

SCOPE OF SERVICES

PROJECT DESCRIPTION

MoDOT Job Number JSU0148 has been developed to provide operational improvements on Greene County, Route D (Sunshine Street) within the limits of Oak Grove and Ventura Avenue. The project resulted from the completion of a Traffic Safety and Operational Study on Sunshine Street in 2022.

The CONSULTANT shall provide the professional, technical, and other personnel resources, equipment, materials, and all other things necessary to complete the Alternatives Analysis, Conceptual Study, Section 106, Geotechnical Work, Utility Coordination, Preliminary Plans, Right of Way Plans, and Construction (PS&E) Plans and Documents.

A more detailed description of the process and requirements used by MoDOT for completion of the design may be found in the EPG. The consultant is encouraged to review the appropriate sections of the manual as a means to supplement the information contained in the scope of services and provide additional guidance in the requirements and expectations of MoDOT for completion of the design services.

Services rendered by the CONSULTANT, which are considered additional services, will be addressed per paragraph (3), Additional Services of the Project Design Consultant Agreement. The provisions of the Design Consultant Agreement outlining the responsibilities of the CONSULTANT regarding the quality and accuracy of the deliverables and products shall apply to any decisions regarding determinations of additional services.

Preparation of a supplemental agreement is necessary prior to performance of any work, which is considered as additional services, not included in the original scope of services. The consultant will not be compensated for additional services performed prior to execution of a supplemental agreement. Only additional services, which are required due to changed or unforeseen conditions or are 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 the Missouri Department of Transportation Specifications for Computer Deliverable Contract Plans as referenced in the MoDOT EPG. The CONSULTANT shall use Microstation Connect Edition Open Roads Designer, unless otherwise directed by the COMMISSION.

The CONSULTANT shall review "as built" plans, aerial photographs, manuscripts, etc. and other information to be provided by the Commission and make the necessary field investigations to assure that there have been no significant changes since the information was recorded or obtained.

The CONSULTANT shall prepare a comprehensive design criteria memorandum for this entire project and submit it to the COMMISSION for review and approval. Any deviations from Commission established procedures for design, construction or materials shall be approved through the MoDOT project manager and documented by the CONSULTANT. This documentation shall include a brief justification for the deviation and the signature of the CONSULTANT project manager.

This scope of services is intended to be an accurate description of the items 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 explain and define in general terms the major design items of importance relating to this project. All the elements of work that are necessary to satisfactorily complete the design of this project will be listed.

1. PROJECT MANAGEMENT AND COORDINATION TASKS (PHASE 1 AND 2)

The CONSULTANT shall perform the following Administration/Project Management and Coordination tasks:

1. Coordinate with MoDOT Project Manager to schedule and plan the kick-off core team meeting.
2. Participate in the kick-off core team meeting, inviting any sub consultants that need to attend. It is assumed that this will be a virtual style meeting.
3. Schedule, plan and participate in virtual core team meetings with MoDOT. A total of four (4) virtual core team meetings is anticipated.
4. Prepare minutes for all meetings and provide to core team.
5. Prepare monthly progress reports that include the following:
 - a. Past month's activities/accomplishments
 - b. Pending issues and decisions
 - c. Problem areas and recommended corrective actions
 - d. Schedule summary status (chart showing baseline schedule vs. actual schedule)
 - e. Next month's planned activities/goals
 - f. Summary of coordination efforts (including correspondence summaries)
6. All of the above shall include/address sub-consultant tasks.

2. PUBLIC INVOLVEMENT (PHASE 1 AND 2)

The COMMISSION will be the main point of contact for receiving calls from the public. The CONSULTANT will interact with external agencies and the public as required to accomplish the scope of services of this contract.

1. The CONSULTANT will be required to attend meetings with regulatory agencies, organizations, county officials, local municipalities, property owners and other entities as required. It is anticipated that two (2) meetings will be required.
2. The CONSULTANT will be required to participate in public meetings/hearings.
 - a. It is anticipated that one (1) conceptual stage public meeting will be required near the completion of the conceptual report.
 - b. It is anticipated that one (1) public meeting/hearing will be required upon approval of the preliminary plans.
3. The CONSULTANT shall participate in planning meetings with MoDOT personnel before meetings and public meetings/hearings.
4. The CONSULTANT shall provide exhibits and renderings for the in-person public meetings, and for the project website. The CONSULTANT shall update the exhibits and renderings as requested by the COMMISSION.
5. The CONSULTANT shall provide the COMMISSION a database containing all property owners contiguous to the project, or within a reasonable distance of the project. The database shall be of similar format and contain the same information as the example database provided by the COMMISSION to the Consultant. The database shall also designate whether the individual is someone the Commission will need to obtain right of way and/or easements from.
6. The COMMISSION shall advertise for meetings, obtain the meeting location and room, produce copies of handouts and perform mass mailings of notices of meetings or hearings, and newsletters.
7. The COMMISSION shall record and prepare the meeting minutes of the public meeting and shall prepare the transcript, if applicable.

3. SURVEYING (PHASE 1 AND 2)

1. MoDOT will provide the available survey data for each project.
2. MoDOT will provide any additional survey work needed for the analysis and design of the project.
 - a. The CONSULTANT shall submit a Survey Request to MoDOT's Transportation Project Manager that includes detailed information on the survey work needed.
 - b. The CONSULTANT shall provide an exhibit (pdf, map or kmz file) that shows the outline and/or location of the requested survey.

4. UTILITY COORDINATION (PHASE 1 AND 2)

The CONSULTANT shall lead the effort on utility coordination. Phase 1 efforts will identify utility type for the conceptual report. Phase 2 assignments will include working with the professional land surveyors for the following project documentation and plan details.

A supplemental agreement will be required for Phase 2 activities.

1. Review completed topographic surveys to develop preliminary plans, right-of-way plans and final roadway plans, including any necessary improvements and existing topography within the limits of the project. Topographic surveys shall consist of pertinent topographic features, but not limited to:
 - a. Existing drainage and sanitary structures (pipes, types, flowlines, sizes) where pipe improvements were identified during the concept and preliminary phases
 - b. All identifiable utility locations and equipment at signalized intersections and longitudinal areas in between intersections that are adversely impacted
 - c. Existing signal, lighting and any ITS equipment inside slope limits
 - d. Sign posts, size, identification and photo log
2. Field locate visible above ground evidence of utilities located within the project area. "Missouri One Call" and MoDOT will be contacted and a formal request will be submitted for marking the locations of member utilities. In the event that "Missouri One Call" fails to respond, in whole or in part, to the formal request, underground facilities, structures, and utilities will be plotted from surveys and/or available records. The locations of all utilities are to be considered approximate. There may be other utilities, whose existence may not be known at the time of the survey.
3. Consult with MoDOT's Utility Manager to coordinate with surveyors on underground utility locates.
4. Coordinate to obtain One-Call tickets to have utilities located in identified areas of proposed project. An estimate of 1 MO One Call ticket for every 400 linear feet of sidewalk is reasonable for preliminary design. Additional MO One Call tickets after preliminary design is complete will be required where additional items were added to the final design plans compared to the concept design plans.
5. Coordinate with surveyor to complete utilities survey and verify completeness and accuracy of utility topographical survey. Service connections shall be included as part of the utility survey.

6. Coordinate with utility companies on the development of the plan of adjustment and obtain cost estimates for reimbursable utilities for the District Utility Manager's approval.
7. Show the existing utility facilities and plan of adjustments for proposed utilities facilities in the contract plans (plans sheets, cross sections, culvert sections).
8. Work with the various utility owners to determine if any needs for renewals within the project limits.
9. Coordinate relocation of each impacted utility on the project during design and construction.
10. Prepare special utility sheets as necessary (including utility profile and exhibits).
11. Assist District Utility Manager and/or Coordinator in the preparation of agreements.
12. Identify locations for power service needs, prepare service request for submittal and coordinate with the power company to obtain estimated costs.
13. Coordinate with MoDOT District Utility Manager regarding the need for test holes and initiating the potholing with the applicable utility owner. Provide test hole information at critical utility locations to the District Utility Manager.
14. Prepare utility job special provision and information for the preparation of the Utility Status Letter for the District Utility Manager.
15. Provide assistance and answer utility related questions during the construction phase for MoDOT staff and the roadway contractor.
16. Review MoDOT excavation permits in project area for conflicts with design and construction phase. This includes new utility installation, modifications to existing facilities, and any developer driven improvement within the project limits.

5. ENVIRONMENTAL (PHASE 1 AND 2)

1. The conceptual stage Request for Environmental Services (RES) has been submitted for each project. The CONSULTANT shall review the comments provided within the RES. The CONSULTANT shall provide requested information and responses to the MoDOT Environmental Staff.
2. The CONSULTANT shall submit the preliminary stage RES upon approval of the conceptual report and/or upon determination of proposed scope for each project.

- a. The CONSULTANT shall note any anticipated right of way and/or easement acquisition needs in this submittal.
 - b. The CONSULTANT shall discuss the anticipated needed A-date with MoDOT's Project Manager, and ensure the date is entered with this submittal.
3. The CONSULTANT shall submit the Right of Way stage RES for each project upon approval of the preliminary plans.
4. The CONSULTANT shall submit the final stage RES for each project at least 90 days prior to the PS&E deadline.
5. The CONSULTANT shall review the comments provided by MoDOT's Environmental Staff with each RES submittal. The CONSULTANT shall provide any requested information to MoDOT's Environmental Staff, the MoDOT Project Manager and Transportation Project Designer. Items that may need to be addressed include historical buildings, bridges and sites, archeological sites, conversion of farmland, endangered species, wetlands and parklands.
6. The CONSULTANT shall submit another RES when there are changes to the impacts or design from the previous submittal.
7. If more than twelve (12) months lapse between required RES submittals, the CONSULTANT shall submit another RES.
8. The CONSULTANT shall coordinate a meeting with MoDOT's Project Manager and Environmental Staff prior to conducting any Section 106 tasks. It is anticipated that there will be two (2) virtual meetings for this task.
9. The Section 106 work will be carried out by, or under the direction of, an individual who meets the Secretary of the Interior's Professional Qualification Standards.
10. The CONSULTANT will consult with the MoDOT Historic Preservation Section (HP) to establish the area of potential effects (APE) for the archaeological and architectural surveys prior to the initiation of any work.
11. MoDOT HP will prepare Tribal Notification for Federal Highway Administration to submit to interested Tribes.
12. The CONSULTANT shall then develop a concise historic context to guide the investigations to identify and evaluate historic properties (or explain their absence) in the APE and submit a written Research Design to MoDOT HP, staff before conducting archaeological and architectural surveys.
13. The CONSULTANT will conduct an architectural survey that follow the MoDOT *Built Environment Resources Methods* and will identify and document all architectural resources (i.e., buildings, structures, objects, sites, and districts/landscapes) and all bridge resources (i.e., highway, railroad and pedestrian bridges, viaducts and culverts, excluding

metal, plastic and reinforced concrete pipes) that are forty or more years of age located within the APE. The CONSULTANT shall contact MoDOT HP regarding National Register of Historic Places (NRHP) eligibility recommendations for all bridges.

14. The CONSULTANT will complete the archaeological investigation within the APE to identify prehistoric and historical sites following MO SHPO's *Guidelines for Phase I Archaeological Surveys and Reports*. For archaeology, this current scope of services covers only consultant services through the Phase I survey and the subsequent Phase I survey report. This can include preliminary eligibility assessments or recommendations for additional (i.e. Phase II) work. Sites form, for new and revisited sites, shall be completed; after consulting with MoDOT HP, the forms can be submitted directly to MO State Historic Preservation Office (SHPO).
15. The results of the built environment (e.g., buildings, bridges, etc.) and archaeological investigations including effects on resources eligible for listing on the NRHP, should be presented by the CONSULTANT in a single draft report to MoDOT HP, unless the reasons for separate documents has already been approved by MoDOT HP. Once the report is finalized, MoDOT HP will submit it to SHPO. Recovered artifacts, archaeological field notes and lab forms, either originals or copies, shall be submitted to MoDOT HP upon acceptance of the final report.
16. MODOT will coordinate with the SHPO regarding potential cultural, historical, and archeological issues.

6. PROGRAMMING ESTIMATE UPDATE (PHASE 1 AND 2)

1. The CONSULTANT shall develop a cost estimate for the project at each major milestone (conceptual, preliminary, right of way and PS&E).
2. The CONSULTANT shall update the cost estimate to update MoDOT's STIP, and shall provide the following documents according to the schedule provided in Exhibit IV:
 - a. Construction Cost Estimate using bid tabs with detailed quantities and costs for each pay item (minimizing the high level lump sum items)
 - b. Estimated Utility Relocation Costs
 - c. Estimated new Right of Way and/or Easement areas. MoDOT will provide a cost estimate based on these dimensions and locations.
 - d. Red-lined Project Summary Sheet (provided by MoDOT)
 - e. Completed Estimate History Worksheet in excel form (provided by MoDOT)
 - f. Estimate Packet (.pdf file) in the following order:
 - i. Red-lined Project Summary
 - ii. Estimate History Worksheet
 - iii. Bid Tabs Construction Cost Estimate
 - iv. Documents showing development of utility relocation estimate
 - v. Documents showing development of RW estimate

- vi. Any additional information used to develop cost estimates, including typical sections, plan sheets, work spreadsheets, etc.

7. ALTERNATIVE ANALYSIS AND CONCEPTUAL DESIGN (PHASE 1)

1. The CONSULTANT'S attention is directed to Section 128 of MoDOT's Engineering Policy Guide (EPG) for general guidelines and requirements for the conceptual study, and to Sections 905 and 907 for general guidelines and requirements for the Alternative Analysis.
2. The CONSULTANT shall obtain and review all existing traffic counts, crash data, utility, drainage, right-of-way, and pertinent planning information. The CONSULTANT shall be granted access to the TMS system to download crash statistics maps and report.
3. The CONSULTANT shall obtain and review the Traffic Safety and Operational Study completed in 2022.
4. The CONSULTANT shall review and complete the SAFER document with the core team.
5. The CONSULTANT shall evaluate at least four (4) alignments or scenarios.
 - a. Realignment of Oak Grove Avenue from a conceptual drawing provided by MoDOT.
 - b. Realignment of Ventura Avenue from a conceptual drawing provided by MoDOT.
 - c. The CONSULTANT shall develop and analyze two (2) additional alignments or proposed improvement scenarios to improve the safety and operation of the project area.
6. The CONSULTANT shall complete a synchro model for the existing intersections using the existing AM and PM traffic counts.
7. The CONSULTANT shall project future build year (2028) traffic and future design year (2048) traffic volumes to evaluate the proposed improvements within the project limits. The future volumes will be based on annual growth factors provided by the Ozarks Transportation Organization (OTO) and/or revised projects from the updated OTO travel demand model.
8. The CONSULTANT shall develop Synchro models of the no-build and each of the four (4) scenarios listed above using the future (build and design years) peak hour volumes.
9. The CONSULTANT shall develop a traffic flow simulation to be used during public meetings.

10. The CONSULTANT shall evaluate each scenario to determine if the improvement creates a Type 1 Project requiring a noise study. The consultant shall contact MoDOT Senior Environmental Specialist, Matt Burcham, with any questions.
11. The CONSULTANT shall prepare and submit the Design Criteria Memorandum.
12. The CONSULTANT shall prepare the conceptual drawings/layouts that include basic geometric elements to discuss the improvements and limits of construction for each scenario.
13. The CONSULTANT shall develop cost estimates for each scenario as outlined previously in this document (Task #6).
14. The CONSULTANT shall prepare a combined Conceptual Report / Alternative Analysis Report that includes the plans (or drawings/layouts), cost estimates and summary of safety/operational analysis for each scenario.

8. GEOTECHNICAL INVESTIGATIONS (STAGE 2)

A supplemental agreement will be required for Geotechnical Investigations.

9. PRELIMINARY DESIGN (STAGE 1 AND 2)

The CONSULTANT'S attention is directed to Section 235 of MoDOT's Engineering Policy Guide (EPG) for general guidelines and requirements for preliminary design.

1. The COMMISSION shall furnish the pavement design recommendation and general special provisions to be used in the preliminary plans.
2. The COMMISSION shall secure the execution of any required agreements with the cities and/or counties. The CONSULTANT shall conform to all design provisions in these agreements.
3. Upon approval of the design alternative by the Commission, the CONSULTANT shall prepare the preliminary plans including the proposed design features:
 - a. Preliminary Title Sheet
 - b. Typical Sections – indicating heavy, medium or light duty pavement for new roadways (if the pavement recommendation is unavailable at the time of

submittal), along with descriptions of the existing roadway types remaining in place.

- c. Plan Sheets
 - d. Profile Sheets
 - e. The preliminary plans shall include the tentative additional easements and right of way limits, property lines and ownerships, section lines, township and ranges, any U.S. Surveys, city limits, and a general outline of the construction staging, critical design items and other items as outlined in the EPG.
 - f. The CONSULTANT may have to review preliminary cross sections sufficiently to make a cost comparison between using retaining walls versus acquiring right of way for all proposed wall locations.
4. The CONSULTANT shall prepare the preliminary plan construction cost estimate, utility relocation cost estimate and right of way estimate as outlined previously in this document.
 5. The CONSULTANT shall prepare the letter of transmittal (as a word document) for the preliminary plans. The COMMISSION will provide the template.
 6. The CONSULTANT shall complete the preliminary plan checklist. The COMMISSION will provide the checklist.
 7. The CONSULTANT shall provide one (1) electronic copy of the preliminary plans, construction cost estimate, preliminary plan checklist and letter of transmittal to the Commission for review and approval. The letter of transmittal shall be provided as a word document.
 8. The CONSULTANT shall provide one (1) electronic copy of the approved preliminary plans and available cross sections to MoDOT's Utilities Department. The known utilities will be color-coded on this set of plans.

10. RIGHT OF WAY DESIGN (STAGE 2)

A supplemental agreement will be required for Right of Way Design.

The CONSULTANT'S attention is directed to Section 236.13 of MoDOT's EPG for general guidance and requirements for design right of way plans.

1. The CONSULTANT shall prepare right of way plans, which may be separate drawings from those used for design and construction details. The right of way plans shall show:
 - a. alignment,
 - b. geometric design,
 - c. removal of improvements,
 - d. drainage facilities,
 - e. property lines and ownership,
 - f. $\frac{1}{4}$ $\frac{1}{4}$ section lines,
 - g. subdivision lot lines,
 - h. other land survey information,
 - i. street lines and
 - j. existing right of way and easements.
 - k. The CONSULTANT should also include any plan details, which will require additional right of way or easements during the construction phase of the project such as bypasses, temporary erosion control, etc.
2. Right of way plans include title sheet, typical sections, profile sheets, and cross sections as needed. Areas of new right of way, permanent easements and/or temporary easements required from each individual property owner may be shown in tabular form on the respective sheets, but will also be included on the individual plan sheets, and shall be denoted under the Parcel Number and Name on each individual tract.
3. Right of way plans shall be submitted to the COMMISSION for review and approval as scheduled in Exhibit C. The right of way plans shall be at the same scale as the construction plans. The right of way plans shall include any design details that will control the width of right of way and necessary easements.
 - a. New right of way lines and all easements shall be dimensioned from the centerline, or crossroad centerlines, if necessary. Stations and offset distances will be labeled for each break point. Bearings and distances on the right of way lines may be required.
 - b. The following minimum design features shall be included on the right of way plans:
 - i. Title sheet with appropriate project limits, access note and traffic data completed.
 - ii. Typical section sheets.
 - iii. Cross sections as needed. Cross sections shall be included at each entrance with new and existing entrance grades.
 - iv. Construction limits (slope lines);
 - v. drainage facilities,
 - vi. entrances (with existing new grade percentage) and their reference location, width and type;

- vii. property owners, with areas of new right of way, easements and remaining property,
 - viii. centerline bearings,
 - ix. ties to legal land corners from centerline stations with notation for corner witness by a registered land surveyor;
 - x. existing utility locations and easements, including replacement utility easements;
 - xi. horizontal curvature information;
 - xii. proper right of way symbolization for new right of way (access control) and easements, including areas which may be required to accommodate temporary erosion control.
 - xiii. Township, Range, Section and/or U.S. Survey information on each plan sheet near the title block or appropriate survey/section line. Subdivision lot lines and $\frac{1}{4}$ $\frac{1}{4}$ section lines will also be included.
 - xiv. Driveway profiles – the CONSULTANT shall develop and layout horizontal and vertical alignments for all impacted driveways within the project limits.
 - xv. Special sheets.
 - xvi. Culvert Sections/Storm Drainage Sheets – the CONSULTANT shall finalize size and length of any culvert and place description on the plan sheets.
4. The COMMISSION may arrange for a design field check to review right of way plans with the CONSULTANT and right of way personnel prior to completion of the right of way plans. The CONSULTANT shall make any necessary revisions to the right of way plans as determined by this design field check.
 5. The CONSULTANT shall submit a complete set of right of way plans, with the title sheet signed and sealed.
 6. The COMMISSION shall review, approve, and certify the right of way plans as completed by the CONSULTANT.
 7. The COMMISSION will provide title insurance information for the parcels where new right of way is being acquired. Any ownership deeds, easement deeds, subdivision plats, etc. needed or used in the development of existing property lines for the right of way plans will be furnished by the CONSULTANT.
 8. The COMMISSION will prepare right of way appraisals and secure the necessary right of way by negotiation or condemnation, if necessary, for construction of this project.
 9. The COMMISSION shall be responsible for staking and re-staking tentative right of way on individual properties, as required by MoDOT staff, during the right of way negotiation and acquisition phase of the project. Stations and offsets will be provided by the

CONSULTANT for all staking requests. The CONSULTANT shall provide elevations as needed.

10. The CONSULTANT shall be responsible for making all revisions to the right of way and construction plans due to negotiations with the property owners in an effort to acquire the right of way.
11. The COMMISSION shall write the legal descriptions for the new land and any new easements for all right of way acquisition.

RIGHT OF WAY PLAN SUBMITTAL

1. One (1) set of Right of Way plans with Professional Engineer's seal on the title sheet.
2. One (1) construction cost estimate, including estimated utility relocation costs.

11. PLANS, SPECIFICATIONS AND ESTIMATES PHASE (PHASE 2)

A supplemental agreement will be required for the Plans, Specifications and Estimates phase.

The CONSULTANT'S attention is directed toward Section 237 of MoDOT's EPG for general guidance and requirements for the development and submittal of the contract plans.

1. If deemed necessary, a field check shall be held with the Consultant and Commission representatives prior to completing the final design plan quantities. The CONSULTANT shall make any necessary revisions to the final plans as determined by this 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 computations for all design plan quantities. All plan quantities shall be shown in the Quantity Sheets, and 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.
4. The CONSULTANT shall prepare Job Special Provisions related to design elements shown in the plans. The COMMISSION shall provide any JSPs that are required as a result of right of way acquisition, environmental impacts and utility impacts.
5. The following list shall be considered the minimum requirements for a complete set of Construction Plans and PS&E Documents.

- a. Title Sheet
 - b. Typical Sections – using the latest version of the ADA typical sections
 - c. Quantity Sheets – using the latest version of the temporary traffic control summary sheet
 - d. Plan Sheets
 - e. Profile Sheets
 - f. Coordinate Points Sheet
 - g. Reference Points Sheet
 - h. Culvert Sections
 - i. Special Sheets for geometrics, grading, traffic control, erosion control and any other sheets for special design features
 - j. Temporary Traffic Control Sheets
 - k. Pavement Marking Sheets
 - l. Lighting Plans
 - m. Signal Plans
 - n. Signing Plans
 - o. Cross Sections at 100' intervals, including entrance sections with existing and proposed grades. Entrance sections can be part of the special sheets. Cross sections shall include earthwork quantities.
 - p. Tabulation of Quantity Sheets
 - q. Job Special Provisions in word format, using the Commission's Job Special Provision format
 - r. Cost estimate files from the latest bid tabs program, including the .pdf, .xml and .plus files
 - s. Equipment and Materials List (D-15) as generated by the Commission's estimate program
 - t. Construction Work Day Study
 - u. Electronic Deliverables as specified in EPG Section 237.14
 - v. The final plans checklist – to be provided by the Commission
6. Additional plans and information may be required to complete the Final Construction 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 construction plans are free of gross errors, misleading or confusing typos, and includes adequate information to construct the project.

12. BIDDING AND CONSTRUCTION

After the Final Design Phase of the project is completed, the CONSULTANT shall be available to the COMMISSION to discuss and interpret the plans and specifications during the

bidding and construction phase of the project as determined necessary by the ENGINEER. During this phase of the project, the CONSULTANT may also be required to attend the pre-bid conference/pre-construction meeting. If a partnering meeting is held between the construction contractor and MoDOT personnel, the CONSULTANT may be required to attend.

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. The CONSULTANT will immediately inform MoDOT Bridge Division of any recommendations or clarifications made to the Construction Office.

In the instance that additional rehabilitation scope items are added during the construction phase and require design by the CONSULTANT, the communication system described above shall apply.

STANDARDS

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

- "Federal Emergency Management Administration Flood Insurance Guidelines and Specifications,"
- MoDOT "Engineering Policy Guide,"
- AASHTO's "Manual on Uniform Traffic Control Devices" (MUTCD)
- AASHTO's "A Policy on Geometric Design of Highways and Streets"
- "Missouri Standard Specifications for Highway Construction"
- "Missouri Standard Plans"
- "Missouri Department of Transportation Specifications for Computer Deliverable Contract Plans"
- MoDOT "Bridge Manual"
- any other publications which the ENGINEER directs the CONSULTANT to use.