
5.0 CONSULTATION AND COORDINATION

This chapter incorporates a summary of **Chapter 9** from the Draft Environmental Impact Statement (DEIS), public scoping meetings, and coordination with government agencies prior to the release of the DEIS. **Appendix C** of the DEIS contained copies of the Notice of Intent, letters received from agencies during scoping, and comments received regarding their review of advanced copies of the DEIS. These letters are included in **Appendix C**.

5.1.1 Macatawa Area Coordinating Council (MACC) Ad-Hoc Technical Committee

The Macatawa Area Coordinating Council's (MACC) Ad-Hoc Committee was formed by the MACC, the Holland area's Metropolitan Planning Organization (MPO). The purpose of the committee is to coordinate, express concerns and issues, and act as an intermediary between the US-31 Study Team and MACC Policy Committee members. This committee consists of members of the Michigan Department of Transportation (MDOT), the Ottawa County Road Commission (OCRC), and MACC members.

5.1.2 Public Information Meetings

Several public meetings were held between the initiation of the Environmental Impact Statement (EIS) and the DEIS Public Hearing. The meetings were held in centrally located, Americans with Disabilities Act (ADA) compliant buildings. A demand responsive transit service was available to residents of the Cities of Holland and Zeeland and the greater Grand Haven metropolitan area. The meetings included:

Date & Time	Location	Major Topic
October 20, 1993	Ottawa Area ISD Building	Study Initiation and Process for Elected Officials
November 10, 1993	Ottawa Area ISD Building	Study Initiation and Process for Elected Officials
January 19, 1994	Grand Haven Community Center	Practical Alternatives
May 26, 1994	West Ottawa High School	Corridor Alternatives
June 19, 1996	Grand Haven Community Center	Draft Environmental Impact Alternatives Identified
June 20, 1996	Holland Holiday Inn	Draft Environmental Impact Alternatives Identified
March 11, 1997	Holland Middle School	City of Holland Public Informational Meeting
March 18, 1998	Olive Township Hall	Ottawa County area wide meeting on the addition of Alternative F/J1 and R
July 1, 1998	Zeeland	Ottawa County area wide meeting on US-31 Advisory Committee's questions to MDOT
August 27, 1998	Zeeland	Informational session on the contents and status of the DEIS
December 8, 1998	Grand Haven High School	Summary of DEIS
December 9, 1998	Holland Holiday Inn	Summary of DEIS
February 11, 2002	Zeeland Community Center	US-31 Land Use Study
November 8, 2006	Ottawa County Filmore Complex	Current Preferred Alternative

A project mailing list was also developed and periodic newsletters were distributed during this time. The mailing list included several thousand addresses of local community members and businesses. The newsletter presented the project's status and offered a means for local residents to comment on the alternatives under consideration. The last page of the newsletter was a comment form. Newsletters were distributed on:

Date	Major Topic
October, 1993	Study Underway
May, 1994	Corridor Alternatives Identified
December, 1994	Practical Alternatives Identified
November, 1995	Major Investment Study (MIS) Initiated
June, 1996	MIS and Practical Alternatives Public Meetings
March, 1997	Draft Environmental Impact Alternatives Identified

<u>Date</u>	<u>Major Topic</u>
June, 1998	New Alternatives Added, Alternative Composition, New Origin & Destination Study and Grand River Bridge Height Revisions
November, 1998	Draft Environmental Impact Alternatives Public Hearing Date and Meeting Locations

A toll-free telephone information line was established at the outset of the project. This number is still active and can be used by anyone who has questions on the project or desires to receive information regarding aspects of the alternatives under consideration.

5.2 PROJECT COORDINATION AND EARLY COMMENTS BY GOVERNMENT AGENCIES (PRIOR TO DEIS AND PUBLIC HEARING)

This section summarizes agency review and coordination with government agencies, and public comments received prior to the release of the DEIS. Copies of the *Notice of Intent*, Resource Agency letters, and select other letters are included later in this chapter.

5.2.1 Notice of Intent

A *Notice of Intent* to advise the public that preparation of an EIS was to begin for the proposed project was issued by the Federal Highway Administration (FHWA) on April 19, 1994, and published in the May 5, 1994 issue of the *Federal Register* (Vol. 59, No. 86, Page 23252).

5.2.2 Cooperating Agencies

Copies of letters received from the two cooperating agencies are included later in this chapter. A summary of comments provided by these agencies prior to, at, or after the Initial Scoping Meeting in 1994 is as follows:

United States Coast Guard (USCG)

Requested that information be provided on:

- Impacts of a new bridge.
- Boat traffic data.
- Classification of vessels.
- Frequency of bascule bridge openings.
- Vertical clearances of a new bascule bridge.

United States Army Corps of Engineers (USACE)

Requested that additional efforts and information be provided on:

- Bridge construction over the Grand River, including bridge piers.
- Avoidance of wetlands.
- Wetland mitigation.
- Traffic improvements.

5.2.3 Early Review of Alternatives by Resource Agencies

In addition to the cooperating agencies, several other resource agencies provided comments in 1994. These included:

Federal Agencies:

- United States Department of Interior, Fish and Wildlife Service (USFWS)
- United States Department of Interior, Bureau of Indian Affairs (BIA)
- United States Department of Agriculture (USDA)
- United States Department of Housing and Urban Development (HUD)

State Agencies:

- Michigan Department of Environmental Quality (MDEQ), Note: The Michigan Department of Natural Resources (MDNR) was divided into two entities during the study. The MDEQ is responsible for environmental permitting, and the MDNR is responsible for hunting, state parks, and the natural resources of the State.
- Michigan Department of History, Arts and Libraries, State Historic Preservation Office (SHPO)
- Michigan Department of Agriculture

Agency coordination with the cooperating and resource agencies, by MDOT, has been ongoing throughout the study. Meetings with them were held on:

- August, 1994 (initial scoping meeting)
- July 23 and 24, 1996 (scoping meeting)
- February, 1999 (Recommended Alternatives reduced to four)
- March, 1999 (resource agency meeting)
- April, 1999 (resource agency meeting)
- June, 2000 (review of wetland mitigation sites)
- April, 2001 (Practical Alternatives/Update meeting)
- December 6 and 7, 2001 (Recommended Alternative update meeting)
- October 19, 2006

Copies of letters received from the resource agencies and select others, are included later in this chapter. The following summarization of specific resource agency comments was provided prior to, at, or after the initial scoping meeting in 1994, in addition to the previous cooperating agency comments and concerns:

Federal Agencies:

United States Department of Interior, Fish and Wildlife Service (USFWS)

Requested that additional efforts and information be provided on:

- "Purpose and Need"
- Wetland impacts
- Wetland mitigation

United States Department of Interior, Bureau of Indian Affairs (BIA)

Stated that there are no Indian lands affected by any of the alternatives, but requested that they be added to the mailing list.

United States Department of Agriculture (USDA)

Requested that US-31 stay on the existing alignment to reduce the amount of impacts to agricultural land.

United States Department of Housing and Urban Development (HUD)

Had concerns with:

- Impacts on federally assisted housing
- Marketability and property values

State Agencies:

Michigan Department of Natural Resources (MDNR)

Requested more information on:

- Wetlands
- Drainage
- Indirect impacts

Department of History, Arts and Libraries, State Historic Preservation Office (SHPO) (formerly Michigan Department of State)

Requested that every attempt should be made to avoid the Boer Farm in Zeeland Township.

5.2.4 Local Agencies

Local agencies and other interested parties providing early comments included:

- MACC
- City of Holland
- Michigan United Conservation Clubs (MUCC)
- Board of County Road Commissioners of Allegan County

These comments and concerns are summarized below:

Macatawa Area Coordinating Council (MACC)

Interested in being involved with the process and requested that the US-31 Study Team keep them apprised of the options being developed. Appointed the Ad-Hoc Committee to coordinate activities and issues between the US-31 Study Team and the MACC.

City of Holland

Expressed concerns regarding the Dial-A-Ride system and increased congestion along US-31 in the City.

Michigan United Conservation Clubs (MUCC)

Expressed concern in the following areas:

- Wetlands
- Water resources
- Indirect and cumulative impacts

Board of County Road Commissioners of Allegan County

Acknowledged that they are aware of the study but had no comments at this time.

5.3 PUBLIC PARTICIPATION AND COMMENTS (DEIS AND PUBLIC HEARING)

5.3.1 Public Hearings

Following circulation of the DEIS (See **Chapter 8** in the DEIS for a distribution list of the DEIS) on November 5, 1998, Public Hearings for the US-31 Project were held December 8, 1998 in Grand Haven, Michigan, and December 9, 1998 in Holland, Michigan. A newsletter published and distributed in November, 1998 summarized the project and contained a schedule of Public Hearing dates and times. Local governments, local elected officials, the media, interested parties and residents within the study area received copies of the newsletter. MDOT distributed a press release to area newspapers on November 5, 1998 announcing the Public Hearing. MDOT also prepared a Public Hearing Notice for distribution.

The Public Hearings were conducted in an open house style format, and therefore no formal presentation was made. In place of a formal presentation by MDOT or the US-31 Study Team, a 16-minute video on the study process and alternatives was shown along with a separate MDOT right-of-way video. Both presentations were shown approximately every half-hour throughout the public hearing time. MDOT representatives and consultant staff were available to answer questions during the course of the hearings. Presentation boards displaying impacts, drawings of typical intersections and interchanges, access control, aerial drawings, and copies of **Appendix A** were available at the meeting for review and discussion during the meeting. Take home materials included newsletters, comment forms, right-of-way pamphlets on property owner rights, and MDOT's acquisition process.

The combined total attendance for the two Public Hearings was 453. The sign-in sheet indicated that 220 attended the December 8, 1998 Public Hearing in Grand Haven, and that 233 attended the December 9, 1998 Public Hearing in Holland.

Court reporters were available to record statements made by attendees and were included in the transcript of the Public Hearing. Written comments received at the meeting or within 30 days of the hearing were also included in the transcript of the Public Hearing. Eight hundred and thirty-three (833) comments, not including regulatory, county, local government and other interested parties/groups, were received during the comment period.

5.3.2 Summary of Public Comments and Concerns

During the formal public comment period, eight hundred and thirty-three (833) comments were received from private individuals. The comments were collected by several different methods: verbally, written and via email. The following summarizes the sources of the comments:

- Fifty-eight (58) written public comments were received during the December 8, 1998 Public Hearing at Grand Haven High School.
- Twenty-nine (29) written public comments were received during the December 9, 1998 Public Hearing at the Holland Holiday Inn.
- Five hundred and fifty-five (555) written and phone public comments were received during the official comment period (prior to and after the Public Hearings).
- One hundred and twenty-eight (128) email public comments were received during the official comment period (prior to and after the Public Hearings)
- Sixty-three (63) public statements were taken at the Public Hearings by the court reporters.

Typical Comments

Many of the following types of comments were received:

- Supported improvements to existing US-31: Alternative A, P or P1r.
- Opposed improving existing US-31. The majority was opposed to widening US-31 through Grand Haven.
- Supported a rural bypass for US-31.
- Opposed a rural bypass for US-31.
- Supported a freeway upgrade of existing US-31.
- Opposed improvements to US-31 that impact St. Patrick's Catholic Church in Grand Haven.

Some other types of comments were also received:

- Supported transit alternatives, such as rail, bus, car pooling, etc.
- Opposed the Alternative P and P1r (local Grand Haven bypass).
- Asked that MDOT stop studying the US-31 traffic and safety problem and start implementing a solution.

5.3.3 Local Agency Comments and Concerns

Approximately 50 letters and/or resolutions were received from study area cities, townships, villages, and other organizations on the DEIS. MDOT received letters supporting the Alternative F/J1 from:

- | | |
|----------------------------------|------------------------------|
| • Allegan County | • Ferrysburg |
| • Allegan County Road Commission | • Coopersville |
| • Ottawa County | • The Village of Spring Lake |
| • Ottawa County Road Commission | • Holland Township |
| • MACC | • Zeeland Township |
| • Holland | • Fillmore Township |
| • Zeeland | • Grand Haven Township |
| • Grand Haven | • Spring Lake Township |

Copies of all the letters and resolutions are included later in this chapter along with responses to the concerns.

5.3.4 Cooperating and Resource Agency Comments and Concerns

The following is a summary of the comments and concerns received on the DEIS by cooperating and resource agencies. Copies of their letters and select other letters are included later in this chapter along with responses to the concerns.

United States Environmental Protection Agency (USEPA)

Requested additional efforts and information be provided on:

- Purpose of and Need for the project
- Alternatives
- Wetlands
- Indirect and cumulative impacts

The USEPA asked that the Purpose of and Need for the project be simplified to more concisely and clearly state the projects Purpose and Need. The USEPA also requested that specific Transit, Transportation Systems Management (TSM) and/or Intelligent Transportation Systems (ITS) components recommended during the study phase be incorporated with each of the alternatives and clearly spelled out in the Final Environmental Impact Statement (FEIS). Another request was to investigate avoidance and minimization of wetland impacts and to elaborate on the indirect and cumulative impacts of the practical alternatives.

United States Department of the Interior, Fish and Wildlife Service (USFWS)

Requested additional efforts and information be provided on:

- The Level-of-Service (LOS), traffic congestion and accident rates of the low impact, low capital improvement options.
- A wetland habitation mitigation plan and commitments for implementation.
- A comparison of wetland functions and values among the action alternatives.

United States Coast Guard (USCG)

The USCG provided a statement that the DEIS meets the requirements for the United States Coast Guard as related to National Environmental Policy Act (NEPA).

United States Army Corps of Engineers (USACE)

Requested:

- Plans and work description for bridge construction.
- Clarification of plans for the existing US-31 bridge between Grand Haven and Ferrysburg with the TSM Alternative.
- Further investigation into a hybrid between freeway and boulevard alternatives to avoid a local Grand Haven bypass.
- More description as to why Alternative C was eliminated.
- Elimination of Alternative F to minimize impacts to the Pigeon River.
- Wetland plans include clearly stated objectives, a method for judging success, and provisions for corrective actions during development.
- Increased effort to locate wetland mitigation sites within the Grand River floodplain.

United States Department of Agriculture (USDA)

Requested Alternative A be considered because it causes the least impacts to farmlands.

Advisory Council on Historic Preservation

Requested:

- Notification of adversely affected historic properties.
- Provide a map or written description of the Area of Potential Effect (APE) is in this FEIS.

- Closer examination of visual, audible or atmospheric elements that are out of character with historic properties or alter the setting.

US Public Health Service, Department of Health and Human Services

Stated that the DEIS generally addresses potential concerns. Recommended that future DEIS' state a preferred alternative based on the best available information and current thinking of the sponsors so reviewers may compare alternatives to it.

Other agency comments and concerns received included:

State Agencies

- Michigan Department of Environmental Quality (MDEQ)
- Michigan Department of Transportation, Multi-Modal Transportation Services Bureau – Airports Division (formerly MDOT Bureau of Aeronautics)

Their comments and concerns are summarized below:

Michigan Department of Environmental Quality (MDEQ)

Requested additional review and information be provided for:

- Permits
- Ecological resources, including surface water quality and wetlands
- Environmental consequences
- Navigation
- Mitigation, especially mitigation for wetlands

Michigan Department of Transportation, Bureau of Aeronautics (formerly MDOT Airport Division)

Requested:

- Reject P and P1r due to the impacts on Memorial Airpark, Grand Haven.
- Any alternative with impacts to retention or detention basins, wetlands or other wildlife attractants be in accordance with Federal Aviation Administration (FAA) Advisory Circular (150/5200-33).

5.4 MAJOR CONCERNS OR ISSUES

The following is a summarization of the major concerns, issues and needs that resulted from the DEIS and Public Hearings. MDOT met with many township, village and city representatives to assist in developing solutions to these concerns and issues. A list of all the meetings is found in **Section 5.5**.

5.4.1 US-31 Land Use Study Prepared by Michigan State University (MSU)

Numerous questions and concerns were expressed about indirect and cumulative impacts, especially for the bypass alternatives. The Michigan Department of Transportation contracted with MSU's Department of Geography, Basic Science and Remote Sensing Initiative (BSRSI) to conduct a four-county area (Allegan, Kent, Muskegon and Ottawa) transportation and land use model. The model was developed to assess the likely change, or pressure to change, from one land use to another, such as agriculture to urban, for the Practical Alternatives analyzed in this FEIS. The MSU US-31 team was hired as a neutral third party and based on their expertise in developing similar models with state-of-the-art techniques.

The model provided empirical data from satellite imagery to measure the cumulative land use changes from 1988 to 2001. Project indirect impacts indicated that no alternative had an appreciable impact. The study concluded that substantial economic forces in Kent, Ottawa, Muskegon, and Allegan county areas would cause growth and development regardless of transportation improvements. Practical Alternatives studied after the DEIS and the CSTS option was modeled and impacts measured. It showed there were minor adjustments in the location of the development between the US-31 Practical Alternatives; however, overall development resulting from the Alternative F/J-1 was minimal compared to total study area development from all causes.

The US-31 Land Use Study conducted by MSU concluded that:

- The same amount of development within the area was going to occur regardless of which alternative was chosen.
- Growth is predicted to be less than half of the three previous decades (20 – 27%) growth, but still very healthy.
- The influence of the Grand Rapids area made east-west corridors, rather than the north-south corridors, the conduits for much of the area's growth.

5.4.2 Coalition for Sensible Transportation Solutions Option

Following the Public Hearings, a group called the Coalition for Sensible Transportation Solutions (CSTS), was organized by citizens and some township officials. The CSTS opposed a rural freeway through Ottawa County and proposed an alternative to MDOT for consideration. MDOT included a review of the CSTS Option in the US-31 Land Use Study conducted by MSU (**Section 5.4.1**).

The CSTS Option involved the construction of the following (**Figure 5.4-1**):

- A freeway on US-31 between Holland and Grand Haven,
- A freeway connection around the Holland/Zeeland area,
- A local freeway connection around the tri-city area between US-31 and I-96,
- A new 104th Avenue Grand River bridge, and;
- An I-96/Sternberg Road interchange

The CSTS Option did not meet the purpose and need of this project, in that it did not address traffic congestion and safety issues in Holland Township or the City of Grand Haven. In addition, environmental impacts were much greater than the current Preferred Alternative.

5.4.3 Farmland Impacts

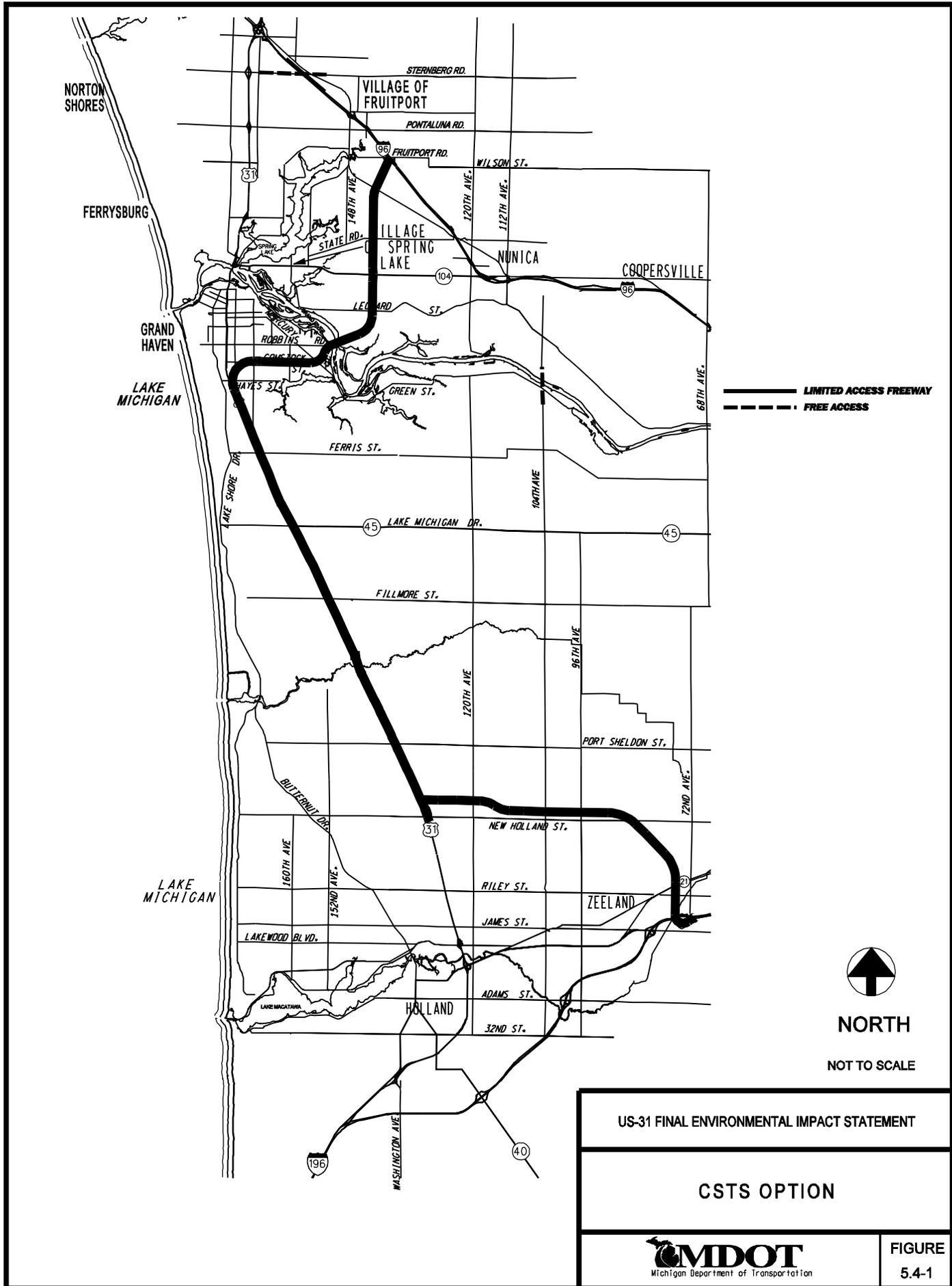
Rural townships were concerned with the quantity of direct impacts, indirect and cumulative impacts, and local road access for Alternative F/J1. MDOT worked with these townships after the DEIS Public Hearing to specifically address many of their concerns. Alignments were shifted to lessen impacts to farmlands. The current Preferred Alternative impacts 105 acres of Prime farmland and zero acres of Unique farmland, whereas the DEIS Alternative F/J1 impacted 190.5 acres of Prime farmland and 27 acres of Unique farmland. Changes in the road alignment have decreased the amount of farmland impacts.

5.4.4 Drainage and Hydrology

The resource agencies also requested additional information about runoff from major river crossings. Runoff from the major river crossings will be collected from these structures and piped to detention basins on the banks of the waterways before being released back to the waterways. No direct release of water from the bridges will be allowed. Similarly, it was noted that runoff from the roadway in other locations would be directed to and detained in detention basins adjacent to existing county drains wherever possible.

5.4.5 Wetland Impacts

Several resource agencies expressed concerns about the number of impacts to wetlands with the Recommended Alternative. For example, the United States Environmental Protection Agency (EPA) stated that every attempt should be made to develop an alternative that meets the Purpose of and Need for the project while avoiding and minimizing impacts to wetland resources. Through working with the local governments to address these and other concerns, the alignment was shifted and realigned considerably, and resulted in a reduction of wetland impacts to 2.55 acres.



The U.S. Army Corps of Engineers (USACE) advised that all wetland mitigation plans must contain clearly stated objectives, criteria for judging success, and provide for allowing for corrective actions during development of new wetland areas. All mitigation sites should be preserved permanently under conservation easements. The USACE agrees that “prior converted cropland” should be given priority in selecting mitigation sites. The USACE also recommended that additional mitigation sites be identified near the Grand River.

The MDEQ pointed out that many of the impairments identified in the Macatawa River and Pigeon River watersheds are linked to hydrologic modifications due to wetland losses, primarily in the headwater regions. To maximize the benefits of wetland mitigation, the DEQ recommended that the search area for mitigation sites be expanded to include headwater areas east of 120th Avenue.

5.4.6 Local Grand Haven Bypass

Alternatives P and P1r, also known as the “Local Grand Haven Bypass”, were eliminated from further study because they did not substantially meet the “Purpose and Need”, and had unacceptable social (residential and commercial displacements) impacts.

5.5 COORDINATION WITH LOCAL GOVERNMENTS AND AGENCIES

MDOT coordinated numerous meetings with public officials and agencies after the Public Hearings in order to address their concerns and build consensus for an alternative for the corridor. These following lists the meetings held with the officials and agencies.

Date	Participant and Major Topics of Meeting
January, 1999	Meeting with Ottawa County Board of Commissioners to discuss the DEIS.
February 5, 1999	Workshop meeting with FHWA and MDOT to establish an agenda for upcoming February 10 th meeting.
February 10, 1999	Meeting with resource agencies discussing various alternatives.
March 17, 1999	Workshop meeting with FHWA and MDOT establishing agenda for upcoming March 25 th meeting.
March 25, 1999	Meeting with resource agencies discussing various alternatives.
April 12, 1999	Resource agency meeting discussing the previous meetings and Recommended Alternative.
August 3, 1999	Meeting with City of Grand Haven.
August 24, 1999	Meeting with Macatawa Greenway Network and Ottawa County Parks Dept.
September 8, 1999	Meeting with Olive, Robinson & Crockery Townships discussing this FEIS.
September 13, 1999	MACC (Holland MPO) – Transit Technical Committee Briefing.
September 28, 1999	Workshop Meeting at URS.
September 28, 1999	Meeting with Holland Township.
October 20, 1999	Meeting with Ottawa County Road Commission discussing access, street closures, interchange locations, etc.
October 27, 1999	MACC (Holland MPO) – Transit Technical Committee Briefing, meeting initiated discussion between City of Holland, Holland Township and the Study Team on ITS/TSM topics.
November 12, 1999	Meeting with City of Grand Haven for a technical review of Alternative P1r through Grand Haven.
December 9, 1999	Meeting with City of Grand Haven to review alignment Alternative P1r.
February 25, 2000	Meeting with Olive Township discussing options for reducing US-31 Freeway Connection impacts with Olive Township.
February 28, 2000	Meeting with Ottawa County Commissioners at the Ottawa County Complex discussing status of FEIS.
April 10, 2000	Meeting with Blendon Township.
April 10, 2000	Meeting with John VanDenend of the Pigeon River Watershed Study and Charamy Butterworth of the MDEQ to review current proposed mitigation sites.

Date	Participant and Major Topics of Meeting
April 11, 2000	Meeting with John Scholtz and Mark Palega of Ottawa County Parks Department discussing joint use and development of their Huizenga property.
April 13, 2000	Meeting with the City of Grand Haven.
May 3, 2000	Meeting with Robinson Township to collect comments on Recommended Alternative.
May 23, 2000	Meeting with John VanDenend of the Pigeon River Watershed Study and Charamy Butterworth of the MDEQ and property owner to review the proposed mitigation plan.
May 24, 2000	Meeting with the Ottawa County Parks Department, the Macatawa River Watershed coordinator and landowner on the proposed park property wetland mitigation site plan.
June 21, 2000	Resource agency meeting to review the wetland mitigation site plans.
August 21, 2000	Meeting with three Olive Township farmers with large farms to update them on proposed alignment revisions.
October 16, 2000	Meeting with US-31 Study Team and Olive Township to review US-31 Freeway Connection alignment revisions.
October 18, 2000	Meeting with US-31 Study Team and Robinson Township to review US-31 Freeway Connection alignment revisions.
October 24, 2000	Meeting with Study Team and Crockery Township to review US-31 Freeway Connection alignment revisions.
November 9, 2000	Public Meeting @Zeeland Community Center.
December 12, 2000	Meeting with Blendon Township Supervisor, Henry Hoffman and a resident to discuss residents concerns with the US-31 Freeway Connection.
December 12, 2000	Meeting with Olive Township to discuss latest US-31 Freeway Connection alternatives.
January 4, 2001	Meeting with MDEQ to review revised Grand River and Pigeon River crossings.
January 5, 2001	Meeting with Olive Township to review latest modifications to the US-31 Freeway Connection.
January 5, 2001	Meeting with Grand Haven Township to review latest alignment revisions.
January 11, 2001	Meeting with City of Ferrysburg and Village of Spring Lake to discuss impacts of a 45' fixed span Grand River bridge.
January 17, 2001	Meeting with City of Grand Haven to discuss a host of issues including impacts of their desired 45' fixed span Grand River bridge.
January 22, 2001	Presentation to the MACC (Holland MPO) Policy Committee.
January 24, 2001	Meeting with MSU to discuss US-31 Land Use Study.
January 24, 2001	MSU US-31 Land Use Study Meeting @ Spring Lake Community Center.
March 26, 2001	MACC (Holland MPO) Policy Committee update on the US-31 Land Use Study.
March 29, 2001	Ottawa County Commissioner update on FEIS.
April 2, 2001	US-31 Study Team meeting with Ottawa County concerning Environmental Justice.
April 18, 2001	Meeting with US-31 Study Team and the City of Grand Haven.
April 30, 2001	Meeting with resource agencies for a progress update on the US-31 Land Use Study.
May 7, 2001	Meeting with MACC (Holland MPO) Ad Hoc Committee.
May 8, 2001	Public Meeting @ Ottawa County Building.
May 31, 2001	Meeting with Grand Haven Township.
May 31, 2001	Meeting with the City of Grand Haven.
June 27, 2001	Meeting with MSU to discuss the US-31 Land Use Study.
August 1, 2001	Meeting with Representative Barbara Vanderveen.
August 16, 2001	Meeting with Representative Barbara Vanderveen and CSTS.
October 1, 2001	Meeting with the City of Grand Haven.
October 5, 2001	Meeting with MSU to discuss US-31 Land Use Study.
October 15, 2001	Meeting with City of Grand Haven.

Date	Participant and Major Topics of Meeting
November 28, 2001	Meeting with the MACC (Holland MPO) Ad Hoc Committee.
December 6, 2001	Meeting with Federal Resource Agencies.
December 7, 2001	Meeting with resource agencies (MDEQ).
February 7, 2002	Public Meeting @ Zeeland Community Center to discuss the US-31 Land Use Study.
Late 2002	Meeting with Representative Wayne Kuipers
March 2, 2005	Meeting with Grand Haven Harbor Users Group
June 27, 2005	Meeting with Ottawa County Board and staff, with MDOT Director and staff
August 16, 2005	Meeting with the City of Grand Haven
August 23, 2005	Meeting with Robinson Township
August 29, 2005	Meeting with Macatawa Area Coordinating Council (Holland MPO) US-31 Committee
August 29, 2005	Meeting with the City of Grand Haven
September 1, 2005	Meeting with Olive Township
September 13, 2005	Meeting with Crockery Township
September 16, 2005	Meeting with the City of Ferrysburg
September 16, 2005	Meeting with Spring Lake Township
September 16, 2005	Meeting with Spring Lake Village
September 21, 2005	Meeting with WestPlan (Muskegon MPO) Technical and Policy Committees
September 28, 2005	Meeting with Ottawa County Road Commission
September 28, 2005	Meeting City of Wyoming Water Service District
September 29, 2005	Meeting with Grand Haven Township
October 1, 2005	Meeting with City of Grand Rapids Water Service District
March 2006	Meeting with Ottawa County Planning Department
August 23, 2006	Meeting with Ottawa County Board and staff, State Legislators, and MDOT Director and Staff
October 19, 2006	Meeting with resource agencies for a progress update and review of the Impacts Table
November 8, 2006	Public Meeting at the Ottawa County Fillmore Complex Building
November 29, 2006	Meeting with North-Bank (Grand River) Trail group
February 2007	Meeting with Ottawa County Planning Department
February 22, 2007	Holland MPO 2035 Long Range Transportation Plan Public Meeting
April 18, 2007	Meeting with Ottawa County Planning Department, Board Members and Property Owners
April 23, 2007	Holland MPO Policy Committee – Plan Approval
May 14, 2007	Muskegon MPO 2035 Long Range Transportation Plan Public Meeting
May 22, 2007	Meeting with Ottawa County (North-Bank) Non-Motorized Trail group
June 20, 2007	Muskegon MPO Policy Committee – Plan Approval
September 5, 2007	Meeting with Ottawa County Road Commission and Planning Department
January 31, 2008	The Muskegon and Holland MPO 2008-2011 Transportation Improvement Programs (TIP's) were approved by FHWA, including the US-31/M-231 project (Preliminary Engineering and Right-of-Way phases). Public Involvement for the TIP's took place during the summer of 2007.
February 25, 2008	Meeting with Ottawa County Planning Commission
April 22, 2008	Meeting with Crockery Township
June 24, 2008	Meeting with Ottawa County (North-Bank) Non-Motorized Trail group
September 17, 2008	Meeting with WestPlan (Muskegon MPO) Policy Committees
October 14, 2009	Robinson Township Board Meeting

(Several additional MPO, local community and property owner meetings we also held in 2006, 2007, 2008, and 2009.)

5.6 FEDERAL COOPERATING AGENCY CORRESPONDENCE AND COORDINATION

Letters were received by FHWA from the two federal cooperating agencies: the United States Coast Guard (USCG) on May 20, 2009; and the United States Department of the Army, Corps of Engineers (USACE) on July 8, 2009. Copies of the letters are in **Appendix C**. The following information summarizes the agency comments and MDOT response.

USCG

The USCG letter indicated a requirement to use proper Low Water Datum (LWD) for navigational clearances in the Grand River. The 35 feet vertical navigation clearance from the LWD is preliminary, pending comments from the issuance of a Coast Guard Public Notice. MDOT will use the LWD when developing subsequent design/engineering plans, as noted, for the new bridge over the Grand River.

All construction activities affecting the Grand River will follow the applicable permit processes. No temporary bridge is planned by MDOT for the Grand River during construction.

USACE

The USACE letter requested further information on the proposed Rogers wetland mitigation site in Ottawa County. This mitigation project has been classified and cleared as a Categorical Exclusion (CE), through the environmental classification process agreed to by MDOT and FHWA. Through this process, any archeological issues, threatened and endangered species, or other relevant environmental impacts have been identified and addressed as required. State Historic Preservation Office coordination has been addressed during this CE process as well. Additional information is provided in the Public Interest Finding Statement and related correspondence between MDOT and FHWA, in **Appendix G**.

Due to the presence of sandy soils and a relatively high water table, the site will be designed as a groundwater driven system. Hydrology will be achieved by excavating to the water table as indicated by monitoring wells on site. Secondary sources of hydrology will include direct precipitation and runoff from the property to the west via an existing culvert.

MDOT is not pursuing creation of, or connections to, a Great Lakes Marsh (GLM), due to the location of the site and design constraints with this proposed mitigation project. There will not be a direct connection from the MDOT created wetland on this site to the Grand River, for the water source needed to create a GLM. Although impractical with the US-31/M-231 project, the mitigation efforts proposed will not preclude future development of a GLM in coordination with the Michigan DNR. Any applicable subsequent findings will be documented in the Record of Decision for this FEIS.

The USACE concurs with the 35 foot bridge height requirement, per the USCG, as well as the Preferred Alternative and the revised Purpose and Need statements in the FEIS. The referenced wetland functions and values will be replaced as required. Specific the specific type and replacement ratio will be determined during the subsequent state and federal permit processes.

5.7 CONCURRENT NEPA/404 PROCESS FOR TRANSPORTATION PROJECTS

The National Environmental Policy Act (NEPA) and the Clean Water Act Section 404 process requirements are being completed concurrently for this project. This combined process serves as a consensus building tool for the agencies involved. It is intended that this process be at a sufficient level to develop full disclosure and documentation that appropriately addresses the NEPA and Section 404 regulations.

The three concurrence points within the NEPA process are as follows:

1. Purpose and Need, for the proposed action
2. Alternatives Carried Forward, for detailed study
3. The Preferred Alternative for the FEIS

The following state and federal agencies are participating in this process

- United States Army Corps of Engineers (USACOE)
- Federal Highway Administration (FHWA)
- Michigan Department of Transportation (MDOT)
- United States Environmental Protection Agency (USEPA)
- United States Department of the Interior/Fish and Wildlife Service (USFWS)
- Michigan Department of Natural Resources and Environment (MDNRE, formerly the MDEQ)

Concurrence on the first two points is generally obtained prior to the DEIS. However, some of the agencies deferred concurrence, pending further review of the impacts and mitigation for the alternatives. Subsequent correspondence has been received from all participating agencies and documented in the FEIS regarding point 1 and 2 concurrence. Concurrence on the third point will be requested as part of the agency review and comment process for the FEIS/ROD.

Correspondence was received indicating formal concurrence on the first two points as follows:

- USACOE: Concurrence on point 1 and 2 (FEIS Page C-23)
- MDEQ: Concurrence on point 1 and 2 (FEIS Page C-74)
- USFWS: Concurrence on point 1 and 2 (FEIS Page C-331)
- USEPA: Concurrence on point 1 and 2 (FEIS Page C-333)

Meetings were held with the above resource agencies to review projects impacts and issues affecting the concurrence points. MDOT addressed the agencies' concerns over wetland impacts by reducing wetland impacts for the alternatives carried forward and the Preferred Alternative. The wetland impacts were reduced from as much as 90 acres for alternative F/J-1, to just over 3 acres for the Preferred Alternative F1-a. In addition, MDOT addressed USEPA concerns over the Purpose and Need by providing further clarification of the issues in the DEIS Re-Evaluation, in this FEIS (Appendix F). Further USEPA concerns over indirect and cumulative impacts were addressed by completing the US-31 Land Use Study, in cooperation with Michigan State University. The study assessed the land use impacts expected in Ottawa County from the Practical Alternatives. The study findings are included in Chapter 4 (Section 4.1) of this FEIS.

Seven formal meetings were held with the participating resource agencies, between the DEIS and the FEIS, to address their concerns related to the concurrence points. Updates were also provided annually at the joint MDOT/FHWA Resource Agency meetings.

In addition, MDOT requested review of the stream crossings, as detailed in FEIS Tables 4.12-1 & 2, from the NEPA/404 process participating agencies. Comments were received from MDNRE and the USFWS. The key MDNRE issues included:

- Hydraulic analysis may be required for the proposed culvert extensions;
- The need to clarify or correct the stream crossing length and width contained in the FEIS;
- Factors to consider when selecting crossing options for construction;
- Environmental enhancement opportunities; and
- Coordination with MDNRE divisions during the design and permit process.

The US FWS also provided comments regarding the enhancement of wildlife habitat in the project area.

These issues were addressed and changes made to FEIS where appropriate. Issues that were not appropriate to address in the FEIS will be included in ongoing interagency coordination activities, subsequent project design phase activities, and/or permit process. All agency comments that are submitted during the FEIS waiting period will be addressed in the ROD.

MDOT and FHWA are requesting concurrence on point 3 (the Preferred Alternative), from the resource agencies participating in the Concurrent NEPA/404 Process, through the FEIS waiting period/review process. Concurrence will subsequently be documented in the ROD.

6.0 LIST OF PREPARERS

The following individuals prepared or aided in the compilation and completion of technical portions of the Final Environmental Impact Statement:

MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT)

Vicki Weerstra P.E., Associate Region Engineer/Development, MDOT Grand Region – Review and development of alternatives, traffic impacts and coordination with local municipalities and county governments. B.S. in Civil Engineering and 22 years of experience in Highway Engineering with MDOT.

Christopher VanNorwick P.E., Grand Region Project Manager, Cost and Scheduling Engineer, MDOT Grand Region - Review and development of alternatives, traffic impacts and coordination with local municipalities and county governments. B.S. in Geological Engineering with 10 years experience in geotechnical and civil engineering.

Susan Bourdon, Drafting Technician, MDOT Grand Region – Development and mapping of the Preferred Alternative. 5 years experience in the Grand Region Development area and previous experience in the Lansing Design Division.

Michael O'Malley, Environmental Project Manager, Lansing Project Planning - Review of the natural resource sections of this FEIS as well as coordination with the resource agencies, state legislative, municipal and other representatives and special interest groups. B.S. in Environmental Science, B.S. in Biological Education and 19 years experience with the Environmental Documentation for MDOT.

Dennis Kent, Region Transportation Planner, MDOT Grand Region - Review and development of Purpose and Need, alternatives, traffic data and coordination with local municipalities, MPO's, and county governments. B.S. in Regional Planning with 9 years experience with the Grand Rapids MPO and 20 years of experience in Transportation Planning with MDOT.

Tom Raymond, Transportation Planner, Lansing Project Planning – Review of project Purpose and Need, alternatives, traffic and reviews. B.S. in Community Development with 14 years experience in Planning and 22 additional years in land development activities.

Steve Redmond, Transportation Planner, MDOT Grand Region - Review of traffic data, and coordination with local municipalities, MPO's, and county governments. B.A. in Urban Policy with 14 years of experience in Transportation Planning with MDOT.

Peter Loftis, Real Estate Manager, MDOT Grand Region – Review of alternatives and property impacts. B.A. in Public Policy and 20 years of experience with MDOT.

Don Mayle, Transportation Planner, Lansing Statewide Planning – Travel demand model analysis of the project alternatives. B.S. in Geography with GIS specialization and 6 years experience in travel analysis with MDOT.

Doug Proper, Transportation Engineer, Lansing Project Planning – Review of project environmental resources, impacts, and mitigation. B.S. in Civil Engineering and 28 years experience in NEPA documents, environmental impact analysis, and mitigation with MDOT.

Richard A. Wolinski, Wildlife Ecologist, MDOT Lansing - Review of the natural science and floodplain sections of this FEIS. B.S. in Biology, M.S. in Biology. A total of 31 years of experience in natural resource assessment and impacts analysis, with four years of experience at MDOT.

Michael Pennington, Wetland Mitigation Specialist, Lansing Project Planning – Review of wetland impacts and associated mitigations. B.S. Earth Science and M.S. Forestry with a total of 15 years of experience in wetland mitigation with MDOT.

Bartlett E. Franklin P.E., Region Development Manager, MDOT Grand Region - Review of alternatives and preliminary cost estimates. B.S. in Civil Engineering and 12 years of civil engineering related experience, including 5 years with MDOT.

Art Green, Development Manager, Grand Rapids TSC - Review and development of design options and other related project development issues. 10 years experience within MDOT Development and 5 years experience with design and construction of MDOT local agency and municipal projects.

In accordance with Title 40 of the Code of Federal Regulations (Part 1506.5(c)), the consultant selected to assist in preparation of the environmental document was selected by MDOT and had no conflict of interest with the project. The preparers of this document have no financial or other interest (other than general enhancement of professional reputation) in the outcome of the project. This disclosure statement has been independently evaluated by the responsible official from the Federal Highway Administration in accordance with the regulations.

URS CORPORATION

Theresa Petko AICP, Project Manager – Management and review of Final EIS, contract administration and quality control/quality assurance. B.S. in Resource Development and 27 years experience in Transportation Planning and Environmental Studies.

Sean Kelsch, P.E., Senior Roadway Engineer – Preparation and review of roadway alignments, preliminary cost estimates and interchange alternatives. B.S. in Engineering and 13 years of experience in Highway Engineering and Transportation Planning.

Michael DeVries P.E., Traffic Engineer - Preparation of traffic projections and capacity analysis. B.S.E. and M.S.E. in Engineering and 13 years experience in Highway Traffic Engineering.

Tara Weise, PE, Roadway Engineer - Preparation of engineering alignments and Final EIS. B.S. in Civil Engineering and 10 years experience in Highway Engineering and Transportation Planning.

John Delp, Noise Analyst – Technician responsible for preparing computer noise model utilizing FHWA TNM software. Also responsible for conducting field noise measurements and identifying NSA boundaries. A.A.S. in Communications with 11 years of noise experience, including 6 years using TNM software.

Ray Schneider AICP, Transportation Planner – Traffic operations and crash analyst and coordinator of traffic data collection. B.A. in Economics and B.S. in Transportation Technology/Transportation Systems and 12 years experience in Transportation Planning and Traffic Engineering.

Jennifer Reidsma, Transportation Planner/GIS Specialist - Preparation of engineering alignments and Final EIS. B.S. in Sociology and City and Regional Planning and 6 years experience in Highway Engineering/Planning.

Stephanie Kozlowicz, Graduate Transportation Planner/GIS Specialist – Preparation of engineering alignment and Final EIS. B.S. in Natural Resources Management and 2 years experience in Highway Engineering/Planning.

Meghan McDowell, Environmental Scientist – Prepared ecological sections of Final EIS and performed threatened and endangered species habitat assessments and wetland delineations. B.S. in Environmental Biology/Zoology and 3 years experience with biological assessments, wetland delineations and ecological studies.

Brendan Earl, Environmental Scientist – Prepared ecological sections of Final EIS and performed threatened and endangered species habitat assessments and wetland delineations. B.S. in Biology, M.S. in Biology and 5 years experience with biological assessments and ecological studies.

Sherry Slocum, Senior Environmental Scientist – Management and review of ecological sections of Final EIS. B.S. in Biology/Environmental Engineering, M.S. Environmental Management and GIS and 9 years experience in Water Resources and Ecological Planning.

Paul Burge, INCE.Bd.Cert, Noise Control Engineer – Responsible for overall noise analysis, including direction and review of noise measurements, modeling, analysis and reporting tasks. BS and MS in Mechanical Engineering, Board Certified Noise Control Engineer, 18 years experience in transportation noise issues.

Cole Martin, Noise Analyst – Contributed to all aspects of noise analysis effort, including noise site survey and noise measurements, noise analysis, abatement assessment and report preparation. B.A. in Audio Arts and Acoustics, and 2 years experience in highway noise analysis.

Deborah Dutcher Wilson, Air Quality Specialist – responsible for the preparation of the air quality analysis. B.S. and M.S. in meteorology with 15 years of experience in transportation air quality analyses.

James Kooser, Senior Ecologist – Field work and reporting for habitat surveys for the Indiana Bat. B.S. in Zoology, graduate work and research in plant community ecology and 21 years in ecological research, wetland delineation and mitigation, threatened and endangered species assessments and transportation environmental analyses.

ADVANCED GEOMATICS

Faye Feindt, Professional Technician - Preparation of socio-economic information, right-of-way estimates, and property impact assessments for alignments. Civil engineering studies and 27 years experience in Professional Surveying.

Mary Feindt, Ph.D., Professional Surveyor - Preparation of socio-economic information, right-of-way estimates, and property impact assessments for alignments. A.B. in General Studies, B.S. in Geodesy and Surveying, and M.S. in Civil Engineering and 29 years experience in Professional Surveying.

METCO SERVICES, Inc.

Martin Dunn, Professional Surveyor - Survey Ground Control and preparation hydraulic surveys. B.S. in Land Surveying and 25 years experience in Professional Surveying.

H.B. Singh, Civil Engineer - Preparation of storm water detention requirements. B.S. in Civil Engineering and 20 years in Highway Engineering, Hydraulics and Hydrology.

Stephen R. Jacobi, Professional Surveyor - Survey Ground Control and preparation hydraulic surveys.

STS CONSULTANTS, LTD.

Don Hopper P.E., Geotechnical Engineer - Analysis of soils for structures and their foundations. B.S. in Civil Engineering and 39 years experience in Geotechnical Engineering.

ENVIRONMENTAL and ENGINEERING SERVICES GROUP, Inc.

Lenora Jadun P.E. - Quality review of indirect and cumulative impact study. M.S.C.E. and M.P.A. with over 15 years of civil engineering, road planning and design experience.

Bill Taylor P.E. - Oversight of indirect and cumulative impact analysis. B.S., M.S. and Ph.D. in Civil Engineering, 7 years experience with State and local government agencies and 30 years experience as a faculty member at Universities.

GREAT LAKES RESEARCH ASSOCIATES, Inc.

Mark Branstner, Cultural Resource Analyst - Prehistoric and historic archaeology, archival research, cultural resource management and preservation planning. B.A. and M.A. in Anthropology and 21 years of cultural resource fieldwork, graduate study and consulting.

COMMONWEALTH CULTURAL RESOURCES GROUP, INC. (CCRG)

James A. Robertson, Ph.D., RPA, Project Manager – Prehistoric and historic archaeology, archival research, cultural resource management and preservation planning. M.A. and Ph.D. in Anthropology and over 18 years of cultural resource management experience. Dr. Robertson is a Registered Professional Archaeologist (RPA).

Daniel G. Landis, Project Archaeologist – Prehistoric and historic archaeology, archival research, cultural resource management and preservation planning. B.A. and M.A. in Anthropology and 25 years of cultural resource field management experience. Mr. Landis is a Registered Professional Archaeologist (RPA).

MATERIALS TESTING CONSULTANTS, INC.

Douglas W. Sabin, P.E., Geotechnical Manager – Preliminary soil borings and analysis for major river crossing of the Grand, Pigeon and Macatawa Rivers. B.S. in Civil Engineering, 15 years experience with soils and working with private developers, and State and local government agencies.

MICHIGAN STATE UNIVERSITY

Samuel A. Batzli, Ph.D., Land Use Study Project Manager – Project Manager responsible for the development of the Indirect and Cumulative impact assessments for the various alternatives considered in this FEIS. Ph.D. in Geography and 10 years experience with relational databases, cartography, and Geographic Information Systems.

David L. Skole, Ph.D., Land Use Study Co-Investigator – Responsible for the development of the Indirect and Cumulative impact assessments for the various alternatives considered in this FEIS. Ph.D. in Natural Resources and 20 years experience with systems modeling, relational databases, and Remote Sensing.

Yushuang Zhou, Graduate Research Assistant – Responsible for modeling land use change as results of transportation development and regional economic growth. B.S. and M.A. in Regional Economics, Ph.D. Candidate in Geography. Six years of experience in spatial econometric modeling and 4 years experience in Geographic Information System (GIS).

William A. Salas, Ph.D., Remote Sensing Specialist – Responsible for the development of the land cover and land cover change data using Landsat TM and ETM+ data, accuracy assessment of land cover and land cover change data, and development and implementation of prognostic model of land use change. B.A. in Mathematics, M.S. and Ph.D. in Natural Resources and 15 years experience with remote sensing, Geographic Information Systems, and land use and land cover change applications and modeling.

Oscar E. Castaneda, Specialist – Support for GIS, modeling, programming, network analysis. M.S. in Geological Sciences, 10 years experience with GIS, modeling, programming.

Walter H. Chomentowski, Geographic Information System – Support for land use modeling. M.S. in Forestry and Environmental Studies, 14 years experience with GIS and Remote Sensing technologies for monitoring land use change.

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7.0 DISTRIBUTION OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT

The Final Environmental Impact Statement is being distributed to the following parties: Elected Officials, Federal Agencies, State Agencies, Affected Jurisdictions, Citizen Interest Groups, and MDOT staff for review and comment.

U.S. SENATORS and REPRESENTATIVES

U.S. Senator Debbie Stabenow
U.S. Senator Carl Levin
U.S. Representative Peter Hoekstra

FEDERAL AGENCIES

Federal Aviation Administration
Federal Emergency Management Agency (Washington Office)
U.S. Army Corps of Engineers (Detroit)
U.S. Coast Guard (Ninth District, Cleveland Office)
U.S. Department of Agriculture, State Conservationist (E. Lansing Office)
U.S. Department of Commerce (Washington Office)
U.S. Department of Energy (Washington Office)
U.S. Department of Housing and Urban Development
U.S. Department of Interior, Fish and Wildlife Service (East Lansing Field Office and Omaha, NE)
U.S. Environmental Protection Agency (Region 5)
U.S. Environmental Protection Agency (Washington Office)
U.S. Department of Health and Human Services (Center for Disease Control)

MICHIGAN SENATORS and REPRESENTATIVES

Michigan Senator Wayne Kuipers
Michigan Representative David Agema
Michigan Representative Arlan Meekhof
Michigan Representative Bill Huizenga
Michigan Representative Mary Valentine

STATE AGENCIES

Department of History, Arts and Libraries, State Historic Preservation Office (formerly Michigan Department of State)
Michigan Department of Agriculture
Michigan Department of Community Health
Michigan Department of Environmental Quality
Michigan Department of Natural Resources
Michigan Department of Transportation
Michigan Environmental Science Board

LOCAL JURISDICTIONS and AGENCIES

Ottawa County
Crockery Township
City of Grand Haven
Holland Township
Robinson Township
Macatawa Area Coordinating Council
West Michigan Shoreline Regional Development Commission
Ottawa County Drain Commission
Ottawa County Road Commission

OTHER AGENCIES and SPECIAL INTEREST GROUPS

Clean Water Action
Keweenaw Bay Indian Community
Little River Band of Ottawa Indians
Loutit Library
Michigan Environmental Council
Michigan United Conservation Clubs, Inc.
Ottawa County Farm Bureau
Potawatomi Indian Nation, Inc.
Region 8 Planning Commission
Region 14 Planning Commission
Sault Ste. Marie Chippewa Tribal Council
Sierra Club
West Michigan Environmental Action Council

MDOT STAFF

Project Manager MDOT Grand Region
Project Manager MDOT Lansing
Bureau of Highways-Technical Services
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Grand Region Real Estate
Grand Region Survey
Grand Rapids Transportation Service Center (TSC) Manager
Muskegon TSC Manager
Grand Rapids TSC Development Manager
Muskegon TSC Development Engineer
Environmental Section

- Public Hearings Officer
- Environmental Project Manager
- Environmental Specialist
- Assistant Environmental Project Manager

8.0 LISTING OF TECHNICAL REPORTS

- Air Quality Report
- Wetland Assessment Report
- Noise Quality Analysis
- Indiana Bat Survey
- Navigation Boat Survey
- Traffic Analysis
- US-31 Preliminary Assessment of Bridge Hydraulics
- Archeological (CCRG's Report)
- US-31 Land Use Study (MSU Report)
- Natural Environment Biological Assessment
- Monthly Water Quality Assessment of Lake Macatawa and its Tributaries – 2004 (MDEQ Water Bureau)
- Hydraulic Study Report

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9.0 GLOSSARY OF TERMS

100-Year Flood Elevation: Defined by the Federal Emergency Management Agency (FEMA) as the flood elevation that has a one-percent chance of being equaled or exceeded (inundated) in any given year. Thus, despite its name, a 100-year flood could occur more than once in a relatively short period of time. See also floodplain.

Air Quality Index (AQI): The AQI is a guide for reporting daily air quality. It tells you how clean or polluted your air is and what associated health concerns you should be aware of. The AQI focuses on health effects that can happen within a few hours or days after breathing polluted air. USEPA uses the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. For each of these pollutants, USEPA has established national air quality standards to protect against harmful health effects.

Alternative: Different options under consideration for a project. By evaluating the impacts associated with different Alternatives, a decision can be made as to which one will be the “Preferred Alternative.” There have been a number of Alternatives considered as part of this project, and all the terms below are defined separately as well:

- Illustrative Alternatives
- Practical Alternative
- No-Action Alternative
- Preferred Alternative

American Association of State Highway and Transportation Officials (AASHTO): A nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia and Puerto Rico whose primary goal is to foster the development, operation, and maintenance of an integrated national transportation system.

Annual Average Daily Traffic (AADT): The average number of vehicles passing a fixed point in a 24-hour time frame. To reflect daily variation over time, AADT averages the daily traffic volumes over the course of a year. Used as a measure of traffic volume on a roadway. AADT is essentially the yearly traffic volume divided by 365.

Average Daily Traffic (ADT): The average number of vehicles passing a fixed point in a 24-hour time frame. Used as a measure of traffic volume on a roadway.

Archaeological Site: the location of past cultural activity which could be used to describe and explain the nature and evolution of cultural systems; a defined space with mainly continuous archaeological evidence.

Architectural Resource: A building or other structure with potential historic significance based on its age, type, or its association with a person(s) or event(s).

Area of Potential Effect (APE): In the context of cultural resources, the APE is the geographic area or areas within which a project may directly or indirectly cause alterations in the character or use of historic or archeological resources, if any such properties exist. The area of potential effect is influenced by the size and nature of a project and may be different for different kinds of effects caused by the project.

Clean Air Act Amendments (CAAA): Legislation designed to curb three major threats to the nation’s environment and to the health of Americans: acid rain, urban air pollution, and toxic air emissions. It called for establishing a national permits program to make the law more workable and an improved

enforcement program to help ensure better compliance with the Act. The original Clean Air Act of 1970 was last amended in 1990.

Clean Water Act: Provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources.

Combined Sewer Overflows (CSOs): Sewers that are designed to collect rainwater runoff, domestic sewage, and industrial wastewater in the same pipe. Municipal utilities across the country have been grading their sewer systems in recent decades to separate storm water from sewage and wastewater, which are treated separately.

Congestion: The level at which transportation system performance is no longer acceptable due to traffic interference. The level of acceptable performance may vary by type of transportation facility, geographic area, and/or time of day.

Controlled Access: This is the regulated limitation of access and is achieved by regulation of public access rights into (ingress) and out of (egress) properties abutting a roadway. A controlled access roadway has few (or no) driveways, may be physically separated by a median, and intersections with crossroads are widely spaced. A freeway has limited access with access to and from the roadway limited to interchange ramps.

Cross Section: Depicts the characteristics of a roadway facility as seen from a driver's perspective, including lane, shoulder, and typical right-of-way widths.

Cultural Resources: A location, building, structure, or place with potential historic or archeological significance.

Cumulative Impacts: The impact on the environment which results from the incremental impact of action(s) when added to other past, present, and reasonable foreseeable future actions regardless of what agency or person undertakes such action(s).

Design Year: The year for which a project is designed (typically about 20 years in the future) to accommodate traffic needs.

Direct Impacts: An impact caused by a project that occurs at the same place as the project and at the same time as the project is implemented, i.e. is a direct result of the project.

Draft Environmental Impact Statement (DEIS): An environmental document that is prepared when it is initially determined that the action/project may cause significant impacts to the environment, when environmental studies and early coordination indicate significant impacts, or when review of a previously prepared environmental assessment indicates that the impacts anticipated to result from the project may be significant. The DEIS compares all reasonable alternatives to the proposed project and summarizes the studies, reviews, consultations, and coordination required by legislation and Executive Orders to the extent appropriate at the draft stage in the environmental process.

Endangered Species: Any species of animal or plant life that is in danger of extinction throughout all or a significant part of its range. Species can be designated "endangered" by either the U.S. Fish and Wildlife Service or a state's Natural Heritage program. With this designation comes legal protection at the federal level (Endangered Species Act) and/or the state level. Species can also be designated by state or federal government as Threatened Species or Special Concern Species for species with populations that are somewhat less in jeopardy than endangered species.

Environmental Consequences: The Environmental Consequences discussion in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) assesses the anticipated effects of the proposed project alternatives on all possible resources (air quality, wildlife, wetlands, etc.) that may be

affected by the project. This discussion compares and contrasts the impacts associated with all alternatives, including the No-Build Alternative.

Facility: Any type of transportation infrastructure such as highways, local roads, transit centers, etc. that is used to move people and goods.

Farmland and Open Space Preservation Program: This program enables a farm owner to enter into a development rights agreement with the State, ensuring that the land remains in an agricultural use for a minimum of 10 years and that the land is not developed in a non-agricultural use.

Farmlands of Local Importance: The Natural Resources Conservation Service defines these farmlands as “those lands that are nearly prime and that economically produce high yields when treated and managed according to modern farming methods. Some may produce as high a yield as prime farmlands, if conditions are favorable” (USDA, 1983).

Federal Highway Administration (FHWA): Division of the U.S. Department of Transportation which funds highway planning and construction programs. The FHWA provides expertise, resources, and information to continually improve the quality of our nation’s highway system and its intermodal connections.

Final Environmental Impact Statement (FEIS): A document prepared in accordance with the National Environmental Policy Act (NEPA) identifying and addressing the social, economic, and environmental impacts of a Preferred Alternative and addressing public comments received during the formal public commenting period as well as the public comments received throughout the entire NEPA process.

Floodplain: Any land area susceptible to being inundated by floodwaters from any source.

Freeway: A divided arterial highway for through traffic with limited access, the intersections of which are usually separated from other roadways by differing grades (i.e. bridges).

Habitat: An area that provides an animal or plant with adequate food, water, shelter, and living space.

Hazardous Materials: Substances or materials capable of posing unreasonable risk to health, safety, and property when transported in commerce or when encountered in underground contamination.

Historic Resources: Properties that may possess potential historic significance based on its age, type, or its association with a person(s) or event(s). Such a property may have the distinctive characteristics of a type, period, or method of construction or may represent the works of a master or may possess high artistic values.

Hydric Soils: A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.

Hydrophytic Vegetation: Plants which grow in wetlands and exhibit certain physical characteristics such as shallow root systems, swollen trunks, or roots found growing from the plant stem, or trunk above the soil surface.

Illustrative Alternatives: Preliminary concepts developed at the onset of a transportation planning project. Illustrative Alternatives are typically very conceptual by nature and are intended to examine all potentially reasonable alternatives to address the transportation needs of the study area, prior to detailed study to identify their feasibility.

Impacts: Effects which occur as a result of implementing a transportation improvement; most commonly occurs when proposed right-of-way actually crosses a resource in question such as a residence, business, wetland, or other resources.

Indirect Impacts: Caused by the project and are later in time or further removed in distance than direct impacts, but are still “reasonably foreseeable.”

Infrastructure: Term used to describe the physical assets of a society or community including roads, bridges, transit facilities, bikeways, sidewalks, parks, sewer/water systems, communications networks, and other capital facilities.

Invasive Species: Non-native plants or animals that are introduced far from their original range, and become more successful at competing with native species for space and resources.

Land Evaluation Site Assessment (LESA): A point-based approach for rating the relative importance of agricultural land resources based upon specific measurable features.

Land Use: The way specific portions of land or the structures on them are used or planned for future use. Land use is typically based on local zoning guidelines and long term land use plans. Example land uses include commercial, residential, industrial, retail, agricultural, and vacant.

Level-of-Service (LOS): A term that reflects the ability of a roadway to accommodate traffic. LOS ranges from A (representing free-flowing traffic at high speeds), B (speed somewhat restricted and short delays), C (speed is determined by traffic and moderate delays), D (tolerable but fluctuating speeds), E (roadway near capacity with limited speed and long delays) to F which has high congestion and generally restricted operating speeds.

Limited Access Facility: A freeway facility that does not have driveway access or roadway intersections. Access is limited to freeway interchanges.

Median: A barrier, often found on multi-lane roadways or freeways, which provides separation distance between conflicting traffic movements. A median can consist of either a grass or natural setting, or a concrete wall or guardrail barrier.

Michigan Department of Environmental Quality (MDEQ): The State agency responsible for review of any wetland, floodplain, potentially contaminated sites, air quality, and/or water quality impacts.

Michigan Department of Natural Resources (MDNR): The State agency responsible for review of State threatened and endangered species, parkland, and fisheries impacts.

Michigan Department of Transportation (MDOT): The State agency responsible for planning, construction, and maintenance of all interstate, US, and State highways, bridges, and other modes of transportation within the state of Michigan.

Mitigation: Actions provided to avoid, minimize, or compensate the effect of impacts occurring as a result of an activity.

National Ambient Air Quality Standards (NAAQS): Air quality standards set by the U.S. Environmental Protection Agency (USEPA) for pollutants considered harmful to public health and the environment.

National Environmental Policy Act (NEPA): Federal act passed in 1969 which requires the assessment of the social, economic, and environmental impacts a federally funded or federally permitted project might cause, including identification of the purpose of and need for the project, and evaluation of alternatives to minimize resulting impacts.

National Pollution Discharge Elimination System (NPDES): As authorized by the Clean Water Act, the National Pollution Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point Sources are discrete conveyances such as pipes or man made ditches. Industrial, municipal, commercial, and other facilities must obtain permits of their discharges go directly to surface waters. The permits section of the

Water Bureau within the Michigan Department of Environmental Quality is responsible for administering the permit program for the state.

National Register of Historic Places (NHRP): The Nation's official list of cultural resources worthy of preservation. This list was established under the National Historic Preservation Act of 1966 and is administered by the Department of the Interior.

Natural Resources Conservation Service (NRCS): The Federal agency responsible for providing leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. Formerly known as the Soil Conservation Service.

Network: A transportation system with its many roadways and routes.

No-Action Alternative: The No-Action Alternative involves maintaining the current configuration with no improvements. It is used as the basis of comparison with the other Practical Alternatives.

Non-Attainment Area: A designation by the U.S. Environmental Protection Agency of any place in the United States failing to meet national ambient air quality standards (NAAQS).

Non-Motorized Transportation: Bicycles, rollerblades, running, walking, wheelchairs, etc.

Peak Hour: The 60-minute period in the AM or PM in which the largest volume of travel is generally experienced (for example, rush hour).

Practical Alternative: Practical Alternatives are developed from refinements made to the initial Illustrative Alternatives. These alternatives are subject to increased levels of traffic, engineering, social, economic, and environmental analysis as well as public and agency comment to determine if they are capable of meeting the purpose and defined goals of the project.

Preferred Alternative: The Preferred Alternative is selected from the Practical Alternatives after extensive engineering, social, economic, and environmental analysis. It could include components of several Practical Alternatives in any combination found to be the most beneficial. It is recommended in the Final Environmental Impact Statement for Federal Highway Administration approval as required for design and construction utilizing federal funding.

Prime Farmland: The Natural Resources Conservation Service has designated prime farmland as "land that has the best combination of physical and chemical characteristics for producing food, forage, fiber, and oilseed crops. The land could be crop, pasture, range, forest, or other uses, but does not include urban built-up land or water bodies since these two are considered irreversible uses. It has the soil quality, growing season, and moisture supply needed to economically produce and sustain high yields when treated and managed according to modern farming methods, including water management" (USDA, 1983).

Public Hearing: A hearing formally advertised and convened to afford any person who deems their interest in property to be affected by a project an opportunity to be heard. A public hearing includes formal documentation of all comments received.

Record of Decision (ROD): A final environmental document published after a Final Environmental Impact Statement (FEIS) that identifies the selected alternative. A ROD discusses the alternatives considered and the basis of the decision as well as any mitigation measures for environmental impacts.

Right-of-Way (ROW): Public land reserved for locating infrastructure such as a roadway or a utility line. A road right-of-way includes area for any required shoulders, drainage ditches, curb, median, barriers, and fences in addition to the roadway.

Rural Cross-Section: A roadway facility characterized by the presence of open drainage into ditches.

Secondary Impact: Effects “caused by an action later in time or farther removed in distance (from the right-of-way), but which is still reasonably foreseeable” (40 CFR 1508.8).

Section 4(f): This is Section 4(f) of the Department of Transportation Act of 1966. Section 4(f) states that no highway project should be approved which requires the “use” of any publicly owned land from a public park, recreation area, wildlife and waterfowl refuge or historic site unless there is no feasible or prudent alternative to the use of such land. In addition, adverse impacts to these 4(f) sites must include all possible planning to minimize harm resulting from such use. In the context of Section 4(f), “use” can be either a direct impact (taking of property), or a “constructive use,” which may not actually require acquisition of land, but otherwise impairs the function of the resource through changes in access or surroundings.

Section 106: Section 106 of *The National Historic Preservation Act of 1966* is the main protection that archaeological, historical, and cultural resource sites have against the encroachment of federally-funded programs in the United States. Section 106 requires that the State Historic Preservation Office (SHPO) review all federal actions for any potentially adverse effect on cultural resources.

Special Concern Species: While not afforded legal protection under the Act, many of these species are of concern because of declining or relict populations on the state. Should these species continue to decline, they would be recommended for Threatened or Endangered status. Protection of Special Concern species now, before they reach dangerously low population levels, would prevent the need to list them in the future by maintaining adequate numbers of self-sustaining populations within Michigan. Some other potentially rare species are listed as of Special Concern pending more precise information on their status in the state; when such information becomes available, they could be moved to Threatened or Endangered statuses or deleted from the list.

State Historic Preservation Office (SHPO): The state agency having jurisdiction over protecting archaeological and above-ground historic architectural resources (e.g. cultural resources).

Temporary Impact: Refers to impacts occurring during construction that cease to exist after construction associated with the project is completed (e.g. dust associated with construction activities).

Threatened Species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Traffic Count: Mechanical, digital, or photographic means of quantifying the number and type of vehicles at a given location. Counts may be determined from raw base data (axle counts divided by two to give an estimation of passenger vehicles), or by more sophisticated means to quantify vehicle type (passenger, light truck, heavy truck, bus, etc...). Counts typically are performed for an identified peak period (Am – early/”rush hour” morning, PM – late/”rush hour” afternoon, other industry-determined period), or for a 24-hour period. 24-hour counts may be adjusted for weather, seasonal, and other factors to arrive at a representative annual average daily traffic count (AADT).

Transit: Transportation mode involving busses, trains, and other vehicles that individually move larger numbers of people than do individual automobiles. Also known as mass transit, public transit, public transportation, or urban transit.

Transportation System Management (TSM): Reasonable small-scale roadway improvements such as traffic signal improvements, turn restrictions, turn lanes, and short distance local road improvements.

Travel Demand: The counted or projected volume of traffic that is or will be utilizing a roadway in a specified time period (i.e., 24 hours, peak periods, etc.).

Trout Stream: A stream designated as potential trout habitat based on the average temperature of the water, approximately 55°F or colder.

Underground Storage Tank (UST): Depending on the type, age, and condition of the UST and associated underground piping, the UST may present a risk for soil and/or groundwater contamination. If the UST is documented as leaking or shows visible signs of leakage at ground level, it is referred to as a Leaking Underground Storage Tank (LUST).

Unique Farmlands: The Natural Resources Conservation Service has defined unique farmlands as “land other than prime farmland that is used for the production of specific high value food and fiber crops. These lands have a special combination of factors needed to economically produce sustained high quality yields of a specific crop when treated and managed according to modern farm methods. The special factors that make the land unique include soil quality, growing season, temperature, humidity, elevation, moisture supply, or other conditions such as nearness to market that favor growth of a specific crop. Moisture supply is in the form of stored moisture, precipitation, or a developed irrigation system.”

United States Army Corps of Engineers (USACE): The federal agency responsible for review of all water crossings of navigable streams. The USACE also serves in an advisory role on wetland impacts of Michigan highway projects.

United States Department of Agriculture (USDA): The federal agency responsible for review of any prime and unique farmland impacts.

United States Environmental Protection Agency (EPA): The federal agency charged with protecting the natural resources of the country.

United States Fish and Wildlife Service (USFWS): The federal agency responsible for review of the impacts on any federally listed threatened and endangered species. The USFWS also serves as an advisory agency for many other environmental issues including wetland and habitat impacts.

Urban Cross-Section: A roadway facility characterized by the presence of enclosed drainage (storm sewer) and curb and gutter or valley gutter. Urban freeway cross-sections have a median barrier wall separating opposing lanes of traffic.

Upland: An area that is not classified as a wetland.

Wetland (Wetland Complex): Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support plants typically adapted for life in saturated soil conditions. The term “wetland” encompasses many different types of plant communities, and is dependent on the duration and depth of in inundation. These different types can include fens, bogs, wet meadows, wooded wetlands, scrub/shrub wetlands, open water wetlands, etc. A “wetland complex” describes a contiguous area composed of more than one type of wetland. An area that is not classified as a wetland is called “upland.”

Wetland Delineation: The process used to determine the jurisdictional boundaries of a wetland. Wetland delineations are a function of the soils, hydrology, and vegetation observed.

Wetland Mitigation: Avoidance, minimization, and compensation for the loss of functional values associated with wetlands impacted by an activity. The most common types of compensation include wetland restoration reestablishing some or all of the values associated with wetland where wetland formerly occurred, and wetland creation (establishing new wetland in an upland or drained area).

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10.0 LIST OF ABBREVIATIONS

Agency names, technical analyses, or other phrases are frequently abbreviated into acronyms. We have provided a list of common abbreviations used in this document and which may be seen or heard from time to time during the course of this study.

ADA	Americans with Disabilities Act
AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
APE	Area of Potential Effect
AWRI	Annis Water Resource Institute
BIA	Bureau of Indian Affairs
BMP	Best Management Practice
BSRSI	Basic Science and Remote Sensing Institute
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CCTV	Closed Circuit Television
CEQ	Council on Environmental Quality
CSTS	Coalition for Sensible Transportation Solutions
dBA	A-weighted sound pressure level
DEIS	Draft Environmental Impact Statement
DMS	Dynamic Message Sign
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Study
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIS	Flood Insurance Studies
FIRM	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GIS	Geographic Information System
GVSU	Grand Valley State University
HCM	Highway Capacity Manual
HUD	Housing and Urban Development
ITS	Intelligent Transportation Systems
LOMR	Letter of Map Revision
LOS	Level of Service
LRTP	Long Range Transportation Plan
MACC	Macatawa Area Coordinating Council
MDEQ	Michigan Department of Environmental Quality
MDNR	Michigan Department of Natural Resources
MDOT	Michigan Department of Transportation
MPO	Metropolitan Planning Organizations
MRIS	Michigan Resource Information System
MSU	Michigan State University
MUCC	Michigan United Conservation Clubs
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Floodplain Insurance Program
NRCS	Natural Resource Conservation Service
NREPA	Natural Resources and Environmental Protection Act

NRHP	National Register of Historic Places
NPDES	National Pollutant Discharge Elimination System
NSA	Noise Sensitive Area
NWI	National Wetlands Inventory
OCRC	Ottawa County Road Commission
PACS	Project Area Contamination Survey
PNA	Proposed Natural Area
PSI	Preliminary Site Investigation
ROD	Record of Decision
ROW	Right-of-Way
RPA	Registered Professional Archaeologist
RWIS	Road Weather Information Systems
SHPO	State Historic Preservation Office
SHWS	State Hazardous Waste Sites
SIP	State Implementation Plan
SWMP	Storm Water Management Plan
TIP	Transportation Improvement Program
TNM	Traffic Noise Model
TSC	Transportation Service Center
TSM	Transportation Systems Management
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USEPA	United State Environmental Protection Agency
USFWS	United State Fish and Wildlife Service
U.S.	United States of America
UST	Underground Storage Tank
WMSRDC	West Michigan Shoreline Regional Development Commission
WMTMC	West Michigan Traffic Management Center
WSEL	Water Surface Elevations
WQS	Water Quality Standards

11.0 INDEX

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