**Version Date: 12/7/2020**

**Application:** This template is used when the Certified LPA owns the contract on a federal funded project.

**[INSTRUCTIONS:**

* Yellow highlighted areas include instructions that should be deleted prior to release.
* Blue highlighted areas indicate text or fields that need information provided or revised.
* “Agency” means the Certified LPA as defined in the CLPA Contract.
* Delete any items marked as “[Optional]” if they are not applicable to the Project.
* **Delete instructions throughout the document before executing Contract or amendment. This can be automated as follows:**
	+ From the “Edit” menu select “Replace”;
	+ With cursor in the “Find what” field, click “More” button, then “Format” then “Font” , then in the font field select “Times New Roman” text ;
	+ Leave the “Replace with” field blank;
	+ Click “Replace All”. This will delete all yellow highlighted text.

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**PROJECT-SPECFIC INSTRUCTIONS:**

**Not all subtasks are needed for each project. If an entire subtask is not needed, leave the subtask number, add “RESERVED” after the subtask title, and delete all subtask text.]**

# TASK 10 ROADWAY DESIGN

Consultant shall provide roadway design Services under this SOW for delivery of tasks and deliverables according to the agreed upon delivery schedule.

[Include the following subsection if Consultant is requested to perform pre-DAP development of roadway design criteria, or to document for the DAP phase.]

**10.1 Design Criteria**

Consultant shall prepare draft and final design criteria. Design criteria must be consistent with DESIGN STANDARD. Consultant shall present the design criteria in a table or matrix format listing all conditions, assumptions and minimum standards for the roadway design elements of the Project. This includes the following:

[Add/delete items relevant to the Project]

* Obtain functional classification facility based on current Transportation System Plan (“TSP”)
* Determine design vehicles
* Obtain existing and design year average daily traffic (“ADT”) from traffic report or Project Prospectus
* Determine design speed
* Obtain mobility requirements or level of service targets
* Confirm access control requirements or access management techniques
* Determine pedestrian and ADA design considerations
* Determine bicycle design considerations
* Determine transit design considerations
* Review crash data / history
* Determine roadside design requirements (clear zone)
* Determine sight distance considerations
* Determine cross slope, horizontal curves, and super-elevation
* Determine maximum grade, vertical curves
* Determine cross section elements:
	+ Number and width of travel lanes
	+ Shoulders
	+ Curbs
	+ Sidewalks
	+ Curb ramps
	+ Side slopes
	+ Ditches or swales (drainage facilities)
	+ Parking
* Determine intersection design elements
	+ [Define elements based on type of intersection]

**10.1 Consultant Deliverables and Schedule:**

Consultant shall provide:

* Draft design criteria electronically/in hardcopy to APM within 6 weeks from Notice to Proceed (“NTP”).
* Final design criteria electronically/in hardcopy to APM within 2 weeks from receipt of Agency comments.

[Optional, if not needed, label: 10.2 Concept Plans/Alternative Analysis “Reserved”

Use of this task is largely based on the needs of the Project and requirements of the Agency and/or LPA. Revise this task to allow for multiple deliverables if multiple iterations are expected.]

**10.2 Concept Plans/Alternative Analysis**

Consultant shall work with Agency to develop up to 3 alternatives for the roadway alignment and cross section based on initial solutions from the scoping notes and Project prospectus, suggestions from the Agency, and current Agency and AASHTO design standards.

Consultant shall develop each alternative to concept level design sufficient to establish construction limits, quantities and major construction activities. Each alternative must have horizontal and vertical alignment developed that meets minimum design standards. Consultant shall prepare a conceptual drawing for each alternative. The drawing must utilize a GIS or topographic survey base map or corridor roll plot on an aerial map at a scale of XX. Geometric design elements that do not meet design standards must be identified as needing a design exception.

Consultant shall analyze each alternative and determine the potential benefits and impacts associated with construction of the proposed alternative. Potential benefits and impacts to be considered include, but are not limited to, right of way, access, safety, utilities, permitting and environmental.

Consultant shall prepare a construction cost estimate for each alternative that includes the major construction items and quantities that can be identified at this level of design detail.

Consultant shall prepare an Alternative Analysis technical memorandum that summarizes the results of analysis for each alternative. The memo must include a summary of the identified impacts and cost estimate associated with each alternative to allow Agency to determine which alternative to move forward to DAP.

**10.2 Consultant Deliverables and Schedule:**

Consultant shall provide:

* Alternatives Analysis technical memorandum and drawings to APM electronically (PDF) within 10 weeks of NTP.

[Include the following Contingency subtask if Consultant may be requested to perform pre-DAP development of roadway design exceptions, or as part of the DAP phase.]

**10.3 Roadway Design Exceptions (CONTINGENCY TASK, requires separate NTP)**

Consultant shall prepare up to 3 draft Roadway Design Exception Request(s) for the Project. The Design Exception Request(s) must be prepared using the standard Design Exception Request form provided by the Agency or defined in the ODOT Highway Design Manual. The final Design Exception Request(s) for the Project must be stamped and signed by the engineer of record. Agency will coordinate final approval of the Design Exception Request(s).

**10.3 Consultant Deliverables and Schedule:**

Consultant shall provide:

* 1 electronic copy in WORD format to APM of draft Design Exception Request(s) within 2 weeks of DAP or TS&L or Approved Alternative from Task 10.2
* 1 hard copy and 1 electronic copy in WORD and PDF format to APM of final Design Exception Request(s) no later than 2 weeks of receipt of comments from the Agency.