

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 06 20 00 - Finish Carpentry.
- .5 Section 07 21 16 - Blanket Insulation.
- .6 Section 07 92 00 - Joint Sealing.
- .7 Section 09 21 16 - Gypsum Board Assemblies.
- .8 Section 09 91 99 - Painting for Minor Works.

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM A653/A653M-13, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - .2 ASTM B29-03, Standard Specification for Refined Lead.
 - .3 ASTM B749-03, Standard Specification for Lead and Lead Alloy Strip, Sheet and Plate Products.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-1.181-99, Ready-Mixed Organic Zinc-Rich Coating.
 - .2 CGSB 41-GP-19Ma-84, Rigid Vinyl Extrusions for Windows and Doors.
- .3 Canadian Standards Association (CSA International)
 - .1 CSA-G40.20-13/G40.21-13, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CSA W59-13, Welded Steel Construction (Metal Arc Welding).
- .4 Canadian Steel Door Manufacturers' Association (CSDMA)
 - .1 CSDMA, Recommended Specifications for Commercial Steel Doors and Frames, 2006.
 - .2 CSDMA, Selection and Usage Guide for Commercial Steel Doors, 1990.
- .5 National Fire Protection Association (NFPA)
 - .1 NFPA 252 (R2012), Standard Methods of Fire Tests of Door Assemblies.
- .6 Underwriters' Laboratories of Canada (ULC)

- .1 CAN/ULC-S701-05, Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.
- .2 CAN/ULC-S702-97, Standard for Thermal Insulation, Mineral Fibre, for Buildings.
- .3 CAN/ULC-S704-11, Standard for Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced.
- .4 CAN4-S104-M80, Standard Method for Fire Tests of Door Assemblies.

1.3 SYSTEM DESCRIPTION

- .1 Design Requirements:
 - .1 Provide fire labelled frames for openings requiring fire protection ratings. Test products in conformance with CAN4-S104, ASTM E152 or NFPA 252 and listed by nationally recognized agency having factory inspection services.

1.4 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide product data: in accordance with Section 01 33 00 - Submittal Procedures.
- .3 Provide shop drawings: in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Indicate each type of door, material, steel core thicknesses, mortises, reinforcements, location of exposed fasteners, openings, arrangement of hardware, fire rating and finishes.
 - .2 Indicate each type frame material, core thickness, reinforcements, glazing stops, location of anchors and exposed fastenings, fire rating and finishes.
 - .3 Include schedule identifying each unit, with door marks and numbers relating to numbering on drawings and door schedule.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

Part 2 Products

2.1 MATERIALS

- .1 Hot dipped galvanized steel sheet: to ASTM A653M, ZF75, minimum base steel thickness in accordance with CSDMA Table 1 - Thickness for Component Parts.

2.2 DOOR CORE MATERIALS

- .1 Honeycomb construction:
 - .1 Structural small cell, 24.5 mm maximum kraft paper 'honeycomb', weight: 36.3 kg per ream minimum, density: 16.5 kg/m³ minimum sanded to required thickness.
- .2 Stiffened: face sheets insulated core.

- .1 Fibreglass: to CAN/ULC-S702, semi-rigid Type 2 density 24 kg/m³.
- .3 Temperature rise rated (TRR): core composition to limit temperature rise on unexposed side of door to 250 degrees C at 30 minutes. Core to be tested as part of a complete door assembly, in accordance with CAN4-S104, ASTM E152 or NFPA 252, covering Standard Method of Tests of Door Assemblies and listed by nationally recognized testing agency having factory inspection service.

2.3 ADHESIVES

- .1 Honeycomb cores and steel components: heat resistant, spray grade, resin reinforced neoprene/rubber (polychloroprene) based, low viscosity, contact cement.
- .2 Polystyrene and polyurethane cores: heat resistant, epoxy resin based, low viscosity, contact cement.
- .3 Lock-seam doors: fire resistant, resin reinforced polychloroprene, high viscosity, sealant/adhesive.

2.4 PRIMER

- .1 Touch-up prime CAN/CGSB-1.181.

2.5 PAINT

- .1 Field paint steel doors and frames in accordance with Sections 09 91 23.01 - Interior Re Painting, 09 91 99 – Painting for Minor Works. Protect weatherstrips from paint. Provide final finish free of scratches or other blemishes.

2.6 ACCESSORIES

- .1 Door silencers: single stud rubber/neoprene type.
- .2 Exterior and interior top and bottom caps: rigid polyvinylchloride extrusion conforming to CGSB 41-GP-19Ma or steel.
- .3 Fabricate glazing stops as formed channel, minimum 16 mm height, accurately fitted, butted at corners and fastened to frame sections with counter-sunk oval head sheet metal screws.
- .4 Metallic paste filler: to manufacturer's standard.
- .5 Fire labels: metal rivited
- .6 Sealant: Refer to Section 07 92 00 – Joint Sealing.
- .7 Glazing: Refer to Section 08 80 50 - Glazing.
- .8 Make provisions for glazing as indicated and provide necessary glazing stops.
 - .1 Provide removable stainless steel glazing beads for use with glazing tapes and compounds and secured with countersunk stainless steel screws.
 - .2 Design exterior glazing stops to be tamperproof.

2.7 FRAMES FABRICATION GENERAL

- .1 Fabricate frames in accordance with CSDMA specifications.
- .2 Fabricate frames to profiles and maximum face sizes as indicated.
- .3 Interior frames: 1.6mm welded type construction.
- .4 Blank, reinforce, drill and tap frames for mortised, templated hardware, using templates provided by finish hardware supplier. Reinforce frames for surface mounted hardware.
- .5 Prepare frame for door silencers, 3 for single door.
- .6 Manufacturer's nameplates to be installed on hinge side of frame and concealed from view.
- .7 Conceal fastenings except where exposed fastenings are indicated.
- .8 Provide factory-applied touch up primer at areas where zinc coating has been removed during fabrication.
- .9 Insulate interior frame components with polyurethane insulation.

2.8 FRAME ANCHORAGE

- .1 Provide appropriate anchorage to floor and wall construction.
- .2 Locate each wall anchor immediately above or below each hinge reinforcement on hinge jamb and directly opposite on strike jamb.
- .3 Provide 2 anchors for rebate opening heights up to 1520 mm and 1 additional anchor for each additional 760 mm of height or fraction thereof.

2.9 FRAMES: WELDED TYPE

- .1 Welding in accordance with CSA W59.
- .2 Accurately mitre or mechanically joint frame product and securely weld on inside of profile.
- .3 Cope accurately and securely weld butt joints of mullions, transom bars, centre rails and sills.
- .4 Grind welded joints and corners to a flat plane, fill with metallic paste and sand to uniform smooth finish.
- .5 Securely attach floor anchors to inside of each jamb profile.
- .6 Weld in 2 temporary jamb spreaders per frame to maintain proper alignment during shipment.

2.10 FRAMES: KNOCKED-DOWN TYPE

- .1 Ship knocked-down type frames unassembled.
- .2 Provide frames with mechanical joints which inter-lock securely and provide functionally satisfactory performance when assembled and installed in accordance with CSDMA Recommended Installation Guide for Steel Doors and Frames.
- .3 Securely attach floor anchors to inside of each jamb profile.

2.11 DOOR FABRICATION GENERAL

- .1 Doors: swing type, flush, with provision for glass and/or louvre openings as indicated.
- .2 Exterior doors: honeycomb hollow steel construction. Interior doors: non insulated honeycomb hollow steel construction.
- .3 Fabricate doors with longitudinal edges welded. Seams: grind welded joints to a flat plane, fill with metallic paste filler and sand to a uniform smooth finish.
- .4 Blank, reinforce, drill doors and tap for mortised, templated hardware and electronic hardware.
- .5 Factory prepare holes 12.7 mm diameter and larger except mounting and through-bolt holes, on site, at time of hardware installation.
- .6 Reinforce doors where required, for surface mounted hardware. Provide flush steel top caps to exterior doors. Provide inverted, recessed, spot welded channels to top and bottom of interior doors.
- .7 Provide factory-applied touch-up primer at areas where zinc coating has been removed during fabrication.
- .8 Provide fire labelled doors for those openings requiring fire protection ratings, as scheduled. Test such products in conformance with CAN4-S104, ASTM E152 or NFPA 252 and list by nationally recognized agency having factory inspection service and construct as detailed in Follow-Up Service Procedures/Factory Inspection Manuals issued by listing agency to individual manufacturers.
- .9 Manufacturer's nameplates on doors are permitted. Location of nameplates to be on hinge side of door concealed from view.

2.12 DOORS: HONEYCOMB CORE CONSTRUCTION

- .1 Form face sheets for interior doors from 1.6mm sheet steel with honeycomb core laminated under pressure to face sheets.

2.13 HOLLOW STEEL CONSTRUCTION

- .1 Form face sheets for interior doors from 1.6 mm sheet steel.
- .2 Reinforce doors with vertical stiffeners, securely welded to face sheets at 150 mm on centre maximum.

- .3 Fill voids between stiffeners of interior doors with fibreglass core.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION GENERAL

- .1 Install labelled steel fire rated doors and frames to NFPA 80 except where specified otherwise.
- .2 Install doors and frames to CSDMA Installation Guide.

3.3 FRAME INSTALLATION

- .1 Set frames plumb, square, level and at correct elevation.
- .2 Secure anchorages and connections to adjacent construction.
- .3 Brace frames rigidly in position while building-in. Install temporary horizontal wood spreader at third points of door opening to maintain frame width. Provide vertical support at centre of head for openings over 1200 mm wide. Remove temporary spreaders after frames are built-in.
- .4 Make allowances for deflection of structure to ensure structural loads are not transmitted to frames.
- .5 Caulk perimeter of frames between frame and adjacent material.

3.4 DOOR INSTALLATION

- .1 Install doors and hardware in accordance with hardware templates and manufacturer's instructions and Section 08 71 00 - Door Hardware.
- .2 Provide even margins between doors and jambs and doors and finished floor and thresholds as follows.
 - .1 Hinge side: 1.0 mm.
 - .2 Latchside and head: 1.5 mm.
 - .3 Finished floor, and thresholds: 13 mm.
- .3 Adjust operable parts for correct function.
- .4 Install louvres where required.

3.5 FINISH REPAIRS

- .1 Touch up with primer finishes damaged during installation.

- .2 Fill exposed frame anchors and surfaces with imperfections with metallic paste filler and sand to a uniform smooth finish.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Flush wood doors.

1.2 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 06 20 00 - Finish Carpentry.
- .5 Section 07 92 00 - Joint Sealants.
- .6 Section 08 12 13 - Standard Hollow Metal Frames.
- .7 Section 08 71 00 - Door Hardware - General.
- .8 Section 09 91 99 – Painting for Minor Works: Site finishing of doors.

1.3 REFERENCES

- .1 ANSI A135.4 - Basic Hardboard.
- .2 ASTM E413-10 - Classification for Rating of Sound Insulation.
- .3 AWMAC (Quality Standards for Architectural Woodwork), 2ND Edition, 2014.
- .4 ASTM D5456-14B - Standard Specification for Evaluation of Structural Composite Lumber Products.
- .5 CHPVA (Canadian Hardwood Plywood and Veneer Association).\
- .6 EN 438 - High-pressure decorative laminates (HPL). Sheets based on thermosetting resins (usually called laminates).
- .7 HPVA (Hardwood Plywood and Veneer Association).
- .8 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
 - .1 Architectural Woodwork Standards, 2ND edition, (2014).

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Section 01 31 00: Project management and coordination procedures.
- .2 Coordination:

- .1 Coordinate with other work having a direct bearing on work of this section.
- .2 Coordinate the work with door opening construction, door frame and door hardware installation.

1.5 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- .3 Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required.
- .4 Samples:
 - .1 Submit two (2) samples of door veneer , 300 mm (12 inch) in size illustrating veneer and colour.

1.1 CLOSEOUT SUBMITTALS

- .1 Section 01 78 10: Submission procedures.

1.2 QUALITY ASSURANCE

- .1 Products of This Section: Manufactured to ISO 9000 certification requirements.
- .2 Perform work in accordance with AWMAC Premium Grade Quality Standards.
- .3 Finish doors in accordance with AWMAC Premium Grade Quality Standards.
- .4 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three (3) years documented experience and a member in good standing with AWMAC.

1.3 DELIVERY, STORAGE, AND PROTECTION

- .1 Section 01 61 00: Transport, handle, store, and protect products.
- .2 Package, deliver and store doors in accordance with AWMAC.

1.4 WARRANTY

- .1 Section 01 78 10: Warranties.
- .2 Provide warranty to include coverage for failure to meet specified requirements, to the following term:
 - .1 Interior Doors: Minimum three (3) years.
- .3 Include coverage for delamination of veneer, warping beyond specified installation tolerances and defective materials.

Part 2 Products

2.1 WOOD FLUSH DOOR

- .1 Solid core: to CAN/CSA-O132.2.1

2.2 CONSTRUCTION

- .1 Flush Interior Doors: 44 mm (1-3/4 inches) thick; solid core construction, acoustic rated as indicated, and veneer face.
 - .1 Core (Solid, Non-Rated): AWMAC Section 1300, Type PC - Particleboard; 529kg/cm³ (33 PSF).
 - .2 To AWMAC Premium Grade and ASTM D-5456.
 - .3 Veneer Facing: AWMAC premium quality species wood, rotary cut, factory finish.
 - .1 Thickness: 1mm.
 - .2 Dimensional Stability: To ED 438-2; max. 0,45% (longitudinal); max. 0,90% (transversal).
 - .3 Impact Resistance: To ED 438-2; ≥ 10 N.
 - .4 Veneer Species: Maple.
 - .4 Stiles: Hardwood stained to match face veneer).

2.3 ADHESIVE

- .1 Facing Adhesive: Type II - water resistant.

2.4 FABRICATION

- .1 Fabricate non-rated doors in accordance with AWMAC Premium Grade Quality Standards requirements.
- .2 Sound Rating for Single Door Leaf and Frame Assembly: ASTM E413, minimum STC 35.
- .3 Provide lock blocks for hardware reinforcement.
- .4 Vertical Exposed Edge of Stiles: Hardwood; transparent finish.
- .5 Fit door edge trim to edge of stiles after applying veneer facing.
- .6 Bond edge banding to cores.
- .7 Factory machine doors for finish hardware in accordance with hardware requirements and dimensions. Do not machine for surface hardware. Provide solid blocking for through bolted hardware.
- .8 Factory fit doors for frame opening dimensions identified on shop drawings.
- .9 Provide edge clearances in accordance with AWMAC Premium Grade Quality Standard.

2.5 FINISHES

- .1 Refer to Section 09 91 99 – Painting for finishing.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify that opening sizes and tolerances are acceptable.
- .3 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 non-rated doors in accordance with AWMAC Premium Grade Quality Standards requirements.
- .2 Trim non-rated door width by cutting equally on both jamb edges.
- .3 Trim door height by cutting bottom edges to a maximum of 19 mm (3/4 inch).
- .4 Machine cut for hardware.
- .5 Coordinate installation of doors with installation of frames specified in Section 08 14 13 and hardware specified in Section 08 71 00.

3.3 INSTALLATION TOLERANCES

- .1 Section 01 73 00: Tolerances.
- .2 Conform to AWMAC Premium Grade requirements for fit and clearance tolerances.
- .3 Conform to AWMAC Section 1300 requirements for maximum diagonal distortion.
- .4 Maximum Vertical Distortion (Bow): 3 mm (1/8 inch) measured with straight edge or taut string, top to bottom, over an imaginary 915 x 2130 mm (36 x 84 inches) surface area.
- .5 Maximum Width Distortion (Cup): 3 mm (1/8 inch) measured with straight edge or taut string, edge to edge, over an imaginary 915 x 2130 mm (36 x 84 inches) surface area.

3.4 ADJUSTING

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

3.5 SCHEDULES

- .1 Refer to Section 08 71 00 for Door Schedule.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 08 11 00 - Metal Doors and Frames.
- .5 Section 08 14 16 - Flush Wood Doors.

1.2 REFERENCES

- .1 American National Standards Institute (ANSI) / Builders Hardware Manufacturers Association (BHMA)
 - .1 ANSI/BHMA A156.1-2006, American National Standard for Butts and Hinges.
 - .2 ANSI/BHMA A156.2-2011, Bored and Preassembled Locks and Latches.
 - .3 ANSI/BHMA A156.4-2013, Door Controls - Closers.
 - .4 ANSI/BHMA A156.6-2010, Architectural Door Trim.
 - .5 ANSI/BHMA A156.8-2010, Door Controls - Overhead Stops and Holders.
 - .6 ANSI/BHMA A156.13-2012, Mortise Locks and Latches Series 1000.
 - .7 ANSI/BHMA A156.18-2012, Materials and Finishes.
- .2 Canadian Steel Door and Frame Manufacturers' Association (CSDMA)
 - .1 CSDMA Recommended Dimensional Standards for Commercial Steel Doors and Frames - 2009.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for door hardware and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Hardware List:
 - .1 Submit contract hardware list.
 - .2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.
- .4 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .5 Manufacturer's Instructions: submit manufacturer's installation instructions.

1.4 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.

- .2 Operation and Maintenance Data: submit operation and maintenance data for door hardware for incorporation into manual.

1.5 MAINTENANCE MATERIALS SUBMITTALS

- .1 Extra Stock Materials:
 - .1 Supply maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
 - .2 Tools:
 - .1 Supply 2 sets of wrenches for door closers and locksets.

1.6 QUALITY ASSURANCE

- .1 Regulatory Requirements:
 - .1 Hardware for doors in fire separations and exit doors certified by a Canadian Certification Organization accredited by Standards Council of Canada.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Package items of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.
- .4 Storage and Handling Requirements:
 - .1 Store materials off ground, indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect door hardware from nicks, scratches, and blemishes.
 - .3 Protect prefinished surfaces with strippable coating.
 - .4 Replace defective or damaged materials with new.

Part 2 Products

2.1 HARDWARE ITEMS

- .1 Use one manufacturer's products only for similar items.

2.2 DOOR HARDWARE

- .1 As per drawings, Hardware groups and Door Schedule.

2.3 FASTENINGS

- .1 Use only fasteners provided by manufacturer. Failure to comply may void warranties and applicable licensed labels.

- .2 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation and operation of hardware.
- .3 Exposed fastening devices to match finish of hardware.
- .4 Use fasteners compatible with material through which they pass.

2.4 KEYING

- .1 Prepare keying schedule in conjunction with Departmental Representative.
- .2 Supply construction locks.
- .3 Permanent cores and keys to be by Departmental Representative.

Part 3 Execution

3.1 INSTALLATION

- .1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- .2 Supply metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.
- .3 Supply manufacturers' instructions for proper installation of each hardware component.
- .4 Install hardware to standard hardware location dimensions in accordance with CSDFMA Canadian Metric Guide for Steel Doors and Frames (Modular Construction).
- .5 Use only manufacturer's supplied fasteners.
 - .1 Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.
- .6 Remove construction locks when directed by Departmental Representative.
 - .1 Install permanent cores and ensure locks operate correctly.

3.2 ADJUSTING

- .1 Adjust door hardware, operators, closures and controls for optimum, smooth operating condition, safety and for weather tight closure.
- .2 Lubricate hardware, operating equipment and other moving parts.
- .3 Adjust door hardware to ensure tight fit at contact points with frames.

3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
 - .2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacturer's instructions.
 - .3 Remove protective material from hardware items where present.
 - .4 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.4 DEMONSTRATION

- .1 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

3.5 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by door hardware installation.

END OF SECTION

Group # 1 (Doors 401A, 403)

3 HINGES	CB168 4 1/2" X 4" NRP	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4111 EDA	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 WALL STOP	S121\S123	26D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (public zone) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.

Group # 2 (Doors 405A, 406A, 407B, 408B, 409B, 425)

3 HINGES	CB179 NRP 4 1/2" X 4"	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4111 SPRING CUSH	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.
- Push side of door (operational zone) to be controlled (released) by card reader. Lever to be fixed.

Group # 3 (Doors 404B, 405B, 406B, 407A, 408A, 409A)

3 HINGES	CB179 4 1/2" X 4"	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4011 REG	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 WALL STOP	S121\S123	26D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 CARD READER	BY ELECTRICAL		

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational/public zone) lever to be free (passage function).
- Push side of door (public zone) to be controlled (released) by card reader. Lever to be fixed.

Group # 4 (Door 410A)

3 HINGES	CB168 4 1/2" X 4" NRP	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4111 SPRING CUSH	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational/public zone) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.

Group # 5 (Door 410B)

3 HINGES	CB168 4 1/2" X 4" NRP	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4111 EDA	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 WALL STOP	S121\S123	26D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 CARD READER	BY ELECTRICAL		

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational/public zone) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) lever to be free (passage function).

Group # 6 (Door 401C)

REPLACE EXISTING CARD READER WITH NEW, BY ELECTRICAL.
EXISTING LOCK RE-KEYED.
ALL OTHER HARDWARE IS EXISTING.

OPERATION DESCRIPTION

DAY TIME OPERATION (8:00AM - 4:00PM)

- Pull side of door (public lobby) pull to be free and/or controlled with existing automatic door operator (ADO).
- Push side of door (public zone) push to be free and/or controlled with existing ADO.

NIGHT TIME OPERATION (4:00PM - 8:00AM) AND

LUNCH HOUR OPERATION (12:00 NOON - 1:00PM)

- ADO to be disabled unless card reader engaged.
- Pull side of door (public lobby) to be controlled (released) by card reader. Time delay for card reader release to be set to allow activation of the ADO separately.
- Push side of door (public zone) to be free (via existing exit hardware) Existing motion sensor time delay to be set to allow activation of the ADO separately.
- Existing motion sensor to monitor for forced entry. Security alarm system to be armed via automatic timer (from 6:00pm - 6:00am). Authorized access at this time would only be permitted for those with card access and pin number for security alarm panel located adjacent to the entrance.

Group # 7 (Door 412)

REMOVE EXISTING LOCK AND REPLACE WITH LOCK (STOREROOM FUNCTION) FROM DOOR 440.

EXISTING MOTION SENSOR TO REMAIN.

NEW CARD READER, BY ELECTRICAL, TO REPLACE EXISTING.

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be monitored (for forced entry) by existing motion sensor. Lever to be free.
- Push side of door (operational zone) to be controlled (released) by new card reader (by electrical). Lever to be fixed.

Group # 8 (Door 413)

1 PASSAGE SET ND10S RHO

626

SC

REMOVE EXISTING LOCK AND REPLACE WITH ABOVE PASSAGE SET.

ALL OTHER HARDWARE IS EXISTING.

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Both sides of door, lever to be free (passage function).

Group # 9 (Door 414A)

EXISTING FIXED DOOR LEAF TO BE REMOVED AND SALVAGED FOR REUSE AS DOOR 414B. REFER TO INTERIOR ELEVATIONS FOR MODIFIED SIDELITE AND TRANSOM TO ACCOMMODATE ELECTRIC STRIKE AND RELATED HARDWARE. MODIFY EXISTING DOOR JAMB TO RECEIVE ELECTRIC COMPONENTS AS REQUIRED.

1 BLANK PLATE FOR DL	4B17SS43	SS	XX
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 ELECTRIC STRIKE	6211 WF FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

DEADLOCK TO BE REMOVED.
USE BLANK PLATES TO COVER EXIST PREP.
ALL OTHER HARDWARE IS REUSED.

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be controlled (released) by card reader. Card reader to be mounted in new sidelite infill, refer to interior elevations.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.

Group # 10 (Door 414B)

EXISTING DOOR LEAF TO BE RE-USED FROM DOOR 414. NEW WOOD DOOR FRAME TO SUIT. REFER TO INTERIOR ELEVATIONS FOR MODIFIED SIDELITE AND TRANSOM TO ACCOMMODATE ELECTRIC STRIKE AND RELATED HARDWARE. NEW WOOD DOOR JAMB TO RECEIVE ELECTRIC COMPONENTS AS REQUIRED.

2 BLANK PL FOR FL BOLT		32D	XX
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 ELECTRIC STRIKE	6211 WF FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

FLUSH BOLTS TO BE REMOVED.
USE BLANK PLATES TO COVER EXIST PREP.
ALL OTHER HARDWARE IS REUSED.

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be controlled (released) by card reader. Card reader to be mounted in new sidelite infill, refer to interior elevations.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor.

Group # 11 (Door 417)

3 HINGES	CB179 NRP 4 1/2" X 4"	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 CLOSER	4111 EDA	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 WALL STOP	S121\S123	26D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 CARD READER	BY ELECTRICAL		XX

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) lever to be free.

Group # 12 (Doors 418, 419, 429)

1 PASSAGE SET	ND10S RHO	626	SC
REPLACE EXIST WITH PASSAGE SET ABOVE.			
ALL OTHER HARDWARE IS RE-USED.			

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) lever to be free (passage function).
- Push side of door (operational zone) lever to be free (passage function).

Group # 13 (Door 421, 434, 703)

REPLACE EXISTING CARD READER WITH NEW, BY ELECTRICAL.
EXISTING LOCK RE-KEYED.
REUSE EXISTING DOOR POSITION SWITCH AND MOTION SENSOR.
ALL OTHER HARDWARE IS RE-USED.

OPERATION DESCRIPTION FOR DOOR 421, 434

- Operation to be consistent 24/7.
- Pull side of door (public zone) to be controlled (released) by new card reader (by electrical). Lever to be fixed.
- Push side of door (operational zone) to be monitored (for forced entry) by existing motion sensor. Lever to be free.

OPERATION DESCRIPTION FOR DOOR 703

- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be monitored (for forced entry) by existing motion sensor. Lever to be free.
- Push side of door (public zone) to be controlled (released) by new card reader (by electrical). Lever to be fixed.

Group # 14 (Door 440, 704)

3 HINGES	CB179 4 1/2" X 4	26D	ST
1 OFFICE LOCKSET	ML2053 L NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 WALL STOP	S121\S123	26D	SM

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (operational zone) lever to be free (office lock function).
- Push side of door (operational zone) office function lock will allow door to be locked.

Group # 15 (Door 702)

1 LOCKSET	ND80LD RHO	626	SC
1 BLANK PLATE FOR DL	4B17SS43	SS	XX
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

REMOVE DEADLOCK AND USE BLANK PLATE TO COVER PREP.

REPLACE LOCKSET WITH THE LOCK AS PER ABOVE.

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Pull side of door (public corridor) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.

Group # 16 (Doors 706, 707)

3 HINGES	CB179 4 1/2" X 4	26D	ST
1 PASSAGE SET	ML2010 NSA	626	CR
1 WALL STOP	S121\S123	26D	SM

OPERATION DESCRIPTION

- Operation to be consistent 24/7.
- Both sides of door, lever to be free (passage function).

Group # 17 (Door 404A)

3 HINGES	CB179 NRP 4 1/2" X 4"	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4011 REG	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 WALL STOP	S121\S123	26D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

OPERATION DESCRIPTION

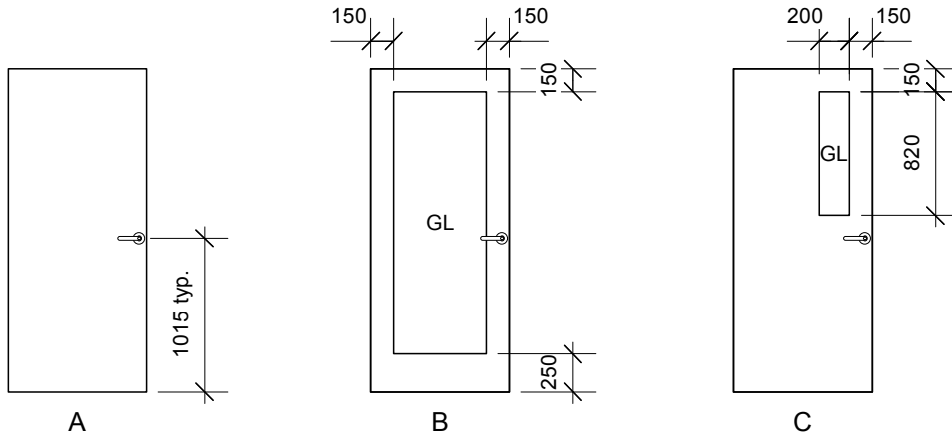
- Operation to be consistent 24/7.
- Pull side of door (operational zone) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.

Group # 18 (Door 401B)

3 HINGES	CB168 4 1/2" X 4" NRP	26D	ST
1 LOCKSET-STOREROOM	ML2057 NSA LC	626	CR
1 MEDECO CYLINDER	TO SUIT	626	ME
1 CLOSER	4111 EDA	689	LC
1 KICKPLATE	K10A 12" X WTS	32D	SM
1 WALL STOP	S121\S123	26D	SM
1 ELECTRIC STRIKE	6211 FSE	630	VO
1 DOOR POSITION SWITCH	BY ELECTRICAL		
1 CARD READER	BY ELECTRICAL		
1 RX DETECTOR	BY ELECTRICAL		

OPERATION DESCRIPTION

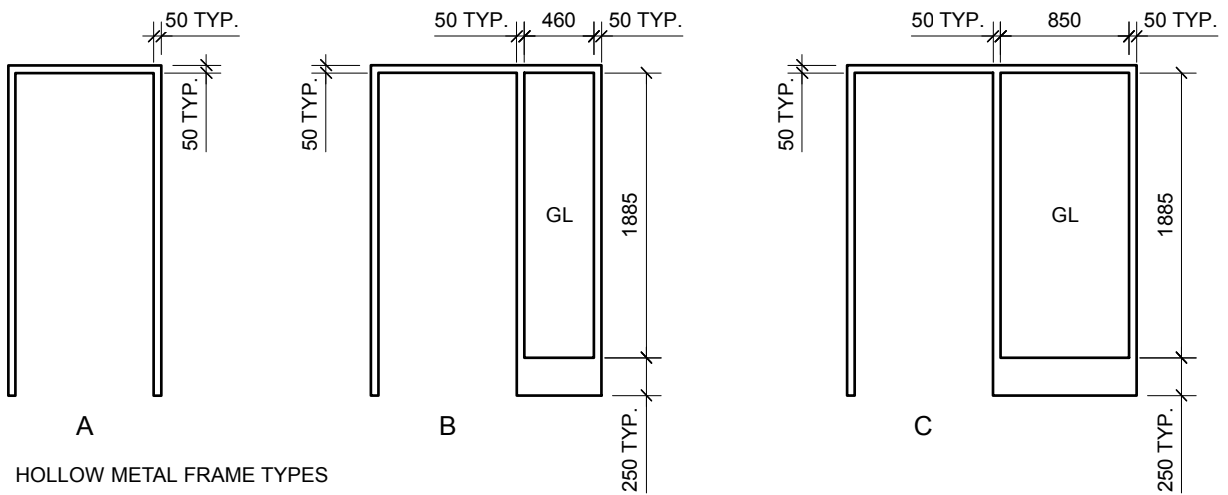
- Operation to be consistent 24/7.
- Pull side of door (operational/public zone) to be controlled (released) by card reader. Lever to be fixed.
- Push side of door (operational zone) to be monitored (for forced entry) by motion sensor. Lever to be free.



WOOD DOOR TYPES

WOOD DOOR TYPE NOTES

1. REFER TO SECTION 08 80 00 FOR GLAZING (GL) TYPES.



HOLLOW METAL FRAME TYPES

HOLLOW METAL FRAME TYPE NOTES

1. REFER TO SECTION 08 80 00 FOR GLAZING (GL) TYPES.

1246

VEMA Shop Addition, Beausejour, Manitoba

Scale As Noted

February 3, 2015

Door Types

08 71 00.01

| x | architecture inc.
120 Fort Street, Suite 103 Winnipeg, Manitoba R3C 1C7 204 318 2010

Interior Lease Fit-Up
CIC Relocation to Victory Building
Project No. R.055488.00 February 3, 2015

DOOR SCHEDULE

Section 08 71 00.02

			DOOR						FRAME				ULC	HDWE	
N/E	NO.	LOCATION	NOM.SIZE	TYPE	MAT.	CORE	FIN.	GLS.	TYPE	MAT.	FIN.	GLS.	RATING	GROUP	NOTES
	4th Floor														
New	D401A	Reception	915 x 2135 x 45mm	C	WD	SC	CL	TG	-	HM	PT	-	-	1	1, 2, 3
New	D401B	Reception	915 x 2135 x 45mm	C	WD	SC	CL	TG	-	HM	PT	-	-	4	1, 2, 3
EX	D401C	Lobby/Reception	(2) @ 915mm x 2135mm x 45mm		FG-EX	-	-	-	-	AL	A	-	EX	6	
New	D403	Corridor	915 x 2135 x 45mm	A	WD	SC	CL	-	-	-	-	-	-	1	1, 2, 3
New	D404A	Interview 1	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	2	2,3
New	D404B	Interview 1	915 x 2135 x 45mm	A	WD	SC	CL	-	C	HM	PT	TG	-	3	3
New	D405A	Interview 2	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	2	2,3
New	D405B	Interview 2	915 x 2135 x 45mm	A	WD	SC	CL	-	C	HM	PT	TG	-	3	3
New	D406A	Fingerprint	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	2	2,3
New	D406B	Fingerprint	915 x 2135 x 45mm	A	WD	SC	CL	-	C	HM	PT	TG	-	3	3
New	D407A	Judge	915 x 2135 x 45mm	A	WD	SC	CL	-	C	HM	PT	TG	-	3	3
New	D407B	Judge	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	2	2, 3
New	D408A	Interview 3	915 x 2135 x 45mm	A	WD	SC	CL	-	C	HM	PT	TG	-	3	3
New	D408B	Interview 3	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	2	2, 3
New	D409A	Interview 4	915 x 2135 x 45mm	A	WD	SC	CL	-	C	HM	PT	TG	-	3	3
New	D409B	Interview 4	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	2	2, 3
New	D410A	Vestibule	915 x 2135 x 45mm	C	WD	SC	CL	TG	A	HM	PT	-	-	4	1, 2, 3
New	D410B	Vestibule	915 x 2135 x 45mm	B	WD	SC	CL	TG	B	HM	PT	-	-	5	3
EX	D412	Mail	915 x 2135 x 45mm	EX	WD-EX	SC	CL	-	EX	HM-EX	PT	-	-	7	4
EX	D413	Quiet	915 x 2135 x 45mm	EX	WD-EX	SC	CL	-	EX	HM-EX	PT	TG-EX	-	8	
EX	D414A	Multipurpose	915 x 2135 x 45mm	EX	WD-EX	SC	CL	TG	EX	WD-EX	CL	PY-EX	-	9	3, 6
EX	D414B	Multipurpose	915 x 2135 x 45mm	EX	WD-EX	SC	CL	TG	EX	WD-EX	CL	PY-EX	-	10	3, 7
New	D417	Cashier	915 x 2135 x 45mm	B	WD	SC	CL	TG	A	HM	CL	-	-	11	3
EX	D418	Meeting 1	915 x 2135 x 45mm	EX	WD-EX	SC	CL	TG	EX	WD-EX	CL	PY-EX	-	12	
EX	D419	Meeting 2	915 x 2135 x 45mm	EX	WD-EX	SC	CL	TG	EX	WD-EX	CL	PY-EX	-	12	
EX	D420	Male W.C.	915 x 2135 x 45mm	EX	WD-EX	SC	PT	-	EX	WD-EX	PT	-	-	EX	
EX	D421	Vestibule	915 x 2135 x 45mm	EX	HM-EX	-	PT	-	EX	HM	PT	-	-	13	
EX	D423	Closet	-	EX	-	-	-	-	EX	-	-	-	-	EX	5
New	D425	Corridor	915 x 2135 x 45mm	C	WD	SC	CL	TG	A	HM	PT	-	-	2	
EX	D429	Duty	915 x 2135 x 45mm	EX	WD	SC	CL	TG	EX	HM	PT	TG	-	12	
EX	D433	Female W.C.	915 x 2135 x 45mm	EX	WD-EX	SC	PT	-	EX	WD-EX	PT	-	-	EX	
EX	D434	Vestibule	1070 x 2135 x 45mm	EX	HM-EX	-	PT	-	EX	HM-EX	PT	-	-	13	
New	D440	Director	915 x 2135 x 45mm	A	WD	SC	CL	-	B	HM	PT	TG	-	14	
EX	D443	Janitor	-	EX	WD-EX	SC	PT	-	EX	WD-EX	PT	-	-	EX	

DOOR SCHEDULE

			DOOR						FRAME				ULC	HDWE	
N/E	NO.	LOCATION	NOM.SIZE	TYPE	MAT.	CORE	FIN.	GLS.	TYPE	MAT.	FIN.	GLS.	RATING	GROUP	NOTES
	7th Floor														
EX	D702	Entrance	915 x 2135 x 45mm	EX	HM-EX	-	PT	WG	EX	HM	PT	WG-EX	-	15	1, 2, 3
EX	D703	Entrance	915 x 2135 x 45mm	EX	HM-EX	-	PT	WG	EX	HM	PT	-	-	13	
EX	D703B	Closet	915 x 2135 x 45mm	EX	-	-	-	-	EX	-	-	-	-	EX	
New	D704	Support	915 x 2135 x 45mm	B	WD	SC	CL	TG	A	HM	PT	-	-	14	
New	D706	Quiet	915 x 2135 x 45mm	B	WD	SC	CL	TG	A	HM	PT	-	-	16	
New	D707	Meeting	915 x 2135 x 45mm	B	WD	SC	CL	TG	A	HM	PT	-	-	16	

NOTES

- 1 Door to receive security door contacts. Supply and install by electrical contractor. Refer to Electrical Specifications.
- 2 Door to be equipped with motion sensor (for security monitoring only). Supply and install by electrical contractor. Refer to Electrical Specifications.
- 3 Door to be equipped with card reader. Supply and install by Electrical Contractor. Refer to Electrical Specifications.
- 4 Swap existing lockset from Door 440 to this location.
- 5 Paint door frame only.
- 6 Modify existing door, frame and adjacent wall system to suit new configuration. Refer to Interior Elevations.
- 7 Re-use existing door leaf from door 414A at 414B location. Modify existing wall system to suit new configuration. Refer to Interior Elevations.

GENERAL NOTES

- 1 Prepare and provide new paint finish for all existing pressed steel frames.
- 2 General Contractor to ensure all existing door hardware being re-used is in proper working order and free of damage.
- 3 General Contractor to install construction cylinders/keyways during construction. Final cylinders/keyways by PWGSC/Building Manager
- 4 All doors to be 45mm thickness unless otherwise indicated.

LEGEND

A Anodized	PT Paint
AL Aluminum	PY-EX Existing Polycarbonate Glazing
CL Clear polyurethane varnish	S Sealed unit plate glass
EX Existing	SC Solid Core Wood
FG-EX Frameless Glass, Existing	ST Steel
H Hardboard (Masonite) faced	TG Tempered glass
HC Hollow Core (Honeycomb core)	THSDG Tempered hermetically sealed dual glazing
HM Hollow Metal	WD Wood - Solid Core
HM-EX Hollow Metal, Existing	WD-EX Existing Wood Door
INSUL Insulated	WG Wired Glass
KD Knocked Down steel frame	WG-EX Wired Glass, Existing
KD-EX Knocked Down steel frame, Existing	WM Welded steel frame
N Natural	WM-EX Welded steel frame, Existing
PL Plate glass	WMT Welded steel frame thermally broken

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 06 20 00 – Finish Carpentry
- .5 Section 06 40 00 – Architectural Woodwork.
- .6 Section 08 11 14 – Metal Doors.
- .7 Section 08 14 16 – Flush Wood Doors.

1.2 REFERENCES

- .1 ASTM International
 - .1 ASTM C542-05, Standard Specification for Lock-Strip Gaskets.
 - .2 ASTM D790-10, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - .3 ASTM D1003-13, Standard Test Method for Haze and Luminous Transmittance of Plastics.
 - .4 ASTM D1929-13a, Standard Test Method for Determining Ignition Temperature of Plastics.
 - .5 ASTM D2240-05, Standard Test Method for Rubber Property - Durometer Hardness.
 - .6 ASTM E84-10, Standard Test Method for Surface Burning Characteristics of Building Materials.
 - .7 ASTM F1233-08, Standard Test Method for Security Glazing Materials and Systems.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.
 - .2 CAN/CGSB-12.2-M91, Flat, Clear Sheet Glass.
 - .3 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.
 - .4 CAN/CGSB-12.4-M91, Heat Absorbing Glass.
 - .5 CAN/CGSB-12.6-M91, Transparent (One-Way) Mirrors.
 - .6 CAN/CGSB-12.8-97, Insulating Glass Units.
 - .7 CAN/CGSB-12.8-97 (Amendment), Insulating Glass Units.
 - .8 CAN/CGSB-12.9-M91, Spandrel Glass.
 - .9 CAN/CGSB-12.10-M76, Glass, Light and Heat Reflecting.
 - .10 CAN/CGSB-12.11-M90, Wired Safety Glass.

- .11 CAN/CGSB-12.12-M90, Plastic Safety Glazing Sheets.
- .12 CAN/CGSB-12.13-M91, Patterned Glass.
- .3 Environmental Choice Program (ECP)
 - .1 CCD-045-95, Sealants and Caulking Compounds.
- .4 Glass Association of North American (GANA)
 - .1 GANA Glazing Manual.
 - .2 GANA Laminated Glazing Reference Manual - 2009.

1.3 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-Installation Meetings:
 - .1 Convene pre-installation meeting prior to beginning work of this Section with Departmental Representative.
 - .1 Verify project requirements.
 - .2 Review installation and substrate conditions.
 - .3 Co-ordination with other building subtrades.
 - .4 Review manufacturer's written installation instructions and warranty requirements.
 - .2 Arrange for site visit with Departmental Representative prior to start of Work to examine existing site conditions adjacent to demolition Work.
 - .3 Ensure key personnel attend.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for glass, sealants, and glazing accessories and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Samples:
 - .1 Submit for review and acceptance of each unit.
 - .2 Samples will be returned for inclusion into work.
- .4 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .5 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

1.5 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for glazing for incorporation into manual.

1.6 QUALITY ASSURANCE

- .1 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .2 Mock-ups:
 - .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control.
 - .2 Mock-up will be used:
 - .1 To judge quality of work, substrate preparation, operation of equipment and material application.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect glazing from nicks, scratches, and blemishes.
 - .3 Protect prefinished aluminum surfaces with wrapping.
 - .4 Replace defective or damaged materials with new.

Part 2 Products

2.1 MATERIALS

- .1 Flat Glass:
 - .1 Float glass: to CAN/CGSB-12.3, glazing quality, 6 mm thick.
 - .2 Sheet glass: to CAN/CGSB-12.2, AA-special selected, 6mm thick or as required.
- .2 Wired glass: to CAN/CGSB-12.11, 6 mm thick.
 - .1 Type 1-polished both sides (transparent).
 - .2 Wire mesh styles 3-square
- .3 Sealant: in accordance with Section 07 92 00 - Joint Sealants
 - .1 VOC limit 250 g/L maximum to SCAQMD Rule 1168.
 - .1 Ensure sealant does not contain chemical restrictions to CCD-045.

2.2 ACCESSORIES

- .1 Setting blocks: neoprene 80-90 Shore A durometer hardness to ASTM D2240, to suit glazing method, glass light weight and area.

- .2 Spacer shims: neoprene, 50-60 Shore A durometer hardness to ASTM D2240, 75 mm long x one half height of glazing stop x thickness to suit application. Self adhesive on one face.
- .3 Glazing tape:
 - .1 Preformed butyl compound with integral resilient tube spacing device, 10-15 Shore A durometer hardness to ASTM D2240; coiled on release paper; to required size; black colour.
 - .2 Closed cell polyvinyl chloride foam, coiled on release paper over adhesive on two sides, maximum water absorption by volume 2%, designed for compression of 25 %, to effect an air and vapour seal; to suitable size.
- .4 Glazing splines: resilient polyvinyl chloride, extruded shape to suit glazing channel retaining slot, colour from manufactures as selected.
- .5 Glazing clips: manufacturer's standard type.
- .6 Lock-strip gaskets: to ASTM C542.
- .7 Plastic Decorative/Privacy Glazing Film:
 - .1 Standard of Acceptance: 3M Fasara Yamato and 3M Fasara Sagano (or approved equal).
 - .1 Refer to drawings for locations, dimensions and glazing film pattern.
 - .2 Installation: Installed on the Office side of the glass.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for glazing installation in accordance with manufacturer's written instructions.
 - .1 Verify that openings for glazing are correctly sized and within tolerance.
 - .2 Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.
 - .3 Visually inspect substrate in presence of Departmental Representative.
 - .4 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .5 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

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 INSTALLATION: INTERIOR - DRY METHOD (TAPE AND TAPE)

- .1 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 Cut glazing tape to length and set against permanent stops, projecting 1.6 mm above sight line.
- .3 Place setting blocks at 1/4 points, with edge block maximum 150 mm from corners.
- .4 Rest glazing on setting blocks and push against tape for full contact at perimeter of light or unit.
- .5 Place glazing tape on free perimeter of glazing in same manner described.
- .6 Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- .7 Knife trim protruding tape.

3.4 INSTALLATION: INTERIOR WET/DRY METHOD (TAPE AND SEALANT)

- .1 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 Cut glazing tape to length and install against permanent stops, projecting 1.6 mm above sight line.
- .3 Place setting blocks at 1/4points, with edge block maximum 150 mm from corners.
- .4 Rest glazing on setting blocks and push against tape to ensure full contact at perimeter of light or unit.
- .5 Install removable stops, with spacer shims inserted between glazing and applied stops at 600 mm intervals, 6 mm below sight line.
- .6 Fill gaps between light and applied stop with sealant to depth equal to bite on glazing, to uniform and level line.
- .7 Trim protruding tape edge.

3.5 INSTALLATION: INTERIOR - WET METHOD COMPOUND AND COMPOUND

- .1 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 Install glazing resting on setting blocks. Install applied stop and centre light by use of spacer shims at 600 mm centres, 6 mm below sight line.
- .3 Locate and secure glazing light using spring wire clips or glazers' clips.

- .4 Fill gaps between glazing and stops with glazing compound until flush with sight line.
Tool surface to straight line.

3.6 INSTALLATION: PLASTIC FILM

- .1 Install plastic film with adhesive, applied in accordance with film manufacturer's instructions.
- .2 Place without air bubbles, creases or visible distortion.
- .3 Fit tight to glass perimeter with razor cut edge.

3.7 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 – Cleaning.
 - .1 Leave Work area clean at end of each day.
 - .1 Remove traces of primer, caulking.
 - .2 Remove glazing materials from finish surfaces.
 - .3 Remove labels.
 - .4 Clean glass using approved non-abrasive cleaner in accordance with manufacturer's instructions.
 - .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.8 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 After installation, mark each light with an "X" by using removable plastic tape or paste.
 - .1 Do not mark heat absorbing or reflective glass units.
- .3 Repair damage to adjacent materials caused by glazing installation.

3.9 SCHEDULE

- .1 Interior doors, sidelights and transoms: 6mm tempered glass.
- .2 Interior doors and sidelights penetrating fire-rated walls: 6mm wired glass.

END OF SECTION