

ATTACHMENT “A”

SCOPE OF SERVICES

The work to be performed for this project consists of providing all services required to conduct appropriate technical studies, traffic studies, safety analysis, line and grade studies, and provide an Environmental Assessment (EA) and related documents, including the analysis, evaluation, and documentation of the proposed project. The DOTD anticipates that an EA will suffice as the environmental document for the project. However, should it be determined that the project requires an Environmental Impact Statement (EIS), DOTD may supplement the contract.

For this contract, two alternatives plus one NEPA-derived alternative will be evaluated for this project and discussed in the EA. Any additional alternatives will be negotiated via supplemental agreement. The proposed alternatives are:

- 1) No-Build
- 2) 3-lane roadway [center turn lane would be two-way left turn lane (TWLTL)]
- 3) 4-lane divided roadway that transitions to 3-lane roadway [center turn lane would be two-way left turn lane (TWLTL)] where ADT drops to an acceptable level
- 4) NEPA-derived alternative

Only viable alternatives that meet the project’s Purpose and Need are considered reasonable. If any alternative is dismissed at an early stage, the reasons for the dismissal shall be discussed in the EA. These alternatives, including the No-Build, will be described and analyzed in the environmental document. The Consultant will develop a sufficient number of typical sections to adequately represent the roadway sections and estimate the limits of construction (LOC) and required right-of-way (ROW) for each alternative. The estimated ROW taking will be used in analyzing the various impacts of the alternatives and for estimating costs. The LOC and ROW shall be clearly displayed on the Line & Grade drawings.

The scope of services will involve, but are not limited to the following services:

TASK 1: PROJECT MANAGEMENT

1) Project Initiation

The Consultant shall schedule a kick-off meeting with the DOTD Project Manager and project team within 10 business days of receiving a Notice to Proceed. The Consultant is responsible for setting up the project kick-off meeting which will include but not limited to the meeting agenda, miscellaneous handouts, and project schedule (including Gantt chart of project timeline with milestones). Agenda items for this meeting shall include the review points and durations, time-frame assumptions built into the project schedules, invoicing procedures, progress reporting, rating criteria, and plans for early coordination of public involvement. The consultant is responsible for meeting minutes which shall be provided to the DOTD Project Manager within three (3) business days following the meeting.

2) Develop Draft Agency and Public Involvement Coordination Plan

The project will require coordination with multiple State and Federal agencies. The purpose of the coordination plan is to facilitate and document the lead agencies' structured interaction with the public and other agencies and to inform the public and other local, state, and federal agencies of how the coordination will be accomplished.

The coordination plan should outline (1) how the lead agency has divided the responsibilities for compliance with the various aspects of the environmental review process; and (2) how the lead agency will provide the opportunities for input from the public and other agencies, in accordance with applicable laws, regulations, and policies. The plan also should identify coordination points, such as:

- Scoping activities include, but are not limited to, the following tasks:
 - Develop Public Involvement Inquiries Record
 - Coordination of Responses to Public Inquiries
 - Develop Listing of Interested Parties
 - Maintenance of Record Following Outreach and Public Involvement Opportunities
 - Prepare Public Outreach Materials
 - Distribute handouts at Meetings
- Development of Purpose and Need.
- Identification of the range of alternatives.
- Collaboration on methodologies.
- Completion of the draft Environmental Assessment.
- Recommendation for a Finding of No Significant Impact or transition to an Environmental Impact Statement (EIS).

Deliverables: one draft and one searchable final PDF version of the Agency and Public Involvement Coordination Plan.

3) Project Tracking and Management

The Consultant is responsible for project tracking and will ensure all tasks are completed on schedule. All correspondence shall include applicable state project numbers, along with the project names, route number, parish, and federal aid project numbers. The Consultant shall provide the Project Manager with a monthly project schedule (in Microsoft Project) and progress report including the estimated and actual date of completion of each task to be performed. The Consultant shall provide the Project Manager with monthly invoices using the Department's standard form for invoicing. The consultant shall provide a completed Contract Tracking spreadsheet with each invoice.

Deliverables: Submittal of monthly progress schedule, report and invoices.

TASK 2: DATA COLLECTION

The Consultant will collect socio-economic and environmental data to allow for the development and analysis of feasible alternatives. This information will be organized as a Geographic Information System (GIS) database in ESRI Shapefile format, consistent with DOTD standards for evaluation and presentation purposes. Data for this task will include but not be limited to the following:

- Census data on population and housing, race and income for study area
- Available National Wetland Inventory data
- Available digital soils unit data/locations of prime and unique soil units
- Federal and state lands
- 100-year floodplains
- Location of recorded known hazardous and potentially hazardous sites
- Sensitive resources and recorded T & E sites
- Parklands and sites available from USGS Geographic Names Information System
- Survey of major topographic features and utilities

Deliverables:

Development of socio-economic and environmental inventory information in GIS database format.

TASK 3: MAPPING

The Consultant will obtain the most recent aerial photography for use on the project. The Consultant will incorporate all preliminary data collected in the previous tasks and further develop the GIS database for mapping socio-economic, environmental, traffic, utilities, line and grade, and other relevant project information. Project mapping will include layouts of the build alternatives and estimated rights-of-way and environmental constraints. Local landmarks and major features will be labeled to assist the public in interpreting the exhibits. Large format presentation exhibits will be prepared for public meetings, while line and grade exhibits (plan/profile sheets) will be developed for the EA. LIDAR data will be obtained by the consultant for use in developing vertical geometry for the build alternatives and for use in the traffic noise analysis.

Deliverables:

Project mapping of conceptual build alternative layouts with existing conditions, environmental features, and constraints

TASK 4: TRAFFIC ANALYSIS

The Consultant shall prepare and coordinate a formal traffic study for the purpose of analyzing existing and future conditions along the US 80 corridor to determine alternatives that would preserve and enhance mobility along with safety. Existing and projected future traffic variables will be studied in accordance with standard operating procedures typically performed in these types of analyses. The traffic study will evaluate existing, no-build and up to three (3) proposed

build alternatives for US 80 (Vancil Road to Well Road), a length of approximately 1.3 miles which is anticipated to see substantial growth in the next few years.

The traffic study will examine concepts that will improve the safety and efficiency of the roadway consistent with the latest LADOTD policies related to access management and complete streets. Specific access management features to be examined will include, but not limited to, a four-lane, median-divided section (the default option) with RCUTS at appropriate locations along with median U-turns. In addition, intersection treatments including signalization of intersections, roundabouts, and prohibition of certain side-street turn movements will be analyzed as a part of the proposed build alternative. Specific complete streets features to be examined will include best practice bicycle and pedestrian treatments along with safety features where feasible and practicable per DOTD's complete streets policy.

Concepts shall be developed in sufficient detail to determine geometric feasibility of the proposed improvements and anticipated right-of-way needs. The traffic study scope of work shall include the following tasks:

1) Traffic Study

The Consultant shall conduct a formal traffic study for evaluating existing and future conditions for the corridor. Throughout the traffic study process, the Consultant shall meet with LADOTD Traffic Engineering Management (TEM) and District 05 Traffic Section to evaluate methods, layouts, and analysis. Individual task deliverables shall be submitted for approval to LADOTD TEM and District Traffic Operations Engineer (DTOE) before advancing to the next stage of the study.

A. Data Collection

The Consultant shall conduct traffic data collection in several stages. Exploratory seven-day twenty-four (24) hour machine traffic counts shall be conducted to determine temporal volume variation and the information obtained through these counts shall be used to determine peak weekdays, peak periods and peak hours. The Consultant, subsequent to DOTD's review and approval of the peak period determination, will initiate detailed data collection. Detailed data collection shall include twenty-four (24) hour machine traffic counts, speed counts, peak period turning movement traffic counts for AM and PM peaks, and 15-minute peak period turning movement counts for the study area. Data collection locations along with the type of data that will be collected are shown in Table 1. The manual turning movement counts and machine counts shall include FHWA Vehicle Classifications 1-14. The manual turning movement counts shall include demand volumes. The counts shall be collected according to standard engineering practice on a Tuesday, Wednesday, or Thursday, when schools are in session (not during summer vacation, or during holidays).

The Consultant shall conduct 15 minute turning movement counts at all approved major driveway locations (list to be submitted and approved before starting count). There are approximately 20 locations where 15 minute counts may be required. Turning movement

counts shall be conducted at business driveways (location and data collection period to be finalized after approval from DOTD). In addition, residential driveway counts will be conducted at approximately 10 driveway locations.

The Consultant shall also collect queue observations during the peak periods. An engineer shall perform up to four peak hour observations. These observations shall include type and location of median openings, their traffic conditions and AM and PM peak hour characteristics such as, but not limited to, queue lengths, congestion, operational issues and sight distances.

Table 1: Location and Types of Traffic Data Collection

| No. | Count Location | 7-Day Counts | 48-Hour Counts | TMCs |
|-----|---|--------------|----------------|------|
| 1 | US 80 at LA 3249 (Well Rd. /Wallace Dean Rd.) | ✓(WB,EB) | ✓ (NB, SB) | ✓ |
| 2 | US 80 at Defreese Rd. | | | ✓ |
| 3 | US 80 at N. Parkdale Dr. | | | ✓ |
| 4 | US 80 at Forest Hill Rd. | | | ✓ |
| 5 | US 80 at Casa Linda Blvd. | | | ✓ |
| 6 | US 80 at Avant Rd. | | | ✓ |
| 7 | US 80 at Allen Ln. | | | ✓ |
| 8 | US 80 at Steep Bayou Rd. | | | ✓ |
| 9 | US 80 at Boley Ammons Rd. | | | ✓ |
| 10 | US 80 at Drake Dr. | | | ✓ |
| 11 | US 80 at Vancil Rd. | ✓(WB, EB) | | ✓ |

Deliverables:

1. **Data Collection Plan:** The Consultant shall submit findings from the exploratory counts and list all data collection locations, periods of data collection and types of data that will be collected along with a schedule for completion of the task in the form of a technical memorandum. This memorandum shall be reviewed by DOTD and further data collection tasks will commence only after the approval of the technical memorandum.
2. The consultant shall prepare a brief technical memorandum summarizing the results of the data collection and analysis tasks described above that will become part of the overall report. All counts, studies, analyses will be presented in separate tables that are clear and easy to follow. Graphical representations will be used to present turning movement volumes, and other relevant data items, where applicable. The consultant shall submit this technical memorandum to DOTD for review in a draft form. A draft submittal of this technical memorandum will be submitted to the project manager for review and comments. Within this draft submittal should be included a peak hour observation summary that has been conducted by a Professional Engineer. Once comments have been addressed and the memorandum is approved by DOTD, the consultant can proceed with subsequent tasks associated with this task order.

B. Warrant Analysis

Warrant Analysis shall be performed at all locations that 48-hour machine tube counts were performed.

Deliverables: Results of the warrant analysis shall be included in the existing and no-build conditions report

C. Crash Data Analysis

The Consultant shall obtain recent crash reports from DOTD covering a minimum of three years (estimated to be approximately 150 crashes). The consultant shall provide a crash data summary for the crash reports. The Consultant shall review the crash reports in detail to identify high crash locations, over-represented crash types and contributing factors for high crash rates. Crash type shall be determined based on the reporting officer's description of the collision. A report shall be submitted to LADOTD Safety Section for any crash reports that are found to be erroneous. The Consultant shall provide a map locating crashes within the project corridor and using tables and text to categorize types of crashes at the various locations, severity of collisions and injuries, time of day, weather conditions, pavement conditions, lighting conditions and driver conditions as reported in crash reports. The crash trends shall be displayed in charts/graphs and each trend should be compared to the statewide averages for intersections and segments where applicable.

Deliverables: Results of the crash analysis shall be included in the existing and no-build conditions report

D. Existing and No-Build Traffic Analysis

This task will include analysis of existing conditions using SYNCHRO or VISTRO software. The District Traffic Operations Engineer (DTOE) will provide the Consultant information on all proposed new developments. Growth factors, based on anticipated future development and historical growth in the area, will be applied to obtain the future year (2036) analysis scenario volumes. No-Build operational analyses will be conducted utilizing the projected volumes for future conditions and the results of the analysis will be summarized in graphical format and tabulated. Results of the operational analysis for future year conditions along with the results of the safety analysis conducted as part of Task 2.3 will be used to identify short and long-term needs for the study corridor. This task will present and discuss preliminary alternative concepts (up to 3 alternatives) to address the anticipated safety and mobility needs of the corridor.

Results of the analysis for this task will be summarized in a technical memorandum and circulated to DOTD for review and comments. A coordination meeting will be conducted subsequent to the submittal of the technical memorandum to discuss the analysis and its recommendation. Feedback obtained from the coordination meeting will be utilized to refine the proposed alternatives during the next task of the study.

Deliverables:

1. Existing and No-Build Analysis Memorandum: The technical memorandum shall include the study procedures and results of the warrant analysis, crash analysis and operational analysis for the various study scenarios. In addition, the memorandum

- will identify corridor needs and propose preliminary (thematic) improvement concepts to address identified needs. Proposed traffic distribution diagram for each concept shall be included in the technical memorandum.
2. Review Meeting: Consultant shall organize a review meeting to present and discuss preliminary alternative concepts. The consultant shall prepare the following:
 - a) 3 preliminary alternatives
 - b) Basic concepts sketched on aerials

E. Alternatives Analysis

Proposed build alternatives that have been reviewed and approved by DOTD during Task D above will be further analyzed under this task. Results of the analysis along with recommendations based on the analysis results will be summarized in a Draft Traffic Analysis Report. The draft report shall list data inputs, analysis procedures and results of the analysis. The following parameters will be used to conduct the analysis:

Proposed build alternatives

- a. All analysis alternatives will be approved by the DOTD Traffic Engineering Management Section before detailed analyses are conducted. Preliminary alternatives discussed in Task D may be changed after further analysis (this will not be considered another alternative). Alternatives may include, but are not limited to:
 - i. Restricted median openings
 - ii. Signalized and unsignalized intersections
 - iii. Median U-turns at existing signal locations such as an RCUT using 2-phase signals
 - iv. Roundabouts
 - v. Combinations of alternatives
- b. Modified or created median openings shall be designed in accordance with LADOTD EDSM VI.2.1.4.
- c. Roundabouts shall be designed in accordance with LADOTD EDSM VI.1.1.6.
- d. All intersection analyses shall be performed using Sidra 6 and Synchro 8 or Vistro, using the latest LADOTD approved version.
- e. For comparing roundabouts to signalized intersections, signalized alternatives shall be analyzed in Synchro 8 or VISTRO, then the phasing results and layout shall be inserted in Sidra 6 for analysis as described in LADOTD's "Roundabout Analysis: Required Settings and Standards for Sidra 6".
- f. For RCUTS, signal timings shall be performed in Synchro 8 or Vistro.
- g. Vissim shall be used to develop animations of the proposed alternative(s):
 - i. Shall show high and low volume situations of proposed alternatives.
 - ii. Shall be in Windows Media Player or equivalent.
 - iii. No calibration is required.
- h. The Consultant shall use the Highway Safety Manual predictive methodologies to compare potential safety benefits (crash reductions) of each alternative including the no-build alternative. A relative comparison of the predictive crashes for each alternative shall be provided. The predicted

crashes developed for each alternative shall be summarized by roadway segments, intersections and total project.

- i. Conceptual layouts will be developed for the three alternatives and the conceptual designs will be used to develop cost estimates for the study alternatives.
- j. The study shall compare the alternatives to the no build scenario by using the following measures of effectiveness (MOEs):
 - i. Study area travel time for 2036 (average)
 - ii. Study area delays (s/veh) (average)
 - iii. Study area throughput (veh/hr) (average)
 - iv. Safety (qualitative and quantitative analysis such as conflict points reduction, HSM predictive method, application of CMFs and specific countermeasure effectiveness)
 - v. Service life before saturation
 - vi. Cost of construction
 - vii. Benefit Cost Ratios to account for reduction in delay and/or crashes
 - viii. Right of Way needed
 - ix. Maintenance cost over 20 years
 - x. "Hot Spots" (i.e. and locations with a large queue and/or delay)

The consultant will show in a chart which alternative is the best for each category. This will be defined in the report as a range of percent improvement.

Deliverables:

1. Draft Traffic Analysis Report: The Consultant shall prepare a Draft Traffic Analysis Report summarizing the findings of the alternatives analysis along with the results of the No-Build Analysis. The report shall recommend an alternative, document all findings and compare Measures of Effectiveness for each alternative, including at least construction cost, right-of-way cost, maintenance cost, safety, and travel time. A comparison chart showing AM and PM delays for each approach of each major and minor, signalized or unsignalized, intersection of each alternative will be included. Delays and queue lengths associated with any roundabout options shall be included with the delay and queue lengths. The draft report will include the analysis of the following scenarios:
 - i. 2036 – No Build
 - ii. 2036 – Build Alternatives (Up to 3 scenarios)Three (3) unbound paper copies with a digital .pdf version on CD will be submitted to DOTD for review.
2. Electronic copies of the Synchro, Vistro, and Sidra files used for the analysis of proposed major intersections for AM and PM peaks comparing optimized signal phasing (performed in Synchro and analyzed in Sidra).
3. CADD files and printouts of alternatives.
4. Three (3) approved VISSIM (uncalibrated) micro-simulation models of the selected alternatives.

2) Final Traffic Analysis Deliverables

Upon review and approval of the draft Traffic Study Report by DOTD, the Consultant will provide three (3) copies of a final stand-alone traffic report documenting all findings of the traffic study, signed and sealed by a licensed Professional Engineer. A PDF version of the final report, including appendices and maps, shall be provided on a compact disc. Other deliverables shall include:

- Synchro/Vistro Files - electronic
- Sidra Files - electronic
- Vissim Files - electronic
- All turning movement and 48-hour count data - electronic spreadsheet
- Videos of proposed alternatives (Windows Media Player or equivalent)
- Site visit data
- Safety Analysis Documentation
- Electronic CADD files

TASK 5: LINE AND GRADE

The Stage 0 study previously prepared for the project will be provided to the Consultant for their use. The Consultant shall review the Stage 0 study and coordinate with the author as needed. The Consultant shall also review all other historical project information including but not limited to As-Built Plans, As-Designed Plans (Steep Bayou Bridge), field books, past meeting notes, etc., as needed to gain a complete knowledge of the project.

Starting with, but not limited to, the build alternatives derived from the Stage 0 Feasibility Report, all viable alternatives considered for the proposed action area shall be evaluated as described below within a line and grade study to be included as part of the environmental assessment. Only alternatives deemed to meet the project's Purpose and Need are considered reasonable and are to be evaluated. The consultant is required to fully develop a Line and Grade for each alternative prior to a Public Meeting. The Consultant will estimate the limits of construction and required ROW for each alternative. The estimated ROW takings will be used in analyzing the various impacts of the alternatives and for estimating costs. Exhibits depicting the alternatives and estimated ROW takings will be prepared by the Consultant for the document and for the Public Meeting and the Public Hearing materials. Aerial photography is preferred as a basis for the exhibits. Local landmarks and major features will be labeled to assist in interpreting the exhibits.

The Consultant shall be aware of a bridge replacement project currently under construction that will replace the Steep Bayou Bridge located near the Cornerstone Hospital of West Monroe (Log Mile 12.9), with a new slab span structure. The Consultant shall be responsible for reviewing the As-Designed plans and shall understand the impacts from or to the new structure by any proposed alternative.

The consultant will be responsible for providing a line and grade study. The line and grade study shall include, but not be limited to:

A. Establish Design Criteria (including but not limited to)

- a. Design class and design speeds
- b. Lane widths, shoulder widths
- c. Minimum horizontal curvature
- d. Maximum and minimum side slopes
- e. Horizontal and vertical clearances
- f. Maximum roadway grade
- g. Access management
- h. Complete Streets
- i. Bridge Design Criteria in accordance with the Bridge Design and Evaluation Manual (BDEM) “Policy for QC-QA”

The Consultant shall prepare a table of design criteria to be included in the report documenting the design criteria that will be used in developing the roadway and bridge geometry. The design criteria will be based on DOTD’s minimum design guidelines for the recommended and approved roadway classification, American Association of State Highway and Transportation Officials (AASHTO) Green book, AASHTO Roadside Design Guide, DOTD Roadway Design Procedures and Details Manual, DOTD Complete Streets Policy and any other applicable design guidelines.

B. Development of typical roadway and bridge sections

Establishment of typical roadway and bridge sections for reasonable alternatives. Multiple typical sections may be required if it is determined that the typical sections vary , by location along the proposed route due to traffic volumes, level of service, design criteria selected, access control, median and shoulder treatments, intersection treatments, bridge type, etc.

C. Factors for design consideration

- a. Alignment development in accordance with Department standards
- b. Required lane configurations based on level of service
- c. Required lane configuration for maintenance of traffic during construction
- d. Develop horizontal geometry
- e. Develop vertical geometry and set minimum roadway and bridge grade
- f. Identify major drainage structure locations
- g. Establish approximate required Right-of-Way limits.
- h. Develop a list of impact improvements.
- i. Develop cost estimates for Right-of-Way, utility relocations, and construction.

D. Horizontal alignment

- a. A horizontal alignment study will be prepared for the preferred alternative. The alignment should consider major utility conflicts, major drainage structures, existing roadway/bridge geometry, superelevation, and sight distance. The final refinement to the alignment(s) will be adjusted based on a constructability review. The location of the final alignment(s) should consider:
 1. Existing roadway and bridge conditions

2. Maintenance of traffic
 3. Location of utilities
 4. Environmentally sensitive areas
 5. Topographic features
 6. Developed/Developing properties
 7. Urban constraints
- b. A plan view of the preferred horizontal alignment will be prepared on aerial photography. The following geometric data will be displayed on the plan:
1. Curves Lengths (L)
 2. Tangent Lengths (T)
 3. Curve Radii (R)
 4. Superelevation rates and transition lengths
 5. Delta (degrees, minutes, and seconds) and degrees of curve D (degrees, minutes, and seconds)
 6. Estimated R/W limits
 7. Limits of Construction
 8. Intersection and/or schematics
 9. New edge of pavement and shoulder lines
 10. Baselines and stationing
 11. Curb lines
 12. Lane and shoulder dimensions
 13. Bridge limits
 14. Existing and relocated utilities, as known
 15. Major drainage features, if any
 16. Railroads (if applicable)
 17. Signalized intersections

E. Vertical Alignment

- a. A vertical alignment study will be prepared for the preferred alternate. The vertical alignment shall consider above ground and underground utility clearance, major drainage or structure locations, overpass clearances, etc.
- b. A profile view of the preferred vertical alignments will be prepared. The following geometric data will be displayed on the profile:
 1. Vertical grades
 2. P.V.I. locations
 3. Length of Vertical Curve (V.C.)
 4. Headlight or Stopping Sight Distance (H.L.S.D. or S.S.D.)
 5. Required Bridge Structures

F. Drainage/Utilities

The various build alternatives need to be evaluated for their impacts on drainage and other utilities and incorporate drainage features into the design plan that are commensurate with DOTD's roadway and bridge standards. Major drainage features will be described and estimated pipe sizes, as appropriate, will be determined for cost estimation purposes.

Other potential utility relocations will be evaluated. The Consultant will conduct field reconnaissance and public records searches, coordinate with utility companies and DOTD District 05 personnel in obtaining location information. Relocation cost estimates will be developed and presented in a summary memorandum. Detailed presentation exhibits will be developed for the document and for public meeting review.

G. Project Cost

Construction Cost estimates shall be based on current market unit costs. A table of estimated project costs shall be included in the report for each alternative.

Deliverables:

The Consultant shall prepare an engineering report (Line & Grade Study, and Phased Implementation Plan) with the findings from the study which will eventually be included in the EA. Information to be included in the report shall be all information as described in the aforementioned sections of this scope. Copies of the Line & Grade Study shall be submitted to DOTD for review and comment prior to a Public Meeting. The Consultant shall address comments and submit hard copies of the final report, as well as searchable PDF version of the report.

The Consultant shall develop and submit Bridge Design Criteria in accordance with the Bridge Design and Evaluation Manual (BDEM) “Policy for QC-QA”.

TASK 6: ENVIRONMENTAL ASSESSMENT

A. Summary of Mitigation and Commitments

A summary of all mitigations and commitments will be placed at the beginning of the Environmental Assessment. All potential permits and their requirements to implement the project shall be identified. Any mitigation measure or enhancement shall be included in this summary.

B. Purpose and Need for Actions

The purpose and need for the proposed action will be discussed in the Environmental Assessment. The purpose and need will be clearly described in accordance with FHWA guidance, coordination during the Master Plan study, and collaboration among LADOTD, FHWA, and the project team. The following issues and other relevant supporting information may be included in this discussion of project purpose and need to the extent applicable: project status; vehicle capacity needs; crash data analysis; system linkage needs; transportation demand; social demands and economic development; model interrelationships; and roadway deficiencies.

The Consultant will coordinate with local, regional, state, and federal agencies to obtain available supporting information concerning the preliminary purpose and need for this project.

The Consultant will coordinate on the identified purpose and need for this project. Input will be sought and obtained from LADOTD, FHWA, any cooperating or participating agencies identified for the EA, and other federal and state agencies as appropriate.

C. Alternatives

All alternatives will be discussed in the EA. Those alternatives eliminated from further study will be identified and reasons for their elimination will be discussed in the EA. The alternatives will address the Purpose and Need of the project. These alternatives, including the no-build alternative, will be described and analyzed in the EA.

The Consultant will develop a typical section and estimate the required right-of-way. The estimated right-of-way will be used in analyzing the various impacts of the proposed alternatives and estimating costs. Exhibits depicting the proposed alternatives and estimated right-of-way takings will be prepared for the document and for the Public Meeting and Hearing. Aerial photography is preferred as a base for exhibits. Local landmarks and major features will be labeled to assist in interpreting the exhibits.

D. Solicitation of Views

The Consultant will select and submit proposed logical termini with the justification thereof to the LADOTD Environmental Section. The final decision on the logical termini will be made by the LADOTD Environmental Section and the FHWA.

The Consultant will prepare a Solicitation of Views describing the alternative alignments being studied in the Environmental Assessment. The packet shall contain, at a minimum, a preliminary project description and a project map. This packet will be sent to the LADOTD Environmental Section for review. Upon approval, the Department will provide the Consultant with the mailing list to be used in the solicitation, and the Consultant will distribute this packet to everyone on this mailing list.

All communications and coordination with other Federal, State, and local agencies will be closely coordinated with the Environmental Section and approved by the Environmental Section prior to contact.

E. Impacts

Analysis of each alternative, including the No Build, will be made and discussed in the Environmental Assessment. Items to consider include, but are not limited to, traffic patterns, permits, land use, community/social, economic, historic, cultural, recreational, archaeological, noise, air, hazardous waste sites, wetlands, floodplains, farmland, and endangered or threatened species and/or their habitat. Some of these items may require the production of a separate document in addition to the analysis in the Environmental Assessment. Potential mitigation measures designed to reduce or alleviate impacts will be discussed in the document.

1. Wetlands

A Wetlands Findings Report delineating impacts to wetlands and Other Waters of the United States will be prepared for comparison during the EA process. Potential wetlands within the study area will be initially identified via desktop investigations using aerial and infrared photography, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory maps, U.S. Geological Survey quadrangle maps, Natural Resources Conservation Service (NRCS) soil maps, and other available resources.

A field survey will be conducted on all alternatives, within the required ROW and/or limits of construction, whichever is greater. Wetlands will be delineated in accordance with the *1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *2010 USACE Atlantic and Gulf Coastal Plain Regional Supplement*.

Field-delineated wetland boundaries will be documented with sub-meter capable GPS units, then mapped using current USACE GIS/wetland mapping guidelines. Field-determined characteristics and delineation data for wetlands occurring within the study area of the alternatives will be recorded on currently accepted USACE Wetland Determination Data Forms by the Consultant and provided within the Wetlands Finding Report.

The Wetlands Finding Report, using the latest FHWA criteria, will be submitted to the LADOTD for review and comment. It will include reproducible maps and photographs of each soil sample taken during wetland delineation activities. Soil sample photographs will include appropriate Munsell soil chart pages for each sample. Quadrangle and layout maps provided in the report will depict locations of delineated wetland areas and respective project station numbers. If wetland impacts are minor and the Wetlands Findings Report small, the report may be placed in an appendix of the EA document as needed. Five (5) copies of the draft report and two (2) copies of each revision will be submitted to LADOTD for approval. Once approved, (5) five copies of the final report will be submitted to LADOTD as well as an electronic copy in PDF format on a labeled CD. Associated GIS files/data used in preparation of the documents will also be provided to LADOTD.

2. Wetland Reserve Program

The Consultant will coordinate with the National Resources Conservation Service (NRCS) to determine the locations of any Wetland Reserve Program (WRP) parcels within the study area. All WRPs will be mapped in GIS and used as a constraint to avoid when evaluating alternatives. If WRPs are affected by any alternative, the Consultant will notify LADOTD immediately.

3. Endangered & Threatened Species

The Consultant will procure lists of endangered and threatened species for Ouachita Parish from Louisiana Department of Wildlife and Fisheries (LDWF) and U.S. Fish and Wildlife Service (USFWS). The Consultant will identify preferred habitat of the listed species that may be encountered during desktop and field surveys in order to determine potential impacts by relevant project alternatives. The Consultant will perform the habitat survey in conjunction with the wetland survey. If the presence of a state-listed or federally listed species and/or its habitat is confirmed by the habitat survey, the Consultant will contact DOTD Environmental Section for coordination with USFWS or LDWF.

4. *Other Permits*

All potential permits and their requirements to implement the project will be identified. All items necessary to obtain the permits (with the concurrence of the Department) will be provided by the consultant. Those permits to be identified include, but are not limited to, the following:

Corps of Engineers (Section 404 permit and/or Section 10 permit)
Water Quality Certification
Coast Guard Bridge Permit
Storm Water Permits

5. *Phase I Environmental Site Assessment*

A Phase I Environmental Site Assessment will be performed for this project in accordance with the ASTM Standards E 1527-13. The Phase I Environmental Site Assessment has four components: Records Review, Site Reconnaissance, Interviews, and Report. The consultant will meet with the Environmental Section's Project Coordinator if Recognized Environmental Conditions (RECs) are discovered. Results of site evaluations, findings, conclusions, and opinions concerning the site's impact will be provided in the Environmental Assessment.

6. *Noise Analysis*

A highway traffic noise analysis will be performed for all Build Alternatives and the No Build Alternative in accordance with the following:

- Louisiana Department of Transportation and Development, Highway Traffic Noise Policy, date July 2011
- Chapter 23, Part 772, Code of Federal Regulations: Procedures for Abatement of Highway Traffic Noise and Construction Noise
- FHWA-PD96-046, Measurement of Highway Noise
- FHWA Traffic Noise Model Technical Manual and User's Guide (TNM Version 2.5)
- Highway Traffic Noise: Analysis and Abatement Guidance, dated June 2010 (Revised January 2011).

The Consultant will make one (1) trip for field review and noise measurements. The Consultant will locate receivers where noise samples will be taken and locate traffic count locations, and obtain DOTD's concurrence before the beginning of fieldwork. Four (4) copies of the Draft Noise Study shall be submitted to the DOTD's Environmental Section. Upon review, comment and approval, five (5) copies of the Final Noise Study and one (1) PDF version, shall be submitted to the DOTD's Environmental Section for distribution.

This work will include the following sub-tasks:

- 1) Identification of Noise Sensitive Areas: Existing permitted or programmed uses or activities which may be affected by highway noise will be identified within the project corridor.
 - i. Map
 - ii. Brief narrative
- 2) Determination of Existing Noise Levels
 - i. Field Measurements: Field measurements will be taken throughout the corridor in each major segment (between major intersections). Measurements will be taken on both sides of the corridor at receiver locations approved by DOTD. Traffic counts / vehicle classification counts will be conducted simultaneously with the noise measurements. The purpose of the field noise measurements will be to determine the existing noise environment and provide a general method of corroborating noise model results.
 - ii. Establish field noise measurement program:
 - a) Through a review of plans, maps and aerial photos and discussion with DOTD, determine preliminary locations where noise samples will be taken.
 - b) Locate traffic count locations
 - c) Prepare noise field monitoring memorandum documenting the foregoing information
 - d) Review with DOTD project staff
 - e) Revise as per DOTD comments
 - f) Finalize plan during field review, discuss with DOTD.
 - iii. Conduct field noise measurements and traffic counts and speed estimation.
 - iv. Summarize findings for inclusion in the noise report.
- 3) Estimate Highway Noise for No Build Alternative
 - i. Estimate existing roadway noise levels using the TNM noise model
 - a) Input current horizontal and vertical roadway and receiver geometry
 - b) Input traffic volume, classification and speed information (provided by DOTD) for build and design years
 - c) Run and check TNM model

- d) Review results with DOTD staff
 - e) Revise as per DOTD comments
 - ii. Summarize findings for inclusion in the EA
- 4) Prediction of Traffic Noise Levels for all Build Alternatives:
 - i. Estimate existing roadway noise levels using the TNM noise models:
 - a) Input project horizontal and vertical roadway geometry
 - b) Locate future uses not currently built, but those which are permitted.
 - c) Input traffic volume, classification and speed information (provided by DOTD)
 - d) Run and check TNM model
 - e) Review results with DOTD staff
 - f) Revise as per DOTD comments
- 5) Summarize findings for inclusion in the Noise Report:
 - i. Evaluation of Traffic Noise Impacts:
 - a) Compare existing and future noise levels with the DOTD Noise Abatement Criteria
 - b) Summarize finding for inclusion in the Noise Report
- 6) Evaluation of Alternate Noise Abatement Measures to Mitigate Impacts
 - i. Traffic management measures
 - ii. Alteration of horizontal and vertical alignments
 - iii. Construction of noise barriers:
 - a) Determine acoustical feasibility of constructing noise barriers in the various impacted sections of the project roadway
 - b) Determine the appropriate barrier length, height and location to achieve needed abatement.
 - c) Determine construction costs for noise barrier alternates using DOTD-provided unit cost(s).
 - d) Determine the reasonableness of constructing noise barriers
 - iv. Insulation of Activity Category D land uses facilities listed in the DOTD noise policy.
 - v. Acquisition of property rights to serve as a buffer zone to preempt development which would be adversely impacted by traffic noise.
- 7) The noise impact report will be submitted either as a technical appendix to the EA or as a separate report, at the discretion of the DOTD, for review and comment by DOTD. The report will include standard DOTD construction noise impact and control language and will include all of the TNM input values and output tables. A summary of the text will be included in the appropriate section of the EA.

7. Air Quality

Impacts of the proposed action to air quality in the region will be considered. Information on existing air quality conditions will be obtained from the Louisiana Department of Environmental Quality (LDEQ). Discussions concerning

conformity (transportation and general) will be included in the air analysis. A project-level air analysis will be prepared by comparing the project to a previously modeled project under similar conditions.

8. *Cultural Resources – Archaeology/Historic Properties (106 & 4(f))*

The Consultant shall carry out research and documentation to assist FHWA in carrying out their responsibilities under NEPA, Section 106 and Section 4(f). All work carried out under this task must satisfy all related regulatory requirements.

All research and documentation related to Phase I surveying services, which are necessary to comply with Section 106 of the National Historic Preservation Act shall be prepared by the Consultant under this contract. If a Phase II or Phase III survey is required, additional services (research, testing, and documentation) may be conducted under a supplement to this agreement. All coordination with the State Historic Preservation Officer (SHPO) shall be through the LADOTD's Environmental Section or with the express approval of the Environmental Section.

The research, analysis and documentation shall include, but is not limited to the following tasks:

Determine Area of Potential Effects (APE)

The Consultant shall consult with the FHWA and LADOTD to develop the APE (direct and indirect) of the project. After FHWA and DOTD have determined the APE, the agencies shall consult with the SHPO for concurrence. No Phase I cultural resources survey fieldwork shall be conducted prior to the delineation of the direct and indirect APE. Each alternative shall require an APE (direct and indirect). No archaeological fieldwork shall be conducted outside of the identified direct APE.

Identify Historic Properties and Background Research

Background research should be conducted on the history and cultural resources of the area. The Consultant shall review previous cultural resource survey reports and compile information on previously recorded archaeological sites, historic structures, and properties or districts listed or deemed eligible for the National Register of Historic Places (NRHP), on file at the Louisiana Division of Archaeology (DOA) and the Louisiana Division of Historic Preservation (DHP). In addition, historic maps and aerial photographs of the APE should be consulted to help document the history of land use. Historical and archival research on alternatives to be surveyed shall also be conducted at this time.

Property Owner Contact and Permission

The Consultant, with LADOTD approval, shall conduct the research necessary to obtain the names/addresses of property owners from whom additional ROW is required. The Consultant shall contact and obtain permission from the property

owners prior to accessing their property. All letters should be sent to LADOTD for review and approval prior to mailing. The property owners shall be informed of the need to conduct analysis on any artifacts recovered during survey or testing. If property owners do not grant access to their property, the Consultant shall prepare legal notification letters that shall be forwarded on behalf LADOTD. These letters shall be sent registered mail return receipt requested. Additionally, copies of any letter that is sent shall be forwarded to the appropriate Sheriff's Office and District Attorney.

Phase I Cultural Resources Survey

A Phase I archaeological survey shall be performed on the alignments of up to three (3) build alternatives to determine the presence of archaeological sites, standing structures approaching 50 years old/older, and other places or objects eligible for listing on the NRHP. The Consultant shall coordinate with LADOTD prior to the initiation of the survey. Any preservation affiliated groups expressing interest in the project should be contacted for additional information prior to survey.

Archaeological Survey

This survey shall follow current Louisiana Division of Archaeology guidelines for Phase I surveys. All archaeological sites shall be recorded on site forms. The Consultant shall also be responsible for revisiting known sites and completing site update forms as required by the Division of Archaeology. Cultural materials (artifacts) recovered from archaeological sites shall be processed, analyzed and catalogued according to the requirements of the DOA. Analysis of the artifacts and other data shall follow currently acceptable scientific methods. According to DOA curation standards, artifacts shall be catalogued and prepared for permanent curation with the Division of Archaeology, or with any other repository designated by LADOTD. A receipt for curation from repository facility shall be submitted to the LADOTD's Environmental Section of prior to the end of the contract.

Standing Structure Survey

A standing structure survey shall be conducted within the direct and indirect APE of the project. Any structures that shall meet the 50-year requirement within five (5) years of the Notice to Proceed shall be included in the survey. A five-year (5) buffer is necessary to allow for changes to the project before construction begins. Standing structure survey shall be documented with photographs, a sketch map of their floor plan, and notes on construction details. Louisiana Historic Resource Inventory Standing Structure form shall be completed. This information should be sufficient to permit an evaluation of the structure's eligibility for the NRHP. The Louisiana Historic Resource Inventory Standing Structure excel spreadsheet template available on the DHP website shall be completed and submitted to DHP to obtain Standing Structure Numbers

for all previously unreported standing structures 45 years or older within the direct and indirect APE. If applicable, information relative to any bridges in the direct or indirect APE shall reference the September 2013 Louisiana Historic Bridge Inventory National Register Eligibility Determination report completed by Mead and Hunt on behalf of LADOTD, available from LADOTD.

Evaluate Historic Significance

If archaeological sites are located that require Phase II test excavations to evaluate their significance, this work may be conducted under a supplement to this agreement. A technical report – that meets or exceeds the Division of Archaeology guidelines for Phase I reports - describing all work efforts undertaken on the project, as well as the results of investigations and analyses, shall be prepared. Recommendations for further work shall be presented. Maps, including USGS 7.5-inch quadrangle maps and exhibits shall be utilized to delineate the project area and the location of any cultural resources. All archaeological sites (to the extent possible with survey level data) and standing structures shall be evaluated against NRHP criteria as either eligible or ineligible for nomination for the NRHP. The draft Cultural Resources Survey shall be submitted to LADOTD for review; LADOTD shall transmit copies of the report to the SHPO for review. An unbound typed site form or site update form (for previously recorded archaeological sites) and unbound typed Louisiana Historic Resource Inventory Forms (with original black and white photographs affixed to the forms) for each recorded standing structure shall be submitted to LADOTD's Environmental Section along with the draft Cultural Resources Survey. All site forms and site update forms should be finalized prior to submittal of the final report.

Following LADOTD, FHWA, and agency review, the Consultant shall prepare a final Cultural Resources Report for delivery by LADOTD to the SHPO. The final Cultural Resources Survey shall be submitted to LADOTD; LADOTD shall transmit the finals to the SHPO.

Archaeological Fieldwork Phase I survey

All fieldwork and recordation for Phase I survey shall meet current Louisiana Division of Archaeology DOA and Secretary of the Interior's Standards. Once excavation and recordation is completed all test pits shall be backfilled. All identified archaeological sites shall be recorded on official Louisiana archaeological site forms. All previously identified sites within the APE shall be revisited and site update forms completed as required by the DOA. Cultural materials (artifacts) recovered from archaeological sites shall be processed and analyzed using accepted archaeological typologies and methods. According to DOA curation standards, artifacts shall be catalogued and prepared for permanent curation with the DOA, or with any other repository designated by DOA.

Processing and Analysis of Artifact

Once the fieldwork is completed the artifacts shall be returned to laboratory for washing and cataloging according to the guidelines of the Louisiana Division of Archaeology. The artifacts and other data recovered during the fieldwork shall then be analyzed using currently acceptable scientific methods. Radiocarbon samples collected from undisturbed cultural deposits shall be submitted for dating. All artifacts collected shall be curated with the State Curation Facility in accord with their current standards. A receipt of deposit from the curation facility shall be required.

Report Preparation

The report shall meet current DOA report standards for Phase I survey. One (1) report shall be prepared that shall present the finding and recommendation from all research and survey (standing structure and archaeology). It is expected that all standing structures approaching 50 years old/older identified shall include a National Register eligibility. The report shall include recommendations for further archaeological work, if necessary.

The draft Cultural Resources Survey report shall be submitted to the LADOTD for review; the LADOTD shall transmit copies of the report to FHWA, SHPO, and applicable federally recognized tribes for review. Two (2) unbound typed site forms or site update forms (for previously recorded archaeological sites) and two (2) unbound typed Louisiana Historic Resource Inventory Forms (with original black and white photographs affixed to the forms) for each recorded standing structure shall be submitted to the LADOTD's Environmental Section along with the draft Cultural Resources Survey. All site forms and site update forms must be finalized prior to submittal of the final report.

Following the LADOTD, FHWA, SHPO, and applicable federally recognized tribe review, the Consultant shall prepare a final Cultural Resources Report. The final Cultural Resources Survey shall be submitted to the LADOTD; the LADOTD shall transmit the finals to FHWA, SHPO, and applicable federally recognized tribes.

Section 106/NEPA Documentation Tasks

Work associated with this task shall involve public outreach and identification of interested parties and other federal, state and local agencies that may have an interest in these historic properties. Any additional historic properties, identified as part of phase I and Phase II, survey shall also be incorporated into this task. Work associated with this task shall include the following:

- Identification of consulting parties
- Scheduling consultation meetings with agencies and interested parties
- Preparing meeting minutes and distribution of minutes
- Preparing supporting documentation for assessment of all alternatives
- Preparing a decision matrix to highlight impacts to historic properties for each alternative

- Assessment of Adverse Effects
- Preparing a Memorandum of Agreement (MOA) (multiple drafts are anticipated)

Deliverables:

The Consultant shall prepare and provide three (3) paper copies, three (3) copies of each revision, and one (1) searchable PDF version of the draft report. Once the draft has been approved by SHPO the consultant will submit five (5) hard copies and one (1) searchable PDF version of the final report. All standing structure forms and archaeological site forms shall be submitted in searchable PDF format. All forms will need to be finalized prior to submittal of the final report. One (1) copy of the curation receipt is required before close of contract.

The Consultant shall provide copies (paper and searchable PDF) of all supporting documents for other Section 106 mentioned above.

Preparation of Section 4(f) Documentation for Historic Sites

Documentation shall be prepared by the Consultant to assist the Federal Highway Administration in their compliance of Section 4(f) of the U.S. DOT Act. The Consultant shall conduct analysis to determine if there are prudent and feasible avoidance alternatives to all identified 4(f) Historic Sites. The Section 4(f) Statement shall be included in the Appendix of the EA and distributed to requisite agencies. Outcome of the analysis shall result in the preparation of one of the following documents:

De Minimis Impact Determination
Programmatic Evaluation
Individual Section 4(f) Evaluation

Deliverables:

Five (5) paper copies and one (1) electronic copy in PDF format on a labeled CD shall of 4(f) evaluation/s for all historic sites identified within the study area.

Assess Adverse Effects

The Consultant shall consult with FHWA, LADOTD, and the SHPO concerning the potential effects of the project on historic properties identified in the project APE. If one (1) or more properties shall be affected, then the Consultant shall prepare Section 106 Adverse Effect Documentation. If the number of sites requiring documentation exceeds five (5) properties, the additional work may be conducted under a supplement to this agreement.

Memorandum of Agreement (MOA) for Resolution of Adverse Effects

If historic properties shall be adversely affected, the Consultant shall consult with FHWA, LADOTD, the SHPO, and other consulting parties, such as local historical groups, to attempt to avoid, minimize or mitigate the adverse effects. If any of the historic properties are prehistoric archaeological sites, the appropriate

Tribes will be consulted. If the adverse effects cannot be avoided, the Consultant shall prepare an MOA with minimization or mitigation measures agreed upon and who is responsible for carrying them out, and provide documentation that the agency is following the requirements of Section 106. The MOA shall be submitted to LADOTD for review, comment, and approval.

9. *Socio-economic*

The Consultant will discuss the social and economic impacts, including any adverse effects of the proposed actions, on the local community. The Consultant will collect compiled summary demographics on the project area. Discussion will include anticipated permanent and temporary impacts of the proposed project on the established business districts, land uses, community services/facilities, and residents in the project vicinity, as well as impacts to planned developments known by public officials at the time of data collection. Projects in the study area will be researched by the Consultant through contact with local planning officials and organizations in an effort to determine other long-range plans, upcoming projects, or planned developments. Consistency with these plans will be assessed and documented.

10. *Environmental Justice*

Available U.S. Bureau of the Census population data will be used as a basis to identify low-income, minority populations in the entire study area. This data will be augmented with “windshield” surveys and contacts with local officials and community leaders in the study area to determine if such communities are present in the study area. No household or resident interviews/surveys (i.e., face-to-face or telephone calls) are included in this scope of services. The Consultant will identify likely minority and/or low-income communities within the study area and assess whether the project will have any disproportionate adverse impacts to these populations in accordance with Executive Order 12898 and the Department of Transportation Order on Environmental Justice 5610.2. Any instances where Title VI populations bear the bulk of project-related impacts will be reported to the LADOTD Environmental Section, and the Consultant will evaluate possible mitigation or enhancement measures to reduce or lessen adverse impacts, if any, on the community.

11. *Conceptual Stage Relocation*

The Contractor will prepare a Conceptual Stage Relocation Plan in accordance with the requirements of the Louisiana Department of Transportation and Development’s Office of Right of Way Operations Manual and 49CFR Part 24 § 24.205a. The results of the plan will be summarized in the EA. The scope of the plan will include:

- a) An estimate of the number of households to be displaced including information such as owner/tenant status, estimated value and rental rates of properties to be acquired, family characteristics, and special consideration of the impacts on minorities, the elderly, large families, and persons with disabilities when applicable. Environmental Justice considerations will also be reviewed.
- b) The type of dwelling (mobile home, frame, brick) to be acquired or adversely impacted.
- c) The location and quantity of available comparable replacement housing; if none is available, the estimated cost to build new housing; or whether any displacements have sufficient remainder on which to move or build. Should comparable replacement housing not be available, other methods in addition to new construction, will be evaluated as part of a possible Housing of Last Resort program as provided for under Section 206A of the Uniform Act.
- d) The location and types of businesses, farms and non-profit organizations to be displaced, the race of the owner, estimated number of employees, by race, bypassed businesses if applicable, and a listing of available commercial buildings and sites.
- e) An estimate of the availability of replacement business sites. When an adequate supply of replacement business sites is not expected to be available, the impacts of displacing the businesses will be considered and addressed. An analysis of business moving problems for those displaced businesses which are reasonably expected to involve complex or lengthy moving processes, or small businesses with limited financial resources and/or few alternative relocation sites will be included.
- f) The functional replacement of a publicly-owned facility, if applicable, and the existence of publicly-owned recreation lands.
- g) The estimated cost of relocation assistance.
- h) Consideration of any special relocation advisory services that may be necessary from the displacing Agency and other cooperating Agencies.

The data collected for the plan will be from secondary sources and field observations. Interviews will not be conducted with those families and businesses potentially affected by the various alternatives.

12. Cost Estimate

The Consultant shall develop a preliminary cost estimate for each proposed project concept. The project costs will include estimates for all right-of-way acquisition, construction, engineering, utility relocation, and mitigation costs. Estimates for right-of-way will include all land and improvements situated within the proposed right-of-way (all alternates considered). Additionally, the right-of-way cost estimate should include the estimated cost for land, as well as improvements not in the required right-of-way, but possibly impacted by the proposed project. The right-of-way cost estimate should take into consideration

damages, etc. that may accrue due to the proposed project (all alternates considered). Refer to the Real Estate Needs Checklist for Stage 1 Cost Estimates and the Stage 1 Cost Estimate Appraiser

13. Section 4(f) of the Department of Transportation Act

Research, analysis, and documentation of compliance with Section 4(f) of the Department of Transportation (DOT) Act will be done for any publicly owned recreational and park land, wildlife and waterfowl refuges, and/or historic sites affected by all the build alternatives. The Consultant will coordinate with agencies and entities with jurisdiction, and mitigation will be developed. The Consultant will draft any agreements necessary for LADOTD and FHWA review and approval, and develop Section 4(f) documentation for all Section 4(f) properties, according to FHWA rules, regulations, and guidelines. The approved Section 4(f) Statement will be included in an appendix of the EA with FONSI. No more than two (2) meetings with federal, state, and local officials will be required for coordination regarding Section 4(f).

14. Section 6(f) of the Land and Water Conservation Fund

Resources built using the Land and Water Conservation funds, including the Winnfield Mini Park, will be identified by the consultant. The Consultant will prepare all documentation for coordination with the appropriate agencies regarding Section 6(f) of the DOT Act. No more than three (3) meetings with state and local officials will be required for coordination regarding Section 6(f).

15. Other

Other items that will be evaluated and coordinated with the appropriate agencies include, but are not limited to, prime farmland, sole source aquifers, 100-year floodplain, and water wells. Some of these items utilize standard forms; other coordination is by letter or permit application. Items of special or local interest should also be noted and evaluated within the context of the project.

F. Environmental Assessment

The EA will be prepared in accordance with the FHWA's Technical Advisory, applicable rules, laws, guidance, and regulations, and the Stage 1 Manual of Standard Practice. It shall include discussion of the project Purpose and Need; alternatives identified and evaluated; existing conditions and environmental effects of reasonable and feasible alternatives; potential mitigation measures designed to reduce or alleviate impacts; and a summary of public, agency, and tribal coordination. Also, all potential permits and their requirements to implement the project will be identified. Items to consider in the environmental analysis discussion include, but are not limited to, traffic patterns, permits, land use, community/social, economic, historic, cultural, recreational, archaeological, noise, air, wetlands, floodplains, farmland, and endangered or threatened species and/or

their habitat. Some technical items may require the production of a separate document in addition to the analysis in the EA. Components to support the body of the EA document will include the following: an environmental checklist; figures and tables to clarify information; appendices as necessary to provide supporting detail to the discussion; and a summary of any mitigation measure, potential permits and their requirements, and other commitments that shall be placed at the beginning of the EA. An executive summary will be prepared and included in the EA. The executive summary may be distributed separately to local and elected officials.

When writing the document, the consultant shall use the guiding principles outlined in the document entitled, "Improving the Quality of Environmental Documents," dated May 2006, prepared by the American Association of State Highway and Transportation Officials in Cooperation with the Federal Highway Administration. The EA shall be written in plain language using a reader friendly format with technical information referenced as appropriate or placed in the appendices. The document will summarize technical information in an easy to understand manner using graphics, figures and exhibits for clarity. The document should contain concise and relevant information only.

All reference material utilized will be noted and an accurate and complete bibliography shall be included in the documents. Accessibility and location of all reference material utilized will be noted (i.e., library location). Utilization of unpublished material or otherwise not easily accessible material will be specifically coordinated with the Environmental Section prior to its use in the document. The document will be typed, single spaced, on 8.5- x 11-inch paper with inside margins of not less than 1-inch wide. Exhibits shall be printed on 11 x 17 paper, folded sheets are acceptable. The Consultant's name and logo shall not appear on the cover of the document. They can appear, however, on the inside cover sheet in a size not to exceed the Department's name and logo. Copies of the draft EA will be provided to the DOTD's Environmental Section for their review, comments, and internal distribution. For each revision, additional documents will be required. All comments will be addressed by the consultant prior to the Environmental Section requesting approval from FHWA for public distribution. Distribution of the Draft Environmental Assessment will be the responsibility of the consultant. The Environmental Section's project coordinator will provide the Consultant with the basic mailing list to be used for distribution of the EA. The Consultant will expand upon this basic list to develop a project specific distribution list.

Deliverables:

The Consultant will submit a maximum of fifty five (55) hard copies and one (1) searchable PDF version of the draft EA and fifty five (55) hard copies and one searchable PDF version of final EA with FONSI

Below is a table showing all documentation required for this contract:

| Description | Draft Copies | Revised Copies | Final Copies | PDF on Labeled CD |
|---|---------------------|-----------------------|---------------------|--------------------------|
| Work Plan & Schedule | | | 3 | |
| Bridge and Roadway Typical Sections | 1 | | 1 | |
| Bridge and Roadway Design Criteria | 1 | | 1 | |
| Conceptual Alternatives' Geometric Layouts | 1 | | 1 | |
| Alternatives Analysis Memorandum | 3 | 1 | 10 | |
| Engineering Report | 5 | | 20 | |
| Wetlands Finding Report | 5 | 2 | 5 | 1 |
| Biological Field Survey Report | 5 | 2 | 5 | 1 |
| Biological Assessment | 5 | 2 | 5 | 1 |
| Phase I ESA Report | 1 | 1 | 5 | 1 |
| Traffic Noise Analysis Protocol | 1 | | | |
| Noise Study | 3 | 3 | 5 | 1 |
| Cultural Resources Phase I Report | 5 | | 5 | 1 |
| Cultural Resources Standing Structure Form | | | 2 | 1 |
| Conceptual Stage Relocation Plan | 2 | | 3 | 1 |
| 4(f) Statement | 20 | | | |
| Draft EA Document | 15 | 15 | up to 70 | 5 |
| Final EA/FONSI Document | 15 | 15 | up to 70 | 5 |
| Visual Renderings | 1 | 1 | 1 | 1 |
| Public Meeting Summary/Transcript | 1 | | 50 | 1 |
| Public Hearing Summary/Transcript | 1 | | 50 | 1 |

TASK 7: PUBLIC COORDINATION

One (1) Public Meeting will be required for this project. All arrangements for the Public Meeting, including location, time, preparation and mailing of the public notice, preparation of appropriate exhibits, and preparation of the power point presentation and handouts will be made by the consultant, subject to the Environmental Section's approval. The Public Meeting will be an open-house format. The consultant will advertise the notice of the Public Meeting (upon the Department's approval of the notice) in the official state and local newspapers, as well as with other media (radio, television, etc.) agreed upon by the Department. The notice for the Public Meeting will be published both two (2) weeks and one (1) week before the date of the Public Meeting. The text of the notice will be provided to the Environmental Section's Project Coordinator for review at least one (1) month prior to the anticipated Public Meeting dates. Exhibits, handouts, and power point presentations for the Public Meeting will be supplied to the Environmental Section's Project Coordinator for approval prior to the Public Meeting date.

Actual conduct of the Public Meeting will be by the consultant. The consultant will have knowledgeable informed staff present at the Public Meeting to address the queries of the public concerning environmental, engineering, and other project related issues. As the purpose of the Public Meeting is to assist the public in understanding how the project fits into and impacts their community, exhibits aiding in the visualization of the project at the Public Meeting will be the responsibility of the consultant. Such visualization methods shall be submitted to the Environmental Section's Project Coordinator one (1) month prior to the Public Meeting. The consultant will tape, prepare, and distribute a verbatim transcript for each Public Meeting.

After approval by the Department's Environmental Section and FHWA, the Draft Environmental Assessment will be made available to the public and a Public Hearing will be scheduled. The Public Hearing will be an open-house format. All arrangements for the Public Hearing, including location, time, preparation and distribution of the notice, preparation of appropriate exhibits, preparation of the technical presentation, and handouts will be made by the consultant, subject to the Environmental Section's approval. The consultant will advertise the notice of the Public Hearing (upon the Department's approval of the notice) in the official state and local newspapers, as well as with other media (radio, television, etc.) agreed upon by the Department. The notice for the Public Hearing will be published twice: the first shall be made thirty to forty (30 – 40) days before the date of the hearing, the second five to twelve (5 – 12) days before. The text of the notice, including the project map, will be provided to the Environmental Section's Project Coordinator for review at least three (3) months prior to the anticipated Public Hearing date. Public Hearing exhibits and the Public Hearing power point presentations will be supplied to the LADOTD Environmental Section's Project Coordinator for approval prior to issuing approval of the Public Hearing dates and authorizing the advertisement. The scale ratio of the exhibits for the Public Hearing must be approved by the Environmental Section.

Actual conduct of the Public Hearing will be by the consultant. Preparation of a handout for distribution to the interested stakeholders present at the meeting will be the responsibility of the consultant. This handout will be submitted to the Environmental Section's Project Coordinator one (1) month prior to the scheduled Public Hearing. The consultant will have knowledgeable informed staff present at the Public Hearing to address the queries of the public, with regard to

environmental, engineering, and other project related issues. The consultant will tape, prepare, and distribute a verbatim transcript for the Public Hearing.

All comments received during the commenting period on the Environmental Assessment, including those received from the SOV, Public Meeting and Public Hearing, will be addressed in the Final Environmental Assessment by the consultant. After approval by the Department's Environmental Section of the final documents and issuance by FHWA of the FONSI, the Environmental Assessment FONSI will be distributed by the consultant. The Environmental Section's Project Coordinator will provide the mailing list to be used for distribution of the FONSI.

Deliverables:

One hard copy and one searchable PDF version of the archive of all public outreach efforts along with associated documents and mailing lists. Fifty-five hard copies and one searchable PDF version the transcription of all comments received at or as a result of public meeting and one searchable PDF version of the Public Meeting Transcripts. Fifty-five hard copies and one searchable PDF version of the transcription of all comments received at or as a result of public hearings and one searchable PDF version of the Public Hearing Transcripts.

TASK 8: AGENCY COORDINATION

The Consultant will be required to arrange multiple agency meetings throughout the project. Estimated quantity of agency meetings are:

- No more than three (3) agency meetings will be required for this project.
- No more than six (6) meetings with the DOTD project team will be required.
- No more than three (3) public official meetings will be required.

The consultant shall notify the Environmental Section when fieldwork begins and ends. The Consultant shall obtain and compile a list of names and addresses of property owners of those properties for which access is required. The consultant will also update the Environmental Section weekly as to their progress in the field. All reference material utilized will be noted and an accurate and complete bibliography supplied to the Department with the draft and final documents. Accessibility and location of all reference material utilized will be noted (i.e., library location, etc.). Utilization of unpublished material or otherwise not easily accessible material will be specifically coordinated with the Environmental Section prior to its use in the document. On all correspondence with the Department's Environmental Section, the consultant will use all applicable state project numbers (i.e., engineering and construction), along with the "H" number, Federal aid project number, project name, route number, and parish.

Furthermore, the public official meetings shall be held to present the results of the study to State Legislators and local officials. The project Manager will be responsible for the coordination of this meeting for the purpose of obtaining feedback on the alternatives proposed. The consultant may be required to "tweak" the proposed alternatives prior to the public meeting.

Deliverables:

One hard copy and one searchable PDF version of draft and final meeting minutes for each meeting held.

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