

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-24 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 C-Shaped stile construction.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: 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.
 - 4) Insulation covered with 24-gauge pre-painted white steel.
 - e. Center and End Stiles:
 - 1) 16 gauge steel center stiles.
 - 2) 20 gauge steel center stiles.
 - 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