

DIVISION 08 - OPENINGS

SECTION 08 11 10 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL
1.1 SUMMARY
A. Section Includes: Provide full flush steel (hollow metal) doors and pressed steel frames, anchors, and silencers.
1.2 REFERENCES
A. Steel Door Institute (SDI): SDI-100 (ANSI/SDI A250.8) - Specifications - Standard Steel Doors and Frames.
B. National Association of Architectural Metal Manuf. (NAAMM): Hollow Metal Manual.
1.3 ADMINISTRATIVE REQUIREMENTS
A. Coordinate hardware installation with Section 08 71 00 - Door Hardware.
1.4 SUBMITTALS
A. Product Data: Submit manufacturers' literature.
B. Shop Drawings: Indicate general construction, configuration, jointing methods, reinforcements, anchorage methods, hardware locations, and locations of cut-outs.
C. Schedule: Provide schedule of hollow metal work prepared by or under supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with door hardware schedule.

PART 2 - PRODUCTS
2.1 SYSTEMS MANUFACTURERS
A. The Ceco Corporation; Curries Division Assa Abloy Door Group; Anweld Building Products Inc.; Macotta Co. of Canada, Ltd.; Fleming Door Products.
2.2 MATERIALS
A. System Description: Full flush steel (hollow metal) doors and pressed steel frames, anchors and silencers. Comply with general requirements in SDI-100 and NAAMM Hollow Metal Manual.
B. Doors: Hollow metal flush steel door, 1-3/4" thick. Full flush with steel channel or welded edge, close top with flush end closer treatment, bottom optional flush or recessed channel, steel stiffened core, insulated with U value of 0.24 or better except where opening into unconditioned space.
1. Exterior Doors: Minimum 0.053" (16 gage).
2. Interior Doors: Minimum 0.042" (18 gage).
C. Frames: Welded (pre-assembled) type (knock-down frames not permitted).
1. Exterior Frames: Minimum 0.067" (14 gage).
2. Interior Frames: Minimum 0.053" (16 gage).
3. Door Silencers: Manufacturer's standard resilient type, removable for replacement.
4. Mortar Guard Boxes: Minimum 0.026" (22 gage) boxes welded in place; provide where frames may be grouted.
D. Fire Rated Units: Construct in accordance with requirements for fire rating, NFPA 252 or UL 10C, and NFPA 80.
1. Labels: Place metal fire rating labels where visible when doors and frames are in installed, opened position.
2. Fire Ratings: Refer to Drawings for fire rating requirements.
3. Temperature Rise Rating: Provide doors with maximum 450°F Temperature Rise Rating in 30 minute fire exposure period at doors into exit enclosures and where otherwise required by applicable codes.

2.3 FABRICATION
A. Conform to requirements of SDI (ANSI A250 Series) or NAAMM.
B. Reinforce and prepare doors and frames to receive hardware.
1. Refer to Section 08 71 00 for hardware requirements.
C. Frames: Accurately form and cut mitered corners of welded type frames; continuously weld on inside surfaces (fully welded); grind welded joints to smooth uniform finish.
1. Head Reinforcement: Reinforce frames wider than 4'-0" with minimum 0.093" (12 gage) formed steel channels welded in place, flush with top of frames.
2. Doors at Glazed Panels: Reinforce jambs and heads of frames for doors which occur adjacent to glazed sidelights and partitions.
3. Profile bottom of jamb to contour of concrete at change in floor elevation occurring within jamb width.
4. Exposed Fasteners: Countersunk, flat Phillips or Jackson heads for exposed screws and bolts.
D. Door Silencers.
1. Place three single bumpers on single door frames, space equally along strike jambs.
2. Place two bumpers for each door at double door frames; place on frame heads.
3. Except on frames to receive smoke, sound, or thermal seals, drill stops to receive rubber door silencers.
E. Provide jamb anchors per SDI-100 (ANSI/SDI 250.8) and NAAMM, weld floor jamb anchors in place.
F. Provide double doors tested and approved without astragals.
G. Edge Clearances:
1. Between Doors and Frames: Maximum 1/8" at head and jambs.
2. Door Sills (No Threshold): Maximum 3/8".
3. Door Sills (Threshold): Maximum 3/4" above finished floor.
4. Between Edges of Pairs of Doors: Maximum 1/8".
5. Fire Rated Doors: As required for fire ratings.
H. Finish: Comply with requirements of Section 09 00 - Painting and Coating for primer including application and compatibility with specified finishes.
1. Interior Units: Prime paint.
2. Exterior Exposed Units: Apply minimum #60 non-soluble epoxy coating, ASTM A924 and A957, surface treat after galvanizing to remove oils and prepare for painting; apply one coat of primer.

PART 3 - EXECUTION
3.1 INSTALLATION
A. Install doors and frames in accordance with SDI-100 (ANSI/SDI A250.8) and ANSI/SDI A250.11 or NAAMM "Hollow Metal Manual" and manufacturer's recommendations and installation instructions.
1. Install fire rated units in conformance with fire label requirements and NFPA 80.
2. Mortise, reinforce, drill and tap at factory for hardware in accordance with templates furnished by hardware supplier.
B. Install doors and frames plumb and square, and with maximum diagonal distortion of 1/16".

C. Remove and replace doors and frames damaged during delivery, storage, installation and construction. Paste filler repair shall not be permitted.

SECTION 08 14 00 - WOOD DOORS

PART 1 - GENERAL
1.1 SUMMARY
A. Section Includes: Provide flush wood doors as indicated.
1. Contractor Option: Provide shop finished wood doors.
1.2 REFERENCES
A. Architectural Woodwork Standards. (AWS) Edition 1, 2009.
B. Window and Door Manufacturer's Association (WDMA): Guide Specifications.
1.3 ADMINISTRATIVE REQUIREMENTS
A. Metal Frames: Coordinate with Section 08 11 10 - Hollow Metal Doors and Frames for prefit wood doors.
B. Wood Jambs: Coordinate with Section 06 20 00 - Finish Carpentry for prefit wood doors for door jambs.
C. Hardware: Coordinate hardware installation with Section 08 71 00 - Door Hardware.
D. Painting: Coordinate with Section 09 00 - Painting and Coating; wood doors to be shop finished or field painted.
1.4 SUBMITTALS
A. Product Data: Submit manufacturer's literature.
B. Shop Drawings: Indicate general construction, jointing methods, hardware locations, and locations of cut-outs.
C. Samples: Submit samples of wood doors indicating construction, veneering, and finish. Submit shop finish for wood doors where doors are furnished shop finished.
D. Certificates: Submit manufacturer certification indicating compliance to applicable requirements of either AWS or WDMA Standards; note which standards were followed or if both standards have been met.

1.5 PROJECT CONDITIONS
A. Do not deliver or install doors until conditions for temperature and relative humidity have been stabilized in accordance with referenced standards requirements applicable to Project location.
1.6 WARRANTY
A. Extended Correction Period: Provide for replacing, reworking, and refinishing wood doors exhibiting defects in materials or workmanship including warp and delamination for not less than two years.
B. Door Manufacturer's Warranty: Submit door manufacturer's standard form signed by manufacturer, installer, and Contractor, agreeing to repair or replace defective doors which warp (bow, cup, or twist), which show telegraphing of core construction in face veneers, or which do not conform to tolerance limitations of specified quality standards.
1. Include reinstallation if required owing to repair or replacement of defective doors where defect was not apparent prior to hanging, complete and ready for installation.
2. Warranty Period: Interior Solid-Core Doors: Lifetime of original installation.

PART 2 - PRODUCTS
2.1 SYSTEMS MANUFACTURERS
A. Algoma Hardwoods, Inc.; Eggers Industries Architectural Door Division; Marshfield Door Systems, Inc.
2.2 MATERIALS
A. System Description: Provide flush wood doors as indicated.
B. Solid Core Flush Wood Doors: AWS/Premium Grade, 5 Ply Hot Press, 1-3/4" thick solid wood framed glued block construction or particleboard core five ply construction; Contractor option to use WDMA comparable standards.
1. Opaque Painted Wood Veneers: AWS/Custom Grade White Birch veneers for opaque finish; nominal 1/40" thick before sanding, not less than 1/50" after sanding.
2. Edges: Stile edges to match face veneer, minimum 1-1/8" thick after trim.
3. Core: Bond stiles and rails to core and sand prior to assembly of face veneers.
4. Bond Type: Provide Type II Bond for interior doors.
5. Performance Level: Extra Heavy Duty.
C. Fire Rated Flush Wood Doors: 1-3/4" thick, match non-rated door appearance, comply with applicable codes: UL or Warnock Hersey rated.
1. Labels: Place fire rating labels where visible when doors are installed in opened position.
2. Fire Ratings: Refer to Drawings for fire rating requirements.
3. Core: Use wood core construction for fire rated doors with doors, mineral core is permitted for larger radius doors; provide top and bottom rails for mineral core doors.
4. Temperature Rating: Provide doors with maximum 450°F Temperature Rise Rating in 30 minute fire exposure period at doors into exit enclosures and where otherwise required by applicable codes.

2.3 FABRICATION AND FINISH
A. Fabricate doors in accordance with requirements of specified standards.
1. Prefit wood doors.
2. Prepare doors to receive hardware in shop, refer to Section 08 71 00 for hardware requirements and templates.
3. Factory machine doors for mortise hardware.
B. Bevel strike edge of single-acting doors, 1/8" in 2".
C. Fire Rated Doors: Fabricate fire rated doors in accordance with requirements of Underwriters' Laboratories (UL) or Warnock Hersey International.
1. Provide fire rated doors with maximum allowable edge strips, of wood species to match face veneers.
2. Provide doors with blocking designed for addition of closers, even where doors are not indicated to receive closers.
3. Provide astragals and metal edge trim for double doors, in accordance with requirements for fire rated doors.
D. Finish:
1. Seal top and bottom edges of all doors with two coats of varnish.
2. Seal around all cutouts before hardware is set into place with two coats of varnish.
3. Factory prime to receive field finish as specified in Section 09 00 - Painting and Coating.
E. Shop Finished Doors (Contractor Option): Conform to requirements in Section 09 00 - Painting and Coating.

PART 3 - EXECUTION
3.1 INSTALLATION
A. Install wood doors in accordance with manufacturer's recommendations and installation instructions, and reference standards, plumb and square, and with maximum diagonal distortion of 1/16".
B. Install fire rated wood doors in accordance with requirements for specified fire label and requirements of NFPA 80.
1. Field cutting of fire rated doors shall not be acceptable.
C. Rehang or replace doors which do not swing or operate freely.
3.2 PROTECTION
A. Protection: Protect doors as recommended by door manufacturer to ensure doors are without damage at time of substantial completion.
1. Unfinished Doors: Repair or replace doors damaged prior to finishing.
2. Shop Finished Doors: Refinish or replace damaged doors.

SECTION 08 31 00 - ACCESS DOORS AND PANELS

PART 1 - GENERAL
1.1 SUMMARY
A. Section Includes: Provide access doors set in finished surfaces.
1. Provide access doors and panels as required for access to controls and valves behind finished surfaces.
2. Coordinate with various trades for controls and valves which may be concealed.
1.2 SUBMITTALS
A. Product Data: Furnish manufacturer's literature.
B. Shop Drawings: Indicate locations of access doors required but not indicated on Architectural Drawings.

PART 2 - PRODUCTS
2.1 SYSTEMS MANUFACTURERS
A. Karp Associates, Inc.; MIFAB, Inc.; Nystrom Building Products; J.L. Industries; Jensen Industries.
2.2 MATERIALS
A. System Description: Provide access doors and panels set in finished surfaces.
B. Regulatory Requirements: Where doors and panels are located in fire rated assemblies provide assemblies listed in Underwriters Laboratories, Inc. "Classified Building Materials Index" for rating shown.
1. Provide UL label on each rated access door.
2. Materials tested, labeled and inspected by Warnock Hersey International are acceptable upon approval of authorities.
C. Access Doors and Panels: Provide access door and panel assemblies consisting of an integral unit with flush metal doors and panels, complete and ready for installation.
1. Non-Fire Rated Units: Flush panel access doors; provide type with frame flange concealed in finished construction.
2. Fire Rated Units: Manufacturer's standard UL rated insulated flush doors with 1" flanged frame and self-closing mechanism.
D. Frames:
1. Typical: Fabricate from not less than 0.053" (16 gage) steel.
2. Wet Areas and As Indicated: Fabricate from not less than 0.053" (16 gage) stainless steel with satin directional finish, No. 4 finish.
E. Doors:
1. Typical: Flush panel type, fabricate from not less than 0.067" (14 gage) steel.
2. Wet Areas and As Indicated: Flush panel type, fabricate from not less than 0.067" (14 gage) stainless steel with satin directional finish, No. 4 finish.
F. Hinges: Provide continuous piano type hinge; stainless steel where at stainless steel access doors.
G. Locking Devices: Provide with key-operated cylinder lock for each access door; provide two key lock arrangements; key locks alike, unless otherwise scheduled.
H. Typical Painted Finish: Finish access doors and panels with manufacturer's factory applied enamel or prime coat applied over phosphatizing treatment.
3. FABRICATION
A. Size Variations: Obtain Architect's acceptance of manufacturer's standard size units which may vary slightly from sizes shown or scheduled.
B. Fabricate units of continuous welded steel construction; grind welds smooth and flush with adjacent surfaces.
C. Provide attachment devices and fasteners of type required for specific job conditions.

PART 3 - EXECUTION
3.1 EXAMINATION
A. Examine areas and conditions under which access doors are to be installed.
1. Do not proceed with work until unsatisfactory conditions are corrected; installation signifies acceptance of conditions.
B. Obtain specific locations and sizes for required access doors from trades requiring access to concealed equipment; coordinate installation with work of other trades.
3.2 INSTALLATION
A. Comply with manufacturer's installation instructions for access doors.
1. Install fire rated access doors in accordance applicable code requirements and with requirements of NFPA 80.
2. Locate access doors and panels in locations shown on Drawings or as approved by Architect.
B. Set frames accurately in position and securely attach to supports with face panels plumb or level in relation to adjacent finish surfaces.
C. Adjust hardware and doors after installation for proper operation.
3.3 PROTECTION
A. Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

SECTION 08 33 00 - OVERHEAD COILING DOORS

PART 1 - GENERAL
1.1 SUMMARY
A. Section Includes: Provide overhead coiling (roll-up) door systems with curtains, guides, counterbalance, hardware, and accessories as required for complete, operational installation.
1. Provide electrical wiring from make-up box to electrical operators and control stations.

2. SUBMITTALS
A. Product Data: Submit manufacturer's literature.
B. Shop Drawings: Indicate pertinent dimensioning, general construction, component connections and details, locking devices, anchorage methods, and hardware locations.
1.3 GUARANTEE
A. Manufacturer: Furnish to Owner door manufacturer's written 2-year guarantee for overhead coiling doors against all defects in materials and workmanship, including without limitation against failure of factory applied finish. Guarantee shall be signed by manufacturer, installer, and Contractor.
PART 2 - PRODUCTS
2.1 SYSTEMS MANUFACTURERS
A. Overhead Door Corp./625 Series Door and Model RG-138 Operator.
B. Substitutions: Not permitted.
2.2 MATERIALS
A. System Description: Provide overhead coiling (roll-up) door systems with curtains, guides, counterbalance, hardware, and accessories.
B. Regulatory Requirements (Fire Rated Doors): Where indicated provide assemblies that comply with NFPA 80, tested in accordance with ASTM E152, and listed in Underwriters Laboratories (UL) Building Materials Directory, and bearing UL label.
1. Materials tested, labeled and inspected by Warnock Hersey International are acceptable upon approval of authorities.
2. Oversized Doors: Doors exceeding 120 or 24 feet in any length, shall have UL "Certificate of Inspection for Oversize Doors", in lieu of label.
C. Design Criteria
1. Exterior Doors: Design and reinforce to withstand loads as required by applicable codes but not less than minimum 20 psf positive and 15 psf negative wind force with maximum L/240 deflection.
2. Fire Rated Doors: Design fire rated doors with closing device and governor to close automatically in case of fire; governor unit inoperative during normal door operations.
a. Provide closing device activated by magnetic release holders building smoke detector system.
b. Design release mechanism for easy resetting.
c. Provide units allowing manual lifting of curtain for emergency exit after automatic closing, with curtain lifting when released.
3. Cycles: Design for not less than 25 cycles per day, 50,000 cycles service life.
D. Overhead Coiling Doors: Fabricate door continuous length for width of door without splices.
1. Electrically Operated Doors: Provide complete assembly with electric motor sized to recommendations of door manufacturer for size and application indicated.
2. Reverser Failure Backup: Provide overhead crank socket for rotation in case of power failure; provide removable crank.
E. Curtain Guides: Provide locking slats, ends of slatmate slats fitted with end locks and pins fitted with angles to provide reinforcement and positive attachment to frame when curtain is closed.
1. Typical: Galvanized steel, ASTM A653, Grade A, with G90 zinc coating, ASTM A957, and A653, phosphate treated before fabrication, nominal 3" high and 7/8" deep.
2. Exterior End Face: 0.020" (24 gage) galvanized steel.
3. Interior Slat Face: 0.020" (24 gage) galvanized steel.
4. Slat Cavity: Fill with CFC-free polyurethane insulation with an insulating value of not less than R-7.7.
F. Curtain Guides: Formed steel angles of required sizes and configurations.
G. Roller Shaft (Counterbalance): Steel pipe and helical steel spring system capable of producing sufficient torque to assure easy operation of curtain from any position; adjustable spring tension.
H. Housing: Minimum 0.020" (24 gage) steel, internally reinforced to maintain rigidity and form finished to match grille. Add motor mounting as indicated on drawings.
I. Steel Finish: Hot dip galvanize minimum G90 and factory paint to match grille. Other methods of providing protective zinc coating on steel surfaces comparable to G90 hot dip galvanizing will be acceptable.
J. Grout: Non-shrink, non-metallic, pre-mixed, factory-packaged, non-staining, non-corrosive, non-gaseous, type specifically recommended by manufacturer as applicable to job condition.
K. Electric Operators: Provide UL approved system; not less than 3/4 HP Class A insulated electric motor, fully enclosed magnetic cross-line reversing starter, with overload protection; voltage as indicated on Electrical Drawings.
1. Speed: Minimum 2 1/3' per second, maximum 1' per second.
2. Provide adjustable limit switches.
3. Provide system that allows manual operation in case of power failure but that cannot be operated from outside garage, maximum effort to manually open grille to be 25 lbs.
4. Control Stations: Weatherproof, fully guarded, electrically operated type, for each electric operator; 24 volt circuit; mounted as indicated.
5. Key Operated Stations: Provide one on each side of grille with open-close-stop positions. Masterkey to building keying system, coordinate with Section 08 71 00 - Door Hardware.
6. Reversing Contactor: Heavy duty wireless reversing contactor, safety switch wired to stop or reverse gate upon striking object.
L. Locks: Two-point double throw-bolt providing positive locking into both jambs simultaneously from one cylinder.
1. Activation: By ADA compliant thumb-turn cylinder mounted on interior side and Best 7-pin cylinder lock on exterior side.
2. Provide midpoint floor lock in grille 30 feet wide and wider.
3. Electrically Operated Grille Locks: Include electrical interlocks, cut-out switches for grille operation.
M. Emergency Release Handle: Designed to allow grille to be opened in an emergency or during a power failure from within Owner's leased space without use of any special knowledge or effort when space is occupied.
1. Electrically Operated Grilles: Activation of handle to disengage motor drive and automatically open grille 6'-0". Returning handle to normal position shall automatically reset motor drive without need for further adjustment.
2. Manually Operated Grilles: No more than 5 lbs. of pressure shall be required to push up grille once emergency handle has been activated.

PART 3 - EXECUTION
3.1 EXAMINATION
A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible, do not delay job progress, allow for trimming and fitting where necessary.
3.2 INSTALLATION
A. Install grill complete, in accordance with manufacturer's instructions and recommendations.
1. Color (Exterior): Super StarGard Silver.
Color (Interior): White.
3.3 PROTECTION
A. Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

PART 3 - EXECUTION
3.1 EXAMINATION
A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible, do not delay job progress, allow for trimming and fitting where necessary.
3.2 INSTALLATION
A. Install grill complete, in accordance with manufacturer's instructions and recommendations.
1. Coordinate installation of electric operators and controls with electrical service.
B. Fit, align, lubricate, and adjust complete door assemblies level and plumb. Provide smooth operation.

SECTION 08 33 10 - OVERHEAD COILING GRILLES

PART 1 - GENERAL
1.1 SUMMARY
A. Section Includes: Provide manually operated and electrically operated overhead coiling (roll-up) grilles, with hardware and accessories as required for complete installation.
B. Related Sections:
1. Division 26, Electrical service to make-up box located on electric grille operators, empty conduit from control stations to grille operators.
1.2 SUBMITTALS
A. Product Data: Submit manufacturer's literature.
B. Shop Drawings: Indicate pertinent dimensioning, general construction, component connections and details, anchorage methods, and hardware locations.
1.3 WARRANTY
A. Extended Correction Period: Extend correction period to two years. Repair or replace systems and materials which fail to perform as intended.

PART 2 - PRODUCTS
2.1 SYSTEMS MANUFACTURERS
A. Overhead Door Corp.
B. Substitutions: Not permitted.
2.2 MATERIALS
A. System Description: Provide manually operated and electrically operated overhead coiling (roll-up) grilles, with hardware and accessories.
1. System: Provide system including grilles, tracks, springing, roller shoes, heavy duty stop operator, controls, and vehicle detectors.
2. Provide Manually Operated Grilles: Manual push-up operation with maximum 5 lbs. effort; limit door to be easily stopped in any position and remain in position until movement is reactivated.
3. Electrically Operated System: Provide electrical wiring from make-up box to electrical operators and control stations.
B. Design Criteria: Provide overhead coiling grille system for anticipated use based on type of facility.
C. Grille: Grille consisting of network of minimum 5/16" diameter horizontal rods spaced approximately 1-5/8" on center, interconnected by vertical links approximately 5/8" wide.
1. Material: ASTM B221 aluminum, with manufacturer's standard clear anodized coating.
2. Linkage: Straight linkage, vertical links maximum 9" on center.
D. End Locks: Provide grilles with end locks to act as wearing surface in guides and to prevent lateral movement; bottom fitted with angles to provide reinforcement and positive contact with floor when closed.
E. Curtain Guides: Manufacturer's standard extruded aluminum of sizes and configurations finished to match grille.
F. Bottom Bar: Manufacturer's standard type to match grille; provide replaceable flexible vinyl or neoprene continuous floor bumper at underside of bar. Bottom bar nominal 1-3/4" thick by 4" high, full width.
G. Roller Shaft (Counterbalance): Steel pipe and heavy duty helical steel spring system capable of producing sufficient torque to assure easy operation of curtain from any position; adjustable spring tension.
H. Housing: Minimum 0.020" (24 gage) steel, internally reinforced to maintain rigidity and form finished to match grille. Add motor mounting as indicated on drawings.
I. Steel Finish: Hot dip galvanize minimum G90 and factory paint to match grille. Other methods of providing protective zinc coating on steel surfaces comparable to G90 hot dip galvanizing will be acceptable.
J. Grout: Non-shrink, non-metallic, pre-mixed, factory-packaged, non-staining, non-corrosive, non-gaseous, type specifically recommended by manufacturer as applicable to job condition.
K. Electric Operators: Provide UL approved system; not less than 3/4 HP Class A insulated electric motor, fully enclosed magnetic cross-line reversing starter, with overload protection; voltage as indicated on Electrical Drawings.
1. Speed: Minimum 2 1/3' per second, maximum 1' per second.
2. Provide adjustable limit switches.
3. Provide system that allows manual operation in case of power failure but that cannot be operated from outside garage, maximum effort to manually open grille to be 25 lbs.
4. Control Stations: Weatherproof, fully guarded, electrically operated type, for each electric operator; 24 volt circuit; mounted as indicated.
5. Key Operated Stations: Provide one on each side of grille with open-close-stop positions. Masterkey to building keying system, coordinate with Section 08 71 00 - Door Hardware.
6. Reversing Contactor: Heavy duty wireless reversing contactor, safety switch wired to stop or reverse gate upon striking object.
L. Locks: Two-point double throw-bolt providing positive locking into both jambs simultaneously from one cylinder.
1. Activation: By ADA compliant thumb-turn cylinder mounted on interior side and Best 7-pin cylinder lock on exterior side.
2. Provide midpoint floor lock in grille 30 feet wide and wider.
3. Electrically Operated Grille Locks: Include electrical interlocks, cut-out switches for grille operation.
M. Emergency Release Handle: Designed to allow grille to be opened in an emergency or during a power failure from within Owner's leased space without use of any special knowledge or effort when space is occupied.
1. Electrically Operated Grilles: Activation of handle to disengage motor drive and automatically open grille 6'-0". Returning handle to normal position shall automatically reset motor drive without need for further adjustment.
2. Manually Operated Grilles: No more than 5 lbs. of pressure shall be required to push up grille once emergency handle has been activated.

PART 3 - EXECUTION
3.1 EXAMINATION
A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible, do not delay job progress, allow for trimming and fitting where necessary.
3.2 INSTALLATION
A. Install grill complete, in accordance with manufacturer's instructions and recommendations.
1. Coordinate installation of electric operators and controls with electrical service.

B. Fit, align, and adjust complete assemblies level and plumb, and to provide smooth operation.
C. Make provision for erection stresses by temporary bracing; keep work in alignment.
D. Instruct Owner's personnel in maintenance of system.
3.3 PROTECTION
A. Replace items damaged during course of installation.
B. After installation, touch-up field welds and scratched and damaged surfaces; use paint consistent with shop finish.

SECTION 08 43 15 - ALUMINUM FRAMES FOR STOREFRONT

PART 1 - GENERAL
1.1 SUMMARY
A. Section Includes:
1. Install aluminum-framed glass storefront framing system (unitized or by Owner's vendor).
2. Install unit of aluminum-framed glass storefront framing system (unitized or by Owner's vendor).
3. Glazing.
4. Glazing gaskets.
5. Glazing sealant extensions, and similar border and filler items.
6. Anchors, shims, fasteners, inserts, accessories and support brackets.
7. Supplemental internal reinforcing and secondary bracing.
B. Related Requirements:
1. Joint Sealants: Section 07 9200; system perimeter sealant and backup materials.
2. Aluminum-Framed Entrances: Section 08 4210.
3. All-Glass Entrances: Section 08 4220.
4. Door Hardware: Section 08 7100; mortise hardware reinforcement requirements affecting storefront framing members.
5. Glazing: Section 08 8000.
1.2 ADMINISTRATIVE REQUIREMENTS
A. Pre-installation Conference: Conduct conference at Project site prior to the start of the storefront work and review the installation procedures and coordination with other work. Meeting shall include Contractor, Architect, Owner's Project Manager, entrance and storefront installer, sealant installer, as well as any other subcontractors or material technical service representative whose work, or products, to be coordinated with the storefront work.
1.3 ACTION SUBMITTALS
A. Product Data: Manufacturer's literature indicating standard construction and shop drawings showing actual field measurements.
B. Samples: Typical 12 inch long extension with specified finish for approval of color.
1.4 INFORMATIONAL SUBMITTALS
A. Certification as specified.
1.5 CLOSEOUT SUBMITTALS
A. Extended warranty.
1.6 DELIVERY, STORAGE, AND HANDLING
A. Delivery: Store materials protected from exposure to harmful weather conditions and of temperature conditions recommended by manufacturer.
1.7 QUALITY ASSURANCE
A. Certification: Submit from glazing contractor, certification by a licensed structural engineer registered in Project state [] indicating compliance with applicable codes and Contract Documents.
B. After shall not proceed when in-place construction is found not in proper condition for receiving work next to be applied. Do not proceed with work until adverse conditions are corrected. Start of work signifies acceptance of supporting construction and adjacent conditions.
1.8 WARRANTY
A. Manufacturer: Submit written 2-year warranty from manufacturer, designed by installing subcontractor, agreeing to replace system components which fail in materials or workmanship. Failure includes excessive leakage, excessive deflections, deterioration of finish or metal in excess of normal weathering, and defects in accessories, weatherstripping, and other components.

PART 2 - PRODUCTS
2.1 MANUFACTURER
A. All components in the entrance assembly shall be fabricated by Okonite Glass Engineered Products.
1. Contact Information:
Chasdy Dickinson
Okonite Glass Engineered Products
P.O. Box 608
805 Airport Road
Terrell, Texas 75160
O: 800-259-7941
E-mail: cdickinson@okonite.com
B. [Exterior] Storefront System: Stick-fabricated, center set, non-thermal, "FG-3000" by Okonite Glass Engineered Products as detailed in Drawings.
1. Mullions: 2-line sightline by 4-1/2 inches deep.
2. Glazing: Center.
3. Glass: Insulating as specified in Section 08 8000, "Glazing."
B. [Interior] Storefront System: "FG-3000BFG2500" by Okonite Glass Engineered Products as detailed in Drawings.
1. Mullions: 2-line sightline by 4-1/2 inches deep.
2. Glazing: Center.
3. Glass: Insulating as specified in Section 08 8000, "Glazing."
Color (Exterior): Super StarGard Silver.
Color (Interior): White.

PART 3 - EXECUTION
3.1 EXAMINATION
A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible, do not delay job progress, allow for trimming and fitting where necessary.
3.2 INSTALLATION
A. Install grill complete, in accordance with manufacturer's instructions and recommendations.
1. Coordinate installation of electric operators and controls with electrical service.

REMODEL STORE
OLD NAVY
CAPITAL DEVELOPMENT
FOLSOM STREET
SAN FRANCISCO, CA 94105
REPS I.D.: 0000131847
STORE NUMBER: 5724
STORE LOCATION: BUCKHEAD STATION
1 BUCKHEAD LOOP NE
ATLANTA, GA 30326
DESIGN TYPE: P3
GENERATION: 18012
PROTOYPING DATE: 08/31/17
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