

Cast aluminum (heavy duty) body may be used for classrooms under 50 occupants:

Stanley CLD-3500

Sargent 1430

Norton 8500

LCN 1450

~~2-3. Closers shall be LCN, or equal, type #4010 or 4110 series allowing 180 degrees of swing where conditions permit.~~

~~3. Inactive leaf of double doors shall have mortise flush bolts head and foot, similar to IVES #457 x dustproof strikes,~~

Rockwood 555

Trimco 3915

Ives 457

~~4. See Division 13 20 10 for further references to the general purpose classroom document that includes information on doors and hardware.~~

~~D.~~ C. Laboratory Doors:

1. Locksets shall be one of the following:

Sargent 8225 WTJ

Best 45H7T3J

Schlage L9453 03L

~~4. OPERATION: Latch bolt by lever either side. Deadbolt-Dead bolt by key outside and turnpieceturn piece inside. Projecting deadbolt locks-When dead bolt is projected, latch bolt is deadlocked and outside lever is locked. Turning inside lever retracts both latchboltlatch and deadboltdead bolt simultaneously, automatically, unlocking outside lever.~~

2. Door closers shall be one of the following:

Cast iron body (preferred):

LCN 4010/4111

Stanley QDC100

Sargent 281

Cast aluminum (extra heavy duty) may be used for undergraduate labs:

Stanley CLD-4500

Sargent 351

Norton 7500

Cast aluminum (heavy duty) may be used for graduate labs:

Stanley CLD-3500

Sargent 1430

Norton 8500

LCN 1450

3. Inactive leaf of double doors shall have mortise flush bolts head and foot,

Rockwood 555

Trimco 3915

Ives 457

~~E.~~ D. Storage Room Doors:

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1. Locks, locksets and trim shall be one of the following:

similar to Sargent 8204#8224, WTJ

Best 45H7D3J

Schlage L9080 03L

Storeroom function, key retracts latchbolt but always remains locked; Interior lever always free.

2. No door closers, unless required by current applicable codes or facility programming requirements.

E. OPERATION: Latch bolt by lever either side. Dead bolt by key outside and turn piece inside.

F. Janitor Closet, Janitor Storage, and Utility Room Doors:

1. Locks, locksets and trim shall be one of the following:

similar to Sargent #8204 WTJ

Best 45H7D3J

Schlage L9080 03L

Storeroom function, key retracts latchbolt but always remains locked; Interior lever always free.

2. No door closers, unless required by current applicable codes or facility programming requirements.

2. OPERATION: Latch by lever inside and key outside. Outside lever always rigid. Auxiliary latch deadlocks latch bolt.

G. Public Toilet Doors:

H. F. Public Toilet Doors:

1. At public restrooms with multiple stalls, doors shall be equipped with Each door shall have pulls similar to Rockwood #FB110-70B and 18-gauge stainless steel push/pulls:

Rockwood BF110 x 70C

Ives 8302-10

Trimco 1018-3B

with matching push plates, minimum 18 ga, sized 8" x 16"

2. Door closers shall be one of the following:

Cast iron body (preferred):

LCN or equal, type 4010/4111

Stanley QDC100

Sargent 281

Cast aluminum (extra heavy duty) may be used for single user toilet rooms:

Stanley CLD-4500

Sargent 351

Norton 7500

3. Provide Glynn Johnson GJ 45 kickdown door holder where current if permitted by applicable code permits.

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2. OPERATION: Push and pull. Use latch set where required by codes. Latch bolt retracted by either lever.

I. ~~Communicating Doors:~~

- ~~Rockwood 461~~
- ~~Ives FS452~~
- ~~Trimco 1220~~

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J. ~~G. Communicating Doors:~~

1. Locksets and trim shall be one of the following:

- ~~similar to Sargent #8226 WTJ~~
- ~~Best 45H7G3J~~
- ~~Schlage L9466 03L~~

~~Latch bolt by either side. Deadbolt by key either side. Levers and deadbolt work independently. Code requires alternate exit in rooms with this lock function to avoid lock-in.~~

1. ~~2. No door closer/closers, unless required by current applicable code codes.~~

2. OPERATION: Latch both by lever either side. Dead bolt operated from either side by key.

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K. ~~Stair Tower Doors:~~

L. ~~H. Stair Tower Doors:~~

1. Exit devices for single doors and trim shall be one of the following:

- ~~1. similar to Von Duprin 98L #99L F-BE x #992L R-03 for single doors or #9927EO~~

~~F x #9927L F-BE x 996L-R-03 #992L V-03 for double doors. Should be surface type exit devices.~~

- ~~Precision FL-2114 x 4914C~~
- ~~Sargent 8815 x 715ETJ~~

~~Finish shall be US32D.~~

2. Closers shall be LCN, or equal, type 4010 or 4110 series without holder arms.

1. OPERATION: Latch automatically when closed. Latch bolt by lever outside and touchbar inside. No dogging.

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M. Exterior Doors (including aluminum doors):

Exit devices for paired doors and trim shall be one of the following:

- ~~1. similar to Von Duprin 9827L-F-BE-LBR#33NLx333NL for single doors or double~~

~~doors with removable mullions, or #3327DT x 333DT x 3327NL x 996L-R-03 333NL for double doors. Should be surface type exit devices.~~

- ~~Precision FL-2214LBR x 4914C~~
- ~~Sargent NB8715 x 715ETJ~~

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- ~~2. Finish Closers shall be LCN, or equal, type 4010 or 4110 series without holder arm. Doors shall have substantial holders and bumpers to manually hook doors in open position.~~
- ~~1. OPERATION: Lock automatically when closed key retracts latch bolt. When touchbars are locked down by Allen type dogging key, latch bolt is retracted and doors operate push pull.~~

~~N. Vestibule Doors (including aluminum doors):~~

- ~~1. Each door shall have pulls and push bars similar to the exterior doors.~~
- ~~1. Closers shall be LCN, or equal, type 4010 or 4110 series without holder arm. Doors shall have substantial holders and bumper to manually hook doors in open position.~~
- ~~1. OPERATION: Push and pull.~~

~~O. Dormitory Bedroom Doors:~~

- ~~1. Locksets and trim shall be US32D similar to Sargent #8225 WTJ. No bottom latch or rod; Provide standard fire bolt to be installed 12" up from bottom of doors between pairs.~~
- ~~3. OPERATION: exit by push bar, always free; entry by lever, always free~~
- ~~4. Door closers shall be one of the following:~~

~~LCN 4010/4111~~
~~Stanley QDC100~~
~~Sargent 281~~

~~Bodies shall be cast iron, cast aluminum bodies are not acceptable.~~

~~5. Hold open arms are not allowed on fire rated doors. If hold-open function is desired, wall mounted magnetic holders tied into the fire alarms system shall be used:~~

~~Rixson 997~~
~~LCN SEM7840~~
~~ABH 2100~~

I.A. Exterior Aluminum Doors (narrow lock stile)

1. Exit devices for single doors shall be one of the following:

Von Duprin 33NL x 392-6
Precision 2403 x Rockwood BF158
Sargent AD8405 x 862

Finish shall be US32D.

- ~~2. 2. At paired doors, use exit devices as listed above in Closers shall be LCN, or equal, type 4010 or 4110 series.~~
- ~~1. Kick plates and mop plates shall be 18 gauge stainless steel beveled top and two (2) sides.~~
- ~~1. OPERATION: Latch bolt by lever either side. Dead bolt by key outside and turn piece inside. When dead bolt is projected, latch bolt is deadlocked and outside lever is locked. Turning inside lever retracts latch and dead bolt simultaneously automatically unlocking outside lever.~~

~~P. Uncontrolled Library Exit Doors:~~

~~All doors shall be equipped in conjunction with removable mullion:~~

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Von Duprin 4954

Precision 822

Sargent 980

~~4.~~ 3. Prefer to not use surface vertical rod devices at exterior pairs, unless absolutely required for usage (if used, vertical rod extended latch guard is required). Do not use concealed vertical rod the exterior door hardware with an emergency exit alarm similar to Detex EA-2500 series exit devices in any application.

4. Operation: Egress by inside push bar, always free. Entry by key or card reader, which would retract latch and allows door to be pulled open. Do not provide cylinder dogging (unless facility security programming allows) to allow for push-pull operation.

5. Door closers shall be one of the following:

LCN 4010/4111

Stanley QDC100

Sargent 281

Bodies shall be cast iron, cast aluminum bodies are not acceptable. Provide drop plates and fin stop spacers as required for correct installation on narrow top rail.

I B. Exterior Hollow Metal Doors (wide lock stile)

1. Exit devices for single doors shall be one of the following:

Von Duprin 99NL x 392-6

Precision 2103 x Rockwood BF158

Sargent 8805 x 862

Finish shall be US32D.

2. At paired doors, use exit devices as listed above in conjunction with removable mullion:

Von Duprin 4954

Precision 822

Sargent 980

3. Prefer to not use surface vertical rod devices at exterior pairs, unless absolutely required for usage (if used, vertical rod extended latch guard is required). Do not use concealed vertical rod exit devices in any application.

4. Operation: Egress by inside push bar, always free. Entry by key or card reader, which retracts latch and allows door to be pulled open. Do not provide cylinder dogging (unless facility security programming allows) to allow for push-pull operation.

5. Door closers shall be one of the following:

LCN 4010/4111

Stanley QDC100

Sargent 281

Bodies shall be cast iron, cast aluminum bodies are not acceptable.

J. Vestibule Doors:

1. Each door will have dummy push-pull bar to match exterior:

Von Duprin 330 x 392-6

Precision 671DR x Rockwood BF158

Sargent 8893 x 862

Finish shall be US32D

2. Door closers shall be one of the following:

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LCN 4010/4111
Stanley QDC100
Sargent 281

Bodies shall be cast iron, cast aluminum bodies are not acceptable.

NOTE:

Select exterior opening applications may warrant an in-ground closer. In-ground Rixson closers maybe used where doors are located under covered entrances away from the elements, subject to review from OPP. Vestibule and interior applications may use in-ground Rixson closers. Model shall be heavy duty, and specific to door characteristics and/or other facility requirements.

K. Low Energy Power Openers (section 08 71 13 included for quick reference)

1. Norton 6000 series

2. LCN 4600 series

3. Stanley magic force (subject that product comes with the special hardware/software (dongle) to program operator functions.

Finish shall compliment the opening's frame and/or closers in the surrounding area.

4. Actuator shall be by the above manufacturers or Larco.

A. wireless actuators shall only be used on interior applications

Closer bodies shall be cast iron, cast aluminum bodies are not acceptable.

5. Bollards shall be minimum 42-inches high by 5-inches square and able to accept the push plate actuator, card reader and proximity reader. Color to be approved by Office of Physical Plant(OPP) before project bid phase.

Note: Advances in technology are permitted where power opener product will provide substantially equivalent or greater access/ ease of use. Submit product to OPP for consideration.

L. Residence Hall Bedroom Doors:

1. Locksets shall be one of the following:

Sargent 8225 WTJ

Best 45H7T3J

Schlage L9453 03L

Latch bolt by either side. Deadbolt by key or card reader outside and turn piece inside. Projecting deadbolt locks outside lever. Turning inside lever retracts both latch bolt and deadbolt simultaneously, unlocking outside lever.

2. Door closers shall be one of the following:

Cast iron body (preferred):

LCN 4010/4111

Stanley QDC100

Sargent 281

Cast aluminum (extra heavy duty) may be used:

Stanley CLD-4500

Sargent 351

Norton 7500

3. Kickplates and mop plates shall be 18 ga stainless steel with beveled edges.

M. Uncontrolled Exit Doors:

~~T. 2. Interior Door Stops, Holders and Bumpers:~~

~~All doors up to 36" wide shall be provided with one of the following:~~

- ~~Stanley FBB179~~
- ~~McKinney TA2714~~
- ~~Ives 5BB1~~

~~3. Interior doors over 36" wide shall be provided with one of the following:~~

- ~~Stanley FBB168~~
- ~~McKinney T4A3786~~
- ~~Ives 5BB1HW~~
- ~~(extra heavy weight)~~

~~4. Exterior doors shall be provided with one of the following:~~

- ~~Stanley FBB199~~
- ~~McKinney T4A3386~~
- ~~Ives 5BB1HWSS~~
- ~~(stainless steel extra heavy weight).~~

~~All exterior hinges stops similar to be NRP.~~

~~5. Continuous Hinges may be used in lieu of "butt" hinges Glynn Johnson GJ-WB-50C where the application would warrant enhanced durability/aesthetics.~~

- ~~Stanley 661HD~~
- ~~Pemko CFM83 SLF HD~~
- ~~Ives 112HD~~

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~~Q. Door Stops, Holder, Bumpers:~~

~~1. Doors that open to a perpendicular wall shall be provided with wall mounted stop:~~

- ~~Ives WS406/407~~
- ~~Rockwood 406/409~~
- ~~Trimco 1270WV/WX~~

~~This is the preferred door stop application.~~

~~2. possible. Where required, floor mounted stops shall be similar to be:~~

- ~~Rockwood 442~~
- ~~Ives FS438~~
- ~~Trimco W1211~~

~~3. Where neither floor GJ-FB-13, or wall stops are applicable, provide GJ-FB-17, overhead track stop:~~

~~Surface mount heavy duty:~~

- ~~4. Glynn Johnson stops and holders GJ-90 series and holders and bumpers GJ-F9X, F20, or GJ-W-20.~~

- ~~Rixson 9-x36~~
- ~~Sargent 590~~

~~Surface mount standard duty:~~

- ~~Glynn Johnson 450~~
- ~~Rixson 10-x36~~
- ~~Sargent 1540~~
- ~~(use at closets and low-use doors)~~

~~Concealed mount heavy duty:~~

- ~~Glynn Johnson 100~~

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Rixson 1-x36

Sargent 690

(use at doors with Parallel Arm push side door closers)

~~2. Do not specify automatic holders at exterior doors.~~

~~U. R. Finishes:~~

~~1. Standard finishes as follows:~~

~~a. Interior hinges, locks, floor stops: All hardware shall be satin chrome (US26D/652 Satin Chrome.~~

~~b. Exterior hinges, push-plates, kick plates and mop plates shall be satin finish stainless steel (US32D), unless otherwise specified,~~

~~c. Door closers and accessories: 689 / AL powder coat aluminum finish.~~

~~d. Other finishes may be warranted to match existing and need prior approval.~~

~~V. S. Miscellaneous requirements/Requirements:~~

~~1. SUBSTITUTIONS: This standard allows for three (3) solutions from unique corporations for all major items (hinges, locksets, exit devices, door closers and cylinders). In order to maintain quality on the campus, the University will not accept any alternates or substitutions to these items as specified above, unless prior written approval from Office of Physical Plant (OPP) is granted.~~

~~2. Doors All push plates where possible shall be 8" x 16" in size.~~

~~3. All doors with push plates and pulls with the cylinder on the push side shall have recessed pulls similar to Rockwood #94C used in conjunction with a cylinder deadlock will be drilled for cylinder the push plates.~~

~~4. Provide rubber silencers at, similar to GJ 64 for all doors in hollow metal frames that do NOT receive sound seal or smoke gasket. Rockwood 608 or Ives 20, except exterior doors.~~

~~5. If supply padlock (if required, any padlock supplied to be small-format) with Best (7-) pin key system or keyed to match existing building master.~~

~~6. Furnish padlocks at for all transformer gates.~~

~~7. Provide kickplates at any door scheduled with a door closer.~~

~~8. Wood All doors that are schedule with door closers to have sufficient blocking built in to meet a 1,000,000 slam cycle test. Thru-bolting of shall be provided with kick plates.~~

~~All door closers is not acceptable.~~

~~9. Flush for wood doors to be furnished with thru bolts should and grommet nuts.~~

~~1. All doors as specified shall have surface mounted overhead closers, full rack and pinion type, with back check, as manufactured by LCN or equal.~~

~~2. Exterior or vestibule doors where conditions would be better suited for floor closers, use Rixson #27 series or equal including an intermediate pivot.~~

~~3. All flush bolts to be installed in edge of door doors.~~

~~4. All push plates should be 8" x 16" unless not possible because of size constraints.~~

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~~3. 10. All Non-metallic insert type latch bolts will not be acceptable as antifriction unless used with curved lip strike.~~

~~1. "Total Door System" hardware is not acceptable.~~

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~~All hardware for aluminum doors shall be installed according to manufacturer's recommendations unless specified for an atypical installation.~~

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~~2. End of under the finish hardware section-~~

~~1. No automatic hold open devices permitted on exterior or vestibule doors.~~

~~1. Hardware schedules shall be done in the vertical format type. Horizontal format will not be accepted.~~

~~1. For locksets with lever handle, trim design shall be similar to Corbin Russwin LSM or Sargent WTJ.~~

~~1. All hardware must be in accordance with the latest requirements of all applicable codes.~~

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