

Attachment I – Record Documents

MILWAUKEE COUNTY DEPT. OF ADMINISTRATIVE SERVICES FACILITIES MANAGEMENT DIVISION RECORD DOCUMENT STANDARDS FOR PROFESSIONAL SERVICES

I. RECORD DOCUMENTS

The Prime Consultant shall prepare and file record documents of the project with Milwaukee County DEPT. OF ADMINISTRATIVE SERVICES - FACILITIES MANAGEMENT DIVISION, as per this attachment. Prime Consultant agreement close-out and final payment will be contingent on approval of complete record document submittal by Prime Consultant.

II. ELECTRONIC MEDIA REQUIREMENTS

- A. Produce Project Manuals, Reports, and other permanent records in an electronic word processing format that can be read by Microsoft Office 365. Produce Project Manual technical sections in Milwaukee County format. Obtain electronic formats for Project Manual technical sections through the Project Manager.

These materials shall be submitted using a secure file sharing program, as stated in G201-2013, ARTICLE 3.

- B. BIM models shall be produced in Revit version 2021 or newer unless stated otherwise on G201-2013. CAD files shall be produced in AutoCAD version 2018 or newer. BIM and CAD models need to be in .RVT and .DWG formats. No other file types will be accepted. Print sets to be provided in .PDF format.

Obtain Milwaukee County drawing format standards for title blocks and cover sheets: B_1711, D_3624, and/ or F_4230 by contacting the Project Manager for the Project.

III. BIM MODELING STANDARDS

The Prime Consultant and his/her sub-consultants shall prepare BIM models in accordance with the following document standards:

- A. Purge all Revit models of unused families, materials, groups, views, etc.
- B. Remove unused views and sheets.
- C. All Revit links will be linked using the Project Base Point, unless otherwise noted in G202-2013. Maintain the links and transfer files using e-transmit to include all linked files.
- D. All views, sheets, and groups should be named appropriately.
- E. Modeled elements and links should be placed on the correct worksets.
- F. All AutoCAD files need to be linked into the Revit model, and not imported.
- G. Include all accompanying files, including shared parameters .txt file, any linked AutoCAD files, PDFs, image files as .jpg or .png, etc.

The Prime Consultant and his/her sub-consultants shall maintain/update their respective models throughout construction by incorporating the following at a minimum (based on approval or direction to proceed):

- A. RFC's
- B. ASI's, CD's, CCD's, or other change documents that affect the contract documents.
- C. Submittal comments and revisions on approved shop drawings.
- D. As-built field modifications.
- E. Changes in the sequencing of the work.
- H. Consultants shall utilize the Milwaukee County drawing format standards setup in the startup project.
- I. Drawing Sheet numbers and electronic drawing files shall consist of the following:
 - 1. Alphanumeric discipline designation
 - A - Architectural Interiors and Facilities Management

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- C** - Civil Engineering and Site Work
- E** - Electrical
- EV** - Environmental
- F** - Fire Protection
- L** - Landscape Architecture
- M** - Mechanical
- P** - Plumbing
- S** - Structural

2. A maximum of 3 characters for sheet number

Example: A101.rvt
 | |
 | | ____ Sheet Number
 | ____ Discipline

- J. The drawing sheet naming convention shall be Discipline then Sheet Number (e.g., A101).
- K. BIM Model naming convention: [Capital Project Number or other approved identification number]_[Building Number]_[Project Name]_[Revit Version]. (e.g., WS0126_5600_COGGS RENOVATION_R21.rvt)
- L. Consultants shall utilize the Milwaukee County Standard Workset Naming Convention, as setup in the starter Revit model.
- M. The room attributes shall be provided on all Revit floor plan views. Window attributes shall be shown on elevation views. The following attribute data shall be included:
 - 1. **Rooms**
 Room name & number (serves as the room tag)
 Dimensions (length, width, height)
 - 2. **Tag number**
 Door size
 Frame size
 Fire rating
 - 3. **Windows**
 Tag number
 Size
 Glazing
 Framing material

IV. DOCUMENT REQUIREMENTS

A. **Design Documents:** Prepare and submit the following documents to the Project Manager:

1. City/State Approved Drawings	(1) Original set
2. Bid Set Drawings	(3) Set hard copy (marked as "ORIGINAL")
	(1) Electronic file (RVT & PDF)
3. Project Manual & Detail Manual	(1) Set hard copy

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1. **As-Built/Record Documents:** Prepare and submit the following record documents to the Project Manager:

1. As-Built/Record Drawings	(1) Set hard copy (marked as "ORIGINAL")
	(1) Set electronic file (RVT & PDF)
2. Project Manual & Detail Manual	(1) Set hard copy
	(1) Set electronic file (RVT & PDF)
3. Operating/Maintenance Manuals	(1) Set hard copy
	(1) Set electronic file

The Prime Consultant and his/her sub-consultants shall prepare and submit the required As-Built/Record Drawings and Project Manuals in accordance with the following procedures:

1. Obtain from each Prime Contractor marked-up prints, clarification drawings, shop drawings and/or any other data showing significant changes in the work made during the construction phase, including all changes described in the original addenda.
2. Update the original electronic drawings and project manuals by transferring all addenda and field changes from the contractor's marked-up documents, describing significant changes to the original drawings and project manuals.

The Prime Consultant shall list all revisions with dates on each drawing and identify each revision with boundaries. Each drawing shall be labeled **AS-BUILT/RECORD DRAWINGS** and **PROJECT and DETAIL MANUAL**.

3. The end product shall consist of a composite set of Record Drawings and Project Manuals accurately showing the as-built, on-site conditions of the entire project.
2. **Studies/Analysis/Survey Reports:** Prepare and submit the following documents to the Project Manager:

1. Final Approved Report	(2) Sets hard copy
	(1) Set electronic file

V. FINAL DOCUMENT REQUIREMENTS FOR ELECTRONIC MEDIA

The Prime Consultant and his/her subconsultants shall prepare and submit:

- A. A cover sheet containing a drawing index that is sorted by:
 1. Discipline
 2. Sheet number
 3. Sheet name
- B. Cover sheet shall include:
 1. MILWAUKEE COUNTY Project Name and Number
 2. MILWAUKEE COUNTY Site I.D. and Building I.D.
 3. Seals and signatures of the Architect/Engineer of record.
 4. MILWAUKEE COUNTY signature block.

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Detail Drawings produced as a MANUAL shall include a Drawing Index consisting of the detail title and/or description, and identification number sorted by discipline and page number. The Drawing Index shall be submitted in hard copy and shall be incorporated in the Detail Manual.

- A. Consultants may insert their logos on Milwaukee County's Standard Cover Sheet with PRIOR APPROVAL from the Project Manager.

Submit the Project Cover Sheet Layout to the Project Manager for review and approval. Consultants **MAY NOT** insert their logos on the Project Drawing Sheets. The consultant firm's name may be inserted in the designated space provided within Milwaukee County's Standard Title Block.

SUBMIT HARD COPIES TO:

**(PROJECT MANAGER)
MILWAUKEE COUNTY DEPARTMENT OF ADMINISTRATIVE SERVICES
FACILITIES MANAGEMENT DIVISION
ARCHITECTURAL, ENGINEERING & ENVIRONMENTAL SERVICES SECTION
633 WEST WISCONSIN AVENUE-SUITE 1000
MILWAUKEE, WI 53203**

SUBMIT ELECTRONIC COPIES THROUGH SECURE FILE TRANSFER PROTOCOL