WELCOME

The Michigan Department of Transportation (MDOT) is reviewing the I-94 Modernization Project and looking for ways to further refine the project design. MDOT is committed to "right-sizing" the project to meet the needs of the transportation system which requires a thorough understanding of changing land use, travel patterns, and needs of project stakeholders.

Today we will:

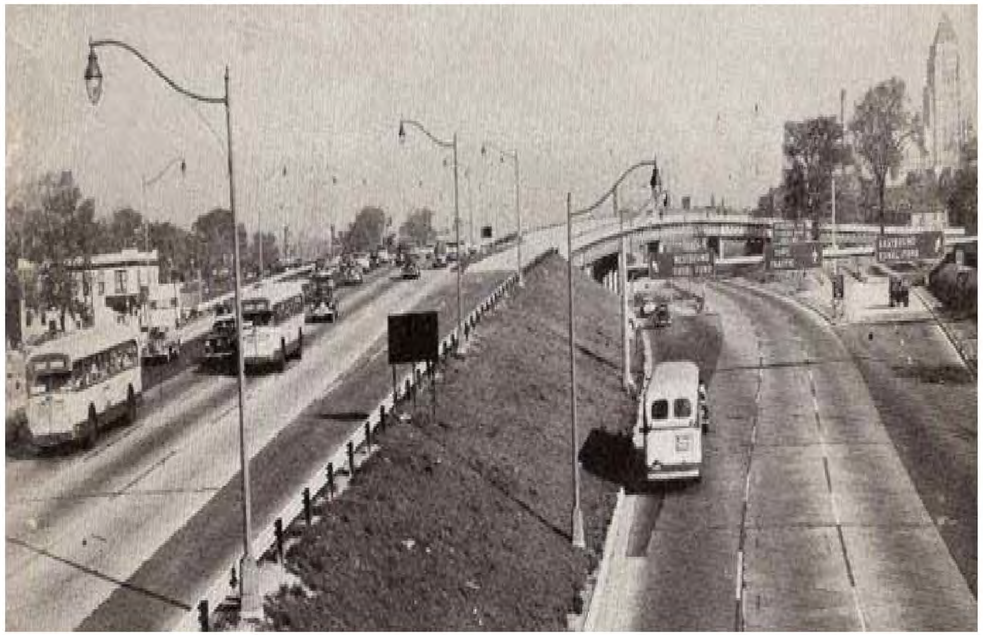
- **Provide you with an update on the project;**
- **Share information on new findings and;**
- **Seek your input on potential design modifications intended to minimize the impact of the project to the surrounding community.**

Around the room you will notice display boards with information on the past, present, and future status of the project. We encourage you to review the boards at your leisure. Staff is on site to guide you through the displays. Your comments, questions and suggestions are welcome.

PROJECT HISTORY

The I-94 freeway in Detroit was originally constructed from 1947 to 1959 and has never been rebuilt. While it was an engineering marvel in its time, it now bears few of the features associated with safe, modern freeway design. After sixty years of operation, I-94 has exceeded its intended service life.

1955



2015

PROJECT HISTORY

From 1994-2004 an environmental study concluded that the I-94 corridor was in need of reconstruction due to concerns that can be summarized in three words:

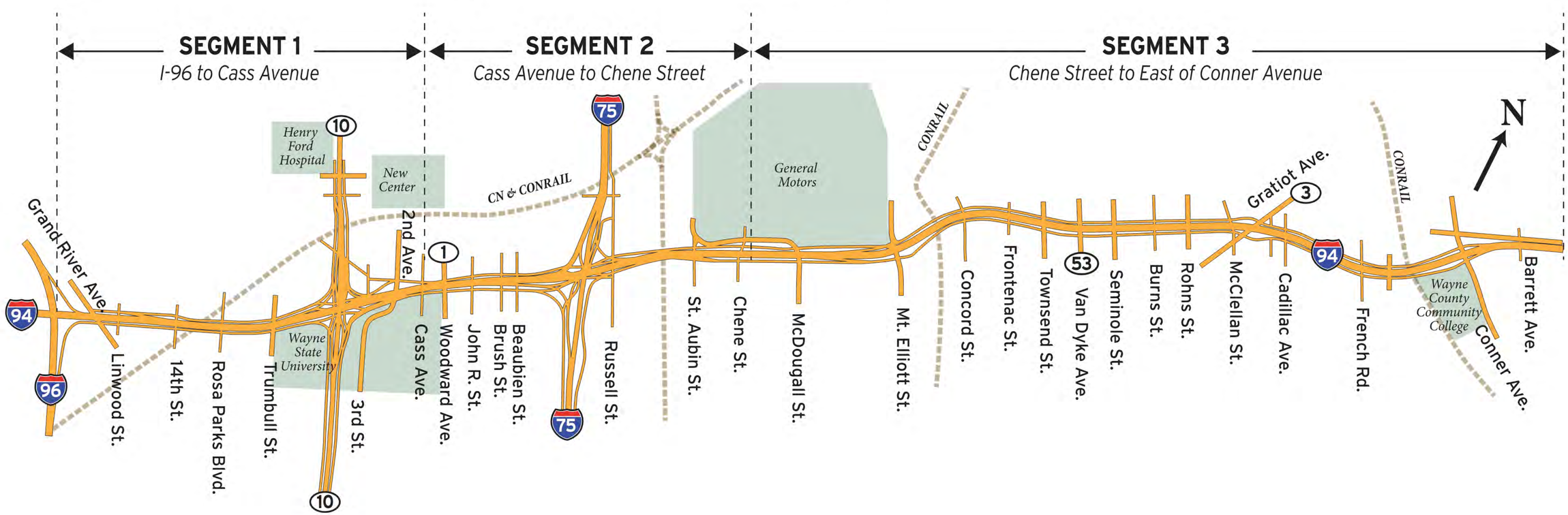
Condition, Safety and Economy

Several alternatives were studied. After approximately 150 meetings with the public, a Selected Alternative was documented in the 2005 Final Environmental Impact Statement (FEIS) and Record of Decision (ROD).

MDOT is currently conducting a series of re-evaluations of the I-94 Modernization Project as required by the Federal Highway Administration (FHWA). A re-evaluation is required on all Federal projects to determine if any major changes have occurred in either the project's conceptual plan or the affected environment. HNTB has been hired as the Owner's Representative Consultant to support MDOT in this effort. The Owner's Representative is responsible for updating traffic data and studies, reviewing the conceptual plan and refining the project design to better meet the current and future needs of the transportation system while engaging the public throughout this process.

PROJECT HIGHLIGHTS

- **6.7-mile freeway reconstruction from east of I-94/I-96 Interchange to east of Conner Avenue**
- **67 bridge structures and six railroad overpasses**
- **Local access improvements linking the I-94 east-west service drives**
- **Reconstruct and modernize interchanges including the elimination of freeway left-lane exits and entrances**
- **Project divided into three segments based on the geographic boundaries**



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PROJECT TIMELINE

1947-1959
Original Construction

1994
Environmental Study Begins

U.S. Department of Transportation
Federal Highway Administration

2005
FEIS Record of Decision

2007-2010
Detailed Engineering Report

2012-2016
Advanced Bridges Final Design

2013-2018
Advanced Bridges Construction

2014
Hiring of Owner's Representative

We Are Here

2014
New Traffic Data Collected

2014-2015
Conceptual Plan Review

2018
Freeway Final Design

2019
Freeway Construction

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PROJECT COST/FUNDING

Baseline Estimated cost:

- **$1.9 Billion (Fiscal Year 2013 dollars)**
- **$2.9 Billion (Year of Expenditure)**

Based on 3% annual inflation

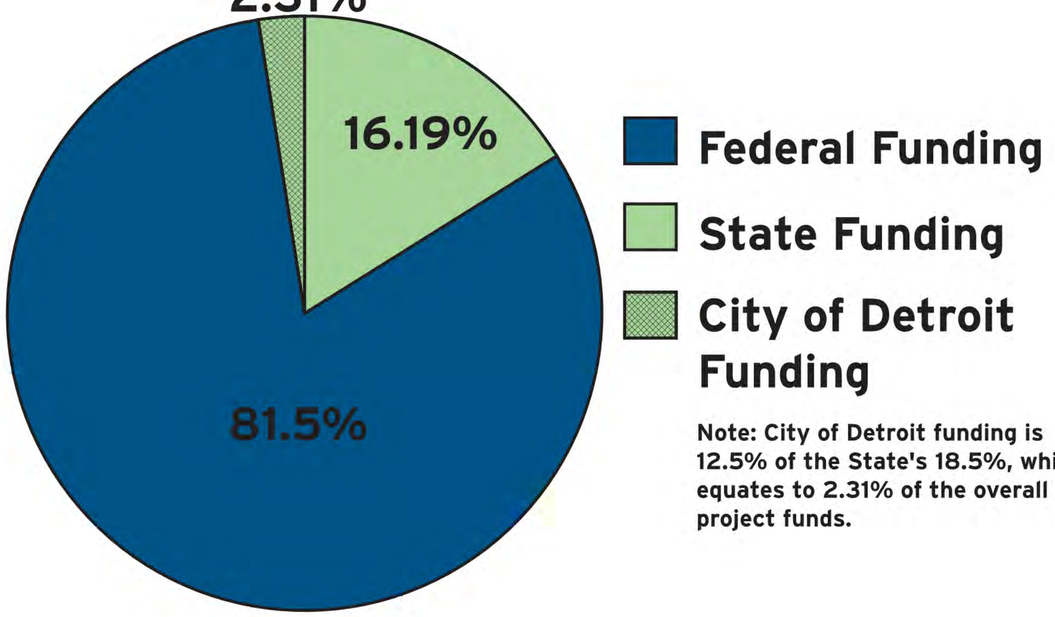
Project completion September 2036

Based on current levels of funding

U.S. Department of Transportation
Federal Highway Administration

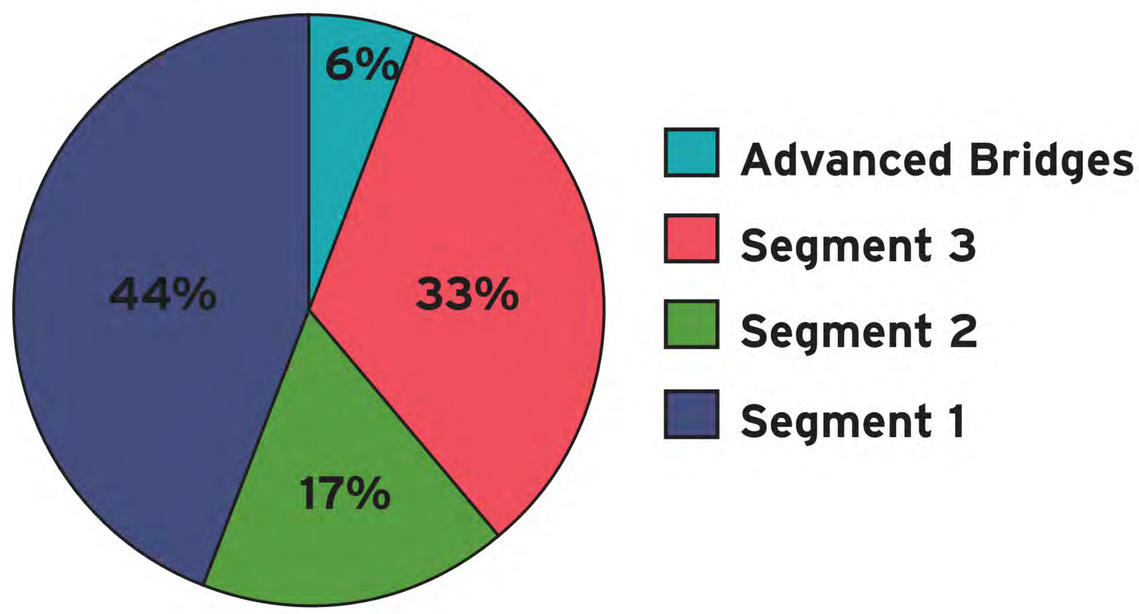
MDOT
Michigan Department of Transportation

Funding Percentage:



Note: City of Detroit funding is 12.5% of the State's 18.5%, which equates to 2.31% of the overall project funds.

Project Cost By Segment:



WHY MODERNIZE I-94?

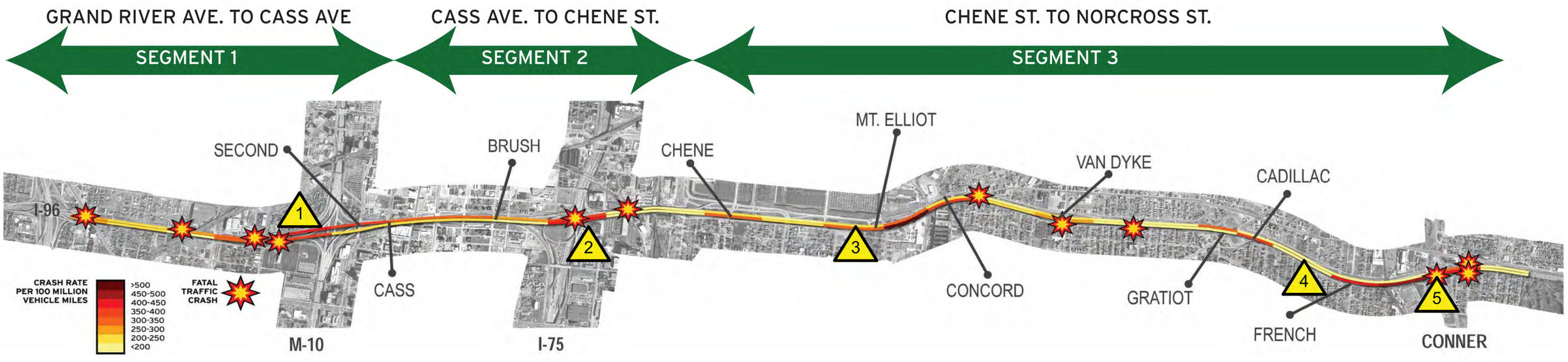
The 2005 Environmental Impact Study concluded that the I-94 corridor was in need of reconstruction for the following reasons:

- **Condition**
  - **Highways such as I-94 typically are designed to handle an estimated 20 years of traffic during their design life.**
  - **Since the initial construction of the I-94 project section, more than 50 years ago, repairs have occurred on an as-needed basis and are short-term fixes.**
  - **There has not been a comprehensive rehabilitation or reconstruction effort to address the age of the freeway and system deficiencies.**

- **Safety**
  - **Outdated design including left-lane on-ramps and off-ramps in the M-10/I-94 interchange**
  - **Poor local traffic circulation resulting from the lack of continuous service drives**
  - **Limited accommodation of pedestrians and bicyclists**
  - **Inadequate capacity indicated by frequent congestion**
  - **Safety issues created by the lack of acceleration-deceleration lanes for merging and weaving traffic**

- **Economy**
  - **Regional, interstate, and international freight mobility necessary for the region's and the nation's economy.**
  - **Local and regional basic access to essential services, employment, and educational opportunities**

ROAD CONDITION AND SAFETY



A seven-year safety analysis (2005-2011) shows:

- Five elevated crash areas
- Over 4,000 crashes resulting in 1,815 injuries
- Sideswipe, rear-end and single vehicle as the top three crash types; all indicators of a true congestion issue

Level of Service (LOS)

DESIRED LOS IS C/D

A
- Light traffic
- Free flow

B
- Reasonably free flow
- Effects of minor incidents still easily absorbed

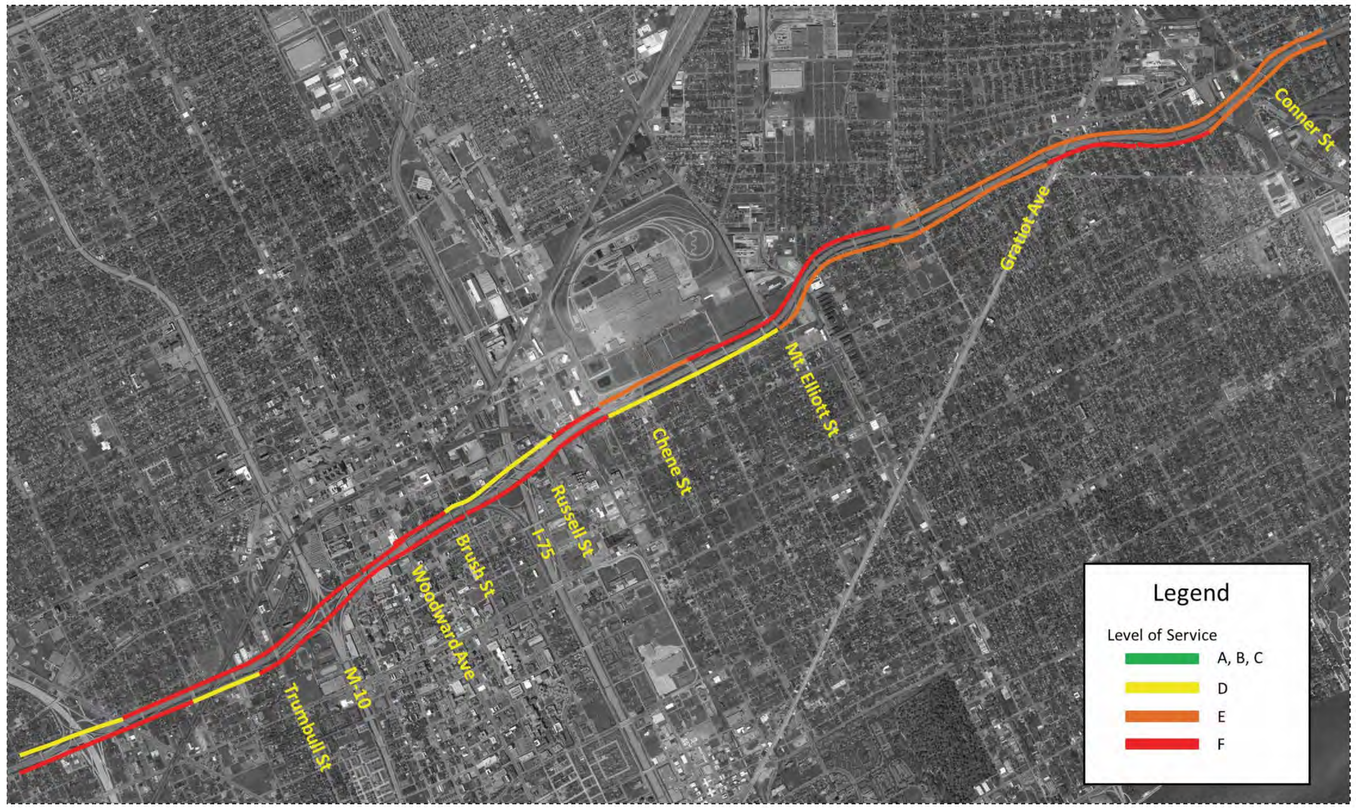
C
- Steady flow of traffic
- Freedom to maneuver is noticeably restricted

D
- Speeds decline slightly
- Minor incidents create back-ups

E
- Stop-and-go traffic
- Accidents likely
- Any disruptions cause back-ups

F
- Breakdown in flow
- Back-ups behind breakdown points
- Demand greater than capacity

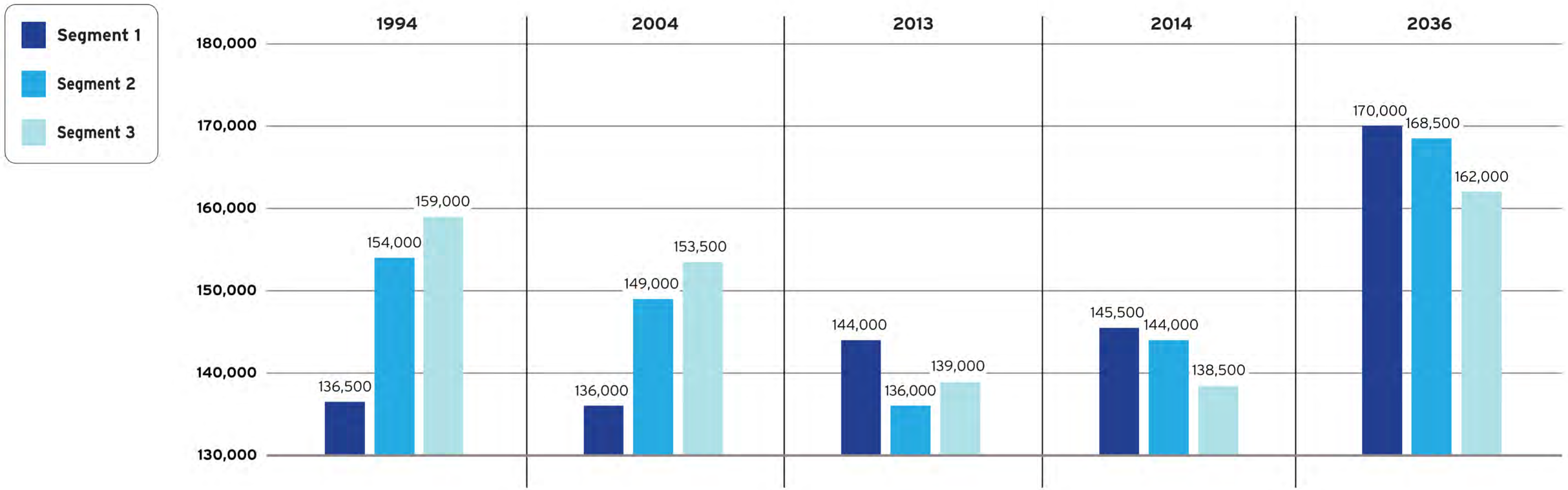
2014 High Congestion Traffic Areas



	1994	2004	2013	2014
Level of Service (LOS)	D or below	D or below	D or below	D or below
Average Annual Daily Traffic (AADT)[1]:				Average Daily Traffic (ADT):
Segment 1	136,500	136,000	144,000	145,500[2]
Segment 2	154,000	149,000	136,000	144,000[2]
Segment 3	159,000	153,500	139,000	138,500[3]

1 Historic Average Annual Daily Traffic Data: Averaged for the year (365 days). MDOT Traffic Monitoring Information System (TMIS)
2 New Data Collection (Daily): MDOT Permanent Traffic Recorder (PTR) Station 9419 and Station 9499, October 1, 2014 – October 8, 2014 and November 1, 2014 – November 5, 2014.
3 Estimated based on data collected from adjacent segments.

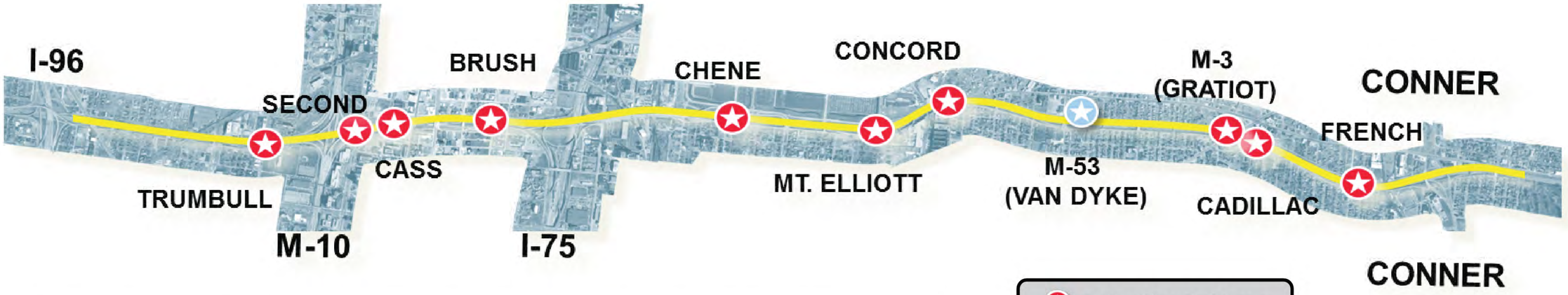
TRAFFIC DATA



	1994	2004	2013	2014	2036
Level of Service (LOS)	D or below	D or below	D or below	D or below	C/D

	AVERAGE ANNUAL DAILY TRAFFIC (AADT)1:			AVERAGE DAILY TRAFFIC (ADT):	
	1994	**2004**	**2013**	**2014**	**2036**
SEGMENT 1	136,500	136,000	144,000	145,500	170,000
SEGMENT 2	154,000	149,000	136,000	144,000	168,500
SEGMENT 3	159,000	153,500	139,000	138,500	162,000

BRIDGE CONDITION



Bridges Over I-94	Year Built	Condition	Reconstruction
Trumbull Avenue	1954	Critical	2016
Gratiot Avenue	1958	Poor	2017
Mt. Elliott Street	1955	Poor	2017
Second Avenue	1954	Poor	2017
Cass Avenue	1955	Poor	2017
Chene Avenue	1956	Poor	2017
Cadillac Avenue	1957	Poor	2018
Brush Street	1955	Poor	2018
French Road	1957	Poor	2018
Concord Avenue	1958	Poor	2018

Priority Bridges

Priority Bridge reconstruction complete

Bridge Inspection

BRIDGE CONDITION

1954 - Trumbull over I-94

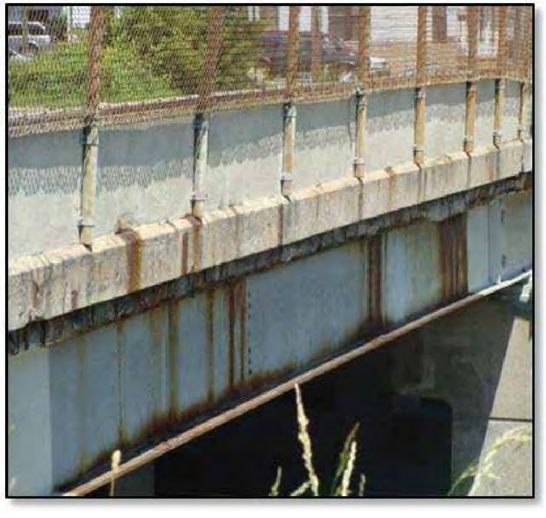
1958 - Gratiot over I-94

1955 - Mt. Elliott over I-94

1954 - Second over I-94

1955 - Cass over I-94

BRIDGE CONDITION

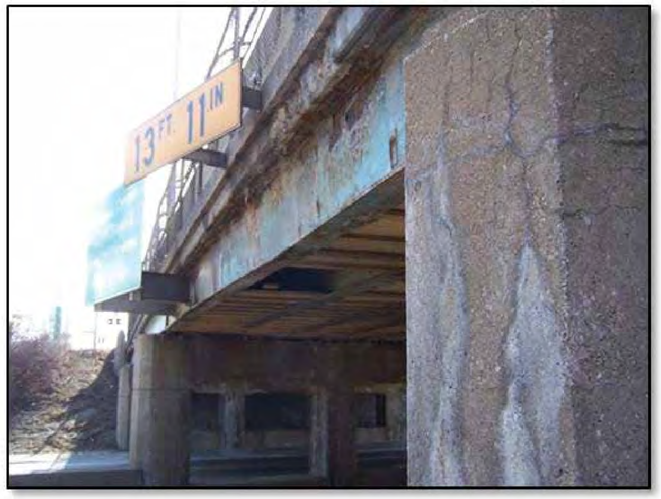


1957 - Cadillac over I-94

1955 - Brush over I-94

1957 - French over I-94

1958 - Concord over I-94



1956 - Chene over I-94

The I-94 corridor serves 140,000 to 160,000 vehicles a day, supports over $100 billion in annual commodity flow across the Detroit bridges, and links to southeastern Michigan's international border crossings.

Source: USDOT, Bureau of Transportation Statistics as of October 2012

PROJECT OUTCOMES

Moving forward with the modernization of I-94 provides many benefits to southeast Michigan:

- **Safety improvements for all travelers using the freeway**
- **Better community connectivity**
- **Improved access for pedestrians, wheelchairs, bicyclists and other non-motorized vehicles**
- **Safe, modern infrastructure that supports the economy at all levels – local, regional, state and national**

Van Dyke Bridge over I-94

Before Modernization

After Modernization

MDOT is refining the design for I-94 and needs your input on several key elements. Specifically we want to know:

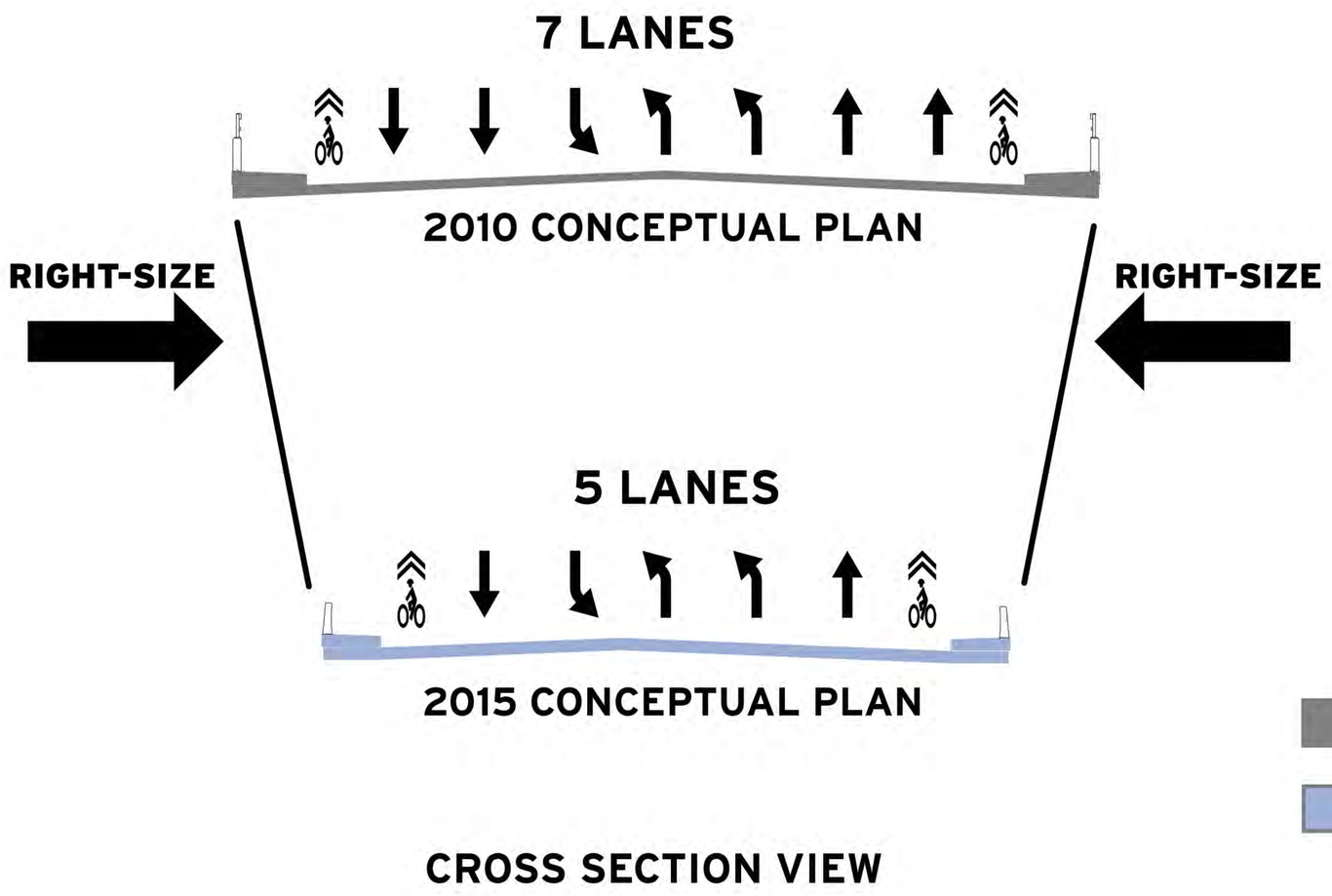
- **Should there be continuous service drives at the I-75 and M-10 interchanges?**
- **What design features should local bridges have to ensure they fit into and allow for local mobility in the neighborhoods that surround them?**
- **Should the John R Bridge be replaced?**
- **What are the preferred locations and features for Community Connector Bridges?**

We welcome your input!

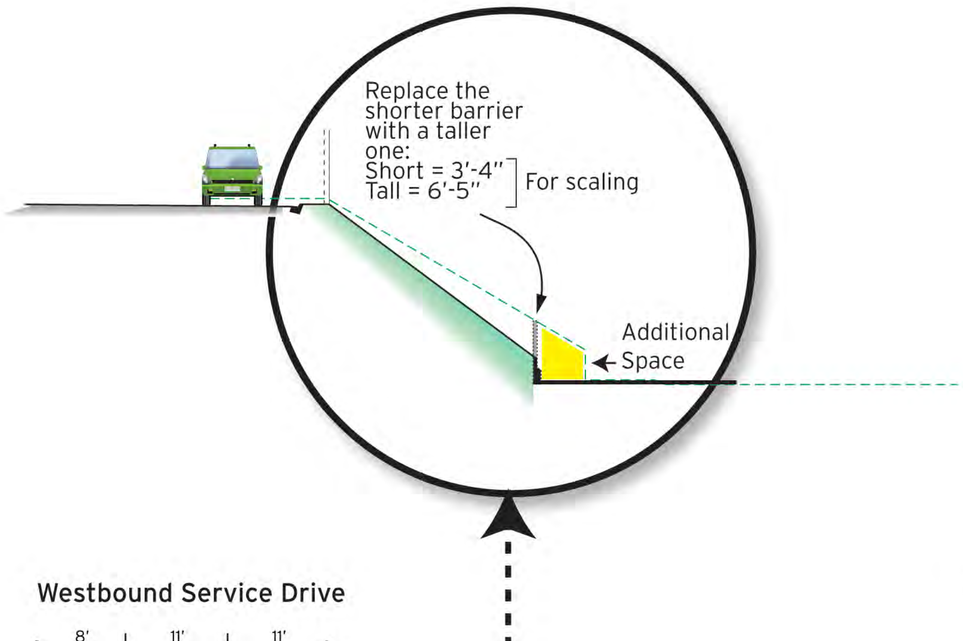
HOW MDOT IS RIGHT-SIZING THE PROJECT

MDOT is currently refining the design of the I-94 corridor to reduce the potential impacts to the surrounding community and provide additional capacity to relieve congestion and safety concerns <u>WITHOUT WIDENING</u> the project footprint. There are several ways to accomplish this.

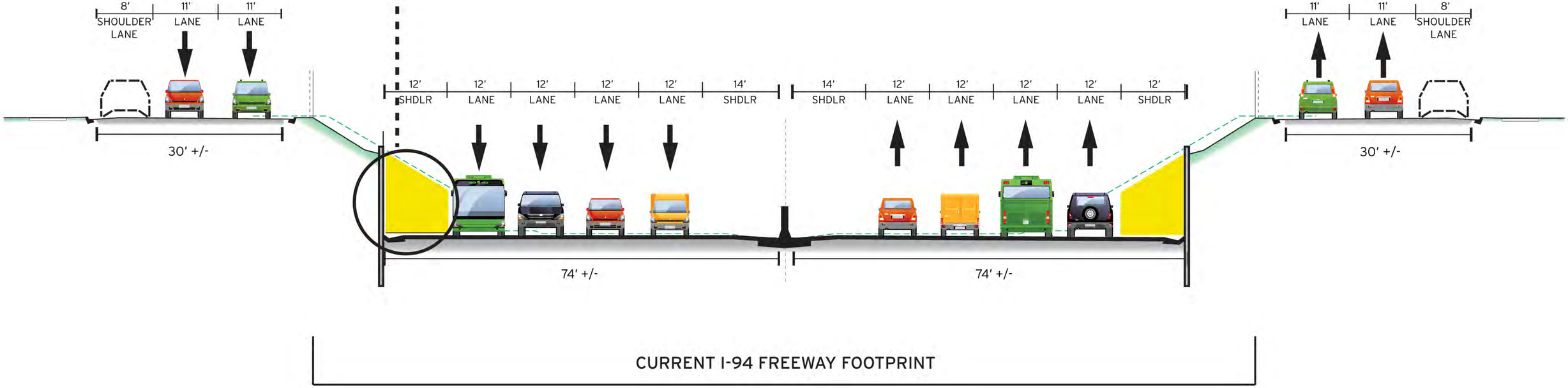
Example: Trumbull Avenue Bridge reduced from 7 to 5 lanes



HOW MDOT IS RIGHT-SIZING THE PROJECT



Removing the existing slopes and installing vertical walls, in most areas, opens up additional space to accommodate the required safety improvements and design standards <u>WITHOUT WIDENING</u> the freeway's footprint.



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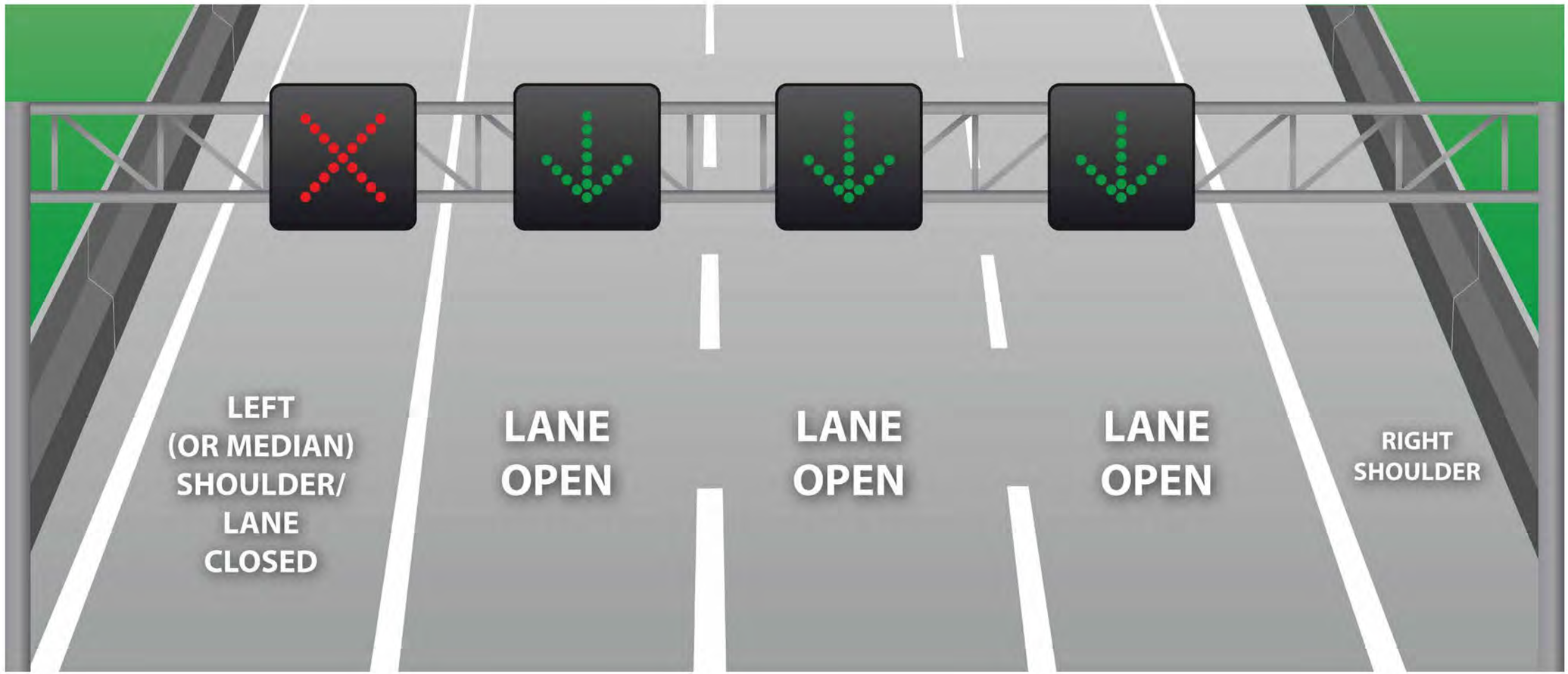
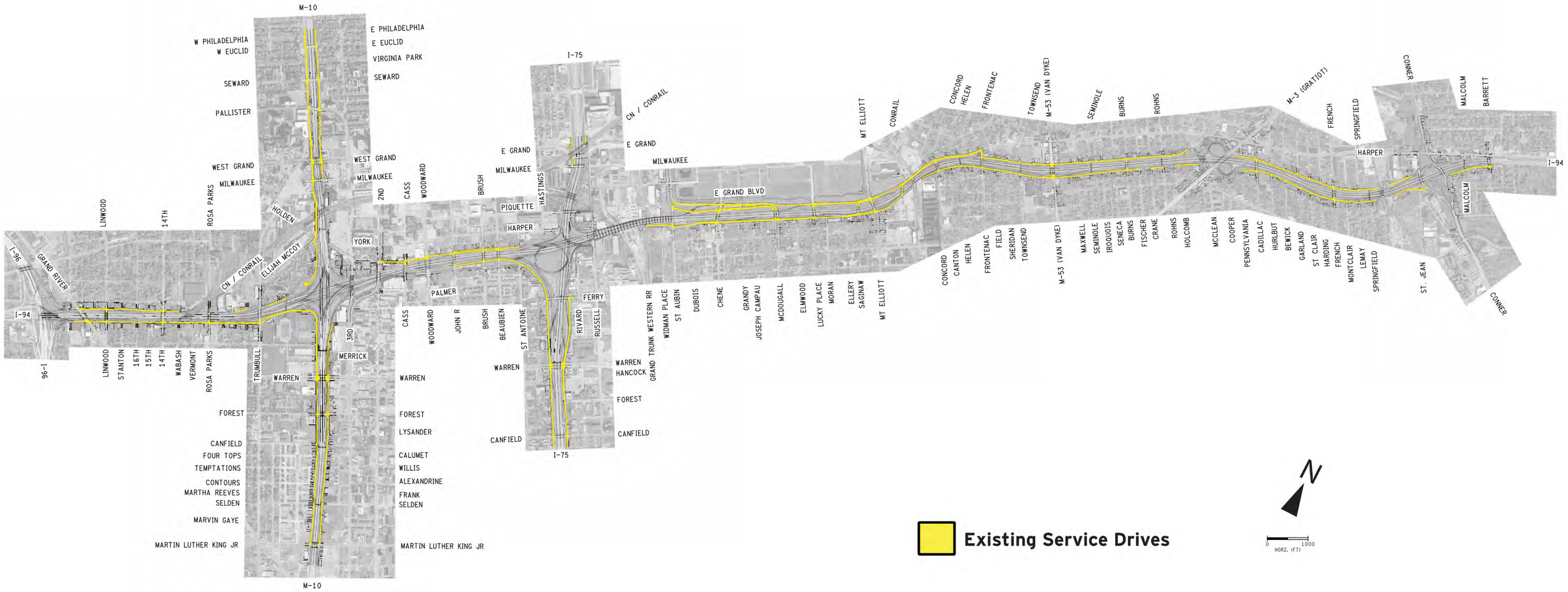
Active Traffic Managment (ATM) lanes are used in other parts of the country to accommodate high volumes of traffic on the freeway shoulder during peak travel hours. This eliminates the need to add a full-time travel lane.



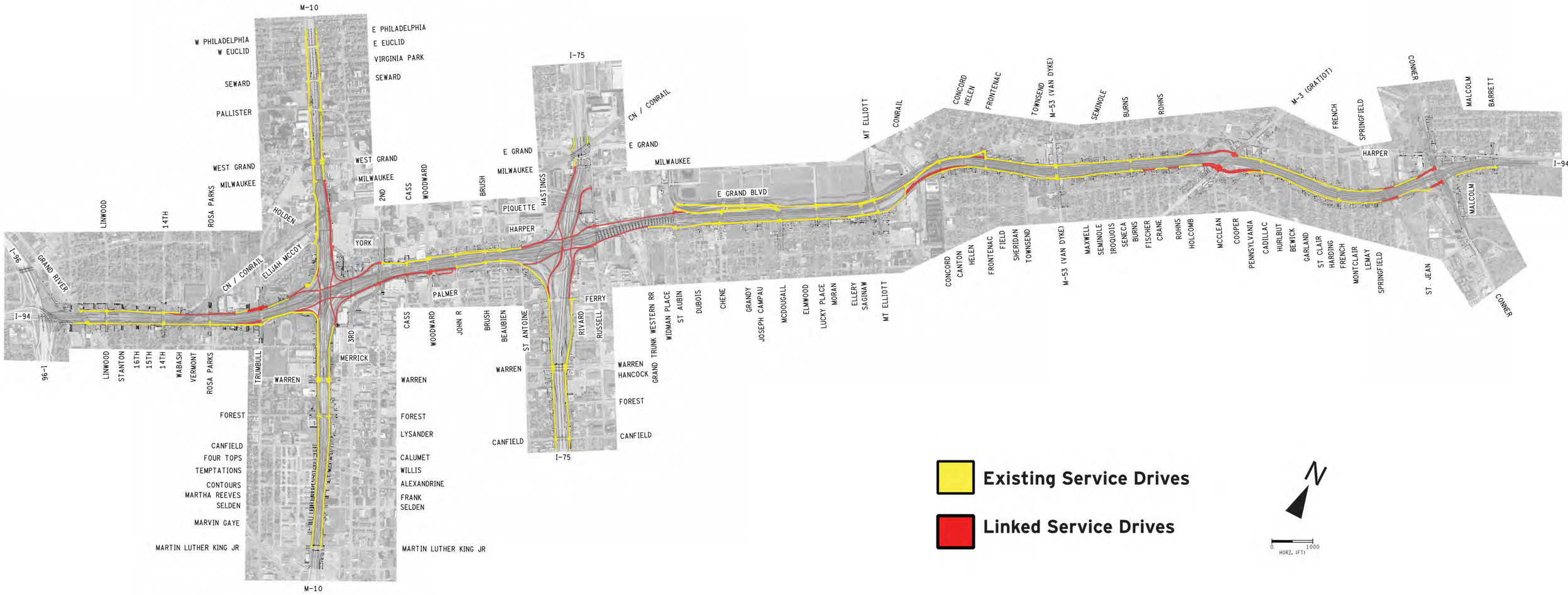
SERVICE DRIVES - EXISTING

Service drives are an important part of the local traffic system. Gaps in the service drives force drivers onto the freeway, contributing to congestion on I-94.



SERVICE DRIVES - POTENTIAL CONNECTIONS

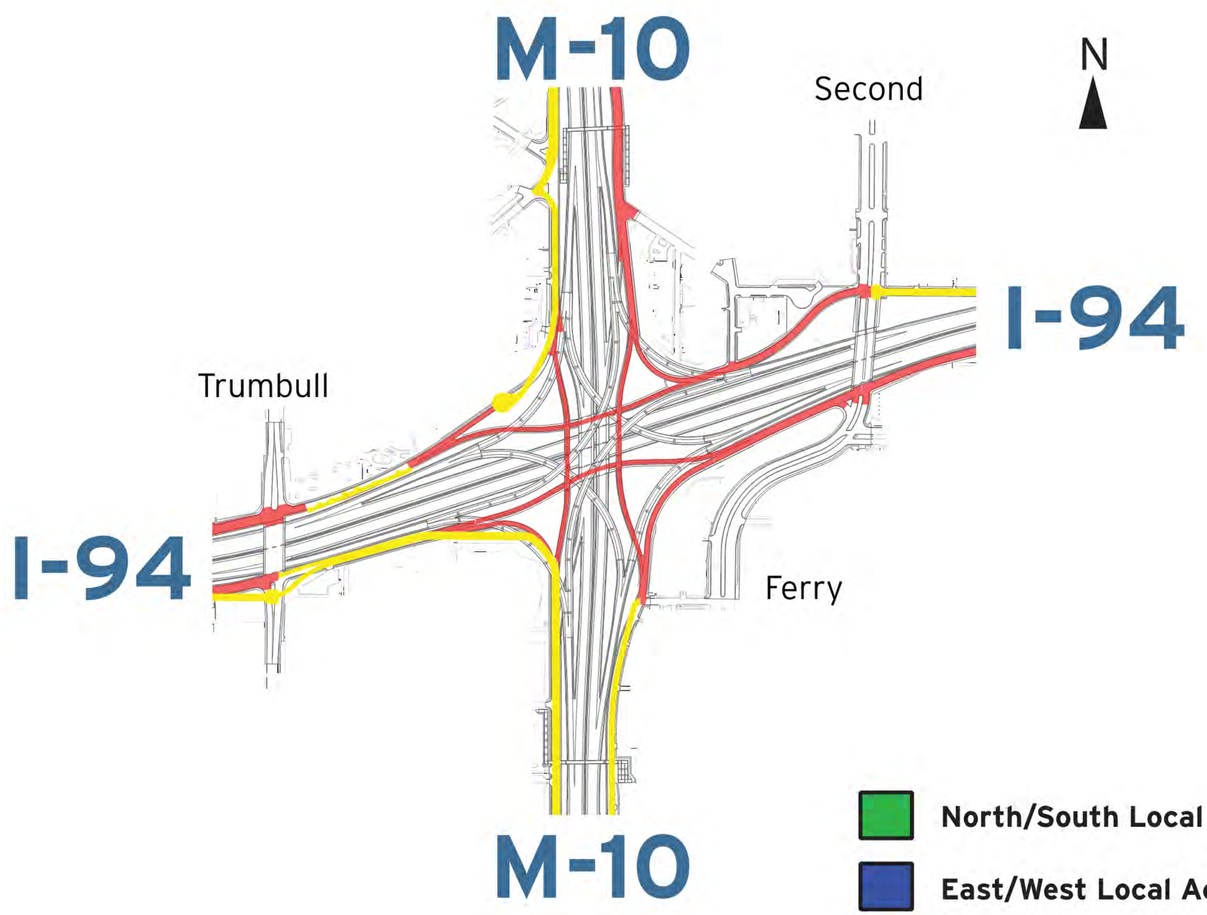
Continuous service drives would relieve congestion on I-94 by providing travelers with a more direct local option when driving east or west rather than returning to the freeway.



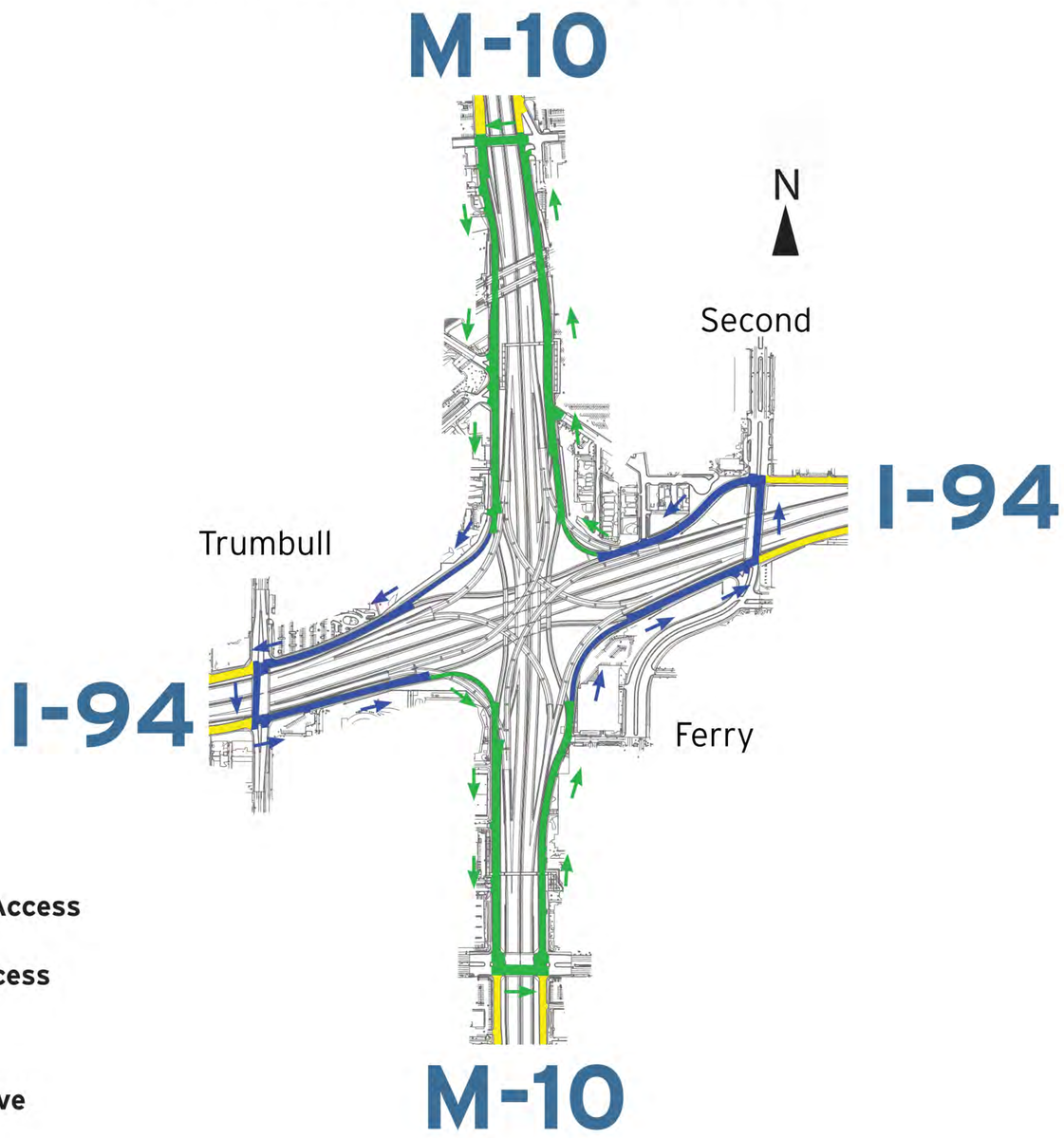
SERVICE DRIVES - M-10 INTERCHANGE

We need your input!

With continuous service drives



Without continuous service drives



- North/South Local Access
- East/West Local Access
- Proposed Link
- Existing Service Drive

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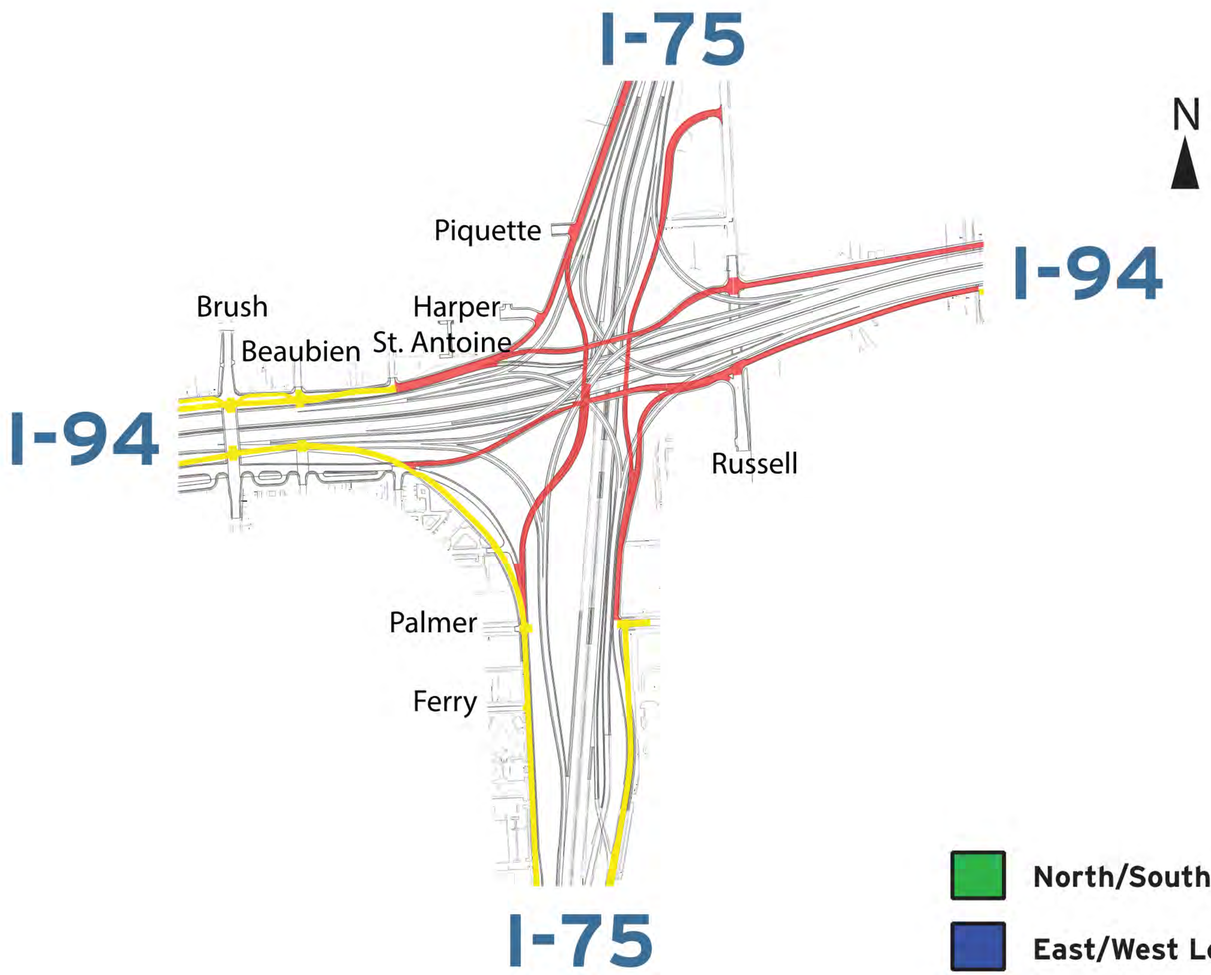
SERVICE DRIVES - I-75 INTERCHANGE

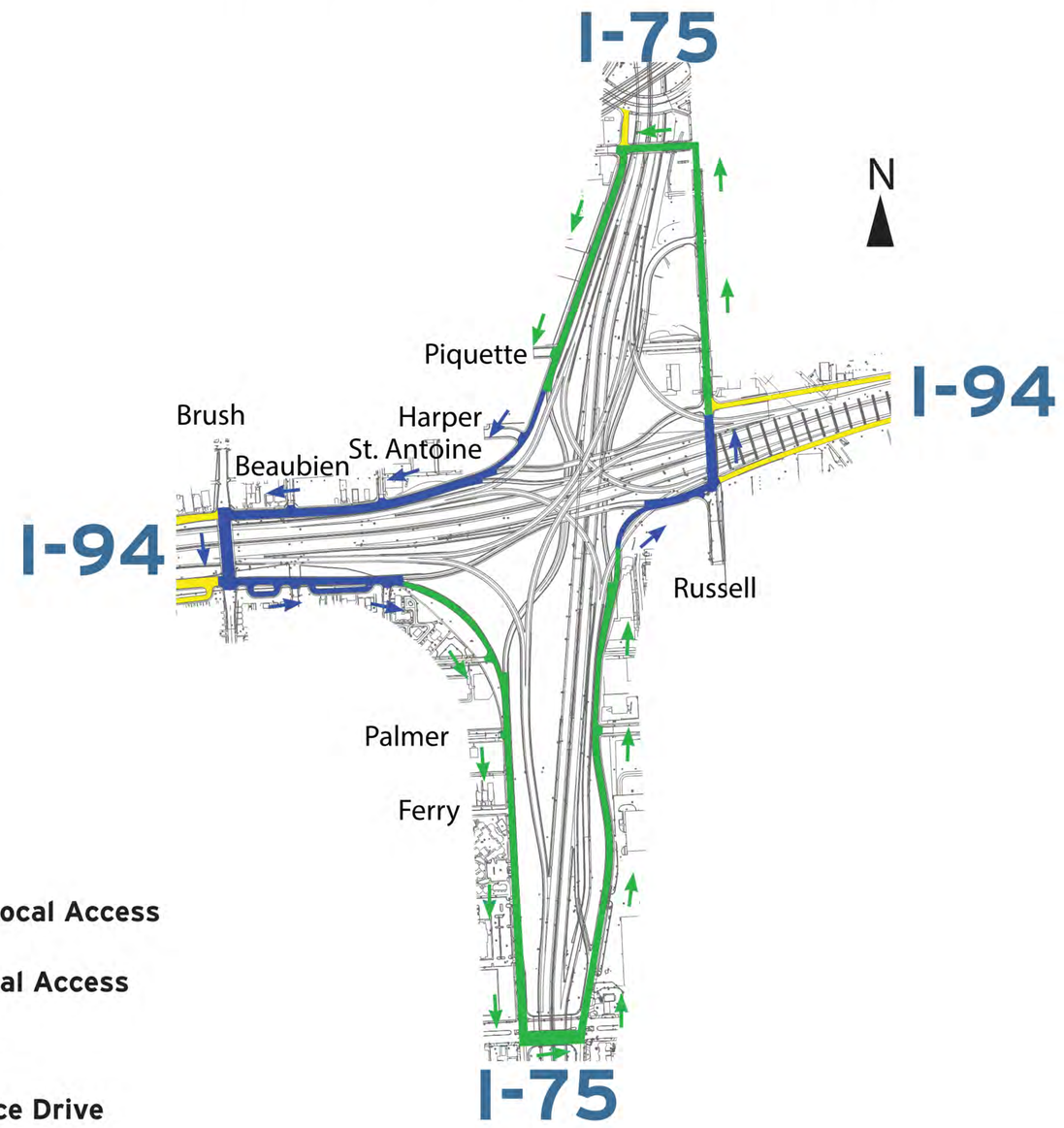
We need your input!

INTERSTATE 94

With continuous service drives



Without continuous service drives



- North/South Local Access
- East/West Local Access
- Proposed Link
- Existing Service Drive

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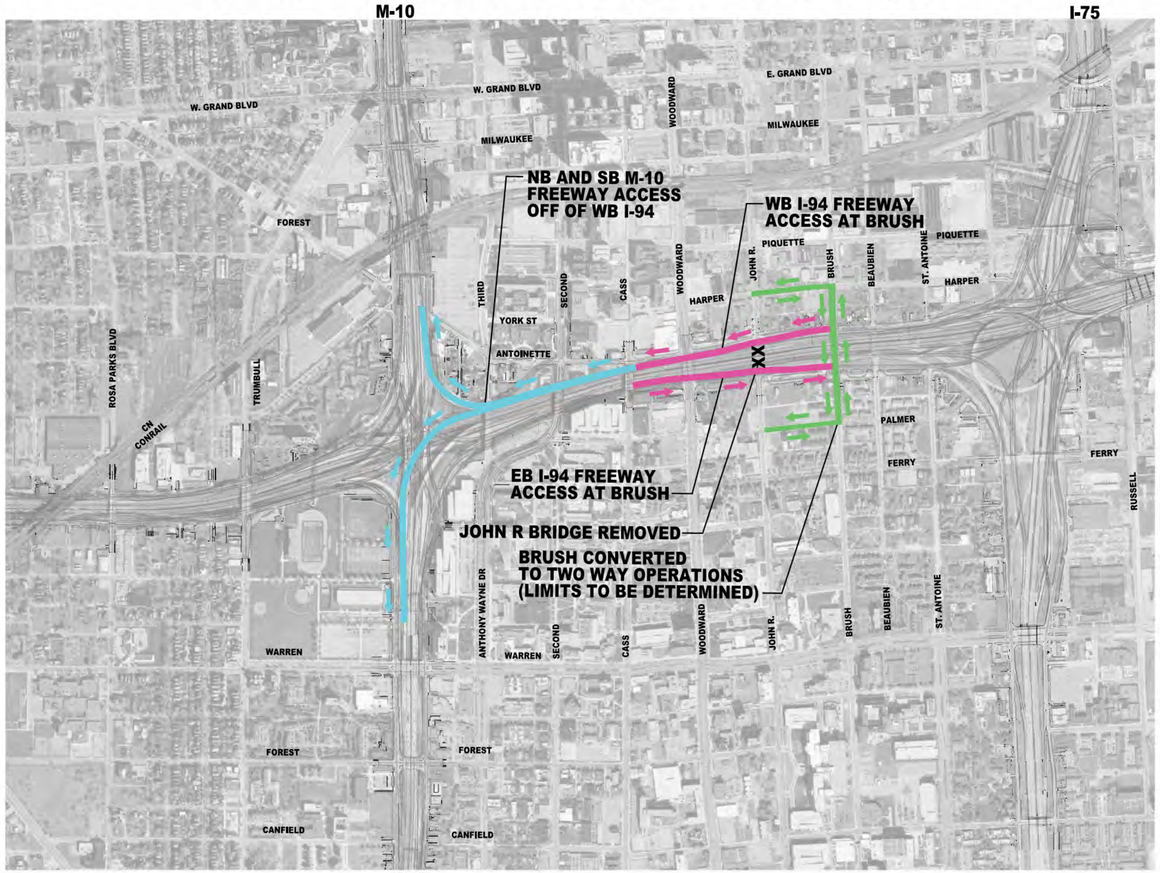
THE JOHN R BRIDGE - SHOULD IT BE REPLACED?

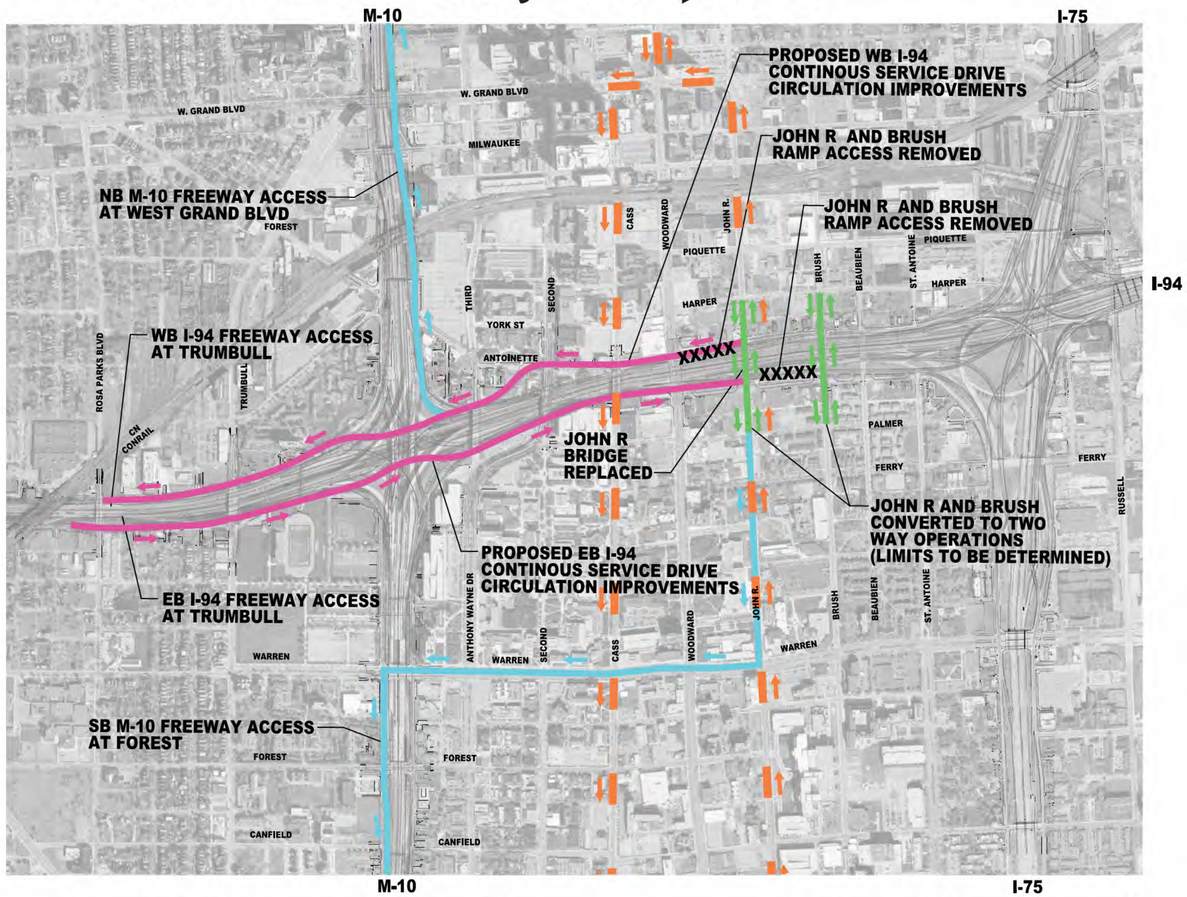
We need your input!

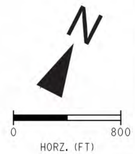
INTERSTATE 94

If the John R Bridge is not replaced:



If the John R Bridge is replaced:





M-10 Modified Access

I-94 Modified Access

John R/Brush Access

Bus Rapid Transit

Local Access	Existing	John R (Not Replaced)
Midtown to/from I-94	- From Midtown enter WB I-94 freeway at John R entrance ramp. - To Midtown exit EB I-94 freeway at John R exit ramp.	- From Midtown enter WB I-94 freeway at relocated Brush entrance ramp. - To Midtown exit EB I-94 freeway at relocated Brush exit ramp.
John R/Brush	- John R is one-way southbound. - Brush is one-way northbound.	-John R access terminates at I-94 freeway. - A new Woodward bus rapid transit LPA would need to be identified. - Brush is converted to two-way.
Midtown to/from M-10	- Midtown access north of I-94 at M-10/West Grand Blvd. - Midtown access south of I-94 at M-10/Forest.	- From Midtown enter NB M-10 freeway at relocated Forest entrance ramp. - To Midtown exit SB M-10 freeway at relocated Warren exit ramp or exit NB M-10 freeway at relocated Forest exit ramp.

Local Access	Existing	John R (Replaced)
Midtown to/from I-94	- From Midtown enter WB I-94 freeway at John R entrance ramp. - To Midtown exit EB I-94 freeway at John R exit ramp.	- From Midtown enter WB I-94 freeway at Trumbull entrance ramp via WB I-94 Continuous Service Drive. - To Midtown exit EB I-94 freeway at Rosa Parks exit ramp to EB I-94 Continuous Service Drive.
John R/Brush	- John R is one-way southbound. - Brush is one-way northbound.	- John R access is converted to two-way traffic and maintained across I-94 freeway. - John R supports proposed NB bus rapid transit LPA. - Brush is converted to two-way traffic.
Midtown to/from M-10	- Midtown access north of I-94 at M-10/West Grand Blvd. - Midtown access south of I-94 at M-10/Forest.	- From Midtown enter NB M-10 freeway at West Grand Blvd. entrance ramp via WB I-94 Service Drive to NB M-10 Service Drive. - To Midtown exit SB M-10 freeway at relocated Warren exit ramp or exit NB M-10 freeway at relocated Forest exit ramp.

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COMMUNITY CONNECTOR BRIDGES

Background:

Community Connector Bridges are enhanced freeway overpasses that accommodate motorized and non-motorized opportunities for public art. By promoting local connectivity - the ability to easily move within and between neighborhoods - they help create walkable sustainable communities.

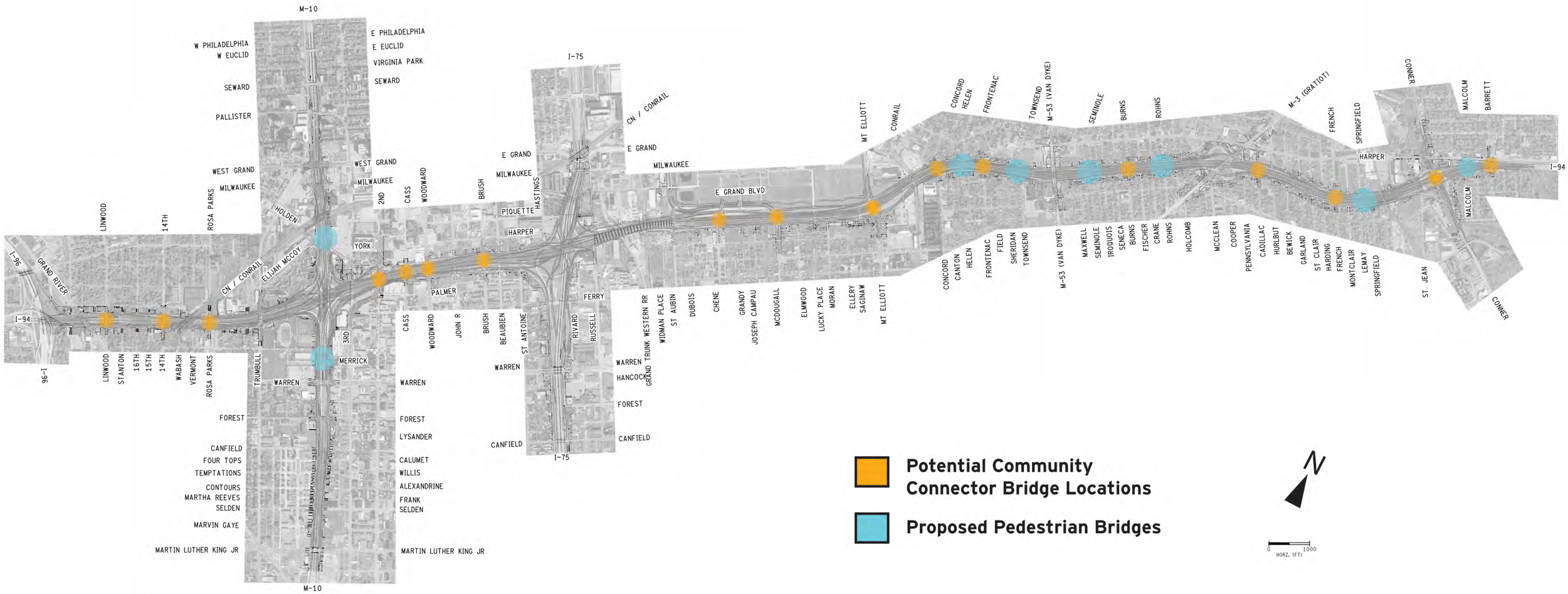
Questions:

1. Where do you think community connector bridges should be located along the I-94 corridor?

2. Some of the features that community connector bridges may have are: wide sidewalks, bike lanes, public art, landscaping, ornamental railing, and pedestrian lighting. Of these special features, which three are most important to you?

POTENTIAL COMMUNITY CONNECTOR BRIDGES

We need your input!



Potential Community Connector Bridge Locations

Proposed Pedestrian Bridges

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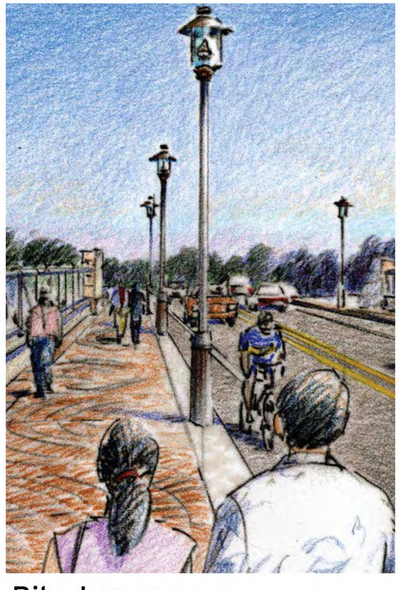
COMMUNITY CONNECTOR BRIDGE FEATURES

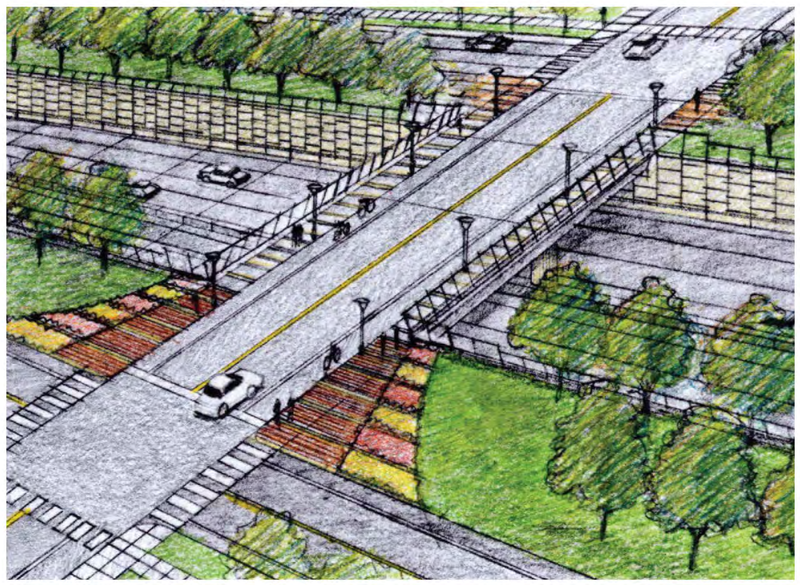
We need your input!

Wide Sidewalks



Bike Lanes

Public Art



Landscaping

Ornamental Railing and Pedestrian Lighting

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STAY INFORMED AND PROVIDE FEEDBACK

MDOT is always interested in hearing from you. Here are ways you can stay informed, request additional information, or provide feedback on the I-94 Modernization Project:

Contact:

- **Terry Stepanski, PE, Senior Project Manager, stepanskit@michigan.gov, 517-241-0233**
- **Rob Morosi, MDOT Communications, morosir@michigan.gov, 248-483-5107**

Websites and social media:

- **I-94 Project website: www.mdot.gov/94detroit**
- **www.michigan.gov/drive**
- **www.twitter.com/MichiganDOT**
- **www.facebook.com/MichiganDOT**