



08 10 00
DOORS AND FRAMES

1. GENERAL

2. PRODUCTS

- A. All hollow metal door frames shall have welded joints.
- B. Knock down door frames (factory pre-finished steel door frames which are delivered to the site in pieces for field assembly) are allowed in certain cases with UGA Project Manager approval.
- C. All doors shall be commercial / institutional thickness of 1 ¾-inch.
- D. For new construction, interior wood doors shall be stain grade structural composite lumber / laminated strand lumber with birch veneer that either receives a clear coat finish or stain.
- E. For new construction, interior paint grade, painted wood doors shall not be specified (see exception below for UGA Housing).
- F. **For UGA Housing Only (New Construction)**
 - i. Design Professional to coordinate with Project Manager.
 - ii. Steel Doors (Per ANSI / Steel Door Institute definitions):
 - a. Interior hollow metal doors shall be Level III, 16 ga., Extra Heavy Duty, Model Two seamless, 1 ¾-inch thickness.
 - b. Exterior metal doors shall be insulated composite metal doors, Level III, 16 ga., Extra Heavy Duty, Model Two seamless, 1 ¾-inch thickness with polyurethane core.
 - c. Label fire resistive metal doors shall be fire resistive composite metal doors, Level III, 16 ga., Extra Heavy Duty, Model Two seamless, 1 ¾-inch thickness, with mineral fiberboard core for ratings over 20 minutes.
 - iii. Wood Doors (generally used at student rooms):
 - a. Glued particleboard or structural composite lumber (SCL) core wood doors meeting AWI Standards, plastic laminate veneer.
 - 1) Adhesives shall not contain urea formaldehyde.
 - 2) For doors indicated to receive closers, provide 15 inches high top rail and top rail shall accommodate specified hardware without through-bolting hardware.
 - 3) Core: Single-piece particle board meeting ANSI A208.1, Grade LD-1 or LD-2, DPC-1, or SCL made with binder containing no added urea formaldehyde resin.
 - 4) Construction: solid hardware, engineered laminated strand lumber or SCL tiles and rails glued to core; core assembly sanded for uniform thickness.
 - 5) Fire resistance rating: comply with specified requirements for tested, labeled door construction for Project.
 - 6) Lite/lock conflicts: follow door manufacturer's guidelines to avoid lite/lock conflicts in order to maintain fire-rating and warranty.
 - b. Facing for opaque finish: Plastic laminate

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08 71 00
DOOR HARDWARE

1. GENERAL

- A. Related sections:
 - i. 00 73 01 – Approved Sole Source / Sole Brand
 - ii. 08 80 00 – Glazing
 - iii. 28 13 00 – Access Control
- B. **For UGA Athens Campus projects (excluding Housing projects):** The UGA has sole source approval for Best Access Systems cylinders and cores. The Contractor includes the cylinders as part of the Cost of the Work or the Bid and makes payment directly to Best Access Systems. Best Access Systems ships the cylinders directly to the UGA FMD Key Shop. The FMD Key Shop finalizes keying and the permanent cores are installed by UGA. The Contractor furnishes and installs keyed temporary cores as required for the Project. For UGA Housing projects, keying is handled directly by the UGA Housing Department. Coordinate specific requirements on a project-by-project basis with the Project Manager.
- C. Keying Schedule: The Contractor shall coordinate and document a meeting with the Best Access Systems representative, the Project Manager, and the FMD Key Shop to coordinate a final keying schedule. For Housing projects, the contractor and hardware vendor shall coordinate with the Project Manager and the Housing key shop. The Contractor shall prepare the final keying schedule based on this meeting that clearly indicates how the UGA's final instructions on keying of locks has been fulfilled and submit it as part of the hardware submittal process.
- D. Single Source Responsibility: Obtain each type of hardware latch and locksets, hinges, closers, etc. from a single manufacturer.
- E. No swing type door hardware shall be used such that it would allow for the chaining of the doors from the interior of the building.
- F. On doors with access control system, only one face shall receive keyed cylinder, the other face shall receive a dummy cylinder.

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2. PRODUCTS

- A. Cylinders and Cores:
 - i. This product has sole source approval and shall be Best Access Systems.
 - ii. Material for keys shall be nickel silver.
 - iii. Warranty: Three (3) year manufacturer warranty.
 - iv. Construction cores are furnished and installed by the Contractor as part of the Cost of the Work or Bid.
 - v. Furnish twenty (20) operating keys and two (2) control keys for use with the construction cores. Furnish three (3) keys per lockset, (4) for Housing only, or as directed by UGA PM.
 - vi. The contract between the Contractor and the supplier of the Best Access Systems cylinders (consisting of cylinder housing and construction cores) shall include provisions (a) imposing upon Best Access Systems the obligation to obtain and deliver to the Contractor the "certificate and receipt" set forth below and (b) relieving the Contractor, Subcontractors, and the Owner from an obligation to deliver construction cores to Best Access Systems.



- vii. Application for Payment: Prior to including the cost of the Best Access System cylinders (consisting of cylinder housing and construction core), the operating keys, and the control keys on any periodical application for payment and in any event prior to making demand for final payment, the Contractor shall deliver to the Project Manager a “Certificate and Receipt” in the following exact language:

CERTIFICATE AND RECEIPT

This will certify (a) that the permanent cores for the doors designated in the contract documents for Project No. _____ on the campus of _____ were delivered to the comptroller of the said Institution on _____, 20__; that (b) all keys for permanent cores call for in the aforesaid contract documents were delivered to the aforesaid comptroller on the same date; and that (c) by reason of the fact that the cost of the aforesaid permanent cores and the aforesaid keys for the aforesaid permanent cores were included in the cost of the Best mortise cylinders (consisting of cylinder housing and construction core), no additional charge has been made or will be made by Best Access Systems against the Contractor, the Subcontractor, the Owner, or the institution for the aforesaid permanent cores or the aforesaid keys for the aforesaid permanent cores. This certificate is furnished in consideration of \$1.00 and other good and valuable consideration the receipt of which is hereby acknowledged.

This _____ day of _____, 20__.

Best Access Systems
BY: _____
Factory Representative

This receipt, made on behalf of the _____ will acknowledge receipt of the permanent cores and the keys to the said permanent cores as referred to in the above certificate of BEST ACCESS SYSTEMS.

Comptroller, _____

- B. Locksets, Latchsets, Deadbolts
 - i. Acceptable manufacturer for cylindrical lockset:
 - a. Best – 93K Series (Basis of Design)
 - b. Sargent – 10 Line Series
 - c. Schlage – ND Series
 - ii. Acceptable manufacturer for mortise lockset:
 - a. Best – 45H Series
 - b. Sargent – 8200 Series



- c. Schlage – L9000 Series shall be used as the Basis of Design for Housing projects
 - iii. Specified locksets, latchsets, and deadbolts must accept Best Access Systems cylinders.
 - iv. Mortise locksets and latchsets:
 - a. Chassis: cold-rolled steel, handing field-changeable without disassembly.
 - b. Latchbolts: 3/4-inch throw stainless steel antifriction type.
 - c. Lever Trim: through-bolted, accessible design, cast or solid rod lever as scheduled.
 - d. Spindles: independent break-away. All electrical, mechanical and hazardous spaces are to have tactile warning on the inside of the outside lever.
 - e. Deadbolts: stainless steel 1-inch throw.
 - f. Electric operation: Manufacturer-installed continuous duty solenoid.
 - g. Strikes: 16-gage curved stainless steel, bronze, or brass with 1-inch deep box construction, lips of sufficient length to clear trim and protect clothing.
 - h. Lock cylinders must accept Best Access System cores.
 - i. Plastic thumb turns are prohibited.
- C. Exit Devices
- i. This product has sole brand approval and shall be Von Duprin – 98/98 Series.
 - ii. Warranty: Three (3) year manufacturer warranty.
 - iii. Characteristics:
 - a. All exit devices shall be one manufacturer.
 - b. All trim shall be thru-bolted to the lock stile case.
 - c. Provide glass bead conversion kits to shim exit devices on doors with raised glass heads.
 - d. All exit devices shall incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminate noise associated with exit device operation. All exit devices shall be non-handed. Touch pad shall extend a minimum of half of the door width and shall extend to the height of the cross rail housing for a “no pinch” operation. Plastic touchpads are not acceptable. All latchbolts to be the deadlocking type. Latchbolts shall have a self-lubricating coating to reduce wear. Plated or plastic coated latchbolts are not acceptable. Plastic and “dogging” components are not acceptable.
 - e. Lever trim shall be solid case material with a break-away feature to limit damage to the unit from vandalism.
 - f. Exit device to include impact resistant, flush mounted end cap design to avoid damage due to carts and other heavy objects passing through an opening. End cap shall be of heavy-duty metal alloy construction and provide horizontal adjustment to provide flush alignment with device cover plate. When exit device end cap is installed, no raised edges will protrude.



- iv. Due to historical buildings and aesthetics, the Design Professional shall communicate with the Project Manager on different solutions for exit devices as well as apply for a variance on these new solutions.
- D. Closers and Door Control Devices
 - i. Acceptable manufacturer:
 - a. 9500/2800 Senior Swing Series Operators (Basis of Design)
 - b. LCN – 4040XP Series
 - c. Sargent 280 Series
 - d. Corbin Russwin DC8000 Series
 - ii. Characteristics: Door closers shall have fully hydraulic, full rack, and pinion action with a high strength cast iron cylinder.
 - iii. All closers shall utilize a stable fluid withstanding temperature range of 120 °F to -30 °F without seasonal adjustment of closer speed to properly close the door. Closers for fire-rated doors shall be provided with temperature stabilizing fluid that complies with standards UBC 7-2 (1997) and UL 10C.
 - iv. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed and back check.
 - v. All closers shall have solid forged steel main arms (and “EDA” forearms for parallel arm closers) and where specified shall have a cast-in solid stop on the closer shoe (“CNS”). Where door travel on out-swing doors must be limited, use “CNS” or “S-CNS” type closers. Auxiliary stops are not required when cushion type closers are used.
 - vi. All surface closers shall be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory. All closers (overhead, surface and concealed) shall be of one manufacturer and carry manufacturer's ten year warranty (electric closers to have two (2) year warranty).
 - vii. Where possible, mount closers inside rooms.
 - viii. Powder coating finish to be certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
 - ix. Magnetic door holders to be heavy duty wall or floor mounted with metal housing and complete mounting hardware. Provide 24V holding coils unless otherwise scheduled.
- E. Power Operators:
 - i. This product has sole brand approval and shall be LCN 4642; however, for Housing this product shall be LCN9542SR or equal.
 - ii. All electrically powered operators shall include the following features or functions:
 - a. When an obstruction or resistance to the opening swing is encountered, the operator will pause at that point, then attempt to continue opening the door. If the obstruction or resistance remains, the operator will again pause the door.
 - b. Easily accessible main power and maintain hold open switches will be provided on the operator.
 - c. An electronically controlled clutch to provide adjustable opening force.

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- d. A microprocessor to control all motor and clutch functions.
 - e. An on-board power supply capable of delivering both 12V and 24V outputs up to a maximum of 1.0 ampere combined load.
 - f. All input and output power wiring shall be protected by slow blow fuses. These fuses shall be easily replaceable without special tools or component replacement.
 - iii. Actuators shall have stainless steel touch plates that are in conformance with the ADA requirements.
- F. Overhead Door Holders:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Rixson Firemark
 - c. Sargent
 - ii. Characteristics:
 - a. Provide heavy duty door holders of stainless steel.
 - b. Concealed holders to be installed with the jamb bracket mortised flush with the bottom of the jamb. The arm and channel to be mortised into the door.
 - c. Surface holders to be installed with the jamb bracket mounted on the stop.
- G. Floor Stops and Wall Bumpers:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Ives
 - c. Rockwood Manufacturing
- H. Door Bolts / Coordinators:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Ives
 - c. Rockwood Manufacturing
 - ii. Characteristics:
 - a. Flush bolts to be forged brass 6-3/4 x 1 inches, with ½-inch diameter bolts. Plunger to be supplied with milled surface one side that fits into a matching guide.
 - b. Bolt construction to be of rugged steel and brass components.
 - c. Automatic flush bolts and self-latching flushbolts shall be UL listed for fire door application without bottom bolts (LBB).
 - d. Coordinator to be soffit mounted non-handed fully automatic UL listed coordinating device for sequential closing of paired doors with or without astragals.
 - e. Provide filler pieced to close the header. Provide brackets as required for mounting of soffit applied hardware.
- I. Push Plates:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Ives



- c. Rockwood Manufacturing
- J. Door Pulls and Pull Plates:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Ives
 - c. Rockwood Manufacturing
 - ii. Characteristics:
 - a. Provide concealed thru-bolted trim on back to back mounted pulls, but not for single units.
 - b. Material to be extruded forged, stainless steel.
- K. Protective Plates:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Ives
 - c. Rockwood Manufacturing
 - ii. Characteristics:
 - a. Provide manufacturers standard exposed fasteners for door trim units consisting of either machine screws or self-tapping screws.
 - b. Metal Plates: Stainless Steel, .05 inch, U.S. 18-gage.
 - c. Fabricate protection plates not more than 2 inches less than door width on hinge side and not more than 1-inch less than door width on pull side.
 - d. Heights: Kick plates to be 8 inches in height. Mop plates to be 8 inches in height. Armor plates to be 30 inches in height.
 - e. Armor plates on fire doors to comply with NFPA 80.
- L. Thresholds:
 - i. Acceptable Manufacturers:
 - a. National Guard Products, Inc.
 - b. Reese Industries
 - c. Zero Weatherstripping Co., Inc.
- M. Door Seals / Gasketing:
 - i. Acceptable Manufacturers:
 - a. National Guard Products, Inc.
 - b. Reese Industries
 - c. Zero Weatherstripping Co., Inc.
- N. Silencers:
 - i. Acceptable Manufacturers:
 - a. Glynn Johnson
 - b. Ives
 - c. Rockwood Manufacturing
 - ii. Three for each single door; four for pairs of doors.
- O. Security Equipment:
 - i. Acceptable Manufacturers:
 - a. Equal to Schlage Electronics, C0100 stand-alone.
 - b. Equal to Schlage AD-200 (for housing).
 - ii. Coordinate security equipment with electrical.



- P. Hardware Finishes:
- i. Provide protective lacquer coating on all exposed hardware finishes of brass, bronze, and aluminum, except as otherwise indicated. The suffix "-NL" is used with standard finish designations to indicate "no lacquer."
 - ii. The designations used to indicate hardware finishes are those listed in ANSI/BHMA A156.18, "Materials and Finishes," including coordination with the traditional U.S. finishes shown by certain manufacturers for their products.
 - a. Continuous Hinges: 628 (US28) Clear Anodized Aluminum
 - b. Door Closers: 689 Powder Coat Aluminum
 - c. Door Stops: 626 (US26D) Satin Chrome Plated Brass / Bronze
 - d. Exit Devices: 626 (US26D) Satin Chrome Plated
 - e. Flush Bolts: 626 (US26D) Satin Chrome Plated Brass / Bronze
 - f. Hinges (Exterior): 630 (US32D) Satin Stainless Steel
 - g. Hinges (Interior): 626 (US26D) Satin Chrome Plated Steel
 - h. Locks: 630 (US32D) Satin Stainless Steel
 - i. Overhead Holders: 630 Satin Stainless Steel
 - j. Protective Plates: 630 (US32D) Satin Stainless Steel
 - k. Pull Plates: 630 (US32D) Satin Stainless Steel
 - l. Push Plates: 630 (US32D) Satin Stainless Steel
 - m. Thresholds / Weather-stripping: 627/628 (US27/US28) Aluminum

3. EXECUTION

- A. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements specified in Division 7.
- B. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.
 - i. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to function properly with final operation of heating and ventilating equipment.
- C. Prior to project completion, representatives of the lock, exit device and overhead closer manufacturers shall inspect and adjust all units and certify that all units are installed in accordance with the manufacturer's instructions, and are regulated properly and functioning correctly. A written report shall be provided to the Design Professional as to the inspection and shall include appropriate certificates.



08 80 00
GLAZING

1. GENERAL

- A. Related sections:
 - i. 01 81 00 – Facility Performance Requirements
- B. All sloped glass, regardless of the slope of the angle, shall be a laminated glass assembly so that that the outer most layer of glass on each side of the assembly will remain in place if the glass breaks.
- C. Window glazing with a low Solar Heat Gain Coefficient (SHGC) is preferred, particularly on south and west facing facades.
- D. Lite panels in doors and/or glazing that is part of a door assembly (sidelights, transom window, etc.) that require a fire rating shall be fire rated glass.



08 83 00
MIRRORS

1. **GENERAL**

- A. Related sections:
 - i. 10 28 13 – Toilet, Bath, and Laundry Accessories
- B. Warrant all mirrors for five years against silver spoilage.
- C. **UGA Housing Only (New Construction):**
 - i. Typical framed mirror units equal to Bobrick #B-165 Series, dimensions to be determined by Design Professional.