Fox River Boardwalk Feasibility Study

Kaukauna – Little Chute Crossing

Outagamie County, WI

Prepared for

City of Kaukauna
Department of Planning and Community Development
201 West Second Street
Kaukauna, WI 54130

Village of Little Chute
Department of Parks, Recreation and Forestry
108 West Main Street
Little Chute, WI 54140

March 2017

Prepared by

GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, Wisconsin 54304-5950
Telephone: (920) 592-9440
FAX: (920) 592-9445

Project No. 2016-2052.00/01

City of Kaukauna/Village of Little Chute

2016-2052.00/01

Prepared for: City of Kaukauna / Village of Little Chute

Site Address: Fox River
North Landing: Little Chute - Adjacent to Heesakker Park
South Landing: Kaukauna – City Trail Property

Prepared By: GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, Wisconsin 54304-5950
(920) 592-9440

Patrick Skalecki, P.E.
Project Manager

Jeffrey Rosner, P.E.
Structural Project Engineer

Kendra Hansen, P.E.
Civil Project Engineer

TABLE OF CONTENTS

Appendices

Appendix A – Project Location Overview Maps
Appendix B – Public Involvement Information (Sample Comment Sheets and Presentation Boards, Survey Monkey responses)
Appendix C – Alternative Alignment Exhibits – PIM #1, #2, #3, and #4; Bridge Styles
Appendix D – Engineer's Opinion of Probable Construction Costs – Detailed Breakdown Tables
Appendix E – Final Alignment Alternatives and Preferred Bridge Styles/Features.

1. INTRODUCTION

The City of Kaukauna and Village of Little Chute continue to be leaders in providing and improving bicycle and pedestrian access around their communities. Multiple projects linking the commercial, residential, and recreational areas have provided valuable connections within the communities and between them, and have greatly improved multi-modal access in the area. Both communities are looking to further expand this network by investigating the feasibility of a multi-modal boardwalk bridge crossing the Fox River linking the Kaukauna and Little Chute. Refer to Appendix A for a location map. Alternative alignments and structure types for the crossings were investigated and evaluated. This report documents the results of this investigation, and identifies alternatives and associated budgets at the respective locations.

2. EXISTING 2016 CONDITIONS

The land use south of the Fox River in the vicinity of the proposed bridge crossing consists of residential and industrial areas. An active Wisconsin Central Railway/Canadian National Railway switching spur serves the Appleton Coated Mill immediately west of the south bridge landing. A former railroad grade, with only ballast remaining, exists at the proposed crossing south landing and continues east along the Fox River to Bicentennial Court in the City of Kaukauna. This former railroad right-of-way is now owned by the City of Kaukauna and is intended to be converted and improved as a bicycle/pedestrian trail. Single and multi-family residences have rear yards abutting the trail above the river bluff. Public access to the future trail exists off of Bicentennial Court only.

The proposed landing areas on the north end of the crossing fall within the limits of Island Park in the Village of Little Chute. The land use north of the Fox River in the project vicinity consists primarily of public owned recreational land, including Heesakker Park, with come residential properties adjacent to the site. Existing homes line the river to the northeast, with the rear yards directly abutting the waterway downstream of the proposed bridge crossing location. The proposed bridge crossing will connect to the existing Heritage Parkway Trail. The Heritage Parkway Trail is an asphalt multi-modal trail that runs west along the Fox River between the main river channel and the navigation channel. It connects Island Park to Heesakker Park. Since opening in 2012, the Heesakker Bridge has had a yearly attendance ranging from 20,213 to 26,521 people and a daily average attendance between 55 and 73 people.

3. PROGRAMMING INFORMATION

3.1. Stakeholder Meeting Summary

A listening session targeting local stakeholders was conducted October 11, 2016 in the Kaukauna City Hall Council Chambers. Prior to this session direct mailings were sent to project stakeholders via email and phone invitation. The listening session began with a presentation by GRAEF on the background of the project. The meeting was then opened into a more informal working session with a number of display boards illustrating a range of boardwalk options and easy response comment sheets. During the course of the 1-1/2 hour meeting, 20 stakeholders attended per the sign in sheets. Comments were also received from attendees and non-attendees via email. Thirteen comment sheets and four email comments were received. An example of the comment response sheets and the actual display boards used are attached as an exhibit in Appendix B. A summary of the notable and common themed responses is included below.

3.2. Public Involvement Meeting Summary

Public Involvement Meetings were held on October 25, 2016 in the Village of Little Chute Village Hall Board Room; on November 29, 2016 in the Kaukauna City Hall Council Chambers; and January 24, 2017 in the Village of Little Chute Village Hall Board Room. Notices were posted and direct mailings were sent to residents near the project area.

For the meeting on October 25, 2016 GRAEF began the meeting with a short presentation before opening the meeting up to an open house working session format with provided comment sheets and display boards, similar to the initial Stakeholder Meeting. During the course of the 1-1/2 hour meeting, 32 residents attended. Comments were received from meeting attendees as well as non-attendees via email and provided comment sheets. 19 comment sheets and two email comments were received. The provided comment sheets and display boards were the same for both the Stakeholder and Public Involvement meetings.

The November 29th meeting presented results of further study and analysis. The alignment alternatives were adjusted and modified, including one additional alignment. The revisions made were in response to comments received and additional investigation data obtained, including coordination feedback from reviewing/approving agencies such as the State Historical Preservation Office,

Wisconsin DNR, FRNSA, and US Army Corp of Engineers, US Fish and Wildlife Service, among others. The revisions also reflected input from Canadian National Railway staff and adjacent residential property owner input. Initial concept cost opinion ranges were also presented for the various alignments and structure types. Opportunity for additional comments were encouraged, however only minimal comments were received.

The final Public Involvement Meeting was held on January 24, 2017. The purpose of this meeting was informational to update the public on the further developed and narrowed alignments, structure types and bridge features. The alignment alternatives were reduced to two final selections, based on public feedback, cost, and balanced impact to the environment and residential properties.

A summary of the notable and common themed comment responses from the Public Involvement Meetings is included below.

3.3. Comments Received

3.3.1. Funding

- Funding sources such as grants and state or county funding should be looked at and use of tax dollars to pay for the project should be minimized as much as possible.

3.3.2. Bridge Location

- Neighbors close to the bridge location prefer an alignment as far west as possible, similar to Alignment 3 (PIM#2), to reduce the public's views of their homes.
- Other comments prefer Alignment 1 due to its direct path and least amount of natural areas disturbed.

3.3.3. Bridge Style

- Maintenance and material lifespan are most important to many responders.
- Timber will be costly to maintain and lose its aesthetic appeal quickly.

- Concrete girders can look sterile depending on railing type.
- Concrete girder bridge is the most favored. Steel girder is the second most favored.

3.3.4. Decking Material

- Treated wood will be costly to maintain.
- Composite decking can be slippery when wet or covered in moss or ice.
- Concrete is durable, easy to maintain and plow, and would match the Heesakker Bridge.
- Composite decking and concrete deck are mostly favorable.

3.3.5. Bridge Railings

- Wood posts and steel cables looks like less of a barrier and blends with most materials.
- Steel posts and cables are cold and sterile looking, but it can be easily climbed by children.
- Steel posts with wood panels might be high maintenance and have a poor view, but they blend in with most materials.
- Treated wood is high maintenance.

3.3.6. Lighting

- Light directed onto the boardwalk with little ambient light is preferred over bright lighting.
- Bollards blend in better and look more natural.
- Consideration should be given to lighting types adjacent to project.
- Wash lighting is the most favorable.

3.3.7. Fishing/Viewing Access

- All fishing and viewing bump outs should be ADA compliant.
- The bridge should be high enough to easily allow fishing boats to pass under.
- The ADA accessible and rounded bump outs are mostly favored.

3.3.8. Benches

- Backless benches can be uncomfortable.
- Benches should match bridge materials.
- Metal and wood benches are mostly favored while backless benches are mostly disliked.

3.4. Online Public Comment

The information presented at the Stakeholder Meeting and October 25th Public Involvement Meeting was posted online via Survey Monkey to solicit additional public feedback for the proposal. The Survey Monkey questions about selection options roughly mimicked what was addressed in the initial meeting comment tally sheets. This survey was prepared and made available to the public via links on the Village of Little Chute and City of Kaukauna websites. Those results are included in Appendix B.

4. TRAIL ALIGNMENT ALTERNATIVES

Several potential locations for the multi-modal crossing of the Fox River were evaluated at the crossing site. The alternatives were evaluated with respect to environmental impacts, adjacent residential property impacts, right-of-way needs, permitting, and cost. After thorough investigation and opportunity for public comment, two alternatives were identified for final consideration by the respective local governing bodies. Following is a summary of the two final project alternatives:

4.1. Alternative #1 – Eastern Structure with Medium Length Boardwalk

Alternative #1 spans from the eastern tip of Little Chute Island to the railroad parcel approximately 380' from the end of the property line. In this location, the north end of the new main structure would be located on the Little Chute Island property and the south end would terminate near shore at a boardwalk adjacent to the railroad property. The boardwalk would extend along within the river along the railroad property to the City of Kaukauna parcel to the east. The approximate overall length of structure required would be 1,270 feet, consisting of 890 feet of stream-crossing structure and 380 feet of boardwalk along the shore. The alignment of this alternative is more fluid and direct, providing smaller angles of travel along the route. It also requires a shorter portion of boardwalk than Alternative #3 along the railroad parcel. The main structure for this alternative is oriented at a greater skew to the stream flow. Structure design would need to accommodate the actual stream flow, and may require slightly larger piers, or longer spans.

4.2. Alternative #3 – Western Structure with Long Boardwalk

Alternative #3 shares the same north termination point on Little Chute Island as Alternative #1, but spans at a different angle slightly west of Alternative #1, terminating along the railroad property approximately 820 feet from the property line of the City of Kaukauna owned parcel. Similar to Alternative #1, the south end of the new main structure would terminate at a boardwalk adjacent to the railroad property. The boardwalk would extend within the river along the railroad parcel to the City of Kaukauna parcel to the east. The approximate overall length of the structure would be 1,500 feet, consisting of 680 feet of stream-crossing structure and 820 feet of boardwalk along the shore. A crossing at this location would have a smaller skew with relation to the streamflow, but requires larger turning angle for trail users at the main span/boardwalk interface. This alternative provides a structure location farther from the residential properties along the north bank of the Fox River. This alternative may be less favorable to the railroad, due to the additional length of boardwalk directly adjacent to the railroad property.

5. STRUCTURE ALTERNATIVES

Three structure types were initially evaluated for the project sites to determine the most appropriate application for the sites to accommodate desired trail components and maintain hydraulic conditions of the Fox River. Through the study process; due to input from the public, cost considerations, and preferred features, two primary structure types, pier types, and decking types were advanced for consideration. Following is a summary of the alternatives:

5.1. Superstructure Alternatives

5.1.1. Steel Girder Bridge (Structure A)

This alternative consists of a multi-span steel girder bridge with a composite wood deck. We anticipate that the typical span between piers would be 63'-0". The girders would be approximately 30" deep supporting approximately 12" of depth for timber framing and decking. The superstructure could either be supported on a pile bent or a concrete pier on spread footing foundation. The railing for this option is wood post with steel cable railing. Other railing options can be considered in final design.

5.1.2. Prefabricated Steel Truss Bridge (Structure B)

This alternative consists of a multi-span prefabricated steel trusses with either wood or composite wood decking. The typical span would be 100'-0". The overall depth of truss would be approximately 6'-6". The superstructure could either be supported on a pile bent or a concrete pier on spread footing foundation. The railing for the steel trusses is the typical angle rails for prefabricated bridges. Other railings can be installed for additional cost.

5.2. Pier Alternatives

5.2.1. Pile Bent

This alternative consists of multiple pile bents with concrete pile cap. The pile bents would be a feasible substructure in soils that would allow driven piles. Piles are able to be driven from a barge or causeway in the water without needing to provide a cofferdam at the piers.

5.2.2. Concrete Pier With Spread Footing

This alternative consists of a concrete pier with spread footing foundation. This option would be a feasible substructure for the foundation to be supported on bedrock. A cofferdam would need to be constructed for construction.

Soil borings completed in 2001 near the project site indicate that the water depth in the vicinity of the new structure is approximately 12' deep, and the depth to bedrock is approximately 13 feet. These conditions indicate that pilings will likely be the most economical pier construction alternative at the site. Pile bent piers are the recommended pier type for all alternatives.

5.3. Superstructure Decking Alternatives

5.3.1. Composite Wood Decking

This alternative consists of Trex or similar wood and plastic decking supported by timber members. The decking is non-structural for wheel loads, therefore, the timber framing below is designed to carry the wheel loads. The decking is decay resistant and provides a surface that typically has a higher coefficient of friction when wet. This decking has been used on other nearby boardwalks – Trestle Trail and Herb and Dolly Smith Park Boardwalk Bridge in Neenah/Menasha. This decking will be

used for the cost estimate of Boardwalk A. This would be an increased cost for Boardwalk B.

5.3.2. IPE Hardwood

This alternative consists of a tropical hardwood decking. The decking is structural and resistant to decay. The decking can carry wheel loads between structural members and would thus minimize structural members. This decking is typically used on prefabricated steel truss bridges and will be used for the cost estimate for Boardwalk

6. SPECIAL CONSIDERATIONS

Several characteristics unique to the project areas impact the feasibility of the work. Following is a discussion of the project in relation to these considerations:

6.1. Environmental Conditions

There are no listed properties on the Wisconsin DNR's remediation and redevelopment inventory where the structures or landings are located. Adjacent parcels are listed, however, so care must be taken during the work. In addition, soil within the river bed is likely to contain PCB's due to historic land use in the project vicinity. Disturbance of this material and excavation of the soil may require special handling and treatment.

Mapping provided by the Wisconsin DNR shows the presence of wetland indicator soils (Fu – Fluvaquents) along the bank of the Fox River in the location of both proposed north landings. Wisconsin DNR mapped wetlands (forested – floodplain complex) are present along the bank of the Fox River in the location of the proposed Alternate 3 intermediate landing. Investigation into the presence of wetlands may be necessary to ensure no impacts to wetlands would result from this alternative. Based on a site observation of the area, wetlands are likely not present at the connection locations.

Preliminary assessment of endangered resources provided by the Wisconsin DNR shows the presence of legally protected endangered species. Further investigation is needed into the specific types of species. During construction, steps will need to be taken to protect the identified species and ensure compliance with Wisconsin's Endangered Species Law and the Federal Endangered Species Act. In addition, the

presence of a bald eagle nesting site in the project vicinity has been noted. The bald eagle is protected by the Bald and Golden Eagle Protection Act, and disturbance to nesting sites is prohibited. A minimum buffer of 660' must be provided for construction work, with clearing taking place outside of the breeding season.

6.2. Permitting

The project was discussed with Scott Koehnke, Water Management Specialist with WDNR. WDNR permitting needs for this project include a Water Resources Application for Project Permits (WRAPP). The WRAPP will address the Waterway Individual Permit for structure construction, as well as grading on the bank of a navigable waterway. The U.S. Army Corp of Engineers permit will also be part of the WRAPP for work within the waters of the U.S. A hydrologic and hydraulic model analysis and report of the crossing will be required for the WRAPP. The hydraulic model will utilize the existing Flood Insurance Study model for this segment of the river and add the new structure to verify that there is no increase to the Regulatory Flood Elevation and that the required freeboard is maintained during the 100-year flood event.

The Individual Permit process can be quite lengthy and involved and includes a Public Notice, Public Comment period, and possible Public Hearing. Upon completion of the Public Comment period, WDNR has up to 50 days to complete their final review and make a decision. We would expect a turnaround of 135 days (4.5 months) and in this case due to project complexity and environmental and historical considerations, we anticipate it to be a longer timeframe, closer to 6 months or more. This is also in part due to the anticipated need for coordination with Canadian National railroad for construction of a boardwalk along their water frontage. As property owners of that segment of the river frontage, Canadian National must co-sign the application. They will likely require legal indemnification language as part of their agreement. Part of the Individual Permit requirement will be to maintain navigational clearance, typically 5-feet from the normal water surface. A 2-foot freeboard clearance will also be needed from the 100-year flood elevation.

The USACOE Permit will look at similar items as the WDNR Individual Permit. The WRAPP application package is a combination application for both WDNR IP and the USACOE for Work in the Waters of the US. The Corp is particularly interested in any deposits in the waterway, such as bridge piers. The application will need to address minimizing and avoidance of deposits, particularly how the project investigated other less impactful

alternative and/or tried to minimize the number of bridge piers. An Environmental Site Assessment will be necessary.

The US Coast Guard was also contacted to understand whether there are any navigational issues with the structure that would require federal permitting by the Coast Guard. Mr. Blair Stanifer of the Coast Guard Bridge Administration Branch reviewed the project alternatives for jurisdictional coverage by the Coast Guard. Per Mr. Stanifer's review, the location will likely require permitting through the Advance Approval process. Since both structures would be adjacent to, but not encroaching on the navigation channel, they would likely not require the full NEPA permitting process. Navigation lighting may be required. Mr. Stanifer anticipates the permit approval to take approximately one week.

6.3. Property Acquisition

6.3.1. Alternative #1 – Eastern Structure with Short Boardwalk

The northerly landing for this bridge location is on Little Chute Island owned and maintained by the Village of Little Chute. The southerly landing for this bridge location is at the terminus of the railroad tracks, on property owned by the City of Kaukauna. Property acquisition is not expected to be necessary at either structure landing.

6.3.2. Alternative #3 – Western Structure with Long Boardwalk

The northerly landing for this bridge location is on Little Chute Island owned and maintained by the Village of Little Chute. The southerly landing for this bridge location is at the terminus of the railroad tracks, on property owned by the City of Kaukauna. Property acquisition is not expected to be necessary at either structure landing.

6.4. Construction Site Access

Site access during construction is anticipated to be the same regardless of the alternative. Access to the site for construction may be gained through Little Chute Island on the north end of the new structure and from the River Street at the north end of the new structure. A staging area will be available for use within Little Chute Island. Limited staging area will be available on the south end of the structure, and must be contained within the 70-foot wide former railroad parcel owned by the City of Kaukauna. It is possible that a contractor may elect to utilize a barge almost

exclusively for construction access and equipment, however that is a means and methods issue variable by contractor.

6.5. Construction Feasibility

The construction feasibility of each option of the structure crossings creates some additional challenges. Construction will take place in/over water which requires different construction access methods. All structure options will require construction from a causeway or from barges.

6.5.1. Causeway Construction Access

A causeway would be created by filling the river in with material to create a road from which the boardwalk can be constructed. Once the bridge is constructed, the causeway would need to be removed. A causeway involves a significant permitting process and could add significant cost to the project.

6.5.2. Barge Construction Access

The water depth will determine whether or not construction can be done from a barge. Typically a minimum water depth of 3 ft to 4 ft is needed to utilize a barge. This would make the permit process a bit easier and may be more feasible for construction of the boardwalk. The normal depth of the water for the channel in the project vicinity, based on the Fox River FIS, is approximately 13-feet. This normal water depth can decrease significantly during the dry weather months when construction is likely to take place. However, we anticipate that the selected contractor will utilize barges almost exclusively.

6.6. Railroad Coordination

Both alignment alternatives are located near an active Canadian National Railway spur railroad line on their south landings. Discussions have taken place with Jackie Macewicz, Canadian National Railway – Manager Public Works, regarding the possibility of constructing a boardwalk trail along railroad property adjacent to the existing active railroad line. There may be a horizontal clearance requirement, which is typically is 25-feet from center of track. Railroad approvals and flagging are required when work takes place within the safety zone of the railway, also typically 25-feet from the center of track. Depending on construction method, work may be occurring within this zone and coordination and permitting with the railroad would be

necessary. Particular care will need to be taken if piles will be driven near the railroad line.

7. FINAL STRUCTURE ALIGNMENTS, FEATURES, DISCUSSION OF COSTS

7.1. Structure Alignment/Features

After thorough investigation of anticipated structure types and features, impacts to the environment, feedback and preferences of the general public and adjacent residents, and discuss with local municipal staff/officials, two selected alternatives were advanced for more detailed cost analysis. Features of the structure include:

- The structure styles for further consideration are the steel girder and truss.
- The railing types to be includes are the steel post and steel cable railing for the steel girder bridge and the rub rail for the truss style bridge.
- Decking type has been narrowed to composite decking.
- For site furnishings, all metal bench or a metal framed/wood surface bench were both advanced.
- The bridge observation bumpout selected is the rounded, ADA accessible style.
- Lighting styles may be decorative pole/fixture or low wash lighting.
- The alternative alignments that were priced are Alternative #1 and Alternative #3. Refer to Appendix E for graphics illustrating these final features.

7.2. Construction Mobilization/Methodology Costs

Due to the depth of water in the project vicinity, the majority of the mobilization and construction work is anticipated to be completed by barge. Following is the anticipated cost for barge work:

Cost Range: $50,000 per month; $200,000 to $300,000 total estimated
We estimate 4 – 6 months of use necessary and the time needed is dependent on the type of superstructure used for the boardwalk, construction approach by the contractor, and construction sequencing.

7.3. Engineer's Opinion of Probable Construction Cost Summary

The costs noted are dependent on budget considerations, final permitting/agency coordination, aesthetics, and the findings of environmental investigations and soil investigations/borings to be completed in a future phase. The Costs noted below

include design engineering and construction oversight. They also include preliminary investigation of soils and environmental impacts. Construction mobilization/methodology for barge or causeway construction is also included.

Below is a summary of the total Engineer's Opinion of Probable Construction Costs for each alignment alternative. For a more detailed breakdown, refer to the Appendix D.

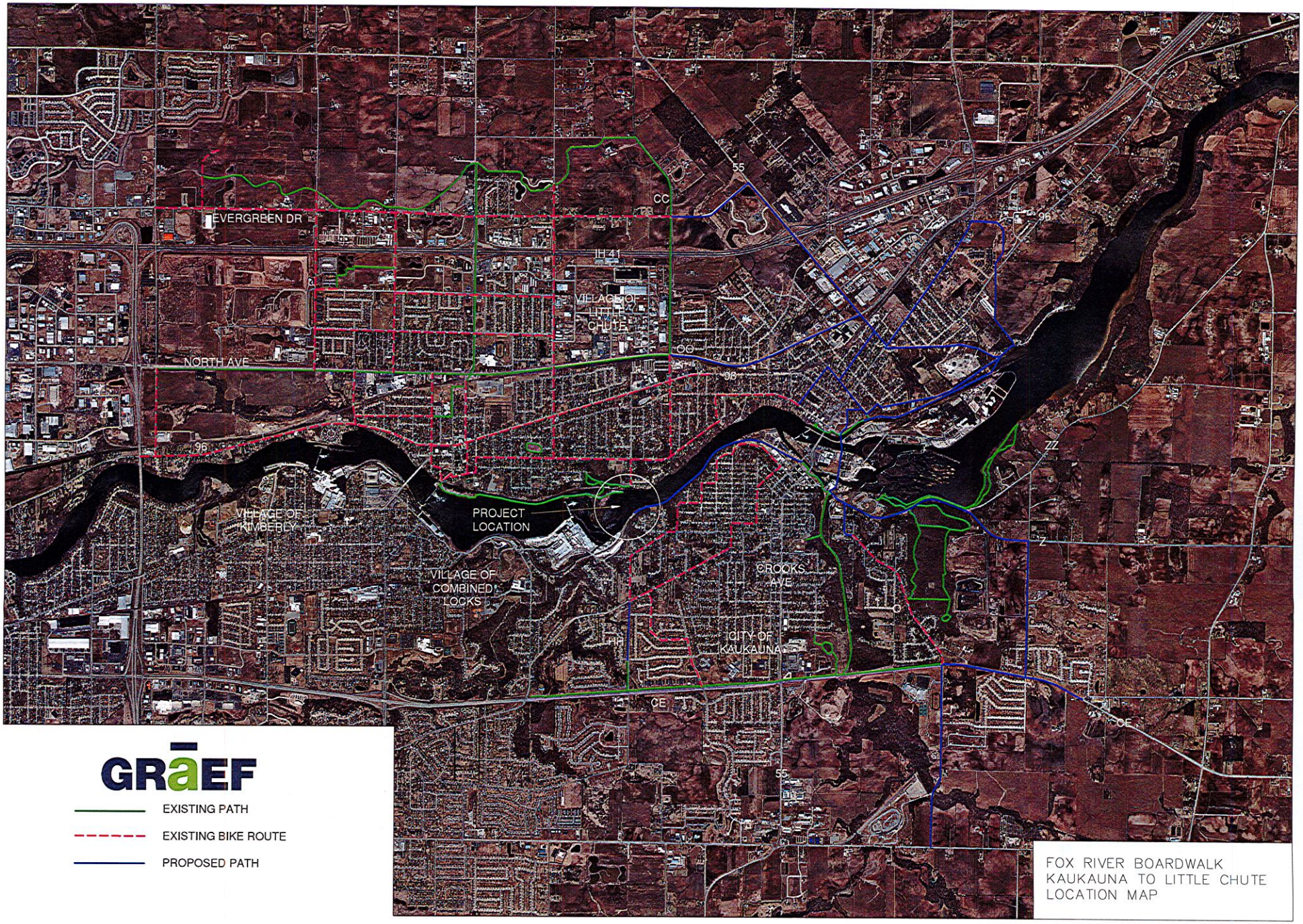
	COST SUMMARY TOTALS	
	Structure A – Steel Girder	Structure B - Truss
Alternative #1	$2,453,200	$2,567,600
Alternative #3	$2,636,700	$2,716,000

8. SUMMARY

A multi-modal boardwalk bridge crossing of the Fox River connecting Kaukauna and Little Chute will provide a valuable amenity to both communities and the surrounding residents. Several alignment and structure alternatives for the crossing were evaluated based on constructability, cost, and ability to meet current needs. Feedback from project stakeholders was solicited and incorporated into the feasibility study. Each option presents its own set of challenges some of which include railroad considerations, endangered resources, permitting, and construction access and methodology. Some of these items will become clearer as additional due diligence work is undertaken such as detailed discussions with railroad personnel and geotechnical investigations. The structure types also vary in both appearance and cost. All of these factors need to be weighed by the respective City officials and community members. The goal of this study is to provide additional information needed to make an informed decision regarding the path forward.

APPENDIX A

PROJECT LOCATION OVERVIEW MAPS



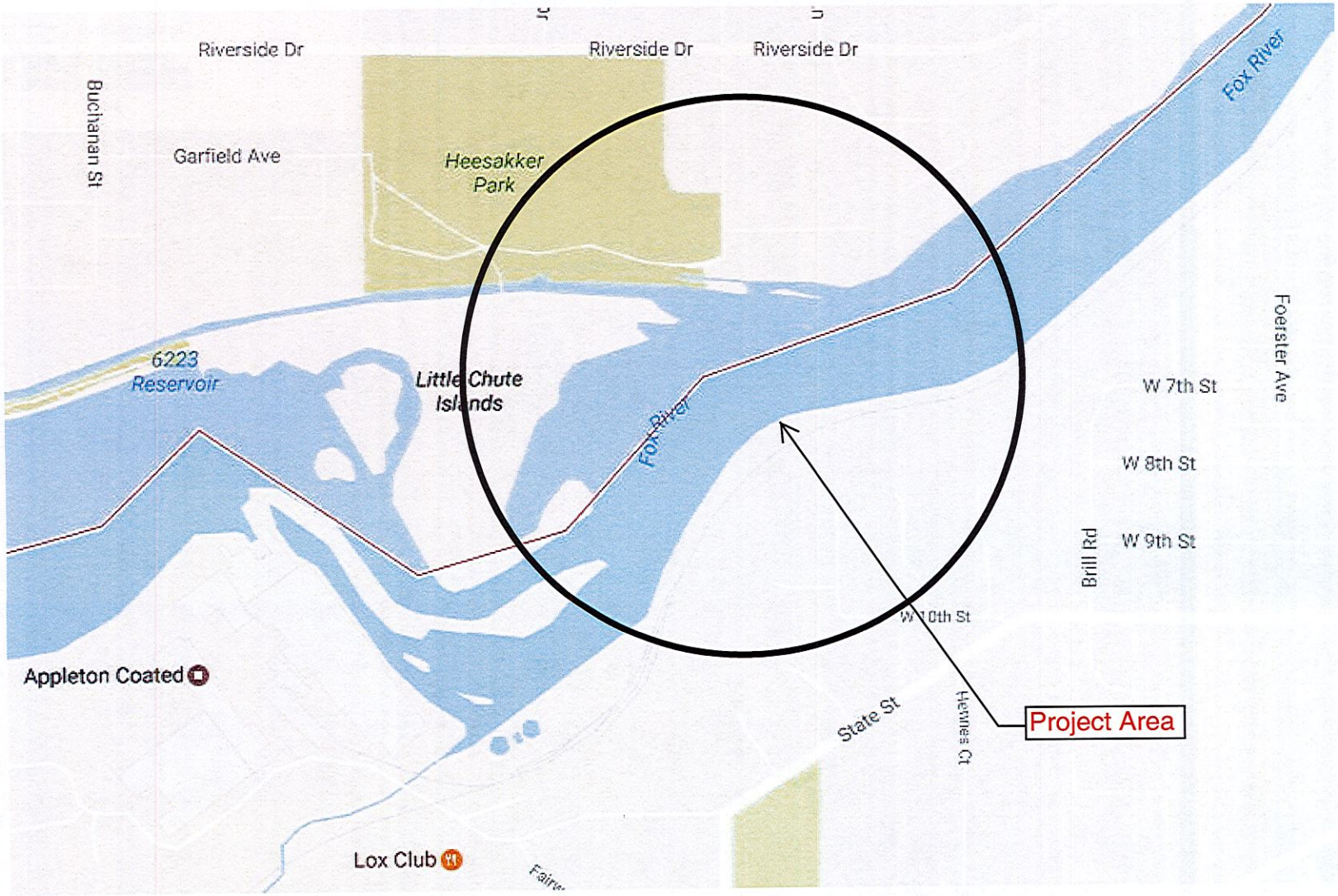
GRAEF

EXISTING PATH

EXISTING BIKE ROUTE

PROPOSED PATH

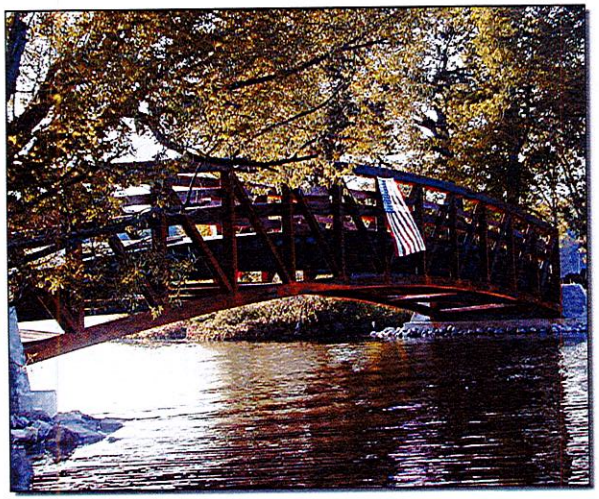
FOX RIVER BOARDWALK
KAUKAUNA TO LITTLE CHUTE
LOCATION MAP


Riverside Dr
Riverside Dr
Riverside Dr
Buchanan St
Garfield Ave
Heesakker Park
Fox River
Foerster Ave
6223 Reservoir
Little Chute Islands
Fox River
W 7th St
W 8th St
W 9th St
Brill Rd
W 10th St
Appleton Coated
State St
Haines Ct
Project Area
Lox Club

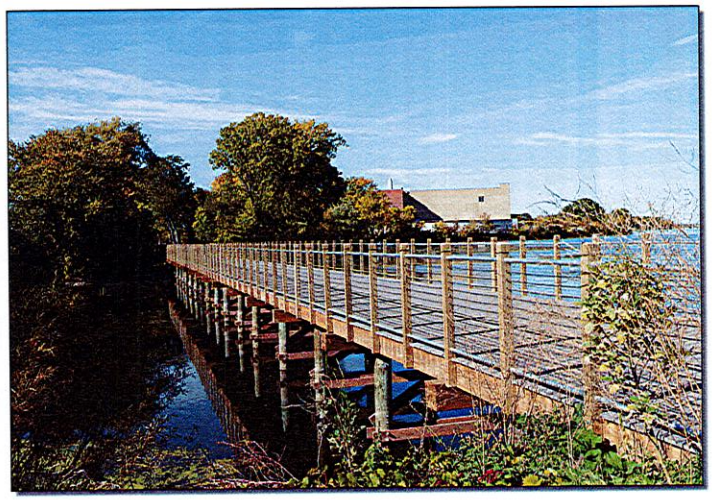
APPENDIX B

PUBLIC INVOLVEMENT INFORMATION

1.1 Truss

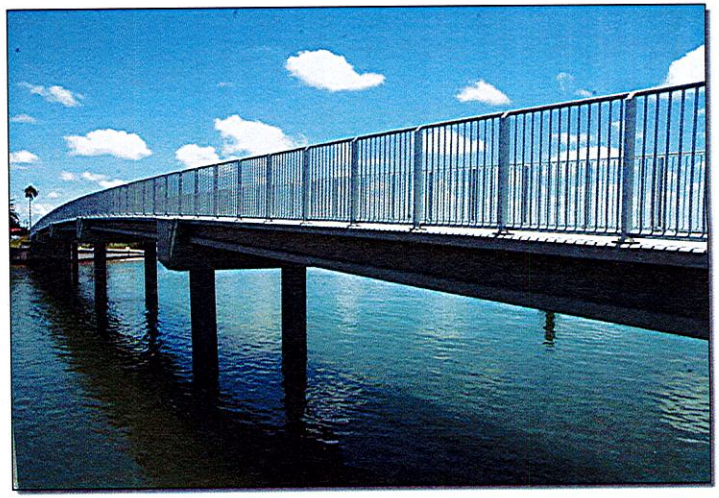


1.2 Timber



1.3 Steel Girder

1.4 Concrete



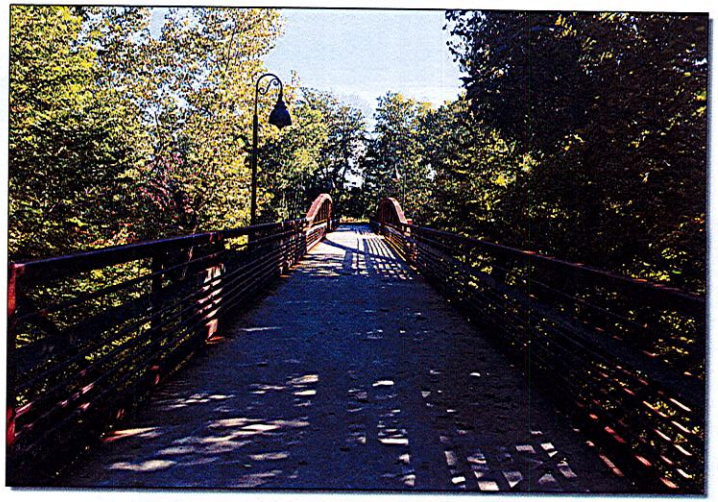
1.0 BRIDGE STYLE

2.1 Treated Wood

2.2 Composite Decking

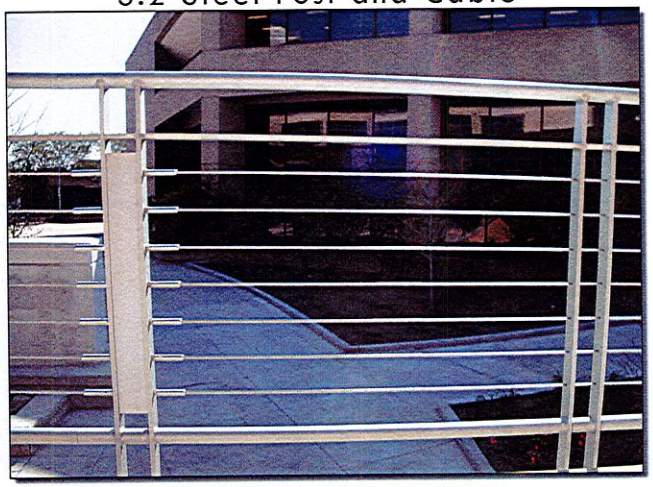
2.3 IPE Decking

2.4 Concrete Deck

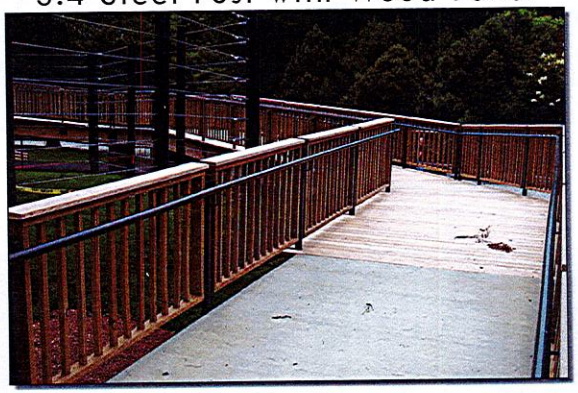


3.1 Wood Post with Steel Cable

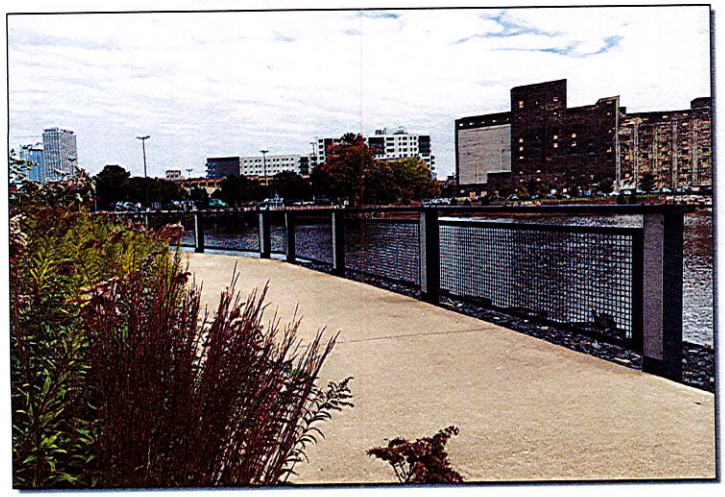
3.2 Steel Post and Cable



3.4 Steel Post with Wood Panel



3.3 Steel Mesh Panel



3.5 Treated Wood

3.0 BRIDGE RAILINGS

FOX RIVER BOARDWALK

Kaukauna - Little Chute, WI

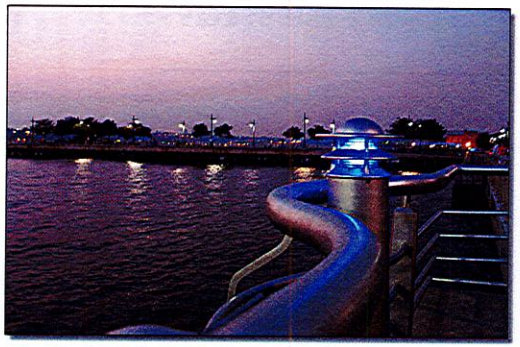
October 11, 2016

GRāEF

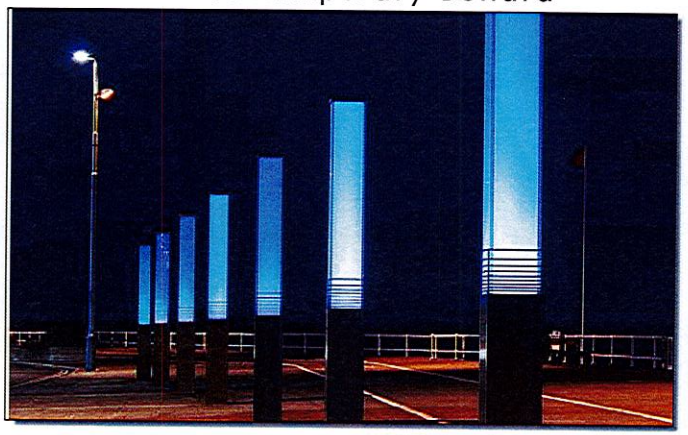
Kaukauna

Village of Little Chute

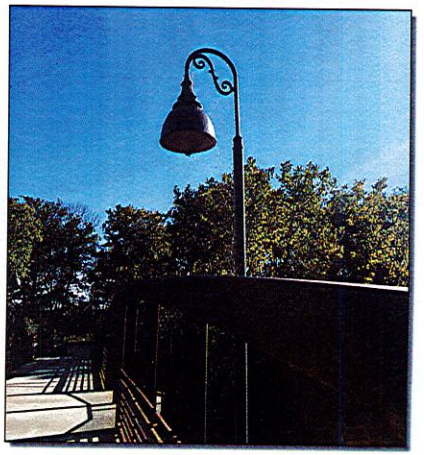
4.1 Decorative Bollard



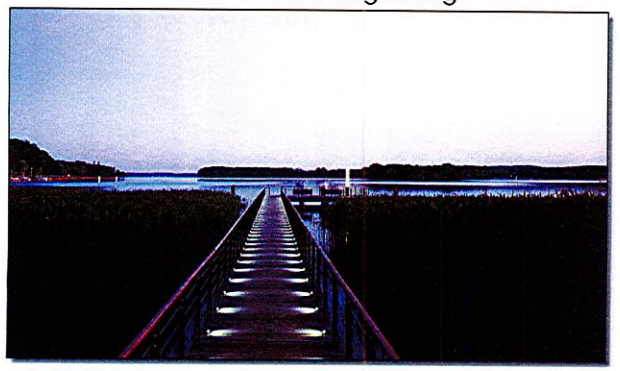
4.2 Contemporary Bollard



4.3 Decorative Pole



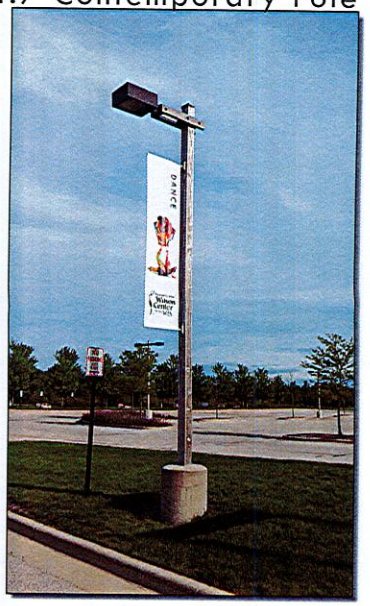
4.4 Wash Lighting



4.5 Traditional Pole

4.6 Antique Style Pole

4.7 Contemporary Pole



4.0 LIGHTING

5.1 Rounded Bump-Out

5.2 Square Bump-Out

5.3 ADA Accessible Bump-Out

5.4 Metal and Wood Bench

5.5 Wood Bench

5.6 Backless Bench

Comments Sheet

Fox River Boardwalk

Kaukauna - Little Chute

		Strongly Favor	Favor	Indifferent	Dislike	Strongly Dislike	Comments
1.0 BRIDGE STYLE	1.1 Truss Bridge			X			
	1.2 Timber Bridge					X	Initial beauty fades into maintenance nightmare
	1.3 Steel Girder Bridge			X			
	1.4 Concrete Girder Bridge	X					Longevity, strength, will last a lifetime
2.0 DECKING MATERIAL	2.1 Treated Wood					X	Maintenance nightmare
	2.2 Composite Decking	X					Low maintenance, can be slippery when wet.
	2.3 IPE Decking			X			
	2.4 Concrete Deck	X					Not slippery, easy to maintain
3.0 BRIDGE RAILINGS	3.1 Wood Post with Steel Cable					X	Maintenance
	3.2 Steel Post and Cable						
	3.3 Steel Mesh Panel	X					Prevents horizontal footholds for safety
	3.4 Steel Post with Wood Panel					X	Maintenance
	3.5 Treated Wood					X	Maintenance
4.0 LIGHTING	4.1 Decorative Bollard	X					Sturdy
	4.2 Contemporary Bollard	X					trendy
	4.3 Decorative Pole			X			
	4.4 Wash Lighting	X					Reduce light pollution, put the light where its needed
	4.5 Traditional Pole					X	
	4.6 Antique Pole					X	to antiquated, will be vandalized
	4.7 Contemporary Pole			X			
5.0 ACCESSORIES	5.1 Rounded Bump Out			X			
	5.2 Square Bump Out			X			
	5.3 ADA Accessible Bump Out	X					needs to be accessible.
	5.4 Metal and Wood Bench					X	What about composite decking?
	5.5 Wood Bench					X	
	5.6 Backless Bench					X	→ not comfortable for the benches!

Additional Comments:

Looks like a great project, good luck w/ soils tests!

Kaukauna

Little Chute

GRAEF

Stakeholder Workshop & Listening Session
Comment Form

Project # 2016-2052.00
Fox River Boardwalk
City of Kaukauna – Village of Little Chute
Outagamie County
10/11/16

Please place this form in the comment box or mail by October 25, 2016 to the address on the back of this sheet. Comments can also be e-mailed to patrick.skalecki@graef-usa.com. Your comments assist us in developing a project that will serve the needs of the public as well as the needs of the local community. Your input is welcome and appreciated throughout the design process.

Name: [redacted]

Address: [redacted]

Daytime Phone Number (optional): [redacted]

Email Address (optional): [redacted]

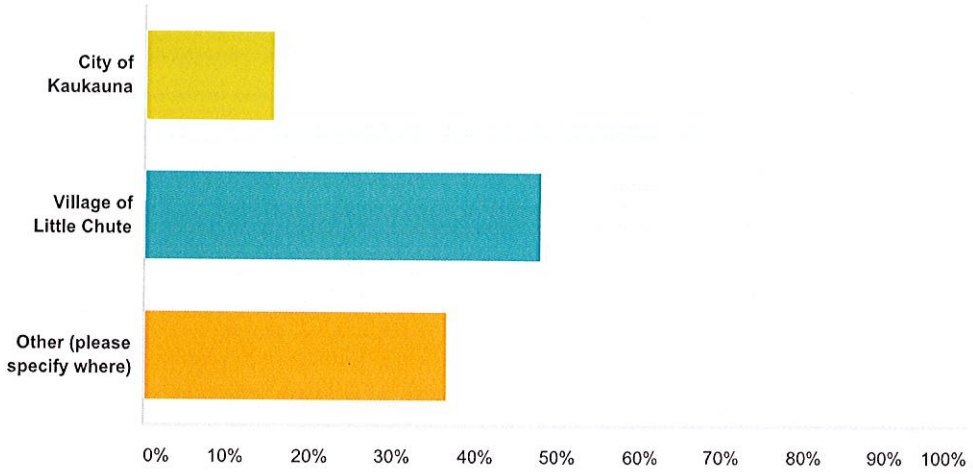
Please Print Comments (attach additional sheets if necessary)

Great Idea. Cost will be a huge factor. If State support is available, County and Grants will make a big difference.

The information in this document including names, addresses, phone numbers, e-mail addresses, and signatures is not confidential, and may be subject to disclosure upon request, pursuant to the requirements of the Wisconsin open records law, sections 19.31 - 19.39 of the Wisconsin Statutes.

Q1 Which City or Village do you reside in?

Answered: 71 Skipped: 0



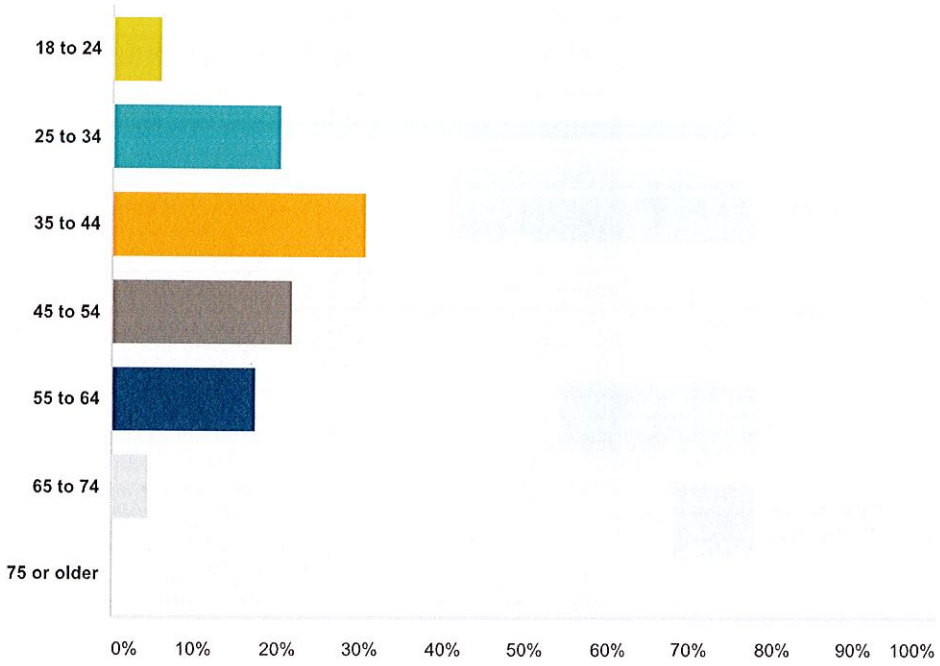
Answer Choices	Responses	
City of Kaukauna	15.49%	11
Village of Little Chute	47.89%	34
Other (please specify where)	36.62%	26
Total		**71**

#	Other (please specify where)	Date
1	Grand Chute	11/27/2016 9:01 AM
2	Grand Chute	11/21/2016 10:07 PM
3	vandenbroek	11/21/2016 9:17 PM
4	Neenah	11/21/2016 6:23 PM
5	Town of Buchanan	11/21/2016 3:43 PM
6	Neenah	11/21/2016 9:28 AM
7	Appleton	11/20/2016 7:49 PM
8	Appleton, WI	11/20/2016 7:05 PM
9	Appleton	11/20/2016 5:44 PM
10	Appleton	11/20/2016 12:11 PM
11	Chilton	11/20/2016 11:31 AM
12	Oshkosh	11/19/2016 8:23 PM
13	Village of Harrison (Darboy)	11/19/2016 3:47 PM
14	Nashville Tennessee	11/19/2016 1:07 PM
15	City of Appleton	11/19/2016 12:35 PM
16	City of Appleton	11/19/2016 12:01 PM
17	Appleton	11/19/2016 11:35 AM
18	Appleton	11/19/2016 10:13 AM

19	Appleton	11/19/2016 9:44 AM
20	Appleton	11/19/2016 9:13 AM
21	Appleton	11/19/2016 9:12 AM
22	appleton	11/19/2016 9:11 AM
23	City of Neenah	11/19/2016 9:08 AM
24	village of Fox Crossing	11/19/2016 8:46 AM
25	Appleton	11/19/2016 8:40 AM
26	Live on Miller Ln.- claim both Little Chute & Kaukauna	11/1/2016 9:01 AM

Q2 What is your age?

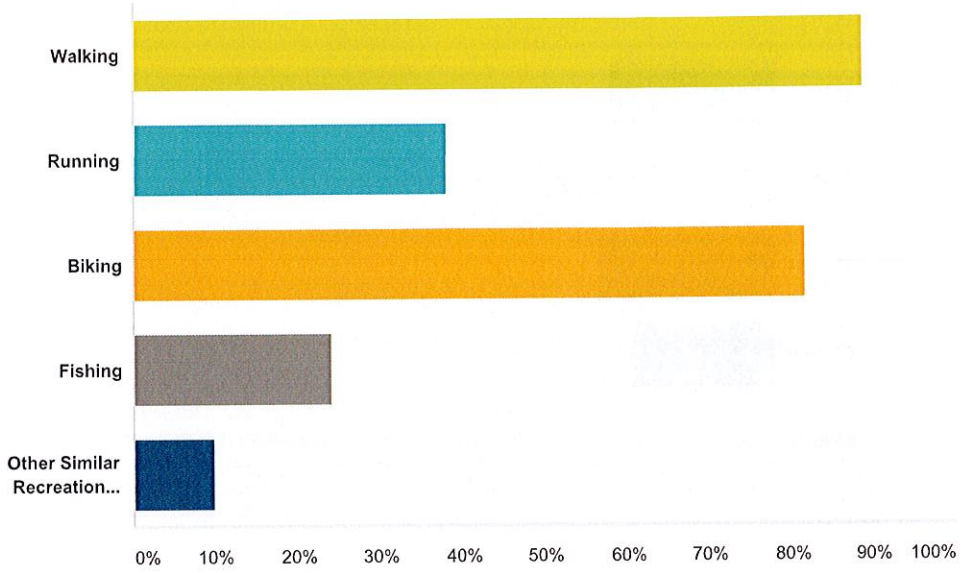
Answered: 69 Skipped: 2



Answer Choices	Responses	
18 to 24	5.80%	4
25 to 34	20.29%	14
35 to 44	30.43%	21
45 to 54	21.74%	15
55 to 64	17.39%	12
65 to 74	4.35%	3
75 or older	0.00%	0
Total		**69**

Q3 Do you currently take part in any of the below activities?

Answered: 71 Skipped: 0

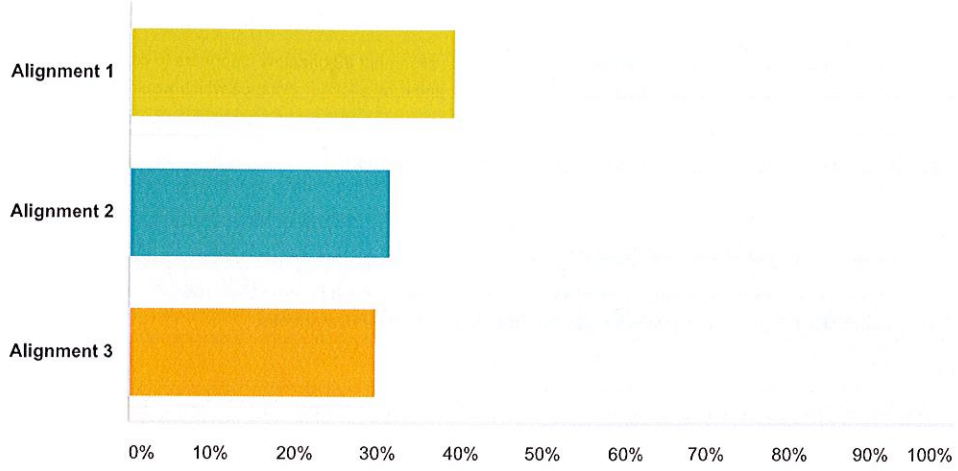


Answer Choices	Responses	
Walking	88.73%	63
Running	38.03%	27
Biking	81.69%	58
Fishing	23.94%	17
Other Similar Recreation Activities (please specify)	9.86%	7
Total Respondents: 71		

#	Other Similar Recreation Activities (please specify)	Date
1	kayak	11/21/2016 6:23 PM
2	Kayaking	11/21/2016 9:28 AM
3	Kayaking	11/20/2016 7:49 PM
4	snowshoeing	11/20/2016 5:44 PM
5	Kayaking	11/20/2016 12:11 PM
6	Paddling, bird/nature watching	11/1/2016 9:19 AM
7	Geocaching / Bird watching / Photography	11/1/2016 9:01 AM

Q4 Refer to the picture above labeled "Potential Boardwalk Alignments (Image #1)." Please indicate which alignment you would most prefer. Then please explain why.

Answered: 64 Skipped: 7



Answer Choices	Responses	
Alignment 1	**39.06%**	25
Alignment 2	**31.25%**	20
Alignment 3	**29.69%**	19
Total		**64**

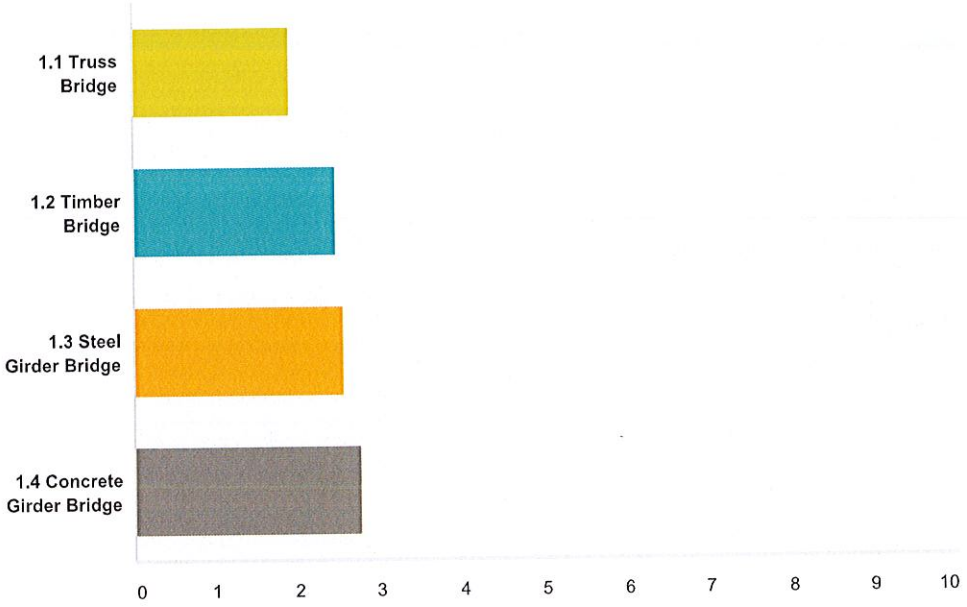
#	Please explain why you chose your alignment.	Date
1	1 uses the straightest shot from side to side. So everything using the board walk is visible from a distance. Cyclists and runners will have clean views of oncoming walkers.	11/27/2016 9:01 AM
2	Appears to have least amount of added trail work to connect.	11/22/2016 7:05 AM
3	Might be cheaper footing wise.	11/21/2016 6:23 PM
4	Seems like the shortest (most direct route) between Little Chute & Kaukauna. Alignment 2 is second choice and 3 is last.	11/21/2016 3:43 PM
5	I like all alignments but this one seems like a straight shot and more cost effective than the third.	11/21/2016 11:54 AM
6	A straight end to end alignment would be nice. I don't dislike any of the three, I would support any.	11/21/2016 9:51 AM
7	It is the shortest and potentially cheapest.	11/21/2016 9:28 AM
8	It seems to be the most direct yet still allowing for water views	11/20/2016 7:49 PM
9	Looks like a better potential park area could be part of the infrastructure.	11/20/2016 7:05 PM
10	Alignment 1 or 2 would be fine, but I'd rather not see a new trail heading south on the island. This area should be left in a natural state for natural hiking and snowshoeing. I snowshoe regularly in this area, and creating the trail for alignment 3 would reduce areas for snowshoeing.	11/20/2016 5:44 PM
11	It seems to be the most direct yet still allowing for water views	11/20/2016 12:11 PM

12	Most direct	11/20/2016 11:31 AM
13	3 gives more distance to enjoy walking and biking and is further from the view of the houses at the top of the photo.	11/19/2016 8:23 PM
14	Nice expansion but slightly more angle of entry where people will slow down and enjoy	11/19/2016 3:47 PM
15	All are good.	11/19/2016 1:07 PM
16	I really have no preference. Alignment 3 looks like it would be a little more scenic. Alignment 1 is nice for its directness. 2 is probably my least favorite, the location seems a bit odd. But I am also not familiar with the area. I just really love the idea of this boardwalk!	11/19/2016 12:35 PM
17	Slightly shorter.	11/19/2016 12:01 PM
18	Looks the most appealing	11/19/2016 11:35 AM
19	Makes most effective use of existing land and / or trails. A runner up is alignment #2 because it appears to be the shortest most cost efficient route. Alignment 3 appears to be complex and runs a longer distance which would lead to unnecessary cost.	11/19/2016 10:57 AM
20	Option 3 appears to be the most senic route and likely works best with fisherman.	11/19/2016 10:13 AM
21	Like it.	11/19/2016 9:13 AM
22	Honestly all 3 look fine. I picked #3 because it's not a straight path.	11/19/2016 9:12 AM
23	I did not choose this for any particular reason. I could also go with 3, which although I know nothing about engineering, seems like it might be easier to build with that little piece of land partway across.	11/19/2016 9:11 AM
24	Just like it.	11/19/2016 9:08 AM
25	For traveling the trail, I would have no preference. But, alignment #1 would seem to offer the best views of the river both upstream and downstream.	11/19/2016 8:49 AM
26	to me, 1 or 3 are the most attractive. However, the best alignment would be the one that can be passed, funded and built.	11/19/2016 8:46 AM
27	I don't know who owns/manages the peninsula that Alignment #3 alights on, but it would be neat to have a small nature trail to connect that point.	11/19/2016 8:40 AM
28	You'll be crossing more water and also add more to existing trail on land	11/16/2016 1:05 PM
29	Alignment 2 appears to be the shortest. I assume that means that it would be the least expensive. My 2nd choice would be Alignment 1. I like that it takes off from the very tip of the land point in Little Chute.	11/14/2016 5:15 PM
30	Least obstructive to the homes along the river now	11/14/2016 7:42 AM
31	None of them	11/13/2016 10:43 PM
32	It appears alignment 3 would be more scenic and unique	11/13/2016 7:19 PM
33	I choose none of the above.	11/13/2016 9:47 AM
34	Looks shorter	11/12/2016 1:23 PM
35	Because really all of the alignments are fine.	11/5/2016 8:31 PM
36	I prefer none, it seems like a wasteful use of community resources.	11/4/2016 10:07 PM
37	It allows for possible future marina in the bay. Would also be great if they added walk in or boat in campsites on the Little Chute side.	11/4/2016 8:21 PM
38	Privacy and it is closer to fishing cover. Shorter sections are easier to complete.	11/4/2016 12:40 PM
39	#3 appears that it would have a more "scenic" property to it. It wouldn't be a straight bridge, but a meandering path/bridge. It does, however, seem like the more costly option, both monetarily and environmentally.	11/3/2016 6:36 AM
40	The location seems best to access from where we live and enter the trail.	11/2/2016 11:23 AM
41	Shortest distance across river to reduce cost of the bridge	11/2/2016 8:52 AM
42	least expensive	11/1/2016 4:27 PM
43	Easier to get to from my residence.	11/1/2016 2:59 PM
44	Seems to be more of a scenic route (more natural)	11/1/2016 9:49 AM

45	Alignment 3 is not a good location. About every other year eagles nest on the smaller island to the south and the trees where the alignment falls on the Little Chute side provides an all winter resting spot for a large number of eagles. It is not uncommon to see 10 or more eagles perched in these trees. Alignment 2 might be ok because it would please property owners; however this part of the river can be very fast and on the northwest side very shallow and therefore any kind of peer fishing opportunity will be limited. Alignment 1 - would be far enough away from an important eagle resting/nesting area and will also provide a good opportunity for anglers to fish. There is an under water rock ledge that follows point and canal that provides structure for fish. Furthermore, this rock structure creates a small eddie that holds a good supply of catfish.	11/1/2016 9:19 AM
46	I like the lines of the bridge coming from two different directions. Breaks the line of sight up to make it more interesting.	11/1/2016 9:01 AM
47	feel this would be the least invasive on natural area and least cost impact.	11/1/2016 8:51 AM
48	shortest route to Kaukauna trail.	11/1/2016 8:11 AM
49	It flows with the existing path best	10/31/2016 9:37 PM
50	3 would be terrible, it would be the most visually obstructive. 1 would be almost as bad visually. I'm on the Little Chute side of the river so that may affect my perception but I've spent a lot of time in that area and would prefer to keep the view as clear as possible.	10/31/2016 7:40 PM
51	They all look great!	10/31/2016 2:41 PM

Q5 Refer to the picture above labeled "Bridge Styles (Image #2)." Then please rate the four different bridge style below.

Answered: 67 Skipped: 4



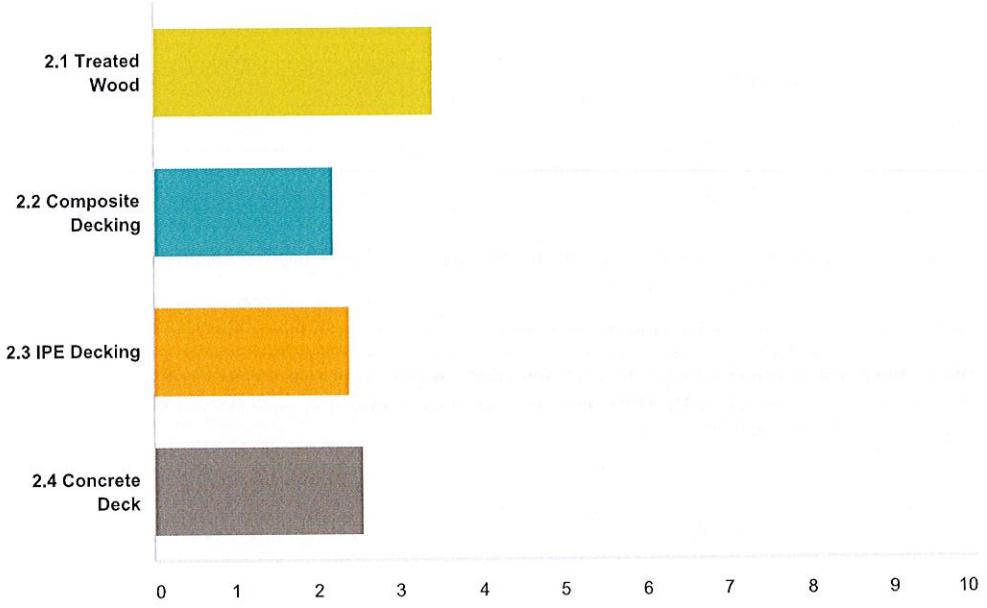
	Strongly Favor	Favor	Indifferent	Dislike	Strongly Dislike	Total	Weighted Average
1.1 Truss Bridge	40.30% 27	34.33% 23	20.90% 14	2.99% 2	1.49% 1	67	1.91
1.2 Timber Bridge	19.40% 13	38.81% 26	25.37% 17	8.96% 6	7.46% 5	67	2.46
1.3 Steel Girder Bridge	16.42% 11	35.82% 24	28.36% 19	14.93% 10	4.48% 3	67	2.55
1.4 Concrete Girder Bridge	21.21% 14	16.67% 11	33.33% 22	22.73% 15	6.06% 4	66	2.76

#	Please provide any comments on the four bridge styles.	Date
1	I think you need to have a bridge that has arch to it so kayaks, small boats can pass under with ease.	11/27/2016 9:01 AM
2	timber looks nicer but durability?	11/21/2016 6:23 PM
3	Would like to have a unique infrastructure which would be a better feature for a destination trail.	11/20/2016 7:05 PM
4	The truss looks more old fashioned and maybe easier to vandalize.	11/19/2016 8:23 PM
5	The truss and timber styles seem warmer and more welcoming, but any would be neat if significant cost differences.	11/19/2016 3:47 PM
6	The most durable materials and style should be used to ensure longevity and reduce maintenance.	11/19/2016 10:57 AM
7	A level bridge is preferred for usability and safety. A slight slope when wet can be ugly.	11/19/2016 10:13 AM
8	I would assume that concrete and steel would have lower maintenance and longer life than timber.	11/19/2016 9:11 AM
9	Truss would match the bridge over the channel. Girder seems to be an attractive style. However as a taxpayer, I'm also concerned about longevity and maintenance. I'm not concerned about the bridge style so much as one that's cost effective in the long run.	11/19/2016 8:49 AM

10	same comments as the alignment question. My guess is there are cost and life cycle considerations for any of the options.	11/19/2016 8:46 AM
11	Cost should be a major consideration here. Go with the least expensive (assuming that the least expensive bridge is still a durable creation with many years of service. The Truss Bridge seems to be less "disruptive" of the river. It doesn't seem to interfere in any way with river traffic.	11/14/2016 5:15 PM
12	none of the above	11/13/2016 10:43 PM
13	The truss bridge is most visually appealing. I question this style for the length of the proposed bridge, however. I am by no means an engineer so this is just a thought. The timber bridge would probably require the most maintenance over time.	11/13/2016 7:19 PM
14	Why isn't there a question regarding whether you support the project or not. The lack of said question tells me we're getting this bridge whether we want it or not!	11/13/2016 9:47 AM
15	Wood more "natural"	11/12/2016 1:23 PM
16	The Truss bridge would fit in more naturally with it's surroundings.	11/2/2016 11:23 AM
17	least expensive	11/1/2016 4:27 PM
18	Bridge should be designed so that it is not obstructive. Also building materials should be selected to hold up for long periods. Considerations should be given to strong current and ice/thaw forces.	11/1/2016 9:19 AM
19	I'd prefer the truss, as it would most closely resemble the existing bridge from Heesakker Park to the Island Park trail.	10/31/2016 7:40 PM
20	I don't have a strong preference for any, they all look very nice. I think the flatter bridges are nicer for biking, but think the arched styles are nicer looking. In reality, which ever is most cost efficient (investment, maintenance, lifetime, etc.) for tax payers may be the biggest factor.	10/31/2016 7:34 PM

Q6 Refer to the picture above labeled "Decking Materials (Image #3)." Then please rate the four different decking materials below.

Answered: 69 Skipped: 2



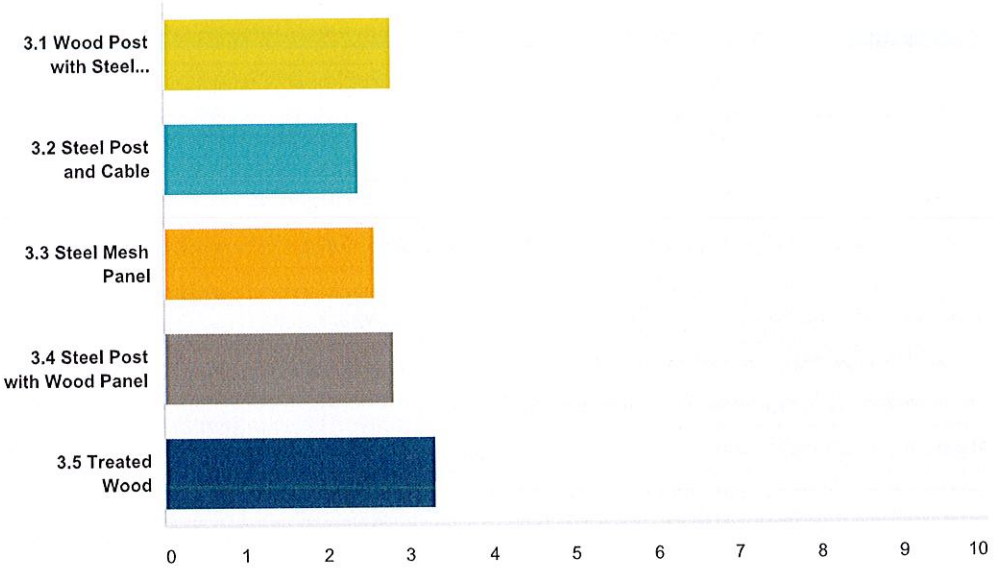
	Strongly Favor	Favor	Indifferent	Dislike	Strongly Dislike	Total	Weighted Average
2.1 Treated Wood	4.35% 3	18.84% 13	28.99% 20	27.54% 19	20.29% 14	69	3.41
2.2 Composite Decking	26.09% 18	39.13% 27	27.54% 19	4.35% 3	2.90% 2	69	2.19
2.3 IPE Decking	19.12% 13	39.71% 27	29.41% 20	8.82% 6	2.94% 2	68	2.37
2.4 Concrete Deck	29.41% 20	23.53% 16	17.65% 12	22.06% 15	7.35% 5	68	2.54

#	Please provide any comments on the four decking materials.	Date
1	Firm noiseless decking when you travel over it.	11/27/2016 9:01 AM
2	Like the Tresel trail one.	11/21/2016 6:23 PM
3	The composite decking seemed to work well on the trestle trail bridge.	11/21/2016 9:51 AM
4	Using some sort of recycled material would be best!	11/21/2016 9:28 AM
5	Concrete would be a smoother surface for more variety of recreational uses	11/20/2016 7:05 PM
6	Concrete best for bikes.	11/20/2016 11:31 AM
7	Anything wood seems like it would be easier to damage.	11/19/2016 8:23 PM
8	Ideally a material that will not warp or loosen easily. This accommodates bicycles better.	11/19/2016 3:47 PM
9	The composite decking on the tressle trail seems to be incredibly uneven and is very slippery when wet. Whichever surface is chosen, I hope that cycling and walking/running are equally considered.	11/19/2016 12:35 PM

10	The most durable materials and style should be used to ensure longevity and reduce maintenance.	11/19/2016 10:57 AM
11	Treated Lumber should not even be an option due to maintenance concers. Concrete is difficult to patch/repair. Composet decking is long lasting and simple to repair (by replacing specific pieces).	11/19/2016 10:13 AM
12	again, maintenance and longevity would factor into which would be the better option.	11/19/2016 9:11 AM
13	Treated wood doesn't offer much in terms of longevity. Composite and IPE can be very slick when damp - this presents a hazard for trail users. Concrete is the least attractive but offers durability and low relative costs for installation and maintenance.	11/19/2016 8:49 AM
14	with an anti-slip surface	11/19/2016 8:46 AM
15	The concrete deck seems like it would be smoother for biking, but I like the look of treated wood. Whatever was used on the new footbridge in Kaukauna near the old library is nice.	11/14/2016 5:15 PM
16	none	11/13/2016 10:43 PM
17	More "natural"	11/12/2016 1:23 PM
18	Wooden decking options tend to get slick in the winter time and are harder to use a method of snow removal.	11/4/2016 12:40 PM
19	Maintenance would be a nightmare for the treated wood and might cost more over the long term. I'm not familiar with the IPE decking. It looks nice but I don't know what kind of maintenance or cost it would include.	11/2/2016 11:23 AM
20	2 and 3 would last longer and handle the harsh winters	11/2/2016 8:52 AM
21	These materials would have a longer life span then treated wood	11/1/2016 9:01 AM
22	I would prefer the use of recycled materials	11/1/2016 8:09 AM
23	IPE would be nice but would be very expensive. Treated wood has the honor of being both unattractive and requiring the most maintenance. Concrete would be the quietest and would be similar to the other bridge from Heesakker Park to the Island Park trail.	10/31/2016 7:40 PM
24	Again, cost effective and lifetime maintenance would play into my preferences. I like the smoothest surfaces for biking, strollers, and wheelchairs. Would prefer that wood not be used in shaded areas, as they tend to get a bit slippery and can cause safety issues.	10/31/2016 7:34 PM
25	Boarded deck options can be difficult on strollers or bikes	10/31/2016 2:41 PM

Q7 Refer to the picture above labeled "Bridge Railings (Image #4)." Then please rate the five different bridge railings below.

Answered: 68 Skipped: 3



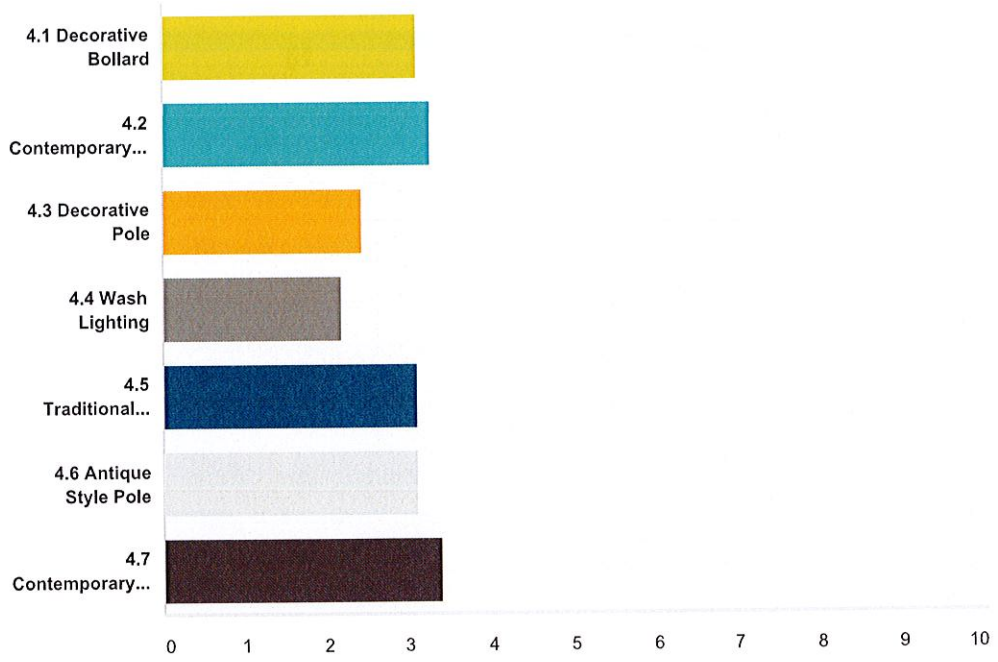
	Strongly Favor	Favor	Indifferent	Dislike	Strongly Dislike	Total	Weighted Average
3.1 Wood Post with Steel Cable	14.93% 10	25.37% 17	34.33% 23	17.91% 12	7.46% 5	67	2.78
3.2 Steel Post and Cable	22.39% 15	34.33% 23	25.37% 17	17.91% 12	0.00% 0	67	2.39
3.3 Steel Mesh Panel	17.91% 12	29.85% 20	31.34% 21	19.40% 13	1.49% 1	67	2.57
3.4 Steel Post with Wood Panel	18.18% 12	18.18% 12	36.36% 24	21.21% 14	6.06% 4	66	2.79
3.5 Treated Wood	6.35% 4	19.05% 12	33.33% 21	22.22% 14	19.05% 12	63	3.29

#	Please provide any comments on the five bridge railings.	Date
1	Steel will be more costly up front, but the maintenance will be easier.	11/27/2016 9:01 AM
2	I personally like the look of the steel cable style.	11/21/2016 9:51 AM
3	Priority should be safety, and style to enhance the design of the bridge	11/20/2016 7:05 PM
4	Steel seems like it would be the most enduring.	11/19/2016 8:23 PM
5	The last two options block too much of the view.	11/19/2016 12:35 PM
6	I think the mesh is a good safety option, kids can't climb it as easily,	11/19/2016 9:11 AM
7	will fishing be allowed from the bridge?	11/19/2016 8:46 AM
8	Steel post and cable looks too "industrial." Steel post with wood panel looks secure and still has the rustic look of wood.	11/14/2016 5:15 PM
9	none	11/13/2016 10:43 PM

10	Using steel posts with cable is more economical. Wood can be carved on and burned and graffiti the lot easier than steel. Steel is easier to pressure wash and clean them wood & composites.	11/4/2016 12:40 PM
11	Rust issues with steel	11/2/2016 8:52 AM
12	most economical	11/1/2016 4:27 PM
13	Prefer the railings with that are more open, with horizontal running cable/mesh. In this case, I'd go with the most durable, resistant vandalism and most easily repairable.	10/31/2016 7:34 PM

Q8 Refer to the picture above labeled "Lighting (Image #5)." Then please rate the 7 different lighting options below.

Answered: 69 Skipped: 2



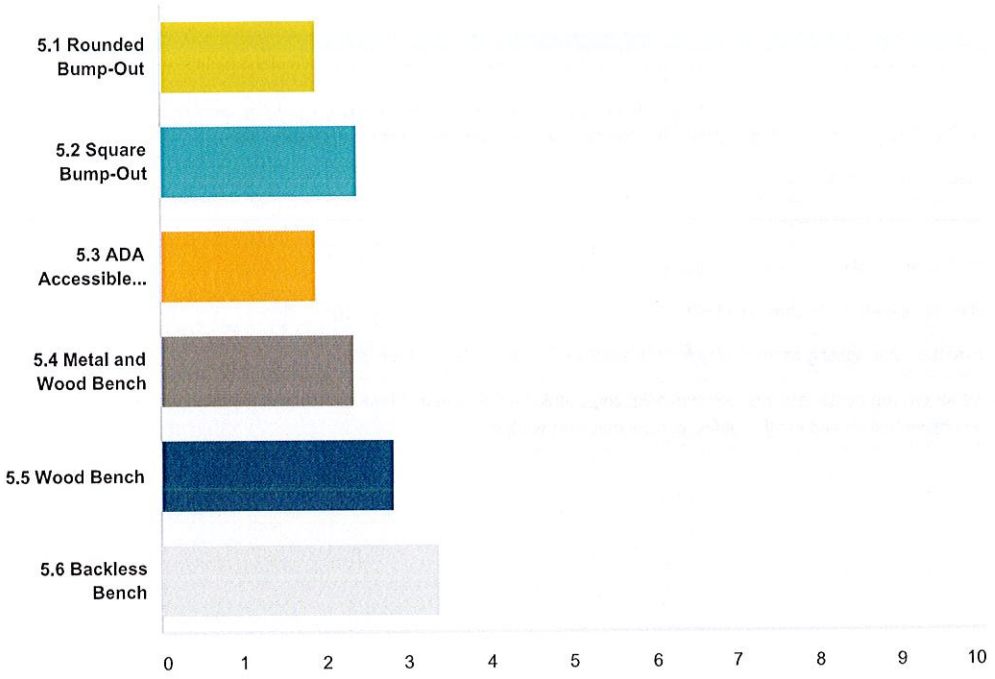
	Strongly Favor	Favor	Indifferent	Dislike	Strongly Dislike	Total	Weighted Average
4.1 Decorative Bollard	7.81% 5	23.44% 15	29.69% 19	29.69% 19	9.38% 6	64	3.09
4.2 Contemporary Bollard	10.61% 7	12.12% 8	34.85% 23	25.76% 17	16.67% 11	66	3.26
4.3 Decorative Pole	32.31% 21	23.08% 15	23.08% 15	13.85% 9	7.69% 5	65	2.42
4.4 Wash Lighting	35.82% 24	29.85% 20	19.40% 13	10.45% 7	4.48% 3	67	2.18
4.5 Traditional Pole	4.62% 3	24.62% 16	36.92% 24	24.62% 16	9.23% 6	65	3.09
4.6 Antique Style Pole	15.15% 10	15.15% 10	31.82% 21	22.73% 15	15.15% 10	66	3.08
4.7 Contemporary Pole	3.13% 2	14.06% 9	40.63% 26	25.00% 16	17.19% 11	64	3.39

#	Please provide any comments on the 7 lighting options.	Date
1	Something to make it different. The wash lighting might be best because there is nothing like it around here. Also you want to pick lights that are not prone to heavy maintainence and vandalism.	11/27/2016 9:01 AM
2	Please provide good lighting so it can be ridden (bicycled) safely at night.	11/21/2016 3:43 PM
3	maybe with some sort of motion switching	11/20/2016 7:39 PM
4	Please provide a safe well lit area. Second priority would be to match the style of lighting to the design of the bridge.	11/20/2016 7:05 PM

5	The wash lighting doesn't seem as bright or safe.	11/19/2016 8:23 PM
6	Preference depends on bridge material and other choices. Bollard with steel, decorative with wood, etc.	11/19/2016 3:47 PM
7	Any of them look fine - I think what matters most is that the style chosen is easy to maintain and integrates well with the bridge style.	11/19/2016 9:12 AM
8	Poles/elevated lighting offer better overall sight at night. The decorative pole seems like a nice balance between effectiveness and decor.	11/19/2016 8:49 AM
9	"dark skies" lighting is preferred while maintaining a safe, night time environment.	11/19/2016 8:46 AM
10	The wash lighting seems to be the least disruptive to the scenic view and the least disruptive of the night sky.	11/14/2016 5:15 PM
11	I like the antique style. I also like the wash lighting, but feel if wash lighting were done, it would also need other lighting as well. The wash lighting would not obstruct the nature, which I'm sure many would be pleased about.	11/13/2016 7:19 PM
12	Is needed? The rest of the trail is dark.	11/12/2016 1:23 PM
13	Pick water hold the least amount of bugs.	11/4/2016 12:40 PM
14	It's difficult to say until we know the structure you go with...	11/2/2016 11:23 AM
15	doesn't matter except lights should be LED	11/2/2016 8:52 AM
16	Please do the same lighting as the bridge from Heesakker Park to the Island Park trail.	10/31/2016 7:40 PM
17	I believe for environmental reasons, downward-lighting should be selected and I like the looks of the decorative pole. The Decorative Bollard and Wash Lighting options may also work out.	10/31/2016 7:34 PM

Q9 Refer to the picture above labeled "Accessories (Image #6)." Then please rate the 6 different accessories below.

Answered: 69 Skipped: 2



	Strongly Favor	Favor	Indifferent	Dislike	Strongly Dislike	Total	Weighted Average
5.1 Rounded Bump-Out	44.12% 30	29.41% 20	22.06% 15	2.94% 2	1.47% 1	68	1.88
5.2 Square Bump-Out	21.21% 14	34.85% 23	31.82% 21	7.58% 5	4.55% 3	66	2.39
5.3 ADA Accessible Bump-Out	44.78% 30	29.85% 20	19.40% 13	4.48% 3	1.49% 1	67	1.88
5.4 Metal and Wood Bench	23.88% 16	29.85% 20	37.31% 25	5.97% 4	2.99% 2	67	2.34
5.5 Wood Bench	10.45% 7	28.36% 19	38.81% 26	13.43% 9	8.96% 6	67	2.82
5.6 Backless Bench	6.15% 4	10.77% 7	40.00% 26	26.15% 17	16.92% 11	65	3.37

#	Please provide any comments on the 6 accessories shown.	Date
1	Keep it simple to keep the costs down. Benches at either end and no benches on the board walk would probably be ok.	11/27/2016 9:01 AM
2	Please make sure all is ADA accessible.	11/20/2016 7:05 PM
3	Benches and bump outs should be included.	11/19/2016 10:57 AM
4	How about an accessible rounded bump-out?	11/19/2016 8:49 AM
5	same comment about fishing or if there is a traditional bird habitat.	11/19/2016 8:46 AM

6	I like the appearance of the rounded bump-out. Why wouldn't those also be ADA accessible? I can't see from the pictures included here what makes the ADA bump-out different.	11/14/2016 5:15 PM
7	.....	11/12/2016 1:23 PM
8	Just make it wheelchair friendly so the entire community can benefit from it. What a great outing for the residents at the local nursing homes!!	11/2/2016 11:23 AM
9	Benches should be metal to reduce vandalism potential	11/2/2016 8:52 AM
10	Give people a chance to get their names on benches by donating and they'll pay for themselves.	10/31/2016 7:40 PM
11	Any bump-out should be wheel chair accessible. I like the looks of the rounded bump-out, but if you have identified fishing spots bigger square bump out may be needed. As far as benches go, I like the ones currently on the LC trail. They are holding up to weather better than wooden ones would.	10/31/2016 7:34 PM

Q10 Please add any further comments or suggestions on this project that may not be listed above.

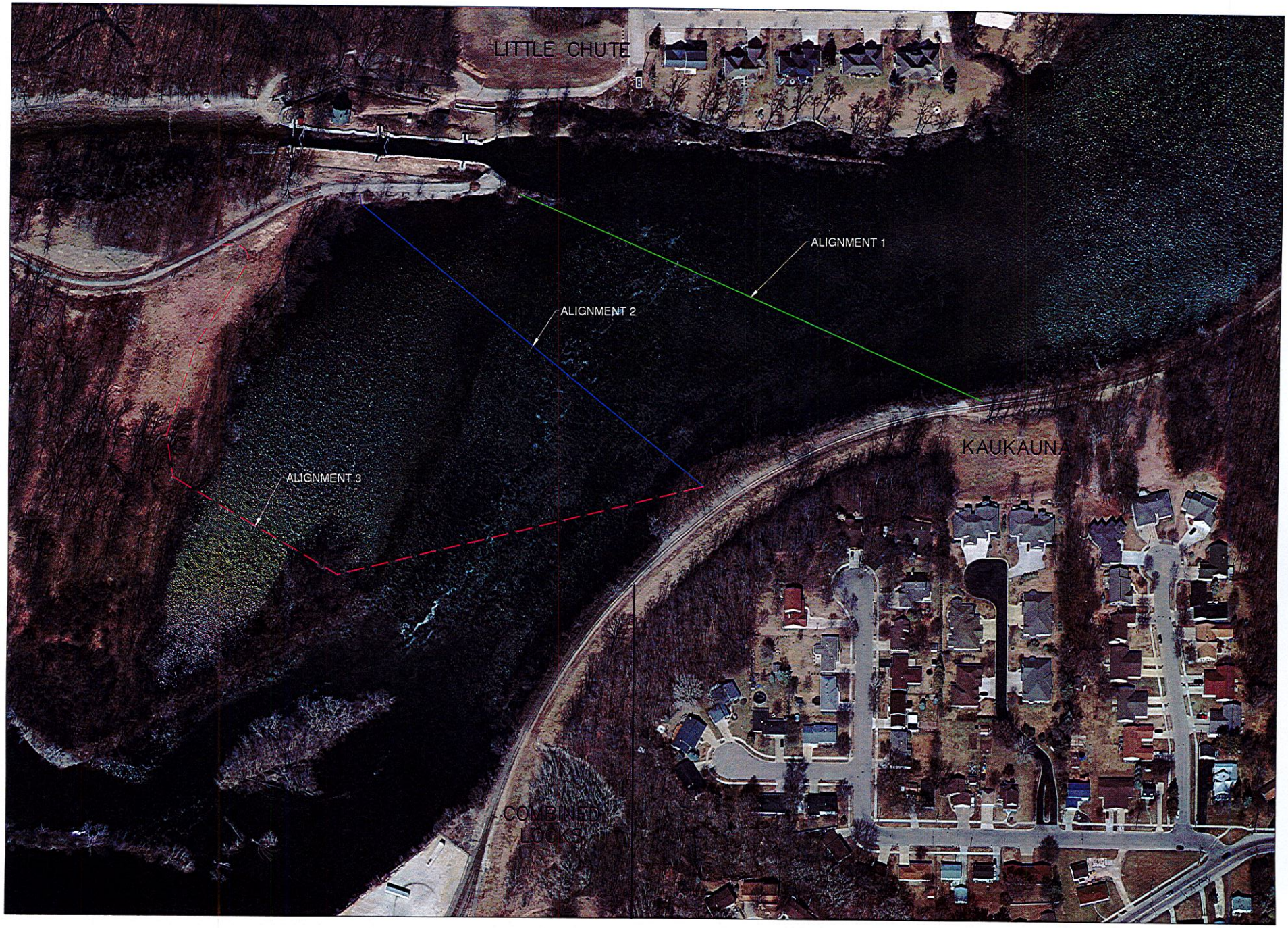
Answered: 28 Skipped: 43

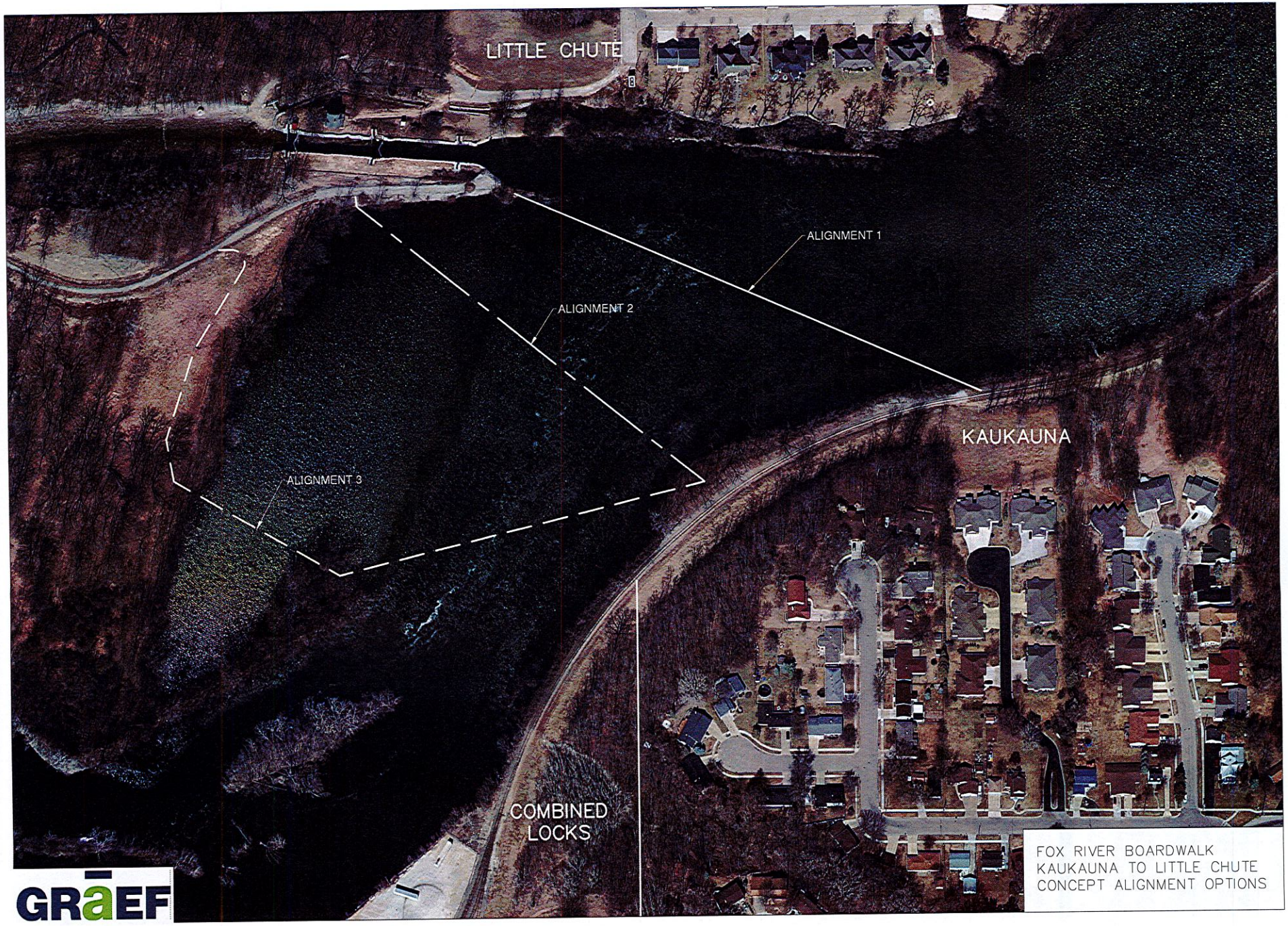
#	Responses	Date
1	What a great project! Way to lead in area!	11/27/2016 9:01 AM
2	Looking forward for more recreational trails	11/21/2016 10:07 PM
3	the bridge needs to accommodate boats. someday they will use the river again	11/21/2016 9:17 PM
4	Great that you are getting public opinons early!	11/21/2016 6:23 PM
5	Above all style preferences is the desire to have this project completed.	11/20/2016 7:05 PM
6	This would be an amazing project for the area, improving pedestrian and bicycle access across the river. If some private funds are necessary, it should be too difficult to get people, businesses, and foundations to support such a worthwhile project.	11/20/2016 5:44 PM
7	Maybe some sort of signage for people to ride, walk and be aware? The bridge in Oshkosh The Heritage Trail accumulates people looking at their phone and not paying attention making it hard to bike. Often they have head phones so they aren't listening or looking - just moving.	11/19/2016 8:23 PM
8	I appreciate all the thought and options being considered for this project. In the end, the connection itself will be an asset, so any materials will be great.	11/19/2016 3:47 PM
9	As a former resident of the Fox Valley, this as well as other high quality biking infrastructure would be a deciding factor on whether or not I vacation here or a different location.	11/19/2016 1:07 PM
10	This trail must be approved. It would be a great addition to our community. It would add to a list of reasons to move here compared to other neighboring communities.	11/19/2016 10:57 AM
11	Work with the larger community to establish dedicated paved trails for access. For example, the gravel trail in Kaukauna from the river to CE should be paved. This would dramatically increase usage by cyclists and long distance runners.	11/19/2016 10:13 AM
12	This will be a great addition for the Fox Cities. Imagine when can bike from Little Chute/Kaukana to Neenah (Loop the Little Lake) using trails and bike lanes!	11/19/2016 9:44 AM
13	I love the idea of this project and think it would be a great enhancement to the trail system. Thanks for the opportunity to give feedback.	11/19/2016 9:12 AM
14	THANK YOU - this project would be a huge benefit to the community. Regardless of the details, simply having it built would be significant. The existing river crossings carry significant danger for recreational users, especially cyclists.	11/19/2016 8:49 AM
15	Congratulations to Little Chute and Kaukauna. If each of the Fox Cities communities can participate in linking trails and investing in a linked system, the sum of the parts becomes multiplied.	11/19/2016 8:46 AM
16	While I do like the concept and the added walk-ability this will bring to the village and the city, I do not want to see any local tax increases to pay for any part of this project. If it can't be done without winning grants (any level), donations, and current village and city budgets then it should NOT be done.	11/14/2016 7:42 AM
17	Build ONLY WITHOUT taxpayer money being used.	11/13/2016 10:43 PM
18	I love the idea of this bridge. My family occassionally drives to Heesakker Park to walk on the trail. This would allow us to bike from our home on the south side of Kaukauna to Little Chute.	11/13/2016 7:19 PM
19	We STRONGLY disagree with this project and do not think it should be built. It will destroy animal habitat and the beauty of the river.	11/12/2016 8:51 PM
20	.....	11/12/2016 1:23 PM
21	Funding should be put elsewhere to improve existing structures in both communities.	11/4/2016 10:07 PM
22	Would also be great if they added walk in or boat in campsites on the Little Chute side, I had proposed the idea to the park and rec several years ago. With people using the park at night it would keep down the late night vandalism. Cross country ski trails would be nice also. Larry Janssen	11/4/2016 8:21 PM

23	I love this idea! I hope it comes to fruition!!	11/3/2016 6:36 AM
24	What a GREAT idea to link the 2 communities together! The trails are part of what makes this area so wonderful to live in!!!!	11/2/2016 11:23 AM
25	Funding with local tax money is wasteful. This is a luxury when have greater needs.	11/1/2016 2:59 PM
26	1) Very little boat traffic occurs past this point, however the design of the trail should allow for small paddle or small boats to pass under the bridge in the main river channel. 2) Consideration should be given to geese and seagull control. Traditional lighting will only provide areas for gulls to rest and provide dropping on the walking deck. 3) Considerations should consider debris build up. River high does not fluctuate too much, but the speed of flow does. This can carry large amounts of debris with it. 4) Consider adding the historical importance of the river into the design. From natives, to the industrial working river, to current river restoration.	11/1/2016 9:19 AM
27	Offer people a chance to buy bricks at either end of the bridge to help offset taxpayer costs.	10/31/2016 7:40 PM
28	Would be nice to have animal waste containers, many a walks have been ruined due to owners not bagging their pet's waste. When pouring the cement near benches, it's helpful to include room for bikes so the kick-up stand is on a solid surface. Thank you for asking.	10/31/2016 7:34 PM

APPENDIX C

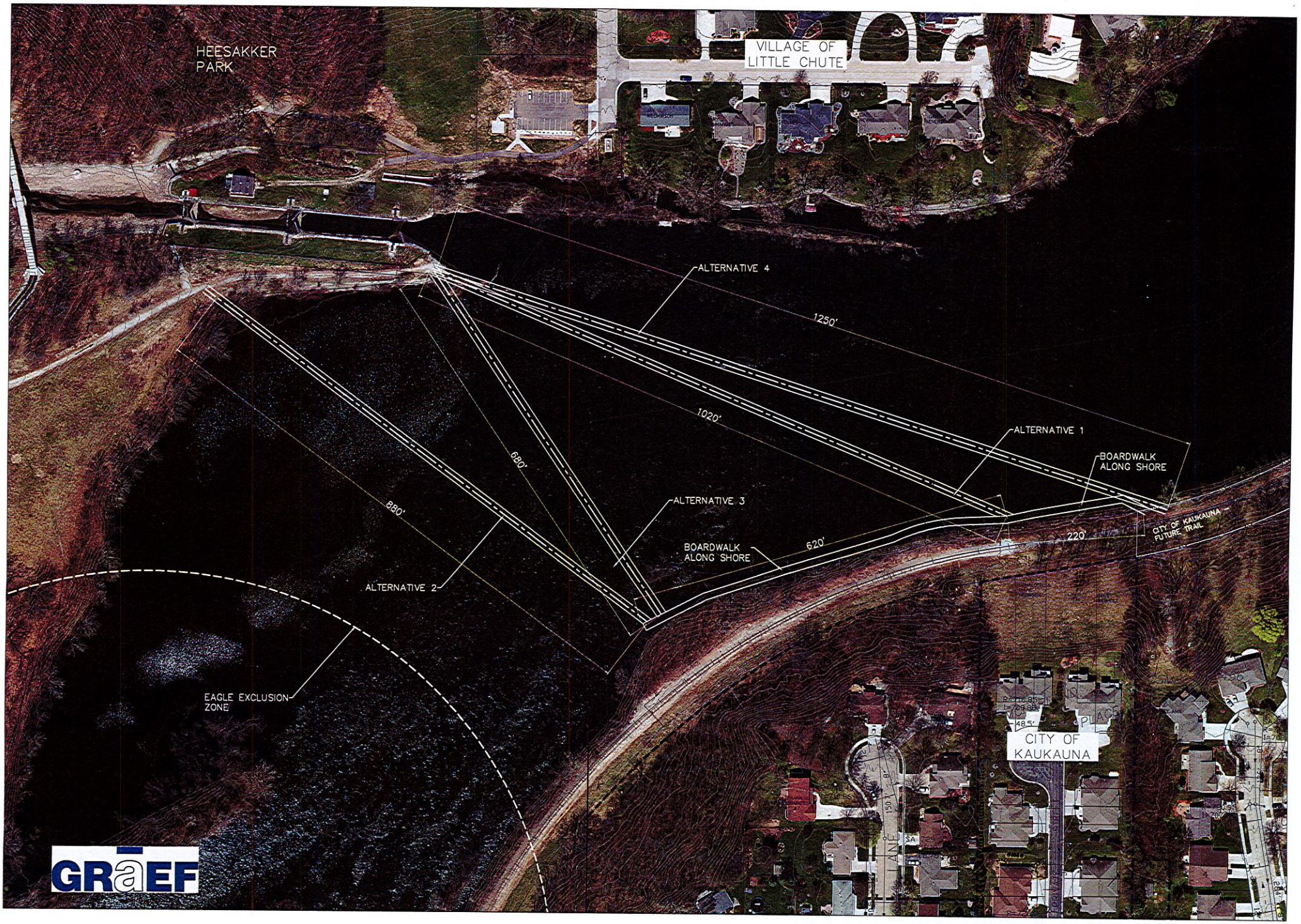
ALTERNATIVE ALIGNMENT EXHIBITS/BRIDGE STYLES

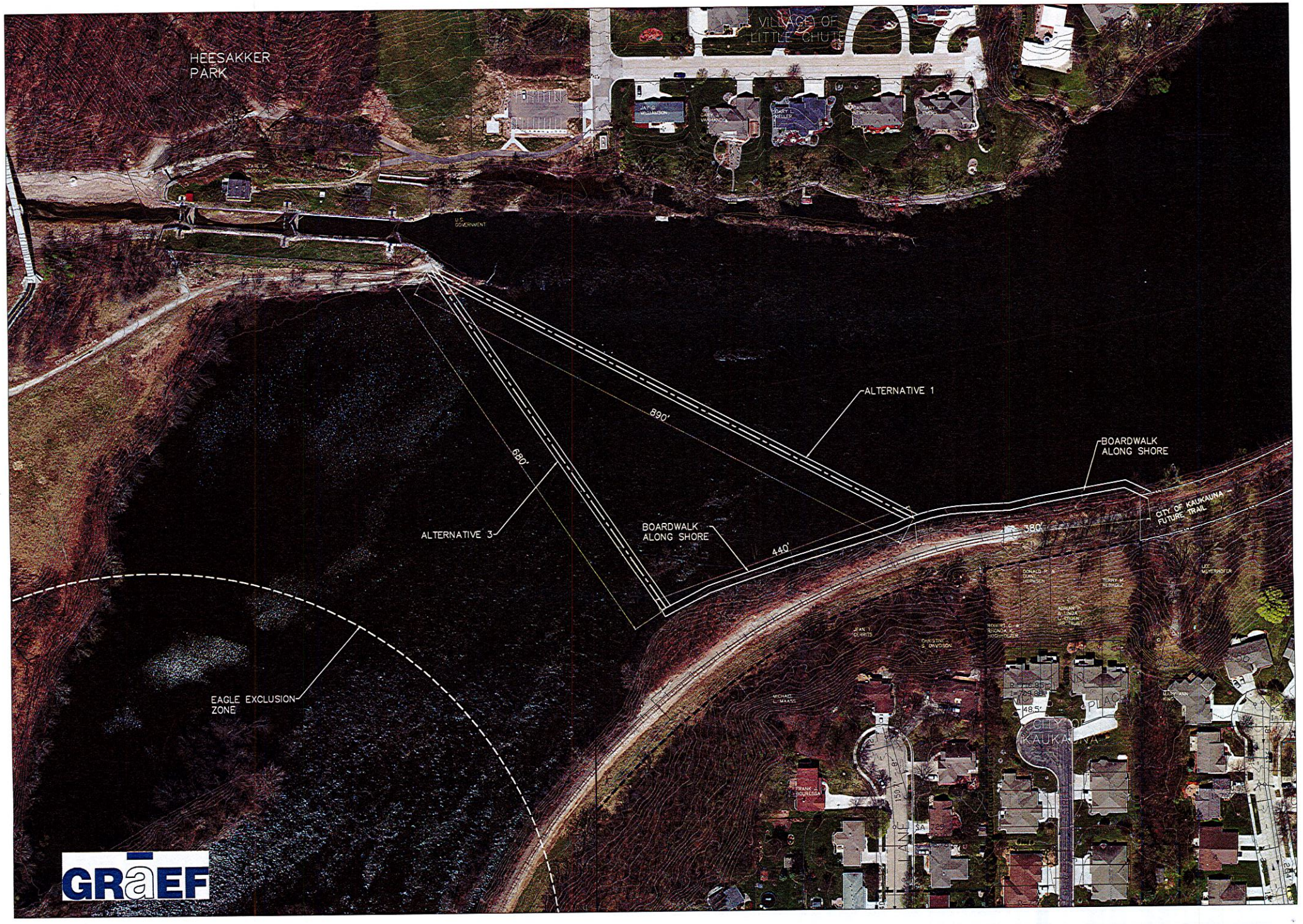

LITTLE CHUTE
ALIGNMENT 1
ALIGNMENT 2
ALIGNMENT 3
KAUKAUNA
COMBINED
LOCKS

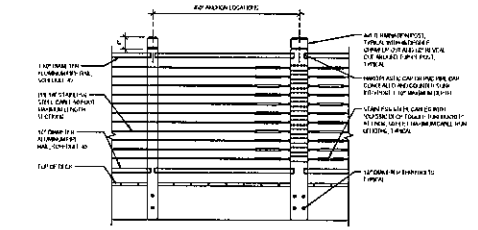


GRAEF

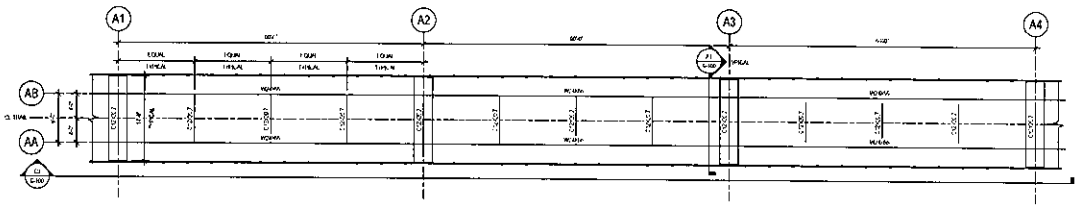
FOX RIVER BOARDWALK
KAUKAUNA TO LITTLE CHUTE
CONCEPT ALIGNMENT OPTIONS


HEESAKKER PARK
VILLAGE OF LITTLE CHUTE
ALTERNATIVE 4
1250'
1020'
680'
880'
ALTERNATIVE 1
BOARDWALK ALONG SHORE
ALTERNATIVE 3
BOARDWALK ALONG SHORE
620'
220'
CITY OF KAUKAUNA FUTURE TRAIL
ALTERNATIVE 2
EAGLE EXCLUSION ZONE
CITY OF KAUKAUNA
GRAEF

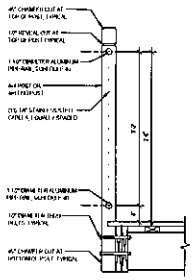

HEESAKKER PARK
VILLAGE OF LITTLE CHUTE
ALTERNATIVE 1
890'
680'
ALTERNATIVE 3
BOARDWALK ALONG SHORE
440'
380'
BOARDWALK ALONG SHORE
CITY OF KAUKAUNA FUTURE TRAIL
EAGLE EXCLUSION ZONE
GRAEF



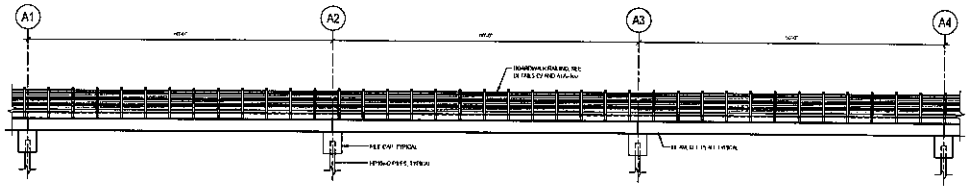
D1 TYPICAL RAILING ELEVATION



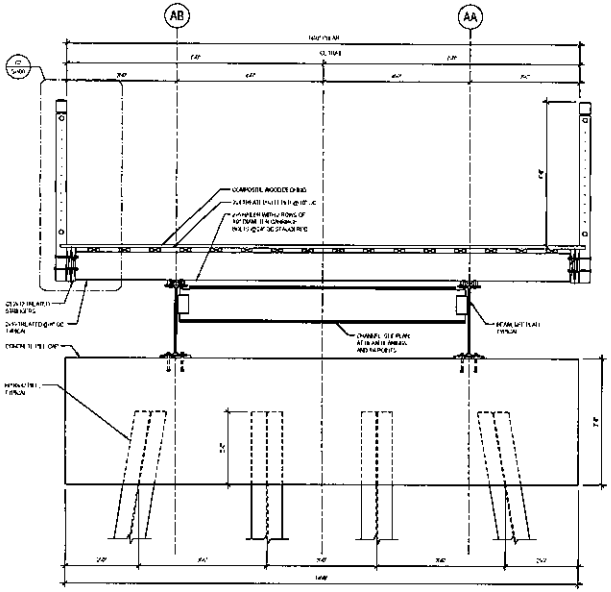
D3 PLAN



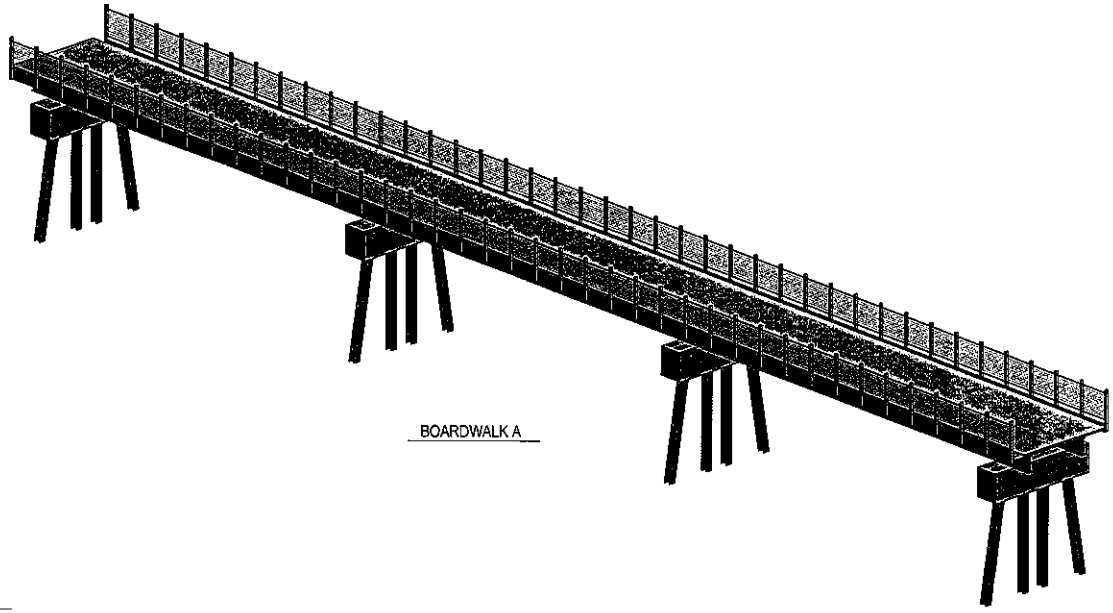
C2 RAILING DETAIL



C3 ELEVATION



A1 SECTION



BOARDWALK A

GRAEF
1150 SPRINGHURST DRIVE
SUITE 201
GREEN BAY, WI 54304
920 / 592 9440
www.graef-usa.com

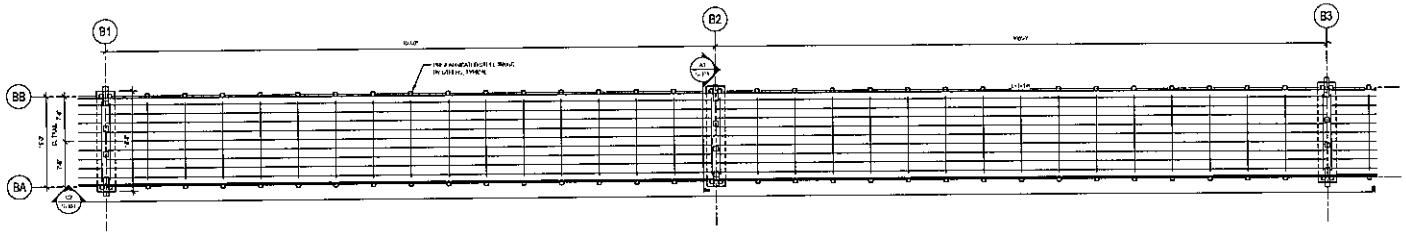
PROJECT TITLE
FOX RIVER
PEDESTRIAN BRIDGE
CROSSING STUDY

NOT FOR
CONSTRUCTION

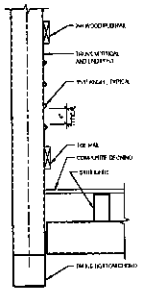
PROJECT NUMBER	70162052.00
DATE	10/11/2018
DRAWN BY	AMZ
CHECKED BY	JSR
APPROVED BY	JSR
SCALE	AS NOTED

BOARDWALK A

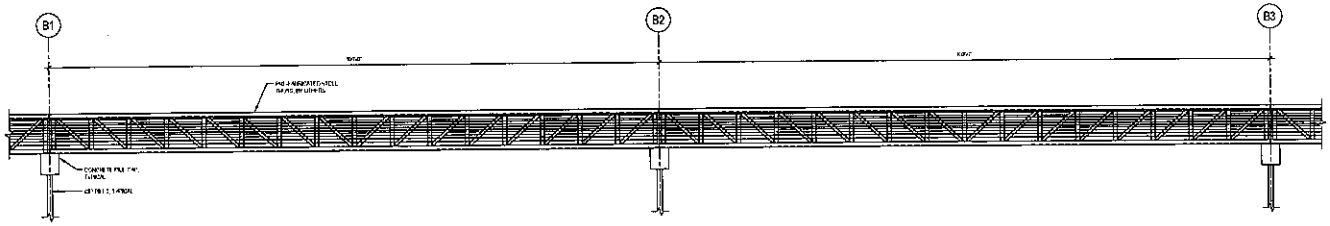
S-100



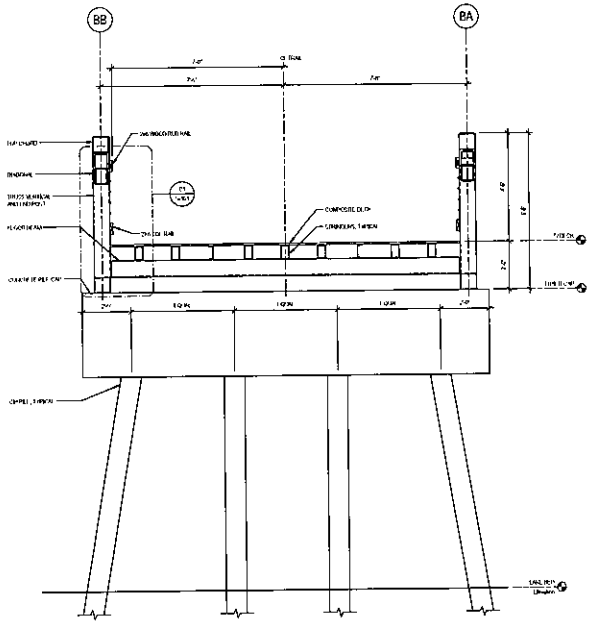
D2 PLAN



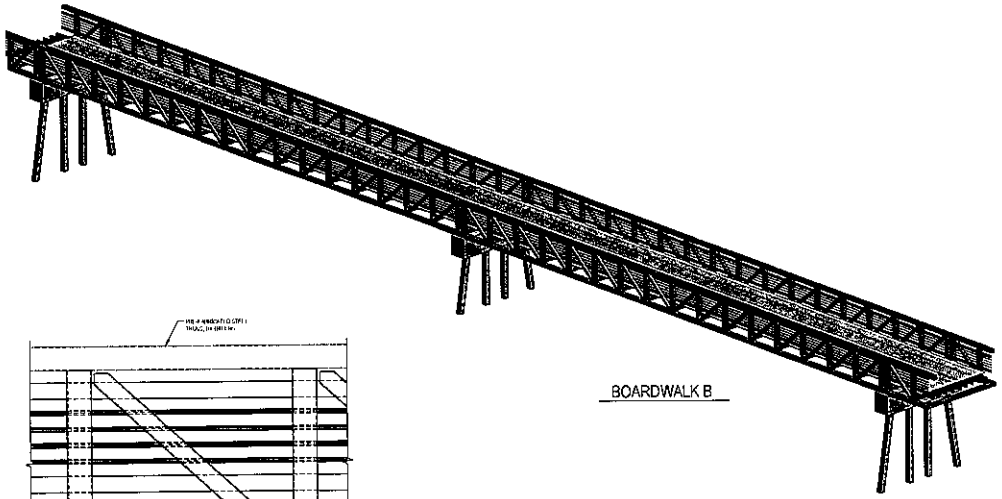
C1 RAIING DETAIL



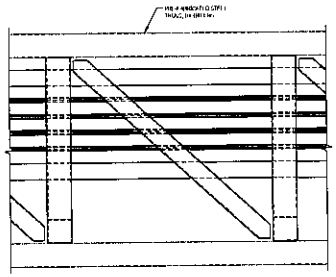
C2 ELEVATION



A1 SECTION



BOARDWALK B



A3 TYPICAL RAILING ELEVATION

GRAEF
1150 SPRINGHURST DRIVE
SUITE 201
GREEN BAY, WI 54304
920 / 592 9440
www.graef-usa.com

PROJECT TITLE
FOX RIVER
PEDESTRIAN BRIDGE
CROSSING STUDY

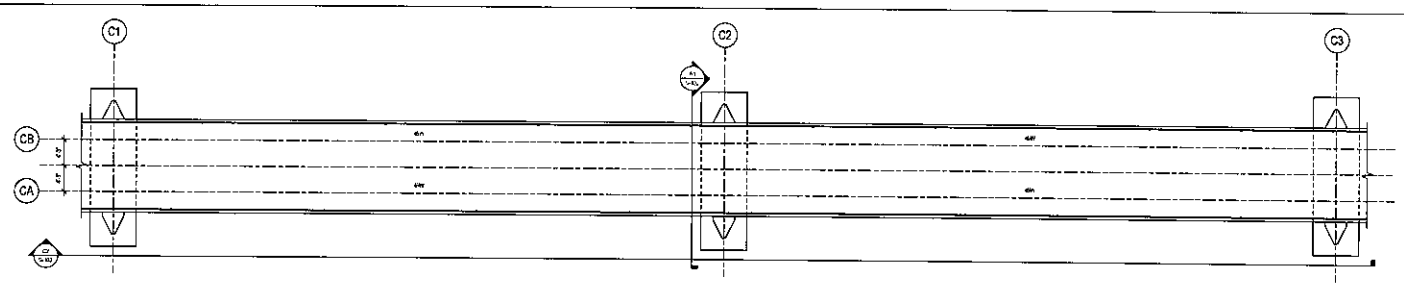
PROJECT STATUS
NOT FOR
CONSTRUCTION

NUMBER	DATE	DESCRIPTION

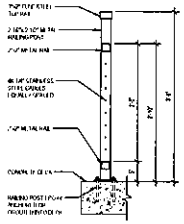
SHEET DESIGNATION
PROJECT NUMBER 20162052.00
DATE 10/11/2016
DRAWN AMZ
DESIGN DIV JSR
APPROVED DIV JSR
SCALE AS NOTED

SHEET TITLE
BOARDWALK B

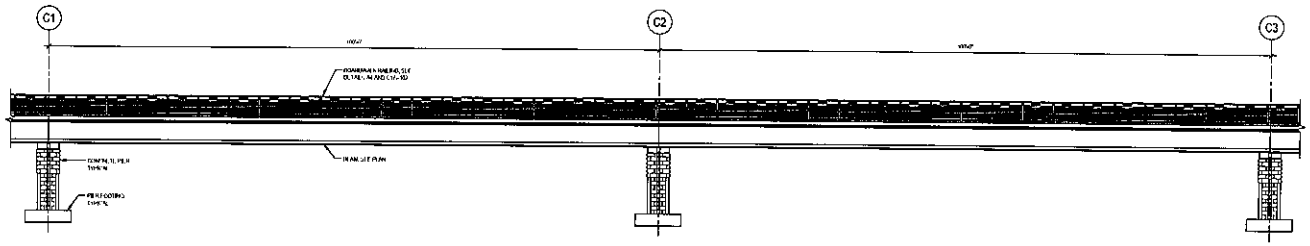
SHEET NUMBER
S-101



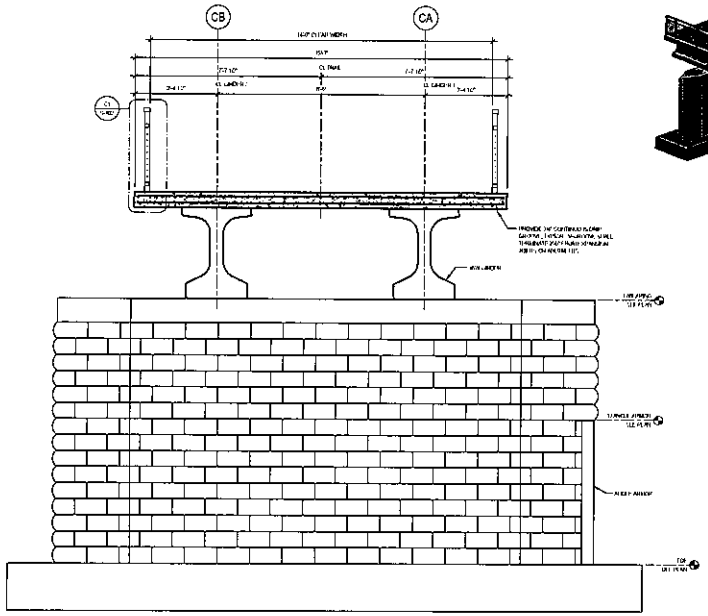
D2 PLAN



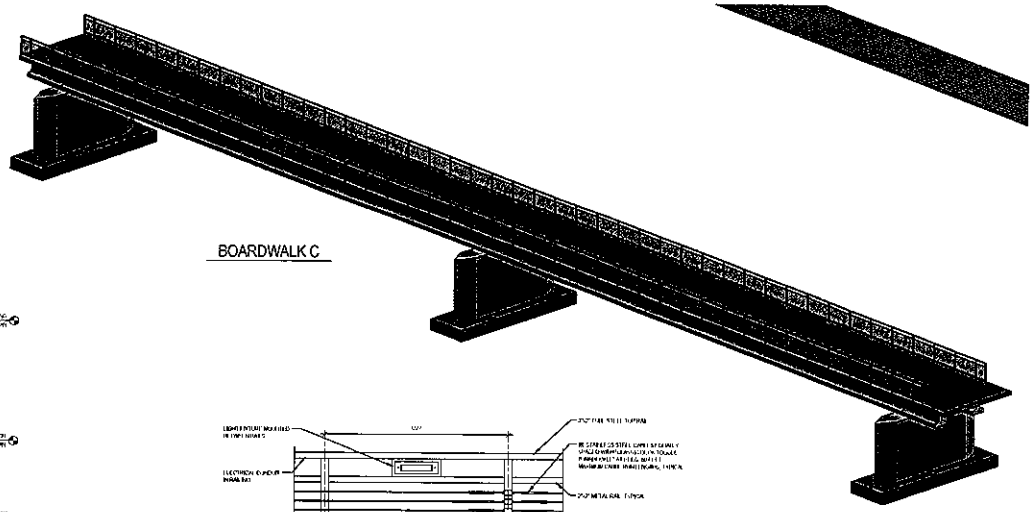
C1 RAILING DETAIL



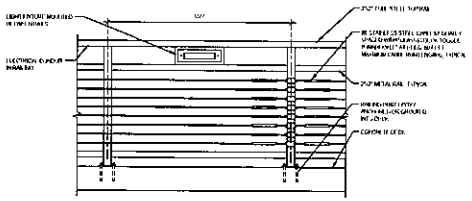
C2 ELEVATION



A1 SECTION



BOARDWALK C



A4 TYPICAL RAILING ELEVATION

GRAEF
1150 SPRINGHURST DRIVE
SUITE 201
GREEN BAY, WI 54304
920 / 592 9440
www.graef-usa.com

PROJECT TITLE
FOX RIVER PEDESTRIAN BRIDGE CROSSING STUDY

PROJECT STATUS
NOT FOR CONSTRUCTION

SHEET RE-ISSUE DATE	
PROJECT NUMBER	70162052.00
DATE	10/11/2016
DESIGNED	AMZ
DRAWN BY	JSR
REVIEWED BY	JSR
SCALE	AS NOTED

SHEET TITLE
BOARDWALK C

SHEET NUMBER
S-102

APPENDIX D

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS

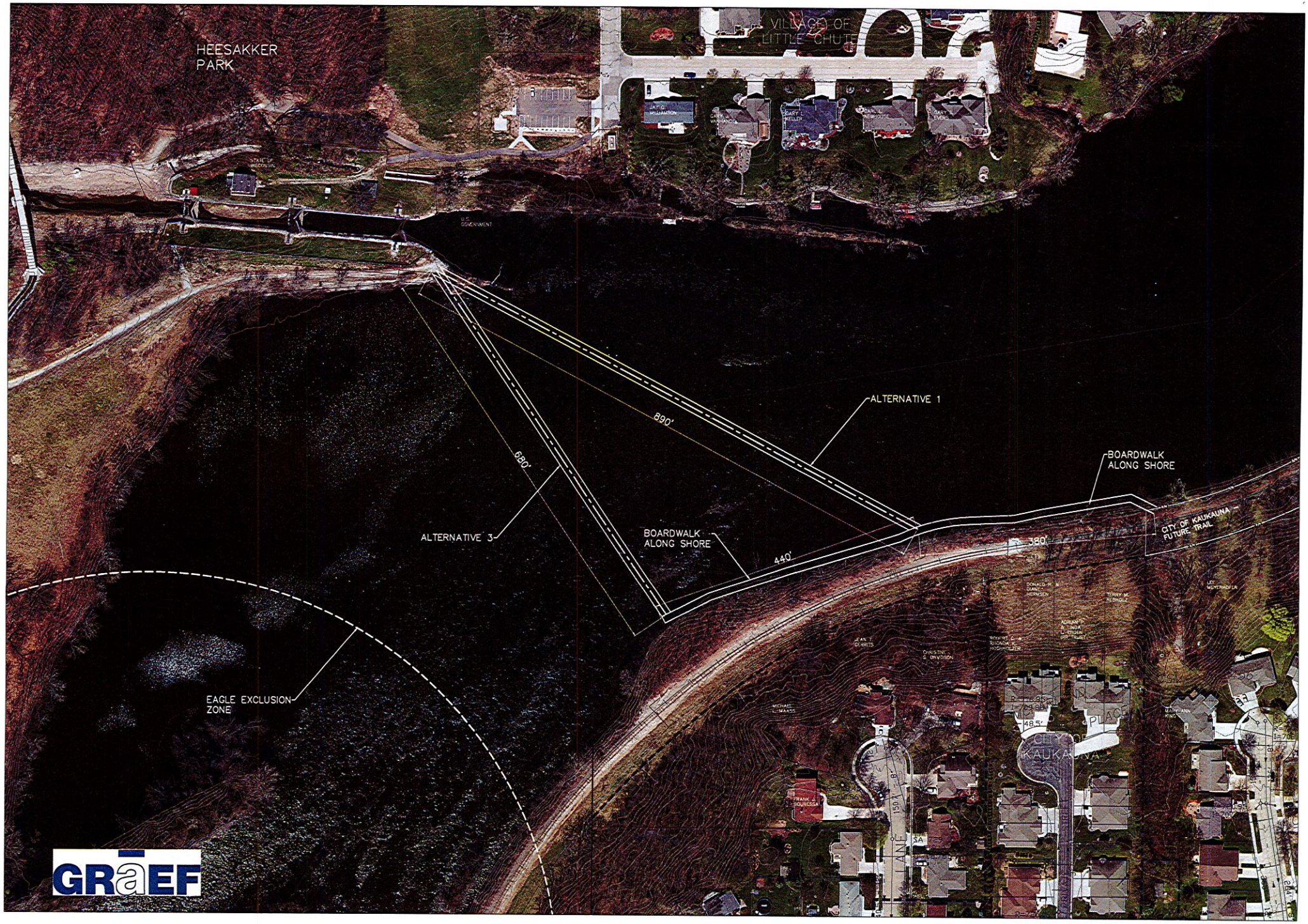
Fox River Multi-Modal Bridge Crossings Feasibility Study
Kaukauna/Little Chute Crossing Location
Engineer's Opinion of Probable Construction Costs
3/15/2017

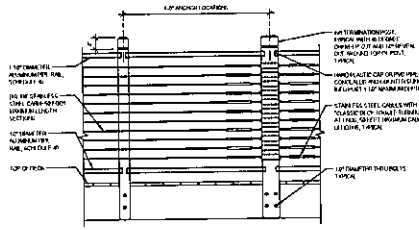
	Alternative 1	
	Length = 890ft Main Span, 380ft Shoreline Boardwalk	
	Structure A - Steel Girder	Structure B - Truss
Structure Cost	$ 712,000.00	$ 1,068,000.00
Shoreline Boardwalk	$ 324,900.00	$ 324,900.00
Pile Bent Piers	$ 225,000.00	$ 135,000.00
Railing	$ 178,000.00	
Lighting	$ 135,000.00	$ 135,000.00
Abutments	$ 50,000.00	$ 50,000.00
Approach Work	$ 16,000.00	$ 16,000.00
SUBTOTAL	$ 1,640,900.00	$ 1,728,900.00
Geotech/Environmental Studies	$ 70,000.00	$ 70,000.00
Contaminated Soil Handling	$ 50,000.00	$ 50,000.00
Construction Mobilization	$ 200,000.00	$ 200,000.00
Engineering/Delivery (15%)	$ 246,135.00	$ 259,335.00
Contingency (15%)	$ 246,135.00	$ 259,335.00
TOTAL	$ 2,453,170.00	$ 2,567,570.00

	Alternative 3	
	Length =680ft Main Span, 820ft Shoreline Boardwalk	
	Structure A - Steel Girder	Structure B - Truss
Structure Cost	$ 544,000.00	$ 816,000.00
Shoreline Boardwalk	$ 701,100.00	$ 701,100.00
Pile Bent Piers	$ 180,000.00	$ 105,000.00
Railing	$ 136,000.00	
Lighting	$ 155,000.00	$ 155,000.00
Abutments	$ 50,000.00	$ 50,000.00
Approach Work	$ 16,000.00	$ 16,000.00
SUBTOTAL	$ 1,782,100.00	$ 1,843,100.00
Geotech/Environmental Studies	$ 70,000.00	$ 70,000.00
Contaminated Soil Handling	$ 50,000.00	$ 50,000.00
Construction Mobilization	$ 200,000.00	$ 200,000.00
Engineering/Delivery (15%)	$ 267,315.00	$ 276,465.00
Contingency (15%)	$ 267,315.00	$ 276,465.00
TOTAL	$ 2,636,730.00	$ 2,716,030.00

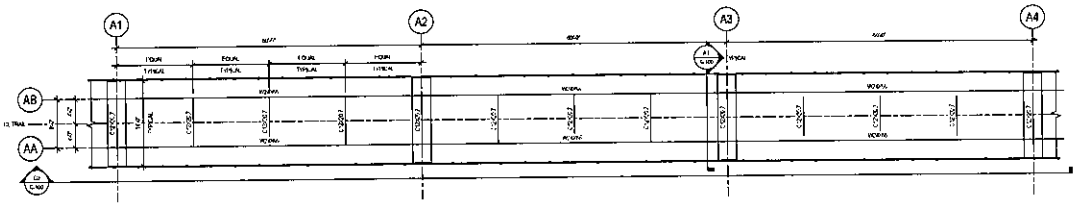
APPENDIX E

FINAL ALIGNMENT ALTERNATIVES AND PREFERRED BRIDGE STYLES/FEATURES

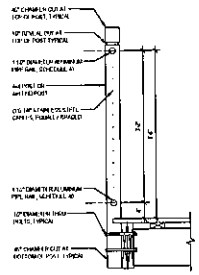

HEESAKKER PARK
VILLAGE OF LITTLE CHUTE
ALTERNATIVE 1
890'
680'
ALTERNATIVE 3
BOARDWALK ALONG SHORE
440'
380'
BOARDWALK ALONG SHORE
CITY OF KAUKAUNA FUTURE TRAIL
EAGLE EXCLUSION ZONE
GRAEF



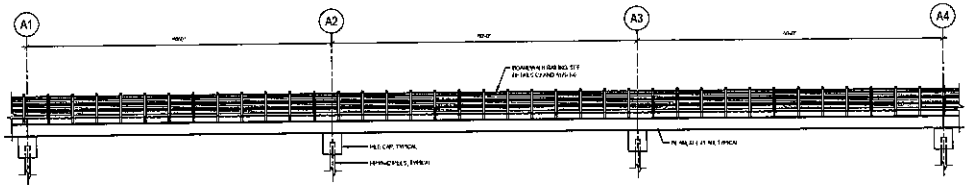
D1 TYPICAL RAILING ELEVATION



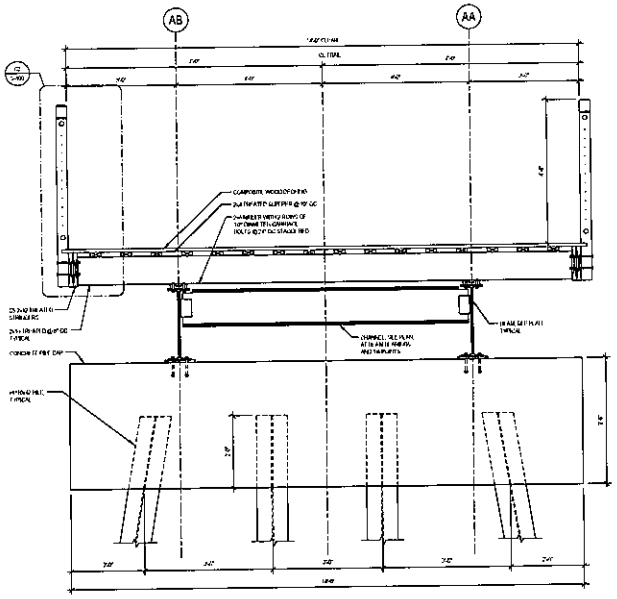
D3 PLAN



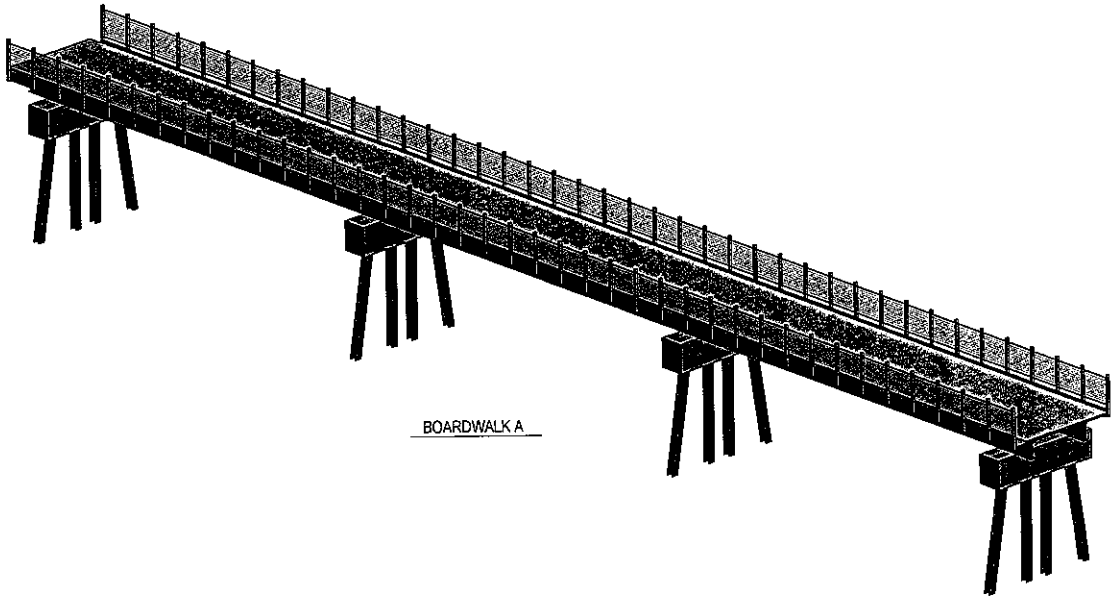
C2 RAILING DETAIL



C3 ELEVATION



A1 SECTION



BOARDWALK A

GRAEF
1150 SPRINGHURST DRIVE
SUITE 201
GREEN BAY, WI 54304
920.593.9400
www.graef-usa.com

PROJECT TITLE
FOX RIVER PEDESTRIAN BRIDGE CROSSING STUDY

PROJECT STATUS
NOT FOR CONSTRUCTION

REVISIONS
NUMBER DATE DESCRIPTION

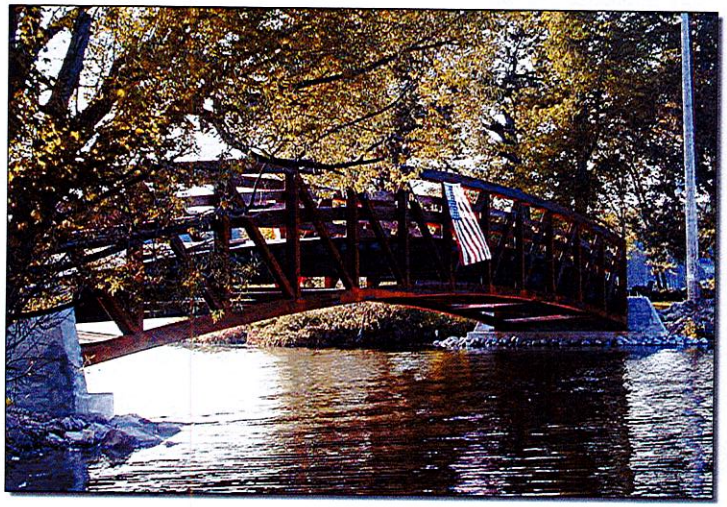
SHEET NUMBER 20162052.00
DATE 10/11/2016
DRAWN BY AMZ
DESIGN BY JSR
APPROVED BY JSR
SCALE AS NOTED

SHEET TITLE
BOARDWALK A

SHEET NUMBER
S-100

Bridge Style

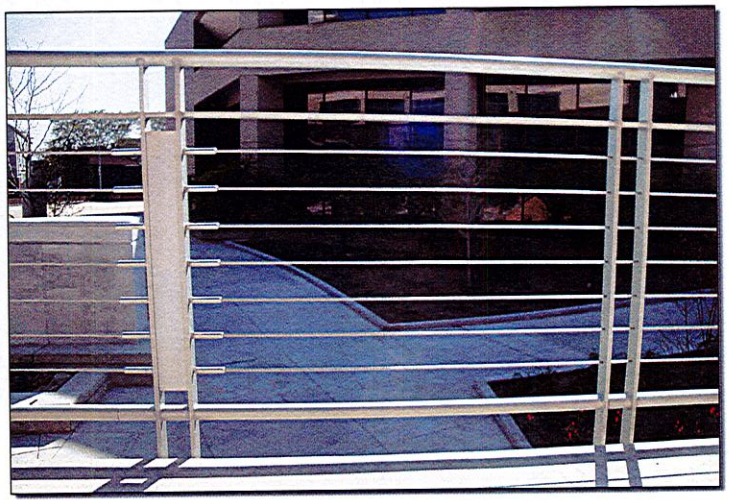
Truss Bridge



Steel Girder Bridge

Rub Rail

Steel Post and Steel Cable Railing



Composite Decking

FOX RIVER BOARDWALK

Kaukauna - Little Chute, WI

January 10, 2017

GRAEF

Kaukauna

Village of Little Chute

Metal Bench

Wood Bench

Rounded Bump Out/ ADA Accessible

FOX RIVER BOARDWALK

Kaukauna - Little Chute, WI

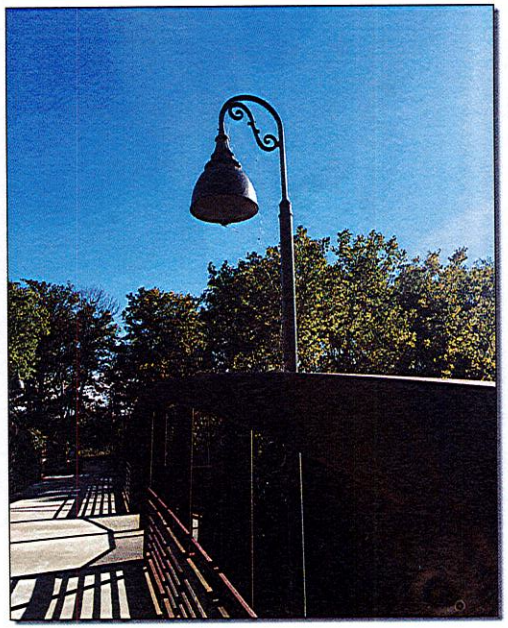
January 10, 2017

GRāEF

Kaukauna

Village of Little Chute

Decorative Pole/Fixture Lighting



Wash Lighting