

GP 01-01-02	CAD Drawing Standards	January 2002
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CAD Drawing Standards

GP 01-01-02

Scope

- 1) [I] This Global Practice (GP) contains requirements governing:
 - a) The type, content, and structure of all computer aided drafting (CAD) drawings to be supplied as part of the project documents.
 - b) The content of a Drawing Index listing all CAD and other drawings supplied as part of the project documentation.
 - 2) [I] An asterisk (*) indicates additional information is required. If a job is contracted this additional information is furnished in the Job Specification.
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1. Required References

This Section lists Practices and Standards that are generically referenced and assumed to be a part of this document. Unless otherwise specified herein, use the latest edition.

1.1. Global Practices–ExxonMobil Engineering Practices

GP 01-01-01	Drawings, Diagrams, and Line Lists
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2. Definitions

Term	[I] Description
AutoCAD	Refers to the computer aided drafting package by Autodesk Inc. AutoCAD is a registered trademark of Autodesk Inc.
Intergraph	Refers to the plant design system/computer aided drafting software packages provided by the Intergraph Corporation.
Layering	Refers specifically to the manner in which the CAD system separates drawing information into separate groups. Properties may be defined for these groups; such groups may be manipulated in the CAD system drawing files.

3. Computer Aided Drafting File Format

- 1) * [I] Drawings to be supplied in CAD format are listed in Table 1. This Table is a list of the minimum required drawing types (see the Job Specification for any additional required drawing types).

Table 1: Drawings to be Supplied in CAD Format

Drawing Type
Process & Instrument Diagram (including explanation of P&ID symbols)
Plot Plan
Equipment Drawings General arrangement

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Detailed drawings
Piping Isometrics
Electrical
Loop Diagrams
Logic Diagrams

- 2) * [I] Information to be supplied as part of the Job Specification is given in Table 2.

Table 2: Information to be Supplied as Part of Job Specification

Information	Possible Options
Drawing size	Imperial or metric standards
Text styles and fonts	Standard AutoCAD or Intergraph fonts only
Minimum text height	0.1 in. or 2.5 mm
CAD file type	DOS, UNIX, NT etc.

- 3) [I] Computer aided drafting files shall be provided in native AutoCAD DWG format, based on Release 12, except where Item 5) of this Section applies. Drawings may be provided based on later releases of the AutoCAD product or on a non-AutoCAD product with approval by the Owner's Engineer. In the case where CAD drawings originate in a non-AutoCAD system, Contractor shall demonstrate the conversion to AutoCAD DWG format is 100 percent effective in retaining the drawing content, except where Item 5) of this Section applies.
- 4) * [I] Intermediate drawing formats such as DXF are not acceptable unless agreed as part of the Job Specification.
- 5) * [I] For ExxonMobil sites that currently use Intergraph CAD systems, files may be provided in an Intergraph format as agreed with the Owner's Engineer and documented as part of the Job Specification.

4. Symbol Sets

[I] Drawing symbol sets are defined in [GP 01-01-01](#). Line weights not covered by [GP 01-01-01](#) shall be covered in this GP.

5. Naming Conventions

* [I] Naming conventions for drawings, process units, equipment, and instrumentation shall follow [GP 01-01-01](#).

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