

1	will be repaired to follow historic patterns,	1	and compliance to ensure sensitive
2	sensitively accommodate vehicular parking	2	resources are not damaged during
3	into the historic setting, and upgrade to meet	3	removal.
4	current standards providing universal access.	4	
5		5	3. Provide additional parking, which is
6	<u>Circulation – Vehicular</u>	6	needed on busy days.
7		7	
8	1. Preserve Sand Point Road and Boathouse	8	a. Expand the non-contributing visitor
9	Drive as contributing features of the	9	parking and formalize the layout.
10	circulation system.	10	
11		11	–Extend the existing visitor parking
12	a. Preserve the gravel surfacing of	12	to the south to provide additional
13	Boathouse Drive.	13	spaces and room for snow storage.
14		14	
15	2. Realign vehicular routes that are	15	–Approximately 18 spaces are needed
16	non-contributing features to cultural	16	for park staff in summer including
17	landscape and diminish the historic	17	personal vehicles and park vehicles.
18	setting.	18	
19		19	–Further study is needed to determine
20	a. Remove the staff parking and drive	20	the appropriate amount needed for
21	east of the Life Saving Station to	21	visitor parking.
22	repair the historic setting. Consider	22	
23	a phased approach for removing the	23	–Provide two accessible parking
24	parking. Resurface the drive and	24	spaces.
25	parking with grass pavers to lessen	25	
26	its appearance and to blend with	26	–Provide a soft surface such as gravel
27	the lawn. Once parking has been	27	or stabilized soil.
28	established elsewhere, remove the	28	
29	grass pavers and repair the setting of	29	–Improve ingress and egress by
30	the Life Saving Station by regrading	30	creating a one-way loop with angled
31	the raised topographic plinth and	31	parking, separated from Sand Point
32	establishing lawn grasses.	32	Road by a vegetated island.
33		33	
34	b. Remove the gravel area south of the	34	–Provide a continuous sidewalk
35	Boathouse, and revegetate the space	35	at the visitor parking that meets
36	as a natural area.	36	accessibility requirements and
37		37	connects to the contributing concrete
38	–Preserve the drive to the Boathouse.	38	walks.
39	Modify the gravel area to provide	39	
40	vehicular access, turnaround, and	40	b. Provide parallel parking at the east
41	parking for two vehicles immediately	41	edge of Sand Point Road as an interim
42	adjacent to and east of the	42	parking solution.
43	Boathouse.	43	
44		44	–Widen the east edge of Sand Point
45	–Removal of the gravel area may	45	Road by 10-feet to accommodate
46	require additional investigation	46	parallel parking.



Figure 6-2. Existing Life Saving Station setting. (source: Mundus Bishop 2016)



Figure 6-3. The formal military setting of the Life Saving Station will be rehabilitated, with short mown lawn, orthogonal walks, and raised plinth surrounded by a concrete curb that frames the building. Walks will be added or modified to meet access needs to the building and will connect to an expanded visitor parking area. (source: Mundus Bishop 2016)

- c. Add new parking and operations area east of Sand Point Road as a long-term solution.

– This is the location of the of the former USCG residences. As this area has been previously disturbed, it could be utilized for parking, staff housing or for other NPS operational needs.

– Align the entrance and exit to the new parking area with the remnant residential driveways.

– Minimize the footprint of the new parking/ operations area as much as possible. Maintain the new area with a soft-surface paving.

4. Expand the turnaround at end of Sand Point Road. Adequate turning radii is needed for trailers, RVs and buses to turn around that the end of the road.

a. Expand the turning radii at the end of the road to accommodate larger vehicles and trailers.

b. Discourage parking at the end of the road.

### Circulation – Pedestrian

1. Preserve contributing concrete walks with characteristic width, material, and alignment.

2. Realign pedestrian routes that are non-contributing features and diminish the historic setting.

a. Remove the non-contributing boardwalk west of the Boathouse as this route does not match the historic routes.

b. Provide new pedestrian boardwalk to the non-contributing dock and the shore. The boardwalks should connect to the historic concrete walks and parallel the Launchway, reinforcing the linear form.

c. Maintain the non-contributing dock, which is a reconstruction in a historic location. Remove sand from its base, replace materials as needed, and provide access to the dock from the new boardwalk.

3. Repair contributing concrete walks, ensuring level surfaces and grades for accessibility and safety.

a. Repair walks by replacing ‘stones’ using matching local materials, including aggregate, and / or by mud-jacking or other means to level areas.

b. Restore the east - west section of the concrete walk between the Life Saving Station and Sand Point Road.

– Raise and reset useable material, and add material as needed to restore the walk to its full historic extent.

c. Restore the missing section of the concrete walk between the Communication Tower Foundation and Lookout Tower Foundation if the geologic formation of Sand Point reforms.

– Restore the missing concrete walk (non-extant due to erosion). Match the width and alignment of the original path; but utilize a slightly different material finish to distinguish the new walk from the historic.





Figure 6-4. The Existing Boathouse setting. (source: Mundus Bishop 2016)



Figure 6-5. The Boathouse will be rehabilitated to provide universal access and interior restrooms. The adjacent setting will be repaired by thinning trees and establishing low growing native shrubs to maintain the visual connection to Lake Superior. (source: Mundus Bishop 2016)

- 
- |  |   |
|--|---|
| <p>1 4. Provide universal accessibility to the front</p> <p>2 entrances of the Life Saving Station and</p> <p>3 Boathouse.</p> <p>4</p> <p>5 a. Contributing concrete walks are</p> <p>6 wide enough for universal accessible</p> <p>7 compliance in one direction. Landing/</p> <p>8 resting areas will be added for passing</p> <p>9 zones to meet current requirements.</p> <p>10</p> <p>11 –Modify concrete walks where</p> <p>12 needed, providing new landing areas</p> <p>13 in key locations.</p> <p>14</p> <p>15 5. Remove and discourage informal trails to</p> <p>16 the beach. Allow trails from the terminus</p> <p>17 of Sand Point Road, but direct pedestrians</p> <p>18 onto an established route(s) to protect</p> <p>19 dune vegetation and wildlife habitat.</p> <p>20</p> <p>21 a. Allow the remnant trail between the</p> <p>22 Life Saving Station and the Boathouse</p> <p>23 to revegetate.</p> <p>24</p> <p>25 <b>Buildings and Structures</b></p> <p>26</p> <p>27 The Sand Point cultural landscape includes</p> <p>28 the Munising Life Saving Station (HS-01), Oil</p> <p>29 House (HS-02), Boathouse and Launchway</p> <p>30 (HS-08), all built in the 1930s. Two non-</p> <p>31 extant structures were key components of the</p> <p>32 operating station and are marked by remnant</p> <p>33 foundations. These are the Communications</p> <p>34 Tower and Lookout Tower, the latter located</p> <p>35 at the tip of Sand Point. Contributing</p> <p>36 buildings will be preserved, and the non-</p> <p>37 extant towers restored to repair the building</p> <p>38 pattern established by the USCG.</p> <p>39</p> <p>40 1. Preserve contributing buildings and</p> <p>41 structures.</p> <p>42</p> <p>43 a. Preserve the Munising Life Saving</p> <p>44 Station (HS-01), Oil House (HS-02),</p> <p>45 Boathouse and Launchway (HS-08),</p> <p>46</p> | <p>1 b. Preserve the foundation of the</p> <p>2 Communications Tower and Lookout</p> <p>3 Tower.</p> <p>4</p> <p>5 c. Reconstruct the missing</p> <p>6 Communications Tower if adequate</p> <p>7 documentation exists.</p> <p>8</p> <p>9 –Conduct further research to ensure</p> <p>10 adequate documentation is available</p> <p>11 for reconstruction.</p> <p>12</p> <p>13 –Alternatively, add a new</p> <p>14 contemporary feature of same mass,</p> <p>15 scale and character to interpret the</p> <p>16 original structure.</p> <p>17</p> <p>18 d. Reconstruct the missing Lookout</p> <p>19 Tower if the geologic formation</p> <p>20 of Sand Point returns, making a</p> <p>21 reconstruction possible.</p> <p>22</p> <p>23 –Conduct further research to ensure</p> <p>24 adequate documentation is available</p> <p>25 for reconstruction.</p> <p>26</p> <p>27 –Alternatively, allow a new</p> <p>28 contemporary interpretive feature</p> <p>29 of same mass, scale and character to</p> <p>30 interpret the original structure.</p> <p>31</p> <p>32 2. Remove non-contributing structures.</p> <p>33</p> <p>34 a. Remove non-contributing garage</p> <p>35 foundation.</p> <p>36</p> <p>37 b. Remove underground fuel storage</p> <p>38 tanks.</p> <p>39</p> <p>40 3. Preserve the Munising Life Saving Station</p> <p>41 and its contributing features. Expand</p> <p>42 visitor access, interpretation and use of</p> <p>43 the building. Meet ABA requirements to</p> <p>44 provide access into the building with an</p> <p>45 exterior lift on the south facade (Refer to</p> <p>46 HSR recommendations).</p> |
|--|---|

4. Rehabilitate the Boathouse to provide ABA compliant and interior restrooms (Refer to HSR recommendations).
  - a. Provide a new ramp on the east side of the Boathouse for universal access.
  - b. Add a landing and exterior connection to the man door to the south. This will also provide accessible access when the overhead door is closed by
5. Provide universal access to visitor restrooms.
- a. As an interim solution, provide a new, prefabricated temporary vault toilet at the west edge of the visitor parking.
    - Install a single, accessible structure that has minimal impact on the landscape, set away from key viewsheds and low wet areas with easy access to the parking.
    - Site the vault toilet away from the swale/low area that is west of the parking area.
  - b. As resources become available, provide restrooms within the Boathouse.
    - This would require modifications to the building interior (Refer to HSR recommendations).
6. Preserve the Launchway and rehabilitate the setting by removing sand and excess vegetation.
- a. Utilize a phased approach to rehabilitate the setting, removing vegetation from the interior of the Launchway as a first priority.

- b. Remove sand that obscures the form of the launchway and to reveal the edges of the bulkhead. Allow sand to fill back in over time, acknowledging the natural movement of the shoreline.
- c. Maintain the sand free of vegetation.
- d. Restore rails and wood decking where missing or damaged.

### **Small Scale Features**

- Contributing small scale features consist of a concrete edge and flagpole that date from the period of significance. The continuous curb that originally framed the rectangular space around the building may still be intact below grade. The restoration of this feature will reestablish the formal space around the building.
1. Preserve the contributing small scale features including the flagpole and concrete curb.
  2. Maintain the non-contributing headquarters sign at the entrance to the Life Saving Station, and other small scale features that are non-contributing but provide a needed function (e.g. propane tank, utility boxes, etc).
  3. Repair the concrete curb around the Life Saving Station. Reveal the full extent and form of the curb to create the defined formal setting around the building.
    - a. Repair the concrete curb by removing vegetation where it obscures the curb. Regrade and remove soil where it covers the curb.



b. Repair damaged portions of the curb by replacing in-kind missing portions of the curb.

c. Regrade the lawn as needed to restore the curb.

4. Allow new signs and site furnishings as long as the number is minimized and design and placement does not detract from the historic setting. Minimize new waysides within the cultural landscape.

5. Provide a new wayside adjacent to the expanded visitor parking, to provide orientation to the cultural landscape and Sand Point.

6. Remove the split-rail fence south of the Boathouse once the boardwalk is rerouted. Remove the non-contributing boat hull.

7. Remove the non-contributing boulder edge from Boathouse Drive.

8. Maintain the boulder edge at the terminus of Sand Point Road to discourage parking and off road vehicles. Realign to allow for the improved turn-around.

## Vegetation

During the period of significance, the USCG retained pine trees, but kept the rest of the vegetation low to provide views to the water. A level, even lawn surrounded the Life Saving Station, which exists today. The vegetation will be rehabilitated to more closely reflect the design and use of the active USCG station during the period of significance. This will include thinning trees and vegetation for views, and retaining low native shrubs and groundcovers to maintain the visual connection to the lake.

1. Preserve established native vegetation where it does not damage the integrity of historic views or the spatial organization of the cultural landscape.

2. Protect native dune vegetation and encourage visitors to utilize established trails through sensitive ecological areas.

3. Preserve extant trees that date from the period of significance. These include several mature pine trees present at the time the USCG developed the station.

4. Prepare a vegetation management plan to direct the proper methods of clearing and thinning, provide best management practices, control exotic species, and manage plants for ecological health.

5. Thin non-contributing forest vegetation to reestablish views to and from Lake Superior.

a. Thin tree branches and selectively remove smaller trees and tall shrubs to reestablish key views.

b. Establish low growing, native shrubs and groundcovers to maintain the views.

6. Remove vegetation where it obscures contributing walks and small scale features.

7. Repair the lawn surrounding the Life Saving Station within the concrete curb as was the historic design.

a. Repair the lawn to have a smooth even grade with an even grass cover. Replant the lawn within the concrete curb.

1 – Maintain the lawn with a low (3-  
2 inch) cut. Trim lawn away from edges  
3 of concrete walks and concrete curb  
4 to maintain a neat appearance.  
5

6 b. Monitor for weeds, bare patches  
7 and evidence of burrowing animals.  
8 Repair damaged areas and maintain  
9 the lawn with an even cover of grass,  
10 with a minimum 90% grass cover.  
11 Remove invasive and volunteer  
12 plants from the lawn. Weeds and bare  
13 patches should not exceed 15%.  
14

15 c. Maintain the area outside the concrete  
16 curb with native low-growing shrubs  
17 and/or unmown grasses.  
18

19 8. Add new trees and vegetation as needed  
20 around the temporary vault toilet, to  
21 blend the parking area with the setting.  
22

23 9. New plantings should utilize native plant  
24 material, arranged in naturalistic patterns  
25 to blend with the natural setting.  
26

27 10. Preserve the contributing ornamental  
28 vegetation associated with the former  
29 USCG residences east of Sand Point Road.  
30

31 a. Remove ornamental vegetation if  
32 it becomes a nuisance and remove  
33 exotic invasive species.  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44



## Implementation Guidance

- 1 This section provides guidance for implementing the treatment recommendations. The  
 2 recommendations are grouped into distinct tasks with subtasks identified. These tasks will guide  
 3 preparation of Project Management Information System (PMIS) project statements (Refer to  
 4 Appendix D for FMSS crosswalk and treatment tables).  
 5  
 6 Each treatment task has been assigned a priority which indicates when the treatment actions  
 7 should be undertaken. Phase 1 (1 to 2 years) includes tasks that are critical repairs or safety-  
 8 related changes; Phase 2 (2 to 5 years) includes serious repairs and rehabilitation needed to  
 9 preserve integrity; and Phase 3 (5 years or greater) which includes long term, routine maintenance,  
 10 restoration, or rehabilitation.

	Task ID	CLR / EA Treatment Recommendation	CLR / EA Task Component
Priority 1 (1 to 2 years)	1	<b>Rehabilitate historic views and spatial relationships</b>	1 Clear non-contributing forest vegetation to reestablish a view to and from Lake Superior 2 Clear vegetation that encroaches on historic paths 3 Establish low-growing native vegetation to maintain clear views 4 Reseed lawn at Life Saving Station within concrete curb

	Task ID	CLR / EA Treatment Recommendation	CLR / EA Task Component
Priority 2 (3 to 5 years)	2	<b>Provide universally accessible routes</b>	1 Repair surface ex concrete walks 2 Modify ex walks with new 5'x5' landing areas 3 Provide access to Life Saving Station (lift) and Boathouse (new ramp) 4 Create accessible route at visitor parking area. Connect to ex walks
	3	<b>Rehabilitate Visitor Parking</b>	1 Expand and formalize ex visitor parking 2 Provide accessible vault toilet 3 Provide accessible sidewalk 4 Widen Sand Point Road to provide parallel parking 5 Expand turning radii at end of road
	4	<b>Repair setting of Life Saving Station</b>	1 Remove staff parking and driveway 2 Reveal concrete curb 3 Repair topsoil 4 Repair lawn 5 Restore/repoint concrete walks

	Task ID	CLR / EA Treatment Recommendation	CLR / EA Task Component
<b>Priority 3</b> (5 years +)	<b>5</b>	<b>Repair Launchway and Setting</b>	1 Remove vegetation from interior of Launchway 2 Remove sand from interior of Launchway and restore rails 3 Remove ex boardwalk, gravel area and boulder edge 4 Provide new boardwalk
	<b>6</b>	<b>Provide visitor restrooms within Boathouse</b>	1 Provide accessible route into side door of Boathouse with exterior deck 2 Modify Boathouse interior to provide restrooms
	<b>7</b>	<b>New parking/operations area</b>	1 Remove parallel parking from edge of Sand Point Road 2 Provide new parking/operations area east of Sand Point Road
	<b>8</b>	<b>Reconstruct Lookout and Communications Towers</b>	1 Conduct additional research to verify design of towers 2 Reconstruct towers in original locations 3 Restore walk to Lookout Tower

## Chapter 7. Consultation and Coordination

### Scoping

1 An interdisciplinary team of professionals  
 2 from the park and the NPS Midwest Regional  
 3 Office met to conduct internal scoping  
 4 from June 6 to June 9, 2016 and discuss the  
 5 purpose and need for the project, various  
 6 alternatives, potential environmental impacts,  
 7 impact topics to retain and dismiss, and  
 8 reasonably foreseeable actions that may  
 9 have cumulative effects. The team met again  
 10 on October 19, 2016 to more fully develop  
 11 treatment alternatives and to identify a  
 12 preferred alternative.

13  
 14 The park sent letters describing the proposed  
 15 action and asking for comments to interested  
 16 individuals; organizations; state, county, and  
 17 local governments; and federal agencies.  
 18 American Indian tribes also were sent an  
 19 informational letter describing the project  
 20 and asking for comments.

### 21 Agency Consultation

#### 22 Section 106 of the National Historic 23 Preservation Act

24 Agencies that have direct or indirect  
 25 jurisdiction over historic properties are  
 26 required by section 106 of the National  
 27 Historic Preservation Act of 1966, as  
 28 amended (16 USC 470, et seq.), to take into  
 29 account the effect of any undertaking on  
 30 properties listed in or eligible for listing in  
 31 the national register. Compliance with section  
 32 106 of the NHPA is being conducted through  
 33 ongoing consultation with the Michigan  
 34 SHPO and park-affiliated American Indian  
 35 tribes. (See the “Consultation with American  
 36 Indians” section below.)

37  
 38 To meet the requirements of section 106, on  
 39 September 15, 2016, NPS sent the Michigan  
 40 SHPO a letter describing the proposed project  
 41 and soliciting comment on the alternatives.  
 42 PIRO will continue to consult with the

1 SHPO to determine the effects of the action  
 2 alternatives on historic resources and to  
 3 develop mitigation for impacts on historical  
 4 features, if any, from the preferred alternative.

### 5 Consultation with American Indians

6  
 7 The Ojibwe Indian people traditionally  
 8 occupied vast lands that ranged from both  
 9 shores of Lakes Superior and Huron in the  
 10 east to the North Dakota area in the west.  
 11 The Ojibwe hunted, fished, gathered wild  
 12 rice and various fruits, and engaged in some  
 13 horticulture. The descendant entity today is  
 14 the Lake Superior Tribe of Chippewa Indians  
 15 with different Ojibwe bands as independent  
 16 tribal governments in what are now  
 17 Wisconsin, Michigan, and Minnesota. NPS  
 18 forwarded this EA to the following federally  
 19 recognized American Indian tribes and tribal  
 20 governments that are traditionally associated  
 21 with the area now containing the park:

- 22 • Bad River Band of Lake Superior Tribe of
- 23 Chippewa Indians
- 24 • Bay Mills Indian Community of Michigan
- 25 • Fond du Lac Band of Lake Superior
- 26 Chippewa
- 27 • Grand Portage Band of Chippewa Indians
- 28 • Keweenaw Bay Indian Community
- 29 • Lac Courte Oreilles Band of Lake Superior
- 30 Chippewa Indians
- 31 • Lac du Flambeau Band of Lake Superior
- 32 Chippewa Indians
- 33 • Lac Vieux Desert Band of Lake Superior
- 34 Chippewa Indians
- 35 • Red Cliff Band of Lake Superior Chippewa
- 36 Indians



1 None of the proposed actions being  
2 considered in this EA would impede, prevent,  
3 or in any way negate treaty rights. The  
4 options being proposed here would not affect  
5 the harvesting of plants or plant materials,  
6 hunting, fishing (including commercial fishing  
7 in Lake Superior), or trapping rights.

8  
9 To date, the American Indian tribes have  
10 expressed no additional concerns or  
11 provided additional information regarding  
12 ethnographic resources or traditional  
13 uses. American Indian tribes traditionally  
14 associated with the lands of the park will have  
15 an opportunity to review and comment on  
16 this EA.

## 17 18 **U.S. Fish and Wildlife Service, Section** 19 **7 Consultation**

20  
21 In accordance with section 7 of the  
22 Endangered Species Act, the park contacted  
23 USFWS in a letter dated September 15, 2016  
24 to make them aware of the project and to  
25 solicit input on federally listed species or  
26 concern that may be affected by the proposed  
27 action.

28  
29 The park sent a letter seeking concurrence  
30 from the USFWS on the park's determination  
31 of effects for several threatened and  
32 endangered species that could be affected by  
33 the proposed alternatives. PIRO will continue  
34 to consult with the USFWS to determine the  
35 effects of the action alternatives on wildlife.

## 36 37 **Coastal Zone Consistency** 38 **Determination**

39  
40 Federal agency activities in or affecting  
41 Michigan's coastal zone must comply with  
42 §307 of the Coastal Zone Management Act  
43 and implementing regulations, which require  
44 that such federal activities be conducted  
45 in a manner consistent to the maximum

1 extent practicable with Michigan's Coastal  
2 Management Program. NPS has determined  
3 that the preferred alternative described in  
4 this document is consistent with Michigan's  
5 Coastal Management Program, including  
6 the state's goals and policies for this area.  
7 This EA provides the substantive basis  
8 for NPS's consistency determination and  
9 will be submitted to the Michigan Coastal  
10 Management Council for its concurrence. This  
11 consistency determination and the council's  
12 concurrence comply with the requirements of  
13 the Coastal Zone Management Act. If the State  
14 of Michigan concurs with NPS's consistency  
15 determination, it will transmit its formal  
16 concurrence to NPS.

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## Appendix B: Cost Estimates



**United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
BASIS OF ESTIMATE**

**PROJECT INFORMATION**

**Project:** PIRO CLR Renovations  
**Park:** Pictured Rocks National Lakeshore  
**Park Alpha:** PIRO  
**PMIS Number:** 152048  
**Estimate Date:** 11/28/2016 - V 1.0  
**Prepared By:** Jim Flemming  
**Company:** ACC Cost Consultants, LLC  
**Address:** 8060 SW Pfaffle St., Suite 110  
**City, State Zip:** Tigard, Oregon 97223  
**Phone:** 503-718-0075

**BACKGROUND SUPPORTING MATERIAL (Scope of Work):**

This Cultural Landscape Report (CLR) identifies characteristics and features that convey the historic significance and character of The Pictured Rocks National Lakeshore Historic District and provides a plan for the long-term preservation and stewardship of the landscape. The report provides park management with a comprehensive understanding of the physical evolution of the park's buildings, structures, roads, trails, and vegetation, and provides managers with guidance for care of these features. Treatment recommendations include repair of vegetation and views, improvements to trails and trailheads, provision of accessibility to key buildings and structures, and repair of small scale landscape features.

**SOURCE OF COST DATA:**

Cost Data is based on ACC's work history along with ACC's database of past and current projects. For this pricing, cost data defaults to our Portland, Oregon data base and or RS Means. (The Means City Cost Index and other factor percentages adjusts for location factor and pricing ( Means = 100.0, Portland, Or = 99.5, for purposes of this Class C pricing the variance is minimal)). Whenever possible, pricing includes contacting local suppliers and vendors for price checks. This estimate is formulated on the estimator's professional judgment and experience. This estimates makes no warranty, expressed or implied, that the quantities, bids or the negotiated cost of the work will not vary from the estimator's opinion of probable construction cost.

**ESTIMATE ASSUMPTIONS:**

The cost estimate is based on the CLR drawings and estimated quantities dated October, 2016. Estimate assumes the mid point of construction as 24 months from the date of this report. Escalation assumed to be 4% per year.

**MAJOR CHANGES FROM PREVIOUS ESTIMATE:**

N/A

**United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
BASIS OF ESTIMATE**

**PROJECT INFORMATION**

**Project:** PIRO CLR Renovations  
**Park:** Pictured Rocks National Lakeshore  
**Park Alpha:** PIRO  
**PMIS Number:** 152048  
**Estimate Date:** 11/28/2016 - V 1.0

**DESCRIPTION OF MARK-UP & ADD-ONS:**

Location Factor:	<u>-9.00%</u>	Basis of 2017 RS means = 100.0. Published Index Location, assume Iron Mountain, MI 91.0. Factor = 100.0/91.0= -9.0%
Remoteness Factor:	<u>11.40%</u>	Site is 114 miles from published commercial center. Allow 1% per 10 miles - 114 / 10 = 11.4%
Wage Rate Factor:	<u>0.00%</u>	Not Required
State & Local Taxes:	<u>6.00%</u>	State (6.0%) Local (0%) Total 6.0%
Design Contingency:	<u>30.00%</u>	Preliminary Design (PD) documents consist of a Historic Structures Report and Treatment Report . Relatively simple scope but not completely defined, warrants a 30% contingency.
Standard. General Conditions:	<u>15.00%</u>	Typical range 10% to 20%
Government General Conditions:	<u>5.00%</u>	Typical range 5% to 10%
Historic Preservation Factor:	<u>5.00%</u>	Building has tested for hazardous material in and around building
Contractor Overhead:	<u>8.00%</u>	Typical range 10% to 25%
Contractor Profit:	<u>10.00%</u>	Typical range 10% to 25%
Bonds and Permits:	<u>3.176%</u>	Bonds 1.105%, Insurance 1.039% & Permits 1.032%
Contracting Method Adjustment:	<u>10.00%</u>	Typical range 10% to 25%
Annual Inflation Escalation Factor:	<u>4.00%</u>	Projected annual inflation rate.
Time Until Project Midpoint (Months)	<u>24</u>	Allowance. TBD

**OTHER COMMENTS:**

This estimate is for direct construction cost only. It does not include furnishings & equipment, architect and engineer design fees, consultant fees, inspection and testing fees, plan check fees, hazardous material testing and removal, financing costs, nor any other normally associated development costs. This estimate assumes a sole-source general contractor. This is a probable cost estimate based on in-progress documentation provided by the architect. The actual bid documents will vary from this estimate due to document completion, detailing, specification, addendum, etc. The estimator has no control over the cost or availability of labor, equipment, materials, over market conditions or contractor's method of pricing, contractor's construction logistics and scheduling.

United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
PROJECT COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Alpha: PIRO  
PMIS: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
  
Reviewed By: SJP  
Date: 11/28/16

Item No.	Description	Quantity	Unit	Cost/Unit	Total	Total	Total
1	Visitor Parking, Vault Toilet, Walkways	1	Unit	\$273,169	\$273,169		
2	Alternate A	1	Unit	\$264,909		\$264,909	
3	Alternate B	1	Unit	\$1,179,906			\$1,179,906
5	Asset / Project Element 5	-	Unit	#DIV/0!	\$0	\$0	\$0
6	Asset / Project Element 6	-	Unit	#DIV/0!	\$0	\$0	\$0
7	Asset / Project Element 7	-	Unit	#DIV/0!	\$0	\$0	\$0
8	Asset / Project Element 8	-	Unit	#DIV/0!	\$0	\$0	\$0
9	Asset / Project Element 9	-	Unit	#DIV/0!	\$0	\$0	\$0
10	Asset / Project Element 10	-	Unit	#DIV/0!	\$0	\$0	\$0
11	Asset / Project Element 11	-	Unit	#DIV/0!	\$0	\$0	\$0
12	Asset / Project Element 12	-	Unit	#DIV/0!	\$0	\$0	\$0
	Subtotal Direct Construction Costs				\$273,169	\$264,909	\$1,179,906
	Value of Government Furnished Property (GFP) Included in Direct Cost (see footnote)*				\$0	\$0	\$0
	Direct Cost Subtotal without GFP				\$273,169	\$264,909	\$1,179,906
	Published Location Factor	-9.00%			-\$23,841.85		-\$106,191.52
	Remoteness Factor	11.40%			\$31,141.27		\$134,509.26
	Federal Wage Rate Factor	0.00%			\$0		\$0
	State & Local Taxes	6.00%			\$16,390.14		\$70,794.35
	Design Contingency	30.00%			\$81,950.70		\$353,971.74
	Total Direct Construction Costs				\$378,066	\$366,635	\$1,632,990
	Standard General Conditions	15.00%			\$56,710	\$54,995	\$244,948
	Government General Conditions	5.00%			\$18,903.29	\$18,331.73	\$81,649.48
	Historic Preservation Factor	5.00%			\$18,903.29	\$18,331.73	\$81,649.48
	Subtotal NET Construction Cost				\$472,582	\$458,293	\$2,041,237
	Overhead	8.00%			\$37,806.59	\$36,663.46	\$163,298.96
	Profit	10.00%			\$47,258.24	\$45,829.33	\$204,123.70
	Estimated NET Construction Cost				\$557,647	\$540,786	\$2,408,660
	Bonds & Permits	3.18%			\$17,710.87	\$17,175.36	\$76,499.03
	Contracting Method Adjustment	10.00%			\$55,764.72	\$54,078.60	\$240,865.97
	Inflation Escalation	24	Months	4.00%	\$51,500	\$49,942	\$222,444
	Total Estimated NET Cost of Construction				\$682,622	\$661,982	\$2,948,468

\* GFP costs are only used when the Government pre-purchases items, or provides other materials out of Government inventory, to be installed by contractor. Adjustments and Markup on GFP only include Inflation Escalation; No other adjustment factors or O&P markup have been applied.

United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
LINE ITEM COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Park Alpha: PIRO  
PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Total Cost: \$273,169

Summary Item 1 Visitor Parking, Vault Toilet, Walkways

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-D</b>	<b>Road &amp; Walk Improvements</b>					
Level 3 Code	Description	0	Unit	\$ -	\$0	
Level 3 Code	Clear & Grubbing	3000	Sf	\$ 0.50	\$1,500	
Level 3 Code	Remove Staff Parking Area	8993	Sf	\$ 1.00	\$8,993	
Level 3 Code	Remove Concrete Pad At Staff Parking Area	479	Sf	\$ 3.00	\$1,437	
Level 3 Code	Remove Parking At Boathouse	1000	Sf	\$ 1.00	\$1,000	
Level 3 Code	Remove Boulder Edge At Boathouse	9	Ea	\$ 75.00	\$675	
Level 3 Code	Haul & Disposal	1	Sum	\$ 1,361.00	\$1,361	
Level 3 Code	Visitor Parking Area - Gravel	10000	Sf	\$ 4.50	\$45,000	
Level 3 Code	Concrete Curb	1015	Lf	\$ 20.00	\$20,300	
Level 3 Code	Visitor Parking Area Sidewalk	240	Lf	\$ 22.00	\$5,280	crusher fines, 5' wide
Level 3 Code	Visitor Gathering Area, Paving	450	Sf	\$ 4.40	\$1,980	crusher fines
Level 3 Code	Pad/landing For Vault Toilet	200	Sf	\$ 7.50	\$1,500	concrete
Level 3 Code	Repair Walks	678	Lf	\$ 9.00	\$6,102	36" wide, repoint exist
Level 3 Code	Provide Accessible Landing At Walks	150	Sf	\$ 7.50	\$1,125	concrete
Level 3 Code	New Walk To Accessible Lift	40	Sf	\$ 7.50	\$300	concrete
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 9,700.00	\$9,700	
Level 3 Code	Description	0	Unit	\$ -	\$0	
<b>SUBTOTAL</b>					<b>\$ 106,253.00</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-E</b>	<b>Structures</b>					
Level 3 Code	Kiosk	1	Sum	\$ 7,500.00	\$7,500	8'x5' wd trailhead kiosk
Level 3 Code	Temporary Vault Toilet	1	Sum	\$ 30,700.00	\$30,700	clovermist dbl vault
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 3,820.00	\$3,820	
Level 3 Code	Description	0	Unit	\$ -	\$0	
<b>SUBTOTAL</b>					<b>\$ 42,020.00</b>	



United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
LINE ITEM COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Park Alpha: PIRO  
PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Summary Item 1 Visitor Parking, Vault Toilet, Walkways

Total Cost: \$273,169

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-F</b>	<b>Small Scale Features</b>					
Level 3 Code	Install New Entrance Sign	1	Sum	\$ 5,000.00	\$5,000	small way finding sign
Level 3 Code	Benches	2	Ea	\$ 1,800.00	\$3,600	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 860.00	\$860	
Level 3 Code	Description	0	Unit	\$ -	\$0	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 9,460.00</b>	<b>\$9,460</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-G</b>	<b>New Vegetation</b>					
Level 3 Code	Native Shrubs, Grasses, Forbs	10000	Sf	\$ 8.00	\$80,000	
Level 3 Code	Lawn Grasses	8893	Sf	\$ 2.00	\$17,786	
Level 3 Code	Deciduous Trees (2-.5" Cal.)	12	Ea	\$ 325.00	\$3,900	
Level 3 Code	Evergreen Trees (6' Height)	10	Ea	\$ 325.00	\$3,250	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	sum	\$ 10,500.00	\$10,500	
Level 3 Code	Description	0	Unit	\$ -	\$0	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 115,436.00</b>	<b>\$115,436</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
	<b>TOTAL COST - Visitor Parking, Vault Toilet, Walkways</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 273,169.00</b>	<b>\$273,169</b>	

United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
LINE ITEM COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Park Alpha: PIRO  
PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Summary Item 1 Alternate A

Total Cost: \$264,909

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-A</b>	<b>Vegetation Thinning and Removal</b>					
Level 3 Code	Description	0	Unit	\$ -	\$0	
Level 3 Code	Thin Trees And Vegetation For Virews	27308	Sf	\$ 0.55	\$15,019	limb up/prune trees
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	sum	\$ 1,500.00	\$1,500	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 16,519.40</b>	<b>\$16,519</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-D</b>	<b>Road &amp; Walk Improvements</b>					
Level 3 Code	Description	0	Unit	\$ -	\$0	
Level 3 Code	Clear & Grubbing	5000	Sf	\$ 0.50	\$2,500	
Level 3 Code	Remove Staff Parking Area	1191	Sf	\$ 1.00	\$1,191	
Level 3 Code	Remove Concrete Pad At Staff Parking Area	479	Sf	\$ 3.00	\$1,437	
Level 3 Code	Remove Parking At Boathouse	1769	Sf	\$ 1.00	\$1,769	
Level 3 Code	Remove Boulder Edge At Boathouse	9	Ea	\$ 75.00	\$675	
Level 3 Code	Haul & Disposal	1	Sum	\$ 757.00	\$757	
Level 3 Code	Visitor Parking Area - Gravel	8543	Sf	\$ 4.50	\$38,444	two-way, acc, no curb
Level 3 Code	Repair Concrete Curb	277	Lf	\$ 20.00	\$5,540	6" curb
Level 3 Code	Repair Boardwalk	272	Lf	\$ 40.00	\$10,880	wood
Level 3 Code	Pad/landing For Vault Toilet	200	Sf	\$ 7.50	\$1,500	concrete
Level 3 Code	Repair Walks	993	Lf	\$ 9.00	\$8,937	36" wide, repoint exist
Level 3 Code	Re Route Walk At New Ramp To Guard Sta	95	Lf	\$ 22.50	\$2,138	36" wide, new concrete
Level 3 Code	Repair Dock	107	Sf	\$ 8.00	\$856	wood
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 7,700.00	\$7,700	
Level 3 Code	Description	0	Unit	\$ -	\$0	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 84,323.00</b>	<b>\$84,323</b>	

United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
LINE ITEM COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Park Alpha: PIRO  
PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Summary Item 1 Alternate A

Total Cost: \$264,909

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-E</b>	<b>Structures</b>					
Level 3 Code	Ramp To Boathouse	350	If	\$ 40.00	\$14,000	wood
Level 3 Code	Ramp To Guard Station	72	If	\$ 40.00	\$2,880	wood
Level 3 Code	Permanent Vault Toilet	1	sum	\$ 30,700.00	\$30,700	clovermist dbl vault
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	sum	\$ 7,137.00	\$7,137	
Level 3 Code	Description	0	Unit	-	\$0	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 54,717.00</b>	<b>\$54,717</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-G</b>	<b>New Vegetation</b>					
Level 3 Code	Native Shrubs, Grasses, Forbs	12025	Sf	\$ 8.00	\$96,200	
Level 3 Code	Deciduous Trees (2..5" Cal.)	5	Ea	\$ 325.00	\$1,625	
Level 3 Code	Evergreen Trees ( 6' Height)	5	Ea	\$ 325.00	\$1,625	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 9,900.00	\$9,900	
Level 3 Code	Description	0	Unit	-	\$0	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 109,350.00</b>	<b>\$109,350</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>TOTAL COST - Alternate A</b>						
		<b>1</b>	<b>VALUE</b>	<b>\$ 264,909.40</b>	<b>\$264,909</b>	

United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
LINE ITEM COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Park Alpha: PIRO  
PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Summary Item 1 Alternate B

Total Cost: \$1,179,906

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-A</b>	<b>Vegetation Thinning and Removal</b>					
Level 3 Code	Description	0	Unit	\$ -	\$0	
Level 3 Code	Thin Trees And Vegetation For Virews	49798	Sf	\$ 0.55	\$27,389	rem understory, prune
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 2,700.00	\$2,700	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 30,088.90</b>	<b>\$30,089</b>	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-D</b>	<b>Road &amp; Walk Improvements</b>					
Level 3 Code	Description	0	Unit	\$ -	\$0	
Level 3 Code	Clear & Grubbing	22000	Sf	\$ 0.50	\$11,000	
Level 3 Code	Remove Staff Parking Area	8993	Sf	\$ 1.00	\$8,993	
Level 3 Code	Remove Concrete Pad At Staff Parking Area	479	Sf	\$ 3.00	\$1,437	
Level 3 Code	Remove Parking At Boathouse	2057	Sf	\$ 1.00	\$2,057	
Level 3 Code	Remove Boulder Edge At Boathouse	9	Ea	\$ 75.00	\$675	
Level 3 Code	Remove Boardwalk	236	Lf	\$ 5.00	\$1,180	
Level 3 Code	Remove Sand From Launchway	150	Cy	\$ 15.00	\$2,250	relocate to beach
Level 3 Code	Haul & Disposal	1	Sum	\$ 2,759.00	\$2,759	
Level 3 Code	Visitor Parking Area - Gravel	9856	Sf	\$ 4.50	\$44,352	two-way, acc, no curb
Level 3 Code	Visitor Gathering Area, Paving	450	Sf	\$ 4.40	\$1,980	
Level 3 Code	Repair Concrete Curb	584	Lf	\$ 20.00	\$11,680	6" curb
Level 3 Code	New Boardwalk	167	Lf	\$ 40.00	\$6,680	wood
Level 3 Code	Pad/landing For Vault Toilet	200	Sf	\$ 7.50	\$1,500	concrete
Level 3 Code	Repair Walks	678	Lf	\$ 9.00	\$6,102	36" wide, repoint exist
Level 3 Code	Restore Walks	315	Lf	\$ 15.00	\$4,725	reset, repoint, replace
Level 3 Code	Repair Dock	609	Sf	\$ 8.00	\$4,872	wood
Level 3 Code	Restore Rails At Launchway	410	Lf	\$ 20.00	\$8,200	
Level 3 Code	New Parking Area	9686	Sf	\$ 4.50	\$43,587	gravel paving, no curb



United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
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PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Summary Item 1 Alternate B		Total Cost:		\$1,179,906	
Level 3 Code	Parallel Parking At Sand Point Rd	2000	Sf	\$ 7.50	\$15,000 asphalt paved
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 17,902.90	\$17,903
Level 3 Code	Description	0	Unit	\$ -	\$0
SUBTOTAL		1	VALUE	\$ 196,931.90	\$196,932

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-E Structures</b>						
Level 3 Code	Kiosk	1	Sum	\$ 7,500.00	\$7,500	8'x5' wd trailhead kiosk
Level 3 Code	Ramp To Boathouse	40	Lf	\$ 80.00	\$3,200	wood, 8' wide
Level 3 Code	Temporary Vault Toilet	1	Sum	\$ 30,700.00	\$30,700	clovermist dbi vault allowance
Level 3 Code	Restore Observation Tower	1	Sum	\$ 15,000.00	\$15,000	allowance
Level 3 Code	Restore Lookout Tower	1	Sum	\$ 15,000.00	\$15,000	covered in HSR estimate
Level 3 Code	Lift At Guard Station	1	Sum	\$ -	\$0	covered in HSR estimate
Level 3 Code	Restroom Added At Boathouse	1	Sum	\$ -	\$0	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 4,140.00	\$4,140	
Level 3 Code	Description	0	Unit	\$ -	\$0	
SUBTOTAL		1	VALUE	\$ 75,540.00	\$75,540	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-F Small Scale Features</b>						
Level 3 Code	Install new entrance sign	1	Sum	\$ 5,000.00	\$5,000	small way finding sign
Level 3 Code	Benches	2	Ea	\$ 1,800.00	\$3,600	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 860.00	\$860	
Level 3 Code	Description	0	Unit	\$ -	\$0	
SUBTOTAL		1	VALUE	\$ 9,460.00	\$9,460	

United States Department of the Interior  
National Park Service  
Class C Construction Cost Estimate  
LINE ITEM COST SUMMARY

Project: PIRO CLR Renovations  
Park: Pictured Rocks National Lakeshore  
Park Alpha: PIRO  
PMIS Number: 152048

Estimate By: Jim Flemming  
Date: 11/28/2016 - V 1.0  
Reviewed By: SJP  
Date: 11/28/16

Summary Item 1 Alternate B

Total Cost: \$1,179,906

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>G50-G</b>	<b>New Vegetation</b>					
Level 3 Code	Native Shrubs, Grasses, Forbs	49313	Sf	\$ 8.00	\$394,504	
Level 3 Code	Lawn Grass	16278	Sf	\$ 2.00	\$32,556	
Level 3 Code	Deciduous Trees (2..5" Cal.)	12	Ea	\$ 325.00	\$3,900	
Level 3 Code	Evergreen Trees ( 6' Height)	5	Ea	\$ 325.00	\$1,625	
Level 3 Code	Shoreline Revegetation	2	Ac	\$ 196,000.00	\$392,000	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Sum	\$ 43,300.00	\$43,300	
Level 3 Code	Description	0	Unit	\$ -	\$0	
	<b>SUBTOTAL</b>	<b>1</b>	<b>VALUE</b>	<b>\$ 867,885.00</b>	<b>\$867,885</b>	

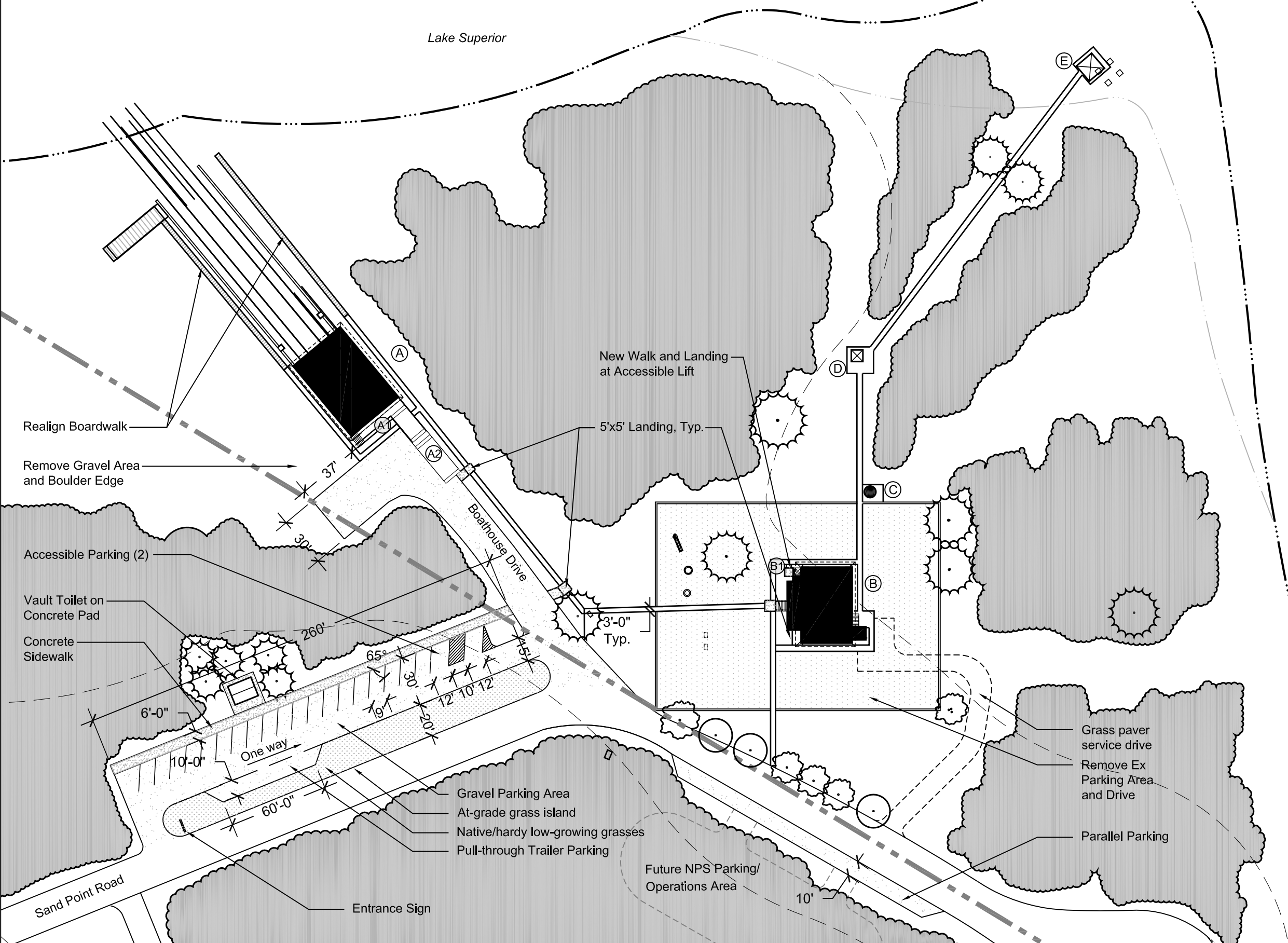
Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
<b>TOTAL COST - Alternate B</b>						
		<b>1</b>	<b>VALUE</b>	<b>\$ 1,179,905.80</b>	<b>\$1,179,906</b>	

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## Appendix C: Schematic Design Drawing



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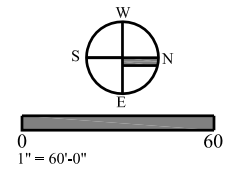


**Legend**

- Study Area / USCG Boundary
- Existing Contour
- Building / Structure
- Existing Shoreline
- Historic Shoreline
- Grass Paver Drive
- Concrete
- Gravel
- Native Grasses and Forbs
- Lawn Grasses
- Ex Conifer Tree to Remain
- Ex Deciduous Tree to Remain
- New Trees
- Forest Vegetation

- Building / Structure Notes**
- (A) Boathouse & Launchway (HS-08)
    - (A1) ABA Landing, Re: Arch
    - (A2) ABA Ramp, Re: Arch
  - (B) Munising Life Saving Station (HS-01)
    - (B1) Exterior Lift, Re: Arch
  - (C) Oil House (HS-02) to Remain
  - (D) Reconstruct Communication Tower
  - (E) Reconstruct Lookout Tower

Sources:  
Google Maps 2016, 1975 Sand Point Utilities as Maintained, 1984 Maritime Exhibit Sand Point, 1975 Site Analysis, USGS Maps



FEBRUARY 2017		TITLE OF PROJECT CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT	
UNITED STATES DEPARTMENT OF THE INTERIOR		TITLE OF DRAWING SCHEMATIC DESIGN PLAN	
PICTURED ROCKS NATIONAL LAKESHORE MUNISING, MICHIGAN		NAME OF PARK SAND POINT/MUNISING USCG LIFE SAVING STATION	
REGION MIDWEST	COUNTY ALGER	STATE MICHIGAN	C - 3



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## Appendix D: FMSS

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FMSS Crosswalk Table Pictured Rocks National Lakeshore Sand Point/Munising USCG Life Saving Station												
Cultural Landscape Report						FMSS						
Landscape Characteristic	Feature Name	Feature Contribution	HS Number	IDLCS Number	LCS Name	IN FMSS?	Asset Code	Asset Number	Asset Name	Location Number	Location Name	Comments/Notes
Natural Systems												
	Lake Superior	Contributing				N						
	Sand Point (geologic formation)	Contributing				N						
Spatial Organization												
	Formal arrangement of USCG Station	Contributing				N						
	Relationship to Lake Superior	Contributing				N						
	Open space around Station	Contributing				N						
Views												
	Views to/from Lake Superior	Contributing				N						
	View to Station from Sand Pt Road	Contributing				N						
Topography												
	Raised topography /plinth at Station	Contributing				N						
Circulation												
	Sand Point Road	Contributing				Y	1100 - Road	1424075	Traffic Surface	29607	SP Sand Point Road Rt. 0010	
	Staff Parking / Service Road	Non-Contributing				Y	1300 - Parking Area	395583	Traffic Surface	29609	SP Sand Pt. Headquarters Parking (unpaved), Rt 909	
	Visitor Parking	Non-Contributing					1300 - Parking Area	395583	Traffic Surface	29609	SP Sand Pt. Headquarters Parking (unpaved), Rt 909	
	Boathouse Drive	Contributing				N						
	North South Main Walk	Contributing				N						
	Station Walks	Contributing				N						
	Walk to Towers	Contributing				N						
	Walk to Boathouse	Contributing										
	Boathouse Walk	Contributing				N						
	Dock	Non-Contributing				N						





Boardwalk	Non-Contributing		N					
<i>Buildings and Structures</i>								
Life Saving Station	Contributing	HS-01	Y	4100 - Building			29613	SP Sand Pt. Park Headquarters HS-01
Boathouse	Contributing	HS-08	Y	4100 - Building			29614	SP Sand Pt. Boat House HS-08
Oil House	Contributing	HS-02	Y	4100 - Building			29615	SP Sand Pt. Oil House HS-02
Launchway Lookout Tower	Contributing		Y	6300-Marina / Waterfront System	1180288	Traffic Surface, Surface, 28 FT, 40 FT, Boat Ramp	29625	SP Sand Pt. Beach Waterway Launch Area
Foundation Communications	Contributing		N					
Tower Foundation	Contributing		N					
<i>Small Scale Features</i>								
Split Rail Fence	Non-Contributing		Y	3100 - Maintained Landscapes	1293810	Fence/Gate, Fence, Wood	29625	SP Sand Pt. Beach Waterway Launch Area
Interpretive Signs	Non-Contributing		N					Fence at Launchway
Headquarters Sign	Non-Contributing		Y	3100 - Maintained Landscapes	133032	Sign, Entrance Sign, Stone Base	29612	SP Sand Point Area Grounds
Flagpole	Contributing		Y	3100 - Maintained Landscapes	1440663	Exterior Furnishing, Flag Pole, Steel	29612	SP Sand Point Area Grounds
Propane Tank	Non-Contributing		Y	5700 - Fuel System	117567	Tank, Gaseous Fuel, 1,000 GAL Steel	29622	SP Sand Pt Headquarters LP Gas Fuel Storage Tank
Concrete Curb	Contributing		N					
<i>Vegetation</i>								
Woodland Vegetation	Contributing		Y	3100 - Maintained Landscapes	1345752	Land Surface, Recreational	29612	SP Sand Point Area Grounds
Ornamental Vegetation	Contributing		Y	3100 - Maintained Landscapes	1345752	Land Surface, Recreational	29612	SP Sand Point Area Grounds
White Pines	Contributing		Y	3100 - Maintained Landscapes	1345752	Land Surface, Recreational	29612	SP Sand Point Area Grounds
Lawn	Contributing		Y	3100 - Maintained Landscapes	1345752	Land Surface, Recreational	29612	SP Sand Point Area Grounds



**CLR Treatment Recommendations to FMSS**  
**Pictured Rocks National Lakeshore**  
**Sand Point/Munising USCG Life Saving Station**

CLR Treatment Task / FMSS Work Order	CLR Treatment Task Component/ FMSS Task	FMSS Asset Type	FMSS Asset Name (Number)	FMSS Location Name (Number)	FMSS Work Type / Sub Type	Units	Unit of Measure
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**Task 1. Rehabilitate historic views and spatial relationships**

- 3.1 Clear non-contributing forest vegetation to reestablish a view to and from Lake Superior
- 3.2 Clear vegetation from historic paths
- 3.3 Establish low-growing native vegetation to maintain clear views

**Task 2. Provide universally accessible routes**

- 1.1 Repair surface, existing concrete walks
- 1.2 Modify existing walks with new 5'x5' landing areas
- 1.3 Provide access to Life Saving Station (lift)
- 1.4 Provide access to Boathouse (ramp)
- 1.5 Create accessible route at visitor parking area. Connect to ex walks

**Task 3. Rehabilitate Visitor Parking**

- 4.1 Expand and formalize existing visitor parking
- 4.2 Provide accessible vault toilet
- 4.3 Provide accessible sidewalk
- 4.4 Widen Sand Point Road to provide parallel parking
- 4.5 Expand turning radii at end of road

**Task 4. Repair setting of Life Saving Station**

			SP Sand Pt. Headquarters Parking (unpaved), Rt 909	
2.1 Remove staff parking and driveway	1300 - Parking Area	Traffic Surface (395583)	(29609)	SF
2.2 Reveal concrete curb				LF
2.3 Repair topsoil				SF
2.4 Repair lawn	3100 - Maintained Landscapes	Land Surface, Recreational (1345752)	SP Sand Point Area Grounds (29612)	SF
2.5 Restore/repair concrete walks				SF

**Task 5. Repair Launchway and Setting**

6.1 Remove vegetation from interior of Launchway	6300-Marina / Waterfront System	Boat Ramp (1180288)	SP Sand Pt. Beach Waterway Launch Area (29625)	FM / DM  SF
6.2 Remove sand from interior of Launchway and restore rails	6300-Marina / Waterfront System	Boat Ramp (1180288)	SP Sand Pt. Beach Waterway Launch Area (29625)	FM / DM  CY
6.3 Remove ex boardwalk, gravel area and boulder edge				
6.4 Provide new boardwalk				LF

**Task 6. Provide visitor restrooms within Boathouse**

5.1 Provide accessible route into side door of Boathouse with exterior deck	4100 - Building	SP Sand Pt. Boat House HS-08 (29614)		
5.2 Modify Boathouse interior to provide restrooms	4100 - Building	SP Sand Pt. Boat House HS-08 (29614)		

**Task 7. New Parking / Operations Area**

7.1 Remove parallel parking from edge of Sandpoint Road	1100 - Road	Traffic Surface (1424075)	SP Sand Point Road Rt. 0010 (29607)	SF
7.2 Provide new parking/operations area east of Sand Point Road				SF

**Task 8. Reconstruct Lookout and Communications Towers**

8.1 Conduct additional research to verify design of towers				
8.2 Reconstruct towers in original locations				
8.3 Restore walk to Lookout Tower				

## **Appendix E: Consultation/Coordination Documents**



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# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

East Lansing Ecological Services Field Office

2651 COOLIDGE ROAD SUITE 101

EAST LANSING, MI 48823

PHONE: (517)351-2555 FAX: (517)351-1443

URL: [www.fws.gov/midwest/endangered/section7/s7process/step1.html](http://www.fws.gov/midwest/endangered/section7/s7process/step1.html)

Consultation Code: 03E16000-2016-SLI-0402

July 24, 2016

Event Code: 03E16000-2016-E-00589

Project Name: Munising Life Saving Station HSR/CLR/EA

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

### To Whom It May Concern:

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

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

There are several important steps in evaluating the effects of a project on listed species. Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions to help you determine if your project may affect listed species and lead you through the section 7 consultation process.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the ECOS-IPaC website (<http://ecos.fws.gov/ipac/>) at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

Although no longer listed under the Endangered Species Act, bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you avoid impacting eagles or determine if a permit may be necessary.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/BirdHazards.html>.

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

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

## Official Species List

### Provided by:

East Lansing Ecological Services Field Office

2651 COOLIDGE ROAD SUITE 101

EAST LANSING, MI 48823

(517) 351-2555

<http://www.fws.gov/midwest/endangered/section7/s7process/step1.html>

**Consultation Code:** 03E16000-2016-SLI-0402

**Event Code:** 03E16000-2016-E-00589

**Project Type:** VEGETATION MANAGEMENT

**Project Name:** Munising Life Saving Station HSR/CLR/EA

**Project Description:** Evaluation of historic structures and the cultural landscape of the Munising Life Saving Station at Pictured Rocks National Lakeshore. Treatment alternatives will be developed to guide maintenance and management of the structures and cultural landscape. Some vegetation disturbance may be associated with one or more proposed treatment alternatives.

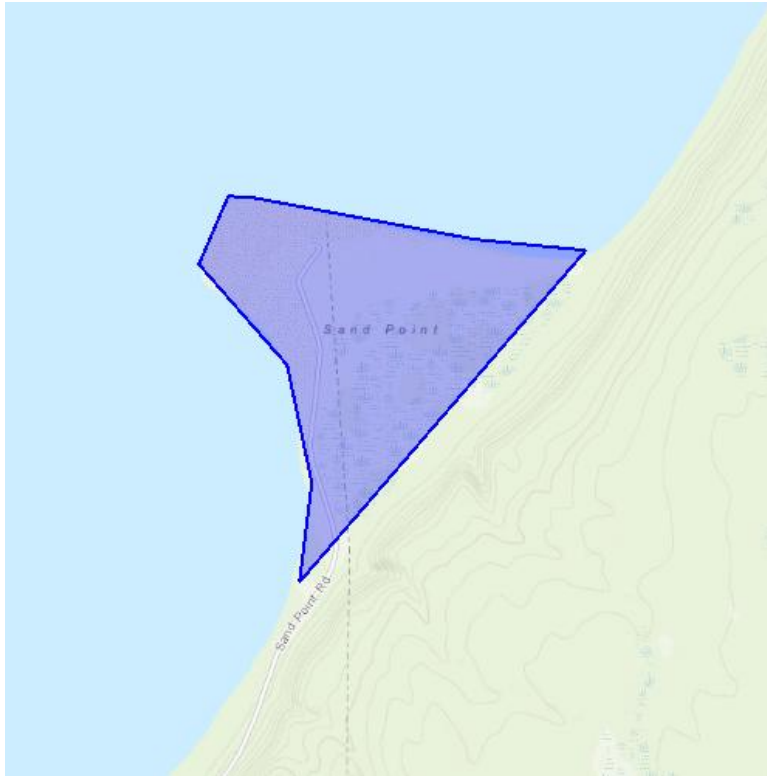
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-86.596040725708 46.4529674809738, -86.60689830780028 46.444274231226366, -86.60646915435791 46.44690600768241, -86.60737037658691 46.44998118087427, -86.61076068878174 46.45261268161267, -86.6096019744873 46.45438665530431, -86.6087007522583 46.454357089549625, -86.60020351409912 46.45326314534243, -86.596040725708 46.4529674809738)))

**Project Counties:** Alger, MI



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

## Endangered Species Act Species List

There are a total of 7 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Kirtland's Warbler ( <i>Setophaga kirtlandii</i> ) Population: Entire	Endangered		
Piping Plover ( <i>Charadrius melodus</i> ) Population: Great Lakes watershed	Endangered		
Red Knot ( <i>Calidris canutus rufa</i> )	Threatened		Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30.
<b>Flowering Plants</b>			
Pitcher's thistle ( <i>Cirsium pitcheri</i> )	Threatened		
<b>Mammals</b>			
Canada Lynx ( <i>Lynx canadensis</i> ) Population: Contiguous U.S. DPS	Threatened	Final designated	
Gray wolf ( <i>Canis lupus</i> ) Population: U.S.A.: All of AL, AR, CA, CO,	Endangered		





United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.			
Northern long-eared Bat ( <i>Myotis septentrionalis</i> )	Threatened		



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

## **Appendix A: FWS National Wildlife Refuges and Fish Hatcheries**

There are no refuges or fish hatcheries within your project area.



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

## Appendix B: FWS Migratory Birds

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>  
<http://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php>

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tools at:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

**Migratory birds that may be affected by your project:**

There are 6 birds on your migratory bird list. The list may include birds occurring outside this FWS office jurisdiction.

Species Name	Bird of Conservation Concern (BCC)	Seasonal Occurrence in Project Area
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Yes	Year-round
Canada Warbler ( <i>Wilsonia canadensis</i> )	Yes	Breeding
Common tern ( <i>Sterna hirundo</i> )	Yes	Breeding
Golden-Winged Warbler ( <i>Vermivora chrysoptera</i> )	Yes	Breeding
Olive-Sided flycatcher ( <i>Contopus cooperi</i> )	Yes	Breeding
Short-eared Owl ( <i>Asio flammeus</i> )	Yes	Breeding



United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

## Appendix C: NWI Wetlands

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

**Exclusions** - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

**Precautions** - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of





United States Department of Interior  
Fish and Wildlife Service

Project name: Munising Life Saving Station HSR/CLR/EA

this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following NWI Wetland types intersect your project area in one or more locations. To understand the NWI Classification Code, see <https://ecos.fws.gov/ipac/wetlands/decoder>. To view the National Wetlands Inventory on a map go to <http://www.fws.gov/wetlands/Data/Mapper.html>.

Wetland Types	NWI Classification Code
Freshwater Emergent Wetland	PEM1F
Freshwater Forested/Shrub Wetland	PFO4/SS1C
Freshwater Forested/Shrub Wetland	PSS1C
Freshwater Pond	PUBG
Lake	L2UBH
Lake	L2USJ
Lake	L1UBH
Riverine	R5UBH

## Rare Species Explorer

56 species

Scientific Name	Common Name	Taxonomic Group
<a href="#">Accipiter gentilis</a>	Northern goshawk	Birds
<a href="#">Acipenser fulvescens</a>	Lake sturgeon	Fish
<a href="#">Ammodramus savannarum</a>	Grasshopper sparrow	Birds
<a href="#">Astragalus canadensis</a>	Canadian milk vetch	Flowering Plants
<a href="#">Botaurus lentiginosus</a>	American bittern	Birds
<a href="#">Botrychium acuminatum</a>	Moonwort	Ferns and Fern Allies
<a href="#">Botrychium campestre</a>	Prairie Moonwort or Dunewort	Ferns and Fern Allies
<a href="#">Botrychium hesperium</a>	Western moonwort	Ferns and Fern Allies
<a href="#">Botrychium mormo</a>	Goblin moonwort	Ferns and Fern Allies
<a href="#">Botrychium spathulatum</a>	Spatulate moonwort	Ferns and Fern Allies
<a href="#">Buteo lineatus</a>	Red-shouldered hawk	Birds
<a href="#">Callitriche hermaphroditica</a>	Autumnal water-starwort	Flowering Plants
<a href="#">Calypso bulbosa</a>	Calypso or fairy-slipper	Flowering Plants
<a href="#">Charadrius melodus</a>	Piping plover	Birds
<a href="#">Cirsium pitcheri</a>	Pitcher's thistle	Flowering Plants
<a href="#">Coregonus artedii</a>	Lake herring or Cisco	Fish
<a href="#">Coregonus kiyi</a>	Kiyi	Fish
<a href="#">Coregonus zenithicus</a>	Shortjaw cisco	Fish
<a href="#">Cottus ricei</a>	Spoonhead sculpin	Fish
<a href="#">Coturnicops noveboracensis</a>	Yellow rail	Birds
<a href="#">Crataegus douglasii</a>	Douglas's hawthorn	Flowering Plants
<a href="#">Cypripedium arietinum</a>	Ram's head lady's-slipper	Flowering Plants
<a href="#">Dendroica cerulea</a>	Cerulean warbler	Birds
<a href="#">Elymus glaucus</a>	Blue wild-rye	Flowering Plants
<a href="#">Empetrum nigrum</a>	Black crowberry	Flowering Plants
<a href="#">Eriophora laeta</a>	Early hairstreak	Insects
<a href="#">Falco columbarius</a>	Merlin	Birds
<a href="#">Falco peregrinus</a>	Peregrine falcon	Birds
<a href="#">Gavia immer</a>	Common loon	Birds
<a href="#">Gnaphalium sylvaticum</a>	Woodland everlasting	Flowering Plants
<a href="#">Haliaeetus leucocephalus</a>	Bald eagle	Birds
<a href="#">Huperzia selago</a>	Fir clubmoss	Ferns and Fern Allies
<a href="#">Leymus mollis</a>	American dune wild-rye	Flowering Plants
<a href="#">Ligumia nasuta</a>	Eastern pondmussel	Mussels
<a href="#">Listera auriculata</a>	Auricled twayblade	Flowering Plants
<a href="#">Littorella uniflora</a>	American shore-grass	Flowering Plants

<i>Luzula parviflora</i>	Small-flowered wood rush	Flowering Plants
<i>Lycaeides idas nabokovi</i>	Northern blue	Insects
<i>Myotis septentrionalis</i>	Northern long-eared bat	Mammals
<i>Myriophyllum alterniflorum</i>	Alternate-leaved water-milfoil	Flowering Plants
<i>Myriophyllum farwellii</i>	Farwell's water milfoil	Flowering Plants
<i>Nicrophorus americanus</i>	American burying beetle	Insects
<i>Oryzopsis canadensis</i>	Canada rice grass	Flowering Plants
<i>Pandion haliaetus</i>	Osprey	Birds
<i>Phyciodes batesii</i>	Tawny crescent	Insects
<i>Picoides arcticus</i>	Black-backed woodpecker	Birds
<i>Pinguicula vulgaris</i>	Butterwort	Flowering Plants
<i>Potamogeton confervoides</i>	Alga pondweed	Flowering Plants
<i>Senecio indecorus</i>	Northern ragwort	Flowering Plants
<i>Spiza americana</i>	Dickeissel	Birds
<i>Stellaria longipes</i>	Stitchwort	Flowering Plants
<i>Tanacetum huronense</i>	Lake Huron tansy	Flowering Plants
<i>Trimerotropis huroniana</i>	Lake Huron locust	Insects
<i>Trisetum spicatum</i>	Downy oat-grass	Flowering Plants
<i>Tympanuchus phasianellus</i>	Sharp-tailed grouse	Birds
<i>Vaccinium cespitosum</i>	Dwarf bilberry	Flowering Plants

For assistance with this site, email [mnfi@msu.edu](mailto:mnfi@msu.edu)

MSU Extension programs and materials are open to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status or family status..



# United States Department of the Interior

## NATIONAL PARK SERVICE

Pictured Rocks National Lakeshore

P.O. Box 40

N8391 Sand Point Road

Munising, MI 49862-0040

IN REPLY REFER TO:

September 15, 2016

(906) 387-2607

1.A.2.(PIRO)

Ms. Lori Sargent  
Wildlife Biologist  
Michigan Department of Natural Resources  
Wildlife Division  
P. O. Box 30444  
Lansing, MI 48909-7944

Dear Ms. Sargent:

A National Park Service (NPS) contractor is preparing a Historic Structures Report and Cultural Landscape Report and associated Environmental Assessment (HSR/CLR/EA) to support management decisions on treatment and use of aboveground cultural resources for the Munising (Sand Point) U.S. Coast Guard Life Saving Station (station) at Pictured Rocks National Lakeshore. Pictured Rocks National Lakeshore is in the north-central section of the Upper Peninsula of Michigan along the south shore of Lake Superior. The Michigan State Historic Preservation Office determined in 1999 that the station is eligible for the National Register of Historic Places. The study area consists of the estimated 10 to 15 acres included in the historic U.S. Coast Guard station boundary.

The station retains nearly all of the primary and contributing structures needed for a self-sufficient lifesaving station, including main station building, oil house, boathouse, and boat launch. In addition, original elements like the sidewalk system, perimeter wall, lawn, and flagpole remain and contribute to its integrity. Although vegetation now screens many of the structures from the lakeshore, the complex retains a high degree of integrity in terms of location, design, setting, feeling, association, workmanship, and materials.

The goal of this project is to prepare critical planning and design documents to guide the ultimate treatment for the structures and cultural landscape. The HSR and CLR will serve as records of the history of the property – including pre-USCG, USCG, and NPS occupation – and provide documentation and analysis to guide the long-term care of the site. The end result will be cohesive treatment of the buildings and landscape that supports the operational and visitor use(s).

Although treatment alternatives have not yet been developed, projects with similar objectives in other NPS parks have typically included action alternatives with a mix of rehabilitating and restoring existing buildings and the cultural landscape. The alternatives often include activities that would disturb existing vegetation, including trimming and removing trees and shrubs to reestablish views.

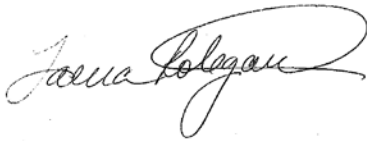
As part of the EA analysis, NPS obtained a list of state threatened and endangered species and species of concern from the Michigan Natural Features Inventory that may occur in Alger County, Michigan, the county in which the study area is located (enclosed). Once treatment alternatives have been developed, their effects on sensitive species will be fully evaluated and described in the HSR/CLR/EA.

This scoping notice informs you of the HSR/CLR/EA process and invites your participation in identifying issues and in analysis of potential environmental impacts from a variety of treatment alternatives. We look forward to your participation in this process and believe that it will help ensure that biological resources are adequately considered and evaluated in the HSR/CLR/EA.

As soon as the CLR/HSR/EA is complete, we will notify you of its availability for review and comment. I have designated Bruce Leutscher, Chief of Natural and Cultural Resources, to be the park's lead for this project. He can be reached at (906) 387-2680, or email at [bruce\\_leutscher@nps.gov](mailto:bruce_leutscher@nps.gov). In the meantime, if you have any questions or concerns about this notice or if you require additional information, please contact Bruce or me. I look forward to hearing from you.

We appreciate your continuing assistance with National Park Service projects.

Sincerely,

A handwritten signature in cursive script, reading "Laura Rotegard". The signature is written in dark ink and is positioned above the printed name and title.

Laura Rotegard  
Superintendent

Enclosures (3)



# United States Department of the Interior

## NATIONAL PARK SERVICE

Pictured Rocks National Lakeshore  
P.O. Box 40  
N8391 Sand Point Road  
Munising, MI 49862-0040

IN REPLY REFER TO:

September 15, 2016

(906) 387-2607

1.A.2.(PIRO)

Ms. Lauren Wenzel  
Acting Director  
National Marine Protected Areas Center  
National Oceanic and Atmospheric Administration  
1305 East West Highway  
Silver Spring, MD 20910-3281

cc: Valerie J. Grussing  
Cultural Resources Coordinator

Dear Ms. Wenzel:

A National Park Service (NPS) contractor is preparing a Historic Structures Report and Cultural Landscape Report and associated Environmental Assessment (HSR/CLR/EA) to support management decisions on treatment and use of aboveground cultural resources for the Munising (Sand Point) U.S. Coast Guard Life Saving Station (station) at Pictured Rocks National Lakeshore. Pictured Rocks National Lakeshore is in the north-central section of the Upper Peninsula of Michigan along the south shore of Lake Superior. The Michigan State Historic Preservation Office determined in 1999 that the station is eligible for the National Register of Historic Places. The study area consists of the estimated 10 to 15 acres included in the historic U.S. Coast Guard station boundary.

The station retains nearly all of the primary and contributing structures needed for a self-sufficient lifesaving station, including main station building, oil house, boathouse, and boat launch. In addition, original elements like the sidewalk system, perimeter wall, lawn, and flagpole remain and contribute to its integrity. Although vegetation now screens many of the structures from the lakeshore, the complex retains a high degree of integrity in terms of location, design, setting, feeling, association, workmanship, and materials.

The goal of this project is to prepare critical planning and design documents to guide the ultimate treatment for the structures and cultural landscape. The HSR and CLR will serve as records of the history of the property – including pre-USCG, USCG, and NPS occupation – and provide documentation and analysis to guide the long-term care of the site. The end result will be cohesive treatment of the buildings and landscape that supports the operational and visitor use(s).

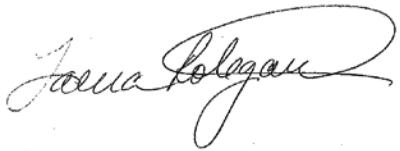
Although treatment alternatives have not yet been developed, projects with similar objectives in other NPS parks have typically included action alternatives with a mix of rehabilitating and restoring existing buildings and the cultural landscape. The alternatives often include activities that would disturb existing vegetation, including trimming and removing trees and shrubs to reestablish views. At this time, NPS does not anticipate any effects on protected marine areas. Once treatment alternatives have been developed, their effects on the environment will be fully evaluated.

As a courtesy, I am informing you of the HSR/CLR/EA process and I invite your participation in identifying issues and in analysis of potential environmental impacts from a variety of treatment alternatives. We look forward to your participation in this process and believe that it will help ensure that protected marine areas are adequately considered and evaluated, as applicable, in the HSR/CLR/EA.

As soon as the CLR/HSR/EA is complete, we will notify you of its availability for review and comment. I have designated Bruce Leutscher, Chief of Natural and Cultural Resources, to be the park's lead for this project. He can be reached at (906) 387-2680, or email at [bruce\\_leutscher@nps.gov](mailto:bruce_leutscher@nps.gov). In the meantime, if you have any questions or concerns about this notice or if you require additional information, please contact Bruce or me. I look forward to hearing from you.

We appreciate your continuing assistance with National Park Service projects.

Sincerely,

A handwritten signature in cursive script, appearing to read "Laura Rotegard". The signature is written in dark ink and is positioned above the printed name and title.

Laura Rotegard  
Superintendent

Enclosure



# United States Department of the Interior

## NATIONAL PARK SERVICE

Pictured Rocks National Lakeshore

P.O. Box 40

N8391 Sand Point Road

Munising, MI 49862-0040

IN REPLY REFER TO:

September 15, 2016

(906) 387-2607

1.A.2.(PIRO)

Ms. Sara Siekeirski  
Refuge Manager  
Seney National Wildlife Refuge  
1674 Refuge Entrance Rd.  
Seney, MI 49883

Dear Ms. Siekeirski:

A National Park Service (NPS) contractor is preparing a Historic Structures Report and Cultural Landscape Report and associated Environmental Assessment (HSR/CLR/EA) to support management decisions on treatment and use of aboveground cultural resources for the Munising (Sand Point) U.S. Coast Guard Life Saving Station (station) at Pictured Rocks National Lakeshore. Pictured Rocks National Lakeshore is in the north-central section of the Upper Peninsula of Michigan along the south shore of Lake Superior. The Michigan State Historic Preservation Office determined in 1999 that the station is eligible for the National Register of Historic Places. The study area consists of the estimated 10 to 15 acres included in the historic U.S. Coast Guard station boundary.

The station retains nearly all of the primary and contributing structures needed for a self-sufficient lifesaving station, including main station building, oil house, boathouse, and boat launch. In addition, original elements like the sidewalk system, perimeter wall, lawn, and flagpole remain and contribute to its integrity. Although vegetation now screens many of the structures from the lakeshore, the complex retains a high degree of integrity in terms of location, design, setting, feeling, association, workmanship, and materials.

The goal of this project is to prepare critical planning and design documents to guide the ultimate treatment for the structures and cultural landscape. The HSR and CLR will serve as records of the history of the property – including pre-USCG, USCG, and NPS occupation – and provide documentation and analysis to guide the long-term care of the site. The end result will be cohesive treatment of the buildings and landscape that supports the operational and visitor use(s).

Although treatment alternatives have not yet been developed, projects with similar objectives in other NPS parks have typically included action alternatives with a mix of rehabilitating and restoring existing buildings and the cultural landscape. The alternatives often include activities that would disturb existing vegetation, including trimming and removing trees and shrubs to reestablish views. Once treatment alternatives have been developed, their effects on the environment will be fully evaluated.

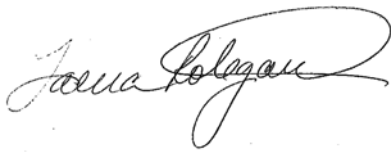


As a courtesy, I am informing you of the HSR/CLR/EA process and I invite your participation in identifying issues and in analysis of potential environmental impacts from a variety of treatment alternatives. We look forward to your participation in this process and believe that it will help ensure that National Wildlife Refuge resources are adequately considered and evaluated, as applicable, in the HSR/CLR/EA.

As soon as the CLR/HSR/EA is complete, we will notify you of its availability for review and comment. I have designated Bruce Leutscher, Chief of Natural and Cultural Resources, to be the park's lead for this project. He can be reached at (906) 387-2680, or email at [bruce\\_leutscher@nps.gov](mailto:bruce_leutscher@nps.gov). In the meantime, if you have any questions or concerns about this notice or if you require additional information, please contact Bruce or me. I look forward to hearing from you.

We appreciate your continuing assistance with National Park Service projects.

Sincerely,

A handwritten signature in cursive script, reading "Laura Rotegard". The signature is written in dark ink and is positioned above the printed name and title.

Laura Rotegard  
Superintendent

Enclosure



# United States Department of the Interior

## NATIONAL PARK SERVICE

Pictured Rocks National Lakeshore

P.O. Box 40

N8391 Sand Point Road

Munising, MI 49862-0040

IN REPLY REFER TO:

September 15, 2016

(906) 387-2607

1.A.2.(PIRO)

Brian D. Conway  
Director  
State Historic Preservation Office  
P.O. Box 30044  
Lansing, MI 48909

Dear Mr. Conway:

A National Park Service (NPS) contractor is preparing a Historic Structures Report and Cultural Landscape Report and associated Environmental Assessment (HSR/CLR/EA) to support management decisions on treatment and use of aboveground cultural resources for the Munising (Sand Point) U.S. Coast Guard Life Saving Station (station) at Pictured Rocks National Lakeshore. Pictured Rocks National Lakeshore is in the north-central section of the Upper Peninsula of Michigan along the south shore of Lake Superior. It was established in October 1966 by Public Law 89-668 to "preserve for the benefit, inspiration, education, recreational use, and enjoyment of the public, a significant portion of the diminishing shoreline of the United States and its related geographic and scientific features." The Michigan State Historic Preservation Office determined in 1999 that the station is eligible for the National Register of Historic Places. The station contains both primary and contributing buildings that were constructed in 1933 according to standardized plans drawn by United States Life Saving Service architects. Its period of significance, 1933-1946, reflects its active use as a fully staffed lifesaving station. The study area consists of the estimated 10 to 15 acres included in the historic U.S. Coast Guard station boundary.

The station retains nearly all of the primary and contributing structures needed for a self-sufficient lifesaving station, including main station building, oil house, boathouse, and boat launch. In addition, original elements like the sidewalk system, perimeter wall, lawn, and flagpole remain and contribute to its integrity. Although vegetation now screens many of the structures from the lakeshore, the complex retains a high degree of integrity in terms of location, design, setting, feeling, association, workmanship, and materials.

The goal of this project is to prepare critical planning and design documents to guide the ultimate treatment for the structures and cultural landscape. The HSR and CLR will serve as records of the history of the property – including pre-USCG, USCG, and NPS occupation – and provide documentation and analysis to guide the long-term care of the site. The end result will be cohesive treatment of the buildings and landscape that supports the operational and visitor use(s).

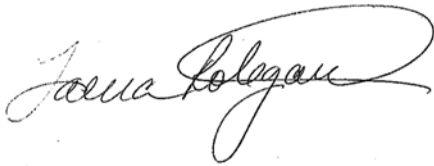
In accordance with the Advisory Council on Historic Preservation regulations, 36 CFR Part 800: Protection of Historic Properties, the NPS is required to comply with Section 106 of the National Historic Preservation Act of 1966, as amended. This scoping notice informs you of the HSR/CLR/EA Section 106 process and invites your participation in identifying issues and in analysis of potential environmental impacts from a variety of treatment alternatives.

In addition to informing you of the project and Section 106 process, I would also like to invite you to a contractor-facilitated design alternatives workshop at Pictured Rocks National Lakeshore on October 19, 2016. Your participation in the workshop would be extremely valuable as a way to gain from your knowledge of the resources and your ideas for treatment approaches. I will provide you with details on the workshop location and agenda once they are set and hope you or a representative are able to attend.

We look forward to your participation in this process and believe that it will help ensure that cultural resources are adequately considered and evaluated in the HSR/CLR/EA. As soon as the CLR/HSR/EA is complete, we will send it to you for review and comment. I have designated Bruce Leutscher, Chief of Natural and Cultural Resources, to be the park's lead for this project. He can be reached at (906) 387-2680, or email at [bruce\\_leutscher@nps.gov](mailto:bruce_leutscher@nps.gov). If you have any questions or concerns about this notice or if you require additional information, please contact Bruce or me. I look forward to hearing from you.

We appreciate your continuing assistance with National Park Service projects.

Sincerely,

A handwritten signature in cursive script, reading "Laura Rotegard". The signature is fluid and elegant, with a large loop at the end of the last name.

Laura Rotegard  
Superintendent

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1.A.2.(PIRO)

Mr. Charles Marsh  
District Ranger  
Munising Ranger District Office  
Hiawatha National Forest  
400 E. Munising Ave.  
Munising, MI 49862

Dear Mr. Marsh:

A National Park Service (NPS) contractor is preparing an Historic Structures Report and Cultural Landscape Report and associated Environmental Assessment (HSR/CLR/EA) to support management decisions on treatment and use of aboveground cultural resources for the Munising (Sand Point) U.S. Coast Guard Life Saving Station (station) at Pictured Rocks National Lakeshore. Pictured Rocks National Lakeshore is in the north-central section of the Upper Peninsula of Michigan along the south shore of Lake Superior. The Michigan State Historic Preservation Office determined in 1999 that the station is eligible for the National Register of Historic Places. The study area consists of the estimated 10 to 15 acres included in the historic U.S. Coast Guard station boundary.

The station retains nearly all of the primary and contributing structures needed for a self-sufficient lifesaving station, including main station building, oil house, boathouse, and boat launch. In addition, original elements like the sidewalk system, perimeter wall, lawn, and flagpole remain and contribute to its integrity. Although vegetation now screens many of the structures from the lakeshore, the complex retains a high degree of integrity in terms of location, design, setting, feeling, association, workmanship, and materials.

The goal of this project is to prepare critical planning and design documents to guide the ultimate treatment for the structures and cultural landscape. The HSR and CLR will serve as records of the history of the property – including pre-USCG, USCG, and NPS occupation – and provide documentation and analysis to guide the long-term care of the site. The end result will be cohesive treatment of the buildings and landscape that supports the operational and visitor use(s).

Although treatment alternatives have not yet been developed, projects with similar objectives in other NPS parks have typically included action alternatives with a mix of rehabilitating and restoring existing buildings and the cultural landscape. The alternatives often include activities that would disturb existing

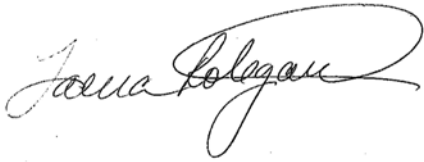
vegetation, including trimming and removing trees and shrubs to reestablish views. Once treatment alternatives have been developed, their effects on the environment will be fully evaluated.

As a courtesy, I am informing you of the HSR/CLR/EA process and I invite your participation in identifying issues and in analysis of potential environmental impacts from a variety of treatment alternatives. We look forward to your participation in this process and believe that it will help ensure that National Forest resources are adequately considered and evaluated, as applicable, in the HSR/CLR/EA.

As soon as the CLR/HSR/EA is complete, we will notify you of its availability for review and comment. I have designated Bruce Leutscher, Chief of Natural and Cultural Resources, to be the park's lead for this project. He can be reached at (906) 387-2680, or email at [bruce\\_leutscher@nps.gov](mailto:bruce_leutscher@nps.gov). In the meantime, if you have any questions or concerns about this notice or if you require additional information, please contact Bruce or me. I look forward to hearing from you.

We appreciate your continuing assistance with National Park Service projects.

Sincerely,

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Laura Rotegard  
Superintendent

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N8391 Sand Point Road

Munising, MI 49862-0040

IN REPLY REFER TO:

September 15, 2016

(906) 387-2607

1.A.2.(PIRO)

Mr. Scott Hicks  
Field Supervisor  
U.S Fish and Wildlife Service  
2651 Coolidge Road  
East Lansing, MI 48823

Dear Mr. Hicks:

A National Park Service (NPS) contractor is preparing a Historic Structures Report and Cultural Landscape Report and associated Environmental Assessment (HSR/CLR/EA) to support management decisions on treatment and use of aboveground cultural resources for the Munising (Sand Point) U.S. Coast Guard Life Saving Station (station) at Pictured Rocks National Lakeshore. Pictured Rocks National Lakeshore is in the north-central section of the Upper Peninsula of Michigan along the south shore of Lake Superior. It was established in October 1966 by Public Law 89-668 to “preserve for the benefit, inspiration, education, recreational use, and enjoyment of the public, a significant portion of the diminishing shoreline of the United States and its related geographic and scientific features.” The Michigan State Historic Preservation Office determined in 1999 that the station is eligible for the National Register of Historic Places. The station contains both primary and contributing buildings that were constructed in 1933 according to standardized plans drawn by United States Life Saving Service architects. Its period of significance, 1933-1946, reflects its active use as a fully staffed lifesaving station. The study area consists of the estimated 10 to 15 acres included in the historic U.S. Coast Guard station boundary.

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buildings and landscape that supports the operational and visitor use(s).

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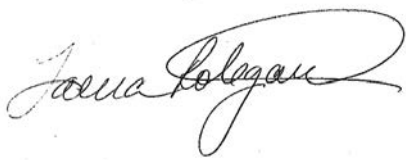
Section 7 of the Endangered Species Act of 1973 requires that a federal agency consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service on any action that may affect endangered or threatened species or candidate species or that may result in adverse modification of critical habitat. This letter serves to initiate informal consultation with your office under section 7(c) of the Endangered Species Act for the referenced project.

As part of the EA analysis, NPS requested and received a list of threatened and endangered species that may occur in the study area through the U.S. Fish and Wildlife Service Information for Planning and Conservation Environmental Conservation Online System (enclosed). Please confirm that the enclosed list is complete and that we do not need to add other species to our effects analysis.

We look forward to your participation in this process and believe that it will help ensure that threatened and endangered species and other biological resources are adequately considered and evaluated in the HSR/CLR/EA. As soon as the CLR/HSR/EA and our associated effects determination is complete, we will send it to you for review and comment. I have designated Bruce Leutscher, Chief of Natural and Cultural Resources, to be the park's lead for this project. He can be reached at (906) 387-2680, or email at [bruce\\_leutscher@nps.gov](mailto:bruce_leutscher@nps.gov). If you have any questions or concerns about this notice or if you require additional information, please contact Bruce or me. I look forward to hearing from you.

We appreciate your continuing assistance with National Park Service projects.

Sincerely,

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Laura Rotegard  
Superintendent

Enclosures (3)

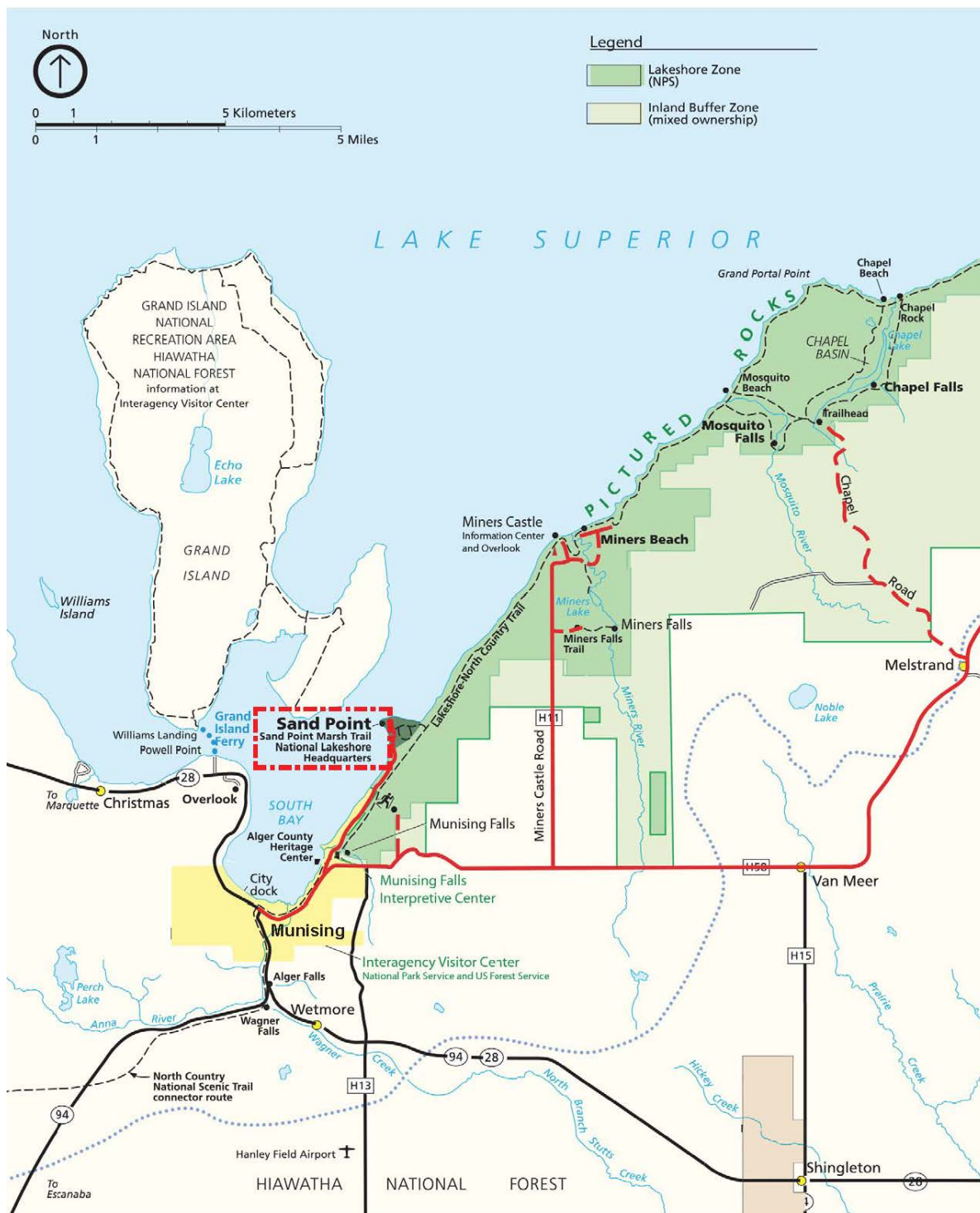


Figure 1. Munising (Sand Point) USCG Life Saving Station Location.



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SAND POINT/MUNISING USCG LIFE SAVING STATION,  
PICTURED ROCKS NATIONAL LAKESHORE  
Cultural Landscape Report and Environmental Assessment

2017