MONTANA
Department of Transportation

RIGHT-OF-WAY OWNERSHIP SHEET PROCEDURE

Contents

Overview

This guide shows the in-depth process to create a R/W ownership drawing and excel file utilizing the MDT Excel Manager Tool. Additional information regarding Ownership sheet formatting may be found in this document too.

Process Provenance

- Date of development: 11/12/2025
- Revision date: *N/A*
- Application/Tool(s): *AutoCAD / Civil 3D*
- Version(s): *Civil 3D 2024*
- Environment(s): *MDT Civil 3D State Kit r2024 v1.20*
- Contact: *Open a Case*

Ownership Sheet Procedure

Section I. Creating Ownership Drawing and Excel Sheet

Creating the Ownership Sheet Drawing

The ownership sheet will be its own drawing file.

All projects will have a separate ownership sheet, which is a change from smaller projects in the past that had an ownership block at the top of the plan sheet.

This change has been made to allow for consistency in the process of creating an ownership sheet, as well as for data migrations to other systems in the future from the ownership Excel sheet into databases.

Create a new drawing using the **speed sheet** folder: 'Speed Sheet/MDTRW_Ownership.dwt' from the New Drawing window of C3D.

Save the Drawing following the Standard Naming Convention in the Autodesk Docs Project RO Folder.

Creating the Ownership Sheet Excel Sheet File

Inside the model space in the drawing, use the ribbon to navigate to the MDT Tools tab and go to the MDT Excel Tools dropdown in the ribbon. Select the MDT Excel Manager button. This will open an Excel file on your computer.

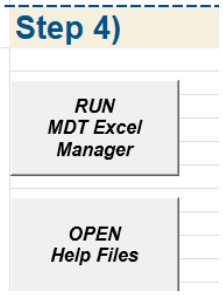
Once inside the Excel file, enable macros on the file using the 'Enable Content' button at the bottom of the ribbon of the Excel file. This will prompt you to save the Excel file. Save the file in the Autodesk Docs Project RO folder for the project.

Rename the file following the standard naming convention ‘XXXXX00XROOWN001.xlsm’ file name. Be sure that the 'Save as type:' is 'Excel Macro-Enabled Workbook'.

Section II. Creating Worksheets from MDT Excel Manager

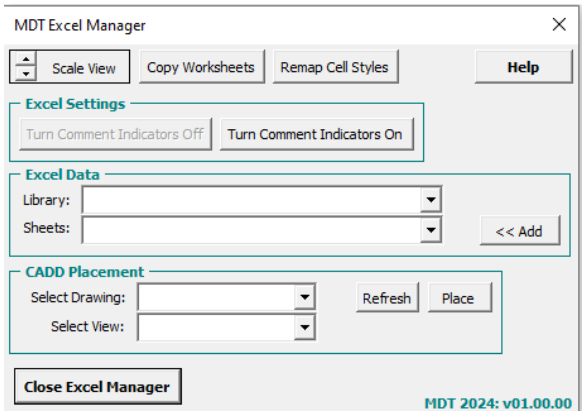
Using the MDT Excel Manager Tool to Create Ownership Excel Worksheet

Once saved, select 'RUN MDT Excel Manager' Button found on Cell C12 on the *Start* tab in the Excel file.

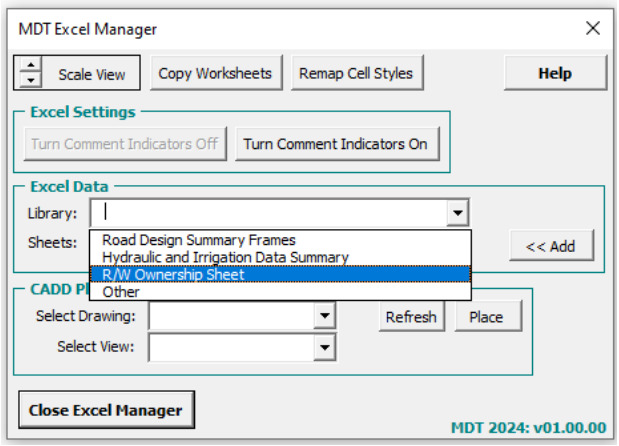


Note: *OPEN Help Files* will take you directly to the appropriate help documents for greater in-depth MDT Excel macro tools help.

Once inside the MDT Excel Manager, under 'Excel Settings', select the 'Turn Comment Indicators Off' button. Once off, it will appear gray-scaled as shown below:



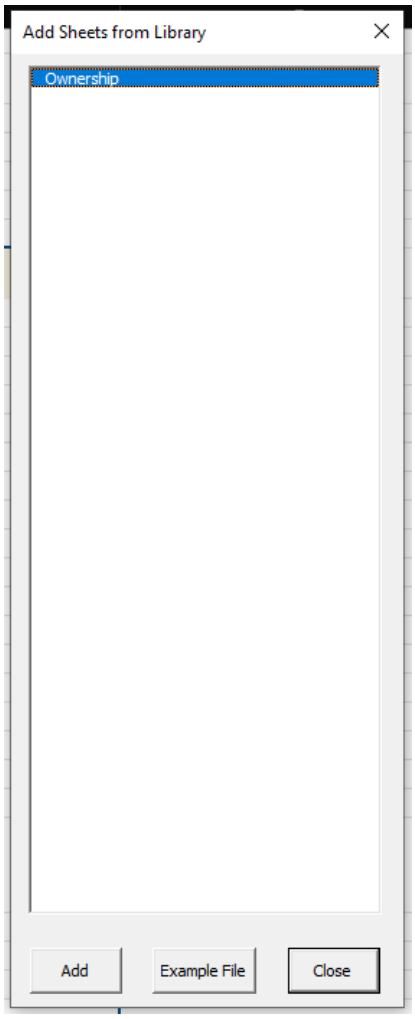
Under 'Excel Data', select the dropdown under 'Library' and select R/W Ownership Sheet.



Using the MDT Excel Manager Tool to Create Ownership Excel Worksheet (Continued)

Then select '<<Add'.

Within the 'Add Sheets from Library' window, select 'Ownership' from the list and click 'Add' once more.



If more than one ownership sheet is needed, add as many sheets as necessary for the project parcel size using the add button with 'Ownership' Selected in the Library. Close the 'Add Sheets from Library' windows using the 'Close' Button.

Notice that in the Excel file there are one or more 'Ownership' tabs along the bottom of the worksheet. Leave the MDT Excel Manager open to place the ownership Excel sheet into your dwg.

Note: you can have a maximum of 60 parcels per sheet, however most ownership sheets have between 30 and 40 per sheet, depending on factors surrounding the parcel.

Section III. Placing the Excel Ownership Sheet in Civil 3D Ownership Drawing

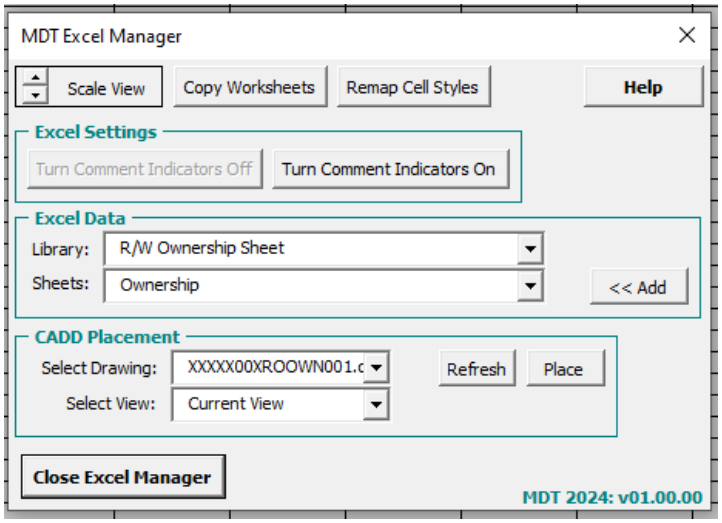
Verify View Limits of Excel Sheet

From the MDT Excel Manager, under the 'Excel Data' group 'Sheets:' will contain all the active tabs/sheets in your Excel file, when you select a sheet from the drop down list the limits of the "frame" around the sheet will be selected, and you will see the outline in a solid green line around the border of the page. Selecting 'Ownership(2)', or successive plan sheets will change the sheet/tab you are working inside of to show the "frame" of that sheet.

To properly place the correct sheet into C3D, verify that the sheet you are placing is selected from the dropdown list and that the limits of the sheet border are selected. If the border is not properly highlighted, use the dropdown to select another ownership sheet in the Excel file, then click the sheet you are placing into C3D again to display the correct outline.

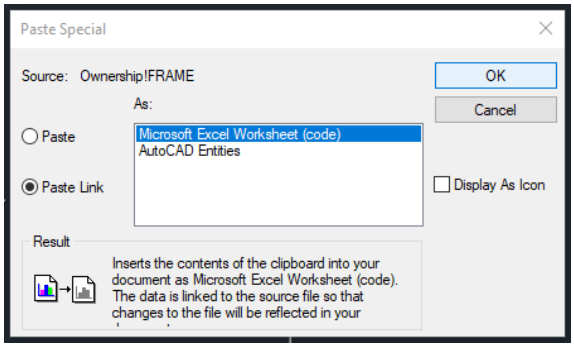
Paste Link from MDT Excel Manager into Civil 3D

Inside the MDT Excel Manager under CADD Placement 'Select Drawing:', select your open drawing in Civil 3D. If you have not saved the C3D file, save it on Autodesk Docs under the RO Folder, then select the 'Refresh' button to view the drawing in the dropdown list. Select the appropriate drawing (XXXXX00XROOWN001.dwg) and then under 'Select View:' dropdown, select 'Current View'.

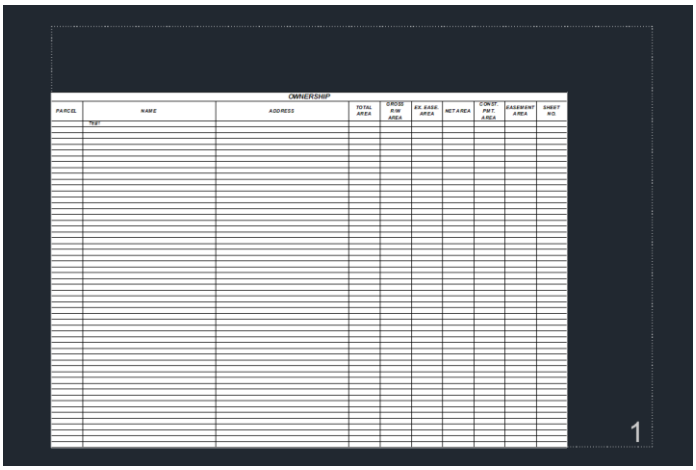


Paste Link from MDT Excel Manager into Civil 3D (Continued)

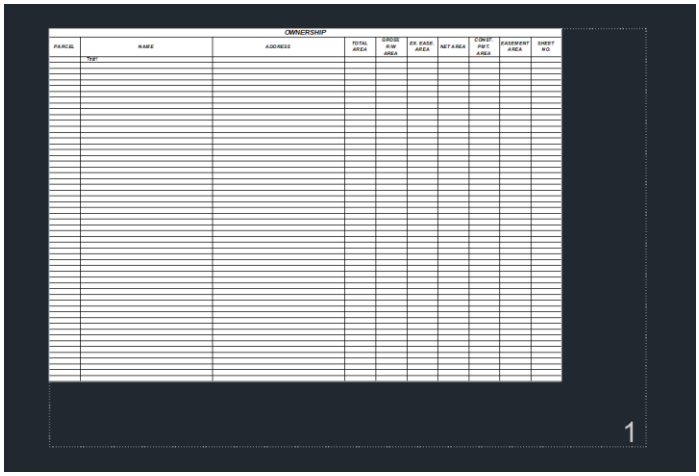
Inside the C3D dialog box, change the 'Paste' button to 'Paste Link' and select 'OK'.



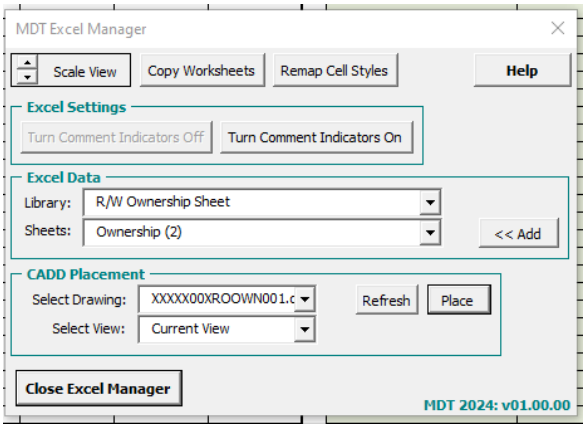
Snap your first sheet to the bottom left of the sheet boundary '1'. Verify you are in MODEL space.



Select the sheet and move its insertion to the top left of the viewport using the move command (M).



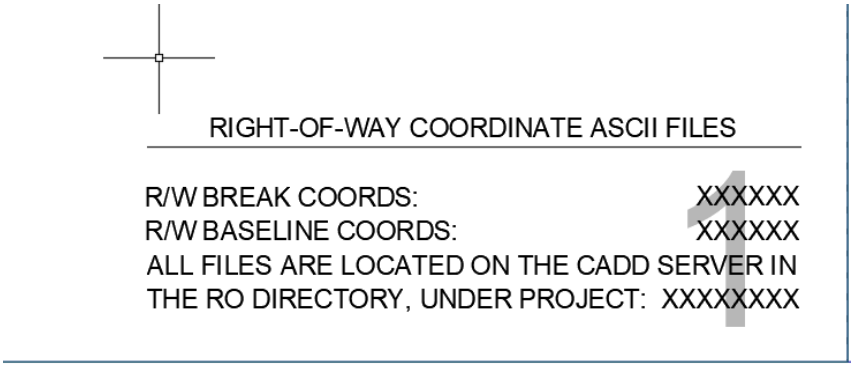
For subsequent sheets, go back to the Excel file and MDT Excel Manager window and in the 'Excel Data' group select Ownership(2), Ownership(3)… and place them individually into the dwg. Be sure to 'Paste Link' and to move the pasted sheet into the upper left of the viewport.



You can paste up to 5 sheets in one ownership dwg file. In the event that you will need more than one ownership file, create another file with the naming convention 'XXXXX00XROOWN002.dwg', save it on Autodesk Docs under the RO Folder of the project, and using the *same* excel document, add more sheets (tabs) to the excel file and place them using the steps above starting at Ownership(6) in Viewport 1.

Inside the speed sheet created, there are 5 pre-made ownership sheet tabs in paper space that will then be used in the Sheet Set Manager to compile the R/W Plans for production.

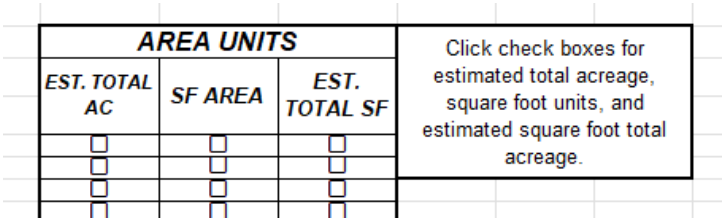
Please note that the large gray numbers in the bottom right of the sheets that signify what sheet in model space you are pasting sheets into are set to no-plot layers.



Section IV. Working within the Ownership Excel File

Preface

The ownership sheet has the same layout as prior versions, however, it has some additional features to make the formatting of the cells easier. Below is an in depth description of the 'Area Units' table shown in columns M through O.



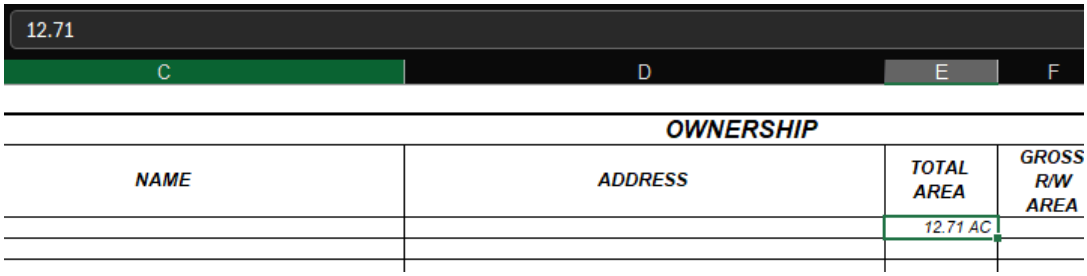
AREA UNITS			Click check boxes for estimated total acreage, square foot units, and estimated square foot total acreage.
EST. TOTAL AC	SF AREA	EST. TOTAL SF	
☐	☐	☐	
☐	☐	☐	
☐	☐	☐	
☐	☐	☐	

Area Defaults

The default area of a parcel is in Acres. By toggling the ‘SF AREA’ checkbox for a particular parcel, the Unit of the Parcel can be changed to Square Feet.

Areas (Acres)

All areas, by default, are reflected as acre projects when the ownership spreadsheet is originally created. The formatting for all cells will show 'AC' after the number typed into the cell automatically.



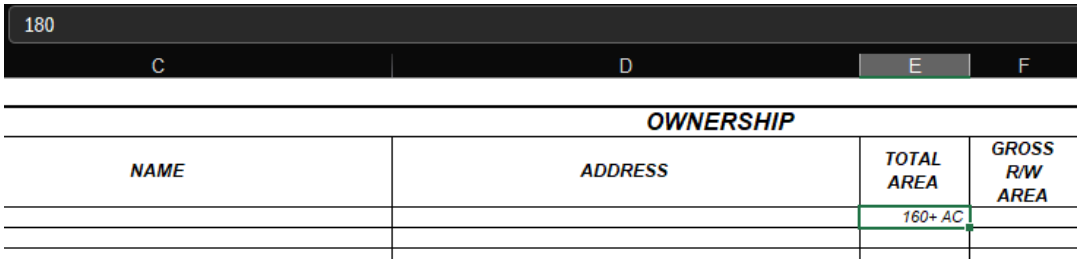
12.71

C	D	E	F
		OWNERSHIP	
NAME	ADDRESS	TOTAL AREA	GROSS R/W AREA
		12.71 AC	

Data in the cell is '12.71', but displayed as '12.71 AC' by default.

Acreages over 160 AC

When working with a parcel that is greater than 160 acres, type in the actual acreage of the parcel, and the cell will be modified to display '160+ AC' automatically.



180

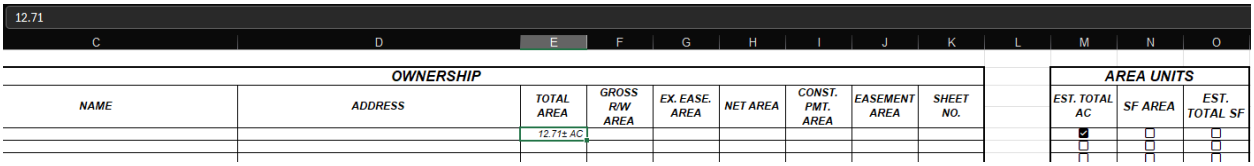
C	D	E	F
		OWNERSHIP	
NAME	ADDRESS	TOTAL AREA	GROSS R/W AREA
		160+ AC	

Data in the cell is '180', but displayed as '160+ AC' by default.

Approximate Total Parcel Areas

When working with a parcel that is not defined by COS, Deed, or Subdivision Plat the ± sign is used to denote that MDT is approximating the area of a parcel. To show the '±' symbol, click the check box in Column M, 'EST. TOTAL AC' to default the total area to reflect the '±' symbol.

Note: The checkbox for Estimated Total AC Area does not affect any of the other area columns in the spreadsheet, only the Row for the parcel selected.

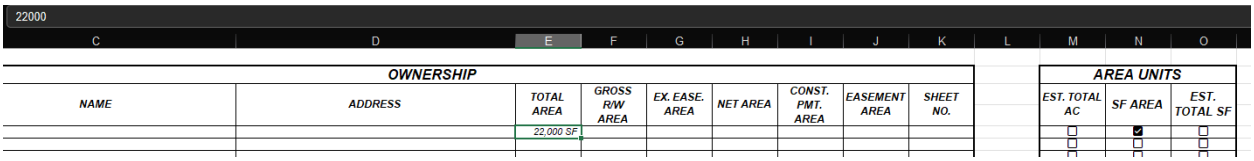


Data in the cell is '12.71', but displayed as '12.71± AC' by default.

Areas (Square Feet)

Square Foot Areas

Parcels within a project can be either Square Feet (SF) or Acres (AC). To change the area units for an individual parcel, select the check box for the parcel in column N, 'SF AREA'

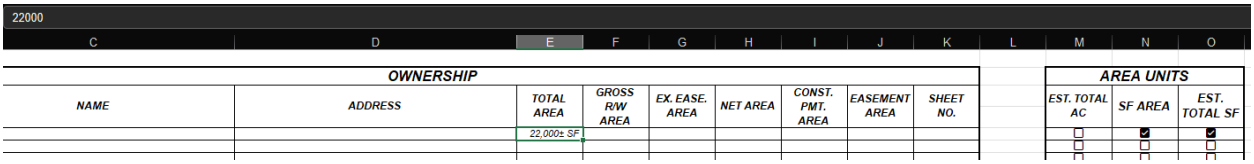


Data in the cell is '22000', but displayed a '22,000 SF' by default.

Approximate Square Foot Total Area

When working with a parcel that is not defined by COS, Deed, or Subdivision Plat the ± sign is used to denote that MDT is approximating the area of a parcel. In order to show the '±' symbol, click *BOTH* check boxes in Column N, 'SF AREA', and Column O, 'EST. TOTAL SF' to default the total area to reflect the '±' symbol.

Note: The checkbox for Estimated Total SF Area does not affect any of the other area columns in the spreadsheet, only the Row for the parcel selected.



Data in the cell is '22000', but displayed as '22,000± SF'.

Note: A parcel is either a 'SF' or 'AC' unit type, and cannot be mixed.

Auto-Summation of Gross R/W Area

The Gross R/W Area (column F) is automatically summed using the existing easement area plus the net area of acquisition. The formatting of this cell corresponds to the rest of the formatting of the row (shows as either AC or SF).

Special Conditions of Acquisition

When a parcel is to be acquired with a special condition (e.g. To be acquired in the name of the county, city, etc.) the formatting of the cell will be reset to 'General', or no formatting. In that event, it is up to the designer to manually type the formatting of the cell (e.g. '*12.71 AC' will needed to be typed into the cell rather than just the number '12.71' to display the special condition symbol).