Accessibility Formatting Guidelines

March 2026

The Michigan Department of Transportation (MDOT) is committed to ensuring that all research reports are fully accessible and available without restrictions. To support this commitment, MDOT Research Administration has developed this accessibility formatting guide to assist in preparing research reports that meet applicable federal accessibility standards.

MDOT adheres to the Web Content Accessibility Guidelines (WCAG) 2.1 AA standards, and all new and existing digital systems and content must comply with these requirements. This guide provides additional directions specific to research reports and serves as a resource to help ensure alignment with these standards. Final deliverables intended for online publication must include a Microsoft Word version. If a final Word version is not provided, vendors will be responsible for addressing and remediating any accessibility issues that arise.

A comprehensive Accessibility Compliance Checklist is included at the end of this guide to assist in verifying that documents meet all MDOT accessibility requirements prior to submission. Draft documents may be submitted to the MDOT Librarian, Jennifer Herron, at HerronJ1@Michigan.gov. Please allow at least one week for review and comment.

# Contents

What's New (March 2026)

- A Microsoft Word version of all final deliverables must be included for any submissions that will be posted on a State of Michigan website.

- Draft documents may be submitted to the MDOT Librarian for review at any time. Please allow at least one week for review and comments.

- Text must not use justification for alignment.

- Tables must be created using the Insert Table function; images of tables will not meet accessibility requirements.

- When converting documents from Word to PDF, the Export to PDF option must be used. Do not use "Save As Adobe," as it may not produce an accessible PDF.

Figures

After inserting an image or object into your document, ensure its **positioning is set to "In Line with Text"** to maintain proper layout and accessibility.

Be sure to add **alternative text (Alt-Text)** to all images and objects. Alt-Text provides a meaningful description of visual content for individuals who are unable to see it. To add Alt-Text, select the image or object, then click **"Alt Text"** under the **"Format"** tab.

If the image is decorative and does not convey meaningful information, check the box labeled **"Mark as decorative"**.
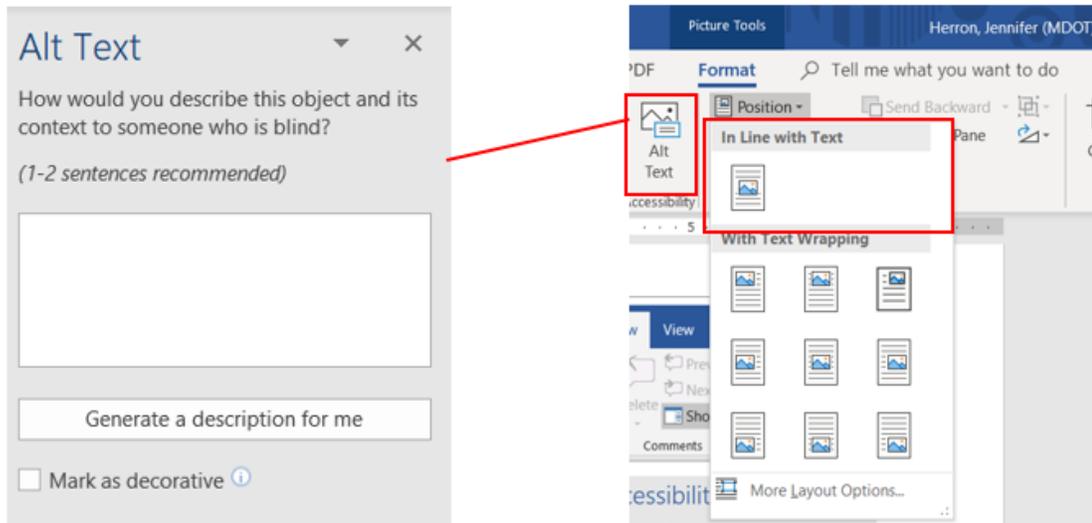
Tip: Does your image include labels or is it a diagram? Are you using SmartArt? Keeping a figure in a document with overlaid words and symbols will produce errors when reviewed for accessibility and cause confusion when accessed by someone who is visually impaired. **Grouping figures together will pass the Word Accessibility check but will fail the PDF check.** Take a screenshot of the image and add it to your document with descriptive Alt-Text that identifies all labels and included symbols.

Don't include a generic description of your image, such as "picture" or "figure."
Do include a meaningful description that explains what the image depicts and what information it is intended to convey. Repeating the image caption alone does not provide enough detail for readers to understand the purpose or content of the image.

Don't forget Alt-Text for objects such as charts, tables, and graphs.
Do include a description for objects that provide enough detail for someone who is visually impaired to be able to fully understand what information is being conveyed.

Don't rely on auto generated Alt-Text.
Do review Alt-Text for all images.

Formatting & Layout

To save time and prevent formatting issues in your final report, it is recommended that you follow the formatting guidelines outlined below as you create your document. Making changes to these elements after the report is complete can lead to layout problems and may be time-consuming to fix.

Please note that these guidelines are based on the use of **Microsoft Word**. If you choose to use other software, it is your responsibility to ensure that the final document meets accessibility requirements and formatting standards using the appropriate tools.

Fonts

MDOT-approved fonts include **Arial** and **Calibri**. Please ensure your documents use one of these fonts, with a **minimum font size of 12 pt**.

Do not use **justified text alignment**, as it can create uneven spacing between words, which may cause difficulty with readability and comprehension.

Additionally, when using either font, make sure the **Ligatures** feature is set to **"None"**.

There are two ways to check or adjust the Ligatures setting in Microsoft Word:

1. If you're starting a new document, click the **expand arrow** in the **Font** section of the Word ribbon.

2. Alternatively, right-click within the body of your document, select **Font**, and adjust the Ligatures setting from there.
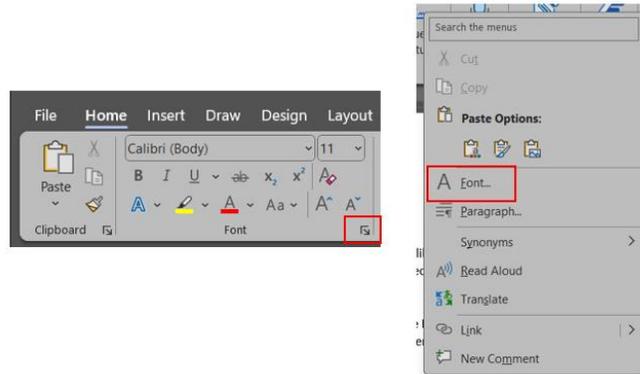

The Ligatures feature is in the Advanced tab, under the OpenType Features. If it is not already set to None, please change it so it is set to None. If this feature is not set to None, the example below shows how font will appear, specifically words with the letter's ti and tt. Screen readers cannot process ligatures and will result in errors in the PDF version of your document, making words that include this combination of letters unreadable.
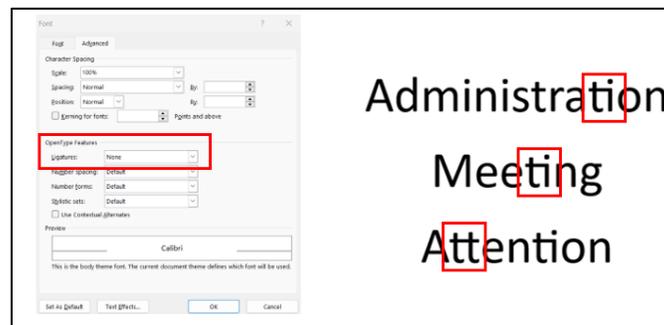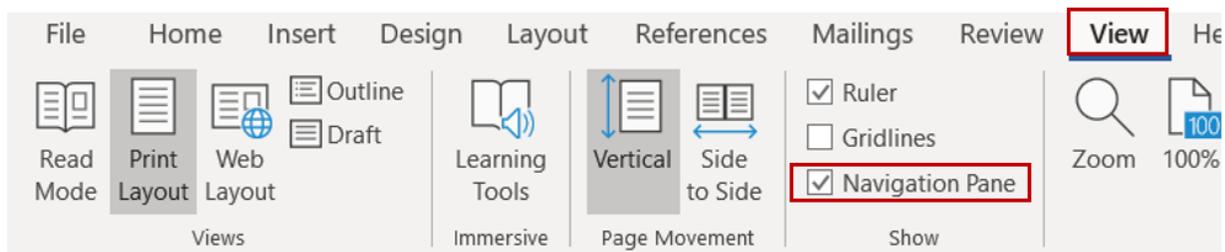
Navigation

When adding new sections to your document, use the **Styles** options available under the **Home** tab to apply the appropriate heading levels. This ensures consistent formatting and improves accessibility for screen readers.
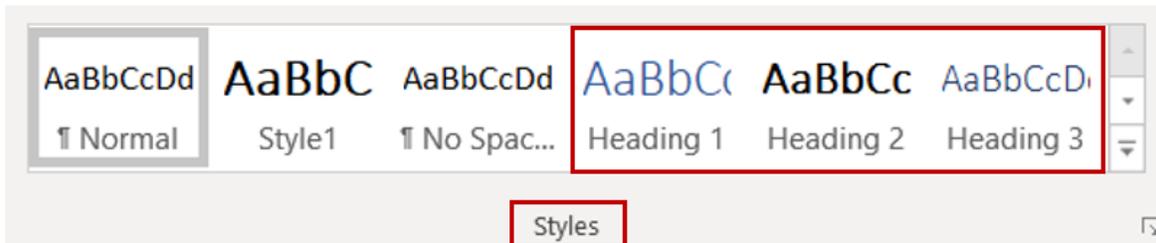
Preview your Navigation by clicking the **View** tab. From the ribbon, check the box for **Navigation Pane**.

Once your document is complete, go to the beginning of the document and add a **Table of Contents**. This can be auto populated based on selected headings.
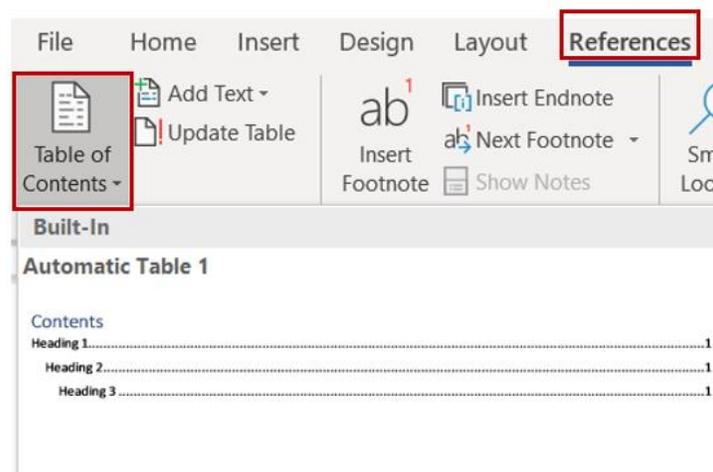
In Line with Text

All figures must be set to **"In Line with Text"**, and **text wrapping should not be applied**, as it can interfere with accessibility and document layout. While this may present formatting challenges, the following best practice allows you to achieve the appearance of wrapped text while maintaining accessibility compliance.

Do not use tables for layout purposes, as this can result in table errors and accessibility issues. Instead, use **section breaks (specifically, continuous breaks)** to create a layout that visually wraps text around a figure while remaining accessible to screen readers:

1. **Insert a section break** above the figure.
2. Change the layout to **two columns**.
3. Adjust the column widths as needed. To do this:
   - Go to the **Layout** tab.
   - Select **Breaks > Continuous**.
   - Double-click the **ruler** to open column settings.
   - **Uncheck "Equal column width"** and adjust the widths as desired.
4. After the figure, **insert another section break** and return the layout to a single column.
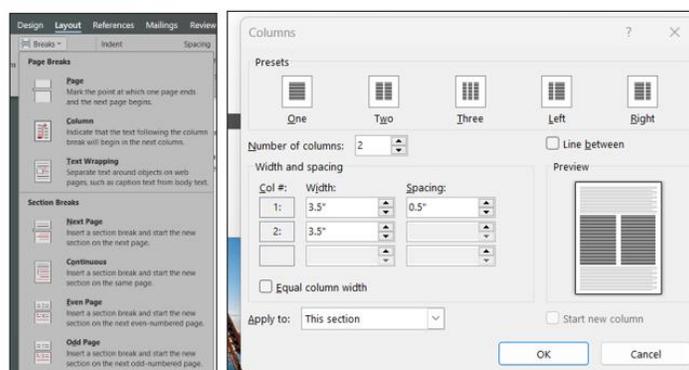
This is how a report can include a figure and have the formatting and layout like the effect wrapped text provides, but retaining the formatting that allows a screen reader to correctly read the text and figure details.

Equations

When adding equations, please use the "Equation" option listed under the "Insert" Tab. This ensures the equation is tagged appropriately and will pass the accessibility check.
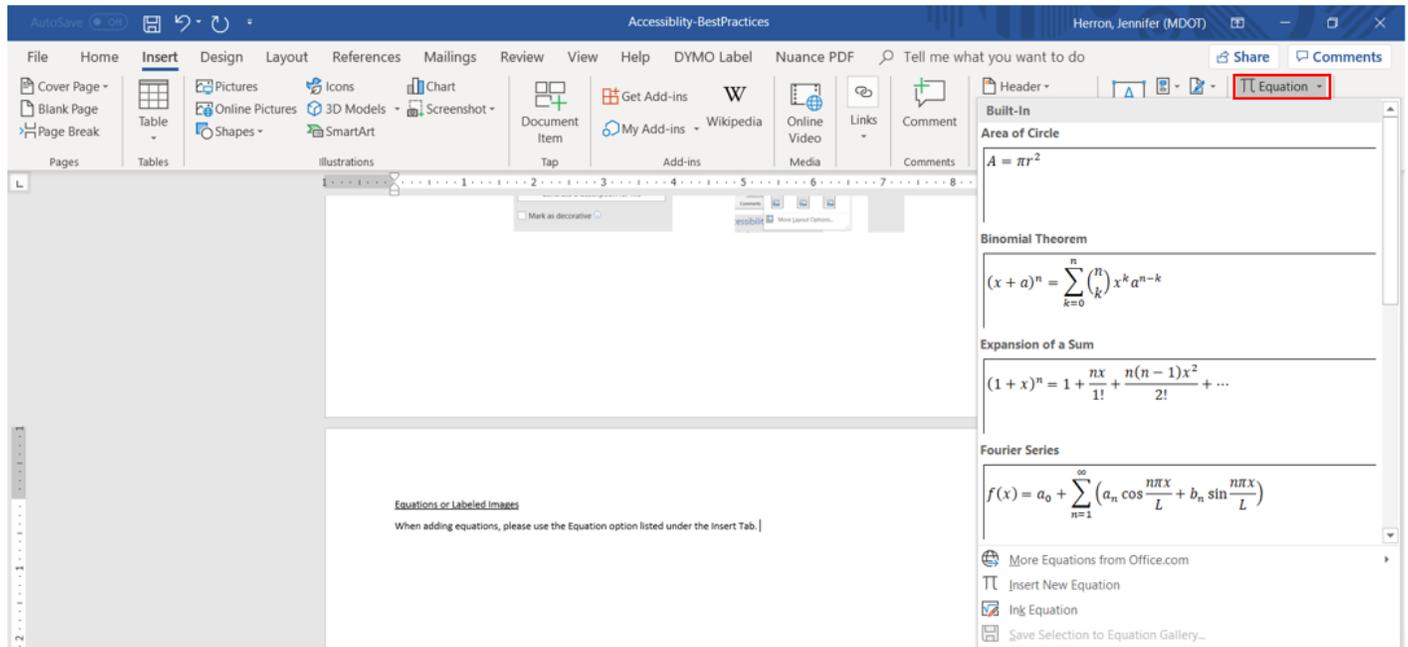

Don't use the subscript or superscript button when entering or formatting math symbols or formulas.
Do use the Insert Equation option within the text of your paragraph.

Don't add equations using Text Boxes.
Do use the Insert Equation method described above.

If you are unable to use the Equation tool, you may insert a screenshot of the equation; however, the alt-text must describe the equation using words rather than symbols. For example, use "x plus y equals 10" instead of "x + y = 10."
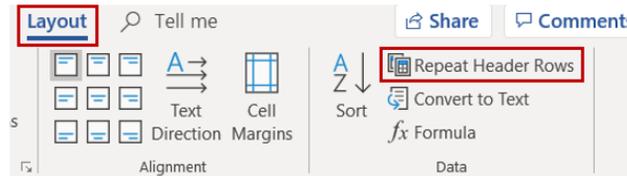
Tables

All tables must be created using the Insert Table function, with properly defined headers to meet accessibility requirements. Tables inserted as images will be returned for revision.
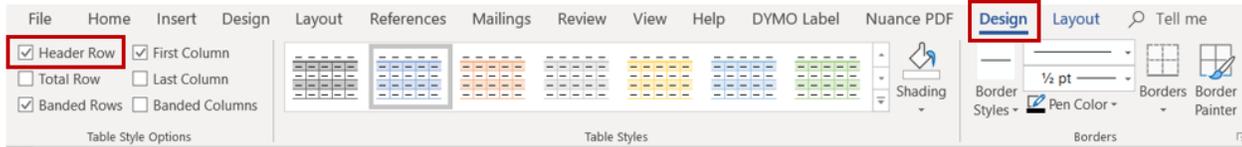

Do you have a table that spans multiple pages? Follow the steps below to ensure the header row is repeated across all pages.

1. Go to the **Insert** tab, click **Table**.
2. After inserting the table, highlight the **header row**.
3. Under **Table Tools**, click the **Design** tab and check the box for **Header Row**.
4. Then, under the **Layout** tab (also within Table Tools), select **Repeat Header Rows**.

Once your data is entered, highlight the entire table. Right click the highlighted section then click on "Insert Captions" to add your table title. After adding your title, add Alt-Text by right clicking your table and selecting Table Properties.
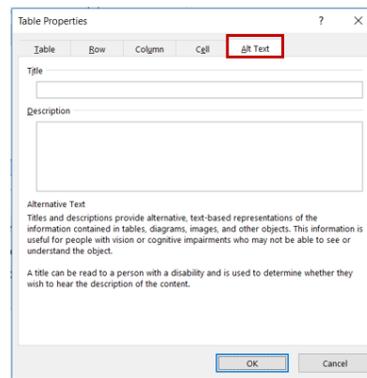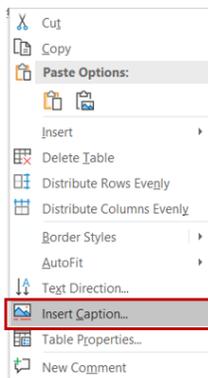
Avoid merging multiple cells in a table.
Consider using multiple tables. Merging too many cells causes problems for screen readers, making it difficult for them to identify the appropriate elements of your table.

Don't use tables for formatting text. **If it does not include headers, do not use a table.**
Do use the formatting tools available in Word found under the Layout tab.

Charts

Color should not be the only method used to convey information in charts or graphics. To ensure accessibility for individuals who are blind or visually impaired, use **labels, patterns, shapes, or markers** in addition to color to distinguish data.

All charts must also include **alternative text (Alt-Text)**. To add Alt-Text:

1. Select the chart.

2. Click the **Format** tab under **Chart Tools**.

3. Choose the **Alt-Text** option.

If the chart's data is also presented in a table before or after the chart, reference that table in the Alt-Text. If no table is provided, include a summary **of the chart's key data and trends** in the Alt-Text.
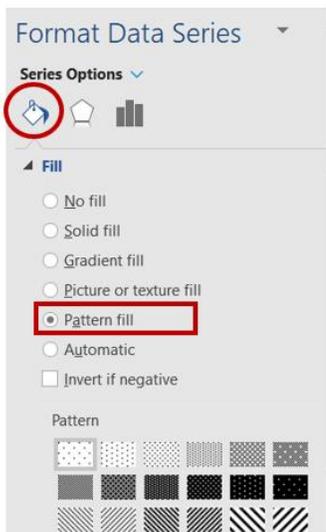
Editing your table to make it more accessible is done through the Design and Format tabs.

To adjust the color and fill, select a data series and double click. This will open the format tab where you can select a pattern fill. The same process can be used to add shapes or markers to line graphs.
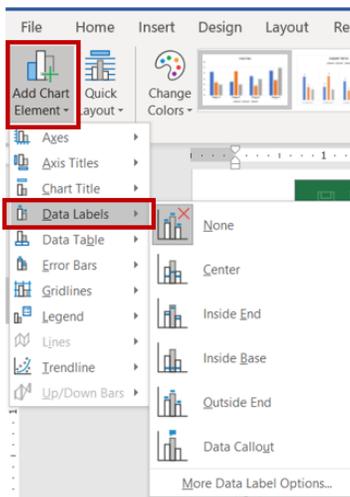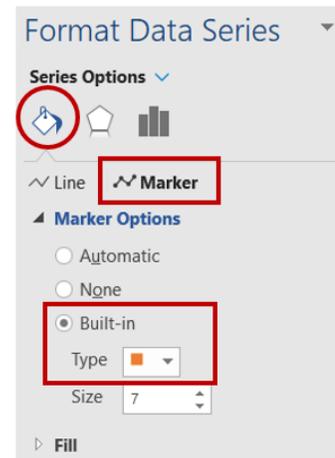
To add labels,click the Design tab and then on the ribbon, click Add Chart Element.

Color Contrast

If your document includes **text over a colored background**, it's important to ensure there is sufficient **color contrast** for readability and accessibility.
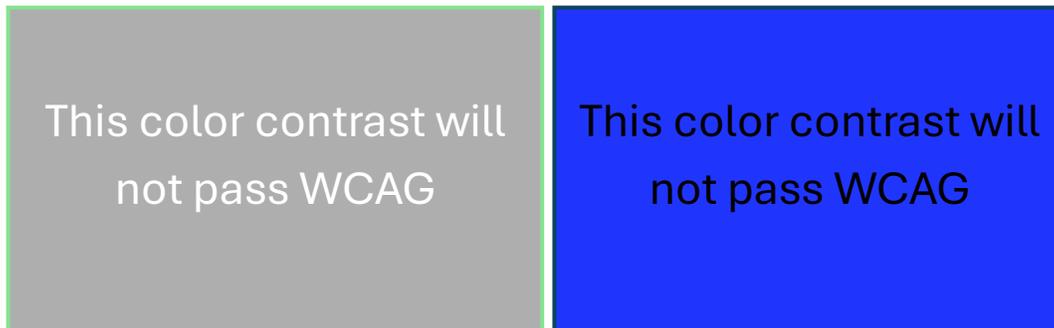

To check your color contrast, use the WebAIM Contrast Checker.

How to Check Color Contrast in Microsoft Word:

1. Click on the object with the filled background color to activate the **Drawing Tools** tab.
2. Select **Format**, then click **Shape Fill**.
3. From the dropdown, choose **More Colors**.
4. In the window that appears, note the **Red, Green, and Blue (RGB)** values.

Using WebAIM's Contrast Checker:

- In the tool, enter the RGB values from your Word object into the **Background Color** fields.
- For the **Foreground Color**, enter the RGB values of your text color. If you're using standard black or white, you can select those from the basic color options.
- The tool will display the contrast ratio and indicate whether it meets accessibility standards.
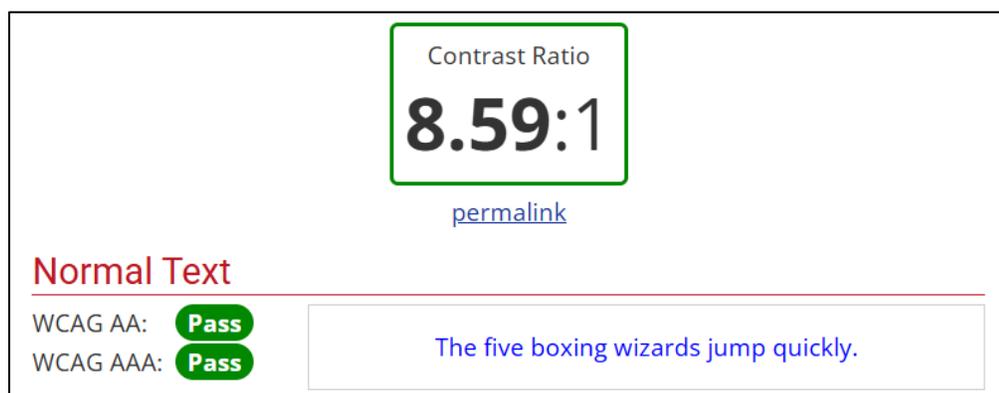
Tagging/Bookmarks

After completing the accessibility check in Microsoft Word, ensure that your document is properly **tagged and bookmarked** for accessibility when saving it as a PDF.

To do this:
1. Click the **File** tab and select **Save As**.
2. Choose **More Options** to open the full Save As dialog box.
3. Change the file type to **PDF**.
4. Once PDF is selected, click the **Options** button that appears.
5. In the Options window, make sure to check the boxes for:
   - **Document structure tags for accessibility**
   - **Create bookmarks using headings**

These settings help ensure that your PDF remains accessible to screen readers and other assistive technologies.
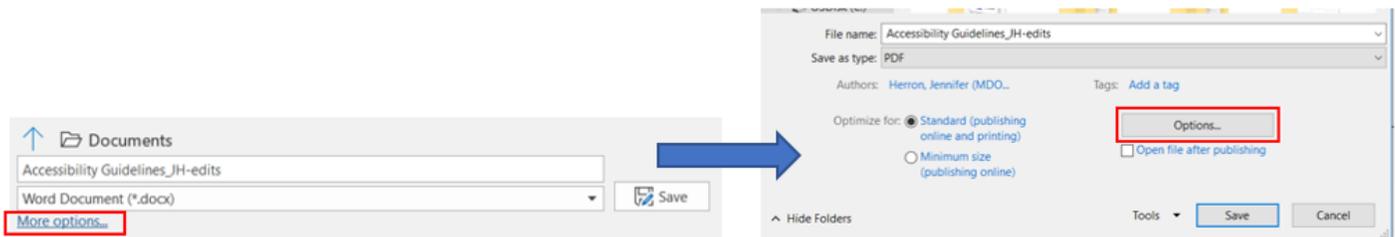
Select this new "Options" button and check the box next to "Create bookmarks using." This will tag your document and add bookmarks to different sections of the report .
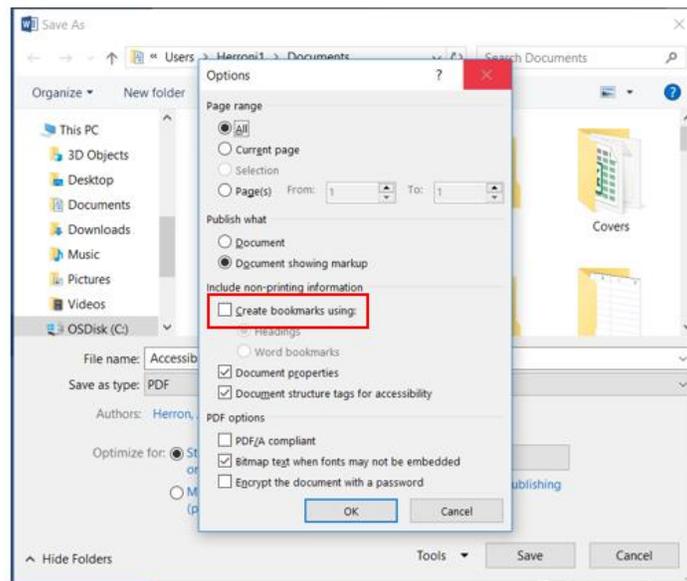
File Properties

When creating your document, it's important to include **document properties** to support accessibility and proper metadata tagging.

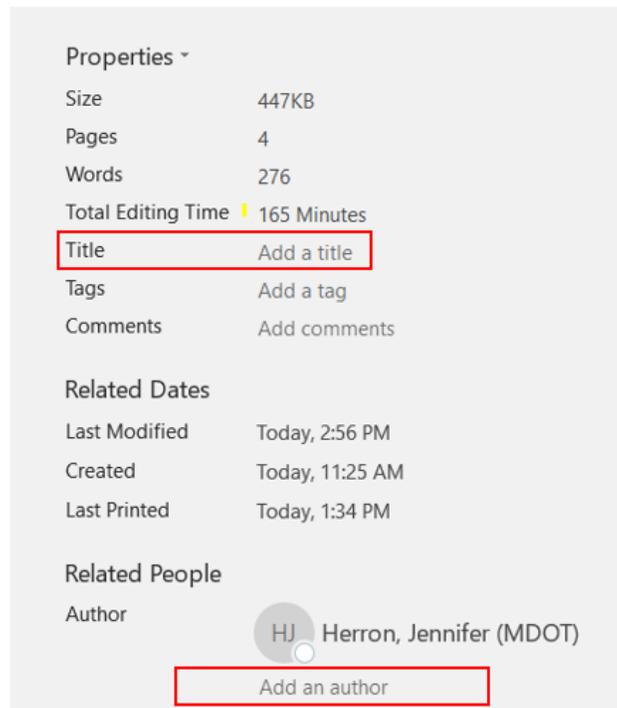To edit the properties:
1. Click the **File** tab.
2. Click the **down arrow** next to **Properties** (on the right side of the Info screen).
3. Select **Advanced Properties**.

In the dialog box that appears:
- Enter a **Title** for your report.
- Set **MDOT** as the **Author**.

Including these properties ensures your document is properly identified and searchable, especially when converted to a PDF.

Accessibility Check

After adding all required elements—such as file properties, figures, equations, and tables—use Microsoft Word's built-in Accessibility Checker to identify and correct any remaining issues before submission.

To run the checker:
1.   Open the **Review** tab.
2.   Select **Check Accessibility**.

The Inspection Results pane will display any issues found, along with guidance for resolving them. As part of the full accessibility review process, MDOT uses the built-in Accessibility Checkers in Microsoft Word and Adobe Acrobat, followed by a final review using the PDF Accessibility Checker (PAC) tool. It is recommended that you review the accessibility of your final deliverables using one or more of these tools.
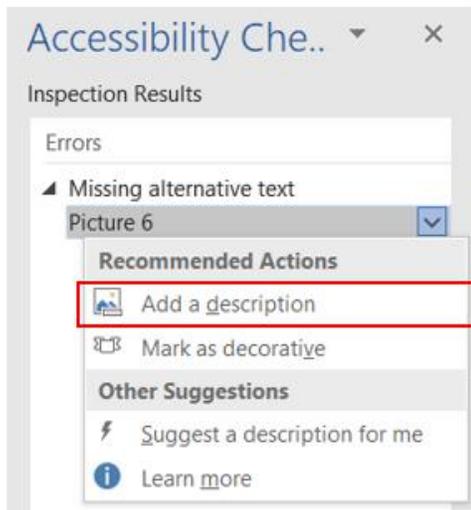
Accessibility Compliance Checklist

Use this checklist to ensure your research report meets MDOT's accessibility standards before submission:

Document Setup

- ☐ Document uses **Arial** or **Calibri**, minimum **12 pt** font.

- ☐ **Ligatures** are set to **None**.

- ☐ **Justified alignment** is not used.

- ☐ **Document properties** include a **Title** and list **MDOT** as the **Author**.

Headings & Navigation

- ☐ Headings are applied using **Styles**.

- ☐ **Navigation Pane** has been reviewed.

- ☐ A **Table of Contents** is included and auto-generated from headings.

Figures & Images

- ☐ All images are set to **"In Line with Text"**.

- ☐ **Alt-Text** is added to all images and figures.

- ☐ Decorative images are marked as **"decorative"**.

- ☐ No grouped SmartArt or overlaid text on images.

Tables

- ☐ Tables are inserted using the **Insert Table** function and not inserted as images.

- ☐ **Header Row** is checked and **Repeat Header Rows** is enabled if necessary.

Charts & Graphs

- ☐ Color is not the only method used to convey information.

- ☐ **Labels, patterns, or markers** are used to distinguish data.

- ☐ **Alt-Text** is added to each chart.

- ☐ Data tables are referenced or summarized in Alt-Text.

Equations

- Equations are inserted using the **Insert > Equation** tool.

- No text boxes or manual superscripts/subscripts are used.

Color Contrast

- Text over colored backgrounds meets **4.5:1 contrast ratio**.

- Contrast has been verified using WebAIM Contrast Checker.

Final Steps

- Accessibility checks have been completed in Word, in a PDF editor, and in PAC.

- Document is saved as a **tagged PDF** with **bookmarks using headings**.

- Word version is submitted in addition to PDF submissions.

Resources

General Accessibility Overview

- Section 508/Accessibility Resource Guide (*Transportation Library Connectivity Pooled Fund*)
  https://transportation.libguides.com/c.php?g=1028270&p=7596790

- Create Accessible PDFs (Section 508.gov)
  https://www.section508.gov/create/pdfs/

- PDF Accessibility Best Practices (Wayne State University)
  https://accessibility.wayne.edu/news/pdf-accessibility-best-practices-42100

- Digital Accessibility: PDFs and Other Documents (Western Michigan University)
  https://wmich.edu/digital-accessibility/creating-accessible-content/pdfs-other-documents

- Guide to Accessible Documents (Michigan Technological University)
  https://www.mtu.edu/accessibility/training/documents/

- Document Accessibility (Michigan State University)
  https://webaccess.msu.edu/tutorials/documents

- Creating Accessible Documents (University of Michigan)
  https://accessibility.isr.umich.edu/resources/content-creators/creating-accessible-documents/

Program Specific Support

- Microsoft Word
  https://support.microsoft.com/en-us/office/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d

- Adobe InDesign
  https://helpx.adobe.com/indesign/using/creating-accessible-pdfs.html

- Google Docs
  https://support.google.com/docs/answer/6199477?hl=en