Part 1 General

01. Summary
   A. Section Includes:
      1. Compact fluorescent bollard.
      2. High intensity discharge bollard.

02. Submittals
   A. Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.
   B. Product data:
      1. Manufacturer’s standard product literature.
      2. Shop drawings.
      3. Installation instructions.
   C. Submit powdercoat finish samples for approval.

03. Quality Assurance
   A. Manufacturer Qualifications:
      1. Minimum 15 years experience in the manufacture of outdoor lighting.
      2. Provide reference list of at least ten major transportation authorities, municipalities, universities, or other high-use public environments currently using outdoor lighting fabricated by the manufacturer.

04. Delivery, Storage and Handling
   A. Handle products in accordance with manufacturer’s instructions.
   B. Store products in manufacturer’s original packaging until ready for installation.
   C. Protect products from impacts and abrasion during storage.

05. Warranty
   A. Provide manufacturer’s standard warranty.
      1. Warranty terms: one year from date of invoice against defects in materials and workmanship.

Part 2 Products

01. Manufacturer
   A. Basis-of-design product: provide bollards based on the product named:
      1. Lighthouse Bollard by Forms+Surfaces
      2. Manufacturer Contact:
         Forms+Surfaces
         30 Pine Street
         Pittsburgh, PA 15223
         phone: 800-451-0410
B. Bollards

1. Materials
   a. Column: tapered one-piece cast aluminum with horizontal score lines.
   b. Head: three-part cast aluminum with frosted borosilicate glass cylinder, gasketed top and bottom.
   c. Ballast (Select one below depending on model):
      1) High intensity discharge bollard.
         1. F-can ballast, thermally protected, 120/277V, -27°F starting temperature, class B sound rating.
      2) Compact fluorescent bollard.
         1. Electronic, thermally protected, 120/277V combination for 26W, 32W or 42W compact fluorescent lamp, less than 10% THD, 0°F starting temperature.
   d. Lamp (Select one lamp below):
      1) Compact fluorescent bollard.
         1. CFM26:
            a. 26W triple tube 4-pin.
            c. Luminaire lumens: 424.
            d. Color temperature: 4,100K.
         2. CFM42:
            a. 42W triple tube 4-pin.
            c. Luminaire lumens: 779.
            d. Color temperature: 4,000K.
      2) High intensity discharge bollard.
         1. M70:
            a. 70W metal halide.
            b. Base: medium.
            c. Luminaire lumens: 1,364.
            d. Color temperature: 4,000K.
   2. Finishes: polyester powdercoat (Select one option below):
      b. Premium Texture from Forms+Surfaces Powdercoat Chart.
      c. Custom RAL powdercoat color.

3. Dimensions
   a. Overall: 10.6" diameter x 41.9" high.

4. Mounting: Surface Mount with J-bolts: 0.25" thick stainless steel base plate. Necessary hardware is included. Template available upon request.
Part 3  Execution

01. Examination
   A. Verify that substrates are stable and capable of supporting the weight of items covered under this section.
   B. Verify that substrates have been adequately prepared to securely anchor those items that will be surface mounted.

02. Installation
   A. Install according to the manufacturer’s installation instructions.
   B. Install in conformance to applicable ADA guidelines and End User’s established Accessibility policies.

END OF SECTION