

**GRAND HAVEN CHARTER TOWNSHIP BOARD
MONDAY, NOVEMBER 11, 2019**

WORK SESSION – 6:00 P.M.

1. Discussion – Phase I Plan for Schmidt Heritage Park
2. Discussion – Pottawattomie Park Waterfront Redevelopment Plan
3. Other Items of Interest

REGULAR MEETING – 7:00 P.M.

II. CALL TO ORDER

III. PLEDGE TO THE FLAG

IV. ROLL CALL

V. APPROVAL OF MEETING AGENDA

VI. CONSENT AGENDA

1. Approve October 28, 2019 Regular Board Minutes
2. Approve October 29, 2019 Special Board Minutes
3. Approve Payment of Invoices in the amount of \$647,521.38 (*A/P checks of \$531,454.00 and payroll of \$116,067.38*)
4. Approve Reappointment of Lorie Kiebach (*regular member*) and Morgan Rescorla (*alternate member*) to the Board of Review for a term ending on December 31, 2020
5. Approve the Hire of Kyle Garlarger as a Part-Time Fire/Rescue staff
6. Approve the Hire of Jordon Donselar as a Part-Time Fire/Rescue staff

VII. PUBLIC HEARING – Joint Special Assessment Public Hearing for the following:

- FY2020 Special Assessment Police Services Roll
- FY2020 Special Assessment Sewer Roll
- FY2020 Special Assessment Storm Drain Roll
- FY2020 Special Assessment Delinquent Water and Sewer Payments
- FY2020 Special Assessment Street Lighting Roll
- FY2020 Special Assessment Street Paving Roll

VIII. OLD BUSINESS

1. Approve – Resolution 19-11-01 – Police Services Special Assessment Roll
2. Approve – Resolution 19-11-02 – Sewer Special Assessment Roll
3. Approve – Resolution 19-11-03 – Storm Drain Special Assessment Roll
4. Approve – Resolution 19-11-04 – Delinquent Water and Sewer Assessment Roll
5. Approve – Resolution 19-11-05 – Street Lighting Special Assessment Roll
6. Approve – Resolution 19-11-06 – Street Paving Special Assessment Roll
7. Approve – Resolution 19-11-07 – Pottawattomie Park Waterfront Re-Development Plan
8. Approve – Phase I Plan for Schmidt Heritage Park

IX. NEW BUSINESS

1. None

X. REPORTS AND CORRESPONDENCE

1. Committee Reports
2. Manager's Report
 - a. October Building Report
 - b. October Enforcement Report

- c. September Legal Review
- 3. Others

XI. EXTENDED PUBLIC COMMENTS/QUESTIONS ON NON-AGENDA ITEMS ONLY
(LIMITED TO THREE MINUTES, PLEASE.)

XII. ADJOURNMENT

NOTE: The public will be given an opportunity to comment on any agenda item when the item is brought up for discussion. Please complete Speaker Information Sheet. The supervisor will initiate comment time.

**GRAND HAVEN CHARTER TOWNSHIP BOARD
MONDAY, OCTOBER 28, 2019**

REGULAR MEETING

I. **CALL TO ORDER**

Supervisor Reenders called the regular meeting of the Grand Haven Charter Township Board to order at 7:00 p.m.

II. **PLEDGE TO THE FLAG**

III. **ROLL CALL**

Board members present: Reenders, Kieft, Larsen, Redick, Behm, Gignac

Board members absent: Meeusen

Also present was Manager Cargo.

IV. **APPROVAL OF MEETING AGENDA**

Motion by Clerk Larsen and seconded by Trustee Redick to approve the meeting agenda. **Which motion carried.**

V. **APPROVAL OF CONSENT AGENDA**

1. Approve October 14, 2019 Regular Board Minutes
2. Approve Payment of Invoices in the amount of \$298,505.86 (A/P checks of \$190,683.04 and payroll of \$107,822.82)

Motion by Treasurer Kieft and seconded by Trustee Behm to approve the items on the Consent Agenda. **Which motion carried.**

VI. **PRESENTATIONS**

1. Rhonda Kleyn (*Director of Neighborhood Housing Services*) provided a PowerPoint presentation of the services being provided. It was noted that about \$80,000 in housing grants were provided in the Township over the past year.
2. Elizabeth Butler (*Chamber of Commerce Economic Development Director*) provided a PowerPoint presentation on services being provided. It was noted that 45 businesses located in the Township are Chamber members (*or about 32%*). However, because of the support from the local units, all businesses will receive support for any of the economic development activities provided – including retention visits, etc.

VII. **PUBLIC HEARING**

Without objection, Supervisor Reenders opened a public hearing at 7:24 p.m. to hear any comments on the on-premise liquor license application for Don Luis, Inc. #2 to be located at 17222 Robbins Road, Suite 110, Grand Haven, Michigan.

The attorney for the applicant – William H. Franks – answered questions from the Board. Based upon the information provided, Manager Cargo noted that staff supported the license request.

With no other public comments, Supervisor Reenders closed the public hearing at 7:27 p.m.

VIII. OLD BUSINESS

1. The Board requested that the third sentence in the final paragraph of the agreement be amended to read as follows: “This MOU shall become effective upon signature by the authorized officials from the City of Grand Haven and Grand Haven Township and will remain in effect until modified by mutual consent or terminated by any one of the partners.”

Motion by Clerk Larsen supported by Trustee Redick to approve the proposed Housing Services agreement – as amended – with the City of Grand Haven at a cost not to exceed \$8,100 and to authorize Manager Cargo to execute the agreement. **Which motion carried.**

2. **Motion** by Trustee Behm supported by Trustee Gignac to authorize the Township Superintendent to execute the proposed three-year contract with the Chamber of Commerce for Economic Development Services. **Which motion carried.**

3. **Motion** by Treasurer Kieft supported by Clerk Larsen to approve and adopt Resolution 19-10-05, which recommends issuance of a liquor license for Don Luis, Inc. #2 based upon an application that meets all requirements of the Township’s Liquor Control License Ordinance and based upon the Board’s determination that the applicant complies with the restrictions set forth in paragraph 2.A through 2.M of said ordinance. **Which motion carried,** as indicated by the following roll call vote:

Ayes: Larsen, Gignac, Kieft, Redick, Behm, Reenders

Nays:

Absent: Meeusen

4. **Motion** by Trustee Redick supported by Clerk Larsen to adopt Resolution 19-10-06 that adopts the 3rd quarter budget amendments for fiscal year 2019. **Which motion carried,** as indicated by the following roll call vote:

Ayes: Behm, Gignac, Redick, Kieft, Reenders, Larsen

Nays:

Absent: Meeusen

IX. NEW BUSINESS

None.

VIII. REPORTS AND CORRESPONDENCE

1. Committee Reports
 - a. Trustee Redick noted that the Parks and Recreation Committee did approve the design for interpretive signs scheduled for installation in Pottawattamie Park.
 - b. Treasurer Kieft requested that the upcoming Planning Commission public hearing

for the Zoning Ordinance be placed on the Township's Facebook page, ASAP.

2. Manager's Report
 - a. September DPW Report
 - b. Budget Work Session is scheduled for tomorrow evening at 5:30 p.m.
3. Others

X. PUBLIC COMMENTS

None.

XI. ADJOURNMENT

Motion by Clerk Larsen and seconded by Trustee Behm to adjourn the meeting at 7:39 p.m. **Which motion carried.**

Respectfully Submitted,



Laurie Larsen

Grand Haven Charter Township Clerk



Mark Reenders

Grand Haven Charter Township Supervisor

**GRAND HAVEN CHARTER TOWNSHIP BOARD
TUESDAY, OCTOBER 29, 2019**

SPECIAL MEETING – BUDGET WORK SESSION

I. CALL TO ORDER

Supervisor Reenders called the special budget work session meeting of the Grand Haven Charter Township Board to order at 5:30 p.m.

III. ROLL CALL

Board members present: Reenders, Kieft, Redick, Behm and Gignac

Board members absent: Meeusen and Larsen

Also present were Manager Cargo, Finance Director Sandoval, Fire/Rescue Chief Gerencer, Public Services Director VerBerkmoes, Community Development Director Fedewa, and Human Resources Director Dumbrell.

IV. NEW BUSINESS

Manager Cargo provided an overview of the proposed 2020 Fiscal Year budget of about \$13.44 million. The Township’s twelve (12) budgets are all balanced with projected fund balances or cash reserves at the end of the 2020 Fiscal Year.

Manager Cargo was requested to provide current Harbor Transit ridership numbers – especially for Township initiated rides. Discussion was held on the education reimbursement policy and Manager Cargo noted that the budget “caps” the employee amount at the IRS limit as a non-taxable benefit (*i.e.*, \$5,250).

Manager Cargo noted that the public hearings on the special assessment districts will be held on Monday, November 11th and that the “*Truth in Budgeting*” public hearing is scheduled for Monday, November 25th.

V. PUBLIC COMMENTS/QUESTIONS

None

VI. ADJOURNMENT

Without objection, Supervisor Reenders to adjourn the meeting at 6:23 p.m.

Respectfully Submitted,

William Kieft III
Grand Haven Charter Temporary Township Clerk

Mark Reenders
Grand Haven Charter Township Supervisor



Public Services Memo

DATE: November 7, 2019

TO: Township Board/Manager

FROM: Mark VerBerkmoes

RE: Schmidt Heritage Park – Phase I

As you may recall, with the donation of the Schmidt property, one of the contingencies of the land donation was that the Township complete a master plan for the site. In addition, the Township is required to plan and build Phase I improvements within four (4) years of the closure on the property. The Parks and Recreation Committee, with the assistance of a consultant (Nederveld Inc.) and input for the donor, have developed a Phase I plan for the property. Attached is the plan, scope and cost estimate.

The Phase I includes improvements from the Master Plan including:

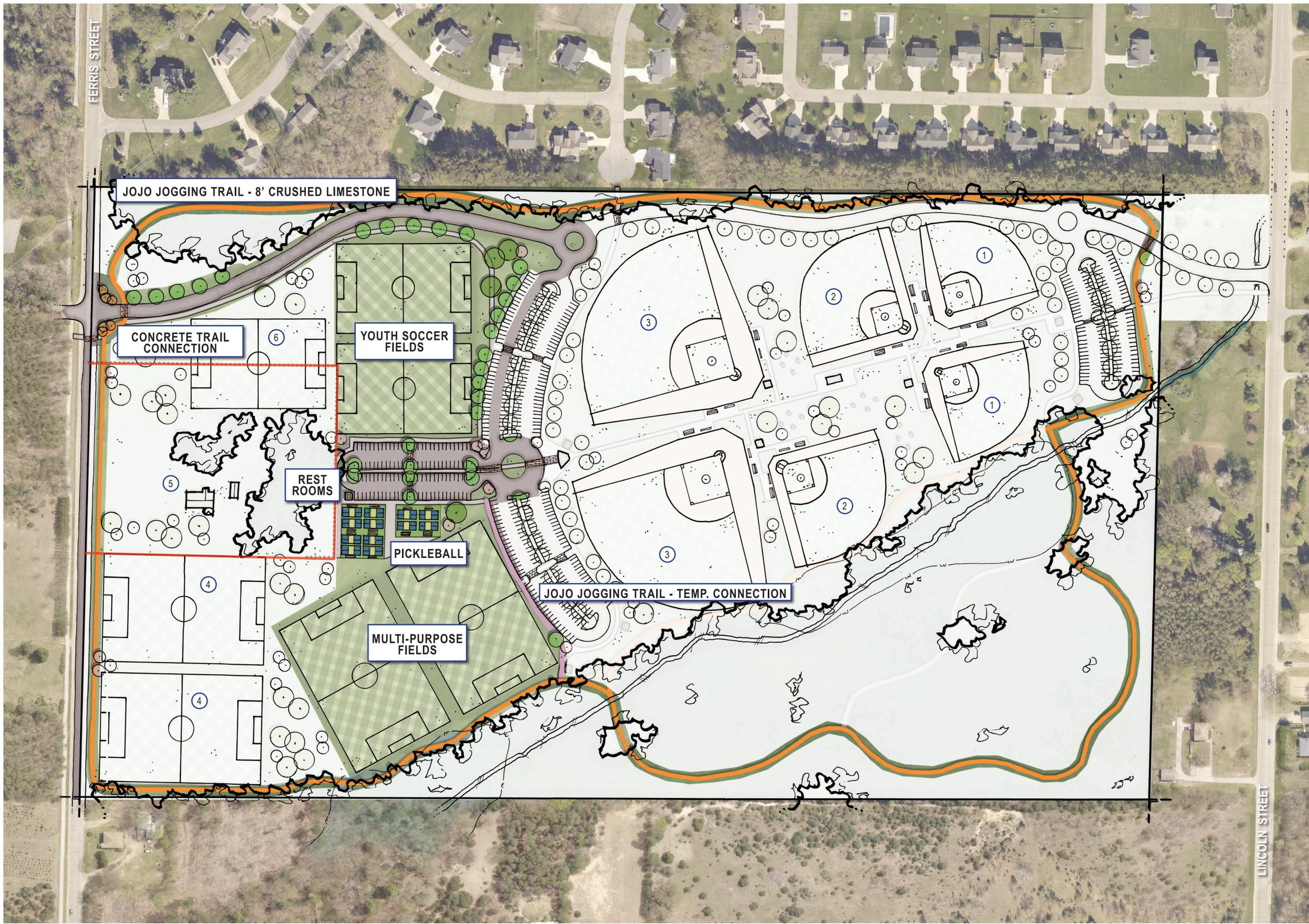
- A jogging trail
- Concrete trail and walks
- Multi-sport fields and irrigation
- A pavilion
- Restrooms
- Pickleball court w/ bleachers
- An entry road and parking
- Water and sanitary sewer connections
- Benches, trash receptacles and bike racks, and
- Trees, landscaping and signage

The cost of the Phase I improvements is estimated to be \$3.84 million. The Parks and Recreation Committee is recommending the Phase I plan to the Township Board for implementation.

If the Board supports the recommendation of the Parks & Recreation Committee, the following motion could be offered:

***“Move to approve the Phase I Development Plan dated October 11, 2019 for Schmidt Heritage Park, as recommended by the Parks & Recreation Committee.*”**

If you have any questions or comments, please contact me at your convenience.



LEGEND

- ① YOUTH BASEBALL DIAMOND
- ② SOFTBALL DIAMOND
- ③ BASEBALL DIAMOND
- ④ MULTI-PURPOSE FIELD
- ⑤ BARN
- ⑥ YOUTH SOCCER FIELD

GENERAL SITE NOTES

Site Location:	15704 Ferris Street Grand Haven, MI
Approximate Site Area	= 72.95 ac.
Standard Recommended Parking	= 308 spaces
Baseball/Softball Diamond	= 120 spaces
20 spaces / diamond	
Multi-Purpose/Soccer Field	= 140 spaces
20 spaces / field	
Pickleball Court	= 48 spaces
4 spaces / court	
Proposed Parking	= 516 spaces
** Wetland lines approximates, derived from data obtained from Michigan Department of Environmental Quality "Wetland Map View" website.	

PHASE ONE NOTES

Approximate Site Area	= 16.25 ac.
Proposed Site Amenities	
Youth Soccer Fields	= 2
Multi-purpose Fields	= 2
Pickle Ball Courts	= 12
JoJo Jogging Trail (miles)	= 1.50
Rest Rooms	= 1
Pavilions/Shelters	= 1
Parking Spaces	= 104

SUBMISSIONS

CONCEPTUAL MASTER PLAN	= 8/08/19
PHASE ONE DELINEATION	= 8/29/19
PHASE ONE REVISION	= 10/09/19
PHASE ONE REVISION	= 10/11/19

SCHMIDT HERITAGE PARK

10.11.19

Hard Cost Items	Cost	Measurement	Unit	Total Cost
Jo Jo Jogging Trail (8' wide / Crushed Limestone "Path Mix")	\$ 20.00	8000.00	linear feet	\$ 160,000.00
Concrete Trail (8' wide / access from north to south)	\$ 40.00	1350.00	linear feet	\$ 54,000.00
Concrete Walk (6' wide / surrounding parking and pickleball courts)	\$ 40.00	1250.00	linear feet	\$ 50,000.00
Multi Sport Field (12" topsoil / sod / 4-goals) No drainage included	\$ 1.36	350500.00	square feet	\$ 476,680.00
Multi-Sport Field Irrigation	\$ 15,000.00	8.25	per acre	\$ 123,750.00
Pavilion - Standard	\$ 23,000.00	1.00	per pavilion	\$ 23,000.00
Bathrooms	\$ 135,000.00	1.00	per structure	\$ 135,000.00
Pickleball Court (including bleachers)	\$ 25,000.00	12.00	per court	\$ 300,000.00
Road (30' wide / no curb / limited storm water)	\$ 250.00	2050.00	linear feet	\$ 512,500.00
Parking (limited storm water / concrete curbs)	\$ 8.00	40000.00	square feet	\$ 320,000.00
Utilities (water and sanitary sewer-provided by GHCT)	\$ 497,000.00	1.00	lump sum	\$ 497,000.00
Benches	\$ 2,500.00	5.00	per unit	\$ 12,500.00
Trash Receptacles	\$ 800.00	4.00	per unit	\$ 3,200.00
Bike Racks	\$ 700.00	2.00	per unit	\$ 1,400.00
Grubbing and Tree Removal (Including SW corner for trail)	\$ 2,500.00	8.50	per acre	\$ 21,250.00
Rough Grading (1.5' depth, all site excluding jogging trail)	\$ 7,250.00	8.00	per acre	\$ 58,000.00
Wild Flower /Native Grass Seed	\$ 1,750.00	5.00	per acre	\$ 8,750.00
Native Grass Seed	\$ 1,000.00	0.50	per acre	\$ 500.00
Trees and Landscaping	\$ 50,000.00	1.00	lump sum	\$ 50,000.00
Signage (1-Entry@\$25K, 2-Vehicular@\$10K, 7-Ped@\$7k)	\$ 94,000.00	1.00	lump sum	\$ 94,000.00
Subtotal				\$ 2,901,530.00
Soft Costs (Consultant Fees,Permits, Inspections, Construction Admn)*				\$ 266,000.00
Contingency (10%)				\$ 316,753.00
Total (if constructed 2019/2020)*				\$ 3,484,283.00

*Estimated cost increase per year of 5% if construction is not completed by 2020

Estimate cost if constructed 2021	\$ 3,658,497.15
Estimate cost if constructed 2022	\$ 3,841,422.01
Estimate cost if constructed 2023	\$ 4,033,493.11

SCHMIDT HERITAGE PARK

10.11.19

*Soft Cost Items	Total Cost
Civil Engineering	\$ 58,000.00
Project Management	\$ 40,000.00
Landscape Architecture (including turf consultant)	\$ 15,000.00
Survey (topo and boundary of full site, construction staking Phase 1)	\$ 17,000.00
Wetland Biologist (map full site, permitting for just Phase 1)	\$ 15,000.00
Traffic Engineer (traffic report for full buildout and for Phase 1)	\$ 15,000.00
Environmental Engineering (Phase One Report)	\$ 2,000.00
Attorney	\$ 10,000.00
County Drain Commission Fees	\$ 5,000.00
County Road Commission Fees	\$ 2,000.00
GHCT (assume fees are waved)	\$ -
EGLE Permits	\$ 2,000.00
SE/SC Permit and Inspection Fees	\$ 10,000.00
NPDES Permit and Inspection Fees	\$ 15,000.00
Compaction Testing	\$ 25,000.00
Soil Borings	\$ 15,000.00
Construction Administration	\$ 20,000.00
Subtotal	\$ 266,000.00

On October 9th the Parks and Recreation Committee adopted a motion recommending the Board approve the Pottawattomie Park Shoreline Improvements Plan for the approximate amount of \$280,500.

WHERE ARE WE TODAY?

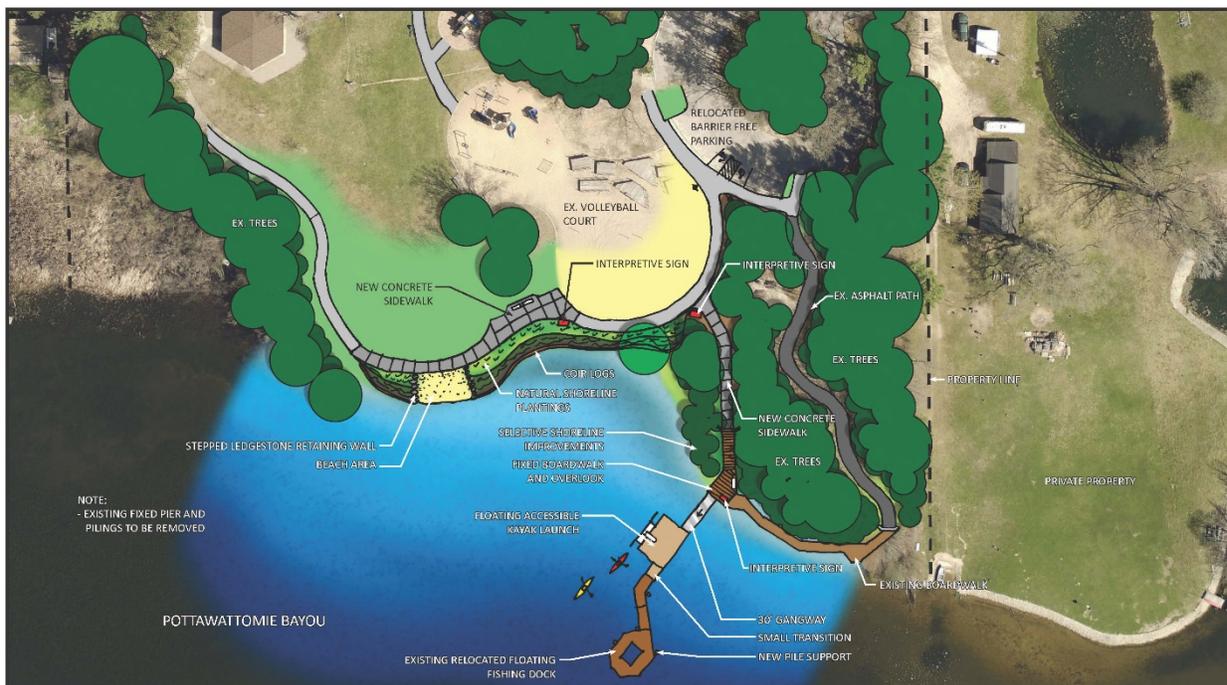
From there, the consultant created a cost estimate based on Concept 3. The “rough estimate” for this concept was upwards of \$600,000. After reviewing the findings with the Township Manager, staff was directed to reduce the estimate...significantly.

In order to provide cost savings and stay true to the preferred concept design, staff and Prein&Newhof went to work crafting the current design being presented tonight. See below.

Pottawattomie Park - Shoreline Improvements Plan Grand Haven Charter Township



Coastal Zone Management
Grant Project # 19-CHHC-001



9-12-2019

Prein&Newhof

PROPOSED SCOPE OF WORK

- Remove the fixed portion of the dock, remove all pilings.
- Save the floating portion of the dock for reuse.
- Move the sidewalk near the shoreline farther north.
- Between new sidewalk and shoreline will be the natural shoreline plantings.
- Small beach area with stepped ledgestone retaining wall.
- Build a new sidewalk that leads to the new/relocated dock. This will replace about half of the existing boardwalk.
- Build a small area of fixed boardwalk and an overlook.

- Add a gangway from the overlook to the new floating accessible kayak launch.
- The floating portion of the dock will be reused by attaching it to the kayak launch.
- Add 4 interpretive signs to inform the community about the improvements and their importance.
- Relocate barrier free parking closer to the boardwalk and dock for more direct access.

This scope of work is estimated at \$280,000. The “implementation” phase of the grant is also a 50/50 cost sharing with Coastal Zone Management. Meaning, the **Township’s portion would be approximately \$140,000.**

NEXT STEPS

As staff understands, this is the first or second year of this particular grant funding opportunity being available. That has resulted in the Township playing a bit of a “guinea pig” role because we run into issues that have not occurred before. Then must go through the process of working with EGLE and NOAA to find a solution.

The **most poignant issue that has come up are for soil borings.** Per CZM, EGLE, NOAA, and SHPO a soil boring is considered construction because earth is moved. As you know, part of the erosion problem is due to the underground streams. Reviewing the soil in the area where pilings need to be installed is crucial.

For example, the \$600k estimate was so high because the highest cost for the pilings was anticipated. Worst-case-scenario would be metal pilings permanent set into the bed of the bayou. That is similar to a marina.

A **SHPO application was submitted in the summer,** but with the changes to CZM joining EGLE and then most of those departments being relocated to new areas, the SHPO application seems delayed because their staff have just completed a move to a new building.

NOAA must also approve the borings, so the documentation requested by CZM was provided in September. **Staff are hoping to complete the single soil boring yet this year.**

To officially complete the “planning” phase of the grant:

1. Township Board review and formal approval by way of resolution.
2. Obtain a soil boring.
3. Submit final documentation to CZM, and request approval for “implementation” grant.

MOTION

To proceed with finalizing the grant package and requesting funding for the second phase, the following motion can be offered:

Motion to adopt Resolution 19-11-07, which approves the Feasibility Plan, Shoreline Stabilization Plan, Engineer’s Cost Estimate, and its supporting documentation for Pottawattomie Park and commits a local match if the second phase of the project is funded.

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 - 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

After certain matters of business had been completed, Supervisor Reenders announced that the next order of business was the consideration of a Resolution of Support for the Pottawattomie Park Waterfront Redevelopment Plan.

The proposed resolution was discussed by the members of the Board, and after discussion was completed the following resolution was offered by _____ and seconded by _____.

**GRAND HAVEN CHARTER TOWNSHIP
RESOLUTION 19-11-07**

**RESOLUTION APPROVING THE POTTAWATTOMIE PARK
COASTAL MANAGEMENT UNIT GRANT PACKAGE**

WHEREAS, the developed portion of the park is in need of improvements, and

WHEREAS, the Pottawattomie Bayou has experienced accelerated erosion within the Park due to hard structures, underground streams, and needs to be stabilized utilizing natural materials and methods, and

WHEREAS, the Pottawattomie Park amenities are in need of universal design improvements to enable all members of the community to utilize the Park to their full capacity, and

WHEREAS, the Township has completed the requirements pursuant to the Michigan Coastal Zone Management Grant Agreement, Project No. 19-CHHC-001, and

WHEREAS, the Pottawattomie Park Feasibility Plan, Shoreline Improvements Plan, and Engineer's Estimate are complete and acceptable to the Township,

WHEREAS, the Township Board desires to be approved for the second phase "implementation" grant through the Coastal Management Unit; and

NOW, THEREFORE, BE IT RESOLVED, that the Grand Haven Charter Township Board approves the Pottawattomie Park Coastal Management Unit Grant Package in the amount of \$280,500 for the improvements to Pottawattomie Park and commits that the local match shall be provided if the project is funded.

AYES:

NAYS:

ABSENT:

RESOLUTION DECLARED _____ ON NOVEMBER 11, 2019.

Laurie Larsen
Grand Haven Charter Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and acting Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of the resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen
Grand Haven Charter Township Clerk

Draft Estimate of Probable Cost

Owner:

Grand Haven Charter Township

Project Title:

Pottawattomie Park Improvements - Phase 1

Date:

September 20, 2019

Project #:

2190213

Item

<i>No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Total Amount</i>
1	Mobilization 5% Max	1	LS	\$10,000.00	\$10,000.00
2	Soil Erosion Control Measures	1	LS	\$1,500.00	\$1,500.00
3	Tree Removal & Grubbing for Walk	1	LS	\$7,500.00	\$7,500.00
4	Sidewalk & Wood Platform Removal	1250	SFT	\$4.00	\$5,000.00
5	Removal of Boardwalk / Overlook & Pilings	1	LS	\$15,000.00	\$15,000.00
6	New 8' Wide Concrete Sidewalk & Headwall to Overlook (90')	720	SFT	\$10.00	\$7,200.00
7	New 6' Concrete Sidewalk at Shoreline	1500	SFT	\$8.00	\$12,000.00
8	Fixed Boardwalk & Overlook	1	LS	\$40,000.00	\$40,000.00
9	8' Wide Gangway (30 ft)	1	LS	\$15,000.00	\$15,000.00
10	Kayak Launch and Floating Dock	1	LS	\$40,000.00	\$40,000.00
11	Shoreline Stabilization and Wetland Restoration	1	LS	\$50,000.00	\$50,000.00
12	Beach Establishment	1	LS	\$5,000.00	\$5,000.00
13	Interpretive Signage	4	Each	\$1,500.00	\$6,000.00
14	Parking Lot Striping and Barrier Free Sign	1	LS	\$1,000.00	\$1,000.00
15	Site Restoration	1	LS	\$5,000.00	\$5,000.00

Construction Subtotal: \$220,200.00

Contingency 10%: \$22,020.00

Engineering: \$23,000.00

Permitting/Staking/Construction Observation: \$15,000.00

* Estimates are not a guarantee of actual costs

* Cost savings could be realized with work done by owner

Total *: \$280,220.00



GRAND HAVEN CHARTER TOWNSHIP



Grand Haven Charter Township Pottawattomie Park Feasibility Plan

October 2019

Coastal Zone Management Grant # 19 CHHC-001

Prein&Newhof

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Introduction

Pottawattomie Park is a popular Township park located on the Pottawattomie Bayou. This Bayou connects to the Grand River 8-miles upstream of the river mouth at Lake Michigan. Located along the Grand River Heritage Water Trail this access site is a popular location for swimming, fishing and paddle sports for people from all over Ottawa County and visitors from beyond. Currently this Park has a boardwalk along the east third of the shoreline which is forested up to the water's edge, the middle of the site features a shallow wetland area and a portion that is lawn to water. This site also features a floating and fixed fishing dock. The



west third of the shoreline is natural with no man-made improvements or access. The lawn to water portion is used for swimming access, and the shallow wetland area is frequently used for kayak and paddle board launching. This site is experiencing aggressive erosion along the shoreline, primarily in the areas with water access to park users. Most of the erosion is occurring at the lawn to water area used by swimmers and along the boardwalk at the west half of the Park. This boardwalk, which used to be completely on land, is now surrounded by water in numerous locations. The erosion is caused by many factors including the high-water levels which are causing increased ice damage and greater wave action at the site. The current usage of swimming and launching kayaks has further increased the erosion of the site. The Township began the design-build process for the dock and boardwalk in 1990, and it was completed by 1992. The boardwalk was originally constructed on land, but due to the aggressive erosion, the vast majority is now in the water. Land near the boardwalk is eroding at approximately 1.5-feet per year with a total loss around 35 feet. Erosion is even more aggressive near the dock, which has lost over 45-feet of land at a rate of approximately 2-feet per year. All of which is an alarmingly fast rate. The Township desires to improve the site, which



encourages a healthy ecosystem and provides safe and universal access to the water for the public. The dock and boardwalk are nearly 30 years old, and although they were built with quality materials at the time; the structures have reached their end of life and need to be replaced. Creating a natural shoreline will also assist with stormwater infiltration that will filter the water prior to entering the bayou and ultimately discharging into Lake Michigan by way of the Grand River. Providing this method of nature-based stabilization will provide a healthy coast and improve water quality.

Statement of Problem

Shoreline Erosion

Recently the Township has noticed significant erosion occurring along the shoreline. Primary erosion is in the lawn area and adjacent to the dock on each side.. Reviewing historical aerial photography the shoreline has moved back approximately 25 ft in this area. See Figure X. Land loss is evident in this location with lawn actually falling into the bayou in chunks and the irrigation piping being exposed.

Other areas of the shoreline have experienced some erosion but most of the land loss is due to high water covering the shoreline and not actual erosion.

Boardwalk and Fishing Pier

The existing boardwalk and fishing piers have exceeded their expected design life. Timber decking is cracking, warping, and rotting. Railings are coming loose and becoming hazardous. Tree falls have damaged the boardwalk in numerous places. The fishing pier has ongoing issues with ice jacking of the pile supports requiring yearly maintenance. A portion of the fishing pier is constructed of floating sections which are in need of reconstruction or replacement. None of the existing structures meet current ADA guidelines for outdoor recreation sites.

Carry Down Access

Carry down access is currently occurring through an area of shallow water depth which naturally would be a wetland. This is causing deterioration of the vegetation and shoreline stability. ADA accessible access is not provided for kayakers/canoers at this time.

Preliminary Site Investigations

Topographic & Bathymetric Survey

A topographic and bathymetric survey was completed for the project site. The topographic survey extended along the shoreline of the entire property and approximately 200 ft. inland. The bathymetric survey was extended to approximately 5 to 6 ft. of water depth. Survey was completed in the NAVD 1988 vertical datum. The water surface at the time of survey (May 3, 2019) was s at elevation 582.3 ft.

The project shoreline is broken up into three parts. The western 110 ft. is stable vegetated shoreline with a large shallow area in front of the bank. The middle 180 ft. is steeper and transitions from fully vegetated shoreline to lawn and then back to vegetated shoreline. The 120 ft. is vegetated shoreline with steeper banks and has a boardwalk along the water's edge. At approximately 100 feet from the current edge of water the water depth is approximately eight feet. A more in depth description of the three areas will follow.



The water surface is currently high compared to historic levels. Water levels of Lake Michigan, the Grand River and their connected waters were all at or near historical highs during the time that the survey was completed. Using historic aerial photography and comparing to the bathymetric survey it would appear the water level over the last 10 years has been around 579 to 580 ft. This is significant when reviewing the bathymetry since the 580 contour is the beginning of the flat wetland portion of the west 110 ft.

The west 110 ft. of the shoreline consists of a vegetated and stable shoreline. There is a steeper bank that has an approximate 1:3 slope which has a bottom of bank elevation of approximately 582. South of the bank is a 40 to 50 ft. wide area that has a very gentle 1:20 slope up to the 580 ft. contour. Water ward of the 580 contour the bayou bottom deepens at an approximate 1:10 to 1:12 slope. At the time of the survey the large flat area had approximately two feet of water depth; historical photos frequently show this area as vegetated wetland. Based on the bathymetry this area is well protected from wave and wake action due and especially at lower water levels. There is no public use of this area at this time.

The middle 180 ft. has been very dynamic over the past number of years which significant amount of land loss due to erosion. The majority of the erosion has occurred in the west 80 ft. of this area. The vast majority of the public access to the water's edge occurs in this area. This area juts out into the bayou more and is more exposed. The western 40 ft. of the middle section is primarily vegetated with no significant signs of instability. The slope into the water transitions from the gentler slope to the west to a steeper 1:6 slope. The steeper slope is consistent form the shoreline down to the 577 contour. This steeper slope allows any waves and wakes to remain near full height prior to breaking at the shoreline. Near the end of this area is a fixed open pile dock structure. From the dock to approximately 30 ft. to the west is a lawn area which is maintained up to the water's edge. Traditionally this lawn portion is used for swimming access. The swimming area has a bottom slope of approximately 1:10 down to the 575 contour. Looking at historical

photos the lawns edge used to be about 25 ft. south (towards the water) from its current location (based on year 2007). Using descriptions of how the area has eroded, pictures of the site, and aerial photographs it is assumed the top of lawn used to be at approximately 581 to 582 with a steeper bank into the water. This would have resulted in more blunt edge exposed to the water with little stable vegetation. West of the lawn area is a small shallow cove which has not experienced any significant erosion and often is dry or has less than a foot of water. This area is often used for kayak and paddle board launching. There is some erosion occurring near the water's edge where a steeper bank is located. This is most likely due to impact from launching of kayaks. The current use of this area is damaging the vegetation and causing instability



of the bank. Most of the land loss in this section is due to high water levels and will return when levels subside.

The eastern portion of the site consists of a vegetated slope. The slope varies from 1:2 to 1:5. A boardwalk runs parallel to shore for the majority of this section of the site. Currently the edge of water is located under the boardwalk or behind it depending on the elevations of the grade. Historical photographs indicate (2007 to 2014) the boardwalk was located land ward of the water's edge by approximately 5 feet. If water levels were between 578 to 580 this would agree with the current bathymetry. There is evidence of some erosion in this area however not to the extent that is present in the middle of the site.

Soils & Groundwater

Looking at aerial photography, discussions with township staff, users of the park and site observations there appear to be springs or seeps coming from the bank primarily in the middle region of the park. Onsite observations have shown water coming from the bank in the lawn area and aerial photography shows evidence of flowing water through the shallow vegetated cove. The water table in the area is very high especially with the elevated water levels. The seeps could be impacting the ability to the shoreline to remain stable allow vegetation.

Soil borings were not completed at the site. Using past knowledge, site observations and soil borings from nearby projects the soils at the site are medium to fine sand. Soil borings are recommended to be completed prior to construction of the project. There is a possibility that a clay layer is present which could be contributing to the seeps.

Erosion & Site Drainage

The overall site to the north of the shoreline slopes towards the water. No storm water collection system exists currently. All storm water either infiltrates into the ground or flows overland to the bayou. The lawn areas are all gentle slopes built on sand. Run-off is expected to occur but no visual evidence of erosion caused by runoff is present. There are no areas present that result in concentrated flow due to runoff. Some sand does appear to wash off the beach volleyball courts onto the sidewalk behind the cove, however, that could be caused by foot traffic and a malfunctioning irrigation system. Overall storm water runoff does not appear to be causing a significant amount of erosion at the site.



Primary erosion is occurring along the water interface with the lawn area. Site observations indicate that the sand beneath the lawn is saturated. Sand appears to be eroding away due to wave and wake energy and is being aggravated by groundwater seeps. Since the grass has very little root structure the sand has nothing to stop it from being eroded. Another factor as to the erosion at the middle lawn area is due to the water depth and distance from the deeper water to the edge of water. Without a shallow depth flat slope area in front of the edge of water the wave/wake energy is not being dissipated prior to hitting the shore.

Hydrodynamics

The site is located along the north side of Pottawattomie Bayou. Pottawattomie Bayou is a long bayou running east west. The bayou connected to the Grand River on its east side at a narrow bridge crossing. All waves within the bayou are developed inside the bayou are not being contributed to by other water bodies. The bayou is long and skinny with the project site located in the middle of the bayou approximately 4,000 ft. from both the east and west end. The distance across to the south shoreline is approximately 1,000 ft.

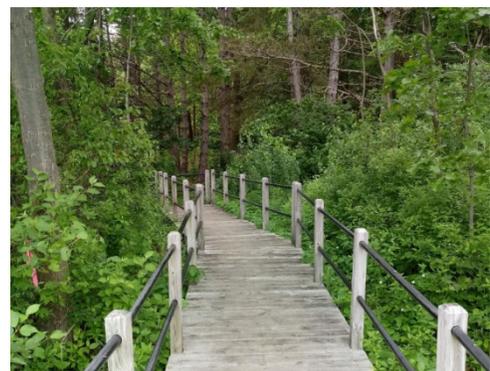


Fetch from the west is limited due to the sites location being protected by a curve in the bayou. A conservative length for the fetch from the west is 3,000 ft. A conservative distance for the fetch from the east is 4,000 ft.

Design wave height is between 1 to 2 feet with wind developed waves more likely being closer to 1 ft. at this location. Wakes from wake boats and power boats will provide a greater energy impact to this shoreline than wind developed waves.

Wetland Delineation

To perform the wetland delineation and report, Prein&Newhof hired sub-consultant King & McGregor Environmental Inc. of Grand Rapids, Mi. On May 15, 2019 King & McGregor conducted the onsite wetland delineation of the project site and placed flags for Prein&Newhof surveyors to ‘pick up’ and locate on the existing site survey. The methods used were consistent with the procedures and practices used by EGLE and the USACOE Wetland Delineation Methodology. As expected at the water’s edge wetland vegetation does exist, and any



disturbance of such will require permitting. (See below) The vegetation observed in these wetland areas included species such as green ash, speckled alder, red osier dogwood, silky dogwood, tussock sedge, broadleaved cattail, swamp dewberry, and common horsetail. The soils are described in the Web Soil Survey as Adrian-Houghton mucks (very poorly drained). The soils evaluated on-site appeared consistent with this description. (see Appendix A for complete Wetland Determination Report).

Invasive Species Investigation

To perform the invasive species evaluation and report, Prein&Newhof hired sub-consultant King & McGregor Environmental Inc. of Grand Rapids, Mi. On July 12, 2019 King & McGregor conducted the onsite invasive species evaluation. The site appears to me of moderate vegetative quality. There were 35 native plant species and 10 non-natives.

The most commonly known invasive found was purple loosestrife which is in many places throughout Ottawa County. The most aggressive of the non-native plants found on site is English ivy climbing trees and honeysuckle throughout. Underwater aquatic species such as Eurasian milfoil may be present but were not visible at the time of the investigation.



Historical and Archeological Investigation

The Grand River, its tributaries and connected bayou's have long been a significant resource for any and all who have inhabited its broad watershed. The Pottawattomie Bayou gets its name sake from the Native American tribe that shares its name. Because of this Prein&Newhof felt it was important to do additional research at the State Historic Preservation Office in preparation for and to assist with the Section 106 Application. In our review it was found that there haven't been any recorded archeological findings associated with the park or project site to indicate any known historical artifacts. Furthermore the majority of the ground disturbing activity associated with the proposed project construction described below under the "Preferred Concept Plan" is very shallow and limited to areas of previous significant disturbance. The only locations of deeper ground disturbances are associated with the soils borings necessary for understanding the loading capacity of the existing bayou soils where new piles will need to be driven in the water for the fixed boardwalk overlook. Soil borings and pile installation will take place from barge to eliminate the ground disturbance due to equipment. Refer to the constructability review section for more information.

Threatened & Endangered Species Review

To perform the wetland delineation and report, Prein&Newhof hired sub-consultant King & McGregor Environmental Inc. of Grand Rapids, Mi. On May 15, 2019 King & McGregor conducted the onsite protected species evaluation. According to the USFWS (United States Fish and Wildlife Service) web database Ottawa County has one federally listed endangered species the Indiana Bat and four federally listed threatened species, the northern long-eared bat, rufa red knot, and Pitcher's thistle. According to the report by King & McGregor, park improvements within the area of interest would not affect any of the 4 federally endangered or threatened species described above. The tree canopy and is not ideal for Indiana or northern long-eared bats, the site is too far from Lake Michigan to be desirable to Rufa Red Knot, and the site does not



One of the largest concentration of rufus red knots is found in May in Delaware Bay, like this red knot at Bombay Hook National Wildlife Refuge. Credit: USFWS

contain suitable coastal dune habitat for Pitcher's thistle. According to the Michigan Natural Features Inventory

website Wild Rice is typically found in shallow areas of large slow moving water of which is typical of the Pottawattomie Bayou shoreline along with other Bayou's connected to the Grand River. Shoreline activities associate with park improvements may imp act wild rice plants if present. Late summer is the best time to identify the flowering or fruiting plants.



Permitting

A permit will be required from the Department of Environment, Great Lakes, and Energy (EGLE) for construction of this project. The permit will be applied for under Part 301 Inland Lakes and Streams, Part 303 Wetlands Protection and Part 31 Floodplains. This project will not qualify for any minor or general permit categories. A permit will also be required from the United States Army Corps of Engineers (USACE) for construction within a Section 10 waterway.

A pre-application meeting was held on August 1, 2019 with the Township, Prein&Newhof and EGLE at the site. At this meeting the proposed improvements were presented, and the site was walked.

A Soil Erosion and Sedimentation Control Permit will be required from the Ottawa County Water Resources Commission.



Preliminary Design

The Township's primary concern at this site is the ongoing erosion and property loss along the shoreline. Secondary to the erosion concern is the existing pier/boardwalk structures age and functionality. The project must address these issues while enhancing the Public's ability to use the park and access the water. The Township has also expressed a desire to try and keep as much of the shoreline natural and soft. This will require plantings, site access control and careful thought in amenity locations

Site Access Control

The park is currently used for many activities. Primary activities along the shoreline are swimming, paddle boarding, kayaking, canoeing, and fishing. At this time the only activity that has a specific location is fishing with the fishing pier. Kayaks, paddle boards, and canoes are currently launched through the shallow cove which is impacting the vegetation and stability of this area. Swimmers are entering the water primarily over the lawn area into the water, however, some appear to enter through the cove as well.



A fishing pier has remained part of the design in order to continue and provide a location for fishing in deeper water away from the swimmers.

In order to promote revegetation and stability of the slope in the cove away kayaks, paddle boards, and canoes must be discouraged from using this area for launching. One way to do this is by providing a floating kayak/canoe launch away from the cove. The launch will also feature Universal Access for users with an accessible route from the parking lot.

Paddle boards will be the most difficult to provide access to. The ideal launch area is the cove area that is currently used due to its shallow depths. In order to discourage launching in the cove a narrow beach area is proposed which will provide a stable and gradual entrance slope into the water. This will double as access for swimmers.

The Township does not encourage swimming however they do not condone it either. It has been accepted that many users will continue to swim. Therefore the beach area is believed to be the simplest method for access which does not impact the natural shorelines to the east and west of the sandy area. Type of sand to be used has not been determined but could be a courser/pebbly sand to provide some stability and reduce erosion of the finer particles. The sandy bottom is natural at this site.

Natural Shoreline

In the areas that the site is experiencing the most soil loss the primary vegetation is turf grass. To improve the hardiness and long term vitality of the shoreline, we feel creating a natural shoreline would be best. To do this requires stabilization of the shoreline using coir logs, coconut fiber mat, and native aquatic or edge plantings that are typically found on the waters edge. Plants are chosen based on their preferred water depth and mature height.



Boardwalk and Fishing Pier Improvements

The existing boardwalk has exceeded its design service life. Replacement of the existing boardwalk and pier is necessary in order to allow use into the future. The alternatives developed each provide a different alignment or scale for the boardwalk and fishing pier. All of the designs incorporate a floating Universal kayak launch.

The proposed boardwalk will be a fixed open pile construction. The boardwalk will be pushed further over the water so as to bring the public closer and to not disturb the existing shoreline. One concern is if the existing boardwalks location is contributing to the erosion under it by not promoting vegetation. Moving the boardwalk to deeper water will allow vegetation to grow under the boardwalk during low water levels and will not impact the shoreline during higher water levels.

The fishing pier will extend out to approximately the same depth it is located now. This will provide deeper water access to anglers and keep the fishing away from the swimmers. The fishing pier is proposed to be a seasonal floating pier.

Width of the boardwalk and fishing pier will be a minimum of 6 ft' wide to meet Universal Design guidelines. Areas where kayak carry down access is provided may be wider, up to 8 ft.



Preliminary Design Alternatives

Three design alternatives were developed which meet the project goals. The alternatives were presented to the public at the park and via the Township website. All three options will also include underdrain to redirect the seep flow and improved ADA parking access to the site. The options were:

Concept 1

Alternative 1 provides a narrow beach area west of the cove, natural vegetation in the cove area for shoreline stability and a fishing pier and boardwalk with the same configuration that currently exists. A kayak launch will be added to the boardwalk.

Concept 2

Alternative 2 provides a narrow beach area west of the cove, natural vegetation in the cove area for shoreline stability. The fishing pier is extended off the boardwalk with the kayak launch. The boardwalk does not connect to the east path. The terminus of the east path will have an overlook.

Concept 3

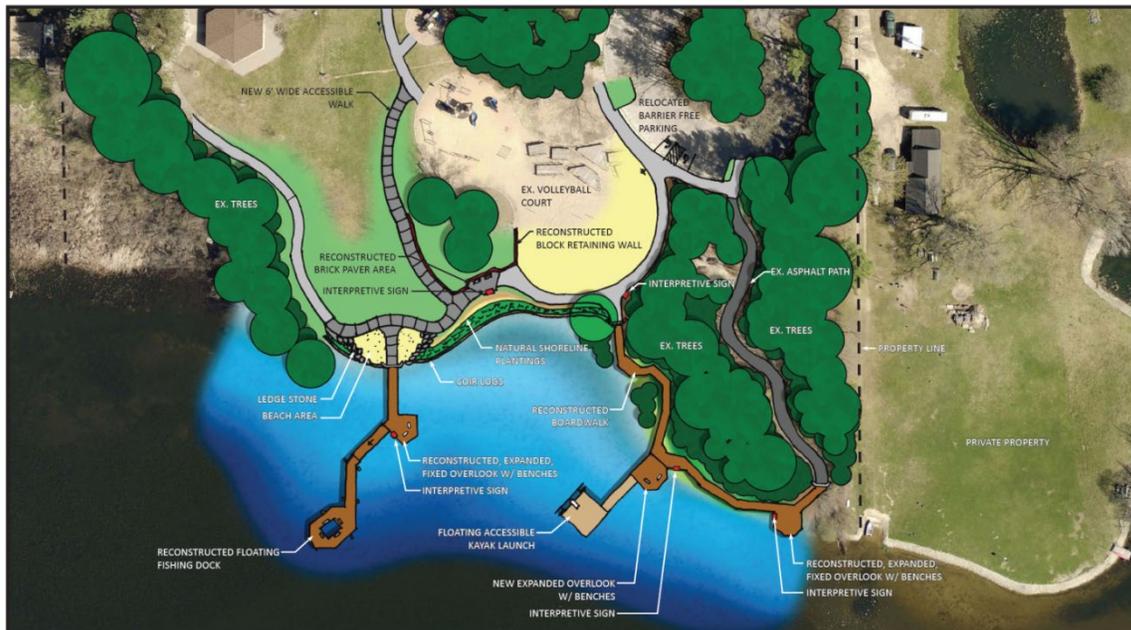
Alternative 3 provides a narrow beach area west of the cove, natural vegetation in the cove area for shoreline stability. The fishing pier is extended off the boardwalk with the kayak launch. The boardwalk is connected to the east path similar to how it is configured today.

Concept 1

Pottawattomie Park - Concept 1 Grand Haven Charter Township



Coastal Zone Management
Grant Project # 19-CHHC-001



Prein&Newhof

Concept 2

Pottawattomie Park - Concept 2
Grand Haven Charter Township



Coastal Zone Management
Grant Project # 19-CHHC-001



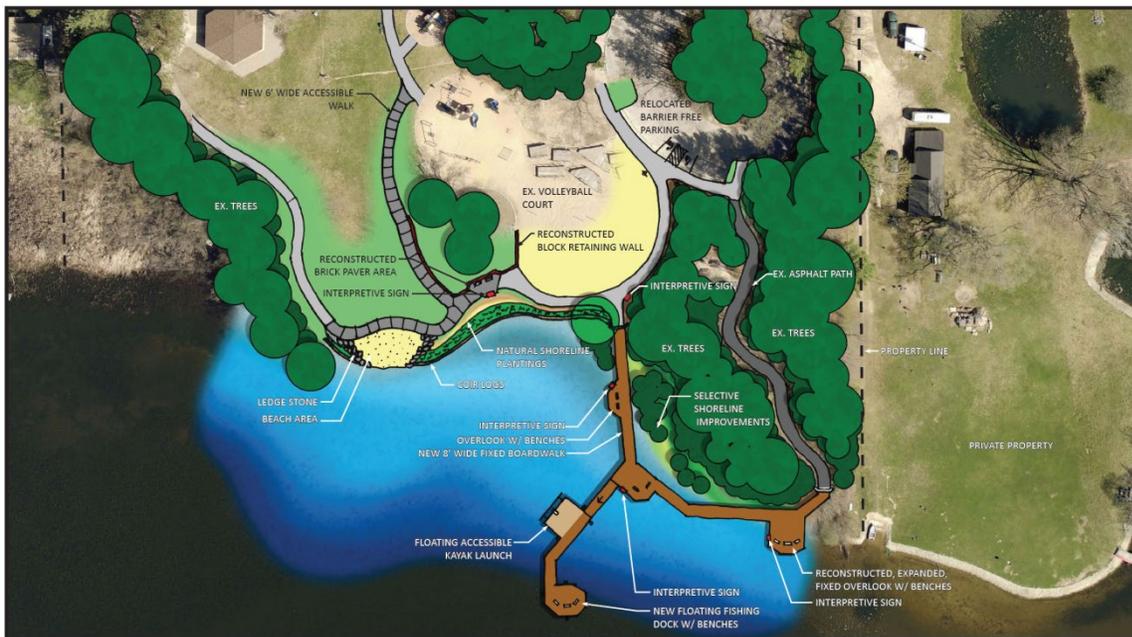
Prein&Newhof

Concept 3

Pottawattomie Park - Concept 3
Grand Haven Charter Township



Coastal Zone Management
Grant Project # 19-CHHC-001



Prein&Newhof

Public Engagement Process

Park Party Open House Event

On July 19, 2019 the Township, along with Prein&Newhof, hosted a community engagement event at Pottawattomie Park, beginning at 9am and concluding at 4pm. The event, titled “Leave Your Mark on Pottawattomie Park” included 3 conceptual drawings of possible dock and boardwalk designs. Approximately 50 people attended the event and voted on their favorite design. Each person was then provided a postcard with capacity-type questions to answer through a survey link.



Of the voting, the overwhelming majority chose Concept 3. Concept 3 relocates the dock to the east side of the shoreline and interconnects it with the boardwalk. Connectivity seemed to be the primary reason participants selected this concept.

Online Survey Questionnaire

Subsequently, the conceptual drawings and link to the survey were posted on the Township’s website and Facebook page. As of July 26th over 70 responses have been received. Survey questions were:

1. How often do you visit Pottawattomie Park?
2. How often do you kayak and/or paddle board at this park?
3. How often do you fish at this park?
4. How often do you swim at this park?
5. What can we do to improve your experience at this park?
6. What concept drawing do you like the best?
7. What else should the Township consider when creating a final design?

The first 4 capacity questions were quite informative. Many of the participants use the park for all types of recreation, and several others indicated they would like to use the park for those reasons but is not designed in a way that makes them comfortable.

Other information gleaned from the community engagement event and survey questions include:

- Separating any swimming area from fishing platforms.
- Kayak launch should be detachable, so it can be moved closer to shore during high water.
- Concerns that the distance of the kayak launch from the parking lot is too far.
- Create “parking spaces” for kayaks, paddle boards, and possibly jet skis.
- Ensuring the dock and boardwalk are easy for everyone to use including strollers and wheelchairs. Having a loop instead of a dead-end is best.
- Future ideas include another restroom on the east side of the park and new playground equipment.

This feedback was utilized to draft a final concept design to present to the Parks & Recreation Committee. Feedback will be obtained from the Committee to improve the design again before it is forwarded to the Township Board for approval.

Preferred Concept Plan

Description of the Preferred Concept Plan

Concept 3 was the overwhelming preferred concept. An estimate was completed for this option which was beyond the funding capabilities of the Township at this time. In order to still be able to address the erosion concerns a phased approach with a slightly modified version of Concept 3 is being recommended.

Preferred Concept Design Criteria:

1. Correct and the reverse the erosion damage at the riparian edge through natural shoreline improvements.
2. Improve, define, promote public access to the water for recreation for people of all ages and abilities.
3. Address the commentary received from the public engagement process to continue to provide the best and most desired park uses at the waters edge such as fishing, swimming, kayaking, paddle boarding, and picnicking.
4. Educate the public about the history of the park, the benefits of natural shorelines, and the destructive nature of invasive species on the natural environment.
5. Be good stewards of the community's financial resources through appropriate design and selection of low maintenance long life-cycle materials.

Preferred Concept Phase 1- Scope Items:

Removals - Minor removals will be needed to facilitate the improvements such as: The existing floating fishing deck pilings, west fixed overlook, concrete sidewalk, at grade wood deck, and approximately 150' portions of the aging existing east boardwalk.

Relocation – To reduce costs while continuing to provide good fishing access, the existing floating fishing dock will be relocated and connected to the new floating kayak launch along with new improved pilings in a similar fashion to the existing configuration. This will also separate fishing activity from swimming activity which was an identified concern of Grand Haven Charter Township and the public.

Natural Shoreline Restoration – The natural shoreline will utilize exclusively native plantings. These plantings will be selected for their deep rooting habit, ability to tolerate fluctuating water elevation, and for height. Taller native varieties sometimes used in natural shorelines such as willows will be avoided to maintain visibility to the lake and reduce long term maintenance.

Improved Sandy Beach - In the location of the existing shoreline where the west fixed overlook was located a new sandy beach would be constructed. Creating a designated entry point for swimmers entering the water will help keep the new natural shoreline from being compromised.

Concrete Sidewalks- New sidewalk will be installed to replace a portion of sidewalk that is currently underwater, to replace an aging at grade wood platform, and to provide barrier free universal access to the new accessible kayak launch.

Fixed Pier Overlook – This new overlook will serve to provide connection to the remaining portion of the existing boardwalk, as well as be a connection point for the gangway to a new floating universal accessible kayak launch.

Universal Accessible Kayak Launch – The location of this feature was selected for its proximity to the location of the barrier free parking spaces and parking area. This floating launch will allow users of all abilities to safely access Pottawattomie Bayou, the Grand River, and the connected regional water trails.

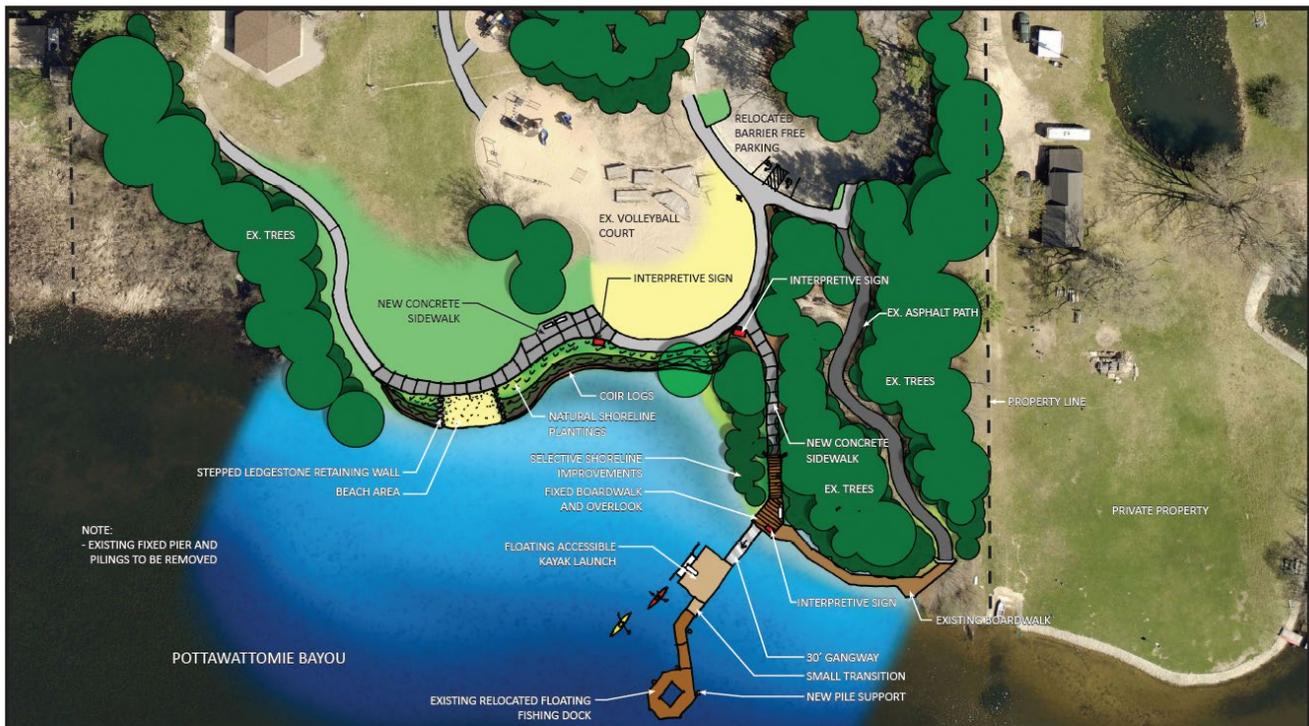
Interpretive Signage – Three interpretive signs have been designed to teach the public about the natural history of the park, the reasons and benefits of the natural shoreline design, and the impacts of invasive species. The proposed interpretive signage is shown below.

This phased approach brings the initial project within the fundable range of the Township while meeting most of the design objectives. All erosion issues will be addressed with this project. The only items not to be completed immediately are structural and cosmetic issues that can be pushed off for a few more years. The items being delayed to future phases are the removal and replacement of the existing floating fishing pier, and the removal and replacement of the remainder of the older boardwalk along the shoreline to the east.

Pottawattomie Park - Shoreline Improvements Plan
Grand Haven Charter Township



Coastal Zone Management
Grant Project # 19-CHHC-001



9-12-2019

Prein&Newhof

Engineer's Estimate of Costs

An Engineers Estimate of Probable Cost was completed for the entire project assuming it was to be completed in a single phase. This estimate was approximately \$800,000 including contingency and engineering. As was discussed earlier this cost was well outside the fundable range for the Township at this time. The project was split into phases. The first phase addresses the pressing concerns of the erosion while enhancing public access. Completion of the boardwalk along the waters edge will be completed under a second phase. The Estimate of Probable Cost for the first phase of the phased approach is \$280,220. The Township has indicated this is in the fundable range. The estimate is attached for reference.

Prein&Newhof

Owner:

Grand Haven Charter Township

Project Title:

Pottawattomie Park Improvements - Phase 1

Date:

September 20, 2019

Project #:

2190213

Item

<i>No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Total Amount</i>
1	Mobilization 5% Max	1	LS	\$10,000.00	\$10,000.00
2	Soil Erosion Control Measures	1	LS	\$1,500.00	\$1,500.00
3	Tree Removal & Grubbing for Walk	1	LS	\$7,500.00	\$7,500.00
4	Sidewalk & Wood Platform Removal	1250	SFT	\$4.00	\$5,000.00
5	Removal of Boardwalk / Overlook & Pilings	1	LS	\$15,000.00	\$15,000.00
6	New 8' Wide Concrete Sidewalk & Headwall to Overlook (90')	720	SFT	\$10.00	\$7,200.00
7	New 6' Concrete Sidewalk at Shoreline	1500	SFT	\$8.00	\$12,000.00
8	Fixed Boardwalk & Overlook	1	LS	\$40,000.00	\$40,000.00
9	8' Wide Gangway (30 ft)	1	LS	\$15,000.00	\$15,000.00
10	Kayak Launch and Floating Dock	1	LS	\$40,000.00	\$40,000.00
11	Shoreline Stabilization and Wetland Restoration	1	LS	\$50,000.00	\$50,000.00
12	Beach Establishment	1	LS	\$5,000.00	\$5,000.00
13	Interpretive Signage	4	Each	\$1,500.00	\$6,000.00
14	Parking Lot Striping and Barrier Free Sign	1	LS	\$1,000.00	\$1,000.00
15	Site Restoration	1	LS	\$5,000.00	\$5,000.00

Construction Subtotal: \$220,200.00

Contingency 10%: \$22,020.00

Engineering: \$23,000.00

Permitting/Staking/Construction Observation: \$15,000.00

* Estimates are not a guarantee of actual costs

* Cost savings could be realized with work done by owner

Total *: \$280,220.00

Interpretive Signage

NATURAL SHORELINE & BENEFITS OF NATIVE PLANTINGS

Pottawattomie Bayou Shoreline

When the park was first developed it seemed like a good idea to have a nice green lawn for picnics right next to the waters edge. Over time the shallow rooted turf grass along the waters edge has begun to wash out, and the shoreline is now receding. Over the last 12 years at Pottawattomie Park the shoreline has receded up to 60ft in certain areas. If left unattended the shoreline will continue to erode, resulting in reduced park space, and an unappealing shoreline for both wildlife and people.

Shoreline of Pottawattomie Park over the years. The white lines represent the shoreline for each year.

What is a Natural Shoreline?

A natural shoreline is a buffer zone that collects important nutrients while reducing the negative impacts of runoff, erosion, and sediment. These negative impacts can lead to loss of recreational use and severely harm the local fish and wildlife populations. Having a natural shoreline is an important feature for maintaining a complex ecosystem that can fully sustain fish and wildlife.

Why are Native Plantings Special?

Native plantings are any grasses, flowers, shrubs, and trees that are indigenous to a specific region. Since they are living in their natural habitat, native plants require minimal maintenance and are generally harderier than non-native species. Native plants provide food and habitat for wildlife, helping to maintain a wide range of native fish, wildlife, and birds.

Here at Pottawattomie Park, the native plantings that were installed along the water's edge have deeper roots than traditional turf grass, which helps stabilize the soils to protect the shoreline against erosion and sedimentation. The shoreline plantings will also absorb any extra nutrients that would enter the water and potentially cause algae blooms. An algae bloom is a rapid increase of algae caused by excess nutrients in the water. An algae bloom can create toxins or use up the oxygen in the water, causing harm to the native plants and wildlife.

Natural Shoreline Diagram

- Native plantings prevent erosion and provide habitat while intercepting excess nutrients from entering the water.
- Beneficial insects live around aquatic plants, becoming food for birds and other wildlife.
- Stones/rocks can also be used to diffuse wave energy and stabilize the shoreline, and provide cover for smaller aquatic wildlife.
- Aquatic plants help hold sediment in place, improving water clarity. They also provide habitat for aquatic life.

Newly installed natural shoreline.

The turfgrass shoreline in Pottawattomie Park being eroded as of 2013.

For more information on the benefits of natural shoreline please follow the QR code or visit: www.mishorelinepartnership.org

INVASIVE SPECIES & HOW TO PREVENT THEM

Examples of Local Invasive Species

- Spotted Knapweed**
Scientific Name: *Centaurea stoebe*
Concerns: Is poisonous to other plants, creating barren areas where only knapweed can grow. A threat to pastures, prairies, and dunes. Can also be a skin irritant.
- European Frog-bit**
Scientific Name: *Hydrocharis morsus-ranae*
Concerns: Mats of European frog-bit grow so thick that they impede boat traffic, movement of fish, and diving water fowl. If the mats are large enough they can prevent light and nutrients from reaching anything submerged.
- Multiflora Rose**
Scientific Name: *Rosa multiflora*
Concerns: Spreads very aggressively by seeds dispersed by birds and other wildlife. Forms dense thickets that can overrun and crowd out native plants and deter native birds from nesting.
- Eurasian Watermilfoil**
Scientific Name: *Myriophyllum spicatum*
Concerns: Forms large mats of floating vegetation that block the sun and shade out native aquatic plants. It is not a valuable food source for anything so it can freely grow. It impedes recreational activities and can clog residential or commercial water intakes.
- Purple Loosestrife**
Scientific Name: *Lythrum salicaria*
Concerns: Can rapidly establish and replace native vegetation. Reduces the plant diversity which can ruin habitats, making it unappealing for wildlife. Threatens to overrun roadsides and wetland habitats.

What is an Invasive Species?

An invasive species is any kind of living organism that causes harm to an ecosystem that it is not originally from. Invasive species have the capacity to grow and reproduce quickly, spread aggressively, and have the ability cause harm to other organisms. Invasive species are often spread by human activity, they can travel great distances by latching on to boat propellers, hiking boots, or even shipping materials.

Preventative Measures

- Check all gear, clothes, and shoes when hiking. Many invasive species can attach to clothing or gear and use humans to travel to new areas. Many trails now have boot brushes to help remove any possible unwanted materials.
- Inspect all boats when transferring between different bodies of water. Aquatic invasive species can be spread through ballast water and by attaching to propellers.
- Be conscious of invasive species when traveling through new areas.
- When invasive species are discovered it is important to act fast. As infestations grow it becomes more difficult and more expensive to treat the infested area.

Left: Many trail heads now have boot brushes. Using these before and after you experience a site helps reduce the likelihood of transferring invasive species.

Right: Seeds clinging to hiking boots.

For more information on local Michigan invasive species please follow the QR code or visit: www.michigan.gov/invasives

Constructability Review

Existing site removals, boardwalk demolition and shoreline preparation can be completed using small tools and mini excavators and skid steers. Removal of existing piling in the water can be completed using a jetting technique which requires small equipment on a small support barge which could be launched from the park if necessary.



Construction of the natural shoreline and beach area can be easily completed utilizing small skid steers and hand tools with minimal disruption to the existing facility.

Construction of the underdrain system for controlling the seeps may require either a mini excavator or trencher. The construction techniques for this work are traditional and simple with no constructability concerns.

Boardwalk construction along the shoreline will require barge support for installation of the piles. Installation from the water will result in the least amount of disturbance to the shoreline. Depending on the water levels the barge and equipment may need to come in from the park. Currently the water levels are too high to navigate under the bridge at the mouth of the bayou. Once the piling is installed the remainder of the boardwalk can be constructed with manual labor off small support boats and barges.

All other construction techniques are standard means and methods and should be simple to complete from the land.

Appendix A - Wetland Delineation Report



King & MacGregor
Environmental,
Inc.

2520 Woodmeadow SE
Grand Rapids, MI 49546
Phone: 616/957-1231
Fax: 616/957-2198

43050 Ford Road, Suite 130
Canton, MI 48187
Phone: 734/354-0594
Fax: 734/354-0593

162 Kuivila Road
Crystal Falls, MI 49920
Phone: 906/367-0171

email: kme@king-macgregor.com

May 24, 2019

Sent Via Email

Ms. Ariana Jeske
Prein & Newhof
3355 Evergreen Drive, N.E.
Grand Rapids, MI 49525

Re: Wetland Determination - Pottawattomie Park

Dear Ms. Jeske:

Pursuant to your request, on May 15, 2019, a wetland determination was conducted on the above-referenced site. The intent of this report is to provide a description of the approximate location and character of the wetland areas within the subject parcels and an opinion as to the possible jurisdiction of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) over these identified features.

The subject Area of Investigation (AOI) totals approximately 4 acres in size and includes a portion of Pottawattomie Park, located at 15600 Comstock Street in the northwest quarter of Section 35, Grand Haven Township (T8N, R16W), Ottawa County, Michigan. The predominate land covers within the AOI include scrub-shrub wetland, mowed lawn/recreation area, parking areas, and mixed conifer/deciduous forest. Surrounding land uses include mixed forest and residential. The park has frontage on Pottawattomie Bayou.

The methods used to conduct the wetland determination are consistent with our understanding of the procedures and general practices used by EGLE and the U.S. Army Corps of Engineers Wetlands Delineation Methodology. Our evaluation included review of in-office information including the national Web Soil Survey (Figure 1), National Wetlands Inventory (Figure 2) and aerial photography.

Wetland A

Wetland a is an open water and scrub-shrub wetland located along the southern end of the AOI adjacent to Pottawattomie Bayou. The vegetation observed in these wetland areas included species such as green ash, speckled alder, red osier dogwood, silky dogwood, tussock sedge, broadleaved cattail, swamp dewberry, and common horsetail. The soils are described in the Web Soil Survey as Adrian-Houghton mucks (very poorly drained). The soils evaluated on-site appeared consistent with this description.

Figure 3 depicts the approximate location of this wetland area. The attached wetland datasheets provide more specific wetland details.

Upland Areas

The upland areas adjacent to the on-site wetlands included vegetation such as red oak, red pine, bush honeysuckle, wild onion, Kentucky bluegrass, Canada mayflower, grey dogwood, and privet. There was no evidence of standing water or saturated soils in any of the upland areas.

EGLE Jurisdiction/Regulatory Discussion

In order for EGLE to have regulatory authority over a wetland, the wetland must be within 500 feet of a lake, pond and/or stream, have a direct surface or ground water connection to a lake, pond and/or stream, or be greater than 5 acres in size. The on-site wetlands are regulated by EGLE as they are contiguous to Pottawattomie Bayou.

A permit must be obtained from EGLE prior to conducting most filling, dredging and/or draining activities or maintaining a use of an EGLE regulated wetland, inland lake, or stream.

Please be advised that the information provided in this report is a professional opinion. The ultimate decision on wetland boundary locations and jurisdiction thereof rests with EGLE and, in some cases, the Federal government. Therefore, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary, depending on various factors including, but not limited to, experience of the agency representative making the determination and the season of the year. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage, activities on adjacent parcels, or other events. Any of these factors can change the nature/extent of wetlands on the site. This report does not address any local ordinances that may apply to this site.

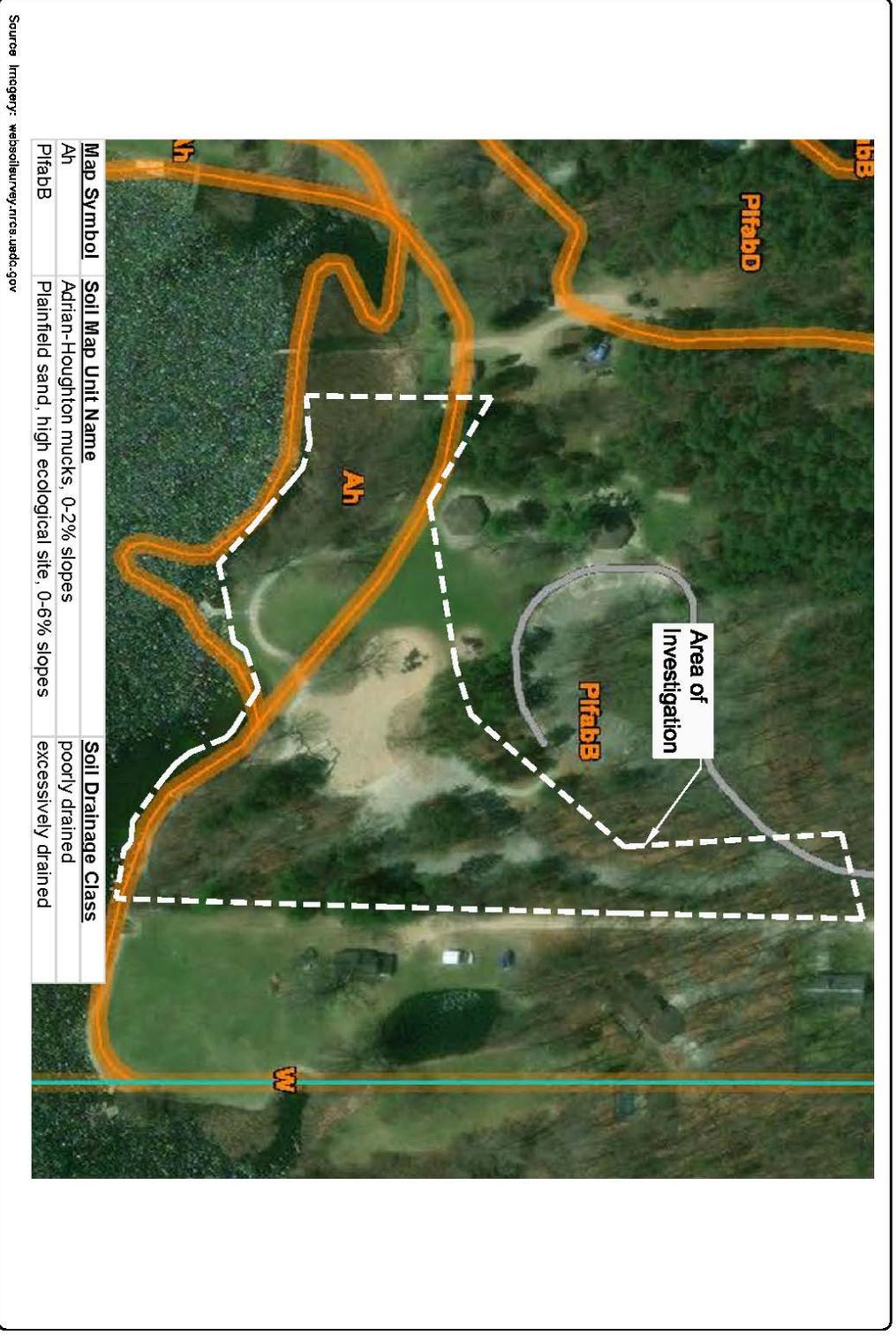
Thank you for the opportunity to provide this wetland determination. If you have any questions, please contact me at your convenience.

Sincerely,



King & MacGregor Environmental, Inc.
Randall Phillips

Enclosures

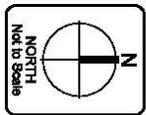


Source: Imagery: websitesurvey.nrcs.usda.gov

Map Symbol	Soil Map Unit Name	Soil Drainage Class
Ah	Adrian-Houghton mucks, 0-2% slopes	poorly drained
PtfabB	Plainfield sand, high ecological site, 0-6% slopes	excessively drained

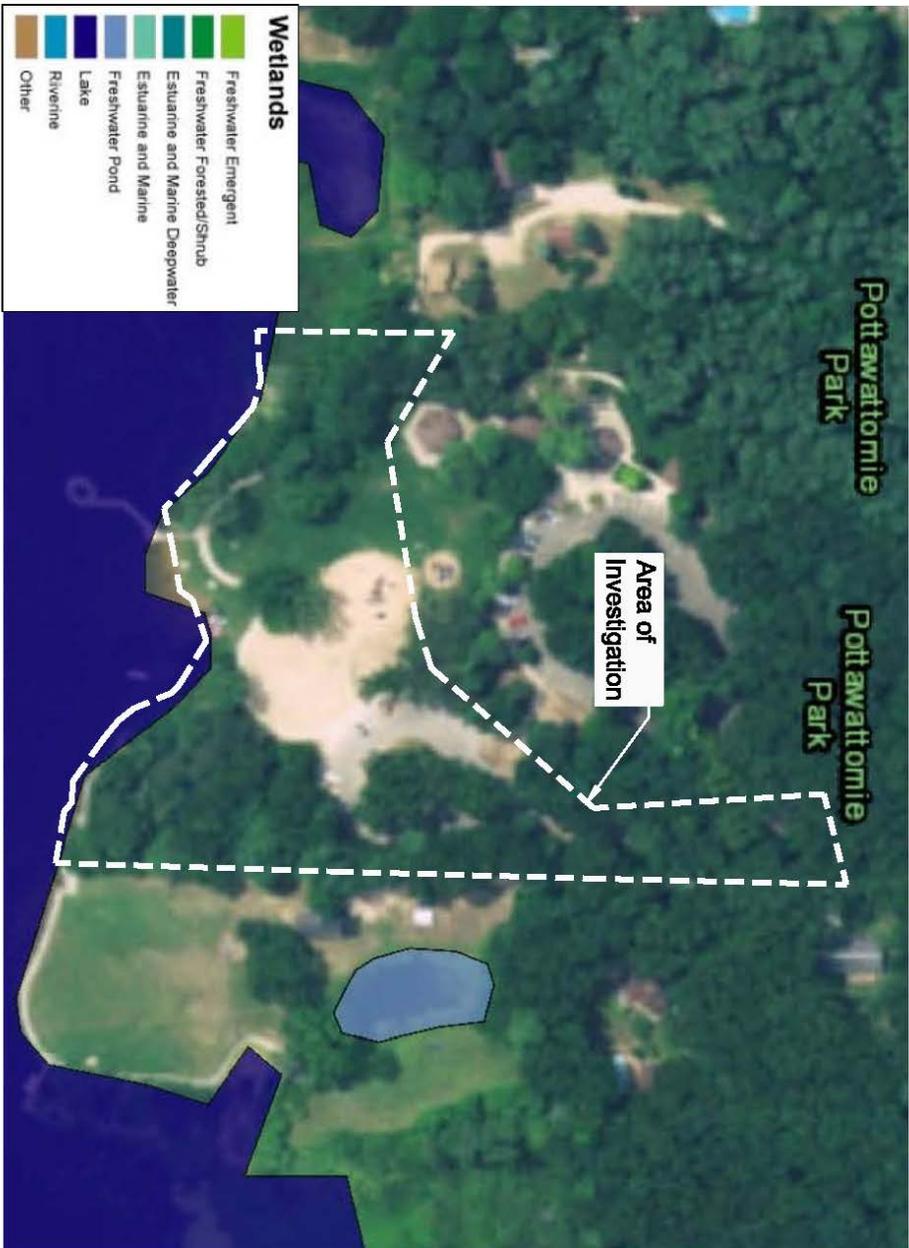
King & MacGregor Environmental, Inc.
 2520 Westland Drive, SE
 Grand Haven, Michigan 49424
 Phone: (616) 857-1231

Wetland Determination For :
Pottawattomie Park Improvements
 Grand Haven Township
 Ottawa County, Michigan



DATE	REVISIONS

PROJECT NUMBER
 18063
 Soils
 Figure
 1



Source: National Wetlands Inventory Mapping

King & MacGregor Environmental, Inc.
 2580 Woodhollow Drive SE
 Grand Haven, MI 49434
 Phone: (616) 857-1521

Wetland Delineation For:
Pottawattomie Park Improvements
 Grand Haven Township
 Ottawa County, Michigan

N
 NORTH
 Not to Scale

DATE	REVISION

PROJECT NAME
 18083
 National Wetlands Inventory
 Figure
2

SRWME REF # F01D082019 F01D082019 POTTAWATTOMIE PARK IMPROVEMENTS SRWME_VETBOARD_ISSUING (05/19/19 8:59 AM) CHANTE WRIGHT

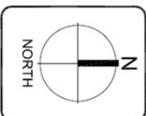


Source Imagery: Ottawa County GIS

**King & MacGregor
Environmental, Inc.**
2520 Woodstream Drive, SE
Grand Haven, MI 49424
Phone: (616) 957-1231

Wetland Determination For:
Pottawattomie Park Improvements
Grand Haven Township

Ottawa County, Michigan



DATE	REVISION

PROJECT NUMBER	190083
Wetland Boundaries	Figure 3

SKWIE REF # FOLDER\$2019 FOLDER19083 POTTAWATTOMIE PARK IMPROVEMENTS\$P819083_WETBOUND_FIG3.DWG (06/16/19 10:02 AM) CHANTREL WRIGHT

VEGETATION – Use scientific names of plants.

Sampling Point: A wet

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u>5</u>	=Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>60</u> x 1 = <u>60</u> FACW species <u>95</u> x 2 = <u>190</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>170</u> (A) <u>295</u> (B) Prevalence Index = B/A = <u>1.74</u>	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)					
1. <u>Cornus amomum</u>	<u>40</u>	Yes	FACW		
2. <u>Cornus alba</u>	<u>35</u>	Yes	FACW		
3. <u>Populus tremuloides</u>	<u>5</u>	No	FAC		
4. _____					
5. _____					
6. _____					
7. _____					
	<u>80</u>	=Total Cover			
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <u>Carex stricta</u>	<u>60</u>	Yes	OBL		
2. <u>Rubus hispidus</u>	<u>5</u>	No	FACW		
3. <u>Solidago gigantea</u>	<u>5</u>	No	FACW		
4. <u>Equisetum arvense</u>	<u>5</u>	No	FAC		
5. <u>Cornus alba</u>	<u>5</u>	No	FACW		
6. <u>Toxicodendron radicans</u>	<u>5</u>	No	FAC		
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u>85</u>	=Total Cover			
Woody Vine Stratum (Plot size: _____)				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.	
1. _____					
2. _____					
3. _____					
4. _____					
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
=Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pottawattomie Park Improvements City/County: Ottawa County Sampling Date: 5/14/2019
 Applicant/Owner: Prein and Newhof State: MI Sampling Point: A up
 Investigator(s): R.L. Phillips Section, Township, Range: S35 T8N R16W
 Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): concave Slope %: 2-4
 Subregion (LRR or MLRA): LRR L Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Plainfield sand, lake plain, 0 to 6 percent slopes NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Near Flag A5.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION – Use scientific names of plants.

Sampling Point: A up

Tree Stratum (Plot size: <u> 30' </u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u> <i>Quercus rubra</i> </u>	<u> 80 </u>	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 2 </u> (A) Total Number of Dominant Species Across All Strata: <u> 5 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u> 40.0% </u> (A/B)	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u> 80 </u> =Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u> 0 </u> x 1 = <u> 0 </u> FACW species <u> 45 </u> x 2 = <u> 90 </u> FAC species <u> 5 </u> x 3 = <u> 15 </u> FACU species <u> 160 </u> x 4 = <u> 640 </u> UPL species <u> 0 </u> x 5 = <u> 0 </u> Column Totals: <u> 210 </u> (A) <u> 745 </u> (B) Prevalence Index = B/A = <u> 3.55 </u>	
Sapling/Shrub Stratum (Plot size: <u> 15' </u>)					
1. <u> <i>Lonicera morrowii</i> </u>	<u> 25 </u>	Yes	FACU		
2. <u> <i>Cornus amomum</i> </u>	<u> 25 </u>	Yes	FACW		
3. <u> <i>Prunus serotina</i> </u>	<u> 10 </u>	No	FACU		
4. <u> <i>Ligustrum vulgare</i> </u>	<u> 5 </u>	No	FACU		
5. <u> <i>Quercus rubra</i> </u>	<u> 5 </u>	No	FACU		
6. _____					
7. _____					
	<u> 70 </u> =Total Cover			Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Herb Stratum (Plot size: <u> 5' </u>)					
1. <u> <i>Maianthemum canadense</i> </u>	<u> 20 </u>	Yes	FACU		
2. <u> <i>Fraxinus pennsylvanica</i> </u>	<u> 20 </u>	Yes	FACW		
3. <u> <i>Lonicera morrowii</i> </u>	<u> 10 </u>	No	FACU		
4. <u> <i>Allium canadense</i> </u>	<u> 5 </u>	No	FACU		
5. <u> <i>Equisetum arvense</i> </u>	<u> 5 </u>	No	FAC		
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u> 60 </u> =Total Cover			Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u>	
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
3. _____					
4. _____					
	_____ =Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)					

Appendix B - Invasive Species Report



King & MacGregor
Environmental,
Inc.

2520 Woodmeadow SE
Grand Rapids, MI 49546
Phone: 616/957-1231
Fax: 616/957-2198

43050 Ford Road, Suite 130
Canton, MI 48187
Phone: 734/354-0594
Fax: 734/354-0593

162 Kuivila Road
Crystal Falls, MI 49920
Phone: 906/367-0171

email: kme@king-macgregor.com

June 20, 2019

Sent Via Email

Ms. Ariana Jeske
Prein & Newhof
3355 Evergreen Drive, N.E.
Grand Rapids, MI 49525

Re: Invasive Species Evaluation - Pottawattomie Park

Dear Ms. Jeske:

Pursuant to your request, on June 12, 2019, an invasive species evaluation was conducted on the above-referenced site. The intent of this report is to provide documentation of the vegetative community and any invasive species present within the Area of Investigation (AOI).

The AOI totals approximately 4 acres in size and includes a portion of Pottawattomie Park, located at 15600 Comstock Street in the northwest quarter of Section 35, Grand Haven Township (T8N, R16W), Ottawa County, Michigan. The predominant land covers within the AOI include scrub-shrub wetland, mowed lawn/recreation area, parking areas, and mixed conifer/deciduous forest. Surrounding land uses include mixed forest and residential. The park has frontage on Pottawattomie Bayou. Figure 1 identifies the AOI and photograph locations. A photo log is also attached.

A comprehensive plant list was compiled for the AOI during this evaluation. The plant list was entered into the website, universalfqa.org to provide metric values to assess habitat quality. A total of forty-five species were identified (Table 1 attached). Thirty-five being native and ten species being non-native. The overall Coefficient of Conservatism (C) was 2.4. According to the US Fish & Wildlife Service, a mean C-value above 3.5 is likely of a high-quality resource. The total Floristic Quality Index (FQI) for the AOI was calculated to be 15.7 and the adjusted FQI was 27.1. FQI, like C, is a measure of vegetation community quality. The FQI score of 15.7 indicates a community of low quality. However, the adjusted FQI, which takes into account anthropogenic factors and naturally low species richness in high-quality areas, was 27.1. This value indicates more of a moderately-high vegetative quality. It is my opinion that the FQI probably under estimates while the adjusted FQI over estimates the habitat quality.

Eight non-native plant species were identified on-site:

Scientific Name	Common Name
<i>Campsis radicans</i>	trumpet-vine
<i>Centaurea stoebe; c. maculosa</i>	spotted knapweed
<i>Hedera helix</i>	English ivy
<i>Iris pseudacorus</i>	yellow flag
<i>Ligustrum vulgare</i>	common privet
<i>Lonicera morrowii</i>	morrow honeysuckle
<i>Lythrum salicaria</i>	purple loosestrife
<i>Morus alba</i>	white mulberry
<i>Rosa multiflora</i>	multiflora rose
<i>Schedonorus arundinaceus; festuca a.</i>	tall fescue

It should be noted that Eurasian milfoil may be present in the bayou adjacent to the shoreline. However, positive identification of this submergent plant was not able to be performed.

Among the non-native species, the most commonly known invasive plant on the list is purple loosestrife which was observed along the shoreline. No other common invasive plants such as buckthorn, phragmites, Japanese knotweed, garlic mustard, oriental bittersweet or dame's rocket were observed.

Other non-native species comments are provided below. The honeysuckle was observed throughout the AOI. There were a number of trees that were being climbed by the English ivy vines on the west side of the AOI. The health of those trees may be degraded over time. Of the other non-native species, they did not appear to be highly abundant or invasive at this time.

Please be advised the information provided in this report is a professional opinion. The vegetative characteristics of the site may change with time, depending on the weather, site disturbance, or other events. Any of these factors can change the nature/extent of invasive vegetation on the site.

Thank you for the opportunity to provide this invasive species evaluation. If you have any questions, please contact me at your convenience.

Sincerely,



King & MacGregor Environmental, Inc.
John R. Vigna

Enclosures



Source Imagery: Ottawa County GIS

= Approximate Photo Location



Invasive Species Evaluation For :

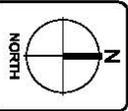
Pottawattomie Park Improvements

Grand Haven Township

Ottawa County, Michigan



SWME REF # FOLDER\$2018 FOLDER\18063 POTTAWATTOMIE PARK IMPROVEMENTS\GIS\18063_WETLAND_TIGS.DWG (08/27/18 12:50 PM) JOHN



DATE	REVISION

PROJECT NUMBER	18063
Site Map	
Figure	1

Table 1. Invasive Species Evaluation - Pottawattomie Park

6/12/2019

FQA DB Region: Michigan
 FQA DB Publication Year: 2014
 FQA DB Description: Reznicek, A.A., M.R. Penskar, B.S. Walters, and B.S. Slaughter. 2014. Michigan Floristic Quality Assessment Database. Herbarium, University of Michigan, Ann Arbor, MI and Michigan Natural Features Inventory, Michigan State University, Lansing, MI. <http://michiganflora.net>
 Practitioner: John Vigna

Conservatism-Based Metrics:

Total Mean C: 2.3
 Native Mean C: 3
 Total FQI: 15.4
 Native FQI: 17.7
 Adjusted FQI: 26.5

Species Richness:

Total Species: 45
 Native Species: 35 77.80%
 Non-native Species: 10 22.20%

Species:

Scientific Name	Native?	C	Physiognomy	Common Name
<i>Acer saccharinum</i>	native	2	tree	silver maple
<i>Acer saccharum</i>	native	5	tree	sugar maple
<i>Alnus incana; a. rugosa</i>	native	5	shrub	speckled alder
<i>Calystegia sepium</i>	native	2	vine	hedge bindweed
<i>Campsis radicans</i>	non-native	0	vine	trumpet-vine
<i>Carex stricta</i>	native	4	sedge	sedge
<i>Carya ovata</i>	native	5	tree	shagbark hickory
<i>Centaurea stoebe; c. maculosa</i>	non-native	0	forb	spotted knapweed
<i>Cornus amomum</i>	native	2	shrub	silky dogwood
<i>Cornus foemina</i>	native	1	shrub	gray dogwood
<i>Ernemion bifloratum; isopyrum b.</i>	native	8	forb	false rue-anemone
<i>Equisetum arvense</i>	native	0	fern	common horsetail
<i>Eupatorium perfoliatum</i>	native	4	forb	boneset
<i>Fragaria virginiana</i>	native	2	forb	wild strawberry
<i>Fraxinus pennsylvanica</i>	native	2	tree	red ash
<i>Geum canadense</i>	native	1	forb	white avens
<i>Hamamelis virginiana</i>	native	5	shrub	witch-hazel
<i>Hedera helix</i>	non-native	0	vine	English ivy
<i>Impatiens capensis</i>	native	2	forb	spotted touch-me-not
<i>Iris pseudacorus</i>	non-native	0	forb	yellow flag
<i>Ligustrum vulgare</i>	non-native	0	shrub	common privet
<i>Lonicera morrowii</i>	non-native	0	shrub	morrow honeysuckle
<i>Lythrum salicaria</i>	non-native	0	forb	purple loosestrife
<i>Morus alba</i>	non-native	0	tree	white mulberry
<i>Parthenocissus quinquefolia</i>	native	5	vine	Virginia creeper
<i>Phalaris arundinacea</i>	native	0	grass	reed canary grass
<i>Pinus resinosa</i>	native	8	tree	red pine
<i>Pinus strobus</i>	native	3	tree	white pine
<i>Podophyllum peltatum</i>	native	3	forb	may-apple
<i>Populus deltoides</i>	native	1	tree	cottonwood
<i>Populus tremuloides</i>	native	1	tree	quaking aspen
<i>Prunus serotina</i>	native	2	tree	wild black cherry
<i>Prunus virginiana</i>	native	2	shrub	choke cherry
<i>Pteridium aquilinum</i>	native	0	fern	bracken fern
<i>Quercus rubra</i>	native	5	tree	red oak
<i>Rhus typhina</i>	native	2	shrub	staghorn sumac
<i>Rosa multiflora</i>	non-native	0	shrub	multiflora rose
<i>Rubus flagellaris</i>	native	1	shrub	northern dewberry
<i>Sassafras albidum</i>	native	5	tree	sassafras
<i>Schedonorus arundinaceus; festuca a.</i>	non-native	0	grass	tall fescue
<i>Smilax hispida; s. tamnoides</i>	native	5	vine	bristly greenbrier
<i>Thuja occidentalis</i>	native	4	tree	arbor vitae
<i>Toxicodendron radicans</i>	native	2	vine	poison-ivy
<i>Vaccinium angustifolium</i>	native	4	shrub	low sweet blueberry
<i>Viburnum lentago</i>	native	4	shrub	nannyberry



Photo 1: Facing south from parking lot



Photo 2: Forest cover and scrub-shrub wetland along Pottawatomie Bayou, east side of AOI

Invasive Species Evaluation - Pottawattomie Park



Photo 3: Predominate land cover is mowed/maintained lawn and recreation area



Photo 4: Wooded edges

Invasive Species Evaluation - Pottawattomie Park



Photo 5: Scrub-shrub wetland on west side of AOI.

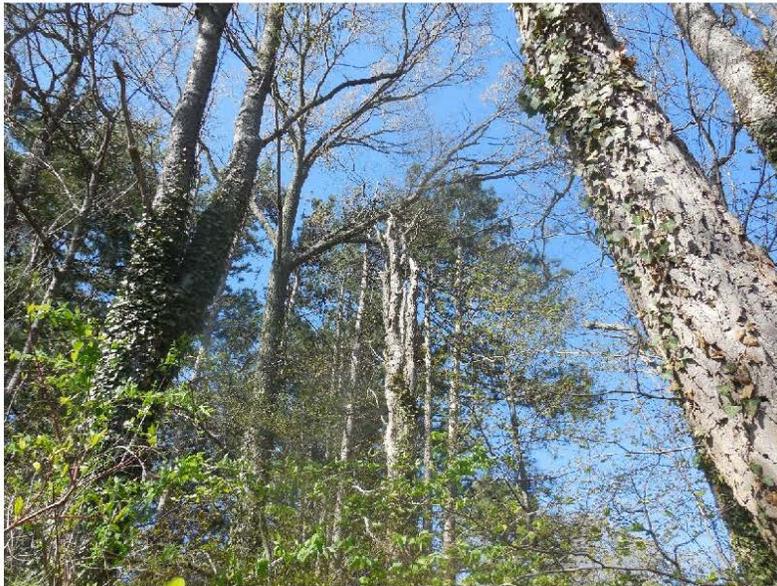


Photo 6: English ivy climbing tree trunks within AOI

Invasive Species Evaluation - Pottawattomie Park



Photo 7: Typical canopy cover of AOI



Photo 8: Bayou shoreline – purple loosestrife

Invasive Species Evaluation - Pottawattomie Park



Photo 9: Boardwalk from east side of site, looking west

Invasive Species Evaluation - Pottawattomie Park

Appendix C - Threatened & Endangered Species Report



King & MacGregor
Environmental,
Inc.

2520 Woodmeadow SE
Grand Rapids, MI 49546
Phone: 616/957-1231
Fax: 616/957-2198

43050 Ford Road, Suite 130
Canton, MI 48187
Phone: 734/354-0594
Fax: 734/354-0593

162 Kuivila Road
Crystal Falls, MI 49920
Phone: 906/367-0171

email: kme@king-macgregor.com

May 24, 2019

Sent Via Email

Ms. Ariana Jeske
Prein & Newhof
3355 Evergreen Drive, N.E.
Grand Rapids, MI 49525

Re: Threatened & Endangered Species Evaluation - Pottawattomie Park
Section 7 & MNFI Review

Dear Ms. Jeske:

Pursuant to your request, on May 15, 2019, a protected species evaluation was conducted on the above-referenced site. The intent of this report is to provide documentation of any potential rare species and/or their habitat within the Area of Investigation (AOI).

The subject Area of Investigation (AOI) totals approximately 4 acres in size and includes a portion of Pottawattomie Park, located at 15600 Comstock Street in the northwest quarter of Section 35, Grand Haven Township (T8N, R16W), Ottawa County, Michigan. The predominate land covers within the AOI include scrub-shrub wetland, mowed lawn/recreation area, parking areas, and mixed conifer/deciduous forest. Surrounding land uses include mixed forest and residential. The park has frontage on Pottawattomie Bayou.

Threatened/Endangered Species Evaluation

The United States Fish and Wildlife Service (Appendix A) and Michigan Natural Features Inventory (Appendix B) and online databases were reviewed for known occurrences and distributions of state or federally protected threatened and endangered species.

A review of the USFWS web database indicated that Ottawa county is within the known range of one federally listed endangered species, Indiana bat (*Myotis sodalis*); and four federally listed threatened species, northern long-eared bat (*Myotis septentrionalis*), rufa red knot (*Calidris canutus rufa*), and Pitcher's thistle (*Cirsium pitcheri*).

Indiana bats prefer to roost and brood in trees with exfoliating/peeling bark, or cavities in dead snags or dying trees located primarily in wetlands, floodplain/riparian forests, burr oak forests, and oak openings. Hibernacula are restricted to caves and mines. Maternity and roost trees are usually found in the open or exposed to solar radiation. Clearance is also a factor for ingress and egress. Thick forest canopies not only occlude solar radiation, they may inhibit flight and therefore ease of access to potential roost sites as well cause physical harm to flying bats. The dense, largely coniferous forest canopy occurring in the forested portions of the AOI offers few of the habitat characteristics preferred by the Indiana bat. No trees with suitable solar exposure or other suitable roosting characteristics were observed. Additionally, according to the MNFI, no known Indiana bat roost trees or hibernacula occur in Ottawa County. Given the apparent lack of suitable habitat within the AOI and/or known occurrences in the area, it is our opinion that park improvement activities within the AOI will have no effect on the Indiana bat. However, please be advised that USFWS recommends that tree clearing be conducted

between October 1 and March 31 in order to avoid potential or inadvertent impacts to the Indiana bat.

The northern long-eared (NLEB) bat is less particular than the Indiana bat in its preferred summer habitat, selecting trees primarily with regard to the tree's ability to provide bark cover, cracks and crevices. Males and non-breeding females are also known to summer roost in caves and mines. Like the Indiana bat, the NLEB bat over-wintering habitat is restricted to hibernacula located in caves and mines. One snag was observed on the southwest end of the AOI that could potentially provide suitable roosting habitat for the NLEB. Additionally, according to the Michigan Department of Natural Resources (DNR), no known NLEB roost trees or hibernacula occur in Ottawa County (Appendix C). As with the Indiana bat, the USFWS recommends that tree clearing be conducted between October 1 and March 31 in order to avoid potential or inadvertent impacts to the NLEB. Given the limited availability of suitable NLEB roosting and brooding habitat, it is our opinion that park improvement activities within the AOI will have no effect on the NLEB if USFWS guidelines are followed.

Rufa red knot is a migratory shorebird that over-winters on the shores of Chile and Argentina and migrates great distances to summer breeding grounds in the Canadian Arctic. The preferred habitat of this species is ocean shore; however, the shores of the Great Lakes are also suitable stop-over habitat during migration. It is noted that this listing covers, "Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30." Given that the AOI lacks such open, coastal habitat and is located just over three miles inland from Lake Michigan, it is our opinion that park improvement activities within the AOI will have no effect on the rufa red knot or its habitat.

Pitcher's thistle grows on open sand dunes and low open beach ridges of the Great Lakes shores and dune blow-outs. It is most often found in near-shore plant communities but may grow in all non-forested areas of dune systems. Given that no suitable coastal dune habitat was observed on-site, it is our opinion that park improvement activities within the AOI will have no effect on Pitcher's thistle or its habitat.

The MNFI web database search was conducted on Section 35, T8N, R16W. Only one protected species is known to occur in the search area: wild rice (*Zizania aquatica*) – state threatened.

Wild rice is typically found in shallow areas of large, slow-moving waterbodies. Near-shore habitat for this species may be present along Pottawattomie Bayou. Shoreline activities associated with park improvements may impact wild rice plants, if present. Late summer is typically the best time to identify the flowering or fruiting plants.

Appendix D contains representative photos of the AOI.

Please be advised the information provided in this report is a professional opinion. The ultimate decision of whether potential habitat for these species is present is with the USFWS, EGLE, and/or DNR. In addition, the physical characteristics of the site can change with time, depending on the weather activities on adjacent parcels, or other events. Any of these factors can change the nature/extent of potential habitat on the site.

Ms. Ariana Jeske
Threatened/Endangered Species Evaluation - Pottawattomie Park

May 24, 2019
Page 3

Thank you for the opportunity to provide this protected species evaluation. If you have any questions, please contact me at your convenience.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randall Phillips".

King & MacGregor Environmental, Inc.
Randall Phillips

Enclosures

References

Michigan Natural Features Inventory. 2019. Rare Species Explorer (Web Application). Available online at <http://mnfi.anr.msu.edu/explorer>.

Michigan Natural Features Inventory. 2019. Web Database Search. Subscription service.

Michigan Department of Natural Resources. 2016. Michigan Northern Long-eared Bat Fact Sheet. https://www.michigan.gov/documents/dnr/MINLEBFactSheet_606024_7.pdf

U. S. Fish and Wildlife Service. 2018. County Distribution of Michigan's Federally Threatened, Endangered, Proposed, and Candidate Species. (Web Application). Available online at <https://www.fws.gov/midwest/endangered/lists/michigan-spp.html>.



Source Imagery: Ottawa County GIS

= Approximate Photo Location

Threatened & Endangered Species Evaluation For :

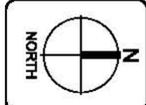
Pottawattomie Park Improvements

Grand Haven Township

Ottawa County, Michigan

**King & MacGregor
Environmental, Inc.**
2300 Woodmanster Drive SE
Grand Rapids, Michigan 49508
Phone: (616) 957-1231

SYNQUE REF # FOLDER#2019 FOLDER#10088 POTTAWATTOMIE PARK IMPROVEMENTS(2019-2020) METRO/LIND JFEAL.DWG (02/24/19 824 AM) JOHN



NO.	REVISION

PROJECT NUMBER 190083
Site Map
Figure 1

**APPENDIX A:
USFWS COUNTY LIST**

Michigan
 County Distribution of Federally-Listed Endangered and Threatened Species
 Revised October 2018

Ottawa	Whooping crane (<i>Grus americanus</i>)	**Non-essential experimental population	Open wetlands and lakeshores
	Indiana bat (<i>Myotis sodalis</i>)	Endangered	Summer habitat includes small to medium river and stream corridors with well-developed riparian woods; woodlots within 1 to 3 miles of small to medium rivers and streams; and upland forests. Caves and mines as hibernacula.
	Northern long-eared bat <i>Myotis septentrionalis</i>	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.
	Rufa 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
	Pitcher's thistle (<i>Cirsium pitcheri</i>)	Threatened	Stabilized dunes and blowout areas

****Whooping Crane** - A nonessential experimental population of the whooping crane was designated in a 20-state area of the eastern United States in 2001. The first release of birds occurred in Wisconsin in 2001, and the counties listed are those where the species has been observed. For purposes of section 7 consultation, this species is considered as a proposed species, except where it occurs within the National Wildlife Refuge System or the National Park System, where it is treated as a threatened species.

**APPENDIX B:
MNFI WEB DATABASE SEARCH**

MNFI Home Contact Us Plant List Animal List Abstracts Help



Michigan Natural Features Inventory
Web Database Search

Search Results for Town 08N, Range 16W, Section 35
Displaying Record 1 to 5 of 5 Records Found

Query Results Generated on May 23, 2019
Database Updated on May 01, 2019

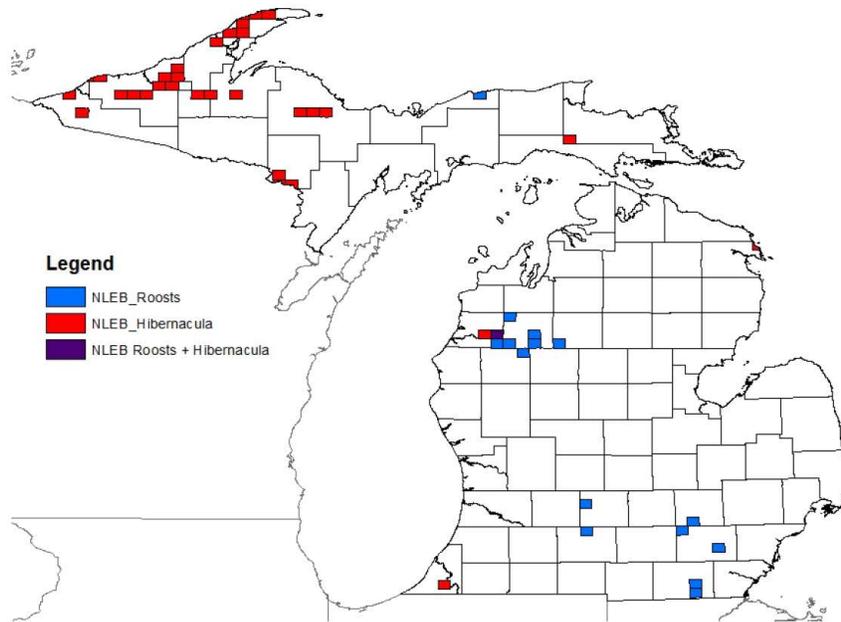
[New Search](#) [Refine Search](#) [Previous 25 Records](#) [Next 25 Records](#)

	Common Name	Scientific Name	State Status	Federal Status	Last Observed Date	Element Category	Mapping Precision	Site of Observation	Best Documentation of EO	Town	Range	Section	County
	A fingernail clam	Pisidium simplex	SC		1959-08-25	Animal		Pottawatomi Bayou	Heard, 1959-08-25. UMMZ Lot #200574. 1 collected.	08N	16W	34, 35, 36	Ottawa
	Bald eagle	Haliaeetus leucocephalus	SC		2000	Animal		Ow-2 Grand Haven Sga	Best, D. 2005. Aug 29 - BAEA Survey Results, Lower Peninsula - 2005, USFWS data.	08N	16W	35	Ottawa
	Eastern box turtle	Terrapene carolina carolina	SC		2017-06-04	Animal		Grand River At Grand Haven	Fiore, Anthony W. Jr. 2017-06-04. Email to DNR-Wildlife plus photos.	08N	16W	35	Ottawa
	Ornamented peaclam	Pisidium cruciatum	SC		1959-08-25	Animal		Grand River At Pottawatomi Bayou	Heard, 1959-08-25. UMMZ Lot #200548. 1 collected.	08N	16W	34, 35, 36	Ottawa
	Wild rice	Zizania aquatica	T		1928-08-25		G	Grand Haven	Fassett, N.C. 1928. #9995 WIS	08N	16W	15, 16, 17, 20, 21, 22, 23, 25, 26, 27, 35, 36	Ottawa

[New Search](#) [Refine Search](#) [◀ Previous 25 Records](#) [Next 25 Records ▶](#)

**APPENDIX C:
DNR NLEB OCCURRENCE MAP**

Map of Known NLEB Occurrence, Roosts, and Hibernacula in MI*



***Map last updated 7/22/2016.
Map will be updated as additional information becomes available.**

**APPENDIX D:
PHOTOGRAPHS**



Photo 1: Facing south from parking lot.



Photo 2: Forest cover and scrub-shrub wetland along Pottawatomie Bayou, east side of AOI.



Photo 3: Predominate land cover is mowed/maintained lawn and recreation area.



Photo 4: Scrub-shrub wetland on west side of AOI.



Photo 5: Snag in southwest corner of AOI – potential NLEB roost habitat.

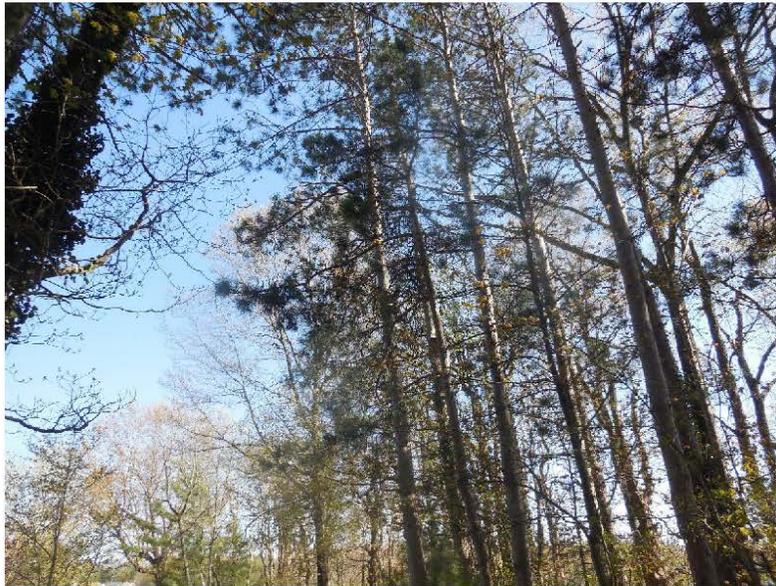


Photo 6: Typical canopy cover of AOI.

2018 CZM Grant Application

Coastal Health Habitat, Waters and Communities Initiative

Pottawattomie Park

Natural Shoreline & Universal Design Upgrades



Park Photos, Historical Aerials, and Area of Work

Prein&Newhof

Existing Park Photos Taken 8/30/2018



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Existing Park Photos Taken 8/30/2018



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Historical Aerial Photos



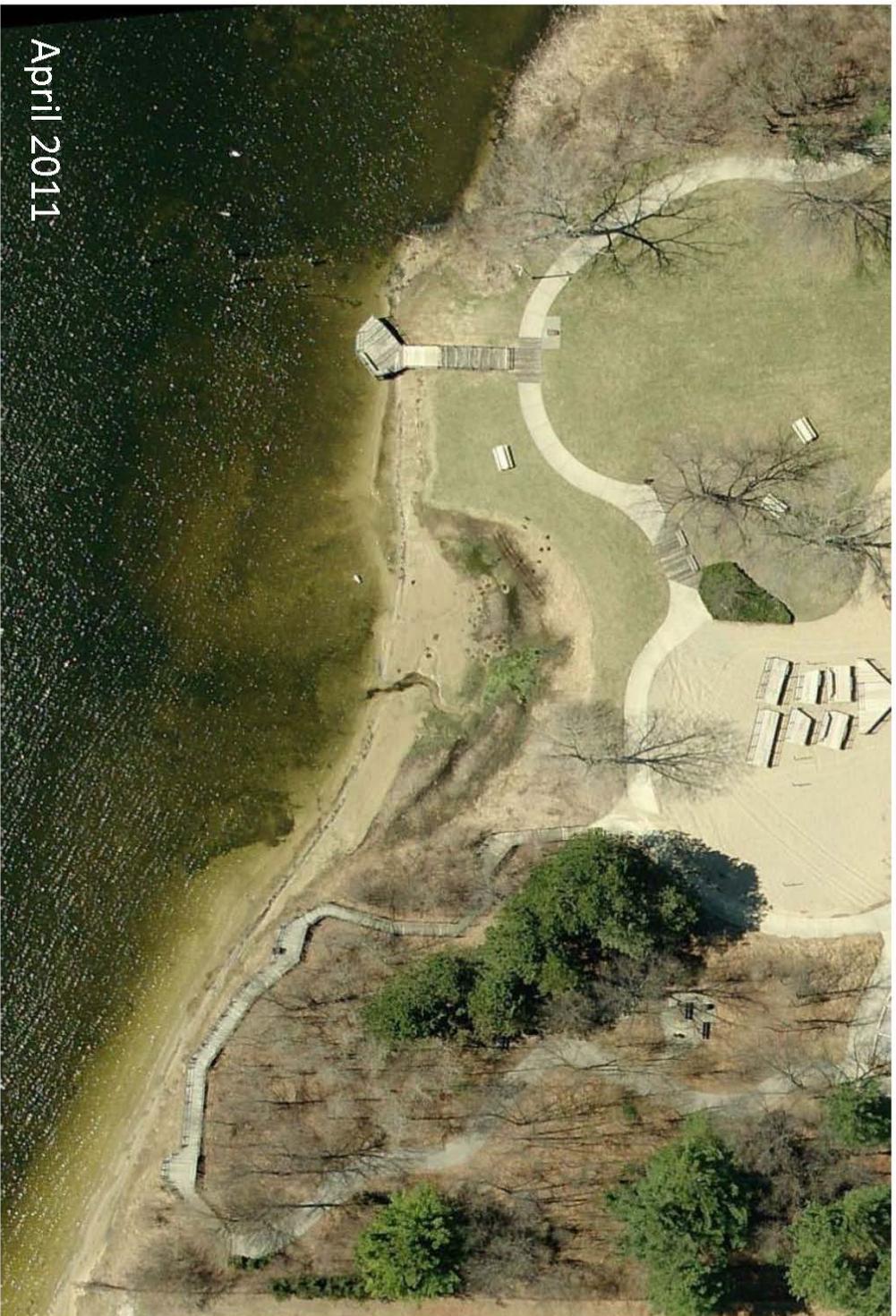
May 2007



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Historical Aerial Photos



April 2011



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Historical Aerial Photos



May 2014



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Historical Aerial Photos



May 2017



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Historical Aerial Photos



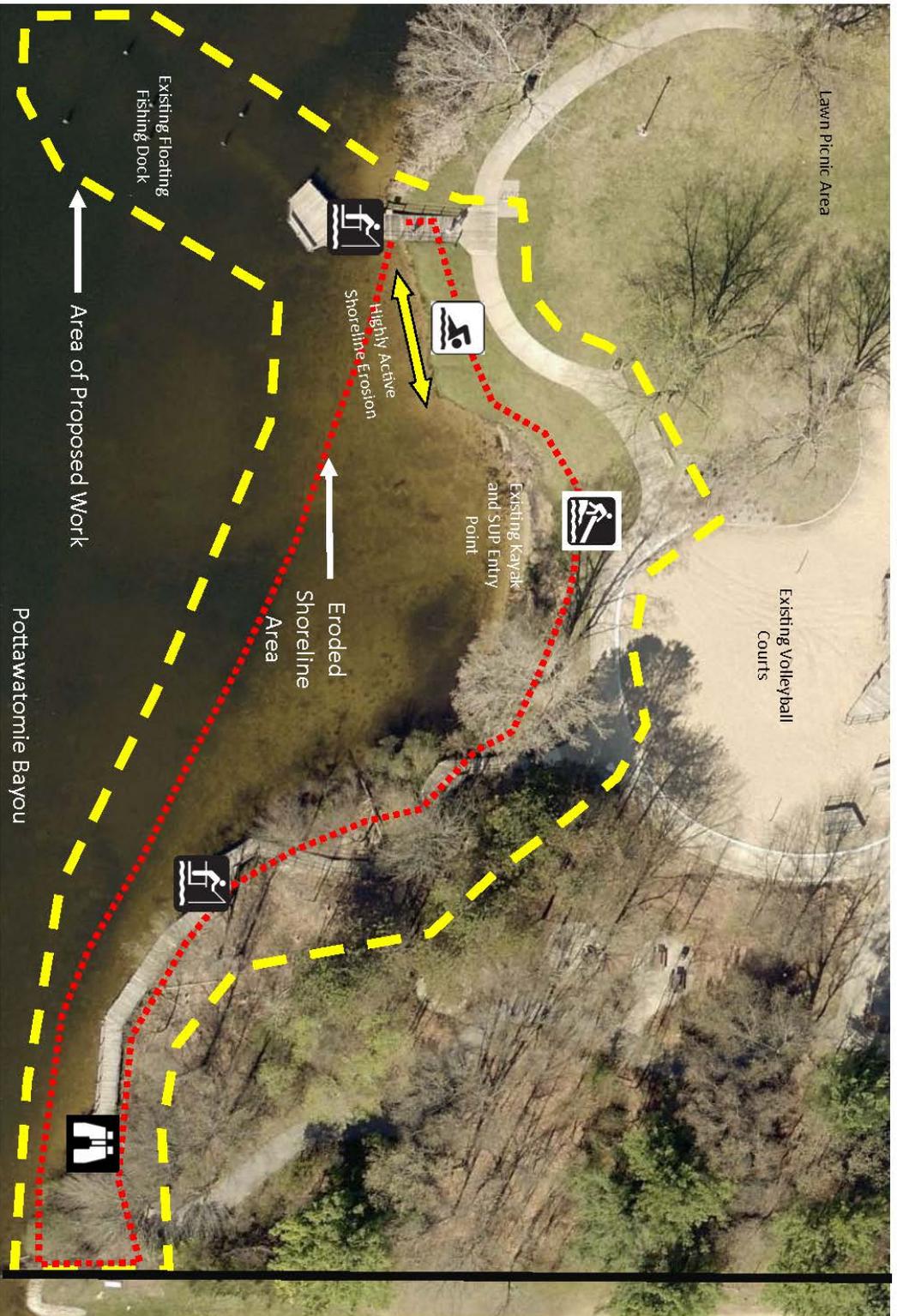
May 2018



2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Proposed Area of Work



Grand County Conservation District
P.O. Box 10000 • Monticello, WI 53592

2018 CZM Grant Application Pottawatomie Park

Prein&Newhof

Pottawattomie Park - Shoreline Improvements Plan

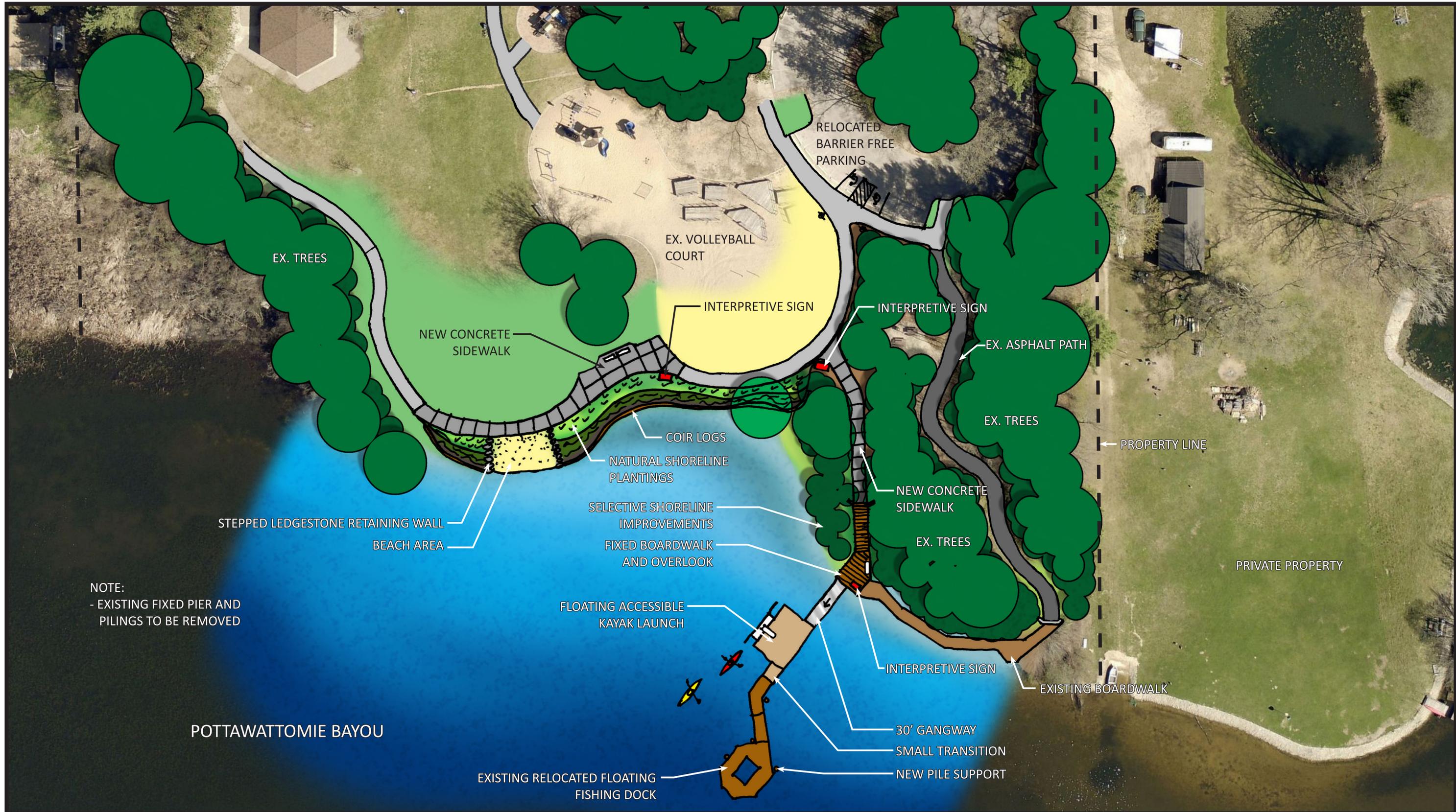
Grand Haven Charter Township



GRAND HAVEN CHARTER TOWNSHIP

Coastal Zone Management

Grant Project # 19-CHHC-001



9-12-2019

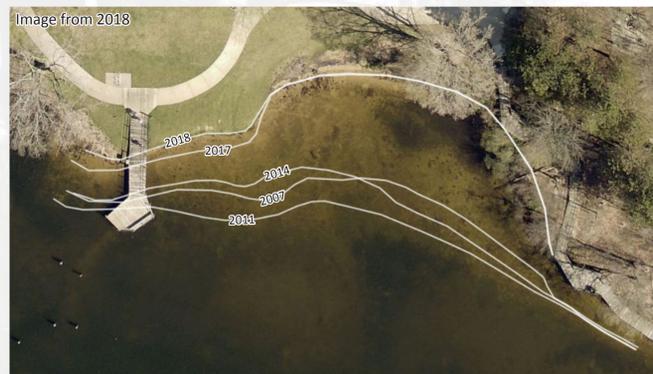
Prein & Newhof

NATURAL SHORELINE

& BENEFITS OF NATIVE PLANTINGS

Pottawattomie Bayou Shoreline

When the park was first developed it seemed like a good idea to have a nice green lawn for picnics right next to the water's edge. Over time the shallow rooted turf grass along the water's edge has begun to wash out, and the shoreline is now receding. Over the last 12 years at Pottawattomie Park the shoreline has receded up to 60ft in certain areas. If left unattended the shoreline will continue to erode, resulting in reduced park space, and an unappealing shoreline for both wildlife and people.



Shoreline of Pottawattomie Park over the years. The white lines represent the shoreline for each year.

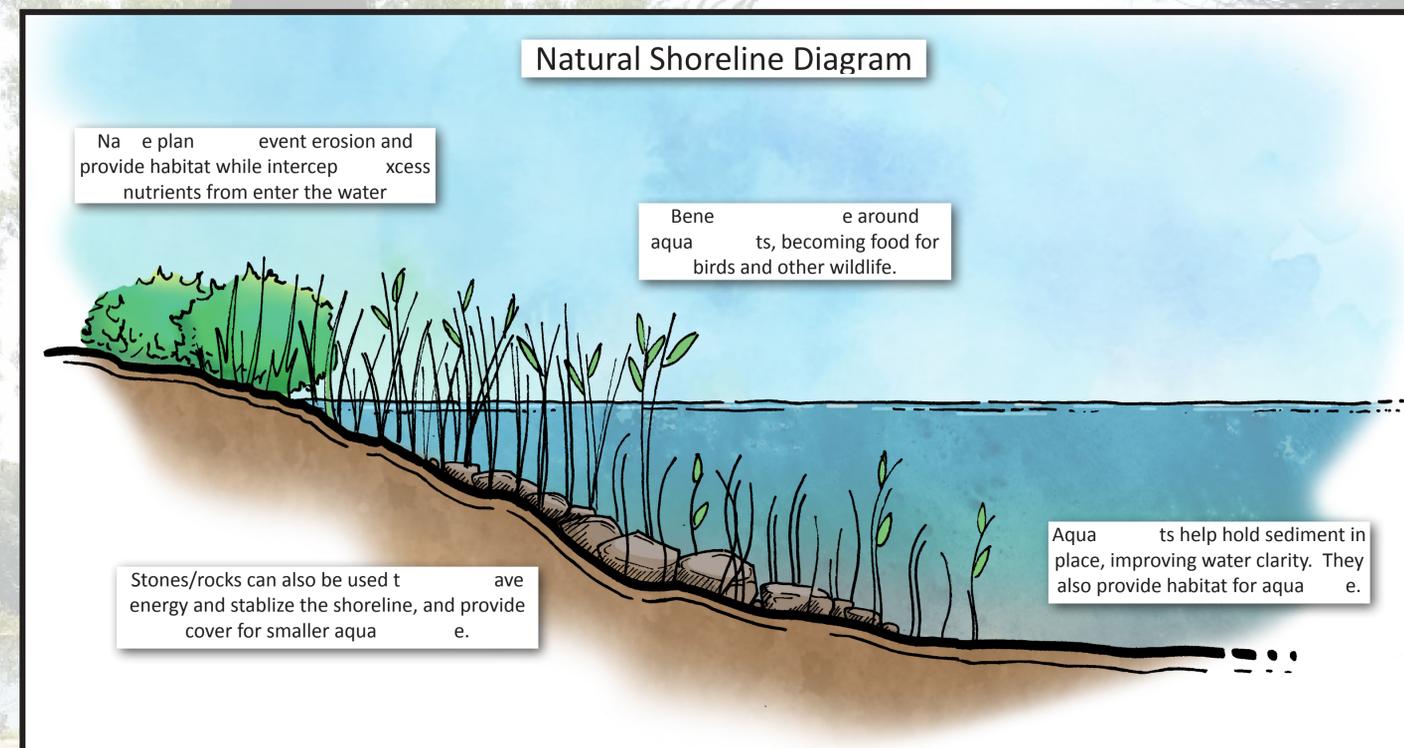
What is a Natural Shoreline?

A natural shoreline is a buffer zone that collects important nutrients while reducing the negative impacts of runoff, erosion, and sediment. These negative impacts can lead to loss of recreational use and severely harm the local fish and wildlife populations. Having a natural shoreline is an important feature for maintaining a complex ecosystem that can fully sustain fish and wildlife.

Why are Native Plants?

Native plantings are any grasses, flowers, shrubs, and trees that are indigenous to a specific region. Since they are living in their natural habitat, native plants require minimal maintenance and are generally hardier than non-native species. Native plants provide food and habitat for wildlife, helping to maintain a wide range of native fish, wildlife, and birds.

Here at Pottawattomie Park, the native plantings that were installed along the water's edge have deeper roots than traditional turf grass, which helps stabilize the soils to protect the shoreline against erosion and sedimentation. The shoreline plantings will also absorb any extra nutrients that would enter the water and potentially cause algae blooms. An algae bloom is a rapid increase of algae caused by excess nutrients in the water. An algae bloom can create toxins or use up the oxygen in the water, causing harm to the native plants and wildlife.



Newly installed natural shoreline.



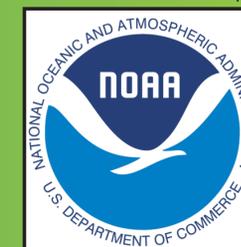
The turfgrass shoreline in Pottawattomie Park being eroded as of 2019.

•Financial assistance for this project was provided, in part, by the Coastal Management Program, Water Resources Division, Michigan Department of Environment, Great Lakes, and Energy, under the National Coastal Zone Management Program, through a grant from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

•The statements, findings, conclusions, and recommendation in this (report/video) are those of the (Grantee) and do not necessarily reflect the views of the Michigan Department of Environment, Great Lakes, and Energy or the National Oceanic and Atmospheric Administration.

•Coastal Management Program, Water Resources Division, Michigan Department of Environment, Great Lakes, and Energy and the National Oceanic and Atmospheric Administration.”

For more information follow the QR code or visit: www.mishorelinepartnership.org



INVASIVE SPECIES

& How to Prevent Them

Examples of Local Invasive Species



Spotted Knapweed

Scienc Name: *Centaurea stoebe*

Concerns: Is poisonous to other plants, creang barr en areas where only knapweed can grow. A threat to pastures, praries, and dunes. Can also be a skin irritant.



European Frog-bit

Scienc Name: *Hydrocharis morsus-ranae*

Concerns: Mats of European frog-bit grow so thick that they impede boat trac, movement of sh, and diving w ater fowl. If the mats are large enough they can prevent light and nutrients from reaching anything submerged.



Multiflora Rose

Scienc Name: *Rosa multiflora*

Concerns: Spreads very aggressively by seeds dispersed by birds and other wildlife. Forms dense thickets that can overrun and crowd out nav e plants and deter nav e birds from nesng.



Eurasian Watermilfoil

Scienc Name: *Myriophyllum spicatum*

Concerns: Forms large mats of oa ng v egetaon tha t block the sun and shade out nav e aquac plan ts. It is not a valuable food source for anything so it can freely grow. It impedes recreaonal acvies and c an clog residenal or c ommercial water intakes.



Purple Loosestrife

Scienc Name: *Lythrum salicaria*

Concerns: Can rapidly establish and replace nav e vegetaon. R educes the plant diversity which can ruin habitats, making it unappealing for wildlife. Threatens to overrun roadside and wetland habitats.

What is an Invasive Species?

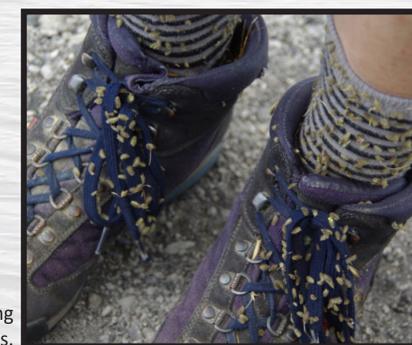
An invasive species is any kind of living organism that causes harm to an ecosystem that it is not originally from. Invasive species have the capacity to grow and reproduce quickly, spread aggressively, and have the ability cause harm to other organisms. Invasive species are often spread by human activity, they can travel great distances by latching on to boat propellers, hiking boots, or even shipping materials.

Preventav e Measures

- Check all gear, clothes, and shoes when hiking. Many invasive species can a ach to clothing or gear and use humans to travel to new areas. Many trails now have boot brushes to help remove any possible unwanted materials.
- Inspect all boats when transferring between di erent bodies of water. Aquac in vasive species can be spread through ballast water and by a aching to propellers.
- Be conscious of invasive species when traveling through new areas.
- When invasive species are discovered it is important to act fast. As infestaons gr ow it becomes more dicult and mor e expensive to treat the infested area.



Le: Man y trail heads now have boot brushes. Using these before and a er you experience a site helps reduce the likelihood of transferring invasive species.



Right: Seeds clinging to hiking boots.

•Financial assistance for this project was provided, in part, by the Coastal Management Program, Water Resources Division, Michigan Department of Environment, Great Lakes, and Energy, under the National Coastal Zone Management Program, through a grant from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

•The statements, findings, conclusions, and recommendation in this (report/video) are those of the (Grantee) and do not necessarily reflect the views of the Michigan Department of Environment, Great Lakes, and Energy or the National Oceanic and Atmospheric Administration.

•Coastal Management Program, Water Resources Division, Michigan Department of Environment, Great Lakes, and Energy and the National Oceanic and Atmospheric Administration.”

For more informaon on loc al Michigan invasive species please follow the QR code or visit: www.michigan.gov/invasives





Assessing Memo

DATE: November 5, 2019

TO: Township Board

FROM: Director of Assessing

RE: Re-appointment of Board of Review Members

The General Property Tax Act requires that real and personal property be assessed annually in each township or city by a certified assessor. The act also creates a board of local citizens known as the “Board of Review” to examine and review these assessments. The Board of Review meets to listen to taxpayers who wish to protest their assessment and grant them relief if such action is appropriate. The Board of Review also has limited power to grant exemptions for principle residence property, qualified agricultural property, disabled veteran’s property, poverty exemptions, correct errs and mutual mistakes of fact.

On June 24, 2019, the Township Board appointed Lorie Kiebach to the Board of Review as a regular member and Morgan Rescorla as an alternate member of the Board of Review until December 31, 2019.

Due to the expiring of their appointments on December 31st, I am recommending the Township Board reappoint Lorie Kiebach to the Board of Review as a regular member and Morgan Rescorla as an alternate member.

If the Board concurs with this recommendation, the following motion could be offered:

Move to approve the appointment of Lorie Kiebach, to the Board of Review, as a regular member, and Morgan Rescorla, as an alternate member, effective January 1 2020, with a term ending December 31, 2020.

If you have any questions, please do not hesitate to contact the Director of Assessing, Roger Schmidt.



Administrative Memo

TO: Township Board
FROM: Chief Gerencer and Andrea Dumbrell
DATE: November 7, 2019
RE: Part-Time Firefighter Hire – Garlanger

From August 2019 to September 2019, the Township received approximately three applications for a Part-Time Firefighter position. Two candidates were offered interviews and the opportunity to complete the agility test.

On September 16, 2019, the selection committee consisting of Tom Gerencer, Fire Chief; Shawn Schrader, Fire Captain; David Marshal, Fire Lieutenant; Matthew Schweitzer, Fire Lieutenant; and, Andrea Dumbrell, Human Resources Director, interviewed the two candidates.

Specific knowledge, skills, experience and residency the selection committee looked for, when evaluating candidates, were:

- High School Diploma; CPR certification, firefighting training & paramedic license
- Live south of Grand Haven's drawbridge and within 7 miles of the Grand Haven Charter Township's Fire Station
- Ability to work under pressure situations and make decisions in emergency situations, while being exposed to extreme temperatures; heavy smoke conditions; chemical, physical, and mechanical hazards; heights and confined spaces
- Flexibility to fill 12 and 24-hour shifts, at the Township's Fire Station, when needed

After review of the interviews and physical agility tests, there was consensus to offer a Part-Time Firefighter position to Kyle Garlanger. Mr. Garlanger currently lives in Allendale and works full-time as a Fire Inspector/Firefighter for Allendale Charter Township. Additionally, Mr. Garlanger has his Firefighter 1 and 2; Fire Officer 1, 2, and 3; Fire Inspector; Fire Instructor 1; Paramedic; and, Blue Card IC licenses and certifications. Prior to his current position with Allendale Charter Township, Mr. Garlanger spent three years serving as a paramedic with ambulance companies.

The Administration and Fire/Rescue Departments, at Grand Haven Charter Township, look forward to working with and training Kyle, and we believe his knowledge, skills, and experience will be valuable assets to our Township.

Under State law, all Fire/Rescue positions, full-time and part-time, must be approved by the Board. If the Board concurs with the Personnel Committee's recommendation to hire Mr. Garlanger, the following motion could be offered for consideration:

Move to approve the hire of Kyle Garlanger as a Part-Time Firefighter, effective immediately.

Enclosed is the candidate's application and contingent offer letter. If you have any questions, please do not hesitate to contact Chief Gerencer or Andrea Dumbrell.



Administrative Memo

TO: Township Board
FROM: Chief Gerencer and Andrea Dumbrell
DATE: November 7, 2019
RE: Part-Time Firefighter Hire – Donselar

From August 2019 to September 2019, the Township received approximately three applications for a Part-Time Firefighter position. Two candidates were offered interviews and the opportunity to complete the agility test.

On September 16, 2019, the selection committee consisting of Tom Gerencer, Fire Chief; Shawn Schrader, Fire Captain; David Marshal, Fire Lieutenant; Matthew Schweitzer, Fire Lieutenant; and, Andrea Dumbrell, Human Resources Director, interviewed the two candidates.

Specific knowledge, skills, experience and residency the selection committee looked for, when evaluating candidates, were:

- High School Diploma; CPR certification, firefighting training & paramedic license
- Live south of Grand Haven's drawbridge and within 7 miles of the Grand Haven Charter Township's Fire Station
- Ability to work under pressure situations and make decisions in emergency situations, while being exposed to extreme temperatures; heavy smoke conditions; chemical, physical, and mechanical hazards; heights and confined spaces
- Flexibility to fill 12 and 24-hour shifts, at the Township's Fire Station, when needed

After review of the interviews and physical agility tests, there was consensus to offer a Part-Time Firefighter position to Jordan Donselar. Mr. Donselar currently lives in Grand Haven Township and works full-time for JR Automation in Holland. While Mr. Donselar does not have any of the firefighting training or experiences some of the Township's recent firefighters have had, Mr. Donselar demonstrated, through his interview and reference checks, a strong work ethic; integrity; people skills; the desire to give back to his community; and, the availability needed to be a successful firefighter in the Township's Fire/Rescue Department.

The Administration and Fire/Rescue Departments, at Grand Haven Charter Township, look forward to working with and training Jordan, and we believe his knowledge, skills, and potential will be valuable assets to our Township.

Under State law, all Fire/Rescue positions, full-time and part-time, must be approved by the Board. If the Board concurs with the Personnel Committee's recommendation to hire Mr. Donselar, the following motion could be offered for consideration:

Move to approve the hire of Jordan Donselar as a Part-Time Firefighter, effective immediately.

Enclosed is the candidate's application and contingent offer letter. If you have any questions, please do not hesitate to contact Chief Gerencer or Andrea Dumbrell.



MANAGER'S MEMO

DATE: November 5, 2019 (Corrected on 11/11/19)
 TO: Township Board
 FROM: Cargo & Deputy Treasurer Larrison
 SUBJECT: 2020 Fiscal Year – Special Assessments

Each year, Grand Haven Charter Township is required to hold a public hearing on certain improvements that have been previously approved through “special assessments” or to place certain delinquent payments on special assessment rolls. This hearing authorizes the Township to include these costs on the Winter Tax bills, which are mailed on December 1st.

Attached, please find the following resolutions that approve the listed special assessments rolls:

1. Resolution 19-11-01 approving the 2019 Police Services Special Assessments Roll;
2. Resolution 19-11-02 approving the 2019 Sewer Special Assessments Roll;
3. Resolution 19-11-03 approving the 2019 Storm Drains Special Assessments Roll;
4. Resolution 19-11-04 approving the 2019 Delinquent Water and Sewer Payments Special Assessments Roll; and,
5. Resolution 19-11-05 approving the 2019 Street Lighting Special Assessments Roll; and,
6. Resolution 19-11-06 approving the 2019 Street Paving Special Assessments Roll.

All of these collections have been previously affirmed by the Board through the Special Assessment process; state statutes (*e.g., Michigan Drain Code*); and/or local ordinances (*e.g., Sewer Ordinance*). The actual assessment rolls were made available for public review and will also be available at Monday’s Board meeting.

The actual monies that will be collected from these assessments are as follows:

➤ Police Services SAD roll total	\$ 454,022.48	\$447,586.83
➤ Sanitary Sewer SAD roll total	\$ 33,164.51	
➤ Storm Drains SAD roll total	\$ 20,022.26	
➤ Delinquent Water/Sewer SAD roll total	\$ 7,664.35	
➤ Street Lighting SAD roll total	\$ 120,414.51	
➤ Street Paving SAD roll total	\$ 21,275.77	
GRAND TOTAL	\$ 656,563.88	\$650,128.23

The Board will need to have a **separate roll call vote** on each of the resolutions.

If there are any questions or comments prior to the meeting, please contact either Manager Cargo or Deputy Treasurer Larrison at your convenience.

Resolution 19-11-01

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

PRESENT:

ABSENT:

The Supervisor called the meeting to order. After certain matters of business were concluded, the Supervisor stated the next order of business of the meeting was a public hearing on the redetermination of the levy for the Township-wide Police Services Special Assessment District and the various street lighting, sewer, water, street paving, and storm drains still in operation within the Township and placing delinquent water and sewer bills on the tax roll.

The Supervisor noted that public notice of the Special Assessment hearing had been given by complying with the provisions of Michigan law. Specifically, the Supervisor noted that proper publication had taken place in the *Grand Haven Tribune* on Friday, November 1, 2019.

The Supervisor then opened the public hearing with regard to the special assessment roll for police services, various street lighting, sewer, water, street paving, and storm drains still in operation within the Township, and placing delinquent water and sewer bills on the tax roll.

Comments were received from people present, if any, with respect to the various assessment rolls. The Supervisor then asked if there were any written objections and the Clerk reported on those written objections received and those previously filed, if any.

The Supervisor then closed the hearing on the proposed 2019 special assessment rolls.

Discussion followed with respect to the comments made at the public hearing, if any, and the special assessment rolls for said special assessment districts. After completion of this discussion and certain other business, the following resolution was offered by _____ and seconded by _____:

RESOLUTION #19-11-01

Approval of the Police Services Special Assessment Roll for Fiscal Year 2020

WHEREAS, the Township Deputy Treasurer, on behalf of the Supervisor, has prepared a special assessment roll for the Township-wide Police Services special assessment district; and

WHEREAS, the Township Deputy Treasurer submitted a special assessment roll, report and certificate in accordance with the instructions specified by this Township Board; and

WHEREAS, the Township Board, on the receipt of such items, held a public hearing on November 11, 2019, at 7:00 p.m., local time, at the Grand Haven Charter Township Hall, located at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan to review and hear any objections to the special assessment roll; and

WHEREAS, proper notice of said hearing was given by publication, all in accordance with the terms and state law; and

WHEREAS, the Board did meet at the time and place of the public hearing to review the Police Services special assessment roll and hear any objections and other matters related to the special assessment roll;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The special assessment roll prepared and submitted by the Grand Haven Charter Township Deputy Treasurer, on behalf of the Supervisor, with amendments or corrections made, if any, by this Board, for police services with a **\$447,586.83** estimated service charge for the 2020 calendar year be, and the same is hereby ratified, confirmed, and adopted. The Township Clerk is hereby directed to endorse on the assessment roll the fact the roll has been confirmed as of the date of this meeting.

2. The special assessment for operation purposes shall be billed December 1st of 2019 and shall be payable on or before February 14th of the following year.

3. Any installment not paid on September 1st following the date it was due shall be transferred, together with all penalties, to the Township tax roll as is provided in Act 188 of 1954, as amended.

4. In order to avoid further requirements to send notices by first class mail for subsequent annual assessments, the Board will hold a public hearing on the second Monday in November (*except for Presidential Election years when the annual public hearing will be held in conjunction with the budget hearing on the fourth Monday in October*) and make a redetermination for the levy of the following year for police services without mailed notice, except for compliance with the Open Meetings Act, provided any increase in such levy does not exceed the estimated annual incremental cost increases by more than 10%. However, if an increase in the levy in any year will exceed the estimated annual incremental cost increase by more than 10%, a notice of redetermination will be mailed to property owners.

5. All resolutions in conflict herewith in whole or in part are revoked to the extent of such conflict.

YES:

NO:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Dated: November 11, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

Resolution 19-11-02

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

PRESENT:

ABSENT:

The Supervisor called the meeting to order. After certain matters of business were concluded, the Supervisor stated the next order of business of the meeting was a public hearing on the redetermination of the levy for the Township-wide Police Services Special Assessment District and the various street lighting, sewer, water, street paving, and storm drains still in operation within the Township and placing delinquent water and sewer bills on the tax roll.

The Supervisor noted that public notice of the Special Assessment hearing had been given by complying with the provisions of Michigan law. Specifically, the Supervisor noted that proper publication had taken place in the *Grand Haven Tribune* on Friday, November 1, 2019.

The Supervisor then opened the public hearing with regard to the special assessment roll for police services, various street lighting, sewer, water, street paving, and storm drains still in operation within the Township, and placing delinquent water and sewer bills on the tax roll.

Comments were received from people present, if any, with respect to the various assessment rolls. The Supervisor then asked if there were any written objections and the Clerk reported on those written objections received and those previously filed, if any.

The Supervisor then closed the hearing on the proposed 2019 special assessment rolls.

Discussion followed with respect to the comments made at the public hearing, if any, and the special assessment rolls for said special assessment districts. After completion of this discussion and certain other business, the following resolution was offered by _____ and seconded by _____:

RESOLUTION #19-11-02
Approval of the Sewer Special Assessment Roll for Fiscal Year 2020

WHEREAS, the Township Deputy Treasurer, on behalf of the Supervisor, has prepared a special assessment roll for sewer extensions and sewer connections; and

WHEREAS, the Township Deputy Treasurer submitted a special assessment roll, report and certificate in accordance with the instructions specified by this Township Board; and

WHEREAS, the Township Board, on the receipt of such items, held a public hearing on November 11, 2019, at 7:00 p.m., local time, at the Grand Haven Charter Township Hall, located at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan to review and hear any objections to the special assessment roll; and

WHEREAS, proper notice of said hearing was given by publication, all in accordance with the terms and state law; and

WHEREAS, the Board did meet at the time and place of the public hearing to review the sewer extension and sewer connections special assessment roll and hear any objections and other matters related to the special assessment roll;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The special assessment roll prepared and submitted by the Grand Haven Charter Township Deputy Treasurer, on behalf of the Supervisor, with amendments or corrections made, if any, by this Board, for sewer extensions and sewer connections in an estimated amount of **\$33,164.51** as the estimated charge for the 2020 calendar year be and the same is hereby ratified, confirmed, and adopted. The Township Clerk is hereby directed to endorse on the assessment roll the fact the roll has been confirmed as of the date of this meeting.
2. The special assessment for operation purposes shall be billed December 1st of 2019 and shall be payable on or before February 14th of the following year.
3. Any installment not paid on September 1 following the date it was due shall be transferred, together with all penalties, to the Township tax roll as is provided in Act 188 of 1954, as amended.
4. All resolutions in conflict herewith in whole or in part are revoked to the extent of such conflict.

YES:

NO:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Dated: November 11, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

Resolution 19-11-03

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

PRESENT:

ABSENT:

The Supervisor called the meeting to order. After certain matters of business were concluded, the Supervisor stated the next order of business of the meeting was a public hearing on the redetermination of the levy for the Township-wide Police Services Special Assessment District and the various street lighting, sewer, water, street paving, and storm drains still in operation within the Township and placing delinquent water and sewer bills on the tax roll.

The Supervisor noted that public notice of the Special Assessment hearing had been given by complying with the provisions of Michigan law. Specifically, the Supervisor noted that proper publication had taken place in the *Grand Haven Tribune* on Friday, November 1, 2019.

The Supervisor then opened the public hearing with regard to the special assessment roll for police services, various street lighting, sewer, water, street paving, and storm drains still in operation within the Township, and placing delinquent water and sewer bills on the tax roll.

Comments were received from people present, if any, with respect to the various assessment rolls. The Supervisor then asked if there were any written objections and the Clerk reported on those written objections received and those previously filed, if any.

The Supervisor then closed the hearing on the proposed 2019 special assessment rolls.

Discussion followed with respect to the comments made at the public hearing, if any, and the special assessment rolls for said special assessment districts. After completion of this discussion and certain other business, the following resolution was offered by _____ and seconded by _____:

RESOLUTION #19-11-03

Approval of the Storm Drain Assessment Rolls for Fiscal Year 2020

WHEREAS, the Township Deputy Treasurer, on behalf of the Supervisor, has prepared a special assessment roll for the Hiawatha Drain District; and

WHEREAS, the Township Deputy Treasurer submitted a special assessment roll, report and certificate in accordance with the instructions specified by this Township Board; and

WHEREAS, the Township Board, on the receipt of such items, held a public hearing on November 11, 2019, at 7:00 p.m., local time, at the Grand Haven Charter Township Hall, located at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan to review and hear any objections to the special assessment roll; and

WHEREAS, proper notice of said hearing was given by publication, all in accordance with the terms and state law; and

WHEREAS, the Board did meet at the time and place of the public hearing to review the Hiawatha Storm Drain special assessment roll and hear any objections and other matters related to the special assessment roll;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The special assessment roll prepared and submitted by the Grand Haven Charter Township Director of Assessing, on behalf of the Supervisor, with amendments or corrections made, if any, by this Board, the Drain special assessment district in the amount of **\$20,022.26** as the estimated service charges for the 2020 calendar year be, and the same is hereby ratified, confirmed, and adopted. The Township Clerk is hereby directed to endorse on the assessment roll the fact the roll has been confirmed as of the date of this meeting.

2. The special assessment for operation purposes shall be billed December 1st of 2019 and shall be payable on or before February 14th of the following year.

3. Any installment not paid on September 1 following the date it was due shall be transferred, together with all penalties, to the Township tax roll as is provided in Act 188 of 1954, as amended.

4. All resolutions in conflict herewith in whole or in part are revoked to the extent of such conflict.

YES:

NO:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Dated: November 11, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

Resolution 19-11-04

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

PRESENT:

ABSENT:

The Supervisor called the meeting to order. After certain matters of business were concluded, the Supervisor stated the next order of business of the meeting was a public hearing on the redetermination of the levy for the Township-wide Police Services Special Assessment District and the various street lighting, sewer, water, street paving, and storm drains still in operation within the Township and placing delinquent water and sewer bills on the tax roll.

The Supervisor noted that public notice of the Special Assessment hearing had been given by complying with the provisions of Michigan law. Specifically, the Supervisor noted that proper publication had taken place in the *Grand Haven Tribune* on Friday, November 1, 2019.

The Supervisor then opened the public hearing with regard to the special assessment roll for police services, various street lighting, sewer, water, street paving, and storm drains still in operation within the Township, and placing delinquent water and sewer bills on the tax roll.

Comments were received from people present, if any, with respect to the various assessment rolls. The Supervisor then asked if there were any written objections and the Clerk reported on those written objections received and those previously filed, if any.

The Supervisor then closed the hearing on the proposed 2019 special assessment rolls.

Discussion followed with respect to the comments made at the public hearing, if any, and the special assessment rolls for said special assessment districts. After completion of this discussion and certain other business, the following resolution was offered by _____ and seconded by _____:

RESOLUTION #19-11-04

Approval of the Delinquent Water and Sewer Bills Roll for Fiscal Year 2020

WHEREAS, the Township Deputy Treasurer, on behalf of the Supervisor, has prepared a special assessment roll for the delinquent water and sewer bills; and

WHEREAS, the Township Deputy Treasurer submitted a special assessment roll, report and certificate in accordance with the instructions specified by this Township Board; and

WHEREAS, the Township Board, on the receipt of such items, held a public hearing on November 11, 2019, at 7:00 p.m., local time, at the Grand Haven Charter Township Hall, located at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan to review and hear any objections to the special assessment roll; and

WHEREAS, proper notice of said hearing was given by publication, all in accordance with the terms and state law; and

WHEREAS, the Board did meet at the time and place of the public hearing to review the delinquent water and sewer special assessment roll and hear any objections and other matters related to the special assessment roll;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The special assessment roll prepared and submitted by the Grand Haven Charter Township Deputy Treasurer, on behalf of the Supervisor, with amendments or corrections made, if any, by this Board, for delinquent utility bills in an amount of **\$7,664.35** as the estimated service charge for the 2020 calendar year be, and the same is hereby ratified, confirmed, and adopted. The Township Clerk is hereby directed to endorse on the assessment roll the fact the roll has been confirmed as of the date of this meeting.

2. The special assessment for operation purposes shall be billed December 1st of 2019 and shall be payable on or before February 14th of the following year.

3. Any installment not paid on September 1 following the date it was due shall be transferred, together with all penalties, to the Township tax roll as is provided in Act 188 of 1954, as amended.

4. All resolutions in conflict herewith in whole or in part are revoked to the extent of such conflict.

YES:

NO:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Dated: November 11, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

Resolution 19-11-05

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

PRESENT:

ABSENT:

The Supervisor called the meeting to order. After certain matters of business were concluded, the Supervisor stated the next order of business of the meeting was a public hearing on the redetermination of the levy for the Township-wide Police Services Special Assessment District and the various street lighting, sewer, water, street paving, and storm drains still in operation within the Township and placing delinquent water and sewer bills on the tax roll.

The Supervisor noted that public notice of the Special Assessment hearing had been given by complying with the provisions of Michigan law. Specifically, the Supervisor noted that proper publication had taken place in the *Grand Haven Tribune* on Friday, November 1, 2019.

The Supervisor then opened the public hearing with regard to the special assessment roll for police services, various street lighting, sewer, water, street paving, and storm drains still in operation within the Township, and placing delinquent water and sewer bills on the tax roll.

Comments were received from people present, if any, with respect to the various assessment rolls. The Supervisor then asked if there were any written objections and the Clerk reported on those written objections received and those previously filed, if any.

The Supervisor then closed the hearing on the proposed 2019 special assessment rolls.

Discussion followed with respect to the comments made at the public hearing, if any, and the special assessment rolls for said special assessment districts. After completion of this discussion and certain other business, the following resolution was offered by _____ and seconded by _____:

RESOLUTION #19-11-05

Approval of the Street Lighting Special Assessment Roll for Fiscal Year 2020

WHEREAS, the Township Deputy Treasurer, on behalf of the Supervisor, has prepared a special assessment roll for the street lighting districts; and

WHEREAS, the Township Deputy Treasurer submitted a special assessment roll, report and certificate in accordance with the instructions specified by this Township Board; and

WHEREAS, the Township Board, on the receipt of such items, held a public hearing on November 11, 2019, at 7:00 p.m., local time, at the Grand Haven Charter Township Hall, located at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan to review and hear any objections to the special assessment roll; and

WHEREAS, proper notice of said hearing was given by publication, all in accordance with the terms and state law; and

WHEREAS, the Board did meet at the time and place of the public hearing to review the Street Lighting special assessment roll and hear any objections and other matters related to the special assessment roll;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The special assessment roll prepared and submitted by the Grand Haven Charter Township Deputy Treasurer on behalf of the Supervisor, with amendments or corrections made, if any, by this Board, for street lighting within the street lighting special assessment districts in an amount of **\$120,414.51** as the estimated service charge for the 2020 calendar year, be and the same is hereby ratified, confirmed, and adopted. The Township Clerk is hereby directed to endorse on the assessment roll the fact the roll has been confirmed as of the date of this meeting.

2. The special assessment for operation purposes shall be billed December 1st of 2019 and shall be payable on or before February 14th of the following year.

3. Any installment not paid on September 1 following the date it was due shall be transferred, together with all penalties, to the Township tax roll as is provided in Act 188 of 1954, as amended.

4. All resolutions in conflict herewith in whole or in part are revoked to the extent of such conflict.

YES:

NO:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Dated: November 11, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

Resolution 19-11-06

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 11th day of November 2019, at 7:00 p.m., local time.

PRESENT:

ABSENT:

The Supervisor called the meeting to order. After certain matters of business were concluded, the Supervisor stated the next order of business of the meeting was a public hearing on the redetermination of the levy for the Township-wide Police Services Special Assessment District and the various street lighting, sewer, water, street paving, and storm drains still in operation within the Township and placing delinquent water and sewer bills on the tax roll.

The Supervisor noted that public notice of the Special Assessment hearing had been given by complying with the provisions of Michigan law. Specifically, the Supervisor noted that proper publication had taken place in the *Grand Haven Tribune* on Friday, November 1, 2019.

The Supervisor then opened the public hearing with regard to the special assessment roll for police services, various street lighting, sewer, water, street paving, and storm drains still in operation within the Township, and placing delinquent water and sewer bills on the tax roll.

Comments were received from people present, if any, with respect to the various assessment rolls. The Supervisor then asked if there were any written objections and the Clerk reported on those written objections received and those previously filed, if any.

The Supervisor then closed the hearing on the proposed 2019 special assessment rolls.

Discussion followed with respect to the comments made at the public hearing, if any, and the special assessment rolls for said special assessment districts. After completion of this discussion and certain other business, the following resolution was offered by _____ and seconded by _____:

RESOLUTION #19-11-06

Approval of the Street Paving Special Assessment Roll for Fiscal Year 2020

WHEREAS, the Township Deputy Treasurer, on behalf of the Supervisor, has prepared a special assessment roll for the street paving districts; and

WHEREAS, the Township Deputy Treasurer submitted a special assessment roll, report and certificate in accordance with the instructions specified by this Township Board; and

WHEREAS, the Township Board, on the receipt of such items, held a public hearing on November 11, 2019, at 7:00 p.m., local time, at the Grand Haven Charter Township Hall, located at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan to review and hear any objections to the special assessment roll; and

WHEREAS, proper notice of said hearing was given by publication, all in accordance with the terms and state law; and

WHEREAS, the Board did meet at the time and place of the public hearing to review the street paving special assessment roll and hear any objections and other matters related to the special assessment roll;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The special assessment roll prepared and submitted by the Grand Haven Charter Township Deputy Treasurer, on behalf of the Supervisor, with amendments or corrections made, if any, by this Board, for road paving special assessment districts in an amount of **\$21,275.77** as the estimated charge for the 2020 calendar year, be and the same is hereby ratified, confirmed, and adopted. The Township Clerk is hereby directed to endorse on the assessment rolls the fact the roll has been confirmed as of the date of this meeting.

2. The special assessment for operation purposes shall be billed December 1st of 2019 and shall be payable on or before February 14th of the following year.

3. Any installment not paid on the September 1 following the date it was due shall be transferred, together with all penalties, to the Township tax roll as is provided in Act 188 of 1954, as amended.

4. All resolutions in conflict herewith in whole or in part are revoked to the extent of such conflict.

YES:

NO:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Dated: November 11, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a regular meeting of the Township Board held on the 11th day of November 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
ACCESSORY BUILDING				
P19BU0539	MARCUS DAVID W-JEAN M	13679 MEADOWBROOK LN	\$20,000	\$245.40
			\$20,000	\$245.40
			<i>Total Permits For Type:</i>	<i>1</i>
ADDITIONS				
P19BU0494	LANS ERIC M-TONIA J	13351 LAKESHORE DR	\$25,000	\$279.65
P19BU0541	PIERSON STACY-DENNIS	15027 MERCURY DR	\$90,000	\$724.90
			\$115,000	\$1,004.55
			<i>Total Permits For Type:</i>	<i>2</i>
ADDRESS				
P19AD0134	GRAND HAVEN DEVELOPMENT GROUP LLC	5065 COPPERWOOD DR	\$0	\$14.00
P19AD0135	SCHAFFER STEPHEN E	11715 CONNOR DR PVT	\$0	\$14.00
P19AD0136	SARKI TIMOTHY J-LORI A	15432 LAKE AVE	\$0	\$14.00
			\$0	\$42.00
			<i>Total Permits For Type:</i>	<i>3</i>
ALTERATIONS				
P19BU0453	ALBRIGHT JAMES A-HILDEGARD E	14979 152ND AVE	\$23,995	\$272.80
P19BU0470	BLANCHARD MARTIN D-BOYCE JANET E	15330 LOST CHANNEL TR	\$17,092	\$231.70
P19BU0490	WASSELL ROBERT-JENNIFER	13520 GREENBRIAR DR	\$2,000	\$42.00
P19BU0518	ZIMMERMAN BRAD-AUTUMN	14762 INDIAN TRAILS DR	\$10,000	\$168.00
P19BU0524	KITCHKA NAOMI TRUST	14657 LAKESHORE DR	\$1,000	\$36.75
P19BU0525	PALARZ THOMAS A-LINDA L TRUST	17402 REENDERS CT	\$1,500	\$42.00
P19BU0526	WALKER SCOTT L	15934 MERCURY DR	\$6,200	\$120.75
P19BU0527	MCINTYRE JEROME-KATHERINE	15001 177TH AVE	\$18,000	\$231.70
P19BU0547	OPPENHUIZEN TRUST MARK A-KATHY C	17822 COMSTOCK ST	\$0	\$245.40
			\$79,787	\$1,391.10
			<i>Total Permits For Type:</i>	<i>9</i>
BASEMENT FINISH				
P19BU0474	GARRISONS PROPERTIES LLC	15329 161ST AVE	\$10,000	\$168.00
P19BU0495	EASTERLING TRUST	16076 BONITA CT	\$39,860	\$382.40
P19BU0529	SIEGERT RYAN A-JESSICA L	16880 MAPLERIDGE DR	\$23,750	\$272.80
P19BU0530	SMITH GREG	10376 MORNINGDEW CT	\$42,400	\$402.95
			\$116,010	\$1,226.15
			<i>Total Permits For Type:</i>	<i>4</i>
COMMERCIAL BUILDING				
P19BU0496	GRAND HAVEN CHARTER TWP	15581 FERRIS ST	\$50,000	\$0.00
P19BU0497	GRAND HAVEN CHARTER TWP	15581 FERRIS ST	\$10,000	\$0.00
P19BU0498	GRAND HAVEN CHARTER TWP	15581 FERRIS ST	\$50,000	\$0.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
			\$110,000	\$0.00
			<i>Total Permits For Type:</i>	3
COMMERCIAL REMODEL				
P19BU0483	WIND RIDERS LLC	16881 HAYES ST	\$38,957	\$375.55
P19BU0517	PIGEON CREEK SCHOOLHOUSE PRESERVAT	16788 PIERCE ST	\$3,000	\$0.00
			\$41,957	\$375.55
			<i>Total Permits For Type:</i>	2
DECK				
P19BU0492	YOUNG PHILIP R-SIMONE O	13578 FOREST PARK DR	\$500	\$36.75
P19BU0540	HESSELSWEET TRUST	14250 CRICKLEWOOD RD	\$10,000	\$168.00
			\$10,500	\$204.75
			<i>Total Permits For Type:</i>	2
DEMOLITION				
P19DE0017	CONSUMERS CONCRETE CORP	14016 172ND AVE	\$1	\$20.00
			\$1	\$20.00
			<i>Total Permits For Type:</i>	1
ELECTRICAL				
P19EL0484	T BOSGRAAF HOMES LLC	15030 KINGFISHER WAY	\$0	\$264.00
P19EL0485	T BOSGRAAF HOMES LLC	15018 KINGFISHER WAY	\$0	\$264.00
P19EL0486	T BOSGRAAF HOMES LLC	15064 KINGFISHER WAY	\$0	\$264.00
P19EL0487	T BOSGRAAF HOMES LLC	15048 KINGFISHER WAY	\$0	\$264.00
P19EL0488	NAJARIAN TRUST	15226 LAKE AVE	\$0	\$114.00
P19EL0489	YOUNG PHILIP R-SIMONE O	13578 FOREST PARK DR	\$0	\$56.00
P19EL0490	MARTIN JOHN E-HOLLY L	15297 VINTAGE AVE	\$0	\$114.00
P19EL0491	KOSS JORI	15074 152ND AVE	\$0	\$212.00
P19EL0492	WHALEN TIMOTHY S-TRACIE	16515 LAKE MICHIGAN DR	\$0	\$60.00
P19EL0493	LAKESHORE GARDENS APARTMENTS LLC	17003 LAKESHORE FLATS DR CLUB	\$0	\$150.00
P19EL0494	INTERRA HOLDINGS LLC	15771 BEDFORD DR	\$0	\$254.00
P19EL0495	LAKESHORE GARDENS APARTMENTS LLC	16973 TYSMAN WY MAIN BLDG A	\$0	\$570.00
P19EL0496	LAKESHORE GARDENS APARTMENTS LLC	16972 TYSMAN WY MAIN BLDG B	\$0	\$520.00
P19EL0497	LAKESHORE GARDENS APARTMENTS LLC	15048 KAYE LN MAIN BLDG C	\$0	\$610.00
P19EL0498	LAKESHORE GARDENS APARTMENTS LLC	14928 KAYE LN MAIN BLDG D	\$0	\$505.00
P19EL0499	LAKESHORE GARDENS APARTMENTS LLC	16976 LAKESHORE FLATS DR DR M	\$0	\$500.00
P19EL0500	LAKESHORE GARDENS APARTMENTS LLC	17071 TYSMAN WY MAIN BLDG F	\$0	\$430.00
P19EL0501	ZIMMERMAN BRAD-AUTUMN	14762 INDIAN TRAILS DR	\$0	\$106.00
P19EL0502	LYON BRUCE A-LISA A	14500 160TH AVE	\$0	\$60.00
P19EL0503	SIEGERT RYAN A-JESSICA L	16880 MAPLERIDGE DR	\$0	\$118.00
P19EL0504	LINCOLN STREET HOLDINGS	12680 RIVERTON RD	\$0	\$261.00
P19EL0505	JTB HOMES LLC	12677 RIVERTON RD	\$0	\$261.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19EL0506	JTB HOMES LLC	12694 RIVERTON RD	\$0	\$261.00
P19EL0507	THIRTY-ONE & M-45 LLC	10999 WEST OLIVE RD BLDG B	\$0	\$54.00
P19EL0508	WALKER DAVID-RETA	14896 SHARON AVE	\$0	\$56.00
P19EL0509	GRAND HAVEN FINANCIAL CENTER LLC	16920 FERRIS ST	\$0	\$71.00
P19EL0510	GARRISONS PROPERTIES LLC	15329 161ST AVE	\$0	\$172.00
P19EL0511	S J FARMS	16420 LAKE MICHIGAN DR	\$0	\$60.00
P19EL0512	EASTERLING TRUST	16076 BONITA CT	\$0	\$122.00
P19EL0514	ALBRIGHT JAMES A-HILDEGARD E	14979 152ND AVE	\$0	\$66.00
P19EL0515	BERNARDINI JOHN V-DIANE K	14824 BIRDSONG LN	\$0	\$54.00
P19EL0516	HERRINGTON RONALD L-SHERYL A	12636 RETREAT DR PVT	\$0	\$66.00
P19EL0517	COVEART DAVID-KRISTINE	12946 LAKESHORE DR	\$0	\$56.00
P19EL0518	RALYA MARK W SR-CHERYL JOY	12459 160TH AVE	\$0	\$59.00
P19EL0519	DREESE ALAN R	16723 PIERCE ST	\$0	\$66.00
P19EL0520	RISSELADE JOSEPH-PAULA	15074 WILLOWOOD CT	\$0	\$80.00
P19EL0521	MCINTYRE JEROME-KATHERINE	15001 177TH AVE	\$0	\$114.00
P19EL0522	BOWDITCH BARBARA TRUST	15040 PINE RIDGE RD	\$0	\$60.00
P19EL0523	ANTHES MICHAEL	13698 MEADOWBROOK LN	\$0	\$66.00
P19EL0524	CUMMINGS LAURA A-MIKE T	12588 RETREAT DR PVT	\$0	\$72.00
P19EL0525	CHAPEL KARL R-TANYA J	16159 FERRIS ST	\$0	\$175.00

\$0 **\$7,687.00**
Total Permits For Type: **41**

FENCE

P19ZL0098	HALL DAREK L-DANIELLE	14845 SHARON AVE	\$2,500	\$40.00
P19ZL0105	BRANN ROBERT-RUTHAN	15001 LAKESHORE DR	\$0	\$0.00
P19ZL0107	DUARTE RICHARD S SR-CATHERINE V	15234 EASY ST	\$0	\$40.00
P19ZL0108	MCINTYRE JEROME-KATHERINE	15001 177TH AVE	\$1,700	\$40.00
P19ZL0111	HAWKE JEFF-LISA	17400 BEECH HILL DR	\$4,089	\$40.00
P19ZL0112	ANIBLE JOHN JR	12914 PINE GLEN DR	\$3,500	\$40.00
P19ZL0116	ALLEN ANTHONY-ESTHER	14856 WOODSIDE TR	\$2,800	\$40.00

\$14,589 **\$240.00**
Total Permits For Type: **7**

MECHANICAL

P19ME0734	VANDER SCHUUR KELLY-MARIFE	15477 WINANS ST	\$0	\$265.00
P19ME0735	NAJARIAN TRUST	15226 LAKE AVE	\$0	\$135.00
P19ME0736	MATTSON MICHAEL-REBECCA	13606 FAWN LN	\$0	\$130.00
P19ME0737	ADAMS ROBERT-CHRISTINA	12709 152ND AVE	\$0	\$130.00
P19ME0738	JTB HOMES LLC	12694 RIVERTON RD	\$0	\$135.00
P19ME0739	STEFFEN MARGARET B TRUST	15445 160TH AVE	\$0	\$80.00
P19ME0740	CHASE TRUST	9871 BEACH RIDGE CT	\$0	\$85.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19ME0741	YAGER SHARON KAY	14070 152ND AVE	\$0	\$80.00
P19ME0743	BOWDITCH BARBARA TRUST	15040 PINE RIDGE RD	\$0	\$110.00
P19ME0744	METCALF, SANDRA, K.& GAGE, DAVID, M	17154 LINCOLN ST	\$0	\$140.00
P19ME0745	REISNER DEAN F-EMILY M	16555 PIERCE ST	\$0	\$70.00
P19ME0746	KENDALL JOAN M	15493 WINCHESTER CIR PVT	\$0	\$110.00
P19ME0747	RIVER HAVEN OPERATING COMPANY LLC	13875 RIVER HAVEN BLVD	\$0	\$80.00
P19ME0748	KOSS JORI	15074 152ND AVE	\$0	\$55.00
P19ME0749	KOSS JORI	15074 152ND AVE	\$0	\$130.00
P19ME0750	SHUMWAY ANDREW-DANGREMOND DARC	4352 WOODHAVEN CT	\$0	\$80.00
P19ME0751	SHAPE CORP	14600 172ND AVE	\$0	\$120.00
P19ME0752	WILSON BENJAMIN	15297 COLEMAN AVE	\$0	\$85.00
P19ME0753	KOSS JORI	15074 152ND AVE	\$0	\$110.00
P19ME0754	SOMERS JEFF-JENNIFER	12400 LINCOLN FARMS DR	\$0	\$135.00
P19ME0755	HOLZ PETER-REBECCA	15517 WINCHESTER CIR PVT	\$0	\$135.00
P19ME0756	HUDD GARY C SR-LOUISE M	14474 LINCOLN ST	\$0	\$80.00
P19ME0757	EGGERT KRISTOPHER-EMILY	15032 155TH AVE	\$0	\$55.00
P19ME0758	SIEGERT RYAN A-JESSICA L	16880 MAPLERIDGE DR	\$0	\$170.00
P19ME0759	T BOSGRAAF HOMES LLC	15000 KINGFISHER WAY	\$0	\$135.00
P19ME0760	KIEFT BARTEL G-RAQUEL HALL	12358 152ND AVE	\$0	\$70.00
P19ME0761	MACDONALD TRUST	15326 PINE ST	\$0	\$80.00
P19ME0762	EASTERLING TRUST	16076 BONITA CT	\$0	\$130.00
P19ME0763	RIERA KRISTINE M	18110 FOREST DR	\$0	\$80.00
P19ME0764	RALYA MARK W SR-CHERYL JOY	12459 160TH AVE	\$0	\$80.00
P19ME0765	MELCHER GERALD-LORA L	15668 GROESBECK ST	\$0	\$80.00
P19ME0766	VANDERLEE DOUGLAS A-KENDRA S	13751 COTTAGE DR	\$0	\$110.00
P19ME0767	SIGNATURE LAND DEVELOPMENT CO	14727 PINE DEW DRIVE	\$0	\$225.00
P19ME0768	SIGNATURE LAND DEVELOPMENT CO	14729 PINE DEW DRIVE	\$0	\$220.00
P19ME0769	SIGNATURE LAND DEVELOPMENT CO	14726 PINE DEW DRIVE	\$0	\$225.00
P19ME0770	SIGNATURE LAND DEVELOPMENT CO	14728 PINE DEW DRIVE	\$0	\$220.00
P19ME0771	SIGNATURE LAND DEVELOPMENT CO	14727 PINE DEW DRIVE	\$0	\$135.00
P19ME0772	SIGNATURE LAND DEVELOPMENT CO	14726 PINE DEW DRIVE	\$0	\$135.00
P19ME0773	ROTHWELL WILLIAM J-MARIBETH	12702 RETREAT DR PVT	\$0	\$70.00
P19ME0774	STILLSON DELORES-IVES JOSEPH PAUL	15053 161ST AVE	\$0	\$110.00
P19ME0775	COLLINS WILLIAM L-CATHERINE A	14879 BIRDSONG LN	\$0	\$110.00
P19ME0776	GRAND HAVEN DEVELOPMENT GROUP LLC	4998 COPPER CT	\$0	\$210.00
P19ME0777	BROLICK KRAIG-CATHERINE TRUST	12379 152ND AVE	\$0	\$110.00
P19ME0778	SHAPE CORP	14600 172ND AVE	\$0	\$85.00
P19ME0779	NYQUIST AILEEN M TRUST	15292 MEADOWWOOD DR	\$0	\$80.00
P19ME0780	SMITH WILLIAM H-KAYE L	9810 HIAWATHA DR	\$0	\$120.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19ME0781	CROMWELL RICHARD H-DIANE L TRUST	18008 BRUCKER ST	\$0	\$80.00
P19ME0782	KAR KEVIN-MARIE	15429 LAKE AVE	\$0	\$230.00
P19ME0783	HERRINGTON RONALD L-SHERYL A	12636 RETREAT DR PVT	\$0	\$85.00
P19ME0784	KAR KEVIN-MARIE	15429 LAKE AVE	\$0	\$130.00
P19ME0785	DREESE ALAN R	16723 PIERCE ST	\$0	\$85.00
P19ME0786	TRI-CITIES INVESTMENTS LLC	16143 MERCURY DR	\$0	\$75.00
P19ME0787	JTB HOMES LLC	12694 RIVERTON RD	\$0	\$230.00
P19ME0788	ANTHES MICHAEL	13698 MEADOWBROOK LN	\$0	\$85.00
P19ME0789	CUMMINGS LAURA A-MIKE T	12588 RETREAT DR PVT	\$0	\$85.00
P19ME0790	T BOSGRAAF HOMES LLC	14988 KINGFISHER WAY	\$0	\$225.00
P19ME0791	T BOSGRAAF HOMES LLC	15000 KINGFISHER WAY	\$0	\$225.00
P19ME0792	BAUVAN LAND COMPANY LLC	17172 MAPLERIDGE DR	\$0	\$245.00
P19ME0793	WARBASSE MARY E	17413 REENDERS CT	\$0	\$80.00
P19ME0794	KUZMA MARY E TRUST	17213 FERRIS ST	\$0	\$80.00
P19ME0795	CHAPEL KARL R-TANYA J	16159 FERRIS ST	\$0	\$85.00
P19ME0796	ADAMS ROBERT-CHRISTINA	12709 152ND AVE	\$0	\$70.00
P19ME0797	DENEFF KELLY-JACOB	9712 HIAWATHA DR	\$0	\$110.00
P19ME0798	NEAL ERIC-SCHOONOVER SAMANTHA	17465 REENDERS CT	\$0	\$110.00
			\$0	\$7,840.00
			<i>Total Permits For Type: 64</i>	

PLUMBING

P19PL0309	SMALARZ JEFFREY-HANNAH	17129 MAPLERIDGE DR	\$0	\$123.00
P19PL0324	LINCOLN STREET HOLDINGS	12680 RIVERTON RD	\$0	\$255.00
P19PL0325	S J FARMS	16420 LAKE MICHIGAN DR	\$0	\$236.00
P19PL0326	HUMPHRIES WILLIAM-STARR TRUST	11359 LAKESHORE DR	\$0	\$329.00
P19PL0327	T BOSGRAAF HOMES LLC	14882 KINGFISHER WAY	\$0	\$229.00
P19PL0328	T BOSGRAAF HOMES LLC	14898 KINGFISHER WAY	\$0	\$224.00
P19PL0329	MEYER ETHAN-ALYSSA	12770 LINCOLN FARMS DR	\$0	\$221.00
P19PL0330	KOSS JORI	15074 152ND AVE	\$0	\$148.00
P19PL0331	LANSKY DOUGLAS J-LISA	12244 168TH AVE	\$0	\$233.00
P19PL0332	SIEGERT RYAN A-JESSICA L	16880 MAPLERIDGE DR	\$0	\$125.00
P19PL0333	INTERRA HOMES LLC	15708 GARDENTON CT	\$0	\$255.00
P19PL0334	RIVER HAVEN OPERATING COMPANY LLC	13615 PINWOOD DR	\$0	\$55.00
P19PL0335	BLANCHARD MARTIN D-BOYCE JANET E	15330 LOST CHANNEL TR	\$0	\$115.00
P19PL0336	EASTERLING TRUST	16076 BONITA CT	\$0	\$180.00
P19PL0337	SIGNATURE LAND DEVELOPMENT CO	14726 PINE DEW DRIVE	\$0	\$229.00
P19PL0338	SIGNATURE LAND DEVELOPMENT CO	14728 PINE DEW DRIVE	\$0	\$229.00
P19PL0339	PHIPPS ALLEN D-GUINEVERE N	14554 ANGELUS CIR	\$0	\$55.00
P19PL0340	ANDERSON DENNIS-MARY	16515 LAKE MICHIGAN DR	\$0	\$206.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
			\$0	\$3,447.00
			<i>Total Permits For Type:</i>	<i>18</i>
POOL/SPA/HOT TUB				
P19BU0491	YOUNG PHILIP R-SIMONE O	13578 FOREST PARK DR	\$8,500	\$76.13
P19BU0528	WALKER DAVID-RETA	14896 SHARON AVE	\$7,654	\$136.50
			\$16,154	\$212.63
			<i>Total Permits For Type:</i>	<i>2</i>
REPLACEMENT WINDOWS/DOORS				
P19BU0481	BIDDANDA BOPAIAH-KAVITHA B	15000 DAVID ST	\$6,555	\$120.75
P19BU0482	FAUBERT GARY J-JENNIFER L	15221 LOST CHANNEL TR	\$11,725	\$190.60
P19BU0493	VANDEN BERG TRUST	18294 HOLCOMB RD	\$2,920	\$63.00
P19BU0523	DAVIS GARY P-PAMELA M	17262 BURKSHIRE DR	\$26,000	\$286.50
P19BU0550	KREY STEPHEN H-KATHLEEN	15388 MEADOWS DR	\$1,760	\$42.00
			\$48,960	\$702.85
			<i>Total Permits For Type:</i>	<i>5</i>
RE-ROOFING				
P19BU0501	WARBER GEORGE-GWENDOLYN	17855 BRUCKER ST	\$16,545	\$100.00
P19BU0502	TOLLIVER BETTE	17877 SHORE ACRES RD	\$9,217	\$100.00
P19BU0503	RUITER MARTIN-TERRI	12439 168TH AVE	\$10,900	\$100.00
P19BU0504	SKEELS DAVID E-BARBARA J TRUST	14464 ANGELUS CIR	\$9,230	\$100.00
P19BU0505	WALMA DANIEL-DONNA	15064 BAYOU POINTE PL	\$8,200	\$50.00
P19BU0506	DEVRIES CAROLYN R TRUST	15066 BAYOU POINTE PL	\$8,200	\$50.00
P19BU0507	MCNABB HUGH W-KATHERINE M	14016 BAYOU RIDGE CIR	\$8,200	\$50.00
P19BU0508	VANDERBROEK STEVEN-ELIZABETH-ANNE	14018 BAYOU RIDGE CIR	\$8,200	\$50.00
P19BU0509	YOUNG PHILIP R-SIMONE O	13578 FOREST PARK DR	\$14,900	\$100.00
P19BU0510	CRYST BRIAN-JENNIFER	13791 HOFMA DR	\$13,476	\$100.00
P19BU0511	COLLINS WESLEY E	15007 GROESBECK ST	\$24,569	\$100.00
P19BU0512	DEKRAKER JAN	13910 148TH AVE	\$9,800	\$100.00
P19BU0513	WAGENMAKER ROBERT-DEBORAH TRUST	16755 TIMBER RIDGE	\$8,000	\$100.00
P19BU0515	SCHOLL TRUST	15132 163RD AVE	\$13,200	\$100.00
P19BU0516	HALLADA ROBERT F	15881 BRUCKER ST	\$4,260	\$100.00
P19BU0519	FREEMAN SHAWN A-KIMBERLY A	15247 PINE ST	\$9,000	\$100.00
P19BU0520	RIVER HAVEN OPERATING COMPANY LLC	13518 OAKTREE COURT	\$3,000	\$100.00
P19BU0521	TRI-CITIES INVESTMENTS LLC	16143 MERCURY DR	\$7,531	\$100.00
P19BU0522	WIEGAND RICHARD E JR	13360 FOX RIDGE CT	\$13,115	\$100.00
P19BU0531	JOHNSON ERIK L-SPRINGER PAMELA S	17015 TIMBER DUNES DR	\$12,300	\$100.00
P19BU0533	BERGERS GLEN-JOHNSON TINA	15110 178TH AVE	\$10,324	\$100.00
P19BU0534	GRAND HAVEN CHARTER TWP	13300 168TH AVE	\$69,900	\$0.00
P19BU0535	BAUER THOMAS-CAROL	17483 BEECH HILL DR	\$22,041	\$100.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19BU0542	JOHNSON WAYNE-DIANE	15268 HARRY ST	\$6,830	\$100.00
P19BU0544	JWH 172 PROPERTIES LLC	14080 172ND AVE	\$115,000	\$100.00
P19BU0553	SKELTON MICHAEL-SHERYL	17879 COMSTOCK ST	\$4,800	\$100.00
P19BU0554	CRESWELL THOMAS A	13639 FOREST PARK DR	\$8,800	\$100.00
			\$449,538	\$2,400.00
			<i>Total Permits For Type:</i>	<i>27</i>

RE-SIDING

P19BU0514	LANS ERIC M-TONIA J	13351 LAKESHORE DR	\$17,500	\$100.00
P19BU0532	BAUER THOMAS-CAROL	17483 BEECH HILL DR	\$22,000	\$100.00
P19BU0543	WHIPPLE JOHN A-MARY A	15450 164TH AVE	\$20,400	\$100.00
			\$59,900	\$300.00
			<i>Total Permits For Type:</i>	<i>3</i>

SHED (<200 SQFT)

P19ZL0103	STEGER JOANNE	15332 KEVIN ST	\$1,500	\$40.00
P19ZL0104	BRANN ROBERT-RUTHAN	15001 LAKESHORE DR	\$0	\$0.00
P19ZL0106	ARB DAVID L-TRACEY E	13376 LAKESHORE DR	\$0	\$40.00
P19ZL0109	MCINTYRE JEROME-KATHERINE	15001 177TH AVE	\$0	\$40.00
P19ZL0110	MONARCH KEITH	15075 BIGNELL DR	\$1,800	\$40.00
P19ZL0114	REDD FAMILY TRUST	13790 FOREST PARK DR	\$4,000	\$40.00
			\$7,300	\$200.00
			<i>Total Permits For Type:</i>	<i>6</i>

SINGLE FAMILY DWELLING

P19BU0499	SIGNATURE LAND DEVELOPMENT CO	14726 PINE DEW DRIVE	\$248,000	\$1,433.90
P19BU0500	SIGNATURE LAND DEVELOPMENT CO	14728 PINE DEW DRIVE	\$203,000	\$1,271.15
P19BU0536	WESTRA JOSHUA-EMILIE	12342 LINCOLN FARMS DRIVE PVS	\$650,000	\$1,885.40
P19BU0538	ANDERSON DENNIS-MARY	16515 LAKE MICHIGAN DR	\$282,000	\$1,166.15
P19BU0551	GEBBEN TOBY C- JILL L	12501 JANSMA DR LOT 16	\$700,000	\$1,796.15
P19BU0552	GRAND HAVEN DEVELOPMENT GROUP LLC	5065 COPPERWOOD DR	\$218,964	\$1,323.65
P19BU0555	T BOSGRAAF HOMES LLC	14972 KINGFISHER WAY	\$240,000	\$1,286.90
P19BU0556	T BOSGRAAF HOMES LLC	14958 KINGFISHER WAY	\$265,000	\$1,360.40
			\$2,806,964	\$11,523.70
			<i>Total Permits For Type:</i>	<i>8</i>

VEHICLE SALES

P19VS0079	KIMBALL JAMES-CAROL	14952 SHARON AVE	\$0	\$0.00
P19VS0080	STANITZEK FRANK E-LYNN	16055 COMSTOCK ST	\$0	\$0.00
P19VS0081	SIERRA PROPERTIES LLC	17121 HAYES ST	\$0	\$0.00
P19VS0082	DOUGALL TRUST	13335 LAKESHORE DR	\$0	\$0.00
P19VS0083	SCHMIDT DONALD C-MAXINE M	14845 LINCOLN ST	\$0	\$0.00
P19VS0084	BARON DIANNE L TRUST	13574 REDBIRD LN	\$0	\$0.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19VS0085	CORTIS RICHARD & CHARLOTTE	16342 LINCOLN ST	\$0	\$0.00
P19VS0086	HOLT SETH H-BARBARA D	15404 HOFMA DR	\$0	\$0.00
P19VS0087	PETERSON JOHN E-JANICE M	15128 LAKESHORE DR	\$0	\$0.00
			\$0	\$0.00
			<i>Total Permits For Type:</i>	<i>9</i>
Totals			\$3,896,660	\$39,062.68
			<i>Total Permits In Month:</i>	<i>217</i>

October Enforcement Letters By Category

All enforcement letters sent the previous month

Type of Enforcement Letter	Number Mailed
BOAT IN FRONT YARD - 1ST NOTICE	6
DECK WITHOUT PERMIT	1
FENCE - 1ST NOTICE	1
LITTER - 1ST NOTICE	3
LITTER - 2ND NOTICE	1
PARKED ON GRASS - 1ST NOTICE	12
PERMIT APPLICATIONS-PLEASE COMPLETE	1
POOL & HOT TUB - 1ST NOTICE	1
POOL & HOT TUB - 2ND NOTICE	2
SHED - 1ST NOTICE	3
SIGN IN ROW 2ND NOTICE	1
SIGN IN ROW WARNING	1
SIGN LIGHTING 2ND NOTICE	1
SIGN WARNING	1
VEHICLE FOR SALE - 1ST NOTICE	1
VEHICLE IN ROW - 1ST NOTICE	2
WORK WITHOUT PERMITS - 1ST NOTICE	1
WORK WITHOUT PERMITS - 2ND NOTICE	1

Total Letters Sent: 40

October Open Enforcements By Category Monthly Report

ACCESSORY BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0280	16607 FERRIS ST	1ST NOTICE OF VIOLATION LETTER	10/08/19		
E19CE0289	14847 RIVERSIDE TR	1ST NOTICE OF VIOLATION LETTER	10/17/19		
E19CE0290	13350 GREENBRIAR DR	1ST NOTICE OF VIOLATION LETTER	10/17/19		

Total Entries: 3

BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0279	15001 177TH AVE	CLOSED	10/08/19	10/16/19	
E19CE0286	17877 SHORE ACRES RD	1ST NOTICE OF VIOLATION LETTER	10/16/19		
E19CE0299	12596 LAKESHORE DR	CITATION/CIVIL INFRACTION	10/24/19		

Total Entries: 3

FENCE

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0292	15026 COPPER CT	RESOLVED	10/17/19	10/30/19	

Total Entries: 1

HOME OCCUPATION

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0295	15213 160TH AVE	1ST NOTICE OF VIOLATION LETTER	10/22/19		

Total Entries: 1

JUNK & RUBBISH

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0271	15064 DEREMO AVE	1ST NOTICE OF VIOLATION LETTER	10/02/19		
E19CE0273	15330 160TH AVE	CLOSED	10/03/19	10/17/19	
E19CE0306	13061 SIKKEMA DR	1ST NOTICE OF VIOLATION LETTER	10/31/19		

Total Entries: 3

PARKING ON THE GRASS

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0274	12653 144TH AVE	CLOSED	10/03/19	10/16/19	

October Open Enforcements By Category Monthly Report

E19CE0275	12663 144TH AVE	CLOSED	10/03/19	10/16/19
E19CE0276	12713 144TH AVE	CLOSED	10/03/19	10/16/19
E19CE0277	12248 LAKESHORE DR	CLOSED	10/08/19	10/17/19
E19CE0283	14880 BLUEBIRD LN	1ST NOTICE OF VIOLATION LETTER	10/15/19	
E19CE0284	14894 BLUEBIRD LN	CLOSED	10/15/19	10/23/19
E19CE0287	15421 160TH AVE	CLOSED	10/17/19	10/23/19
E19CE0291	14250 SHIAWASSEE DR	RESOLVED	10/17/19	10/22/19
E19CE0296	15236 160TH AVE	1ST NOTICE OF VIOLATION LETTER	10/23/19	
E19CE0297	13470 152ND AVE	1ST NOTICE OF VIOLATION LETTER	10/23/19	
E19CE0301	13524 152ND AVE	1ST NOTICE OF VIOLATION LETTER	10/24/19	

Total Entries: 11

POOL & HOT TUB/SPA

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0269	17270 BUCHANAN ST	CLOSED	10/02/19	10/30/19	
E19CE0285	12938 BOULDERWAY TR	RESOLVED	10/16/19	10/30/19	

Total Entries: 2

RECREATION VEHICLES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0278	15222 LOST CHANNEL TR	1ST NOTICE OF VIOLATION LETTER	10/08/19		
E19CE0298	11883 CHICKORY DR		10/24/19		
E19CE0300	14259 152ND AVE	1ST NOTICE OF VIOLATION LETTER	10/24/19		
E19CE0303	15277 MERCURY DR 15279	1ST NOTICE OF VIOLATION LETTER	10/29/19		
E19CE0304	13389 GREENLEAF LN	1ST NOTICE OF VIOLATION LETTER	10/31/19		
E19CE0305	13063 ACACIA DR	1ST NOTICE OF VIOLATION LETTER	10/31/19		

Total Entries: 6

SIGNS

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0272	15971 LAKE MICHIGAN DR	1ST NOTICE OF VIOLATION LETTER	10/03/19		
E19CE0294	16945 TIMBER DUNES DR	1ST NOTICE OF VIOLATION LETTER	10/22/19		

Total Entries: 2

October Open Enforcements By Category Monthly Report

TRASH RECEPTACLES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0270	13536 HIDDEN CREEK CT	CLOSED	10/02/19	10/15/19	

Total Entries: 1

VEHICLE IN ROW

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0281	15290 CANARY DR	CLOSED	10/15/19	10/24/19	
E19CE0282	15316 CANARY DR	CLOSED	10/15/19	10/24/19	
E19CE0293	15602 160TH AVE	1ST NOTICE OF VIOLATION LETTER	10/22/19		

Total Entries: 3

VEHICLE SALES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0288	15874 MERCURY DR 15876	1ST NOTICE OF VIOLATION LETTER	10/17/19		

Total Entries: 1

Enforcement.DateFiled Between 10/1/2019 12:00:00 AM
AND 10/31/2019 11:59:59 PM

Total Records: 37

Total Pages: 3

Report Created: 11/05/19

October Closed Enforcements By Category Monthly Report

ACCESSORY BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E18CE0387	15075 BIGNELL DR	RESOLVED	12/27/18	10/14/19	
E19CE0264	13376 LAKESHORE DR	RESOLVED	09/25/19	10/11/19	
Total Entries:					2

BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0223	15335 DAVID ST	CLOSED	07/15/19	10/01/19	07/25/2019
E19CE0235	14915 HAWTHORNE ST	RESOLVED	08/28/19	10/15/19	
E19CE0257	13797 LAKESHORE DR	CLOSED	09/18/19	10/22/19	
E19CE0279	15001 177TH AVE	CLOSED	10/08/19	10/16/19	
Total Entries:					4

FENCE

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0292	15026 COPPER CT	RESOLVED	10/17/19	10/30/19	
Total Entries:					1

JUNK & RUBBISH

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0259	15539 COMSTOCK ST	CLOSED	09/19/19	10/03/19	
E19CE0273	15330 160TH AVE	CLOSED	10/03/19	10/17/19	
Total Entries:					2

PARKING ON THE GRASS

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0246	17585 TAMARACK LN	CLOSED	09/11/19	10/15/19	
E19CE0256	15165 COLEMAN AVE	2ND NOTICE OF VIOLATION LETTER	09/12/19	10/24/19	
E19CE0274	12653 144TH AVE	CLOSED	10/03/19	10/16/19	
E19CE0275	12663 144TH AVE	CLOSED	10/03/19	10/16/19	
E19CE0276	12713 144TH AVE	CLOSED	10/03/19	10/16/19	
E19CE0277	12248 LAKESHORE DR	CLOSED	10/08/19	10/17/19	

October Closed Enforcements By Category Monthly Report

E19CE0284	14894 BLUEBIRD LN	CLOSED	10/15/19	10/23/19
E19CE0287	15421 160TH AVE	CLOSED	10/17/19	10/23/19
E19CE0291	14250 SHIAWASSEE DR	RESOLVED	10/17/19	10/22/19

Total Entries: 9

POOL & HOT TUB/SPA

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0269	17270 BUCHANAN ST	CLOSED	10/02/19	10/30/19	
E19CE0285	12938 BOULDERWAY TR	RESOLVED	10/16/19	10/30/19	

Total Entries: 2

TRASH RECEPTACLES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0249	15665 HIGH RIDGE DR	CLOSED	09/12/19	10/08/19	
E19CE0254	15292 VINTAGE AVE	CLOSED	09/12/19	10/10/19	
E19CE0265	15283 VINTAGE AVE	CLOSED	09/26/19	10/10/19	
E19CE0270	13536 HIDDEN CREEK CT	CLOSED	10/02/19	10/15/19	

Total Entries: 4

VEHICLE IN ROW

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0281	15290 CANARY DR	CLOSED	10/15/19	10/24/19	
E19CE0282	15316 CANARY DR	CLOSED	10/15/19	10/24/19	

Total Entries: 2

VEHICLE SALES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0236	14110 152ND AVE 14112	CLOSED	08/29/19	10/10/19	

Total Entries: 1

Enforcement.DateClosed Between 10/1/2019 12:00:00 AM AND 10/31/2019 11:59:59 PM

Total Records: 27