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Appendix F – Historical, Cultural, Religious, and Archeological Consultation Information

**Peshawbestown Marina
Suttons Bay Township
Leelanau County, Michigan**

ENVIRONMENTAL ASSESSMENT

August 2015

1.0 PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

The Grand Traverse Band of Ottawa and Chippewa Indians is proposing the construction of a marina in Leelanau County, Michigan, in cooperation with the United States Fish and Wildlife Service and the Bureau of Indian Affairs (BIA). The project is considered a Federal Action as defined by the National Environmental Policy Act (NEPA) since as it will occur on tribal land and will receive federal funds. Marina construction activities are proposed that will have effects that can be meaningfully evaluated and therefore subject to NEPA review; however, based on available information and the nature of the proposed action the project is expected to be a Class III Action requiring the preparation of this Environmental Assessment (EA). Class III actions require appropriate subsequent documentation – either an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).

This Environmental Assessment has been prepared in accordance with NEPA and the *Indian Affairs National Environmental Policy Act (NEPA) Guidebook* dated August 2012. The Environmental Assessment will be distributed to the public and to various federal, state, and local agencies for review and comment. After review and comment, either an EIS or FONSI will be prepared.

This Environmental Assessment has been prepared by Otwell Mawby P.C. on behalf of the Grand Traverse Band of Ottawa and Chippewa Indians and the Bureau of Indian Affairs with technical input from the University of Illinois and the Grand Traverse Band of Ottawa and Chippewa Indians Natural Resources Department. Information contained in this Environmental Assessment was also furnished by federal and state agencies, local units of government, and individual citizens.

1.2 PROJECT PURPOSE

A marina is proposed for the West Arm of Grand Traverse Bay in Suttons Bay Township, Michigan. The marina will be constructed by the Grand Traverse Band of Ottawa and Chippewa Indians and will include approximately 106 watercraft slips, breakwalls, a fishing platform, a harbormaster building with public restrooms, and associated site infrastructure. The site infrastructure includes an access ramp, parking, sidewalks, and utilities. The project will be constructed in an area that is developed with gravel roads, driveways, and five minor structures. The marina is expected to provide recreation access to the community and contribute to economic development and growth.

1.3 PROJECT NEEDS

The majority of the Grand Traverse Band of Ottawa and Chippewa Indians' reservation territory is located within several non-contiguous parcels in eastern Suttons Bay Township. Peshawbestown, an unincorporated community, comprises approximately 12.5 acres of the reservation and includes many of the community's cultural, governmental, and economic institutions including the Leelanau Sands Casino, the Eyaawing Museum and Cultural Center, and the Strongheart Civic Center. The community is located along Highway M-22 within approximately 500 ft of the West Arm of Grand Traverse Bay; however, there is not public access to the shoreline.

It is expected that construction of the marina will result in benefits to the community including public access to the West Arm of Grand Traverse Bay, opportunities for transient boaters to patronize Leelanau Sands Casino, employment, and encourage economic growth. A Feasibility Analysis was completed by Abonmarche with recommendations included in a report dated September 2012. The feasibility analysis verified the existing demand for and supply of marina facilities in the Grand Traverse Bay Region. The total waiting list/unmet demand for slips was indicated to be 896 considering five nearby marinas, with an estimated demand of 249 slips for the Peshawbestown Marina. The marina would also provide services to transient boaters. The marina will be located near the regional cruising routes but has limited attractions and services within walking distance. Transient slips are expected to be utilized at an estimated rate of 15% initially but may increase to 30 or 40 percent if attractions and services improve.

Construction of the project is desired to begin in 2015 but is dependent on completion of the NEPA process and other requirements. Plans for the proposed marina are included within the Michigan Department of Environmental Quality Water Resources Division Permit attached in Appendix D. Sediment samples from the

proposed dredging area were obtained and analyzed in accordance with the MDEQ/COE protocol. Results are included in the MDEQ/COE joint permit application.

1.4 RECOMMENDATIONS

The information provided in this chapter supports the need for marina construction (Alternative 2.2) based on economic and social benefits for the Peshawbestown community and general public. The following section presents the considered alternatives in additional detail. Significant planning has been invested in developing the marina alternative including evaluation of multiple sites and configurations, with the first sites considered as early as 1987.

2.0 ALTERNATIVES

2.1 NO ACTION

Under the no action alternative, the site for the proposed marina would remain undeveloped. The west portion of the site is currently an asphalt parking lot with a paved drive extending to the east. Gravel drives extend to the north and the south, providing access to private residences and lots. Five buildings are present in the proposed building area, several in disrepair. The no action alternative would not achieve the benefits anticipated to be achieved by marina construction (water access, transient accommodations, employment opportunities, economic growth).

2.2 MARINA

The proposed marina will include approximately 106 watercraft slips sheltered by stone breakwalls. Fishing platforms will be constructed along the north and south piers. Beach access will be provided by access paths. An access drive and parking will also be constructed, as well as associated utilities and other improvements. A harbormaster building will be constructed and it is also anticipated that a fuel dock with pump out will be available. Construction of the marina is expected to provide community benefits including access to the West Arm of Grand Traverse Bay, transient accommodations for boaters, employment opportunities, and encouragement of economic growth.

The marina will include approximately 2100 ft of breakwalls forming a 20 ft wide pier. Approximately 1500 ft of steel sheet piling will be placed along the inside of the breakwalls. Open-pile or floating dockage with spring piles will be used to create 106 slips. Approximately 60,000 cubic yards of material is expected to be dredged

from the approximately 700 ft by 600 ft by 6 ft deep basin and channel. The dredge spoils will be disposed of at an off-site location. A dredging plan and the dredging disposal site location are included in the Michigan Department of Environmental Quality Water Resources Division Permit attached in Appendix D.

2.3 PUBLIC ACCESS

The parcels could be developed as a public park or boat launch without the associated marina construction. A park or boat launch would provide community access to the West Arm of Grand Traverse Bay and would require less initial economic investment. The site is currently occupied with private structures and does not offer public access that is desirable from a central location within the community corridor. The nearest existing public access is at Graham Green Park to the north. Graham Green Park is an approximately 15 acre parcel along the waterfront but does not offer a boat launch or permanent restrooms. Development of the Peshawbestown site as a park or boat launch is expected to require disturbance of the upland area comparable to the marina alternative. However, the Public Access Alternative would not achieve all of the benefits anticipated for marina construction (transient accommodations, employment opportunities, economic growth).

2.4 RATIONALE FOR PREFERRED OPTION

The 2012 Marina Feasibility Analysis verified the existing demand for and supply of marina facilities in the region and concluded that Peshawbestown will be a desirable location for high quality marina facilities. Marina construction is expected to be economically feasible and provide benefits to the community (water access, transient accommodations, employment opportunities, economic growth). Marina construction is considered the preferred alternative as it is expected to provide the most benefit for the community.

3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

3.1 LAND RESOURCES

3.1.1 Topography

The regional topography is generally rolling, sloping down toward the West Arm of Grand Traverse Bay to the east. Relatively low ground relief was present within approximately 100 yards of the lakefront corresponding with former shorelines. The ground surface generally slopes up to the west from Highway M-22. A landscaped boulevard is present between Highway M-22 and an asphalt parking lot to the east. The asphalt parking lot is relatively level but slopes down to the east. A paved drive extends to the east from the asphalt drive, in the

alignment of the proposed drive to the marina. Relatively steep banks are present at the east edge of the parking lot, leading down to a former railroad right of way and to a detention basin. The gravel drives extending to the north and south were present east of the former railroad right of way.

Photographs of the existing conditions in the project area are included in Appendix B.

3.1.2 Soils

A soil survey was retrieved from the National Cooperative Soil Survey of the approximate area of disturbance of the project. The soil survey information is included in Attachment C and is summarized below:

Soil Classification	Soil Symbol	Percent of Area of Investigation	Percent of Organic Matter
Detour sandy loam, 0 to 6 percent slopes	DtB	73.6	0.55
Kalkaska-East Lake loamy sands, 0 to 6 percent slopes	KeB	0.2	0.88
Kiva-Mancelona gravelly sandy loams, 12 to 18 percent slopes	KmD	12.3	0.35
Mancelona-East Lake loamy sands, 0 to 6 percent slopes	MIB	5.2	0.61

These soil conditions are not expected to present unusual challenges for design or construction. Wetland areas were present, and the elevations east of the railroad grade are relatively low relative to the lake so relatively shallow groundwater should be expected.

3.1.3 Geology

The *Quaternary Geology of Southern Michigan*, published by the Michigan Department of Natural Resources, indicates that the site includes areas of lacustrine sand and gravel as well as coarse textured glacial till. The lacustrine sand and gravel corresponds with the lower elevations of the site (approximately from the railroad grade to the lake shore) and is expected to include primarily fine to medium sand with occasional gravel lenses or beds. Wind blown sand or organic soil may also be present. Soil conditions in the coarse textured glacial till are generally found to consist of non-sorted glacial debris dominated by sandy clay loam, sandy loam, or loamy sand texture. The soil may resemble outwash except for occasional occurrence of non-sorted clayey or silty lenses and lack of stratification. Surface features generally consist of ground moraines, till plains, end moraines, or lack differentiation. Variable amounts of cobble and boulders may occur.

Geotechnical investigations were completed in 2007 by Otwell Mawby and in 2013 by Coleman Engineering. The upland borings generally encountered clayey sand with trace to some gravel. Offshore borings generally

encountered loose to very dense sandy soils with varying amounts of clay/silt fines and gravel. Cobble and possible boulder size material were present in most of the borings.

3.2 WATER RESOURCES

3.2.1 Surface Water

The proposed marina will extend into the West Arm of Grand Traverse Bay that is present to the east of the parcel. Grand Traverse Bay is an approximately 30 mile long bay of Lake Michigan, up to 10 miles wide and 620 ft deep. The bay is divided into its East and West Arms by the Old Mission Peninsula. The Federal Emergency Management Agency (FEMA) has not completed a study to determine flood hazards for the area and a floodmap has not been published.

The bottomlands of Grand Traverse Bay are protected by Part 325, Great Lakes Submerged Lands, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The bottomlands are held in trust by the State of Michigan for use and enjoyment by its citizens. The use of bottomlands can be conveyed when the public use of the lands is not impaired or significantly affected. A bottomlands lease is anticipated for the proposed marina. A permit has been issued by the MDEQ for the marina construction dated March 5, 2014 under the provisions of Part 325. A copy of the permit is included in Appendix D.

The United States Army Corps of Engineers has federal jurisdiction of the bottomlands under the authority of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. A permit from the United States Army Corps of Engineers will also be required.

The bottomlands of Grand Traverse Bay are protected by the Grand Traverse Bay Bottomland Preserve. The “bottomlands act”, 1980 PA 184, establishes Bottomlands Preserves for special protection of abandoned property of historical value, or ecological, education, or scenic features or formations having recreation, educational, or scientific value. Archeological and cultural significance of the affected bottomlands are discussed elsewhere in this Environmental Analysis.

3.2.2 Groundwater

Potential impacts to the groundwater resources are expected to be minimal. Although relatively shallow groundwater is expected to be present based on observed wetland features and soil records, nearby residential wells are set in a lower, artesian aquifer. Water well records for nearby residences at 2650 N. West Bayshore

Drive and 2678 N. West Bayshore Drive indicate screens set at 82 ft and 85 ft, respectively, each with flowing wells. Water well records are included in Appendix C.

The marina is expected to be served by the municipal water supply.

3.2.3 Wetlands

The U.S. Fish and Wildlife National Wetlands Inventory indicates the presence of freshwater emergent wetlands to the southwest of the project but not within the project limits. The National Wetlands Inventory map is included in Appendix D. The Michigan Department of Environmental Quality Wetlands Map Viewer indicates that wetlands are present within the project area, generally to the southeast of the existing drive (also included in Appendix D).

State and federal regulations protect wetlands including PA 451, Section 404 of the Clean Water Act, and Executive Order 11990. In accordance with the Executive Order, each federal agency shall avoid new construction located in wetlands unless the head of the agency finds that there is no practicable alternative and that the proposed action includes all practicable measures to minimize harm to wetlands.

Wetlands delineation was completed with a Wetland Identification Report issued May 30, 2008 under File Number 07-45-0003-WA. The wetland delineation was completed by Gourdie-Fraser, Inc. with a modified delineation dated December 26, 2007. The delineated area is shown on Sheet 3 of 20 of the MDEQ Permit Application attached in Appendix D. The delineated wetland generally corresponds with the location shown on the MDEQ Wetlands Map Viewer, southwest of the existing drive.

Construction is expected to occur within the upland wetlands (above the Ordinary High Water Mark). The destruction of wetlands will be minimized and is expected to be limited to a relatively small area of encroachment for construction of the drive and utility improvements. The wetland area that will be lost is associated with the retention basin that appears to have been constructed in conjunction with the existing parking lot along M-22. The larger wetland body to the south will be preserved.

3.3 AIR QUALITY

The Clean Air Act and the 1990 Clean Air Act Amendments allow for the establishment of primary and secondary ambient air quality standards for six criteria pollutants. In areas where the criteria pollutant levels do not exceed the annual average or short term standards, the areas are considered in attainment of the National

Ambient Air Quality Standards. Additional obligations occur for federal actions that are considered within non-attainment areas.

The subject property is located within an attainment area for the National Ambient Air Quality Standards for the six critical pollutants that are monitored by the United States Environmental Protection Agency (USEPA).

3.4 LIVING RESOURCES

3.4.1 Threatened and Endangered Species

Threatened and endangered species evaluation included review of available information, coordination with public agencies, and field reconnaissance. Consideration of threatened and endangered species specifically includes compliance with Section 7 of the Endangered Species Act and this effort has included consulting the United States Fish and Wildlife Service (USFWS) through access of their Endangered Species Website and their review of the LRE-2007-01070-56-S13 permit, consulting the State of Michigan authority through the Michigan Natural Features Inventory, and previous efforts completed by the Grand Traverse Band of Ottawa and Chippewa Indians.

Leelanau County is listed on the United States Fish and Wildlife Service Endangered Species Website. Specific species include the Indiana Bat (*Myotis sodalist*, Endangered), Northern Long-Eared Bat (*Myotis septentrionalis*, Proposed as Endangered), Piping Plover (*Charadrius melodus*, Endangered and Critical Habitat Designated), Rufa Red Knot (*Calidris canutus rufa*, Threatened), Michigan Monkey Flower (*Mimulus michiganensis*, Endangered), and Pitcher's Thistle (*Cirsium pitcheri*, Threatened). The project must be reviewed to determine if listed and proposed species or designated critical habitat will be affected. If no species or critical habitat is affected, consultation of the website fulfills the Section 7 obligation of the Endangered Species Act. The list obtained from the website is included in Appendix E. Further, the Fish and Wildlife Service reviewed the LRE-2007001070-56-S13 permit and their position was "no comment". A summary of their review is included in Appendix E.

The Michigan Department of Natural Resources (DNR) ceased to accept review requests to the Environmental Review Program after September 16, 2011. Project review requests are referred to the Michigan Natural Features Inventory, a program of Michigan State University Extension. Numerous species are listed on the Michigan Natural Features Inventory for the Leelanau County Element Data and for this reason a Rare Species Review was requested from the Michigan Natural Features Inventory. A Rare Species Review was completed, dated December 23, 2014, that indicates that a legally protected species was present within 1.5 miles of the proposed activity. However, the agency review concluded that the record was well away from the project footprint and it is

not likely that impacts will occur. The legally protected species was Common loon (*Gavia immer*, State Threatened) and two Special Concern Species were also present, Furrowed flax (*Linum sulcatum*, Special Concern) and Bald eagle (*Haliaeetu leucocephalus*, Special Concern). Special Concern species and natural communities are not protected under endangered species legislation; however, the Bald Eagle is protected under the Bald and Golden Eagle Protection Act which prohibits anyone from “taking” Bald Eagles including their parts, eggs or nests. The Rare Species Review is included in Appendix E.

The Piping Plover Critical Habitat is beyond the limits of the Peshawbestown Marina and therefore will not be impacted by the project.

A Section 7 Endangered Species Act Review and Consultation was made by the Grand Traverse Band Natural Resources Department. Grand Traverse Band Natural Resources Department staff surveyed portions of the project area during summer 2007, 2011, and 2012 (including upland area) and found no evidence of Federal or State listed species. A memorandum summarizing this effort is included in Appendix E, dated March 19, 2013. The review was supplemented with a SCUBA survey, a commercial fishery trap net survey, and near-shore seining survey.

3.4.2 Vegetation

The proposed project would include removal of the existing vegetation that consists primarily of cedar, birch and mixed hardwood trees. The existing vegetation is not considered to be significant.

3.4.3 Ecosystems and Biological Communities

The Peshawbestown Marina will extend into the bottomlands of the West Arm of Grand Traverse Bay. The Natural Resources Department – Biological Services Department of the Grand Traverse Band of Ottawa and Chippewa Indians completed an assessment of the marina including monitoring of the commercial fishery offshore of the proposed site, near shore seining, assessment netting, and SCUBA surveys of the substrate. The completed report, dated February 20, 2008, is included in Appendix E.

The investigation found the offshore area to be generally unremarkable, with observed fish species common to the commercial fishery and to Grand Traverse Bay. No threatened or endangered species were observed water ward of the site. The substrate did not appear conducive to successful spawning.

3.4.4 Agriculture

Based on the NRCS soil survey, soils present within the project area do not qualify as Prime Farmland. The land does not appear to have been farmed.

3.5 CULTURAL RESOURCES

3.5.1 Historic, Cultural, and Religious Properties

Review of historic, cultural, and religious properties was included within the Archaeological Reconnaissance Survey completed by the Public Service Archaeology and Architecture Program at the University of Illinois at Urbana-Champaign. The completed report is attached in Appendix F.

A previously reported archaeological site, 20LU12, was reported within the project area that consisted of a prehistoric Native American village. The source for the village location also indicated a trail following the lakeshore. A field reconnaissance was completed on October 22, 2014 that included shovel test units and observation of wetland areas and obvious surface disturbance. The reconnaissance did not encounter any artifacts or evidence of Site 20LU12 within the survey area. It is recommended that the portion of the site currently depicted as included within the project area be evaluated as *non-contributing* to the potential National Register of Historic Places listing.

Five structures were present within the project limits that are recommended as *Not Eligible* for listing on the National Register of Historic Places.

Based on the results of the cultural resources investigations, a finding of *No Historic Properties* is made for the proposed project area and clearance for cultural resources concerns is recommended. Further, the Michigan State Historic Preservation Office reviewed the project and provided a letter dated August 12, 2015 indicating “no historic properties affected”. A copy of the letter is included in Appendix F.

3.5.2 Archeological Resources

Archaeological material was not encountered during the above-referenced University of Illinois site survey.

3.5.3 Section 4(F) Resources

Section 4(f) of the 1966 Department of Transportation Act stipulates that land cannot be used from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless there

is no feasible and prudent alternative; and the action includes all possible planning to minimize harm to the property resulting from use.

The proposed project will not use land from Section 4(f) resources.

3.6 CONTAMINATED SITES

Known sources of contamination were evaluated by review of federal and state on-line databases. The following websites were reviewed:

- Michigan Department of Environmental Quality Environmental Mapper (Part 201, Part 211, Part 213)
- Toxmap Environmental Health Maps (Toxic Release Inventory, Superfund National Priorities List)

Michigan Act 451 of 1994, Part 201 or Michigan Act 451 of 1994 Part 211 sites were not identified within the project area. Records indicate that an underground storage tank is present at the Eagle Town Market, 2536 N. West Bay Shore Drive, south of the proposed marina. The 30,000 gallon tank is used for diesel and gasoline fuel storage and was installed in December 2000 and no releases have been reported. There were three Resource Conservation and Recovery Act Facilities in the area including the Chippewa Casino, Grand Traverse Indian Reservation, and Eagletown Market. Toxic Release Inventory and Superfund National Priority List sites were not indicated within the project area.

3.7 SOCIOECONOMIC CONDITIONS

Socioeconomic conditions provided herein are based on the 2010 U.S. Census, the 2010 American Community Survey 5-year estimate, and the Suttons Bay Community Joint Master Plan.

3.7.1 Employment and Income

The Suttons Bay community (Suttons Bay Township and Suttons Bay Village) had a labor force of 1,396. The mean travel time to work was 18.8 minutes. The median household income (1999) was \$48,068, higher than the statewide median of \$44,667. Poverty is relatively low with 6% of families below the poverty level. However, the population of the Grand Traverse Reservation and Off-Reservation Trust Land (not limited to Suttons Bay area) was less affluent with a median household income estimate of \$18,424 and an estimated 38.9% of families below the poverty level.

3.7.2 Demographic Trends

The median age of the Suttons Bay community is 48.1 years, compared to 26.7 for the Grand Traverse Reservation and Off-Reservation Trust Land. The total population of the two areas was 2982 and 608, respectively. The Grand Traverse Band of Ottawa and Chippewa Indians area significant component of the Suttons Bay Community, with 19% identified as American Indian. The Grand Traverse Reservation and Off-Reservation Trust Land was primarily American Indian (79.8%).

3.7.3 Lifestyle and Cultural Values

Members of the Ottawa, Chippewa, and Pottawatomi tribes were established in the area prior to European settlement. The Tribe was re-recognized by the federal government as the Grand Traverse Band of Ottawa and Chippewa Indians on May 27, 1980. Peshawbestown is an approximate 12.5 acre area that is the community center for the Grand Traverse Band of Ottawa and Chippewa Indians and was one of the first properties taken into Trust upon re-recognition. Important cultural resources in the area include the Strongheart Center and Eyaawing Museum.

European settlement began with Harry Chittenden Sutton's camp on the bay in the 1850's and developed primarily around timber resources and agriculture. The area has become a popular tourist destination and the population has more than doubled since 1970. There were 234 seasonal housing units recorded by the 2000 census.

Based on the Suttons Bay Community Joint Master Plan, residents feel a strong *Sense of Place* based on the community's rural features and "small town" atmosphere. Important amenities include natural features, active downtown, unique businesses, traditional neighborhoods, and recreational facilities.

3.7.4 Community Infrastructure

Water supply is provided by the Peshawbestown water system obtained from three groundwater wells within the reservation. Peshawbestown also has a municipal wastewater treatment plant and collection system.

3.8 RESOURCE USE PATTERNS

3.8.1 Hunting and Gathering

The project area is relatively developed and not useful for hunting or gathering.

The fishery was evaluated by the Grand Traverse Band with results summarized in the report dated February 20, 2008 included in Appendix E. Commercial fishing has not been performed in the area of the project (near shore) within the last 15 years, and the results of a trap net set as part of the investigation was “very low” by commercial standards. Catch rates of large-mesh gill net in deeper water (150 to 300 ft) are generally expected to be higher.

3.8.2 Transportation Networks

The site is accessed directly from State Highway M-22, an arterial road with primary purpose of facilitating through-traffic movements.

3.9 OTHER VALUES

3.8.1 Public Health and Safety

Public safety is provided by the Grand Traverse Band Police, Tribal Fire Rescue Department, and Emergency Management Office.

4.0 ENVIRONMENTAL CONSEQUENCES

The consequences of each alternative (No Action and Preferred Alternative) on each component of the environment presented in Section 3.0 are discussed in the following sections.

4.1 LAND RESOURCES

4.1.1 Topography

No Action: There would be no change to the existing topography if the subject property were not developed. The amount of development that would occur if the fee to trust acquisition did not occur is uncertain.

Preferred Alternative: Grading and other construction-related alteration of the existing topography would be expected as part of site preparation. Significant changes to the land topography are not anticipated. Construction activities would result in short-term exposure of soils to wind and rain erosion. Soil erosion and sedimentation controls will be included in accordance with permit requirements.

Dredging and fill placement will occur within the bottomlands for marina construction. A permit will be required for marina dredging and construction.

These activities will be in accordance with permit requirements. It is anticipated that turbidity controls will be needed and that the dredging schedule may be limited due to fisheries concerns.

4.1.2 Soils

No Action: There would be no impact to the soils if the subject property were not developed.

Preferred Alternative: Existing soils would be disturbed and fill material may be added as part of site grading and other construction activities expected during the roadway and supporting infrastructure construction. Soil erosion will be minimized via implementation of the typical erosion and sediment control measures such as seeded cover of exposed soils. A significant portion of the soils within the construction area have been previously disturbed by pavement construction or site development.

4.1.3 Geology

No Action: There would be no change to the underlying geology of the project area if it were not developed.

Preferred Alternative: As with the No Action Alternative, there would be no change to the underlying geology of the project area.

4.2 WATER RESOURCES

No Action: Groundwater or surface water resources would not be impacted if the project area was not developed.

Preferred Alternative: Erosion and sediment control practices, such as wetting and seeded cover of exposed soils, will be implemented to protect surface water runoff during construction activities. Specific controls will be needed for marina dredging and fill operations to control turbidity.

Groundwater in the lower artesian aquifer is used for potable drinking wells and is not expected to be affected. Pile penetration for marina construction is not expected to penetrate the artesian aquifer as screens for the two nearby wells are set between 82 and 89 ft.

4.2.1 **Wetlands**

No Action: There would be no change to the wetlands identified in the project area if it were not developed.

Preferred Alternative: State-regulated wetlands are present within the project area. The project design has considered options to minimize the disturbance to existing wetlands. The wetland areas that are expected to be impacted correspond to a retention basin that is adjacent to the existing drive and the railroad grade, both relatively lineal to the former railway. The proposed drive and utilities will be constructed within the alignment of the existing drive to minimize impacts but will result in minor encroachment where the drive crosses the former railway. The wetland disturbance is expected to be less than 1/3 acre. The construction is not expected to have significant effects on the function, survival or quality of the wetlands. A permit for the upland wetlands construction has been issued by the MDEQ (Permit Bo. 13-45-0021-P).

The proposed construction must be located within the wetlands to be able to provide the amenities that are required for successful operation of the marina with its associated benefits to the community. The design will minimize areas of disturbance to the wetlands, using the existing drive corridor where possible. Alternative sites that would avoid wetland disturbance are not practical due to the desire to construct the marina in a specific geographic area (Peshawbestown). The construction will conform to floodplain protection standards and conditions of the MDEQ Part 303 Permit. Soil erosion and sedimentation controls will be provided to limit the wetland disturbance to the construction area.

For these reasons, the construction within the wetland areas is not considered a significant impact.

4.3 **AIR QUALITY**

No Action: There would be no impact to the air quality if project was not completed.

Preferred Action: There would be short-term impacts to the air quality, via dust and heavy equipment emissions, during the construction activities but no long-term effects to air quality are expected. The additional dust during construction could be controlled using water sprays and other mitigation actions as deemed necessary. These short-term construction-related emissions would not interfere with Leelanau County's status as an attainment area for the six critical pollutants per the USEPA's National Ambient Air Quality Standards. As the project is in an attainment area, a conformity analysis is not required.

4.4 LIVING RESOURCES

4.4.1 Threatened and Endangered Species

No Action: There would not be any displacement of threatened or endangered species with the No Action alternative.

Preferred Alternative: Federal and state protected species are listed in Leelanau County by the USFS and Michigan Natural Features Inventory, respectively. A Rare Species Review was completed by the Michigan Natural Features Inventory and, though several species were present within a 1.5 mile radius, it is concluded as **not likely** that impacts will occur. Additionally, the Grand Traverse Band Natural Resources Department surveyed portions of the project area during summer 2007, 2011, and 2012 and found no evidence of Federal or State listed species. It is therefore expected that the project will have No Effect on threatened and endangered species.

4.4.2 Wildlife

No Action: There would be no expected loss of habitat or displacement of wildlife.

Preferred Alternative: Site and marina construction activities would disturb the existing ground surface and permanently remove existing trees and habitat. However, portions of the site have already been developed (existing buildings, asphalt parking lot and drives, railroad corridor). Most of the shore is expected to be preserved as “natural beach area”.

The area offshore of the marina is described as generally unremarkable, and the near shore substrate was not conducive to spawning. Fish eggs deposited in the type of environment encountered are expected to experience high mortality due to predation and exposure.

4.4.3 Vegetation

No Action: There would be no expected loss of vegetation on the subject property if the property were not developed.

Preferred Alternative: Construction activities would disturb the existing ground surface and permanently remove existing trees. The shore is expected to be preserved as “natural beach area”. Vegetation will be re-established beyond the parking lot, harbor master building, and other site improvements.

4.4.4 Ecosystems and Biological Communities

No Action: Ecosystems or biological communities would not be affected.

Preferred Alternative: An investigation found the offshore area to be generally unremarkable, with observed fish species common to the commercial fishery and to Grand Traverse Bay. No threatened or endangered species were observed water ward of the site. The substrate did not appear conducive to successful spawning. The marina construction will not cause a significant effect on the Grand Traverse Bay ecosystem.

4.4.5 Agriculture

No Action: No effect on agriculture would result due to No Action.

Preferred Alternative: The project area is not suitable for farming and no effect on agriculture will occur due to the Preferred Alternative.

4.5 CULTURAL RESOURCES

4.5.1 Historic, Cultural, and Religious Properties

No Action: No effect on significant historic, cultural, or religious properties would result due to no action.

Alternative 2 (Preferred Action): The Peshawbestown area has cultural and historical significance as a settlement for the Grand Traverse Band of Ottawa and Chippewa Indians and as the contemporary center of cultural, governmental, and economic activities. Institutions within the Area of Potential Effect include the Eyaawing Museum and Strongheart Center as well as the historical settlement at Site 20LU12. There is not evidence that the Site 20LU12 extends into the project area.

Although cultural and historical resources are present in the area, the University of Illinois concludes that clearance for cultural resources concerns is recommended.

4.5.2 Archeological Resources

No Action: There would be no effect on archaeological resources.

Alternative 2 (Preferred Action): The Phase I Archaeological Reconnaissance completed by the University of Illinois located no archeological material and project clearance is recommended.

4.6 SOCIOECONOMIC

4.6.1 Employment and Income

No Action: There would be no effect on income and employment.

Preferred Alternative: Construction of the marina would result in temporary construction jobs, full-time seasonal employment for marina workers, create a market for additional services, increase the potential for tourism in the Peshawbestown area, and provide opportunity for boating and fishing charter operations.

4.6.2 Demographic Trends

No Action: There would be no impact on the demographic trends of the area.

Preferred Alternative: Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populates) mandates that Federal Agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Socioeconomic and demographic data for the project area were analyzed to determine if a disproportionate number of minority or low-income persons have the potential to be adversely affected by the Preferred Alternative. The project will occur within the Grand Traverse Reservation and Off-Reservation Trust Land, associated with both minority and low-income populations. The preferred alternative is supported by the leadership of the Grand Traverse Band of Ottawa and Chippewa Indians and the proposed marina is expected to have a positive or no effect on these populations.

4.6.3 Lifestyle and Cultural Values

No Action: There would be no impact on lifestyle or cultural values.

Preferred Alternative: Construction of the marina would provide public access to the West Arm of Grand Traverse Bay and would contribute to economic success of the community.

4.6.4 Community Infrastructure

No Action: There would be no impact on community infrastructure.

Preferred Action: The marina would rely on community infrastructure for water, sewer, and other public utilities but is not expected to require construction of additional capacity for these services.

4.7 RESOURCE USE PATTERNS

4.7.1 Hunting and Gathering

No Action: The project area is not currently used for hunting and gathering activities.

Preferred Alternative: It is possible that increased pleasure craft use could influence commercial fishing operations. The discussion of the Grand Traverse Band Natural Resources Department – Biological Services Department investigation (2008) indicates, “the proximity of this site to the Tribal reservation, as well as the protected nature of the shoreline between Suttons Bay and Omena, provides an accessible area for fishers during foul weather, especially during the fall and winter months. The seasonality of the potential marina will lesson any potential impacts to the commercial fishery near the site”.

4.7.2 Transportation Networks

No Action: There would be no impact on transportation networks.

Preferred Alternative: The marina will be access directly from State Highway M-22, an arterial road, and its construction will not have an effect on transportation networks.

4.8 OTHER VALUES

4.8.1 Public Health and Safety

No Action: There would be no additional emergency services needs if the marina is not constructed.

Preferred Alternative: Completion of the road improvements would not significantly increase the burden on the community fire, ambulance, and police departments. All construction activities would be performed using qualified personnel trained in the proper use of appropriate equipment. All construction activities would be completed in accordance with Occupational Safety and Health Administration regulations.

5.0 CONSULTATION AND COORDINATION

The following individuals and organizations were contacted for consultation and coordination in support of this Environmental Assessment:

- 1) Eyaawing Museum and Cultural Center
Grand Traverse Band of Ottawa and Chippewa Indians
2304 N. West Bayshore Drive
Peshawbestown, Michigan
- 2) Michigan Sites-On-Line
State Registry of Historic Places
www.michigan.gov/shpo
- 3) National Register of Historic Places Website
www.nps.com/nr
- 4) United States Fish and Wildlife Service Website
Consultation Main Page
www.fws.gov/midwest/endangered/section7

- 5) Michigan Natural Features Inventory
Michigan State University Extension
3rd Floor Constitution Hall
525 W. Allegan Street
Lansing, Michigan

- 6) Michigan Department of Environmental Quality (MDEQ) Website
Air Quality Attainment/Nonattainment Information, Environmental Mapper
www.michigan.gov/deq

- 7) United States Fish and Wildlife Service Wetlands Mapper Website
www.fws.gov/nwi

- 8) United States Department of Health and Human Services
TOXMAP Environmental Health Maps
www.toxmap.nlm.nih.gov/toxmap

- 9) Public Service Archaeology and Architecture Program
Department of Anthropology
University of Illinois at Urban-Champaign
Urbana, Illinois

- 10) Regulatory Database Review
NPL
Delisted NPL
CERCLIS
CERCLIS NFRAP
RCRA CORRACTS
TSD
RCRA Generators
Inst./Eng. Controls
ERNS
Part 201

BEAs

Landfills

LUST

UST

Brownfield

- 11) MDEQ Coastal and Inland Waters Permit Information System
www.deq.state.mi.us/ciwpiis/
- 12) Gourdie-Fraser, Inc.
Traverse City, Michigan
- 13) Peshawbestown Marina Recommendations
Abonmarche, September 2012
- 14) Grand Traverse Band of Ottawa and Chippewa Indians
Department of Natural Resources
Section 7 Endangered Species Act Review and Consultation, March 19, 2013
DEQ File No. 07-45-0107-OP, Fish Community Assessment, February 20, 2008
- 15) Ken Ockert
RCA Landscape Architects and Land Planners
P.O. Box 562
Traverse City, Michigan
- 16) Detail Plans for Grand Traverse Band of Ottawa and Chippewa Indians Proposed Marina
Gourdie-Fraser, Inc.
November 28, 2012
- 17) Geotechnical Investigation Report
Otwell Mawby Geotechnical, P.C.
January 2007

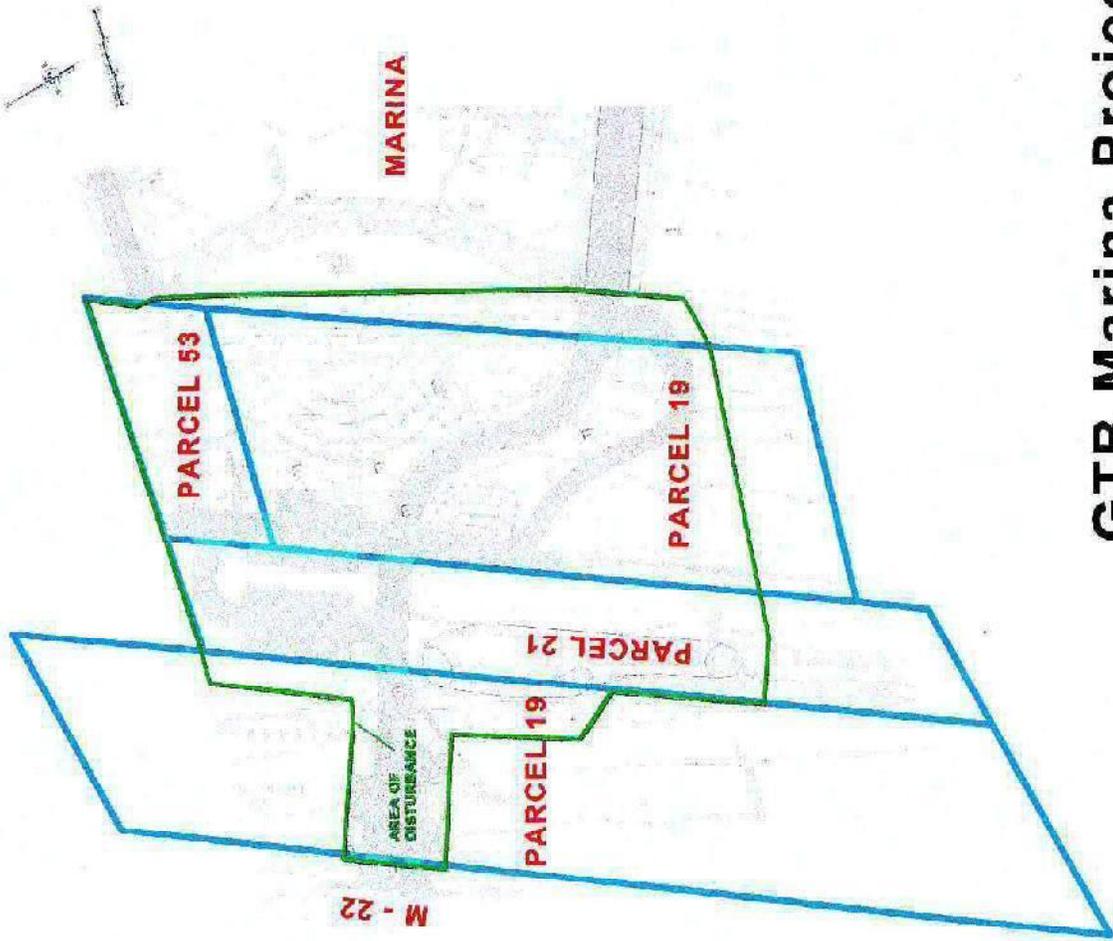
- 18) Report of Subsurface Exploration
Coleman Engineering Company
July 2013

- 19) Michigan Department of History, Arts, and Libraries
Section 106 Review
August 12, 2015

- 20) United States Fish and Wildlife Service
Permit LRE-2007-01070-56-S13 Review Summary
Response/Conclusion September 3, 2013

Appendix A

Approximate Project Limits
USGS Topographic Map



GTB Marina Project

Date: 8-14-13

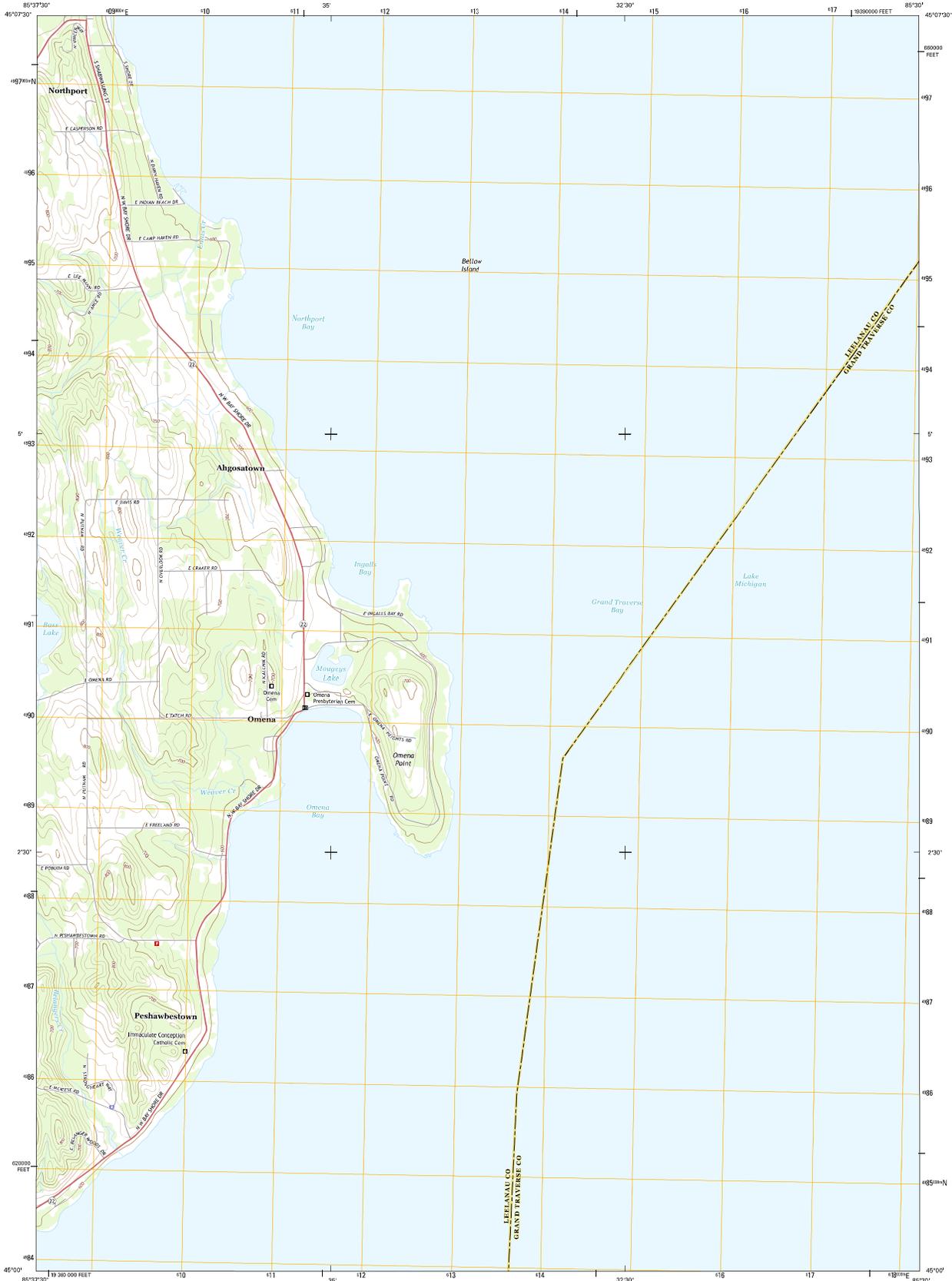
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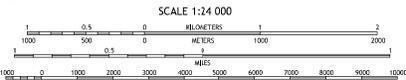
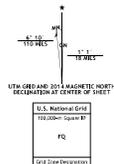
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



OMENA QUADRANGLE
MICHIGAN
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
100-meter grid; Universal Transverse Mercator; Zone 18T
10 000-foot ticks; Michigan Coordinate System of 1983 (central
zone)
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.
Imagery:.....NAP July 2012
Roads:.....HEAT 2013
Names:.....GMS 2013
Hydrography:.....National Hydrography Dataset 2012
Contours:.....National Elevation Dataset, 1999
Boundaries:.....Multiple sources; see metadata file 1972 - 2013
Public Land Survey System:.....BLM, 2011



1	2	3	1 Northport NW
2	3	4	2 Northport
3	4	5	3 Ahoskatown DE W
4	5	6	4 Ahoskatown
5	6	7	5 Central Lake DE W
6	7	8	6 Central Lake DE W
7	8	9	7 Ahoskatown
8	9	10	8 Elk Rapids

OMENA, MI
2014

Appendix B

Photographs of Subject Property



View North from Parking Lot



View East including existing Asphalt Drive



View Southeast from Asphalt Drive



View South of Gravel Drive



View East of Existing Building

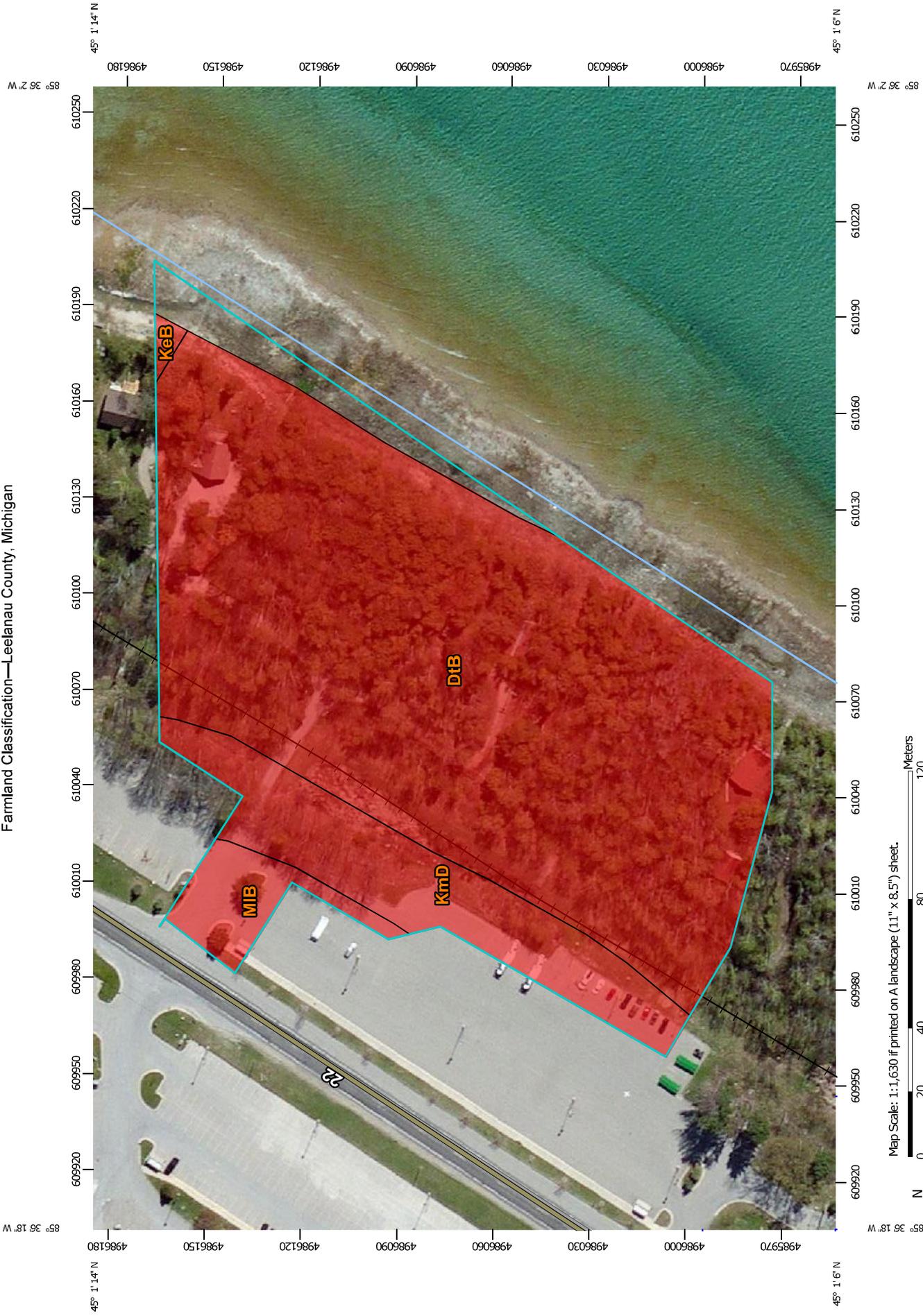


View North of Waterfront

Appendix C

Soil Survey Information for Subject Property
Water Well Records

Farmland Classification—Leelanau County, Michigan



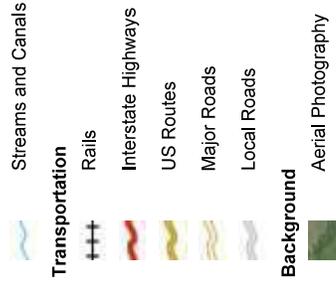
Map Scale: 1:1,630 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



MAP INFORMATION



The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.
 Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Leelanau County, Michigan
 Survey Area Data: Version 7, Sep 22, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 26, 2010—May 27, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Farmland Classification— Summary by Map Unit — Leelanau County, Michigan (MI089)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DtB	Detour sandy loam, 0 to 6 percent slopes	Not prime farmland	5.4	78.1%
KeB	Kalkaska-East Lake loamy sands, 0 to 6 percent slopes	Not prime farmland	0.0	0.4%
KmD	Kiva-Mancelona gravelly sandy loams, 12 to 18 percent slopes	Not prime farmland	1.0	13.8%
MIB	Mancelona-East Lake loamy sands, 0 to 6 percent slopes	Not prime farmland	0.3	4.0%
Subtotals for Soil Survey Area			6.7	96.3%
Totals for Area of Interest			7.0	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

DEC 29 1981

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL: **Suttons Bay** 127 ACT 368, P.A. 1978

County: **SUTTONS BAY** Township Name: **Leslanau** Fraction: **NE 1/4 NE 1/4 NW 1/4** Section Number: **11** Twp Number: **30 N/S** Range Number: **11 E/W**

Distance And Direction From Road Intersection: **Approx. 1/2 mile South of Pobuda Road off M-22 on the East side at 2686 N. Manitou Trail, Peshawbestown.**

Street Address & City of Well Location: **2686 N. Manitou Trail, Peshawbestown (Suttons Bay)**

Locate with "X" in Section Below

3 OWNER OF WELL: **CHARLES RISTER**
Address: **2686 N. Manitou Trail, Peshawbestown (Suttons Bay)**
Address Same As Well Location? Yes No

4 WELL DEPTH: (completed) **89** ft. Date of Completion: **9/09/81**

5 Cable tool Rotary Driven Dug
 Hollow rod Auger Jetted Jetted

6 USE: Domestic Type I Public Type II Public
 Irrigation Type Ia Public Heat pump
 Test Well Type Ib Public Other

7 CASING: D amaler Steel Threaded Height: Above/Surface **XXXX**
 Plastic Welded Surface: **1** ft.
5 in to **85** ft. depth Weigh: **sch21** lbs./ft.
Grouted Drill Hole Diameter: _____
in. to _____ ft. depth
in. to _____ ft. depth

8 SCREEN: Not Installed
Type: **Stainless** Diameter: **4"**
Slot/Screen: **#10** Length: **4'**
Set between: **85** ft. and **89** ft.
FITTINGS: K-Packer Lead Packer Branch Check
 Blank above screen **3** ft. Other: **Plug Bottom**

9 5° AT C WATER LEVEL: **Flow** ft. below land surface Flow

10 PUMPING LEVEL: below land surface
_____ ft. after _____ hrs. pumping at _____ G.P.M.
_____ ft. after _____ hrs. pumping at _____ G.P.M.

11 WELL HEAD COMPLETION: Pitless adapter 12" above grade
 Basement offset Approved pit

12 WELL GROUTED? No Yes From **0** to **82** ft.
 Neat cement Bentonite Other
No. of bags of cement _____ Additives _____

13 Nearest source of possible contamination
Type: **Septic** Distance: **55** ft Direction: **West**
Well disinfected upon completion? Yes No

14 PUMP: Not Installed Pump Installation Only
Manufacturer's name: **Aermotor - Franklin**
Model number: **SD8-50** HP: **1/2** Volts: **220**
Length of Drop Pipe: **60** ft. capacity: **8** G.P.M.
TYPE: Submersible Jet
PRESSURE TANK:
Manufacturer's name: **Well-x-Trol**
Model number: **202** Capacity: **20** Gallons

15. Remarks, elevation, source of data, etc.
ADDED INFO BY DRILLER, ITEM NO.
*CORRECTED BY **ST**
**ADDITION BY
ELEVATION
DEPTH TO ROCK

16. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
B & Z WELL DRILLING CO. 1642
REGISTERED BUSINESS NAME REGISTRATION NO.
Address: **233 E. Kasson Road, Maple City, MI**
Signed: **[Signature]** 9/10/81
AUTHORIZED REPRESENTATIVE

Appendix D

US Fish and Wildlife Service National Wetlands Inventory
Michigan Department of Environmental Quality Wetlands Map
Existing Conditions (Wetland Delineated)
Michigan Department of Environmental Quality Water Resources Division Permit



U.S. Fish and Wildlife Service

National Wetlands Inventory

Marina Project

Dec 19, 2014

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Wetlands Map Viewer

[Print page](#)

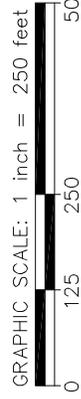
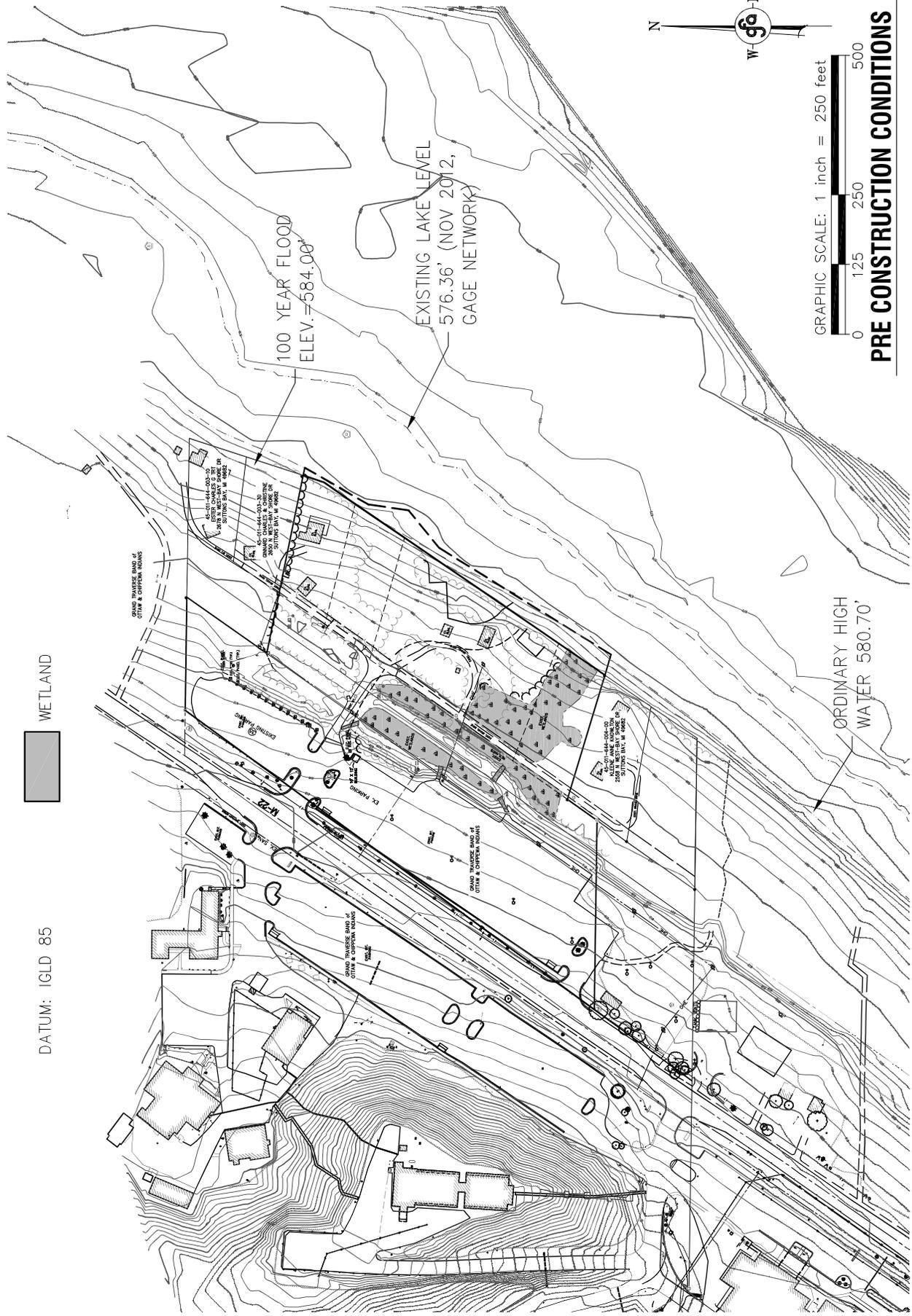
Add Title



This map is not intended to be used to determine the specific locations and jurisdictional boundaries of wetland areas subject to regulation. More information regarding this map, including how to obtain a copy can be accessed at www.michigan.gov/wetlands
Copyright © 2001-2015 State of Michigan

DATUM: IGLD 85

WETLAND



GRAPHIC SCALE: 1 inch = 250 feet

PRE CONSTRUCTION CONDITIONS

GRAND TRAVERSE BAND of OTTAWA &
CHIPPEWA INDIANS
PIER WIDENING

OWNER: GRAND TRAVERSE BAND of OTTAWA &
CHIPPEWA INDIANS
WATERWAY: WEST GRAND TRAVERSE BAY
COUNTY: LEECLANAU COUNTY
SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

APPLICATION PREPARED BY:
GOURDIE-FRASER
SCALE: 1" = 250'
DATE : 12/12/13 SHEET 2 OF 6



06582B



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION
PERMIT**

ISSUED TO:

Grand Traverse Band of Ottawa & Chippewa Indians
2331 North West Bay Shore Drive
Peshawbestown, MI 49682

Permit No.	13-45-0021-P
Issued	March 5, 2014
Extended	
Revised	
Expires	March 5, 2019

This permit is being issued by the Michigan Department of Environmental Quality (MDEQ) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and specifically:

- | | |
|---|---|
| <input type="checkbox"/> Part 301, Inland Lakes and Streams | <input type="checkbox"/> Part 315, Dam Safety |
| <input checked="" type="checkbox"/> Part 325, Great Lakes Submerged Lands | <input type="checkbox"/> Part 323, Shorelands Protection and Management |
| <input checked="" type="checkbox"/> Part 303, Wetlands Protection | <input type="checkbox"/> Part 353, Sand Dunes Protection and Management |
| <input type="checkbox"/> Part 31, Floodplain/Water Resources Protection | |

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

Create a marina facility on Lake Michigan, including the following:

- Place approximately 45,380 cubic yards of riprap to create approximately 2,100 feet of breakwalls along the north, south and east sides of the marina basin, to create a 20-foot wide main pier.
- Install approximately 654 feet of steel sheet piling along the inside of the north breakwall and approximately 817 feet of steel sheet piling along the inside of the south and east breakwalls.
- Place approximately 490 cubic yards of riprap toe stone along the steel sheet piling.
- Create a 225-foot long by 115-foot wide dredge dewatering basin within the marina basin.
- Dredge approximately 57,800 cubic yards of material from an approximately 700-foot long by 600-foot wide by 6-foot deep marina basin and channel.
- Place approximately 130 cubic yards of riprap along 390 feet of the west shoreline, impacting wetland inside the marina basin.
- Install open-pile or floating dockage, and spring piles to create 106 slips.
- Install a 108-foot long by 16-foot wide fuel dock on the end of Dock C.
- Install an approximately 348-foot long by 10-foot wide ramp along the south breakwall, and a 64-foot by 10-foot ramp along the south end of the east breakwall.
- Construct a total of two fishing platforms: 45-foot long by 17.5-foot wide off the north breakwall, and 29-foot long by 29-foot wide off the south breakwall.
- Create an approximately 54-foot long by 17.5-foot wide unloading area on the east breakwall.
- Create pedestrian walkways over the north and south breakwalls at the shoreline.

All work shall be done according to the attached plans dated January 16, 2014.

Due to fisheries concerns in the area, no dredging is allowed from May 15th through July 15th.

A U.S. Army Corps of Engineers permit is required before this work can be conducted.

Water Course Affected: Lake Michigan

Property Location: Leelanau County, Suttons Bay Township, Section 11
Town/Range 30N, 11W, Property Tax No. 45-011-644-003-00

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.

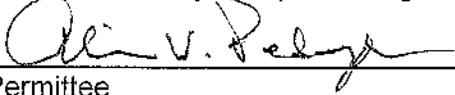
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31, Water Resources Protection, of the NREPA.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that Act.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify the MDEQ within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached preaddressed postcard to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of the MDEQ.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
- L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31, and wetland).
- M. In issuing this permit, the MDEQ has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the State (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the State and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
- O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, the MDEQ may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
- P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from the MDEQ. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.
- Q. This permit may be transferred to another person upon written approval of the MDEQ. The permittee must submit a written request to the MDEQ to transfer the permit to the new owner. The new owner must also submit a written request to the MDEQ to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties which includes all the above information may be provided to the MDEQ. The MDEQ will review the request and if approved, will provide written notification to the new owner.
- R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.
- S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.
- T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent.
- U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.
- W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the waterbody are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the MDNR, Fisheries Division.
- Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:
 1. All work shall be completed in accordance with the attached plans dated January 16, 2014.

2. Authority granted by this permit does not waive permit requirements under the Natural Resource and Environmental Protection Act, Part 91 - Soil Erosion and Sedimentation Control- Steve Christensen at 231-256-9783.
3. The authority to conduct the activity as authorized by this permit is granted solely under provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, or federal approval or authorizations necessary to conduct the activity.
4. Authority granted by this permit does not waive any jurisdiction of the U.S. Army Corps of Engineers 313-226-2432 or the need for a federal permit, if required.
5. Due to fisheries concerns in the area, no dredging is allowed from May 15th to July 15th.
6. The breakwalls must be constructed prior to commencement of the dredging within the marina basin.
7. No impacts to the streams along the north and south side of the marina basin are authorized by this permit.
8. Prior to construction or dredging, the dewatering basin and a siltation barrier curtain must be installed in the waterbody to enclose the area of disturbance. The curtain must be adequately supported on posts or inflowing or deep water supported by floatation and anchoring devices. The curtain must be construction of vinyl, geotextile or other material designed for siltation control and watercourse use. The structure must extend from the water surface to the bottom and completely enclose the area of disturbance during construction of dredging. It must be regularly monitored and maintained ensure its effectiveness.
9. All dredged material, including material used to create the dewatering basin must be taken off-site to the approved disposal site off McKeese Road.
10. No direct discharge from the disposal basin to the wetland or stream is authorized by this permit.
11. All dredge spoils including organic and inorganic soils, vegetation, and debris shall be placed above the ordinary high water mark, leveled, and stabilized with sod and/or seed, and mulched, in such a manner as not to erode into any waterbody, wetland, or floodplain, see attached plans.
12. Excess soil materials from the project shall not be deposited in wetlands or surface water without first securing a permit under the Natural Resource and Environmental Protection Act, 1994 PA 451, as amended, Part 303 - Wetlands Protection, or other applicable statute. All excess soil material shall be placed on upland site, mulched, and/or seeded to prevent erosion into waters or wetlands.
13. The docks shall be of open-pile and floating construction without fill, maintaining free water movement and circulation.
14. No boat shall extend beyond the end of the authorized dock or slip length. Swim platforms, bow sprits and/or pulpits must be factored into total boat length.
15. Plans showing construction details for any proposed dockside potable water distribution system, sanitary pump-out facility or restrooms must be submitted to the Michigan Department of Public Health, Division of Public Safety and Environmental Health, 3500 N. Logan, P. O. Box 30035, Lansing, Michigan 48909, for review to assure compliance with Health Department Marina Rules.
16. Fill shall consist of inert materials, which will not cause siltation nor contain soluble chemicals or organic matter, which is biodegradable. All fill shall be contained in such a manner as not to erode into any watercourse and/or wetland. All raw banks shall be stabilized with sod, seed, and mulched or ripped as necessary to prevent erosion.

16. Riprap shall consist of stone, rock, or clean broken concrete (containing no protruding steel reinforcement, soil or other fines, asphalt, soluble chemicals, or organic material). Riprap shall be of appropriate weight and dimension necessary to achieve the intended shore protection. Riprap shall be placed mechanically or by hand. Filter fabric shall be used under the riprap to prevent loss.
17. Permittee shall provide a plan within 60 days of issuance of this permit to monitor the effects of the marina on the longshore transport of sediment in the immediate vicinity of the marina. The plan shall include mitigation measures that may need to be conducted based upon the monitoring results. The DEQ shall review and approved such plan prior to implementation by permittee.
18. This permit does not authorize any regulated work in any successive phases.
19. Construction pads, haul roads, temporary structures, or other structural appurtenances to be placed on or over bottomlands and /or wetlands are not authorized by this permit and shall not be constructed unless shown on the permit plans, authorized by separate permit or permit revision granted in accordance with applicable law.
20. The issuance of this permit does not convey any right, title or ownership in the state owned, public trust bottomlands of the Great Lakes occupied by fill, docks, seawall, pilings, breakwaters or other structures at the project site. A conveyance of the occupied bottomlands is required pursuant to Part 325, Great Lakes Submerged Lands, 1994 PA 451, as amended to protect the general public's rights in the bottomlands and water of the Great Lakes.
21. This permit shall be kept posted at the work site in a prominent location at all times for the duration of the project, or until its expiration, and authorizes representatives of the DEQ to enter upon said property in order to inspect project progress.
22. If permittee or any of their agents have questions pertaining to this permit or conditions, they shall contact the undersigned DEQ official for clarification.
23. This permit may be transferred to another person upon written approval of the DEQ. The permittee must submit a written request to the DEQ to transfer the permit to the new owner. The new owner must also submit a written request to accept transfer of the permit. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties which includes all the above information may be provided to the DEQ. The DEQ will review the request and if approved, will provide written notification to the new owner.
24. This permit is being issued for the maximum time allowed under Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended (NREPA), including all permit extensions allowed under the administrative rules R 281.923 and under Part 325, Great Lakes Submerged Lands, of NREPA, including all permit extension allowed under the administrative rule R 322.1011(f). Therefore, no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by the DEQ, will be for a five-year period beginning at the date of issuance.
25. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representatives of the permittee, undertaken in connection with this permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
26. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity and/or mitigation plan from the DEQ. Such revision requests shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the DEQ prior to being implemented.

27. This permit shall become effective on the date of signature by the DEQ officer. Upon signing by the permittee named herein, this permit must be returned to the Water Resources Division, Department of Environmental Quality, Cadillac District Office, 120 West Chapin Street, Cadillac, Michigan 49601-2158, for final execution.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.



Permittee

2/28/14

Date

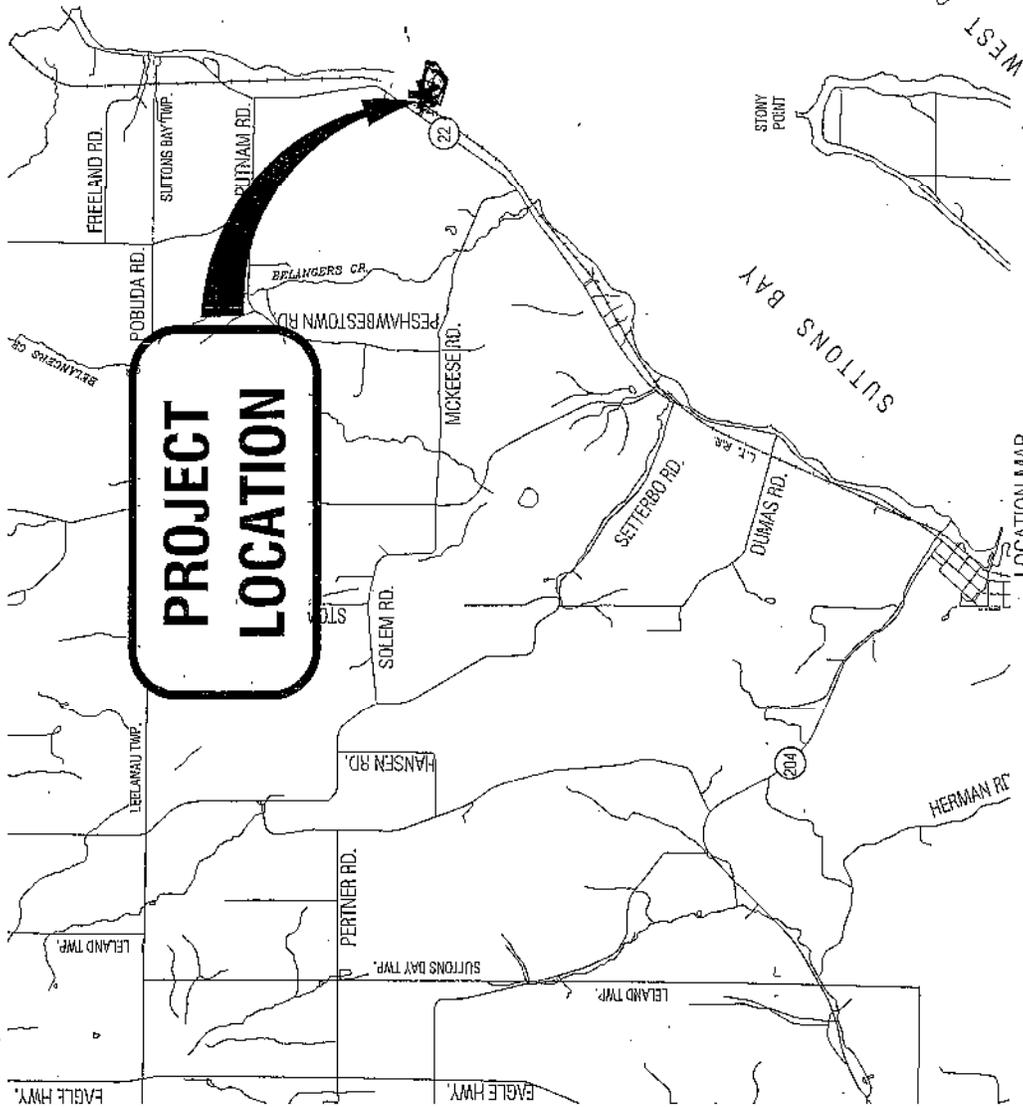
By: 
Robyn L. Schmidt
Water Resources Division
231-876-4444

cc: Jamie Wade, Gourdie-Frasier
Suttons Bay Township Clerk
Leelanau CEA
April Champion, USACE, Detroit (LRE-2007-01070-56-S13)
Michigan Department of Public Health, Division of Environmental Health
Tom Graf, DEQ, Lansing

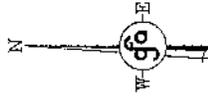
DETAIL PLANS FOR
**GRAND TRAVERSE BAND of
 OTTAWA & CHIPPEWA INDIANS
 PROPOSED MARINA**

INDEX OF SHEETS

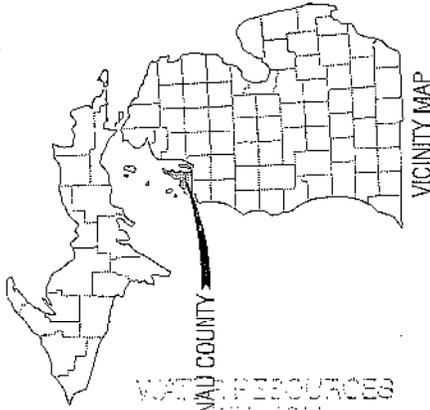
SHEET	TITLE
1	COVER SHEET
2	EXISTING CONDITIONS
3	MARINA SITE PLAN
4	DREDGING PLAN
5	DREDGING CROSS SECTIONS
6	DREDGING DISPOSAL SITE LOCATION
7	DREDGING DISPOSAL SITE PLAN
8-12	BREAKWALL CROSS SECTIONS
13	FLOATING DOCK SECTION
14	SPRING PILE DETAILS
15	PUBLIC RESTROOM
16	NAVIGATION AIDS
17	BOTTOM LANDS LEASE AREA
18	BOTTOM LANDS LEASE DESCRIPTION
19	F.D.S. TELESCOPING ANCHORAGE SYSTEMS
20	DREDGE DEWATERING BASIN
21	SILT FENCE DETAIL
22	PHASED DREDGE PLAN



**PROJECT
 LOCATION**



WEST GRAND TRAVERSE BAY
 LEELANAU COUNTY
 CADILLAC DISTRICT
 19 2013



REVISED PER MDEQ COMMENTS, 11-08-13, CDL

APPLICATION PREPARED BY:
 GOURDIE-FRASER
 SCALE: NO SCALE
 DATE: 11/28/12 SHEET 1 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS



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1-16-14

EXHIBIT "A"

Grand Traverse Band of Ottawa and Chippewa Indians Marina
February 1, 2013

Project Description

The proposed project includes the construction of a 106 slip marina facility including:

1. Stone breakwater
2. Sheet pile walls
3. Basin dredging
4. Floating header pier and finger piers with utility pedestals
5. Harbor master building including office, bathroom with shower and small ship store area
6. Supporting site infrastructure includes access ramp, parking and utilities

* Construction Sequence and Methods *

The construction will take place in the following general sequence:

- D. Installation of stone break walls and sheeting
 1. Start Installation of north break wall from the land side out and construct to a level of 580.00'± to provide access for mechanical dredging equipment
 2. Install south break wall to a level of 580.00' to provide access for mechanical dredging equipment
 3. Construct dredge dewater area and temporary haul roads for dredge spoil site
 4. Place sediment boom at mouth of break walls
 5. Construct interior dredge platform by piling dredge material in linear fashion to allow access of mechanical dredge equipment to basin
 6. Complete dredging by mechanical means. Dewater in basin and haul off-site to dredge spoil area after soil erosion measures are in place at dredge spoil areas
 7. Complete dredging of harbor basin and haul material off-site

WATER RESOURCES DIVISION
APR 26 2013
CADILLAC DISTRICT

WATER RESOURCES DIVISION
MAR 29 2013
CADILLAC DISTRICT

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1-16-14

8. Move boom and complete dredging of access channel to deep water
9. Install spring piles
10. Complete break water stone placement on north break water
11. Complete break water stone placement on south pier
12. Complete west shoreline rip-rap, stone walls & beach areas
13. Complete site work at Harbor Master Building
14. Install floating dock system & fueling facility
15. Complete walkways, railings, lighting, etc, navigational lights & markers
16. Stabilize site surfaces
17. System Start-up & Final Punch List items
18. Obtain Marina Operation Permit

WATER RESOURCES
DIVISION

APR 26 2013

CADILLAC DISTRICT

WATER RESOURCES
DIVISION

MAR 22 2013

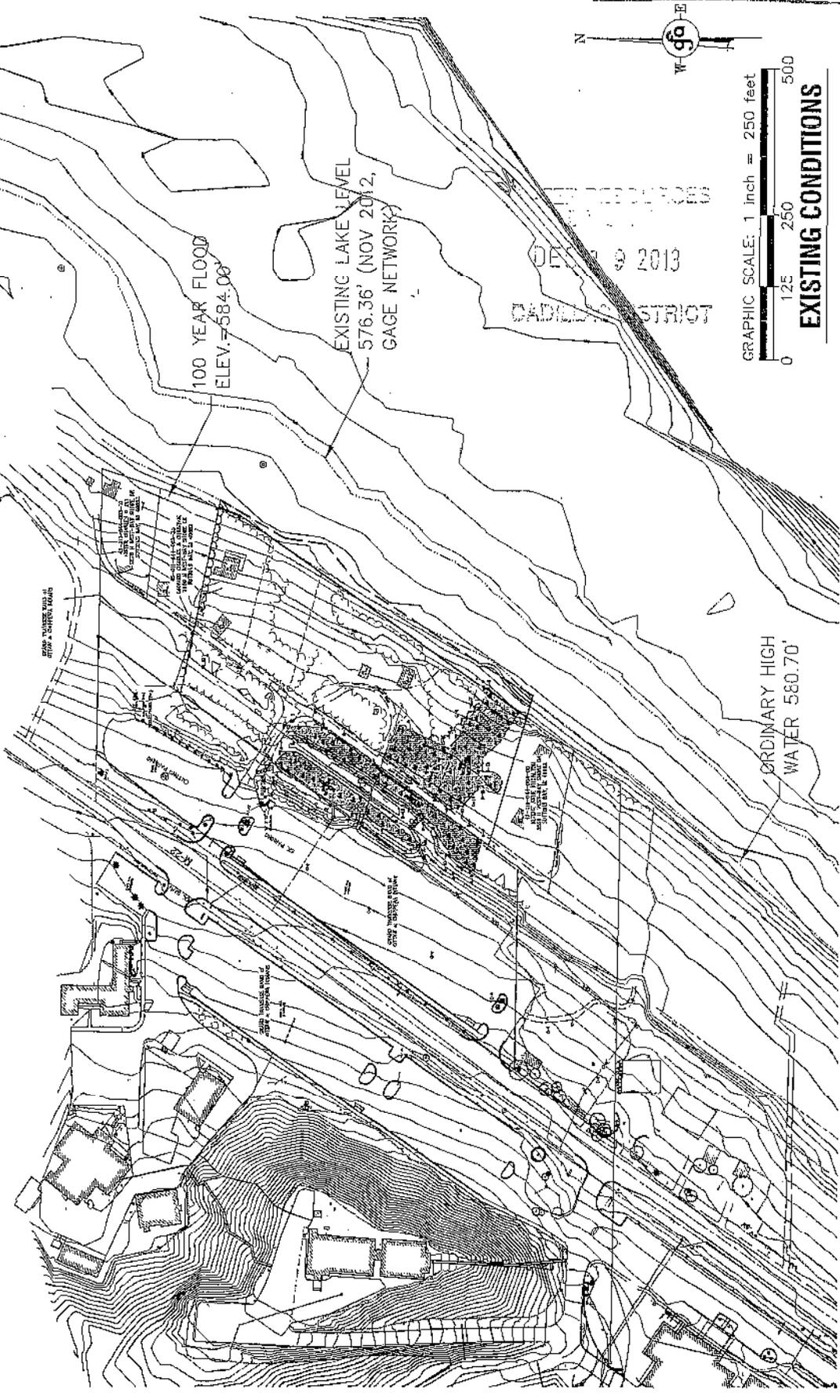
CADILLAC DISTRICT

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9 of 23
1-16-14

DATUM: IGLD 85



WETLAND - Federal Jurisdiction



GRAPHIC SCALE: 1 inch = 250 feet
0 125 250 500
EXISTING CONDITIONS



APPLICATION PREPARED BY:
GOURDIE-FRASER
SCALE: 1" = 250'
DATE: 11/28/12 SHEET 2 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
CHIPPEWA INDIANS
WATERWAY: WEST GRAND TRAVERSE BAY
COUNTY: LEECLANAU COUNTY
SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

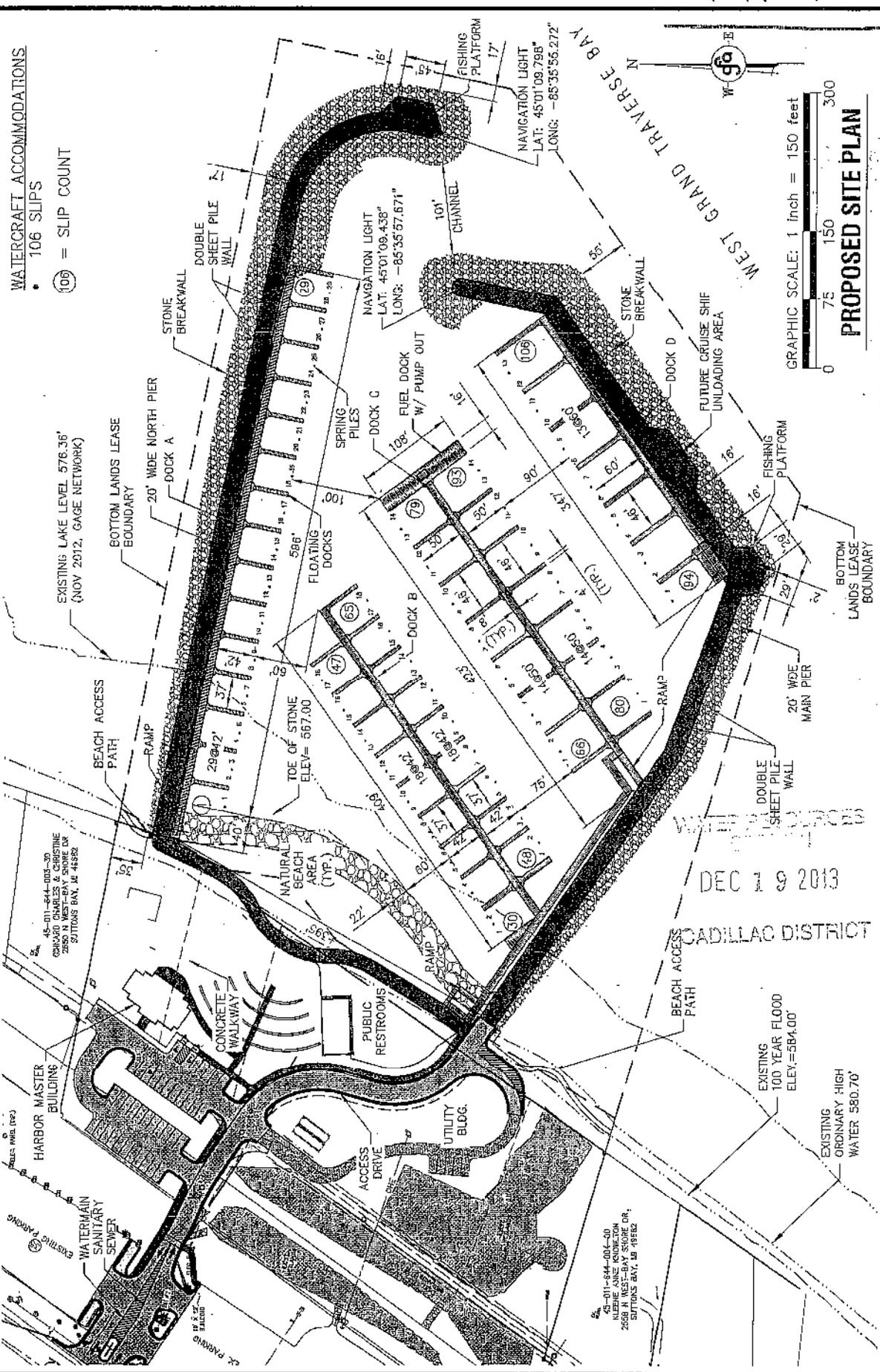
GRAND TRAVERSE BAND of OTTAWA &
CHIPPEWA INDIANS

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1-16-14

WATERCRAFT ACCOMMODATIONS

- 106 SLIPS
- ⑩ = SLIP COUNT



PROPOSED SITE PLAN

REVISED PER MDEQ COMMENTS, 11-08-13, CDL

	<p>APPLICATION PREPARED BY: GOURDIE-FRASER SCALE: 1" = 150' DATE: 11/28/12 SHEET 3 OF 22</p>
<p>OWNER: GRAND TRAVERSE BAND of OTTAWA & CHIPPEWA INDIANS WATERWAY: WEST GRAND TRAVERSE BAY COUNTY: LEECLANAU COUNTY SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP</p>	<p>GRAND TRAVERSE BAND of OTTAWA & CHIPPEWA INDIANS</p>

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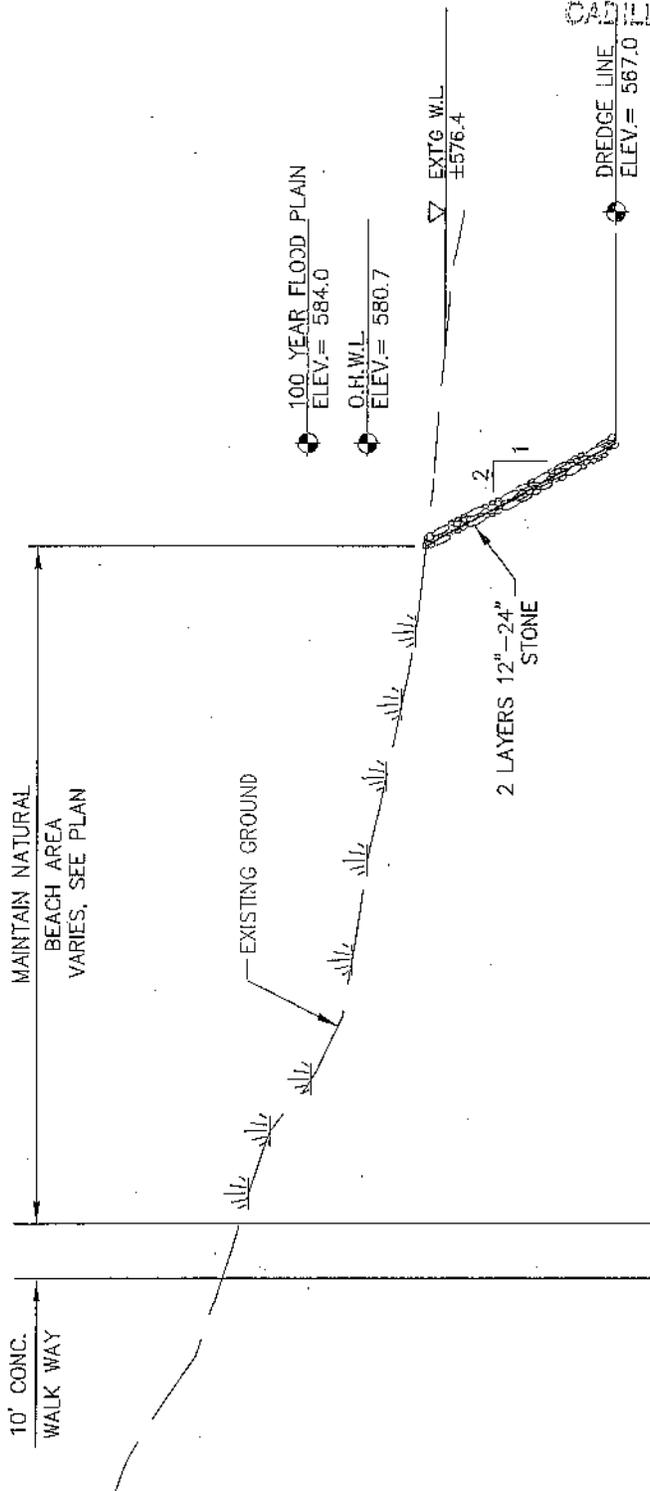
13-45-0021-p
11/2/23
1-14-14

WATER RESOURCES
DIVISION

DEC 19 2013

CADILLAC DISTRICT

SHORELINE SECTION A



GRAND TRAVERSE BAND of OTTAWA &
CHIPPEWA INDIANS

OWNER: GRAND TRAVERSE BAND of OTTAWA &
CHIPPEWA INDIANS
WATERWAY: WEST GRAND TRAVERSE BAY
COUNTY: LEECLANAU COUNTY
SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

APPLICATION PREPARED BY:
GOURDIE-FRASER
SCALE: HORZ. 1" = 40' VERT. 1" = 10'
DATE: 11/28/12 SHEET 8 OF 22



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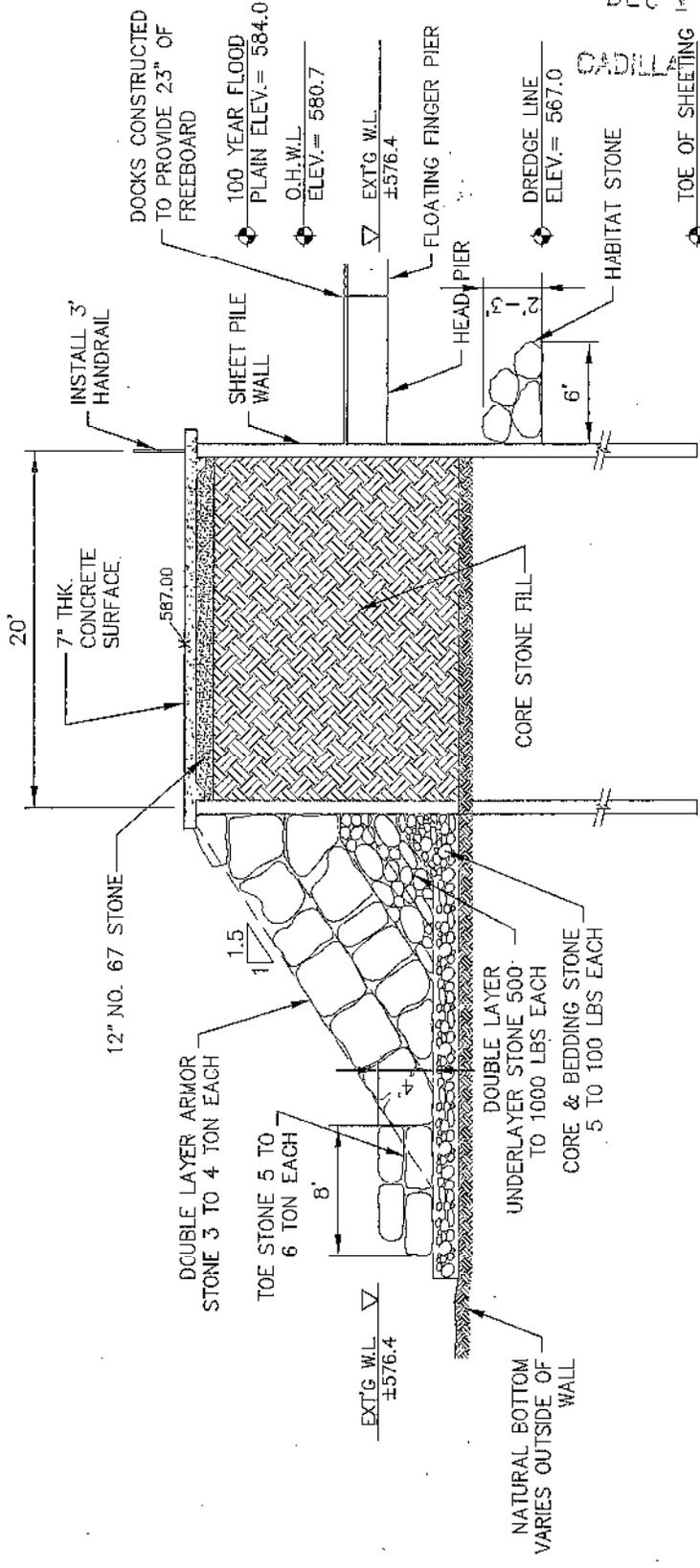
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WATER RESOURCES
 DIVISION

DEC 19 2013

CADILLAC DISTRICT

TOE OF SHEETING
 VARIES



BREAK WALL SECTION B

REVISED PER MDEQ COMMENTS, 11-08-13, CDL

APPLICATION PREPARED BY:
 GOURDIE-FRASER
 SCALE: 1" = 10'
 DATE: 11/28/12 SHEET 9 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEECLANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

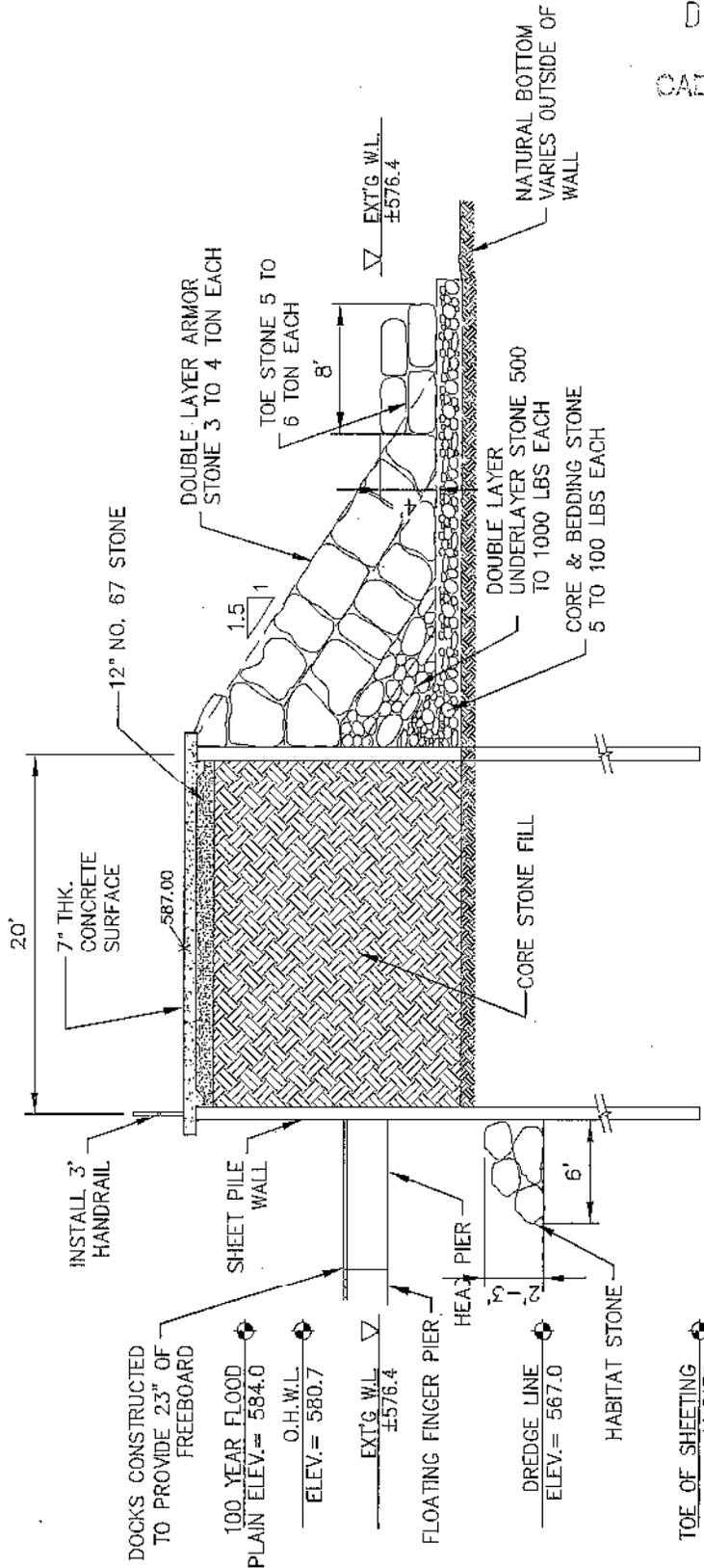
GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS



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 1-16-14

WATER UTILITIES
 DEC 19 2013
 CADILLAC DISTRICT



BREAK WALL SECTION C, F

REVISED PER IDEQ COMMENTS, 11-08-13, CDL

APPLICATION PREPARED BY:
 GOURDIE-FRASER
 SCALE: 1" = 10'
 DATE: 11/28/12 SHEET 10 OF 22

OWNER: GRAND TRAVERSE BAND OF OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS

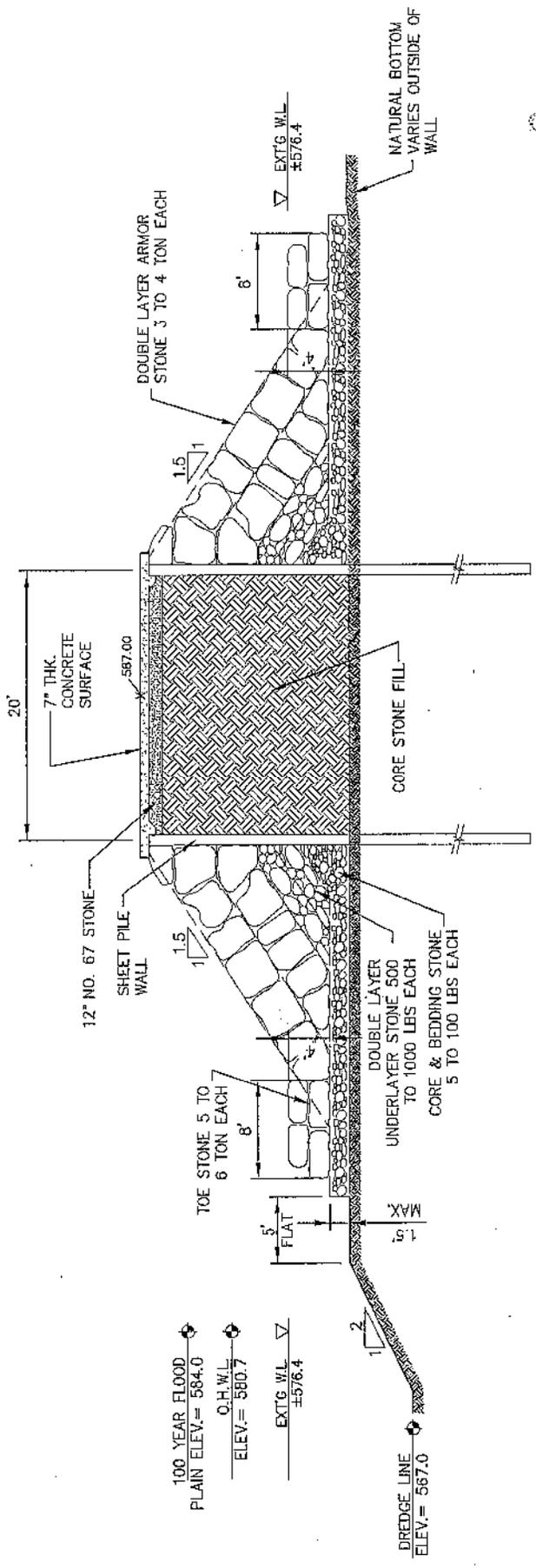


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DEC 1 9 2013

CADILLAC DISTRICT



BREAK WALL SECTION D

REVISED PER MDEQ COMMENTS, 11-08-13, CDL

APPLICATION PREPARED BY:
 GOURDIE-FRASER
 SCALE: 1" = 10'
 DATE: 11/28/12 SHEET 11 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS

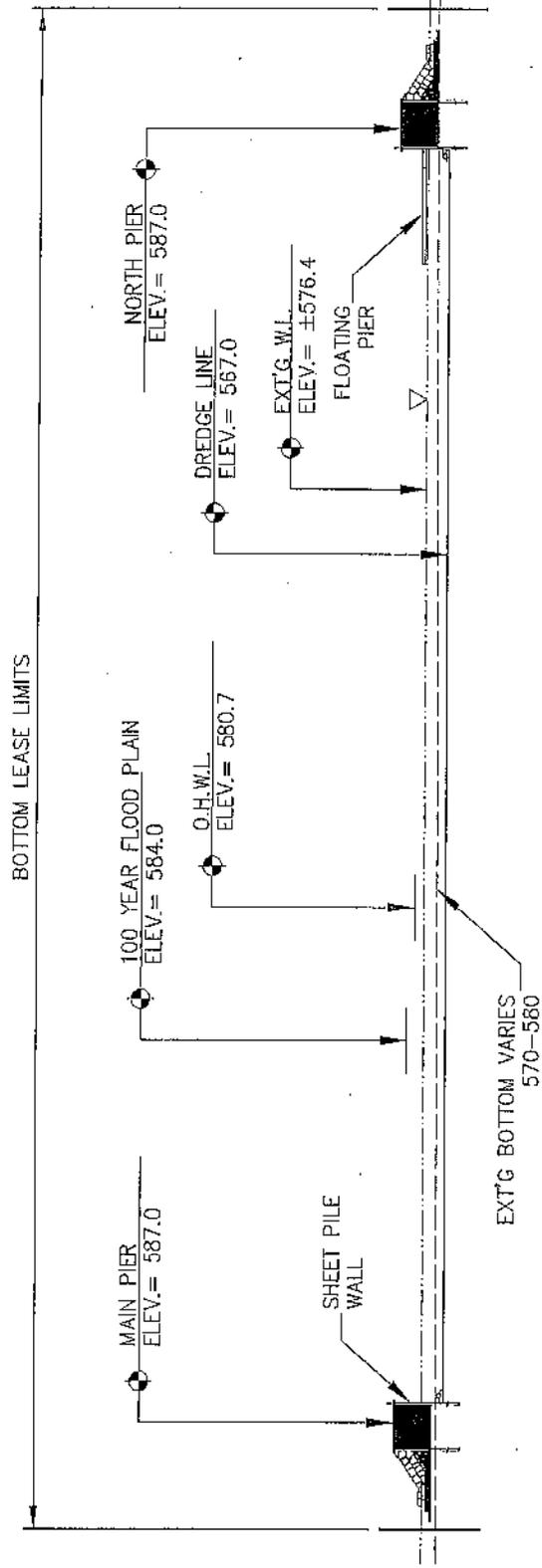


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CADILLAC DISTRICT



BREAK WALL SECTION E

REVISED PER MDEQ COMMENTS, 11-08-13, CDL



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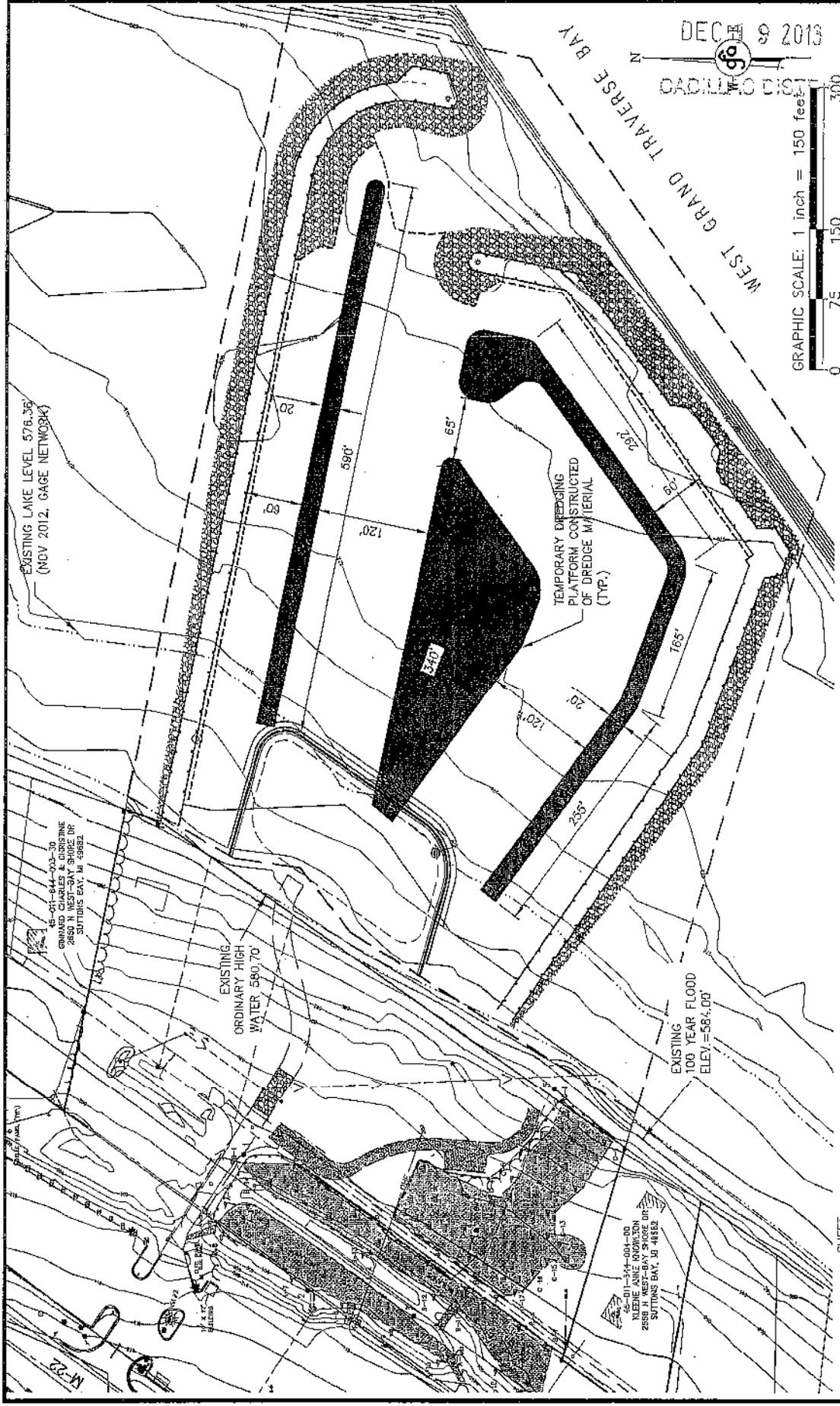
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 SCALE: 1" = 80'
 DATE: 11/28/12 SHEET 12 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS

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DEC 9 2013
 CADILLAC DISTRICT



PHASED DREDGE PLAN

REVISED PER IDEQ COMMENTS, 11-08-13, CDL



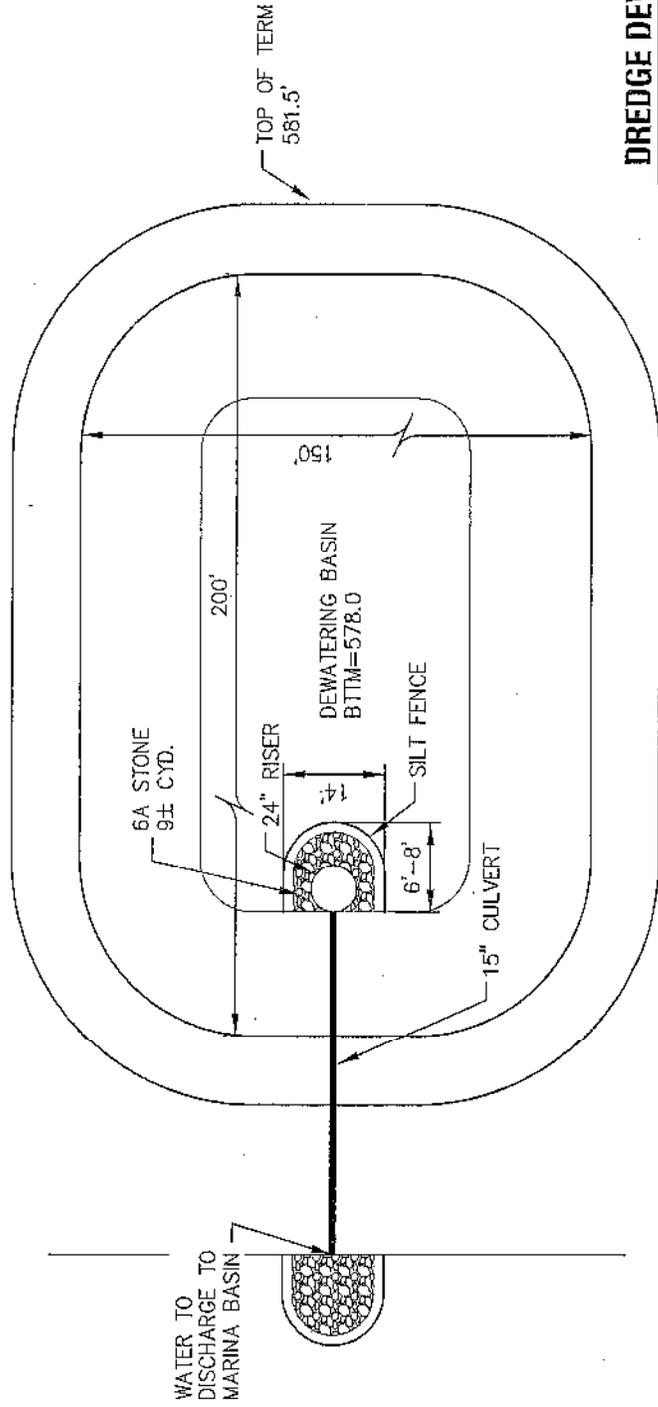
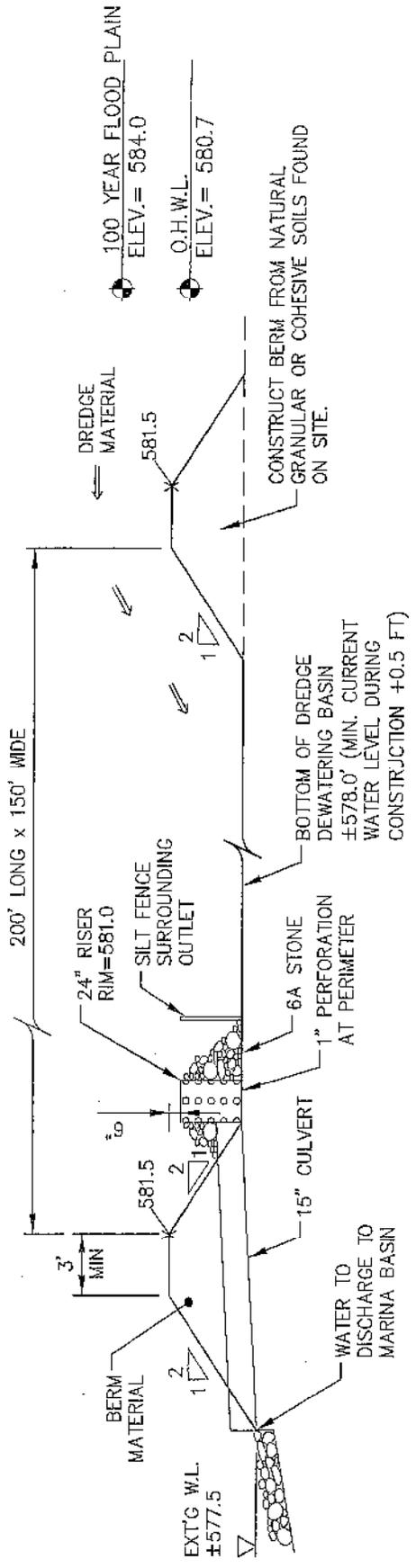
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 GOURDIE-FRASER
 SCALE: 1" = 150'
 DATE: 11/28/12 SHEET 22 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
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 CADILLAC DISTRICT

DREDGE DEWATERING BASIN



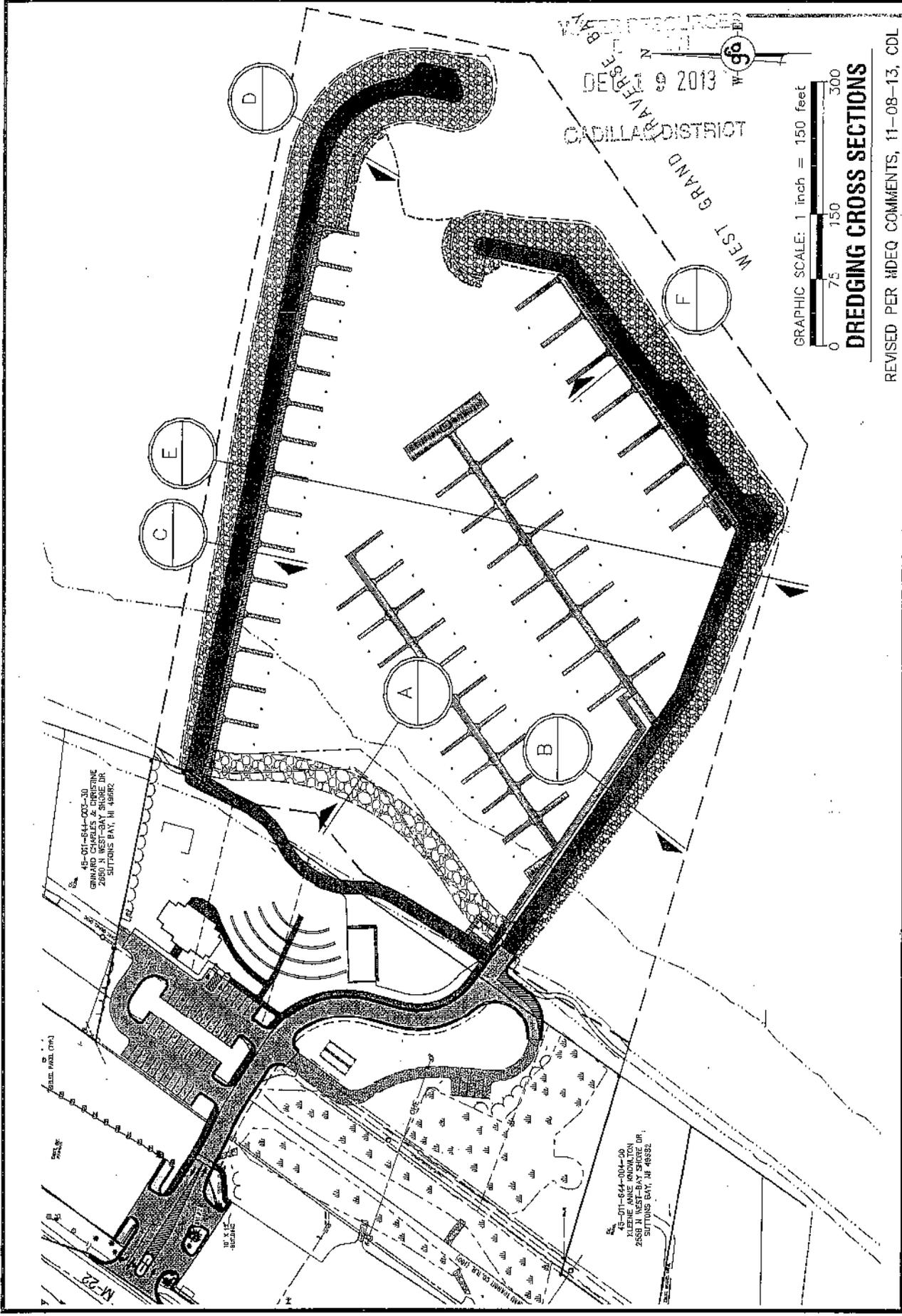
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 GOURDIE-FRASER
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 DATE: 11/28/12 SHEET 20 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA & CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA & CHIPPEWA INDIANS

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WATER RESOURCE
 DECEMBER 9 2013
 CADILLAC DISTRICT
 WEST GRAND TRVERSE BAY

GRAPHIC SCALE: 1 inch = 150 feet
 0 75 150 300
DREDGING CROSS SECTIONS

REVISED PER IDEQ COMMENTS, 11-08-13, CDL



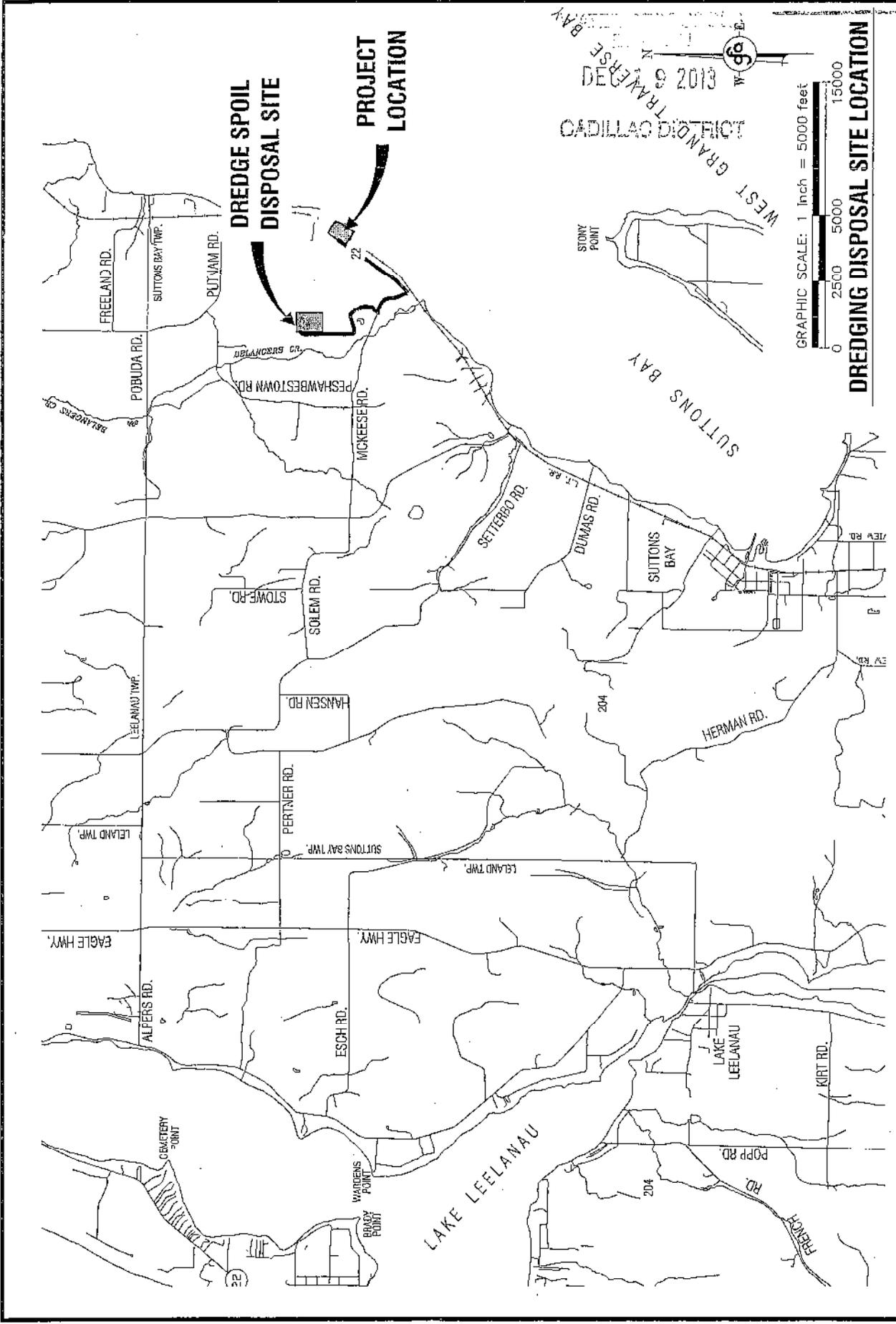
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 GOURDIE-FRASER
 SCALE: 1" = 150'
 DATE: 11/28/12 SHEET 5 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS

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**DREDGE SPOIL
 DISPOSAL SITE**

**PROJECT
 LOCATION**

GRAPHIC SCALE: 1 inch = 5000 feet



DREDGING DISPOSAL SITE LOCATION



APPLICATION PREPARED BY:
 GOURDIE-FRASER
 SCALE: 1" = 5000'
 DATE: 03/29/13 SHEET 6 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

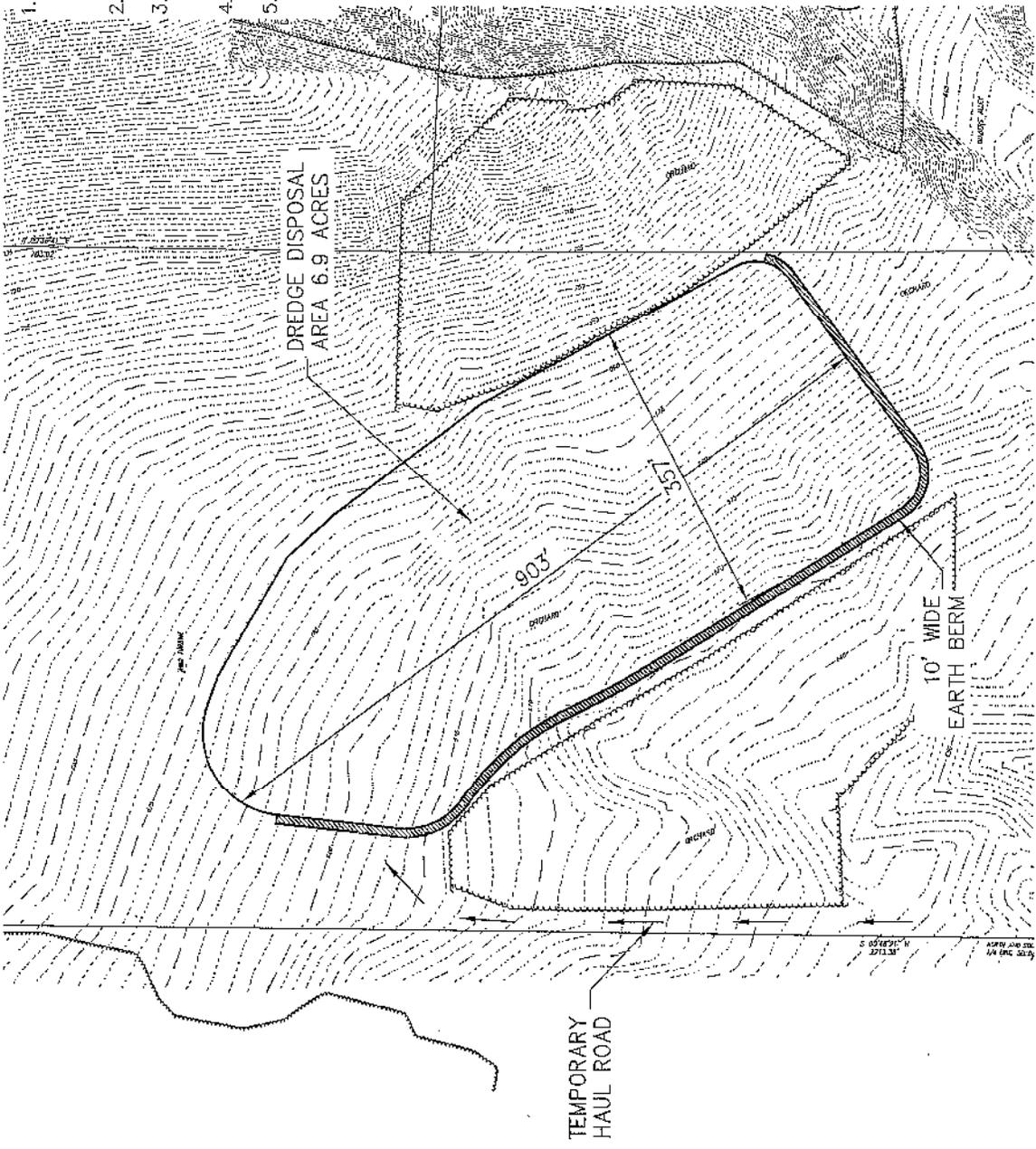
GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS

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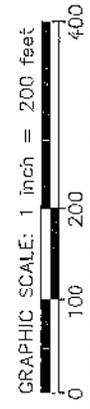
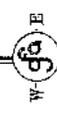
13-45-0021-P
21 of 23
1-16-14

NOTES

1. STRIP TOPSOIL, CONSTRUCT SEDIMENT BASIN W/OUTLET. CONSTRUCT BYPASS SWALE & INSTALL SILT FENCE. — *No direct discharge to wetland or stream.*
2. PLACE DREDGE SPOILS.
3. TOPSOIL SEED MULCH & FERTILIZE COMPLETED DISPOSAL AREA.
4. MAINTAIN SEDIMENT BASIN & OUTLET PIPE
5. REMOVE SILT FENCE ONCE VEGETATION IS 80% (MIN.) ESTABLISHED.



DEC 19 2013
CADILLAC DISTRICT



DREDGING DISPOSAL SITE PLAN



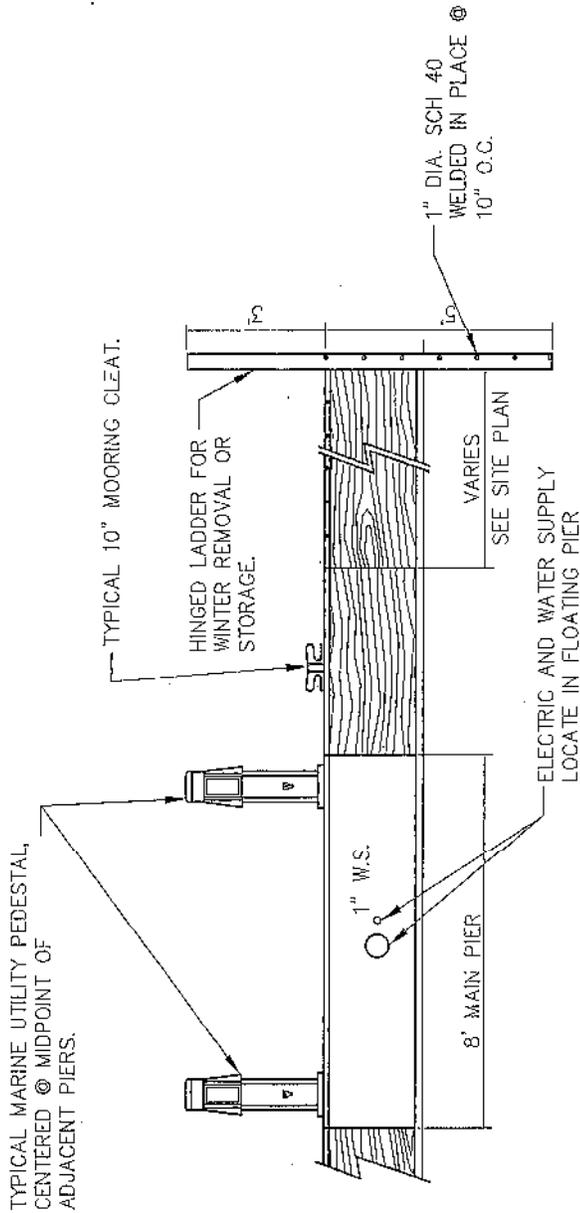
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GOURDIE-FRASER
SCALE: 1" = 200'
DATE: 03/29/13 SHEET 7 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA & CHIPPEWA INDIANS
WATERWAY: WEST GRAND TRAVERSE BAY
COUNTY: LEELANAU COUNTY
SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

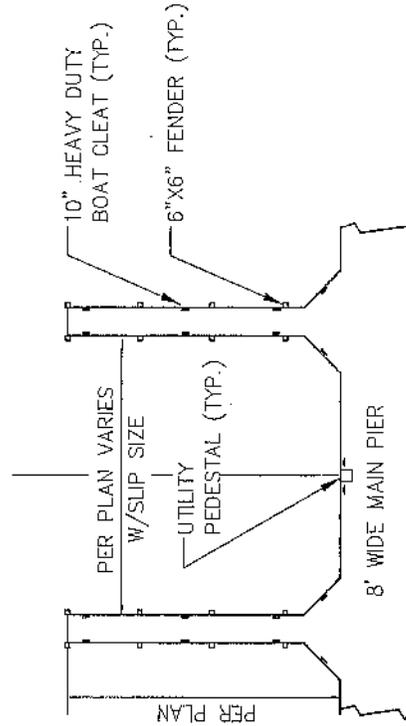
GRAND TRAVERSE BAND of OTTAWA & CHIPPEWA INDIANS

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 1-16-14



TYPICAL PIER/UTILITY PEDESTAL SECTION



TYPICAL FLOATING FINGER PIER

WATER RESOURCES
 DIVISION
 DEC 19 2013
 CADILLAC DISTRICT

FLOATING DOCK SECTION

REVISED PER MDEQ COMMENTS, 11-08-13, CDL

APPLICATION PREPARED BY:
 GOURDIE-FRASER
 SCALE: NOT TO SCALE
 DATE: 11/28/12 SHEET 13 OF 22

OWNER: GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS
 WATERWAY: WEST GRAND TRAVERSE BAY
 COUNTY: LEELANAU COUNTY
 SEC. 11, T.30N., R.11W., SUTTONS BAY TOWNSHIP

GRAND TRAVERSE BAND of OTTAWA &
 CHIPPEWA INDIANS



06582B

Appendix E

US Fish and Wildlife Service Consultation Information
US Fish and Wildlife Permit Review Summary
Michigan Natural Features Inventory Rare Species Review
Grand Traverse Band of Ottawa and Chippewa Indians Section 7 Review Memorandum
Grand Traverse Band of Ottawa and Chippewa Indians Fish Community Assessment



U.S. Fish & Wildlife Service

Environmental Conservation Online System

Conserving the Nature of America

Enter Search Term(s):

- [ECOS](#)>
- [Species Reports](#)>
- [Species listed in each state \(Historic\)](#)>
- Species listed in Michigan based on published historic range and population

Species listed in Michigan based on published historic range and population

Notes:

- This report shows the species listed in this state according to the Federal Register listing description.
- This list does not include experimental populations and similarity of appearance listings.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

Listed species (based on published historic range and population data) -- 30listings

Animals -- 21 listings

Status	Species/Listing Name
E	Bat, Indiana Entire (Myotis sodalis)
E	Bean, raycd (Villosa fabalis)
E	Beetle, American burying Entire (Nicrophorus americanus)
E	Beetle, Hungerford's crawling water Entire (Brychius hungerfordi)
E	Butterfly, Karner blue Entire (Lycaeides melissa samuelis)
E	Butterfly, Mitchell's satyr Entire (Neomympha mitchellii mitchellii)
E	Caribou, woodland Selkirk Mountain population (Rangifer tarandus caribou)
F	Catspaw, white (pearlymussel) Entire (Epioblasma obliquata perobliqua)
F	Clubshell Entire Range; Except where listed as Experimental Populations (Pleurobema clava)
E	Curlew, Eskimo Entire (Numenius borealis)
E	Dragonfly, Hinc's emerald (Somatochlora hineana)
T	Knot, red (Calidris canutus rufa)

Status	Species/Listing Name
T	Lynx, Canada (Contiguous U.S. DPS) (Lynx canadensis)
E	Mussel, snuffbox (Epioblasma triquetra)
E	Plover, piping Great Lakes watershed (Charadrius melodus)
E	Puma (=cougar), eastern Entire (Puma (-Felis) concolor cougar)
E	Riffleshell, northern Entire (Epioblasma torulosa rangiana)
E	skipperling, Poweshiek (Oarisma poweshiek)
T	Snake, copperbelly water Indiana north of 40 degrees north latitude, Michigan, Ohio (Nerodia erythrogaster neglecta)
E	Warbler, Kirtland's Entire (Setophaga kirtlandii (= Dendroica kirtlandii))
E	Wolf, gray U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, KS, KY, LA, MA, MD, ME, MO, MS, NC, NE, NH, NJ, NV, NY, OK, PA, RI, SC, TN, VA, VT and WV; those portions of AZ, NM, and TX not included in an experimental population; and portions of IA, IN, IL, ND, OH, OR, SD, UT, and WA. Mexico. (Canis lupus)

Plants -- 9 listings

Status	Species/Listing Name
E	Chaffseed, American (Schwalbea americana)
T	Daisy, Lakeside (Hymenoxys herbacea)
T	Fern, American hart's-tongue (Asplenium scolopendrium var. americanum)
T	Goldenrod, Houghton's (Solidago houghtonii)
T	Iris, dwarf lake (Iris lacustris)
E	monkey-flower, Michigan (Mimulus michiganensis)
T	Orchid, eastern prairie fringed (Platanthera leucophaea)
T	Pogonia, small whorled (Isotria medeoloides)
T	Thistle, Pitcher's (Cirsium pitcheri)

- Super Bundles
- Bundles
- Section 7
- CPA
- Contam
- Reports
- Customize

03E16000-2013-CPA-0417 COE:LRE-2007-01070-56-S13 Grand Traverse Band of Ottawa & Chippewa Indians

CPA Core Info Summary

Title: COE:LRE-2007-01070-56-S13 Grand Traverse Band of Ottawa & Chippewa Indians

ARRA Fund : No ARRA funding

Description: construction of new marina

Applicant Type/Permittee: Tribal

Early Planning: No

Permit/Action Number(s): LRE-2007-01070-56-S13

FWS Recommendation: *None entered*

Comments: no T&E species or nesting bald eagles near site or impacts to wetlands.

Authority/Response Type:

- Comments Under CWA Permit
- Comments Under Fish & Wildlife Coordination Act
- Bald and Golden Eagle Protection Act

FWS Position: No Comment

No further Service work performed: *None entered*

Primary Action/Work Type: Large Marina / Port - New Construction

Other Action/Work Types: *None entered*

Staff Lead: James Bettaso

Staff:

- Christie Deloria

Species:

- No Species Present

Lead Agency: Army Corps of Engineers

Other Lead Agency: *None entered*

Supporting Agencies:

- Michigan Department of Environmental Quality

Other Supporting Agencies: *None entered*

Scale / Level of Approach: Standard / Isolated

Received Date: 07/24/2013

Date of Correspondence: 07/25/2013

Days until Due: Concluded

Due Date: 08/23/2013

FWS Response/Conclusion Date: 09/03/2013

Final Decision Date: *None entered*

Melzar L. Coulter, P.E.
Otwell Mawby, P.C.
Consulting Engineers
309 E. Front Street
Traverse City, MI 49684

December 23, 2014

Re: Rare Species Review RUSH Order #1566 – Marina in Suttons Bay Township, Leelanau County, Michigan, T30N R11W Section11.

Hello:

The location for the proposed project was checked against known localities for rare species and unique natural features, which are recorded in the Michigan Natural Features Inventory (MNFI) natural heritage database. This continuously updated database is a comprehensive source of existing data on Michigan's endangered, threatened, or otherwise significant plant and animal species, natural plant communities, and other natural features. Records in the database indicate that a qualified observer has documented the presence of special natural features. The absence of records in the database for a particular site may mean that the site has not been surveyed. The only way to obtain a definitive statement on the status of natural features is to have a competent biologist perform a complete field survey.

Under Act 451 of 1994, the Natural Resources and Environmental Protection Act, Part 365, Endangered Species Protection, "a person shall not take, possess, transport, ...fish, plants, and wildlife indigenous to the state and determined to be endangered or threatened," unless first receiving an Endangered Species Permit from the Michigan Department of Natural Resources (MDNR), Wildlife Division. Responsibility to protect endangered and threatened species is not limited to the lists below. Other species may be present that have not been recorded in the database.



MSU EXTENSION

Michigan Natural Features Inventory

PO Box 13036
Lansing MI 48901

(517) 284-6200
Fax (517) 373-9566

mnfi.anr.msu.edu

According to the natural heritage database a legally protected species has been documented within 1.5 miles of the proposed activity. However, the record is well away from the project footprint therefore it is **not likely** that impacts will occur. Keep in mind this response represents a desktop review of the database and **MNFI cannot fully evaluate this project without visiting the project site.** MNFI offers several levels of Rare Species Reviews, including field surveys which I would be happy to discuss with you.

Sincerely,

Michael A. Sanders
Rare Species Review Specialist
Michigan Natural Features Inventory

Comments for Rare Species Review #1566: It is important to note that it is the applicant’s responsibility to comply with both state and federal threatened and endangered species legislation. Therefore, if a state listed species occurs at a project site, and you think you need an endangered species permit please contact: Lori Sargent, Nongame Wildlife Biologist, Wildlife Division, Michigan Department of Natural Resources, P.O. Box 30444, Lansing, MI 48909, 517-284-6216, or SargentL@michigan.gov. If a federally listed species is involved and, you think a permit is needed, please contact Barb Hosler, Endangered Species Program, U.S. Fish and Wildlife Service, East Lansing office, 517-351-6326, or Barbara_Hosler@fws.gov.

Special concern species and natural communities are not protected under endangered species legislation but efforts should be taken to minimize any or all impacts. Species classified as special concern are species whose numbers are getting smaller in the state. If these species continue to decline they would be recommended for reclassification to threatened or endangered status. However, the special concern **bald eagle** (*Haliaeetus leucocephalus*) is protected under the Bald and Golden Eagle Protection Act: Bald Eagle which prohibits anyone from “taking” bald eagles, including their parts, eggs or nests.

Please consult MNFI’s Rare Species Explorer for additional information regarding the listed species: <http://mnfi.anr.msu.edu/explorer/search.cfm>.

Table 1: Legally protected species within 1.5 miles of RSR #1566

SNAME	SCOMNAME	G_RANK	S_RANK	Firstobs	Lastobs	USESA	SPROT	ELCAT
<i>Gavia immer</i>	Common loon	G5	S3S4	1989	1989-07		T	Animal

Table 2: Special Concern Species and other Rare Natural Features within 1.5 miles of RSR #1566

SNAME	SCOMNAME	G_RANK	S_RANK	Firstobs	Lastobs	USESA	SPROT	ELCAT
<i>Linum sulcatum</i>	Furrowed flax	G5	S2S3	1953	1953-08-16		SC	Plant
<i>Haliaeetus leucocephalus</i>	Bald eagle	G5	S4	2005-03-29	2012		SC	Animal

Codes to accompany Tables 1 and 2:

State Protection Status Code Definitions (SPROT)

E: Endangered

T: Threatened

SC: Special concern

Global Heritage Status Rank Definitions (GRANK)

The priority assigned by [NatureServe](#)'s national office for data collection and protection based upon the element's status throughout its entire world-wide range. Criteria not based only on number of occurrences; other critical factors also apply. Note that ranks are frequently combined.

G1 = critically imperiled globally because of extreme rarity (5 or fewer occurrences range-wide or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 = imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.

G3: Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g. a single western state, a physiographic region in the East) or because of other factor(s) making it vulnerable to extinction throughout its range; in terms of occurrences, in the range of 21 to 100.

G4: Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5: Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

Q: Taxonomy uncertain

State Heritage Status Rank Definitions (SRANK)

The priority assigned by the Michigan Natural Features Inventory for data collection and protection based upon the element's status within the state. Criteria not based only on number of occurrences; other critical factors also apply. Note that ranks are frequently combined.

S1: Critically imperiled in the state because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extirpation in the state.

S2: Imperiled in state because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extirpation from the state.

S3: Rare or uncommon in state (on the order of 21 to 100 occurrences).

S4 = apparently secure in state, with many occurrences.

S5 = demonstrably secure in state and essentially ineradicable under present conditions.

SX = apparently extirpated from state.



**Grand Traverse Band of Ottawa and
Chippewa Indians**

2605 NW Bayshore Drive
Suttons Bay, MI 49682
(231) 534-7500

MEMO

To: Mr. Paul Peterson
Harbor Program Manager
Michigan Department of Natural Resources
Parks and Recreation Division

From: Tom Callison, Fish and Wildlife Biologist
Grand Traverse Band of Ottawa and Chippewa Indians
2605 N west Bayshore Dr.
Peshawbestown, MI 49682

Date: March 19, 2013

RE: Section 7 Endangered Species Act Review and Consultation for Parcels 17, 19, and 53;
Block 4, Government Lot 2, Township 31 N Range 11 West, Section 11, Suttons Bay
Township, Michigan.

The Grand Traverse Band of Ottawa and Chippewa Indians (GTB) is a Self-Governing Indian Tribe located in Leelanau County, Michigan. GTB is the political and cultural successor to the Ottawa and Chippewa Bands, which have inhabited Northwest Michigan for generations. In order for GTB to transfer three contiguous parcels of land into Federal Trust by the authority of the Bureau of Indian Affairs, a Section 7 Endangered Species Act Review update must be completed in the process of revising an Environmental Review as required by National Environmental Policy Act (NEPA).

The parcels included in the consultation total approximately 3 acres +/- of forested land and one parcel, which currently has a single family home with garage. The Grand Traverse Band of Ottawa and Chippewa Indians-Natural Resources Department (GTB-NRD) carefully reviewed the Michigan Natural Features Inventory website which was updated last on March 12, 2013 for federally listed threatened and endangered species in Leelanau County, Michigan.

Reviewing the website revealed that one species is federally threatened: Pitcher's thistle (*Cirsium pitcheri*), and that two species are federally listed as endangered: Piping plover (*Charadrius melodus*) and Michigan Monkey-flower (*Mimulus glabratus* var.

Michigansis). The Grand Traverse Band Natural Resources Department has surveyed these parcels during summer 2007, 2011, and again in summer 2012 regarding the occurrence of these resources and we have found no evidence of Federal or State listed species.

EXHIBIT "J"



**Grand Traverse Band of Ottawa and
Chippewa Indians**

2605 NW Bayshore Drive
Suttons Bay, MI 49682
(231) 534-7500

February 20, 2008

To: John Petoskey, General Council, Grand Traverse Band

From: Erik Olsen, Fisheries Biologist, Grand Traverse Band
Tom Callison, Fish and Wildlife Biologist, Grand Traverse Band
Nate Winkler, Fisheries Technician II, Grand Traverse Band

Re: DEQ File No. 07-45-0107-P, Proposed Grand Traverse Band of Ottawa and
Chippewa Indians marina at Peshawbestown, MI.

The Natural Resources Department-Biological Services Department (NRD-BSD) of the Grand Traverse Band of Ottawa and Chippewa Indians (the Tribe) has been aware of the Tribe's intent to establish a commercial marina at Peshawbestown, Michigan since 2006. As such, the NRD-BSD has committed to a multidisciplinary approach to evaluate the impacts of constructing a marina at the proposed site on the local fish community. Included in this approach are monitoring of the commercial fishery offshore of the proposed site, nearshore seining, assessment netting, and SCUBA surveys of the substrate.

Of special interest during these surveys were: (1) species composition, with special interest in the presence of threatened or endangered species; (2) presence of larval lake trout, as they are under a long-term, lake-wide plan for rehabilitation; and (3) potential of the nearshore as spawning habitat.

Commercial Fishery

A single commercial trap net was set off of the proposed site in October of 2006. This was the first time in at least 15 years that a trap net has been set at this site. The 20' net was set perpendicular to shore, beginning just below the drop off and covered water depths ranging from 20'-120'. A total of 19 lifts between October 20th and March 20th caught 41½ boxes of lake whitefish (*Coregonus clupeaformis*), approximately 3 boxes of lake trout (*Salvelinus namaycush*), as well as one individual walleye (*Stizostedion vitreum*) and one burbot (*Lota lota*). At approximately 75 pounds per box, this equated to 3,112½ pounds of lake whitefish caught. Accounting for the 23 days this net was not

“fishing” during the spawning closure, this equated to a catch rate of 23 pounds of lake whitefish per night fished, which is very low by commercial standards.

In contrast, the commercial large-mesh gill net fishery in the area is sporadic over the course of the year and has a long-standing presence in the area. While lake whitefish were found to be more prevalent in the trap net fishery, anecdotal information from Grand Traverse Band licensed commercial fishers indicate that the local large-mesh gill net fishery is dominated throughout the year by lake trout. Catch rates of lake trout are found to be generally higher off shore in 150’-300’ of water. While individual monthly harvest reports submitted by commercial fishers are not refined enough to have site specific fishing location information, catch data did coincide with this hypothesis for those dates which could be verified as fishing off shore of the proposed site.

Near Shore Seining

During Summer 2007, NRD staff conducted seine hauls at the proposed marina site in order to identify and evaluate the fishery in the littoral zone during the warm water period. The seine used measures 150 ft. x 4ft. with a 1/16 stretch mesh, specifically constructed to capture forage and larval fishes near shore in large water bodies. Three seine hauls (lifts) were conducted at each sampling period at three adjacent locations within the proposed marina site.

Assessments conducted on July 26 and again on September 19, 2007 yielded 12 round gobies (*Neogobius melanostomus*), 30 longnose dace (*Rhinichthys cataractae*), 21 sand shiners (*Notropis stramineus*), 15 spottail shiners (*Notropis hudsonius*), one lake herring (*Coregonus artedi*), 4 banded killifish (*Fundulus diaphinus*), 4 Johnny darters (*Etheostoma nigrum*), and 23 white suckers (*Castomus commersoni*).

Littoral Zone Seine Survey

Date	Effort (ft)	Water Depth (ft)	Location	Species							
				Round Goby	Long-nose Dace	Sand Shiner	Spottail Shiner	Lake Herring	Banded Killifish	Johnny Darter	White Sucker
7/26/2007	450	0-5	Marina Site	7	24	14	15	1	4	4	23
9/19/2007	450	0-5	Marina Site	5	6	7	0	0	0	0	0

Gill Net Survey

During 2007, NRD-BSD staff set multifilament, graded-mesh gill nets perpendicular to the shoreline off of the proposed marina site. Individual survey nets used during the summer were comprised of bottom set, nylon, multifilament gill nets 6’ in height and comprised of randomly placed 100’ panels of 2.0”-6.0” stretch mesh, strung in ½” increments. An individual set was comprised of two 900’ gangs of net, totaling 1,800’.

Assessment nets were set on August 13, 2007. Two overnight net sets caught a total of 8 lake whitefish, 27 lake trout, 2 round whitefish (*Prosopium cylindraceum*) and 2 burbot as indicated in Table 1.

Table 1. 2007 GTB Elders Park Gill Net Survey Summer Lift Data

Date Lifted	Effort (ft)	Depth Range (ft)	Species (n)			
			Lake Whitefish	Lake Trout	Round Whitefish	Burbot
8/14/2007	1,800	6-181	5	15	0	0
8/14/2007	1,800	6-197	3	12	2	2

Assessment net sets were altered during fall surveys, in that only the larger mesh sizes (4.5"-6.0") were utilized. As such, individual fall gangs consisted of 800' of net. Fall netting conducted in November produced a total of 3 lake whitefish, 45 lake trout and 2 walleye from two overnight sets.

Table 2. 2007 GTB Elders Park Gill Net Survey Fall Lift Data

Date Lifted	Effort (ft)	Depth Range (ft)	Species (n)		
			Lake Whitefish	Lake Trout	Walleye
11/20/2007	800	5-77	0	20	1
11/20/2007	800	5-113	3	25	1

SCUBA Survey

A nearshore SCUBA survey of the site conducted by GTB-NRD staff on August 16, 2007 provided a clearer understanding of substrate composition from 5' out to approximately 60'. Water clarity allowed for lateral observations of 15'-20'. Divers were deployed by boat along the nearshore bank. A transect was then swam perpendicular to the bank out to approximately 60' in depth (Figure 1). Relatively clean sand and silt was present from the top of the bank out to approximately 20' in depth (Figure 2). A distinct change was observed at this point, with *Quagga* sp. mussels forming a dense mat over a majority of the bottom. The green algae *Cladophora* sp. was readily found attached to the *Quagga* sp. mussels as indicated in Figure 3. This complex was observed to continue beyond the 60' depth where the divers stopped. Round gobies (*Neogobius melanostomus*) were present in high numbers (5-10+ per square meter) above the *Quagga* sp. complex (Figure 4).

Table 3. Substrate composition off of GTB Elders Park

Depth (ft)	Composition
5	Sand/Silt
10	Sand/Silt
20	<i>Quagga</i> sp./Sand/Silt/ <i>Cladophora</i> sp.
30	<i>Quagga</i> sp./Sand/Silt/ <i>Cladophora</i> sp.
40	<i>Quagga</i> sp./Sand/Silt/ <i>Cladophora</i> sp.
50	<i>Quagga</i> sp./Sand/Silt/ <i>Cladophora</i> sp.
60+	<i>Quagga</i> sp./Sand/Silt/ <i>Cladophora</i> sp.

Divers then swam back up the bank to 45' in depth, turned south and swam parallel to the bank for approximately 150' yards before turning and moving up the bank to 25'-30' and swimming back toward the boat along the bank. Aside from the aforementioned species complex, a single common carp (*Cyprinus carpio*) was the only other fish observed. No noteworthy bottom structures were observed during these transects.

Discussion

The area immediately offshore of the planned Tribal marina is generally unremarkable. Fish species observed were common to the commercial fishery and to Grand Traverse Bay. No threatened or endangered species were observed water ward of the site. The nearshore substrate was not conducive to successful spawning. Being leeward facing, this area is a depositional zone and any rocky areas were infiltrated with sand. Without interstitial spaces between the rocks to protect them, any deposited fish eggs will experience very high mortality, as they are susceptible to predation, as well as the impacts of the wind and waves.

While the commercial fishery at this site does not appear to be very productive for lake whitefish, this area does see a fair amount of large-mesh gill net fishing effort. The proximity of this site to the Tribal reservation, as well as the protected nature of the shoreline between Suttons Bay and Omena, provides an accessible area for fishers during foul weather, especially during the fall and winter months. The seasonality of the potential marina will lesson any potential impacts to the local commercial fishery near this site.



Figure 1. Approximate transect of GTB-NRD SCUBA divers offshore of proposed marina site (8/16/07).

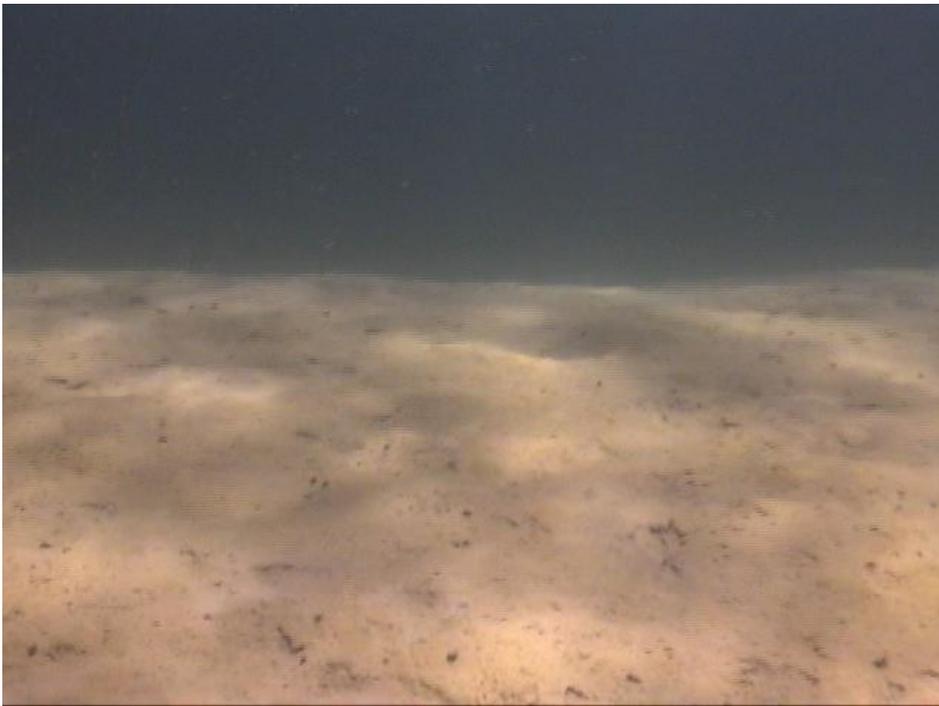


Figure 2. GTB Elder's Park, nearshore substrate at drop off. Sand and silt mix. (approximately 6' depth) (Aug. 16, 2007).

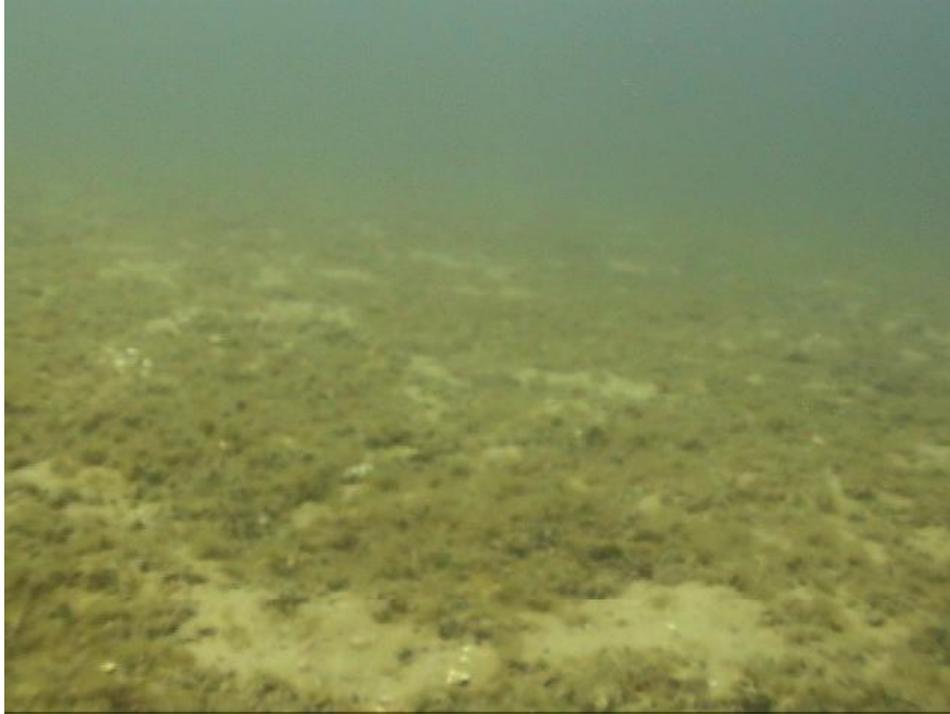


Figure 3. GTB Elder's Park, off shore substrate. *Quagga sp.* mussels, *Cladophora sp.*, and round gobies (approximately 30' depth) (Aug. 16, 2007).



Figure 4. GTB Elder's Park, substrate close up of *Quagga sp.* mussels, *Cladophora sp.*, and round gobies (approximately 30' depth) (Aug. 16, 2007).

Appendix F

Historic, Cultural, Religious, and Archaeological Consultation Information

MICHIGAN ARCHAEOLOGICAL SURVEY
SHORT REPORT

*ARCHAEOLOGICAL RECONNAISSANCE SURVEY OF
THE PROPOSED PESHAWBESTOWN MARINA
IN LEELANAU COUNTY, MICHIGAN*

Prepared for and funded by:

Mr. Kenneth A. Ockert, LLA
RCA, PC
P.O. Box 562
Traverse City, Michigan 49685

by:

Gregory R. Walz
Project No. 14-155

19 November 2014



PUBLIC SERVICE
ARCHAEOLOGY &
ARCHITECTURE
PROGRAM

Department of Anthropology
1707 South Orchard Street
University of Illinois
at Urbana-Champaign,
Urbana, Illinois 61801

Michigan Archaeological Survey Short Report

Locational Information and Survey Conditions

County: Leelanau Quadrangle: Omena, MI

Sec: 11 T.: 30 North R.: 11 West Township Name: Suttons Bay

Legal Location: S 1/2 of the NW 1/4

Project Type/Title: New Construction/Peshawbestown Marina

Funding and/or Permitting Federal/State Agencies: U.S. Fish and Wildlife Service

Project Description: The proposed project is a planned marina development within the Grand Traverse Bay Band of Ottawa and Chippewa Indians' Peshawbestown reservation lands along the west coast of Grand Traverse Bay. The project includes dredging of lake sediments; construction of boat slips and docking areas; a harbor-master's building; a boat ramp and a parking lot on tribal property located between the bay shore and Michigan Route 22 in Peshawbestown.

Topography: The project area is located on a series of former beach lines and slopes from west to east with several notable beach scarps between a gravel road and the bay shore.

Soils: Soils mapped within the survey area include: Detour sand loam, 0 to 6 percent slopes; Kiva-Mancelona gravelly sandy loams, 12 to 18 percent slopes; and Mancelona-East Lake, loamy sands, 0 to 6 percent slopes (Natural Resources Conservation Service 2014a).

Drainage: Unnamed drainage into West Arm of Grand Traverse Bay.

Land Use/Ground Cover (Include % Visibility): The project area is largely wooded with a mix of white cedar, hemlock, white birch and maple. Areas of cattails, grass and sedge and other wetland vegetation are present along the abandoned railroad line. There are several gravel roads and driveways and five structures present within the survey area. Surface visibility is generally below 25 percent; however, visibility of up to 60 percent was noted in tree throws and near boulders.

Survey Limitations: No significant limitations were encountered during the background or field reconnaissance investigations.

Archaeological and Historical Information

Historic Plats/Atlases/Sources: See Continuation Page and Selected Sources.

Previously Reported Sites: Site 20LU12 is reportedly to partially extend into the project area.

Previous Surveys: The project area is not reported as previously surveyed.

Investigation Techniques: The project area was investigated by a combination of screened shovel tests excavated at 15-meter intervals, pedestrian reconnaissance at 5-meter intervals and visual examination of areas of disturbance and prior development.

Sites Located: No archaeological materials or sites were identified and 20LU12 was not relocated within the survey area.

Cultural Material: Five modern structures are present and modern trash and debris was noted within the project area.

Curated at: N/A.

Collection Techniques: N/A.

Areas Surveyed (Hectares/Acres): 2.0 hectares (5.0 acres)

Michigan Archaeological Survey Short Report

Results of Investigation and Recommendations: (Check One)

- Phase I Archaeological Reconnaissance Has Located No Archaeological Material; Project Clearance Is Recommended.
- Phase I Archaeological Reconnaissance Has Located Archaeological Materials; Site(s) Does (Do) Not Meet Requirements for National Register Eligibility; Project Clearance Is Recommended.
- Phase I Archaeological Reconnaissance Has Located Archaeological Materials; Site(s) May Meet Requirements For National Register Eligibility; Phase II Testing Is Recommended.

Archaeological Contractor Information

Archaeological Contractor: Public Service Archaeology & Architecture Program, 1707 South Orchard Street, Urbana, Illinois 61801

Surveyor(s): G.R. Walz, J. Davis

Survey Date(s): 22 Oct 2014

Report Completed By: Gregory R. Walz

Date: 19 Nov 2014

Submitted By (Signature and Title):



Project Director

Attachment Check List

- 1) Relevant Portion of USGS 7.5' Topographic Quadrangle Map(s) Showing Project Location And Any Recorded Sites;
- 2) Project Map(s) Depicting Survey Limits And, When Applicable, Approximate Site Limits, And Concentrations of Cultural Materials;
- 3) Site Form(s): One Copy of Each Form;
- 4) Additional Information Sheets As Necessary.

Address Of Owner/Agent/Agency To Whom SHPO Comment Should Be Mailed

RCA, PC
P.O. Box 562
Traverse City, Michigan 49685

Contact Person: Mr. Kenneth Ockert, LLA

Phone Number: 231.360.7037

Continuation Page

The Public Service Archaeology & Architecture Program of the University of Illinois at Urbana-Champaign was contacted by RCA, LLC of Traverse City, Michigan to conduct a Phase I archaeological reconnaissance survey of approximately 2.0 hectares (5.0 acres) for a proposed marina development project located in Peshawbestown on the west shore of Grand Traverse Bay in Leelanau County, Michigan. This project was required pursuant to federal requirements established by Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties" for projects permitted by the United States Fish and Wildlife Service. The project area is located within the Grand Traverse Bay Band of Ottawa & Chippewa Indians (GTB) Peshawbestown tribal lands in Section 11, Township 30 North, Range 11 West (Suttons Bay Township) and is situated just east of the tribal administrative complex and northeast of the Leelanau Sand Casino between the bay shore and Michigan Route 22 (Figure 1). The survey area includes portions of Grand Traverse Bay Band Trust Parcels 19, 21 and 53. The parcel is the proposed location for a marina development planned by the GTB which would include several public docks with transient boat slips; a fuel dock; a fishing pier; cruise ship docking; a harbor master's building and parking lot. The parcel would also be utilized for vehicle ingress and egress during the dredging and construction process of the marina facilities. The survey area is bordered by Michigan Route 22 on the west, by the West Arm of Grand Traverse Bay on the east and by residential lots and undeveloped areas to the north and south. The project investigations included standard background research, field reconnaissance survey, and the preparation of this report.

A review of the Michigan Archaeological site files conducted at the State Historic Preservation Office indicated the presence of one previously reported archaeological site, 20LU12, within the project area. The Peshawbestown site (20LU12) is reported as a prehistoric Native American village by Hinsdale (1931) as being located in the North 1/2 of Section 11, Township 30 North, Range 11 West. Hinsdale also indicates that a trail followed the lakeshore in the vicinity of the site. The exact location, extent and temporal placement of 20LU12 have not been determined and the site's NRHP eligibility status has not been established. Reviews of the National Park Service on-line National Register of Historic Places or National Historic Landmarks databases (National Park Service 2014a, 2014b) did not indicate the presence of NRHP or NHL properties or resources within the survey area. Several cultural resource investigations have been conducted near the project area, including a survey of 19 acres for the GTB housing authority in 1994 (Brantsner 1994), a survey of approximately 37 acres in five GTB fee to trust status parcels, including portions of Parcels 19 and 21 (Berg and Krueger 1997), a reconnaissance survey of 40 acres for a proposed GTB housing subdivision in Peshawbestown (Myser 2010), and an investigation of the proposed Benodjehn Lane and McKeese Road sidewalk for the GTB housing authority (Berg 2011). None of these surveys identified archaeological sites. A prior survey of the Michigan Route 22 bridge over Belanger Creek, located to the south of the project area, documented an historic residence and grist mill, 20LU87, dating to 1861 and a blacksmith shop dated to 1881 (Brantsner 1990). Site 20LU31, a prehistoric Native American site of unknown function and affiliation is also depicted at and adjacent to the mouth of Belanger Creek. This site has not been evaluated for the NRHP.

Historic plat and atlas maps of the area document the historic occupation since at least the mid-nineteenth century (Figure 2). The initial 1839 United States General Land Office survey plat does not depict any improvements within the fractional Section 11, Township 30 North Range 11 West. An 1853 plat depicts an "Indian Village" to the north of the project area and an "Indian Trail" running parallel to the bay shore bordering the project area to the west (Bureau of Land Management 2014a; 2014b). Both the 1881 and 1900 atlas maps indicate the presence of structures along what is now Michigan Route 22 in the vicinity of the project area (C.O. Titus and Company 1881; Charles E. Ferris 1900).

Historically, the Native American village depicted in 1853 corresponds to the location of “Peshawatown” which was founded in the mid-nineteenth by a group of Anishnabeg who moved from the Lake Michigan coast near Harbor Springs, Michigan to what would become Leelanau County. A Catholic mission was established nearby in 1852 by Reverend Angelus Van Praemel and the settlement was referred to as Eagletown. Subsequently, Reverend Philip Zorn referred to it as “Peshaube” in reference to Peshaba, the local chief at the time. After 1895, the settlement was known as Peshawbestown (Powers 1912; Wikipedia 2014). Late 19th century atlas maps depict Peshawbestown as being platted into several blocks with multiple residential and commercial lots. Land patent records indicate that a 58.75-acre parcel described as Tract 1 of Section 11, Township 30 North, Range 11 West was sold for cash on 24 April 1820 to two Anishnabeg purchasers, Nakengeichigie and Nanebeewe. Tracts 2 and 3 of Section 11, encompassing 55.37 acres, were purchased by Showanibense also on 24 April 1820 (Bureau of Land Management 2014c). Following the signing of the Ottawa-Chippewa Treaty of 1855, land in six townships in Leelanau County was set aside for purchase by Native Americans. The initial selections were made in 1856 and 1857; however, certificates of selection were not issued by the Federal government until 1864 and the land patents for 304 parcels totaling over 20,000 acres were not signed by President Grant until July 1872. A majority of the acreage was no longer held by the Anishnabeg within 20 years (Cleland 1992). At present, the project area is included within portions of GTB trust parcels 19, 21 and 53 which comprise a portion of the GTB reservation lands in Leelanau County.

The field reconnaissance survey was undertaken on 22 October by a field crew of two. The survey area is located along the east side of Michigan Route 22 and extends maximally 277 meters along the Michigan Route 22 right-of way and about 149 meters east to the west shore of Grand Traverse Bay (Figure 3). The property slopes toward the east in a series of short, often steep beach scarps from the Michigan Route 22 roadway to the shoreline, with a large elevation change between the east edge of the parking lots and the base of the railroad embankment. The wooded area to the east of the railroad grade is marked by numerous large glacial boulders and abundant large cobbles at and extending below the ground surface. Existing asphalt parking lots and an asphalt road are present in the western portion of the survey area. An abandoned railroad right-of-way located approximately 75 meters east of Michigan Route 22 parallels the highway and bisects the project area. To the east of the railroad grade are several gravel and dirt roads and driveways and five standing structures within the survey area. Significant prior disturbance is evident along the railroad grade and extant roads, as well as along the east side of the parking lots. The area is vegetated in: a mix of northern white cedar and northern hardwoods; dense stands of white cedar and hemlock in poorly drained areas; and mixed northern hardwoods with a scrubby understory in better drained areas. Wetland vegetation consisting of cattails and a variety of grasses and sedges was present along both sides of the railroad embankment and wooded wetlands were present in both the cedar and hemlock-dominated beach ridges and in areas of smaller understory trees in depressions near the gravel and dirt roads (Figures 4 and 5). Abundant areas of saturated soils and standing water were noted throughout the project area, especially along the railroad grade and the roads to the east. Several small culverts drained toward the bay and erosional areas with deposits of sand and silt and small pockets of standing water.

The reconnaissance survey was undertaken principally by the excavation of sixteen 50 by 50-centimeter shovel test units in areas of less than 25 percent visibility. This was supplemented by pedestrian reconnaissance of wetland areas, areas of obvious surface disturbance along the extant roads and former railroad grade and in portions of the wooded former beach terraces. The shovel test profiles documented moderately deep loamy to loamy sand soils over gravelly sandy or loamy sand often with abundant cobbles. No artifacts or evidence for subsurface cultural deposits was identified by the survey. Water infiltration was common below 20 centimeters in many of the excavated tests. No evidence for the presence of 20LU12 was located within the survey area. The exact location and extent of 20LU12 is unknown; however, it would appear that the site does not extend into the present survey area.

Five structures are present in the survey area. Structure 1 (Figure 6) is a wood frame garage with poured concrete floor that appears to have been built in the past 20 years. Structure 2 (Figure 7) is a wood frame garage that appears to be of middle twentieth century construction. Structure 3 (Figure 8) is a wood frame residence or seasonal cabin that appears to date to the middle twentieth century. Structure 4 (Figure 9) is a small wood frame shed that likely dates to the middle twentieth century. Structure 5 (Not shown) is a residential structure that appears to have been built in the past 20 years.

The National Register of Historic Places (NRHP) has four criteria by which historic structures and archaeological sites must be evaluated to determine their eligibility for listing therein. Properties may be eligible for the National Register if they A) are associated with events that made a significant contribution to the broad pattern of history, B) are associated with the lives of persons significant in history, C) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction, and D) have yielded, or are likely to yield, archaeological data important to prehistory or history. The 2.0 hectares (5.0 acres) project area has one site and five structures to evaluate against NRHP criteria. Each is evaluated individually below.

Site 20LU12 is a historically reported Native American village recorded by Hinsdale (1931) that is also shown on the 1853 plat of the area. Lacking specific field evidence the site is generally recorded in the area. No evidence for the site was identified during this survey and historic records would suggest the site is north of the project area. Accordingly it is recommended that the portion of the site currently depicted as included within the project area be evaluated as *non-contributing* to the potential NRHP eligibility status of 20LU12.

Structure 1 is a late twentieth century garage that does not meet the 50-year age criteria for listing on the NRHP, therefore it is recommended as *Not Eligible*. Structure 2 is a middle twentieth century garage that has a common form and lacks architectural distinction in design, function and form, therefore it is recommended as *Not Eligible*. Structure 3 is a middle twentieth century residence that has a common form and lacks architectural distinction in design, function and form, therefore it is recommended as *Not Eligible*. Structure 4 is a middle twentieth century shed that has a common form and lacks architectural distinction in design, function and form, therefore it is recommended as *Not Eligible*. Structure 5 is a late twentieth century residence that does not meet the 50-year age criteria for listing on the NRHP, therefore it is recommended as *Not Eligible*.

The Public Service Archaeology & Architecture Program conducted a Phase I cultural resources reconnaissance survey of approximately 2.0 hectares (5.0 acres) on Grand Traverse Bay Band tribal reservation lands in Peshawbestown, Leelanau County, Michigan prior to proposed development of a marina. The survey examined areas located between the bay shore and Michigan Route 22 within portions of three tribal trust parcels. The field reconnaissance investigation did not identify any archaeological artifacts or deposits. Site 20LU12 is mapped as extending into the project area but no evidence for the site was located. Based on the absence of evidence for 20LU12, it is recommended that the portion of the site depicted as extending into the project area be determined as non-contributing to the NRHP eligibility of the site. Five extant middle to late 20th century structures are present within the project area and none of these were found to have architectural significance or to be eligible for listing on the NRHP. Based on the results of the cultural resources investigations including archival and background research, an architectural analysis of several structures, and a field reconnaissance survey, a finding of *No Historic Properties* is made for the proposed marina development project area. Accordingly, clearance for cultural resources concerns is recommended.

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2014b National Register of Historic Places. National Park Service, Washington D.C. Electronic document: <http://www.cr.nps.gov/nrl>, accessed 22 August 2014.

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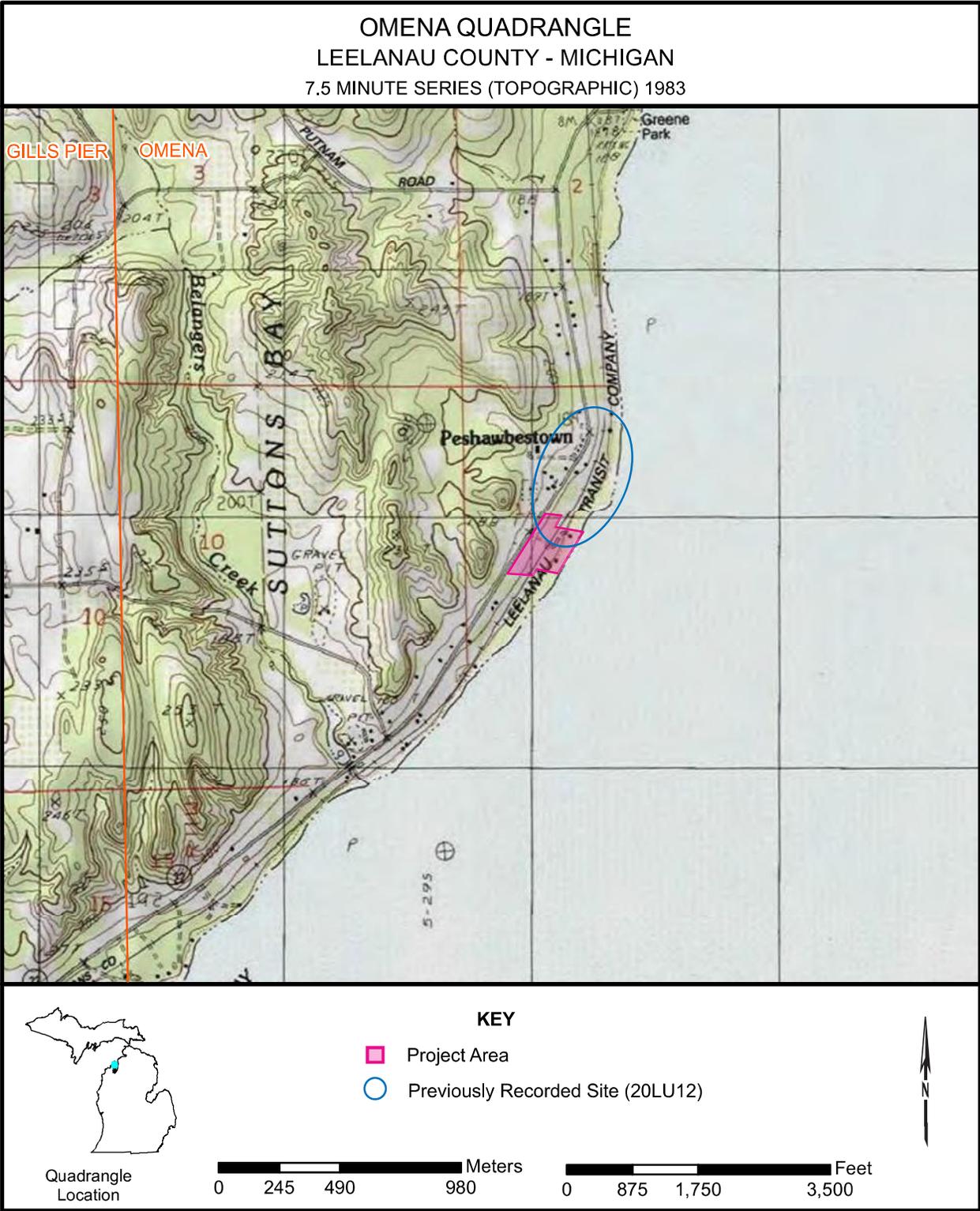


Figure 1. Location of project area.

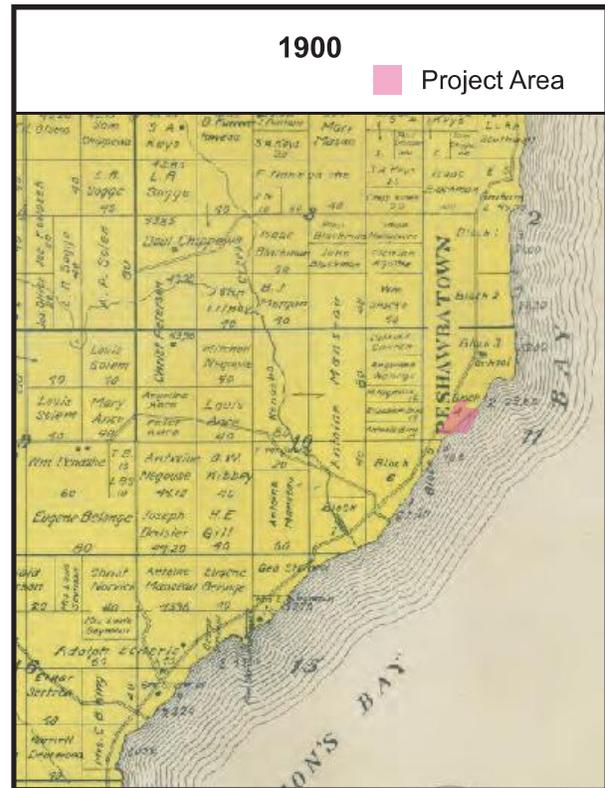
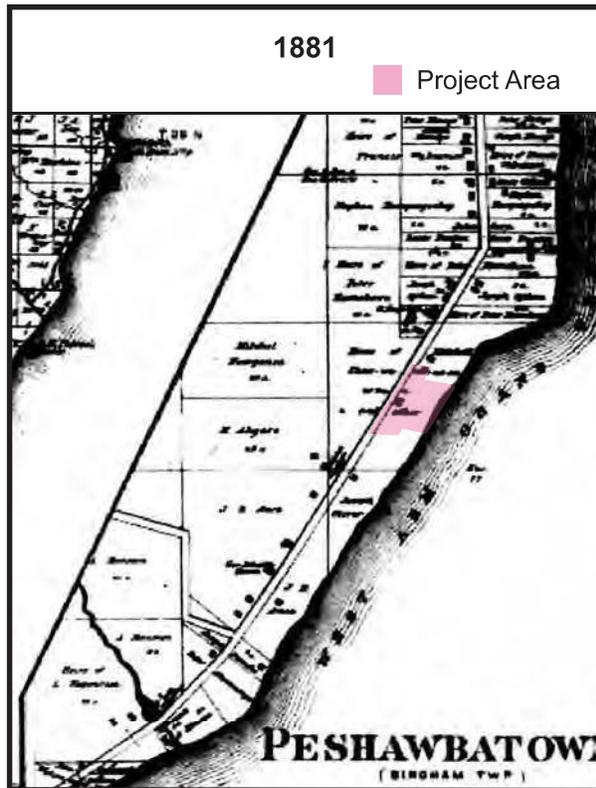
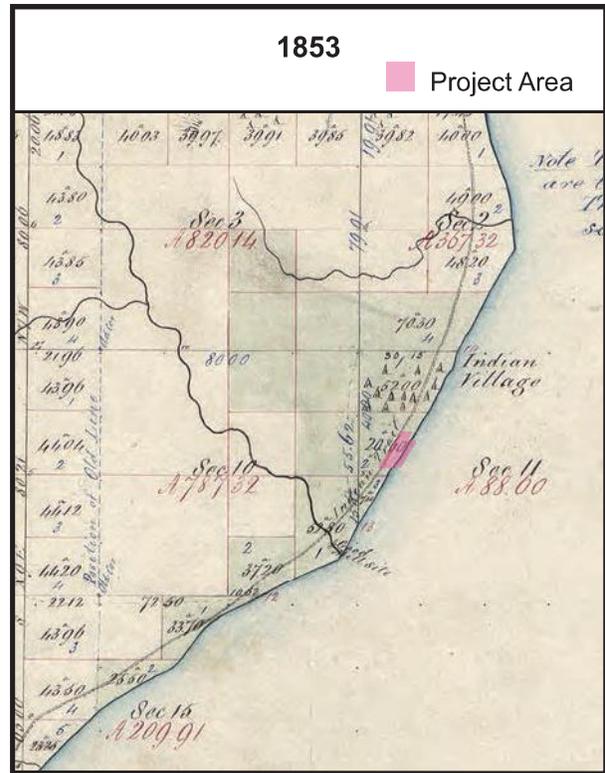
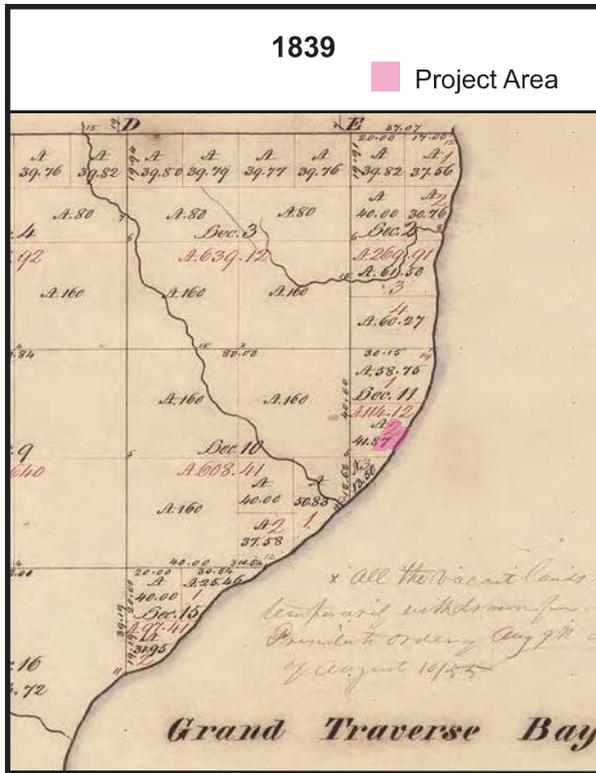


Figure 2. Portions of the 1839 and 1853 United States General Land Office survey plats, and the 1881 and 1900 maps of Leelanau County, Michigan.

Aerial Photograph Obtained from ESRI World Imagery - November 2014
 Leelanau County - Michigan

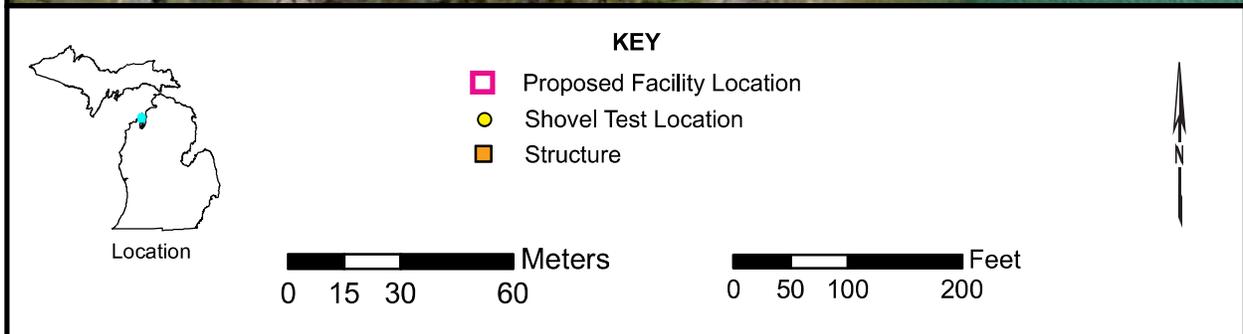


Figure 3. Aerial photo and sketch map of project area.



Figure 4. Photograph of project area; ponded water in Parcel 21, view to the east.



Figure 5. Photograph of project area; old railroad grade in Parcel 21, view to the south.



Figure 6. Structure 1, Garage.



Figure 7. Structure 2, Garage.



Figure 8. Structure 3, Cabin.



Figure 9. Structure 4, Shed.

MICHIGAN ARCHAEOLOGICAL SITE FORM

**MICHIGAN ARCHAEOLOGICAL SITE FORM**

SITE NAME:

OTHER NAMES OR NUMBERS:

SITE DESCRIPTION:

COUNTY:

TOWNSHIP NAME:

SITE ADDRESS (if applicable):

USGS 7.5 MIN. TOPOGRAPHIC QUADRANGLE MAP NAME and DATE:

**Include map showing site location and boundaries when submitting site form*

TOWNSHIP/RANGE/SECTION (QUARTER-SECTION)

UTM/LAT.-LONG. COORDINATES

UTM DATUM YEAR

UTM ZONE

DIRECTIONS FROM NEAREST STATE OR COUNTY ROAD INTERSECTION:

NEAREST WATER SOURCE:

DISTANCE TO NEAREST WATER SOURCE (in feet and meters):

SITE SIZE IN METERS AND FEET (length x width x diameter):

FIELD EVIDENCE (surface scatter, stratification, features, exposed by construction, etc.):

FIELDWORK (year, site visit/survey type/ excavation, institution, principal investigator):

SITE INTEGRITY OR CONDITION:

COLLECTIONS (private or institutional):

DIAGNOSTIC ARTIFACTS:

COMPONENTS (list period and site function for each):

DATES (list radiocarbon dates with lab numbers and associations):

HUMAN REMAINS PRESENT?

IF YES, DETAILS:

OWNERSHIP (LIST NAME OF PERSON OR AGENCY):

NATIONAL REGISTER (NR) SIGNIFICANCE RECOMMENDATION:

More information needed for evaluation

Person making NR evaluation

Gregory Walz

Date of NR evaluation

11/18/2014

EXPLANATION OF SIGNIFICANCE RECOMMENDATION:

No data identified with which to make eligibility determination

APPEND A LIST OF REPORTS AND OTHER DOCUMENTATION ABOUT THE SITE, BOTH PUBLISHED AND UNPUBLISHED, INCLUDING PHOTOS, CORRESPONDENCE, NEWSPAPER ARTICLES, CRM REPORTS, JOURNAL ARTICLES, ETC.

COMMENTS:

Phase I survey conducted in October 2014 included southern portion of 20LU12 as plotted in state site file based upon Hinsdale 1931 atlas location for prehistoric village site. The shovel test and pedestrian survey did not locate any artifacts or other evidence for the site within the survey area. Extent of the site and its temporal and cultural affiliation remain undetermined. Based on absence of indications for the site, the portion of 20LU12 included within the 2014 survey area is recommended as non-contributing to the potential NRHP eligibility of the site.

RECORDED BY

NAME:

Gregory R. Walz

INSTITUTION/COMPANY:

Public Service Archaeology & Architecture Program

DATE:

11/18/2014

TO SUBMIT THIS FORM:

e-mail: Dr. Dean Anderson, State Archaeologist, andersond15@michigan.gov

Fax: (517) 335-0348

Mail: State Archaeologist, SHPO, Michigan State Housing Development Authority, P.O. Box 30740, Lansing, MI 48909 -8240.

FORM INSTRUCTIONS & INFORMATION

- 1) This form may be completed on your computer, tablet, or other device, or it may be printed as a blank form and completed by hand.
- 2) Date fields require a two-digit day and month and a four-digit year. For example, 01/01/2013.
- 3) Please attach additional sheets as necessary.

Aerial Photograph Obtained from ESRI World Imagery - November 2014
 Leelanau County - Michigan



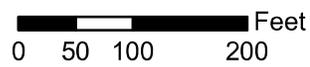
Copyright © 2013 Esri, DeLorme, NAVTEQ, TomTom, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Location

KEY

- Proposed Facility Location
- Shovel Test Location
- Structure
- Previously Recorded Site (20LU12)



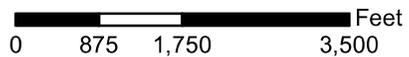
OMENA QUADRANGLE
LEELANAU COUNTY - MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC) 1983



Quadrangle
Location

KEY

- Project Area
- Previously Recorded Site (20LU12)





STATE OF MICHIGAN

RICK SNYDER
GOVERNOR

MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY
STATE HISTORIC PRESERVATION OFFICE

KEVIN ELSENHEIMER
EXECUTIVE DIRECTOR

August 12, 2015

JULIE MORIN
U S FISH AND WILDLIFE SERVICE
MIDWEST REGION
5600 AMERICAN BOULEVARD WEST
BLOOMINGTON MN 55437

RE: ER08-356 Peshawbestown Marina Development, Sec. 11, T30N, R11W, Peshawbestown,
Leelanau County (USFWS)

Dear Ms. Morin:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the above-cited undertaking at the location noted above. Based on the information provided for our review, it is the opinion of the State Historic Preservation Officer (SHPO) that **no historic properties are affected** within the area of potential effects of this undertaking.

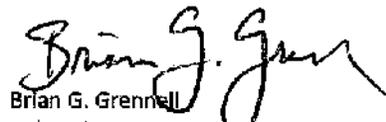
This letter evidences the USFWS's compliance with 36 CFR § 800.4 "Identification of historic properties," and the fulfillment of the USFWS's responsibility to notify the SHPO, as a consulting party in the Section 106 process, under 36 CFR § 800.4(d)(1) "No historic properties affected." **If the scope of work changes in any way, or if artifacts or bones are discovered, please notify this office immediately.**

We remind you that federal agency officials or their delegated authorities are required to involve the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties per 36 CFR § 800.2(d). The National Historic Preservation Act also requires that federal agencies consult with any Indian tribe and/or Tribal Historic Preservation Officer (THPO) that attach religious and cultural significance to historic properties that may be affected by the agency's undertakings per 36 CFR § 800.2(c)(2)(ii).

The State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking.

If you have any questions, please contact Brian Grennell, Cultural Resource Management Specialist, at 517-335-2721 or by email at GrennellB@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.** Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,



Brian G. Grennell
Cultural Resource Management Specialist

for Brian D. Conway
State Historic Preservation Officer

SAT:BGG

Copy: Kenneth Okert, RCA, LLC

