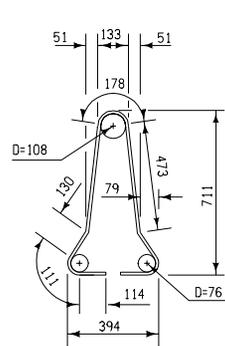
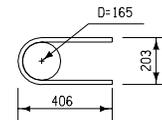


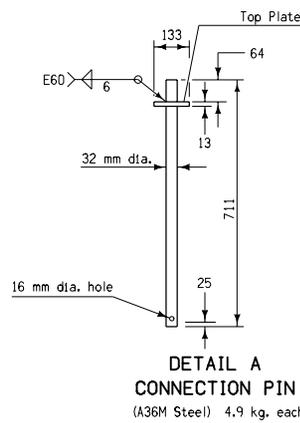
LOOP BAR ASSEMBLY
 (Marked end shown, invert for other end)
 (Material as stated in General Notes)
 (Dimensions are out to out of bars unless otherwise noted.)



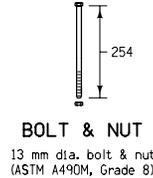
4A1



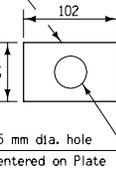
6A2



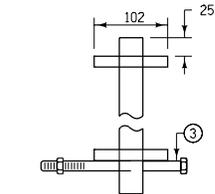
**DETAIL A
 CONNECTION PIN**
 (A36M Steel) 4.9 kg. each



BOLT & NUT
 13 mm dia. bolt & nut
 (ASTM A490M, Grade 8)



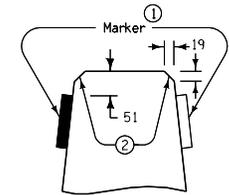
**(13 mm Top & Bottom
 Plate Detail)**



ENLARGED PIN DETAIL

GENERAL NOTES:

Type B tie down straps are to be used as indicated in Tabulation 108-33.
 When the anchor bolts are removed, the holes should be filled with a non-shrink grout, meeting the requirements of ASTM C 1107 for Grade B or C.
 Tie Downs are considered incidental to the pay item "Temporary Barrier Rail, Concrete".



**MARKER PLACEMENT
 DETAIL**

Per 3810 mm Barrier Section

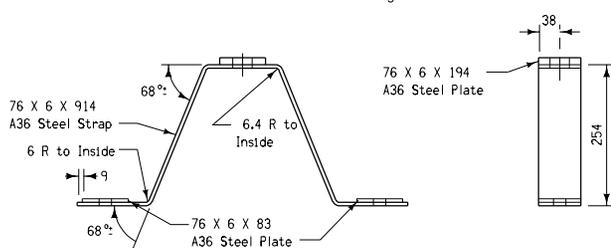
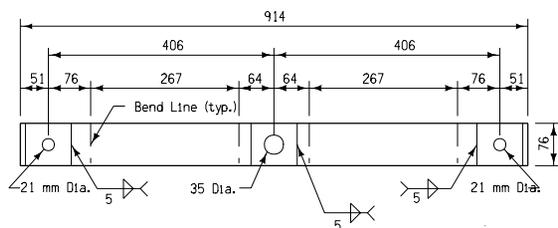
REINFORCING A615M Gr. 420

| Bar | Bar Size | Shape | No. of Bars | Length mm | Weight kg |
|-----|----------|-------|-------------|-----------|-----------|
| 4A1 | 13 | ∧ | 12 | 1834 | 21.9 |
| 6A2 | 19 | ⌒ | 6 | 898 | 12.0 |
| 5B1 | 16 | — | 3 | 3708 | 17.3 |
| 4C1 | 13 | — | 2 | 3708 | 7.4 |

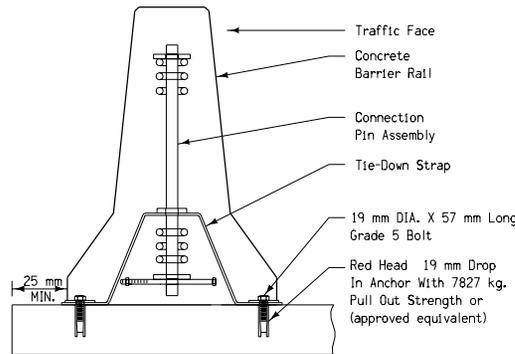
LOOP ASSEMBLY

| 6D1 | 19 | □ | 2 | 2565 | 25.3 |
|-----|----|---|---|------|------|
| 6D2 | 19 | □ | 2 | 2311 | 22.8 |
| 6D3 | 19 | □ | 2 | 2591 | 11.6 |

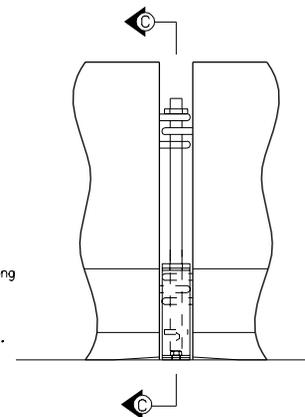
- ① Color same as adjacent edgeline.
- ② 25 mm radius allowed.
- ③ Retainer bolt & nut are not required with 3-loop barrier. Bolt & nut are required with 2-loop barriers (previous design), and with the strap tie down.



TYPE B TIE-DOWN STRAP DETAILS



SECTION C-C



| | | |
|--|---|---------------------------|
| METRIC VERSION | Iowa Department of Transportation Highway Division | |
| | STANDARD ROAD PLAN RE-71(2) | |
| | REVISION: Changed number of loop bars and added Strap Tie Down Details. | REVISION NO. 4 |
| | APPROVED BY: <i>William J. Sten</i> DESIGN METHODS ENGINEER | REVISION DATE 04-15-03 |
| F-SHAPE (PRECAST) TEMPORARY CONCRETE BARRIER RAIL (PAGE 1 OF 2) | | |