

CITY OF STEVENS POINT
BOARD OF PUBLIC WORKS MEETING
May 10, 2021 - 6:15 PM
(or immediately following previously scheduled meeting)

Attend in-person:

The Community Room at 933 Michigan Avenue

****MASKS ARE REQUIRED****

Zoom Teleconferencing:

Meeting ID: 881 9975 1795 | Passcode: 904162

By Computer:

<https://us02web.zoom.us/j/88199751795?pwd=Y3ZkT1cwZVdub3pSeVA2NTA4S3B1Zz09>

By Phone: +1-312-626-6799 (US Chicago)

(A quorum of the City Council may attend this meeting)

AGENDA

Roll Call

Informational

1. Director's Report
 - a. 2020 Alley Improvement Project
 - b. 2021 Streets Improvement Project

Discussion and Possible Action

2. To accept the Ordinance Amendments as they relate to parking.
3. To proceed with the Alternative Analysis as intended for TAP Grant Eligibility from Rettler Corporation for the Plover River Crossing Trail.

Adjourn

Meeting Rider

Any person who has special needs while attending this meeting or needing agenda materials for this meeting should contact the City Clerk as soon as possible to ensure a reasonable accommodation can be made. The City Clerk can be reached by telephone at (715) 346-1569, TDD # 346-1556 or by mail at 1515 Strongs Ave., Stevens Point, WI 54481.

Copies of ordinances, resolutions, reports and minutes of the committee meetings are on file at the office of the City Clerk for inspection during normal business hours from 7:30 a.m. to 4:00p.m.

City of Stevens Point
1515 Strongs Avenue
Stevens Point, WI 54481



Public Works
Engineering Department:
Phone: 715-346-1561
Fax: 715-346-1650

Streets Department:
Phone: 715-346-1537
Fax: 715-346-1687

May 5, 2021

DIRECTOR OF PUBLIC WORKS REPORT
Scott Beduhn

1. Engineering Division

- **Sidewalk Continuation**
 - Staff has completed the finalization of a sidewalk prioritization model and is working to finalize a draft of the Sidewalk Continuation Plan report.
- **Stanley Street at North Point Drive Intersection Improvements:**
 - Staff recently discussed the project with WisDOT. WisDOT provided several comments on the Intersection Control Evaluation Report and staff will be meeting with AECOM in preparation of finalizing the report.
- **TAP Grant**
 - All work related to the TAP Grant is complete.
 - Staff continues to work on finalizing the project, including working with the DOT on reimbursements.
- **East Park Commerce Center**
 - With the weather being cooperative, the contractor has indicated that they will be resuming work later this month.
- **Country Club Drive**
 - Nothing new to report.
- **Business 51 (Division and Church Streets) Reconstruction**
 - The project team continues to review the public comments and evaluate alternatives and intersection improvement options as we work towards a recommended alternative.
- **2020 Street Improvement Project**
 - All work has been completed. The contractor will return in the spring to address any remaining punch list items and warranty issues.
- **2020 Road Resurfacing Project**
 - All work has been completed. The contractor will return in the spring to address any remaining punch list items and warranty issues.

- **McDill Monitoring and Control Project**
 - The contract with Van Ert has been executed and construction of the control panel has begun.
 - Panel construction will likely take several months.
- **2020 Alley Improvement Project**
 - Engineering staff is working with American Asphalt on asphalt mix designs and repair approaches so that we can maximize not only the amount of alley improvement we may be able to accomplish, but to also ensure longevity of the improvements.
 - Staff is anticipates having a project out for bid later this spring.
- **2020 Fall Paving Project**
 - Streets and Utility Staff are working together to touch of the swales along Kozy Street as may be necessary by placing additional topsoil and grass seed.
- **2021 Road Resurfacing Project**
 - Contracts are being prepared and signed and a preconstruction conference is being scheduled for later in May.
 - Construction will likely begin in June.
- **2021 Streets Improvement Project**
 - The contractor will be mobilizing the week of May 3, 2021 and will begin construction activities the week of May 10, 2021.
- **Plover River Crossing Trail Project**
 - Rettler has completed an alternative analysis evaluating the impacts of various trail widths. The intent of the analysis is to identify the design standards with which to proceed. A memorandum summarizing the findings is included with the Board of Public Works packet.
- **Additional Miscellaneous Projects:**
 - The Engineering Department continues to work on improving the data management for public information as well as internally for decision making and planning for future capital projects.
 - Public Works is working in collaboration with Sara Brish at the Stevens Point Area Convention and Visitors Bureau on the replacement of existing wayfinding signs.
 - Sara has acquired grant funding to assist with the cost of purchasing the signs.
 - Engineering Staff continues gathering survey data and researching right of way for proposed 2021 and 2022 roadway projects.
 - Over the past few years staff have been actively working on replacing older energy consuming street lighting and that effort continues in 2021.
 - Staff has identified several areas for LED lighting upgrades which should be completed later this year.
 - Staff has concluded the sidewalk repair inspection and continues to prepare the annual sidewalk repair list which should be ready for June's meeting.

2. Streets Division

- **Street work**

- Continued Garbage and Recycling operations.
- Sign work continued.
- Streetlight maintenance continued.
- Building maintenance and repair.
- Patching Continued.
- Repairs of Equipment continued.
- Winter Snow and Ice control Operations discontinued.
- Sweeping continued.
- Began Crack-fill operations.
- Began Concrete operations.

- **Equipment maintenance/garage**

- There was a total of 87 repair orders completed in the month of April. When broken down by department there were;

Water	4
Engineering	4
Inspection	
Police	7
Parks	14
Fire	2
Streets	56

- **Signs, posts, barricades, and flags**

- 47 signs were replaced or added, 1 because of accidents, 3 for maintenance, 5 were moved, 3 had an ordinance change and 35 were updated.
- 815 poles were replaced or added, 1 because of accidents, 6 for usual maintenance, 5 were moved and 3 had an ordinance change.
- Put up and took down signs and barricades for April 6th election.
- Poured concrete pad and installed camera for Farmer's Market porta potty.

- **Garbage/recycling/yard waste/drop-off**

- Garbage and recycling carts repaired/replaced/distributed as needed.
- Regular solid waste collection completed.
- Regular recycling collection completed.
- City drop-off operations were completed.

- **Leave**

- 138.50 hours of sick, 331 hours of vacation time was utilized and 8 hours funeral time.

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Public Works

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Streets Department:

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Fax: 715-346-1687

April 27, 2021

To: Board of Public Works

From: Scott Beduhn, Director of Public Works

Re: Ordinance Amendments

The ordinance amendment of Section 9.05(a)5 and 6, repealing No Parking 8:00 A.M. to 4:00 P.M., the amendment of Section 9.05(a)2, amending No Parking 8:00 A.M. to 4:00 P.M., the amendment of Section 9.05(j)20, amending No Parking Here To Corner, the amendment of Section 9.05(b)28 and 29, creating No Parking 7:00 A.M. to 5:00 P.M., and the amendment of Section 8.09(2)(d)(1), amending Municipal Parking Lots are all the result of continued efforts organizing and streamlining the ordinances, and to be more consistent with a unified time restriction.

The ordinance amendment of Section 9.05(f)4, amending 15 Minute Parking, the amendment of Section 9.05(g)133, amending No Parking, the amendment of Section 9.05(j)172, creating No Parking Here to Corner, and the amendment of Section 9.05(aa)3n, creating Permit Parking are all the result of a request made by the Stevens Point Police Department.

If there are any questions, please do not hesitate to contact me.

Thank you,

**ORDINANCE AMENDING THE REVISED MUNICIPAL CODE OF THE
CITY OF STEVENS POINT, WISCONSIN**

The Common Council of the City of Stevens Point do ordain as follows:

SECTION I: That subsections 5 and 6 of Section 9.05(a) of the Revised Municipal Code, **No Parking 8:00 A.M. to 4:00 P.M.** is hereby **repealed**:

SECTION II: That subsection 2 of Section 9.05(a) of the Revised Municipal Code, **No Parking 8:00 A.M to 4:00 P.M.** is hereby **amended** to read as follows:

9.05(a) 2. On the south side of Stanley Street from Fremont Street to Michigan Avenue.

SECTION III: That subsection 20 of Section 9.05(j) of the Revised Municipal Code, **No Parking Here to Corner** is hereby **amended** to read as follows:

9.05(j) 20. On the north and south sides of Stanley Street from Fremont Street to a point 96 feet east.

SECTION IV: That subsection 28 of Section 9.05(b) of the Revised Municipal Code, **No Parking 7:00 A.M to 5:00 P.M.** is hereby **created** to read as follows:

9.05(b) 28. On the west side of Fremont Street from High Street to Stanley Street, except Saturdays, Sundays, and Holidays.

SECTION V: That subsection 29 of Section 9.05(b) of the Revised Municipal Code, **Two Hour Parking 7:00 A.M to 5:00 P.M.** is hereby **created** to read as follows:

9.05(b) 29. On the south side of Stanley Street from Reserve Street to Fremont Street, except Saturdays, Sundays, and Holidays.

SECTION VI: That subsection 4 of Section 9.05(f) of the Revised Municipal Code, **15 Minute Parking** is hereby **amended** to read as follows:

9.05(f) 4. On the north side of Main Street from a point 182 feet east of Church Street to Smith Street.

SECTION VII: That subsection 133 of Section 9.05(g) of the Revised Municipal Code, **No Parking** is hereby **amended** to read as follows:

9.05(g) 133. On the north side of Main Street from Strongs Avenue to Church Street.

SECTION VIII: That subsection 172 of Section 9.05(j) of the Revised Municipal Code, **No Parking Here to Corner** is hereby **created** to read as follows:

9.05(j) 172. On the north side of Main Street from Church Street to a point 182 feet east.

SECTION IX: That subsection 3n of Section 9.05(aa) of the Revised Municipal Code, **Permit Parking** is hereby **created** to read as follows:

9.05(aa) 3n. Twelve (12) permit parking spaces within the center aisle of Municipal Parking Lot No. 16.

SECTION X: That subsection 1 of Section 8.09(2)(d) of the Revised Municipal Code, **Municipal Parking Lots** is hereby **amended** to read as follows:

- 8.09(2)(d) 1. All Lots between the hours of 2:30 a.m. and 6:00 a.m. of any day, except where;
- i. Permit parking is allowed in accordance with Section 9.05(aa)3, or
 - ii. All night parking is allowed in accordance with Section 9.05(l)2, or
 - iii. Locations designated and regulated by agreement.

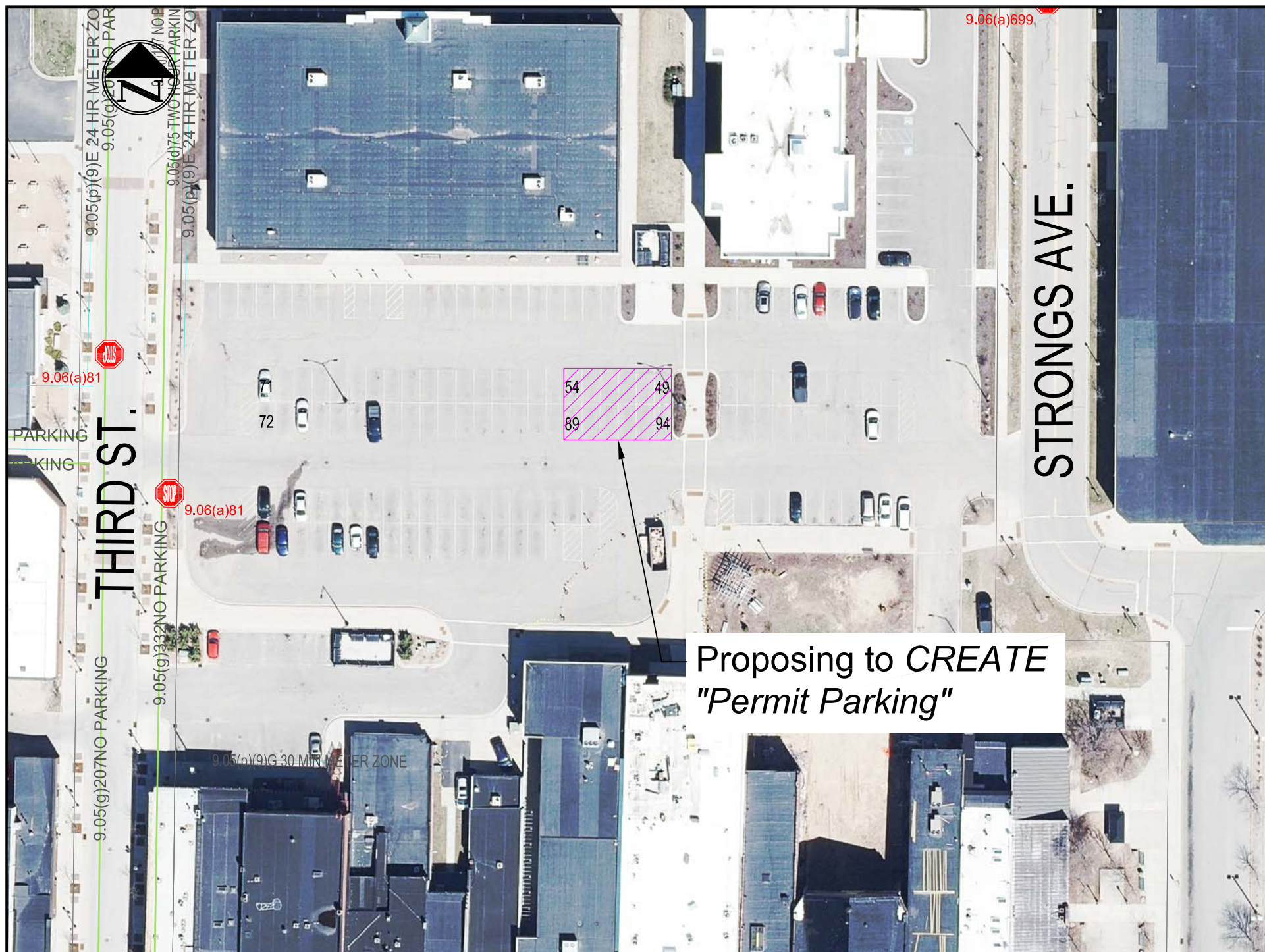
SECTION XI: These ordinance changes shall take effect upon passage and publication:

Approved: _____
Mike Wiza, Mayor

Attest: _____
Kari Yenter, City Clerk

Dated: May 5, 2021
Approved: May 17, 2021
Published: May 21, 2021







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May 5, 2021

To: Board of Public Works

From: Scott Beduhn, Director of Public Works 

Re: Alternative Analysis
Plover River Crossing Trail

In addition to coordinating geotechnical work for the trail, Rettler's current authorized scope of work includes an evaluation of alternative trail widths. This evaluation is intended to identify if the additional cost to build the trail to Transportation Alternative Program (TAP) requirements can potentially be offset by grant funding or if a significant savings can be achieved by using alternative design standards in the absence of potential TAP funding.

Rettler has completed their evaluation and the findings are summarized in the attached memorandum. Ultimately, while there is some saving to be realized by reducing the trail width, approximately \$70,000, the savings is not significant when compared to the potential offset in grant funding, even with only partial project funding.

As TAP will fund projects to a maximum total project cost of \$1,000,000, the maximum grant award is \$800,000 which is calculated as 80 percent of the maximum total project cost. While there is no guarantee that we will receive the maximum award or even receive any funding, it is likely that a project of this nature will receive some funding. The level of funding is also likely to exceed the cost differential between trail alternatives. While small projects can be funded through TAP, it is generally understood that projects under about \$350,000 to \$400,000 are not desirable due to the additional time and cost to properly administer the grant. Therefore, it is not unreasonable to believe that the trail could receive a grant award of around \$300,000 or more.

Based upon the findings of the evaluation, it is staff's recommendation that the project proceed as intended for TAP eligibility.

If there are any questions, please do not hesitate to contact me.

Thank you.

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MEMORANDUM

TO: *Dan Kremer, Director of Parks, Recreation and Forestry*
Scott Beduhn, Director of Public Works

FROM: *Ross Rettler, Project Manager*

SUBJECT: *Alternative Analysis Summary*
Plover River Crossing Trail
(Hofmeister Dr. – Bens Ln.)
Stevens Point, Wisconsin

DATE: *May 3, 2021*

Background

The City of Stevens Point's proposed Plover River Crossing Trail Project will cross approximately 1,850 linear feet of existing public and private lands northeast of the Interstate 39/USH 10 East interchange. The trail will be a shared use path and extend from Hofmeister Drive on the west to Bens Lane on the east.

The project is located in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ & SE $\frac{1}{4}$ of the SE $\frac{1}{4}$, of Section 27, T24N, R8E, City of Stevens Point, Portage County, Wisconsin and the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 26 and the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 35 all in T24N, R8E, Town of Hull Portage County, Wisconsin. Exhibit 1, illustrates the project location.

To ensure the City does not jeopardize the benefit of using Transportation Alternatives Program (TAP) funding for construction of this project, the design is being completed in accordance with the following documents:

- ❖ Sponsor's Guide to Non-Traditional Transportation Project Implementation
- ❖ WisDOT Facilities Development Manual
- ❖ WisDOT Standard Specifications for Highway and Structure Construction
- ❖ Wisconsin Bicycle Facility Design Handbook
- ❖ Wisconsin Manual on Uniform Traffic Control Devices
- ❖ WisDOT Pedestrian Guidance

Purpose and Need

The purpose of the trail expansion is to:

- ❖ Connect neighborhoods and businesses on the east side of Stevens Point with neighborhoods west of Interstate Highway 39 (I-39).
- ❖ Provide a safe route for pedestrian and bike travel by providing an alternative to the USH 10/I-39 interchange.

- ❖ Connect to the Green Circle Trail regional network by providing a crossing of the Plover River.
- ❖ Provide expanded community access to the Green Circle Trail.
- ❖ Create a connection for trail users to the natural features of the Plover River.

This trail section is needed to provide a safe and efficient bike and pedestrian link across I-39. Currently pedestrians and bicyclists on the east side of the City need to cross I-39 at the USH 10 interchange. This interchange is very busy, with USH 10 having an Average Daily Traffic Volume of 31,300 vehicles per day east side of I-39. By providing the new trail, conflicts between vehicles and pedestrians/bikes can be reduced.

The proposed trail extension fits well into the overall local and regional transportation system. The trail will provide a connection from the east side of the City to the Green Circle Trail. The Green Circle Trail is a 27-mile regional scenic trail for hiking and biking that encircles the Stevens Point urban area. The Green Circle Trail connects to an additional 45 miles of trails, including the Tomorrow River State Trail. The proposed trail segment will cross public and private lands that include a diverse natural habitat of woodlands, wetlands and the Plover River. About 200,000 people use the Green Circle Trail annually. Exhibit 2 illustrates the regional connection to the Green Circle Trail system.

In addition to the City of Stevens Point, the proposed improvement has received many letters of support from residents, local businesses and regional support from the following governmental units and agencies:

- ❖ Green Circle Trail Board
- ❖ Town of Hull
- ❖ Village of Park Ridge
- ❖ Portage County Parks

Summary of Alternatives

General Information

Design and construction is anticipated to include a combination of an asphalt paved trail, timber boardwalk and a single span bridge crossing the Plover River. Planning for this project considered environmental constraints including wetlands and steep river bank slopes.

All alternates evaluated minimize direct wetland impacts along the project corridor to the maximum extent possible by using a raised timber boardwalk trail through wetlands and a single span structure over the Plover River. Trail locations outside of the wetland limits will be constructed of asphalt. Alternative trail widths ranging from 8 to 12 feet were evaluated. Each alternative provided a minimum of 5 feet of navigational clearance between the proposed structure and the ordinary high-water mark of the Plover River.

Summary of Design Criteria

The bridge and boardwalk designs incorporate design loads to convey the City's maintenance vehicle, a Tool Cat weighing a total of 8,720 pounds.

Per the Wisconsin Bicycle Facility Design Handbook, boardwalks need to be designed for a minimum pedestrian loading of 90 pounds per square foot and it is recommended that loading

for maintenance and emergency vehicles be considered. Based on the recommendation in the Bicycle Facility Design Handbook and the City's maintenance vehicle weight, the boardwalk was designed to accommodate H5 loadings (10,000 lb. vehicle). The design is sufficient to convey the City's maintenance vehicle, a pickup truck, or another similarly sized vehicle.

The bridge design loading is dependent on the width of the structure. In accordance with the LRFD Guide Specifications for the Design of Pedestrian Bridges, a pedestrian bridge with a clear width of 7 to 10 feet shall be designed to accommodate an H5 loading. A pedestrian bridge with a clear width over 10 feet shall be designed to accommodate an H10 loading (20,000 lb. vehicle).

Since the boardwalk approaching each side of the bridge is only designed to accommodate an H5 loading, an H10 vehicle on the 12-foot-wide bridge would be unnecessary given the boardwalk limitations. However, prefabricated truss manufacturers have indicated that a reduction to an H5 vehicle load for a 12-foot clear width has minimal cost impacts. This is due to the fact that pedestrian loading requirements (90 pounds per square foot regardless of bridge width) control the main truss member sizing, and therefore the cost.

The Design Team recommends proceeding with an H10 vehicle loading for the 12-foot clear width bridge for several reasons including:

- ❖ minimal cost implications to design for the larger vehicle
- ❖ this design meets the requirement to follow the LRFD Guide Specification for the Design of Pedestrian Bridges to receive TAP funding
- ❖ if desired by the city, the boardwalk could be designed and reconstructed for heavier loads in the future.

The following table summarizes the recommended design vehicle loading.

Width	Boardwalk	Pedestrian Bridge
10' Clear Width	H5	H5
12' Clear Width	H5	H10

The recommended minimum clear width for shared-use path bridges is 12-feet and the desirable width is 14-feet clear. A 12-foot width provides:

- ❖ a basic path width of 10-feet plus 1 foot of clear zone on each side.
- ❖ maneuvering space to avoid conflicts with bikes and pedestrians stopped on the bridge
- ❖ the ability to accommodate the Tool Cat design vehicle.

A 12-foot clear (width from railing to railing) is also recommended for boardwalks. Boardwalks which exceed 12-inches from the path to the adjacent grade require railings. Boardwalks that are less than 12-inches above the existing grade require bumper rails, a rail that is 2 to 4-inches above the boardwalk deck. For boardwalks with bumpers, it is proposed to use 12-foot deck boards and mount the bumpers to the boardwalk. This will create a clear width of approximately 11-feet 4-inches, while minimizing waste by using a full-length board for the boardwalk deck. This configuration provides a greater than 10-foot path plus bicycle handlebar width and has been utilized on past WisDOT funded projects. The design team will coordinate with WisDOT and seek approval for an 11-foot 4-inch clear boardwalk width for this project, as needed.

The desirable width for the paved portion of the shared use path is 10-feet. The shared use path will include a 2-foot shoulder with slopes no steeper than 1:6, providing a safety area. In addition, a 3-foot clearance will be provided to obstacles adjacent to the path.

Since shared use paths serve pedestrians and bicycles, the paths must be designed to meet ADA requirements. A 5 percent grade is the recommended maximum slope for shared-use paths. Certain physical constraints, such as existing terrain, may prevent full compliance with ADA requirements. This is the case with the existing bank at the east end of the project. The slope of the existing trail from approximately Station 31+00 to Station 34+00 is between 10 and 12 percent. Recommended guidelines suggest that the total running grade of the path exceeding 8.33 percent must be less than 30 percent of the total trail length with the following maximum slopes and lengths:

- ❖ 200 linear feet at 8.33 percent
- ❖ 30 linear feet at 10 percent
- ❖ 10 linear feet at 12.5 percent.

The following summarizes the alternatives evaluated.

Alternative 1 – 12-Foot-Wide Bridge, Boardwalk and 10-Foot Asphalt Trail

Alternative 1 provides a 12-foot-wide bridge and boardwalk along with a 10-foot-wide asphalt trail for the length of the project. This alternative meets the requirements of the Wisconsin Bicycle Facility Design Manual and would be TAP Grant eligible.

The bridge will be a 110-foot-long prefabricated H-style Pratt truss with concrete abutments supported by 10-³/₄-inch CIP Concrete piling as recommended by Nummelin Testing Services. The bridge will provide a 12-foot clear width and a pressure treated wood plank decking. Exhibit 3 illustrates the proposed bridge and bridge cross section.

The boardwalk will consist of 11 feet 8-inch clear width raised boardwalk with railing for approximately 60 feet to the north of the bridge and approximately 150 feet south of the bridge. The boardwalk will transition to 11 feet 4-inch clear width raised boardwalk with bumpers for about 540 feet to the south and east where the path profile is within 12 inches of existing ground. The total boardwalk length is estimated to be about 750 feet. Each boardwalk section will span approximately 6 feet for a total of about 125 spans. Exhibit 4 depicts the proposed boardwalk cross section and photographic precedents of the railing and bumpers for reference.

The boardwalk deck, joists, header, railings, and bumpers will consist of treated lumber. Several options were explored for the boardwalk foundation. Exhibit 4 also provides photographic precedents and references for each foundation type. The 4 foundations types evaluated for both Alternative 1 and Alternative 2 include:

- ❖ helical piles
- ❖ pipe piles
- ❖ metal pan piling
- ❖ spread footings

Metal pan piling and spread footings are not feasible due to the loose wetland material and susceptibility to frost and were dropped from further consideration.

Pipe piles are advantageous because of the low cost and ease of installation using lightweight equipment at this site where heavy equipment will not be feasible. Nummelin Testing Service completed an analysis for 2.875-inch diameter pipe piles and determined that the pipe piles would need to be embedded 65 feet to reach a capacity capable of supporting an H5 vehicle. The depth of embedment required presents challenges such as potential for damage to the piles during driving, time required to drive piles to this depth using small equipment, and feasibility of splicing pile sections together to reach the embedment depth. Larger diameter pipes could be used to decrease the embedment depth required, however, with increases in pipe diameter, the pipe will become more difficult to drive using small equipment. Pipe piles are not feasible due to the depth of embedment required and have been dropped from further consideration.

Based on coordination with a helical pile manufacturer, 2.875-inch diameter helical piles would need to be embedded 20 feet to reach a capacity capable of supporting an H5 vehicle boardwalk load. At elevated sections of boardwalk surrounding the bridge where exposed heights exceed approximately 5 feet, larger diameter helical piles or cross bracing will be required to prevent buckling of the exposed section. Helical piles are a viable solution due to the relatively short embedment required and ease of install using a mini-excavator. The disadvantage of helical piles is the higher cost compared to the same diameter pipe pile, however, the helices allow for a higher capacity to be achieved at a much lower embedment depth. Helical piles are the recommended foundation type and are used in the estimate of probable construction.

The estimate of probable construction cost for this alternative is \$1,350,000.

Exhibit 5 includes conceptual plan and profile drawings and Exhibit 6 provides a breakdown of the estimate of probable construction cost.

Alternative 2 – 10-Foot-Wide Bridge, Boardwalk and 8-Foot Asphalt Trail

Alternative 2 provides a 10-foot-wide bridge and boardwalk and an 8-foot-wide asphalt trail for the length of the project. This alternative does not meet the requirements of the Wisconsin Bicycle Facility Design Manual and would not be TAP Grant eligible. The project would need to be constructed using City funding.

The bridge will be a 110-foot-long prefabricated H-style Pratt truss with concrete abutments supported by 10-³/₄-inch CIP Concrete piling as recommended by Nummelin Testing Services. The bridge will provide a 10-foot clear width and a preserved wood plank decking.

The boardwalk will consist of 9 feet 8-inch clear width raised boardwalk with railing for approximately 60 feet north of the bridge and approximately 150 feet south of the bridge. The boardwalk will transition to 9 feet 4-inch clear width raised boardwalk with bumpers for about 540 feet to the south and east where the path profile is within 12 inches of existing ground. The total boardwalk length is estimated to be about 750 feet. Each boardwalk section will span approximately 6 feet for a total of about 125 spans.

The materials used for this boardwalk option are the same as those presented above for the 12-foot option: treated lumber for the decking, joists, header, railing, bumpers and helical pile foundations. The same four foundation types were also evaluated as part of Alternative 2. Since both the 12 foot and 10-foot option will both be designed for H5 vehicle loading, both options are expected to be supported on the same number of helical piles embedded to the

same depth, so foundation costs remain the same between both the 10 foot and 12-foot options. The main cost differentiator is the lumber material cost.

Since this alternative would not be TAP funded, the recommended guidelines for the total running grade of the path and ADA slope requirements could be exceeded. This would allow the trail grade to more closely match the existing grade of the trail on the east bank, thereby, reducing earthwork and costs. However, the increased trail slope will decrease the safety of the trail.

The estimate of probable construction cost for this alternative is \$1,280,000. Exhibit 7 provides a breakdown of the estimate of probable construction cost.

Cost Comparison Summary

The following table summarizes the costs of the bridge, boardwalk and paved trail construction for the two alternatives. The following estimates were developed based on 2021 pricing and could vary over time.

Item No.	Item Description	Alternative 1 12 Ft Bridge and Boardwalk, 10 Ft Paved Trail	Alternative 2 10 Ft Bridge and Boardwalk, 8 Ft Paved Trail
1	Bridge	\$ 341,000	\$ 323,000
2	Boardwalk	\$ 684,000	\$ 652,000
3	Paved Trail	\$ 144,000	\$ 131,000
	Construction Subtotal	\$1,169,000	\$1,106,000
	Construction Contingency @15%	\$ 176,000	\$ 166,000
	Rounded Total Construction Cost	\$1,350,000	\$1,280,000

Land Acquisition

The City has completed the real estate acquisition process to obtain easements for construction of the project. Easements were acquired in accordance with the Sponsor's Guide to Non-Traditional Transportation Project Implementation. The following easements have been obtained:

Owner Name	Acquisition
Town of Hull	0.166 Acre Permanent Easement
Donna Kurth	0.273 Acre Permanent Easement
Patti Difford	0.240 Acre Permanent Easement
Randal & Mary Spielman	Lot 2 Purchase

Exhibit 8 illustrates the easements and property acquired by the City. The proposed alignment of both alternatives being considered falls within the limits of the acquired easements.

Permitting

The project is anticipated to require permits from the Wisconsin Department of Natural Resources (WDNR), the United States Army Corps of Engineers (USACE) and the City of Stevens Point. To date, correspondence has been initiated between the City and WDNR. As a result of this coordination, an Element Occurrence (EO) Report has been received. The EO indicates species known or suspected to be rare in the State. The EO identified several species

that are located within or adjacent to the project and will need to be considered during the permitting and construction process. There may be some required conditions on permits that need to be followed, which is common for projects of this type. The following permits are anticipated:

- ❖ WDNR - Permit to Place Waterway Crossings In and Over Navigable Waters
- ❖ WDNR - Wetland General Permit to Discharge Dredged or Fill Material into a Wetland of the State for Municipal Development
- ❖ WDNR – Construction Site Stormwater Permit
- ❖ USACE –General Permit
- ❖ City – Stormwater Management and Erosion Control Permit

The project must take into account impacts to Cultural Resources. Cultural Resources can be historical or archaeological in nature. A known archaeological site is within the vicinity of the project. Therefore, a Phase I archaeological investigation of the projects Area of Potential Effect is currently ongoing. The purpose of investigation is to allow the State Historical Preservation Office to allow for a determination of disturbance within the project corridor.

Further agency coordination will be initiated upon selection of a preferred alternative by the City.

Conclusion

In conclusion, two different alternatives were evaluated as part of the technical memorandum. Based on the directive by the committee to develop a plan that would be eligible for TAP grant funding, Alternative 1 is the recommended option. The basis of design and parameters of Alternative 1 meets the requirements for TAP funding. Alternative 2 does not. When evaluating the overall construction cost of the two options, the additional cost for Alternative 1 is small in relation to the overall project budget. In addition, Alternative 1 provides added benefits spatially with a wider and more maneuverable profile for trail users.

Exhibit 1
Project Location Map

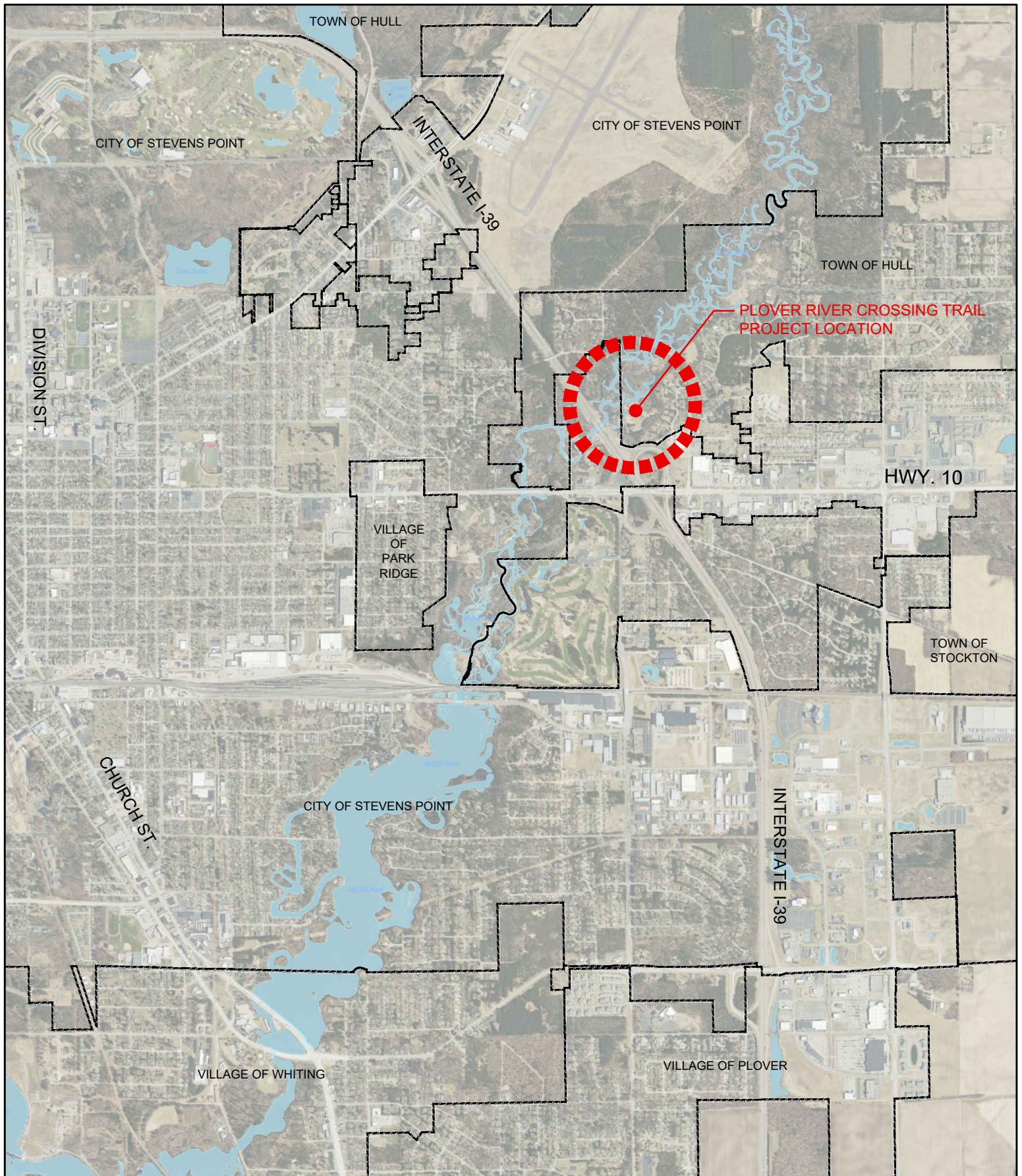
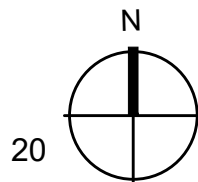


EXHIBIT 1
PROJECT LOCATION MAP
PLOVER RIVER CROSSING TRAIL
(HOFFMEISTER DR - BENS LN)
CITY OF STEVENS POINT



■ 3317 Business Park Drive, Stevens Point, WI 54482
 Telephone: 715 - 341 - 2633, Fax: 715 - 341 - 0431
 ■ email: info@rettler.com, website: www.rettler.com

Exhibit 2
Regional Connection to Green Circle Trail

GREEN CIRCLE TRAIL MAP

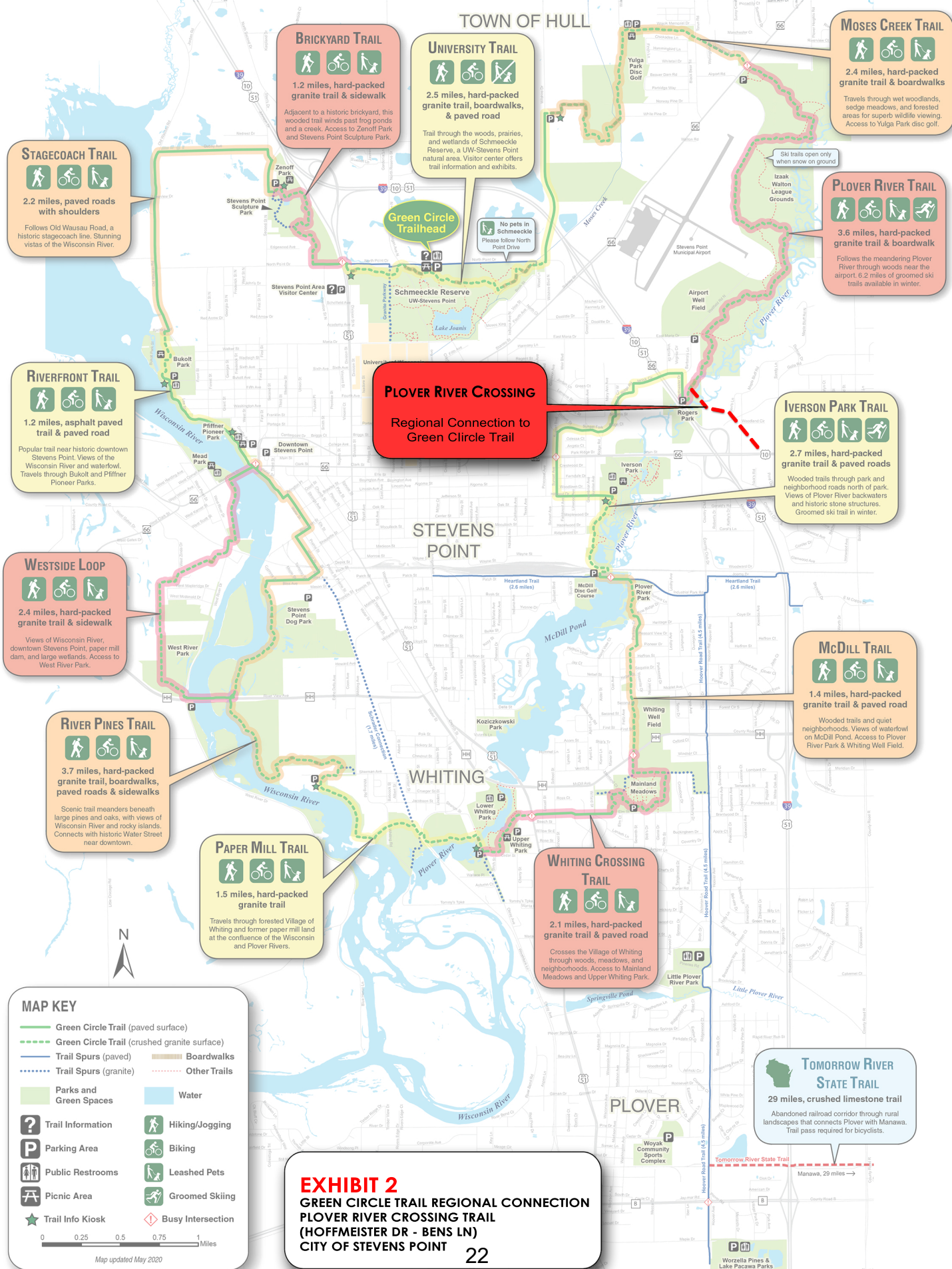
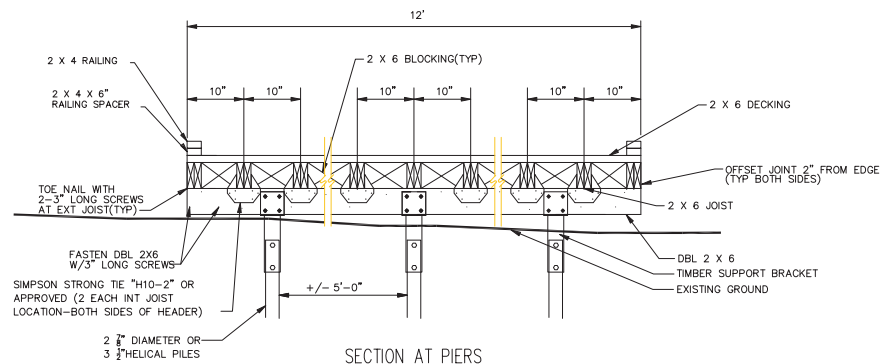
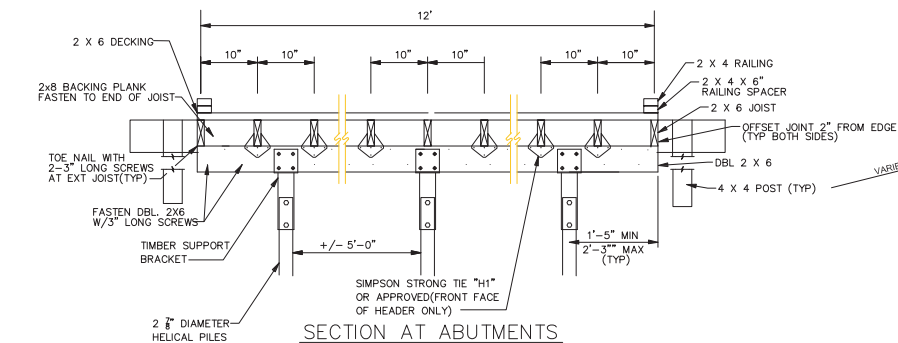
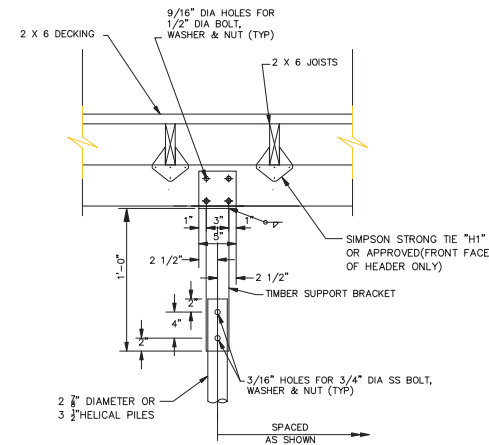
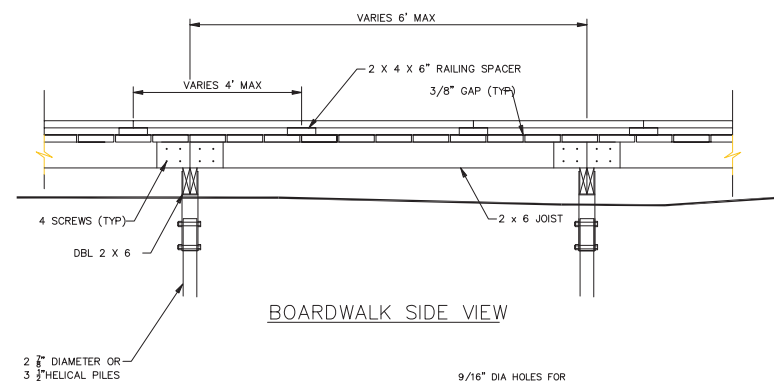
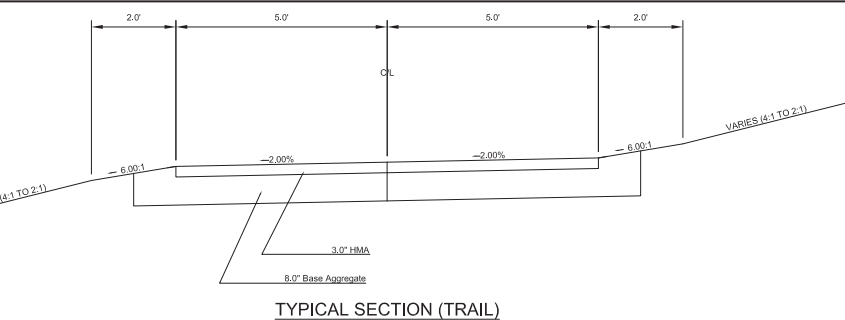
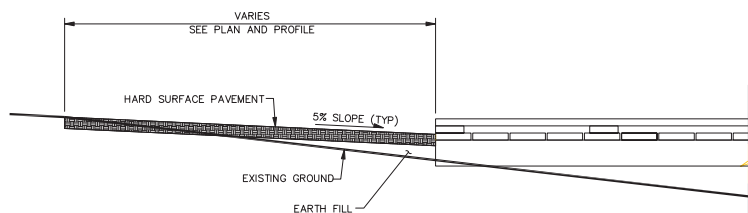


Exhibit 3
Proposed Bridge and Bridge Cross Section

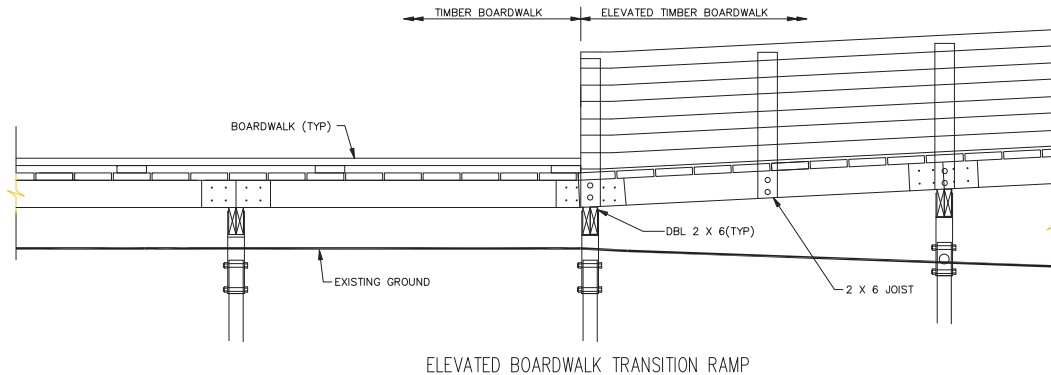
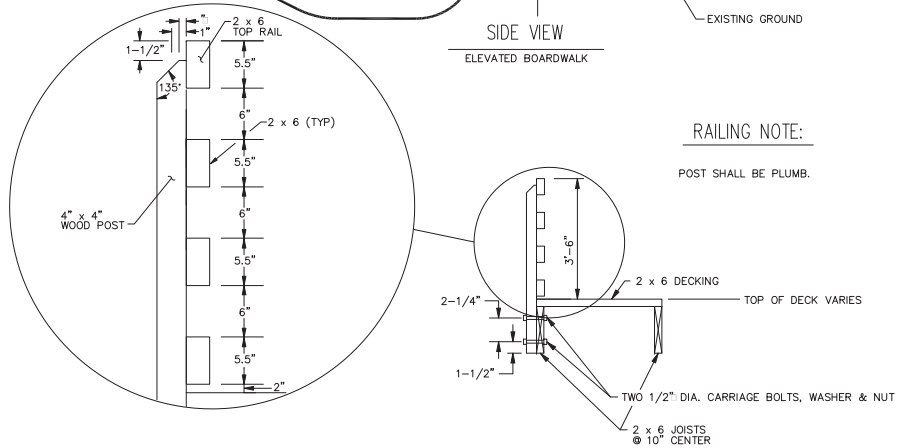
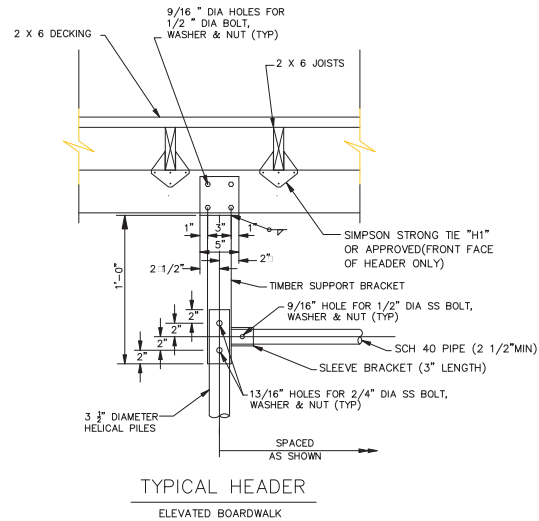
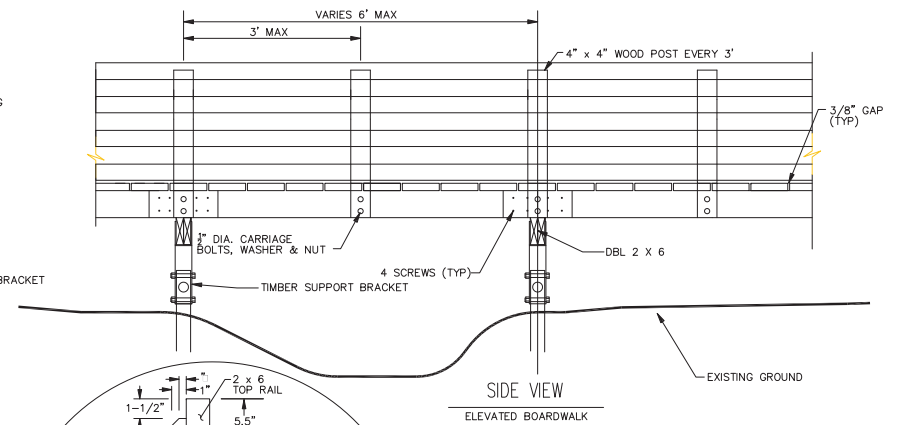
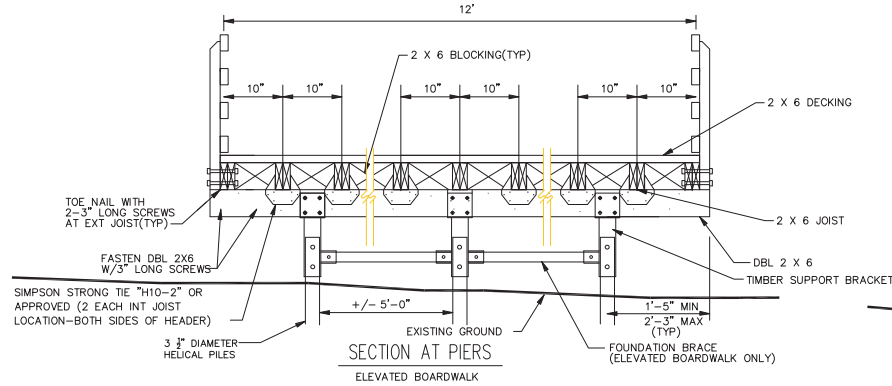
Exhibit 4
Proposed Boardwalk Cross Section & Photos



NOTE:
CONNECT ALL DECKING, RAILING, RAILING SPACERS AND JOISTS
W/3-INCH GALVANIZED DECK SCREWS OR EQUAL



REV	DATE	ISSUED FOR
	04.26.21	PRELIM. ESTIM.
DRAWN: T. McDONALD		
CHECKED: C. BRUGMAN		
DOCUMENT NO. 21.004		
 RETTLER corporation 3317 Bushong Dr., Erie, Pa. 16590, P.O. Box 54481 Telephone: 715-341-2033, Fax: 715-341-5031 e-mail: info @ rettlcr.com website: www.rettlcr.com		
		
PLOVER LAIR CROSSING TRAIL (HOFMEISTER DR. - BENS LN.) CITY OF STEVENS POINT CONSTRUCTION DETAILS		
CITY OF STEVENS POINT 1515 STRONGS AVE STEVENS POINT, WI 54481		
C501		



GENERAL NOTES:

ALL WORK SHALL BE IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2015 EDITION.

CONNECT ALL DECKING, RAILING, AND JOISTS W/3-INCH GALVANIZED DECK SCREWS OR EQUAL.

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AECOM

PLOVER RIVER CROSSING TRAIL
(HOFMEISTER DR. - BENS LN.)
CITY OF STEVENS POINT
CONSTRUCTION DETAILS

CITY OF STEVENS POINT
1515 STRONGS AVE
STEVENS POINT, WI 54481

C502



<12" ABOVE GRADE - BOARDWALK W/ RUB RAIL



<12" ABOVE GRADE - BOARDWALK W/ RUB RAIL



>12" ABOVE GRADE - BOARDWALK W/ RAILING



BOARDWALK W/ RUB RAIL TRANSITIONING TO RAILING

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DRAWN:	T. McDONALD
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DOCUMENT NO.	21.004

RETTLER
corporation
3217 South
Telephone: 715-234-1203, Fax: 715-234-1203
email: info@rettlr.com, website: www.rettl.com

AECOM

PLOVER RIVER CROSSING TRAIL
(HOFMEISTER DR. - BENS LN.)
CITY OF STEVENS POINT
BOARDWALK RAILING & RUB RAIL PHOTOS

CITY OF STEVENS POINT
1515 STRONGS AVE
STEVENS POINT, WI 54481

C503



HELICAL PILE FOUNDATION - RECOMMENDED



HELICAL PILE FOUNDATION - RECOMMENDED



PIPE PILE FOUNDATION



PIPE PILE FOUNDATION



METAL PAN PILE FOUNDATION



SPREAD FOOTING FOUNDATION



SPREAD FOOTING FOUNDATION



METAL PAN PILE FOUNDATION

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04.28.21		PRELIM. ESTIM.

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RETTLER
corporation
3217 Bayview Avenue, Suite 100
Stevens Point, WI 54481
Telephone: 715-324-1200, Fax: 715-324-1201
Email: info@rettl.com, website: www.rettl.com

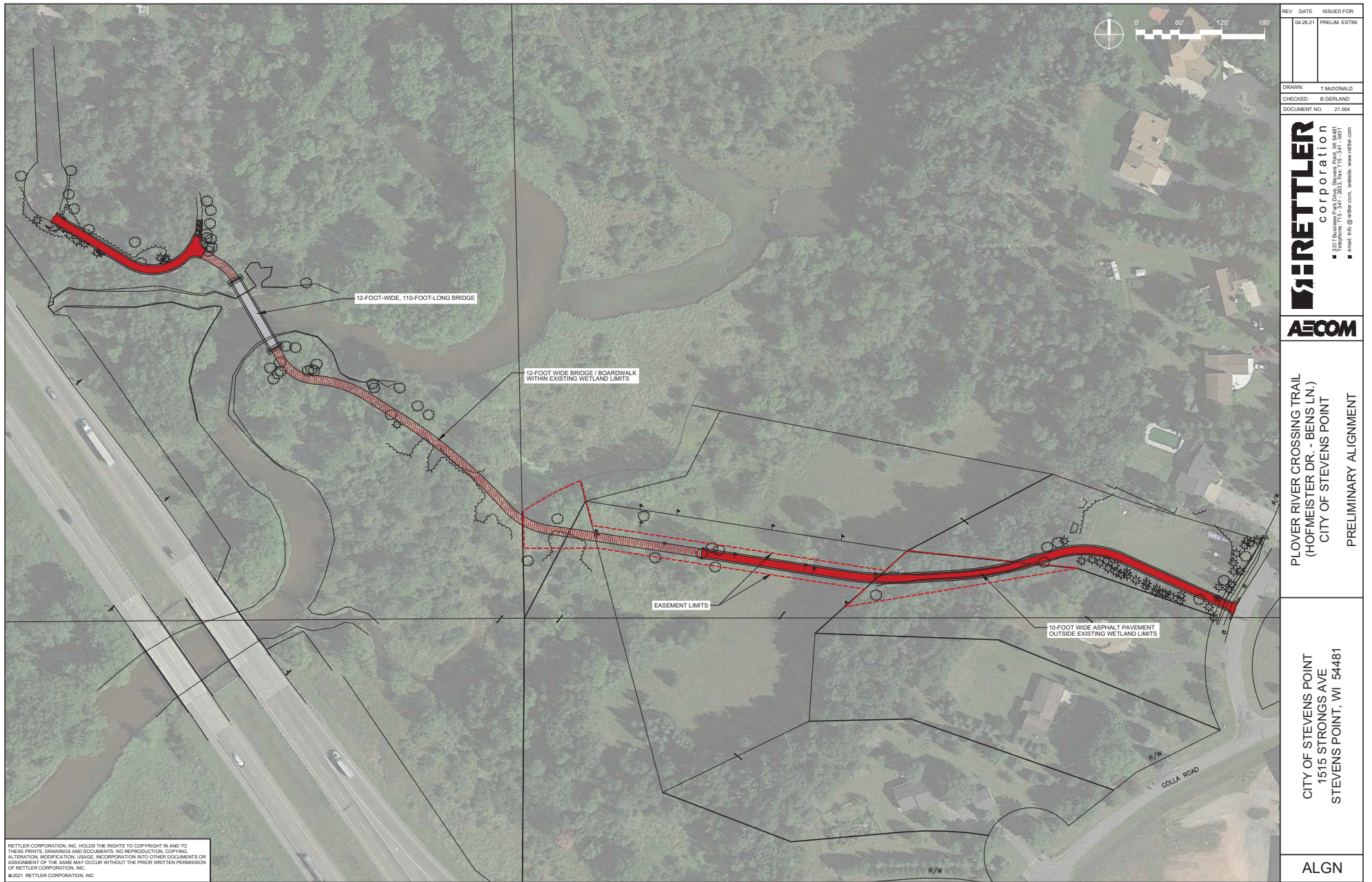
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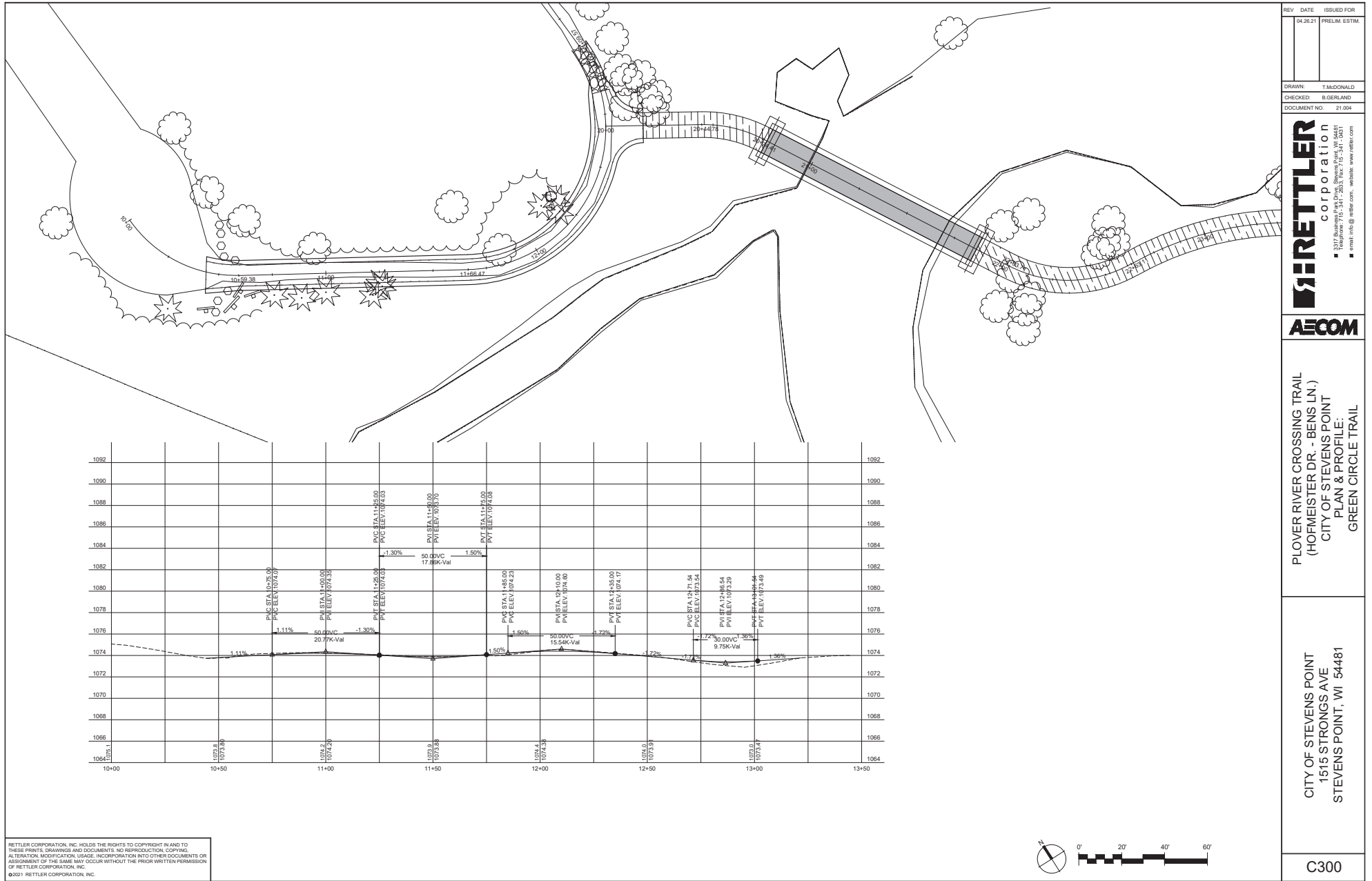
PLOVER RIVER CROSSING TRAIL
(HOFMEISTER DR. - BENS LN.)
CITY OF STEVENS POINT
BOARDWALK FOUNDATION PHOTOS

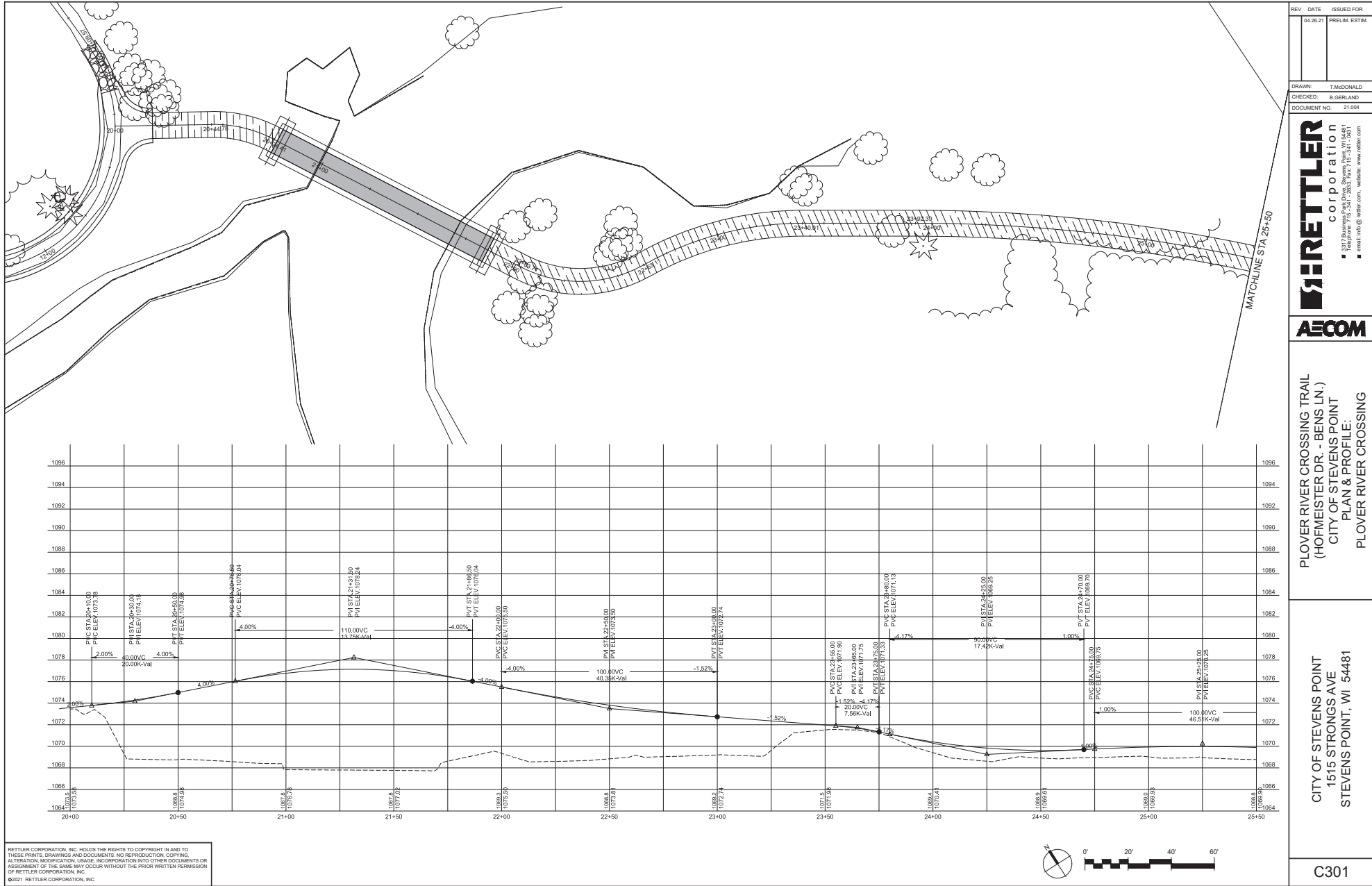
CITY OF STEVENS POINT
1515 STRONGS AVE
STEVENS POINT, WI 54481

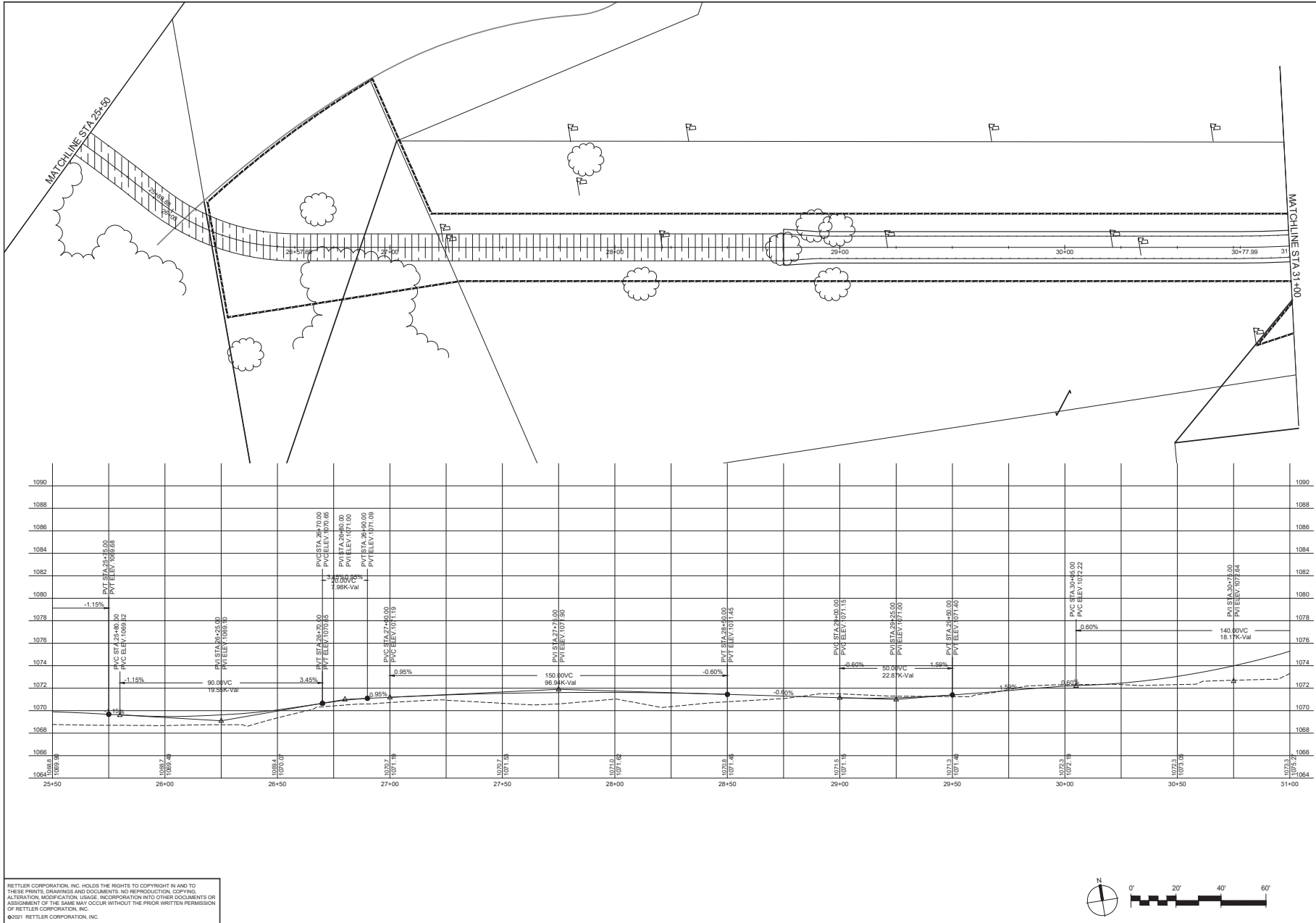
C504

Exhibit 5
Conceptual Plan & Profile Drawings





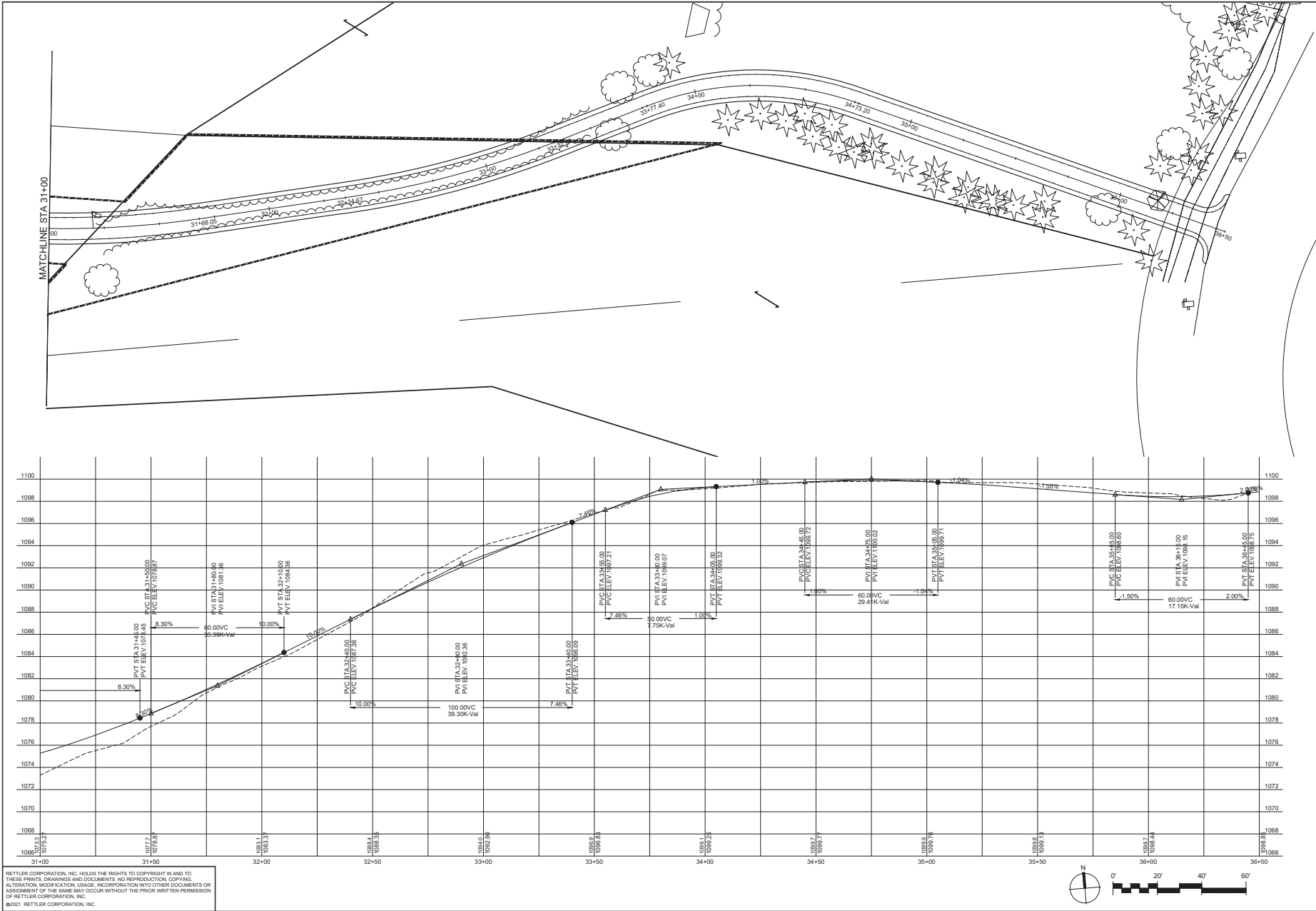




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131 E. Main Street, Suite 200 Stevens Point, WI 54481 Telephone: 715.341.2032, Fax: 715.341.0851 email: info@rettlr.com, website: www.rettl.com		
PLOVER RIVER CROSSING TRAIL (HOFMEISTER DR. - BENS LN.) CITY OF STEVENS POINT PLAN & PROFILE: PLOVER RIVER CROSSING		
CITY OF STEVENS POINT 1515 STRONGS AVE STEVENS POINT, WI 54481		
C302		



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CHECKED: S GERLAND		
DOCUMENT NO: 21.004		
RETTLER corporation 3315 North Wisconsin Ave. Stevens Point, WI 54481 Telephone: 715.341.2032, Fax: 715.341.0811 email: info@rettler.com, website: www.rettler.com		
AECOM		
PLOVER RIVER CROSSING TRAIL (HOFMEISTER DR. - BENS LN.) CITY OF STEVENS POINT PLAN & PROFILE: PLOVER RIVER CROSSING		
CITY OF STEVENS POINT 1515 STRONGS AVE STEVENS POINT, WI 54481		
C303		

Exhibit 6
Alternative No. 1 Estimate of Probable Construction Cost

ESTIMATE OF PROBABLE CONSTRUCTION COST

Proj. I.D.:	
Name:	Plover River River Trail Crossing
Crossing:	Plover River
Highway:	Trail
County:	Portage
Total:	\$341,000 Estimate of Probable Construction Cost (Assuming no ROW or compensable utilities)

Bridge Related Bid Items

Type: Alternative 1: Prefabricated Truss Bridge - 12' Wide										
Bid Item Number	Bid Item Description/Quantities/Unit Price/Cost								Extended Bid Item Cost	
206.1000	Excavation for Structure Bridges								\$5,000	
							Lump Sum	Unit Price/LS		Cost
							1	\$5,000		\$5,000
502.0100	Concrete Masonry Bridges								\$79,500	
							Total CY	Unit Price/CY		Cost
							53	\$1,500		\$79,500
505.0600	Bar Steel Reinforcement HS Coated Structures								\$9,460	
							Total LB	Unit Price/LB		Cost
							4300	\$2.20		\$9,460
550.0500	Pile Points								\$1,920	
							Total EACH	Unit Price/EACH		Cost
							12	\$160.00		\$1,920
550.2104	Piling CIP Concrete 10 3/4 x 0.25- Inch								\$43,200	
							Total LF	Unit Price/LF		Cost
							1080	\$40.00		\$43,200
619.1000	Mobilization								\$22,266	
							Total EACH	Unit Price/EACH		Cost
							22266	\$1.00		\$22,266
SPV.0105.0 1	Prefabricated Truss								\$179,000	
							Total LS	Unit Price/LS		Cost
							1	\$179,000		\$179,000

Estimate of Probable Construction Cost - Bridge Only =	\$341,000
--	-----------

ESTIMATE OF PROBABLE CONSTRUCTION COST

Proj. I.D.:	
Name:	Plover River River Trail Crossing
Crossing:	Plover River
Highway:	Trail
County:	Portage
Total:	#REF! Estimate of Probable Construction Cost (Assuming no ROW or compensable utilities)

Boardwalk Related Bid Items

Type:	Alternative 1: Boardwalk Costs - 12' Wide							
Bid Item Number	Bid Item Description/Quantities/Unit Price/Cost							Extended Bid Item Cost
619.1000	Mobilization							
						Total EACH	Unit Price/EACH	
						44720	\$1.00	
								\$44,720
SPV.0060.0 1	Helical Piles 2.875"							
						LF	Unit Price/EA	
						321	\$1,100.00	
								\$353,100
SPV.0060.0 2	Helical Piles 3.5"							
						LF	Unit Price/EA	
						30	\$1,500.00	
								\$45,000
SPV.0090.0 1	Boardwalk with Railing							
						LF	Unit Price/LF	
						210	\$375.00	
								\$78,750
SPV.0090.0 2	Boardwalk with Bumpers							
						LF	Unit Price/LF	
						540	\$300.00	
								\$162,000
Estimate of Probable Construction Cost - Boardwalk Only =								\$684,000

ESTIMATE OF PROBABLE CONSTRUCTION COST

Proj. I.D.:	
Name:	Plover River River Trail Crossing
Crossing:	Plover River
Highway:	Trail
County:	Portage
Total:	\$144,000 Estimate of Probable Construction Cost (Assuming no ROW or compensable utilities)
Total:	\$347,000 Estimate of Total Project Cost (Assuming no ROW or compensable utilities)

Related Bid Items

Type:																	
Bid Item Number		Bid Item Description/Quantities/Unit Price/Cost										Extended Bid Item Cost					
201.0105	Clearing																
	Location		No.						STA.		Comments						
	N. of River		3						3.00								
	S. of River		12						12.00								
					Estimated Total Sta. =				15								
									STA.		Unit Price/Sta.		Cost				
										15		\$600.00		\$9,000			
201.0205	Grubbing																
	Location		No.						STA.		Comments						
	N. of River		3						3.00								
	S. of River		12						12.00								
					Estimated Total Sta. =				15								
									STA.		Unit Price/Sta.		Cost				
										15		\$330.00		\$4,950			
205.0100	Excavation Common																
	Unit																
	Sub-Unit		Length (Ft.)		Width (Ft.)		Depth (ft.)		# of Sub-Units		Cubic Yards		Comments				
	N. of River		685		10		1		1		254						
	S. of River		1736		10		1		1		643						
					Total Cubic Yards =				897								
										Cubic Yards		Unit Price/CY		Cost			
												900		\$15		\$13,500	
213.0100	Finishing Roadway																
											Total LS		Unit Price/Tons		Cost		
													1		\$2,500		\$2,500
305.0120	Base Aggregate Dense 1 1/4-Inch																
	Unit		N. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)		Depth (ft.)		Multiplier		Tons		Comments				
			263		12		0.67		1.0625		174		Assume 8" thick, assume extends 1' beyond HMA				
											0						
	Unit		S. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)		Depth (ft.)		Multiplier		Tons		Comments				
			776		12		0.67		1.0625		513						
											0						
					Total Tons =				687								
										Total Tons		Unit Price/Tons		Cost			
												687		\$11		\$7,557	
455.0605	Tack Coat																
	Unit		N. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)				Multiplier		Gal.		Comments				
			263		10				0.025		10						
											0						
	Unit		S. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)				Multiplier		Gal.		Comments				
			776		10				0.025		30						
											0						
					Total Gal. =				40								
										Total Gal.		Unit Price/Gal.		Cost			
												40		\$3		\$130	

460.5224	HMA Pavement 4 LT 58-28 S									
	Unit		N. of River							
	Sub-Unit	Length (Ft.)	Width (Ft.)	Depth (ft.)	Multiplier	Tons	Comments			
		263	10	0.25	1	56				
						0				
	Unit		S. of River							
	Sub-Unit	Length (Ft.)	Width (Ft.)	Depth (ft.)	Multiplier	Tons	Comments			
		776	10	0.25	1	165				
						0				
						Total tons =		221		
						Total Tons	Unit Price/Tons	Cost		
					221	\$80	\$17,701			
606.0200	Riprap Medium									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Depth (ft.)		CY	Comments			
	North Side of Trail	10	20	2		15				
	South Side of Trail	10	20	2		15				
						Total CY	30			
						Total CY	Unit Price/ CY	Cost		
						30	\$100.00	\$2,963		
619.1000	Mobilization									
						Total LS	Unit Price/Tons	Cost		
						1	\$50,000	\$50,000		
625.0500	Salvaged Topsoil									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)		SY	Comments			
	N. of River	295	10	2950		327.78				
	S. of River	649	10	6490		721.11				
						Estimated Total SY =		1,049		
						SY	Unit Price/SY	Cost		
						1100	\$1.00	\$1,100		
627.0200	Mulching									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)		SY	Comments			
	N. of River		295	10	2950	327.78				
	S. of River		649	10	6490	721.11				
						Estimated Total SY =		1,049		
						SY	Unit Price/SY	Cost		
						1100	\$0.25	\$275		
628.1104	Erosion Bales									
	Unit									
	Location	Each				EACH	Comments			
	N. of River	20				20				
	S. of River	80				80				
						Estimated Total Each =		100		
						EACH	Unit Price/EA	Cost		
						100	\$15.00	\$1,500		
628.1504	Silt Fence									
	Unit									
	Location	Length (Ft.)				LF	Comments			
	N. of River	263				263				
	S. of River	776				776				
						Estimated Total LF =		1,039		
						LF	Unit Price/LF	Cost		
						1100	\$2.25	\$2,475		
628.1520	Silt Fence Maintenance									
	Unit									
	Location	Length (Ft.)				LF	Comments			
	N. of River	263				263				
	S. of River	776				776				
						Estimated Total LF =		1,039		
						LF	Unit Price/LF	Cost		
						1100	\$0.10	\$110		
628.1905	Mobilizations Erosion Control									
						Total LS	Unit Price/Tons	Cost		
						3	\$300	\$900		
628.1910	Mobilizations Emergency Erosion Control									
						Total LS	Unit Price/Tons	Cost		
						1	\$225	\$225		

628.2006	Erosion Mat Urban Class I Type A									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)		SY	Comments			
	N. of River	295	10	2950		327.78				
	S. of River	649	10	6490		721.11				
			Estimated Total SY =				1,049			
							LF	Unit Price/SY	Cost	
							1100	\$1.75	\$1,925	\$1,925
628.7504	Temporary Ditch Checks									
	Unit									
	Location	Length (Ft.)				LF	Comments			
	N. of River	20				20				
	S. of River	80				80				
			Estimated Total LF =				100			
							LF	Unit Price/LF	Cost	
							100	\$10.00	\$1,000	\$1,000
628.7515S	Stone or Rock Ditch Checks									
	Unit									
	Location	Length (Ft.)				CY	Comments			
	N. of River	20				20				
	S. of River	80				80				
			Estimated Total CY =				100			
							LF	Unit Price/CY	Cost	
							100	\$100.00	\$10,000	\$10,000
628.7560	Tracking Pads									
	Unit		Both Approaches							
	Location	Number				Each	Comments			
	N. of River	1				1.00				
	S. of River	1				1.00				
			Estimated Total EA =				2			
							EACH	Unit Price/EA	Cost	
							2	\$1,500.00	\$3,000	\$3,000
629.0210	Fertilizer Type B									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)	Lbs/1000 SF	CWT	Comments			
	N. of River	295	10	2950	7	0.21				
	S. of River	649	10	6490	7	0.45				
			Estimated Total CWT =				1			
							EACH	Unit Price/CWT	Cost	
							1	\$60.00	\$40	\$40
630.0120	Seeding Mixture No. 20									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)	Lbs/1000 SF	Lbs	Comments			
	N. of River	295	10	2950	2	5.90				
	S. of River	649	10	6490	2	12.98				
			Estimated Total Lbs =				19			
							Lbs	Unit Price/LLbs	Cost	
							20	\$6.50	\$130	\$130
634.0810	Posts Tubular Steel 2x2-Inch x 10 Feet									
	Unit									
	Location	Number				EACH	Comments			
	N. of River	3				3.00				
	S of River	1				1.00				
			Estimated Total Each =				4			
							EACH	Unit Price/IEA	Cost	
							4	\$160.00	\$640	\$640
635.2210	Signs Type II Reflective H									
	Unit									
	Location	Number	Width (Ft.)	Height (Ft.)		SF	Comments			
	N. of River	3	2	3	6	18.00				
	S of River	1	2	3	2	2.00				
			Estimated Total SF =				20			
							SF	Unit Price/ISF	Cost	
							20	\$18.00	\$360	\$360
642.5001	Field Office Type B									
						Total LS	Unit Price/EA	Cost		
						1	\$6,000	\$6,000	\$6,000	
643.5000	Traffic Control Project									
						Total LS	Unit Price/EA	Cost		
						1	\$5,000	\$5,000	\$5,000	

645.0130	Geotextile Type R									
	Unit		Both Approaches							
	Location		Length (Ft.)		Width (Ft.)				SY	Comments
	Under Rip Rap		20		20				44.44	
									0.00	
			Estimated Total SY				44			
							SY	Unit Price/SY	Cost	
							50	\$3.50	\$175	
690.0150	Sawing Asphalt									
	Unit									
	Location		Length						LF	Comments
	Ben's Lane		35						35.00	
			Estimated Total LF				35			
							LF	Unit Price/LF	Cost	
							35	\$1.50	\$53	

\$175

\$53

Preliminary Estimate of Roadway Related Construction Cost =		\$143,209
0%	Contingency =	\$0
Estimate of Probable Construction Cost - Roadway Only (rounded to nearest \$1,000) =		\$144,000

Exhibit 7
Alternative No. 2 Estimate of Probable Construction Cost

ESTIMATE OF PROBABLE CONSTRUCTION COST

Proj. I.D.:	
Name:	Plover River River Trail Crossing
Crossing:	Plover River
Highway:	Trail
County:	Portage
Total:	#REF! Estimate of Probable Construction Cost (Assuming no ROW or compensable utilities)

Bridge Related Bid Items

Type:		Alternative 2: Prefabricated Truss Bridge - 10' Wide											
Bid Item Number		Bid Item Description/Quantities/Unit Price/Cost										Extended Bid Item Cost	
206.1000		Excavation for Structure Bridges										\$5,000	
								Lump Sum	Unit Price/LS	Cost			
								1	\$5,000	\$5,000			
502.0100		Concrete Masonry Bridges										\$79,500	
								Total CY	Unit Price/CY	Cost			
								53	\$1,500	\$79,500			
505.0600		Bar Steel Reinforcement HS Coated Structures										\$9,460	
								Total LB	Unit Price/LB	Cost			
								4300	\$2.20	\$9,460			
550.0500		Pile Points										\$1,920	
								Total EACH	Unit Price/EACH	Cost			
								12	\$160.00	\$1,920			
550.2104		Piling CIP Concrete 10 3/4 x 0.25- Inch										\$43,200	
								Total LF	Unit Price/LF	Cost			
								1080	\$40.00	\$43,200			
619.1000		Mobilization										\$21,076	
								Total EACH	Unit Price/EACH	Cost			
								21076	\$1.00	\$21,076			
SPV.0105.0 1		Prefabricated Truss										\$162,000	
								Total LS	Unit Price/LS	Cost			
								1	\$162,000	\$162,000			
Estimate of Probable Construction Cost - Bridge Only =											\$323,000		

ESTIMATE OF PROBABLE CONSTRUCTION COST

Proj. I.D.:	
Name:	Plover River River Trail Crossing
Crossing:	Plover River
Highway:	Trail
County:	Portage
Total:	#REF! Estimate of Probable Construction Cost (Assuming no ROW or compensable utilities)

Boardwalk Related Bid Items

Type:	Alternative 2: Boardwalk Costs - 10' Wide							
Bid Item Number	Bid Item Description/Quantities/Unit Price/Cost							Extended Bid Item Cost
619.1000	Mobilization							
						Total EACH	Unit Price/EACH	
						42620	\$1.00	
SPV.0060.0 1	Helical Piles 2.875"							\$42,620
						LF	Unit Price/EA	
						321	\$1,100.00	
SPV.0060.0 2	Helical Piles 3.5"							\$353,100
						LF	Unit Price/EA	
						30	\$1,500.00	
SPV.0090.0 1	Boardwalk with Railing							\$45,000
						LF	Unit Price/LF	
						210	\$335.00	
SPV.0090.0 2	Boardwalk with Bumpers							\$70,350
						LF	Unit Price/LF	
						540	\$260.00	
								\$140,400
Estimate of Probable Construction Cost - Boardwalk Only =								\$652,000

ESTIMATE OF PROBABLE CONSTRUCTION COST

Proj. I.D.:	
Name:	Plover River River Trail Crossing
Crossing:	Plover River
Highway:	Trail
County:	Portage
Total:	\$131,000 Estimate of Probable Construction Cost (Assuming no ROW or compensable utilities)
Total:	\$334,000 Estimate of Total Project Cost (Assuming no ROW or compensable utilities)

Related Bid Items

Type:																	
Bid Item Number		Bid Item Description/Quantities/Unit Price/Cost										Extended Bid Item Cost					
201.0105	Clearing												\$9,000				
	Location		No.						STA.		Comments						
	N. of River		3						3.00								
	S of River		12						12.00								
					Estimated Total Sta. =		15										
									STA.		Unit Price/Sta.			Cost			
										15		\$600.00		\$9,000			
201.0205	Grubbing												\$4,950				
	Location		No.						STA.		Comments						
	N. of River		3						3.00								
	S. of River		12						12.00								
					Estimated Total Sta. =		15										
									STA.		Unit Price/Sta.			Cost			
										15		\$330.00		\$4,950			
205.0100	Excavation Common												\$10,800				
	Unit																
	Sub-Unit		Length (Ft.)		Width (Ft.)		Depth (ft.)		# of Sub-Units		Cubic Yards			Comments			
	N. of River		685		8		1		1		203						
	S. of River		1736		8		1		1		514						
							Total Cubic Yards =		718								
										Cubic Yards		Unit Price/CY		Cost			
										720		\$15		\$10,800			
213.0100	Finishing Roadway												\$2,500				
											Total LS			Unit Price/Tons		Cost	
											1			\$2,500		\$2,500	
305.0120	Base Aggregate Dense 1 1/4-Inch												\$6,303				
	Unit		N. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)		Depth (ft.)		Multiplier		Tons			Comments			
			263		10		0.67		1.0625		145			Assume 8" thick, assume extends 1' beyond HMA			
											0						
	Unit		S. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)		Depth (ft.)		Multiplier		Tons			Comments			
			776		10		0.67		1.0625		428						
											0						
							Total Tons =		573								
											Total Tons			Unit Price/Tons		Cost	
										573		\$11		\$6,303			
455.0605	Tack Coat												\$98				
	Unit		N. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)				Multiplier		Gal.			Comments			
			263		8				0.025		10						
											0						
	Unit		S. of River														
	Sub-Unit		Length (Ft.)		Width (Ft.)				Multiplier		Gal.			Comments			
			776		8				0.025		20						
											0						
							Total Gal. =		30								
											Total Gal.			Unit Price/Gal.		Cost	
										30		\$3		\$98			

460.5224	HMA Pavement 4 LT 58-28 S									
	Unit		N. of River							
	Sub-Unit	Length (Ft.)	Width (Ft.)	Depth (ft.)	Multiplier	Tons	Comments			
		263	8	0.25	1	45				
						0				
	Unit		S. of River							
	Sub-Unit	Length (Ft.)	Width (Ft.)	Depth (ft.)	Multiplier	Tons	Comments			
		776	8	0.25	1	132				
						0				
						Total tons =		177		
					Total Tons	Unit Price/Tons	Cost			
					177	\$80	\$14,161			
606.0200	Riprap Medium									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Depth (ft.)		CY	Comments			
	North Side of Trail	10	20	2		15				
	South Side of Trail	10	20	2		15				
			Total CY			30				
							Total CY	Unit Price/ CY	Cost	
							30	\$100.00	\$2,963	
619.1000	Mobilization									
						Total LS	Unit Price/Tons	Cost		
						1	\$50,000	\$50,000		
625.0500	Salvaged Topsoil									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)		SY	Comments			
	N. of River	295	8	2360		262.22				
	S. of River	649	8	5192		576.89				
			Estimated Total SY =			839				
							SY	Unit Price/SY	Cost	
							840	\$1.00	\$840	
627.0200	Mulching									
	Unit									
	Location	Length (Ft.)	Width (Ft.)	Area (SF)		SY	Comments			
	N. of River	295	8	2360		262.22				
	S. of River	649	8	5192		576.89				
			Estimated Total SY =			839				
							SY	Unit Price/SY	Cost	
							840	\$0.25	\$210	
628.1104	Erosion Bales									
	Unit									
	Location	Length (Ft.)				EACH	Comments			
	N. of River	20				20				
	S. of River	80				80				
			Estimated Total Each =			100				
							EACH	Unit Price/EA	Cost	
							0	\$15.00	\$0	
628.1504	Silt Fence									
	Unit									
	Location	Length (Ft.)				LF	Comments			
	N. of River	263				263	Add extra 30' to allow for silt fence to go out by bridge			
	S. of River	776				776	Add extra 30' to allow for silt fence to go out by bridge			
			Estimated Total LF =			1,039				
							LF	Unit Price/LF	Cost	
							0	\$2.25	\$0	
628.1520	Silt Fence Maintenance									
	Unit									
	Location	Length (Ft.)				LF	Comments			
	N. of River	263				263				
	S. of River	776				776				
			Estimated Total LF =			1,039				
							LF	Unit Price/LF	Cost	
							0	\$0.10	\$0	
628.1905	Mobilizations Erosion Control									
						Total LS	Unit Price/Tons	Cost		
						3	\$300	\$900		
628.1910	Mobilizations Emergency Erosion Control									
						Total LS	Unit Price/Tons	Cost		
						1	\$225	\$225		

628.2006	Erosion Mat Urban Class I Type A							
	Unit							
	Location	Length (Ft.)	Width (Ft.)	Area (SF)		SY	Comments	
	N. of River	295	8	2360		262.22		
	S. of River	649	8	5192		576.89		
				Estimated Total SY =		839		
						LF	Unit Price/SY	Cost
						840	\$1.75	\$1,470
628.7504	Temporary Ditch Checks							
	Unit							
	Location	Length (Ft.)				LF	Comments	
	N. of River	20				20		
	S. of River	80				80		
				Estimated Total LF =		100		
						LF	Unit Price/LF	Cost
						100	\$10.00	\$1,000
628.7515S	Stone or Rock Ditch Checks							
	Unit							
	Location	Length (Ft.)				CY	Comments	
	N. of River	20				20		
	S. of River	80				80		
				Estimated Total CY =		100		
						LF	Unit Price/CY	Cost
						100	\$100.00	\$10,000
628.7560	Tracking Pads							
	Unit	Both Approaches						
	Location	Number				Each	Comments	
	N. of River	1				1.00		
	S. of River	1				1.00		
				Estimated Total EA =		2		
						EACH	Unit Price/EA	Cost
						2	\$1,500.00	\$3,000
629.0210	Fertilizer Type B							
	Unit							
	Location	Length (Ft.)	Width (Ft.)	Area (SF)	Lbs/1000 SF	CWT	Comments	
	N. of River	295	8	2360	7	0.17		
	S. of River	649	8	5192	7	0.36		
				Estimated Total CWT =		1		
						EACH	Unit Price/CWT	Cost
						1	\$60.00	\$32
630.0120	Seeding Mixture No. 20							
	Unit							
	Location	Length (Ft.)	Width (Ft.)	Area (SF)	Lbs/1000 SF	Lbs	Comments	
	N. of River	295	8	2360	2	4.72		
	S. of River	649	8	5192	2	10.38		
				Estimated Total Lbs =		15		
						Lbs	Unit Price/Lbs	Cost
						15	\$6.50	\$98
634.0810	Posts Tubular Steel 2x2-Inch x 10 Feet							
	Unit							
	Location	Number				EACH	Comments	
	N. of River	3				3.00		
	S. of River	1				1.00		
				Estimated Total Each =		4		
						EACH	Unit Price/EA	Cost
						4	\$160.00	\$640
635.2210	Signs Type II Reflective H							
	Unit							
	Location	Number	Width (Ft.)	Height (Ft.)		SF	Comments	
	N. of River	3	2	3	6	18.00		
	S. of River	1	2	3	2	2.00		
				Estimated Total SF =		20		
						SF	Unit Price/SF	Cost
						20	\$18.00	\$360
642.5001	Field Office Type B							
						Total LS	Unit Price/EA	Cost
						1	\$6,000	\$6,000
643.5000	Traffic Control Project							
						Total LS	Unit Price/EA	Cost
						1	\$5,000	\$5,000

645.0130	Geotextile Type R										
	Unit		Both Approaches								
	Location		Length (Ft.)		Width (Ft.)				SY	Comments	
	Under Rip Rap		20		20				44.44		
									0.00		
					Estimated Total SY				44		
									SY	Unit Price/SY	Cost
									50	\$3.50	\$175
690.0150	Sawing Asphalt										
	Unit										
	Location		Length						LF	Comments	
	Ben's Lane		35						35.00		
					Estimated Total LF				35		
									LF	Unit Price/LF	Cost
									35	\$1.50	\$53

\$175

\$53

Preliminary Estimate of Roadway Related Construction Cost =		\$130,776
0%	Mobilization =	\$0
Estimate of Probable Construction Cost - Roadway Only (rounded to nearest \$1,000) =		\$131,000

Exhibit 8
City Acquired Property and Easements

EXHIBIT 'A'

PRELIMINARY

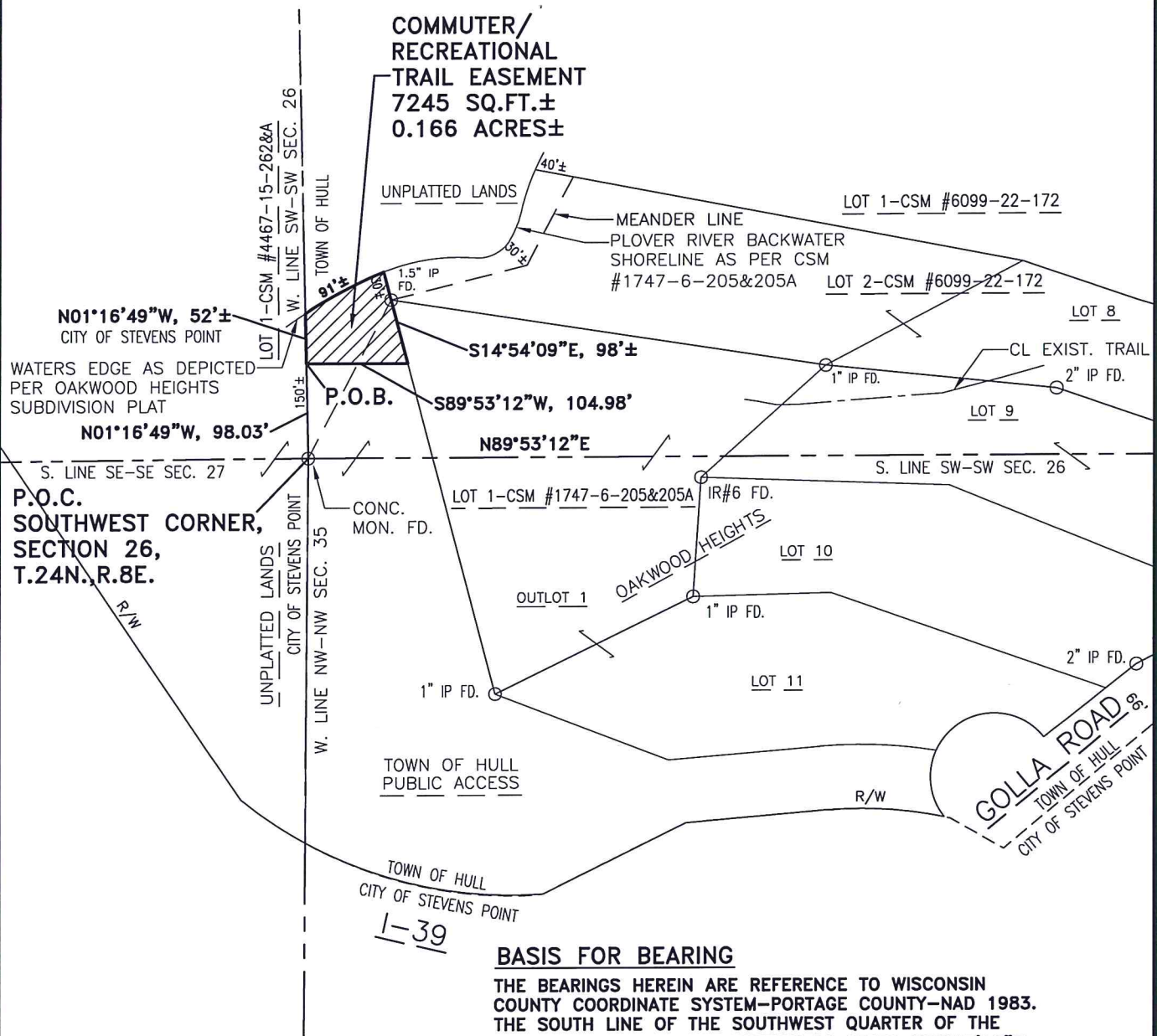
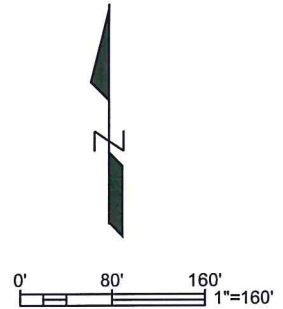
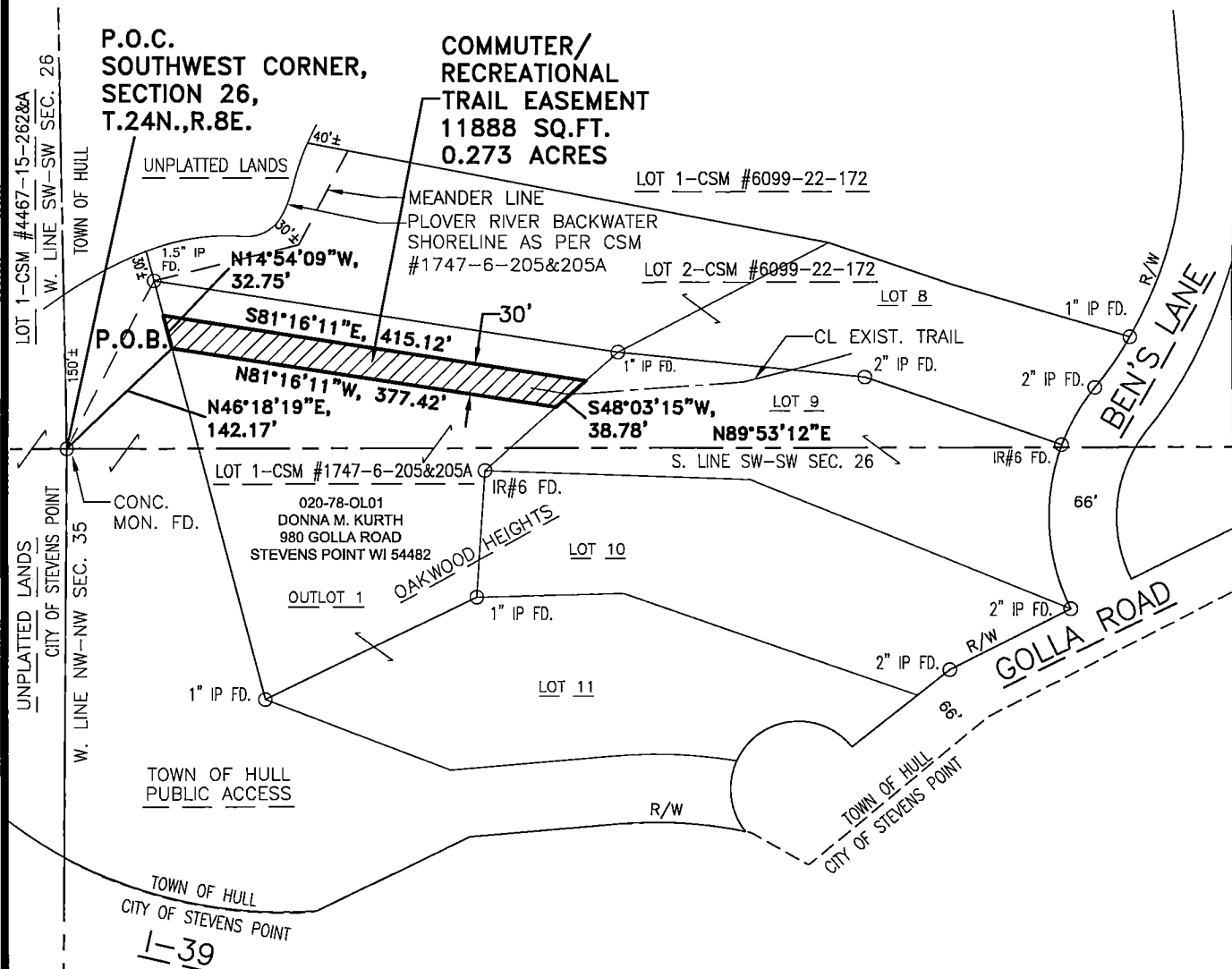
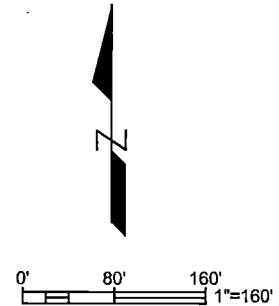


EXHIBIT 'A'



BASIS FOR BEARING

THE BEARINGS HEREIN ARE REFERENCE TO WISCONSIN COUNTY COORDINATE SYSTEM-PORTAGE COUNTY-NAD 1983. THE SOUTH LINE OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 26 BEARS N89°53'12"E.

