



Goff's Enterprises Inc.

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This Manu-Spec® utilizes the Construction Specifications Institute (CSI) *Project Resource Manual* (PRM), including *MasterFormat™*, *SectionFormat™* and *PageFormat™*. A Manu-Spec is a manufacturer specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier notes precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate product model numbers, styles and types are used in specifier notes and in the specification text article titled "Acceptable Material." Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies overhead coiling doors with vinyl and mesh exchangeable panels for interior new construction and renovation projects.

SECTION 08 33 23 OVERHEAD COILING DOORS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: This Section specifies lightweight overhead coiling doors with fire-resistant vinyl and mesh exchangeable panels and accessories for interior applications.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI MasterFormat and specifier's practice.

- B. Related Requirements:

Specifier Note: Include in this paragraph only those sections and documents that directly affect the work of this section. If a reader of this section could reasonably expect to find a product or component specified in this section, but it is actually specified elsewhere, then the related section number(s) should be listed in the subparagraph below. Do not include Division 00 documents or Division 01 sections, as it is assumed all technical sections are related to all project Division 00 documents and Division 01 sections to some degree. Refer to other documents with caution, as referencing them may cause them to be considered part of the contract.

1. Section [_____].

1.2 REFERENCES

Specifier Note: This section does not require compliance with standard(s). It is a listing of all references used in this section. Only include here standards referenced in the body of the specification in PARTS 1, 2 and/or 3. Do not include references to building codes at any level.

- A. Reference Standards:
1. ASTM International (ASTM).



- a. ASTM C177 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
- b. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
- c. ASTM D746 Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
- d. ASTM D1004 Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.
- e. ASTM D2261 Standard Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine).
- f. ASTM D4912/D4912M Standard Test Method for Fabric Stability of Vinyl-Coated Glass Yarn Insect Screening and Louver Cloth.
- g. ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test).
- h. ASTM D5035 Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method).
2. National Fire Protection Association (NFPA).
 - a. NFPA (Fire) 701 Standard Methods of Fire Test for Flame Propagation of Textile and Films.
3. U.S. Green Building Council (USGBC).
 - a. LEED NC Version 2.2, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Contract Conditions and Section 01 33 00 - Submittal Procedures.

1.3 SUBMITTALS

- A. Make submittals in accordance with [Section 01 33 00 - Submittal Procedures].
- B. Product Data: Manufacturer's standard specifications and descriptive literature, including:
 1. Manufacturer's Spec-Data product sheets.
 2. Manufacturer's installation instructions.
 3. Performance criteria.
 4. Material Safety Data Sheets (MSDS).

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Contract Conditions and Section 01 33 00 - Submittal Procedures Coordinate article below with Contract Conditions and with Section 01 78 36 - Warranties.

- C. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
 1. Include plans, elevations, sections and mounting details.
 2. Include details of equipment assemblies and indicate dimensions, required clearances, method of field assembly, components and location and size of each field connection.
 3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
 4. Show locations of controls, locking devices and other accessories.
 5. Include diagrams for power, signal and control wiring.
- D. Samples
 1. Samples for Initial Selection: Submit 12 × 12 inch sample of each panel type specified for color verification.
- E. Manufacturer's written instructions, including:
 1. Delivery, storage and handling recommendations.
 2. Preparation and application recommendations.
- F. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
- G. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

- H. Manufacturer's Field Reports: Submit manufacturer's field reports within 3 days of each manufacturer representative's site visit and inspection.

Specifier Note: Coordinate article below with Contract Conditions and with Section 01 78 36 - Warranties.

- I. Installer's Experience: Submit verification of evidence of work similar to the work of this section.
- J. Warranty: Fully executed, issued in [Owner's] name and registered with manufacturer, including:
1. Manufacturer's [1-year] warranty, from date of substantial completion, covering defects in materials.

Specifier Note: Retain the following only if specifying for a LEED project. Specify only the technical submittal requirements necessary to achieve the credits desired for this project.

- K. Sustainable Design (LEED) Submittals:
1. LEED Submittals: In accordance with Section [01 35 21 – LEED Requirements].
 2. Submit verification for items when appropriate as follows:
 - a. MRc2 Construction Waste Management.
 - b. MR 5 - Regional Materials.

1.4 EXTRA STOCK MATERIALS

Specifier Note: Retain and edit the following paragraph only if extra panel materials are required for replacement or exchange to meet seasonal needs. Specify only panels required for seasonal exchange or as spare parts.

- A. Exchangeable Panels: Supply extra panels as follows:
1. [One] solid vinyl panel colored to match specified panel.
 2. [One] clear PVC panel.
 3. [One] mesh panel colored to match specified mesh panel.
- B. Store extra panel materials where directed by consultant.

1.5 QUALITY ASSURANCE

- A. Installer: Experienced in performing work similar work of this section.

1.6 DELIVERY, STORAGE & HANDLING

- A. Deliver materials in accordance with manufacturer's written instructions.
1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact and product name and manufacturer clearly visible and sizes to suit project.
- B. Store materials protected from exposure to harmful environmental conditions, clean, dry, frost-free and at recommended temperature and humidity levels.
- C. Handling: Exercise care during off-loading and installation to avoid damage and marring of finishes.

1.7 EXISTING CONDITIONS

- A. Install overhead coiling doors only when ambient conditions will be less than 150 degrees F.

1.8 WARRANTY

- A. Project Warranty: Refer to Contract Conditions for project warranty provisions.
- B. Manufacturer's warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official.
1. Manufacturer's warranty is in addition to and not intended to limit other rights Owner may have under Contract Conditions.

PART 2 PRODUCTS

Specifier Note: Add product attributes performance characteristics, material standards and descriptions in other articles as applicable. Use of such phrases as "or equal," "approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

2.1 MANUFACTURER

- A. Goff's Enterprises Inc.; 700 Hickory Street, Pewaukee, Wisconsin 53072; Phone: (262) 746-3346; Fax: (800) 234-0337; Email: marcus@goffscw.com; Website: www.goffdoors.com.

Specifier Note: Retain and edit the following paragraph to meet the project requirements.

2.2 PERFORMANCE REQUIREMENTS

- A. Comply with NFPA 701 Test 1 and Test 2 and California Department of Forestry and Fire Protection for auto reset after impact or blow-out.

Specifier Note: Retain and edit the following article to meet project requirements. For assistance in choosing the options refer to the Goff's Enterprises Inc. G2 Series doors Spec-Data information sheet or contact the manufacturer directly.

2.3 DESCRIPTION

Specifier Note: Retain and edit the following paragraph to specify the composition for each of the panels used meet overhead coiling door specified. Use the or each panel, specify the solid vinyl, clear PVC or mesh composition. Verify motor requirement options as outlined on Goff's Enterprises Inc. G2 Doors Spec-Data information sheet or contact Goff's Enterprises Inc. directly.

- A. Lightweight multi-panel overhead coiling door constructed from fire-resistant vinyl and clear PVC or mesh panels.
 - 1. Ensure [1] panel is [clear PVC] [mesh].
- B. Door operation: [In tube motor] [High speed external operator] [Quick release chain pull] [Chain hoist mechanism].

Specifier Note: Delete the following paragraph if door a spring assist or chain hoist mechanism are used.

- 1. Motor: 110 V, single phase.

Specifier Note: For Goff's Enterprises Inc. G2 Lite Doors the maximum size available is 12 x 12 feet. Retain and edit the following paragraph to suit the door opening size.

- C. Door Characteristics:
 - 1. Door size: [[12] feet wide by [12] feet high] [Sized to suit door opening].

Specifier Note: Delete the following four paragraphs if the door is to be operated by a spring assist or a chain hoist mechanism. For Goff's Enterprises Inc. G2 Series doors, the open speed of the motorized doors corresponds directly to the door model specified as follows Series 1800 (18 inches per second); Series 3000 (30 inches per second).

- 2. Opening Speed: [18] [30] inches per second.

Specifier Note: For Goff's Enterprises Inc. doors, the G2 Lite 1800 Series doors come with an option for heavy duty upgrade kit for greater durability of cycles per hour. For standard choose the 12 cycle object for the G2 Lite 1800 Series and choose the 160 cycle option for the G2 Lite 3000 Series. Verify the options as outlined on Goff's Enterprises Inc. G2 Doors Spec-Data information sheet, or contact Goff's Enterprises Inc.

- 3. Cycles per hour:
 - a. Standard: [12] [160] maximum.
 - b. Heavy duty: 24 maximum.

Specifier Note: For Goff's Enterprises Inc. doors, the following applies: Override is not available for the G2 Lite 1800 Series doors; Chain hoist override is only available on the G2 Lite 3000 Series doors.

4. Override: Chain hoist.

Specifier Note: Retain and edit the following paragraph to meet project requirements. Choose the face mount option for mounting outside to the face of the building. Choose the projection mount option for applications inside the building beyond existing security doors.

5. Mounting:
 - a. Projection mount with completely assembled upper box slanted for water run off.
 - 1) Include aluminum standoff brackets and corner gussets.
 - 2) Include vinyl filler panels between wall and door.

Specifier Note: Retain and edit the following paragraph to suit project requirements and manufacturer's recommendations. Choose the last option when door is operated by a chain hoist or spring assist mechanism. Edit other options to suit the door model specified. Verify the options as outlined on Goff's Enterprises Inc. G2 Lite Doors Spec-Data information sheet or contact Goff's Enterprises Inc.

6. Controls: [Limit switch controls] [Direct quill to door with seal oil bath right angle drive] [and] [soft start and stop] [Start-stop at any location].

Specifier Note: Delete the following Paragraph if the door is to be operated by a chain hoist mechanism.

- a. Controller: [Toggle switch] [NEMA 1 three button controller] [NEMA 4 three button controller] [Single push button controller].

2.4 MATERIALS

A. Panels:

1. Solid vinyl panel: Rot, tear and UV resistant coated colored vinyl.
 - a. Color: [Beige] [Black] [Blue] [Forest Green] [Gray] [Maroon] [Orange] [Purple] [Teal] [White] [Yellow].
 - b. Weight: 14 ounces per square yard.
 - c. Finish: Matte.
 - d. Thread count: 9 × 9 polyester.
 - e. Dernier: 1300.
 - f. Tensile strength to ASTM D5034: 365 × 348 lbs per inch.
 - g. Tear strength to ASTM D2261: 92 × 83 lbs.
 - h. Fire retardancy: Pass to NFPA 701 Test 1 and Test 2.
2. Clear PVC panel: 40 mil thick double polished UV resistant clear PVC.
 - a. Density to ASTM C177: 75 lbs per cubic foot.
 - b. Tensile strength to ASTM D412: 2400 psi.
 - c. Ultimate elongation to ASTM D412: 350 %.
 - d. 100 % Modulus to ASTM D412: 1400 psi.
 - e. Tear resistance to ASTM D1004: 440.
 - f. Brittleness temperature to ASTM D746: minus 33 degrees F.
 - g. Thermal conductivity to ASTM C177: 0.73 Btu/(hr ft degrees F).
 - h. Thermal resistance to ASTM C177: 1.37 degrees F hr/Btu.
3. Mesh panel to ASTM D4912/D4912M: 17 x 11 polyester scrim with 65 % shade factor.
 - a. Color: [Almond] [Black] [Gray] [Red] [Royal Blue] [Orange] [Spruce Green] [Yellow].
 - b. Weight: 11.3 oz/ square yard.
 - c. Cut strip tensile strength to ASTM D5035:
 - 1) Warp: 342 psi.

- 2) Fill: 225 psi.
- d. Grab tensile strength to ASTM D5034:
 - 1) Warp: 394 psi.
 - 2) Fill: 225 psi.
- B. Side beams: Extruded aluminum mill finished to manufacturer's standard.
- C. Side seals: Extruded PVC sized to fit side beams.

2.5 ACCESSORIES

Specifier Note: Retain the following Paragraph only if an automatic closer is required to meet project requirements. Automatic closers for Goff's Enterprises Inc. doors are only available for 28 inch and 36 inch per second motors.

- A. Automatic Closer: Allow door to close automatically after preset time.
 - 1. Acceptable Material: Goff's Enterprises Inc., Auto Close Timer.
- B. Remote Closer Control: Hand held remote control.
 - 1. Acceptable Material: Goff's Enterprises Inc., Hand Held Remote Control.

Specifier Note: Retain the following Paragraph only if a motion detector is required to meet project requirements. Motion detectors are not available for Goff's Enterprises Inc. doors which have motor speeds of 6 inches per second.

- C. Motion Detector: Set to detect [pedestrian] [vehicle traffic].
 - 1. Acceptable Material: Goff's Enterprises Inc., Motion Detector.

PART 3 EXECUTION

3.1 INSTALLER

- A. Use only installers who have training and experience of work similar to the work of this Section.

3.2 EXAMINATION

- A. Verification of Conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for overhead coiling door installation in accordance with manufacturer's written recommendations.
 - 1. Visually inspect substrate in presence of Consultant.
 - 2. Inform Consultant of unacceptable conditions immediately upon discovery.
 - 3. Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.
 - 4. Starting door installation implies substrate conditions are acceptable for Work of this Section.

Specifier Note: Retain and edit the following Article to meet project requirements. Retain only those Paragraphs that are appropriate to the project.

- B. Install overhead coiling door in accordance with door manufacturer's written recommendations.
- C. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers and equipment supports.
- D. Install controllers at location and mounting heights indicated.

3.3 FIELD QUALITY CONTROL

- A. Field Inspection: Coordinate field inspection in accordance with Section [01 45 00 Quality Control].

Specifier Note: Specify requirements if manufacturers are to provide field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Manufacturer field reports are included under PART 1, Submittals.

B. Manufacturer's Services:

Specifier Note: Use the following paragraphs only when manufacturer's field services are provided and are required to verify the quality of the installed components. Establish the number and duration of periodic site visits required by manufacturer and specify below. Contact Goff's Enterprises Inc. to determine any costs associated with Technical Representatives providing manufacturer's field services. Delete if field services are not required.

1. Coordinate manufacturer's services with Section [01 45 00 - Quality Control].

Specifier Note: Delete the following paragraph if no costs are associated with manufacturer's services.

2. Arrange for payment for manufacturer's services.
3. Have manufacturer review work involved in handling, installation, protection and cleaning of overhead coiling doors and submit written reports in acceptable format to verify compliance of Work with Contract conditions.
4. Manufacturer's Field Services: Provide manufacturer's field services consisting of product use recommendations and periodic site visits for product installation review in accordance with manufacturer's instructions.
 - a. Report any inconsistencies from manufacturer's recommendations immediately to consultant.

Specifier Note: Edit the following paragraph to meet project requirements. Coordinate site visits with manufacturer or delete the paragraph and all of its subparagraphs if site visits are not required.

5. Schedule site visits to review work at stages listed:
 - a. After delivery and storage of overhead coiling doors and when preparatory work on which Work of this Section depends is complete, but before application begins.
 - b. Twice during progress of work at 25% and 60% complete.
 - c. Upon completion of work, after cleaning is carried out.
 - d. Obtain reports within three days of review and submit immediately to Consultant.

3.4 STARTUP SERVICES

- A. Engage factory-authorized service representative to perform startup service.
 1. Perform installation and startup checks according to manufacturer's written instructions.
 2. Test and adjust controls and safety devices.
 3. Replace damaged or malfunctioning controls and equipment.

3.5 ADJUSTING

- A. Adjust hardware and moving parts to function smoothly to ensure doors operate easily, free of warp, twist or distortion.
 1. Adjust exterior doors and components to be weather-resistant.
- B. Lubricate bearings and sliding parts as recommended by manufacturer.

Specifier Note: Retain the following paragraph if weather resistant installation is required.

- C. Adjust seals to provide tight fit around entire perimeter.

3.6 CLEANING

- A. Perform daily progress cleaning.
 1. Leave work area clean at end of each day.
- B. Upon completion, remove surplus materials, rubbish, tools and equipment.
- C. Collect recyclable waste and dispose of at appropriate recycling facilities.

Specifier Note: Specify protection methods completed after installation, but prior to acceptance by the owner. Include only statements unique to this Section. Coordinate the following Article with Section 01 76 00 - Protecting Installed Construction.

3.7 PROTECTION

- A. Protect installed overhead coiling doors from damage during construction.
- B. Repair or replace adjacent materials damaged by installed of overhead coiling doors.

3.8 END OF SECTION

- A. Repair or replace adjacent materials damaged by installation of Comfort Pack heating and air conditioning unit.

END OF SECTION