

DIVISION 087100—HARDWARE

FORMAT

1. Technical specifications content and numbering system shall be based on 2004 CSI MasterFormat.

BASIS OF DESIGN

1. BGSU Design Standards shall not replace fully developed, project and market specific technical specifications. Associate shall utilize the Standards as a minimum standard to guide the design.
2. **NO SUBSTITUTES** shall be specified or used for any of the items in this division unless noted.

COORDINATION

1. Selection of doors and hardware shall be coordinated with BGSU Physical Security Services, 419 372-7661.
 - a. Associate shall submit shop drawings to Physical Security Services for review prior to their approval.
2. General Contractor shall be solely responsible for proper machining for hardware.
3. All door slabs shall be machined off-site in the vendor or manufacturer's facilities. Associate shall place the following note conspicuously on the each sheet showing the door schedule and in the technical specifications:

“Door slabs and frames shall be ready for hardware installation before delivery to the work site. Door slabs and frames shall be machined for mortises, wire chases, etc., at the vendor or manufacturer's facilities.”

4. Associate shall ensure hardware installers complete Pre-training and Inspection training by the manufacturers prior to hardware installation.
5. Only approved fasteners shall be used to install hardware.
6. Location of RAPID ENTRY KEY VAULT shall be determined by Bowling Green Fire Department 419 352-3106; and BGSU Environmental Health & Safety 419 372-2171.

RELATED SECTION

1. 08—Openings
2. Appendix A (ADAAG)

DEMOLITION AND RENOVATION

1. Lock and door hardware removals shall be coordinated with BGSU Physical Security Services through the Office of Design and Construction. All cylinders and cores removed shall remain the property of the BGSU Physical Security Services and are to be returned to the University Lock Shop.

GENERAL PROVISIONS

1. Lock supplier shall be an authorized dealer of Russwin/Corbin hardware and purchased directly from Russwin/Corbin all locks and cylinders. Lock specifications: Russwin Master Ring ML2000MR series L2 Lustra design mortise locks, 626 finish, Russwin reverse H keyway section on number 52 bows stamped on one side with "PROPERTY OF STATE OF OHIO DO NOT DUPLICATE" and plain on the other side. All individual keys to be factory cut with the bitting stamped on the plain side of the bow. Five individual keys per change to be provided. Specific individual keyways will vary with each building, verify with BGSU Physical Security Services.
2. All keys shall be shipped directly to BGSU from the factory. The General Contractor or the supplier is not authorized to control the keys.
3. FUTURE EXPANSION: 0 bitted cylinders are to be provided at a rate of 10% of the total number of locks provided for the project. These are complete cylinders, 0 bitted. Additionally, 500 blank keys are to be provided per University specifications.
4. CYLINDERS AND KEYING INSTRUCTIONS: The succesful hardware supplier shall make contact with BGSU Physical Security Services to receive instruction pertaining to key symbles, master keys and final approval of individual lock function. Contact BGSU Physical Security Services, 419 372-7661.
5. MASTER RING CYLINDERS: BGSU standardizes on "Master Ring" cylinders, whenever possible (excluding exteriors).
6. INERCHANGABLE CORE CYLINDERS: Interchangeable core cylinders are to be used on all exterior doors and in special circumstances only. If Master ring cylinders are not used (i.e. exterior doors, pipe chases, etc.) use Russwin Interchangable core cylinders.

FINISH

1. Standard hardware shall be 32D, satin stainless steel.
2. Associate shall ensure closers match finish and color of doors and frames they are attached to.

LOCKS & LATCH SETS (FULL MORTISE)

1. Where Corbin-Russwin is used, trim shall be LWA Lustra.
2. Each area is to receive the following lock & latchsets:

<u>Location</u>	<u>Device</u>	<u>Comments</u>
Classrooms, labs, teaching labs, exterior entrances with locks	CR lockset ML 2042MR	Keyed on both sides
Offices	CR lockset ML 2051MR	
Closet or passage set	CR lockset ML 2010	
Custodial closets and storage spaces	CR lockset ML 2057MR	

Doors to roofs, and from penthouse to roofs 2 floors or less above grade	CR lockset ML 2032MR
Mechanical & transformer rooms; steam service tunnel access; telephone closets; and from public building space to roof, 3 floors or more above grade.	CR lockset ML 2057MR
Penthouse to roof access, 3 floors or more above grade.	CR lockset ML 2057MR
Student resident hall room, and toilet room with single WC	CR lockset ML 2065MR
Gang toilet rooms in residence halls	Trilogy T2 Digital Access Door Locks DL2700WP
Loading dock floors w/ heavy cart traffic	Rockwood trim protector bar RIOOLPB

ELECTRIC LOCKS

1. The following spaces shall be access controlled with electric locks:
 - a. BDF Rooms
 - b. Computer labs
 - c. Residence hall exterior doors and certain stairwell doors to be determined by the Office of Residence Life
 - d. Hall Director apartments
 - e. Residence hall main offices
2. Access controlled shall be CR ML20905 LWA 630 (always fail secure) mortise locks.
3. Voltage to be determined by BGSU.
4. Use VD EPT2, electric power transfer. **Do not use wired hinges.**
5. Panic bars with access control shall be a VonDuprin EL device.

HINGES

1. Exterior, stairwell and corridor doors shall use Select brand Heavy Duty continuous hinges.
2. Low traffic doors 3' wide or less shall use full mortise 4 ½" x 4 ½" ball bearing, heavy duty, butt hinges with non-removable pin.
3. Doors wider than 3'-0" shall receive Select brand heavy-duty continuous hinge.
4. Doors 7'-2" and higher shall have 4 hinges; doors under 7'-2" shall have 3 hinges.

EXIT DEVICES

1. Exit devices shall be rim-mounted and reversible.
2. Concealed verticle rod shall not be used. Surface mounted verticle rods shall use Von Duprin Latchguard RG-27.
3. Standard trim for Von Duprin shall be 992L-03.

<u>Location</u>	<u>Device</u>
Stairwell with no lock and cannot be dogged down	VonDuprin 98L-F-BE
Stairwell with lock, or entrance in labeled opening where device cannot be dogged down during the day.	VD 98L-F
Entrance with dogging and outside pull trim	VD 98DL
Entrance with dogging and outside pull trim and keyed cylinder	VD 98NL
Fire escapes or low occupancy classrooms with exit-only requirements.	VD EO-F
Residence hall wide stile entrance doors with dogging and without cylinders	VD 98DT (pull trim & blank escutcheon)
Residence hall wide stile entrance-exit doors with dogging and cylinder	VD 98NL (pull trim & cylinder)
Access control entrances	VD 99EL (trim may vary depending on use of door)

DEAD BOLTS

1. Dead bolt shall be full-motise Corbin/Russwin ML2200 Series with thumb turn lever 519FIO with 2 ¾" backset.
2. For public toilet rooms use push/pull and CR ML 2017MR.

REMOVABLE MULLIONS

1. Removable mullion shall be VonDuprin 4954, factory primed and painted to match adjacent doors.
2. At least one door to exterior and large assembly areas shall have removable mullions.

MISCELLANEOUS HARDWARE

1. Push/pull plates shall be stainless steel, and bolted through plate and door, .050" thick.
 - a. Toilet Rooms shall have 8" x 16" stainless steel plates.
2. Door stops shall be wall mounted except in unusual circumstances.
3. Kick Plates shall be stainless steel, .050" thick.
4. Door hold-opens shall be stainless steel.

KEY LOCK BOXES

1. Rapid entry key vault shall be recessed Knox Box brand, model no. 3227-R.

DOOR CLOSERS

1. All closers shall be overhead, surface mounted.
2. Closers shall be LCN 4041. Corridor and exterior doors shall have "cush-n-stop."
3. Power assisted openers shall be LCN 4642, with Auto-equalizer.
4. In all cases, closers shall have parallel arms.
5. Closers shall match finish and color of doors and frames they are operating.

END OF SECTION