US-131 Planning and Environmental Linkages (PEL) Study

Final Report | September 2025

AECOM

MDOT Michigan Department of Transportation

US-131 Planning and Environmental Linkages Process

Overview and Next Steps

The Michigan Department of Transportation (MDOT) began a Planning and Environmental Linkages (PEL) Study in 2014, initially to review most of US-131 and I-96 in Kent County, based on road and bridge condition issues, as well as safety and operational needs. With help from local organizations and the public, we learned more about the community and traffic patterns on US-131. After initial data collection, analysis and public involvement, the US-131 segment between M-11 (28th Street) and Cherry Street (near Wealthy Street) in Wyoming and Grand Rapids was identified as a critical focus area for further study through the PEL process. This segment will need extensive preservation work over the next decade to address road and bridge condition issues. It is also experiencing traffic growth caused by redevelopment in Grand Rapids and population growth in the urbanized area, resulting in congestion, delays and safety issues.

The freeway within the study area was built in a corridor with extensive older warehousing, distribution, industrial uses and railroad freight yards. Other routing options were considered, including east of the railroad/industrial area near Division Avenue, which would have resulted in the displacement of several local businesses and neighborhoods. The current US-131 route was chosen after several years of discussions between MDOT and the City of Grand Rapids and other organizations in the area in the 1940s and '50s, and built in the 1960s. The segment selected for the US-131 PEL process mostly avoided impacts on residential areas in favor of industrial and railroad freight yards that were being consolidated and rebuilt concurrently with the freeway construction. This minimized the loss of housing compared to other new freeways being built at the time.

The travel characteristics of this segment of US-131 supports daily volumes between 110,000 and 140,000 vehicles per day, making it the busiest freeway in Michigan outside of Metro Detroit**.** Most of that traffic starts or ends within the PEL study area**.** It has three lanes in each direction, with limited shoulders and a median barrier. The current freeway design has closely spaced ramps, some of which are on the left side, which contribute to congestion and crashes. The segment between Martin Luther King Jr. Street (Formerly Franklin Street) and Wealthy Street has one of the highest crash rates in the state of Michigan. The lack of shoulders also creates difficulties for maintenance, snow plowing and emergency vehicle access to crash sites. The objective of this PEL process was to identify improvement opportunities that can be incorporated into future infrastructure preservation or reconstruction projects in the study segment.

In 2019, a Local Advisory Committee (LAC) was created consisting of city, county, economic development, transit and neighborhood groups and community organizations. Based on a review of existing conditions and challenges, MDOT, with guidance from the LAC, developed a draft Purpose and Need for the PEL Study, which was modified based on feedback from stakeholders and the public. Due to COVID limitations, most of the early LAC meetings were held virtually. Public involvement was also accomplished virtually, using several tools and formats with consultant AECOM, and in-person toward the end of the process. MDOT organized more than 30 community organization meetings from 2020 to 2024. More than 7,000 people participated, and 10,000 comments were received throughout the process and summarized in the report. Most of the comments supported improving the freeway, enhancing local connections, interchange reconfigurations and incorporating nonmotorized access.

After several rounds of public involvement, the US-131/Wealthy Street interchange became a focus of the LAC, the community and MDOT from a condition, operational and safety perspective, especially the half-mile segment between Martin Luther King Jr. Street and Cherry Street. It is also the gateway to several redevelopment projects, including the new Acrisure Amphitheater, Amway Soccer Stadium and adjacent housing and commercial developments. As a result, the Wealthy Street interchange will be the target area for the next study phase. Based on the Wealthy Street bridge condition, major road and bridge work will likely be needed by 2035.

The PEL report does not recommend one alternative. It identifies a range of Acceptable Options that address the Purpose and Need identified through the PEL process. The options include possible interchange modifications, safety improvements, reconnecting city streets and enhancing nonmotorized facilities. One of the goals of the PEL process was to identify negative impacts from the past and avoid, minimize or mitigate those impacts going forward with any future improvements. The PEL Acceptable Options will be evaluated further in the next phase, which will focus on the Wealthy Street interchange area as well the connecting freeway and city street segments.

The next phase will include starting the National Environmental Policy Act (NEPA) process. The NEPA process will evaluate transportation, social and environmental impacts associated with any proposed improvements, and include further public and community involvement, coordinated with the City of Grand Rapids. It will be funded through a 2021 grant from the Michigan Legislature, which was directed to the City of Grand Rapids. This process will begin following completion of the PEL study, as a joint effort and partnership between the City of Grand Rapids and MDOT. The result will be a consensus Preferred

Alternative for the Wealthy Street interchange area, supported by MDOT and the city. Construction will be prioritized based on statewide needs and funding levels.

MDOT appreciates the support and participation of the local agencies, community organizations and the public in the US-131 PEL study process. MDOT will continue to use the knowledge gained when developing future projects along US-131.

US-131 Planning and Environmental Linkages Process

Introductory Disclaimers for the US-131 Planning and Environmental (PEL) Report

The US-131 Planning and Environmental Linkages (PEL) process was completed to inform future maintenance and preservations projects on US-131 between M-11 (28th Street) and Cherry Street. Like any large study, the process takes time. Since the initiation of this study, MDOT has received more than 10,000 comments, one of the most successful public outreach efforts for a trunkline highway project or study in west Michigan. Comments were received from local governments, community organizations and the public. The US-131 PEL report outlines this effort and provides the Acceptable Options for consideration in future studies, analysis and projects.

When reviewing this report and accompanying documents. It is important to note the following:

1. Data collected early in the study was used to inform the PEL process. Validation of the data was conducted to ensure consistency between data collected and used throughout the timeframe of this process.
    - Some data, such as traffic volumes, were affected by COVID-19 pandemic (2020-2022) stay-at-home restrictions (Executive Order 2020-21) issued in spring 2020 to minimize the spread of the virus. As these restrictions were lifted, traffic volumes began to rebound to pre-pandemic levels.
    - Some trends have changed but not substantially enough to discredit the data collected and decisions made throughout the PEL process.
2. The Acceptable Options presented are intended to inform future project phases. Components of the Acceptable Options will be refined further, with additional public and stakeholder engagement in future project phases.
3. No funding is currently programmed for major projects along this section of US-131.
    - Maintenance activities and other preservation projects have been and will continue to be completed as warranted to safely accommodate the needs of the travelling public.
    - Due to bridge condition issues, the portion of the Martin Luther King Jr. Street (formerly Franklin Street) bridge east of US-131 will be replaced in 2026

4. Concepts drawn are not final. The concepts are intended to convey what potential options could look like to decision-makers, stakeholders and the public. Further evaluation and refinement are necessary and will be completed in future project phases.
    - Options presented in the PEL may be modified based on the result of outreach and additional information discovered during future phases.
5. Environmental factors (included in the report, appendices, supplemental documents and reports, etc.) are intended to provide a high-level planning analysis of possible impacts, mitigation and costs associated with mitigation.
    - Many impacts identified can be avoided and minimized through design processes that are not included in this level of study.
    - In addition, environmental factors, such as historical and recreational areas, were inventoried, as they are required to be evaluated in future project phases. The inventory does not necessarily imply an impact from a reviewed option but takes into consideration the context of the option in proximity to the identified feature.
    - Further evaluation and refinement are necessary and will be completed in future project phases.
6. Data projections are based on several scientifically validated and accepted forecasting methodologies (such as travel analysis zone boundaries, trip distribution parameters, mode choice decision structures, assignment procedures, calibration metrics, etc.). The information is not forecasted using only observed trends but includes a myriad of different factors and influences. As with anything, the projections are limited to information available. However, several different sources of validated data were used for the forecasting process.

Table of Contents

If you require assistance accessing this information or require it in an alternative format, contact the Michigan Department of Transportation's (MDOT) Americans with Disabilities Act (ADA) coordinator at Michigan.gov/MDOT-ADA.

Executive Summary

Introduction and Study Background

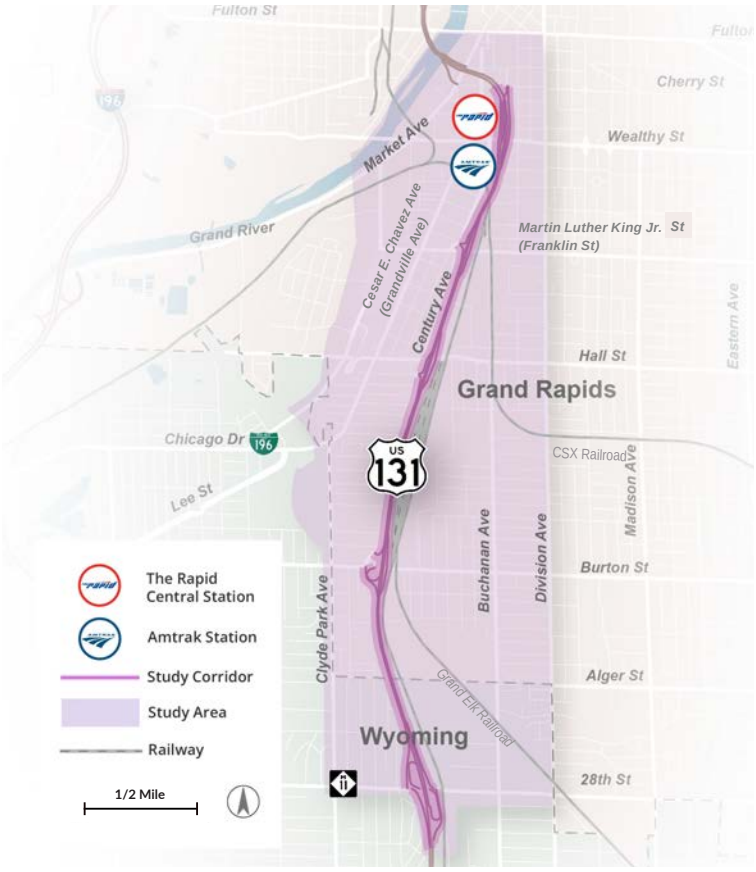
The Michigan Department of Transportation (MDOT) has identified the segment of US-131 between M-11 (28th Street) and Cherry Street in Wyoming and Grand Rapids as a critical focus area to be analyzed in a planning and environmental linkages (PEL) study. This segment will need preservation projects over the next decade to address road and bridge condition issues, and is experiencing an increase in traffic caused by growth and development in the city of Grand Rapids and adjacent communities, resulting in congestion and safety issues.

The travel characteristics of this segment of US-131 supports daily volumes between 110,000 and 140,000 vehicles per day. The current freeway design has closely spaced ramps that contributes to congestion and crashes. The segment between Martin Luther King Jr. Street (Franklin Street) and Wealthy Street has one of the highest crash rates in the region and statewide. The lack of shoulders also creates difficulties for maintenance, snow plowing and emergency vehicle access to crash sites. The objective of this PEL study process is to identify improvement opportunities that can be incorporated into future infrastructure preservation or reconstruction projects in the segment.

This PEL study is not intended to assess other transportation needs outside of the Study Area. No funding, outside of standard maintenance and preservation work, is programmed at this time for long-term improvements identified by this PEL study. The PEL Study is intended to provide guidance for more detailed analysis of improvements in the Study Corridor, and also intended to be used for future early preliminary engineering and National Environmental Policy Act (NEPA) phases.

Study Corridor and Area

The corridor, bounded by M-11 (28th Street) and Cherry Street in the Grand Rapids area and in Wyoming, was originally built in the late 1950s and early 1960s. The infrastructure in this area is in need of future preservation work, and the Study Corridor is reflective of this need.



Study Corridor and Area

Purpose and Need

Based on a review of existing conditions and challenges, MDOT, with guidance from the Local Advisory Committee (LAC), developed a draft Purpose and Need for the project that was then reviewed and amended based on feedback from stakeholders and the public. The following final Purpose and Need guided the study process including the development, evaluation and screening of options. Further information on the existing conditions can be found in Section 3 of this report.

Study Purpose

- *Preserve essential local and regional mobility;*
- *Improve traffic safety and operations;*
- *Relieve congestion and improve travel time reliability for local and regional freight, passenger and emergency transportation;*
- *Address pavement and bridge infrastructure conditions;*
- *Maximize multimodal access and improve access to the freeway;*
- *Identify partnership opportunities to enhance all modes of travel along corridors adjacent to the freeway;*
- *Identify and prioritize prudent and feasible investment options based on anticipated future revenues;*
- *Minimize travel disruptions and delays during construction phases of future improvement projects within the PEL Study Corridor;*
- *Assess opportunities for future infrastructure maintenance efficiencies.*

Study Needs

- *Safety, operational and congestion issues;*
- *Aging infrastructure requiring rehabilitation and reconstruction;*
- *Interchange operational issues resulting from changing travel and adjacent land use patterns;*
- *Freight transportation bottlenecks and access limitations;*
- *Growing regional traffic volumes and metro area development;*
- *Reliability for emergency vehicles and first responders;*
- *Mobility challenges for nonmotorized connections across the freeway;*
- *Need for more local street grid connections;*
- *Public transit circulation issues, particularly at The Rapid Central Station.*

Options and Evaluation Process

Based on the Needs identified for the Study Corridor and area, MDOT and the study team developed a series of options that focused on the following strategies:

- Modernization of currently sub-standard interchanges (less closely spaced, longer ramps, right-sided exits/entries);
- Addition of shoulders and lane modifications to better manage congestion and safety events;
- Creation of new or enhanced local crossings, including reconfiguration of the Wealthy Street interchange into an underpass beneath US-131 or an improved overpass.

As previously indicated, above, the options considered in the PEL study focused on the preservation of US-131 as a limited-access freeway, given its essential role in the regional and state economies. Initial options developed and studied are shown in the following table. Many of these options are needed to address the existing traffic conditions.

Options	Description
Freeway Lane Options	
Current/No Action	Keeps existing freeway lanes with minimal or no shoulders
Option 1	Adds inside shoulders
Option 2	Adds inside shoulders and weave./merge lanes
Option 3	Adds inside shoulders and continuous local access lanes
Cherry Street-to-Hall Street Interchange Options	
Current/No Action	Keeps existing interchanges
Option A	Flips Wealthy Street to an underpass; closes Martin Luther King Jr. Street (Franklin Street) interchange
Option B	Keeps Wealthy Street as an overpass; closes Martin Luther King Jr. Street (Franklin Street) interchange, with modernized ramp designs for northbound interchange
Option C	Closes Wealthy Street interchange
Option D	Keeps two ramps of Wealthy Street as an overpass; closes Martin Luther King Jr. Street (Franklin Street) interchange
Burton Street Interchange Options	
Current/No Action	Keeps existing Burton Street interchange
Diamond	Converts the southbound loop offramps to straight offramps
Combine Southbound Off Ramps	Removes the southbound offramp to Century Street

List of Initial Options for Evaluation

The two-step evaluation process utilized criteria based on the corridor needs and incorporated public and stakeholder feedback. During the first screening, the process considered freeway lane and interchange options separately, while the second screening considered freeway lane and interchange options in combination. Criteria during the first screening was a mix of qualitative and quantitative ratings, while the second screening included more detailed safety, traffic, right of way, and cost studies. The ultimate goal of the evaluation was to identify acceptable options for consideration during future phases of design and environmental studies.

Public Engagement

Public and stakeholder engagement is a primary component in the PEL study process. The public was consulted throughout the PEL study process and beyond, and public and stakeholder input directly informed the needs and strategic direction of the PEL study. Public and stakeholder consultation for the PEL Study comprised of three phases. Each of the three phases included surveys and meetings that shared information with the public and stakeholders. These engagement practices aimed at gathering input to inform design strategies and corridor options.

Phase 1 engagement objectives were focused on developing community-informed study needs and options evaluation criteria. Phases 2 and 3 focused on developing and refining options. A critical aspect of engagement throughout the project was the consultation with the LAC, which was comprised of various governmental officials, interest groups and business and community representatives. The LAC members attended the regular meetings throughout the study to share and gather information, review and comment on the PEL process, identify issues and assist with development and evaluation of options, and help provide guidance with stakeholder groups along the corridor. The LAC organizations were:

- *City of Grand Rapids*
- *Grand Rapids Chamber of Commerce*
- *Kent County Road Commission*
- *City of Wyoming*
- *Friends of Grand Rapids Parks*
- *South Division Grandville CIA*
- *Downtown Grand Rapids, Inc*
- *Grand Valley Metropolitan Council*
- *The Rapid*
- *Federal Highway Administration*
- *Kent County*
- *The Right Place*

Study Recommendations

The US-131 PEL Study has investigated the needs and opportunities for enhancing one of the most highly-utilized transportation assets in west Michigan, which is located in a complex urban setting. The results of this study identify a set of acceptable options to inform future early preliminary engineering and NEPA phases. Potential strategies include the addition of shoulders and lane modifications as well as the reconfiguration or removal of interchanges. Together, these improvements offer the opportunity to significantly improve the safety and efficiency of the US-131 freeway, while also providing improved connectivity and limiting impacts to the surrounding area. Key aspects of the acceptable options include:

- **Reconfiguration of the Wealthy Street interchange:** All acceptable options include a modernized version of this interchange, with longer right-sided ramps and improved facilities for local traffic crossing US-131. The public and LAC indicated a preference for "flipping" the current interchange to have Wealthy Street as an underpass below US-131, which could improve local connectivity. Both this and the option to keep Wealthy Street over the freeway will be studied further in future phases.

Designs of Wealthy Street Underpass and Overpass Aerial View in Option 3A

- **Reduction in the number of expressway entries and exits:** Specifically, removed or modified access at Martin Luther King Jr. Street (Franklin Street) would improve safety and allow space for modernization of the ramp infrastructure at the nearby Wealthy Street interchanges with Cherry and Hall streets.. Complementary strengthening of connectivity along the Hynes Avenue and Century Avenue drives would help ensure strong freeway access for the local area.
- **New or improved street connections across US-131:** These would occur in multiple locations, with a key added underpass at Graham Street that could facilitate car, truck and nonmotorized (bicycle and pedestrian) access to adjacent business district and residential areas. This improvement would also help strengthen Martin Luther King Jr. Street (Franklin Street) as a bridge crossing that is more targeted for local, non-truck and nonmotorized connectivity.
-

Graham Street Connection Aerial View in Option 3A

- **Added shoulders and possibly limited additional lanes:** The acceptable options all include full shoulders on each side of the expressway to better manage traffic and crash events. Options under study may also include limited lane additions to improve freeway operations and facilitate local access, either between closely spaced interchanges on the north end of the Study Corridor, or throughout the entire Study Corridor.

Next Steps

After conclusion of the PEL study, MDOT will continue working with its project partners to advance improvements to the Study Corridor and achievement of the larger vision. While construction of the project is unfunded, MDOT anticipates the following next steps:

- Further design, safety analysis and traffic studies related to the reconfiguration of the Wealthy Street interchange area and corridor (as part of the NEPA process);
- Identification of funding resources to advance the preferred corridor alternative and Wealthy Street improvements;
- Selection of a preferred corridor alternative and related environmental review and clearance, either for all or a portion of the Study Corridor;
- Final design of the preferred corridor alternative;
- Construction of the preferred corridor alternative; and
- Additional environmental and cultural impact assessment.

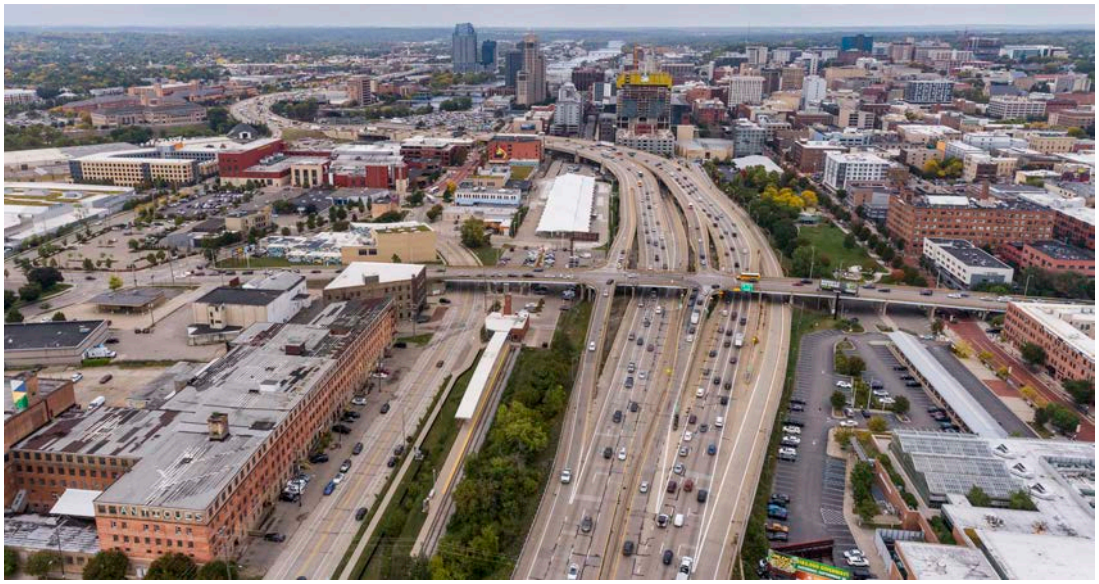
Additional studies for the Wealthy Street interchange area (as described previously) are intended to begin in 2025. There is not a defined timeline for the additional steps at this time. **Throughout each of the aforementioned steps, MDOT would conduct detailed and in-depth public and stakeholder engagement to keep the public aware of and involved in the decision-making process.**

1. INTRODUCTION

1.1 Background

The Michigan Department of Transportation (MDOT) began collecting data and evaluating road and bridge preservation needs along segments of the US-131 and I-96 freeways in or around 2012. This was based on the road and bridge conditions, which will require preservation projects over the subsequent 20 years. MDOT looked at limited improvements that could be accommodated with preservation projects and has identified the segment of US-131 between M-11 (28th Street) and Cherry Street in Wyoming and Grand Rapids as the critical focus area to be analyzed in a planning and environmental linkages (PEL) study. This Study corridor will need preservation projects over the next decade to address road and bridge condition issues and is experiencing traffic increase caused by growth and development in the city of Grand Rapids and adjacent communities, resulting in congestion and safety issues.

The purpose of this PEL Study is to evaluate cost-effective enhancements to the infrastructure conditions, safety and operations of US-131, while also considering local needs for nonmotorized access, local street connections, community development, environmental health, and economic growth. The objective of this PEL Study process is to identify improvement opportunities that can be incorporated into future infrastructure preservation and rehabilitation projects in the Study Corridor. This PEL Study is not intended to assess other transportation needs outside of the project area. No funding is identified for long-term improvements.



US-131 in Downtown Grand Rapids

1.2 Study Corridor and Study Area

Study Corridor

The US-131 freeway in Kent County is part of a longer statewide *Strategic Multimodal Corridor*, as identified in the approved Michigan Mobility 2045 State Long-Range Transportation Plan. As such, it serves local transportation and access needs, as well as longer distance regional and interstate travel.

US-131 in Grand Rapids and Wyoming is the busiest freeway corridor in Michigan outside of Metro Detroit, providing local access for commuting trips into downtown Grand Rapids as well as an important north-south regional connection for the regional and state economies. The corridor bounded by M-11 (28th Street) and Cherry Street was originally built in the late 1950s and early 1960s. In the coming years, MDOT will need to consider significant long-term reinvestment in its infrastructure. In addition, US-131 is a vital freight corridor, supporting an economic value of $40 billion annually. Although the Study corridor ends at Cherry Street to the north and most of the proposed design will not exceed Cherry Street, the Study still considered conditions of Market Avenue for alternatives development and screening processes.

Study Area

While the options considered were limited to the Study corridor (which includes the freeway and interchange infrastructure), the Study also considered impacts within a broader Study Area. The Study Area (see Figure 1-1) incorporated portions of the cities of Grand Rapids and Wyoming, (bounded by Division Avenue to the east, Clyde Park Avenue and Market Avenue to the west, Fulton Street to the north, and 28th Street to the south). The Grand River runs on the northwest edge of the Study Area, and both the Amtrak Station (passenger rail) and the Central Station for The Rapid (the regional transit agency) are within the area. The Grand Elk Railroad and CSX Railroad are also located in the Study Area, with a major rail yard that sits adjacent to US-131 to the east. The railroads and the rail yard predate the freeway. The study has considered the impacts of improvement options on land use, regional connectivity and other needs within this Study Area. In addition, MDOT has prioritized public and community outreach within this zone.

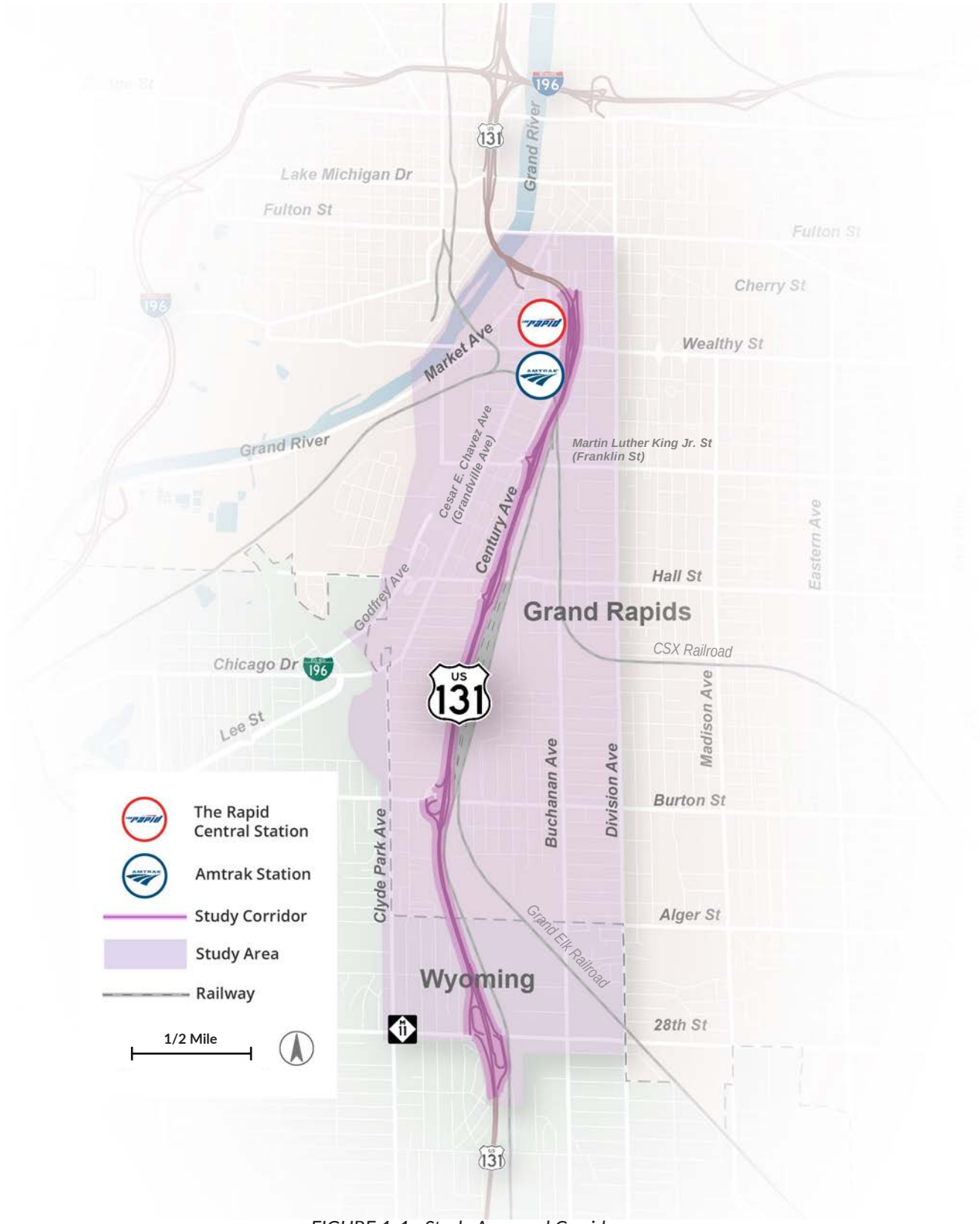


FIGURE 1-1. Study Area and Corridor

1.3 US-131 Corridor History

The US-131 highway was designated in 1926 as part of the federal U.S. Highway System. Originally located along Division Avenue, the roadway facilitated regional transportation, and became an important asset for access to downtown Grand Rapids. Like much of the United States in the early 20th century, the automobile became a major form of transportation to access resources and services. This shift in mobility required a consistent network of roadways. US-131 was, and is, a part of that network. The importance of this major north-south corridor led to planning efforts in the mid-1940s for what was then called the Century Expressway. Many major employers in Grand Rapids were, and still are, located along the US-131 corridor. As a result, investment in the corridor continued through 1962 when the freeway in Grand Rapids was opened to traffic. The original infrastructure has supported freight and passenger traffic for more than 60 years.

Franklin Street bridge with train crossing in 1925

Traffic on Division Avenue south of Wealthy Street before the freeway

Ribbon cutting ceremony marking the opening of US-131 in 1962

US-131 at Burton Street circa 1963

Mid-to-late 19th Century
Railroads were built, between Century Avenue and Buchanan Avenue

1919
M-13 along the path of US-131 (Division Avenue) was designated as the first state maintained highway

1926
US-131 debuted along with the rest of the initial U.S. Highway System

1962
The US-131 freeway in Grand Rapids was opened to traffic

2000
S-curve replacement

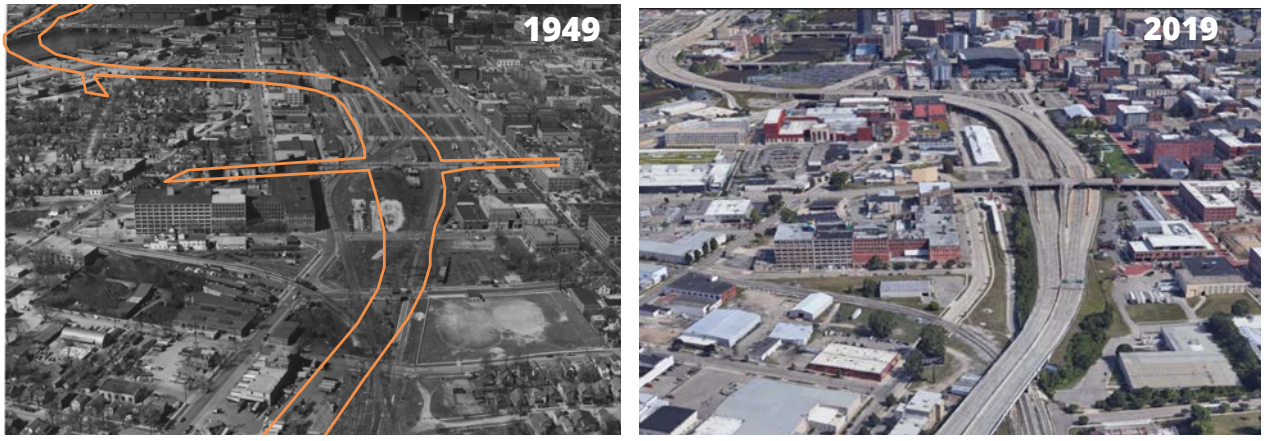
2026
Reconstruction of MLK bridge east of US-131, originally built in 1925

Future Year
Rebuilding of segment south of Cherry Street

In 2000, a large-scale bridge construction project replaced the S-curve, a sharp turn on US-131 as it crosses the Grand River. This PEL Study focuses on the segment immediately to the south of the S-curve, which accommodates the highest traffic volume along US-131 and has some of the oldest infrastructure, significant safety issues, and outdated interchange and freeway designs. This Study Corridor will require major preservation and reinvestment in the coming years. Outcomes of the PEL study are intended to help identify improvements that MDOT can make with future freeway preservation projects.

While US-131 is an integral infrastructure asset enabling commerce, travel and development, in some areas the freeway has also posed connectivity challenges for communities and neighborhoods. The route selected for US-131 in the PEL Study Area mostly avoided impacts on residential areas and minimized the loss of housing due to construction, compared to other new freeways in the Grand Rapids area and statewide. It was selected in favor of industrial and railroad freight yards to demonstrate the long history of this area as a regional transportation corridor. When built, there were minimal accommodations for pedestrians and local street connections based on design practices in the 1950s and 1960s. The local street connections were also limited by the pre-existing railroad facilities in the Study Area. As Grand Rapids became a major destination at the turn of the 20th century, many homes, businesses and other services were built around the railroads. This resulted in a fractured connection between these areas, which is still observed today.

The local community living near the US-131 corridor has been very interested in understanding the relationship between the construction of the freeway and its impact on residential areas at the time. It is inconclusive as to whether US-131 directly affected historical financial practices, such as redlining, in the Study Area; most of those financial practices were outlawed by the Fair Housing Act of 1968 and occurred prior to construction of US-131 in its current location. However, future planning and NEPA phases will identify, avoid, minimize, and/or mitigate applicable negative impacts going forward. Further research into the history of the US-131 corridor is planned with subsequent phases to both document what occurred and provide background for compliance with state and federal laws like the National Historic Preservation Act.



Aerial image of the urban context before and after US-131 near Wealthy Street

1.4 Planning and Environmental Linkages Study Process

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

A PEL Study is intended to precede (and inform) detailed environmental studies. The NEPA requires federal agencies to review the environmental impacts of a project before implementation. Specifically, NEPA requires a "systematic, interdisciplinary" approach for reviewing environmental impacts, including classification of a proposed project as Categorical Exclusion (CE), Environmental Impact Statement (EIS) and/or Environmental Assessments (EA). A PEL Study provides a window into the potential environmental impacts of a project before the NEPA process, encouraging the transition to a CE, EA or EIS while avoiding the duplication of some data collection, review and documentation tasks.

A PEL Study helps to identify project options and impacts before design and construction. It includes considerations of how a project could impact the economy, environment and people.

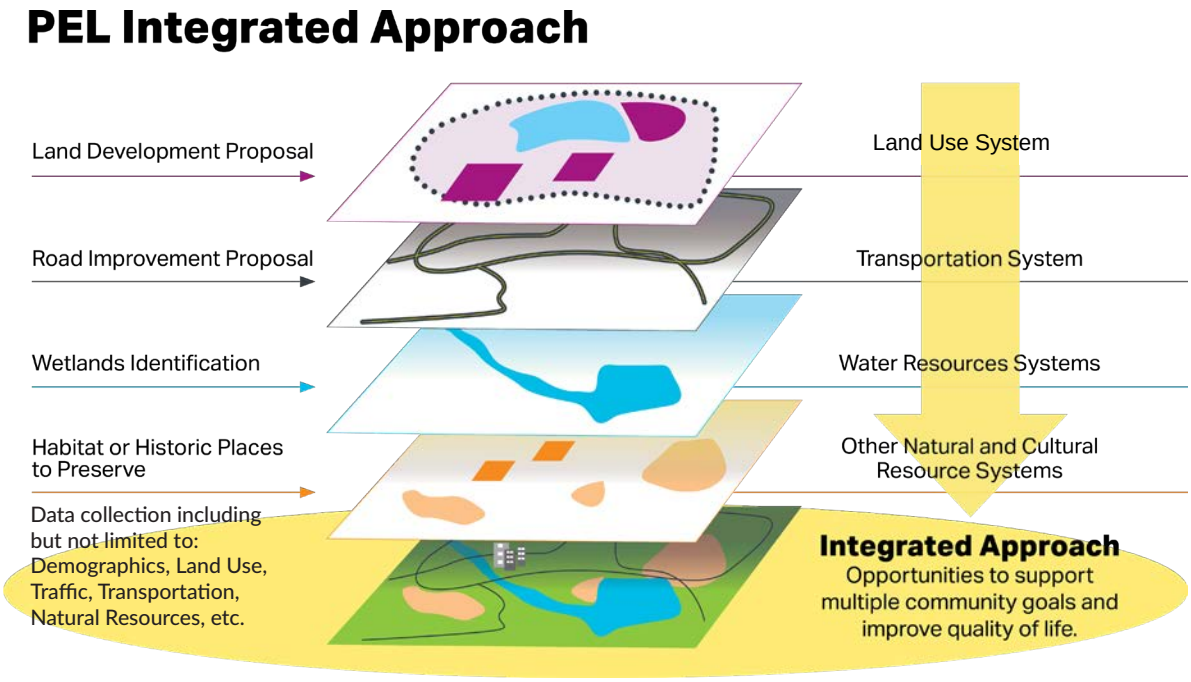
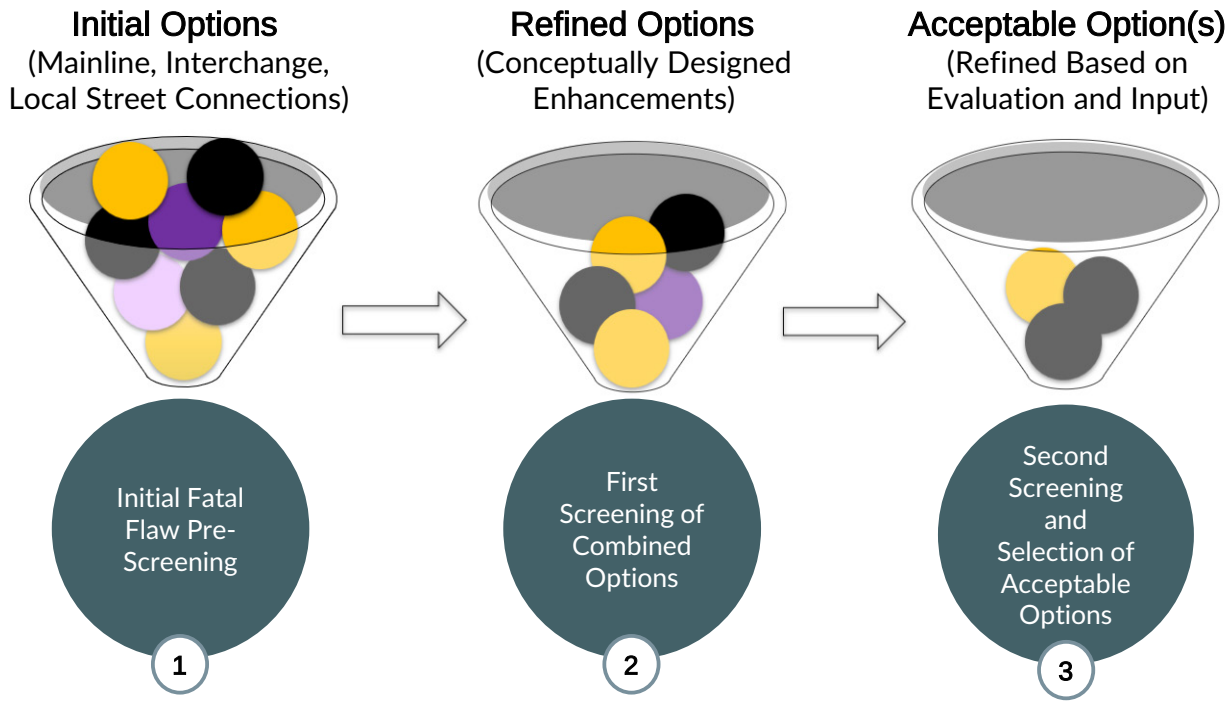


FIGURE 1-2. PEL Integrated Approach (Image Source: Federal Highway Administration)

Because potential impacts are identified at the very early stages of the process, it is expected that the options selected best address the project's Purpose and Need. While a PEL study is not required and there is not a formal process for completing PEL Studies, it is encouraged by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) as a link between transportation planning and NEPA processes. Using terms like "Purpose and Need" and "affected environment," which are common in NEPA, is also recommended for the PEL study process.

The PEL Study process completed for this study includes three steps:



Acceptable options from the PEL Study will set parameters that expedite future relevant project(s). Specifically, they will be further analyzed through preliminary design and impact studies and the NEPA environmental process. These processes will be completed before final design and construction. Unlike many PEL studies, there is no committed project or funding for major improvements for US-131 in this area at this time. This PEL process will support future project decision-making.

1.5 Study Stakeholders

Throughout the PEL Study, MDOT hosted a LAC that was composed of leaders from many diverse stakeholder organizations. The LAC reviewed key project decisions and informed community engagement strategies for the public. Members of the LAC represented the City of Grand Rapids, City of Wyoming, Kent County Road Commission, The Rapid, MDOT Grand Region, Grand Valley Metro Council (GVMC), Grand Rapids Chamber of Commerce, The Right Place, Inc., Downtown Grand Rapids, Inc., FHWA, and other community leaders (see full list in Section 9.1).

The PEL Study included three phases of public and stakeholder engagement:

- ***Phase 1*** engagement informed the Purpose and Need statement and evaluation criteria;
- ***Phase 2*** engagement sought public input on the design strategies and informed the initial selection of the options; and
- ***Phase 3*** engagement gathered feedback on the refined options and their design elements.

Refer to Section 9 of this report to learn more about the public and stakeholder engagement effort. MDOT will conduct additional public engagement around specific projects as they are advanced.

1.6 Related Studies

An important aspect of a PEL Study is linking potential transportation investments to larger community goals and plans. Table 1-1 summarizes previous planning efforts that are directly or indirectly related to the PEL Study Area.

Plan	Agency	Considerations for the PEL study
Bridge to Our Future - Grand Rapids Community Master Plan (2024)	City of Grand Rapids	The plan promotes balanced mobility, and addresses the need to improve safety, support affordable and accessible transportation options, and coordinate land use and transportation decisions.
Butterworth Area Specific Plan (Ongoing)	City of Grand Rapids	The plan identifies safer, walkable and bikeable streets as one of the goals and recommends improving Butterworth Street, which is adjacent to the Study Corridor, through enhanced pedestrian safety infrastructure, truck traffic management and protected bike facilities.
Transit Master Plan (Ongoing)	The Rapid	This long-range strategic plan for the future of The Rapid identifies areas of future service expansion options such as express bus service along freeway corridors (including US-131). The Study also indicates future needs for The Rapid Central Station (adjacent to US-131 at Wealthy Street).
City of Grand Rapids Bike Share Feasibility Study (Ongoing)	City of Grand Rapids, Downtown Grand Rapids, Inc. (DGRI)	Bikeshare and micromobility are currently active with Lime scooters and bikes in this area. If the recommendations are implemented, the demand for safe, comfortable and connected biking facilities may increase, particularly in the northern areas of the Study Area. This would encourage an even greater emphasis on bike safety and adequate facilities at crossings and interchange intersections along US-131. It is also important for ensuring logical route connections and possible impacts based on the Acceptable Alternatives.
Freight Plan (2021)	Michigan Department of Transportation (MDOT)	The PEL study considered how freight will be accommodated in potential options for US-131 and how these options could impact freight travel.
Wyoming [re]Imagined Master Plan (2021)	City of Wyoming	The plan identifies objectives including roadway network expansion, pedestrian facilities improvement, safety enhancements, transit service enhancements, and transit-oriented development (TOD) for future growth. The PEL study considered how these objectives can be supported by potential options for the reconstruction of US-131.
Division United (2021)	The Rapid and the City of Grand Rapids, Wyoming and Kentwood	This plan envisions the strengthening of South Division Avenue as a transit-oriented corridor through Grand Rapids, Wyoming and Kentwood, including mode shifts from trucks and vehicles to bus rapid transit and nonmotorized travel. These recommendations may impact how US-131 is utilized by residents, businesses, and workers in the Study Area.
Grand Rapids Equitable Economic Development and Mobility Strategic Plan (2020)	City of Grand Rapids	The plan recommends integration of Vision Zero, transportation demand management and parking priorities into economic incentives, and supports addressing safety and equity needs. The PEL study needed to consider how such recommendations can be incorporated into potential options for US-131, prioritizing safety and equity as important criteria for the local transportation system.

TABLE 1-1. Previous Plans and Studies Related to US-131 PEL study

Plan	Agency	Considerations for the PEL study
South Division Corridor Plan (2019)	South Division Corridor Planning Team and Steering Committee	The plan promotes broader mobility and connectivity, including transit, bicycling, walking and modes new to Grand Rapids, prioritizing an effective and affordable public transportation network that Supports transit-dependent communities and provides equitable access. The implementation of these recommendations may impact connectivity between Division Avenue and US-131 and were considered as part of the PEL Study.
Bicycle Action Plan (2019)	City of Grand Rapids	The PEL study considered how the modal emphases can be accommodated by potential options for US-131, particularly along east-west bike corridors crossing the freeway.
Grandville Avenue Plan (2017)	City of Grand Rapids, Habitat for Humanity of Kent County, Roosevelt Park Neighborhood Association	The implementation of this plan may impact connectivity between Cesar E. Chavez Avenue (Grandville Avenue) and US-131 and was considered as part of the PEL Study. In particular, the plan reinforces a vision of fewer trucks and large vehicles on this roadway, which may facilitate more of a shift toward US-131 and Century Avenue. Truck access to and from US-131 and other destinations may also be affected.
Vital Streets Plan and Design Guidelines (2016)	City of Grand Rapids and Vital Streets Oversight Commission	The PEL study considered how the modal emphases and street typologies included in this plan can be accommodated by potential options for US-131, particularly in considering the design and function of east-west streets crossing US-131.
Nonmotorized Transportation Plan (2014) / Nonmotorized Plan Project List (Updated 2024)	Grand Valley Metropolitan Council (GVMC)	Regional nonmotorized connectivity was considered in the PEL study with some planned improvements included in the acceptable options.

TABLE 1-1. Previous Plans and Studies Related to US-131 PEL study

2. PURPOSE AND NEED STATEMENT

Transportation projects are intended to have a purpose and address an important set of needs. A formal Purpose and Need Statement is used in PEL, NEPA and other studies to explain to decision makers, the public and stakeholders why a study of the corridor would be valuable and to explain the opportunities to address key issues through the study. The Purpose defines the specific problems to be solved and the Need is supported by data and analysis related to the problems.

2.1 Developing the Purpose and Need

The process of developing a Purpose and Need Statement for the US-131 PEL Study started with MDOT staff who provided their reasoning for initiating the PEL study resulting in a draft Purpose and Need. Stakeholders then provided feedback on the draft Purpose and Need at LAC meetings. The public was also given the opportunity to provide feedback on the corridor Purpose and Need during the first phase of engagement (winter 2020/2021). Engagement with stakeholders and the public helped to add a focus on support for economic development and mobility improvements on US-131, as well as finding opportunities to increase local street connectivity. These themes were incorporated into the Purpose and Need.

2.2 Using the Purpose and Need

The Purpose and Need Statement informed the rest of the PEL Study by providing guidance for the kinds of corridor alternatives to consider and the criteria to evaluate and compare them. Each element of the Purpose Statement was incorporated into screening/selection criteria. As a result, the Acceptable Alternatives(s) are the one(s) that best meet the project needs and fulfill the project purpose. During the formal NEPA process and resulting project(s), review and modifications to the Purpose and Need will be further explored.

2.3 Purpose and Need Statement

For study Purpose, the US-131 PEL study will examine options that:

- *Preserve essential local and regional mobility;*
- *Improve traffic safety and operations;*
- *Relieve congestion and improve travel time reliability for local and regional freight, passenger and emergency transportation;*
- *Address pavement and bridge infrastructure conditions;*
- *Maximize multimodal access and improve access to the freeway;*
- *Identify partnership opportunities to enhance all modes of travel along corridors adjacent to the freeway;*
- *Identify and prioritize prudent and feasible investment options based on anticipated future revenues;*
- *Minimize travel disruptions and delays during construction phases of future improvement projects within the PEL Study Corridor;*
- *Assess opportunities for future infrastructure maintenance efficiencies.*

The Purpose statement above is directly related to a number of needs present in the corridor. As documented in Section 3 Existing Conditions of this report, the Needs include:

- *Safety, operational and congestion issues;*
- *Aging infrastructure requiring rehabilitation and reconstruction;*
- *Interchange operational issues resulting from changing travel and adjacent land use patterns;*
- *Freight transportation bottlenecks and access limitations;*
- *Growing regional traffic volumes and metro area development;*
- *Reliability for emergency vehicles and first responders;*
- *Mobility challenges for nonmotorized connections across the freeway;*
- *Need for more local street grid connections;*
- *Public transit circulation issues, particularly at The Rapid Central Station.*

3. EXISTING CONDITIONS

Existing conditions along the corridor and in the Study Area provide context for the needs established during the PEL study. This section provides data and analysis on current traffic, safety, infrastructure and freight in the Study Corridor to establish an understanding of how it is used and the experiences of users. It also provides data and analysis on current growth and development, medical facilities and emergency services, nonmotorized connectivity, and transit within the Study Area to establish an understanding of the Study Corridor's role within its broader context.

The PEL study process spanned five years. The data used during the early phases stem from the initiation of the refocused PEL study in 2019. A review of data post-pandemic was conducted, and shows similar characteristics as the 2017-2019 data. Additional updates will be collected and included in future phases of this effort.

3.1 Corridor Conditions

Traffic and Congestion

US-131 is the busiest freeway in west Michigan and busiest in all of Michigan outside of the Metro Detroit. Among other similar freeway segments in Michigan, and despite a drop in 2020 that was affected by the COVID-19 travel restrictions, traffic levels on the Study Corridor show relatively higher growth (15 percent)[1] since 2012.

High traffic volumes and interchange density along the Study Corridor create capacity limitations in both the northbound and southbound directions. In the northbound direction, the most congested segment in the morning was from Hall Street to Wealthy Street, and the segment from Martin Luther King Jr. Street (Franklin Street) to Wealthy Street was the most congested in the afternoon. In the southbound direction, most segments were frequently congested. On US-131 on and off ramps, there is also frequent congestion, especially on the northbound Wealthy Street off ramp and the southbound on and off ramps from Cherry Street to Burton Street. This can contribute to other traffic issues on the street network leading to and from these ramps. Dense traffic also affects air quality and safety along this corridor.

1. Data source: MDOT Transportation Data Management System

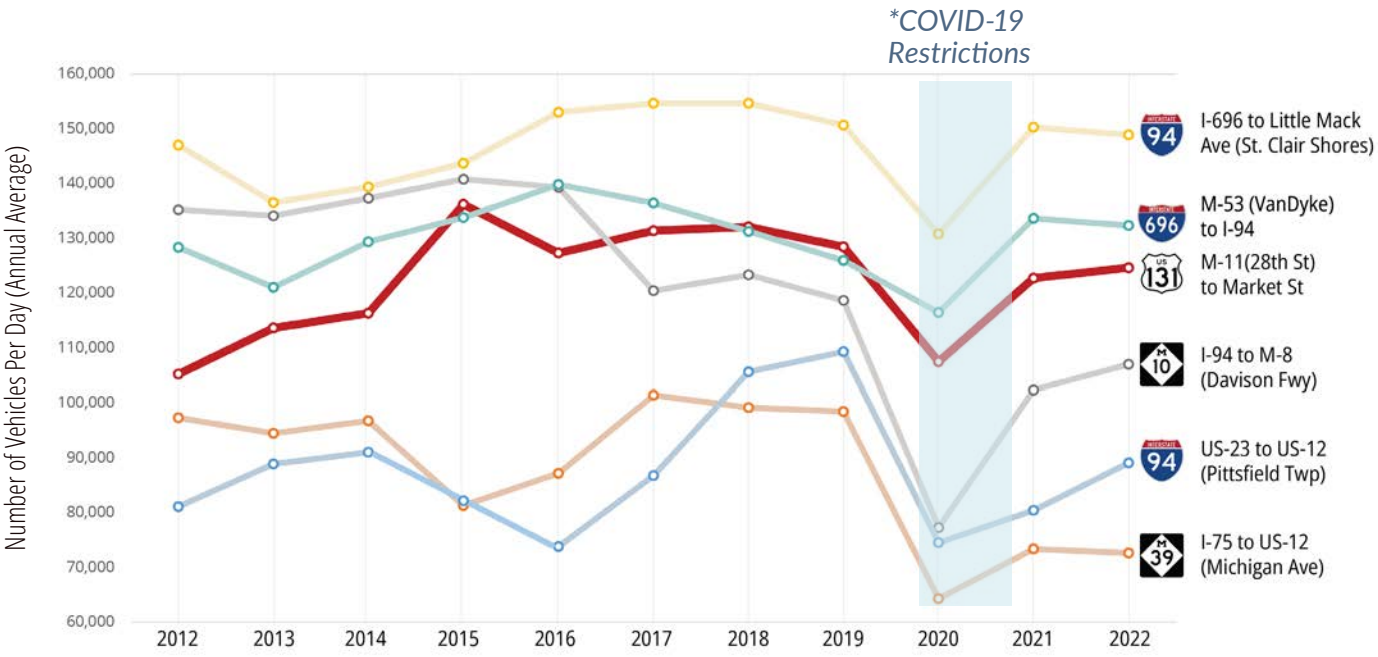


FIGURE 3-1. 2012-2022 Annual Daily Traffic Volumes on Similar Segments

Why Does This Matter?

The west Michigan area has continued to be one of the few areas in Michigan exhibiting growth over the past 20 years. Traffic along US-131 has grown along with the growth of the larger metropolitan area.

The Study Corridor and its on and off ramps experience significant congestion in and approaching downtown Grand Rapids.

Congestion is closely related to safety issues, with many of the hotspots for congestion also being locations where there are known safety issues.

This will likely continue to contribute to “high levels of congestion”, particularly if there is continued growth in travel demand.

Safety Performance

Crash Rates

Calculation of the crash rate[1] on a road segment takes multiple factors into account, including number of years of data, length of roadway, number of vehicles traveled per day, and number of crashes. On Average, the crash rate for Michigan freeway segments with US-131's volume of traffic is 1.6 to 1.8 crashes per million vehicle miles traveled[2]. The high traffic volumes and congestion along US-131 and the high density of interchanges between Hall Street and Cherry Street have resulted in higher-than-average, even double-the-average, crash rates in some segments. Specifically, crash rates have increased by 100-200 percent on the northbound segment between Hall Street to Cherry Street, and by more than 200 percent on the southbound segment from Market Avenue to Martin Luther King Jr. Street (Franklin Street) from 2012 to 2019.

Crash Patterns

From 2017 to 2019, an Average of 725 crashes occurred annually on the Study Corridor (including US-131 on and off ramps). Of all corridor crashes, 15 percent occurred on ramps. About 36 percent of crashes that involved fatalities or serious injuries were single motor vehicle crashes. The most frequent crashes happened around the Wealthy Street interchange. The area around the M-11 (28th Street) interchange also showed a significant number of serious injury crashes. These types of crashes may also lead to secondary crashes on the corridor. Crash data from 2021 to 2023 also showed similar patterns, according to MDOT.

1.Crash rate calculation methodology: https://safety.fhwa.dot.gov/local_rural/training/fhwasa1210/s3.cfm
2.Data source: MDOT

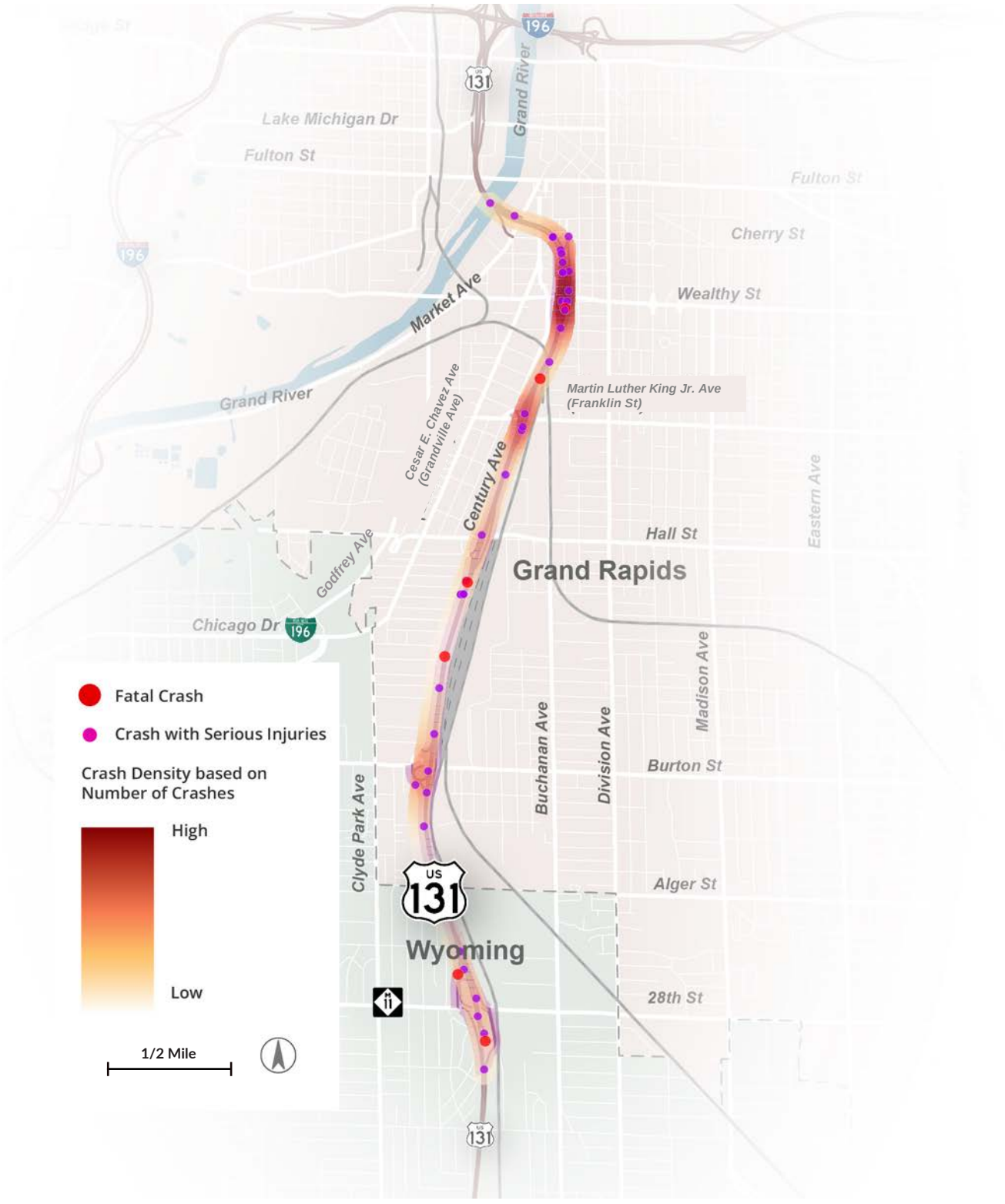


FIGURE 3-2. 2017-2019 Crash Patterns on Study Corridor

Crash Types

Crashes from 2017 to 2019 along the Study Corridor were predominantly rear-end and single-vehicle crash types[1], which is consistent with 2021 to 2023 data, according to MDOT. A high proportion of rear-end crashes occurred during weekday peak hours and/or involved hazardous actions or congestion, indicating peak-hour traffic congestion may be a factor in these types of crashes. A high proportion of single-vehicle crashes occurred after dark and/or involved a slippery surface, indicating that difficulty navigating the corridor in the dark or during inclement weather may be a factor in these types of crashes. Other crash types, such as wrong-way crashes, also occurred on this corridor due in part to inconsistent interchange designs and left-hand ramps. While traffic volume decreased during the years of 2020 and 2021 due to COVID-19 restrictions, these crash patterns remain consistent in post-pandemic years.

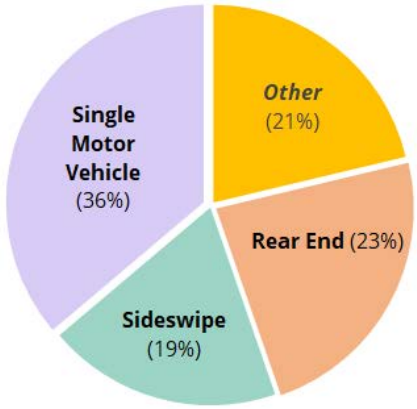


FIGURE 3-3. Breakdown of Crashes by Types on Study Corridor in 2019

Why Does This Matter?

Segments of the Study Corridor experience significant and growing crash rates, indicating a safety concern. This contributes to a need to address safety by resolving the high crash rates.

Crash rates are specifically highest in and around the Wealthy Street and Martin Luther King Jr. Street (Franklin Street) interchanges, with the most prevalent crash types being single-vehicle and rear-end.

Crash severity around the M-11 (28th Street) interchange is especially high, despite that area having a relatively lower crash rate.

Analysis of crash reports indicates peak-hour traffic congestion and difficulty navigating in the dark or during inclement weather, closely-spaced interchanges, left on and off ramps, and outdated freeway design as potential factors in crashes. Modernizing US-131 will provide opportunities for safety improvements.

1. Data source: Traffic Crash Analysis Tool (TCAT) by Transportation Improvement Association (TIA)

Infrastructure Conditions

Condition

The study team examined infrastructure conditions in the Study Corridor, such as bridges, retaining walls, roadways, drainage systems and lighting. Most infrastructure along US-131, including many of the bridges over and under the freeway, are the original structures as built prior to 1963, which means that despite regular maintenance, much of the infrastructure is now more than 60 years old. The eastern segment of the Martin Luther King Jr. Street (Franklin Street) bridge predates the US-131 freeway at 100 years old. This is more than the Average service and design life of roadway infrastructure.

The S-curve segment between Fulton Street and Wealthy Street was rebuilt in 2000. Since then, MDOT has performed more than 20 maintenance and rehabilitation projects, including joint repairs, deck replacements and infrastructure upgrades within the Study Corridor. The latest work includes concrete joint repairs on the US-131 freeway lanes between M-11 (28th Street) and Pearl Street, and minor bridge repairs to US-131 over Plaster Creek in the late spring 2024.

Martin Luther King Jr. Street (Franklin Street) bridge is outdated and in need of repairs

Aging pavement and bridge condition at Wealthy Street interchanges

However, a more comprehensive solution to renew the infrastructure is required to avoid worsening conditions and frequent disruptions to the traveling public for short-term maintenance repairs. According to the Pavement Surface Evaluation and Rating (PASER) and National Bridge Index (NBI), most of the freeway and interchanges within the Study Corridor and nearly all bridges in the Study Corridor have a "Fair" condition rating at best. The Wealthy Street and Century Avenue entrance ramps to southbound US-131, the northbound US-131 exit ramp to Hynes Avenue, the northbound entrance and exit ramps at M-11 (28th Street), and part of the Martin Luther King Jr. Street (Franklin Street) bridge across US-131 have "Poor" bridge condition ratings[1].

ROAD DETERIORATION

(Image source: Macomb County Department of Roads)

Why Does This Matter?

The freeway was built in the late 1950s and early 1960s and has been routinely maintained.

While pavement and bridges are serviceable today, much of the Study Corridor infrastructure is more than 60 years old. It will require significant investment in future repairs and replacement.

As the facility ages, maintenance repairs may become more intensive and require more frequent full or partial closures of the freeway, affecting mobility to, from, and within Grand Rapids and Wyoming.

These conditions contribute to a need of "aging infrastructure requiring rehabilitation and reconstruction".

1. Data source: Pavement Surface Evaluation and Rating (PASER); National Bridge Index (NBI)

Freeway and Interchange Design

The Study Corridor does not conform to modern freeway design standards in a number of ways that impact operations and safety. Examples include:

Interchange spacing: FHWA conducted safety research[1] on freeway interchanges and concluded that "there should be a minimum spacing between interchanges of 1 mile in urban areas and 2 miles in rural areas between cross roads". The spacing between interchanges along the Study Corridor, and particularly in the north end, falls far short of this standard. In particular, the 1.5-mile segment of US-131 between Hall Street and Cherry Street has 14 entry and exit points to the freeway.

On and off ramp design: While most of the interchanges in the Study Area have right side on and off ramps, the northbound Wealthy Street ramps are built as left-side on and off ramps, which may confuse drivers and lead to crashes, especially when paired with limited spacing between interchanges. The safety data also indicates that the Wealthy Street interchange area is the highest-frequency crash zone of the Study Corridor. In addition, the lengths of the on and off ramps were designed for a facility with much less traffic and lower driving speeds than seen today. Appropriate ramp lengths on the correct side of the freeway and ramp tapers that allow space for safe merging at highway speeds are also needed to address these ongoing issues.

Shoulders: The lack of shoulder space, especially inside shoulder space between M-11 (28th Street) and Wealthy Street, prevents disabled vehicles from pulling out of traffic, limits and complicates emergency response during crashes, and makes maintenance activities more difficult and dangerous.

Sight distance: There is limited sight distance approaching the northbound US-131 exit to Wealthy Street. The horizontal and vertical curves affect drivers' ability to safely identify the exit and make a decision if the driver chooses to exit the freeway. Lack of sight distance is also problematic when excessive queuing on the ramp also spills onto the freeway, resulting in congestion and contributing to potential safety concerns.

Interchange intersections: At some interchanges, there are unmarked and unsignalized crossings for pedestrians. There is also a lack of Americans with Disabilities Act (ADA)-compliant facilities, and sidewalks are narrow and close to traffic. In addition, turning radii from the local roads to and from some freeway ramps are not large enough to accommodate larger vehicles, leading to vehicles frequently driving on part of the pedestrian facilities to make the necessary turn. These designs exacerbate the safety conditions for nonmotorized users and others.

1. Source: FHWA Safety Assessment of Interchange Spacing on Urban Freeway

Why Does This Matter?

Portions of the Study Corridor do not conform to modern standards for safe and efficient freeway design, contributing to a need of "sub-standard interchange design requiring modernization."

Modernizing and improving interchanges can help reduce crashes and improve overall corridor operations.

Modernizing interchanges provides opportunities to enhance connections across the freeway and may better accommodate freight movements to and from the area industries and businesses that support the local and regional economies. Enhanced connections can also improve efficiency of transit services.

Modernized design of the interchanges could also incorporate improved access and safety for pedestrians and other nonmotorized modes and include new ADA-compliant ramps and crossings.

Freight Transportation and Economy

US-131 is a major corridor for freight transportation in west Michigan. Much of the freight in this area has origins and destinations within the city of Grand Rapids, supporting local businesses and economy.

In the Study Corridor, freight traffic and access are driven by a significant amount of adjacent industrial land use. The industrial corridor along US-131 and the railroads between Burton Street and Martin Luther King Jr. Street (Franklin Street) both serve as major destinations for freight and logistics traffic. Services include trucking, material supplies, food production and other distribution. Designated city truck routes around US-131 are shown in Figure 3-4. In some areas, there is limited local connectivity for trucks, while there is also a desire by local communities to further limit truck traffic along certain corridors (e.g., Cesar E. Chavez Avenue (Grandville Avenue), Division Avenue).

Railroads along the Study Corridor

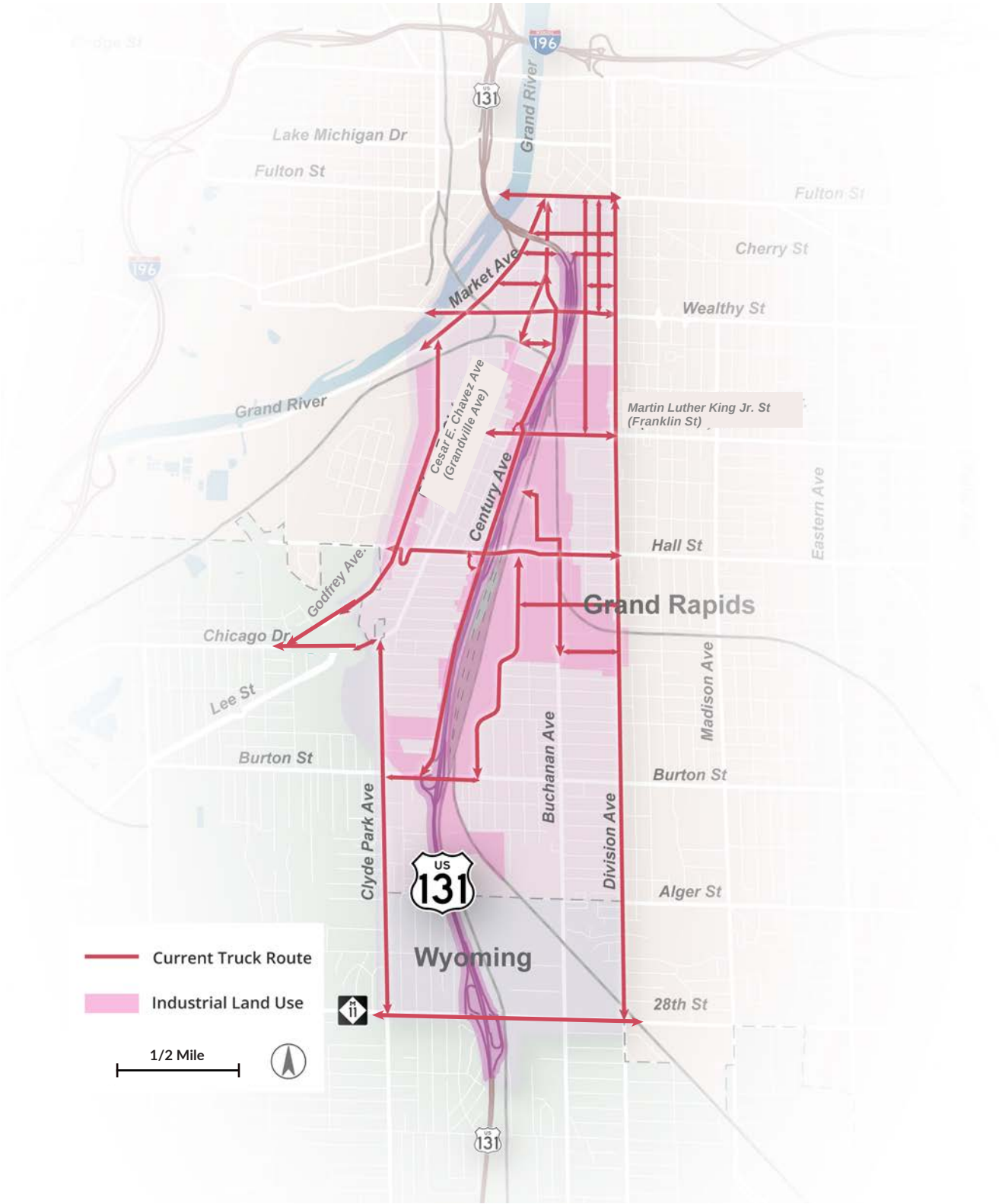


FIGURE 3-4. Truck Routes and Industry near the Study Area

According to the MDOT Transportation Data Management System, the Average daily traffic volume for trucks on the Study Corridor continued to increase from an Average of over 5,000 tomore than 8,000 from 2019 to 2022[1]. Truck traffic as a percentage of all traffic also increased from 4 percent in 2019 to 7 percent in 2022 at all segment locations except under the Wealthy Street bridge.

	Northbound		Southbound	
	Number of Trucks	% of All Vehicles	Number of Trucks	% of All Vehicles
Cherry Street Ramps	79	2%	81	2%
Wealthy Street On Ramp	106	2%	338	6%
Wealthy Street Off Ramp	292	5%	138	3%
Martin Luther King Jr. Street On Ramp	189	5%	250	6%
Martin Luther King Jr. Street Off Ramp	220	6%	139	5%
Hall Street On Ramp	507	6%	343	8%
Hall Street Off Ramp	378	10%	377	6%

TABLE 3-1. Counts of Average Daily Truck Traffic on US-131 Ramps in 202s

Based on data collected by the Study Team, from 2019 to 2023, the truck traffic volumes at interchange ramps have increased by a 2 percent margin at both the Hall Street on ramp to northbound US-131 and at the Martin Luther King Jr. Street (Franklin Street) on ramp to northbound US-131. Truck traffic also increased at the northbound on and off ramps from Wealthy Street for the same period. Truck traffic has decreased or stayed the same since 2019 on all other Study Corridor ramps. As shown in Table 3-1, the Hall Street ramps, which sit within the industrial corridor, had the highest amount of truck traffic. Trucks made up 6 to 10 percent of all traffic using the ramps.

Why Does This Matter?

Freeways play a crucial role for freight movement and the economy of a region. The segment of US-131 between M-11 (28th Street) and Cherry Street is a primary route that serves regional distribution of goods to other areas of west Michigan. Portions of the Study Area have businesses that generate freight which access and rely on US-131. This corridor provides $40 billion in economic benefits from commodity movements for the area.

Current conditions contribute to a need of "freight transportation bottlenecks and access limitations." Improving local freight access to and from US-131 could enhance regional freight movement and improve the value of industrial sites. Improving access to and from the freeway also addresses some of the circuitous routing of trucks on local streets to access the freeway and industries.

1. Data source: MDOT Transportation Data Management System (freeway truck traffic volume); AECOM (ramp truck traffic volume)

3.2 Study Area Conditions

Growth and Development

Metro Area

The current and future demand for US-131 is related to the general growth of the region and the facilitation of access for residents and jobs. Since 2000, Michigan's population has remained around 10 million, with many counties and communities remaining stagnant or decreasing in population. Despite the statewide trend, Kent County and many other areas of west Michigan grew in population, housing and employment during this time. This trajectory is anticipated to continue and can be observed by the need for more housing in the region.

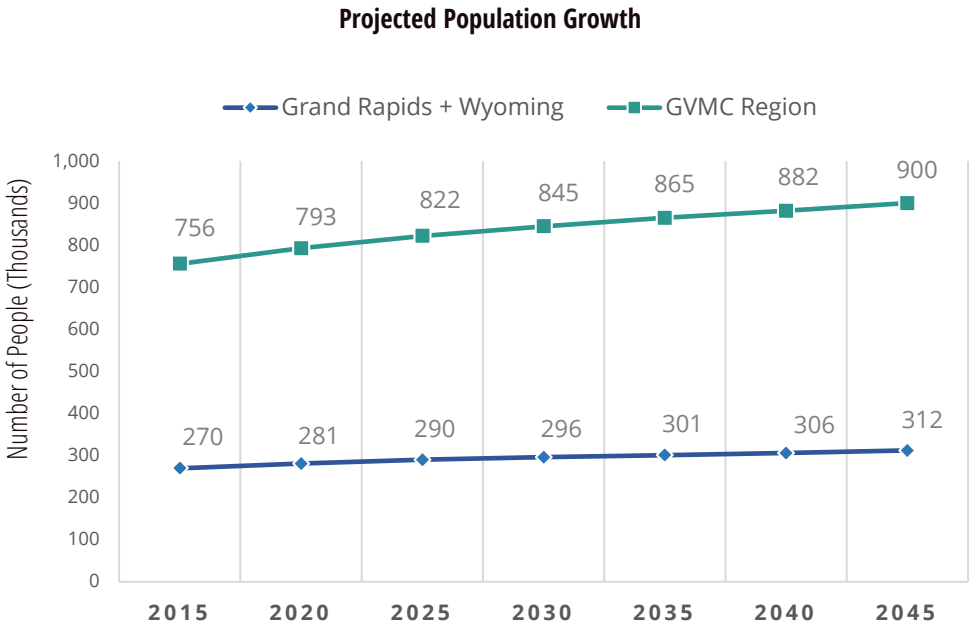
In the GVMC planning region[1], which includes Kent County and part of Ottawa County, population is projected to grow by 20 percent from 2015 to 2045 (see Figure 3-5). In Grand Rapids and Wyoming (the municipalities within the Study Area), population and employment are projected to grow around 15 percent. In downtown Grand Rapids, employment is projected to grow by 17.5 percent and the estimated population also continues the growing trend.

Land Use

Adjacent land uses in the area and local land use plans are also important to consider. Mixed use, industrial and residential are the main land use types within the Study Area. Mixed-use development creates potential opportunities for enhanced nonmotorized access. The Grand River and the rail yard are major features that potentially limit adjacent redevelopment opportunities.

> ***Why Does This Matter?***
>
> As population and jobs continue to grow in the region, demand for travel on US-131 and the area are expected to continue growing, worsening the existing operational, safety, and mobility issues. Although the PEL study will not address all future mobility needs, it needs to be able to accommodate existing travel patterns on US-131 and its interchanges.
>
> Land use constraints and future redevelopment within the Study Area may increase demand, but will also limit the options for how US-131 can adapt to meet local demand.
>
> These conditions contribute to a need to accommodate "metro area development and growing regional traffic volumes."

1. GVMC planning region includes Kent, Ionia, Barry, Allegan, Ottawa and Montcalm counties



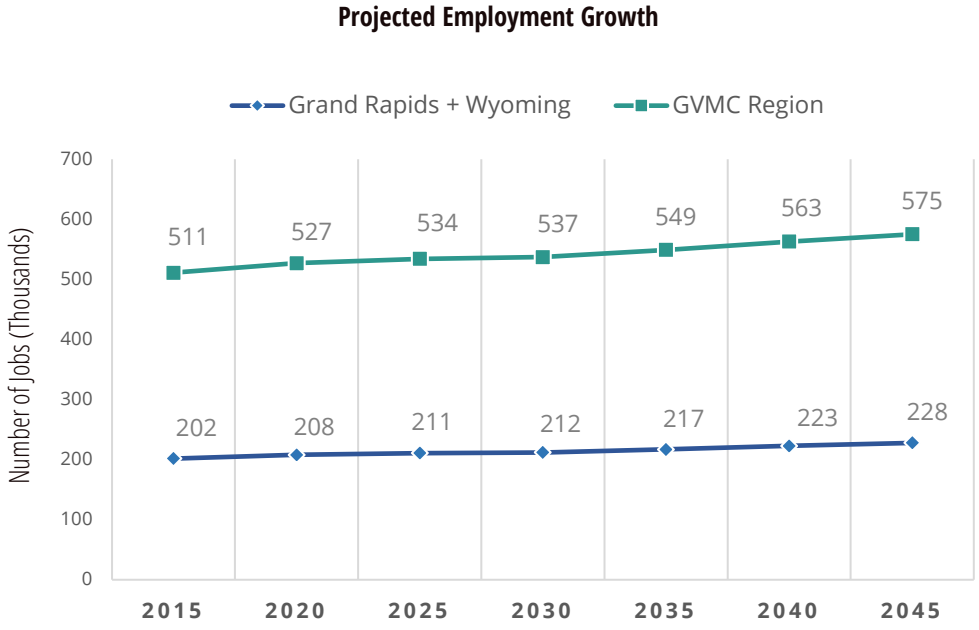


FIGURE 3-5. Past and Projected Population and Employment Growth (in Thousands)[1]

1. Data source: GVMC

Medical Facilities and Emergency Service

Corewell (previously named Spectrum) Health facilities along the Michigan Street corridor south of I-196 and Mercy Health and Mary Free Bed facilities along the Lafayette Avenue corridor east of US-131 are the two major medical centers that serve the emergency needs in the Grand Rapids Region. Two police and fire departments, including the Martin Luther King Jr. Street (Franklin Street) Fire Station (just east of US-131) also serve communities within the Study Area.

For residents within the Study Area, particularly in the southern portion, US-131 serves as one of the main routes for emergency vehicles from medical centers, fire stations and police stations. The freeway and bridges over US-131 are also important for quick responses during incidents or emergency situations in the surrounding neighborhoods. This has been expressed by neighborhood groups during the public engagement phases of the PEL study.

Why Does This Matter?

The corridor provides vital access to regional healthcare facilities for emergency responders, healthcare workers and patients.

The lack of shoulder space at some segments of current US-131 does not provide enough space for emergency vehicles on the freeway. Proposed options may also alter certain access points on US-131 that are utilized by the emergency responders in the Grand Rapids/Wyoming area.

The PEL study aims to improve accessibility for emergency services to meet the need for “reliability for emergency vehicles and first responders.” Ensuring mobility on east-west crossings of US-131 is paramount to providing timely emergency services for the community.

Nonmotorized Connectivity

There are limited street grid connections crossing US-131 and the adjacent rail corridor. These crossing limitations predate the construction of the US-131 freeway because of existing infrastructure, such as railroads, warehouses, freight yards and other historical land-use characteristics in this area. This means that the existing streets and crossings become important connectors for not only auto traffic but also nonmotorized connectivity.

From 2017 to 2019, there were 116 pedestrian-involved crashes and 41 bicycle-involved crashes[1] within the larger Study Area (see Figure 3-6). Most of these were not on the connections over US-131 but instead along parallel corridors like Cesar E. Chavez Avenue (Grandville Avenue) and Division Avenue. Crashes and congestion on US-131 could reroute freeway traffic and create higher traffic volumes on local streets, which can impact pedestrian and bicycle crossings.

The connections across US-131 are important for vehicular and truck access to the freeway, but also serve as local access paths for all modes of transport, including bikes and pedestrians. Many, but not all, of the existing crossings have sidewalks or bike lanes, but many of the crossings are on bridge structures that do not meet current ADA standards and may be uninviting for nonmotorized travel (see Figure 3-7).

> ***Why Does This Matter?***
>
> The street connections across US-131 are important for connecting communities on either side of the freeway, including for nonmotorized (bicycle and pedestrian) accessibility. There are limited crossing opportunities for pedestrians and bicyclists in the Study Area. The current connections that do exist do not always have complete nonmotorized facilities, and are often not comfortable to use for bikes and pedestrians. Additionally, current sidewalk designs at some interchanges do not provide the ability for those with disabilities safe or accessible mobility. Interchange and bridge projects should consider context-sensitive and Complete Streets strategies to help make all users feel comfortable.
>
> The future design of the freeway should provide opportunities for better nonmotorized access to address the study needs: “mobility challenges for nonmotorized connections across the freeway” and “more local street grid connections.”

1. Data source: Transportation Improvement Association (TIA)

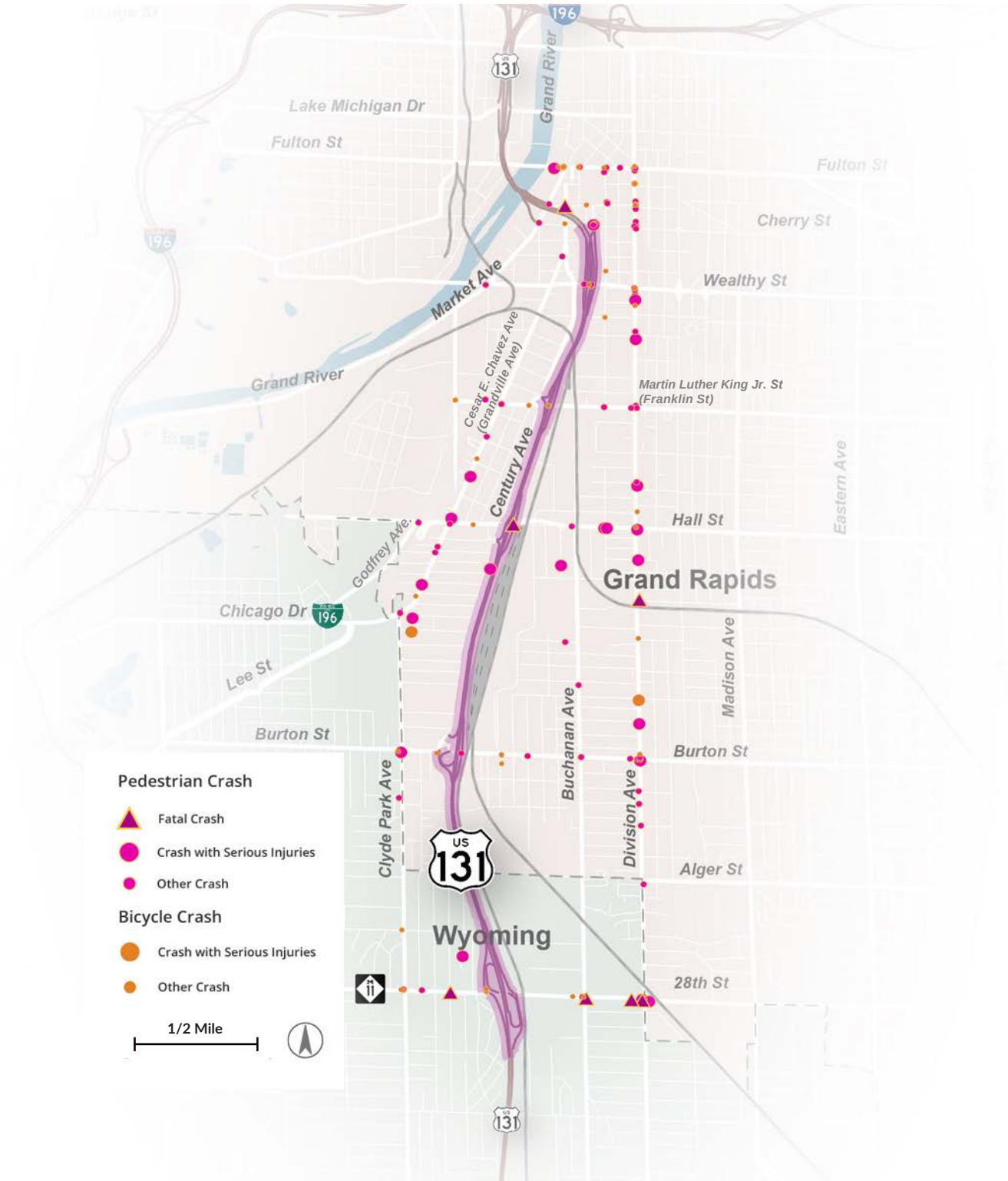


FIGURE 3-6. Nonmotorized Crashes and Facilities within the Study Area from 2017 to 2019

Cherry Street

Sidewalks/Crosswalks: Both sides of street

Bike Facilities: No bike lanes

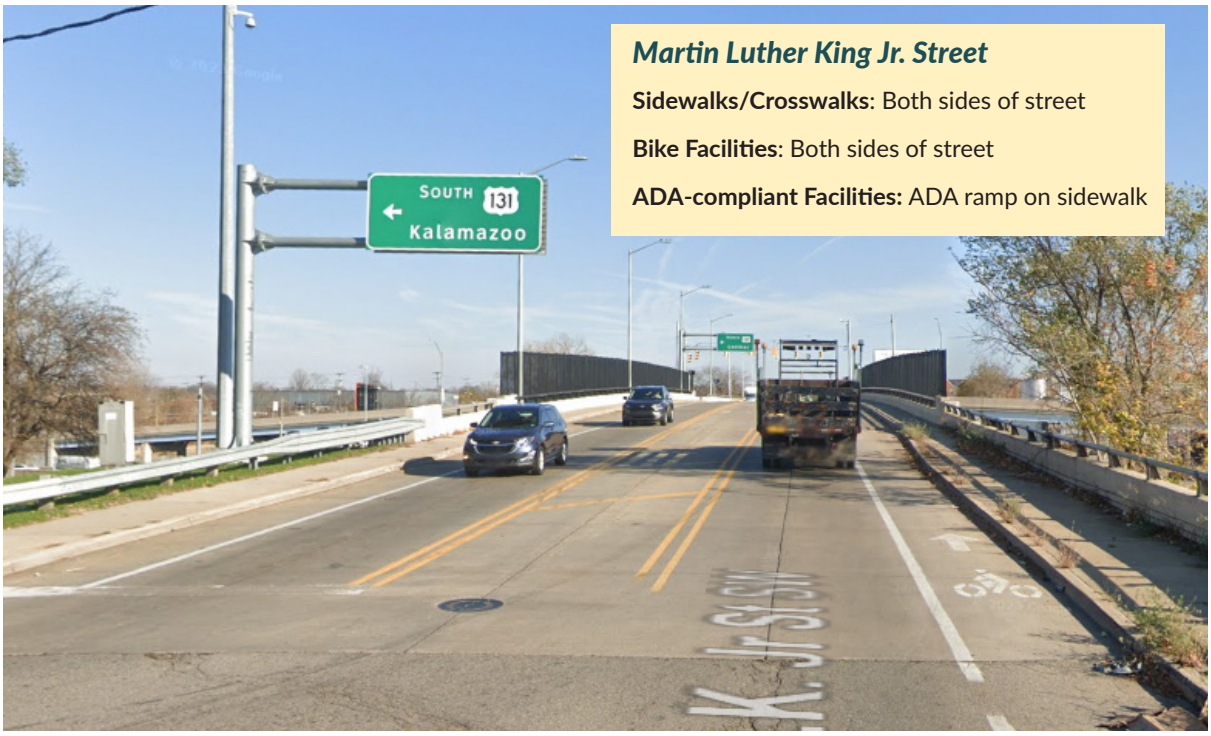
ADA-compliant Facilities: ADA ramp on sidewalk

Wealthy Street

Sidewalks/Crosswalks: Both sides of street

Bike Facilities: No bike lanes

ADA-compliant Facilities: No ADA Facilities



Martin Luther King Jr. Street

Sidewalks/Crosswalks: Both sides of street

Bike Facilities: Both sides of street

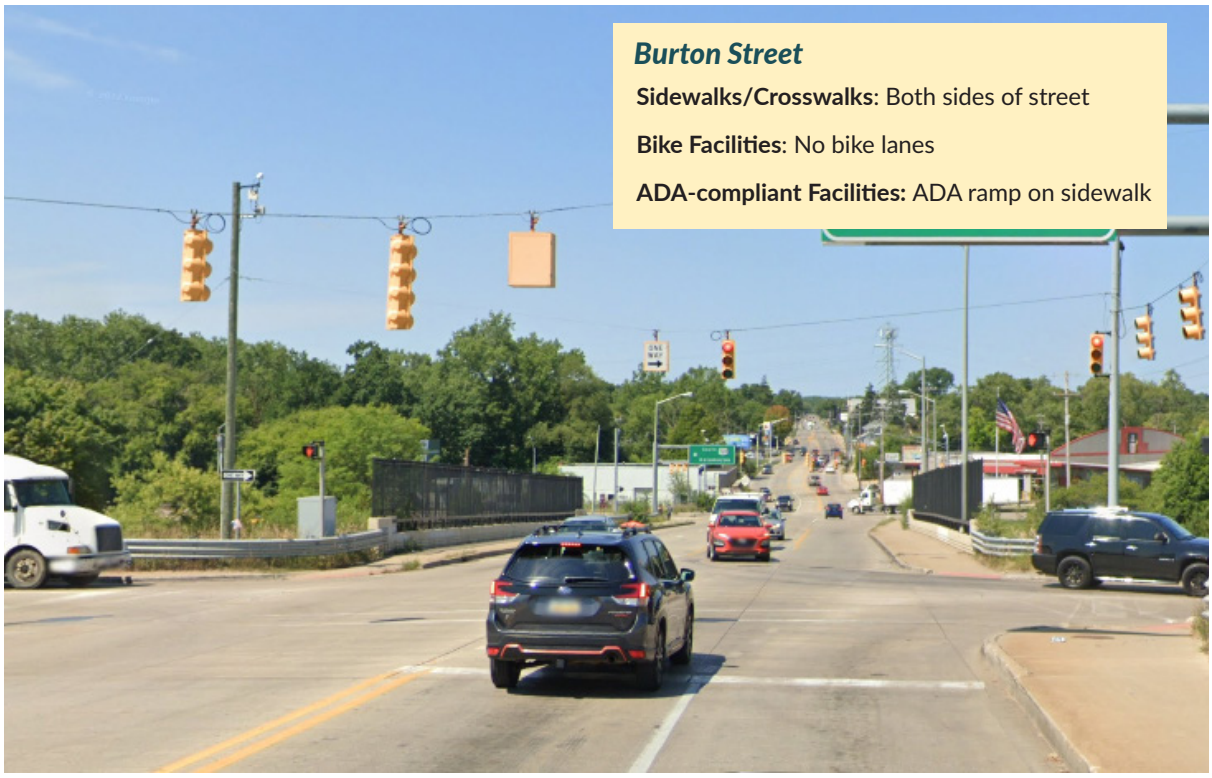
ADA-compliant Facilities: ADA ramp on sidewalk

Hall Street

Sidewalks/Crosswalks: Both sides of street; crosswalk on southbound cutoff has no signal controls

Bike Facilities: No bike lanes

ADA-compliant Facilities: ADA ramp on sidewalk



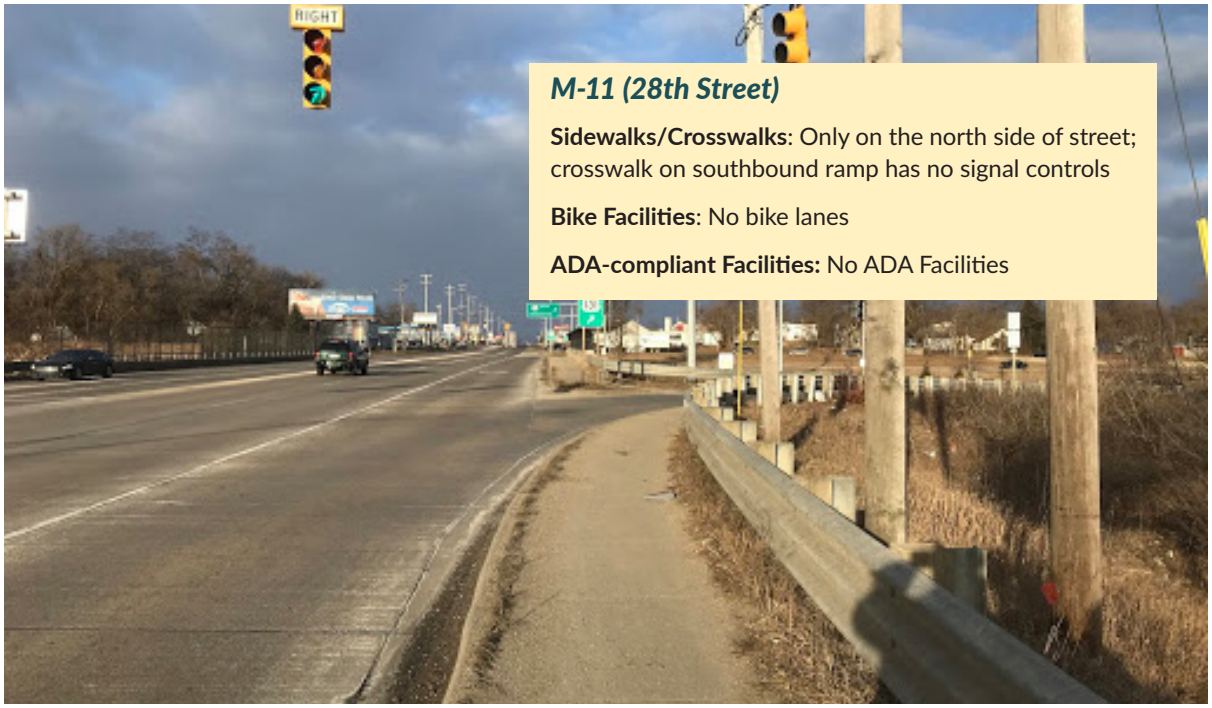


FIGURE 3-7. Nonmotorized Condition at Major Interchanges in the Study Area

Transit Service and Access

The Rapid provides transit service in the Grand Rapids metro area and has numerous routes paralleling and crossing the Study Corridor. Specifically, bus routes cross at M-11 (28th Street), Burton Street and Cherry Street. In addition, most of The Rapid's routes converge at their Central Station, directly adjacent to the Wealthy Street/US-131 interchange. This station was built in 2000 and is the transit hub for more than 30 bus routes. Most buses access the Central Station either from Cherry Street or Ellsworth Avenue. Silver Line, the existing bus rapid transit (BRT) system on Division Avenue, serves the communities along the Study Corridor and provides connections to many existing Rapid routes. The Rapid also plans for future transit-oriented development on the South Division corridor, including upgraded bus facilities and a dedicated bus lane.

Both the Rapid Central Station and Vernon J. Ehlers Station are located along the US-131 corridor at Wealthy Street

Nearly an Average of 5,000 passenger transportation users got on or off a bus at Central Station on a weekday in 2019. Greyhound bus service is also located at The Rapid Central Station. The adjacent Vernon J. Ehlers Station (Amtrak) served more than 40,000 passenger rail users throughout 2019, which has grown by 3 percent compared to 2017[1].

Why Does This Matter?

Two major passenger transportation hubs (The Rapid Central Station and the Amtrak passenger rail station) are both located directly adjoining the US-131 corridor at Wealthy Street. Preserving or enhancing these transit assets should be a consideration when evaluating options.

Many bus routes from the Rapid have crossing routes over US-131 near its interchanges. Accommodations for transit service and mobility should be considered at these locations.

The PEL Acceptable Alternatives seek to improve local and regional connectivity and address the need of "public transit circulation opportunities," particularly around The Rapid Central Station.

1. Data source: The Rapid; Amtrak

FIGURE 3-8. The Rapid Fixed Route Transit Service in the Study Area

Natural and Cultural Resources

The natural and cultural resources presented in this section include floodplains, wetlands, national and local historic properties, schools and parks. The PEL Study considers any potential impact on these natural and cultural resources that could occur based on the project alternatives. The PEL Study is intended to consider and assess this information at a higher, planning-level analysis to inform future environmental phases.

Floodplains and Wetlands

According to the Federal Emergency Management Agency's flood database[1], areas that are within floodplains are:

- Wealthy Street/Market Street interchange area: 100-year floodplain sits along the bank of Grand River
- Burton Street and M-11 (28th Street) interchange areas: 100-year floodplain along Plaster Creek

Wetlands are areas where soil is frequently flooded or saturated by water. They are also vulnerable to environmental changes. Wetlands provide habitats for various species and have an important role in maintaining the ecosystem. Therefore, wetlands should be mitigated and conserved. While there are other wetlands, including freshwater forested/shrub wetlands along Grand River near the S-curve and both freshwater emergent wetlands and freshwater forested/shrub wetlands along Plaster Creek between and east of Burton Street and M-11 (28th Street), there are no wetlands immediately adjacent to US-131. The floodplains and wetlands within the Study Area are shown in Figure 3-9.

1. Data source: Department of Environment, Great Lakes, and Energy (EGLE)

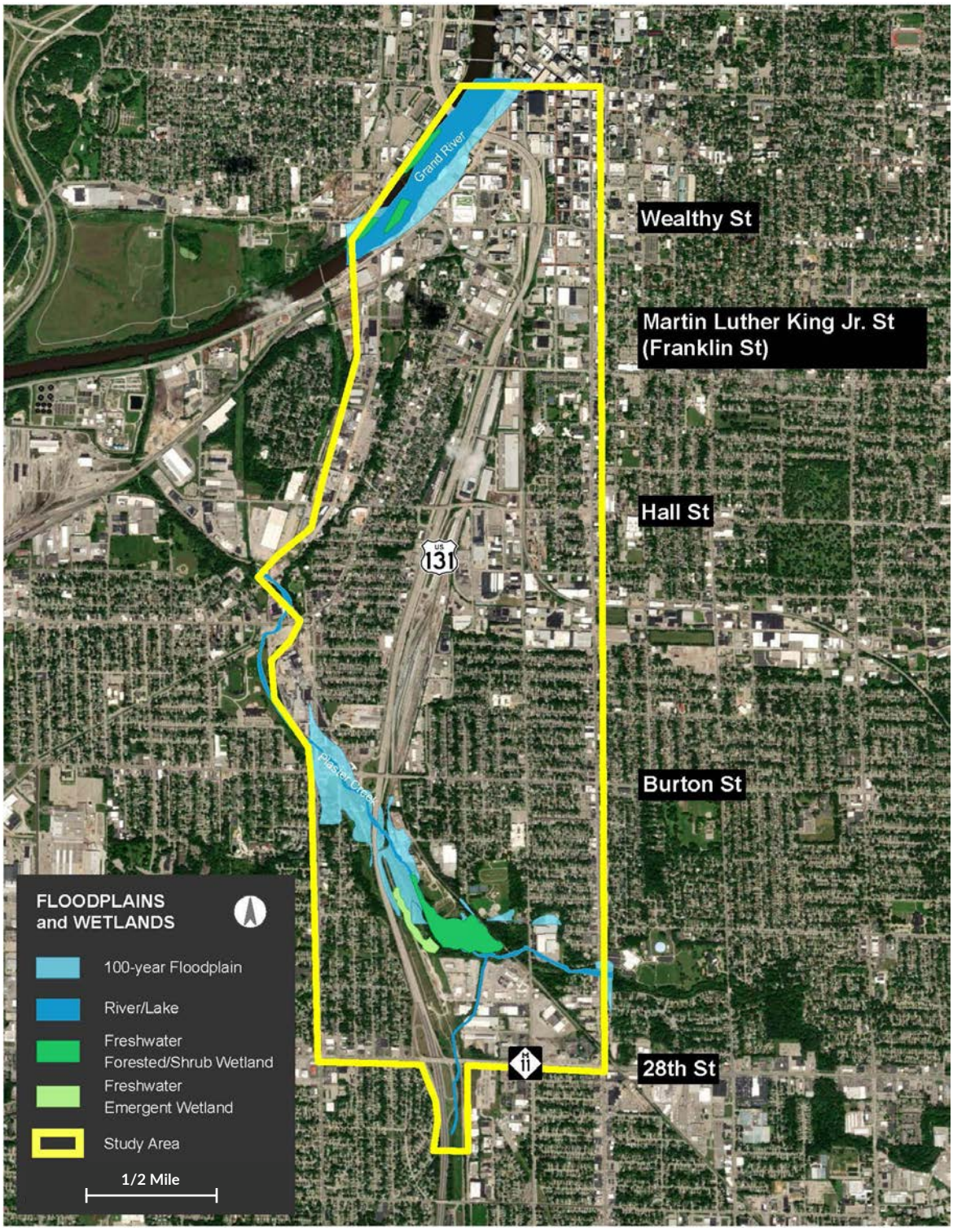


FIGURE 3-9. Floodplain and Wetland in the Study Area

Historic Places

Historic places are buildings, structures and districts of historical, cultural or archaeological value. These properties are not for acquisition. According to the National Register of Historic Places (NRHP) and the City of Grand Rapids Historic Preservation Commission, there are seven recorded historic buildings and one historic district in the Study Area[1]. Heartside Historic District and Metal Office Furniture company sit immediately next to the US-131 Study Corridor. Additionally, buildings over 50 years old within the Study Area will be inventoried and considered for a future historic structure review. The current national and local historic places within the Study Area are shown in Figure 3-10, and listed in Table 3-2 below.

Metal Office Furniture Company before 1954 (Photo Credit: The Wege Foundation)

Name	Address	Type
City of Grand Rapids Historic Places		
Heartside Historic District	District bounded by multiple streets. For specific boundary address, refer to Historic District and Landmark Maps.	District
Metal Office Furniture Building	401 Hall St. SW, Grand Rapids	Building
Properties listed on the NRHP		
Central Furniture Co./H.E. Shaw Furniture Company Factory	400 Ionia Ave.. SW, Grand Rapids	Building
Metal Office Furniture Co. (Steelcase)	401 Hall St .SW, Grand Rapids	Building
Sligh Furniture Co. Building	211 Logan St. SW, Grand Rapids	Building
Burton Middle School	2133 Buchanan Ave.. SW, Grand Rapids	Building
Clemente Park	546 Rumsey Ave.. SW, Grand Rapids	Building
Franklin School	801 Oakland Ave.. SW, Grand Rapids	Building
Fulton Street Bridge over the Grand River	Grand River north of US-131	Bridge
Heartside Historic District	*See above*	District

TABLE 3-2. Historic Places in the Study Area

1. Data source: National Register of Historic Places; City of Grand Rapids Historic Preservation Commission

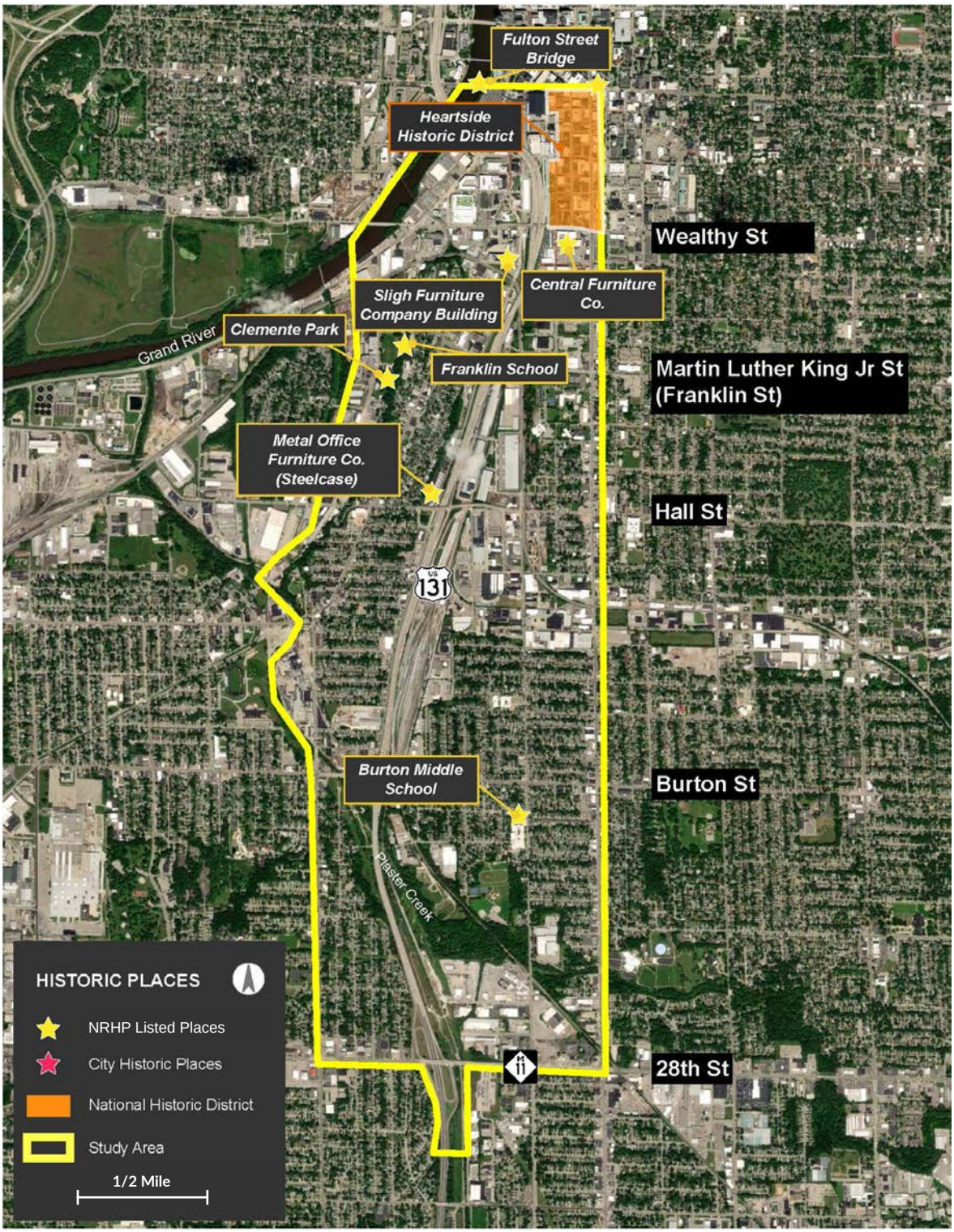


FIGURE 3-10. Historic Places in the Study Area

Parks and Schools

Parks and schools provide significant environmental, cultural and educational resources for local communities. The intent of this analysis is to understand where these community assets are in relation to the Study Area and does not imply the permanent acquisition of any properties listed here. There are 6 schools and 12 parks within the Study Area[1]. The schools and parks within the Study Area are shown in Figure 3-11 and listed in Table 3-3, below.

Name	Address
Public Parks and Recreation Areas:	
Heartside Park	301 Ionia Ave. SW, Grand Rapids
Grand Rapids Bike Park	480 Kirtland St. SW, Grand Rapids
Plaster Creek Family Park	312 Grandville Ave. SW, Grand Rapids
Campau Park	2401 Buchanan Ave. SW, Grand Rapids
Pekich Park	2 Cherry St. SW, Grand Rapids
Caulfield Park	1121 Caulfield Ave. SW, Grand Rapids
Hall Park	1205 Cesar E. Chavez Ave. SW, Grand Rapids
Franklin Park	721 Oakland Ave. SW, Grand Rapids
Plaster Creek Family Park	2401 Buchanan Ave. SW, Grand Rapids
Roberto Clemente Park	546 Rumsey St. SW, Grand Rapids
Monument Park	3 Fulton St. E, Grand Rapids
Roosevelt Park	739 Van Raalte Dr. SW, Grand Rapids, MI
Buchanan School Park	1775 Buchanan Ave. SW, Grand Rapids. MI
Public Schools	
Grand Rapids University Preparatory Academy	512 Division Ave. S, Grand Rapids MI
Covenant House Academy	50 Antoine St. SW, Grand Rapids
Southwest Community School	801 Oakland Ave. SW, Grand Rapids
Cesar E. Chavez Elementary School	1205 Grandville Ave. SW, Grand Rapids
Buchanan Elementary School	1775 Buchanan Ave. SW, Grand Rapids
Burton Elementary and Middle School	2133 Buchanan Ave. SW, Grand Rapids
City Designated Trails	
Plaster Creek Trail	Along Plaster Creek near Burton Street

TABLE 3-3. Parks and Schools in the Study Area

1. Data source: Google Maps

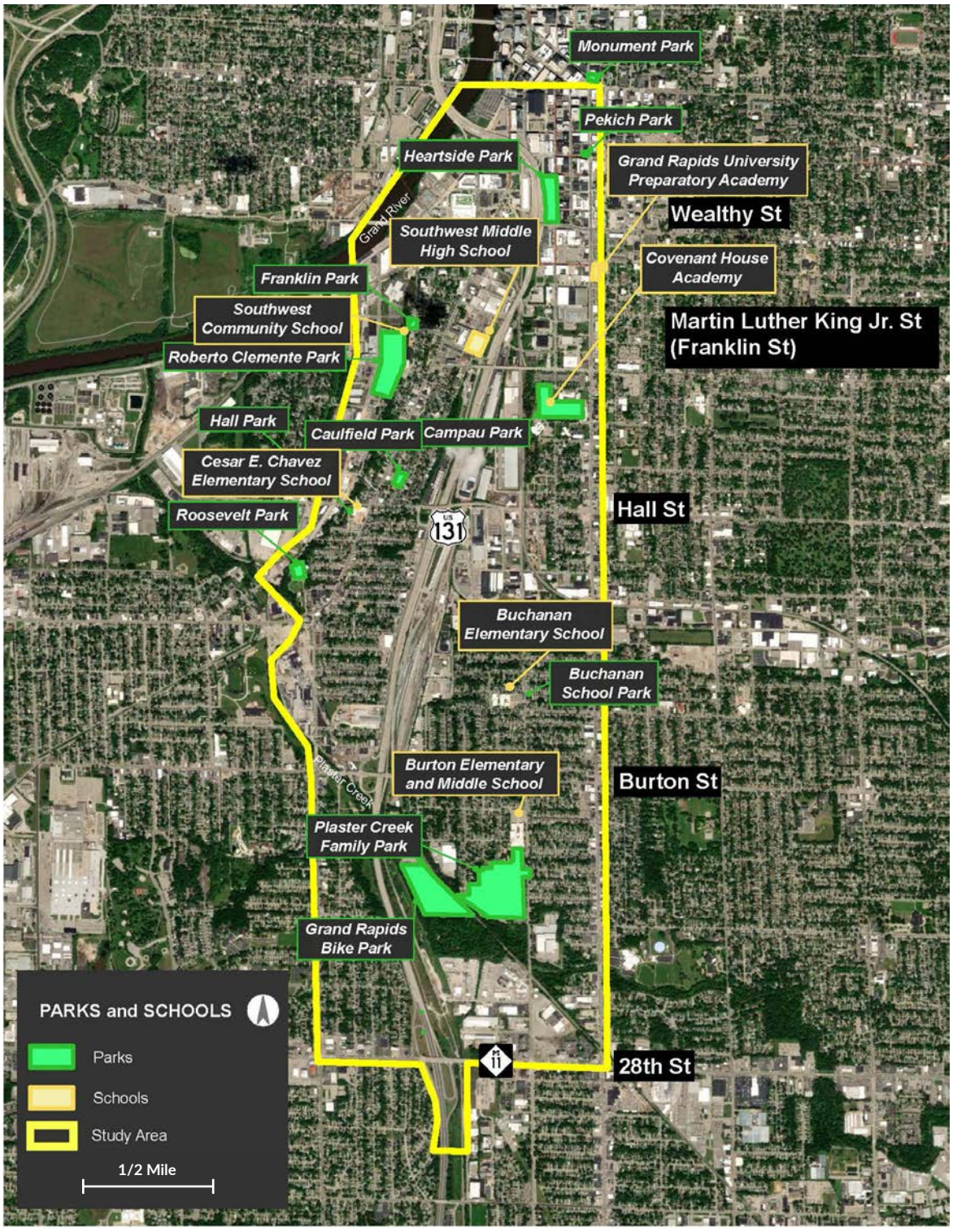


FIGURE 3-11. Parks and Schools in the Study Area

4. EVALUATION CRITERIA

The PEL Study seeks to evaluate how different options correspond to the project Purpose and Need. This evaluation was structured over a two-step screening process, where gradually more refined options were measured based on criteria associated with each of the Purpose and Need categories. To accomplish this, the evaluation criteria were sorted into a set of categories that address each need described in Section 2 of this PEL report. All criteria categories support the ultimate need to preserve mobility and access along and across the US-131 freeway as a vital transportation corridor.

FIGURE 4-1. First Screening Option Evaluation Criteria

The screening process utilized criteria as presented in Table 4-1. During the first screening (see Section 6), the process considered freeway lane and interchange options separately, while the second screening (see Section 8) applied to a set of the two combined options. Criteria during the first screening was a mix of qualitative and quantitative ratings, while the second screening included more detailed safety, traffic, right of way and cost studies. The ultimate goal of the evaluation was to identify acceptable options for consideration during further phases of design and environmental studies.

Criteria Category	Criteria	Included in First Screening	Included in Second Screening	Notes
Safety	Emergency Access	✓	✓	The potential crash reduction in the proposed options, and the access during crashes for first responders and their travel between the freeway and the nearest emergency facilities, adjacent businesses and neighborhoods.
	Crash Reduction (all crashes)	✓	✓	
	Crash Reduction (serious/injury crashes)		✓	
Traffic and Infrastructure	Operations and Reliability (freeway lane)	✓		Addressed the issues of freeway and interchange traffic operations, assessed the Study Corridor's aging infrastructure, and analyzed freight transportation along the Study Corridor and the surrounding industrial area.
	Operations and Reliability (ramps)	✓		
	Operations and Reliability (combined)		✓	
	Freight Access	✓	✓	
	Infrastructure Conditions	✓	✓	
Multimodal	Pedestrian/Bicycle Safety and Comfort	✓	✓	Addressed mobility challenges and the need for pedestrian, bicycle and transit access improvements in the Study Area.
	Pedestrian/Bicycle Connections	✓	✓	
	Wealthy Street Crossing Distance	✓	✓	
	Transit Connectivity	✓	✓	
Community	Coordination with Local Plans	✓	✓	How the options are compatible with local and regional development, and what impact they bring to the surrounding communities.
	Support for Local and Regional Growth and Development	✓	✓	
	Impacts to Community Assets	✓	✓	
Public Input	Public/Stakeholder Engagement Results (Phase 2)	✓	✓	The options were compared with engagement results from the public involvement surveys, neighborhood meetings and stakeholder outreach.
	Public/Stakeholder Engagement Results (Phase 3)		✓	
Environmental	Right of way Impacts (interchange)	✓		How the construction of the option potentially impacts the existing right of way and natural features.
	Right of way Impacts (freeway lane)	✓		
	Right of way Impacts (combined)		✓	
	Floodplain and Wetland Impacts	✓	✓	
Implementation	Capital Costs		✓	Cost effectiveness and ability to phase projects as a series of improvements over time.
	Construction Phasing		✓	

TABLE 4-1. First and Second Screening Criteria

5. ILLUSTRATIVE OPTIONS

5.1 Initial Options Overview

Consideration of options for the US-131 corridor began with consideration of separate Freeway Lane Alternatives and Interchange Design Alternatives. For each, MDOT considered reconfiguration of design and access that would better conform with current freeway design standards and improve traffic flow, safety, connections and access.

Because of the closely spaced set of interchanges between Hall Street and Market Avenue, the interchange options were combined for this segment. While the Market Avenue interchange is outside of the PEL Study limits that end at Cherry Street, changes to the Market Avenue operations and significant new developments under construction may impact interchanges and local access within the Study Area.

Options	Description
Freeway Lane Options	
Current/No Action	Keeps existing freeway lanes with minimal or no shoulders
Option 1	Adds inside shoulders
Option 2	Adds inside shoulders and weave./merge lanes
Option 3	Adds inside shoulders and continuous local access lanes
Cherry Street-to-Hall Street Interchange Options	
Current/No Action	Keeps existing interchanges
Option A	Flips Wealthy Street to an underpass; closes Martin Luther King Jr. Street (Franklin Street) interchange
Option B	Keeps Wealthy Street as an overpass; closes Martin Luther King Jr. Street (Franklin Street) interchange, with modernized ramp designs for northbound interchange
Option C	Closes Wealthy Street interchange
Option D	Keeps two ramps of Wealthy Street as an overpass; closes Martin Luther King Jr. Street (Franklin Street) interchange
Burton Street Interchange Options	
Current/No Action	Keeps existing Burton Street interchange
Diamond	Converts the southbound loo off ramps to straight off ramps
Combine Southbound Off Ramps	Removes the southbound off ramp to Century Street

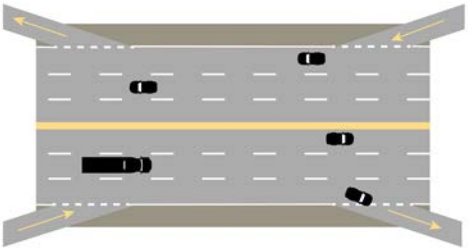
TABLE 5-1. List of Initial Options

5.2 Freeway Lane Options

The freeway lane options apply specifically to the freeway segments of US-131. These improvements address existing and future demand of operations and safety. Any freeway lane option can be applied regardless of the interchange options selected. Freeway lane options could be applied using one option or multiple options combined between Market Avenue and M-11 (28th Street). The options are:

Current Freeway Lanes

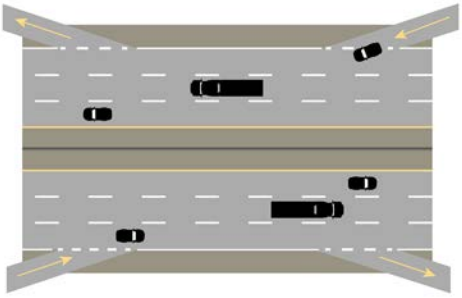
This option would keep US-131's current three travel lanes in each direction with full outside shoulders only.



Option 1

Three lanes (each direction) with full shoulders

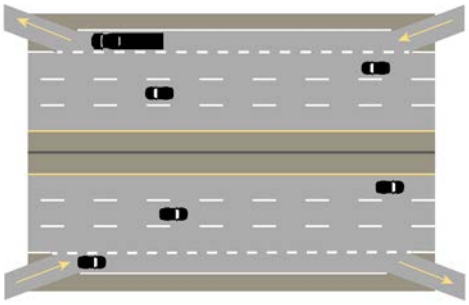
This option would keep US-131's current three travel lanes in each direction and add inside shoulders in both directions.



Option 2

Three lanes (each direction) with added connecting lane between ramps

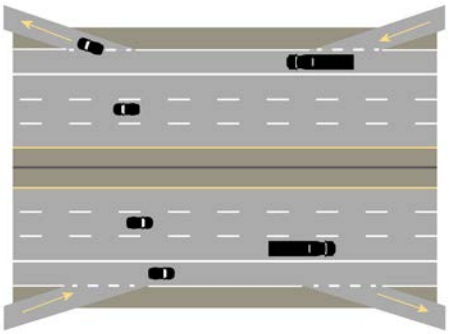
This option would add a connecting lane to US-131 in both directions at and between interchanges, specifically for drivers to safely merge left onto the roadway from right-side on ramps or to weave right off of the roadway to right-side off ramps.



Option 3

Three lanes with continuous local access lanes (each direction)

This option would retain the three travel lanes and add an additional local access lane to US-131 in both directions in critical segments to maximize functionality of the existing three travel lanes and include full shoulders both inside and outside. Other future uses for the additional lane may be considered in the future, including high-occupancy vehicle (HOV) lane, electric vehicle (EV) lane or transit lane. Further data analysis would be required outside of the PEL.



Discussion on Freeway-to-Boulevard Options

From the outset, the US-131 PEL Study focused on options that would preserve mobility along this critical north-south corridor, and that would thus preserve the Study Corridor as a freeway. There have been multiple discussions with stakeholders of non-freeway options over the course of the PEL process. One of the more frequent options discussed was converting the US-131 freeway to an at-grade boulevard, also known as "decommissioning" highways or freeways. Generally, candidates for this conversion should meet the following design considerations: low traffic volumes, a need for a route to service origins and destinations within a specific downtown or urbanized area, availability of other high-capacity connections, and a facility that is a relatively shorter or non-continuous spur segment.

During the early phases of the PEL Study, MDOT considered possibilities for a surface arterial that would connect to US-131 north and south of the Study Corridor. Ultimately these options were deemed as not meeting the established Needs for the study or the design considerations, and not carried further in the PEL study. However, many of the perceived benefits from non-freeway options can be accomplished with future freeway preservation options, including improved pedestrian access, improved local connectivity, complete street elements on local roadways interfacing with the freeway, public artwork and designs of infrastructure elements (bridges, street lights, landscape and vegetation, placemaking, etc.)

All alternatives are not formally dismissed until a Preferred Alternative is selected at the conclusion of NEPA process, and may be reviewed further in future phases for comparison purposes. The freeway decommissioning option has additional social and environmental impacts, as well as the perceived benefits. The data and analysis used to screen the Acceptable Options during the PEL process, is intended to be carried forward into future decision-making phases. This information will include additional analysis and findings needed to determine how well alternatives perform, and whether to dismiss or carry forward as a practical alternative.

All Acceptable Options will include enhanced pedestrian and nonmotorized accommodations. New local access crossings of the freeway (without ramps) are also proposed to reconnect the city street grid and improve local circulation and pedestrian access. Transit service options can be included with any freeway improvements, but would need be coordinated with Interurban Transit Partnership (The Rapid). Enhanced transit service, nonmotorized and pedestrian accommodations are an important part of addressing the anticipated the growth in the Grand Rapids area; however, travel by these modes is not adequate to replace the freeway and not intended to be stand-alone options in the PEL Study.

5.3 Interchange Options

Based on the specific conditions at each of the interchanges of the Study Corridor, the study team developed options to accommodate the needs by interchange area during Phase 2 of the study. These options were presented as part of the Phase 2 public and stakeholder engagement.

Cherry Street-to-Hall Street Interchange Options

The Cherry Street-to-Hall Street interchange options apply specifically to the Market Avenue, Cherry Street, Wealthy Street, Martin Luther King Jr. Street (Franklin Street), and Hall Street interchanges with US-131, as well as the local streets providing access to those interchanges. Any interchange option can be applied regardless of the freeway lane option or Burton Street interchange option selected. Significant considerations in these options include the modernization of each interchange, but also the reduction in the overall number of entry and exit points to improve safety and operations. Additionally, MDOT is exploring the potential to reorient the Wealthy Street interchange from a US-131 underpass to an overpass.

Current/No Action

This option as shown on Figure. 5-1 would keep the current configuration and spacing of all US-131 interchanges between Market Avenue and Hall Street.

FIGURE 5-1. Current Cherry Street-to-Hall Street US-131 Interchanges

Option A

- *Keeps the current configuration of the Hall Street and Market Avenue interchanges;*
- *Closes ramps at Cherry Street with retained access from northbound US-131 via a northbound service drive from Wealthy Street;*
- *Converts the Wealthy Street overpass to an underpass with a modified diamond configuration, turns left ramps to the right side, and shifts the southbound on ramp south near Martin Luther King Jr. Street (Franklin Street) to improve freeway design and operations;*
- *Closes all ramps at the Martin Luther King Jr. Street (Franklin Street) interchange except the southbound on ramp from Wealthy Street.*

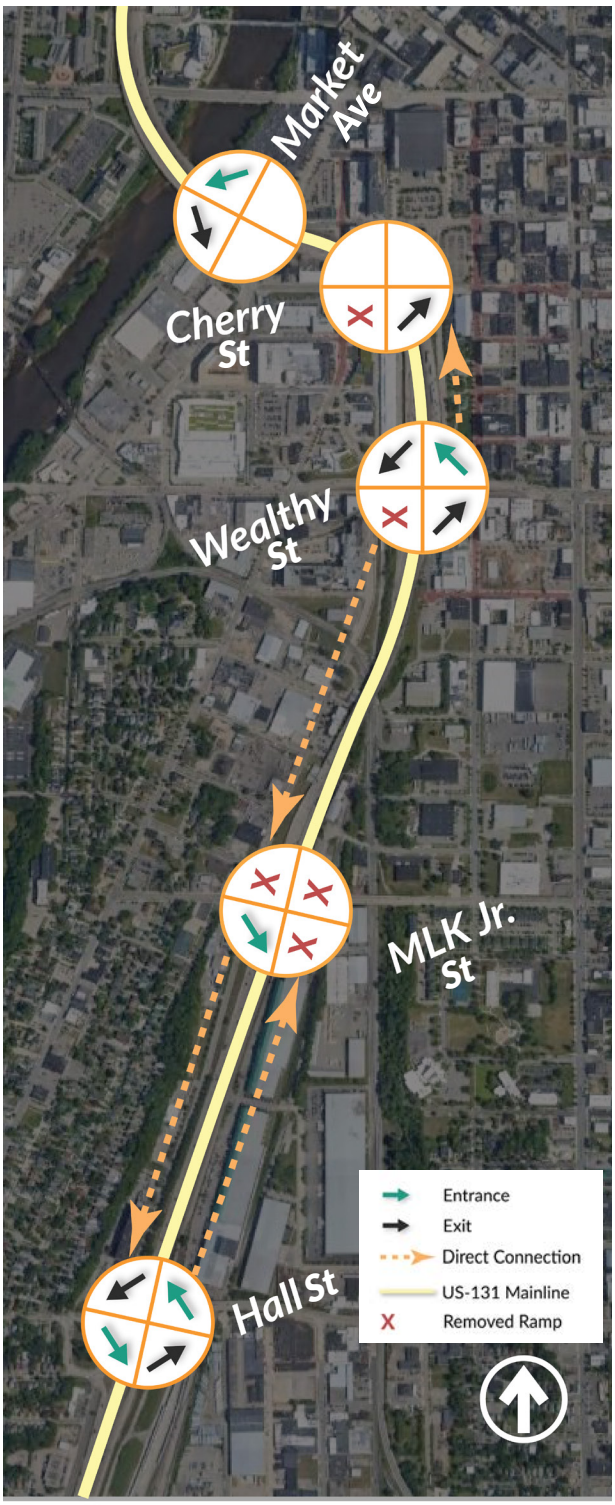


FIGURE 5-2. Cherry Street-to-Hall Street Interchange Option A

Option B

- *Keeps the current Market Avenue interchange;*
- *Closes ramps at Cherry Street with retained access from northbound US-131 via a service drive from Wealthy Street;*
- *Keeps Wealthy Street overpass, turns left-sided ramps to the right side, and convert the Wealthy Street interchange to diamond configurations;*
- *Closes all ramps at Martin Luther King Jr. Street (Franklin Street);*
- *Keeps the current Hall Street Interchange.*

FIGURE 5-3. Cherry Street-to-Hall Street Interchange Option B

Option C

- *Keeps the current configuration of the Market Avenue interchange;*
- *Moves the southbound Cherry Street on ramp from the left side of southbound US-131 to the right side;*
- *Converts the Wealthy Street overpass to an underpass with all ramps closed;*
- *Retains the Martin Luther King Jr. Street (Franklin Street) interchange ramps on the north side with access to Hall Street to the south via Century Avenue and Hynes Avenue;*
- *Retains the Hall Street ramps on the south side with access to Martin Luther King Jr. Street (Franklin Street) via Century Avenue and Hynes Avenue.*

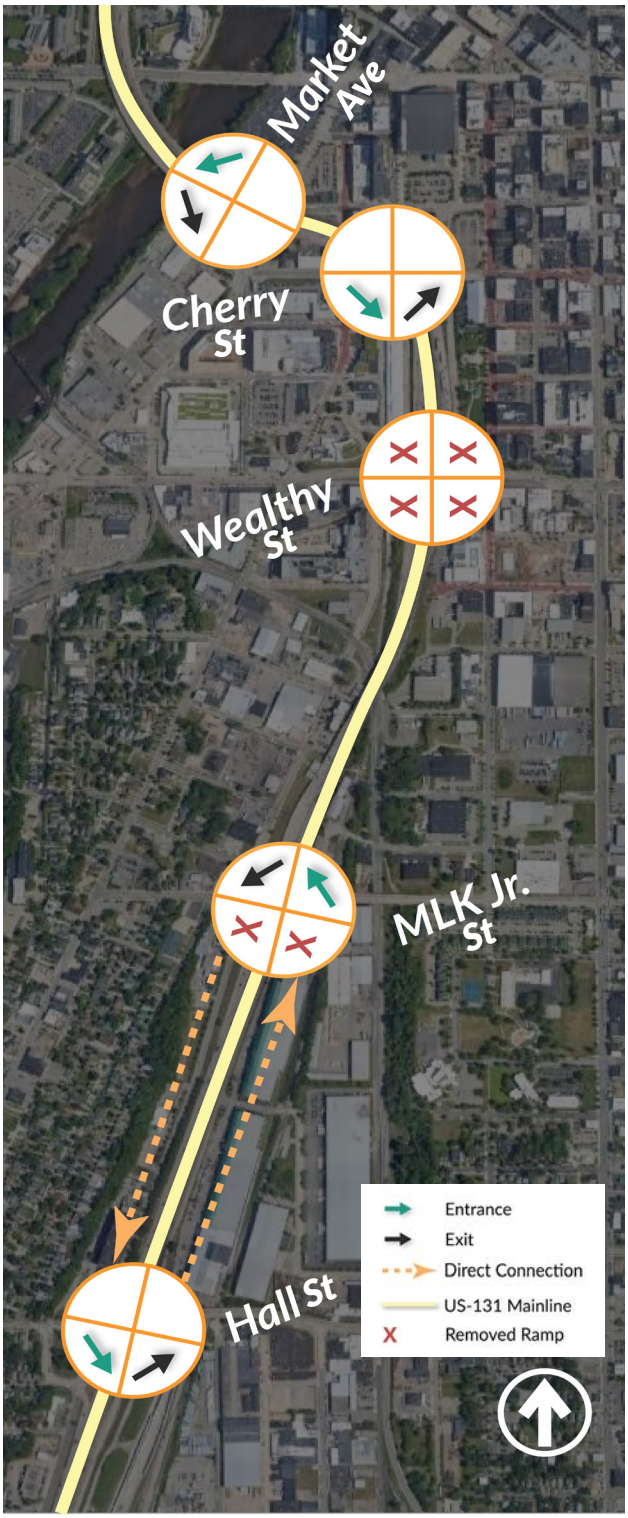


FIGURE 5-4. Cherry Street-to-Hall Street Interchange Option C

Option D

- *Keeps the current configuration of the Market Avenue and Hall Street interchanges;*
- *Closes ramps at Cherry Street with retained access from US-131 via service drives from Wealthy Street;*
- *Converts the Wealthy Street overpass to an underpass, turns left sided ramps to the right side, and retains the northbound off ramp and southbound on ramp to form a split interchange with Market Avenue;*
- *Closes all ramps at the Martin Luther King Jr. Street (Franklin Street) interchange;*
- *Keeps the current Hall Street Interchange.*

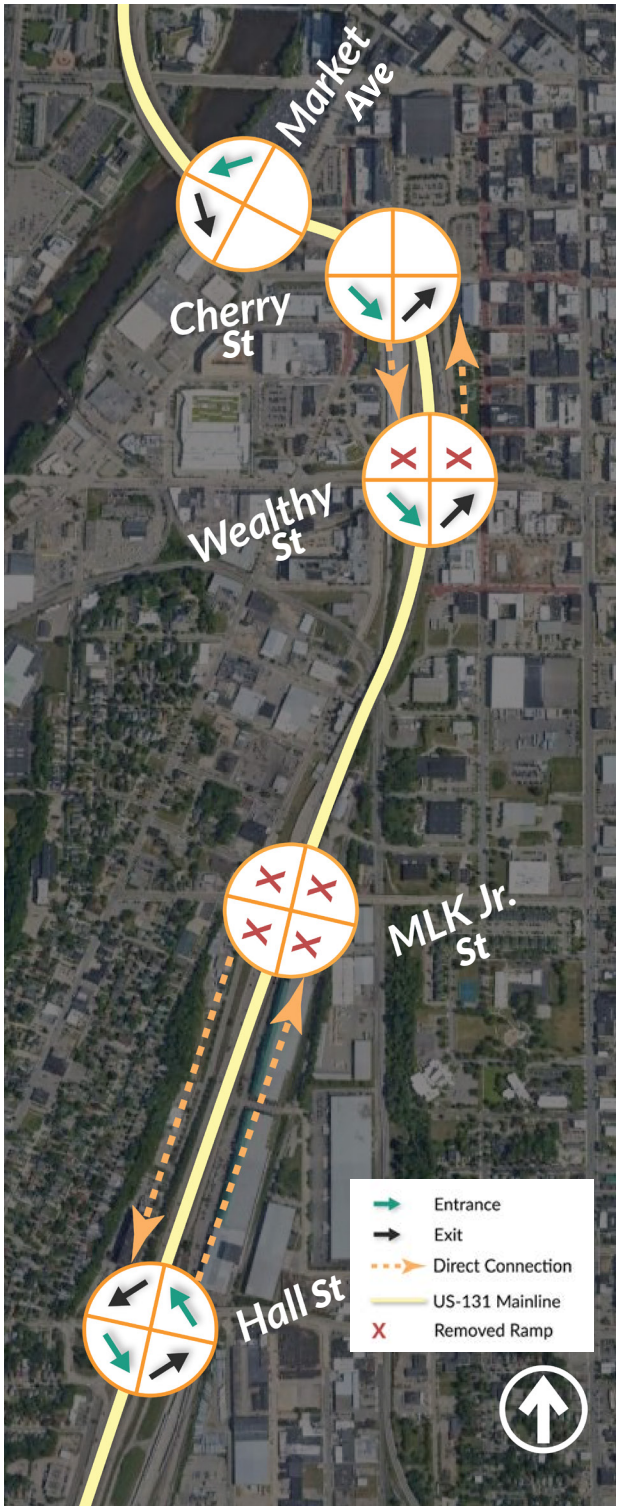


FIGURE 5-5. Cherry Street-to-Hall Street Interchange Option D

Burton Street Interchange Options

The Burton Street interchange options apply specifically to the existing Burton Street interchange at US-131 as well as the connecting local streets. Any Burton Street interchange option can be applied regardless of the freeway lane option or Hall Street-to-Market street interchange option selected. These options can also be part interim improvements outside of a larger rehabilitation or reconstruction project.

Current/No Action

This option would keep the current configuration of the Burton Street interchange as a partial cloverleaf with two southbound off ramps.

FIGURE 5-6. Burton Street Interchange: Current/No Action

Diamond

This option would convert the Burton Street interchange to a diamond configuration, converting the southbound loop off ramps to straight off ramps. It would also straighten Century Avenue and bring it closer to US-131 but entirely separated from the ramps. This option would enhance natural features and incorporate a new trail along Plaster Creek. Widened bridge and sidewalk would also improve pedestrian and other nonmotorized safety.

FIGURE 5-7. Burton Street Interchange: Diamond

Combine Southbound Off Ramps

This option would keep the current configuration of the Burton Street interchange for the southbound off ramp to Burton Street but would remove the southbound off ramp to Century Street and lengthen the southbound on ramp from Burton Street to US-131. This option would enhance natural features and incorporate a new trail along Plaster Creek. Widened bridge and sidewalk would also improve pedestrian and other nonmotorized safety.

FIGURE 5-8. Burton Street Interchange: Combined Southbound Off Ramps

Local Street Connections

East-west connections between Burton Street and Martin Luther King Jr. Street (Franklin Street) are limited due to the presence of a large railroad freight yard, which predates the freeway. Some of the east-west connection options include proposed enhanced north-south surface street connections to facilitate more direct access to these crossings.

To enhance connectivity, the study team identified multiple opportunities for new local street connections across US-131 for nonmotorized, passenger and freight traffic. The potential connection points include Logan Street/Buckley Street area, Graham Street with connections to Century Avenue, Hynes Avenue, and Buchanan Avenue, as well as Kirtland Street. Potential local street connections were presented during Phase 2 engagement, and were evaluated as part of all the initial options.

FIGURE 5-9. Opportunities for Local Street Connections

6. EVALUATION - FIRST SCREENING

6.1 First Screening Summary

Safety

Evaluation of the **Safety** criteria considered both *Crash Reduction* and *Emergency Access*. Potential crash reduction was assessed based on crash reduction countermeasures and their effectiveness in reducing crashes. According to the *Crash Modification Factor (CMF) Clearinghouse*, specific crash reduction countermeasures and their estimated level of crash reduction were identified for each option. Since emergency access considered the ease with which vehicles can travel through and pull to the side of the freeway and access to destinations on either side of the freeway, the addition of shoulders and lanes connecting to ramps indicate better emergency access. For interchange options, according to the travel time analysis results, there is very slight difference in travel time in the off peak hours scenario. All Burton Street interchange options are excluded from the evaluation since they come with complete access to the freeway.

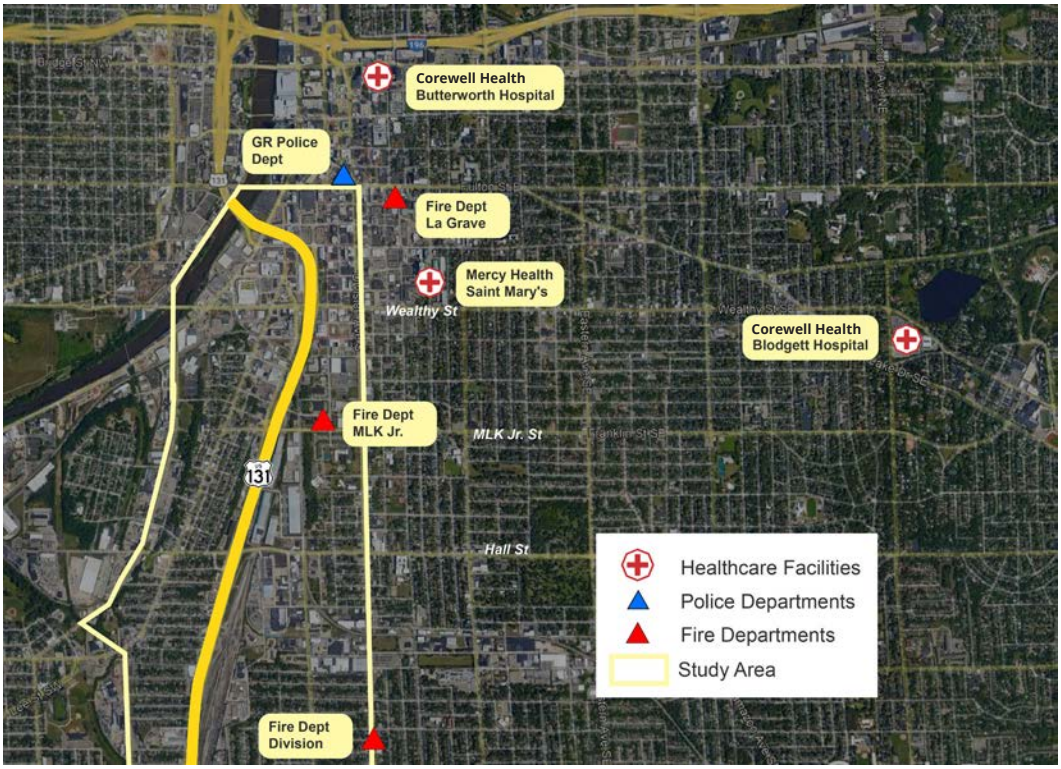


FIGURE 6-1. Emergency Facilities Within or Near the Study Corridor

Traffic and Infrastructure

Evaluation of **Traffic and Infrastructure** criteria was based on *Infrastructure Conditions*, *Operations and Reliability*, and *Freight Access*. Based on The National Pavement Surface Evaluation and Rating (PASER), most of the existing freeway lane pavement is in fair (scale 5-6) condition. Existing Hynes Avenue at Burton Street interchange and Century Avenue at the southbound Burton Street interchange are in poor condition. Part of the bridge deck at Martin Luther King Jr. Street (Franklin Street) interchange east of US-131 is in serious condition, which is scheduled for reconstruction in 2026. Most of the other interchanges or bridges are in fair condition.

Operation and Reliability metrics were evaluated based on level of service (LOS) and a future year (2045) peak hours[1] capacity analysis based on the regional growth trend for the US-131 freeway segments. Several northbound and southbound US-131 freeway segments are projected to operate poorly under 2045 no-build conditions, affecting mobility and safety. There would be traffic overload on certain interchanges. While additional changes can be applied to mitigate most of the situation, there is no immediate solution to the projected overloaded traffic on Option C interchange, which is the option with all Wealthy Street ramps closed. More information can be found in Appendix G.

LOS A	*Free flow*	LOS D	*Approaching unstable flow*
LOS B	*Reasonably free flow*	LOS E	*Unstable flow*
LOS C	*Stable flow*	LOS F	*Forced to breakdown flow*

The Study Corridor also serves as a significant freight route in west Michigan, with an industrial area along US-131 between Wealthy Street and M-11 (28th Street). There are also considerations of potential truck route designation to better accommodate commercial traffic in the future by other agencies. The study team measured the industrial areas within a five-minute drive from a US-131 entrance or exit and considered closure of ramps from or to a truck route. While the accessible industrial area within five-minute drive does not appear to differ significantly among the options on an overall scale, the closure of ramps would have a bigger impact on travel to a specific site.

1. For the Study Corridor, the AM peak-hour is 7:15 - 8:15 a.m., and the PM peak-hour is 4:45 - 5:45 p.m.

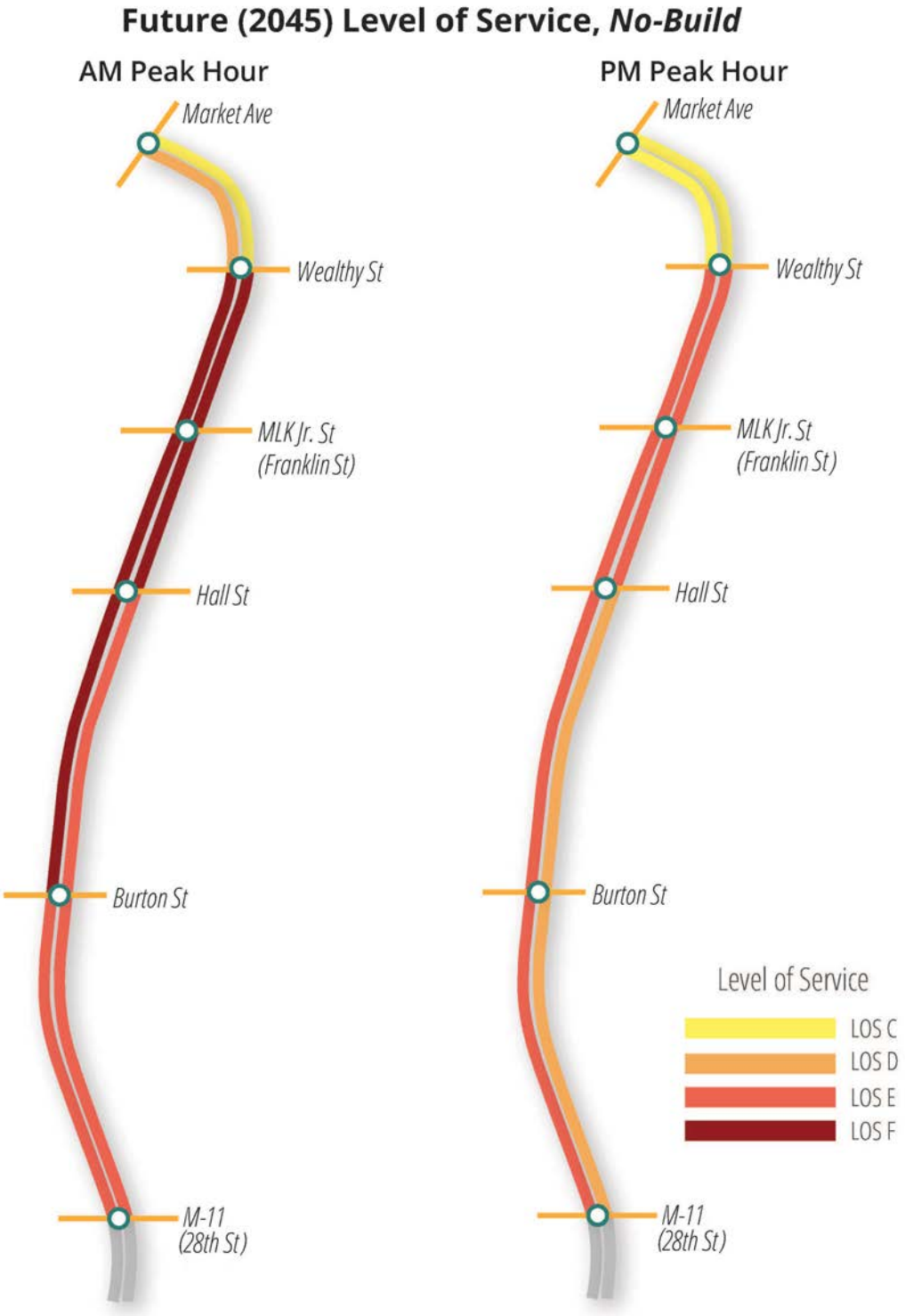


FIGURE 6-2. Future (2045) Level of Service in the No-Build scenario

Multimodal

Multimodal criteria included the aspects of *Pedestrian/Bicycle Safety*, *Pedestrian/Bicycle Connections*, *Wealthy Street Crossing Distance*, and *Transit Connectivity*. Existing ramp crossings at interchanges affect travel for pedestrians and bicyclists since they increase safety and mobility concerns. Each interchange option's characteristics in terms of upgrade of sidewalks and bikeways, as well as pedestrian crossings at ramp entrance and exits, were considered jointly to determine an overall pedestrian/bicycle safety and comfort score. In addition, the study considers adding nonmotorized connections across US-131 at local street level at Logan Street or Buckley Street, Graham Street, and Kirtland Street to all options (excluding No Action option). Wealthy Street is the key area for this study for nonmotorized connection due to its proximity to nearby facilities, and proposed design would improve the crossing conditions with upgraded infrastructure. Other nonmotorized improvements may be also accomplished whether the design is over or under US-131. Transit connectivity was considered in terms of bus operations and connectivity for transit riders at and around The Rapid Central Station and Amtrak station. Wealthy Street, if designed as an underpass with freeway access, may provide the most improvements on multimodal access to transit facilities compared to other designs.

FIGURE 6-3. Local Street Pedestrian/Bicycle Connection Opportunities

Community

The **Community** criteria included *Support for Local Plans*, *Impacts to Community Assets*, and *Support for Local/Regional Development*. Other than the No Action Option, all proposed options are consistent with local plans listed in Section 1.6. The study team conducted analysis on the number of assets adjacent to the area that could potentially be impacted by the future construction options. While some options would have low right of way impact on community assets, these are estimates and specific design considerations can be accounted for in further planning and development processes to minimize these impacts or avoid any impacts. Support for local growth and development was considered in terms of accommodation of future traffic growth and site access and impact for the current and future local redevelopment projects[1] adjacent to the Study Corridor.

FIGURE 6-4. Potentially Impacted Community Assets

1. List of projects: https://www.mlive.com/news/grand-rapids/2022/02/12-transformational-projects-identified-by-grand-rapids-economic-development-group.html

Public Input

The **Public Input** criteria considered *public and stakeholder input*. Each option was assessed based on the level of support from both public input that was collected from an online survey, website feedback and community meetings, as well as input from stakeholder meetings during the Phase 2 engagement. Overall, there was support for improving freeway lanes and shoulders and enhancing local street connections, as well as for the overall strategy to improve safety and operations from Hall Street to Market Avenue. There were concerns regarding closure of interchanges, impact of freeway widening, long-term traffic congestion, pedestrian safety, and truck movement. More details from Phase 2 engagement can be found in Section 9.4 and Appendix M.

Environmental

The **Environmental** criteria included *right of way Impacts* and *Floodplain and Wetland Impacts*. Right-of-way impacts were evaluated based on the number of impacted adjacent parcels and the area that would need to be acquired for the right of way. Among the potentially impacted parcels, right of way impacts applied to only small portions of each parcel, and the total impacted area remains similar (up to 5.7 acres). The bridge piers on the Burton Street interchange would directly impact floodplain and wetlands on a small scale. Floodplain impacts would be mitigated during the construction of the chosen option. Burton Street interchange options would have possible impacts on Plaster Creek and may require the alignment of the creek to be shifted away from the southbound on ramp. More information of impact on additional environmental resources can be found in Section 10.2. Further evaluation of environmental resources will occur in subsequent phases of the project development process.

6.2 First Screening Results

Among freeway lane options, Option 2 (which would add weave/merge lanes to US-131) addresses the most project needs based on the criteria rating. Option 3 also scored high overall. While Option 1 scored the lowest of the options, it was retained due to input from local stakeholders that indicated a desire to fully study the option to retain existing capacity before choosing Options 2 or 3.

Among the Cherry Street-to-Hall Street interchange options, Option A has the highest score. Option B has relatively high scores that are evenly distributed among the screening criteria. There is also a general preference of keeping an option that could maintain the current Wealthy Street configuration based on discussion with stakeholders. Therefore, Option B is carried forward as a secondary option. Option C and Option D have relatively lower scores, and were not considered for the next screening in this study. For the Burton Street interchange options, each are scored similarly and thus will be further evaluated in the next screening. All evaluation criteria are equally weighted, and details of the first screening process and scoring results can be found in Appendix F.

Options	Safety	Traffic and Infrastructure	Multimodal	Community	Public Input	Environmental	Overall Result
Freeway Lane Options							
No Action			N/A				
Option 1			N/A				
Option 2			N/A				
Option 3			N/A				
Cherry-to-Hall Interchange Options							
No Action							
Option A							
Option B							
Option C							
Option D							
Burton Interchange Options							
No Action							
Diamond							
Combined							

Addresses project needs the least — *Addresses project needs the most*

TABLE 6-16. First Screening Evaluation Results

7. REFINED OPTIONS

7.1 Refined Options Overview

Based on the first screening results of the initial options, the refined options studied during the second screening represent Study Corridor improvement approaches that combine the freeway lane and the interchange options (i.e., Option 1A incorporates freeway lane design of Option 1 and interchange design of Option A) for a more comprehensive and empirical review, and the outcomes will play a pivotal role in selecting preferred options for further study.

the analysis assumes these types of pairings, but does not limit different configuration options between the Burton Street and Wealthy Avenue segments.

FIGURE 7-1. Refined Options

7.2 No-Build/Maintain Existing Freeway

Same as in the first screening, this option would keep the current design and configuration of the existing freeway by maintaining the three-lane freeway with outside shoulders and the current interchanges and local road connections along the Study Corridor. This option relies more on the parallel local streets to accommodate anticipated traffic growth in the metro area.

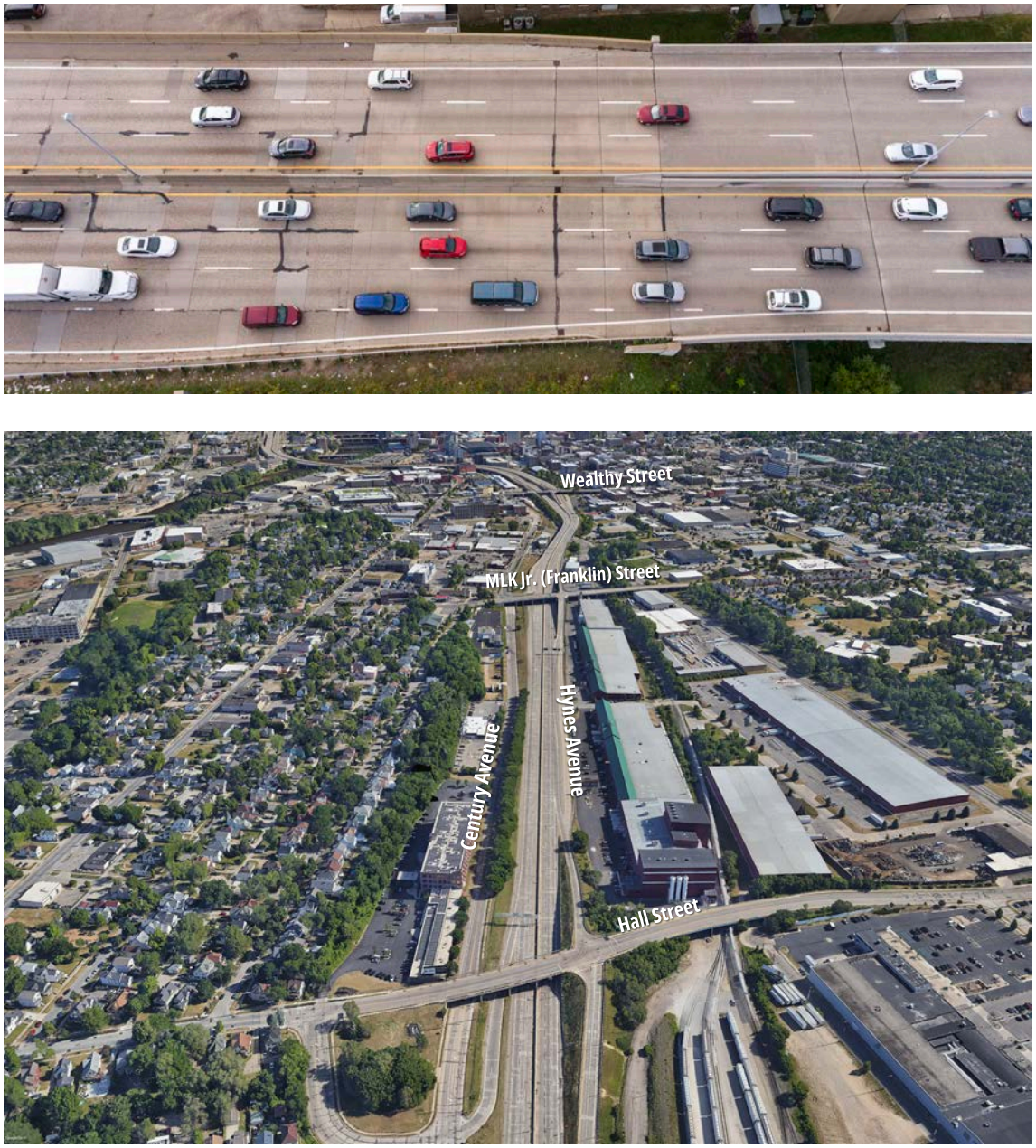


FIGURE 7-2. No-Build/Maintain Existing Freeway Option

7.3 Refined Options (Build Scenarios)

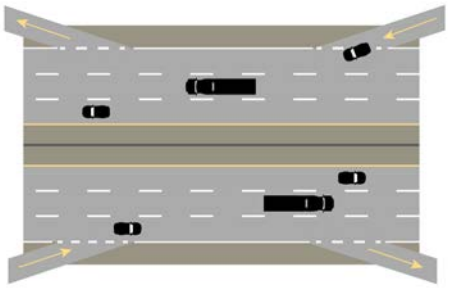
The refined options include the design of freeway lane options as in the first screening (refer to Section 5.2). These options were each combined with two interchange options for the second screening.

The freeway lane options apply specifically to the freeway segments of US-131. Any freeway lane option can be applied regardless of the interchange options selected. Freeway lane options could be applied using one option or multiple options combined between Market Avenue and M-11 (28th Street). The options are:

Option 1

Three lanes (each direction) with full shoulders

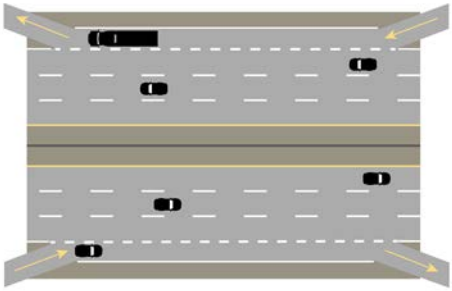
This option would keep US-131's current three-travel lanes in each direction but add inside shoulders in both directions.



Option 2:

Three lanes (each direction) with added connecting lane between ramps

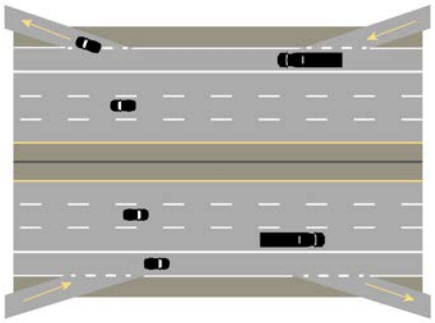
This option would add a connecting lane to US-131 in both directions at and between interchanges, specifically for drivers to safely merge left onto the roadway from right-side on ramps or to weave. right off of the roadway to right-side off ramps, further addressing traffic safety with closely spaced ramps.



Option 3

Three lanes with continuous local access lanes (each direction)

This option would add an additional local access lane to US-131 in both directions in critical segments to provide four continuous lanes in each direction with full shoulders both inside and outside. Additional lanes could also be available for other purposes in the future, such as HOV, EV or transit lanes.



Option A

- *Converts Wealthy Street to an underpass with diamond configurations and shifts the northbound off ramp to the right side of the freeway;*
- *Removes the Wealthy Street southbound on ramp to accommodate the Amtrak railroad;*
- *Closes all ramp access to Martin Luther King Jr. Street (Franklin Street) interchange except the southbound on ramp;*
- *Removes the Burton Street interchange southbound off ramp to Century Street.*

FIGURE 7-3. Wealthy Street Underpass Aerial and Street View in Option 3A

Option B

- Keeps Wealthy Street overpass, converts Wealthy Street to diamond configurations with a northbound off ramp on the right side of the freeway;
- Closes all ramps at Martin Luther King Jr. Street (Franklin Street);
- Converts the Burton Street interchange to a diamond configuration, converting the southbound loop off ramps to straight off ramps.

FIGURE 7-4. Wealthy Street Overpass Street View in Option 3B

7.4 Local Street Connections

Local street connections were further developed and illustrated to be combined with the refined option. They include the following:

Logan Street/Buckley Street

The connection would be made at either Logan or Buckley streets as an alternate route to cross US-131 south of Wealthy Street. This connection could be a potential truck route with access to Century Avenue and Caesar E Chavez Avenue. Construction of this connection may impact the Amtrak railroad.

Graham Street

Currently, Graham Street has a railroad crossing on the east side of US-131. Graham Street north of Martin Luther King Jr. Street (Franklin Street) could be extended to Century Avenue. This connection could be a potential future truck route with access to Hynes Avenue, Buchanan Avenue and Century Avenue.

FIGURE 7-5. Graham Street Connection Aerial View in Option 3A

FIGURE 7-6. Graham Street Connection East of US-131 Street View

FIGURE 7-7. Graham Street Connection West of US-131 Street View

Kirtland Street

Kirtland Street south of Burton Street can be connected with the prioritization for nonmotorized access.

8. EVALUATION - SECOND SCREENING

8.1 Second Screening Summary

Safety

The Study team conducted a comprehensive safety review with a focus on fatal and serious injury crashes on the Study Corridor. Using data provided by the Traffic Improvement Association (TIA), the safety review included crashes on both freeway lanes and interchange ramps. The crash analysis studied existing crash conditions in 2023 and provided predicted crashes in 2045, assuming that speeds will increase, although the function of the local access lane and existing travel lanes would remain consistent in this analysis. Combining both freeway lane crashes and ramp crashes, options with a local express lane are expected to show a greater reduction in crashes (about 20 percent), while options with three lanes and weave/merge lanes have a smaller reduction in crashes (about 11 percent). In addition, options with three lanes and an added connecting lane between ramps indicate the highest percentage of fatal and serious crash reduction. The predictions were developed based on general model of the freeway design, and further analysis is needed to determine crash potential on specific segments before ramp and lane configurations are finalized.

Operations and Reliability

The Study team conducted a traffic study featuring analysis of existing and future traffic volumes and freeway capacity. The analysis considered traffic on both freeway lanes and ramps using weekday freeway lane traffic counts collected in May 2023 and weekday ramp traffic counts collected in June 2023. For traffic volumes south of Hall Street, the previously collected ramp data from November 2019 was utilized. Based on historical traffic data in Grand Rapids area, the existing (2023) peak-hour traffic volumes were projected to the future analysis year of 2045 by assuming a 0.5 percent annual growth factor. This information is derived from reputable, data-driven, scientific and peer-reviewed sources and tools. The analysis combined both freeway and ramp traffic during weekday peak hours and the level of service (LOS) is calculated for each segment of the Study Corridor. As a result, the analysis indicated that traffic would grow with the existing freeway design in 2045, resulting in a reduced LOS of “E” and “F,” suggesting unstable or forced flow of traffic during peak hours. As more shoulder space or lanes are added, traffic operations will improve to LOS “C” or “D” during peak hours and other unreliable hours throughout the day.

Right of Way Impact

Potential right of way impacts of the options were evaluated based on the area that would need to be acquired for the right of way. The calculated area shows total of right of way acquisition and only a small portion of right of way would be impacted on each property. The impacted area was calculated based on the combined freeway lane and interchange design for each option. While the design of Wealthy Street does not show significant differences in right of way impact, as more lanes are added, the impacted area slightly increases.

Public and Stakeholder Engagement Results (Phase 3)

During Phase 3 engagement, an online survey was open to the public from October to December 2023. The survey aimed to gather public input on the design of the Wealthy Street interchange, the potential closure of Martin Luther King Jr. Street (Franklin Street) interchange, adding lanes on the freeway, and whether the Study addressed the needs. Additionally, MDOT held meetings with local communities and businesses to discuss specific topics related to the refined options, including emergency access and freight traffic movement. Participants preferred Wealthy Street as an underpass and support closing the Martin Luther King Jr. Street (Franklin Street) interchange, while there are mixed opinions on adding lanes and shoulders. More than 80 percent of participants agreed that the study addressed some or most of their needs. More information of Phase 2 engagement can be found in Section 9.5.

Capital Cost

In 2024, MDOT invested approximately $6.2 million in infrastructure improvements on the northbound and southbound US-131 bridges over Plaster Creek just south of Burton Street in Grand Rapids, and in concrete joint repairs on US-131 from M-11 (28th Street) to Pearl Street. While there are incremental improvements on the Study Corridor, future funding is needed for maintenance or construction. To further evaluate implementation and investigate potential future funding, the study team prepared the construction cost estimate for each of the refined options. These estimates considered full reconstruction, including road, bridges, drainage and all other roadway items, including freeway lanes, interchanges and local road connections. Construction costs remained close regardless of Wealthy Street design, but the costs would generally increase as more lanes are added.

8.2 Second Screening Results

Among the freeway lane options, Option 2, which would incorporate three lanes and an added weave/merge lane, has the highest score. Among the interchange options, Option A, which would convert Wealthy Street to an underpass, receives the highest score. Therefore, Option 2A has the highest score among all the options. Option 2B has the highest score among options that would keep Wealthy Street as an overpass. Option 3A and Option 3B have slightly lower score compared to Options 2A and 2B, mainly due to increased construction costs. Adjustments of design elements and combinations may be revised based on travel, safety and access needs discovered during subsequent studies and elements. All evaluation criteria are equally weighted, and details of the second screening process and scoring results can be found in Appendix H.

Options	Safety	Traffic and Infrastructure	Multi-modal	Community	Public Input	Environmental	Capital Cost	Overall Results
Maintain Existing Freeway								
No Action	◔	◔	◑	◑	◔	●	●	◔
Option 1 – Three Lanes with Added Inside Shoulders								
Option 1A	◑	◑	●	◕	◕	◑	◕	◕
Option 1B	◑	◑	◕	◑	◑	◕	◕	◑
Option 2 – Three Lanes and Added Weave/Merge Lane								
Option 2A	●	◕	●	◕	●	◑	◕	●
Option 2B	●	◕	◕	◑	◕	◕	◕	◕
Option 3 – Three Lanes with a Continuous Local Access Lane								
Option 3A	◑	●	●	◕	●	◑	◑	●
Option 3B	◑	●	◕	◑	◕	◕	◑	◕

Addresses project needs the least ◔ ◑ ◕ ● *Addresses project needs the most*

TABLE 8-1. Second Screening Evaluation Results

9. PUBLIC AND STAKEHOLDER CONSULTATION

9.1 Program Purpose and Summary

Public and stakeholder engagement is a primary component in the PEL Study process. Community input informs the study's Purpose and Need and its strategic outcomes. The involvement of the public in the early stages of and throughout the project can reduce risks and challenges associated with the subsequent NEPA processes, optimizing the study outcomes to be more aligned with priorities of local communities.

The public was consulted at the beginning of and throughout the PEL Study process and public and stakeholder input directly informed the needs and strategic direction of the PEL study. Public and stakeholder consultation for the US-131 PEL study comprised of three phases. All three phases involved conducting surveys and presenting materials to the public and stakeholders, gathering information to develop design strategies and corridor options. Phase 1 engagement objectives were focused on developing community-informed study needs and options evaluation criteria. Phases 2 and 3 were targeted at developing and refining options to reflect Phase 1 public feedback on corridor study needs and the initial development of evaluation criteria.

Public input directly informed the PEL Study Purpose and Need. These needs were then used to design options aimed at addressing these study needs, and these options were again presented to the public for feedback and refinement of the options. For more information on engagement, refer to Appendix L, Appendix M and Appendix N.

9.2 Local Advisory Committee

The LAC are comprised of various governmental officials, interest groups, and business and community representatives. The LAC members attended the LAC meetings regularly throughout the study to share and gather information, review and comment on the PEL process, identify issues and assist with development and evaluation of options, and help provide guidance with stakeholder groups along the corridor. The LAC organizations are:

- City of Grand Rapids
- City of Wyoming
- Downtown Grand Rapids, Inc.
- FHWA
- Friends of GR Parks
- Grand Valley Metropolitan Council (GVMC)
- Grand Rapids Chamber of Commerce
- Kent County
- Kent County Road Commission
- South Division Grandville CIA
- The Rapid
- The Right Place

The study team hosted 11 LAC meetings throughout the PEL study and the meeting date and topics are shown in Table 9-1.

Meeting #	Time	Meeting Topics
1	October 2019	Introduction
2	December 2019	Revised Purpose and Need statement; develop evaluation criteria
3	February 2020	Final Purpose and Need document; draft Phase 1 engagement materials; draft engagement strategy
4	May 2020	Review existing conditions content; final engagement strategy
5	March 2021	Basis of design; Phase 1 engagement results
6a/6b	May/June 2021	Draft options components
7	November 2021	Initial options/pre-screen results; combined options and first screening plan; review Phase 2 engagement plan
8	May 2022	Phase 2 results; first screening update
9	March/April 2023	First screening results; Phase 3 engagement plan
10	June 2023	Refined options; Phase 3 engagement materials
11	February 2024	Phase 3 engagement results; acceptable options; future timeline; draft PEL report

TABLE 9-1. LAC Meeting Summary

9.3 Phase 1 (December 2020 - February 2021)

This first phase of engagement aimed to educate the public about the PEL Study and MDOT's current understanding of issues, gather direct insight from the public about their experiences in the Study Area, and collect feedback from the public on the draft Purpose and Need statement. The public was invited to participate in an online survey (available in English, Spanish and ADA-compliant format) from Dec. 9, 2020 through Feb. 8, 2021. There were a total of 2,104 survey submissions.

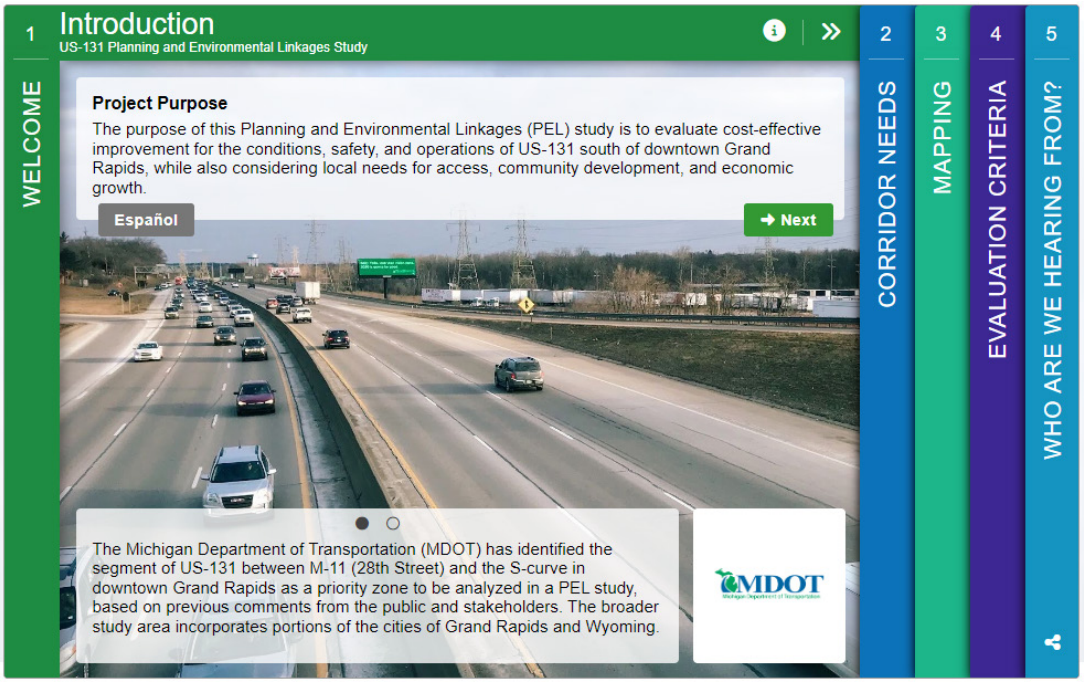


FIGURE 9-1. MetroQuest Survey

The survey participants came from the west Michigan region, primarily from adjacent communities of the Study Area such as Grand Rapids, Wyoming, Kentwood and Byron Center. Safety, congestion and infrastructure conditions are the top voted criteria and needs from the public responses. Results of the mapping exercise also showed that many concerns and issues focused on the interchange areas, especially the Wealthy Street interchange.

9.4 Phase 2 (February 2022 - April 2022)

Public Meeting and Online Survey

During Phase 2 engagement, an online survey (available in English, Spanish and ADA-compliant format) was open from February through April to gather public input on the corridor design strategies. A total of 3,775 survey responses were received.

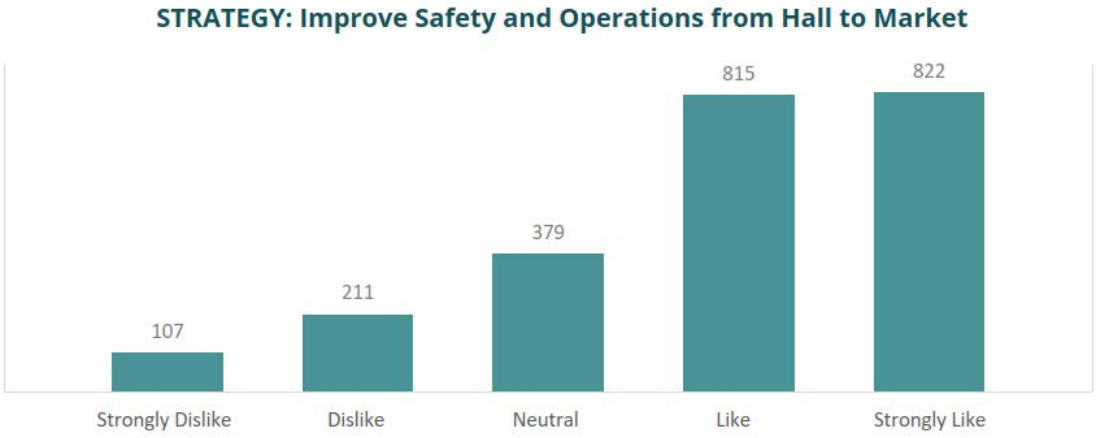


Figure 9-2. Ratings of the Overall Design Strategy

Phase 2 public feedback shows mostly positive ratings on the design strategies such as adding lanes, shoulders, and enhancing local street connections, as well as the overall strategy to improve safety and operations from Hall Street to Market Avenue. The public expressed concerns regarding long-term traffic congestion, pedestrian safety and truck movement. The public also reviewed and rated the four initial options in the survey. Option 1 and Option 2 received the most ratings of “like” and “strongly like.”

MDOT hosted two one-hour virtual public meetings via Zoom with a Spanish interpretation channel option available. More than 40 participants attended across two meetings, which featured brief presentations followed by a Q&A opportunity. Key themes of feedback involved questions about timing of projects, expressions of need to fix aging infrastructure and poorly operating interchanges.

Targeted Stakeholder Outreach

MDOT also conducted targeted outreach with local neighborhood and business organizations within the Study Area both in-person and virtually. Primary issues raised during these meetings were: preserving and adding quality crossings across US-131 with a general preference for Wealthy Street as an underpass; limiting truck traffic through adjacent neighborhoods; upgrading the aesthetics and improving the function of US-131 and its interchanges; improving education on safe driving and maintaining emergency access.

Specific meetings and connections were held with the following groups:

- March 8, 2022 - South Division Grandville CIA Design Team Meeting (virtual)
- March 10, 2022 - South Division Grandville CIA Board Meeting
- March 14, 2022 - West Michigan Sustainable Business Forum
- March 22, 2022 - Roosevelt Park Neighborhood Association Board Meeting (virtual)
- March 24, 2022 - City of Grand Rapids Engagement Team
- April 12, 2022 - South Division Grandville CIA Design Team Meeting (virtual)
- April 21, 2022 - West Michigan Sustainable Business Forum follow-up
- May 5, 2022 - St. Mary's and Mary Free Bed
- May 11, 2022 - First Responders (City and State Police, City Fire)
- May 17, 2022 - Heartside Neighborhood Potluck

9.5 Phase 3 (October 2023 - February 2024

Public Meeting and Online Survey

Phase 3 engagement included a survey (in English, Spanish, Swahili and ADA assistance) open from October 2023 to January 2024, which was available both online and in paper format. The survey focused on assessing public opinion on elements of the refined options, specifically preferences regarding the design of the Wealthy Street interchange, the potential closure of the Martin Luther King Jr. Street (Franklin Street) interchange, and the consideration to add lanes on the freeway. A total of 2,613 individual survey responses were received. More than half of participants preferred Wealthy Street as an underpass and closing of Martin Luther King Jr. Street (Franklin Street) interchange, while there are mixed opinions on adding lanes and shoulders. More than 80 percent of participants agreed that the study addressed some or most of their needs.

Two in-person public meetings were held on November 8 and 9, 2023, in the Study Area to inform the ongoing study and seek input on the remaining options. The public engagement materials, including the paper version of the online survey, were provided in English, Spanish and Swahili for participants to learn about the corridor history and the refined options. A Spanish translator was present at both meetings. More frequent topics include thoughts on turning US-131 freeway into a boulevard and concerns over removing Martin Luther King Jr. Street (Franklin Street) interchange. There were also overall preferences for the design of the Wealthy Street underpass.

Phase 3 public meeting on Nov. 9, 2023

Targeted Stakeholder Outreach

During Phase 3 engagement, MDOT conducted targeted outreach with local neighborhood and business organizations within the Study Area. These meetings were focused on the specific design options and how they would impact or benefit communities, businesses and emergency services. These meetings were held in person from November 2023 to February 2024 and were primarily used as an opportunity to encourage local participation in the survey as well as to discuss any localized issues in and around the US-131 corridor. Additional topics brought up include emergency vehicle operations, need for green space, potential connections across the freeway, truck circulation, and local street designs and operational issues, such as Division Avenue and Market Avenue road diets.

Specific meetings and connections were held with the following groups:

- November 28, 2023 – Police and Fire Department (Martin Luther King Jr. Street (Franklin Street))
- December 7, 2023 – Seeds of Promise
- December 14, 2023 – South Division-Grandville Corridor Improvement Authority
- December 14, 2023 – Heartside Downtown Neighborhood Association
- February 9, 2024 – Freight Logistics

MDOT also participated in the following events to gather community input and answer questions on the study:

- January 11, 2024 – Garfield Park Neighborhood Association (City of Grand Rapids Community Master Plan Open House)
- January 26, 2024 – Black Voices in the City (City of Grand Rapids Community Master Plan Event)

10. CONCLUSION

10.1 Acceptable Options

The US-131 PEL Study has investigated the needs and opportunities for enhancing one of the most highly-utilized transportation assets in west Michigan, which is located in a complex urban setting. The results of this study identify a set of acceptable options for further study and development that include the addition of shoulders and lane capacity as well as the reconfiguration of interchanges. Together, these improvements offer the opportunity to significantly improve the safety and efficiency of the US-131 freeway, while also providing improved connectivity and limiting impacts to the surrounding area. Adjustments of design elements and combinations may be revised based on travel, safety and access needs discovered during subsequent studies, elements.

Acceptable Options	Description
No-Build	Maintain existing freeway
Option 1A	Three lanes with added inside shoulders; convert Wealthy Street to an underpass; close ramp access at Martin Luther King Jr. Street (Franklin Street) except southbound on ramp; remove the southbound Burton Street off ramp to Century Avenue
Option 1B	Three lanes with added inside shoulders; keep Wealthy Street as an overpass; close ramp access at Martin Luther King Jr. Street (Franklin Street); convert the Burton Street interchange to a diamond configuration
Option 2A	Three lanes with weave./merge lanes; Convert Wealthy Street to an underpass; close ramp access at Martin Luther King Jr. Street (Franklin Street) except the southbound on ramp; remove the southbound Burton off-ramp to Century Street
Option 2B	Three lanes with weave./merge lanes; keep Wealthy Street as an overpass; close ramp access at Martin Luther King Jr. Street (Franklin Street); convert the Burton Street interchange to a diamond configuration
Option 3A	Three lanes with local access lane; convert Wealthy Street to an underpass; Close ramp access at Martin Luther King Jr. Street (Franklin Street) except southbound on ramp; remove the southbound Burton off-ramp to Century Street
Option 3B	Three lanes with local access lane; keep Wealthy Street to an overpass; close ramp access at Martin Luther King Jr. Street (Franklin Street); convert Burton Street interchange to a diamond configuration

TABLE 10-1. Acceptable Options

MDOT and its project partners will need to conduct additional work over a number of years to advance this project, including environmental studies, design studies, the assembly of funding and construction. Throughout, MDOT will need to coordinate with stakeholders and the public to examine issues and understand ways in which to better integrate the project within its surrounding context. This section provides additional details on issues that will need to be further investigated during future phases, interim treatments that could be advanced in the near term but that would not preclude the larger vision, and a potential implementation timeline.

10.2 Environmental Scoping Review

MDOT's Environmental Services Section was engaged in this project and assisted in the identification of potential environmental impacts in the Study Area. Summarized below are the results of an environmental scoping review which includes the review of 22 areas and resources for potential impacts. This is intended to inform next steps and identify needs which will inform a more detailed analysis in NEPA process. For complete environmental scoping review, refer to Appendix O.

Environmental Resource	Scoping Result
Agriculture	No anticipated concerns.
NPDES	No anticipated concerns.
Coastal Zone	No anticipated concerns.
Wetlands	Potential concerns: There are likely wetlands adjacent to the Study Corridor. A wetland delineation will be necessary to establish boundaries and determine the extent of the impact for design purposes. If work takes place within a wetland, an Environment, Great Lakes and Energy (EGLE) Part 303 permit will be required.
Streams and Rivers	Potential concerns: The Study Corridor intersects with Plaster Creek. If work below the ordinary high water mark (OHWM) of Plaster Creek is necessary, the Michigan Department of Natural Resources (DNR) is likely to impose work restriction dates to protect fish spawning windows. Should any work occur within the stream, an EGLE Part 301 permit will be necessary.
Floodplains	Potential concerns: If cut or fill is required within the Plaster Creek floodplain, an EGLE Part 31 permit will be necessary. A hydraulic analysis may be necessary to understand the potential impacts if the bridge over Plaster Creek is removed and rebuilt. Any selected option is not anticipated to change to the natural and beneficial floodplain values, flood risk or damage, and will not have the potential to interrupt or terminate a sole emergency route.
Migratory Birds	Potential concerns: Birds like swallows and phoebes often nest on bridges, and the bridge crossing Plaster Creek could be used by these species of birds. From April 15 to Aug. 15, if bridge work is confined to the deck without disturbing nesting areas, no special actions are needed. Inspections must check for nesting activity in earthen banks. If burrows without eggs or chicks are found, the banks should be graded or covered to prevent entry.
Air Quality	Potential concerns: The Study Area is currently in a Maintenance Area for the 1997 8-Hour Ozone standard. As the preferred option is selected and developed, it will be included in the MDOT State Transportation Improvement Program. Exposure to diesel exhaust by construction workers and nearby individuals can have serious health implications. MDOT's Standard Specifications for Construction, Sections 107.15(A) and 107.19, apply to controlling fugitive dust during construction and cleaning haul roads. Additionally, all MDOT vehicles and equipment must comply with MDOT Guidance #10179 (Feb. 15, 2009) regarding vehicle and equipment engine idling.
Bridge Painting	Potential concerns: The bridge over Plaster Creek was built in 1958, which could be of concern for lead paint. Further evaluation will be necessary to rule out concerns of encountering lead paint during construction activities.
Endangered Species	Potential concerns: A U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) screening for the Study Corridor revealed seven federally listed species that are potentially within the area. Four of them might require additional survey. Additionally, the Michigan Natural Features Inventory (MNFI) database was screened to assess potential effects on five state-listed animal and plant species within a 2-mile radius of the Study Area. Three of them might require further field survey.

Environmental Resource	Scoping Result
Contamination	Potential concerns: Three parcels adjacent to US-131 within the Study Corridor are of greatest concern for potential contamination impacts. Nine Part 201 Environmental Contamination sites within 500 feet of the Study Corridor may be acquired. Ten underground storage tanks (UST) sites within 500 feet may be acquired. Additionally, 435 Ionia Ave. SW in Grand Rapids is a completed Brownfield redevelopment site. A more in-depth project area contamination survey (PACS) will be necessary once the right of way needs are further refined.
Water Quality	Potential concerns: Plaster Creek and nearby wetlands have the potential for stormwater runoff impacts if construction and post-construction best management practices (BMPs) are not appropriately implemented. Moreover, the Study Area is subject to the Plaster Creek total maximum daily load (TMDL) for Biota. TMDLs are required by the Clean Water Act for waterbodies that do not meet water quality standards.
Historic	Potential concerns: There are eight NRHP-listed locations within the Study Area and two city-identified historic landmarks within the Study Area. One district and one site with multiple buildings, the Heartside Historic District and Metal Office Furniture Building, are located adjacent to US-131 and have the potential for right of way needs. The purchase of right of way from these historic properties could require a lengthy process to comply with both the Section 106 and Section 4(f) laws. A thorough investigation and survey to determine all eligible historic properties will be conducted as part of the NEPA review process and coordination with the Michigan State Historic Preservation Office (SHPO) will occur, as necessary.
Archaeology	Potential concerns: A total of 16 archaeological sites are recorded within 1 mile of the proposed project area. No deep testing is expected to be required and any potential sites within the proposed project area are expected to be on or near the ground surface. A Phase I archaeological survey may be required in coordination with the SHPO and tribal nations.
Section 4(f)/6(f) Properties	Potential concerns: The Study Area intersects several Section 4(f) resources, including six public schools, 12 public parks, and one designated trail. The Study Corridor is directly adjacent only to Heartside Park. It is likely that right of way acquisition will occur at this property, resulting in a Section 4(f) impact.
Social	Potential concerns: Acquisition of right of way is not expected to raise public controversy and relocations or total takes are not anticipated at this stage of planning. However, if through design it becomes necessary to acquire more than two residential units, or displace one or more businesses, coordination with FHWA will be necessary.
Detour	Potential concerns: A detour will likely be needed during construction. Dates and routes of anticipated detours will be provided to all necessary parties. If the detour will last longer than a construction season or if community concerns arise, continued public outreach will be required, beginning with a public information meeting.
Controversy	Potential concerns: Opportunities for the public engagement will continue throughout the option selection process, NEPA process and project design. Should controversy arise as project development continues, further opportunities, beginning with a public meeting, will be offered.
Community Profile	Potential concerns: Census tracts in the Study Area include a higher concentration of historically underserved communities compared to the Kent County average. Unintended negative impacts should be avoided from proposed US-131 improvements on these communities.
Noise	Potential concerns: A final determination on whether a noise analysis will be necessary will occur once an option, or collection of options, is selected.
Tree Removals	Potential concerns: Tree removals will likely be necessary to construct any of the options throughout the Study Corridor. These removals must comply with mitigation measures for protecting endangered bats, which typically prohibit cutting trees greater than 3 inches in diameter at breast height (DBH) during the active season between April 15 and Sept. 30.
Indirect and Cumulative Impacts	No anticipated concerns.

TABLE 10-2. Environmental Scoping Results

10.3 Design Issues to be Addressed

During the PEL Study, some key design issues were raised and identified. These issues are likely to be investigated by MDOT and the City of Grand Rapids during preliminary engineering and environmental studies that will happen as a subsequent step to this PEL. The table below provides an overview of these design issues.

Topic	Key Issue
Wealthy Street Underpass Design	The creation of a Wealthy Street underpass, a major reconfiguration option that potentially offers significant connectivity benefits, also poses some potential challenges. Specifically, the creation of multiple new intersections in the downtown and Heartside areas could have impacts on traffic circulation in an area that already has challenges (especially during special events). Additionally, the proximity of Rapid Central Station to a potential Wealthy Street underpass would require additional study to determine what accompanying changes may be needed to ensure convenient, uninterrupted access to this critical mobility facility. Other infrastructure coordination activities, such as water and sewer, would also need to be explored and addressed.
Truck Traffic	US-131 plays a critical role in the local economy, facilitating access for trucking regionally but also locally as there are a cluster of manufacturing and logistics companies located directly near the freeway. At the same time, trucks are a significant concern for neighborhood residents within the city of Grand Rapids, who are seeking to limit how these large vehicles circulate through residential and commercial zones. The future options for US-131 seek to help support a network that provides convenient truck access along the freeway and to truck-reliant businesses, but also potentially limit the attractiveness of other routes (e.g., Martin Luther King Jr. Street (Franklin Street), Cesar E. Chavez Avenue (Grandville Avenue)) where the city is seeking to have less trucks in the neighborhoods. Additional coordination between MDOT and the City of Grand Rapids will be needed around this topic and the best ways to reinforce the local truck network around US-131 in the Study Area.
Closely Spaced Ramps	The number, location and spacing of ramps, especially between Hall Street and Cherry Street, presents safety and traffic flow challenges. The ramps also provide access to the neighborhoods and businesses in the Study Area. Subsequent study and engineering will evaluate ramp locations and spacing, balanced with access needs. Some of these changes may require modifications to adjacent city streets to accommodate traffic flow changes.

TABLE 10-3. Design Issues to be Addressed

10.4 Interim Treatments

The Corridor enhancements recommended for further consideration by the PEL study may take a number of years to be completed and are unlikely to happen as a single, large-scale project. In addition, the condition of key assets (e.g., bridges) along the Study Corridor may necessitate small-scale rehabilitation or replacement projects. As needs or opportunities arise, MDOT will seek to make enhancements that can help prepare the corridor to meet the goals of this study, or that don't preclude the implementation of the recommended options.

To further illustrate this, at the conclusion of the PEL Study, the study team investigated a number of potential interim treatments that could be considered by MDOT. These are summarized below but presented in more detail in Appendix P.

The potential interim concepts for US-131 interchanges include closing or replacing ramps at Burton Street, lane extension or addition at Hall Street, short-term closing of ramps while maintaining emergency access at (e.g., Martin Luther King Jr. Street (Franklin Street), and modifying or limiting ramp access at Wealthy Street and Cherry Street.

The Study team also identified interim treatment opportunities for local roads, which include extension of Kirtland Street, revised northbound US-131 access to or from Hynes Avenue, Complete Street improvements to Buchanan Avenue, raising the freeway to allow for new connection along Graham Street, building a new pedestrian crossing under the bridge between Century Avenue and Pleasant Street, added connection at Logan Street/Buckley Street area, and reconfiguring the Ellsworth Avenue/Cesar E. Chavez Avenue (Grandville Avenue) intersection.

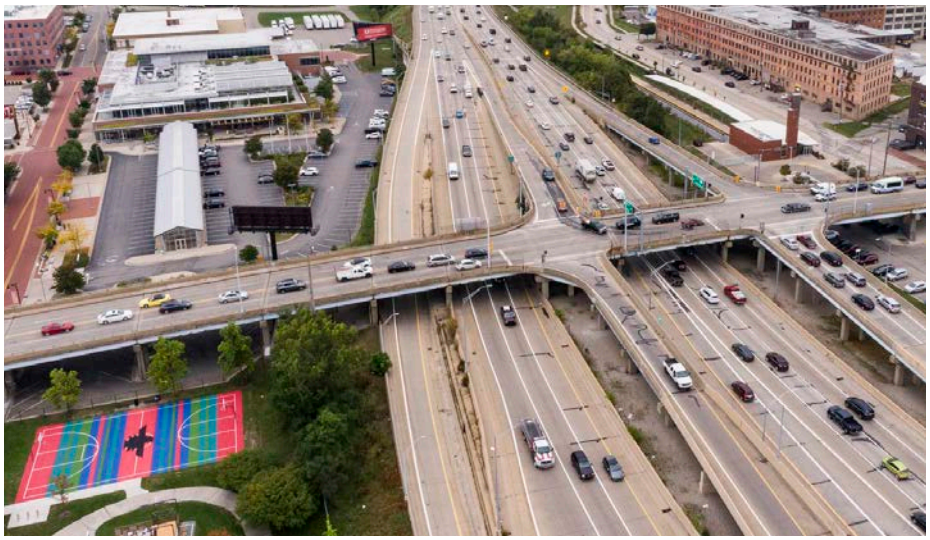
In addition, to improve traffic conditions, the Study team considered other potential traffic improvements, including installing intelligent transportation systems (ITS) solutions to manage traffic, adding alternative modes of transportation such as bus routes, and implementing event management to improve access to the corridor during large events.

10.5 Next Steps

After conclusion of the PEL Study, MDOT will continue working with its project partners to advance improvements to the Study Corridor and achievement of the larger vision. While construction of the project is unfunded, MDOT anticipates the following next steps to include:

- Further design, safety analysis and traffic studies related to the reconfiguration of the Wealthy interchange area and corridor (as part of the NEPA process);
- Identification of funding resources to advance the preferred corridor alternative and Wealthy Street improvements;
- Selection of a preferred corridor alternative and related environmental review and clearance, either for all or a portion of the Study Corridor;
- Final design of the preferred corridor alternative;
- Construction of the preferred corridor alternative; and
- Additional environmental and cultural impact assessment.

Additional studies for the Wealthy Street interchange area (as described in the preceding first bullet) are intended to begin in 2025. There is not a defined timeline for the additional steps at this time. **Throughout each of the aforementioned steps, MDOT would conduct detailed and in-depth public and stakeholder engagement to keep the public aware of and involved in the decision-making process.**



US-131/Wealthy Street Interchange

If you require assistance accessing this information or require it in an alternative format, contact the Michigan Department of Transportation's (MDOT) Americans with Disabilities Act (ADA) coordinator at Michigan.gov/MDOT-ADA.