

10.0 MoDOT's CADD Standards Manual

A manual has been set up as a visual reference to the Settings Manager used by MoDOT's Design, Construction, Environmental, Cultural, and other Divisions. It was created in cooperation with the CADD Support Center, CADD Quality Circle, and the Support Center Design Division. The MoDOT Support Center Design Division distributes this publication.

You will find an Adobe Acrobat Reader version at the following key-in link of your Internet browser:

http://caddnet/index.php?title=MicroStation_SS2_Updates

The screenshot shows an Internet Explorer browser window with the address bar displaying http://caddnet/index.php?title=MicroStation_SS2_Updates. The page title is "MicroStation SS2 Updates - CADD Wiki". The browser's favorites bar includes "Intellicast - NOWrad at St...", "NOAA - 7 Day Forecast", and "Web Slice Gallery".

The web page content includes a MoDOT logo on the left and a navigation menu with the following items:

- Main Page
- Project Wise
- MicroStation
- GEOPAK Road
- GEOPAK Site
- GEOPAK Survey
- GIS Information
- GPS Information
- Drainage Apps
- Other Design Apps
- PC "How To's"
- Training
- Electronic Plans
- Construction

The main content area features a "CADD Support" header and a "MicroStation Updates" title. Below this is a "Contents [hide]" section with a numbered list:

- 1 CADD Standards
- 2 Settings Manager
- 3 Microstation QC Meeting Minutes
- 4 Version Updates
- 5 Archived PowerPoint Presentations

The "CADD Standards" section is expanded, showing a list of links:

- CADD Standards**
 - [Cadd Standards Manual \(updated 09/09/2011\)](#)

The "Settings Manager" section is also expanded, showing:

- Settings Manager**
 - [Settings Manager Updates - \(Current Update - June 2012\)](#)

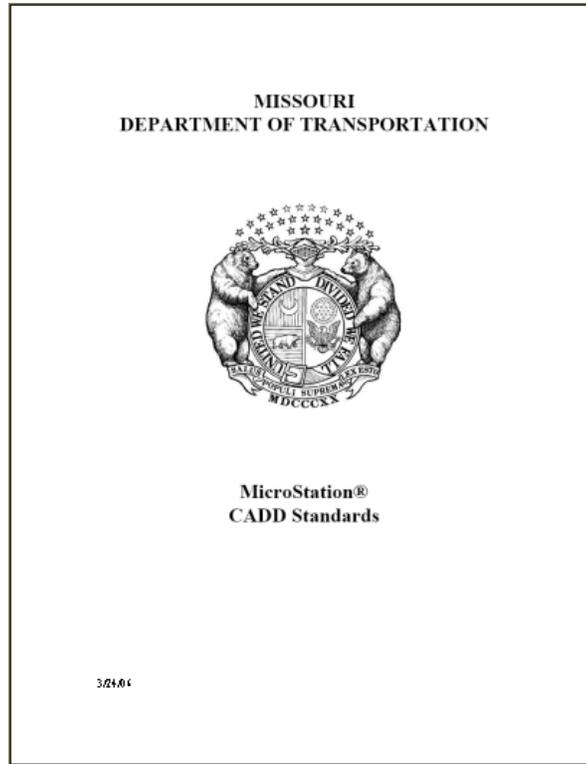
The "Microstation QC Meeting Minutes" section is expanded, showing:

- Microstation QC Meeting Minutes**
 - [Microstation QC Meeting Minutes \(Last Meeting 08-2011\)](#)

MicroStation V8i - Standards & the Settings Manager

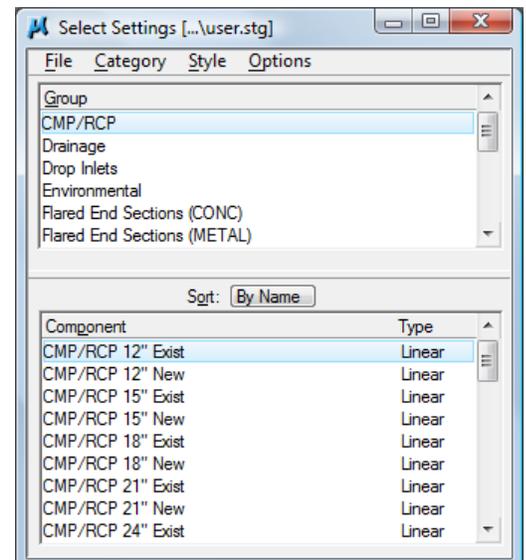
This manual was constructed to support the MoDOT Engineering Policy Guide. The items listed are in settings manager order from Title Sheet to Cross-Section/Preliminary Plan. It is intended to help all MicroStation CADD users identify and utilize the proper text and symbology, established by the department, while constructing plans for highway construction. Each item has a graphical representation and a description of its type, color, level, line weight, line style, and text height (if applicable).

These standards were developed to ensure uniformity of highway plans created by the department throughout the state of Missouri.



10.1 What is the Settings Manager?

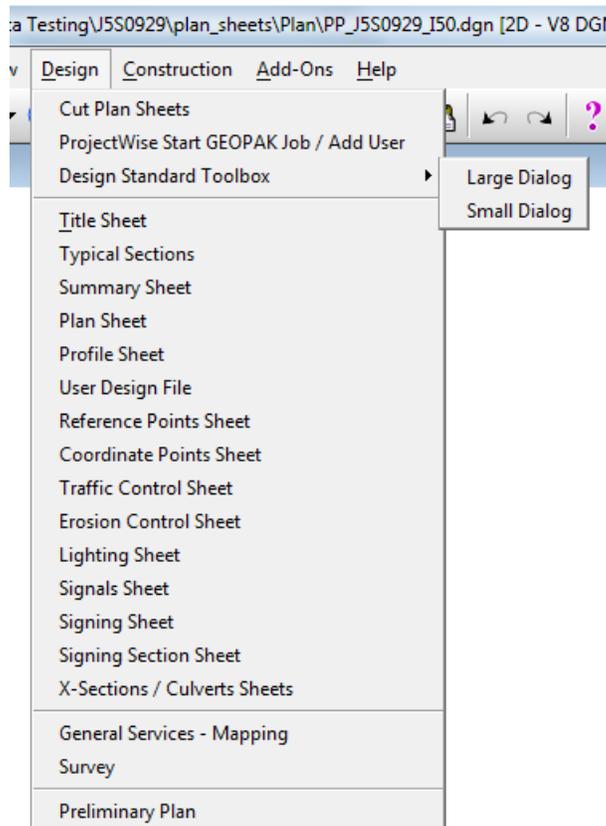
Within MicroStation, MoDOT utilizes an application called the Settings Manager to enable their users to standardize items such as line styles, line weights, text heights and widths, dimension styles, cells, colors, and scales. The Settings Manager enables the user to place geometry with the correct element attributes and it will also invoke the recommended tool with a single mouse click.



10.2 Activating the Settings Manager

The Settings Manager is activated by selecting the Design pull down and then choosing the drawing type you are working with.

There is also the Design Standards Toolbar that you can use to load up the Settings Managers by clicking on the appropriate icon.



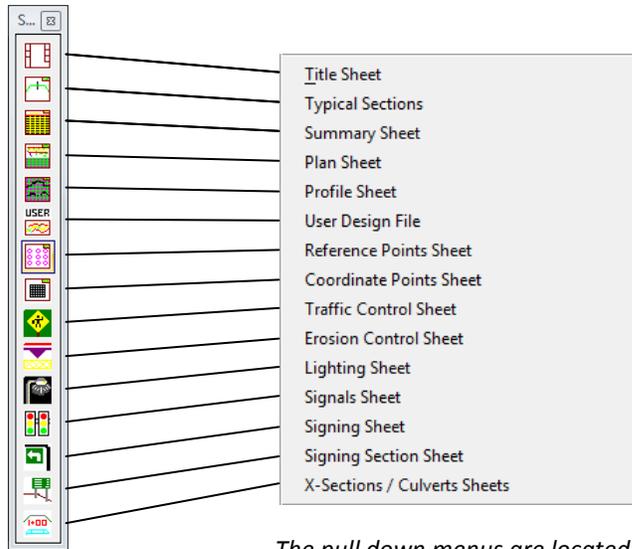
10.3 The Design Standards tool box



Each of the icons in the Design Standards tool box represent a type of Design File that is typically drawn by MoDOT. Hover your cursor over an Icon to get a “tool tip” of what each Icon represents. This tool bar is resizable and dockable just like any other tool bar.

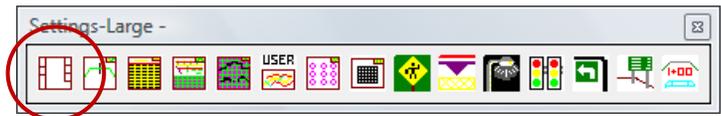
You can invoke a Settings Manager with a single click to one of the Icons. Each Icon represents a type of sheet or design file.

MicroStation V8i - Standards & the Settings Manager



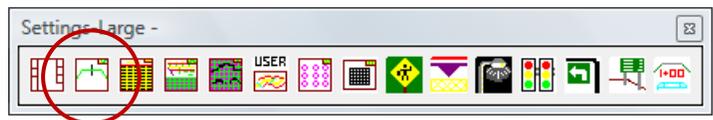
The pull down menus are located beneath the MoDOT pull down

The Title Sheet Icon



The Title Sheet Icon and *pull down menu* contains text, lines and cells used in the production of standard Title Sheet.

The Typical Section Icon



The Typical Section Icon and *pull down menu* contains text, lines, dimensions, and some Standard Typical Section cells used in the production of Typical Section Sheet.

The 2B Sheet Icon



The 2B Sheet Icon and *pull down menu* contains text and lines used in the production of standard 2B Summary of Quantities Sheet.

The Plan Sheet Icon



The Plan Sheet Icon and *pull down menu* contains text, dimensions, and cells used in the production of a Plan Sheet from other referenced (see the chapter regarding reference files) files.

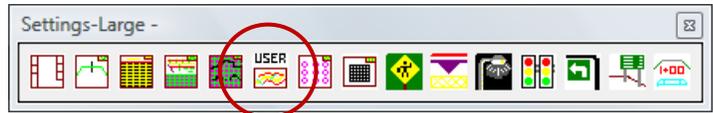
MicroStation V8i - Standards & the Settings Manager

The Profile Sheet Icon



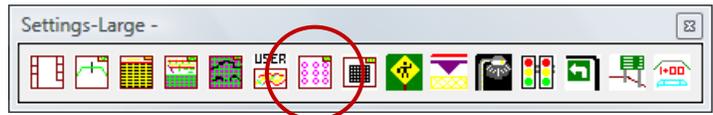
The Profile Sheet Icon and *pull down menu* contains text, lines and cells used in the production of a Profile Sheet or the Profile section of a Plan & Profile Sheet.

The User Design File Icon



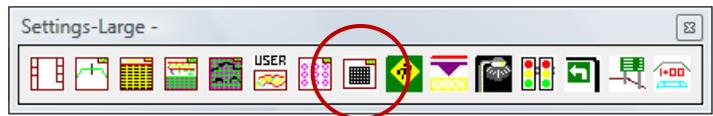
The User Design File Icon and *pull down menu* contains lines and cells that are used in the production of a standard highway design sheet (R/W, roadway items, property items, drainage items, etc.).

The Reference Points Icon



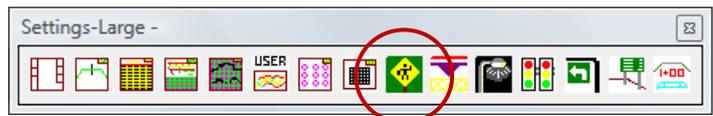
The Reference Points Icon and *pull down menu* contains text and lines used in a standard Reference Point Tie Sheet.

The Coordinate Points Icon



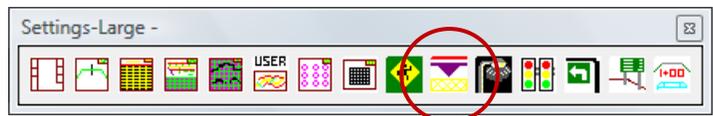
The Coordinate Points Icon and *pull down menu* contains text and lines used in a standard Coordinate Points Sheet.

The Traffic Control Icon



The Traffic Control Icon and *pull down menu* contains cells, text and lines used in the production of standard Traffic Control Sheet. (Signs, Cones, Barriers, etc.)

The Temporary Erosion Control Icon



The Temporary Erosion Control Icon and *pull down menu* contains cells, text and lines that are used in the production of standard Temporary Erosion Control Sheet (Straw Bales, Silt Fences, Flow Arrows, etc.)

MicroStation V8i - Standards & the Settings Manager

The Lighting Icon



The Lighting Icon and *pull down menu* contains cells, text and lines that are used in the production of standard Lighting Special Sheet. (Conduit, Pull Boxes, Luminaries, etc.)

The Signals Icon



The Signals Icon and *pull down menu* contains cells, text and lines that are used in the production of standard Signals Special Sheet. (Conduit, Pull Boxes, Signals, Mast Arms, etc.)

The Signing Icon



The Signing Icon contains cells, text and lines that are used in the production of standard Signing Special Sheet. (Signs)

The Signing Section Icon



The Signing Section Icon contains cells, text and lines that are used in the production of standard Signing Section Sheet. (Signs, Section Lines, Utility lines, etc.)

The X-Sections / Culverts Icon



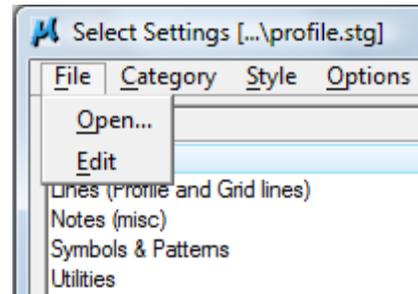
The Cross/Culvert Section Icon contains cells, text and lines that are used in the production of standard Cross Section and Culvert Section Sheet. (Flared End Sections, Pipes, Slopes, Cuts, Fills, etc.)

10.4 The Settings Manager pull downs

File menu

File menu > Open

Opens the Open Existing Settings File dialog box, which is used to open a Settings Manager file.



File menu > Edit

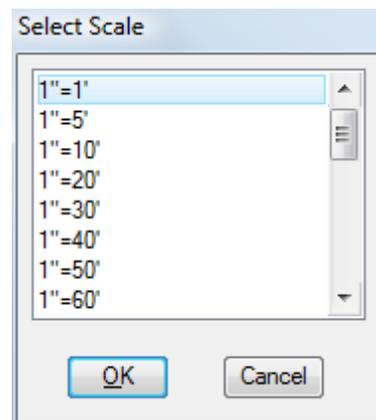
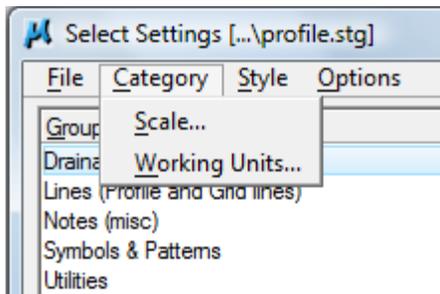
This option is "read only"

Category menu

Category menu > Scale

Opens the Select Scale dialog box, which is used to select a scale settings group and make its settings active. This should typically match the scale of the border that is placed in the dgn file.

The list box lists the scale settings groups in the open settings file that have design units that match the active design file's master units. Double-clicking a group makes its settings active and closes the dialog box. Clicking OK makes the settings in the selected group active and closes the dialog box.



English Units

Category menu > Working Units

MoDOT does not use this option at this time.

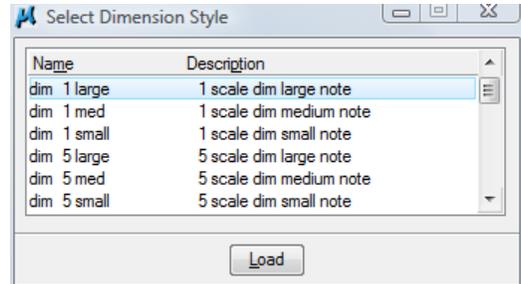
MicroStation V8i - Standards & the Settings Manager

Style menu

Style menu > Dimension

Opens the Select Dimension Style dialog box, which is used to select a dimension style.

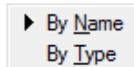
- Name — Lists the name of the dimension style.
- Description — Describes the dimension style.
- Load — Loads the selected style in MicroStation.



Style menu > Multi-line

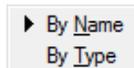
MoDOT does not use this option at this time.

Sort menu > By Name



Sorts the component list by name.

Sort menu > By Type

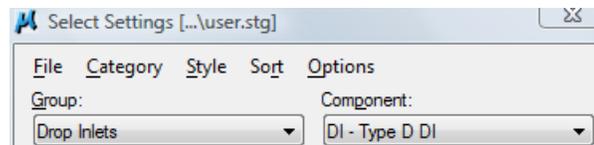


Sorts the component list by type.

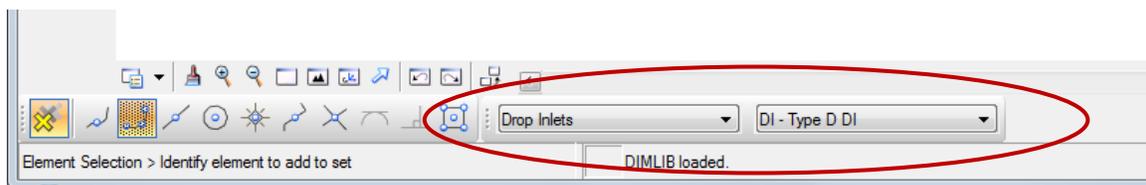
Options menu

Options menu > Large/Small Dialog

If the Select Settings window is not expanded, selecting Options > Large Dialog expands the window interface. If the Select Settings window is expanded, selecting Options > Small Dialog returns the window to a smaller, dockable window.



The Settings Manager as a small dialog box.



Settings Manager's small dialog box docked at the bottom of the MicroStation window.

MicroStation V8i - Standards & the Settings Manager

Options menu > Hide/Show Menu Bar

(Small, dockable Settings Manager window only) Hides the menu bar to conserve screen space. When the menu bar is hidden, the name of this menu item changes to Show Menu Bar, which enables you turn the menu bar back on. (On the smaller Settings Manager window, regardless of whether or not the menu bar is showing, all the menus on the menu bar are still available through a right-click menu.)



Hide Menu Bar option.



Menus on the menu bar are still available through a right-click menu.

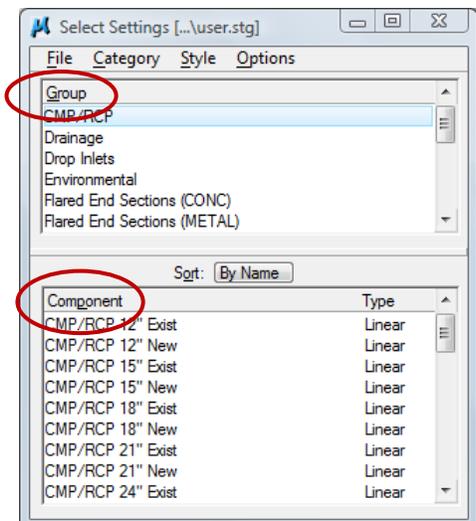
10.5 Groups & Components

Groups and Components work similar to a Directory file structure. Groups could be compared to Directories and Components to files located with-in those Directories. Groups are given specific names such as Drainage, Drop Inlets, etc. Some Groups have generic names as in Notes or Lines. Selecting the Group will display that Groups contents in the Component window in the Settings Manager. Components are cells, line-types, text, dimensions, area patterns, multi-lines, circles, etc. that have been given the correct symbology such as level, color, and line weight and can be placed on the Design File at the correct scale. Using the Settings Manager *will* create an easier way of maintaining standards throughout the Districts.

Group

Lists the names of drawing Settings Manager groups in the open Settings Manager file.

The selected group is the active drawing Settings Manager group.



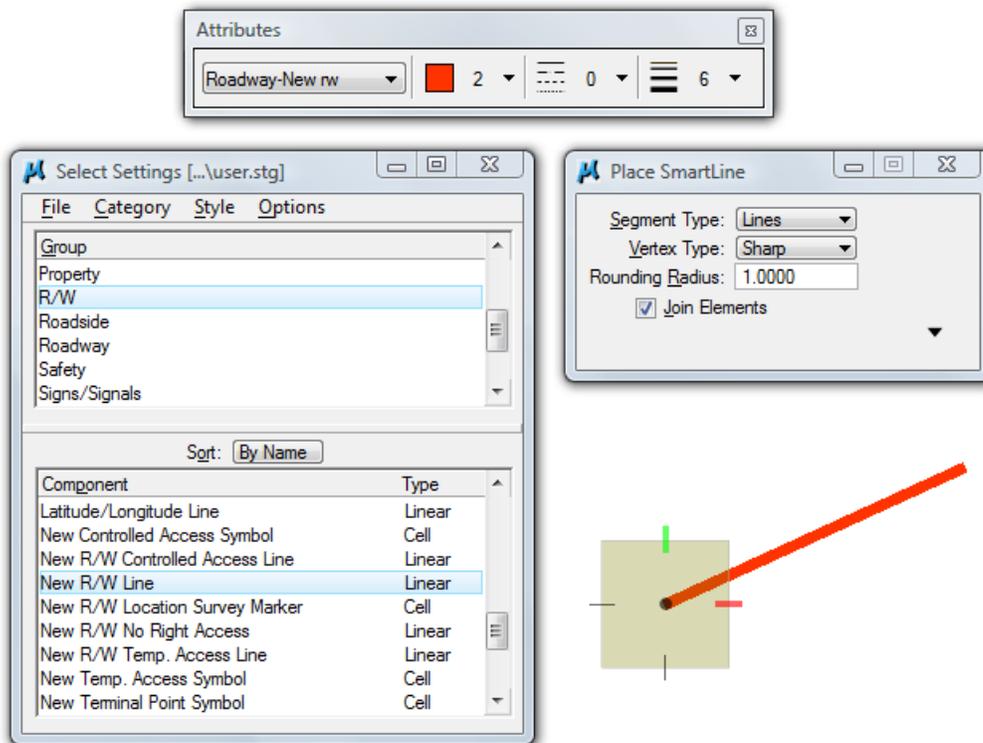
MicroStation V8i - Standards & the Settings Manager

Component

Lists the name and type of each component of the active drawing settings group. Selecting a component does the following:

- All settings associated with the component are set as specified in the component definition.
- If a Key-in is defined for the component, the corresponding tool is selected, letting you place an element(s) without using a tool box.

Selecting a Component with a single mouse button click will allow that item, whether it be text, a dimension, line-style etc. to be placed on the correct level, color and weight. Using these components also keeps the user from having to attach a cell library or look up what level items are to be placed, the Settings Manager takes care of that, so that everyone is placing the same cells on the same levels. This also keeps the user from having to set text heights, widths and spacing. Dimensions also work with the Settings Manager setting the correct text attributes and arrowhead sizes.



Selecting a Component with a single left mouse button click will set the Active Attributes to the item selected. Selecting a Component will also invoke the suggested tool for that Component.

MicroStation V8i - Standards & the Settings Manager