## **Greg Minikel**

From:

Dan Brellen < DBrellen@mcmgrp.com>

Sent:

Thursday, March 28, 2019 1:02 PM

To:

Greg Minikel

Subject:

RE: Proposal for Abutment Design for a Pedestrian Bridge

Follow Up Flag:

Follow up

Flag Status:

Flagged

Greg,

The foundation system will depend on the results of the geotech review. Switching from a concrete deck to a wood deck would help with the overall weight, but that switch alone would not be enough to swing from a pile foundation to a shallow foundation.

I don't have a good gauge on the piling costs for this type of a bridge, as there are a lot of variables at play. It would not surprise me if the pile foundation costs were similar to the bridge costs, though.

Please let me know if there's anything else you need at this time. Thanks.

Best Regards,

Daniel J. Brellen, P.E., LEED® AP

ASSOCIATE / STRUCTURAL ENGINEER

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From: Greg Minikel [mailto:gminikel@manitowoc.org]

Sent: Monday, March 25, 2019 12:01 PM

To: Dan Brellen

Cc: Paul Benedict; Dan Koski; Curtis Hall; Mike Zimmer; Gary Rosenbeck; Sharon Koehler

Subject: RE: Proposal for Abutment Design for a Pedestrian Bridge

Hi Dan,

Yes, we did move forward with soil borings. PSI was here last week Thursday and Friday and have completed the soil borings.

Hopefully, we will have a report from them within the next 2 weeks.

If the bearing capacity of the soil is not great would it help at all to eliminate the concrete deck on the bridge and go back to a traditional treated wood or some other lighter weight deck material?? Or will piling be required regardless of the added weight??

I did some rough calculations for the concrete deck and the concrete deck (approx. 50,000 - 60,000 pounds) will weigh more than the entire bridge which is in the range of 35,000 pounds.

Do you have any round numbers on what a pile foundation would cost compared to the normal spread footing??? Are we talking more cost for the pilings than the bridge itself??

I guess I will touch base with you after we get the soils report back. Thanks.

From: Dan Brellen [mailto:DBrellen@mcmgrp.com]

Sent: Thursday, March 21, 2019 6:37 AM

To: Greg Minikel

Cc: Paul Benedict; Dan Koski; Curtis Hall; Mike Zimmer; Gary Rosenbeck; Sharon Koehler

Subject: RE: Proposal for Abutment Design for a Pedestrian Bridge

Greg,

Just wanted to check back in on this project. Did you decide to move forward with obtaining new soil borings?

Also, attached our proposal for the design of the bridge foundations. Our thought was to hold off on this until we knew which way the foundations would be going – shallow conventional foundations vs piling. However, at this time we'd like to at least get this into your hands.

Please feel free to give me a call to discuss anything here. Thanks.

Best Regards,

Daniel J. Brellen, P.E., LEED® AP

ASSOCIATE / STRUCTURAL ENGINEER



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From: Greg Minikel [mailto:gminikel@manitowoc.org]

Sent: Tuesday, February 26, 2019 10:46 AM

To: Gary Rosenbeck; Dan Brellen

Cc: Paul Benedict; Dan Koski; Curtis Hall; Mike Zimmer

Subject: RE: Proposal for Abutment Design for a Pedestrian Bridge

Hi Gary,

Did you happen to find the soil boring logs?

I have a proposal in hand for new soil borings, but I do not want to sign the agreement if we have soils information that will work for us.

The drillers are very busy and a month out, so it would just save a lot of time if we have the old borings. Thanks.

From: Gary Rosenbeck [mailto:GRosenbeck@mcmgrp.com]

Sent: Friday, February 22, 2019 9:58 AM

To: Greg Minikel; Dan Brellen

Cc: Paul Benedict; Dan Koski; Curtis Hall; Mike Zimmer

Subject: RE: Proposal for Abutment Design for a Pedestrian Bridge

Greg

I do have the original soil boring logs. I will look to see if there are any in this area.

Gary

From: Greg Minikel [mailto:gminikel@manitowoc.org]

Sent: Friday, February 22, 2019 9:47 AM

To: Dan Brellen

**Cc:** Paul Benedict; Gary Rosenbeck; Dan Koski; Curtis Hall; Mike Zimmer **Subject:** RE: Proposal for Abutment Design for a Pedestrian Bridge

Hi Dan,

We would just want structural services.

I am in the process of trying to get new soil borings completed. Since, you are questioning if deep steel piles might be needed, should we be looking at drilling at least one boring to bedrock or refusal??

When I reviewed old aerial photos from 1986 (prior to the 1991 bridge reconstruction), it appears that the area where the new abutment would be placed on the south side of the river was actually in the water and must have been filled in during the bridge replacement project.

Does Gary remember if the CBCWA ever had soil borings from this area?? If so, would those work for designing these abutments??

How long will the analysis take once we get you the soil boring information.

Our Committee wants the bridge up by Memorial Day and I do not see us meeting that timeline right now. Perhaps, the  $4^{th}$  of July is more realistic.

From: Dan Brellen [mailto:DBrellen@mcmgrp.com]

Sent: Friday, February 15, 2019 1:05 PM

To: Greg Minikel

Cc: Paul Benedict; Gary Rosenbeck

Subject: RE: Proposal for Abutment Design for a Pedestrian Bridge

Greg,

I will be pulling together our services for this project. We have designed several foundations for these Contechstyle bridges, so I am familiar with what will be needed here. Are you looking for just structural services, or are you looking for other items as well (i.e. site plans)?

Also, the foundations for this type of bridge could be either shallow conventional footings or deep steel piles. The shallow footings would be the more economical and quicker option. However, since this new pedestrian bridge would be close to the existing bridge, and also close to the lakeshore, shallow foundations may not be practical. If piles are required, new soil borings will be necessary for the design review.

Please feel free to give me a call to discuss anything here. Thanks.

Best Regards,

Daniel J. Brellen, P.E., LEED® AP

ASSOCIATE / STRUCTURAL ENGINEER

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From: Paul Benedict

Sent: Friday, February 15, 2019 8:45 AM

To: Dan Brellen

Subject: FW: Proposal for Abutment Design for a Pedestrian Bridge

From: Gary Rosenbeck

Sent: Friday, February 15, 2019 8:43 AM

To: Greg Minikel; Paul Benedict

Cc: Dan Koski; Curtis Hall; Chad Scheinoha; Mike Zimmer

Subject: Re: Proposal for Abutment Design for a Pedestrian Bridge

Greg

We will have someone in Our structural Dept in contact with you.

Gary

Sent from my iPhone

On Feb 13, 2019, at 3:07 PM, Greg Minikel <gminikel@manitowoc.org> wrote:

#### Hi Gary:

We need to get a pedestrian bridge built along Maritime Drive (for Mariners Trail) over the Little Manitowoc River by Memorial Day.

Since McMahon has a lot of knowledge on the CBCWA pipeline, I thought it would be a good idea to have you guys get involved with this project. I believe that the CBCWA may need to give us approval to have this bridge adjacent to the pipeline.

I am looking at ordering a 100 foot long, 10 feet wide Continental Keystone Bridge from Contech.

We plan to install a 6 inch thick concrete for the deck surface.

We have not done any soil borings at the exact location of the abutments. Do we have to get them first??

I have attached the old soil borings from the 1991 bridge construction. I thought that the CBCWA did soil borings here, but I am not sure if I can find them anymore.

I know that you are probably not the structural designer, but could you get this information to the appropriate person, so that McMahon can get us a proposal to design the footings/abutments for this bridge??

How long would it take to get this designed for us??

Let me know if you have any other questions. Thanks.

## Greg Minikel, P.E.

Engineering Division Manager Dept. of Public Infrastructure City of Manitowoc 900 Quay Street Manitowoc, WI 54220 Ph. (920) 686-6910

Cell: (920) 374-0411

E-mail: gminikel@manitowoc.org

<100' X 10' Prelim Drawing 10-03-18.pdf>

<Aerial Photo of Proposed Bridge Location on Mariners Trail over the Little Mtwc. River.pdf>

<201902081420.pdf>

<Maritime Dr. Bridge Over Little Manitowoc River - Soil Boring Page and Hydraulic Data Page.pdf>

<Proposed Pedestrian Bridge for Mariners Trail over the Little Manitowoc River.pdf>

<CAM02400.ipg>

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