

## Information for File # 2014-4330-ARC

**Applicant** Kevin Halpin – Wisconsin Central Limited  
**Corps Contact** Andrew Chambers  
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**Phone** 218-720-5291  
**Primary County** St. Louis  
**Section** 9  
**Township** 66N  
**Range** 20W

**Information Complete On** April 16, 2015

**Posting Expires On** May 22, 2015

**Authorization Type** LOP-05-MN

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act. Our jurisdictional review and final jurisdictional determination could result in modifications to the scope of the project's regulated waterbody/wetland impacts and compensatory mitigation requirements identified above. An approved jurisdictional determination will be made prior to reaching a permit decision, and will be posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/>.

### PROJECT DESCRIPTION AND PURPOSE:

Wisconsin Central Limited is proposing to replace bridge number 128.84 that crosses the Ash River in St. Louis County. The existing bridge was built in 1963 and is approximately 71' long and 22' in height. A new 80' long precast concrete bridge with DVB girders would be installed in the same location. The timber pilings from existing bridge would be cutoff flush with the ground and new abutment caps on H-piles would replace them. A temporary causeway would be constructed directly upstream to serve as an access road for construction. The causeway would consist of 5 48" x 40' culverts covered by temporary fill. Fill material and culverts would be removed following the bridge replacement and the river would be returned to its pre-impact condition.

### NAME, AREA AND TYPES OF WATERS (INCLUDING WETLANDS) SUBJECT TO LOSS:

The Ash River (designated trout stream) would be impacted by the installation of the new H-piles in construction of the new bridge. The temporary causeway would also involve 675 square feet of fill to be placed in the river, and a small portion, 600 square feet, to be placed in shrub swamp wetlands adjacent to the river.

**ALTERNATIVES CONSIDERED:**

The applicant considered replacing the bridge with an earthen crossing. This alternative involved the removal of the bridge, placement of four box culverts in the river, and filling to the grade. This alternative was not selected due to the safety concerns and impacts to the river.

**COMPENSATORY MITIGATION:**

The applicant has not proposed compensatory mitigation for the proposed impacts to the Ash River and shrub swamp wetlands.

**Drawings**     See attached.

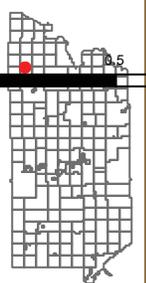


# County Land Explorer

St. Louis County, Minnesota



SOURCE: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, Swisstopo, and the GIS User Community



**Wisconsin Central Limited**

Bridge 128.84

County Land Explorer

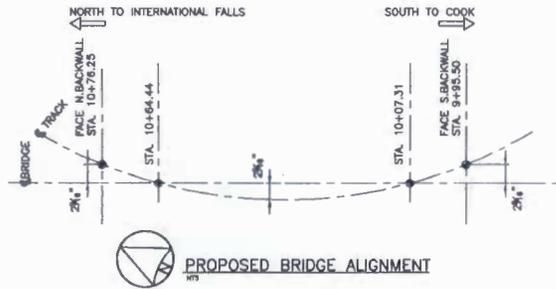
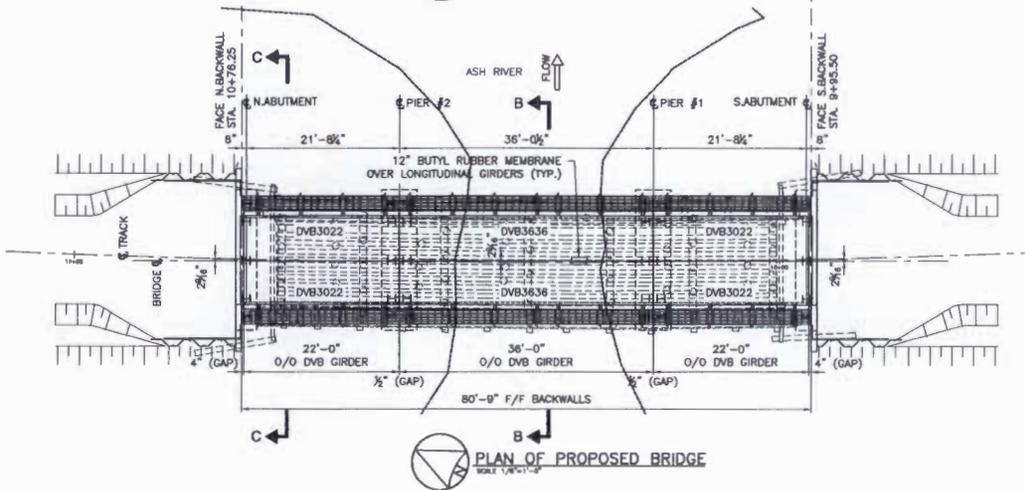
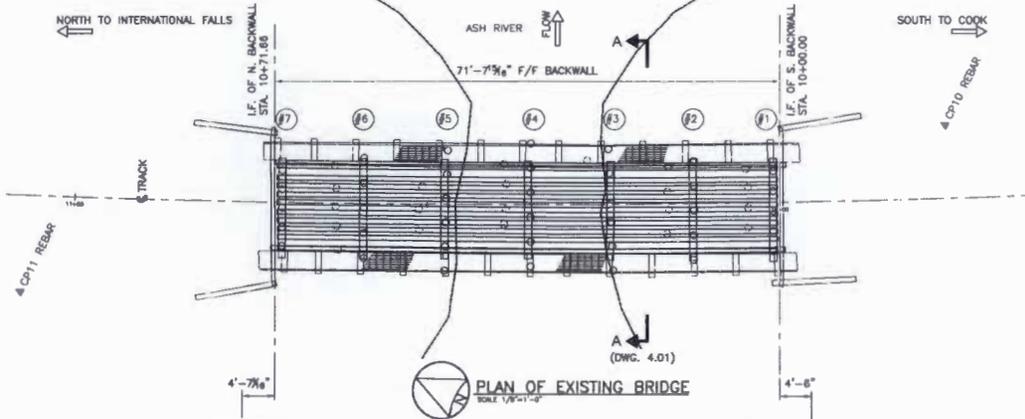
St. Louis County [www.stlouiscountymn.gov/CountyLandExplorer](http://www.stlouiscountymn.gov/CountyLandExplorer) Minnesota

**Disclaimer**

This is a compilation of records as they appear in the Saint Louis County Offices affecting the area shown. This drawing is to be used only for reference purposes and the County is not responsible for any inaccuracies herein

Map created using County Land Explorer  
[gis.stlouiscountymn.gov/CountyLandExplorer](http://gis.stlouiscountymn.gov/CountyLandExplorer)

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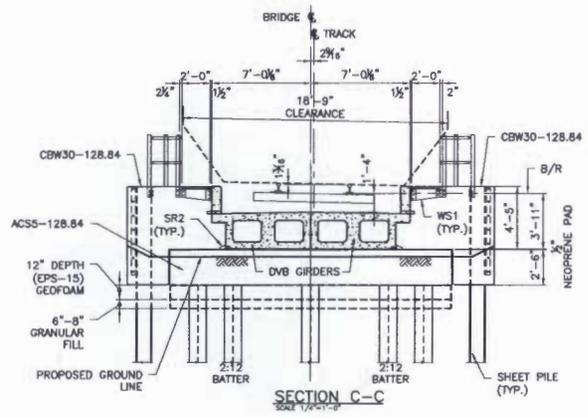
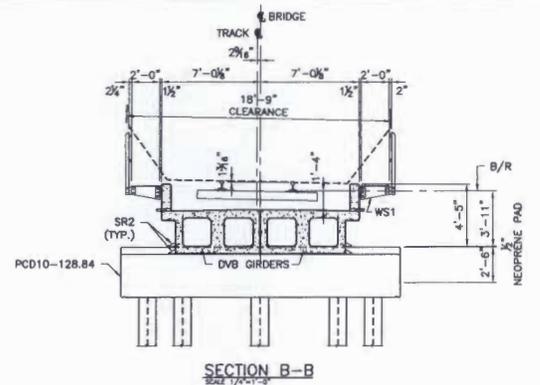
**CONSTRUCTION NOTES:**

A 12" THICK LAYER OF RIP-RAP SHALL BE PLACED ALL DISTURBED STREAMBANKS AND ON THE END SLOPES OF THE RAILROAD EMBANKMENT. LAYOUT OF RIP-RAP TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

EXPANDED POLYSTYRENE (EPS) GEOFOAM (EPS-15) OR SIMILAR TO BE USED BENEATH ABUTMENT CAPS APPROXIMATELY 1 FT. DEPTH.

STEEL H-PILES ARE TO BE DRIVEN BEHIND THE EXISTING BACKWALLS AT ABUTMENTS.

CONSTRUCTION SHALL BE ADVANCED ABSENT THE USE OF TEMPORARY JUMP SPAN.



**NOTES:**

FOR GENERAL NOTES SEE DWG 4.01

THIS DRAWING TO BE READ IN CONJUNCTION WITH DWG 4.01

MEMBRANE SHALL BE MEL-ROL SELF-ADHERING AS SUPPLIED BY W. R. MEADOWS (PRODUCT DATA 714 OR 714D). MEMBRANE IS SUPPLIED IN 38.5" WIDE X 60' LONG ROLLS AND SHALL BE INSTALLED CENTERED OVER:

- LONGITUDINAL AND TRANSVERSE JOINTS BETWEEN GIRDERS.
- TRANSVERSE JOINTS BETWEEN GIRDERS AND BACKWALLS (OVER DECK JOINT COVER PLATES). MEMBRANE SHALL EXTEND BALLAST CURB FULL-HEIGHT.

PRIOR TO MEMBRANE INSTALLATION, APPLY JOINT FILLER ALONG THE LONGITUDINAL GIRDER CHAMFERED EDGES TO PREVENT MEMBRANE STRETCHING ACROSS THE CHAMFERED EDGES AND SUBSEQUENT MEMBRANE PUNCTURING. JOINT FILLER SHALL BE ONE OF THE FOLLOWING OR ENGINEER APPROVED EQUAL:

- CLOSED-CELL POLYETHYLENE FOAM BACKER ROD JOINT FILLER AS MANUFACTURED BY SIKKA, SAKRETE, OR EQUAL.
- SPRAY FOAM, MINIMAL EXPANSION, POLYURETHANE INSULATING SEALANT AS MANUFACTURED BY GREAT STUFF OR EQUAL.

INSTALL ONE LAYER OF VIBRAFLEX ASPHALTIC PANEL BRIDGE DECK PROTECTION COURSE AS SUPPLIED BY W. R. MEADOWS (PRODUCT DATA 730). PANEL SHALL BE 3/4" X 4' X 8' AND SHALL BE CENTERED OVER THE MEMBRANE TO PREVENT DAMAGE.

BACKFILL AROUND ABUTMENTS AND WINDOW WALLS SHALL CONSIST OF FREE DRAINING GRANULAR MATERIAL, COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DENSITY, AND SHALL BE PLACED AND COMPACTED IN LIFTS NOT EXCEEDING 12".

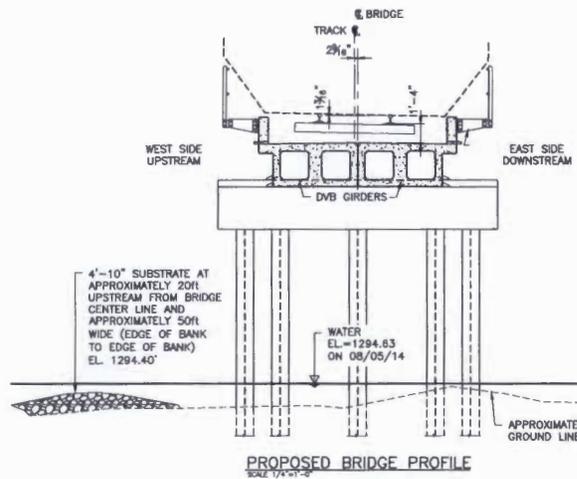
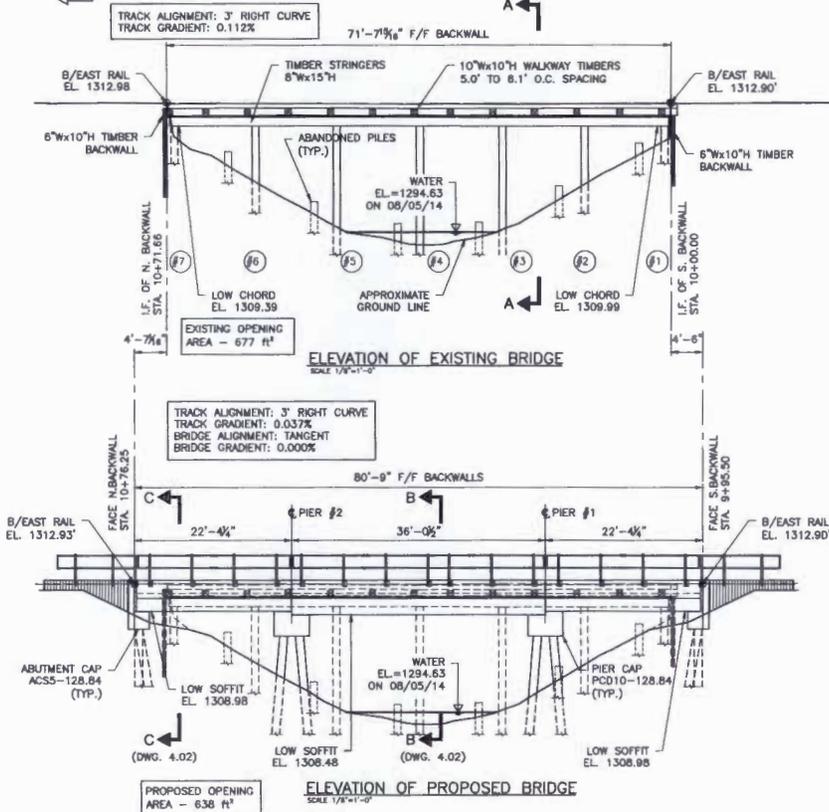
**PRELIMINARY**  
Apr 01, 2015

SENIOR STRUCTURAL ENGINEER

ISSUED FOR PERMIT APPLICATION					
No.	Date	Revised	By	Checked	By/Date
Division		NORTH	Sub-division	RAINY	128.84
<b>BRIDGE 128.84</b> NEAR Ericsburg, MN <b>BRIDGE RECONSTRUCTION</b> <b>GENERAL LAYOUT (2 OF 2)</b>					
Drawn	CAM	Designed	AB	Checked	GJN
Scale		Scale		Scale	
Office of Chief Engineer Bureau de l'Ingenieur en chef					
File Reference	128.84 RAINY	Drawing Number	AA1401-128.84-4.02		

NORTH TO INTERNATIONAL FALLS

SOUTH TO COOK



**GENERAL NOTES:**

IT IS PROPOSED TO REPLACE EXISTING 71.7' LONG TIMBER TRESTLE BRIDGE WITH 80'-9\"/>

HORIZONTAL TRACK ALIGNMENT OF TRACK WILL REMAIN UNCHANGED.

ALL DIMENSIONS TO BE VERIFIED IN THE FIELD FOR CONFIRMATION OF LOCATION OF EXISTING ABANDONED PILES.

LIVE LOAD: COOPER E90 + IMPACT 225/√L.

MATERIAL SPECIFICATIONS:

DESIGN & WORKMANSHIP: AREMA MANUAL (2013) CHAPTER 8 & 15, WITH OR MODIFICATIONS AS APPLICABLE

STRUCTURAL STEEL: ASTM A36 & ASTM A572, GRADE 50

CONCRETE: ACI 117, ACI 211, ACI 301, ACI 304, ACI 305

REINFORCING STEEL: ASTM A615/615M, GRADE 60

WELDING: AWS D1.5

H.S. BOLTS: ASTM A325 TYPE 1, 3/4\"/>

GALVANIZING: ASTM A123

PREVIOUSLY AND NEWLY ABANDONED TIMBER SHALL BE CUTOFF FLUSH WITH EXISTING GROUND SURFACE.

136 LB. RAIL USED AT MAIN TRACK

NO UTILITIES ON BRIDGE

NEAREST STATION: ASHLAKE, MI. 128.0 RAINY SUB.

FOR SPECIFICATION AND DETAILS OF TRAINMEN'S WALKWAYS, REFER TO STANDARD DRAWINGS RSA-7.1(D), RSA-7.2(C).

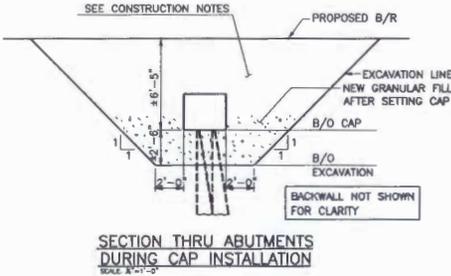
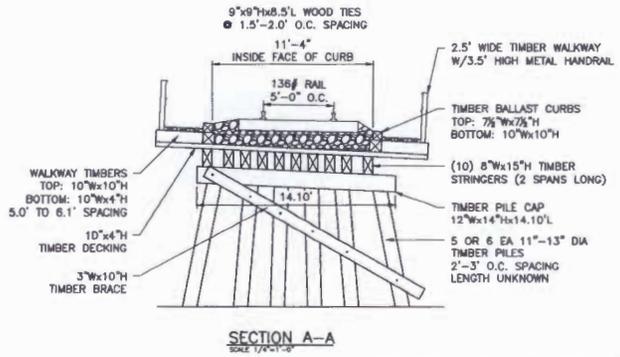
SURVEY REFERENCE : UPEA ENGINEERS AND ARCHITECTS INC. DATED: AUGUST 25 2014 DWG No AA1401-128.84-25 SERIES

GEOTECHNICAL REFERENCE: \_\_\_\_\_

HYDROLOGY REFERENCE: \_\_\_\_\_

READ THIS DRAWING IN CONJUNCTION WITH DWG 4.02

**PRELIMINARY**  
Apr 01, 2015

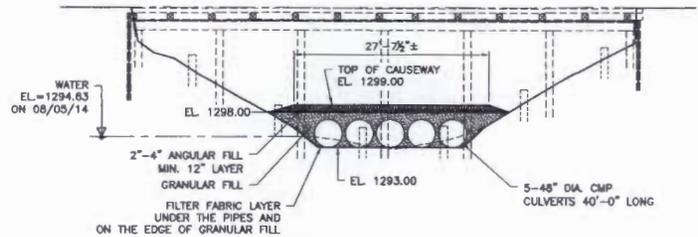


SENIOR STRUCTURAL ENGINEER

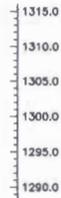
ISSUED FOR PERMIT APPLICATION					
No.	Date	Revision	By	Check	AB
Division		Sub-Division		Scale	128.84
NORTH		RAINY		1/8\"/>	
<b>BRIDGE 128.84</b>					
NEAR: ASH LAKE, MI					
<b>BRIDGE RECONSTRUCTION</b>					
<b>GENERAL LAYOUT (1 OF 2)</b>					
Drawn	CAM	Designed	Conception	AB	Checked
Station		Ver		GJN	Scale
					AS NOTED
Date					
Office of Chief Engineer					
Bureau de l'ingenieur en chef					
File Reference	128.84 RAINY		Drawing Number	AA1401-128.84-4.01	

NORTH TO INTERNATIONAL FALLS

SOUTH TO COOK



ELEVATION OF TEMPORARY CAUSEWAY  
SCALE 1/8"=1'-0"



AERIAL PLAN

**NOTES:**

FOR GENERAL NOTES SEE DWG. 3.01  
CONSTRUCTION TO TAKE PLACE IN A DRY SEASON  
PREFERABLY

**SITE ACCESS NOTES**

ACCESS ROAD AND STORAGE AREA SHALL CONSIST  
OF GEO-FABRIC UNDERLAYER BENEATH CLEAN  
AGGREGATE AND/OR TIMBER MATS. THE ACCESS  
ROAD SHALL FOLLOW THE TOE OF THE RAILROAD  
EMBANKMENT OR AS DIRECTED BY THE ENGINEER.  
ALL MATERIALS USED FOR THE ACCESS ROAD,  
STORAGE AREA AND TEMPORARY CAUSEWAY SHALL BE  
COMPLETELY REMOVED FROM THE SITE UPON COMPLETION  
OF THE PROJECT. AFFECTED AREAS SHALL BE RESTORED  
TO PRE-CONSTRUCTION CONDITIONS.

SILT FENCE SHALL BE ERECTED AS REQUIRED NEAR  
AREAS OF SOIL DISTURBANCE.

**ESTIMATED QUANTITIES**

ACCESS ROAD ..... 500 LIN. FT.  
STORAGE AREA ..... 4750 SQ. FT.  
SILT FENCE ..... AS REQUIRED

**PRELIMINARY**  
Apr 01, 2015

SENIOR STRUCTURAL ENGINEER

No.	Date	Revision	By/Par

Division	Sub-division	Revision	Mile	By/Par
NORTH	RAINY	128.84	128.84	AB

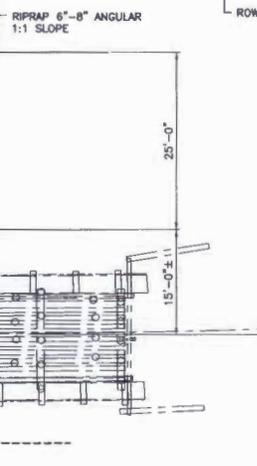
**BRIDGE 128.84**  
NEAR: ASH LAKE, MN  
**BRIDGE RECONSTRUCTION**  
**ACCESS ROAD AND TEMP. CAUSEWAY**

Drawn	Designed	Checked	Scale	AS	Date
DeMa	CAM	AB	G.N	NOTED	-

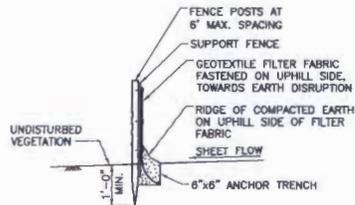
Office of Chief Engineer  
Bureau de l'ingénieur en chef

File Reference	128.84 RAINY	Drawing Number	AA1401-128.84-4.03
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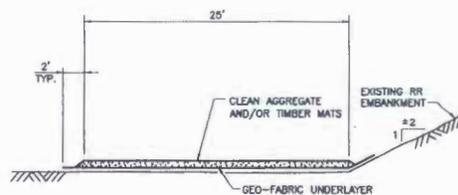
SILT FENCING (TYP.)



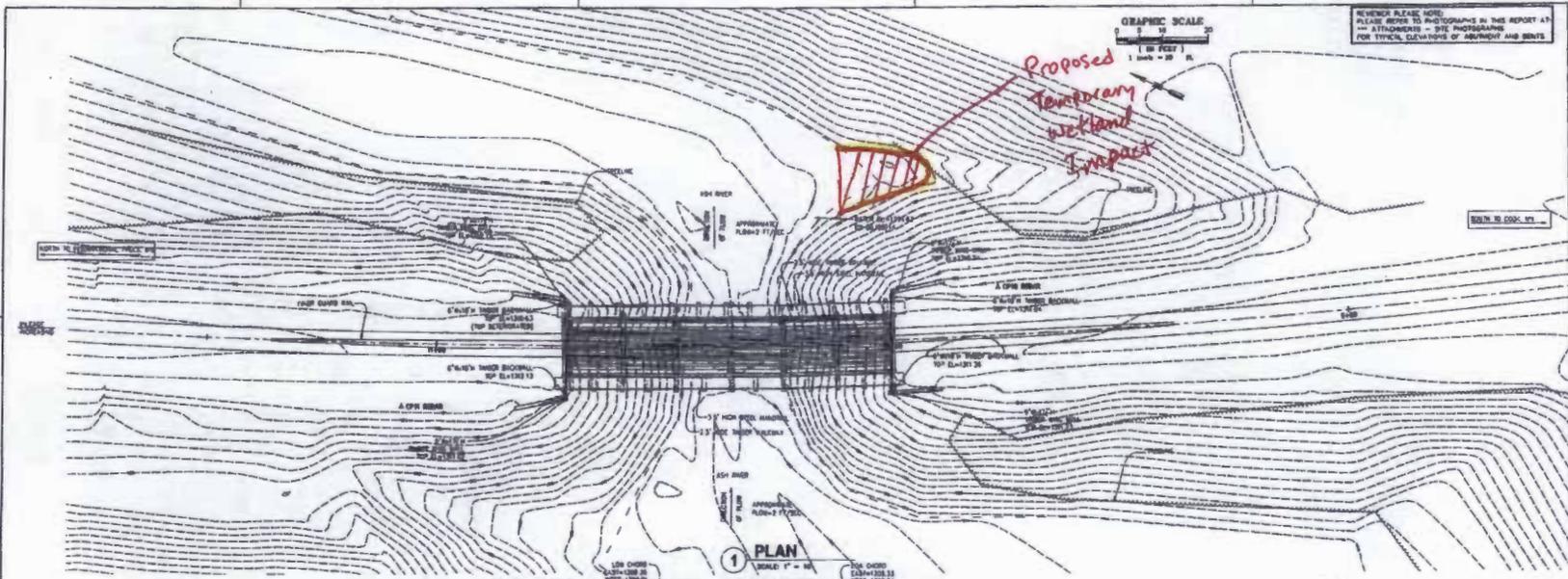
PLAN OF TEMPORARY CAUSEWAY  
SCALE 1/8"=1'-0"



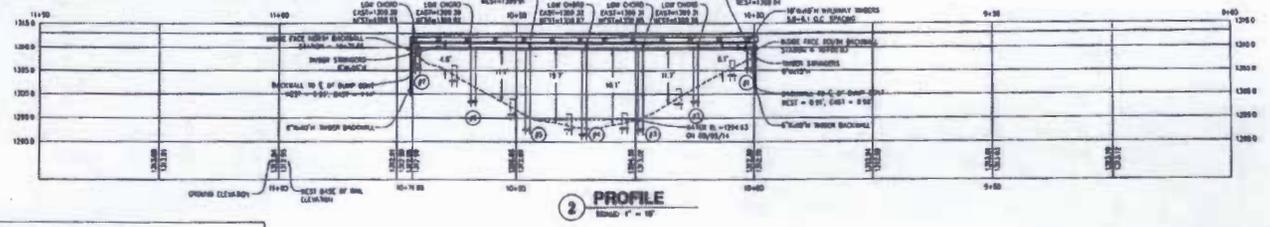
SILT FENCE DETAIL  
NO SCALE



TYPICAL SECTION - ACCESS ROAD  
SCALE 1"=4'



REMEMBER PLEASE NOTE:  
PLEASE REFER TO PHOTOGRAPHS IN THIS REPORT AT  
ATTACHMENTS - SITE PHOTOGRAPHS  
FOR TYPICAL ELEVATIONS OF BRIDGE AND BEAMS



1. 4 SPANS 74 FT LONG AND 22 FT HIGH TRUSS STRANGERS, PILES, FAYMENTS
2. 2" DIA. X 1/8" THICK WELLS 12" X 24" SPACING
3. 8" X 12" HIGH RIGID RAIL (12" W/4")
4. 1/2" X 1/2" X 1/2" PLATES 10" SHOW UNDER THE PLATES BY THE BRIDGE
5. BALLAST BRIDGE DECK (3" X 12" DEEP BALLAST)
6. NO FENCE VISIBLE BIDGE-TO-WETLAND BRIDGE
7. FLOWLINE CURVE TO THE RIGHT OVER BRIDGE SPAN TO THE NORTH AND SOUTH OF BRIDGE SEE SHEET 3 FOR APPROXIMATE CURVE GEOMETRY POINTS
8. VERTICAL CURVE: WINDWARD BEAM TO PLANE CROWNLINE OVER THE WINDWARD BEAM
9. VERTICAL CURVE: DOWN WINDWARD BEAM TO HIG ON 12'
10. GENERAL CONFORMANCE: RAIL, BRIDGE OVER HIGH WATER
11. ACCESS FROM WINDWARD 12' X 12' TO THE EAST OF THE BRIDGE
12. SURVEY CONDUCTED AUGUST 5, 2004
13. ALL DIMENSIONS AND QUANTITIES ARE IN FEET
14. NO EVIDENCE OF SCOURING TRAIL INDICATES OF BRIT ACCUMULATION PRESENT (SEE PHOTO)
15. EVIDENCE OF OTHER EXTERNAL DAMAGE TO THE BRIDGE NO EVIDENCE OF WEAR SURFACE OF PILES OR

LOCATION OF POINT	BRIDGE ELEVATION							
	PIER #1	PIER #6	PIER #8	PIER #9	PIER #10	PIER #11	PIER #12	BEAM #1
EAST TOP OF RAIL	1303.97	1303.48	1303.48	1303.47	1303.20	1303.48	1303.48	1303.49
EAST BASE OF RAIL	1303.88	1303.38	1303.87	1303.88	1303.61	1303.38	1303.38	1303.39
EAST TOP OF CURB	1303.64	1303.15	1303.59	1303.61	1303.48	1303.15	1303.15	1303.16
EAST TOP OF 1% BEAM	1303.53	1303.00	1303.50	1303.50	1303.38	1303.00	1303.00	1303.00
EAST TOP OF 2% BEAM	1303.38	1302.85	1303.35	1303.35	1303.23	1302.85	1302.85	1302.85
EAST TOP OF PILECAP	1303.34	1302.81	1303.25	1303.25	1303.13	1302.81	1302.81	1302.81
NEXT TOP OF RAIL	1303.56	1303.06	1303.54	1303.54	1303.41	1303.06	1303.06	1303.07
NEXT BASE OF RAIL	1303.39	1302.87	1303.45	1303.47	1303.34	1302.87	1302.87	1302.88
NEXT TOP OF CURB	1303.00	1302.50	1303.44	1303.44	1303.32	1302.50	1302.50	1302.51
NEXT TOP OF 1% BEAM	1302.85	1302.32	1303.32	1303.32	1303.20	1302.32	1302.32	1302.32
NEXT TOP OF 2% BEAM	1302.70	1302.17	1303.17	1303.17	1303.05	1302.17	1302.17	1302.17
NEXT TOP OF DECK	1301.84	1301.32	1302.80	1301.87	1301.74	1301.32	1301.32	1301.32
NEXT TOP OF PILECAP	1301.80	1301.28	1302.76	1302.79	1302.67	1301.28	1301.28	1301.28

LA	DESCRIPTION	ELEVATION	DATE	STATION	OFFSET
1	CHORD W/ 1% BEAM	1303.20	08/05/04	10+23	32.00' RIGHT
2	CHORD W/ 2% BEAM	1302.85	08/05/04	10+38	34.00' RIGHT
3	CHORD W/ 1% BEAM	1303.48	08/05/04	10+47	34.00' LEFT
4	CHORD W/ 2% BEAM	1303.13	08/05/04	10+52	34.00' LEFT

Project		Revision		Date	
128.84	128.84	128.84	128.84	128.84	128.84
<b>BRIDGE 128.84</b>					
NEAR ASH LAKE, MN					
<b>SITE PLAN &amp; PROFILE</b>					
Drawn	L.J.M.	Checked	J.J.M.	Date	08/05/04
Office of Chief Engineer			<b>CN</b>		
Bureau de l'ingénieur en chef					
File	128.84	Project Number	AA1401-128.84-05.02		

