DIVISION 08 – OPENINGS

08 08 00 - OPENINGS

A. General Requirements:
   1. All window types shall be approved by the University Representative. Exterior window frames shall be aluminum. Steel-framed windows are prohibited for exterior use.

08 10 00 - METAL DOORS AND FRAMES

B. Door Requirements:
   1. Interior doors may be wood or hollow metal. Exterior doors shall be hollow metal or aluminum and glass. Wood is prohibited for exterior doors.
   2. Typical door size shall be 3'-0" x 7'-0". Wider doors should be used if required by function.
   3. All door hardware shall be installed according to industry standards. Door frames shall conform to profiles shown in the Drawing Appendix unless the door is a special purpose door.

C. Fire door requirements:
   1. All doors and frames shall conform to International Building Code requirements for fire-rating. All fire-rated doors and frames shall have an approved Fire Door label.
   2. Fire doors may only be modified by a certified fire door milling facility.
   3. No fire door shall be modified or removed without the expressed knowledge and permission of the University Representative.
   4. All fire doors must have gaskets for smoke and draft control.
   5. Standard wire glass is prohibited in fire-rated doors and sidelites.

D. Types of doors and frames:
   1. Use only wide stile design for high traffic aluminum doors.
   2. Hollow metal doors shall be 16 gauge metal. Exterior HM doors shall be insulated.
   3. Door frames shall be metal, 16 gauge for interior application and 14 gauge for exterior application.
   4. Doors larger than 3 foot x 7 foot inch require four hinges instead of three.

08 14 00 - WOOD DOORS

A. Acceptable Manufacturers: Marshfield, Lynden, Eggers, Algoma

B. Minimum Grade: ANSI / WDMA I.S.1A Custom Grade, Extra Heavy Duty. Low usage doors may be specified Heavy Duty with review and approval of Facilities Management – Design and Construction.

C. Types of Doors and Frames:
1. Interior wood doors shall be 1-3/4 inch thick solid core rotary cut birch veneer.

2. All doors shall have aluminum or hollow metal frames. Wood frames shall not be used without approval of Facilities Management – Design and Construction.

3. Top, bottom and edges of wood doors shall be sealed immediately after fitting.

08 41 00 – ALUMINUM ENTRANCES AND STOREFRONTS

A. Sole Source Products:
   1. Pivot Hinges - See Sole Source Appendix.

B. Materials, systems and hardware
   1. Entrances and storefront systems shall be aluminum, equal to Kawneer Trifab Versaglaze 451T System and approved by the University Representative.

   2. Doors shall be wide stile. Stile shall be wide enough to accommodate rim metal exit hardware. Narrow stile is not allowed. Verify dimensions with Facilities Management Locksmith prior to specification.

   3. All closers shall be surface mounted.

   4. Use pivot hinges on new installations. Existing installations shall have pivot hinges replaced with specified manufacturer.

08 51 13 - ALUMINUM WINDOWS

A. Construction:
   1. Windows and glazing shall be thermally efficient. When glazed, total window energy performance shall have a total U value of 0.41 BTU / hr / sf-ºF or better. In general, this means aluminum frames have thermal break design, glazing is insulated double pane with low-e coating and operable sections are gasketed.

   2. Whenever possible, provide ventilating windows operated with a pivoting cam handle to facilitate cleaning and allow means for emergency ventilation. Window cam handle or crank location shall not interfere with window coverings.

   3. Screens shall accompany all windows as an integrated unit. Frame and screen shall be aluminum; fiberglass, vinyl and plastic are not acceptable. Wickets required for cam handle operation shall be integral to the screen frame.

08 71 00 – DOOR HARDWARE

A. Required Products: No substitutions

   Locksets            Sargent 11 Line
   Exit Devices        Von Duprin 98 / 99 EO (interior), 990 NL / DT (exterior)
   Closers             LCN 4041 Reg / PA
   Hinges              Hagar #BB1279 or Stanley #FBB179
   Lock Cylinders      Medeco
Combination Locksets: Trilogy T2 with key override DL2700
Removeable Mullions, Keyed (No Card Access)
Von Duprin KR 4954 with MT54 / KR 9954 with MT 54
Removeable Mullions, Keyed (With Card Access)
Von Duprin KR 9854 with MT54
Automatic door openers: Stanley Access Technologies Magic Access

Always verify products with Facilities Management Locksmith through the University Representative.

A. General Information:

1. For remodels and additions, Architect shall consult with Locksmith through University Representative to determine which hardware program(s) should be applied:
   a. Match new hardware to existing hardware
   b. Match new hardware to meet the current Construction Standards
   c. Update existing hardware to meet the current Construction Standards

2. Specify heavy duty, US26D finish for stops, door holders and other accessories for new work. Match existing finishes for small projects within existing buildings.

3. Extension flush bolts shall be manual only. Automatic flush bolts are prohibited.

4. In general, use floor-mounted stops. Where safety or other considerations make floor stops undesirable, gypsum board partitions shall have blocking installed for wall-mounted stops.

5. All exterior doors require high quality weather stripping.

6. Sweeps shall be brush, felt or rubber. Automatic door bottoms are prohibited.

7. When required for accessibility, existing knob locksets shall be replaced with lever locksets. Retrofit lever handles may be used for remodel only with approval of the Locksmith.

8. Where Corbin Russwin locksets are required, use CL3300NZD series.

B. Locksets:

1. Locksets for new buildings shall be heavy duty lever set with heavy duty key-in-lever. Knobs shall be used in certain locations such as mechanical, electrical, janitor and electrical rooms where levers are not required as determined by the Locksmith.

2. On large projects of duration greater than 6 months, locksets shall be ordered with cylinders keyed to Colorado State University master system as directed by Locksmith through the University Representative.

3. Lockset functions: Architect shall consult with Locksmith through the University Representative to determine which lockset functions should be applied.

4. Combination locks may be installed where there are 50 or more individual users upon request, subject to needs assessment and approval by the Locksmith through the University Representative.

5. Finish shall be US26D, US10 or US10B. Other finishes shall be submitted to the University Representative for approval by Facilities Management-Design and Construction.

6. Lever handles shall be used for all doors except doors with exit devices, mechanical / electrical /
utility rooms.

C. Exit Devices: Use only where required by code or safety considerations.

1. Required:
   a. Rim type
   b. Key dogging.
   c. Exterior Door: Pull Trim (NL night latch or DT dummy trim)
   d. Interior Classroom Door: Lever Trim 996L

2. Prohibited
   a. Vertical rod type.
   b. Concealed type
   c. Thumb latch

3. Allowable only where unavoidable
   a. Mortise type.

D. Closers:

   1. Aluminum painted finish with arm and shoe as appropriate for the application.

E. Hinges:

   1. All hinges on the same door must be of the same brand
   2. Full mortise, 4-1/2 x 4-1/2 standard weight, 5 knuckle, US26D.

F. Automatic Door Opener:

   1. Door openers shall use push plate switches. Remote control is acceptable if necessary.
   2. Door openers shall be compatible with keyless access hardware and control sequences.
   3. Door openers shall be capable of interfacing with electronic strike hardware for applications where doors must remain closed and latched (e.g. fire door application).

08 74 00 – ACCESS CONTROL HARDWARE (Moved to Section 28 13 00 ACCESS CONTROL)

08 80 00 – GLAZING

A. All glazing in non-rated doors, sidelites and other non-rated assemblies subject to human impact loads shall be 1/4 inch tempered glass, laminated safety glass or polycarbonate. Standard wire glass is prohibited in these locations.

B. All glazing in fire-rated doors, sidelites or other fire-rated assemblies subject to human impact loads shall be tempered ceramic glass or safety wire glass manufactured with a fire-rated safety film and bearing a label indicating compliance with impact safety standard CPSC 16CFR 1201 Cat. II.

C. Standard wire glass is allowed for fire-rated assemblies only in locations where the glazing is not subject to human impact loads, such as transoms and windows. Wire glass is not acceptable for security; use laminated glass or polycarbonate.