From: [redacted]
To: [redacted]m
Subject: Section 106 Consulting Parties Meeting #5 for the Proposed Bridge Replacement at Mile 1315.0 on the Missouri River near Bismarck/Mandan, North Dakota (ND SHPO Reference 16-0636)
Date: Saturday, July 21, 2018 11:49:03 AM
Attachments: W_ChannelModification_Exhibit_1.pdf
River Stage Table by Alternate and FEMA BFE text.docx
W_ChannelModification_Exhibit_2_R1.pdf
draft Agenda.docx
1315.0 MOR alternative poster final.pdf
RiprapExhibit_3.pdf
BNSF Bismarck Bridge examples.pdf

Good afternoon,

In compliance with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. 306108), as amended (NHPA), the United States Coast Guard (USCG) invites you to participate in continuing consultation on the above-referenced project. The USCG has designated BNSF's consultant, CH2M/Jacobs, to contact parties on their behalf for the purposes of Section 106. In that role, we are contacting you regarding the proposed undertaking and upcoming Consulting Parties meeting.

As an identified Consulting Party, the USCG invites you to attend a Section 106 consulting parties meeting via teleconference on Wednesday, August 1, 2018 from 2:00 – 4:00 pm Central Time. Attached is a draft agenda for the meeting. If you plan to join the teleconference and would like to submit additional agenda items, please accept this invitation and respond by contacting:

Mrs. Aimee Ross Angel, Cultural Resources Specialist, CH2M/Jacobs, via telephone: ([redacted], or email: [redacted]

We are working with the USCG to find a way to have video capability. If we can identify a suitable video application, we will update you with that information next week.

The transcript from the last meeting is being prepared and we will share that document as soon as it is complete.

Other attachments are meeting materials:

- W_ChannelModification_Exhibit_1
- W_ChannelModification_Exhibit_2_R1
- RiprapExhibit_3
- River Stage Table by Alternate and FEMA BFE text
- 1315.0 MOR alternative poster final
- Other Bridge Examples

We look forward to your response and to continuing consultation with you on this undertaking. Should you have any questions, please contact Mrs. Aimee Angel, CH2M/Jacobs or Mr. Rob McCaskey, USCG, via email at [redacted] or by phone at [redacted].

Sincerely,
Aimee Angel

Aimee Ross Angel, MHP| Jacobs | Cultural Resources Specialist | Aerospace, Technology,Environmental, & Nuclear | + [redacted] direct | + 0[redacted] mobile | a[redacted] | www.jacobs.com

Proposed Bridge Replacement at Mile 1315.0 on the Missouri River near Bismarck/Mandan, North Dakota (ND SHPO Reference 16-0636)

Section 106 Consulting Parties Meeting Agenda #5

Wednesday, August 1, 2018 at 2:00 pm CST

866-203-7023; PIN 5093-167-060 (meeting will be recorded via conference line)

1. Roll-Call/Introductions
2. Minutes from Meeting 4
3. New Business
    a. Discussion of other bridges converted to pedestrian use – FORB asks: How have other historic bridges adjacent to "in use" rail lines worked out public access and other issues? Visuals requested.
        i. Louisville Big Four Bridge (pedestrian only) https://louisvillewaterfront.com/explore-the-park/features/big-4-bridge/
        ii. Walkway over the Hudson (pedestrian only) https://hikethehudsonvalley.com/hikes/walkway-over-the-hudson/
        iii. Walnut Street Pedestrian Bridge, Chattanooga (pedestrian only) https://www.chattanoogafun.com/listing/walnut-street-pedestrian-bridge/2485/
        iv. Big River Bridge, Memphis/West Memphis – UPRR bridge built for autos and trains; auto lanes converted to pedestrian path. http://www.bigrivercrossing.com/about/
        v. Steel Bridge, Portland, OR – double deck bridge (upper is autos and light rail; lower is train) lower deck pedestrian walkway added in 2001 adjacent to rail line. http://historicbridges.org/bridges/browser/?bridgebrowser=oregon/steelbridge/
        vi. Appalachian Trail/CSX - Potomac River Bridge – Harper's Ferry, WV. Rail with adjacent walkway. https://bridgehunter.com/wv/jefferson/old-csx-railroad/
        vii. Cherry Avenue Swing Bridge, Cook County, IL. Small bridge that allows both pedestrian and train use. https://bridgehunter.com/il/cook/cherry-avenue/
        viii. Schuylkill River Bridge, Schuylkill and Berks counties, PA. Small rail bridge with adjacent pedestrian bridge for Appalachian trail. https://bridgehunter.com/pa/schuylkill/bh69097/
        ix. New River bridge, Thurmond, WV. Rail bridge with adjacent auto bridge that accommodates pedestrians. Abandoned town and very limited rail traffic. https://bridgehunter.com/wv/fayette/10A126/
        x. White River Greenway, Noblesville, IN – bridge built next to small, mostly inactive "Nickel Plate" Railroad. N&W rail line abandoned in 1991. Purchased by cities in 1995, County became a joint owner in 2006. Until 2015, the Indiana Transportation Museum provided passenger excursion train service over portions of the Line. Cities/County petitioned to remove the rails in 2017 to convert it to ped trail only.

https://www.stb.gov/Decisions/readingroom.nsf/WEBUNID/08FEBF86E10B020E8525829E0049F433?OpenDocument

xi. Riverbluff Walkway, Memphis, TN – adjacent to MATA Trolley's Riverfront Loop

xii. Blackstone River Greenway, RI - trail parallels the active (Class II) Providence & Worcester Railroad, sharing a bridge across the river in Albion, RI

xiii. Other Bridges - Historic Bridge Foundation - https://www.railstotrails.org/resource-library/resources/americas-rails-with-trails/

4. Old Business

a. Responses for additional information

i. Follow up on history of northern location for BNSF rail line

ii. Follow up on contact for Missouri River Natural Area

iii. Hand out on Other Alternatives and Purpose and Need

b. FEMA requirement of no additional structure impact

i. Follow up on river stages and FEMA regulations (see hand out)

ii. Scour abatement and necessary channel modifications to ensure no impact to the floodway/flood plain. (see handouts)

c. Other Alternatives

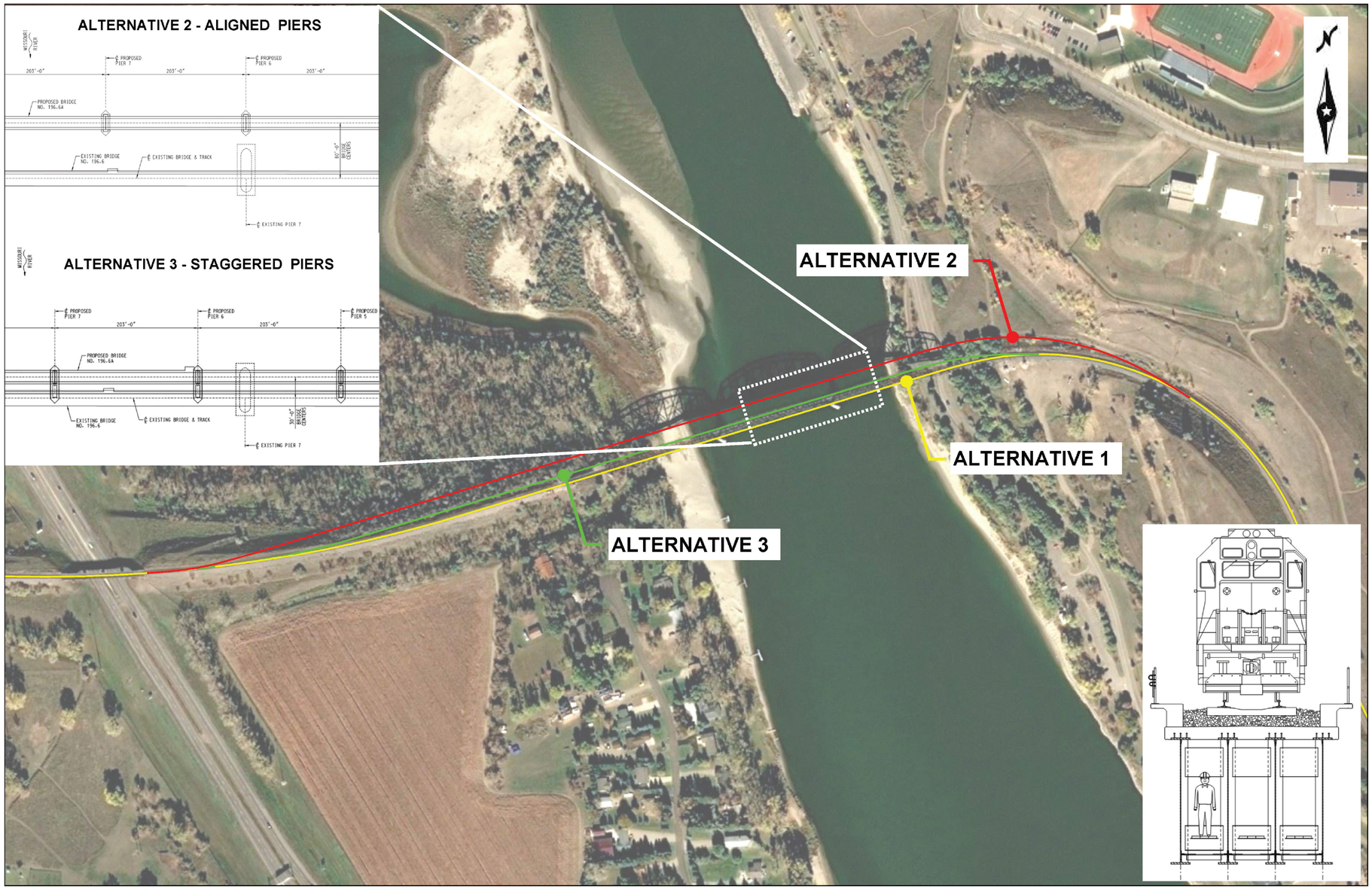
i. FORB asks: Start the discussion of a design in which the existing bridge is preserved and the new rail bridge is built.

d. Input from municipalities

Next Scheduled Meetings:

- August 22
- September 12
- October 3
- October 24
- November 14
- December 5

Project Alternatives



Purpose and Need:

- Provide a robust, dependable, and safe railway crossing
- Provide potential for future expansion
- Minimize impacts to river performance and the environment

Project Alternatives:

- **Alternative 1:** Maintain existing structure (No Action)
- **Alternative 2:** New bridge on new alignment 80' north of existing
  - 200' spans with structural members below the track
  - New piers aligned with the existing
  - Existing bridge remains
- **Alternative 3:** New bridge on new alignment 30' north of existing
  - 200' spans with structural members below the track
  - New piers staggered relative to the existing
  - Existing bridge to be removed

Alternatives Analysis:

- Provide a robust, dependable, and safe railway crossing
  - Structural characteristics and maintenance requirements
  - Impacts to railroad operations
  - Construction cost
- Provide potential for future expansion
  - Construction cost
  - Structural characteristics
- Minimize impacts to river performance and the environment
  - Impacts to river hydraulics
  - Impacts to river navigation
  - Risk of ice jams
  - Scope of bridge approach civil works
  - Requirements for right-of-way acquisition

Analysis Outcome:

- **Alternative 3** satisfies the purpose and need with the lowest level of impacts and is therefore the proposer's preferred alternative.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Measurement Result
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UP 9034 1
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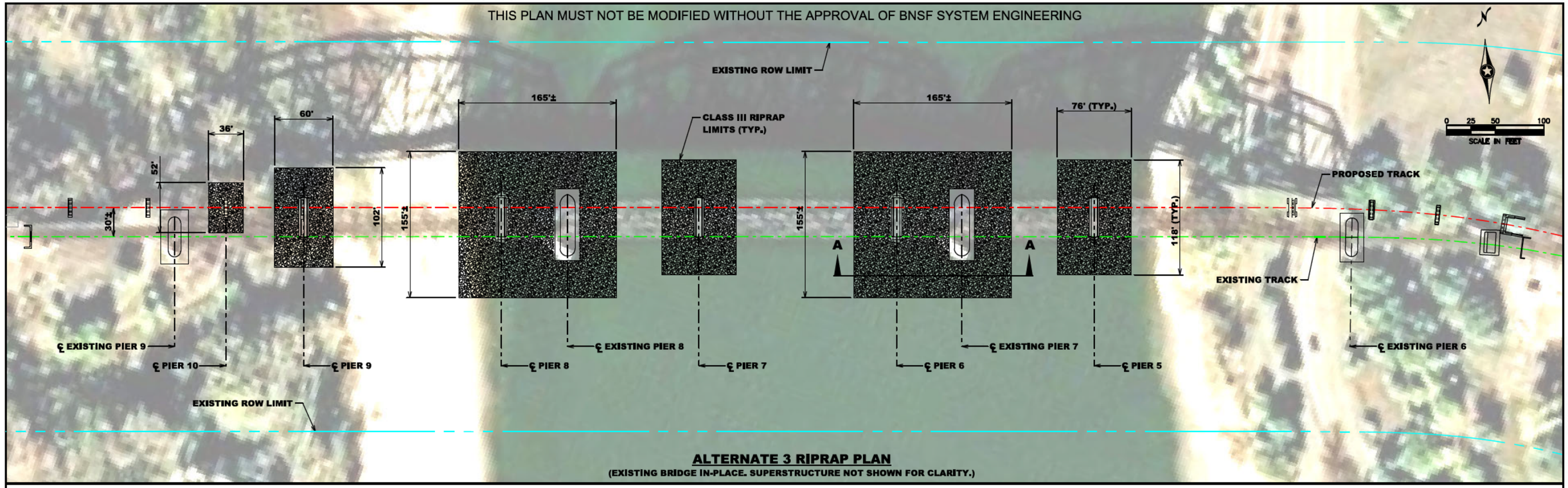
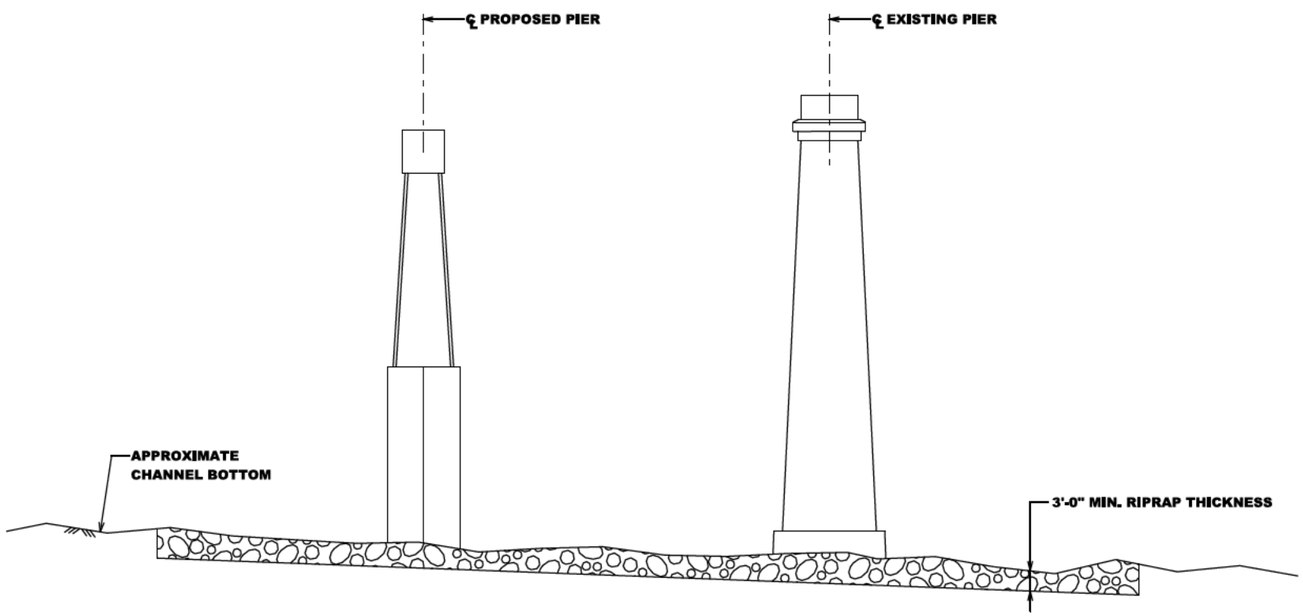
THIS PLAN MUST NOT BE MODIFIED WITHOUT THE APPROVAL OF BNSF SYSTEM ENGINEERING



ALTERNATE 3 RIPRAP PLAN
(EXISTING BRIDGE IN-PLACE. SUPERSTRUCTURE NOT SHOWN FOR CLARITY.)



SECTION A-A
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NO.	DATE	BY	DESCRIPTION OF REVISIONS

TKDA
444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DES:	DRW:	CHK:
DATE:	AFE NO.:	

VERIFY SCALES 0 1
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS DRAWING
ADJUST SCALES ACCORDINGLY

BNSF RAILWAY

BNSF RAILWAY COMPANY
BRIDGE NO 196.6A GRADING PLAN
BISMARCK, ND (MP 196.38 - MP 197.20)

ALTERNATE 3 RIPRAP PLAN WITH EXISTING BRIDGE IN-PLACE

COMM. NO. 15955.000
DRAWING NO.

Alternate	Existing Bridge	River Stage Increase (ft)	Upstream Reach of Stage Increase (Miles)	Impacted Structures
1 - Do Nothing	Unchanged	0.00	0	0
2 - New Bridge on Alignment 80' North of Existing	Unchanged	0.02	8 ±	500 ±
3.1 - New Bridge on Alignment 30' North of Existing	Unchanged	0.03	10 ±	550 ±
3.2 - New Bridge on Alignment 30' North of Existing	Removed	0.00	0	0

Text from Meeting 3 transcript addressing FEMA's rules regarding Base Flood Elevation rise (highlights added to the most relevant text):

Henry Poburka/FEMA consultant: In terms of this conditional letter of map change (CLOMR) process, FEMA and NFIP regulation 65.12 states that any project that occurs within a floodway can have no rise with any other structure. …So if the pre-project to post-project comparison shows increases, even if a house is already in the floodplain, if the Base Flood Elevation rises that is considered a negative impact.

FEMA is not specifically permitting this structure, it is not saying that it will be done, it's just saying, if done in this way, these are the impacts that we expect. FEMA is not responsible for any of the permitting or any of the local regulations….So, in order for FEMA to issue a determination on a conditional letter of map change (CLOMR), we do need to have it certified that no structure will be negatively impacted, when comparing the pre-project to post-project conditions. So, if the project is within a floodway, that means no rise at all to the BFE – to the Base Flood Elevation. We compare the different analysis for the pre-project and post-project and confirm that statement. And as long as we have the sworn statement, we kind of defer to that as, you know, that's being stood behind. FEMA is largely concerned with the 1 percent annual chance event. So, direct releases from the dam may not be directly related. We expect that the hydrologic analysis that has been done for this has already been FEMA approved and reviewed. This is assuming the same amount of flow is always going through the river at the 1 percent chance event. We're just saying strictly the changes to the structure and any changes to the channel are causing that 0.02 or 0.03 increase.

Rob McCaskey: So when we talk about short-term flood events from snow melt and large rain events like we had six years ago, and when we talk about, maybe, large flow release from the dam, that's not the same thing as a permanent 0.1 percent change in the flood level, isn't that right? Are we talking about, really, kind of two different things?

Henry Poburka: Correct. Generally, those are separate concerns. Flood releases don't typically play into the 1 percent annual chance rain event. Depending on the hydrologic analysis that's been completed on a community by community basis and how the watershed is controlled, it may have been taken into account when the 1 percent event was calculated and determined. But, for the most part, they are separate conditions.

From: Mcbeth, Amy G
To: [redacted]
Subject: [EXTERNAL] FW: BNSF bridge - Missouri River Natural Area
Date: Tuesday, July 31, 2018 6:15:11 PM
Attachments: Statement of Management MRNA.pdf
ATT00001.htm
Scenic Easement Plat.pdf
ATT00002.htm

Here is what we need, I believe, to resolve the Missouri River Natural Area issue…

From: Hanson, Jesse M. [redacted]
Sent: Tuesday, July 31, 2018 5:11 PM
To: Mcbeth, Amy G <redacted>
Subject: Fwd: BNSF bridge - Missouri River Natural Area

Sent from my iPhone

Begin forwarded message:

> **From:** "Gaydos, Mark S." [redacted]
> **To:** "Hanson, Jesse M." <redacted>
> **Cc:** "Henke, Ron J." <redacted>, "Gangl, Larry J." <redacted>, "Fode, Bob A." <redacted>
> **Subject: RE: BNSF bridge - Missouri River Natural Area**
>
> Jesse,
>
> Attached please find the Management Agreement for the Missouri River Natural Area (MRNA). As can be seen by the document the use of the area is very restricted. I have also attached a Scenic Easement Plat that shows the area of the MRNA. If you need a clean plat without markings let me know. The NDDOT still retains ownership of the property and its use is governed by the management agreement.
>
> This land was purchased using federal funds during the construction of the Interstate under the authority of 23 CFR 752.9.
>
> § 752.9 Scenic lands. (a) Acquisition of interests in and improvement of strips of

> land or water areas adjacent to Federal-aid highways may be made as necessary for restoration, preservation, and enhancement of scenic beauty.(b) Scenic strip interests may be acquired in urban or rural areas, combined in one or more projects, authorized separately whether or not there is or has been a Federal-aid project on the adjoining Federal-aid highway.(c) Approval of acquisition and development of scenic strips on completed Interstate should be conditioned on a showing that the acquisition of scenic strips was considered under the Highway Beautification Program for that particular section of Interstate.

It is presumed the property is protected by Section 4(f). The use of a 4(f) property cannot be approved unless a determination is made that there is no feasible and prudent avoidance alternative to the use of land from the property; and the action includes all possible planning to minimize harm to the property, including any measures to minimize harm (such as any avoidance, minimization, mitigation or enhancement measures), committed to by the NDDOT.

I hope this is helpful. I would need to obtain any additional information on the purchase from microfilm files which would take additional time to locate and review. However, the preceding should give a general understanding. The NDDOT and FHWA have considered and denied uses inconsistent with the CFR and management agreement.

If you have further questions please let me know by phone or email.

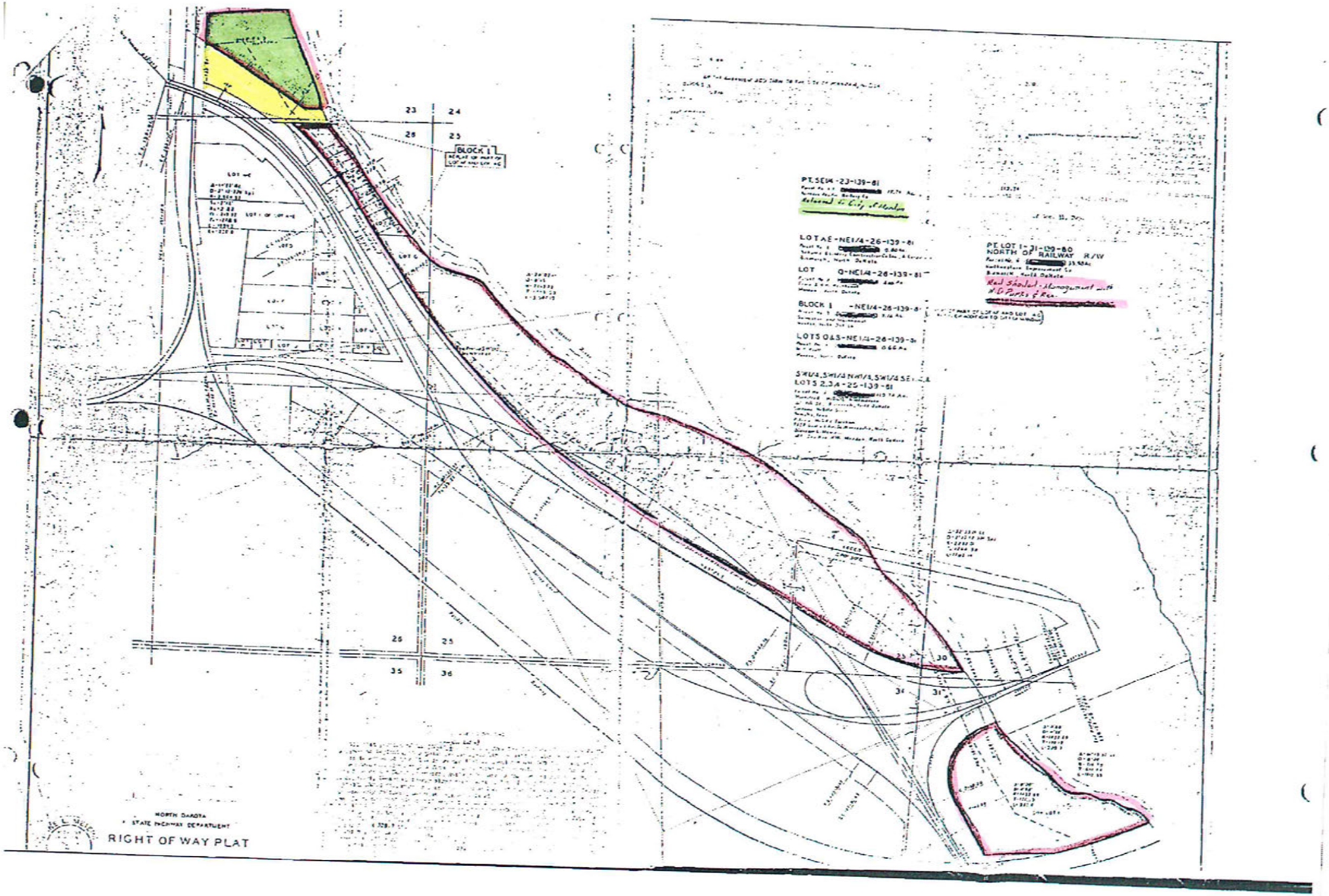
Mark S. Gaydos
Environmental and Transportation Services Division
[redacted]

From: Henke, Ron J.
Sent: Monday, July 23, 2018 3:00 PM
To: Gangl, Larry J. <[redacted]>; Gaydos, Mark S. <[redacted]>
Cc: Hanson, Jesse M. <[redacted]>
Subject: Fwd: BNSF bridge - Missouri River Natural Area

Mark or Larry, can you get in touch with Jesse Hanson on the information that he is looking for.

Thanks

Ron Henke


BLOCK 1
PT. SE¼-23-139-81
LOT A E-NE¼-26-139-81
LOT G-NE¼-26-139-81
BLOCK 1 -NE¼-26-139-81
LOTS 0 & S-NE¼-26-139-81
LOTS 2,3 & 4-25-139-81
PT. LOT 1-31-139-80 NORTH OF RAILWAY R/W
NORTH DAKOTA
STATE HIGHWAY DEPARTMENT
RIGHT OF WAY PLAT

STATEMENT OF MANAGEMENT

I. INTRODUCTION

The Missouri River Natural Area is located on the Morton County side of the Missouri River adjacent to the Grant Marsh Bridge and the Interstate 94 right-of-way. A second parcel of the area is located between the Grant Marsh Bridge and the Burlington Northern Railway Bridge, is also on the Morton County side. Their legal description are:

Lot AE NE¼ Section 26, Township 139N, Range 81W.
Lot Q NE¼ Section 26, Township 139N, Range 81W.
Block 1 NE¼ Section 26, Township 139N, Range 81W.
Lots O & S NE¼ Section 26, Township 139N, Range 81W.
SW¼, SW¼NW¼, SW¼SE¼ and Lots 2,3,4, Section 25, Township 139N, Range 81W.
Part Lot 1 SEction 31, Township 139N, Range 81W.

north of railroad right-of-way. The total area contains 157.34 acres.

The area is currently owned by the North Dakota Highway Department and managed by the North Dakota Parks and Recreation Department. At present, the area is in a natural condition (i.e. no development, no timber cutting, etc.) with some public day use activities occurring.

II. NATURAL RESOURCES

The area is a floodplain dominated by cottonwood. Other common tree species are green ash, boxelder, and willow, with a dense layer of shrubs and tall grasses in the understory. A complete ecological inventory of the area will be made to include plants, animals, geology, and soils as time and funds permit.

Once the inventory has been done, the data will be analyzed. This analysis will determine any specific attention that needs to be given the area (i.d. endangered species, critical habitat, etc.) and also plan for use on the tract so as not to exceed the area's carrying capacity as a natural area.

III. GOALS

The major goal to preserve and protect the area as a natural resource and provide a natural setting for environmental education and the enjoyment of nature in its close proximity to urban development.

IV. ACCESS

A natural area managed for preservation should have limited access. All entrances that would permit vehicular access will be fenced and a designated point of entry for walk-in only will be made. All motorized vehicles will be prohibited on the area

which will include but not be limited to cars, trucks, vans, motorcycles, and snowmobiles. Boats may enter from the river along the length of the area, but no docking or ramping facilities will be provided by the Department; nor will they be allowed to be constructed on the property.

V. OPERATION AND MAINTENANCE

Maintenance of the area will be the responsibility of the North Dakota Parks and Recreation Department.

VI. LAW ENFORCEMENT AND JURISDICTION

Chapter 55-08 of the North Dakota Century Code provides the basis for law enforcement and jurisdiction within the area. Enforcement of the rules and regulations is under the supervision of the park superintendent at Fort Lincoln State Park and the implementation of these rules and regulations is enforced by the park's ranger staff. The jurisdiction of the ranger staff is confined to the boundaries of the area.

VII. HUNTING AND FISHING

No hunting or trapping will be permitted, however, fishing may occur under applicable state rules and regulations.

VIII. RESEARCH

The area will be recognized as a natural outdoor laboratory and data gathering for environmental research will be permitted.

The size of the area for project study and collecting of floral and faunal species as to their kinds and number will be limited. An informal request to the Director of the North Dakota Parks and Recreation Department for collection and study will be obtained prior to the research process. Timber harvesting is prohibited.

IX. VISITOR USE STRUCTURES AND FACILITIES

No improvements will be permitted that are primarily for the comfort and convenience of visitors, such as campground and picnic facilities.

Interpretive trails to promote environmental education may be provided and cooperation with schools, colleges, and other organizations will be encouraged for the purpose of communicating environmental consciousness. Other outdoor activities that do not alter or disturb the environment such as photography, nature observation, hiking, winter use activities, etc., will also be encouraged.

In Witness whereof, I have hereunto set my hand and seal this 24th day of June, 1981.

APPROVED:

Douglas K. Eiken
Director, North Dakota Parks and Recreation Department

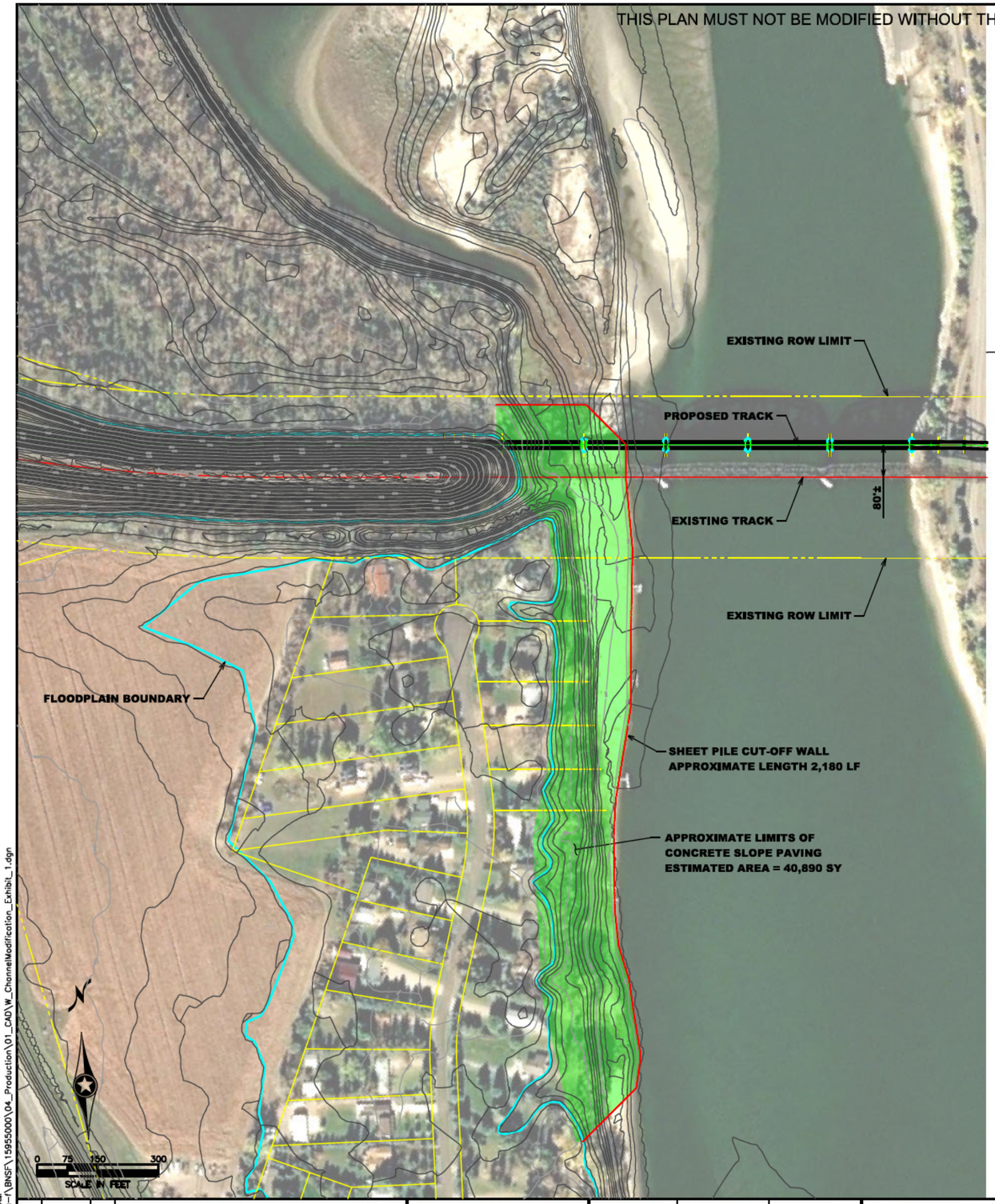
ATTEST:

Karen Moos

Walter N Hall
Commissioner, North Dakota State Highway Department

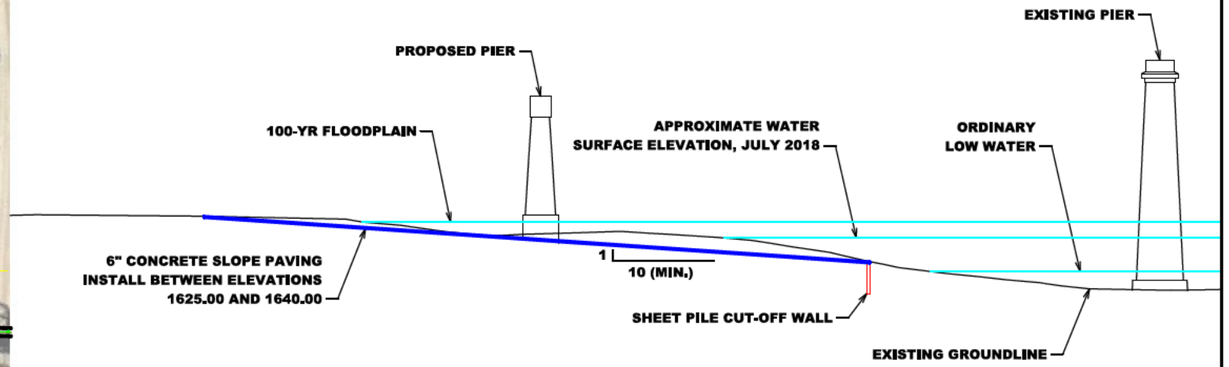
Robert E King

July 81



NOTES:

CHANNEL MODIFICATIONS MUST OCCUR AT THE WEST APPROACH DUE TO THE POTENTIAL FOR EAST APPROACH SLOPE INSTABILITY.



WEST APPROACH PARTIAL ELEVATION @ SOUTH ROW

(IN-PLACE & PROPOSED SUPERSTRUCTURES NOT SHOWN FOR CLARITY.)

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SCALE IN FEET

CONSTRUCTION COST ESTIMATE:

DETERMINE ESTIMATED CONSTRUCTION COST USING NDDOT STANDARD PAY ITEMS FROM 2014 WHERE POSSIBLE. AMPLIFY BY 3% PER YEAR TO ACCOUNT FOR INFLATION. ASSUME 2020 CONSTRUCTION DATE.

ADD 10% FOR MOBILIZATION / DEMOBILIZATION COSTS.

DOES NOT INCLUDE COSTS ASSOCIATED WITH PERMITTING, ROW ACQUISITION, DEWATERING, PROFESSIONAL SERVICES, UTILITY RELOCATIONS OR UNKNOWN CONTINGENCIES.

ESTIMATE OF PROBABLE CONSTRUCTION COST

ITEM NUMBER	PAY ITEM	UNIT	QUANTITY	NDDOT 2014 UNIT PRICE	ANTICIPATED 2020 UNIT PRICE	TOTAL
1	MOBILIZATION (10%)	EACH	1	-	$751,700.00	$751,700.00
2	COMMON EXCAVATION	CY	26,963	$4.30	$5.13	$138,439.31
3	STEEL SHEET PILING (10' EMBEDMENT)	SF	21,800	$44.00	$52.54	$1,145,334.96
4	SLOPE PROTECTION CONCRETE	SY	40,890	$130.50	$155.82	$6,371,636.19
					TOTAL ANTICIPATED CONSTRUCTION COSTS (2020 - ROUNDED)	$ 8,407,100.00

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NO.	DATE	BY	DESCRIPTION OF REVISIONS

TKDA
444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DES: | DRW: | CHK:
DATE: | AFE NO.:

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IF NOT ONE INCH ON THIS DRAWING
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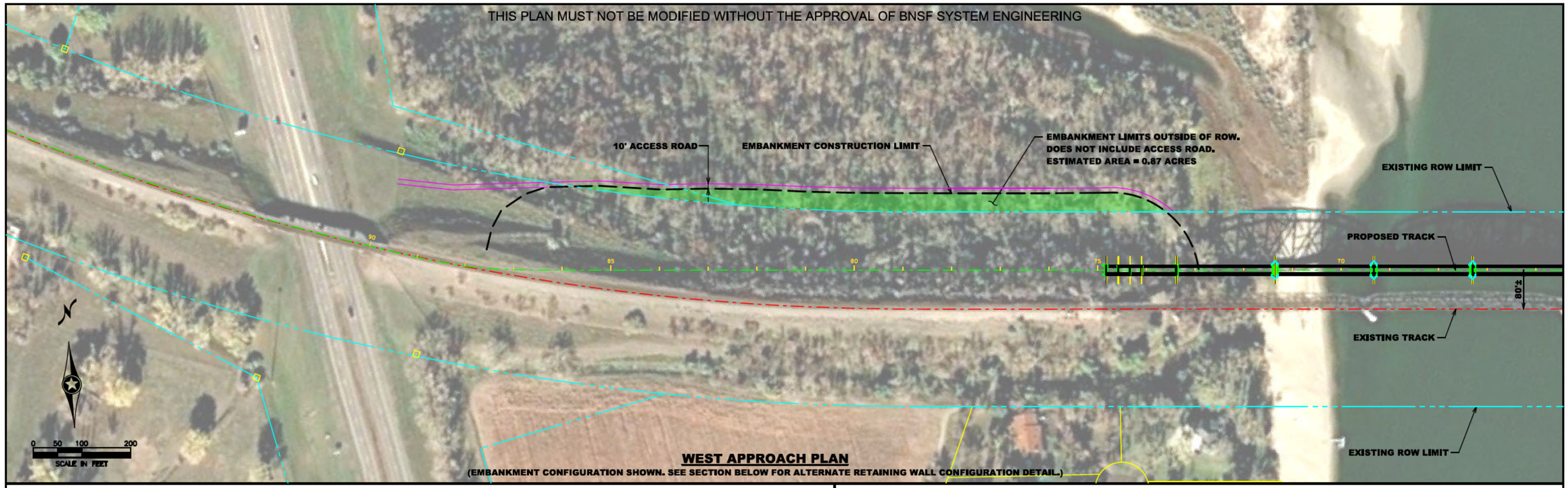
BNSF RAILWAY

BNSF RAILWAY COMPANY
BRIDGE NO 196.6A GRADING PLAN
BISMARCK, ND (MP 196.38 - MP 197.20)

ALTERNATE 2
WEST APPROACH CHANNEL MODIFICATION GRADING

COMM. NO. 15955.000
DRAWING NO.

THIS PLAN MUST NOT BE MODIFIED WITHOUT THE APPROVAL OF BNSF SYSTEM ENGINEERING



WEST APPROACH PLAN

(EMBANKMENT CONFIGURATION SHOWN. SEE SECTION BELOW FOR ALTERNATE RETAINING WALL CONFIGURATION DETAIL.)

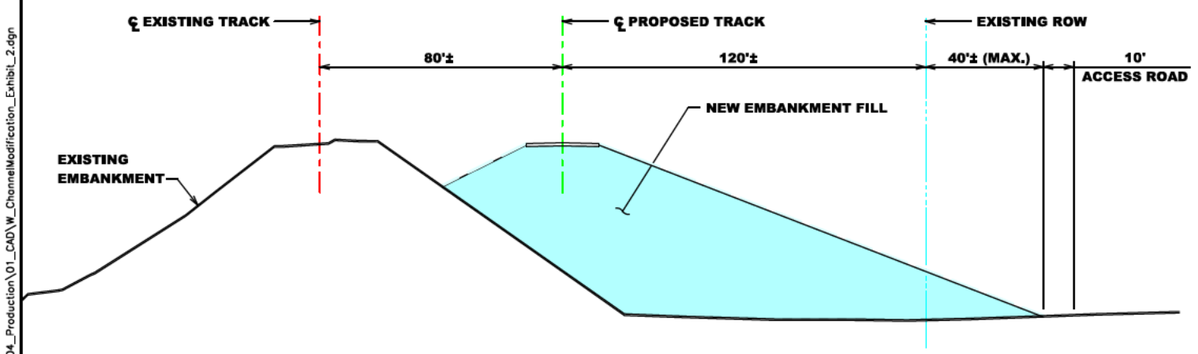
NOTES:

WALL ALIGNMENT SET ~16' INSIDE OF ROW LINE TO KEEP FOOTING EXCAVATION LIMITS ON BNSF PROPERTY.

ANTICIPATED 2020 CONSTRUCTION COST ~$10.4M. DETERMINED USING NDDOT STANDARD PAY ITEMS FROM 2014 AMPLIFIED BY 3% PER YEAR TO ACCOUNT FOR INFLATION.

CONCRETE, REBAR, AND PILING QUANTITIES DETERMINED USING MnDOT STANDARD RETAINING WALL DESIGNS FOR 1(V)¤2(H) SLOPED FILL SECTION. CALCULATED PILING QUANTITIES AMPLIFIED BY 15% TO ACCOUNT FOR RAIL SURCHARGE AND DOWNDRAG LOADS.

CONSTRUCTION COST DOES NOT INCLUDE COSTS ASSOCIATED WITH DEWATERING, UTILITY RELOCATIONS, PROFESSIONAL SERVICES, AND UNKNOWN CONTINGENCIES.



SECTION AT STA. 75+00

(EMBANKMENT CONFIGURATION)

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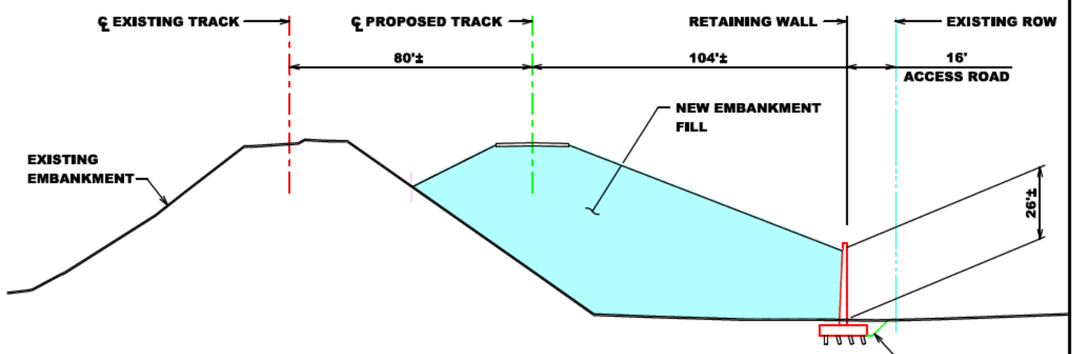
SCALE IN FEET



SECTION AT STA. 75+00

(ALTERNATE RETAINING WALL CONFIGURATION)

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NO.	DATE	BY	DESCRIPTION OF REVISIONS

TKDA
444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

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DATE:	AFE NO.:	

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BNSF RAILWAY

BNSF RAILWAY COMPANY
BRIDGE NO 196.6A GRADING PLAN
BISMARCK, ND (MP 196.38 - MP 197.20)

ALTERNATE 2
WEST APPROACH
ROW IMPACTS

COMM. NO. 15955.000

DRAWING NO.

CH2M Hill Companies, Ltd.

Moderator: Lori Price
August 1, 2018
2:46 p.m. EST

Operator: This is Conference # 483717213.

Lori Price: Hi. This is Lori. Who do we have on the call?

Carl Hokenstad: Carl Hokenstad, City of Bismarck.

Lori Price: Hey, Carl.

Joey Roberson-Kitzman: It's Joey Roberson-Kitzman.

Lori Price: Thank you, Joey.

Fred Rios: Lori, it's Fred Rios and Ron Knight, Captain’s Landing Township.

Lori Price: Hi, Mr. Rios.

Fred Rios: Hi. How are you doing, Lori?

Lori Price: I'm pretty good. It's been a busy week.

Fred Rios: OK. I'll put you on mute and listen.

Lori Price: OK. Thank you, sir.

Jim Neubauer: Jim Neubauer with the City of Mandan.

Lori Price: Hi, Jim.

Kris Swanson: Kris Swanson, BNSF Railway.

Mike Herzog: Mike Herzog, BNSF Railway.

Lori Price: Mr. Herzog.

Mike Herzog: Yes. How are you?

Lori Price: Nice to hear your voice.

Walt Bailey: Walt Bailey, Bismarck Historical Society.

Hans Erickson Hans Erickson, TKDA.

Rob McCaskey: Rob McCaskey, Coast Guard here.

Lori Price: Hi, Rob.

Toni Erhardt: Toni Erhardt with the Corps of Engineers.

Lori Price: Oh, wonderful. Hi, Toni. Glad to have you join us.

Toni Erhardt: Thank you.

Jesse Hanson: Jesse Hanson, North Dakota Parks and Rec.

Lori Price: Oh, wonderful. Thanks for joining.

Kitty Henderson: Kitty Henderson, Historic Bridge Foundation.

Lori Price: Hey, Kitty.

Dianne Desrosiers: Dianne Desrosiers, Sisseton-Wahpeton Oyate, THPO.

Emily Sakariassen: Emily Sakariassen and Susan Dingle from Preservation North Dakota.

Lori Price: Great. Hi, guys.

Susan Quinnell: Susan Quinnell.

Mandy Pearson: Mandy Pearson, Friends of the Rail Bridge.

Susan Wefald: Susan Wefald, Friends of the Rail Bridge.

Eric Sakariassen: Eric Sakariassen for Abraham Lincoln Foundation.

Mike Schaefer: Mike Schaefer for BNSF.

Amy Mcbeth: Amy Mcbeth, BNSF.

Lori Price: Do we have the SHPO's Office on yet?

Female: Yes.

Rob McCaskey: Yes. I heard her check in. Did you also get Susan Wefald?

Lori Price: I got Susan.

Rob McCaskey: I've got 2:02. Let's give another three or four minutes and make sure everyone gets a chance to sign in.

Lori Price: OK. Is anybody on who hasn't announced yet?

Erin Oban: Yes. This is Erin Oban, North Dakota State Senate.

Lori Price: Oh, wonderful. Hi. Thanks for joining.

Erin Oban: Hi. Thank you.

Lori Price: Somebody else just join?

Adam Nies: Adam Nies with Houston.

Lori Price: Hey, Adam. Did someone else just join us?

Chris Wilson: Hi. This is Chris Wilson at the ACHP. How are you?

Lori Price: Hi, Chris. I'm doing well. We're just waiting for everybody to join us, so just another minute or two.

Chris Wilson: OK. I'll just mute myself here.

Lori Price: Thanks. Aimee, are you on? Aimee Angel.

Aimee Angel: I am. This is Aimee Angel with Jacobs.

Lori Price: OK, just making sure. All right. It sounds like our beeps have slowed down.

Rob McCaskey: Yes. This is Rob. Let's give it one more minute, please.

Lori Price: OK. No problem.

Rob McCaskey: OK. I've got 2:05. This is Rob McCaskey with the Coast Guard. I'll take it from here, Lori.

Lori Price: Thank you, sir.

Rob McCaskey: Good afternoon, everybody. Again, my name is Rob McCaskey from the Coast Guard. Before we get started, I want to know if there's anyone on the call that hasn't identified themselves yet. OK. Hearing none, we'll continue on.

Just some procedural things, I spent the last couple of days editing the minutes from the last meeting and it's a very difficult task. I don't think we're quite done with that, but what I've learned is it's absolutely crucial that we identify ourselves when we're going to speak.

So, if you're going to speak on this call, please state your name first so that we can identify them in the transcript and try and speak clearly. If you're not speaking, go ahead and put your phone on mute so that the rest of the line can remain clear.

Mrs. Wefald, you've requested via e-mail to record this meeting and it's certainly appropriate if you'd like to do so. Everyone knows that they're being recorded, so I have no problem with that at all.

Susan Wefald: Thank you, Rob. We appreciate that very much.

Rob McCaskey: Yes, ma'am.

Let's see, I guess that's the only procedural stuff I wanted to discuss. This is the fifth consulting parties meeting and we wanted to and at a request from the FORB, we've changed things around a little bit. Instead of going over old business, we're going to jump right into new.

I discussed a little bit about the minutes from meeting four. I can tell you that I worked all day on those yesterday and half of the day today. We had a very difficult time recording things and I spent a lot of time as did Lori and Aimee trying to interpret what was said because of the poor recording and we're going to do something different for the next in-person meeting that we have.

This will work much better because everyone has to speak into the phone and everyone has to identify themselves, so it's a much easier way to record minutes. So, that's been the hold up for the minutes.

Item number three is new business.

Lori Price: Hey, Rob?

Rob McCaskey: Yes.

Lori Price: So, just as a note, we did send the draft meeting minutes for number four out this morning. I apologize again for the tardiness, but like Rob said it was really difficult. We tried. It didn't work so great, but we did try it. But you'll notice when you look at them that there are several places still where we're just not sure what people were saying, or what the recording picked up doesn't make a lot of sense. There are just some holes we couldn't fill.

So, I do ask that when you get them, if you can, if you're so inclined, if you can send us a correction or a clarification that might help us then we can go back and do another version to send out to everybody. So, just when you get them if you can take a look and at least if you can clarify the part that you said if you can, that would be very helpful for the final set of minutes.

Rob McCaskey: Thanks, Lori. And I definitely needed to say that, too, there were a lot of places where we didn't even know who was talking, so please take a look at those and help us out if you will and we'll make those corrections.

Again, moving on to item number three on the agenda is new business. And it says discussion of other bridges converted to pedestrian use and FORB has asked us, how have other historical bridges adjacent to in-use rail lines worked out public access and other issues, and to include visuals. So, there are several links that we've got here. I assume that BNSF is ready to discuss these.

Lori Price: Yes. So, this Lori. I went back and did quite a bit of additional research after the last request. So, you should also have a PDF that was distributed for the last meeting which has the actual pictures and text that goes with each picture. Does everybody have that as well? If you don't have it, say so, that would be easier. OK. Hearing none, I assume that everybody has it.

So, what I thought we might do and just let me know if this isn't what you want or what you're thinking, is just to kind of walk through each one and I'll just tell you a little bit about what I've found in the research, we'll just walk through them and we can discuss them.

I don't know if you want to go through them all first and then discuss them, Rob, or do you want to discuss each one. How do you want to do that?

Rob McCaskey: Let's go through them one at a time and discuss as we go through, please.

Lori Price: OK. Thanks a lot.

Rob McCaskey: So, if anybody has anything that they want to discuss as we go, please state your name and then what your discussion topic is.

So, Lori, if you could start with the Louisville Big Four Bridge, that would be great.

Lori Price: All right. So, this is Lori Price. This first one is the Big Four Bridge in Louisville and here you have the photo. Obviously you can see it's a substantial bridge across a pretty big body of water. It links the Louisville Waterfront Park to Jeffersonville, Indiana. It crosses the Ohio River so it's a pretty good-sized river.

It was built as a railroad bridge in 1895. However, it had been decommissioned since the 1960s and it sat vacant for quite a while, then it was opened to the public in February 2013. It is a pedestrian-only bridge. I think this example was one of the ones that Chris Wilson had asked about.

So, the key thing about this one I think is that it was developed, and it's maintained by the Waterfront Development Corporation as part of the greater riverfront park. So, there's actually a whole park development that this is one piece of. And the WDC is basically composed of – it's a sort of a government entity so it's Jefferson County, the city of Louisville, the state of Kentucky.

They don't do just the bridge; they do the whole Waterfront Park. They have government funding to support their day-to-day operations and all their park maintenance, but they also have private and public donations. They do a lot of fundraising. They do a lot of activities in the riverfront park to raise money and they use part of that funding to help maintain the bridge and to take care of the park.

So, that one was one of the ones that Chris had asked about specifically; questions on that one?

Chris Wilson: Right. This is Chris at the ACHP. The reason I brought that up is that number one, it was a railway bridge; number two, it sort of represents a coming together in the community. So, you have Kentucky, Indiana, Jefferson County, non-profits.

There was sort of a consensus that hey, this is something that not only do we like as a feature of the community – it's a 19th century bridge – but it could link up to park systems and be something that people could use. I think this also was a Section 106 case but this was a case I think before I got to the Council. So, I don't know if Betsy or Kitty or anyone remembers that this is a Section 106 case. I don't know the details on how that played out.

Betsy Merritt: Chris, this is Betsy. What was the specific question you were asking about the 106 context?

Chris Wilson: Well, so, tell me about the Big Four Bridge. Was that a 106 case and how similar/dissimilar is that case to this one because I wasn't involved in that project.

Betsy Merritt: It was a 106 case but one dissimilarity is that it did not have an active railroad next to it. It was a rail bridge that was no longer in use and then was converted to pedestrian use, so that's one difference, but certainly it's a very successful project.

Chris Wilson: OK. And it seems that since it was no longer used as rail, probably wasn't maintained the way the Bismarck Bridge is maintained because it's accepting current freight. So, it's similar in the fact that it was a 106 case but it was already no longer in use and a feature that the community decided to reuse.

I remember seeing it back in the day crossing the river myself, but I haven't walked across it as a pedestrian bridge. Has anyone used it as a pedestrian bridge? Has anyone been across it?

Rob McCaskey: This is Rob McCaskey. I have.

Chris Wilson: So, what was that like? Does it – is there a lot of people from Indiana and Kentucky that just use it for recreation or any commuters, or how is it?

Rob McCaskey: Now, let me just clarify, it's probably been five or so years since I've been across it. The time I've been across, it didn't go all the way to the other side of the river. It went to the other side and then stopped. You couldn't dismount the bridge on the Indiana side but only on the Kentucky side and maybe that's changed.

But it was being used at that time by runners and they were planning an event, vendors were going to do something in the next couple of weeks when I was there. It was a relatively newly-opened project when I was there, so some things could have changed.

Lori Price: It does now stand from bank to bank. It is all the way open now, just to clarify.

Chris Wilson: OK. So, it seems like another similarity even though different part of the country, bigger population obviously that there was some kind of impetus in the region to reuse it, and they figured it out. So, I think that's another linkage here.

And the reason we wanted to introduce these examples is that what's happening in Bismarck, the evaluation and looking at partnerships and uses, I mean, this has been done before and as many examples as Rob has promulgated on this agenda, I think there's probably another 15, 20 more around the country. So, that was the point of this example.

Rob McCaskey: OK. Thanks, Chris.

Was there any other questions or comments about the Big Four?

Susan Quinnell: Chris, can you tell us, please, or maybe it was Rob who was on there, what was the experience like? Was there a chain link fence? How did they handle keeping people from going over the edge? This is Susan Quinnell.

Chris Wilson: Yes. So, I, again – Rob would be a better person to answer that question because the last time I saw that bridge it was abandoned. I haven't seen it since it was actually converted over to another use.

Rob McCaskey: Right, Chris. This is Rob again. So, there's a rail that you can see through, but it would take a lot of work to get over it. It was over my head and I'm six feet tall, and that spans both sides of the bridge itself to prevent jumpers or fallers, as the case may be.

Susan Wefald: This is Susan Wefald. What is the age of the bridge?

Lori Price: It was built in 1895.

Susan Wefald: Thank you.

Lori Price: And decommissioned in the 1960s.

Chris Wilson: Yes.

Lori Price: And opened to the public in originally in 2013 and it's since been completed.

Susan Wefald: This is Susan again in Bismarck. Who was the railroad that was responsible for the bridge before it was decommissioned?

Lori Price: I think this one was Union Pacific, but I would have to go double check. I can look it up for you though.

Susan Wefald: Thank you.

Rob McCaskey: Any other questions about the Big Four?

Susan Quinnell: This is Susan Quinnell. So, who was responsible for it when it was derelict, wouldn't it still be the railroad?

Lori Price: That's generally the case. I don't know in this specific instance but that's – once I'm sure who the railroad was I can get that information if you'd like.

Susan Quinnell: Thank you.

Chris Wilson: So, I think the term derelict is a little strong, I mean, I don't think it was used anymore, but there was probably some responsibility on the railway company to keep it maintained to a reasonable level so that it didn't fall into the river.

I don't think that its chance of reuse would have been good if it was in terrible condition. Again, the folks at BNSF have done the latest research. I'm sure there was an analysis done by the metro government that, OK, this is something that could be reused because the railroad had maintained it to a minimum level, but I'm just guessing.

Lori Price: And I think also, Rob, and correct me I'm wrong, I think doesn't the Coast Guard require you to maintain it to a certain standard if it's crossing the river?

Rob McCaskey: Yes.

Lori Price: You can't just walk away.

Rob McCaskey: Yes. I'm looking at, it said the New York Central Railroad was merged into the Pennsylvania Central Railroad in '68. At that time the bridge fell into disuse. I don't recognize either one of those; I don't know what those became after 1968.

Lori Price: I'll find that out.

Rob McCaskey: OK. Any other questions or information about the Big Four that we want to discuss or have a look at, please? OK. Hearing none, let's move on to the Walkway Over the Hudson.

Lori Price: OK. So, the next photo is the Walkway Over the Hudson. This one was built in 1888. It's in Poughkeepsie, New York. It began as a railroad bridge and now it's pedestrian-only and opened to pedestrians in 2009.

As you can see from the photo, I mean, it's over the Hudson River and it's a substantial bridge that's 212 feet above the river surface and it's over a mile long. It was abandoned in 1974 after a fire happened on the bridge and so then they abandoned it or decommissioned it for rail in 1974.

It was developed by a non-profit organization called Walkway Over the Hudson, but it was a public-private partnership with the state of New York. They got a TIGER Grant for this one. The neighboring municipalities became part of that partnership.

They also got some private corporation funding. They got some other not-for-profit groups to join. It is now a state park, so it's now owned by the state. It's Walkway Over the Hudson State Historic Park. So, it's now owned and operated and maintained by the state of New York. Again, this one is a rail bridge that was – had been decommissioned and was then turned into pedestrian.

Chris Wilson: So, for the group I promise to only talk about this bridge and one other, because I've added this one in.

My oldest daughter just graduated from Vassar which is in Poughkeepsie, so I've been using this bridge for the last four years and it's remarkable. It has some of the best views of the Hudson River Valley that I've seen.

So, this was, again, abandoned and this was sort of something that came from the ground up, the local community in Poughkeepsie, they had made a decision, you know what, we want to find a way to keep this bridge. So, there are some similarities here, too.

And as she said, they created a non-profit. They raised awareness. At first, some of the other entities, the state, they weren't interested, but they raised enough awareness, they raised the money and eventually as she said it's now a park. There's actually a little, I don't know if you call it an interpretive area, but there's a parking lot with some interpretation and there's signage.

So, this is really something that happened at the community level and then finally ended up being a state park, and now it's really sort of a tourist attraction if you're coming up and down the Hudson River on the Poughkeepsie side. I think – I don't know the length of the Bismarck bridge if this is longer than that, this is a pretty enormous bridge.

And the reason I threw this in here, again, is because I don't believe this is a 106 case because it looked like – I couldn't find any residue of 106 on this. It looked like it was a local and state issue. I don't know if Coast Guard or the Corps were involved. I'm not even sure the details from a regulatory standpoint.

But I do know it was something that was sort of from – it was a local commitment and they got other people interested and it's widely used. You could see from the pictures on the website, those of you who have been to the Hudson in the winter time, people even use it in the winter. And it's a long way across and back. I think across and back is a mile. So, that's why I threw this into the mix.

Lori Price: Yes. It's actually 1.28 miles long from end to end. So if you went all the way around you'd be over two miles. It's a long, long bridge.

Rob McCaskey: Thanks, Chris.

Anyone have any questions for Chris or any comments on this bridge?

Susan Wefald: This is Susan in Bismarck. Susan Wefald. Our bridge actually, I just looked it up, it's 1,517 feet long. So, it's a little less than one-fifth, maybe it's about one-fifth the length of this bridge. I'm interested in the federal part of the partnership. Do you have any idea what their role was with this project?

Lori Price: My understanding for this is that they actually got a TIGER Grant. It's a federal transportation grant. I don't know if that was to help in their planning or to help in the actual reconditioning of the bridge, I'm not sure what they got the TIGER Grant for specifically.

Susan Wefald: This is the model. This is Susan again in Bismarck, Susan Wefald with FORB. This is the model that our Friends of the Rail Bridge is looking at, working in a public-private partnership to facilitate development of our bridge should we receive ownership of the bridge.

Rob McCaskey: Hi, Susan. Rob McCaskey again. I'm just looking at Wikipedia and they list a whole bunch of federal and local – it looks like federal government funding for various entities, it was about 3.5.

Susan Wefald: 3.5, could you say that again, 3.5 million?

Rob McCaskey: Yes, ma'am. And then I see a list of New York State funding from various entities. That's 22.5 million. Scenic Hudson was 1 million. Jane W. Nunn Charitable Trust was 500,000. There's a whole list of them, it's a very interesting read.

Susan Wefald: And I don't know what you're reading, so could that be made a part of the minutes?

Rob McCaskey: Yes, ma'am. I'm just reading Wikipedia right now but I'll certainly – we'll put that in there.

Susan Wefald: Thank you so much. If you put that all in the minutes that would really be helpful to us.

Rob McCaskey: You bet.

OK. Anyone else with questions or comments on the Walkway Over the Hudson?

Susan Quinnell: This is Susan Quinnell. We have Aaron Barth who came in a few minutes late.

Rob McCaskey: OK. Thank you. Aaron Barth?

Aaron Barth: Yes.

Rob McCaskey: OK. Great. Welcome.

Hearing no other comments, let's move on to item III, Walnut Street Pedestrian Bridge in Chattanooga.

Lori Price: OK. And so, let me just go back really briefly the Big Four Bridge. I did look it up and it was Penn Central and they actually declared bankruptcy, so they're no longer around.

Rob McCaskey: OK.

Lori Price: Just to answer your question. OK. So, the Walnut Street Pedestrian Bridge, this one is in Chattanooga, Tennessee. This one actually was – I can't remember, Chris, if this was one of your suggestions.

Chris Wilson: Yes. So, I sent to Rob where he can send out later. This is actually a success story that we use at the ACHP and I'll wait until you give your foundational information and I'll talk about that.

Lori Price: OK. I'll address this real quick and then you can talk about it. This was originally a highway bridge. Again, it's quite a long bridge, 2,300 feet long. It was closed to motor vehicles. It was built in 1891. It was closed to motor vehicles in 1978 and then reopened as a pedestrian-only bridge in 1993.

The fund to convert this bridge was started by Chattanooga Venture which, again, was a community non-profit group and, again, they got funded in part by a DOT demonstration grant to the city and the city now does pay for at least part of its maintenance. I couldn't tell if they pay for all of it or not, but they did pay for repaving of the bridge for instance, and it was a pretty substantial cost, if I recall in 2010. So, that's that one.

I'm sorry, Chris, go ahead.

Chris Wilson: So, maybe after the meeting Rob could send out the link on our website because this is a case that we use in our training. And it dates – let me see what the date of – it looks like it happened in the late '70s. So, let me just bring out the highlights of this success story and then you can read it once he sends it out.

So, initially, as she said this was a federal highway bridge not railway bridge. So, initially, the city, FHWA and Tennessee DOT asserted that maintenance costs would be excessive and the U.S. Coast Guard expressed concern that the old bridge would be a navigation hazard.

Federal Highway consulted with the ACHP which recommended change to the new bridge alignment and separating demolition from the new bridge construction, thus allowing the new bridge to be built while studies were done on retention of the old bridge.

After considering its options and community interests through the Section 106 process, Federal Highway informed Tennessee DOT and the city that it was withdrawing the demolition funds for the existing bridge. In late 1979, the Chattanooga City Council voted to accept the modified project and began studying the bridge's reuse.

Through the efforts of the Chattanooga Mayor, Gene Roberts; Congresswoman Marilyn Lloyd; and Senator Al Gore, Federal Highways made available $2.5 million for rehab which was matched with $1.5 million in city and private funds. The success in this was that this bridge has emerged as a lively centerpiece for Chattanooga, a lot like the Big Four Bridge in Louisville.

Since it's reopened in 1993, it's become a destination. So, I think the theme here is that all these projects start out with a huge question mark, what can be done? Is there any interest? And then groups step up to think about reuse and in some cases, there are grants that are received, as she said before TIGER grants, I think it's safe to assume that they have replaced the SafetyLu and before that it used to be called what, TEA-21.

But TIGER grants are something that cities compete for. But this Chattanooga bridge is something that now has become like in Bismarck, the bridge is sort of the symbol of your city, this bridge has now become a destination like the Poughkeepsie bridge, the Hudson River bridge, and a focal point of pedestrian use.

But it wasn't easy. It started out, it was very contentious, and it was a grassroots effort to think outside the box and involved city government, county government, state government, grants, non-profits to figure out a way to reuse the bridge. So, if anyone who's been to Chattanooga, you've seen this.

And our success story is just two pages and it's pretty digestible so, maybe Rob, after this meeting or for the next minutes, you could send that out.

Rob McCaskey: I'd be glad to.

Susan Quinnell: This is Susan Quinnell. To Chris Wilson, so did I hear you right that ACHP first was aware of this bridge somewhere around 1979 and then it was opened as a pedestrian bridge in 1993?

Chris Wilson: Yes. So, the point of the story that we wrote about this case is that it takes a while for some of these resources to be reused and money to be raised. So, there's typically never a silver bullet or some sort of magic moment where everything falls into place all at once. It's a decision. OK, so – OK, let's not spend the money on demolition; let's put that aside. Let's raise money. Let's form alliances with other organizations be it government or non-profit.

And so, that is a long time span. And so, now from 1993 to 2018 it's become part of the – it was already part of the landscape, but now its new use is something that's part of the infrastructure in Chattanooga. I don't know for sure, but I think Chattanooga is probably close to the same size as Bismarck as opposed to Louisville which is 700,000 to 1 million. But Chattanooga is probably close to the same size as Bismarck and Poughkeepsie is really just a very small community in the Hudson River Valley, so that's why the TIGER grant and the state park element was important for Poughkeepsie.

So, I'm just guessing but I think Poughkeepsie would be smaller than Bismarck. Chattanooga is probably about the same size and then Louisville is much bigger

Susan Wefald: This is Susan Wefald in Bismarck. It's one difference though, Chris, and also, I'm asking this of BNSF, with this bridge is that in this case it was a state highway bridge probably. And so, the state could make the decision not to spend the money on demolition, while in this case the bridge belongs to BNSF and they have the right to spend that money to demolish it at any they wish.

Chris Wilson: Well, it's a – it's – it is a different – they are different kinds of cases. So yes, in this case, this is owned and operated by BNSF but the 106 nexus is the permit required by the Coast Guard. And so, the Coast Guard is the lead agency on the Section 106 process but you're right, in a previous instance, the state DOT and Federal Highways were public entities that were owners of the facilities but in this case, it's Burlington Northern.

So that – it makes it – let's just say that Federal Highways and DOT, this is something they look at all the time and they're involved in 106 in a million different ways because they have a lot of projects in addition to bridges. So, they do Section 106 all the time.

The Coast Guard does 106 intermittently when it has to, although Rob is – Rob loves it and Rob's really happy to be doing it, Burlington Northern needs the permit. They have to have that permit in order to either, you know, to remove the bridge or to find – to work with others to find a way to build a new bridge or whatever ends up happening.

So, you're right, it is a different dynamic. But Section 106 is the same for all agencies. And so, the Coast Guard is really doing the same kind of work that Federal Highways did in Chattanooga. Does that make sense?

Susan Wefald: Yes, that's very helpful. Thank you.

Rob McCaskey: OK. Thanks for the clarification, Chris. I would've said it much shorter in that they can't actually do anything unless the Coast Guard permits it and we don't permit it without using the Section 106 process, so. Any other comments or questions about that bridge?

OK. Hearing none, moving on to the Big River Bridge in Memphis, West Memphis please.

Lori Price: OK. So, this is the one bridge that I am actually familiar with so this is a rail bridge, it's an active rail bridge, it's a Union Pacific Bridge and it has a pedestrian path that is adjacent to it. It is between Memphis and West Memphis.

It is, again, a very large bridge. It's 4,900 feet long. It was originally built by Union Pacific for a joint auto and train bridge so it always had trains in the middle and auto – there are even early pictures where they're actually putting early autos and wagons on this lane, the automobile lane.

So, in 1949 because there were so many more automobiles and, you know, the auto at that point had changed the landscape, they closed the automobile lanes and then just left them closed and they built a new automobile bridge which is just sort of right next door.

So those auto lanes were closed for many years, it was converted to a pedestrian path, pedestrian-only on that portion and it was opened in 2016. So, the roadways are owned by the cities, so Memphis, Tennessee and Crittenden County, Arkansas and they have always been owned by the cities.

So, when Union Pacific built that bridge, they did this sort of partnership where Union Pacific owned the bridge but the roadways were owned by – or

Union Pacific owned the rail bridge and the roadways were owned by the city. So that's how that was originally built.

So, it was opened to pedestrians on the side piece. It was actually again part of a much larger development. It was called the Main Street to Main Street Project, which is a ten-mile multimodal corridor between Memphis, Tennessee, and West Memphis, Arkansas. Again, they were partially funded by a TIGER grant.

So, it was part of this – it's a connection across the river that connects a multimodal corridor on both sides. Memphis got a 14.9 million-dollar federal grant to rebuild the walkway, the overall project cost for the whole 10-mile corridor was $30 million and $11 million was spent on the bridge.

So, again, they did a public-private partnership. That was the city of Memphis, city of West Memphis, Crittenden County, downtown Memphis Commission, the Levee Board, the DOT, the Tennessee DOT, state DOT and US Department of Transportation. And they do have – I don't know if I have a good picture of it but it actually – they did build a – sort of barrier between the pedestrian walkway portion and the active rail line portion.

Susan Wefald: OK. This is Susan Wefald in Bismarck with Friends of the Rail Bridge, how far apart are the two bridges that are in the river right now, the one for the highway and the one for the rail bridge?

Lori Price: The new highway bridge that was built in the '50s?

Susan Wefald: It looks like it is fairly adjacent. It looks adjacent to it, can you tell me where – how far apart those two bridges are?

Lori Price: OK. I'm sorry, I misunderstood your question. So, there is an automobile bridge that was built in the '50s, which is right down the river. The pedestrian bridge which was the original automobile bridge is immediately adjacent. It is – they were built at the same time and they are – they are basically side by side.

Kris Swanson: This is Kris Swanson. They're essentially the same structure, the pedestrian and rail bridge.

Susan Wefald: Yes, I understand that. This is Susan. I'm looking at the picture and it does show that there is a bridge that was built for highway traffic and you mentioned that in your presentation. And if it was built in 1951, that's fine, I just want to know how far away is it from the existing pedestrian rail bridge.

Lori Price: Oh, off the top of my head, I can't remember. But I – no one's ever asked me that before. But I can – I can find out.

Susan Wefald: Are there three bridges in that immediate location or are there just – are there two bridges in that immediate location?

Lori Price: There is the rail – there is a train bridge with the pedestrian bridge that's attached to it and then there is an automobile bridge as well. It's a newer one.

Susan Wefald: And you're going to find out for us how far away that is.

Lori Price: Yes, ma'am.

Susan Wefald: Thank you so much.

Mike Herzog: Lori, I can get that. So, I would shoot from the hip, you're talking about 4 to 500 feet and the only reason I know that is I've been down working on the BNSF bridge that's near that location.

Lori Price: Identify yourself.

Mike Herzog: I'm sorry. Thank you. Mike Herzog with BNSF. I can be trained.

Kris Swanson: This is Kris Swanson and according to Google Earth, it's 300 feet from Union Pacific Bridge and 300 – oh, sorry, hold on a second, 305 give or take and then, of course, the BNSF Bridge is in between the two.

Female: There's three bridges.

Lori Price: Forgot about that one.

Mike Herzog: So, there's three bridges total crossing that area.

Kris Swanson: Correct.

Mike Herzog: Just confirming that, right? OK.

Eric Sakariassen: This is Eric Sakariassen. Could you talk about how with the combined ownership of that original bridge and the abandonment of the auto bridge portion of it and then the pedestrian bridge that was added when they built the big river crossing.

How did they deal with the right-of-way issues? Who has the right-of-way, the title to that, and is it a combination of ownership? Does the railroad have the right-of-way? Is it leased?

Lori Price: My understanding is that the Union Pacific owns the railroad portion of the bridge and the county and the city own what is now the pedestrian part of the bridge which was originally the automobile part of the bridge. And they have always – they own that right-of-way and they have always owned it.

So, it was their decision that they would redevelop their part that they own, the right-of-way that they have from an automobile piece which had been, you know, decommissioned basically into a pedestrian bridge.

So, the city and the county actually own the right-of-way where the car – former car, now pedestrian bridge piece is. It's quite complicated actually and this is the only one that I know of that has this particular situation. It was kind of a unique thing the way they built it and that they had kept it all this time.

So, in the meantime, Union Pacific has maintained it because they have always used it as an active rail bridge, so the bridge was always maintained since it's always been in use even though the auto part wasn't in use for a while. Did that help, Eric?

Eric Sakariassen: Yes, thank you.

Susan Quinnell: This is Susan Quinnell in Bismarck and we have up Google Maps and from an aerial view and according to the scale, the three bridges are probably only 100 from the one furthest south to the one furthest north, less – about 100 feet maybe. So, it's not – maybe 300 feet long but apart from each other was our question and they're pretty close.

Kris Swanson: This is Kris Swanson. From the UP Bridge to Interstate 55, it's approximately 380 feet, 3-8-0, and from the BNSF bridge to the UP bridge, it's approximately 200 feet.

Susan Quinnell: Well, that's not what our scale is saying.

Kris Swanson: Understood.

Rob McCaskey: Is there – are there any other comments or questions about that bridge?

Susan Wefald: Susan in Bismarck, Susan Wefald with Friends of the Rail Bridge. If we can just double check the distances between those bridges, since our overview that we had didn't show the same measurements as the ones we've received just now. So, if you can – if you can please, just in the minutes or follow up, give us an accurate distance.

Lori Price: Yes, we should be able to do that. Rob, we can look at the mile posts and get the measurements.

Rob McCaskey: OK. Sounds good to me. Any other questions, comments, or requests regarding Big River? OK. Moving on to Steel Bridge in Portland, Oregon then.

Lori Price: OK. So, this is the Steel Bridge in Portland. This is a very well-known bridge. This one was built in 1912. It is a double deck bridge. It's a really, really fabulous bridge. Portland has a lot of fabulous bridges but this one is really great.

So, it was always built as a double deck bridge. The upper part of the bridge was for automobiles and the lower part of the bridge was for trains. That's how it was originally built. They added light rail to the upper part of the

bridge, oh, just – I remember a few years ago, it seems like really just the other day to me, but I know that's not true. It was a couple of years ago. And then they added a lower deck pedestrian walkway in 2001. And again, this is adjacent to an active rail line. So, it's separated but it's adjacent.

They call it the Pedestrian Esplanade Crossing. It's 220 feet long. It's eight feet wide. It's actually a cantilevered walkway. It was installed on the southern side of the lower deck, this part they call the East Bank Esplanade which, again, is a longer walk-bike path, that this is a piece of.

The pedestrian bridge was actually built by the city of Portland and it is maintained by the Portland Bureau of Transportation. The bridge itself is owned by Union Pacific but they have, again, a sort of complicated thing where the upper deck is leased to the Oregon DOT because that's where the cars and the light rail go, it's been subleased with TriMet and then the city of Portland is responsible for the bridge approaches. Again, because there's cars and light rail there.

So, in this case the bridge is actually – unlike that previous bridge, this one is actually owned by Union Pacific but then there are pieces of it that are leased out to DOT, and then the pedestrian bridge itself was actually built by the city of Portland and is maintained by city of Portland DOT.
And this one is, again, it's immediately adjacent. It's cantilevered off.

Rob McCaskey: OK. Thank you. Questions, comments, or requests regarding that?

Chris Wilson: Just a quick comment. Is Kitty Henderson on this call? Kitty, are you out there somewhere?

Kitty Henderson: Yes, I'm here.

Chris Wilson: So those are Nathan's photographs, aren't they, on that last bridge example?

Kitty Henderson: Yes.

Chris Wilson: Yes. So, can you tell the group who Nathan is and his relationship with your group, because the photo’s fantastic.

Kitty Henderson: Nathan Holth is a owner of a database called HistoricBridges.org and he has developed this incredible database of bridges and their history pretty much across the United States. He also is the editor of my newsletter and he consults independently on some projects as a consulting party.

So, he's quite knowledgeable about bridges, examples of bridges. And I have spoken with him about trying to get some examples which some of you are talking about right now – some of them we're talking about right now. But anyway, Chris, what else do you need to know about him?

Chris Wilson: I just wanted the group to know his contribution, because he's everywhere and also this collection of different bridge types I'm going to give to the people I work with that work with FRA and FTA. And I think this is a very interesting sort of cross section of bridges. We'll perpetuate this on other cases. This is very interesting.

Lori Price: And Nathan does have a great photograph.

Emily Sakariassen: This is Emily Sakariassen with Preservation North Dakota. Could you say Nathan's last name?

Kitty Henderson: His last name is Holth, H-O-L-T-H.

Emily Sakariassen: Thank you.

Lori Price: HistoricBridges.org I think is his website.

Kitty Henderson: That's right.

Lori Price: Yes, and so if you look at the – if you look at the PDF I actually had his link to this particular bridge but if you just ever want to look at bridges, he has a great website. So, Rob, do you want to move to the next one?

Rob McCaskey: Have we exhausted the comments and questions on that last one? OK. Are we looking at the Appalachian Trail/CSX Potomac River Bridge now?

Lori Price: Yes, sir. So, this one is a smaller bridge. It was a rail bridge that has been converted to a pedestrian-only bridge. It is across the Potomac River. It was

built in 1894. It's in Harpers Ferry, West Virginia. It was part of the CSX rail line.

This one had an adjacent walkway added to carry the Appalachian Trail. It is part of the National Historic Park, which is administrated by the Park Service. I wasn't able to find specific information on this one as far as when they actually added the walkway.

But you can see it in the picture here. There's sort of a fenced in section right along the edge of the rail bridge just inside the truss. You can kind of see in the photograph. And so, they just added this little piece and fenced it off and made it into a part of the Appalachian walkway.

Chris Wilson: So, if the group is interested since I work with the Park Service nationwide, I can reach out to that superintendent and get more details about how it happened, when, you know, when they decided that they would reuse the bridge and when they built the pedestrian component. So, I can get that detail if you want.

I'll bet you though that it didn't just happen overnight and there was some interest and the Park Service was lobbied and the Appalachian Trail advocates lobbied for it. So, I'll pick up a timeframe and the history of that project for your next meeting.

Rob McCaskey: Thanks, Chris.

Lori Price: That would be great. I was going to say it seemed to be driven by the Appalachian Trail, but I couldn't really find any more information, so that would be great.

Eric Sakariassen: This is Eric Sakariassen with Fort Abraham Lincoln Foundation. In looking at an aerial view, there's another bridge in very close proximity to this one as well, and that's something that I was also very interested in on this particular example.

Lori Price: Yes, there is.

Rob McCaskey: You know, if this is a permitted bridge, we'll have a file on it in the Coast Guard and we can find out exact numbers on distances and work that out as well. All right. Would anyone else like to ask a question or discuss the Appalachian Trail/CSX Bridge?

Susan Quinnell: This is Susan Quinnell. Just to mention that Aaron Barth has left.

Rob McCaskey: OK. Thank you. Hearing no other comments on Appalachian Trail, let's move to Cherry Avenue swing bridge in Cook County please.

Lori Price: So, these last five or four, however many it is, these are not – were not in my original research so they're not in the PDF. These are ones that came from the information that Kitty had sent a link to that Rails to Trails study of several different bridges and there were a couple in there that – ones that were in there were not the ones that we had so they had some additional ones.

So, I went ahead and took a quick look at those but they're not in the PDF, I don't have all the backup information, but I pulled a few up that I thought might be helpful that were in the Rails to Trails study. So, the first one is the Cherry Avenue swing bridge in Cook County, Illinois.

It does allow both pedestrian and train use, but it is a really – it's a small bridge so it's not as comparable to some of the other ones that we've looked at. Again, I'm sorry, I don't have a slide on it, but I did put the Bridge Hunter links in there that you can actually go and take a look at it.

These are all pretty much – these are, I think, all small bridges. So, the – and I never say this right, Schuylkill River Bridge. Am I saying that right? I never get it right. This is another one that's a small rail bridge that they put an adjacent pedestrian bridge on to accommodate the Appalachian Trail.

That seemed to be – again, I think there was a – there was a movement to extend the Appalachian Trail across, you know, to link it all together and so they added a couple of bridges to accommodate the Appalachian Trail, this is another one of them.

Then there was something called the New River Bridge in Fairmont, West Virginia. This is a rail bridge that has an adjacent auto bridge and that also – the auto bridge also accommodates pedestrians and it's right next door.

However, this is an abandoned town. It's kind of like a tourist destination and it has very, very limited rail traffic and actually not a lot of automobile traffic either. But they do accommodate pedestrians. Then there was the White River Greenway in Noblesville, Indiana.

This, again, the railroad is mostly inactive. It was abandoned as an active rail line in 1991 and then they started just a passenger excursion train over part of the line so it's just like a tourist train, but recently in 2017, the city and the county who owns it did petition to remove the rails and convert it to a pedestrian trail only and take the train off of it altogether. And I don't know where that is in process because it was 2017.

Then there was the Riverbluff Walkway in Memphis, Tennessee. This is...

Rob McCaskey: Let's make sure that we're not getting too far ahead, and we have skipped somebody's chance to comment or ask a question.

Lori Price: Sure. I'm sorry.

Rob McCaskey: Anybody have something from the previous four I think that we just discussed?

Susan Wefald: Yes. This is Susan Wefald with Friends of the Rail Bridge. I'd like to go back to the one, the Schuylkill River Bridge.

Lori Price: OK.

Rob McCaskey: I think we get it, whoever can pronounce it gets an extra dollar.

Susan Wefald: My comment about this one is it looks – it appears that there is – the pedestrian area is immediately adjacent to the track and that there's only like a chain link fence separating the two. There's not extensive security there

between the railroad track and the pedestrian trail. Do you have any comments on that?

Lori Price: Yes, it's actually a separate structure. So, if you go to the bridgehunter.com and you go to the second photograph, you can see that there's a separate – it's actually a separate structure and there is a steel, sort of a low steel wall that runs along the sides of the bridge.

Susan Wefald: Yes. And then immediately before that, before it gets to the bridge, it's just separated, it looks like in your picture, by a chain link fence. And then there's maybe no fence.

Lori Price: Let me look and see if I can...

Susan Wefald: I just see the bicycle trail going just alongside the rail tracks and it doesn't appear that there's any separation at all.

Male: Separation is only on the bridge.

Susan Wefald: Separation appears only on the bridge...

Lori Price: Yes.

Susan Wefald: ...and maybe extends back a little ways.

Lori Price: Yes. That is what it looks like.

Susan Wefald: And I saw that on numerous trails and so it appears that many people are able to walk or ride their bikes adjacent to a railroad track without extensive security measures between the two. Is that your experience with BNSF?

Lori Price: Kris?

Kris Swanson: I'm sorry, can you say again please? I missed the question.

Fred Rios: Rob. Rob.

Rob McCaskey: So, the question was...

Fred Rios: Rob.

Rob McCaskey: ... observation initially that it appears there are numerous places where pedestrian bridges coexist near rail bridges' active lines without significant security considerations or infrastructure and the question was, is that your experience with BNSF?

Kris Swanson: That is not my experience, no.

Fred Rios: Rob? Rob?

Susan Wefald: Who answered yes – who answered that then before?

Lori Price: No, that was me saying "Kris," getting – asking BNSF to address your question. That was "Kris," not yes.

Fred Rios: Rob? Rob?

Rob McCaskey: Yes, Rob is here. Who am I speaking to?

Fred Rios: This is Fred Rios. My biggest concern...

Rob McCaskey: Yes, Mr. Rios.

Fred Rios: My biggest concern about all these bridges that we've talked about, OK, they do not have the weather conditions that we got in North Dakota, where our river completely freezes up. And if we get ice jams and everything like that, we're going to be in trouble. And that's the thing they got to look at to where the river flows freely and the ice moves freely without any jamming whatsoever.

You take the rivers in Memphis or anywhere else, they don't get the ice jams that we get in North Dakota, period. I've been in all 50 states and I've never seen it freeze like we do over here in Bismarck and the Missouri River here. Thank you.

Rob McCaskey: OK, Mr. Rios, thank you for your comments. Would anyone else have a comment with respect to that?

Kris Swanson: This is Kris Swanson. Please remind me again, who does Mr. Rios represent?

Rob McCaskey: Mr. Rios is the township representative from...tell me again, Mr. Rios.

Lori Price: Captain's Landing Township.

Kris Swanson: Thank you. Sorry for not knowing that already.

Rob McCaskey: That's OK. I knew it and I couldn't say it. Anyone else? OK. Hearing...

Betsy Merritt: This is – this Betsy from the National Trust. I'd like to say something but I'm not clear whether – are we done talking about the specific bridge projects? I couldn't really tell.

Rob McCaskey: No, ma'am. We still have three or four to go. You're welcome to speak up, if you like, or you can wait, it's your call.

Betsy Merritt: Yes, I'll wait. I wanted to say something that relates to a project that's not on the list, but I'll come back to it when we get to the end of the list. Thanks.

Rob McCaskey: OK. You bet. Anyone else? OK. Then, Lori, let's continue on then please. I think White River is the next, did I miss one?

Lori Price: So White River, that's the one we were talking about just before you reminded me to slow down. I was thinking that these were all in the report that Kitty had sent the link to and so I thought maybe I was repeating stuff people had already read, so. So, this one was, as I was saying, was an abandoned rail line in 1991.

Then the city purchased it in 1995 and the county joined in their ownership in 2006 and they ran an excursion service over it which is just a passenger train – like a tourist train. So, it's not a freight train and it moves at a slow speed and it runs intermittently.

The city and the county petitioned to remove the rails in 2017 so that it would just be a trail and there would not be – no longer be any train on it any longer. That was done in 2017 and I think they petitioned the – I don't know, the – I

think the Transportation Safety Board and they've granted that to them, but I don't know where it stands since that was just done in 2017. Questions about that one?

OK. The next one is also Memphis, Tennessee. This is the Riverbluff Walkway. This is part of the Riverfront Trolley loop. So, again, it's not a class one railroad, it's a trolley. And then the next one is the Blackstone River Greenway in Rhode Island.

It parallels an active class two railroad, the Providence and Worcester Railroad, and the trail and the railroad share the bridge that crosses the river. It's a – again, it's a small bridge. It crosses the river in Albion, Rhode Island. And those were all the specific examples that I have found. So, Betsy, take it away. If there's one that I missed…

Betsy Merritt: OK. Well, I wanted to mention one that it doesn't involve a railroad. And so therefore I didn't propose it earlier for the list, but I wanted to mention a feature of it. So, this one involves the historic Tenth Street Bridge in Great Falls, Montana.

Great Falls, Montana also has the weather. And like one of the earlier projects on the list, I forget exactly which one, the Federal Highway Administration built a new replacement bridge and then they were planning to demolish the historic bridge but – to make a long story short, we filed a lawsuit and successfully negotiated the preservation of the historic bridge for pedestrian use. So, there's not a railroad involved but there's a key factor.

In negotiating the preservation of the bridge for pedestrian use, we had a situation where the local government did not want to spend any money to, you know, be involved in maintaining the bridge and so forth. However, the nonprofit organization that wanted, you know, that was all gung ho to make this project go forward, what we realized is that if the nonprofit organization were to take ownership of the bridge, the cost of insurance would be enormous.

But if the local government took ownership the cost of insurance would be nothing, because it was such a – it's a minor incremental increase to the

infrastructure that they already own and operate their whole transportation network.

And so, they negotiated an agreement, and I'd be happy to provide the documentation of this, it shows how they set it up, where the local government agreed to take ownership of the bridge, and then nonprofit organizations agreed to be responsible for the fund raising, and, you know, funding – finding enough funding for maintenance, both through grants, which they got, and through nonprofit fundraising, so that no local tax dollars would be used.

Anyway, I just wanted to mention that model even though the Great Falls Bridge doesn't involve a railroad, and it's also not completed yet because there's a private owner involved, it's a long story, and next to a river trail network, but it's not completed yet.

However, this structure of having the local government own it, but the nonprofit sector providing an agreement that they would work out the funding and no tax dollars would be used is a really elegant solution to what is often a problem in figuring out how to structure these agreements. So, just wanted to mention that one.

Eric Sakariassen: This is Eric Sakariassen of the Fort Abraham Lincoln Foundation. Betsy, I think we'd be very interested in seeing a copy of that agreement, I'm very familiar with this bridge, we have property outside of Great Falls and go through the city quite often and look at that bridge from time to time and think what a wonderful thing it was that they were able to save it.

But I think this agreement would be just exactly the sort of thing that we would hope to structure here in Bismarck. So, if you could provide that for us I'd appreciate it.

Betsy Merritt: I'd be happy to do that.

Rob McCaskey: Thanks for bringing that up, Betsy, I'm very glad to have that information.

OK. Does anyone have any comments about what Betsy just said or any comments about the previous bridges we've discussed?

Chris Wilson: Hi, this is Chris at the ACHP, and thanks, Betsy. I just want to say that that example along – that she described along with the Poughkeepsie Bridge and the Chattanooga Bridge, and the Louisville bridge, it shows that there was an effort to negotiate and work with partners to find a solution.

So, I just want to make that point, and I think that's sort of a common thread through many of the bridges and then Betsy's example she just provided.

Rob McCaskey: Thanks, Chris, anyone else? OK. Hearing no other comments on the bridge examples that we've gone over, and thanks Lori for going through all of those and for hearing all of that information. And I will forward the information that Chris has requested me to give to everybody this week. Moving on to…

Kitty Henderson: Excuse me, this is Kitty, I'd like to...

Rob McCaskey: Yes, go ahead, Kitty.

Kitty Henderson: Yes. First of all, because I want to earn a dollar today, it's "Skewkil," right? Like S-K-E-W-K-I-L, Skewkil is the name of the river bridge that we were talking about.

Lori Price: Yes, thank you. Thank you, Kitty.

Kitty Henderson: And please take into consideration that was said with Texas accent.

Lori Price: That's excellent.

Kitty Henderson: I just wanted to encourage everybody to take a look at the resource guide that I sent you a link to. It talks about the characteristics of 88 trails specifically, and then it goes onto talk about there is like a hundred and sixty-one more trails that are in 41 states. And several of those states are northern States, we're talking about Wisconsin, Michigan, Maine, different places where they would have ice in the winter.

One of the interesting things that's in there is some information about drawing up liability agreements, transfer agreements, and so forth. They also make the statement that 60 percent of the rail and trails have a setback of 30 feet or less from the tracks. So, they may not be rail and trail on a suspended bridge, but even if they're on the ground, there's a lot of examples of trails being within 60 – excuse me, 30 feet of an active railroad.

So, I just think it's important that if we're going to spend time looking it up in detail, and all of these examples, then everybody should familiarize themselves with some very good information from the experts in designing rail and trail projects.

Rob McCaskey: Great. Thanks for that advice, Kitty. Definitely we should do that.

Eric Sakariassen: This is Eric with Abraham Lincoln Foundation. You know, I just wanted to echo your thanks, Rob, to Lori for the all work she did and putting this together. This has been really useful to us, I think – I think we find it very encouraging. So, I really want to give our thanks to Lori for putting all of that work together, thanks.

Susan Wefald: And this is Susan from Friends of the Rail Bridge, and I would like to just request that Burlington Northern Santa Fe perhaps at the next meeting share just one more example. And that would be the one that crosses the Mississippi River adjacent between – I think it's Minneapolis and the St. Paul area, and it used to be a rail bridge and it's been converted into a pedestrian bridge.

Lori Price: Yes, I didn't include that one because it doesn't have an active rail bridge. And I was trying to find some examples that were closer to what we were looking at, so that's why I didn't include that one.

Susan Wefald: But would you be willing to at the next meeting, because it is in a cold weather state?

Lori Price: Yes, sure. As Kitty said there's a lot of them that are in cold weather states. So, I can – if it would be...

Susan Wefald: And the other one I would like to have you present is the one in Fairview, Montana, North Dakota, which is the lift bridge here in North Dakota, which has been converted to a pedestrian walkway.

Kris Swanson: Yes, and we discussed that. I'm sorry, this is Kris Swanson, we've already discussed that one at meeting number two, so we can discuss it again, but that was discussed at length, if I recall correctly.

Susan Quinnell: This is Susan Quinnell, we did discuss it in passing, but, you know, I don't believe we have much in the way of photos, and it was kind of a confused time during the meeting. Could I bring up something else? And it's that the term rail banking, R-A-I-L, and then banking, did someone – Chris Wilson, or somebody else, or Kitty, did you mean to bring this up or did I get off on the wrong clip here?

Kitty Henderson: That was not me.

Susan Quinnell: That was – OK. Thank you.

Chris Wilson: I don't remember saying that either, I'm sorry.

Susan Quinnell: OK.

Rob McCaskey: Not a Coast Guard term.

Susan Quinnell: So that's actually in the – so if you go and read the Rails to Trails document that Kitty sent the link to, they do discuss rail banking.

Rob McCaskey: Rail banking and Skewkill, two words we've learned today, excellent.

Kitty Henderson: It took me a year and a half to learn how to say it, so.

Rob McCaskey: Any other comments about the bridge discussions that we've had? I don't want to skip past and move on before we have – everyone has a chance to say what they wanted to say. And then unless I'm interrupted, I'm going to move on to number four which is old business.

The first item, number A or letter A. Responses for additional information follow up on history of northern location for BNSF rail line. Lori, do we have any comment? Any information on that?

Kris Swanson: This is Kris Swanson with BNSF railway. So, that's referring to the request about the bypass reroute to the north. And I believe it was Mr. Zimmerman who brought up at the last meeting about how there was previous discussions approximately a decade ago about, you know, the rail or BNSF being interested or being a part of a conversation of a relocation outside of downtown Bismarck.

We have checked with people that have been involved in that region from our engineering department and public projects department for 10 years plus. And they have confirmed that there was no such discussion as far as from a rail component of a reroute or should I say, there is no such serious advanced discussion.

Rob McCaskey: And I think I heard discussion that perhaps that was a highway bridge and not a rail bridge.

Kris Swanson: Pure – this Kris Swanson, again, pure speculation, I just want to get that out of the way, but I would imagine it was probably related to the I-94 project.

Rob McCaskey: OK, thanks, Kris. Any other questions about that? OK. Item number II says, follow up on contact for Missouri River and natural area.

Kris Swanson: So, this is Kris Swanson again. We did have further communication from North Dakota Parks and Recreation, they did forward us the management agreement as well as an outline of that preservation area to the north on the west side of the river. Basically, outlining, you know, the intent of that plot.

The e-mail was forwarded shortly before this – before this call, we apologize that couldn't get out earlier, but we got that not too long ago, I believe there's a timestamp, we actually forwarded the e-mail communication with North Dakota Parks and Rec. So, everyone is aware of that, they did confirm that, you know, North Dakota DOT is the owner, but Parks and Rec. is essentially the manager of the plot.

And did cite that 4(f) is highly likely one of the conditions that preserves that land. That section 4(f) regulation of – is it the Federal Highways Act or – please correct me on – who knows better than that?

Lori Price: It's the Department of Transportation Act.

Kris Swanson: Thank you so much for the correction.

Rob McCaskey: And we'll definitely get that sent out to the group.

Lori Price: We sent it out, Rob, we sent it out to everybody before the call.

Rob McCaskey: Oh, OK. I haven't seen it yet, so I want to review...

Lori Price: That was right before the call because we, I mean, we just – we got it recently.

Rob McCaskey: OK. Great. OK. Any questions or comments on – oh, go ahead? Go ahead?

Susan Wefald: Yes, this Susan Wefald with FORB in Bismarck, and we would like to have – since we received this so close to this meeting, we haven't had a chance to even read it until the meeting now, and to hear those comments, of course. We would like to be able to have this followed up on the next meeting.

Rob McCaskey: No problem.

Susan Wefald: So that we have a chance to also do some checking ourselves, and to come back, and to discuss this a little further.

Rob McCaskey: No problem. We'll make sure that's on the agenda for the next meeting.

Susan Wefald: Thank you so much.

Rob McCaskey: Anyone else? OK. Item 3I is a handout on other alternatives and purpose and need.

Lori Price: That was a request from last meeting, this is that handout that we shared in the very first meeting, that at the last meeting it was requested that it be redistributed, so we sent that out – oh, gosh, I mean, I don't remember when

we sent that out. But everyone on the call should have that handout once again.

Rob McCaskey: The one with the project alternatives at the top, right? And it's got the BNSF Railway logo and the colorful depictions on it.

Lori Price: Yes.

Rob McCaskey: OK. So that was requested in the last meeting. And it was all discussion of clarification of purpose and need which was included. And, again, this was forwarded in the – and included in the first meeting that we had. Does anyone have any questions about that – this document? OK.

Hearing none. Let's move on to 4B, which is FEMA requirement, no additional structure impact. Letter I says, follow up on the river stages and FEMA regulations. And I believe we have a handout with respect to that.

Kris Swanson: Right. This is Kris Swanson again. Again, Rob, this is just a follow up on request for the information in writing from the previous meeting.

Rob McCaskey: Right.

Kris Swanson: So, I don't think we're necessarily prepared to talk about it, it was just follow up information or documentation from previous discussions.

Rob McCaskey: OK.

Susan Wefald: And this is Susan again from Friends of the Rail Bridge in Bismarck. Friends of the Rail Bridge may like to find our own consultant, and offer expert testimony, using perhaps another model on water levels, to meet FEMA regulations. And if we chose to do that, by when would we need to submit that as part of this discussion?

Rob McCaskey: I'll entertain that. In any reasonable amount of time, just give your proposal, and when you think is a reasonable amount of time, and I'll present to my supervisor and see if he has any objections.

Susan Wefald: Thank you.

Rob McCaskey: OK.

Susan Wefald: So, I should – I should send you a – to clarify, I should send you a request for information?

Rob McCaskey: Maybe I misunderstand you, it sounds to me like you are offering to give me additional information using a different model that they are not currently using. And requesting a reasonable amount of time to complete that? Am I misunderstanding you, ma'am?

Susan Wefald: No, that's correct.

Rob McCaskey: Yes. And so, you can send me that information or a timeline that you think it will take you to complete that information, and I'll present that up my chain of command, and make a determination how long we can grant for that. I have to admit, I wasn't prepared for that question.

Kris Swanson: This is Kris Swanson from BNSF, I recommend that a follow up be made on the next call, if not beforehand, on what the predicted timeline of that will be, and what would be considered a reasonable amount of time.

Rob McCaskey: Yes, and we're not – we definitely don't want to leave this open ended, but I'm trying to be accommodating as well, so I'd certainly like to receive the information as soon as possible.

Susan Wefald: Thank you.

Rob McCaskey: OK. Where are we at? We were at B1 or BI, follow up on river stages on FEMA regulation, any other questions about the handout? So, B II is scour abatement and necessary channel modifications to ensure no impact to the floodway. And there were two handouts I believe with respect to this.

Kris Swanson: Yes. This is Kris Swanson. Hans Erickson, did you happen to join the call?

Hans Erickson: Yes, I'm here, Kris, I can speak to these.

Kris Swanson: All right. Thank you, sir.

Rob McCaskey: Go ahead.

Hans Erickson: Thank you. So, I'll begin by speaking about an exhibit, it's a PDF file, with the title, West Channel Modification, Exhibit 1. And on the – in the exhibit itself, in the lower right-hand corner is called Alternate 2: West Approach Channel Modification Grading.

So, what's shown here is a proposed mitigation strategy for the alternate two bridge configuration, so that's the new bridge positioned 80 feet upstream of the existing, with new proposed piers aligned with existing piers where possible.

So, our hydraulic modeling team revisited the hydraulic model, and made the necessary modifications to the model such that the impact results were such that there was no river stage increase prediction with the both the existing and proposed bridges in place concurrently. So, stated differently, a river stage increase of 0.00 feet, and no impacted structures upstream or downstream of the existing site.

In order to achieve this condition, all mitigation work was developed at the west approach. There was an area of cross section removal of the existing west approach abutment between two specific elevations, between elevations of 1625, and 1640, with an area of removal of about 500 square feet in order to achieve that condition.

The other work that was required was the physical characteristic of the embankment was modified from sandbar and partially vegetated to a smooth concrete surface. And that cross-section was progressed from essentially the existing bridge crossing location to a point about 1500 feet downstream of the existing bridge.

Additional features associated with this configuration were the introduction of a short, we called it a sheet pile cut off wall, along the river side of the channel or of the embankment modifications. That cut off wall was implemented to prevent undermining of the concrete surface.

And a proposed cost estimate to implement this mitigation effort was also prepared. Fairly high-level numbers here, but gives a flavor for what this may cost in terms of construction dollars. And the total anticipated cost for construction was about eight and a half million dollars to implement. Now, this doesn't include any allowance for dewatering efforts or preparing the site in a dry condition to receive the proposed mitigation.

And if – for example, if we were to attempt to or if this mitigation effort were to be attempted with the river configuration as it resides today, there would be a fairly expensive dewatering effort that would be required to generate this proposed condition.

So, there's a number of caveats I guess associated with the cost estimate that will likely cause that eight and a half million dollar number to be or could potentially cause that number to inflate beyond the eight and a half million dollar value. If any questions, and it's clear what the proposed mitigation strategy in cross-section is and the limits?

Toni Erhardt: Yes, this is Toni with the Corps of Engineers. And I'm trying to figure out, so you actually would be providing more storage area within the channel, is that what you – is that what you're trying to do?

Hans Erickson: Correct. We're making a permanent…

Toni Erhardt: And that has to be done in such an invasive manner? I mean, could we look at something that would maybe allow the water to go in that field behind the subdivision and everything? I'm looking – I'm looking out for all the – all the impacts to the river.

Hans Erickson: Certainly, right. And this – this certainly has...

Toni Erhardt: It seems like this certainly seems like the most impactful thing somebody could think of, so that's why I asked the question.

Hans Erickson: Right. No, absolutely. So, we were – we are looking for a proposed mitigation strategy that would be a long term permanent solution here. And with regard specifically I guess to the floodplain area behind the development.

I believe that's just strictly a backwater location and doesn't act to convey – actively convey water through the system.

Toni Erhardt: I meant opening up behind to the – to the west of the – of Captain's Landing out in that field.

Kris Swanson: So, you're suggesting purchasing private property and turning it into a flood mitigation?

Toni Erhardt: I don't know what the policy is if there's something like that, in most cases you're not going to have to use it.

Kris Swanson: On the 100 percent chance or one percent chance.

Rob McCaskey: So, I guess, Toni, I don't think you were...

Toni Erhardt: I've been doing this for a really, really long time and we've heard storage easements from all over the place, and, I mean, you know, I just know that it is an option. So – and millions of dollars is going to go a really long way, and I'll just leave it at that.

Kris Swanson: And this is Kris Swanson, I appreciate that input, because we've never done this, we usually look to avoid impacting the FEMA flood elevation , and we had previously discussed on other calls that there might have to be a continual dredging project, if not a levee project that would extend the limits of the flood impact which in that case would be tens of miles or eight to 10 miles upstream, and potentially even downstream, at the time, I can't recall.

And so, we would love to – we would love to know of our options, but this is the one that from our limited understanding would achieve the mitigation to the flood elevation levels.

Toni Erhardt: OK. I understand.

Kris Swanson: And I agree, do we want to pursue that and create that much of an impact; not to mention replace nice riverfront beachhead with concrete? Absolutely not.

Toni Erhardt: OK. So, as I said, because it just seems like you're trying to come up with the most impactful thing that you could possibly do to get that additional storage. And if we start going in this direction, the entire river is considered part the – it's the Missouri River main stand and how in with all the dams and all that kind of stuff that are put in place by the Corps of Engineers, we're getting in a – into a whole different realm.

Kris Swanson: And I'm aware of that, yes, ma'am.

Toni Erhardt: OK. OK. I just – I just – I just have to say… I just want to make sure that everybody is aware of that, OK?

Kris Swanson: No, and I appreciate it. And just for the record, I don't appreciate you putting words in BNSF's mouth.

Toni Erhardt: OK. I am not quite sure – like I said, I – is it just look – it just looks like, OK – let's – we want to try to be reasonable and transparent with this, and propose things that are, maybe could even happen, OK? So, that's where I – that's where I'm coming from.

Kris Swanson: I understand. And I would appreciate – this is Kris Swanson again just for the recording. I would love to have those options, because right now BNSF has been challenged by you guys to provide the information, you guys provide the alternatives where we've tried to illustrate our alternative analysis that we have done.

And right now, for the past six months – this is August so, for the past seven months, I feel like we've been on trial for something that we've done, in my opinion, above and beyond of a good faith effort.

And we're being portrayed as someone that's trying to spin things to their advantage which is simply not the case. We're trying to educate you on everything that we've looked at from an engineering perspective. If there are other suggestions out there that people are aware of, please provide them, because we don't know everything. We only go off of the expertise knowledge that we have at the given moment.

Nick Bradbury: Hi, guys. This is Nick Bradbury, Friends of the Rail Bridge. I just got in on the call about 15 minutes ago but I'm glad I made it for this portion of the discussion.

I want to basically congratulate you guys for at least – I mean I'm happy to see that we are coming up with solutions that could actually make and help an alternative to succeed with both bridges standing at the end of the project.

I was a little bit disappointed after the last meeting because of the three alternatives that were placed – we proposed a viable alternative in getting this project done, with the FEMA requirement that there'd be no additional impact to structures, two of those alternatives were proposed with the knowledge that there would be impact and I don't know how often FEMA issues an allowance for projects to have additional impacts on structures when working on rivers and things, but I suspect it's not often.

I suspect it's never or it could reasonably be expected to be never except for with major, I don't know – except with major exceptions or maybe from military efforts or something where FEMA would allow impacts to change the floodplain with the project. I suspect it's very rare that FEMA issues an allowance to change the floodplain.

So, really back in December, two of the alternatives that were kind of proposed didn't have any chance of success because they were both going to impact the floodplain and have the FEMA problem. But another alternative that wouldn't – that we discussed in the last meeting was if we didn't put additional piers in the water with the new bridge, but if the new bridge had – we talked in the previous meeting about the 400-foot span...

Rob McCaskey: Hold on just a minute. We're still on scour abatement and necessary channel modifications. I appreciate what you're saying and that is going to be the next item we talk about. So, can we just make sure we finish the scour abatement and necessary channel modifications are no impact to the floodway before we move on to that? Is there any discussion to that before we let you continue on?

Nick Bradbury: Well, I guess the rest of my comment is I just want to – I'm glad to hear that there now is conversation between the Corps and the project planners in trying to discuss alternatives and other ways that the floodplain issue could be mitigated. I really think that communication amongst different agencies can be part of the key to making this – to keeping our bridge standing.

It's just interesting here. It sounds like in this meeting right now as we're on the phone and I know there's a little bit of back and forth, but at least we're talking to each other now as different agencies and talking about what the possibilities are.

I really think that's helpful in getting new ideas and being creative and coming up with solutions we need to help this happen. And I want to just encourage more of this and that's all my comment for today.

Rob McCaskey: OK. Thank you for that.

Finishing up on BII, scour abatement and necessary channel modification, are there any questions about the floodway, floodplain impacts and the discussion we were having with that?

Hans Erickson: Yes. This is Hans again with TKDA, just a couple of points to make with regard to the exhibit that was provided and some of the discussions here previously. I heard Toni comment there might be an opportunity for additional storage area in the field behind the Captain's Landing development.

And I think what we're really looking for is additional conveyance area. So, we're looking to offset the additional blockage to the river flow created by the additional piers developed with Alternate 2.

So, I think I just want to make sure we're talking apples and apples here and we have the same understanding, because our mitigation plan was developed to provide additional conveyance area to provide identical flow behaviors to the existing conditions as they stand right now. It's not a storage issue. It's a conveyance issue. So, that's one point.

The other item I'd like to just touch on is that this mitigation effort or this mitigation plan was developed to address the 0.02-foot stage increase for Alternative 2. We have not run the numbers or a similar mitigation strategy to address the Alternative 3, the generated 0.03-foot stage increase.

But you can imagine that the impacts are going to extend to a greater degree downstream for sure, potentially upstream as well. But to give folks a flavor for what kind of the minimal impact mitigation approach for Alternative 2 is what was developed and presented.

Thanks. That's all the only other points I had to make.

Kris Swanson: This is Kris Swanson with BNSF. Hans, I just want to clarify a question. When you said Alternative 2 and Alternative 3 and the respective flood elevation level impact, that's referring to the existing bridge remaining, correct?

Hans Erickson: That's correct. Yes. Thanks for the clarification.

Rob McCaskey: Any other comments on BII scour abatement?

Kris Swanson: This is Kris Swanson, just for one more clarification. Hans, I appreciate you talking about conveyance versus storage and I imagine that's related to the difference between floodway versus floodplain.

Would that have any correlation to it where we're impacting a rise in the floodway which is reserved for the conveyance of flow where a floodplain may not necessarily have conveyance? Is that...

Hans Erickson: Yes. Yes. I mean – yes, what we're trying to mitigate is that river stage increase, right? So, we have that – if we just dump the Alternative 2 bridge within the cross-sections of the model and run it, we hit that 0.02 increase. And now, we need to do something to the cross-sections within the channel.

We need to make some modification to those within the model and then superimpose those model changes or those proposed model changes into the

reality that is the embankment section. So, yes, that's what we're trying to mitigate. It's just that 0.02-foot stage increase.

Susan Wefald: Hello. Hello. This is Susan in Bismarck with Friends of the Rail Bridge. You're referring to a model that you used for – to project the river increases. What availabilities do we have to analyze that model?

Is that model part of the record in this case because it's becoming a very big issue as far as this Section 106? Do we have an opportunity to examine that model and to see how those statistics were arrived at?

I think we should have an ability and so, I'm asking for that information. I'm asking for that model and those statistics.

Rob McCaskey: This is Rob. I mean is that something that you guys have the ability to provide to the group?

Kris Swanson: I mean, technically, it's the public model from FEMA that we just inputted the variables in. So, I imagine we could.

Rob McCaskey: OK. I appreciate that.

Susan Wefald: OK. Then, I'm requesting that information please.

Kris Swanson: And I assume – this is Kris Swanson again – that this is Susan who also mentioned that they want to try to get their own independent engineer analysis of the floodway?

Susan Wefald: Yes. Yes. This is the same Susan Wefald with Friends of the Rail Bridge. Yes.

Kris Swanson: Understood. So, I guess continuing down the path is that I would imagine that our model presented would then be analyzed by an engineer versus historian experts?

Susan Wefald: Yes, of course.

Kris Swanson: Understood. Thank you.

Rob McCaskey: OK, other comments, questions, scour abatement, channel modifications? Hearing none, moving on to letter C, we have a request from FORB, start the discussion of the design in which existing bridge is preserved and the new rail bridge is built.

Susan Wefald: Can we in the interest of time delay that for the next meeting because we only have 10 minutes, I believe, left.

Rob McCaskey: OK.

Kris Swanson: This is Kris Swanson. I don't necessarily object, but I guess from BNSF's perspective, this is what we've been trying to do the whole time is explain what options are available and the potential objectives related – or not objectives, the potential obstacles, sorry wrong word, that would be associated to clearly outline if the bridge were to be taken over what the entity of ownership would be signing up for. So, I guess, to restate simply, my understanding is that we're already doing that.

Rob McCaskey: Susan, was there something from your perspective without going into details that you wanted to say regarding this?

Susan Wefald: I think Friends of the Rail Bridge would like to bring some options forward that perhaps were discussed briefly but not in detail at the last meeting. And we would be happy to put – lay those out in a draft agenda for the next meeting.

Rob McCaskey: OK. That sounds great. Let's look for that.

OK. We have in the agenda – go ahead. Go ahead. Who's that?

Chris Wilson: This is Chris at the ACHP. I think it is a good idea generally to put that as item number one for your agenda for the next meeting but also if you can send out Betsy's document relating to the bridge she brought up as an example.

And then, as your item number D here, we want to hear from municipality, city, county, state. We'd also like to talk about potential grants, I think a

nonprofit. You may not want to talk about today, but they're already working on receiving a grant, and just other possibilities.

And then, I'd like to make one last request and that is – so, in a traditional 106 case, we ask that the federal agency – in this case, Rob fulfills that role – have someone there that has a decision-making capacity. So, Rob has been assigned that role for the Coast Guard. But in this case, where BNSF is the owner of the resource and their decisions are very critical in how this 106 case is going to be completed.

I'd like to see if we could have a decision maker from BNSF on the call and no disrespect to the engineering community. I've been working with engineers for 30 years. No disrespect to them, but their job is to promulgate the design and to look at the engineering and to be a project manager.

I'd like to have someone from Burlington Northern that has a decision-making capacity instead of just the engineer community in the company, someone higher up who could be part of this discussion. I just think that would be helpful and that would speed things on a little bit. It seems like we're moving at a faster clip, but it'd be great to have someone from Burlington Northern be part of this discussion.

Amy Macbeth: This is Amy Macbeth from BNSF Railway. I think you might not be aware of the level of people that you have on this call, Chris. You have engineering decision makers who are on the call. You heard from Mike Herzog earlier,

Mike Schafer earlier. There's multiple people from BNSF. So, I don't want to leave this group with the impression that you don't have the right people from BNSF participating in these meetings.

Chris Wilson: Well, I guess I'm talking about budgetary authority, right? Because at the end of the day, I would imagine this is about money. What does it cost to demolish the bridge? That's a discussion that hasn't – I haven't witnessed maybe at the meeting I missed.

What is the cost to acquire a new right of away? Those decisions are made at a pretty high level, by someone with budgetary authority and I'm just throwing it out there, certainly not a requirement, but I think it would help.

So, remember the other bridge examples we had that were driven by Federal Highways and state DOTs. Well, there were people from Federal Highways in those discussions with the authority to make decisions. And then, so I'd like to see if we could have someone from Burlington Northern that has budgetary authority be part of the discussion.

Amy Macbeth: Well, again, this is Amy from BNSF. I think that you have the folks who would help feed into those decisions at BNSF and we have the right people who are here, but we can certainly discuss that further.

Chris Wilson: Good. Thank you. I appreciate it.

Kris Swanson: This is Kris Swanson. Chris Wilson, thank you for bringing up the point that I would really like to hear from the municipality as well. I think we've already heard from Mandan. We've heard from the township. We've de facto heard from Burleigh County. I don't think we've heard anything from Morton County or the City of Bismarck.

It seems like from the examples that were presented that public involvement, government involvement is extremely important. It was also mentioned about insurance which I was not aware of. I'd wonder how that railroad insurance would be handled versus just public liability.

So, I would like more information from that. I think you also mentioned an update on fundraising because again, part of this process is practicability and reasonableness.

And this bridge as part of the reasons we're addressing it, there's a scour concern that currently exists due to the shallow foundations. That's been outlined in our alternative analysis. That bridge needs to be replaced in time and a lot of the examples that we went through today took several decades. This bridge does not have decades.

BNSF has to provide its interstate commerce obligation to its customers and to the nation, so we can go to the grocery store and pick up food at will. We've got the cars in the car lot that we want to pick and have a choice. There's all sorts of other things that BNSF does.

We run coal to the power plants so we can switch our lights on. We run chlorine so we can have clean drinking water. That will all be affected if this bridge is not addressed in a practicable and reasonable manner and that's what we've been trying to illustrate as far as our thought process.

So, I echo your request for an update on government support and Friends of the Rail Bridge funding activity. And then, I believe there is – is there anything else that I missed as far as what you've covered? But those are my requests going along with your original ones. Thank you, sir.

Rob McCaskey: So, we do need municipal involvement. Go ahead, Susan.

Susan Wefald: This is Susan Wefald with Friends of the Rail Bridge. And we are – we want to put on the agenda for the next time, the railroad bridge instruction report, the public version from dated May 30th of this year. We want that to become a part of the public record and we want that to be added to the discussion items for this next meeting.

We would also like to put on the record the minutes from the Burleigh County commissioners meeting, May 7th, I think it is but we'd also like that to be put on the record, their endorsement of the rail bridge becoming a pedestrian recreation bridge. So, we would like to have both of those items added to the agenda next time as well, so we can get that information on the record.

Rob McCaskey: OK. We'd be interested in seeing that as soon as we can get that up here to Coast Guard as well.

Susan Wefald: OK, great. And I'll send you copies. Thank you, Mr. Caskey.

Rob McCaskey: Thank you.

Kris Swanson: This is Kris Swanson. I remembered the additional point that Mr. Wilson brought up about the cost to demo the bridge. That has been discussed several times. Susan Wefald mentioned it at our last meeting. The engineering estimate for it at this time is $4 million.

And then, we also talked about – or, Mr. Wilson, you also brought up that it's about money. It's not simply about money and our purpose and need. It's a long-term solution that protects our franchise in order to be able to fulfill the service we have and obligation we have as part of interstate commerce. So, that brings in...

Chris Wilson: So, you were talking about the public involvement and I think you really nailed it. It'd be good to have communications with municipalities as part of the consultation. And so, I'd like to encourage that communication occur under the umbrella of the Coast Guard 106 process.

And so, whatever we can do as a group, but primarily Coast Guard's responsibility and I know it's difficult to lead a horse to water, right, and I mean you can do that but you can't make him drink. We need some municipal, state, county, city participation, but as part of this consultation, not as bilateral conversation. So, let's try to develop a strategy where they can participate in these calls. And so, all these things can be discussed.

And my goal is for the 106 process to move forward and not to stall out and it seems like there's some momentum, but we need more participants on the call and we need to be able to discuss these things frankly and let's develop a strategy and I guess I'm talking to Rob here on how to get more municipal involvement under the guise, under the 106 umbrella.

Kris Swanson: This is Kris Swanson. I 100 percent agree with you, Mr. Wilson. BNSF, anybody in the room, I would declare that BNSF understands the importance of that and we've been trying our best. I do not – again, we mentioned about the Burleigh County. I'm glad that we've had some sort of meeting with that. I would love to have those meetings as part of this process.

We do have a senator that's listening on the call, a state senator. So, that's a great participation. From my point, I feel BNSF has done what we can. I

would be more than willing to do more, but again, I would love personally to have more involvement in the 106 process as well.

Rob McCaskey: OK. I'll third that.

Jim Neubauer: This is Jim.

Rob McCaskey: I think we are probably at a good stopping point. Is there anything else anyone else wanted to say, Chris or anyone else, before we start to wrap this up?

Jim Neubauer: Rob, this is Jim Neubauer from Mandan.

Rob McCaskey: Yes. Mr. Neubauer, could you move closer to your phone, sir.

Jim Neubauer: Yes. Mandan has been listening in and participating in these calls from the get-go. I think there's only been one that we have missed. And I know Carl Hokenstad from the City of Bismarck is also on the call today. So, we are here.

Rob McCaskey: You're certainly welcome and feel free to speak up whenever you feel it's pertinent, sir.

Jim Neubauer: Absolutely and we do. This is Jim again.

Rob McCaskey: OK. Thank you.

Kris Swanson: This is Kris Swanson with BNSF again. And I guess this question is to Mr. Wilson. To what capacity do you want the municipality involvement? I mean I guess from my layman's understanding, and I don't use that term loosely, I'm a bit of a simpleton, so, are you saying that you would like decision makers from the municipalities as well to speak to what they're willing to contribute to the project?

I mean, we've discussed needing to have a BNSF decision maker.

Chris Wilson: Exactly. So, in order for the process to work, we need – and I think our conversations are frank and honest and everyone is coming to the table to try

to find a solution. But, right, having county, and state, municipal representatives that can chime in and once we get some of these additional documents that we're going to look at before the next meeting have some discussions about what can occur.

So, Kitty Henderson can provide 30, 40, 50 examples of how communities have responded to these kinds of projects. Well, now, it's up to this community to see if they can figure out a way to get through this process.

Everyone agrees that BNSF plays a very critical role in national infrastructure and moving goods and services and we're aware of that. But, this is an unusual circumstance where other examples have been provided where we need to start looking at assessing these – the adverse effect and the adverse effect here is removal of the bridge.

So, the $4 million for demolition, wow, that's a significant number. So, there're lots of different scenarios that can be worked out, timeframes, expectations, liability. I suggest we start getting to the meat of the matter and once we look at Betsy's agreement that she's going to provide for the other similar bridge and we could provide some other agreements that show the roles of different groups. For example, the Chattanooga example, I can get a detailed analysis of that and provide it.

That's what I would like to see happen where the next meeting we start to problem solve because I know BNSF wants to move forward. No one is trying to hold them up here. And then, also, if you could consider bringing some additional people in from the company that are in a decision-making capacity and we can get down to business and not waste everybody's time.

Rob McCaskey: OK. Any other comments or items of discussion before we close the call? I'll stand by for responses.

The next call we are looking at will be on August 22nd. I think that today's call was productive. I think the format was good and actually I think it was much better than the in-person meeting that we had the last time. So, I'm inclined to do that again on August 22nd. Any comments on that?

Female: Will the call on August the 22nd going to be in the evening or the afternoon?

Rob McCaskey: I'm open to input. We did it this time during the afternoon, but my understanding is it might be more convenient to rotate it around and perhaps do an evening call.

Susan Wefald: Yes. This is Susan from Friends of the Rail Bridge. We would appreciate an evening meeting next.

Rob McCaskey: Is six o'clock the time that you would call an evening call, ma'am?

Susan Wefald: Yes.

Rob McCaskey: OK. Any other comments on that?

OK. Again, look for e-mails and correspondence. If you don't hear something from me or from the BNSF consultants in the next two weeks, contact me directly and ask why. You will. We should be getting an agenda and an invite to the next meeting which will be on August 22nd, tentatively at 6 P.M. and using the same number.

Mike Herzog: Rob?

Rob McCaskey: Yes. Go ahead.

Mike Herzog: Mike Herzog with the BNSF Railway. Just looking at the calendar, is there – what is the driver to wait until the 22nd for the next meeting with the momentum that was referenced a couple of times on this call? Is there a good reason not to have the meeting sooner?

Rob McCaskey: Mike, what are your thoughts and what would you propose?

Mike Herzog: I'd say go every other week.

Susan Wefald: Excuse me. This is Susan from Friends of the Rail Bridge. We are not all professional people and able to work on this every day of the week. And so, we need time and that's why we had agreed at the beginning to that schedule that we set up for every three weeks and that still seems a very reasonable

schedule and we certainly can keep up momentum meeting every three weeks. We are going to be very challenged to do everything that we said we would between now and three weeks from now for this next meeting.

Rob McCaskey: That sounds reasonable to me, Mike. I think it sounds reasonable to me to keep it at the 22nd.

Any other objections to the 22nd or any other comments on that?

Susan Quinnell: This is Susan Quinnell. Well, I have to agree that we need to stay to at least three weeks because we can't even get the minutes and the agendas with – I mean, I'm sorry, but that's just reality. So, two weeks is ridiculous. I have to say we have to at least stay with three weeks. Thank you.

Rob McCaskey: Yes. You got the agenda three weeks ago starting and we made adjustments. So, the minutes I'll take that on if you want to do that, but I don't think there's any problems with the agenda this time.

OK. Hearing no other comments, we'll close this and stand by for further communication, August 22nd meeting at six o'clock. Thank you. Good day.

Operator: The leader has disconnected. The conference will be terminated in five minutes.

END

From: [redacted]
To: [redacted]
Subject: BNSF Rail Bridge, Bismarck - 0038-196.6 Hydraulic Modeling Information
Date: Tuesday, August 14, 2018 5:29:00 PM
Attachments: image001.png
HEC-RAS.ZIP
6680-007 Missouri River XSecs 11-23-15 - Final.csv
6680-007 Missouri River XSECS Point List.pdf
0038-196.600 - Alternate 3.pdf
0038-196.6 - Existing.pdf

Good afternoon,

Please find attached and below the requested hydraulic modeling information used for development of Bridge 196.6 in Bismarck.
A brief explanation of the attachments:

HEC-RAS model:

- This is the original model received at the start of the project. This is what FEMA/ USACE would have available.
- It includes only the baseflood plan and the floodway plan
    - This is the "effective" model used to generate the current flood insurance study, and flood insurance rate maps
- It does not include any of the modifications/updates or alternatives that we analyzed for this project
- The model is in vertical datum NGVD29
- The model does not include the existing bridge.

6680-007 Missouri River XSecs 11-23-15 – Final.csv and 6680-007 Missouri River XSECS Point List.pdf:

- River cross-section survey data taken upstream and downstream of the existing bridge.
- The HEC-RAS model was updated to incorporate this survey data

0038-196.600 – Alternate 3:

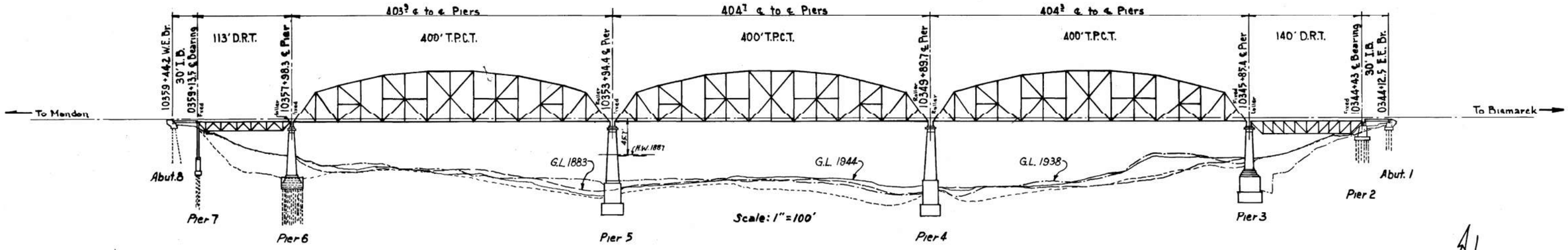
- Bridge construction plans for Alternate 3.
- The Alternate 2 configuration uses the same river piers shifted to an alignment 80' north of the existing and translated to align with the existing piers

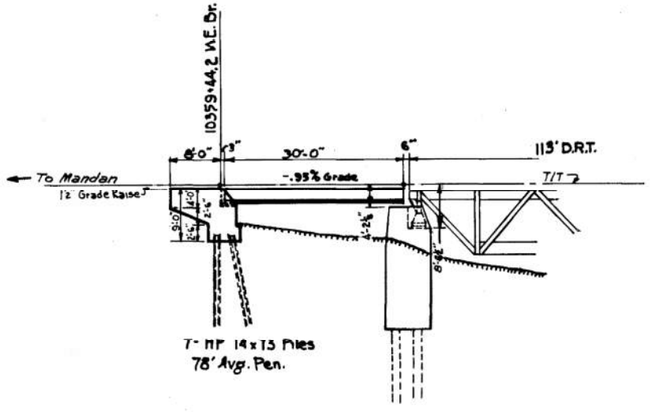
0038-196.600 – Existing:

- Geometric details of the existing bridge

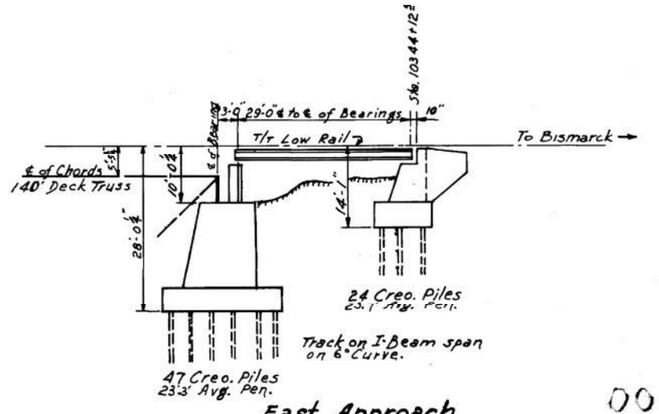
Hans Erickson, PE, SE | Senior Registered Engineer
Professional Engineer: MN, FL, ND
Structural Engineer: IL

444 Cedar Street, Suite 1500, Saint Paul, MN 55101
[redacted]
tkda.com

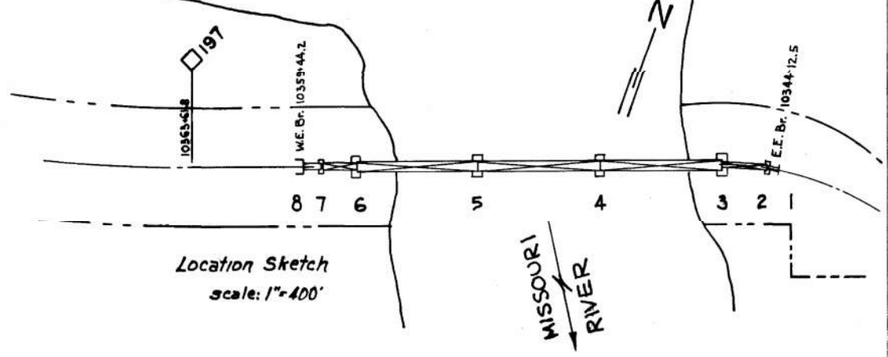




West Approach
Scale: 1" = 20'



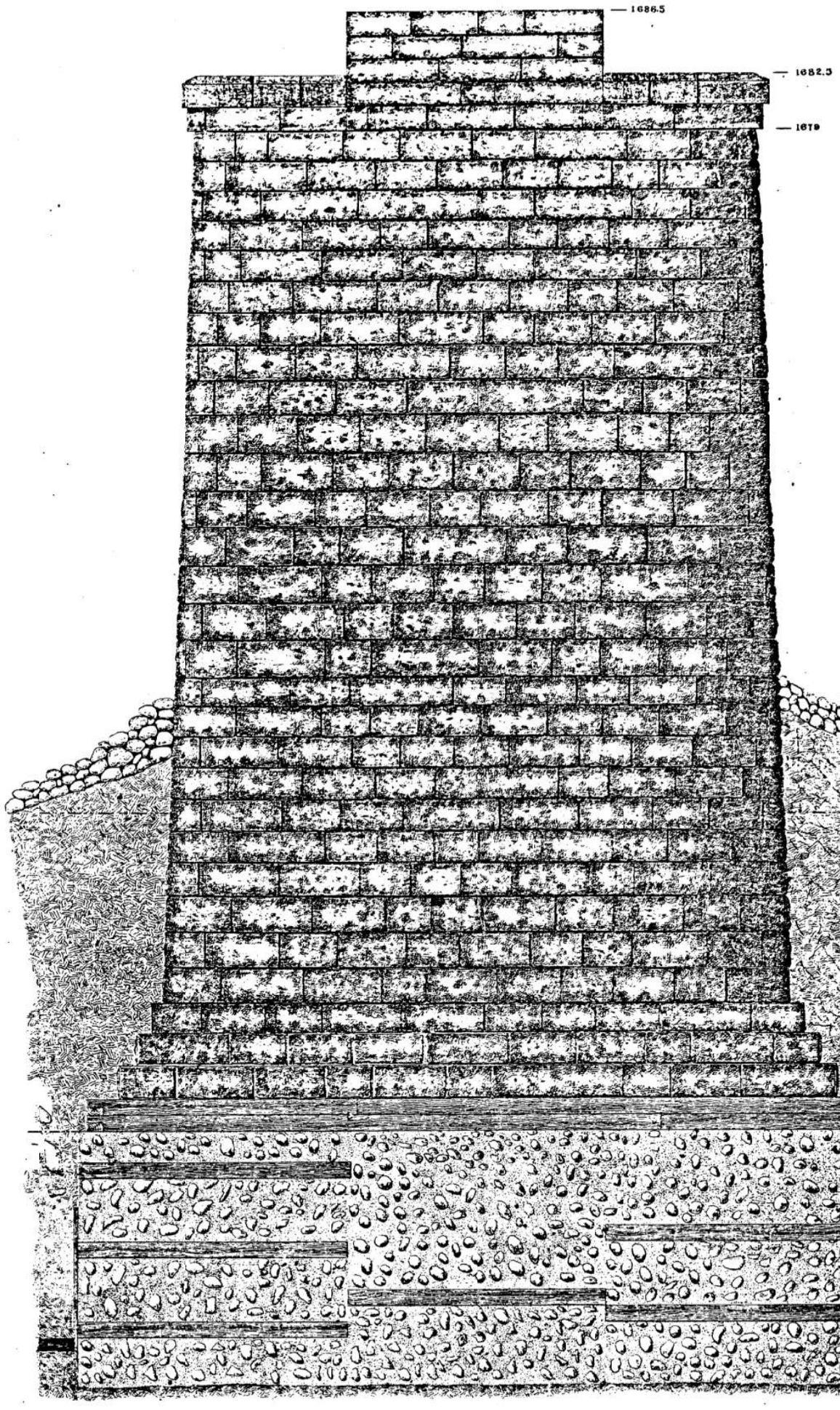
East Approach
Scale: 1" = 20'



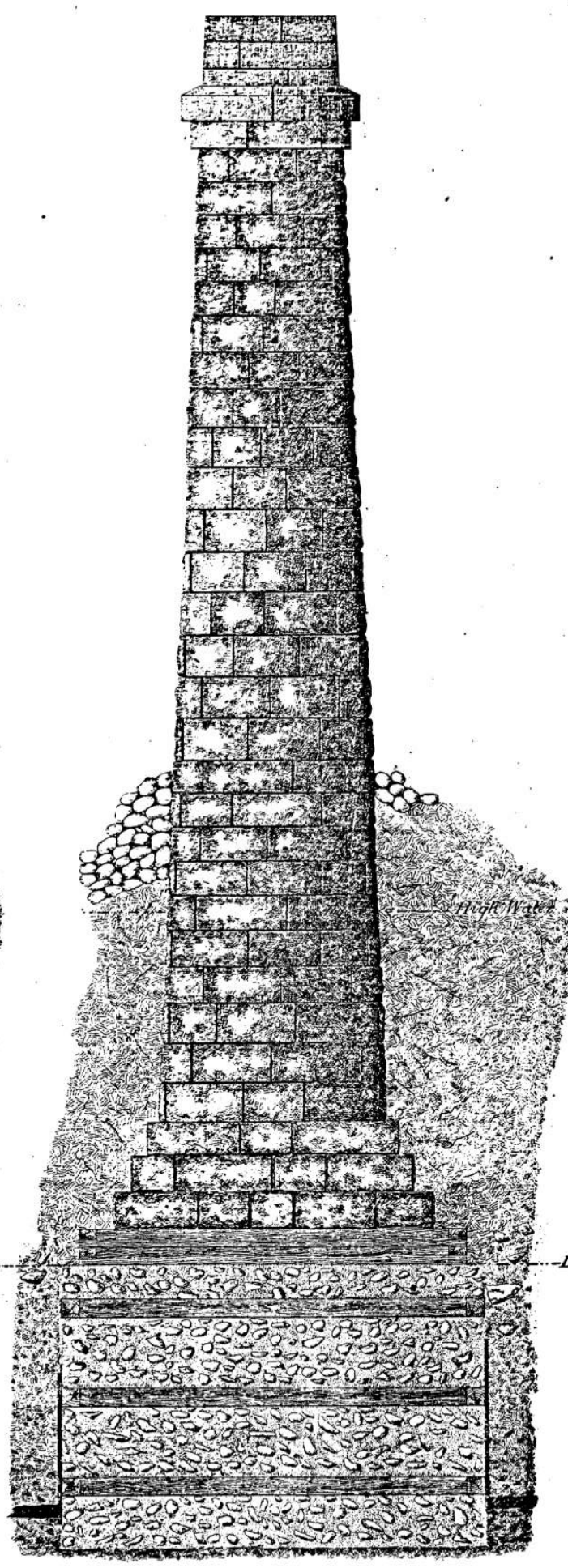
Location Sketch
Scale: 1" = 400'

0000 - 196.0 - 196

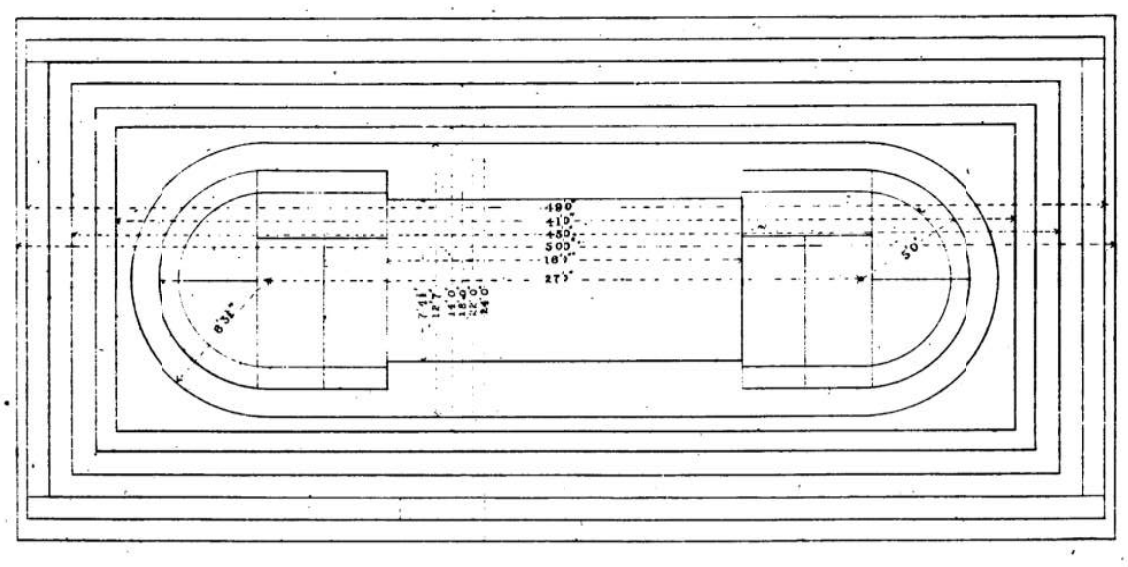
N°196
Missouri River



Longitudinal Elevation.



End Elevation.



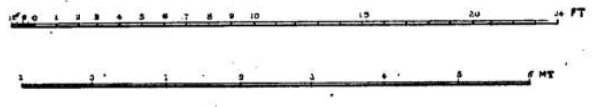
Plan.

NORTHERN PACIFIC RAILROAD

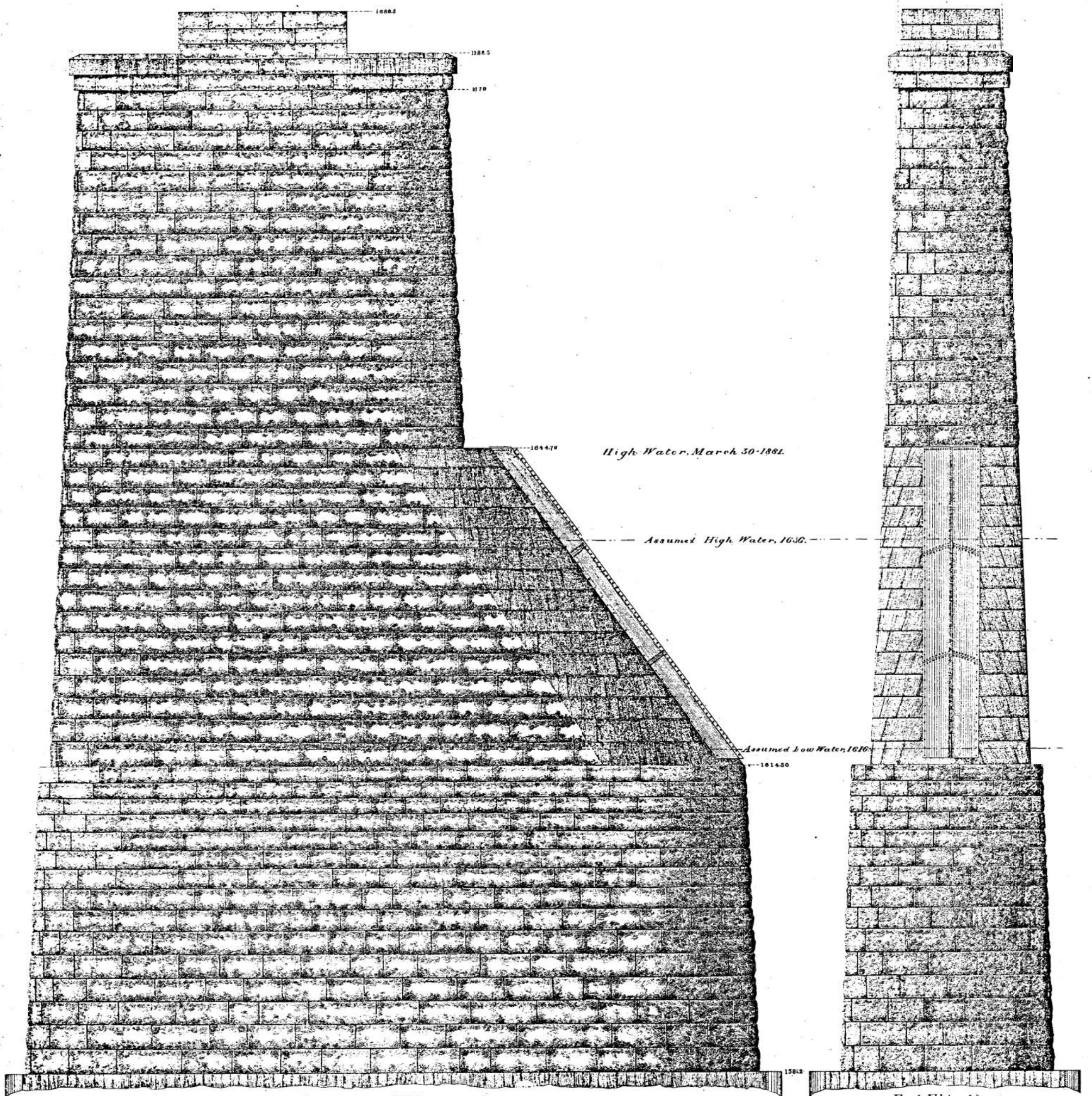
BISMARCK BRIDGE

PIER NO. 1.

SCALE.

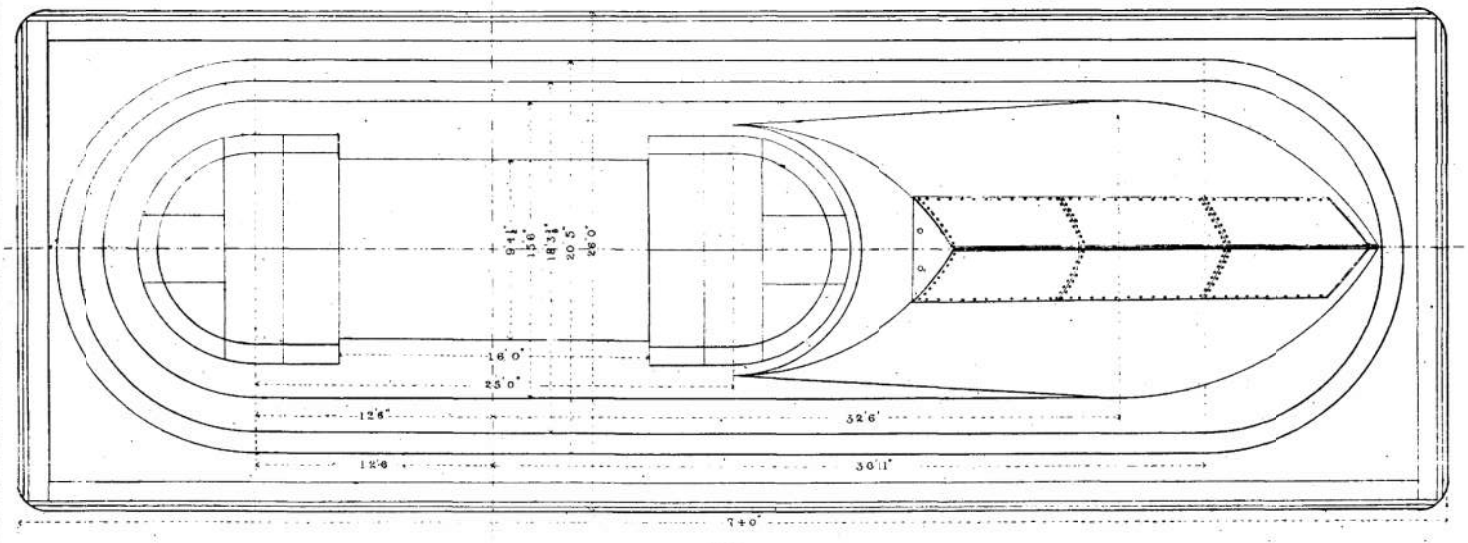


Geo. S. Morison
Engr & Supt.



Longitudinal Elevation

End Elevation



Plan

NORTHERN PACIFIC RAILROAD

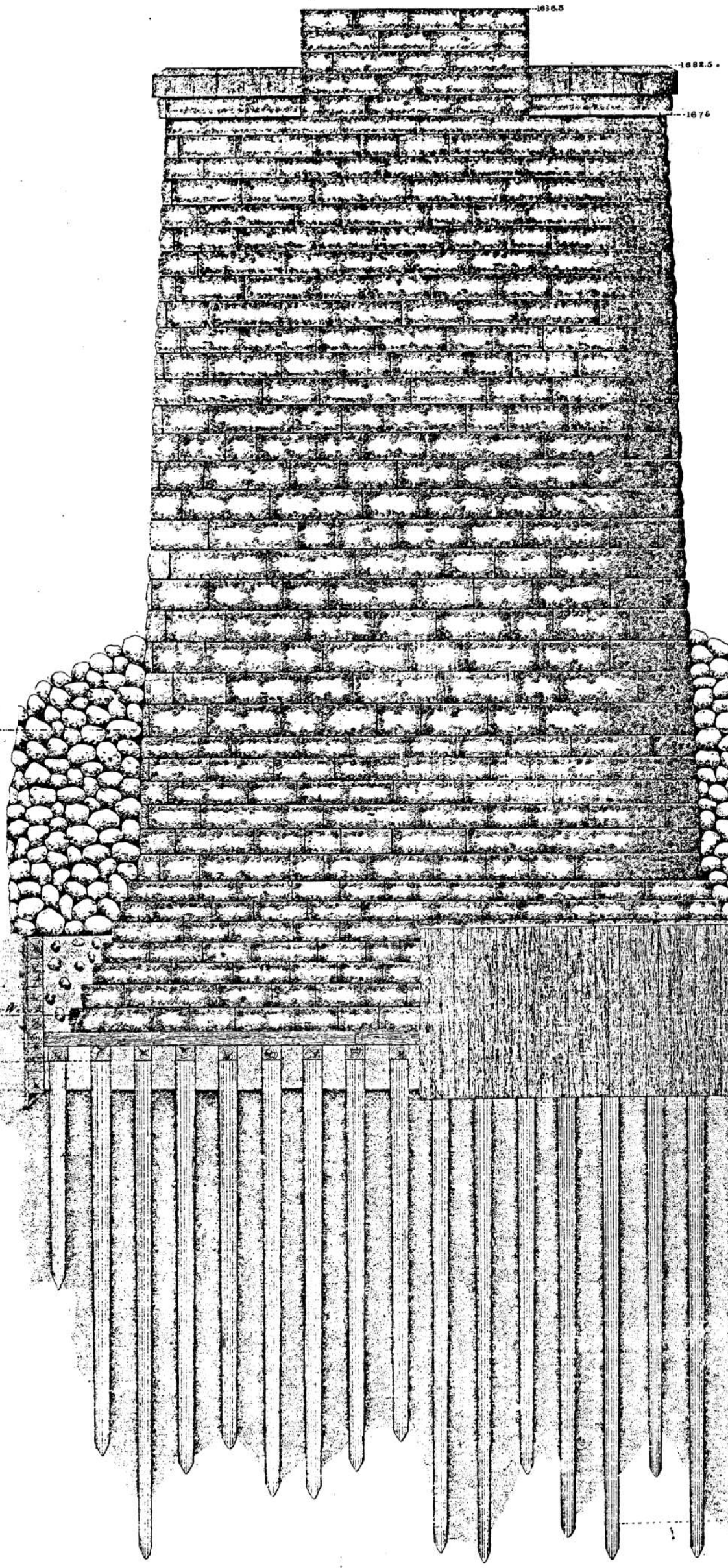
BISMARCK BRIDGE

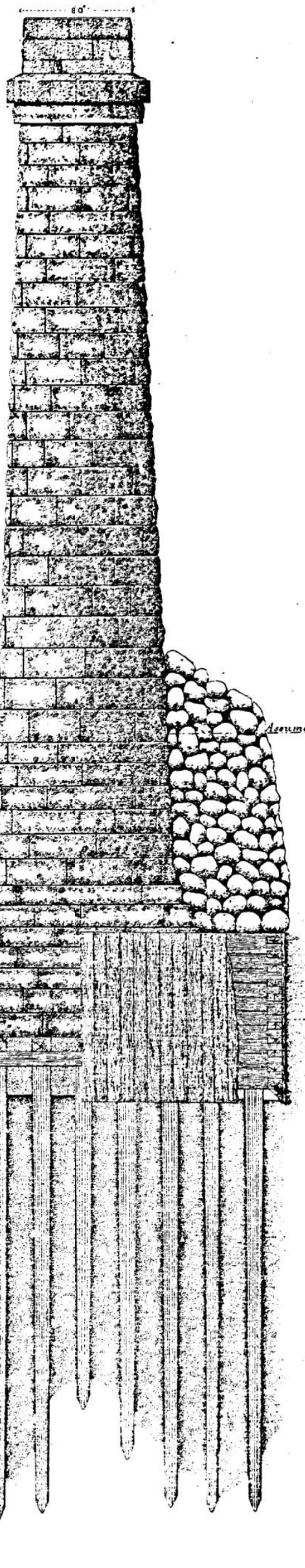
MASONRY OF PIER II.

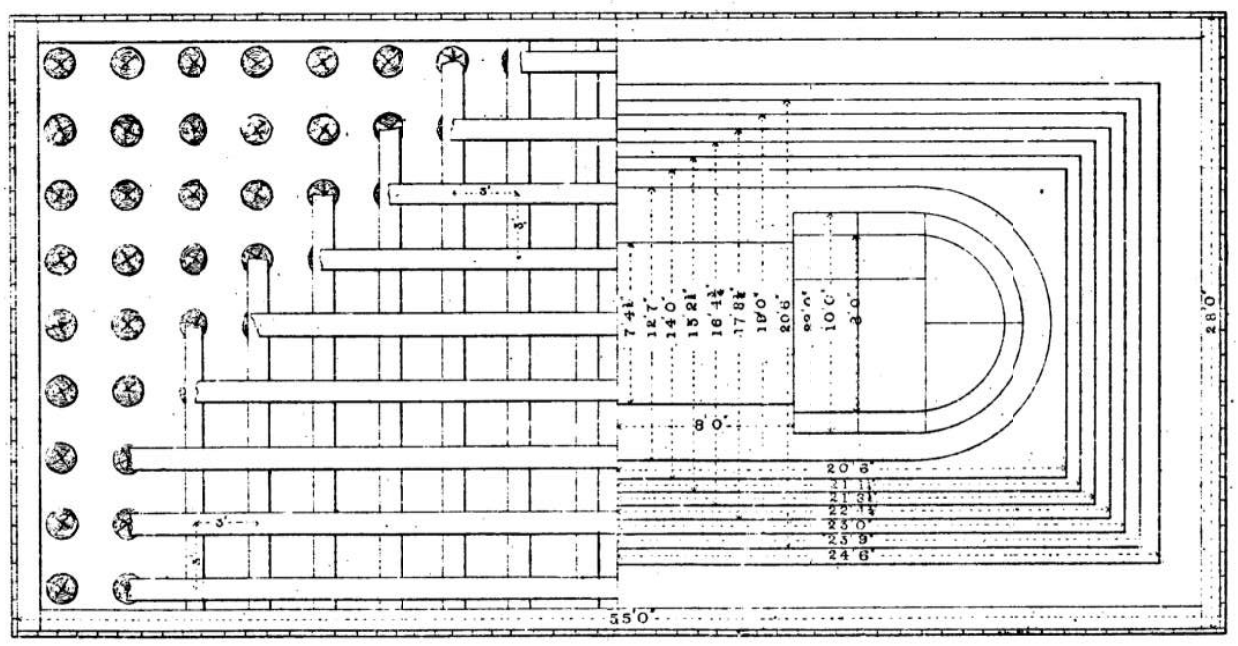
SCALE.

Geo. S. Morison
Engr & Supt

Plate 6.





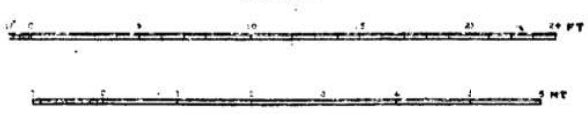


NORTHERN PACIFIC RAILROAD

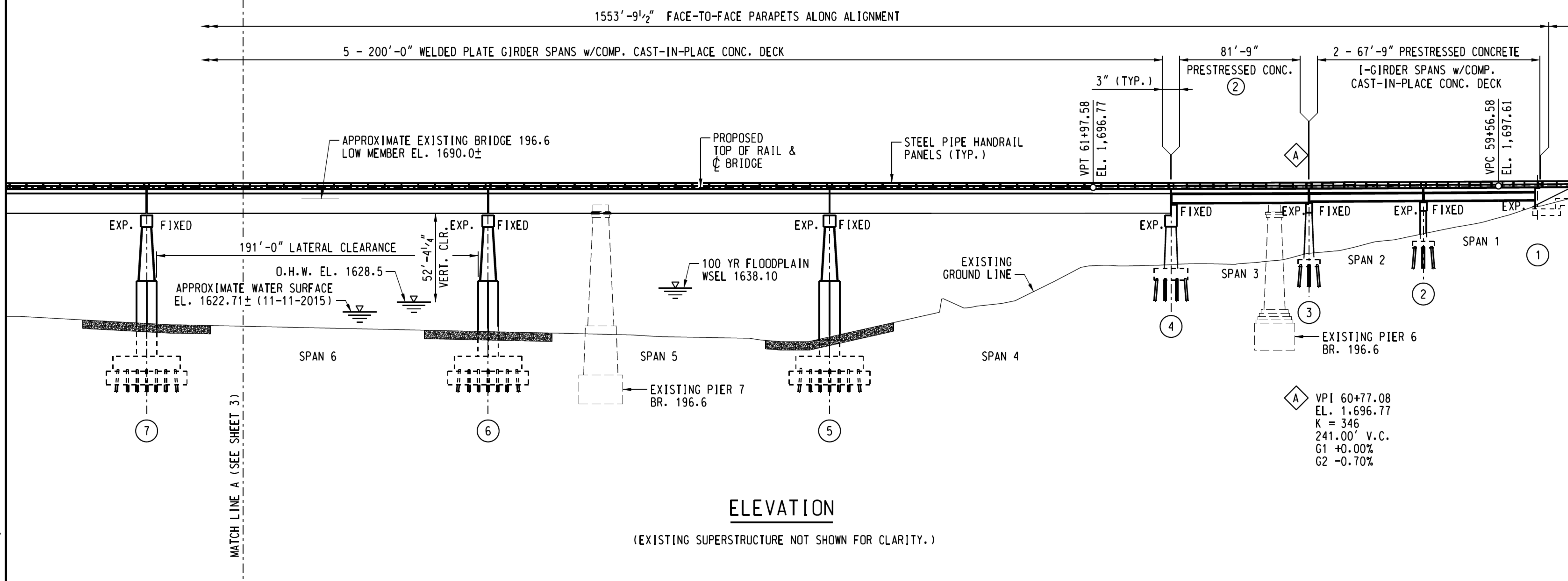
BISMARCK BRIDGE

PIER IV

SCALE.



L. S. Morison
Engr & Supt



ALIGNMENT NOTES:

THE ℄ TRACK ALIGNMENT OF THE PROPOSED BRIDGE IS MOSTLY TANGENT, EXCEPT FOR THE EAST APPROACH (SPANS 1, 2, AND 3). THERE, THE TRACK ALIGNMENT CHANGES TO A SPIRAL CURVE AND THEN TO A 5°41' CIRCULAR CURVE.

THE DESIGN SPEED OF 40 MPH AND THE DEGREE OF CURVATURE OF THE CIRCULAR CURVE REQUIRE A SUPERELEVATION OF 4⅜".

SPANS 1, 2, AND 3 ARE PRESTRESSED CONCRETE BEAM SPANS. THE PCB'S, CONCRETE DECK AND WALKWAYS HAVE BEEN CHORDED WITH RESPECT TO THE TRACK ALIGNMENT.
THE DISTANCE BETWEEN THE VERTICAL CURBS IN THESE SPANS HAS BEEN INCREASED 14'-0" IN ORDER TO PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 6'-6" WITH RESPECT TO THE TRACK ALIGNMENT. THE TRANSITION TO THE 13'-0" CURB DISTANCE IS ACCOMPLISHED BY MITERING. THE CURB HEIGHTS MATCH THE SUPERELEVATION GEOMETRY. ADJACENT TO PIER 4, CURB HEIGHTS GET TRANSITIONED TO MATCH THE WALKWAY ELEVATIONS IN THE TANGENT SECTION OF THE BRIDGE.

GENERAL NOTES:

STATIONING AND ELEVATIONS ARE BASED ON A SITUATION SURVEY OF SITE COMPLETED NOVEMBER 23, 2015 BY TKDA OF ST. PAUL, MINNESOTA.

ATTENTION: THE CONTRACTOR SHALL VERIFY THAT ALL UNDERGROUND AND OVERHEAD UTILITIES HAVE BEEN LOCATED AND IDENTIFIED PRIOR TO BEGINNING CONSTRUCTION.

FOUNDATION DETAILS ARE BASED ON THE GEOTECHNICAL EVALUATION REPORT DATED AUGUST 28, 2017 BY BRAUN INTERTEC CORPORATION.

PROPOSED BRIDGE OPENING IS BASED ON HYDRAULIC ANALYSIS OF BRIDGE 196.6A BY HOUSTON ENGINEERING OF FARGO, ND.

6" BALLAST TO BE FURNISHED AND PLACED BY BRIDGE CONTRACTOR. REMAINING BALLAST, TIES, AND RAILS TO BE INSTALLED BY BNSF.

(1) CAST-IN PLACE CONCRETE DECK JOINT OPENING @ 45°F.

(2) I-GIRDER SPAN W/ COMP. CAST-IN-PLACE CONC. DECK

TABLE OF EST. LIFTING WEIGHTS

ITEM	MARK NO.	ESTIMATED WEIGHT (LBS)
81'-9" PRESTRESSED CONCRETE BEAM		69,120
79'-9" PRESTRESSED CONCRETE BEAM		67,460
67'-9" PRESTRESSED CONCRETE BEAM		53,300
200'-0" WELDED DECK PLATE GIRDER		208,940

ALIGNMENT NOTES:

(1) C.S. STA. 60+01.70
X = 1,887,260.430
Y = 420,315.308

(2) S.T. STA. 62+11.69
X = 1,887,060.153
Y = 420,252.521

WORKING LINE NOTES:

(A) WORKING LINE "A" = ℄ TRACK & BRIDGE (PROPOSED BRIDGE)
STA. 59+00.00
X = 1,887,360.375
Y = 420,333.905
= 180°00'00.00"

(B) WORKING LINE "A" = WORKING LINE "B"
X = 1,887,248.718
Y = 420,318.904
= 168°17'26.52"

TKDA
444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
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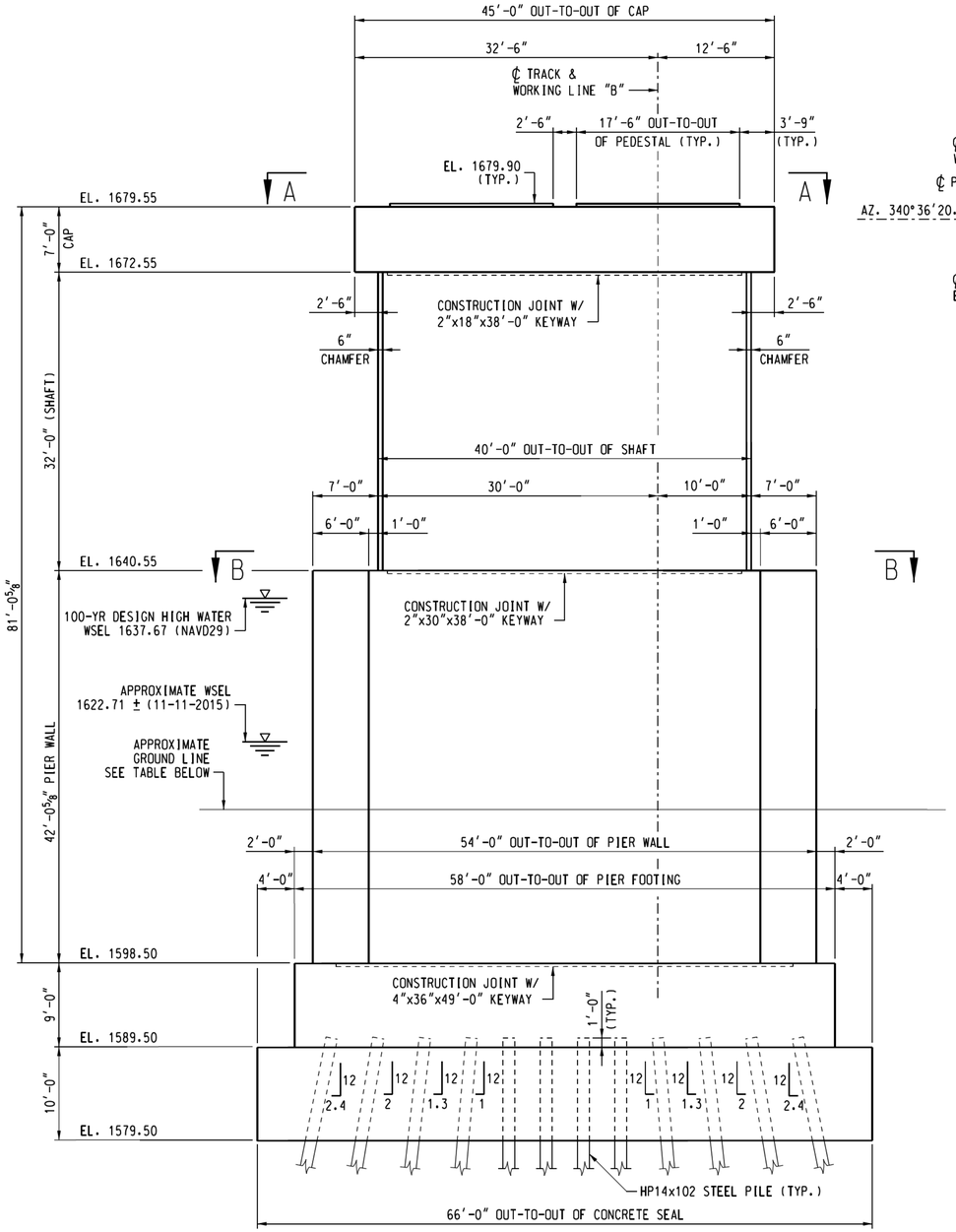
DES: MJC-TKDA	BNSF RAILWAY	BISMARCK TO MANDAN	
DRAWN: ADL-TKDA	BRIDGE ENGINEERING KANSAS CITY, KS	BRIDGE NUMBER 196.6A	
CHECK: HLE-TKDA		OVER MISSOURI RIVER NEAR BISMARCK, ND	
DATE: OCT. 2017	APPROVED:	GENERAL PLAN AND ELEVATION (1 OF 2)	
AUTH: AXXXXX			
LINE SEG: 0038	DIRECTOR STRUCTURES ENGINEERING	PLAN NO: 0038-0196.600-002	SHEET: 2 OF 113

TKDA
444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DES: MJC-TKDA	BNSF RAILWAY	BISMARCK TO MANDAN
DRAWN: ADL-TKDA		BRIDGE NUMBER 196.6A
CHECK: HLE-TKDA	BRIDGE ENGINEERING KANSAS CITY, KS	OVER MISSOURI RIVER NEAR BISMARCK, ND
DATE: OCT. 2017		GENERAL PLAN AND ELEVATION (2 OF 2)
AUTH: AXXXXX	APPROVED:	
LINE SEG: 0038	DIRECTOR STRUCTURES ENGINEERING	PLAN NO: 0038-0196.600-003 SHEET: 3 OF 113

Date Printed: 7/24/2018 Time Printed: 6:00:12 AM

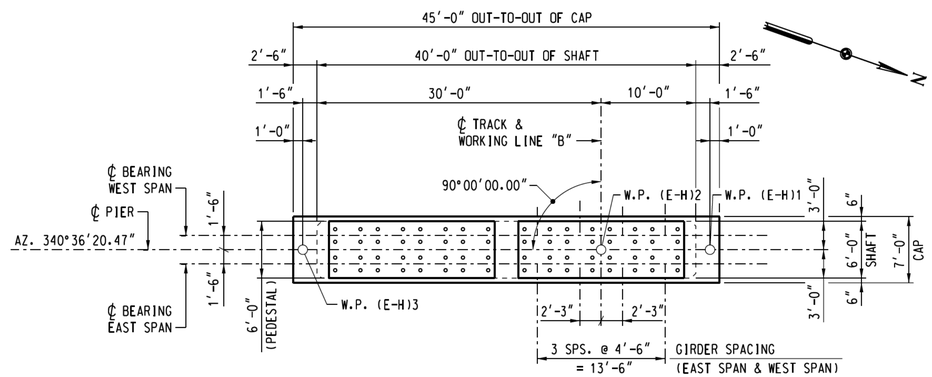


SOUTH END

PIER 5 THRU PIER 8 ELEVATION

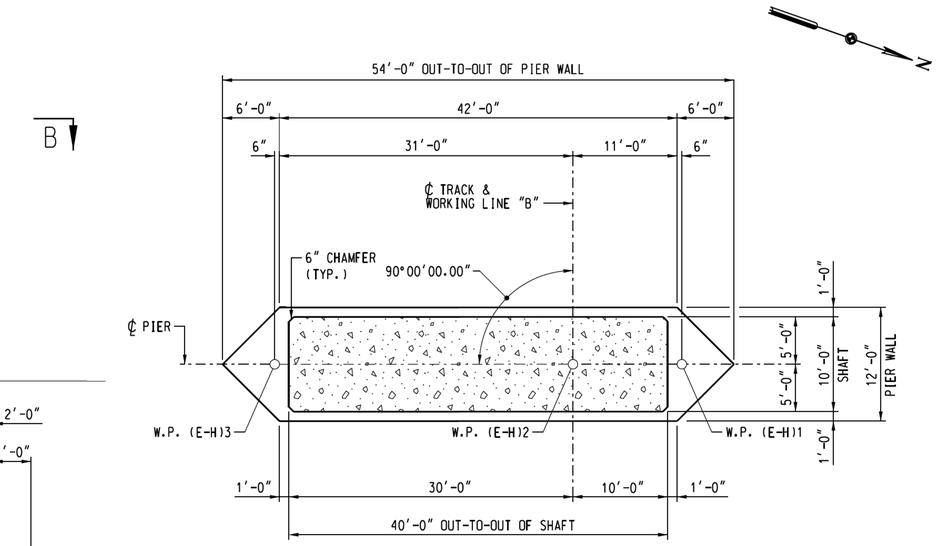
NORTH END

PIER NO.	GROUND LINE ELEVATION
PIER 5	1604.70
PIER 6	1612.14
PIER 7	1615.12
PIER 8	1620.59



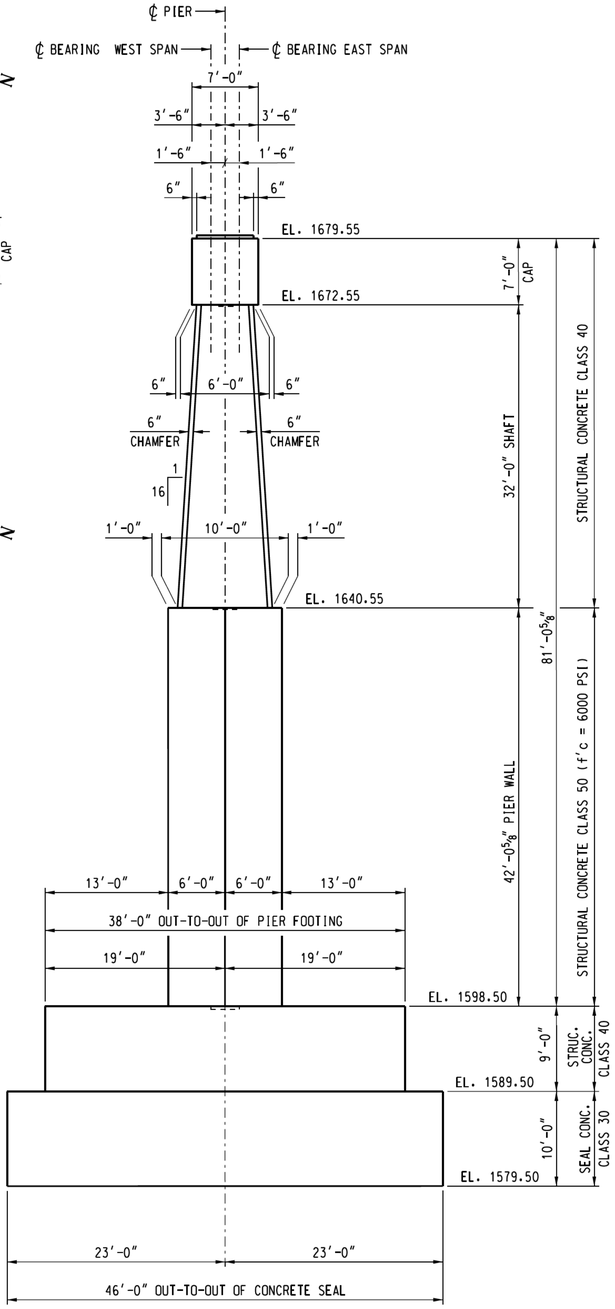
VIEW A-A

(TOP OF CAP)
(PIER WALL NOT SHOWN FOR CLARITY)



SECTION B-B

(TOP OF PIER WALL/BASE OF SHAFT)
(FOOTING AND SEAL NOT SHOWN FOR CLARITY)



PIER 5 THRU PIER 8 END VIEW

(LOOKING NORTH)
(PILING NOT SHOWN FOR CLARITY)

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DES:	MJC-TKDA
DRAWN:	ADL-TKDA
CHECK:	LJL-TKDA
DATE:	OCT. 2017
AUTH:	AXXXXX
LINE SEG:	0038

BNSF RAILWAY
BRIDGE ENGINEERING KANSAS CITY, KS

APPROVED: _____
DIRECTOR STRUCTURES ENGINEERING

BISMARCK TO MANDAN
BRIDGE NUMBER 196.6A
OVER MISSOURI RIVER NEAR BISMARCK, ND
PIER 5 THRU PIER 8 - GENERAL PLAN AND ELEVATION

PLAN NO: 0038-0196.600-035 SHEET: 35 OF 113

File Location: K:\e-BNSF\195000004_Products\civil_CADD_Bridge\Plan\196BA_Plan8_02.dgn

Date Printed: 7/24/2018 Time Printed: 6:05:43 AM

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DES:	MJC-TKDA
DRAWN:	ADL-TKDA
CHECK:	GM-TKDA
DATE:	OCT. 2017
AUTH:	AXXXXX
LINE SEG:	0038

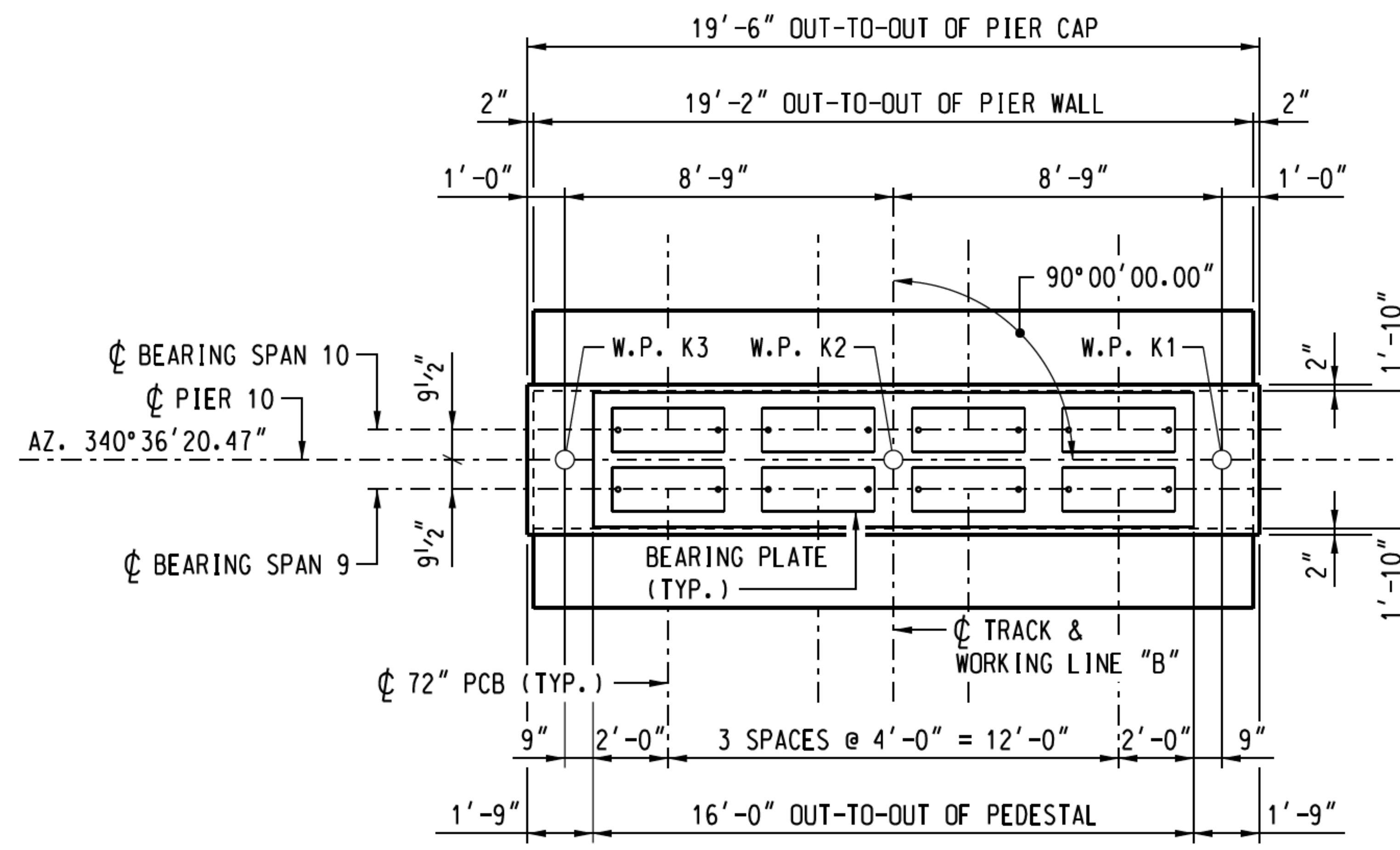
BNSF RAILWAY
BRIDGE ENGINEERING KANSAS CITY, KS
APPROVED:
DIRECTOR STRUCTURES ENGINEERING

BISMARCK TO MANDAN
BRIDGE NUMBER 196.6A
OVER MISSOURI RIVER NEAR BISMARCK, ND

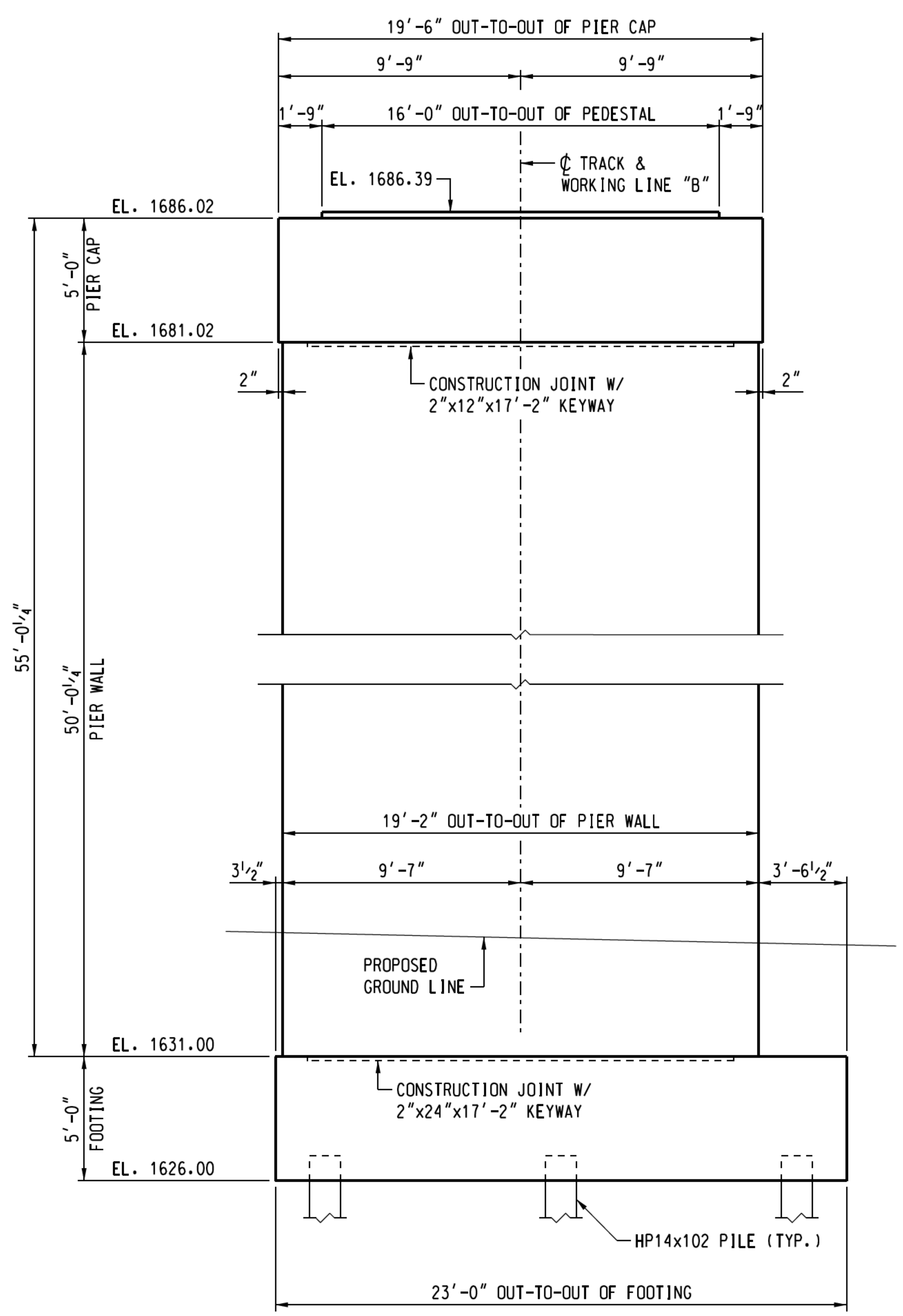
PIER 9 - GENERAL PLAN AND ELEVATION

PLAN NO: 0038-0196.600-039
SHEET: 39 OF 113

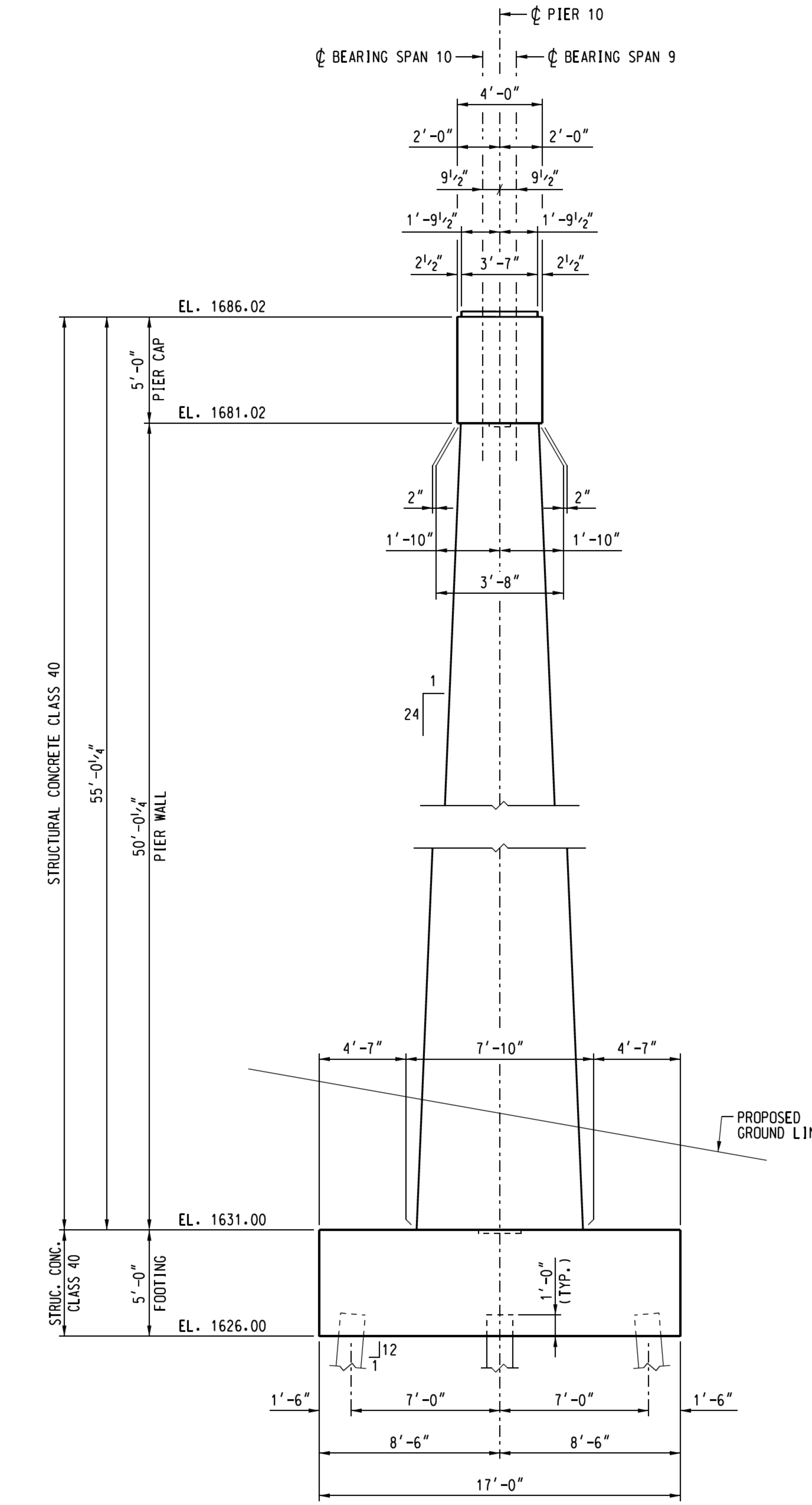
Date Printed: 7/24/2018 Time Printed: 6:05:47 AM



PIER 10 PLAN



SOUTH END PIER 10 ELEVATION NORTH END



PIER 10 END VIEW
(LOOKING NORTH)

DES:	MJC-TKDA
DRAWN:	ADL-TKDA
CHECK:	LJL-TKDA
DATE:	OCT. 2017
AUTH:	AXXXXX
LINE SEG:	0038

BNSF RAILWAY
BRIDGE ENGINEERING KANSAS CITY, KS
APPROVED:
DIRECTOR STRUCTURES ENGINEERING

BISMARCK TO MANDAN
BRIDGE NUMBER 196.6A
OVER MISSOURI RIVER NEAR BISMARCK, ND

PIER 10 - GENERAL PLAN AND ELEVATION

PLAN NO: 0038-0196.600-043 SHEET: 43 OF 113

TKDA
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651.292.4400
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50000	421081.4	1886604	1610.618	SPOT-SPOT
50001	421071.5	1886607	1610.639	SPOT-SPOT
50002	421061.5	1886605	1610.765	SPOT-SPOT
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50016	421066.1	1886572	1609.739	SPOT-SPOT
50017	421060.3	1886563	1609.527	SPOT-SPOT
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50119	420074	1886401	1616.562	SPOT-SPOT
50120	420071.2	1886392	1615.716	SPOT-SPOT
50121	420064	1886385	1616.919	SPOT-SPOT
50122	420060.1	1886375	1617.434	SPOT-SPOT
50123	420057	1886366	1618.432	SPOT-SPOT
50124	420050.9	1886358	1619.658	SPOT-SPOT
50125	420052.3	1886347	1619.85	SPOT-SPOT
50126	420050.5	1886338	1620.51	SPOT-SPOT
50127	420046.2	1886328	1619.088	SPOT-SPOT
50128	420043.4	1886319	1619.995	SPOT-SPOT
50129	420033.6	1886321	1619.253	SPOT-SPOT
50130	419931.8	1886381	1620.766	SPOT-SPOT
50131	419924	1886388	1620.344	SPOT-SPOT
50132	419919.9	1886397	1618.881	SPOT-SPOT
50133	419929.4	1886401	1618.136	SPOT-SPOT
50134	419939.1	1886404	1617.438	SPOT-SPOT
50135	419942.1	1886413	1616.503	SPOT-SPOT
50136	419944	1886423	1615.217	SPOT-SPOT
50137	419946.4	1886433	1613.764	SPOT-SPOT
50138	419949.1	1886443	1612.84	SPOT-SPOT
50139	419951.1	1886453	1614.345	SPOT-SPOT
50140	419954	1886463	1615.894	SPOT-SPOT
50141	419956.5	1886473	1617.355	SPOT-SPOT

50142	419959.6	1886482	1620.116	SPOT-SPOT
50143	419964.2	1886492	1619.529	SPOT-SPOT
50144	419967.5	1886501	1618.821	SPOT-SPOT
50145	419970.7	1886511	1617.807	SPOT-SPOT
50146	419973.2	1886521	1617.106	SPOT-SPOT
50147	419976.3	1886531	1616.141	SPOT-SPOT
50148	419979.6	1886540	1615.847	SPOT-SPOT
50149	419983.1	1886550	1615.992	SPOT-SPOT
50150	419985.9	1886560	1615.631	SPOT-SPOT
50151	419989.7	1886569	1615.05	SPOT-SPOT
50152	419992.7	1886579	1615.161	SPOT-SPOT
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50168	420056	1886730	1613.101	SPOT-SPOT
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50172	420065.3	1886769	1610.439	SPOT-SPOT
50173	420068.4	1886779	1611.05	SPOT-SPOT
50174	420071.8	1886789	1611.314	SPOT-SPOT
50175	420075.6	1886798	1609.932	SPOT-SPOT
50176	420079.2	1886808	1609.716	SPOT-SPOT
50177	420084	1886817	1610.219	SPOT-SPOT
50178	420085	1886827	1610.369	SPOT-SPOT
50179	420078.4	1886835	1609.32	SPOT-SPOT
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50181	420090.5	1886851	1608.005	SPOT-SPOT
50182	420094.7	1886860	1606.867	SPOT-SPOT
50183	420098.5	1886869	1609.199	SPOT-SPOT
50184	420101	1886879	1607.182	SPOT-SPOT
50185	420104.5	1886889	1608.215	SPOT-SPOT
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50187	420114.6	1886907	1607.201	SPOT-SPOT
50188	420118.9	1886916	1605.622	SPOT-SPOT

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50193	420135.9	1886964	1610.075	SPOT-SPOT
50194	420142.5	1886971	1613.983	SPOT-SPOT
50195	420142.2	1886981	1617.247	SPOT-SPOT
50196	420147.2	1886990	1619.72	SPOT-SPOT
50197	419357.2	1887522	1619.532	SPOT-SPOT
50198	419351.7	1887513	1617.9	SPOT-SPOT
50199	419343.9	1887507	1616.661	SPOT-SPOT
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50201	419328.5	1887493	1615.338	SPOT-SPOT
50202	419321	1887486	1613.926	SPOT-SPOT
50203	419329	1887493	1614.141	SPOT-SPOT
50204	419336.9	1887499	1615.128	SPOT-SPOT
50205	419347.2	1887501	1616.017	SPOT-SPOT
50206	419348.1	1887491	1615.203	SPOT-SPOT
50207	419342.3	1887482	1614.722	SPOT-SPOT
50208	419335.4	1887474	1614.095	SPOT-SPOT
50209	419328.8	1887467	1613.428	SPOT-SPOT
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50211	419318.7	1887449	1613.277	SPOT-SPOT
50212	419316.5	1887439	1613.253	SPOT-SPOT
50213	419315.1	1887429	1612.635	SPOT-SPOT
50214	419315.2	1887419	1612.934	SPOT-SPOT
50215	419317.9	1887409	1613.217	SPOT-SPOT
50216	419317.1	1887399	1612.321	SPOT-SPOT
50217	419312.3	1887389	1612.908	SPOT-SPOT
50218	419306.1	1887381	1612.797	SPOT-SPOT
50219	419299.5	1887373	1612.593	SPOT-SPOT
50220	419294	1887364	1612.121	SPOT-SPOT
50221	419288.1	1887356	1612.051	SPOT-SPOT
50222	419282.2	1887347	1612.405	SPOT-SPOT
50223	419278.1	1887338	1612.478	SPOT-SPOT
50224	419275.3	1887328	1612.851	SPOT-SPOT
50225	419274.8	1887317	1612.715	SPOT-SPOT
50226	419273.8	1887307	1612.831	SPOT-SPOT
50227	419272.4	1887297	1613.392	SPOT-SPOT
50228	419272.9	1887287	1612.563	SPOT-SPOT
50229	419271.5	1887277	1612.395	SPOT-SPOT
50230	419269.2	1887267	1612.398	SPOT-SPOT
50231	419266.2	1887257	1613.424	SPOT-SPOT
50232	419262.4	1887248	1612.324	SPOT-SPOT
50233	419257.7	1887239	1611.745	SPOT-SPOT
50234	419251.9	1887230	1612.178	SPOT-SPOT
50235	419245.6	1887222	1613.108	SPOT-SPOT

50236	419240.7	1887213	1612.324	SPOT-SPOT
50237	419236.2	1887204	1613.539	SPOT-SPOT
50238	419233.7	1887193	1614.507	SPOT-SPOT
50239	419231.3	1887184	1614.401	SPOT-SPOT
50240	419229.2	1887174	1615.404	SPOT-SPOT
50241	419226.5	1887164	1615.618	SPOT-SPOT
50242	419222.2	1887155	1616.075	SPOT-SPOT
50243	419217.2	1887146	1615.569	SPOT-SPOT
50244	419213.1	1887136	1615.821	SPOT-SPOT
50245	419209	1887127	1615.944	SPOT-SPOT
50246	419204.9	1887117	1615.89	SPOT-SPOT
50247	419202.8	1887107	1616.733	SPOT-SPOT
50248	419200.6	1887097	1616.648	SPOT-SPOT
50249	419198.9	1887087	1616.335	SPOT-SPOT
50250	419196.7	1887077	1616.502	SPOT-SPOT
50251	419194.2	1887067	1616.783	SPOT-SPOT
50252	419191.2	1887057	1616.358	SPOT-SPOT
50253	419188	1887047	1616.109	SPOT-SPOT
50254	419184	1887037	1616.567	SPOT-SPOT
50255	419179.9	1887028	1616.557	SPOT-SPOT
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50264	419150.5	1886941	1617.66	SPOT-SPOT
50265	419147.9	1886931	1617.472	SPOT-SPOT
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50267	419140.1	1886912	1617.741	SPOT-SPOT
50268	419134.9	1886903	1618.137	SPOT-SPOT
50269	419130.9	1886894	1617.505	SPOT-SPOT
50270	419127	1886884	1618.096	SPOT-SPOT
50271	419123.5	1886874	1617.194	SPOT-SPOT
50272	419120.4	1886864	1617.941	SPOT-SPOT
50273	419117.9	1886854	1618.017	SPOT-SPOT
50274	419115.3	1886845	1617.441	SPOT-SPOT
50275	419111.9	1886835	1618.346	SPOT-SPOT
50276	419109.1	1886825	1618.689	SPOT-SPOT
50277	419106.4	1886815	1618.612	SPOT-SPOT
50278	419104	1886804	1617.631	SPOT-SPOT
50279	419100.2	1886795	1617.483	SPOT-SPOT
50280	419095.6	1886785	1617.702	SPOT-SPOT
50281	419091.4	1886776	1617.904	SPOT-SPOT
50282	419087.2	1886766	1618.048	SPOT-SPOT

50283	419083.8	1886757	1617.438	SPOT-SPOT
50284	419080.1	1886747	1616.271	SPOT-SPOT
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50286	419073.9	1886727	1616.534	SPOT-SPOT
50287	419070.1	1886718	1616.927	SPOT-SPOT
50288	419067.2	1886708	1616.567	SPOT-SPOT
50289	419063.8	1886698	1616.619	SPOT-SPOT
50290	419060.3	1886689	1616.872	SPOT-SPOT
50291	419057.5	1886679	1616.408	SPOT-SPOT
50292	419054.1	1886670	1617.127	SPOT-SPOT
50293	419050.3	1886660	1619.097	SPOT-SPOT
50294	419321.9	1887409	1612.961	SPOT-SPOT
50295	419324.9	1887419	1612.738	SPOT-SPOT
50296	419330.7	1887428	1613.2	SPOT-SPOT
50297	419336.9	1887436	1613.2	SPOT-SPOT
50298	419343.5	1887444	1613.368	SPOT-SPOT
50299	419350.7	1887452	1613.512	SPOT-SPOT
50300	419357.9	1887459	1614.172	SPOT-SPOT
50301	419365.3	1887466	1614.825	SPOT-SPOT
50302	419372.7	1887473	1615.41	SPOT-SPOT
50303	419379.1	1887481	1616.314	SPOT-SPOT
50304	419384.7	1887490	1618.069	SPOT-SPOT
50305	419388.5	1887499	1619.479	SPOT-SPOT
50306	419378.6	1887496	1618.298	SPOT-SPOT
50307	419369.2	1887493	1617.058	SPOT-SPOT
50308	419360.1	1887489	1615.837	SPOT-SPOT
50309	419351.3	1887483	1614.959	SPOT-SPOT
50310	419343.1	1887477	1614.603	SPOT-SPOT
50311	419334.9	1887471	1613.836	SPOT-SPOT
50312	419326.6	1887465	1613.22	SPOT-SPOT
50313	419319.4	1887457	1613.104	SPOT-SPOT
50314	419312.1	1887450	1613.353	SPOT-SPOT
50315	420216.3	1886825	1610.458	SPOT-SPOT
50316	420224.3	1886831	1607.839	SPOT-SPOT
50317	420220.4	1886840	1607.518	SPOT-SPOT
50318	420225.8	1886848	1607.101	SPOT-SPOT
50319	420229	1886858	1606.278	SPOT-SPOT
50320	420232.5	1886867	1607.043	SPOT-SPOT
50321	420232.4	1886878	1605.514	SPOT-SPOT
50322	420236.8	1886887	1604.366	SPOT-SPOT
50323	420239.9	1886896	1607.68	SPOT-SPOT
50324	420243.4	1886906	1608.246	SPOT-SPOT
50325	420247.4	1886915	1606.186	SPOT-SPOT
50326	420251.2	1886924	1608.858	SPOT-SPOT
50327	420260.9	1886927	1607.298	SPOT-SPOT
50328	421023.4	1886384	1609.926	SPOT-SPOT
50329	421026.3	1886394	1609.998	SPOT-SPOT

50330	421027.1	1886404	1609.924	SPOT-SPOT
50331	421031.5	1886413	1610.65	SPOT-SPOT
50332	421034.7	1886423	1611.788	SPOT-SPOT
50333	421037.4	1886433	1609.482	SPOT-SPOT
50334	421040	1886443	1609.939	SPOT-SPOT
50335	421041.1	1886453	1610.19	SPOT-SPOT
50336	421041.7	1886463	1610.792	SPOT-SPOT
50337	421045.7	1886472	1610.315	SPOT-SPOT
50338	421046.8	1886482	1610.522	SPOT-SPOT
50339	421048.9	1886492	1608.969	SPOT-SPOT
50340	421051.6	1886502	1608.602	SPOT-SPOT
50341	421053	1886512	1611.343	SPOT-SPOT
50342	421058.5	1886520	1608.954	SPOT-SPOT
50343	421059.6	1886530	1609.892	SPOT-SPOT
50344	421063.9	1886539	1609.401	SPOT-SPOT
50345	421068.2	1886549	1609.728	SPOT-SPOT
50346	421071.8	1886558	1610.11	SPOT-SPOT
50347	421071.4	1886568	1609.478	SPOT-SPOT
50348	421072.5	1886578	1609.88	SPOT-SPOT
50349	421079	1886586	1609.458	SPOT-SPOT
50350	421083.4	1886595	1610.232	SPOT-SPOT
50351	421083.6	1886605	1610.394	SPOT-SPOT
50352	421079.8	1886614	1610.613	SPOT-SPOT
50353	421078	1886624	1611.31	SPOT-SPOT
50354	421069.5	1886629	1611.3	SPOT-SPOT
50355	421059.6	1886627	1610.704	SPOT-SPOT
50356	421049.6	1886624	1610.68	SPOT-SPOT
50357	421039.5	1886623	1609.892	SPOT-SPOT
50358	421029.3	1886624	1610.27	SPOT-SPOT
50359	421018.9	1886627	1610.4	SPOT-SPOT
50360	421009.9	1886632	1611.183	SPOT-SPOT
50361	421000.9	1886637	1610.348	SPOT-SPOT
50362	421005.6	1886628	1610.204	SPOT-SPOT
50363	421015.2	1886625	1610.026	SPOT-SPOT
50364	421025.5	1886625	1610.204	SPOT-SPOT
50365	421035.4	1886624	1609.979	SPOT-SPOT
50366	421045.8	1886624	1610.337	SPOT-SPOT
50367	421055.7	1886621	1610.477	SPOT-SPOT
50368	421065.7	1886623	1610.818	SPOT-SPOT
50369	421071.8	1886631	1611.431	SPOT-SPOT
50370	421077.6	1886639	1615.457	SPOT-SPOT
50371	421086	1886645	1620.181	SPOT-SPOT
50372	421092.4	1886637	1618.89	SPOT-SPOT

Bismarck Bridge ID #MG09A71 Design and CMS	Missouri River Cross Sections

Houston Engineering Inc.

1401 21st Avenue North

Fargo, ND 58102

USA

Phone: 701-237-5065

Fax: 701-237-5101

www.houstoneng.com

Project file data		User information		Coordinate System	
Name:	H:\Fargo\Dept\Survey\TBC\2015\6600\6680-007 Missouri River XSecs 11-23-15.vce	Field operator:	Jay Kulla	Name:	US State Plane 1983
Size:	36 KB	Office operator:	Chuck Rebsch	Datum:	NAD 1983 (Conus)
Modified:	11/24/2015 7:59:32 AM (UTC:-6)			Zone:	North Dakota South 3302
Time zone:	Central Standard Time			Geoid:	GEOID12A (Conus)
Reference number:	6680-007			Vertical datum:	NAVD 1988
Description:	Missouri River Cross Sections				
Comment 1:					
Comment 2:					
Comment 3:					

Point List

ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code
50000	421081.391	1886603.593	1610.618	SPOT
50001	421071.498	1886606.738	1610.639	SPOT
50002	421061.531	1886605.401	1610.765	SPOT
50003	421051.497	1886603.818	1610.674	SPOT
50004	421040.373	1886604.022	1611.994	SPOT
50005	421030.286	1886605.560	1611.975	SPOT
50006	421020.458	1886608.542	1611.873	SPOT
50007	421025.176	1886617.618	1611.935	SPOT
50008	421035.435	1886617.600	1610.685	SPOT
50009	421045.427	1886615.155	1610.696	SPOT
50010	421055.537	1886612.709	1611.089	SPOT
50011	421065.624	1886609.975	1610.705	SPOT
50012	421075.622	1886607.618	1610.806	SPOT
50013	421079.273	1886598.209	1610.504	SPOT
50014	421079.251	1886587.915	1609.641	SPOT
50015	421073.876	1886579.211	1609.763	SPOT

50016	421066.112	1886571.766	1609.739	SPOT
50017	421060.286	1886563.248	1609.527	SPOT
50018	421055.721	1886553.613	1609.702	SPOT
50019	421051.878	1886544.265	1610.989	SPOT
50020	421049.853	1886534.415	1610.916	SPOT
50021	421048.178	1886523.994	1608.027	SPOT
50022	421046.195	1886514.175	1607.679	SPOT
50023	421043.144	1886503.583	1610.041	SPOT
50024	421040.021	1886493.886	1610.076	SPOT
50025	421036.280	1886484.040	1610.569	SPOT
50026	421032.863	1886474.053	1609.379	SPOT
50027	421030.190	1886463.887	1611.289	SPOT
50028	421028.872	1886453.583	1609.940	SPOT
50029	421027.295	1886443.083	1609.098	SPOT
50030	421026.983	1886432.740	1609.929	SPOT
50031	421027.289	1886422.672	1609.973	SPOT
50032	421025.811	1886411.959	1610.761	SPOT
50033	421023.165	1886401.718	1611.233	SPOT
50034	421019.699	1886391.343	1610.117	SPOT
50035	421015.506	1886381.358	1611.306	SPOT
50036	421012.350	1886371.123	1610.000	SPOT
50037	421010.612	1886360.914	1611.300	SPOT
50038	421008.743	1886350.499	1610.783	SPOT
50039	421006.681	1886340.682	1610.420	SPOT
50040	421004.316	1886330.430	1610.594	SPOT
50041	421001.377	1886319.922	1610.164	SPOT
50042	420998.269	1886309.347	1610.007	SPOT
50043	420996.572	1886298.808	1610.996	SPOT
50044	420994.517	1886288.044	1609.445	SPOT
50045	420992.146	1886277.718	1611.477	SPOT
50046	420989.809	1886267.595	1609.893	SPOT
50047	420988.342	1886257.186	1610.461	SPOT
50048	420986.351	1886247.222	1610.597	SPOT
50049	420983.659	1886237.593	1611.347	SPOT
50050	420981.122	1886227.082	1611.816	SPOT
50051	420979.143	1886216.772	1613.662	SPOT
50052	420976.825	1886206.296	1615.661	SPOT
50053	420974.464	1886196.297	1617.518	SPOT
50054	420972.588	1886186.206	1618.759	SPOT

50055	420970.441	1886176.317	1620.127	SPOT
50056	420967.952	1886166.144	1620.609	SPOT
50057	420967.601	1886156.135	1620.489	SPOT
50058	420969.439	1886166.247	1620.061	SPOT
50059	420260.111	1886945.333	1615.910	SPOT
50060	420261.011	1886934.970	1612.180	SPOT
50061	420253.218	1886927.995	1607.162	SPOT
50062	420245.386	1886921.430	1609.126	SPOT
50063	420238.415	1886913.637	1607.363	SPOT
50064	420233.409	1886904.858	1606.239	SPOT
50065	420228.421	1886895.699	1603.505	SPOT
50066	420223.487	1886886.581	1605.083	SPOT
50067	420220.187	1886877.003	1605.951	SPOT
50068	420218.014	1886867.198	1607.420	SPOT
50069	420219.807	1886857.233	1606.304	SPOT
50070	420223.748	1886847.947	1607.232	SPOT
50071	420226.218	1886838.233	1607.009	SPOT
50072	420225.218	1886828.169	1608.533	SPOT
50073	420221.652	1886818.790	1608.825	SPOT
50074	420218.110	1886809.209	1610.672	SPOT
50075	420213.509	1886800.004	1608.996	SPOT
50076	420208.962	1886790.976	1609.770	SPOT
50077	420204.166	1886782.039	1610.849	SPOT
50078	420199.935	1886772.766	1612.049	SPOT
50079	420195.901	1886763.364	1610.900	SPOT
50080	420192.110	1886753.821	1611.245	SPOT
50081	420188.165	1886744.098	1611.048	SPOT
50082	420183.879	1886734.765	1611.154	SPOT
50083	420179.477	1886725.392	1611.017	SPOT
50084	420175.306	1886715.990	1611.280	SPOT
50085	420170.913	1886706.829	1611.585	SPOT
50086	420167.301	1886697.400	1612.729	SPOT
50087	420165.057	1886687.290	1613.124	SPOT
50088	420163.713	1886676.874	1612.831	SPOT
50089	420161.811	1886666.787	1613.362	SPOT
50090	420159.394	1886656.839	1612.933	SPOT
50091	420156.277	1886646.990	1611.268	SPOT
50092	420152.905	1886637.387	1611.879	SPOT
50093	420149.530	1886627.908	1612.012	SPOT

50094	420145.954	1886618.109	1614.001	SPOT
50095	420142.128	1886608.408	1613.102	SPOT
50096	420138.348	1886599.129	1614.074	SPOT
50097	420134.685	1886589.387	1613.490	SPOT
50098	420132.236	1886579.488	1613.341	SPOT
50100	420125.735	1886560.037	1614.278	SPOT
50101	420122.271	1886550.493	1613.959	SPOT
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50103	420114.330	1886531.446	1615.264	SPOT
50104	420110.293	1886522.295	1615.668	SPOT
50105	420106.338	1886512.538	1615.844	SPOT
50106	420102.762	1886502.970	1615.950	SPOT
50107	420093.949	1886497.752	1616.793	SPOT
50108	420084.036	1886496.303	1617.781	SPOT
50109	420074.577	1886491.520	1617.550	SPOT
50110	420067.236	1886484.596	1618.477	SPOT
50111	420062.876	1886474.981	1619.414	SPOT
50112	420062.936	1886464.609	1620.106	SPOT
50113	420067.808	1886455.770	1620.235	SPOT
50114	420075.442	1886449.116	1620.414	SPOT
50115	420080.446	1886440.288	1620.397	SPOT
50116	420081.846	1886430.180	1619.629	SPOT
50117	420079.185	1886420.383	1618.619	SPOT
50118	420074.462	1886411.437	1618.006	SPOT
50119	420073.962	1886401.412	1616.562	SPOT
50120	420071.240	1886391.673	1615.716	SPOT
50121	420064.023	1886384.612	1616.919	SPOT
50122	420060.114	1886375.326	1617.434	SPOT
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50126	420050.495	1886337.568	1620.510	SPOT
50127	420046.165	1886328.416	1619.088	SPOT
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50131	419923.982	1886387.952	1620.344	SPOT
50132	419919.867	1886397.435	1618.881	SPOT
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50134	419939.121	1886403.519	1617.438	SPOT
50135	419942.084	1886413.245	1616.503	SPOT
50136	419944.030	1886423.112	1615.217	SPOT
50137	419946.397	1886433.137	1613.764	SPOT
50138	419949.133	1886442.811	1612.840	SPOT
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50140	419954.045	1886462.895	1615.894	SPOT
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50144	419967.540	1886501.029	1618.821	SPOT
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50148	419979.612	1886540.453	1615.847	SPOT
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50193	420135.879	1886963.518	1610.075	SPOT
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50201	419328.489	1887493.322	1615.338	SPOT
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50263	419152.254	1886950.781	1617.788	SPOT
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