

## **CONSTRUCTION REQUIREMENTS**

Note: The buildings on the UCCS campus are divided into two categories: General Fund and Auxiliaries. General Fund Buildings include academic and administrative functions. Auxiliary buildings include residence halls, athletic, and dining facilities. In some cases, construction standards differ depending on the building category. Confirm building category with Facilities Services Project Manager.

### **Division 08 - Openings**

- Doors and Frames
- Specialty Doors and Frames
- Entrances, Storefronts, and Curtain Walls
- Roof Windows and Skylights
- Hardware
- Glazing
- Access Control System

### **DIVISION EIGHT: OPENINGS**

#### **A. Doors and Frames**

1. Hollow Metal Doors
  - a. Flush Wood Doors
  - b. Meet LEED requirements
  - c. Premium, Grade A
2. Hollow metal frames
  - a. Continuous welded frames, no visible seams on exterior face
  - b. Full profile welded – no knockdown frames accepted.
3. Vision Lights
  - a. If doors are provided with vision lights, the lower edge of the glazing must be a maximum of 43" AFF.
4. Provide sound controlled door assemblies. Refer to Division 9 – Wall Construction standards for STC minimum ratings.

#### **B. Specialty Doors and Frames**

1. Overhead Coil and Fire Smoke Rated Curtains
  - a. Audible and visual signals required or otherwise determined by plan review.
  - b. Fail-Safe release device required or otherwise determined by plan review.
  - c. 12 month maintenance agreement upon substantial completion date.
  - d. Overhead door should have SFIC core

#### **C. Entrances, Storefronts, and Curtain Walls**

1. Energy Performance – Glazed aluminum curtain walls shall have certified and labeled energy performance ratings in accordance with NFRC.
2. Finish warranty – 10 year minimum from substantial completion date.

3. Fasteners and accessories – Corrosion resistant, non-staining, non-bleeding
4. Sealants
  - a. Meet LEED requirements
  - b. Seal interior and exterior assembly
5. Glazing Warranty – 10 year minimum from substantial completion date.
6. Fire Protection Rated Glass – No wire glass accepted.

#### **D. Roof Windows and Skylights**

1. When skylights are to be installed, special coordination needs to go into reviewing details to reduce any future moisture infiltration. Skylights are not desired.

#### **E. Hardware**

1. All Buildings:
  - a) General: Cylinder manufacturer to have minimum (10) years' experience designing secured master key systems and have on record a published security keying system policy.
  - b) Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
  - c) Classroom and labs
    - a. Double sided function for panic hardware, with interior thumb turn.
    - b. Add interior thumb turn for mortise locks classroom function.
    - c. Add office function with interior turn button for cylindrical bore locks.
  - d) Cylinders:
    - a. Mortise Type: Threaded cylinders with rings and straight- or clover-type cam.
    - b. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
    - c. Bored-Lock Type: Cylinders with tailpieces to suit locks.
    - d. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
    - e. Patented Cylinders: ANSI/BHMA A156.5, Grade 1, certified patented cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer's United States patents. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.
    - f. Keyway: Manufacturer's Standard.
  - e) Permanent Cores – Manufacturer's standard; finish face to match lockset; complying with the following:
    - a. **Small Format Interchangeable Cores:** Core insert, removable by use of a special key; usable with other manufacturers' cylinders.
    - b. Acceptable Manufacturers:
      - i. General Fund Buildings – Medeco (MC) - X4 Series. **NO SUBSTITUTIONS**

- ii. Auxiliary Buildings – Best Lock patented system, Coremax core with M series keyways. **NO SUBSTITUTIONS**
- f) Construction Cores –
- a. Furnish cylinders with temporary core construction keying system during construction period. Temporary cores and keys remain property of hardware supplier.
  - b. Owner shall remove temporary construction cores and install permanent keyed cores into locksets and cylinders. Return temporary construction cores to hardware supplier.
- g) Keying System – Each type of lock and cylinders to be factory keyed. Conduct specified "Keying Conference" to define and document keying system instructions and requirements. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner. Incorporate decisions made in keying conference, and as follows:
- a. Grand Master Key System: Cylinders are operated by a change key, a master key, and a grand master key.
  - b. Existing System: Master key or grand master key locks to Owner's existing system.
  - c. Minimum Key Quantity:
    - i. Top Master Key: One (1)
    - ii. Change Keys per Cylinder: Two (2)
    - iii. Master Keys (per Master Key Group): Two (2)
    - iv. Grand Master Keys (per Grand Master Key Group): Two (2)
    - v. Construction Control Keys (where required): Ten (10)
    - vi. Permanent Control Keys (where required): Two (2)
  - d. Contractor shall provide keying schedule to UCCS for end user coordination and work with UCCS on developing bitting charts
  - e. Permanent keys are to be provided by Contractor
  - f. Permanent cores are to be installed by Contractor, unless directed otherwise.
- h) Locksets, Latchsets and Deadbolts:
- a. Schlage: ND-HD Series Rhodes (RHO) Lever Design
- i) Panic Bars:
- a. Von Duprin 98 or 99- Grade 1
  - b. Von Duprin 33- Grade 1 (for narrow stile doors)
  - c. Von Duprin 88- Grade 1 (for special architectural applications-Drop Bar)
- j) Door Closers:
- a. LCN Brand
  - b. If wall mounted stops are specified, solid blocking is required in wall.
  - c. Provide heavy duty closers with through-bolt on all exterior locations.

- k) Automatic Door Operators:
  - a. Pneumatic door operators not accepted.
- l) Handicap Push Button Operators:
  - a. Provide hardwired connections, wherever possible.
- m) Thresholds
  - a. Provide solid aluminum thresholds rated for opening traffic type. Anchor into concrete.
  - b.
- n) Access Doors:
  - a. Provide fire rated access doors where needed.
  - b. Provide locking powder coated access panels at ALL locations.
  - c. Key should be standard among all access panels throughout building. Confirm key type with UCCS Project Manager.
- o) Hardware Sound Control:
  - a. Provide compression seals, door bottom sweeps, and silencers where needed to meet STC minimum ratings.

## **F. Glazing**

- 1. All Buildings:
  - a. Glazed Aluminum Curtain Wall
    - i. Manufacturer agrees to repair or replace framing components that fail in workmanship and/or materials. Warranted period to be at least equal (5) five years from substantial completion date.
  - b. Manufacturer agrees to repair or replace aluminum that shows evidence of deterioration of factory-applied finishes. Warranted period to be at least equal (20) twenty years from substantial completion date. Aluminum Framed Entries and Storefronts
    - i. Manufacturer agrees to repair or replace framing components that fail in workmanship and/or materials. Warranted period to be at least equal (5) five years from substantial completion date.
    - ii. Manufacturer agrees to repair or replace aluminum that shows evidence of deterioration of factory-applied finishes. Warranted period to be at least equal (20) twenty years from substantial completion date.
  - c. Glazing
    - i. Manufacturer agrees to repair or replace glazing for a period to be at least to equal (10) ten years from substantial completion date.
    - ii. Thickness not less than 6mm.
    - iii. Glazing should be of a high performance rating.
  - d. Safety Glass
    - i. Provide at hazardous locations.
  - e. Laminated Glass

- i. Provide at locations where higher STC ratings are needed to be met.
- f. Sealants
  - i. Provide sealant on both interior and exterior side of framing.
- g. Installation Conference
  - i. Conduct pre-installation conference onsite with UCCS Project Manager.
- h. Interior Borrowed Lites
  - i. Provide lite kits at interior borrowed lites.
  - ii. Provide firelite glass at fire rated openings. Wire glass not accepted.

**G. Access Control System**

- a. Our campus standard access control system is provided through Heartland Campus Solutions.
- b. Provide slide card readers at each main entry door. This system will be incorporated into the project. Hardware schedules will need to be created/ revised in order to accommodate hardware integration. The campus standard system Heartland Campus Solutions Sidewinder (NO SUBSTITUTIONS) and only factory certified dealers are authorized to purchase and install such equipment.
- c. Coordinate card readers with electric door openers for handicapped access.
- d. Card readers required at all door and elevator locations between public space and student housing areas. Card reader spec is Heartland Campus Solutions Sidewinder.
- e. All Multidoor controllers must be specified as IP-NETWORK.
- f. Any Network Managers supplied for this project MUST BE Virtual Machine Licenses from Heartland and NOT physical computers.
- g. Exterior Pedestal Detail below:



- h. Access control system to be connected to UPS system in all buildings.