

LEGEND

<p>Door Materials HM Hollow Metal Insulated WD Solid Core wood door WDL Solid Core wood door with lite GL Frameless Glass</p> <p>Door Types Refer to sheet A14 DW Supplied by Demountable Wall Mfg.</p> <p>Finishes PT Paint new or existing door ST DW Finish by Demountable Wall Mfg. CL Clear Glass with film by demountable Wall mfg.</p>	<p>Frame Materials PS Pressed Steel DW Supplied by Demountable Wall Mfg.</p> <p>Frame Types See Sheet A14</p> <p>Jamb Details See Sheet A14</p> <p>Door Hardware Refer to Specification 080000 for Hardware Set Code</p>	<p>General Notes:</p> <ol style="list-style-type: none"> 1. Door sizes in PS frames are rebate dimension. 2. See sheet A14 for doors, frames, and jamb details. 3. See Section 08 71 00 for Hardware sets 4. All door lites and frame side lites to be 9mm clear glass unless noted, complete with film application. See Sheet A14. 5. Contractor to confirm throat sizes on site for all door frames and jambs. 6. Include Georgian glass inset. 7. DW – refer to Demountable Wall Spec section 10 2223 for additional information.
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No.	Room Name	Size	DOOR			FRAME					Fire Rating	Hard'w Set#	Remarks
			Type	Mat'l	Fin	Type	Mat'l	Fin	Throat	Jamb Detail			
2203	Office	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2204.1	Security	915x2695	D1	WDL	PT	F1	PS	PT	187	J1	-	HS-2	Key Pad access controls relocated from Door 2204 A
2204.2	Crisis Ctr.	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2204.3	Crisis Ctr.	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	Relocated
2206	Md. Meeting	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2207	Quiet Rm	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2208	Lrg. Meeting	DW	DW	GL	DW	DW	DW	DW	DW	DW		HS-3	
2209	Telecom Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2213	Meeting Rm	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-4	
2216.1	Office Suite	915x2695	D1	WDL	PT	F1	PS	PT	124	J1	-	H-9	
2216.2	Office Suite	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-5	
2217	Office	915x2695	D1	WDL	PT	F1	PS	PT	124	J1	-	H-10	
2218	Office	DW	DW	GL	CL	DW	DW	DW	DW	DW	-	HS-6	
2219	Office	DW	DW	GL	CL	DW	DW	DW	DW	DW	-	HS-6	
2220.1	Sm. Meeting	DW	DW	GL	CL	DW	DW	DW	DW	DW	-	HS-7	
2220.2	Sm. Meeting	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2223	Lobby/Corr.	915x2745	D1	WDL	PT	F1	PS	PT	124	J1	45-	H-11	Magnetic hold open device, Auto door opener

No.	Room Name	Size	DOOR			FRAME					Fire Rating	Hard'w Set#	Remarks
			Type	Mat'l	Fin	Type	Mat'l	Fin	Throat	Jamb Detail			
2224	Mail pick-up	915x2134	D2	WDL	PT	F1	PS	PT	187	J2	45 Minutes	H-12	Magnetic hold open device,
2225	Central Rec. Rm	915x2134	D2	WDL	PT	F1	PS	PT	206	J3	45 Minutes	H-13	Key Pad
2226	Quiet Rm	915x2134	D2	WDL	PT	F1	PS	PT	124	J1	-	H-14	
2229	Office	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2230	Meeting Rm	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2231	Office	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2235	Quiet Rm	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2236	Office	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2240	Md. Meeting	DW	DW	WDL	DW	DW	DW	DW	DW	DW	-	HS-1	
2242	Telecom Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2250	Corr.	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2251	Exist Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2252	Exist Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2254	Exist Washroom	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2255	Exist Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2256	Exist Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2257	Exist Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2258	Exist Washroom	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2259	Exist Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2262	Exit Stair	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2299	Exist. Rm	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	Relocated
2305.1	Corr.	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2305.2	Corr.	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2306	Exist W/R	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2307	Exist W/R	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	
2312	Exit Stair	EX	EX	EX	PT	EX	EX	PT	EX	EX	EX	EX	

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Non-rated steel frames.

1.2 RELATED SECTIONS

- .1 Section 07 92 00 – Joint Sealants.
- .2 Section 08 14 16 – Flush Wood Doors.
- .3 Section 08 80 50 – Glazing.
- .4 Section 09 21 16 – Gypsum Board Assemblies
- .5 Section 09 91 00 – Painting.

1.3 REFERENCES

- .1 ASTM A653/A653M-06a - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2 CSA G40.20-04/G40.21-04 - General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
- .3 Canadian Steel Door Manufacturers Association (CSDMA), Recommended Dimensional Standards for Commercial Steel Doors and Frames, Latest Edition.
- .5 Canadian Steel Door Manufacturers Association (CSDMA), Selection and Usage Guide for Steel Doors and Frames, Latest Edition.

1.4 SUBMITALS FOR REVIEW

- .1 Submit in accordance with Section 01 33 00.
- .2 Shop Drawings:
 - .1 Indicate frame elevations, reinforcement, anchor types and spacing, location of cut-outs for hardware, and finish.

1.5 QUALITY ASSURANCE

- .1 Conform to requirements of Canadian Steel Door and Frame Manufacturers Association standards.

1.6 DELIVERY, STORAGE, AND PROTECTION

- .1 Remove doors and frames from wrappings or coverings upon receipt on site and inspect for damage.

- .2 Store in vertical position, spaced with blocking to permit air circulation between components.
- .3 Store materials on planks or dunnage, out of water and covered to protect from damage.
- .4 Clean and touch up scratches or disfigurement caused by shipping or handling with zinc rich primer.

1.7 COORDINATION

- .1 Coordinate the work with frame opening construction, door, and hardware installation.

Part 2 Products

2.1 MATERIALS

- .1 Sheet Steel: Galvanized steel to ASTM A653/A653M, commercial grade (CS), Type B:
 - .1 Coating designation ZF001 for interior doors and frames.
- .2 Reinforcement Channel: To CSA G40.20/G40.21, Type 44W, coating designation to ASTM A653M, ZF75.

2.2 ACCESSORIES

- .1 Joint Sealers - Interior: Acrylic latex, to Section 07 92 00.
- .2 Door Silencers: Single stud rubber/neoprene.
- .3 Glazing Stops: Formed galvanized steel channel, minimum 16 mm high, accurately fitted, butted at corners and fastened to frame sections with counter-sunk tamper proof sheet metal screws.
- .4 Glass: In accordance with Section 08 80 50; Types as indicated.

2.3 FABRICATION - FRAMES

- .1 Interior Frames: Face sheet thickness 1.52 mm (16 gauge); welded..
- .2 Mortised, blanked, reinforced, drilled and tapped to receive existing hardware.
- .3 Reinforce frames wider than 1200 mm with roll formed steel channels fitted tightly into frame head, flush with top.
- .4 Prepare frames for silencers. Provide three single silencers for single doors and mullions of double doors on strike side. Provide two silencers on frame head at double doors without mullions.

- .5 Infill Panels: Fabricate infill panels as metal sheet laminated to plywood core using construction adhesive. Field paint to match frames.

2.4 FINISH

- .1 Finish: Field painted in accordance with Section 09 91 00

Part 3 Execution

3.1 EXAMINATION

- .1 Verify that opening sizes and tolerances are acceptable; check floor area within path of door swing for flatness.
- .2 Verify doors and frames are correct size, swing, rating and opening number.
- .3 Remove temporary shipping spreaders.

3.2 INSTALLATION

- .1 Install frames to CSDMA.
- .2 Coordinate with wall construction for anchor placement.
- .3 Set frames plumb, square, level and at correct elevation.
- .4 Secure anchorages and connections to adjacent construction.
- .5 Brace frames rigidly in position while building-in.
 - .1 Install wood spreaders at third points of frame rebate height to maintain frame width.
 - .2 Provide vertical support at centre of head for openings exceeding 1200 mm in width.
 - .3 Remove wood spreaders after frames have been built-in.
- .6 Make allowance for deflection to ensure structural loads are not transmitted to frame product.
- .7 Install door silencers.
- .8 Coordinate installation of glass and glazing.
- .9 Coordinate installation of frames with installation of re-used hardware

3.3 ERECTION TOLERANCES

- .1 Maximum Diagonal Distortion: 3 mm measured with straight edges, crossed corner to corner.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Pre-Finished flush wood doors.

1.2 RELATED SECTIONS

- .1 Section 08 11 00 – Metal Doors and Frames.
- .2 Section 08 71 00 – Door Hardware.
- .3 Section 08 80 50 – Glazing.
- .4 Section 10 22 23 – Demountable Wall System.

1.3 REFERENCES

- .1 AWMAC (Architectural Woodwork Manufacturers Association of Canada) – Quality Standards.
 - .1 Quality Standards for Architectural Woodwork Latest Edition.

1.4 SUBMITTALS FOR REVIEW

- .1 Submit in accordance with Section 01 33 00.
- .2 Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- .3 Shop Drawings:
 - .1 Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, special bevelling, special blocking for existing hardware, factory machining criteria, factory finishing criteria.
- .4 Samples:
 - .1 Submit, 300 mm x 300 mm sample cut from corner of door, for each type of wood door proposed.
 - .2 Samples must show the details of the manufacturing as well as details of the core, glazing and door cladding.

1.5 QUALITY ASSURANCE

- .1 Perform work in accordance with AWMAC Quality Standard, Premium Grade.
- .2 Finish doors in accordance with AWMAC Quality Standard.

1.6 DELIVERY, STORAGE, AND PROTECTION

- .1 Protect doors with resilient packaging sealed with heat shrunk plastic.
- .2 Do not store in damp or wet areas; or in areas where sunlight might bleach veneer.

- .3 Break seal on site to permit ventilation.
- .4 Seal top and bottom edges with tinted sealer if stored more than one week.

1.7 PROJECT CONDITIONS

- .1 Coordinate the work with the door frame and installation of existing door hardware.

Part 2 Products

2.1 ACCEPTABLE PRODUCTS

- 1. Flush wood doors for demountable partitions to be manufactured, supplied and installed under demountable wall supplier contract in the General Contractor's scope.
- 2. Flush wood doors in stud walls and pressed steel frames to be supplied and installed by General Contractor.

2.2 DOOR TYPES

- .1 Flush Interior Doors: 45 mm thick; AWMAC Premium grade; Particle Core: urea-formaldehyde free.
 - .1 Stiles and Rails: Anti-warping.
 - .1 Stiles: Solid wood to match species of face veneer
- .2 Core (Solid, Non-Rated): AWMAC Section 1300, Type PC-7, Grade LD-1 bonded particle core. urea- ureaformaldehyde free.
- .3 Doors shall meet the requirements of ANSI/WDMA I.S. 1A-11 Heavy Duty performance level.
- .4 Faces at doors for opaque finish shall be MDO, Medium Density Overlay.
- .5 Core for 45/60/90 minute fire-rated doors shall be Mineral Core.
- .6 Stiles for non-rated doors shall be 25mm (1") structural composite lumber laminated to 11mm (7/16") hardwood, before trim.
- .7 Top and bottom rails for non-rated doors shall be 36mm (1-7/16") structural composite lumber.
- .8 Stiles and rails for fire-rated wood doors shall be the standard of the door manufacturer and shall conform to the requirements of the manufacturer's labelling agency.
- .9 Crossband shall be UF Free composite crossband. Wood crossband is not permitted.

- .10 Adhesives shall be Type I adhesives.
- .11 Laminating adhesives, on-site and shop-applied must not contain added urea-formaldehyde resins.

2.3 ACCESSORIES

- .1 Glazing: refer to Section 08 80 50. Supplied and installed by this Section.
- .2 Glazing Stops: Door manufacturer's standard hardwood mouldings (birch) finished to match face veneer.
- .3 Door hardware: refer to Section 08 71 00 – Door Hardware.

2.4 FABRICATION

- .1 Fabricate doors in accordance with AWMAC Quality Standards requirements.
- .2 All doors to receive solid wood blocking at lock edge and top of door for closer and for hardware including doors not scheduled to receive such hardware
- .3 Reinforcement: all doors
- .4 Factory machine doors for existing finish hardware in accordance with hardware requirements and dimensions.
 - .1 Do not machine for surface hardware.
 - .2 Provide solid blocking for through bolted hardware.
- .5 Provide edge clearances in accordance with AWMAC.
- .6 Flush wood doors shall be Custom Grade construction in accordance with the Grade requirements specified in the Architectural Woodwork Standards 1st Edition 2009, or as herein otherwise specified.
- .7 Doors shall be 5 ply construction.
- .8 Stiles and rails shall be fully bonded to core and assembled unit shall be abrasive planed prior to lamination of faces.
- .9 Doors shall be assembled using Type 1 adhesive that does not contain added urea formaldehyde.
- .10 Edges for doors for opaque finish shall be Type D, blind edge, of a species compatible with face veneer. Wood veneered edges are not permitted.
- .11 Fire-rated doors shall be of the construction standard of the manufacturer and conform to the requirements of all applicable labelling agencies.
- .12 Provide blocking as required for surface mounted hardware to prevent the need for through-bolting.

2.5 FINISHING

- .1 Factory finish doors:
 - .1 Doors to be factory primed.
 - .2 Stain colour selected by the Departmental Representative.
 - .3 Factory seal top and bottom of doors.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify that opening sizes and tolerances are acceptable.
- .2 Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.2 INSTALLATION

- .1 Install doors in accordance with AWMAC Quality Standards.
- .2 Machine cut for hardware.
- .3 Coordinate installation of doors with installation of hardware.
- .4 Install glazing specified under Section 08 80 50.
 - .1 Ensure glazing rebate is stained and finished prior to installation of glass.
- .5 Install glazing stops with countersunk finish nails, filled with wood putty.
 - .1 Apply coat of compatible varnish on all surfaces of stops.

3.3 TOLERANCES

- .1 Conform to AWMAC requirements for fit and clearance tolerances.
- .2 Conform to AWMAC Section 1300 requirements for maximum diagonal distortion.

3.4 ADJUSTING

- .1 Adjust door for smooth and balanced door movement.
- .2 Adjust closer for full closure.

3.5 CLEANING

- .1 Perform cleaning as soon as possible after installation to remove construction and accumulated environmental dirt.
- .2 Remove traces of primer, caulking; clean doors and frames.
- .3 Clean glass and glazing materials with approved non-abrasive cleaner.
- .4 On completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Access doors in ceilings and walls supplied by mechanical and electrical trades and installed by drywall trade.

1.2 RELATED SECTIONS

- .1 Section 07 92 00 – Joint Sealants
- .2 Section 09 21 16 – Gypsum Board Assemblies
- .3 Section 09 91 00 - Painting.
- .4 Mechanical Sections
- .5 Electrical Sections

1.3 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00.
- .2 Product Data: Provide data indicating material characteristics, performance criteria, and limitations.
- .3 Manufacturer's Installation Instructions: Indicate preparation and installation requirements, techniques.
- .4 Provide two (2) sample doors minimum 300 x 300 mm.

Part 2 Products

2.1 MATERIALS

- .1 Access Doors: steel, un- insulated, flush access door designed for flush installation in drywall.
 - .1 26 gauge drywall taping flange. Access door flanges are to be perforated with pre-punched holes to receive a taping bead.
 - .2 Screwdriver operated cam latches.
 - .3 Concealed hinge.
 - .4 Factory primes for field painting.
 - .5 Sizes & Quantity: As required for access to mechanical and electrical or other items.
 - .6 20 ga. galvanized formed door panel.
 - .7 Standard of acceptance: Acudor DW-5040.

- .2 Fire Rated Access Doors: Same construction as non-rated access doors specified by this Section, except with fire resistance rating to suit installed assembly.
 - .1 Sizes & Quantity: As required for access to mechanical and electrical or other items.
 - .2 Acudor FB-5060 DW

Part 3 Execution

3.1 INSTALLATION

- .1 Coordinate installation with erection and finishing of ceiling assembly, in accordance with manufacturer's printed instructions.
- .2 Adjust door operating components to ensure smooth opening and closing of doors.
- .3 Paint steel doors and frames to match ceiling or wall finish to Section 09 91 00.

END OF SECTION

Part 1 General

1.1 RELATED WORK

- .1 Manual rolling counter doors with integral frame and countertop built-in type
- .2 Division 1 General Requirements - All Sections
- .3 08 71 00 Door Hardware.

1.2 SUBMITTALS

- .1 Reference Section 01 33 00 Submittal Procedures; submit the following items:
 - .1 Product data including materials, dimensions, product characteristics, performance criteria, arrangement of hardware, operating mechanisms and required clearances.
 - .2 Shop Drawings: Include special conditions not detailed in Product Data. Show interface with adjacent work.
 - .3 Quality Assurance/Control Submittals:
 - .1 Provide proof of manufacturer and installer qualifications - see 1.3 below
 - .2 Provide manufacturer's installation instructions
 - .4 Closeout Submittals:
 - .1 Operation and Maintenance Manual
 - .2 Certificate stating that installed materials comply with this specification

1.3 QUALITY ASSURANCE

- .1 Qualifications:
 - .1 Manufacturer Qualifications: Manufacturer to have a minimum of five years of experience in producing counter doors with integral frame assembly of the type specified
 - .2 Installer Qualifications: Installer to be approved by manufacturer.

1.4 DELIVERY STORAGE AND HANDLING

- .1 Reference Section 01 66 00 Product Storage and Handling Requirements
- .2 Follow manufacturer's instructions

1.5 WARRANTY

- .1 Standard Warranty: Two years from date of shipment against defects in material and workmanship
- .2 Maintenance: Submit for Departmental Representative's consideration and acceptance of a maintenance service agreement for installed products

Part 2 Products

2.1 OVERHEAD COILING COUNTER FIRE DOOR WITH INTEGRAL FRAME

- .1 Label: Rolling fire doors shall bear the UL 1-1/2hour class B label for masonry or non-masonry fire walls.

2.2 FABRICATION

- .2 Factory weld head, jambs, and countertop into single unit, fully assembled, ready for installation.

2.3 MATERIALS

- .1 Curtain:
 - .1 Slat Configuration:
 - .1 Stainless Steel: No. 1F, interlocked flat-faced slats, 1-1/2 inches (38 mm) high by 1/2 inch (13 mm) deep, 22 gauge AISI type 304 #4 finish stainless steel with stainless steel angle bottom bar with lift handles and vinyl astragal.
 - .2 Finish:
 - .1 Stainless Steel: type 304 #4 finish.
 - .2 Endlocks: Fabricate interlocking slat sections with high strength molded nylon endlocks riveted to ends of alternate slats.
 - .3 Head and Jamb Frame: Integral welded with guide groove incorporated into jamb design. Build to fit 7-1/2" (187mm) wall thickness.
 - .1 Fabrication: Stainless Steel: 16 gauge AISI 300 series formed shapes.
 - .2 Finish:
 - .1 Stainless steel: type 304 #4 finish.
 - .4 Countertop:
 - .1 Stainless Steel: Integral 14 gauge AISI 300 series stainless steel formed shape; type 304 #4 finish.
 - .5 Counterbalance Shaft Assembly:
 - .1 Spring Balance: Oil-tempered, heat-treated steel helical torsion spring assembly designed for proper balance of door to ensure that maximum effort to operate will not exceed 25 lbs (110 N). Provide wheel for applying and adjusting spring torque.
 - .6 Brackets:
 - .1 Fabricate from reinforced AISI 300 series stainless steel plate with bearings at rotating support points to support counterbalance shaft assembly and form end closures for hood.
 - .2 Finish: Stainless Steel: type 304 #4 finish.

- .7 Hood and Fascia:
 - .1 16-gauge stainless steel with reinforced top and bottom edges.
 - .2 Finish: Stainless Steel: type 304 #4 finish

- .8 Bottom Bar:
 - .1 10-gauge stainless steel.
 - .2 Finish: Stainless Steel: type 304 #4 finish

2.4 OPERATION

- .1 Manual Crank Hoist: Provide crank hoist operator including crank gear box, steel crank drive shaft and geared reduction unit. Fabricate gear box to completely enclose operating mechanism and be oil-tight.

2.5 ACCESSORIES

- .1 Locking:
 - .1 Masterkeyable cylinder lock: Operable from secure side of bottom bar.
 - .1 Lock to be Schlage interchangeable core cylinder.

Part 3 Execution

3.1 EXAMINATION

- .1 Examine substrates upon which work will be installed and verify conditions are in accordance with approved shop drawings
- .2 Coordinate with responsible entity to perform corrective work on unsatisfactory substrates
- .3 Commencement of work by installer is acceptance of substrate

3.2 INSTALLATION

- .1 General: Install door unit and operating equipment with necessary hardware, anchors, inserts, hangers and supports
- .2 Follow manufacturer's installation instructions.
- .3 Install rolling counter fire doors in compliance with requirements of NFPA 80. Test fire-release system and reset components after testing.
- .4 Use anchorage devices to securely fasten assembly to wall construction and framing without distortion or stress.
- .5 Securely and rigidly brace components suspended from structure. Secure guides to structural members only.

- .6 Fit and align assembly including hardware; level and plumb to a 1/16” tolerance.
- .7 Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 92 00.

3.3 ADJUSTING

- .1 Following completion of installation, including related work by others, lubricate, test, and adjust doors for ease of operation, free from warp, twist, or distortion

3.4 CLEANING

- .1 Clean surfaces soiled by work as recommended by manufacturer
- .2 Remove surplus materials and debris from the site
- .3 Remove labels and visible markings.

3.5 DEMONSTRATION

- .1 Demonstrate proper operation to Departmental Representative's Representative
- .2 Instruct Departmental Representative's Representative in maintenance procedures

END OF SECTION

Part 1 General

1.1 GENERAL

- .1 The Departmental Representative's review of the schedule will not be construed as certifying that the list is complete.
 - .1 Acceptance of the Hardware Schedule does not relieve the supplier of responsibility of errors or omissions.
- .2 Hardware to be ordered after shop drawings are reviewed.
- .3 All similar items must be from one manufacturer.
- .4 Furnish all finish hardware necessary for all doors as specified herein and as enumerated in "Set Numbers" and as indicated and required by actual conditions of the building.
 - .1 The hardware shall include the furnishing of all necessary screws, special screws, bolts, special bolts, expansion shields, drop plates and all other devices necessary for the proper installation of the hardware
- .5 It is the responsibility of the general contractor to coordinate the supply of hardware from the standard door and frame supplier, and the demountable wall supplier, and to ensure that all similar hardware items are the products of one (1) manufacturer.

1.2 RELATED SECTIONS

- .1 Section 08 11 00 - Metal Doors and Frames
- .2 Section 08 14 16 – Flush Wood Doors
- .3 Electrical sections
- .4 Section 10 22 23 - Demountable Wall Systems

1.3 REFERENCES

- .1 American National Standards Institute,
 - .1 ANSI/BHMA A156 Latest Editions.
- .2 NBC - National Building Code latest adopted edition
- .3 CSA - Construction Standards Association
 - .1 CAN/CSA-B651-95 Barrier-Free Design
- .4 Canadian Steel Door and Frame Manufacturers' Association (CSDFMA)/Association.
 - .1 Canadian Metric Guide for Steel Doors and Frames (Modular Construction) standard hardware location dimensions.
- .5 NFPA 80-1999, Standard for Fire Doors and Fire Windows.
- .6 NFPA101 - Life Safety
- .7 NFPA-105 - Smoke and Draft Control

1.4 SUBMITTALS

- .1 Submit product data and specifications and the manufacturer's documentation for products in accordance with Section 01 33 00 Documents and samples to be submitted.

- .2 Submit a list of hardware for doors in accordance with Section 01 33 00 Documents and samples to be submitted.
- .3 List of hardware prescribed taking care to indicate the brand, model, material, function and finish, as well as any other relevant information.
- .4 Submit installation instructions provided by the manufacturer.

1.5 QUALITY ASSURANCE

- .1 Hardware for doors mounted in fire rated walls must be certified by a Canadian Certification Body accredited by the Standards Council of Canada.
- .2 Electrical and electrical security hardware must be coordinated with Electrical contractor.

1.6 WARRANTY

- .1 Warranty start date is from substantial completion.
- .2 No liability is to be assumed where damage is due to improper installation, usage or abuse.
- .3 Provide guarantee.
 - .1 Door Closers 10 year
 - .2 Automatic Operator 2 year
 - .3 Exit Device 3 years
 - .4 Hinges Lifetime of Building
 - .5 All other Hardware 1 year

1.7 MAINTENANCE

- .1 Provide two sets of maintenance tools for closers, locks as well as a complete set of installation instructions.

Part 2 Products

2.1 GENERAL

- .1 Hardware to match existing.
 - .1 Contractor to review on site.
- .2 Hardware shall be the best grade for each item or service specified and free from all defects in manufacture and finish.
- .3 Where a particular item of hardware is not listed for a door, but is required for proper function of the door or fire rating, provide items as listed for similar locations or if not listed as required.
- .4 Supply screws, bolts, expansion shield and other fastening devices required for satisfactory and complete installation and operation of finish hardware, as well as compatibility with door material.
- .5 Exposed fastening devices to match finish of hardware.
- .6 Use fastenings that are compatible with material through which they pass.

2.2 MATERIALS

- .1 All fasteners to come complete with the hardware as described.
- .2 Hardware must be installed with fasteners supplied by the manufacturer.

- .3 **Mortise Locks and Latches:** to ANSI/BHMA A156.13-2005, series 1000 mortise lock, grade 1, designed for function.
- .1 Locks shall meet or exceed the requirements of ANSI/BHMA A156.13 Series 1000, Operational Grade 1, and Security Grade 1 with all standard trims.
 - .2 Construction: Lock functions shall be manufactured in a single-sized case formed from 12 gauge steel minimum.
 - .3 Locks shall have field adjustable, beveled, armored front, with a 3mm thickness minimum.
 - .4 Locks shall have a two piece 19 mm throw anti-friction stainless steel latch with a 70mm backset, standard.
 - .5 Electrical functions Fail Safe and Fail Secure, Voltage 12VDC or 24VDC Regulated. Full wave rectification installed inside the lock body. Current .25 at 24VDC and .5 at 12VDC. UL and CUL listed for use on fire doors. Operating temperature: Max 66 (C) degrees and Min. -35(C) degrees.
 - .6 Strikes shall be non-handed with a curved lip.
 - .7 Roses: round.
 - .8 Standard of Acceptance: Schlage L9000
 - .9 Acceptable alternates: Sargent 8200-Series
- .4 **Hinges:** to ANSI/BMHA A156.1-2006.
- .1 Non removable pins (NRP) for all out swinging secure doors.
 - .2 Interior hinges of plated steel, unless otherwise noted.
 - .3 All electric hinges to be supplied with Electrolynx QC plug in connectors as specified.
 - .4 Standard of acceptance: Ives 5BB1
 - .5 Acceptable alternates: McKinney TA2714, Stanley FBB179
- .5 **Door Closers:** to ANSI/BMHA A156.4-2000.
- .1 Delayed action feature shall be available and controlled by a separate valve. Delayed action shall be available in addition to, not in lieu of, backcheck.
 - .2 All arms shall be finely finished with heavy duty forged steel main arm.
 - .3 Two mounting positions of the closer shall meet all requirements. Standard mountings shall provide 120° door opening and alternate mounting 180° door opening.
 - .4 All closers shall be suitable for standard, top jamb, parallel arm and track type applications when provided with proper brackets and arms.
 - .5 All closer to have a forged steel main arm and forged forearm for parallel arm closers.
 - .6 Standard of acceptance: LCN 1450 FC
 - .7 Acceptable alternates: Norton 8501, Sargent 1431

- .6 **Architectural door trim:** to ANSI/BHMA A156.6.
- .1 Kickplates: 1.3 mm thick stainless steel, unbevelled edges.
Standard of acceptance:
- | Specified | Acceptable Alternates | |
|-------------|-----------------------|-----------------|
| <u>Ives</u> | <u>Hager</u> | <u>Standard</u> |
| 8400 | 190S | K10A |
- .2 Push plates: 1.3 mm thick stainless steel.
Standard of acceptance:
- | Specified | Acceptable Alternates | |
|-------------|-----------------------|-----------------|
| <u>Ives</u> | <u>Hager</u> | <u>Standard</u> |
| 8200 | 30S | K11A-3 |
- .3 Door Pulls: 19mm round pull, 228.6mm center to center pulls, with 76mm x 305mm protection plate, mount type 1.
Standard of acceptance:
- | Specified | Acceptable Alternates | |
|-------------|-----------------------|-----------------|
| <u>Ives</u> | <u>Hager</u> | <u>Standard</u> |
| 8302 | 33H | 2409-1 |
- .7 **Power Assisted Hardware** - Power assist and low energy power operated doors: to ANSI/BMHA A156.19 and comply with ANSI 117.1. Unit to be UL Listed Standard 325, and CUL approved (for use in Canada).
- .1 Automatic operators shall be complete with all components including aluminum operator housing, a.c. electromechanical motor, operator assembly, swing arm, electronic control soft start, switching networks and all connecting hardware. Installation shall be performed by a local certified installer.
- .2 Operator shall require 120VAC power.
- .3 Actuator device to be wall mounted plates, with supplied recessed or surface mounted box where required.
- .4 Standard of acceptance: LCN, Besam, Stanley Magic Access
- .8 **Door Stops:** to ANSI/BMHA A156.16-2002.
- .1 Floor stops dome style classification. Low dome or High dome. Die cast brass. Stops to be sized according to door clearances. Fasteners to suite floor conditions.
- .1 Standard of acceptance: Ives FS439
- .2 Acceptable alternates: Hager 241F, Standard Metal S102L
- .9 **Door Seal Systems:** to ANSI/BMHA A156.22-2005.
- .1 Head and Jamb seal:
- .1 Adhesive backed, black "Santoprene" to provide smoke, light and sound control. Fire labeled.

- .1 Standard of acceptance: KN Crowder W21
 - .2 Acceptable alternates: PEMKO S88D, Hager 726S
- .10 **Power Supplies:** UL Class 2, linear regulated
- .1 Dual output, field selectable 12 or 24 VDC via clearly marked toggle switch.
 - .2 Supplies 1 full AMP continuous current output, even while charging back -up batteries.
 - .3 SPDT AC monitoring output allows for remote monitoring of the power supply's 110V AC input.
 - .4 Separate voltage inputs for load and battery allow the batteries to charge at a higher output while the load remains at exactly 12 or 24 VDC.
 - .5 LED indication (AC & DC) showing power supply status UL listed low current fire alarm disconnect requires only a minimum size fire alarm relay and wire gauge poly switch type breakers allow for large short duration inrush current if batteries are installed (approx. 20A for 1 second) Line voltage and DC fuses Sealed lead-acid-gel battery charging capability.
 - .6 CFAR Relay - Fire Alarm reset module interconnects with a BPS power supply and a fire alarm (made by others). The purpose is to provide additional safety and control in an installation where activation of the fire alarm is intended to switch off the BPS power supply.
 - .7 Release power to magnetic locks which are installed on perimeter doors to permit safe evacuation in the event of a fire. The module to have three specific functions:
 - .1 Maintain the released condition of devices released by activation of the fire alarm even after the fire alarm resets and until the module itself is reset by key.
 - .2 Allow key controlled release of the same devices (separate from the fire alarm control).
 - .3 Signal the released or "normal" condition of the devices via a bicolour led.
 - .4 Standard of acceptance: Von Duprin PS900
 - .5 Acceptable Alternates: Sargent 3500; Securitron BPS
- .11 **Electric Strikes and Frame mounted actuators:** to CAN/CGSH-69.31–2001, Grade 1 and numeral identifiers as indicated in Hardware Groups.
- .1 Strikes shall be designed for use with type of locks indicated in Hardware Groups, and shall accommodate ¾ inch latchbolts.
 - .2 Strikes shall be Burglary-Resistant and Fire Rated where required.
 - .3 Solenoids shall be of the continuous duty type for voltage specified.
 - .4 Strikes shall be Fail Secure (FSE) unless noted otherwise.
 - .5 Provide plug connectors where wiring is concealed in removable frame mullions to allow for easy disconnection as/when required.
 - .6 Coordinate with electrical contractor.
 - .7 Standard of acceptance: Von Duprin 6400
 - .8 Acceptable Alternates: Locknetics 9000; HES1006

2.3 KEYING

- .1 Doors to be keyed differently, master keyed and grand master keyed into the building's existing keying system as directed by Departmental Representative. The existing master key system is from Yale. Prepare a detailed keying schedule in conjunction with the Departmental Representative prior to proceeding with keying.
- .2 Provide two (2) keys for every lock in this Contract, provide two (2) keys for every Master key and Grand master key groups.
- .3 Construction keying: Provide locksets and construction keys for perimeter doors of various work areas until final keying. Supply 3 copies of construction keys to Departmental Representative for use.
 - . 1 Also supply bored locksets, master keyed into the building system, for temporary doors in dust walls as may be required as part of the work phasing specified in section 01 14 10.
 - . 2 Limit distribution and control of keys only to Contractor's personnel approved by Departmental Representative.
- .4 Stamp keying code on keys and cylinders barrels. Do not stamp codes on cylinder face.
- .5 Turn over all final cut keys, complete with keying schedule, directly to Departmental Representative. Submit as one only shipment at completion of project.

Part 3 Execution

3.1 INFORMATION FOR OTHERS

- .1 Furnish door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.
- .2 Wiring Diagrams:
 - .1 Provide any special information, voltage requirements and wiring diagrams to other trades requiring such information.

3.2 PREPARATION

- .1 Examine all doors and frames to assure all doors have a proper fit before hardware is installed.
- .2 Ensure contractor is aware of cutting, patching or recesses in slab, walls, thresholds, etc. required to make hardware function properly.

3.3 INSTALLATION

- .1 Do not install hardware until all finishing is complete.
- .2 Installation is to be done by a qualified installer.
- .3 Install hardware to standard hardware locations and dimensions in accordance with the Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by the Canadian Steel Door and Frame Manufacturer's Association.
- .4 Only screws and fastenings furnished by the manufacturer will be allowed.
- .5 All hardware to be installed level plumb and true. All operating parts to work freely and smoothly.

- .6 **All door hardware for doors in demountable wall system to be supplied and installed by demountable wall systems supplier.**
- .7 High voltage wiring by Electrical Sections. Low voltage wiring by control supplier.

3.4 HARDWARE SETS

Hardware Set # DW – HS-1 – Single Doors No. 2203, 2206, 2207, 2220.2, 2229, 2230, 2231, 2235, 2236, 2240; Each to have:

- 4 Hinges Ives 5BB1 114 x 101 – 626
- 1 Mortise Passage Set Schlage L9010 – 06/A x 10-072 - 626
- 1 Floor Stop Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 5182 mm - BN

Hardware Set # DW – HS-2 – Single Door No. 2204.1; Each to have:

- 4 Hinges Ives 5BB1 114 x 101 NRP – 626
- 1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
- 1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK’d - 626
- 1 Door Closer LCN 1450 Rw/PA-Reg FC - 689
- 1 Floor Stop Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 5182 mm - BN
- 1 Automatic Door Bottom KNC CT-52 x 36 in. - Alum
- 1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B - 630
- 1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK
- 1 Door Position Switch GE Interlogix # 1076D DPDT UL - G
- Keypad / Access Controls – Re-use from Door 2204-A

Hardware Set # DW – HS-3 – Pair Doors No. 2208; Each to have:

- 8 Hinges Ives 5BB1 114 x 101 – 626
- 2 Flush Bolts Ives FB458 x 12” - 626
- 1 Mortise Passage Set Schlage L9010 – 06/A x 10-072 - 626
- 2 Floor Stops Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 6097 mm - BN

Hardware Set # DW – HS-4 – Single Door No. 2213; Each to have:

- 4 Hinges Ives 5BB1 114 x 101 – 626
- 1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
- 1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK’d - 626
- 1 Floor Stop Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 5182 mm - BN

Hardware Set # DW – HS-5 – Single Doors No. 2216.2; Each to have:

- 4 Hinges Ives 5BB1 114 x 101 – 626

1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK’d - 626
1 Door Closer LCN 1450 Rw/PA-Reg FC - 689
1 Floor Stop Ives FS439 - 626
1 Set Door Seal KNC W-21 x 5182 mm – BN
1 Automatic Door Bottom KNC CT-52 x 36 in. - Alum
1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B - 630
1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK
1 Door Position Switch GE Interlogix # 1076D DPDT UL - G
Keypad / Access Controls – supplied by ACS Section

Hardware Set # DW – HS-6 - Single Doors No. 2218, 2219; Each to have:

Hinges – supplied complete by DW glass door supplier - 626
1 Mortise Passage Set Schlage L9010 – 06/A x 10-072 - 626
1 Patch Lock Fitting & Patch Strike Fitting – supplied complete by DW glass door supplier
1 Floor Stop Ives FS439 - 626

Hardware Set # DW – HS-7 - Single Door No. 2220.1; Each to have:

Hinges – supplied complete by DW glass door supplier - 626
1 Mortise Lockset Schlage L9080L – 06/A x less strike – 626
1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK’d – 626
1 Patch Lock Fitting & Patch Electric Strike Fitting – supplied complete by DW glass door supplier
1 Door Closer LCN 1450 Rw/PA-Reg FC – 689 (door prep at factory for mounting holes)
1 Floor Stop Ives FS439 - 626
1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B – 630
1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK
Keypad / Access Controls – supplied by ACS Section

Hardware Set # H-8 – Not Used

Hardware Set # H-9 – Single Door No. 2216.1; Each to have:

4 Hinges Ives 5BB1 114 x 101 NRP – 626
1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK’d - 626
1 Door Closer LCN 1450 Rw/PA-Reg FC - 689
1 Floor Stop Ives FS439 - 626
1 Set Door Seal KNC W-21 x 5182 mm - BN
1 Automatic Door Bottom KNC CT-52 x 36 in. - Alum
1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B - 630
1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK

Hardware Set # H-10 – Single Door No. 2217; Each to have:

- 4 Hinges Ives 5BB1 114 x 101 – 626
- 1 Mortise Passage Set Schlage L9010 – 06/A x 10-072 - 626
- 1 Floor Stop Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 5182 mm - BN

Hardware Set # H-11 – Single Door No. 2223; Each to have:

- 4 Hinges Ives 5BB1 114 x 101 NRP – 626
- 1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
- 1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK'd - 626
- 1 Power Door Operator LCN 9531 STD (Pull) x HL/B-36 in - 689
- 2 Actuator Buttons LCN 8310-853 x 867S - 630
- 1 E/M Door Holder LCN 4040SEH Push - 4040SE-3210 x 24V - 689
- 1 Floor Stop Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 6405 mm - BN
- 1 Automatic Door Bottom KNC CT-52 x 36 in. - Alum
- 1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B – 630
- 1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK
- 1 Door Position Switch GE Interlogix # 1076D DPDT UL - G
- Keypad / Access Controls – supplied by ACS Section

Hardware Set # H-12 – Single Door No. 2224; Each to have:

- 3 Hinges Ives 5BB1 114 x 101 NRP – 626
- 1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
- 1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK'd - 626
- 1 Door Closer LCN 1450 Rw/PA-Reg FC - 689
- 1 E/M Door Holder LCN 7830 x 12/24V (wall mtd.) - 689
- 1 Floor Stop Ives FS439 - 626
- 1 Set Door Seal KNC W-21 x 5183 mm - BN
- 1 Door Sweep KNC W-24S x 915 mm - AL
- 1 Automatic Door Bottom KNC CT-52 x 36 in. - Alum
- 1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B – 630
- 1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK
- 1 Door Position Switch GE Interlogix # 1076D DPDT UL - G
- Keypad / Access Controls – supplied by ACS Section

Hardware Set # H-13 – Single Door No. 2225; Each to have:

- 3 Hinges Ives 5BB1 114 x 101 NRP – 626
- 1 Mortise Lockset Schlage L9080L – 06/A x 10-072 - 626
- 1 Mortise Cylinder Abloy x 1 ¼” – to suit x MK'd - 626
- 1 Door Closer LCN 1450 Rw/PA-Reg FC - 689
- 1 Floor Stop Ives FS439 – 626

1 Set Door Seal KNC W-21 x 5183 mm - BN
1 Door Sweep KNC W-24S x 915 mm - AL
1 Automatic Door Bottom KNC CT-52 x 36 in. - Alum
1 Electric Strike Von Duprin 6400 FSE x 12/24 V x ¾ inch L/B – 630
1 Power Supply Von Duprin PS902 x 900-8F-FA x 900-BBK
1 Door Position Switch GE Interlogix # 1076D DPDT UL - G
Keypad / Access Controls – supplied by ACS Section

Hardware Set # H-14 – Single Door No. 2226; Each to have:

3 Hinges Ives 5BB1 114 x 101 – 626
1 Mortise Passage Set Schlage L9010 – 06/A x 10-072 - 626
1 Floor Stop Ives FS439 - 626
1 Set Door Seal KNC W-21 x 5182 mm – BN

END OF SECTION 08 71 00

Part 1 General

1.1 SECTION INCLUDES

- .1 Glass and glazing for wood doors and hollow metal frames.

1.2 RELATED SECTIONS

- .1 Section 07 92 00 – Joint Sealants
- .2 Section 08 11 00 – Metal Doors and Frames.
- .3 Section 08 14 16 – Flush Wood Doors.
- .4 Section 10 22 23 – Demountable Wall System.

1.3 REFERENCES

- .1 GANA - Glazing Manual and Glazing Sealing Systems Manual.
- .2 CAN/CGSB 12.1-M90 - Tempered or Laminated Safety Glass.
- .3 CAN/CGSB 12.11-M90 Wired Safety Glass.

1.4 SUBMITTALS

- .1 Submit shop drawings in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data on Glass Types Specified: Provide structural, physical and environmental characteristics, size limitations, and special handling or installation requirements.
- .3 Samples: Submit 300 x 300 mm film test prints for three (3) colours and transparency levels to a maximum of three (3) submissions for Pattern-A and Pattern-B.

1.5 QUALITY ASSURANCE

- .1 Perform Work in accordance with GANA Glazing Manual for glazing installation methods.
- .2 Select glazing compounds and sealants in accordance with glass manufacturer's instructions.

Part 2 Products

2.1 GLASS MATERIALS

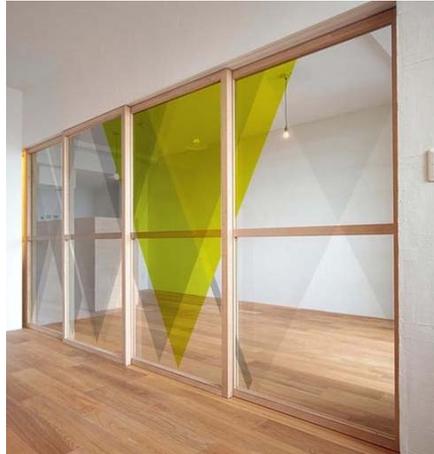
- .1 At demountable wall system: glass thickness shall e 10mm thick laminated glass.
- .2 Tempered Glass: CAN/CGSB 12.1 clear; 6 mm thick, low-iron.
- .3 Wired glass: CAN/CGSB 12.5, clear, 6mm thick, type 1, polished both sides (transparent) with wire mesh style 3 – square.

2.3 ACCESSORIES

- .1 Setting Blocks: Neoprene, EPDM or Silicone, 80 to 90 Shore A durometer hardness according to ASTM D2240.
- .2 Spacer Shims: Neoprene, Silicone, 50 to 60 - Shore A durometer hardness according to ASTM D2240.
- .3 Glazing Tape: Preformed butyl compound with integral resilient tube spacing device, resilient and tubular shape, Shore A hardness of 10-15 durometer according to ASTM D2240.
- .4 Privacy film:
 - .1 Locations, dimensions and design as shown on sheets A12 and A14.
 - .2 Departmental Representative to provide PDF file for master pattern. Design in each lite will be cut in sections from master pattern to reduce repetition.
 - .3 Departmental Representative to provide paint chip no. for film colour matching.
 - .4 Approved Manufacturer, alternate manufacturer will be considered:
 - .1 Levey Industries 1-800-588-3990
 - .2 Pattern- A: 3M Mat Crystal-I for office application.



- .3 Pattern-B: Levey Arts Digital Print-on glass film for Kitchen application.



Part 3 Execution

3.1 EXAMINATION

- .1 Verify that openings for glazing are correctly sized, within tolerance and clean.
.2 Verify that opening has been finish painted or varnished.
.3 Verify that selected sealants and glazing tapes are compatible.

3.2 PREPARATION

- .1 Clean contact surfaces with solvent and wipe dry.
.2 Seal porous glazing channels or recesses with substrate compatible primer or sealer.
.3 Prime surfaces scheduled to receive sealant.

3.3 GLAZING

- .1 Install glazing in locations noted.

3.3 GLAZING FILM METHODS

- .1 Clean glass before beginning installation following manufacturer's instructions.
.2 Remove any window stops.

- .3 Install film to glass windows ensuring no blisters, bubbles, scratches or distortions following manufacturer's instructions.
 - .1 Ensure film is installed behind window stops.

3.5 CLEANING

- .1 Remove glazing materials from finish surfaces.
- .2 Remove labels after work is complete.
- .3 Clean glass.

END OF SECTION