Chapter 16
ARCHITECTURAL DRAWINGS AND DESIGN

SECTION 1601 - CONTENTS

1601.1 Contents: The drawings shall present all information relative to the size, form, location and arrangement of the project components. The drawings shall indicate complete design. Prior written acceptance from the Project Manager is required for any design-build component. Architectural drawings shall be fully coordinated drawings of all other disciplines. The following items shall be included on the architectural drawings, when applicable to the specific project:

A. Location of materials, assemblies, products, and accessories
B. Size, thickness, and significant dimensions of all building elements
C. Gauges, except for prefabricated and assembled units.
D. Diagrams of specially fabricated connections
E. Relationships of adjacent dissimilar materials
F. Soil boring or test pit logs including locations
G. Gross and assignable square footage of the building, broken down by room, floor and wing

1601.2 Sequence: Architectural Drawings are divided into specific groups. Drawings within a group are numbered consecutively, i.e. A2.01, A2.02, etc. The group designation shall always remain the same, regardless of the size or scope of the individual project. If specific projects do not include work related to a group, that group shall be eliminated from the drawings. When appropriate, the Consultant shall obtain written permission from the Project Manager to vary the sequence.

- A0.xx Index, Symbols, Abbreviations, Key Plan Notes and Code Information
- A1.xx Demolition, Site Plan, Temp Work, Phasing Drawings
- A2.xx Plans and Key Drawings
- A3.xx Sections, Exterior Elevations
- A4.xx Detailed Floor Plans
- A5.xx Interior Elevations
- A6.xx Reflected Ceiling Plans
- A7.xx Vertical Circulation, Stairs, Elevators, Escalators
- A8.xx Exterior Details
- A9.xx Interior Details
- A10.xx Perspective and Cutaway Views


1601.3 Schedules: All Schedules shall be placed in the Specifications unless otherwise approved by the Project Manager.

1601.4 Symbols and Abbreviations: All symbols and abbreviations used in the Architectural drawings shall be in a legend in the A0. xx drawing group. The legend shall be edited to include only those symbols and abbreviations that appear in the drawings; unedited boilerplate legends are not acceptable.

1601.5 Keyed Notes: All key annotation shall be described in a legend on the sheet where the key occurs. The legend shall be edited on each sheet to include only those keys that appear on the sheet; unedited boilerplate legends are not acceptable.
1601.6 Room Numbering Standard: The A/E shall follow the CSU Room Numbering Standard. After the basic floor plan has been developed, the A/E shall submit the room number layout for review and approval by Facilities Management Design and Construction. Any changes to the numbering shall be submitted for approval by CSU Facilities Management. The A/E shall give particular attention to assuring all sub consultants receive and use the approved room number layout and any subsequent changes for all drawings and schedules.

All rooms, including building service rooms, are assigned a room number according to this standard.

a. **Building floor levels:** Room numbers are three digits with the first digit corresponding to the building’s floor level. Floor number 1 shall be the lowest most level entered at grade or one-half flight above grade.

   Exceptions:
   - Basement numbers will have two digits running from 01 to 99.
   - Buildings with more than 10 levels above ground will use 5 digits for the room number, with the first 2 digits indicating the floor level.

   Examples:
   - Basement 01 to 99
   - 1st floor 100 to 199
   - 2nd floor 200 to 299
   - 10th floor 1000 to 9999

b. **Start at the main entrance:** Room numbering will begin at the main entrance to a floor, and each floor will be numbered similarly.

c. **Reserve numbers for future use:** Numbers should be reserved for future room divisions. The room numbers on both sides will increment as appropriate so rooms across from each other have matched order numbers, even and odd. This allows for large rooms to be renovated into multiple smaller rooms allowing the new room numbers to be assigned without reassigning large sections of the floor.

d. **Proceed clockwise.** If this is not possible due to the architectural design of the building, the numbering will proceed in a logical progression.

e. **Prefixes:**
   - Non-assignable space: Building circulation space will always be preceded with an 'N' (non-assignable space). Building circulation consists of: corridors, stairs, elevators, etc. For example: N104 (non-assignable/circulation space 104)
   - Building wings: Buildings with more than 99 rooms on a single floor will be separated into wings. Wings are indicated by alphabetic prefixes and will be the first character of the assigned room number. Wing prefixes are assigned when the architectural design of a building dictates. For examples: E (for east), W (for west), or A, B, C, etc. Note that an ‘N’ would not be used for a North wing because it would be confused with the ‘N’ used for non-assignable space.

f. **Different title:** Rooms entered from a main building hallway will not be assigned a suffix.

g. **Suffixes:** Rooms entered from a secondary hallway or from within a room are assigned the same room number as the room it is entered from but with an alphabetical suffix attached, i.e., A, B, C, etc. For example, room 306A is a room within room 306.
h. **Examples:**
   - 124 (first floor room 124)
   - EN1035 (building circulation space 1035 in the East Wing of the tenth floor)
   - E306A (room 306A off of room 306 in the East Wing)

i. **Labs:** Labs are often grouped in clusters and therefore are better identified as suites with one number for the main area or entrance room and prefixed numbers for the adjoining rooms.

j. **Re-numbering:** All re-numbering of renovated rooms shall be consistent with the existing numbering in adjacent spaces. When the existing numbering is not consistent or is confusing, room numbers shall be assigned to renovated rooms to keep with the intent of the Room Numbering Standard yet allow for a reasonable best solution.

k. **Assignment responsibility:**
   - Initial assignment: Room numbers are assigned by the contracted architects for newly constructed buildings and remodels, or can be assigned by CSU Facilities Management Space Information Section.
   - Final approval: If room numbering is completed by architect, proposed numbering scheme shall be reviewed by Space Information Section. Requests for room numbers should be done at the same general time as the design development review.

l. **Indicate room use:** The usage of each room should be indicated on the drawings. For example: Office, Rest Room, Classroom, Telephone Room, etc.

m. **Supply CAD drawings:** Electronic computer aided design drawings of each floor plan will be sent to CSU Facilities Management Space Information Section, prior to the final walk-thru.

**SECTION 1602 - PLANS**

**1602.1 Floor Plans:** Plan view drawings shall present the following minimum information:

A. North direction arrow at top of drawing if feasible, otherwise as drawing constrains.

B. Floor elevation. The floor elevation shall be keyed to CSU geographical database in at least one location on each floor plan. The elevation shall be clearly defined as finish floor or elevation of structural floor.

C. Identify and indicate the correct horizontal relationship, size and location of all components. Avoid repeating dimensions that are already on large-scale drawings.

D. Cross reference symbols or notations to sections, elevations, insert plans, larger scale plans diagrams and other drawing details. Identify type for all partitions.

E. Provide graphic scale for each plan view.

F. Room numbers and functional room titles.

**1602.2 Reflected Ceiling Plans:** Reflected ceiling plan drawings shall delineate all systems including but not limited to materials, soffits, ceilings, partitions, exterior walls, columns, lighting, sprinklers, monitoring devices, diffusers, grilles, registers, signage and furring elements. The reflected ceiling plans shall carry the same minimum information listed in paragraph 1602.1 above.
1602.3 **Code Dimensions**: Show critical dimensions for code compliance on large scale plans, except for accessibility dimensions in complex spaces where enlarged plans are appropriate (restrooms).

1602.4 **Precedence**: There is no precedence according to scale; plan drawings of the same areas shall not deviate when presented at different scales.

1602.5 **Roof Plans**: Provide roof plans that indicate ALL penetrations and components of other disciplines including but not limited to lightning protection, mechanical, electrical, plumbing, access systems and communications systems. Indicate traffic pads from all access points to and around roof mounted equipment, roof drains and areas requiring maintenance and access. Show storm water flow directions, crickets, flashings and materials. Roof plans without these indications are not acceptable.

1602.6 **Continuation**: Where plans and system layouts are continued on another drawing, place a note at the point of break in the plans or systems layouts referencing the continuation drawing.

**SECTION 1603 - SECTIONS**

1603.1 **Precedence**: There is no precedence according to scale; section drawings of the same areas shall not deviate when presented at different scales.

1603.2 **Sections**: Sections shall completely define the character of all construction elements. Above or below grade elevations shall be keyed to the CSU geographical database. Notes such as "similar to" are not acceptable; the Consultant shall provide design of each type of detail.

1603.3 **Partition Types**: Provide edited partition drawings for every partition type in the project. Do not show partition types that are not in the project; boilerplate partition sheets are not acceptable.

**SECTION 1604 - ELEVATIONS**

1604.1 **Exterior elevations**: Exterior elevations shall show all exterior planes of new or modified construction, and shall include all other systems and profiles including but not limited to civil, landscape, mechanical, electrical, plumbing, fire suppression, lighting, communications, lightning protection, fences, signage and access systems. Indicate the correct vertical relationships, size, and location of all components.

1604.2 **Interior elevations**: Interior elevations shall show all interior plans of new or modified construction, and shall include all other systems installed in or on the surfaces.

1604.3 **Material definition**: Different materials shall be delineated to clearly define separation of materials.

**SECTION 1605 - DEMOLITION PLANS**

1605.1 Demolition drawings shall indicate altered, discontinued, and removed work where extensive removal and/or demolition operations are required. Demolition drawings shall include but not be limited to:

A. Location and size of structural members

B. Methods of closing openings

C. Other information indicating the extent of known materials and conditions to be removed.

D. Symbols used for demolition work shall be the same as those used for new construction.
E. Complete design and detailing of systems interruptions and protection of adjacent or affected systems and operations from damage due to construction activities.

F. Dust, fume, odor and noise control boundaries and details

SECTION 1606 - INTERFERENCE DRAWINGS

1606.1 Composite Drawings: For 2-dimensional projects without Building Information Modeling (BIM), the Consultant shall coordinate and prepare composite drawings showing all disciplines on one drawing. Each discipline shall be identified by a specific color. Show ceiling cavity spaces, utilities and structure. One set of plots shall be submitted to the Project Manager as indicated in Chapter 33. The Consultant shall ensure that the project systems are completely coordinated and that no designed interferences exist. This includes conduit routings, roof drain lines, sprinkler systems, etc.

1606.2 Interference Modeling: For projects using Building Information Modeling (BIM), the Consultant shall use clash detection software to provide clash schedules and views.

SECTION 1607 - EGRESS PLANS

The Consultant shall provide floor plans indicating safety egress from the facility(s), showing blocks of occupancy types, calculated quantity of occupants, calculated egress widths and egress schemes.

SECTION 1608 - PERSPECTIVE AND CUTAWAY VIEWS

The Consultant shall provide perspective and cutaway views of complex spaces and details to clarify the design. These may be placed adjacent to relevant areas of plan, section and elevation drawings, on detail sheets or collected on A10.xx sheets as referenced drawing details.

SECTION 1609 - SCHEDULES

1609.1 General: Tabular schedules shall be created as spreadsheets using MS-Excel, inserted into drawings and separately included in the Design Analysis Report.

1609.2 Partition Schedule

1609.3 Opening Schedules (Doors, Windows, Glazing)

1609.4 Finish Schedule

1609.5 Hardware Schedule

SECTION 1610 – ARCHITECTURAL DESIGN

1610.1 General: Prior to commencing design, the Consultant shall study and be familiar with all parts of the CSU Construction Standards (Administrative, Design and Construction Standards), current edition, as posted on the Facilities Management website.

1609.x Interior Signage and Wayfinding
END OF CHAPTER 16