

## **Exhibit A**

### **DRAFT SCOPE OF SERVICES**

The CONSULTANT shall provide professional and technical roadway design services necessary for the preparation of detailed construction plans, construction specifications, and cost estimates for Job No. SE0069. The job involves the construction of J-Turns and/or other safety improvements on Route 67 within existing MoDOT right of way at the intersections of Routes A and C in Madison County. The CONSULTANT will be responsible for completing all work identified in this Scope of Services on the project.

This scope of services is intended to be an accurate description of the elements and tasks required for completion of the design of this project. However, each project is unique and may require more or less effort in an individual task to complete the design. The following information will define, in general terms, the major design elements relating to this project. All elements of work that are necessary to satisfactorily complete the design of this project may or may not be listed. The lack of a specific element in the scope of services does not, itself, constitute the basis for additional services, supplemental agreements, and/or adjustment in compensation.

A more detailed description of the COMMISSION's requirements for completion of the design may be found in the MoDOT Engineering Policy Guide (EPG). The CONSULTANT is encouraged to review the appropriate sections of the EPG as a means to supplement the information contained in the scope of services and provide additional guidance for the requirements and expectations of the COMMISSION for completion of the design services.

Preparation of a supplemental agreement is necessary prior to performance of any work that is considered additional services by the COMMISSION. The CONSULTANT will not be compensated for additional services performed prior to execution of a supplemental agreement. Only additional services that are required due to unforeseen conditions or due to a change in the specified end product will be considered for inclusion in a supplemental agreement.

The CONSULTANT shall prepare all plans through use of a Computer Aided Drafting (CAD) program. The CONSULTANT shall conform to MoDOT's Specifications for Computer Deliverable Contract Plans, as referenced in the EPG.

The CONSULTANT will be required to produce and update the construction cost estimate for this project at the completion of each major milestone or at a minimum of every six months. The major milestones for this project are defined in Section (7), Period of Service, of the MOU agreement.

The CONSULTANT shall review "as-built" plans, aerial imagery, engineering

manuals, and other information provided by the COMMISSION and make the necessary field investigations to ensure that there have been no significant changes since the information was recorded or obtained.

Any deviations from COMMISSION established procedures for design, construction, or materials shall be approved through the MoDOT project manager or structural liaison engineer and documented by the CONSULTANT. This documentation shall include a brief justification for the deviation and the signature of the CONSULTANT project manager and/or structural project engineer. Any deviations from the project design criteria that require a design exception, as described in the EPG, shall be documented in accordance with the EPG design exception process.

## ADMINISTRATION

1. The CONSULTANT shall participate in the following as part of the Administration tasks:
  - A. Attend and document milestone project meetings with MoDOT (CORE Team meetings). Meetings will be held virtually except for the project kick off and final design field check meetings.
  - B. Correspondence (emails, letters, meeting minutes, phone calls)
  - C. Set up the project and conduct Kick-Off Meeting.
  - D. Coordination with subconsultants.
  - E. Participate in two Public Meetings. Develop handouts and exhibits for meetings.
  - F. Provide monthly progress reports and invoices and review subconsultants invoices and reports.
  - G. Provide exhibits, sketches, and back-up data to MoDOT on an as-needed basis.
  - H. Provide information to support the SE District MoDOT staff in maintaining a public website for the project staff to inform the public and update impacts related to the project including timelines, changes to the project, meetings, comments. The website to be maintained through the construction phase.

## DESIGN STANDARDS & SPECIFICATIONS

1. The CONSULTANT shall use the latest version of the following publications as acceptable to determine the design criteria and procedures which will be followed for development of the project:

- A. MoDOT's Engineering Policy Guide (EPG)
- B. MoDOT's Specifications for Computer Deliverable Contract Plans
- C. Missouri Standard Plans
- D. Missouri Standard Specifications for Highway Construction
- E. AASHTO's Manual on Uniform Traffic Control Devices (MUTCD)
- F. AASHTO's A Policy on Geometric Design of Highways and Streets and any other publications which the Engineer directs the CONSULTANT to use.

## ENVIRONMENTAL SERVICES

- 1. The CONSULTANT shall provide the COMMISSION with information for proper environmental and historic preservation clearance.
- 2. The CONSULTANT shall submit the conceptual stage RES, preliminary stage RES, and final stage RES. Items that may need to be addressed include historical buildings, archaeological sites, endangered species, wetlands, and historical sites.

## PRELIMINARY DESIGN PHASE

The CONSULTANT'S attention is directed to Chapter 235 of the MoDOT Engineering Policy Guide (EPG) for general guidelines and requirements for preliminary design. Other chapters may be applicable for preliminary design preparation.

- 1. Upon approval of the design criteria by COMMISSION, the CONSULTANT shall undertake the following to develop the preliminary design phase:

2. Prepare preliminary plans, as outlined in the MoDOT EPG.
3. The COMMISSION shall furnish the CONSULTANT traffic information for the construction and design years to be used in the preliminary plans.
4. The COMMISSION shall furnish the CONSULTANT the latest accident data and traffic information used to calculate the project accident rate. The COMMISSION shall furnish the CONSULTANT the “statewide accident rate for a similar class of roadway” and any high hazard locations within the project limits.
5. The CONSULTANT shall submit the preliminary plans to the COMMISSION for review and approval as shown in Schedule section.
6. The following minimum design features shall be included on the preliminary roadway plans:
  7. Title sheet with appropriate project limits, access note and traffic data completed.
  8. Typical Sections
  9. Plan & Profile Sheets including proposed alignment, topographic features, and proposed profile.
10. The preliminary plans shall be prepared in accordance with the applicable sections of the MoDOT EPG, as to what shall be shown thereon, including proposed design features.
11. The plan view English scale shall be 1”=50’ horizontal (or different scale as determined by MoDOT Project Manager for clarity) and extend 100 feet beyond project limits.
12. The profile view English scale shall be 1”=50’ horizontal, and 1”=10’ vertical.
13. The CONSULTANT may have to review preliminary cross sections sufficiently to determine any necessary design elements needed to construct the project within existing right of way.
14. The CONSULTANT shall prepare the preliminary construction estimate.
15. The preliminary plans shall be submitted to the COMMISSION for review and approval. A letter of transmittal shall be provided with the preliminary plan submittal. The COMMISSION shall furnish the template for the letter

of transmittal. The construction cost estimate shall also be submitted with the preliminary plans.

16. Traffic assignments shall be shown on the respective roadways or on a line sketch of the roadways.
17. Typical sections shall indicate heavy, medium or light duty pavement for new roadways, along with descriptions of the existing roadway types remaining in place.
18. The COMMISSION will provide CONSULTANT with all topographic and property land survey control information. All elevations and vertical control shall be based on NAVD 88.
19. The COMMISSION shall provide the pavement design and general Job Special Provisions related to the project but not special design elements.

#### FINAL ROADWAY DESIGN

1. A final design field check shall be held with CONSULTANT and COMMISSION representatives prior to completing final design plan quantities. The CONSULTANT shall make any necessary revisions to the final plans as determined by this design field check.
2. The CONSULTANT shall prepare detailed temporary erosion control plans for review and approval before inclusion in the final design plans.
3. The CONSULTANT shall prepare detailed temporary erosion control plans for review and approval before inclusion in the final design plans. The CONSULTANT will submit a Final Plans stage RES and help ensure previous RES items have been addressed.
4. The CONSULTANT shall prepare computations for all design plan quantities. All plan quantities shall be shown on the Quantity Sheets, by construction stage, if applicable. The format for these sheets shall be furnished by the COMMISSION. Specialty items may have separate sheets for quantity tabulations.
5. The CONSULTANT shall prepare for review and approval by the COMMISSION all General Job Special Provisions, which are to supersede the Missouri Standard Specification for Highway Construction. A brief reason for the deviation from the standard plans and specifications should

also be provided. The CONSULTANT shall prepare only Job Special Provisions related to design elements shown in the plans.

6. The plans, specifications, and estimate shall be prepared in accordance with Section 237 of the EPG. The following list shall be considered the minimum requirements for a complete set of Final Design Plans.
  - A. Title Sheet
  - B. Typical Sections
  - C. Quantity Sheets
  - D. Plan Sheets at 1"=50' horizontal (or different scale as determined by MoDOT Project Manager for clarity). Plan sheets shall include all necessary adjustments to signing and proposed pavement marking.
  - E. Profile Sheets at 1"=50' horizontal and 1"=10' vertical, if needed.
  - F. Culvert Sections at 1"=10', if needed
  - G. Special Sheets, as needed, for geometrics, referenced points, grading plan, traffic control plan, temporary erosion control plan and any other sheets for special design features.
  - H. Earthwork Quantities, Cross Sections at 50' intervals, 1"=10' (1:100), horizontal and vertical, including entrance sections with existing and proposed grades, if needed.
  - I. Tabulation of Quantity Sheets
  - J. Job Special Provisions in electronic format readable in COMMISSION'S current word processor
  - K. File with the bid items and quantities as generated by COMMISSION'S Estimate Program
  - L. Construction Workday Study
  - M. Transportation Management Plan
  - N. Final Plans Checklist Form D-12
7. Additional plans and information may be required to complete the Final Design Plans. With the submittal of the Final Design the CONSULTANT shall also provide the COMMISSION a statement that an internal quality control check has been conducted and to the best of the CONSULTANT'S knowledge the final design plans are free of gross errors, misleading or confusing typos, and includes adequate information to construct the project.

8. The CONSULTANT shall prepare all plans through the use of a Computer Aided Drafting (CAD) program. The CONSULTANT shall conform to MoDOT's Specifications for Computer Deliverable Contract Plans as referenced in the MoDOT EPG.
9. The CONSULTANT shall furnish the COMMISSION the following completed sheets and documents, as follows:
  - A. Final Plans showing profile grades, geometric data, alignment data, etc.
  - B. Field check and core team meeting minutes
  - C. One (1) electronic copy of the location sketch for Commission Approval submitted in electronic format.
  - D. Draft copy of the Job Special Provisions related to design elements for review. After corrections, the Job Special Provisions shall be furnished in electronic format utilizing the COMMISSION'S latest word processing program.
  - E. One (1) legible electronic copy of engineering calculations and analysis.
  - F. One (1) electronic copy of a complete summary of quantities and estimate of construction costs. The estimate shall be prepared using the latest version of MoDOT's Estimate program.
  - G. One (1) electronic copy of the completed Standard Plans list, MoDOT Form D-2.
  - H. One (1) electronic copy of a workday study showing the estimated number of workdays required to construct each project.
  - I. The CONSULTANT shall provide a 3D model of the project exported from Geopak (or Open Roads Design) software for the COMMISSION'S use, if applicable.
  - J. 100% complete unsigned and unsealed final design plans and job special provisions.
  - K. 100% complete signed and sealed final design plans and job special provisions.

#### BIDDING AND CONSTRUCTION SUPPORT

1. The CONSULTANT shall be available to the COMMISSION to discuss and interpret plans and specifications during the bidding and construction phase of the project, as determined necessary by the Engineer.

2. The CONSULTANT may be required to attend a pre-construction meeting.
3. If issues arise during construction necessitating plan corrections or clarifications by the CONSULTANT, there will be a direct line of communication established between the MoDOT Construction Office and the CONSULTANT.
4. In the instance that additional scope items are added during the construction phase and require design by the CONSULTANT, the communication system described above shall apply.

#### SERVICES PROVIDED BY THE COMMISSION

1. The CONSULTANT shall be responsible for completing all roadway design work for this project, except for the following items to be provided by the COMMISSION:
  - A. All necessary environmental and historic preservation studies.
  - B. "As-built" plans for prior State highway improvements within the project limits.
  - C. Traffic volumes for construction and design year traffic, including turning movements (if applicable).
  - D. Project beginning and ending log mile points, and other log mile reference points (as deemed necessary by MoDOT's project manager).
  - E. Pavement and shoulder design – thickness and type.
  - F. All necessary mapping and survey data.
  - G. Electronic copies of all necessary special sheets and standard format sheets will be provided in DGN format. MoDOT standard plans, Missouri Standard Specifications for Highway Construction, standardized job special provisions, and Engineering Policy Guide (EPG) are available at <http://www.modot.org/business>.
  - H. Seeding and fertilizing application rates.
  - I. Contract completion date.
2. The CONSULTANT shall proceed with final design and preparation of



detailed plans in accordance with the data approved or furnished by the COMMISSION which will meet with the general standards adopted by AASHTO and approved by the Department of Transportation as provided by Title 23, United States Code, Section 109(b).

## SCHEDULE

The Consultant shall make submittals in accordance with the schedule described below.

Consultant Notice to Proceed – Early February 2025

Design Criteria Memo by March 15, 2025

Conceptual Stage Request for Environmental Services by April 1, 2025

Preliminary Stage Request for Environmental Services by May 15, 2025

Preliminary Plans by June 1, 2025

Public Meeting Exhibits by July 15, 2025

Public Meeting – August 2025

Final Stage Request for Environmental Services by October 1, 2025

100% Review Plans by November 1, 2025

Construction Support as needed post award

Final Signed and Sealed Roadway Plans, Job Special Provisions, Final Construction Estimate, Working Day Study, D-12 Form and remaining PS&E documents December 15, 2025 for a March 2026 letting

PERIOD OF SERVICE – The total period of service, including construction support services, is expected to be completed by November 1, 2027.