

**SECTION 32 17 31  
STEEL GUARD RAIL**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Perform work of this section in accordance with the General Conditions, Special Conditions, and all other requirements of the Contract Documents

**1.02 SUBMITTALS**

- A. See Section 01 33 00 – Submittal Procedures, for submittal procedures.
- B. Product Data: Provide manufacturer's specifications and descriptive literature, installation instructions, and maintenance information.
- C. Shop Drawings: Indicate plans for each unit or groups of units, elevations with model number, overall dimensions; construction, and anchorage details.
- D. Samples: Submit two sets of manufacturer's available colors for metal furnishings.

**PART 2 - PRODUCTS (MATERIALS)**

**2.01 MATERIALS**

- A. Guardrail shall be as supplied by Boundary Fence and Railing, 131-02 Jamaica Ave., Richmond Hill, NY 11418, Telephone (718) 847-3400, or approved equal. Posts shall be wide flanges steel members, in accordance to ASTM A992, size per contract drawings. Rails and posts shall be galvanized to meet Specifications of ASTM A-525 Class 2.5 coating.
- B. Rails shall be w-beam shape per AASHTO Specifications in M-180, Class A.
- C. End terminals shall be either a standard end flare or single buffer.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Steel guardrails shall be installed at location(s) as shown on the Contract Drawings in concrete footings of the dimensions shown. Concrete shall conform to the Concrete Section of these Specifications. Top of footings shall be flush with adjoining pavement and given a 1/2" wash. Top of post shall be 2'-8" above pavement. Posts shall be spaced 6'-3" on center maximum. Rails shall be fastened to posts with 5/8" diameter bolts. Bolts shall not protrude more than 1/8" beyond fully tightened nuts and shall be peened. Rails shall be spliced and fastened to posts in accordance with manufacturer's directions. Posts shall be placed vertical to line and grade and held securely in place during the pouring of the concrete footings until the concrete has thoroughly hardened. Any guard rail that is not set plumb and true to line and grade shall be removed and replaced at the Contractor's expense.
- B. Guardrail shall be equipped with a terminal section at each end of the run as well as at both sides of pedestrian or vehicular openings. Type of end terminals shall be determined during construction per site conditions.
- C. Guardrail shall be bent to conform to radii of curving sections as shown on the Drawings.

**END OF SECTION 32 17 31**