

July 5, 2016

Memorandum:

To: Project Managers

From: Mark Chenevert, P.E.
Contract Services Administrator

Re: Outline for Advertisement Requests for Engineering and Related Services
Contracts under Title 48 (La. R.S. 48:285-294)

A written request to issue an advertisement for consultant services should contain the following information:

1. **Approval to Retain Consultant Services** – Attach the approved memorandum requesting procurement of consultant services (from Section Head to the appropriate Executive Staff member). Approval is given as applicable by the Chief Engineer, the Assistant Secretary for Operations, or the Assistant Secretary for Multimodal Planning. The recommendation memorandum should meet the requirement of La. R.S. 48:286 (attached). Guidelines for the recommendation memorandum are attached.

Advertisement requests for engineering and related services contracts should be sent to CCS no later than 30 days after approval of the Chief Engineer (or assistant secretary for operations; assistant secretary for planning and programming, or assistant secretary of public works, hurricane flood protection, and intermodal transportation, whichever is applicable to the project) to retain consultant services.

Any requests greater than **30 days** will be returned to the DOTD Project Manager by CCS staff to seek a new or revised approval of the Chief Engineer (or assistant secretary for operations, assistant secretary for planning and programming, or assistant secretary of public works, hurricane flood protection, and intermodal transportation, whichever is applicable to the project). Explanations to the Chief Engineer will be required for new/revised approval requests.

2. **Project Number** – The project number(s) used to identify the work must be provided. If this is a Retainer Contract request, CCS will assign the project number.
3. **Project Name and Location** – The project name identifying the project, route, and parish as well as a map (if available) showing the location of the project.

4. **Project Manager/Task Manager(s)** – Include the name and phone number of the project manager and all task manager(s) for any significant component of the work such as road design, bridge design, planning, or environmental.
5. **Project Description** – This is a brief and general description of the project, its location, and its termini (limits). Include the type and size of roadway and bridges and any physical features of the project.
6. **Scope of Services** – This is a detailed description of all services to be provided by the consultant under the proposed project. Identify each work element by standard stages and parts.

The standard stages with examples are shown below:

Stage 0: Feasibility Studies

- Feasibility Study
- Environmental Inventory
- IJR/IMR
- Bridge Evaluation

Stage 1: Planning/Environmental

- Corridor Study
- Line and Grade Study
- Environmental Evaluation
 - Categorical Exclusion
 - Environmental Assessment (EA)
 - Environmental Impact Statement (EIS)
- Conceptual Design
- Scope and Budget Development
- Mitigation
- Navigational Evaluations
- Permits
- Public Involvement
- Bridge Evaluation

Stage 3: Design

- Surveying Services
 - Topographic Survey
 - Property Survey
 - Right-of-Way (R/W) Maps
 - Title Take-Off
 - Hydrographic Surveys
- Hydraulic Study
- Geotechnical Services

- Traffic Services
- R/W Acquisition
 - Title Work
 - Hazardous, Toxic, Radioactive Waste (HTRW) Assessments
- Utility Relocation
- SUE Services
- Bridge Evaluation
- Preliminary Plans
- Final Plans
- Operational Services
- Bridge Structural Condition Inspection
- Construction Proposal
- Phase II Environmental Site Assessment
- Lighting
- Permanent Signing
- Permits
- Public Information

Stage 5: Construction Engineering Services

- Construction Support/Construction Related Engineering
 - Shop Drawings
- Construction Engineering and Inspection (CE&I)
- Critical Path Method (CPM) Analysis
- Bridge Evaluation
- Public Information

The request may provide a percentage breakdown of Work Elements by major work categories, such as Environmental, Survey, Subsurface Utility Engineering (SUE), Geotechnical, Bridge, Road, etc. These percentages will be standard for all Primes' submittals to allow a fair comparison of submittals. The percentages shown will be for grading proposes only. Submittals not submitted with the breakdown shown in the advertisement may be considered as non-responsive.

7. **Complexity** – Describe the level of complexity of the project and/or major work elements (**normal or complex**). Approval by the Secretary is required for use of the “complex” designation. Complex should be limited to contracts which by nature of the work would severely limit the number of consultants which would satisfy the minimum personnel requirements. Examples of **normal** and **complex** projects are as follows:
- **Normal** would be a project which requires general knowledge in a subject matter which can be obtained from a number of sources. (Example: two lane rural highway with slab span bridges)

- **Complex** would be a project which requires expert knowledge in a subject matter which can only be obtained from a very limited number of sources. (Examples: cable-stayed bridge, longer span curved bridges)
8. **Additional Services** – Identify any additional or unusual work that may be required of the consultant by supplemental agreement, such as but not limited to final plans, geotechnical, right-of-way acquisition, SUE, etc.
 9. **Items to be provided by DOTD** – List all items to be provided by DOTD, such as reports, surveys, soil borings, etc.
 10. **References** – List all references to be used by the Consultant. Examples shown below:

REFERENCES

All services documents will meet the standard requirements as to format and content of the DOTD; and will be prepared in accordance with the latest applicable editions, supplements and revisions of the following:

1. AASHTO Standards, ASTM Standards or DOTD Test Procedures
2. DOTD Location and Survey Manual
3. DOTD Addendum “A” to the Location and Survey Manual
4. DOTD Roadway Design Procedures and Details
5. DOTD Design Guidelines
6. DOTD Hydraulics Manual
7. DOTD Standard Specifications for Roads and Bridges
8. Manual of Uniform Traffic Control Devices
9. DOTD Traffic Signal Design Manual
10. National Environmental Policy Act (NEPA)
11. National Electric Safety Code (NESC)
12. National Electric Code (NFPA 70)
13. A Policy on Geometric Design of Highways and Streets (AASHTO)
14. DOTD Construction Contract Administration Manual
15. DOTD Materials Sampling Manual
16. DOTD Bridge Design Manual
17. Consultant Contract Services Manual
18. Geotechnical Engineering Services Document
19. Bridge Inspectors Reference Manual/90
20. DOTD Stage 1 Planning/Environmental Manual of Standard Practice
21. Code of Federal Regulations 29 CFR 1926 (OSHA)
22. Complete Streets,
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Highway_Safety/Complete_Streets/Pages/default.aspx

Follow link below for the individual reference links:

<http://webmail.dotd.louisiana.gov/ContWEB.nsf/b88769326453bef886256fe00047183a/18fc2860512aba5886257a62006133b8?OpenDocument>

11. **Contract time** – Specify the time to be allotted for each stage and part of the work element and also the total contract time.
12. **Contract type** – Recommend non-negotiated or negotiated lump sum, cost per unit of work, cost-plus fixed fee, or specific rates of compensation (billable rates). Refer to La. R.S. 48:294 and the AASHTO Guide for Consultant Contracting, March 2008 and the Consultant Contract Services Manual, May 2007 for guidance.
13. **Fees** – For predetermined fees, include the fee for each element of work in the request memorandum with all calculations attached using HCPC or HCPB mainframe programs or other applicable programs. For negotiated fees, the request should contain an estimate of the total contract fee, broken down by dollar figure for all stages/parts.
14. **Minimum Personnel Requirements (MPR)** – La. R.S. 48:290 provides guidance on the MPR to be used in contracts. Identify the specific experience or credential that is required of the prime consultant and the sub-consultant (if applicable) for each work element (e.g., three years of experience in subject matter, five years of experience in subject matter, ten years of experience for contracts requiring expertise in the subject matter which may be of an unusual nature). In addition, identify by title/description the type of support personnel (Engineer-Interns, Technicians, Inspectors, CADD Drafter/Technician, Party Chief, etc.) required to perform the services required of the contract. The requirements of certifications or licensures are also to be noted in this section.
15. **Past Performance Categories** and the percentages to be used. This may not be the same as the percentage of work specified in Item No. 6, but will be used in the grading of the submittals.

8a. List the elements of work as defined in the advertisement, and an estimated percentage and detailed description of the work elements(s) to be performed by the prime consultant and each sub-consultant.

Element of Work	% of Overall Project	Sub-Task % of Element of Work	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
ROAD DESIGN SERVICES	40%							
Road Design		90%						
Traffic Engineering Analysis		7%						
TMP		2%						
Environmental Support		1%						
BRIDGE	40%							
Bridge		90%						
Lighting		10%						
GEOTECHNICAL	10%							
SURVEY	10%							
Topographic Survey		45%						
Property Survey		9%						
ROW Maps		4%						
Title Take-Off		1%						
SUE Services		41%						

8b. Identify the percentage of work for the overall project to be performed by the prime consultant and each sub-consultant.

Percent of Contract	100%							
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16. **Weighting Factors** Weighting factors usually used for the six rating categories in evaluating responses to requests for preconstruction services selections are included in RS 48:293. For other types of services or for special project requirements, the weighting factors may be varied. Any changes to the weighting factors included in RS 48:293 require the approval of the appropriate Division Head.
17. **Specific Software and/or Equipment Requirements** – Identify necessary software requirements (i.e., software standards, versions, deliverable formats and other specifications). Identify specific equipment needed to accomplish the work (i.e., CADD, snoopers, boats, drilling rigs, etc.) Include a statement if the Department will only consider these items to be indirect expenses to the contract.
18. **Project Funding** – Identify the source of funds to pay for the Consultant Services, either in the request letter or in the recommendation of consultant services memorandum (see item 1). It is the Project Managers responsibility to assure that all funding issues have been resolved prior to requesting a selection (for federal aid projects, this includes confirming that the project is included in the STIP and TIP). For non-negotiated contracts, it is also the Project Managers responsibility to complete a shopping cart for this action. Identify if shopping cart has been completed.
19. **FHWA Delegations** – For federally funded contract actions, state whether or not the project is on or off of the National Highway System (NHS). Refer to Attachment “A” of the latest Louisiana Federal-Aid Highway Program Stewardship Agreement. The chart lists which actions and approvals are required by FHWA and which are delegated to the DOTD. **Stewardship Agreement Link below:**
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Administration/Secretary/Pages/FHWA_Stewardship.aspx.
20. **Project Evaluation Team (PET)** –
- The DOTD Project Manager will state in the RFQ request the desired experience level and qualifications of the PET. For example, “This is a multidiscipline project with the major components being Road Design, Bridge Design and Traffic. It is recommended that the PET members have experience in these services.”
 - The Consultant Contracts Services Administrator, or his designee will review the desired qualifications and select 5 personnel from the approved Grader’s List.
 - For specialty type RFQ’s, the DOTD Project Manager may recommend specific personnel not on the approved Grader’s List. The PM should state the reasons why along with documentation of the employee’s experience and qualifications. The Section Head shall approve this recommendation. The CCSA will make the final determination.
21. **Project Letting Date** – Include the letting date for the project. Also, state your justification for high priority advertisement requests (if applicable).

22. **Construction Cost** – Include the projected cost of construction (if applicable).

Should you have any questions or need additional information please feel free to contact me at (XXX) XXX-XXXX.

RS 48:286**§286. Retaining of consultants warranted; authorization**

A. There are three conditions which shall warrant the retention of the services of consultants by the department:

(1) The magnitude of the work involved in a project is determined to be so taxing to the department's available manpower that it will be necessary to defer other essential work if the work is performed by the department staff.

(2) The work required by a project is determined to be of such a specialized nature that the department will be required to go outside its own staff for experts in the appropriate fields to accomplish the work.

(3) The time frame within which the work must be completed is determined to be such that the department cannot undertake the work and maintain its program on schedule.

B.(1) When it is determined by any department section that consulting services are warranted, the section head shall submit a recommendation to the chief engineer, assistant secretary for operations, assistant secretary for planning and programming, or assistant secretary of public works, hurricane flood protection, and intermodal transportation, whichever is applicable to the project, stating the need and the supportive reasons for the services, including a description of the project and the estimated cost of the work to be performed.

(2) The chief engineer, assistant secretary for operations, assistant secretary for planning and programming, or assistant secretary of public works, hurricane flood protection, and intermodal transportation, whichever is applicable to the project, shall decide if the need to use consultants for professional services for a project is warranted based upon information provided by the section head and the criteria established by Subsection A of this Section.

(3) Approval, when granted, shall be considered as being of a general nature, including not only the obvious components of the project which are immediately identifiable, but also ancillary components identified at any time during the life of the project. An additional selection process shall be used for ancillary components when the total of such ancillary components amounts to more than seventy-five percent of the original contract.

(4) When it is determined by the chief engineer, assistant secretary for operations, assistant secretary for planning and programming, or assistant secretary of public works, hurricane flood protection, and intermodal transportation, whichever is applicable to the project, that there is a need for an outside consultant, the selection shall be made in accordance with the provisions of this Part.

Acts 1991, No. 784, §1; Acts 1998, 1st Ex. Sess., No. 35, §1; Acts 2009, No. 255, §1, eff. July 1, 2009.

RS 48:290

§290. Requirements of consultants

A. Preconstruction or construction services consultant engineering firms shall meet the following requirements to be considered for employment by the department:

(1) At least one principal of a firm under consideration shall be a registered professional engineer in the state of Louisiana.

At least one principal or other responsible member shall be currently registered in Louisiana as a professional engineer in the major discipline required for the project. In the case of a land surveying contract, one principal or responsible member shall be currently registered as a professional land surveyor in Louisiana.

(2) At least one principal or responsible member shall have had a minimum of five years experience in responsible charge of the engineering field or fields involved.

B. To be considered for employment for planning, or environmental studies, a consulting firm must meet the following requirements:

(1) At least one of the principals of the firm shall be professionally competent in the field or fields of expertise required for the project.

(2) At least one principal or responsible member of the firm shall have had a minimum of five years experience in responsible charge of or major expertise in the field or fields involved.

C. Requirements or considerations for consultants for preconstruction or construction services and planning, environmental or research studies are, as follows:

(1) Special qualifications to meet particular project needs may be established by the department. These qualifications shall be published in the advertisement for consultant services if established.

(2) A minimum manpower requirement shall be published in the advertisement for consultant services where appropriate.

(3) The department will not consider joint ventures for consulting services, except in rare cases and only after written justification.

D. Sub-consultants providing engineering or land surveying services are bound by the requirements for consultants. Sub-consultants providing other than engineering or land surveying services must demonstrate that qualified personnel are in responsible charge. All sub-consultants are subject to department approval, either at the time of selection or thereafter.

E. Firms may be disqualified from being selected when such firm:

(1) Has received a letter stating that the firm is significantly behind the approved time schedule for completion of any phase of an existing contract with the department.

(2) Has a record of unsatisfactory performance on department projects.

Acts 1991, No. 784, §1; Acts 2009, No. 255, §1, eff. July 1, 2009.

RS 48:291

§291. Selection procedure; evaluation teams

A. Except for research projects, an evaluation team consisting of five department personnel shall evaluate the qualifications of the responding consultant firms. The consultant contract services administrator, or his authorized designee, shall serve as chairman of the evaluation team.

The consultant contract services administrator, or his authorized designee, shall select evaluation team members from department personnel who possess experience and qualifications relevant to services to be performed for the project. In addition other persons as determined by the chairman may be called for informational purposes. At least three members of the selected team shall evaluate the qualifications of responding consultants. The consultant contract services administrator, or his designee, serves *ex officio* and does not evaluate the responding consultant firms. The consultant contract services administrator, or his designee, shall report the results of the evaluation team members to the secretary for all projects except Louisiana Transportation Research Center projects.

B. The Louisiana Transportation Research Center project selection procedure shall be in accordance with the Louisiana Transportation Research Center "Manual of Research Procedures" for Louisiana Transportation Research Center projects.

Acts 1991, No. 784, §1; Acts 2009, No. 255, §1, eff. July 1, 2009.

RS 48:293

§293. Competitive selection

A.(1) Except for Louisiana Transportation Research Center projects, upon termination of the deadline for receipt of responses, the evaluation committee team shall confer and evaluate said responses. A point-based rating system based upon the evaluation criteria and weighting factors provided for in this Section shall be used by the team in its evaluation. Interviews may be used as necessary for evaluation. However, if interviews are a requirement, the advertisement shall so state.

(2) The team shall then prepare and present to the secretary a short list of the three highest rated consultant firms provided there are at least three qualified firms. The secretary or authorized designee shall make the final evaluation and selection from the list. If the secretary or authorized designee selects other than the first ranked consultant firm from the short list, the secretary or authorized designee shall document his reasons for selection of other than the first ranked consultant firm on the short list. All responding firms will be notified of the selection. The team will not consider recommendations by others in their evaluation of the firm's qualifications. The team may be assisted by other department personnel. On those projects for which partial or full funding is supplied by others, the secretary or authorized designee may consider recommendations by the entity supplying the funds. This recommendation must be for a firm on the short list. The recommendation is not binding on the secretary or authorized designee.

B.(1) The general criteria and weighting factors to be used by the evaluation team in evaluating responses to requests for consultant services are as follows:

(a) Experience, both firm and individual, key staff personnel, as related to the project under consideration, weighting factors of three and four respectively.

(b) Past performance on department projects, weighting factor of six.

(c) Current work load, weighting factor of five.

(d) Firm size as related to project magnitude, weighting factor of three.

(e) Location where work will be performed, weighting factor of four except that a weighting factor of six is used for Urban System projects.

(f) Any special evaluation criteria specified in the advertisement required to meet particular project needs.

(2) These weighting factors are those usually used for preconstruction services selections. For other types of services or for special project requirements, the weighting factors may be varied based on the specific project requirements. Weighting factors to be used for each project will be stated in the project's advertisement.

C.(1) The Louisiana Transportation Research Center shall utilize the selection criteria and weighting factors in its "Manual of Research Procedures" and any special evaluation criteria and weighting factors specified in the advertisement required to meet particular project needs to evaluate responses to requests for proposals for research consultants.

(2) The director of the Louisiana Transportation Research Center shall recommend to the secretary or authorized designee the final selection of the consultant as determined by review procedures of the research project review committee and center director in accordance with its "Manual of Research Procedures".

D. The written records produced during the evaluation and selection process are subject to the Public Records Act, R.S. 44:1 et seq.

Acts 1991, No. 784, §1; Acts 1993, No. 375, §1; Acts 2003, No. 100, §1; Acts 2009, No. 255, §1, eff. July 1, 2009.

RS 48:294

§294. Contract types

A. The department shall utilize either cost plus fixed fee with a maximum limitation, cost per unit of work, specific rates of compensation, or lump sum contracts for either competitive or noncompetitive selections. The fee shall either be negotiated or predetermined. In general, negotiated cost plus fixed fee contracts are used for larger projects with more complex and difficult to determine scopes of services, and pre-determined lump sum fee contracts are used for smaller projects with easier to determine scopes of services.

B. Procedures for utilizing negotiated lump sum fee, cost per unit of work, specific rates of compensation, or cost plus fixed fee with maximum limitation contracts shall be as follows:

(1) Advertisement as required by this Part shall include, but not be limited to the following:

(a) Length and description of project.

(b) Services required.

(c) Material or information to be furnished by the department.

(d) General information and an outline of the selection process, including the criteria/categories used to evaluate the responses and the weighting factors for each.

(2) Except for Louisiana Transportation Research Center projects, after a consulting firm has been chosen, such firm shall be invited to submit a proposal within a time limit. Construction and preconstruction proposals shall conform to the "Consultant Contract Services Manual". Research proposals shall conform to the Louisiana Transportation Research Center's "Manual on Research Procedures". This proposal shall be analyzed by the technical personnel of the involved units and a pre-award audit may be obtained.

(3) The technical review personnel shall negotiate any differences between the man-hour estimates of the department and the consultant firm. Should attempts at agreement between the department and the consultant be unsuccessful, negotiations shall be terminated and another selection shall be made. This process will continue until agreement is reached with a firm or team.

(4) Fees will be based on the negotiated man-hours, the audited salary and overhead rates of the firm or team subject to the department's salary and overhead maximums, the designated contingency percentage, and the computed fixed fee. The department's standard fixed fee computation includes consideration for complexity, overall fee size, and magnitude of the firm's overhead.

(5) The contract will be executed following agreement on the required work effort. The firm shall have ten business days from the date of mailing to execute and return the contract to the department. Should the firm fail to timely execute and return the contract, the department may either select another firm from the original respondents or republish the notice of intent.

C. Procedures for utilizing non-negotiated predetermined lump sum fee, cost per unit of work, specific rates of compensation, or cost plus fixed fee with a maximum limitation shall be as follows:

(1) Advertisement as required by the Part shall include, but not be limited to the following:

(a) Length and description of project.

(b) Services required.

(c) Material or information to be furnished by the department.

(d) Fees by phase of work.

(e) General information, including an outline of the selection process, including the criteria/categories used to evaluate the responses and the weighting factors for each.

(2) Fees shall be determined by using the department's man-hour estimate, the latest average of applicable wage rates, and the latest average overhead, together with a contingency

where appropriate and a profit computed in accordance with the department's standard procedure. These fees shall not be subject to further negotiation.

(3) The contract will be executed following notification of selection. The selected firm shall have ten business days from the date of mailing to execute and return the contract to the department. If the firm fails to timely execute and return the contract, the department shall select another firm from the original respondents or republish the notice of intent.

Acts 1991, No. 784, §1; Acts 2009, No. 255, §1, eff. July 1, 2009.

EXAMPLES OF MINIMUM PERSONNEL REQUIREMENTS

MINIMUM PERSONNEL REQUIREMENTS FOR SURVEYING SERVICES

1. At least one Principal or responsible member of the Prime-Consultant must be a Professional Land Surveyor or a Professional Engineer, registered in the State of Louisiana.
2. The Prime-Consultant must employ on a full time basis, a minimum of one Professional Land Surveyor registered in the State of Louisiana, with a minimum of three years of experience in conducting topographic surveys, property surveys, and preparing right-of-way maps for DOTD.

MINIMUM PERSONNEL REQUIREMENTS FOR GEOTECHNICAL SERVICES

1. At least one Principal of the Prime-Consultant shall be a Professional Engineer registered in the State of Louisiana.
2. In addition to the above, the Prime-Consultant must employ on a full-time basis a minimum of two Professional Engineers, registered in the State of Louisiana, with a minimum of five years of experience in geotechnical engineering.
3. The Prime-Consultant must also employ on a full-time basis:
 - a. A minimum of one laboratory manager with a minimum of five years of experience in geotechnical laboratory testing.
 - b. A minimum of one field crew driller/supervisor with a minimum of ten years of experience; with at least five years of experience demonstrated within the State of Louisiana.
 - c. A minimum of one engineer, Registered in the State of Louisiana, having at least five years of experience in performing and interpretation of non-destructive testing of deep foundations (Cross hole Sonic Logging and Sonic Echo/Impact Response testing).
4. The Prime-Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant(s):
 - a. A minimum of two PDA testers certified by either a) the High Strain Dynamic Pile Test Examination issued by Foundation QA or b) the Dynamic Measurement and Analysis Proficiency Test issued by Pile Dynamics, Inc. (PDI) and the Pile Driving Contractors Association (PDCA). One of the certified testers shall have a certification at or above the Master level (Expert and Master). The other shall have a certification level at or above Basic (Basic, Intermediate, Advanced, Master, or Expert).

MINIMUM PERSONNEL REQUIREMENTS FOR ITS SERVICES

1. At least one Principal of the Prime-Consultant must be a Professional Engineer registered in the State of Louisiana.
2. At least one Principal or Responsible Member of the Prime Consultant must be a Professional Electrical or Civil Engineer, registered in the State of Louisiana, with at least 5 years of applied experience as a Project Engineer on ITS, electrical or related construction projects.
3. The Prime-Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant(s):

- a) One Professional Civil Engineer registered in the State of Louisiana with at least five years of experience in Traffic Engineering and/or ITS Engineering and with applied knowledge of intelligent transportation systems (ITS) design.
- b) One Professional Electrical Engineer registered in the State of Louisiana with at least five years of experience in Traffic Engineering and/or ITS Engineering and with applied knowledge of intelligent transportation systems (ITS) design.
- c) One senior-level Engineer Technician or Specialist with at least 10 years of applied experience in performing construction inspection duties, 5 years of which must be at a Lead Inspector level.

MINIMUM PERSONNEL REQUIREMENTS FOR CE&I SERVICES

- 1) At least one Principal of the Prime Consultant shall be a Professional Engineer registered in the State of Louisiana.
- 2) The Prime Consultant must also employ on a full-time basis, or through the use of Sub-Consultant(s), one Project Manager assigned directly to this project on a full-time or part-time basis as determined by project by DOTD, and with a minimum of:
 - 1) Five years of experience in responsible charge of managing the inspection of bridge painting projects,
 - 2) Ten years of experience in inspection of structural coating
 - 3) Five years of experience in coating inspection of major or complex bridges (trusses, major river crossings, moveable span bridges), preparing contract documents, and leading inspection efforts of at least two major bridge lead removal projects.
 - 4) A National Association of Corrosion Engineers (NACE) Certification (successfully completed Level 1, Level 2, Level 3, and Peer Review) or must have successfully completed the Society for Protective Coatings (SSPC) Protective Coating Specialist (PCS) certification program.
 - 5) Successfully completed SSPC C-3 "Lead Paint Removal" and any required C-5 refresher course.
- 3) The Prime Consultant must also employ on a full-time basis, or through the use of Sub-Consultant(s), one Professional Engineer (Civil, Mechanical, or Chemical) registered in the State of Louisiana. The Professional Engineer will be assigned directly to this project on a full-time or part-time basis as determined by project by DOTD, with a minimum of:
 - a) Five years of experience in responsible charge of managing road and bridge construction projects
 - b) Five years of experience in inspection of steel bridge construction/structural steel repair and rehabilitation
 - c) Three years of experience in structural steel painting inspection, and a corresponding support staff with experience in performing structural analysis and evaluations.
- 4) The Prime Consultant must also employ on a full-time basis, or through the use of Sub-Consultant(s), qualified inspectors.
 - a) A minimum of one Lead Coating Inspector, with:
 - 1) Five years of experience in inspection of structural coating
 - 2) A minimum of three years of experience in coating inspection of major or complex bridges (trusses, major river crossings, movable span bridges), preparing contract

documents, and leading inspection efforts of at least two major bridge lead removal projects.

- 3) A National Association of Corrosion Engineers (NACE) Certification (successfully completed Level 1, Level 2, Level 3, and Peer Review) or must have successfully completed the Society for Protective Coatings (SSPC) Protective Coating Specialist (PCS) certification program.
- 4) Successfully completed SSPC C-3 "Lead Paint Removal" and any required C-5 refresher course.
- b) A minimum of two coating inspectors with a minimum of two years of field experience in bridge structural steel coating and be at least NACE Level 1 Certified or SSPC BCI (Bridge Coating Inspector) Level 1.
- c) A minimum of one Environmental Project Manager who shall be a Professional Industrial Hygienist as defined by the American Industrial Hygienist Association (AIHA) with at least (3) years of experience in the oversight, implementation, and development of lead abatement plans for steel bridges to perform periodic inspections. The on-site environmental monitor shall have successfully completed SSPC C-3, "Lead Paint Removal" course and any C-5 refresher courses and shall have monitored at least two bridge-lead abatement projects.
- d) A minimum of one Lead Construction Inspector shall be DOTD certified in Structural Concrete with a minimum of five years of experience in road and bridge construction and experience in structural steel repair and rehabilitation procedures.
- e) A minimum of one construction inspector shall be DOTD certified in Structural Concrete and have experience in bridge construction. Past documented experience in structural steel fabrication or repair is desirable, Inspectors may only be in responsible charge of activities in which they hold an active DOTD certification.

MINIMUM PERSONNEL REQUIREMENTS FOR ENGINEERING AND RELATED SERVICES

1. At least one Principal of the Prime-Consultant must be a Professional Engineer registered in the State of Louisiana.
2. At least one Principal or a responsible member of the Prime-Consultant must be a Professional Civil Engineer registered in the State of Louisiana.
3. The Prime-Consultant must employ on a full time basis, one Professional Civil Engineer registered in the State of Louisiana with at least five years of experience in roadway design.
4. In addition to the above requirements, the Prime-Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant(s) or contract employees:
 - a. One Professional Land Surveyor registered in the State of Louisiana, with a minimum of five years of experience in conducting topographic and property surveys, and preparation of Right-of-Way maps for DOTD, and corresponding support staff.
 - b. A minimum of one PTOE registered in the State of Louisiana, with a minimum of five years of traffic analysis experience with signal warrants and signal timing, and a corresponding support staff.

- c. One Professional Civil Engineer registered in the State of Louisiana, with a minimum of five years of experience in roadway construction.

The following requirement must be met prior to commencement of construction activities:

5. The Prime Consultant must also employ on a full time basis, or through the use of a sub-consultant(s), a minimum of one inspector with a minimum of five years of experience in road construction, plus a corresponding support staff of technicians. DOTD Certified Inspectors are required for inspection of some activities per DOTD policy. The major activities below may require certified inspectors. The need for certified inspectors will be determined on a per project basis:
 - a. Structural Concrete
 - b. Embankment and Base Course
 - c. Asphalt Concrete Paving