

SECTION 083610 - SECTIONAL OVERHEAD DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Electrically operated sectional doors, operators, controls and accessories.

B. Related Sections:

1. Division 8 Sections: Hardware.

1.2 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to the extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

B. American Society for Testing and Materials (ASTM):

1. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

1.3 PERFORMANCE REQUIREMENTS

A. Structural Performance:

1. Wind Loads: Uniform pressure of: 20 p.s.f.

B. Spring Cycle Requirements: 50,000 cycles.

1.4 SUBMITTALS

A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

B. Product Data: Submit manufacturer's product data and installation instructions.

C. Shop Drawings: Provide drawings indicating track details, head and jamb conditions, spring shafts, anchorage, accessories, finish colors, patterns and textures, operator mounts and other related information.

D. Samples: Submit selection and verification samples of metal finishes.

E. Quality Assurance Submittals: Submit the following:

1. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.
2. Certificates: Submit installer qualifications.

F. Closeout Submittals: Submit the following:

1. Warranty documents specified herein.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

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. Preinstallation Meetings: Verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.6 DELIVERY, STORAGE & HANDLING

A. General: Comply with Division 1 Product Requirements Section.

B. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.

C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

D. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1.7 WARRANTY

A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

1.8 MAINTENANCE

A. Extra Materials: Provide additional material for use by owner in building maintenance. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals (Maintenance Materials) Section. Service and repair should be performed by an authorized dealer.

B. Maintenance Service: Submit for Owner's consideration and acceptance maintenance service agreement for products installed.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Approved Manufacturers: Subject to compliance with requirements, provide products by the following available manufacturer or equivalent product which meets the specification of this section:

1. Steel Doors with Insulated Steel Panels:
 - a. Amarr Garage Doors.
 - b. Arm-R-Lite.
 - c. C.H.I. Overhead Doors.
 - d. Clopay Building Products Company; a Griffon Company.
 - e. Martin Door Manufacturing.
 - f. Overhead Door Corp.
 - g. Raynor.
 - h. Wayne-Dalton Corp.
 - i. Windsor Door; a MAGNATRAX Corporation.

2.2 DOOR OPERATORS

A. Provide doors designed for electric motor operation to meet the following performance specification:

1. Type: Jackshaft.
2. Motor Horsepower Rating: Continuous 3/4 HP.
3. Electrical Requirements: 115 volt single phase, min.
4. Duty Cycle: 60 cycles/hour.
5. Control Wiring: 24 volt control with provisions for connection of safety edge to reverse and external radio control hook-up.
6. Bottom sensing edge.

2.3 DOOR SECTIONS

A. Material: 2 inches (51mm) thick, 24 gauge galvanized exterior steel panels, ribbed exterior profile. 26 gauge steel back cover.

B. Center and End Stiles: Center and end stiles to be 16 gauge steel, formed and fastened as integral structures with the rolled sections. End stiles will be channel-shaped to 2".

C. Mounting: Sections mounted in door opening using Lap Jamb Angle Mounting: section overlap door jambs by 1 inch (25mm) on each side of door opening.

D. Springs: 50,000 cycle springs.

E. Seals: Flexible vinyl, neoprene foam and/or PVC, as specified by manufacturer.

F. Trussing: Doors designed to withstand specified windload. Deflection of door in horizontal position to be maximum of 1/120th of door width.

G. Color: Industrial Brown or dark bronze. All frame extrusions and filler panels finish coated with a baked on polyester top coat. Contractor to provide Architect manufacturer's finish sample selection for Architect's final color selection and approval.

H. Windows: Provide full view windows per door elevation drawings. Window layout contingent on Architect approval.

I. Window Material: Insulated, tempered.

J. Insulation: minimum R-7 insulation in steel panels.

K. Lock: Lock will be interior-mounted slide lock.

2.4 TRACK

A. Material: Minimum 16 gauge galvanized steel or as recommended by manufacturer, fully adjustable for adequate sealing of door to jamb or weatherseal.

B. Configuration Type: Vertical Lift.

D. Mounting: Continuous Galvanized Steel Angle Mount. 12 gauge minimum angle for steel or wood jambs..

E. Finish: Galvanized.

2.5 COUNTERBALANCE SYSTEM

A. Type: Provided with aircraft-type, galvanized steel lifting cables with minimum safety factor of 5 to 1. Torsion Springs consisting of heavy-duty oil-tempered wire torsion springs on a continuous ball-bearing cross-header shaft.

2.6 HARDWARE

A. Hinges and Brackets: Fabricated from galvanized steel.

B. Weatherstripping: Field installed section joint seal tape: one-piece full length between joint of sections. Header seal and jamb shall be placed in moderate contact with outside of door sections.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- A. Comply with instructions and recommendations of door manufacturer.
- B. Instruct Owner's personnel in proper operating procedures and maintenance schedule.

3.3 EXAMINATION

- A. Site Verification of Conditions: Verify through direct observation and field measurement that site conditions are acceptable for installation of doors, operators, controls and accessories. Ensure that openings square, flush and plumb.
- B. Do not proceed with installation of doors, operators, controls and accessories until unacceptable conditions are corrected.

3.4 INSTALLATION

- A. General: Install door, track and operating equipment complete with all necessary accessories and hardware according to shop drawings, manufacturer's instructions.

3.5 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: At Owner's request, provide manufacturer's field service consisting of product installation and use recommendations, and periodic site visits to observe and ensure product installation is done in accordance with manufacturer's recommendations.

3.6 ADJUSTING

- A. General: Lubricate bearings and sliding parts, assure weathertight fit around door perimeter and adjust doors for proper operation, balance, clearance and similar requirements.

3.7 CLEANING

- A. Remove temporary coverings and protection of adjacent work areas. Repair or replace installed products damaged prior to or during installation.
- B. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove and legally dispose of construction debris from project site.
- C. Finish Coat Touch-Up: Immediately after erection, clean areas of finish coat, and apply touch-up of compatible air-drying paint.

END OF SECTION