



Policy Title: Directive 8-1 Door Hardware

Responsible Office: Design & Construction

Last Revised Date: July 2019

Summary:

This Directive provides requirements for door hardware used on Fund projects.

Overview:

Projects must be designed using Campus preferences and standards for keying, access control, finish and other requirements.

Responsibility:

The Consultant is responsible for complying with this Directive, Directive 8-2 Doors and Frames, and the Campus standards. See Directive 1C-10 Coordination with Individual Campus Standards. The Campus will identify their locksmith(s) / hardware expert(s) who will be consulted during the design, receive submittals during construction, and attend coordination conferences with the Contractor. The Consultant will coordinate selection of door hardware, keying, and access control with Campus and incorporate Campus preferences into the construction documents.

Procedures

- I. General
 - A. During the Concept Phase, coordinate security and access control zones with Campus Program requirements. Use special care to identify control points and perimeters that impact code required exiting and provide the right number of exits needed to provide the security control points and perimeters required by the Program.
 - B. Comply with the current recommendations, guidelines and other information published by the Builders Hardware Manufacturers Association (BHMA) and the Door and Hardware Institute in their standards.
 - C. Identify sole and single sources in the Design Manual submission and comply with Directive 1C-2 Specification of Materials.
 - D. Explain to the Campus the design approach for selecting optimal keying system in accordance ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" and select the system that is preferred by the Campus.
 - E. Hardware shall be manufactured for use in the United States and provided by US-based sources unless otherwise approved by the Fund and the Campus during the Design Manual review.
 - F. Specify coordination conferences with the Contractor for keying, electrified hardware, pre-installation, pre-acceptance, post-occupancy adjustments, and other coordination interface required to facilitate the Campus' acceptance of the installed hardware.
 - G. Where existing door hardware is proposed to be removed and reinstalled, or where existing doors and frames are proposed for reuse with new hardware, engage an Architectural Hardware Consultant (AHC) by Extra Compensation to survey the doors and verify conditions and the suitability of the proposed reuse. See Directive 1C-4 Extra Compensation Authorization.

- H. All door hardware shall be designed for institutional use; do not use the residential standards.
- I. See Directive 1B-1 Building Codes for code compliance requirements and applicable versions of references standards mentioned in this Directive.

II. Keying

- A. All doors shall be fitted with locks that are convertible to the existing Campus Keying System.
 - 1) Specify keyed temporary construction cores replaceable by permanent cores. During construction, temporary cylinders shall be operated by a master key system that meets the security requirements during construction. Immediately prior to occupancy, the cylinders shall be converted to the permanent building key system by the Campus.
 - 2) Cylinders shall match the campus standard type(s).
 - 3) The hardware manufacturer shall deliver cylinders and keys directly to the Campus locksmith by registered mail with return receipt requested.
- B. Provide a master key system(s) for the control of interior functions that meets the Campus preferences.
- C. Exterior doors shall have heavy duty mortise lock sets unless panic hardware is required.
- D. Interior doors may be fitted with heavy duty mortise lock sets, heavy duty cylindrical lock sets, or other type preferred by the Campus.
- E. Coordinate the need for cylinders at locations other than door lock sets, such as dogging of panic bars, access doors to mechanical chases, casework, etc.
- F. Coordinate with local fire department as required to determine the fire department's requirements for location of keys for their use, to be accessible in an exterior fire department box (Knox box).

III. Rated Doors

- A. Coordinate the specifications for the door, frame and hardware so the door can be installed with the appropriate frame, hardware, and other accessories required by the rating.
- B. The selection of hardware must be coordinated with the limitations imposed by the fire labels on the doors and frames to avoid voiding their label.
 - 1) For example, plating shall not be specified on fire-rated doors unless such plating is consistent with the UL test for the rated door assembly.

IV. Other Considerations

- A. Provide power operated ADA access control at all accessible entrances – coordinate with Campus on the preferred location and style of ADA access control features.
- B. For ADA compliance, select thresholds that can be installed to meet the tolerances required in Directive 1A-6 Construction Document (Pre-Bid) Phase.
- C. Lever type handles shall be used throughout – style to be approved by Campus or match Campus standard.
- D. Door Butts shall be properly sized and spaced for the type, width and weight of door. Number, size and type of hinge shall be standard and readily available in the local market. Continuous hinges shall be used in all high traffic areas and all exterior doors.
- E. Specify manufacturer finished hardware, plated or factory coated. Do not permit field painting of any hardware. Provide hardware finishes that match the Campus standard, unless otherwise approved by the Fund.
- F. Electric Hardware:
 - 1) Special attention must be given, prior to bidding, to coordinating specified electric hardware with the Campus access control system and their security vendor, if any.
 - 2) Provide a wiring diagram on the drawings showing the campus standard power and control methods.
 - 3) Review locations of power units, actuators, key switches, and other equipment that may be mounted above ceilings or in other areas requiring special access with the Campus.
- G. Panic Exit Hardware: Unless otherwise requested by the Campus, use cylinder dogging in lieu of hex-key dogging at non-fire-rated openings.
- H. Use keyed removable mullions if removable mullions are required.
- I. Specify factory drilled weep holes in lieu of field drilled weep holes.
- J. Use drip edges on exterior doors.
- K. Review the location of floor stops with the Campus.
- L. Review the need to specify post beneficial occupancy inspections and adjustments with the Campus.
