**Facility Planning & Control**

**10. GUIDELINES FOR AUTOCAD DRAWINGS SUBMITTAL**

The designer shall prepare all required drawings for new facilities on a CAD system. We have selected AutoCad as our CAD system and expect **all new** buildings to be produced in AutoCAD, in the release specified in the advertisement for designers. If a designer has a system other than AutoCad, it will be his responsibility to have all drawings converted into AutoCad prior to making his final submittal. In addition to .dwg files, designers are to submit all drawings on Adobe.pdf format.

**Renovations.** If we have base plans available in electronic format, they will be provided to the designer for his use. Verification of the electronic drawings will be considered part of the already allowed renovation factor. All electronic drawings of the existing building required to be produced in order to complete the project are also considered part of the allowed renovation factor.

If a designer is selected for a job that is advertised to be in AutoCad, he shall be responsible for obtaining any hardware, software and training necessary to produce the job in AutoCad in a professional, acceptable manner following state guidelines.

Drawings shall follow the layering format specified by **"CAD Layer Guidelines"**, current edition, a document sponsored by the American Institute of Architects, the American Consulting Engineers Council, the American Society of Civil Engineers, and the International Facility Management Association. This document can be obtained from the American Institute of Architects. It will be necessary for designers who are awarded jobs advertised to be on AutoCad to acquire the "Cad Layer Guidelines" in order to set up layers and drawing files. It is not necessary that all layers listed in the guideline be included in every job.

It is only necessary to include the layers applicable to the project. Any layers required that are not listed in the "Cad Layer Guidelines" should be named following the format specified in the guidelines.

Designers shall not apply for jobs advertised in AutoCad unless they have the capability to produce the job as required. Designers shall verify that consultants (mechanical, electrical and structural) have the in-house capabilities required before applying for a job.

# **DELIVERABLE FORMAT**

Designers shall be required to submit the As-Built drawings in electronic format on compact disk or zip drive. This submittal shall be at the Construction Close Out Phase. Designers shall submit one copy to Facility Planning & Control and one copy to the User agency. The submittal shall be labeled on the outside of the packaging with the project name, project number and date of project completion. The Owner may request copies of electronic plans on compact disk prior to construction which designers shall furnish. If the drawings do not comply with the "Instructions to Designers for AutoCad Drawings Submittal", the Designer will be required to resubmit the required drawings in the format as specified. All hard copy and electronic submittals required at each phase shall be submitted as specified by Facility Planning and Control and the User Agency.

**AUTOCAD DRAWING NAMES**

The AutoCad drawings shall be named with the following convention: type of project, date of construction completion or acceptance, the drawing number and drawing type. For example, a renovation job completed in 2020 would be:

 **(A20A21ExElevs.DWG)**

**A**  Type of Project (see codes following)

**20** Year

**A21** Sheet 21 of Architectural set

**ExElevs** Brief Description of Sheet Contents

A sub-directory shall be created using the state ID. This number can be obtained from Facility Planning & Control or the User Agency.

**PROJECT CODES BY TYPE**

**A - Alteration/Renovation**

**B - Asbestos/Hazmat Abatement**

**C - Code Compliance (Life Safety, ANSI )**

**D - Demolition of buildings**

**E - Electrical**

**F - Energy Conservation**

**M - Mechanical**

**N - New Construction of facilities, etc.**

**O - Base Plans-Master File (updated by agencies)**

**P - PCB**

**R - Roof and/or repair roofs**

**S - Site work, etc.**

**W - Waterproofing**

**SYMBOLS**

Symbols/blocks (such as plumbing fixtures) within third party Architectural/Engineering packages are basically similar. We expect designers to use standard symbols/blocks rather than developing various styles. Because of the vast number of statewide users of this data, we are trying to keep the drawing files as basic as possible. The use of additional symbols/blocks shall be discussed with the user agency and Facility Planning prior to usage. Please use standard TRUETYPE fonts and dimensioning techniques within the basic package. Include the font library (PCT, TXT, etc..) and make it an inherent part of the drawing.

**SHEET LAYOUT**

 We have decided that is not necessary at this time to specify a sheet layout due to the many various designers we work with. It is necessary; however, that all sheets are consistent per job with respect to format, lettering styles and sizes, title sizes, north arrows, line types, etc. All sheets must include name of project, project number, name of building, its physical address, the site code and the state ID number. The Site Code and State ID numbers can be obtained from Facility Planning or the user agency.

 A new building will not have a State ID, but may already have a Site Code. We will assign a state ID for a new building as needed.

* Bind X-References (Base Plan, Titleblock, etc.,) in all drawing sheets prior to submittal.
* Include Line Weight Files to insure proper printing.
* Drawings should be done at full scale 1:1 in Model Space, then appropriately scaled with view ports to be printed in paper space.
* Text and Dimensions should be appropriate to each viewport scale.
* Include Base drawings as separate files (Base Plan., Titleblock, etc.,)

**CONCLUSION**

 It is our goal to integrate these drawings into a database whereby we can accurately maintain an inventory of our buildings, determine square footages, and track building construction projects, etc. Any questions may be directed to Facility Planning and Control. Your cooperation and input is appreciated.

If Revit was used in addition to AutoCad, designers are encouraged but not required to also submit Revit files on a separate disk.