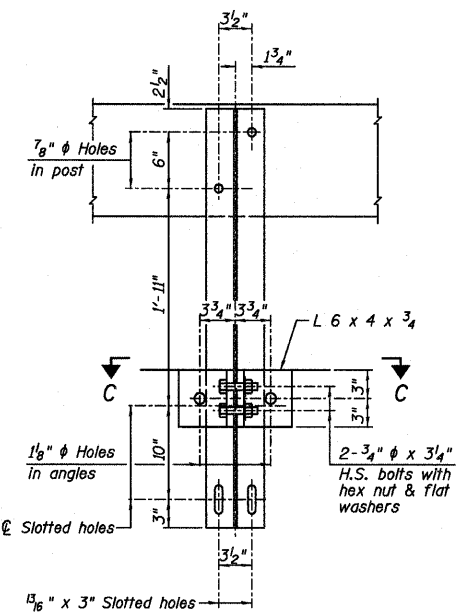
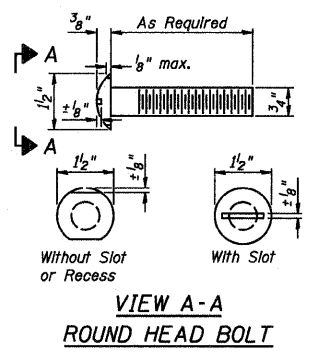


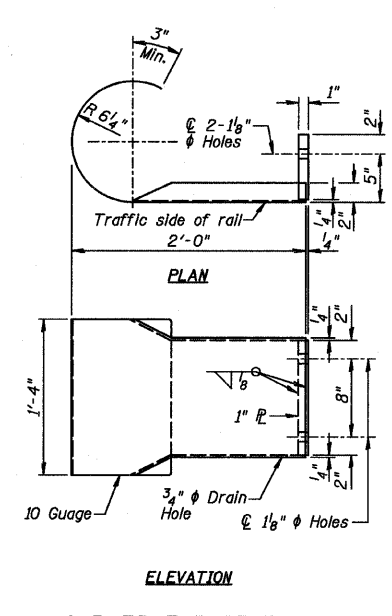
SECTION AT RAILING POST



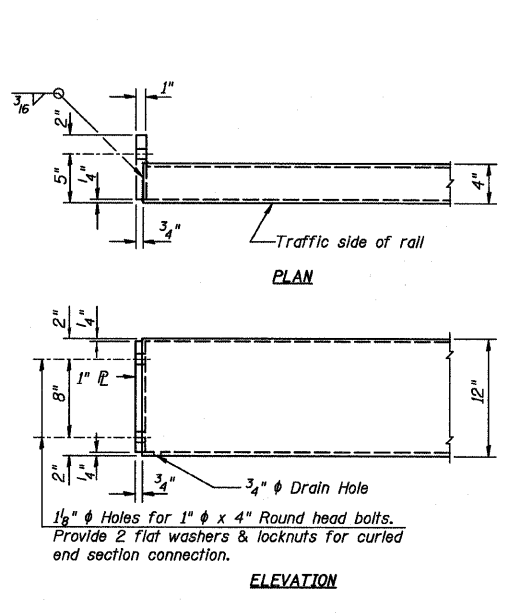
SECTION B-B



VIEW A-A ROUND HEAD BOLT

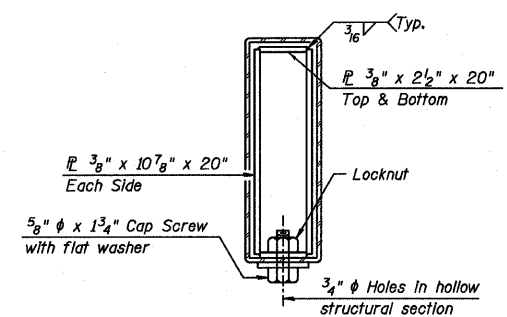


ELEVATION CURLED END SECTION

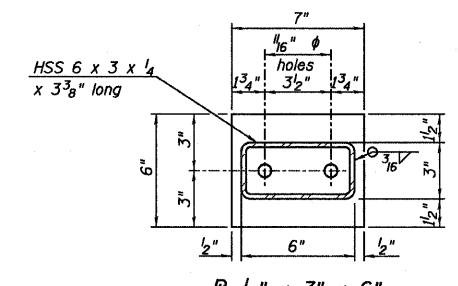


ELEVATION END OF RAIL DETAILS

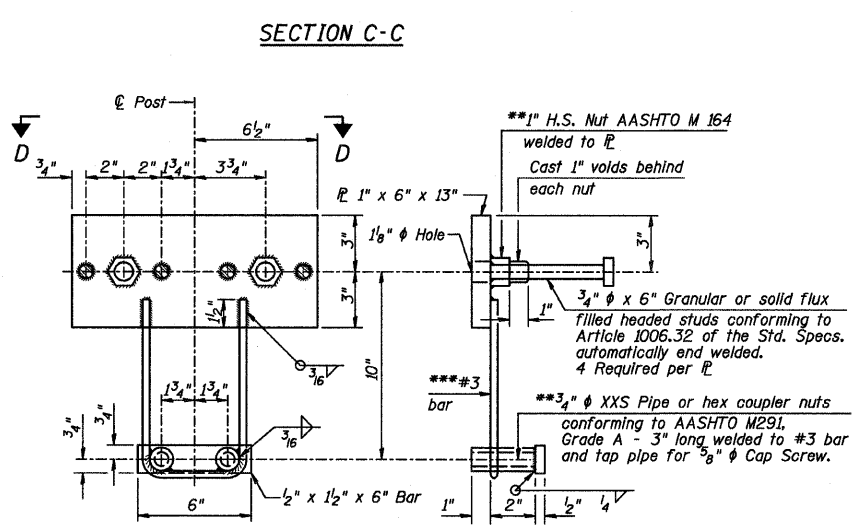
NOTE: The cost of the curled end sections shall be included in the cost of Steel Railing, Type S1.



SECTIONS AT RAIL SPLICE

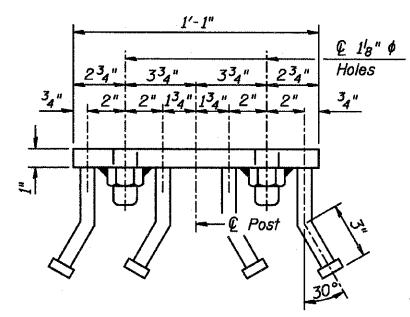


SECTION C-C



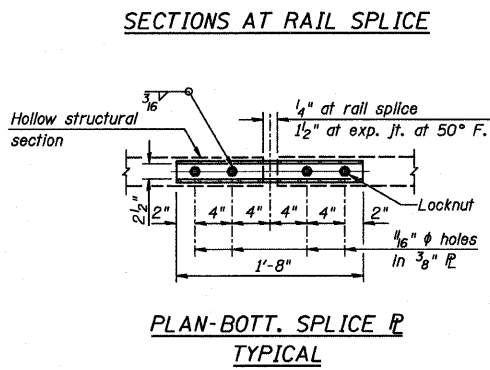
ANCHOR DEVICE

***Threaded areas shall be plugged or blocked off during casting of beam.
 ***Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.

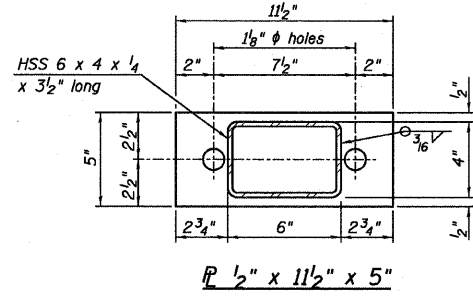


VIEW D-D

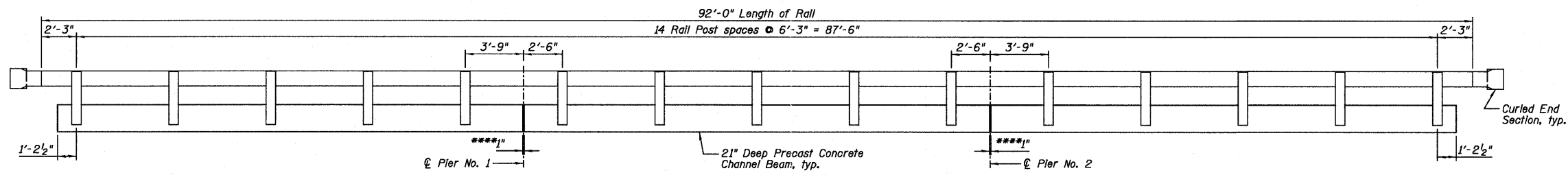
- NOTES:
- All field drilled holes shall be coated with an approved zinc rich paint before erection.
 - For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
 - All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 - The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



PLAN-BOTT. SPLICE TYPICAL



SECTION C-C



RAIL POST SPACING DETAIL

(Looking North)
 ****Approximate distance between Precast Concrete Channel Beams.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	184

Farnsworth GROUP, INC.
 2709 McDraw Drive
 Bloomington, Illinois 61714
 309/663-8435, 309/663-1571 fax

DESIGNED - CEE
 CHECKED - JML
 DRAWN - DJM
 DATE - 02/06/12

REVISOR
 REVISOR
 REVISOR
 REVISOR

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE S1

SHEET NO. B4 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
169	09-20110-02-BR	LIVINGSTON	17	9
CONTRACT NO. 87496				
ILLINOIS FED. AID PROJECT				