



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, DETROIT DISTRICT
477 MICHIGAN AVENUE
DETROIT MI 48226-2550

9 November 2023

TO ALL INTERESTED AGENCIES, PUBLIC GROUPS, AND CITIZENS:

The U.S. Army Corps of Engineers (USACE), Detroit District, has prepared a preliminary Finding of No Significant Impact (FONSI) and an Environmental Assessment (EA) for breakwater rehabilitation in the City of Muskegon, Muskegon County, Michigan. The proposed work is being conducted pursuant to USACE's statutory operations and maintenance authority for the Muskegon Harbor Federal Navigation Project. The proposed work includes excavation of sand dunes to create work and storage areas for replacement of a walkway and railing along the Muskegon Federal Navigation Channel north revetment. Excavated sand will be sorted to remove vegetation and debris before being placed upland along the Lake Michigan shoreline for sand nourishment.

The EA may be viewed online at the Detroit District webpage:

<https://www.lre.usace.army.mil/> Located to the lower left of the page: *Other Public Notices* and select *Walkway and Revetment Rehabilitation, City of Muskegon, Muskegon County, MI*. Electronic copies of this Public Notice and EA are being sent to Tribes, interested groups, individuals, federal, state, and local agencies. The USACE is soliciting comments from the public to consider and evaluate the impacts of the proposed activity. Any person who has a concern/interest or has historical/cultural interests that may be affected by the proposed project may submit written comments within the comment period of this notice. Comments must clearly set forth what interest may be affected by the proposed activity and how the action significantly affects the quality of the human environment. If no comments are received by the end of the thirty (30) day review period, it will be assumed that no comments are forthcoming. Please provide all comments by email to: Detroit-USACEPublicNotice@usace.army.mil. All comments received will be taken under consideration, as applicable.

Following the comment period and a review of the comments received, the USACE, Detroit District Engineer, will make a final decision regarding the necessity of preparing an Environmental Impact Statement (EIS) for the proposed project. Based on the preliminary conclusions of the EA, it appears that preparation of an EIS will not be required; therefore, a preliminary FONSI has been included in the EA.

Sincerely,

Charles A. Uhlarik

Charles A. Uhlarik
Chief, Environmental Analysis Section



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, DETROIT DISTRICT
477 MICHIGAN AVENUE
DETROIT MI 48226-2550

ENVIRONMENTAL ASSESSMENT

Breakwater Rehabilitation



Muskegon Harbor, Muskegon County, Michigan

9 November 2023

U.S. Army Engineer District, Detroit
Corps of Engineers, CELRE-PLE
477 Michigan Ave.
Detroit, Michigan 48226-2550



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, DETROIT DISTRICT
477 MICHIGAN AVENUE
DETROIT MI 48226-2550

Preliminary Finding of No Significant Impact

Infrastructure Improvements
Muskegon, Muskegon County, Michigan

The U.S. Army Corps of Engineers (USACE), Detroit District, has completed an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The Environmental Assessment (EA), and a Public Notice (dated xx, 2023) addresses the environmental consequences of infrastructure improvements to the Federal Navigation Channel in Muskegon, Muskegon County, Michigan. The proposed work is being conducted pursuant to USACE's statutory operations and maintenance authority for the Muskegon Harbor Federal Navigation Project.

The EA analysis, incorporated herein by reference, evaluated various project alternatives: Alternative 1, "No Action"; Alternative 2, remove and replace the existing walkway, Alternative 3, repair the walkway and fill sink holes. The selected alternative and tentative recommended plan is Alternative 2, which is the least impacting alternative meeting the project design criteria as discussed in the EA. All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the selected alternative and recommended plan. Best management practices (BMPs) as detailed in the EA will be implemented, if appropriate, to minimize impacts. No compensatory mitigation is required as part of the tentative recommended plan. A summary assessment of the potential effects of implementing the recommend plan are listed in Table 1.

Table 1: Summary of Potential Effects of the Tentative Recommended Plan

	Minimal and Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquatic Habitat, Fisheries	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Clean Water Act	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Climate Change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coastal Zone Management Act	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contaminant Consideration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exotic/Invasive/Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Farmland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Federally Listed Species (T&E)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Minimal and Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Floodplains	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Groundwater Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Health and Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Traffic, Noise and Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Setting/ Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wildlife/Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Public review of the EA and Preliminary Finding of No Significant Impact FONSI) was initiated on November 9, 2023. All comments submitted during the public review period will be considered and responded to by email, as appropriate.

The proposed project complies with the Federal Executive Order on Flood Plain Management (E.O. 11988). The project would not cause a harmful interference on adjacent property, nor restrict floodplain capacity, nor increase the risk of flooding or related flood damage, nor encourage floodplain development.

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the USACE determined that the tentative recommended plan will have no effect on the following federally listed species or their designated critical habitat: Pitcher's Thistle. The USACE determined that the recommended plan may affect but is not likely to adversely affect the following federally listed species or their designated critical habitat: Eastern Massasauga, Indiana Bat, Monarch Butterfly, Piping Plover. USACE has agreed to survey and avoid nesting Piping Plover in the area, making sure to only place during the identified environmental window provided by FWS. The USACE determination was submitted to the USFWS on August 28, 2023. The FWS has not yet concurred with the determination.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the USACE preliminarily determined that the tentative recommended plan has no adverse effect on any historic properties.

There is no discharge of dredged or fill material associated with the recommended plan. A water quality certification pursuant to Section 401 of the Clean Water Act is not required because the work site and the proposed placement site are located in upland areas.

A determination of consistency with the State of Michigan Coastal Zone Management program was provided to the state on October 17, 2023, pursuant to Section 307 of the Coastal Zone Management Act of 1972. All conditions of the consistency determination shall be implemented to minimize adverse impacts to the coastal zone, as applicable. The project will not impact lands designated under the Coastal Barrier Resources Act (CBRA PL97-348).

All applicable environmental laws, executive orders, and regulations were considered in evaluation of alternatives and coordination with appropriate agencies undertaken. Implementing the tentative recommended plan would not result in significant cumulative or long term adverse environmental effects. The project would cause no or insignificant minor adverse impacts to natural resources, would not adversely impact navigation, water quality, cultural/historic/tribal resources, federally listed endangered or threatened species nor their habitat, nor be injurious to the public interest. Adverse effects would be minor, limited primarily to short term noise and air emissions from equipment operations during construction.

Based on this EA, coordination with other Federal agencies, State agencies and Tribes, and review by my staff, it is my preliminary determination that implementing the tentative recommended plan would not significantly affect the quality of the human environment. Therefore, preparation of an Environmental Impact Statement (EIS) is not required. Following the 30-day agency/public review period and consideration of the comments received, a final decision will be made regarding the necessity of preparing an EIS for the proposed action.

Date Signed

Brett M. Boyle
Lieutenant Colonel, Corps of Engineers
District Commander

Table of Contents

1.0	INTRODUCTION	1
2.0	PROJECT AUTHORITY AND HISTORY.....	1
3.0	ALTERNATIVES	1
4.0	ALTERNATIVE SELECTION AND RECOMMENDED PLAN	2
5.0	AFFECTED ENVIRONMENT AND CONSEQUENCES	3
6.0	STATE AND FEDERAL AGENCY COORDINATION	8
7.0	MAJOR FINDINGS AND CONCLUSIONS	9
8.0	PUBLIC REVIEW	9
9.0	REFERENCES	10
 APPENDIX A: Figures		1
APPENDIX B: Early Coordination Correspondences.....		1
APPENDIX C: IPaC Species List and Consistency Letter		1

1.0 INTRODUCTION

1.1 The U.S. Army Corps of Engineers (USACE), Detroit District, has identified a need for repair of the walkway along the Federal Navigation Channel North Revetment. The project is located in the City of Muskegon, Muskegon County, Michigan, approximately 175 miles west and north of Detroit, Michigan (Figure 1).

1.2 PROPOSED ACTION, PROJECT NEED AND PURPOSE

The USACE, Environmental Assessment (EA) evaluates the environmental impacts of the proposed infrastructure improvements to refurbish deteriorating infrastructure. The proposed project is needed to ensure safe conditions along the walkway and establish work and storage areas to complete the rehabilitation of the revetment. Currently, the sand which blows onto the walkway and deterioration of the walkway and revetment cause unsafe conditions. Excavation of the sand dunes is necessary to provide access to the work area and prevent sand drifts from covering the walkway. Replacement of the walkway will ensure safe public access along the federal navigation channel and to the existing fishing pier.

2.0 PROJECT AUTHORITY AND HISTORY

2.1 The proposed work is being conducted pursuant to USACE's statutory operations and maintenance authority for the Muskegon Harbor Federal Navigation Project.

2.2 Muskegon Harbor, Michigan is located on the east shore of Lake Michigan. The project was authorized by Rivers and Harbors Acts of June 13, 1902; March 3, 1925; August 30, 1935; and October 23, 1962. The existing project provides for an exterior basin in Lake Michigan formed by two arrowhead breakwaters, the south and the north, 500 feet apart at the outer ends, the inner ends connected with the shore by breakwater structures. The project serves several privately owned commercial wharves. Since the project has been constructed there have been repairs and maintenance on each revetment. Dredging has been performed at the site to maintain the channel as well as ensure beach nourishment.

2.3 Maintenance of the existing walkway and revetment have been reviewed and provided compliance under the National Environmental Policy Act (NEPA) in a 25 August 1978 Environmental Assessment titled, 'Maintenance of Existing Structures Muskegon Harbor, Muskegon County, Michigan'. Excavation of dune sands with associated upland placement and the establishment of upland work and storage areas have not previously been reviewed under NEPA and are the focus of this EA.

3.0 ALTERNATIVES

3.1 Two action alternatives were evaluated in addition to the No Action alternative to address the identified work and storage area and placement areas for the proposed project.

3.2 Alternative 1 – No Action (Future Without Project)

The “No Action” alternative assumes that the proposed project would not proceed. The structure would continue to deteriorate, sand would continue to cover structure causing unsafe conditions along the path and revetment. The “No Action” alternative is not carried forward in this evaluation.

3.3 Alternative 2 – Remove and Replace the Walkway

Alternative 2 entails excavating 3,000 cubic yards (cyds) of sand to create an access route along the walkway. The excavated sand will be placed west of the project site in an upland location. The proposed project will also include removal and replacement of the existing walkway, railings, and grouted stone. The new walkway will include seven curb openings. An access route will run parallel along the walkway and 4 work and storage areas will be established to complete the proposed work and prevent additional sand from blowing onto the structure.

3.4 Alternative 3 – Repair the Walkway

Alternative 3 entails filling in existing sink holes along the walkway and leveling out the walkway using either patches or concrete grinders to remove uneven surfaces.

4.0 ALTERNATIVE SELECTION AND TENTATIVE RECOMMENDED PLAN

4.1 After project design team (PDT) evaluation of the alternatives that included environmental needs that may be required, cost estimating, and existing uses of property, Alternative 2 was determined to be the tentative preferred alternative.

4.2 The proposed plan consists of excavating critical dunes to create access routes and work and storage areas in order to replace a concrete walkway. The selected alternative includes 3,000 cubic yards of excavated sand to create a 2,300ft long by 16ft average width access routes along the walkway. The excavated sand will be placed west of the project site in an upland area designated by the Michigan Department of Natural Resources. The proposed project will also include removal and replacement of the existing walkway, railings, and grouted stone impacting approximately a 7.5ft wide by 2,300ft long area. The new walkway will include seven curb openings with 20ft-by-20ft turnabouts. The proposed project will also include establishing three (3) work and storage areas with dimensions of 70 feet wide by 150ft long and a work area just south of the existing parking lot covering a 17,253ft² area. The work period is expected to begin in Summer 2024 and last a full construction season.

4.2 Implementation of the tentative recommended plan will require removal of trees within the proposed work and storage areas. Additional structures will be removed including benches, gazebos, and signs. USACE owned structures within the USACE easement will be re-installed by the USACE contractor and structures owned by other entities will be re-installed by the property owner.

4.3 Some variation from the project as described may occur with respect to the sequence of activities, method of operation, or design details as a result of

unanticipated design improvements, site conditions, or cost-saving measures. Such variations would not result in significant changes to either the overall project design or environmental effect, without further evaluation under the National Environmental Policy Act (NEPA), as applicable.

5.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

5.1 This section focuses on how the proposed work may affect relevant environmental concerns. The environmental evaluation identifies and analyzes the type and magnitude of anticipated impacts associated with implementing the recommended plan. The anticipated impacts are outlined in Table 1.

5.2 Physical Setting

Existing navigation features within the project area include a 4,250-foot-long by 200-foot-wide channel with associated revetments, two rubble mound breakwater structures over 2,000-feet-long, concrete walkways along both revetments, and various associated dock and mooring structures on the southern side of the navigation channel. The northern side of the navigation channel is composed of dune sand and marram grass ecosystems interspersed with sparse to dense tree cover. The southern side of the navigation channel is composed of mixed use residential and commercial properties including a National Oceanic and Atmospheric Administration (NOAA) lab and a Coast Guard Station. Proposed work will alter the dune ecosystem along the walkway by excavating sand. Restoration of the exposed slopes will occur after completion of the rehabilitation work. The navigation channel and southern revetment will not be impacted.

5.3 Weather

Muskegon is affected by lake effect weather patterns which cause the region to maintain consistent precipitation and mild temperatures year-round. Precipitation is typically higher in the spring and fall, averaging between 3 and 4 inches per month in April, May, August, September, and October. During January and February temperatures and precipitation are at their lowest, averaging 23°F and 2 inches of precipitation. The project will have no effect on the local climate.

5.4 Land Use

Muskegon Township is comprised of approximately 15,300 land acres of which 1/3 is undeveloped. This includes 2,700 acres of forestland and wetlands owned by the MDNR running along the river from Muskegon to Egelston Township. Residential properties make up another 37% of the land or approximately 5,697 acres. The remaining area is occupied by roads, commercial, industrial, and public lands (churches, schools, government buildings) at 8%, 5%, 4%, and 6% respectively. The project will no impact on land use within the region.

5.5 Topography and Soils

The highest elevation in Muskegon is 719 feet above sea level, located along the Lake Michigan Shoreline within the dune complexes. Outside of the dunes the elevation is

only 574 feet above sea level and increases as you move to the east end of the city reaching 657 feet above sea level. Most of the soil in the vicinity of the project area and around Muskegon is sand (Plainsfield or Pipestone). The upstream end of the Muskegon River is typified by hydric soils found in wetlands with a significant quantity of Kerston muck present. The proposed work would disturb sediments and sand present in the area and replace some of the material with clean aggregate used to stabilize the walkway. The slopes of the dunes located directly adjacent to the walkway would be altered to provide access and prevent blow sand from covering the walkway.

5.6 Air Quality

Under 42 USC 7418(a), the proposed federal activity shall comply with all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity. Muskegon County meets the National Ambient Air Quality Standards (NAAQS). The construction equipment that will be used for construction will produce diesel exhaust but would be required to meet emission standards. The minimal amount of exhaust produced during transport and placement will not measurably affect the air quality within Muskegon County. Therefore, based on the emissions discharges, the proposed construction activity is exempted as de minimis and therefore meet the General Conformity Criteria pursuant to Section 107 of the Clean Air Act, as amended.

5.7 Aquatic Habitat and Fish

The proposed work is not located within an aquatic habitat and will not have any impact on fish.

5.8 Clean Water and Water Quality

The proposed construction impacts would be largely limited to upland work which would not impact water quality. Best management practices including silt curtains would be used to prevent any material from entering the waterway. A water quality certification pursuant to Section 401 of the Clean Water Act is not required because work and the proposed placement site are located in upland areas and will not have a direct or indirect effect on water quality.

5.9 Climate Change

Global climate change is expected to lead to six major types of (physical) changes in the Great Lakes basin: (1) increased annual averages in air and surface water temperatures (with greater extremes in hottest temperatures), (2) increased duration of the stratified (thermocline) period, (3) changes in the direction and strength of wind and water currents, (4) flashier precipitation (increases in the intensity of storms and drier periods in between) and river flows, (5) greater variation in annual ice cover/greater water surface evaporation/larger lake effect snow events, and (6) greater variations in lake levels. The impacts on greenhouse gas emissions and overall climate change from project implementation are considered minimal and insignificant. Climate change impacts to the complete project over time are expected to be minimum because the material used is meant to withstand the storm events that will occur. No measures would be necessary to avoid or minimize impacts from climate change.

5.10 Coastal Resources

The USACE determined that implementing the proposed project would be undertaken in a manner which is consistent to the maximum extent practicable with the applicable enforceable policies of the approved State of Michigan Coastal Zone Management Plan. The USACE requested Michigan enforceable policies that may be applicable to the proposed work in an email dated August 22, 2023. Michigan EGLE provided initial response on August 22, 2023, identifying policies being Part 31: Water Resource Protection, Part 55: Air Pollution Control, Part 353: Sand Dunes Protection and Management, and Part 365: Endangered Species Protection of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended. Initially Part 325: Great Lakes Submerged Lands, was considered as an applicable policy. Since project modifications have been made to avoid in water placement, applicability of Part 325 to the proposed project is negated. The USACE provided its CZMA federal consistency determination to the state on October 17, 2023.

The placement site is not within a designated Coastal Barrier as designated under the Coastal Barrier Resources Act (CBRA) of 1982.

5.11 Contaminants

All removed infrastructure will be disposed of in accordance with state and local requirements. The infrastructure improvements do not cause changes or new circumstances in relation to contaminants or hazardous, toxic, or radioactive waste (HTRW).

5.12 Cultural Resources

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), as amended, the USACE has preliminarily determined that implanting the proposed project will have no impact on historic properties as there are none within the work areas. This preliminary determination is being coordinated with the State Historic Preservation Office (SHPO) and Tribal parties with interest in the geographical location.

5.13 Exotic and Invasive Species

A variety of invasive exotic plant and animal species have become established throughout the Great Lakes basin. In some cases, invasive species have displaced and damaged native populations, resulting in diminished wildlife habitat values. Some of the more aggressive invasive species in upland areas around Lake Michigan include Purple Loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*). Implementing the proposed project would not facilitate movement or increase invasive species present in the Muskegon Harbor area.

5.14 Farmlands

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The work site contains no farmlands and therefore the project would have no effect on farmlands.

5.15 Federally Listed Threatened and Endangered Species

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the USACE requested a species list through the US Fish and Wildlife Service Information for Planning and Consultation (IPAC) program online database. Based on the species list and consistency letter (Appendix C), dated August 23, 2023, the USACE determined that the recommended plan will have the following effects on Threatened and Endangered Species:

- Eastern Massasauga (May affect): Project area does not overlap with foredune wetlands and area is heavily used by park users and fisherman making the area not prime habitat for this shy snake. It is anticipated that this snake would not be present in the project area and increased foot traffic during the establishment of the construction area would force any potential snakes to leave the area.
 - USACE Determination: Not Likely to Adversely Affect (NLAA)
- Indiana Bat: The project work area include large trees which may provide hibernacula. In order to mitigate this impact, trees would be removed during the bats' inactive season or surveys for the bats would be conducted prior to tree removal.
 - USACE Determination: NLAA
- Monarch Butterfly: FWS has not provided any concerns regarding the Monarchs, nor have they requested USACE to include milkweed in mitigation efforts.
 - USACE Determination: NLAA
- Piping Plover: While critical habitat has been identified for the entire area around and within the proposed project area upon survey of the site no suitable habitat was identified. The project site is highly vegetated without small cobble stones to provide nesting material for the plover. In addition, perches for raptors are available which make the site dangerous for the birds. Although no critical habitat has been identified within the excavation area; the upland placement site has been identified as prime habitat and a nesting pair was last present in 2019. Coordination with FWS has resulted in plans for the USACE to survey and avoid nesting Piping Plover in the area. Additionally, placement will only occur in the provided environmental window.
USACE Determination: NLAA
- Pitcher's Thistle: Survey of the area did not identify any Pitcher's Thistle in the project area.
 - USACE Determination: No Impact

The USACE determination was submitted to the USFWS on August 28, 2023. The USFWS has not yet concurred with the determination. No further consultation with the USFWS is required unless there are comments from USFWS or significant changes to the project proposal, site conditions, or Federal listings for the project area.

5.16 Floodplain and Hydrology

The proposed project work occurs within the 100-year floodplain of Lake Michigan, but the work would not impact flood stages, nor would it encourage floodplain development. Construction of the proposed project has no measurable impacts to the area's hydrology.

5.17 Groundwater and Drinking Water Supply

There are no water intake structures in the vicinity of the project site and proposed work will not alter or negatively impact groundwater or drinking water.

5.18 Health and Safety

Construction will be conducted consistent with Federal and state health and safety requirement. The project will not impact the health and safety of the surrounding area.

5.19 Noise and Traffic and Aesthetics

Traffic will temporarily be redirected and limited within a portion of the park area during construction activities. Noise will be increased from heavy equipment use. These existing disturbances are not considered to be significant and would be coordinate with the property owner, Michigan Department of Natural Resources (MDNR) to avoid significant impacts to park use. Construction will comply with applicable local noise requirements.

5.20 Recreation

The proposed work would limit recreation around the construction zone which includes a walking pathway, parking lot, and a fishing pier located along the Muskegon navigation channel. After construction the work will provide a benefit to park users and provide a safe feature of waterway access and fishing.

5.21 Social Setting/Environmental Justice

The project site is located within Muskegon, Michigan which has several census tracts that meet the Council on Environmental Quality (CEQ) definition of disadvantaged. The project site is not located within a census tract that is disadvantaged and proposed work is not anticipated to impact areas that are disadvantaged.

5.23 Wetlands

The proposed work will not contain work in regulated waters of the U.S. Therefore, the impacts from conducting the proposed work are considered minimal and insignificant.

5.24 Wildlife Habitat and Wildlife

The project area is located within critical dunes habitat along the Lake Michigan shoreline. The sand dune area is utilized as a breeding and nesting site for the endangered Piping Plover (*Charadrius melodus*). Critical habitat for Piping Plover is identified in the area and previous identification of a pair of Piping Plover utilized the the placement site location for nesting in 2019. The Piping Plover population has increased, and use of the proposed placement area is anticipated given wave action and likelihood for cobble to be present.

5.25 Cumulative Impacts

Repair and rehabilitation of the breakwater structure is required, and any excess materials or debris will be disposed consistent with state requirements. Implementation of this project and other similar types of projects within the area are not anticipated to cause significant cumulative or any long-term impacts to the surrounding vicinity.

5.26 The anticipated specific project impacts associated with implementing the tentative recommend plan are found in Table 1.

Table 1: Summary of Potential Effects of the Tentative Recommended Plan

	Minimal and Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquatic Habitat, Fisheries	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Clean Water Act	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Cultural Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exotic/Invasive/ Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Traffic, Noise and Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Setting/ Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wildlife/Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6.0 STATE AND FEDERAL AGENCY COORDINATION

6.1 Federal and state agency early coordination occurred on July 28, 2023. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) asked for responses to several questions from their Air Quality Division and their Water Resources Division. See Appendix B for comments and responses to the early coordination email. The Environmental Protection Agency (EPA), FWS, and MDNR did not provide comments during the early coordination period.

7.0 MAJOR FINDINGS AND CONCLUSIONS

7.1 The proposed project has been reviewed pursuant to the following Acts and Executive Orders: Fish and Wildlife Act of 1956; Fish and Wildlife Coordination Act of 1958; National Historic Preservation Act of 1966; National Environmental Policy Act of 1969; the Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508); the Corps of Engineers, Policy and Procedure for Implementing NEPA (33 CFR Part 230), Clean Air Act of 1970; Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 1971; Coastal Zone Management Act of 1972; Endangered Species Act of 1973; Clean Water Act of 1977; Coastal Barrier Resources Act (CBRA) of 1982. Executive Order 11988, Flood Plain Management, May 1977; Executive Order 11990, Wetland Protection, May 1977, Executive Order 12898 Environmental Justice, February 1994; Executive Order 13653, Preparing the United States for the Impacts of Climate Change, November 2013.

7.2 All applicable laws, executive orders, and regulations were considered in evaluation of alternatives and coordination with appropriate agencies undertaken. Implementing the recommended plan would not result in significant cumulative or long term adverse environmental effects. The project would cause no or insignificant minor adverse impacts to cultural and natural resources, would not adversely impact navigation, water quality, federally listed threatened or endangered species and their habitat, nor be injurious to the public interest. Adverse effects would be minor, limited primarily to short term noise and air emissions from equipment operations during construction.

8.0 PUBLIC REVIEW

8.1 Copies of this EA are available to the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, the State of Michigan, tribes, local agencies, interested groups, and individuals for a 30-day review and comment period. Any person who has a concern/interest or has historical/cultural interests that may be affected by the proposed project may submit written comments within the comment period of this notice. Comments must clearly set forth what interest may be affected by the proposed activity and how the action significantly affects the quality of the human environment. If no comments are received by the end of the thirty (30) day review period, it will be assumed that no comments are forthcoming. Please provide all comments by email to: Detroit-USACEPublicNotices@usace.army.mil and reference '*Muskegon Walkway and Revetment Rehabilitation*'. All comments received will be taken under consideration, as applicable.

8.2 Following the comment period and a review of the comments received by the USACE, the District Engineer (Detroit District, USACE) will make a final decision regarding the necessity of preparing an Environmental Impact Statement (EIS) for the proposed project. Based on the preliminary conclusions of the EA, it appears that preparation of an EIS will not be required; therefore, a preliminary Finding of No Significant Impact has been included in the EA.

9.0 REFERENCES

Climate and Economic Justice Screen Tool. Version 1.0. 2022. Council on Environmental Quality. Access 8/28/2023.

City of Muskegon. Master Plan 2022. www.muskegon-mi.gov. Accessed 8/21/2023.

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APPENDIX A: Figures

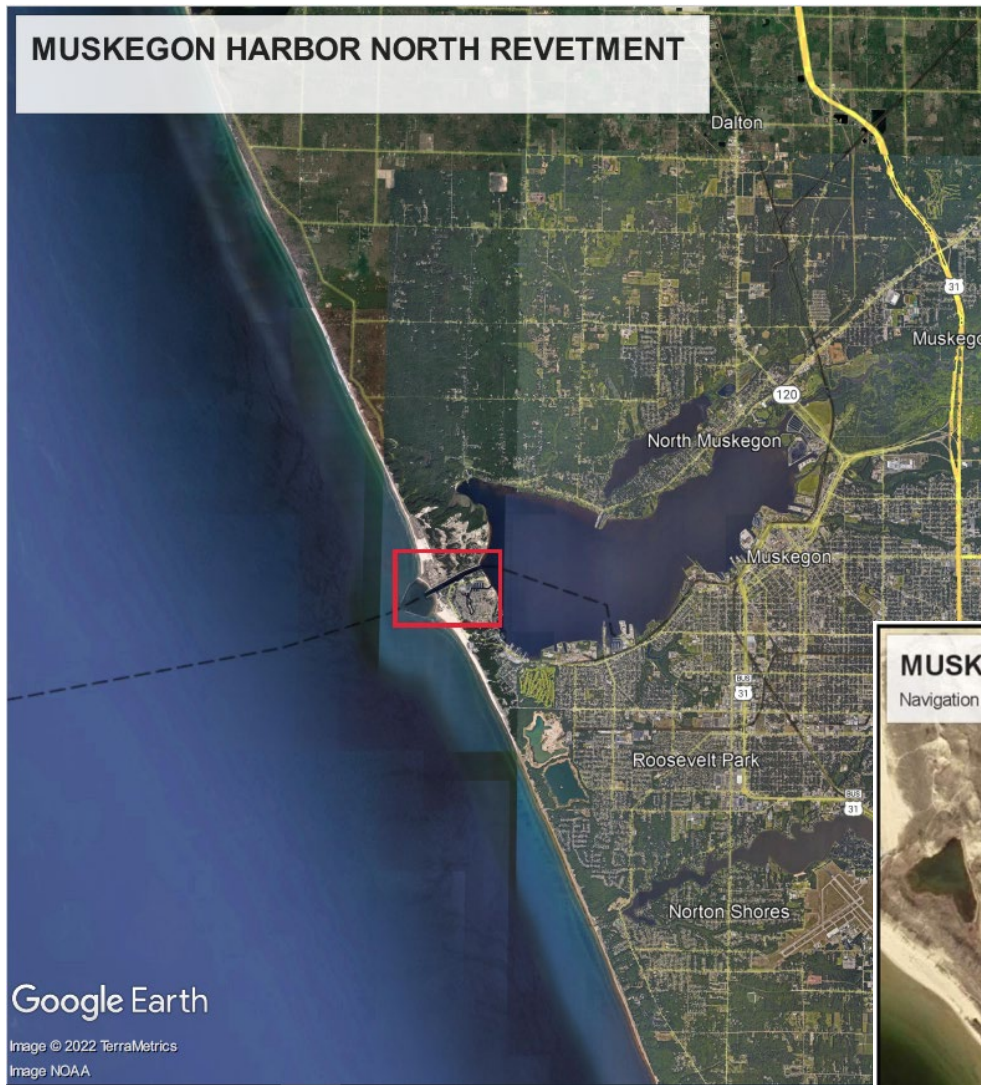
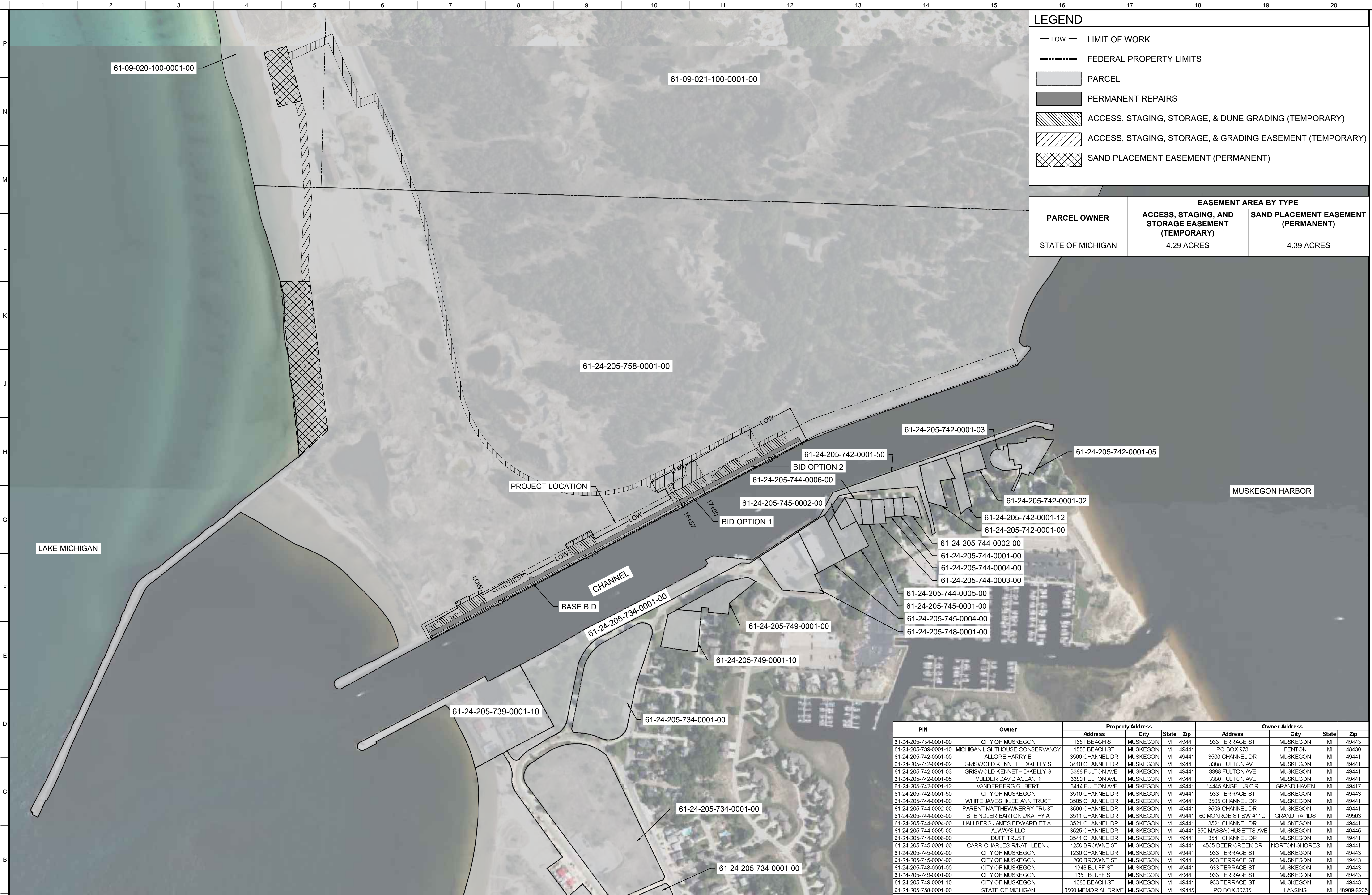


Figure 1



PARCEL OWNER	EASEMENT AREA BY TYPE	
	ACCESS, STAGING, AND STORAGE EASEMENT (TEMPORARY)	SAND PLACEMENT EASEMENT (PERMANENT)
STATE OF MICHIGAN	4.29 ACRES	4.39 ACRES

PIN	Owner	Property Address				Owner Address			
		Address	City	State	Zip	Address	City	State	Zip
61-24-205-734-0001-00	CITY OF MUSKEGON	1651 BEACH ST	MUSKEGON	MI	49441	933 TERRACE ST	MUSKEGON	MI	49443
61-24-205-739-0001-10	MICHIGAN LIGHTHOUSE CONSERVANCY	1555 BEACH ST	MUSKEGON	MI	49441	PO BOX 973	FENTON	MI	48430
61-24-205-742-0001-00	ALLORE HARRY E	3500 CHANNEL DR	MUSKEGON	MI	49441	3500 CHANNEL DR	MUSKEGON	MI	49441
61-24-205-742-0001-02	GRISWOLD KENNETH DIKELLY S	3410 CHANNEL DR	MUSKEGON	MI	49441	3388 FULTON AVE	MUSKEGON	MI	49441
61-24-205-742-0001-03	GRISWOLD KENNETH DIKELLY S	3388 FULTON AVE	MUSKEGON	MI	49441	3388 FULTON AVE	MUSKEGON	MI	49441
61-24-205-742-0001-05	MULDER DAVID AJEAN R	3380 FULTON AVE	MUSKEGON	MI	49441	3380 FULTON AVE	MUSKEGON	MI	49441
61-24-205-742-0001-12	VANDERBERG GILBERT	3414 FULTON AVE	MUSKEGON	MI	49441	14445 ANGELUS CIR	GRAND HAVEN	MI	49417
61-24-205-742-0001-50	CITY OF MUSKEGON	3510 CHANNEL DR	MUSKEGON	MI	49441	933 TERRACE ST	MUSKEGON	MI	49443
61-24-205-744-0001-00	WHITE JAMES IIVLEE ANN TRUST	3505 CHANNEL DR	MUSKEGON	MI	49441	3505 CHANNEL DR	MUSKEGON	MI	49441
61-24-205-744-0002-00	PARENT MATTHEW/KERRY TRUST	3509 CHANNEL DR	MUSKEGON	MI	49441	3509 CHANNEL DR	MUSKEGON	MI	49441
61-24-205-744-0003-00	STEINDLER BARTON JKATHY A	3511 CHANNEL DR	MUSKEGON	MI	49441	60 MONROE ST SW #11C	GRAND RAPIDS	MI	49503
61-24-205-744-0004-00	HALLBERG JAMES EDWARD ET AL	3521 CHANNEL DR	MUSKEGON	MI	49441	3521 CHANNEL DR	MUSKEGON	MI	49441
61-24-205-744-0005-00	ALWAYS LLC	3525 CHANNEL DR	MUSKEGON	MI	49441	850 MASSACHUSETTS AVE	MUSKEGON	MI	49445
61-24-205-744-0008-00	DUFF TRUST	3541 CHANNEL DR	MUSKEGON	MI	49441	3541 CHANNEL DR	MUSKEGON	MI	49441
61-24-205-745-0001-00	CARR CHARLES RIKATHLEEN J	1250 BROWNE ST	MUSKEGON	MI	49441	4535 DEER CREEK DR	NORTON SHORES	MI	49441
61-24-205-745-0002-00	CITY OF MUSKEGON	1230 CHANNEL DR	MUSKEGON	MI	49441	933 TERRACE ST	MUSKEGON	MI	49443
61-24-205-745-0004-00	CITY OF MUSKEGON	1280 BROWNE ST	MUSKEGON	MI	49441	933 TERRACE ST	MUSKEGON	MI	49443
61-24-205-748-0001-00	CITY OF MUSKEGON	1346 BLUFF ST	MUSKEGON	MI	49441	933 TERRACE ST	MUSKEGON	MI	49443
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61-24-205-758-0001-00	STATE OF MICHIGAN	3560 MEMORIAL DRIVE	MUSKEGON	MI	49445	PO BOX 30735	LANSING	MI	48909-8235

US Army Corps of Engineers®

ISSUE DATE: 03-31-2023	SOLICITATION NO.:	FILE NAME: W911XK22D0001G-004.DWG
DESIGNED BY: R. BATIZA	CONTRACT NO.:	ANSID
DRAWN BY: B. SUMNER	CHECKED BY: C. BARTH	SIZE:
U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT 477 MICHIGAN AVENUE DETROIT, MI 48226-2550	WE BAIRD & ASSOCIATES 2924 MARKETPLACE DR, STE 200 MADISON, WI 53729	95% SUBMITTAL DESCRIPTION

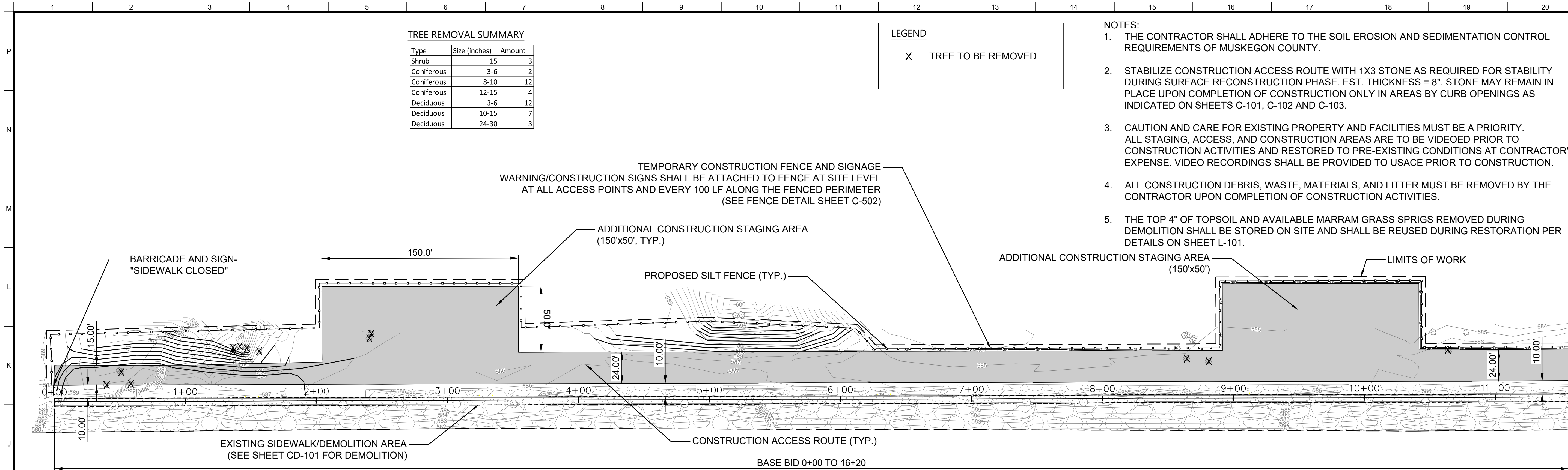
MUSKEGON, MI
MUSKEGON HARBOR NORTH REVETMENT REPAIRS

REAL ESTATE PLAN

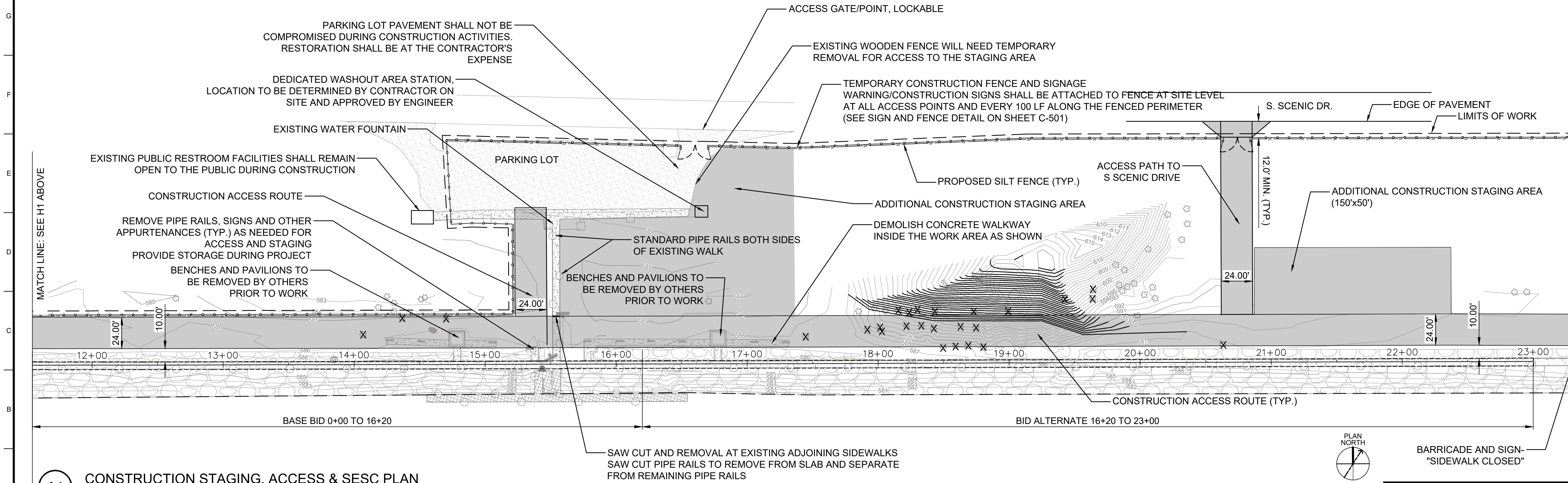
SHEET ID
G-004

95%

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PLOT DATE: 7/25/2023 2:07:47 PM
MMAKRS



H1 CONSTRUCTION STAGING, ACCESS & SESC PLAN
SCALE: 1" = 40'-0"



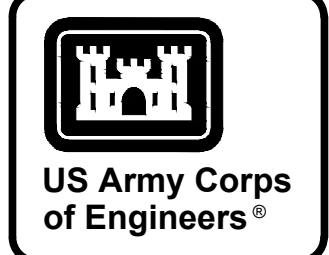
A1 CONSTRUCTION STAGING, ACCESS & SESC PLAN
SCALE: 1" = 40'-0"

LEGEND

X TREE TO BE REMOVED

- NOTES:**
1. THE CONTRACTOR SHALL ADHERE TO THE SOIL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS OF MUSKEGON COUNTY.
 2. STABILIZE CONSTRUCTION ACCESS ROUTE WITH 1X3 STONE AS REQUIRED FOR STABILITY DURING SURFACE RECONSTRUCTION PHASE. EST. THICKNESS = 8". STONE MAY REMAIN IN PLACE UPON COMPLETION OF CONSTRUCTION ONLY IN AREAS BY CURB OPENINGS AS INDICATED ON SHEETS C-101, C-102 AND C-103.
 3. CAUTION AND CARE FOR EXISTING PROPERTY AND FACILITIES MUST BE A PRIORITY. ALL STAGING, ACCESS, AND CONSTRUCTION AREAS ARE TO BE VIDEOED PRIOR TO CONSTRUCTION ACTIVITIES AND RESTORED TO PRE-EXISTING CONDITIONS AT CONTRACTOR'S EXPENSE. VIDEO RECORDINGS SHALL BE PROVIDED TO USACE PRIOR TO CONSTRUCTION.
 4. ALL CONSTRUCTION DEBRIS, WASTE, MATERIALS, AND LITTER MUST BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
 5. THE TOP 4" OF TOPSOIL AND AVAILABLE MARRAM GRASS SPRIGS REMOVED DURING DEMOLITION SHALL BE STORED ON SITE AND SHALL BE REUSED DURING RESTORATION PER DETAILS ON SHEET L-101.

MATCH LINE: SEE A1 BELOW



DESIGNED BY:	SKS/TJ/MB	ISSUE DATE:	07/27/2023
DRAWN BY:	MB	SOLICITATION NO.:	06/09/2023
CHECKED BY:	PJM	CONTRACT NO.:	
SUBMITTED BY:	PJM	BID	95% SUBMITTAL
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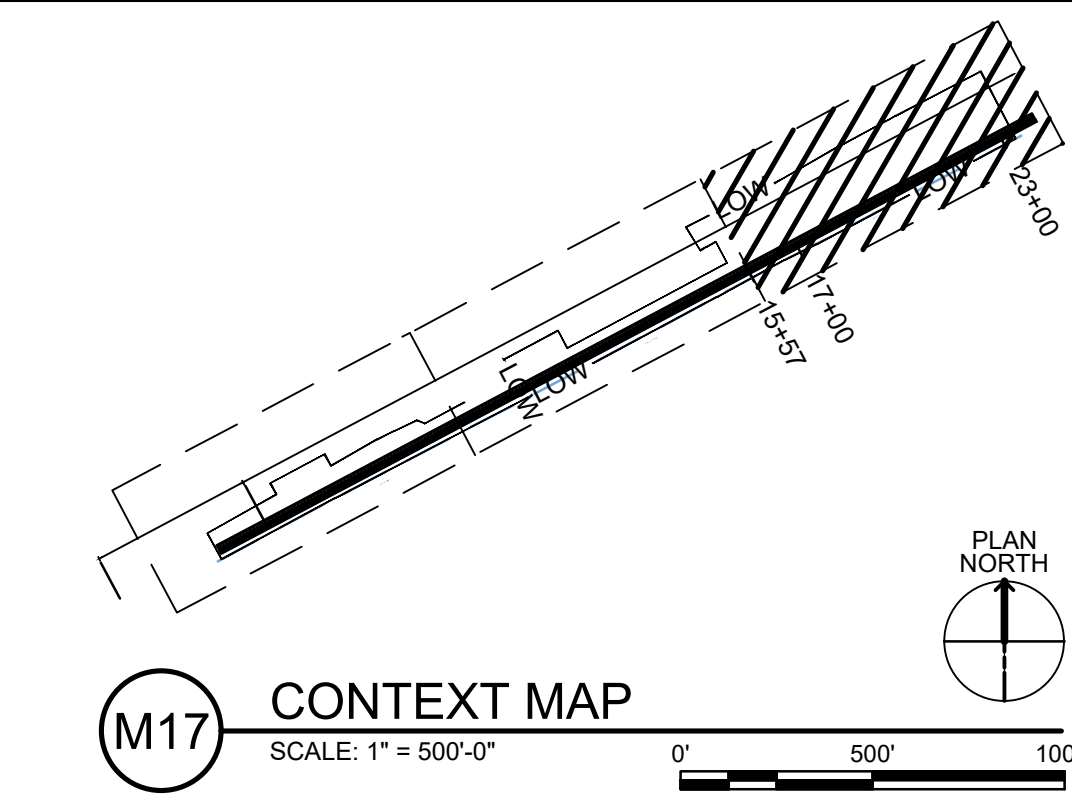
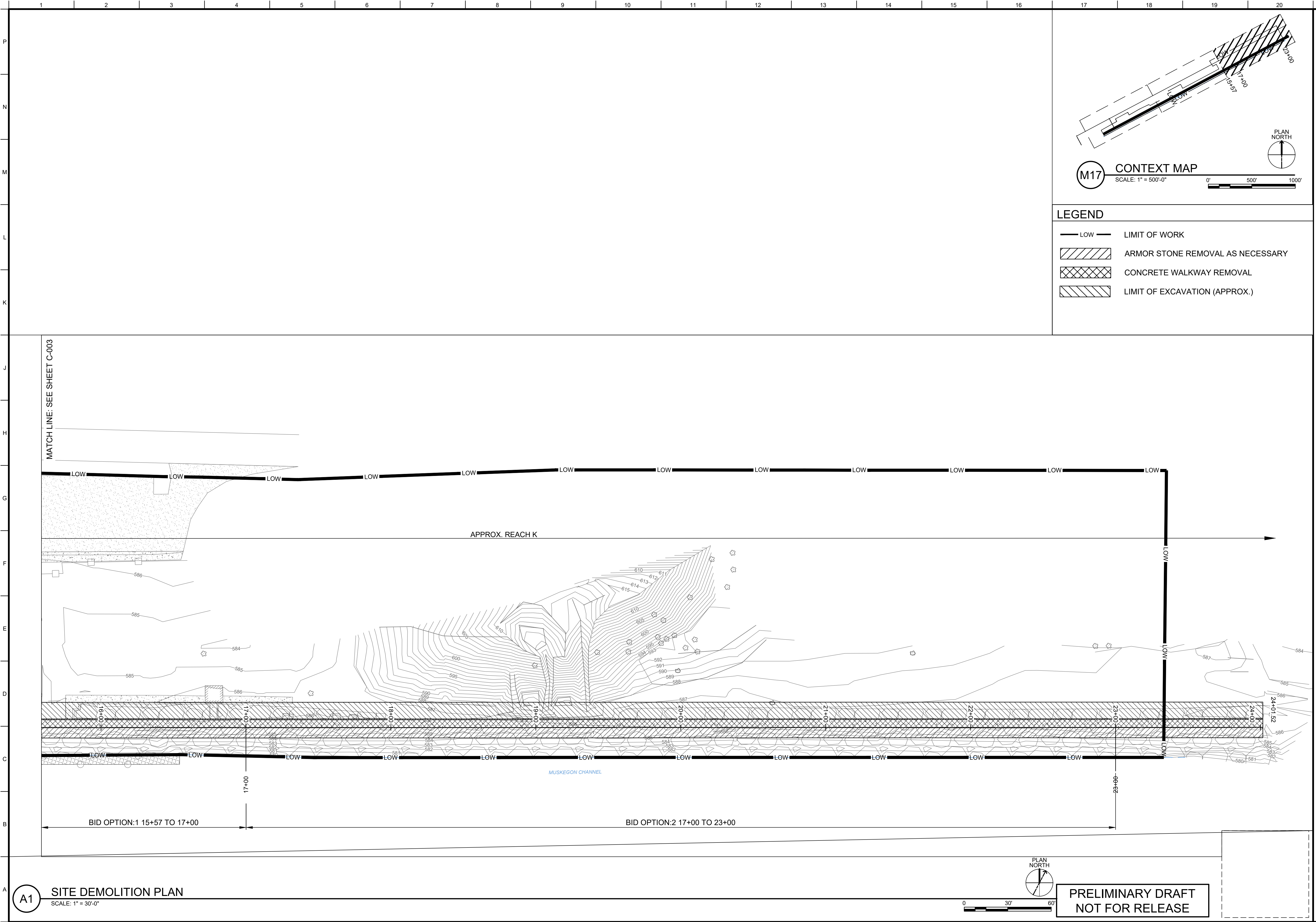
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SUBMITTED BY:	PJM	BID	95% SUBMITTAL
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MUSKEGON, MI	CONSTRUCTION STAGING, ACCESS & SESC PLAN
MUSKEGON HARBOR NORTH REVETMENT REPAIRS	

SHEET ID	GC-001
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**PRELIMINARY DRAFT
NOT FOR RELEASE**

95%



- LEGEND**
- LOW — LIMIT OF WORK
 - [Hatched Box] ARMOR STONE REMOVAL AS NECESSARY
 - [Cross-hatched Box] CONCRETE WALKWAY REMOVAL
 - [Diagonal Hatched Box] LIMIT OF EXCAVATION (APPROX.)

US Army Corps of Engineers®

DESIGNED BY:		ISSUE DATE:
R. BATIZA		03-31-2023
DRAWN BY:		SOLICITATION NO.:
B. SUMNER		477 MICHIGAN AVENUE
CHECKED BY:		CONTRACT NO.:
C. BARTH		
SUBMITTED BY:		FILE NAME:
SIZE:		W911XK22D0001C-002.DWG
ANSID:		

U.S. ARMY CORPS OF ENGINEERS	
DETROIT DISTRICT	
477 MICHIGAN AVENUE	
DETROIT, MI 48226-2550	

WF BAIRD & ASSOCIATES	
2924 MARKETPLACE DR, STE 200	
MADISON, WI 53729	

MUSKEGON, MI

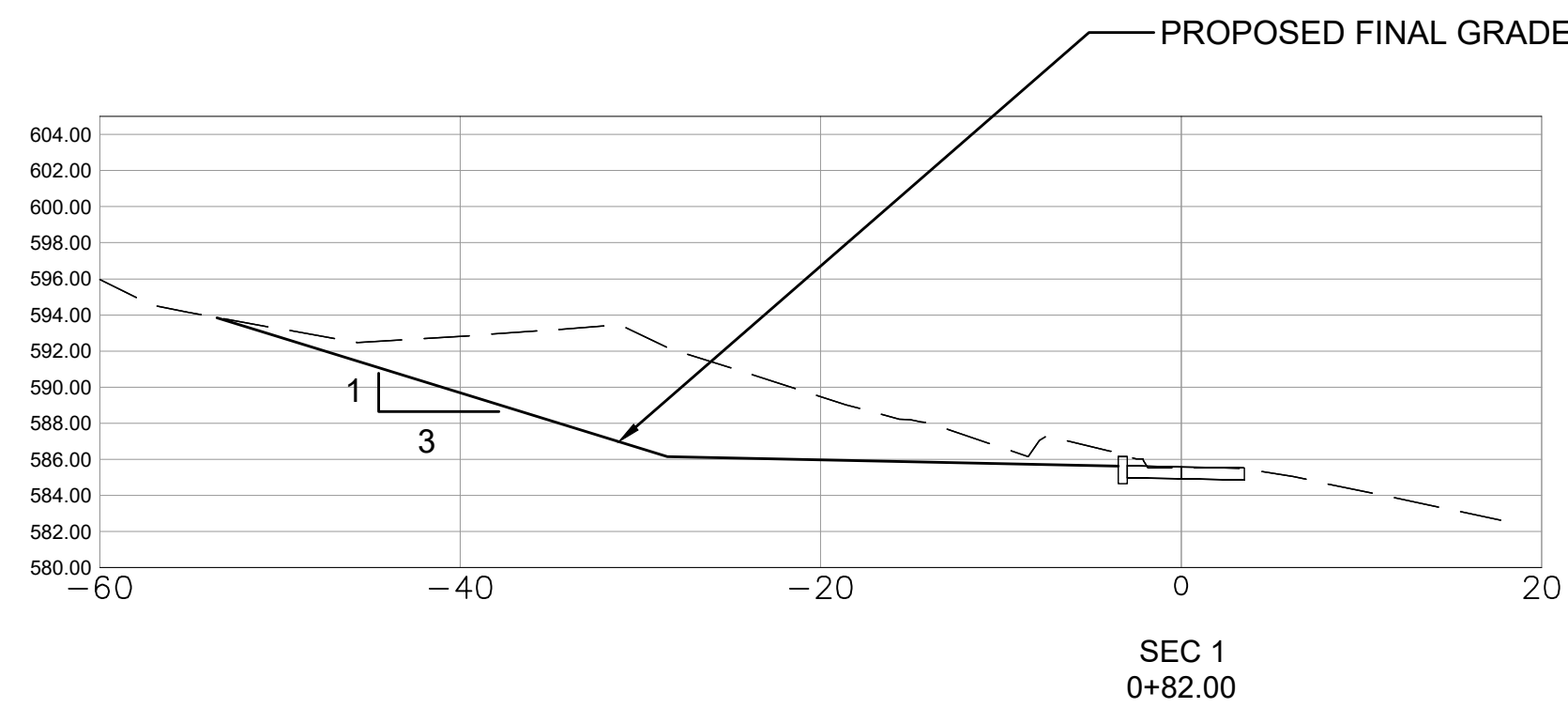
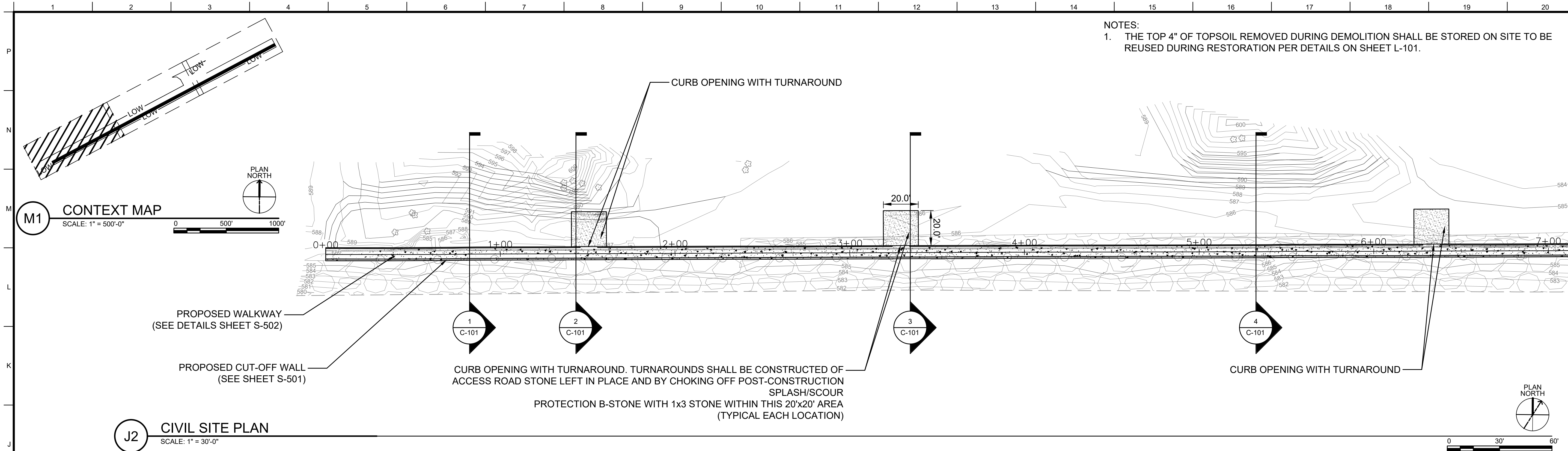
MUSKEGON HARBOR NORTH REVETMENT REPAIRS

SITE DEMOLITION PLAN (3 OF 3)

SHEET ID

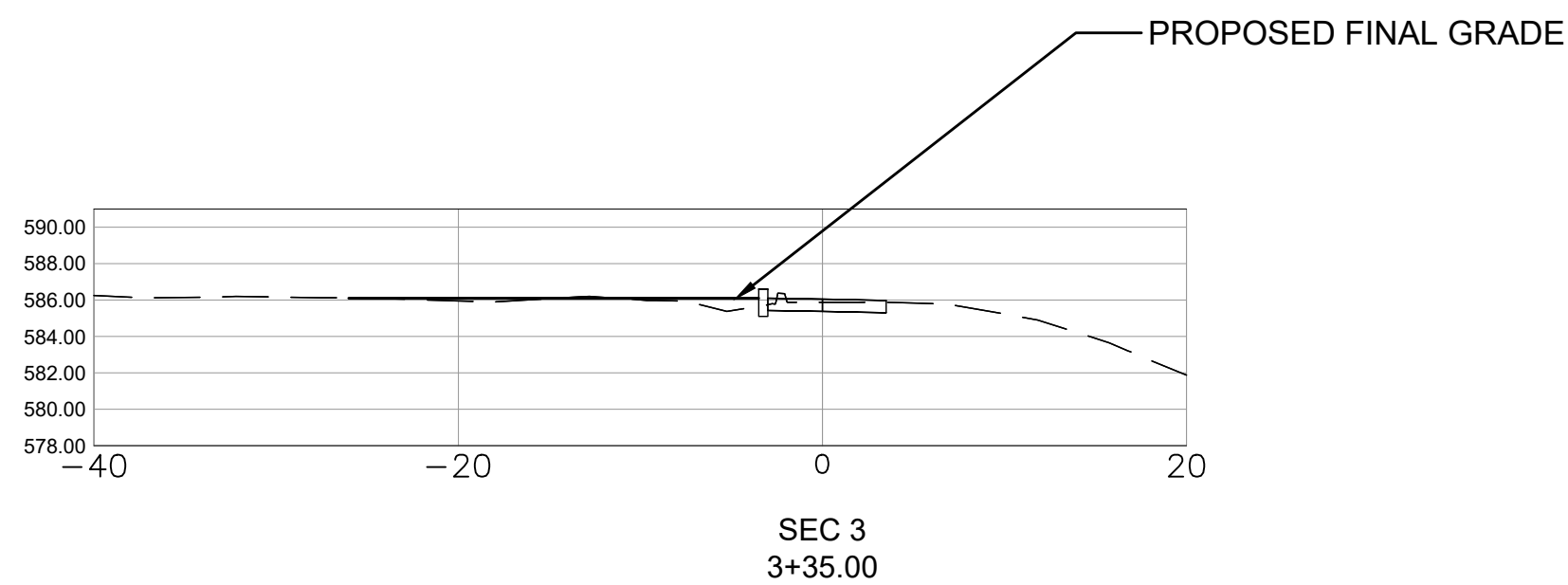
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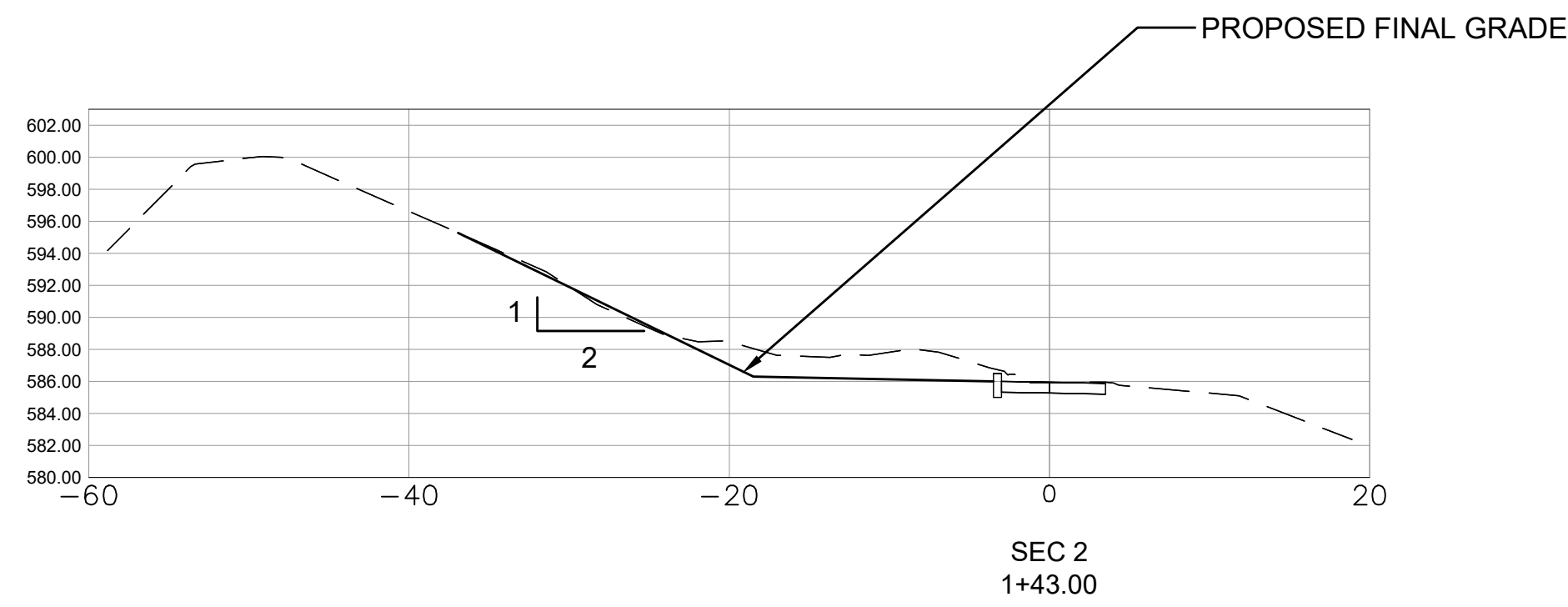
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SCALE: 1" = 10'-0"

0 10' 20'



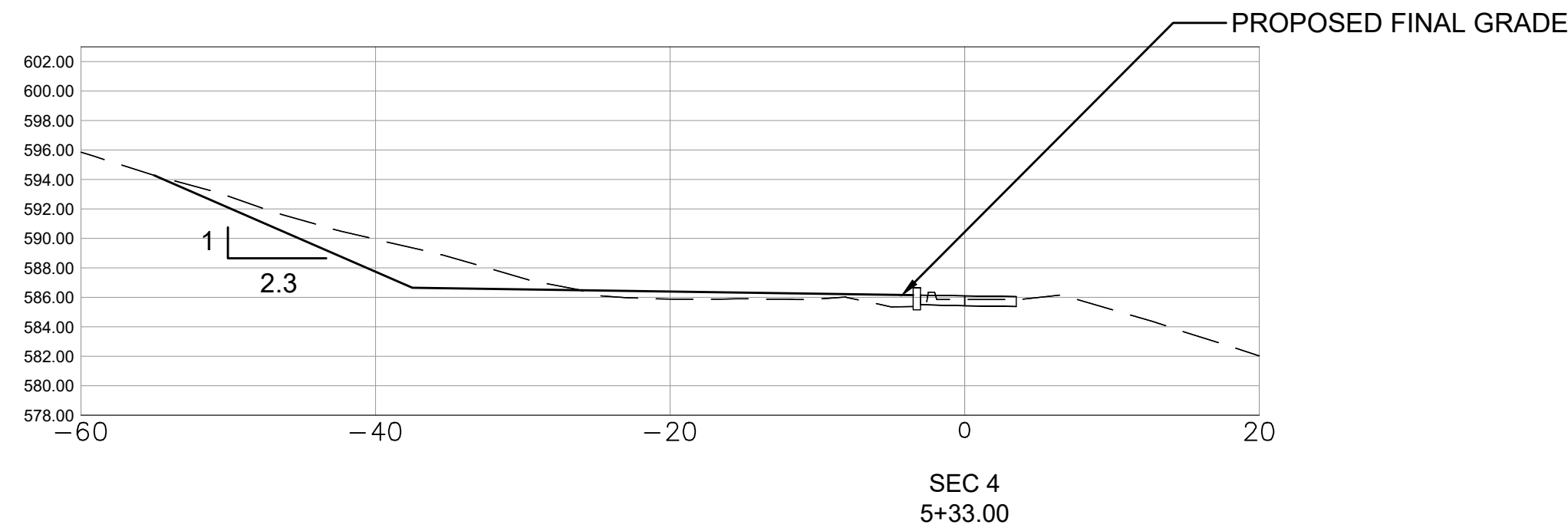
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SCALE: 1" = 10'-0"

0 10' 20'



4 C-101 B11 CROSS-SECTIONS
SCALE: 1" = 10'-0"

0 10' 20'

PRELIMINARY DRAFT
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DATE	MARK	DESCRIPTION
06/09/2023		95% SUBMITTAL

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CHECKED BY: PJM	CONTRACT NO.:
SUBMITTED BY: PJM	FILE NAME:
ANSID	SIZE
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WE BAIRD & ASSOCIATES 2924 MARKETPLACE DR. STE 200 MADISON, WI 53729	

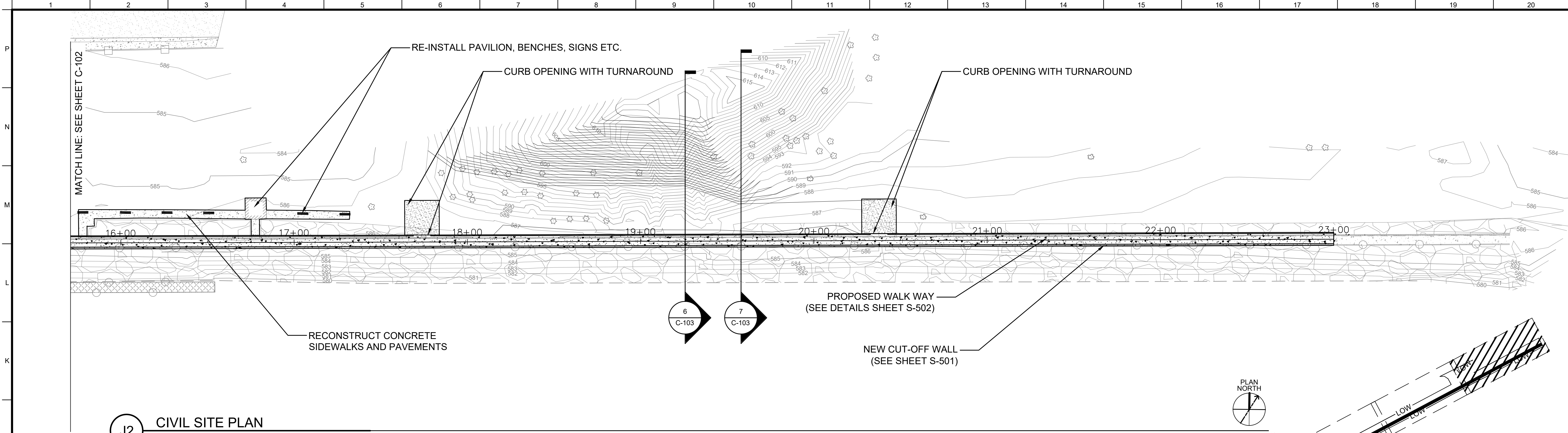
MUSKEGON, MI
MUSKEGON HARBOR NORTH REVETMENT REPAIRS

CIVIL SITE PLAN

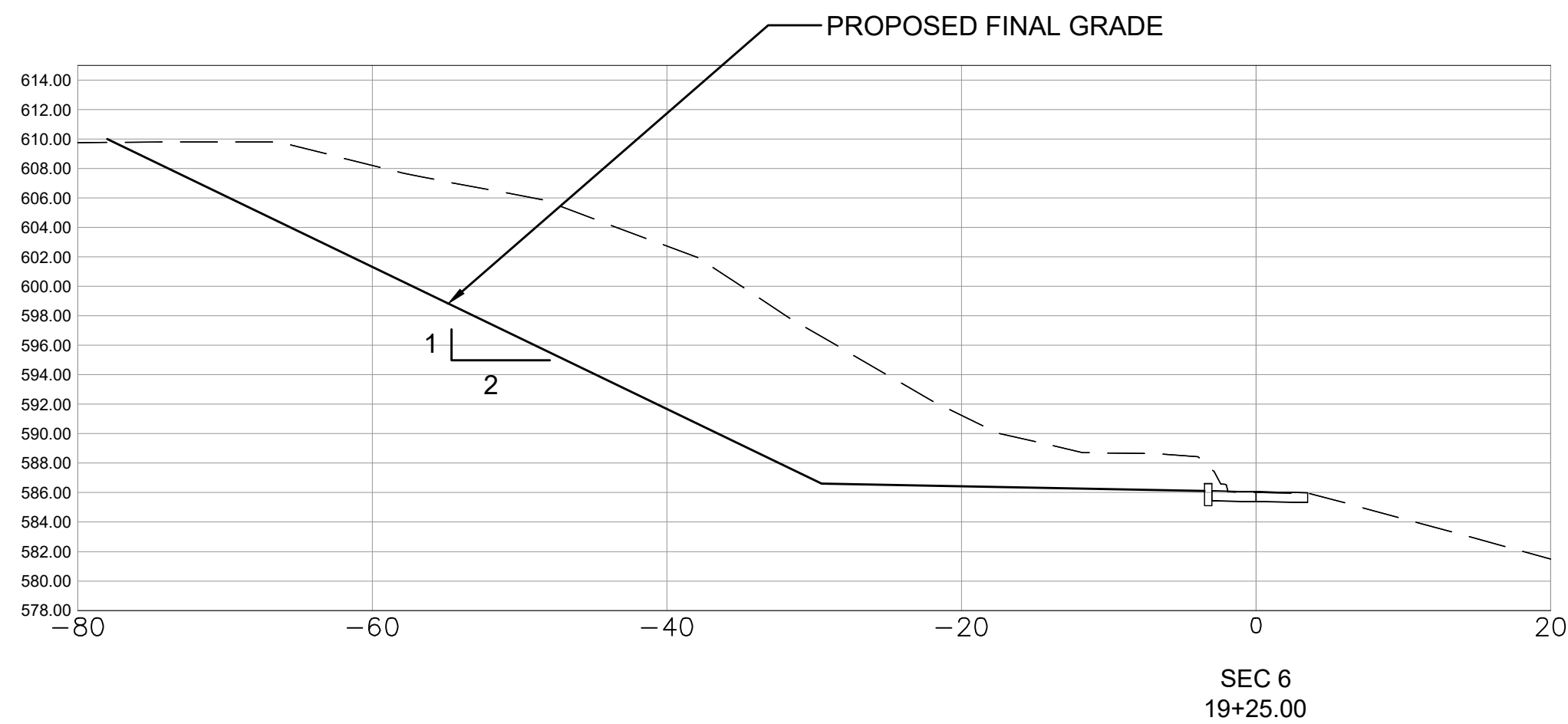
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C-101

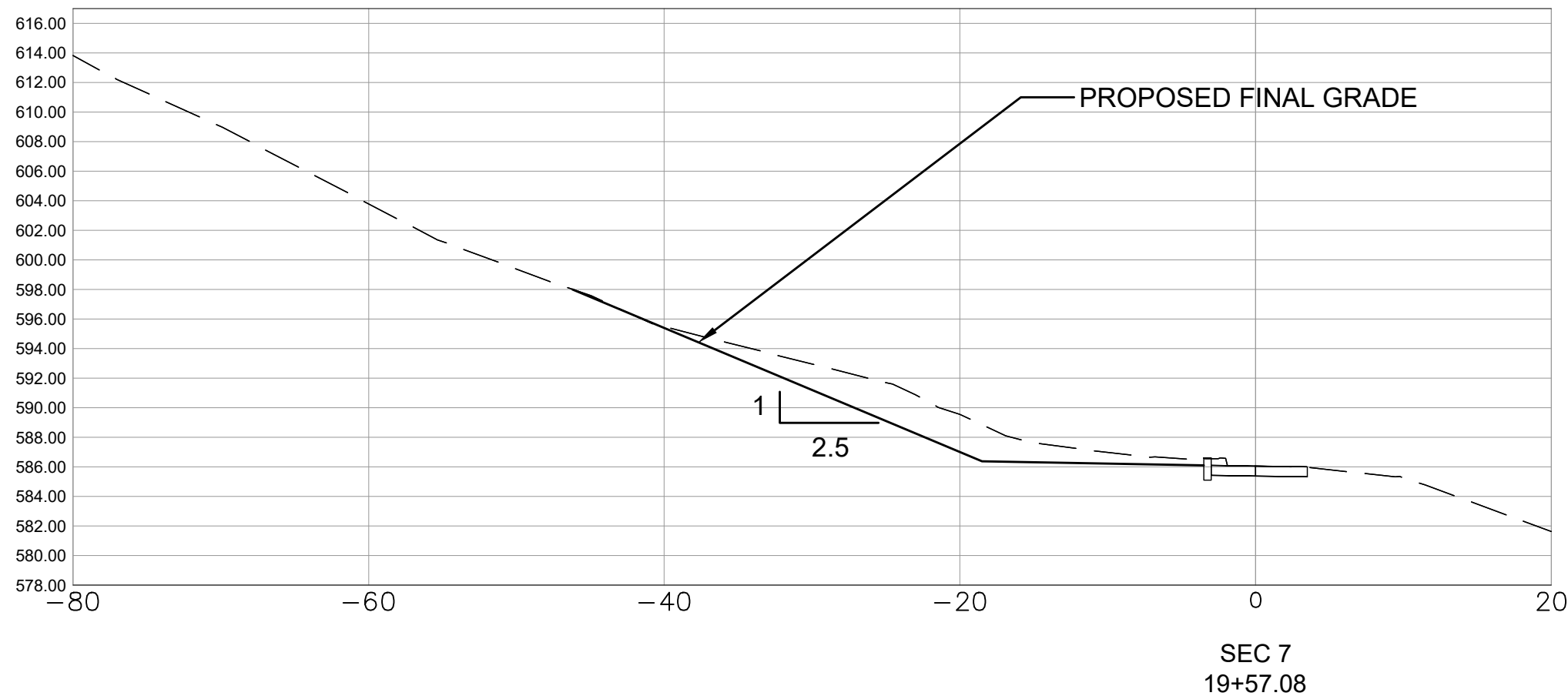
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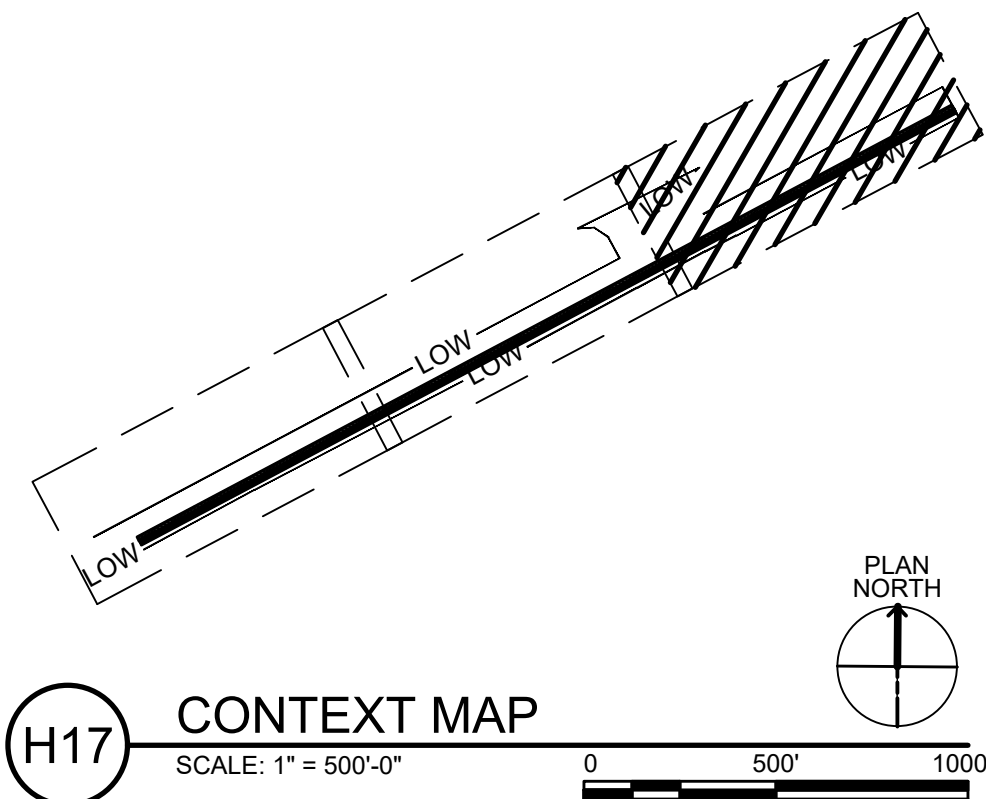
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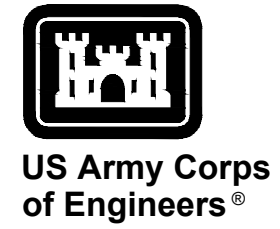
6
C-103 E6 CROSS-SECTIONS
SCALE: 1" = 10'-0"



7
C-103 A6 CROSS-SECTIONS
SCALE: 1" = 10'-0"



H17 CONTEXT MAP
SCALE: 1" = 500'-0"



DESIGNED BY: SKS/TJW/MBG	ISSUE DATE: 06/09/2023
DRAWN BY: PJM	DATE
CHECKED BY: PJM	95% SUBMITTAL
SUBMITTED BY: PJM	DESCRIPTION
FILE NAME: 158700C-101-103.DWG	MARK

U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT 477 MICHIGAN AVENUE DETROIT, MI 48226-2550	SOLICITATION NO.:
WE BAIRD & ASSOCIATES 2924 MARKETPLACE DR, STE 200 MADISON, WI 53729	CONTRACT NO.:
FILE NAME: 158700C-101-103.DWG	SIZE:

MUSKEGON, MI MUSKEGON HARBOR NORTH REVETMENT REPAIRS	CIVIL SITE PLAN
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SHEET ID C-103

PRELIMINARY DRAFT
NOT FOR RELEASE

APPENDIX B: Early Coordination Correspondences

Early Coordination: Agency Emails

Michigan Department of Environment, Great Lakes, and Energy – Air Quality Division

Questions:

- 1) Walkway removal: Will the removal of the walkway require the aggregate to be recycled on-site via concrete crushing (to be reused as subbase material) or will it be hauled off-site?
- 2) Walkway construction: Will the concrete be brought on-site via truck silos or be manufactured on-site via batch plant?

USACE Response:

- 1) Walkway removal: concrete will be hauled off-site.
- 2) Walkway construction: Offsite ready-mix concrete will be trucked to site. An on-site batch plant will not be used.

Michigan Department of Environment, Great Lakes, and Energy – Water Resources Division

Questions:

- 1) Will any work take place below the OHWM?
- 2) Could you share the sheet(s) that show the site restoration plans?

USACE Response:

- 1) Walkway work will occur above the OHWM.
- 2) Sent Matthew Smar the restoration plan (Figure C-101).

U.S. Environmental Protection Agency Comments:

- 1) As the Draft EA is developed, EPA recommends that climate resiliency be fully considered in project design, including a discussion in the EA of how project design would account for the increases we're seeing in the severity and frequency of storm events. We look forward to engaging in the project when our team has more capacity and would like to review the forthcoming EA.

U.S. Fish and Wildlife Services Comments:

- 1) None provided

APPENDIX C: IPaC Species List and Consistency Letter



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:

August 23, 2023

Project Code: 2023-0120226

Project Name: Muskegon North Revetment and Walkway Rehabilitation

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Official Species List

The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

Consultation requirements and next steps

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in making determinations for listed species for some projects. In many cases, the determination key

will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit <https://www.fws.gov/media/mifo-ipac-instructions> (and click on the attachment). Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>. If you evaluate the details of your project and conclude “no effect,” document your findings, and your listed species review is complete; you do not need our concurrence on “no effect” determinations. If you cannot conclude “no effect,” you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to EastLansing@fws.gov. Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds

Please see the “Migratory Birds” section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <https://www.fws.gov/program/eagle-management/eagle-permits> to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your consideration of threatened and endangered species during your project

planning. Please include a copy of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

PROJECT SUMMARY

Project Code: 2023-0120226

Project Name: Muskegon North Revetment and Walkway Rehabilitation

Project Type: Recreation - Maintenance / Modification

Project Description: The proposed plan consists of excavating critical dunes to create access routes and work and storage areas in order to replace a concrete walkway. The selected alternative includes 3,000 cubic yards of excavated sand to create a 2,300ft long by 16ft average width access routes along the walkway. The excavated sand will be placed west of the project site along the Lake Michigan shoreline between the 12ft depth contour and the Ordinary High Water Mark (OHWM). The proposed project will also include removal and replacement of the existing walkway, railings, and grouted stone impacting approximately a 7.5ft wide by 2,300ft long area. The new walkway will include three curb openings with 20ft-by-20ft turnabouts. The proposed project will also include three (3) work and storage areas with dimensions of 70 feet wide by 150ft long and a work area just south of the existing parking lot covering a 17,253ft² area. The work period is expected to begin in Summer 2024 and last a full construction season.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.2330331,-86.3412532006472,14z>



Counties: Muskegon County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QO3YSLJ6BNFAXMIF3CKPDARURY/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Endangered
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> For all Projects: Project is within EMR Range Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QO3YSLJ6BNFAXMIF3CKPDARURY/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Karner Blue Butterfly <i>Lycaeides melissa samuelis</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/6656	Endangered
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Pitcher's Thistle <i>Cirsium pitcheri</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8153	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> https://ecos.fws.gov/ecp/species/6039#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

MIGRATORY BIRD INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles)
-

potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- [PUBG](#)
- [PUBF](#)

LAKE

- [L2USJ](#)
- [L1UBH](#)
- [L2US2J](#)

FRESHWATER EMERGENT WETLAND

- [PEM1A](#)

RIVERINE

- [R2UBHx](#)
-

IPAC USER CONTACT INFORMATION

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Name: Jacob Meyers
Address: 477 Michigan Avenue
City: Detroit
State: MI
Zip: 48226
Email: jacob.a.meyers@usace.army.mil
Phone: 3138061784



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:

August 23, 2023

Project code: 2023-0120226

Project Name: Muskegon North Revetment and Walkway Rehabilitation

Subject: Consistency letter for 'Muskegon North Revetment and Walkway Rehabilitation' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the Michigan Determination Key for project review and guidance for federally listed species (Michigan Dkey).

Dear Jacob Meyers:

The U.S. Fish and Wildlife Service (Service) received on **August 23, 2023** your effect determination(s) for the 'Muskegon North Revetment and Walkway Rehabilitation' (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) (<i>Sistrurus catenatus</i>)	Threatened	May affect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	May affect
Karner Blue Butterfly (<i>Lycaeides melissa samuelis</i>)	Endangered	No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	May affect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Piping Plover (<i>Charadrius melodus</i>)	Endangered	May affect
Pitcher's Thistle (<i>Cirsium pitcheri</i>)	Threatened	May affect
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	No effect
	Endangered	
Critical Habitat	Listing Status	Determination
Piping Plover (<i>Charadrius melodus</i>)	Final	May affect

Please carefully review this letter. Your Endangered Species Act requirements are not complete.

Eastern Massasauga (EMR):

EMR may be present in the Action area. The following projects are not within the scope of the Michigan DKey: prescribed fire; new roads or trails that create a permanent barrier to EMR movement; projects that alter hydrology permanently, or temporarily if during the inactive season; projects that are large in scale; and projects that do not apply recommended conservation measures. Project-specific review is needed for these types of projects. **Please coordinate with the Michigan Ecological Services Field Office to further evaluate effects of the Action on EMR.**

Indiana Bat:

Indiana bat may be present in the Action area. Projects have potential to affect Indiana bats if the Action area contains any known or potential hibernacula (including natural caves, abandoned mines, or underground quarries) or if the Action will remove/modify a human structure (barn, house or other building) known to contain roosting Indiana bats. Additionally, projects may affect the species if they clear ≥ 20 acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres, clear $> 10\%$ of the available forested habitat within a half-mile buffer of the Action area, cut or trim any potential Indiana bat roost trees (trees ≥ 5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark) during the Indiana bat active season (April 1 through September 30), or apply pesticides during the active season. Projects that include removal/modification of an existing bridge or culvert suitable for day-roosting Indiana bats may affect the species if construction activities are performed during the active season and/or will result in the permanent loss of known or potential roosting spaces (i.e., cracks/crevices/joints). Lastly, projects that include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s) may affect Indiana bats if they do not apply avoidance and minimization measures. **Please coordinate with the Michigan Ecological Services Field Office to further evaluate effects of the Action on Indiana bats.**

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 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 October varies 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.

Piping Plover:

Piping plover may be present in the Action area. Projects have potential to affect piping plover if they result in any changes to the quality, quantity, or availability of suitable piping plover habitat during the breeding season (April 15 through August 15) or to Critical Habitat (CH) at any time of year; any permanent changes to suitable habitat or CH; and/or increased activity within suitable habitat or CH. If the Action does not occur in suitable habitat along the Great Lakes shoreline, or if the CH does not contain the physical and biological features essential to the conservation of piping plover (for details, refer to 66 FR 22938), piping plovers are not likely to be present in the Action area. As such, adverse effects are discountable. Projects that increase human disturbance (including from pets) or increase the potential for predation need further evaluation and do not qualify for the Dkey. **Please coordinate with the Michigan Ecological Services Field Office to further evaluate effects of the Action on piping plover..**

Monarch:

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. Please refer to our recommendations in the Monarch and Pollinators section, below.

Listed Plants:

Based on your answers and the assistance of the DKey, you have determined that the proposed Federal Action has the potential to adversely affect a threatened or endangered plant. **As such, you must initiate section 7 conference with the Michigan Ecological Services Field Office in order to meet your section 7 obligations under the Endangered Species Act.**

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

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>

Coordination with the Service is not complete if additional coordination is advised above for any species. Please email our office at MIFO_DKey@fws.gov and attach a copy of this letter, so we can discuss methods to avoid or minimize potential adverse effects to those species.

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.

Reiskind, M.H. and M.A. Wund. 2009. Experimental assessment of the impacts of northern long-eared bats on ovipositing *Culex* (Diptera: Culicidae) mosquitoes. *Journal of Medical Entomology* 46(5):1037-1044.

Whitaker, Jr., J.O. 1995. Food of the big brown bat *Eptesicus fuscus* from maternity colonies in Indiana and Illinois. *American Midland Naturalist* 134(2):346-360.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

The project will occur entirely within the EMR active season (April 15 through October 15 in the southern Lower Peninsula; in the northern Lower Peninsula May 1 through October 1).

Rufa red knot

Avoid permanent modification of beaches, dunes, mudflats, peat banks, sandbars, shoals, or other red knot habitats during the red knot migration windows (May 15 through June 15 in the spring OR July 1 through September 30 in the fall). In addition, the project will not result in an increase in human disturbance or predation during the red knot migration windows within suitable habitat during the migration window.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Muskegon North Revetment and Walkway Rehabilitation

2. Description

The following description was provided for the project 'Muskegon North Revetment and Walkway Rehabilitation':

The proposed plan consists of excavating critical dunes to create access routes and work and storage areas in order to replace a concrete walkway. The selected alternative includes 3,000 cubic yards of excavated sand to create a 2,300ft long by 16ft average width access routes along the walkway. The excavated sand will be placed west of the project site along the Lake Michigan shoreline between the 12ft depth contour and the Ordinary High Water Mark (OHWM). The proposed project will also include removal and replacement of the existing walkway, railings, and grouted stone impacting approximately a 7.5ft wide by 2,300ft long area. The new walkway will include three curb openings with 20ft-by-20ft turnabouts. The proposed project will also include three (3) work and storage areas with dimensions of 70 feet wide by 150ft long and a work area just south of the existing parking lot covering a 17,253ft² area. The work period is expected to begin in Summer 2024 and last a full construction season.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.2330331,-86.3412532006472,14z>



QUALIFICATION INTERVIEW

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

No

4. Is the action being funded, authorized, or carried out by a Federal agency?

Yes

5. Does the action involve the installation or operation of wind turbines?

No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

No

10. Will your action permanently affect hydrology?

No

11. Will your action temporarily affect hydrology?

No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

No

14. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

Yes

15. Is the action a utility-scale solar development project?

No

16. [Hidden semantic] Does the action intersect the MOBU AOI?

Automatically answered

Yes

17. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. 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. If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project. Are you making a "no effect" determination for monarch?

No

18. Is this project funded, authorized, or carried out by the U.S. Fish and Wildlife Service?

No

19. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?

Automatically answered

Yes

20. Does your action involve prescribed fire?

No

21. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 2 through April 30)?

No

22. Will this action occur entirely in the Eastern massasauga rattlesnake active season (May 1 through October 1)?

Yes

23. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?

No

24. Will you use [wildlife safe materials](#) for erosion control and site restoration and eliminate the use of erosion control products containing plastic mesh netting or other similar material that could ensnare Eastern massasauga rattlesnake?

No

25. [Hidden Semantic] Does the action intersect the Karner blue butterfly area of influence?

Automatically answered

Yes

26. Will the action occur in oak savanna, oak or pine barrens, openings within oak forest, old fields in association with oak forest, or openings or rights-of-way with abundant native grasses and wildflowers?

No

27. [Hidden Semantic] Does the action area intersect the piping plover area of influence?

Automatically answered

Yes

28. Will the action occur in suitable piping plover habitat?

Note: Piping plover habitat consists of Great Lakes islands and mainland shorelines that support, or have the potential to support, open, sparsely vegetated sandy habitats, such as sand spits or sand beaches, that are associated with wide, unforested systems of dunes and inter-dune wetlands.

Yes

29. Will the action result in changes to piping plover habitat quality, quantity, or availability? For example, beach grooming, boardwalk actions, breakwaters, development, dredge deposition, etc.

Yes

30. Will the action overlap with the piping plover breeding season (April 15 through August 15th)?

Yes

31. [Hidden Semantic] Does the action area intersect piping plover critical habitat?

Automatically answered

Yes

32. Are the [physical and biological features](#) essential to the conservation of the piping plover present in the action area?

Yes

33. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?

Automatically answered

Yes

34. Will the action occur during the red knot migration windows (May 15-June 15 or July 1-September 30?)

Yes

35. Will the action modify beaches, dunes, mudflats, peat banks, sandbars, shoals, or other red knot habitats? For example, the following actions may modify red knot habitat: groins, jetties, sea walls, revetments, bulkheads, rip-rap, beach nourishment, nearshore dredging, dredge spoil disposal, sand mining/borrowing, beach bulldozing, sandbagging, sand fencing, vegetation planting/alteration/removal, deliberate or possible introduction of non-native vegetation, beach raking/mechanized grooming, boardwalks, aquaculture development.

Yes

36. Will the action result in permanent habitat change to red knot habitat?

No

37. Will the action result in increased human disturbance or predation? For example, is the action likely to indirectly increase access or use of red knot habitats by humans and/or predators at times of year that the birds are typically present (e.g., commercial/residential development, beach access structures, boardwalks, pavilions, bridges/roads/ferries/trails, marinas, posts or other avian predator perches, structures or habitat features likely to encourage predator nesting/denning, trash cans or other predator attractants, feral cat colonies, policy changes likely to increase human use).

No

38. [Hidden Semantic] Does the action area intersect the area of influence for Pitcher's thistle?

Automatically answered

Yes

39. Does the action area include Great Lakes shoreline sand dunes?

Yes

40. Did you conduct a survey to determine if Pitcher's thistle occurs in the action area? If YES, email your survey report to MIFO_Dkey@fws.gov with "Survey Report" in subject line before continuing with the next step of this key.

No

41. Will the action indirectly alter the habitat or resources of Pitcher's thistle? For example, could your action result in a change in canopy cover, microclimate, humidity, increase in invasive species, hydrologic alterations, etc.? If unsure, select yes.

No

42. Could the action directly harm Pitcher's thistle? For example, prescribed fire, herbicide application, trampling, increased herbivory, cutting/clearing, cultivation, crushing by vehicle, reduce to possession, etc.

Yes

43. The project has the potential to affect federally listed bats. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

Yes

44. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

Automatically answered

Yes

45. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

Automatically answered

Yes

46. [Hidden semantic] Does the action intersect the Tricolored bat AOI/SLA/range?

Automatically answered

Yes

47. The tricolored bat was proposed for listing as endangered on September 13, 2022. In Michigan, the tricolored bat was rare pre-white nose syndrome (WNS) and is exceedingly rare post-WNS. The species has been observed in 12 Michigan counties to date, largely during the fall or winter. With very few exceptions, the species has not been observed in Michigan in the summer months, and no maternity colonies have been found. During winter, tricolored bats hibernate in caves, abandoned mines, and abandoned tunnels ranging from small to large in size. During spring, summer and fall months, they roost primarily among leaf clusters of live or recently dead deciduous/hardwood trees.

Are you making a no effect determination on this project for the tricolored bat?

Yes

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