

**Part 1 General**

**1.1 SUMMARY**

- .1 Polyethylene plastic pipe sleeves for steel pipe bollards.

**1.2 RELATED REQUIREMENTS**

- .1 Ram Resistance: ASTM F2656 or DS SD-STD02.01 rated to stop 1,800 kg (4,000 lb.) vehicle traveling 48 km/hr. (30 mph) on impact.

**1.3 ACTION SUBMITTALS**

- .1 Shop Drawings:
  - .1 Submit shop drawings, catalogue sheets.
  - .2 Indicate materials, thicknesses, sizes, finishes, colours, construction details.

**1.4 INFORMATIONAL SUBMITTALS**

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature panel signage or components, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.

**1.5 WARRANTY**

- .1 Bollard covers will resist fading and cracking for 6 years.

**Part 2 Products**

**2.1 SYSTEM DESCRIPTION**

- .1 Bollards: Steel pipe, concrete filled.
- .2 Foundations: Concrete as indicated on drawings.
- .3 Performance Requirements
  - .1 High molecular weight material. Designed for optimum balance of density, molecular weight and molecular weight distribution demonstrating maximum property advantages for large products that require high impact resistance.
  - .2 Ultraviolet Protection Additive. Six (6) Year UV stabilizer package.
  - .3 Thickness Nominal wall thickness will be 32mm (0.125 inch).
  - .4 Abrasion Resistant.
  - .5 Environmental Stress Cracks Resistant.
- .4 Ram Resistance: ASTM F2656 or DS SD-STD02.01 rated to stop 1,800 kg (4,000 lb.) vehicle traveling 48 km/hr. (30 mph) on impact.

**Part 3          Execution**

**3.1              INSTALLATION**

- .1      Manufacturer's Instructions: compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheets.
- .2      Examine and verify foundation suitability for product installation.

**3.2              CLEANING**

- .1      On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.
- .2      Leave bollards clean.

**END OF SECTION**