

Wayne
 **Dalton**[®]
GARAGE DOORS
SECTION 08 36 13
SECTIONAL OVERHEAD DOORS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Steel Sectional Overhead Doors.

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete. Execution requirements for placement of anchors in concrete wall construction.
- B. Section 04 22 00.16 - Surface-Bonded Concrete Unit Masonry. Execution requirements for placement of anchors in masonry wall construction.
- C. Section 05 50 00 - Metal Fabrications.
- D. Section 06 11 00 - Wood Framing.
- E. Section 07 90 00 - Joint Protection.
- F. Section 08 71 53 - Security Door Hardware.
- G. Section 09 90 00 - Painting and Coating.
- H. Section 11 12 26.13 - Parking Fee Coin Collection Equipment.
- I. Section 27 05 39 - Surface Raceways for Communications Systems.
- J. Section 26 05 00 - Common Work Results for Electrical.

1.3 REFERENCES

- A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.
- B. ASTM A 123 - Zinc hot-dipped galvanized coatings on iron and steel products.
- C. ASTM A 216 - Specifications for sectional overhead type doors.
- D. ASTM A 229 - Steel wire, oil-tempered for mechanical springs.
- E. ASTM A 653 - Steel sheet, zinc-coated galvanized by the hot-dipped process, commercial

quality.

- F. ASTM D 1929 - Ignition temperature test to determine flash and ignition temperature of foamed plastics.
- G. ASTM E 84 - Tunnel test for flame spread and smoke developed index.
- H. ASTM E 330 - Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.
- I. ASTM E 413 - Classification for Rating Sound Insulation
- J. ASTM E 1332 - Standard Classification for Rating Outdoor-Indoor Sound Attenuation.
- K. ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Wind Loads: Design and size components to withstand loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with applicable code.
 - 1. Design pressure of _____ lb/sq ft (_____ kPa).
- B. 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.
- C. 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 01 30 00 - Administrative Requirements.
- 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. 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

- A. 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

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Wayne Dalton; 2501 S. State Highway 121 Business, Suite 200, Lewisville, TX 75067. ASD. Phone: (800) 827-3667; Web Site:www.wayne-dalton.com Email:info@wayne-dalton.com.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 STEEL SECTIONAL OVERHEAD DOORS

- A. Sectional Overhead Steel Doors: Wayne Dalton CX-2400 Series Steel Doors. Units shall have the following characteristics:
 - 1. Door Assembly: Steel door assembly of roll formed steel type with tongue and groove meeting rails and C-Shaped stile construction.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: Nominal 24 gauge, galvanized steel.
 - d. Insulation: Insulation held in place with polymer clips. Provides an R-value up to 7.64.
 - 1) 1-5/8 inch expanded polystyrene.
 - 2) Insulation covered with vinyl backer.
 - 3) Insulation covered with 30-gauge pre-painted white steel.
 - e. Center and End Stiles: 20 gauge steel.
 - f. Springs:
 - 1) Standard cycle spring: 10,000 cycles.
 - 2) High cycle spring: 25,000 cycles.
 - 3) High cycle spring: 50,000 cycles.
 - 4) High cycle spring: 75,000 cycles.
 - 5) High cycle spring: 100,000 cycles.
 - g. Partial Glazing of Non-Insulated Steel Panels:
 - 1) 1/8 inch (3 mm) DSB glass.

- 2) 1/8 inch (3 mm) Acrylic (Plexiglass) glazing.
- 3) 1/8 inch (3 mm) Tempered glass.
- 4) 1/8 inch (3 mm) Polycarbonate (Lexan) glazing.
- 5) 1/4 inch (6 mm) Wire glass.
- 6) 1/4 inch (6 mm) Acrylic (Plexiglass) glazing.
- 7) 1/4 inch (6 mm) Polycarbonate (Lexan) glazing.
- h. Partial Glazing of Insulated Steel Panels:
 - 1) 1/2 inch (12.5 mm) Thermolite Insulated DSB Glass.
 - 2) 1/2 inch (12.5 mm) Thermolite Insulated Tempered Glass.
 - 3) 1/4 inch (6 mm) Wire glass.
 - 4) 1/4 inch (6 mm) Acrylic (Plexiglass) glazing.
 - 5) 1/4 inch (6 mm) Polycarbonate (Lexan) glazing.
- i. Full View Aluminum Glazing Section:
 - 1) 1/8 inch (3 mm) Double Strength glass.
 - 2) 1/8 inch (3 mm) Acrylic (Plexiglass) glazing.
 - 3) 1/8 inch (3 mm) Tempered glass.
 - 4) 1/8 inch (3 mm) Polycarbonate (Lexan) glazing.
 - 5) 1/4 inch (6 mm) Tempered glass.
 - 6) 1/4 inch (6 mm) Acrylic (Plexiglass) glazing.
 - 7) 1/4 inch (6 mm) Polycarbonate (Lexan) glazing.
 - 8) 1/2 inch (12.5 mm) Double Insulating glass.
 - 9) 1/2 inch (12.5 mm) Tempered Double Insulating glass.
 - 10) 1/4 inch (6 mm) Plate glass.
 - 11) 1/4 inch (6 mm) Polished wire glass.
2. Finish and Color: Two coat baked-on polyester:
 - a. White color.
 - b. Brown color.
3. Windload Design: Provide to meet the Design/Performance requirements specified.
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.
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: Pull rope.

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:
 - 1) 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.

PART 3 EXECUTION

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 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.
- C. 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.
- G. 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 doors, frames and glass 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. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.

END OF SECTION