

DIVISION 8
SECTION 08710
DOOR HARDWARE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Hardware for hollow steel doors.
- B. Thresholds.
- C. Weatherstripping, seals and door gaskets.

1.2 RELATED SECTIONS

- A. Section 08110 - Steel Doors and Frames.
- B. Westfield State University Hollow Metal, Finish Hardware Material Outline, immediately following this section

1.3 REFERENCE STANDARDS

- A. ANSI/ICC A117.1 - American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 2003.
- B. BHMA A156.1 - American National Standard for Butts and Hinges; Builders Hardware Manufacturers Association, Inc.; 2006 (ANSI/BHMA A156.1).
- C. BHMA A156.2 - American National Standard for Bored and Preassembled Locks & Latches; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.2).
- D. BHMA A156.3 - American National Standard for Exit Devices; Builders Hardware Manufacturers Association; 2001 (ANSI/BHMA A156.3).
- E. BHMA A156.4 - American National Standard for Door Controls - Closers; Builders Hardware Manufacturers Association, Inc.; 2000 (ANSI/BHMA A156.4).
- F. BHMA A156.7 - American National Standard for Template Hinge Dimensions; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.7).
- G. BHMA A156.13 - American National Standard for Mortise Locks & Latches; Builders Hardware Manufacturers Association; 2005 (ANSI/BHMA A156.13).
- H. BHMA A156.115 - Hardware Preparation in Steel Doors and Steel Frames; 2006.
- I. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; Door and Hardware Institute; 2004.
- J. NFPA 101 - Code for Safety to Life from Fire in Buildings and Structures; National Fire Protection Association; 2006.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the manufacture, fabrication, and installation of products onto which door hardware will be installed.
- B. Convey Owners's keying requirements to manufacturers.

1.5 SUBMITTALS

- A. See Section 01330 -Submittals.
- B. Shop Drawings:
 - 1. Door Hardware Sets: Provide hardware set submittal, prepared by or under supervision of hardware supplier, detailing fabrication and assembly of door hardware, as well as procedure and diagrams.
 - a. Format: Use same scheduling sequence and format and use same door numbers and designations indicated on schedule in Drawings.
 - b. Content: Include the following information:
 - 1) Identification number, location, hand, fire rating, and material of each door and frame.
 - 2) Type, style, function, size, quantity, and finish of each door hardware item, include description and function of each lockset and exit device.
 - 3) Complete designations of every item required for each door or opening including name and manufacturer.
 - 4) Description of each electrified door hardware function, including location, sequence of operation, and interface with other building control systems.
 - 2. Installation Templates: Provide installation templates for work installed or prepared for installation by others.
- C. Product Data:
 - 1. Submit manufacturer's product data, catalog, cuts, descriptive data, UL listings, and other pertinent technical data for each hardware item used. Submit certifications of fire ratings for hardware items located in related assemblies.
 - 2. Samples: Prior to preparation of hardware schedule
 - a. Submit sample of each finish to be exposed showing full range of color and finish variation expected.
 - 1) Submit actual finished items of hardware when directed by Architect. Acceptable items may be used in the completed work.
 - 3. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention.
 - 4. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- D. Keying
 - 1. Schedule: Prepared by or under the supervision of Installer, to detail the Owner's final keying instruction for locks.
 - 2. Keys: Deliver with identifying tags to OWNER by security shipment direct from hardware supplier.
- E. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in

Owner's name and registered with manufacturer.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Hardware Supplier Qualifications: Company specializing in supplying commercial door hardware with 3 years of experience.
- C. Architectural Hardware Consultant Qualifications: A person who is currently certified by HI as an Architectural Hardware Consultant and who is experience in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated from this Project.
- D. Comply with American with Disabilities Act Accessibility Guidelines (ADAAG) and applicable local requirements.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

1.8 COORDINATION

- A. Coordinate the work with other directly affected section involving manufacture or fabrication of internal reinforcement for door hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- B. Furnish templates for door and frame preparation.

1.9 WARRANTY

- A. See Section 01770 – Closeout Procedures, for additional warranty requirements.
- B. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace component of door hardware that fail in material or workmanship within warranty period: three years from date of Substantial Completion, except five year warranty from date of Substantial Completion for door closers and exit devices.

1.10 MAINTENANCE PRODUCTS

- A. Provide maintenance tools and accessories supplied by hardware component manufacturer.

PART 2 PRODUCTS (refer to Westfield State University Hollow Metal, Finish Hardware Material Outline, immediately following this section)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that doors and frames are ready to receive work and dimensions are as indicated on shop drawings.

3.2 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Use templates provided by hardware item manufacturer.
- C. Mounting heights for hardware from finished floor to center line of hardware item: As indicated on drawings, unless otherwise noted.
 - 1. Comply with DHI "Recommended Locations for Architectural Hardware for Steel Doors and Frames."
 - 2. See Section 08110.

3.3 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01400 – Quality Control.

3.4 ADJUSTING

- A. Adjust work under provisions of Section 01770 – Closeout Procedures.
- B. Adjust hardware for smooth operation.

3.5 PROTECTION

- A. Protect finished Work.
- B. Do not permit adjacent work to damage hardware or finish.

END OF SECTION
08710

Westfield State University Athletic Field Dugout

Hollow Metal, Finish Hardware material outline.

General Remarks

Manufacturers' product and product numbers listed are intended as a guideline and are the preferred products acceptable by the college for reference and minimum quality and performance standards. (...) After the product name indicates acceptable substitution provided that it provides all the functions and features of the specified product or it will not be approved. The college reserves the right to final decision of product conformity.

"No substitute" after product name is indicated due to the public nature of Westfield State College for the following reasons: security, life safety, building uniformity, reliability, maintenance, product support and life-cycle cost savings of the product.

The material supplier is responsible for the proper size and type of product to conform to local, state and federal access barrier and opening codes.

Doors: General note for all cross corridor, corridor and stairwell fire doors; each leaf will have a minimum 5 x 20 vision lights centered 60" off finished floor w 6" lock stile.

Steel Doors and Frames

Manufacturer: Steelcraft (Curries, Phillips, Ceco, Pioneer)

Steel doors:

1. Exterior to be foam filled polystyrene core with flush seamless 16g. top cap.
2. Reinforce for surface applied hardware as follows: butts 8ga. closer-14ga., lockset-16ga.
3. Door edges will be continuous interlocking type. Edges to be seamless welded and ground smooth.
4. Door surfaces will be smooth, clean and free of any blemish, painted with a rust inhibitive primer and fully cured prior to shipment.
5. At paired openings; astragal shall be minimum 14ga. Cold rolled steel designed to wrap around door edge of inactive leaf unless otherwise noted. Mounting screws to be on door edge. Follow U.L requirements at rated openings.
6. Stairwell doors to be minimum 450 degree temperature rise.

Door Frame:

1. 14ga. exterior face welded joints ground smooth. Welded reinforcement for hardware as follows: butts 8ga. strike, 16ga. closer 12ga.
2. Frame surfaces will be clean and free of any blemish, painted with a rust inhibitive primer and fully cured prior to shipment.
3. Frame anchors will be welded with no less than 3 anchors per jamb in an 84" run. Anchors will be fabricated from min. 18ga. non-corrosive steel.
4. Frame anchors will be industry standard as dictated by wall condition.

5. Exterior steel doors and frames will be galvanized or zinc coated applied by the hot dipped process conforming to ASTM A653/A 653M Coating designation A60 or G60. Wipe coat or flash coat galvanizing is not acceptable. Frame will be 14g. thermal break construction.
6. Machining Steel doors and frames will be factory prepped for finish hardware per templating furnished by the hardware supplier.
7. 2ea. min. 14g. angle steel spreader bars will be welded in place to prevent distortion and damage to finished product for shipment.

Clearances

Single doors: 1/8" at sides and top, 3/4" at bottom without threshold, 1/2" with threshold.
 Paired openings: 1/8" sides and top, 1/2" at bottom, 3/16" between leafs.

Finish Hardware

Butts: Stanley (Hager, McKinney, Soss) Interior doors: 3ea. FBB179 4 1/2" x 4 1/2" US26D up to 3070 door size. High traffic interior doors such as bathrooms and openings exceeding 3070 in size, 150lbs., and 16g. or greater door construction shall have FBB168 4 1/2" x 4 1/2" US26D (Reverse bevel doors add NRP)

Lockset: Sargent 8200 series (Yale 8800) x KWB x US26D less cylinder. KNL levers/knobs to be located at hazardous areas.

Cylinder: ASSA (No substitute) V6552-IC-2 US26D Hi-Security MKD to the existing GGMK system (Provide temporary construction cores.)

Keying: Permanent cylinders will not be ordered until a meeting between the owner and supplier is conducted to assign permanent keying. *Verify cylinder tailpiece to be used with locking device for proper operation.*

HARDWARE SET (Mechanical/Storage Entry Double Door):

- 6ea. Butts: Stanley FBB179 4 1/2" x 4 1/2" US26D NRP
- 1 ea. Lockset: Sargent 8204 LW1B less cyl. US26D no sub)
- 1 ea. Cyl.: ASSA-V6552-IC-2 US26D x 4 Keys.
- 2 ea. Door Holder: Glenn Johnson 90H series
- 2 ea. Flushbolts: Rockwood 555 US26D; 550 at wood door locations.
- 1 ea. Threshold: NGP 172A x width of opening
- 1ea. Flat bar aluminum astragal
- 2 ea. Rubber silencers Ives 20R