US-31/M-37 (Division Street)

Planning And Environmental Linkages (PEL) Process

FINAL REPORT

Executive Summary March 2016

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Michigan Department of Transportation

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Executive Summary

Planning and Environmental Linkages (PEL) Process

The Federal Highway Administration's (FHWA) PEL process was followed to ensure planning and environmental factors were considered throughout the study to carry forward into a National Environmental Policy Act (NEPA) analysis, if deemed necessary. The PEL process also promotes a partnership with the key stakeholders within the study area leading to an improved and balanced planning and decision-making process. The limits of the PEL study included US-31/M-37 (Division Street) in Traverse City, Michigan between 14th Street/Silver Lake Road and Grandview Parkway; which is illustrated in **Figure ES-1**.

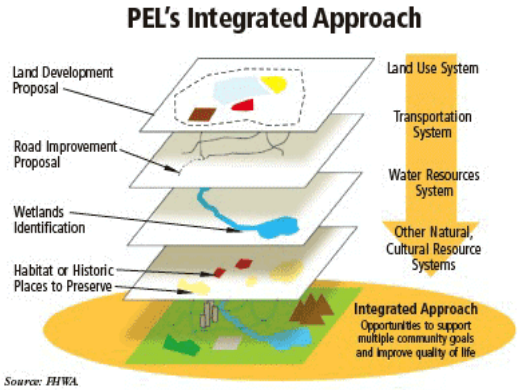


Figure ES-1 Project Study Area

Background

The US-31/M-37 (Division Street) PEL was funded by the Michigan Legislature's Roads and Risk Reserve Fund. This PEL process was on the Michigan Department of Transportation's (MDOT) suggested project list that the Legislature reviewed in choosing projects. MDOT is the sponsor of the Division Street PEL project which began September 2014. An Administrative Team was formed to help steer the project which included: MDOT, City of Traverse City, and consultant CDM Smith. A Local Advisory Committee (LAC) was also formed to provide meaningful interaction and guidance throughout the study with stakeholder groups along the corridor. The LAC members included representatives from the City of Traverse City, Garfield Township, Grand Traverse County, local school system, neighborhood associations, law enforcement agencies, Munson Healthcare, the Village at Grand Traverse Commons, parks and recreation committees, and the local environmental organization. A list of all individuals on the Administrative Team and LAC can be found in **Appendix A** of the final report.

Transportation Facility and Project Limits

US-31/M-37 (Division Street) is a north-south highway located on the west side of Traverse City and is the main entrance into the city from the south. It is a Statewide Corridor of Highest Significance which means it serves a large segment of travel needs; connects urban areas and key activity centers; provides value to economic health and competitiveness; and moves goods, food, and products. It is classified as an urban principal arterial and is listed on both the National Highway System (NHS) and National Truck Network (NTN) due to its regional and statewide importance. The existing speed limit along the corridor ranges from 40 mph between Fourteenth Street/Silver Lake Road and Eighth Street, and 30 mph between Eighth Street and Grandview Parkway.

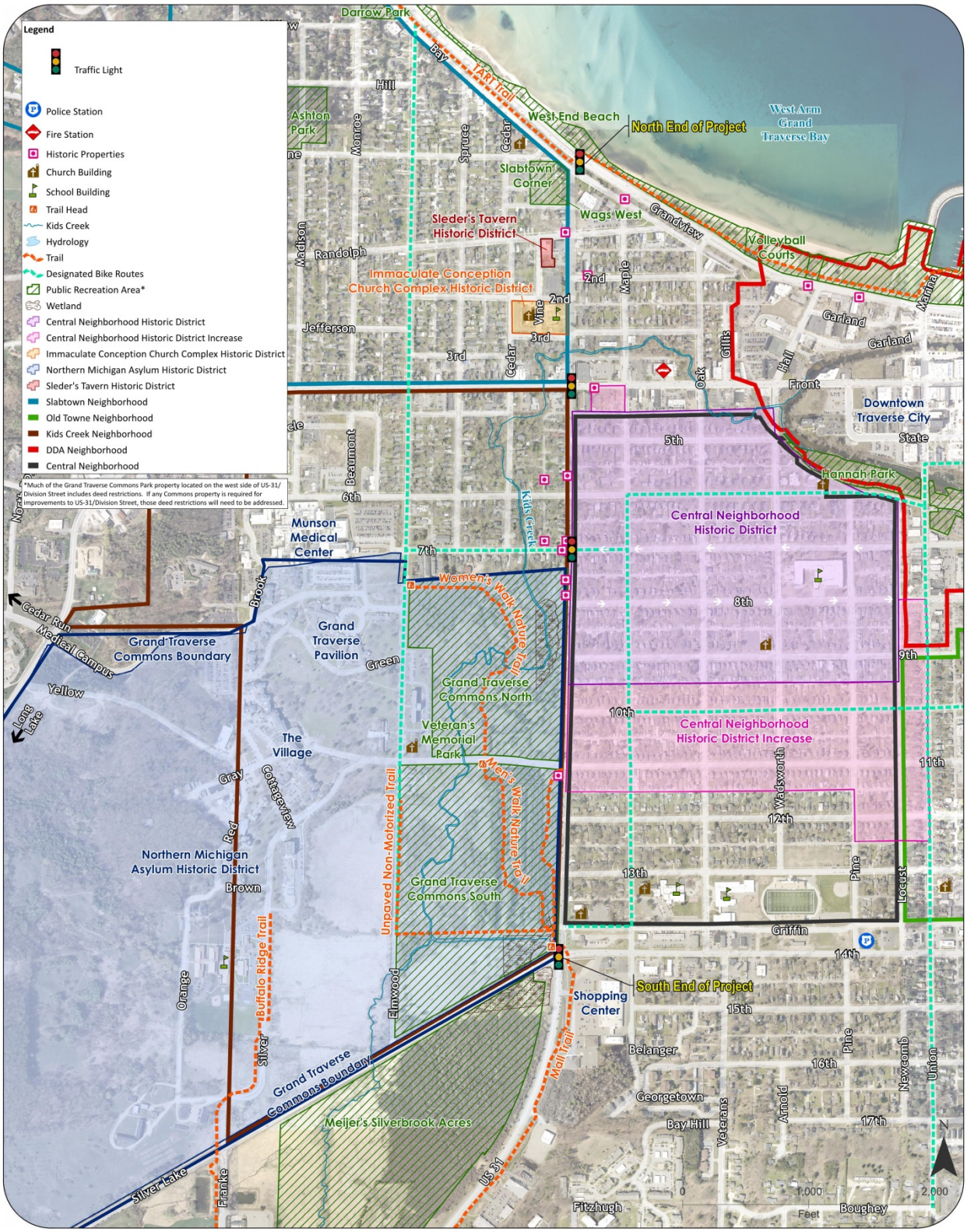
Intermittent Sidewalk near Fourteenth Street

Division Street varies from four to five 11-foot-wide lanes (two travel lanes in each direction with a center left-turn lane at Fourteenth Street, Front Street and Grandview Parkway) with curb and gutter. There is sidewalk/pathway located on the west side of Division Street from Fourteenth Street north to Grandview Parkway. The east side of Division Street has intermittent sidewalk from Fourteenth Street to Front Street, and then continuous sidewalk from Front Street north to Grandview Parkway. Within the project length of 1.2 miles there are 15 side streets and 13 alleyways that intersect Division Street, providing a traditional transportation grid system and property access along the corridor.

Land Uses, Characteristics, and Surrounding Environment

The project corridor has two distinct segments, each with different characteristics. From Fourteenth Street/Silver Lake Road to Seventh Street the roadway is lined by historic homes (Central Neighborhood) to the east, and historic parklands (Grand Traverse Commons) to the west. It is a significant change from the land uses south of Fourteenth Street/Silver Lake Road which are primarily large commercial retail stores, car dealerships, restaurants, and department stores. Between Seventh Street and Front Street, Division Street transitions into a residential area on both sides of the street, and then a business district from Front Street north to Grandview Parkway. Downtown Traverse City is located approximately five blocks to the east of Division Street on Front Street. **Figure ES-2** shows the Project Constraints for the project area.

Figure ES-2 Project Constraints Map – Existing Conditions



Significant corridor features include the Village at Grand Traverse Commons and Munson Healthcare campus, a 391-bed hospital serving the Northern Michigan region. Both are located west of Division Street between Fourteenth and Sixth streets and generate significant traffic from visitors, customers, employees, residents, and patients. The Village at Grand Traverse Commons is one of the largest, historic preservation and adaptive reuse redevelopments in the country. The Village includes a vast array of eclectic shops, unique eateries, and professional services surrounded by pedestrian friendly walkways and expansive lawns, and historic arboretum.

The Village at Grand Traverse Commons

Munson Medical Center

Grand Traverse Commons is a park owned by the City of Traverse City between Fourteenth Street/Silver Lake Road and Eighth Street on the west side of Division Street. The Grand Traverse Commons/Village at Grand Traverse was formerly owned by the State of Michigan and was part of the Traverse City State Hospital complex (historically called the Northern Michigan Asylum).

There are three established neighborhoods located along the corridor; Central Neighborhood, Kids Creek Neighborhood, and Slabtown neighborhood.

Historic Property

There are four historic districts along the corridor:

- Central Neighborhood Historic District
- Northern Michigan Asylum Historic District
- Immaculate Conception Church Complex Historic District
- Sleder's Tavern Historic District

Each historic district is made up of a unique combination of historic buildings, structures, objects, and sites. Additionally, there are individual historic properties located outside of the historic districts that are adjacent to the corridor. These districts and properties are shown in **Figure ES-2** Project Constraints Map.

Parks are located along the corridor in various locations and include: Meijer's Silverbrook Acres, Grand Traverse Commons, Slabtown Corner Parky, and West End Beach Park. The TART Trail (Traverse Area Recreational Trail) runs along Grandview Parkway and crosses the Parkway at the Division Street traffic signal. Located on the west side of the roadway is the Mall Trail pathway which runs along the project corridor from Fourteenth Street/Silver Lake Road north to Eleventh Street.

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Mall Trail Pathway

Parks are located along the corridor in various locations and include: Meijer's Silverbrook Acres, Grand Traverse Commons, Slabtown Corner Parky, and West End Beach Park. The TART Trail (Traverse Area Recreational Trail) runs along Grandview Parkway and crosses the Parkway at the Division Street traffic signal. Located on the west side of the roadway is the Mall Trail pathway which runs along the project corridor from Fourteenth Street/Silver Lake Road north to Eleventh Street.

Corridor Issues/Problem Statement

Division Street is a U.S. route (US-31), a Michigan State route (M-37), a residential street, and it serves as a travel route for all types of traffic: to and from work, shopping, and schools; commercial vehicles; tourist trips to Traverse City, the Leelanau and Old Mission peninsulas; trips to the Villages at Grand Traverse Commons and to Munson Medical campus; and trips to the retail and services areas south of Fourteenth Street. As a result the traffic along US-31/M-37 (Division Street) is quite heavy and congested for a good portion of the day with peaks of commuter and school traffic. Festivals and special events increase traffic congestion even further. Due to the amount of traffic on Division Street and the fact that there are no turn lanes or signals at some of the busiest intersections within the study area, Division Street has become a difficult road to navigate for both motorized and non-motorized users. One of the biggest issues is northbound left-turning traffic at Eleventh, Sixth, and Randolph Streets and southbound turns to Twelfth and Eighth Streets. Left-turning vehicles stop in the left travel lane, which reduces the highway to a one-lane road and can lead to frequent crashes. Eleventh Street is one of three major entrances to the Grand Traverse Commons area.

Another issue along the corridor is the intersection at Seventh Street. Northbound left-turns are not permitted at this signalized intersection but instead occur at unsignalized Sixth Street, which is one of the entrance streets to Munson Medical facilities. The Seventh Street intersection also has an eastbound travel issue due to Seventh Street being one-way westbound to Division Street. Traffic heading east must turn right onto south Division Street and then left onto eastbound Eighth Street which is one-way east. This results in a traffic weave since traffic cannot go straight through on Seventh Street. A similar weave occurs for eastbound Eleventh Street down to Twelfth Street via southbound Division Street since it is an unsignalized intersection and hard to go straight through.

Truck on Division Street at Grandview Parkway

As stated earlier Division Street is an important truck corridor for both the region and state. Many of the trucks are food service related trucks transporting cherries, apples and other locally grown products from growers to processing plants located in Grand Traverse, Leelanau, and Antrim Counties. Other large trucks also routinely travel the corridor including large trucks and semi-trucks hauling asphalt, concrete, crane and rigging, excavation, construction equipment and materials, petroleum, goods, and products.

As mentioned, pedestrians are also affected by the excessive traffic on Division Street. Residents from the adjoining neighborhoods find it quite difficult to cross Division Street even at signalized intersections due to turning traffic. Safety is a big concern for residents as traffic congestion creates a barrier to pedestrians wanting to cross the street. A significant amount of pedestrian activity in the summer season occurs near Grand Traverse Bay and Grandview Parkway. As a result the intersection at Division Street is very challenging for pedestrians crossing the Parkway accessing the West End Beach area. The TART Trail also crosses the road at this location, which adds to the motorized concerns over safety.

Pedestrian Crossing Grandview Parkway at Division Street

Previous Projects and Studies

Fourteen previous studies have been completed that either looked at this stretch of Division Street or included a portion of this project area. The most relevant study was the Division Design Initiative/Division Street Steering Committee Recommendations completed in 2011 which can be found in **Appendix M** of the final report. The 2011 initiative involved many of the same stakeholders that participated in the current PEL study.

Methodology Used

In 2011 a series of recommendations were developed as a result of the "Division Design Initiative" that attempted to address the issues along the corridor related to traffic congestion, safety, and pedestrian mobility. A key challenge for many projects is reaching local consensus in order for projects to move forward into environmental clearance, design and ultimately funding and construction. MDOT determined that the best way to develop consensus for a Division Street preferred alternative was to utilize FHWA's PEL process which emphasizes stakeholder and public engagement during the alternatives development and decision making process and also considering potential environmental impacts.

The scope of work for this PEL included documentation of the PEL process which was updated throughout the study and includes:

- Summarize the environmental analysis and potential impacts completed thus far for use when funding is secured and NEPA classification is pursued
- Engage and solicit input from stakeholders and members of the public, including the City of Traverse City
- Develop and refine a Purpose and Need Statement
- Develop a Preferred Alternative for use in securing funding and considering future phasing
- Document how the preferred alternative solves existing traffic congestion and crash issues

Agency Coordination

Due to the large number of historic resources along the corridor, specific coordination with the SHPO was required. A specific concern was the potential width of the proposed median under consideration south of Eighth Street. Other discussion points included potential traffic impacts to historic Central Neighborhood and specific properties adjacent to the roadway.

Administrative Team Meetings

The US-31/M-37 (Division Street) PEL Administrative Team had representatives from the Michigan Department of Transportation, City of Traverse City, and CDM Smith. This team was responsible for guiding the project team with key decisions and deliverables. Information and data was presented to the Administrative Team prior to the Local Advisory Committee and the public for review and comment. A full list of administrative team members can be found in the final report along with a summary of the seven project meetings held during the project.

Public Coordination

The Division Street PEL Administrative Team coordinated with the public and stakeholders throughout the entire process. Six Local Advisory Committee (LAC) meetings and four public input sessions were held in addition to specific meetings with Munson Healthcare and the City Commission.

The Division Street PEL Administrative Team worked with representatives of the LAC in order to obtain advisory input regarding direction and decisions made throughout the project. The LAC was an integral element of this study as progression of the project was dependent upon engaging members and gathering important feedback. A list of LAC member organizations is shown below in **Table ES-1**. LAC members were also kept up to date through emails and postings to the project webpage.

Table ES-1 Local Advisory Committee Organizations

Traverse City	**Garfield Township**
Traverse City Commission	Garfield Township Recreation Authority
Traverse City Parks and Recreation	**Schools**
Traverse City Historical Commission	Traverse City Area Public Schools
Traverse City Planning Commission	Trinity Lutheran School
Traverse City Police Department	Immaculate Conception School
Traverse City Fire Department	**Neighborhood Associations**
Traverse City Assistant Manager	Central Neighborhood
Joint Planning Commission - City/Township	Slabtown Neighborhood
Grand Traverse County	Kids Creek Commons
Grand Traverse County Road Commission	**Economic Development**
Grand Traverse Pavilions	Munson Healthcare
Grand Traverse County Sheriff's Office	Traverse City Area Chamber of Commerce
Grand Traverse County Planner	The Village at Grand Traverse Commons
Grand Traverse County Commissioner	TC Tourism
Environmental	**Transportation Agencies**
Watershed Center Grand Traverse Bay	BATA
Grand Traverse Band of Ottawa and Chippewa Indians	TART Trails
	TC TALUS
Land and Roads Management Director	Disability Network

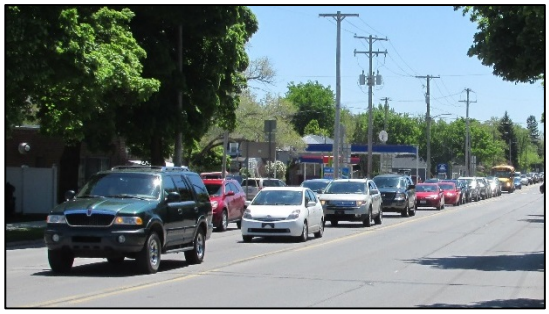
Public Input Sessions

Four public meetings were held during the US-31/M-37 (Division Street) PEL process. Each session was held to share information such as a project description, data collected to date, alternatives development, and, most importantly, to solicit feedback from the public as to what they see as problems in the study area and to get suggestions as to how those problems would be addressed. For each meeting postcards were sent to every address within three blocks of Division Street between Fourteenth Street/Silver Lake Road and Grandview Parkway (approximately 1,000). Meeting notices were posted to MDOT's website and distributed to local media outlets. All of the public input sessions were "open house" style events

with the exception of Public Input Session 4. At this session three 15-minute presentations were made at the top of each hour to present the material shown in the room.

Purpose and Need Statement

The draft Purpose and Need was developed with input provided by the Administrative Team, the Local Advisory Committee, and the public. FHWA then provided review and comments prior to the commencement of the alternatives development process. The draft Purpose and Need provided the criteria such as safety and traffic operations as well as non-motorized mobility within the corridor to screen alternatives. The Purpose and Need was refined a number of times based on comments received from the LAC and public outreach.



Congestion on Northbound Division Street

Purpose:

The purpose of the US-31/M-37 (Division Street) Planning and Environmental Linkages (PEL) is to improve safety and operations for all users of this designated National Highway System route while minimizing negative impacts to the natural environment and adjoining properties and enhancing positive benefits to the neighborhoods, parks, businesses, and all users of the corridor.

This Planning and Environmental Linkages process addresses Division Street between Fourteenth Street/Silver Lake Road and Grandview Parkway and will:

- Create a plan that accommodates the many interests of its users (drivers, pedestrians, bicyclists, commuters, commercial traffic, trucks, businesses, residents)
- Provide improved operations along Division Street
- Provide for traffic calming, context sensitive solutions, and complete streets design elements where possible
- Improve non-motorized mobility within the corridor
- Minimize impacts on the natural environment

Pedestrian Crossing at Division and Grandview Parkway

Need:

- Improve opportunities for pedestrians, assisted device users, and bicyclists to cross Division Street
- Improve traffic mobility and operations
- Decrease crashes along the corridor

Traffic Analysis

MDOT provided traffic counts which were collected the week of June 16, 2013 (between Monday, June 17th and Wednesday, June 19th), and the week of September 15, 2013 (between Tuesday, September 17th and Wednesday, September 18th). Counts collected in June 2013 were available at all of the study intersections, while those collected in September 2013 were available only at Fourteenth Street/Silver

Lake Road and Eleventh Street. A comparison of June and September counts at those two intersections suggested that traffic along Division Street was generally higher in June than in September.

Additionally, based on coordination with the City staff and MDOT, the weekday mid-to-late June was believed to be an average representation of traffic conditions during the tourist season, while still not the absolute worst-case traffic levels. This was based on the understanding that traffic levels reach higher volumes during certain periods of the summer such as early July when the National Cherry Festival is taking place. Only a small spike in traffic levels occur during weekends in the tourist season, so Monday to Wednesday are appropriate days. The selected June counts are in line with the 30th highest hour traffic analysis approach.

Traffic analysis was performed using a combination of Synchro Delay Method and the Highway Capacity Manual (HCM) 2010 methodology. The Synchro Delay Method was used to estimate the average vehicle delay, while the HCM 2010 methodology was used to identify the corresponding LOS value. The intersections along the study corridor were evaluated during the weekday AM peak hour (the highest traffic hour between 7 a.m. and 9 a.m.), PM peak hour (the highest traffic hour between 4 p.m. and 6 p.m.), and off-peak hour (the highest traffic hour between 11 a.m. and 3 p.m.). Using the June 2013 counts and an average annual traffic growth rate of 0.5 percent as coordinated with MDOT and the City of Traffic City.

Road Safety Audit

The Road Safety Audit (RSA) was conducted June 1-2, 2015 per FHWA's guidelines. The purpose of the RSA was to take the information from the above data and conduct a formal, safety performance examination of Division Street with an independent team comprised of experts from various disciplines. These experts included both MDOT and local officials. During both office and field work the goal was to answer the following questions:

- What elements of the road may present a safety concern: to what extent, to which road users, and under what circumstances?
- What opportunities exist to eliminate or mitigate identified safety concerns?

Environmental Analysis

MDOT's Environmental Section completed an environmental scoping review analysis for the project corridor that preliminarily assessed potential impacts to environmental resources. At this stage of project development (PEL) the intent is to identify constraints that could have an effect on the alternative evaluation and selection process. With this understanding MDOT completed a wetland delineation (October 2014) and a survey of above-ground cultural resources (April 2015). Other resources were checked using GIS and known databases/information. The primary environmental resources/constraints within the study area are park properties and historic properties. The study area includes four parks, two trails, and is bounded by four historic districts. There are a total of 112 historic properties within and neighboring those districts and 51 of those properties are immediately adjacent to Division Street.

From a National Environmental Policy Act (NEPA) perspective the biggest issues moving forward from the PEL study are the potential impacts to historic resources and park property along the corridor. Specifically, the Northern Michigan Asylum Historic District/Grand Traverse Commons and the Central Neighborhood Historic District, located on opposite sides of US-31/M-37 (Division Street). Impacts to these properties will occur based upon the Preferred Alternative and will need further analysis during project NEPA clearance. Future NEPA considerations and coordination is outlined in **Section 12** of the final report by project intersection along Division Street. The segment option is also discussed for the portion of roadway being considered for a center median (between Fourteenth and Eighth streets).

Range of Alternatives

When developing alternatives as part of a PEL study, it is important to consider solutions or alternatives from prior studies. In addition, there needs to be an evaluation of the potential alternatives from a "blank slate" point of view to be certain other potential solutions are uncovered that may have been overlooked or not evaluated. Thus, the range of alternatives covers a wide scope and includes what has already been considered and new alternatives for consideration.

The initial development of potential alternatives improvements occurred at the Study Team brainstorming session held on January 9, 2015. To provide direction, the following items were discussed as screening criteria: Draft Purpose and Need statement, project constraints/potential fatal flaws (a defect in a scenario or alternative that makes implementation of such scenario or alternative impossible or highly undesirable), and summary of Public Input Sessions #1 and #2. The purpose of this session was to brainstorm ideas that could be viable alternatives and improvements worthy of moving into the conceptual alternative development process. Recommendations from the brainstorming session are listed in **Table ES-2** along with the determination whether or not to carry them forward for additional analysis.

Table ES-2 Brainstorming Session Recommendations

Alternative	Reason for Consideration	Determination and Reasons
Road Diet (three-lane roadway with bike lanes)	• Can be more efficient than four-lane roadways. • Increase pedestrian safety due to decreased roadway width. • Increase safety by separating left-turn lanes.	**Eliminated:** Traffic volumes are too high and Syncro analysis indicated road diet would result in traffic gridlock.
Boulevard with crossovers (Michigan lefts)	• Remove left turns while providing full access. • Provides refuge for pedestrians. • Aesthetically pleasing transition between east neighborhood and west parks. • Boulevard width allows for numerous aesthetic treatments (city entrance sign, trees, etc.) • Moves southbound traffic further from east side residences.	**Eliminated:** Even without truck loons at crossovers, a 64-foot boulevard width is necessary to accommodate delivery trucks. This would lead to excessive impacts to the Commons parks and historic properties.
Continuous median without crossovers (no Michigan lefts)	• Remove left turns. • Provides median refuge for pedestrians. • Aesthetically pleasing transition between east neighborhood and west parks.	**Carried Forward:** Depending on median width, right-of-way impacts may not be a fatal flaw and it still addresses the Draft Purpose and Need.

Alternative	Reason for Consideration	Determination and Reasons
Continuous Left-Turn Lane (5 lane alternative)	• Increase safety and operations by separating left turns from thru lanes.	**Eliminated:** Does not provide pedestrian refuge islands and has extensive impact to parks and historic properties.
Roundabouts at intersections	• Increase traffic safety and operations compared to signalized intersections for both motorized and non-motorized users. • Provides median refuge for pedestrians.	**Carried Forward:** Despite potential fatal flaws at Eleventh, Seventh, and Front Streets, appeared feasible at Fourteenth Street and Grandview Parkway.
Connect intermittent sidewalk along northbound Division Street	• Increase pedestrian mobility and safety.	**Carried Forward:** Appeared to be feasible despite some utility pole and tree barriers.

Another step while developing the range of alternatives was to evaluate prior studies. An important consideration during this process is to understand the scope and context of the prior studies in this corridor. For example, a past alternative or improvement may solve a traffic and safety issue but may or may not have considered environmental impacts and NEPA constraints in their evaluation. Overall, the range of alternatives must consider all constraints, impacts, and geometric standards as part of the evaluation. Recommendations from the prior studies not already identified during the brainstorming session are listed in **Table ES-3** along with the determination whether or not to carry forward for additional analysis.

Table ES-3 Additional Recommendations from Prior Studies

Alternative	Reason for Consideration	Determination and Reasons
Change character of Division Street to city street instead of thoroughfare.	• Division Street is a barrier between the east and west neighborhoods. • Slow traffic speed. • Increased safety for motorized and non-motorized users.	**Carried Forward with Caveat:** Character change and maintaining the operations on a NHS route must be balanced.
Create a transitional/gateway intersection at Fourteenth Street/Silver Lake Road.	• Alerts tourists that they have reached their destination. • Modify motorist roadway expectations from a suburban arterial to a city street.	**Carried Forward with Caveat:** Fourteenth Street/Silver Lake Road intersection modifications must be balanced with operations due to Division Street being a NHS route.
New 8 ½ Street Connection from Division Street to Elmwood Avenue.	• Create a more direct entrance into the hospital campus. • Remove hospital traffic from Sixth, Seventh, and Eleventh streets.	**Eliminated:** Due to potential high impacts to park, wetlands, and Kids Creek.

All the alternatives considered roadway improvements such as various cross sections, alignments, and intersection options. Non-motorized facility improvements were considered outside of the roadway but bike lanes were eliminated as an improvement due to the limited right-of-way and current parallel route along Maple Street. Transit considerations were not included since no problems or issues were brought up at the LAC or public levels. Other multimodal considerations were not included due to the nature and limited scope of the project, and based upon the review of the prior studies and master plans.

Conceptual Alternatives

The brainstorming and prior study alternatives and improvements that addressed the Purpose and Need were analyzed further as part of the Conceptual Alternative development process. To further focus the analysis a criteria matrix was developed to allow for easy review and evaluation of the alternatives by the LAC and public. Specific quantitative data such as construction cost and anticipated crash reductions were not used in the matrix as they were not viewed as being significant differentiators based on the comments received from the Administrative Team, LAC and public.

The following Conceptual Alternative scenarios were considered worthy of additional analysis. These are broken down by key intersection (Fourteenth Street, Eleventh Street, Seventh Street, Front Street, and Grandview Parkway) and the segments connecting them. It was intended that the intersection alternative could come from any of the conceptual alternative scenarios as the improvement at one intersection was independent of the decision at another intersection.

For the segments between key intersections, varying median types and widths were proposed and were considered independent of the key intersections. The following list provides high-level discussion on each alternative scenario considered at each key intersection.

- **No-Build:** The performance of existing serves as a baseline for the build alternatives.
- **Safety and Operational Improvements:** Provides upgrades that improve existing conditions while minimizing right-of-way and environmental impacts. These may or may not meet the project Purpose and Need.
- **Signals:** Provides a signal at every key intersection. These all meet the project Purpose and Need.
- **Roundabouts:** Provides a geometrically sound roundabout at each key intersection for public review and comments despite potential fatal flaws at Eleventh Street, Seventh Street, and Front Street. Roundabouts where considered at all key intersections as part of the 2011 Division Design Initiative which is why the PEL study also analyzed roundabouts at these locations.
- **Segment Options:** Provides a continuous median within the segments along the entire project limit. Construct intermittent sidewalk where currently gapped along NB Division Street. This option satisfies the project Purpose and Need due to the following:
    - Improves Division Street safety and operations by eliminating left turns from thru lane between key intersections
    - Provides improved pedestrian movements due to median refuge areas at crossings and constructing sidewalk at existing gaps on east side of Division Street
    - Potential corridor aesthetic improvements such as low-growth landscaping and stamped concrete

Exhibits of each build Conceptual Alternative scenario along with the populated criteria matrix can be found in **Appendix F** of the final report.

Preferred Alternative

Following Public Input Session #3 additional meetings were held with the Administrative Team, FHWA, and LAC to determine which Conceptual Alternative scenarios would be included in the Preferred Alternative. Comments received from these entities can be found in the Public Input Session #3 summary located in **Appendix E** of the final report. The various conceptual alternative scenarios were blended into a composite alternative which became the Preferred Alternative which was further refined with input from the Administrative Team, FHWA, and LAC in preparation for Public Input Session #4. Through the input received from the remaining project meetings and Public Input Session #4, the Preferred Alternative was finalized. **Figure ES-13** illustrates the entire Preferred Alternative and is located at the end of this Executive Summary.

The Preferred Alternative is presented from south to north by key intersection followed by segment Preferred Alternative along with the rationale behind these decisions.

Fourteenth Street

For the Fourteenth Street intersection a roundabout was selected as the Preferred Alternative, which is shown in **Figure ES-3.**

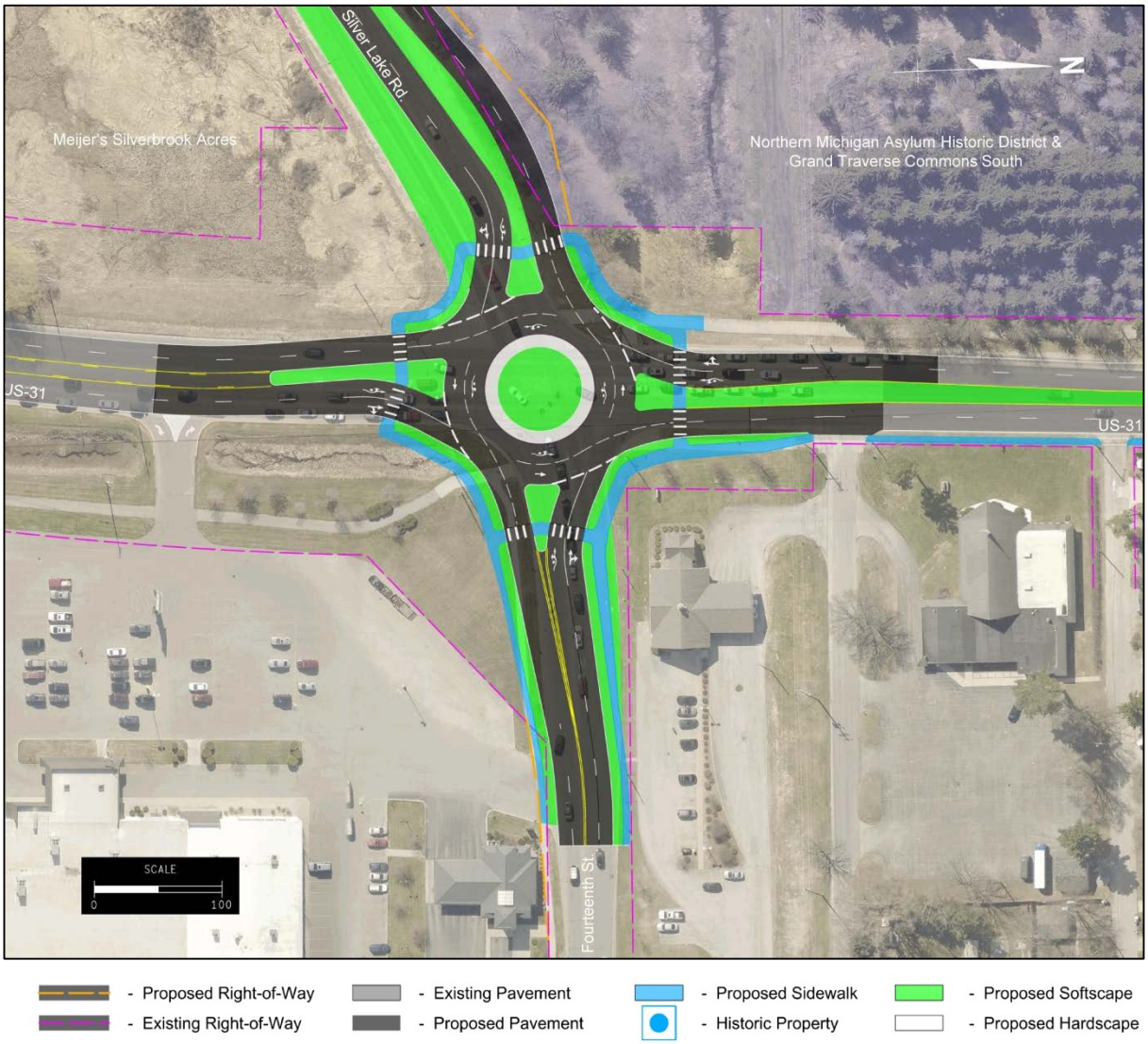
Rationale for Selection:

- Sufficient right-of-way to accommodate geometrically sound design without incurring fatal flaw impacts
- Best alternative to address Purpose and Need for both motorized and non-motorized users
- Creates a transitional entrance into Traverse City from the commercial land uses south of Fourteenth Street into the neighborhood/historic district/park land uses north of Fourteenth Street
- Splitter island and median widths allow for potential aesthetic treatments

Additional Considerations:

- Dedicated WB Fourteenth Street right-turn lane may be required in the future depending on future traffic growth rates
- Future environmental clearance may reveal greater concerns in one quadrant over the others, such as the historic and park property in the northwest quadrant.

Figure ES-3 Fourteenth Street/Silver Lake Road Preferred Alternative



Eleventh Street

For the Eleventh Street intersection a signal with left turn lanes was selected as the Preferred Alternative, which is shown in **Figure ES-4.**

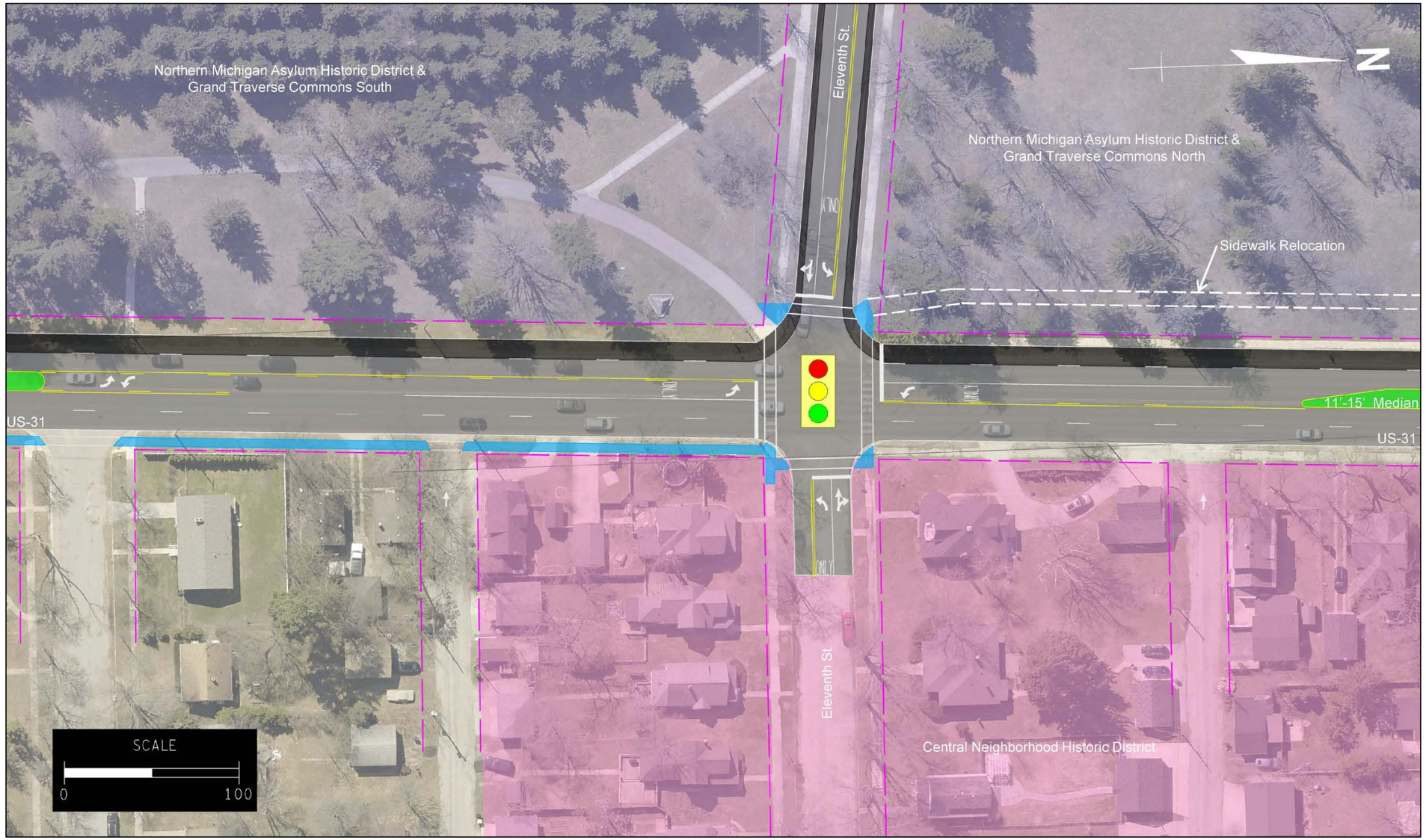
Rationale for Selection:

- Best alternative to address Purpose and Need for both motorized and non-motorized users without incurring a fatal flaw
- Provides signal, needed turn lanes, and all intersection movements which allows the neighborhood street grid to operate as designed

Additional Considerations:

- New signals must meet one of nine criterions to be warranted. Existing traffic volumes do not warrant a signal based on the 2035 volumes warrant 3 (Peak Hour warrant). Therefore a revised signal warrant analysis at the time of design is recommended.
- Central Neighborhood expressed concern with increased traffic and the desire for traffic calming and/or access management to maintain the current traffic patterns. These measures require city input, discussion, and approval prior to construction of the Preferred Alternative.
- Approximately 15 residential on-street parking spaces along Eleventh Street east of Division Street would be lost due to the addition of the second approach lane to the new traffic signal.

Figure ES-4 Eleventh Street Preferred Alternative



- Proposed Right-of-Way
- Existing Right-of-Way
- Existing Pavement
- Proposed Pavement
- Proposed Sidewalk
- Historic Property
- Proposed Softscape
- Proposed Hardscape

Seventh Street

For the Seventh Street intersection a signal with left turn lanes and 2-way traffic east of Division on Seventh Street was selected as the Preferred Alternative, which is shown in **Figure ES-5.**

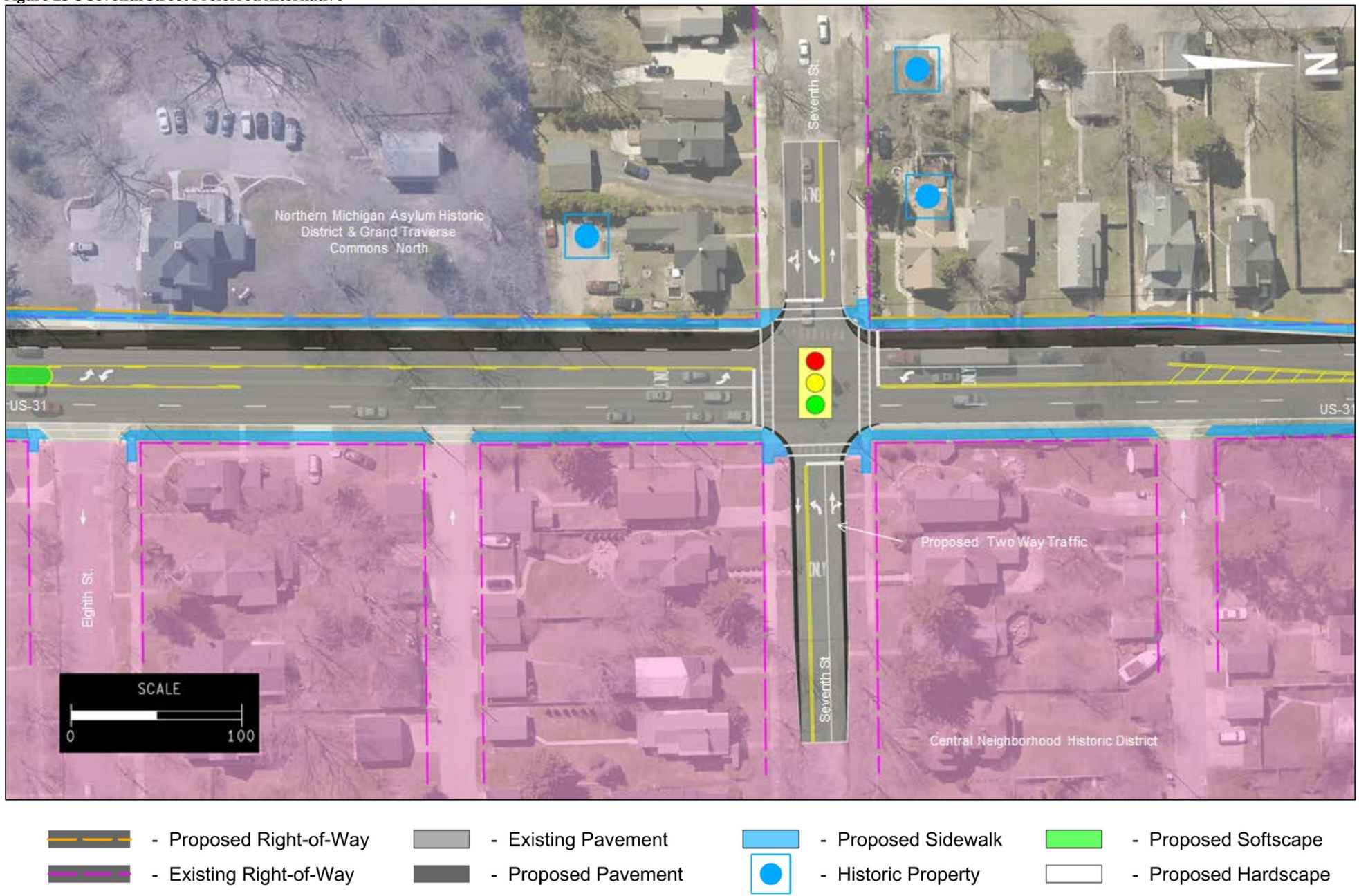
Rationale for Selection:

- Best alternative to address Purpose and Need for both motorized and non-motorized users without incurring a fatal flaw
- Allows for EB Seventh Street traffic and bikes that desire to continue straight through the intersection rather than turning right onto SB Division Street and then left onto Eighth Street. This current traffic movement adds to the congestion and safety concerns prominent along Division Street.
- Provides needed turn lanes and full access at all key intersections, allowing neighborhood street grid to operate as designed

Additional Considerations:

- Central Neighborhood expressed concern with increased traffic and the desire for traffic calming and/or access management to maintain the current traffic patterns. These measures require city discussion and approval prior to construction of the Preferred Alternative.
- Approximately 10 residential on-street parking spaces along Seventh Street east of Division Street would be lost due to addition of the second approach lane to signal.

Figure ES-5 Seventh Street Preferred Alternative



Front Street

For the Front Street intersection increased northbound and southbound left turn lanes was selected as the Preferred Alternative, which is shown in **Figure ES-6**.

Rationale for Selection:

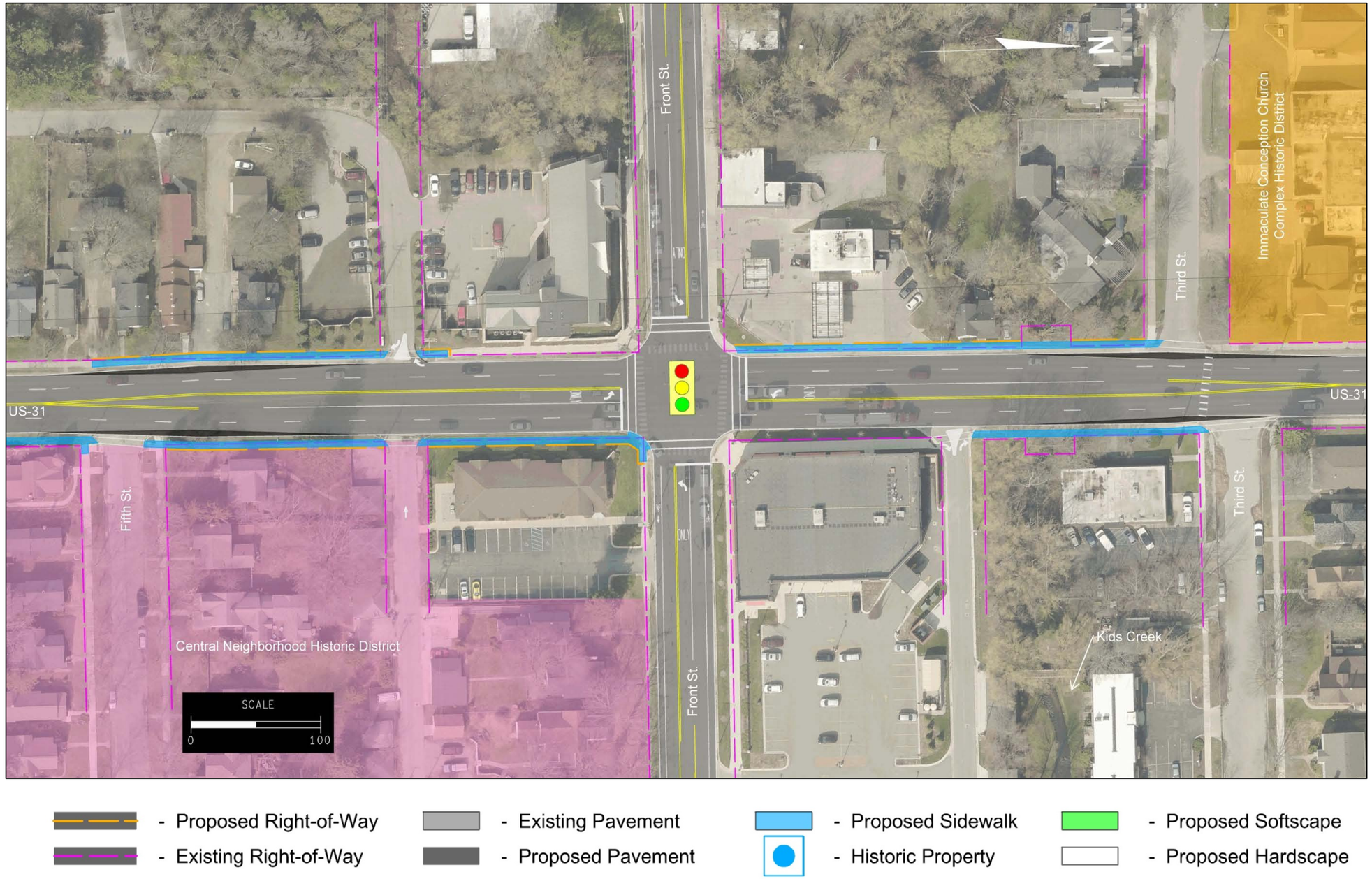
- Best alternative to address Purpose and Need for both motorized and non-motorized users without incurring a fatal flaw.
- Roundabout alternative had a fatal flaw due to right-of-way since adjacent developments leave no space for intersection expansion without a full property relocation/purchase

Additional Considerations:

During field observations, the Road Safety Audit team witnessed a semi-trailer track over the sidewalk ramp in the northwest quadrant. This safety concern should be addressed in both the northwest and southeast quadrant with wider corner radii if possible. Adjacent properties, limited right-of-way, and longer crosswalk distances are issues that could prevent this consideration from being implemented.

Truck Tracks on Sidewalk

Figure ES-6 Front Street Preferred Alternative



Grandview Parkway

For the Grandview Parkway intersection a roundabout was selected as the Preferred Alternative, which is shown in **Figure ES-7**.

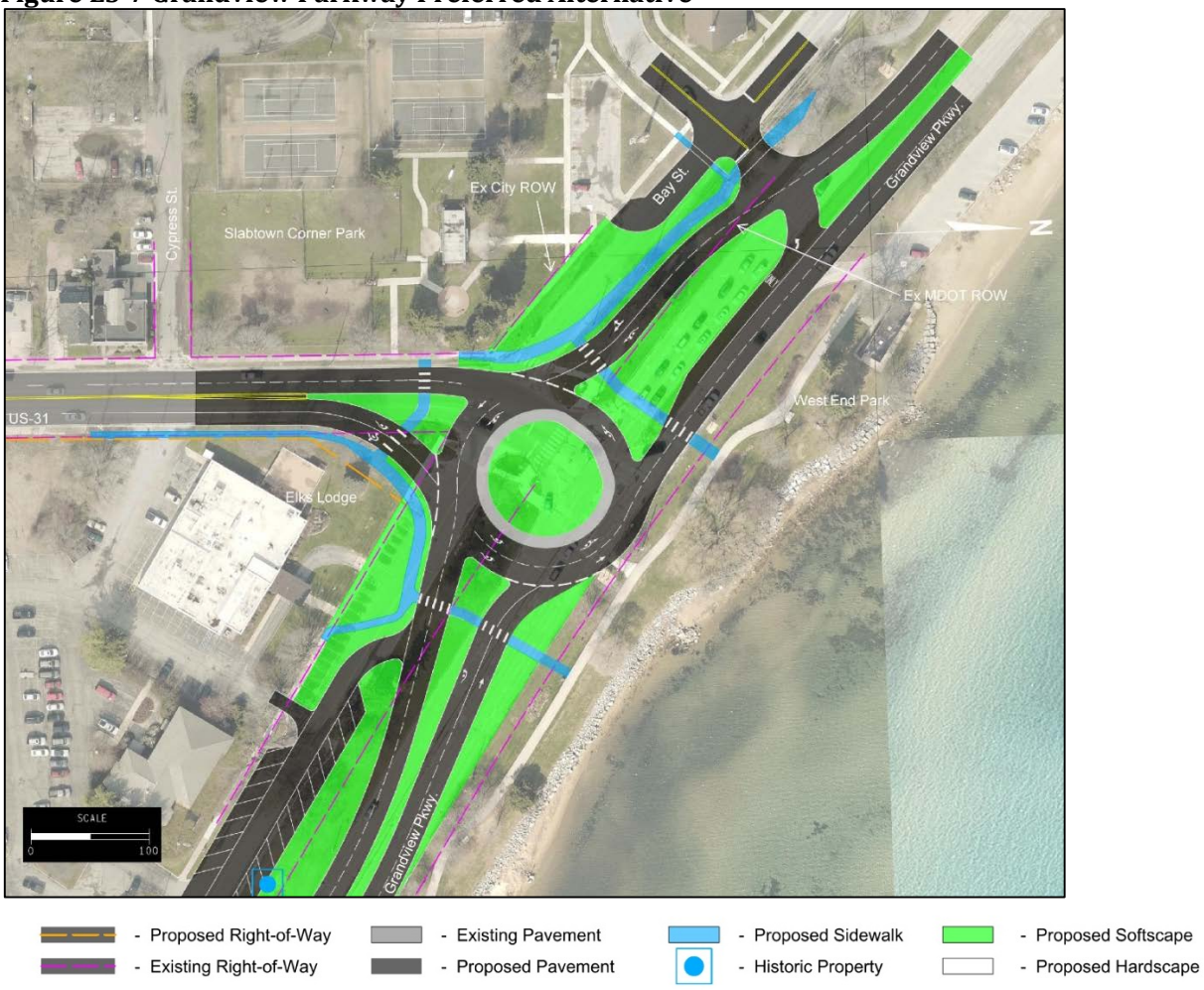
Rationale for Selection:

- Sufficient right-of-way to accommodate geometrically sound design without incurring significant impacts to adjoining properties
- Best alternative to address Purpose and Need for both motorized and non-motorized users
- Splitter island and median widths allow for potential aesthetic treatments

Additional Considerations:

- Dedicated WB Grandview Parkway thru lane would be required in the future depending on future traffic growth rates
- Approximately 10 parking spaces along Bay Street in front of the Elk's Lodge will be removed. This number may be lessened during final design.
- As shown in **Figure ES-7**, a portion of the proposed roundabout would be within city right-of-way. An agreement or re-deeding of right-of-way would be necessary between the city and MDOT.

Figure ES-7 Grandview Parkway Preferred Alternative



Segment Options

The following segment options are included in the Preferred Alternative in addition to the previously discussed intersection options at Fourteenth Street, Eleventh Street, Seventh Street, Front Street, and Grandview Parkway.

An 11 to 15 foot intermittent median from Fourteenth Street/Silver Lake Road to Eighth Street will be incorporated into the previously discussed key intersection layouts, as shown in **Figure ES-8.** Up to 15-feet wide will allow for roadway features to be constructed within the existing right-of-way, while the sidewalk between Eleventh and Eighth Streets on the west side is relocated further into Grand Traverse Commons Park. This width range allows for a smooth geometric transition to left turn lanes.

Figure ES-8 Proposed 11' to 15' Median Section

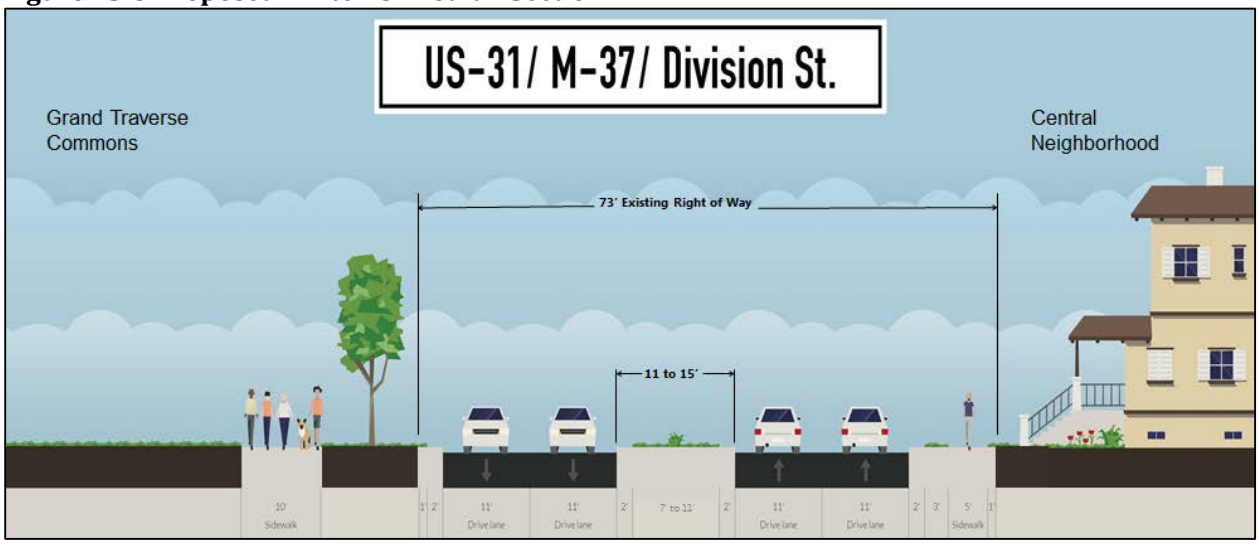


Image courtesy of Streetmix.net

No median is proposed between Seventh Street and the Grandview Parkway as shown in **Figure ES-9**. A median north of Seventh would lead to right-of-way and environmental impacts for the entire length of roadway north of Seventh Street. It only met the Purpose and Need from a traffic safety and operational perspective by physically separating traffic and prohibiting mid-block left turns. Similar concerns were raised regarding this continuous median and it did not provide an adequate pedestrian refuge area, thus the reason for not providing a median in this section of roadway.

Figure ES-9 Proposed Cross Section North of Seventh Street

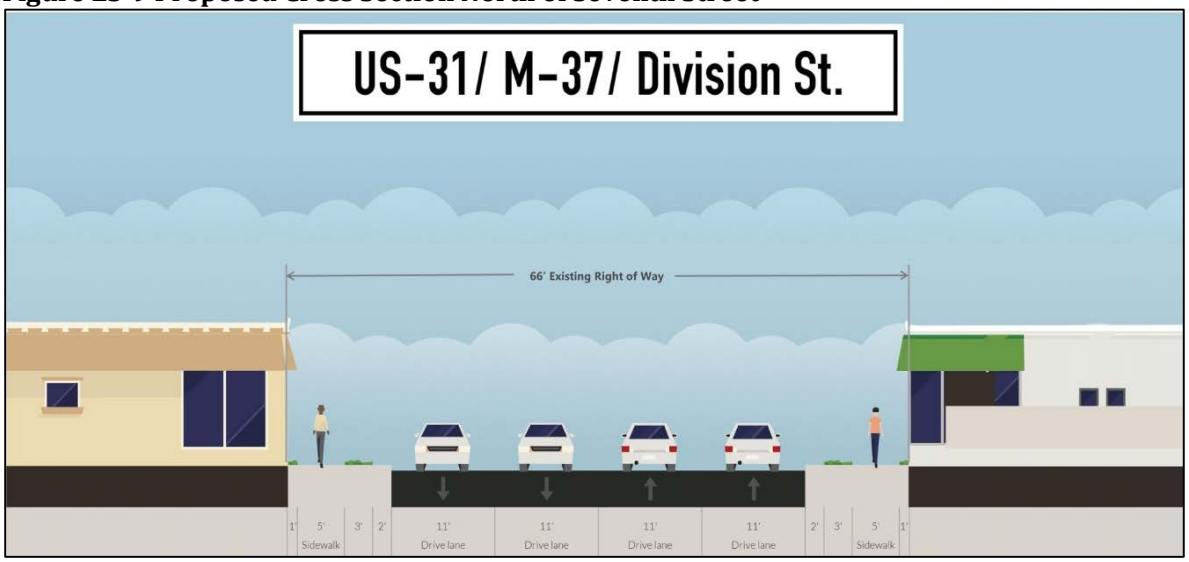


Image courtesy of Streetmix.net

Lane Width:
The existing Division Street lane width is 11 foot which will require a design exception. Per the MDOT Road Design Manual 3.09.02.A, design exceptions to maintain existing narrower lanes generally receive favorable consideration. FHWA confirmed a design exception would need to be submitted and would most likely be approved given the constraints.

Sidewalk:
Sidewalk and enhanced crosswalks proposed in the Conceptual Alternative phase were carried forward unchanged as a Preferred Alternative. Removal of trees and relocation of utilities will be necessary to accommodate construction along NB Division Street where currently there are gaps. These could be incorporated into operational improvements as well.

Kids Creek:
The Preferred Alternative will not affect the existing Kids Creek structure located under Division Street north of Font Street.

Access Management:
As part of the Preferred Alternatives, five driveway/street entrances are recommended to be converted to right-in/right-out entrances and exits to improve operations and safety along the Division Street corridor adjacent to key intersections. These locations are Griffin Street adjacent to Fourteenth Street, alleys/driveways in northeast and southwest quadrants of Front Street, and both bounds of Bay Street at Grandview Parkway. In addition the Study Team evaluated and subsequently eliminated a potential continuous median meant to remove many of the left-turn options along the corridor. The Study Team recommends further coordination between MDOT and the city to enact additional access management opportunities along the corridor that could help improve operations and safety along Division Street from Fourteenth Street/Silver Lake Road to Grandview Parkway.

Operational Improvements

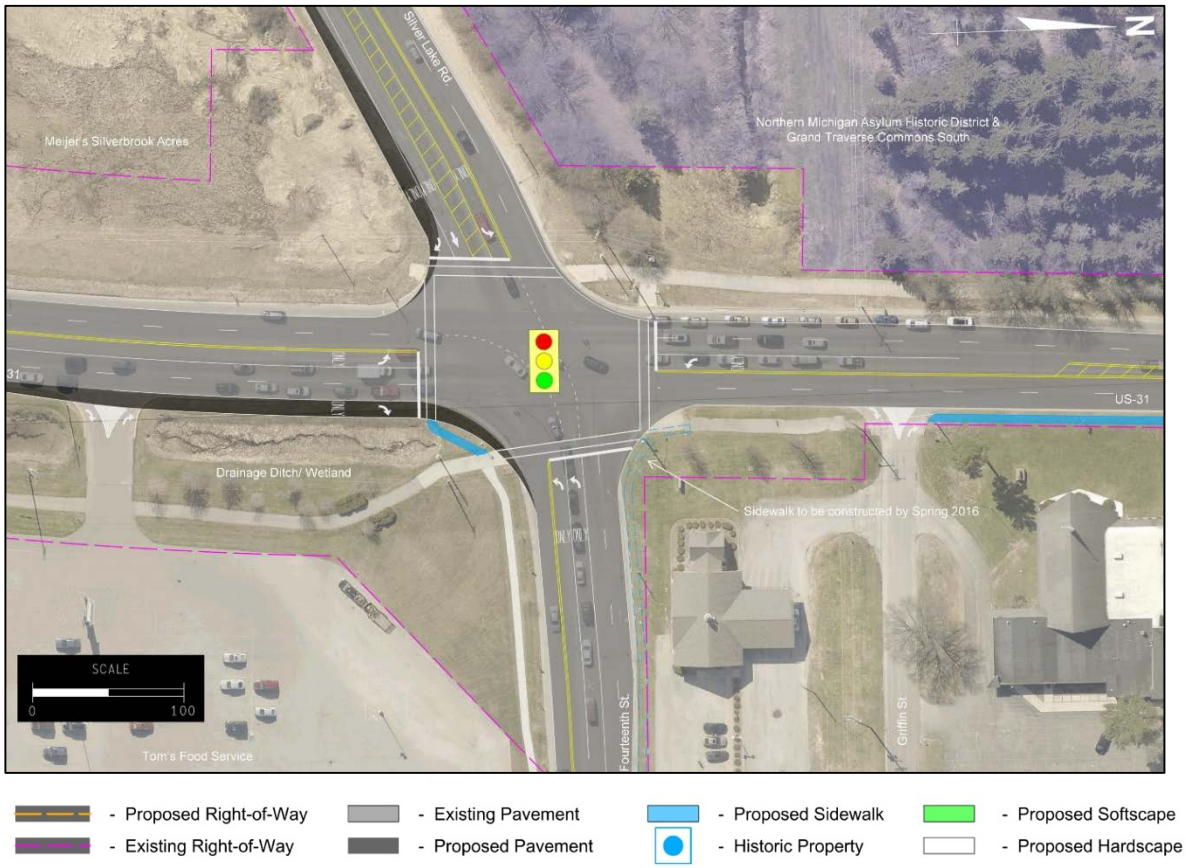
Some key intersections and segments have viable operational improvements that could provide short-term relief since a schedule of funding and design for the Preferred Alternative has not been identified.

The operational improvements summarized in this section have minimal or no impacts, which allow them to be implemented sooner than the Preferred Alternative.

Fourteenth Street Operational Improvements:

The operational improvements shown in **Figure ES-10** consist of the addition of a NB Division Street right turn lane, restriping WB Fourteenth Street for dual left-turn lanes, pavement marking delineating WB Fourteenth Street thru movement from left turns, and restricting the northern most Tom's Food Service driveway and Griffin Street to right-in/right-out. These improvements can be constructed within existing right-of-way and with minimal environmental impact. The one potential impact is due to the addition of the NB Division Street right-turn lane which would encroach on the adjacent drainage ditch/possible wetland complex located immediately east of the roadway. Possible mitigation for this potential impact is ditch realignment or installing a guardrail with a retaining wall at the edge of pavement.

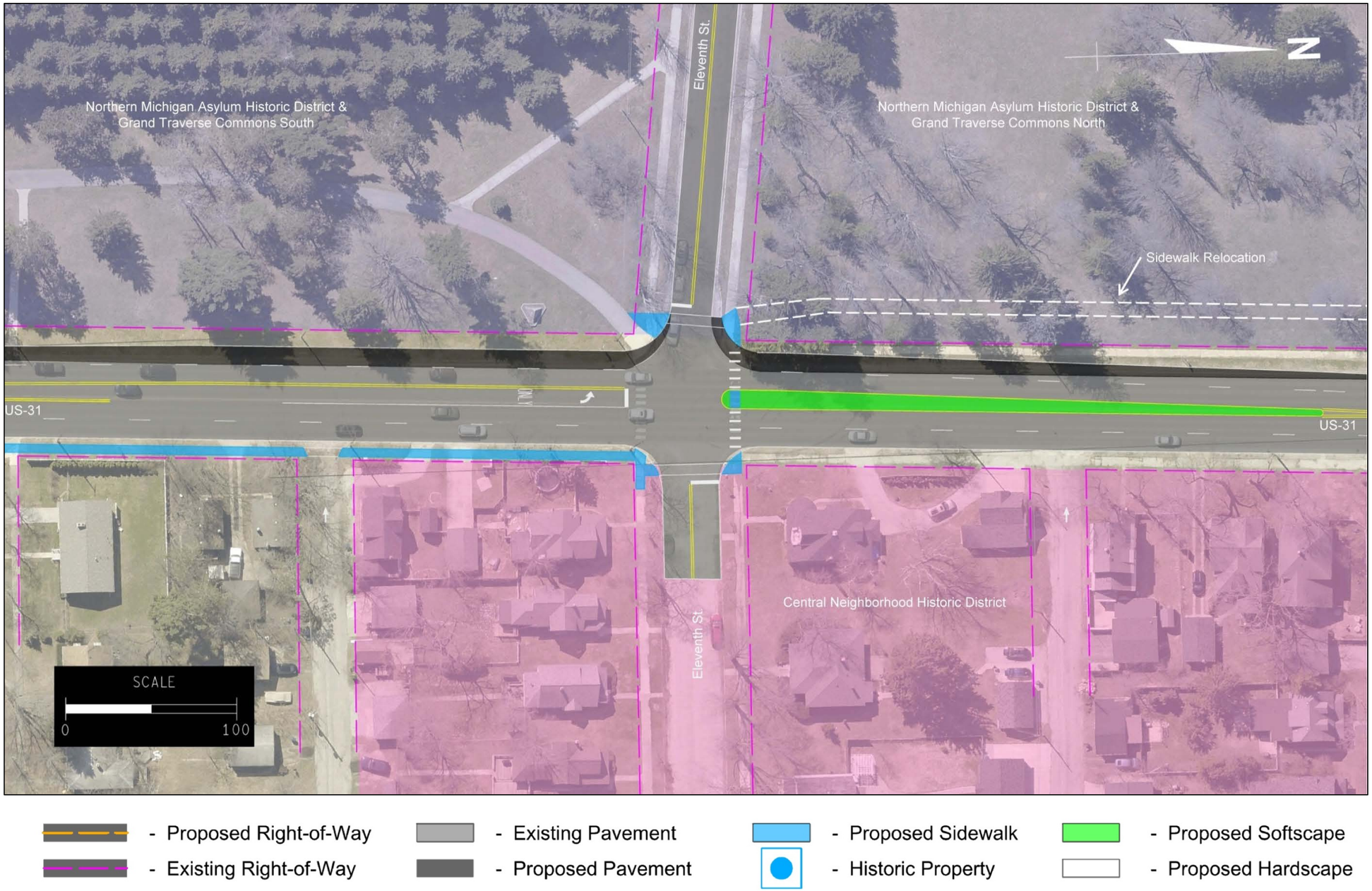
Figure ES-10 Fourteenth Street/Silver Lake Road Operational Improvement



Eleventh Street Operational Improvements:

The operational improvements shown in **Figure ES-11** consist of the addition of a NB Division Street left turn and a SB Division Street raised 11-foot tapered median. Southbound left turns onto Eleventh Street would not be allowed. The median provides a pedestrian refuge area and aligns the new Division Street lane configuration. A significant operational improvement is recognized with the introduction of a signal at Eleventh Street.

Figure ES-11 Eleventh Street Operational Improvement



Seventh Street Operational Improvements:

Due to right-of-way limitations, no significant operational improvement exists. During the conceptual phase, a more robust, operational improvement was proposed but deemed unfeasible due to right-of-way impacts. A recommendation for the city to consider is converting Seventh Street to two-way traffic for at least one block (Maple Street) to remove the current EB weave onto Division Street which would benefit both motorist and bicycle users.

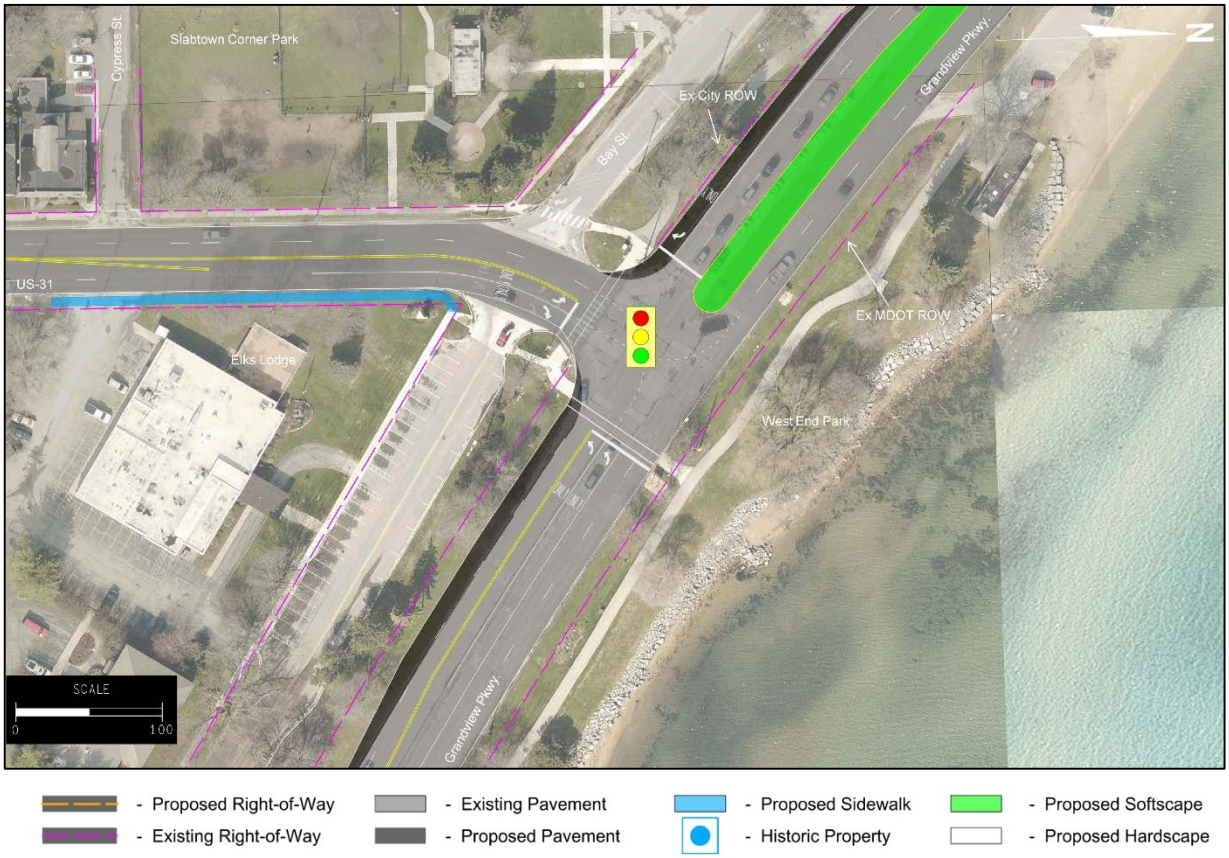
Front Street Operational Improvements:

Due to right-of-way limitations, no significant operational improvement exists. During the Conceptual Alternative phase, an operational improvement was proposed but deemed unfeasible due to right-of-way impacts. The only capacity benefit would be a corridor wide synchronization of traffic signals to improve Division Street conveyance. This improvement would not include the Grandview Parkway signal since it is already synced as part of the east-west corridor.

Grandview Parkway Operational Improvements:

The operational improvement shown in **Figure ES-12** consists of the addition of a WB Grandview Parkway left-turn lane, which extends the crosswalk length, and restricts Bay Street to right-in/right-out movements. These improvements can be constructed within existing right-of-way and with no anticipated environmental impact.

Figure ES-12 Grandview Parkway Operational Improvement



Traffic Summary

The table below illustrates the overall intersection LOS for each of the Preferred Alternative intersections and associated operational improvements.

Table ES-4 Preferred Alternative and Operational Improvements 2035 Intersection LOS

Intersection	Peak Hour	No-Build	Operational Improvements	Preferred Alternative
Fourteenth Street	AM	D	D	A
	PM	E	E	B
	Off Peak (OP)	E	D	B
Eleventh Street*	AM	F (11th), A (Division)	F (11th), A (Division)	B
	PM	F (11th), A (Division)	F (11th), A (Division)	C
	OP	F (11th), A (Division)	F (11th), A (Division)	C
Seventh Street	AM	A	A	B
	PM	B	C	C
	OP	B	B	B
Front Street	AM	D	N/A	D
	PM	F		F
	OP	F		F
Grandview Parkway	AM	D	D	A
	PM	E	D	C
	OP	D	D	B

* Eleventh Street is analyzed differently for Operational Improvements since it is a two-way stop controlled intersection.

The LOS improved from the No-Build conditions for the Operational Improvements and Preferred Alternative with the exception of Seventh Street where allowing additional movements lowers the LOS but improves overall system operations.

Cost Estimate

The Study Team prepared high-level cost estimates for each operational improvement and Preferred Alternative, which is summarized below, with additional breakdown including costs by intersection provided in **Appendix G** of the final report.

Table ES-5 Cost Estimate Summary

Item Description	Operational Improvements	Preferred Alternative
Roadway (segments & intersections)	$943,000	$2,800,000
Other Percentage	$390,000	$1,170,000
Contingencies (20%)	$268,000	$810,000
Contractor Staking and Errors (3%)	$60,000	$150,000
Mobilization (10%)	$180,000	$510,000
Utilities	$0	$310,000
Right-of-Way	$0	$5,425,000

Item Description	Operational Improvements	Preferred Alternative
Professional Engineering (16%)	$296,000	$900,000
Construction Engineering (12%)	$230,000	$660,000
Total	**$2,367,000**	**$12,735,000**

Anticipated Crash Summary

The Highway Safety Manual was utilized to estimate the expected average crash frequency of the Preferred Alternative. As shown in the table below, the Preferred Alternative not only decreases crashes at the key intersections, but throughout the corridor. These findings are consistent with what was anticipated during the Conceptual Alternative development process due to the roundabouts, left-turn lane addition, and separation of NB and SB Division Street with a median. The Time of Return (TOR) for the preferred alternative was calculated at 20.85 years, based on the expected crash reductions and a preliminary cost estimate of $12.7 million.

Table ES-6 Anticipated 2035 Preferred Alternative Crash Frequency

Existing Conditions	Observed Average Crash Frequency
14th to Grandview	47.09
14th	22.5
11th	13.5
7th	4.75
Front	13
Grandview	8.5
Subtotal	100.84
Preferred Alternative	**Predicated Average Crash Frequency**
14th to Grandview	9.66
14th	4.66
11th	5.33
7th	7.8
Front	7.94
Grandview	2.86
Subtotal	**38.25**
Reduction	**65%**

Potential Issues for Future Consideration

Fourteenth Street

- A dedicated westbound Fourteenth Street right-turn lane on the proposed roundabout may be required sooner than anticipated depending on future traffic growth rates.
- Future environmental clearance may reveal greater concerns in one quadrant over the others, such as the historic and park property in the northwest quadrant. In anticipation of this issue, an alternate roundabout design is provided in **Appendix L** of the final report. This alternate design still meets current geometric standards but would have a greater impact left on the southeast quadrant which includes a ditch/tributary to Kids Creek.
- Coordination needs to occur with the Watershed Center Grand Traverse Bay regarding the ditch/tributary located in the southeast quadrant. This watercourse crosses under the Fourteenth Street/Silver Lake Road intersection and into Kids Creek which is an impaired trout stream.

Eleventh Street

- New traffic signals must meet specific criterions to be installed. Existing traffic volumes at this intersection currently do not warrant a new traffic signal based on 2035 volumes. Therefore a revised signal warrant analysis at the time of design will be needed.
- Central Neighborhood expressed a great deal of concern over potential increased traffic on Eleventh Street because of a new traffic signal, which is the Preferred Alternative. They would like to see traffic calming measures and access management restrictions to prevent an increase in traffic along this street within the Central Neighborhood. Any turning or traffic restrictions at this location will require city input, discussion, and approval prior to construction of the Preferred Alternative.
- Eleventh Street east of Division Street is located within the Central Neighborhood historic district. As part of the environmental clearance phase a detailed traffic impact study to determine potential adverse effects (Section 106) to the historic neighborhood will need to be completed. A determination of effect will then be made by the SHPO on the potential effect increased traffic would have on the historic district.
- Approximately 15 residential parking spaces along Eleventh Street east of Division Street would be lost due to the addition of the second approach lane (three lanes total) for the new traffic signal. This proposed lane configuration is an MDOT Signals Unit minimum requirement. The City does not agree with the required three-lane approach on Eleventh Street and would like it to be two lanes instead of three.

Seventh Street

- No formal decision has been made yet by the City regarding changing Seventh Street east of Division Street to two-way traffic as described in the Preferred Alternative. They have indicated they are studying a conversion of the entire length of Seventh Street to two-way and are open to the idea of changing it to improve traffic operations at this intersection.
- Central Neighborhood expressed concern with the change to two-way traffic on Seventh, even for only one block due to increased traffic. As part of the environmental clearance phase a detailed traffic impact study to determine potential adverse effects (Section 106) to the historic neighborhood will need to be completed. A determination of effect will then be made by the SHPO on the potential effect increased traffic would have on the historic district.

- Approximately 10 residential parking spaces along Seventh Street east of Division Street would be lost due to the addition of the second approach lane (three lanes total) to the traffic signal. This proposed lane configuration is an MDOT Signals Unit minimum requirement. The City does not agree with the required three-lane approach on Seventh Street and would like it to be two lanes instead of three.

Front Street

- During field observations, the Road Safety Audit team witnessed a semi-trailer track over the sidewalk ramp in the northwest quadrant. This safety concern also occurs in the southeast quadrant and should be addressed with wider corner radii if possible. Adjacent properties, limited right-of-way, and longer crosswalk distances are issues that need further analysis during the next phase of the project to determine the feasibility of this proposed change.
- The property owner of the bank located in the southeast quadrant has indicated they are opposed to any changes in access or use of their property.

Grandview Parkway

- A dedicated westbound Grandview Parkway right-thru lane on the proposed roundabout may be required sooner than anticipated pending future traffic growth rates.
- To reduce right-of-way impacts in the southeast quadrant (Elk's Lodge property) an alternate roundabout design is shown in Appendix L of the final report. This alternate design still meets current geometric standards and avoids impact to Slabtown Corner Park and West End Beach Park.
- Approximately 10 parking spaces along Bay Street in front of the Elk's Lodge would be removed. This number may be lessened during final design.
- Future communication needs to occur with the Elk's Lodge representatives regarding the improvements at Grandview Parkway.
- A portion of the proposed roundabout would be within city right-of-way. An agreement or re-deeding of right-of-way would be necessary between the City and MDOT.
- Pedestrian crossings at Grandview Parkway are a very big concern due to the high volumes of traffic and pedestrians during peak times. Members of the LAC have expressed that this intersection is quite unique from a pedestrian and traffic point of view. This intersection has been looked at many times trying to come up with an answer to the conflicts with vehicular and pedestrian activity. Unfortunately, the intersection is so over capacity that trying to do something in this location would cause havoc for both corridors (Grandview Parkway and Division Street), especially during the summer. MDOT is in the process of analyzing an adaptive signal system for Traverse City (to be constructed in 2019). Any changes to operations would need to be discussed to see if it would work with the adaptive system. The community and LAC understand that something needs to be done at this intersection to improve pedestrian crossings. Potential solutions discussed as part of the PEL study include:
    - A roundabout (Preferred Alternative)
    - If no roundabout, consider a pedestrian only phase for the traffic signal to be used during peak times
    - A pedestrian bridge over Grandview Parkway

- The large tree located on the bay side of the Division Street/Grandview Parkway intersection is valued by the local community and was called the "photo tree" by some who provided comments to the Study Team. Potential impacts to this tree should be avoided. The currently proposed Preferred Alternative would not impact this tree.
- The TART Trail crosses Grandview Parkway at Division Street. The trail is a 4(f) resource and potential impacts to the trail within the roadway right-of-way will need to be addressed in future NEPA documentation.

Median (between Fourteenth and Eighth streets)

- Grand Traverse Commons is a park owned by the City of Traverse City between Fourteenth Street/Silver Lake Road and Eighth Street on the west side of Division Street. The park was formerly owned by the State of Michigan and was part of the Traverse City regional psychiatric hospital complex (historically called the Northern Michigan Asylum or Traverse City State Hospital). After the complex completely closed in the 1980s, the State of Michigan legislature enabled the transfer of the property to a variety of recipients through Public Act 38 of 1993. The overall property was broken up into a number of smaller parcels. After the legislation was passed, the individual parcels of land described in the legislation were deeded to the recipients by the State of Michigan. The City of Traverse City was deeded the property along Division Street for a park, and it has functioned as a park ever since. The park is made up primarily of two large parcels, one over 85 acres, another about 30 acres. The park is a portion of the grounds surrounding the former Traverse City State Hospital, which included both a men's and women's walks for hospital residents. This park is significant historically because the use of nature to treat mental illness was considered a major medical advancement in the late 19th and early 20th Centuries. In an effort to test support for changes along Division Street, the City held a vote in 2012 asking the citizens to approve a process to sell up to 30 feet of the park property along the road to MDOT for Division Street improvements (conditional upon City Council approval, etc.). The vote passed and is valid through November 6, 2022. At the time, MDOT had no plans for the widening, however, the vote, along with a legislative earmark, led to a study of alternatives (this PEL study), some of which may involve widening the road and using part of the park. Transferring park property from city ownership to a transportation agency using federal aid usually presents challenges due to protections afforded to parks and historic properties under federal law. In this case, the state's special legislation creating the park and resulting deed restriction adds complexity. Key issues for consideration include:
    - Section 4(f) of the DOT act applies to the park as a recreational facility and as an historic property. This law specifically relates to federal programs under the DOT and requires rigorous exploration of avoidance alternatives, which the environmental study shall identify and analyze. If it is determined that no alternatives to taking park land are prudent or feasible, then the project may proceed.
    - Should the study conclude and the City agree that land from the park is needed to make improvements, the deed restrictions regarding the park will need to be addressed.
    - Should the study successfully identify a build Preferred Alternative, the Traverse City Commission will need to approve the use of park land. Should the original vote be successfully challenged, the City may need to hold a new vote on the use of park land for transportation purposes.

- Trees are important to the City of Traverse City and they are a designated Tree City USA. The City has requested that trees be allowed in the proposed median between Fourteenth and Eighth streets. As a state highway and NHS route, Division Street is held to a higher standard than as a local road. Clear zone and sight distance constraints could prevent trees from being planted in the median. The final median treatment such as trees, rain gardens, etc. will need to be coordinated with the City of Traverse City, SHPO, FHWA, and MDOT.

City of Traverse City Considerations and Responsibilities

- A consistent concern heard from many residents along the corridor is the potential for increased traffic on neighborhood streets due to the changes along Division Street. The City has indicated they are working on and need to provide street calming initiatives as part of the overall solution of traffic traveling on the side streets along the Division Street corridor.

- Future development along the study corridor could negatively impact traffic operations along the corridor. When appropriate and feasible, traffic impact studies should be completed to determine potential impacts to the Division Street corridor and adjoining roadway network from the proposed development.

Other Future Considerations and Issues

- Some members of the public and LAC expressed concern over the speed limits along the Division Street corridor. Generally, the feeling is traffic is moving too fast along the corridor, especially at the south end where the posted speed is 40 mph. Speed limits are set through speed studies conducted by the Michigan State Police, independent from alternative studies. Roadway characteristics and potentially 85th percentile vehicle speed will change once the corridor improvements occur so a speed study should be requested afterwards.

- Non-signalized crosswalks have been requested along the corridor by the LAC and public to allow for safer crossings away from traffic signals. The specific locations and details of these crosswalks have yet to be determined. The crosswalks will be highly visible and placed along Division Street in locations that will be identified and studied. This will ensure crosswalks are placed in areas of pedestrian demand and agreed upon by the City and MDOT.

- Future design activities should incorporate public engagement to ensure that the project considers all community concerns while offering stakeholders an opportunity to shape the look of the corridor. Continued close coordination with city officials and members of the LAC should benefit future project development.

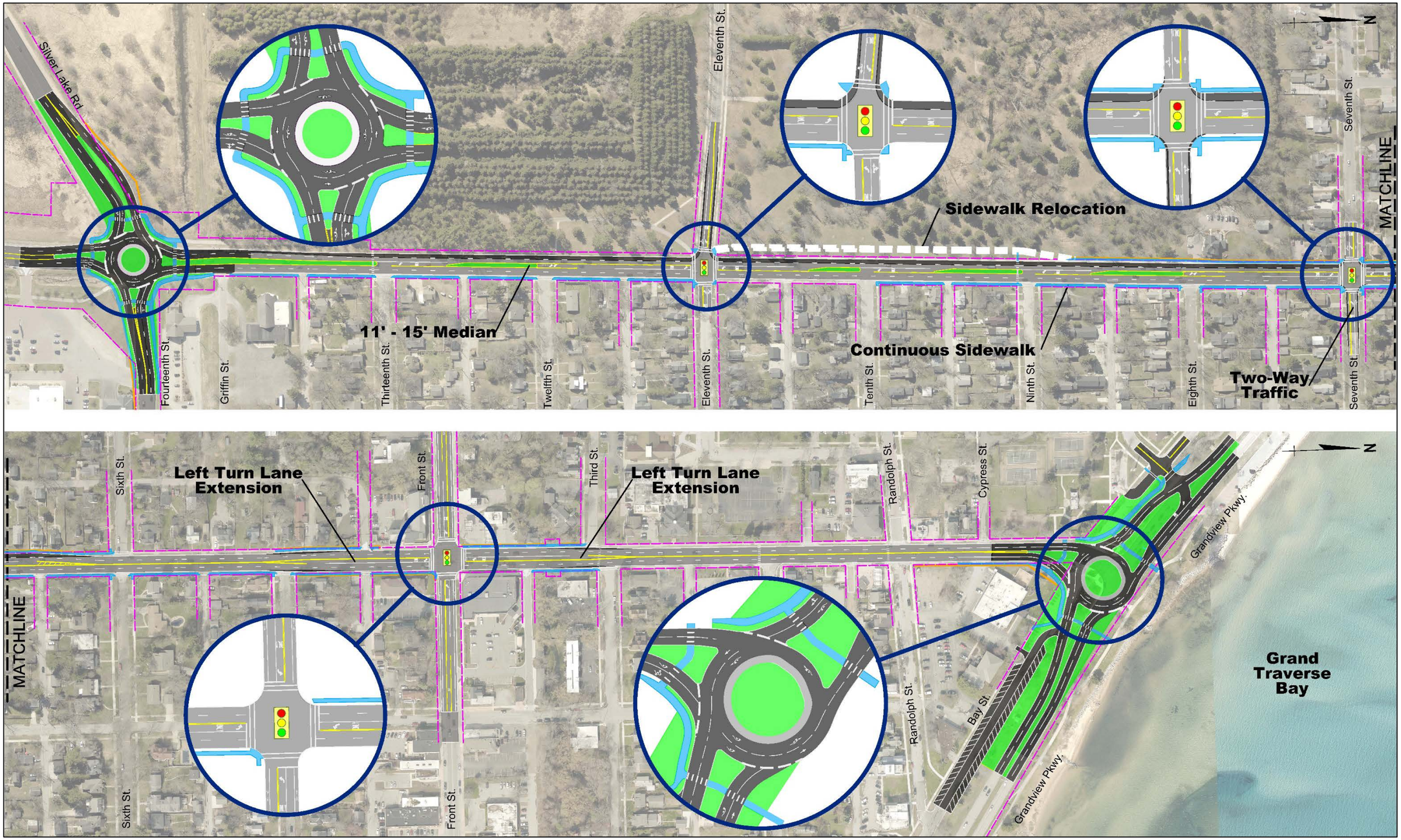



Figure ES-13 Preferred Alternative Corridor Overview