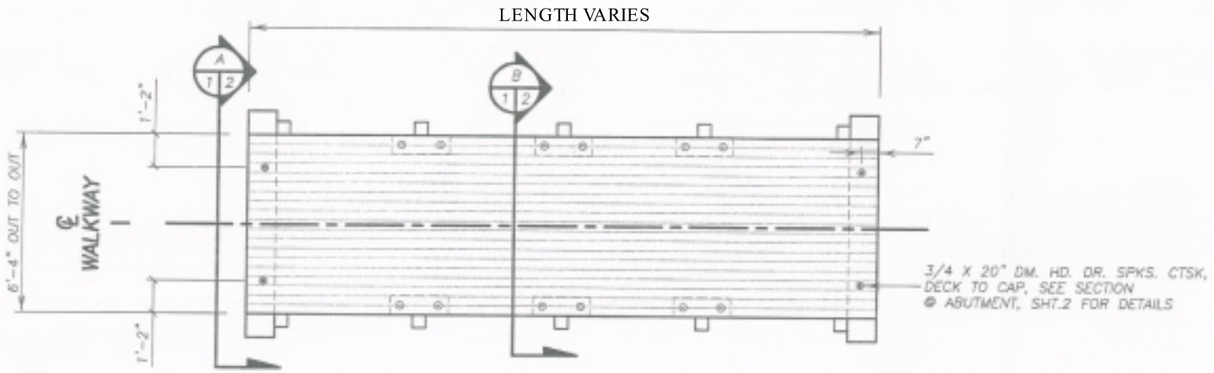
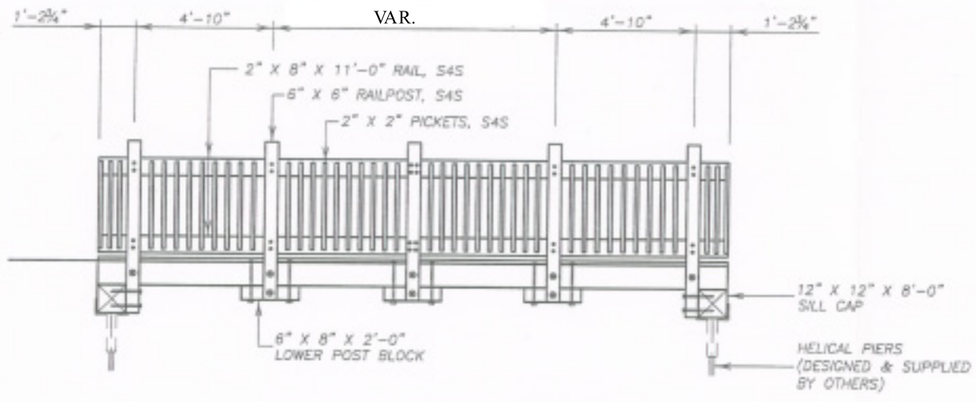




GENERAL BRIDGE PLAN & ELEVATION

NOTES:

PANEL WIDTHS SHOWN ARE APPROXIMATE.

RAILING NOT SHOWN ON PLAN VIEW FOR CLARITY.

SPECIFICATIONS:

ALL TIMBER SHALL BE AWPA COPPER NAPHTHENATE PRESSURE TREATED AS PER CURRENT STATE AND/OR AASHTO SPECIFICATIONS UNLESS OTHERWISE NOTED.

ALL TIMBER TO BE GRADED AS PER NFPA 1991 NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION.

ALL DECK PLANKS SHALL BE PREDRILLED PRIOR TO TREATMENT.

DECK PANELS SHALL BE ASSEMBLED WITH 3/8" DIAMETER RING SHANK DOWELS. ALL DOWELS ARE TO BE SIMULTANEOUSLY DRIVEN WITH EQUAL FORCE USING A MECHANICAL PRESS THE FULL LENGTH OF THE DECK, ENSURING ALL HEADS ARE FLUSH WITH THE SURFACE OF THE TIMBER PLANK. MULTIPLE IMPACT TOOLS ARE NOT TO BE USED TO SET DOWELS BECAUSE OF POTENTIAL FOR WOOD FIBER RUPTURE.

DECK TIMBER 10" TO BE DOUGLAS FIR – LARCH, NO.2.

ABUTMENT SILL TO BE DOUGLAS FIR–LARCH, NO. 1.

DECK LAMINATIONS TO BE S1S1E (SMOOTH TOP).

RAILING, RAILING CAP & RAILPOSTS ARE TO BE SOUTHERN YELLOW PINE, S4S, NO.1 & MCQ TREATED.

BALANCE OF TIMBER TO BE DOUGLAS FIR – LARCH, IN ACCORDANCE WITH DESIGN REQUIREMENTS.

ALL TIMBER IS ROUGH UNLESS OTHERWISE NOTED.

DECK PANELS WILL BE DELIVERED TO JOBSITE AFTER BEING FULLY ASSEMBLED AT FABRICATION PLANT.

ALL PLANK FOR DECK PANELS SHALL BE PRECISION END TRIMMED TO LENGTH WITH 1/4" UNDERLENGTH & NO OVERLENGTH TOLERANCE PERMITTED.

ALL TIMBER CUT OR DRILLED IN FIELD SHALL BE TREATED WITH AN APPROVED PRESERVATIVE.

ALL HARDWARE TO MEET ASTM A307-97 GALVANIZED TO A153. ALL HIGH STRENGTH HARDWARE TO MEET ASTM A325 OR A449 GALVANIZED TO A153. ALL STRUCTURAL STEEL TO MEET ASTM A36, GALVANIZED TO A123.

CONSTRUCTION REQUIREMENTS SHALL CONFORM TO STATE SPECIFICATIONS.

ALL TIMBER TO BE CUT TO EXACT LENGTH, DRESSED TO SIZE REQUIRED AND ALL PRACTICAL FRAMING TO BE DONE PRIOR TO TREATMENT.

CONSTRUCTION NOTES:

TIMBER DECK PANELS ARE MARKED IN THE SHOP FOR USE IN FIELD PLACEMENT OF THE PANELS ON THE CAPS, e.g. A1, B1, C1 FOR SPAN 1.

DOWEL LAMINATED DECK: PANEL "A" IS PLACED FIRST IN ITS FINAL POSITION ON THE CAPS. NEXT DRILL THE 11/16" DIA. HOLES THRU PANEL INTO CAP IN EACH END OF PANEL AT THE LOCATIONS SHOWN AND FASTEN THE 3/4" DIA. DM. HD. DR. SPKS.

STEEL BANDING ON PANELS IS TO BE REMOVED AFTER PANELS HAVE BEEN PLACED IN THEIR FINAL POSITION ON THE CAPS.

ALL HOLES DRILLED IN THE FIELD WHERE SPIKES ARE USED ARE TO BE 1/16" SMALLER THAN SPIKE SIZE.

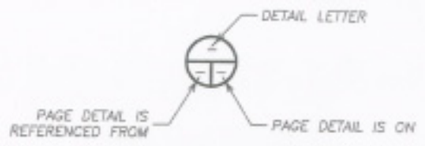
ALL HOLES DRILLED FOR BOLTS ARE TO BE 1/16" LARGER THAN BOLT SIZE.

ALL HOLES DRILLED FOR 3/4" LAG BOLTS ARE TO BE 9/16" IN DIAMETER FOR THE THREADED PORTION OF THE BOLT AND 13/16" FOR THE SHANK.

ANY NUT OR MACHINE BOLT HEAD IN DIRECT CONTACT WITH TIMBER TO HAVE ONE PLATE WASHER BETWEEN NUT & TIMBER, OR BOLT HEAD & TIMBER.

ANY NUT OR MACHINE BOLT HEAD IN DIRECT CONTACT WITH STEEL TO HAVE ONE CUT WASHER BETWEEN NUT & STEEL, OR BOLT HEAD & STEEL.

SET THREADS ON ALL BOLTS AT NUT WITH A CENTER PUNCH AFTER TIGHTENING.



CALLOUT LEGEND

DO NOT SCALE DRAWINGS

PLAN SHEET INDEX

BRIDGE SPAN RATINGS

SUPERSTRUCTURE IS DESIGNED TO 100 PSF PEDESTRIAN LOAD

SHEET TITLE: GENERAL BRIDGE PLAN & ELEVATION

TREATED TIMBER SPAN
6'-0" CLEAR WALKWAY
THE GLADE BRIDGES
FAIRFAX COUNTY, VIRGINIA
42" TIMBER RAIL

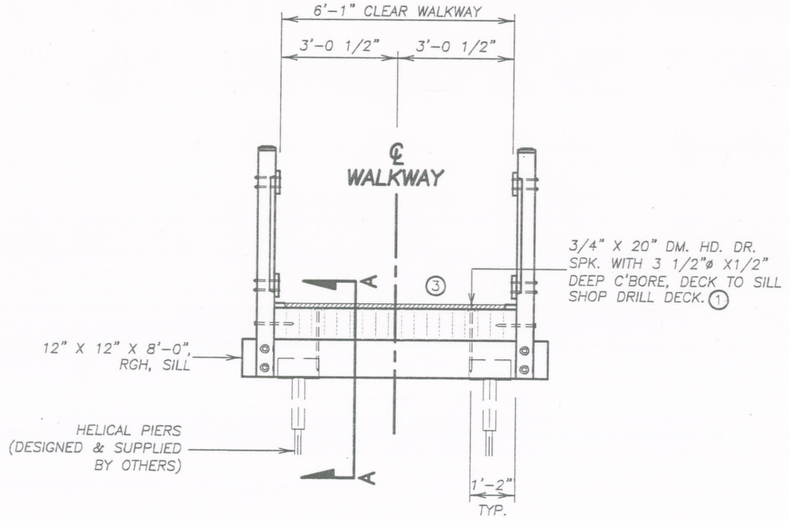
ENGINEER'S SIGNATURE AND SEAL ARE TO ASSUME DESIGN RESPONSIBILITY FOR THE TIMBER DECK AS SUPPLIED & DRAWN BY WHEELER LUMBER, LLC, INDEPENDENT OF ITS FINAL POSITION. THIS DESIGN RESPONSIBILITY IS LIMITED TO THE TIMBER DECK AND DOES NOT INCLUDE ANY DESIGN RESPONSIBILITY PERTAINING TO, BUT NOT LIMITED TO, ROADWAY GEOMETRICS, BRIDGE POSITIONING, HYDRAULIC DESIGN, SCOUR ANALYSIS, PERMITTING PROCEDURES, UTILITY FACILITIES, ERECTION, RAIL DESIGN, SOIL CONDITIONS, SUBSTRUCTURE DESIGN & ADEQUACY, ETC.

REVISION	DESCRIPTION	DATE	INITIALS
1	RAILPOST HEIGHT	1/09	LAF
2			
3			

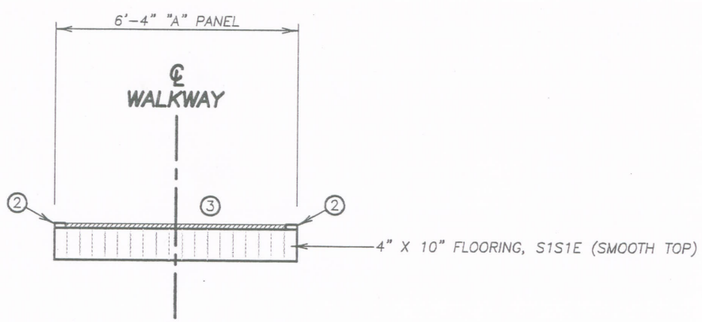
Wheeler
Lumber, LLC
9330 JAMES AVE. S.
BLOOMINGTON, MN 55431

DATE: 1/5/09		TRACKING NO. T1523OL	SHEET NO.
CHK: JJB	DWN: WEH	ORDER NO. 524-12608	1 OF 4

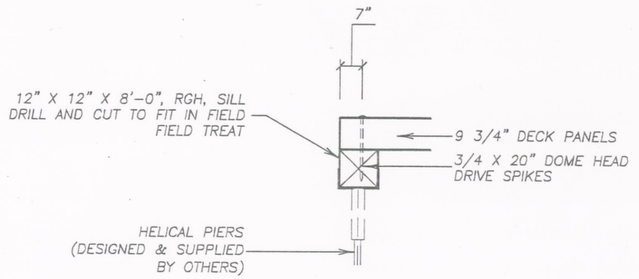
January 20, 2009 1:28:20 p.m.
Drawing: 12608-01.DWG (PISH) (O:\AUTOCAD\1-FOLDERS\T1523O-51-12\)



A/1|2 **SECTION @ ABUTMENT**



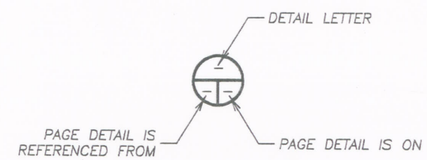
B/1|2 **SECTION @ MID SPAN**



SECTION A–A

NOTES:

1. ALL HARDWARE PENETRATING THE TOP OR BOTTOM EDGE OF THE DECK PLANK SHALL PASS THROUGH THE CENTER OF THAT EDGE DIMENSION.
2. 2" X 4" PAVING STRIP, S4S, FASTEN TO DECK WITH (2) 20d NAILS @ 18" CENTERS. PREDRILL HOLES TO AVOID SPLITTING.
3. 1 1/2" FUTURE BITUMINOUS OVERLAY.



CALLOUT LEGEND

DO NOT SCALE DRAWINGS

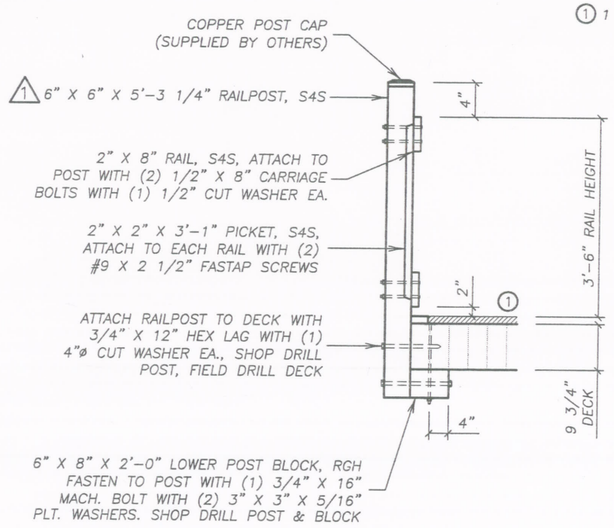
REVISION	DESCRIPTION	DATE	INITIALS
1			
2			
3			

SHEET TITLE: **SECTIONS & DETAILS**

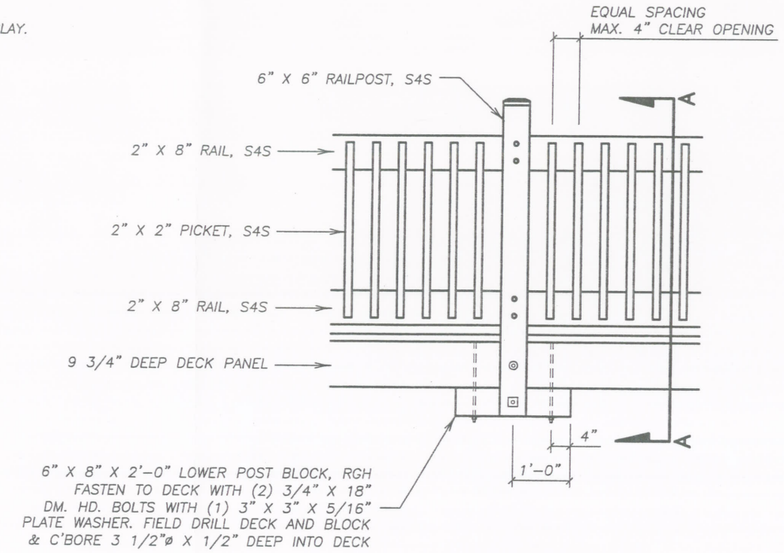
Wheeler Lumber, LLC
9330 JAMES AVE. S.
BLOOMINGTON, MN 55431

DATE: 1/5/09		TRACKING NO. T15230L	SHEET NO.
CHK: JJB	DWN: WEH	ORDER NO. 524–12608	2 OF 4

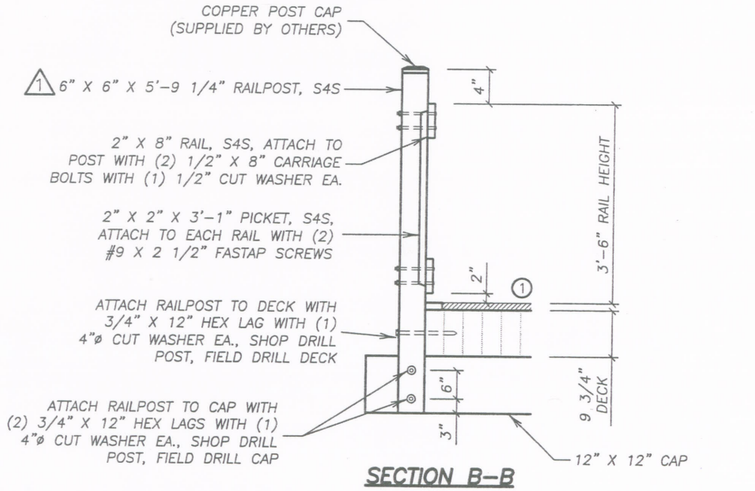
① 1 1/2" FUTURE BITUMINOUS OVERLAY.



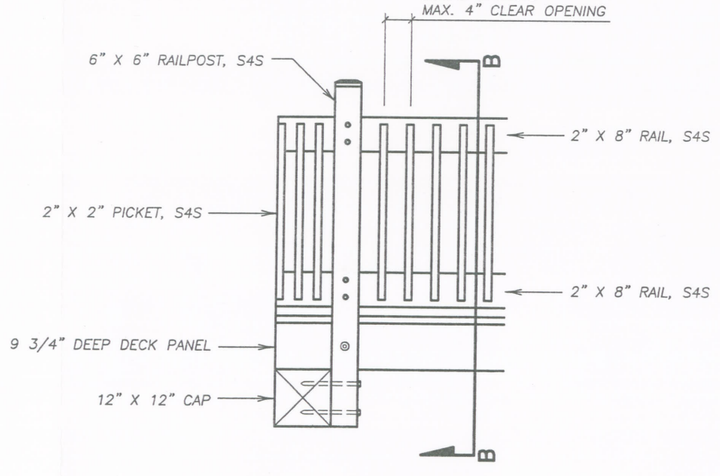
SECTION A-A



RAILPOST ELEVATION



SECTION B-B



RAILPOST ELEVATION AT CAP

TYP. EACH CORNER OF BRIDGE

DO NOT SCALE DRAWINGS

SHEET TITLE: **RAIL DETAILS**

Wheeler Lumber, LLC
9330 JAMES AVE. S.
BLOOMINGTON, MN 55431

DATE: 1/5/09		TRACKING NO. T15230L	SHEET NO.
CHK: JJB	DWN: WEH	ORDER NO. 524-12608	3 OF 4

DESIGN CRITERIA:

1. LIVE LOAD: BRIDGE IS DESIGNED FOR 100#/SF PEDESTRIAN LOAD.
2. WIND LOADING: WIND LOADING SHALL BE TAKEN AS 35 psf AS IF ENCLOSED.
3. SEISMIC ISSUES: ASSUME AASHTO SPC A FOR SEISMIC CONSIDERATION.
4. NUMBER OF HELICAL PIERS PER CAP IS BASED ON 35,000 lb. WORKING CAPACITY PER PIER.

SUPERSTRUCTURE REACTION TABLE * (in lbs.)

DEAD LOAD	LIVE LOAD	TOTAL LOAD	LOAD PER SILL	WIND LOAD	WIND LOAD PER SILL
10,800	12,800	23,600	11,800	3,400	1,700

* BASED ON ONE SILL PER END OF BRIDGE, AND 2 HELICAL PIERS PER SILL.

REVISION	DESCRIPTION	DATE	INITIALS
1			
2			
3			

SHEET TITLE:
DESIGN CRITERIA

Wheeler Lumber, LLC
9330 JAMES AVE. S.
BLOOMINGTON, MN 55431

DATE: 1/5/09		TRACKING NO. T15230L	SHEET NO.
CHK: JJB	DWN: WEH	ORDER NO. 524-12608	4 OF 4