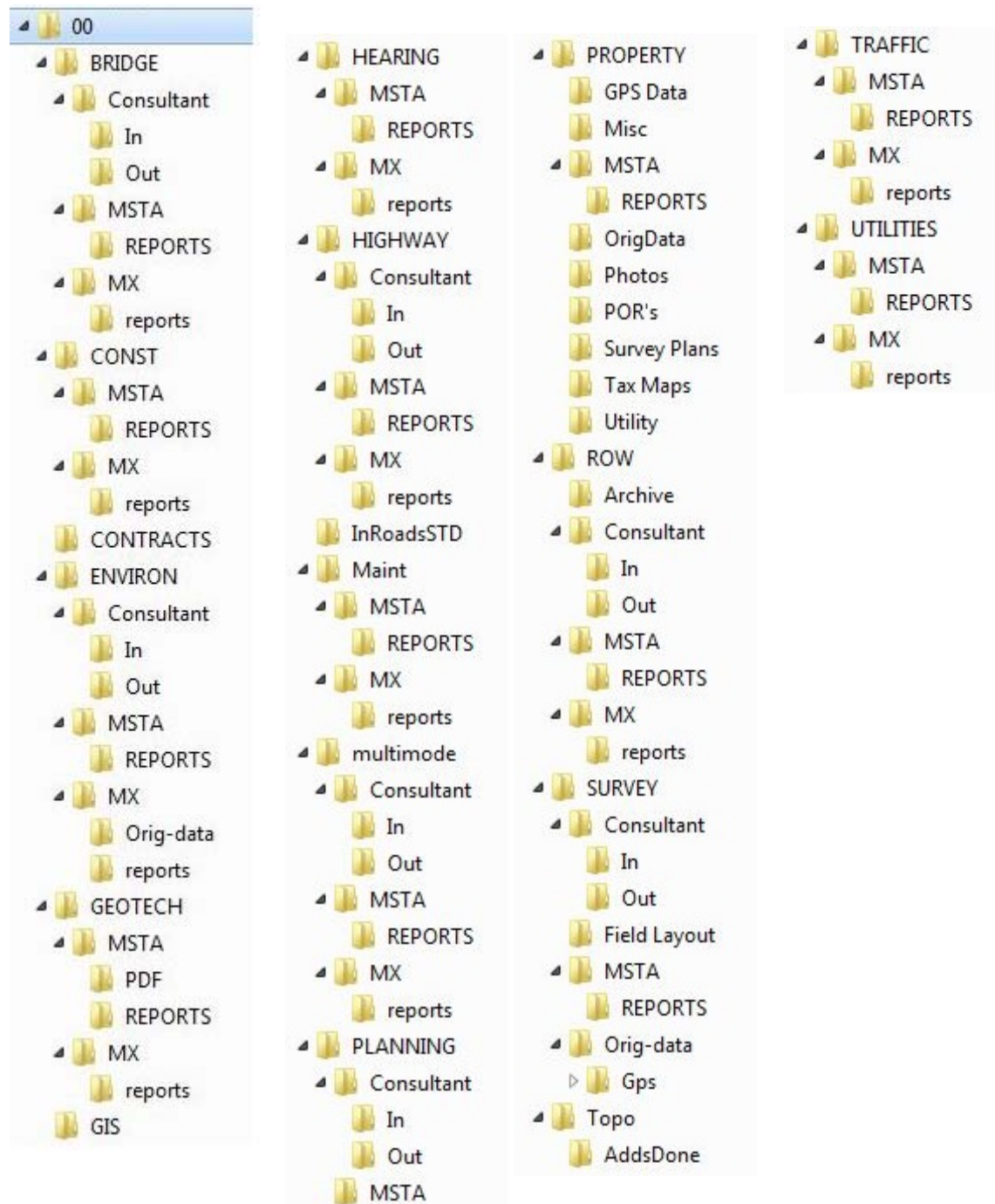


MaineDOT CADD Folder Structure and File Standards

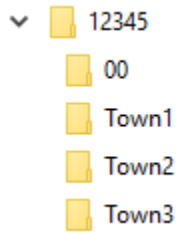
FOLDER STRUCTURE

The following images show the standard MicroStation/InRoads folder structure for MaineDOT projects. These folders are found on the **Y:** drive on the State of Maine network. Standard file naming convention will be covered later on in this document. All MicroStation files will be located in the **MSTA** folder. All InRoads files will be located in the **MSTA** folder with the exception of .itl and .xin files, which will be located in the **InRoadsSTD** folder. Consultant files and information should go in the appropriate **In** and **Out** folders for each group.

Note: the MX folder is for legacy projects and is no longer included in current projects.



For projects with multiple towns under one WIN, the root folder structure will appear as follows:



Each Town folder will have the same subfolder structure as the 00 folder.

FILE STANDARDS

Introduction

This section will give MaineDOT naming convention for files and their relationship with each other. The standard naming convention for MaineDOT MicroStation files is important since there are personnel in other disciplines that will be looking for certain files with a certain name and location. There are also macros and other programing elements that will utilize these files.

Base Reference Files

Base reference files are those files that come from MaineDOT Survey and are automatically referenced into certain files such as Highway.dgn, Bridge.dgn and others. These files are attached in a specific way with names and logical names that effect processes and other disciplines. The following is a list of these file names and logical names that are located in the Topo folder:

Standard File Name	Logical Name	Information Origin	Notes
Contours.dgn	contours	All contour information from Survey	These files are automatically referenced into the following: Bridge.dgn, BDPlan.dgn, ENVPlan.dgn, Geoplan.dgn, Highway.dgn, HDPlan.dgn, MMPlan.dgn, RWPlan.dgn, RWPlan-clips.dgn, TrafficPlan.dgn, UTIPlan.dgn
Points.dgn	points	All points information from Survey	

Text.dgn	text	All text information from Survey	These files are automatically referenced into the following: Bridge.dgn, BDPlan.dgn, ENVPlan.dgn, Geoplan.dgn, Highway.dgn, HDPlan.dgn, MMPlan.dgn, RWPlan.dgn, RWPlan-clips.dgn, TrafficPlan.dgn, UTIPlan.dgn
Topo.dgn	topo	All topo information from Survey	
Wetlands.dgn	wetlands	All wetlands information from ENV	

Note: It is extremely important that these files are not detached!

If one of these files needs to be attached for something other than project use, it must be done in the correct manner. Please seek guidance first.

Master Drawings

Alignments.dgn – This is the master drawing for all horizontal alignments for the project in plan view. Only those MicroStation elements required to display and annotate the horizontal alignments for the design of the project in plan view should be contained in this drawing. This drawing shall be 2D only. For complex intersections that require numerous reference alignments for construction, a separate Alignments drawing may be required.

BDPlan.dgn - This is the master document for all referenced drawings related to the bridge design and information

Bridge.dgn - This is the master drawing for all proposed design drawing elements for the bridge design in plan view. There should be nothing else in this drawing other than the elements required to display the plan view design of the project. This drawing shall be 2D only.

ENVPlan.dgn - This is the master document for all drawing elements related to the environmental design and information.

Geoplan.dgn - This is the master document for all drawing elements related to the geotechnical design and information.

HDPlan.dgn – This is the master document for all referenced drawings related to the highway design. No actual MicroStation drawing elements should be contained within this drawing except for the use of clip boundaries to define sheets.

Highway.dgn – This is the master drawing for all proposed design drawing elements for the highway design in plan view. There should be nothing else in this drawing other than the elements required to display the plan view design of the project. This drawing shall be 2D only.

MMPlan.dgn - This is the master document for all referenced drawings related to multimodal design. No actual MicroStation drawing elements should be contained within this drawing except for the use of clip boundaries to define sheets.

RWPlan.dgn - This is the master document for all drawing elements related to right-of-way mapping for proposed and existing property information.

UTIPlan.dgn - This is the master document for all drawing elements related to proposed utility design.

Profile.dgn – This drawing shall only contain MicroStation drawing elements that are required to show all profiles required for design of the project and any clip boundaries required to define sheets. For plan over profile sheets, this drawing contains the reference profile portion of the sheet. This drawing shall be 2D only.

XSect.dgn – This is the master cross-section drawing for all cross sections required for preliminary design. Only MicroStation drawing elements that are required to show cross section design of the project shall be contained in this drawing. Cross sections should be fully detailed first and then broken out into individual sheets from this drawing to be included in the final plans. This drawing shall be 2D only.

Sheeted Drawings

All sheeted drawings (example: 014_HDPlan1.dgn) shall contain only the sheet and attached references that are intended to be shown and/or detailed elements if applicable. No other references shall be shown or attached, nor shall there be any other MicroStation drawing elements contained within the sheet boundary. All sheeted drawings shall be 2D only.

Working Drawings

Working drawings shall carry the suffix “_working” and should be made via the Make Sheetz application in MicroStation. These drawings are for the designer’s/detailer’s purpose only and shall not be referenced into any master or sheeted drawing on a permanent basis to show design elements. These drawings may either be 3D or 2D depending on the need for the drawing.

Other Drawings

Other drawings for a project such as a Grading.dgn, Signing.dgn or Lighting.dgn or an additional alignments drawing such as Alignments_grading.dgn may be required for design. If these are created, they shall be considered master drawings. Any plan sheets created from them shall be considered as sheeted drawings and any temporary drawings created from them shall be considered working drawings.

Logical Names

Logical names are used for plotting referenced DGNs with the appropriate color, line weights and shading. See the table under [Base Reference Files](#) for the appropriate logical name for the particular DGN.

CREATING NEW FILES

Introduction

This macro is used to make new design files that meet MaineDOT CADD Standards. It will create them only in the same folder as the MicroStation design file that is open when the macro is run. To create new files for a specific project, launch the project and open an existing file in the project's folder.

Launch the MakeSheetz macro

Select **File > Make Sheetz**. This will open the **MakeSheetz** dialog box (shown below).

The screenshot shows the 'MakeSheetz' dialog box. It has a title bar with the text 'MakeSheetz' and a close button. The dialog is divided into several sections:

- File Prefix:** Contains four radio buttons: 'Sheet # 1' (selected), 'z', 'c', and 'no prefix'. The 'Sheet # 1' option has a small text box containing the number '1'.
- Type of File To Create:** Contains two dropdown menus. The first is labeled 'Workgroup' and has 'BRIDGE' selected. The second is labeled 'Type Of File' and is currently empty.
- File Suffix:** Contains a dropdown menu on the left and a text input field on the right. The text input field contains '.dgn'.
- Buttons:** At the bottom of the dialog are two buttons: 'CREATE FILE' and 'EXIT'.

In the **File Prefix** section, there is a choice to make a **numbered** sheet, a **z-file**, a **c-file** or a file with **no prefix**. These different file types are explained in the [Different File Types](#) section. If there is no number required, a “c” or a “z”, “no prefix” can be selected.

Type of File To Create Section

In the **Type of File To Create** section, a different Workgroup can be chosen here. This option starts with the user default Workgroup. This can be changed to create a file that would normally be made by another Workgroup.

The next pulldown in this section is the **Type Of File**. This list is dependent on the **Workgroup** that has been selected. The desired file type to be created is selected from this list.

File Suffix Section

In the **File Suffix** section, the file name can be edited. A number can be selected from the pull down for multiple drawings of the same type or type a suffix into the text entry box.

Create File or Exit

Check to see if the name in the box at the bottom has the correct name and click the **Create File** button to create the file or the **Exit** button to exit the macro. When the **Create File** button is clicked, the macro will run and create a new file reflecting the selections you have made. If another file needs to be created, go to **File > MakeSheetz** again.

FILE NAMES

Introduction – Importance of File Names

The name of a file is very important for a few reasons:

1. It describes what it type of file it is and what it contains.
2. It is used to work with macros; working behind the scenes.
3. It organizes a project within the folder structure and allows others to easily find the information if the file and folder structure is known.
4. Seed files are set up with references for specific file names.

Numbered Sheets

The names of files are important. First, because it lets the user know that it is a border sheet because the automatic sheet numbering capability of MicroStation relies on the first three digits of the file name. File names are also important because MicroStation automatically loads the *Tasks Menus* that should be used based on the user login credentials.

❗ Do not manually edit the sheet numbers on any of your drawings. Allow the automated procedure to handle this.

Consider using the default number that displays, based on user workgroup, when cutting plan sheets. This will leave room for sheets that will go before the plans and numbered in the beginning of the project. Below is an example of a Highway plan set:

001_Title.dgn

002_Typical 01.dgn

003_Typical 02.dgn

004_Estimate.dgn

005_Drainage.dgn

006_General Notes.dgn

007_Construction Notes.dgn

008_???.dgn

009_???.dgn

010_???.dgn

011_HDPlan1.dgn

Different File Types

There are a number of different file types that can be use within MaineDOT's file structure. Here is a quick overview of each of the types:

z-Files

These files contain all the details and special information needed for the project to be constructed. The following are examples of this type of file: z_Abutment.dgn, z_Piers.dgn, z_Box.dgn, z_Existing.dgn, z_StageConstr.dgn, etc.

These details will be referenced via Saved Views into a Numbered Sheet for plotting.

c-Files

These files contain the drawings where coloring is done for visualization and Public Hearing purposes. These are rarely used.

No Prefix

These files contain the standard files with the base information for projects. Examples are: Alignments.dgn Highway.dgn, Bridge.dgn, Profile.dgn, etc. Also, if no number nor, a “c” or a “z”, is required, “no prefix.” can be selected.