

“ATTACHMENT A”

**H.000284
US 90 Pearl River Bridges**

SCOPE OF SERVICES

The scope of services applies to the following bridge sites:

	Structure Number	Recall Number	Water Body Crossing
1	62520060705291	058710	West Pearl River*
2	62520060706701	058720	West Middle Pearl River
3	62520060707111	058730	Middle Middle Pearl River
4	62520060707701	058740	East Middle Pearl River
5	62520060800001	058750	East Pearl River*

*Existing is a movable bridge

This Environmental Assessment will address two construction projects within one Environmental Approval process as follows:

- H.000284 US 90 Pearl River Bridge (structures 1-4)
- H.000286 East Pearl River Bridge (structure 5)

The Consultant will be responsible for developing a phased implementation plan to ensure cohesiveness between the two construction projects. H.000286 East Pearl River Bridge will be constructed before H.000284 US 90 Pearl River Bridges.

Four alternatives plus one NEPA-derived alternative will be evaluated for each bridge site and discussed in the EA. Alternatives 3 and 4 below will have fixed and movable bridge options for West Pearl River and East Pearl River bridge sites. The proposed alternatives for each bridge site are:

- 1) No-Build
- 2) Rehabilitation of existing bridges, with detour bridges
- 3) Replace Bridges on alignment, with detour bridges
- 4) Replace bridges on offset alignment, maintain traffic on existing alignment
- 5) 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 and bridge sections and estimate the limits of construction (LOC) and required right-of-way (ROW) for each alternative. The estimated ROW takings 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 services to be rendered for this Project shall consist of the following Tasks:

Task I: Project Initiation and Tracking

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 business days following each meeting.

2) Develop Draft Agency and Public Involvement Coordination Plan

The project will require coordination with multiple State (Louisiana and Mississippi) 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 (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 Inquires
 - 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).

Coordinating agencies include, but are not limited to, the following:

Louisiana SHPO
Mississippi SHPO
Mississippi Department of Archives and History
Louisiana Divisions of Historic Preservation and Archaeology
Louisiana Department of Environmental Quality
Jena Band of Choctaw Indians
Coushatta Tribe of Louisiana
Mississippi Department of Transportation
United States Fish and Wildlife Services
Pearl River Wildlife Management Area
United States EPA Region 4 & 6
NOAA's National Marine Fisheries Service
United States Coast Guard
LA Department of Wildlife and Fisheries
LA Department of Wildlife and Fisheries – Scenic Rivers Program
Louisiana Department of Natural Resources, Office of Coastal Management
Department of the Army, Vicksburg District, Corps of Engineers
Stennis Space Center tenants (NASA, United States Navy, National Oceanic and Atmosphere Administration, etc.)
St. Tammany Floodplain Administrator
Mississippi Department of Marine Resources
Local governmental agencies
Gulf Regional Planning Commission
Mississippi Department of Wildlife Fisheries & Parks
Choctaw Nation of Oklahoma
MS Band of Choctaw Indians
Quapaw Tribe of Oklahoma
The Chickasaw Nation
Tunica-Biloxi Indians of Louisiana, Inc.
MS Department of Marine Resources

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 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 report and invoices.

Task II: Alternatives Development and Screening

LINE AND GRADE

The Stage 0 study previously prepared for the project will be provided to the Consultant for their use. The Consultant will review the Stage 0 Feasibility study and coordinate with the author as needed.

The Consultant will also review all other historical project information including but not limited to As-Built Plans, 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 will be responsible for undertaking the line and grade study which will include, but not be limited by, the following:

1. 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

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) Greenbook, AASHTO Roadside Design Guide, DOTD Roadway Design Procedures and Details Manual, DOTD Complete Streets Policy and any other applicable design guidelines.

2. Establishment of typical roadway and bridge sections for reasonable alternatives. Multiple typical section 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.

3. Factors for design consideration
 - a. Alignment development in accordance with Department standards
 - b. Required lane configuration for an acceptable Level of Service
 - c. Develop horizontal geometry
 - d. Develop vertical geometry and set minimum roadway grade
 - e. Identify major drainage structure locations
 - f. Establish approximate Limits of Construction and ROW limits
 - g. Develop a list of impacted improvements
 - h. Refine and verify cost estimates for Engineering, ROW, Utility relocations, and construction for each reasonable alternative.
 - i. Construction phasing
4. Horizontal Alignment
 - a. A preliminary horizontal alignment will be prepared for each alternative. Feasibility of onsite diversion, versus new alignment will be examined. The alignments should consider major utility conflicts, major drainage structures, existing roadway/bridge geometry, superelevation, and sight distance issues. The final refinement to the alignments will be adjusted based on a constructability review. These reviews will assess if the proposed alignment can be constructed in accordance with DOTD standards (considering maintenance of traffic, etc). The final alignments should consider:
 - i. Existing roadway and bridge conditions
 - ii. Maintenance of traffic
 - iii. Existing Bridges
 - iv. Location of utilities
 - v. Environmentally sensitive areas
 - vi. Topographical features
 - vii. Impact to surrounding properties
 - b. A plan view of each horizontal alignment will be prepared on aerial photography. The following geometric data will be displayed on the plan:
 - i. Curve lengths (L)
 - ii. Tangent lengths (T)
 - iii. Curve radii (R)
 - iv. Superelevation rates and transition lengths
 - v. Estimated R/W limits, existing and required
 - vi. Limits of Construction
 - vii. Control of Access limits (if applicable)
 - viii. Intersection and/or schematics
 - viii. Baselines and stationing
 - ix. New edge of pavement and shoulder lines
 - x. Curb lines
 - xi. Lane and shoulder dimensions
 - xii. Bridge limits
 - xiii. Existing and relocated utilities, as known

- xiv. Major drainage features, if any
- 5. Vertical Alignment
 - a. A vertical alignment will be prepared for each alternative. The vertical alignment should consider above ground and below ground utilities, major drainage or structure locations, overpass clearances, navigational clearance restrictions, coastal storm, etc.
 - b. A profile view of each vertical alignment will be prepared. The following geometric data will be displayed on the profile
 - i. Vertical grades
 - ii. P.V.I. locations
 - iii. Length of Vertical curve (V.C.)
 - iv. “K” values for stopping sight distance for design speed
 - v. Required Bridge Structures.
- 6. The Consultant will identify all major drainage structures and provide a discussion of the drainage history of each.
- 7. The Consultant will estimate the Limits of Construction and required ROW for use in analyzing the various impacts of the alternative and to determine the estimated cost. The Consultant will also develop a list of all impacted improvements.
- 8. Utility companies will be contacted within the project limits to inform them of the status of the current study. The Consultant will work with the companies to identify all utilities and planned utility improvements that may be affected by the Preferred Alternative. Major utilities will be shown on the plans. Required utility relocations and their costs will be calculated based upon the concept level plans and profiles. Major underground privately-owned pipelines will be identified and mapped.
- 9. The Consultant will prepare cost estimates for rehabilitation options that would maintain historic integrity, upgrade to current design guidelines, ROW acquisition and displacements/relocations, utility relocation, all aspects of construction. Roadway costs shall be based on current market unit costs. A table of estimated project costs will be included in the report.
- 10. 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.
- 11. The Consultant shall consider construction phasing when developing horizontal and vertical geometry between structures 4 (East Middle Pearl River) & 5 (East Pearl River). Phasing shall be discussed in a Phased Implementation Plan submitted along with the Line & Grade Study report.

Deliverables:

The Consultant shall prepare an engineering report (Line & Grade Study & 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 a searchable PDF version of the report.

Navigational Evaluation

The Consultant shall conduct a marine navigational study to assess the current and anticipated future use of the waterways. The study will investigate the required clearances for the proposed bridges and shall use the DOTD Bridge Design Technical Memorandum No. 48. 9BDTM.48) *USGS White Paper on guidelines to Perform Navigational Studies* as a guideline. A qualitative assessment of the impacts of alternatives will be completed and reported.

The Navigational Evaluation should identify and/or consider:

- Existing commercial users (marine industrial, passenger cruise and excursion, etc.);
- Existing recreational users;
- Vessel trip frequency;
- Various waterway stages;
- Projected changes in waterway usage based upon anticipated waterway improvement projects;
- Impact to vessel owners that would be precluded from transiting the waterway if a proposed bridge project is authorized;
- Impacts from bridge approaches based on associated navigational clearances;
- All bridges upstream and downstream of the proposed bridge site to determine existing minimum horizontal and vertical clearances (including overhead transmission line clearances);
- Guide clearances for the waterway, if established;
- Waterway layout and geometry;
- Waterway depth and elevation fluctuations (*range of tides, average high water elevation etc.*);
- River hydrology;
- Channel and waterway alignment;
- Natural flow of the waterway including currents, water velocity, water direction and velocity fluctuations (seasonal, daily, hourly, etc.), that might affect navigation.
- Current speed and direction;
- Type and size of vessels utilizing the waterway (or expected to utilize the waterway during the proposed bridge lifespan) to include:
 - Vessel name and registration/documentation numbers
 - Vessel type
 - Vessel owner contact information (company/individual name, address, contact info)
 - Primary vessel mooring location (include waterway mile point, if known)
 - Vessel length overall
 - Vessel beam
 - Vessel draft (depth of hull below waterline at full load)
 - Vessel air draft (height of highest fixed point of the vessel above the waterline, when empty)

- Specialized vessels that use the waterway. Example - vessels which have limited maneuverability due to the inherent design or mode of operation,
 - Safety margin required by vessel to navigate through the bridge
 - Vessel transit frequencies under proposed bridge, transit speeds, and load configurations;
 - Vessel traffic characteristics (to include if tug assist is required for transit through bridge due to horizontal clearance);
- Review of annual cargo movements (cargo types and quantities);
- Whether there is a federally authorized navigation channel on this waterway and whether it is maintained and to what depth;
- Whether there was a "design vessel" used in planning the channel? What is/was the design vessel? Was the design vessel reviewed by the United States Coast Guard (USCG)?
- Does levee maintenance, bridge work (other bridges), channel maintenance and emergency operations upstream of bridge require certain vessels to transit the waterway?
- What is the current "governing limitation" for navigation on the waterway? This means:
 - What is the most restrictive vertical clearance on the waterway? This may be a fixed bridge downstream of the proposed structure or it may be a low hanging power line downstream of the bridge, or it may be some other structure which limits vertical clearance. Sometimes the existing to-be-replaced bridge is the most restrictive structure.
 - What is the most restrictive horizontal clearance on the waterway? This may be bridge piers on another bridge downstream, it may be a navigational lock, it may be a man-made channel, it may be the actual width of the narrowest portion of the waterway.
- Other natural or man-made conditions that affect navigation (atmospherics, exclusion zones, etc.);
- Site-specific information such as historic date on vessel allisions/collisions, rammings and groundings in the waterway, bridge/waterway geometry, sailing path, stream speed, and wind speed;
- All vessels and cargoes that will need to be partially disassembled/dismantled or require multiple trips (barges) in order to transit the proposed bridge and whether the vessels currently possesses the capability. The USCG must take into consideration a vessel's ability to adjust its operations without significant economic loss. Adjustment or mitigation techniques may include using other routes, lowering electronics (GPS, radar, communication antennae, etc.), lowering crane booms, etc.;
- Proposed bridge clearance impact on present and prospective upstream commercial activity, e.g. jobs, and economic growth and development. Must address and existing or planned commercial/ industrial growth and developments negatively affected by the proposed clearances and discuss the economic impacts the proposed clearances will have on these businesses;
 - The foreseeable needs to the future navigation:

- Existing and historic navigational use and waterway conditions.
- Input from waterway dependent facilities concerning future use[MR1].
- Land use zoning along the waterway (particularly within the riparian zone)
- Future vessel size and traffic trends
- Input from states based on state development plans
- Input from facilities based on business plans
- Note that the next opportunity to adjust clearances for navigation is usually 50 - 100 years unless interim waterway improvement projects include the cost of bridge alterations.
- Projected changes in waterway usage based upon anticipated waterway improvement projects, future waterways, i.e. US Army Corps of Engineers (USACE) channel improvements and residential/commercial facility development. Waterway system maintenance should be considered due to changes in channel width and depth and in some cases channel alignment.
- Any existing facilities on the waterway that are or could be considered critical infrastructure, key resource, or important/unique US industrial capabilities i.e., are these facilities unique or one of only a few of the type in the area. Must address whether the proposed clearances negatively affect those facilities and their customers; and
- Mitigation proposed/completed for impacted waterway users and a list of those impacts that cannot be mitigated.

In determining the reasonable needs of navigation the above factors serve as guidance to assist the USCG with determining bridge clearances that provide for the reasonable needs of navigation. Other factors of evaluation to be covered in the study to determine whether the proposed project will meet the reasonable needs of existing and potential navigation include the following:

- Does the proposed bridge completely obstruct passage of any existing waterway users or access to waterborne facilities?
- Does the proposed bridge establish a new navigational limiting factor, i.e. will the proposed bridge be the most restrictive/obstructive structure across the waterway? Does the proposed bridge match the navigational clearance of the existing structures of the waterway?
- Does the proposed bridge impact present and prospective commercial activity on the waterway, e.g. jobs, and economic growth and development?
- Does the proposed bridge impact existing or planned commercial/industrial developments? What are the economic impacts on these businesses?
- Does the proposed bridge impact existing facilities on the waterway that are or could be considered critical infrastructure, key resources, or important/unique US industrial capability i.e., are these facilities unique or one of the only few of the type in the area?
- Does the proposed bridge impact USACE ability to transit the bridge in a federal project channel?
- Does the bridge impact USCG and other government vessels' ability to Transit Bridge to conduct mission essential functions (icebreakers, patrols, etc.)?

- Does the proposed bridge impact existing and future cruise ship port-of-call/terminals?
- Does the proposed bridge impact commercial freighters?
- Does the proposed bridge impact ports supporting post-panamax vessels?
- Does the proposed bridge impact vessels that require helper boats/tugs (note the combined clearance requirement of the vessel and the helper boat/tug)?
- Does the proposed bridge partially impact proposed commercial vessels as a result of the proposed development of the waterway?
- If the proposed bridge partially blocks or obstructs navigation, the following factors must be examined:
 - Can vessels and cargoes be partially disassembled/dismantled in order to transit the proposed bridge, and if so, is it economically reasonable? The USCG must take into consideration a vessel's ability to adjust its operations without significant economic loss. Adjustment or mitigation techniques may include using other routes, lowering electronics (GPS, radar, communications antennae, etc.), lowering crane booms, etc.
 - Are alternative routes available for vessel passage?
 - Can vessel transit at typical lower water stages (mean low water, mean pool level, etc.)

Deliverables: The Consultant will submit five hard copies and one searchable PDF version of the draft and final Navigation Study for each bridge alternative.

TRAFFIC ENGINEERING

Average Daily Traffic and/or 7-day 24-hour counts will be provided by DOTD.

BRIDGE DESIGN

Task 1:

Review Stage 0 documents and update design criteria in accordance with the latest versions of the following documents:

- AASHTO LRFD Bridge Design Specifications
- AASHTO LRFD Movable Bridge Design Specifications
- DOTD Bridge Design Manuals
- DOTD Bridge Design Technical Memoranda
- DOTD Minimum Design Guidelines
- AASHTO Geometric Design of Highways and Streets
- EDSM'S
- AASHTO Guidelines for Historic Bridge Rehabilitation and Replacement
- Recommendations: Application of the Methodology to Identify Preservation Priority Bridges (DOTD report prepared by Mead & Hunt, Inc.)
- DOTD Bridge Design Technical Memorandum 48 (BDTM.48) USCG White Paper on Guidelines to Perform Navigational Studies

Task 2:

Review the as-built plans, geotechnical data, existing ROW, traffic/accident data, hydraulic data, parish maps, scaled aerial photos of the site, DOTD roadway classification, the latest DOTD bridge inspection reports and existing load rating reports for the bridge if applicable. Conduct a field visit to the bridge site, assess the site conditions, and have a reasonable understanding of the existing structure's health and its serviceability.

Task 3:

Consider alternative construction schemes (phased, offset alignment, detour, rehabilitation, and fixed/movable bridge types) and apply all geometric and environmental constraints in accordance with the design criteria. Provide a line and grade study showing the beginning and end of the bridge, define the required vertical and horizontal clearances, and state the proposed superstructure and substructure types for each alternative. Rehabilitation options that maintain the historic integrity of the bridge will be considered and evaluated early in planning.

Task 4:

Review the Stage 0 cost estimate and provide refined construction cost estimates for each structure, rehabilitation option and alternative.

Deliverables:

The following information shall be provided in hard copy and searchable PDF versions as part of the project submittal:

- Design Criteria
- Updates to Stage 0 analysis results
- Line and Grade Study (or Plan and Profile sheets) showing the beginning and end of each bridge, required vertical and horizontal clearances, and proposed superstructure and substructure type for each alternative.
- State the preferred alternative.
- Construction cost estimate for each structure and alternative.

Task III: Environmental Assessment Analysis and Documentation

The project logical termini has been established as the intersections of US 90 at US 190 and US 90 at Mississippi Route 604.

1. Documentation of Purpose and Need

As part of the scope of services the Consultant will collect supporting data and coordinate input from the DOTD, MDOT, FHWA and state and local officials. The Consultant will refine the preliminary Purpose and Need statement and submit to the DOTD and FHWA for concurrence. At any time during the study the Purpose and Need may be required to be refined based on new information gained through data collected.

Deliverables: One (1) searchable PDF version of the approved refined Purpose and Need statement.

2) Existing Conditions Documentation and Impact Analysis

The Consultant shall conduct research, analyze data and document the existing conditions of the study area, which will include all identified alternatives (up to four build alternatives for each bridge site). DOTD will provide Solicitation of Views (SOV) letters for the project to the consultant for further consideration. The following topics will be addressed in the EA document:

a) Wetlands

One Wetlands Findings Report will be prepared for the entire project to delineate potential impacts to wetlands and Other Waters of the United States for each alternative for comparison during the EA process. One delineation report for the project including bridge sites and all potential new alignments, with limits based on required ROW and servitudes, will be prepared.

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 topographic quadrangle maps, Natural Resources Conservation Service (NRCS) soil maps, and other available resources.

A field survey will be conducted along the entire project corridor, 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 project corridor will be recorded on currently accepted USACE Wetland Determination Data Forms by the Consultant and provided within the Wetlands Finding Report. Ecological values and potential impact quantities for all wetlands and Other Waters of the United States identified within the study areas will be calculated in acres in the report and provided to the DOTD for use in the subsequent permit application process, which is not included in this scope.

The Wetlands Finding Report, using the latest FHWA criteria, will be submitted to the DOTD Project Manager 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. The final document along with associated GIS files/data will also be provided to DOTD.

Deliverables: Three hard copies of the draft wetland finding report and two copies of each revision will be submitted to the DOTD for approval. Five copies of the final report will be submitted to the DOTD as well as one electronic copy in searchable PDF format on a labeled common data storage media (CD, DVD, USB flash drive). The Consultant shall submit any

data files, geo database files, or shape files used to produce maps, figures or drawings on labeled storage media.

b) Biological Survey

The consultant will then conduct a habitat assessment to determine the types of habitat preferred by the respective Federally Listed Threatened and Endangered (T&E) or Candidate species and State Listed species and perform a thorough characterization of the habitats in the project area and adjacent land parcels.

A field survey will be completed to confirm the presence of suitable habitat for Federally Listed T&E or Candidate species and State Listed species and to determine if there is a reasonable possibility that a local population of those Federally Listed T&E or Candidate species and State Listed species are present in the area.

The consultant will prepare a Biological Survey Report identifying field survey parameters and findings concerning habitat types and presence of Federally Listed T&E or Candidate species and State Listed species within the project area. The report will be prepared and submitted to the DOTD Project Manager for review and comment. Once approved, the final report will be submitted to the DOTD. Materials provided will document desktop and field survey methodologies, agency coordination and comments, as well as provide conclusions and recommendations. Maps disclosing locations of protected/listed species populations, concern areas, and/or suspected habitats which may be included in communications or documents provided to the DOTD and regulatory agencies will not be distributed to the public, nor will these maps or report/memo wording disclosing the location of known or suspected listed species populations be included in the EA. Attempts will be made to avoid impacts to protected species or their habitats when planning the alternatives.

If the presence of any Federally Listed T&E or Candidate species, State Listed species and/or habitat is confirmed by the Biological Survey Report, the Consultant will notify DOTD to initiate consultation with appropriate state and federal agencies.

c) Identification Threatened and Endangered Species and State Listed Species

1. Federally Listed Species:

The Consultant will review all accessible and peer-reviewed documentation and databases regarding the presence of any Federally T&E or Candidate species for each alternative. Databases at a minimum should include those maintained by the USFWS and the Louisiana Department of Wildlife and Fisheries (LDWF).

2. State Listed Species

The Consultant will review all accessible and peer-reviewed documentation and databases regarding the presence of any State Listed species for each alternative. Databases should include those maintained by the LDWF.

The Consultant will continue coordination with appropriate state and federal agencies, through the DOTD, regarding specific Federally Listed T&E or Candidate species and State Listed species of concern and/or habitats in order to determine potential impacts of

project alternatives. Coordination with these agencies will be made through the DOTD Environmental Section.

Deliverables: Three hard copies of the draft Biological Survey Report and two copies of each revision will be submitted to the DOTD Project Manager. Five copies of the final report will be submitted to the DOTD as well as one electronic copy in searchable PDF format on labeled storage media. The Consultant will also submit any data files, geo database files, or shape files used to produce maps, figures or drawings on labeled storage media.

d) Essential Fish Habitat

The early coordination SOV response from National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) indicated that the project area is within designated Essential Fish Habitat (EFH) as defined by the Sustainable Fisheries Act (SFA) (P.L. 104-297). The habitats that are necessary to the species for spawning, breeding, feeding, or growth to maturity are designated as EFH.

If it is determined that the project may adversely affect EFH, the SFA requires consultation, through DOTD, with NMFS and the preparation of an EFH Assessment. The level of analysis and type of consultation are commensurate with the degree of impact. EFH consultation may be combined with other environmental reviews (i.e., NEPA, Endangered Species Act Biological Assessment) and must include a description of the proposed action and an analysis of the effects of the proposed action on EFH, the managed species, and their affected life stages and proposed mitigation, if applicable. If SFA consultation is required, the Consultant shall prepare a request to NMFS for concurrent consultation as defined in 50 CFR 600.920(f) and prepare and include the EFH Assessment with either the Environmental Assessment or the Biological Assessment.

Deliverables: Three hard copies of the draft EFH Assessment and two copies of each revision will be submitted to the DOTD Project Manager. Five copies of the final report will be submitted to the DOTD as well as one electronic copy in searchable PDF format on labeled storage media. The Consultant will also submit any data files, geo database files, or shape files used to produce maps, figures or drawings on labeled storage media.

e) Biological Assessment

Given the likelihood of the impact to T&E species and critical habitat a Biological Assessment will be prepared. If it is determined through coordination with the appropriate Federal Agencies that a Biological Assessment is necessary to quantify project impacts to T&E species, the Consultant will develop a Biological Assessment. The Biological Assessment Document will include: maps showing the areas of concern to T&E species and their habitats, field survey methods, agency coordination, conclusions, and recommendations. This report will not appear in the EA.

Deliverables: Three copies of the draft Biological Assessment report and two copies of each revision will be submitted to the DOTD Project Manager. Five copies of the final report will be submitted to the DOTD as well as one electronic copy in searchable PDF format on labeled storage media. The Consultant will also submit any data files, geo

database files, or shape files used to produce maps, figures or drawings on labeled storage media.

f) Permits

The Consultant will identify all applicable permits and certifications likely to be required for the proposed project alternatives and discuss any issues relevant to such permits or future coordination that may be needed. All qualitative data needed by DOTD to complete required permits will be provided by the consultant. The permits to be identified include but are not limited to:

- Louisiana Coastal Use Permit
- MS Department of Marine Resources Permit
- Clean Water Act Section 404 Permit
- Louisiana Scenic Stream Permit
- Construction National Pollutant Discharge Elimination System Storm Waters Permit
- Clean Water Act, Section 401 Water Quality Certification
- USACE Rivers and Harbors Act, Section 10
- Bridge Permit (USCG- Bridge Permit)
- Permits associated with work within the Wildlife Management Area (Special Use Permit)

g) Phase I Environmental Site Assessment (ESA)

A Phase I Environmental Site Assessment (ESA) will be performed to include all alternatives for the project. It will conform to ASTM Standard E 1527-13. The Phase I ESA will have the following four components: records review, site reconnaissance, interviews, and report preparation. The Consultant will meet with the Environmental Section's Project Coordinator if Recognized Environmental Conditions (RECs) are discovered. Results of the site evaluations, findings, conclusions, and opinions concerning the site impact will be provide in the ESA.

The following sub-tasks will be completed by the Consultant

- Historic records overview
- Fieldwork
- Interviews
- Data review/analysis
- Produce and submit draft report to the DOTD Project Manager
- Revise/submit report to the DOTD Project Manager

Deliverables: Three hard copies and one electronic searchable PDF version of the Phase I ESA Draft Report. Three hard copies and one electronic searchable PDF version of Final Report.

h) Noise Analysis and Air Quality

For alternatives on new alignments, a noise analysis will be performed. A noise analysis is not required for the rehabilitation or replacement on existing alignment alternatives.

A highway traffic noise study will be performed for Type I Alternatives in accordance with the following:

- Louisiana Department of Transportation and Development, Highway Traffic Noise Policy, dated July 2011
- Chapter 23, Part 772 Code of Federal Regulations: Procedures for Abatement for 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 following sub-tasks will be completed by the Consultant:

- (a) DOTD Noise Policy Review and Coordination
- (b) Develop/submit Noise Analysis Protocol
- (c) Perform field studies and monitoring
- (d) Model noise levels
- (e) Provide noise contour along route that indicates the 66 decibel and 71 decibel noise contour
- (f) Determine reasonableness and feasibility of abatement
- (g) Produce/submit draft report to the DOTD
- (h) Revise/submit final report to DOTD

The project area is within an attainment area. The impact on regional air quality will be discussed in the EA. Also, the impact on air quality during construction of the project will be discussed in the EA.

Deliverables: If required the Consultant will prepare five hard copies and one searchable PDF version of the draft and final technical report.

i) Cultural Resources

The Consultant will carry out research and documentation to assist the Federal Highway Administration 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. The Consultant should anticipate that Phase I cultural resource survey will include an archaeological and standing structure survey for all alternatives. Phase II National Register testing may be required for identified archaeological sites.

All coordination with the Mississippi and Louisiana State Historic Preservation Officers will be through the Environmental Section or with the express approval of the Environmental Section.

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

Determine Area of Potential Effects (APE)

The Consultant will consult with FHWA and MDOT and DOTD to develop the APE (direct and indirect) for the project. After FHWA and the DOTD have determined the APE, the agencies will consult with the State Historic Preservation Officers (Mississippi and Louisiana SHPO) for concurrence. No Phase I cultural resources survey fieldwork survey will be conducted prior to the delineation of the direct and indirect APE. Each alignment will require an APE (direct and indirect). No archaeological fieldwork will be conducted outside of the identified direct APE.

Identify Known Historic Properties and Archaeological sites & Background Research

The Consultant will review previous cultural resource survey reports and compile information on previously recorded archaeological sites, structures, and NRHP listed properties, on file at the Louisiana Division of Archaeology (DOA), the Louisiana Division of Historic Preservation (DHP) and the Mississippi Department of Archives and History (MDAH).

Phase I Cultural Resources Survey

A Phase I cultural resources survey will be performed on the alignments of up to four (4) build alternatives (see APE above) to determine the presence of archaeological sites, standing structures, other places and/or objects approaching 50 years of age or older that are for eligible for or listed on the NRHP. The Consultant will coordinate with the DOTD 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. All cultural resources identified during the Phase I survey will be evaluated for National Register of Historic Places eligibility or recommended for further Phase II testing if required.

Property Owner Contact and Permission

The Consultant will do the research necessary to obtain the names/addresses of property owners from whom additional ROW is anticipated to be required. The Consultant will contact and request permission from the property owners prior to accessing their property. The property owners will be informed of the need to analyze artifacts recovered during survey or testing and request in writing permission to remove artifacts from property for analysis and curation. All artifacts will be curated unless the property owner requests return of artifacts recovered from their property. If property owners do not grant access to their property for survey the consultant will contact DOTD for guidance and appropriate action.

Standing Structure Survey

A standing structure survey will be conducted within the direct and indirect APE of the project. Any structures approaching the 50-years of age will be recorded on either Louisiana standing structure inventory forms or Mississippi Historic Inventory Forms. The five bridges within the APE have been determined eligible for the NRHP. The bridges will not need to be re-evaluated for this scope of work but existing documentation of the bridges will need to be incorporated into the current study.

Archaeological Fieldwork Phase I Survey and Phase II National Register Testing

All Phase I Survey and Phase II National Register Testing will adhere to the Secretary of the Interior Standards and archaeological fieldwork guidelines of DOA or MDAH, depending on location of survey. It is anticipated that no more than one archaeological site will be require Phase II testing. Testing will consist of up to three 1m x 1m test excavation units.

Processing and Analysis of Artifact

Once the fieldwork is completed the artifacts will be returned to laboratory for washing and cataloging accordance with the appropriate state (DOA and MDAH) curation guidelines. The artifacts and other data recovered during the fieldwork will then be analyzed using currently acceptable scientific methods. Radiocarbon samples collected from undisturbed cultural deposits will be submitted for dating. All artifacts collected will be curated with the appropriate State Curation Facility in accordance with their current standards. A receipt of deposit from the curation facility will be required.

Report Preparation

The reports will meet current DOA and MDAH report standards for Phase I survey and Phase II testing. A report for each state will be prepared that will present the finding and recommendation of all research, survey (standing structure and archaeology), and archaeological testing. It is expected that all properties approaching 50 years of age or older identified will include a National Register eligibility and recommendation for future work, if necessary.

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

Following the DOTD, MDOT, FHWA, SHPO, and applicable federally recognized tribe review, the Consultant will prepare a final Cultural Resources Survey Reports. The final Cultural Resources Survey Reports will be submitted to the DOTD; the DOTD will transmit the finals to FHWA, SHPO, and applicable federally recognized tribes.

Section 106/NEPA Documentation Tasks

The Consultant will integrate NEPA and NHPA Section 106 review at the earliest possible time to ensure that planning decisions reflect values to avoid delays in the process and head-off potential conflicts. The Consultant will reference "NEPA and NHPA a Handbook

for Integrating NEPA and Section 106” prepared by the Council on Environmental Quality, Executive Office of the President and the Advisory Council on Historic Preservation.

~~Consultant shall use the online streamlining tool, eNEPA Portal, to facilitate the environmental review process for document management and interagency collaboration. The eNEPA Portal can be accessed at <https://fhwaapps.fhwa.dot.gov/enepap/home/main>.~~

Five bridges within the project area are eligible for the NRHP. The proposed replacement of these bridges would be considered an adverse effect under Section 106, therefore consultation with Louisiana and Mississippi SHPO and other identified consulting parties will be required under this contract. Work associated with this task will 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 survey or Phase II testing, will be incorporated into this task. Work associated with this task will include but is not limited to 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 (including rehabilitation of bridges)
- Preparing a decision matrix to highlight impacts to historic properties for each alternative
- Assessment of Adverse Effects
- Preparing a Memorandum of Agreement (MOA)

Deliverables: For the cultural resources survey conducted in Mississippi the Consultant will submit three hard copies and one searchable PDF version of the draft and final Cultural Resource Survey reports that combines both Phase I and Phase II (if applicable) and meets or exceeds the MDAH guidelines for fieldwork and reporting. The Consultant will submit one hard copy and one searchable PDF version of any associated Historic Resource Inventory Forms and Archaeological Site Cards. A copy of the receipt of curation will be required prior to the close of the contract.

For the cultural resources survey conducted in Louisiana the Consultant will submit three hard copies and one searchable PDF version of the draft and final Cultural Resource Survey reports that combines both Phase I and Phase II (if applicable) and meets or exceeds the LA DOA guidelines for fieldwork and reporting. The Consultant will submit one hard copy and one searchable PDF version of any associated Historic Resource Inventory Forms and/or Archaeological Site Forms. A copy of the receipt of curation will be required prior to the close of the contract.

j) Socio-Economic / Community Impacts

The Consultant shall evaluate the social and economic impacts, including any adverse effects of the proposed actions, on the local community. The Consultant shall collect

compiled summary demographics on the project area. Discussion shall 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 shall be researched by the Consultant through contact with local planning officials, public safety officials, school officials, and organizations in an effort to determine other long-range plans, upcoming projects, or planned development. Consistency with these plans shall be assessed and documented. The Consultant shall evaluate the Work Zone User Costs for detours and lane closures for the build and no-build alternatives. These costs should be captured in the cost estimate for each alternative including the no-build.

k) Environmental Justice

Available U.S. Bureau of the Census population and other source data shall be used as a basis to identify low-income, and minority populations in the entire study area. This data shall 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 shall identify likely minority and/or low-income communities within the study area and assess whether the project shall 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 shall be reported to the DOTD’s Environmental Section, and the Consultant shall evaluate possible mitigation or enhancement measures to reduce or lessen adverse impacts, if any, on the community.

All reasonable and foreseeable disproportionately adverse social, economic, and environmental effects on minority and low-income populations must be identified and addressed in the EA document. Adverse effects include, but are not limited to:

- Air, noise, and water pollution and soil contamination.
- Destruction or disruption of man-made or natural resources.
- Destruction or diminution of aesthetic values.
- Destruction or disruption of community cohesion or a community's economic vitality.
- Destruction or disruption of the availability of public and private facilities and services.
- Vibration.
- Adverse employment effects.
- Displacement of persons, businesses, farms, or nonprofit organizations.
- Increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community.
- The denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities.

1) Relocations and Conceptual Stage Relocation Plan

The Consultant shall confirm whether the proposed alternatives result in any relocation of businesses or residences. In the event an alternative results in relocation impacts, the Consultant shall prepare a Conceptual Stage Relocation Plan in accordance with the requirements of the Louisiana LADOTD's Office of Right of Way Operations Manual and 49CFR Part 24 § 24.205a. The results of the plan shall be summarized in the EA. The scope of the plan shall 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 shall 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, shall 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 shall 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 shall 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 shall be from secondary sources and field observations. Interviews shall not be conducted with those families and businesses potentially affected by the various alternatives.

The Consultant shall develop a preliminary cost estimate for each project alternative. The project costs shall include estimates for all ROW acquisition costs. Estimates for ROW shall include all land and improvements situated within the proposed ROW (all alternates considered). Additionally, the ROW estimate should include the estimated cost for land as well as improvements not in the required area, but possibly impacted by the proposed project. The ROW cost estimate should take into consideration damages, etc. that may accrue due to the proposed project (all alternates considered).

If a proposed project shall not result in relocation impacts this must be documented within the EA document.

Deliverables: The Consultant will submit five (5) hard copies and one (1) searchable PDF version of the final conceptual relocation plan.

m) Section 4(f)

Documentation will 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 will conduct analysis to determine if there are prudent and feasible avoidance alternatives to all identified 4(f) properties.

Research, analysis, and documentation of compliance with Section 4(f) of the U.S. DOT Transportation Act will be carried out by the Consultant. There are known boat launches within the project area as well as five historic properties. It is anticipated that 4(f) documentation will include De Minimis and Programmatic Evaluation. Individual Section 4(f) Evaluation if required would be under a contract supplement.

Deliverables: The Consultant will submit one draft hard copy and one draft searchable PDF version and one final hard copy and one searchable PDF version of the section 4(f) document which will encompass all section 4(f) properties, according to FHWA rules, regulations and guidelines.

n) Section 6(f)

Resources built using the Land and Water Conservation funds will be identified by the Consultant. If such resources are present, the Consultant will prepare Section 6(f) documentation for the coordination with the appropriate agencies.

Deliverables: The Consultant will submit one draft hard copy and one draft searchable PDF version and one final hard copy and one searchable PDF version of the section 6(f) document which will encompass all section 4(f) properties, according to FHWA rules, regulations and guidelines.

o) Utilities Effects Summary

The Consultant will identify all utilities within the study area and the need for relocation based on proposed alternatives. An associated utility relocation cost will be provided for each alternative.

p) Floodplain

The Consultant will need to coordinate and document coordination with the parish flood plain administrator on requirements.

q) Soils, Geology, Prime Farmlands, and Mineral Resources

The Consultant will identify soils in the vicinity of the project using published NRCS data. Relevant discussion on geology, geomorphology, prime and unique farmlands, and mineral resources potentially affected by the project alternative will also be discussed.

r) Temporary Construction Effects

The Consultant will analyze temporary construction effects. Temporary effects include, but are not limited to, noise, vibration, visual, access to recreational facilities, and temporary impacts to traffic.

s) Secondary and Cumulative, Effects

The Consultant will analyze secondary, cumulative effects. This analysis identify all future social, economic and environmental impacts of the project.

Other Impacts

The Consultant shall consider and evaluated other issues that may be included in the EA impact discussion including but not limited to:

- Items of special or local interest should also be noted and evaluated within the context of the project.
- Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
- LADOTD's Complete Streets Policy
- LADOTD's Context Sensitive Solution (CSS) Policy
- Climate change
- Possible detours and their effect
- Sequence of construction and other construction impacts
- Special construction times needed to alleviate undue travel time during, harvest, congestion, etc.

t) Cost Estimate

The Consultant shall develop a preliminary cost estimate for each proposed project alternative. The project costs shall include estimates for all engineering design, Work Zone Road User Cost[SP2], ROW acquisition, construction, utility relocation, and mitigation costs. Estimates for ROW shall include all land and improvements situated within the proposed ROW. Additionally, the ROW cost estimate should include the estimated cost for land, as well as improvements not in the required ROW, but possibly impacted by the proposed project. The ROW cost estimate should take into consideration damages, etc. that may accrue due to the proposed project and relocation cost estimate. The following link illustrates examples of Work Zone Road User Costs calculations. https://bookstore.transportation.org/item_details.aspx?id=1590

3) Environmental Assessment Document

Analysis of each alternative for each bridge site, including the No-Build, will be made and discussed in the EA. Items to consider include, but are not limited to, traffic patterns, construction phasing, geometrics, constructability, 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 habitats. Potential mitigation measures designed to reduce or alleviate impacts will be discussed in the document.

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. The document will include a phase implementation plan to be examined to determine logical and realistic methods to construct the five proposed bridge replacement/rehabilitations based on the environmental study

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 issuing approval to print the EA for public distribution. The distribution of the EA 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 hard copies and one searchable PDF version of the draft EA and fifty-five hard copies and one searchable PDF version of final EA with FONSI

Task IV: Public Coordination

Public coordination will follow the Public Involvement Coordination Plan (Task 1.2). Two open house format Public Meetings will be required for this project. One Public Meeting will be held in Mississippi and one in Louisiana. All arrangements for the Public Meeting, including location, time, handouts, preparation of notices, preparation of appropriate exhibit and technical presentations will be made by the Consultant but subject to the Department's Environmental Section review and approval. Upon the Department's approval of the notice, the Consultant will advertise the notice of the Public Meeting in agreed upon local newspaper and media. 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 in regards to environmental, engineering, and other project related issues. The consultant will provide tables and staff for sign-in and comment (verbal and written). A table will also be required for DOTD Real Estate staff. As the purpose of the Public Meeting is to assist the public in understanding how the project may impact their community, exhibits aiding in the visualization of the project at the Public Meeting will be the responsibility of the Consultant. It is preferred to have all exhibits displayed on easels rather than table top displays. The Consultant will record and prepare a verbatim transcript of the Public Meeting(s). The Consultant will develop an appropriate amount of typical sections that relay the roadway sections and estimate the limits of construction, existing, and required ROW for each of the different alternatives. Exhibits depicting all alternatives with limits of construction and estimated ROW takings will be prepared for the Public Meetings. One exhibit shall depict the entire project area at a reasonable scale approved by DOTD. The consultant should prepare the exhibits at an appropriate scale that will ensure that enough detail is represented for discussion with homeowners, land owners, etc.

After approval by the DOTD's Environmental Section and FHWA, the EA will be made available to the public and two open house Public Hearings will be scheduled. One Public Hearing will be held in Mississippi and one in Louisiana. All arrangements for two Public Hearings- including location, time, handouts, and preparation of exhibits and technical presentations will be made by the Consultant (subject to the Environmental Section's approval). The Consultant will advertise the notice of the Public Hearings to the local newspaper(s) as well as other media agreed upon by the Department. Actual conduct of the Public Hearing will be by the Consultant. Preparation of a handout for distribution to interested stakeholders present at the hearing will be the responsibility

of the Consultant. This handout shall be submitted to the Environmental Section's project coordinator at least one month prior to the scheduled Public Hearing. The Consultant will have knowledgeable, informed staff present at the Public Hearing during the entire duration of the Hearing to address the queries of the public in regards to environmental, engineering, and other project related issues. The consultant will provide tables and staff for sign-in and comment (verbal and written). A table will also be required for DOTD Real Estate staff. The Consultant will record and prepare a verbatim transcript of the Public Hearings. Exhibits depicting the alternatives and estimated ROW takings will be prepared for the Public Hearing. One exhibit shall depict the entire project area at a reasonable scale approved by DOTD.

All comments received during the comment period on the EA including those received from SOV Public Meetings, and Public Hearings, will be addressed in the Final EA document by the Consultant. After approval by the DOTD's Environmental Section of the final document and issuance by FHWA of a FONSI, the EA with FONSI will be distributed by the Consultant. The DOTD Environmental Section's project coordinator will provide a basic 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 V: Agency Coordination

Other items that will be evaluated and coordinated with appropriate agencies include, but are not limited to: sole source aquifers, 100 year floodplain and/or associated storm surge levels, and oil and gas wells, water wells. Some of these items utilize standard forms; other coordination is by letter or applications. Items of special or local interest should be noted and evaluated within the context of this project. The Consultant will evaluate this project with respect to the DOTD's Complete Streets Policy.

The Mississippi Department of Transportation and Development (MDOT) have requested to review:

- Traffic Control Plans
- Draft and Final Environmental Documents as well as a public involvement notifications that will be advertised for the project
- Map of possible detours along with capacity analysis of each to show that roadway deficiencies on any detour routes have been adequately addressed
- Road User Cost for each alternative that has been developed to determine the preferred alternative and/or justification for an accelerated road construction schedule.

- 1) Coordinate with DOTD, MDOT and FHWA
 - a) Every-Other Month DOTD / FHWA Progress Meetings
 - b) Conference Calls (2)

- c) Review of Completed Preliminary Concepts
 - d) Preferred Alternative Decision
 - e) Arrange meetings Prepare draft and final minutes
 - f) Distribute final minutes and sign-in sheets
- 2) Coordinate with Other Local, Federal, and State Agencies
- a) 3 Public Official Meetings
 - b) 3 Agency Meetings

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

MISCELLANEOUS

The Consultant shall notify the Department's Environmental Section a minimum of two weeks prior to any field work. Prior to any fieldwork the Consultant will request landowner permission. The Consultant shall notify the Department's Environmental Section when field work begins and ends. The Consultant will also update the Department's Environmental Section bi-weekly as to their progress in the field.

The Consultant shall upload a copy of all deliverables to ProjectWise.

Consultant shall use the online streamlining tool, eNEPA Portal, to facilitate the environmental review process for document management and interagency collaboration. The eNEPA Portal can be accessed at <https://fhwaapps.fhwa.dot.gov/enepap/home/main>.

PROJECT MAPPING AND GIS

The Consultant will use Geographic Information Systems (GIS) to illustrate characteristics of the study area and to assist in the assessment of the effects of alternatives under consideration. Tasks will include but is not limited to the collection of available GIS data, establish the study area base map with aerial photography, reformat and incorporated available data, reformat and incorporate field determination data, and metadata development. The Consultant will compile metadata files for data used in the project and develop metadata files for new data layers in accordance with the Federal Metadata standards.

Aerial photography will be the preferred base map for exhibits to be used both in the EA and for presentation during the public meetings and hearing. This map will be used to overlay environmental constraints and environmentally sensitive areas located within the study area. Readily available data and field-determined data will be mapped and collected for use in describing the existing conditions in the study area and to provide a baseline condition against which future impact projections will be based.

The consultant will adhere to LADOTD GIS standards (web links below). The consultant will prepare maps using ESRI ArcMap software version 10.2.2 or latest version in use by DOTD.

http://wwwsp/Inside_LaDOTD/Divisions/Mgmt_Finance/GIS/Pages/GIS_Standards.aspx

http://wwwsp/Inside_LaDOTD/Divisions/Mgmt_Finance/GIS/Misc%20Documents/LADOTD_IT_GIS_Web_Service_Standards.pdf