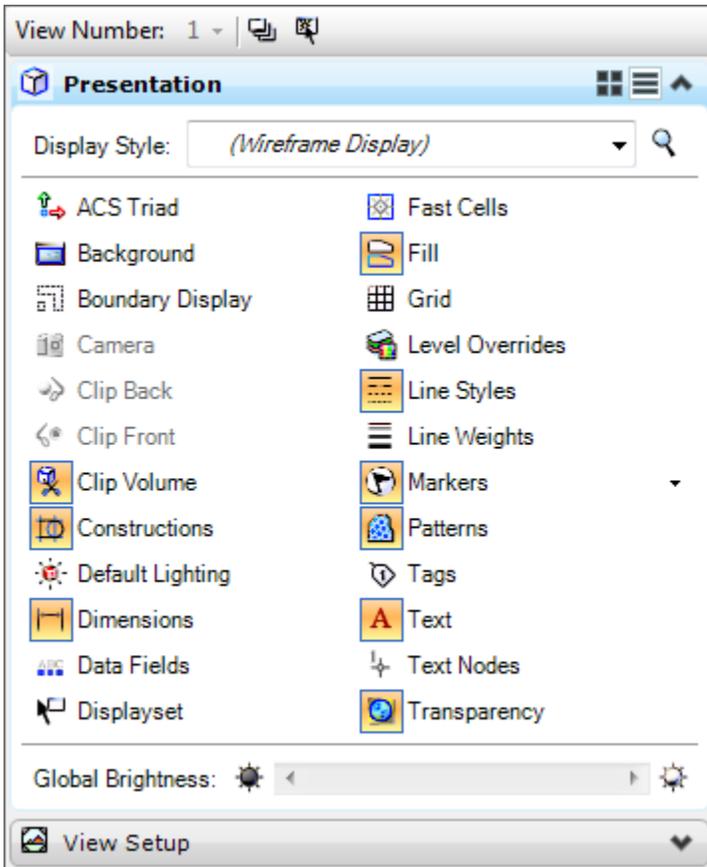


Plan Detailing Tips.

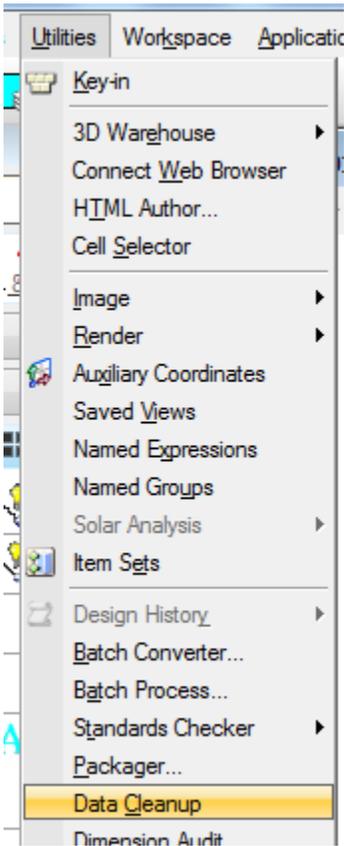
1. Review **CADD Guidelines** document found on Office of Bridges & Structures website, **Automation Tools_MicroStation Documentation**.
2. Start every new project using the seed files available from the Office of Bridges & Structures website, **Automation Tools_MicroStation V8 Tools** page because of possible changes that may have been made to the seed files or plan turn-in procedures. (in ProjectWise use “Copy Seed”)
3. Referring to the Office of Bridges & Structures website, **Automation Tools_MicroStation Documentation** page, **Models** document– use the correct Cadd File name based on the Project Number and use the correct Cadd Model names based on the Design Number(s).
4. Review the checklists from the Office of Bridges & Structures website, **Design Policies_Bridge and Culvert Plan Checklist** page when submitting Project Plans.
5. Referring to the Title Sheet – Copy the portion of the Map, instead of referencing the map. The copy of the map will reflect and preserve the conditions at the time of letting.
6. Delete or block any line work that crosses or interferes with text on the plans. Permissible to use brgTextBlockOut level to block out all levels except text and dimensions by creating a “filled shape” using this level.
7. General Notes are available from the **brgNotes.cel** cell library. It is recommended that these notes be used and not re-written for each project plan submitted.
8. Refer to the Level Manager dialog box for the Description of the levels that define which levels should be used for which materials. Use only the available levels from the level libraries and do not create new levels which create problems producing correctly colored prints.
9. On Situation Plan details, the Preliminary levels should be used. For example, the level **brgPreStructureNew** should be used instead of the **brgConcrete** level.
10. On the Situation Plan sheet, the level **brgPreStructureNewBridgeLong** level should be used for the Longitudinal Section detail.
11. On Repair projects, use the **brgRemovals** level for parts of the existing structure being removed for the repair and use **brgPreStructureExisting** for parts of the existing structure that are NOT being removed.
12. When using the **brgPreStructureExisting** level or any of the other materials levels, use a solid line style for visible lines and a dashed line style for lines that are hidden.
13. Do not delete the printing outlines (brgBlockPrinting, brgBlockImage or hwyOutline levels) found in the seed files. The border shape on these levels are used with the Bridge Office print styles for locating the print area. These are on the Construction class, therefore in the “View Attributes” do not have the “Constructions” class off, otherwise the print style settings will not be able to locate the print area.
14. Regarding Revisions, all changes shall be made in the original Cadd file which should be retained. Following the Office of Bridges & Structures website, MicroStation Documentation page, Revisions document– use the Revision levels (levels with **brgRev** in names) to make changes.
15. When providing “V” sheets to the Office of Design for use in Road Design plans use the Bridge Office sheet border as referenced in the CCDDDDbdr model of the CADD file.

Preferred settings to apply prior to CADD file submittal.

- Use the Bridge Office bdr model as the template for all model borders, reference into the models and have “Constructions” on in the “View Attributes” settings. This will keep the printing border visible for printing.
- Have only “View 1” active, showing the plan sheet border and details.
- Turn off “Line Weights” and “Grid” in the “View Attributes” settings.

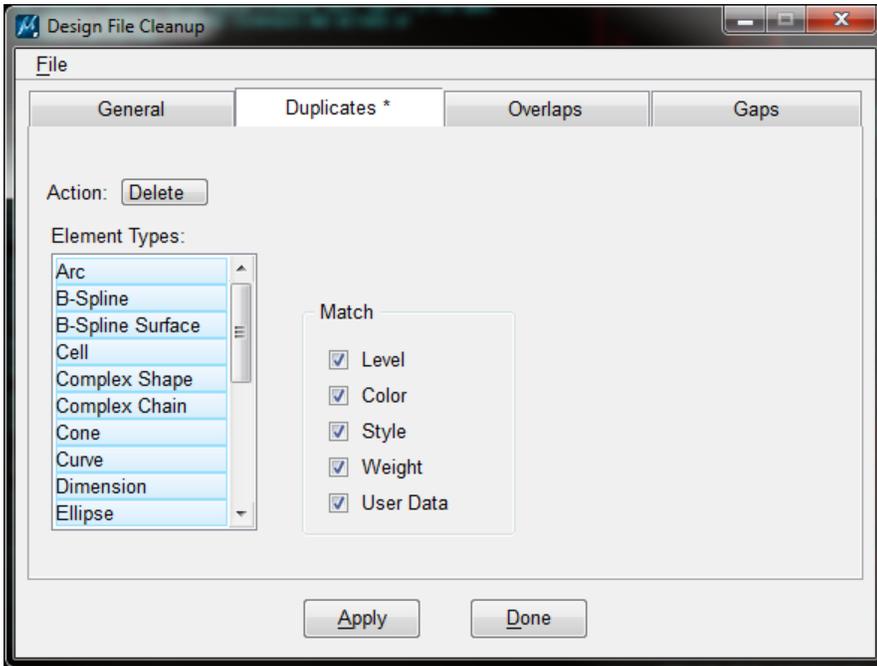


- Run “Delete Duplicate” command in MicroStation under “Utilities>Data Cleanup”. This will aid in preventing excess elements creating errors in the drawing details.

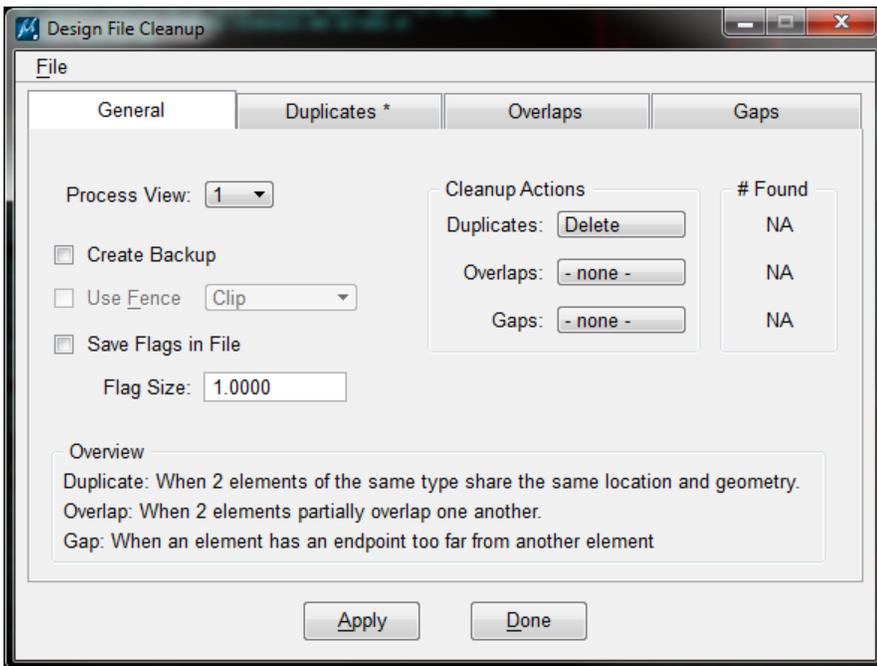


On the Duplicates tab select what types of elements and what attributes to match.

To completely remove true duplicate elements all element types should be selected and all attributes should be matched.



On the General settings tab toggle on the Create Backup option and select Delete for Duplicates action.



These settings will be saved and set the next time you open the utility.

Click the Apply button and the delete duplicate process will begin.

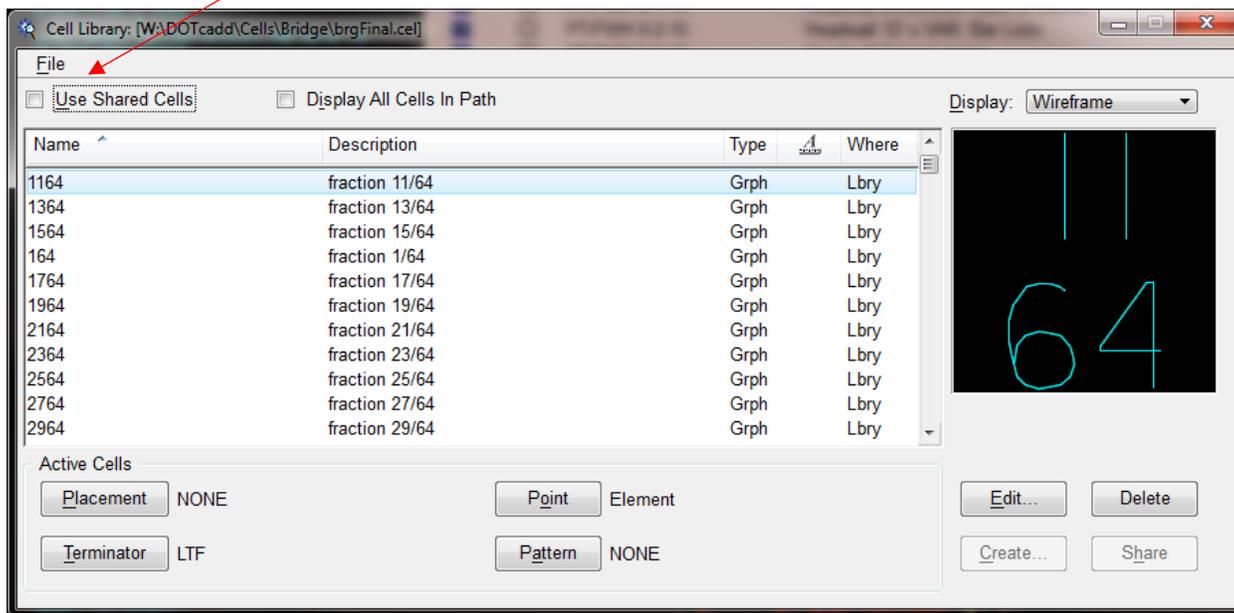
When the process is complete a message will appear in the Message Center at the bottom of the view..

▲ Cleanup Finished [D=14 O=- G=-]

Only the selected Cadd model is processed not the entire Cadd file.

Click the Done button to exit the utility.

- When placing cells the preferred practice is to not use the “Shared Cells” option.

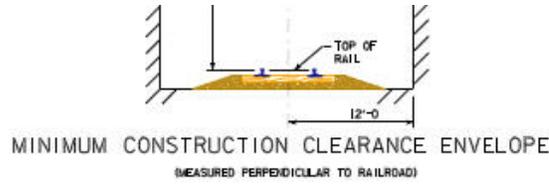


- Check that all references needed are attached and visible.
- Use proper model naming convention CDDDDs001 (CC = county number, DDDD = bridge design number, s = sheet, 001 = model number). Ensure the models names are correct for the current job that is being detailed and not used from a copied or imported model.
- If referencing details from a previous job, copy the details making them active and place them on a detail sheet or working details model, and then delete the reference to the example model or project. Do not keep models or references that are not needed.

- Do not have any text in the lower right corner outside of the sheet border. This causes confusion with addendums and plan revisions. Addendum and plan revision cells require the use of that space outside the sheet border.

Example

THE TEMPORARY SHORING SYSTEM
UPRR GUIDELINES FOR TEMPORARY
SHORING WHICH ENCRROACH INTO ZONE A OR B SHALL BE ACCOMPANIED BY
DESIGNATIONS, PLANS AND CALCULATIONS
AND STAMPED BY A PROFESSIONAL
ENGINEER IN THE STATE OF IOWA.



Do not place any text in these locations outside of sheet border. This will interfere with the placement and display of the ADDENDUM and REVISION stamp cells.

DESIGN FOR 0° SKEW
290'-1 1/2" x 90'-2" WELDED STEEL
GIRDER BRIDGE
50'-0", 100'-6", 90'-3", 50'-0"
UPRR GENERAL NOTES & SHORING
STATION 101+32.08 APRIL, 2017
POTTAWATTAMIE COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 23 OF 95 P.I.C. NO. 30169 DESIGN NO. 117

STANDARD SHEET 1067 (QUANTITY)	POTTAWATTAMIE COUNTY	PROJECT NUMBER IN-14-023-30692-03-15	SHEET NUMBER 24	DATE 3/30/2017
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- “Compress” the drawing file when done and “Save Settings”.
- When submitting cd’s or files, always include the project number, county, design number and FHWA number.

➤ **ADDENDUM**

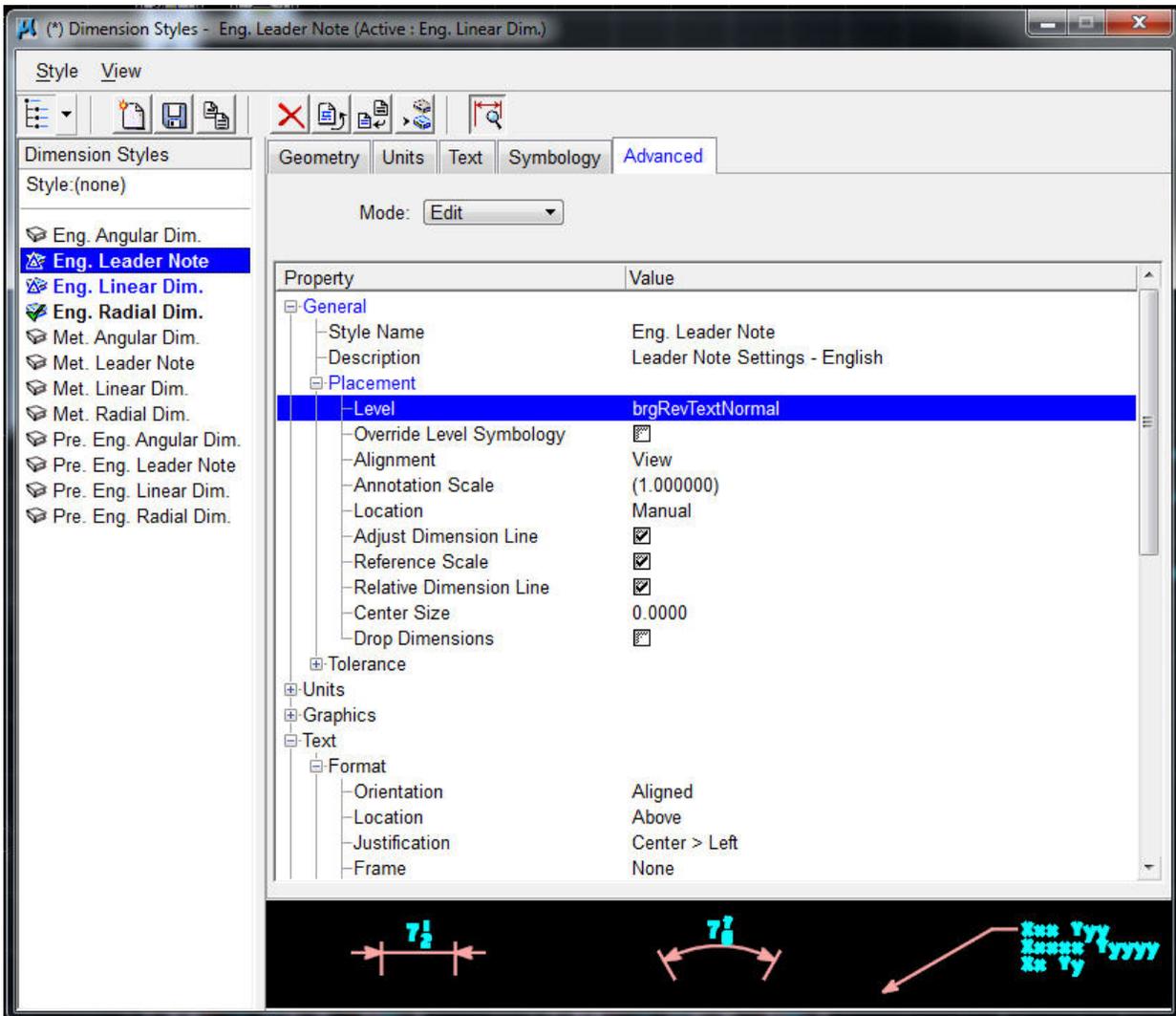
If there is a plan Addenda and the changes are extensive enough that a New Model is created and the Original Model is kept for reference then add (_VOID_date, MM-DD-YYYY) to the Original Model name. Also state VOID BY ADDENDA in the description of the Original Model. See example below.

Type	2D/3D	Name	Description	Design File	Sheet
	<input type="checkbox"/>	970117bdr	Border English Info	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S000	Title English sheet	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S000RA	Revision English Sheet	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S001	QUANTITIES CHGD BY ADDENDA	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S001 _ VOID -11-2-16	QUANTITIES VOID BY ADDENDA	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S002	GENERAL NOTES	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S003p	SITUATION PLAN	c:\pw_work\pw...\97020132.brg	
	<input checked="" type="checkbox"/>	970117S004p	SITE PLAN	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S004pA	SITE PLAN	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S005	STAKING DIAGRAM	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S006	ABUTMENT DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S007	ABUT. DETAILS & PILE NOTES	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S008	PIER PILE DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S009	ENCASEMENT DETAILS & QTYS.	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S010	MONOLITHIC PIER CAP DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S011	SUPERSTRUCTURE DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S012	LONGITUDINAL SECTION	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S013	SUPERSTRUCTURE DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S014	TOP OF SLAB ELEVATIONS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S014A	TOP OF SLAB ELEVATIONS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S015	BARRIER RAIL DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S016	BARRIER RAIL END SECT. DET...	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S017	SUBDRAIN DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S018	BRIDGE WING ARMORING DET...	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117S019	ABUTMENT BACKFILL DETAILS	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	970117SSSS	Detail Sheet Seed	c:\pw_work\pw...\97020132.brg	
	<input type="checkbox"/>	WorkingDetails	English Reference Work Sheet	c:\pw_work\pw...\97020132.brg	

➤ **REVISIONS**

For creating the revision leader notes and dimensions use the settings shown below that enable the dimension properties and functionality to be kept while created on the proper revision levels. If all else fails you can create the leader notes and dimensions, drop them and then place them on the appropriate bridge revision levels

Revision Dimensions - Old-Prior to May 2018



Revision Dimensions - New May 2018

