



SECTION 08 16 13

FIBERGLASS DOORS

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**** NOTE TO SPECIFIER **** ODL Inc.; Entry doors, doorglass, integral blinds and custom window glass.

This section is based on the products of ODL Inc., which is located at:

215 East Roosevelt Ave.
Zeeland, MI 49464
Toll Free: 800-253-3900
Phone: 616-772-9111
Email: doorglass_info@odl.com
Web: www.odl.com

[\[Click Here\]](#) for additional information.

ODL, Inc. produces a wide selection of high quality, durable, innovative doors, doorglass, integral blinds and custom window glass. Our decades of innovation and customer service, industry standards-exceeding certifications and warranties will make your life better. Whether you need entry doors, doorglass, integrated blinds for daylight and privacy control or custom glass we can deliver the commercial solution that is right for your project.

PART 1 GENERAL

1.1 SECTION INCLUDES

**** NOTE TO SPECIFIER **** Delete items below not required for project.

- A. Shaker Collection Fiberglass Doors.
- B. Shaker Flush Glazed Collection Fiberglass Doors.
- C. Contemporary Collection Fiberglass Doors.
- D. Estate Collection Fiberglass Doors.
- E. Estate Flush Glazed Collection Fiberglass Doors.
- F. Accessories.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER **** Delete any sections below not relevant to this project; add others as required.

- A. 06 48 13 - Exterior Wood Door Frames.
- B. 07 92 00 - Joint Sealants.
- C. 08 12 00 - Metal Frames.
- D. 08 13 00 - Metal Doors.
- E. 08 71 00 - Door Hardware.
- F. 08 81 00 - Glass Glazing.
- G. 08 88 00 - Special Function Glazing.
- H. 09 91 13 - Exterior Painting.
- I. 09 93 13 - Exterior Staining and Finishing.

1.3 REFERENCES

**** NOTE TO SPECIFIER **** Delete references from the list below that are not actually required by the text of the edited section. Verify edition dates of referenced standards for currency.

- A. ASTM International (ASTM):
 - 1. ASTM E283-26 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
 - 2. ASTM E330-14(2021) - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
 - 3. ASTM E331-00(2023) - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
 - 4. ASTM E1886-13a(2019) - Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials.
 - 5. ASTM E1996-24 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
- B. Miami-Dade County (MDC):
 - 1. TAS 201-94 - Impact Test Procedures.
 - 2. TAS 202-94 - Criteria for Testing Impact and Nonimpact Resistant Building Envelope Components Using Uniform Static Air Pressure.
 - 3. TAS 203-94 - Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.
- C. National Fenestration Rating Council (NFRC):
 - 1. NFRC 100-2020 - Procedure for Determining Fenestration Product U-factors.
 - 2. NFRC 200-2020 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
- D. National Fire Protection Association (NFPA):
 - 1. NFPA 80-2022 - Standard for Fire Doors and Other Opening Protectives.
 - 2. NFPA 252-2022 - Standard Methods of Fire Tests of Door Assemblies.
- E. Underwriters Laboratories (UL):
 - 1. UL 10B-2008 - Fire Tests of Door Assemblies.
 - 2. UL 10C-2016 - Positive Pressure Fire Tests of Door Assemblies.

1.4 DEFINITIONS

- A. Daylight Opening: The clear glazed area of a door or sidelight through which light passes.
- B. Dentil Shelf: Decorative shelf with tooth-like blocks or tiers, field-applied to a door face.
- C. Design Pressure (DP): The specified positive or negative wind load, expressed in pounds per square foot (Pa), that a door assembly is engineered to resist.
- D. Embossment: Molded surface profile pressed into a fiberglass door skin to create panel, plank, and edge detail.
- E. Flush Glazed: Door construction in which glass is glazed directly into the door slab, eliminating a separate doorglass frame; also termed direct glazed.
- F. High Velocity Hurricane Zone (HVHZ): Designated area, comprising Miami-Dade and Broward Counties, Florida, requiring the most rigorous impact and wind-load testing.
- G. Laminated Veneer Lumber (LVL): Structural composite lumber of bonded wood veneers, used for door stiles.
- H. Positive Pressure Fire Test: Fire test of a door assembly conducted with the furnace neutral pressure plane located near the bottom of the door, per UL 10C and NFPA 252, exposing the majority of the door height to positive furnace pressure.
- I. Simulated Divided Light (SDL): Applied grille bars that give glazing the appearance of multiple individual panes without dividing the glass.
- J. Solar Heat Gain Coefficient (SHGC): The fraction of incident solar radiation admitted through a fenestration product, per NFRC 200.
- K. Wind-Borne Debris Region (WBDR): Coastal area, defined by code, requiring impact-resistant opening protection against large missile impact.

1.5 SUBMITTALS

- A. Comply with provisions of Section 01 33 00 - Submittal Procedures.
- B. Product Data:
 - 1. Manufacturer's data sheets on each product to be used.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Typical installation methods.

**** NOTE TO SPECIFIER ** Delete if not applicable to product type.**

- C. Verification Samples: Two representative units of each type, size, texture, and color.
- D. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
- E. Manufacturer's Installation Instructions: Manufacturer's written installation instructions for each door type.

**** NOTE TO SPECIFIER ** Delete certificates and reports not required for project.**

- F. Certificates:
 - 1. Fire-Rated Door Assemblies: Manufacturer certification of compliance with NFPA 252, UL 10B, and UL 10C.

2. Impact-Rated Door Assemblies: Manufacturer certification of compliance with the specified impact and wind-load requirements.
- G. Evaluation Reports:
1. Fire-Rated Door Assemblies: Listing and labeling by a qualified testing agency.
 2. Impact-Rated Door Assemblies: Florida Building Code Product Approval or Miami-Dade County Notice of Acceptance (NOA), and Texas Department of Insurance evaluation, as applicable to project location.
- H. Warranty: Manufacturer's standard warranty document for each product.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five (5) years documented experience.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two (2) years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Furnish each type of product from a single manufacturing source to ensure uniformity.

**** NOTE TO SPECIFIER ** Delete regulatory requirements not applicable to project.**

- D. Regulatory Requirements:
1. Fire-Rated Door Assemblies: Comply with NFPA 80 and the applicable building codes; furnish assemblies listed and labeled by a qualified testing agency.
 2. Impact-Rated Door Assemblies: Comply with the applicable building code and, where required, the Florida Building Code and High Velocity Hurricane Zone requirements.

1.7 PRE-INSTALLATION CONFERENCE

- A. Convene a conference approximately two (2) weeks before scheduled commencement of the Work. Attendees include Architect, Contractor and trades involved. Agenda to include schedule, responsibilities, critical path items, and approvals.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened, undamaged packaging with identification labels intact.
- B. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
- C. Store doors flat or upright, off the ground, in a climate-controlled environment, and protected from moisture, weather, excessive temperature, and construction operations, before installation and finishing.
- D. Handle doors to prevent damage to edges, corners, and finished surfaces.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions including temperature, humidity, and ventilation within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside of manufacturer's recommended limits.

1.10 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard limited warranty against defects in materials and workmanship for fiberglass doors, for the durations listed below, unless indicated otherwise:
 - 1. Residential Single Family: Limited lifetime.
 - 2. Residential Multi-Family: Three (3) years.
- B. Warranty Conditions: Coverage requires field finishing of the door faces and edges within six (6) months of installation.
- C. Glazing Warranty: For insulating glass and doorglass warranties, see Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: ODL Inc. which is located at: 215 East Roosevelt Ave.; Zeeland, MI 49464; Toll Free Tel: 800-253-3900; Tel: 616-772-9111; Email: doorglass_info@odl.com; Web: www.odl.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered per the provisions of Section 01 25 00 - Substitution Procedures.

**** NOTE TO SPECIFIER ** Delete collection articles below not required for project.**

2.2 SHAKER COLLECTION FIBERGLASS DOORS

- A. Basis of Design: Shaker Collection fiberglass doors, manufactured by ODL Inc.
- B. Performance Requirements:
 - 1. SHGC: In conformance to local requirements as indicated on Drawings; NFRC 200.
 - 2. U-Factor: In conformance to local requirements as indicated on Drawings; NFRC 100.

**** NOTE TO SPECIFIER ** Delete fire-rated option if not required.**

- 3. Fire-Rated Option:
 - a. Fire Protection Rating: 20 minutes; Category B positive pressure with hose stream, tested per NFPA 252, UL 10B, and UL 10C.
 - b. Gasketing: Listed Category G gasket in positive pressure applications; listed Category H gasket for smoke- and draft-control rating.
 - c. Maximum Door Size: 3 feet 0 inches x 8 feet 0 inches (914 x 2438 mm), single unit.
 - d. Label: Manufacturer-applied 20-minute mylar fire label; custom label available for authorized customers.

**** NOTE TO SPECIFIER ** Delete impact-rated option if not required.**

- 4. Impact-Rated Option:
 - a. Certification: HVHZ and WBDK; Florida Building Code Product Approval and Texas Department of Insurance evaluation.
 - b. Standards:
 - 1) ASTM E283 for air infiltration.
 - 2) ASTM E330 for structural performance under uniform static load.
 - 3) ASTM E331 for water penetration.
 - 4) ASTM E1886 and ASTM E1996 for impact and cyclic pressures.
 - 5) Miami-Dade TAS 201, TAS 202, and TAS 203 for HVHZ applications.

- c. Design Wind Speed: Up to 150 mph (241 km/h).
- d. Design Pressure: As indicated on Drawings or Specifications.
- e. Glazing: Impact-rated doorglass where glazed; see Section 08 88 00 - Special Function Glazing.

C. Physical Properties:

- 1. Door Thickness: 1-3/4 inches (44 mm).
- 2. Door Height: As indicated on Drawings.
- 3. Door Width: As indicated on Drawings.

D. Materials:

- 1. Fiberglass Skin: Compression-molded fiberglass.
- 2. Foam Core:
 - a. Material: Foamed-in-place polyurethane.
 - b. Density: 2.2 lbs per cu ft (35 kg per cu m).
- 3. Side Stiles: LVL with composite PVC cap.
- 4. Lock Block: Pine.
- 5. Top Rail: Composite.
- 6. Bottom Rail: Composite, kerfed for drive-in sweep.

E. Fabrication:

- 1. Edge Design: Square edge.
- 2. Build Type:

**** NOTE TO SPECIFIER ** Delete build type options not required.**

- a. Standard: Structural pine lock block at indicated location.
- b. Standard Plus: Full-length engineered lumber lock stile.
- c. Premium: Full-length engineered lumber lock and hinge stiles.

3. Hardware Preparation:

**** NOTE TO SPECIFIER ** Delete hardware preparation options not required.**

- a. Cylindrical lockset; 2-3/8 inch (60 mm) backset.
 - b. Cylindrical lockset; 2-3/4 inch (70 mm) backset.
4. Hinge Preparation: 4 inch (100 mm) mortise hinge preparation.

**** NOTE TO SPECIFIER ** Delete reinforced blocking options not required; for commercial and multi-family hardware.**

- 5. Reinforced Blocking:
 - a. Closer Prep: Reinforced closer block for regular and parallel-arm surface closers.
 - b. Panic Prep: Reinforced blocking with 4 inch (100 mm) face stiles for panic and exit-device hardware.

**** NOTE TO SPECIFIER ** Delete elevated bottom rail if not required.**

- 6. Elevated Bottom Rail: 10 inch (254 mm) net smooth bottom rail, where indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete glazing preparation if not required.**

- 7. Glazing Preparation:
 - a. Glazing and Frame Types: As indicated on Drawings.
 - b. Doorglass and Frame Openings: Factory locate, size, and cut openings as indicated on Drawings.
 - c. See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing for glazing and framing requirements.

F. Embossment Profile: Shaker.

G. Door Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete door design options not required.**

- 1. 1 Panel Shaker.

2. 2 Panel Shaker.
3. 3 Panel Craftsman.
4. 3 Panel Shaker.
5. 5 Panel Shaker.

**** NOTE TO SPECIFIER ** Delete matching sidelights if not required.**

- H. Matching Sidelights: Fixed fiberglass sidelight units of construction, texture, and finish matching the door, factory-prepared for glazing or direct-glazed to match.
1. Sidelight Design: As indicated on Drawings.
 - a. Craftsman Sidelight.
 2. Sidelight Style, Size, and Handing: As indicated on Drawings.
 3. Glazing: See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.
- I. Textures and Finishes:
1. Textures: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete texture options not required.**

- a. Rift Cut: Woodgrain texture; field-stainable.
- b. Satin Smooth: Smooth texture; factory-primed, field-paintable.
2. Painting and Staining: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete painting and staining options not required.**

- a. Exterior Painting: See Section 09 91 13 - Exterior Painting.
 - b. Exterior Staining and Finishing: See Section 09 93 13 - Exterior Staining and Finishing.
 3. Color: As indicated on Drawings.
- J. Door Hardware: See Section 08 71 00 - Door Hardware.

2.3 SHAKER FLUSH GLAZED COLLECTION FIBERGLASS DOORS

- A. Basis of Design: Shaker Flush Glazed Collection fiberglass doors, manufactured by ODL Inc.
- B. Performance Requirements:
1. SHGC: In conformance to local requirements as indicated on Drawings; NFRC 200.
 2. U-Factor: In conformance to local requirements as indicated on Drawings; NFRC 100.

**** NOTE TO SPECIFIER ** Delete impact-rated option if not required.**

3. Impact-Rated Option:
 - a. Certification: HVHZ and WBDR; Florida Building Code Product Approval and Texas Department of Insurance evaluation.
 - b. Standards:
 - 1) ASTM E283 for air infiltration.
 - 2) ASTM E330 for structural performance under uniform static load.
 - 3) ASTM E331 for water penetration.
 - 4) ASTM E1886 and ASTM E1996 for impact and cyclic pressures.
 - 5) Miami-Dade TAS 201, TAS 202, and TAS 203 for HVHZ applications.
 - c. Design Wind Speed: Up to 150 mph (241 km/h).
 - d. Design Pressure: As indicated on Drawings or Specifications.
 - e. Glazing: Impact-rated doorglass where glazed; see Section 08 88 00 - Special Function Glazing.
- C. Physical Properties:
1. Door Thickness: 1-3/4 inches (44 mm).
 2. Door Height: As indicated on Drawings.
 3. Door Width: As indicated on Drawings.

- D. Materials:
1. Fiberglass Skin: Compression-molded fiberglass.
 2. Foam Core:
 - a. Material: Foamed-in-place polyurethane.
 - b. Density: 2.2 lbs per cu ft (35 kg per cu m).
 3. Side Stiles: LVL with composite PVC cap.
 4. Lock Block: Pine.
 5. Top Rail: Composite.
 6. Bottom Rail: Composite, kerfed for drive-in sweep.

- E. Fabrication:
1. Edge Design: Square edge.
 2. Build Type:

**** NOTE TO SPECIFIER ** Delete build type options not required.**

- a. Standard: Structural pine lock block at indicated location.
 - b. Standard Plus: Full-length engineered lumber lock stile.
 - c. Premium: Full-length engineered lumber lock and hinge stiles.
3. Hardware Preparation:

**** NOTE TO SPECIFIER ** Delete hardware preparation options not required.**

- a. Cylindrical lockset; 2-3/8 inch (60 mm) backset.
 - b. Cylindrical lockset; 2-3/4 inch (70 mm) backset.
4. Hinge Preparation: 4 inch (100 mm) mortise hinge preparation.

**** NOTE TO SPECIFIER ** Delete reinforced blocking options not required; for commercial and multi-family hardware.**

5. Reinforced Blocking:
 - a. Closer Prep: Reinforced closer block for regular and parallel-arm surface closers.
 - b. Panic Prep: Reinforced blocking with 4 inch (100 mm) face stiles for panic and exit-device hardware.
6. Glazing: Factory direct-glazed into the door slab; glass up to 25 inches (635 mm) wide; Low-E 366 standard on non-decorative glass.
 - a. Glass and Blind Types: As indicated on Drawings.
 - b. See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing for glazing requirements.

- F. Embossment Profile: Shaker.

- G. Door Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete door design options not required.**

1. 1/2 Light Shaker.
2. 2 Panel Craftsman.
3. 3/4 Light Shaker.

- H. Matching Sidelights: Fixed fiberglass sidelight units of construction, texture, and finish matching the door, factory-prepared for glazing or direct-glazed to match.

1. Sidelight Designs: As indicated on Drawings.
 - a. 3/4 Light Sidelight.
 - b. Craftsman Sidelight.
2. Sidelight Style, Size, and Handing: As indicated on Drawings.
3. Glazing: See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.

- I. Textures and Finishes:

1. Textures: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete texture options not required.**

- a. Rift Cut: Woodgrain texture; field-stainable.
- b. Satin Smooth: Smooth texture; factory-primed, field-paintable.
- 2. Painting and Staining: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete painting and staining options not required.**

- a. Exterior Painting: See Section 09 91 13 - Exterior Painting.
- b. Exterior Staining and Finishing: See Section 09 93 13 - Exterior Staining and Finishing.
- 3. Color: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete matching sidelights if not required.**

- J. Door Hardware: See Section 08 71 00 - Door Hardware.

2.4 CONTEMPORARY COLLECTION FIBERGLASS DOORS

- A. Basis of Design: Contemporary Collection fiberglass doors, manufactured by ODL Inc.
- B. Performance Requirements:
 - 1. SHGC: In conformance to local requirements as indicated on Drawings; NFRC 200.
 - 2. U-Factor: In conformance to local requirements as indicated on Drawings; NFRC 100.
- C. Physical Properties:
 - 1. Door Thickness: 1-3/4 to 1-13/16 inches (44 to 46mm).
 - 2. Door Height: As indicated on Drawings.
 - 3. Door Width: As indicated on Drawings.
- D. Materials:
 - 1. Fiberglass Skin: Compression-molded fiberglass.
 - 2. Foam Core:
 - a. Material: Foamed-in-place polyurethane.
 - b. Density: 2.2 lbs per cu ft (35 kg per cu m).
 - 3. Side Stiles: LVL with composite PVC cap.
 - 4. Lock Block: Pine.
 - 5. Top Rail: Composite.
 - 6. Bottom Rail: Composite, kerfed for drive-in sweep.
- E. Fabrication:
 - 1. Edge Design: Square edge.
 - 2. Build Type:

**** NOTE TO SPECIFIER ** Delete build type options not required.**

- a. Standard: Structural pine lock block at indicated location.
- b. Standard Plus: Full-length engineered lumber lock stile.
- c. Premium: Full-length engineered lumber lock and hinge stiles.
- 3. Hardware Preparation:

**** NOTE TO SPECIFIER ** Delete hardware preparation options not required.**

- a. Cylindrical lockset; 2-3/8 inch (60 mm) backset.
- b. Cylindrical lockset; 2-3/4 inch (70 mm) backset.
- 4. Hinge Preparation: 4 inch (100 mm) mortise hinge preparation.

**** NOTE TO SPECIFIER ** Delete reinforced blocking options not required; for commercial and multi-family hardware.**

- 5. Reinforced Blocking:
 - a. Closer Prep: Reinforced closer block for surface closers.
 - b. Panic Prep: Reinforced blocking with 4 inch (100 mm) stiles for exit-devices.

**** NOTE TO SPECIFIER ** Delete glazing preparation if not required.**

- 6. Glazing Preparation:

- a. Glazing and Frame Types: As indicated on Drawings.
- b. Doorglass and Frame Openings: Factory locate, size, and cut openings as indicated on Drawings.
- c. See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing for glazing and framing requirements.

F. Embossment Profile: Contemporary grooved design.

G. Door Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete door design options not required.**

- 1. Contemporary 05.
- 2. Contemporary 12.
- 3. Contemporary 14.
- 4. Contemporary 16.
- 5. Contemporary 24.
- 6. Contemporary 29.
- 7. Contemporary 30.
- 8. Contemporary 60.

**** NOTE TO SPECIFIER ** Delete direct-set sidelights if not required.**

A. Direct-Set Sidelights: Fixed fiberglass sidelight units of construction, texture, and finish matching the door, factory-prepared for glazing or direct-glazed to match.

- 1. Sidelight Designs: As indicated on Drawings.
- 2. Sidelight Style, Size, and Handing: As indicated on Drawings.
- 3. Glazing: See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.

B. Textures and Finishes:

- 1. Textures: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete texture options not required.**

- a. Fine Grain: Fine woodgrain texture; field-stainable.
- b. Satin Smooth: Smooth texture; factory-primed, field-paintable.
- 2. Painting and Staining: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete painting and staining options not required.**

- a. Exterior Painting: See Section 09 91 13 - Exterior Painting.
- b. Exterior Staining and Finishing: See Section 09 93 13 - Exterior Staining and Finishing.
- 3. Color: As indicated on Drawings.

C. Door Hardware: See Section 08 71 00 - Door Hardware.

2.5 ESTATE COLLECTION FIBERGLASS DOORS

A. Basis of Design: Estate Collection fiberglass doors, manufactured by ODL Inc.

B. Performance Requirements:

- 1. SHGC: In conformance to local requirements as indicated on Drawings; NFRC 200.
- 2. U-Factor: In conformance to local requirements as indicated on Drawings; NFRC 100.

**** NOTE TO SPECIFIER ** Delete fire-rated option if not required.**

- 3. Fire-Rated Option:
 - a. Fire Protection Rating: 20 minutes; Category B positive pressure with hose stream, tested per NFPA 252, UL 10B, and UL 10C.
 - b. Gasketing: Listed Category G gasket in positive pressure applications; listed Category H gasket for smoke- and draft-control rating.

- c. Maximum Door Size: 3 feet 0 inches x 8 feet 0 inches (914 x 2438 mm), single unit.
- d. Label: Manufacturer-applied 20-minute mylar fire label; custom label available for authorized customers.

**** NOTE TO SPECIFIER ** Delete impact-rated option if not required.**

- 4. Impact-Rated Option:
 - a. Certification: HVHZ and WBDR; Florida Building Code Product Approval and Texas Department of Insurance evaluation.
 - b. Standards:
 - 1) ASTM E283 for air infiltration.
 - 2) ASTM E330 for structural performance under uniform static load.
 - 3) ASTM E331 for water penetration.
 - 4) ASTM E1886 and ASTM E1996 for impact and cyclic pressures.
 - 5) Miami-Dade TAS 201, TAS 202, and TAS 203 for HVHZ applications.
 - c. Design Wind Speed: Up to 150 mph (241 km/h).
 - d. Design Pressure: As indicated on Drawings or Specifications.
 - e. Glazing: Impact-rated doorglass where glazed; see Section 08 88 00 - Special Function Glazing.

- C. Physical Properties:
 - 1. Door Thickness: 1-3/4 inches (44 mm).
 - 2. Door Height: As indicated on Drawings.
 - 3. Door Width: As indicated on Drawings.

- D. Materials:
 - 1. Fiberglass Skin: Compression-molded fiberglass.
 - 2. Foam Core:
 - a. Material: Foamed-in-place polyurethane.
 - b. Density: 2.2 lbs per cu ft (35 kg per cu m).
 - 3. Side Stiles: LVL with composite PVC cap.
 - 4. Lock Block: Pine.
 - 5. Top Rail: Composite.
 - 6. Bottom Rail: Composite, kerfed for drive-in sweep.

- E. Fabrication:
 - 1. Edge Design: Square edge.
 - 2. Build Type:

**** NOTE TO SPECIFIER ** Delete build type options not required.**

- a. Standard: Structural pine lock block at indicated location.
 - b. Standard Plus: Full-length engineered lumber lock stile.
 - c. Premium: Full-length engineered lumber lock and hinge stiles.
- 3. Hardware Preparation:

**** NOTE TO SPECIFIER ** Delete hardware preparation options not required.**

- a. Cylindrical lockset; 2-3/8 inch (60 mm) backset.
 - b. Cylindrical lockset; 2-3/4 inch (70 mm) backset.
- 4. Hinge Preparation: 4 inch (100 mm) mortise hinge preparation.

**** NOTE TO SPECIFIER ** Delete reinforced blocking options not required; for commercial and multi-family hardware.**

- 5. Reinforced Blocking:
 - a. Closer Prep: Reinforced closer block for regular and parallel-arm surface closers.
 - b. Panic Prep: Reinforced blocking with 4 inch (100 mm) face stiles for panic and exit-device hardware.

**** NOTE TO SPECIFIER ** Delete elevated bottom rail if not required.**

6. Elevated Bottom Rail: 10 inch (254 mm) net smooth bottom rail, where indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete glazing preparation if not required.**

7. Glazing Preparation:
 - a. Glazing and Frame Types: As indicated on Drawings.
 - b. Doorglass and Frame Openings: Factory locate, size, and cut openings as indicated on Drawings.
 - c. See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing for glazing and framing requirements.

F. Embossment Profile:

**** NOTE TO SPECIFIER ** Delete embossment profile options not required.**

1. Edge.
2. Edge Plus on plank designs.

G. Door Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete door design options not required.**

1. 2 Panel 3/4 Top.
2. 2 Panel Camber.
3. 2 Panel Camber Plank.
4. 2 Panel Square.
5. 3 Panel 3/4 Top.
6. 4 Panel Blank Top.
7. 6 Panel.
8. 6 Panel Narrow.
9. ADA 2 Panel Square.
10. ADA 6 Panel.
11. Flush.

**** NOTE TO SPECIFIER ** Delete sidelight design paragraph if not required.**

H. Matching Sidelights: Fixed fiberglass sidelight units of construction, texture, and finish matching the door, factory-prepared for glazing or direct-glazed to match.

1. Sidelight Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete sidelight design options not required.**

- a. 1/2 Light Sidelight.
- b. 3/4 Light Sidelight.
- c. 2 Panel Reversible Sidelight.
- d. Flush Sidelight.
- e. Full Light Sidelight.
2. Sidelight Style, Size, and Handing: As indicated on Drawings.
3. Glazing: See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.

I. Textures and Finishes:

1. Textures: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete texture options not required.**

- a. Rift Cut: Woodgrain texture; field-stainable.
- b. Satin Smooth: Smooth texture; factory-primed, field-paintable.
2. Painting and Staining: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete painting and staining options not required.**

- a. Exterior Painting: See Section 09 91 13 - Exterior Painting.
- b. Exterior Staining and Finishing: See Section 09 93 13 - Exterior Staining and Finishing.
3. Color: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete matching sidelights if not required.**

J. Door Hardware: See Section 08 71 00 - Door Hardware.

2.6 ESTATE FLUSH GLAZED COLLECTION FIBERGLASS DOORS

A. Basis of Design: Estate Flush Glazed Collection fiberglass doors, manufactured by ODL Inc.

B. Performance Requirements:

1. SHGC: In conformance to local requirements as indicated on Drawings; NFRC 200.
2. U-Factor: In conformance to local requirements as indicated on Drawings; NFRC 100.

**** NOTE TO SPECIFIER ** Delete impact-rated option if not required.**

3. Impact-Rated Option:

- a. Certification: HVHZ and WBDR; Florida Building Code Product Approval and Texas Department of Insurance evaluation.
- b. Standards:
 - 1) ASTM E283 for air infiltration.
 - 2) ASTM E330 for structural performance under uniform static load.
 - 3) ASTM E331 for water penetration.
 - 4) ASTM E1886 and ASTM E1996 for impact and cyclic pressures.
 - 5) Miami-Dade TAS 201, TAS 202, and TAS 203 for HVHZ applications.
- c. Design Wind Speed: Up to 150 mph (241 km/h).
- d. Design Pressure: As indicated on Drawings or Specifications.
- e. Glazing: Impact-rated doorglass where glazed; see Section 08 88 00 - Special Function Glazing.

C. Physical Properties:

1. Door Thickness: 1-3/4 inches (44 mm).
2. Door Height: As indicated on Drawings.
3. Door Width: As indicated on Drawings.

D. Materials:

1. Fiberglass Skin: Compression-molded fiberglass.
2. Foam Core:
 - a. Material: Foamed-in-place polyurethane.
 - b. Density: 2.2 lbs per cu ft (35 kg per cu m).
3. Side Stiles: LVL with composite PVC cap.
4. Lock Block: Pine.
5. Top Rail: Composite.
6. Bottom Rail: Composite, kerfed for drive-in sweep.

E. Fabrication:

1. Edge Design: Square edge.
2. Build Type:

**** NOTE TO SPECIFIER ** Delete build type options not required.**

- a. Standard: Structural pine lock block at indicated location.
- b. Standard Plus: Full-length engineered lumber lock stile.
- c. Premium: Full-length engineered lumber lock and hinge stiles.

3. Hardware Preparation:

**** NOTE TO SPECIFIER ** Delete hardware preparation options not required.**

- a. Cylindrical lockset; 2-3/8 inch (60 mm) backset.
- b. Cylindrical lockset; 2-3/4 inch (70 mm) backset.
4. Hinge Preparation: 4 inch (100 mm) mortise hinge preparation.

**** NOTE TO SPECIFIER ** Delete reinforced blocking options not required; for commercial and multi-family hardware.**

5. Reinforced Blocking:
 - a. Closer Prep: Reinforced closer block for regular and parallel-arm surface closers.
 - b. Panic Prep: Reinforced blocking with 4 inch (100 mm) face stiles for panic and exit-device hardware.
6. Glazing: Factory direct-glazed into the door slab; glass up to 25 inches (635 mm) wide; Low-E 366 standard on non-decorative glass.
 - a. Glass and Blind Types: As indicated on Drawings.
 - b. See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing for glazing requirements.

F. Embossment Profile: Edge.

G. Door Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete door design options not required.**

1. 1 Light.
2. 1 Light Narrow.
3. 3/4 Light Estate.
4. Craftsman Plank.

**** NOTE TO SPECIFIER ** Delete matching sidelights if not required.**

H. Matching Sidelights: Fixed fiberglass sidelight units of construction, texture, and finish matching the door, factory-prepared for glazing or direct-glazed to match.

1. Sidelight Designs: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete sidelight design options not required.**

- a. 3/4 Light Sidelight.
2. Sidelight Style, Size, and Handing: As indicated on Drawings.
3. Glazing: See Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.

I. Textures and Finishes:

1. Textures: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete texture options not required.**

- a. Rift Cut: Woodgrain texture; field-stainable.
- b. Satin Smooth: Smooth texture; factory-primed, field-paintable.
2. Painting and Staining: As indicated on Drawings.

**** NOTE TO SPECIFIER ** Delete painting and staining options not required.**

- a. Exterior Painting: See Section 09 91 13 - Exterior Painting.
- b. Exterior Staining and Finishing: See Section 09 93 13 - Exterior Staining and Finishing.
3. Color: As indicated on Drawings.

J. Door Hardware: See Section 08 71 00 - Door Hardware.

2.7 ACCESSORIES

**** NOTE TO SPECIFIER ** Delete dentil shelves if not required.**

A. Dentil Shelves: Field-applied decorative accessory for Craftsman door designs, available in the following sizes:

1. 2 Tier Dentil Shelf: 23-3/4 x 2-1/2 inches (603 x 64 mm).
2. 4 Block Dentil Shelf: 23-1/2 x 3-1/2 inches (597 x 89 mm).

**** NOTE TO SPECIFIER ** Delete SDL kits if not required.**

- B. Simulated Divided Light (SDL) Bar Kits: Applied bars sized to the doorglass that create the appearance of true divided lights; see Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing for doorglass.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that openings and frames are correctly sized and located, plumb, square, level, and ready to receive the doors.
- B. Verify door handedness and swing against the Drawings before installation.
- C. Do not begin installation until the substrates have been properly constructed and prepared.
- D. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly before 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 per manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
- B. Install doors plumb, level, square, and true, in proper alignment and within manufacturer's tolerances.
- C. Install doors of the correct handedness and swing as indicated on Drawings.
- D. Anchor doors securely per manufacturer's instructions.
- E. Maintain uniform clearances and margins at the head, jambs, and meeting stiles, and required clearance at the sill.
- F. Coordinate installation of door hardware, doorglass, and perimeter joint sealant; see Sections 08 71 00 - Door Hardware, 08 81 00 - Glass Glazing, 08 88 00 - Special Function Glazing, and 07 92 00 - Joint Sealants.

**** NOTE TO SPECIFIER ** Delete fire-rated door assemblies below if not required.**

- G. Fire-Rated Door Assemblies: Install per NFPA 80 and the manufacturer listing; maintain the labeled configuration and listed clearances.

**** NOTE TO SPECIFIER ** Delete impact-rated door assemblies below if not required.**

- H. Impact-Rated Door Assemblies: Install per applicable local codes and the applicable Florida Building Code Product Approval or Miami-Dade County Notice of Acceptance (NOA).
- I. Field Finishing: Field-paint or field-stain doors per manufacturer's written instructions; complete finishing of the door faces and edges within six (6) months of installation.
 - 1. Exterior Painting: See Section 09 91 13 - Exterior Painting.
 - 2. Exterior Staining and Finishing: See Section 09 93 13 - Exterior Staining and Finishing.

3.4 INSTALLATION - ACCESSORIES

- A. Dentil Shelf: Field-apply to the door face per manufacturer's instructions.
- B. SDL Bar Kits: Apply to doorglass per manufacturer's instructions; see Sections 08 81 00 - Glass Glazing and 08 88 00 - Special Function Glazing.

3.5 ADJUSTING

- A. Adjust doors and operating hardware for smooth operation, full closure, uniform margins, and weathertight seal.
- B. Adjust doors equipped with adjustable hinges per manufacturer's instructions to align the door within the frame.

3.6 FIELD QUALITY CONTROL

- A. Field Inspection: Coordinate field inspection per appropriate sections in Division 01.

3.7 CLEANING AND PROTECTION

- A. Clean doors and glazing per manufacturer's recommendations.
- B. Protect installed doors and finishes from damage during construction.
- C. Remove temporary protective coverings before Substantial Completion.
- D. Touch up, repair, or replace damaged products before Substantial Completion.

END OF SECTION