The California State University
Campus Master Plan - CAD Standard

Introduction

 The Board of Trustees of the California State University (CSU) requires that every campus maintain an approved "Physical Master Plan [that] is a graphic representation of how a campus will implement its Academic and Strategic Plans."
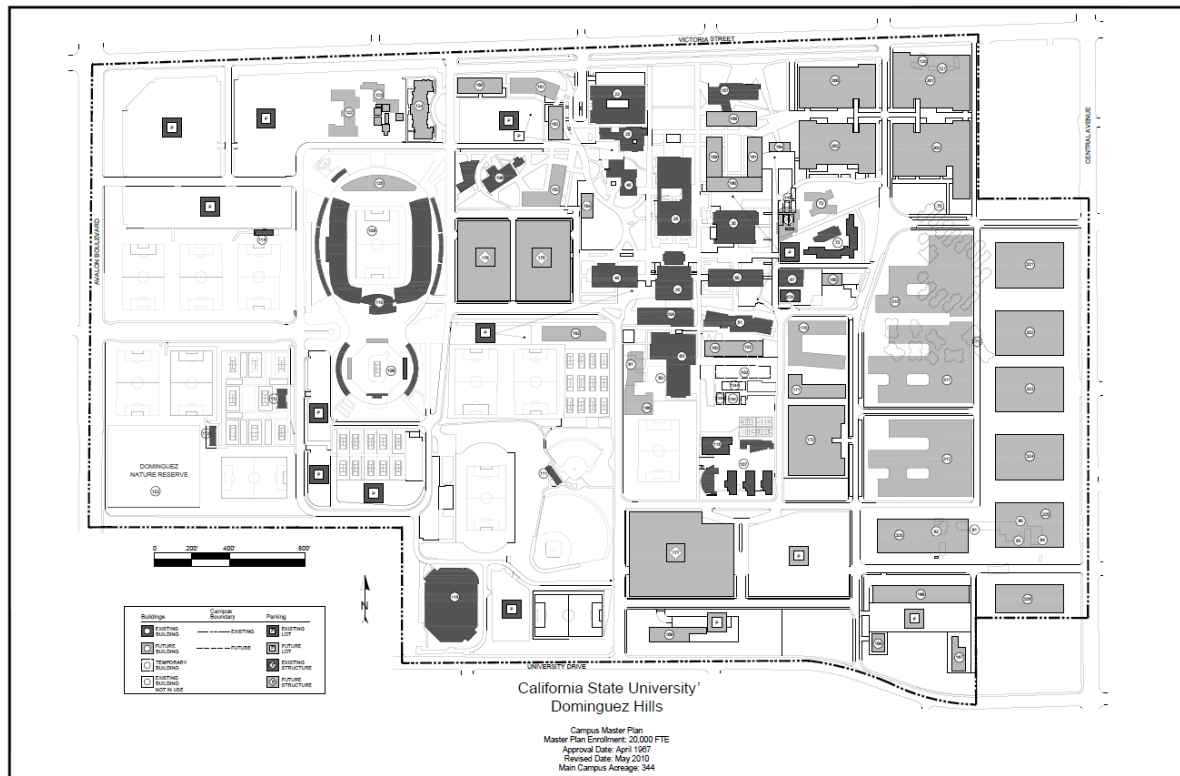https://calstate.policystat.com/policy/8837634/latest#autoid-dgx6z. The Physical Master Plan comprises a one-page map and associated legend identifying building numbers and names.

The standards set in this document are to guide the creation of a clear and concise Physical Master Plan map for use in presentations to the Board of Trustees, the annual CSU Capital Improvement Program, and CSU's web-based database of current campus master plans.

The standards outlined in this document were developed for the express purpose of accurately and consistently representing CSU Physical Master Plans, as distinct from other CAD-based plans which campuses may use for design and construction of individual facilities or for other space and facilities management applications.

Physical Master Plan Map

The prototype digital Physical Master Plan map illustrates the boundaries and major improvement features of campus land, including buildings, roadways, parking lots, bridges, and other major features and natural resources such as lakes and streams. Importantly, it also depicts the temporal planning status of existing and proposed boundaries, buildings and parking lots. The building numbers are keyed to all approved Physical Master Plan facilities as recorded in the CSU Space and Facilities Database.

California State University'
Dominguez Hills

Campus Master Plan
Master Plan Enrollment: 20,000 FTE
Approval Date: April 1967
Revised Date: May 2010
Main Campus Acreage: 344

The California State University
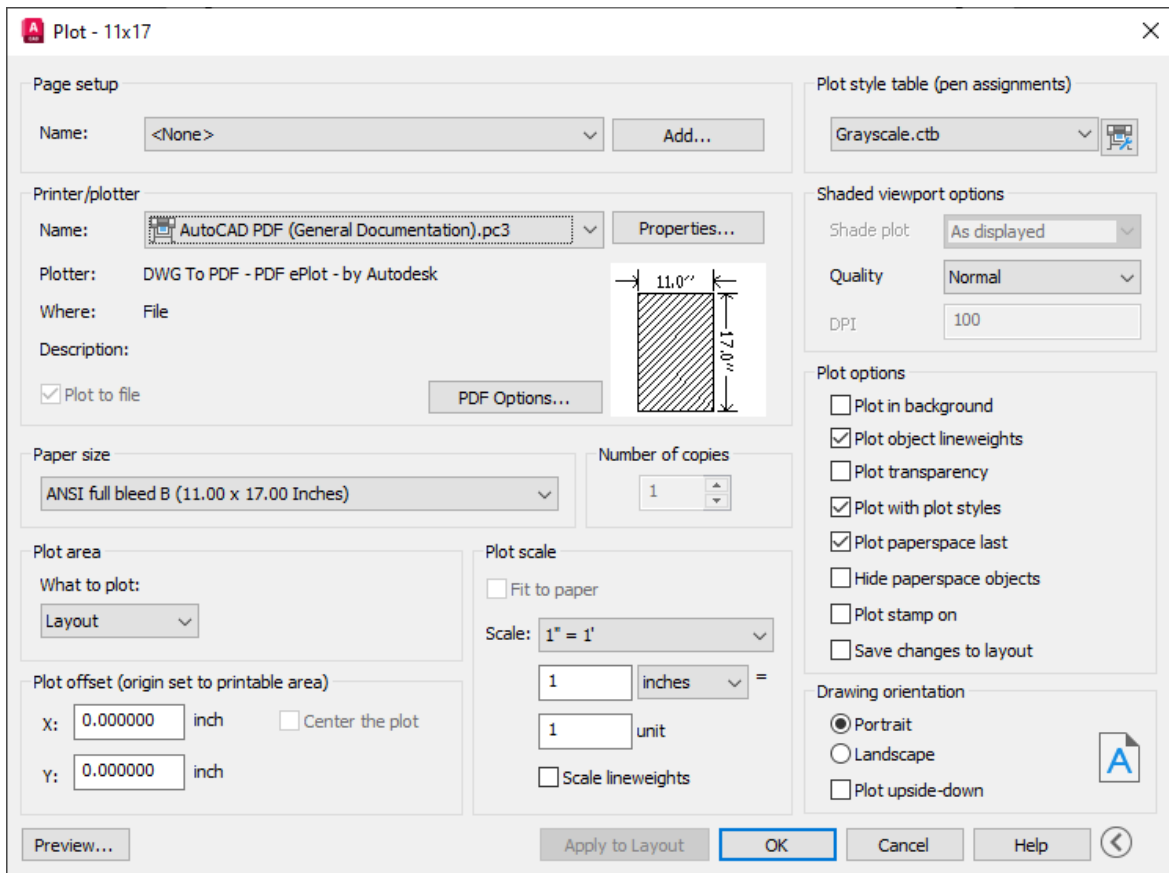# Campus Master Plan - CAD Standard

CAD Standards

Basic File Standards:

The file is to be maintained in AutoCAD drawing file format (.dwg). AutoCAD is an industry standard that supports efficient scaling, editing, and separation of function by layer. Use the latest AutoCAD (or AutoCAD equivalent) version available to the campus for map files.

Site features (such as boundaries, buildings, roadways, parking lots, etc...) will each be set as their own layer. Site features are to be *drawn to scale* in model space using the California State Plane coordinate system, NAD83 datum. Title block, north arrow, scale, legend and border are drawn in paper space. Export map to PDF by plotting the layout. Use the Page Setup dialog box shown below. Standard page set-up includes:

- Plotter/printer: the AutoCAD PDF (General Documentation).pc3
- Paper Size: ANSI full bleed B (11.00 x 17.00 Inches)
- Plot Area: Layout
- Plot Scale: 1" = 1'
- Plot Style table: Grayscale.ctb
- Quality: normal:
- Plot Options: make sure "Plot Object Lineweights" is checked
- Orient layout as appropriate

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Font Selection:

To improve visual consistency across all master plan maps, please use the **Arial** font for all text and labels. If no specific text style already exists, please create an "ARIAL" Text Style by typing "_STYLE" in the command land and using the Text Style dialog box in AutoCAD.
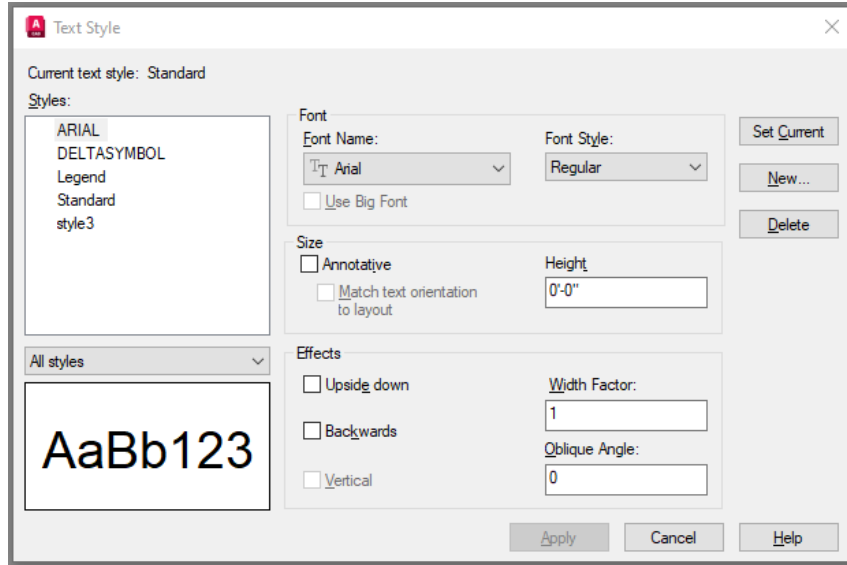
Block Entities:

The use of predefined blocks and symbols simplifies the drafting and maintenance of visually complex entities. The result is greater visual consistency both within drawings and across maps. To implement this standard, blocks are available for legends, scale, north arrow and title block. A proper titleblock format for a campus Master Plan should look similar to the one below. Necessary elements include:

- "Campus Master Plan" subtext
- Master Plan Enrollment with accurate FTE
- Original Approval Date (month and year)
- Proposed Revision Date (month and year)
- Main Campus Acreage
- North arrow and scale
- Legend for buildings, parking, and their respective colors
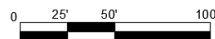- Campus boundary lines and their respective patterns

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Boundary Lines:

With master plan maps, line type is used to visually distinguish between different types of campus boundaries, existing and proposed: Existing campus boundaries should be set to the PHANTOM line type. Proposed boundaries should be set to DASHED. Line type must be represented using an AutoCAD line type with continuous lines and not with a collection of broken single lines. Boundary line should set their lineweight to 0.50 mm. Do not change the beginning/end width or global width of a polyline.
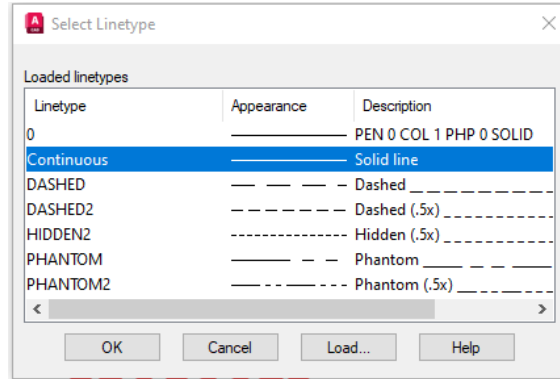
Hatching:

The planning status of buildings and parking lots is represented on the master plan by different shading colors. Shade all campus facilities by using the HATCH command, ensuring building number is visible. Hatch pattern style should be set to SOLID, using the Hatch Pattern Palette, under the Other Predefined tab. Polygon fills should be represented with solid hatching and not with other hatch types or disconnected parallel lines. Using other dense hatch patterns to create solid fill shall not be permitted in the drawing set. Hatches should be associative where possible.

- Existing Facilities**:** Set color to grey 251
- Proposed Facilities**:** Set color to grey 254
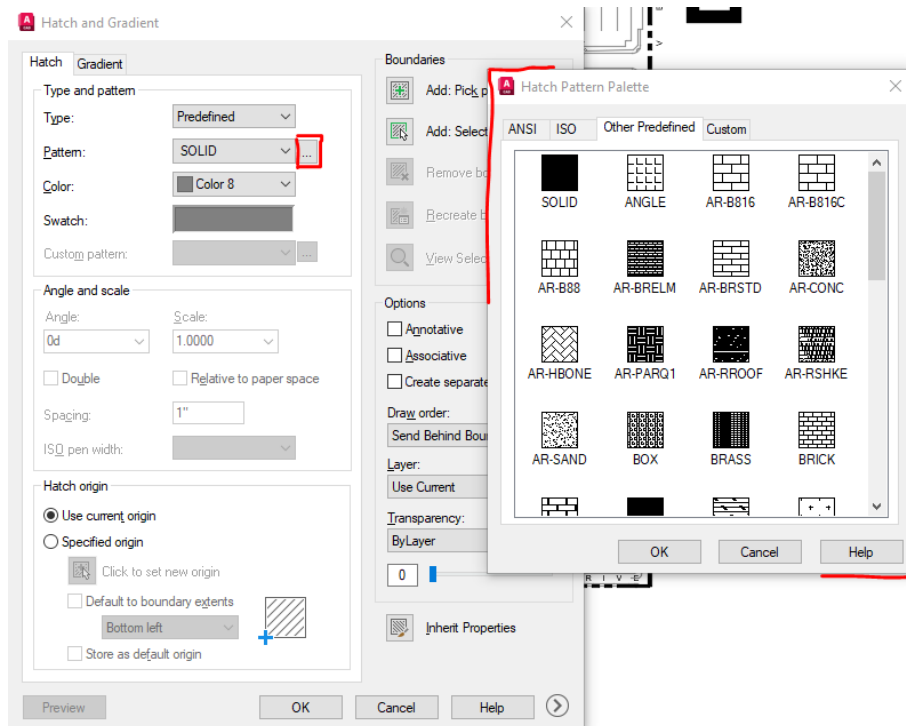
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Layer Standards:

Adhering to layer guidelines and separation of features by function and layer are *fundamental requirements* for this master plan map standard, ensuring consistency over time. The table below outlines the typical set of layers, and their attributes, to be maintained in CSU master plan maps. It is based on layer guidelines found in the existing AIA Layer Guidelines and National CAD Standards. The layer dictionary can be extended as needed, using the same concepts and conventions.

LAYER NAME	DESCRIPTION	COLOR	TYPE	WEIGHT	NOTES
0	Standard	White	Continuous	Default	DO NOT USE
A-LEGEND	Legend	White	Continuous	Default	legend, titleblock, etc.
A-VIEWPORT	Viewport	White	Continuous	Default	USE ONLY IN LAYOUT VIEW
C-GRID	Grid Lines	Yellow	Continuous	0.00	DO NOT PRINT ON MP
C-GRID-ANNO	Grid Labels	White	Continuous	0.00	DO NOT PRINT ON MP
C-PROP	Existing Property Lines	White	Phantom	0.50	Heaviest lineweight on layout
C-PROP-PROPOSED	Proposed Property Lines	White	Dashed	0.50	Heaviest lineweight on layout
C-PROP-ESMT	Easements	Red	Hidden	Default	DO NOT PRINT ON MP
C-PROP-ROW	Rights of Way	Red	Hidden	Default	DO NOT PRINT ON MP
C-ROAD	Roads and Streets	251	Continuous	Default	Road Outline/Face of Curb
C-ROAD-ANNO	Road Names	White	Continuous	Default	text only
C-ROAD-CURB	Road Curb Lines	251	Continuous	Default	DO NOT PRINT ON MP
C-ROAD-STRP	Road Striping	254	Continuous	Default	DO NOT PRINT ON MP
C-BLDG	Building Footprints	White	Continuous	0.30	polygons only
C-BLDG-ANNO	Building Names	White	Continuous	Default	text only
C-BLDG-PATT	Building Hatching	251	Continuous	Default	Use "SOLID" pattern ONLY
C-BLDG-TEMP	Temporary Buildings	White	Hidden	Default	polygons only
C-BLDG-TEMP-ANNO	Temporary Building Names	White	Continuous	Default	text only
C-BLDG-FUTR	Proposed Buildings	White	Continuous	Default	polygons only
C-BLDG-FUTR-ANNO	Proposed Building Names	White	Continuous	Default	text only
C-BLDG-FUTR-PATT	Proposed Building Hatching	254	Continuous	Default	Use "SOLID" pattern ONLY
C-PKNG	Parking Lot Outlines	251	Continuous	Default	
C-PKNG-STRP	Parking Stripping	254	Continuous	Default	DO NOT PRINT ON MP
C-PKNG-ANNO	Parking Lot Numbers	White	Continuous	Default	text only
C-PKNG-FUTR	Proposed Parking Lots	White	Continuous	Default	
C-PKNG-FUTR-ANNO	Proposed Lot Numbers	White	Continuous	Default	text only
C-PKNG-ANNO	Parking Stripping	White	Continuous	Default	text only
C-WATR	Water Features	254	Continuous	Default	
C-WATR-ANNO	Water Feature Names	White	Continuous	Default	text only
L-SITE	Site Features	253	Continuous	Default	stairs, retaining walls, etc.
L-SITE-ANNO	Site Annotations	White	Continuous	Default	text only
L-SITE-WALK	Pedestrian Walkways	253	Continuous	Default	
L-SITE-SPRT	Sport & Activity Fields	253	Continuous	Default	
L-SITE-POOL	Swimming Pools	253	Continuous	Default	