ELECTRONIC EDITS FOR AS-BUILT PLANS

Contents

Overview

This document will guide personnel through the electronic portion of the as-built process from beginning to end including retrieving and renaming files through uploading a completed set of as-builts to the MDT As-Built System.

Process Provenance

- Date of development: *7/19/2021*
- Revision date(s): *1/1/2024*
- Software: *MicroStation / Power GEOPAK SS10 / Docuplot*
- Software version(s): *08.11.09.916 / 08.11.09.918 / 3.4.0*
- Author: *Emily Peterson & Christian Wright*

Statement of Need

Change is a normal and expected part of the construction process. Changes can be the result of necessary design modifications, differing site conditions, material availability, value engineering and impacts from third parties to name a few. Beyond executing the change in the field, the change needs to be documented to show what was constructed. Construction As-Builts are used to show the finished condition of the work as it was constructed and accepted. Thereafter the drawings are used as a reference, especially for tort claims, to plan for changes, fix repairs or expansion.

Acronyms/Definitions Used in This Document

DMS – Document Management System
CPB – Contract Plans Book
DGN – Folder located on your C:\ drive.
REF – Folder located in your C:\dgn folder
ROW – Right of Way
DocuPlot – Software used by MDT for plotting designs from MicroStation to plan sets
Preconstruction Startup – Software used by MDT to start MicroStation
MicroStation – Software used by MDT to design projects
PDF995 – Software used by MDT to edit .pdf files
MDT As-Built System – System MDT uses to store all completed as-built plans

References

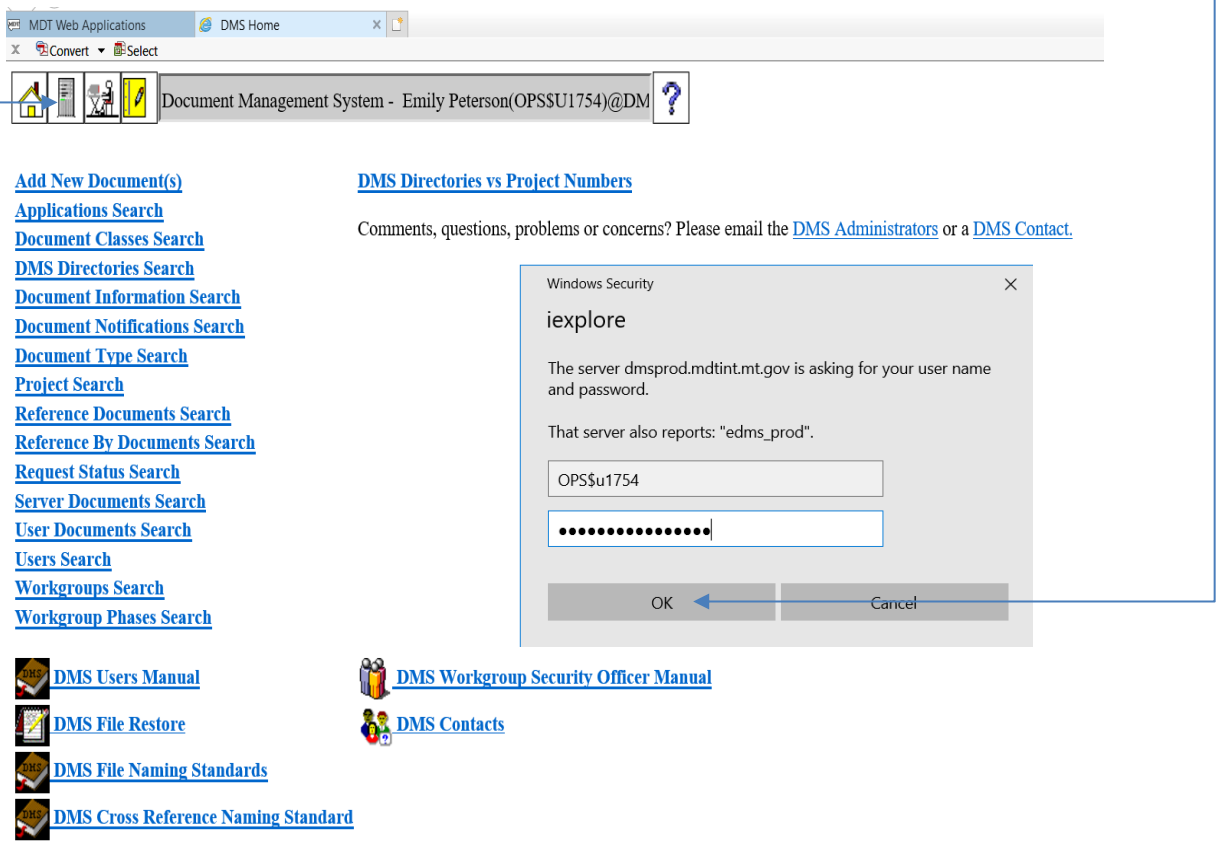
Construction Redline Edits for As-Built Plans

Process Description and Examples

Section I. Downloading Project Files using DMS, Docuplot & CPB Book

Procedure – Open the Document Management System (DMS) and Download Project Files using a CPB Book (If no CPB Book is available for the project, see Section II.)

1. MDT Employees' Intranet>Resources>General>Web Applications>Highways & Engineering>Document Management System (DMS)
    a. Enter Login Information (Use Prod to login), **select "OK"** when finished.

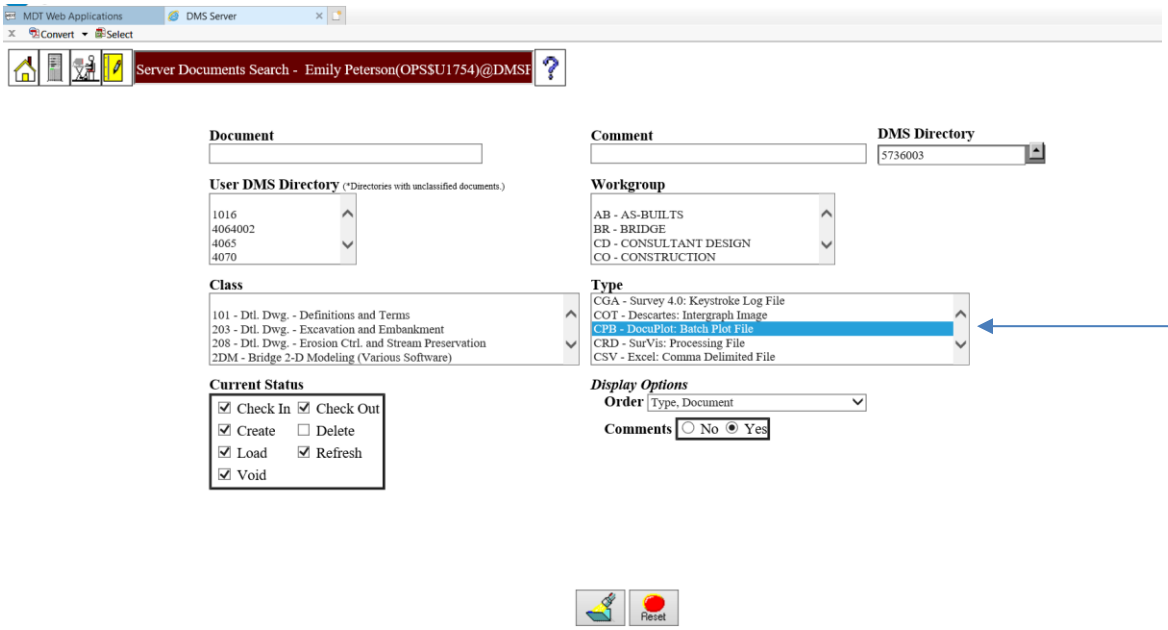


    b. **Select** Sever Document search icon.

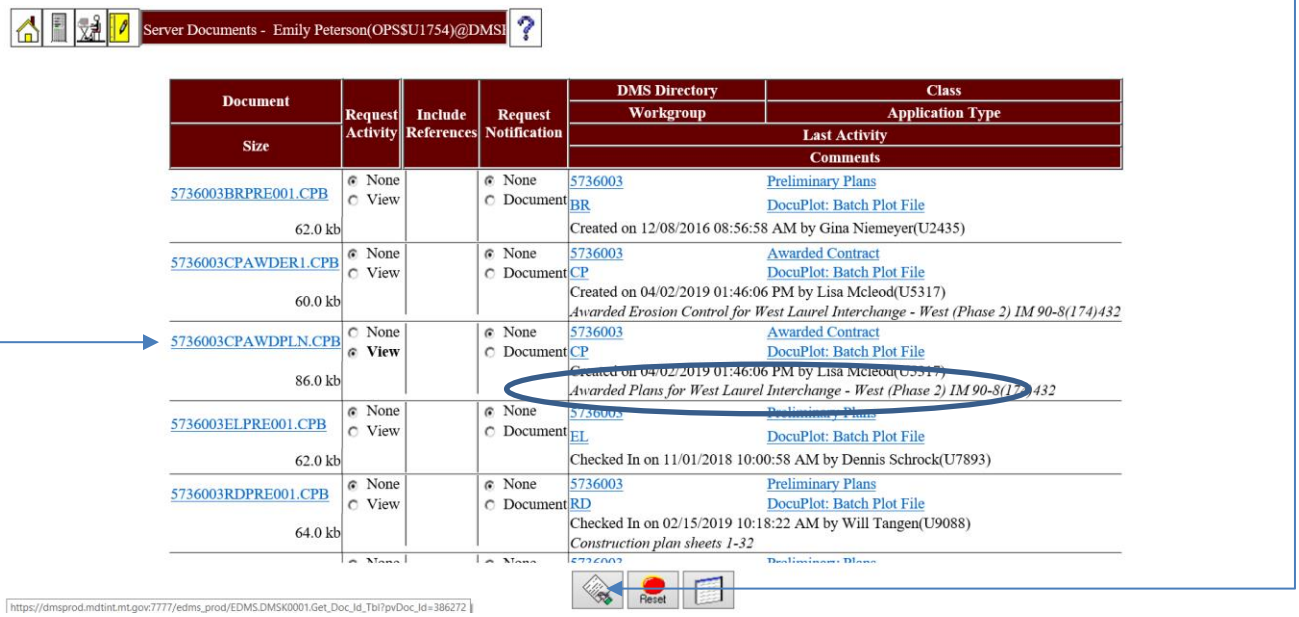
This completes the referenced section from Section II for **Step 1**.

Use link to return – Section II, Step 1

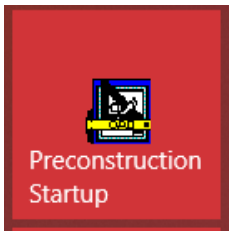
c. Search by UPN Number and Type – CPB – DocuPlot:Batch Plot File.



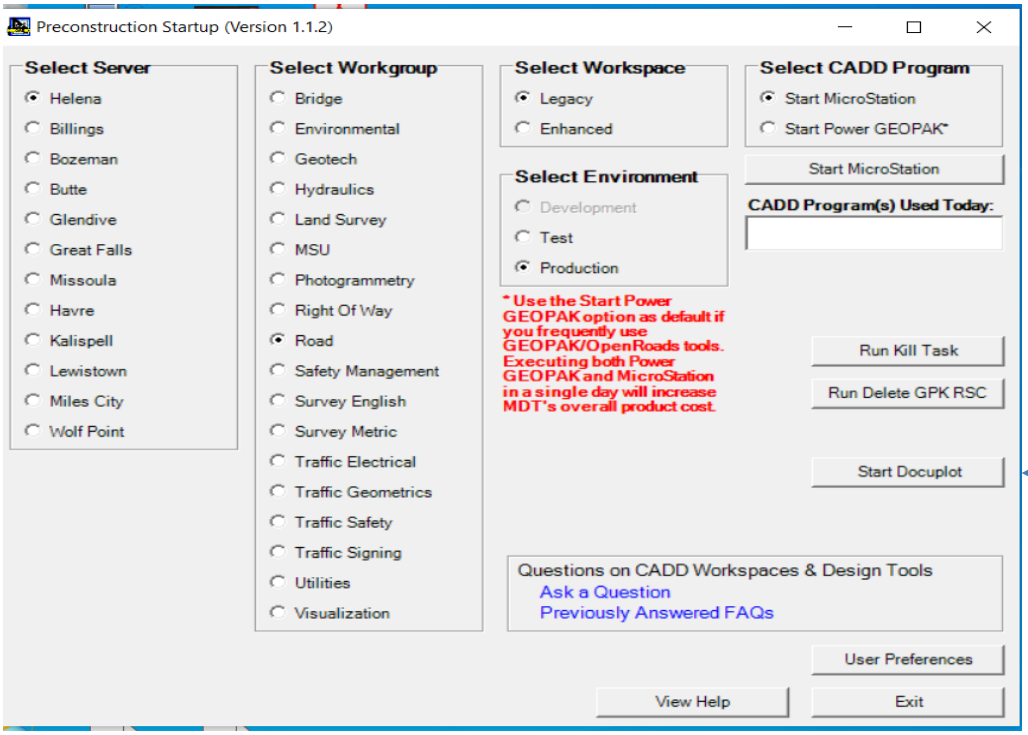
d. You will see all CPB files. **Select "View"** on the one that states Awarded Plans. After **"View"** is selected, **click** the hand holding the paper.



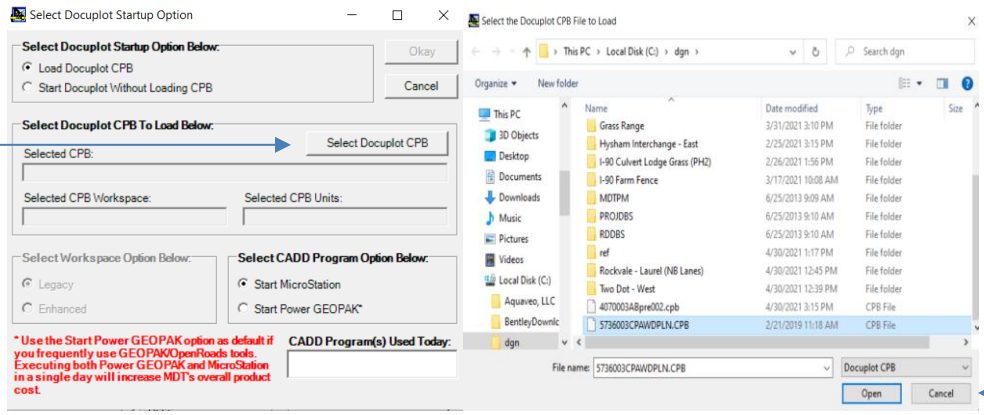
e. The file will be downloaded to your C:\dgn. Open DocuPlot using the Preconstruction Startup* for MicroStation.



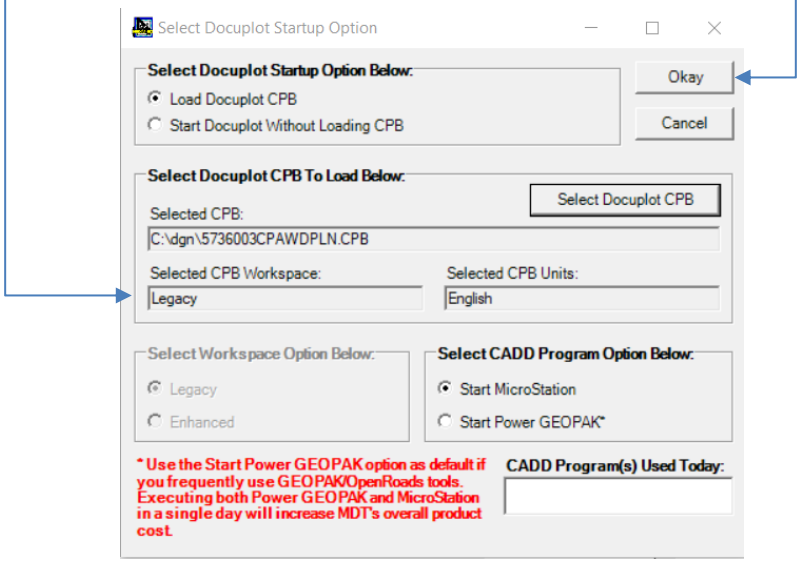
*Note: If you have not used Preconstruction Startup before, you may need to open your start menu and begin typing "Preconstruction Startup" to access this program. Once it shows up in the search results, you can **right click** and **click "pin to start"** so it is easily accessible next time you use it.



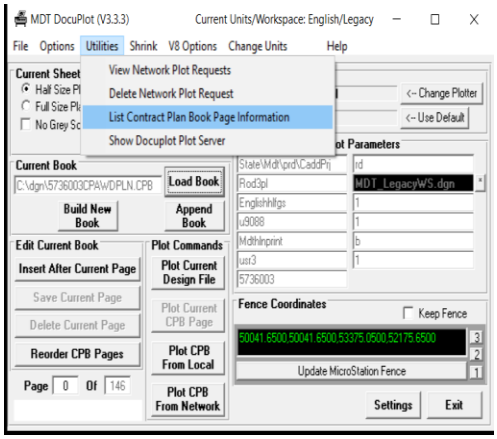
f. **Click "Select DocuPlot CPB"**. This will bring you to your C:\dgn. Select the CPB Book that you downloaded from DMS and **click "Open"**.

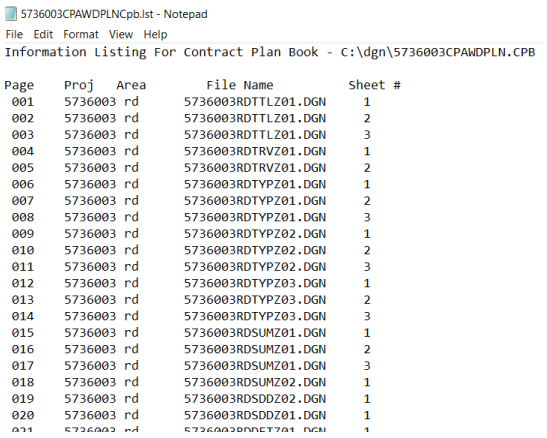


g. Please take note if your project is Legacy or Enhanced. This example is a Legacy project. Note: If the project is an Enhanced project you will want to close DocuPlot and go back to step e. and **select "Enhanced"** under Select Workspace. Once you are working in the correct workspace **click "Okay"**.

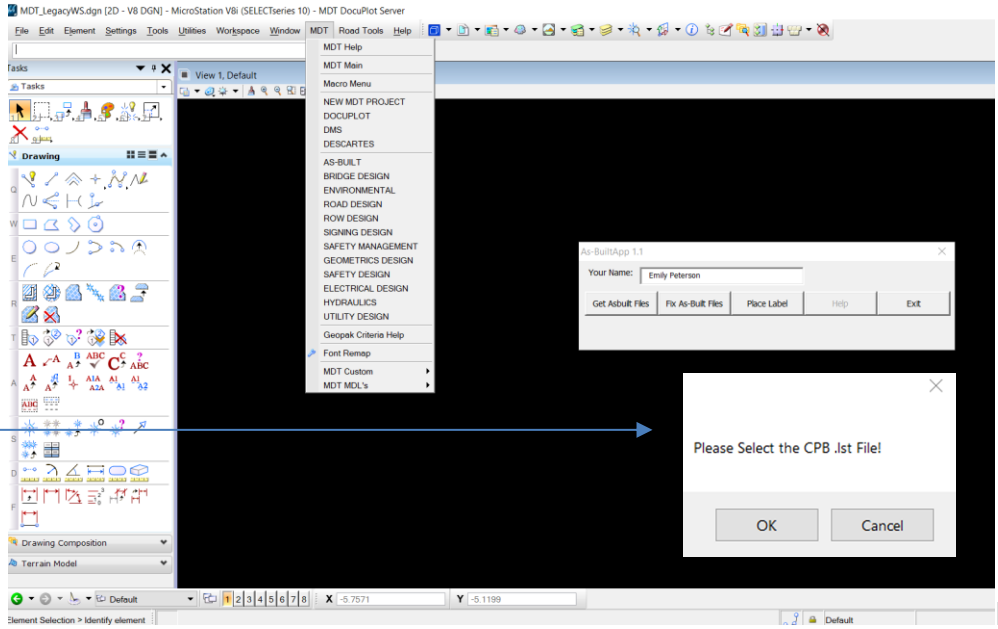


h. Under Utilities **select "List Contract Plan Book Page Information"**. This will create a list file of all the files that are associated with the CPB Book.

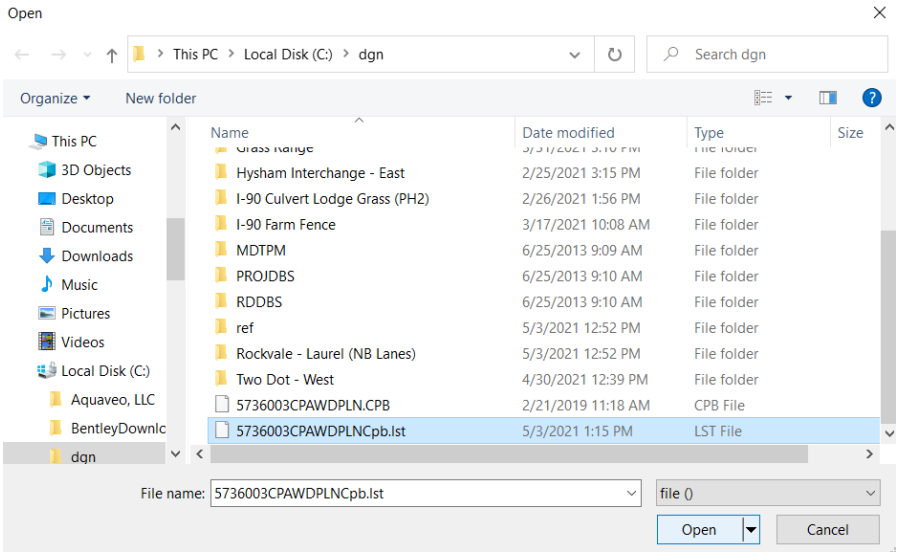




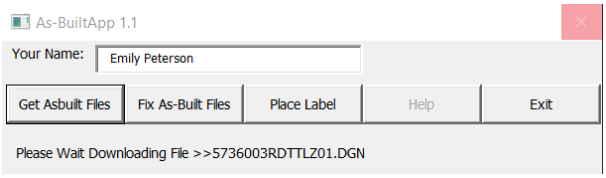
i. Next open up MicroStation and under MDT (MDT Apps for "Enhanced") **select "AS-BUILT"**. This will open the As-Built Macro. First put in your "Name" and then **select "Get Asbuilt Files"**. A message will pop up saying "Please Select the CPB.lst File!" **Click "OK"**.



j. Your C:\dgn will open and navigate to the Cpb.lst file, select it and **click "Open"**.

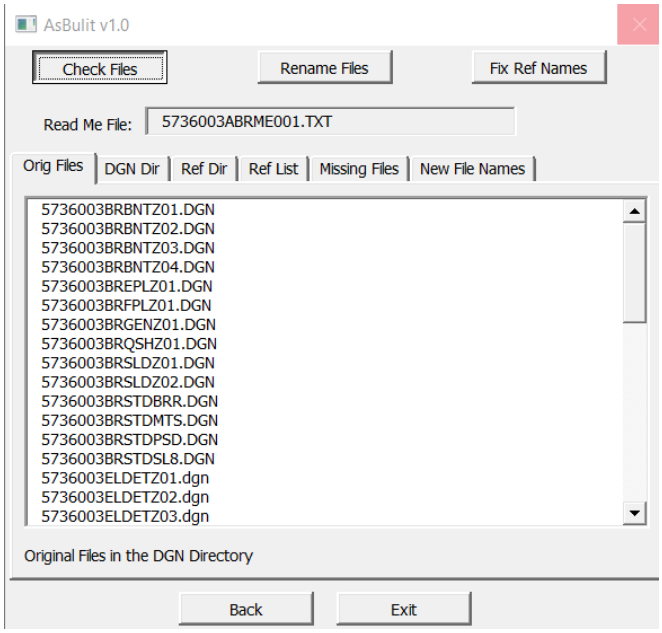


k. The needed files will begin to be downloaded into your C:\dgn. This process may take several minutes depending on the size of the project. Please let the macro run to completion before clicking anything else.



l. After the downloading of the files is complete, **click "Fix As-Built Files"**.

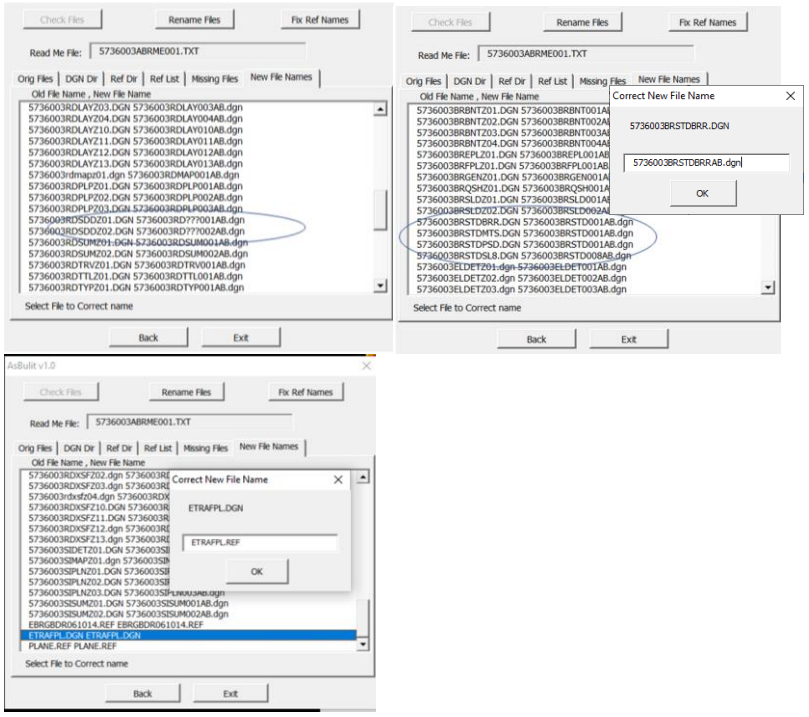
m. This will bring up the list of all the files that have been downloaded to your C:\dgn. **Click, "Check Files"**. Please let the Macro run completely before clicking anything else. You can re-run this Macro at any time, but the generated TXT files must be deleted prior to running the macro again. The four (4) text files that are created are placed in the C:\dgn directory. Each TXT file corresponds to a tab on the AS-BUILT Macro Dialog.



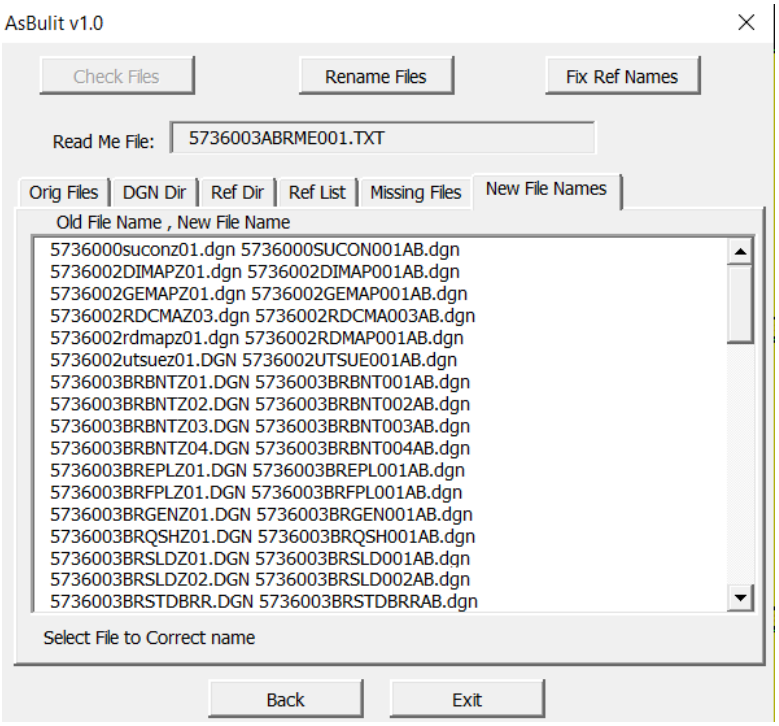
a. **OrigFiles.txt** is a listing of the original files checked when the "CHECK FILES" portion of the macro was run. This text file is displayed when selecting the OrigFiles tab.
b. **FileRef.txt** is a listing of each design file and it's attached reference files. This file lists five columns per line, 1) File name, 2) Attached reference file, 3) Logical name, 4) Display On or OFF, and 5) Missing. This text file is displayed when selecting the RefList tab.
c. **RefFileMissing.txt** is a listing of missing reference files. These missing files need to downloaded using DMS. It is possible these files do not exist in DMS or were renamed during the pre-construction design process. This text file is displayed when selecting the Missing Files tab.
d. **####ABRME001.TXT** is a listing of the existing file name and the macro generated As-Built name for the file. This text file is displayed when selecting the New File Names tab.
e. The DGN Dir tab lists the files in the C:\dgn directory. This is a quick way to view the directory without using File Explorer.

f. The REF Dir tab lists the files in the C:\dgn\ref directory. This is a quick way to view the directory without using File Explorer.

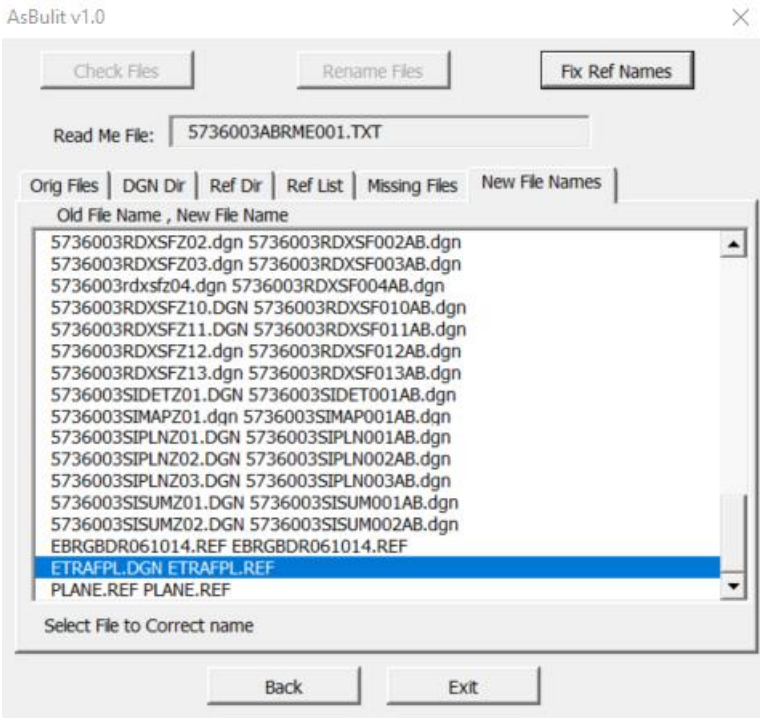
g. Check the file names listed on the New File Names tab. Manually fix incorrect file names by double clicking the file name.
    i. If the macro generated a text file with the new name missing, delete all four text files and start over at the “Check Files” portion of the macro. If the new name is missing, the remaining commands in the macro will not work correctly.
    ii. Look for file names with ??? in the new name. These are files that the Macro could not determine an appropriate name for. You may report these to Engineering Systems CADD Support for updates to the macro library so they are supported on future projects.
    iii. Look for duplicate names for different files. It is impossible to name two different files the same name. For files that are from another project directory, you will need to merge them into the AB file later as they won’t upload into the directory you are working in. (See Step “q” regarding files in different directories)
    iv. Look for any ROW files that have new names. These should not be renamed. If a new name is present that differs from the original name, manually change this back to the original file name.
    v. Look for MDT_Raster_Image_Basemap.dgn. This should not be renamed and will not be uploaded to PCMS in Section IV. If a new name is present that differs from the original name, manually change this back to the original file name. Any files with this reference file must retain the logical prefix MTSTD:. This may require manually editing the prefix from MTAB: to MTSTD:.



n. Run the Rename Files portion of the Macro (**Click "Rename Files**"). The files are renamed using the names listed on "New File Names" tab.



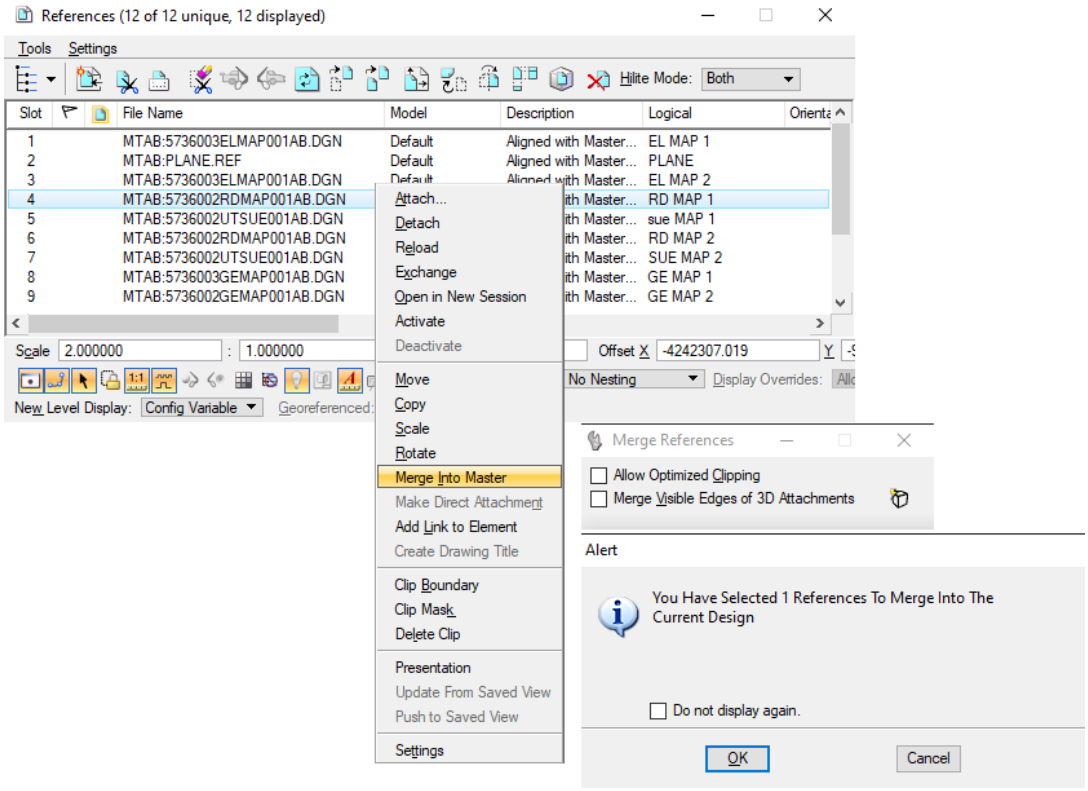
o. Run the Fix Reference Files portion of the Macro (**Click "Fix Ref Names"**). The files are renamed and fixed using the names listed on "Ref List" tab.



p. After this portion of the macro is completed. **Click "Exit"**. You are now ready to complete the edits in MicroStation from the Red Lined drawing.
    a. All right of way files are skipped. Standard practice is to always have the ROW files be referenced from the RO directory. Do not modify ROW files. The same rule applies to .std files. These are usually referenced in bridge sheets (ex. SL8031517.STD). Leave these referenced from their original locations and do not rename them.
    b. If the file does not meet current naming standards, the name must be manually completed. Refer to CADD Standards File naming procedures to determine correct name.

q. Open each project file in MicroStation and merge the reference files from other project directories for those previously identified.
    a. With the appropriate file open, access the references dialog (**Click "File" "References"**)
    b. Right click the reference file to be merged and **Click "Merge Into Master"**

c. **Click** in the MicroStation window and **Click "OK"** to the Alert



r. Photo images or TIFF images attached to design files and displayed in the plans must be manually renamed. The As-built macros will not rename or fix the raster reference file attachment. For files that have imagery directly attached (usually a map reference file rather than the plan files where the imagery is shown in the plans), review the Raster Manager **(Click "File" "Raster Manager"**). This raster file will need to be downloaded from DMS, renamed with AB and then have the prefix edited to "MTAB:"

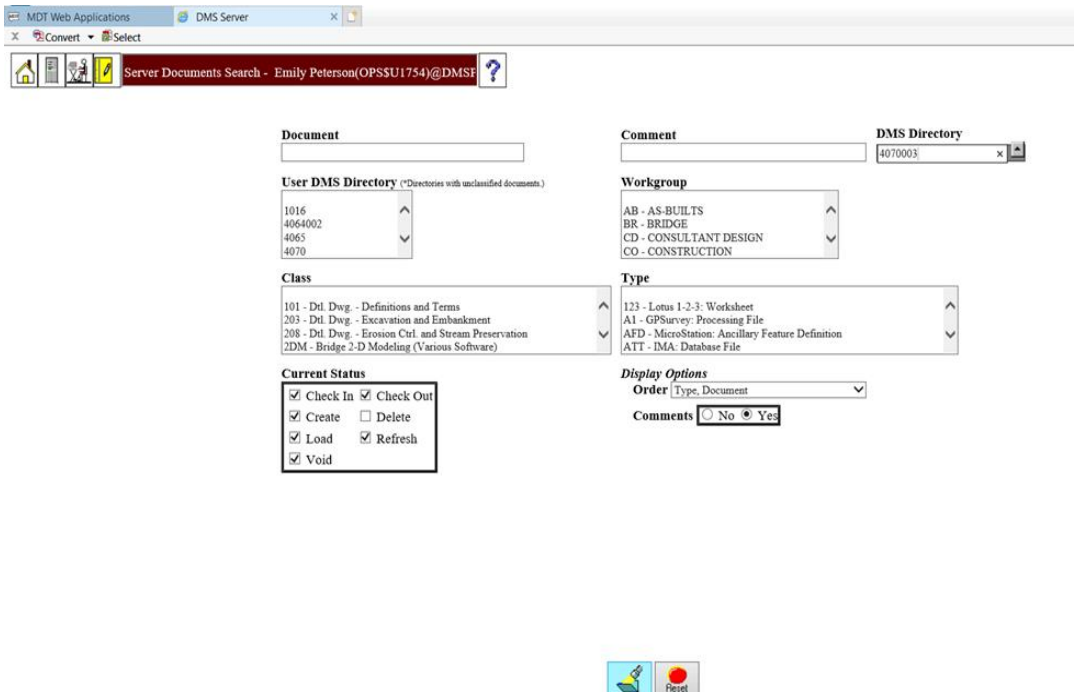
This completes the referenced section from Section II for **Step 5**.

Use link to return – Section II, Step 5

Section II. Download Project Files using DMS & DocuPlot without a CPB Book

Procedure – Open the Document Management System (DMS) and Download Project Files

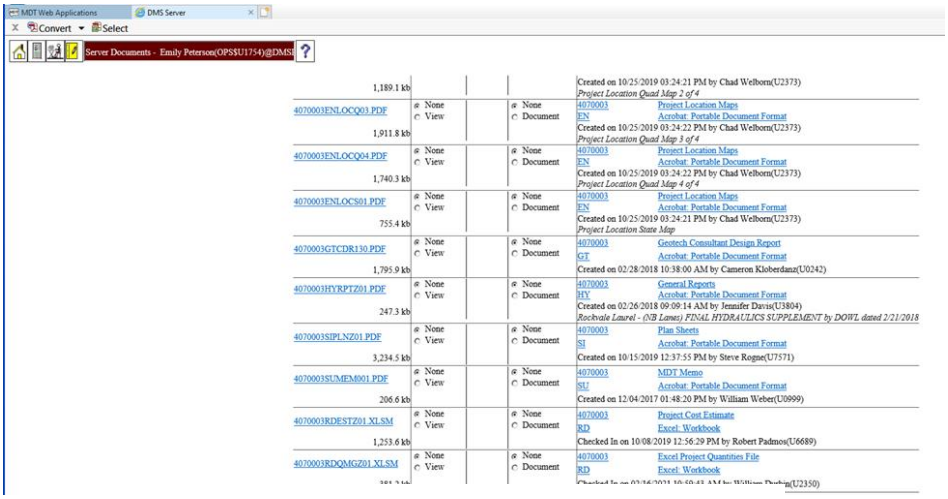
1. Follow steps 1a and 1b in Section I.
2. Enter the UPN/Unit Number (e.g. 4070003) in the DMS Directory (this number is found at the bottom left corner of the plans, the number must be entered exactly how it is shown, including the zero's and click on the folder with the flashlight.



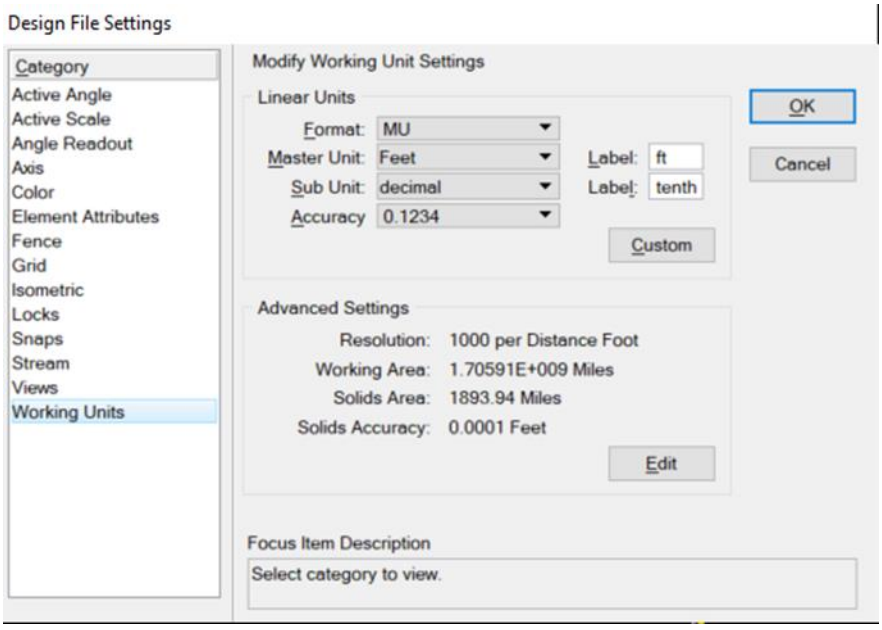
a. On the bottom left corner of each sheet in your plans is the file name for each page. Ex:

C:dgn\####00#rdttl00# - are the Title Pages,
C:dgn\####00#rdtrv00# - are the Traverse,
C:dgn\####00#rddet00#, - are the Details.

b. Locate those files in DMS and **click "View"** for each file that makes up the set of plans. Projects that have the summary's done in excel, you will have a file named: ####00#RDQMG001. XLSM *Note: the last letter may be different on certain projects. Just make sure it is the Summary Frames.
c. After you have located each file and click view, click on the hand holding the piece of paper.
d. At that point your files are being downloaded to your C:\dgn folder located on the C:\ drive of your computer.
e. After all the files you have downloaded have the "Green check", you are done with DMS and ready to edit your MicroStation files. **NOTE: Some files may come up with a reference file error (red x). Click on the red x to expand and see which files are missing. These files may need to be downloaded individually.



3. Navigate to your C:\dgn folder and locate the files that were just downloaded. Copy all the reference files (located in C:\dgn\ref) into your C:\dgn. If there are duplicate files you can delete the duplicate. Open any file using MicroStation. (I usually open the Title Sheet since this is the first sheet of the plans.) **Note: Before running the As-Built Macro you will need to find out what workspace you will need to be working in.
    a. After the Title Sheet is open, Navigate to Settings>Design File>Working Units. If the Resolution is 1000 per Distance Foot, then it is Legacy, if the units are 10000 per Distance Foot that is Enhanced. If you opened MicroStation using the wrong Workspace, please close out and reopen in the correct Workspace.



4. Next open the As-Built Macro. Navigate to MDT **select "AS-BUILT"**. This will open the As-Built Macro. First put in your "Name" and then **select "Fix As-Built Files"**. *Note: Do not click Get As-built Files as we have already got them in our C:\dgn and will not be using a CPB Book to download the MicroStation files from DMS.

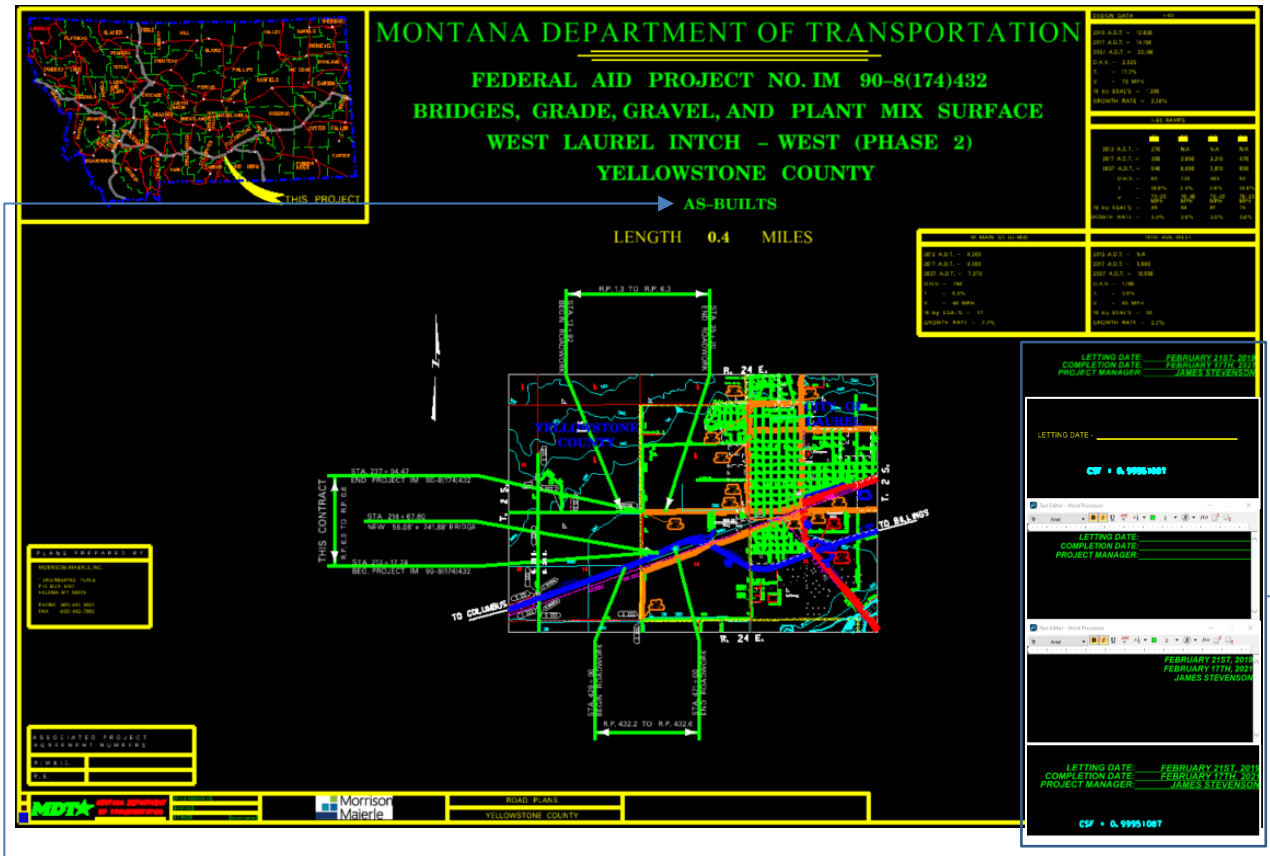
5. Follow steps l thru r in Section I.
6. To place the required “As-Built” text in each sheet **select “Place Label”**.
   *Note: You will have to do this command on every file that is included in the plan set.

Note: See *Construction Redline Edits for As-Built Plans* for information regarding as-built information.

Section III. Editing MicroStation As-Built Plans

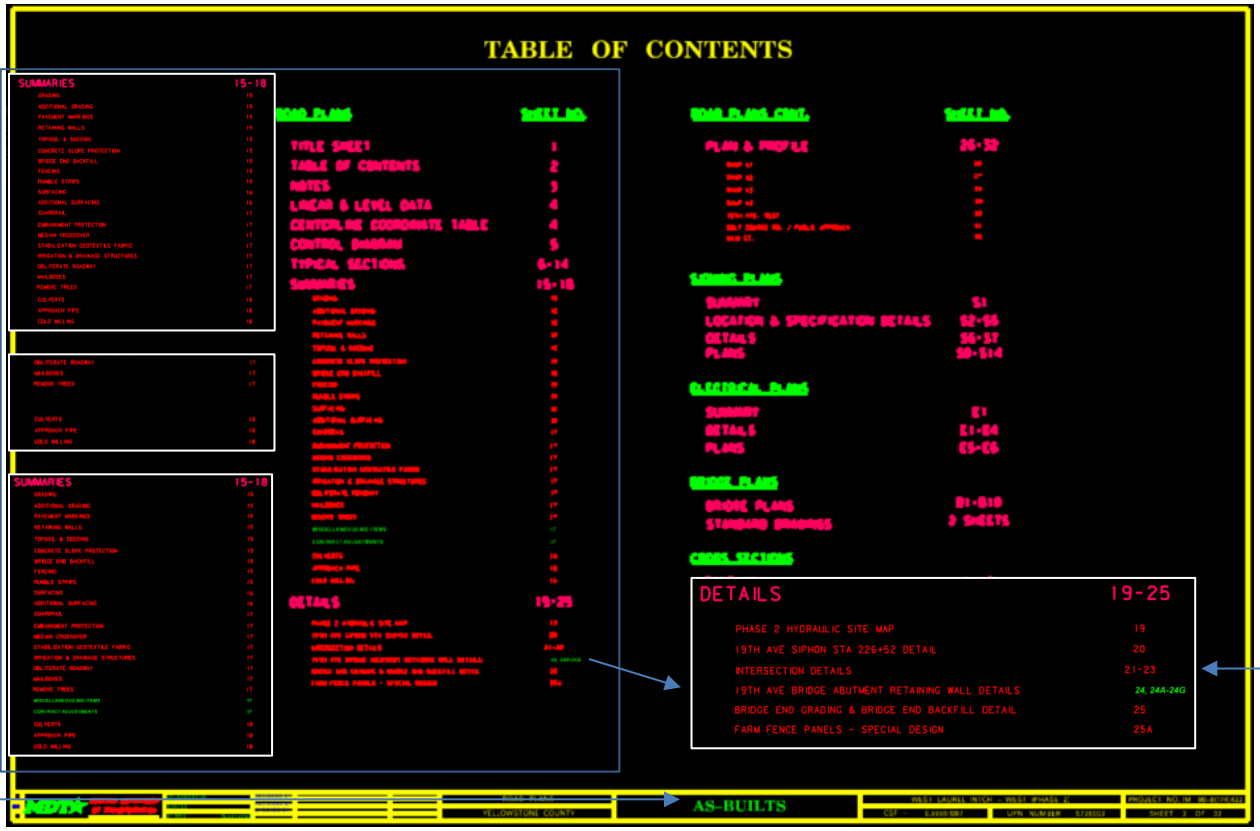
Note: This section will cover the edits made in MicroStation and the proper criteria to be met when doing so, not how to operate MicroStation controls. For any information not covered here regarding items required for as-builts, see the corresponding subsection in *Construction Redline Edits for As-Built Plans*. Only specifics to MicroStation edits will be covered in this section.

Procedure – MicroStation As-Built Title Page



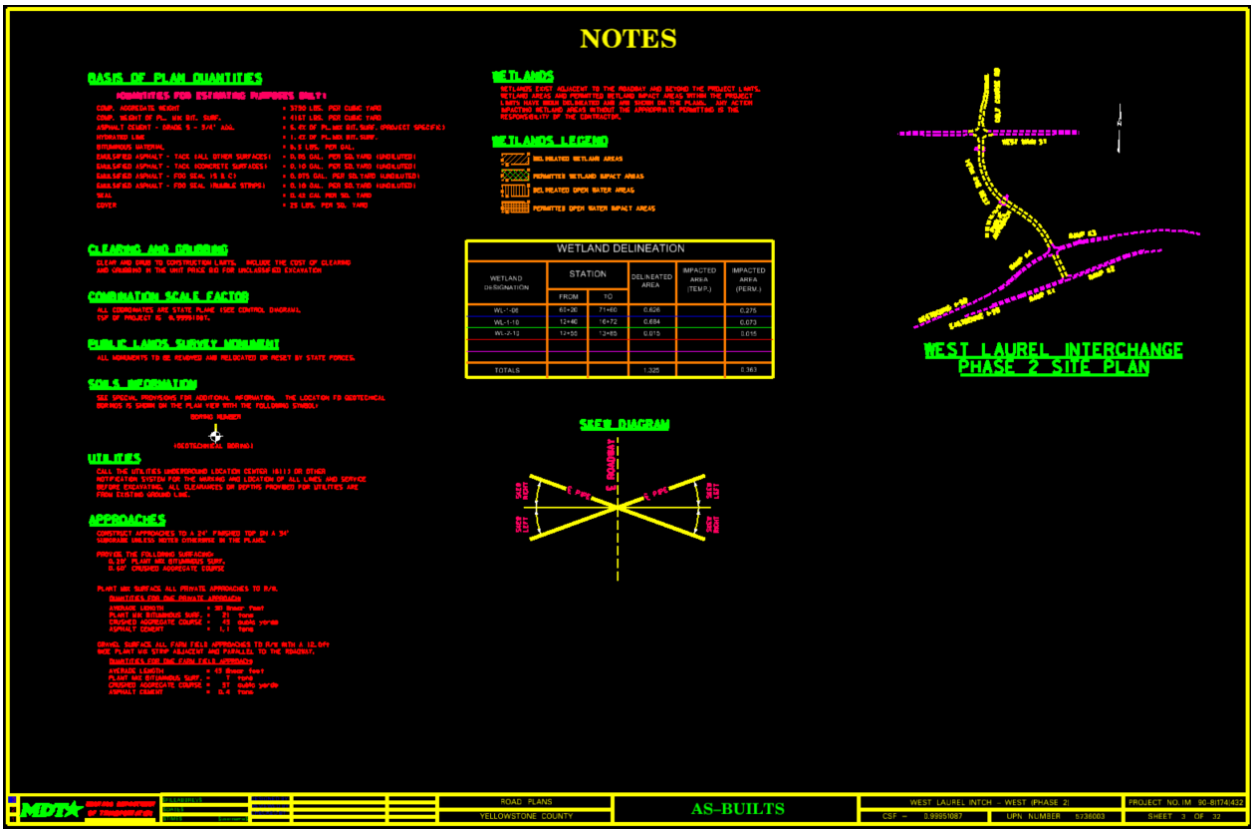
1. "AS-BUILTS" needs to be added to the title page. It should be centered below the project description.
   Note: When using the macro to retrieve the plan files, this "AS-BUILTS" text will be added automatically. Double check that the "AS-BUILTS" text was added in the proper location.
2. All additions/changes to text, except for "AS-BUILTS" text, need to be done with ***Arial font, bolded, and italicized***. This will be the case for all plan sheets. This ensures that any changes are easily recognizable as such and stand apart from original plan text. The letting date, completion date, and EPM are input in this manner here.

Procedure – MicroStation As-Built Table of Contents



1. Double check that the “AS-BUILTS” text was added in the proper location and on every sheet as you continue through your plan set. If one is missing or was added in the wrong spot, add or move it to the correct location. Aside from bridge plan sheets and the title sheet, all other plan pages should have the as-built text located in the lower title box as shown.
2. Add any additional summaries, plan pages, or details that are being added to the plans. You may need to look ahead and see where these will fit into the plan set. You may also need to wait to complete this until you have everything in the spot you want it and then update this sheet. It is not always easily determined if any certain summary or detail will fit on any certain page until you’ve completed that plan sheet and have either made it fit or placed it on another sheet. If another sheet needs to be added, all subsequent page numbering will need to be updated. If there is something that relates directly to another page, you could simply add a consecutive page with the same number followed by an A (Ex.: 12A) or multiple letters to avoid renumbering an entire plan set to add one detail. Make sure to notate this on the original page and in the table of contents. Add the items in their respective spot in their list using the font type mentioned above. Items should be added in the correct spot in the list.

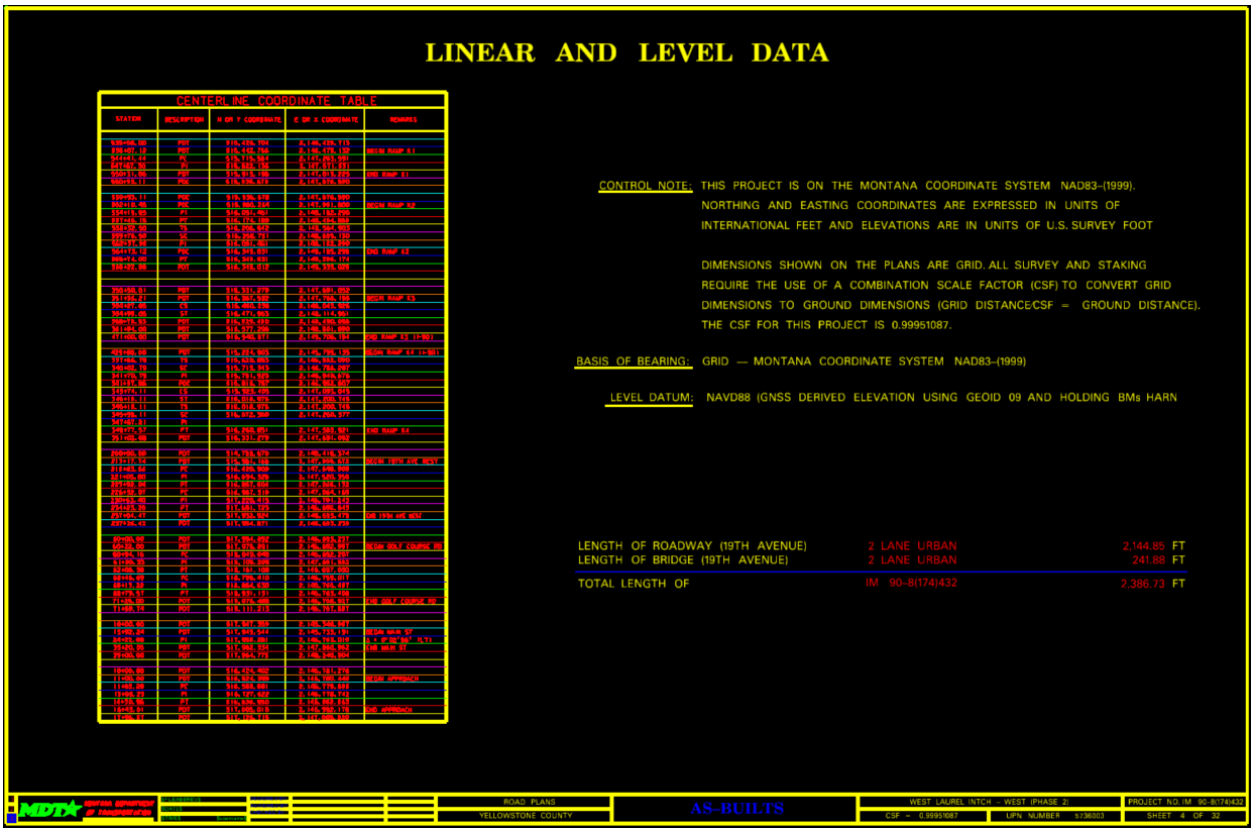
Procedure – MicroStation As-Built Notes



1. Make any changes to the original plans using the same criteria as before.
   Note: There are rarely any changes to the notes page. However, if there are any changes, ensure they are noted.

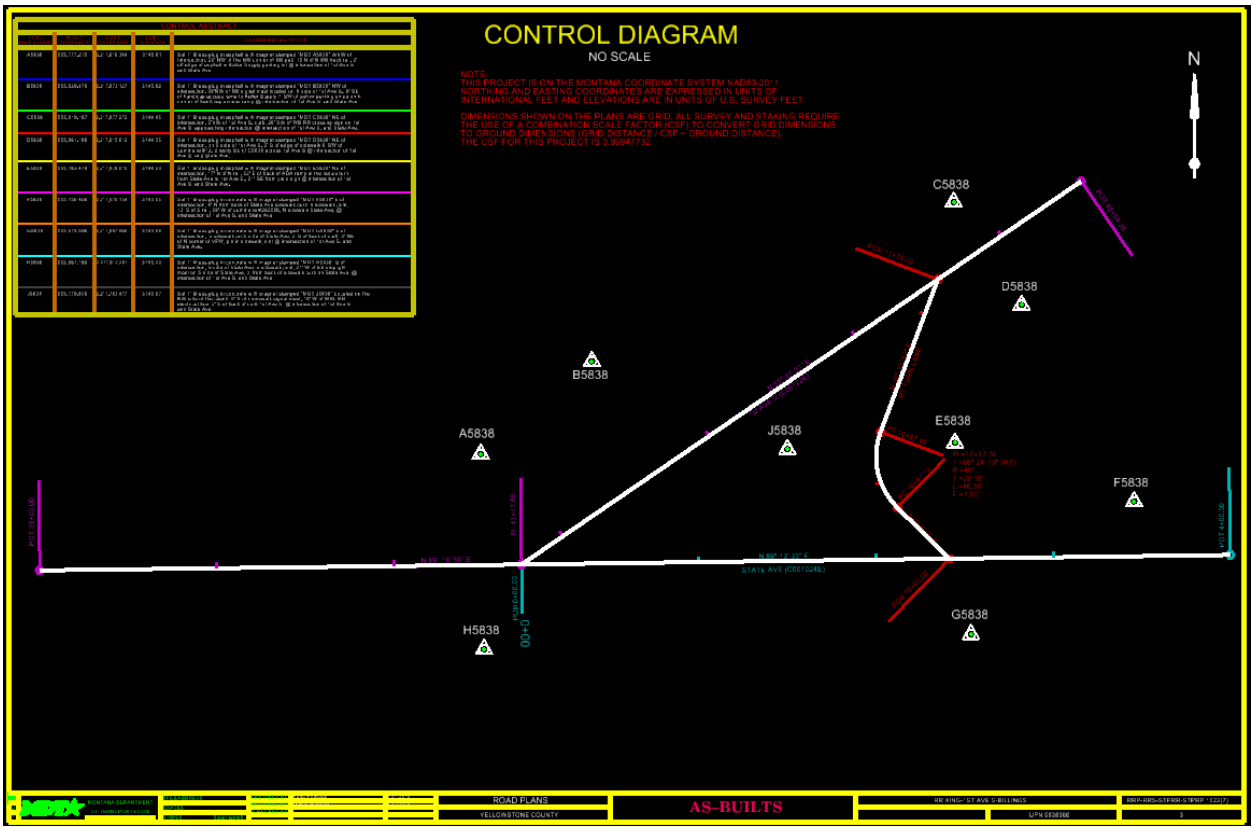
Note: This page can be included on another page depending on the plan set. See the corresponding procedure in *Construction Redline Edits for As-Built Plans*.

Procedure – MicroStation As-Built Linear and Level Data



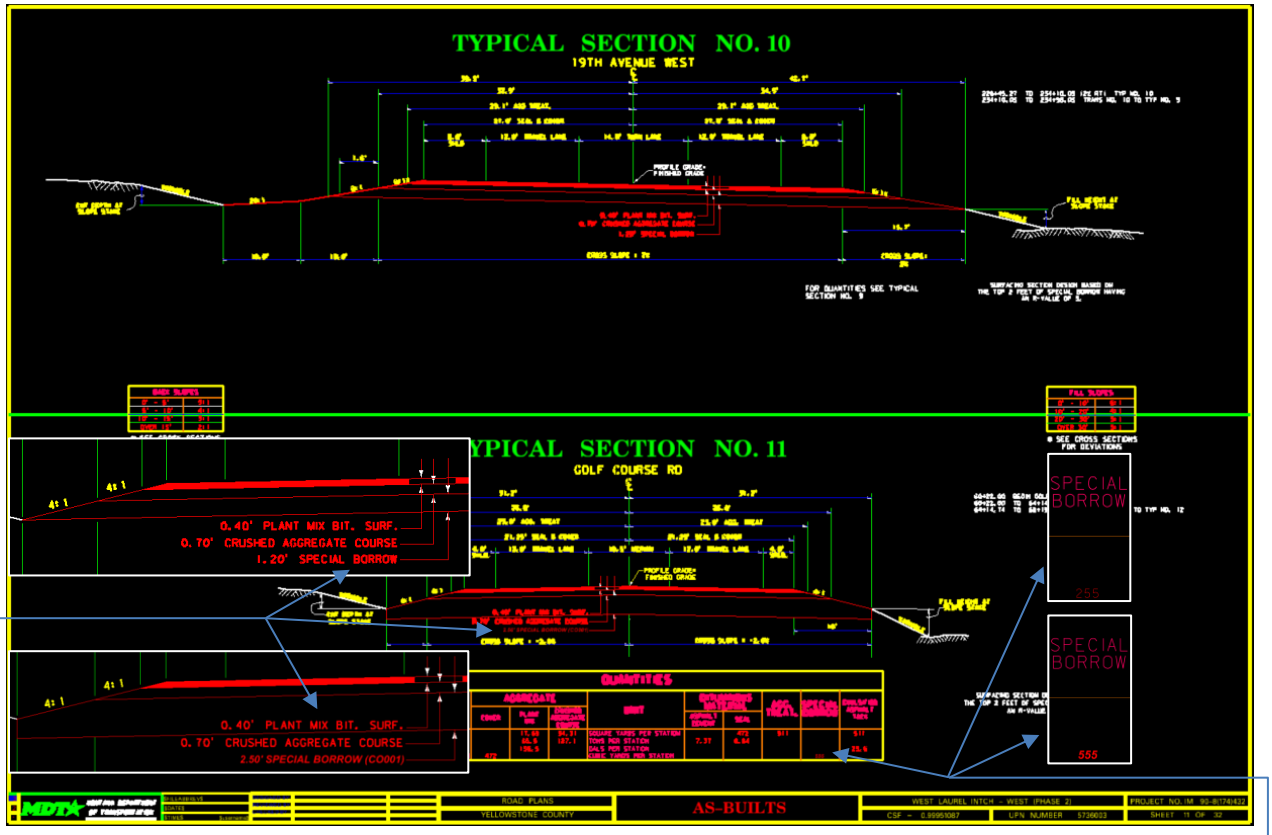
1. Edit any changes to the “LINEAR AND LEVEL DATA”.
   Note: Similar to the “NOTES”, the “LINEAR DATA” may be located on another sheet depending on how the plans were laid out.

Procedure – MicroStation As-Built Control Diagram



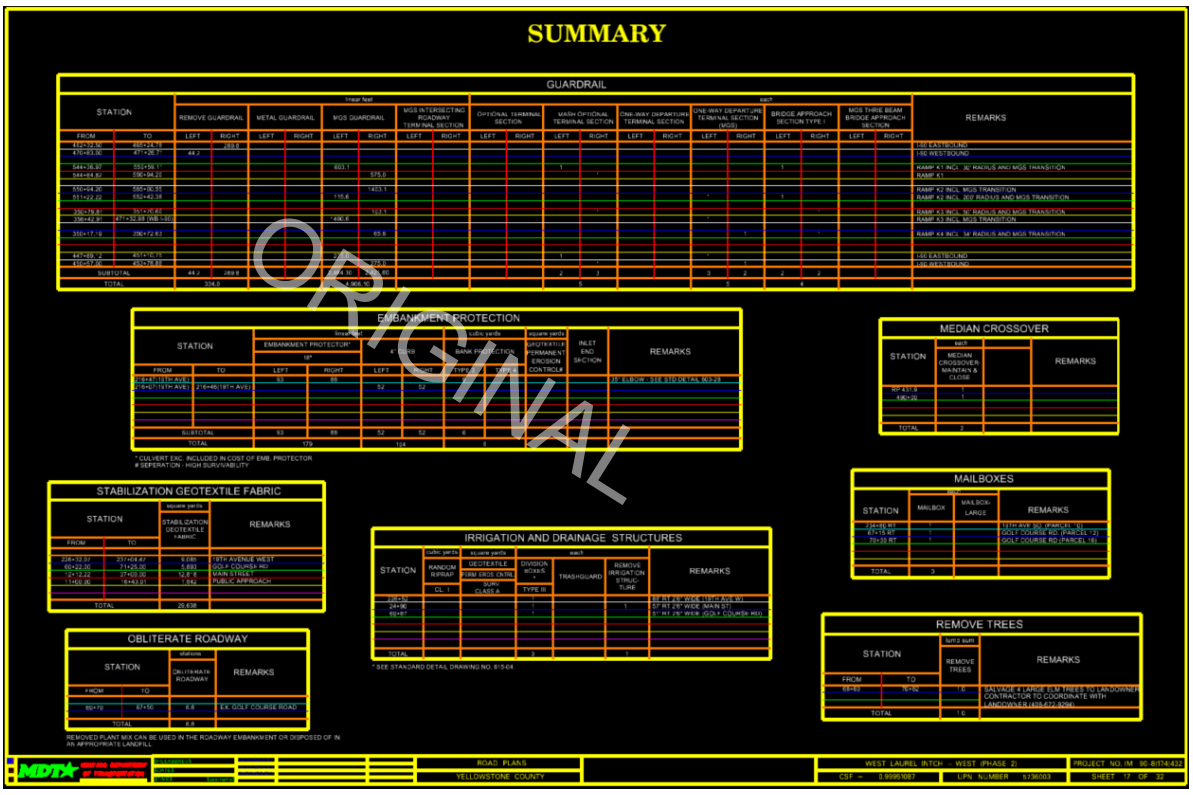
1. Any obliterated control points should be deleted from the plan sheet. Leave the description and add the word “Obliterated” to the end of the description using the font style mentioned before. Do not add any construction control points that were installed by the crew.

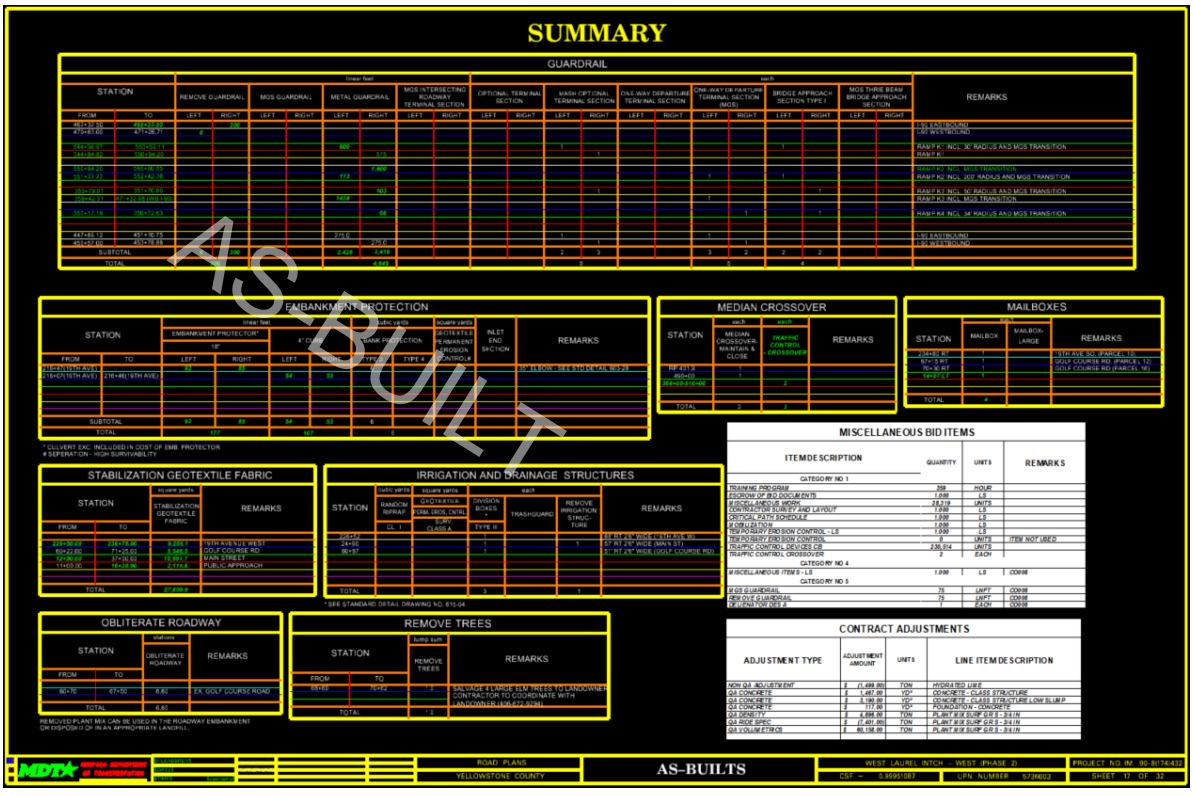
Procedure – MicroStation As-Built Typical Sections



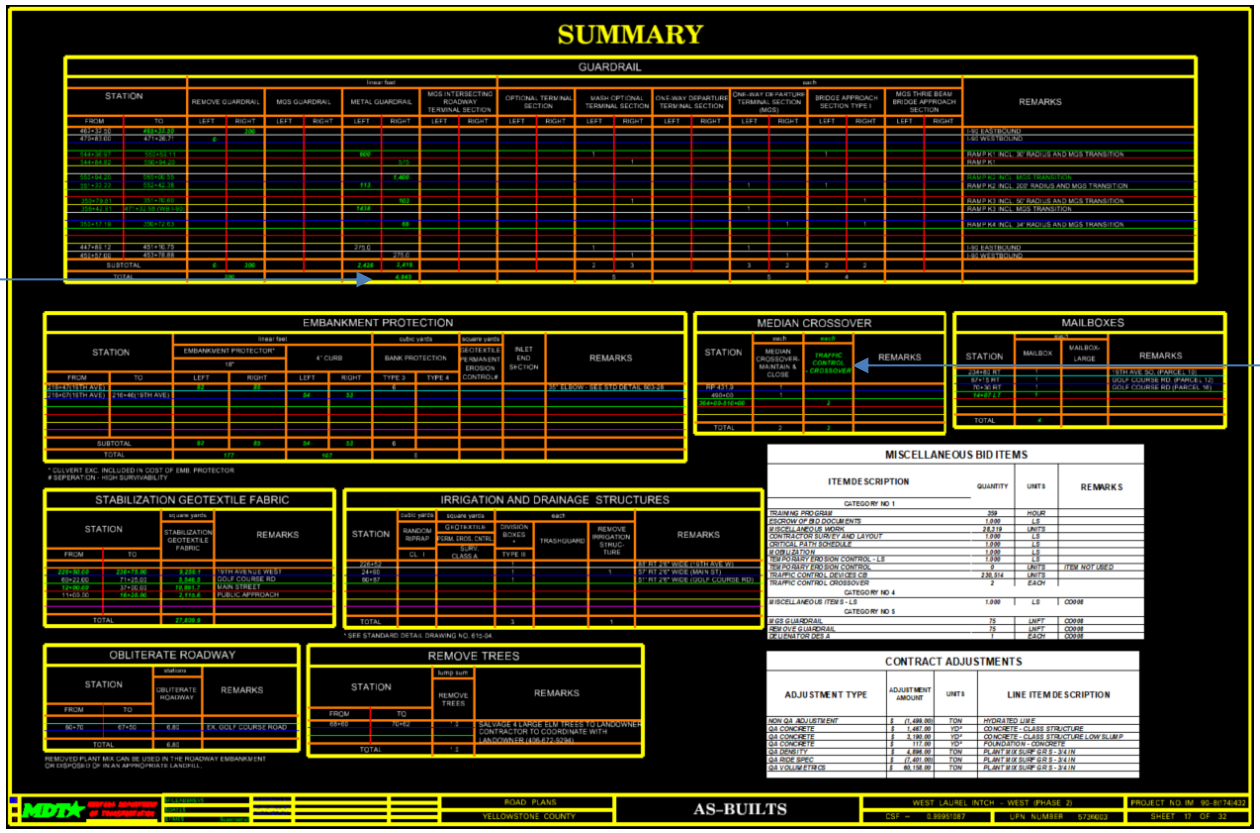
1. The special borrow was thickened on this project. Edit the typical section text and thicken the special borrow section to match the new depth.
2. Update the “QUANTITIES” table to show the new yd³/station.
3. Follow the same criteria for any changes to the typical sections.

Procedure – MicroStation As-Built Road Summaries

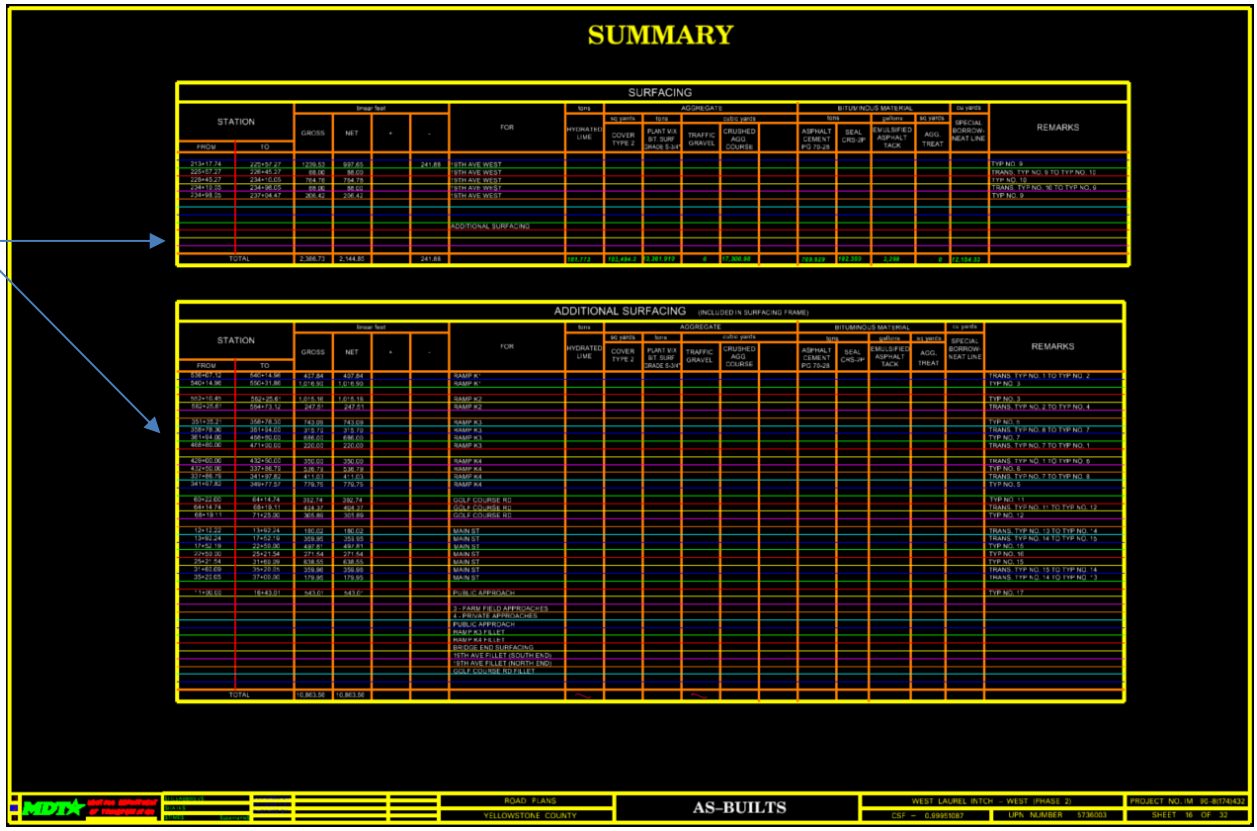




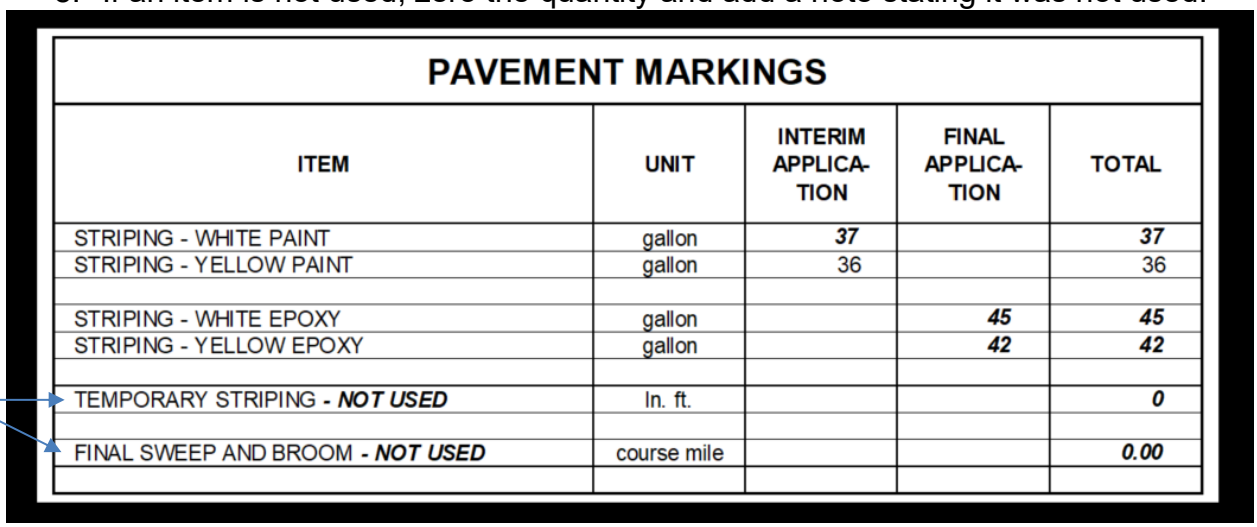
1. Update any summaries to reflect the project quantities (See previous page for a comparison of original and edited sheets).
2. Remember to include your contract adjustments and miscellaneous bid items summaries. In the example on the previous page, several summaries had to be moved in order to fit these two summaries. These were also done in Excel even though the project used MicroStation summaries. This is fine as the end product will look the same once plotted and turned into a plan set.



3. Several changes occurred to the summaries. Remember to use ***Arial, bolded, and italicized*** to show any changes for both MicroStation and Excel summaries. Also remember to follow correct rounding criteria. Design uses a different criterion and should be updated so it matches the paid quantity using Construction's rounding criteria. If the rounding is updated but no change to the quantity occurred, do not change the font type from the original plan.
4. Follow the same style as the designer did. On this set of as-builts, when the total was updated under "METAL GUARDRAIL" the total was moved to the right instead of staying centered and didn't get caught or corrected but should have been.
5. If an item is added to the contract that fits with another summary, add it to that summary instead of the miscellaneous bid items. The "TRAFFIC CONTROL – CROSSOVER" was done like this.



6. Surfacing only requires totals. Delete the other information in the summary and update the totals.
7. If there were multiple categories, these will usually be broken out in the original plan set. You can use the existing summaries as-is if the different categories are broken out. If not, add each category in the Surfacing Summary and input the totals for each category and then a project total at the bottom.
8. If an item is not used, zero the quantity and add a note stating it was not used.

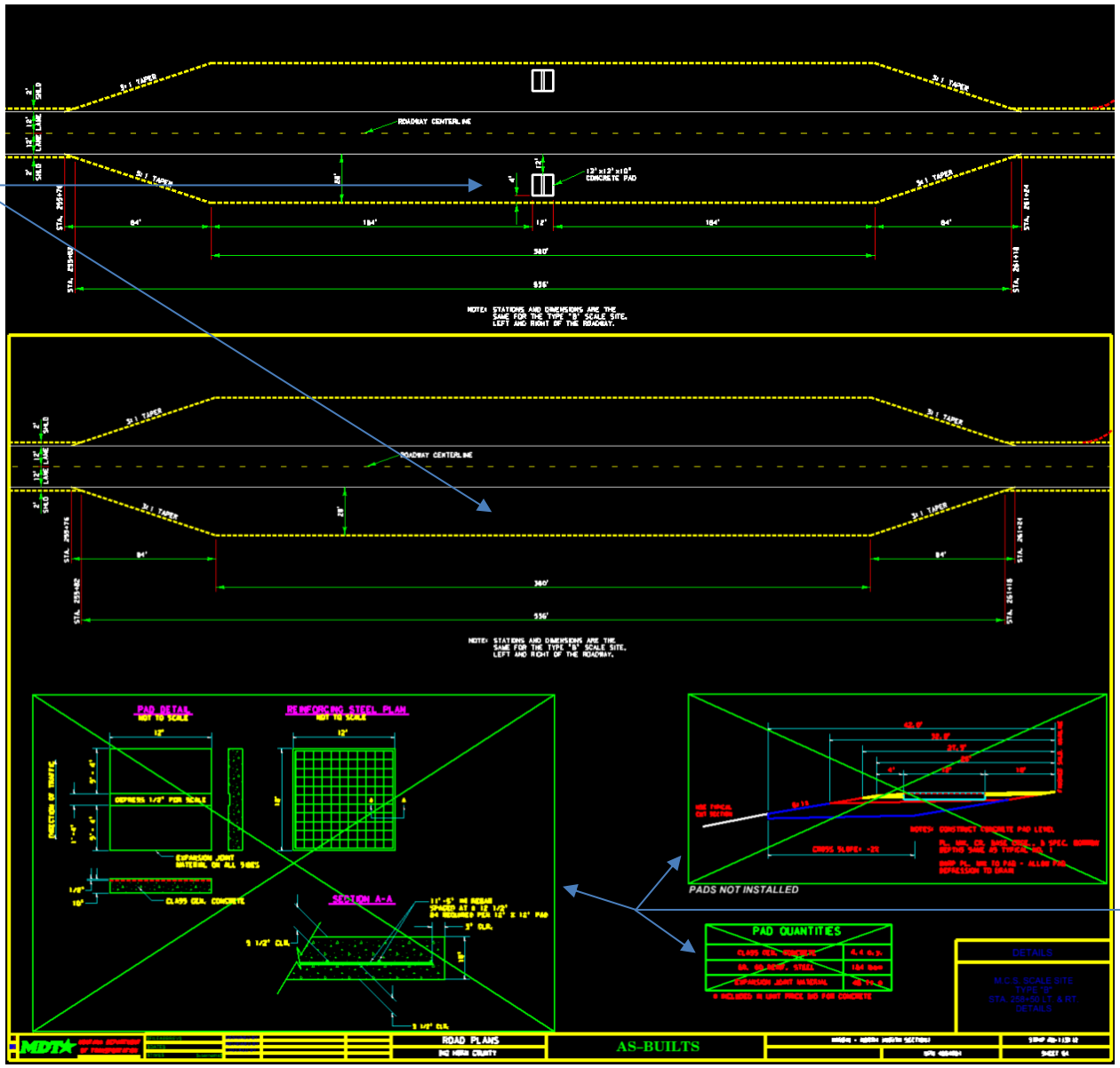


PAVEMENT MARKINGS

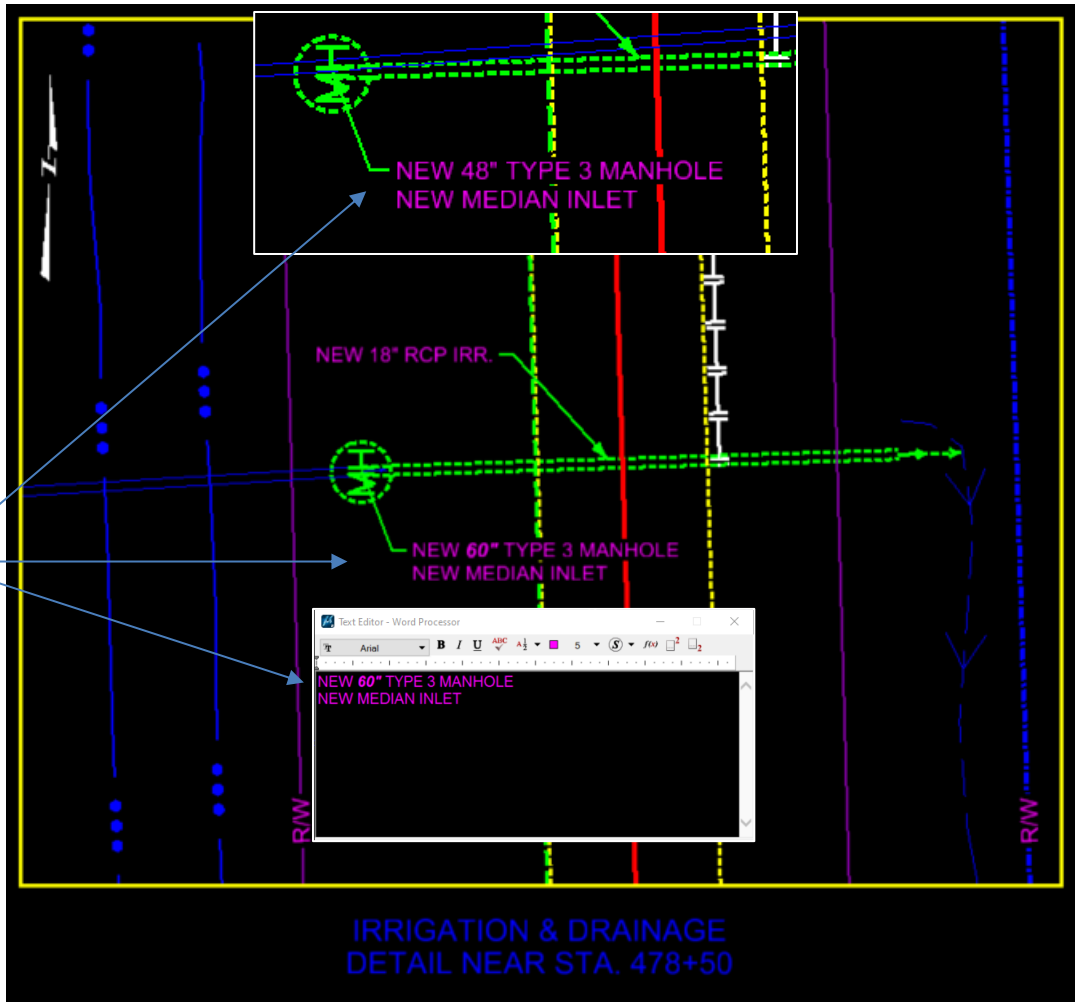
ITEM	UNIT	INTERIM APPLICATION	FINAL APPLICATION	TOTAL
STRIPING - WHITE PAINT	gallon	***37***		***37***
STRIPING - YELLOW PAINT	gallon	36		36
STRIPING - WHITE EPOXY	gallon		***45***	***45***
STRIPING - YELLOW EPOXY	gallon		***42***	***42***
TEMPORARY STRIPING - ***NOT USED***	In. ft.			***0***
FINAL SWEEP AND BROOM - ***NOT USED***	course mile			***0.00***

Note: This summary is done in excel. If these are used in your plan set, you will have to edit the Excel summary and then update the links in MicroStation.

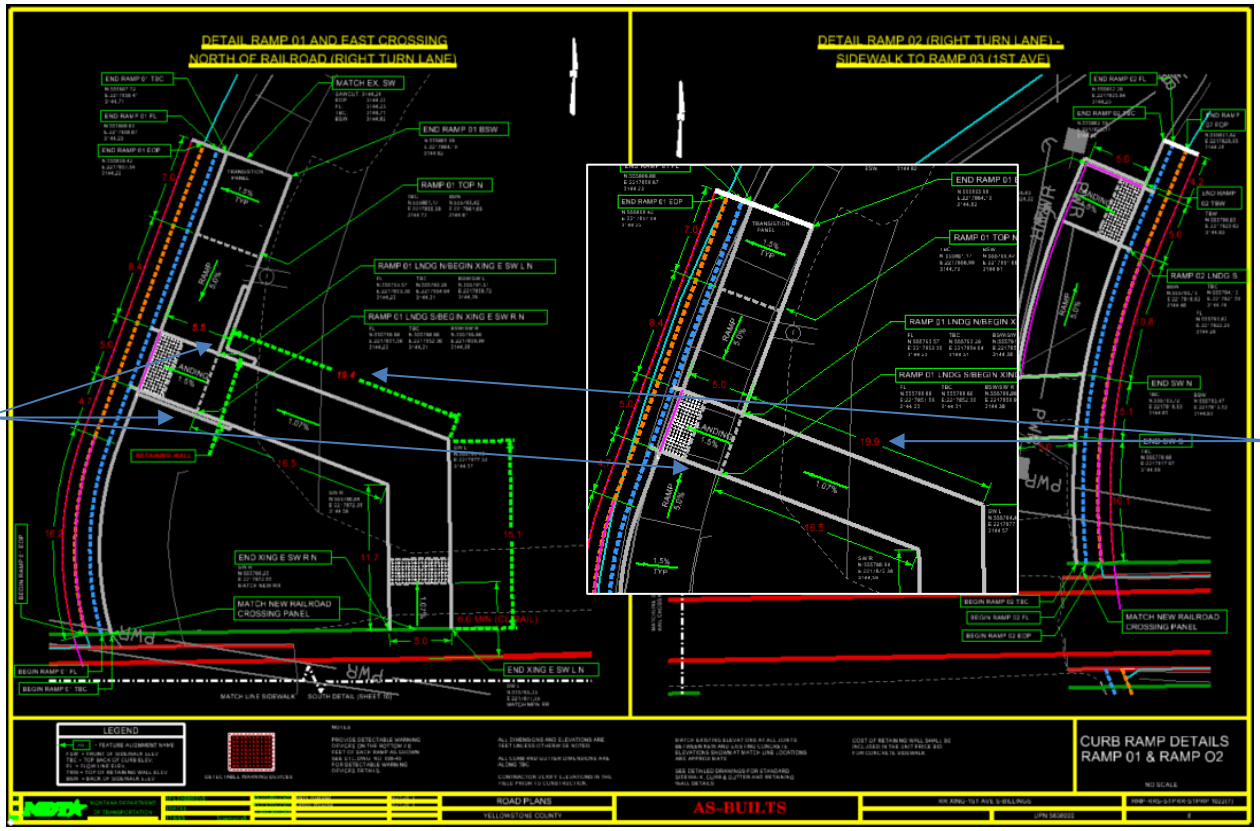
Procedure – MicroStation As-Built Detail Sheets



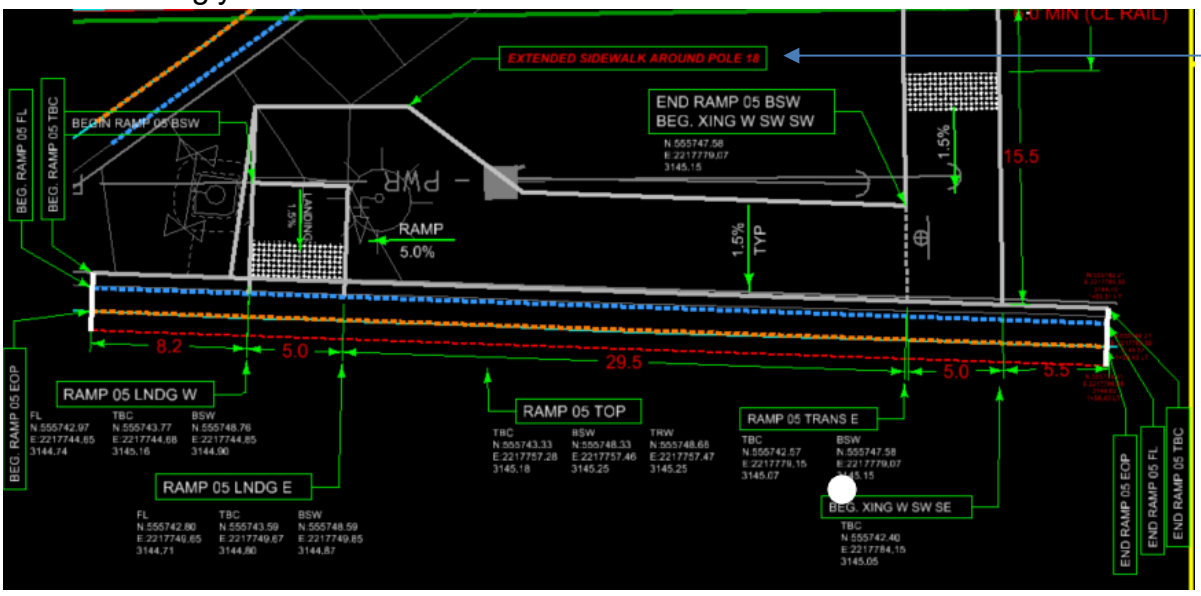
1. Update detail sheets to reflect field changes. Items that were removed from the project or not completed should be deleted or have an X placed through them. If there is another detail that will replace it, delete the existing detail and insert the new one. If nothing is going to replace the item, X it out so it is easily understood what the original plan was and that it was not completed.
2. If an item like this is part of another drawing, be sure to remove it from that drawing as well.



3. Here a 48'' manhole was changed to a 60'' manhole. Update the text accordingly. The drawing does not need to be updated since the size of manhole is not to scale, and the location did not change.



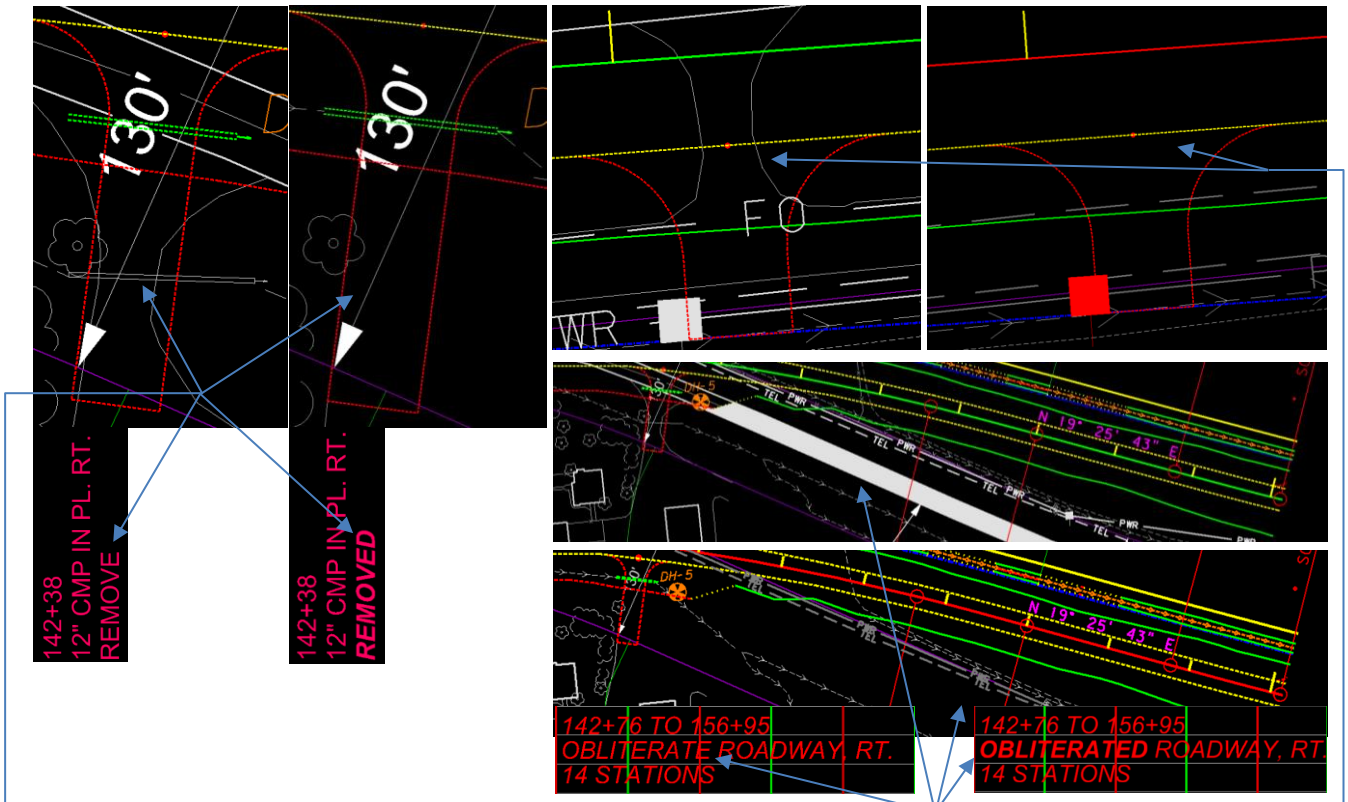
4. A retaining wall was added on either side of this section of sidewalk. Draw in the retaining wall using the same attributes (level, color, etc.) that the designer did.
5. Pay attention to other dimensions that are affected by changes and update these accordingly.



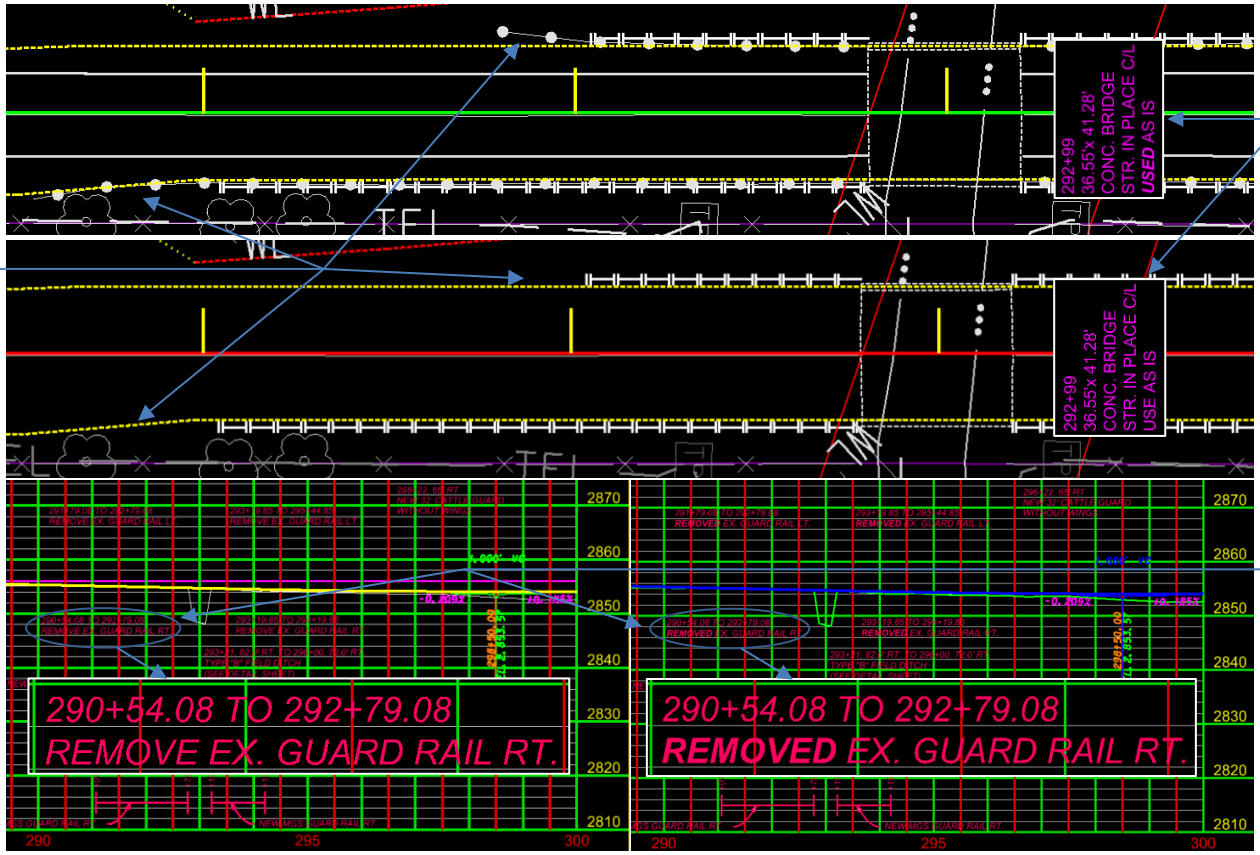
6. Simple notes are also helpful to point out something was changed when there may be no other indication other than the change in the drawing.

Procedure – MicroStation As-Built Plan and Profile

1. There are many edits on plan and profiles that need to be completed in MicroStation. Take time to go through them thoroughly and compare them to summaries, miscellaneous work, and the crew's redlined as-builts as a double check.
   Note: DO NOT EDIT RIGHT OF WAY OR CONSTRUCTION PERMIT LINES!!!



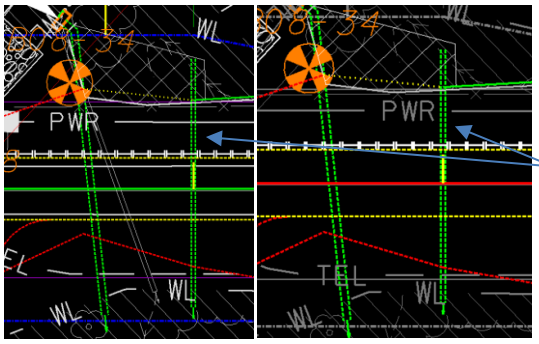
2. Existing items that were removed should be deleted from the plan and profile. If there is corresponding "REMOVE" text, change it to "REMOVED". Remember to use the correct font style when changing text. Examples:
   a. Delete any pipes that were removed. Change any corresponding text to past tense.
   b. Obliterated and replaced alignments should be removed. Update corresponding text.
   c. Existing approaches that were removed or replaced should be deleted. **Note:** Often designers will reference a map file that contains most existing items. Once these items are deleted from one drawing, they should not show up on any other sheets that reference the same detail. This is not always the case and any sheets that have the same items should be double checked and updated as well.



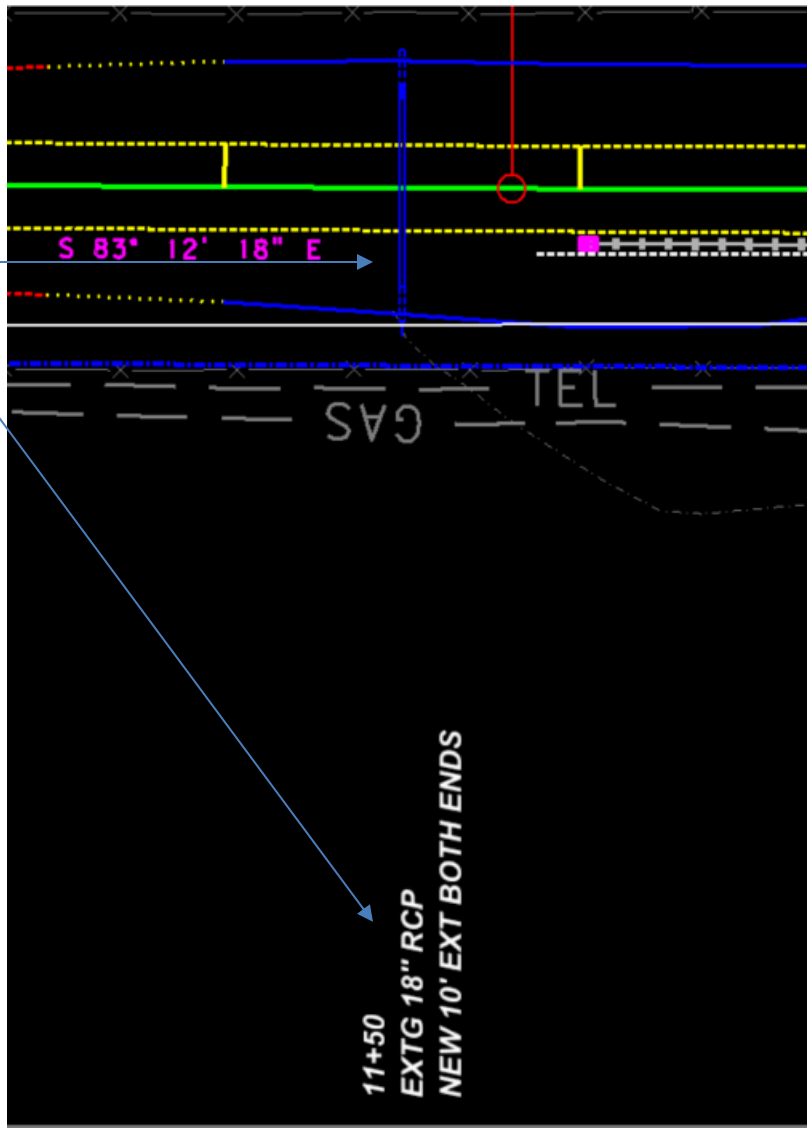
d. Guardrail that was removed or replaced should be deleted from the plans. Update the corresponding text in the profile view accordingly.

e. A bridge was left in place and was to be used as is. Change the text to past tense if this followed plan.

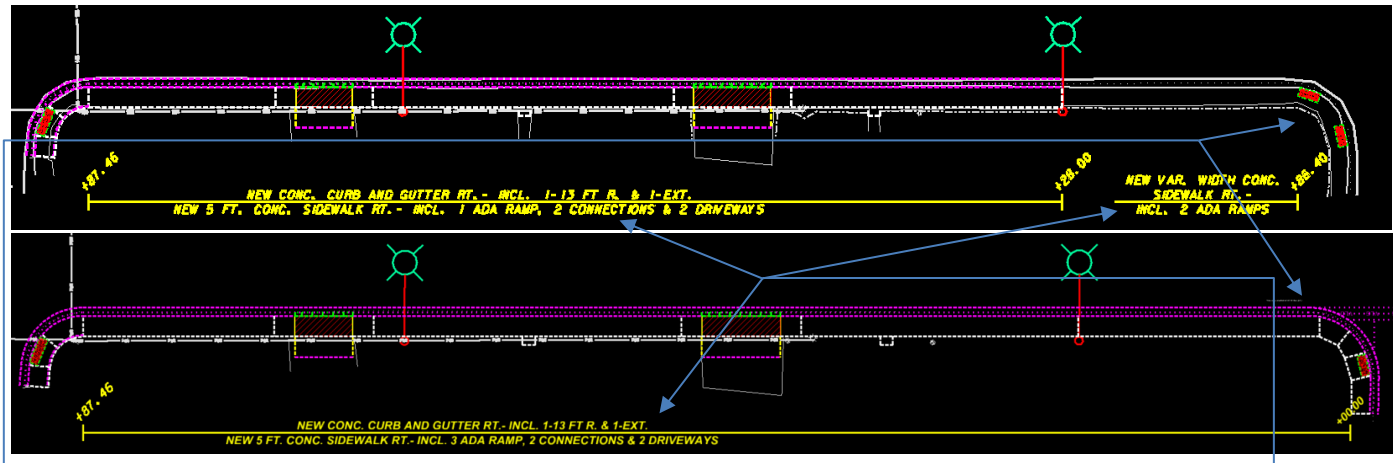
3. Update any changes to the plan and profile.



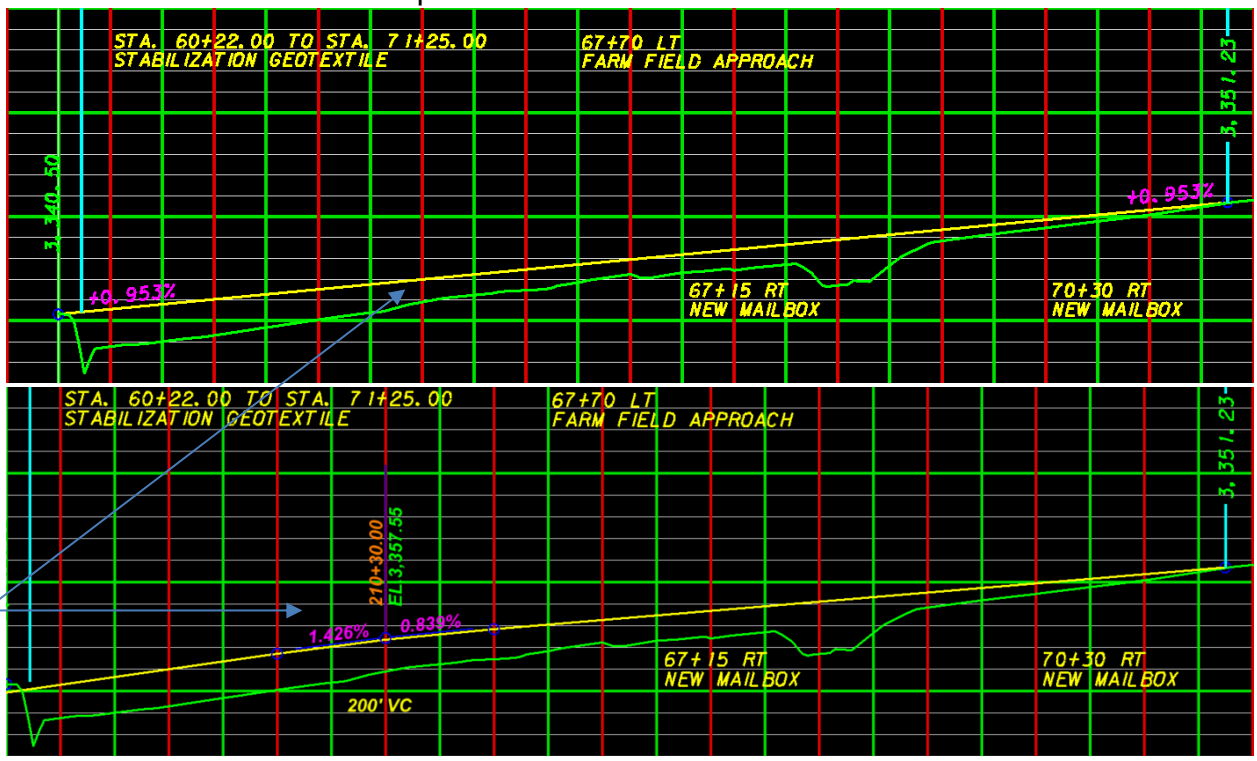
f. Add the installed pipe length to the description. If this length differs from plan, adjust the pipe accordingly.



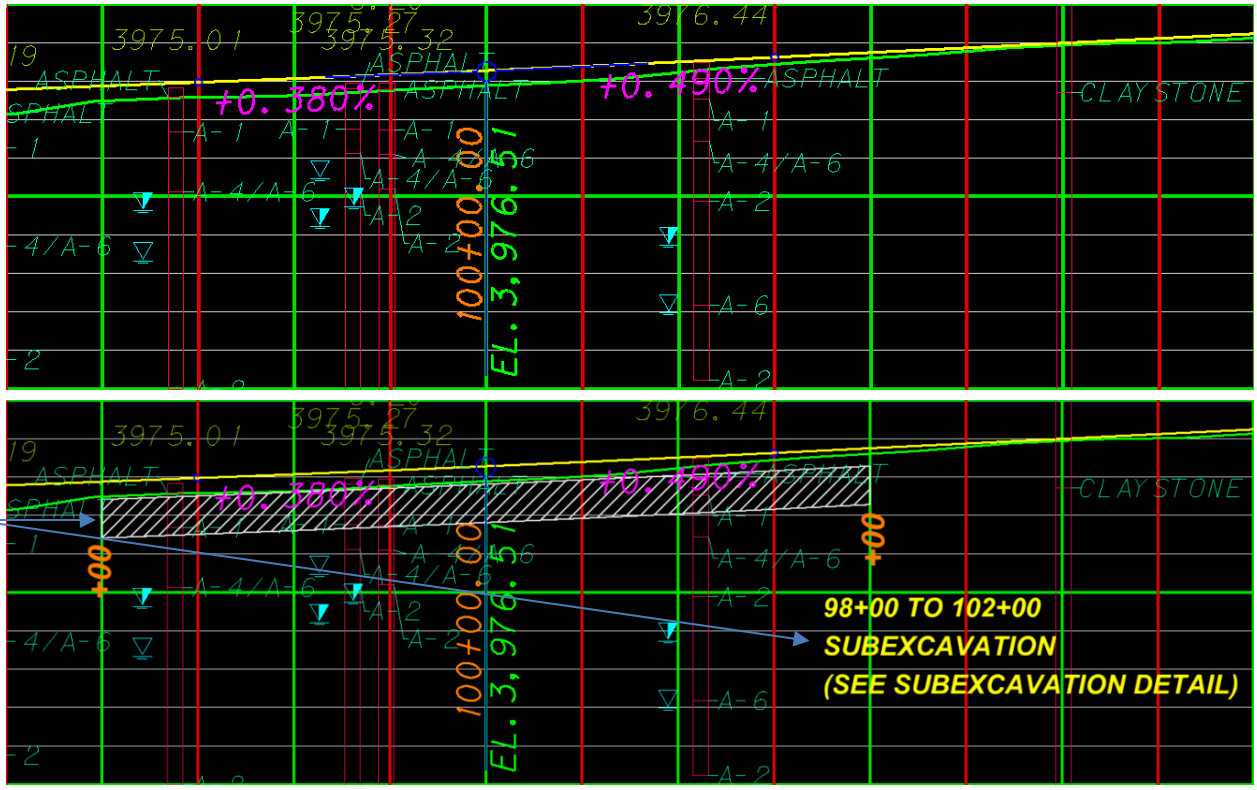
g. On this project, an NSOP existing pipe was discovered and had to be extended to fit the new slopes. Add the existing pipe and new extensions on either end using the same criteria as the designer did in similar drawings. Add the corresponding text.



h. Update any changes to sidewalk, curb and gutter, etc. in the plan view. The corresponding text is usually located near the drawing on the plan view but is sometimes located in the profile view below the plan view. Ensure this is updated to reflect the installed items.

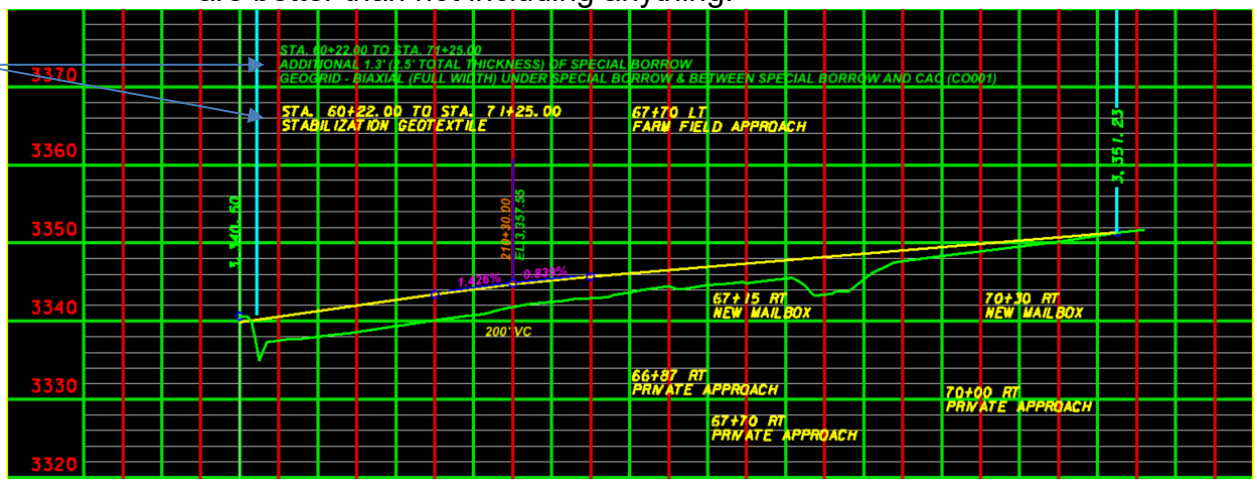


i. Grade changes are documented in the profile view. A vertical curve was added in this vertical alignment. Redraw the grade line and add the vertical curve information.



j. Add any sub excavations, special borrow, fabric, etc. under the roadway. Draw in the sub excavation in the same style as the designer. If there is a detail that already shows the fabric and other items, there is no need to reiterate this in the plan and profile. Just reference this in the drawing.

Note: Follow the same criteria the designer did. Sometimes a designer will not include any drawing, but rather a simple note as shown below. If there is a not a good way to draw something, notes like these can be useful and are better than not including anything.



Procedure – MicroStation As-Built Signing Plans

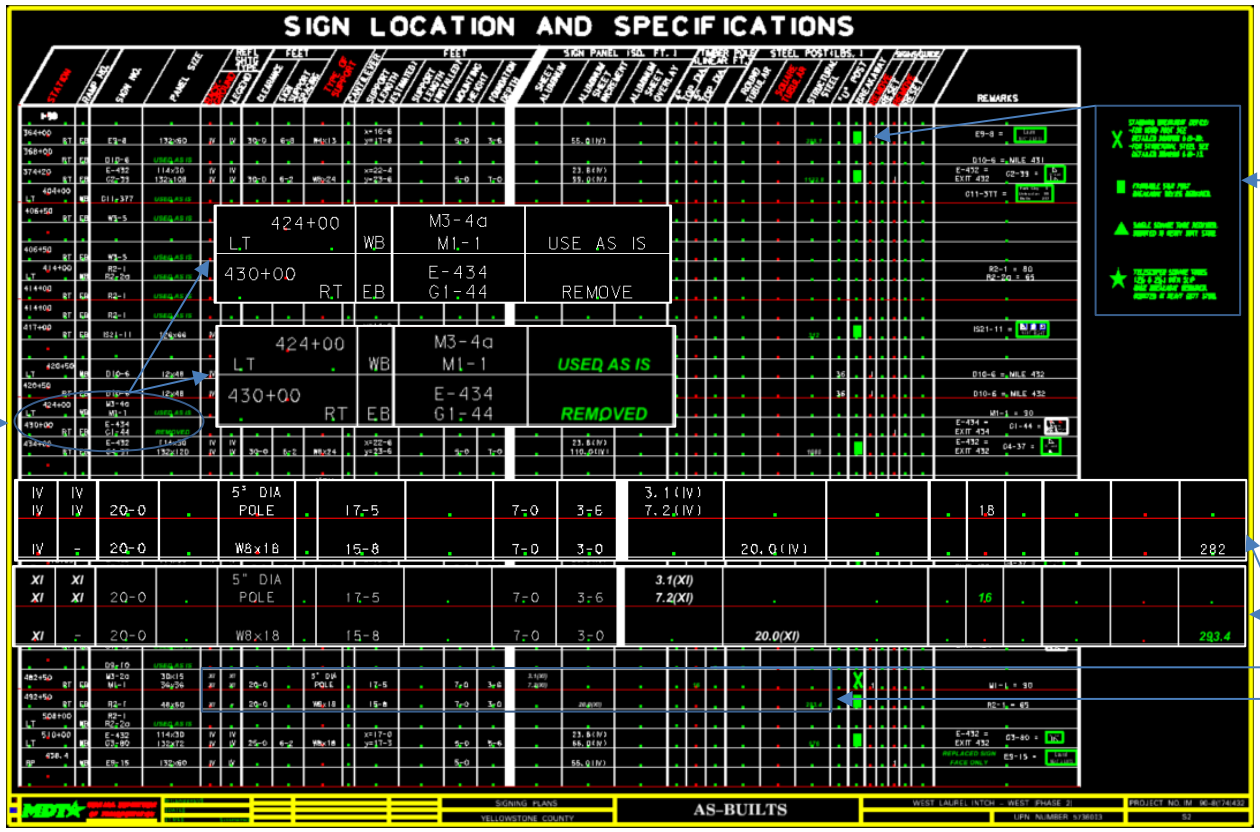
1. Update the signing summaries and drawings to reflect what was installed in the field.
2. Summaries Examples:

MATERIAL	TOTAL	UNIT
SIGNS-SHEET ALUMINUM-REFLECTIVE SHEETING(IV)	118.5	SQ. FOOT
SIGNS-SHEET ALUMINUM-REFLECTIVE SHEETING(XI)	272.7	SQ. FOOT
SIGNS-ALUMINUM SHEET INCREMENT SHEETING (IV)	1,137.6	SQ. FOOT
SIGNS-ALUMINUM SHEET INCREMENT SHEETING (XI)	21.0	SQ. FOOT
OVERLAY-SHEET ALUMINUM		SQ. FOOT
POSTS-STEEL "U"	144	POUNDS
POLES-TREATED WOOD-4" DIA.	420	LINEAR FT.
POLES-TREATED WOOD-5" DIA.	110	LINEAR FT.
POLES-TREATED TIMBER-CLASS 4		LINEAR FT.
POLES-TREATED TIMBER-CLASS 3		LINEAR FT.
POSTS-TUBULAR STEEL (ROUND)	985	POUNDS
POSTS-TUBULAR STEEL (SQUARE PERFORATED)		POUNDS
POSTS-STRUCTURAL STEEL	8,176	POUNDS
OVERHEAD STRUCTURE-METAL-CANTILEVER		EACH
OVERHEAD STRUCTURE-METAL-BRIDGE		EACH
HIGHWAY TRAFFIC STRIPING-WHITE		GAL. (S)
HIGHWAY TRAFFIC STRIPING-YELLOW		GAL. (S)
WORDS & SYMBOLS		GAL. (S)
DELINEATOR-DESIGN A	92	EACH
DELINEATOR-DESIGN BJ	22	EACH
DELINEATOR-DESIGN C		EACH
DELINEATOR-DESIGN D	10	EACH
DELINEATOR-DESIGN E		EACH
DELINEATOR-DESIGN GJ	19	EACH
DELINEATOR-DESIGN G	48	EACH
DELINEATOR-DESIGN H	18	EACH
REMOVE SIGNS	11	EACH
REMOVE SIGNS-GUIDE	5	EACH
RESET SIGNS	1	EACH
RESET SIGNS-GUIDE		EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- S4x7.7	8	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- S5x10	2	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W4x13	2	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W8x18	3	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W8x24	4	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W12x30	3	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- 3" DIA. PIPE	1	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- 3.5" DIA. PIPE	1	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- 4" DIA. PIPE	2	EACH

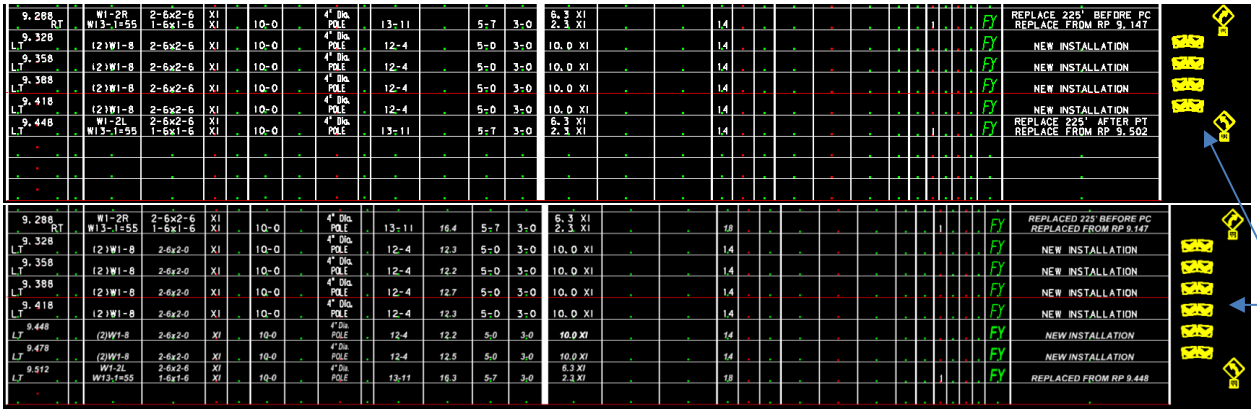
MATERIAL	TOTAL	UNIT
SIGNS-SHEET ALUMINUM-REFLECTIVE SHEETING(IV)	54	SQ. FOOT
SIGNS-SHEET ALUMINUM-REFLECTIVE SHEETING(XI)	374	SQ. FOOT
SIGNS-ALUMINUM SHEET INCREMENT SHEETING (IV)	1,118	SQ. FOOT
SIGNS-ALUMINUM SHEET INCREMENT SHEETING (XI)	41	SQ. FOOT
OVERLAY-SHEET ALUMINUM		SQ. FOOT
POSTS-STEEL "U"	138	POUNDS
POLES-TREATED WOOD-4" DIA.	518	LINEAR FT.
POLES-TREATED WOOD-5" DIA.	110	LINEAR FT.
POLES-TREATED TIMBER-CLASS 4		LINEAR FT.
POLES-TREATED TIMBER-CLASS 3		LINEAR FT.
POSTS-TUBULAR STEEL (ROUND)	972	POUNDS
POSTS-TUBULAR STEEL (SQUARE PERFORATED)		POUNDS
POSTS-STRUCTURAL STEEL	8,079	POUNDS
OVERHEAD STRUCTURE-METAL-CANTILEVER		EACH
OVERHEAD STRUCTURE-METAL-BRIDGE		EACH
HIGHWAY TRAFFIC STRIPING-WHITE		GAL. (S)
HIGHWAY TRAFFIC STRIPING-YELLOW		GAL. (S)
WORDS & SYMBOLS		GAL. (S)
DELINEATOR-DESIGN A	87	EACH
DELINEATOR-DESIGN BJ	23	EACH
DELINEATOR-DESIGN C		EACH
DELINEATOR-DESIGN D	8	EACH
DELINEATOR-DESIGN E		EACH
DELINEATOR-DESIGN GJ	11	EACH
DELINEATOR-DESIGN G	44	EACH
DELINEATOR-DESIGN H - NOT USED	0	EACH
REMOVE SIGNS	11	EACH
REMOVE SIGNS-GUIDE	5	EACH
RESET SIGNS	2	EACH
RESET SIGNS-GUIDE		EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- S4x7.7	8	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- S5x10	2	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W4x13	2	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W8x18	3	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W8x24	4	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- W12x30	3	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- 3" DIA. PIPE	1	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- 3.5" DIA. PIPE	1	EACH
FRANGIBLE SIGN POST BREAKAWAY DEVICE- 4" DIA. PIPE	2	EACH

   a. Change the quantity for each bid item. This may be broken out for each location. If this is the case, follow the same criteria as shown in *Construction Redline Edits for As-Built Plans*.

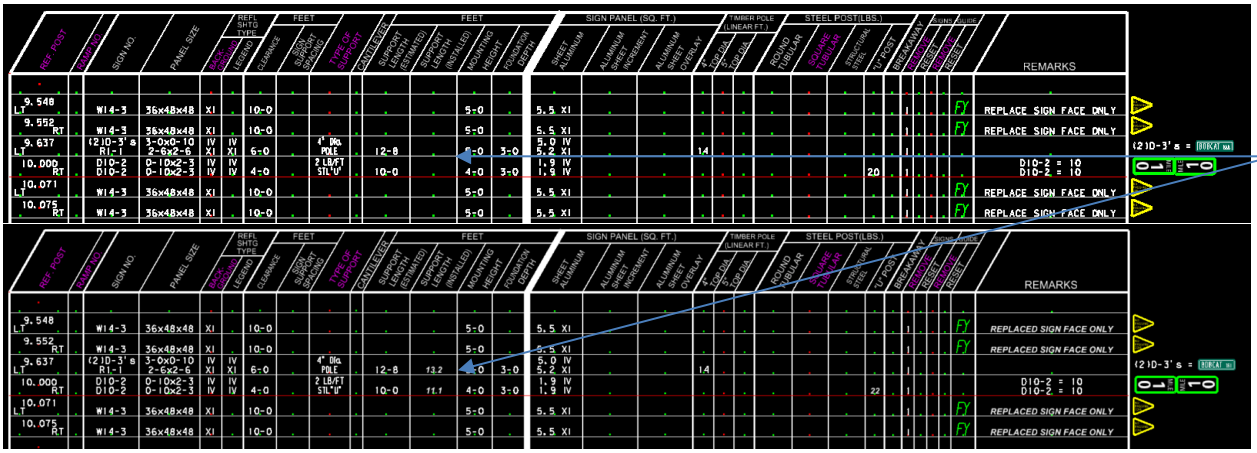
   b. Edit items that were not used in the same manner as mentioned before.



c. Change all text to past tense if items were completed to plan.
d. Update any changes to the plans including quantities, post types, sheeting type, locations, breakaways, removals, resets, etc.
e. If there are changes to breakaways, ensure you use the correct symbol for what was installed.



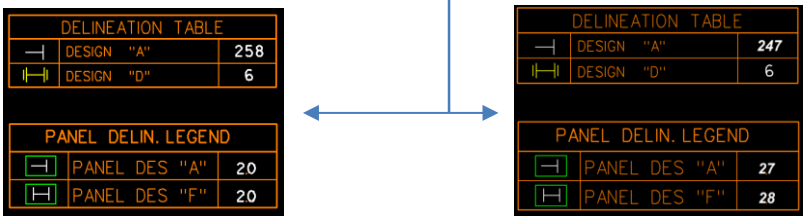
f. Sometimes plans will include small examples of the signs being installed. If you have to add any additional signs on these plans, also add the corresponding diagram.



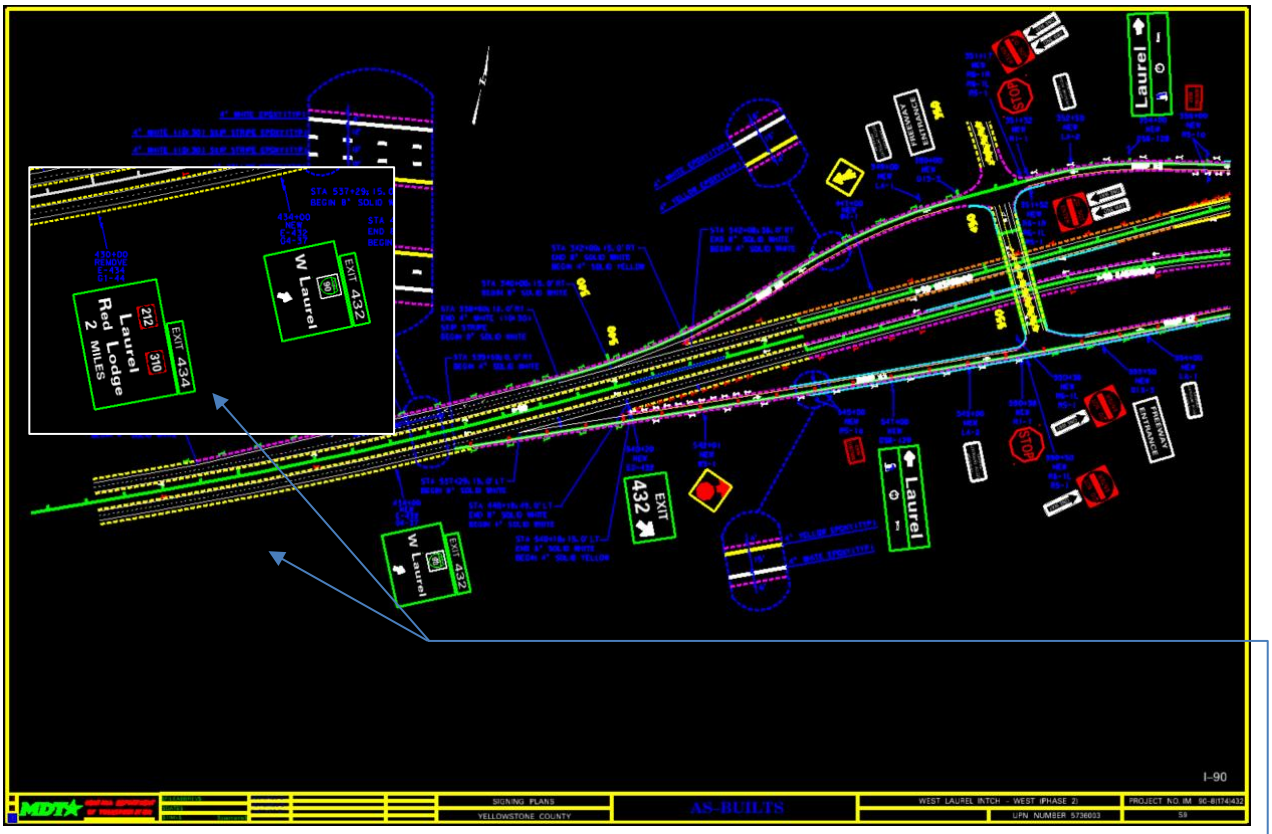
g. Optional: Input the actual installed lengths into the “SUPPORT LENGTH (INSTALLED)” column.

h. Update the totals.

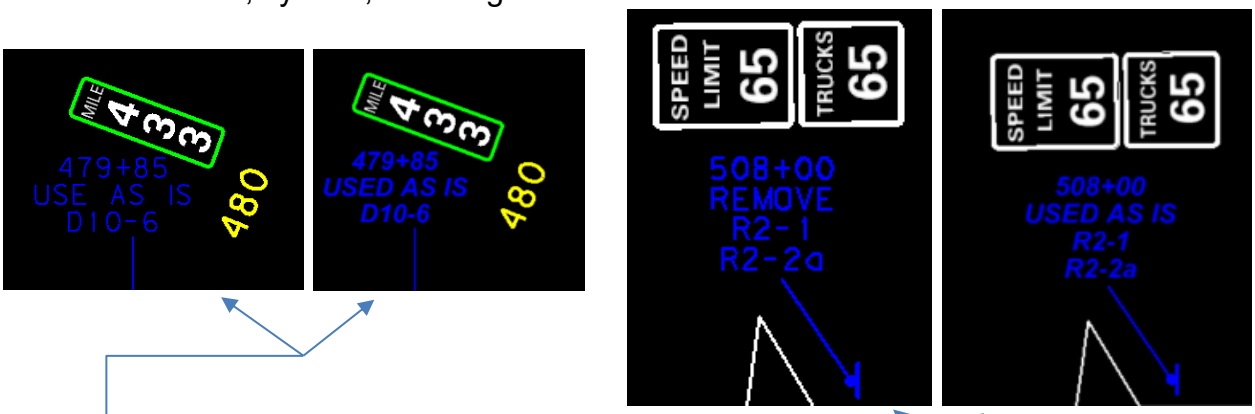
i. Update the delineator summaries.



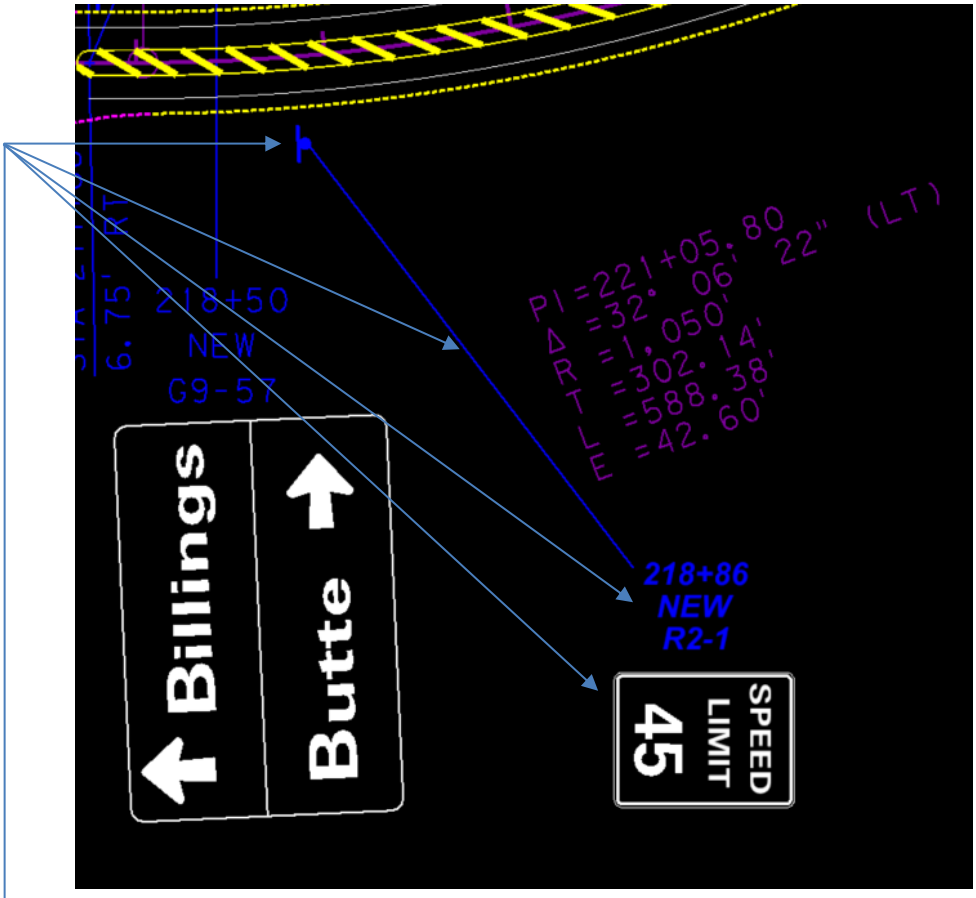
3. Signing Plan Sheet Examples:



a. Any signs that were removed should be deleted from plans including text, line, symbol, and diagram.



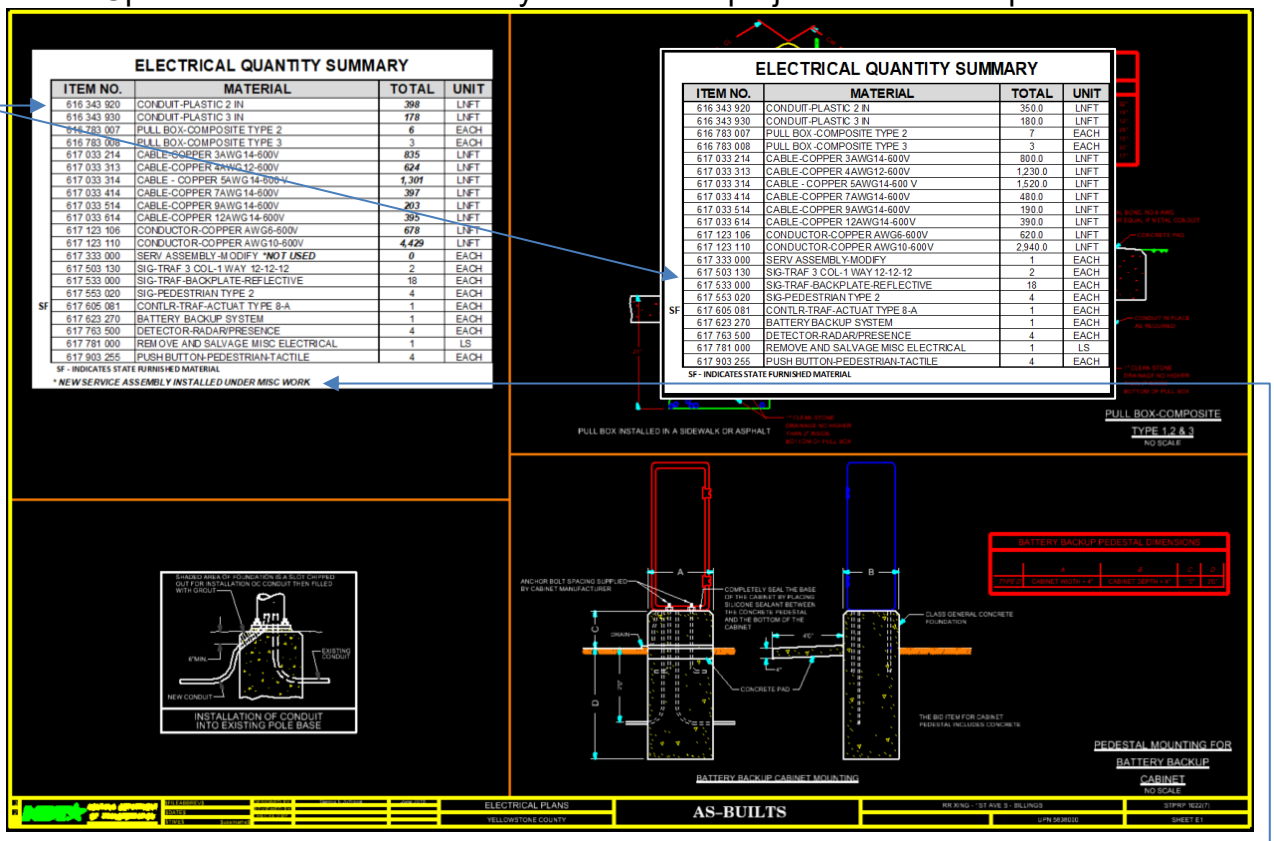
b. Change all text other than “REMOVE” to past tense if plan was followed.
c. Update any changes accordingly.



d. When adding an additional sign that was not originally shown on the plans, add the new text (sign number and station), sign diagram, location line, and symbol at its actual location. Pay attention to whether it is a single or double post sign, and that the sign face is facing the correct direction. Also be sure to rotate the sign diagram to match the actual signs direction.

Procedure – MicroStation As-Built Electrical Plans

1. Update the electrical summary to reflect the project totals. Example:



ELECTRICAL QUANTITY SUMMARY

ITEM NO.	MATERIAL	TOTAL	UNIT
616 343 920	CONDUIT-PLASTIC 2 IN	398	LNFT
616 343 930	CONDUIT-PLASTIC 3 IN	178	LNFT
616 783 007	PULL BOX-COMPOSITE TYPE 2	6	EACH
616 783 008	PULL BOX-COMPOSITE TYPE 3	3	EACH
617 033 214	CABLE-COPPER 3AWG14-600V	835	LNFT
617 033 313	CABLE-COPPER 4AWG12-600V	624	LNFT
617 033 314	CABLE - COPPER 5AWG14-600 V	1,301	LNFT
617 033 414	CABLE-COPPER 7AWG14-600V	397	LNFT
617 033 514	CABLE-COPPER 9AWG14-600V	203	LNFT
617 033 614	CABLE-COPPER 12AWG14-600V	395	LNFT
617 123 106	CONDUCTOR-COPPER AWG6-600V	678	LNFT
617 123 110	CONDUCTOR-COPPER AWG10-600V	4,429	LNFT
617 333 000	SERV ASSEMBLY-MODIFY *NOT USED	0	EACH
617 503 130	SIG-TRAF 3 COL-1 WAY 12-12-12	2	EACH
617 533 000	SIG-TRAF-BACKPLATE-REFLECTIVE	18	EACH
617 553 020	SIG-PEDESTRIAN TYPE 2	4	EACH
SF 617 605 081	CONTLR-TRAF-ACTUAT TYPE 8-A	1	EACH
617 623 270	BATTERY BACKUP SYSTEM	1	EACH
617 763 500	DETECTOR-RADAR/PRESENCE	4	EACH
617 781 000	REMOVE AND SALVAGE MISC ELECTRICAL	1	LS
617 903 255	PUSH BUTTON-PEDESTRIAN-TACTILE	4	EACH

SF - INDICATES STATE FURNISHED MATERIAL

* NEW SERVICE ASSEMBLY INSTALLED UNDER MISC WORK

ELECTRICAL QUANTITY SUMMARY

ITEM NO.	MATERIAL	TOTAL	UNIT
616 343 920	CONDUIT-PLASTIC 2 IN	350.0	LNFT
616 343 930	CONDUIT-PLASTIC 3 IN	180.0	LNFT
616 783 007	PULL BOX-COMPOSITE TYPE 2	7	EACH
616 783 008	PULL BOX-COMPOSITE TYPE 3	3	EACH
617 033 214	CABLE-COPPER 3AWG14-600V	800.0	LNFT
617 033 313	CABLE-COPPER 4AWG12-600V	1,230.0	LNFT
617 033 314	CABLE - COPPER 5AWG14-600 V	1,520.0	LNFT
617 033 414	CABLE-COPPER 7AWG14-600V	480.0	LNFT
617 033 514	CABLE-COPPER 9AWG14-600V	190.0	LNFT
617 033 614	CABLE-COPPER 12AWG14-600V	390.0	LNFT
617 123 106	CONDUCTOR-COPPER AWG6-600V	620.0	LNFT
617 123 110	CONDUCTOR-COPPER AWG10-600V	2,940.0	LNFT
617 333 000	SERV ASSEMBLY-MODIFY	1	EACH
617 503 130	SIG-TRAF 3 COL-1 WAY 12-12-12	2	EACH
617 533 000	SIG-TRAF-BACKPLATE-REFLECTIVE	18	EACH
617 553 020	SIG-PEDESTRIAN TYPE 2	4	EACH
SF 617 605 081	CONTLR-TRAF-ACTUAT TYPE 8-A	1	EACH
617 623 270	BATTERY BACKUP SYSTEM	1	EACH
617 763 500	DETECTOR-RADAR/PRESENCE	4	EACH
617 781 000	REMOVE AND SALVAGE MISC ELECTRICAL	1	LS
617 903 255	PUSH BUTTON-PEDESTRIAN-TACTILE	4	EACH

SF - INDICATES STATE FURNISHED MATERIAL

PULL BOX INSTALLED IN A SIDEWALK OR ASPHALT

PULL BOX-COMPOSITE TYPE 1,2 & 3

INSTALLATION OF CONDUIT INTO EXISTING POLE BASE

BATTERY BACKUP CABINET MOUNTING

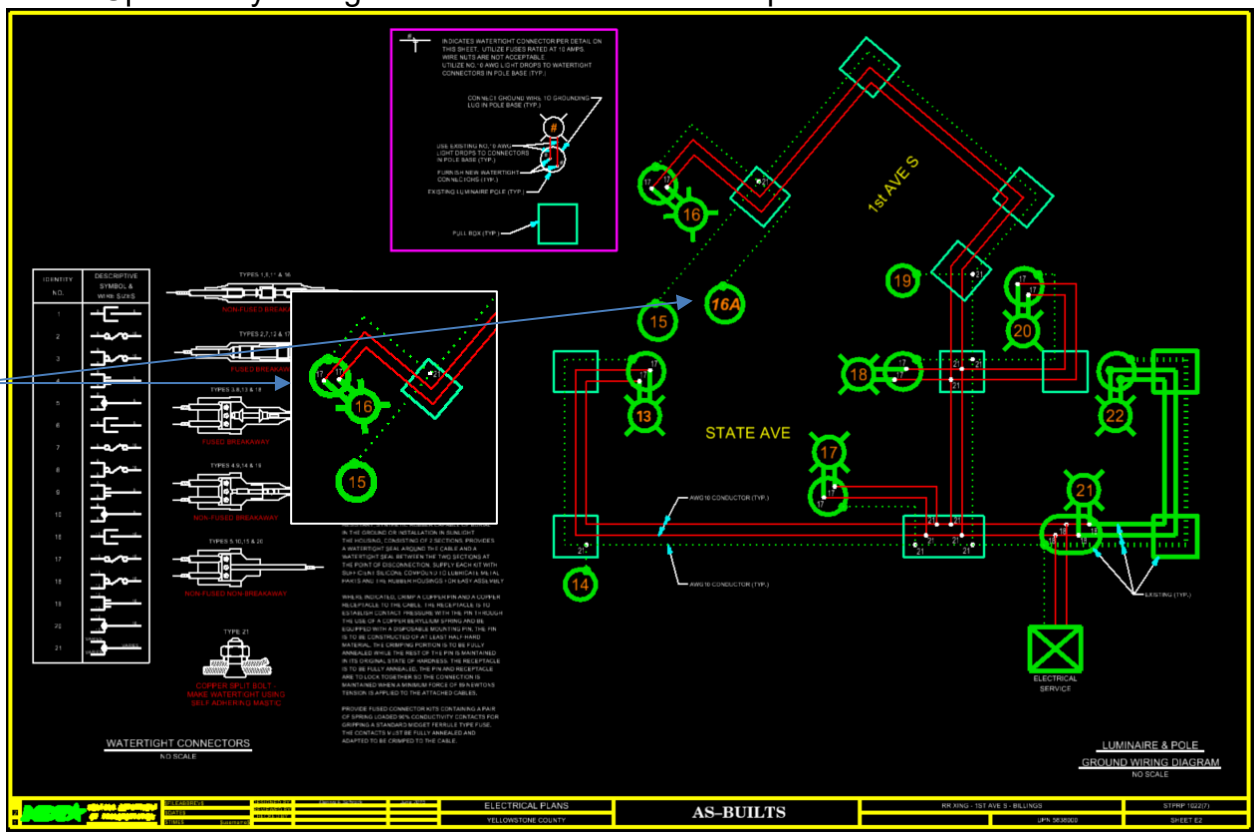
PEDESTAL MOUNTING FOR BATTERY BACKUP CABINET

ELECTRICAL PLANS

AS-BUILTS

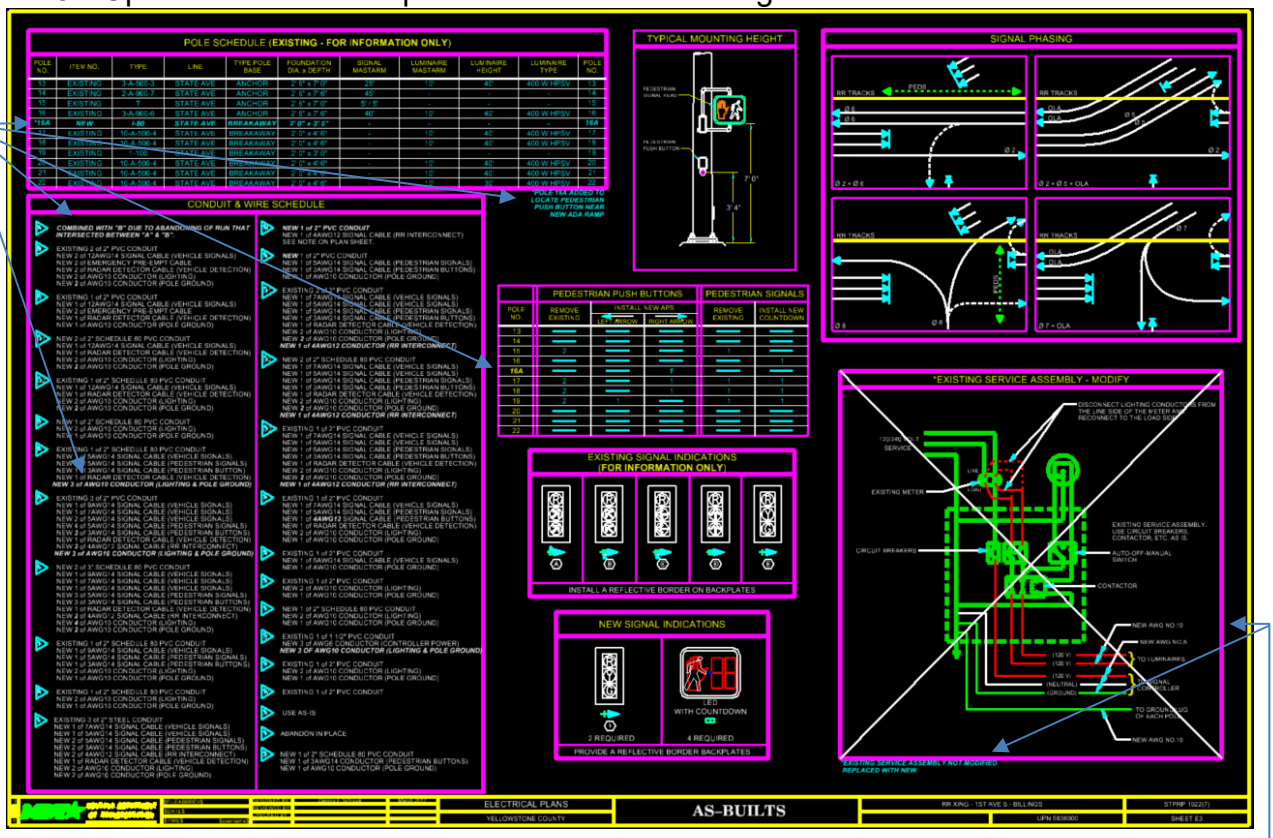
   a. This summary was done in Excel. Regardless of the summary format, update the totals for the project using the correct font to show changes.
   b. If there is a major change to the summary, such as completely omitting items, a simple note can help explain why this occurred.

2. Update any changes to electrical details. Examples:



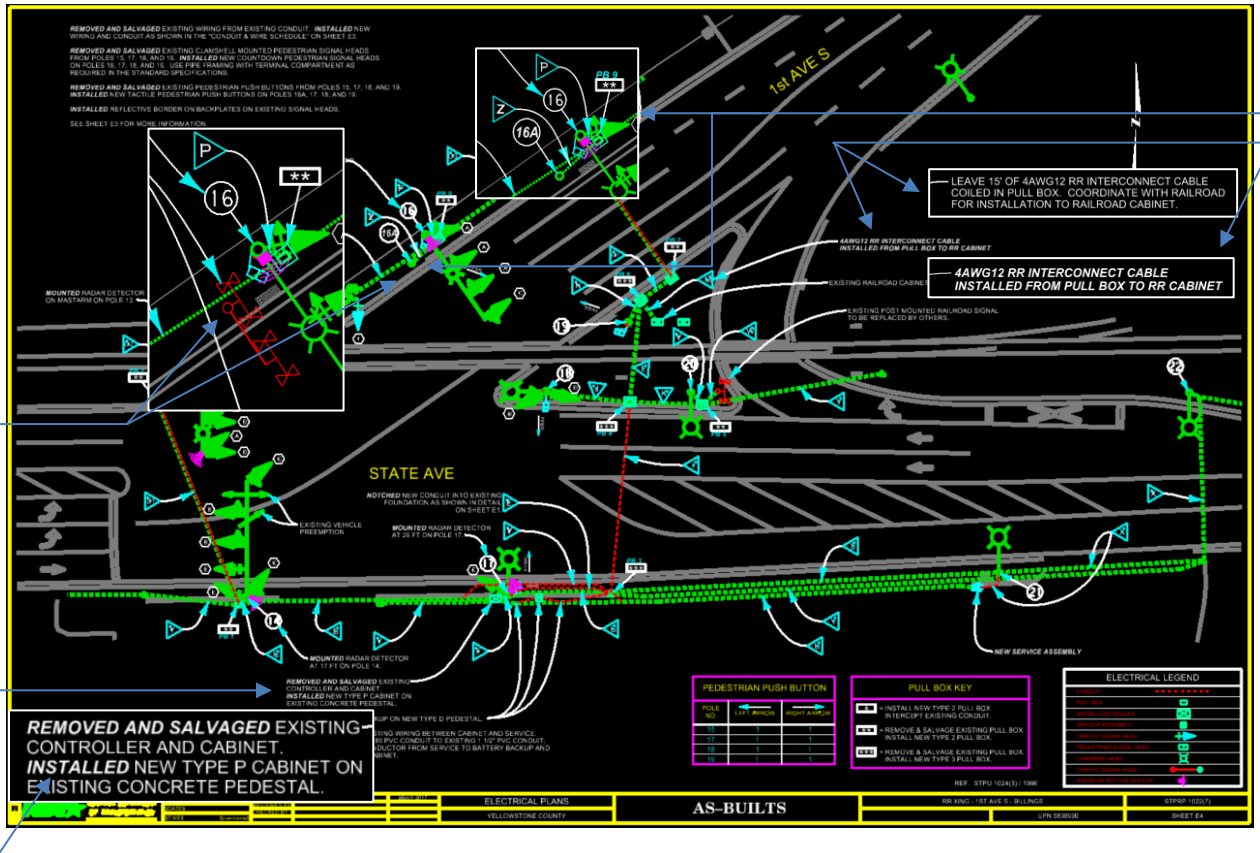
a. A pole was added on this project. Include any changes like this on all sheets that it would pertain to.

3. Update the electrical plans to match field changes.



a. Update all changes in every schedule. You can add any pertinent information that will not fit in the schedule underneath it.
b. If there are any details, update any changes to these. On this project the existing service assembly was replaced instead of modified. There was not a new detail available, but a note was added explaining the change. If a new detail is available, replace the old detail with the new. If not, at minimum cross out the detail that was not used and add an explanation.

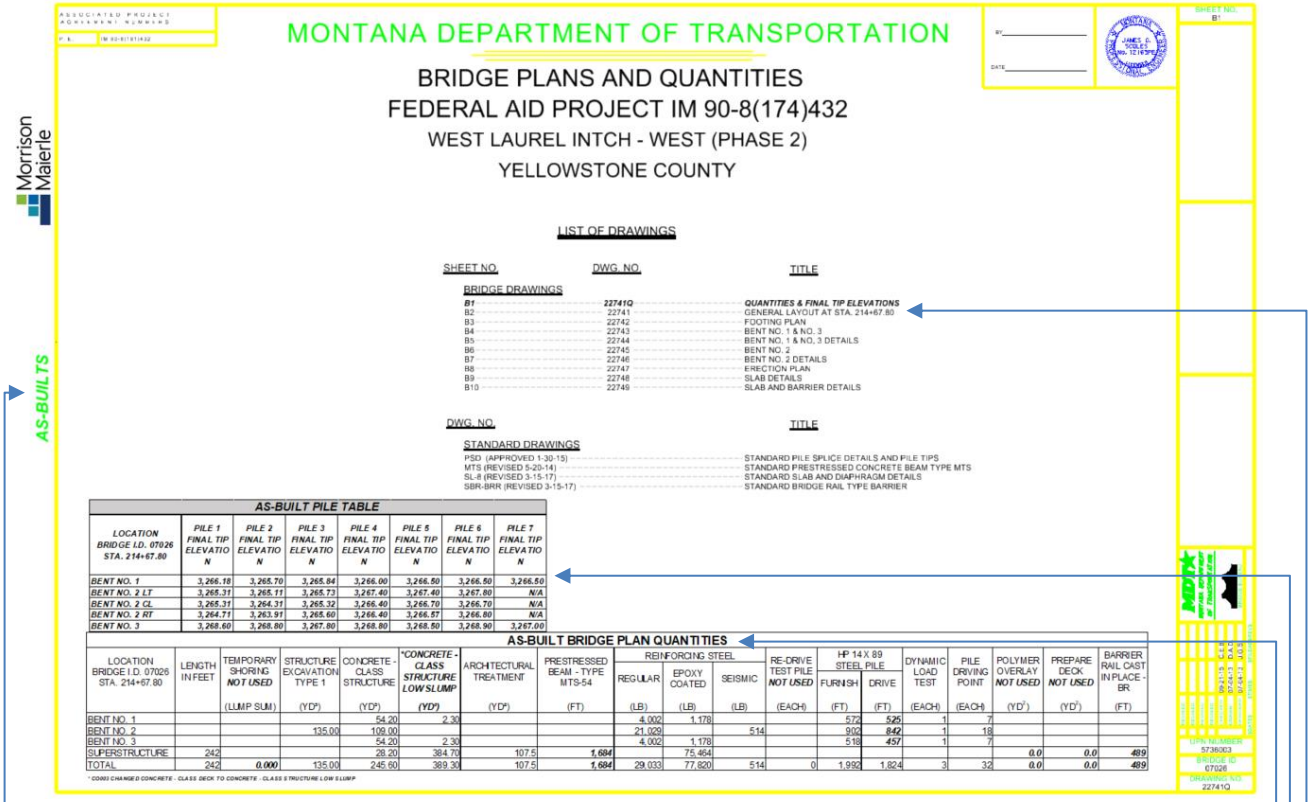
4. Update the plan view to reflect any field changes.



a. Change all text to past tense if plan was followed.
b. On this project, instead of leaving the RR Interconnect in the pull box, the interconnect was pulled to the RR cabinet.
c. Existing RR Signals were removed during the project. Delete them from the plans.
d. A pole was added (16A). Be sure to add the corresponding wiring and conduit (Z).

Procedure – MicroStation As-Built Bridge Plans

1. Update the title sheet.



MONTANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS AND QUANTITIES
FEDERAL AID PROJECT IM 90-8(174)432
WEST LAUREL INTCH - WEST (PHASE 2)
YELLOWSTONE COUNTY

Morrison Maierle

AS-BUILTS

LIST OF DRAWINGS

SHEET NO.	DWG. NO.	TITLE
BRIDGE DRAWINGS		
B1	22741Q	QUANTITIES & FINAL TIP ELEVATIONS
B2	22741	GENERAL LAYOUT AT STA. 214+67.80
B3	22742	FOOTING PLAN
B4	22743	BENT NO. 1 & NO. 3
B5	22744	BENT NO. 1 & NO. 3 DETAILS
B6	22745	BENT NO. 2
B7	22746	BENT NO. 2 DETAILS
B8	22747	ERECTION PLAN
B9	22748	SLAB DETAILS
B10	22749	SLAB AND BARRIER DETAILS
STANDARD DRAWINGS		
PSD (APPROVED 1-30-15)		STANDARD PILE SPLICE DETAILS AND PILE TIPS
MTS (REVISED 5-20-14)		STANDARD PRESTRESSED CONCRETE BEAM TYPE MTS
SL-8 (REVISED 3-15-17)		STANDARD SLAB AND DIAPHRAGM DETAILS
SBR-BRR (REVISED 3-15-17)		STANDARD BRIDGE RAIL TYPE BARRIER

AS-BUILT PILE TABLE

LOCATION BRIDGE I.D. 07026 STA. 214+67.80	PILE 1 FINAL TIP ELEVATION	PILE 2 FINAL TIP ELEVATION	PILE 3 FINAL TIP ELEVATION	PILE 4 FINAL TIP ELEVATION	PILE 5 FINAL TIP ELEVATION	PILE 6 FINAL TIP ELEVATION	PILE 7 FINAL TIP ELEVATION
BENT NO. 1	3,266.18	3,265.70	3,265.84	3,266.00	3,266.50	3,266.50	3,266.50
BENT NO. 2 LT	3,265.31	3,265.11	3,265.73	3,267.40	3,267.40	3,267.80	N/A
BENT NO. 2 CL	3,265.31	3,264.31	3,265.32	3,266.40	3,266.70	3,266.70	N/A
BENT NO. 2 RT	3,264.71	3,263.91	3,265.60	3,266.40	3,266.67	3,266.80	N/A
BENT NO. 3	3,268.60	3,268.80	3,267.80	3,268.80	3,268.80	3,268.90	3,267.00

AS-BUILT BRIDGE PLAN QUANTITIES

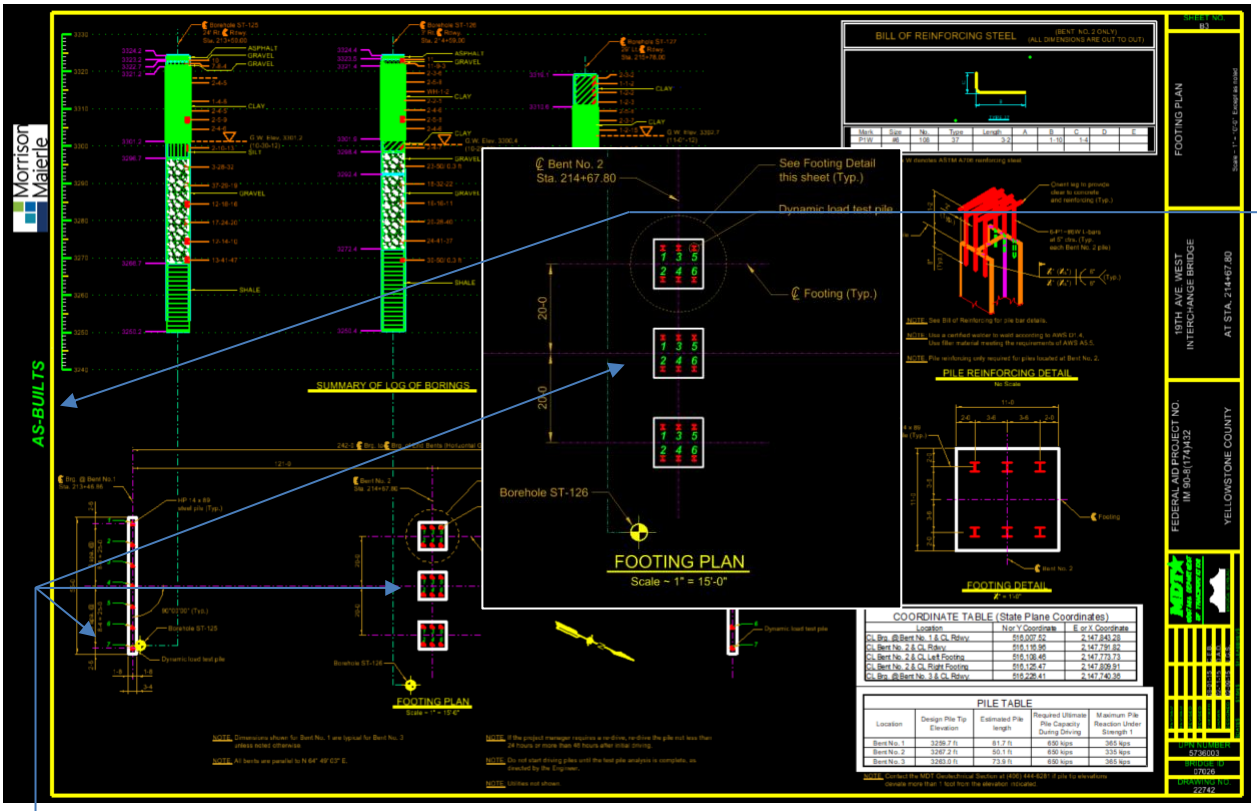
LOCATION BRIDGE I.D. 07026 STA. 214+67.80	LENGTH IN FEET	TEMPORARY SHORING NOT USED (LUMP SUM)	STRUCTURE EXCAVATION TYPE 1 (YD³)	CONCRETE - CLASS STRUCTURE (YD³)	*CONCRETE - CLASS STRUCTURE LOW SLUMP (YD³)	ARCHITECTURAL TREATMENT (YD²)	PRESTRESSED BEAM - TYPE MTS-54 (FT)	REINFORCING STEEL REGULAR (LB)	REINFORCING STEEL EPOXY COATED (LB)	REINFORCING STEEL SEISMIC (LB)	RE-DRIVE TEST PILE NOT USED (EACH)	HP 14 X 89 STEEL PILE FURNISH (FT)	HP 14 X 89 STEEL PILE DRIVE (FT)	DYNAMIC LOAD TEST (EACH)	PILE DRIVING POINT (EACH)	POLYMER OVERLAY NOT USED (YD³)	PREPARE DECK NOT USED (YD²)	BARRIER RAIL CAST IN PLACE - BR (FT)
BENT NO. 1				54.20	2.30			4,002	1,178			572	525	1	7			
BENT NO. 2			135.00	109.00				21,029		514		902	842	1	18			
BENT NO. 3				54.20	2.30			4,002	1,178			518	457	1	7			
SUPERSTRUCTURE	242			28.20	384.70	107.5	1,684		75,464							0.0	0.0	489
TOTAL	242	0.000	135.00	245.60	389.30	107.5	1,684	29,033	77,820	514	0	1,992	1,824	3	32	0.0	0.0	489

*CONCRETE CHANGED CONCRETE - CLASS DECK TO CONCRETE - CLASS STRUCTURE LOW SLUMP

5736003
BRIDGE ID 07026
DRAWING NO. 22741Q

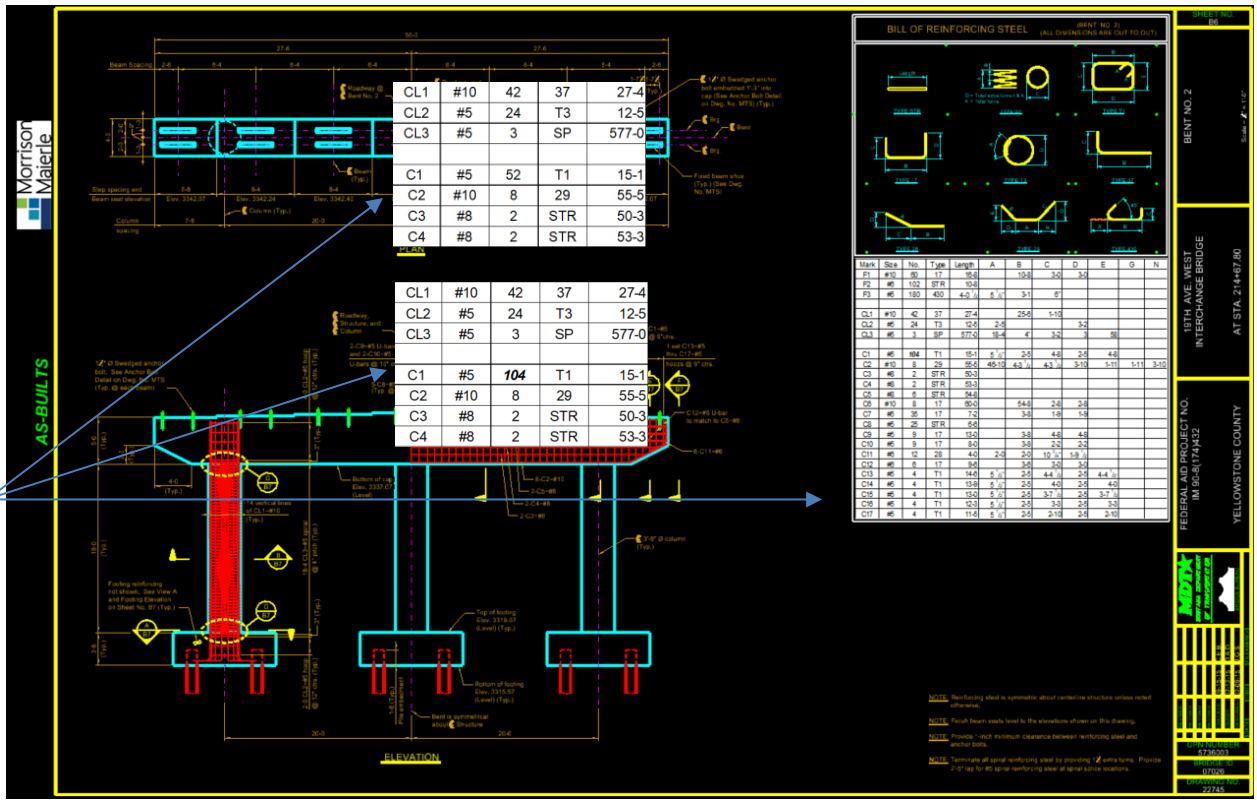
a. "AS-BUILTS" needs to be added to the title page. This will be the same location for all bridge sheets.
   Note: When using the macro to retrieve the plan files, this "AS-BUILTS" text will be added automatically. Double check that the "AS-BUILTS" text was added in the proper location.
b. Update the bridge plan quantities. Update the "ESTIMATED" to "AS-BUILT".
c. Add your as-built pile table (final pile tip elevations) if applicable and if there is no room on the footing plan sheet.
d. Update the "LIST OF DRAWINGS". Font style is still ***Arial, bolded, and italicized*** for changes.

2. Update any other sheets that contain changes. Examples:

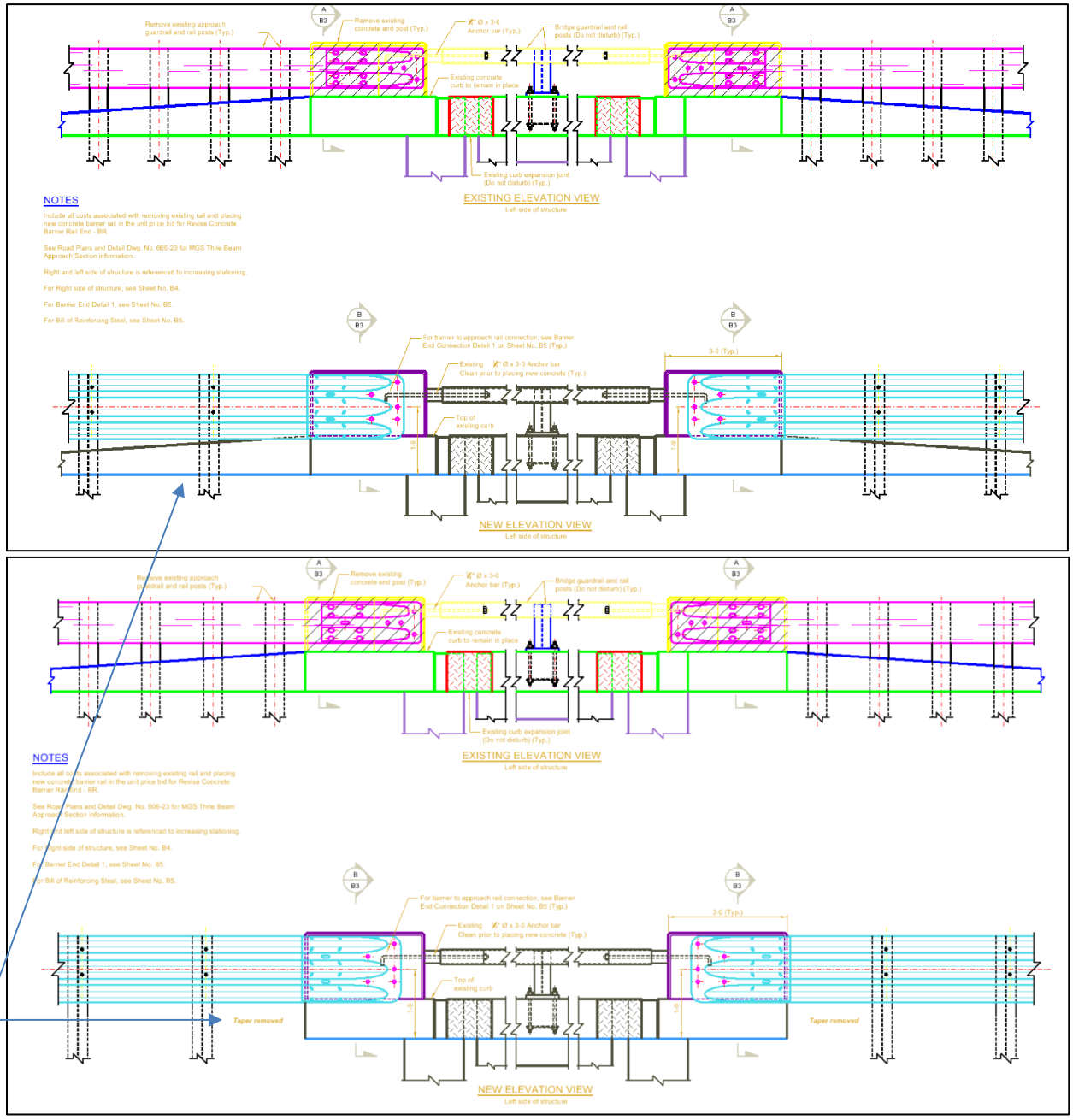


a. Double check that the “AS-BUILTS” text was added to the left side in the same manner as the title sheet and on every Bridge sheet as you continue through your plan set. If one is missing or was added in the wrong spot, add or move it to the correct location. Continue to do this on every bridge sheet.

b. Label the piles to correspond with your pile tip elevation table.



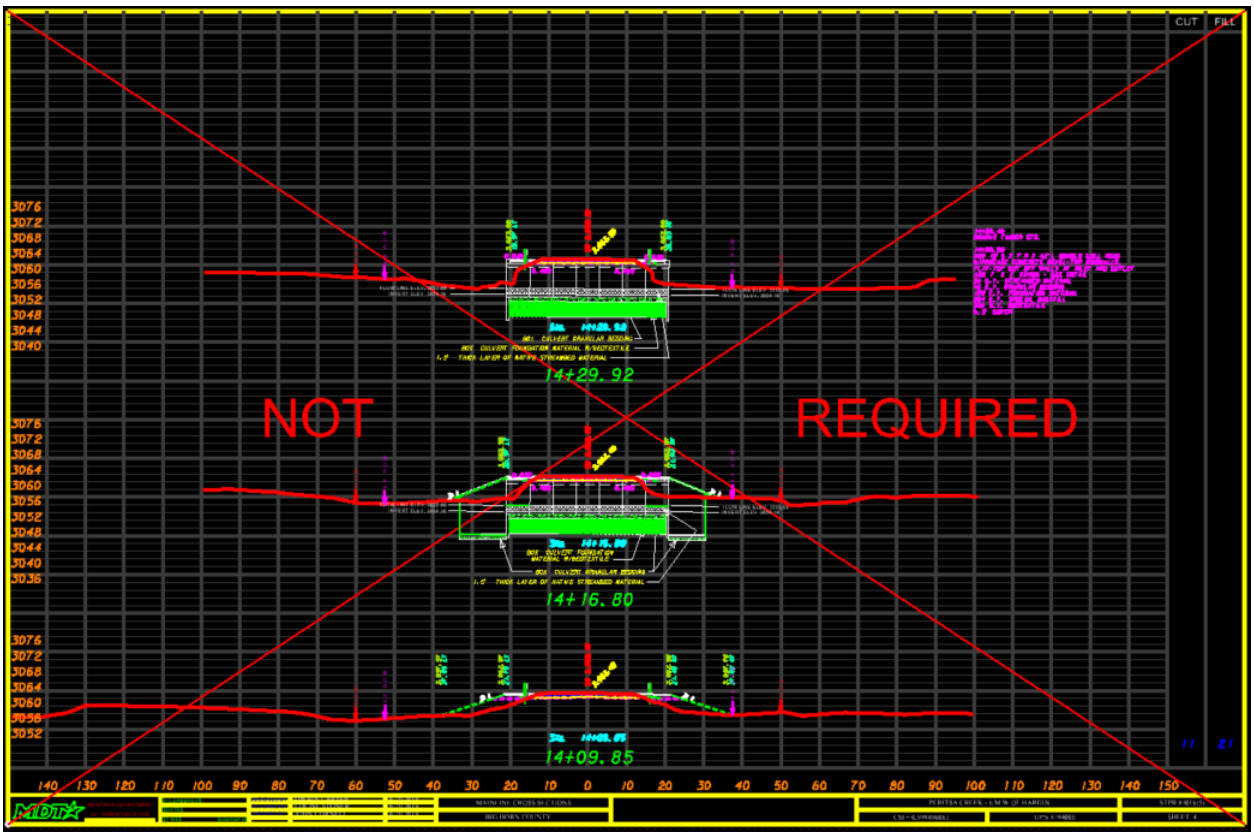
c. Make any changes to tables as necessary.



d. Update any items in drawings that were removed or changed.

Procedure – MicroStation As-Built Cross Section Sheets

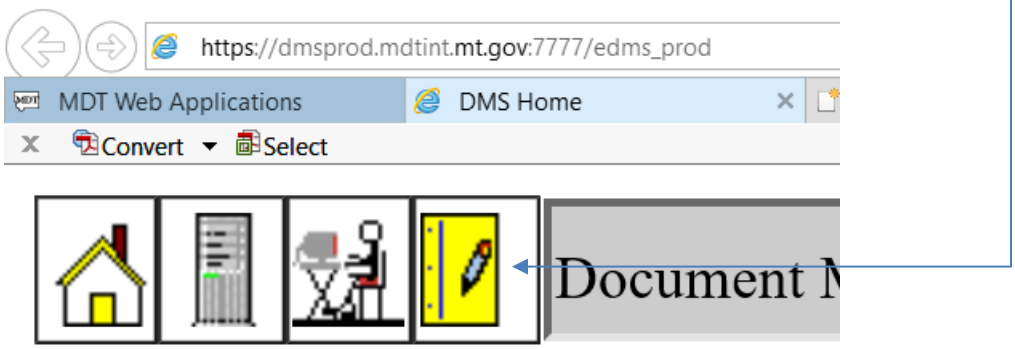
1. Cross sections are not required and are not uploaded to the as-built system.



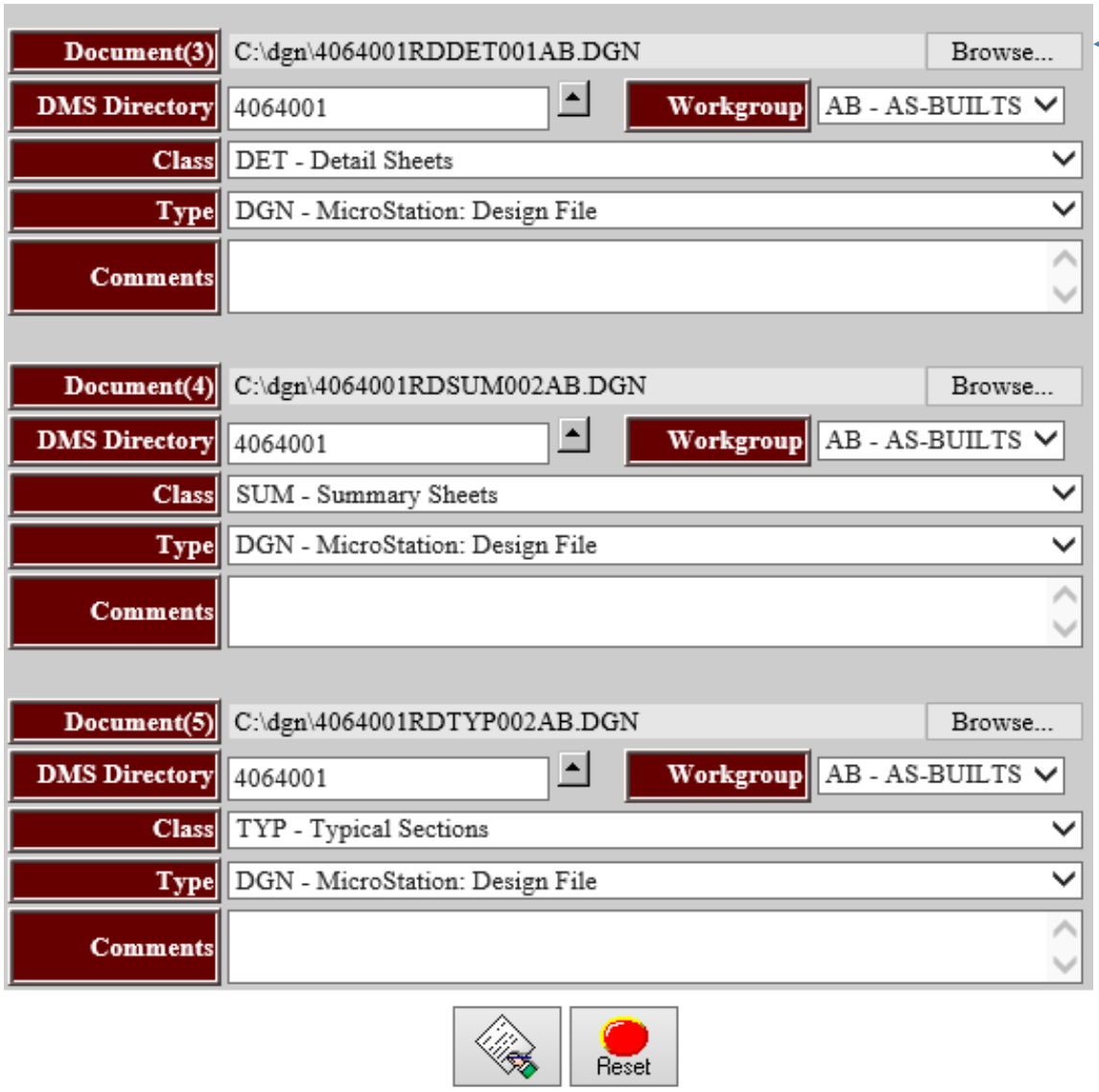
Section IV. Uploading Completed MicroStation Files to DMS

Procedure – Publish Files to DMS

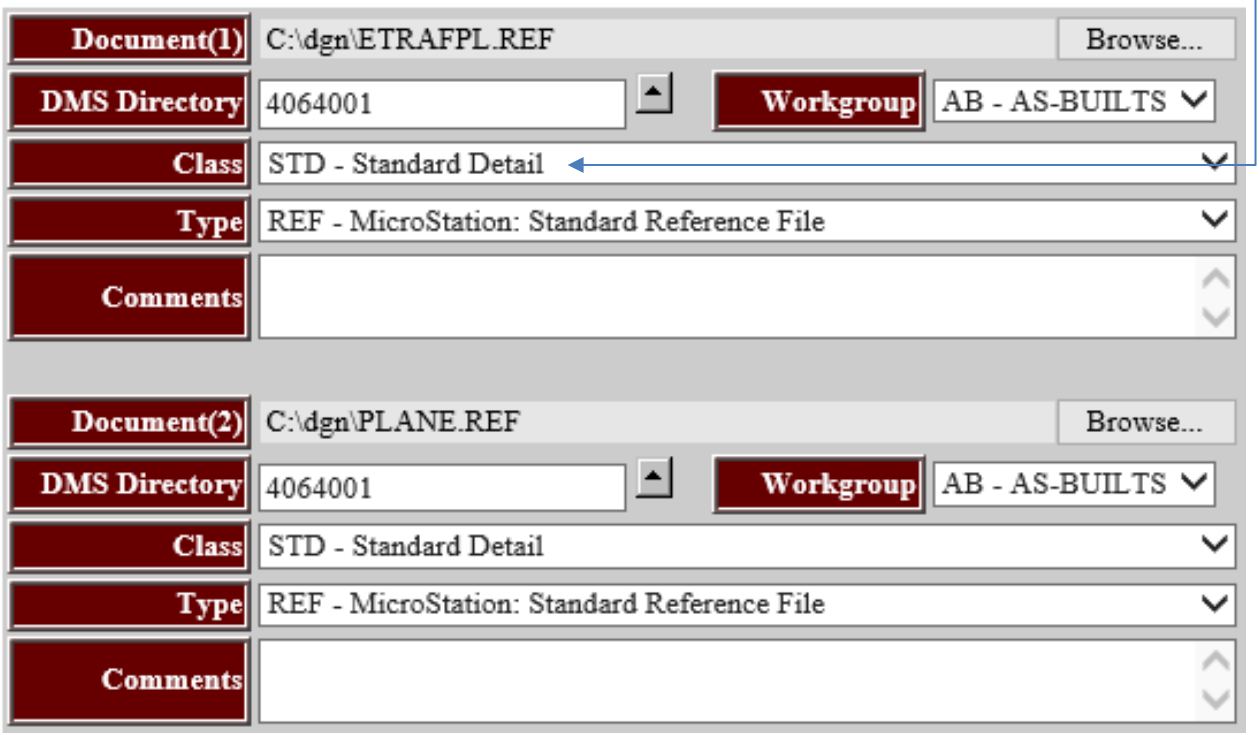
1. Add write privileges for the project's AB directory. (This must be done by a person who has write privileges. The DEO's have write privileges)
2. Access DMS and **select "Add New Documents"** Icon



3. **Select "Browse"** to pick the document to add to the server. DMS will allow you to add up to 20 documents at a time. For every document added to the server; filename, project, workgroup, class and type must be completed. See CADD Standard File naming.



4. When files are added to the server, they are removed from the local C:\dgn directory. The files are copied to the server and a copy is placed in the C:\dgn\backup directory.
5. For standard reference files, use a class of “STD”. (Do not confuse this with “.STD” files. As mentioned in Section I, do not modify or upload these to the AB directory.)

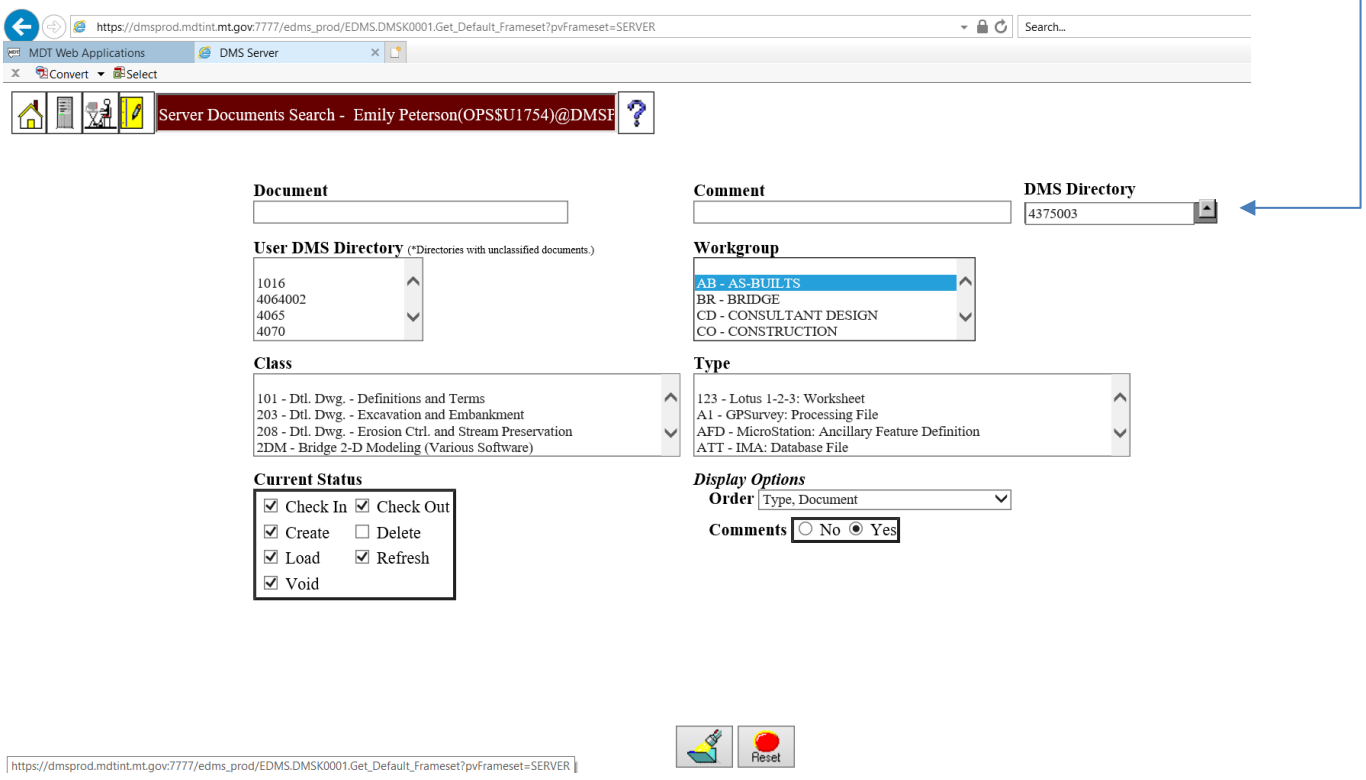


**NOTES: Photo images or TIFF images attached to design files must be manually renamed. The As-built macros will not rename or fix the raster reference file attachment. Photo images may be placed on DMS one at a time, or within a zip file. TIFF images, digital photo and zip files all must follow naming standards. (Tiff files are renamed with AB.TIF)

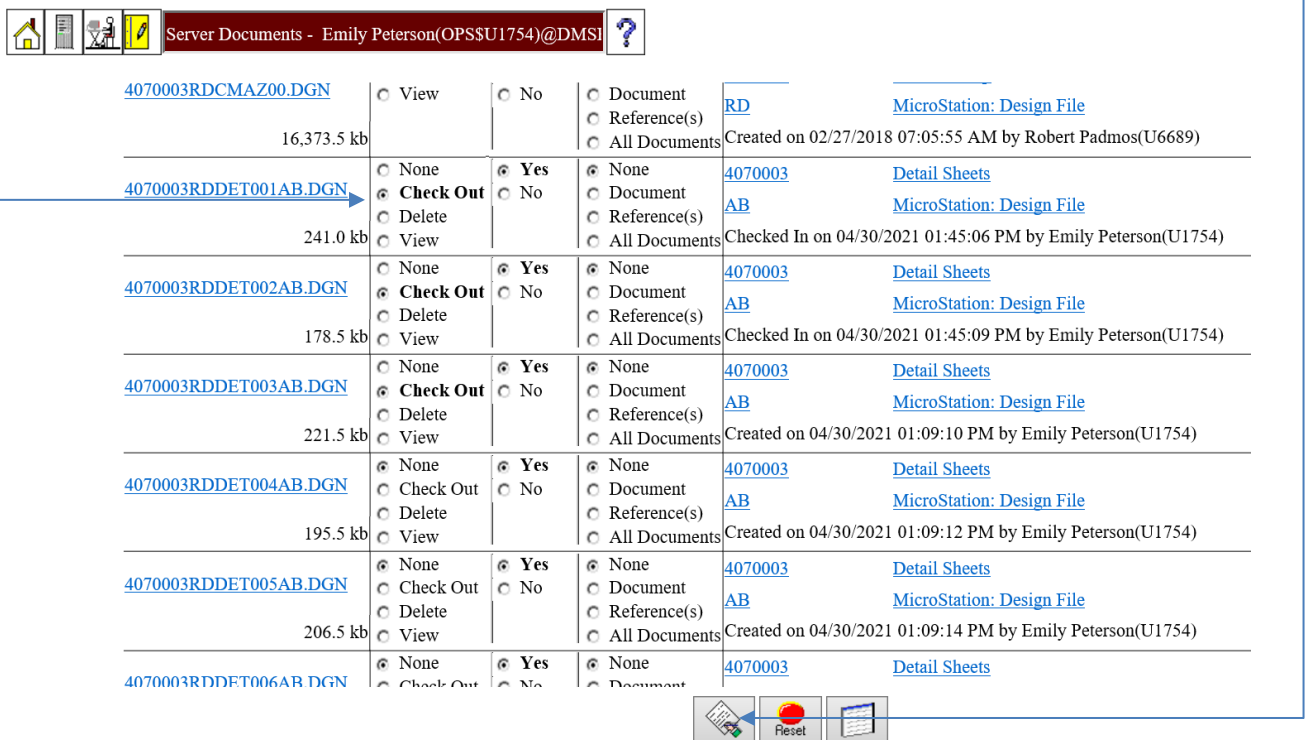
6. After you have sent the files back you will either see a green check or a red x. If you see all green checks then you know you renamed everything correctly and you can begin building your Contract Plans Book.

7. If you receive any red x's you will need to go back and fix it.

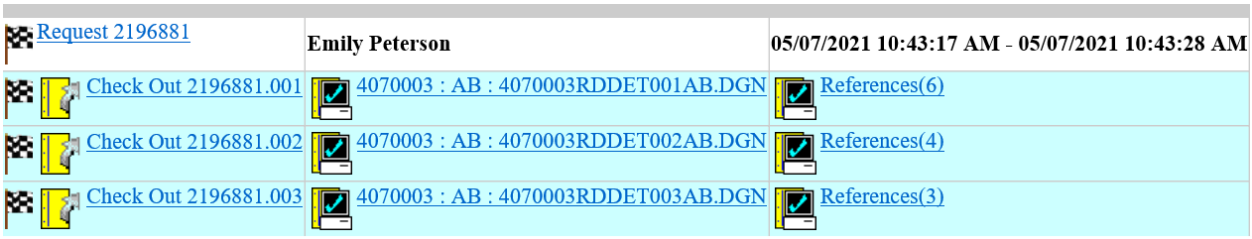
8. To check out a file from the server, open DMS. Go to Server Document Search. Enter your project number and workgroup, and then search.



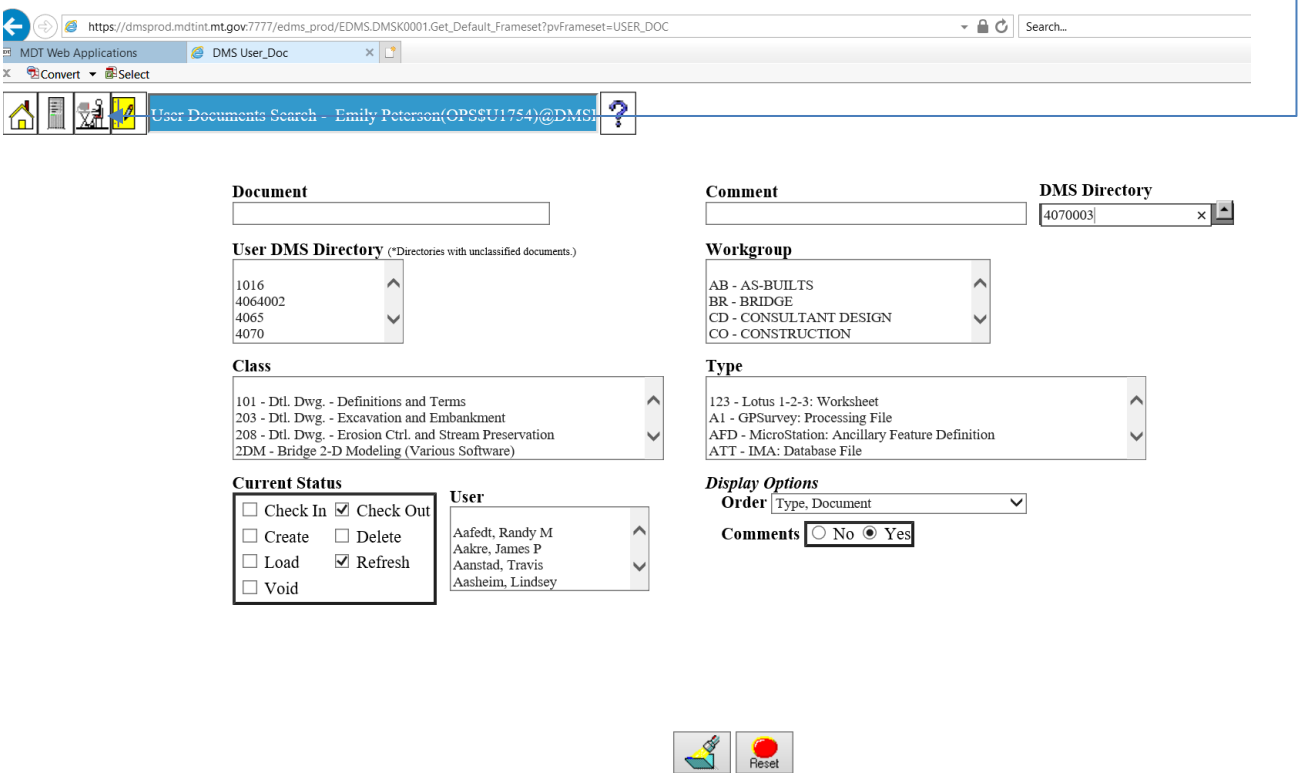
9. **Choose "Check Out"** on the files needed, and then submit the request.



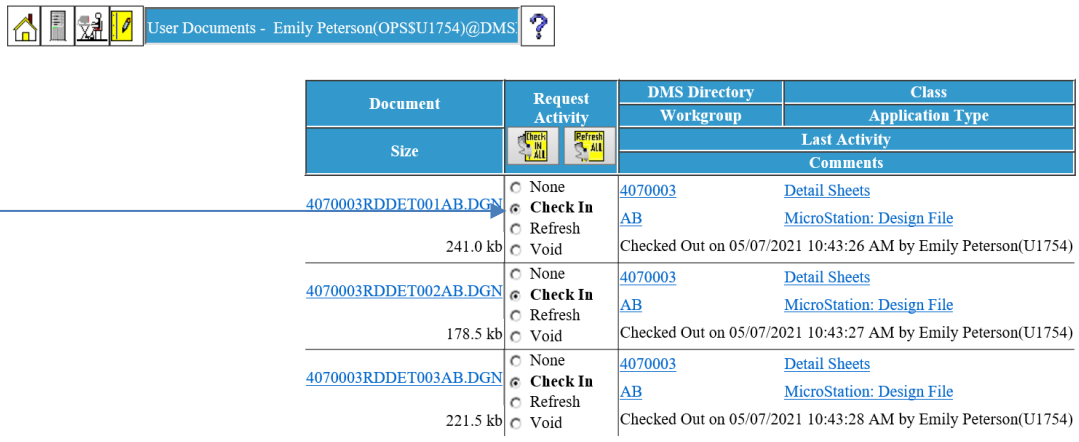
10. Files are copied to the C:\dgn directory. Request status dialog shows success or failures with file transfer. Files transferred can be modified in the local C:\dgn using MicroStation.



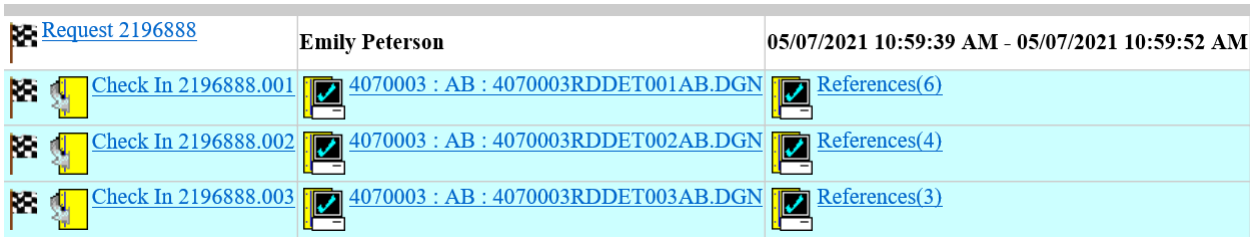
11. To check in a file to the server, open DMS. **Select "User Documents Search"** and enter DMS workgroup, and then search.



12. **Choose "Check In"** on the files needed, and then submit the request.



13. Files are moved from the C:\dgn directory. Request status dialog shows success or failures with file transfer. Files transferred are copied to the server and to C:\dgn\backup directory. Files “check out” from the server not following new naming convention do not need to be renamed before being “Checked In”.

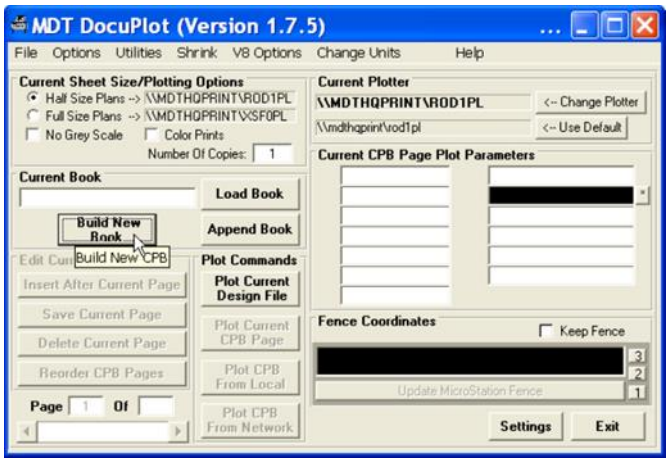


Section V. Creating an As-Built CPB Book

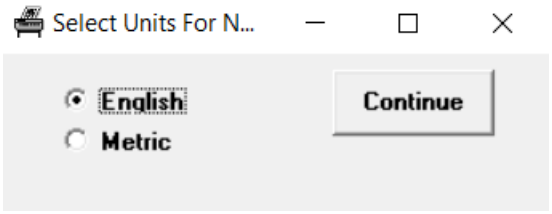
Procedure – Plot/Print PDF

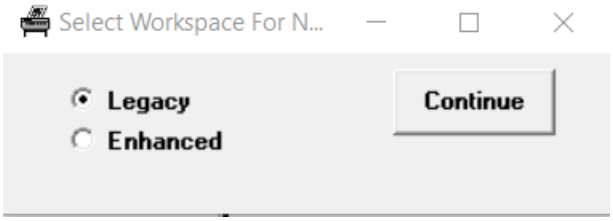
After all your files are sent back (excluding Right-of-Way and .std files) you are ready to make a new Contract Plans Book.

1. Open MicroStation and start DocuPlot,
2. **Click "Build New Book"**

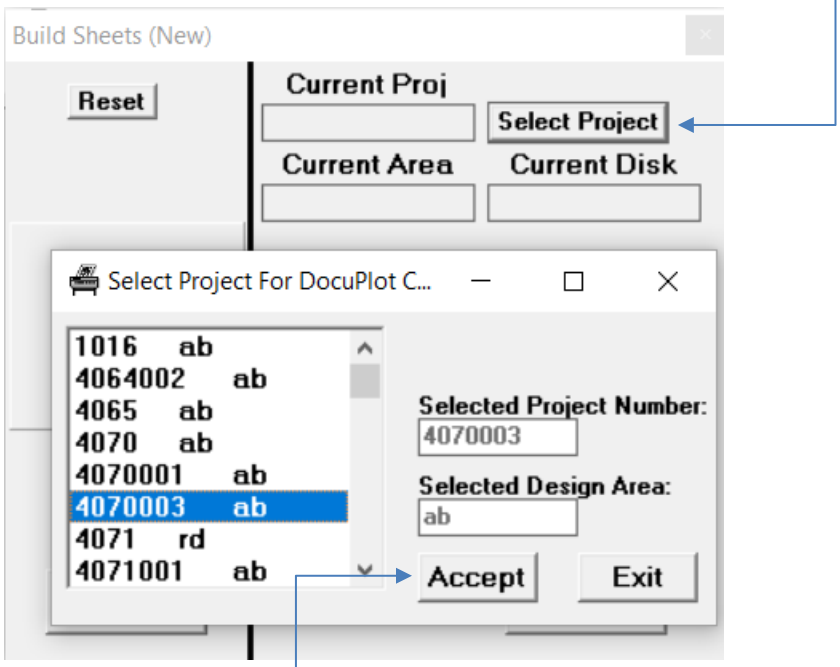


3. **Select "English" or "Metric"**,
4. **Click "Continue".**
5. **Select Workgroup "Legacy" or "Enhanced"**
6. **Click "Continue"**

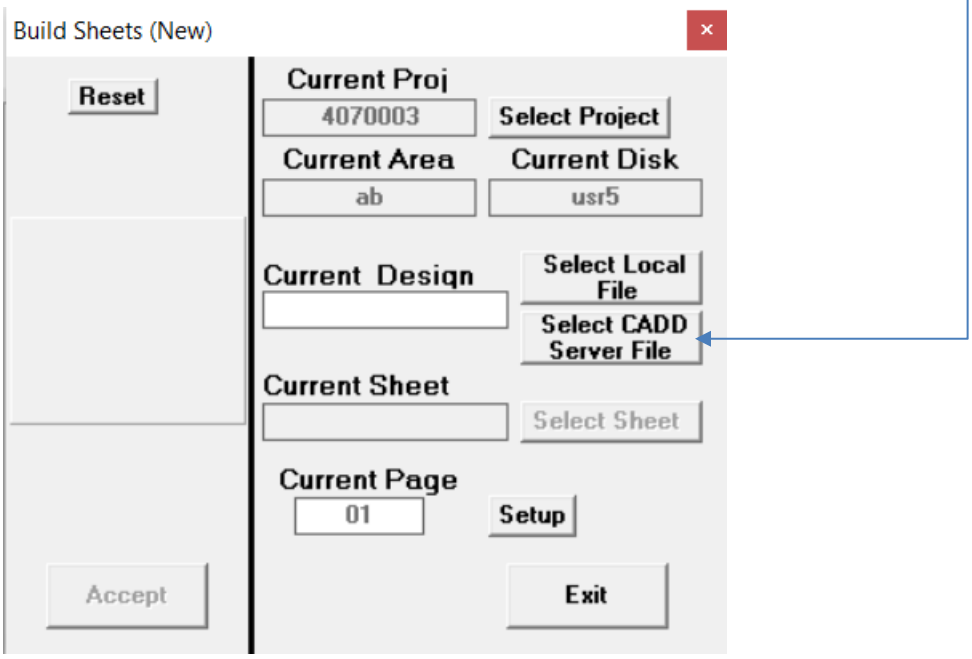




7. **Click "Select Project"** (In Select Project for Doc…)



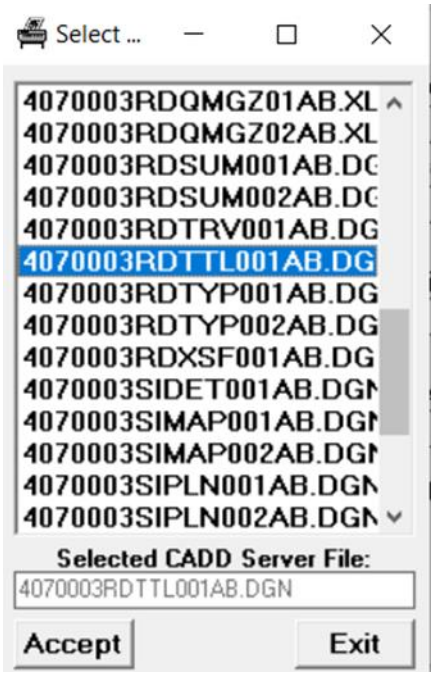
8. Highlight project to process,
9. **Click "Accept".**
10. **Click "Select CADD Server File"**.



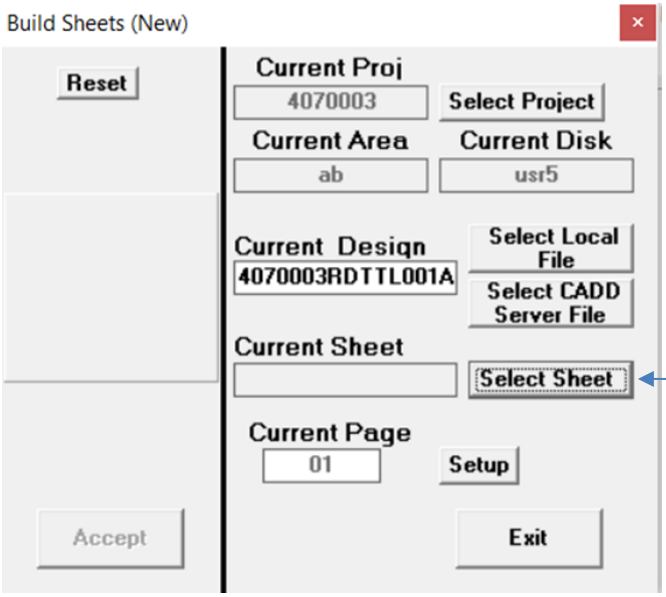
11. Check the hard copy plans and select the CADD file required to match the page(s) being processed. This must be done in the order of the plan sheets.

12. **Highlight the specific file**.

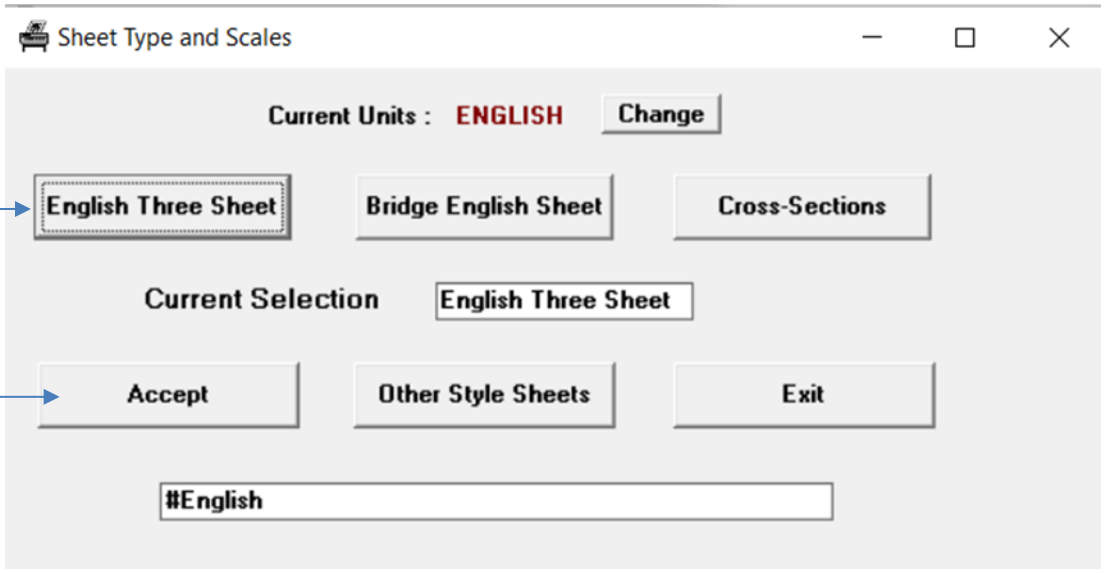
13. **Click "Accept".**



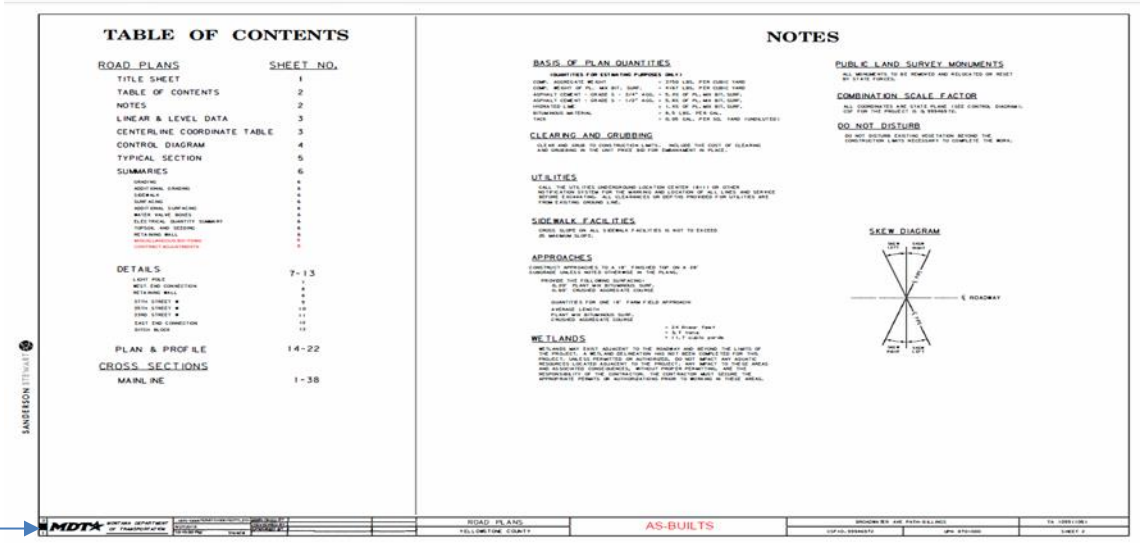
14. **Click "Select Sheet"**



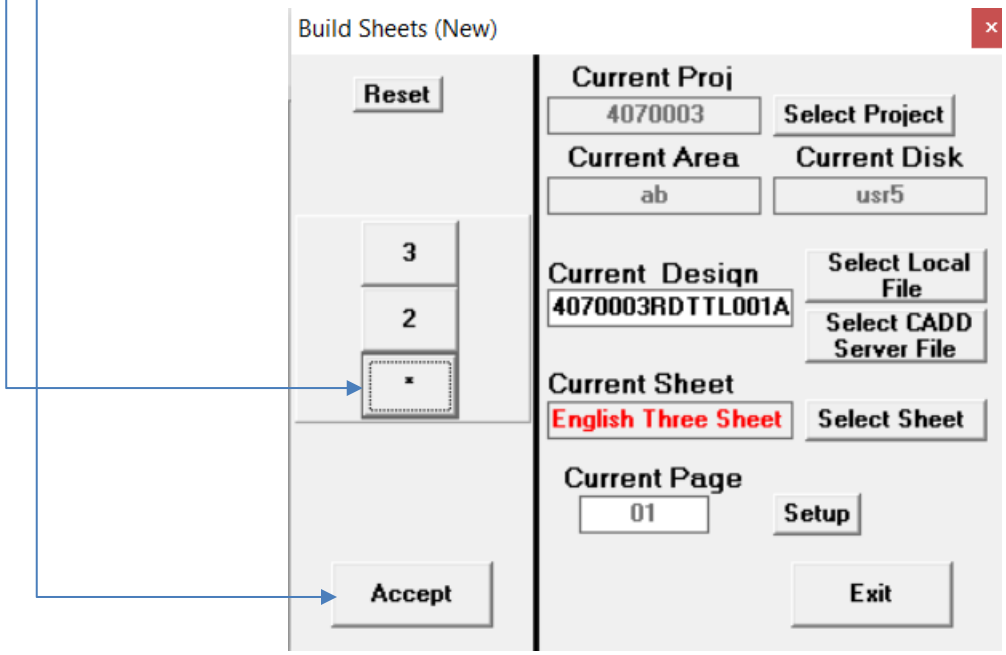
15. **Click "English Three Sheet"**



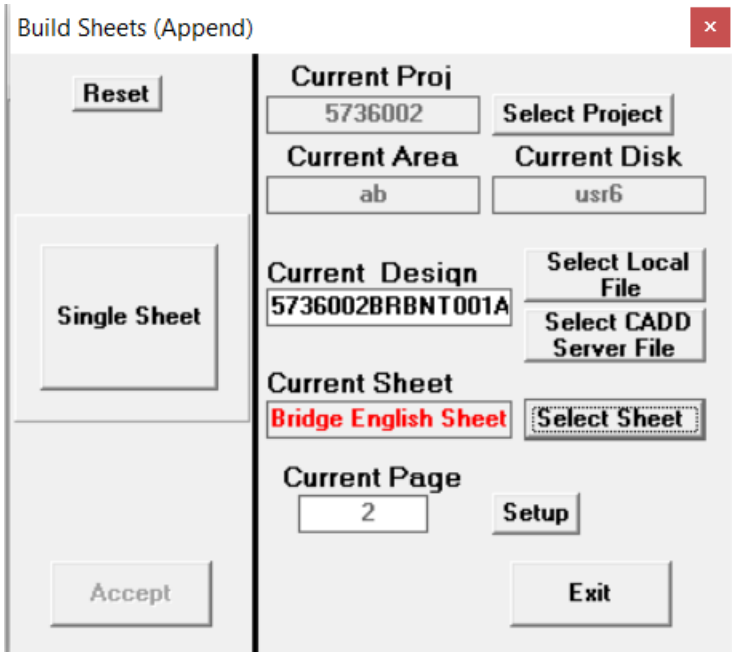
16. **Click "Accept"**
17. Look at the plans and determine the design and page number for the sheet you are processing. If the bottom box is highlighted it is 1, middle is 2 and top is 3.



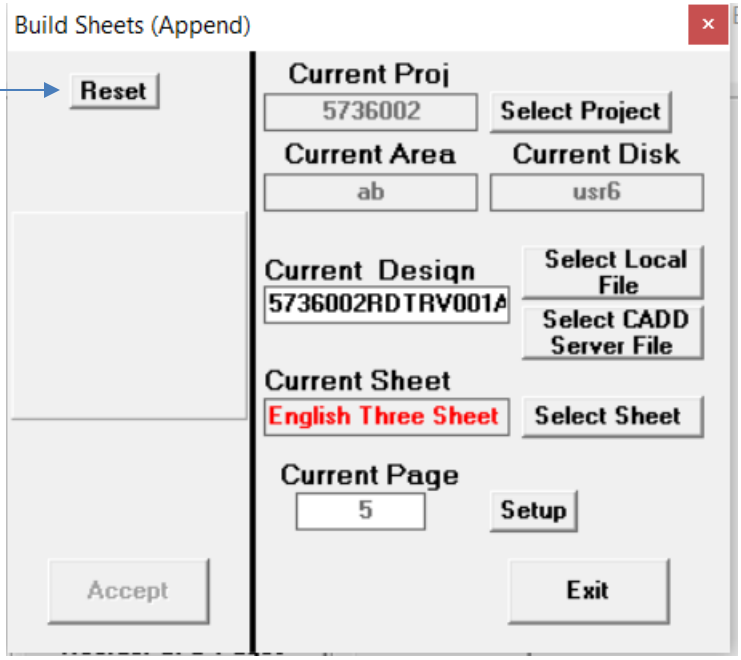
18. **Click "1, 2 or 3"**
19. Then **select "Accept."**



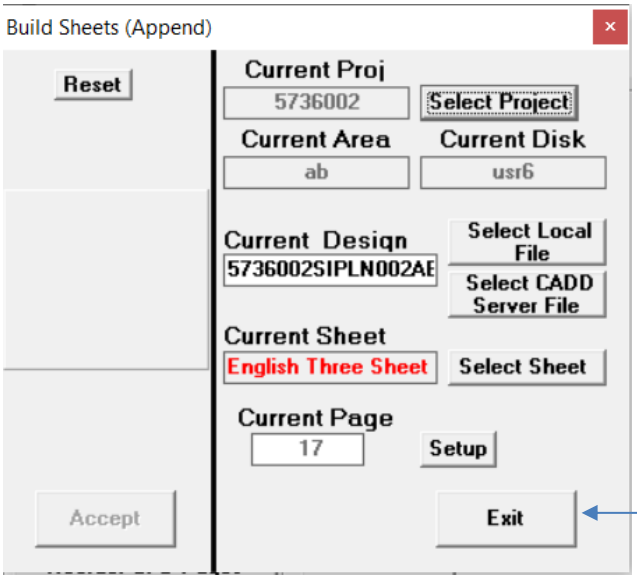
Note: Bridge Sheets are "special", requiring only a single sheet from each DGN File.



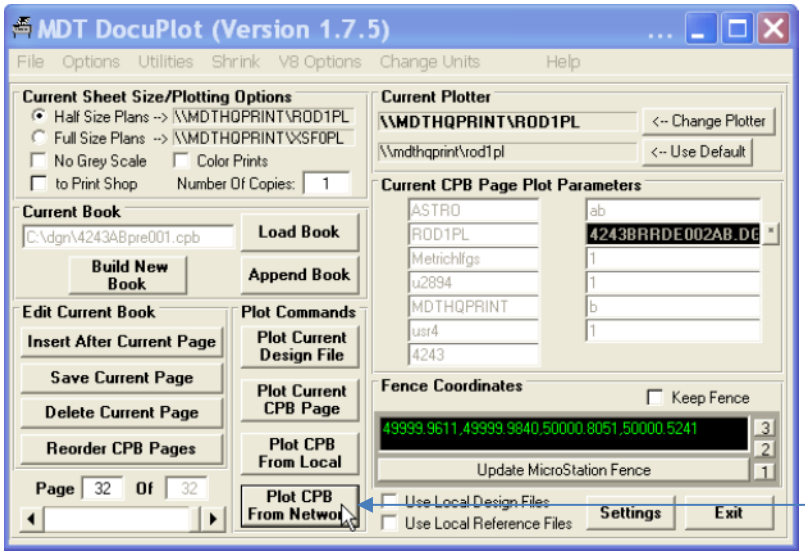
20. This process will need to be done for every page of the plans. **Click "Select CADD Server File"** and pick your next design file. When you select a different design file, the Reset button may need to be clicked to have all 3 number buttons reappear.



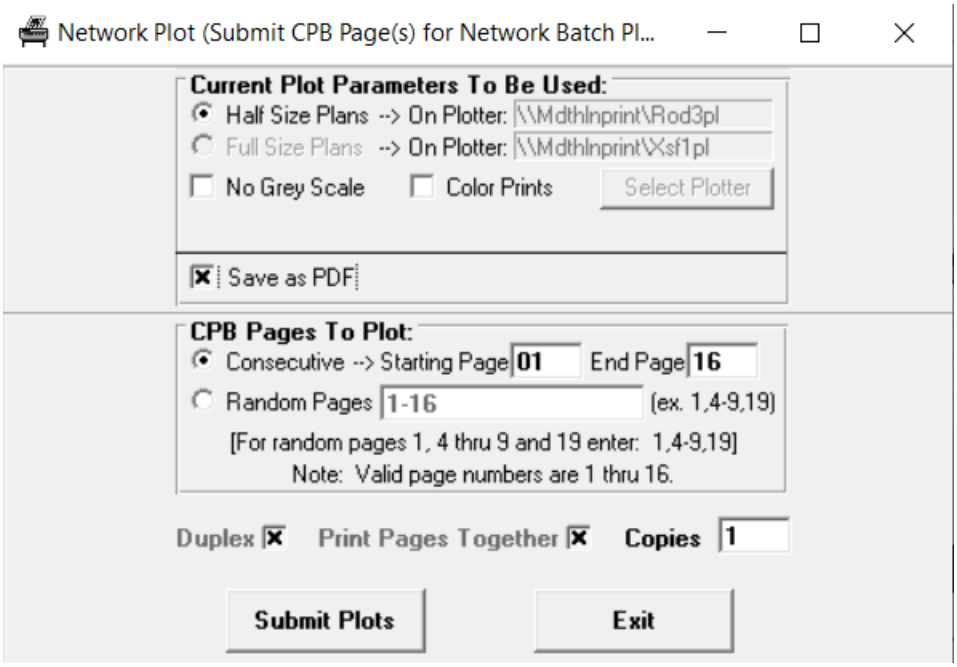
21. After all sheets have been accepted to the new contract plans book, then **Click "Exit".**



22. Then **click "Plot CPB From Network"** on the MDT DocuPlot dialog.

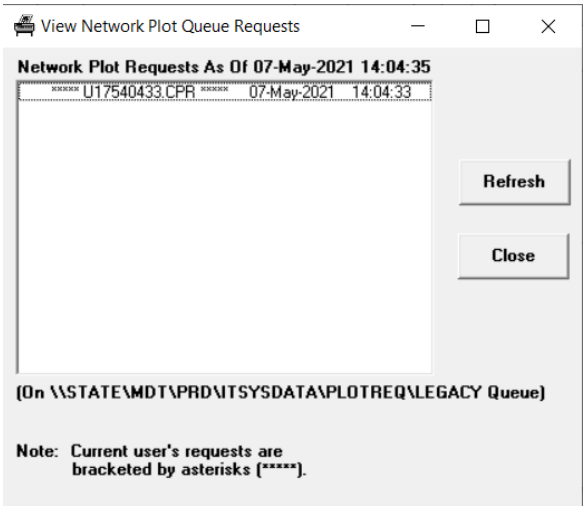


23. **Click in the box "Save as PDF"** to place an x,

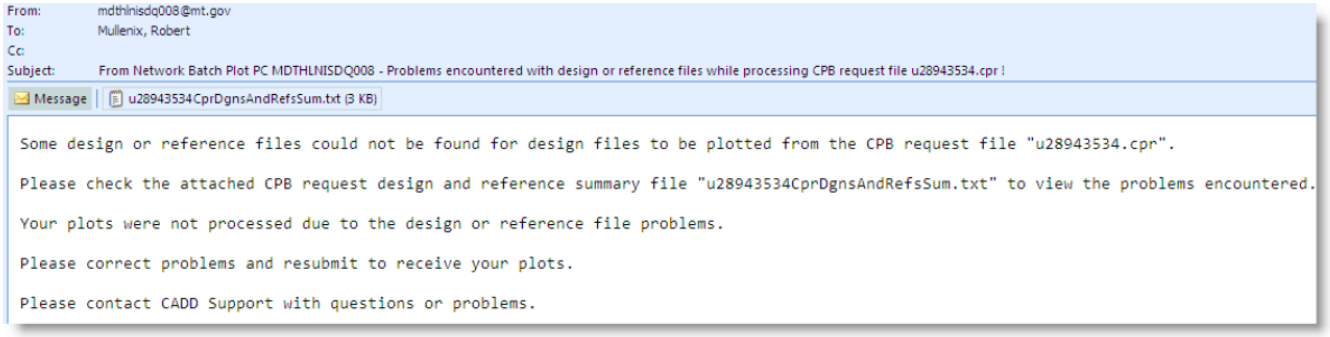


24. **Click "Submit Plots".**

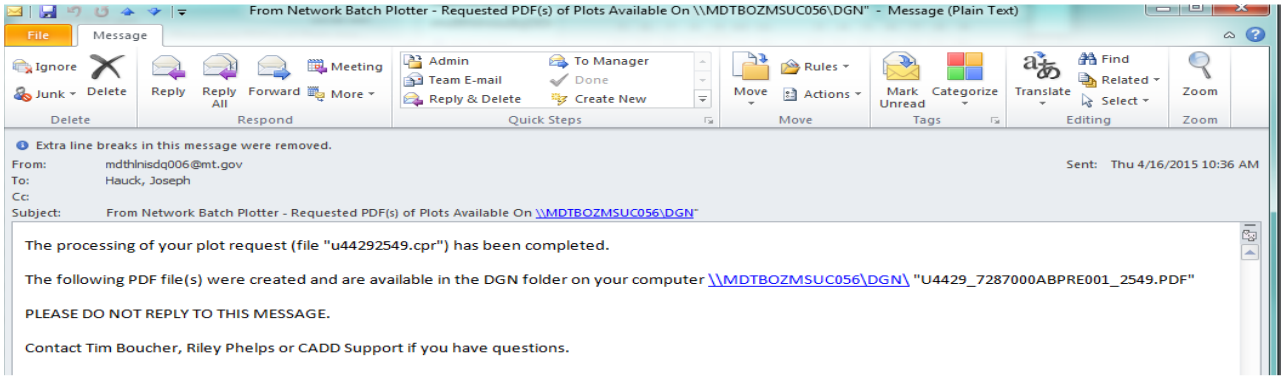
***Note:** This dialog box appears showing the plot request is running. After processing you will receive an email stating the status of the finished product, name and where the PDF file is stored. If there are errors in the CPB due to incorrectly attached reference files or files not stored in the project AB directory, the PDF will not be generated. MDT established DocuPlot Quality control process will provide you a detailed e-mail listing the errors which will need to be addressed before proceeding with plotting from the network.



***Note:** If problems occur, you will receive an email like this one below. You will then need to go back into DMS, check out that file or files and correct the errors.



***Note:** If no problems occur you will receive an email like this one below.



25. If the email comes back with no errors, a PDF will be placed in your C:\dgn folder. You can then open the PDF and check to insure it looks as the plan shows. If all is OK, then go back and make a PDF for each separate section of the plans to be stored into MDT As-Built System. Using File, Print, Printer *PDF 995* and selecting the individual pages or groups of pages you want to save individually. When each PDF is written to your DGN, name it accordingly (TTL,PLP, etc.) Be sure to rename each PDF as it appears so you don't get them mixed up. These pages will then be saved to the MDT As-Built System.

    For example:

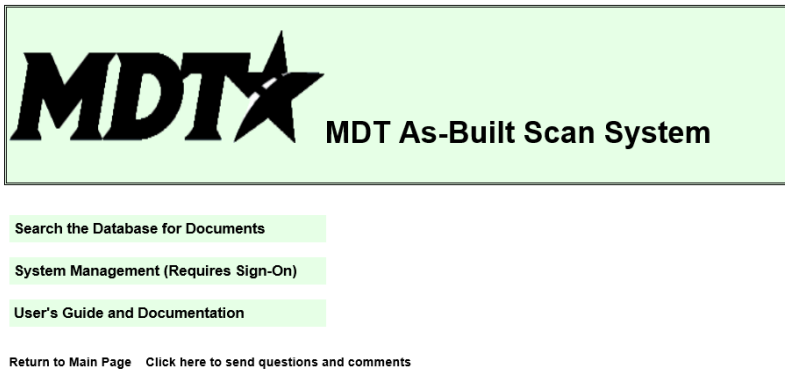
    a. Title Page
    b. Table of Contents, Notes, Linear and Level Data
    c. Control Diagram
    d. Typical Sections
    e. Summary Sheets
    f. Detail Sheets
    g. Plan and Profiles
    h. Signing
    i. Electrical
    j. Bridge Sheets

Section VI. Sending Construction Record Drawings to the MDT As-Built System

Procedure - Create New Project in As-Built System

1. After all your files are sent back (excluding Right-of-way files) you are ready to upload the new set of Construction Record Drawings. **Open** the **"MDT As-Built System".**
    a. MDT Employees' Intranet>Resources>General>Web Applications>Highways & Engineering>MDT As-Built System

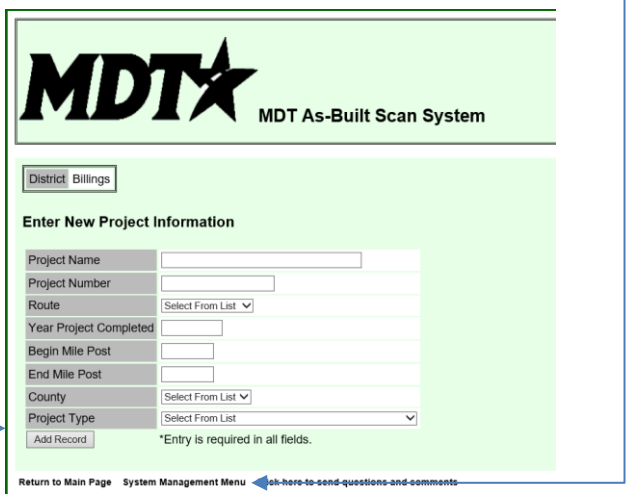
2. **Select "System Management"** and sign in (You will need a District Specific Username and Password)



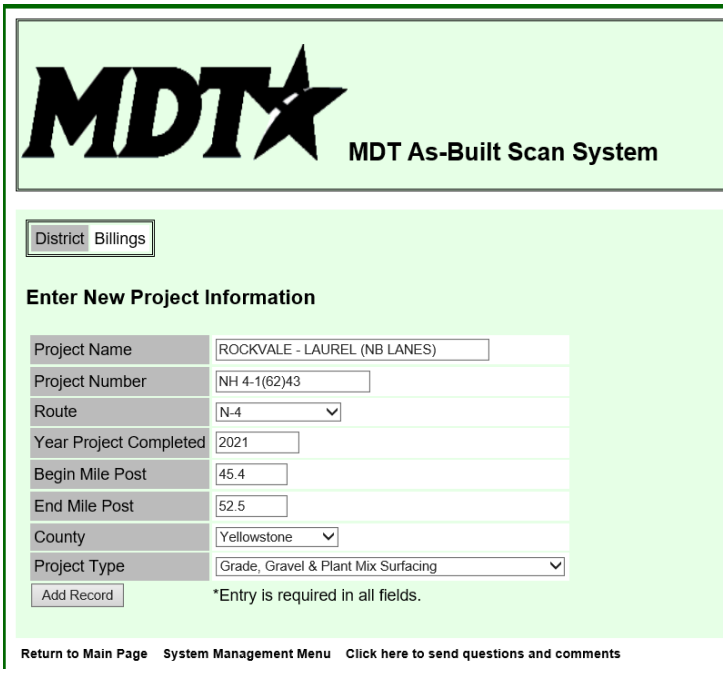
3. **Click** on **"Add New Project"**

*Note: I usually start with the **Project Type**, because if it is not there you need to go add it before you can add the record.

a. Go back to "**System Management Menu"** (Bottom of page)
b. Go to "**Manage Project Types"**
c. **Click "Add Project Type**"
d. **Type in** new project type
e. Click "Add Record"
f. Click "Add New Project"



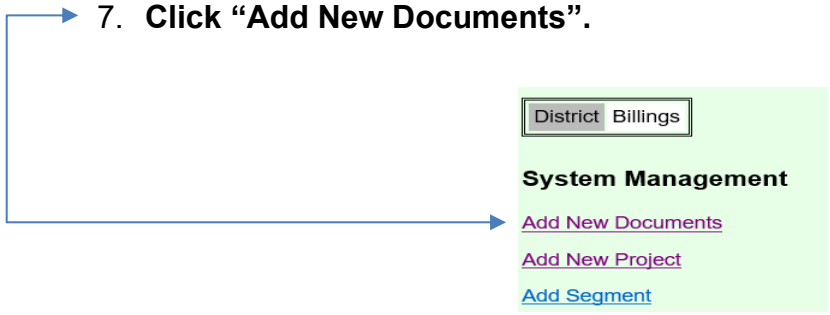
4. **Enter** information from the plans into the New Project Information Dialog.



5. **Click "Add Record".**

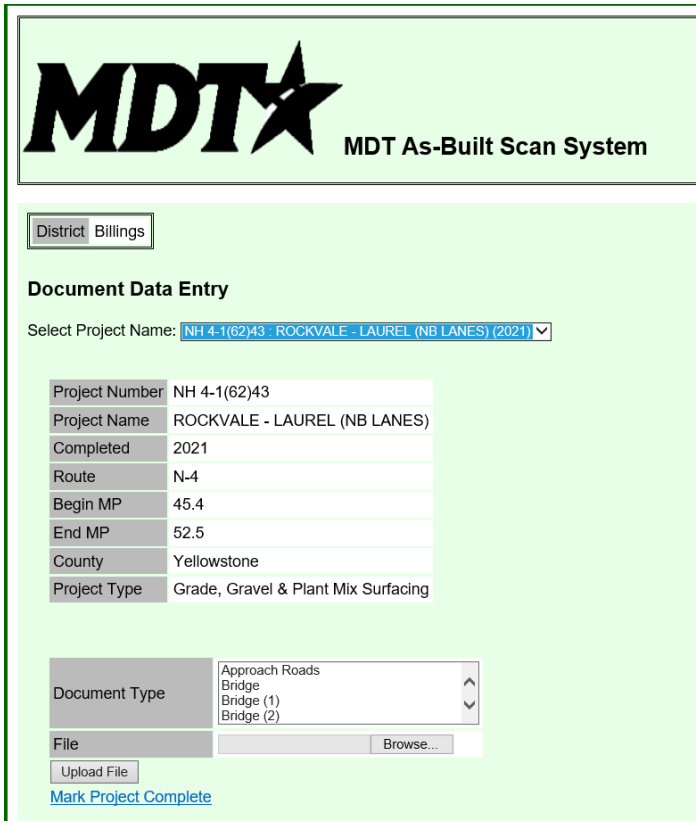
*Note: If route number is unclear, go to AASHTOWare Project, Contract Administration, Enter Contract Number, General Tab, Highway/Route.

6. Go back to the **"Systems Management"** menu.
7. **Click "Add New Documents".**

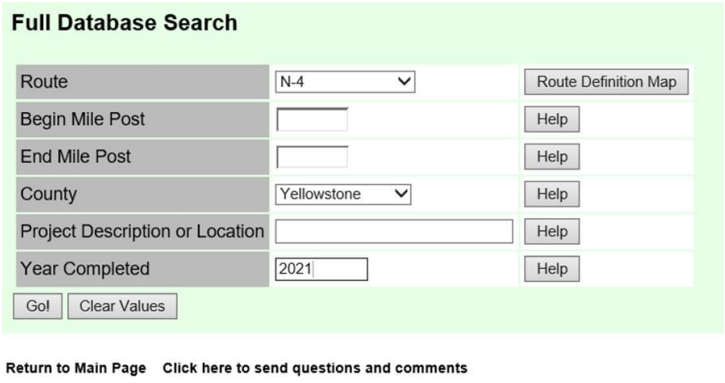


8. **Select Project Name** that you just created.

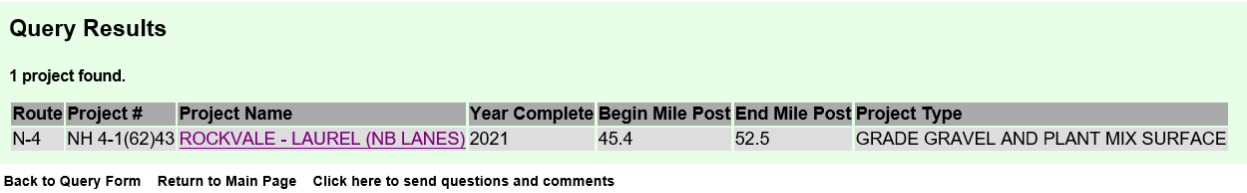
9. **Select** the appropriate **Document Type**. For example: Title Page, Table of Contents, Notes, Linear and Level Data, Control Diagram, Typical Sections, Summary Sheets, Detail Sheets, Plan & Profile, Signing, Electrical and Bridge Sheets.



10. **Browse** to the PDF files you made in Section IV, Step 25
11. **Click "Upload File".**
12. Repeat these steps for each of the plan section files.
13. **Return to** "**Main Page".**
14. **Click "Search the Database for Documents".**
15. Enter the search criteria for your project and **click "Go".**



16. **Click** on your project name.



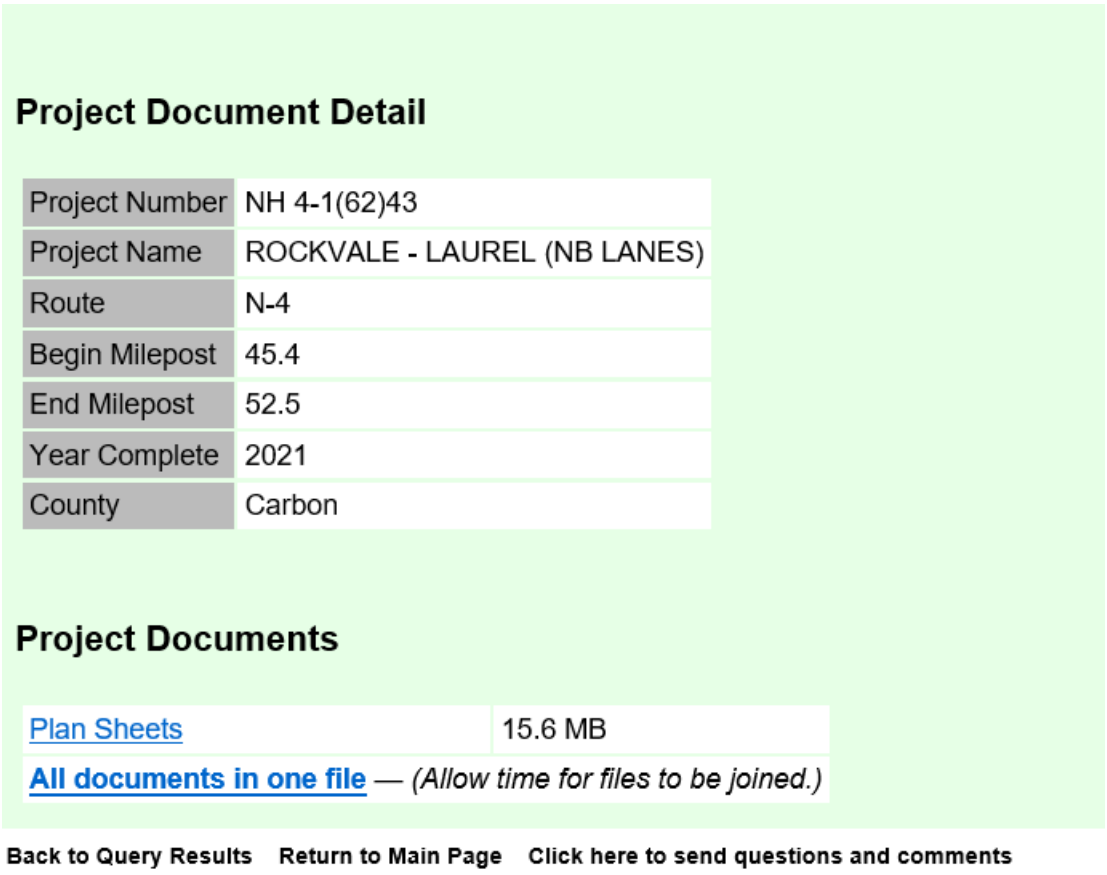
Query Results

1 project found.

Route	Project #	Project Name	Year Complete	Begin Mile Post	End Mile Post	Project Type
N-4	NH 4-1(62)43	ROCKVALE - LAUREL (NB LANES)	2021	45.4	52.5	GRADE GRAVEL AND PLANT MIX SURFACE

Back to Query Form Return to Main Page Click here to send questions and comments

17. The project details will be brought up and you should see the PDFs that you added.



Project Document Detail

Project Number	NH 4-1(62)43
Project Name	ROCKVALE - LAUREL (NB LANES)
Route	N-4
Begin Milepost	45.4
End Milepost	52.5
Year Complete	2021
County	Carbon

Project Documents

Plan Sheets	15.6 MB
All documents in one file — *(Allow time for files to be joined.)*	

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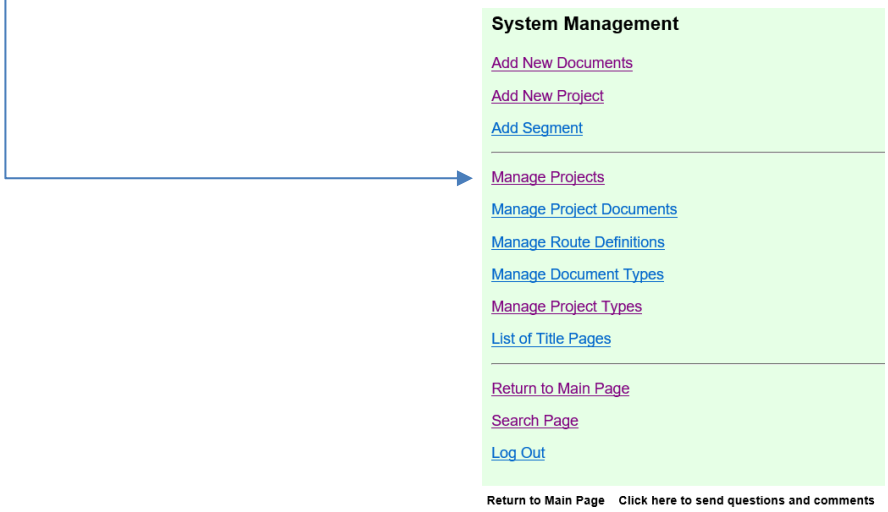
***Note:** This shows the project and all the documents associated with it. You can double check any document by simply clicking on it. This will open it in Adobe. If all documents are loaded and they match the plan sheets, then the last thing to do is complete the update.

18. **Select "Return to Main Menu".**
19. **Select "System Management"** and **sign in** (You will need a District Specific Username and Password)

20. **Select "Manage Projects"**



21. Begin by Selecting the number at the bottom of the screen. These are in alphabetical order by the Project Number. Once you find your project. Click "Edit".

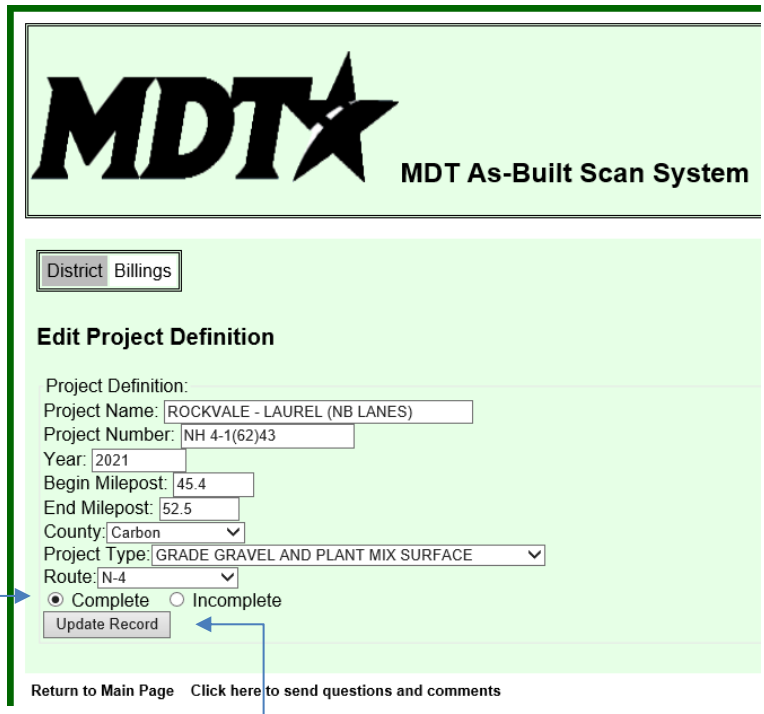
Project Information Management

Project Number	Project Name	Edit	Delete
N.R.S. 296	Billings Airport	Edit	Delete
N.R.S. 307 (Section A)	(1) Stanford North Road	Edit	Delete
N.R.S. 307 (Section B)	Stanford North Road	Edit	Delete
N.R.S. 309 (A)	Lewistown Denton Road	Edit	Delete
N.R.S. 309 (B)	(1) Lewistown Denton Road	Edit	Delete
N.R.S320	Carlson Bridge	Edit	Delete
N/A	Lewistown Urban Street Program	Edit	Delete
NH 0002(120)	District 5 Guardrail - Preliminary	Edit	Delete
NH 0002(593)	D5-NONINTERSTATE GUARDRAIL	Edit	Delete
NH 0002(593)	D5 - Non-Interstate Guardrail	Edit	Delete
NH 14-3(12)116	SHAWMUT-EAST	Edit	Delete
NH 14-3(14)108	Shawmut - West	Edit	Delete
NH 14-3(19)101	HARLOWTON REST AREA	Edit	Delete
NH 14-4 (16) 130	RYEGATE-EAST	Edit	Delete
NH 14-4(11)125	Ryegate - West	Edit	Delete
NH 14-4(19)138	LAVINA-WEST	Edit	Delete
NH 14-5(13)167 F	(1) Roundup - West	Edit	Delete
NH 14-5(13)167 F (Preliminary)	Roundup - West	Edit	Delete
NH 16-1 (45) 1	MAIN STREET-BILLINGS HEIGHTS	Edit	Delete
NH 16-1(31)2	Billings - Main St. & 6th Ave. North	Edit	Delete
NH 16-1(35)23 F	Yellowstone County Line - North & South	Edit	Delete
NH 16-1(45)1	Main Street - Billings Heights	Edit	Delete
NH 16-2(17)30	Old Divide Rd Approach	Edit	Delete
NH 16-2(7)46 F	Roundup - South	Edit	Delete
NH 37-1(23)0	BATTLEFIELD-EAST	Edit	Delete
NH 37-1(40)37	Muddy Creek Road Turn Lanes	Edit	Delete
NH 4-1(19)13 F	Bridger - South	Edit	Delete
NH 4-1(20)26	Bridger Main Street	Edit	Delete
NH 4-1(23)0 F	WARREN-NORTH AND SOUTH	Edit	Delete
NH 4-1(62)43	ROCKVALE - LAUREL (NB LANES)	Edit	Delete
NH 4-2(42)55	Railroad Underpass - Laurel	Edit	Delete

« prev 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 next »

Return to Main Page System Management Menu Click here to send questions and comments

22. **Select "Complete"**



23. **Click "Update Record".**

***Note:** Update confirmation shows on Project Information Management Menu.