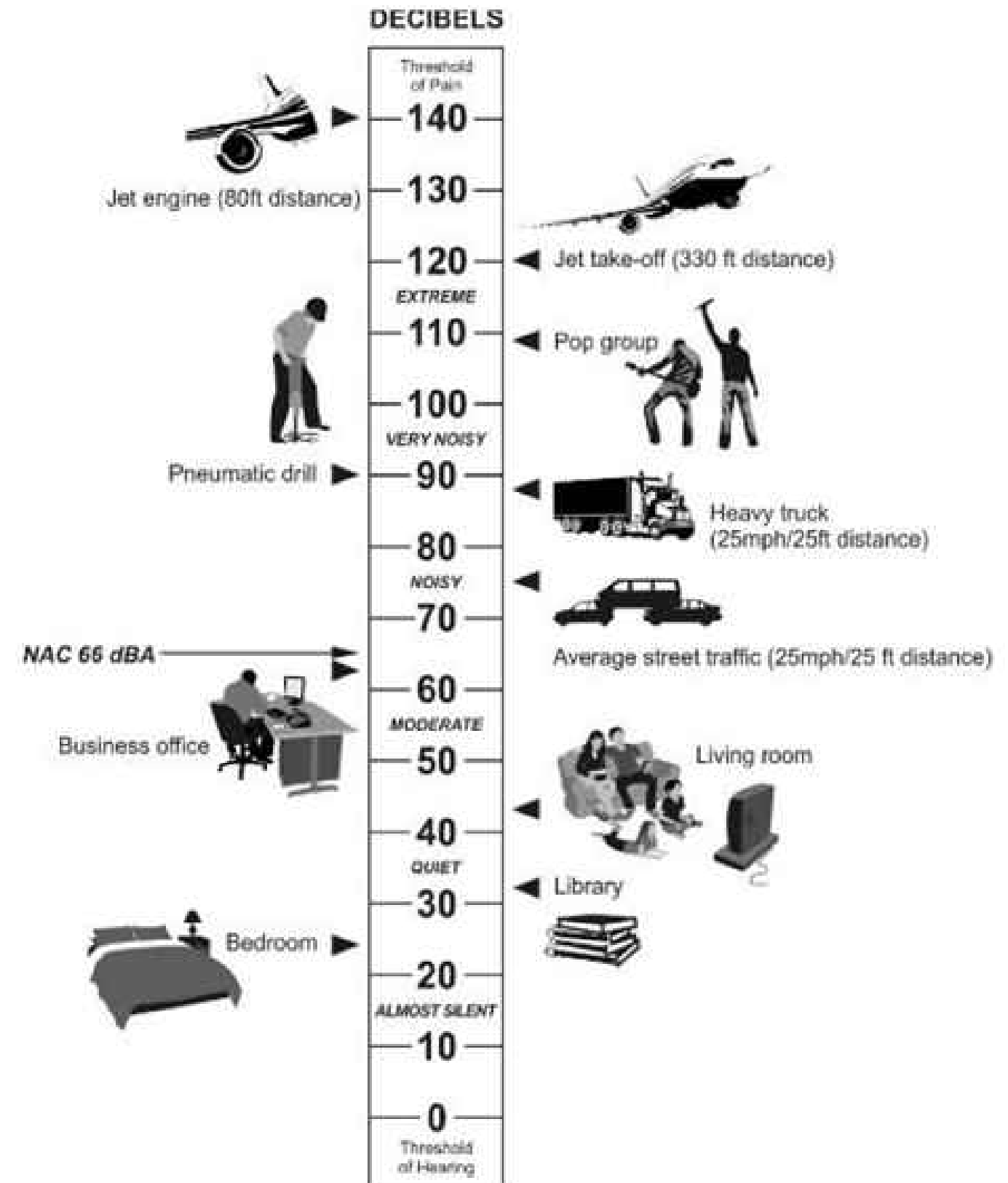
Note: Portions of the US-23/I-94 interchange are being addressed by a different construction project



NOISE UPDATES

- Collected real-time noise measurements and traffic volumes for a.m./p.m. peak and off-peak periods (April - June 2023)
- Built a computer model of the highway within the project limits
- Validated the model using the field data
- Utilized the model with existing traffic volumes to determine baseline noise levels

Sound Levels of Typical Noise Sources



NOISE ANALYSIS PROCESS

- Develop computer models for each of the project alternatives
- Run the models utilizing the projected future traffic volumes
- Compare design year predicted noise levels to existing conditions to determine noise impacts
- Noise impact = 10 decibel A weighted (dB(A)) level increase from existing to proposed, **or** any proposed dB level that is 1 decibel (dB(A)) less than the threshold criteria per FHWA

MDOT's Noise Impact Criteria

Activity Category	Threshold Criteria (decibels)	Evaluation Location	Description of Activity Category
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	Exterior	Residential (including permitted but not yet developed).
C	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio/television/recording studios, schools.
D	52	Interior	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	-	Undeveloped lands without building/development permits.