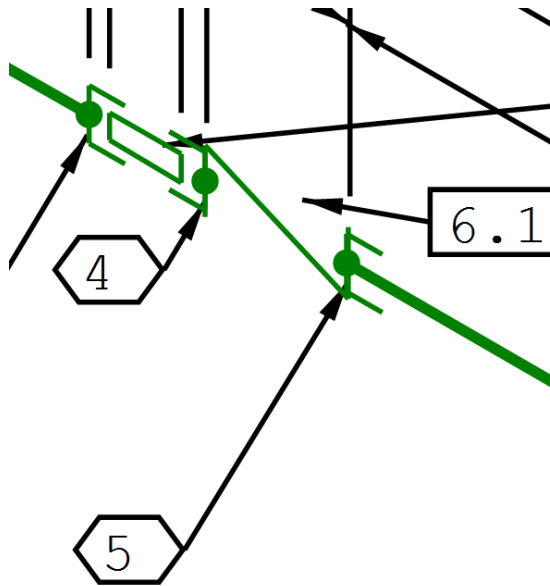


## SPOOLING THROUGH A VALVE WITH PIPE ON ONLY ONE SIDE



Perform all spool prep for the line with the welded valve.

How to spool prep the valve and pipe for spooling through the valve in order to generate the ER-DWG and txt files for reports.

In this example, the valve welds to a nipple on one side and a pipe on the other side.

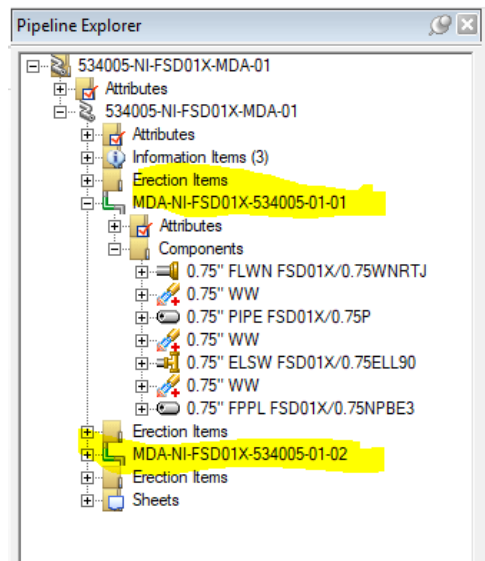
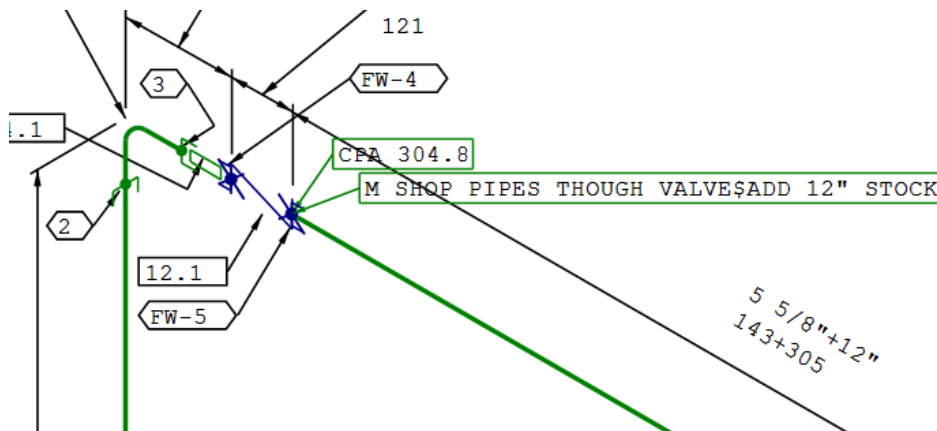
Step 1) Add this note (using annotation) to the pipe

SHOP PIPES THROUGH VALVE\$ADD 12" STOCK

Step 2) ADD CUT PIECE ALLOWANCE of 12" to pipe

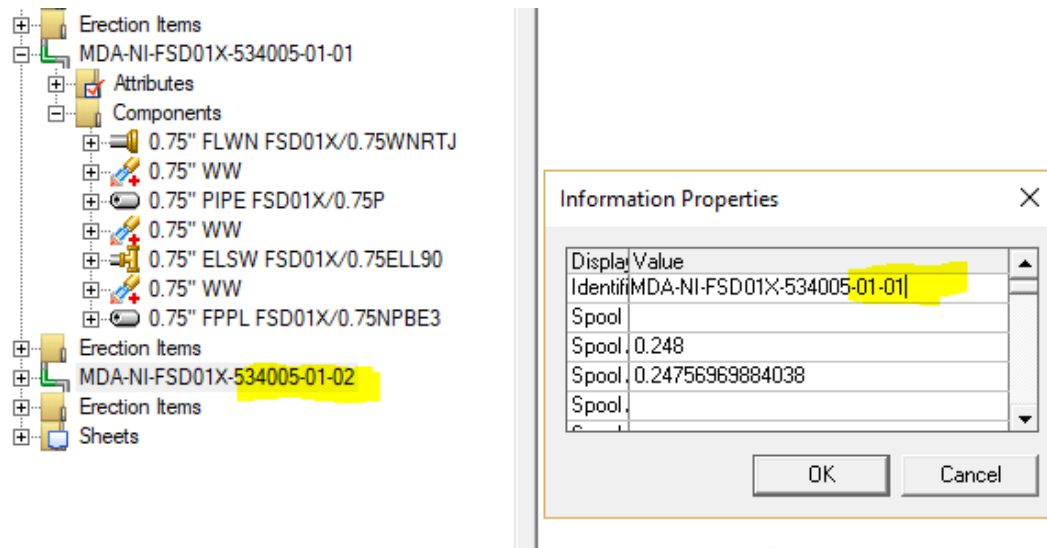
Step 3) Change the valve from fabrication to erection.

Update current view. SGIMPORT screen shows (2) FIELD WELDS, blue valves and CPA and message.

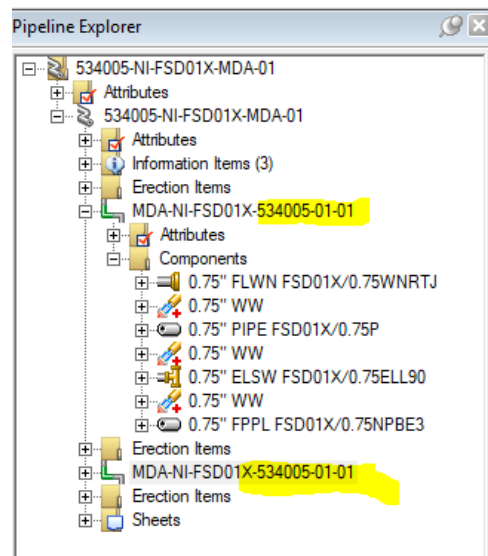


When you change the valve to ERECTION – that automatically creates a “SPOOL BREAK” that we do not want. In the example – we only need one spool. But changing the valve to erection – not only flipped the two welds to erection – it also created a second spool that we do not want.

**Step 4)** Modify the spool that we do not want by changing the spool name in the properties screen. Put the correct spool name by changing 02 to 01. Click on OK.



It will now look like this – still two spools – but both spools show the same SPOOL NAME.



**Step 5)** Generate the ER-DWG. Tip: be sure to follow good spooling practice (Click the blank bat buttons, etc.)

**Step 6)** Generate a practice SPOOL DRAWING – in order to create the TXT for CUTLIST report. We will not use but the REPORT BAT BUTTON “expects” to generate a CUTLIST.

**Step 7)** Run the REPORTS – this will lock in a good report for JOINT – DPL and TOTAL DIA. The CUTLIST will be replaced after piping through the valve.

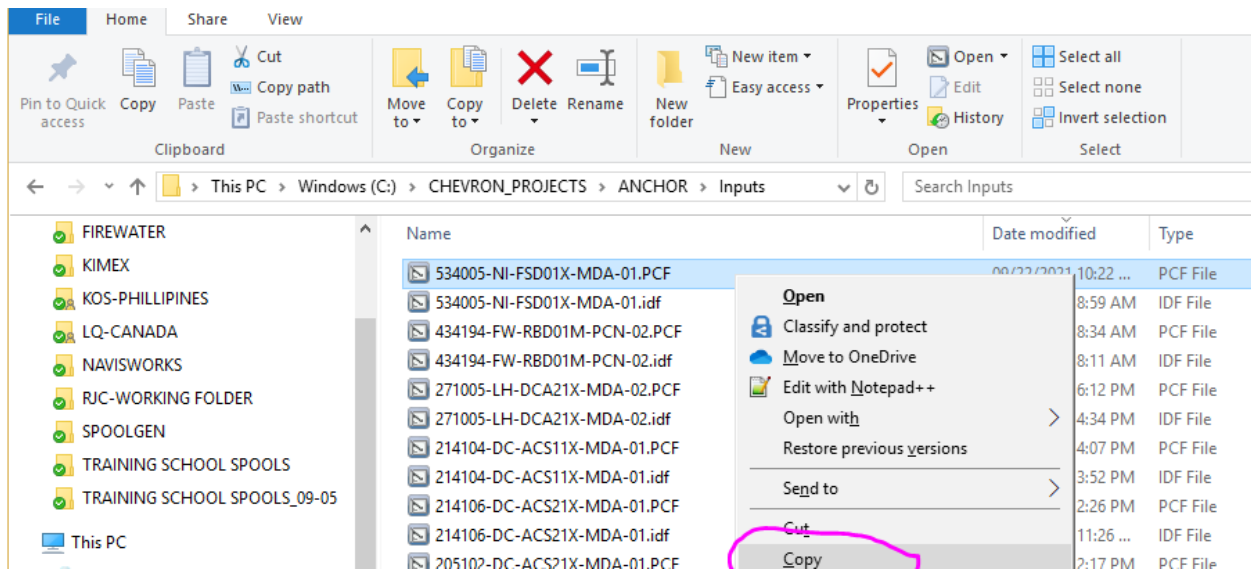
**Step 8)** Save the POD file then “save-as” in the UPLOAD POD FOLDER. Close the file in Spoolgen and “check-in.”

How to spool prep the valve and pipe(s) for spooling through the valve in order to generate the SPOOL DRAWING and txt files for CUT LIST reports.

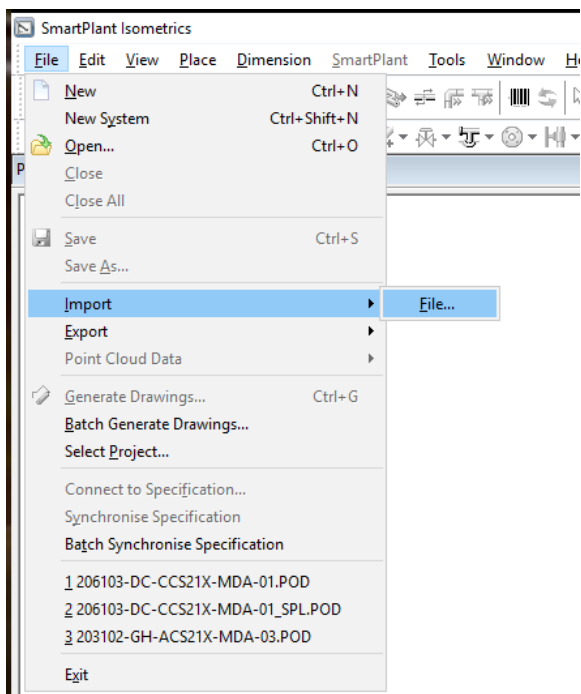
**Step 1)** Browse to the INPUTS folder and copy clip the PCF to clipboard. The screen shot below shows the INPUTS folder. It is sorted by DATE MODIFIED – that way the most recent file is always shown at the top.

Here is where the Anchor project INPUTS folder is located. All projects will be similar:

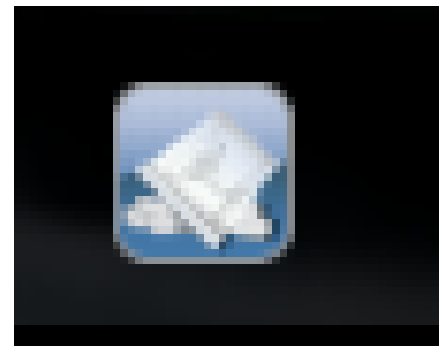
C:\CHEVRON\_PROJECTS\ANCHOR\Inputs



**Step 2)** Open the INTERGRAPH utility called SmartPlant Isometrics. Import the PCF that is copied to CLIPBOARD.



Here is how to import an IDF or PCF into Smart Plant isometrics. On the Ribbon at top > select File > Import > File.

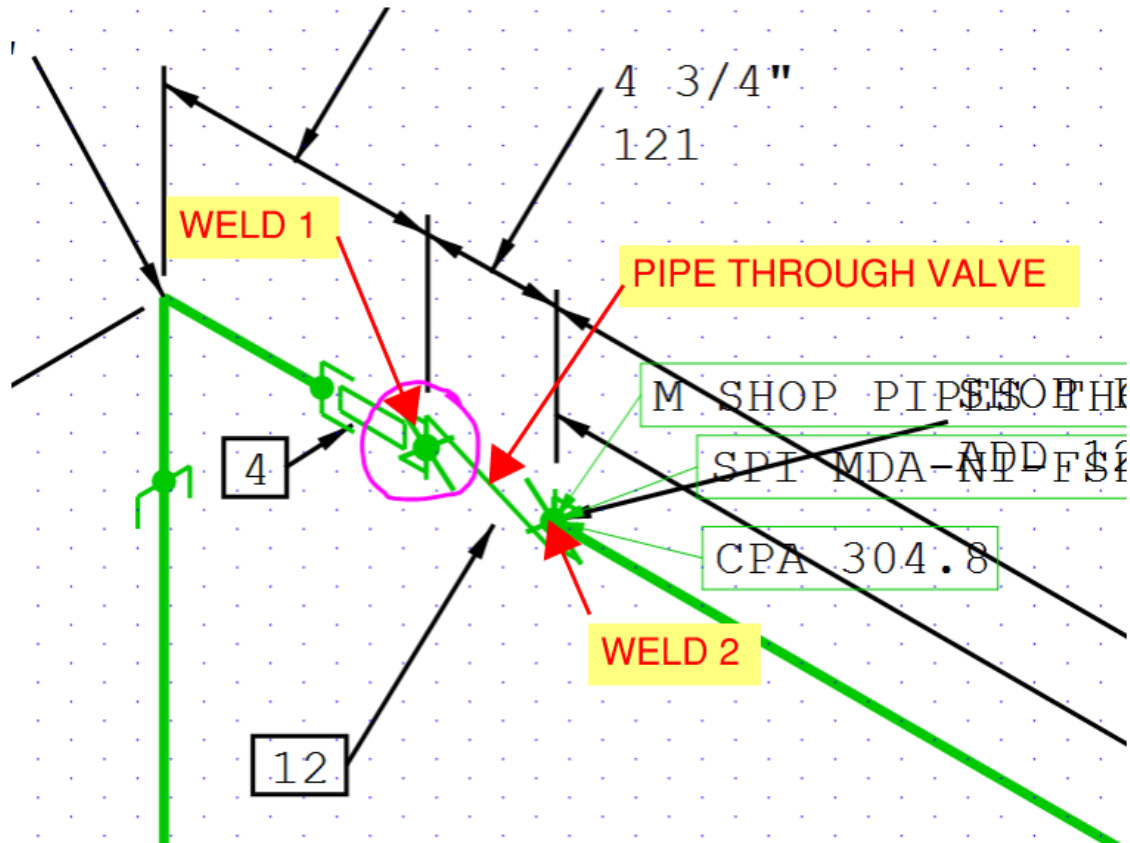


In the Import screen that opens – paste the PCF for the file and select it.

The file will open.

## SPOOLING THROUGH A VALVE WITH PIPE ON ONLY ONE SIDE

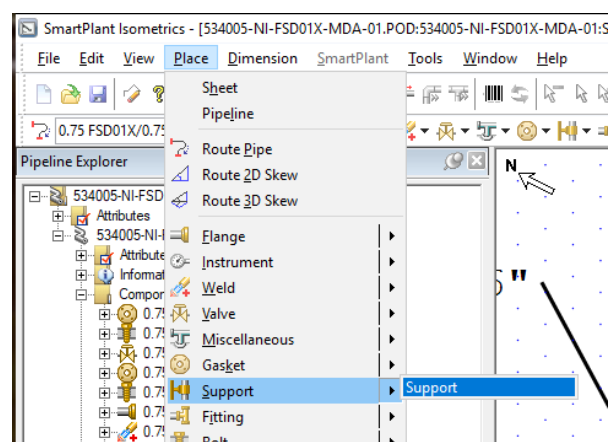
The trick in PIPING-THROUGH-VALVES is to keep the weld numbering intact – even though we are removing the valve and FIELD WELD. In the example shown below – we need to keep the field weld that is shown between the nipple and the valve (WELD 1.) It will be changed to TACK WELD in Spoolgen.



Here are the steps to remove the valve and make sure that weld numbering does not shift.

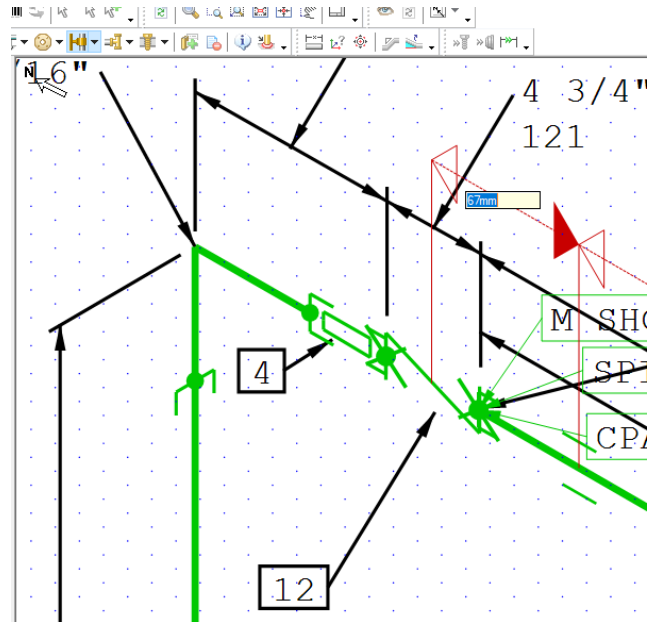
**Step 3)** Add a SUPPORT. This is the trick that we use to prevent our weld numbers from shifting. We add an ERECTION SUPPORT and then we place a support weld. Because we are only trying to generate a spool sheet – ERECTION SUPPORT and SUPPORT WELD will not show up on our spool and our weld numbering will not shift.

Here is how: At the top of the ribbon click on Place > Support



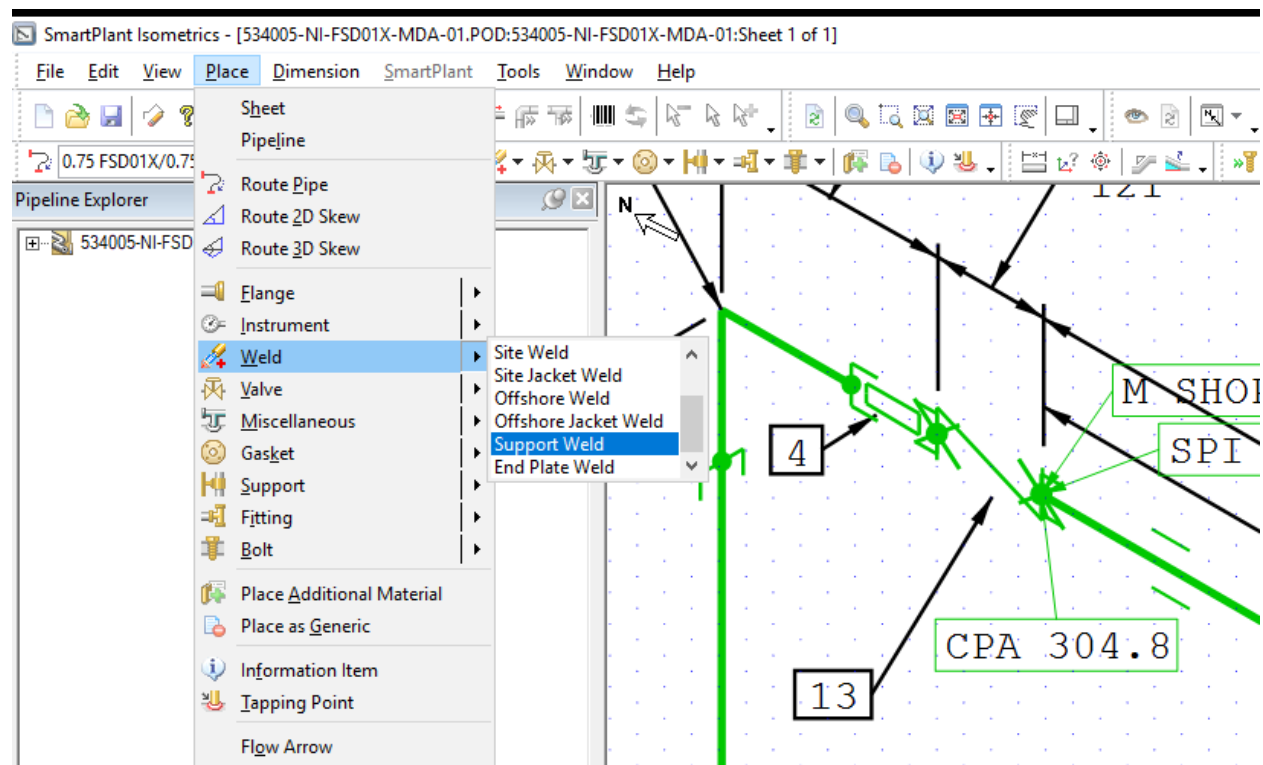
## SPOOLING THROUGH A VALVE WITH PIPE ON ONLY ONE SIDE

Select the pipe near the end. ISOMETRICS will show a DIM STRING prompting for the DIMENSION from the end. Accept the value that is shown by default by clicking your "enter" key.



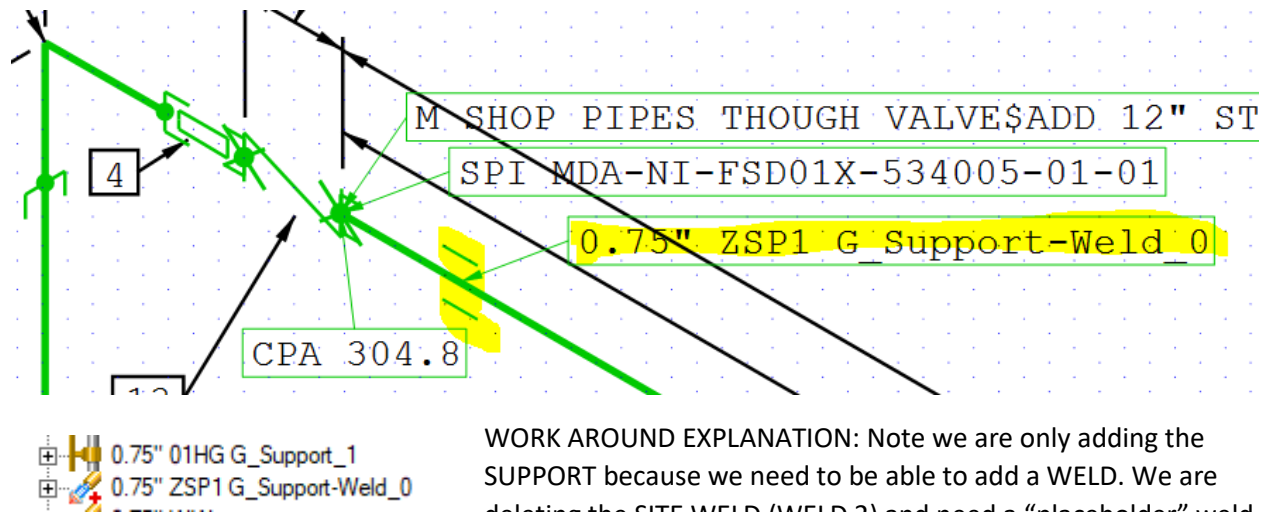
Next add a SUPPORT WELD.

On the ribbon at the top choose: Place > Weld > scroll down on the drop down to Support Weld. See below

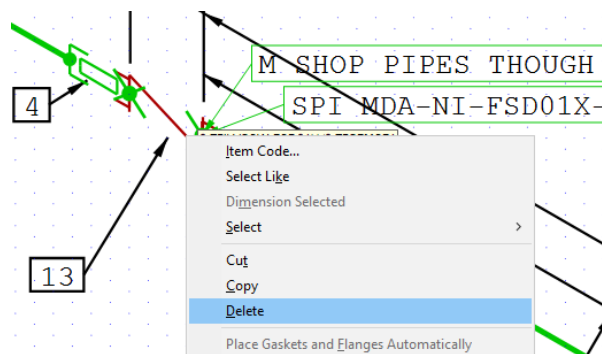


## SPOOLING THROUGH A VALVE WITH PIPE ON ONLY ONE SIDE

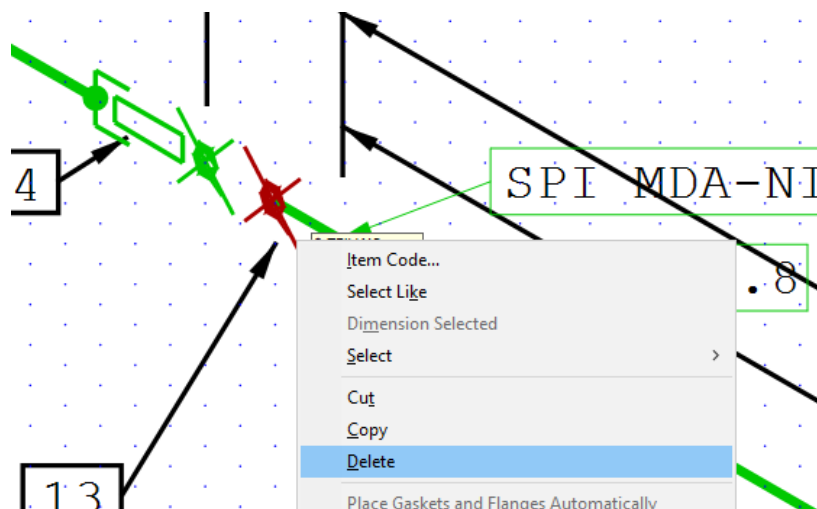
Then select the SUPPORT. Drawing area now looks like this. Note: on this line – we are only getting rid of one FIELD WELD – we only need to add one SUPPORT WELD.



WORK AROUND EXPLANATION: Note we are only adding the SUPPORT because we need to be able to add a WELD. We are deleting the SITE WELD (WELD 2) and need a “placeholder” weld – so that numbering stays the same. We have already generated the ER-DWG and we only need a spool sheet that shows “pipe” and no valve. Because the SUPPORT and weld are ERECTION category (by default) – the support and weld will not mess up the spool sheet. The ER-DWG and REPORTS are already generated – so the added support and weld will not mess up ER-DWG and REPORTS either.

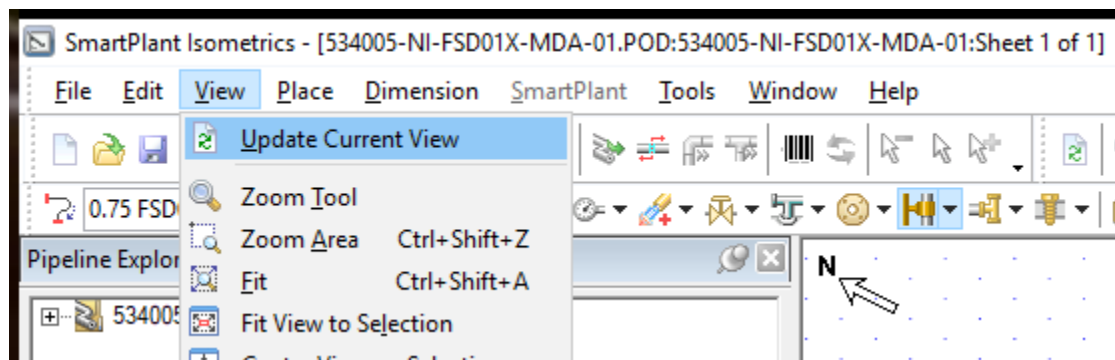


Step 4) Delete the VALVE. Here is how: select the valve > right click and delete.

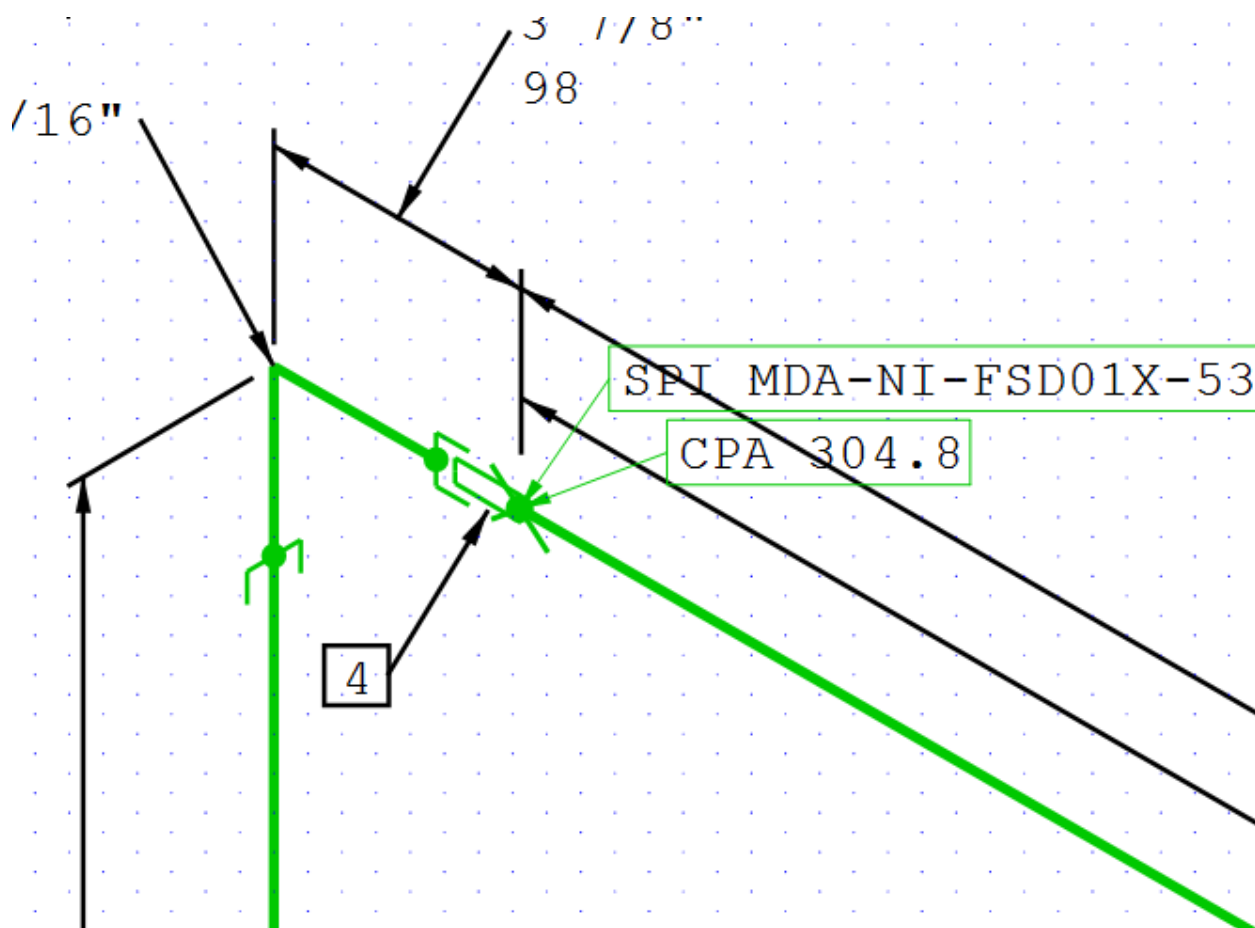


Step 5) Delete the weld at the end of the pipe. In our example this is WELD 2.

Step 6) Update current view by clicking on View > Update Current View

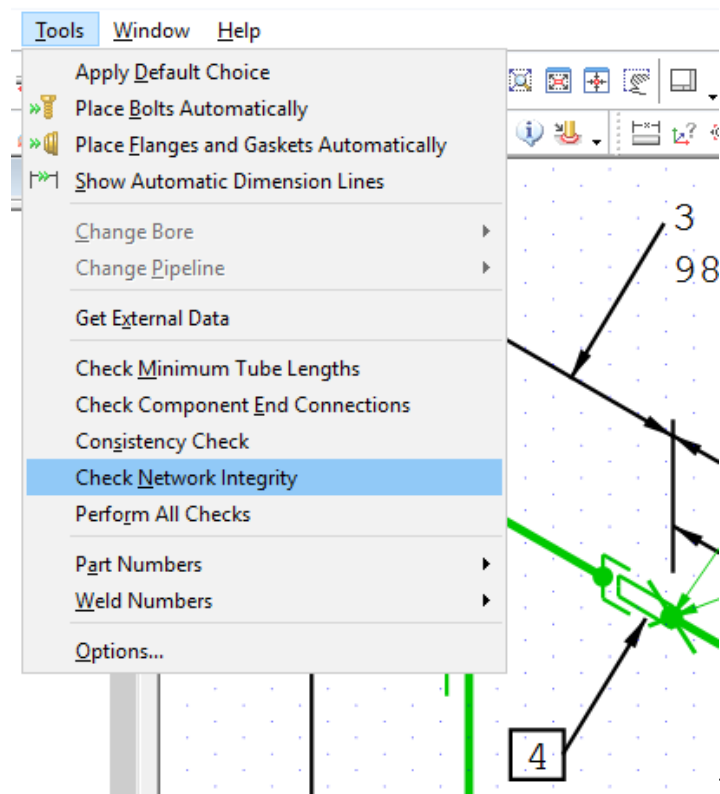


The drawing area should look like this:



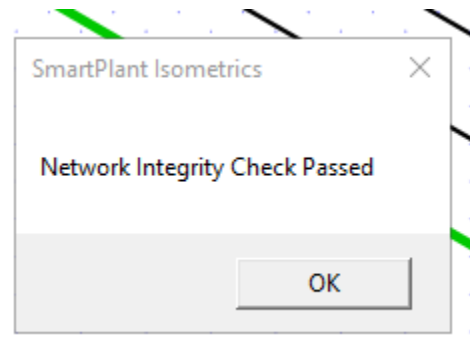
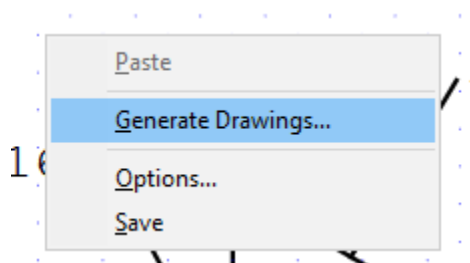
**Step 7)** Check Network Integrity. When working in ISOMETRICS – there is a TOOL that makes sure none of the changes have created a DISCONNECTED PIPE.

At the top of the ribbon click on Tools > Check Network Integrity.



This the screen that appears:

**Step 8)** Generate a practice drawing – which will put the modified PCF in the INPUTS folder. Right click in white space and choose Generate Drawings.



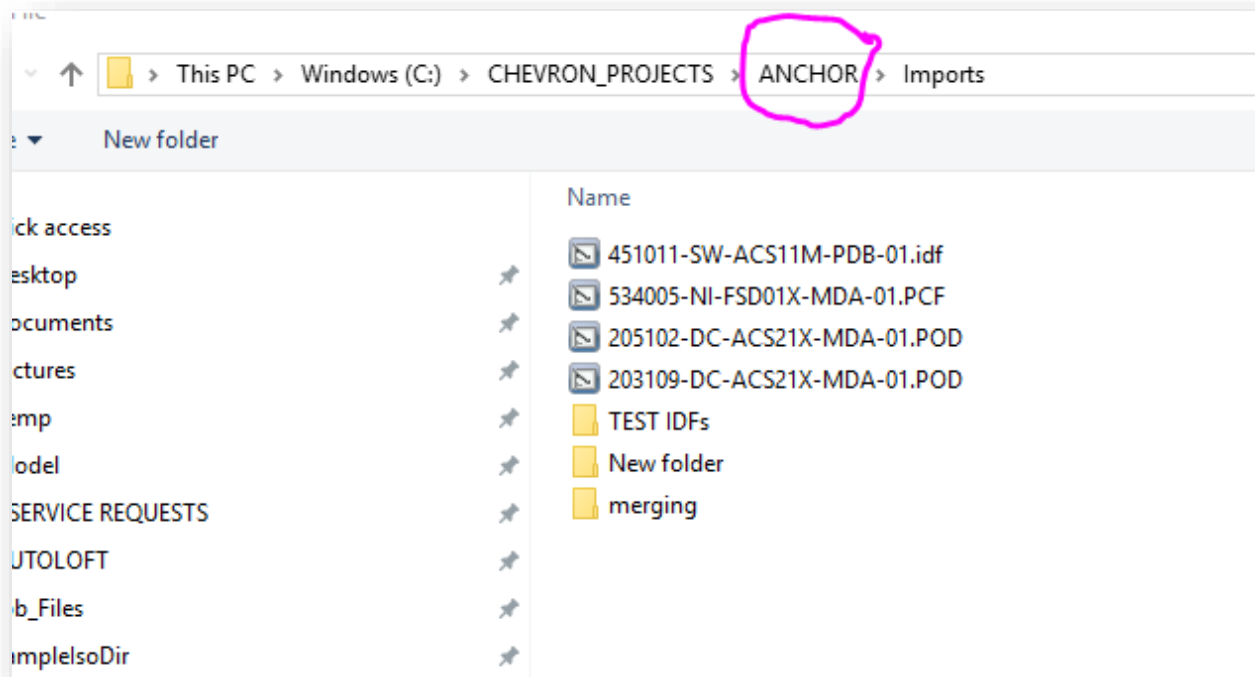
Choose the style called ANC-ER-DWG. It will show the error 34 message – since the “real” ER-DWG is open in AutoCAD. That is okay – it will still generate the PCF in the INPUTS folder and that is all that is required. It is not necessary to open the drawing – only need the PCF.

Tip: The rest of the PIPING-THROUGH-VALVE steps are in Spoolgen. But leave the file open in ISOMETRICS – just in case – there are issues.

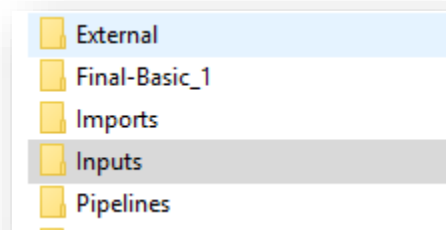


**Step 9)** Back in SPOOLGEN > import the modified PCF. Click on Project > Import File

Click on Anchor at the top of Import folder to go up one level in File Explorer



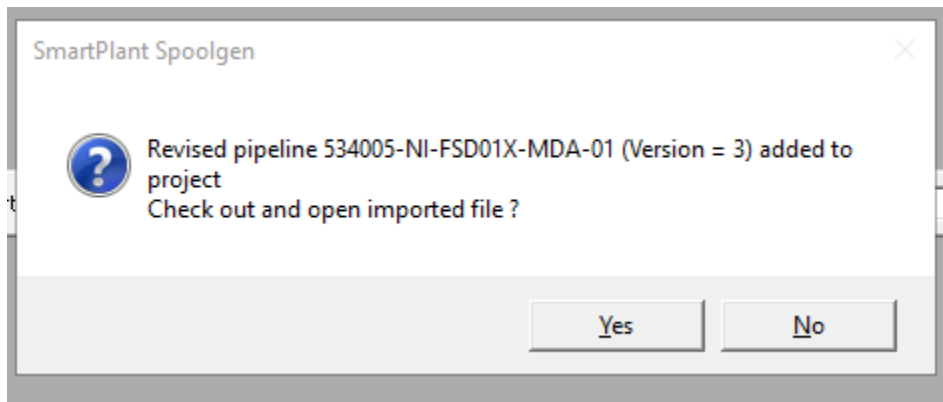
Choose the INPUTS folder



If your folder is sorted by Date Modified the MODIFIED PCF that was created in Isometrics is at the top of folder.

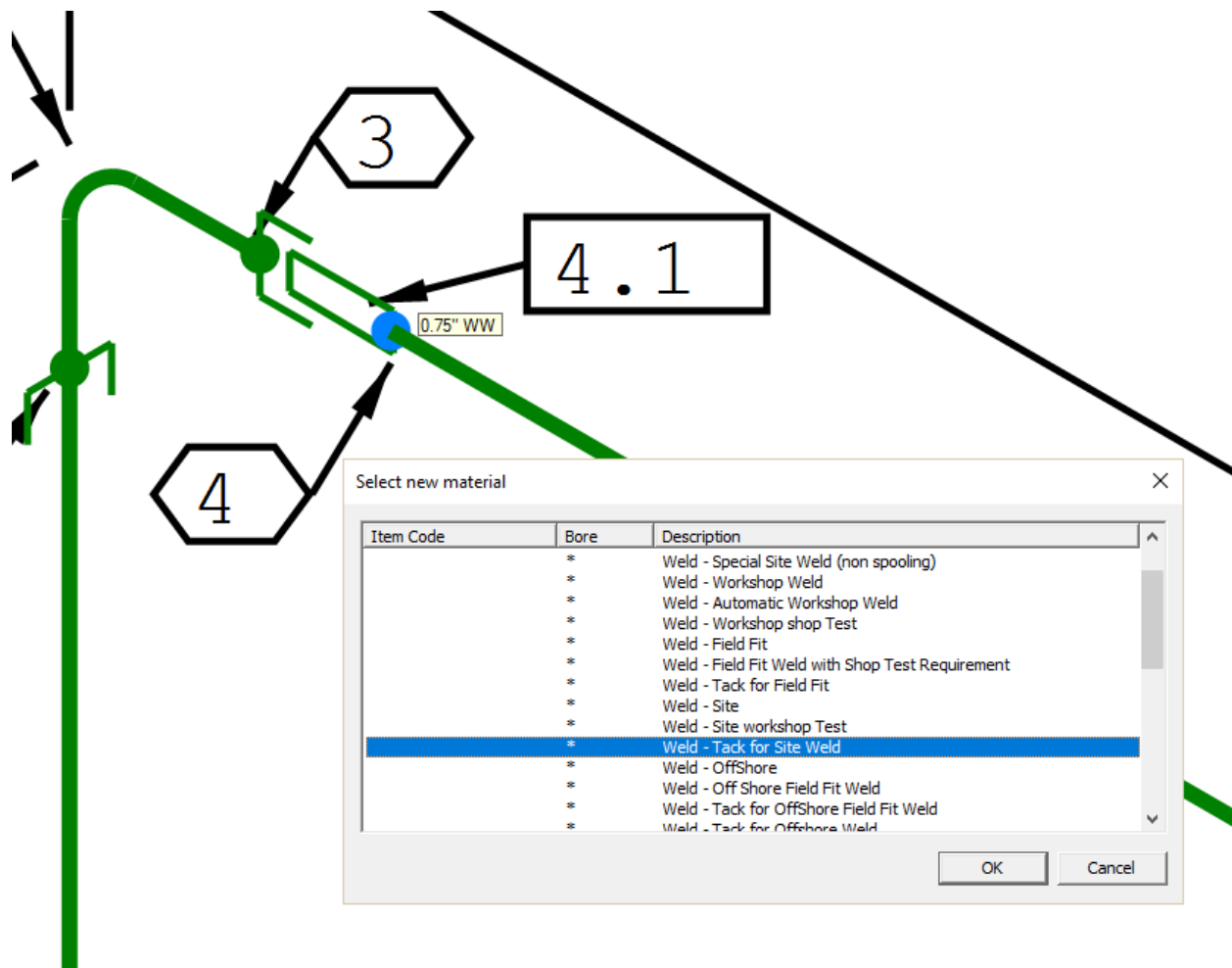
Windows (C:) > CHEVRON_PROJECTS > ANCHOR > Inputs			
Search Inputs			
Name	Date modified	Type	
534005-NI-FSD01X-MDA-01.PCF	09/22/2021 2:54 PM	PCF File	
451011-SW-ACS11M-PDB-01.idf	09/22/2021 10:54 ...	IDF File	
534005-NI-FSD01X-MDA-01.idf	09/22/2021 8:59 AM	IDF File	
434194-FW-RBD01M-PCN-02.PCF	09/22/2021 8:34 AM	PCF File	
434194-FW-RBD01M-PCN-02.idf	09/22/2021 8:11 AM	IDF File	
271005-LH-DCA21X-MDA-02.PCF	09/21/2021 6:12 PM	PCF File	

Click on open. During import we see the Revised Pipeline message > click on Yes.

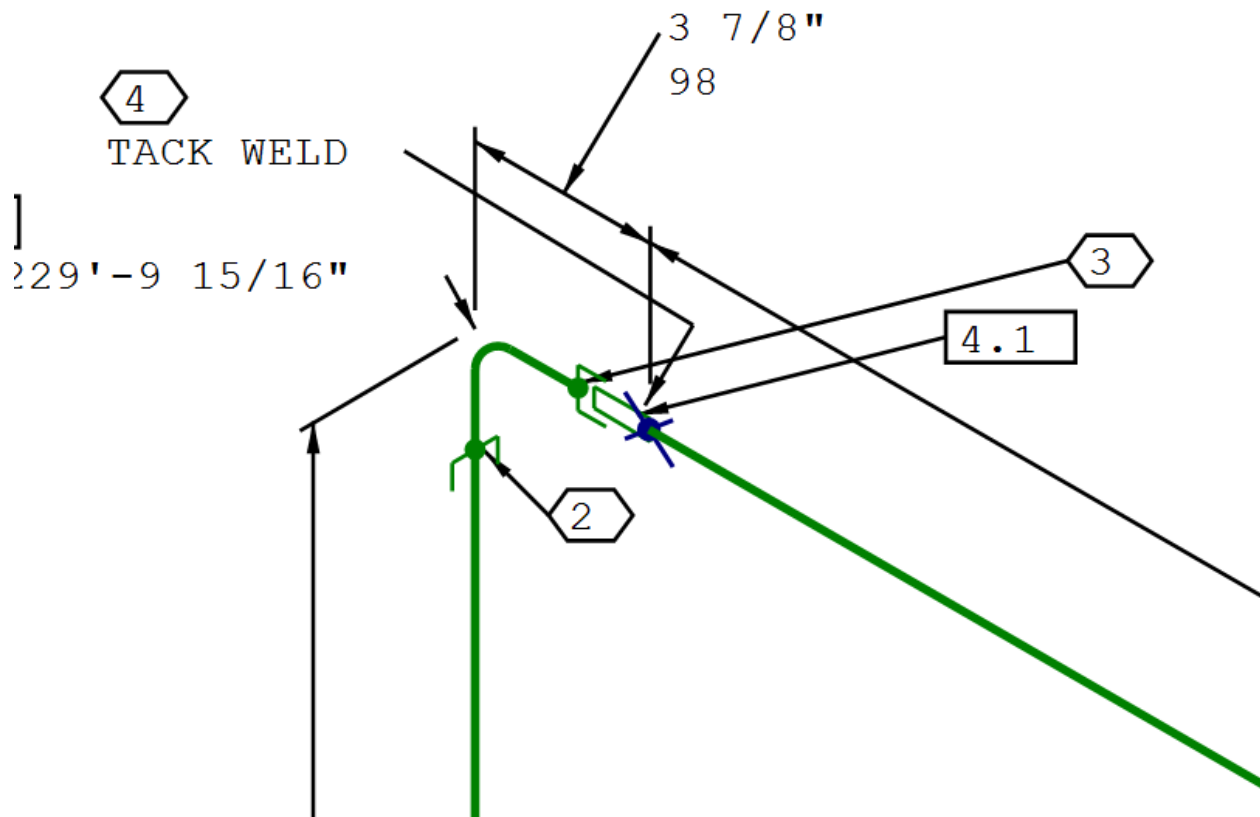


**Step 10)** Click on Tools > weld numbers clear > update current view and check the weld numbering. It should match the weld numbers that are shown on the ER-DWG exactly.

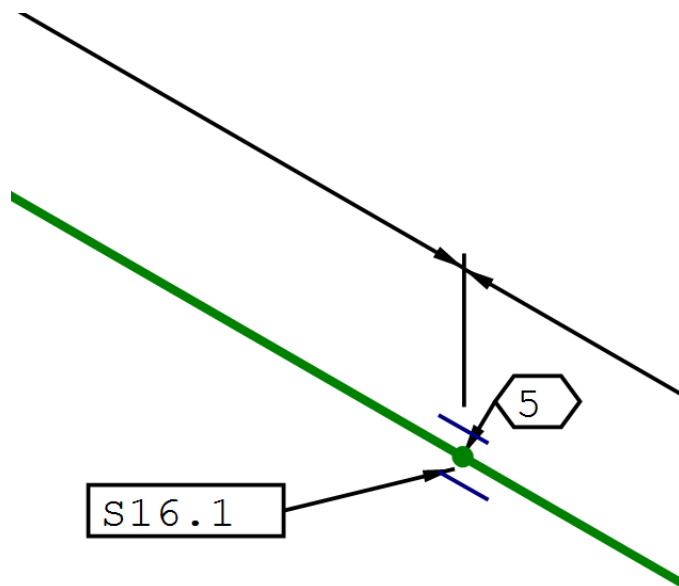
**Step 11)** Modify weld 4 and change it to a TACK WELD. (Weld – Tack for Site Weld) as the SHOP must tack the pipe to the NIPPLE.



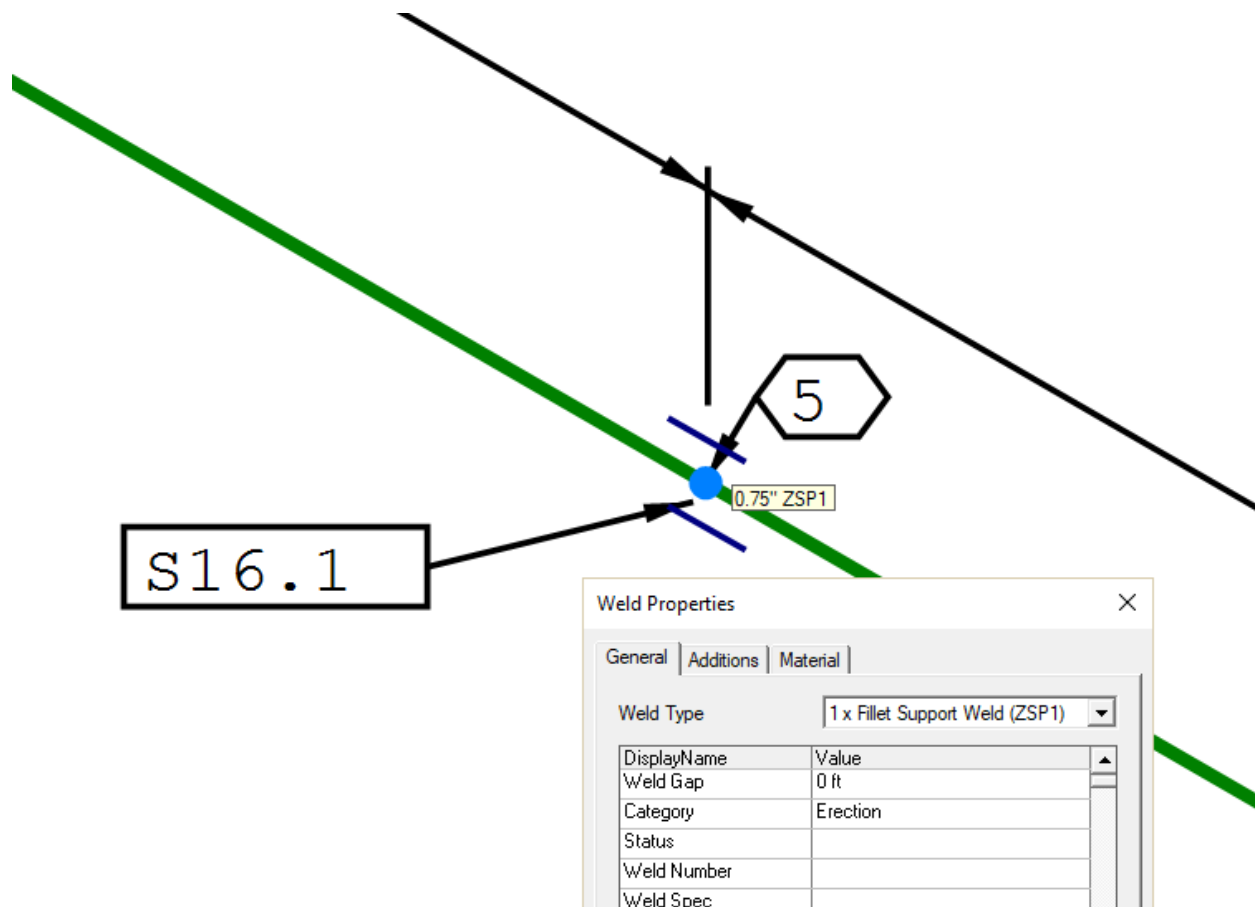
Update the current view and the TACK WELD looks like this:



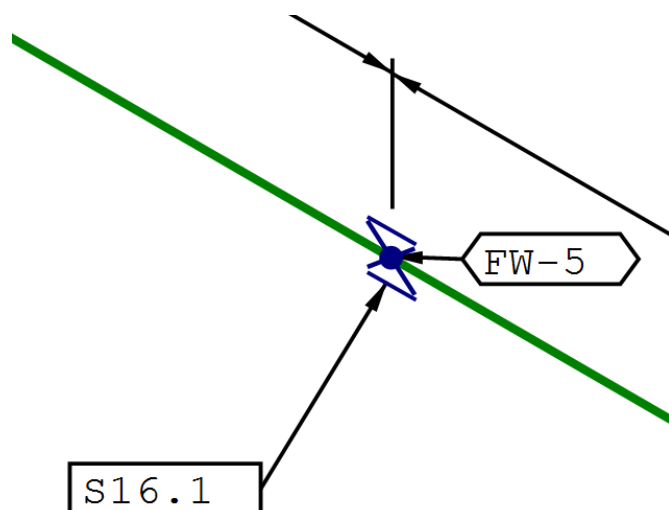
Step 11) Locate the support that was added in Isometrics. Note – when we deleted the valve – the support moved to a new location of its choosing. In this case it moved to the existing I-ROD location.



Select the weld and change it to Category – Erection. Apply and OK.



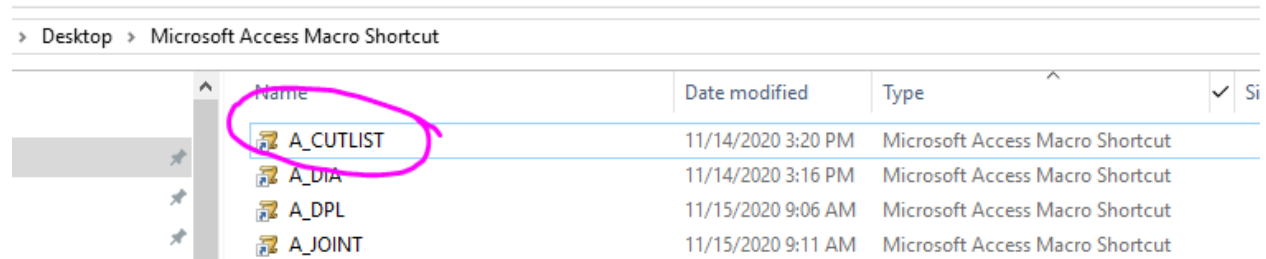
Update current view and the drawing area looks like this:



**Step 12)** Generate the SPOOL drawing. Check the drawing.

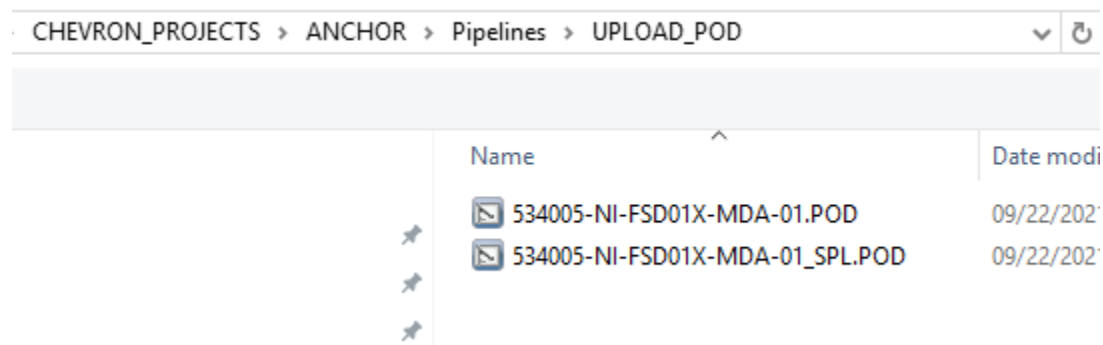
**Step 13)** Click the bat button to move the TXTS *and run only the CUTLIST REPORT.*

Here is how to run only the CUTLIST – locate the Microsoft Access Macro Shortcut on DESKTOP. The screen shot below shows DESKTOP filtered for macros. Double click on the macro to run CUTLIST.



Save the POD file – then “save-as” in the UPLOAD FOLDER and append \_SPL to end of POD NAME.

Lines with PIPED-THROUGH VALVES need two POD files – one for the ER-DWG and another for the SPOOL drawing as shown below:



If it is still open – close the POD file in SmartPlant Isometrics by clicking on File > Close at the top of the ribbon. At the prompt > save the changes. (Exit out of SmartPlant Isometrics.)

