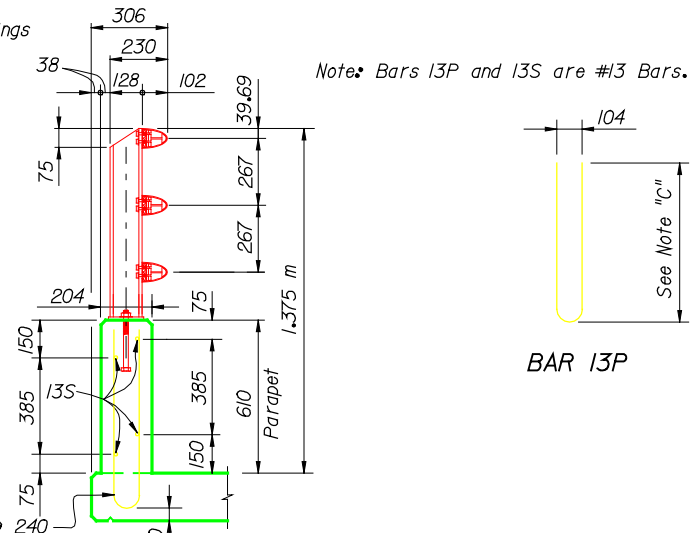


\*2 ~ M20 x 280 mm Adhesive Anchor Bolts with hex nuts and washers set in 22 mm  $\phi$  holes filled with Epoxy Bonding Compound (Qualified Products List Class IV) in accordance with the manufacturer's specifications.

DETAIL 'A'



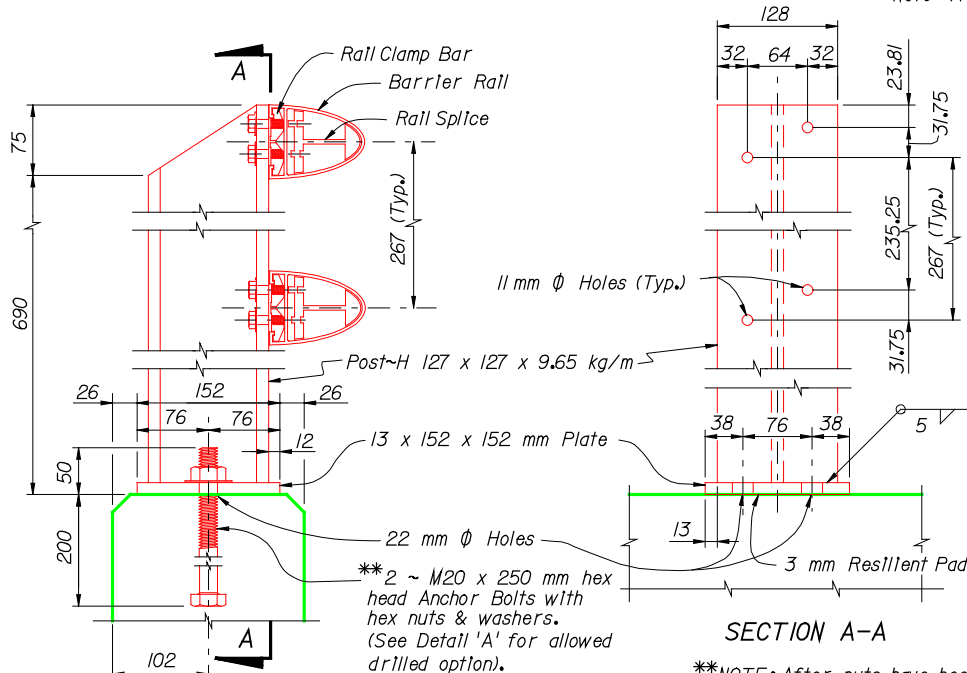
TYPICAL SECTION THRU PARAPET AND RAIL

Note "C": Designer shall fully detail reinforcement in Parapet in the Superstructure Drawings and include concrete and reinforcing steel in the Superstructure quantities.

ELEVATION

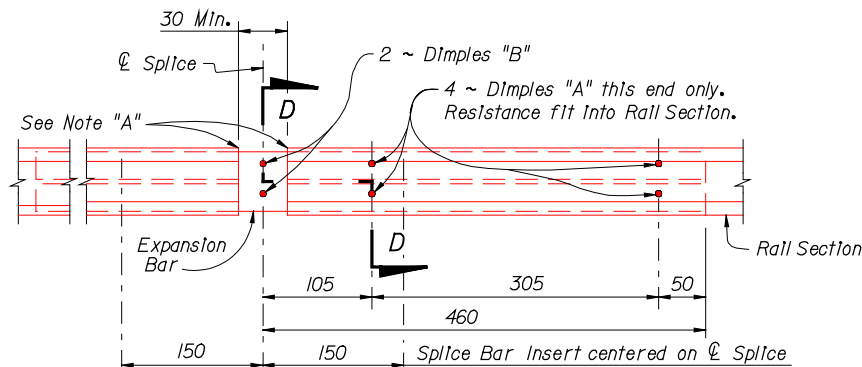
Note "A": 20 mm Open Joints shall be provided at:

1. Substructure Supports where Superstructure Slab is continuous.
2. Mid-Span where Span length exceeds 27,000 meters.
3. Intermediate locations (equally spaced) between Mid-Span and Superstructure Support where Span length exceeds 54,000 meters.
4. Locations Coinciding with Joints for the Traffic Railing Barrier.



SECTION A-A

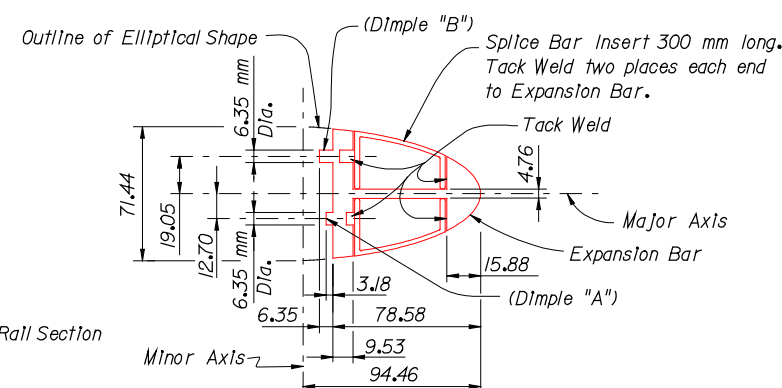
\*\*NOTE: After nuts have been tightened the threads shall be nicked to prevent removal of nuts.



RAIL SPLICE

NOTE: Rail shall be continuous over a minimum of three posts before splicing. Splices shall be spaced at 12 m maximum.

RAIL COMPONENTS



SECTION D-D

NOTES

NOTE: The Railing shown on this drawing conforms with the requirements of the American with Disabilities Act (ADA), provided that the gradient does not exceed 5%.

PAYMENT: Pedestrian/Bicycle Parapet on bridges, approach slabs or wing walls shall be paid for per linear meter (Item No. 2400-160) which shall include all concrete and reinforcing steel. Aluminum Rail shall be paid for per linear meter (Item No. 2460-70-3). Payment for the rail includes Anchor Bolts, Nuts, Resilient Pads, and all incidental materials and labor required to complete the installation.

## SPECIFICATIONS FOR METAL RAIL

POST: Fabricated wrought aluminum; ASTM B221, alloy 6061-T6 or alloy 6351-T5 with welding using filler wire 4043.

RAIL AND RAIL SPLICE: Aluminum; ASTM B221, alloy 6061-T6 or alloy 6351-T5.

RAIL CLAMP BAR: Aluminum; ASTM B221, alloy 6061-T6 or alloy 6351-T5.

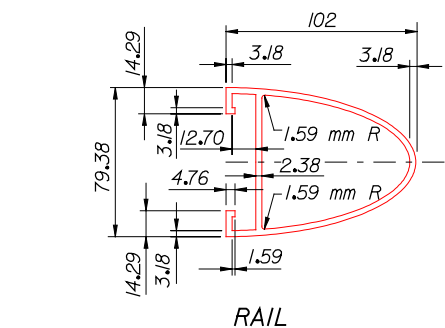
ANCHOR BOLTS: Anchor bolts shall be in accordance with ASTM A36M or ASTM F568, Class 4.6. Anchor bolts, Nuts and washers shall be hot-dip galvanized in accordance with ASTM designation A153.

RAIL END CAP: ASTM B26 sand cast aluminum alloy, SG 70A-F (Aluminum Association alloy designation A-356-F).

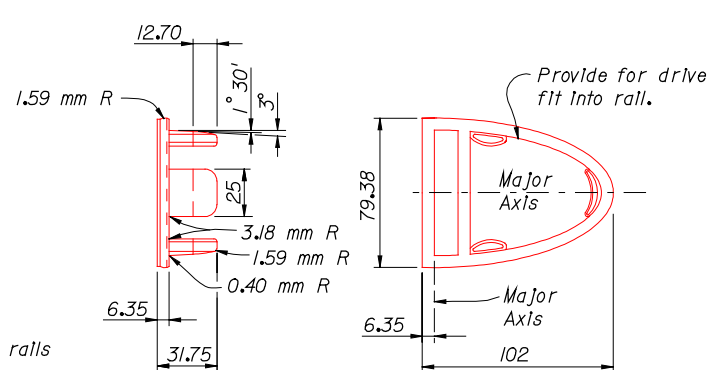
RAIL INSTALLATION: Rail Post shall be normal to Profile Grade. Post shall be seated on 3 mm thick resilient pads in accordance with Subarticle 932-2.1. The dimension shall be the same as the post base. Rail expansion joint shall occur in the panel between posts on either side of Bridge expansion joint. Rail expansion joint shall be similar to rail splice with provision for movement equal to 1.5 times the bridge joint opening.

SHOP DRAWINGS: Complete details and description of materials of the proposed metal rail shall be submitted by the contractor for the Engineer's approval prior to fabrication for railing that do not conform to the plans.

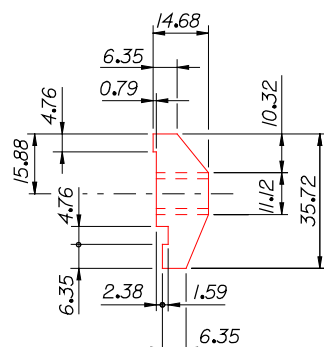
NOTE: All dimensions are in millimeters (mm), except as noted.



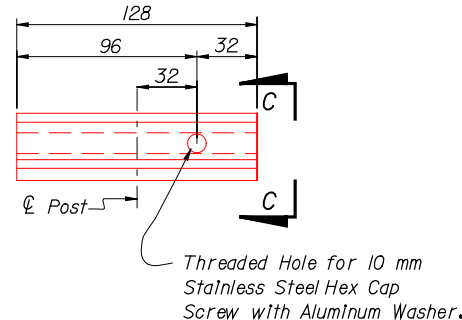
NOTE "A": Rough cut ends and edges of aluminum rails shall be ground or filed smooth to remove all sharp edges, nicks or burrs that would be injurious to the human touch.



RAIL END CAP



VIEW C-C



RAIL CLAMP BAR

## REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
2-97	JSP	Deleted mid part of Payment Note.	97R4		
3-97	SHM	Added Fillet Weld Size.			
4-97	SHM	Deleted Section B on Elev. View			
9-98	SHM	Changed Payment Note.			
11-98	JP	Delete Payment for Traffic Railing Note.			

DRAWN BY	NAMES	DATES
CHECKED BY	LFC	12-85
DESIGNED BY	RDS	1-86
CHECKED BY		
APPROVED BY		

ENGINEER OF RECORD.

STRUCTURES DESIGN OFFICE

CENTRAL OFFICE

605 Suwannee Street, MS 33

Tallahassee, Florida 32399-0450

LOGO.

FLORIDA DEPARTMENT OF TRANSPORTATION		
STRUCTURES DESIGN OFFICE		
ROAD NO.	COUNTY	PROJECT NO.

PEDESTRIAN/BICYCLE RAILING		1 of 1
PROJECT NAME:		720

DATE: 11/11/2010 TIME: 10:10:10 AM