

---

## FORMED STEEL BEAM RAILING (4155.02)

### **GENERAL**

Rail elements, fasteners and terminal sections shall meet the requirements of AASHTO M 180. Rail elements and terminal sections shall be Class A, Type I unless a greater thickness is required by the plans. Acceptance will be based on an approved Brand Registration and Guarantee and compliance of test results on any random samples secured.

### **BRAND REGISTRATION AND GUARANTEE**

Prior to furnishing materials for a project the fabricator shall furnish a Brand Registration and Guarantee in accordance with all the requirements of AASHTO M 180 for approval of the engineer. Detailed drawings and samples of each rail component shall also be submitted with each request. The above requirements apply to each fabricating plant even though the Brand Registration may be the same. A Brand Registration and Guarantee shall be submitted annually for approval.

Approved Fabricator Brand Registrations and Guarantees are listed in [Appendix A](#).

### **ACCEPTANCE**

Material from a fabricator with an approved Brand Registration and Guarantee may be accepted for incorporation into a project without further certification. If there is evidence of misbranding as determined by random sampling and detection of inadequate tensile strength, yield strength, elongation, improper chemical composition, inadequate or improper coating, deficient thickness or improper fabrication, the material will be rejected and approval for further use withdrawn until subsequently re-approved. Samples for test of any material offered for use may be taken at any time deemed desirable by the engineer.

Prior to incorporation into a project, the markings on the beam element end sections and backup plates shall be in accordance with AASHTO M 180 requirements and shall be checked for name or brand of manufacturer and shall be documented in the field book. Markings for end sections and back-up plates may be on durable tags securely attached to each section or bundle in lieu of the above on the individual pieces.

The beam elements shall be identified as follows:

1. Name and brand of manufacturer
2. Identification symbols or code for heat number and coating lot
3. AASHTO Specification Number

4. Class and type

**CABLE RAIL AND ANCHOR CABLE**

Cable rail shall meet the requirements of AASHTO M30, Type I, Class A.

Anchor cable shall meet the requirements of AASHTO M30, Type II, class A.

**MONITORING SAMPLING AND TESTING**

For direct shipments only, monitor samples shall be secured periodically by the Transportation Center Materials Office. The frequency may be based on the quantity of material furnished for use in each Transportation Center. A minimum of one sample should be secured annually for each fabricator with an approved Brand Registration and Guarantee. The sample size shall be a piece one 25.4 mm (1 in.) by 304.8 mm (12 in.) secured from the edge of beam railing. One set per size of nuts, bolts, and washers shall be secured at random for testing.

**SAMPLING AND REPORTING AT THE SUPPLIER WAREHOUSE**

Sampling and inspecting shall be done at the supplier warehouse on each shipment of guardrail material. Once the shipment is approved, the Transportation Center Materials Engineer will report the material on a project-by-project basis.