**MoDOT Checklist for Scoping a Transportation Impact Analysis Study**

June 2020

At the outset of every TIA project, a scope is developed and reviewed by MoDOT project managers. Soon after the project commences, a *Methods and Assumptions (M&A) Report* is developed to further define the scope and document the details of how the study will be conducted. Because the scope and M&A Report are so closely related, the following checklist serves a dual purpose: to provide scope writers with a list of items that should be considered during scoping, and to provide a framework for reviewing M&A Reports.

When using this checklist to review a TIA scope or M&A Report, a checkmark () should be used to signify items the reviewer deems acceptable. If an item does not apply to the project, the reviewer should leave a checkmark in the “N/A” column. If an item applies to the TIA being reviewed but is deemed unacceptable or in need of adjustment, the reviewer should leave the check boxes next to that item blank and should address the issues with that item in their comments at the end of the checklist.

The items in this checklist accompany **Section 2** in MoDOT’s *TIA Guidance Manual* and the MoDOT *Methods and Assumptions (M&A) Report*. Project managers and reviewers should refer to this section if they need clarification on MoDOT’s best practices regarding scoping TIAs.

**MoDOT TIA Scoping Reviewer’s Checklist**

Project Name: Click or tap here to enter text.

Project Manager/Agency-Consultant: Click or tap here to enter text.

Scoping Reviewer/Agency-Consultant: Click or tap here to enter text.

Date of Scoping Submittal/Review: Click or tap here to enter text.

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| **Scoping Review** | | | |
| **M&A Section** | **Description** | **Check** | **N/A** |
| **1.0** Stakeholder Acceptance | Check that the appropriate stakeholders have been included in the review of the scoping *Methods and Assumptions Report*. These potential stakeholders include, but are not limited to:   * MoDOT Representatives * FHWA Representatives * County / Municipal Representatives |  |  |
| **2.1** Need for Study | Review that the need of the study has been determined. This includes, but is not limited to:   * Forecasting future travel demand * Evaluating network or facility performance * General order-of-magnitude estimates * Performance-based operational analysis * Evaluating network safety performance * Assessing impacts on facilities from new developments |  |  |
| **2.2** Previous Studies | Check that all relevant, previously developed studies are documented and referenced. |  |  |
| **2.3** Study Schedule | Verify that a study schedule has been determined that includes, at a minimum:   * Start of Analysis Date * Data Collection Initiation, Processing, and Finalizing Dates * **[If Applicable]** Traffic Forecasting Initiation and Submittal Dates * Traffic Operations and Safety Analysis Existing and Future Year “No-Build” Submittal Dates * Additional Traffic Operations and Safety Analysis Year, Periods, Design Alternative Scenario Submittal Dates * Review Periods for Stakeholders * Final Submittal Date |  |  |

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| **Scoping Review (Continued)** | | | |
| **M&A Section** | **Description** | **Check** | **N/A** |
| **2.4** Key Project Stakeholders | Review that all key project stakeholders have been identified with an established plan of communication. |  |  |
| **3.0** Definition of the Study Area | Review that the study area of the project is defined and is appropriate. This might include a list of interchanges, intersections, and/or corridors which will be considered, as well as one or more supporting figures. |  |  |
| **4.0** Analysis Years / Periods | Verify that the analysis will include the following analysis years unless otherwise justified, discussed with appropriate stakeholders, and documented:   * Existing Base Year * Assumed Interim / Opening Year * Horizon / Design Year * Horizon Years for Safety Projects   Additionally, the peak hours, lengthier peak periods, or other durations of analysis should be explicitly documented and justified. |  |  |
| **5.0** Design Alternatives | Review that all known and appropriate design alternatives the study is considering are listed. This must include at least one “No‑Build” scenario and at least one “Build” scenario (where the subject project is assumed completed). |  |  |
| **6.0** Traffic Forecast | Verify if a traffic forecast is being completed as part of the project, and if so, check that the procedures for completing a traffic forecast are documented and appropriate. Additionally, provide:   * Information about the regional travel demand model that is being used * The appropriate forecasting method to be developed * A list of scenarios for which model runs are planned (especially if other MPO long range transportation planning projects are assumed completed in future year scenarios). |  |  |
| **6.1** Selection of Traffic Forecast Measures of Effectiveness (MOEs) | If traffic forecasts or the forecasting process are used to compare alternatives, review that the desired forecasting MOEs are agreed upon by the project support team and should justify the reasoning which was used in selecting those MOEs. MOEs could include, but are not limited to daily traffic volumes, peak hour traffic volumes, vehicle hours traveled, vehicle miles traveled. These MOEs focus on quantifying the achievement of traffic forecasting / traffic demand objectives. Traffic operations and safety MOEs are discussed in **Section 7.2**. |  |  |

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| **Scoping Review (Continued)** | | | |
| **M&A Section** | **Description** | **Check** | **N/A** |
| **7.0 / 7.1** Minimum Levels of Service, Mobility, and Safety Targets | Verify that it is effectively communicated and documented what the minimum levels of service or specific mobility and/or safety targets for the project will be. These minimums or targets may be defined individually for a facility type or collectively for all facility locations in the study area. **Note:** The [MoDOT Engineering Policy Guide (EPG) 232: Facility Selection](https://epg.modot.org/index.php/Category:232_Facility_Selection) contains guidance for some Level of Service (LOS) targets. |  |  |
| **7.2** MOEs and Data Collection | Verify that it is effectively communicated and documented what the desired MOE parameters for analysis will be, a description of the MOEs, and the data collection methods used to estimate these MOEs. MOEs could include, but are not limited to LOS, delay, volume-to-capacity (v/c) ratio, vehicle delay, travel time, and crash reductions. These MOEs focus on quantifying the achievement of traffic operations and safety objectives. |  |  |
| **7.3** Calibration Targets | Verify that it is effectively communicated what MOEs will be used during the calibration of the model. A table with the desired MOEs, calibration thresholds, and field data sources is an example of a table that could be used. |  |  |
| **7.4** Traffic Analysis Software Programs to be Used | Review that the traffic analysis software programs to be used, and the reasoning for selecting these programs, are documented. These tools include:   * Highway Capacity Software (HCS) * VISSIM * Synchro * SimTraffic * SIDRA * Other (Ensure that software is specified) |  |  |
| **7.5** Safety Analysis Software Programs to be Used | Review that the safety analysis software programs to be used, and the reasoning for selecting these programs, are documented. These tools include:   * Highway Safety Manual (HSM) Spreadsheets * ISATe * IHSDM * Other (Ensure that software is specified) |  |  |
| **8.0** Conclusion | Check that there is a brief summary of the study’s intent and methods provided. |  |  |
| **9.0** Record of Revisions | Verify that the latest record of revision is documented, including the content that was revised. |  |  |

**Reviewer’s comments:**