SECTION 08000
GENERAL INFORMATION

PART 1 - GENERAL

1.1 SUMMARY
A. This section provides general information standards for doors and windows.

1.2 REFERENCES

1.3 SYSTEM PERFORMANCE REQUIREMENTS
A. Door sizes shall be designed to be larger than the width of the largest piece of equipment to be installed in the space. LEED and sustainable guides should be considered when specifying wood and finishes.

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
A. Quality Assurance shall be provided in accordance Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

2.2 MATERIALS, GENERAL
A. Doors:
1. Interior doors may be solid-core wood or hollow metal. Exterior doors shall be hollow metal or aluminum and glass, not wood.

2. Normal door minimum size will be 3'0"x7'0". Wider doors may be used if required by function and approved by UC Denver Project Manager.

3. All door hardware shall be installed according to industry standards.

4. All doors and frames shall conform to code requirements for fire-rating. All fire-rated doors and frames shall have an approved UL label.

5. Door and frame Manufacturer(s) to prepare doors and frames for all electronic hardware furnished by Security Contractor including door switch monitoring devices.
6. Reinforcing should be added behind hinges, at closers and on locksets.

A. Windows:

1. All glazing in doors shall be 1/4 inch tempered glass, except where fire-rated glass is required.

2. All window types shall be approved by the UC Denver Project Manager. Refer to Section 08500 - Aluminum Windows for details. Exterior windows shall be aluminum. Steel exterior windows are not allowed. Interior windows may be aluminum.

3. Replacement windows for Anschutz Medical Campus and Downtown Campus buildings shall be approved by UC Denver Campus Architect and UC Denver Project Manager.

PART 3 - EXECUTION

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING, AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION
SECTION 08100
METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY
A. This section provides standards for metal doors and frames.

1.2 REFERENCES

1.3 SYSTEM PERFORMANCE REQUIREMENTS

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
A. Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Colorado Doorways, Inc.
2. South Western Hollow Metal
3. Gateway Hollow Metal
4. Republic Builders Product
5. Or Equal

2.2 MATERIALS, GENERAL
A. Metal Doors and Frames:

1. Hollow Metal Doors: 16 gauge steel

2. Hollow Metal Door Frames:
   a. Interior: 16 gauge
   b. Exterior: 14 gauge

3. Size: 1-3/4 inch thick doors, 2 inch face profile frames
4. Finish: Paint (use low V.O.C. paint)

5. Color:
   a. As selected and approved through the UC Denver Project Manager.

6. Miscellaneous Requirements or Accessories:
   a. 1/4 inch wire glass lights for rated doors.
   b. 1/4 inch tempered glass in non-rated doors.
   c. Exterior doors shall be insulated.
   d. Oversized doors larger than 3’-0” x 7’-0” require 4 hinges instead of three.

2.3 PREPARATION FOR FINISH HARDWARE

A. Doors and Frames: Spot weld all reinforcement at the factory. Drill and tap for mortise template hardware.

B. Frame Reinforcement (Minimum):
   1. Butt Hinges: One piece 7 gage plate 12” long by full width of the jamb at each hinge.
   2. Closers: 10 gage channel section 12” long and full width of frame trim.
   3. Strikes: Flush Bolts, and all Other Surface Mounted Hardware: 12 gage.
   4. Reinforce frames in direct proportion to the size and weight of the door.

C. Door Reinforcement (Minimum):
   1. Butt Hinges: 7 gage plate 9” long welded to 16 gage interior edge channels at each hinge.
   2. Surface Applied Closers: 12 gage box section minimum 4” deep and 12” long.
   3. Locksets, Deadbolts, Panic Devices: 12 gage
   4. Pull Plates, Flush Bolts and Surface Mounted Hardware: 12 gage

PART 3 - EXECUTION

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING, AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION
SECTION 08210
WOOD DOORS

PART 1 - GENERAL

1.1 SUMMARY
A. This section provides standards for wood doors.

1.2 REFERENCES

1.3 SYSTEM PERFORMANCE REQUIREMENTS

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
A. Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by
the following:

1. Wood Doors:
   a. Weyerhaeuser
   b. Algoma
   c. Oshkosh Wood Doors

2.2 MATERIALS, GENERAL
A. Sealing:
   1. Top, bottom and edges of wood doors shall be sealed immediately after fitting.

B. Wood Doors:
   1. Use solid-core, close-grain wood veneer doors. Remodels in existing buildings must match existing doors unless variance is approved through UC Denver Project Manager.
a. Size: 1-3/4 inch thick
b. Finish: Transparent (stain) or painted
c. Color: As selected and approved through the UC Denver Project Manager
d. Miscellaneous Requirements or Accessories: door hardware installed on wood doors must be through bolted (sex bolts) i.e. Door closers and exit devices.
e. Consider Forest Stewardship and LEED when specifying the door product.

PART 3 - EXECUTION

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING, AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION
SECTION 08300
SPECIAL DOORS

PART 1 - GENERAL

1.1 SUMMARY
   A. This section provides standards for special doors.

1.2 REFERENCES
   A. Section 08700 - Hardware

1.3 SYSTEM PERFORMANCE REQUIREMENTS

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
   Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
   A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
   A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
   A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by the following:

   1. Sectional Overhead Doors-Steel:
      a. Overhead Door Company
      b. Raynor Manufacturing Co.
      c. Crawford Door
      d. Ambico Limited

   2. Sectional Overhead Door-Aluminum:
      a. Overhead Door Company
      b. Raynor Manufacturing Co.
      c. Crawford Door
      d. Ambico Limited

   3. Overhead Coiling Doors:
2.2 MATERIALS, GENERAL

A. Sectional Overhead Doors - Steel: Electrically operated with 16 or 20 gauge steel, 2 inch thick sections, insulated with expanded polystyrene and with 26 gauge back cover.

1. Primary Manufacturer’s catalog or Model No.: Series 418.
2. Size: As required for application
3. Finish: Factory primed, field painted
4. Color: As selected and approved through the UC Denver Project Manager.
5. Miscellaneous Requirements or Accessories:
   a. If lockable, must accept Best mortise lock cylinder and Best I/C core

B. Sectional Overhead Door-Aluminum: Electrically operated heavy-duty with 1-3/4 inch thick sections, and with 5/8 inch insulated glass lights.

1. Primary Manufacturer’s Catalog or Model No.: Series 520 commercial
2. Size: As required for application
3. Finish: Kynar 500
4. Color: As selected and approved through the UC Denver Project Manager.
5. Miscellaneous Requirements or Accessories:
   a. Controls: No. 76784 interior or flush-mounted key switch (must accept Best mortise lock cylinder and Best I/C core).

C. Overhead Coiling Doors: Electrically operated with 20 gauge galvanized steel face slats.
   1. Primary Manufacturer’s Catalog or Model No.: Model No. FN1
   2. Size: As required for application
   3. Finish: Enamel
   4. Color: As selected and approved through the UC Denver Project Manager
   5. Miscellaneous Requirements or Accessories:
      a. If lockable, must accept Best mortise lock cylinder and Best I/C core.

D. Overhead Coiling Insulated Door: Electrically operated with 22 gauge flat face slats, 24 gauge back cover and #2 density polyurethane foam.
   1. Primary Manufacturer’s Catalog or Model No.: “Stormtite Insulated Rolling Door,” Model 51FN1
   2. Size: As required for application
   3. Finish: Fluorodon
   4. Color: As selected and approved through the UC Denver Project Manager.
   5. Miscellaneous Requirements or Accessories:
      a. Operations: Electric, installation 4, No. 76783 key station (must accept Best mortise lock cylinder and Best I/C core).

E. Overhead Coiling Counter Fire door: Manually operated with 24 gauge curtain with Best mortise lock cylinder.
   1. Primary Manufacturer’s Catalog or Model No.: LNC-4
   2. Size: As required for application
   3. Finish: Galvanized, factory painted
   4. Color: As selected and approved through the UC Denver Project Manager.
   5. Miscellaneous Requirements or Accessories: None
F. Overhead Coiling Security Grille: Electrically operated with straight aluminum lattice, free-standing support frames and extruded aluminum guides.

1. Primary Manufacturer’s Catalog or Model No.: GN4
2. Size: As required for application
3. Finish: Fluorodon
4. Color: As selected and approved through the UC Denver Project Manager.
5. Miscellaneous Requirements or Accessories:
   a. Controls: Electric switches must accept a Best mortise lock cylinder and Best I/C core.

G. Automatic Entrance Doors: Electrically operated aluminum automatic sliding with motion detectors and tempered glass lights.

1. Primary Manufacturer’s Catalog or Model no.: Besam 3000
2. Size: As required for application
3. Finish: Kynar 500
4. Color: As selected and approved through the UC Denver Project Manager.
5. Miscellaneous Requirements or Accessories:
   a. If lockable, must accept Best mortise lock cylinder and Best I/C core.
SECTION 08400
ENTRANCES AND STORE FRONTS

PART 1 - GENERAL

1.1 SUMMARY
A. This section provides standards for entrances and store fronts. Sliding door entrances are prohibited.

1.2 REFERENCES
A. Section 08700 - Hardware

1.3 SYSTEM PERFORMANCE REQUIREMENTS

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
A. Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Store front systems shall be Kawneer Trifab 450 System, or equal

2.2 MATERIALS, GENERAL
A. Store Front:

1. Aluminum storefront doors will be medium or wide style and wide enough to accommodate rim metal exit hardware. Narrow style is not allowed.

2. All closers on aluminum storefront doors shall be surface mounted.

3. Do not use pivot hinges on new installations.

4. Doors must be reinforced to accept magnetic locking hardware, door position switches and request-to-exit devices for control by security system.
PART 3 - EXECUTION

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING, AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION
SECTION 08500
METAL WINDOWS

PART 1 - GENERAL

1.1 SUMMARY
A. This section provides standards for metal windows.

1.2 REFERENCES

1.3 SYSTEM PERFORMANCE REQUIREMENTS

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
A. Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. Aluminum Windows - Non-operable Doors: Kawneer, or equal.

2.2 MATERIALS, GENERAL
A. Aluminum Frame Windows:
   1. Aluminum frames shall have thermal break for energy conservation.
   2. Windows specified shall be thermally efficient and all glass shall be minimum double pane insulating glass with U value to be less than or equal to 0.41.
   3. Aluminum frame windows shall be able to be installed from both inside and outside.
   4. If operable windows are approved, position switches tied to the operation of the local VAV boxes must be installed.
PART 3 - EXECUTION

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING, AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION
SECTION 08700

HARDWARE

PART 1 – GENERAL

1.1 SUMMARY

A. This section provides standards for hardware.

1.2 REFERENCES

1.3 SYSTEM PERFORMANCE REQUIREMENTS

A. STANDARDS

1. Keyway for each building to be determined by UC Denver Locksmith through the UC Denver Project Manager.

2. Best Peak Patented Interchangeable Cores, 7 pin

3. Interchangeable cores keyed at factory.

4. Bitting codes and patterns shall be sent to the UC Denver, not the contractor. Codes will be supplied buy Best Access Systems, as needed.

B. GENERAL

1. Consult with UC Denver Locksmith, through the UC Denver Project Manager, regarding the various lock functions.

2. Remodels or additions to existing buildings shall be changed to Best Hardware. All new buildings shall be specified with Best hardware, with the exception of panic devices which should be Von Duprin with Best Cylinders.

3. Specify US26D finish good quality door stops, holders, flush bolts, etc.

4. Backing must be provided behind doorstops.

5. Use quality weather striping on all exterior doors.

6. Thresholds shall be ½ inch high maximum to allow handicap access.

7. Computer operated proximity card access systems are allowed. (See specification 16722 for details.) Coordinate design with the UC Denver Electronic Security Department through the UC Denver Project Manager.

8. Combination locks, if absolutely needed, will be Simplex / Unican single code mechanical lock, anything requiring more than one code OR audit trail should revert to ID Access security system.

9. All hardware installations will comply with current ADA standards.

10. All automatic door operators must come with components to link to the security system.
11. Electrified hinges are not the default standard and will only be used when specified by the UC Denver Electronic Security Department. The default locking systems for controlled doors will be electric strikes or magnetic locks.

12. All buildings will have manual lock-down capability via locking doors or manual key override to electronic lock systems.

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
   A. Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
   A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
   A. Product and system warranties shall be provided in accordance with Division 1.

PART 2-PRODUCTS

2.1 MANUFACTURES
   A. Acceptable Manufactures: Subject to compliance with requirements, provide products by the following:

1. Lock Sets:

2. Automatic Door Opener:
   a. Dorma ED800 (preferred)
   b. Stanley Magic Door, Magic Swing Micro

3. Closers:
   a. LCN 4041
   b. Norton (for “store front Design” doors)
   c. LCN Door Closer, 1460 Series Aluminum

4. Hinges:
   a. Hager
   b. Stanley
   c. FBB179
   d. FBB168

5. Exit Device
   a. Von Duprin
2.2 MATERIALS, GENERAL

A. Lock Sets – Anschutz Medical Campus:
   1. Shall include 9K heavy-duty lockset (cylindrical) with handle design 14D as directed by UC Denver Locksmith through the UC Denver Project Manager.
   2. Lock Functions: As selected by the UC Denver locksmith through the UC Denver Project Manager. The UC Denver Locksmith shall provide stock numbers from acceptable manufactures.
   3. Finish shall be 626 unless otherwise specified and approved by UC Denver Locksmith through the UC Denver Project Manager.
   4. BEST Interchangeable Cores, Mortise and Rim Cylinders, 626 finish, Peak keyway to be determined by UC Denver Locksmith, 7-pin tumbler.

B. Lock Sets: Downtown Campus including CU Denver Building, Lawrence Street Center and 1475 Lawrence Street. Schlage Falcon T Series with quantum lever 626 satin chrome finish and schlage interchangeable everest B core.

C. Door Guards:

PART 3 – EXECUTION

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION
SECTION 08800

GLAZING

PART 1 - GENERAL

1.1 SUMMARY
A. This section provides standards for glazing.

1.2 REFERENCES
A. Manual Part 2, Section 2.8 Building Guideline

1.3 SYSTEM PERFORMANCE REQUIREMENTS
A. Low-E tempered / any window. High performance glass for all exterior glazing. (Note: to Architect / Engineer use glazing appropriately to achieve day-lighting and avoid unnecessary heat gain through glazing.)

1.4 DEFINITIONS

1.5 SUBMITTALS

1.6 QUALITY ASSURANCE
A. Quality Assurance shall be provided in accordance with Division 1.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Delivery, storage, and handling shall be provided in accordance with Division 1.

1.8 WARRANTY
A. Product and system warranties shall be provided in accordance with Division 1.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
A. Acceptable Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Glazing:
   a. PPG Industries
   b. ASG Industries, Inc.
   c. Ford Glass
   d. Interedge Technologies

2.2 MATERIALS, GENERAL
A. Glazing:
1. Exterior Windows: low-reflective, clear insulating glass (color shall be in accordance with Campus Materials Standards).

2. Door Lights: tempered glass (non-rated), wire glass (rated) or other approved fire-rated glass.

3. Interior Windows (rated openings) wire glass or other approved fire-rated glass.

4. Interior Windows (requiring safety glass) clear, tempered glass.

5. Interior Windows (non-safety) clear, plate glass.

**PART 3 - EXECUTION**

3.1 EXAMINATION

3.2 INSTALLATION, GENERAL

3.3 TESTING, CLEANING, AND CERTIFICATION

3.4 COMMISSIONING (DEMONSTRATION)

3.5 SCHEDULES

END OF SECTION