Multnomah County CAD Standard 2015

Facilities & Property Management

INTRODUCTION

Multnomah County Oregon (hereafter referred to as the County) establishes these standards to provide general directions and minimum requirements for producing Computer-Aided Drafting (CAD) documents for Multnomah County Facilities and Property Management Division's projects. Organizations contracted to provide such services are hereafter referred to as the AE Service Provider. AE Service Providers are organizations contracted to provide planning and/or design services and shall include, but are not limited to, architects, engineers, consultants, drafting services, furniture installers, interior designers, space planners, or design-build contractors (who have professional liability insurance and the capability to produce digital documents).

GENERAL OBJECTIVES

The County issues these standards to:

1. Ensure the successful use and control of CAD systems and building data for all Multnomah County owned and leased facilities.
2. Establish minimum requirements for consistent format, professional appearance, and data interchangeability among CAD files and drawing documents.
3. Create accurate, accessible, and current documentation.
4. Expedite project delivery.

CROSS-REFERENCE

1. National CAD Standard Version 5
2. Standard Method For Measuring Floor Area In Office Buildings (June 1996)
3. Multnomah County AE Project Document Standards (Revised July 2014)
4. Multnomah County Specifications Standards (Revised April 2014)
5. Multnomah County Signage Standards (Revised August 2008)
6. Multnomah County Space Allocation Policy (Revised July 2007)
7. LEED Gold & High Performance Green Building Policy (Resolution No. 08-004)
8. Multnomah County Healthcare Design Guidelines (Issued May 2006)

CHANGES FROM PREVIOUS VERSION

If the AE Service Provider has a question, finds conflict, believes that these standards do not address a particular need or issue or is requesting a deviation from these standards, the AE Service Provider is encouraged to contact the County Building Data Management Center to seek resolution.

1. Updated the overall style of the CAD Standard to match The County Style Guide.
2. Reorganized the CAD Standard to align with The County Technical Review Checklist.

SUPPLEMENTAL MATERIAL

The County issues the Multnomah County CAD Templates Package. The AE Service Provider is responsible for obtaining a copy of the National CAD Standard Version 5 (NCS) available for purchase at the National Institute of Building Sciences (NIBS) website www.nationalcadstandard.org or by writing to:

Stephen Chater
Building Data Management Center
(503) 988-7035
Stephen.chater@multco.us
Multnomah County Oregon
Facilities and Property Management Division
401 N. Dixon Street
Portland, OR 97227-1865

The National Cad Standard
National Institute Of Building Sciences
1090 Vermont Avenue, NW Suite 700
Washington, DC 20005-4905.

A. BASIC DRAFTING GUIDELINES

1. Avoid redundant lines resulting where multiple line segments are drawn over each other.
2. Include building grids, overall dimensions, room name and room number in each plan and section view. For elevations include building grid and overall dimensions.
3. Standardize View Scale for full plans, partial plans (e.g. restrooms), interior and exterior elevations and wall and building sections.
4. Standardize, where possible, the view size of each drawing type (e.g. plans, elevations and sections).
5. On Project Drawings, clearly differentiate between existing and new features in the drawing (and between background and foreground elements). Use half tone and screening to achieve this clarity.
6. Ensure that only one insertion occurs for each block location.
7. Produce clean and closed line intersections.

COMPLIANCE GUIDELINES

1. Comply with AIA Guidelines.
2. Comply with Tri-Service Plotting Guidelines.
3. Comply with most recent National CAD Standard where requirements are not provided by the County.
4. Adhere to the Multnomah County AE Project Document Standard.

B. CAD FORMAT

1. Use the ***Multnomah County CAD Template package*** available at ***https://multco.us/facilities-and-property-management***.
2. Produce drawings in ***AutoCAD 2010*** or later.
3. Package files and deliver via ***E-Transmit*** .
4. Use the Title Block Template and Title Block Attributes.
5. WARNING: DO NOT EXPLODE Title Block and Title Attribute Block.
6. Use full scale for all elements in Model Space at 1’ = 1’-0”.
7. Match the annotation scale in Paper Space to the viewport scale.
8. Assign the **“BYLAYER”** setting to all elements for object color.
9. Use the same Architectural Base Floor Plan for each discipline.
10. Use the entire existing base floor plan to generate the project drawings.
11. Locate elements in the correct space, Paper Space or Model Space.
    A. Model Space Elements include:
        a. Base Floor Plans
        b. Callouts and Symbols
        c. Drafting Specific Elements (Walls, Doors, Windows, Equipment, Lighting, etc.)
    B. Paper Space Elements include:
        a. Title Block
        b. Title Block Attributes
        c. Title Marks.
        d. Notes (General, Sheet Specific, etc.)
        e. Symbol Lists, Schedules, or any other text that is not directly related to drafting specific elements.
12. Use Paper Space for all Title Marks from the County Template.
13. Use the Room Naming Conventions for all Spaces and Objects.
14. Clearly differentiate between existing, demo and new features.
15. Purge unused elements and layers.
16. Use only one insertion for each block location.
17. Do not use nested blocks or references.

EXTENERAL REFERENCES (XREF)

1. Insert all external references at (0, 0).
2. “ATTACH” xref to the drawing file. Do not use the BIND function.
3. Set the “XREFCTL” system variable to “1” to automatically create the log file (.xlg) to track external reference operations.

BASE PLAN COMPONENTS

Architectural Base (AB)

1. Grids (Marks, Lines, Dimensions, Ceiling Systems, Floor Systems)
2. Tags (Rooms, Doors, Windows, Finishes)
3. Enclosures (Columns, Walls, Partial Walls, Railings, Fences, Headers, Soffits)
4. Elevations (Ramps, Steps, Slopes, Directional Arrows)
5. Openings (Doors, Windows, Roof Hatches, Skylights)
6. Fixed Furniture (Benches, Lockers, Toilet Compartments); Fixed Fixtures (Casework, Bollards, Pallet Racks); Fixed Equipment (Garment Conveyors, Motorized Projection Screens, Waste Compactors)
7. MVP (Dumbwaiters, Elevators, Stairs, Atriums, Shafts)

Base Plans DO NOT include project-specific information, such as:

1. Title blocks
2. Schedules and diagram
3. Construction lines and guidlines
4. Objects in the file associated with demolition
5. General notes, keynotes, and symbol legends
6. Notes and annotations that give specific direction for construction
7. Polylines that inscribe areas for area calculations
8. Hatches used to distinguish new work from existing conditions
9. Duplicate items such as grid bubbles and room tags
10. Detail, section, elevation, and reference tags associated with construction
11. Drawings other than floor plans (e.g. wall sections, door details, elevations)

C. CAD LAYERS

1. Layers shall be named according to the AIA CAD Layer Guidelines.
2. Assign elements to correct layers.
3. Insert all blocks on Layer “0”.

D. FILE NAMING

1. Confirm that the File Name is the same as the Sheet Identification.
2. Name external reference files correctly.
3. Note: Delete all nested references.
4. Note: Delete unused blocks and external references.
5. External Reference File Naming:
   A. Name the external reference floor plan base drawing using the following format:
      a. Building Code-FP-Floor Level.dwg (e.g.:X-101-FP-01).
   B. Simplify the external reference file naming with prefix X and an unique sheet identification to comply with merging layer standards.
   C. The Sheet Identification has three designators: Discipline [XX], Abbreviation Terms [XXXX] and Floor Level [XXX].
      a. Separate each level with a placeholder (hyphen) for clarity or
      b. Omit the level if it’s not applicable.
6. Reference External Base Designators:
   A. Floor Plan Base = FP
   B. Architectural Site Base = AS
   C. Civil = CB
   D. Landscape = LB
   E. Architectural = AB
   F. Interiors = IB
   G. Plumbing = PB
   H. Mechanical = MB
   I. Electrical = EB

FILE NAMING

NOTE: USE THE SHEET IDENTIFICATION AS THE FILE NAME FOR THE DRAWING SHEET

SHEET ID	SHEET NAME		
SHEET IDENTIFICATION	DISCIPLINE DESIGNATOR	SHEET TYPE DESIGNATOR	SHEET CONTENT DESCRIPTION
G-001	General	(leave blank)	Cover Sheet
A-001	Architectural	(leave blank)	Title Sheet
A-101-0A	Architectural	Plans	Lower Level One
A-102-00	Architectural	Plans	Basement
A-103-M2	Architectural	Plans	Second Floor Mezzanine
A-601	Architectural	Schedules	Door and Finish

EXTERNAL REFERENCE NAMING

PREFIX	SHEET NAME			SHEET CONTENT DESCRIPTION
	DISCIPLINE DESIGNATOR	ABBREVIATION TERMS	FLOOR LEVEL	
X-	[XX]	[XXXX]	[XXX]	Follow character limits indicated by X’s
X-	A	FP	A01	First Floor Architectural Partial First Floor Plan
X-	A	ELEV	BLANK	Elevation Plan
X-	M	HVAC	01	First Floor Mechanical HVAC Plan
X-	A	ROOF	BLANK	Architectural Roof Plan
X-	EL	BLANK	01	First Floor Electrical Lighting Plan
X-	BLANK	ANNO	BLANK	Annotation

E. FORMAT REQUIREMENTS

1. Use Sheet Size ANSI D (22” x 34”). Contact BDMC Technical Review Unit at 503-988-7035 for an exemption for this requirement.
2. Use Font Style Arial and Uppercase
3. Use Font Size 1/8”
4. Format Project Sheet Contents **(Reference Exhibit 3 – Project Sheet)**
   A. Project Team
   B. Project Sheet Index
   C. General Notes
   D. Project Description
   E. Project Location
   F. Vicinity Map
   G. Key Plan
5. Format Discipline Sheet Contents **(Reference Exhibit 4 – [Discipline] Sheet)**
   A. Discipline Sheet Index
   B. General [Discipline] Notes
   C. Abbreviations
   D. Graphic Legend
6. Include General Notes
7. Express scale both numerically and graphically for all drawings in paper space. *Refer to Figure 1 – Sample Title Mark and North Arrow.*
8. Place Title Marks from the County Template in Paper Space
9. Include Drawing Orientation and North Arrow
   A. Place the North Arrow at the lower right of the drawing. Use the Title Mark with North Arrow provided in the ***Multnomah County CAD Template Package.*** Plan North Arrow always points to the top of the drawings.
   B. Adjust the True North Arrow so that the building grid and the Plan North Arrow are parallel to the sheet orientation.
   C. Orient the view to maximize the size of the floor plan.
   D. Comply with NCS Version 5 (UDS Section 4.2). *Refer to Figure 2 – Sample Plan Orientation.*
10. Identifiy True North
11. Include Wall and Height Symbols
    A. Break the symbol boundary lines when the referenced sheet number exceeds the space allotted.
    B. Use the room identifier symbol without the finish information.
    C. Use Wall Type Indicator – *Reference Figure 3 – Wall Type Indicator.*
    D. Identify Wall Type: Reference the wall type.
    E. Structural Size: Indicate size/width and unit measure of concrete, furring, masonry, stud, or other structure to which the wall skin and appurtenances are attached.
    F. Height Type – Identify the wall height as follows:
    G. U = Underside of Structure
    H. T = Through Ceiling
    I. C = Underside of Ceiling
    J. P = Partial height, indicate wall height elsewhere in the drawing set.
    K. Indicate fire-resistive rating and unit measure (in hours) of the wall assembly.
12. Drawing Set shall be published as if it were a single package by a single organization
13. Cover Sheet is optional. **(Reference Exhibit 2 – Cover Sheet)**

Figure 1 - Sample Title Mark and North Arrow

Figure 2 - Sample Plan Orientation

Figure 3 - Wall Type Indicator

SHEET TYPE 0 - GENERAL

EXHIBITS ARE LOCATED IN THIS DOCUMENT AND ON THE MULTNOMAH COUNTY TEMPLATE

GENERAL SHEET STANDARDS	PROJECT SHEET	[DISCIPLINE] SHEET	[STANDARD] SHEET	TYPICAL SHEET LAYOUT
Information: Index Legend Abbreviations	List all drawing sheets in the drawing set. This applies to the entire project.	List all drawing sheets of a single discipline subset.	List all graphic symbols, patterns, tags, abbreviations.	N/A
Location: Index Legend	Right side of the sheet.	Right side of the sheet.	Right side of the sheet.	N/A
Line Spacing: Index	2 blank lines between discipline subsets and 1 blank line between views.	1 blank line between sheet views.	N/A	N/A
Layout: Index	Arrange in tabular form with all columns and rows in alignment.	Arrange in tabular form with all columns and rows in alignment.	Arrange Abbreviations Alphabetically.	Alphabetically (to distinguish them from Keynotes).
Notations: General Notes Notes	Refer UDS Section 7.3 Alphabetically.	Refer UDS Section 7.3 Alphabetically.	N/A	N/A
Project Team	See note (1)	N/A	N/A	N/A
Project Location	Vicinity map, legal description, address.	N/A	N/A	N/A
Project Description	1 paragraph of project scope.	N/A	N/A	N/A

F. TITLE BLOCK REQUIREMENTS

1. Use the Title Block Template which includes the Title Block Attributes already placed in “Paper Space” at (0,0). Do Not Explode Title Block and Title Block Attributes Block. **(Reference Exhibit 1 – Title Block)**
2. Place the AE Service Provider Identification Block.
3. Place the Project Identification Block.
   Note: County Project Manager to provide this information for the AE Service Provider.
4. Populate the Issue Block with the Phase, Addendum and Revision Dates.
5. Populate the Management Block:
   A. Consultant Project Number
   B. CAD File Drawing Name
   C. Drawn By/Checked By/Approved By
   D. County Building Number – Project Number
      Note: The County Project Manager will provide the County Building Number and Project Number (E.g. 614 – CP14.01.01)
6. Populate the Sheet Title Block with the Discipline, Sheet Type, and Specific Contents for the Sheet.
7. Populate the Sheet Identification with the Date of Drawing, Sheet Number, Discipline Designator and the Sheet Number of Total Sheets.
   Note: the Sheet Number of Total Sheets is not by Discipline.

G. SHEET IDENTIFICATION

MULTNOMAH COUNTY SHEET IDENTIFICATION

SEE "CAD STANDARD - EXHIBIT 3 - PROJECT SHEET" FOR SHEET IDENTIFICATION SAMPLES

ALPHABETICAL		NUMERICAL			USER DEFINED		
1st	2nd	3rd	4th	5th	6th	7th	8th
A	A	N	N	N	U	U	U
DISCIPLINE DESIGNATOR		SHEET TYPE	SHEET SEQUENCE NUMBER		SECTOR OF THE PLAN	FLOOR LEVEL	

Discipline Designator (1st & 2nd Characters)

Discipline (1st Character)	Designator	Sub Discipline (2nd Character)	Designator
G	General	I	Information
A	Architectural	D	Demolition
M	Mechanical	H	HVAC
E	Electrical	P	Power
P	Plumbing	E	Elements
S	Structural	F	Framing
V	Survey/Mapping	S	Site
B	Geotechnical	G	Grading
C	Civil	A	Alarm
L	Landscape	L	Lighting
Y	Security	P	Piping
F	Fire Protection	Q	Equipment
T	Telecom	-	No Sub Discipline

Exceptions To Assigned Discipline Designators

Discipline Designator	Use
H - Hazardous Materials	Do Not Use
B - Geotechnical	Do Not Use
W - Civil Works	Do Not Use
D - Process	Do Not Use
Z - Contractor/Shop	Do Not Use - Incorporate the discipline subset in which the work is associated.
O - Operations	Do Not Use

Sheet Type Designator (3rd Character)

Sheet Type (3rd Character)	Designator
0	General (Symbols, legend, note, etc.)
1	Plans (Horizontal Views)
2	Elevations (Vertical Views)
3	Sections (Sectional Views)
4	Large Scale Views (Plans, elevations or sections that are not details)
5	Details
6	Schedules & Diagrams
7	User Defined (or Type that does not fall in other categories)
8	User Defined (or Type that does not fall in other categories)
9	3D Representations (Isometric, perspectives, photographs)

Sheet Sequence Number (4th & 5th Characters)

Sequence Number	Notes
00	00 Is Not Permitted (i.e. G-000, A-000,...)
01	The sheet sequence number is a two-digit number that identifies each sheet in a series of the same discipline and sheet type. Sequence numbering starts with 01...
02, 03, 04,...	and continues with 02, 03, 04,...
99	Up to 99

Plan Sector Designator (6th Character)

Sheet ID	Sheet Name		
Sheet Identification (6th Character)	Discipline Designator	Sheet Type Designator	Sheet Content Description
AD101A00	Architectural Demolition	Plans	Basement - Sector A
AD101B00	Architectural Demolition	Plans	Basement - Sector B
AD101-00	Archtectural Demolition	Plans	No Sector

The plan is separated into sectors when the plan is too large to fit on a single drawing sheet at a readable scale.

DWG File Naming (Matches Sheet Identification)

Sheet ID	Filename (.dwg)
G-001	G-001.dwg
A-101-01	A-101-01.dwg
MH101-01	MH101-01.dwg
Base Floor Plan	101-FP-01.dwg

Floor Level Designator (7th & 8th Characters)

Floor Level (7th & 8th Characters)	Designator
0A	Lower Level 1
00	Basement
01	First Floor
02	Second Floor
M2	Second Floor Mezzanine
03	Roof (the next number from the top floor plan)

***NOTE:** Use only when floor plan is present on sheet.*

Floor Number/Floor Prefix	Floor Level Description
01	First Floor (or ground level) that directly accesses grade
00	One level below the first floor will be Basement (or grade level)
0A, 0B, 0C	Multi-Levels below the first floor will be Lower Level 1, Lower Level 2, Lower Level 3,...
02, 03, 04,...	All floor levels above first floor shall be numbered sequentially starting with the second, third, fourth floor,...
M1, M2, M3,...	Partial levels such as Mezzanine will be numbered with a preceding letter "M" followed by the number of the floor below
The next number in sequence from the floor below. Do not use "R" as a prefix.	Roof Level
The next number in sequence from the floor below. Do not use "M" or "P" as prefix.	Any mechanical or penthouse

H. SHEET CONTENT

1. Populate Room Names (*Reference the Naming Convention below.*)
2. Drawing Numbering format is from top down, right to left so that the lowest numbers appear first as the sheet is opened. (Pertains to details and elevations.) **(Reference Exhibit 6 – Typical Sheet)**
3. Place the County Hazardous Materials stamp in the lower right-hand corner on all demolition drawings. *Refer to Figure 4 – Hazardous Materials Stamp.*
4. Place the County Project Record Drawings stamp on the Record Drawings. *Refer to Figure 5 – Project Record Drawings Stamp.* Record Drawings are Construction Documents revised to show significant changes made during the construction process, usually based on the marked-up prints, drawings, and other date a furnished by the contractor to the architect. (Dictionary of Architecture and Construction).
5. Populate the Sheet Content appropriately for the Sheet Type.
6. Each Floor requires its own individual sheet.
7. Floor Levels, Room Numbers and Door Numbers should be correctly assigned.
8. A Key Plan is required for all partial floor plans. For entire floor plans indentify the work area. *Refer to Figure 6 – Key Plan.*

HAZARDOUS MATERIALS

THE CONTRACTOR SHALL ASSUME LEAD-CONTAINING PAINT AND VARNISH IS PRESENT THROUGHOUT THE BUILDING UNLESS NOTED OTHERWISE IN THE SURVEY DOCUMENTS OR IN OTHER WRITTEN FORM. FOR MATERIALS ASSUMED TO HAVE LEAD-CONTAINING PAINT, PERFORM ALL WORK IN ACCORDANCE WITH OSHA STANDARDS (OAR 437-001) AND ANY OTHER REGULATORY REQUIREMENTS.

ASBESTOS-CONTAINING MATERIALS (ACM'S) MAY BE PRESENT IN VARIOUS LOCATIONS THROUGHOUT THE BUILDING. REFER TO THE COUNTY'S ASBESTOS SURVEY INFORMATION FOR TYPE, QUANTITY, AND LOCATION OF SUSPECT ACM'S PRIOR TO IMPACT. CONTRACTOR IS TO NOTIFY THE MULTNOMAH COUNTY PROJECT MANAGER IF SUSPECT ACM'S ARE UNCOVERED DURING DEMOLITION. COORDINATE WITH OWNER'S REPRESENTATIVE (I.E. PROJECT MANAGER) AS NECESSARY TO ACCOMMODATE WORK.

SOME LIGHT BALLASTS MAY CONTAIN PCB'S. DO NOT DESTROY FIXTURES, LAMPS OR ANY SUSPECT BALLAST DISCOVERED. ALL LIGHT TUBES AND BALLASTS TO BE REMOVED, SHALL BE PACKAGED IN CORRUGATED BOXES FOR STORAGE, REUSE, OR RECYCLE/REMOVAL AS DIRECTED BY THE COUNTY.

ROOFING MATERIALS MAY CONTAIN ASBESTOS. ALL CONTRACTORS THAT MAY IMPACT ASBESTOS ROOFING DURING DEMOLITION OR RENOVATION ACTIVITIES ARE TO VERIFY IF MATERIAL TO BE IMPACTED CONTAINS ASBESTOS BY CONTACTING THE MULTNOMAH COUNTY PROJECT MANAGER.

Figure 4 - Hazardous Materials Stamp

PROJECT RECORD DRAWINGS

THIS PROJECT RECORD DOCUMENT HAS BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. THE AE DOES NOT ENSURE THAT ALL CONDITIONS HAVE BEEN NOTED OR ACCURATELY DOCUMENTED. USERS OF THIS DOCUMENT SHOULD INDEPENDENTLY VERIFY ALL PERTINENT INFORMATION AND PURPORTED AS-BUILT CONDITIONS.
ANY REPRODUCTION OF ANY PART OF THIS PRINT WITHOUT THE PERMISSION OF MULTNOMAH COUNTY FACILITIES & PROPERTY MANAGEMENT IS PROHIBITED.

Figure 5 - Project Record Drawings Stamp

Figure 6 - Key Plan

NAMING CONVENTION

1. Multnomah County standardizes names for functional locations and equipment in County owned and leased space as described below.
2. Multnomah County assigns a name for each room (e.g. Conference). Label each room in accordance to its primary function. The table below lists "Room Name" labels to be indicated on drawings and specifications.

Naming Conventions

APPROVED ROOM NAME	ROOM DESCRIPTION
ACCESS	Space to access or service building systems
ACTIVITY	Room designed for programmed and extracurricular activities
ARCADE	Exterior covered passageway between buildings or entry to a building
ATM	Separate space for an automatic teller machine
ATRIUM	A many storied court in a building usually with a skylight
ATTIC	Unused, accessible space above occupied room or area
AUDITORIUM	Large meeting space with fixed podium, or raised stage
BEDROOM	Room with 1 -2 beds [See DORM]
BIKE	Bike storage
BOAT STORAGE	A shelter for boats. [See GARAGE]
BOILER	Room for boiler equipment
BREAK	Separate room with tables, chairs, appliances or vending machines for employee use
CELL	Single, group or special purpose detention room
CHAPLAIN	Room assigned to house a chaplain or related activities.
CHILLER	Room for chiller equipment
COMMUNICATIONS ENTRANCE FACILITY	Room where outside plant and intra-building communication services interconnect
COMPRESSOR	Room dedicated to compressor equipment

Naming Conventions

APPROVED ROOM NAME	ROOM DESCRIPTION
CONFERENCE	6 person or more meeting area
CONTROL	Room with multiple control systems (e.g. DDC and Fire Control Panel)
COOLER	Room to store refrigerated food storage or material (e.g. evidence)
COPY	Room for copiers only with associated supplies or copier/mail arrangements [See MAIL]
COURTROOM	Court space including bench, jury box, tables, and public area
COURTYARD	Open uncovered space unobstructed to sky, bounded on three or more side
CRAWL SPACE	Unused, accessible space below occupied space
CRY ROOM	A support room where parents may sit with their infants
CUSTODIAL	Room for custodial service or custodial supply storage
DAY CARE	Room to oversee child care
DAY ROOM	Common area for detainees to mingle outside of individual cells
DDC CONTROL	Room for Direct Digital Controls (DDC)
DINING	Separate eating area associated with cafeteria or kitchen
DISPATCH	Room for organizing and conveying the delivery goods or services. (E.g. FPM Dispatch, Help Desk.)
DOCK	Specialty space designed to load and unload material
DORM	Three or more beds in a single room [See BEDROOM]
DRESS	Room for disrobing and gowning
DROP	Specialty space designed for collection and sorting of deposits (E.g. ballots, books)
ELECTRICAL	Room for gear, panels, and other electrical equipment
ELEVATOR EQUIPMENT	Room for elevator and related equipment only (i.e. dumbwaiter)
EXAM	Space designed for dental or health examination
EXERCISE	Space designed for fitness or wellness sessions, including gymnasiums
FIRE CONTROL	Room for the fire alarm control panel

Naming Conventions

APPROVED ROOM NAME	ROOM DESCRIPTION
FIRE PUMP	Room for the building master fire pump and main shut-off
FOYER	A transitional space from the exterior to the interior of a building. [Use HALL for a main or intermediate room for passage between rooms. Do not use Vestibule.]
FREEZER	Specialty space designed to store frozen material (e.g. evidence)
FUEL STORAGE	Room housing main fuel tank for emergency generator. [See BOAT STORAGE, GENERATOR, STORAGE]
GARAGE	A shelter for automotive vehicles (includes carport and indoor parking). [See BOAT STORAGE]
GENERATOR	Room for emergency generator and related equipment only
GRAND JURY	Room assigned to Grand Jury proceedings
GUARD STATION	Occupied room designed to secure populations
HALL	Main or intermediate passageway between rooms. [Use FOYER for a transitional space from the exterior to the interior of a building. Do not use Vestibule.]
HEARING	Specially-designed 10-20 person space for public appeal or informal proceedings
HOISTWAY	Shaft for the travel of elevators or dumbwaiters (includes pit)
HUDDLE	Less than 6 person meeting area
INTERVIEW	Specially-designed 3-4 person meeting space (e.g. depositions, counsel)
JUDGE CHAMBER	Private and secure office area for judge
JURY ROOM	Separate private and secure deliberation room used by Jury
KENNEL	Shelter for animals
KITCHEN	Room to prepare meals
LAB	Specialty space designed for testing and analysis
LAUNDRY	Specialty space designed to wash and dry clothing or linens (includes garment conveyors)
LIVING	Separate space for congregation in a residential facility.

Naming Conventions

APPROVED ROOM NAME	ROOM DESCRIPTION
LOBBY	A centrally located room at the entrance of a building or an office that serves as a gathering or waiting area.
LOCKER	Unisex locker and storage area
LOUNGE	Room designated for a specific function (e.g. Victim's Lounge)
MAIL	Room for mail collection and distribution only [See COPY]
MECHANICAL	Room for fans, pumps, and other HVAC equipment
MEN	Toilet area or space for urinal sample collection for men only
MEN'S LOCKER	Locker area for men
MEN'S SHOWER	Shower area for men
MULTIPURPOSE	Large space usable or modifiable for more than one purpose
NURSE STATION	Separate room for nurses and practitioners to collaborate in a semi-private atmosphere
OFFICE	Room less than 1,000 SF and less than 5 desk or cubicle workspace use for bureaucratic and clerical functions as opposed to specific programmed functions (e.g. exam, shop, retail, storage, or judge chambers)
OPEN BELOW	Indicates an open area, such as an atrium space or major vertical penetration.
OPEN OFFICE	Office area that exceeds the requirements for OFFICE
PATIO	An exterior surface at grade that is designed and intended for recreational use by people rather than as a parking space
PHARMACY	Specialty space designed for drug storage and dispensing
PREP	A room for organization and preparation
READING	Room designated for reading material or records (adjacent to Records or Resource)
RECEPTION	Separate room for employee-occupied built-desk or counter area (use Hall or Lobby for public side)
RECORDS	Separate file storage area or secured file storage room

Naming Conventions

APPROVED ROOM NAME	ROOM DESCRIPTION
RECYCLE	Separate material recycling storage area only. [Use WASTE for a separate room for waste containment and recycling.]
RESCUE	Separate room used as an area of Rescue Assistance
RESOURCE	Separate material and equipment resource storage and use area
RESTROOM	Unisex toilet area or space for urinal sample collection
RETAIL	Multiple areas, spaces or rooms (leased out space only, not contracted services)
ROOF	Exterior top of building
SALLYPORT	Specially spaces designed for secure vehicle loading/unloading
SAUNA	Separate room for spa or sauna
SECURITY CONTROL	Unoccupied room for security system building controls
SERVERY	Room for Food Service
SHAFT	Interior vertical penetration for air movement, piping or conduits
SHOP	Shared workspace for manufacture, repair, test, and maintenance
SHOWER	Unisex shower area
SPRINKLER	Sprinkler main, riser, shutoff, or emergency fire pump
STAGE	Space within building utilized for entertainment and presentations
STAIRS	Separate room for each floor-to-floor vertical stair run
STORAGE	Space designed to store material (including coats) or equipment (room, shed, trailer). [See FUEL STORAGE, BOAT STORAGE]
SUITE	A group of rooms occupied as a unit
TANK	Cell or enclosure used especially for receiving prisoners.
TELECOM	Separate room for telephone, data, and network equipment
TRAINING	Specially-equipped room (e.g. computer, presentation). Includes classroom.
TRASH	Separate room for waste containment, or waste containment and recycling. [Use RECYCLE for a separate room for recycling only.]

Naming Conventions	
APPROVED ROOM NAME	**ROOM DESCRIPTION**
UNUSABLE	Unused, inaccessible space above or below occupied space
UPS	Separate room for uninterruptible power supplies
UTILITY	Separate space that houses more than one building support function. For example, custodial sink, telecom, fire pump and/or sprinkler valve.
VENDING	Vending machine area
VISITING	Specialty spaces designed for secure visitations
WATER	Water meters, pumps, and/or valves
WOMEN	Toilet area or space for urinal sample collection for men only
WOMEN'S LOCKER	Locker area for women
WOMEN'S SHOWER	Shower area for women
WORKROOM	A room that is not task specific and may accommodate multiple tasks (e.g. sorting records, project planning, etc.)

- Information is provided by County Project Manager.
- Project Number is provided by County Project Manager.
- Use the title block template and title block attributes and verify they are located at 0,0. Do not explode.
- For sheet identification refer to section G. Sheet Identification.
- Use the entire existing base floor plan to generate project drawings.
- Exhibits are available in CAD format in the Multnomah County CAD Template package.

DRAWING AREA

Multnomah County Logo:

Project Phase Banner:
- Identification of Phase
- Date of Issue

A/E Service Provider Identification Block:
- Name of the Company
- Address of the Company
- Telphone and Fax Number
- E-mail Address
- Logo, Seal(s), Certifications

Project Identification Block:
- Project Name
- Building Name
- Building Address

Issue Block:
- Phase Issue Dates
- Addendum Issue Dates
- Revision Issue Dates

Management Block:
- Consultant Project Number
- CAD Drawing File name
- Drawn By
- Checked By
- Approved By
- Multnomah County Building Number - Project Number

Sheet Title Block:
- Discipline
- Sheet Type
- Specific Sheet Contents

Sheet Identification Block:
- Date of Drawing
- Sheet Number
- Discipline Designator
- Sheet Number of Total Sheets in Set

EXHIBIT 1 - Title Block

- Cover sheet is optional
- Use ANSI D (22”x34”) sheet size only.
- Exhibits are available in CAD format in the Multnomah County CAD Template package.

LOGO OF
A/E SERVICE PROVIDER

BUILDING NAME - BUILDING NUMBER

STREET ADDRESS
CITY, STATE, ZIP CODE

COUNTY PROJECT NAME
COUNTY PROJECT NUMBER
DATE OF ISSUE

Multnomah County

EXHIBIT 2 - Cover Sheet

PROJECT TEAM

OWNER	MULTNOMAH COUNTY OREGON 401 N. DIXON STREET PORTLAND, OREGON 97227 TEL: 503-988-3322 FAX: 503-988-5643 CONTACT:
A/E SERVICE PROVIDER	NAME STREET ADDRESS CITY, STATE, ZIPCODE TEL: FAX: CONTACT:
GENERAL CONTRACTOR	NAME STREET ADDRESS CITY, STATE, ZIPCODE TEL: FAX: CONTACT:
STRUCTURAL ENGINEER	NAME STREET ADDRESS CITY, STATE, ZIPCODE TEL: FAX: CONTACT:
MECHANICAL ENGINEER	NAME STREET ADDRESS CITY, STATE, ZIPCODE TEL: FAX: CONTACT:
ELECTRICAL ENGINEER	NAME STREET ADDRESS CITY, STATE, ZIPCODE TEL: FAX: CONTACT:
PLUMBING/ FIRE PROTECTION ENGINEER	NAME STREET ADDRESS CITY, STATE, ZIPCODE TEL: FAX: CONTACT:

PROJECT SHEET INDEX

GENERAL

G-000	COVER SHEET
G-001	INDEX SHEET
GI001	FIRE/LIFE SAFETY-SUMMARY
GI002	FIRE/LIFE SAFETY-SUMMARY
GI101	FIRE/LIFE SAFETY-PLANS-FLOORS 0-3
GI102	FIRE/LIFE SAFETY-PLANS-FLOORS 4-7
GI501	FIRE/LIFE SAFETY-DETAILS-CONSTRUCTION
GI502	FIRE/LIFE SAFETY-DETAILS-CONSTRUCTION

STRUCTURAL

S-001	GENERAL
SF100	FRAMING-PLAN-BASEMENT
SF1M1	FRAMING-PLANS-MEZZANINE & CATWALK
SF501	FRAMING -DETAILS-BOARDROOM & MEZZANINE
SF502	FRAMING -DETAILS-BOARDROOM & MEZZANINE
SF503	FRAMING -DETAILS-BOARDROOM & MEZZANINE

ARCHITECTURAL

A-001	GENERAL
AD101-00	DEMOLITION-PLAN-BASEMENT FLOOR
AD102-01	DEMOLITION-PLAN-FIRST FLOOR
AD103-02	DEMOLITION-PLAN-SECOND FLOOR
AD104-03	DEMOLITION-PLAN-THIRD FLOOR
AD105-04	DEMOLITION-PLAN-FOURTH FLOOR
AD106-05	DEMOLITION-PLAN-FIFITH FLOOR
AD107-06	DEMOLITION-PLAN-SIXTH FLOOR
AD108-00	DEMOLITION-RCP-BASEMENT FLOOR
AD109-01	DEMOLITION-RCP-FIRST FLOOR
AD110-02	DEMOLITION-RCP-SECOND FLOOR
AD111-03	DEMOLITION-RCP-THIRD FLOOR
AD112-04	DEMOLITION-RCP-FOURTH FLOOR
AD113-05	DEMOLITION-RCP-FIFTH FLOOR
AD114-06	DEMOLITION-RCP-SIXTH FLOOR
AE101-00	PLAN-BASEMENT FLOOR
AE102-01	PLAN-FIRST FLOOR
AE103-02	PLAN-SECOND FLOOR
AE104-03	PLAN-THIRD FLOOR
AE105-04	PLAN-FOURTH FLOOR
AE106-05	PLAN-FIFTH FLOOR
AE107-06	PLAN-SIXTH FLOOR
AE108-07	PLAN-SEVENTH FLOOR
AE109-08	PLAN-EIGHTH FLOOR (ROOF)
AE110-00	PLAN-RCP-BASEMENT FLOOR
AE111-01	PLAN-RCP-FIRST FLOOR
AE112-02	PLAN-RCP-SECOND FLOOR
AE113-03	PLAN-RCP-THIRD FLOOR
AE114-04	PLAN-RCP-FOURTH FLOOR
AE115-05	PLAN-RCP-FIFTH FLOOR
AE116-06	PLAN-RCP-SIXTH FLOOR
AE117-07	PLAN-RCP-SEVENTH FLOOR
AE201	ELEVATIONS-EXTERIOR
AE202	ELEVATIONS-INTERIOR
AE203	ELEVATIONS-INTERIOR
AE204	ELEVATIONS-INTERIOR
AE205	ELEVATIONS-INTERIOR
AE206	ELEVATIONS-INTERIOR
AE207	ELEVATIONS-INTERIOR
AE401	LARGE SCALE PLANS
AE402	LARGE SCALE PLANS
AE501	DETAILS
AE502	DETAILS
AE503	DETAILS
AE504	DETAILS-STAIRS & RAMP
AE505	DETAILS-DOOR & FRAME
AE506	DETAILS-DOOR & FRAME
AE507	DETAILS-DOOR & FRAME
AE508	DETAILS-WALL
AE509	DETAILS-CABENETRY
AE510	DETAILS-CABENETRY
AE511	DETAILS-CABENETRY
AE512	DETAILS-WINDOW & FLOOR
AE513	DETAILS-SECURITY DESK

INTERIOR

I-001	GENERAL
IF100-00	FURNISHINGS-BASEMENT FLOOR
IF102-01	FURNISHINGS-FIRST FLOOR
IF103-02	FURNISHINGS-SECOND FLOOR
IF104-03	FURNISHINGS-THIRD FLOOR
IF105-04	FURNISHINGS-FOURTH FLOOR
IF106-05	FURNISHINGS-FIFTH FLOOR
IF107-06	FURNISHINGS-SIXTH FLOOR

PLUMBING

P-001	GENERAL
PS101	SITE-SERVICE VAULTS
P-101-00	PLAN-BASEMENT FLOOR
P-102-01	PLAN-FIRST FLOOR
P-103-02	PLAN-SECOND FLOOR
P-104-03	PLAN-THIRD FLOOR
P-105-04	PLAN-FOURTH FLOOR
P-106-05	PLAN-FIFTH FLOOR
P-107-06	PLAN-SIXTH FLOOR
P-108-07	PLAN-SEVENTH FLOOR
P-601	SCHEDULES & DIAGRAMS

MECHANICAL

M-001	GENERAL
MD101-00	DEMOLITION-PLAN-BASEMENT FLOOR
MD102-01	DEMOLITION-PLAN-FIRST FLOOR
MD103-02	DEMOLITION-PLAN-SECOND FLOOR
MD104-03	DEMOLITION-PLAN-THIRD FLOOR
MD105-04	DEMOLITION-PLAN-FOURTH FLOOR
MD106-05	DEMOLITION-PLAN-FIFTH FLOOR
MD107-06	DEMOLITION-PLAN-SIXTH FLOOR
MD108-07	DEMOLITION-PLAN-SEVENTH FLOOR
MH101-00	HVAC-PLANS-BASEMENT FLOOR
MH102-01	HVAC-PLANS-FIRST FLOOR
MH103-02	HVAC-PLANS-SECOND FLOOR
MH104-03	HVAC-PLANS-THIRD FLOOR
MH105-04	HVAC-PLANS-FOURTH FLOOR
MH106-05	HVAC-PLANS-FIFTH FLOOR
MH107-06	HVAC-PLANS-SIXTH FLOOR
MH108-07	HVAC-PLANS-SEVENT FLOOR
MH401	HVAC-LARGE SCALE PLANS
MH501	HVAC-DETAILS
MH601	HVAC-SCHEDULES & DIAGRAMS-EQUIPMENT
MH602	HVAC-SCHEDULES & DIAGRAMS-PIPING

- The Project Sheet is the title sheet for the entire drawing set.
- The Project Sheet indentifies the building, project, and provides the reader with the necessary information to navigate the accompanying drawings.
- Exhibits are available in CAD format in the Multnomah County CAD Template package.

ELECTRICAL

E-001	GENERAL
E-002	LUMINAIRE SCHEDULE
E-501	ELECTRICAL DETAILS
ED101-00	BASEMENT FLOOR DEMOLITION PLAN - LIGHTING
ED102-01	FIRST FLOOR DEMOLITION PLAN - LIGHTING
ED103-02	SECOND FLOOR DEMOLITION PLAN - LIGHTING
ED104-03	THIRD FLOOR DEMOLITION PLAN - LIGHTING
ED105-04	FOURTH FLOOR DEMOLITION PLAN - LIGHTING
ED106-05	FIFTH FLOOR DEMOLITION PLAN - LIGHTING
ED107-06	SIXTH FLOOR DEMOLITION PLAN - LIGHTING
ED108-07	SEVENTH FLOOR DEMOLITION PLAN - LIGHTING
ED109-00	BASEMENT FLOOR DEMOLITION PLAN - POWER
ED110-01	FIRST FLOOR DEMOLITION PLAN - POWER
ED111-02	SECOND FLOOR DEMOLITION PLAN - POWER
ED112-03	THIRD FLOOR DEMOLITION PLAN - POWER
ED113-04	FOURTH FLOOR DEMOLITION PLAN - POWER
ED114-05	FIFTH FLOOR DEMOLITION PLAN - POWER
ED115-06	SIXTH FLOOR DEMOLITION PLAN - POWER
ED116-07	SEVENTH FLOOR DEMOLITION PLAN - POWER
ED117-00	BASEMENT FLOOR DEMOLITION PLAN - AUXILIARY
ED118-01	FIRST FLOOR DEMOLITION PLAN - AUXILIARY
ED119-02	SECOND FLOOR DEMOLITION PLAN - AUXILIARY
ED120-03	THIRD FLOOR DEMOLITION PLAN - AUXILIARY
ED121-04	FOURTH FLOOR DEMOLITION PLAN - AUXILIARY
ED122-05	FIFTH FLOOR DEMOLITION PLAN - AUXILIARY
ED123-06	SIXTH FLOOR DEMOLITION PLAN - AUXILIARY
ED124-07	SEVENTH FLOOR DEMOLITION PLAN - AUXILIARY
EL101-00	LIGHTING-PLANS-BASEMENT FLOOR
EL102-01	LIGHTING-PLANS-FIRST FLOOR
EL103-02	LIGHTING-PLANS-SECOND FLOOR
EL104-03	LIGHTING-PLANS-THIRD FLOOR
EL105-04	LIGHTING-PLANS-FOURTH FLOOR
EL106-05	LIGHTING-PLANS-FIFTH FLOOR
EL107-06	LIGHTING-PLANS-SIXTH FLOOR
EL108-07	LIGHTING-PLANS-SEVENTH FLOOR
EP101-00	POWER-PLANS-BASEMENT FLOOR
EP102-01	POWER-PLANS-FIRST FLOOR
EP103-02	POWER-PLANS-SECOND FLOOR
EP104-03	POWER-PLANS-THIRD FLOOR
EP105-04	POWER-PLANS-FOURTH FLOOR
EP106-05	POWER-PLANS-FIFTH FLOOR
EP107-06	POWER-PLANS-SIXTH FLOOR
EP108-07	POWER-PLANS-SEVENTH FLOOR
EP601	POWER-SCHEDULES & DIAGRAMS-ONE-LINE
EP602	POWER-SCHEDULES & DIAGRAMS-ONE-LINE
EP603	POWER-SCHEDULES & DIAGRAMS-ONE-LINE
EP604	POWER-SCHEDULES & DIAGRAMS-PANEL
EP605	POWER-SCHEDULES & DIAGRAMS-PANEL
EP606	POWER-SCHEDULES & DIAGRAMS-PANEL
ET101-00	TELECOM-PLANS-BASEMENT FLOOR
ET102-01	TELECOM-PLANS-FIRST FLOOR
ET103-02	TELECOM-PLANS-SECOND FLOOR
ET104-03	TELECOM-PLANS-THIRD FLOOR
ET105-04	TELECOM-PLANS-FOURTH FLOOR
ET106-05	TELECOM-PLANS-FIFTH FLOOR
ET107-06	TELECOM-PLANS-SIXTH FLOOR
ET108-07	TELECOM-PLANS-SEVENTH FLOOR
EY101-00	AUXILIARY-PLANS-BASEMENT FLOOR
EY102-01	AUXILIARY-PLANS-FIRST FLOOR
EY103-02	AUXILIARY-PLANS-SECOND FLOOR
EY104-03	AUXILIARY-PLANS-THIRD FLOOR
EY105-04	AUXILIARY-PLANS-FOURTH FLOOR
EY106-05	AUXILIARY-PLANS-FIFTH FLOOR
EY107-06	AUXILIARY-PLANS-SIXTH FLOOR
EY108-07	AUXILIARY-PLANS-SEVENTH FLOOR

GENERAL NOTES

A. REFER TO UDS-07 FOR A GENERAL DESCRIPTION OF THE DESTINCTION AND CONTENTS OF GENERAL NOTES.

B. LABEL PROJECT NOTES ALPHABETICALLY.

PROJECT DESCRIPTION

THIS IS A ONE PARAGRAGH DESCRIPTION OF THE PROJECT SCOPE. IT MATCHES THE DESCRIPTION FOUND IN THE PROJECT SPECIFICATIONS.

PROJECT LOCATION

LEGAL DESCRIPTION:THIS IS A LEGAL DESCRIPTION OF THE PROJECT LOCATION.

STREET ADDRESS:
PROVIDE THE STREET ADDRESS
CITY, STATE, AND ZIPCOPE

VICINITY MAP

N

N.T.S.

Multnomah County
Facilities & Property Management
401 N. Dixon Street
Portland, OR 97227-1865

DATE OF ISSUE

PROJECT NAME 1
PROJECT NAME 2
BUILDING NAME
STREET ADDRESS
CITY, STATE, ZIP CODE

PROJECT PHASE

Mark	Date	Description of Revision	By

Consultant Project No.
CONSULTANT PROJ#
CAD DWG FILE: FILE NAME
Drawn By: DRAWN BY
Checked By: CHECKED BY
Approved By: APPROVED BY
M.C. Bldg. # - Proj.#
MC BLDG# - PROJ#
Sheet Title
DISCIPLINE
SHEET TYPE
SHEET CONTENT 1
SHEET CONTENT 2
Date
DATE OF DRAWING
SFN
DD Sheet SN or TNS

EXHIBIT 3 - Project Sheet

[DISCIPLINE] SHEET INDEX

[ ]-001	GENERAL
[ ]-101	PLANS - ...
[ ]-102	PLANS - ...
[ ]-201	ELEVATIONS - ...
[ ]-501	DETAILS - ...
[ ]-502	DETAILS - ...
[ ]-601	SCHEDULES & DIAGRAMS - ...

GENERAL [DISCIPLINE] NOTES

1. REFER TO UDS-07 FOR A GENERAL DESCRIPTION OF THE DESTINCTION AND CONTENTS OF GENERAL [DISCIPLINE] NOTES.

Multnomah County
Facilities & Property Management
401 N. Dixon Street
Portland, OR 97227-1865

PROJECT NAME 1
PROJECT NAME 2
BUILDING NAME
STREET ADDRESS
CITY, STATE, ZIP CODE

DATE OF ISSUE

PROJECT PHASE

Mark	Date	Description of Revision	By

Consultant Project No.
CONSULTANT PROJ#

CAD DWG FILE: FILE NAME | Drawn By: DRAWN BY
Checked By: CHECKED BY | Approved By: APPROVED BY
M.C. Bldg.# - Proj.#
MC BLDG# - PROJ#

Sheet Title
DISCIPLINE
SHEET TYPE
SHEET CONTENT 1
SHEET CONTENT 2

Date
DATE OF DRAWING

SFN
DD Sheet SN of TNS

Exhibits are available in CAD format in the Multnomah County CAD Template package.

EXHIBIT 4 - [Discipline] Sheet

ABBREVIATIONS

THIS IS THE SECTION WHERE SYMBOLS AND LEGENDS ARE DISPLAYED. THESE ARE SPECIFICE TO THIS DISCIPLINE.

GRAPHIC LEGEND

THIS IS THE SECTION WHERE SYMBOLS AND LEGENDS ARE DISPLAYED. THESE ARE SPECIFIC TO THIS DISCIPLINE.

GENERAL NOTES

A. REFER TO UDS-07 FOR A GENERAL DESCRIPTION OF THE DESTINCTION AND CONTENTS OF GENERAL NOTES.

B. LABEL PROJECT NOTES ALPHABETICALLY.

Multnomah County
Facilities & Property Management
401 N. Dixon Street
Portland, OR 97227-1865

PROJECT NAME 1
PROJECT NAME 2
BUILDING NAME
STREET ADDRESS
CITY, STATE, ZIP CODE

DATE OF ISSUE

PROJECT PHASE

Mark	Date	Description of Revision	By

Consultant Project No.
CONSULTANT PROJ#

CAD DWG TITLE
FILE NAME | Drawn By: DRAWN BY
Checked By: CHECKED BY | Approved By: APPROVED BY

M.C. BLDG# - PROJ#
MC BLDG# - PROJ#

Sheet Title
DISCIPLINE
SHEET TYPE
SHEET CONTENT 1
SHEET CONTENT 2

Date
DATE OF DRAWING

SFN
DD Sheet SN or TNS

Exhibits are available in CAD format in the Multnomah County CAD Template package.

EXHIBIT 5 - [Discipline] Standards Sheet

EXHIBIT 6 - Typical Sheet

EXHIBIT 7 - Banner Examples

Exhibits are available in CAD format in the Multnomah County CAD Template package.

Exhibits are available in CAD format in the Multnomah County CAD Template package.

EXHIBIT 8 - Room Numbering Examples

Exhibits are available in CAD format in the Multnomah County CAD Template package.

EXHIBIT 9 - Floor Level Examples