



Garage Door Experts Since 1921

SECTION 08 33 36
ROLLING SERVICE DOORS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Rolling steel storm shelter doors.

1.2 RELATED SECTIONS

- A. Section 05 50 00 - Metal Fabrications.
- B. Section 06 20 00 - Finish Carpentry.
- C. Section 08 33 00 - Coiling Doors and Grilles.
- D. Section 08 71 00 - Door Hardware.
- E. Section 09 90 00 - Painting and Coating.
- F. Section 26 27 16 - Electrical Cabinets and Enclosures.
- G. Section 26 05 00 - Common Work Results for Electrical.

1.3 REFERENCES

- 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. ASTM F 3038 - Standard Test Method for Timed Evaluation of Forced-Entry-Resistant Systems
- J. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- K. NEMA MG 1 - Motors and Generators.
- L. NIJ Standard 0108.01 - Ballistic Resistant Protective Materials
- M. NFPA 252 - Fire Tests of Fire Door Assemblies.
- N. UL 10B - Fire Tests of Fire Door Assemblies.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. 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.
- B. 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 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. 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.
- 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: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.
- 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

- A. Warranty: Manufacturer's limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 3 years or 10,000 cycles, whichever occurs first.
- B. Warranty: Manufacturer's limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 3 years or 10,000 cycles, whichever occurs first.
- C. Warranty: Manufacturer's limited door system warranty for 1 years for all parts and components.
- D. PowderGuard Finish
 - 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 (tm) Brand, which is located at: 2501 S. State Hwy. 121 Suite 200; Lewisville, TX 75067; Toll Free Tel: 800-275-3290; Tel: 469-549-7100; Fax: 972-906-1499; Email: [request info \(info@overheaddoor.com\)](mailto:info@overheaddoor.com); Web: <https://www.overheaddoor.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 ROLLING STEEL STORM SHELTER DOORS

- A. Overhead Door Brand, Model 610F Rolling Steel Storm Shelter Door
 - 1. Description: Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf.
 - a. Maximum Tested Size = 16ft Width x 16ft Height
 - 2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.
 - a. Slat Profiles/Material:
 - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
 - a) 12-gauge G40 galvanized steel.
 - 3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
 - a. Steel.
 - 4. Guides:
 - a. Three structural angle guide assembly fabricated of:
 - 1) Steel.
 - b. Provide with integral windlock bars and removable bottom bar stops.
 - 5. Brackets: Design to enclose ends of coil and provide support for counterbalance pipe at each end. Fabricate of steel plates, with permanently sealed ball bearings. Thickness shall be:
 - a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
 - 6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
 - 7. Hood: Hood to enclose curtain coil and counterbalance mechanism. Hood fabricated of sheet metal, flanged at top for attachment to header and flanged at bottom to provide longitudinal stiffness. Provide with a steel hood baffle. Fabricate of:
 - a. Minimum 24-gauge galvanized steel.
 - 8. Finish:
 - a. Galvanized Steel: Powder Coat.
 - 1) PowderGuard Premium powder coat, color as selected by the Architect.

- b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
 - 9. Electric Motor Operation: Provide UL listed electric operator, size 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. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
 - b. Operator Controls:
 - 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operation with open, close, and stop controls.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.
 - 4) Controls for interior location.
 - 5) Controls for exterior location.
 - 6) Controls for both interior and exterior location.
 - 7) Controls surface mounted.
 - 8) Controls flush mounted.
 - c. Special Operation:
 - 1) Vehicle detector operation.
 - 2) Radio control operation.
 - 3) Card reader control.
 - 4) Photocell operation.
 - 5) Door timer operation.
 - 6) Commercial light package.
 - 7) Explosion and dust ignition proof control wiring.
 - 8) Motor Voltage:
 - a) 115/230 single phase, 60 Hz.
 - b) 208/230 three phase,
 - c) 460 three phase;
 - 10. Locking:
 - a. Chain keeper locks for chain hoist operation.
 - b. Interior slide bolt lock for electric operation with interlock switch.
 - c. Cylinder lock.
 - 11. Mounting: Face of Wall.
- B. Overhead Door Model 610FE Rolling Steel Storm Shelter and Forced Entry rated Door.
 - 1. Description: Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf. Doors are also Forced Entry ASTM F 3038 rated for up to 30 Minutes with Ballistics Ratings that include .22 LR and .38 Special in accordance with NIJ 0108.01
 - a. Maximum Tested Size = 16ft Width x 16ft Height
 - 2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.
 - a. Slat Profiles/Material:
 - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
 - a) 12-gauge G40 galvanized steel.
 - 3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
 - a. Steel.
 - 4. Guides:
 - a. Three structural angle guide assembly fabricated of:
 - 1) Steel.
 - b. Provide with integral windlock bars and removable bottom bar stops.
 - 5. Brackets: Design to enclose ends of coil and provide support for counterbalance pipe at each end. Fabricate of steel plates, with permanently sealed ball bearings.

Thickness shall be:

- a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
 7. Hood: Hood to enclose curtain coil and counterbalance mechanism. Hood fabricated of sheet metal, flanged at top for attachment to header and flanged at bottom to provide longitudinal stiffness. Provide with a steel hood baffle. Fabricate of:
 - a. Minimum 24-gauge galvanized steel.
 8. Finish:
 - a. Galvanized Steel: Powder Coat.
 - 1) PowderGuard Premium powder coat, color as selected by the Architect.
 - b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
 9. Electric Motor Operation: Provide UL listed electric operator, size 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. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
 - b. Operator Controls:
 - 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operation with open, close, and stop controls.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.
 - 4) Controls for interior location.
 - 5) Controls for exterior location.
 - 6) Controls for both interior and exterior location.
 - 7) Controls surface mounted.
 - 8) Controls flush mounted.
 - c. Special Operation:
 - 1) Vehicle detector operation.
 - 2) Radio control operation.
 - 3) Card reader control.
 - 4) Photocell operation.
 - 5) Door timer operation.
 - 6) Commercial light package.
 - 7) Explosion and dust ignition proof control wiring.
 - 8) Motor Voltage:
 - a) 115/230 single phase, 60 Hz.
 - b) 208/230 three phase,
 - c) 460 three phase;
 10. Locking:
 - a. Chain keeper locks for chain hoist operation.
 - b. Interior slide bolt lock for electric operation with interlock switch.
 - c. Cylinder lock.
 11. Mounting: Face of Wall.
- C. Overhead Door Model 610FR Rolling Steel Storm Shelter and Fire rated Door.
1. Description: Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf. Doors are also Certified to: UL 10B, NFPA 252, CAN / ULC S104 - 4 Hour Fire Rating.
 - a. Maximum Tested Size = 16ft Width x 16ft Height
 2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.

- a. Slat Profiles/Material:
 - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
 - a) 12-gauge G40 galvanized steel.
3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
 - a. Steel.
4. Guides:
 - a. Three structural angle guide assembly fabricated of:
 - 1) Steel.
 - b. Provide with integral windlock bars and removable bottom bar stops.
5. Brackets: Design to enclose ends of coil and provide support for counterbalance pipe at each end. Fabricate of steel plates, with permanently sealed ball bearings. Thickness shall be:
 - a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
7. Hood: Hood to enclose curtain coil and counterbalance mechanism. Hood fabricated of sheet metal, flanged at top for attachment to header and flanged at bottom to provide longitudinal stiffness. Provide with a steel hood baffle. Fabricate of:
 - a. Minimum 24-gauge galvanized steel.
8. Finish:
 - a. Galvanized Steel: Powder Coat.
 - 1) PowderGuard Premium powder coat, color as selected by the Architect.
 - b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
9. FDO Electric Motor Operation: UL 325-2010: NEMA 1 enclosure, size 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. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
 - b. Operator Controls:
 - 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operation with open, close, and stop controls.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.
 - 4) Controls for interior location.
 - 5) Controls for exterior location.
 - 6) Controls for both interior and exterior location.
 - 7) Controls surface mounted.
 - 8) Controls flush mounted.
 - c. Special Operation:
 - 1) Vehicle detector operation.
 - 2) Radio control operation.
 - 3) Card reader control.
 - 4) Photocell operation.
 - 5) Door timer operation.
 - 6) Commercial light package.
 - 7) Explosion and dust ignition proof control wiring.
 - 8) Motor Voltage:
 - a) 115/230 single phase, 60 Hz.
 - b) 208/230 three phase,
 - c) 460 three phase;
10. Locking:
 - a. Chain keeper locks for chain hoist operation.

- b. Interior slide bolt lock for electric operation with interlock switch.
 - c. Cylinder lock.
- 11. Mounting: Face of Wall.

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. Install rolling steel storm shelter doors in accordance with the manufacturer's instructions and CC 500-2014.
 - 1. Anchors used to install impact-protective systems require a special inspection to verify compliance with the required design information listed in Section 106.2.1 of CC 500-2014
 - 2. Contractors who install the assembly shall acknowledge their responsibility by submitting a written statement to the authority having jurisdiction.
- C. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- D. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- E. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- F. Coordinate installation of electrical service with Section 26 05 00 - Common Work Results for Electrical. Complete wiring from disconnect to unit components.
- G. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 90 00 - Joint Protection.
- H. Install perimeter trim and closures.
- I. 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