



Introduction

The intent of this guide is to provide instructions, guidance, and examples of how to fill out the Phase II: ICE worksheet. If there are any questions or concerns that this guide does not address, please contact BTO via email at DOTICEReview@dot.wi.gov

Opening Instructions:

When working with a new project, please follow these instructions:

1. Download or open a blank Phase II: ICE Worksheet
2. Save the blank worksheet file in the appropriate folder (will vary by region/user)
3. Fill out the worksheet, entirely or in sections, and save when appropriate
4. When submitting to BTO, save as PDF file and combine with the other necessary attachments

Applies to All Alternatives:

The following sections will primarily serve as a summary for general information that is needed for all alternatives.

Project and Analyst Information:

This section is to provide basic information about the project and those who completed the worksheet.

1. Fill out the project's ID #
2. Identify the type of project by selecting an option from the drop down menu
3. Provide the location of the intersection (ex. STH ## & CTH XX)
4. Include the name of the person (or people) who filled out the worksheet
5. Include the agency the person (or people) works for
6. Include the date the worksheet was completed

Background Information:

This section is to provide information pertaining to the current intersection layout as well as pertinent information regarding the surrounding area and possible limitations or constraints. Information may be copied and pasted from the Phase I: Scoping ICE Memo.

1. Identify the main objective of the ICE. This can be related to safety, operations, new development, etc.
2. Include all relevant information to the history of the project. This includes:
 - a. Describing the scope of the project
 - b. Describing the existing conditions
 - c. Describing the constraints of the surrounding area
 - d. Providing information about any work previously done that impacts the project

Existing Crash Information:

This section is to provide the crash history for the intersection.

Crash History Object

1. Right click on the Crash History Object
2. Select 'Worksheet Object'
3. Select 'Open'
4. While the worksheet object is open, fill in the crash history data for the analysis period (separate crashes by type and severity)
5. Keep the worksheet object open while working with the rest of the file
6. Close the worksheet object before closing the file

Other Crash Information

1. Identify the period of analysis
2. Calculate and include the crash rate for the intersection
3. Identify any crash trends at the intersection

Additional Modes of Transportation:

This section is to provide a summary of needs for additional modes of transportation, including but not limited to, pedestrians, bicycles and OSOW. For each mode of transportation (add rows if needed), fill out the following in the table:

1. Identify the mode
2. Identify if there is a need to address this mode of transportation
3. Identify if there is a nearby generator of this mode and what that generator is
4. Identify if there are existing accommodations for the mode and what those accommodations are
5. Identify the volume of the mode

Also include any concerns or limitations for the additional modes after the table.

Summary Table:

This table is to quickly summarize the alternatives and some of the considerations for each alternative. Please include the following information:

1. The alternative number, traffic control type, and any other descriptors (examples below)
 - a. Exist: AWSC
 - b. Alt. 1: Traffic Signal
 - c. Alt. 2: RAB – Single Lane
2. A brief description of any geometric changes (examples below)
 - a. Go from AWSC to RAB
 - b. Add SB RT lane
 - c. Add major road offset LT lanes
 - d. Reduce intersection skew
3. The cost of construction

4. The number of relocated buildings and acres as well as the associated cost
5. Any environmental concerns, the type of concern and the acres associated with it
6. Delete any unused rows (recommend to do this right before submitting in case another alternative is suggested along the way)

Recommendation:

This section is to provide the recommended alternative and any pertinent information.

1. Identify the recommended alternative
2. Identify any concerns, considerations, or additional comments as they relate to the recommended alternative

Applies to Individual Alternatives:

For each alternative, the following sections will need to be filled out. The information for the following sections will vary depending on the alternative being analyzed.

Practical Feasibility:

This section is to provide information that may preclude the alternative from being considered.

1. Identify any comments made by the public about the given alternative. If public feedback has not yet been obtained, please identify the plans/schedule to solicit feedback from the public.
2. Identify impacts to businesses (access restrictions, limit parking, relocation, etc.)
3. Identify impacts to ROW
4. Identify impacts to utilities
5. Provide the total cost estimate for the alternative
6. Provide any additional information that could impact the feasibility of the alternative (examples below)
 - a. Intersection skew/alignment
 - b. Approach grades
 - c. Sight distance

Operational Analysis:

This section is to document and expand on the technical information regarding traffic operations.

1. Identify if any warrants were analyzed and met (AWSC or Traffic Signal)
2. Identify any queue impacts (length and blocking access)
3. Identify the amount of additional capacity of the alternative
4. If a railroad or lift bridge is in the vicinity, explain how that influences the design
5. Provide any additional information pertaining to the operations of the alternative
6. Fill in the Operational Analysis tables, including the year for the analysis (suggestions below)
 - a. Current year
 - b. Build year
 - c. Build year +5

- d. Design year

Safety:

This section is to provide information pertaining to the safety of the intersection. This section also asks for a Crash Modification Factor (CMF) to be used. CMFs for different treatments and control types can be found on the CMF Clearinghouse website (<http://www.cmfclearinghouse.org/>). Since there are many CMFs on the website, WisDOT has developed a table with preferred CMFs for quicker reference. The WisDOT CMF Table can be found here: [TGM Chapter 12 - Safety](#).

1. Determine the appropriate treatment and corresponding CMF
2. Identify the CMF Name (i.e., treatment)
3. Identify the source of the CMF
4. Identify why this CMF was selected over others (WisDOT CMF Table values are preferred)
5. Explain any additional information regarding the selection of the CMF and its application or limitations
6. Fill out the CMF Object (explained in the next section)
7. Provide any further information or discussion about safety

CMF Object Instructions:

1. Click anywhere within the "FILENAME" in the footnote of the Word document and press F9 to update (do this anytime the file is saved as a new name)
2. Make sure the "Crash History Object" is open (this is the first worksheet object where the crash history was entered and should be kept open)
3. Right click on the CMF Object
4. Select 'Worksheet Object'
5. Select 'Open'
6. Select the entire filename and copy it
7. Paste the filename in the appropriate location within the Worksheet Object (cell B20)
 - a. Note: The filename will need to be copied into every Worksheet Object. It will not function properly if the filename is wrong (most likely cause of errors)
8. Enter in the CMF value(s)
 - a. CMFs that are based on crash types should be placed in the yellow-shaded column next to the corresponding crash type
 - b. CMFs that are based on severity should be placed in the yellow-shaded row above the corresponding severity type
 - c. If a CMF uses the "All" designation for either crash type or severity, fill in that CMF value for each cell
9. Enter in the number of Targeted Crashes associated with the appropriate crash and severity type
 - a. Targeted Crashes are crashes that would be affected by the treatment (CMF)
 - b. Ex. Adding Left Turn lanes on the major road does not target left turn crashes on the minor road
10. Close the Worksheet Object