**PROPOSED SCOPE OF WORK**

**DATE**

**INTERSECTION CONTROL EVALUATION (ICE)**

1. OBJECTIVE

The Florida Department of Transportation (hereinafter referred to as Department) intends to identify multiple intersections across the state to conduct an Intersection Control Evaluation (ICE) analysis. The project purpose is to solicit a third-party consultant (hereinafter referred to as Consultant) to conduct the ICE analysis and determine a context-sensitive intersection control strategy that meets the project’s purpose and need, fits the intersection location’s context classification, provides safe travel facilities for all road users, and reflects the overall best value.

1. SERVICES TO BE PERFORMED

The Consultant shall perform all work required for an ICE in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums. Within FDOT’s Manual on Intersection Control Evaluation, a three-step evaluation process has been established to consider multiple context-sensitive control strategies when planning a new or modified intersection improvement.

The following tasks shall be performed in this Work Order:

1. Data Collection
2. Data Analysis
   1. Stage 1
   2. Stage 2 (Optional)
   3. Stage 3 (Optional)
3. Strategy Recommendations

* Data Collection

The Consultant shall coordinate and carry out all efforts required to document the project location, basic roadway characteristics, control and design vehicles, design and target speeds, peak hour volumes, growth rate trends, crash data collection, environmental data, multimodal use(s), and roadway context classifications of each intersection. This effort is comprised of desktop analysis as well as potentially collecting turning movement counts at the selected intersection(s). Desktop Collection (LS) 10 – 16 hours per intersection, Turning Movement Counts (LS) 20 – 30 hours per intersection based on a team of two with 10 hours per additional person to collect/count adjacent intersections, or help with complex intersections.

* Data Analysis

The Consultant shall analyze each intersection using the Three Stage ICE procedure outlined below:

Stage 1 ICE Evaluation considers many potential intersection control strategies and evaluates them using the CAP-X and SPICE tools. The Cap-X tool is an operational analysis tool to evaluate selected types of innovative intersection designs, and the SPICE tool evaluates the safety performance of the intersections. Stage 1 is completed as part of the project’s initial study process. Stage 1 (LS) 40 – 84 hours per intersection.

* + Scenario 1: If the Stage 1 analysis leads to a single viable control strategy meeting the project’s purpose and need and is applicable to the corridor’s context classification and receives approval by the DTOE or DDE no further stages of ICE are required.
  + Scenario 2: If the Stage 1 analysis indicates multiple control strategies as viable and meeting the project’s purpose and need and the corridor’s context classification and receives approval by the DTOE or DDE, the DTOE, the DDE, and the project team then determine next steps and scope as the analysis transitions into Stage 2: Preliminary Control Strategy Assessment.

Stage 2 ICE Evaluation is a preliminary control strategy assessment. It helps differentiate any remaining control strategies from Stage 1, by requiring a in depth analysis of the proposed control strategies. Prior to conducting additional analyses, a conceptual design must be developed for each viable control strategy as well as the no-build (existing) control strategy. These conceptual designs are essential for communicating control strategy concepts and evaluating factors (such as cost, right-of-way impacts, and environmental impact on a site-specific basis). The analysis should incorporate Traffic Operations, Safety Performance, Costs, Benefic-Cost Analysis, Environmental Impacts, Utility Impacts, Right-of-Way impacts, Multimodal Accommodations, as well as Agency Coordination and public input (if applicable). Stage 2 will utilize the SPICE tool, and the FDOT ICE Tool to select a preferred control strategy. Upon completion of the Stage 2 ICE form, results of the analysis are shared with the DTOE, DDE, and applicable staff. Stage 2 (LS) 64 – 256 hours per Stage 2 Package with 2 alternatives. (Up to 70 hours per additional control strategy)

* + Scenario 1: If a single control strategy is identified as preferred. The Stage 2 ICE form is completed, and the supporting analyses are attached and submitted to the DTOE and DDE for approval. Analysis results may be appended to the form or documented in a memorandum. If approved no further stages of ICE are required.
  + Scenario 2: If the analysis of the conceptual designs failed to clearly distinguish a single control strategy above the others. Results of the analysis are shared with the DTOE, DDE, and applicable staff to determine next steps and scope as the analysis transitions into Stage 3: Detailed Control Strategy Assessment.

Stage 3 ICE Evaluation is a detailed assessment when Stage 1 or Stage 2 does not identify a selected control strategy. Users may customize Stage 3 activities to address the outstanding issues. This may involve the collection of additional data, further public outreach, developing more detailed designs, conducting more detailed operational analysis, more detailed cost estimates, further environmental analysis, and any other activities necessary to identify the preferred control strategy. (Based on the level of outstanding issues from proposed strategies). Upon completion and approval of the Stage 3 ICE form, proceed to preliminary design for the recommended control strategy. If the submission of the Stage 3 ICE form is not approved, the party responsible for submitting the ICE form must revise their analysis or modify their evaluation based on the comments received from the DTOE and/or DDE. Stage 3 is scope specific with no staff hour range as they will be developed on an individual case-by-case basis that’s reflective of the level of outstanding issues from the proposed strategies.

* Strategy Recommendations

Based on the results of the Three Stage ICE process, the effort shall move into preliminary design. The Consultant conducting the ICE analysis should provide all supporting documentation along with all DTOE and/or DDE signed ICE forms.

1. SUBMITTAL/DELIVERABLES

The following deliverables are associated with this project:

* Stage 1 Deliverables
  + CAP-X AM & PM Forms
  + SPICE Form
  + Signed Stage 1 ICE Form
* Stage 2 Deliverables (if applicable)
  + Preliminary Concept Drawings of Control Strategies
  + SPICE Form
  + FDOT ICE TOOL
  + Operational Analysis Supporting Documents
  + Engineers Cost Estimates
  + Signed Stage 2 ICE Form
* Stage 3 Deliverables (if applicable)
  + Concept Drawing of Proposed Control Strategy
  + Signed Stage 3 ICE Form

1. REPORTING

The Consultant shall meet with the Department’s Project Manager, as requested, to provide updates on each Stage of the Analysis, as well as coordinate and participate in discussions with public officials if needed.

1. LENGTH OF SERVICE

The Fee Estimate is for the period ending MM/DD/YYYY.

1. FEE ESTIMATE/METHOD OF COMPENSATION

Details of the estimated man-hours (staff hours) and fee estimate for this task assignment are attached. This TWO has a Total Maximum Limiting Amount of $XX,XXX.XX. The Method of Compensation will in accordance with Exhibit B of the Standard Professional Service Agreement.