



ACUD CAD Standards

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ACUD CAD Standards

Drawing Format:

AutoCAD (*.dwg file extension) version 2013 or newer up to version 2017 is required

Drawing Composition:

- CAD files containing multiple drawing sheets shall be broken down into separate drawings containing single sheets.
- The drawing file name shall match the drawing number on the title block.
- All CAD drawings shall be purged of empty, unused, or non-essential drawing data.
- CAD drawings shall not contain any frozen layers. All unused entities on frozen layers should be erased, and the empty layers purged.
- CAD drawings shall not contain multiple overlaid lines or lines with multiple segments unless the overlaid lines or adjacent line segments are assigned to different layers.
- Each final submitted drawing sheet shall have "As-Built" clearly marked on every electronic and printed sheet.
- Text styles and fonts may vary, however custom fonts and hatch styles not packaged within AutoCAD are not permitted.
- All blocks must be created on layer "0". Nested blocks should be avoided.
- All objects, layers and line types must be defined as "BYLAYER".

Drawing Units:

- Metric units are the only allowed measurement unit in reports format.

Coordinate System:

All CAD files must correspond to the coordinate system "Egypt Red Belt" with Projection Transverse Mercator by the following parameters:

- False Easting: 615000.000000
- False Northing: 810000.000000
- Central Meridian: 31.000000
- Latitude Of Origin: 30.000000
- Linear Unit: Meter

Title Block Information:

All title blocks used in AutoCAD drawings submitted to ACUD contain the following information:

- Drawing Title - indicating the drawing content.
- Drawing Number
- Date of Drawing - original drawing date including significant revision dates.
- Drawing Scale - representing the plot scale of the drawing with title block.
- North direction

Layering Standards:

All AutoCAD drawings submitted to ACUD shall follow the CAD layering standards as followed:

- Use only National CAD Standard (NCS) layer names.
- Use the minimum number of layers necessary to adequately separate entities in each drawing. The number of layers contained in each drawing will vary depending on the scope and complexity of the drawing, however drawings should not contain extraneous, redundant, or overly detailed layer names.
- Purge each drawing of unused layers prior to submittal.

Entity Properties:

To ensure the integrity of the original drawing when viewing or printing, AutoCAD must follow these standards:

- Entity colors shall be defined by layer, not by entity.
- Blocks shall be defined (created) on layer "0".
- All attributes shall be defined on layer "0".

Model and Paper Space Usage:

- Place title blocks, schedules and general notes at full-scale in paper space whenever possible.
- Label scaled viewports with the appropriate scale in model space.
- Do not place or draw model-related blocks, tags and objects in paper space.
- Draw all model space objects at full scale.

- Scale objects using paper space viewports – zoom viewports to the appropriate scale.
- The primary drawing(s) shall be created in model space.
- All drawings created within model space must be drawn to full size (1:1 scale)
- Any additional items such as details, dimensions, elevations, or sections should be drawn to full scale in model space.
- General project graphic elements such as title blocks should be drawn in paper space. Elements such as legends, schematics, key plans, diagrams and notes may also be drawn in paper space.
- Label scale of each viewport in paper space.
- Viewports should be created on a "viewport" layer.