

**PART 3: DELIVERABLE FILE REQUIREMENTS:**

[Amended: 09-19-2022 See Underlined Text](#)

**1. SCOPE:**

**1.1.** This part outlines the requirements for the preparation and submission of the CAD Files to UMB, for all UMB's projects.

**2. PREPERATION:**

**2.1. Deliverable Preparation:** All drawing files shall be free of viruses, using the latest version of virus cleaning and scanning software. Drawing shall be saved with index of all drawing numbers, file names, drawing titles, including the similar information for all Xref files, and blocks used.

**a. Submission Check List:** Verify that all drawing files comply with the following checks prior to submission:

- (1)** Drawing file names are as required by UMB.
- (2)** All Entities outside the drawing limits are purged.
- (3)** All unreferenced blocks, layers, attributes, etc. are purged.
- (4)** Set the menu to the standard Autodesk Architectural Desktop Menu (acad.mnc).
- (5)** Scan all files for viruses.
- (6)** Delete all unused layout tabs.
- (7)** Ensure that the drawing settings are in accordance with paragraph 2.2 below.
- (8)** All layer names comply with the AIA CAD Layer Guidelines.
- (9)** All Text Styles comply.
- (10)** All Line Types comply.
- (11)** All Dimension Styles Comply.

**b.** Electronic files and documentation are due with each submittal. Reproducible drawing sets shall be provided in accordance with the A/E contract requirement.

## UMB A/E DESIGN STANDARDS – CHAPTER 4 EF – ELECTRONIC FILES – CAD DIVISION

---

**2.2. Drawing Settings:** These drawing settings should have the file open without error and sheet files ready to plot. Autodesk Architectural Desktop commands and variables are to be set as follows.

Commands	Settings
Base:	Insertion Base Point (0, 0, 0)
Grid	Off
Layer	Current layer '0'
Line Type	Current entity line type – By Layer, Current line type – Continuous
Menu	Standard Autodesk Architectural Desktop (acad.mnc)
Point	Display Mode 0, Size 0.0
QText	Off
Snap	Off
Text	Style - Standard
UCS	Set UCS o World
UCSICON	Set UCSICON to No Origin
Units	As appropriate for Drawing (Linear)
Zoom	To Drawings Extents

### 3. DRAWING FILE FORMATS AND SUBMISSIONS

**3.1. File Formats:** All construction document files shall be submitted in “dwg”, “pdf” and “rvt” file formats to the UMB Project Manager.

**3.2. Submissions:** Unless otherwise directed elsewhere in these standards submit the following:

**a. Bid Document Files:** Submit 100% bid document files to the UMB Project Manager at the beginning of the “Construction Phase of the Project”.

(1) **Dwg Files:** Submit 100% dwg files to UMB. Each dwg file name shall conform to the

(2) **Dwg PDF Files:** The 100% bid document dwg “pdf” files must be signed and sealed by each A/E consultant.

**b. Closeout Document Files:** Submit 100% final as built document files in “dwg”, “pdf” and “rvt” file formats to the UMB Project Manager at the “Closeout Phase of the Project”.

**c. Bookmarks:** All PDF files submitted to UMB shall include bookmarks as defined in the “UMB Standard PDF File Bookmarks for A/E Submissions” in the Appendix.

### 4. FILE TRANSMISSION:

**4.1. File Transmission:** Transmit CAD files to the UMB Project Manager by uploading files in appropriate project file folders in ebuilder. Send UMB PM a transmission notification by email when the files are uploaded in ebuilder.

**UMB A/E DESIGN STANDARDS – CHAPTER 4 EF – ELECTRONIC FILES – CAD  
DIVISION**

---

**5. PROJECT CLOSEOUT:**

- 5.1. Project Closeout:** Before a project can be closed out and final payment from UMB rendered, all specified materials must be submitted to the UMB Project Manager in accordance with these Design Standards, the Procedure Manual and with production standards and special instructions described throughout this Section.

**END OF CHAPTER 6 – ELECTRONIC FILES – CAD DIVISION –  
PART 3 - END OF CAD DIVISION**