

TITLE AND NOTES SHEETS IN AUTODESK

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Overview

This document contains workflows necessary for creating title sheets and notes sheets. This workflow is intended for use with any MDT road project requiring a full plan set, such as reconstruction and pavement preservation projects.

Process Provenance

- Date of development: 8/29/2023
- Revision date: *N/A*
- Application/Tool(s): *Autodesk Civil 3D*
- Version(s): *13.4.2162.0 Civil 3D 2022.2.2*
- Environment(s): *MDT Civil 3D State Kit r2022 v1.22*
- Author: [MDT Road Design Workflow Subcommittee](#)

Statement of Need

Workflows specific to title sheets, notes sheets, and linear and level data sheets were not covered in depth in the Civil 3D production training classes. For that reason, the Road Design Workflow Subcommittee identified the need for more thorough documentation covering the topic.

Disclaimer: One procedure in this document currently relies on Microstation for the county maps on the title sheet and is only intended as an interim workflow until a more efficient process using Civil 3D has been vetted for the maps. This document will be updated when the vetting and testing is complete. The update will be announced through the same channels that this workflow was announced.

References

MDT County Maps

203 – Civil 3D Plan Production Training

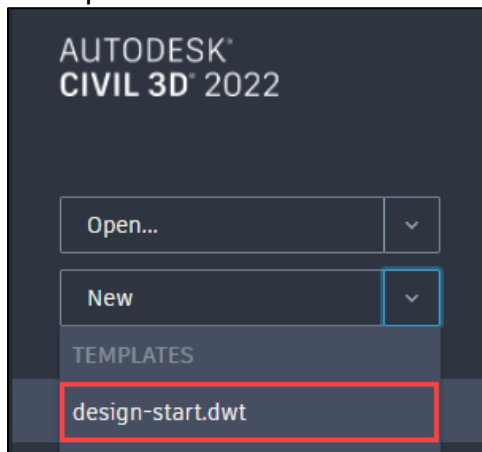
[Summary Sheets in Autodesk](#)

Process Description and Examples

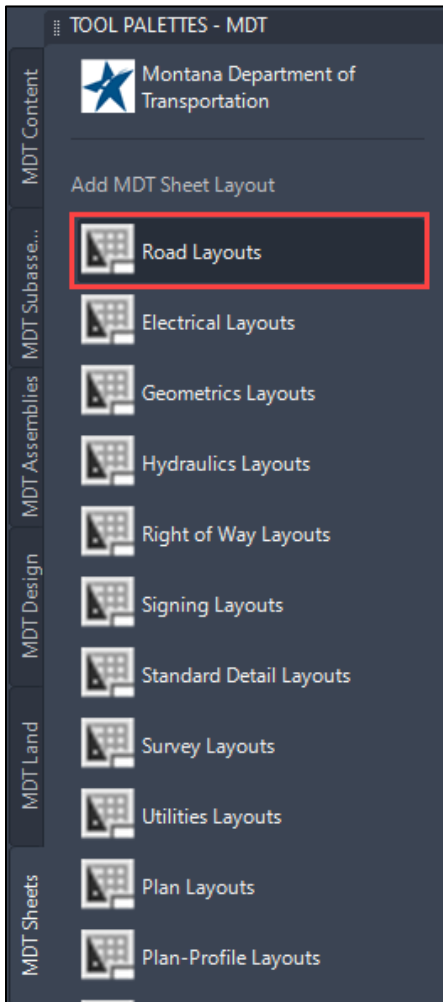
Section I. Title Sheet

Procedure – File Setup

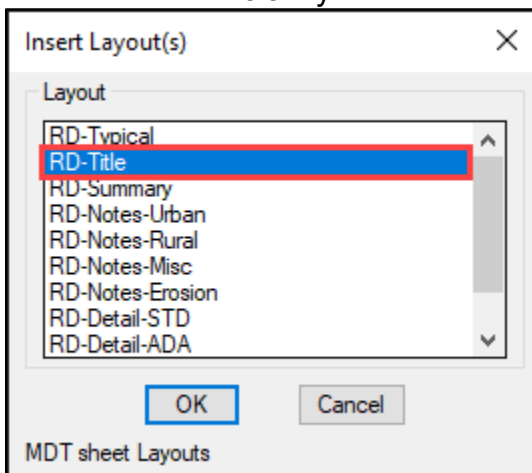
1. Create a new file using the **design-start.dwt** template. Save it as **[UPN#]RDTTTL001.dwg** (for example, **9422000RDTTTL001.dwg**) in the RD directory of the project on BIM 360. Use **CTRL+S** or navigate to the C3D icon in the top left and save the file.



2. Create a new layout using the **Road Layouts** within the **MDT Sheets** tab of the **MDT Tool Palette**.

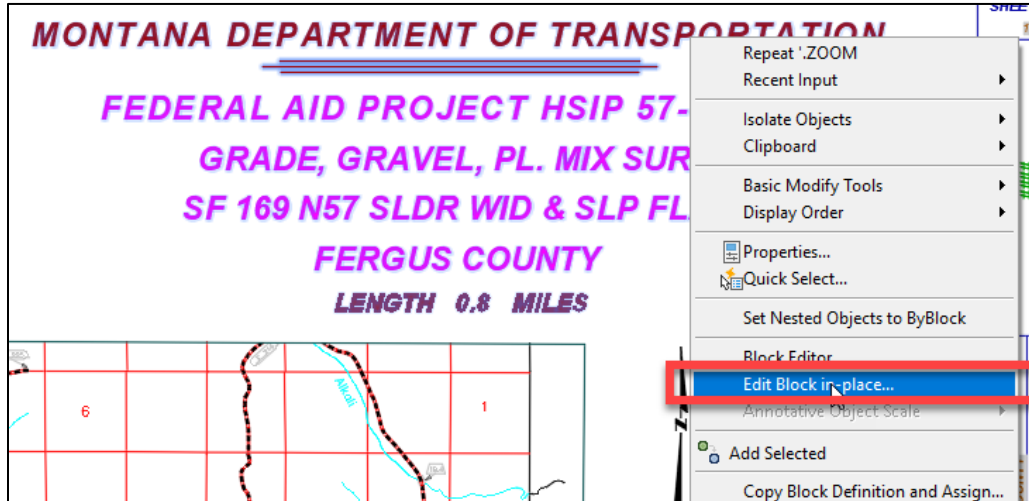


3. Select the **RD-Title** layout.

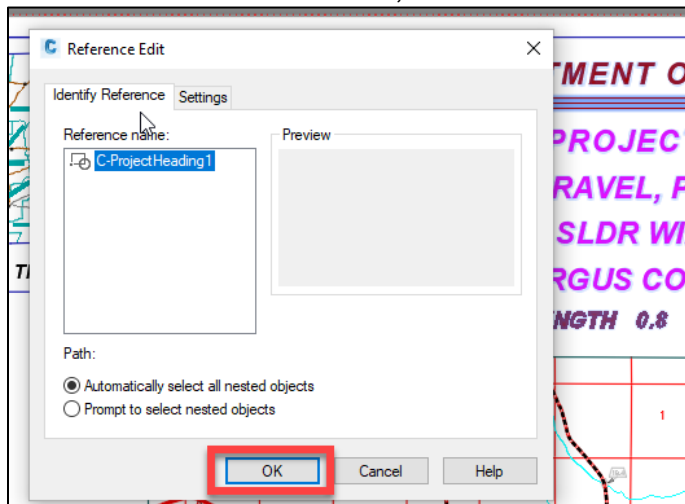


Procedure – Title Block

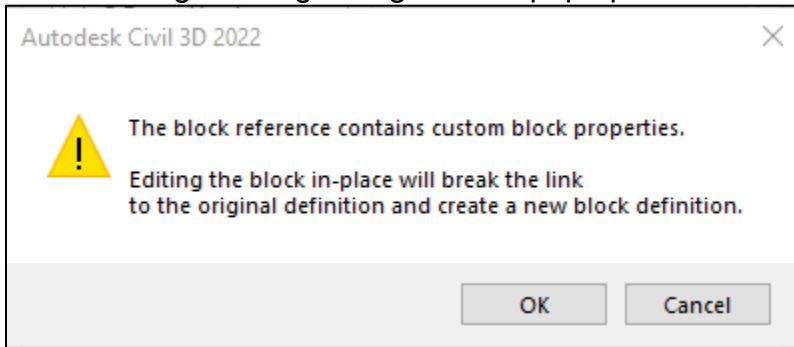
1. Select or highlight the title block, right click and select **Edit Block in-place...** to edit the title block.



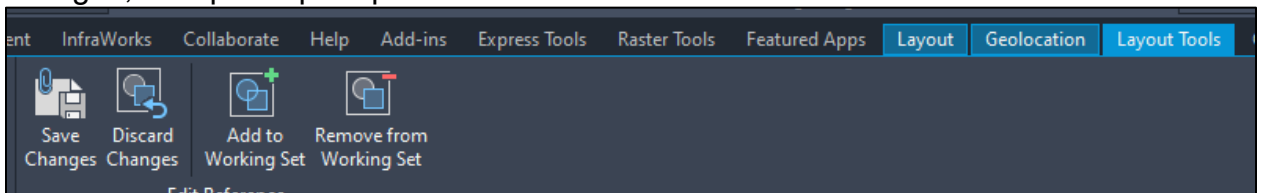
2. In the Reference Edit menu, click **OK**.



- The following warning dialog box will pop up. Click **OK**.



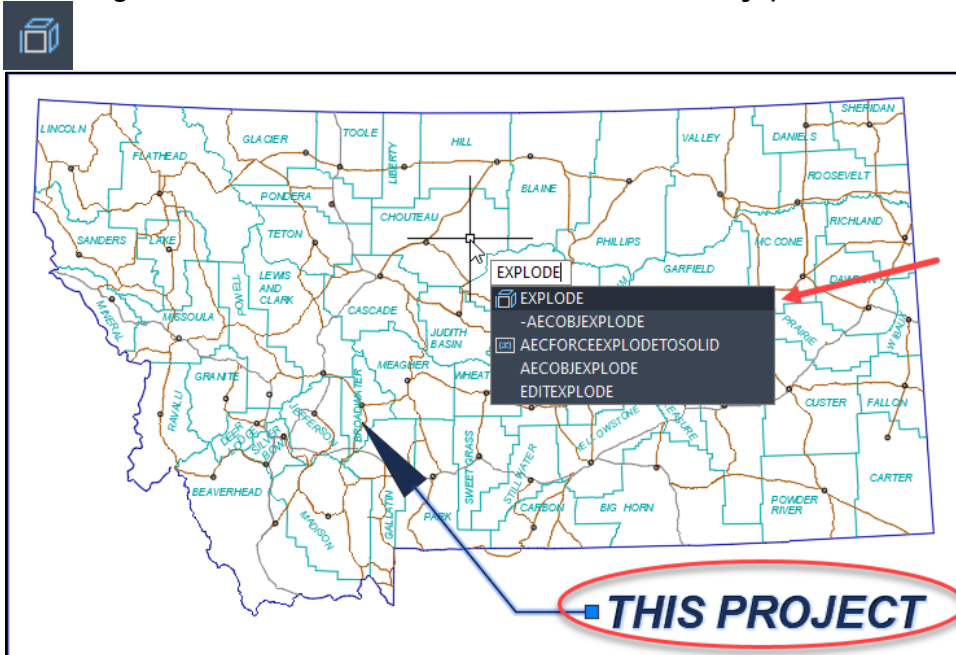
- Double click any of the text fields within the Title Block to change their attributes. When finished with the edits, select **Save Changes** within the **Layout Tools** contextual tab in the ribbon to close the block editor. If prompted to save the text changes, accept the prompt to save and close.



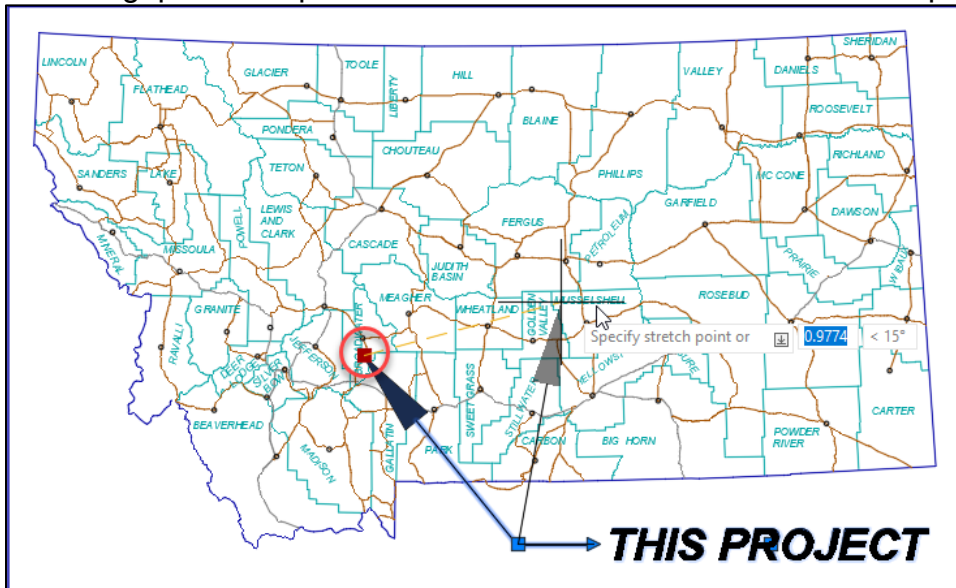
NOTE: Wait to edit the sheet border project information on all the sheets until the sheet set has been created for the project. When created, follow the steps covered in the Text Attributes and Text Fields section of the 203 – Civil 3D Plan Production Training to edit the fields.

Procedure – Project Location

1. **Explode** the "THIS PROJECT" callout once by typing **X**, or **Explode**, or by selecting the icon that looks like a cube in the **Modify** panel of the **Home** tab.

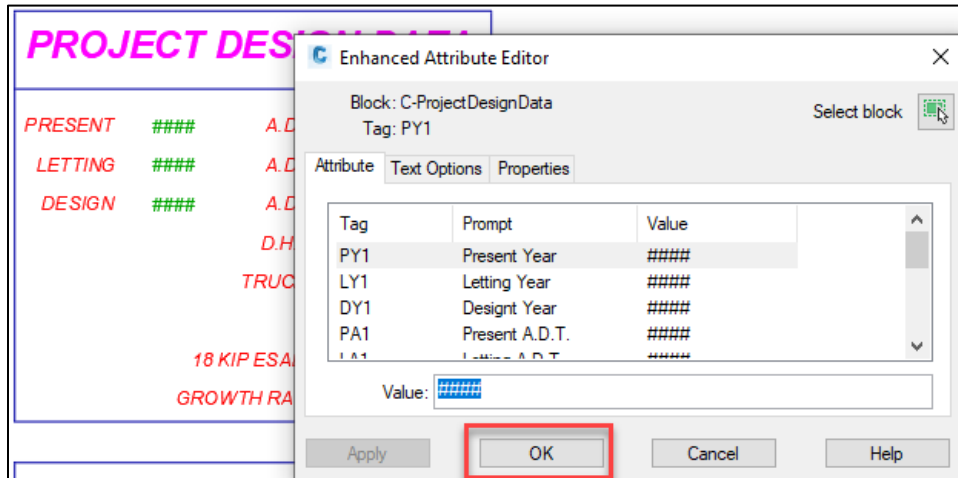


2. Use the grip on the tip of the arrowhead to move the arrow to the project location.



Procedure – Project Design Data Blocks

1. Double click within the Project Design Data table to open the Enhanced Attributes Editor dialog box to edit each field. When done, click **OK** to save and exit the menu.

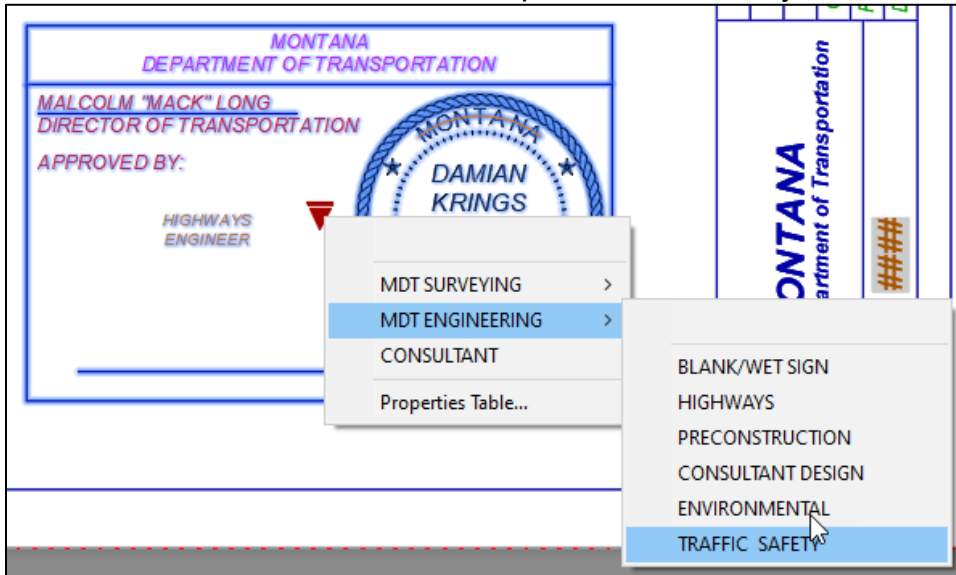


2. Repeat the process above to edit the Associated Project Agreement Numbers and Related Projects tables, if applicable.

Procedure – Engineer’s Stamp Block

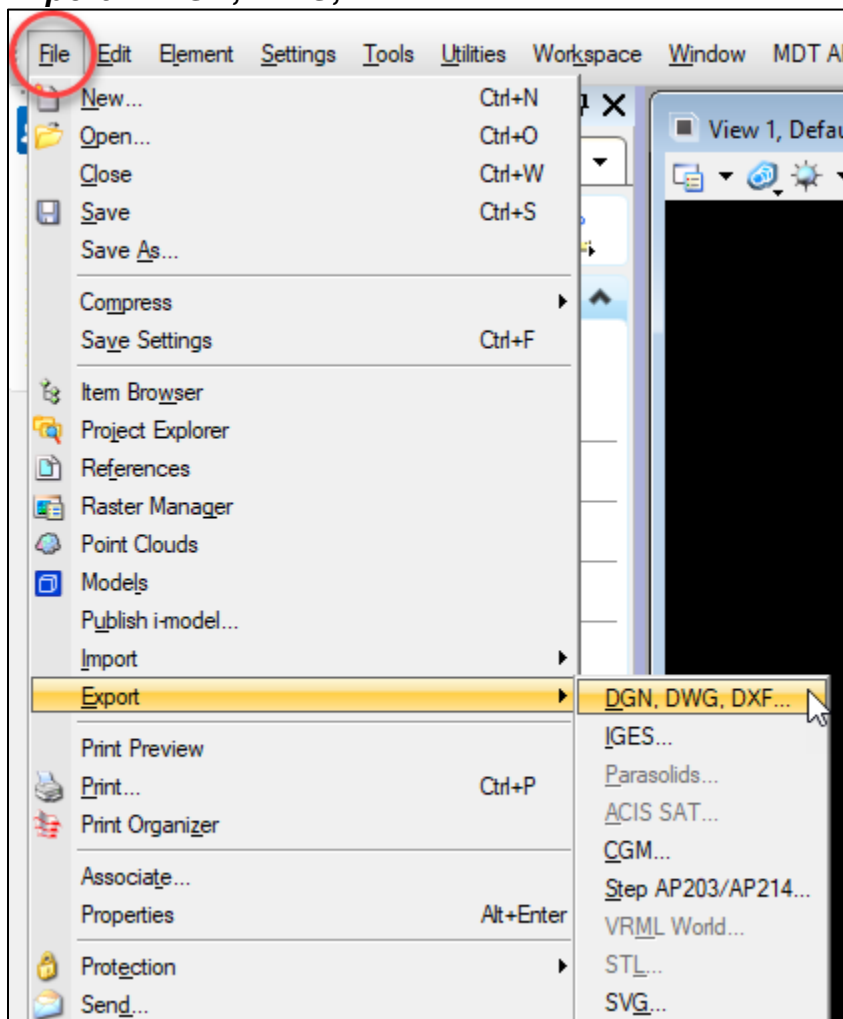
1. Click or highlight the Engineers Stamp Block and then use the visibility state dropdown arrow in the center of the block to change the format to the required department/engineer.

For example, to change the default block to Traffic & Safety, select the dropdown, then hover over the **MDT ENGINEERING** sub-menu and select **TRAFFIC SAFETY**. The block will update automatically.

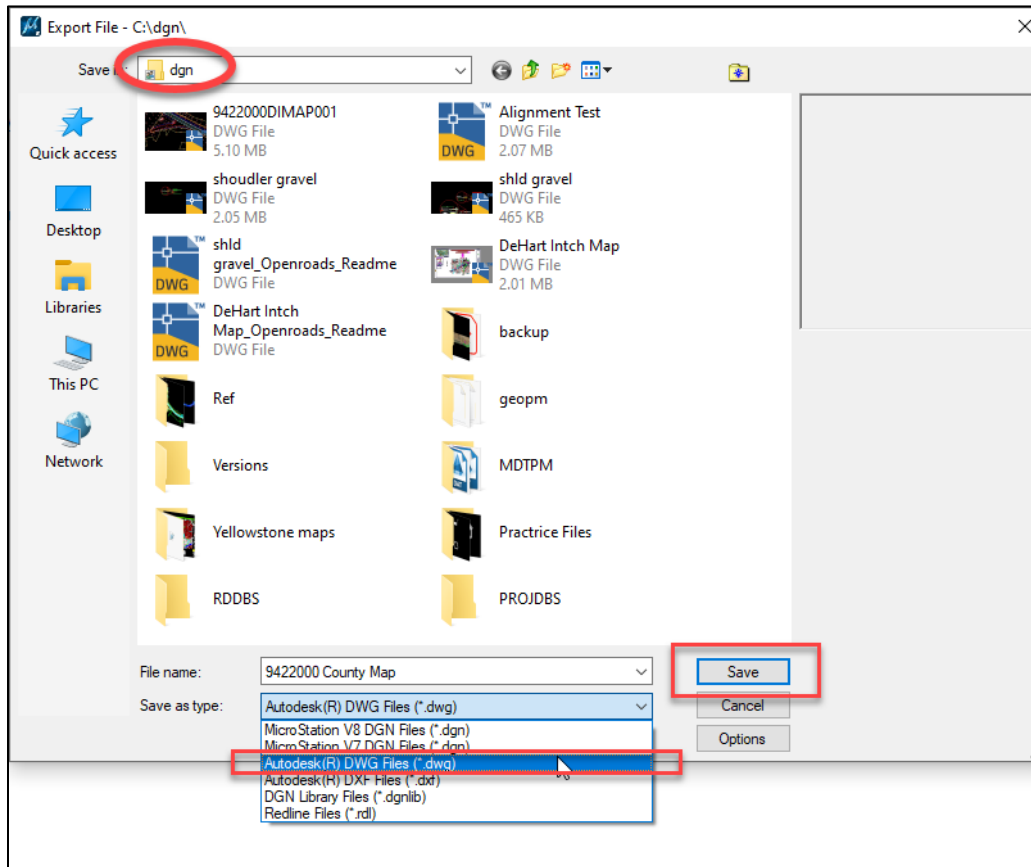


Procedure – County Map

1. Download the county map corresponding to the project from the County Maps page under Resources on the Road Design page of the MDT Intranet. Save this file to your **C:\dgn** folder.
2. Open the file in Microstation. Delete unwanted objects.
3. Export this file as an Autodesk DWG file by navigating to the **File** tab, and select **Export -> DGN, DWG, DXF**.

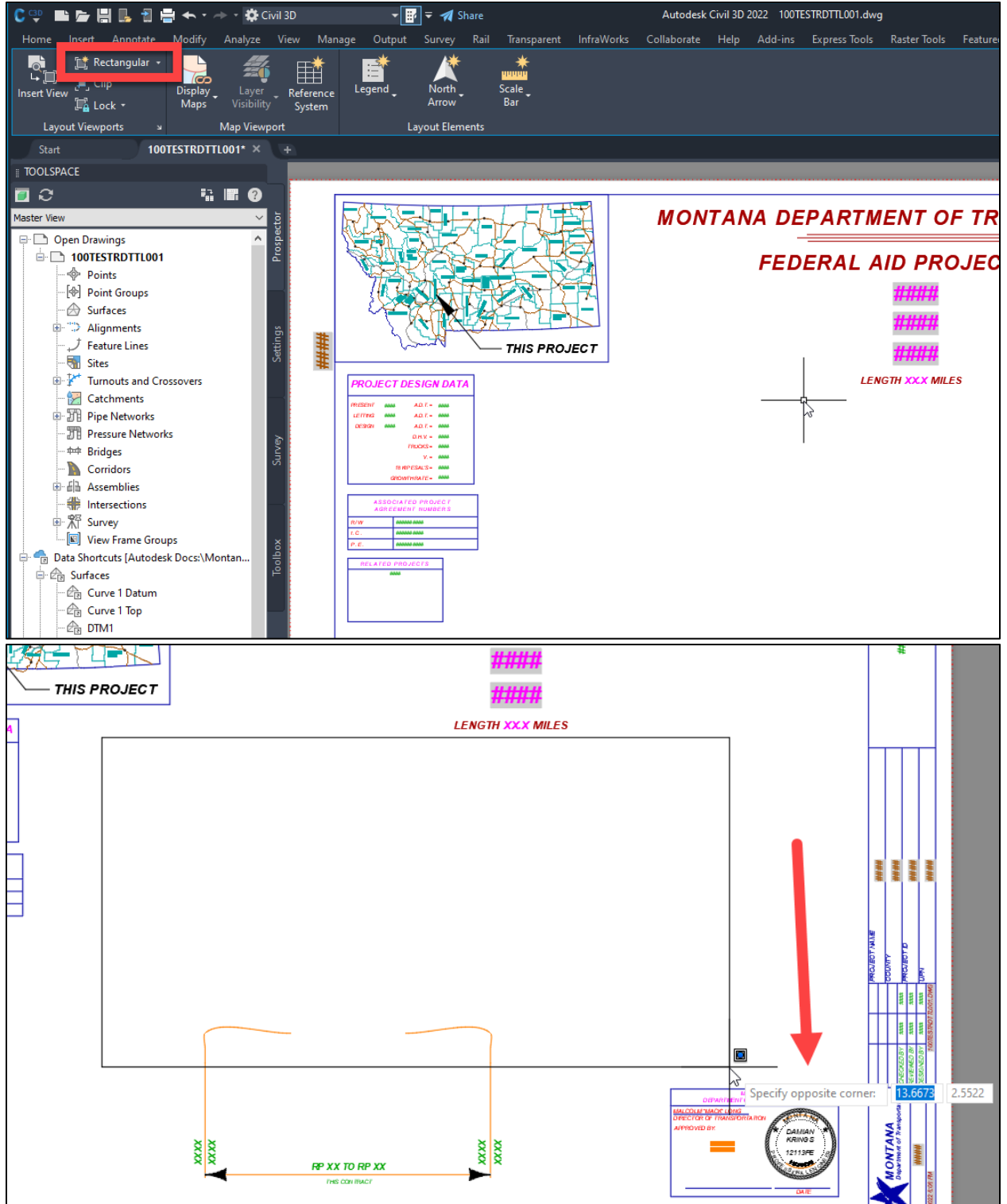


3. In the save menu, change the file type to a **DWG** file. Save this to your **C:\dgn** folder.



4. Return to Civil 3D. Using the C3D icon in the top left corner, open the exported county map file from the previous step.
5. In the county map file, highlight the linework desired to be shown in the title sheet and copy using **CTRL+C**. Navigate to the title sheet file and paste the linework into the model space using **CTRL+V**.

6. Create a viewport to display the county map. Set the active layer to **GS-VPRT**. Select the **RD-Title** Layout, then in the **Layout** contextual tab in the ribbon, select **Rectangular** in the **Layout Viewports**. Specify the limits of the viewport in the paper space by clicking upper left and lower right corners of the rectangle as the extents.

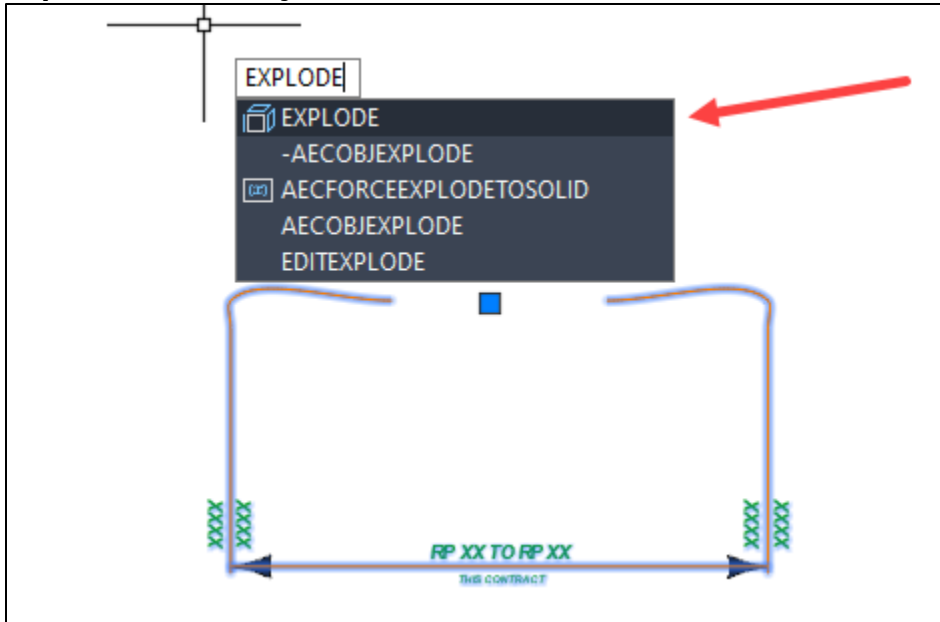


7. Double click within the viewport to enter model space. Use **Pan** and **Zoom** to capture the area of the county map. Adjust the limits of the viewport by clicking and dragging the corner grips. Once the limits and scale are set, lock the viewport by clicking the lock icon in the status bar on the bottom right of the screen.



Procedure – RP Limits and Project Location Label

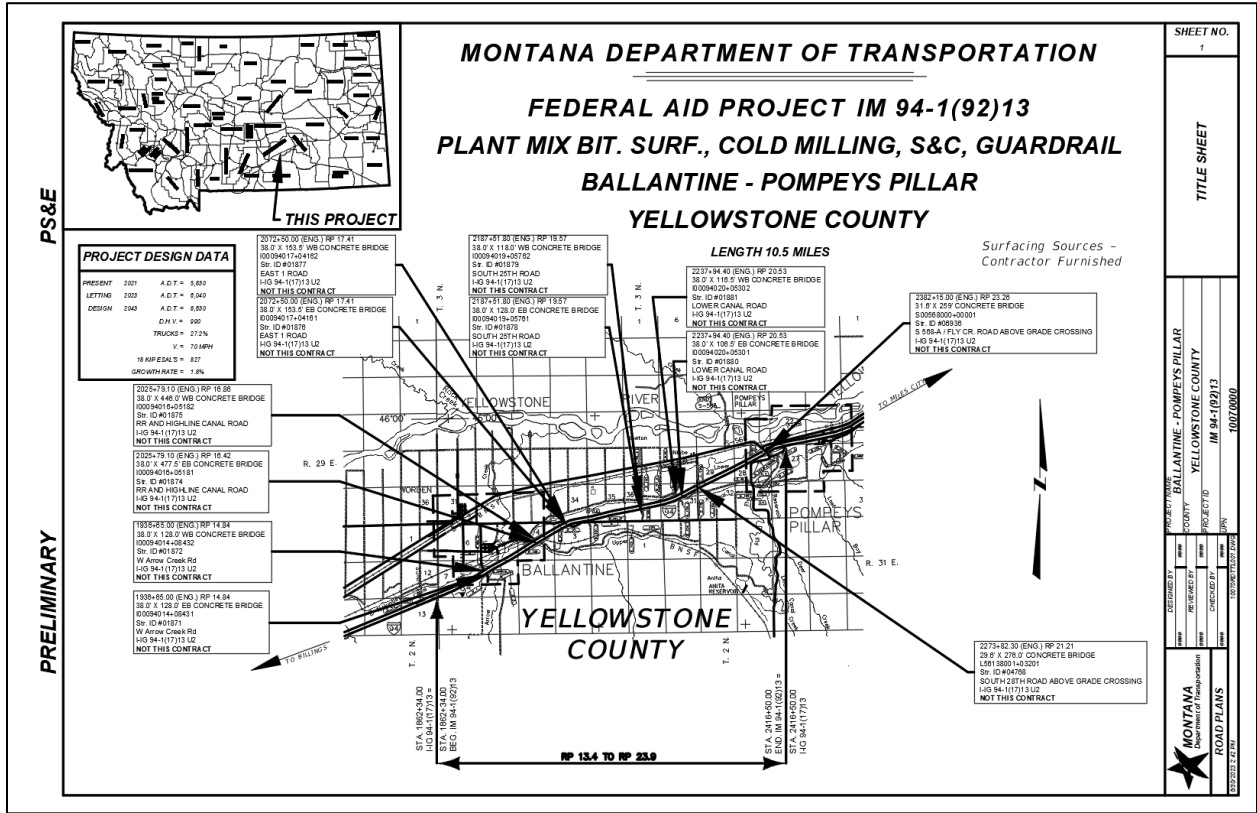
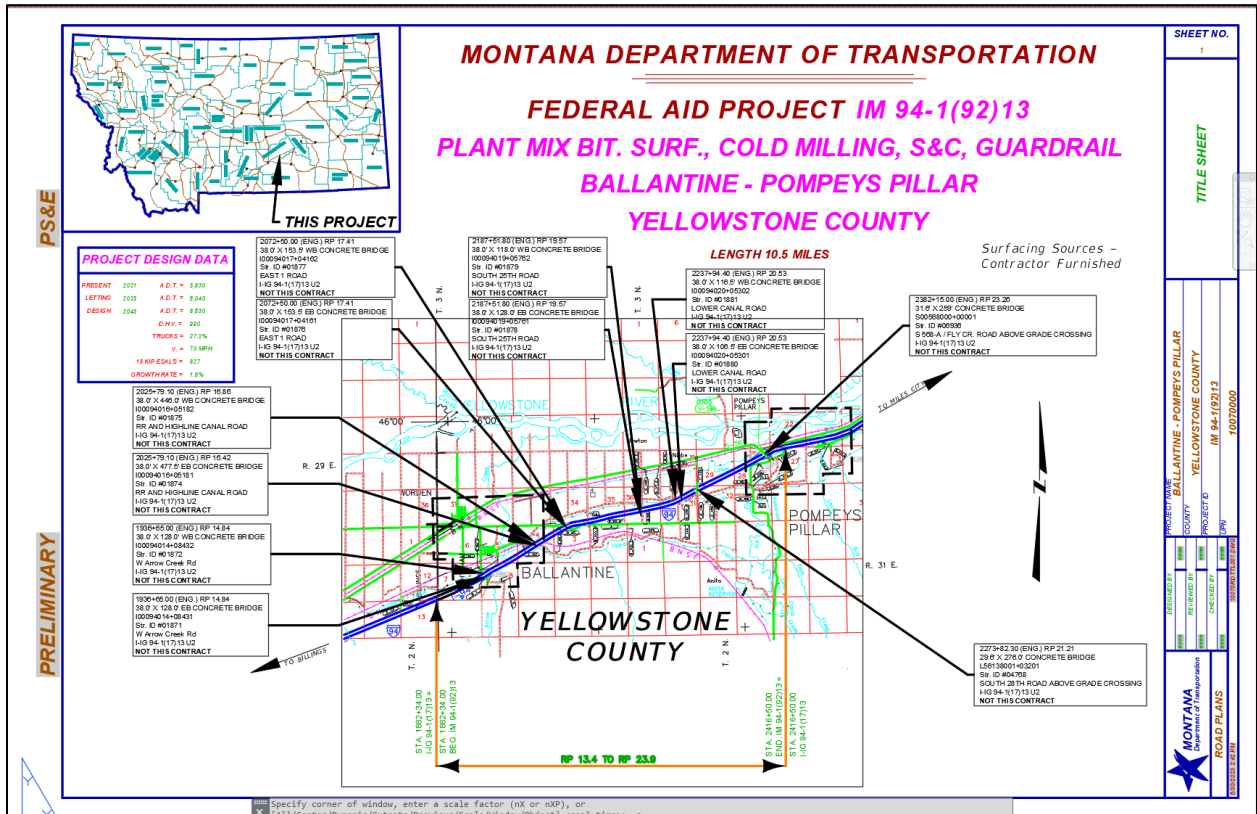
1. **Explode** the **C-ProjectLocationLabel** block to edit its contents.



2. Use the grips and the **Move**, **Extend**, and **Trim** commands to adjust the project limits lines and labels to match the extents of the project on the county map. To edit the text fields, double click within them, type the appropriate text, and press **Esc** to exit after edits are complete.
3. Once the limits and labels are set, select them and type the command **CHSPACE**. Then hit **Enter**. This will swap all highlighted linework from the paper space to its corresponding location in the model space. To make further edits to the RP Limit or Project Location information, use the model space tab and edit the information there.

NOTE: MDT Right-Of-Way requested that Road Design place the RP Limit and Project Location information in the model space so that they can reference the model space into their drawings and make their appropriate edits.

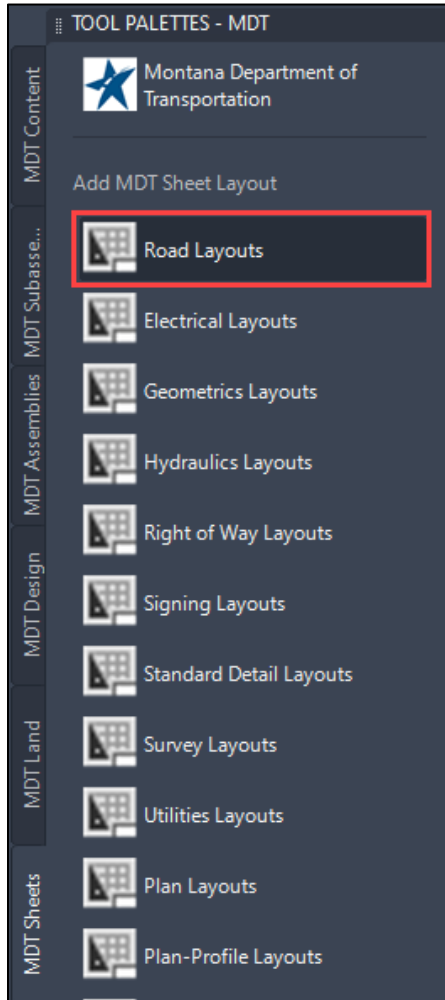
Example of Completed Title Sheet



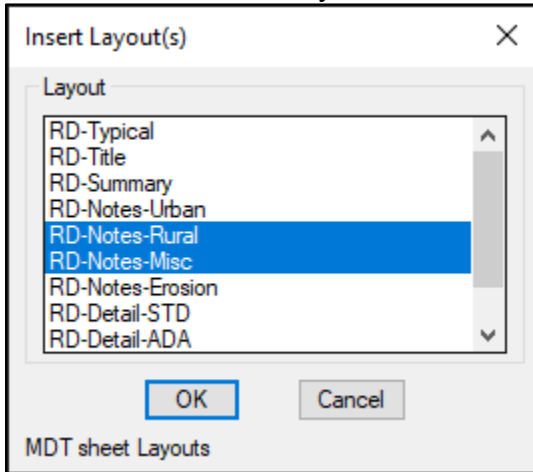
Section II. Notes Sheets

Procedure – File Setup

1. In the Title sheet file, create a new layout using the **Road Layouts** within the **MDT Sheets** tab of the **MDT Tool Palette**.



- While holding **Ctrl**, select either the **RD-Notes-Rural** or **RD-Notes-Urban** and the **RD-Notes-Misc** layouts based on the scope of the project. Then select **OK**.



- Explode blocks in the **RD-Notes-Rural** or **RD-Notes-Urban** layouts and edit as necessary.

TABLE OF CONTENTS		NOTES		SHEET NO.
ROAD PLANS	SHEET NO.	BASIS OF PLAN QUANTITIES	SKREW DIAGRAM	###
TITLE SHEET	1	QUANTITIES FOR ESTIMATING PURPOSES ONLY		###
TABLE OF CONTENTS	2	COMP. AGGREGATE WEIGHT	<p>LIMITED ACCESS CONTROL</p> <p>THIS PROJECT IS A LIMITED ACCESS CONTROL FACILITY. OBTAIN APPROVAL FROM THE CHIEF OF THE RIGHT-OF-WAY BUREAU PRIOR TO ADDING, DELETING OR RELOCATING ANY APPROACHES.</p>	###
NOTES	2	PLANT MIX BTUMINOUS SURF	<p>SOILS INFORMATION</p> <p>SEE SPECIAL PROVISIONS FOR AN ADDITIONAL INFORMATION, THE LOCATION OF GEOTECHNICAL BORINGS IS SHOWN ON THE PLAN VIEW WITH THE FOLLOWING SYMBOL:</p> <p>BORING NUMBER</p> <p>(SEE TECHNICAL BORING)</p>	###
CENTERLINE COORDINATE TABLE	3	CRUSHED AGGREGATE COURSE	<p>UTILITIES</p> <p>CALL THE UTILITIES UNDERGROUND LOCATION CENTER (B11) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED FOR UTILITIES ARE FROM EXISTING GROUND LINE.</p>	###
CONTROL DIAGRAM & LEVEL DATA	4	ASPHALT CEMENT	<p>WETLANDS</p> <p>WETLANDS EXIST ADJACENT TO THE ROADWAY AND MAY EXTEND BEYOND THE PROJECT LIMITS. WETLAND AREAS AND POTENTIAL WETLAND IMPACT AREAS WITHIN THE PROJECT LIMITS HAVE BEEN DELINEATED AND ARE SHOWN ON THE PLAN. ANY ACTION IMPACTING WETLAND AREAS OUTSIDE OF THE PERMITS IMPACT AREA IS THE RESPONSIBILITY OF THE CONTRACTOR.</p> <p> </p>	###
TYPICAL SECTIONS	5-7	EMULSIFIED ASPHALT - TACK		###
SUMMARIES	8-10	AGG. TREATMENT		###
CLEARING & GRUBBING	8	QUANTITIES FOR ONE FARM FIELD APPROACH:		###
GRADING	8	AVERAGE LENGTH	= X invar/ft	###
ADDITIONAL GRADING	8	PLANT MIX BTUMINOUS SURF	= X sq yds	###
FINISH GRADE CONTROL	8	CRUSHED AGGREGATE COURSE	= X sq yds	###
CULVERTS	8	ASPHALT CEMENT	= X sq yds	###
CULVERT SUMMARY RECAP	8	EMULSIFIED ASPHALT - TACK	= X sq yds	###
SURFACING	8	AGG. TREATMENT	= X sq yds	###
ADDITIONAL SURFACING	8	QUANTITIES FOR ONE FARM FIELD APPROACH:		###
CATTLE GUARDS	8	AVERAGE LENGTH	= X invar/ft	###
GUARDRAIL	8	PLANT MIX BTUMINOUS SURF	= X sq yds	###
FENCING	8	CRUSHED AGGREGATE COURSE	= X sq yds	###
WALBERSES	8	ASPHALT CEMENT	= X sq yds	###
TORUSAL AND SEEDING	8	EMULSIFIED ASPHALT - TACK	= X sq yds	###
PAVERMENT MARKINGS	8	AGG. TREATMENT	= X sq yds	###
HYDRAULIC DATA SUMMARY	11	QUANTITIES FOR ONE FARM FIELD APPROACH:		###
DETAILS	12-14	AVERAGE LENGTH	= X invar/ft	###
RAMPS	12	PLANT MIX BTUMINOUS SURF	= X sq yds	###
PLAN & PROFILE	15-17	CRUSHED AGGREGATE COURSE	= X sq yds	###
SUMMARY	S1	ASPHALT CEMENT	= X sq yds	###
SPECIFICATIONS	S2	EMULSIFIED ASPHALT - TACK	= X sq yds	###
DETAILS	S3	AGG. TREATMENT	= X sq yds	###
PLANS	S4	QUANTITIES FOR ONE FARM FIELD APPROACH:		###
BRIDGE PLANS	B1-B7	AVERAGE LENGTH	= X invar/ft	###
STANDARD DRAWINGS	B7	PLANT MIX BTUMINOUS SURF	= X sq yds	###
AS-BUILT DRAWINGS	B7	CRUSHED AGGREGATE COURSE	= X sq yds	###
CROSS SECTIONS	1-2	ASPHALT CEMENT	= X sq yds	###
MAINLINE	1-2	EMULSIFIED ASPHALT - TACK	= X sq yds	###
SIDE STREETS	1-2	AGG. TREATMENT	= X sq yds	###
		QUANTITIES FOR ONE MAILBOX TURNOUT (FOR ESTIMATING PURPOSES ONLY)		###
		AVERAGE LENGTH	= X invar/ft	###
		PLANT MIX BTUMINOUS SURF	= X sq yds	###
		CRUSHED AGGREGATE COURSE	= X sq yds	###
		ASPHALT CEMENT	= X sq yds	###
		EMULSIFIED ASPHALT - TACK	= X sq yds	###
		AGG. TREATMENT	= X sq yds	###

NOTE: Additional notes not found on the sheet can be found in the **RD-Notes.dwg** block library.

- If applicable, add approach tables and wetland delineation tables to the **RD-Notes-Misc** layout, following the same methods outlined in [the Summary Sheets in Autodesk](#) process documentation.