



FUTURE 375

I-375 ALTERNATIVES STUDY



PARSONS
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SMITHGROUP JJR

This document prepared for and under the direction of City of Detroit Downtown Development Authority
in association with the Detroit Riverfront Conservancy and the Michigan Department of Transportation.



TABLE OF CONTENTS //

0.0 Executive Summary	5	3.0 Study Purpose and Need	28
0.1 Study Objectives and Study Area	5	3.1 Overview	28
0.2 Purpose and Need for the Project.....	5	3.2 Infrastructure Condition.....	29
0.3 Alternative Development and Evaluation Outcomes.....	6	3.3 Operations + Safety	30
1.0 Introduction	7	4.0 Illustrative Alternatives.....	31
1.1 Study Purpose.....	7	4.1 Benchmarks Considered	31
1.2 Study Area.....	9	4.2 Alternative Development	34
1.3 Project Team.....	9	4.3 Illustrative Alternatives	36
1.4 Project Goals	10	4.4 Alternatives Considered + Dismissed from Further Study	46
1.5 Study Process + Methodologies Used.....	10	4.5 Evaluation	48
1.6 Previous Studies.....	10	5.0 Coordination and Outreach.....	52
2.0 Existing Conditions and Trends in the Study Area	11	5.1 Technical Committee.....	52
2.1 Vehicular Transportation	11	5.2 Advisory Committee	52
2.2 Transit + Non-Motorized Travel	14	5.3 Other Agency Coordination	52
2.3 Land Use + Development.....	20	5.4 Public Outreach.....	52
		Appendices	55

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Executive Summary

0.1

Study Objectives and Study Area

Interstate Highway 375 (I-375) is an urban freeway stub approximately one mile in length which connects I-75 to Jefferson Avenue in Downtown Detroit. The 350 feet-wide depressed (below grade) facility includes five bridges across it carrying city streets. Originally built in the 1960's, the I-375 corridor is in need of major reconstruction and maintenance. The I-375 Alternatives Study was initiated to identify and evaluate alternatives for the corridor, and several adjacent facilities, which would address the need for near- and long-term rehabilitation, meet the transportation needs of all users in a cost-effective manner, and improve the connectivity, vibrancy, and economic development potential of the corridor. This study also follows the lead of several other cities throughout the U.S. to investigate the potential alternate uses and alignments for urban freeways.

I-375 is bounded on the north by the I-75 and Gratiot Avenue connector, and to the south by Jefferson Avenue. The I-375 Alternatives Study includes primary and secondary study area, consisting of the I-375 corridor itself, as well as adjacent transportation facilities:

- Jefferson Avenue West (between Washington Boulevard and I-375)
- Jefferson Avenue East (between I-375 and Joseph Campau Street)
- I-75/I-375 Interchange, including the Gratiot connector

0.2

Purpose and Need for Project

A Purpose and Need Statement was developed for the project which incorporates the goals of the project previously developed by the Study's Advisory Committee consisting of 35 stakeholder organizations, and reflecting the needs identified through both Advisory Committee and public outreach.

Project Purpose

The purpose is to identify a transportation improvement alternative that will:

- Address the deterioration of the bridges and roadway with an appropriate solution which considers long-term life-cycle costs.
- Address existing and future transportation needs and roadway safety for users.
- Consider connectivity improvements to surrounding areas for both vehicular and non-motorized users, and also consider connections to existing and planned transit services.
- Enable potential economic development opportunities along the corridor which support official land use plans and long-term development objectives.

Project Need

The proposed project will address the following:

- Deteriorated bridges crossing I-375, which are over 50 years old, and deteriorated pavement conditions.
- Outdated existing geometric conditions, such as ramp widths and sharp curvature at the south end of the corridor, along with insufficient weave/merge areas, which result in elevated crash rates and increased congestion.

- Lack of a direct connection for vehicles and pedestrians to the developing East Riverfront from the I-375 corridor.
- Poor connectivity and confusing access to downtown destinations through the I-75/I-375 interchange and Gratiot Avenue Connector.
- Operational congestion and safety issues along the Jefferson Avenue corridor west of I-375 due to high volumes and inefficient left turning movements.
- Poor environment in I-375 and Jefferson Avenue corridors for transit and non-motorized travel, including long pedestrian crossing distances, lack of bike facilities, and poor connectivity to existing transit services.

0.3 Alternative Development and Evaluation Outcomes

Illustrative alternatives were developed through an iterative process based on several major inputs:

- The Advisory Committee Goals Statement;
- The Purpose and Need Statement;
- A summary of benchmark freeway transformation projects across the United States;
- An analysis of existing physical, traffic and socioeconomic conditions in the Study Area;
- Feedback from the Public Meeting 1 on February 12, 2014, attended by over 140 persons held at Stroh RiverPlace in Detroit; and
- A day-long Technical Committee workshop held on March 12, 2014 to develop, review and comment on draft alternative concepts.

Six alternatives were developed for the primary study area:

Alternative 1: Alternative 1 is equivalent to the No-Build Condition in terms of roadway configuration, with the exception of proposed ramp improvements/widening to the southbound off-ramps at Lafayette and Larned/E. Jefferson. No other significant changes are proposed under Alternative 1 beyond standard improvements associated with any reconstruction project.

Alternative 2: Alternative 2 is identical to Alternative 1, with the addition of a roadway extension from the Jefferson Avenue surface-level extending to Atwater Street to serve the East Riverfront area. No changes to the freeway or service drives are proposed.

Alternative 3: Under Alternative 3, the I-375 freeway would transition to a surface street south of Lafayette Avenue, and include signalized intersections at Larned Street and Jefferson Avenue. The surface roadway was assumed to be four lanes in each direction between Lafayette and Jefferson. The surface roadway would continue through Jefferson Avenue to Atwater, with two lanes in each direction. The freeway portion would be shifted to the west.

Alternative 4: Under Alternative 4, the I-375 freeway would transition to a surface street, with four lanes in each direction, south of Gratiot Avenue, coming to a surface intersection near Clinton Street. The roadway would be aligned on the east side of the corridor. Both service drives would be eliminated under this scenario. The roadway would continue south of Jefferson Avenue to Atwater Street with two lanes in each direction.

Alternative 5: Similar to Alternative 4, Alternative 5 would include a surface roadway with four lanes in each direction from south of Gratiot Avenue. However, under this alternative, the surface roadway would be aligned along the west (central business district) side of the corridor. The roadway would continue south of Jefferson Avenue to Atwater Street with two lanes in each direction. In addition, the northbound service drive would be maintained as a two-way local access roadway.

Alternative 6: Under Alternative 6, the surface roadway south of Gratiot Avenue would take the form of two one-way roadways, aligned with the existing services drives, with four lanes in each direction. The roadway would continue south of Jefferson Avenue to Atwater Street with two lanes in each direction.

In addition, two alternatives were developed for each of the secondary study areas, reflecting a range in cost and functionality, including consideration of all modes and users.

Each of the alternatives was evaluated in terms of traffic operations and safety, and the potential economic impact of the alternative. With regards to traffic operations and safety, while performance of the alternatives vary, no fatal flaws were identified. The economic impact of each of the primary study area alternatives was also considered, with Alternatives 3-6 found to provide medium to high potential economic outcomes. These analyses, along with evaluations of public space and maintaining traffic during construction will support future study of the area, including the environmental clearance process.

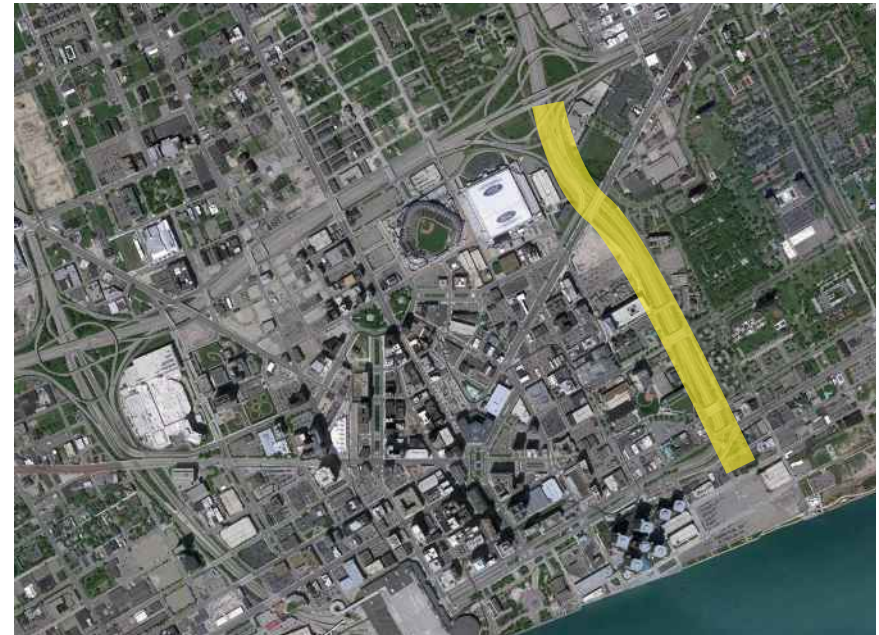
1.0// Introduction

1.1 Study Purpose

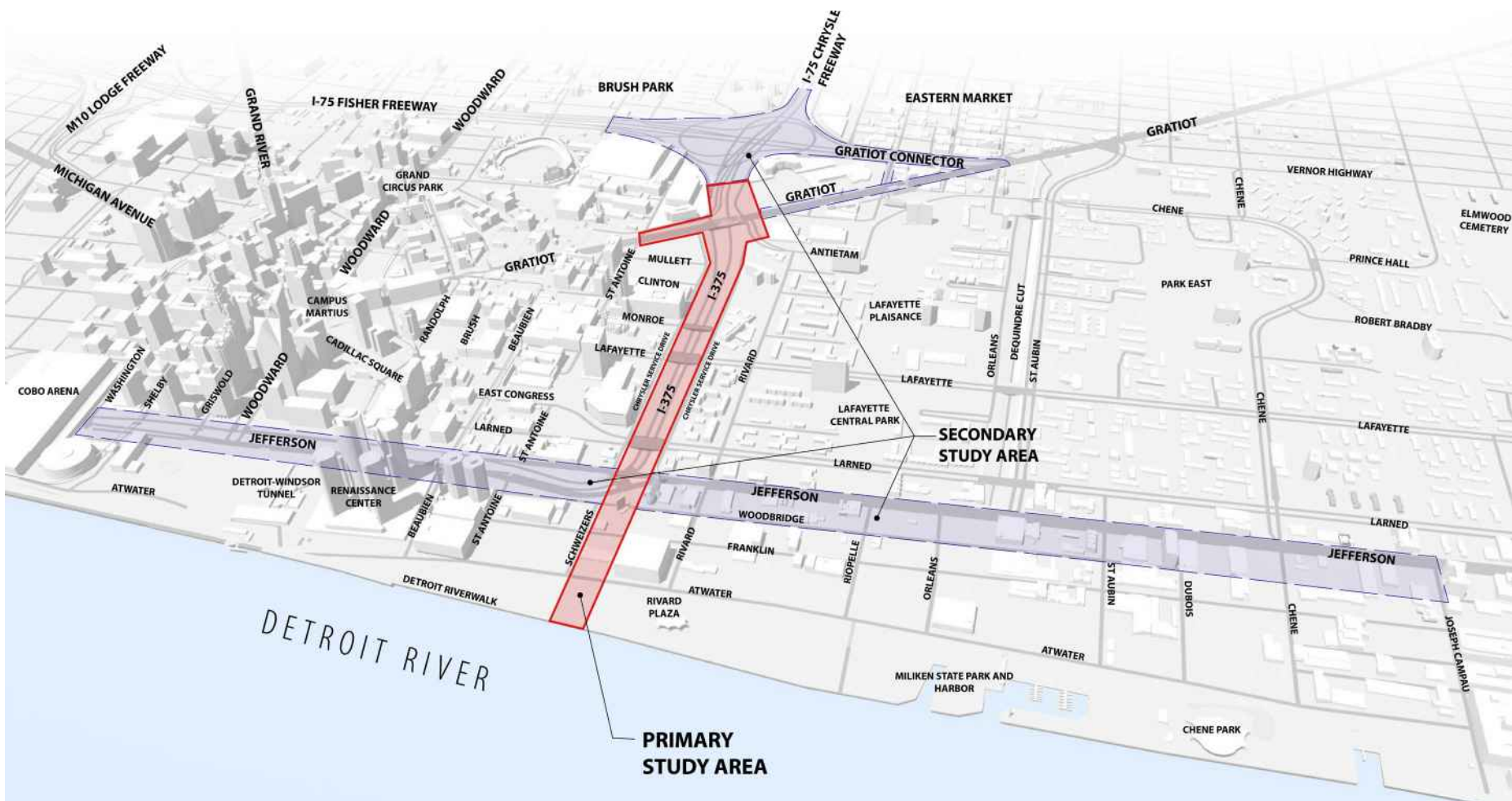
Interstate Highway 375 (I-375) is an urban freeway stub approximately one mile in length which connects I-75 to Jefferson Avenue in Downtown Detroit. The 350 feet-wide depressed (below grade) facility includes five bridges across it carrying city streets. Originally built in the 1960's, the I-375 corridor is in need of major reconstruction and maintenance. Replacing the I-375 freeway and bridges in kind is estimated to cost more than \$80 million, and would require additional funds for long-term maintenance. Funds for this work are not committed at this time by the Michigan Department of Transportation (MDOT) nor readily available from Federal sources.

The need for improvements to the I-375 corridor comes at a time of accelerated investment in the adjacent Central Business District (CBD) and near-downtown neighborhoods. Several corporations and institutions adjacent to the I-375 corridor and the nearby River East and East Riverfront districts have made significant investments since 2000, and have solidified their presence in and changed the locations for major destinations in Downtown Detroit. Thousands of employees have been relocated downtown due to regional shifts by companies such as Blue Cross/Blue Shield of Michigan and the Quicken companies, resulting in extensive building renovations, increased occupancy, and increases in residential demand and construction in the area. Activity is increasing in the development of a mixed-use district along Detroit's East Riverfront, anchored by the now-completed RiverWalk. Further, nearly \$300 million in investment at Cobo Center is helping to drive increased convention and visitor activity in the area, and construction is underway on M-1 RAIL, Detroit's first modern streetcar. These investments signal not only a more vibrant downtown, but a changing one, forming as a more walkable live-work neighborhood with improved potential for economic growth.

LOCATION AERIAL



Building on this activity, the I-375 Alternatives Study was initiated to identify and evaluate alternatives for the corridor, and several adjacent facilities, which would address the need for near- and long-term rehabilitation, meet the transportation needs of all users in a cost-effective manner, and improve the connectivity, vibrancy, and economic development potential of the corridor. This study also follows the lead of several other cities throughout the U.S. to investigate the potential alternate uses and alignments for urban freeways as part of a trend towards de-emphasis of automobile-centric facilities in urban places.. This study analyzes the I-375 corridor to determine how the right of way can better promote connectivity among the central business district, Lafayette Park, River East, and the East Riverfront and still provide an excellent level of service for decades to come.



PRIMARY AND SECONDARY STUDY AREAS

1.2

Study Area

I-375 is bounded on the north by the I-75 and Gratiot Avenue connector, and to the south by Jefferson Avenue. The I-375 Alternatives Study includes a primary study area consisting of the I-375 corridor itself and a secondary study area within:

- Jefferson Avenue West (between Washington Boulevard and I-375)
- Jefferson Avenue East (between I-375 and Joseph Campau Street)
- I-75/I-375 Interchange, including the Gratiot connector

The I-375 “impact area” is the entire Central Business District, Eastern Market, East Riverfront, RiverEast and Lafayette Park districts. I-375 provides access to several notable locations:

- Lafayette neighborhoods
- Greektown Casino
- Greektown neighborhood
- Comerica Park (Detroit Tigers)
- Ford Field (Detroit Lions football stadium)
- General Motors Headquarters at Renaissance Center
- Eastern Market
- East Riverfront District
- Hart Plaza
- Holy Family Church
- Milliken State Park and Detroit RiverWalk
- Rivertown Neighborhood
- Saints Peter and Paul Jesuit Church

1.3

Project Team

This study was conducted by the **City of Detroit Downtown Development Authority (DDA)**, in partnership with the **Michigan Department of Transportation (MDOT)** and the **Detroit Riverfront Conservancy (DRFC)**. Direction on the conduct and outcomes of the study were provided by a Technical Committee consisting of these lead agencies and the following partners:

- City of Detroit
- Federal Highway Administration (FHWA)
- Southeast Michigan Council of Governments (SEMCOG)

In addition, an Advisory Committee was established as a representative group of key project stakeholders to provide guidance and feedback throughout the study. The following organizations had representation on the project Advisory Committee:

- Blue Cross/Blue Shield of Michigan
- Christ Church
- Community Foundation for Southeast Michigan
- Cobo Center
- Crain Communications
- Downtown Detroit Partnership
- Detroit Department of Transportation
- Detroit Economic Growth Corporation
- Detroit Housing Commission
- Detroit Planning Commission
- Detroit Metro Convention and Visitors Bureau

- Detroit Tigers
- Detroit-Windsor Tunnel
- DTE Energy
- East Jefferson, Inc.
- Eastern Market Corporation
- Ford Field
- General Motors
- Greektown Casino
- Holy Family Church
- Ilitch Holdings/Olympia Development
- Jenkins Construction
- Kresge Foundation
- Lafayette Chateaufort
- Lafayette Pavilion
- Lafayette Towers
- Lafayette Townhomes
- Lafayette Town Square Co-op
- Rock Ventures
- Rivertown Detroit Association
- Saints Peter and Paul Jesuit Church
- Council Member Mary Sheffield, Detroit City Council (District 5)
- State of Michigan
- University of Detroit Law School
- Wayne County

1.4

Project Goals

Before initiation of the study, the project technical and advisory committees convened to establish the following project goals which would guide the execution of the study:

Enhance the Transportation Network and Preserve Safety.

- Meet the transportation needs for future demands.
- Improve transit connectivity and enhance non-motorized opportunities.
- Provide cost effective long term roadway infrastructure solution.
- Improve public safety.

Support or Enhance Community Quality of Life.

- Provide vibrant entrance into downtown Detroit.
- Engage community for vision of future concepts for I-375 corridor.
- Identify opportunities for aesthetic treatments that support the community character.
- Improve connectivity to the Riverfront, Greektown, Stadiums, Central Business District, and Eastern Market.
- Improve image and attractiveness of corridor.

Enhance Economic Opportunities.

- Consider alternatives that will maximize the development potential.
- Explore innovative funding opportunities.
- Support Detroit's and Detroit Future City land use plans.

Preserve Environmental Resources.

- Minimize impacts to natural features.
- Minimize impacts to community landmarks and historic resources.
- Improve storm water quality.
- Minimize air and noise impacts on adjacent neighborhoods.

1.5

Study Process + Methodologies Used

This study was conducted following the Federal process for Planning and Environmental Linkages (PEL) studies. According to the FHWA:

PEL represents a collaborative and integrated approach to transportation decision-making that 1) considers environmental, community, and economic goals early in the transportation planning process, and 2) uses the information, analysis and products developed during planning to inform the environmental review process.

The I-375 Alternatives Study follows the PEL process, in that the study identifies a Purpose and Need for the project, develops Illustrative Alternatives to address those needs, and through evaluation arrives at Practical Alternatives to advance into the environmental review process. These are specific milestones as defined in the National Environmental Protection Act (NEPA), which governs the environmental review process. The study included community outreach and various technical analyses, including traffic operations and safety, with the intention that these efforts will meet the NEPA requirements.

Further information on the PEL process and the satisfaction of that process by this study can be found in the Appendix.

1.6

Previous Studies

In October 2000, an Environmental Assessment (EA) for the proposed I-375 East Riverfront Area Access Improvement Study in the city of Detroit, Wayne County, Michigan was prepared by MDOT and approved by the Federal Highway Administration (FHWA). A Finding of No Significant Impact (FONSI) was issued by FHWA in early 2001. The approved concept included the extension of the freeway ramps south of Jefferson Avenue, terminating at street level at Atwater Street.

Since 2001, planned land use along the riverfront has become more residential, retail and recreational, requiring a greater degree of pedestrian access. Furthermore, new development in Eastern market, the stadium district, the entertainment district and Greektown has changed the character and future vision along the east side of downtown. Consequently, the corresponding transportation needs of MDOT, the city of Detroit, and the local stakeholders have changed and the formerly approved concept may not meet the current nor future projected needs for the surrounding area.

2.0// Existing Conditions and Trends in the Study Area

2.1 Vehicular Transportation

Congestion and Safety

There are several significant conditions associated with congestion and safety throughout the I-375 corridor. While I-375 has the capacity to accommodate current traffic volumes, interchange and ramp geometries require complex movements that produce congestion and crashes. This study will attempt to rectify these conditions by promoting intuitive traffic patterns in the preferred alternative.

I-375 / I-75 Interchange

The geometrics of the I-375 / I-75 interchange and Gratiot connector result in congestion, limited visibility, and higher crash rates. However, the majority of congestion and crashes are associated with through traffic on I-75. Congestion during the AM peak on I-375 is a result of complicated interchange geometrics and weaving traffic attempting to continue onto I-75 N or access the Lafayette exit on I-375.

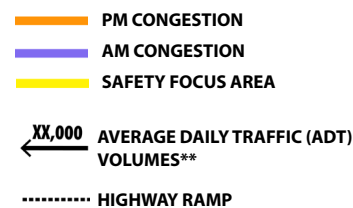
I-375 Corridor

The configuration of ramps along the primary segment of I-375 contributes to the majority of congestion and crashes. The ramps do not have the capacity to accommodate heavy SB movements during the AM peak or during events, and produce challenging traffic conditions when combined with weaving traffic from I-75 S.

I-375 / Jefferson Avenue

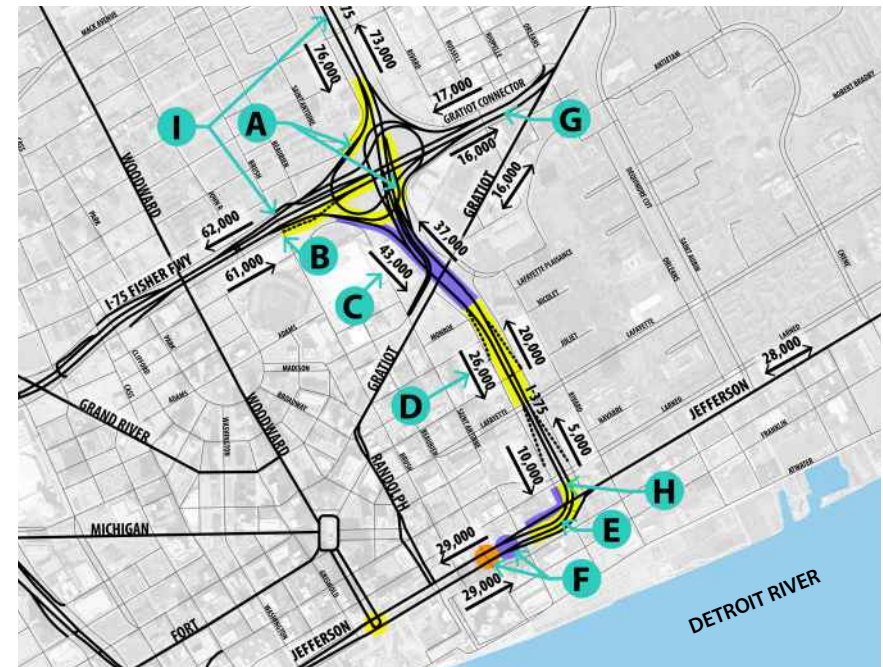
While traffic volumes and congestion significantly decrease south of Monroe Street, the geometrics of the Jefferson curve produce higher crash rates due to the tight roadway curve that vehicles must use to access west Jefferson Avenue. Congestion during both AM and PM peak hours occurs on Jefferson Avenue west of I-375 due to inefficient, indirect turning movements.

LEGEND



SOURCE: MDOT, City of Detroit (2011-2012)

TRAFFIC VOLUMES AND SAFETY IN THE PRIMARY STUDY AREA



- A** Higher crash rates* due to ramp geometrics and high volumes of through traffic.
- B** Higher crash rates* are the result of limited visibility and the high volumes of through traffic. Congestion around events.
- C** Congestion is caused by southbound I-75 traffic weaving across northbound I-75 traffic that are crossing paths to access I-375 and the Lafayette exit.
- D** Ramp backups result in higher crash rates* for southbound vehicles.
- E** Southbound vehicles have a higher crash rate* due to the tight roadway curve.
- F** AM traffic queuing due to inefficient “Michigan Left” access Riverfront Parking areas causes congestion. PM traffic queuing congestion from multiple turning movements with limited space.
- G** Traffic volumes show that the Gratiot connector is being used; current design can handle higher traffic volumes. Event days result in high volumes.
- H** Southbound traffic volumes significantly decrease at the Lafayette ramp and at the East Jefferson ramp resulting in a significant drop in volume at the Jefferson terminus to I-375. Future development on waterfront may result in increasing volumes at the south end of I-375.
- I** More than 50% of I-75 traffic is through traffic and does not continue on to I-375.

Access and Connectivity

The existing configuration of I-375 limits accessibility and connectivity at key junctions and to local streets.

I-375 S primarily services inbound traffic during the AM peak hour and special events. Access to the CBD and adjacent neighborhoods is limited by the number of ramps, the one-way configuration of some East/West streets, and complicated geometrics/movements. Additionally, no direct connection to the riverfront from I-375 S exists. The I-375 S service drive provides direct driveway access to several commercial uses along the CBD edge.

I-375 N essentially services traffic exiting the downtown area, as it connects only to I-75 N, I-75 S, and NB Gratiot Avenue via the Gratiot connector. The I-375 N service drive provides direct driveway access to commercial, residential, and educational uses along the eastern edge of the corridor.

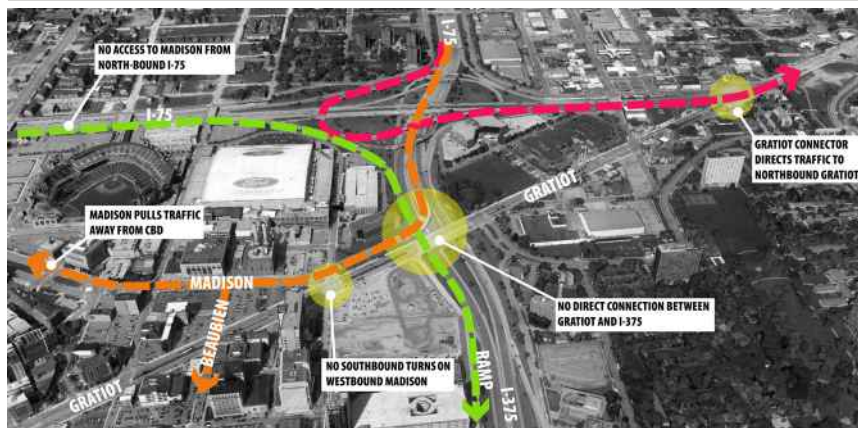
I-375 / I-75 Interchange

While the I-375 / I-75 interchange provides access for all movements between the two freeways, the geometrics of ramps and the Gratiot connector create confusing conditions for vehicles. The Madison Street ramp provides additional challenges, as it can only be accessed via I-75 S and pulls traffic away from the CBD and Gratiot Avenue. The Gratiot connector precludes direct connections from I-375 at Gratiot Avenue, instead forcing traffic onto NB Gratiot Avenue away from the CBD.

I-375 Corridor

Along the primary segment of I-375 S, access is limited to ramps at Lafayette Street and Larned Street, which also provide service drive connections to Monroe Street, Congress Street, and EB Jefferson Avenue. No access from I-375 S to Mullett Street, Macomb Street or Clinton Street exists. As mentioned previously, I-375 N connects only to I-75 and the Gratiot connector.

EXISTING I-375 GEOMETRY LIMITS ACCESS TO GRATIOT
(A SIGNIFICANT TRUNK ROUTE) AND THE CBD



LEGEND

- GRATIOT CONNECTOR ROUTE
- MADISON EXIT ROUTE
- NORTH-BOUND I-75 ROUTE
- INTERSECTION

EAST JEFFERSON & I-375 GEOMETRY AND REMOVED STREET GRID LIMIT
ACCESS TO RIVERFRONT DISTRICT



LEGEND

- E. BOUND E. JEFFERSON ROUTE
- W. BOUND E. JEFFERSON ROUTE
- AREA LACKING STREET GRID
- INTERSECTION

I-375 / Jefferson Avenue

I-375 S interacts with Jefferson Avenue through separate, indirect movements. Access to WB Jefferson Avenue is limited to the Jefferson Curve, while traffic attempting to access EB Jefferson Avenue is required to exit the freeway and turn left at-grade. The I-375 N service drive can be accessed from Jefferson Avenue via direct, at-grade movements. Major developments and institutions have consolidated city parcels, eliminating a significant portion of the vehicular street grid and limiting vehicular travel to fewer streets, particularly east of I-375. The radial street pattern emanating from the CBD, the prevalence of one-way streets west of I-375, and the disrupted street grid result in unique intersections with restrictive and complicated movements. Connections between the CBD and eastside neighborhoods are limited by these complicated movements and the deteriorating state of bridges spanning I-375. These challenges are compounded by the continued development of the CBD and eastside neighborhoods. Travel patterns have, and will continue to change as the development of these neighborhoods continues, further straining the few streets that provide connectivity. These local and global trends further expedite the need to re-imagine I-375 to meet the needs of future travel patterns.

PRIMARY STUDY AREA STREET NETWORK CHALLENGES



LEGEND



ONE-WAY STREET (CIRCLE REPRESENTS START OF ONE-WAY TRAFFIC)



BROKEN/MISSING STREET GRID CONNECTION

2.2

Transit + Non-Motorized Travel

Transit Routes and Services

Detroit Department of Transportation (DDOT)

Currently, no DDOT fixed routes exist along I-375. DDOT currently operates eight (8) local routes that intersect with I-375, which include:

Gratiot Avenue

Route 34
Route 40
Route 49

Lafayette Street

Route 10
Route 48

Larned Street

Route 7

Jefferson Avenue

Route 25

DDOT also operates multiple routes that service the Lafayette Park neighborhood within a ¼ mile walk shed of I-375.

Suburban Mobility Authority for Regional Transportation (SMART)

Currently, no SMART fixed routes exist along I-375. SMART currently operates six (6) local routes and three (3) express routes that intersect with I-375, which include:

Gratiot Avenue

Route 510 (express)
Route 515
Route 530
Route 560 (express)
Route 565
Route 580

Jefferson Avenue

Route 610 (express)
Route 620
Route 635

Detroit Transportation Corporation (DTC)

Currently, the People Mover does not provide service along I-375. However, three (3) People Mover stations currently exist within the desired ¼ mile walk shed of I-375 along Beaubien Street.

Planned Transit Service

In 2012, the Michigan Legislature approved the creation of the first regional transit authority within the Detroit Region. The SE Michigan Regional Transit Authority (RTA) is governed by a 10-member board with two (2) representatives from each of the participating counties (Macomb, Oakland, Washtenaw, and Wayne), one representative from the City of Detroit, and one non-voting member appointed by the governor who acts as the chair.

The RTA is currently overseeing the study of rapid transit service along several corridors within SE Michigan, including Gratiot Avenue. This service will provide a premium level of transit along Gratiot Avenue of either Light Rail or Bus Rapid Transit (BRT) design. This service will connect Macomb County to Downtown Detroit, and is targeted to serve commuter travel by offering rapid and enhanced service through 1-mile station spacing, dedicated transit lanes, enhanced station design, real-time travel information, off-board fare collection, and on-board amenities. The Alternatives Analysis phase of the study is scheduled to be complete by early 2016.

EXISTING AND PROPOSED TRANSIT ROUTES



LEGEND

- | | | | |
|--|--|--|--|
| | DDOT BUS ROUTE | | PROPOSED - GRATIOT BUS RAPID TRANSIT (BRT) |
| | UNDER STUDY - WOODWARD BUS RAPID TRANSIT (BRT) | | DETROIT PEOPLE MOVER |
| | PLANNED - M-1 RAIL STREETCAR | | DETROIT PEOPLE MOVER STATION |

EXISTING CONDITIONS ADJACENT TO I-375

ON THE STREET



HUSTLE, BUSTLE - VIBRANT MONROE STREET



WELCOMING ACTIVE RESIDENTIAL FOCUSED RIVARD STREET



WELCOME CARS ONLY - BEAUBIEN STREET TO THE RIVERWALK

AT THE CORNER



GRATIOT AND ST. ANTOINE

Long crossing distances and multiple vehicle turning movements make this "6" legged intersection a challenge for pedestrians.

CROSSING THE I-375 BRIDGES



JEFFERSON AND LARNED



GRATIOT



LAFAYETTE AND MONROE



JEFFERSON AND BEAUBIEN

Long crossing distances, multiple vehicle turning movements and no direct access to the RiverWalk makes this intersection less than comfortable for pedestrians.



STREET VIEW



STREET VIEW



STREET VIEW



JEFFERSON AND ST. ANTOINE

I-375 ramps prohibits ability for at grade pedestrian crossings.

Pedestrian Connections

Surface streets adjacent to the I-375 corridor typically have concrete sidewalks on both sides of the street. Sidewalks are generally in good repair and are kept free of debris. Sidewalks vary in width through the study area and are sometimes not wide enough to accommodate adjacent uses. Beyond the actual sidewalk, there is an inconsistent application of pedestrian oriented amenities such as lawn buffers, street trees, lighting and streetscape furnishings.

Beaubien and Monroe adequately balance the needs of the pedestrian and the vehicle. These streets provide a positive pedestrian experience with a mix of adjacent land uses, pedestrian oriented entries, buildings that front the sidewalks and are well traveled by other pedestrians.

The Detroit RiverWalk is an exceptional pedestrian and non-motorized asset that connects users east and west. However, access to the RiverWalk is constrained by the challenge of crossing Jefferson and by the poor experience walking along surface parking lots and parking structures between Jefferson and the river.

There are several streets adjacent to the I-375 corridor, such as St. Antoine, Macomb, Beaubien south of Jefferson Drive and the Chrysler Service Drive, that have an unsatisfactory pedestrian experience.

OBSERVATIONS OF EXISTING PEDESTRIAN CONDITIONS

Diminished walkability can be contributed to blocks that are too large, single uses, being adjacent to vacant and/or parking lots, vehicle entries only, poor lighting and an absence of other pedestrians.

The event district north of Gratiot has a sidewalk network that is in good repair, well-lit and sized to accommodate large crowds accessing Comerica Park and Ford Field. However, when there are no events, these streets have little to draw pedestrians into the areas leaving the street environment empty and unwelcoming. Access to this area from downtown is significantly impacted by the intensity and scale of Gratiot. Long crossing distances and multiple vehicle turning movements makes intersections – like the 6-legged intersection at St. Antoine and Gratiot a challenge for pedestrians.

The most significant challenge to pedestrian connectivity is the gap created by I-375 bifurcating access between the residential areas to the east and the downtown. There are five overpasses that need to be navigated by non-motorized users. Each of these crossing, almost as wide as a typical city block, have no adjacent land uses to draw pedestrians. The crossing experience is unsatisfactory and unsafe across the bridges and the services drives. There are sidewalk gaps and missing pedestrian crossings. Sidewalks are narrow and directly adjacent to the wide roads with fast traffic without buffers. Most walks are poorly lit, poorly maintained and repaired.



PEDESTRIAN EXPERIENCE EVALUATION

GOOD

Walking along streets that have a mix of uses, buildings fronting the sidewalk, have pedestrian building entries and are well traveled by other pedestrians. These streets balance pedestrian and vehicular needs.

NEUTRAL

Walking on streets that are neither good or unsatisfactory but somewhere in between.

UNSATISFACTORY

Walking along streets that are adjacent to single uses, adjacent to vacant and/or parking lots, have blank walls or only vehicle entries and do not feel safe. These streets may not be well traveled either by pedestrians or vehicles. Or can have too much vehicular traffic.

EVENT ORIENTED

Walking experience is influenced by the nature of this area. Sidewalks are large to accommodate large crowds. When there are no events there is little to draw pedestrians into this area.



SIGNIFICANT CHALLENGES AT INTERSECTIONS



OVERPASS

Open Space and Non-Motorized Connections

The I-375 corridor has three significant public open spaces within the vicinity. The Detroit RiverWalk to the south and its associated park spaces such as Rivard Plaza, Milliken State Park and Harbor and Chene Park provide needed recreational opportunities for Detroit residents and attract visitors from all of the state, county and abroad. Campus Martius to the west is a highly active, programmed urban park that draws crowds all year long and Lafayette Central Park to the east is a large residentially focused park that provides access to natural open space for local residents. There are a few additional smaller public and private open spaces in the area for downtown residents, employees and visitors including the Blue Cross Blue Shield Plaza and Cadillac Square.

Existing non-motorized facilities – including shared used paths, bike lanes and sidewalks provide some measure of connectivity to downtown open spaces. Most significantly, the multi-phased Dequindre Cut Greenway links the Detroit RiverWalk to residential areas to the north, Eastern Market extending all the way to the Midtown Loop. More comprehensive connectivity is under development. A network of non-motorized connections including those on Gratiot, Lafayette and Jefferson are intended to help reconnect the downtown to the neighborhoods to the east. Planned routes on Woodward, Cass, Beaubien are focused on improving connections to the Detroit River from the downtown area.

OPEN SPACE



MILLIKEN STATE PARK + HARBOR



CHENE PARK



CAMPUS MARTIUS



LAFAYETTE CENTRAL PARK

PEDESTRIAN + NON-MOTORIZED CONNECTIONS



DETROIT RIVERWALK



MIDTOWN LOOP








DEQUINDRE CUT

EXISTING AND FUTURE NON-MOTORIZED SYSTEMS



LEGEND

-  EXISTING PEDESTRIAN AND/OR NON-MOTORIZED CONNECTION
-  PLANNED OR CONCEPTUAL PEDESTRIAN AND/OR NON-MOTORIZED CONNECTION
-  EXISTING OPEN SPACE
-  PRIMARY STUDY AREA
-  SECONDARY STUDY AREA

2.3 Land Use and Development

Background and Historic Resources

Located on the north-south alignment of the once active commercial Hastings Street corridor, I-375 was built in the 1960's in the heart of the Black Bottom and Paradise Valley Neighborhoods. Black Bottom was a predominantly black neighborhood in Detroit demolished for redevelopment in the early 1960s. Housing was replaced with the Lafayette Park housing development. The name "Black Bottom" was derived from the rich marsh soils of now buried River Savoyard.

Hastings Street at the time was a major corridor of African American owned business, social institutions and night clubs. The street became famous for its Jazz and Blues Music.

Paradise Valley was the business district and entertainment center of the densely-populated Black Bottom neighborhood from the 1920's through the 1950's. Over 300 black owned businesses including drugstores, beauty salons, restaurants, nightclubs and theaters could be found in Paradise Valley. A portion of Paradise Valley is now Ford Field. Paradise Theatre, mecca for jazz, has been renovated into Orchestra Hall.

There are five Historic Districts in the area adjacent to the primary study area including Eastern Market, Lafayette Park, Madison Harmonie, Greektown and Randolph Street Commercial Buildings District. Many historic churches are still present in the area including the Holy Family Roman Catholic Church, Christ Church both of which are located directly along the I-375 Corridor. Other notable historic resources adjacent to the corridor include: the Palms Apartments, the Thomas A Parker House and the Sibley House.

*Source: Detroit Historical Society <http://detroithistorical.org>



THE FIRST BARTHWELL



HASTINGS STREET



BLACK BOTTOM NEIGHBORHOOD



FOUR SHARPS JAZZ GROUP



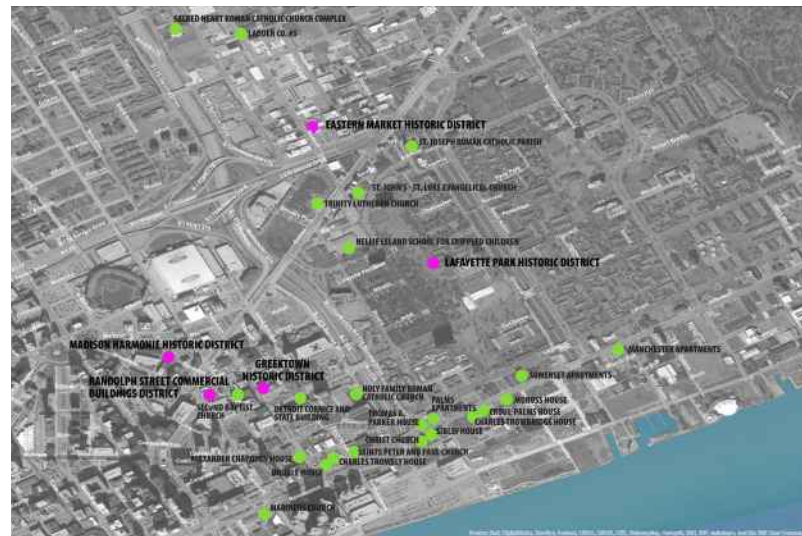
HISTORIC FLAME



PARADISE THEATER



GRATIOT AT HASTINGS STREET



HISTORIC RESOURCES

Present-Day Districts and Real Estate Profile

I-375 is located in the heart of Detroit in proximity to the many unique districts that have developed in Detroit. At the far northeast end of the corridor, the Gratiot connector separates the north and south portions of the historic Eastern Market. A mixed-use food related district, Eastern Market includes the public market, food retailers, restaurants, food distributors, food processors, and pockets of residential properties. On northwest edge, where Paradise Valley once sat, the Event District contains two major event arenas surrounded by support services and parking. City blocks in this area have been increased to accommodate the arenas and activity fluctuates between high visitor/user volumes during event periods followed by low usage/volumes during non-event periods.

Along the west edge of the corridor, in Downtown East, the historic street grid along with the historic building stock has been significantly modified to create larger city blocks to accommodate large institutional uses such as Blue Cross Blue Shield, Greektown Casino, and University of Detroit Mercy School of Law. Large surface parking lots break down the urban framework in this district. Low density residential uses have developed in the Lower East Central district on the east side of the corridor. This district is a mixture of multi-family, townhouses, and mid to high rise residential towers. Lafayette Central Park, Lafayette Plaisance, and Park East are large interior focused park spaces that wind through the residential properties

The Renaissance Center sits at the far south end of the corridor. This district is a major employment and hospitality center containing 7 high rise office towers with General Motors Headquarters, a Marriott Hotel, people mover station, restaurants, conference center, movie theater, parking decks, and other amenities. There is direct access to the RiverWalk via the WinterGarden and GM Plaza.



EASTERN MARKET

- Historic mixed-use food related district
- Includes the public market, food retailers, restaurants, food distributors, food processors, and pockets of residential properties

EVENT AREA

- Special event area with two major event arenas surrounded by support services and parking
- High visitor/user volume during event periods followed by low usage/volumes during non-event periods.

DOWNTOWN EAST

- Historic buildings and street grid have been significantly modified to create larger city blocks with large institutional uses. Large surface parking lots exist throughout the district.
- Blue Cross Blue Shield, Greektown Casino, Univ. of Detroit Mercy School of Law, and Greektown Businesses

RENAISSANCE CENTER

- An iconic Detroit landmark of seven high rise office towers. Contains the GM Headquarters, a Marriott Hotel, people mover station, restaurants, conference center, movie theater, parking decks, and other amenities
- Direct access to the RiverWalk via the WinterGarden and GM Plaza

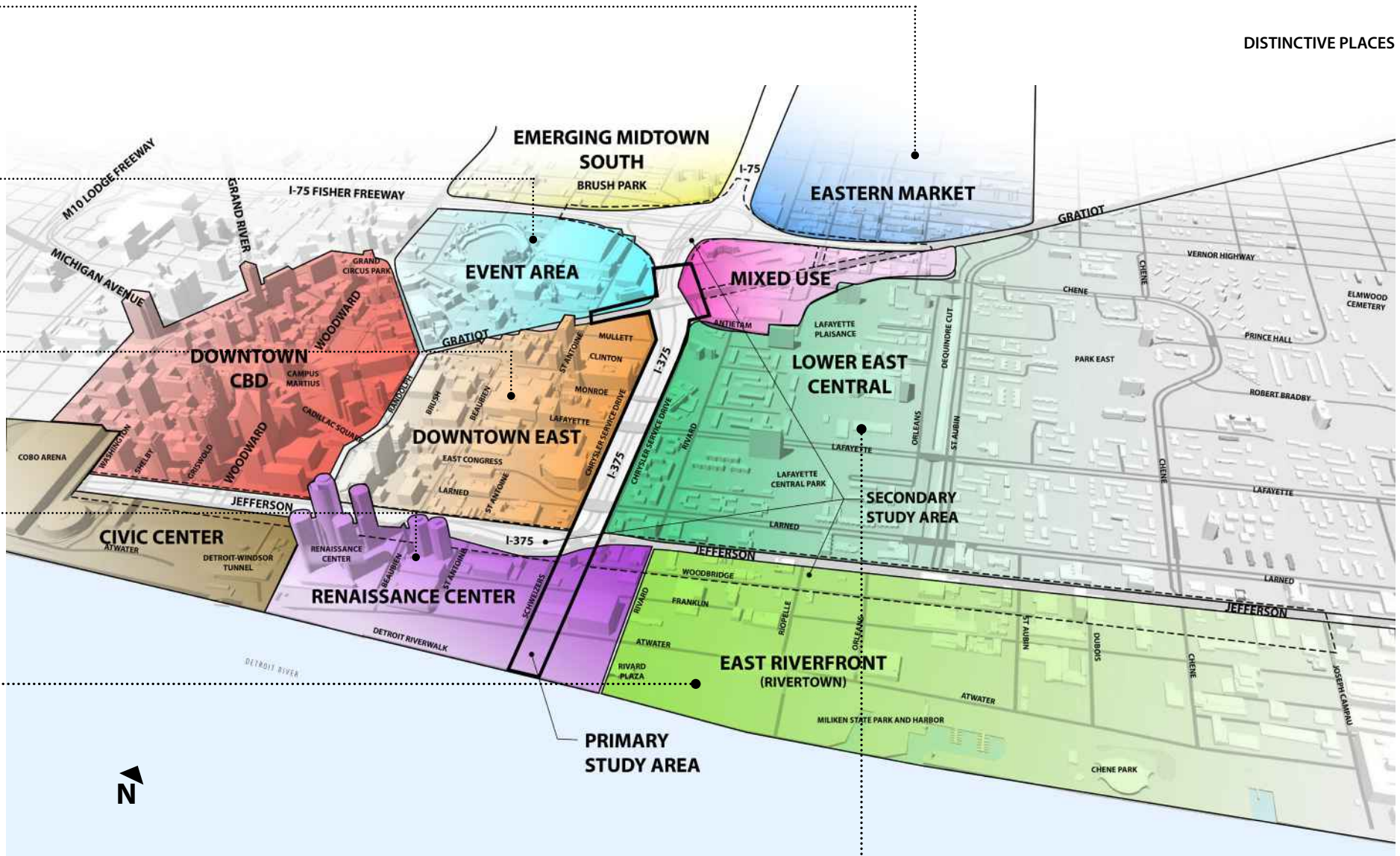
EAST RIVERFRONT

- Previous brownfield and industrial area transforming into a mixed use district
- Public river access with a significant amount of adjacent vacant development property. New developments include the Univ. Prep Science & Math High School, MDNR Discovery Center, Orleans Landing residential development, Presbyterian Village, and Roberts RiverWalk Hotel.

LOWER EAST CENTRAL

- Large residential area east of the CBD with a mixture of multi-family, townhouses, and mid to high rise residential towers. Examples include Lafayette Park Residences, Woodward Academy and Dequindre Cut
- Lafayette Central Park, Lafayette Plaisance, and Park East are large interior focused park spaces that wind through the residential properties

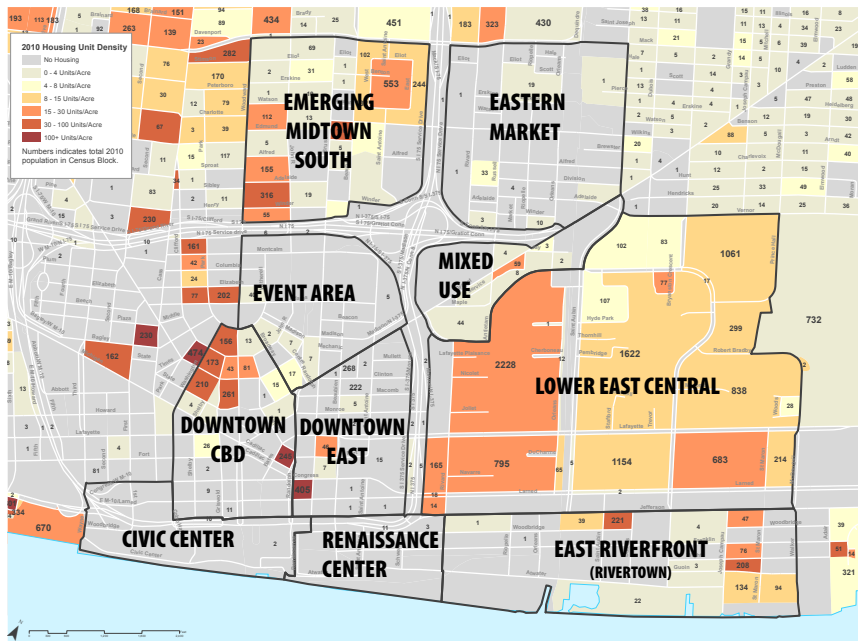
DISTINCTIVE PLACES



Real Estate Profile

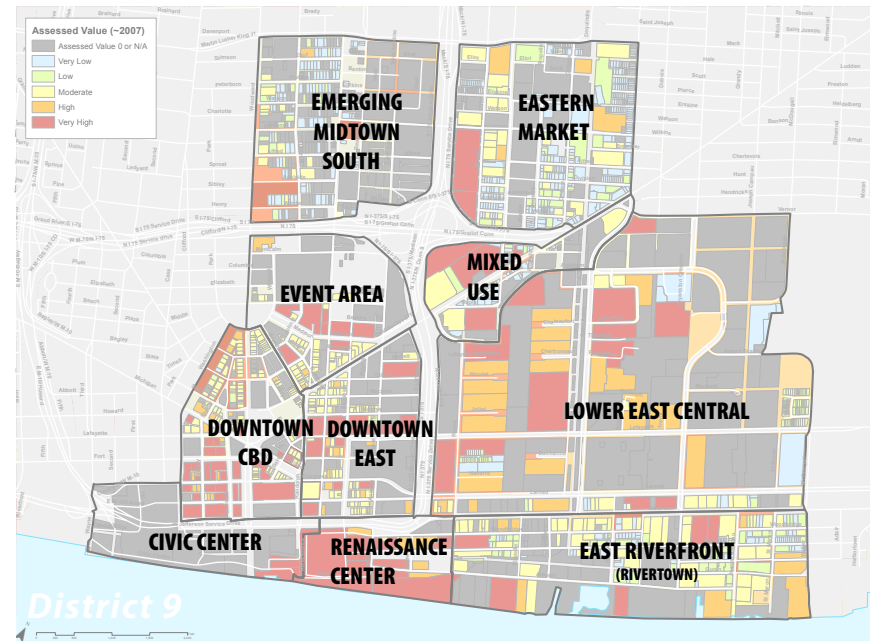
According to the 2010 Census, the districts surrounding the I-375 corridor house 14,910 people (~2% of total Detroit 2010 population). The Lower East Central district contains the most housing units and a low overall % vacancy (13.9%). Downtown East has the lowest vacancy rate at 11.9% while the Emerging Midtown South has the highest at 32.5%. Significant portions of the study area (per 2007 Detroit Parcel data) include properties with no assessed value, as consequence of being tax exempt or otherwise non-assessed. A majority of the frontage facing I-375 falls into a non-assessed category. The Downtown CBD and Renaissance Center areas account for a relative majority of the assessed property values. The Civic Center, Eastern Market, and Emerging Midtown areas have the lowest overall assessed value, due in large part to a high level of non-assessed property.

HOUSING UNIT DENSITY



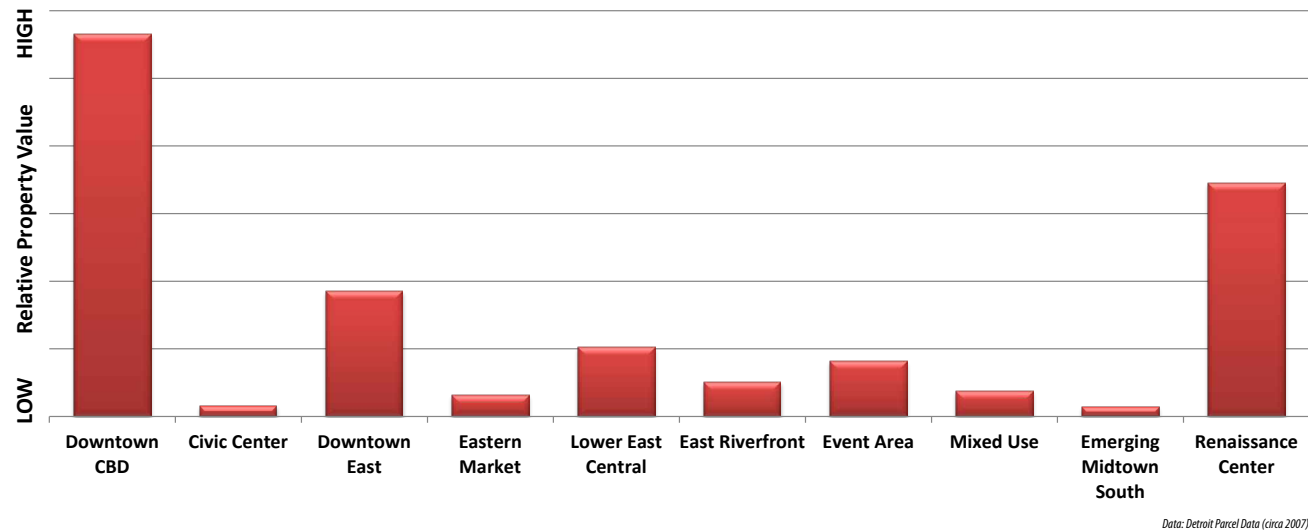
Data: US Census, 2010 Decennial Census

ASSESSED PROPERTY TAX VALUE (2007)

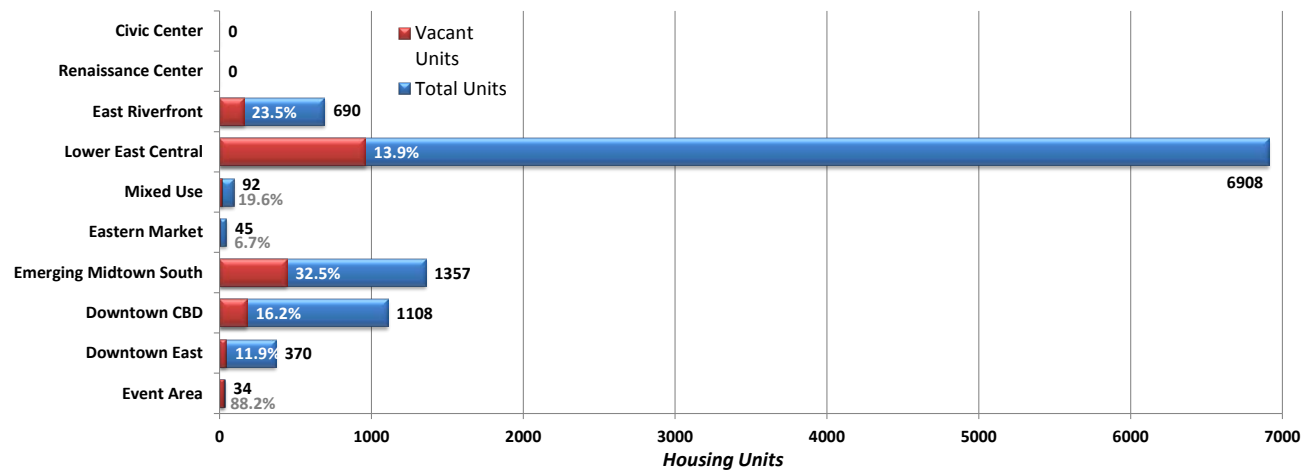


Data: US Census, 2010 Decennial Census, Detroit Parcel Data (circa 2007)

TOTAL DISTRICT VALUE



HOUSING UNITS & VACANCY



SITES WITH DEVELOPMENT POTENTIAL ADJACENT TO PRIMARY STUDY AREA



Data: US Census, 2010 Decennial Census

LEGEND

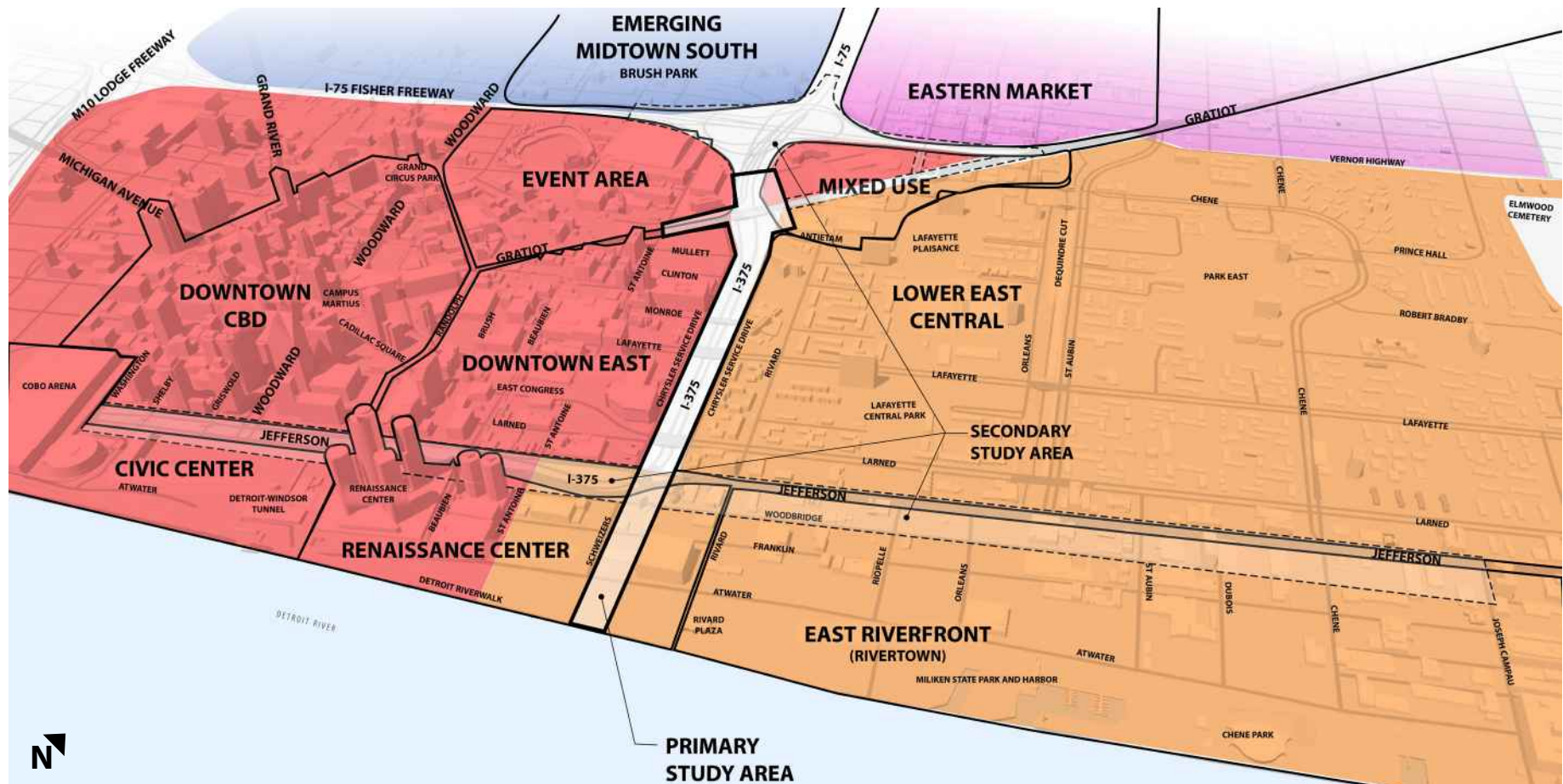
- SURFACE PARKING LOTS
- VACANT LAND

Future Land Use

There are significant opportunities for increased development in the districts adjacent to the Primary Study Area. In addition to redevelopment of existing buildings, there is vacant land (including surface parking lots) in the East Riverfront District, The Renaissance Center, and Downtown East and along Gratiot in the Mixed Use District. Directly adjacent to the Primary Study area, there are fewer large parcels or parking lots available for redevelopment with the exception of the Wayne County Jail site located at the junction of Gratiot and I-375.

Based on the 50-Year Plan for future land use as identified on the Detroit Future City 2012 Strategic Framework Plan, there are four types of land use typologies anticipated for the areas surrounding the I-375 corridor. The most urbanized is the 'City Center' future land use designation. This land use envisions a dynamic mixed-use environment that functions as the city and region's core for commercial and service employment. The districts on the west side of the corridor - the Downtown CBD, Downtown East, The Event Area and Renaissance Center, are designated as a 'City Center'. On the west side of the corridor, in the Lower East Center and East Riverfront, the 'Green Mixed' future land use vision includes innovative new residential neighborhoods that combine medium and high-density multi-family housing within a landscape setting. As the momentum of Midtown redevelopment pushes to the south, Midtown South will become a 'District Center' with active, medium-to-high density areas that provide an even mix of residential and employment uses. Future land use in Eastern Market provides a 'Live +Make' district where repurposed historic industrial structures band land that fosters a blend of smaller scale, low-impact production activities is combined with a diversity of other land uses.

50-YEAR PLAN FOR FUTURE LAND USE (PER THE DETROIT FUTURE CITY 2012 STRATEGIC FRAMEWORK PLAN)



CITY CENTER

Dynamic mixed-use environment that functions as the city and region's core for commercial and service employment.



GREEN MIXED

Innovative new residential neighborhood that combines medium- and high-density multi-family housing within a landscape setting.



LIVE + MAKE

Repurposed historic industrial structures and land that fosters a blend of smaller scale, low-impact production activity is combined with a diversity of other land uses.



DISTRICT CENTER

Active, medium-to-high density, mixed-use areas that provide an even split of residential and employment uses.



3.0// Study Purpose + Need

3.1 Overview

The following Purpose and Need Statement developed for the project incorporates the goals of the project previously developed by the Study's Advisory Committee consisting of 35 stakeholder organizations, and reflecting the needs identified through both Advisory Committee and public outreach.

Project Purpose

The purpose is to identify a transportation improvement alternative that will:

- Address the deterioration of the bridges and roadway with an appropriate solution which considers long-term life-cycle costs.
- Address existing and future transportation needs and roadway safety for users.
- Consider connectivity improvements to surrounding areas for both vehicular and non-motorized users, and also consider connections to existing and planned transit services.
- Enable potential economic development opportunities along the corridor which support official land use plans and long-term development objectives.

Project Need

The proposed project will address the following:

- Deteriorated bridges crossing I-375, which are over 50 years old, and deteriorated pavement conditions.
- Outdated existing geometric conditions, such as ramp widths and sharp curvature at the south end of the corridor, along with insufficient weave/merge areas, which result in elevated crash rates and increased congestion.
- Lack of a direct connection for vehicles and pedestrians to the developing East Riverfront from the I-375 corridor.

- Poor connectivity and confusing access to downtown destinations through the I-75/I-375 interchange and Gratiot Avenue connector.
- Operational congestion and safety issues along the Jefferson Avenue corridor west of I-375 due to high volumes and inefficient left turning movements.
- Poor environment in I-375 and Jefferson Avenue corridors for transit and non-motorized travel, including long pedestrian crossing distances, lack of bike facilities, and poor connectivity to existing transit services.

The following sections provide additional detail regarding the project needs.

3.1 Infrastructure Condition

The I-375 corridor was built in the 1960's and is in need of rehabilitation. In particular, the structures carrying city streets over I-375 are in various states of disrepair, with at least two requiring near-term replacement or significant overhaul.

This study is conducted under the assumption that full replacement of all corridor elements will be required within a twenty-year planning horizon, with some elements needing attention much sooner. The goal of the study is therefore to develop a vision for the corridor so as not to spend funds repairing or replacing elements which may change based on the corridor vision. In order to facilitate comparison, costs for all alternatives were evaluated based on the full reconstruction cost for the entire corridor.



3.2 Operations + Safety

Several specific operations and safety issues were identified within the primary and secondary study areas which helped to define the project needs to be addressed:

Off-Ramp Operations

Today off-ramps are offered for southbound traffic serving Lafayette Avenue and Larned Street/East Jefferson Avenue. The ramps merge onto the parallel southbound service drive on the left side of the service drive. However, much of the traffic exiting intends to turn right onto the next street to access the CBD. The result is significant congestion and ramp back-ups due to the lack of space between the end of the on-ramp and the next intersection. In addition to congestion, the ramp back-ups occasionally result in rear-end crashes along I-375.

Weaving Conditions

Due to the close spacing of ramps in the area, there is a significant weave condition between the northbound I-75 to southbound I-375 ramp and the southbound I-375 off-ramp to Lafayette Avenue. The result is occasional congestion and safety issues.

BRIDGE CONDITIONS IN THE CORRIDOR:

BRIDGE	YEAR BUILT	LAST REHAB	2012 BRIDGE RATINGS			
			DECK	DECK BOTTOM	SUPER STRUCTURE	SUBSTRUCTURE
Madison Avenue Ramps over I-375	1964		5	5	7	5
M-3 (Gratiot Avenue) over I-375	1963	1996	7	7	7	5
Monroe Street over I-375	1959	1996	7	7	7	7
Lafayette Avenue over I-375	1960	1990	7	7	7	6
Larned Street over I-375	1960		4	4	6	5
Jefferson Avenue over I-375	1962		4	N	7	6
Hastings Street over I-375	1962		4	4	6	5

Rating Scale: 9 = New, 7-8 = Good, 5-6 = Fair, 4 = Poor, < 3 = Critical

Jefferson Left-Turn Operational and Safety Issues:

At the intersection of Jefferson Avenue with Woodward Avenue and Beaubien Street, direct left-turns are allowed for most movements. However, due to limited storage space in the median space between eastbound and westbound Jefferson Avenue and other factors, these movements operate inefficiently and frequently result in congestion, backing up onto both M-10 and I-375 during the AM peak period. This congestion also precipitates safety issues, particularly at Beaubien Street, where the back-ups occur on the Jefferson curve, with limited upstream visibility to oncoming traffic.

I-75 Ramp Operations and Safety:

The I-75/I-375 interchange is designed such that I-75 through traffic must in effect “exit” the mainline onto a low-capacity ramp and re-enter the mainline freeway on the other end of the interchange. The result is over-capacity, low-speed ramps which impede mainline I-75 flow.

Jefferson Curve Safety:

The curve from I-375 onto West Jefferson is a sharp, low-speed curve marked for an advisory speed of 30 mph. Vehicles entering the curve over-speed from the upstream freeway, along with previously mentioned queueing issues related to Beaubien Street, result in an elevated rate of crashes along the curve.

3.3 Multi-Modal Connectivity

While the I-375 corridor provides rapid connection between I-75 and Jefferson Avenue, the configuration of the facility and location of ramps impede connectivity at both the north and south ends of the corridor, impacting access and development potential of those areas. In addition, traversing the wide, depressed freeway section on a bridge with narrow sidewalk widths and no bike lanes serves as an imposing barrier to pedestrians. The following is a summary of issues identified related to connectivity:

Vehicular Connectivity

Vehicular connectivity along the corridor is most impeded at the two ends of the corridor, at the junctions of Gratiot Avenue and Jefferson Avenue.

- **North End Connectivity:** I-375 does not have a direct connection to Gratiot Avenue, instead relying on ramp access to Madison Avenue, which

is only accessible from southbound I-75/I-375, and indirect connection via the Gratiot Connector. The result is circuitous routing for entry into downtown at the north end of the corridor, in direct proximity to major attractions, including Ford Field, Comerica Park and the theater district. In part as a result, there is significant land vacancy and under utilization of property at the junction of Gratiot Avenue and I-375.

- **South End Connectivity:** At the south end of the corridor, the curve carrying I-375 onto Jefferson Avenue directs mainline traffic into the CBD, with traffic wishing to access eastbound Jefferson doing so through a confusing, indirect movement. Further, the curve serves as a physical barrier to access further south to the riverfront, resulting in limited connectivity to this key development area, and inefficient access to parking facilities for the Renaissance Center complex and riverfront parks and amenities.

Non-Motorized and Transit Connectivity

The width of the I-375 corridor, the speed and noise of freeway traffic, physical condition of some sidewalks, and lack of pedestrian-scale amenities, all serve to discourage pedestrian access across and along the corridor. This is particularly relevant as the corridor separates the Lafayette Park residential community from the CBD, with demographic data showing a strong live/work/play connection between the two. Further, the Jefferson curve serves a similar barrier between the east edge of downtown, Lafayette Park, and the riverfront, with limited physical connections, and poor conditions and environment for pedestrians at the crossing locations. There are no bike lanes or other bike amenities along the study corridors.

Along Jefferson Avenue East, the width of the roadway (approximately 90 feet) can be intimidating and discouraging for pedestrian crossings, without an opportunity for refuge part-way across the roadway. Along Jefferson Avenue West, while pedestrian refuge is offered, the long crossing distance requires crossing in two phases of the traffic signal, making condition of the pedestrian space in the median more critical.

No transit service is offered today nor planned along the I-375 corridor. However, several routes cross the corridor, including routes along Gratiot Avenue, Lafayette Avenue, Larned Street and Jefferson Avenue. As such, the primary consideration related to transit connectivity along the corridor is accessibility to those services to non-motorized travelers. By this measure, the poor pedestrian environment and lack of bike amenities impedes access to transit services.

4.0// Illustrative Alternatives

4.1

Benchmarks Considered

Several projects around the United States were considered which provided benchmarks for the impact of transforming an urban freeway corridor. These transformations ranged from retaining the freeway while improving accessibility and non-motorized environment, to replacement of the freeway with an urban surface roadway.

A report on the economic impacts of these benchmark projects can be found in Appendix C.

BENCHMARKING	I-375 [DETROIT, MI]	Fort Washington Way Reconfiguration [CINCINNATI, OH]	Embarcadero Freeway [SAN FRANCISCO, CA]	Central Artery Greenway [BOSTON, MA]	Park East Freeway [MILWAUKEE, WI]
PROJECT TYPE	Alternatives study	Reconfiguration of freeway	Damaged elevated freeway replaced with city street and Light Rail Transit	Rerouting of elevated I-93 freeway to tunnel. Greenway built on top of I-93 tunnel.	Elevated freeway replaced with city street and development parcels
AVERAGE DAILY TRAFFIC (ADT)	North end: 80,000 South end: 15,000	130,000	100,000+	200,000	54,000
PROJECT LENGTH	1 mile	1 mile	1 mile	3.5 miles	1 mile
CONTEXT	Downtown Detroit	Downtown Cincinnati, Ohio River waterfront	Downtown San Francisco Bay waterfront	Downtown Boston (between North Station and Chinatown)	Downtown Milwaukee River waterfront
COST	TBD	\$260 million. An additional \$20 million was secured to finance light rail and an intermodal center in connection with FWW.	Less than \$50 million	\$1B	\$45 million
DESIGN AND CONSTRUCTION TIMELINE	TBD	Design began in 1997 and construction was completed in 2000	The Loma Prieta earthquake severely damaged the freeway in 1989 and in 1991 the freeway was demolished.	Big Dig took 28+ years to be designed, permitted and constructed. The inaugural celebration for the Greenway occurred in 2008.	Planning and design 1996-2002; Construction 2002-2003
MAJOR FEATURES OF DEVELOPMENT	TBD	<ul style="list-style-type: none"> Reconnected the Central Business District with the Cincinnati Riverfront and the adjacent business districts of Covington and Newport Served as a catalyst for revitalization Narrowed corridor and reclaimed 16 acres of riverfront real estate for development Two new stadiums and a new riverfront park Improved traffic efficiency into downtown and on adjoining streets Improved operations and reduced and safety issues 	<ul style="list-style-type: none"> Freeway removed after earthquake damage At-grade boulevard with pedestrian promenades at key crossing points New center running streetcar line Created over 100 acres of developable land Restored access to the waterfront Revived activity at the Ferry Building and Pier 1 	<ul style="list-style-type: none"> Created 27 acres of open space for a Greenway Enhanced and created pedestrian and non-motorized connections Used by 1,000's of pedestrians daily New Park, Pavilion, Plazas, and many other amenities Greatly increased adjacent property values 	<ul style="list-style-type: none"> Created 25 acres of developable land Redevelopment projects in excess of \$780 million are anticipated New Mixed Use Residential and Commercial Buildings New park and public plaza Redevelopment has been slow to take hold, impacted by economic downturn

Benchmark #1

Fort Washington Way, Cincinnati, Ohio

The reconfiguration of the freeway reconnected the Central Business District with the Cincinnati Riverfront. It not only improved traffic efficiency it served as a catalyst for revitalization by narrowing the corridor and reclaiming 16 acres of riverfront real estate for development which included two new stadiums and a new riverfront park.



Benchmark #2

Embarcadero Freeway, San Francisco, California

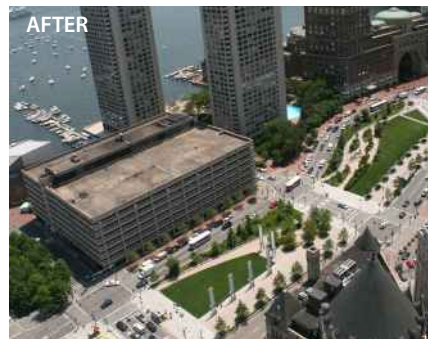
Damaged after an earthquake, the elevated freeway was removed and replaced with an at-grade boulevard complete with pedestrian promenades at key crossing points and a new center running streetcar line. The transformation created over 100 acres of developable land while restoring the city's access to its waterfront and reviving activity at the Ferry Building.



Benchmark #3

Central Artery Greenway, Boston, Massachusetts

The rerouting of an elevated freeway allowed for the creation of a Greenway overtop of the I-93 tunnel. The 27 acres enhances pedestrian and non-motorized connections while bringing a new park, pavilion, plazas and numerous other amenities to the area. Property values have greatly increased since the completion of the project and is used by over 1,000 pedestrians daily.



Benchmark #4

Park East Freeway, Milwaukee, Wisconsin

25 acres of developable land was created by replacing the elevated freeway with city streets. Redevelopment projects totaling over \$780 million are anticipated including new mixed-use residential and commercial buildings along with new parks and public plazas.



4.2

Development of Alternatives

Development Process

Illustrative alternatives – six for the primary study area and two for each of the secondary study areas – were developed through an iterative process based on several major inputs:

- The Advisory Committee Goals Statement;
- The Purpose and Need Statement;
- An analysis of existing physical, traffic and socioeconomic conditions
- Feedback from the Public Meeting 1 on February 12, 2014, attended by over 140 persons held at Stroh RiverPlace in Detroit; and
- A day-long Technical Committee workshop held on March 12, 2014 to develop, review and comment on draft alternative concepts.

The goal of the project's development process was to identify alternatives which address the purpose and need in a variety of ways. While not specifically cost-constrained, it was recognized that transportation funding is extremely limited currently, and alternatives which significantly increased the costs of the project over the anticipated cost of replacing the corridor in-kind would be more difficult to pursue.

Alternatives were developed under the assumption that the I-375 corridor improvements would occur before any proposed improvements to the I-75/I-375 interchange. Improvements to East and West Jefferson areas were developed to be accommodated generally independent of I-375 improvements.

Evaluation Criteria

The following defines the criteria used to evaluate the illustrative alternatives, which are subdivided into six categories:

1. Mobility and Safety

1a. Future vehicular traffic capacity

Identifies each alternative's ability to support anticipated traffic volumes (year 2040 forecast) within acceptable levels of service (LOS) given changes to number of lanes, intersection operational control, access and other factors. Performance will be measured through analysis of hourly volume/capacity (V/C) ratios along the corridors, as well as identification of intersections with high crossing-volumes. This evaluation will include consider how changes in connectivity may impact demand for the I-375 corridor.

1b. Roadway safety for vehicular traffic

Evaluates the extent to which the proposed improvements address existing vehicular safety deficiencies, and how the alternative may impact future safety through its design. Measures of future impact will include introduction/elimination of conflicting movements, potential for high-volume weaving/merging conditions and potential for sight distance limitations or incursions.

1c. Roadway safety for pedestrian and bicycle traffic

Evaluates the extent to which the proposed alternatives address existing non-motorized safety deficiencies, and how the alternative may impact future safety through its design. Measures of future impact will include pedestrian treatments/refuge areas at intersections, buffering and protection of pedestrian spaces, width and buffering of bike lanes, and visibility conditions at intersections.

1d. Pedestrian and bicycle facilities and environment

Compares the condition of existing facilities and the surrounding environment to the alternatives with new facilities for non-motorized travel within and across the corridors. Factors considered include pedestrian crossing distances (through intersections, over bridges), sidewalk widths, and on-street bike lanes, provision of off-street non-motorized facilities), lighting improvements, streetscape amenities, and the potential changes to the surrounding environment (land uses, etc.) which may impact desirability of use and public safety.

2. Connectivity

2a. Connectivity to surrounding areas for vehicular traffic

Evaluates how the alternative addresses identified vehicular connectivity issues and generally affects connectivity within the corridors. This will include evaluation of new, restored, or eliminated street connections or movements for vehicular traffic.

2b. Connectivity to surrounding areas for non-motorized traffic

Evaluates how the alternative addresses non-motorized connectivity issues and generally affects connectivity within the corridors. This will include the extent to which contiguous pedestrian and/or bike facilities are provided along key travel corridors, the clarity of travel routes, and condition of facilities and the surrounding environment.

2c. Linkages to existing and planned transit services

Evaluate how well the alternative supports/improves linkages between the study area/influence area and existing and planned nearby transit services. These include M-1 RAIL, proposed Bus Rapid Transit (BRT) services along Woodward and Gratiot, and traditional bus service along nearby corridors such as Lafayette and Jefferson. Evaluation will focus on the proposed non-motorized facilities and environment along the corridors linking to these services.

3. Economic Development and Land Use

3a. Supports economic development opportunities

Identifies how well the alternative is likely to support economic development activities surrounding the corridor, either through direct additional development or strengthening of existing or planned developments. Considered will be connectivity improvements which may support planned development, creation of viable developable land corridor, and the likely impact of corridor condition and public amenities created on existing land values and surrounding developability.

3b. Supports community land use plans

Evaluates how well the alternative would support existing land uses and community land use plans. This will be measured based on the compatibility of the facility (scale, speeds and buffering) with adjacent land uses, and how well the potential repurposing of any residual land would fit with land use plans.

4. Quality of Life

4a. Aesthetic improvements/downtown gateway

Identifies the extent to which the alternative would improve the arrival experience to downtown, in terms of proposed aesthetic enhancements (such as bridge treatments), landscape, sight lines, and opportunities for signature intersection or gateway treatments.

4b. Environmental resources/conditions

Evaluates the positive or negative impact an alternative may have on environmental resources or conditions. Includes qualitative assessments of likely impacts to air quality and noise, potential for impacts to water or historic resources, and the extent to which the alternative supports sustainability and incorporates innovative environmental features, such as stormwater management.

5. Cost

5a. Capital Cost

Capital cost for construction and implementation of the alternative. Capital costs include required removals, pavements, bridges, earthwork, drainage facilities, right-of-way acquisitions, traffic signals, and the cost to maintain traffic during the temporary construction period.

5b. Operations and Maintenance Cost

Long-term costs include general upkeep, preventive maintenance and rehabilitation of the infrastructure, such as pavement or bridge repairs, traffic signal maintenance, upkeep of any landscape features and grass mowing. Operations and maintenance costs will be estimated based on the complexity and extent of the infrastructure (i.e. number of lane-miles of pavement, etc.), the number and size of structures, and upkeep of any public space features.

6. Ease of Implementation

6a. Implementation/Constructability

Implementation/constructability will measure the difficulty of building the facility while maintaining traffic access to adjacent properties, as well as the ability to phase the alternative in over time, depending on funding constraints.

6b. Community Acceptance

Measured through input sought at the advisory committee and public meeting on the recommended alternatives, as well as through e-mail/website input. The public was asked to share their opinions on different aspects of each alternative, and to compare the alternatives against one another in order to understand preferences.

4.3 Illustrative Alternatives

Primary Study Area

Six alternatives were developed for the primary study area:

Alternative 1

Alternative 1 is equivalent to the No-Build Condition in terms of roadway configuration, with the exception of proposed ramp improvements/widening to the southbound off-ramps at Lafayette and Larned/E. Jefferson. No other significant changes are proposed under Alternative 1 beyond standard improvements associated with any reconstruction project. Estimated cost \$60-70 million.

Alternative 2

Alternative 2 is identical to Alternative 1, with the addition of a roadway extension from the Jefferson Avenue surface-level extending to Atwater Street to serve the East Riverfront area. No changes to the freeway or service drives are proposed. Estimated cost \$70-80 million.

Alternative 3

Under Alternative 3, the I-375 freeway would transition to a surface street south of Lafayette Avenue, and include signalized intersections at Larned Street and Jefferson Avenue. The surface roadway was assumed to be four lanes in each direction between Lafayette and Jefferson. The surface roadway would continue through Jefferson Avenue to Atwater, with two lanes in each direction. The freeway portion would be shifted to the west. Estimated cost \$55-65 million.

Alternative 4

Under Alternative 4, the I-375 freeway would transition to a surface street, with four lanes in each direction, south of Gratiot Avenue, coming to a surface intersection near Clinton Street. The roadway would be aligned on the east side of the corridor. Both service drives would be eliminated under this scenario. The roadway would continue south of Jefferson Avenue to Atwater Street with two lanes in each direction. Estimated cost \$40-50 million.

Alternative 5

Similar to Alternative 4, Alternative 5 would include a surface roadway with four lanes in each direction from south of Gratiot Avenue. However, under this alternative, the surface roadway would be aligned along the west (central business district) side of the corridor. The roadway would continue south of Jefferson Avenue to Atwater Street with two lanes in each direction. In addition, the northbound service drive would be maintained as a two-way local access roadway. Estimated cost \$45-55 million.

Alternative 6

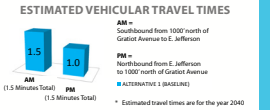
Under Alternative 6, the surface roadway south of Gratiot Avenue would take the form of two one-way roadways, aligned with the existing services drives, with four lanes in each direction. The roadway would continue south of Jefferson Avenue to Atwater Street with two lanes in each direction. Estimated cost \$40-50 million.

Alternate 1 - Reconstructed Freeway As Is



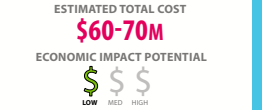
VEHICULAR TRAFFIC OPERATIONS, SAFETY AND CONNECTIVITY

- Improvements to southbound off-ramp operations and safety
- Minimal changes to traffic operations or travel time
- No changes in connectivity
- No additional safety improvements to identified issues within the study area



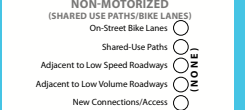
COST AND ECONOMIC IMPACT

- Minimal positive impact due to replacement infrastructure and modest improvements in traffic flow at ramps
- High long-term operations and maintenance costs due to continued presence of bridges (over 60,000 square feet of bridge area), pump station and related infrastructure



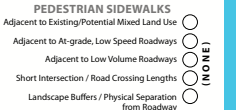
NON-MOTORIZED TRANSPORTATION AND TRANSIT

- No changes to non-motorized travel
- No changes to transit accessibility

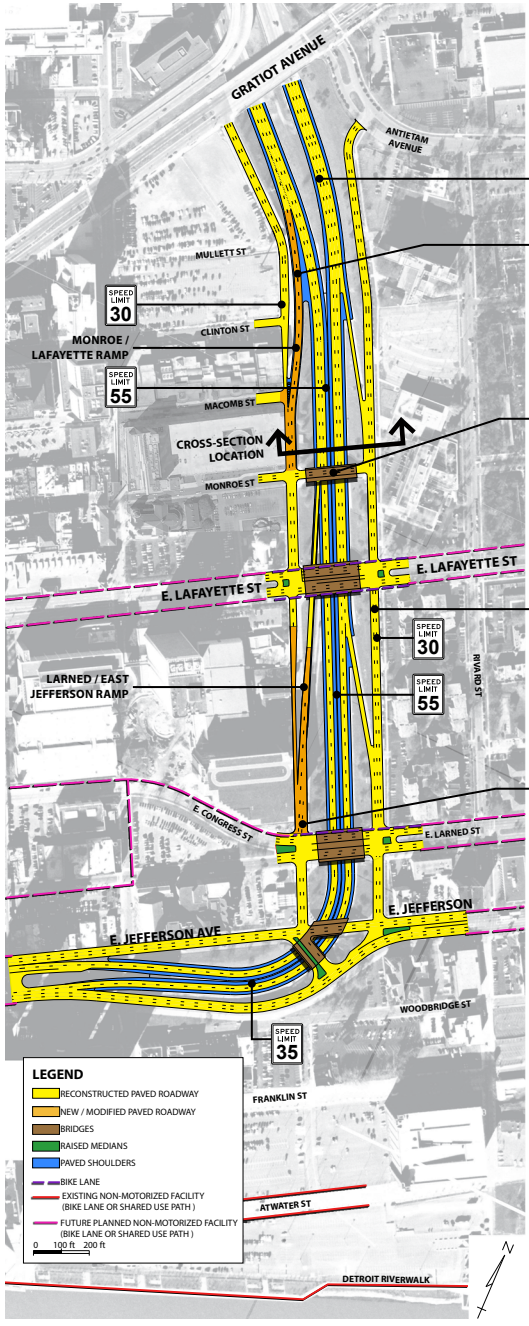


QUALITY OF LIFE AND ENVIRONMENTAL RESOURCES

- No changes to quality of life in adjacent districts
- No changes to water quality
- No changes to the non-motorized experience and the character of adjacent districts
- No anticipated changes in air quality or noise impacts



CROSS-SECTION LOOKING NORTH SHOWING PROPOSED CONDITIONS



KEY FEATURES

- Reconstructed mainline pavement
- Widen off-ramp and modify Service Drive access to reduce queuing onto southbound I-375.
- Reconstruct bridge with typical design features.
- Reconstruct Service Drive pavement.
- Widen off-ramp and realign lanes to better serve right turn to Congress Street.

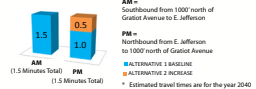
Alternate 2 - Reconstructed Freeway with Riverfront Connection



VEHICULAR TRAFFIC OPERATIONS, SAFETY AND CONNECTIVITY

- Improvements to southbound off-ramp operations and safety
- Improved connectivity to riverfront via new roadway from East Jefferson
- Greater traffic volumes on East Jefferson I-375 service drive intersections to serve new riverfront connection
- Greater connectivity between I-75 and Gratiot via Madison ramps
- No changes to east/west connectivity
- No additional safety improvements to issues identified within the study area
- No changes to complicated geometry at I-375 southbound service drive/East Jefferson signalized intersections

ESTIMATED VEHICULAR TRAVEL TIMES



COST AND ECONOMIC IMPACT

- Improved access to RiverEast development areas
- Minimal positive economic impact within or adjacent to the corridor due to limited infrastructure changes and no creation of residual land
- High long-term operations and maintenance costs due to continued presence of bridges (over 60,000 square feet of bridge area), pump station, and additional streetscape elements.

ESTIMATED TOTAL COST

\$70-80M

ECONOMIC IMPACT POTENTIAL



NON-MOTORIZED TRANSPORTATION AND TRANSIT

- Pedestrian environment along service drives enhanced through bike lanes and streetscape
- New East Jefferson Ave. pedestrian crossing at the I-375 corridor would be challenged by high traffic volumes, turning movements and long crossing distances
- Improved north/south bike connections between the riverfront and Eastern Market
- Improved access to existing transit routes (Gratiot, Lafayette and East Jefferson) with defined bike route
- Non-motorized experience would continue to be impacted by high vehicle speeds within the corridor

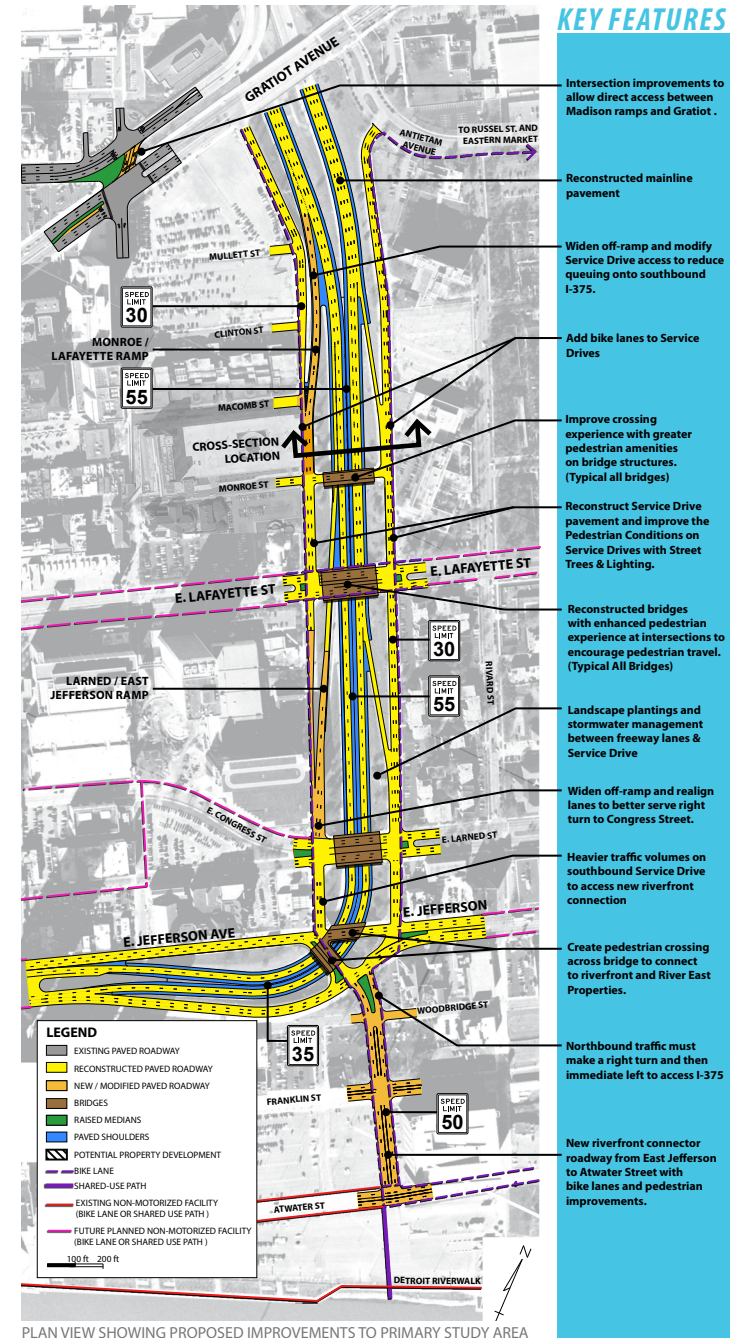
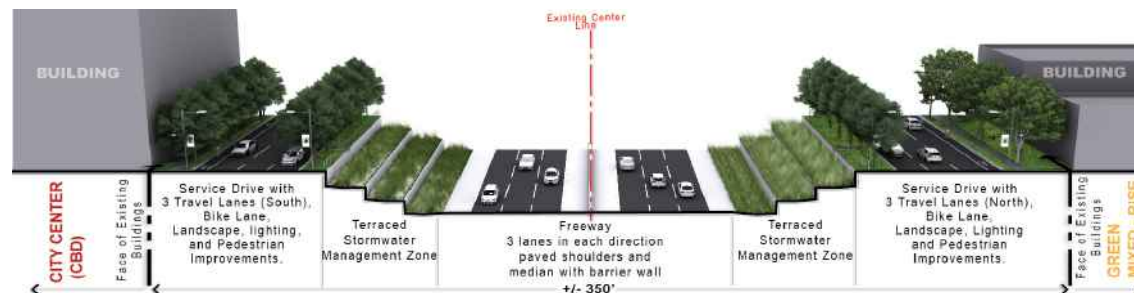
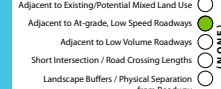
NON-MOTORIZED (SHARED USE PATHS/BIKE LANES)



QUALITY OF LIFE AND ENVIRONMENTAL RESOURCES

- Minimal change to quality of life in adjacent districts
- Storm water management protects Detroit River asset
- Displacement of some private properties (surface parking facilities and a billboard) due to the riverfront connection
- No expected changes in air quality or noise impacts, but further investigation might be needed due to additional exiting traffic for new riverfront connection

PEDESTRIAN SIDEWALKS



KEY FEATURES

Intersection improvements to allow direct access between Madison ramps and Gratiot.

Reconstructed mainline pavement

Widen off-ramp and modify Service Drive access to reduce queuing onto southbound I-375.

Add bike lanes to Service Drives

Improve crossing experience with greater pedestrian amenities on bridge structures. (Typical all bridges)

Reconstruct Service Drive pavement and improve the Pedestrian Conditions on Service Drives with Street Trees & Lighting.

Reconstructed bridges with enhanced pedestrian experience at intersections to encourage pedestrian travel. (Typical All Bridges)

Landscape plantings and stormwater management between freeway lanes & Service Drive

Widen off-ramp and realign lanes to better serve right turn to Congress Street.

Heavier traffic volumes on southbound Service Drive to access new riverfront connection

Create pedestrian crossing across bridge to connect to riverfront and River East Properties.

Northbound traffic must make a right turn and then immediate left to access I-375

New riverfront connector roadway from East Jefferson to Atwater Street with bike lanes and pedestrian improvements.

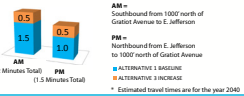
Alternate 3 - Freeway Transitions to Surface Street at Larned



VEHICULAR TRAFFIC OPERATIONS, SAFETY AND CONNECTIVITY

- Improved southbound off-ramp operations and safety at Monroe/Lafayette
- Improved, direct connectivity to riverfront and East Jefferson corridor
- Replaces sharp curve at Jefferson with at-grade signalized intersection, with indirect left turns ("Michigan left") for southbound and westbound left turns
- Improves existing issues with southbound right-turn to Congress
- No southbound left-turn allowed onto eastbound Larned; movement can be made at Lafayette and East Jefferson
- Greater connectivity between I-75 and Gratiot via Madison ramps

ESTIMATED VEHICULAR TRAVEL TIMES



COST AND ECONOMIC IMPACT

- Improved access to RiverEast development areas, served as a primary redevelopment without requiring freeway exit
- Potential positive impact on adjacent property values along the east edge of the corridor due to conversion of northbound service drive to local roadway, addition of a greenway and shared use path
- Some residual land for potential redevelopment along East Jefferson
- Moderate operations and maintenance costs due to continued presence of bridges (approximately 17,000 square feet of bridge area), new retaining walls, pump station, and new greenway space.

ESTIMATED TOTAL COST:

\$55-65M

ECONOMIC IMPACT POTENTIAL:



NON-MOTORIZED TRANSPORTATION AND TRANSIT

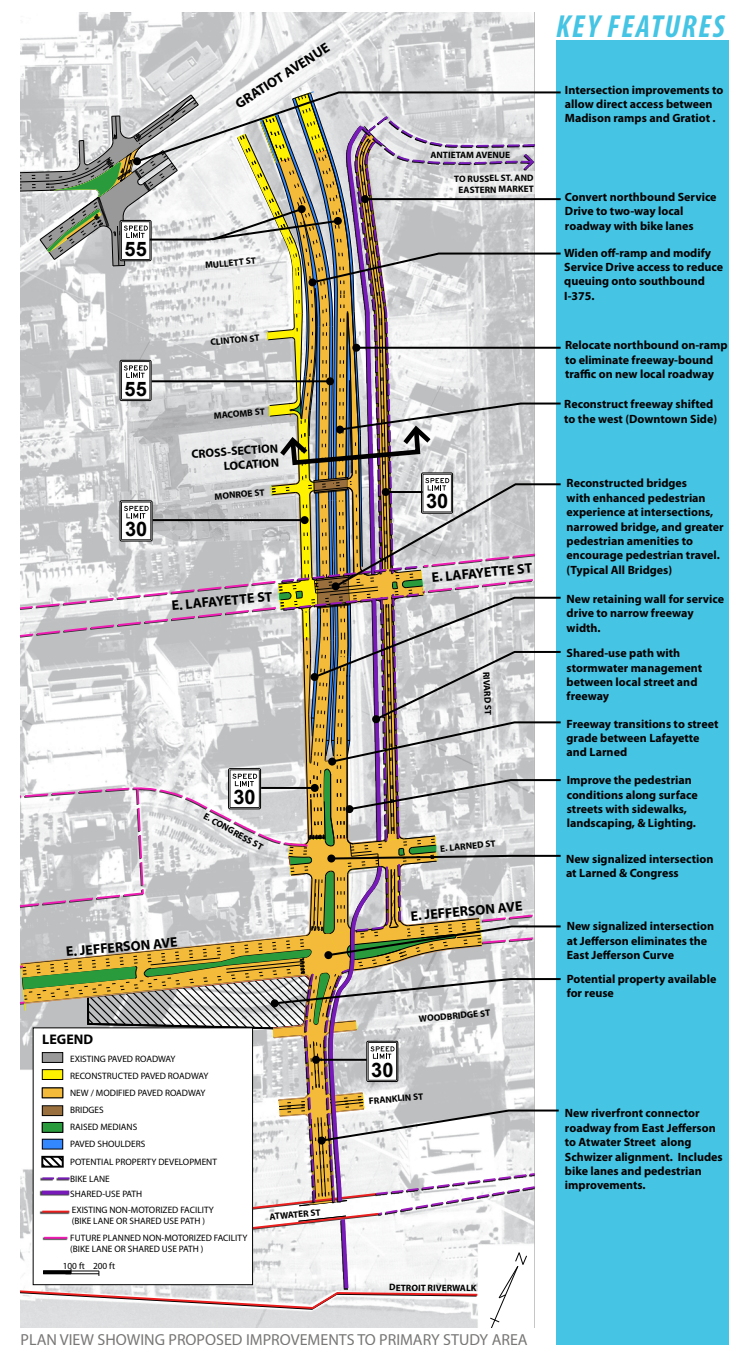
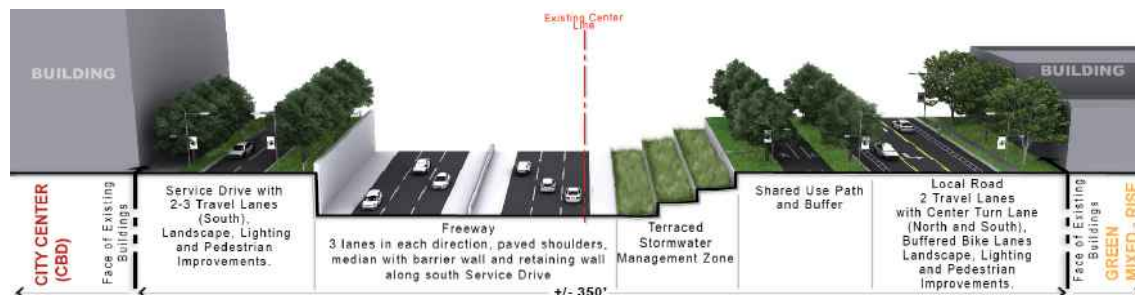
- Moderate enhancement to pedestrian environment with more at-grade streets, landscape improvements, and shorter street crossing distances
- Fewer barriers to crossing East Jefferson between Beaubien and Rivard
- Non-Motorized (Shared Use Paths/Bike Lanes)
- On-Street Bike Lanes
- Shared-Use Paths
- Adjacent to Low Speed Roadways
- Adjacent to Low Volume Roadways
- New Connections/Access

QUALITY OF LIFE AND ENVIRONMENTAL RESOURCES

- New non-motorized facilities and greenway allow buffer from freeway and more balanced multi-modal use of corridor along east edge
- Minimal change to quality of life along west edge
- Storm water management protects Detroit River asset
- Reduced vehicle design speeds improve non-motorized experience and adjacent districts character
- Displacement of some private properties (surface parking facilities) due to riverfront connection
- No expected changes in air quality or noise impacts, but further investigation might be needed due to transition to surface street at Larned

PEDESTRIAN EXPERIENCE

- Adjacent to Existing/Potential Mixed Land Use
- Adjacent to At-grade, Low Speed Roadways
- Adjacent to Low Volume Roadways
- Short Intersection / Road Crossing Lengths
- Landscape Buffers / Physical Separation from Roadway



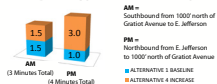
Alternate 4 - East Edge Boulevard



VEHICULAR TRAFFIC OPERATIONS, SAFETY AND CONNECTIVITY

- Significantly improves street connectivity into the northeast corner of downtown with new access created to Clinton and Macomb
- Improved direct connectivity to riverfront and East Jefferson
- Replaces sharp curve at Jefferson with at-grade signalized intersection, with indirect left-turns ("Michigan left") for southbound and eastbound left turns
- Improves existing issues with southbound right turn to Congress corner of downtown with new access created to Clinton and Macomb
- No southbound left turn allowed onto eastbound Larned; movement can be made at Lafayette and East Jefferson
- Requires driveway extensions for property access on west edge of boulevard for properties only accessible from service drive
- Greater connectivity between I-75 and Gratiot via Madison ramps

ESTIMATED VEHICULAR TRAVEL TIMES IN MINUTES



AM = Southbound from I-75 north of Gratiot Avenue to E. Jefferson
PM = Northbound from E. Jefferson to I-75 north of Gratiot Avenue
ALTERNATIVE 4 INCREASE
* Estimated travel times are for the year 2040

COST AND ECONOMIC IMPACT

- Improved access to riverfront development areas, served as a primary movement (without requiring freeway exit)
- Development of potential residual land may only be feasible if pursued by adjacent existing land owners. Otherwise, development potential may be limited due to parcel size, orientation and multiple required driveway connections
- Lower overall long-term operations and maintenance costs due to narrowing of roadway footprint and elimination of bridges, although some additional costs related to green space and streetscape
- Cost and complexity of relocation of utilities currently under the southbound service drive

ESTIMATED TOTAL COST:

\$40-50M

ECONOMIC IMPACT POTENTIAL:

\$\$\$
LOW MED HIGH

NON-MOTORIZED TRANSPORTATION AND TRANSIT

- Moderate enhancement to pedestrian environment with more surface streets, landscape improvements and shorter street crossing distances
- Fewer crossing barriers at Jefferson
- Pedestrian crossings of new boulevard may require intermediate stop at refuge islands due to roadway width
- Strong north/south bikeway connection via shared use path
- Improved access to transit (along Gratiot, Lafayette and East Jefferson) with defined bikeway route

NON-MOTORIZED (SHARED USE PATHS/BIKE LANES)

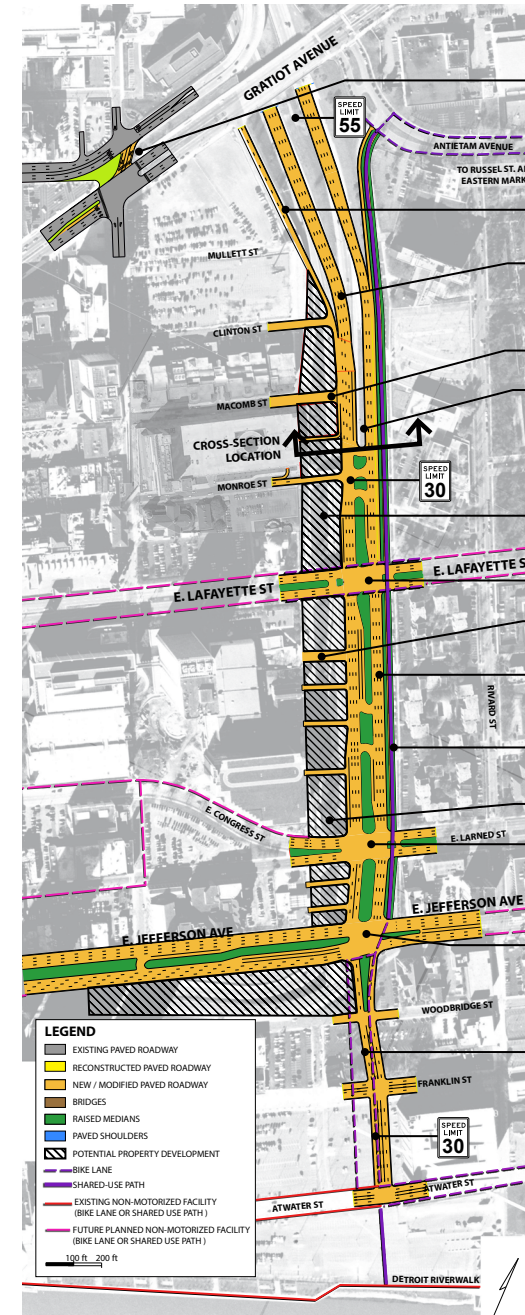
- On-Street Bike Lanes
- Shared-Use Paths
- Adjacent to Low Speed Roadways
- Adjacent to Low Volume Roadways
- New Connections/Access

QUALITY OF LIFE AND ENVIRONMENTAL RESOURCES

- More balanced multi-modal use of corridor and improved aesthetics along residential east edge
- Moves major thoroughfare closer to residential neighborhood with limited physical buffer
- Potential for active pedestrian-oriented street edge along new development on west edge should front-facing development towards the I-375 corridor occur
- Limited opportunity for storm water management
- Reduced vehicle design speeds improve non-motorized experience and adjacent districts character
- Displacement of some private properties (surface parking facilities and a billboard) due to riverfront connection
- Further investigation of air and noise impacts may be needed due to the new roadway alignment and new intersections, but slower speeds are expected to decrease the noise levels.

PEDESTRIAN SIDEWALKS

- Adjacent to Existing/Potential Mixed Land Use
- Adjacent to At-grade, Low Speed Roadways
- Adjacent to Low Volume Roadways
- Short Intersection / Road Crossing Lengths
- Landscape Buffers / Physical Separation from Roadway



KEY FEATURES

Intersection improvements to allow direct access between Madison ramps and Gratiot.

One way at street at grade, (southbound)

Freeway transition to street grade at Clinton.

New direct access to Macomb Street.

Construct surface boulevard shifted to the east, (neighborhood side)

Southbound Service Drive eliminated.

New signalized intersection at Lafayette

Property access to be maintained with new access drives.

Improve pedestrian conditions along at-grade streets with walks, landscape, and lighting.

Shared use path with landscape buffer, (east neighborhood side)

Potential property available for reuse

New signalized intersection at E. Larned St. / E. Congress St.

New signalized intersection at E. Jefferson Avenue eliminating the Jefferson curve.

New riverfront connector roadway from East Jefferson to Atwater Street with bike lanes and pedestrian improvements.

PLAN VIEW SHOWING PROPOSED IMPROVEMENTS TO PRIMARY STUDY AREA



CROSS-SECTION LOOKING NORTH SHOWING PROPOSED CONDITIONS

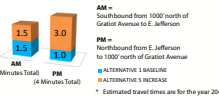
Alternate 5 - West Edge Boulevard



VEHICULAR TRAFFIC OPERATIONS, SAFETY AND CONNECTIVITY

- Improves street connectivity into downtown with new access created to Clinton and Macomb
- Improved, direct connectivity to riverfront and East Jefferson
- Replaces sharp curve at Jefferson with at-grade signalized intersection, with indirect left turns ("Michigan left") for southbound and eastbound left turns
- No southbound left turn allowed onto eastbound Larned; movement can be made at Lafayette and East Jefferson
- Greater connectivity between I-75 and Gratiot via Madison ramps

ESTIMATED VEHICULAR TRAVEL TIMES



COST AND ECONOMIC IMPACT

- Improved access to RiverEast development areas, served as a primary movement (without requiring freeway exit)
- Reuse of potential residual land for public space may have a positive economic impact on adjacent properties
- Long-term land use and redevelopment opportunities are strongest on east side of the corridor, making potential residual land a strategic asset
- Some residual land for potential redevelopment along East Jefferson
- Lower overall long-term operations and maintenance costs due to narrowing of roadway footprint and elimination of bridges, although some additional costs related to green space and streetscape

ESTIMATED TOTAL COST:



NON-MOTORIZED TRANSPORTATION AND TRANSIT

- Moderate enhancement to pedestrian environment with more surface streets, lower vehicle speeds, landscape improvements and shorter street crossing distances
- Fewer crossing barriers at East Jefferson between Beaubien and Rivard
- Strong north/south bikeway connection via two-way local street
- Improved access to transit (along Gratiot, Lafayette and East Jefferson) with defined bikeway route

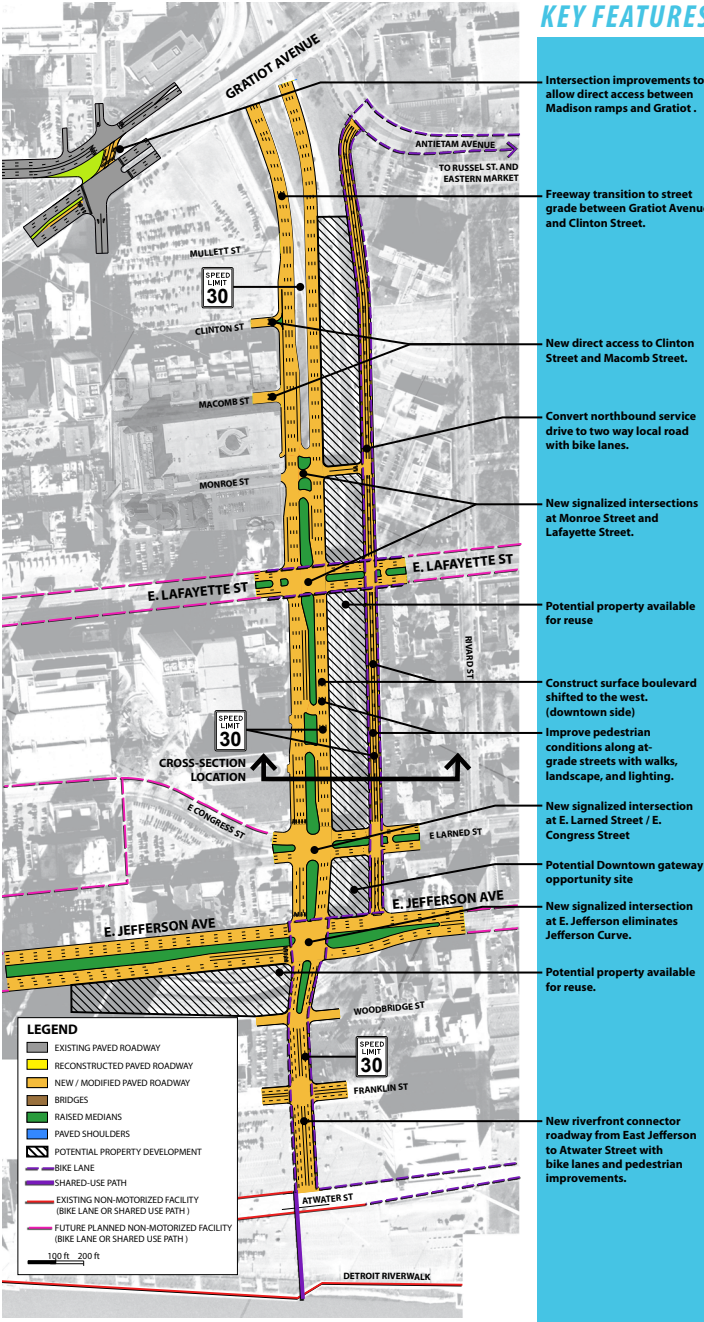
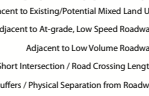
NON-MOTORIZED (SHARED USE PATHS/BIKE LANES)



QUALITY OF LIFE AND ENVIRONMENTAL RESOURCES

- More balanced multi-modal use of corridor along east edge more consistent with residential area, with improved aesthetics
- Minimal change to quality of life along west edge
- Significant opportunity for public space asset and/or long-term street activating development
- Reduced vehicle speeds improve adjacent districts character
- Shifts major traffic flows away from east side residential neighborhood, providing a buffer
- Displacement of some private properties (surface parking facilities) due to riverfront connection
- Further investigation of air and noise impacts may be needed due to the new roadway alignment and new intersections, but slower speeds are expected to decrease the noise levels

PEDESTRIAN SIDEWALKS



KEY FEATURES

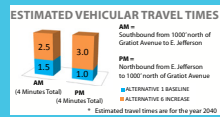
- Intersection improvements to allow direct access between Madison ramps and Gratiot.
- Freeway transition to street grade between Gratiot Avenue and Clinton Street.
- New direct access to Clinton Street and Macomb Street.
- Convert northbound service drive to two way local road with bike lanes.
- New signalized intersections at Monroe Street and Lafayette Street.
- Potential property available for reuse
- Construct surface boulevard shifted to the west. (downtown side)
- Improve pedestrian conditions along at-grade streets with walks, landscape, and lighting.
- New signalized intersection at E. Larned Street / E. Congress Street
- Potential Downtown gateway opportunity site
- New signalized intersection at E. Jefferson eliminates Jefferson Curve.
- Potential property available for reuse.
- New riverfront connector roadway from East Jefferson to Atwater Street with bike lanes and pedestrian improvements.

Alternate 6 - One-Way Pair of Surface Streets and Below-Grade Greenway



VEHICULAR TRAFFIC OPERATIONS, SAFETY AND CONNECTIVITY

- Improves street connectivity into the northeast corner of downtown with new access created to Clinton and Macomb
- Improved, direct connectivity to riverfront and East Jefferson
- Replaces sharp curve at Jefferson with at-grade signalized intersection, with indirect left-turns ("Michigan left") for southbound and eastbound left turns
- Accommodates all existing turn maneuvers
- Greater connectivity between I-75 and Gratiot via Madison ramps



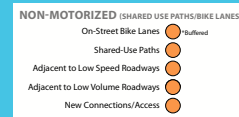
COST AND ECONOMIC IMPACT

- Improved access to RiverEast development areas, served as a primary movement (without requiring freeway exit)
- Reuse of residual land between roadways for public space asset may have a positive economic impact on adjacent properties
- Greater long-term flexibility to potentially develop way roadways due to larger parcel
- Moderate overall operations and maintenance costs due to narrowing of roadway footprint and much smaller bridge/culvert structures
- Some additional operations and maintenance costs related to below-grade space, including trail, landscape, lighting and security



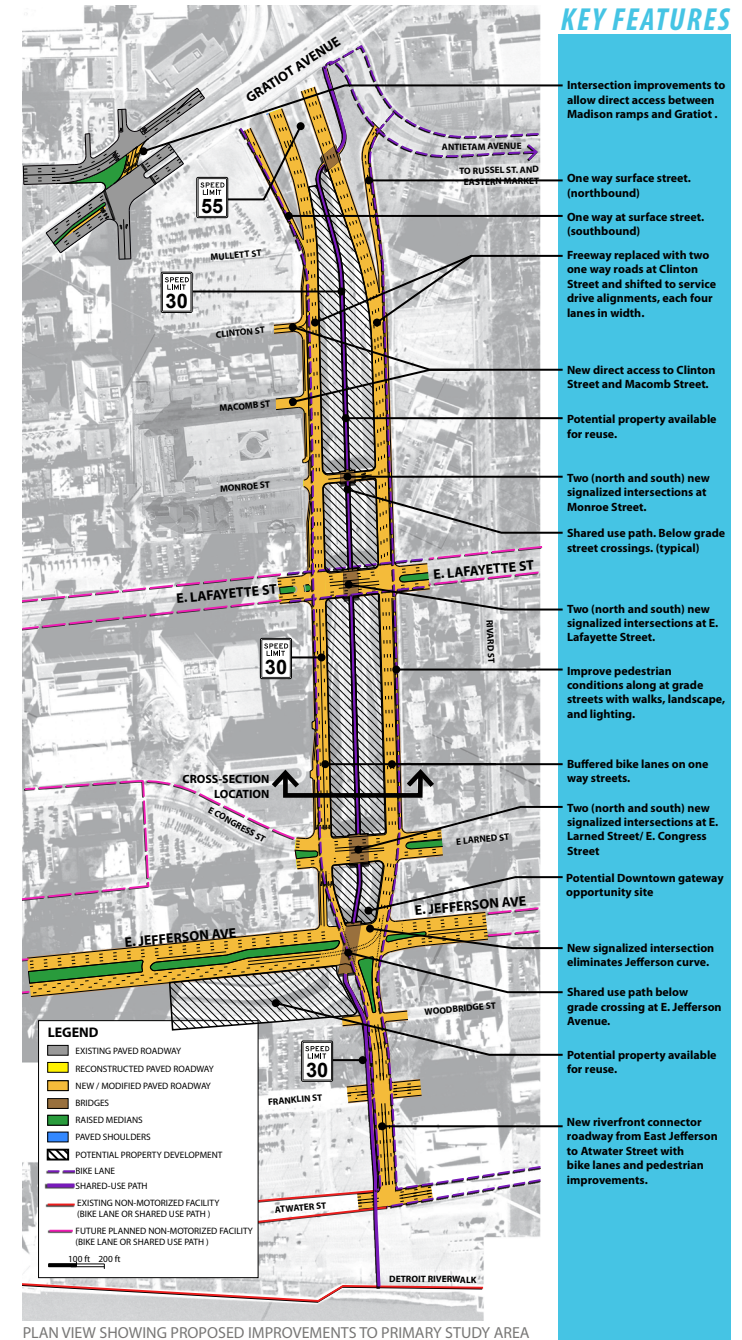
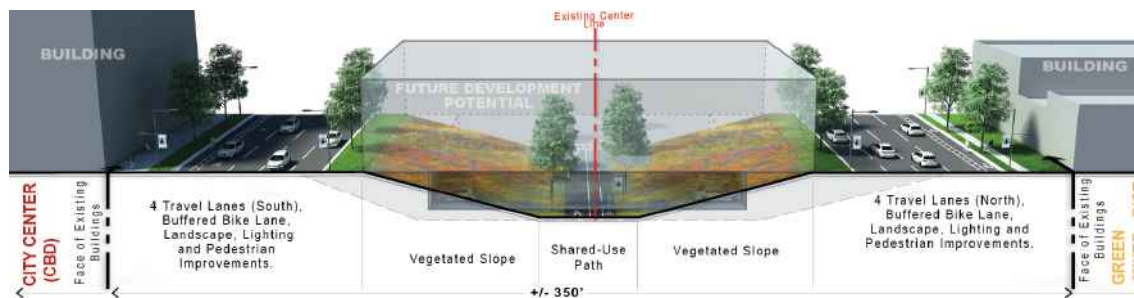
NON-MOTORIZED TRANSPORTATION AND TRANSIT

- Moderate enhancement to pedestrian environment with more surface streets, lower vehicle speeds, landscape improvements and shorter street crossing distances
- Fewer crossing barriers at East Jefferson between Beaubien and Rivard
- Off-street shared use path provides grade separated north/south connection that promotes trail system and bike safety
- Improved access to transit (along Gratiot, Lafayette and East Jefferson) with defined bikeway route



QUALITY OF LIFE AND ENVIRONMENTAL RESOURCES

- Moves a portion of the major thoroughfare closer to residential neighborhood with limited physical buffer
- Minimal improvement to quality of life along west edge
- Potential to add a significant recreational resource and open space asset (similar to the Dequindre Cut) to Detroit's emerging open space network
- Reduced vehicle design speeds improve non-motorized experience and adjacent districts character
- Displacement of some private properties (surface parking facilities and a billboard) due to riverfront connection
- Further investigation of air and noise impacts may be needed due to the new roadway alignment and new intersections, but slower speeds are expected to decrease the noise levels.



I-75/I-375/Gratiot Connector Interchange

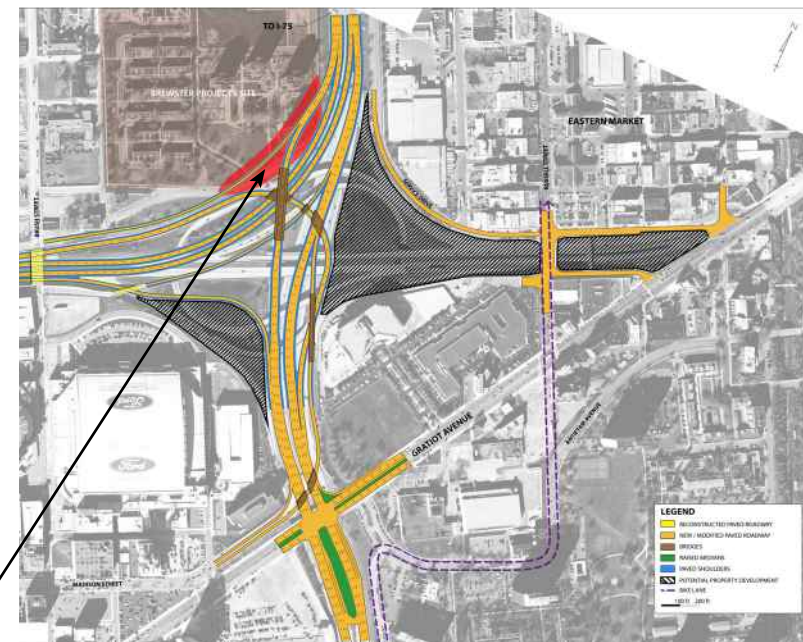
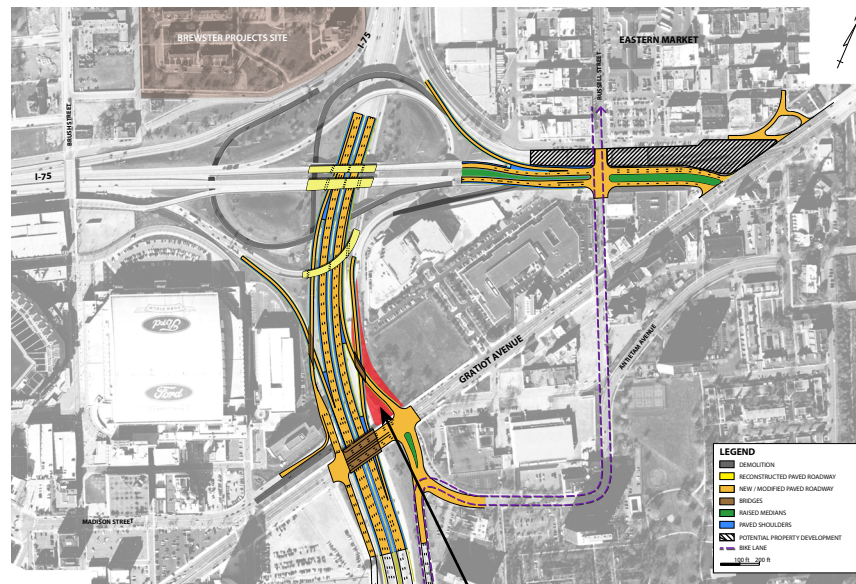
Two principal concepts were developed for the interchange area:

Alternative 1

Alternative 1 is intended as a lower-cost refinement of the interchange area, which would eliminate the current left-hand ramps to Madison Avenue, and create a more traditional interchange at Gratiot Avenue. It would also include conversion of the Gratiot connector to a surface roadway with a signalized intersection at Russell Street. This alternative is compatible with all six of the I-375 alternatives. Estimated cost \$75-90 million.

Alternative 2

Under this alternative, the interchange area would be completely reconstructed, with I-75 reconfigured as the through-traffic movement. A surface street intersection would be created with Gratiot Avenue at I-375, replacing the need for the Gratiot connector and allowing for its elimination. In addition, new access would be created to and from the north on I-75 at Brush Street, and access to Madison Avenue maintained. This alternative is compatible only with I-375 Alternatives 4, 5 and 6. Estimated cost \$100-120 million.



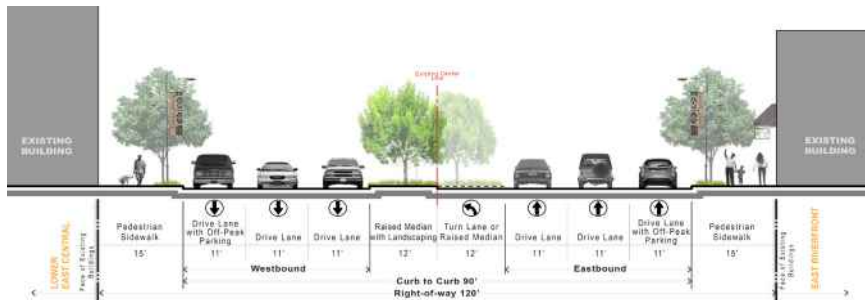
POTENTIAL RIGHT OF
WAY IMPACT

Jefferson Avenue (East of I-375)

Two concepts were identified for this section of Jefferson Avenue, from I-375 to Joseph Campau Avenue, either of which is compatible with any of the I-375 alternatives. Jefferson Avenue in this section is currently four lanes 10-foot lanes in each direction, with a continuous center left-turn lane. However, the outside travel lanes allow for on-street parking during all time periods, and therefore do not have any traffic-carrying capacity.

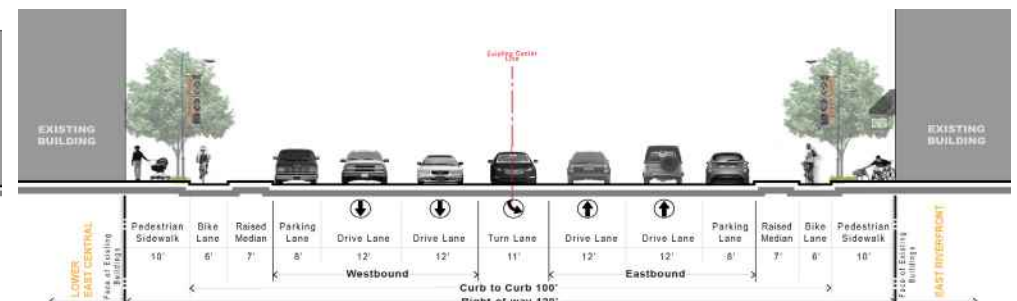
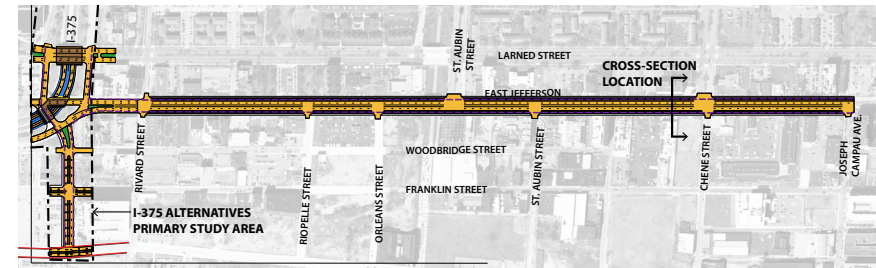
Alternative 1 - East Jefferson

This alternative would include three lanes of traffic in each direction, with the creation of a center median. On-street parking would be allowed in the outside lanes only during off-peak periods. Left turns would be made directly at the intersections using turn lanes cut into the median space. Estimated cost \$8-10 million.



Alternative 2 - East Jefferson

Under this alternative, Jefferson Avenue would be reduced to two lanes of travel in each direction with a continuous center-left turn lane. Dedicated on-street parking would be provided outside of the travel lanes. In addition, a buffered bike lane would be incorporated into the corridor. Estimated cost \$11-14 million.



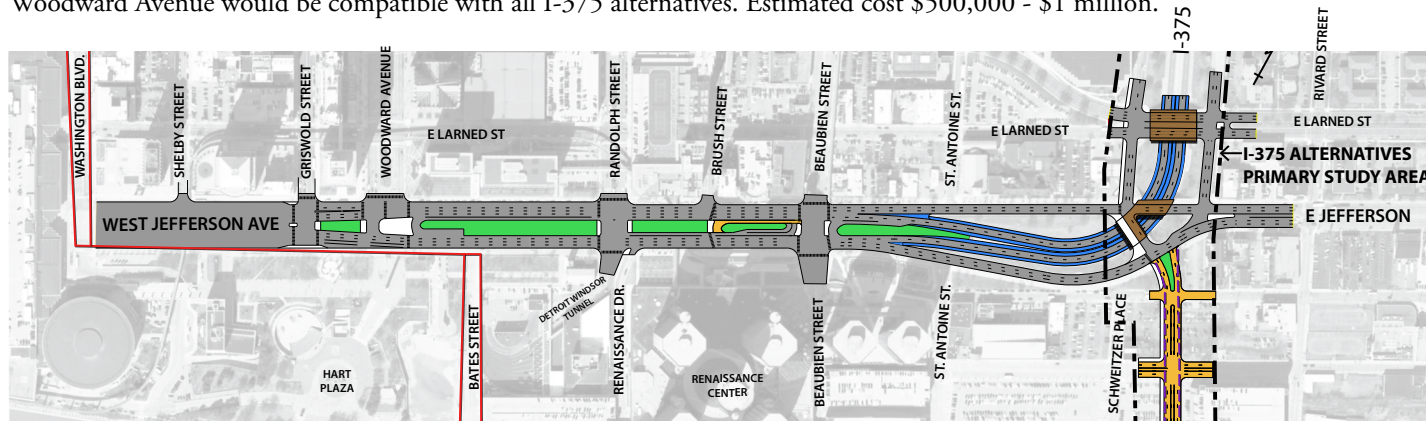
CROSS-SECTION LOOKING EAST SHOWING PROPOSED EAST JEFFERSON IMPROVEMENTS

Jefferson Avenue (West of I-375)

Two concepts were developed for Jefferson Avenue west of I-375. While these concepts include some operational changes and improvements, the modifications proposed are too minor to be able to be tested at a regional model level in this first level of screening.

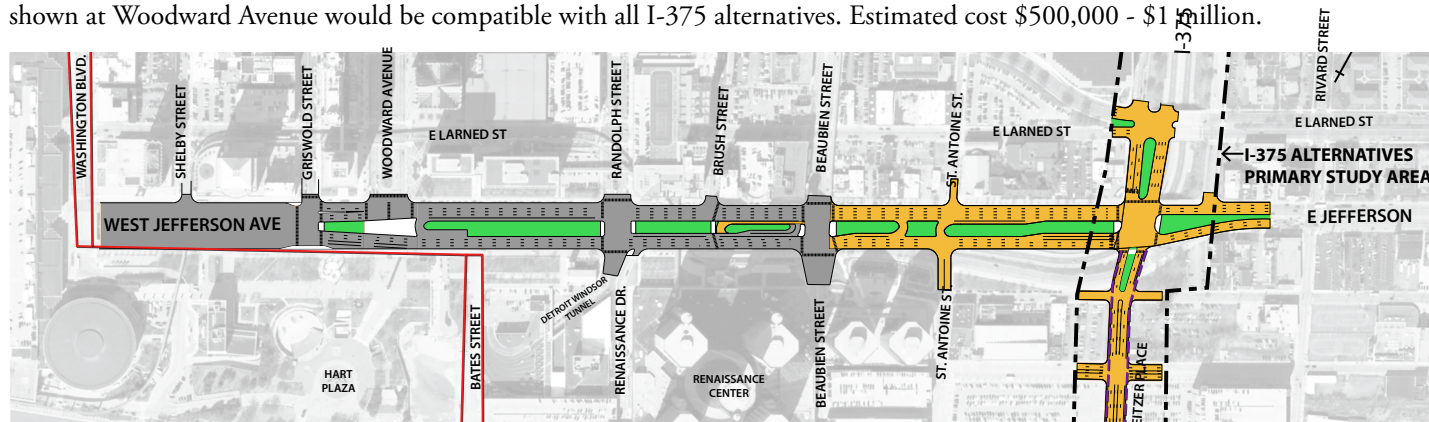
Alternative 1 - West Jefferson

This alternative includes elimination of the direct left-turn from eastbound Jefferson Avenue to northbound Woodward Avenue. In addition, the direct left-turn from westbound Jefferson Avenue to southbound Beaubien Street would be relocated to a cross-over lane west of the intersection in order to reduce intersection blockages due to left-turning traffic. This alternative is intended to be most compatible with I-375 Alternatives 1 and 2; however, improvements shown at Woodward Avenue would be compatible with all I-375 alternatives. Estimated cost \$500,000 - \$1 million.



Alternative 2 - West Jefferson

Under this alternative, all direct left-turns at Woodward Avenue would be eliminated and re-routed to other downtown roadways. In addition, all direct left-turns at Beaubien Street would be relocated to new cross-over lanes. This alternative would be compatible with I-375 Alternatives 3-6 only; however, improvements shown at Woodward Avenue would be compatible with all I-375 alternatives. Estimated cost \$500,000 - \$1 million.



4.4

Alternatives Considered + Dismissed from Further Study

Several alternatives were considered and dismissed from further study. The following is a summary of these alternatives and the reasons they were eliminated from consideration.

“Decking” Over I-375 to Create a Public Plaza Space or Development Area

Constructing a bridge deck or structure over the I-375 freeway lanes was considered and dismissed due to the following factors:

- **Cost:** The cost of this alternative, both initial capital and long-term maintenance, is anticipated to be prohibitive and significantly more than the cost of reconstructing the facility in-place. Further, if the length of the decked segment or tunnel is more than 800 feet, ventilation via jet fans may be required to remove carbon monoxide (CO) emissions (and smoke in case of a fire) from vehicles in the tunnel and to circulate fresh air into the tunnel. The required ventilation system would add to the cost substantially.
- **Connectivity:** Decking over freeways typically reduces access and connectivity due to the difficulty of introducing ramps into the covered area. This alternative may require reduction or elimination of ramps to be viable. This type of solution is typically applied in cases where the freeway is a thru-traffic route with high volumes in order to serve as a more effective bypass. Moreover, the surrounding area is not densely developed enough that would justify a tunnel concept.

Previously Approved Alternative from 2002 Environmental Assessment (Alternative 12 Refined)

An alternative for this corridor was previously approved by the Michigan Department of Transportation (MDOT) and designed in the early 2000's, which would extend freeway ramps from I-375 through Jefferson Avenue and to Atwater Street to better connect the corridor to the riverfront. In addition, this alternative proposed modest improvements to the southbound off-ramps at Lafayette Avenue and Larned Street. This alternative was dismissed from further consideration for the following reasons:

- **Connectivity:** This alternative improves access to the riverfront, but only for motorists already on I-375. There would be no access to the new roadway connection from Jefferson Avenue or the I-375 Service Drives. In addition, this alternative would not make any significant improvement to access to East Jefferson Avenue.
- **Non-Motorized Access:** This alternative would perpetuate or even worsen access issues through the south terminus of I-375 for non-motorized users (pedestrians or bicyclists), who would have no direct access to the new riverfront connection.
- **Cost and Complexity:** This alternative would create a third level to the existing interchange, a costly modification which would ultimately perpetuate the sharp curve between I-375 and Jefferson Avenue West. This segment carries a relatively low volume. It would further reduce the feasibility of a potential direct riverfront connection. Further, this alternative would require more land south of Jefferson Avenue to complete the proposed ramp connections.

The proposed improvements in this 2002 design to the southbound off-ramps, however, have been carried forward in this I-375 Alternates Study for further consideration.

Develop Below-Grade Space with Underground Parking and Air Rights Development Above

While not explicitly eliminated from consideration (this option is a potential future phase within Alternative 6), early results of the economic analysis study indicate weak market demand for such an improvement. Given the abundant availability of vacant land and surface parking lots near the corridor, there is little to no existing potential demand to justify developing expensive below-grade space in this location. Alternative 6 presents a solution with a transitional (or potentially permanent) use for this below-grade space.

Incorporate Rapid Transit within the Corridor

While incorporation of transit service within the corridor is supported or enhanced through the illustrative alternatives presented, specific rapid transit solutions (e.g., bus rapid transit (BRT) or rail transit options) are not directly included in any alternative presented. The I-375 corridor itself is only approximately one mile long, too short for a viable operating segment for a rapid transit system. Further, there are no near- or long-term plans for improved or new transit service in the I-375 corridor by the two existing regional transit systems, the Detroit Department of Transportation (DDOT) and the Suburban Mobility Authority for Regional Transportation (SMART), nor by the newly-formed Regional Transit Authority (RTA).

The Southeast Michigan Council of Governments (SEMCOG) has initiated an alternatives analysis for rapid transit options in the Gratiot Avenue corridor. This study may consider the role of I-375 as part of the downtown terminus for a system serving the Gratiot corridor.

Use of Roundabouts for Surface Street Intersections

Roundabouts were considered to be applied for surface street intersections but not utilized for the following reasons:

- **Anticipated Traffic Volumes:** The anticipated future traffic volumes and highly direction traffic flows are not well suited to good roundabout operation.
- **Negative Impact on Non-Motorized Traffic:** Roundabouts are generally not supportive of non-motorized travel due to lack of protected pedestrian phases and bike facilities.
- **Proximity to Signalized Intersections:** Roundabouts typically do not perform well in close proximity to signalized intersections due to the inability to coordinate operations between the two intersections. Many historic roundabouts in older cities such as Washington, D.C. and New York have had their entries signalized over time, thereby defeating the purpose of the roundabout function.

4.5 Evaluation

Two key technical analyses were conducted to support evaluation of the Illustrative Alternatives: a traffic operations and safety evaluation, and a study of the potential economic impact of the primary study area alternatives. The following sections provide a brief summary of the findings of these analyses. Complete technical reports can be found in Appendices B and D, respectively. In addition, analyses were conducted with regards to the complexity of maintaining traffic during construction of the alternatives, as well as an analysis of public space attributes of each alternative. These analyses can be found in Appendices E and F, respectively.

Traffic Operations and Safety

Existing and Future No-Build Conditions

Analysis of existing conditions was conducted, considering both operations and traffic safety throughout the primary and secondary study areas. All study intersections and freeway segments currently operate at acceptable levels of service (LOS D or better) during typical AM and PM peak hours of travel. However, several locations of interest were identified as having elevated crash rates based on three years of representative crash data:

- Jefferson Ave and Woodward Ave
- Monroe and South I-375 Service Drive
- Gratiot at St. Antoine/Madison
- NB & SB I-375: Jefferson to Larned
- SB I-375: Larned Off Ramp to Monroe Off Ramp
- NB I-75 to NB I-75 Ramp: N I-75 to Split

Mitigation of the contributing factors to these elevated crash rate locations were considered in the development of illustrative alternatives.

A planning horizon of 2040 was investigated using an updated version of the Southeast Michigan Council of Governments (SEMCOG) regional travel demand model. This model considers general growth and demographic trends in the area, as well as specific development input. Nearly all study area intersection and freeway segments are expected to continue to operate at LOS D or better except for the following locations:

- SB I-375/Madison Avenue Off-Ramp (LOS E, AM Peak Hour)
- SB I-375/Weaving segment between Fisher Fwy EB on-ramp and Monroe off-ramp (LOS F, AM Peak Hour)

Illustrative Alternative Analyses

For this screening level analysis, forecasted volumes in combination with link capacity from the regional model were utilized to develop Volume/Capacity (V/C) ratios for study area roadway links. V/C is a high-level measure of saturation of a roadway link, and provides an indicator of potential problem areas. A V/C ratio of greater than 1.0 indicates that the anticipated volume on the link exceeds the theoretical link capacity, which takes into account the functional classification of the roadway, the posted speed, and the number of travel lanes. This is an indicator of potential congestion along the link.

It should be noted that link capacity at the regional model level is not sensitive to certain operational features or issues, including traffic signalization and phasing, turn lanes and other factors. Further, application of the regional model for analysis of a central business district area is challenging due to the density of the roadway network and the strong influence of parking lot access on the volume distribution, factors which are not typically well reflected at the regional model level. As such, this analysis is intended to be a high-level screening tool to identify potential issue areas, which will be studied further for alternatives which advance to the practical alternative stage.

The following tables summarize the relevant findings for each of the Illustrative Alternatives.

OPERATIONAL AND SAFETY FINDINGS – I-375 ILLUSTRATIVE ALTERNATIVES

ALTERNATIVES	OPERATIONS FINDINGS	SAFETY FINDINGS
Alternative 1	Most study area facilities anticipated to operate below capacity. Little change to No-Build operations.	Does not address/mitigate safety issues identified.
Alternative 2	Service drive congestion may increase near Jefferson Avenue due to additional traffic feeding new riverfront connection. No other changes anticipated.	Removes the Jefferson curve and need for weaving maneuver between Monroe and Lafayette. Increased volume of traffic through signalized intersections. Special consideration required for freeway end transition.
Alternative 3	Most study area facilities anticipated to operate below capacity during both peak hours of travel.	Eliminates the Jefferson curve and need for weaving maneuver between Monroe and Lafayette. Increased volume of traffic through signalized intersections. Special consideration required for freeway end transition.
Alternative 4	Potential congestion anticipated north of Lafayette in the peak direction of travel during both the AM and PM peak hours due to reduced capacity from freeway to arterial. Some traffic is anticipated to divert to other routes, including M-10 where there is sufficient available capacity.	Eliminates the Jefferson curve and need for weaving maneuver between I-75, Monroe and Lafayette. Increased volume of traffic through signalized intersections. Special consideration required for freeway end transition.
Alternative 5	Potential congestion anticipated north of Lafayette in the peak direction of travel during both the AM and PM peak hours due to reduced capacity from freeway to arterial. Some traffic is anticipated to divert to other routes, including M-10.	Eliminates the Jefferson curve and need for weaving maneuver between I-75, Monroe and Lafayette. Increased volume of traffic through signalized intersections. Special consideration required for freeway end transition.
Alternative 6	Potential congestion anticipated north of Lafayette in the peak direction of travel during both the AM and PM peak hours due to reduced capacity from freeway to arterial. Some traffic is anticipated to divert to other routes, including M-10.	Eliminates the Jefferson curve and need for weaving maneuver between I-75, Monroe and Lafayette. Increased volume of traffic through signalized intersections. Special consideration required for freeway end transition.

OPERATIONAL AND SAFETY FINDINGS – SECONDARY STUDY AREA ILLUSTRATIVE

ALTERNATIVES	OPERATIONS FINDINGS	SAFETY FINDINGS
<i>I-75/I-375/Gratiot Connector Interchange</i>		
Alternative 1	Interchange area is anticipated to operate below capacity during each peak hour, or similar relative to No-Build alternative. Additional volume expected along Gratiot Avenue due to new access point.	Eliminates left-side entry and exit at Madison. Increased volume of traffic through signalized intersections.
Alternative 2	Interchange area is anticipated to operate below capacity during each peak hour, except for the intersection area with Gratiot Avenue, which may experience congestion. Traffic from Gratiot connector expected to divert to other routes, including Mack Avenue and I-94.	Simplifies interchange, reducing driver confusion. Makes access to the I-375 roadway a traditional exit, thereby easing the freeway-to-surface transition.
<i>Jefferson Avenue East of I-375</i>		
Alternative 1	No change relative to the No-Build alternative; three travel lanes maintained in each direction during peak periods.	Raised median provides access control and reduces left turns across the roadway; provides shorter pedestrian crossing with stop mid-crossing.
Alternative 2	Lane reduction anticipated to result in some congestion, particularly westbound during the AM peak hour near Rivard.	5-lane section with buffered bike lanes provides shortest single-phase pedestrian crossing.
<i>Jefferson Avenue West of I-375</i>		
Alternative 5	Prohibition of eastbound left turn at Woodward would reduce eastbound queuing, shift most traffic to Larned off-ramp, with sufficient capacity to support shift.	Would directly address rear-end crash issues experienced due to limited left-turn queuing at Woodward.
Alternative 6	Prohibition of eastbound left turn at Woodward would reduce eastbound queuing, shift most traffic to Larned off-ramp, with sufficient capacity to support shift. Prohibition of southbound left-turn at Woodward would result in traffic shifts to Griswold and Randolph; may increase congestion on those approaches.	Would directly address rear-end crash issues and pedestrian crash issues experienced due to limited left-turn queuing and southbound turn conflict with the pedestrian phase at Woodward.

In general, potential congestion issues identified through this screening analysis indicate areas of concern which may require further geometric refinement and detailed operational analysis during the practical alternatives phase of study.

Economic Impact

An assessment of potential economic impact of each of the primary study area alternatives was conducted through a macro-level analysis of the demographic and economic conditions of the study area, the local real estate market, existing policy frameworks, and benchmarks illustrating economic benefits of various alternative features.

Major takeaways from this analysis include:

Demographics: The high residential density within Lafayette Park and proximity to the Central Business District (CBD), proportion of zero-car households, and high proportion of residents working in the CBD, all point to the value of improved transit and non-motorized connectivity in the area in general, and specifically between Lafayette Park and the CBD.

Land Use and Characteristics: This corridor sits at an interface between the CBD and adjacent residential neighborhood. The CBD side of the corridor is a mix of uses, many of which use the corridor as their parking and service entrances, making commercial development along this edge awkward. Based on the land use recommendations from the Future City framework, development along the eastern edge of the corridor should emphasize green infrastructure, open space, neighborhood connectivity, complete streets, and minimizing the potential addition of vacant parcels to the city's land inventory.

Real Estate Market Conditions: While the general narrative of recent development in the greater downtown area is positive, data and developer feedback provided insight into the general characteristics of these market and development trends:

- **Commercial:** While there has been growth in the commercial market, it has been more constrained than the residential market, with vacancy rates still below the national average. While occupancy is steadily increasing, it is largely occurring in existing under utilized buildings, and resulting in very little new commercial construction occurring.

- **Residential:** Residential occupancy has skyrocketed in recent years, with occupancy around 97% in Downtown and Midtown, and rental rates rising steadily, pointing to significant supply issues. However, the constraint to supply is largely due to issues financing residential construction (either new or renovation) due to lender reluctance and complex tax credit packages typically necessary to close financing gaps. In addition, occupancy rates in the Greater Downtown area, which includes Lafayette Park, are a more modest 76%.

Economic Impact of Alternative Features: The potential economic impact of features associated with several alternatives were examined:

- **Freeway Transformation/Removal:** The results of several benchmark examples were cited, illustrating that real positive economic impact was experienced in each location where the freeway corridor was removed or re-scaled to improve conditions for other users. These impacts were experienced as a result of improved multi-modal connectivity and surrounding environment, and residual land development.
- **Multi-Modal Connectivity:** The interrelationship between connectivity/transportation options and real estate market impacts has been found to be direct in several of the benchmark studies, with positive walking and biking conditions having a measurable positive impact on real estate values. This includes a recent study done in Michigan examining this correlation at a neighborhood level, including in Detroit neighborhoods.
- **Residual Land Development:** Given the current market conditions, availability of vacant/under utilized land in the immediate area, and potential parcel sizes, adjacencies and development impediments, this study finds there to be a low likelihood of immediate development on potential residual property, and therefore a low likelihood of significant near-term value. Further, if sold immediately, long-term vacancy of the property or uses such as surface parking could have a negative impact on surrounding real estate values. It is therefore recommended that a viable transitional or permanent public space use be employed until such a time that development is viable. As such, the economic impact of those alternatives which would result in the creation of residual land is measured not based on long-term future development value, but rather on value of a transitional public space use to the adjacent properties and overall corridor.

- **Public Park/Open Space:** The inter-relationship between public realm improvements and economic outcomes has been firmly established, with many studies illustrating tangible real estate value and business activity impacts due to investment in park or open spaces. However, poorly planned or maintained spaces may result in a negative overall impact. To be an effective creator of economic value, it is essential that a plan be developed for ownership and an entity be designated to maintain and program the space for the long-term until such a time that the property is deemed viable for development.
- **Land Development Facilitation:** A number of vacant or underutilized parcels exist along the corridor with poor access and/or adjacencies, inhibiting their viability for development. The potential for the alternative to support active development plans and potential opportunities in the general corridor area was therefore considered. This facilitation may be realized through improved connectivity or changes to the adjacencies of development properties, including physical uses, corridor aesthetics, character and activity, and user amenities.

Applying these major takeaways to the various I-375 alternatives, the overall economic assessment of each alternative (based on a Low, Medium, High rating) are as follows:

Alternative #1 - NONE

While there may be some very limited benefits from new infrastructure and minimally improved aesthetic conditions, Alternative 1 would not appreciably change conditions with regards to development properties, nor impact conditions of adjacent properties. No new connectivity is provided for any mode of travel.

Alternative #2 - LOW

Alternative 2 would increase the development potential of the riverfront by providing new connectivity, although the connection would be an indirect one from I-375. It would have marginal potential impact on adjacent real estate values, due only to refreshed infrastructure and added non-motorized amenities.

Alternative #3 - MEDIUM

Alternative 3 would improve riverfront access over Alternative 2 by making it a direct movement from the I-375 roadway, and improve gateway potential to the area. The greenway buffer with non-motorized trail, along with conversion of the northbound service drive to a two-way local roadway, could all have a positive impact on properties to the east.

Alternative #4 - MEDIUM

Alternative 4 would create new direct riverfront access and improve access to the north end of the corridor via new direct connections to Clinton and Macomb Streets. However, the residual property created along the western edge of the corridor has significant development impediments, and is not a desirable location for public space. Without a viable desirable use, vacancy or underuse of this property could have a negative impact on corridor real estate values. Further, shifting of the primary thoroughfare closer to the residential area could have a negative impact on adjacent residential properties.

Alternative #5 - HIGH

Alternative 5 would create new direct riverfront access and improve access to the north end of the corridor via new direct connections to Clinton and Macomb. The residual property created on the east side of the corridor would be more suitable for a public space as an interim use given its adjacency to the residential area, and its function as a buffer and amenity could positively impact property values to the east. In addition, this land has better adjacency and fewer development impediments than Alternative 4, and could be more viable for long-term development, particularly as residential/mixed-use.

Alternative #6 - MEDIUM

Alternative 6 would create new direct riverfront access and improve access to the north end of the corridor via new direct connections to Clinton and Macomb. The residual space between the two one-way roadways is proposed as a below-grade greenway/public space, which may have questionable usage in this context given lack of connectivity to the north. In addition, the principal northbound roadway is pushed closer to the eastern edge of the corridor, which may have a negative impact on real estate values of the adjacent residential properties.

5.0// Coordination and Outreach

5.1 Technical Committee

A Technical Committee managed the study prepared by a consulting team led WSP | Parsons Brinckerhoff, via a contract with the City of Detroit Downtown Development Authority (DDA). Members of the Technical Committee included DDA's Detroit Economic Development Group, MDOT, DRFC, SEMCOG and City of Detroit Department of Public Works and Federal Highway Administration (FHWA). Several meetings were held between December 2013 and December 2015 by the consulting team and the Technical Committee to coordinate the technical content of the study and public outreach programming.

5.2 Advisory Committee

An Advisory Committee representing over 60 private, public, and non-profit organizations, major employers and resident stakeholders was established to assist the Technical Committee in the conduct and content of the study. Several meetings were held between the Advisory Committee, the Technical Committee, the consultant team and the public.

5.3 Other Agency Coordination

This study was conducted as a Planning and Environmental Linkages (PEL) study, as defined by NEPA. PEL is a Federal program to promote coordination of transportation and environmental agencies when planning transportation projects. As part of this process, outreach was conducted with the following resource agencies to gain feedback on the illustrative alternatives as part of the environmental screening process:

- Michigan Department of Environmental Quality (MDEQ)
- Michigan Department of Natural Resources (MDNR)
- U.S. Department of Housing and Urban Development (HUD)

Agency responses are part of the project record.

5.4 Public Outreach

Two (2) public meetings were held as part of the community engagement process associated with this study. Detailed meeting reports and public comments received are included in Appendices G and H, respectively.

Public Meeting #1

The first public meeting was held in February 2014 at Stroh River Place in Detroit. The meeting was an open house format, providing attendees the opportunity to view presentation boards and engage with project team members stationed throughout the space. Participants were encouraged to provide feedback through one-on-one interactions with project team members and other participants, completing questionnaires at targeted stations, and submitting written comments.

The meeting was attended by over 140 people; 40% of whom live in/near the study areas, 17% of whom live and work in/near the study areas, 25% of whom work in/near the study areas, and 15% of whom live and work elsewhere.

Review of targeted feedback and written comments revealed that the primary concerns of attendees were focused on the following topics:

- Attendees agreed that I-375 creates a distinguishable barrier between the CBD and eastside neighborhoods. Some attendees view I-375 as harming connectivity and synergy between the two areas, while other attendees view I-375 as a necessity to keep undesirable traffic out of their neighborhoods.

- Attendees were concerned about future traffic conditions if I-375 is converted into a surface street.
- Attendees were generally responsive to the content of the meeting and the various mechanisms for offering comments.
- Attendees inquired about the redevelopment historic neighborhoods (e.g. Black Bottom, Paradise Valley) that were eliminated by the construction of I-375.
- Attendees agreed that congestion and safety issues exist on I-375 S between I-75 and Lafayette.
- Attendees agreed that the visual appeal of the corridor is of greater concern than poor roadway conditions.
- Attendees agreed that the corridor provides unsatisfactory conditions for pedestrians, noting that several areas outside of the corridor provide a better pedestrian experience.
- Attendees agreed that future connections need to be provided between Eastern Market and Campus Martius, Lafayette Park, Midtown, and the riverfront.
- Attendees agreed that the majority of the corridor provides an unsafe environment for pedestrians, especially between Larned and Jefferson.
- Opinions on the congestion and vehicular connectivity of I-375 were neutral.
- Attendees agreed that non-motorized enhancements within the corridor should be a key component of the study.
- Attendees agreed that a direct riverfront connection should be a key component of the study.
- Attendees agreed that new land use typologies should be a key component of the study.
- Attendees agreed that environmental factors should be a key component of the study.

Public Meeting #2

The second public meeting was held in June 2014 at Eastern Market in Detroit. The meeting was an open house format, providing attendees the opportunity to view over 30 presentation boards with orientation presentations provided at multiple times throughout the event. The 30 display boards consisted of information and illustrations related to the illustrative alternatives for the primary study areas, secondary study areas, and innovative corridor elements. Participants were encouraged to provide feedback through one-on-one interactions with project team members and other participants, placing stickers on evaluation boards located at each station, and submitting written comments.

The meeting was attended by 199 people; 35% of whom live in/near the study areas, 25% of whom live and work in/near the study areas, 24% of whom work in/near the study areas, and 14% of whom live and work elsewhere. In addition, the alternatives were distributed in advance of the meeting to major media outlets. Press coverage included a major article in the Detroit Free Press Sunday edition.

Review of targeted feedback and written comments revealed that the primary concerns of attendees were focused on the following topics:

- Attendees agreed that Alternatives #3-6 were preferred over Alternatives #1-2 for the Primary Study Area.
- Attendees generally favored each Alternative proposed for the East Jefferson and West Jefferson Secondary Study Areas.
- Attendees agreed that Alternative #2 was preferred over Alternative #1 for the Interchange Secondary Study Area.
- Attendees favored the integration of specific design elements, including buffered bike lanes (with a physical barrier), enhanced pedestrian environments (on bridges and crosswalks), wind/solar energy treatments, stormwater treatments and public art.
- Attendees were concerned about future traffic conditions if I-375 is converted into a surface street.
- Attendees were concerned about future noise, vibration, and pollution if I-375 is converted into a surface street.
- Attendees were concerned about future development adjacent to eastside neighborhoods if residual land is created through the preferred alternative.
- Attendees favored a reconfigured interchange that eliminates the Gratiot connector and makes I-75 movements more intuitive.
- Attendees favored a direct riverfront connection.
- Attendees favored the elimination of the Jefferson curve.
- Attendees favored non-motorize improvements along and across I-375.
- Attendees favored at-grade alternatives, noting that it would align with current development trends of downtown and divert from previous planning habits that placed preference on automobile travel.
- Attendees suggested any new at-grade boulevard be named Hastings Street as a tribute to the history of the area.
- Attendees suggested any new at-grade boulevard should be less than four lanes, suggesting that future traffic volumes will continue to decline and that traffic can divert to M-10 and other downtown surface streets.

APPENDICES

TABLE OF CONTENTS //

- A. PEL Questionnaire
- B. Traffic Operations and Safety Technical Report
- C. Economic Benchmark Study
- D. Economic Analysis of Alternatives Report
- E. Public Space Analysis Memo
- F. Maintenance of Traffic Evaluation Memo
- G. Public Outreach Meeting Reports
- H. Public Comments Received