

S-8 Forest NST Stream 30-12

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Motorized Recreation Grant Application

For: (choose all that apply)

Form 8700-159 (R 02/2024)

Page 1 of 5

Due Date: April 15

- ☒ ATV/UTV Trail Aid
☒ Snowmobile Trail Aid

Notice: Completion of this form is required under Wisconsin Statutes 23.09(26) and 23.33. Failure to complete this form will result in denial of financial assistance. Personally identifiable information found on this form is not intended to be used for any other purpose. The Department of Natural Resources (DNR) may provide this information to requesters as required by Wisconsin's Public Records law {ss. 19.31 – 19.39, Wis. Stats.}.

Instructions: Applications may combine more than one source of funds. They may be submitted for consideration of traditional ATV, UTV, Snowmobile and Motorized Stewardship funding. Submit one copy of all forms and attachments. See Page 2 for necessary attachments. Send applications to your Community Services Specialist.

DNR Use Only	
Category	Number

Section 1: Applicant Information

Applicant / Organization Name Forest County Forestry and Recreation			Check Recipient: Individual other than authorized individual to act on behalf of the applicant. ☐ Select if the same as applicant.		
Individual Authorized to Act on Behalf of Applicant per Resolution Travis Wollenberg			Check Recipient Name (Name to Appear on Check) Forest County Forestry and Recreation		
Title Forest Administrator			Title		
Address 200 E Madison Street			Address 200 E Madison Street		
City Crandon	State WI	ZIP Code 54520	City Crandon	State WI	ZIP Code 54520
Telephone Number (715) 478-3475		Email Address travis@co.forest.wi.us			

Section 2: Project Information Required for all Projects

Project Title Stream 30-12 Bridge Replacement					Current Funded Miles 1	New Miles (if applicable)
County Forest	Township 37 N	Range 14	Section 24	1/4	GPS Coordinates: Lat. 45.66394 Long. -88.66784	

Project Description Summary

Forest County is looking to rehab/replace Stream 30-12 Bridge located on the Nicolet State Trail. This is DNR Bridge number NR-21-006 located in the Township of Caswell. A bridge inspection was completed in 2024 and found major defects in the structure changing the inspection cycle to every 12 months. A copy of the bridge report will be included. The entire project will require hiring an engineering company to engineer the bridge but also hire a contractor to remove and install the new bridge. This bridge is detrimental to the safety of the ATV/UTV/Snowmobile traffic moving from Oconto County through Forest County to Florence County.

RTP = \$100,000

ATV = \$150,400

SNO = \$150,400

☒ I certify that all maintenance land use agreements are on file.

Estimated Cost

Maintenance	Acquisition	Insurance	Development	Bridge Rehab.	Trail Rehab.	Total Estimated Cost
				\$400,800		

Leave Blank – DNR Use Only

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Applicant Certification

Printed Name of Authorized Official Travis Wollenberg	Official's Title Forest Administrator
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As the applicant's authorized official, I certify that, to the best of my knowledge, the information in this application is true and correct.


Signature of Authorized Official

4/1/25
Date Prepared

Appendix A – Required for Bridge Rehab/Replace, New, or Reroute with New Bridge
☒ Bridge Rehab/Replace ☐ New Bridge ☐ Reroute with new bridge

County Forest	Township 37 N	Range 14	Section 24	1/4 1/4 1/4	GPS Coordinates: Lat. 45.66394 Long. -88.66784
Water Body Name Stream 30-12			Bridge Name Stream 30-12 Bridge		County Inventory Number NR-21-006
Funded Trail Name or Number (SNARS if applicable) Nicolet State Trail			Has this bridge site ever received development or rehabilitation funds in the past? ☐ Yes ☒ No Year: _____ \$ _____		
Bridge is located on: ☐ Private property ☒ Public property			Old Bridge/Culvert Size 76.4' x 12.0'		
Landowner Where Bridge is Located Wisconsin DNR			New Bridge/Culvert Size		Telephone Number
Current maximum load 25,000 lbs.			Age of Bridge 68		Length of Trail Use Agreement (5 year minimum) Forever
Proposed maximum load 25,000 lbs.			Bridge Material Steel Fane, Wood Deck		
Sponsoring Club Name			Club Contact		Telephone Number
Do you have your trail bridges posted as to maximum load? ☐ Yes ☐ No			What is the maximum load of the other bridges on the system if groomed with this bridge? 25,000, lbs		
What is the weight of your puller & drag/grading equipment? 20,000, lbs					
What other recreational trail uses are planned for this bridge? Trail use remains the same - Snowmobile, ATV/UTV, Hiking, Biking, OHM					
If there are other Recreational uses planned, how much of the bridge cost will be paid for by non-snowmobile or non-ATV users? None					
☒ Yes ☐ No Have you contacted your local <u>DNR Water Management Specialist (WMS)</u> regarding a permit? ☒ Yes ☐ No Is a permit needed? (Please provide any written correspondence from WMS.) ☒ Yes ☐ No Have you contacted your County Zoning Dept. regarding a floodplain determination? ☒ Yes ☐ No Will an H & H (hydrologic and hydraulic) study be required?					

Bridge Project Detailed Description

This project is to replace the existing bridge on Stream 30-12. This bridge is located on the Nicolet State Trail which has a lot of traffic year round by motorized and non-motorized recreation. This bridge is a necessity for users to be able to go from Laona through Forest County going to Florence County. Based on the inspection report from May 5th, 2024 conducted by KBIS, Stream 30-12 Bridge had many issues. The bridge wear planks are worn, warped and ends are sticking up and rail is damaged. The substructure is showing major defects with rotting abutments and tipping. We have been advised to change the inspection cycle to every 12 months.

Forest County is requesting funding to hire engineering to design and engineer a new bridge. Funding will also be needed as we would be bidding out this project for a contractor to come in and remove the existing bridge and the replacing it with a new bridge.

Appendix A (continued)

Summarize Costs in Appropriate Categories:

Bridge Structure			
		Quote 1	Quote 2
		☒ Steel ☐ Wooden	☒ Steel ☐ Wooden
Bridge Dimensions:		85' x 12'	85' x 12'
Bridge Manufacturer:		Sheet Piling Services LLC	Larson Construction Co Inc.
Design Weight Load		25,000 lbs.	25,000 lbs.
Cost of Structure:	1. Engineering	\$ _____	\$ _____
	2. Structure	\$ 120,250	\$ 171,320
	Subtotal	\$ 120,250	\$ 171,320
		Quote 1	Quote 2
		☒ Contractor or ☐ Sponsor	☒ Contractor or ☐ Sponsor
Installation Costs:		Estimate	Estimate
1.	Engineering	\$ 50,900	\$ 50,900
2.	Site Preparation	\$ 15,000	\$ 23,841
3.	Abutments	\$ 18,000	\$ 31,780
4.	Pilings/Piers	\$ _____	\$ 44,064
5.	Approaches	\$ 15,000	\$ 2,312
6.	Riprap	\$ 2,000	\$ 8,160
7.	Labor	\$ 128,000	\$ 24,423
8.	Equipment Rental	\$ 133,000	\$ 20,000
9.	Culverts	\$ _____	\$ _____
10.	H & H Study	\$ 8,000	\$ 8,000
11.	Wetland Delineation	\$ 6,000	\$ 6,000
12.	Other <u>Soil Borings</u>	\$ 10,000	\$ 10,000
	Subtotal	\$ 385,900	\$ 229,480
	Total Cost	\$ 506,150	\$ 400,800

For the application grant, you must take the lowest of the two quotes.

Entire Deck and Railing Projects		☐ Contractor ☐ Sponsor ☐ Club
Bridge Dimensions:	_____	
Design Weight Load	_____ lbs.	
1. Materials	\$ _____	
2. Labor	\$ _____	
Total	\$ _____	

Guidelines for Applicant

Complete this form for each bridge structure you are submitting a grant application for. Provide any additional documents not requested on application checklist to substantiate your points, including actual deeded easements.

Category		Possible Points	Actual Points
1	Condition of the Structure (max of 10 points)		
	Has a certified bridge inspection report that supports the project & demonstrates need (see example, must provide copy of report by August 1 for 2024 only)	10	10
2	Permits (maximum points 4)		
	Consultation with DNR Water Mgmt Specialist has occurred & permit is likely, if needed	1	1
	Permit in hand / Bridge already permitted	3	
3	Funding (maximum points 2) Are other funds already committed?		
	50% or greater from other funding source(s)?	2	-
	11% - 49% from other funding source(s)?	1	-
4	Length of Written Easements or Land Use Agreement (max points 5)(ch. 23.09(26)(am)1 WI Stats)		
	On public land (County, State, Federal)	5	5
	10 or more year deeded easement on private land or other public land, for <u>all portions of</u> that trail to the nearest road on each side of the bridge	5	
	3-9 year deeded easement on private land or other public land, for <u>all portions of that</u> trail to the nearest road on each side of the bridge	4	
	10 or more year deeded easement on private land or other public land, for <u>just the bridge</u> site	3	
	3-9 deeded easement on private land or other public land, for <u>just the bridge</u> site	2	
	10 or more year land use agreement (LUA, not deeded) on private land or other public land	1	
	3-9 year land use agreement (LUA, not deeded) on private land or other public land	0	
5	Miles Impacted – How many miles will need to rerouted if the structure is not replaced? Measured from nearest intersection on both sides of the bridge. (max 4 points)		
	Less than 20 miles	1	1
	20 miles or more	3	
	No other snowmobile trails connect. Explain:	4	
	DEDUCTIONS		
6	County Active Project Deduction (maximum deduction 1 point) A snowmobile active project is one that has exceeded it's initial grant period.		
	Two or more active projects - deduct 1 point Yes - 2 projects	-1	-1
GRAND TOTAL			16

2

18

Comments/Notes:

Bridges Proposed Construction Plans:

Stream 30-12: Steel Free Span Bridge (85' long by 12' wide) Steel Railing 3'6" high. Bridge will sit on concrete or wood abutments and connect into the existing grade of the trail.

Swamp Creek: Steel Free Span Bridge (70' long by 12' Wide) Steel Railings 3'6" high. Bridge will sit on concrete or wood abutments and connect into the existing grade of the trail.

Peshtigo River: Steel Free Span Bridge or Bridge with two piers. Depends what will occur during engineering. Bridge will be (2-80' & 1-40' long by 12' Wide) Steel Railings 3'6" high. Bridge will sit on concrete or wood abutments and connect into the existing grade of the trail.

SAMPLE

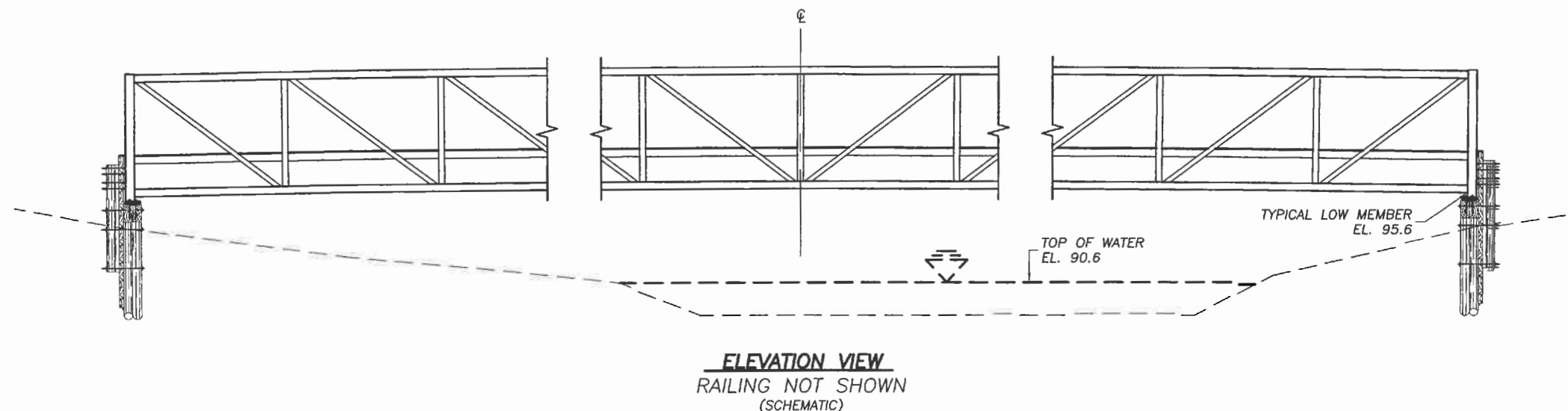
PLUM CREEK BRIDGE

VILAS COUNTY, WISCONSIN

SAMPLE

FABRICATION & MATERIAL NOTES:

- 1) THE BRIDGE SHALL BE FABRICATED FROM COLD-FORMED WELDED AND SEAMLESS HIGH STRENGTH, LOW-ALLOY STRUCTURAL TUBING WITH IMPROVED ATMOSPHERIC CORROSION RESISTANCE MEETING THE REQUIREMENTS OF ASTM A847, AND PLATES AND STRUCTURAL SHAPES MEETING THE REQUIREMENTS OF ASTM A588. (FY = 50,000 PSI).
- 2) THE WELDING PROCESS SHALL BE THE FLUX CORE ARC WELDING PROCESS, UTILIZING E81T1-W2/W2M ELECTRODES.
- 3) WELDED CONNECTIONS SHALL BE AS DETAILED AND NOTED EXCEPT THAT MISCELLANEOUS MEMBERS, INCLUDING STRINGERS SUPPORTED ON TOP OF FLOOR BEAMS, RAILINGS, AND OTHER MEMBERS FOR WHICH WELDS ARE NOT SPECIFICALLY DETAILED, SHALL BE STITCH WELDED TO THE SUPPORTING MEMBER. A STITCH WELD IS DEFINED AS A WELD OF APPROXIMATELY 1-1/2" TO 2" IN LENGTH, OF A SUFFICIENT NUMBER TO ADEQUATELY HOLD THE MEMBER IN PROPER POSITION.
- 4) TEN PERCENT OF EACH DIFFERING STRUCTURAL WELD (DIFFERING WELD TO BE DEFINED BY TYPE, SIZE, LENGTH) SHALL BE RANDOMLY TESTED (MAGNETIC PARTICLE). ALL WELDS SHALL BE VISUALLY INSPECTED AND CONFORM TO AWS D1.1.
- 5) SHOP SPLICES OF TUBULAR MEMBERS, WHEN NEEDED, SHALL BE FULL PENETRATION JOINTS UNLESS DETAILED OTHERWISE. JOINT DETAIL SHALL BE AS SPECIFIED IN THE APPROPRIATE WELD PROCEDURE. ALL OF THESE WELDS SHALL BE TESTED (MAGNETIC PARTICLE). SHOP SPICE LOCATIONS SHALL BE APPROVED BY THE ENGINEER SEALING THESE PLANS.
- 6) RAILINGS AND SIDE DAMS SHALL BE SHOP SPICED AS FOLLOWS: OPEN SHAPE, ROUND PIPE, AND LARGE (3x OR GREATER) TUBULAR MEMBERS MAY BE SPICED WITH THE PROVIDED DETAILS AND WELD PROCEDURES AT ANY LOCATION. SMALL TUBULAR MEMBERS SHALL BE SPICED AT OR WITHIN TWO FEET OF A SUPPORT. MEMBERS THAT ARE SPICED DIRECTLY OVER A SUPPORT MAY BE WELDED AT THE VISIBLE FACES ONLY, PROVIDED THE SPICE IS CENTERED ON THE SUPPORT AND BOTH ADJOINING MEMBERS ARE AT A MINIMUM STITCH WELDED TO THE SUPPORT. TUBULAR RAILINGS DESIGNATED AS TRAFFIC BARRIERS SHALL ONLY BE SPICED CENTERED ON A SUPPORT AND EACH ADJOINING MEMBER SHALL BE CONTINUOUS OVER A MINIMUM OF TWO PANELS. HOLD DOWN AND TIE DOWN ANGLES DO NOT REQUIRE SPLICES.
- 7) ALL HIGHLY VISIBLE SURFACES OF STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATION NO. 7 BLAST CLEANING (SSPC-SP7).
- 8) BRIDGE TO BE FABRICATED AND DELIVERED TO THE SITE AS 1 UNIT.
- 9) BRIDGE DECKING SHALL BE 3"x8" SOUTHERN YELLOW PINE NO. 1 S4S, TREATED WITH PTI OR MCA IN ACCORDANCE WITH AWWA UC3B.
- 10) BRIDGE WEARING COURSE SHALL BE 2"x8" ROUGH WHITE OAK, UNTREATED.



DETAIL LETTER
PAGE DETAIL IS REFERENCED FROM
PAGE DETAIL IS ON

CALLOUT LEGEND

PRELIMINARY BRIDGE WEIGHT

ESTIMATED LIFTING WEIGHT OF BRIDGE	30,100 LBS
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BRIDGE SPAN CAMBER

SHOP CAMBER	7 9/16"
DEAD LOAD DEFLECTION	3/8"
RESIDUAL CAMBER	7 3/16"

TEMPERATURE/LENGTH CHART

TEMPERATURE	LENGTH
-40° F	59'-11 1/2"
70° F	60'-0"
110° F	60'-0 3/16"

BRIDGE SPAN REACTIONS

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED				+ DOWNWARD LOAD	- UPWARD LOAD
LOAD	P lbs	H lbs	L lbs		
DEAD	7,500				
UNIFORM LIVE	10,700				
VEHICLE	15,400				
WIND		5,800	3,900		
WINDWARD	-7,300				
LEEWARD	1,500				
THERMAL			1,500		

"P" - VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE SPAN)
"H" - HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE SPAN)
"L" - LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE SPAN)

DESIGN DATA

- 1) DESIGN OF SUPERSTRUCTURE COMPLIES WITH THE 14TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL, ANSI/AISC 360-10, AND THE PROJECT SPECIFICATIONS.
- 2) DESIGN LOADS:
 - LIVE LOAD**
 - A) A UNIFORM LIVE LOAD OF 60 psf APPLIED TO THE ENTIRE DECK SURFACE; OR
 - B) 25,000 LB. GROOMER (60/40 AXLE SPLIT) PLUS 60 PSF SNOW LOAD
 - C) DESIGN IS BASED ON A MAXIMUM OF 20,000 CYCLES OF 1 TON OR GREATER VEHICLES OVER THE LIFE OF THE BRIDGE
 - D) 1,000 LB POINT LOAD (IN ADDITION TO THE DESIGN VEHICLE, IF ANY, BRIDGE WILL SAFELY ACCOMMODATE ANY VEHICLE WITH WHEEL LOADS LESS THAN OR EQUAL TO THE DESIGN POINT LOAD.)
 - WIND LOAD**
 - A) A LATERAL WIND LOAD OF 35 psf ON THE FULL HEIGHT OF THE BRIDGE, AS IF ENCLOSED.
 - B) AN UPLIFT WIND LOAD OF 20 psf APPLIED AT THE WINDWARD QUARTER POINT OF THE TRANSVERSE BRIDGE WIDTH.

FILLET WELD CHART

THICKNESS OF THINNEST PIECE	WELD SIZE
1/4" OR LESS	1/4"
3/8" OR GREATER	5/16"

NON STANDARD WELDS

SEE "MEMBER SIZE TABLE" ON SHEET 2 FOR NON-STANDARD WELD SIZES.

WELD PROCEDURES

FILLET	PARTIAL PEN
FC-02	FC-06
FC-03	FC-10
FC-04	FC-14
	FULL PEN
	FC-05
	FC-07
	FC-09

WELD NOTES:

EXCEPTIONS TO THE STANDARD WELD SIZES INCLUDE FLANGES OF THE WIDE FLANGE SECTIONS WHICH SHALL BE 1/4", WEBS OF WIDE FLANGE SECTIONS, RAILINGS, SIDE DAMS, COVER PLATES OR ANGLES, AND TIE DOWNS WHICH SHALL BE 3/16", AND HANDRAIL BRACKET WELD TO VERTICAL WHICH SHALL BE 3/8", UNLESS DETAILED OR NOTED OTHERWISE.

WHEN A FILLET WELD IS MADE FROM A BRANCH MEMBER TO THE RADIUS PORTION OF A TUBULAR THROUGH MEMBER, THE RADIUS SHALL BE BUILT UP AS REQUIRED TO OBTAIN FULL WELD THROAT.

DO NOT SCALE DRAWINGS

ENGINEER'S SIGNATURE AND SEAL ARE TO ASSUME DESIGN RESPONSIBILITY FOR THE PREFABRICATED STEEL SUPERSTRUCTURE AS DRAWN AND SUPPLIED BY WHEELER LUMBER, LLC. INDEPENDENT OF ITS FINAL POSITION. THIS DESIGN RESPONSIBILITY IS LIMITED TO THE PREFABRICATED STEEL SUPERSTRUCTURE ONLY AND DOES NOT INCLUDE ANY DESIGN RESPONSIBILITY, PERTAINING TO, BUT NOT LIMITED TO, SUBSTRUCTURE DESIGN OR CAPACITY, HYDRAULICS, SOILS, SCOUR ANALYSIS, PERMITTING PROCEDURES, UTILITY FACILITIES, ERECTION, ROADWAY GEOMETRICS, ETC.

INDEX

1. COVER SHEET
2. GEN. PLAN & ELEV.
3. SECTION DETAILS
4. END VIEW DETAILS
5. MISC. DETAILS

SAMPLE

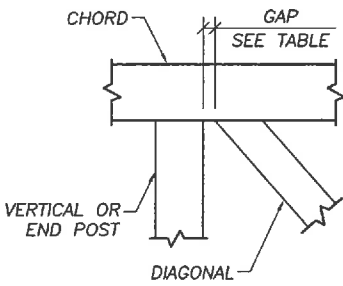
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REV.	DESCRIPTION	DATE INT.
SHEET TITLE:		
COVER SHEET		
60'-0" PEDESTRIAN BRIDGE		
12'-0" WALKWAY		
PLUM CREEK BRIDGE		
VILAS COUNTY, WISCONSIN		
9531 West 78th Street - Suite 100 Eden Prairie, MN 55344 952-929-7854 info@wheeler1892.com wheeler1892.com		
DATE: 9/29/17	TRACKING NO. T19464	SHEET NO.
CHK: JAS	DWN: NBB	ORDER NO. 14188
		1 of 5

MEMBER SIZE TABLE		
MEMBER	SIZE	WELD SIZE (3)
TOP CHORD	HSS 5x5x3/8	—
BOTTOM CHORD	HSS 4x4x1/4	—
END POST	HSS 6x6x3/8	1/4
VERTICAL	HSS 3x3x1/4	1/4
DIAGONAL A	HSS 3x3x1/4	1/4
DIAGONAL B	HSS 2x2x1/4	1/4
WIND BRACE A	HSS 2x2x1/4	1/4
STRINGER	HSS 5x3x3/16	5
FLOOR BEAM	W 10x17	—
END FLOOR BEAM	W 10x17	—
SAFETY RAIL	L 1.25x1.25x1/8	—
TOE RAIL	C 4x5.4	—
INTER. SUPPORT	FB 1/2x2	—
COVER ANGLE	L 4x4x1/4	—
DECKING	3x8 SYP S4S	—
WEARING COURSE	2x8 WHT. OAK RGH	—
BEARING PLATE	PL 3/4	—

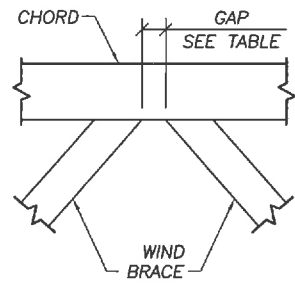
DIAGONAL MEMBER AND GAP TABLE (2)			
DIAGONAL MEMBER	GAP SIZE		
	TOP	BOTTOM	
FIRST	A	9/16"	1/2"
SECOND	A	1"	1/2"
TYPICAL *	B	1 1/4"	3/4"

* UNLESS NOTED OTHERWISE IN CHART

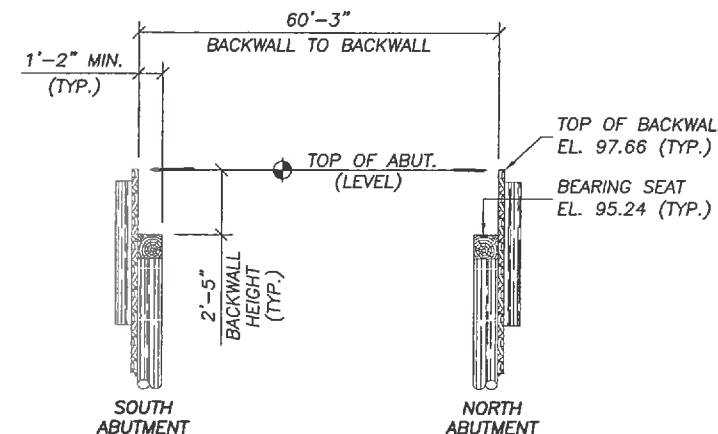
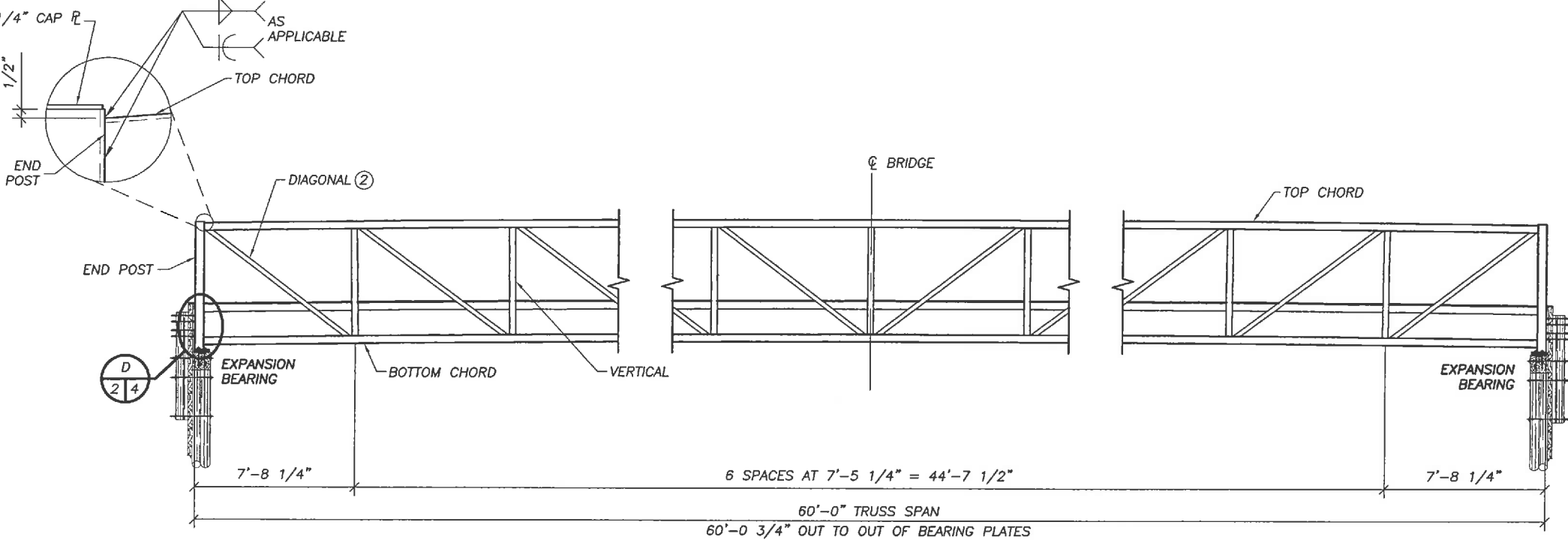
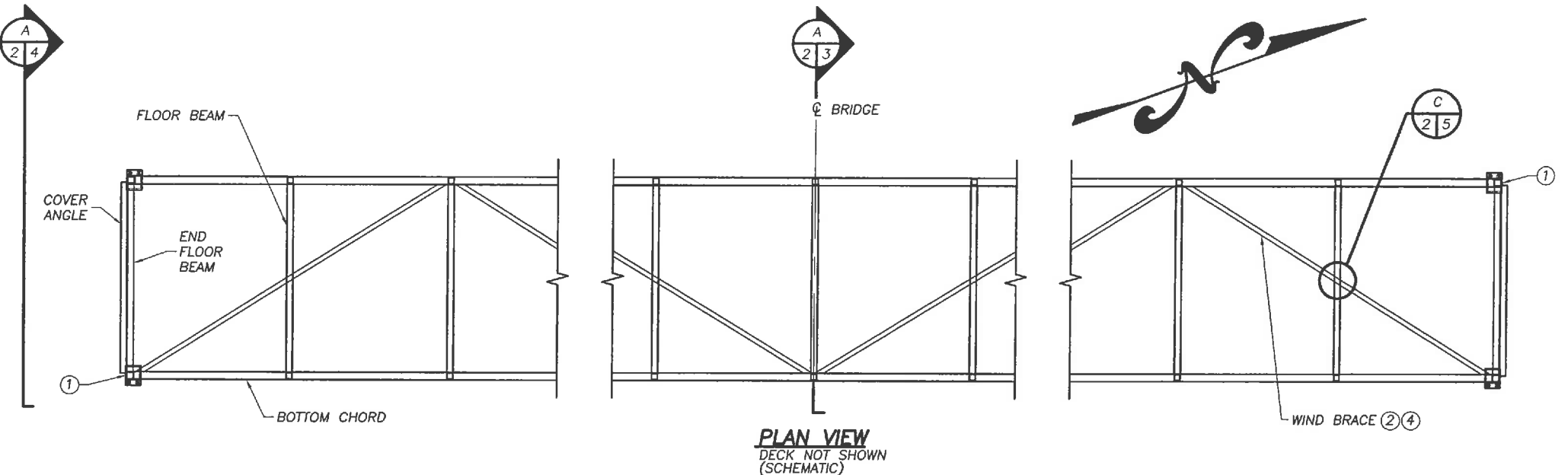
WIND BRACE MEMBER AND GAP TABLE (2)		
WIND BRACE MEMBER	GAP SIZE BETWEEN BRACES	
TYPICAL	A	1"



DIAGONAL GAP DETAIL



WIND BRACE GAP DETAIL



SUBSTRUCTURE LAYOUT

KEY NOTES:

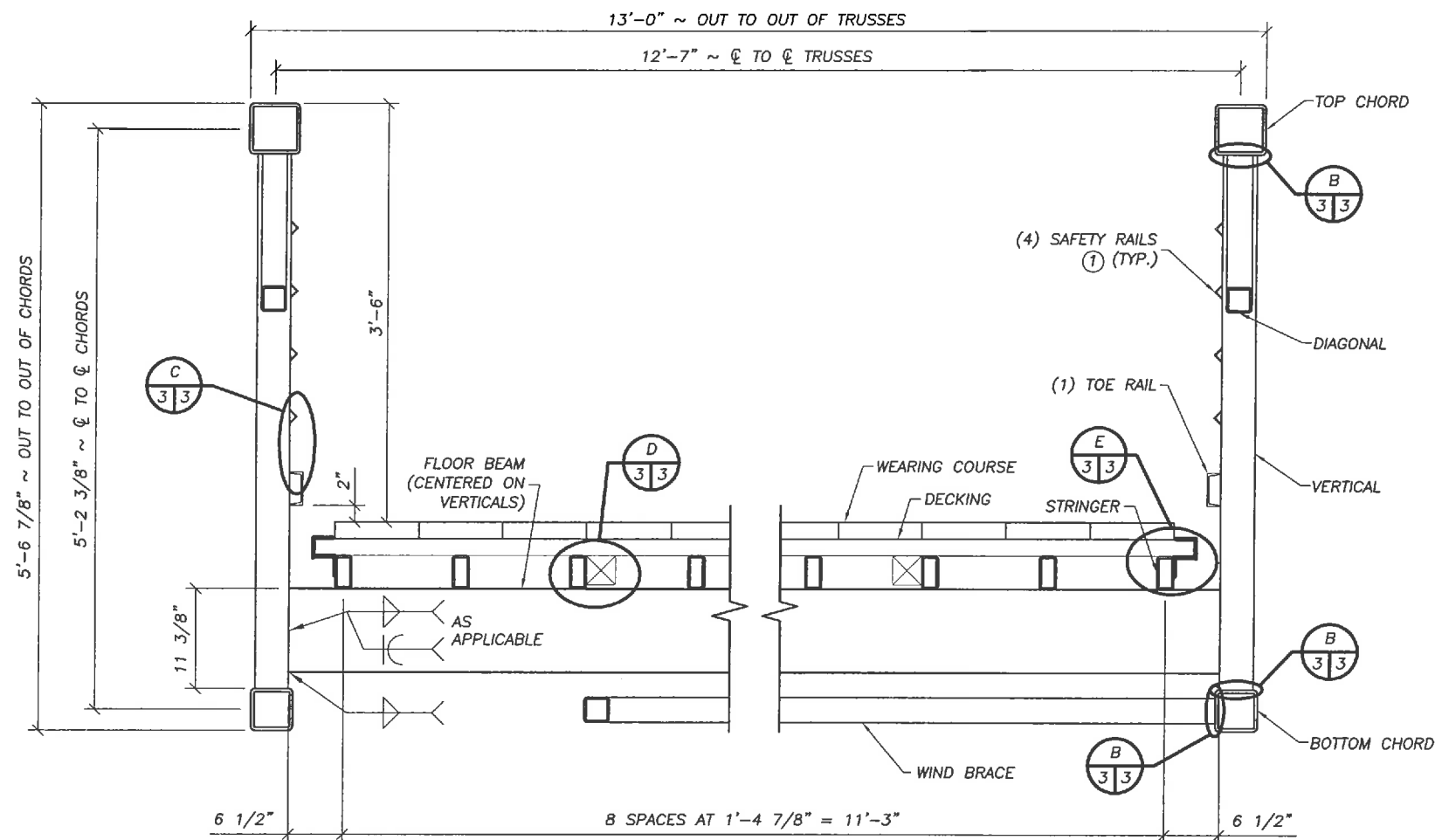
- BRIDGE NAME PLATE/LOAD LIMIT PLATE EACH END. PLATE SHALL STATE, "12.5 TON VEHICLE LOAD LIMIT." IF LOAD LIMIT PLATES ARE OBSTRUCTED, ADDITIONAL PLATES WILL BE PROVIDED UPON REQUEST TO WHEELER.
- SEE MEMBER AND GAP TABLE THIS SHEET. MEMBER NUMBERING BEGINS AT END OF BRIDGE. MEMBERS AND GAPS SHOWN ARE SYMMETRICAL ABOUT THE CENTERLINE OF THE BRIDGE UNLESS NOTED OTHERWISE.
- FOR RECTANGULAR TRUSS MEMBERS, THE DIMENSION SHOWN IN THIS COLUMN IS THE DIMENSION SEEN IN THE TRUSS ELEVATION VIEW.
- WIND BRACES ARE ORIENTED IN A WARREN TRUSS CONFIGURATION AND SHALL SPAN ACROSS 2 BAYS EACH EXCEPT AS NOTED.

DO NOT SCALE DRAWINGS

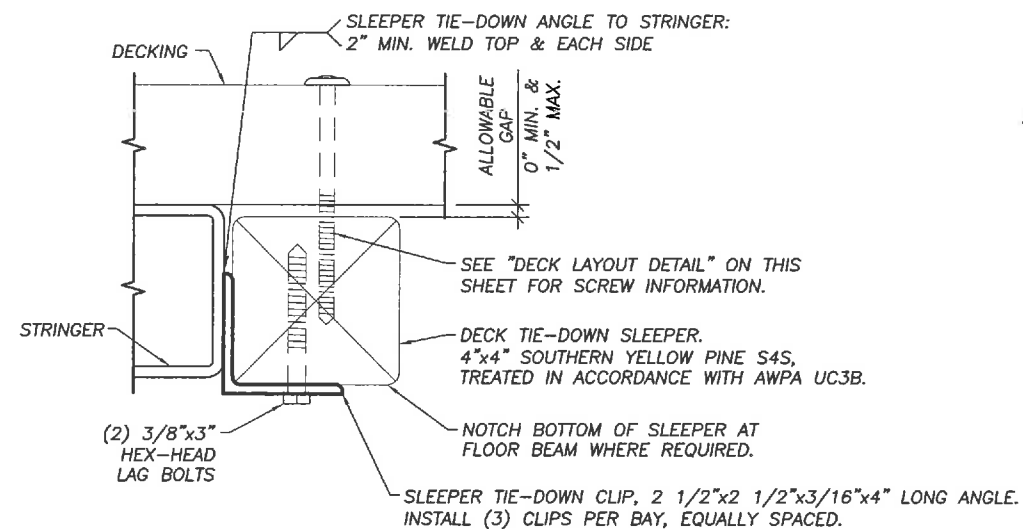
SHEET TITLE:
GENERAL PLAN & ELEVATION
60'-0" PEDESTRIAN BRIDGE
12'-0" WALKWAY
PLUM CREEK BRIDGE
VILAS COUNTY, WISCONSIN

9531 West 78th Street - Suite 100
Eden Prairie, MN 55344
952-929-7854
info@wheeler1892.com
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DATE: 9/29/17	TRACKING NO. T19464	SHEET NO.
CHK: JAS	DWN: NBB	ORDER NO. 14188
		2 of 5

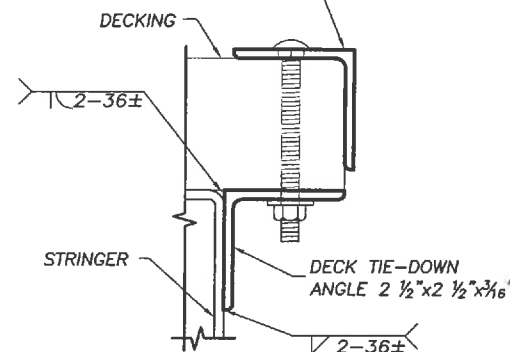


1 **TYPICAL SECTION VIEW**
(SCHEMATIC)

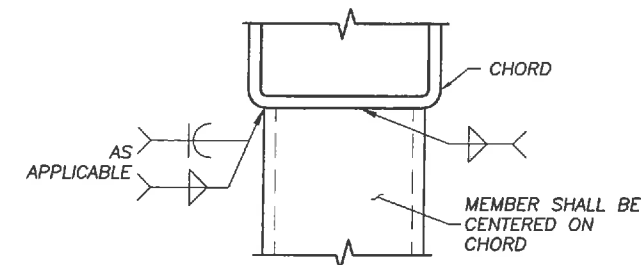


D **MIDDLE DECK TIE-DOWN DETAIL**
3 3

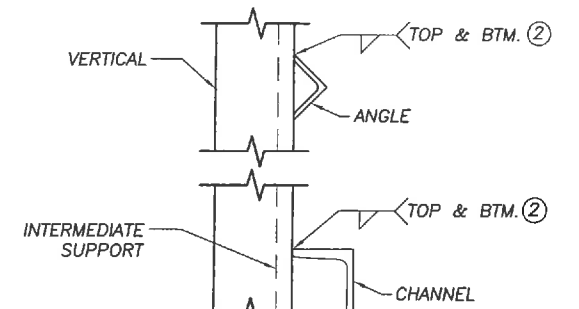
DECK HOLD-DOWN ANGLE 2 1/2" x 2 1/2" x 3/16".
SEE "DECK LAYOUT DETAIL" ON THIS SHEET
FOR BOLTING INFORMATION.



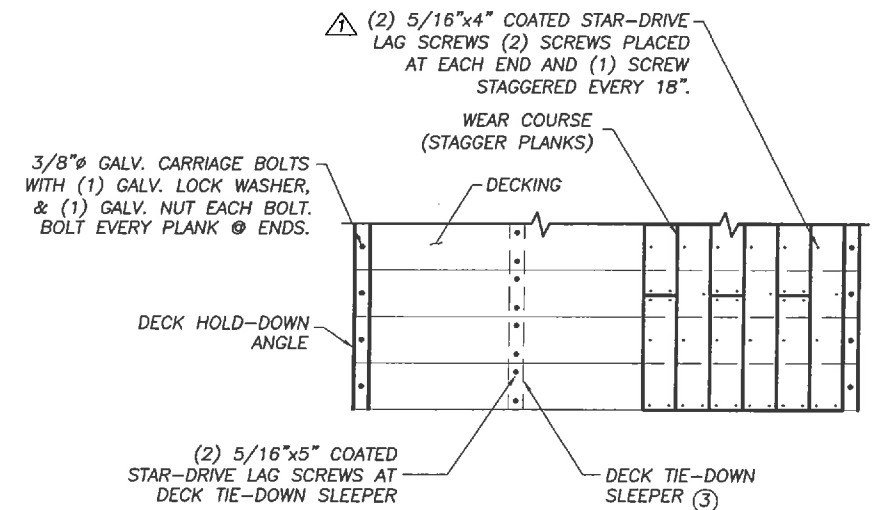
E **SECTION AT EDGE DECK ATTACHMENT**
3 3



B **CONNECTION TO CHORD DETAIL**
3 3



C **STEEL RAIL ATTACHMENT DETAILS**
3 3
INTERMEDIATE SUPPORT SHALL BE LOCATED @ MID BAY FROM THE BOTTOM OF THE TOP CHORD TO 1/4" BELOW THE TOE RAIL.



1 **DECK LAYOUT DETAIL**
WITH LONGITUDINAL WEARING COURSE

KEY NOTES:

- SAFETY RAIL TO CONTAIN A 6" SPHERE UP TO 27" ABOVE THE DECK, AND AN 8" SPHERE FROM 27" ABOVE THE DECK TO THE TOP OF THE BRIDGE.
- SEE FABRICATION AND MATERIAL NOTE 3 ON SHEET 1.
- (2) MIDDLE DECK TIE-DOWN SLEEPERS REQUIRED.

DO NOT SCALE DRAWINGS

SHEET TITLE:

SECTION DETAILS
60'-0" PEDESTRIAN BRIDGE
12'-0" WALKWAY
PLUM CREEK BRIDGE
VILAS COUNTY, WISCONSIN

Wheeler

9531 West 78th Street - Suite 100
Eden Prairie, MN 55344
952-929-7854
info@wheeler1892.com
wheeler1892.com

DATE: 9/29/17

TRACKING NO. T19464

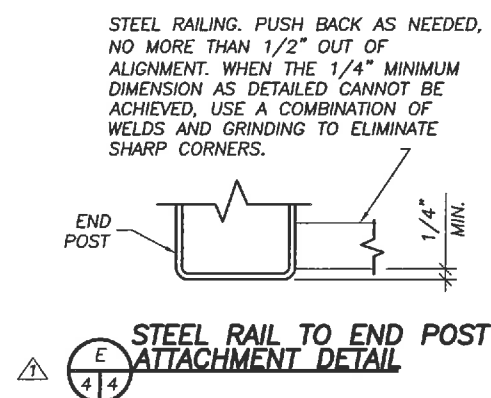
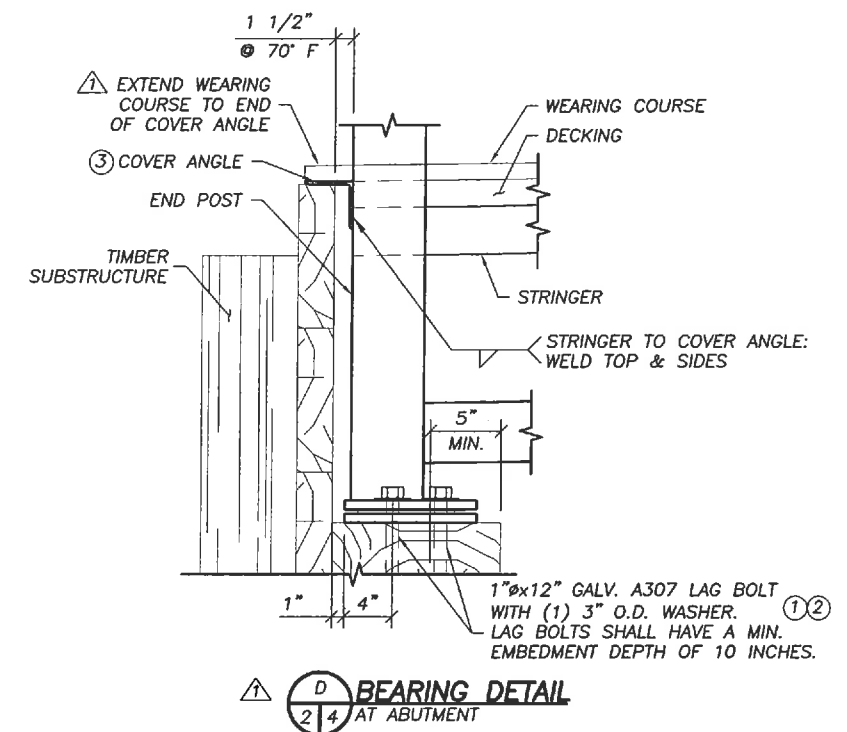
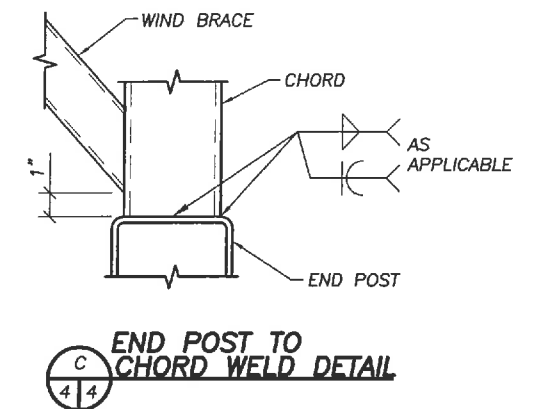
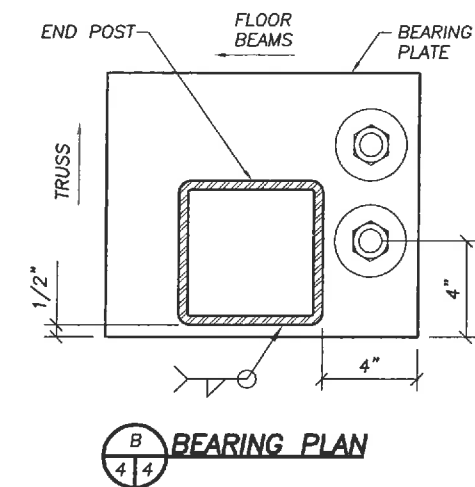
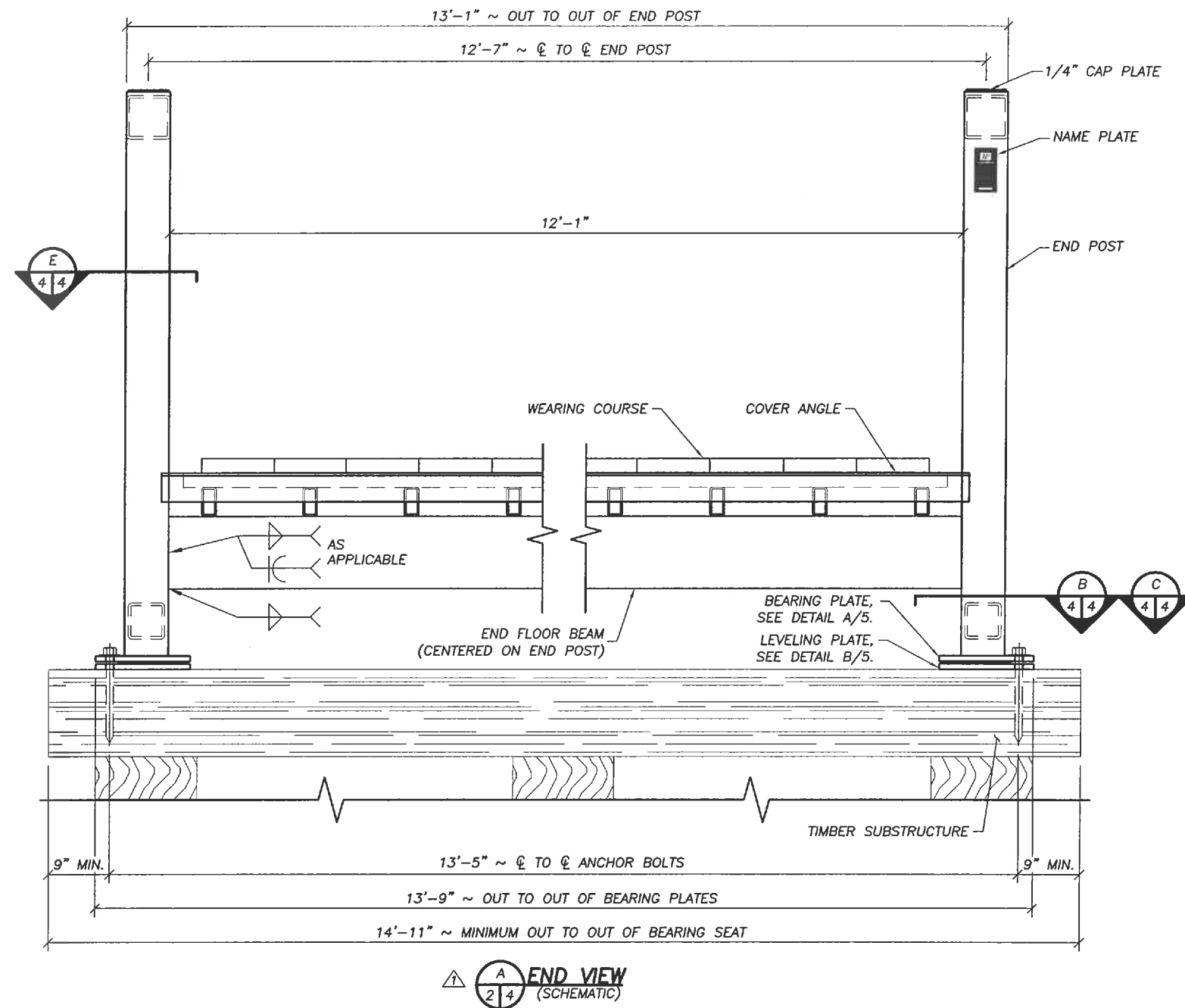
SHEET NO.

CHK: JAS

DWN: NBB

ORDER NO. 14188

3 of 5



KEY NOTES:

- ① HOLES DRILLED FOR 1" LAG BOLTS ARE TO BE 3/4" IN DIAMETER FOR THE THREADED PORTION OF THE BOLT AND 1 1/16" FOR THE SHANK.
- ② EACH LAG BOLT SHALL BE TIGHTENED TO ELIMINATE ANY GAP AT WASHER BUT NOT BE FURTHER TIGHTENED SO THAT EXPANSION BEARING IS ABLE TO MOVE FREELY.
- ③ ALLOW COVER ANGLES TO JUST TOUCH THE TOP OF THE ABUTMENT BACKWALL, DO NOT ALLOW ANY BRIDGE WEIGHT TO REST ON COVER ANGLES.

DO NOT SCALE DRAWINGS

SHEET TITLE:

END VIEW DETAILS
60'-0" PEDESTRIAN BRIDGE
12'-0" WALKWAY
PLUM CREEK BRIDGE
VILAS COUNTY, WISCONSIN

Wheeler

9531 West 78th Street - Suite 100
 Eden Prairie, MN 55344
 952-929-7854
 info@wheeler1892.com
 wheeler1892.com

DATE: 9/29/17

TRACKING NO. T19464

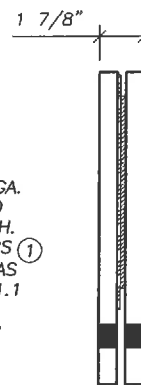
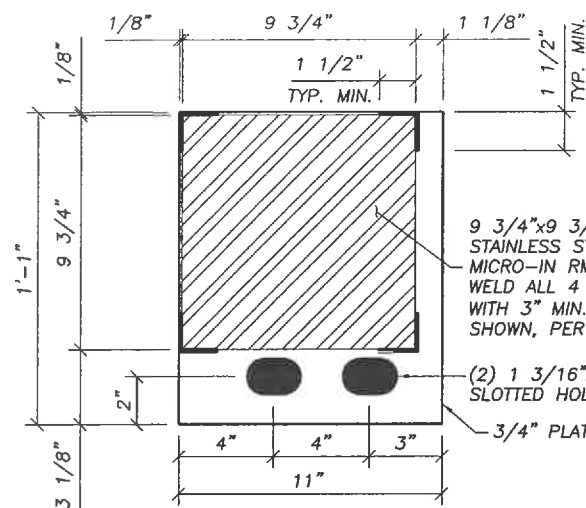
SHEET NO.

CHK: JAS

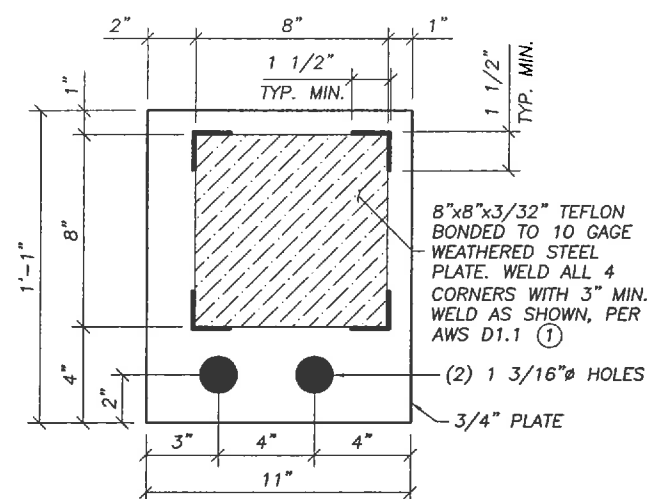
DWN: NBB

ORDER NO. 14188

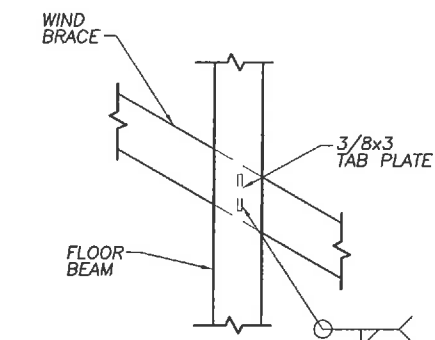
4 OF 5



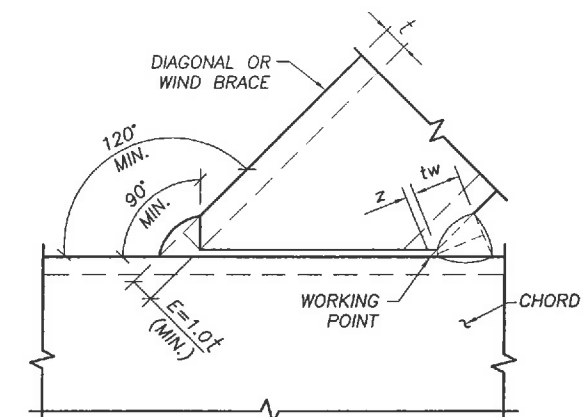
PLACEMENT



 **LEVELING PLATE**
2 THUS
2 OPPOSITE



**WIND BRACE TO FLOOR BEAM
CONNECTION DETAIL**

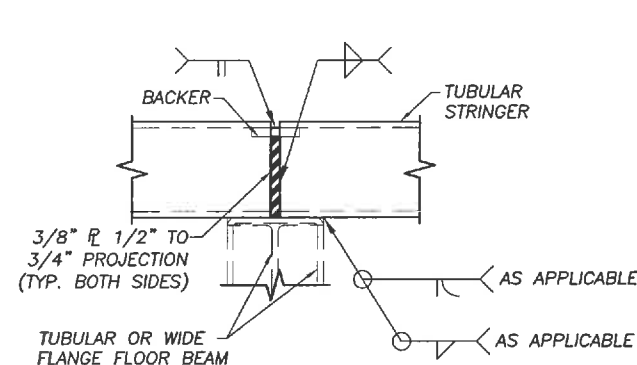


NOTE:
"Z" LOSS DIMENSION TO BE
DETERMINED IN ACCORDANCE
WITH AWS D1.1—TABLE 2.9

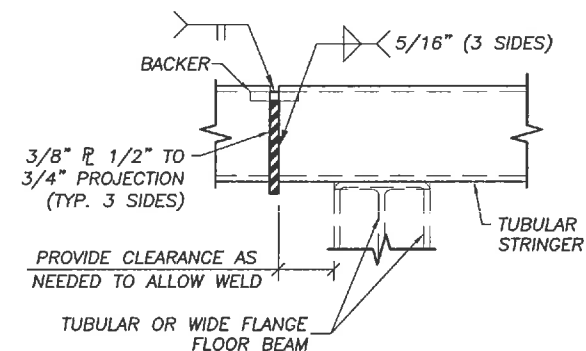
**TYPICAL SKEWED MEMBER
STANDARD WELD DETAIL**

KEY NOTES:

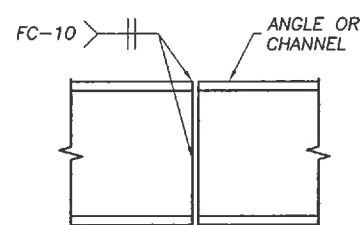
- ① TEFLON AND STAINLESS TO BE COVERED UP DURING SHIPMENT AND LIFTING TO AVOID ANY DAMAGE TO EITHER PRIOR TO BRIDGE PLACEMENT.



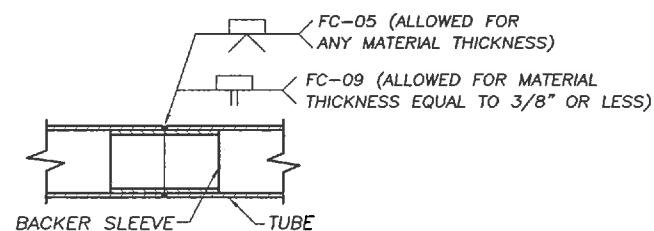
STRINGER SHOP SPLICE TYPE I
SPLICE SHALL BE CENTERED OVER FLOOR BEAM



STRINGER SHOP SPLICE TYPE II
SHALL BE USED WHEN SPLICE IS NOT LOCATED
OVER A FLOOR BEAM. LOCATION IS UNRESTRICTED
EXCEPT AS NOTED.



SHOP SPLICE FOR OPEN SHAPES



FULL PENETRATION SHOP SPLICE

DO NOT SCALE DRAWINGS

SHEET TITLE:

MISC. DETAILS

60'-0" PEDESTRIAN BRIDGE
12'-0" WALKWAY
PLUM CREEK BRIDGE
VILAS COUNTY, WISCONSIN

Wheeler

9531 West 78th Street - Suite 100
Eden Prairie, MN 55344
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TRACKING NO. T19464

SHEET NO.

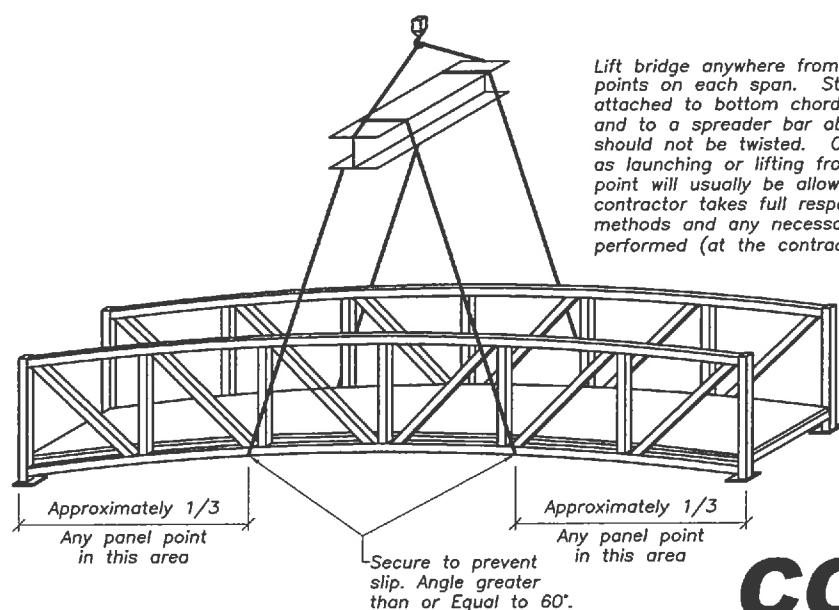
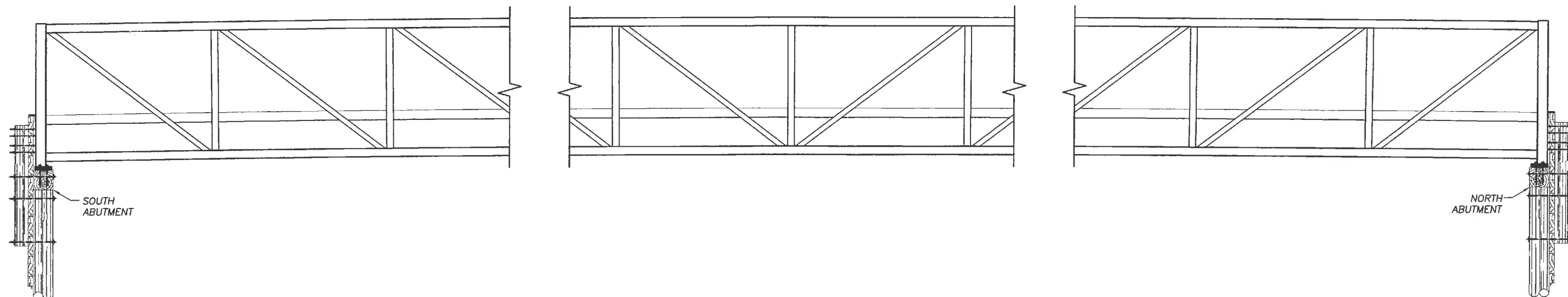
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DWN: NBB

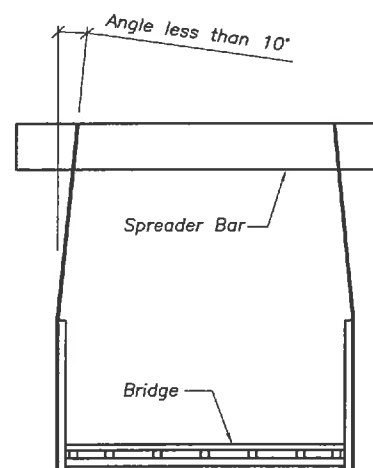
ORDER NO. 14188

5 OF 5

INSTALLATION INSTRUCTIONS



Lift bridge anywhere from end post to $\frac{1}{3}$ points on each span. Straps are to be attached to bottom chord at a panel point and to a spreader bar above. The straps should not be twisted. Other methods such as launching or lifting from middle panel point will usually be allowed when the contractor takes full responsibility for their methods and any necessary analysis is performed (at the contractor's expense).



CONTRACTOR MUST VERIFY NOT FOR CONSTRUCTION

BRIDGE INSTALLATION

1. Construct substructures with great care regarding squareness and distance between abutment backwalls and/or centerline of piers to precisely accommodate the bridge superstructure. MEASURE THESE DIMENSIONS IMMEDIATELY AFTER COMPLETION. If dimensions are incorrect, remove and replace or otherwise modify substructures as needed well before superstructure delivery to expedite installation. Also construct concrete substructures with great care regarding placement of rebars with respect to drilled anchor bolt locations; two inches clear from rebar to drilled anchor bolt is required and bars must surround anchor bolts on all sides. Re-measure rebar locations before placing concrete. For concrete or timber substructures, do not drill holes for anchor bolts until the bridge superstructure is sitting in the design position, unless indicated otherwise in the plans.

2. Before setting bridge in design position, remove temporary bolts and/or temporary spacer from bearings when applicable.

3. Install and fully tighten field splices when applicable. See plans for splice details. Railings may require adjustment to clear truss members during splice procedures. The contractor shall ensure that the bridge is safely supported and stabilized prior to anyone reaching inside the tube, where applicable. The bridge shall be blocked up to the correct profile before tensioning the bolts. All bolts, including filler block, shall be installed and fully tensioned while the bridge is safely supported and stabilized. Bolts shall be tightened in accordance with washer manufacturer and AASHTO. Tension indicating washers (provided) will be placed in the exact locations as indicated in the plans and installed as per the manufacturer's instructions (see www.turnasure.com for details).

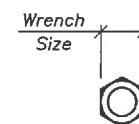
4. Welding, drilling, cutting, grinding, and any other alterations performed without written permission may affect warranty coverage.

5. When substructures are not at equal elevations, make sure bridge span is sloped correctly. Bridge span order number & substructure location will be hammer-stamped on cover plates (or on nearest structural member to name plate). When bridges have a combination of fixed and expansion bearings, be sure the expansion bearings (with slotted holes) are placed on the correct substructure, and also note that the specified joint opening is most critical at expansion substructures. When bridges have all expansion bearings, slight variations in joint openings should be equally distributed.

6. For final elevation adjustment of bridges and Bearing Installation Sequence, see next sheet.

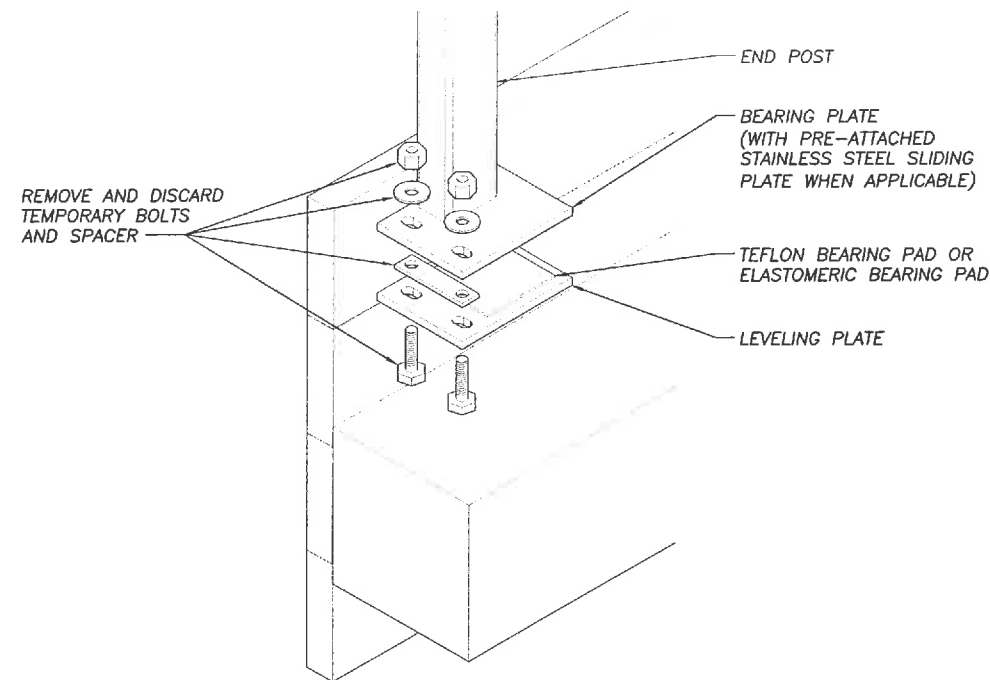
7. When applicable, touchup paint shall be field applied, after assembly, in regions of splices and in areas of damaged shop applied paint. Faying surfaces of splices shall not be painted unless indicated otherwise in the plans.

8. Some additional items may be shipped loose and require field installation, see plans.



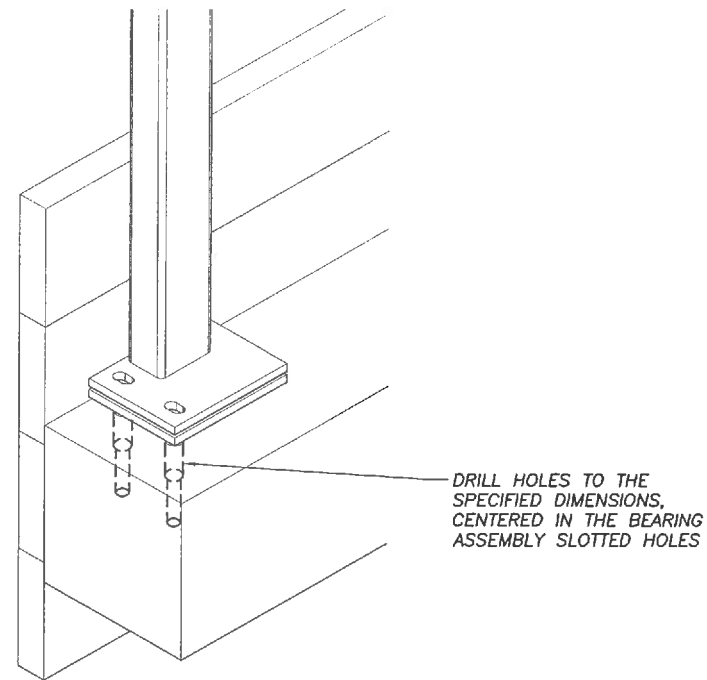
Common Wrench Sizes:		
Bolt Dia.	Bolt Head	Nut Size
3/4"	1-1/4"	1-1/4"
1"	1-5/8"	1-5/8"
1 1/4"	2"	2"

△			
△			
△			
△			
REV.	DESCRIPTION	DATE	INT.
SHEET TITLE:			
INSTALLATION INSTRUCTIONS			
60'-0" PEDESTRIAN BRIDGE			
12'-0" WALKWAY			
PLUM CREEK BRIDGE			
VILAS COUNTY, WISCONSIN			
Wheeler		9531 West 78th Street - Suite 100 Eden Prairie, MN 55344 952-929-7854 info@wheeler1892.com wheeler1892.com	
		DATE: 9/29/17	TRACKING NO. T19464
CHK: JAS	DWN: NBB	ORDER NO. 14188	SHEET NO. E1 of E2



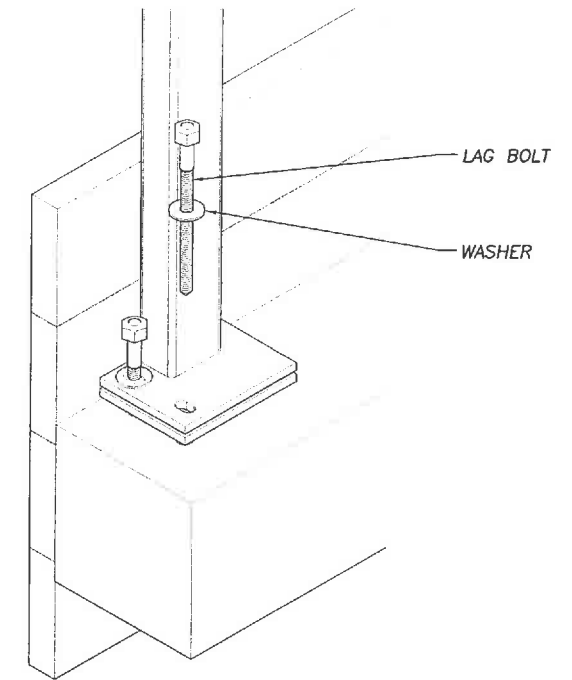
STEP 1

Before setting bridge in final position, remove temporary bolts and/or temporary spacer from bearings when applicable. Use caution not to damage or scratch Teflon and stainless steel or elastomeric bearing pad (as applicable).



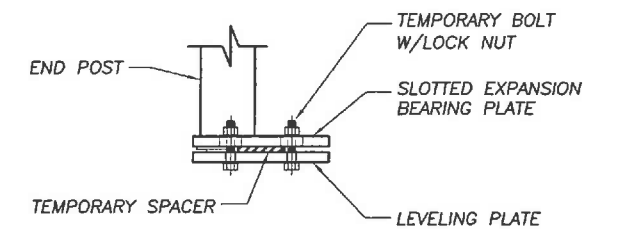
STEP 2

Drill holes into the substructure (through bearing plates), centered on slotted holes when applicable, after the bridge is in the final position unless indicated otherwise in the plans. Be careful regarding the depth of holes into the timber cap; hole sizes for the threaded portion of the bolt and the shank may vary.



STEP 3

Install lag bolts and washers as noted in plans.



BEARING ASSEMBLY

As shipped condition.

SHEET TITLE:

BEARING INSTALLATION SEQUENCE

60'-0" PEDESTRIAN BRIDGE

12'-0" WALKWAY

PLUM CREEK BRIDGE

VILAS COUNTY, WISCONSIN

Wheeler

9531 West 78th Street - Suite 100
Eden Prairie, MN 55344
952-929-7854
info@wheeler1892.com
wheeler1892.com

DATE: 9/29/17

TRACKING NO. T19464

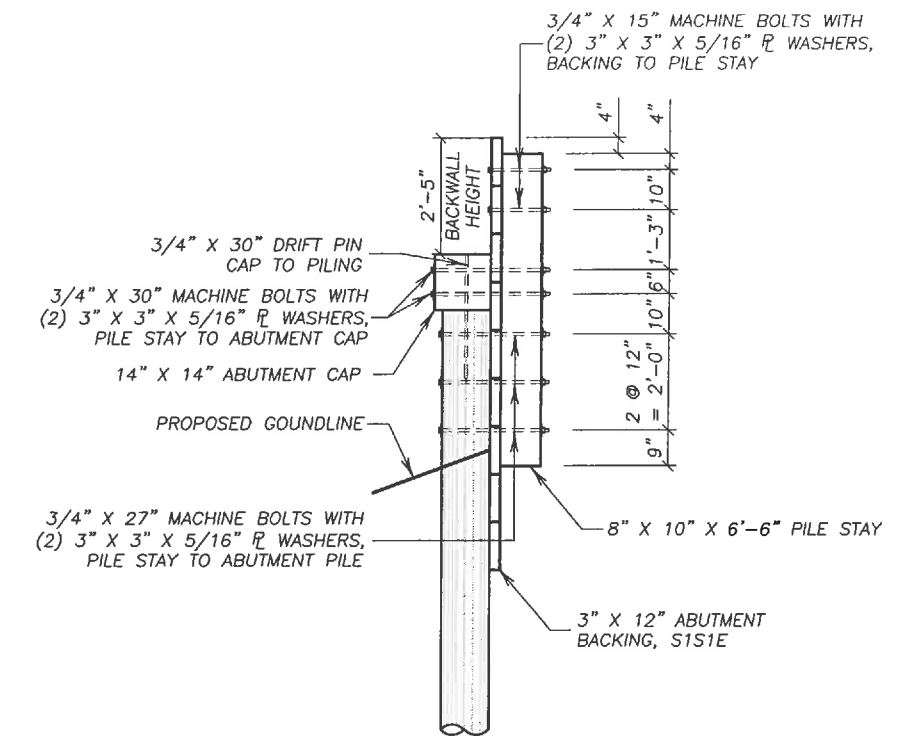
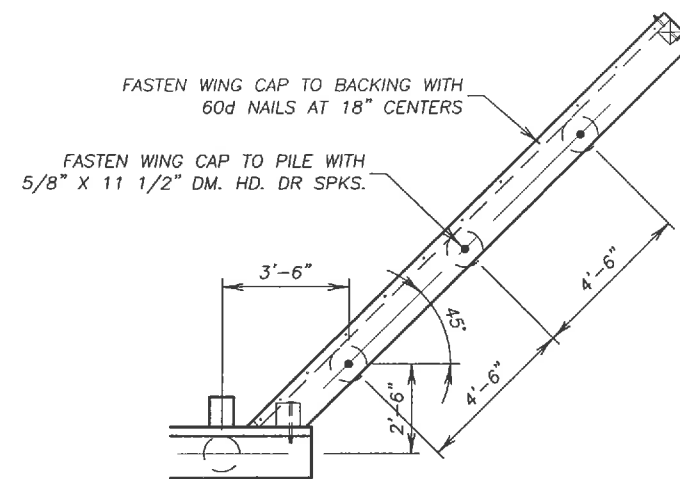
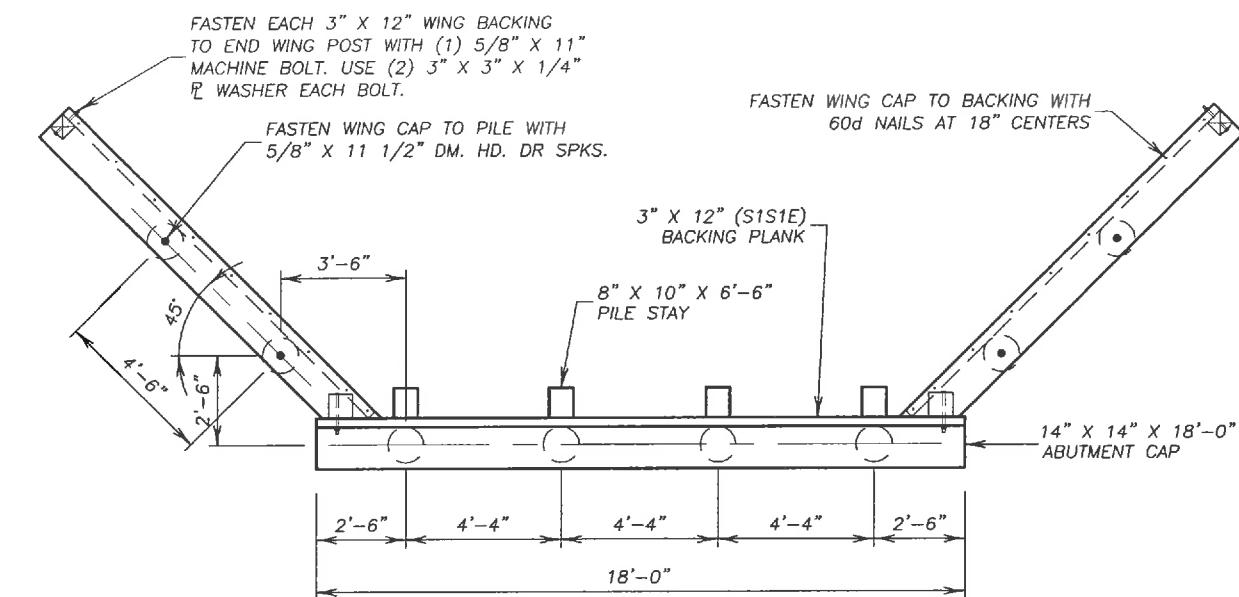
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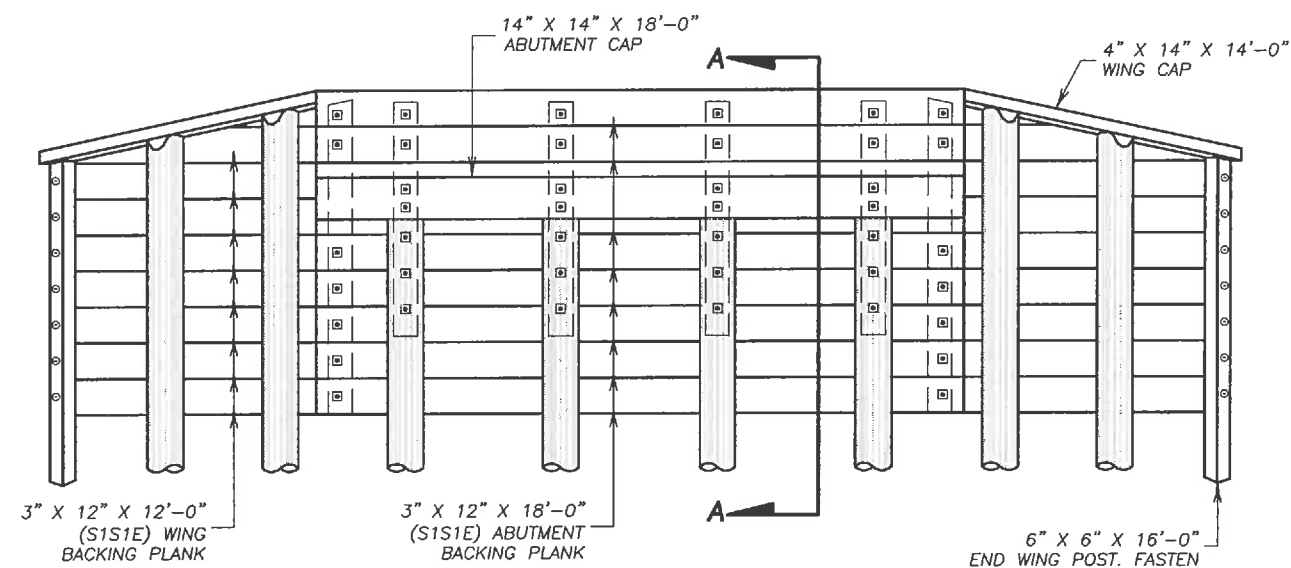
DWN: NBB

ORDER NO. 14188

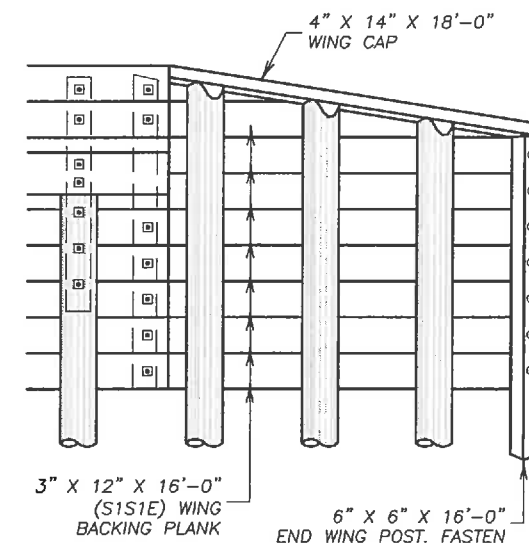
E2 of E2



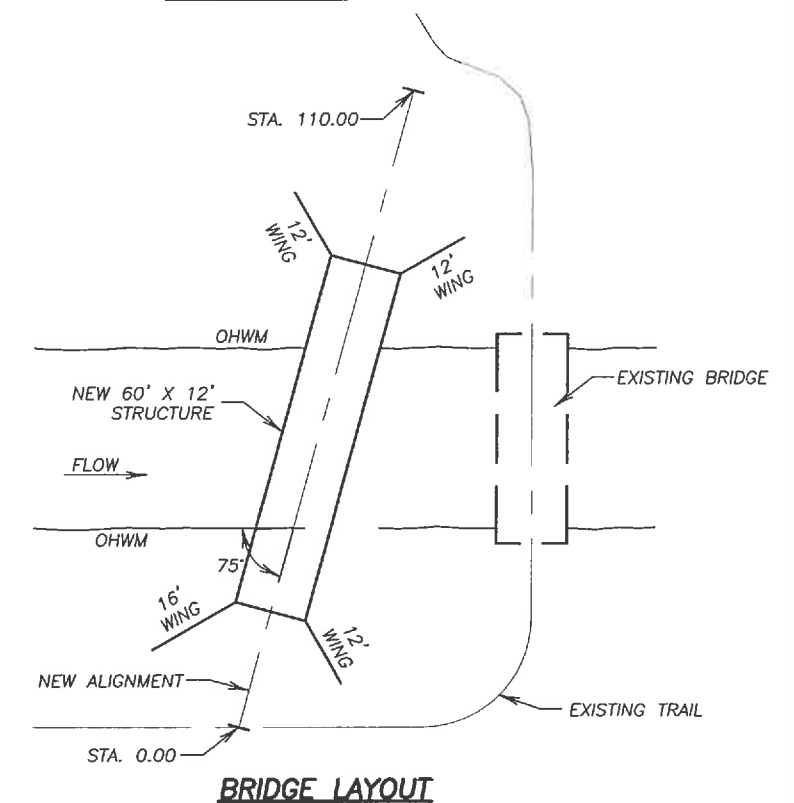
SECTION A-A



ABUTMENT PLAN & ELEVATION
NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR



SW WING PLAN & ELEVATION



REVISION: ADDED ORDER NO. & BACKWALL HEIGHT DIMENSION 4/24/18

ABUTMENT PLAN & ELEVATION
PLUM CREEK BRIDGE, VILAS CO., WISCONSIN

Wheeler

9330 James Ave. S.
Bloomington, MN 55431
952-929-7854
info@wheeler1892.com
wheeler1892.com

DATE: 10/6/17

TRACKING NO. T19464

SHEET NO.

DWN: WEH

CHK: AJH

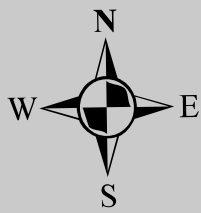
ORDER NO. 14189

1 OF 1

May 19, 2017 9:32:16 a.m.
Drawing: PS BRIDGE PLANS 2D 1T01.DWG (FISH) (O: \AUTOCAD\TEMPLATES\)

Forest County Snowmobile Trails

2023-2024



Trail Information

100 Mile Snow Safari
www.100milesnowsafari.com
Blackbear Sportsmen's Club
www.forestcountywi.com
Lumberjack Memorial Trails
www.lmtsnowmobiletrails.com

Three Lakes Trails
www.threelakestrails.com
Tombstone/Pickereel
www.tombstonepickerel.com

Forest County Information

Snowline: (715) 478-2024
Website: www.forestcountywi.com
Tourism: (715) 478-3450 or 1-800-334-3387

US Forest Service
715-674-4481
www.fs.usda.gov/main/cnnf



T. 42 N.
T. 41 N.
To Phelps
Vilas County
T. 41 N.
T. 40 N.

CAUTION:

Trails are groomed by
our dedicated volunteers
DAY & NIGHT!

Legend

- 100 Mile Snow Safari
- Blackbear Sportsmen's Club
- Lumberjack Memorial (LMT)
- Nicolet State Trail
- Three Lakes Trails
- Tombstone/Pickereel
- Wolf River State Trail
- Intersection
- Gas Available
- Corridor

Numbered Pit Stops relate in color to Club Membership.

Please Patronize These Businesses

Map Compliments of: Forest County Snowmobile Clubs

TW 2023

City of Crandon

- Business Access
- Gas
- Lodging
- Restaurant
- Tavern
- Police Station
- Visitor Center

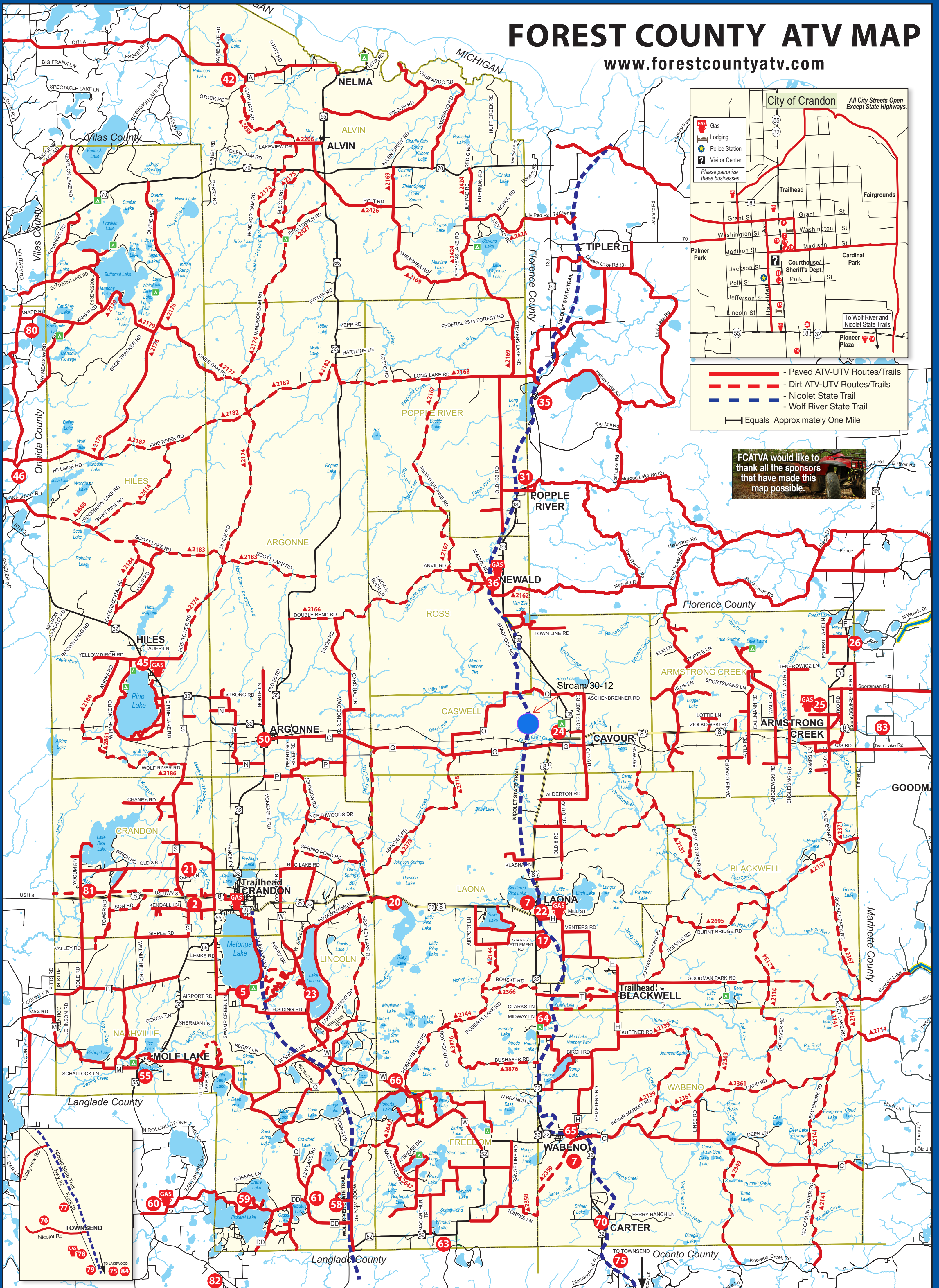
To Argonne,
Hiles &
100 Miler

To 100 Miler,
LMT & Tombstone-
Pickereel Trails

0 1 2 4
Miles

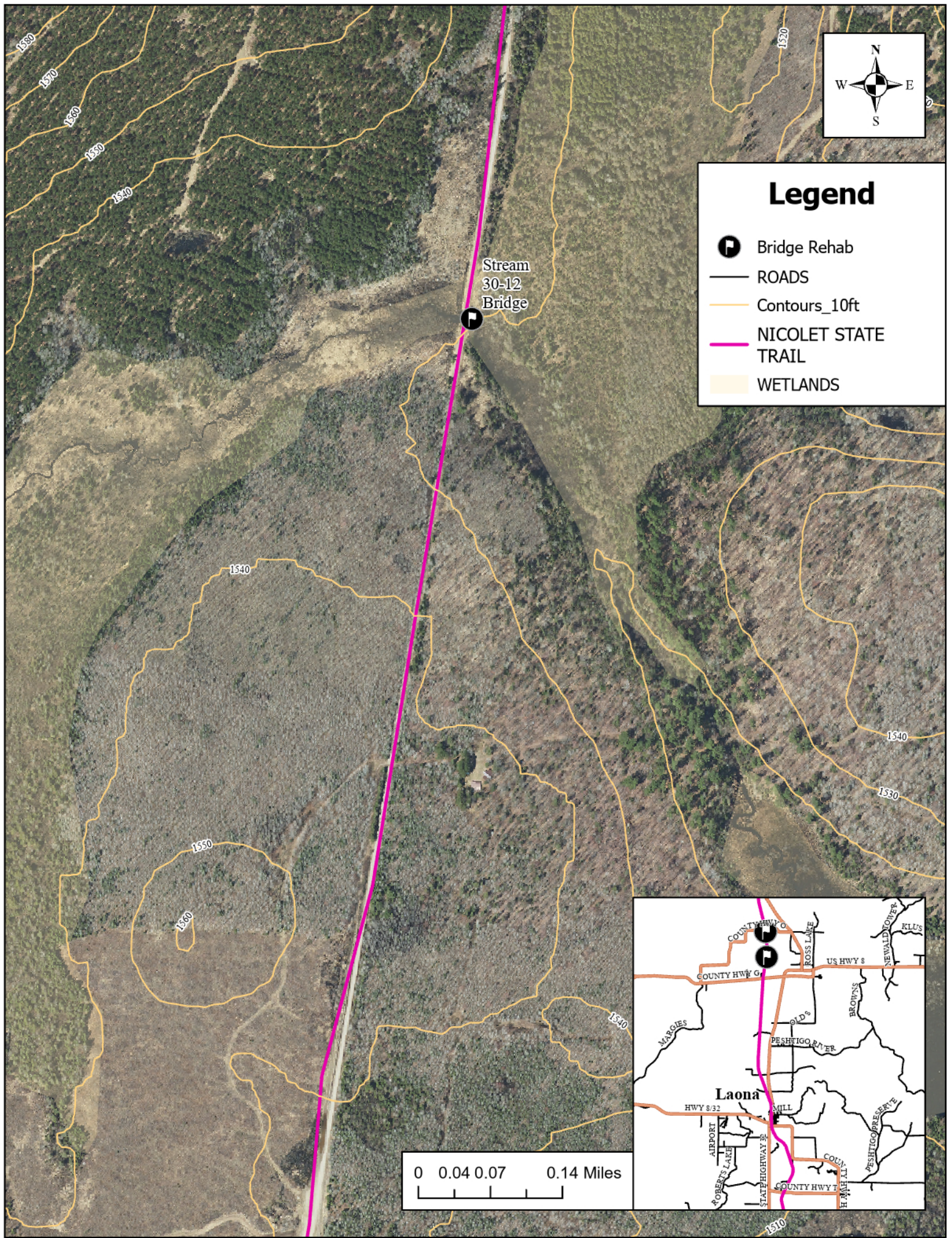
FOREST COUNTY ATV MAP

www.forestcountyatv.com



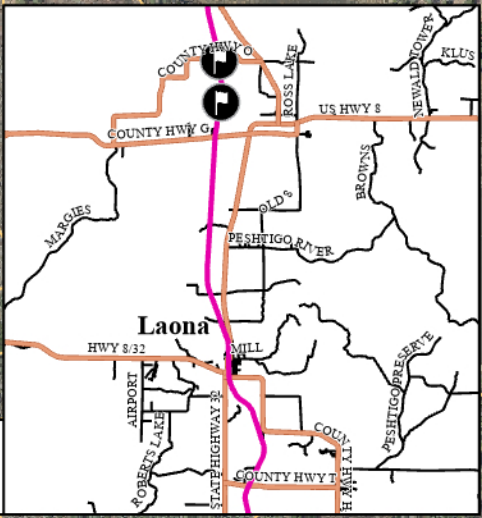
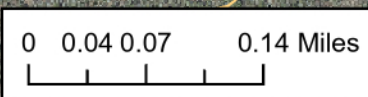
PAGE 50





Legend

-  Bridge Rehab
-  ROADS
-  Contours_10ft
-  NICOLET STATE TRAIL
-  WETLANDS



Will the cost of these be waived due to they are bridges owned by the State?

From: Koehnke, Scott E - DNR <Scott.Koehnke@wisconsin.gov>

Sent: Monday, March 17, 2025 8:40 AM

To: Travis Wollenberg <Travis@co.forest.wi.us>

Subject: RE: Permitting

Caution: This is an external email and may be malicious. Please take care when clicking links or opening attachments.

Hi Travis,

30-12 = GP

Peshtigo = IP

Swamp Creek = GP

Let me know if you have questions or need clarification.

Scott Koehnke

Senior Water Management Specialist – Waterways/Wetlands

Wisconsin Department of Natural Resources

647 Lakeland Road, Shawano, WI 54166

Phone: 715/526-4232

scott.koehnke@wisconsin.gov



dnr.wi.gov

Our core values include professionalism, integrity, and customer service.

Please visit our [survey](#) to provide feedback on your experience interacting with any DNR employee.



From: Travis Wollenberg <Travis@co.forest.wi.us>

Sent: Monday, March 17, 2025 7:06 AM

To: Koehnke, Scott E - DNR <Scott.Koehnke@wisconsin.gov>

Subject: RE: Permitting



Trail Bridge Inspection

Forest County

Bridge Name

Stream 30-12

Inspected By:

Patrick Hampston, P.E.

5/3/2025

Prepared By

KBIS, LLC





Bridge Inspection Report

General Information

The structure in this report was inspected by certified Wisconsin Department of Transportation Bridge Inspectors. Inspectors are Bridge Inspection Team Leaders and NSTM certified inspectors.

The bridge was inspected with trail use in mind, using normal vehicle bridge standards to determine the condition of the structure.

All recommendations made in the report are also considering the use of the trail. Trail bridges in general should have a load rating considering all the possible uses of the structure. Even though the bridges may be just for snowmobiles, several types of vehicles may use the structure.

Location information/General Description:

Located between CTY O and CTY G on Nicolet State Trail, Forest County.
45.66394, -88.66784

Bridge Condition

Condition State (CS) 1-Good, CS2-Fair, CS3-Poor, CS4-Critical

Abutments, pile bents, and spans are numbered along the trail from south to north. Girders are numbered from upstream to downstream.

Bridge has steel railings, double layer of longitudinal timber deck planks (top wearing surface, bottom structural deck), transverse steel HSS floorbeams, (6) SS timber girders in two bundles of three, timber post abutment on timber cap and subgrade timber piling.

Length 76.4', Width 12.0', 7.5' clearance to stream bottom.

Moderate gravel on deck. Wear planks are worn, warped, and ends are sticking up 1". One plank missing in middle of bridge. Rail is damaged in the middle and south end of east rail.

Wide checking on exterior girders.

South abutment cap is rotten. Bent #1 is tipping southward, currently measured at 83.3° at end of pile cap.

Channel has a large beaver dam immediately downstream of bridge.

Approaches are in good condition. NE object marker is missing. Both bridge ahead signs are in place and



W7218 Hickory Lane
Phillips, WI 54555
wm.kbis@gmail.com
715.820.0095

Bridge Inspection Report

Bridge Condition

serviceable.



W7218 Hickory Lane
Phillips, WI 54555
wm.kbis@gmail.com
715.820.0095

Bridge Inspection Report

Report Summary

NBI Ratings: 9-7 Good, 6-5 Fair, 4-3 Poor, 2-1 Critical, 0-Closed

Deck	# 5	Widespread moderate defects, strength not affected
Wearing Surface	# 4	Widespread moderate defects, performance affected
Superstructure	# 6	Widespread minor defects
Substructure	# 3	Major defects, strength affected, more frequent monitoring necessary
Channel	# 6	Isolated moderate defects

Overall Condition Poor

Recommendations/Maintenance Items:

****Reduce inspection cycle to 12 months****

Clean deck

Cut brush around / under bridge

Remove beaver dam

Replace entire wearing surface

Install new NE object marker

Bracket pier 1 to superstructure to prevent further tipping

Signed By:

Patrick Hampston, P.E.

Bridge Inspection Report

Photo Observations



North bridge ahead sign

Bridge Inspection Report

Photo Observations



North approach

Bridge Inspection Report

Photo Observations



Gap between backwall and deck, north end

Bridge Inspection Report

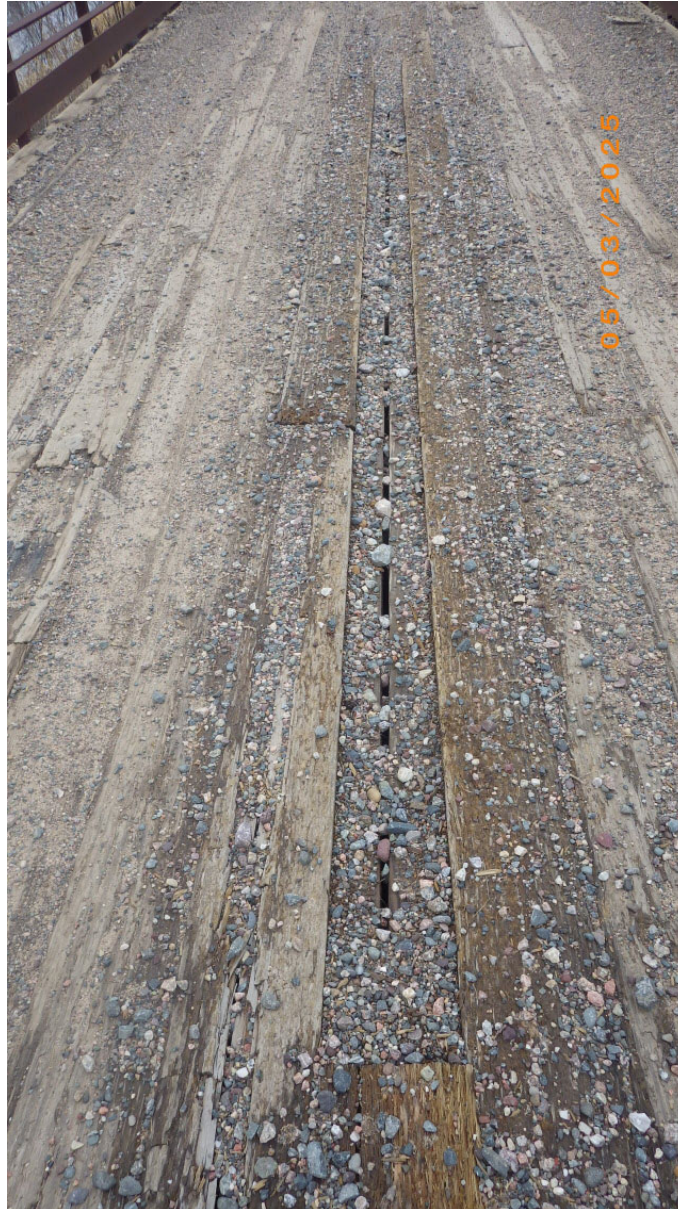
Photo Observations



South approach

Bridge Inspection Report

Photo Observations



Missing wearing plank

Bridge Inspection Report

Photo Observations



Wide checking on exterior girders

Bridge Inspection Report

Photo Observations



Bent #4 elevation view

Bridge Inspection Report

Photo Observations



Upstream elevation view

Bridge Inspection Report

Photo Observations



Beaver dam immediately downstream of bridge

Bridge Inspection Report

Photo Observations



South abutment cap rotten

Bridge Inspection Report

Photo Observations



Bent #1 tipping southward

Bridge Inspection Report

Photo Observations



Bent #1 tipping southward. 83.3° measured at east end of pile cap.