

LAB 17 - Create a General Notes Sheet

The 12345DES_GenNote.dgn has been created in the project's \Design\Drawings folder through the create project utility. This sheet file currently is linked to a generic notes doc file in the CDOT workspace. However, the sheet files should reference the project-specific notes file, 12345GeneralNote.dgn located in the \Design\Drawings\Reference Files folder. You must first update the references in the sheet file to point to the project notes, and then edit the project notes file to be project-specific.

Note: This process is the same for any specialty group.

Chapter Objectives:

After completing this exercise you will know how to:

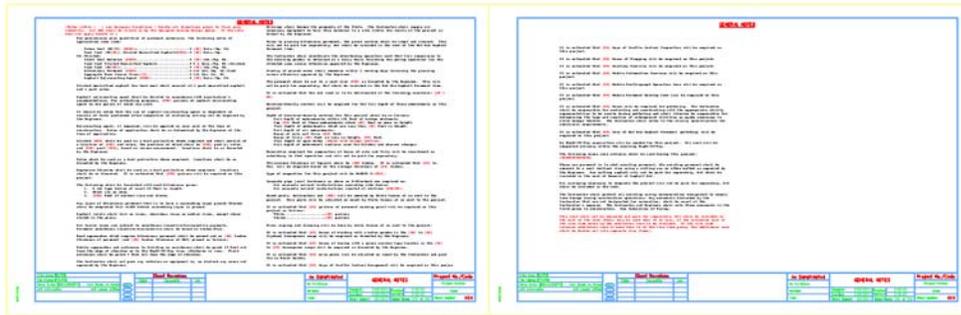
- Open a project notes sheet file.
- Update the Word document link to point to the 12345 project directory.
- Edit the project-specific general notes Word file.
- Re-link the General Notes Word file to the Notes sheet file.

Lab 17.1 - Create Project General Notes Sheet

Updating Links

1. Start MicroStation and open the file 12345DES_GenNote##.dgn from the C:\Projects\12345\Design\Drawings folder.

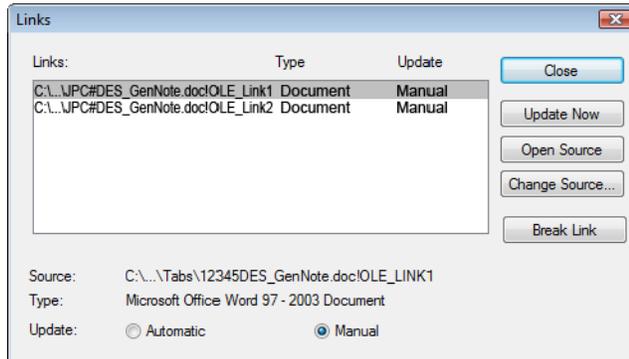
THESE GENERAL NOTES SHEETS ARE LINKED TO A DOCUMENT FILE (DES_GenNote.DOC). TO EDIT, DOUBLE CLICK ON GRAPHIC. IF YOU EDIT THE FILE AND INFORMATION WRAPS FROM ONE SHEET TO ANOTHER RE-LINK THE FILES!
TO LINK FILES, FIRST DELETE LINK THEN COPY INFORMATION OUT OF DOCUMENT FILE (DES_GenNote.DOC). IN MICROSTATION GO TO EDIT>PASTE SPECIAL, SELECT THE LINKED MICROSOFT OFFICE DOCUMENTS, SELECT METHOD TO BE BY SIZE, FILL IN 16, CENTER AND PLACE DOCUMENT.



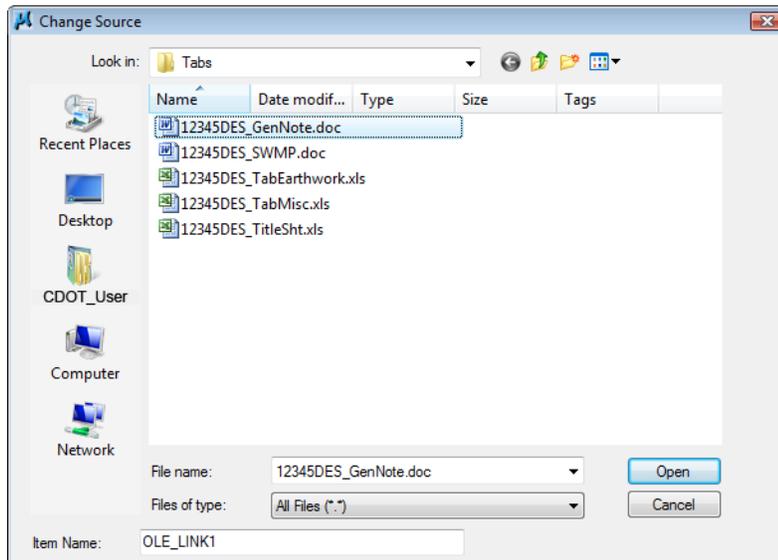
This file was automatically generated by the create project utility program and contains links to a General Notes Word document in the generic project template folder. You will need to update these links to the General Notes Word document in the project folder.

2. Select Edit > Links.

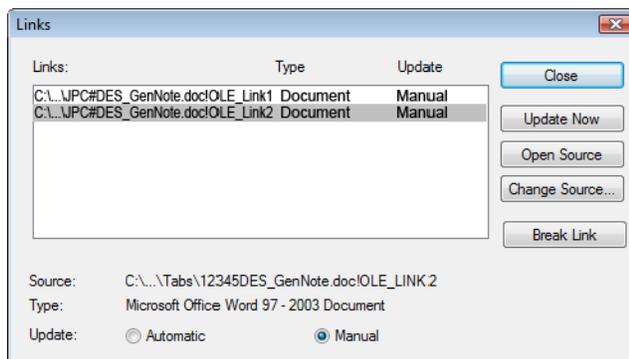
- Highlight the first link in the list and select **Change Source**.



- In the **Change Source** dialog box, set the Look in folder to **C:\Projects\12345\Design\Drawings\Tabs** and select the file **12345DES_GenNote.doc**.



- Select **Open** to update the link.
- Repeat this process for the second link.



7. Close the Links dialog box.
8. Save Settings (File > Save Settings).

The General Notes sheet file is now linked to the GenNotes.doc file in the project-specific folder. You can now edit the Word file for your project-specific requirements.

Editing the Notes

1. Double click on the first notes link (left sheet).

This opens Microsoft Word and the GenNotes.doc file.

[Notes within [] are designer directions - delete all directions prior to final plan submittal. All XXX shall be filled in by the designer during design phase. If the note does not apply delete it.]

For preliminary plan quantities of pavement materials, the following rates of application were used:

Prime Coat (MC-70) [XXXX]@ [XX] Gals./Sq. Yd.
 Seal Coat (RC[XX]) Diluted Emulsified Asphalt [XXXX]@ [XX] Gals./Sq. Yd. (Diluted)
 Cover Coat Material [XXXX]@ [XX] Lbs./Sq. Yd.
 Tack Coat Diluted Emulsified Asphalt@ 0.1 Gals./Sq. Yd. (Diluted)
 Tack Coat (AC[XX])@ [XX] Lbs./Sq. Yd.
 Bituminous Pavement [XXXX]@ 110 Lbs./Sq. Yd./Inch
 Aggregate Base Course Class-[X]@ 133 Lbs./Cu. Ft.
 Asphalt Rejuvenating Agent [XXXX]@ [XX] Gals./Sq. Yd.

Diluted emulsified asphalt for tack coat shall consist of 1 part emulsified asphalt and 1 part water.

Asphalt rejuvenating agent shall be diluted in accordance with manufacture's recommendations. For estimating purposes, [XXX] gallons of asphalt rejuvenating agent to one gallon of water was used.

It should be noted that the use of asphalt rejuvenating agent is dependent on results of tests performed after completion of surfacing and may not be required by the Engineer.

Rejuvenating agent, if required, will be applied as seal coat at the time of construction. Rates of application shall be as determined by the Engineer at the time of application.

Diluted [XXX] shall be used as a dust palliative where required and shall consist of a dilution of [XXX] and water, the portions of which shall be [XXX] part(s) water and [XXX] part [XXX], based on volume measurement. Locations shall be as directed by the Engineer.

Water shall be used as a dust palliative where required. Locations shall be as directed by the Engineer.

Magnesium Chloride shall be used as a dust palliative where required. Locations shall be as directed. It is estimated that [XXX] gallons will be required on this project.

The following shall be furnished with each bituminous paver:

1. A ski type device at least 30 Feet in length.
2. Short ski or shoe.
3. [XXX] Feet of control line and stakes.

Any layer of bituminous pavement that is to have a succeeding layer placed thereon shall be

Prior to placing bituminous be paid for separately, but

The Contractor shall coordi existing grades is obtained unless otherwise approved b

Overlay of planed areas sha otherwise approved by the E

The pavement shall be cut t for separately, but shall b

It is estimated that the ol

Moisture-density control wd

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All concrete culvert in

All concrete culvert in

Guard posts, delineators an

Mile posts will be adjusted

It is estimated that [XX] g

2. Read the first instructional paragraph (red text) and then delete it.
3. Delete the following text:

Prime Coat (MC-70) [XXXX]@ .XX Gals./Sq. Yd.
 Seal Coat (RC[XX]) Diluted Emulsified Asphalt [XXXX]@ XX Gals./Sq. Yd. (Diluted)
 Cover Coat Material [XXXX]@ XX Lbs./Sq. Yd.
 Tack Coat (AC[XX])@ XX Lbs./Sq. Yd.
 Asphalt Rejuvenating Agent [XXXX]@ XX Gals./Sq. Yd.

4. Edit the following text to read as follows:

Tack Coat Diluted Emulsified Asphalt@ 0.1 Gals./Sq. Yd. (Diluted)

Bituminous Pavement.....@ 110 Lbs./Sq. Yd./Inch
 Aggregate Base Course (Class 6).....@ 133 Lbs/Cu Yd

- At the bottom of the first column, add a blank line to place the paragraph beginning “*The Contractor shall coordinate the shouldering...*” at the top of the next column.

<p>Asphalt joints shall fall on lines, shoulders lines or median lines, except where stated in the plans.</p> <p>All travel lanes are subject to smoothness incentive/disincentive payments. Pavement smoothness incentive/disincentive shall be based on Inches/Mile.</p> <p>Road approaches which require bituminous pavement shall be primed and an [XX] Inches thickness of pavement (and [XX] Inches thickness of ABC) placed as follows:</p> <p>Public approaches and entrances to building or residences shall be paved 50 Feet out from the edge of shoulder or to the Right-Of-Way line, whichever is less. Field entrances shall be paved 4 Feet out from the edge of shoulder.</p> <p>The Contractor shall not park any vehicles or equipment in, or disturb any areas not approved by the Engineer.</p> <p>Millings shall become the property of the State. The Contractor shall supply all necessary equipment to haul this material to a site within the limits of the project as direct by the Engineer.</p> <p>Prior to placing bituminous pavement, the paved surface shall be swept and cleaned. This will not be paid for separately, but shall be included in the cost of the Hot Mix Asphalt Pavement item.</p> <p>The Contractor shall coordinate the shouldering operation such that full compliance to the existing</p>	<p>It is estimated that [XX] gallons of pavement mar follows: White.....[XX] gallons Yellow.....[XX] gallons</p> <p>Final signing and striping will be done by state</p> <p>It is estimated that [XX] hours of blading with a horsepower range will be required as directed by</p> <p>It is estimated that [XX] hours of dozing with a horsepower range will be required as directed by</p> <p>It is estimated that [XX] mile posts will be adj Reset Marker.</p> <p>It is estimated that [XX] days of Traffic Control</p> <p>It is estimated that [XX] days of Traffic Control</p> <p>It is estimated that [XX] hours of Flagging will</p> <p>It is estimated that [XX] Sanitary Facility will</p> <p>It is estimated that [XX] Public Information Ser</p> <p>It is estimated that [XX] Mobile Profilograph Op</p>
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It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

- Look at the top of the next page and note that your edits have adjusted the text wrapping. The next page now starts with the note:

It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

<p>Millings shall become the property of the State. The Contractor shall supply all necessary equipment to haul this material to a site within the limits of the project as direct by the Engineer.</p> <p>Prior to placing bituminous pavement, the paved surface shall be swept and cleaned. This will not be paid for separately, but shall be included in the cost of the Hot Mix Asphalt Pavement item.</p>	<p>It is estimated that [XX] days of Traffic Control</p> <p>It is estimated that [XX] days of Traffic Control</p> <p>It is estimated that [XX] hours of Flagging will</p> <p>It is estimated that [XX] Sanitary Facility will</p> <p>It is estimated that [XX] Public Information Ser</p> <p>It is estimated that [XX] Mobile Profilograph Op</p>
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It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

No Right-Of-Way acquisition will be needed for this project. All work will be completed entirely within the existing Right-Of-Way.

The following clear zone criteria shall be used during this project: [XXXXXXXXXXXXXX]

- Review the text to make sure the edits are correct. If not, edit the text again until you’re satisfied.
- In Word, select File > Exit and select Yes when prompted to save changes.

You are returned to the General Notes sheet in MicroStation.

Review the changes in the sheet file

- Zoom in on the notes on the first sheet and note your text edits have been updated in the DGN file.

GENERAL NOTES

For preliminary plan quantities of pavement materials, the following rates of application were used:

Tack Coat Diluted Emulsified Asphalt.....@ 0.5 Gals./Sq. Yd.(Diluted)	
Bituminous Pavement	@ 110 Lbs./Sq. Yd./Inch
Aggregate Base Course Class (Class 6).....@ 133 Lbs./Cu. Ft.	

Diluted emulsified asphalt for tack coat shall consist of 1 part emulsified asphalt and 1 part water.

Asphalt rejuvenating agent shall be diluted in accordance with manufacture's recommendations. For estimating purposes, [XXX] gallons of asphalt rejuvenating agent to one gallon of water was used.

It should be noted that the use of asphalt rejuvenating agent is dependent on results of tests performed after completion of surfacing and may not be required by the Engineer.

Rejuvenating agent, if required, will be applied as seal coat at the time of construction. Rates of application shall be as determined by the Engineer at the time of application.

Diluted [XXX] shall be used as a dust palliative where required and shall consist of a dilution of [XXX] and water, the portions of which shall be [XXX] part(s) water and [XXX] part [XXX], based on volume measurement. Locations shall be as directed by the Engineer.

Water shall be used as a dust palliative where required. Locations shall be as directed by the Engineer.

Magnesium Chloride shall be used as a dust palliative where required. Locations shall be as directed. It is estimated that [XXX] gallons will be required on this project.

The following shall be furnished with each bituminous paver:

1. A ski type device at least 30 feet in length.
2. Short ski or shoe.
3. [XXX] Feet of control line and stakes.

Any layer of bituminous pavement that is to have a succeeding layer placed thereon shall be completed full width before succeeding layer is placed.

Asphalt joints shall fall on lines, shoulders lines or median lines, except where stated in the plans.

All travel lanes are subject to smoothness incentive/disincentive payments. Pavement smoothness incentive/disincentive shall be based on Inches/Mile.

Road approaches which require bituminous pavement shall be primed and an [XX] Inches thickness of pavement (and [XX] Inches thickness of ABC) placed as follows:

.....

The Contractor shall coordinate the shouldering operation such that full compliance to the existing grades is obtained on a daily basis following the paving operation for the affected area unless otherwise approved by the Engineer.

Overlay of planed areas shall commence within 5 working days following the planning unless otherwise approved by the Engineer.

The pavement shall be cut to a neat line [XXX] as directed by the Engineer. This will not be paid for separately, but shall be included in the Hot Mix Asphalt Pavement item.

It is estimated that the old road is to be obliterated at the following locations: [XX + XX]

Moisture-density control will be required for the full depth of those embankments on this project.

Depth of moisture-density control for this project shall be as follows:

- Full depth of embankments within 100 Feet of bridge abutments.
- Top [XX] Feet of these embankments which [XX] feet or more in height.
- Full depth of embankments which are less than [XX] Feet in height.
- Full depth of all embankments:

- Bases of cuts and fills [XX] Feet.
- Bases of fills [XX] feet or less in height, [XX] feet.
- Full depth of spur dikes [check with bridge section].
- Full depth of embankment sections used for ditches and channel changes.

Excavation required for compaction of bases of cuts and fills will be considered as subsidiary to that operation and will not be paid for separately.

The minimum thickness of topsoil shall be [XXX] Inches. It is estimated that [XX] Cu. Yds. will be required based on the average thickness of [XX] Inches.

Type of compaction for this project will be AASHTO T-[XXX].

Concrete pipe joint fasteners as shown on M-Standard are required on:

- All concrete culvert installations excluding side drains.
- All concrete culvert installations located at stations [XXXXX].

Guard posts, delineators and [XXX] will be removed by State forces at no cost to the project. Mile posts will be adjusted or reset by State forces at no cost to the project.

It is estimated that [XX] gallons of pavement marking paint will be required on this project as follows:

- White.....[XX] gallons
- Yellow.....[XX] gallons

Final signing and striping will be done by state forces at no cost to the project.

It is estimated that [XX] hours of blading with a motor grader in the [XX] to [XX] flywheel

.....

- Zoom in on the notes on the second sheet (right side) and notice that your edits have *not* been updated in the file.

It is estimated that [XX] days of Traffic Control Inspection will be required on this project.

It is estimated that [XX] hours of Flagging will be required on this project.

It is estimated that [XX] Sanitary Facility will be required on this project.

It is estimated that [XX] Public Information Services will be required on this project.

It is estimated that [XX] Mobile Profilograph Operation Zone will be required on this project.

It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

No Right-Of-Way acquisition will be needed for this project. All work will be completed

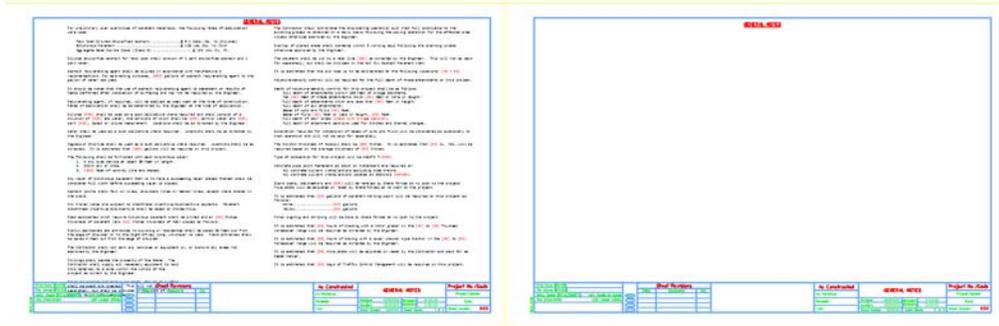
Note: If you make edits that change the wrapping of text between pages in the Word document, you must re-link the file for the edits to update in the MicroStation DGN file.

Re-link the Word document

- Use the Element Selection tool to select the Word document link on the second (right-side) sheet.

2. Select Delete.

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3. Double-click on the Word document link on the first sheet to open the GenNotes.doc file.
4. Highlight all of the text on the second page and select Edit > Copy in Word.

Prior to placing bituminous pavement, the paved surface shall be swept and cleaned. This will not be paid for separately, but shall be included in the cost of the Hot Mix Asphalt Pavement item.

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It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

No Right-Of-Way acquisition will be needed for this project. All work will be completed entirely within the existing Right-Of-Way.

The following clear zone criteria shall be used during this project: [XXXXXXXXXXXXXXXX]

Where new pavement is to abut existing pavement, the existing pavement shall be removed to a neat vertical line using a cutting saw or other method as approved by the Engineer. Saw cutting asphalt will not be paid for separately, but shall be included in the cost of Removal of Asphalt Mat.

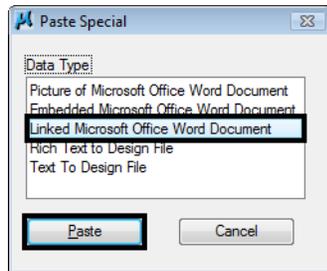
All surveying necessary to complete the project will not be paid for separately, but shall be included in the work.

The Contractor shall protect all existing survey monumentation designated to remain from damage during construction operations. Any monuments disturbed by the Contractor that are not designated for relocation, shall be reset at the Contractor's expense. The Contractor and Engineer shall note those monuments in the field prior to construction. See Tabulation of Survey.

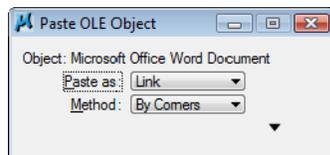
This work shall not be measured and paid for separately, but shall be included in the cost of the work.[Shall only be used when 5% or less, of the estimated cost of the line item makes up the additional work to be included. If the line item involves additional work of more than 5% of the line item price, the additional work shall be broken out into separate line items].

5. Do not close Word.
6. Switch to the MicroStation application.

- In MicroStation, select **Edit > Paste Special** and select the **Linked Microsoft Office Word Document** option and then select **Paste**.

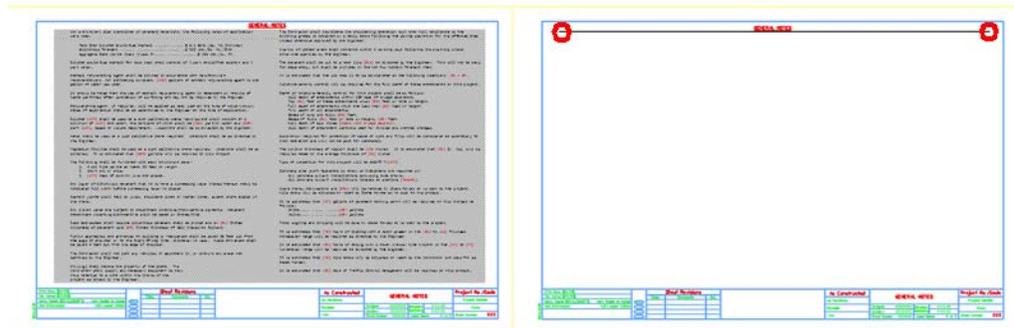


- In the **Paste OLE** box, set **Paste As** to **Link** and **Method** to **By Corners**.

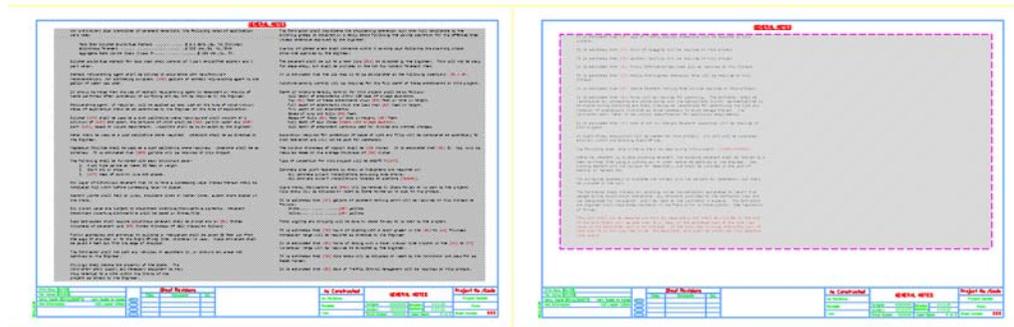


- Snap to the two ends of the top guideline as shown.

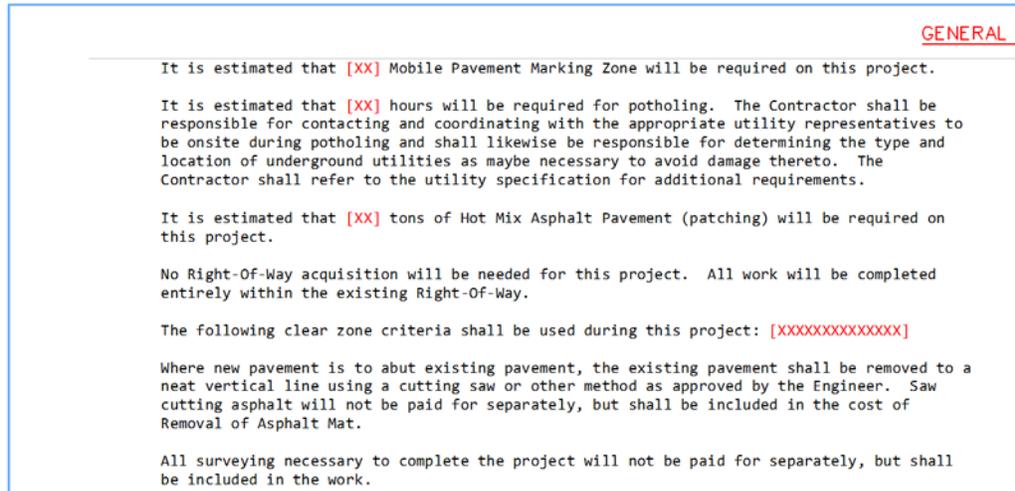
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10. Zoom in to review the notes and notice that the link has been updated to reflect your edits.



11. Switch over to the Word document and select **File > Exit**. If prompted to save the file, select **Yes**.
12. In MicroStation, **Fit** the view.
13. **Save Settings**.
14. **Exit MicroStation**.