

APPENDIX A0022.1
CAD / GIS OFFICE
DOCUMENT SUBMITTAL REQUIREMENTS

Review of Design Phases:

Drawings and Specifications will be reviewed for conformity with the Drawing Requirements (see below); Room numbers will be reviewed to ensure compliance with PANS (Property Asset Numbering System), available on the CAD/GIS website and linked below.

Construction Documents:

Submittal of .DWG files and any applicable Revit Models for each floor and site plan (if applicable) is required by the CAD/GIS Office at "FOR CONSTRUCTION 100% CDS"

Close-Out:

Submittal and approval of As-Built and Record drawings is required by the CAD/GIS Office. Payment will be withheld from consultants until CAD/GIS approves all documents.

Drawing Requirements (All Design Phases and All Sheets):

- UCB Project number (all drawing sheets and pages in Specifications)
- Date and Design Phase - SD, DD, CD, etc.
- Sheet Number and Description (all sheets)
- If a building project, UCB official Building Name and Building Number (all sheets)
- Sheet Index that is up-to-date for the sheet set it is a part of

For HDS Projects, please submit the following review stage documents to FMCAD@coloradu.edu for archiving purposes:

- Civil Survey
- Reports
- 100%/Final SD, DD, and CD, and BID, FOR CONSTRUCTION and PERMIT sets

Room Numbering:

If room numbers are impacted by your project, revised or proposed room numbers should be included at SD phase using [PANS](#) documentation as a guideline. Room numbers should be finalized by the end of DD (with exception for minor changes).

For Construction 100%CD Set: We require the **Architectural Floor Plans (in .DWG format)** and **Civil Site Plan** with the building footprint (for a new building or addition, in .DWG format) to be submitted along with the stamped FOR CONSTRUCTION 100%CD set (both HDS and PD&C projects).

Summary of AIA Drawing Definitions:

- As-Built Drawings: As-built drawings are prepared by the contractor. They show, in red ink, on-site changes to the original construction documents.
- Record Drawings: Record drawings are prepared by the design professional and reflect on-site changes the contractor noted in the as-built drawings. They are often compiled as a set of on-site changes made for the owner per the owner-architect contract.

Close-Out Requirements: For *all* projects whether drawings generated in-house or by external consultants, and for both HDS and PD&C projects, please submit the following to FMCAD@colorado.edu at close-out (cc CU Project PM/PC):

- All model files (if models were used for drawing creation) in Revit format, or Civil files prepared in Civil 3D.
- Complete set of contractor As-Built drawings (redlines) in PDF format.
- Shop drawings
- Matching PDF and DWG files for all sheets from the project. These RECORD sheets must meet the criteria of a RECORD drawing (as stated above under AIA Drawing Definitions). The sheets must include the words "Record or Record Document" in the title block.
- Drawing sheets (both PDF's and DWG's) must be **individual** files (not bound PDFs and no tabbed drawings in CAD accepted) with the **sheet number** as the filename (e.g., A100.PDF and A100.DWG).
- Any and all references to Project **Alternates** *must be marked as Accepted/Not Accepted on sheets* (includes notes, references, schedules, sheet indices, etc). Any and all references to alternates in project models and project specifications must also be marked as Accepted/Not Accepted.
- All drawing sheets must be submitted in both CAD .DWG format as well as in PDF format. Drawing content must be identical between the DWG file and PDF file or the drawings will be rejected.
- DWG files must NOT depend on any other files - external references, attached images, stamps, etc. must be bound or pasted into the .DWG file.
- Prior to exporting a Revit file to a .DWG file, all shadows, fills, high-detail settings, textures, etc. must be turned off.
- Specifications - Project specifications must be in PDF format and OCR searchable. UCB project number, Record stamp or text to be included on each page.
- O&Ms (Housing & Dining Services projects submit to FMCAD@colorado.edu, all others submit to CU PC/PM).

Additional Requirements for Site and Utility Drawings:

- Site Development Drawings shall be set up using CO-HARN or HARN/CO.CO-NF coordinates. All site surveys must be tied to a control network provided by the CAD/GIS office. If a scale factor has been applied to the drawings, they must be either scaled back or the scale factor indicated on the drawings.

If you have questions regarding or not addressed by this document, please email us at FMCAD@colorado.edu

Referenced documents, guides, and additional resources can be found on our website [CAD/GIS Website](#)