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# SECTION 08360 [08 36 00] SECTIONAL OVERHEAD DOORS MODEL 515 INSULATED SECTIONAL STEEL DOORS

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#### PART 1 GENERAL

# 1.1 SECTION INCLUDES

- A. Insulated Sectional Overhead Doors.
- B. Electric Operators and Controls.
- C. Operating Hardware, tracks, and support.

# 1.2 RELATED SECTIONS

- A. Section 03300 Cast-In-Place Concrete.
- B. Section 04810 Concrete Unit Masonry.
- C. Section 05500 Metal Fabrications.
- D. Section 06114 Wood Framing.
- E. Section 07900 Joint Sealants.
- F. Section 08710 Door Hardware.
- G. Section 09900 Paints and Coatings.
- H. Section 11150 Parking Control Equipment.
- I. Section 16130 Raceway and Boxes.
- J. Section 16150 Common Work Results for Electrical.

# 1.3 REFERENCES

A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.

# 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Wiring Connections: Requirements for electrical characteristics.
  - 1. 115 volts, single phase, 60 Hz.
  - 2. 230 volts, single phase, 60 Hz.
  - 3. 230 volts, three phase, 60 Hz.
  - 4. 460 volts, three phase, 60 Hz.
- 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.

# 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.
  - Installation methods.
- C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Operation and Maintenance Data.

# 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
- C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

# 1.7 DELIVERY, STORAGE, AND HANDLING

- Store products in manufacturer's unopened labeled packaging until ready for installation.
- B. Protect materials from exposure to moisture until ready for installation.
- C. Store materials in a dry, ventilated weathertight location.

#### 1.8 PROJECT CONDITIONS

A. Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

# 1.9 WARRANTY

A. Warranty: Manufacturer's limited door warranty for 10 year against delamination of polyurethane foam from steel face and all other components for 1 year.

#### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 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: <a href="www.overheaddoor.com">www.overheaddoor.com</a>. E-mail: info@overheaddoor.com.
- B. Substitutions: Not permitted.
- Requests for substitutions will be considered in accordance with provisions of Section 01600.

# 2.2 INSULATED SECTIONAL OVERHEAD DOORS

- A. Insulated Steel Sectional Overhead Doors: Model 515 Thermacore Wind Load Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
  - Door Assembly: Metal/foam/metal sandwich panel construction, with hot melt thermal break.
    - a. Panel Thickness: 1-3/8 inches (34.92 mm).
    - b. Exterior Surface:
      - 1) Microgroove, textured.
      - 2) Flush with non-repeating wood grain texture.
      - 3) Raised panel with non-repeating wood grain texture.
    - c. Exterior Steel: .015 inch (0.38 mm), hot-dipped galvanized.
    - d. Ends: Hot-dipped galvanized steel, full height with end caps.
      - 1) 18 gauge.
      - 2) 16 gauge.
    - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of die cast aluminum with high strength galvanized aircraft cable. Sized with a minimum 5 to 1 safety factor.
      - 1) High cycle spring: 25,000 cycles.
      - 2) High cycle spring: 50,000 cycles.
      - 3) High cycle spring: 100,000 cycles.
    - f. Thermal Values: Tested installed assembly U-factor of 0.15 Btu/hr/SF degrees F; calculated section R-value of 12.12.
    - g. Air Infiltration: 0.23 cfm at 15 mph.
    - h. Sound transmission class 20 when tested in accordance with ASTM E 413.
    - Outdoor-indoor transmission class 20 when tested in accordance with ASTM E 1332.
    - j. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
      - Insulated sections tested in accordance with ASTM E 84 and achieve a Flame spread Index of 10 or less, and a Smoke Developed Index of 210 or less.
      - 2) Insulation material tested in accordance with ASTM D 1929 and achieve a minimum Flash Ignition temperature of 734 degrees F, and a minimum Self Ignition temperature of 950 degrees F.

- 3) Insulated sections shall meet all requirements of the UBC 17-5 corner burn.
- k. Partial Glazing of Steel Panels:
  - Thermolite double insulated SSB set in 2-piece high-impact polymer frame.
  - 2) Tempered Thermolite.
  - 3) StyleLine Lite Colonial SSB.
- I. Single Panel Lite:
  - 1) 1/4 inch (6 mm) Tempered glass.
  - 2) 1/4 inch (6 mm) Acrylic (Plexiglass) glazing.
  - 3) 1/4 inch (6 mm) Polycarbonate (Lexan) glazing.
  - 4) 1/4 inch (6 mm) Polished wire glass.
- m. Colonial Style SSB with High Impact Polymer Frame:
- 2. Finish and Color:
  - a. Two coat baked-on polyester:
    - 1) Interior color, white.
    - 2) Exterior color, white.
    - 3) Exterior color, taupe.
    - 4) Exterior color, almond.
    - 5) Exterior color, brown.
    - 6) Exterior color, black.
  - b. Exterior Bi-Directional Woodgrain Pattern:
    - 1) Exterior color, Oak.
    - 2) Exterior color, Dark brown.
- Wind Load Design: Design as calculated in accordance with applicable code as follows:
  - Provide to meet Florida Building Code Product Approval #FL 16798 Large Missile-Impact.
  - Provide to meet Florida Building Code Product Approval #FL 16798
    Non-Impact.
  - c. Provide to meet Texas Department of Insurance Product Evaluation TDI GDR-98 Large Missile-Impact.
  - d. Provide to meet Texas Department of Insurance Product Evaluation TDI GDR-98 Non-Impact.
  - e. Provide to meet Miami-Dade NOA 14-0204.08 Large Missile-Impact.
  - f. Provide to meet Miami-Dade NOA 14-0204.07 Large Missile-Impact.
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:
  - a. Interior mounted slide lock.
  - b. Interior mounted slide lock with interlock switch for automatic operator.
  - c. Keyed lock.
  - d. Keyed lock with interlock switch for automatic operator.
  - e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:
  - a. Flexible bulb-type strip at bottom section.
  - b. Flexible Jamb seals.
  - c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
  - a. Size:
    - 1) 2 inch (51 mm).
    - 2) 3 inch (76 mm).
  - b. Type:
    - 1) Standard lift.

- 2) Vertical lift.
- 3) High lift.
- 4) Low headroom.
- 5) Follow roof slope.
- c. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.
- d. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for steel or wood jambs, and shall be fully adjustable to seal door at jambs.
- 8. Manual Operation: Push-up.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, equal to Genie Commercial Operators, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
  - a. Medium Duty
    - 1) Model MH hoist
    - 2) Model MT trolley
    - 3) Model MJ jackshaft
  - b. Standard Duty
    - 1) Model H hoist
    - 2) Model T trolley
    - 3) Model J jackshaft
  - c. Heavy Duty
    - 1) Model GH hoist
    - 2) Model GT trolley
  - d. Entrapment Protection: Required for momentary contact, includes radio control operation.
    - 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
    - 2) Electric sensing edge monitored to meet UL 325/2010 equal to Miller Edge.
    - 3) Photoelectric sensors monitored to meet UL 325/2010.
  - e. Operator Controls:
    - Push-button operated control stations with open, close, and stop buttons.
    - 2) Key operated control stations with open, close, and stop buttons.
    - 3) Push-button and key operated control stations with open, close, and stop buttons.
    - 4) Flush mounting.
    - 5) Surface mounting.
    - 6) Interior location.
    - 7) Exterior location.
    - 8) Both interior and exterior location.
  - f. Special Operation:
    - 1) Pull switch.
    - 2) Vehicle detector operation.
    - 3) Radio control operation.
    - 4) Card reader control.
    - 5) Photocell operation.
    - 6) Door timer operation.
    - 7) Commercial light package.
    - 8) Explosion and dust ignition proof control wiring.

# 3.1 EXAMINATION

- A. Do not begin installation until openings have been properly prepared.
- B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. Verify electric power is available and of correct characteristics.
- D. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### 3.2 PREPARATION

- A. Clean adjacent 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 overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.
- F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

#### 3.4 CLEANING AND ADJUSTING

- A. Adjust door assembly to smooth operation and in full contact with weatherstripping.
- B. Clean doors, frames, glass, and polycarbonate according to manufacturer's instructions.
- C. Remove temporary labels and visible markings. Do not remove polycarbonate care and maintenance label required to maintain warranty.

#### 3.5 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.

C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION