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SECTION 08 33 36

OVERHEAD COILING DOORS
RAPIDSLAT® MODEL 621 ADVANCED PERFORMANCE ROLLING SERVICE DOORS

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**** NOTE TO SPECIFIER ** Overhead Door Corp.; overhead coiling door products.**

**This section is based on the products of Overhead Door Corp., which is located at:
2501 S. State Hwy. 121
Suite 200
Lewisville, TX 75067
Toll Free: (800) 275-3290
Phone: (469) 549-7100
Fax: (972) -906-1499
Web Site: www.overheaddoor.com
E-mail: info@overheaddoor.com**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Advanced performance rolling service doors.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.**

- A. Section 05500 - Metal Fabrications: Support framing and framed opening.
- B. Section 06200 - Finish Carpentry: Wood jamb and head trim.
- C. Section 08333 - Security Grilles.
- D. Section 08710 - Door Hardware: Product Requirements for cylinder core and keys.
- E. Section 09900 - Painting: Field applied finish.
- F. Section 16130 - Raceway and Boxes: Conduit from electric circuit to door operator and from door operator to control station.
- G. Section 16150 - Wiring Connections: Power to disconnect.

1.3 REFERENCES

**** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. ANSI/DASMA 108 - American National Standards Institute Standard Method For Testing Sectional Garage Doors And Rolling Doors: Determination Of Structural Performance Under Uniform Static Air Pressure Difference.
- B. NFRC 102 - Test Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
- C. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Element.
- D. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- E. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- F. ASTM A 666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- G. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- H. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- I. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- J. NEMA MG 1 - Motors and Generators.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

**** NOTE TO SPECIFIER ** Pressures specified are standard. Designs are available for pressures to 65 psf and for operation up to 1,000,000 cycles. Contact the manufacturer for additional information.**

- A. Advanced Performance Rolling Service doors:
**** NOTE TO SPECIFIER ** Miami Dade FBC available on all sizes. Contact manufacturer for additional information.**
 - 1. Windload: Design door assembly to withstand wind/suction load of 20 psf (958 Pa) in conformance with DASMA 108-2012 and as required by local codes without damage to door or assembly components. Does not apply to doors with optional wearstrip guides.
- B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.
- C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Details of construction and fabrication.
 - 4. Installation instructions.
- C. Shop Drawings: Include detailed plans, elevations, details of framing members, anchoring methods, required clearances, hardware, and accessories. Include relationship with adjacent construction.

**** NOTE TO SPECIFIER ** Delete selection samples if colors have already been selected.**

- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- G. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.

**** NOTE TO SPECIFIER ** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent materials to avoid damage to installed materials.

1.10 WARRANTY

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for RapidSlat Model 621 overhead coiling doors not provided as a system with operators. Delete if not applicable.**

- A. Warranty: Manufacturer's limited door warranty for 5 years on door system materials and workmanship.

**** NOTE TO SPECIFIER ** Include the following Optional PowderGuard Finish warranty paragraph if included for the Door(s) specified. Delete if not applicable.**

- B. PowderGuard Finish

**** NOTE TO SPECIFIER ** Include the one of the following PowderGuard Finish warranty paragraphs for the finish specified. Delete if not applicable.**

1. PowderGuard Premium Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Premium Finish warranty for 2 years.
2. PowderGuard Zinc Base Coat applied to guides, bottom bar, headplates plus PowderGuard Premium applied to curtain and top coat for guides, bottom bar, headplates: Manufacturer's limited Zinc Finish warranty for 4 years.
3. PowderGuard Textured: Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Textured Finish warranty for 3 years.
4. PowderGuard Zinc Base Coat applied to guides, bottom bar, headplates plus PowderGuard Textured applied to curtain and top coat for guides, bottom bar, headplates: Manufacturer's limited Zinc Finish warranty for 4 years.
5. PowderGuard Max: Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Max Finish warranty for 5 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: info@overheaddoor.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.

- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ADVANCED PERFORMANCE ROLLING SERVICE DOORS

**** NOTE TO SPECIFIER ** RapidSlat Model 621 Stormtite Doors are designed for exterior and interior openings that require a high-speed, high-cycle door. Available in a maximum height of 20 feet and a maximum width of 20 feet. Standard windload design 20 PSF. Note that windload design does not apply when optional high usage guide wear strips are selected. Windload ratings up to and including Miami-Dade County and/or FBC are available. Contact the manufacturer for additional information.**

A. RapidSlat Model 621 Stormtite Doors by Overhead Door Corporation.

1. Curtain: Interlocking roll-formed metal slats as specified with endlocks attached to each end of alternate slats to prevent lateral movement.
 - a. Flat Profile type F-265 for doors up to 20 feet wide fabricated of:
 - 1) 22 gauge powder coated steel.
 - 2) 20 gauge powder coated steel.
 - 3) 18 gauge powder coated steel.
 - 4) 22 gauge stainless steel.
 - 5) 20 gauge stainless steel.
 - 6) .050 inch (1.29 mm) aluminum.
 - b. Curtain Finish:
 - 1) PowderGuard Max powder coat.

**** NOTE TO SPECIFIER ** Select one of the following four paragraphs for PowderGuard Max powder coat finish and delete those not required. Gray, Tan and White are standard color offering on RapidSlat. Finish is also available in 197 color options. See PowderGuard Finish brochure for color selections. PowderGuard Max is four times harder than regular powder coat providing enhanced strength and durability to the finish and performance in high cycle applications. This finish is required on the curtain to maintain finish warranty for RapidSlat product.**

- (a) Gray.
- (b) Tan.
- (c) White.
- (d) Color as selected by Architect.

2. Bottom Bar: Two metal angles, minimum thickness 3/16 inch, bolted back to back to reinforce curtain in the guides.
 - a. Material:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the ones not required.**

- 1) Steel.
- 2) Extruded aluminum.
- 3) Stainless steel with brushed finish.

3. Guides: Three Structural steel angles provided with high usage guide wear strip to minimize wear and reduce sound.
 - a. Material:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the ones not required. Note that high usage guide wear strips to minimize wear and reduce sound; not available on doors designed for over 20 psf wind load.**

- 1) Steel.
- 2) High usage guide wear strips.

4. Brackets:

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs and delete the one not required.**

- a. Hot rolled prime painted steel to support counterbalance, curtain and hood.
- b. Galvanized steel to support counterbalance, curtain and hood.
- 5. Finish; Bottom Bar, Guides, Headplate and Brackets:

**** NOTE TO SPECIFIER ** Select one of the following finish paragraphs and delete those not required. Black powder coat is standard. PowderGuard Premium and PowderGuard Max powder coat available in 197 colors; custom color match options available. PowderGuard Textured Finish available in 11 color options. See PowderGuard Finish brochure for color selections.**

- a. Finish: Black powdercoat finish.
- b. Finish: PowderGuard Premium powder coat color as selected by the Architect.
- c. Finish: PowderGuard Zinc base coat, gray with PowderGuard Premium powder coat color as selected by the Architect.
- d. Finish: PowderGuard Textured powder color as selected by the Architect.
- e. Finish: PowderGuard Zinc base coat, gray with PowderGuard Textured powder color as selected by the Architect.
- f. Finish: PowderGuard Max powder color as selected by the Architect.

**** NOTE TO SPECIFIER ** Note that motor HP is dependent on the door size(s) required. Contact manufacturer for HP requirements.**

- 6. Motor: Direct drive, integrated gear motor/brake assembly sized for openings. Provide with a manual hand chain for operation during power outages. Operator and drive assembly is factory pre-assembled and provided with all wiring harnesses needed direct from the factory.
 - a. Opening Speed: Up to 24 inches per second.
 - b. Closing Speed: 12 inches per second.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the one not required.**

- c. Electrical Characteristics: 220V AC, single phase per motor/drive.
- d. Electrical Characteristics: 208/230V AC, 3 phase per motor/drive.
- e. Electrical Characteristics: 460V AC, 3 phase per motor/drive.
- f. Electrical Characteristics: 575V AC, 3 phase per motor/drive.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the one not required.**

- g. Left hand mount.
- h. Right hand mount.
- 7. Control Panel: Provide electronic Variable Frequency drive controller with microprocessor self-diagnostics. LCD readout indicates door action, alarm conditions, and fault conditions. Timer to close programming options and non-resettable cycle counter are included. Enclosure is NEMA 4X rated. Control system is UL508A certified. Junction box is IP67 rated.
- 8. Door Roll: Directly driven, springless roll shall be steel tube with integral shafts, keyed on the Drive End and supported by self-aligning greaseable sealed bearings. Door shall not require any counterbalance device.
- 9. Hood: Protecting drive motor, barrel, chain, and sprocket from dirt and debris and extending between the support brackets. Fabricated of:
 - a. Material:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the ones not required. Standard hood assembly is 24 gauge black painted steel.**

- 1) Steel.
- 2) Aluminum.
- 3) Stainless steel with brushed finish.
- b. Steel/Aluminum Finish:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete those not required. Delete entirely if stainless steel is specified. Black is standard. Optional colors are available, contact manufacturer for PowderGuard powder coat color selections.**

- 1) Polyester paint in black color (steel only)
- 2) PowderGuard Premium powder coat, color as selected by Architect.
- 3) PowderGuard Textured powder coat, color as selected by Architect.
- 4) PowderGuard Max powder coat, color as selected by Architect.

**** NOTE TO SPECIFIER ** Select the following paragraph for exterior mounted doors; and delete if not required.**

- c. Provide with sloped top for exterior mounting.
10. Safety Devices: Provide door with following safety devices:
 - a. Photoelectric sensors that cast an invisible beam across the door opening and reverses the downward motion of the door when an object enters the path of the beam.
 - b. Wireless, monitored safety edge reverses downward motion upon impact.
 - c. Built-in (to motor assembly) brake mechanism eliminates uncontrolled curtain travel independent of other safeties.
11. Actuators:
 - a. One Open/Close/Stop push button station incorporated into Control Panel.

**** NOTE TO SPECIFIER ** Complete the following paragraph for optional equipment as required; and delete if not required. Specify optional push buttons, loop detectors, radio control, motion detectors, or any combination thereof as required. Considerable thought should be given to the choice of actuators based on the type of traffic and traffic flow through the opening. Contact the manufacturer for additional information.**

- b. Loop detectors.
- c. Radio control.
- d. Interior Push buttons.
- e. Exterior Push buttons.
- f. Interior Key switch.
- g. Exterior Key switch.
- h. Motion detectors.
- i. Warning light.
- j. Horns and/or strobes.
- k. Second set of photoelectric sensors.
12. Windload Design:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required. Standard windload is 20 PSF. Note that if optional high usage guide wear strips are used the windload warranty does not apply. Contact the manufacturer for current data on Miami-Dade County, FBC Certification or TDI approval.**

- a. Standard windload shall be 20 PSF.
- b. Miami-Dade County NOA ____.
- c. FBC certification FL# ____.
- d. TDI approval # ____.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify opening sizes, tolerances and conditions are acceptable.

- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

**** NOTE TO SPECIFIER ** Select the following paragraph for electric operation of coiling doors and delete if not required.**

- E. Coordinate installation of electrical service with Section 16150. Complete wiring from disconnect to unit components.
- F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.
- G. Install perimeter trim and closures.
- H. Instruct Owner's personnel in proper operating procedures and maintenance schedule.

3.4 ADJUSTING

- A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
- B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.5 CLEANING

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION