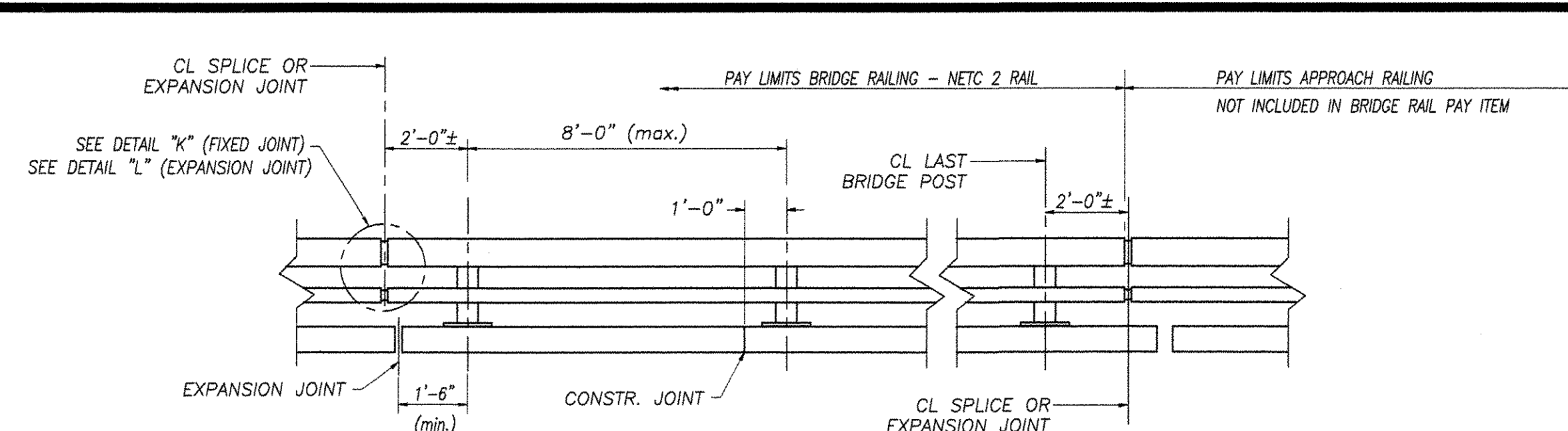
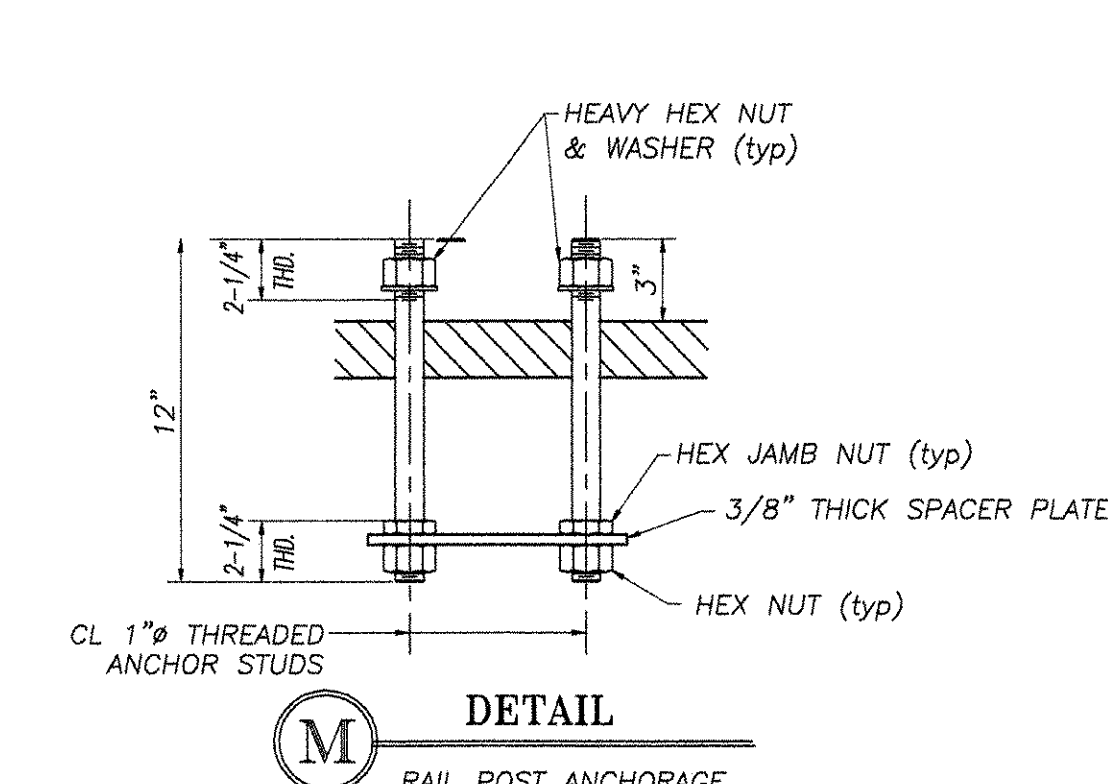
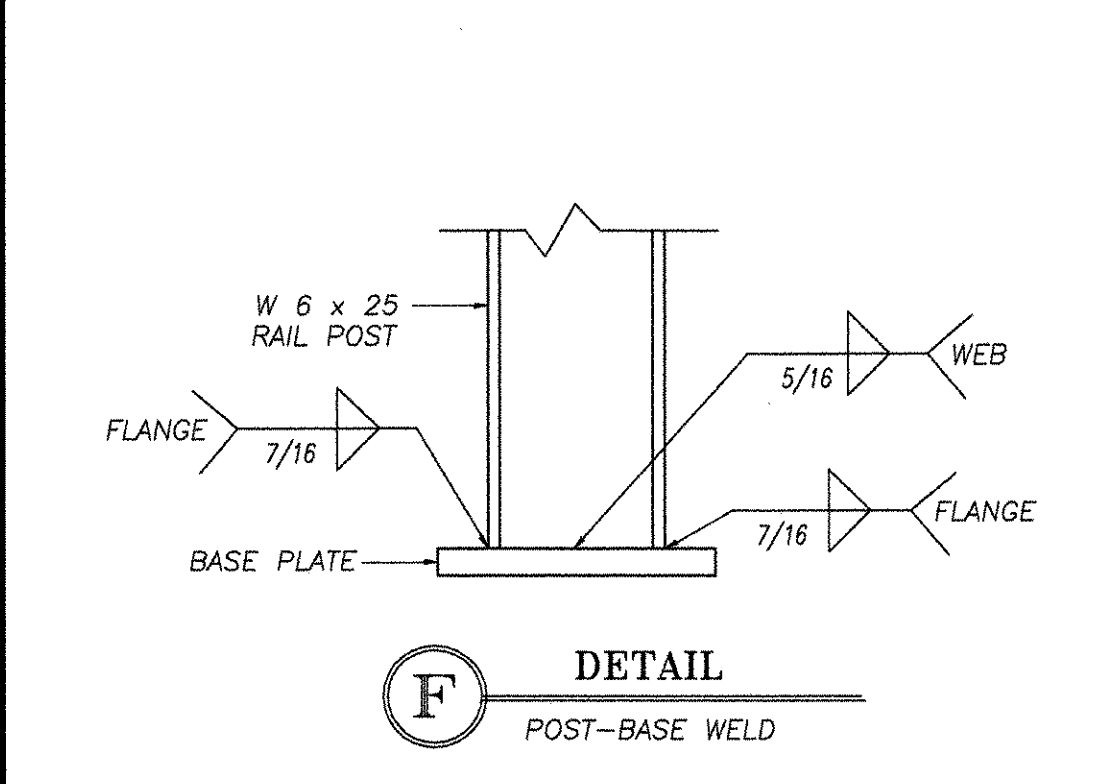
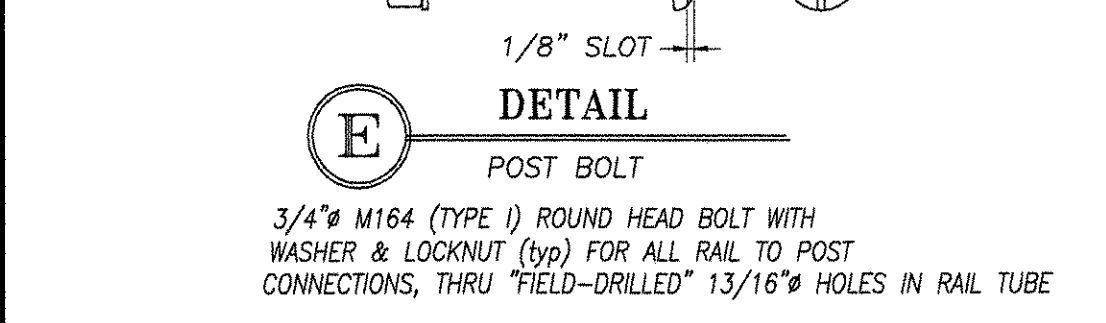
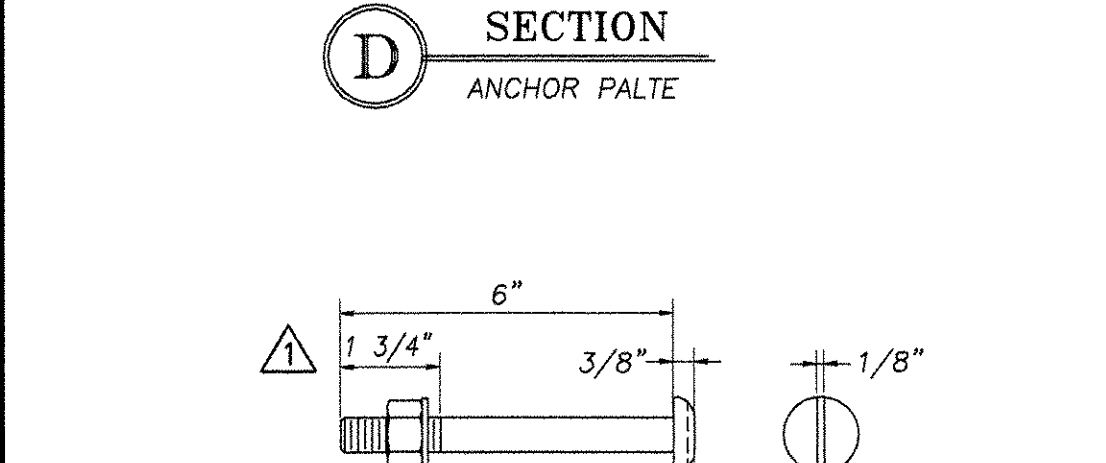
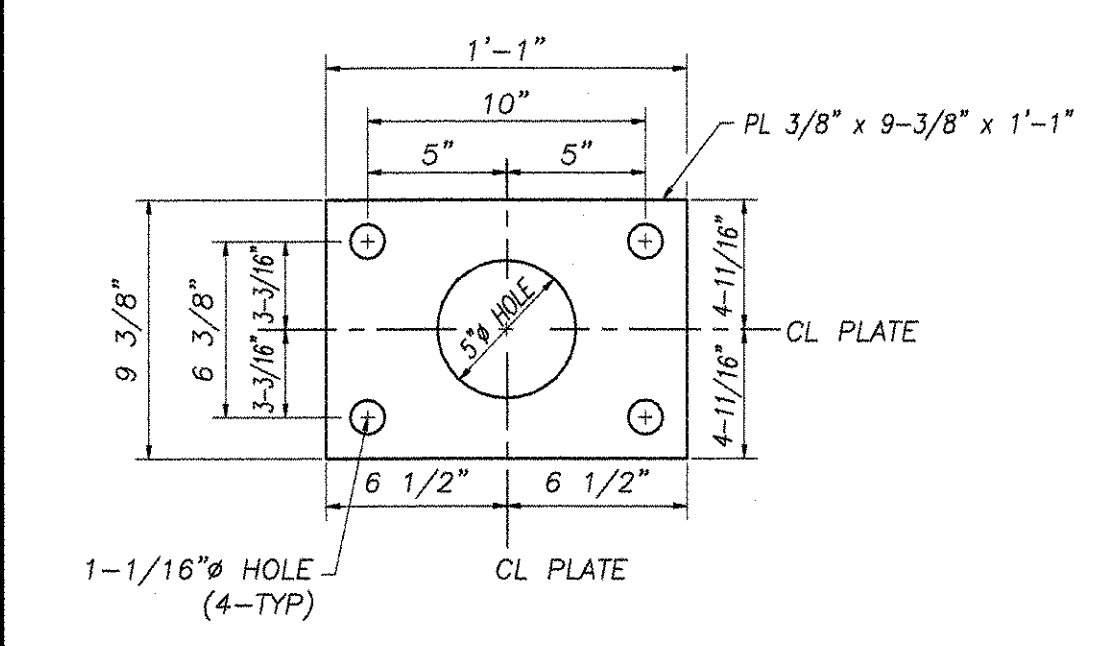
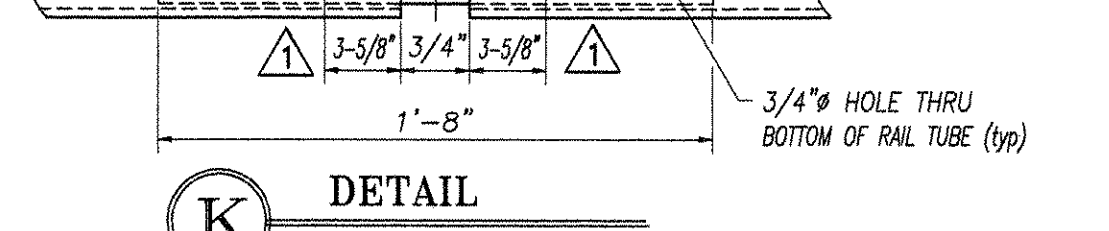
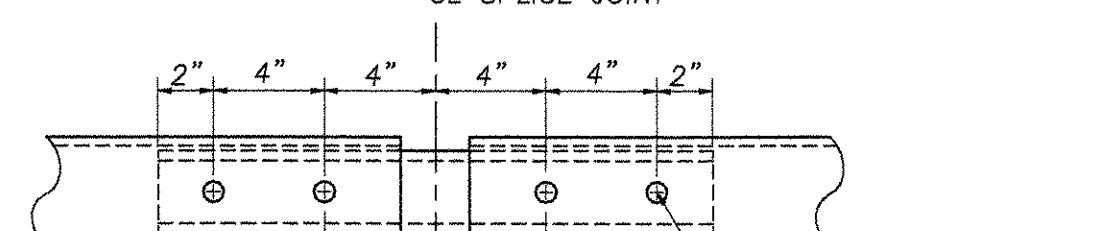
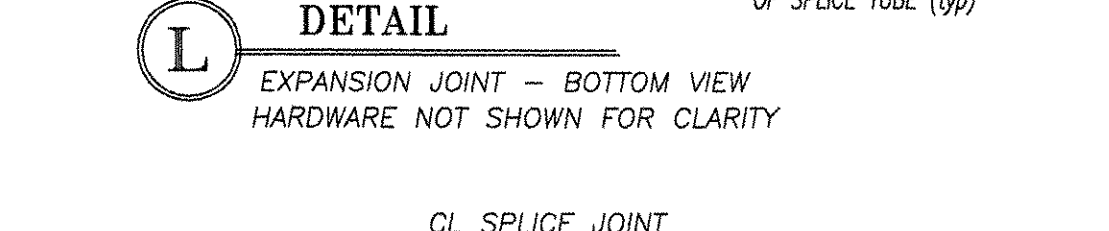
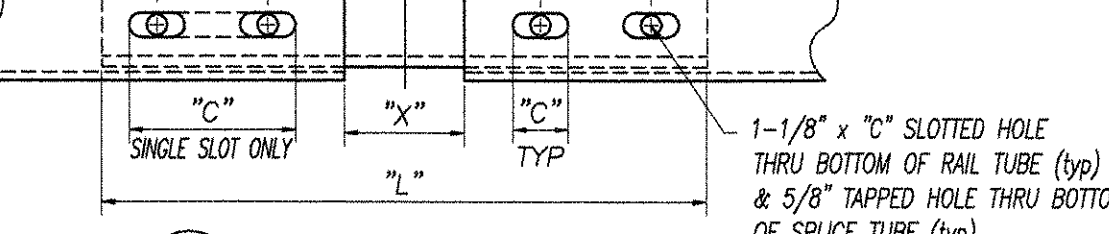
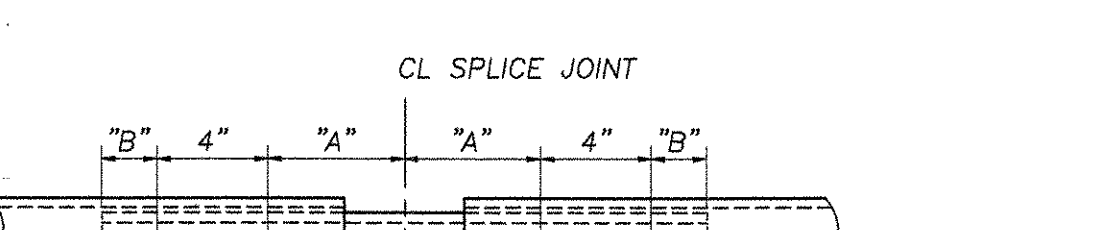
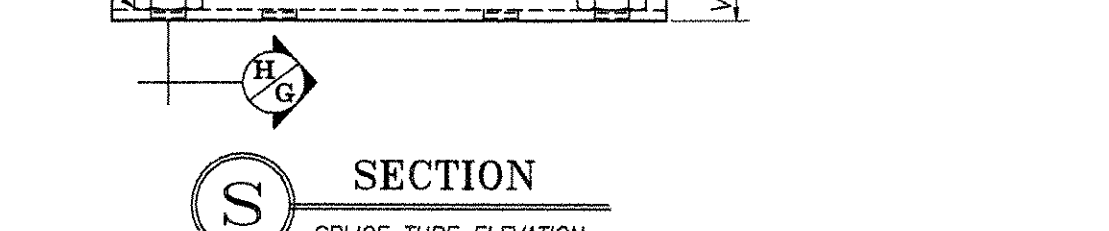
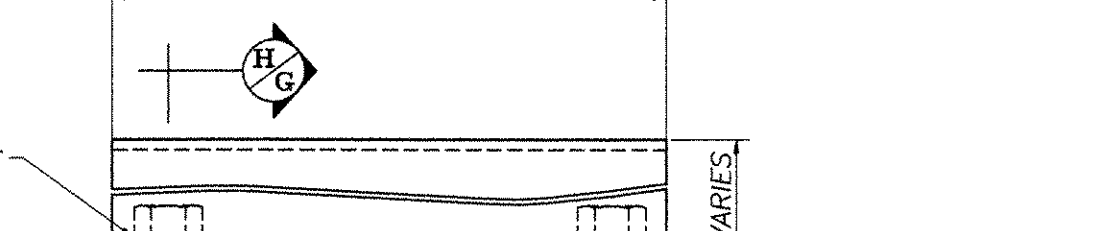
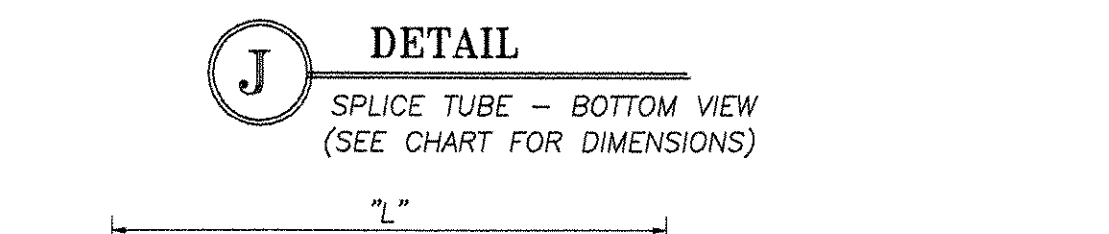
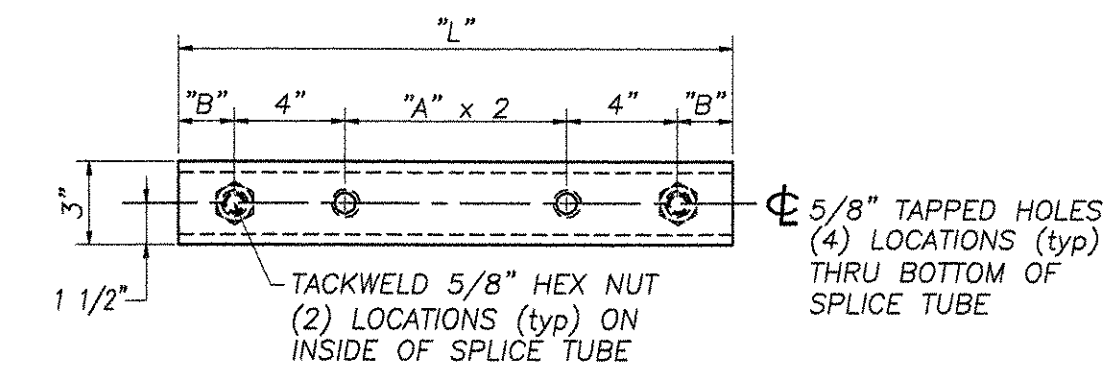


DIMENSION INDEX		
CURB WIDTH	"A"	"B"
1'-11"	6 5/8"	1'-10"
2'-8"	1'-3 5/8"	2'-7"



TYPICAL BRIDGE RAILING & TRANSITION ELEVATION
 NOTE: SPLICE TUBES & HARDWARE FOR CONNECTION BETWEEN BRIDGE RAIL & BRIDGE APPROACH RAIL ARE INCLUDED IN APPROACH RAIL PAY ITEM. NOT INCLUDED UNDER BRIDGE RAIL ITEM 525.33



SPLICE & EXPANSION JOINT TABLE					
"T"	"A"	"B"	"C"	"L"	"X"
SPLICE	4"	2"	--	20"	3/4"
≤ 4"	4"	2"	2-1/2"	20"	2-1/2"
> 4" ≤ 6-1/2"	5-1/2"	2-3/8"	3-1/2"	23-3/4"	4"
> 6-1/2" ≤ 9"	6-1/2"	3-3/8"	0"	27-3/4"	6"
> 9" ≤ 13"	8-1/2"	4-3/8"	1"	33-3/4"	7"

"T" = TOTAL REQUIRED MOVEMENT * = SINGLE SLOT

REVISIONS		
No.	Remarks	Date
0	Initial submittal	1/26/01
1	FINAL "AS-BUILT"	11/8/01

GENERAL ERECTION NOTES

- All work and materials shall conform to the provisions of Section 525 - Railings of the Vermont Standard Specifications for Construction.
- Tubing & posts shall meet the requirements of Section 732 - Railing materials of the Standard Specifications for Construction.
- All exposed cut or sheared edges shall be rounded to a 1/16" radius & be free of burrs.
- Rail posts shall be set normal to grade.
- Sections of rail bar shall be attached to a minimum of two (2) posts and preferably to at least four (4) posts.
- Rail bar expansion joints shall be provided in any rail bay spanning a superstructure expansion joint. Expansion joint width shall be "X" at 45° F and will be adjusted in the field by the engineer.
- All parts shall be galvanized after fabrication in accordance with AASHTO M111, except that hardware shall meet the requirements of AASHTO M232.
- Rail posts anchoring nuts shall be tightened to a snug-tight fit and given an additional 1/8 turn.
- Rail bars shall be attached using 3/4" full diameter body head bolts AASHTO M164 (Type-I) inserted through the face of the bar. Holes in post shall be 1/16" larger than the bolt size.
- Holes in rails for attachment to posts will be field-drilled. Holes shall be coated with an approved zinc-rich paint prior to erection.
- Radiused rails (if required) will be shop-curved. No field-bending of rail tubes.
- The drop-weight tear test in section 732 shall not apply to the structure tubing on this standard.
- The rail posts & base plates shall be tested for impact properties in accordance with ASTM A370 Charpy Impact Testing, using a type A specimen.
- All welds are to be cleaned prior to galvanizing to insure proper bonding of zinc to welded areas.

MATERIALS

- Rail bars.....ASTM A500 GR B or ASTM A501
- Rail posts.....ASTM A709 GR 50
- All other shapes & plates.....ASTM A709 GR 36
- Anchor studs.....ASTM A449
- All other bolts [unless noted].....AASHTO M164, TYPE I
- Nuts for ASTM A307 bolts & AASHTO M164 bolts shall comply with AASHTO M291. Nuts for anchor studs shall comply with ASTM A563.
- washers shall comply with ASTM F436
- 1/8" pad shall comply with standard specification subsection 731.01 or 731.02 of Vermont Standard Specifications.

HIGHWAY SAFETY CORP.
 GLASTONBURY, CT

ITEM 525.33 - BRIDGE RAILING - NETC 2 RAIL
 IM IR 089-1(8)
 WINDSOR COUNTY
 TOWNS OF HARTFORD, SHARON, ROYALTON
 INTERSTATE ROUTE 89

GENERAL CONTRACTOR MORRILL CONSTRUCTION INC.
 SUB CONTRACTOR F.R. LAFAYETTE, INC.

DRAWN P. Radice
 CHECKED [Signature]
 DATE 1/23/01
 SCALE NONE
 HSC REFERENCE NO. 1239
 SIZE D REVISION
 SHEET NO. 23 of 24