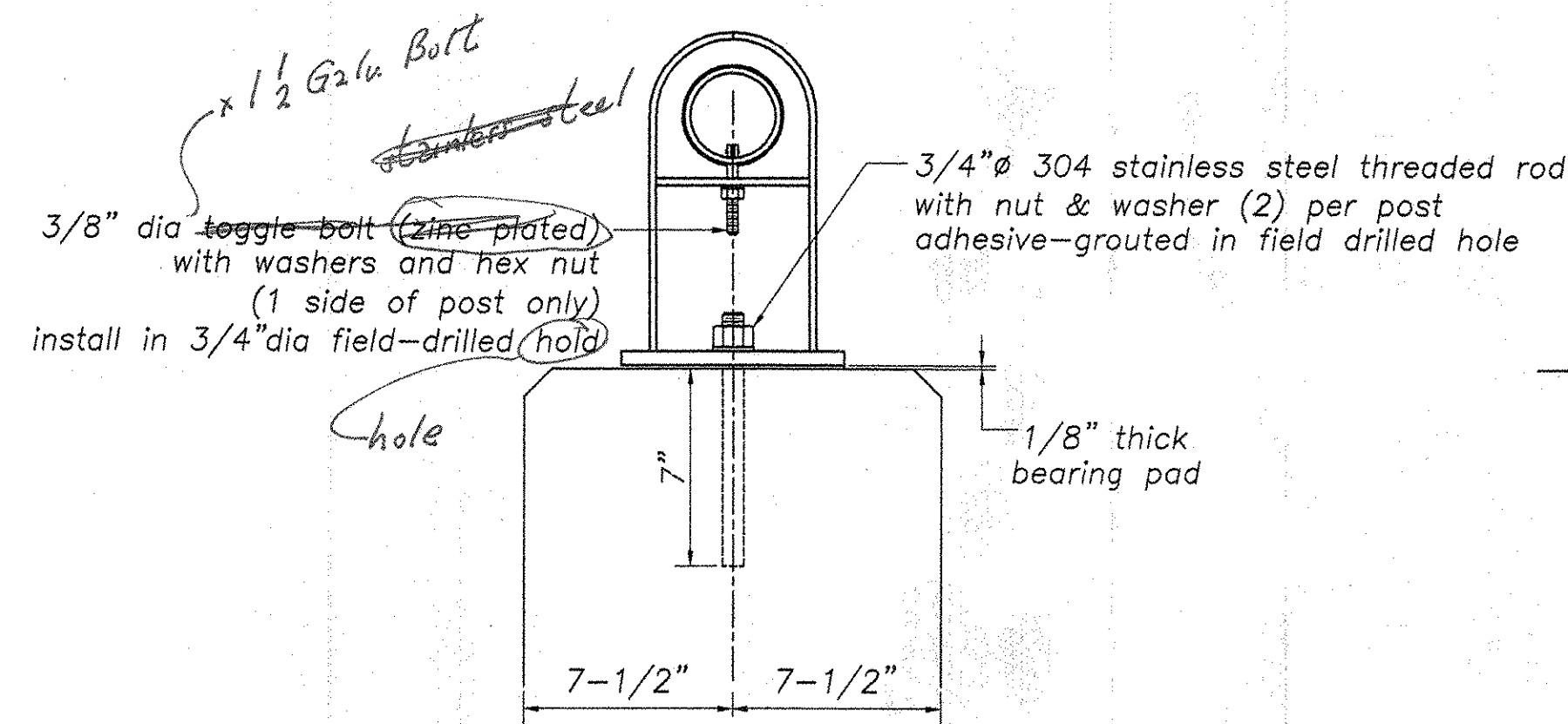


HAND RAIL NOTES:

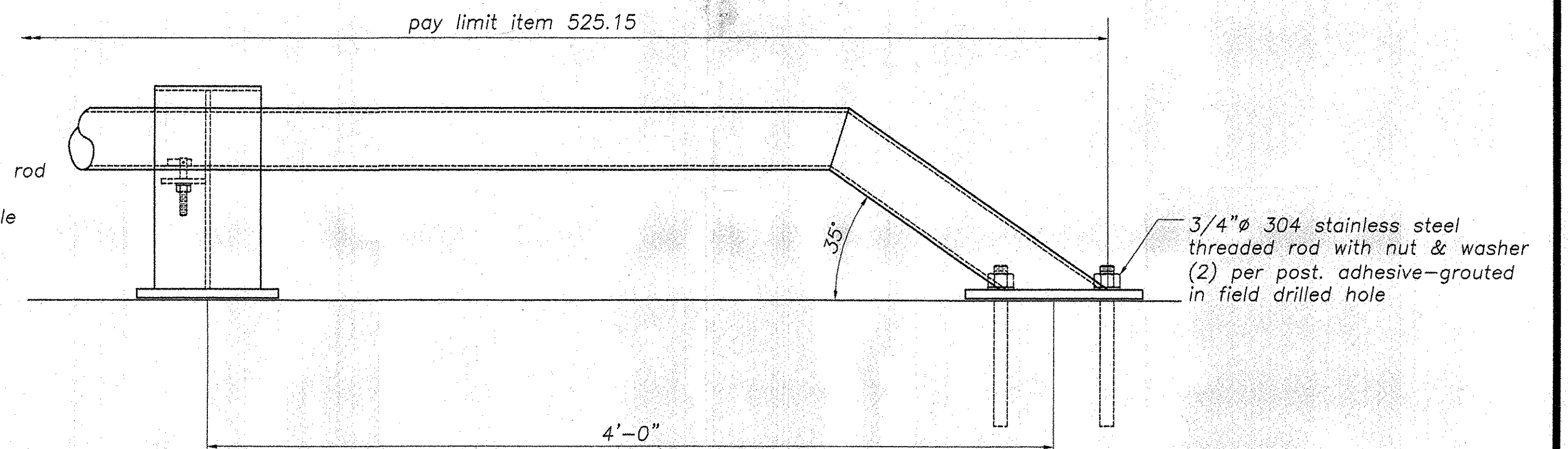
1. ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 525, "RAILINGS" OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. RAIL PIPE AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732 "RAILINGS MATERIALS" OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION EXCEPT THAT THE DROP-WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL PIPE.
3. ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1/16" RADIUS AND BE FREE OF BURRS.
4. RAIL POSTS SHALL BE SET NORMAL TO GRADE.
5. PROVIDE MINIMUM OF ONE 3/4"Ø DRAIN HOLE IN BOTTOM OF HAND RAIL BETWEEN POSTS TO ALLOW FOR DRAINAGE.
6. SECTIONS OF RAIL TUBES SHALL BE ATTACHED TO MINIMUM OF 2 RAIL POSTS AND PREFERABLY TO AT LEAST 4 POSTS.
8. ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M232.
9. RAIL POSTS ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
10. HOLES IN RAIL FOR PIPE HANDRAIL ATTACHMENT SHALL BE FIELD DRILLED.
11. IF THERE IS A CONFLICT BETWEEN THESE STANDARD DETAILS AND THE DESIGN, THE REQUIREMENTS OF THE DESIGN DRAWINGS SHALL BE FOLLOWED.
12. THE PIPE RAILING SHALL BE SHOP-BENT TO THE REQUIRED RADIUS
13. THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS INCLUDING WELD PROCEDURES TO THE STRUCTURES SECTION FOR APPROVAL IN ACCORDANCE WITH THE PROVISIONS OF 506.04 "SHOP DRAWINGS: ALL WELDING SHALL CONFORM TO SECTION 506.10
14. HAND RAILING SHALL BE PAINTED BLACK (INCLUDES ~~RAIL~~ RAIL POSTS)
15. THE METAL POSTS SHALL BE ATTACHED TO THE CONCRETE BRIDGE RAIL VIA AN ADHESIVE ANCHORING SYSTEM CONSISTING OF STAINLESS STEEL THREADED RODS EMBEDDED AND ADHERED TO FIELD DRILLED HOLES. THE ADHESIVE ANCHORING SYSTEM SHALL INCLUDE 3/4 IN HILTI RODS (304SS), NUTS, WASHERS AS WELL AS THE HILTI HIT-RE500 ADHESIVE SYSTEM OR ACCEPTED EQUAL. ALL COSTS SHALL BE INCLUDED IN ITEM 525.50, CAST IN PLACE CONCRETE BRIDGE RAIL.

MATERIAL NOTES:

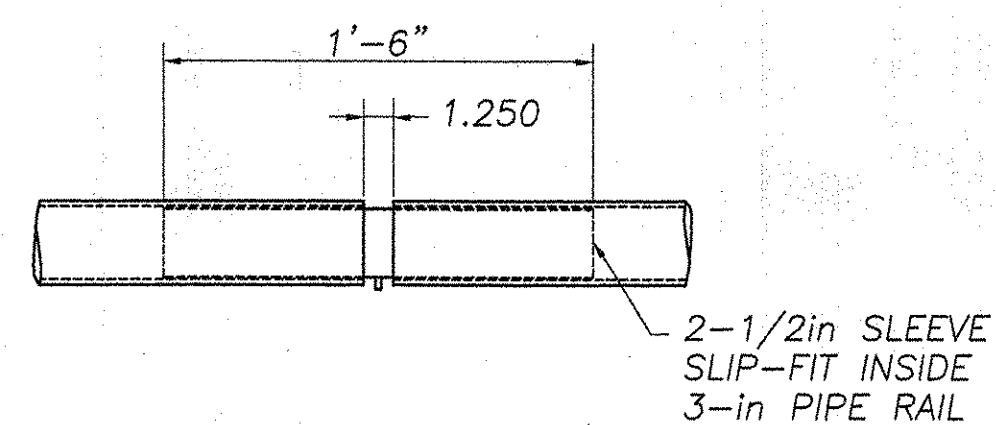
RAIL PIPE.....ASTM A53 gr B
 RAIL POSTS AND BASE PLATES.....ASTM A709 gr 36
 ALL OTHER SHAPES AND PLATES.....ASTM A709 gr 36
 1/8" PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02



TYPICAL POST SECTION



TERMINAL END DETAIL



TYPICAL RAILING SPLICE DETAIL

REVISIONS		
No.	Remarks	Date
0	Initial submittal	7/18/07

- Reviewed
 Rejected
 Furnish as Corrected
 Revise and Resubmit
 Submit Specified Item

This review is only for general conformance with the design concept and the information given in the Construction Documents. Corrections or comments made on the shop drawings during this review do not relieve the contractor from compliance with the requirements of the plans and specifications. Review of a specific item shall not include review of an assembly of which the item is a component. The Contractor is responsible for dimensions to be confirmed and corrected at the jobsite. Information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction coordination of the Work with that of all other trades and performing all Work in a safe and satisfactory manner.

McFarland-Johnson, Inc.
 Date: 8/6/07
 By: Steven J. Della



HIGHWAY SAFETY CORP.
 GLASTONBURY, CT

ITEM 525.15 METAL HANDRAILING (PAINTED BLACK) BROOK ROAD (TH1) BRIDGE #7 OVER FREEMAN BROOK TOWN OF WARREN, WASHINGTON COUNTY BHF 0188(7)	DRAWN p. radice CHECKED [Signature] DATE 07-13-07 SCALE none HSC REFERENCE NO. 1600 SIZE D REVISION 0 SHEET NO. 1 of 2
GENERAL CONTRACTOR	
SUB CONTRACTOR F. R. LAFAYETTE	