

## **INTENDED USE**

This system was specifically designed for applications in aesthetically sensitive areas with conditions suitable for an AASHTO Performance Level 1 bridge railing. This system is based on the T411 bridge railing used in Texas. Crash tests to demonstrate full AASHTO Performance Level one have not been performed.

This drawing and specification address only the bridge railing and not the design or detailing of the bridge deck. Only reinforcement directly related to the bridge rail is shown. Bridge decks should be designed to develop the full strength of the bridge railing.

## **COMPONENTS**

Concrete shall develop a minimum 28-day strength of not less than 28 MPa. The concrete shall use a cement conforming to AASHTO M85 (ASTM C150) Type I or II. Reinforcing steel shall be Grade 400 MPa and shall conform to either of the following:

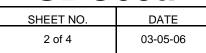
- (a) Epoxy-coated deformed bars as specified in AASHTO M284M (ASTM D3963M).
- (b) AASHTO M31M (ASTM A615M) deformed and plain billet steel reinforcing bars for use with calcium nitrite corrosion inhibitor (30% calcium nitrite solution).

## **REFERENCES**

- T.O. Willett, *Crash Tested Bridge Rails*, Memorandum to Regional FHWA Administrators, Federal Highway Administration, Washington, D.C., August 13, 1990.
- T. J. Hirsch, C. E. Buth and D. Kaderka, "Aesthetically Pleasing Concrete Beam-and-Post Bridge Railing," in *Roadside Safety*, Transportation Research Record 1258, National Research Council, Washington, D.C., 1990.

## **AESTHETIC BALUSTRADE BRIDGE RAILING**

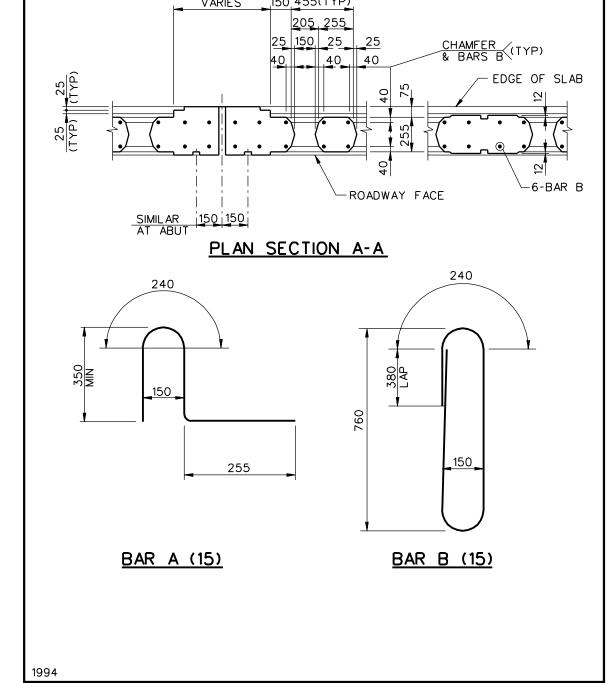
SBC03a











| AESTHETIC | BALUSTRADE | BRIDG | E RAIL    | ING      |
|-----------|------------|-------|-----------|----------|
|           |            |       | SBC       | 03a      |
|           |            |       | SHEET NO. | REF. NO. |
|           |            |       | 3 of 4    |          |

