

Part 1 General

1.1 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 Preassembled 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 Canada Green Building Council (CaGBC)
 - .1 N/A
- .3 Canadian Steel Door and Frame Manufacturers' Association (CSDMA)
 - .1 CSDMA Recommended Dimensional Standards for Commercial Steel Doors and Frames - 2009.

1.2 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 Samples:
 - .1 Submit for review and acceptance of each unit.
 - .2 Samples will be returned for inclusion into work.

- .3 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.
- .4 After approval samples will be returned for incorporation in Work.
- .4 Hardware List:
 - .1 Submit contract hardware list.
 - .2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.
- .5 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .6 Manufacturer's Instructions: submit manufacturer's installation instructions.
- .7 Sustainable Design Submittals:
 - .1 N/A

1.3 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.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- .1 Extra Stock Materials:
 - .1 Supply maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
 - .2 Keys: Provide 4 keys per locked door
 - .3 Tools:
 - .1 Supply 2 sets of wrenches for and fire exit hardware, locksets, and door closers.

1.5 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.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Basic 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 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 / strippable coating.
 - .4 Replace defective or damaged materials with new.
- .5 Packaging Waste Management: in accordance with Section 01 74 21 – Construction Demolition Waste Management and Disposal.

Part 2 Products

2.1 HARDWARE ITEMS

- .1 Use one manufacturer's products only for similar items.
- .2 Hardware must be installed with fasteners supplied by hardware manufacturer.

2.2 DOOR HARDWARE

- .1 Finishes:
 - .1 All hardware to be finished Aluminum or 630 Stainless steel, unless otherwise noted
- .2 Grade: Unless noted otherwise:
 - .1 Interior hardware to be commercial Grade 2 or better.
 - .2 Exterior Hardware to be Grade 1.
- .3 Locks and latches:
 - .1 Bored and preassembled locks and latches: to ANSI/BHMA A156.2, series 4000 bored lock, grade 1, designed for Function/keyed as stated in Hardware Schedule.
 - .2 Interconnected locks and latches: to ANSI/BHMA A156.12, series 5000 interconnected lock, grade 1, designed for Function/keyed as stated in Hardware Schedule.
 - .3 Lever handles: plain design -schlage #06 design, barrier free compliant, with return to the door face.
 - .4 Escutcheons: round 54mm Diameter or to suit hardware requirements
 - .5 Normal strikes: box type, lip projection not beyond jamb.
 - .6 Cylinders: key into keying system as directed as noted.
 - .7 Finished to Stainless steel
- .4 Butts and hinges:
 - .1 Butts and hinges: to ANSI/BHMA A156.1, designated by letter A and numeral identifiers, followed by size and finish, listed in Hardware Schedule.
 - .2 Self-closing hinges and pivots: N/A
 - .3 Strap and tee hinges and hasps: N/A
- .5 Exit devices: to ANSI/BHMA A156.3-2001, Exit Devices and numeral identifiers listed in Hardware Schedule as listed below.

- .1 To be heavy duty, grade 1, modern design push bar style, wide or narrow stile, to meet ANSI, ULC, NFPA and ADA certification, to have thru-bolted trim, heavy-duty steel I-beam bar, and heavy gauge latch head with reinforced bracket. All lever trims to be free-wheeling, vandal-resistant, and all devices to have deadlocking latchbolts.
- .6 Door Closers and Accessories:
 - .1 Door controls (closers): to ANSI/BHMA A156.4, designated by letter C and numeral identifiers listed in Hardware Schedule, size in accordance with ANSI/BHMA A156.4, table A1. with offset brackets to provide clearance between door closer and door stops.
 - .2 Door controls - overhead stops: installed to provide clearance between door closer and door stops.
 - .3 Closer/holder release devices: N/A
 - .4 Door co-ordinator: N/A
- .7 Door Operators:
 - .1 Power-operated pedestrian doors: to ANSI/BHMA A156.10.
 - .2 Power assist and low energy power operated doors: to ANSI/BHMA A156.19.
- .8 Auxiliary locks and associated products: to ANSI/BHMA A156.5, designated by letter E and numeral identifiers listed in Hardware Schedule as listed below, finished to 630.
- .9 Architectural door trim: to ANSI/BHMA A156.6, designated by letter J and numeral identifiers listed in Hardware Schedule as listed below, finished to 630 Stainless Steel.
 - .1 Door protection plates: see schedule.
 - .2 Push plates: see schedule
 - .3 Push/Pull units: see schedule
- .10 Sliding and folding door hardware: N/A
- .11 Auxiliary hardware: N/A
- .12 Thresholds: transitional min. 102 mm wide x full width of door opening, stainless steel mill finish, plain non slip surface.
- .13 Astragal: N/A
- .14 Barrier Free Pneumatic Door Operator:
 - .1 N/A
- .15 Signage:
 - .1 Provide new signage for all EXIT doors within new building:
 - .1 “ FIRE EXIT DOOR KEEP CLEAR”

2.3 MISCELLANEOUS HARDWARE

- .1 N/A

2.4 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.

2.5 KEYING

- .1 Doors to be grand master keyed. Prepare detailed keying schedule in conjunction with Owner Representative to match existing arrangement.
- .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 Owner 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 Use only manufacturer's supplied fasteners.
- .7 Remove construction locks/cores when directed by Owner 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.
- .2 Waste Management: separate waste materials for reuse / recycling in accordance with local regulations.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.4 DEMONSTRATION

- .1 Keying System Setup and Cabinet:
 - .1 Contractor to coordinate key identification with Client 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 as required.
 - .2 Turn over keys to Owner Representative in accordance with closeout required.
- .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 locksets door closers and fire exit hardware if applicable.
- .3 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

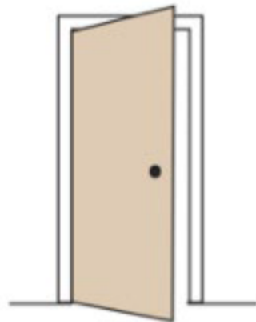
3.5 PROTECTION

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

3.6 SCHEDULE

- .3 GROUP 3 – SELF CLOSING, SELF LATCHING DOOR WITH DOOR OPERATOR:
(102.1 new covered porch, exterior door)

- .1 RIGHT HAND OUT SWING



Right Hand Out Swing

- .2 1.5 pairs hinges A5111, NRP, 114 x 101 mm.

- .3 1 Electric strike compatible with power door operator and electric pin pad/card reader access. Strike plate: stainless steel. Key on interior an exterior and keypad activates and deactivates electric strike function when door is locked. Emergency exit functions to remain unimpeded.
- .4 1 exterior lever handle, barrier free compliant with return to door face end.
- .5 1x Push bar exit device, barrier free compliant on power operated door leaf.
- .6 Escutcheons: round 54mm diameter
- .7 Kickplate: Stainless Steel (630) - 6" (152mm) x width of door, centred on door.
- .8 Door surrounds and bottom weather seals.
- .9 Threshold - length to suit door opening.
- .10 1 Overhead Power Assisted Door Operator with 915 tall wall mounted/recessed push plate activation devices.
- .11 Signs as required for power operated door.

END OF SECTION