



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
RMA70022

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**KRISTA FERRELL
 304-558-2596**

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

**WV STATE RAIL AUTHORITY
 (DBA) SOUTH BRANCH VALLEY
 RAILROAD
 120 WATER PLANT DRIVE
 MOOREFIELD, WV
 26836 304-538-2305**

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/21/2007				

BID OPENING DATE: **02/13/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 2						
THIS ADDENDUM IS ISSUED TO CLARIFY THE SPECIFICATIONS BASED ON THE QUESTIONS SUBMITTED AT THE MANDATORY PRE-BID MEETING ON JANUARY 9, 2007 AND TO ADD DRAWINGS AND SKETCHES.						
BID OPENING DATE REMAINS: 02/13/2007 BID OPENING TIME REMAINS: 1:30 PM						
***** END ADDENDUM NO. 2 *****						
0001	1	EA		160-52		
BRIDGE TIES, AND TRACK						
***** THIS IS THE END OF RFQ RMA70022 ***** TOTAL: _____						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125.00 registration fee.
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.
14. **HIPAA Business Associate Addendum** - The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in cases of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

SIGNED BID TO:

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Addendum to Request for Quotations RMA 70022 – Bridge Ties and Track

Any item in the original request for quotations not specifically mentioned here is still in effect.

Completion Date

All work must be completed by May 15, 2007. Liquidated damages will be assessed after that date as explained in the RFQ.

Trash, Debris and Materials

Contractor shall be responsible for the removal of all trash, debris and materials upon completion of work. These items must be kept on the job site and not be allowed to become a nuisance to adjacent landowners.

Bridge Ties

The bridge plans list the exact quantities and dimensions required however all bridge ties will be Grade 1 Southern Yellow Pine, not oak. Cross sections of the various spans are attached as information for dapping of the ties. Dapping will have a maximum width of ½" more than the width of the steel stringers. Every third tie shall be anchored to the top of the girder flanges with new, galvanized ¾" hook bolts, nuts and washers.

Track Ties

These will be new 7"x 9" industrial grade. Specifications in AREMA Chapter 3 will govern. Ties will be mixed hardwoods and oak, 100% end-plated and creosote pressure treated to 7# or refusal. Three 10' long ties and three 9' long ties will be placed at each end of the bridge for better support of the approaches. All other track ties will be 8'6". Track ties will be spaced on 21" centers.

Tie Plates

These will be relay, double-shouldered 8"x 14" plates with all square holes.

Tie Pads

Solid Neoprene (no fabric) tie pads ¼" thick and sized for the tie plates will be placed between tie plates and bridge ties.

Rail

All running rails for the bridge and depot tracks will be #1 relay 132RE jointed rail in 39' lengths. There are approximately 60 pieces of rail at Cheat Bridge on the WVCR. Contractor will be responsible for transporting this rail to the job site and for obtaining

additional sticks of rail as needed. The Cheat Bridge rail has a drilling pattern of 6"-6"-7"-6"-6". Running rails shall be spiked to a gage of 56 1/2". They shall be anchored as shown in the attached sketch. Rails shall be so placed that the joints in each line of rail shall be within the middle half of the opposite length of rail. Short rails may be used in adjusting for proper spacing of joints, but no rail less than 33' on curves or 19'6" on tangents shall be used. Rail shall not be torch cut. Bolt holes shall be drilled not torch cut.

The inner guard rails on the bridge shall be 100RB rail applied as shown in the attached sketch. The rail will be spiked to each tie with two spikes per rail, without plates, and will be fully bolted. The taper bringing the rails together shall begin just off the end of the bridge and the rail ends shall meet within a distance of approximately eight feet. The rail ends will be beveled as per the attached sketch. Joints in the inner guard rail will not be placed opposite joints in the running rail. The 100# rail is available at Cheat Bridge.

Joint Bars

Contractor will be responsible for supplying all joint bars. The 132RE rail requires six-hole bars drilled 6"-6"-7"-6"-6". The 100RB rail requires four-hole bars drilled

Spikes

Spikes will be new, 6" cut spikes per AREMA specifications. Spiking pattern shall be three spikes per plate as shown in the attached sketch.

Timber Outer Guard Rails

These will be used instead of the steel tie spacers. They shall be 4"x 8"x 10'-0" Southern Yellow Pine creosote pressure-treated to 12# or refusal. The guard rails shall be placed with the inside edge 48 1/2" from the centerline of the track. The timbers shall be anchored to each tie with 3/4"x 10" washer head drive spikes. The 3/4" holes for the drive spikes shall be drilled through the guard rails only and the holes placed in alternate patterns over each tie, three inches (3") inside the edge of the timber, see the attached sketch. At the ends of each span, the outer guard rail shall end on the last tie in the span to allow structure expansion and shall not be connected to the backwall or approach tie. Guard rails shall be notched in the field as necessary to clear heads of the hook bolts.

Depot Tracks

General Layout: The attached sketch shows the general arrangement of tracks between the bridge and the depot. The #1 depot track runs off the bridge and along the platform closest to the depot. A left-hand No. 10 turnout located in this track approximately 12 feet off the bridge has the diverging route lead directly into a right-hand No. 10 turnout. The diverging route of this second turnout becomes the #2 depot track (furthest from the depot). The track centers of the two depot tracks shall be equal to the distance between the two existing portions of these tracks in front of the depot. The straight leg of the second turnout will

stop at the end of the turnout to await future development. The distance between the bridge and the existing depot tracks is approximately 570 feet. This makes #1 depot track about 570 feet long and the #2 depot track about 542 feet long including the turnouts.

Grading: The area in which the depot tracks are to be constructed must be lowered so that the tracks can be set on 8" of ballast and have the top of rails at the proper height. Grading must establish drainage that will take water away from the tracks. Material removed during this process can be disposed of elsewhere on the property per instructions of the SRA or WVCR.

Ballast: A minimum of 8" of ballast will be placed under the ties. More will be needed near the bridge to have the proper track elevation as the top of the abutment is approximately 18" above the ground. After track has been built, ballast must fill all cribs without covering ties and extend a minimum of 6" from the end of tie to edge of slope of the ballast section. Ballast shall be crushed stone or crushed slag and shall conform to the current AREMA "Specifications of Prepared Stone, Slag and Gravel Ballast." Size of ballast shall be AREMA #3 as indicated below:

Size of Opening	Percent Passing by Weight
2 ½"	100
2"	90-100
1 ½"	35-70
1"	0-15
½"	0

Ties: Track ties will be set at right angles to the centerline of the track on 21" centers.

Turnouts: Switch materials and switch ties for the two #10 turnouts are on-site. They will be constructed per AREMA specifications. They will be fully spiked and anchored.

Surface: Any change in elevation between the bridge and depot will be uniform without any dips or humps. Elevation along the platforms will be the same as the existing tracks. All new track will be fully tamped and ballast properly regulated.

Bill of Materials

Note: Contractor provides all materials except for switch ties and switch materials. Some rail is available at Cheat Bridge and must be transported to job site by contractor. Rail, joint bars and tie plates shall be #1 relay. All other materials shall be new.

Rail: 132RE: 2,952 l.f. (76 – 39' pieces) approx. 60 pieces at Cheat Bridge, contractor provides balance.

100RB: 718 l.f. (18 – 39' pieces) approx. 16 pieces at Cheat Bridge, contractor provides balance.

Joint Bars: 132RE: 76 pair needed, approx. 60 pair at Cheat Bridge, contractor provides balance.
100RB: 18 pair needed, approx. 16 pair at Cheat Bridge, contractor provides balance.

Compromise Joint Bars: 115RE/132RE: two pair

Track Bolts/Nuts: 132RE: 550 ea.
100#: 72 ea.

Lockwashers: 132RE: 550 ea.
100#: 72 ea.

Tie Plates: 1,992 ea.

Spikes: 6,500 ea.

Rail Anchors: 132RE: 1,000 ea.

Track Ties: 7"x 9"x 10': 6 ea.
7"x 9"x 9': 6 ea.
7"x 9"x 8'6": 996 ea.

Bridge Ties: 8"x 10" (rough) x 10': 337 ea.
8"x 12" (nominal) x 10': 9 ea.
8"x 3 1/2" (rough) x 10': 6 ea.

Timber Guard Rail: 4"x 8"x 10': 700 l.f.

Tie Anchors: 3/4" hook bolts, nuts and washers: 236 ea.

Drive Spikes: 3/4"x 10" washer head: 704 ea.

Ballast: 650 tons

Bidding Instructions

The quantities in this addendum are for estimating purposes only. The actual scope of work will be issued to the contractor on a written state contract order (Form number WV-39). The awarded unit price will be used to determine the cost of the actual scope of work authorized.

For bidding purposes, contractor is to give a unit cost for each item listed below. Unit costs will include installation in track. Low bid will be determined by the lowest total amount for all unit costs multiplied by the estimated quantities as listed below:

Rail – 132RE (located at Cheat Bridge)

Est. qty. 60 pieces x unit cost to transport \$ _____ per piece = \$ _____

Rail – 132RE (to be supplied)

Estimated quantity 16 pieces x unit cost \$ _____ per piece = \$ _____

Rail – 100RB (located at Cheat Bridge)

Est. qty. 16 pieces x unit cost to transport \$ _____ per piece = \$ _____

Rail – 100RB (to be supplied)

Estimated quantity 2 pieces x unit cost \$ _____ per piece = \$ _____

Joint Bars – 132RE (located at Cheat Bridge)

Est. qty. 60 pair x unit cost to transport \$ _____ per pair = \$ _____

Joint Bars – 132RE (to be supplied)

Estimated quantity 16 pair x unit cost \$ _____ per pair = \$ _____

Joint Bars – 100RB (located at Cheat Bridge)

Est. qty. 16 pair x unit cost to transport \$ _____ per pair = \$ _____

Joint Bars – 100RB (to be supplied)

Estimated quantity 2 pair x unit cost \$ _____ per pair = \$ _____

Compromise Joint Bars – 115RE/132RE

Estimated quantity 2 pair x unit cost \$ _____ per pair = \$ _____

Track Bolts/Nuts – 132RE

Estimated quantity 550 pieces x unit cost \$ _____ per piece = \$ _____

Track Bolts/Nuts – 100RB

Estimated quantity 72 pieces x unit cost \$ _____ per piece = \$ _____

Lockwashers – 132RE

Estimated quantity 550 pieces x unit cost \$ _____ per piece = \$ _____

Lockwashers – 100RB

Estimated quantity 72 pieces x unit cost \$ _____ per piece = \$ _____

Tie Plates

Estimated quantity 1,992 plates x unit cost \$ _____ per plate = \$ _____

Spikes

Estimated quantity 6,500 spikes x unit cost \$ _____ per spike = \$ _____

Rail Anchors

Estimated quantity 1,000 x unit cost \$ _____ per piece = \$ _____

Track Ties – 7" x 9" x 10'

Estimated quantity 6 ties x unit cost \$ _____ per tie = \$ _____

Track Ties – 7" x 9" x 9'

Estimated quantity 6 ties x unit cost \$ _____ per tie = \$ _____

Track Ties – 7" x 9" x 8'6"

Estimated quantity 996 ties x unit cost \$ _____ per tie = \$ _____

Bridge Ties – 8" x 10" x 10'

Estimated quantity 337 ties x unit cost \$ _____ per tie = \$ _____

Bridge Ties – 8" x 12" x 10'

Estimated quantity 9 ties x unit cost \$ _____ per tie = \$ _____

Bridge Ties – 8" x 3 1/2" x 10'

Estimated quantity 6 ties x unit cost \$ _____ per tie = \$ _____

Timber Guard Rail – 4" x 8" x 10'

Estimated quantity 16 pieces x unit cost \$ _____ per piece = \$ _____

Tie Anchors – 3/4" hook bolts, nuts and washers

Estimated quantity 236 pieces x unit cost \$ _____ per piece = \$ _____

Drive Spikes – 3/4" x 10" washer head

Estimated quantity 704 pieces x unit cost \$ _____ per piece = \$ _____

Ballast

Estimated quantity 650 tons x unit cost \$ _____ per ton = \$ _____

Surfacing/Ballast Regulation

Estimated 1,200 track feet x unit cost \$ _____ per track foot = \$ _____

Mobilization

Estimated quantity one trip x unit cost \$ _____ per trip = \$ _____

TOTAL COST OF ESTIMATED AMOUNTS: \$ _____

Pre-Bid Conference
SIGN IN SHEET

[Please Print]

Request for Proposal No.: RMA 70022 Date: 1-9-2007

<u>Firm & Representative Name</u>	<u>Mailing Address</u>	<u>Telephone & FAX Numbers</u>
1. <u>MARTA TRACK</u> <u>Rocky Kimble</u>	_____	T: <u>412 997-0073</u> F: _____
2. <u>Dave Snyder</u> <u>MartaTrack</u>	<u>100 Gallopay Drive</u> <u>Eighty Four PA 15330</u>	T: <u>724-239-2480</u> F: <u>724-239-2488</u>
3. <u>Vernon Fear</u> <u>CRANEMASTERS</u>	<u>4514 Hollis Ferry Rd</u> <u>Baltimore MD. 21227</u>	T: <u>410-242-9086</u> F: <u>410-242-9076</u>
4. <u>FRANK SCHAFFOLD</u> <u>G.W. PEOPLES</u>	<u>1024 RT 519</u> <u>EIGHTY FOUR, PA 15330</u>	T: <u>724-223-7807</u> F: <u>223-6191</u>
5. <u>DAN Doyle</u> <u>RAILWORKS</u>	<u>1550 N. BALAYNO.</u> <u>N. JACKSON OH 44451</u>	T: <u>330-538-2261</u> F: <u>538-2223</u>
6. <u>Bob Matthews</u> <u>Amtrak RR Contractors OF MD</u>	<u>9436 Earley Drive</u> <u>Hagerstown, MD 21740</u>	T: <u>301 797 3730</u> F: <u>301 797 3740</u>
7. <u>Richard Hall</u> <u>American Railroad Ind.</u>	<u>2870 Normandy Dr.</u> <u>Atlanta, GA 30305</u>	T: <u>770-393-0110</u> F: <u>770-393-0110</u>
8. _____	_____	T: _____ F: _____
9. _____	_____	T: _____ F: _____
10. _____	_____	T: _____ F: _____

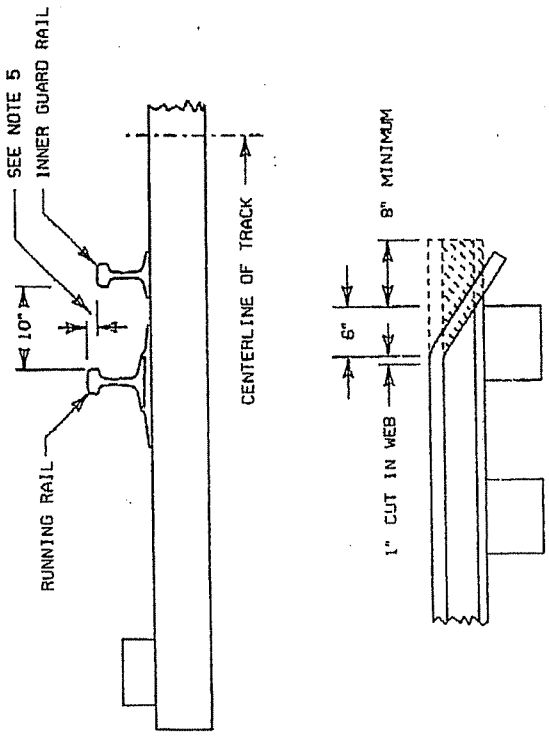
SAME
Company

Please print or write legibly. The fax number is essential to contact the attendees in a timely manner.

INNER GUARD RAIL ON BRIDGES

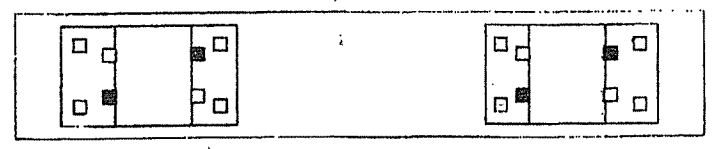
NOTES :

1. INNER GUARD RAIL WILL BE USED ON THROUGH TRUSS AND MOVABLE SPAN BRIDGES. SEE CSX STANDARD PROCEDURE P. 10.
2. THE GUARD POINT IS TO BE PLACED NOT LESS THAN 50 FEET AWAY FROM THE END OF THE SPAN.
3. ~~IF THE BRIDGE CONSISTS OF SOME SPANS THAT DO NOT REQUIRE INNER GUARD RAILS AND OTHER SPANS THAT DO, THE GUARD POINT WILL BE PLACED A MINIMUM OF 50 FEET AHEAD OF THE SPAN REQUIRING THE INNER GUARD RAIL.~~
4. GUARD RAILS ARE TO BE ~~SEPARATE~~ RAIL FREE FROM SHORT KINKS WITH SMOOTH SIDE LAID NEXT TO THE RUNNING RAIL.
5. TOP OF THE RUNNING RAIL SHALL BE AT LEAST 1 INCH BUT NOT OVER 3 INCHES ABOVE THE TOP OF THE GUARD RAIL.
6. INNER GUARD RAIL BASES AT POINT TO BE FROM 0" TO 3" APART.
7. TIE PLATES WILL BE USED UNDER RUNNING RAIL BUT NOT UNDER GUARD RAIL.
8. JOINTS IN GUARD RAIL WILL NOT BE PLACED OPPOSITE JOINTS IN THE RUNNING RAIL. JOINTS ARE TO BE FULLY BOLTED.
9. GUARD RAILS WILL HAVE A SPIKE ON BOTH SIDES OF THE RAIL BASE IN EVERY TIE.

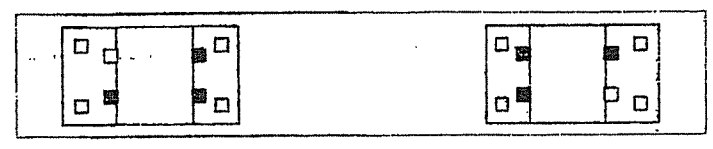


CUT OUT SHADED PART OF WEB AND BASE. BEND RAIL HEAD DOWN WITH END BELOW TOP OF TIE.

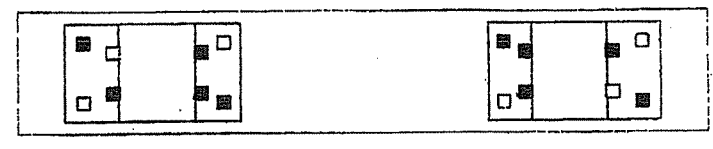
SPIKING PATTERN "A"



SPIKING PATTERN "B"

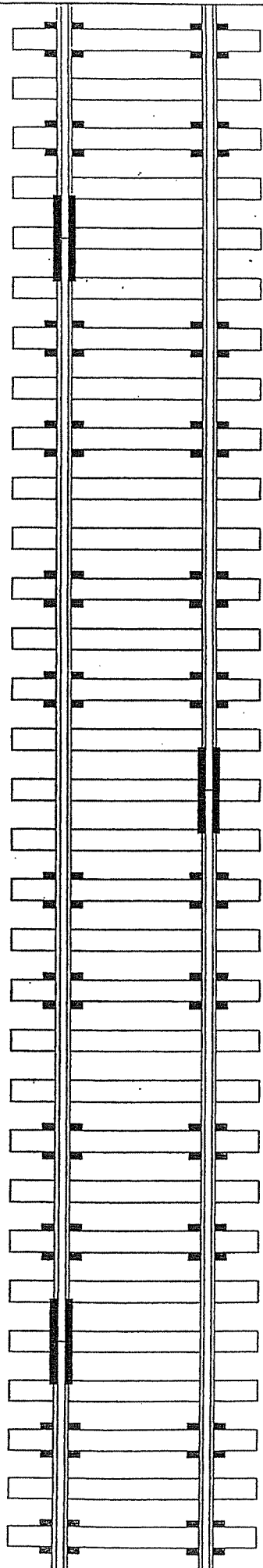


SPIKING PATTERN "C"



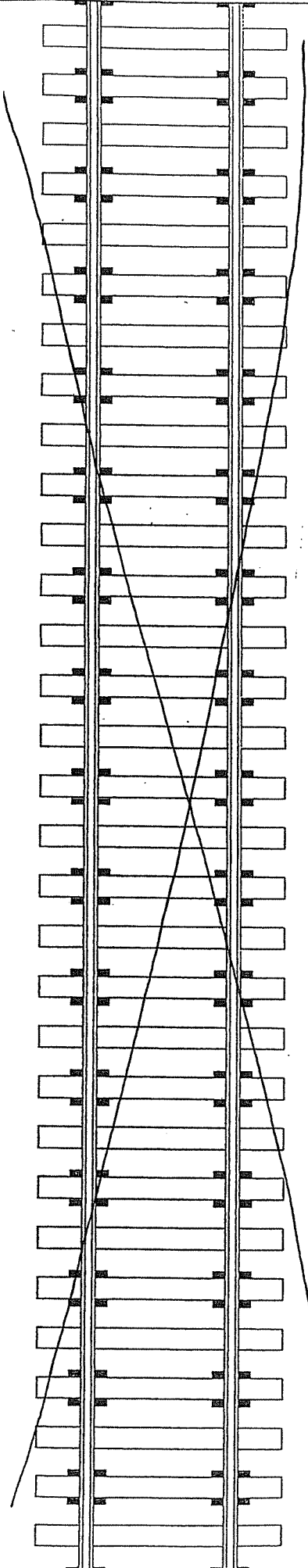
- = TRACK SPIKE
- SPIKING PATTERN "A" - TANGENTS AND CURVES LESS THAN 2' - NOT MORE THAN 12 MGT ANNUALLY.
- SPIKING PATTERN "B" - TANGENTS AND CURVES LESS THAN 2' - MORE THAN 12 MGT ANNUALLY.
- SPIKING PATTERN "C" - CURVES 2' AND OVER
- USE MAIN TRACK SPIKING PATTERNS ON ALL MAIN TRACKS AND SIDINGS.
- USE MAIN TRACK SPIKING PATTERNS ON ALL SIDE TRACKS WHERE SPEEDS EXCEED 25 MPH.
- SIDING - AN AUXILIARY TRACK DESIGNATED IN SPECIAL INSTRUCTIONS FOR MEETING OR PASSING TRAINS.

MAIN TRACK SPIKING PATTERNS



JOINTED RAIL - 16 ANCHORS PER 39 FOOT RAIL, BOX ANCHOR 8 TIES.

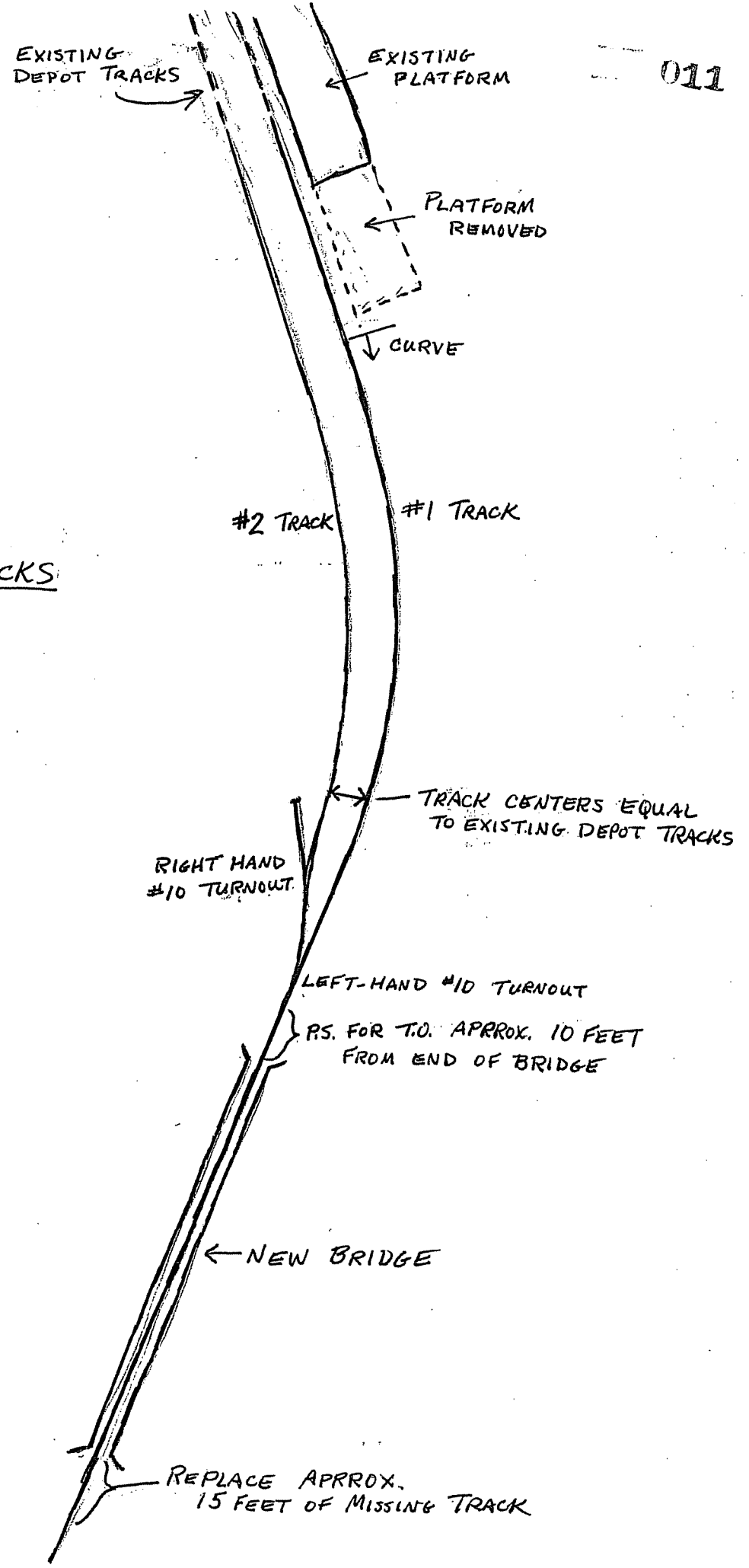
RAIL ANCHOR PATTERNS



WELDED RAIL - TANGENTS AND CURVES LESS THAN 3°
 BOX ANCHOR EVERY OTHER TIE. SAME PATTERN FOR BALLAST DECK BRIDGES.

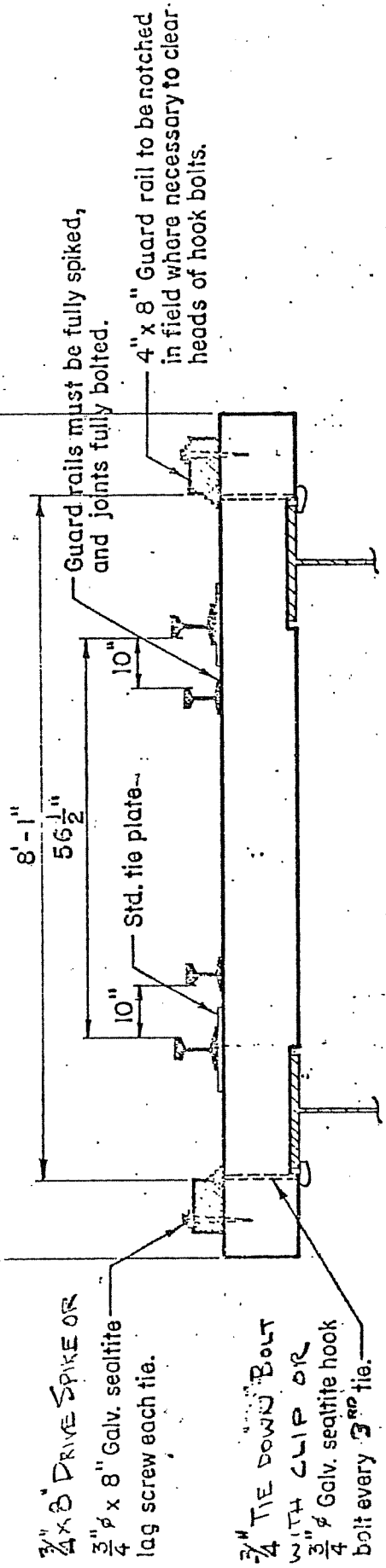
RAIL ANCHOR PATTERNS

LAYOUT OF
ELKINS DEPOT TRACKS



8" x 10" x 10'-0" (Min. Tie Stock)

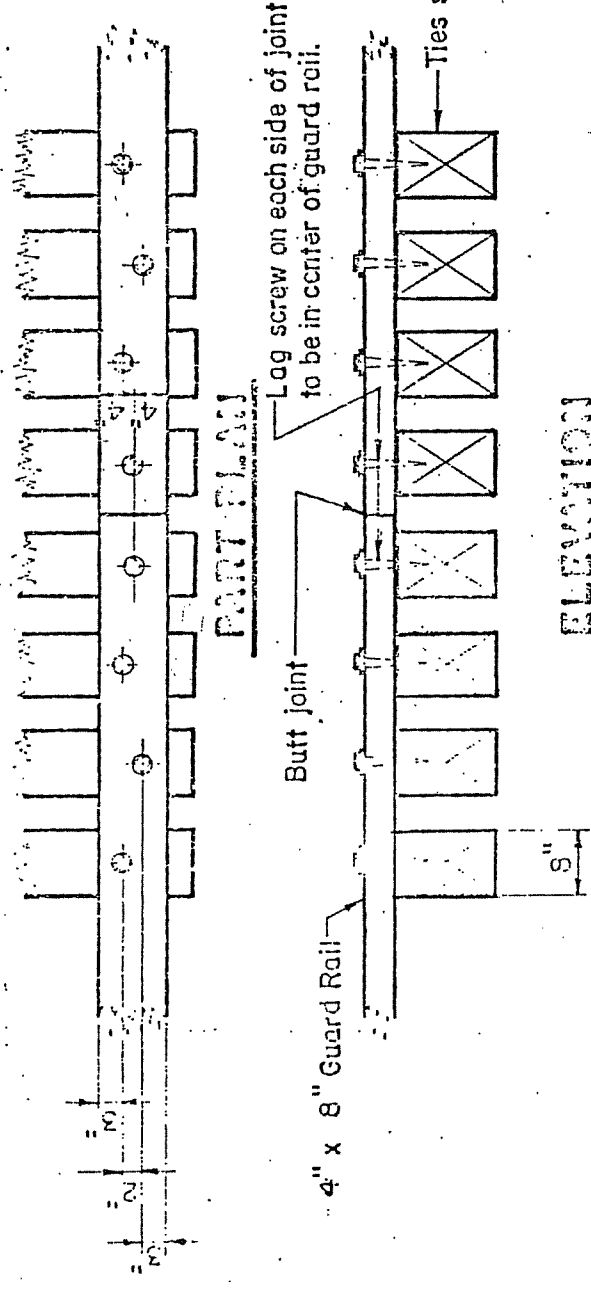
For beams or girders 6' - 0" c/c



CROSS SECTION

3/4" x 8" DRIVE SPIKE OR
 3/4" x 8" Galv. sealtime
 lag screw each tie.

3/4" TIE DOWN BOLT
 WITH CLIP OR
 3/4" Galv. sealtime hook
 bolt every 3RD tie.

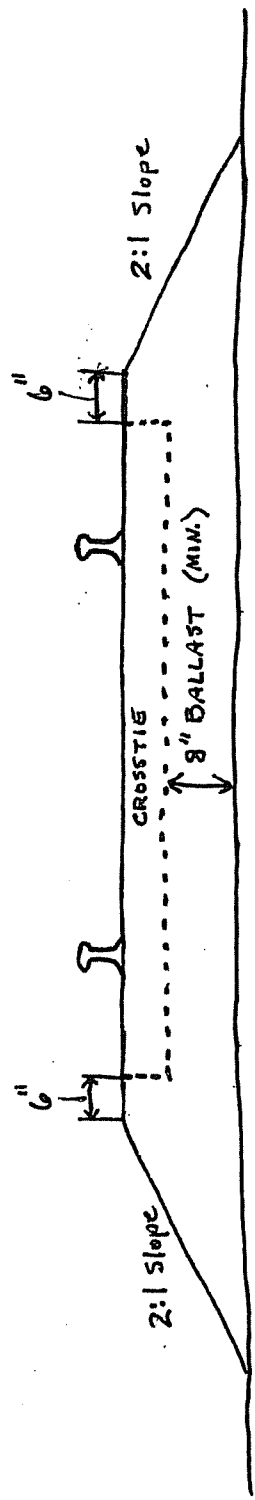


ELEVATION

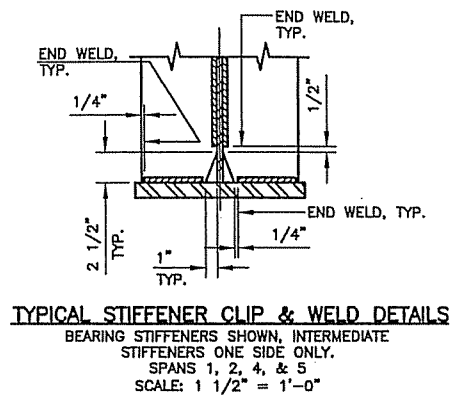
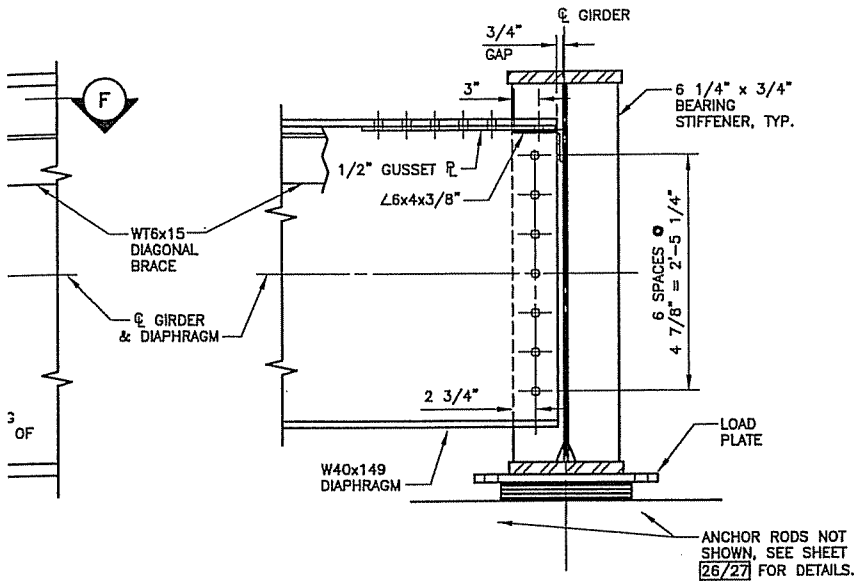
PART PLAN

GUARD RAIL DETAILS

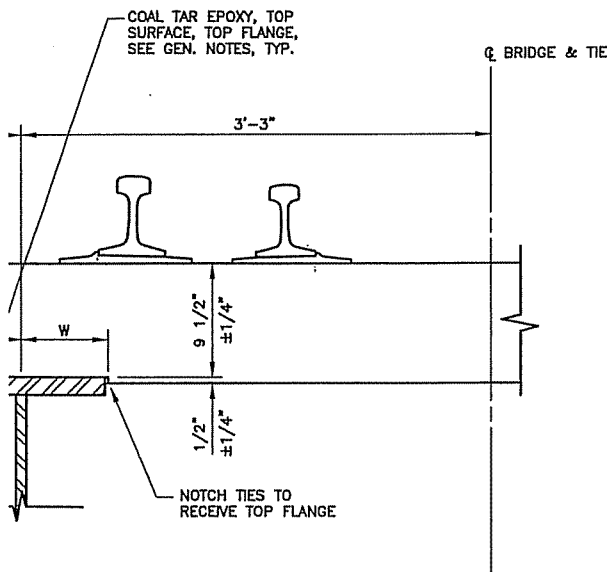
TYPICAL DETAILS
BRIDGE TIE INSTALLATION
STEEL BRIDGES



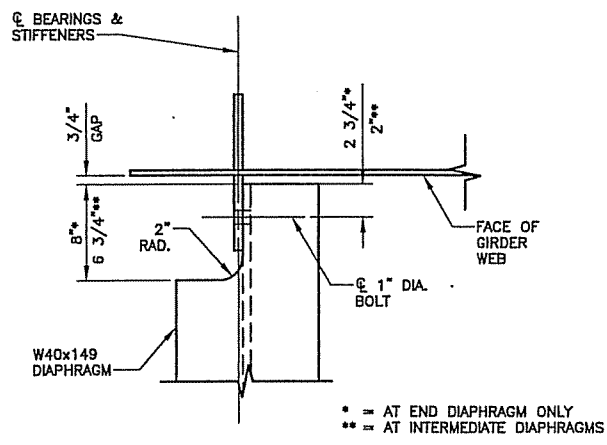
TYPICAL TRACK CROSS SECTION



SECTION G
 APPROACH SPANS 1, 2, & 4 SIMILAR
 SCALE: 1" = 1'-0"



TIMBER TIE DETAIL
 SCALE: 1 1/2" = 1'-0"



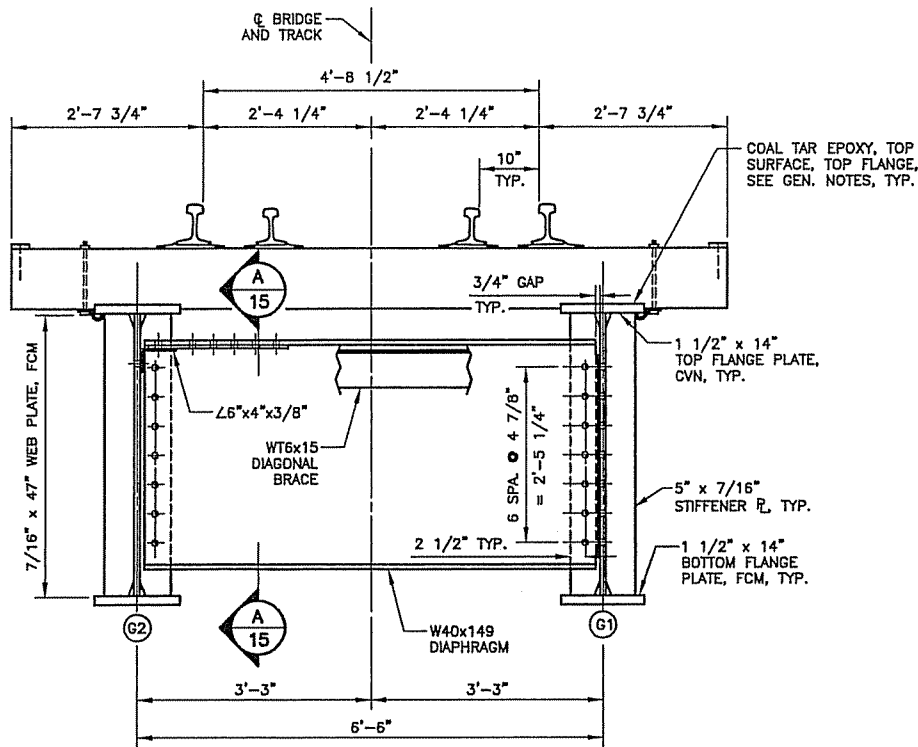
DIAPHRAGM COPE DETAIL
 END DIAPHRAGM SHOWN, SIMILAR AT INTERMEDIATE DIAPHRAGMS,
 SPANS 1, 2, & 4, TOP & BOTTOM FLANGE, GUSSET PLATE,
 CLIP ANGLES, AND TOP FLANGE OF GIRDER NOT SHOWN
 SCALE: 1 1/2" = 1'-0"

* = SUPPLIED BY RAIL FABRICATOR/SUPPLIER

NOTES:

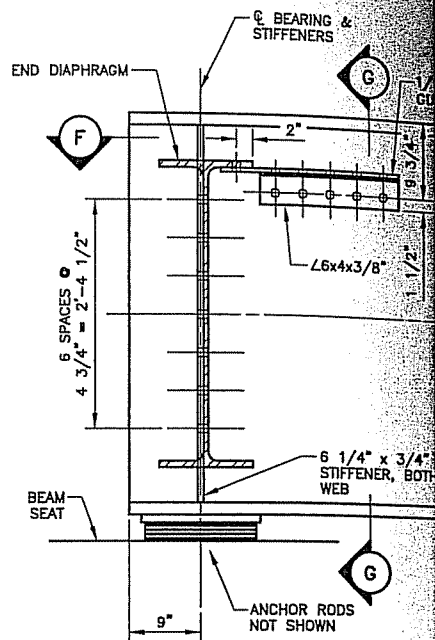
- 1) ALL BOLTS, NUTS, & WASHERS SHALL BE 1" DIA. ASTM A325, TYPE 3, H.S. BOLTS, U.N.O. ALL BOLT SPACING ON THIS SHEET SHALL BE 3 1/2", U.N.O.
- 2) THE DISTANCE FROM THE CENTER OF BOLT TO ANY SHEARED EDGE SHALL BE 2" U.N.O.
- 3) THE FABRICATOR MAY MODIFY BOLT SPACINGS & EDGE DISTANCES WHEN NECESSARY DUE TO GEOMETRIC CONSTRAINTS. SECTION 1.9 OF AREMA CHAPTER 15 SHALL GOVERN.

DEVELOPMENT AUTHORITY VER RAILROAD BRIDGE	JOB NO. 35592 DESIGNED BY: EMC DRAWN BY: JMB CHECKED BY: MWL/TMB APPROVED BY: MWL DATE: APRIL 2005	TYPICAL SECTION AND SUPERSTRUCTURE DETAILS SPANS NO. 1, 2 AND 4	SCALE: AS SHOWN
			SHEET NO. 14 OF 27



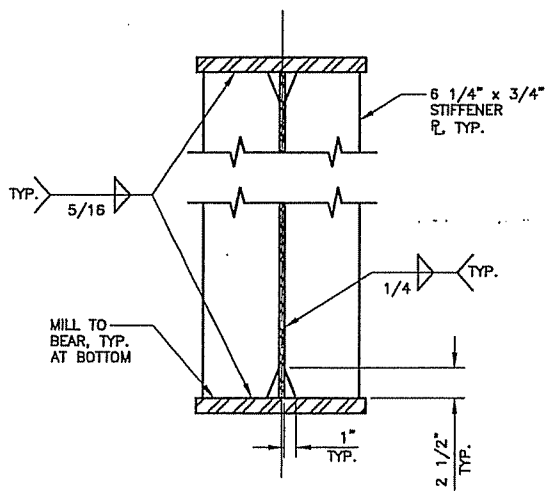
SPAN NO. 1, NO. 2 AND NO. 4 TYPICAL SECTION

SCALE: 3/4" = 1'-0"



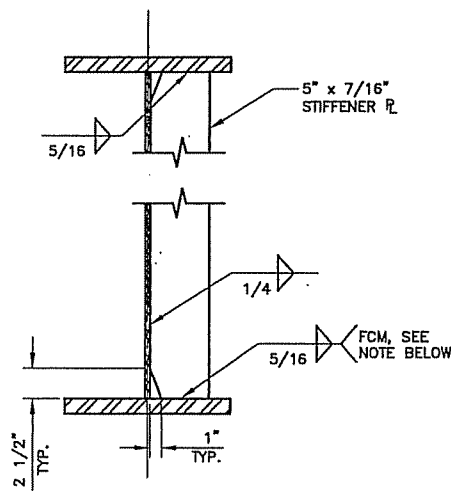
END DIAPHRAGM DETAIL

APPROACH SPANS 1, 2, & 4
GRADE NOT SHOWN
SCALE: 1" = 1'-0"



TYPICAL BEARING STIFFENER DETAIL

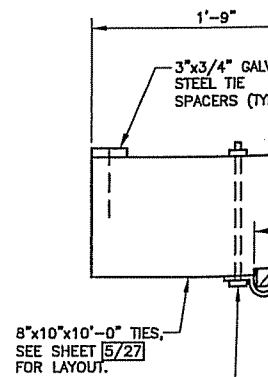
SPANS 1, 2, 4, & 5
SCALE: 1 1/2" = 1'-0"



TYPICAL INTERMEDIATE STIFFENER DETAIL

SPANS 1, 2, & 4. SEE FRAMING PLAN FOR
STIFFENER LOCATIONS. SUPPLY ON BOTH
SIDES OF WEB AT DIAPHRAGMS.
SCALE: 1 1/2" = 1'-0"

NOTE: WELD AT DIAPHRAGM STIFFENERS
ONLY. TIGHT FIT AT OTHER
INTERMEDIATE STIFFENER LOCATIONS.



LOCATION	W (+1/4", -3/8")
SPAN 1	7 1/4"
SPAN 2	7 1/4"
SPAN 3	4 3/4"
SPAN 4	7 1/4"
SPAN 5	5 1/4"

NO.	REVISIONS	DATE	BY	CHK.



JSS

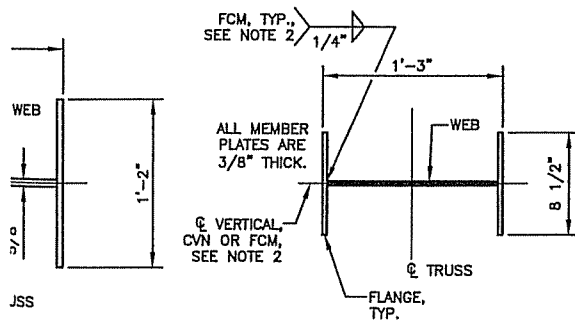


NOTES:

- 1) BACKING BARS & ASSOCIATED WELDS FOR COMPLETE JOINT PENETRATION WELDS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE MEMBER (L0-U2, L8-U6, U2-U6) AND SHALL PASS UNINTERRUPTED THROUGH THE SEALING DIAPHRAGMS. SPLICES IN BACKING BARS, IF NECESSARY, SHALL BE COMPLETE JOINT PENETRATION FCM WELDS, GROUND SMOOTH.
- 2) SEE SHEET [B727] FOR VERTICAL & DIAGONAL MEMBERS DESIGNATED FCM OR CVN. FCM MEMBERS REQUIRE FCM WELDS.

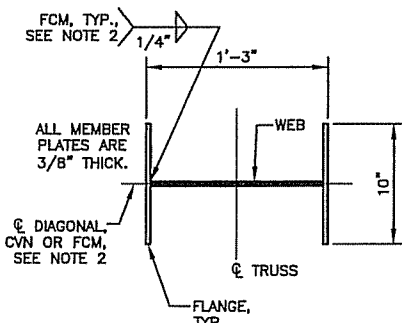
LEGEND:

- CJP = COMPLETE JOINT PENETRATION WELD
 (CS) = INDICATES WELD SUBJECTED TO COMPRESSIVE STRESS ONLY
 FCM = FRACTURE CRITICAL MEMBER OR FRACTURE CRITICAL WELD, SEE GENERAL NOTES
 CVN = CHARPY V-NOTCH DESIGNATION, SEE GENERAL NOTES



ORD SECTION
 I-LB
 = 1'-0"

TYPICAL VERTICAL SECTION
 ALL VERTICAL MEMBERS
 SCALE: 1 1/2" = 1'-0"



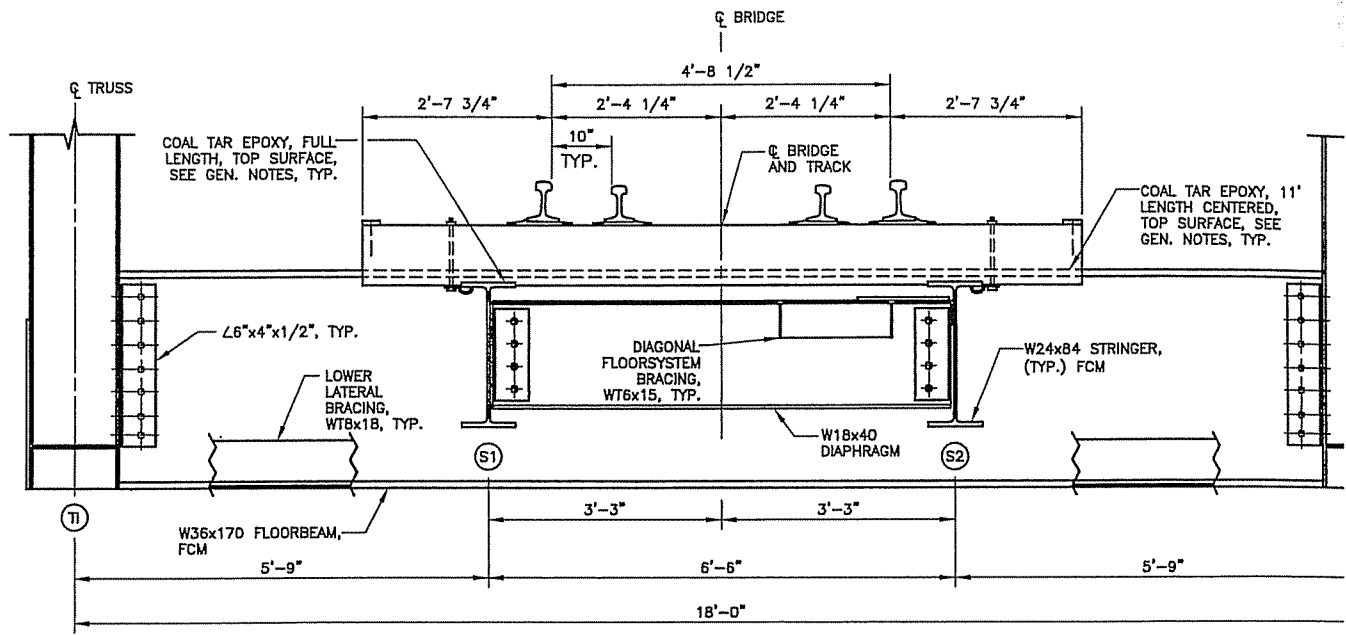
TYPICAL DIAGONAL SECTION
 ALL DIAGONAL MEMBERS
 SCALE: 1 1/2" = 1'-0"

JOB NO.	35592
DESIGNED BY:	EMC
DRAWN BY:	JMB
CHECKED BY:	MWL/TMB
APPROVED BY:	XXX
DATE:	MARCH 2005

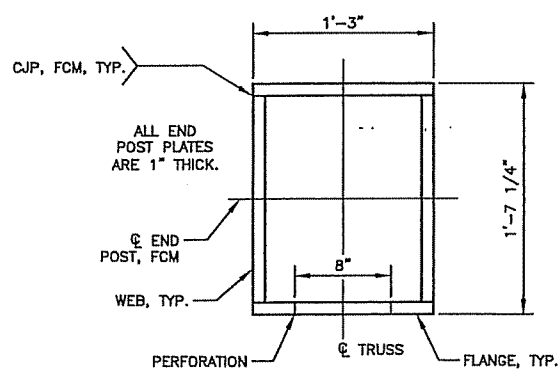
SCALE:	
AS SHOWN	
SHEET NO.	OF
19	27

PLOTTED: 12/28/2005 6:48:47 PM

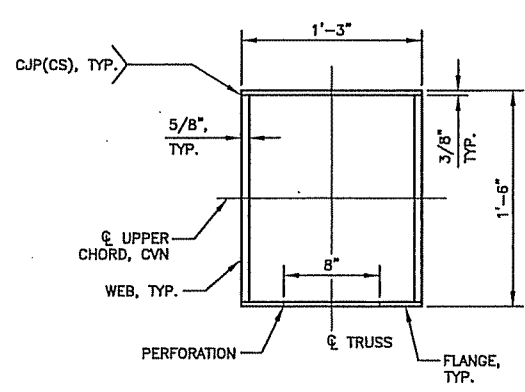
097



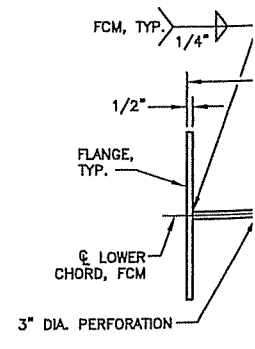
TRUSS TYPICAL SECTION
SCALE: 3/4" = 1'-0"



TYPICAL END POST SECTION
MEMBERS L0-M1, M1-U2, U6-M7, M7-L8
SCALE: 1 1/2" = 1'-0"



TYPICAL UPPER CHORD SECTION
MEMBERS U2-U6
SCALE: 1 1/2" = 1'-0"



TYPICAL LOWER CHORD SECTION
MEMBERS L0-L8
SCALE: 1 1/2" = 1'-0"

P:\PR42151\cadd\STRESS.dwg 12/28/2005 3:38:37 PM Lewellyn, Matt

NO.	REVISIONS	DATE	BY	CHK.



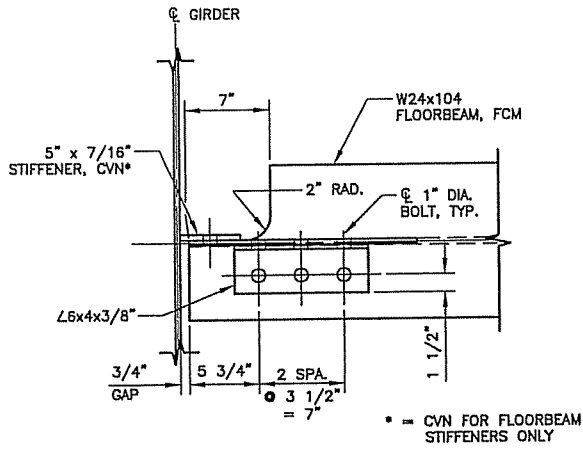
Burgess & Niple, Inc. Parkersburg, WV

BURGESS & NIPLE

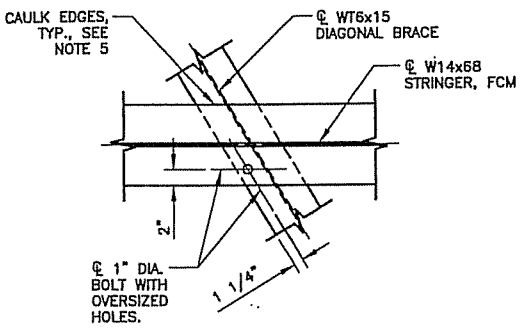
RANDOLPH C TYGART V/

4" x 14" TOP
GE PLATE,
TYP.

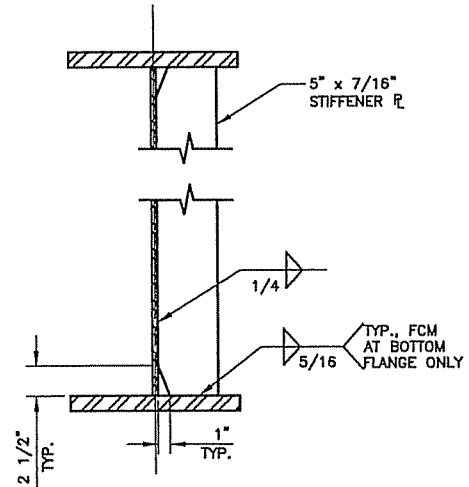
4" x 14"
DM FLANGE
FCM, TYP.



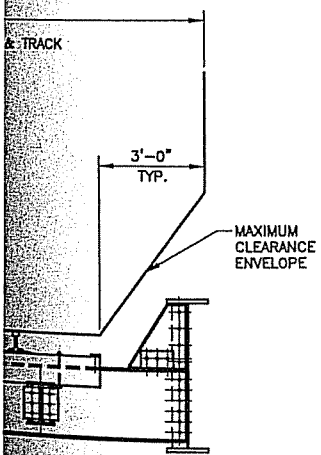
FLOORBEAM COPE & KNEE BRACE CONNECTION DETAIL (I)
 TOP FLANGE OF GIRDER & KNEE BRACE STIFFENER PLATE NOT SHOWN
 SCALE: 1 1/2" = 1'-0"



DIAGONAL BRACE-TO-STRINGER CONNECTION (K)
 TYPICAL AT ALL INTERSECTIONS
 SCALE: 1" = 1'-0"



TYPICAL INTERMEDIATE STIFFENER DETAIL
 SPAN 5 ONLY
 SCALE: 1 1/2" = 1'-0"



GE ENVELOPE

NOTES:

- 1) ALL BOLTS, NUTS, & WASHERS SHALL BE 1" DIA. ASTM A325, TYPE 3, H.S. BOLTS, U.N.O. ALL BOLT SPACING ON THIS SHEET SHALL BE 3 1/2", U.N.O.
- 2) THE DISTANCE FROM THE CENTER OF BOLT TO ANY SHEARED EDGE SHALL BE 2" U.N.O.
- 3) THE FABRICATOR MAY MODIFY BOLT SPACINGS & EDGE DISTANCES WHEN NECESSARY DUE TO GEOMETRIC CONSTRAINTS. SECTION 1.9 OF AREMA CHAPTER 15 SHALL GOVERN.
- 4) SEE SHEET [14/27] FOR TIMBER TIE DETAIL AND BEARING STIFFENER DETAILS.
- 5) FOR CAULKING, USE A TWO-COMPONENT, NON-SAG, NON-SHRINK 100% SOLIDS EPOXY CAPABLE OF FILLING VOIDS UP TO 1" WIDE.

NTY DEVELOPMENT AUTHORITY
 RIVER RAILROAD BRIDGE

JOB NO.	35592
DESIGNED BY:	EMC
DRAWN BY:	JMB
CHECKED BY:	MWL/TMB
APPROVED BY:	MWL
DATE:	APRIL 2005

TYPICAL SECTION & SUPERSTRUCTURE DETAILS
 SPAN NO. 5

SCALE:	
AS SHOWN	
SHEET NO.	OF
17	27

