MAINE DEPARTMENT OF TRANSPORTATION

May 2024

OpenRoads Designer 2023 Configuration for Consultants

ADMINSTRATOR'S GUIDE

TABLE OF CONTENTS

ADDITIONAL INFORMATION

For general information outside the scope of this document visit the Maine DOT website: https://www.maine.gov/mdot/

For information from qualifications to design specification visit Maine DOT Consultant Information webpage: https://www.maine.gov/mdot/cpo/

For various CADD support visit the MaineDOT CADD Support website https://www.maine.gov/mdot/caddsupport/. This site contains the following and more:
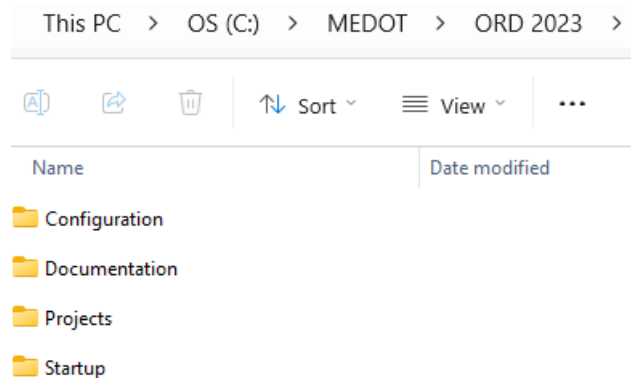
- Download the Maine DOT OpenRoads Designer standards
- Versions of CADD software currently used by Maine DOT
- Contact information for Maine DOT CADD Support
- Maine DOT's required CADD deliverables
- Maine DOT CADD Manuals and Documentation

INSTALLATION

Download the OpenRoads Designer workspace from the Maine DOT CADD Support website.

https://www.maine.gov/mdot/caddsupport/.

The downloaded file is a ZIP of 120+ MB.

Extract the contents of the downloaded file to C:\, which will create folder C:\MEDOT\ORD 2023\ and the following subfolders.

The master folder (MEDOT) can be moved from its default location C:\MEDOT to another folder or drive or a combination thereof. Likewise, the various subfolders can be moved to another folder or drive or combination thereof, independently or together. Such moves will require edits to various CFG files within the configuration.

The configuration is set up, by default, to work with this address C:\MEDOT\ but can be installed in any location; local, network, or cloud. If you move the MEDOT folder away from this default location you need to edit paths within the applicable configuration files in the \Startup folder.

If you change the default location of the MEDOT's master folder location. One of the paths that you need to edit is in an %include statement that's loads the MaineDOT_Settings.cfg file. This %include statement can be found in the following cfg files:

- ConfigurationSetup.cfg
- MaineDOT_Consultant_Settings.cfg
- MaineDOT_Settings.cfg
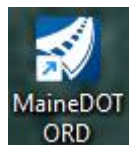- z_MaineDOT_Startup_Icon_ORD.cfg

If you change the default location of the **WIN** and or **Bridge Maintenance** folders you need to change the path to these folders in the **MaineDOT_Settings.cfg** file.

```
# Parent path for custom MaineDOT ORD configurations
MEDOT_ORD = C:/MEDOT/ORD 2023/

# Path definition for MaineDOT project folders
MEDOT_PROJECTS = C:/MEDOT/ORD 2023/Projects/

# Path definitions for MaineDOT project folders
MEDOT_PROJECTS_WIN = C:/MEDOT/ORD 2023/Projects/WIN/
MEDOT_PROJECTS_NONWIN = C:/MEDOT/ORD 2023/Projects/Non WIN/
MEDOT_PROJECTS_BRDG_MAINT    = C:/MEDOT/ORD 2023/Projects/Bridge Maintenance/
```

If the location of the Maine DOT workspace is changed you also need to change the Target field of the shortcut icon to reflect the change of the path to the z_MaineDOT_Startup_Icon_ORD.cfg file.
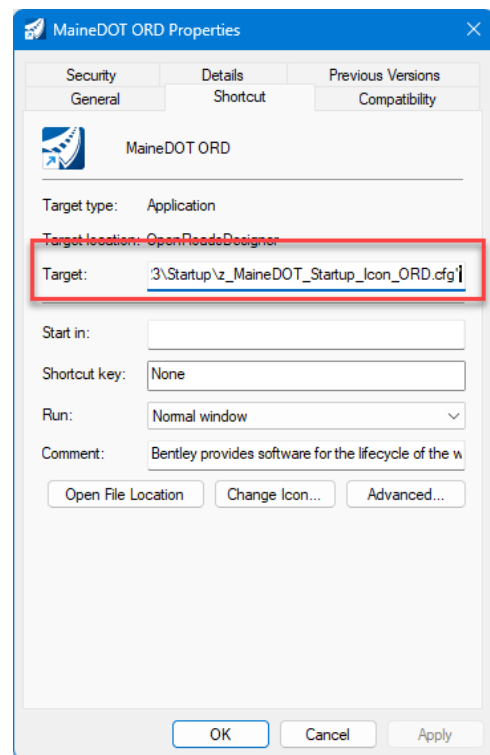
Edit the Target Field to reflect the change you made to the location of the MaineDOT folder.

The default Target Field is: "C:\Program Files\Bentley\OpenRoads Designer 2023.00\OpenRoadsDesigner\OpenRoadsDesigner.exe" -wc"C:\MEDOT\ORD 2023\Startup\z_MaineDOT_Startup_Icon_ORD.cfg"

The highlighted portion of the default pathing above is the section that needs to be edited to reflect what changes you have made to the folder and file locations.

Once these startup configuration files have been modified to reflect your installation locations you have completed the installation.

MaineDOT ORD Properties

| Security | Details | Previous Versions |
| General | Shortcut | Compatibility |

MaineDOT ORD

Target type: Application

Target location: OpenRoadsDesigner

Target: 3\Startup\z_MaineDOT_Startup_Icon_ORD.cfg'

Start in:

Shortcut key: None

Run: Normal window

Comment: Bentley provides software for the lifecycle of the w

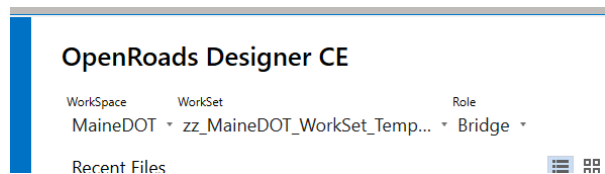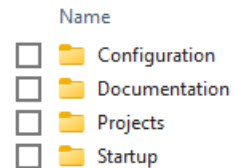Open File Location   Change Icon...   Advanced...

OK   Cancel   Apply

OVERVIEW OF MAINE DOT WORKSPACE

This document describes the Maine DOT OpenRoads Designer CADD standards and provides basic instruction for a local standalone installation. It will show one method for installing the Maine DOT OpenRoads Designer environment on the "C:" drive along with a local project folder and give a brief explanation of Maine DOT's OpenRoads Designer project folder organization.

The OpenRoads Designer workspace can be downloaded from the Maine DOT CADD Support website. https://www.maine.gov/mdot/caddsupport/. The downloaded file is a ZIP of 120+ MB.

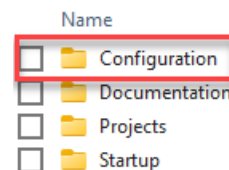The data included in this download are the following folders:

- Configuration – Contains the OpenRoads Designer workspace files. Within this folder are:
  - Organization – Empty folders which are included only to preserve the overall folder structure. Inside the Maine DOT, these folders are used for propriety standards files.
  - Workspaces – These are the Maine DOT workspaces (described below) which the consultant will likely install at the workspace level of their organization's OpenRoads Designer setup.
- Documentation – Contains various informational documents regarding the workspace. Included here are:
  - This workspace overview file.
  - Change Log of the Maine DOT workspace
  - MaineDOT_FileNamingFolderStructure.xlsx – describes the filenames and folder structures used for project files.
  - Sheet Index Properties List.txt – a text list of the workset properties which were used in version 10.10 but have now been moved to the sheet index.
- Projects – Contains templates for worksets and project folder structure.
- Startup – This folder contains the startup configuration files needed by the applications to access the configuration and display the WorkSpaces and WorkSets in ORD's startup Work Page.

CONFIGURATION FOLDER FROM DOWNLOAD

The downloaded OpenRoads Designer Configuration folder contains all the files specific to Maine DOT CAD Standards for OpenRoads Designer .

This Configuration folder is the folder referenced by the _USTN_CUSTOM_CONFIGURATION variable for those organization which prefer to unzip the entire download and then add a user configuration using the Manage Configuration functionality in OpenRoads Designer.

OpenRoads Designer 2023

WorkSpace

Within the Configuration folder are two additional folders:

Maine DOT does not use the Civil Organization folder. Internally, Maine DOT utilizes the Organization folder rather than Civil Organization and only for various standards files which are proprietary to the DOT or its staff.

- The Organization folder contain no standards necessary for consultant use of the Maine DOT standards and is included in the download only to preserve the folder structure.
- The Organization folder can be ignored by those consultants who wish to merely drop the Maine DOT workspaces alongside workspaces of other DOTs.

All CADD and OpenRoads Designer standards files are stored at the Workspace level and in the Workspaces folder.

The Workspace folder contains the OpenRoads Designer standard resources (dgnlibs, cell libs, fonts, line styles, etc.) along with an accompanying configuration file that loads these resources. These same resources and configuration file can be used by MicroStation as well as OpenRoads Designer, MicroStation will ignore the Civil specific definitions and resources used by OpenRoads Designer. OpenBridge Modeler will also load resources from this location.

WORKSPACES GENERAL

As noted above, Maine DOT stores all CADD and OpenRoads Designer standards at the workspace level. The following workspace are located in the Workspaces folder:

- MaineDOT = Used by disciplines in the Maine DOT Project Development group for WIN projects.
- MaineDOT – Non Win = Used by disciplines in the Maine DOT Project Development group for **Non**-WIN projects.
- MaineDOT – Bridge Maintenance = Used by the Maine DOT Bridge Maintenance group and rarely by consultants.
- MaineDOT Training = Can be used for completing the various training manuals and exercises. NOTE: The training files and training worksets are not included in the workspace download.

The configuration files (*.cfg) correspond to each workspace folder. Each of the CFG files will perform one of the following:
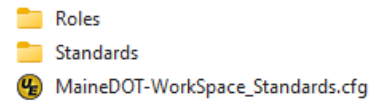
- Define worksets location under their respective folders but, load the MaineDOT workspace standards from the MaineDOT folder.
- Define worksets location under their respective folders but, load a subset of the MaineDOT workspace standards from the MaineDOT folder.

- Define worksets location under their respective folders but, load only the workspace standards unique to the discipline.

Consultants will be almost exclusively concerned with the MaineDOT workspace which is further described below.
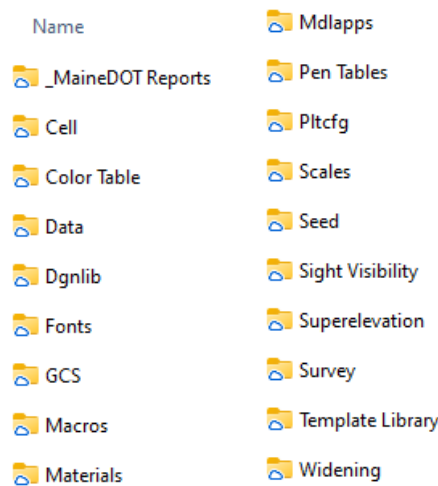
MAINEDOT WORKSPACE

Within the MaineDOT workspace are two folders and one CFG file. The configuration file loads the various standards within the standards folder and is called by several of the workspace CFG files listed in previous section.
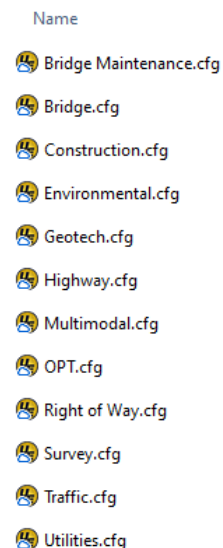

STANDARDS FOLDER

The standards folder stores the various CADD and OpenRoads Designer standards in various subfolders. A full discussion of the files is not included here.

Name	
_MaineDOT Reports	Mdlapps
Cell	Pen Tables
Color Table	Pltcfg
Data	Scales
Dgnlib	Seed
Fonts	Sight Visibility
GCS	Superelevation
Macros	Survey
Materials	Template Library
	Widening

ROLES FOLDER

There is a Role configuration for each workgroup at Maine DOT. These roles can load standards or define variables which are unique to the group. As of this writing only the following roles perform any function:

- Survey role – sets a different default seed dgn file and defines default plot configuration to use MDOT_Survey_pdf.pltcfg and ORD Survey Pentable.tbl
- Right of Way – defines default plot configuration to use MDOT_ROW_pdf.pltcfg and ORD ROW pentable.tbl.

Name
- Bridge Maintenance.cfg
- Bridge.cfg
- Construction.cfg
- Environmental.cfg
- Geotech.cfg
- Highway.cfg
- Multimodal.cfg
- OPT.cfg
- Right of Way.cfg
- Survey.cfg
- Traffic.cfg
- Utilities.cfg

STARTUP FOLDER

The Startup folder (C:\MEDOT\ORD 2023\Startup\) contains the files to launch OpenRoads Designer with the MaineDOT environment from a local computer drive. These files allow for different methods to launch OpenRoads Designer to give MaineDOT and their consultants flexibility in their installations.

- Desktop shortcut
  To launch ORD using this startup method the user simply copies the MaineDOT ORD shortcut to their Windows desktop. The shortcut references the *z_MaineDOT_Startup_Icon_ORD.cfg* file to load the required configuration files. If the folder structure described herein is changed the icon will need to be edited. As delivered the icon expects the CFG file to be located at C:\MEDOT\ORD 2023\Startup\.

- Automatic load from ConfigurationSetup.cfg
  The *ConfigurationSetup.cfg* file is a modified version of the default *C:\ProgramData\Bentley\OpenRoads Designer CE 10.10\Configuration\ConfigurationSetup.cfg* file. Replacing the file delivered with OpenRoads Designer with this modified file will allow users to launch ORD without the need for a custom Windows shortcut. Most users should have write access to this folder, so no special administrator access to the computer should be required for users to copy the file into place. As noted above the expected location of the workspace files is C:\MEDOT\ORD 2023\Startup\. If the folder structure is modified from what is delivered in the downloaded workspace, this CFG file may need to be edited.

- Automatic load from z_MaineDOT_startup.cfg
  The *z_Maine_Startup.cfg* file can be copied to the OpenRoads Designer config/system folder so that no special shortcut is needed to load the configuration, similar to the ConfigurationSetup.cfg file. The difference here is that this file is copied to the product folder under C:\Program Files and required administrator access to copy the file into place.

Each of the starting options utilize include statements to load the MaineDOT_Settings.cfg file to load the configuration.

WORKSETS CREATION

When creating a new WorkSet for the MaineDOT WorkSpace, use the template named zz_MaineDOT_WorkSet_Template or the workset provided by the DOT. In the uncommon occurrence of needing a new Bridge Maintenance workset use the template named: zz_MaineDOT-BridgeMaint_WorkSet_Template. The worksets used for the MaineDOT Training are included in the workspace download.

The template contains an empty sheet index, the Maine DOT template library and Maine DOT project folder structure as described above. Further details and explanation of the folders and files intended use and what they should contain can be found in the xlsx file "MaineDOT_FileNamingFolderStructure" located in the documentation folder.
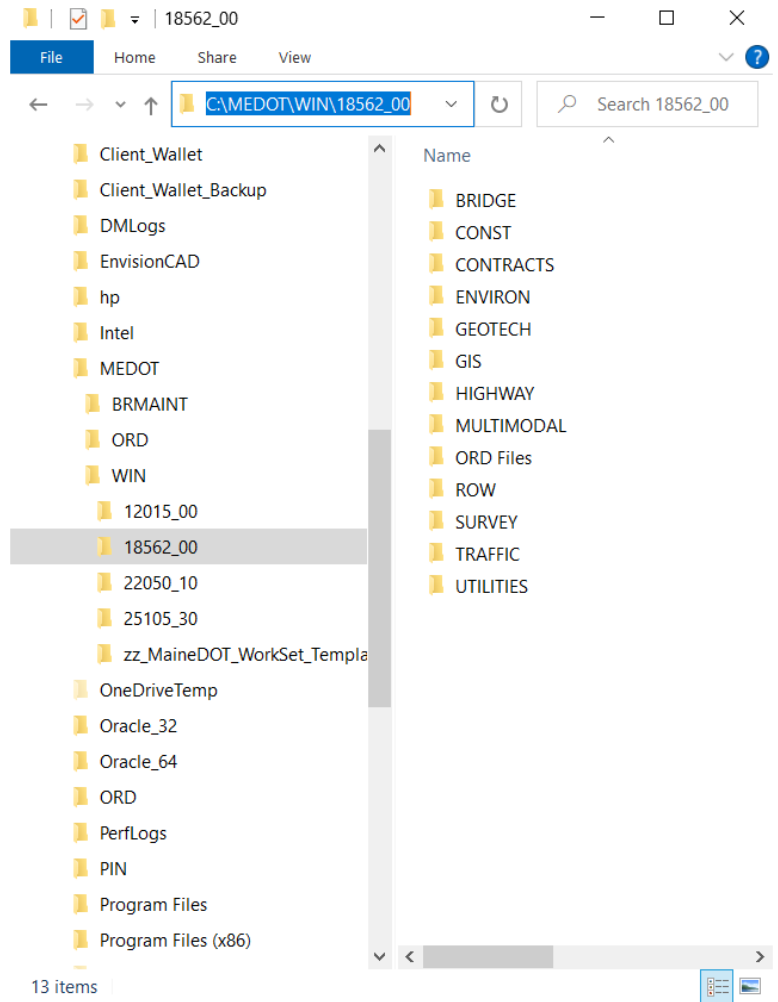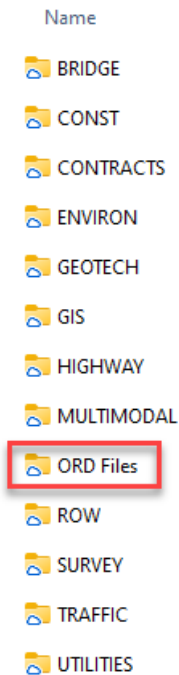

Note: As delivered in the download from Maine DOT, the ability to create worksets has been disabled in the workspace configuration. Depending on your organizational standards you may wish to edit the following variable to allow workset creation:

MS_CONFIGURATIONOPTS = DisallowCreatingWorkSpace, DisallowCreatingWorkSet

As an example of a project folder, if the WIN for a project is 18562 then the project folder will be named 18562_00 with "_" (underscore) separating the WIN number from the two digit designation, so the folder structure looks like this:

\WIN\18562_00

The folder that once contained the V8i CADD data specific to the project which was named InRoadsSTD has been rename to ORD Files for OpenRoads Designer . This ORD Files folder contains a copy of Maine DOT's road template library (*.itl).
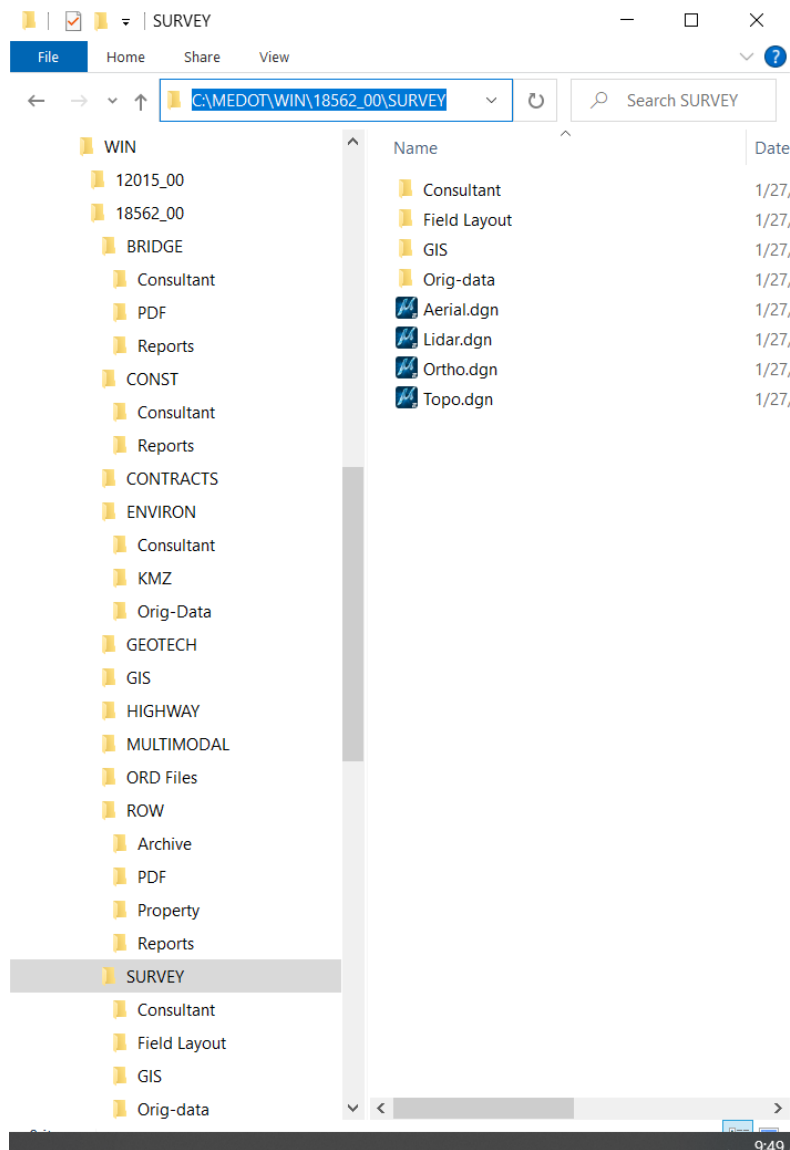
In the V8i Project Folder structure there was also a folder named **MSTA** that was an intermediary folder between the discipline's folder, and the CAD files created by the discipline. All of these MSTA folders have been removed. For example, in V8i the path to survey CAD files would have looked like this: **\18562\00\SURVEY\MSTA** now in ORD this path becomes this **\18562_00\SURVEY**.

DISCIPLINE FOLDERS

Every discipline that could contribute CAD data and files to a project has a folder provided for them within the WIN project folder. The intent is to have ONLY CAD files directly underneath the disciplines' folders and all non-CAD materials in another location or, if necessary, in a subfolder of a disciplines' folder.

The discipline folders within a WIN project folder have similar folder structure and function. They are all intended to contain only CAD files and sub-folders that further organize the CAD materials as necessary.

For example, here is a Survey folder it contains only dgns and other discipline CAD files are saved in the other sub-folders.
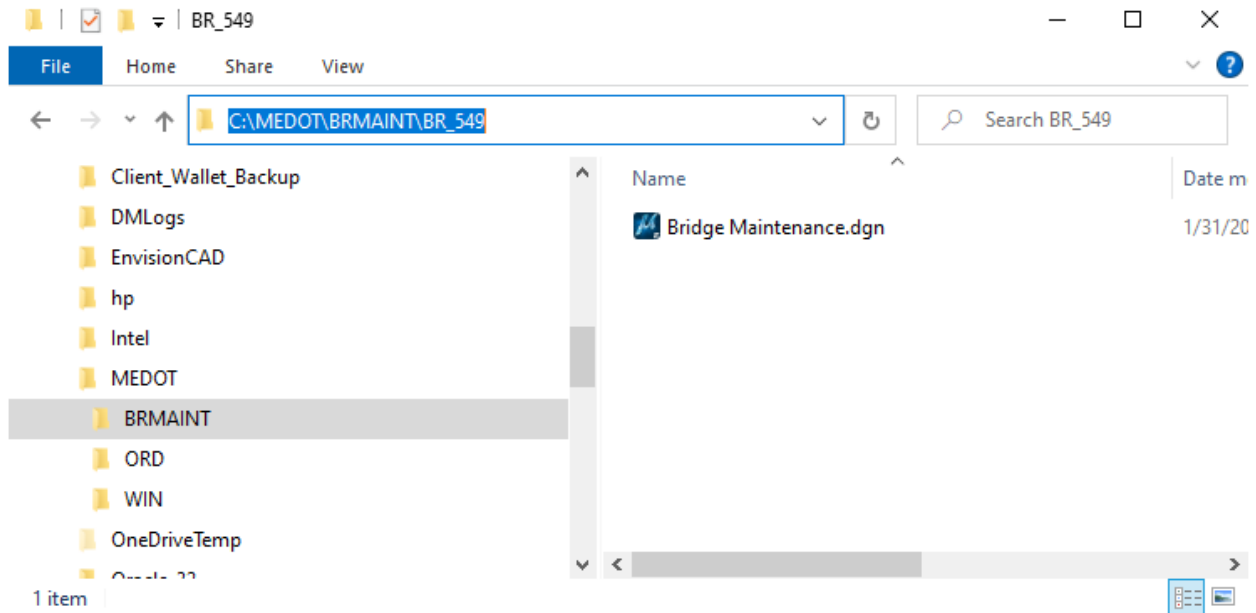

Additional information and details about MaineDOT's folder structure and an explanation of what data is to be stored in the individual dgn files can be found in the xlsx file "MaineDOT_FileNamingFolderStructure" in the Documentation folder.

In OpenRoads Designer Version 2023, MaineDOT has abandoned use of Workset properties and instead utilize the Sheet Index Properties. This provides a little more stability and improves the efficiency of managing the workset DGNWS file and much increased flexibility for sheet production and maintenance. Therefore, there are no custom properties to populate after the creation of a new workset.

For Bridge Maintenance projects the folder structure is very simple. The name of the Project folder is "BR" for "Bridge", underscore "_", then the Bridge Number say "549", so the Bridge Maintenance Project folder becomes:

C:\MEDOT\BRMAINT\BR_549

The Bridge Maintenance project folder currently contains no subfolders. Main reason being no other discipline would use this folder nor would other disciplines' files be reference in a Bridge Maintenance file. The only things contained in the Bridge Maintenance project folders are files relevant to the bridge the folder is named after.

TO CONTACT MAINEDOT CADD SUPPORT

If you have any question or issues with the MaineDOT ORD CADD environment please visit the MaineDOT CADD Support website:

https://www.maine.gov/mdot/caddsupport/

There you will also find more information about:

- MaineDOT CADD standards
- Version of CADD software MaineDOT currently uses
- How to contact MaineDOT CADD Support
- MaineDOT's specification for required electronic (computer) data
- MaineDOT CADD Manuals and Documentation