

TECHNICAL SPECIFICATIONS for Model: HB-3411
SECTION 34 71 13
ACTIVE VEHICLE BARRIERS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Automated hydraulic retractable bollard (non-crash rated)
 - 2. [_____]

1.2 RELATED SECTIONS

- A. Section 03 30 00 – Cast-in-Place Concrete
- B. Section 09 90 00 – Painting & Coatings
- C. Section 28 13 00 – Security Systems
- D. [_____]

1.3 REFERENCES

- A. American Iron and Steel Institute (AISI)
- B. EN124 (40T)

1.4 SUBMITTALS

- A. Product Data:
 - 1. Comply with Section [01 33 00 – Submittal Procedures.] [_____].
 - 2. Product Data: Provide for each type of barrier, component, finish, and accessory specified.
 - 3. Maintenance Data: Submit manufacturer's field touch-up, cleaning, and maintenance instructions.
 - 4. Warranty Documentation: Submit sample of manufacturer's warranty.

1.5 QUALITY ASSURANCE

- A. COMPLY WITH SECTION [01 43 00 – QUALITY ASSURANCE.] [_____].
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
- C. Installer Qualifications:
 - 1. Engage an experienced installer who has minimum five years documented experience with projects of similar scope and complexity.
 - 2. Installer is an authorized representative of the vehicle barrier manufacturer for both installation and maintenance of the type of units required for this Project.

- D. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- E. Each Sloan Hydraulic Retractable Bollard (non-crash rated) is cycled in-house prior to shipment to ensure proper working order and calibration of limit switches.
- F. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Comply with Section [01 66 00 – Product Storage and Handling Requirements.] [_____].
- B. The Sloan Hydraulic Retractable Bollards (non-crash rated) shall be packaged to protect the materials from damage during shipment.
- C. While Sloan Security Group does not assume responsibility for injury to persons or property during loading, unloading, transporting or installation, verbal guidance and additional written instructions are available upon request.
- D. Sloan Security Group does not assume responsibility for ensuring that the rigging and lifting gear is properly sized and attached when lifting heavy components. Equipment used shall be capable of handling product in an overhang position.
- E. Sloan Hydraulic Retractable Bollard (non-crash rated) is coated to protect materials from the effects of exposure to all outdoor elements; however, when site storage is required Sloan Security Group recommends the following guidelines:
 - 1. Short term storage (0-12 months): Store in such a manner to ensure proper ventilation and drainage. The storage location shall protect against damage, vandalism, and theft.
 - 2. Long term storage (more than 12 months): In addition to the recommendations for short term storage, the Sloan Hydraulic Retractable Bollard (non-crash rated) shall also be covered to prevent exposure to the elements prior to installation. The purpose of this recommendation is to preserve the aesthetic appearance of the coating finish. Long term exposure to the elements naturally degrades coating appearances; therefore, proper storage is essential for ensuring preservation of the material.
- F. Upon delivery of Sloan Hydraulic Retractable Bollard (non-crash rated) control systems, the crate or pallets containing any electrical components shall be marked as such and stored in a covered location that ensures proper ventilation and drainage. The storage location shall protect against damage, vandalism and theft. Control cabinets may not be rated for outdoor exposure; therefore, higher storage measures should be taken.
- G. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, and theft.

1.7 WARRANTY

- A. Sloan's active vehicle barrier products carry a standard warranty against defects in material and workmanship on fabricated components for one year when installed by a Sloan authorized installer. Warranty begins at the ship date of product.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Sloan Security Group, Phone: (888) 382-8370, Website: www.sloansg.com, Email: info@sloansg.com
- B. Substitutions: Not Permitted.

2.2 VEHICLE BARRIERS

- A. Basis of Design: Sloan Hydraulic Retractable Bollard (non-crash rated), Model: HB-3411 as manufactured by Sloan Security Group
 - 1. Hydraulic retractable bollard 230 vac, 23.6" (600mm) or 31.5" (800mm) in height, with cylinder thickness 0.23" (6mm) or 0.4" (10mm)
 - 2. Cathodolysis treatment and "Graphite Black" painting or cover in brushed AISI316 stainless steel
 - 3. The hydraulic retractable bollard system shall include an operable bollard with controls, cabling and obstruction detection devices. The barrier shall comply with Sloan's System Drawings.
 - 4. Raising time shall be 3 seconds and lowering time shall be 4 seconds
 - 5. Cylinder with built-in LED lights, the control unit can manage 2 bollards at the same time
 - 6. Foundation box complying with the EN124 (40T) regulation and independent hydraulic pump for each bollard, laterally positioned to avoid any damage in the event of an impact and facilitate the maintenance
 - 7. Heating for the foundation box, buzzer, and pressure switch for obstacle detection are available as accessories
 - 8. Control panel for 1 or 2 hydraulic bollards:
 - a. 230 Vac 50/60 Hz power supply
 - b. Integrated 433.92 MHz 64-code receiver with 3 encoding systems (Advanced Rolling Code, Rolling Code, Fixed Code)
 - c. Removable terminal boards
 - d. Parameter and operation logic regulations through integrated LCD display
 - e. Automatic, semi-automatic, and deadman's logic
 - f. Programming access password
 - g. Equipped with step-by-step command inputs separate for each bollard and centralized command inputs ALL UP and ALL DOWN for the raising and the lowering of both bollards
 - h. Version with built-in board to manage buzzer/LED lights available
 - i. Separate limit switch inputs for each motor
 - j. Control inputs for loop detectors and protection devices
 - k. 2 outputs configurable as bollard status indicator or command of the optional board
 - l. Designed for the connection of the optional board to manage signal lights and the warning buzzer
 - m. Protection level IP54
 - 9. Traffic light-type indicators/lighting can be provided per the customer's requirements
 - 10. Operating temperature -40°C to +60°C [Heater available as an option for temperatures lower than -10°C]
 - 11. In the event of a power failure, the bollard will remain in the raised position (manual release)
 - 12. Control panels are provided per customer specification. Basic Open/Close controls are provided as a standard, unless specified otherwise. All control cables to be used between control panels shall not be provided by Sloan, unless specified.
 - 13. Control Panels are customizable per customer specification

14. Site work materials to include concrete footings, drains, or conduit not provided by Sloan.

2.3 MATERIAL

- A. The foundation box shall conform to the EN124 (40T) regulation
- B. Stainless steel finish AISI 316
- C. Sloan will provide material certifications with each order upon request.

2.4 FABRICATION

- A. Fabrication of the members shall be in accordance with the manufacturer's instructions, the plan details, and this specification.
- B. Shop drawings can be provided for site specific locations of each barrier upon request.
- C. All Sloan products are coated to the customer's specification.

PART 3 – EXECUTION

3.1 SITE EXAMINATION

- A. The purchaser shall indicate the location of all products with suitable means.
- B. The purchaser shall indicate all underground utility locations, USC&G benchmarks, property monuments, and other underground structures that interfere with installation.
- C. Before installing the Sloan Hydraulic Retractable Bollard (non-crash rated), all necessary site clearing and grading shall be performed by the purchaser. An adequate clearance on both sides of the bollard is required.

3.2 PREPARATION

- A. Examine and verify foundation suitability for product installation.
- B. Clean surfaces thoroughly prior to installation
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best results for substrate under the project conditions.

3.3 INSTALLATION

- A. The Sloan Hydraulic Retractable Bollard (non-crash rated) shall be installed per Sloan's System Drawing. Construct concrete foundations to the dimensions specified by the plans. Excavate a properly sized area for bollard foundations and in accordance with the plans. Place the concrete, install the barrier, and plumb. Use a 90mm diameter PVC tube to connect to a water drainage system for sufficient water drainage. Refer to contract or submittal plans for more installation details.
- B. Sloan's hydraulic retractable bollards are warranted against defects in material and workmanship on structural components for one year from ship date, when installed by a Sloan authorized installer.
- C. Engage an experienced installer who has minimum five years documented experience with projects of similar scope and complexity.

- D. Suggested Installer: Sloan Security Group Phone: (888) 382-8370, Website: www.sloangsg.com, Email: info@sloangsg.com

3.4 CLEANING

- A. Clean hydraulic retractable bollards in accordance with the manufacture's recommendations to remove dust, dirt, adhesives, and other foreign materials.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. The contractor shall clean the jobsite thoroughly to ensure it is left neat and free of any debris caused by the installation of the active vehicle barrier system.

3.5 CONTINUED SERVICE AND DOCUMENTATION

- A. General maintenance of the Sloan Hydraulic Retractable Bollard System shall consist of removing foreign materials from frame or sub-grade frame as debris may cause damage to the barrier and may cause safety concerns. Refer to the owner's manual for more details on the system maintenance.
- B. Sloan will supply an operator manual that contains recommended maintenance intervals, procedures, and replacement parts lists.
- C. Maintenance instructions shall include routine maintenance procedures, possible breakdowns, and repairs, and troubleshooting guide. The instructions shall include piping layout, equipment layout and simplified wiring, and control diagrams of the systems as installed.
- D. Suggested Maintenance Contractor: Sloan Security Group, Phone: (888) 382-8370, Website: www.sloangsg.com, email: info@sloangsg.com

NOTE: Sloan Security Group reserves the right to change these specifications at any time. Call (888) 382-8370 to ensure that you have the latest edition.

CAUTION: Barriers manufactured by Sloan Security Group are intended for use in controlling vehicular traffic and are not intended to be used by pedestrians or to control pedestrian traffic. **Always install a separate pedestrian entry.**