SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 0000535 Date Listed: 5/26/2000

Property Name: Navigation Structures at White Lake Harbor, Michigan

County: Muskegon State: MI

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Signature of the Keeper

8/9/2010
Date of Action

Amended Items in Nomination:

Section 5: Resource Count

The nomination is hereby amended to include two (2) noncontributing structures.

The original submission neglected to count or describe the non-historic D-9 type light tower located at the ends of the North Pier. This cylindrical light was put in place between 1965 and 1980.

Located on the South Pier is a modern, triangular, red dayboard atop a pile, erected between 1965 and 1990.

The Michigan State Historic Preservation Office was notified of this amendment.

DISTRIBUTION:

National Register property file
Nominating Authority (without nomination attachment)

NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

525

United States Department of Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, wood processor, or computer to complete all items.

1. Name of Property

historic name: Navigation Structures at White Lake Harbor

other names/site number: _____

2. Location

street & number: South End of Lau Road ____ not for publication

city or town: Whitehall/ Montague x vicinity

state: Michigan code: MI county: Muskegon code: 121 zip code: _____

3. State/Federal Agency Certification

As the designated authority under the national Historic Preservation Act, as amended, I hereby certify that this _X_ nomination
__ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property
_x_ meets __ does not meet the National Register criteria. I recommend that this property be considered significant
__ nationally __ statewide _x_ locally. (__ See continuation sheet for additional comments.)

Paul D. Rubenstein, Federal Preservation Officer 14 April 00
Signature of certifying official/Title Date

U.S. Army Corps of Engineers
State or Federal agency and bureau

In my opinion, the property X meets __ does not meet the National Register criteria. (__ See continuation sheet for additional comments.)

Brian D. Conway 9.28.99
Signature of certifying official/title Date

MI SHPO
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is: Signature of the Keeper Date of Action

___ entered in the National Register.
___ See continuation sheet.
___ determined eligible for the National Register.
___ See continuation sheet.
___ determined not eligible for the National Register.
___ removed from the National Register.
___ other, (explain) _____

5. Classification

Ownership of Property
(Check as many boxes as apply)

___ private
___ public-local
___ public-State
x public-Federal

Category of Property
(Check only one box)

___ building(s)
___ district
___ site
x structure
___ object

Number of Resources within Property
(Do not inlcude previously listed resources in the count.)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
4	0	structures
0	0	objects
4	0	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)
N/A

Number of contributing resources previously listed in the National Register
N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)
TRANSPORTATION/ water-related

Current Functions
(Enter categories from instructions)
TRANSPORTATION/ water-related

7. Description

Architectural Classification
(Enter categories from instructions)
Other: Utilitarian

Materials
(Enter categories from instructions)
foundation stone, concrete
walls concrete, steel sheeting
roof N/A
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

INTRODUCTION

The White Lake Harbor Navigation Structures are located on the eastern shoreline of Lake Michigan in Muskegon County, Michigan. They form a structural system comprised of three resources, the south pier, the north pier, and revetments. The south and north piers are contributing resources; the revetments are a non-contributing resource. The White Lake Harbor navigational structures are an example of sequential federal construction and improvement of channels throughout the Great Lakes region spanning the period of 1867 to 1937. The navigation structures at White Lake Harbor encompass an area of approximately 5.1 acres.

SETTING

White Lake Harbor is an artificial channel bisecting a 520 foot wide strip of land separating White Lake and Lake Michigan. Prior to construction of this channel, the natural outlet of White Lake to Lake Michigan was a 1,100-yard-long stream, nearly parallel with the shore of the lake, that followed a northerly course, and was narrow and shallow. [1] This natural outlet, referred to as the Mouth, was the only access from Lake Michigan to White Lake until the construction of an artificial channel beginning in 1867. White Lake Harbor, also referred to as White River Harbor, is located 11.5 miles north of Muskegon Harbor, 32 miles south of Pentwater Harbor, and 43 miles south of Ludington Harbor. White Lake is approximately 4.5 miles long by 1.25 miles wide, and varies from 20 to 60 feet in depth. The towns of Whitehall and Montague are situated at the east end of White Lake. The shoreline near the harbor is sandy. Recreation and tourism currently play a large role in the area commerce.

The harbor/channel is protected on the north and south by piers and revetments, and is maintained by annual dredging. The north and south piers are parallel to each other, are 200 feet apart, and have lengths of 1,717 feet and 1,953 feet respectively. The north pier is divided into three sections: A, G, and H. The southern pier is divided into seven sections: B, C, D, E, F, H, and J (Figures 1 and 2). The harbor channel connects Lake Michigan with White Lake.

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[1] U.S. Congress, House. "Report of the Chief of Engineers." In Executive Documents, 43rd Cong., 2nd sess., (1877), p. 484.

CONTRIBUTING RESOURCES

The South Pier

The South Pier is one of the original navigational structures built by the Chief Engineer, authorized by the River and Harbor Act of March 2, 1867. The work of cutting a new channel, reveting the sides of the new cut, and the addition of piers began in 1867. The south and the north piers were constructed simultaneously. As of 1986, the south pier measured 1,953 feet long and was composed of seven sections, B, C, D, E, F, H, and J.

Construction of the south pier began in 1869, and from that date to 1882, portions were continually added to the pier. A total of 1,499 feet of pile work was erected during 1869 to 1872; Sections D, E, G, H, and G represent the earliest work completed on the south pier. These sections have similar construction but varied dimensions, which are shown in Figures 1 and 2.

Beginning in 1878 to 1882, crib work extensions were added to the pile work. In 1878, a crib, 50 feet by 30 feet and 13 feet high, was constructed, and secured with rip-rap, in 1878. From 1879-1880, two cribs, for a total of 100 feet, were added to the south pier; and, in 1881-1882, a 50 foot crib was added. The latter rested on a brush-mattress foundation 60 feet by 800 feet, and was 2 feet thick. The pier extensions typically used hemlock, pine, oak, and pine plank, which were all secured in place with screw bolts. [2] By 1882, the south pier consisted of 1,499 feet of pile work and 356 feet of crib work, for a total length of 1,855 feet.

In addition to the new construction on the pier from 1878-1882, numerous repairs were simultaneously conducted. In 1878, an additional course of timber was placed on the existing pile pier, replacing rotten and broken timber, and pine plank walks along the pier were installed. [3] The pile work portion of the pier was again repaired in 1884-1885. The piles were cut down and a timber superstructure was built upon them as a foundation, the cross-ties being placed eight feet apart. The old filling, consisting mostly of drift logs and short slabs, was replaced with edgings laid parallel to the axis of the pier. Lastly, aprons were put down behind the pile work to prevent stone from working out. [4]

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[2] U.S. Congress, House. "Report of the Chief of Engineers." In Index to the Executive Documents. 47th Cong., 2nd sess., (1883), p. 2302.
[3] U.S. Congress, House. "Report of the Chief of Engineers." In Index to the Executive Documents. 46th Cong., 2nd sess., (1880), p. 1613.
[4] U.S. Congress, House. "Report of the Chief of Engineers." In Index to the Executive Documents. 49th Cong., 1st sess., (1886), p. 2076.

In 1892-1893, a broken down outer crib lake wall was repaired with vertical timber screw bolted to the work above the water line. A gap below the superstructure was also fixed by adding five courses of timber, drift bolted to the submerged portion of the work and screw bolted to the top of the superstructure. In addition, a double row of sheet pile, consisting of 2- and 3-inch pine plank, was driven along the south pier and revetment. [5]

In 1900, the crib work and the rear piles in the pile work were cut down to zero of gauge and the front piles were cut to one foot below zero of gauge. New piles, measuring four feet between centers and 26 feet long, were then added. These piles were connected by means of an oak wale and screw bolted either to the cap on the old piles, or the front wall of the cribs. On the rear piles or the rear wall of the cribs, tie rods were used. A new six course superstructure was built on the pier, with the front wall resting on the new front piles or on the front wall of the cribs, and the rear wall on the old rear piles or the cross timbers of the crib work. A portion of the crib substructure was decked with 6 by 12 inch timbers. The pile work was refilled with edgings to the level of the lower cross ties and ballasted with stone, and the crib work was refilled with stone. The new superstructure over the cribs was decked from side to side with 3 by 12 inch planks, and a 3 foot wide plank walk was installed. The end crib, which had settled badly, was secured by driving new piles around the outer half and screw bolting them to the side and end walls. [6]

In 1901, the south pier was extended by one crib, measuring 100 feet long by 30 feet wide, and 18.5 feet high. The crib, constructed as the type set of the day, was timber and stone, and rested on a pile foundation. [7] Also, in 1901, the former end crib, which had settled badly at the outer end and had lost much timber from the end wall and from the outer portion of the two side walls below the water surface, was repaired. The timbers, above the break, were cut out, and the substructure was levelled; The repaired crib was then filled with stone and decked over. [8]

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[5] U.S. Congress, House. "Report of the Chief of Engineers." In Index to the Executive Documents. 53rd Cong., 3rd sess., (1895), p. 346.
[6] U.S. Congress, House. "Report of the Chief of Engineers." In Annual Reports of the War Department. 56th Cong., 2nd sess., (1900), p. 3910.
[7] Ibid.
[8] U.S. Congress, House. "Report of the Chief of Engineers." In Annual Reports of the War Department. 56th Cong., 2nd sess., (1901), p. 3108.

During 1936-1937, the entire south pier was paved with concrete and capped with a concrete superstructure. Although minor maintenance continued through the 1960s, the concrete addition represents the last major repair work conducted on the pier. [9]

The North Pier

The North Pier is another one of the original structures built by the Chief of Engineers at White Lake Harbor. The River and Harbor Act of 1867 authorized the work of cutting a new channel between White Lake and Lake Michigan, reveting the channel sides, and erecting a north and a south pier which would extend from 12 feet deep in the inner lake (White Lake) to 12 feet deep in Lake Michigan. [10] The north and south piers were constructed concurrently, beginning in 1868. As of 1986, the north pier was 1,717 feet long and composed of three sections, labeled A, G, and H (Figures 1 and 2). [11]

From 1868 to 1872, a total of 1,517 feet of pile pier was constructed on the north channel side. This segment of the pier has a timber pile and timber slab substructure, and is filled with rock. The timber piles were driven into the lake bottom, timber slabs were laid in between the piers, and the whole was weighted down with rock ballast. Sections G and H represent this early work having similar pile construction and varying dimensions. Section G measures 495 feet long by 21 to 29 feet wide, and Section H measured 1,022 feet long and 16 to 21 feet wide. [12]

In 1900, two cribs, each 100 feet long by 24 feet wide, and 14.5 feet high, resting on a pile foundation, were added to the north pier to stop the encroachment of the shoal in the lake north of the pier.[13] The cribs were filled with stone and brush and were capped by a six foot superstructure. The crib was was the type set of the day and identical to the cribs constructed on the south pier in 1900-1901. Work on the north pier was completed on May 11, 1901 under contract with Smith and Nelson, of Muskegon, Michigan. [14]

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[9] U.S War Department, Report of the Chief of Engineers, U.S. Army, (1937), p. 1234.
[10] U.S. Congress, House, (1877), p. 484.
[11] USACOE, White Lake Harbor, Sheet No. 2, (1985).
[12] U.S. Congress, House. "Report of the Chief of Engineers." In Executive Documents. 43rd Cong. 2nd sess., (1874), p. 181; U.S. Congress, House. "Report of the Chief of Engineers." In Executive Documents. 41st Cong. 3rd sess., (1871), p. 133; U.S. Congress, House. "Report of the Secretary of War." In Executive Documents. 40th Cong. 3rd sess., (1869), p. 34
[13] U.S. Congress, House, "Report of the Chief of Engineers, U.S. Army." In Executive Documents. 51st Cong. 1st sess., (1890), p. 299.
[14] U.S. Congress, House, (1901), p. 3107.

Numerous repairs were made to the north pier through time, and were similar in design to the south pier. In 1935, the superstructure and substructure were rebuilt. [15] In 1936-1937, the north pier was paved with concrete and capped with a concrete superstructure.

The Revetments

The revetments, located on the north and south sides of the channel, represent two of the original navigation structures constructed at White Lake Harbor. The revetments were built concurrently with the north and south piers.

By November 1868, a cut was made and both sides of the new cut were revetted, with close piling 12 feet wide, for 560 feet on the north and 430 feet on the south sides. The east end of each channel revetment was protected by wings, 150 feet on the north and 424 feet on the south sides. The shoreline, in 1868, was 60 feet inward from the end of the north channel revetment, and on the south side directly crossing the end of the revetment, in a curved direction, for 50 feet, then turning, in the same direction as the north line, almost due south. [16]

Portions of the revetments were continuously reported to be in disrepair or washed away by the currents. In 1885, the south revetment was 414 feet long and the north revetment 475 feet long; both were 12 to 14 feet wide (Figure 3). In 1892, the revetments were rebuilt with superstructure above the water surface and filled with new edgings and stone, a double row of sheet piling was added, and a two and three inch pine plank walk was constructed. However, by 1895, portions of both revetments had washed away, including 166 feet on the north side, and 424 feet on the south side. There is no record indicating if these were replaced, however, it is likely that they were, as a 1935 Annual Report of the Chief Engineers indicates that concrete was used to replace the timber superstructure. After this date, the Annual Reports indicate that general maintenance-related repairs were conducted on the revetments on an annual basis, through the 1960s.

[15] U.S. War Department, Report of the Chief of Engineers, U.S. Army, (1934), p. 1234.
[16] U.S. Congress, House, (1877), p. 485.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the Criteria qualifying the property for National Register listing.)

x **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

___ **B** Property is associated with the lives of persons significant in our past.

___ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

___ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(mark "x" in all the boxes that apply.)

Property is:

___ **A** owned by a religious institution or used for religious purposes.

___ **B** removed from its original location.

___ **C** a birthplace or grave.

___ **D** a cemetery.

___ **E** a reconstructed building, object, or structure.

___ **F** a commemorative property.

___ **G** less than 50 years of age achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Transportation

Community Planning and Development

Period of Significance

1867-1937

Significant Dates
1867-1870, 1872

1900-1901, 1936-1937

Significant person
(Complete if Criterion B is marked above)
N/A

Cultural Affiliation

N/A

Architect/Builder

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (NPS):
___ preliminary determination of individual listing (36 CFR 67) has been requested
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # _____
___ recorded by Historic American Engineering Record # _____

Primary location of additional data:
___ State Historic Preservation Office
___ Other State Agency
x Federal Agency
___ Local government
___ University
___ Other
Name of repository:

INTRODUCTION

The Navigation Structures at White Lake Harbor encompass approximately 5.1 acres and include three contributing resources: (1) the south pier, (2) the north pier, and (3) the revetments. All of the resources are currently owned by the United States Army Corps of Engineers and are the subject of this nomination.

The resources at White Lake Harbor were evaluated to determine if they are eligible for listing on the National Register of Historic Places under Criterion A in Community Development and Planning, Criterion A in Transportation, and Criterion C in Engineering. The White Lake Harbor Navigation Structures were determined to be significant at the local level under Criterion A in Community Development and Planning and in Transportation. The resources were not determined to be technologically innovative, or distinct, and are therefore not eligible for listing on the National Register under Criterion C in Engineering.

HISTORICAL BACKGROUND

Native Americans who occupied most of what is now the state of Michigan were of the Algonquin language group, which originates from a small group in Quebec. [1] The Algonquin language group includes such cultures as the Chippewa, Potawatomi, Ottawa, Miami, and the Menominee. [2] Various archaeological sites, including campsites and trails, have been reported for the White Lake area. Historic sources indicate that at least one Ottawa group, under Chief Wabaningo, often camped in a meadow that is now the Lake Michigan channel. [3]

The first European to see the White Lake area was probably Father Marquette, the Jesuit missionary and explorer. Although there are no written accounts of his journey to White Lake, it is known that he passed by the lake in a canoe during the summer of 1665. The lake was undoubtedly visited from time to time by French-Canadian and American trappers and traders, however, the first recorded settlement did not occur until 1790 when the Astor Fur Trading Company established a permanent trading post at Duck Lake. The post flourished under various supervisors until 1834, when it was abandoned due to the increased navigation on Lake Michigan, allowing independent traders to deal directly with the Indians at

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[1] Hinsdale, W. B. The First People of Michigan, (Ann Arbor: Ann Arbor Press, 1930), p. 10.
[2] Ibid., p. 31.
[3] Berman, Louis J., 100 Years, Whitehall Michigan, 1860 to 1960, (Whitehall, Michigan: Whitehall Centennial Committee, 1960), p. 1.

their camps.[4] Soon after closing of the post, the prospect of lumber harvesting attracted easterners to the White Lake area; And, between 1836 and 1850, several mills were established in the White Lake region.

In 1837, Charles Mears, who had heard of the great white pine in the White Lake area, sailed into the old channel at the mouth. Mears initially traveled up Silver Creek before returning to White Lake, where he erected the first water-powered sawmill. Nine years later, in 1846, Mears established a second mill, which was steam powered, at the mouth of Duck Lake.

In 1844, Captain James Dalton Jr. constructed a water-powered mill at the junction of Silver Creek and the White River and a steam mill at Dowie's.[5] The same year saw the arrival of Hiriam Hulbert and his sons, who explored the prospect of salt boring in the upper marsh of White Lake. When this venture failed, Hulbert built a water-powered saw mill on Carleton Creek, located just north of the Muskegon County line. Later, in 1851, Hulbert sold his saw mill to I. E. Carleton, a mill operator and politician, for whom the creek was later named. In 1850, a steam mill was built at the mouth by Rev. William Montague Ferry, from whom the name for the City of Montague was derived. Later, in 1855, saw mills were established by Heald, Crepin and Murphy and James Jewell, both at Maple Grove, and by Rodgers and Hill at Long Point. [6]

Around each saw mill grew a self-sufficient settlement inclusive with boarding houses and company owned stores. Thus, the early history of the White Lake area witnessed the development of a number of small communities at Silver Creek, Maple Grove, Whitehall, Mason's Landing, Long Point and the Mouth.[7] The most prominent community was at the Mouth, being the link to the outside world, as it was situated at the shallow outlet of White Lake to Lake Michigan.

The largest mill was the one owned by Heald, Crepin, and Murphy, who were the first to use the White River for transporting logs. In the early 1850s, Mr. Heald led his lumber men up the White River, during winter, to cut logs, and, in the spring, floated them down the river to the mill.

In 1859, Muskegon County was split off from the larger Ottawa County and a number of new villages were platted. Whitehall and Montague, two such towns situated at the upper end of White Lake, quickly became the headquarters of the lumbering industry.

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4 Ibid.
5 Lipka, Saga of the White River, (Montague, Michigan: Montague Historical Society, 1979), p. 9.
6 Berman, p. 2.
7 Ibid.

Lumbering remained the leading industry for the first 50 years of the region's history.[8] In 1865, a boom period, prompted by the great Chicago fire, resulted in a number of new saw mills on White Lake. During this period of prosperity, the lumbermen of the White Lake region lobbied for the construction of a channel that would offer a more direct connection between White Lake and Lake Michigan. As it was, lumber was rafted from the mills through the shallow, winding creek, that was the natural outlet, and then lighted aboard vessels bound for Chicago and Milwaukee, a method both time consuming and costly. Private entrepreneurs attempted to improve the existing outlet at the mouth by way of two parallel piers of unequal length, 125 feet apart. These piers extended westward with the north pier extending 350 feet farther into Lake Michigan than the southern one. However, despite these improvements, the depth of water between the piers and in the river remained shallow, a 5 feet navigable depth, thereby restricting its use to a very small class of vessels. Consequently, the prominent lumbermen petitioned Congress for help.

By 1866, Congress passed a harbor improvement program for White Lake. From October 6 to 19, 1866, the first survey was conducted under the direction of Colonel Wheeler. Based on his observations, Wheeler concluded that it was impractical to improve the existing outlet of the river, and instead proposed the construction of an artificial harbor 3,550 feet south of the mouth. At this point, a 520 feet wide strip of land, with slight elevation, divided Lake Michigan from White Lake. Here, Wheeler noted, the water was deep in both lakes near to shore, and that the distance between the 12-foot curve in each lake was only 1,250 feet.[9] Wheeler recommended that the new harbor be plotted as a short and direct channel between the deep waters of the two lakes, allowing for entry at all times by the largest vessels in the lake trade.[10] The River and Harbor Act of 1867 authorized the plan: The channel would consist of a 12 foot deep cut that was 200 feet wide, and protected by sheath-piling. From the extremities of the cut, parallel piers, built of crib-work, and ballasted with stone, were to extend westward into Lake Michigan, with the whole water-way between the piers dredged to a uniform depth of 12 feet.[11] The plan required, as an initial estimate, 1,100 running feet of sheath-piling, 1,400 feet of pier-work, and the removal of 91,632 cubic yards of sand and earth for a total cost of $170,530.80. The original project was subsequently amended in

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[8] Ibid., p. 3.
[9] U.S. Congress, House. Report of the Chief of Engineers, (Index to the Executive Documents, 44th Cong., 2nd sess., 1877), p. 484.
[10] Ibid.
[11] Ibid.

the River and Harbor Acts of 1873, 1884, 1892, and 1907; These amendments lengthened the piers and increased the channel depth.[12]

Dredging commenced in July 1867, removing 105,377 cubic yards of earth and sand, allowing for the initial connection between the two lakes.[13] By November 1868, both sides of the new cut were revetted with 12 foot wide close piling, for 560 feet on the north side, and 430 feet on the south side. The east end of each channel revetment was protected by wings, 150 feet on the north and 424 feet on the south. The shoreline, in 1868, was 60 feet inward from the end of the north channel revetment, and on the south side, directly crossing the end of the revetment, in a curved direction, for 50 feet, then turning, in the same direction as the north line, almost due south.[14] From August 1869 to July 1870, 110 feet were added to the revetment, 852 feet of pile work extended the south pier, 510 feet were constructed on the north pier, and 64,067 cubic yards of material were dredged from the channel. These operations resulted in a navigable depth of 8.5 feet in the channel between the piers.

In 1871, the north pier extended beyond the south pier by 64 feet, with further additions in progress. The north pier end rested in 9 feet of water, 670 feet out from the shore line, and the south pier was in 13 feet of water, 570 feet from the shoreline. The depth of the channel between the piers remained steady at a 10 foot navigable depth. From 1871 to 1874, both piers were gradually extended.[15]

In 1872, constant shoaling between the piers, from the action of the waves at the entrance, continued to prevent the larger vessels from passing through the channel. The length of the piers, and the fact that both were of the same length, were recognized as the problem. In 1873, the Chief of Engineers reported that the length of the piers, designed in the original plan, was not sufficient to keep the harbor at appropriate navigable depths to accommodate the shipping interests of the place. Continual dredging was indicated as a partial solution; however, it was noted that heavy storms quickly refilled the excavation by the dredge.[16] Due to this situation, the original project design was amended in 1873 which extended the south pier by 450 feet, to the 16 foot curve, and the north pier by 150 feet, to the 11 foot curve, thus leaving the piers uneven, the south longer by 200 feet.[17]

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[12] U.S. Congress, House, Letter from the Secretary of War, (Executive Documents, 64th Cong. 2nd sess., 1917), p. 3.
[13] U.S. Congress, House, 1877, p. 484.
[14] Ibid., p. 485.
[15] Ibid., p. 486.
[16] Ibid.
[17] U.S. Congress, House, Report of the Chief of Engineers, (Executive Documents, 43rd Cong., 2nd sess., 1875), p. 181.·

By lengthening the south pier beyond the north one, the lake and river currents were united, rather than opposed to each other, thus preventing an interruption of the littoral flow. With the north pier the longer, the current of the river turned to the north (its natural direction) and joined the movement in the lake. [18]

In 1886, a Life Saving Station and, in 1875, a Light House were constructed at the harbor. The Life Saving Station was erected adjacent to the north pier, at about the center point of the pier (Figure 3). The station maintained a crew of seven to eight individuals, and provided a living quarters for the captain and sleeping quarters for the crew. An inclined runway was built from the water to the station for launching boats.[19] In addition, a fourth order flashing light on the shore and a sixth order harbor light on the south pier were installed.[20]

Two amendments passed by the River and Harbor Acts of 1884 and 1892 further authorized lengthening the piers, substantial repairing of the piers' substructures, and adding reinforcement to both piers, all in an attempt to prevent the constant sand leaks. From 1900 to 1901, the north pier was extended by two cribs, each 100 feet long by 24 feet wide and 14.5 feet high, and the south pier was extended by one crib that measured 100 feet long by 30 feet wide, 18.5 feet high, with a 6 foot superstructure. In all, at the end of 1901, the south pier measured 1,953 feet, and the north pier 1,715 feet. This represents the last major episode of construction for both piers; although they continued to be repaired and parts replaced over time, the length of each would remain unchanged.[21]

By 1907, dredging was an annual occurrence in order to maintain sufficient depth for the large vessels. Consequently, the final amendment to the original project, passed by the River and Harbor Act of March 2, 1907, increased the harbor depth from 12 feet to 16 feet navigable depth below zero of gauge, with zero set at 581.63 feet above mean tide at New York, and provided funds for the annual use of government dredges.[22]

In 1909, the Report of the Chief of Engineers recommended the discontinuance of further appropriations, and the abandonment of the harbor due to the decreased use by commercial vessels.

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[18] U.S. Congress, House, 1877, p. 485.
[19] Lipka, p. 9, 40.
[20] U.S. Congress, House, Report of the Chief of Engineers, (Excecutive Documents, 53rd Cong. 3rd sess, 1895), p. 2216.
[21] U.S. Congress, House, Report of the Chief of Engineers, U.S. Army, (Annual Reports of the War Department, 57th Cong., 2nd sess., 1901), p. 3108.
[22] U.S. Congress, House, Report of the Chief of Engineers, (Excecutive Documents, 39th Cong. 2nd sess, 1867).

Despite this recommendation, maintenance of the harbor continued, which involved minor repairs and annual dredging.[23] From 1936 to 1937, the last major repair work was completed at White Lake Harbor, when the superstructures of both piers were replaced with concrete. From 1937 through the mid-1960s the harbor was dredged on an annual basis. In 1946 the Life Saving Station was sold and subsequently moved to Holcomb where it was used as a private residence by Hallard Grover. Years later, the station was torn down and turned the property into a city park.[24] In 1970 the lighthouse was purchased from the U.S. Government, and was transferred to Fruitland Township, where it was subsequently converted it into a local museum.[25]

COMMERCE AND INDUSTRY

Historical accounts of industry and commerce in the White Lake vicinity prior to construction of the new harbor entrance are scarce. Although statistics are not available for types and quantities of goods exported and imported, it is known that the primary industry from 1836 to the late nineteenth century was lumbering.

After construction of the harbor in 1870, accounts of vessels and cargo that entered and cleared the harbor were monitored, to a limited extent, and recorded in the Annual Report of the Chief of Engineers. Table 1 shows the total vessel number, and their cargo by tonnage, that traveled through the harbor from 1869 to 1931; and Tables 2 and 3 reveal the types of materials that were imported and exported from 1871 to 1917.

From 1869 to 1888, the total number of vessels that entered and cleared the harbor remained somewhat steady, averaging 1,477 and 1,376 vessels per year, respectively. During the span from 1888 to 1898, the number of vessels that passed through White Lake, decreased significantly, averaging only 351 annually, possibly indicating a decline in shipments of lumber and wood products. After 1898, the number of ships traveling to and from the harbor were not consistently reported, suggesting that the harbor was used to a much lesser extent for commercial traffic.

In terms of tonnage, the average tons per year is similar to the total number of vessels. From 1868 to 1878, 154,354 tons, from 1879 to 1888, 214,913 tons, and from 1889 to 1898, 150,096 tons entered

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[23] U.S. Congress, House, Special Report to the Chief of Engineers, (Executive Documents, 61st Cong., 2nd sess., 1909).
[24] Lipka, p. 9.
[25] Ibid., p. 40.

and cleared the harbor, on average, per year. After 1898, however, there is a significant decrease in the average annual tonnage; during the span 1910 to 1918, only 7,130 tons were recorded. During the following decade, from 1919 to 1928, there is a slight increase in tonnage, averaging 19,428 per year, which can be attributed to the passenger service that operated into the harbor. After 1929, the annual tonnage again decreased, averaging only 3,356 from the years 1929 to 1931. The annual tonnage was not noted after 1931, suggesting that the harbor was used to a much lesser extent.

The types and quantities of resources that were imported and exported from the harbor indicate that when the harbor was first opened, lumber and wood products were the primary exports, and various food products the most numerous imports (Tables 2 and 3). These data further support the fact that the harbor was profitable for the logging industry, as it directly connected the White Lake mills with the important markets in Chicago and Milwaukee. Forest products continued to be the most dominant export item, until the late 19th century, when fruit products appear for the first time. From 1895 to 1917, the number of wood exports continued to decrease, while fruit and other food products increased. This suggests that as the resources of the logging industry were exhausted, fruit and vegetable farming became a more profitable venture, and, eventually, the primary industry in the White Lake area. As with logging, the fruit and vegetable growers surely relied on the harbor as a direct connection to markets in Chicago and Milwaukee. In fact, in 1917, the Chief of Engineers noted that there was a ready market for fruit, dairy products, and farm produce in Chicago and there was a great advantage when the smaller perishable fruits and berries were shipped at night, so that they arrived in the city early in the morning, "fresh after a cool night's trip."[26]

After 1917, the harbor freight traffic was not consistently reported, however, from 1928 to 1930, an overall decrease in tonnage was noted, and of the freight that annually cleared the harbor, stones comprised over 90 percent and unclassified packages, the remainder.[27] By 1931, the only commerce conducted was fish caught locally and brought in by small fish tugs with draft of about 3 to 5 feet. During the years following 1931, harbor activities were not consistently reported by the Chief of Engineers, which may indicate few, if any, commercial vessels entered or cleared the harbor.

Despite the general decline in commercial activity after 1917, the White Lake area experienced a small boost in commerce during the early portion of the 20th century, when it became a favored summer

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[26] U.S. Congress, House, Letter from the Secretary of War, (Executive Documents, 64th Cong. 2nd sess., 1917), p.3..
[27] U.S. War Department, Report of the Chief of Engineers, U.S. Army, 1929, p. 1425.

resort area. The Goodrich Transit Company established a passenger service, that transported vacationers by steamer, from Chicago directly to White Lake. The service operated only during the summer months, and was favored over the railroad due to the cheaper rates, as well as being the most direct route. In 1931, the decline in popularity of White Lake, and better rail routes, resulted in The Goodrich transit company abandoning its operations.[28] After this time, to the present, the harbor is mainly used by locally based fishing crafts, and the occasional lake freighter, as well as for recreational purposes.

TABLE 1. TOTAL VESSELS ENTERED AND CLEARED AT WHITE LAKE HARBOR 1871-1931

	Number of Vessels		Tonnage of Vessels	
	Total	*Average*	*Total*	*Average*
1868 to 1878	14,770	1,477	1,543,535	154,354
1879 to 1888	11,010	1,376	644,740	214,913
1889 to 1898	13,511	351	1,350,862	150,096
1910 to 1918	NA	NA	35,652	7,130
1919 to 1928	NA	NA	155,426	19,428
1929 to 1931	NA	NA	10,069	3,356

[28] U.S. War Department, Report of the Chief of Engineers, U.S. Army, 1932, p. 1436.

TABLE 2. EXPORTS FROM WHITE LAKE HARBOR 1871 TO 1917.

	1871	1886	1888	1892	1895	1908	1909	1910	1911	1912	1913	1914	1917
Lumber *(M feet)*	36,782	83,620		9,500				326					
Lumber *(tons)*					87,768			652					
Lath *(M feet)*	5,321	7,922	9,345	950									
Shingles*(M feet)*	25,998	29,435	19,770	600									
Pickets*(M feet)*	847	200	190										
Staves*(M feet)*	10,000												
Wood*(cords)*	5,392	14,360	16,544	7,220									
Wood *(tons)*					3,417								
Timber*(M feet)*	70												
Railroad Ties*(number)*	53,557	93,200	9,000	18,200									
Posts*(number)*		2,500											
Slabs*(tons)*					2,442								
Produce*(tons)*						3,780							
Apples *(barrels)*		2,000		620									
Apples *(tons)*													
Cider*(barrels)*				10									
Fruit*(packages)*				3,400									
Fruit *(tons)*					160	153	157		200	100	150	105	
Beans*(tons)*										15			
Grain*(bushels)*				5,700									
Potatoes*(bushels)*				7,000									
Potatoes *(tons)*					647	120	18						
Butter*(tons)*						10	8						
Flour*(tons)*						52							
Miscellaneous*(tons)*					4,793	73	50		13,752	100	8	43	141
Leather*(tons)*						138	72	60	155	140	94	154	254
Hides*(tons)*						4							
Machinery*(tons)*													2
Household goods*(tons)*						7						18	
Knit goods*(tons)*						10	12						
Livestock*(tons)*												1	

TABLE 3. IMPORTS AT WHITE LAKE HARBOR, 1871 TO 1917

	1871	1886	1888	1892	1895	1908	1909	1910	1911	1912	1913	1914	1917
Lumber *(tons)*				122	449		4,000	512	600	4,500	5,000	4,076	
Wood *(tons)*					569								
Bark *(tons)*						3960							
Tanbark *(tons)*							3,520	3,300	3,300	1,100	1,650		
Tanner's Supplies *(tons)*								10		100	100	28	
Hides *(tons)*								7					
hides *(bundles)*	60												
Beef *(barrels)*	152												
Butter *(pounds)*	2,900												
Flour *(barrels)*	1,193	1,062	256										
Fish *(tons)*											1	1	
grain *(bushel)*	23,428												
grain *(tons)*				506	334								
Pork *(barrels)*	316												
Potatoes *(bushels)*	7,512												
Salt *(tons)*							300	30					
Salt *(barrels)*	548		205										
Corn and oats *(bushel)*		46,677	9,400										
Brick *(M feet)*	7												
Crushed Stone *(tons)*						2,300				7,750	3,688	5,763	
Gravel *(tons)*						1,740	3,000		1,200	750			
Lime *(barrels)*	222		390										
Lime *(tons)*				5	195								
Stone *(cords)*	814												
coal *(tons)*		328	105	625									
Feed *(tons)*			446	120									
Hay *(bales)*	1,560												
Livestock *(tons)*												10	
Livestock *(heads)*	44												
Miscellaneous *(tons)*						33	415	351	346	338	387	341	
Merchandise *(packages)*	10,675		11,990										
Household Goods *(tons)*							5					50	

COMMUNITY DEVELOPMENT AND PLANNING

The White Lake Harbor Navigation Structures are significant at the local level under Criterion A in Community Development and Planning.

Early settlement of the White Lake area was based on the recognition of the desirability of the region for logging, due to both the vast resources as well as the natural harbor, which connected White Lake to Lake Michigan. Between 1836 and 1865, numerous saw mills were developed around White Lake, and the waterways used to transport the lumber to Lake Michigan, via the narrow, shallow, winding Pierson Creek, that connected White Lake to Lake Michigan. Leaders of the lumber industry quickly realized that this method was slow, tedious, and costly. In attempts to improve this natural harbor, leaders of the logging industry used private funds to improve the harbor at the mouth. Despite their attempts, this outlet could only provide for a five foot navigable depth, thus preventing the larger vessels from entering.

After successfully lobbying Congress for a harbor improvement program, a survey of the harbor was conducted, and a program was adopted that created an artificial channel directly connecting the two lakes. After completion, the harbor facilitated the transport of lumber and wood products from the saw mills to freighters headed for the Chicago and Milwaukee markets.

When the resources of the logging industry were exhausted, the harbor stimulated alternative forms of commerce. Fruit and vegetable farming became the leading industry, and the White Lake area became an attractive summer resort area. Both of these ventures were made possible by way of a water connection between White Lake and Chicago. Without the harbor, the commerce of the White Lake area may have greatly suffered after the collapse of the logging industry. Thus, the navigation structures at White Lake harbor were significant in the overall community development and planning.

TRANSPORTATION

The Navigation Structures at White Lake Harbor are locally significant in Transportation under Criterion A. White Lake Harbor as a whole was significant as an important shipment point for the logging industry, and is therefore important in the history of the United States lumber industry. Further, the harbor was later used for the export of locally-produced fruits and vegetables, and became an important port for a passenger service, that transported individuals to their summer homes around White Lake.

The prospect of lumber harvesting initially attracted Euro-American settlers to the White Lake region, and remained the leading industry for the first 50 years of the area's history. Early settlement involved the construction and operation of a number of saw mills, around which grew a self-sufficient

community. Prior to construction of the harbor, lumber was rafted from the various mills, across White Lake, and then through the shallow, winding Pierson creek, that was the natural outlet of White Lake. At this point, named "the mouth," lumber was lighted aboard vessels for Chicago and Milwaukee. This method was recognized as costly, and prevented large vessels, those with more than a five foot draft, from entering. Although the leading entrepreneurs of the lumber industry tried to improve this natural outlet, their attempts were to no avail. Consequently, these individuals lobbied to Congress for help.

In 1866, Colonel Wheeler conducted a survey of the White Lake area, and proposed a harbor improvement program. Wheeler recommended that the natural outlet be abandoned, and that a new channel be cut that directly connected White Lake to Lake Michigan, at a point approximately 3,550 feet south of the mouth. The original plan called for two parallel piers (north and south), spaced 200 feet apart, with a 12 foot deep channel between them. Amendments to the project, in 1873, 1884, 1892, and 1907, lengthened the piers, so they were of unequal length, and deepened the channel to 16 feet below zero of gauge. As of 1986, the north pier measured 1,717 feet, the south pier 1,953 feet, and a channel depth of 16 feet, that is maintained by annual dredging.

In 1870, when the harbor improvements were completed, it allowed vessels with a 8 foot draft to enter White Lake, and lumber and wood products quickly became the leading exports. From 1868 to 1898, a total of 39,291 vessels and 3,204 tons of material entered and cleared the harbor. Logging products continued to be the most dominant export item, until the late 19th century, when fruit products became the primary export. After 1898, when the resources of the logging industry were exhausted, fruit and vegetable farming became a more profitable venture, and, eventually, the primary industry in the White Lake area. As with logging, the fruit and vegetable growers relied on the harbor as a direct connection to markets in Chicago and Milwaukee. In fact, in 1917 the Chief of Engineers noted that there was a ready market for fruit, dairy products, and farm produce in Chicago and there was a great advantage when the smaller perishable fruits and berries were shipped at night, so that they arrive in the city early in the morning, "fresh after a cool night's trip." [29] After 1917, the harbor freight traffic was not consistently reported, however, from 1928 to 1930, an overall decrease in tonnage was noted, and of the freight that annually cleared the harbor, stones comprised over 90 percent and unclassified packages, the remainder.[30] By 1931, the only commerce conducted was fish caught locally and brought in by small fish tugs with

[29] U.S. Congress, House, Letter from the Secretary of War, (Executive Documents, 64th Cong. 2nd sess., 1917), p. 3.
[30] U.S. War Department, Report of the Chief of Engineers, U.S. Army, 1931, p. 1530.

draft of about 3 to 5 feet. The years following 1931, harbor activities are not consistently noted by the Chief of Engineers, indicating few, if any, commercial vessels entered or cleared the harbor.

The harbor provided a major transportation link between White Lake and the Great Lakes markets of Chicago and Milwaukee. White Lake Harbor was an important terminal for forest products and, later fruit and vegetable products became the chief exports. In the early part of the 20th century, White Lake Harbor was a favored resort area, with the harbor an important stop for the Goodrich passenger service, which transported vacationers from Chicago to their summer homes and cottages around White Lake. With the cessation of the passenger service, and improved rail lines, White lake experienced a commensurate decline in port activities. Currently the harbor is used recreationally, by locally-based fishing craft.

ENGINEERING

White Lake Harbor was evaluated to determine its eligibility under Criterion C in Engineering. While the resources at White Lake Harbor retain good integrity, it is no more than a typical example of the methods of construction used by the USACOE at the turn of the century. The harbor was not technologically innovative, or distinctive, and is therefore not eligible for listing on the National Register in Engineering.

The north and south pier are oriented east-west, with the north pier measuring 1,717 feet, and the south pier 1,953 feet. The north pier is comprised of four sections and the south pier of seven sections. Each section has a slightly different construction, but all represent the type set of the period in which they were erected.

The north pier is composed of 1,517 feet of pile pier, constructed from 1868 to 1872, with a timber pile and timber slab substructure, filled with rock. In 1900, 200 feet of crib work were added to the west end, and included two cribs, each 100 feet long by 24 feet wide, and 14.5 feet high. The cribs were filled with stone and brush and capped by a six foot timber superstructure. The south pier is composed of 1,498 feet of pile pier, and 455 feet of crib work, constructed from 1869 to 1882, and consists of timber pile and timber slab substructure, filled with rock. From 1878 to 1901, crib work extensions were added to the pile work, using a timber substructure, and were filled with brush and rock. From 1936 to 1937, both piers were paved with concrete and capped with a concrete superstructure.

The navigation structures at White Lake Harbor have retained good integrity, however, they represent a typical example of the methods of construction used by the USACOE. The structures are not

technologically innovative, and, therefore, they are not eligible for listing on the National Register in Engineering.

Chronology of North Pier

1867	plan adopted for construction of two parallel piers at White Lake Harbor.
1868	constructed 475 foot pile revetment, 12 to 14 feet wide.
1869	added 64 feet of piles to pier.
1870	constructed 600 foot pile pier, 14 to 18 feet wide, superstructure completed, and 64 feet of piles were added.
1871	constructed 256 foot pile pier, 20 feet wide, 40 square feet of piling completed for pier head, and 160 feet of superstructure completed.
1872	constructed 155 foot pile pier, 20-25 feet wide, and a 45 foot pile pier, 20 feet wide.
1873-1881	general maintenance repairs.
1882-1883	pier reported in poor condition and of no practical value.
1884	superstructure rebuilt.
1885	added new six foot high superstructure, 22 new piles driven to replace old, decayed ones, and the outer section, 45 foot long, was cut down to zero gauge.
1886	no repairs reported.
1887	overhauled filling, added new edgings.
1888	repaired 700 feet of pier, added new fillings of edgings and ballasted with stone.
1889	constructed 100 feet vertical fence along the rear walls of pier.
1890-1891	no repairs reported.
1892	Overhauled old filling, filled large openings, added a double row of sheet piles along rear of pier (1011 feet).
1893	pier reported in fair condition.
1894-1899	no work completed on pier.

1900	two cribs constructed, each 100 feet long by 24 feet wide and 14.5 feet high, and capped by a six foot superstructure.
1901	no work completed on pier.
1902	general repairs.
1903	pier refilled as part of general maintenance repairs.
1904-1929	general repairs.
1930-1931	superstructure repaired.
1932-1933	general repairs.
1934	a total of 1,318 tons of stone placed for rip rap at pier.
1935	a total of 1,193 tons of stone placed for rip rap at pier.
1936	replaced superstructure with concrete.
1937-1966	general repairs.

Chronology of South Pier

1869-1870	constructed two pile pier sections, one that was 600 feet long by 14 to 18 feet wide, and one that was 252 feet by 20 feet.
1871-1872	constructed 367 foot pile pier, completed 28 feet of timber superstructure.
1873	general repairs.
1874	constructed three 50 foot long by 24 foot wide cribs.
1875	added 125 cords of slabs and edgings, and 30 cords; the three cribs constructed in the previous year had settled poorly.
1876-1877	removed pier section closest to the shoreline, replaced old filling with new filling; constructed one 50 foot long by 24 foot wide crib.
1878	constructed one crib that was 50 feet long by 24 feet wide and 13 courses high; placed an additional course of timber from shoreline to east end of crib work; secured crib work with rip rap (14.75 cords of stone).
1879	general repairs.
1880	constructed two 50 foot long cribs; general repairs.
1881	constructed one crib, 55 feet long by 30 feet wide, secured with stone.
1882	exposed cribs damaged by heavy weather over the winter.
1883	crib work and pile work in fair condition except for pile work at outer end which is in poor condition.
1884	stone filling replaced for 215 feet at outer end of pier, aprons added behind the pile work to prevent stone from working out, four sand leaks repaired near the shoreline.
1885-1886	repaired 757 feet of pile work and constructed a new superstructure of timber for 754 feet.
1887	no work reported.
1888	outer crib work of pier reported in fair condition, inner portion of pile work in poor shape.
1889	a vertical fence, measuring 100 feet, constructed along the rear walls of pier, two portions of pier renewed with brush and stone ballast.
1890-1891	general repairs.

1892	repaired broken lake wall of crib with vertical timber, gap below superstructure was fixed with timber, drift-bolted to the submerged portion and screw-bolted; a double roll of sheet piles added to rear of pier; old fillings were overhauled and replaced with new edgings; decking repaired with new plank.
1893	pier reported in poor condition, end crib had settled badly with a tendency to slide outward; the above water portion badly dilapidated.
1894	filled the openings in pier.
1895-1896	no work completed.
1897-1898	general repairs.
1899	superstructures renewed for 571 feet.
1900	constructed one crib, 100 feet long by 30 feet wide, 18.5 feet high, with a 6 foot superstructure.
1901-1902	portions of pier with gaps were refilled.
1903	general repairs.
1904-1914	general repairs.
1915	portions of pier with gaps were refilled.
1916-1927	general repairs.
1928	repairs made to breaks in pier.
1929-1933	general repairs.
1934	rip rap added to pier.
1935	rip rap added to pier.
1936	general repairs.
1937	repair substructure and rebuild superstructure with concrete.
1938-1966	general repairs.

Chronology of North Revetment

1868	constructed 475 foot pile revetment, 12-14 feet wide.
1869-1881	general repairs.
1882	revetments reported in bad condition and of no practical value.
1883-1885	no work reported.
1886	a total of 459 feet (of 475 feet) of pile revetment replaced by a superstructure filled with edgings, proposed construction of a 695 foot pile revetment.
1887	a total of 300 feet of pile revetment constructed.
1888	revetment reported in bad condition, proposed sheet piling as part of repairs.
1889	constructed 272 foot sand fence on north beach.
1890-1891	no work reported.
1892	revetment rebuilt with superstructure above the water surface and filled with new edgings and stone, a double row of sheet piling added.
1893-1894	no work reported.
1895	a total of 424 feet of revetment washed away.
1896-1935	general maintenance repairs.
1936	concrete used to replace timber superstructure.
1937-1966	general repairs.

Chronology of the South Revetment

1869	constructed 110 ft pile revetment.
1870-1874	no work reported.
1875	constructed three sand fences in rear of south pier.
1876-1879	no work reported.
1880	general repairs.
1881-1883	no work reported.
1884	rebuilt 752 feet of pile revetment.
1885	repaired 414 feet of the pile revetment.
1886-1887	no work reported.
1888	revetment reported in poor condition, decaying rapidly and in need of sheet piling.
1889	constructed a 342 foot sand fence on the south beach.
1890-1891	no work reported.
1892	added two and three inch pine plank along revetment; repaired broken sand fences on the south beach.
1893-1894	no work reported.
1895	a portion of the revetment, totaling 166 feet, was washed away.
1896-1901	no work reported.
1902-1961	general repairs on an annual basis.
1962	added stones to revetment for additional support.
1962-1966	general repairs on an annual basis.

BIBLIOGRAPHY

Berman, Louis J. 100 Years, Whitehall, Michigan 1860 to 1960. Whitehall, Michigan: Whitehall Centenial Commitee, 1960.

Hinsdale, W.B. The First People of Michigan. Ann Arbor: Ann Arbor Press, 1930.

Lipka, W.L. The White Lake Area Historical District. Montague: White Lake Area Historical Society, 1978.

Lipka, Wendell L. Saga of the White River. Montague, Michigan: Montague Michigan and Historical Society, 1979.

U.S. Congress, 2nd Session, House. Letter from the Secretary of War. Vol. Vol.22. Washington: Government Printing Office, 1917.

U.S. Congress, House. Report of the Secretary of War. Executive Documents, 2nd sess., 38th Cong, 1865.

U.S. Congress, House. Report of the Secretary of War. Executive Documents, 39th Cong., 2nd sess., 1867.

U.S. Congress, House. Report of the Secretary of War. Executive Documents, 40th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1868.

U.S. Congress, House. Report of the Secretary of War. Executive Documents, 40th Cong., 3rd sess., 1869.

U.S. Congress, House. Report of the Chief of Engineers. Executive Documents, 41st Cong., 2nd sess., 1870.

U.S. Congress, House. Report of the Chief of Engineers. Executive Documents, 41st Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1871.

U.S. Congress, House. Report of the Chief of Engineers. Executive Documents, 42nd Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1872.

U.S. Congress, House. Report of the Chief of Engineers. Executive Documents, 42nd Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1873.

U.S. Congress, House. Report of the Chief of Engineers Executive Documents, 43rd Cong., 1st sess., Washington, D.C.: Government Printing Office, 1874.

U.S. Congress, House. Report of the Chief of Engineers. Executive Documents, 43rd Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1875.

U.S. Congress, House. Report of the Chief of Engineers. Executive Documents, 44th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1876.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 44th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1877.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 45th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1878.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 45th Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1879.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 46th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1880.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 46th Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1881.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 47th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1882.

U.S. Congress, House. Report of the Chief of Engineers. Index to the Executive Documents, 47th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1883.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Index to the Executive Documents, 48th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1884.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Index to the Executive Documents, 48th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1885.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Index to the Executive Documents, 49th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1886.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Index to the Executive Documents, 49th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1887a.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Executive Documents, 49th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1887b.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Executive Documents, 50th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1888.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Index to the Executive Documents, 50th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1889a.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Index to the Executive Documents, 50th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1889b.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army.Executive Documents, 51st Cong., 1st sess., Washington, D.C.: Government Printing Office, 1890.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army.Executive Documents, 51st Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1891.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Executive Documents, 52nd Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1893.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Report of the Secretary of War, 54th Cong., 31st sess., Washington, D.C.: Government Printing Office, 1895a.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Executive Documents, 53rd Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1895b.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Report of the Secretary of War, 54th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1895c.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Executive Documents, 53rd Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1896.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 55th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1897.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 55th Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1898.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 56th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1899.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 56th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1900.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 57th Cong., 1st sess., Washington, D.C.: Government Printing Office, 1901.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army.Annual Reports of the War Department, 57th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1902.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 58th Cong., 2nd sess., Washington, D.C.: Government Printing Office, 1903.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Annual Reports of the War Department, 58th Cong., 3rd sess., Washington, D.C.: Government Printing Office, 1904.

U.S. Congress, House. Report of the Chief of Engineers, U.S. Army. Executive Documents, 64th Cong., 2nd sess., Washington: U.S. Government Printing Office, 1917.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1913.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1914.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1915.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1916.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1917.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1918.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1919.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1920.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1921.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1922.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1923.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1924.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1925.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1926.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1927.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1928.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1929.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1930.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1931.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1932.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1933.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1934.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1935.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1936.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1937.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1938.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1939.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1940.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1941.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1942.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1943.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1944.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1945.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1946.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1947.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1948.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1949.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1950.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1951.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1952.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1953.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1954.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1955.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1956.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1957.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1958.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1959.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1960.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1961.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1962.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1963.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1964.

U.S. War Department. Report of the Chief of Engineers, U.S. Army. Washington, D.C.: Government Printing Office, 1965.

Navigation Structures at White Lake Harbor
Name of Property

Muskegon County, MI
County and State

10. Geographical Data

Acreage of Property 5.1 acres

UTM References
(Place additional UTM references on continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	1/6	5/4/6/2/6/0	4/8/0/2/4/6/0	3	1/6	5/4/6/7/4/0	4/8/0/2/4/8/0
2	1/6	5/4/6/7/6/0	4/8/0/2/4/1/0	4	1/6	5/4/6/2/1/0	4/8/0/2/3/9/0

___ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Jennifer R. Haas, Research Associate

organization Great Lakes Archaeological Research Center, Inc. date 8 September 1998

street & number 1659 N. Jackson Street telephone 414/ 276-9791

city or town Milwaukee state WI zip code 53202

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name U.S. Army COE, Detroit District

street & number 477 Michigan Avenue telephone 313-226-6238

city or town Detroit state MI zip code 48226

UTM REFERENCES

1	1/6	5/4/6/2/6/0	4/8/0/2/4/6/0	3	1 /6	5/4/6/7/4/0	4/8/0/2/4/8/0
	Zone	Easting	Northing		Zone	Easting	Northing
2	1/6	5/4/6/7/6/0	4/8/0/2/4/1/0	4	1/6	5/4/6/2/1/0	4/8/0/2/3/9/0
	Zone	Easting	Northing		Zone	Easting	Northing

VERBAL BOUNDARY DESCRIPTION

White Lake Harbor is located on the eastern shore of Lake Michigan in Musekgon County, Michigan. The harbor includes the north and south piers that are located in the SE SW and the SW SE of Section 2, Township 11 North, Range 18 West. Taken together, the two structures encompasses 5.1 acres.

VERBAL BOUNDARY JUSTIFICATION

The boundary is limited to the navigation structures under direct tenure of the United States Army Corps of Engineers as illustrated in Figure 1. These structures are representative examples of USACOE designed piers built throughout the Great Lake and at White Lake Harbor from 1869 to 1937.

Figure Number: 1
White Lake Harbor
Muskegon County, Michigan
White Lake Harbor, Michigan, U.S. Army Engineer
Detroit: 1986
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin.

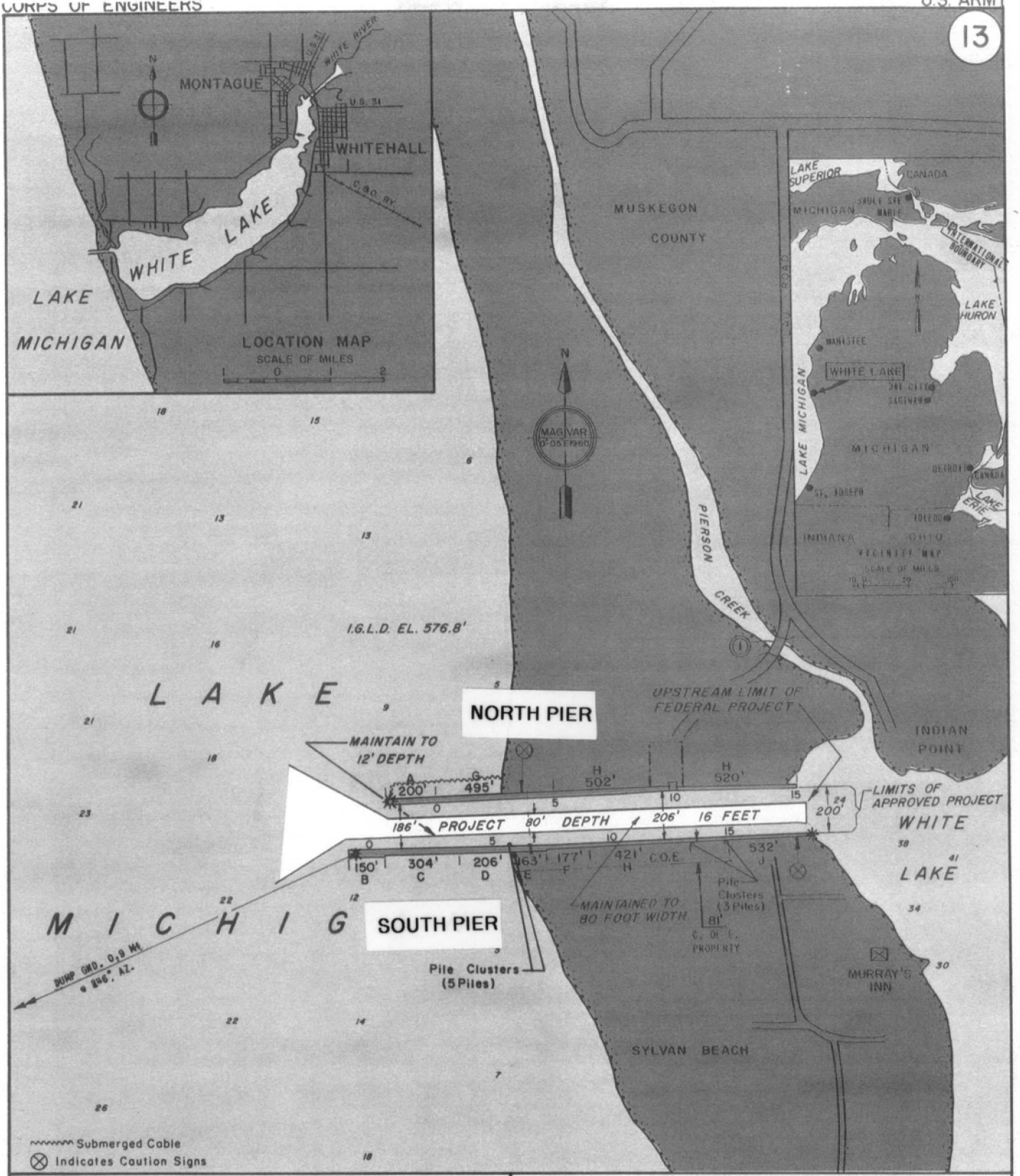
Figure Number: 2
White Lake Harbor
Muskegon County, Michigan
Typical Sections of North and South Piers, in Profile
White Lake Harbor, Michigan, U.S. Army Engineer
Detroit District: 1985
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin.

Figure Number: 3
White Lake Harbor
Muskegon County, Michigan
Harbor at White River, Michigan
U.S. Congress, House, "Report of the Chief of Engineers". In Index to the Executive Documents, 47th Cong., 2nd sess., 1884.
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin.

Figure Number: 4
White Lake Harbor
Muskegon County, Michigan
White Lake Harbor, Michigan
U.S. War Department, Report of the Chief of Engineers, U.S. Army, 1915.
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin.

Figure 1: White Lake Harbor, Michigan, U.S. Army Engineer, Detroit, 1986.

13



ACTS	AUTHORIZING DOCUMENTS
MARCH 2, 1867	UNPUBLISHED SURVEY REPORT OF 1868.
MARCH 3, 1873	UNPUBLISHED SURVEY REPORT OF 1868.
JULY 5, 1884	UNPUBLISHED SURVEY REPORT OF 1868.
JULY 13, 1892	NO PRIOR SURVEY OR ESTIMATE.
MARCH 2, 1907	

INDEX TO BRIDGES

SHOWN THUS ⓘ

ⓘ LAU ROAD BRIDGE

Project depths, sounding and elevations are referred to International Great Lakes Datum (1955) for Lake Michigan, elevation 576.8 ft. above Mean Water Level (M.W.L.) at Father Point, Quebec.

WHITE LAKE HARBOR, MICHIGAN

MUSKEGON COUNTY

In 2 Sheets Sheet No. I

Scale of Feet

500 0 500 1000

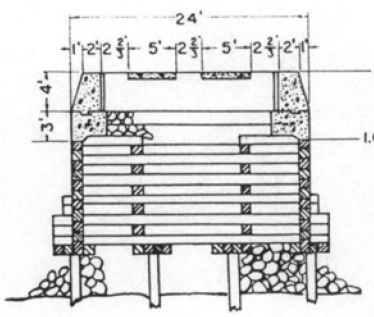
U.S. ARMY ENGINEER DISTRICT, DETROIT

SEPTEMBER 30, 1986

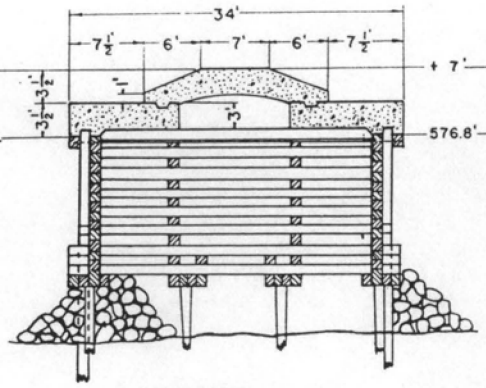
★ U.S. GOVERNMENT PRINTING OFFICE 1986 644-214

Figure 2: White Lake Harbor, Michigan. Typical Pier Sections in Profile, U.S. Army Engineer, Detroit, 1985.

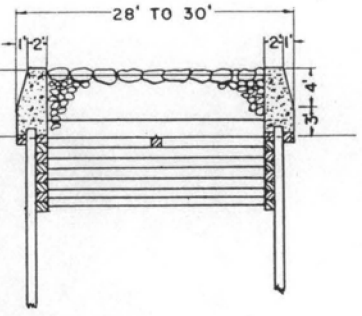
SIDE



SECTION – A
NORTH PIER
BUILT: SUBSTRUCTURE 1900
SUPERSTRUCTURE 1936

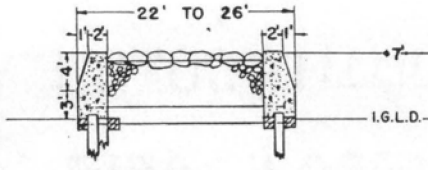


SECTION – B
SOUTH PIER
BUILT: SUBSTRUCTURE 1900
SUPERSTRUCTURE 1937

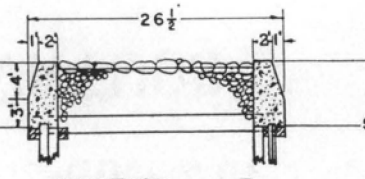


SECTION – C
SOUTH PIER
BUILT: SUBSTRUCTURE 1899, 1928 & 30
SUPERSTRUCTURE 1937

CHANNEL



SECTION – D
SOUTH PIER
BUILT: SUBSTRUCTURE 1899
SUPERSTRUCTURE 1937



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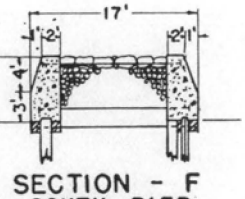
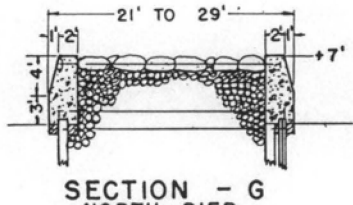
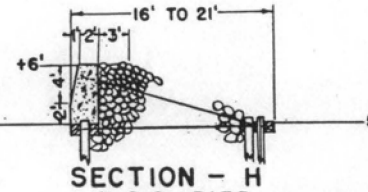
SOUTH PIER
BUILT: SUBSTRUCTURE 1899
SUPERSTRUCTURE 1937



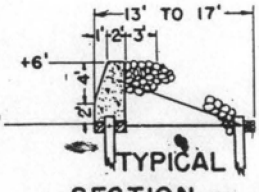
SECTION – F
SOUTH PIER
BUILT: SUBSTRUCTURE 1870
SUPERSTRUCTURE 1937



SECTION – G
NORTH PIER
BUILT: SUBSTRUCTURE 1870-2
SUPERSTRUCTURE 1936



SECTION – H
N. & S. PIER
BUILT: SUBSTRUCTURE 1868, 70-2 (N. P.) 1870 (S. P.)
SUPERSTRUCTURE 1936 1937



SECTION – J
SOUTH PIER
BUILT: SUBSTRUCTURE 1868-9
SUPERSTRUCTURE 1937

WHITE LAKE HARBOR, MICHIGAN

MUSKEGON COUNTY

In 2 Sheets

Sheet No. 2

Scale of Feet

10 0 10 20 30 40

U. S. ARMY ENGINEER DISTRICT, DETROIT

30 SEPTEMBER 1985

Figure 3: White Lake Harbor, Michigan. Sketch Map of Piers as of June 30, 1884.

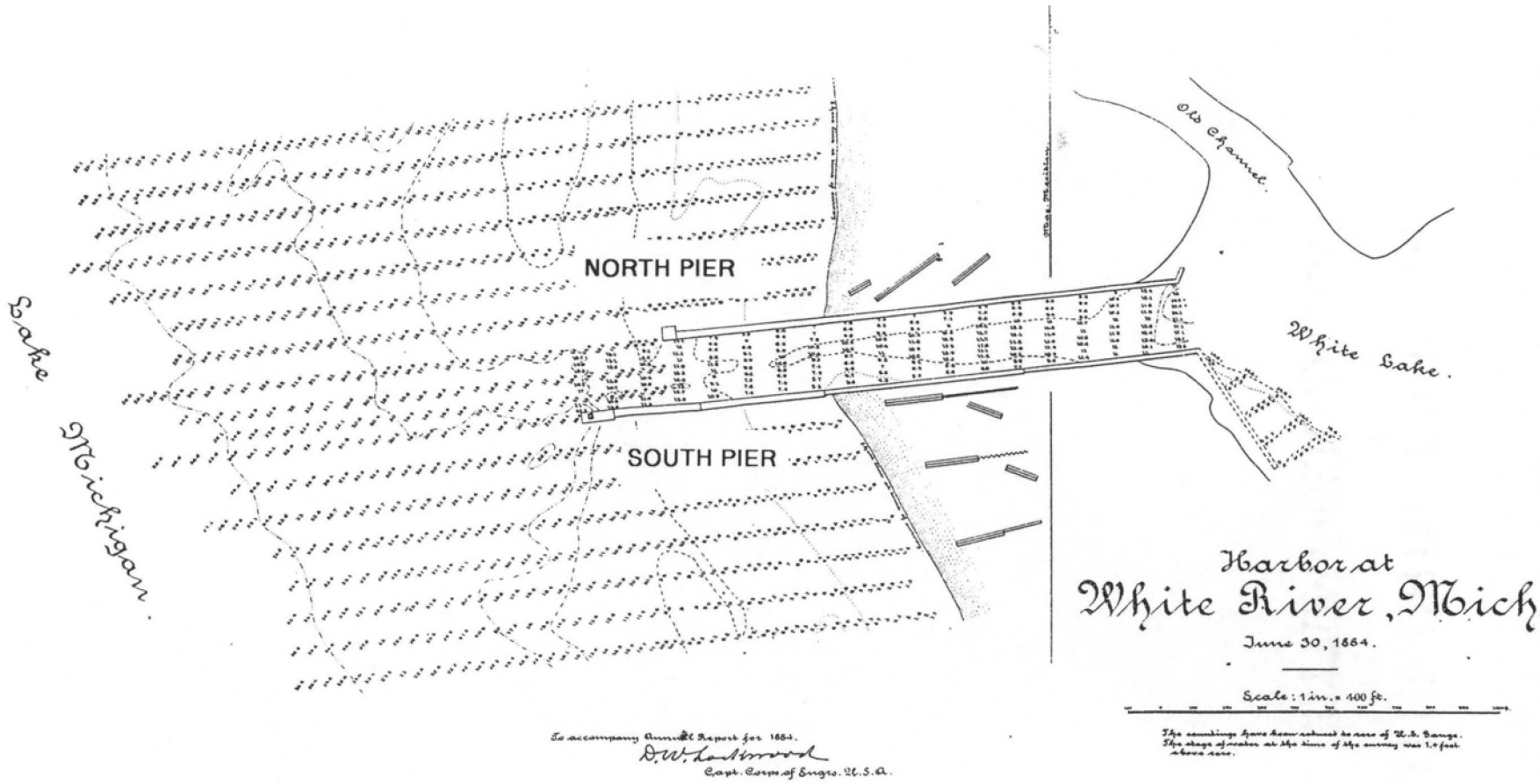
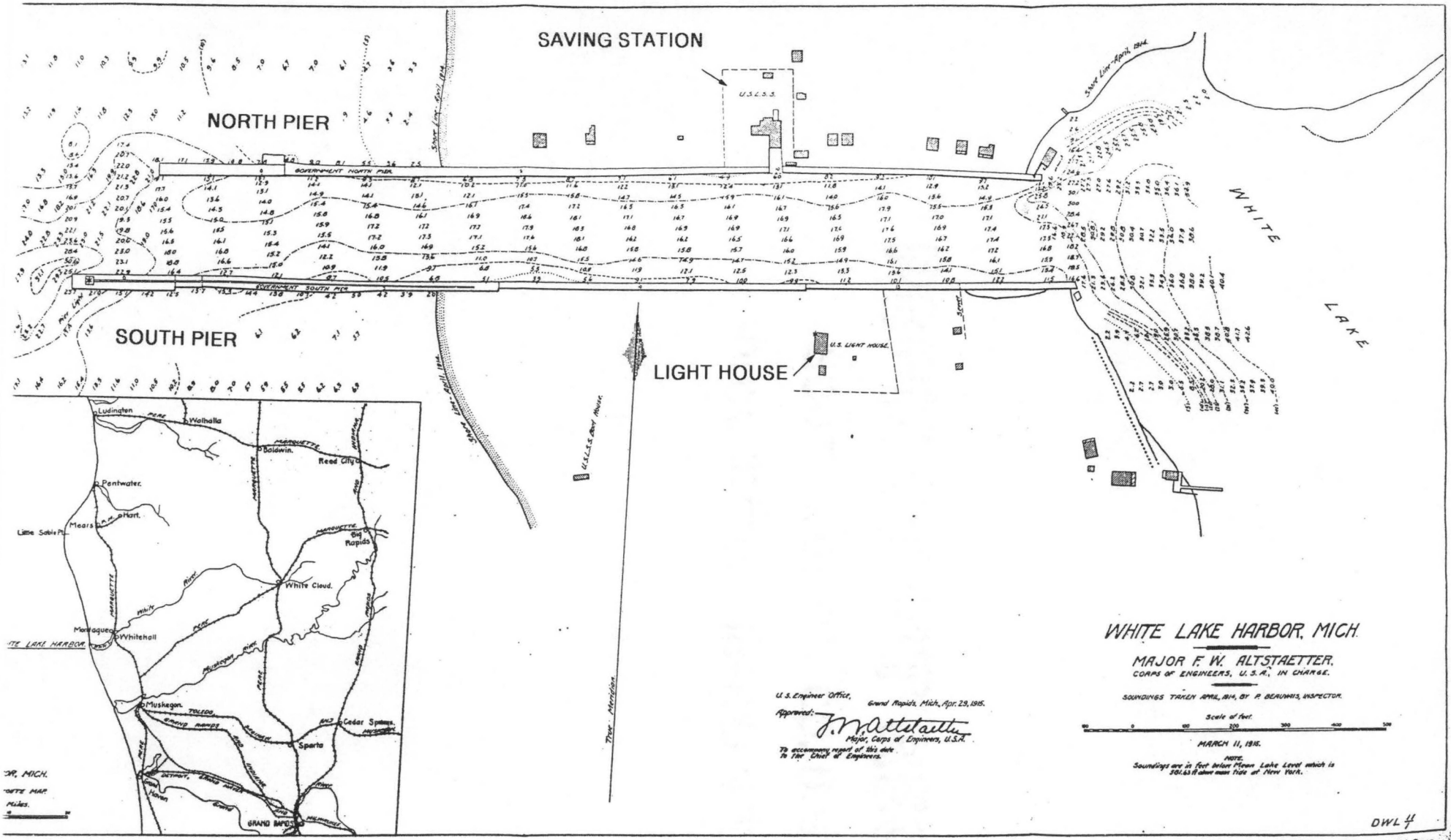

NORTH PIER
SOUTH PIER
Lake Michigan.
Old Channel.
White Lake.
Harbor at
White River, Mich.
June 30, 1884.
Scale: 1 in. = 400 ft.
To accompany Annual Report for 1884.
D. W. Lockwood
Capt. Corps of Engrs. U.S.A.
The soundings have been reduced to zero of U.S. Gauge.
The stage of water at the time of the survey was 1.0 feet above zero.

Figure 4: White Lake Harbor, Michigan. Sketch Map of Piers as of March 11, 1915.



U. S. Engineer Office,
Grand Rapids, Mich., Apr. 29, 1915.

Approved:
J. W. Altstaetter
Major, Corps of Engineers, U.S.A.

To accompany report of this date to The Chief of Engineers.

WHITE LAKE HARBOR, MICH.

MAJOR F. W. ALTSTAETTER,
CORPS OF ENGINEERS, U. S. A., IN CHARGE.

SOUNDINGS TAKEN APRIL, 1914, BY P. BEAUVAIS, INSPECTOR.

Scale of feet.

MARCH 11, 1915.

NOTE.
Soundings are in feet below Mean Lake Level which is 581.65 ft above mean Tide at New York.

DWL 4

House Doc. No. 2053 ; 64th Cong. 2d Sess.

Photograph Number 960061-1
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North and south piers (from the shoreline)
View to the North-Northwest

Photograph Number 960061-2
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North and south piers (from the shoreline)
View to the West

Photograph Number 960061-3
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the North-Northwest

Photograph Number 960061-4
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the North-Northwest

Photograph Number 960061-5
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the North-Northwest

Photograph Number 960061-6
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the North-Northwest

Photograph Number 960061-7
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the East

Photograph Number 960061-8
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the West

Photograph Number 960061-9
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the West

Photograph Number 960061-10
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the West

Photograph Number 960061-11
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the East

Photograph Number 960061-12
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Overview of harbor and both piers
View to the East

Photograph Number 960061-13
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the West

Photograph Number 960061-14
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the East

Photograph Number 960061-15
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the West

Photograph Number 960061-16
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the South-Southwest

Photograph Number 960061-17
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the West

Photograph Number 960061-18
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the West

Photograph Number 960061-19
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the North

Photograph Number 960061-20
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier
View to the North

Photograph Number 960061-21
White Lake Harbor
Muskegon County, Michigan
November 1996

Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier (broad side view)
View to the Northwest

Photograph Number 960061-22
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier (from vicinity of Saving Station)
View to the North

Photograph Number 960061-23
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier (from vicinity of Saving Station)
View to the North

Photograph Number 960061-24
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier (from vicinity of Saving Station)
View to the North

Photograph Number 960061-25
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier (from vicinity of Saving Station)
View to the North

Photograph Number 960061-26
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
North pier and harbor
View to the West

Photograph Number 960061-27
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the South

Photograph Number 960061-28
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the West

Photograph Number 960061-29
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the West

Photograph Number 960061-30
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the North-Northwest

Photograph Number 960061-31
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the South-Southeast

Photograph Number 960061-32
White Lake Harbor
Muskegon County, Michigan
November 1996

Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the South

Photograph Number 960061-33
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the South

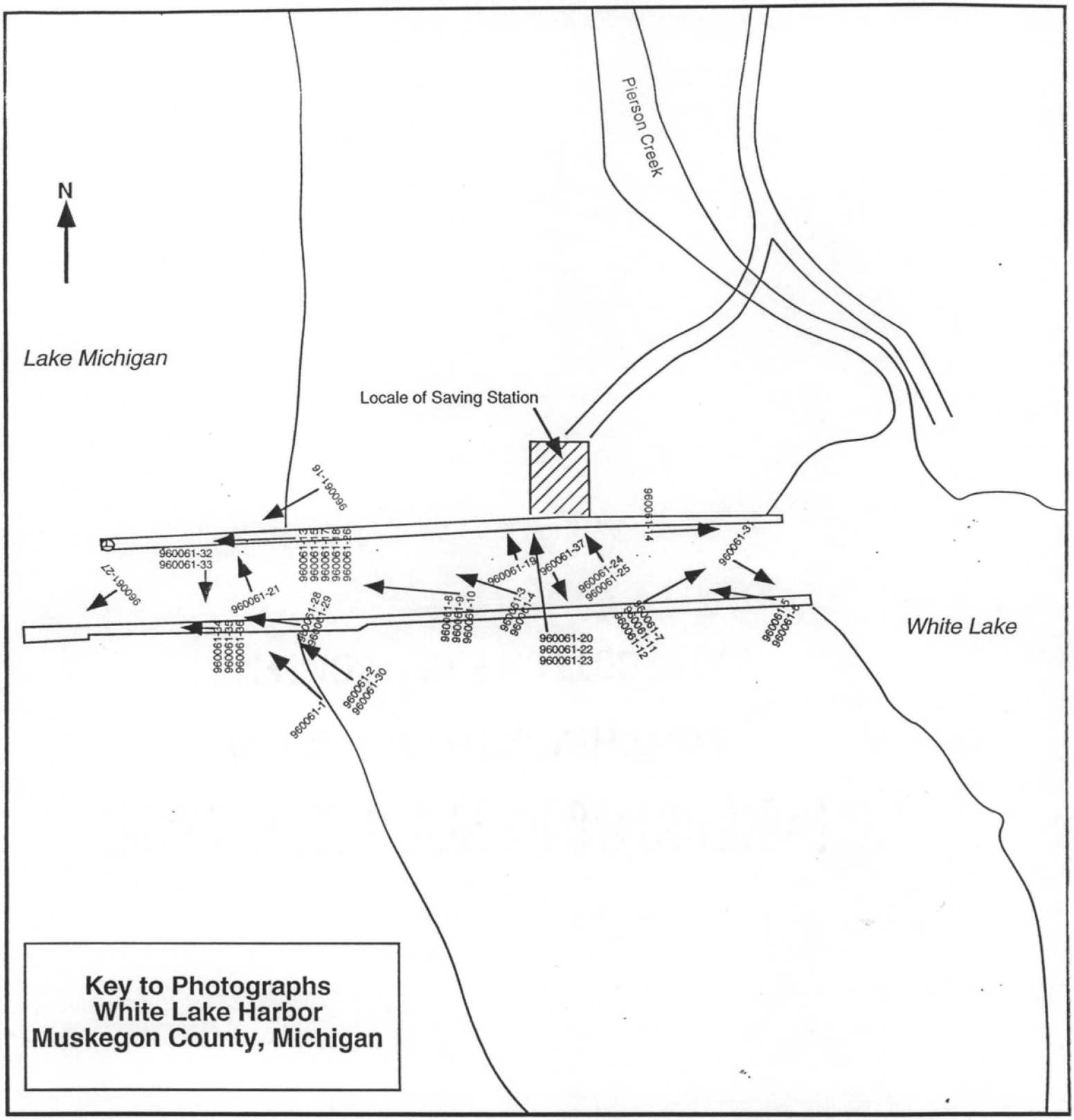
Photograph Number 960061-34
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the West

Photograph Number 960061-35
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier (from top of pier)
View to the West

Photograph Number 960061-36
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier
View to the West

Photograph Number 960061-37
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
South pier and lighthouse
View to the South

Photograph Number 960061-38
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc., Milwaukee, Wisconsin
Lighthouse
View to the South



Key to Photographs
White Lake Harbor
Muskegon County, Michigan

Nom#00000535

PHOTOGRAPH NUMBER 960061-1
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
NORTH AND SOUTH PIERS (FROM THE SHORELINE)
VIEW TO NORTH-NORTHWEST


White Lake Harbor

#960061-1

Nom#00000535

PHOTOGRAPH NUMBER 960061-2
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
NORTH AND SOUTH PIER (FROM THE SHORELINE)
VIEW TO WEST

#960061-2

Nom # 00000535

PHOTOGRAPH NUMBER 960061-3
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE NORTH - NORTH WEST

#960061-3

Item #00000585

PHOTOGRAPH NUMBER 960061-4
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE NORTH - NORTHWEST

#960061-4

PHOTOGRAPH NUMBER 960061-5
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE NORTH - NORTHWEST

#960061-5

Jon #00000535

PHOTOGRAPH NUMBER 960061-6
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE NORTH - NORTHWEST

#960061-6

NOM # 00000535

PHOTOGRAPH NUMBER 960061-7
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE EAST

#960061-7

Nom.# 00000535

PHOTOGRAPH NUMBER 96.0061-8
WHITELAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL
RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND
BOTH PIERS
VIEW TO THE WEST

#960061-8

Nom#00000535

PHOTOGRAPH NUMBER 960061-9
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE WEST

#960061-9

ion #00000535

PHOTOGRAPH NUMBER 960061-10
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE WEST

#960061-10

OMB #00000535

PHOTOGRAPH NUMBER 960061-11
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
OVERVIEW OF HARBOR AND BOTH PIERS
VIEW TO THE EAST

#960061-11

Vol#00000535

Photograph Number 960061-12
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc.
Milwaukee, Wisconsin
Overview of Harbor and both Piers
View to the East

#960061-12

Item #00000535

PHOTOGRAPH NUMBER 960061-13
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
NORTH PIER
VIEW TO THE WEST

#960061-13

Nom #00000535

Photograph Number 960061-14
WHITE LAKE HARBOR
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc.
North Pier
View to the East

#960061-14

Nom. #00000535

PHOTOGRAPH NUMBER 96.0061-15
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL
RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
NORTH PIER
VIEW TO THE WEST

#960061-15

Nom #00000535

Photograph Number 960061-16
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center Inc.
Milwaukee, Wisconsin
North pier
View to the South-Southwest

960061-16

OMB # 00000535

Photograph Number 960061-17
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE WISCONSIN
NORTH PIER

VIEW TO THE WEST

#960061-17

ion #00000535

Photograph Number 960061 -18
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE WISCONSIN
NORTH PIER
VIEW TO THE WEST

#960061-18

NPS Form #00000535

Photograph Number 960061-19
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center Inc
Milwaukee Wisconsin
North Pier
View to the North

#960061-19

NOAA #00000535

PHOTOGRAPH NUMBER 96.0061-20
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL
RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
NORTH PIER
VIEW TO THE NORTH

#960061-20

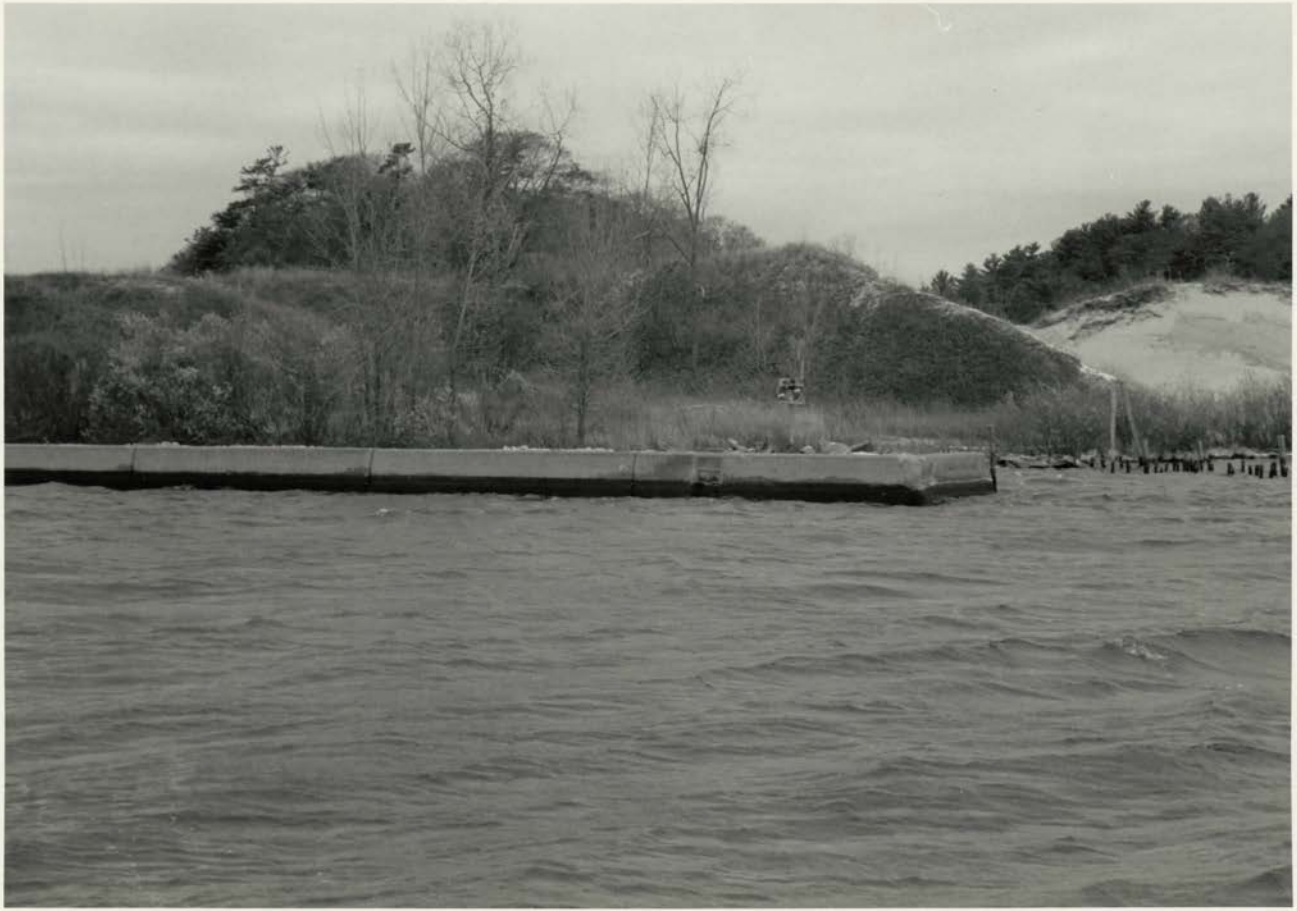
NOM #00000335

PHOTOGRAPH NUMBER 960061-21
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER INC
MILWAUKEE, WISCONSIN
NORTH PIER (BROAD SIDE VIEW)
VIEW TO THE NORTH WEST

#960061-21

Item # 00000535

Photograph Number 960061-22
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
NORTHPIER (FROM VICINITY OF SAILING STATION)
VIEW TO THE NORTH



#960061-22

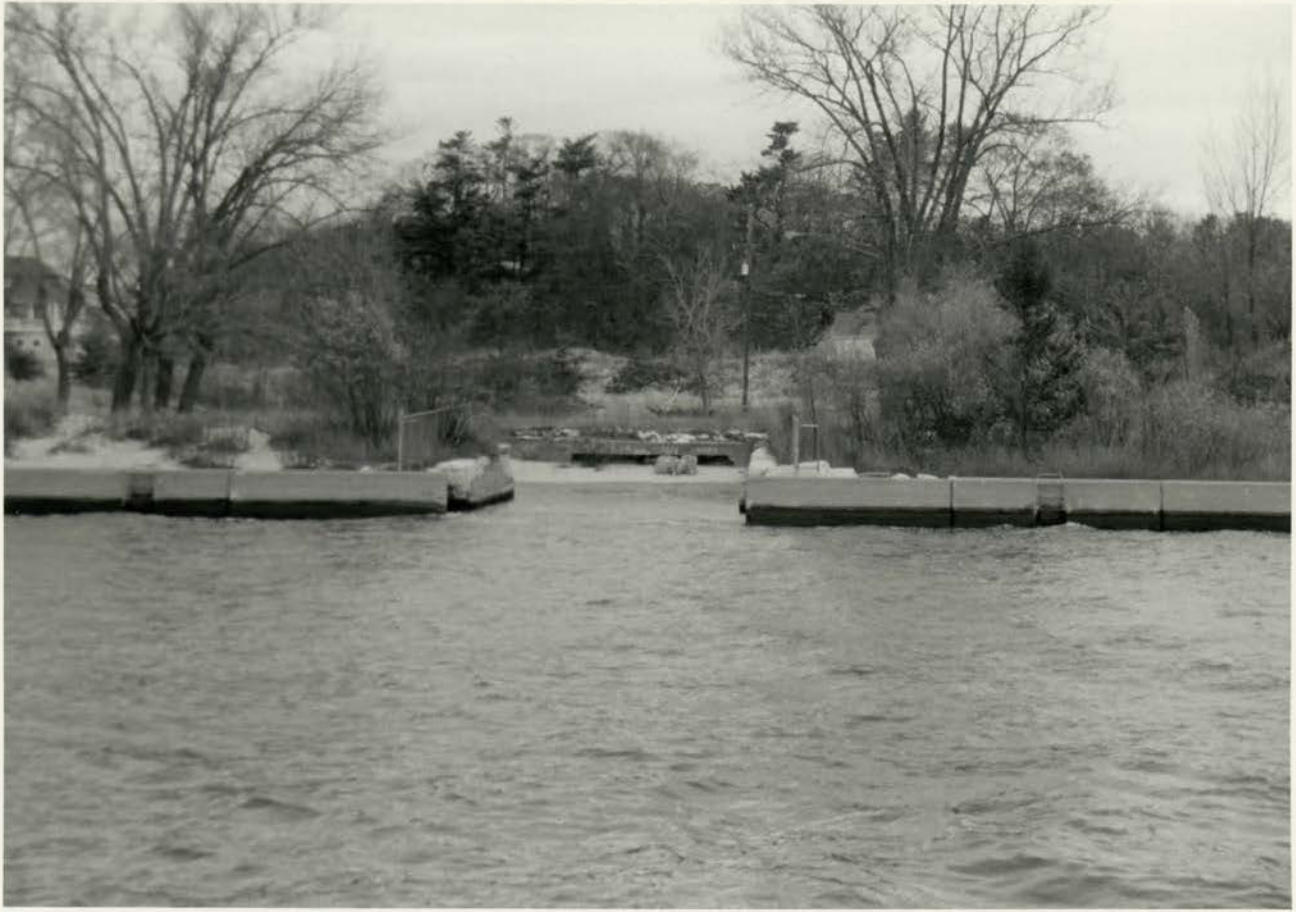
OMB # 00000535

PHOTOGRAPH NUMBER 960061-23
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
NORTH PIER (FROM VICINITY OF SAVING STATION)
VIEW TO THE NORTH

#960061-23

Jom # 00000535

Photograph Number 960061-24
White Lake Harbor
Muskegon County; Michigan
November 1996
Great Lakes Archaeological Research Center Inc
Milwaukee, Wisconsin
North Pier (From Vicinity of Saving Station)
View to the North



#960061-24

ohn #00000335

Photograph Number 960061-25
White Lake Harbor
Muskegon County Michigan
November 1996
Great Lakes Archaeological Research Center, Inc
Milwaukee, Wisconsin
North Pier (From Vicinity of Spring Station)
View to the North

#960061-25

NOM #00000535

PHOTOGRAPH NUMBER 960061-26
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER INC
MILWAUKEE, WISCONSIN
NORTH PIER AND HARBOR
VIEW TO THE WEST

#960061-26

John #00000535

PHOTOGRAPH NUMBER 960061-27
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC
MILWAUKEE, WISCONSIN
SOUTH PIER
VIEW TO THE SOUTH

#960061-27

om #00000535

Photograph Number 960061-28

WHITE LAKE HARBOR

Muskegon County, Michigan

November 1996

Great Lakes Archaeological Research Center Inc

Milwaukee, Wisconsin

South Pier

View to the West

#960061-28

Form #00000535

PHOTOGRAPH NUMBER 960061-29

WHITE LAKE HARBOR

MUSKEGON COUNTY, MICHIGAN

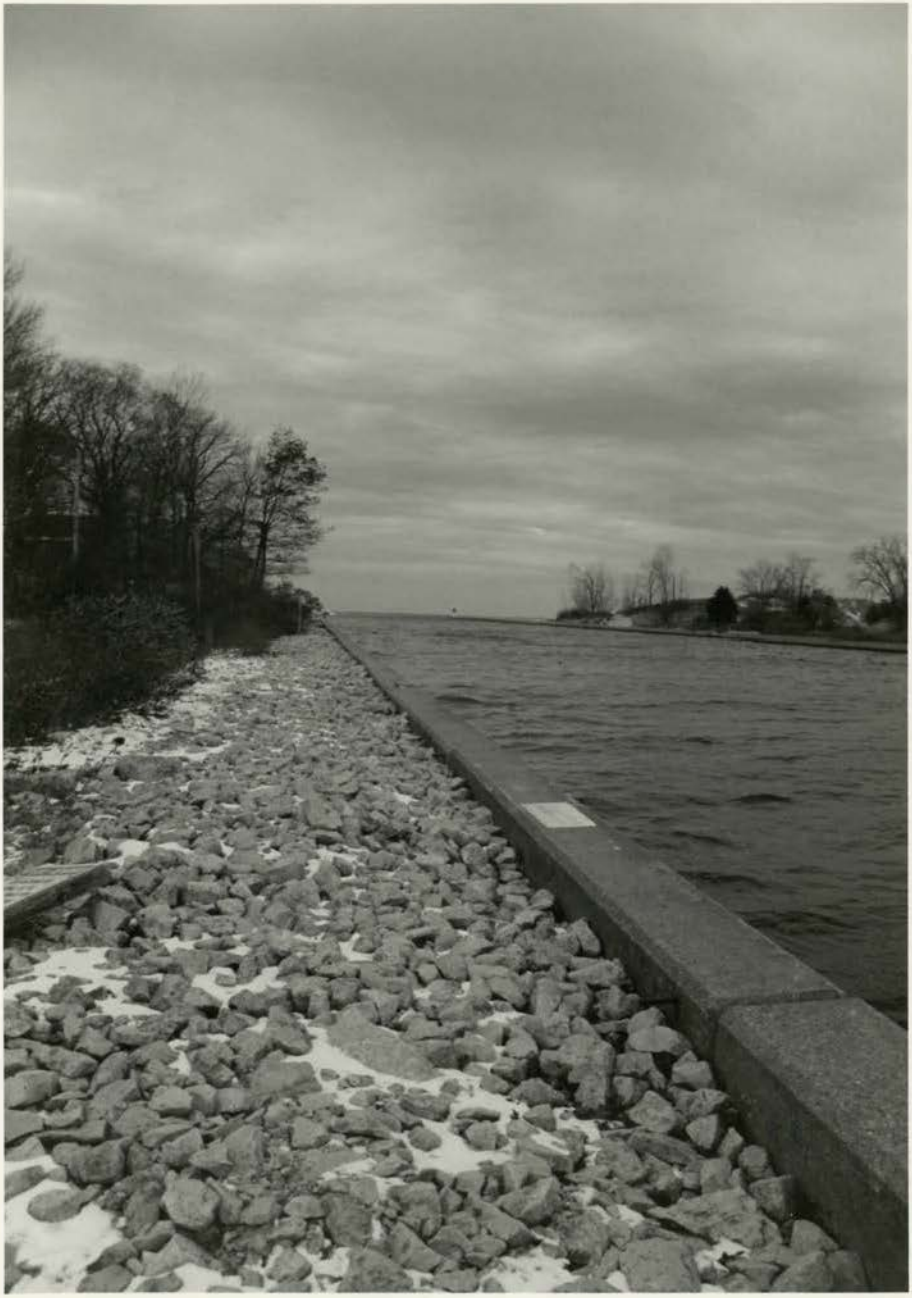
NOVEMBER 1996

GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC

MILWAUKEE, WISCONSIN

SOUTH PIER

VIEW TO THE WEST



#960061-29

NOM # 00000535

Photograph Number 960061-30
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc.
Milwaukee, Wisconsin
South pier
View to the North-Northwest

#960061-30

Vol. # 00000535

Photograph Number 960061-31
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER INC
MILWAUKEE, WISCONSIN
SOUTH PIER
VIEW TO THE SOUTHSOUTHEAST

#960061-31

10m #00000535

PHOTOGRAPH NUMBER 960061-32
WHITE LAKE HARBOR
MUSKEGON COUNTY MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER INC
MILWAUKEE, WISCONSIN
SOUTH PIER
VIEW TO SOUTH

#960061-32

Jom #00000535

Photograph Number 960061-33
White Lake Harbor
Muskegon County, Michigan
November 1996
Great Lakes Archaeological Research Center, Inc
Milwaukee, Wisconsin
South Pier
View to the South

#960061-33

NOM. #00000535

PHOTOGRAPH NUMBER 960061-34
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
SOUTH PIER
VIEW TO WEST

#960061-34

Item #00000535

PHOTOGRAPH NUMBER 960061-35
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER INC
MILWAUKEE, WISCONSIN
SOUTH PIER (FROM TOP OF PIER)
VIEW TO THE WEST

#960061-35

Nom #00000535

PHOTOGRAPH NO. 96.0061-36
WHITELAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL
RESEARCH CENTER, INC
SOUTH PIER
VIEW TO THE WEST

#960061-36

Nom #0000535

PHOTOGRAPH NUMBER 960061-37
WHITE LAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER INC
MILWAUKEE, WISCONSIN
SOUTH PIER AND THE LIGHTHOUSE
VIEW TO THE SOUTH

#960061-37

NOM #00000535

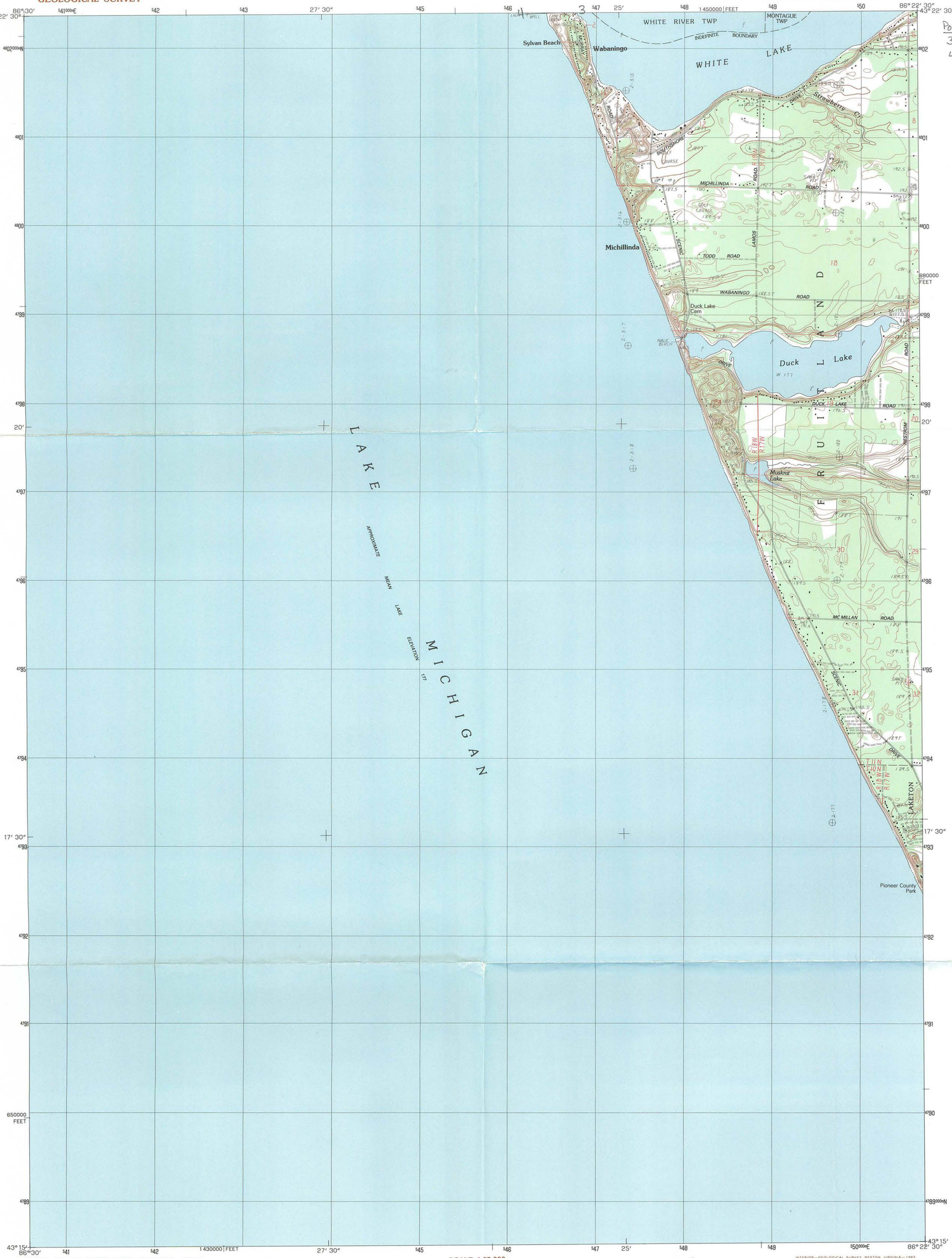
PHOTOGRAPH NO. 96.0061-38
WHITELAKE HARBOR
MUSKEGON COUNTY, MICHIGAN
NOVEMBER 1996
GREAT LAKES ARCHAEOLOGICAL
RESEARCH CENTER, INC.
MILWAUKEE, WISCONSIN
LIGHTHOUSE
VIEW TO THE SOUTH

960061-38

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MICHILLINDA QUADRANGLE
MICHIGAN–MUSKEGON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

POINT | UTM REFERENCE
3 | 16/546760/4802410
4 | 16/546210/4802390



PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY ..... USGS AND NOS/NOAA
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1977
FIELD CHECKED ..... 1979. MAP EDITED 1983
PROJECTION ..... LAMBERT CONFORMAL CONIC
GRID: 1000-METER UNIVERSAL TRANSVERSE MERCATOR ..... ZONE 16
10,000-FOOT STATE GRID TICKS ..... MICHIGAN, SOUTH ZONE
UTM GRID DECLINATION ..... 0°23′ EAST
1983 MAGNETIC NORTH DECLINATION ..... 2°00′ WEST
VERTICAL DATUM ..... NATIONAL GEODETIC VERTICAL DATUM OF 1929
HORIZONTAL DATUM ..... 1927 NORTH AMERICAN DATUM

To place on the predicted North American Datum of 1983 move the projection lines as shown by dashed corner ticks (2 meters north and 3 meters east)

There may be private inholdings within the boundaries of any Federal and State reservations shown on this map

NORTH

PROVISIONAL MAP
Produced from original manuscript drawings. Information shown as of date of field check. 3

SCALE 1:25 000

1 .5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000
1 .5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000
FEET

CONTOUR INTERVAL 1.5 METERS

CONTROL ELEVATIONS SHOWN TO THE NEAREST 0.1 METER
OTHER ELEVATIONS SHOWN TO THE NEAREST 0.5 METER

To convert meters to feet multiply by 3.2808
To convert feet to meters multiply by .3048

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
AND THE GEOLOGICAL SURVEY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES, LANSING, MICHIGAN 48909

MICHIGAN
QUADRANGLE LOCATION

1	2	3	1 2 Flower Creek 3 Montague
4		5	4 5 Dalton
6	7	8	6 7 8 Muskegon West

ADJOINING 7.5′ QUADRANGLE NAMES
CONTOURS AND ELEVATIONS IN METERS

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1983

ROAD LEGEND

Improved Road .....
Unimproved Road .....
Trail .....
Interstate Route U. S. Route State Route

MICHILLINDA, MICHIGAN
PROVISIONAL EDITION 1983
43086-C4-TM-025

ISBN 0-607-25327-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FLOWER CREEK QUADRANGLE
MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC)

PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY ..... USGS AND NOS/NOAA
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1977
FIELD CHECKED ..... 1979. MAP EDITED 1983
PROJECTION ..... LAMBERT CONFORMAL CONIC
GRID: 1000-METER UNIVERSAL TRANSVERSE MERCATOR ..... ZONE 16
10,000-FOOT STATE GRID TICKS ..... MICHIGAN, SOUTH ZONE
UTM GRID DECLINATION ..... 0°23' EAST
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VERTICAL DATUM ..... NATIONAL GEODETIC VERTICAL DATUM OF 1929
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PROVISIONAL MAP
Produced from original manuscript drawings. Information shown as of date of field check.

SCALE 1:25 000

1 .5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000
1 .5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000
FEET

CONTOUR INTERVAL 3 METERS
SUPPLEMENTARY CONTOUR INTERVAL 1.5 METERS
CONTROL ELEVATIONS SHOWN TO THE NEAREST 0.1 METER
OTHER ELEVATIONS SHOWN TO THE NEAREST 0.5 METER
To convert meters to feet multiply by 3.2808
To convert feet to meters multiply by .3048

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
AND THE GEOLOGICAL SURVEY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES, LANSING, MICHIGAN 48909

MICHIGAN
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Bigsbie Lake
2 Town Corners
3 Shelby
4
5 Montague
6
7 Michillinda
8 Dalton

ADJOINING 7.5' QUADRANGLE NAMES
CONTOURS AND ELEVATIONS IN METERS

INTERIOR—GEOLOGICAL SURVEY RESTON, VIRGINIA—1983

ROAD LEGEND

Improved Road .....
Unimproved Road .....
Trail .....

Interstate Route U. S. Route State Route

FLOWER CREEK, MICHIGAN
PROVISIONAL EDITION 1983
43086-D4-TM-025

POINT	UTM REFERENCE
1	16/469260/4802460
2	16/546740/4802420

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Navigation Structures at White Lake Harbor

MULTIPLE NAME:

STATE & COUNTY: MICHIGAN, Muskegon

DATE RECEIVED: 4/27/00 DATE OF PENDING LIST: 5/10/00
DATE OF 16TH DAY: 5/26/00 DATE OF 45TH DAY: 6/11/00
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 00000535

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___RETURN ___REJECT 5/26/00 DATE

ABSTRACT/SUMMARY COMMENTS:

Entered in the
National Register

RECOM./CRITERIA_____

REVIEWER_____ DISCIPLINE_____

TELEPHONE_____ DATE_____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

20 APR 2000

REPLY TO
ATTENTION OF:

Policy Division
Policy Guidance Branch

Ms. Carol Shull
Keeper, National Register of Historic Places
National Register, History and Education
National Park Service
Department of the Interior
Mail Stop 2280, Suite 400
Washington, D.C. 20240

Dear Ms. Shull:

Enclosed is the National Register of Historic Places nomination for the Navigation Structures at White Lake Harbor, near the Towns of Whitehall and Montague, Muskegon County, Michigan. These structures are administered by the U.S. Army Corps of Engineers, Detroit District. The Corps Detroit District prepared the nomination in consultation with the Michigan State Historic Preservation Officer (SHPO).

The nomination has been reviewed by Mr. Brian D. Conway, the Michigan SHPO, and the Corps Federal Preservation Officer, Mr. Paul D. Rubenstein. They certify, by signing Section 3 of the enclosure, that the Navigation Structures at White Lake Harbor should be included in the National Register of Historic Places. We request that you take the actions necessary to list these properties.

Should you find this submittal requires revision or, if additional information is needed, please return the nomination with your requirements directly to the Corps Detroit District, to the attention of Dr. Karen Krepps. Dr. Krepps' mailing address is Commander, U.S. Army Corps of Engineers, Detroit District, ATTN: CENCE-EP-E, 477 Michigan Avenue, Detroit, Michigan 48226.

Sincerely,

James F. Johnson
Chief, Policy Division
Directorate of Civil Works

Enclosure

Copies Furnished:
Commander, Great Lakes and Ohio River Division
Commander, Detroit District