

Brown Bag Lunch & Learn #16
1/24/07

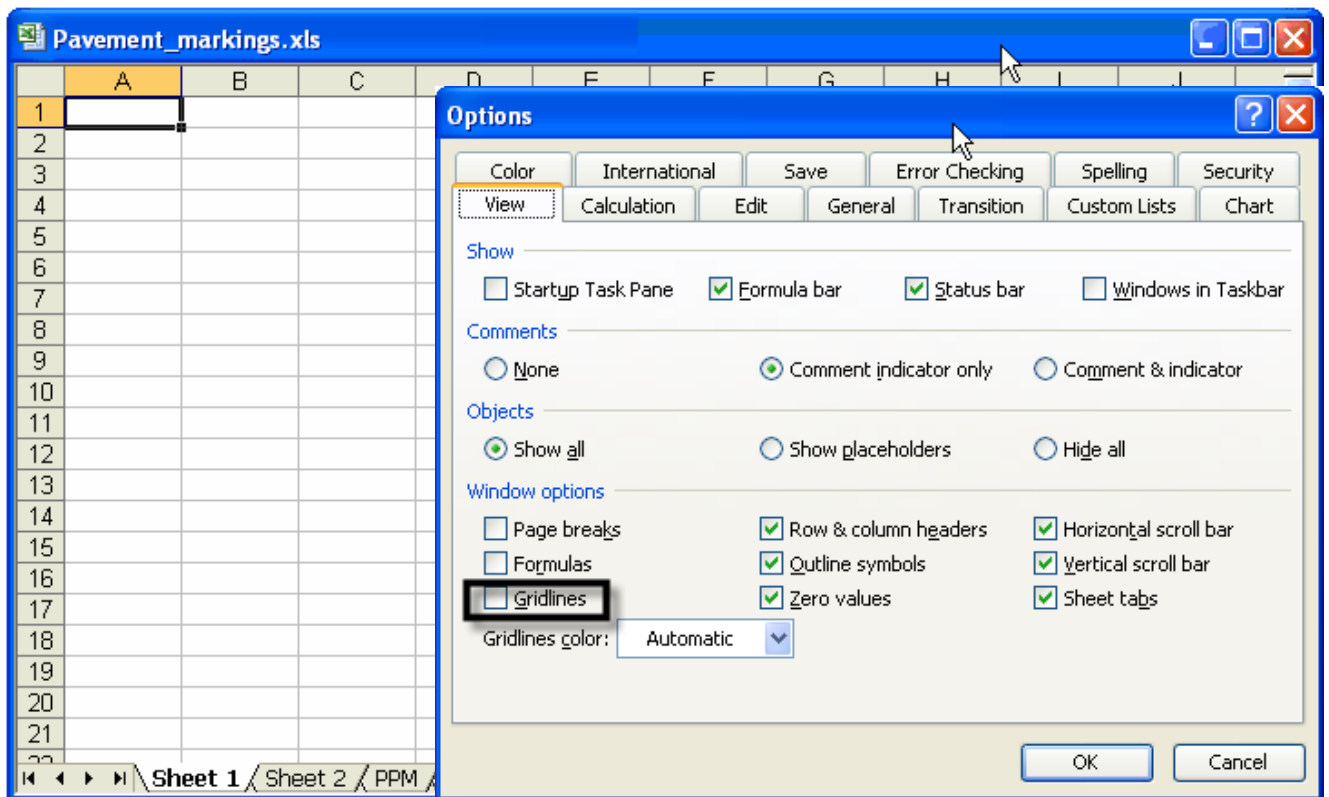
Topic: Linking an Excel Spreadsheet in a Microstation Drawing

Microstation has an improved process for linking Excel Spreadsheets into a drawing (*.dgn) file.

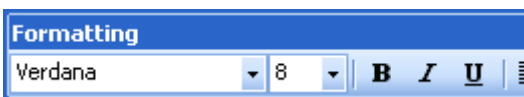
The method illustrated is an additional tool for creating tabulations of quantities within the PS&E package. One of the advantages to this method is to reduce the need to keep separate spreadsheets for quantity support calculations and miscellaneous summaries sheets.

To calculate quantities in Excel:

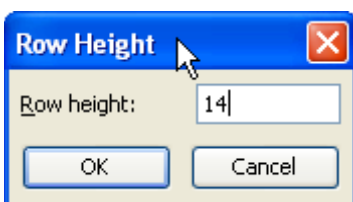
1. Open new Excel File.
2. To turn off grid lines, go to Tools> Options> View. Toggle off the gridlines, select OK.



3. Highlight all rows & columns. Set Font to Verdana 8 (Set Title Row = 10)



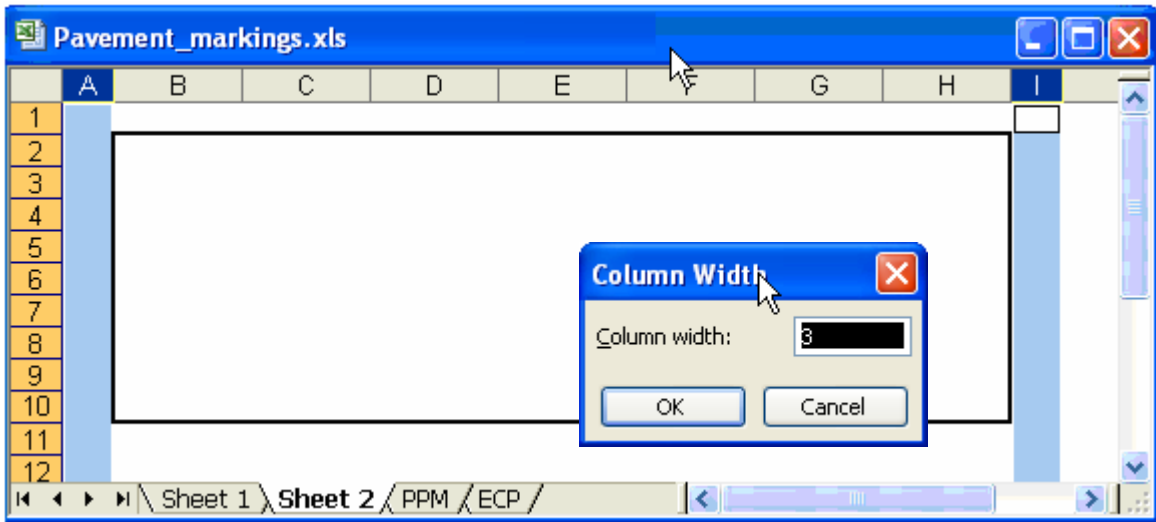
4. Highlight all rows and go to Format> Row> Height. Set all row height = 14 (Set Title Row = 20)



5. Leave Row 1 blank

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6. Set Column A (and the column after the last table column) to width between 3-5.



7. Set up table, including pay item number, description, unit:

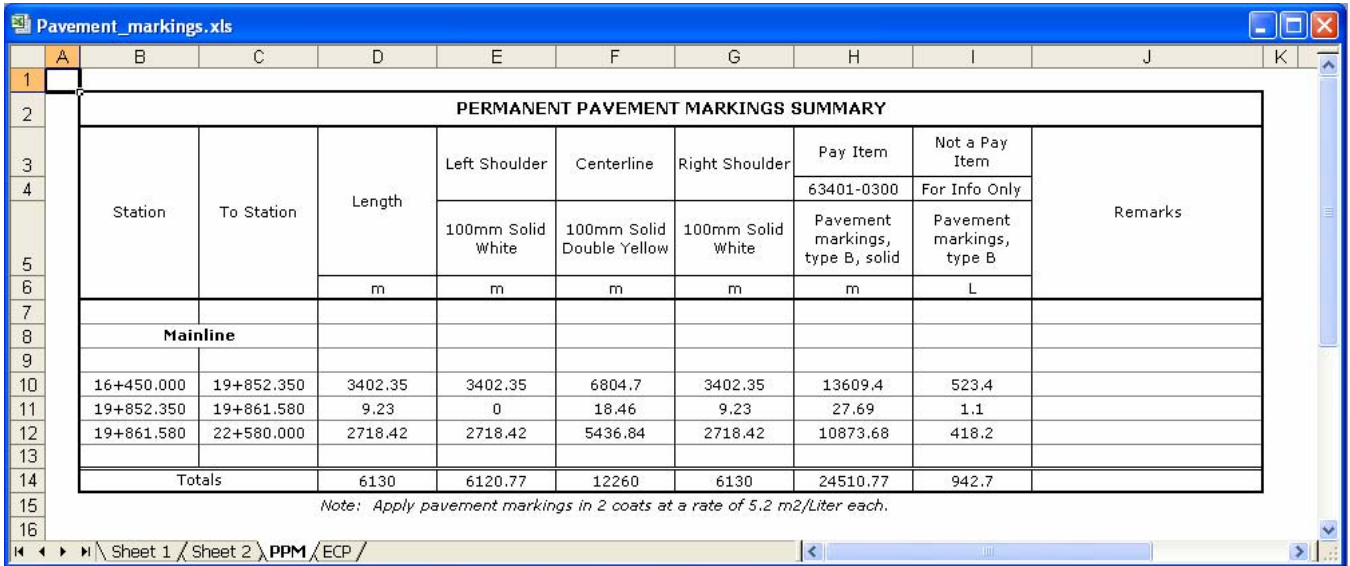
PERMANENT PAVEMENT MARKINGS SUMMARY								
Station	To Station	Length	Left Shoulder	Centerline	Right Shoulder	Pay Item	Not a Pay Item	Remarks
			100mm Solid White	100mm Solid Double Yellow	100mm Solid White	63401-0300	For Info Only	
		m	m	m	m	Pavement markings, type B, solid	Pavement markings, type B	
Mainline								

8. Support your calculations and assumptions:

PERMANENT PAVEMENT MARKINGS SUMMARY			
Station	To Station	Length	Left Shoulder
			100mm Solid White
		m	m
Mainline			
16+450.000	19+852.350	=C12-B12	3402.35
19+852.350	19+861.580		0
19+861.580	22+580.000		2718.42

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9. Complete the table (including remarks, notes, etc.)

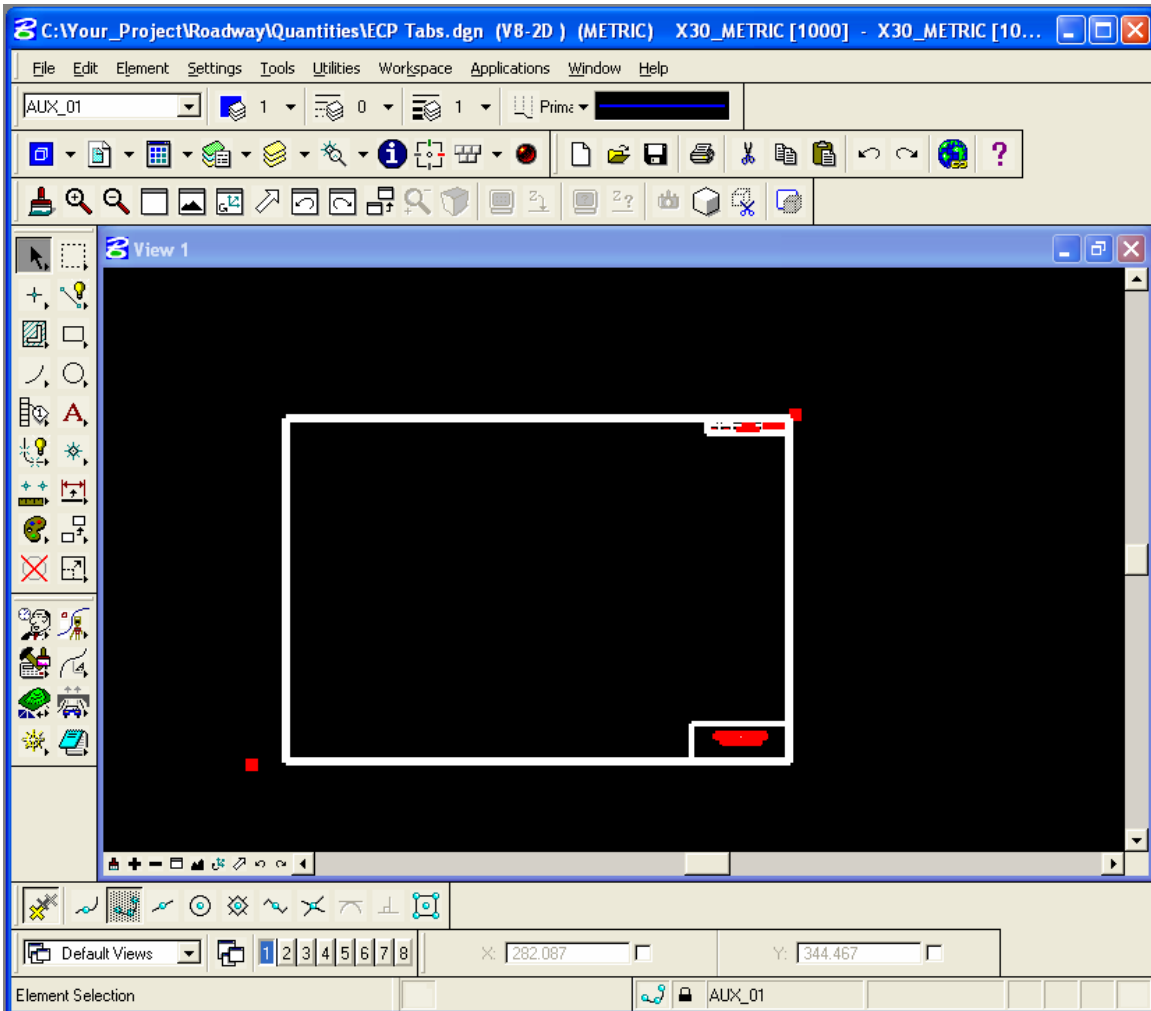


PERMANENT PAVEMENT MARKINGS SUMMARY									
Station	To Station	Length	Left Shoulder	Centerline	Right Shoulder	Pay Item	Not a Pay Item	Remarks	
			100mm Solid White	100mm Solid Double Yellow	100mm Solid White	63401-0300	For Info Only		
			m	m	m	m	L		
Mainline									
16+450.000	19+852.350	3402.35	3402.35	6804.7	3402.35	13609.4	523.4		
19+852.350	19+861.580	9.23	0	18.46	9.23	27.69	1.1		
19+861.580	22+580.000	2718.42	2718.42	5436.84	2718.42	10873.68	418.2		
Totals			6130	6120.77	12260	6130	24510.77	942.7	

Note: Apply pavement markings in 2 coats at a rate of 5.2 m²/Liter each.

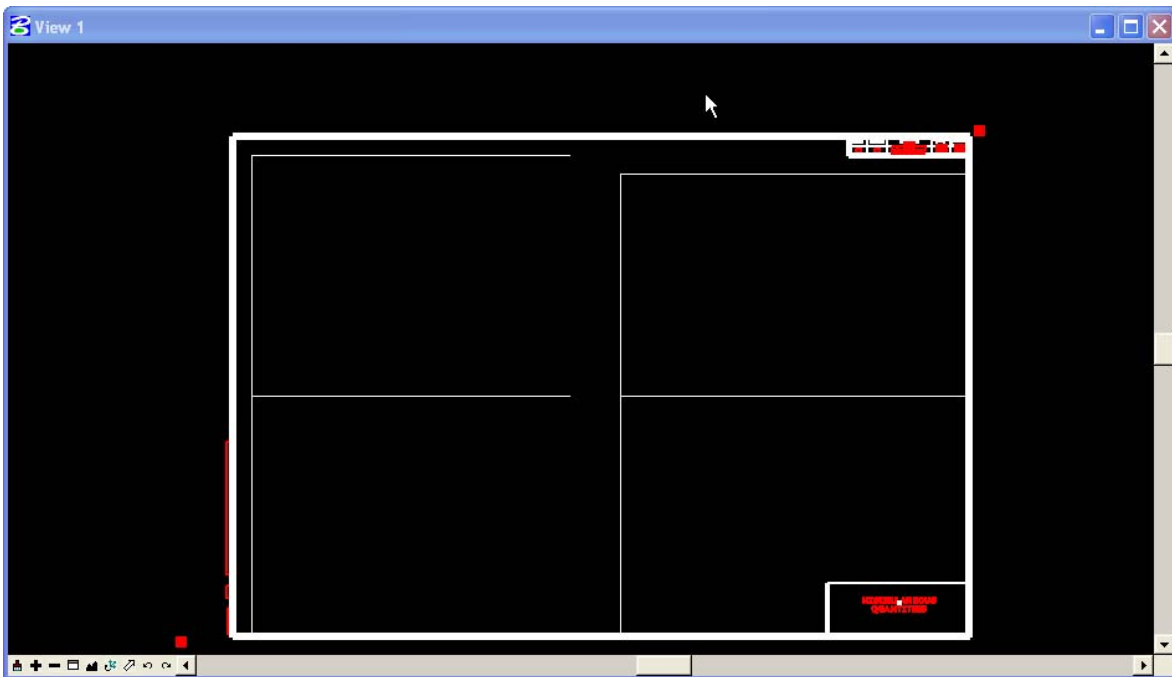
To set up the .dgn file:

1. Open a new file and reference the project border.



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- Draw construction lines to “line-up” your tables (Use level = Aux_07 and Active Element Class = Construction):



To attach/Link the Excel table in the .dgn file:

- Highlight the table to be linked (include one empty row and column on all sides):

The screenshot shows an Excel spreadsheet titled "Pavement_markings.xls". The spreadsheet contains a table with the following data:

PERMANENT PAVEMENT MARKINGS SUMMARY								
Station	To Station	Length	Left Shoulder	Centerline	Right Shoulder	Pay Item	Not a Pay Item	Remarks
			100mm Solid White	100mm Solid Double Yellow	100mm Solid White	63401-0300	For Info Only	
			m	m	m	m	L	
Mainline								
16+450.000	19+852.350	3402.35	3402.35	6804.7	3402.35	13609.4	523.4	
19+852.350	19+861.580	9.23	0	18.46	9.23	27.69	1.1	
19+861.580	22+580.000	2718.42	2718.42	5436.84	2718.42	10873.68	418.2	
Totals		6130	6120.77	12260	6130	24510.77	942.7	

Note: Apply pavement markings in 2 coats at a rate of 5.2 m²/Liter each.

- Select “Copy”



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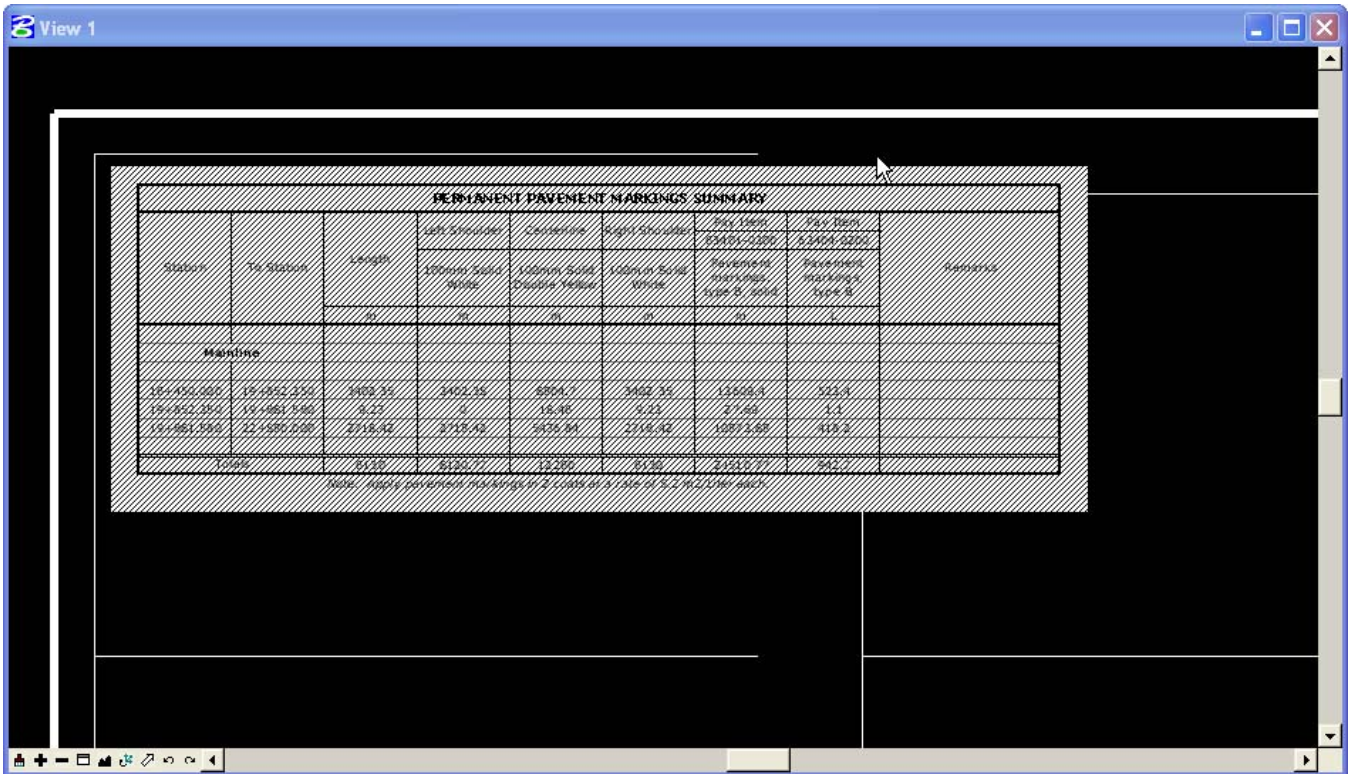
- In Microstation, select "Paste"



- Select Paste as "Link" and Method "By Size". For Metric plans, use Scale =1000 [US Customary Scale = 1150]



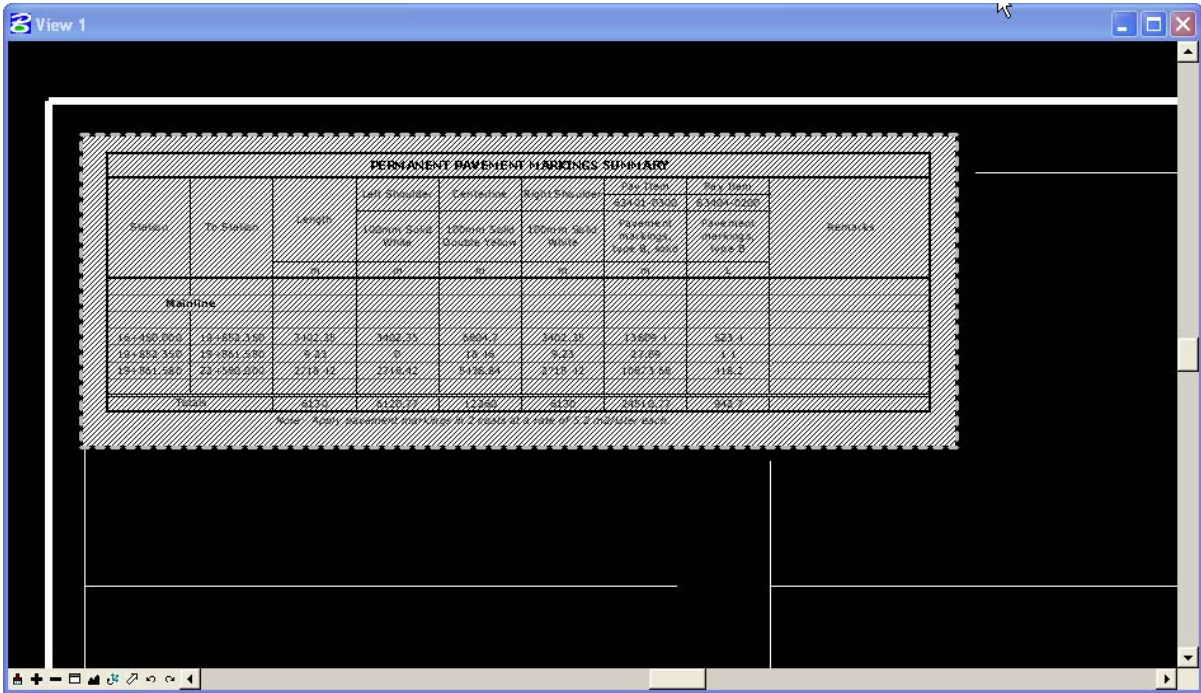
- Place Excel Link close to where you want to place it.



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6. Move link to the construction lines:



7. Repeat appropriate steps to complete Miscellaneous Summaries Sheets.

8. Update Links regularly (particularly before printing).

