Statewide On-Call Bridge Design

Request for Proposal

Iowa Department of Transportation

Introduction

The Office of Bridge and Structures of the Iowa Department of Transportation (the Department) is interested in entering into a professional services contract with multiple consulting companies for work on various statewide bridge design projects. The selected consultants for this work will be expected to perform bridge engineering services. Anticipated projects could involve:

- Preliminary design for new bridges or replacements
- Final design for new bridges or replacements
- Full service bridge “shelf projects”
- Bridge rehabilitation
- Bridge repairs and overlays
- Drainage design
- Culverts
- Emergency repairs
- Other miscellaneous bridge discipline related work
- Special bridge-related investigations
- Design for accelerated bridge construction (ABC) projects

The appointment of statewide on-call consultants is desired to provide flexibility with our production schedule needs. The consultants chosen must be able to react quickly to projects that have accelerated schedules. If your company is interested in providing the described services, please submit a proposal stating your ability and availability to complete this work.

Number of Selections / Basis / Eligibility

Selection will consist of three consultant companies, to be available for a three-year period, with a multiple agreement (unlimited) basis. Additionally, selection will include one consultant company with a one agreement (limited) basis. Any consultant company receiving this limited selection shall be eligible for future selection associated with Bridges & Structures’ statewide on-call, on either the unlimited or limited basis. Consultants are eligible to apply for only one category: multiple agreement (unlimited) basis or one agreement (limited) basis. Proposals should designate whether the Consultant wishes to be considered for the “unlimited” OR “limited” selection. Consultants cannot designate both. If a statement is not included, it shall be assumed the proposal is for the “limited” selection. There will not be any location restriction on consultant companies who wish to respond to the RFP.
Those companies presently active in the Office of Bridge & Structures design services pool on an unlimited basis are not eligible for this RFP. These companies are: Parsons Transportation Group (April 2013), HNTB Corporation (May 2014), Stanley Consultants (May 2014), and WHKS & Company (May 2014).

**General Requirements**

Consultant companies are required to be prequalified as defined in the Department’s Policy and Procedure Manual, Policy No. 300.04, for the duration of the contract. All sub-consultants must be prequalified in Iowa for the type of work they will perform.

The Consultant selected for unlimited basis work will be expected to perform bridge engineering services as listed in the Introduction for work categories 216 (Non-Standard, Non-Steel Bridge Design), 217 (Steel Bridge Design), 323 (Hydraulic and Hydrologic Studies) and 325 (Bridge Inspection & Analysis). The prime consultant shall be prequalified in categories 216 and 217. The following engineering services may be coupled with the bridge work on a project. Therefore consultants need to be prequalified in the following work categories.

- Preliminary engineering work such as preparation of project concepts, field examinations and preparation of type, size and location (TS&L) drawings
- Drainage design - 323 (Hydraulic and Hydrologic Studies)
- Geological services - 321 (Geological and Geophysical Studies)
- Land and engineering surveying - 311 (Land Surveying) and 312 (Engineering Surveying)
- Highway design - 213 (Highway Design – Major Facility)
- Bridge construction inspection/observation and roadway construction inspection - 221 (Highway Roadway Construction) and 222 (Bridge Construction)

The Consultant selected for limited basis work will be expected to perform engineering services as listed in the Introduction for work categories 216 (Non-Standard, Non-Steel Bridge Design) and 323 (Hydraulic and Hydrologic Studies). The prime consultant shall be prequalified in work category 216. The following engineering services may be coupled with the bridge work on a project. Therefore consultants need to be prequalified in the following work categories.

- Preliminary engineering work such as preparation of project concepts, field examinations and preparation of type, size and location (TS&L) drawings
- Drainage design - 323 (Hydraulic and Hydrologic Studies)
- Geological services - 321 (Geological and Geophysical Studies)
- Land and engineering surveying - 311 (Land Surveying) and 312 (Engineering Surveying)
- Highway design - 213 (Highway Design – Major Facility)
- Bridge construction inspection/observation and roadway construction inspection - 221 (Highway Roadway Construction) and 222 (Bridge Construction)

Failure to remain prequalified during the contract will result in cancellation of any remaining portion of the contract. Details regarding prequalification are available at the Consultant Utilization webpage, [http://www.prof-tech-consultant.dot.state.ia.us/](http://www.prof-tech-consultant.dot.state.ia.us/).
It is the policy of the Department that Disadvantaged Business Enterprises (DBEs) and Targeted Small Businesses (TSBs) shall have the maximum practicable opportunity to participate in the performance of Iowa DOT contracts. It is possible that some of the work of this contract will involve federal-aid highway funds for design. Although a DBE / TSB goal is not established, the Department still encourages the spirit of the program be incorporated in these proposed contracts whenever possible. A list of certified DBE companies may be found at http://www.iowadot.gov/contracts/contracts_eeoaa.htm. A list of TSB companies may be found at https://dia.iowa.gov/tsb/.

**Contract Information**

The “unlimited” basis consultant selection will be for agreements signed within a three-year contract period from the formal date of selection. Contract fee amounts for the “unlimited” basis may exceed $1 million. For the “limited” basis, the cost for services may exceed $300,000. The actual amount may vary depending on the need for services. The Department will not guarantee the amount of work or contract value.

The following fee payment methods may be used:

- Lump sum in certain instances where costs are limited to $50,000
- Cost plus fixed fee with fixed overhead where costs are limited to approximately $200,000 and of “shorter” duration
- Cost plus fixed fee with annually adjusted overhead where parameters exceed the previous fixed overhead entry

The Department anticipates that the selection process will be completed by mid-May, 2015. Negotiation with the top selected consultants will commence upon notice that the selection process is completed.

See Bridge Specifications section for additional Office of Bridges and Structures specifications.

As Office of Bridges and Structures statewide series agreements are typically for minor projects, the Department does not intend to reimburse costs of scope and budget proposals directly with lump sum agreements or as a line item within the agreements.

**Selection Information**

The selection committee will review and evaluate the proposals submitted based on the following criteria and the weighted value assigned to each. Include a detailed statement for each evaluation criteria.

- **Experience / Past Performance of Firm and Key Staff in Similar Small to Medium Sized Projects** – 50 Points
  - Include a brief resume of qualifications and experience of the project manager and key staff, including any sub-consultants, who will be working on the on-call assignments. This information should include the identification of similar projects managed or participated in by these individuals, completed in the past
five years. The selection of a project manager and key staff by a company will constitute a commitment by that company and NO substitutes will be allowed without prior written approval by the Iowa DOT.

The selection committee will consider qualifications of the project manager and Team expected to perform the assigned work. Qualifications include expertise and past experience on similar projects, involving:

Bridge Related (35 of 50 points) for B0, B1, and B3 events
- Preliminary bridge design for new bridges or replacements, such as preparation of project concepts, field examinations and preparation of TS&L drawings; Hydraulic and hydrologic studies; Drainage design
- Final design for new or replacement bridges, specifically non-standard non-steel and steel
- Bridge rehabilitation; Bridge repairs and overlays
- Culverts; Emergency repairs; Other miscellaneous bridge discipline related work

Non-Bridge Related (15 of 50 points) including, but not limited to D0, D1, D2, D4, D5, P9, S1, S2, S3 S4, T1, T2 events
- Preliminary engineering work
- Land and engineering surveying
- Geological and geophysical studies
- Highway design
- Public information meeting display information
- District plat preparation
- Bridge construction inspection / roadway construction inspection

- **Ability to Coordinate with a Variety of Department Staff** – 10 Points
  - Convey an understanding of Department’s timeline of project events, their associated requirements, and coordination associated with full service bridge projects.
  - Relay the Team’s intent regarding communication with the Iowa DOT
  - Provide the location of the office where the majority of work will be performed.

- **Steel Bridge Design Staffing and Experience** – 10 Points (*applicable to unlimited basis selection ONLY*)
The selection committee will consider the qualifications of the key staff for steel bridge design, including subconsultants. Qualifications include expertise and past experience on similar projects.

- **Design for Accelerated Bridge Construction (ABC) Projects** – 10 Points (*applicable to unlimited basis selection ONLY*)
Chapter 8 of the Office of Bridges and Structures LRFD Bridge Design Manual discusses an overview of our ABC policies. The Consultant selected for the unlimited basis will be expected to provide some of their services for ABC projects which could involve bridge replacement projects, emergency projects, and repair and rehabilitation projects. We are soliciting your experience and qualifications related to ABC in the following areas:
- Foundation and wall elements
- Rapid embankment construction
- Prefabricated bridge elements and systems
- Structural placement methods
- Fast track contracting

- Special Bridge-Related Investigations – 10 Points *(applicable to unlimited basis selection ONLY)*
  The Department may request the Consultant to perform special bridge-related investigations. Examples of the type of work that may be required include, but are not limited to those in the list below. Provide examples of your company’s involvement in similar/related work.
  - Specialized structural analysis, design, and rating (e.g. FEM, yield line method, strut-and-tie methods, dynamics)
  - Investigative studies related to bridge construction, inspection, and maintenance issues
  - Research into new products and construction techniques
  - Development of design guides/manuals
  - BrIM and 3D design and modelling
  - Complex hydraulic and hydrologic studies

- Innovation – 10 Points
  Discuss any pertinent innovations your company (Team) has implemented to the project development process over the past 5 years.

- Schedule Delivery and General – 10 Points
  Work may be required to be completed under condensed time frames, dependent upon the Department’s needs.
  - Provide examples of the Project Team’s ability to meet concentrated timeframes for project delivery.
  - Describe resources which can be utilized to meet concentrated timeframes for project delivery.
  - Include current workload (major assignments), deadlines, and commitment of key staff to be assigned

Please include the following information in the RFP response:
  - Prequalification categories approved for individual companies of Team
  - A disclosure of all work for other clients that may be affected by work on the proposed contract to avoid a potential conflict of interest.
  - Include a statement that your company possesses compatible resources, equipment and automated technology as that used by the Iowa DOT.

The selection committee will review the proposals to ascertain information requested in the RFP has been completely addressed and the proposal is accurate with regards to spelling and grammar.
The selection committee does not anticipate the need for oral interviews given the routine nature of this project.

Contacting any selection committee member other than the RFP contact person is inappropriate. Marketing meetings with the Department while this RFP is active is also considered inappropriate.

**Pre-Proposal Conference**

A Pre-Proposal Conference will not be conducted for this project.

**Proposal Requirements**

The proposal may include additional information, as deemed appropriate, subject to the overall length restriction established in Proposal Requirements.

Cost information should not be submitted as part of the proposal.

The proposal must be submitted as a single electronic PDF and be formatted to print on 8.5” x 11” pages. The proposal must be limited to 20 single-sided pages. All pages will be counted including: proposal covers, cover letter, dividers, etc. The maximum size limit of a proposal is 7 megabytes.

On the cover page of the proposal, please include the title of the RFP for which the proposal is submitted and the email address of the person who should receive the results of the selection. Inclusion of promotional literature of a general nature will not be considered in the selection process.

The electronic proposal must be submitted via email to Michael.Nop@dot.iowa.gov. An email will be sent confirming receipt of the proposal within 30 minutes or by 3:00 p.m. on the submittal deadline date, whichever is later.

For a company to be considered, their proposal must be received by 3:00 pm on April 21st, 2015.

Any technical questions or questions regarding this RFP shall be submitted via email to Michael.Nop@dot.iowa.gov. Any questions about this RFP must be received by noon on April 13th, 2015. Questions and answers regarding this RFP will be posted with the RFP on the Consultant Utilization website, http://www.prof-tech-consultant.dot.state.ia.us.

Any proposal not complying with all the requirements stated in the RFP may not be accepted.

**Public Records Law**

The Iowa DOT will treat all information submitted by a consultant as open records following the conclusion of the selection process. Open records are public records that are open for public examination and copying. The Iowa DOT's release of records is governed by Iowa Code
Chapter 22 and 761 IAC Chapter 4. Consultants are encouraged to familiarize themselves with these laws before submitting a proposal.

**Statement of Non-Discrimination**

The selection and contract are subject to the provisions of Executive Order 11246 (Affirmative Action to Insure Equal Employment Opportunity). Federal and state laws prohibit employment and/or public accommodation discrimination on the basis of age, color, creed, disability, gender identity, national origin, pregnancy, race, religion, sex, sexual orientation or veteran’s status. If you believe you have been discriminated against, please contact the Iowa Civil Rights Commission at 800-457-4416 or Iowa Department of Transportation's affirmative action officer at 515-239-1693. If you need accommodations because of a disability to access the Iowa Department of Transportation’s services, contact the agency's affirmative action officer at 800-262-0003.

**References**


Iowa DOT Doing Business Website – Consultant Resources information ([http://www.dot.state.ia.us/doing_business.htm](http://www.dot.state.ia.us/doing_business.htm))

**Bridge Specifications**

The **Consultant** shall provide the State with:

1. A copy of the Consultant’s Quality Control / Quality Assurance (QC/QA) Plan; QC/QA interview and minutes; QC/QA record for projects involving final bridge designs.
2. The Consultant is expected to use Bentley System’s ProjectWise software to maintain project files. Refer to [http://www.iowadot.gov/design/dmanual/21F-1.pdf](http://www.iowadot.gov/design/dmanual/21F-1.pdf) for further information.
3. Layout plans and appropriate detail design drawings of the structures and their component parts which shall consist of all plans, elevations, section, and other drawings, except structural metalwork shop drawings, necessary for letting purposes. Aesthetic features may be included for bridges in urban settings. Plans shall be prepared in English units. The 100% unapproved submittal shall be made via ProjectWise. All final drawings shall be submitted in pdf format, via ProjectWise, with signature of licensed engineer provided. Final CADD files shall be submitted via ProjectWise and also via a CD-ROM (for our back-up).
4. Submittal of application for approval to Iowa Department of Natural Resources pertaining to regulations concerning construction in floodplains of Iowa rivers and streams as needed.
5. Work in conformity with the standards of the Iowa Department of Transportation. All substructure and superstructure design for new bridges shall be in accordance with the AASHTO LRFD Bridge Design Specifications, 7th Edition, and utilize HL-93 loading. All repair work shall be in accordance with AASHTO Standard Specification, 17th Edition. The Consultant shall alert the Office of Bridges & Structures when changes associated with design specifications create inconsistency with current office policies and bridge standard CADD sheets. The Consultant shall furnish one pdf file of design calculations, which may be properly titled and annotated reproductions of computer output data.

6. Complete specifications covering the work to be constructed, consisting of Special Provisions and Supplemental Specifications to be issued in connection with the "Standard Specifications for Highway and Bridge Construction", Series of 2012, Iowa Department of Transportation, and the current Supplemental Specifications for Construction projects.

7. Consultation during the course of design and attendance at conferences with the State and reviewing agencies.

6. Monthly progress reports and charts which shall indicate the percentage of work on the various items completed to the date of such report, together with a description of the status of work in progress. Such progress report may be used as a basis for monthly statements for partial payments to the Consultant.

7. Prints of plans in process to keep the Engineer fully informed as to the progress of the work. Meetings to discuss progress will be held periodically as requested by the Engineer.

8. 100% unapproved and final CADD files for “bridge” plans that contain all of the layout plans and appropriate detail design drawings of the structure in a Bentley MicroStation Version 8 file format. Leveling, line styles and weights, colors, and font library shall be the same as used by the Office of Bridges & Structures. Microstation and Geopak are required for compatibility with the Office of Design’s electronic file information. The Department may provide the project .gpk, .dgn, .shp, standard roadway X sections and any other necessary Geopak support files. The Consultant is expected to utilize this Geopak file information to verify project plan, profile, and pavement cross slope information with minimal assistance from the Office of Design staff.

9. Representative CADD files of preliminary detailing work which the Office of Bridges & Structures will review for adherence to department’s detailing guidelines.

10. Documents as required using the following software, which are compatible with the Office of Bridges & Structures for the Department’s storage and future use: Microsoft Word for text documents, Microsoft Excel for spreadsheets, and MathCad for calculation templates.

11. Preliminary pile and drilled shaft design assumptions for substructures prior to initiating final substructure design.


13. Bid item application submittal at the time of 50% plans and final plan turn in.

14. Notification of direct contractor/fabricator contacts in relation to this project in writing. The Consultant is reminded that requests for information (RFI’s) and alterations to the intent of the design plans submitted directly from contractor or their subcontractors are to be considered as extra work and must receive approval prior to time being charged to this
project. Protocol to request changes and/or clarifications is as follows:

Contractor → RCE → Office of Construction → Office of Bridges & Structures → Consultant

Responses from the Consultant are communicated in reverse order. Some questions are resolved internally at the Iowa DOT, at various office levels, while others take the full route to keep the consultant apprised of and involved in the decision making process. The Consultant is expected to handle construction issues in a timely manner.

15. Verification of geometric parameters and critical clearances of the TS&L in conjunction with the most current information from the Office of Design before beginning the final design effort. Confirmation, if applicable, of abutment and pier footing types shown on the TS&L as part of the final design effort. Coordination of utility issues, if applicable, with the Office of Design relative to constructability, coordination or design.

16. Construction shop drawing review; construction “Requests for Information” (RFIs) and plan clarification; and construction advisement.