

RECORD SET DELIVERABLE REQUIREMENTS

This project has been determined to be substantially complete and ready for financial close out. In order to complete the University's indexing and archiving of this project, Vanderbilt requires the following Record Set deliverables as outlined in the Owner Architect Agreement as executed by the Architect and Vanderbilt.

1. GENERAL NAMING CONVENTION*

Always contact Facility Information Services (FIS) for University and Real Estate buildings or Space and Facilities Planning (SFP) for Medical Center Buildings to confirm the use of the appropriate naming conventions. Please refer to the appropriate naming conventions sections and examples in the Record Set Examples Documentation section of the Closeout Request packet. The general naming convention is as follows:

BLDG # – ARCHITECT PROJECT # – PROJECT SECTION or PHASE # – SHEET #

Building # = Assigned by Vanderbilt and should be verified by FIS or SFP

Architect Project # = the Architect of Record's initiated project number[†] and match exactly character for character.

Project Section or Phase # = A Project Section or Phase number is only to be used when a project is divided into multiple stages (-01, -02, -03). Do not use -00 when the project is unique / individual with no following phases/sections to be completed. Should any additional "side work" be performed and its documents included under the scope of the original project, then no section or phase number is required.

Seal = Vanderbilt requires all **Record Set** drawings to have a signed **Engineering/Architectural Seal** on the title block.

Sheet # = the sheet number assigned by an Architect or Engineering firm. The sheet number is to match the drawing sheet number exactly character for character.

A. File naming convention:

BLDG # – ARCHITECT PROJECT # – PROJECT SECTION or PHASE # – SHEET #

The file naming convention shall be used to identify each file, within the directory structure, with the corresponding cad file and corresponding plot file. The file naming convention should be identical to the sheet naming convention and carry the correct file extension for its file type (dwg, dgn, plt, and cal).

B. Sheet naming convention within the drawing sheet/image: [CAD and plot files]

BLDG # – ARCHITECT PROJECT # – PROJECT SECTION or PHASE # – SHEET #

The sheet naming convention shall be used to identify each drawing sheet/image with the corresponding CAD and plot files. The sheet naming convention shall be electronically embedded and located within or adjacent to the title block. The following shall be electronically embedded and located within or adjacent to the title block in addition to the sheet name:

- Include the term "**Record Set**"
- Include the term "**COSC**"[‡] and the date of the Certificate of Substantial Completion (C.O.S.C.) formatted as **Month-Day-Year** (example: 1-15-2010. Note: the year shall be 4 digits)
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C. Digital Manual file naming convention for PDF manuals:

The Digital manual file naming convention shall be used to identify the pdf of the Closeout manual(s) and/or the pdf of the Project manual(s) within the directory structure.

BLDG # – ARCHITECT PROJECT # – PROJECT SECTION or PHASE # – OM and/or BLDG # – ARCHITECT PROJECT # – PROJECT SECTION or PHASE # – PM

* Refer to the "Record Documentation Example" for acceptable naming convention examples or contact FIS or SFP to confirm the use of appropriate naming conventions. ie: OM, PM, and drawing file and sheet naming conventions.

[†] Number should be exact as it appears on drawing sheet/image

[‡] Certificate of Substantial Completion Date and must be formatted as **Month-Day-Year** (year is to be 4 digits).

2. COORDINATE SYSTEM

The Tennessee State Plane Coordinate System (FIPS zone 4100); North American Horizontal Datum, NAD 83 (90 Epoch); North American Vertical Datum, NAVD 88 in U.S. feet and inches shall be used for the following drawings:

- A. All Surveys
- B. All drawings containing a building footprint shall be drawn so that at least two points of the building's footprint are referenced to the Tennessee State Plane Coordinate System.
- C. All drawings, containing above ground or underground utilities, shall be drawn so that at least two points of a permanent structure (one that will remain after the construction, preferably the building footprint) are referenced to the Tennessee State Plane Coordinate System.

3. SOURCE MATERIAL

Source material shall be defined as all digital related information deemed necessary by the Architect of Record and Project Manager to correctly portray construction of a project. These items shall include but are not limited to:

- Source drawings or models
- Reference drawings or models
- Font libraries
- Custom line style/codes or families
- Graphic files (tiff, jpeg, etc.)

The drawings described above shall be submitted in any of the following formats:

- Autodesk Revit or other BIM modeling software
- AutoCad DWG
- Microstation DGN
- Autocad/Microstation Compatible DXF

If CAD drawings are to be submitted, each shall be submitted as a separate CAD file. If BIM models are to be submitted, each shall be detached from the central model.

Additional CAD file Requirements are:

- A. All External Reference drawings (X-refs) shall be bound or inserted as a permanent part of the CAD drawing.
- B. Any graphics used (jpeg, tiff, bitmap) included in the source folder but are not required to be bound to the CAD file.
- C. Be drawn in model space to a 1:1 scale
- D. Contractor Fire Protection and irrigation drawings (if applicable to the project) included in the source material folder.
- E. Each CAD file shall include the **sheet naming convention** and the terms “**RECORD SET**”, and “**COSC**” Date[§] electronically embedded and located within or adjacent to the title block.
- F. Each CAD file shall include the **file naming convention**.

Refer to the “Record Documentation Example” for approved file and sheet naming convention examples or contact FIS or SFP for guidance.

Include contractor Fire Protection and Irrigation CAD files in CAD folder (if applicable to the project).

4. DIGITAL PRINTS (PLOT FILES)

- A. All plot, cal, and/or pdf files shall be generated from the original Native Source material.
- B. PLOT files of the RECORD SET drawings shall be submitted in PDF ** (PDF is the preferred format) or file formats with a file extension of PLT, MIL, CAL.
- C. Should the source media be in a non-electronic format, a CALS^{††} or PDF file format may be substituted for the HPGL/2 format.
- D. Digital prints shall be at the scale and size of the original bid documents, not to exceed 36" x 48".
- E. Set as layout 1:1 scale
- F. Each PLOT file shall include the **sheet naming convention** and the terms “**RECORD SET**”, and “**COSC**” Date electronically embedded and located within or adjacent to the title block.
- G. Each PLOT file shall include the **file naming convention**

[§] Certificate of Substantial Completion Date (COSC) and must be formatted as **Month-Day-Year** (year is to be 4 digits).

^{**} Hewlett Packard Graphic Language version 2. Vector file with raster capabilities.

^{††} Computer Aided Acquisition and Logistics Support. Bitmap raster file designed by US Dept. of Defense.

Refer to the “Record Documentation Example” for approved file and sheet naming convention examples or contact FIS or SFP for guidance.

Include contractor Fire Protection and Irrigation Digital files in Digital folder (when applicable to the project).

5. DIGITAL MANUALS

Digital Manuals shall consist of Project Manuals and Closeout Manuals (including but not limited to Operations and Maintenance manuals)

- A. The Project Manual shall be submitted as 1(one) PDF file containing multiple pages with each specification division and section bookmarked. Project Manuals should be submitted with addenda in their original form, no revisions to Project Manual are required.
- B. Closeout Manual shall be submitted as 1 (one) PDF file containing multiple pages with each C.S.I. division and section bookmarked. Refer to the Closeout manual checklist for the required material for this manual.
- C. Digital Manuals shall be text searchable.
- D. Each Digital Manual shall use the Digital Manual file naming convention. Refer to examples in the “Record Documentation Example”.
- E. Manuals shall not exceed 250 mb file size. Files larger than 250mb +/- shall be divided into multiple volumes. Refer to examples in the “Record Documentation Example” for Digital manual file naming conventions for multiple volumes or contact FIS at (615) 322-3715 or SFP at (615) 322-4962

6. DELIVERABLE DIGITAL MEDIA

University and Real Estate projects – Deliver one copy of all digital media for the project on a CD-ROM, DVD or Electronic File Transfer to FIS.

Medical Center projects - Deliver two copies of all digital media for the project on a CD-ROM or DVD to SFP.

- A. The following is required of the CD-ROM(s) or data DVD(s):
 - I. The file structure^{**} of the CD-ROM(s) or data DVD(s) shall be:
 - One folder labeled “CAD FILES” (to contain source drawings/drawing files)
 - One Sub-folder within the “CAD FILES” folder, labeled “SOURCE MATERIAL^{§§}” (to contain all the CAD source related material including but not limited to Font libraries and Custom line style/code)
 - One folder labeled “PLOT FILES” (to contain the digital prints/Plot files)
 - Pdf of the Project manual and labeled according to the file naming convention (no folder is necessary)
 - Pdf of the Closeout manual and labeled according to the file naming convention (no folder is necessary)
 - II. Zip files or any other type of compression files are not permitted for any category of deliverable.
 - III. Separate CD’s are not accepted for each category of deliverable. All digital items (ie: source material, digital prints, and digital manuals) should be inclusive of one disk.
- B. The CD-ROM(s) or data DVD(s) and the hard holding case(s) (jewel case) both shall be labeled with the following:
 - RECORD SET
 - COSC Date
 - Official project name
 - Official project number
 - Disk 1 of 1^{***}

Contact FIS to send test examples for each project for approval, prior to submitting records.

Please contact the following with questions or comments:

Facilities Information Services Library at (615) 322-2715 or Space and Facilities Planning at (615) 322-4962.

^{**} Refer to the Record Set documentation examples for approved options for the CD file structure

^{§§} Files that may be needed for a true visual reproduction of the drawing as seen and drawn by the originating firm or designer and may cause a loss of design intent if not used.

^{***} Contact FIS or SFP if more than one disk is needed for a project