

PART 1 - GENERAL

1.1 REFERENCES

- .1 Codes and standards referenced in this section refer to the latest edition thereof.
- .2 Canadian Steel Door and Frame Manufacturers' Association (CSDFMA).
 - .1 CSDFMA Canadian Metric Guide for Steel Doors and Frames (Modular Construction).
- .3 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-69.17, Bored and Preamsembled Locks and Latches.
 - .2 CAN/CGSB-69.18 /ANSI/BHMA A156.1, Butts and Hinges.
 - .3 CAN/CGSB-69.19/ANSI/BHMA A156.3, Exit Devices.
 - .4 CAN/CGSB-69.20/ANSI/BHMA A156.4, Door Controls (Closers).
 - .5 CAN/CGSB-69.21/ANSI/BHMA A156.5, Auxiliary Locks and Associated Products.
 - .6 CAN/CGSB-69.22/ANSI/BHMA A156.6, Architectural Door Trim.
 - .7 CAN/CGSB-69.24/ANSI/BHMA A156.8, Door Controls - Overhead Holders.
 - .8 CAN/CGSB-69.28 /ANSI/BHMA A156.12, Interconnected Locks and Latches.
 - .9 CAN/CGSB-69.29/ANSI/BHMA A156.13, Mortise Locks and Latches.
 - .10 CAN/CGSB-69.30/ANSI/BHMA A156.14, Sliding and Folding Door Hardware.
 - .11 CAN/CGSB-69.31/ANSI/BHMA A156.15, Closer/Holder Release Device.
 - .12 CAN/CGSB-69.32-M90/ANSI/BHMA A156.16-1981, Auxiliary Hardware.
 - .13 CAN/CGSB-69.33/ANSI/BHMA A156.17, Self-Closing Hinges and Pivots.
 - .14 CAN/CGSB-69.34/ANSI/BHMA A156.18, Materials and Finishes.
 - .15 CAN/CGSB-69.35/ANSI/BHMA A156.19, Power Assist and Low Energy Power Operated Doors.

1.2 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Samples:
 - .1 If requested, submit samples in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware

package number.

- .3 After approval, samples will be returned for incorporation in the Work.

.3 Hardware List:

- .1 Submit contract hardware list in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.

.4 Manufacturer's Instructions:

- .1 Submit manufacturer's installation instructions.

.5 Closeout Submittals

- .1 Provide operation and maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.3 MAINTENANCE MATERIALS

- .1 Supply two sets of wrenches for door locksets.

1.4 WARRANTY

- .1 Provide a written manufacturer's warranty for work of this Section for failure due to defective materials for five (5) years, dated from final completion certificate.

1.5 QUALITY ASSURANCE

- .1 Only products meeting ANSI/BHMA standards are acceptable. Items that are equal in design, function and quality will be accepted upon approval of the Departmental Representative.
- .2 Only recognized contract hardware distributors will be considered for the work of this section. The distributor shall have on staff a qualified Architectural Hardware Consultant recognized by the Door and Hardware Institute or a person with equivalent qualifications to assist installers and direct detailing, processing and delivery of material, and certify installation acceptance.

1.6 DELIVERY, STORAGE, AND HANDLING

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

- .2 Store hardware in locked, clean and dry area.
- .3 Package each item of hardware, including fastenings, separately or in like groups of hardware; label each package as to item definition and location.

PART 2 - PRODUCTS

2.1 HARDWARE ITEMS

- .1 Only door locksets and latches listed on ANSI/BHMA Standards list are acceptable for use on this project.
- .2 Use one manufacturer's products only for similar items.

2.2 DOOR HARDWARE

- .1 Locks and latches:
 - .1 Bored and preassembled locks and latches: to CAN/CGSB-69.17, 400 bored lock, grade 1, designed for function and keyed.
 - .2 Lever handles: plain design.
 - .3 Roses: round.
 - .4 Normal strikes: box type, lip projection not beyond jamb.
 - .5 Cylinders: key into keying system as directed.
 - .6 All corresponding cylinders to be removable.
 - .7 Finished to BHMA 626.
- .2 Butts and hinges:
 - .1 Butts and hinges: to CAN/CGSB-69.1.
- .3 Door bottom seal: heavy duty, door seal of extruded aluminum frame and hollow closed cell neoprene weather seal, surface mounted with drip cap closed ends, clear anodized finish.
- .4 Thresholds: to ANSI/BHMA A 156.21 extruded aluminum mill finish, serrated surface, with lip and vinyl door seal insert.

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 Doors to be master keyed as directed.
- .2 Provide keys in triplicate for every lock in this Contract.
- .3 Provide three master keys.
- .4 Stamp keying code numbers on keys and cylinders.

2.5 FINISHES

- .1 C28 Aluminum (Satin Alum, Anodized) or otherwise as acceptable to Departmental Representative.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- .2 Furnish metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.
- .3 Furnish manufacturers' instructions for proper installation of each hardware component.

3.2 INSTALLATION

- .1 Install hardware to standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufacturers' Association.

- .2 Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.

3.3 EXAMINATION

- .1 Visit site prior to start of installation of hardware.
- .2 Visit will include examination of openings, site conditions and materials for conditions that prevent proper application of finish hardware.
- .3 Installation will imply conditions for installation acceptable; hardware contractor to accept responsibility.

3.4 FIELD QUALITY CONTROL

- .1 Hardware contractor to have a qualified AHC representative from the manufacturer/supplier on site at Substantial Completion Inspection and at commissioning of the finished hardware. Cost of the visits to be included in contract.

3.5 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 provide tight fit at contact points with frames.
- .4 Where hardware is found defective, repair or replace or correct as desired by inspection reports.

3.6 CLEANING

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .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.

- .4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.7 PROTECTION

- .1 All hardware shall be protected against damage from paint, plaster or other defacing materials. Whenever possible, manufacturer's protective covering shall not be removed until final project cleaning takes place. Material not protected by manufacture shall be covered or removed from door during painting or any other adjustments that can cause damage to hardware.

3.8 COMMISSIONING

- .1 Perform site inspection at Substantial Completion and training and inspection at commissioning.