

Scope of Services

District 4

Purchase and Delivery of Four (4) Precast Concrete Hazardous Materials Storage Buildings

1.0 PURPOSE

The Department of Transportation requests the Purchase and Delivery of Four (4) Hazardous Materials Storage Building as per Specifications.

2.0 DEFINITIONS

- 2.1 Owner: The Florida Department of Transportation, District Four.
- 2.2 Vendor: Will purchase and deliver the Hazardous Materials Storage Buildings.
- 2.3 Project Manager: The Department's representative responsible for enforcing that the Vendor performs in accordance with the specifications, scope and serving as the liaison between the Department and the Vendor.

3.0 DELIVERY LOCATIONS

Broward Operations Center

5548 N W 9th Ave.

Ft. Lauderdale Fl. 33309

2 units

Treasure Coast Operations

3601 Oleander Ave.

Ft. Pierce Fl. 34982

1 unit

Stuart Sub yard

3590 S W Martin Highway

Palm City Fl. 33497

1 unit

4.0 DESIGN REQUIREMENTS

A. Dimensions:

Exterior: 12'x 20'x 8'-8';

Interior: 11'-6"x 19'-6"x 8'-0"

With one dividing wall, to create 2 individual cells, entrance doors to accommodate each section.

B. DESIGN LOADS

Seismic load performance category E: Exposure Group III
Standard Live Roof Load -60 PSF
Standard Floor Load 250 PSF
Standard Wind Loading -190 MPH

5.0 MATERIALS

A. Concrete: Steel-reinforced, 5000 PSI minimum 28-day compressive strength, air-entrained (ASTM (60).

B. Reinforcing Steel: ASTM A61 5, grade 60.

C. Vents: Two screened aluminum vents to be cast in rear wall. Vents shall be SUNVENT#I64FL or equal.

D. Panel Connections: All panels shall be securely fastened together with 3/8" thick steel brackets. Steel is to be of structural quality, hot-rolled carbon complying with ASTM A283, Grade C and hot dipped galvanized after fabrication. All fasteners to be 1/2" diameter bolts complying with ASTM A307 for low-carbon steel bolts. Cast-in anchors used for panel connections to be Dayton-Superior #F-63, or equal. All inserts for corner connections must be secured directly to form before casting panels. No floating-in of connection inserts shall be allowed.

E. Containment: The curb is to be 4" wide and 6" high, steel reinforced, monolithically poured and bonded to the floor slab using E-Bond 580 epoxy to monolithically bond the curbing to the floor slab. Curbing to be in a pattern that will create individual cells with interconnecting, cast in place, spillways between cells.

Capacity:

Model 12 x 20-HM (45) 55 Gallon Drums

F. Grating System: One inch thick floor grating to be furnished to cover entire containment floor system, providing 250 PSI loading on grating. Grating is in sections to facilitate removal for cleanup. Customer may select between fiberglass and steel grating.

a. Chemical Resistant Grating: Shall be fiberglass roving reinforced thermoset plastic, single piece molded construction. Angular silica particles shall be integrally embedded in the top surface of the grating as an anti-slip surface. Non-conductive, and non-magnetic.

- b. Steel Grating: Shall be welded 1/8" bar grating with 1/8" banding of each panel with prime coat finish.

G. Containment Coatings: CI BA-GEIGY GY9513 or Equal. Chemical, abrasion resistant, solvent free epoxy lining shall be applied to all exposed surfaces of containment area.

6.0 FINISHES

A. Interior of Building: Smooth steel form finish on all interior panel surfaces.

B. Exterior of Building: Skip trowel or rough brush finish painted white.

7.0 ADDITIONAL SPECIFICATIONS

A. Explosion Relief Panels: Airo-lite # 633A-P with Kynar 500 standard color finish, 16 gao galvanized steel, or equal. One panel to be added to each fusible link vent.

B. Explosion Proof Electrical System: Electrical panel, 60 AMP, Single Phase, 220 Volt. Two (2) circuit weatherproof with two (2) 20A, 110 volt breakers. One (1) used for 110 volt, 300 watt incandescent light and one (1) used for 110 volt alarm system power. Explosion proof conduit system. Explosion proof incandescent 300 watt ceiling mounted light fixture switching with above mentioned breaker.

C. Static Grounding System: Grounding lead to exterior driven ground rod, rod furnished with system, to be installed by owner or contractor. The Halo grounding system will consist of a continuous loop of #2 AWG bare stranded or solid wire secured to the perimeter of the interior of the building at a level approximately midway up the wall. Exterior ground drops shall consist of #2 AWG bare ground wires penetrating the building walls. Interior ground drops shall consist of 6'0" pieces of 1/8" (#2 AWG) stranded or solid wire permanently attached to the Halo ring with S.R. Browne RBE-960 heavy duty plier-type hand clamps or equal at the free ends. (36) tabs at the 18" on center will be provided on the ground cable for customer relocation of the pigtailed if needed.

D. Basic Alarm System with Smoke Detector: Simplex 4001 series with water proof cabinet mounted adjacent to power panel. Audible alarm Simplex 2901-9838 with weather proof surface. Visual alarm Simplex weatherproof beacon. Smoke detector Model 30-3003 explosion proof or equal.

Flame detector addition to above alarm system, Pyrotector explosion proof detector #302021 E, or equal.

Heat detector addition to above alarm system, Simplex explosion proof detector # 20989430, or equal.

Spill detector addition to above alarm system, Flotect or equal. One (1) spill detector required per containment cell.

E. Dry Chemical Fire Suppression System: Ansul SPA-50 pre-engineered system or equal. Three (3) component systems consisting of electronic detection and control, agent storage tank and actuator, agent distribution network. Methods of actuation available including manual / electric and pull stations with pneumatic cartridge.

F. An access ramp must be provided for each door/s, equal to the width of the door frame.

G. IMPORTANT NOTE:

BIDDER MUST SUBMIT PRE-CAST HAZARDOUS MATERIALS BUILDING SPECIFICATIONS ALONG WITH BID SHEET