



# Multnomah County AE Project Document Requirements

Issued July 2015



MULTNOMAH COUNTY OREGON  
Facilities and Property Management Division

<b>TABLE OF CONTENTS</b>
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<b>I. INTRODUCTION</b>	<b>3</b>
<b>II. TECHNICAL REVIEW</b>	<b>4</b>
<b>III. REPORTS</b>	<b>5</b>
<b>IV. SCHEMATIC DESIGN (SD) SET</b>	<b>6</b>
<b>V. DESIGN DEVELOPMENT (DD) SET</b>	<b>7</b>
<b>VI. CONSTRUCTION DOCUMENT (CD) SET</b>	<b>8</b>
<b>VII. BID SET</b>	<b>10</b>
<b>VIII. PROJECT RECORD SET</b>	<b>11</b>
<b>EXHIBIT 1: Disk Label</b>	<b>12</b>

## I. INTRODUCTION

Multnomah County Oregon (hereafter referred to as the County) establishes these standards to provide general directions and minimum requirements for the receipt and review of project documents for Facilities and Property Management (FPM) projects. Project documents are the document sets required for technical review, construction direction, and record management. The *AE Scope of Services* identifies the scope and project documents for each project.

This document does not attempt to include all documentation requirements for a given project, but instead identifies those project documents for technical review and those anticipated at the beginning of a project as being necessary for project close-out. The County reserves the right to amend the definition and use of these standards.

### GENERAL OBJECTIVES

The County issues these standards to:

1. Ensure that project documents are clearly defined at the onset of a project.
2. Confirm that all project documents are properly developed throughout a project and comply with County standards, and
3. Require that all project documents are submitted in a timely manner.

### CROSS-REFERENCES

1. *National CAD Standard (NCS) Version 5* published by National Institute of Building Sciences (NIBS).
2. *Standard Method For Measuring Floor Area In Office Buildings (June 1996)*
3. *Multnomah County CAD Standards (Revised July 2015)*
4. *Multnomah County Specifications Standards (Revised April 2015)*
5. *Multnomah County Signage Standards (Revised August 2008)*

### CHANGES FROM PREVIOUS VERSION

The primary changes to this version are:

1. **Multnomah County AE Project Document Requirements**  
The Multnomah County AE Deliverable Standard is replaced by the Multnomah County AE Project Document Requirement.
2. **Reminder: Submittal Sets**
  - a. Convert drawing sets from the CAD files to Adobe Acrobat .pdf format. Use the plot color styles "monochrome.ctb"
  - b. Create Electronic Transmittal (eTransmit) Package to deliver CAD drawings. Include all related dependent files such as xref, font and image files.
  - c. Operation and Maintenance Manuals and Reports in Adobe Acrobat pdf format
  - d. Project Record Set
    - 1) Pre-submit electronic CAD files for the final Architectural Base floor plans and/or the Interior Furniture plans within 15 business days of the construction completion.

### AE SERVICE PROVIDER RESPONSIBILITY

The County requires that all project documents submitted by the AE Service Provider comply with these standards. An AE Service Provider is defined as an organization contracted to provide professional services requiring planning and/or design work, and may include 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).

Submit a request to the County Project Manager for any deviation from these standards. The County Project Manager (hereafter referred to as the Project Manager) is the person designated to represent the County on issues for a specific project. The County will review the request and respond with a written authorization of acceptance or explanation of denial.

AE Service Providers shall be responsible for the quality of work performed under their direction and their AE Team member firms.

1. **Conflict Resolution:** If conflicts arise between the project program and other mandated requirements, the County and AE Service Provider shall resolve such conflicts to the satisfaction of interested parties prior to completion of the Design Development phase (or 50% completion of non-construction projects, e.g. reports or studies).
2. **Document Review:** AE Service Providers shall review and correct their documents and work products prior to submittal to the County. Forward submittals to the County with a transmittal that affirms such reviews and corrections have occurred.
3. **Completeness:** AE Service Providers shall submit documents that are complete with respect to a given phase of the project. For example, a 50% complete document set shall be at least 50% complete for all components (e.g. drawings and specifications) and for all major disciplines (e.g. civil, structural, architectural, mechanical, and electrical). Final Construction Documents shall include all information necessary to build and not depend upon data obtained during shop drawings and submittal reviews (except for delegated design such as design-build work).

### COMMENTS OR QUESTIONS

The County welcomes your recommendations to improve our documents and documentation process. Address comments or questions about the interpretation or use of these standards to:

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## **II. TECHNICAL REVIEW**

The AE Service Provider shall thoroughly review, check, and correct their documents prior to submittal to the County Project Manager. The County requires the AE Service Provider to submit documents identified in the *AE Scope of Services* for periodic review by the County. The County review provides a means to assure conformity with County policies, standards, and guidelines. The County reviews are not intended to replace the quality control process of the AE Service Provider or to relieve the AE Service Provider of their legal and professional responsibilities with respect to project design and documentation.

The County reviews specifically for format and content in project specifications, drawings, O&M Manuals, and reports. The County uses Bluebeam and AutoCAD software to review these documents. Comments are submitted by the County Project Manager to the AE Service Provider via Bluebeam and a Technical Review (Form 165) Checklist (which notes any deviation from the County CAD standards). A copy of the Technical Review Checklist is provided to each AE Service Provider to assist in their in-house technical reviews in anticipation of the County review.

The County requires up to 10 business days to conduct technical reviews depending on the complexity of the project. Shorter times may be negotiated with the Project Manager. The “% complete” for document sets to be reviewed shall represent the minimum level of completeness that is acceptable for all submitted documents (e.g. drawings, specifications, and other work products) from all disciplines (e.g. architectural, mechanical, and electrical).

### **County Comments**

The County will provide general comments (e.g. questions and suggestions) for the AE Service Provider to take under consideration. Partial submittals will be returned to the AE Service Provider without comment. Where technical reviews comprise a portion of the AE performance evaluation, the County will assess the number and impact of review comments. The County will also compare the previous technical review with the current submittal to assess AE responsiveness. As a guide:

1. Resolved comments from prior reviews will not appear in subsequent reviews.
2. Unresolved or partially resolved comments from prior reviews will carry over to the next technical review.

### **AE Response**

The AE Service Provider will forward their response to the technical review comments via Bluebeam (and the Technical Review (Form 165) Checklist if needed) to indicate:

1. Agreement: The AE Service Provider shall resolve the subject matter and incorporate those changes in the next version of the documents. No comment or response needed.
2. Disagreement: The AE Service Provider shall provide an explanation why the subject matter will not be addressed (or will be resolved in a manner different from that suggested by the comment).

### III. REPORTS

Reports are informational documents developed or prepared by the AE Service Provider for use by the County. For example, the AE Service Provider may prepare a structural evaluation report, a seismic report, or a feasibility study. Refer to the *AE Scope of Services* for additional requirements.

#### Format

The County requires that all reports adhere to the following format:

1. A heavy-duty 8-1/2" x 11", 3-ring, vinyl-covered with clear overlays on front, back, and spine, loose-leaf binder, in thickness necessary to accommodate contents, with pocket inside each cover to receive folded oversized sheets is preferred. (An acceptable alternative is to bind and index data in a combed spine.)
2. The report includes a Table of Contents.
3. The report includes heavy paper dividers with laminated tabs for each section as identified in the Table of Contents.
4. The front cover of each binder includes the following information:
  - a. Title of the report.
  - b. County project name and number.
  - c. County building name and number (if applicable).
  - d. AE Service Provider's name.
  - e. Date of issue.
5. The Title Page includes the following information:
  - a. Subject matter included in the report.
  - b. County project name and number.
  - c. County building name, number, and address.
  - d. AE Service Provider's name and address providing the report.
  - e. Date of issue.
  - f. Cross-reference to other related reports.
6. Convert reports and other documents into Adobe Acrobat PDF format.
7. Each Electronic disk is properly labeled. See *Exhibit 1 – Disk Label*.

#### Submittal

The following project documents are required.

Media Type	Count	Requirement
Electronic Files	1	Report Documents in Adobe Acrobat PDF Files on disc.
Bond	1	20 lb. white bond paper with 30% post-consumer fiber content.
	-	None.

#### IV. SCHEMATIC DESIGN (SD) SET

The Schematic Design Set includes the AE Work Plan including a program statement, design intent narrative, drawings, and project alternatives; Project Schedule; Cost of Work; Drawings; and other work products developed during the schematic design phase of a project. See *The Architect's Handbook of Professional Practice* for further definition and description of design phases. Refer to the *AE Scope of Services* for additional requirements.

##### **Review**

Where the AE Scope of Services requires this phase, the County will review the 95% complete Schematic Design Set for the following:

1. AE Work Plan.
2. Project Schedule
3. Cost of Work
4. Drawings: The general scope, conceptual design, and scale and relationship among project components.

##### **Format**

Comply with the latest version of the following:

1. *Multnomah County CAD Standards*.
2. Convert each drawing sheet from CAD file into an individual Adobe Acrobat PDF File and use the Sheet Identification as the File name for the drawing sheet.
3. Exhibit 1 – Disk Label.

##### **Submittal**

The following project documents are required.

Media Type	Count	Requirement
Electronic Files	1	Project drawing set in Adobe Acrobat .pdf format.
Bond	1	Bound Drawing set black-lined on white bond paper from the electronic files described above.
	1	Other project documents on 8-1/2"x11" 20 lb. white bond paper with 30% post-consumer fiber content.

## V. DESIGN DEVELOPMENT (DD) SET

The **Design Development Set** includes the AE Work Plan including a program statement, design intent narrative, drawings, and project alternatives; Project Schedule; Cost of Work; Specifications; Drawings, calculations, and other work products developed during the design development phase of a project. See *The Architect's Handbook of Professional Practice* for further definition and description of design phases. Refer to the *AE Scope of Services* for additional requirements.

### Review

Where the AE Scope of Services requires this phase, the County will review the 50% and/or 95% complete Design Development Set for the following:

1. AE Work Plan is updated.
2. Project Schedule is updated.
3. Cost of Work is updated.
4. Drawings:
  - a. Electronic and printed drawings adhere to Multnomah County CAD Standard.
  - b. Mock-up sheets include the appropriate drawings, format, organization, and identification/reference systems.
  - c. Documentation includes enlarged views, standard details, and product specifications.
5. AE response to prior technical review comments (if applicable).

### Format

Comply with the latest version of the following:

1. *Multnomah County CAD Standards*.
2. Create Electronic Transmittal (eTransmit) Package to deliver CAD drawings. Include all related dependent files such as xref, font and image files.
3. Convert each drawing sheet from CAD File into an individual Adobe Acrobat PDF format. Use the Sheet Identification as the File name for the drawing sheet.
4. Exhibit 1 – Disk Label.

### Submittal

The following project documents are required.

Media Type	Count	Requirement
Electronic Files	1	Project drawing set in AutoCAD (eTransmit Package) and the log files
	1	Project drawing set in Adobe Acrobat .pdf format.
Bond	1	Bound drawing set black-lined on white bond paper from the electronic files described above. .
	1	Other project documents on 8-1/2"x11" 20 lb. white bond paper with 30% post-consumer fiber content.
	1	AE response to prior technical review comments. (if applicable)



## VI. CONSTRUCTION DOCUMENT (CD) SET

The Construction Document Set includes the AE Work Plan including a program statement, design intent narrative, drawings, and project alternatives; Project Schedule; Cost of Work; Specifications; Drawings, calculations, and other work products developed during the construction development phase of a project. See *The Architect's Handbook of Professional Practice* for further definition and description of design phases. Refer to the *AE Scope of Services* for additional requirements.

### Review

Where the AE Scope of Services requires this phase, the County will review the 50% and/or 95% complete Construction Document Set for the following:

1. AE Work Plan is updated.
2. Project Schedule is updated.
3. Cost of Work is updated.
4. Drawings: Electronic and printed drawings adhere to Multnomah County CAD Standard..
5. Additional: Documentation includes associated calculations, diagrams, and schedules.
6. AE response to prior technical review comments (if applicable).

### Format

Comply with the latest version of the following:

1. *Multnomah County CAD Standards*.
2. Create Electronic Transmittal (eTransmit) Package to deliver CAD drawings. Include all related dependent files such as xref, font and image files.
3. Convert each drawing sheet from CAD File into an individual Adobe Acrobat PDF format. Use the Sheet Identification as the File name for the drawing sheet.
4. Exhibit 1 – Disk Label.

### Submittal

The following project documents are required.

Media Type	Count	Requirement
Electronic Files	1	Project drawing set in AutoCAD (eTransmit Package) and the log files
	1	Project drawing set in Adobe Acrobat .pdf format.
Bond	1	Other project documents on 8-1/2"x11" 20 lb. white bond paper with 30% post-consumer fiber content.
	1	AE response to prior technical review comments (if applicable)

## VII. BID/PERMIT SET

The Bid/Permit Set includes bid information, all documents, and addenda as required to solicit general contractor, prime contractor, subcontractor, and material vendor bids. Refer to the **AE Scope of Services** for additional requirements.

### Review

Where the AE Scope of Services requires this phase, the County will review the AE response to prior technical review comments.

### Format

Comply with the latest version of the following:

1. *Multnomah County CAD Standards*.
2. Convert each drawing sheet from CAD File into an individual Adobe Acrobat PDF format. Use the Sheet Identification as the File name for the drawing sheet.
3. Exhibit 1 – Disk Label.

### Submittal

The AE Service Provider submits documents (specifications, drawings, and other work products) to the County for the Project Manager to assemble with the Bidding Pages and Division 1 into the Bid Set. Separately, the AE Service Provider will forward changes to these documents (specifications, drawings, and other work products) for inclusion by the County into addenda to the Bid Set. The following project documents are required.

Media Type	Count	Requirement
Electronic Files	1	Drawing set in Adobe Acrobat .pdf format.
Bond	1	Bound drawing set black-lined on white bond paper from the electronic files described above. .
	1	Other project documents on 8-1/2"x11" 20 lb. white bond paper with 30% post-consumer fiber content.
	1	AE response to prior technical review comments.

## VIII. PROJECT RECORD SET

The Project Record Set includes all final as-built documentation of work for a specific project **and** updated base plans (refer to the Multnomah County CAD Standards, Appendix C). The as-built documentation consists of the Project Record Documents, approved change orders, and modifications in work and/or deviations from the original contract documents. Where the project is partially designed, partially built, or not built, the Project Record Set may be the final record of the proposed work. Refer to the *AE Scope of Services* for additional requirements.

### Review

The County will review the Project Record Set (as-built documentation and base plans) for the following:

1. Electronic and printed drawings adhere to Multnomah County CAD Standard.
2. As-built and base plan content accurately illustrate completed work in the field.
3. Furniture Plan is integrated into the Project Record Set.
4. All required Project Record Set documents (drawings and other work products) are received.
5. Project documents comply with format requirements.

### Format

Comply with the latest version of the following:

1. *Multnomah County CAD Standards*.
2. Create Electronic Transmittal (eTransmit) Package to deliver CAD drawings. Include all related dependent files such as xref, font and image files.
3. Convert each drawing sheet from CAD File into an individual Adobe Acrobat PDF format. Use the Sheet Identification as the File name for the drawing sheet.
4. Exhibit 1 – Disk Label

### Pre-Submittal

1. Pre-submit electronic CAD files for the final Architectural Base floor plans and/or the Interior Furniture plans within 15 business days after substantial construction completion.

### Submittal

2. Submit Project Record Set no later than 45 calendar days after Substantial Completion by the contractor or receipt of a Certificate of Occupancy from authorities having jurisdiction (whichever occurs later). All documents must be received, reviewed, and accepted by the County prior to final payment to the AE Services Provider. The following project documents are required.

Media Type	Count	Requirement
Electronic Files	1	Architectural base floor plans and/or Interior Furniture Plans in AutoCAD
	1	Project drawing set in AutoCAD (eTransmit Package) and the log files
	1	Project drawing set in Adobe Acrobat .pdf format.
	1	Project O & M Manuals and Reports in Adobe Acrobat .pdf format
Bond	1	Project O & M Manual 20 lb. white bond paper with 30% post-consumer fiber content.
	1	Other project documents on 8-1/2"x11" 20 lb. white bond paper with 30% post-consumer fiber content.

**EXHIBIT 1: Disk Label**

Information Required

A circular diagram representing a disk label. At the top, it says "Company Information". On the left, "Company Logo". On the right, "Disk Contents". Below these, there are several fields for project information, each with a label and a line for text:

- Project Name & Number: County Project No. - County Project Name
- Building Name & Number: County Building Code - County Building Name
- Date of Issue: day-month-year
- Produced By: Disk Produced By
- CD#: Disk# x of y

Example

A circular diagram representing a disk label, identical in layout to the one above, but with example data filled in:

- Company Information
- Company Logo
- A,M,E Files & X-refs.
- Project Name & Number: CP03.12.2A - Remodel of 2nd Floor
- Building Name & Number: 274 - Blanchard Building
- Date of Issue: 26 January 2003
- Produced By: Joan Jackson
- CD#: #2 2 of 3