Re-evaluation of the Blue Water Bridge Plaza Expansion Project: Final Environmental Impact Statement

The Michigan Department of Transportation (MDOT), in consultation with the Federal Highway Administration (FHWA), is conducting a re-evaluation of the Environmental Impact Statement (EIS) for the Blue Water Bridge (BWB) Study in Port Huron, Michigan, per 23 CFR 771.129(c).

General Project Description & National Environmental Policy Act (NEPA) Project History

The proposed Port Huron U.S. Customs and Border Protection (CBP) Land Port of Entry (LPOE) is commonly referred to as the BWB Plaza. The existing facilities were constructed in 1996 and provide for the entry and exit between the United States and Canada. The U.S. BWB Plaza is owned by MDOT and partially leased to the General Services Administration (GSA). It is a major border crossing for cars and trucks between the United States - Canada, and Michigan - Ontario. The proposed project is in the Southeast Michigan Council of Governments (SEMCOG) 2045 Regional Transportation Plan (RTP) and the 2023-2026 Transportation Improvement Program (TIP).

The Port Huron facility is built on an elevated 11.5-acre plaza at the base of the United States side of the BWB, which connects Port Huron, Michigan with Sarnia, Ontario, across the St. Clair River. The existing plaza site is bordered by Elmwood Street on the north, Harker Street on the south, the M-25 connector on the west, and 10th Street on the east. Pine Grove Avenue (also known as M-25), one of Port Huron's major north-south connector streets, passes beneath the elevated plaza.

MDOT completed an Environmental Impact Statement (EIS) and obtained a Record of Decision (ROD) through the Federal Highway Administration on May 19, 2009. At that time, the project was divided into four separate phases, with real estate acquisition resulting in the purchase of 125 residences and 16 businesses by MDOT for the plaza and I-94/96 corridor expansion.

The four phases of this project include:

- i Replacement of the I-94/69 Black River Bridge to provide dedicated lanes for traffic heading to Canada.
- i Modernization of the Water Street and Lapeer Connector interchanges to separate local traffic from the international traffic and eliminate interaction with the frequent backups on the I-94/69 freeway.
- ï Construction of a new Michigan Welcome Center and rest area west of the Lapeer Connector interchange.
- ï Expansion of the BWB Plaza.

The first three phases of the project have been constructed. The last phase, expansion of the BWB Plaza, will require an environmental re-evaluation to review any changes in the project design, scope, affected environment or proposed mitigation, and provide updated analysis required by any new laws, regulations, or guidance established since the ROD.

In 2021, MDOT started refining and updating the U.S. BWB Plaza from the 2009 ROD Selected Alternative to become the proposed 2022 Refined Alternative. In 2009, the proposed design of the plaza was to be constructed at street level; however, the 2022 Refined Alternative has the plaza being elevated, like the existing plaza.

The 2022 Refined Alternative (**Figure 1**) primarily consists of expanding the existing plaza to the south and to the north, all within the limits of the 2009 environmental clearance limits, with the plaza approximately 30 percent smaller than the 2009 plaza Selected Alternative. As part of the 2022 Refined Alternative MDOT is completing an environmental re-evaluation and feasibility study with GSA, CBP, and other federal partners.

The re-evaluation of the EIS will assess any changes to the project, its surroundings and impacts, and any new issues identified since the final EIS was approved by FHWA on March 20, 2009. The re-evaluation will also address any changes to environmental regulations or requirements that have occurred and their effect on the final EIS.

The project's NEPA history includes:

- ï FHWA approval of the Draft EIS on August 10, 2007.
- ï FHWA approval of the Final EIS on March 20, 2009.
- ï FHWA issuance of the ROD on May 12, 2009.
- ï FHWA concurred with MDOT's re-evaluation of the proposed Welcome Center on November 20, 2013.

Basis for the Re-evaluation

MDOT is required to perform a re-evaluation of the BWB Plaza Expansion Project before final design and construction can begin. Per 23 CFR 771.129, a re-evaluation of the NEPA FEIS is required prior to FHWA approving a major step to advance the project. A re-evaluation considers changes in the project's design and laws/regulations and determines whether the NEPA document is still valid or needs to be supplemented.



Figure 1: BWB Plaza Project Area

Purpose and Need for the Project

The purpose and need for the Blue Water Bridge Study remains valid. The purpose of the BWB Plaza Study is to:

- Provide safe, efficient, and secure movement of people and goods across the U.S. Canadian border in the Port Huron area to support the economies of Michigan, and the United States.
- ï Support the mobility needs of national and civil defense to protect the homeland.

The needs for the project are to:

- i Improve operations and processing capability by accommodating the latest inspection technologies and procedures.
- ï Provide flexibility to accommodate future inspection technologies and procedures.

- ï Improve security.
- i Provide facilities that ensure cars and trucks do not leave the plaza without being inspected.
- i Improve safety on the bridge, plaza, and the I-94/I-69 corridor, including the elimination of the traffic weaves.
- ï Accommodate projected 2045 traffic growth and future facility.
- ï Minimize backups on I-94/I-69 Corridor in the United States.
- ï Reduce vehicle and pedestrian conflicts on the plaza.
- i Improve access to minimize routing of international traffic to local roads during maintenance operations.
- ï Create a more visible and accessible Welcome Center.
- i Improve infrastructure conditions along the I-94/I-69 corridor, including the aging Black River Bridge.

As documented in the FEIS, the project will:

- i Increase the size of the U.S. Port of Entry Plaza bringing most of the existing elevated plaza down to street level.
- ï Meet all plaza operational and traffic circulation needs through the year 2045.
- i Replace and expand the Black River Bridge, the Water Street Interchange, the Lapeer Connector Interchange, and improve conditions along the I-94/I-69 corridor (construction for each component listed was completed in 2013).
- i Provide a new visible and accessible Welcome Center (construction was completed in late 2015).

Traffic Analysis

The 2009 ROD Selected Alternative included several improvements to address traffic issues related to international-bound traffic and the local road network surrounding the plaza. Some of these improvements have already been addressed as part of the construction of the previous three phases of the project. Additional improvements would be addressed as part of the 2022 Refined Alternative. These improvements and their completion status are as follows:

- i Relocating Pine Grove Avenue to the west and eliminating a major roadway running beneath the plaza inspection area (in 2009 CBP identified this as a security concern).
 - Status: this is no longer a CBP requirement and M-25 (Pine Grove Avenue) will remain in its current alignment and location under the 2022 Refined Alternative (see Figure 1).

- i Improving the geometric and operations deficiencies at the M-25 (Pine Grove Avenue) and 10th Avenue intersection by modifying the intersection from a six-legged intersection.
 - Status: this intersection has been redesigned as part of the 2022 Refined Alternative (see Figure 2).
- i Provide direct north and south access to the City of Port Huron from the plaza (currently only northbound access provided).
 - Status: the 2022 Refined Alternative addresses this issue.
- i Provide both east and west access to I-94/I-69 at the Lapeer Connector located west of the plaza.
 - Status: this was addressed in 2012 as part of the I-94/I-69 reconstruction phase of the project.
- i Replacement and expansion of the Black River Bridge, the Water Street interchange, and the Lapeer Connector interchange to provide additional lanes on I-94/I-69 to separate eastbound border crossing traffic from local traffic.
 - Status: this was addressed in 2012 as part of the I-94/I-69 reconstruction phase of the project.

The most noteworthy change from the 2009 ROD Selected Alternative to the 2022 Refined Alternative from a traffic perspective is that M-25 (Pine Grove Avenue) is not being relocated west from under the new plaza. Thus, changing the local access to the west side of the plaza makes improvements to the availability of the north/south movements for local traffic, as does the relocation of the Duty-Free to the interior of the plaza.



Figure 2: 2022 Pine Grove Avenue/10th Street Intersection

Traffic Analysis and Results

A re-analysis of the traffic was completed for the 2022 Refined Alternative due to the changes to the plaza layout, size, and M-25 (Pine Grove Avenue). An overview of the traffic impact study area is shown below (*Figure 3*).



Figure 3: Traffic Study Area Limits

The details of the re-evaluation traffic analysis are presented in the BWB Plaza Draft Traffic Analysis Report, which is available at the following: <u>https://www.michigan.gov/mdot/bwb-technical-reports</u>

The analysis collected and analyzed historic traffic counts, travel times, and speeds within the study area. This data was used to calibrate and validate the existing year VISSIM models in terms of volume throughout, travel times, and speeds according to MDOT's VISSIM guidelines. The calibrated VISSIM models ensured that the results were reliable and could be used to compare the Future No-Build and 2045 Refined Alternative conditions.

The 2045 Refined Alternative proposes modifications to the BWB Plaza and reconfiguration of the 10th Avenue at M-25 (Pine Grove Avenue) intersection. Regarding the BWB Plaza, local access via the loop ramp from M-25 to Canada is proposed to be removed and relocated west via the I-94 Connector. Additionally, toll booths on I-94 eastbound are proposed to be relocated upstream, prior to the merge of traffic from the I-94 Connector and I-94 eastbound. After passing through the toll booths, vehicles travel around a circular loop with access to the relocated Duty-Free store, before arriving at the outbound inspection area. On I-94 westbound, the orientation and lane assignments of the Primary Inspection Lanes (PILs) are proposed to be adjusted from the existing configuration to allow trucks to be processed on the right and passenger vehicles (POV) processed on the left. This eliminates a weave between trucks and POVs that currently occurs at the Canadian plaza. **Figure 4** and **Figure 5** display the existing and proposed layouts.

The analysis results show that the proposed 2022 Refined Alternative modifications are not expected to result in adverse effects to future traffic operations in 2045.. In terms of travel times and speeds, the 2022 Refined Alternative performs comparably to the Future No-Build (FNB). **Table 1** highlights that vehicles on I-94 and M-25 (Pine Grove Avenue) in the 2045 Refined Alternative are expected to travel within five mph (miles per hour) of vehicles in the FNB. Speeds on I-94 eastbound near the BWB Plaza are the lone exception, due to the construction of the loop around the relocated duty-free store, as well as the relocation of toll booths upstream. The additional 0.5 miles of travel distance, as well as the reduced speed of 20 mph on the loop, result in longer travel times in the 2045 Refined Alternative.



Figure 4: Existing Layout

Figure 5: Proposed Layout



				FNB				2022 Refined Alternative			
Segment Name	Distance (mi)	Posted Speed (mph)	Travel (seco	Time nds)	Diff f Posted (mj	from Speed ph)	Travel (seco	Time nds)	Diff Postec (m	from I Speed ph)	
			AM	PM	AM	PM	AM	PM	AM	PM	
I-94 EB to west of Lapeer Conn	0.81	70	42	43	-1	-2	42	43	-2	-2	
I-94 EB to west of Toll Facility	1.72*	70**	90	91	-1	-2	247	264	-38	-40	
I-94 WB to east of Water St	0.55	55	41	41	-7	-7	39	39	-7	-6	
I-94 WB to east of Welcome Center	1.04	70	60	60	-8	-8	60	60	-8	-8	
I-94 WB – end	0.90	70	47	47	-1	-1	47	47	-1	-1	
M-25 NB – 10 th Ave to Hancock St	0.49	35	70	93	-10	-16	84	106	-14	-18	
M-25 NB – Hancock St to Sanborn St	0.67	35	88	86	-8	-7	90	95	-8	-9	
M-25 SB – Sanborn St to Hancock St	0.69	35	87	86	-7	-6	101	101	-11	-11	
M-25 SB – Hancock St to 10 th Ave	0.47	35	72	76	-12	-13	71	69	-10	-9	

Table 1: Future Travel Time and Speed Comparisons

NOTE: Green Cells (0-5 mph difference); Yellow Cells (6 – 10 mph difference); Red Cells (10+ mph difference)

* Distance of travel time segment in 2045 Refined Alternative is 2.21 miles due to construction of circular loop

** Design speed on the loop is 20 mph

Table 2: BWB Toll Plaza F	Peak Hour Volume	Throughput
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	AM (number of veh	icles)	PM (number of vehicles)			
Location	FNB	2022 Refined Alt	Diff	FNB	2022 Refined Alt	Diff	
I-94 WB Cars	142	140	-2	177	227	+50	
I-94 WB Cars – NEXUS	27	26	-1	40	43	+3	
I-94 WB Trucks – FAST Lane	47	45	-2	43	43	0	
I-94 WB Trucks (North Facility)	60	58	-2	49	48	-1	
I-94 WB Trucks (South Facility)	94	93	-1	79	81	+2	
I-94 EB Toll Both to Canada	221	232	+11	441	474	+33	

Table 2 displays that the 2022 Refined Alternative is expected to experience similar, and in somecases, greater volumes at the BWB Plaza than the FNB.

Along Hancock Street, the 2022 Refined Alternative does not propose any geometric changes. However, operations along Hancock Street were assessed, because approximately 200 additional PM peak hour vehicles are expected to use Hancock Street to access the on-ramp to the BWB. The following improvements are recommended to mitigate adverse traffic operational impacts:

- ï I-94 Connector at Hancock Street:
 - Convert the westbound left-turn movement from permissive only to a permissiveprotected signal phase to prevent the queue on Hancock Street from extending to the M-25 (Pine Grove Avenue) intersection due to vehicles accessing the eastbound onramp to the BWB Plaza utilizing Hancock Street.
 - Allow the eastbound left-turn movement, which is currently restricted, through the addition of a protected left-turn to provide vehicles an additional route to travel northbound and avoid delay at the M-25 (Pine Grove Avenue) and Hancock Street intersection.
 - The LOS results in **Table 3** demonstrate these modifications will maintain intersection operations and accommodate the additional traffic.

On M-25 (Pine Grove Avenue), the intersection with 10th Avenue is proposed to be reconfigured into two split intersections. The north 10th Avenue intersection will align with the relocated I-94 eastbound exit ramp terminal. The south 10th Avenue intersection will tee directly to M-25 (Pine Grove Avenue). The intersection Level of Service (LOS) analysis indicates that the reconfiguration of M-25 (Pine Grove Avenue) and 10th Avenue is expected to result in less delay at the intersection of 10th Avenue at M-25 (Pine Grove Avenue) as shown in **Table 3**.

	AM Peak Hou	r LOS	PM Peak Hour LOS		
Intersection	FNB	Build	FNB	Build	
I-94 Connector @ Hancock St	С	В	С	С	
M-25 @ Hancock St	С	С	С	С	
M-25 @ 10 th Ave	В	В	С	В	
M-25 @ I-94 EB Exit Ramp	С	С	С	С	

 Table 3: Future Alternatives Intersection LOS Comparison

Table 3 also indicates the overall intersection operations at M-25 and the I-94 eastbound exit ramp remain largely the same. Delay on the eastbound through and right-turn movements increases slightly due to the addition of 10th Avenue at this intersection. However, the overall intersection operations remain unchanged at LOS C.

In conclusion, the analysis of the FNB and 2022 Refined Alternative VISSIM models have led to the following findings:

- ï Operations on the I-94 mainline will not be adversely impacted due to proposed modifications at the BWB Plaza.
- i Operations on M-25 (Pine Grove Avenue) will not be adversely impacted due to proposed modifications on M-25 (Pine Grove Avenue) related to the realignment of the I-94 eastbound exit ramp, 10th Avenue, or the relocation of the I-94 eastbound entrance ramp to access the BWB.

An Interstate Access Change Request (IACR) was prepared as part of the re-evaluation to determine if the changes to the plaza configuration had an impact on interstate operations. The draft IACR is available at the following website: <u>https://www.michigan.gov/mdot/bwb-technical-reports</u>.

Air Quality

Background

A re-analysis of the BWB Project air quality analysis, which was originally conducted in 2007, was completed in 2023 to confirm that it meets current conformity requirements as defined in the 1990 Clean Air Act Amendments (CAAA). Since approval of the FEIS, there have been numerous changes and updates to air quality regulations, guidelines, and models for determining project level air quality conformity. These include the following:

- U.S. Environmental Protection Agency's (EPA) replacement of the MOBILE6.2 emissions factor model with the Motor Vehicle Emission Simulator (MOVES) in 2010.
- EPA's release of *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (latest version October 2021).
- EPA's release of the latest carbon monoxide (CO) hot-spot guidance, *Using MOVES3 in Project-Level Carbon Monoxide Analyses* (latest version December 2021), which is linked to EPA's earlier 1992 guidance, Guideline for Modeling Carbon Monoxide from Roadway Intersections.
- U.S. FHWA's release of *Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents* (latest version December 2021).
- The proliferation of various guidance and methodology on the analysis of greenhouse gases (GHG) in transportation projects. The latest GHG guidance was issued by the Council on Environmental Quality (CEQ) on January 9, 2023.

In addition to the above changes in air quality models, regulations and guidance, the traffic analysis for the project has been updated since the FEIS analysis. Therefore, an updated air quality analysis was conducted based upon the latest models and guidance, using the updated traffic network developed for the project.

National Ambient Air Quality Standards

The CAAA directs the EPA to periodically review and establish National Ambient Air Quality Standards (NAAQS). NAAQS have been established for the following six major air pollutants: carbon monoxide, nitrogen dioxide, ozone, particulate matter (PM10 and PM2.5), sulfur dioxide, and lead.

Section 107 of the 1977 CAAA first established the procedure that requires the EPA to publish a list of all geographic areas in compliance with the NAAQS, plus those not attaining the NAAQS. Areas not in NAAQS compliance are deemed nonattainment areas. Areas that have insufficient data to make a determination are deemed unclassified and are treated as being attainment areas until proven otherwise. Maintenance areas are areas that were previously designated as nonattainment for a particular pollutant but have since demonstrated compliance with the NAAQS for that pollutant. An area's designation is based on the data collected by the state monitoring network on a pollutant-by-pollutant basis.

The BWB Project is located in St. Clair County in Southeast Michigan. EPA has classified the entire region, including St. Clair County, as a non-attainment area for ozone and a maintenance area for 24-hour PM2.5.

Transportation Conformity

Transportation conformity is required by the Clean Air Act section 176(c) (42 U.S.C. 7506(c)) to ensure that federal funding and approval are given to transportation projects that are consistent with ("conform to") the air quality goals established by a state air quality implementation plan. Conformity means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards.

The conformity rule establishes the process by which the FHWA and local metropolitan planning organizations (MPOs) determine conformance of transportation and federally funded projects. Transportation Improvement Programs (TIPs) are a subset of staged, multiyear, intermodal programs of transportation projects covering metropolitan planning areas that are consistent with regional transportation plans.

The MPO for the project study area, the Southeast Michigan Council of Governments (SEMCOG), adopted the latest TIP, the Fiscal Year (FY) 2023-2026 Transportation Improvement Program for Southeast Michigan, in July 2022. The BWB Project is included in SEMCOG's FY 2023-2026 TIP (#211792 & 211793), and its associated emissions would not have an adverse effect on the ability of Southeast Michigan to obtain their applicable air quality goals.

Interagency Coordination

Proposed transportation projects normally go through interagency consultation to determine if the project is one of local air quality concern and, if it is determined to be such, applicable models and methodologies are used for project-level air quality analyses. The Michigan Transportation Conformity Interagency Workgroup (MITC-IAWG) for SEMCOG is responsible for this process for the project study area. This group consists of representatives from various involved or concerned agencies, including SEMCOG, MDOT, EPA, Michigan Department of Environment, Great Lakes, and Energy (EGLE), Federal Transit Agency, and FHWA.

On March 9, 2023, the BWB Project was discussed by the SEMCOG MITC-IAWG. Information on the project was presented to the IAWG and subsequently provided to the agencies for their review and decision as to whether the project is a project of air quality concern (POAQC), thereby requiring a microscale particulate matter (PM) analysis.

A subsequent meeting was held on May 2, 2023, in which the MITC-IAWG concluded that the BWB Project is not a POAQC. Documentation of the interagency decision is included in the 2023 Air Quality Technical Report.

The entire 2023 Air Quality Technical Report can be found at the following link: <u>https://www.michigan.gov/mdot/bwb-technical-reports.</u> Based on the analysis completed for air quality compliance, the following was concluded:

PM2.5

Based on interagency coordination, the IAWG determined the project is not a POAQC, thus no further analysis would be required for $PM_{2.5}$. The BWB Project, therefore, complies with CAAA and 40 CFR 51 and 93 requirements.

MSAT

For the traffic network, Build mobile source air toxic (MSAT) burdens would be the same as No-Build burdens in future years. The project Build alternative is not expected to increase overall traffic volume compared to the No-Build.

GHG

For the traffic network, Build GHG burdens would be the same as No-Build burdens in future years. The project Build alternative is not expected to increase overall traffic volume compared to the No-Build.

Noise

Due to the numerous changes and updates to FHWA's highway noise analysis and abatement regulations and guidance, and MDOT's rules and procedures since the approval of the FEIS in March 2009, a traffic noise re-analysis was completed for the BWB Project and documented in the February 2023 Draft Traffic Noise Technical Report. These changes include the following:

A traffic noise re-analysis was completed for the BWB Project and documented in the February 2023 Draft Traffic Noise Technical Report. These include the following:

- Revisions of FHWA 23 CFR 772 Procedures for Abatement of Highway Noise and Construction Noise (published in the Federal Register in July 2010; implemented in July 2011).
- ï The most noteworthy changes in 23 CFR 772 included: expanding the Noise Abatement Criteria (NAC) from five to seven land use categories; how dwelling unit equivalents (DUE) are calculated; how "feasibility and reasonableness" are determined; and the required use of the FHWA Traffic Noise Model version 2.5 (TNM 2.5)
- i FHWA *Highway Traffic Noise: Analysis and Abatement Guidance* (latest version December 2011).
- ï FHWA Noise Policy FAQS (March 2015).
- i MDOT Highway Noise Analysis and Abatement Handbook (July 2011).

As part of the March 2009 FEIS, the previous noise analysis was completed under the MDOT Commission Policy 10136 Noise Abatement, dated July 31, 2003. At the time, the analysis identified noise levels that would approach or exceed the FHWA NAC at 59 residences and three businesses. There were no substantial noise increases of 10 dB(A) or greater between the existing noise level and the design year predicted noise level. Noise barriers were analyzed under the Recommended Alternative at two locations; however, none of the noise barriers met MDOT's reasonableness factors.

Noise Abatement Analysis and Results

TNM 2.5 was used to model existing (2022) and future design year (2045) Build worst-case traffic noise levels. The analysis modeled 304 noise receivers representing 311 receptors (or units). The analysis provides existing and future noise levels, as well as identifies receptors that are impacted, that is, they approach or exceed the NAC and/or are subjected to a substantial noise increase of 10 dB(A) or greater between the existing noise level and the design year predicted noise level. Predicted future design year noise levels adjacent to the 2022 Refined Alternative would approach or exceed the NAC at 58 receiver locations representing 58 receptor units, including 56 residential receptors and two recreational receptors (picnic tables at the Black River/I-94 bridge boat launch). The noise levels at the 58 impacted receptor units range from 66 to 76 dB(A) Leq(1h) in the future design year. At 14 of the residential receptors along Scott

Avenue noise levels approach or exceed the NAC, with substantial noise increases of 10 dB(A) or greater between the existing noise level and the design year predicted noise level. Two noise barriers were analyzed and found to meet MDOT's preliminary feasibility and reasonableness criteria including the allowable cost per benefited receptor unit (CPBU) of \$52,248 in 2023 dollars (3 percent above results in a not to exceed cost of \$53,815) (**Table 4**). Noise barriers NB1 and NB2 were both found to meet MDOT's preliminary feasibility and reasonableness criteria, and the locations are depicted in **Figure 6**. The feasibility of these noise barriers will continue to be assessed, as construction impediments due to utility conflicts may be identified as the project design advances. Additionally, the aesthetics of any noise barriers implemented as part of the project would be consistent with the project's overall Aesthetic Design Guide Addendum (2023). Conceptual design of noise barriers is identified in **Figure 7**.

The details of the re-evaluation noise analysis which includes noise measurements and traffic counts at each of the noise sensitive areas are presented in the BWB Plaza Draft Traffic Noise Technical Report, which is available at: <u>https://www.michigan.gov/mdot/bwb-technical-reports.</u>

	N	umber of	Attenuate	d Locat	ions			Fe	Rea
Barrie	> 10	≥70	≥ 7 dB(A)		5 dB(A) Senefited eceivers) Cost		Cost/B	easible ^a	ısonable ^b
er ID	dB(A)	#	% of Benefited	#	% of Impacted		enefit	(Y/N)	(Y/N)
NB1	15	29	52%	56	83%	\$2,407,185	\$42,985	Y	Y
NB2	3	26	53%	49	88%	\$1,897,425	\$38,723	Y	Y

Table 4: Noise Barrier Design Analysis

^a) MDOT requires that noise barriers achieve a 5 dB(A) reduction at 75 percent of the impacted receptors. If a barrier cannot achieve this, abatement is considered to not be acoustically feasible. Noise barrier abatement also might not be feasible due to constructability or safety constraints.

^b) The design year attenuation requirement for Michigan is to provide a noise reduction of 10 dB(A) for at least one benefited receptor and at least a 7 dB(A) reduction for 50 percent or more of the benefited receptor sites.



Figure 6: Proposed Noise Barrier Locations

Figure 7: Proposed Noise Barriers would be consistent with the overall Aesthetic Design Guide Addendum (2023).



Statement of Likelihood

Based on the studies thus far accomplished, the Michigan Department of Transportation intends to install highway traffic noise abatement in the form of the barriers presented in **Table 4** of this document. The preliminary indications of likely abatement measures are based on the preliminary design for barrier cost(s) and noise reduction. If it subsequently develops during final design that these conditions have substantially changed, the abatement measures might not be provided. A final decision on the installation and aesthetics of the abatement measure(s) will be made upon completion of the project's final design and the Context Sensitive Solutions process.

Construction Noise

Construction noise will be minimized by measures such as requiring construction equipment to have mufflers; portable compressors to meet federal noise-level standards; and all portable equipment to be placed away from or shielded from sensitive noise receptors, if possible. All local ordinances will be adhered to.

In addition to noise from traffic, construction activities themselves can produce increased noise of a temporary nature. The major construction elements of this project are expected to be demolition, hauling, grading, paving, and bridge construction. Construction of the proposed improvements will result in a temporary increase in the ambient noise level along the BWB Plaza corridor. General construction noise impacts for passerby and those individuals living or working near the project can be expected, particularly from demolition, earth moving, pile driving, and paving operations.

Considering the relatively short-term nature of construction noise, impacts are not expected to be substantial. The transmission loss characteristics of nearby structures are believed to be sufficient to moderate the effects of intrusive construction noise.

Construction Vibration

Temporary vibration impacts could occur in residential areas and at other vibration-sensitive land uses from activities associated with construction of the project, such as excavation, demolition, and vibratory compaction, as well as pile-driving at bridges, noise walls, and retaining walls. The potential for vibration impacts would be greatest at locations near pile-driving for bridges and other structures, pavement breaking, and at locations close to vibratory compactor operations.

The equipment with the highest vibration level for roadway construction is the vibratory roller, and the highest potential vibration level for pile driving is with the impact pile driver. For buildings near pile driving activities, short-term construction vibration impact can extend to approximately 100 feet from the construction site. For buildings near roadway construction activities, short-term construction vibration impact can extend to approximately 30 feet from the construction site. Human annoyance from pile driving could extend to approximately 400 feet from the construction site, while roadway construction annoyance could extend to approximately 100 feet from the construction site.

The primary means of mitigating short-term vibration impacts resulting from construction activities is to require the contractors to prepare a vibration control plan. Key elements of a plan include:

- ï Identify vibration-sensitive buildings.
- ï Conduct a pre-construction inspection of residences, if required, and historical and other vibration-sensitive structures in the project corridor.
- ï Prohibit certain activities that create higher vibration levels during nighttime hours.
- ï Implement vibration control measures where appropriate.
- ï Develop a method for responding to community complaints.

Right of Way

The footprint of this project has been made smaller since the ROD was issued in May 2009. In 2023 when right of way acquisition recommenced, the number of relocations/displacements changed. Originally there were going to be 30 commercial properties that would need to be acquired for the project. However, since the footprint has been reduced, only 16 commercial properties, which includes the church, will be required. To date, all 125 residential dwellings have been acquired, as well as the one church. Of the 15 commercial properties, 3 properties still need to be acquired, as well as 1vacant parcel for the project. Since the FEIS was approved, there have been no changes to the laws and regulations governing acquisition and relocation assistance and services required for ROW acquisition. **Table 5** shows the parcel type, the number of parcels acquired and the number of parcels that still need to be acquired.

Parcel Type	Number of Parcels Acquired	Number of Parcels Still Needed to be Acquired	Total Relocations
Commercial	13*	3	16
Residential	125	0	125
Vacant	0	1	1
Total Parcels	138	4	142

 Table 5: BWB Plaza Project Property Status

Note: *the church was appraised as a commercial property.

Environmental Justice

The BWB Plaza Project area was reviewed using the current census (2020) tracts and block groups that wholly or partially contain the project area and an 0.25-mile buffer was used as the Demographic Study Area (DSA). The Community of Comparison was the City of Port Huron. Demographics for St. Clair County and the State of Michigan were also reviewed for comparison purposes.

Public outreach efforts, including a January 24, 2023, public meeting, raised no concerns regarding Environmental Justice (EJ) populations or underserved communities.

Minority Groups

Approximately 17 percent of the DSA is a population of color. In comparison to the City of Port Huron (21.7%), the study area has a lower percentage population of color. The highest minority group in the study area was noted as multiple race (6.7%) followed by Black/African American (4.2%). These percentages were lower than the minority population for the city of Port Huron (**Table 6**).

The demographic data for minority groups is similar to the original EIS in that the study area percentages are lower than the City of Port Huron.

Low-Income Groups

Approximately 21 percent of the DSA population had an income below poverty level. In comparison, the City of Port Huron is 23 percent low-income. While the demographic data does not show a higher concentration of low-income groups in the DSA, public outreach should continue to engage these populations.

The demographic data for minority groups is like the original EIS in that the study area percentages are lower than the City of Port Huron.

Population	Michigan		St. Clair County		City of Port Huron		Demographic Study Area	
Total Population	10,077,331		159,247		29,003		3,766	
No. of Households	3,980,408		64,850		12,302		1,646	
Age 65+	1,712,841	17.0%	29,036	18.2%	4,314	14.9%	371	9.9%
Population with Less Than a High School Education	118,843	8.7%	10,405	9.2%	2,201	11.5%	201	5.3%
Population of Color	2,620,310	26.0%	14,177	8.9%	6,305	21.7%	655	17.4%
Income Below Census Bureau Annual Poverty	1,337,256	13.3%	19,576	12.3%	6,666	23.0%	783	20.8%

Table 6: Demographic Comparison for the Project

Limited English Proficiency

Overall, the DSA has a similar concentration Limited English Proficiency (LEP) populations compared to the City of Port Huron (**Table 7**). One block group, 6270.002, did show a higher percentage of LEP populations at 6.4 percent. The language group noted for this block group was 'Other Indo-European'.

Limited English Proficiency	Michigan		St. Clair County		City of Port Huron		Demographic Study Area	
Total	414,699	10.4%	247	0.4%	65	0.5%	22	0.6%
Spanish: Linguistically Isolated	126,015	3.2%	66	0.1%	6	0.0%	0	0.0%
Other Indo-European: Linguistically Isolated	138,297	3.5%	130	0.2%	27	0.2%	22	0.6%
Asian/Pacific Island: Linguistically Isolated	74,013	1.9%	30	0.0%	11	0.1%	0	0.0%
Other: Linguistically Isolated	76,374	1.9%	21	0.0%	21	0.2%	0	0.0%

Table 7: LEP Community Comparison

Conclusions

No minority or low-income populations are anticipated to receive disproportionately high and adverse impacts because of construction of the 2022 Refined Alternative. No additional residential displacements or relocations would be required. Three businesses which will be relocated as part of the project include a bowling alley, a hotel, and the duty-free store. These businesses were identified and cleared as part of the 2009 ROD. Any impacts to the business relocations would be the same for the general population, including EJ groups and LEP populations.

Additionally, implementation of the 2022 Refined Alternative accounts for access being maintained to the border crossing, inspection sites and all related buildings 24 hours a day throughout construction as well as access to the duty-free shops during business hours. Access to the local roadway network would also be maintained, except for potential short-term temporary closures as intersections are being reconstructed. Access to residential and business properties would be maintained through temporary access control.

Historic Properties

One historic property, the E.C. Williams House (which is a commercial property) was determined to be eligible for listing in the National Register of Historic Places (NRHP). The Historic E.C. Williams House is located north of the existing plaza on 10th Avenue. The building is currently being used as a dentist office. As part of the FEIS, the State Historic Preservation Office (SHPO) determined that the displacement of the house will have an adverse effect on the property.

A Memorandum of Agreement (MOA) was prepared and signed by MDOT, FHWA and SHPO and submitted to the Advisory Council on Historic Preservation (ACHP) pursuant to 36 CFR Part 800.6(b)(1). The MOA discussed the steps that need to be taken before the resource could be moved to a new location.

Since the ROD, the footprint of the project area was reduced and MDOT no longer needs to acquire the E.C. Williams House for the project. The SHPO and the ACHP were contacted to let them know that MDOT would no longer be displacing the E.C. Williams House (see *Appendix A*).

MDOT will offer a basement/foundation survey of the historic structure where vibration effects may or may not be a concern. The structure will be monitored before, during and after construction of the BWB Plaza.

During the NEPA process no other historic properties listed on or eligible for the NRHP were identified within the project area.

Archaeological Sites

The archaeological potential of the BWB Plaza was considered in a report titled "Preliminary Historic & Archaeological Resource Survey for the I-94 Blue Water Bridge Plaza Revision" by Commonwealth Associates, Inc. (Weir et al. 1983a). At that time, no archaeological testing was completed because of the disturbed urbanized setting from construction in the area since the 1930s. That disturbance likely destroyed any intact archaeological sites that may have been present-. It was concluded that "little site potential exists in the primary impact zone associated with plaza expansion" (Weir et al. 1983a). The areas of greatest sensitivity for archaeological resources were east of the plaza from 10th Avenue to St. Clair River and were investigated and mitigated by Commonwealth's "Archaeological & Geoarchaeological Phase II Evaluation for the I-94 Blue Water Bridge Plaza Revision" (Weir et al. 1983b) and Commonwealth Cultural Resources Group's "A Phase II Archaeological Investigation of the Blue Water Bridge Pier Locations 15, 16 (20Sc143), and 17 Port Huron, Michigan" (Demeter and Robinson 1997).

Aerial images of the area were nearly vacant of households in the 1930s when the original plaza was constructed. Those that were in the vicinity of the plaza were razed and destroyed by the construction of I-94 beginning in 1954. Suburbanization increased along Scott Avenue beginning in 1957 but these mid-century houses were razed between 2010 and 2012 by an eastbound extension of the Lapeer Connector. Soils along Scott Avenue where mid-20th century homes were located consist of somewhat poorly drained and hydric Londo loam. It is more than likely that fill material was brought in earlier in the 20th century to raise the ground elevations and improve drainage prior to the building of residential neighborhoods.

Based on information gleaned from aerial images and soil data, the realignment of eastbound extension of Lapeer Connector does not pose -risks to archaeological sites.

Tribal Coordination

At the time of the FEIS, MDOT coordinated with twelve tribes and met its tribal consultation obligations. Because the re-evaluation is part of the FEIS, no additional coordination is necessary. As part of the re-evaluation archaeological analysis, there were no new impacts to archaeological sites. If there are new impacts to archaeological sites or potentially sensitive areas that were not previously known, MDOT will reopen consultation with all of tribes. However, the construction contract for the BWB Plaza Project will contain the following provisions:

(i) The construction contract will include the following text:

"Significant archaeological deposits and/or human remains could be present within the project area. MDOT's Construction Advisory #2013-03 and the Human /Remains Protocol MUST be followed if archaeological materials or bones of any kind are encountered."

The Construction Advisory #2013-03 and the Human Remains Protocol will be reviewed with the contractors, including a review of the types of evidence that indicate an archaeological site and/or a human burial that would require a temporary stoppage of construction per MDOT's 2012 Standard Specifications for Construction.

- (ii) A meeting will be held two months before construction begins to establish protocol for lines of communication and agency roles if human remains are encountered during construction. Attendees must include representatives from the City of Port Huron Police Department, St. Clair County Medical Examiner's Office, St. Clair County Coroner's Office, MDOT and other appropriate team members. This meeting will be the basis for developing the final Human Remains Protocol.
- (iii) All contractors' field supervisors and project inspectors must be provided with MDOT's Construction Advisory #2013-03 and the Human Remains Protocol prior to the preconstruction meetings. One month before project construction begins, every construction contractor shall attend a pre-construction meeting before each contractor begins its particular construction tasks.
- (iv) MDOT must be notified of any inadvertent finds and/or changes that will include grounddisturbing construction in areas not previously given environmental clearance. No construction may proceed until additional environmental clearance and/or notice to resume construction is obtained.

Contaminated Sites

A Project Area Contamination Survey (PACS) was previously conducted in 2002 (2002 PACS) for the FEIS. As part of the NEPA Re-evaluation, a PACS was completed in 2022 (2022 PACS).

The purpose of the 2022 PACS was to investigate parcels of property for known or potential environmental contamination that could affect the project's design, cost, or schedule. The primary objectives in conducting the PACS are to determine: 1) whether any recognized environmental conditions (RECs) exist in connection with the project area; 2) if a Preliminary Site Investigation (PSI) is necessary to evaluate the RECs; and 3) to provide suggested mitigation for any issues.

The 2022 PACS identified 27 RECs both within and immediately adjacent to the project area, and are summarized as follows and depicted in **Figure 8**:

- 1. The Wilton's TV Appliance Repair facility at 2703 Pine Grove Avenue, immediately north of the project area is an Underground Storage Tank (UST) facility. The UST was reportedly removed, but no information was available regarding whether any contamination existed on the property. Because this property is immediately adjacent to the project area, and groundwater flow in the area generally flows south, contaminants could have migrated and impacted the project area.
- 2. An instant oil change facility has been present at 2624 14th Avenue, immediately west of the north part of the project area since the late 1980s. Before that, the property was occupied by an auto body repair facility and a battery sales facility. No information is available regarding whether contamination exists on the property. Because this property is immediately adjacent to the project area, contaminants could extend onto or have migrated and impacted the project area.
- 3. The former Koehn's Texaco service station at 1719 Hancock Street was a former gas station during at least the 1970s and was situated immediately north and west of the project area. No information is available regarding whether the USTs associated with the former gas station were removed, or whether soil and/or groundwater contamination exists in connection with the facility. Groundwater on several nearby properties has been shown to flow to the south, which would allow contaminants to migrate to and impact the project area.
- 4. The former Star Location 1268 facility at 2601 13th Avenue is situated within the northern part of the project area. This is a Leaking UST (LUST) facility with an open investigation, and soil and groundwater contamination exist on the property.
- 5. The Speedway #8825 facility at 2619 and 2621 Pine Grove Avenue is immediately east of the project area. Contamination exists in connection with this facility that extends under Hancock Street, and groundwater flow at the facility has been shown to flow to the south toward the project area.

- 6. The Speedway #7721 facility at 2610 Pine Grove Avenue is northeast of the project area. Soil and groundwater contamination associated with this facility exists and has migrated to the southwest toward the project area.
- 7. The BP gas station (formerly Amoco Oil) at 2539 Pine Grove Avenue is within the excluded area and near the project area. Contamination exists on the property at concentrations exceeding unrestrictive regulatory criteria and may have migrated to and impacted the project area.
- 8. The former Port Huron Towing business occupied 1700 Hancock Street, mostly within the excluded area between the northern part of the project area and the north-central part of the project area, from at least the mid-1950s through the mid-1970s. Aerial photographs show what appears to be an impound yard or a junkyard with many vehicles parked in it. The vehicles appear to have leaked fluids, contaminating the soil and groundwater. Construction of a sewer line through the area occupied by the former towing company encountered contaminated soil. The contamination may extend onto or have migrated to and impacted the project area.
- 9. The Speedway #7721 facility at 2610 Pine Grove Avenue is northeast of the project area. Soil and groundwater contamination associated with this facility exists and has migrated to the southwest toward the project area.
- 10. The contaminated Duty-Free Americas facility at 2425 Pine Grove Avenue on the northern portion of the project area was formerly the location of an automobile manufacturing facility and machine shops with both above ground and underground petroleum storage and probable solvent use. Soil and groundwater contamination likely exists in connection with the former manufacturing operation.
- 11. The Detroit Edison Pine Grove Substation at 1508 Elmwood Street has been present on the project area since 1926. The electrical equipment within the substation may have leaked during the last 95 years, contaminating the soil and/or groundwater with transformer oil and other substances, including polychlorinated biphenyls (PCBs).
- 12. The MDOT BWB facility at 1410 Elmwood Street within the project area is listed in the LUST database and has had multiple releases reported. At least one of the release investigations is still listed as open, indicating that contamination exists on the project area.
- 13. The former Koppels Shell at 2327 Pine Grove Avenue was a gas station in the 1950s and early 1960s and was situated on the central portion of the project area under the existing bridge plaza. No information is available regarding whether the USTs were removed or whether soil or groundwater contamination exists. This area is currently under about 25 feet of fill.



Figure 8: Location of sites identified with Recognized Environmental Conditions based on the 2022 PACS.

- 14. The former Moser Coal Yard at 2201 Pine Grove Avenue was on the central portion of the project area during the 1950s and 1960s. Residual coal apparently remained on the property after this operation ceased. Coal residue contains heavy metals, and can contaminate soil underlying coal storage areas, particularly when stored on the ground. This area is currently under about 25 feet of fill.
- 15. The former Bradley's Citgo facility at 2307 Pine Grove Avenue was a gas station during the 1950s and 1960s and was situated on the central portion of the project area under the existing bridge plaza. No information is available regarding whether the USTs were removed or whether soil or groundwater contamination exists. This area is currently under about 25 feet of fill.
- 16. The former Pete's Marathon Car Care facility at 2308 Pine Grove Avenue was a gas station from the 1940s through the late 1970s and was situated on the central portion of the project area under the existing bridge plaza. The USTs were removed and some of the contaminated soil was excavated and disposed; however, residual contamination remains. The release investigation is currently listed as open. This area is currently under about 25 feet of fill.
- 17. The former London Farm Dairy facility at 2119 12th Avenue occupied the south-central part of the project area and is a LUST facility with an open investigation. Soil and groundwater contamination exists on the property. In addition, WSP observed a hydraulic hoist remaining in the ground at the location of the former garage building on the east part of the property.
- 18. The former Guizar's Auto Company at 2107-2111 Pine Grove Avenue was a gas station and auto repair facility situated on the southeast part of the project area from the 1940s through the 1960s. There is no information available regarding whether the USTs associated with the former gas station were removed or whether soil and/or groundwater contamination exists.
- 19. The former Ayotte Dugal B facility at 2108 Pine Grove Avenue was a gas station that operated immediately east of Pine Grove Avenue and north of (abandoned) Mansfield Street within the project area from the 1960s through the 1980s. No information is available regarding whether the USTs were removed or whether soil or groundwater contamination exists.
- 20. The former One Hour Cleaners facility at 2037 Pine Grove Avenue was situated on the southeast part of the project area. This facility was a gas station from about 1940 through the 1960s, and a dry cleaner from the late 1960s through 2001. Soil and groundwater contamination associated with either or both former businesses likely is present on the property.
- 21. The former Shell Port Huron #3 facility at 2014 Pine Grove Avenue was situated between Pine Grove Avenue and 10th Avenue on the southeast part of the project area was a gas station from the early 1970s through the late 1990s and is a LUST facility. The investigation is listed as open, and contamination exists on the property.

- 22. A former gas station was present at 2004 10th Avenue, immediately northeast of the southeast portion of the project area from the 1930s through 1950s. No information is available regarding whether the USTs were removed, or whether soil and/or groundwater contamination exists in connection with the former operation. Groundwater at a nearby facility was shown to flow to the west, which could allow contamination to migrate and impact the project area.
- 23. The property at 1413 Lyon Street and 1915 10th Avenue, situated within the southeast portion of the project area, were occupied by auto repair facilities and oil storage beginning in the late 1940s and lasting until the 1970s. Auto repair facilities often have contamination associated with them because of leaks, spills, drips, poor housekeeping, and/or improper waste disposal practices.
- 24. A gas station immediately southeast of the southeast corner of the project area has been at 1912-18 Pine Grove Avenue from 1959 through 2014, and a release was reported in 1991. High concentrations of soil and groundwater contaminants are present on the property, and contamination has migrated off the property onto the project area. An activity and use limitation (AUL) is filed with MDOT for contamination that remains in the Pine Grove Avenue right-of-way.
- 25. The property at 1310 Lyon Road is immediately south of the southeast part of the project area and operated as a gas station from the late 1940s through the early 1970s. Contamination may have migrated from this facility onto the adjacent project area.

Based upon PACS, MDOT will conduct Preliminary Site Investigation (PSI) testing activities to evaluate the above RECs for the presence or absence of contamination to serve as a basis for worker protection and contaminant material handling, management, and disposal.

If contamination is identified during construction, MDOT will be contacted, and the materials would be properly handled, managed, and disposed in accordance with federal, state, and local regulations.

Threatened and Endangered Species

A review of potential ecological impacts associated with the 2022 Refined Alternative were field reviewed in 2022 and 2023. Since the completion of the FEIS in 2009, which included the plaza and surrounding areas, the project site has undergone modifications, and there were reclassifications of the Northern Long Eared Bat (NLEB), the Tricolored Bat, the Eastern Massasauga Rattlesnake, Snuffbox Mussel, Round Hickorynut Mussel, and Monarch Butterfly. The USFWS originally classified the NLEB as a threatened species, but on January 30, 2023, the USFWS reclassified the NLEB as Endangered species which became effective on March 31, 2023.

The ecological review of the BWB Plaza and surrounding area used several data bases or sources which include Natural Resources Conservation Service (NRCS) Soils Map, US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map, Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wetlands Map, the Federal Emergency Management Agency

(FEMA) Floodplain Map, and a review of threatened and endangered (T&E) species information from the USFWS and EGLE. A site visit in August 2022 was field reviewed to document current conditions in the largest undeveloped spaces within the Project area.

A USFWS Information, Planning, and Consultation (IPaC) review was done on May 17, 2023, which provided a list of potential species which may be impacted by the project. A review of potential impacts to these species with a Consistency Letter from the USFWS providing concurrence with Not Likely to Adversely Affect (NLAA) determinations. The completion of the Michigan Endangered Species Determination Key through the IPaC tool, which listed species and further determined the potential for the project to impact the species are listed at: <u>https://www.michigan.gov/mdot/bwb-technical-reports</u>. This information was provided by the USFWS on May 17, 2023. The USFWS concurrence letter is included in Appendix B.

The review of T&E plants using the same databases and sources did not indicate any T&E plants within the project area.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) provides legal protection over many other bird species, some common and some more imperiled. The project area does contain habitat for other bird species which may be protected by the MBTA. Where possible, it is recommended to conduct tree and other habitat clearing during non-nesting periods of the year. For most bird species, this timeframe is from March through August in the vicinity of the project area.

Regarding bald eagles, habitat is restricted to the Black River and adjacent shoreline habitats. Because the project will not be impacting the Black River or its floodplain, no impact is expected by the project. If a bald eagle nest were to be constructed along the Black River near the project area, additional considerations must be taken; this typically includes establishment of a 660-foot buffer around the nest to avoid disturbance of the nesting eagles. If this occurs, MDOT would consult with the USFWS to determine if other avoidance and minimization measures may be acceptable for the project.

Wetlands

There will be no impacts to wetlands during the construction of this phase.

Tree Removals and Replacements

Tree removals will occur on residential and commercial properties. For those properties in which tree removals are required from the remaining residential properties within the project footprint, tree replacements will be offered to the homeowners.

Tree replacement species and the numbers of trees to be planted on remaining residential properties and designated project green spaces will be determined by the property owner and appropriate project representative. No invasive species will be allowed for replacements.

There are seasonal restrictions on the removal of trees. The USFWS recommends that all tree clearing should be done outside of the bat pup season (June 1 - July 31) to avoid taking of the listed NLEB. Tree removals must comply with MDOT standards.

Utilities

Public and Private Utilities will need to be relocated as part of the BWB Plaza construction.

A DTE substation will also need to be relocated to a site owned by MDOT at 1606 Elmwood St., Port Huron, MI. The City and DTE officials have agreed on a Landscaping plan that includes a decorative fencing around the new substation, trees, and other landscaping elements.

All appropriate coordination with impacted public and private utilities is being undertaken in a manner that will ensure necessary relocations occur with minimal disruption to those served. Water service from the City of Port Huron will be provided at the perimeter of the proposed expansion, with MDOT assuming ownership and maintenance responsibilities for water infrastructure interior to the plaza.

Stormwater

Stormwater management will be incorporated into the project's final design plans. The privatesector partner shall design and build a detention basin in the plaza footprints to detain and release stormwater at current flow rates before entering the City of Port Huron Water and Sewer Department (DWSD) and/or Great Lakes Water Authority's systems. The design plan for the detention basin shall be submitted and accepted by MDOT before construction begins. The project contractor shall also submit design plans for post-construction Best Management Practices (BMPs) and detention/retention to MDOT for approval. Drainage will flow into existing sewers.

MDOT will need to enter into a stormwater connection agreement which will allow MDOT to connect the stormwater collection system to the existing combined storm and sanitary sewer system.

Permits

Multiple environmental permits will be required for the BWB Plaza Expansion Project:

 Permits for Michigan Public Act 451, Part 31 (Water Quality and Floodplains), Part 55 (Air Pollution Control), and Part 301 (Inland Lakes and Streams) are required from EGLE.

- ï Coverage under the National Pollutant Discharge Elimination System (NPDES), which is issued by the EGLE, is also required. The Notice of Coverage will be submitted before construction begins.
- ï The city of Port Huron will also require building permits for the new buildings on the plaza.

Changes in Design

This 2022 Refined Alternative responds to Federal Inspection Service (FIS) agencies at the LPOE and their Program of Requirements that have been updated since the FEIS. The layout of the plaza is revised to accommodate FIS agency commercial inspection requirements and improve traffic flow through the plaza. A new APHIS (Animal and Plant Health Inspection Service), VS (Veterinary Services) inspection facility is in the new commercial secondary inspection area.

It should be noted that the— project footprint for the BWB Plaza Expansion Project has been reduced since the approval of the FEIS and ROD. The reason for the reduction is that the Selected Alternative in the ROD included an at-grade plaza, while the 2022 Refined Alternative includes an elevated plaza, similar to the existing plaza.

Changes in Laws or Regulations

Air Quality

There have been numerous changes and updates to air quality regulations, guidance, and models for determining project-level air quality conformity since the approval of the ROD in 2009. The changes include the following:

- ï The EPA has replaced the MOBILE6.2 emissions factor model with the Motor Vehicle Emission Simulator (MOVES) in 2010.
- i In 2015, EPA released the *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas.*
- i In 2015, EPA released the latest CO hot-spot guidance, using *MOVES2014 in Project-Level Carbon Monoxide Analyses*, which is linked to EPA's earlier 1992 guidance, *Guideline for Modeling Carbon Monoxide from Roadway Intersections.*
- i In 2016, FHWA released an Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents.

MDOT has conducted an air quality analysis to confirm that it meets current conformity requirements as defined in the 1990 CAAA.

Noise

In February 2011, Code of Federal Regulations Title 23 Part 772 (23 CFR 772) *Procedures for Abatement of Highway Traffic Noise and Construction Noise* was revised. This revision in noise policy and procedures was implemented on July 11, 2011, through revised FHWA guidance and MDOT's *Highway Noise Analysis and Abatement Handbook*. The new regulations require a noise impact and abatement analysis for new or significantly altered highway projects (i.e., new interchange or adding capacity to the interstate).

No significant changes were identified that would alter the noise impact and abatement analysis and conclusions as reported in the November 2008 FEIS and the January 2009 ROD. MDOT has conducted a new noise impact and abatement analysis which has been previously discussed in this re-evaluation.

Northern Long-eared Bat and the Indiana Bat

The NLEB was re-classified from threatened to endangered under the U.S. Endangered Species Act of 1973 (ESA) on January 30, 2023. NLEB potentially occurs across all 83 counties in Michigan. Additionally, as part of the new procedures for Michigan, the USFWS Michigan Field Office changed some guidance for the Indiana Bat. Because of this, all the tree removal restrictions and some of the bridge survey requirements have changed in Michigan.

Eastern Massasuaga Rattle

On September 30, 2016, the Eastern Massasauga Rattlesnake (EMR) was listed as threatened under ESA. The EMR occupies wetlands and adjacent uplands throughout the lower peninsula of Michigan as well as Bois Blanc Island. The Blue Water Bridge Plaza Expansion Project was reviewed by MDOT endangered species staff, who found no regulated habitat in the corridor. No further review or coordination with the USFWS is required.

Water Quality

A new MS4 permit was signed and MDOT began implementing the anticipated permit conditions in 2018.

The new requirements are:

- a. Water Quality Treatment Standard: For each project, treat the runoff from 90 percent of all runoff-producing storms. BMPs shall be designed on a site-specific basis to achieve a minimum of 80 percent removal of total suspended solids (TSS) as compared with uncontrolled runoff or a discharge concentration of TSS not to exceed 80 milligrams per liter (mg/l).
- b. The Channel Protection Performance Standard: Post-construction runoff rate and volume of discharges shall not exceed the pre-development rate and volume for the project site for all storms up to the two-year, 24-hour storm. Due to the construction of the work described in the re-evaluation, increasing impervious surface, will require the current MS4 permit and infiltration requirements.

MDOT Conclusion

MDOT has concluded that the ROD for the BWB Project (FHWA-MI-EIS-05-02-R) is still valid for the current project, and that no additional NEPA documentation outside of this re-evaluation is necessary. With the submission of this document, MDOT requests approval of this re-evaluation.

6-23-2023

Date

Date

Lori Noblet

Lori Noblet NEPA MEGA Project Manager Michigan Department of Transportation

Carrie A. Warren, P.E. Carrie A. Warren Jun 22 2023 10:13 AM

Carrie Warren, PE Senior Project Manager Michigan Department of Transportation

Date

Theodore Burch, PE FHWA Michigan Division Administrator

ATTACHMENT A Consultation with SHPO and ACHP

From: Baldwin, Lloyd (MDOT)
Sent: Friday, July 22, 2022 7:28 AM
To: Grennell, Brian (LEO) <<u>GrennellB@michigan.gov</u>>; Slagor, Scott (LEO)
<<u>SlagorS2@michigan.gov</u>>
Subject: ER-930512 Blue Water Bridge (BWB) Plaza Improvements

Good Morning Brian and Scott,

MDOT is currently conducting a re-evaluation of the Blue Water Bridge Plaza Improvements Environmental Impact Statement (EIS) (signed March 20, 2009) and Record of Decision (ROD), signed by FHWA May 12, 2009. The Selected Alternative (aka acceptable alternative) presented a plaza footprint generally bound by Hancock St. on the north, 10th Ave on the east, Pine Grove Avenue (M-25) and Scott St on the south and I-94/I-69 / M-25 Connector on the west. The plaza footprint was based on operational requests made by CBP. At some point after the ROD was signed MDOT determined the plaza footprint was larger than was operationally necessary

For background, the Selected Alternative would require the removal of the E.C. Williams House (2511 10th Ave), a resource that was determined to be eligible for inclusion in the NRHP. The project MOA (enacted May 12, 2009) that stipulated MDOT would acquire and relocate the historic house to an approved parcel previously acquired by MDOT. [see *Re-Eval Study Area*]

MDOT acquired and cleared much of the needed right-of-way, with the exception of the E.C. Williams property. Several years ago MDOT determined that the plaza footprint could be reduced and still meet operational needs of CBP, reduce costs, and avoid the E. C. Williams property. The revised footprint boundaries would be I-94, the M-25 Connector, Riverview St, 13th St, Hancock St., Pine Grove Ave/M-25, Elwood St, 10th Ave., and Scott Ave. The current re-evaluation finds the proposed reduced footprint of the plaza will remain as the acceptable alternative and MDOT will not need to acquire the historic E.C. Williams property. [see *BWB Project Limits_flat*]

Based on the reduction in the proposed plaza footprint, and based on consultation with FHWA HQ, MDOT plans to issue a letter or memo to FHWA that describes the project change and that the change will eliminate the Adverse Effect. The letter/memo would be posted in the project file but the MOA would remain in place. Your office and ACHP would be copied on the correspondence. This is the recommended course of action per FHWA. SHPO does retain the right to terminate if that is the course of action you believe more appropriate.

Please feel free to contact me if you have any questions,

Lloyd Baldwin Historian, Environmental Section Bureau of Development Michigan Department of Transportation 425 W. Ottawa Street PO Box 30050 Lansing, MI 48909 E-Mail: <u>baldwinl3@michigan.gov</u> Phone: 517-241-2702 Fax: 517-335-5696



STATE OF MICHIGAN MICHIGAN STRATEGIC FUND STATE HISTORIC PRESERVATION OFFICE

QUENTIN L. MESSER, JR. PRESIDENT

May 31, 2023

GRETCHEN WHITMER

GOVERNOR

LLOYD BALDWIN HISTORIAN BUREAU OF DEVELOPMENT, ENVIRONMENTAL SERVICES SECTION MICHIGAN DEPARTMENT OF TRANSPORTATION 425 WEST OTTAWA STREET LANSING MI 48909

RE: ER-930512 Blue Water Bridge Plaza Improvements Project, Port Huron, Saint Clair County (FHWA)

Dear Lloyd Baldwin:

The State Historic Preservation Office has received your letter dated May 24, 2023, regarding the National Register eligible E.C. Williams House in Port Huron, Michigan, and changes to the Blue Water Bridge Plaza Improvements plan that will avoid the determination of Adverse Effect. Thank you for keeping us apprised of ongoing changes and updates.

If you have any questions, please contact Cassandra Nelson, Historian, at 517-648-4050 or by email at nelsonc32@michigan.gov. Please reference our project number in all communication with this office regarding this undertaking. Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

Carsan Nelson

Cassandra Nelson Historian

CN



300 NORTH WASHINGTON SQUARE • LANSING, MICHIGAN 48913 michigan.gov/shpo • (517) 335-9840



Federal Highway Administration

Michigan Division

May 4, 2023

315 W. Allegan St., Rm. 201 Lansing, MI 48933 517-377-1844 (office) Michigan.FHWA@dot.gov

> In Reply Refer To: HDA-MI

Ms. Mandy Ranslow Program Analyst/FHWA Liaison Advisory Council on Historic Preservation 401 F Street NW, Suite 308 Washington, DC 20001

Adverse Effect to the E. C. Williams House will be avoided as part of refinements to the Blue Water Bridge Plaza Improvement Project in Port Huron, Michigan

Dear Ms. Mandy Ranslow,

The purpose of this letter is to notify the Advisory Council on Historic Preservation (ACHP) that the Adverse Effect on the E.C. Williams House will be avoided as part of refinements to the Blue Water Bridge (BWB) Plaza Improvement Project in Port Huron, Michigan.

The Michigan Department of Transportation (MDOT) and Federal Highway Administration (FHWA) completed the Final Environmental Impact Statement (FEIS) for the BWB Plaza Improvement Project in March 2009 and signed the Record of Decision (ROD) on May 12, 2009. Through this process, the MDOT proposed relocating the historic E.C. Williams House to accommodate the selected alternative for the BWB plaza expansion. The Michigan State Historic Preservation Office (SHPO) determined the relocation of the resource was an appropriate strategy to minimize and mitigate the Adverse Effect. In their 2022 re-evaluation, the MDOT refined the plaza to provide a smaller footprint and will no longer require relocation of the E. C. Williams House. In 2009, the FHWA, the SHPO, and the MDOT negotiated a Memorandum of Agreement, which will be retained as a placeholder until the plaza is constructed.

If you have any questions, please contact Dana Reinke by email at dana.reinke@dot.gov or by phone at (517) 702-1836.

> Sincerely, ERIC J

PURKISS

Digitally signed by ERIC J PURKISS Date: 2023.05.04

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Eric J. Purkiss Program Development Director

Theodore G. Burch, P.E. For: **Division Administrator**

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GEF Enclosure/s: 2009 BWB Memorandum of Agreement EC Williams House Exhibit reduced 11-21 BWB-2009-v-Current Impact 11-22_BWB-Landscaoubg-Overall By e-mail cc: Llyod Baldwin, MDOT Lori Noblet, MDOT Dana Reinke, FHWA Andy Pickard, FHWA Eric Purkiss, FHWA Mark Dionise, FHWA Rachael Tupica, FHWA Theodore Burch, FHWA

File Directory: O:\FHWA Records\ENVI Environmental - Planning and Program Development\ENVI 3 Environment Correspondence Files File Name: BWB Re-eval ACHP MOA Letter DER_MAY042023.pdf

ATTACHMENT B MDOT Letter to the USFWS



United States Department of the Interior

FISH AND WILDLIFE SERVICE Michigan Ecological Services Field Office 2651 Coolidge Road Suite 101 East Lansing, MI 48823-6360 Phone: (517) 351-2555 Fax: (517) 351-1443



In Reply Refer To: Project code: 2023-0082650 Project Name: Blue Water Bridge Plaza Project May 17, 2023

Subject: Verification letter for the project named 'Blue Water Bridge Plaza Project' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Zach Kaiser:

The U.S. Fish and Wildlife Service (Service) received on **May 17, 2023** your effect determination(s) for the 'Blue Water Bridge Plaza Project' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Massasauga (=rattlesnake) (Sistrurus catenatus)	Threatened	NLAA
Eastern Prairie Fringed Orchid (Platanthera	Threatened	No effect
leucophaea)		
Indiana Bat (Myotis sodalis)	Endangered	NLAA
Monarch Butterfly (Danaus plexippus)	Candidate	No effect
Northern Long-eared Bat (Myotis septentrionalis)	Endangered	NLAA
Piping Plover (Charadrius melodus)	Endangered	NLAA
Red Knot (Calidris canutus rufa)	Threatened	NLAA
Snuffbox Mussel (Epioblasma triquetra)	Endangered	No effect
Tricolored Bat (Perimyotis subflavus)	Proposed	No effect
	Endangered	

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination

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for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

Your agency has met consultation requirements by informing the Service of your "No Effect" determination(s). No consultation is required for species that you determined will not be affected by the Action.

Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions and the Service's 30-day review period. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have sitespecific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.

Bats of Conservation Concern:

Implementing protective measures for bats, including both federally listed and non-listed species, indirectly helps to protect Michigan's agriculture and forests. Bats are significant predators of nocturnal insects, including many crop and forest pests. For example, Whitaker (1995) estimated that a single colony of 150 big brown bats (Eptesicus fuscus) would eat nearly 1.3 million pest insects each year. Boyles et al. (2011) noted the "loss of bats in North America could lead to agricultural losses estimated at more than \$3.7 billion/year, and Maine and Boyles (2015) estimated that the suppression of herbivory by insectivorous bats is worth >1 billion USD globally on corn alone. In captive trials, northern long-eared bats were found to significantly reduce the egg-laying activity of mosquitoes, suggesting bats may also play an important role in

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controlling insect-borne disease (Reiskind and Wund 2009). Mosquitoes have also been found to be a consistent component of the diet of Indiana bats and are eaten most heavily during pregnancy (6.6%; Kurta and Whitaker 1998). Taking proactive steps to help protect bats may be very valuable to agricultural and forest product yields and pest management costs in and around a project area. Such conservation measures include limiting tree clearing during the bat active season (April through Octobervaries by location) and/or the non-volant period (June through July), when young bats are unable to fly, and minimizing the extent of impacts to forests, wetlands, and riparian habitats.

Bald and Golden Eagles:

Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the "taking" of bald and golden eagles and defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The Eagle Act's implementing regulations define disturb as "...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit https://www.fws.gov/library/collections/all-about-eagles. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at https://www.fws.gov/media/national-bald-eagle-management-guidelines-0.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators

In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

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Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan's pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

https://www.fws.gov/initiative/monarchs https://www.fws.gov/library/collections/pollinators

Wetland impacts:

Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Bat References

Boyles, J.G., P.M. Cryan, G.F. McCracken, T.H. Kunz. 2011. Economic Importance of Bats in Agriculture. Science 332(1):41-42.

Kurta, A. and J.O. Whitaker. 1998. Diet of the Endangered Indiana Bat (Myotis sodalis) on the Northern Edge of Its Range. The American Midland Naturalist 140(2):280-286.