SECTION 08 41 26

ALL-GLASS ENTRANCES

1. GENERAL
	* + 1. SUMMARY
				1. Work includes:

[Exterior] [and] [interior] all-glass door [and sidelite] assembly components with concealed door closers, rail fittings, patch fittings, [and] top and bottom pivots [, and sliding door hardware.]

Installation of Glass components of All-Glass Entrances supplied under Division 8: Glass and Glazing:

[Swinging doors, single-acting [and] double-acting, as a component of the assembly.]

[Sliding doors (not on exterior), as a component of the assembly.]

[Sidelites and transoms, as a component of the assembly.]

* + - * 1. Related Sections:

Division 6: Rough Carpentry.

Division 8: Glass and Glazing

Division 8: Automatic Door Operators

Division 8: Door Hardware

Division 9: Finishes

Division 26 Electrical

Division 28: Electronic Security

Specifier: Add or delete additional sections as required. The following are suggested sections you may want to add.

Division 8: Misc. Frame Sections

Division 8: Aluminum Doors and Frames

Division 8: Hollow Metal Doors and Frames.

Division 8: Wood Doors.

* + - 1. REFERENCE STANDARDS

Specifier: If retaining References article, edit the list below to include only those references in the edited section.

American Architectural Manufacturers Association (AAMA): AAMA 611 Voluntary Specification for Anodized Architectural Aluminum - [www.aama.org](http://www.aama.org)

ASTM International (ASTM): ASTM C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass [www.astm.org](http://www.astm.org)

Builders Hardware Manufacturers Association (BHMA): ANSI/BHMA A156 Series - [www.buildershardware.com](http://www.buildershardware.com)

Code of Federal Regulations - 16 CFR 1201 Safety Standard for Architectural Glazing Materials

International Code Council (ICC): ICC A117.1 Accessible and Usable Buildings and Facilities (ANSI) - [www.iccsafe.org](http://www.iccsafe.org)

U.S. Architectural & Transportation Barriers Compliance Board: [www.access-board.gov](http://www.access-board.gov):

Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities

* + - 1. SUBSTITUTIONS:
				1. Comply with Division 1.
			2. ADMINISTRATIVE REQUIREMENTS
				1. Coordination:

Coordinate installation of all-glass door assemblies with installation of floor and wall opening construction to comply with tolerance requirements of recessed components.

Coordinate installation of anchors and blocking indicated on all-glass entrance shop drawings.

* + - 1. SUBMITTALS
				1. Product Data: For each all-glass entrance component, including:

Glass panels.

Rail [and] Patch fittings.

Door closer and pivots.

Auxiliary door hardware and accessories.

* + - * 1. Shop Drawings: For glass door assemblies.

Include plans, elevations, sections, and details. Use glass panel type designations used in this Section and on Drawings.

Locations and requirements for recesses and attachments to other work.

Door hardware components, locations, mounting heights, and installation requirements.

Size and finish of each item.

Indicate Handing of each door and hardware component.

Indicate finish floor type and thickness and if any underlayment is required.

* + - * 1. Samples for Verification (If requested by the Owner or Architect): For each exposed component including hardware, for each color and finish selected, of size indicated below:

Glass: Minimum of 6 inches (150 mm) square, showing exposed-edge finish [and tint].

Hardware: One of each type of exposed door hardware items.

* + - * 1. Informational Submittals

Installer Qualification Data.

Warranty: Sample of unexecuted manufacturer warranty.

* + - * 1. Closeout Submittals

Maintenance Data: Include maintenance manuals for all-glass door assemblies.

* + - 1. QUALITY ASSURANCE
				1. Installer Qualifications: Experienced Installer equipped and trained for installation of glass door assemblies required for this Project with record of successful completion of not less than five projects of similar scope.
			2. WARRANTY
				1. Manufacturer's Warranty: Standard form in which manufacturer agrees to repair or replace components of glass door assemblies that demonstrate deterioration or faulty operation due to defects in materials or workmanship under normal use within warranty period specified.

Warranty Period: [Two] years pursuant to Manufacturer’s Warranty documentation from the date of invoice unless otherwise indicated by Product Manufacturer.

1. PRODUCTS
	* + 1. MANUFACTURERS

Specifier: Retain option in "Basis of Design Product" Paragraph for evaluating substitutions when required for project.

* + - * 1. Basis-of-Design Product: Provide glass door assemblies manufactured by dormakaba USA, Inc.; (844) 773-2669; email: specifications@dormakaba.com ; website: [www.dormakaba.us](http://www.dormakaba.us).
				2. Source Limitations: Provide all-glass entrance assemblies including glass panels, fittings and hardware, and accessories through one source.
			1. ALL-GLASS ENTRANCE ASSEMBLIES
				1. All-Glass Entrance Assembly Configurations: [Exterior] [Interior] tempered-glass frameless entrance assembly, with perimeter fittings, [patch fitting mountings] [rail fitting mountings,] and supports, door pivots [, closers] [, locks] [, and] [accessories].

Manual-Swinging, All-Glass Entrance Doors:

[Patch fittings] [Rail fittings] at head and [Patch fittings] [Rail fittings] at sill [, and lock at sill of swing side] [, and for lock and strike].

Single Door: Size as scheduled [, single-action] [, double-action].

Double Door: Size as scheduled [, single-action] [, double-action].

Door Supports: [Adjacent glass panels] [Building structure indicated on Drawings] [Metal frame specified in [insert section #].

[All-Glass Entrance,] [Sidelights] [, and] [Transoms] [, and Fins]: Glass panels of material and thickness specified, of size indicated on Drawings, held within [dry gasket glazing channel] [glazing U channels] [Rail] [Patch] perimeter fittings [, including mechanical channel at suspended transom].

* + - 1. PATCH FITTINGS

Specifier: Retain option for safety clamping fittings in "Patch Fittings, General" Paragraph below when required to secure free-hanging glass units. Verify requirements with dormakaba representative.

* + - * 1. Patch Fittings:

Top and bottom patch fittings to be 2 inches x 6-1/2 inches and to include the following components:

Base fitting - cast aluminum with adjustable connecting screws, with frame.

Adjustable Inserts – material to be a combination of aluminum and hardened steel.

Inserts to accommodate the pivot/closer mechanisms.

Covers - snap on type in [aluminum anodized], [stainless steel], [and] [glass] as finish requires.

Provide Fiber Gasket between glass and aluminum assembly, with the addition of a 2-part epoxy and corresponding gasket for laminated glass and doors over 330 lbs.

Specifier: Refer to dormakaba literature for weight and glass thickness capacities and limitations for dormakaba Universal, MUNDUS, and EA patch fittings.

* + - * 1. Patch Fittings:

Basis of Design, **dormakaba [Universal] [MUNDUS Premium] [MUNDUS Comfort] Center Hung Patch Fittings**.

Basis of Design, **dormakaba EA Offset Patch Fittings**.

Clip-on Cover Material and Finish:

Aluminum, [clear anodized] [dark bronze color anodized] [black color anodized] [aluminum color anodized] [stainless steel color anodized].

Aluminum, [Brass-clad aluminum] [Bronze-clad aluminum] [Stainless-steel-clad aluminum].

Aluminum, powder coated, <match Architect's custom color> <insert color>.

Brass, [satin, without lacquer] [polished, without lacquer].

Bronze, [satin, without lacquer] [polished, without lacquer].

Stainless steel, [satin] [polished].

Glass [black] (**MUNDUS only)**

* + - * 1. Materials for base plates, components, and covers:

Aluminum: ASTM B 221 (ASTM B 221M), with strength and durability characteristics of not less than Alloy 6063-T5.

Bronze Cladding: ASTM B 36/B 36M, alloy as standard with manufacturer.

Brass Cladding: ASTM B 36/B 36M, alloy as standard with manufacturer.

Stainless-Steel Cladding: ASTM A 666, Type 304.

Glass. (**MUNDUS only)**

Specifier: Retain applicable door hardware components in "Door Hardware and Fittings" Article. Show location of door hardware components on Drawings.

* + - 1. RAIL FITTINGS
				1. Rail Fittings, General: All-glass clamping fittings in types, sizes, quantities, and mounting locations recommended by manufacturer for glass door types, sizes, and operation and glass panel configurations.

Basis of Design, **dormakaba DRS Rails**.

Material and Finish:

Aluminum, [clear anodized] [dark bronze color anodized] [black color anodized] [aluminum color anodized].

Aluminum, [Brass-clad aluminum] [Bronze-clad aluminum] [Stainless-steel-clad aluminum].

Aluminum, powder coated, <match Architect's custom color> <insert color>.

Brass, [satin, without lacquer] [polished, without lacquer].

Bronze, [satin, without lacquer] [polished, without lacquer].

Stainless steel, [satin] [polished].

Rail Configurations:

Top Rail: [2-1/2 inches (64 mm)] [3-5/8 inches (92 mm)] [4 inches (102 mm)] [6 inches (152 mm)] [10 inches (254 mm)] by length required for door size indicated.

Specifier: 6 and 10-inch rails not available with tapered covers

Profile: [Square] [Tapered].

Hardware: With manufacturer's standard pivot [and lock].

Bottom Rail: [2-1/2 inches (64 mm)] [3-5/8 inches (92 mm)] [4 inches (102 mm)] [6 inches (152 mm)] [10 inches (254 mm)] by length required for door size indicated.

Profile: [Square] [Tapered].

With manufacturer's standard pivot [and lock].

End Caps: Manufacturer's standard precision-fit end caps for rail fittings.

* + - * 1. Materials:

Aluminum: ASTM B 221 (ASTM B 221M), with strength and durability characteristics of not less than Alloy 6063-T5.

Bronze Cladding: ASTM B 36/B 36M, alloy as standard with manufacturer.

Brass Cladding: ASTM B 36/B 36M, alloy as standard with manufacturer.

Stainless-Steel Cladding: ASTM A 666, Type 304.

2.5 SLIDING DOOR ASSEMBLIES

Specifier: Note that if space has 10 or more occupants, sliding doors must be equipped with a breakaway function not available with sliding door units. dormakaba sliding interior doors may be used in rooms with occupancy of less than 10, or in spaces with 10 or more occupants room equipped with a second means of egress. Verify requirements with local code authorities.

* + - * 1. Accessibility Standard: Comply with applicable provisions in [ADA[-ABA] Accessibility Guidelines for Buildings and Facilities] [and] [ICC A117.1] [requirements of authorities having jurisdiction].
				2. Door Panels:

[Glass panels of material and thickness specified, of size indicated on Drawings.]

[Wood panels of material and thickness specified, of size indicated on Drawings.] (MUTO, RS/DRS120 only)

* + - * 1. [Sidelights: Glass panels of material and thickness specified, of size indicated on Drawings.]
				2. Sliding Door Track: Full-width extruded aluminum track with end caps, [2-3/4 inches (69 mm) high (MUTO)] [5 5/8 inches (143 mm) high (RS/DRS120)] [Full width tubular stainless track rod 25 mm diameter (MANET)], designed for operation, size, and weight of panel door, with factory-finished track with roller carriers, integrated end-of-travel stops, and floor guide.

Finish: Anodic Finish: AAMA 611-12, Class II, 0.010 mm or thicker.

Color: [Clear] [Match No. 4 satin brushed stainless steel] [Black Anodized].

Finish: Clad Aluminum (RS/DRS120 only)

Brass, [satin, without lacquer] [polished, without lacquer].

Bronze, [satin, without lacquer] [polished, without lacquer].

Stainless steel, [satin] [polished].

Material: Stainless Steel (MANET Only)

Stainless steel, [304] [316 for Wet Environments].

Specifier: Retain one or more track mounting methods below as required for project. Indicate requirements for blocking or secondary structural supports on Drawings.

* + - * 1. Track Mounting:

Ceiling surface-mounted.

Wall mounted.

Ceiling recessed mounted. (MUTO or RS/DRS120 only)

Glass Mounted. (MUTO or MANET only)

* + - * 1. Door Panel Carriers:

[(MUTO, RS/DRS120) Concealed trolley system designed for operation, size, and weight of glass panel door, with ball-bearing wheels, and with [clamp-on attachment to glass panels requiring no glass penetration.]

[(MANET) [Countersunk single point roller carriers.] [Clamping disk single point roller carriers.]

* + - * 1. Manual Sliding Door Operation:

Specifier: Retain single door, synchronized door pair subparagraph below or both as required for Project.

Sliding doors.

Basis of Design: dormakaba MUTO L 80.

Basis of Design: **dormakaba MUTO XL 150**.

Basis of Design: dormakaba MUTO XL 80 Telescopic.

Basis of Design: dormakaba [RS] [DRS] 120.

Basis of Design: dormakaba MANET Sliding.

Sliding doors with cushioned close.

Basis of Design: dormakaba MUTO L 80 DORMOTION.

Basis of Design: **dormakaba MUTO XL 150 DORMOTION**.

Basis of Design **dormakaba MUTO XL 120 DORMOTION Self Close.**

Specifier: Synchronized door pair operation enables manually pulling on one door leaf to operate both leaves of door pair.

Synchronized door pair with regulated sliding.

Basis of Design: **dormakaba MUTO Synchro**.

Basis of Design: dormakaba [RS] [DRS] 120 Synchro.

Specifier: Retain optional "Sidelights" Paragraph where required for Project.

* + - * 1. Sidelights: Captured by U channels integrated with door top track assembly. Bottom of sidelites held within [dry gasket glazing channel] [glazing U channels] [glazing clamps] as indicated on Drawings.
	1. POINT FITTINGS
1. Provide dormakaba MANET Compact Pivoting Doors and Entrance configurations shown on architectural drawings, unless otherwise indicated, and as follows:
	1. Material: [Type 304 Stainless Steel] [Type 316 Stainless-steel]
	2. [Full height pivoting rod] [Short pivoting rod]
	3. [Countersunk single point fittings] [Clamping disk single point fittings]

Specifier: Maximum door weight is 80 kg (180 lb). Maximum door height is 2500 mm (98 inches). Maximum door width is 1200 mm (48 inches).

* 1. DOOR HARDWARE

Specifier: Retain applicable door hardware components in "Door Hardware" Article. Show location of door hardware components on Drawings.

* + - * 1. General: Provide heavy-duty entrance door hardware units in sizes, quantities, and types recommended by manufacturer for all-glass entrance systems indicated. For exposed parts, match metal and finish of rail fittings.
				2. Concealed Transom Closers and Bottom Pivots: Center hung; BHMA A156.4. Provide housings, bottom arms, top walking beam pivots, mounting plates, auxiliary stop, and accessories.

Basis of Design: **dormakaba, RTS88 Series.**

Provide closer body designed to fit in headers as small as 1-3/4 inches x 4 inches.

Swing: Single or double acting as indicated on Drawings[, with positive dead stop] [and hold-open].

Hold Open: [105 degree] [90 degree].

Opening Force: Comply with interior door operating force of authorities having jurisdiction for [accessibility requirements] [and] [egress doors].

Specifier: Typically specify dormakaba BTS75V Floor Closer, which is suitable for thin slab applications, and is equipped with a fixed hold-open function; it is suitable for doors weighing up to 260 lb. BTS80 Floor Closer is available for heavy doors and is equipped with an adjustable hold-open function; it is suitable for doors weighing up to 660 lb. Note that BTS80 may not meet ADA-stipulated 5 lb. opening force requirements if applicable.

* + - * 1. Concealed Floor Closers and Top Pivots: Center hung; BHMA A156.4, Grade 1. Provide housings, bottom insert, top walking beam pivots, mounting plates, and accessories.

Basis of Design: **dormakaba,** [**BTS75V**][**BTS80**] **Series**.

Provide separate valves for latch speed and sweep speed.

Provide built-in pressure relief valve.

Provide brackets, as directed in manufacturer’s instillation instructions, to insure proper installation.

Closers shall be non-handed.

Swing: Single or double acting as indicated on Drawings.

Hold Open: [Fixed] [Adjustable].

Opening Force: Comply with interior door operating force of authorities having jurisdiction for [accessibility requirements] [and] [egress doors] .

* + - * 1. Self-Closing Double Acting Hinge: With self-closing function, hold-open feature, and closed position adjustment.

Basis of Design: dormakaba, TENSOR Self-Closing Double Acting Hinge.

Swing: Double-acting [with positive dead stop] [with cushion stop].

Hold Open: 90 degree.

Opening Force: Not exceeding 9 lbf/ft. (12 Nm) torque.

Opening Force: Comply with interior door operating force of authorities having jurisdiction for [accessibility requirements] [and] [egress doors].

Endurance Testing: Not less than 500,000 cycles.

Mounting: [Frame mounting with embedded mounting plate] [Surface mounting with surface mounting plate] [Glass-to-glass mounting] [As indicated on Drawings].

Finish: [Aluminum satin brass] [Aluminum EV1Deco] [Aluminum satin stainless] [Polished chrome].

* + - * 1. Automatic Door Operators: Compact electromechanical swing door operator with solid-state controller; BHMA A156.19, power assist, low energy, with opening force required of not more than 5 lbf (22 N); single door, [one-way] [two-way] operation, surface-mounted; size recommended by door operator manufacturer for weight of door.

See Section 08 71 13.

* + - * 1. Concealed Low-Energy In-Floor Door Operator and Top Pivots: [Center] [Offset] hung; BHMA A156.19. Provide housings, bottom insert, top pivots, mounting plates, and accessories.

See Section 08 71 13.

* + - * 1. Pulls and Handles:

Mounting style to be [Single-sided - SNG] [and] [Back-to-back – B2B] as specified.

Provide with manufacturer supplied fasteners for [Glass Door], [Metal Door], [and] [Wood Door] applications.

Provide finished mounting roses for single-side mount.

Provide pulls with proper number of support fixings to accommodate length of pull as recommended by the manufacturer.

Provide ladder type round pull handles with flat tops mounted in a vertical position with strait support fixings.

Basis of Design: **dormakaba, TG 9387 Ladder Pull**.

Material: stainless steel.

Bar diameter: [1 inch (25mm)] [1 ¼ inches (32mm)].

Bar center to center length: [12 inches (305mm)] [18 inches (457mm)] [36 inches (914mm)] [42 inches (1067mm)] [60 inches (1524mm)] [Custom Size as selected by Architect].

Pull to project off door [2-15/16 inches (75mm) for 1 inch diameter] [3-11/32 inches (85mm) for 1-1/4 inch diameter].

Provide strait type round pull handles with mitered corners/posts mounted in a vertical position.

Basis of Design: **dormakaba, TG 9335 Decorative Mitered Pull**.

Material: stainless steel.

Bar diameter: [1 inch (25mm)] [1 ¼ inches (32mm)].

Bar center to center length: [12 inches (305mm)] [18 inches (457mm)] [36 inches (914mm)] [42 inches (1067mm)] [51-3/16 inches (1300mm)] [Custom Size as selected by Architect – (1 inch (25mm) Maximum length of 39-3/8 inches (1000mm)/ 1-1/4 inches (32mm) Maximum length 51-3/16 inches (1300mm)].

Pull to project off door [2-15/16 inches (75mm) for 1 inch diameter] [3-11/32 inches (85mm) for 1-1/4 inch diameter].

Provide arched type flat pull handles with post fixings mounted in a vertical position.

Basis of Design: **dormakaba, TG 9830 Pull**.

Material: stainless steel.

Bar to be 19/32 inches (15mm) thick by 1-3/16 inches (30mm) wide.

Bar center to center length: 13-25/32 inches (350mm).

Pull to project off door 3-21/32 inches (93mm).

Provide semi-circle type pull handles mounted in a vertical position.

Basis of Design: **dormakaba, TG 9304 Pull**.

Material: [aluminum] [stainless steel].

Pull diameter: 1-3/16 inches (30mm).

Pull center to center length: [11-13/16 inches (300mm) – aluminum] [13-25/32 inches (350mm) – stainless steel].

Pull to project off door 3-11/32 inches (85mm).

Provide semi-circle type pull handles with spacer fixings mounted in a vertical position.

Basis of Design: **dormakaba, TG 9306 Pull**.

Material: stainless steel.

Pull diameter: [1-3/16 inches (30mm)] [1-9/16 inches (40mm)].

Pull center to center length: 13-3/4 inches (350mm).

Pull to project off door [3-11/32 inches (85mm) for 1-3/16 inch (30mm) diameter pulls] [3-15/16 inches (85mm) for 1-9/16 inch (40mm) pulls].

Provide tubular ladder type round pull handles with flat tops mounted in a vertical position with strait support fixings.

Basis of Design: **dormakaba, TG138 Non-Locking Ladder Pull**.

Material: stainless steel.

Bar diameter: 1-3/8 inches (35mm).

Bar center to center length: [49 inches (1245mm] [60 inches (1524mm)] [72 inches (1829mm)] [84 inches (2134mm)] [Custom Size as selected by Architect].

Pull to project off door 3-23/32 inches (94mm).

Provide ladder type round pull handles with flat tops mounted in a vertical position with strait support fixings and clamping disks.

Basis of Design: **dormakaba, MANET Ladder Pull**.

Base material: 304 stainless steel.

Bar diameter: 1 inch (25mm).

Bar length: [13-3/4 inches (350mm] [28-3/8 inches (720mm)] [48-13/16 inches (1240mm)] [69-1/4 inches (1760mm)].

Strait support fixings center to center measurement to be no greater than 20-1/2 inches (520mm).

Provide arced shape pull with matching fitting profile mounted in a vertical position.

Basis of Design: **dormakaba, ARCOS Handle Bar**.

Base material: stainless steel.

Bar center to center length: [13-3/4 inches (350mm] [29-1/2 inches (750mm)].

Provide strait type round pull handles with angled corners/posts mounted in a vertical position.

Basis of Design: **dormakaba, BEYOND Handle**.

Material: stainless steel.

Bar diameter: [1 inch (25mm)] [1 ¼ inches (32mm)].

Bar center to center length: [17 ¾ inches (450 mm)] [23 5/8 inches (600 mm)] [35 7/16 inches (900 mm)].

Provide strait type round pull handles mounted in a [vertical position on the pull side] [and] [horizontal position on the push side].

Basis of Design: **dormakaba, Economy Pull Handles**.

Material: [stainless steel] [aluminum].

Bar to be [solid] [tubular] construction.

Bar diameter: 1 inch (25mm).

Pull side bar center to center length: [10 inches (254 mm)] [12 inches (305 mm)].

Push side bar center to center length: 27-3/4 inches (705 mm).

Pull to project off door 2-1/2 inches (64mm).

Provide 90° offset type round pull handles mounted in a vertical position.

Basis of Design: **dormakaba, Economy Pull Handles**.

Material: [stainless steel] [aluminum].

Bar to be [solid (12 inches (305 mm) only)] [tubular] construction.

Bar diameter: 1 inch (25 mm).

Pull side bar center to center length to be [10 inches (254 mm)] [12 inches (305 mm)].

Push side bar center to center length to be 27-3/4 inches (705 mm).

Pull to project off door 2-1/2 inches (64mm).

Provide pull type as selected by Architect.

Basis of Design: **[INSERT DESIGN]**.

Material: **[INSERT MATERIAL]**.

Bar diameter: **[INSERT DIAMETER]**.

Bar center to center length: **[INSERT LENGTH]**.

Provide Fixed Hardware Pull Handles – Non-locking Dummy Bar.

Basis of Design: dormakaba, [GP1000DM], [GP1100DM], [GP1300DM].

Basis of Design: dormakaba, [DG1000DM], [DG1100DM], [DG1300DM].

Pull Type: [Insert Pull Type from manufacturer’s standard selection] [To match Exit Device Pull Type].

Specifier: When specifying Exit Devices - specify Exterior Pull as One sided. Retain "Exit Device" Paragraph when glass panel partition swinging doors are part of egress from assembly occupancy.

* + - * 1. Glass Style Exit Devices:

Basis of Design: **dormakaba, [GP1000 (Top Latching)] [GP1100 (Bottom Latching)]**.

Specifier: Note that Bottom Latching is not ADA compliant.

Tested and approved by BHMA for ANSI 156.3, Grade 1.

UL 305 and ULC-S132 tested to the Standard for Panic Hardware.

Devices shall be able to be mounted on tempered or tempered laminated glass doors with thicknesses from 3/8 inches through 7/8 inches.

Specifier: Consult factory for doors over 1 ¾ inches.

Devices shall be capable of being mounted on Metal and Wood Doors with appropriate extensions and accessories to accommodate door thicknesses.

Specifier: Remove 15lbs. paragraph for California projects.

Function: Device latch to retract when actuating portion of device is depressed with 15 lbs. of pressure.

Devices to have “Dogging” feature: Operation by push-pull when latch toggle is locked down (dogged).

Actuating portion of device to have the ability to be adjusted horizontally and vertically +/- ½ inch for precise installation.

Latching: Provide ***<< Fixed strike; Electric strike for access control – at top latching devices only>>.***

Latchbolt to be adjustable.

Specifier: Exterior pull is not required at Exit Only locations. Delete pull paragraph if no pull is required.

Provide Exterior Pull mounted on pull side; [Insert Pull Type from manufacturer’s standard designs].

Pull to have the ability to be adjusted horizontally and vertically +/- ½ inch for precise installation.

Provide rim cylinder to accept ***<< electronic; conventional; Large format interchangeable core (LFIC); Small format interchangeable core (SFIC); or>>*** type core, ***with <<five-pins; six-pins; seven-pins; or \_\_\_\_\_\_>>*** in compliance with BHMA A156.5 at locations indicated.

Coordinate cylinder requirements as required for related sections.

* + - * 1. Mechanical Locks and Latches:

Provide tubular locking ladder type round pull handles with flat tops mounted in a vertical position with strait support fixings.

Basis of Design: **dormakaba, TG138 Locking Ladder Pull**.

Locking Ladder Pull to use Rim type cylinder.

Material: stainless steel.

Bar diameter: 1-3/8 inches (35mm)

Bar center to center length: [49 inches (1245mm] [60 inches (1524mm)] [72 inches (1829mm)] [84 inches (2134mm)] [Custom Size as selected by Architect].

Pull to project off door 3-23/32 inches (94mm) on the non-locking side and 4-23/32 inches (120mm) on locking/cylinder side.

Provide Option for ADA compliance: Staggered at 10” off finished floor on pull side.

Provide ***<< electronic; conventional; Large format interchangeable core (LFIC); Small format interchangeable core (SFIC)>>*** type cylinders, ***with <<five-pin; six-pin; seven-pin; or \_\_\_\_\_\_>>*** core in compliance with BHMA A156.5 at locations indicated.

Coordinate cylinder requirements as required for related sections.

Provide proper backplate to accommodate cylinders being provided.

* + - * 1. Electromagnetic Locks:

Basis of Design: [dormakaba, EMSL Series Shear Lock] [dormakaba, **EML 370 Series** Magnetic Lock]

Complying with [BHMA A156.23](https://global.ihs.com/doc_detail.cfm?rid=BSD&document_name=ANSI%20A156.23) EML

Holding Force: <<1500 lb EML; 1200 lb BML 8310/20>>, minimum.

Voltage: ***<<12 VDC; 24 VDC; or \_\_\_\_\_>>***, and provide power supplies by same manufacturer as locks.

Electromagnet to be attached to transom or frame and armature plate attached to door and to be surface mounted to door and frame on secure side, with fasteners, brackets, and spacer bars as required for application.

Provide concealed sensing device within device that monitors magnetic holding force to ensure appropriate door lock.

Provide concealed adjustable time delay option to re-lock door.

Built in unrecognized armature plate alarm EML-TP 8310/20IQ.

* + - * 1. Electromagnetic slide-bolt locks:

Basis of Design: dormakaba, **MUTO Elock**.

Electromagnet to be mounted in jamb, armature mounted hidden in track channel. Operating on [12/24]vdc. Fully concealed after installation.

* + - * 1. Single-Door and Active-Leaf Locksets:

Lock and Latch Housings: Patch mounting to glass panel door, with matching strike mounted in housing on adjacent glass panel.

Specifier: Retain all applicable paragraphs below.

Manufacturer’s standard patch dead-bolt locksets.

Mortise lock and housing:

Basis of Design: **dormakaba, CLM9000 Series** <insert function, lever, and cylinder information>.

Complying with [BHMA A156.13](https://global.ihs.com/doc_detail.cfm?rid=BSD&document_name=ANSI%20A156.13)Series 1000, Operational and Security Grade 1

Complying with ANSA A117.1 Accessibility Code

Fit ANSI A115.1 door preparation

Latchbolt Throw: 3/4 inch (19 mm), minimum.

Deadbolt Throw: 1 inch (25.4 mm), minimum.

Backset: 2-3/4 inch (70 mm).

Accommodate door thickness 1-3/4 inches to 2-1/4 inches.

Provide << electronic; conventional; Large format interchangeable core (LFIC); Small format interchangeable core (SFIC)>> type cylinders, with <<five-pin; six-pin; seven-pin; or \_\_\_\_\_\_>> core in compliance with BHMA A156.5 at locations indicated.

Coordinate cylinder requirements as required for related sections.

Provide premium PVD (physical vapor deposition) finishes for consistent durable finish.

Strikes: Provide manufacturer's standard strike for each latchset or lockset with strike box appropriate for mounting location and curved lip extending to protect frame in compliance with indicated requirements.

Specifier: The three dormakaba locksets below utilize Euro profile key cylinders for locking functions.

Slim Euro Profile Lock with flat rosette:

Basis of Design: **dormakaba, Studio Series** <insert function, lever, and cylinder information>.

Slim Euro Profile Lock with arched rosette:

Basis of Design: **dormakaba, ARCOS Series** <insert function, lever, and cylinder information>.

Euro Profile Lock with flat escutcheon:

Basis of Design: **dormakaba, Junior Office Series** <insert function, lever, and cylinder information>.

* + - * 1. Inactive-door Locking Device:

Manufacturer’s standard hook-bolt locksets.

Bottom [patch fitting] [bottom rail] dead bolt engaging a dust proof strike operated by key outside and cylinder or thumb turn inside.

Specifier: Use #3 and #4 when lock is by others

Lock and Latch Housings: Patch mounting to glass panel door, with matching strike mounted in housing on adjacent glass panel.

Design: [Specifier insert design] [As selected by Architect from manufacturer's standard designs].

Levers: Wrought, with wrought escutcheons.

Specifier: Insert design

Design: [As selected by Architect from manufacturer's standard designs].

Specifier: Retain appropriate "Lock Cylinder" paragraphs below if locks are specified in another section.

* + - * 1. Lock Cylinders:

Provide << electronic; conventional; Large format interchangeable core (LFIC); Small format interchangeable core (SFIC)>> type [Mortise] [Rim] cylinders, with <<five-pin; six-pin; seven-pin; or \_\_\_\_\_\_>> core in compliance with BHMA A156.5 at locations indicated.

Coordinate cylinder requirements as required for related sections.

Lock Cylinders: As specified in Section 08 71 00 "Door Hardware."

* + - * 1. Weather Stripping: [Pile] [Brush] type; replaceable without removing all-glass entrance doors from pivots.

Specifier: Select one or more of the glass types from list below as required for project. If more than one glass type is required, retain the optional drawing designations and indicate locations of each type on Drawings. Consult dormakaba representative for availability of additional glass panel options.

* + - 1. GLASS PANELS
				1. Glass Panels, General:

Coordinate with Section 08 80 00 Glazing.

Follow NGA – National Glass Association/GANA – Glass Association of North America Guidelines.

Provide glass panels that comply with 16 CFR 1201, Category II requirements for safety glazing. Permanently mark glazing with certification label of the SGCC.

Provide glass panels with exposed edges machine ground and flat polished.

Provide holes and cutouts in glass to receive hardware, fittings, and accessories prior to tempering glass. Do not cut, drill, or make other alterations to glass after tempering.

Fully temper glass using horizontal (roller-hearth) process, and fabricate so that when glass is installed, roll-wave distortion is parallel with bottom edge of door or lite.

* + - * 1. Hardware intended for use with glass thickness [3/8 inch (9.5 mm) to 13/16 inch (20 mm) tempered glass].
			1. FABRICATION
				1. General: Fabricate all-glass door assemblies in sizes, profiles, and configurations shown on Drawings.
1. EXECUTION
	* + 1. EXAMINATION
				1. Examine door opening to determine if work is within all-glass entrance manufacturer's required tolerances and ready to receive work. Proceed with installation once conditions affecting installation and performance meet manufacturer's requirements. All sides of an opening should be level within 1/8 inch.
				2. Never use glass with conchoidal fractures and/or damaged edges.
				3. Ensure all required wiring for electrified components are tested and in proper working order prior to installation of door.
			2. DOOR INSTALLATION
				1. General: Comply with all-glass entrance manufacturer's written installation instructions and approved shop drawings.
				2. Due to crushing hazards and possible injury caused by breakage of glass during mounting, corresponding protective clothing (especially gloves and protective goggles) is required.
				3. Install all-glass door assemblies after other finishing operations have been completed.
				4. Coordinate installation of recessed products prior to installation of adjacent materials and finishes.
				5. Set assembly units level, plumb, and true to line, with uniform joints.
				6. Ensure floor is level to maintain proper door undercut to avoid doors engaging with the finish floor during the operation of the door.
				7. Maintain uniform clearances between adjacent components.
				8. Secure housings and components to building structure using appropriate fasteners suitable for application.
				9. Provide ¾ inch wood blocking between finished material and stud support structure.
				10. Ensure all required wiring for electrified components are run and tested prior to installation of door.
				11. Never move sliding panels faster than walking speed and always stop the door manually before it reaches end position.
				12. Do not swing doors with excessive force. Install limiting stop to prevent door from opening too far.
			3. HARDWARE INSTALLATION
				1. Mount Locking Ladder pulls with cylinder on the outside of the space [and thumb-turn on inside of space].

Measure and cut cylinder tail piece to the appropriate length for proper operation per manufacturer's written instructions.

Ensure cylinder tail piece engages with locking mechanism and is oriented properly.

* + - * 1. Back to back mounted pulls to be mounted with set screw location on inside of space. Set screw to be in the downward position.
				2. Use all manufacturer provided fasteners, washers, spacers, anchors, single-sided trim roses, and associated mounting hardware per manufacturer's written instructions. Failure to do so may result in damage.
				3. Clean clamping area with safe alcohol-based standard commercial cleaning agent before mounting the glass hardware.
				4. Never clamp metal glass fitting hardware directly to glass surface.
				5. Never use clamping roller carriers on self-cleaning coatings.
				6. Do not use excessive force when installing the glass (avoid over tightening screws).
				7. When installing dust proof strikes:

Drill a 11/16 inch [18mm] diameter hole, 1-5/8 inches [40mm] deep.

Clean hole of debris.

Insert dust proof strike into hole.

Ensure strike functions properly.

* + - 1. ADJUSTING
				1. Adjust doors and hardware to produce smooth operation and uniform fit per manufacturer's written instructions.
				2. Adjust door closers to required timing and force per manufacturer's written instructions.
				3. Adjust finish hardware components for smooth operation per manufacturer's written instructions.
				4. Adjust locking pins to engage properly with dust proof strikes.
				5. When adjusting glass elements, always comply to the required clearance for the respective hardware. Adjust clearance so glass does not come in contact with any hard surfaces such as glass, metal or concrete.
				6. Replace damaged glass panels and accessories.
			2. CLEANING
				1. Clean glass panels in accordance with glass manufacturer's written instructions. Do not use cleaning agents or methods not approved by glass manufacturer.
				2. Clean exposed metal surfaces to factory new appearance.

END OF SECTION

Additional Specifiers Notes

Substitution Reviews: When reviewing substitution requests for other products for compliance with this specification, dormakaba recommends particular attention to the following issues:

Fully concealed door operating mechanisms: Design details of dormakaba's all-glass door assemblies are what give them the visual appeal that caused them to be selected as a basis of design

Coordination: Make sure you coordinate the following:

● Locations, dimensions, and operation of doors including active and inactive leaves and swing travel.

● Elevations indicating details of special decorative glass elements.

● Details of floor finishes in relation to recessed bottom pivot housing.

● Details of opening finishes in relation to overhead closer header plate.