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## Plum Brook Station Reference

# Drafting Reference

*Approved by Plum Brook Management Office/7030:*

NASA - Glenn Research Center  
Cleveland, OH 44135



<b>Glenn Research Center Plum Brook Station Reference</b>	<b>Title: Drafting References</b>	

## 1.0 INTRODUCTION

This document outlines the reference material to be used in the preparation of engineering designs and drawings.

### 1.1 Purpose

To provide a comprehensive list of reference materials, standards and books that will aid the Plum Brook Drafting Staff in uniform and consistent design and documentation of Plum Brook Drawings.

### 1.2 Scope

This document covers engineering drawings and sketches for all test sites and the infrastructure at NASA Plum Brook Station.

## 2.0 REFERENCES

### 2.1 Applicable Documents

Document Number	Document Title
ANSI Y32.9-1972	Graphic Symbols of Electrical Wiring & Layout Diagrams
ANSI Y32.4-1977	Graphic Symbols For Plumbing Fixtures For Diagrams
ANSI Z32.2.3-1949	Graphic Symbols For Pipe Fittings, Valves & Piping
ANSI / ISA-S5-1-1984	Instrumentation Symbols & Identification
ANSI Z32.2.4-1949	Graphic Symbols For Heating, Ventilating & Air Conditioning
ANSI B16.9-1978	Factory-Made Wrought Steel Butt welding Fittings
ANSI Y14.5M-1982	Geometric Tolerancing
ANSI Y32.2-1975	Graphic Symbols For Electrical & Electronic Diagrams
ASME Y14.24M-1989	Types and Applications of Engineering Drawings
ASME Y14.35M-1997	Revision of Engineering Drawings & Associated Documents
ASME Y14.34M-1996	Associated Lists

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<b>Glenn Research Center Plum Brook Station Reference</b>	<b>Title:</b> Drafting References	

MIL-STD-100F	Standard Engineering Drawing Practices
MIL-STD-3100	General Specifications For Technical Data Packages
MIL-STD-1359A	Cleaning Methods and Procedures For Breathing Oxygen Equipment
NHB 7020.1A (May 1974)	NASA Lewis Research Center Facilities Engineering Handbook
ASA B31.1-1955	Code For Pressure Piping
AWS A2.4-76	Symbols For Welding & Nondestructive Testing
NFPA 170	Standards For Fire Safety Symbols
KSC-C-123F (Oct 19, 1979)	NASA Kennedy Space Center Surface Cleanliness of Fluid Systems
NASA Lewis Research Center	Computer-Aided Engineering, Design and Manufacturing Data Interchange Standards
NASA Lewis Research Center	Pressure Vessel / System Recertification Handbook
NASA Lewis Research Center	Drafting & Procedure Standards Volume II
NASA Lewis Research Center	A Short Course By Brunner's Vacuum Training --- "Vacuum Technology"
NASA Lewis Research Center	Engineering Design Guides: Volume 1 – Rotating Machinery (books 1a & 1b) Volume 2 - Fluid Systems Volume 4 - Electrical Volume 6 - Drafting Standards Volume 7 - CADAM Standard Practices (to be updated for AutoCad)
NASA Plum Brook Station	Plans of Buildings and Structures

<b>Glenn Research Center Plum Brook Station Reference</b>	<b>Title:</b> Drafting References	

American Institute of  
Architects Press

CAD Layer Guild Lines  
Author: Michael Schley (editor)

ISBN # 0070096635

Time Saver Standards For Architectural Design Data (6<sup>th</sup> edition),  
Author: John Hancock Callender  
Publisher: McGraw-Hill Book Company

Library of Congress  
Catalog No. 63-18702  
LeRC Library No.  
744A7 c.2

Standard Graphic Symbols (copyright 1963)  
Author: Alvin Arnell  
Publisher: McGraw-Hill Book Company

ISBN # 0471247626  
LeRC Library No.  
692.2 R145 c.28

Architectural Graphic Standards (5<sup>th</sup> edition)  
Author: Charles George Ramsey  
Publisher: Jon Wiley & Sons, Inc. Publishing

Library of Congress  
Catalog No. 63-11712  
Lerc Library No.  
671.5 Am352 c.5

Brazing Manual (copyright 1963)  
American Welding Society, Inc.

ISBN # 0831125950

Machinery's Handbook (25<sup>th</sup> edition)  
Author: Erik Oberg, Horton, Ryffel  
Publisher: Industrial Press Inc.

ISBN #156637409X

AutoCAD and Its Applications Basics: Release 14  
Author: Terence M. Shumaker, David A. Madsen  
Publisher: Goodheart-Willcox Co.

New Riders - Publisher

Inside AutoCAD 14  
Author: Michael E. Beall (editor)  
Publisher: New Riders Publishing

Drawing No. PF-21193

Plum Brook Station's B2, HTF, & K-Site Test Site Piping Legend  
Standards

Drawing No. PF-41001

Plum Brook Station's SPF Test Site Piping Legend Standards