

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 08 11 00 – Metal doors and frames
- .2 Section 08 14 16 – Flush wood doors
- .3 Section 08 71 00 – Door hardware

1.2 REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI) / Builders Hardware Manufacturers Association (BHMA)
 - .1 ANSI/BHMA A156.1-2000, American National Standard for Butts and Hinges.
 - .2 ANSI/BHMA A156.2-2003, Bored and Preamsembled Locks and Latches.
 - .3 ANSI/BHMA A156.3-2001, Exit Devices.
 - .4 ANSI/BHMA A156.4-2000, Door Controls - Closers.
 - .5 ANSI/BHMA A156.5-2001, Auxiliary Locks and Associated Products.
 - .6 ANSI/BHMA A156.6-2005, Architectural Door Trim.
 - .7 ANSI/BHMA A156.8-2005, Door Controls - Overhead Stops and Holders.
 - .8 ANSI/BHMA A156.10-1999, Power Operated Pedestrian Doors.
 - .9 ANSI/BHMA A156.12-2005, Interconnected Locks and Latches.
 - .10 ANSI/BHMA A156.13-2002, Mortise Locks and Latches Series 1000.
 - .11 ANSI/BHMA A156.14-2002, Sliding and Folding Door Hardware.
 - .12 ANSI/BHMA A156.15-2006, Release Devices - Closer Holder, Electromagnetic and Electromechanical.
 - .13 ANSI/BHMA A156.16-2002, Auxiliary Hardware.
 - .14 ANSI/BHMA A156.17-2004, Self-closing Hinges and Pivots.
 - .15 ANSI/BHMA A156.18-2006, Materials and Finishes.
 - .16 ANSI/BHMA A156.19-2002, Power Assist and Low Energy Power - Operated Doors.
 - .17 ANSI/BHMA A156.20-2006, Strap and Tee Hinges and Hasps.
- .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 locksets and fire exit hardware door closers.

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 with manufacturer's written instructions and 01 61 00 - Common Product Requirements.
- .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, in dry location, indoors 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 wrapping or 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 Refer to the hardware list attached to this specification section 08 71 00 - Door hardware for the hardware list.

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 Where pull is scheduled on one side of door and push plate on other side, supply fastening devices, and install so pull can be secured through door from reverse side. Install push plate to cover fasteners.
- .5 Use fasteners compatible with material through which they pass.

2.4 KEYING

- .1 Doors, padlocks and cabinet locks to be as noted in Hardware Schedule keyed alike. Prepare detailed keying schedule in conjunction with Departmental Representative.
- .2 Supply keys in duplicate for every lock in this Contract.
- .3 Supply 3 master keys for each master key or grand master key group.
- .4 Stamp keying code numbers on keys and cylinders.
- .5 Supply construction cores.
- .6 Hand over permanent cores and keys to 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 Where door stop contacts door pulls, mount stop to strike bottom of pull.
- .6 Install key control cabinet.
- .7 Use only manufacturer's supplied fasteners.
 - .1 Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.
- .8 Remove construction cores 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 Keying System Setup and Cabinet:
 - .1 Set up key control system with file key tags, duplicate key tags, numerical index, alphabetical index and key change index, label shields, control book and key receipt cards.
 - .2 Place file keys and duplicate keys in key cabinet on their respective hooks.
 - .3 Lock key cabinet and turn over key to Departmental Representative.
- .2 Maintenance Staff Briefing:
 - .1 Brief maintenance staff regarding:
 - .1 Proper care, cleaning, and general maintenance of projects complete hardware.
 - .2 Description, use, handling, and storage of keys.
 - .3 Use, application and storage of wrenches for door closers and locksets.
- .3 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.

3.6 SCHEDULE

.1 GENERAL NOTES:

- .1 Door hardware must be complete. Provide for all the accessories and finishing plates required.
- .2 All hardware will be of extra heavy-duty quality for heavy duty use.
- .3 The electrical contractor must make the connections to the power supply of the door opener and others, see engineers. The hardware subcontractor must make the required electrical connections between all accessories (buttons, switches, supply casing, etc.).
- .4 Plan for the installation of one (1) 55KK keylock provided by the departmental representative at all locations where new locks are planned

.2 Door 1:

- 3 pairs hinges steel with bearing x 112 x 100 x FNA
- 1 relocated lock of the existing adjacent door
- 2 floor bumpers stainless steel
- 1 relocated door closer to the existing adjacent door on the active door
- 2 locks stainless steel on the inactive door
- 1 astragal aluminium alloy 6063 T5 gasketing vinyl clear anodized finish x 41 mm x DH

.3 Door 2:

- 1 card reader. Provide empty duct with box and plate. Exact location to validate on site with the Departmental Representative. Provide a relay for the transfer of electrical current.
- 3 1/2 pairs hinges steel with bearing x 112 x 100 x FNA
- 1 panic lock on heavy duty surface with CD option. At the end of the project, the panic lock will be left clear for free access on the corridor A-514 side while waiting for the card reader to be installed.
- 1 electric striker connected to the card reader and with all the accessories required for the activation sequence of the corridor A-514: 1- card reader, 2 - electric door lock and on the side of the room A-566: 1 - lock-panic, 2 - electric strike.
- 2 locks stainless steel on the inactive door
- 1 latch on the top door

.4 Door 7:

- 1 1/2 pairs hinges steel with bearing x 112 x 100 x FNA

-1 panic lock on heavy duty surface with CD option. At the end of the project, the panic lock will be left clear for free access on the corridor A-514 side while waiting for the card reader to be installed.

-1 future card reader, provided by the departmental representative.

-1 electric strike compatible with the panic lock on the surface, connected to the card reader and the door opener and with all the accessories required for the activation sequence, from Room A-506: 1 card, 2 - push button, 3 - electric strike, 4 - door opener and the room side A-507: 1-push button, 2 - electric strike, 3 - door opener, all to prevent the door opener is active before the electric lock.

-1 automatic door opener with option presence detector bodyguard and 2 pushbuttons with a disabled logo. Exact location to validate on site with the Departmental Representative. Provide a relay for the transfer of electrical current. Connect the opener to the card reader and the door strike and all accessories required for the activation sequence above.

.5 Doors 9:

-1½ pairs hinges steel with bearing x 112 x 100 x FNA

-1 lever lock entrance function heavy duty x 626

-1 floor bumper stainless steel

-1 set of smoke seals black silicone width 12 mm header and jamb

-1 automatic door bottom mortise mill and neoprene x dw

-1 stainless steel foot plate 304 mm x dw

-1 door closer satin aluminium with spring-h-cush door closer option with 18G holder

.6 Doors 9A:

-1½ pairs hinges steel with bearing x 112 x 100 x FNA

-1 lever lock privacy function heavy duty x 626

-1 set of smoke seals black silicone width 12 mm header and jamb

-1 falling threshold 50k x dw

.7 Doors 6:

-1 future card reader, provided by the departmental representative.

-3 pairs hinges ball bearing steel x 112 x 100 x FNA

-1 heavy duty panic lock with CD option. At the end of the project, the panic lock will be left clear for free access on the corridor A-583 side while waiting for the card reader to be installed.

-1 lock-panic rod on the surface. At the end of the project, the panic lock will be left clear for free access on the corridor A-583 side while waiting for the card reader to be installed.

-1 automatic door opener with option presence detector bodyguard and 2 pushbuttons with a disabled logo. Exact location to validate on site with the Departmental Representative. Provide a relay for the transfer of electrical current. Connect the opener to the card reader and the door strike and all accessories required for the activation sequence above.

-1 electric strike compatible with the panic lock on the surface, connected to the card reader and the door opener and with all the accessories required for the activation sequence, from room A-507: 1 - push button , 2 - panic lock, 3 - electric strike, 4 - automatic door opener. On the side of the room A-583, 1 - card reader, 2 - push button, 3 - electric strike, 4 - door opener.

.8 Doors 8:

-1 future card reader, provided by the departmental representative.

-1 ½ pairs hinges steel with bearing x 112 x 100 x FNA

- 1 electric strike connected to the reader and with all the accessories required for the activation sequence, from room A-544: 1 - card reader, 2 - electric lock. On the side of the room A-545, 1 - panic lock, 2 - electric strike.

- 1 heavy duty panic lock with CD option. At the end of the project, the panic lock will be left clear for free access on the corridor A-544 side while waiting for the card reader to be installed.

.9 Door 11, 12, 13 and 14 (glass doors):

-1 ½ pairs hinges steel with bearing x 112 x 100 x FNA, finished to coordinate with designer.

- 1 lock for glass doors, finished to coordinate with the designer.

- 1 handle for glass doors, finished to coordinate with the designer.

- 1 set of isophonic joint head and jamb.

- 1 falling threshold for glass door, finished to coordinate with the designer.

END OF SECTION