

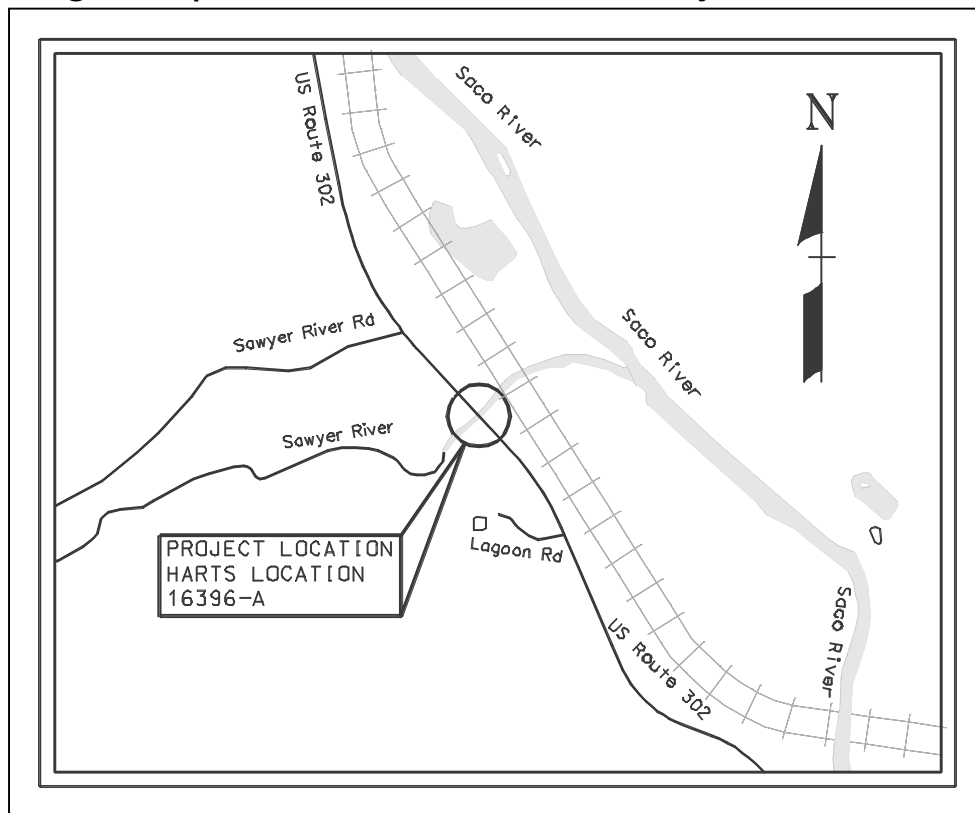
New Hampshire Department of Transportation



# Request for Proposal (RFP)

## Design-Build Project HARTS LOCATION 16396A

US Route 302 over Sawyer River  
Bridge Replacement and Roadway Reconstruction



**Revision 1: January 27, 2012**

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## Request for Proposal (RFP)

### Project Requirements

#### 1. General Information

##### 1.1 Issuance of RFP

This Request for Proposal (RFP) issued by the New Hampshire Department of Transportation (NHDOT or the Department) constitutes a request for short-listed Design-Build Teams (Design Builder) to submit Proposals to design and construct the Harts Location 16396A Design-Build Project (the Project).

##### 1.2 Procurement Overview

###### 1.2.1 Procurement Process

The Department is using a two-step process to select a Design-Builder to deliver the Project. For the first step, a shortlist of eligible Design Builders was determined based on the Statements of Qualifications (SOQs) the Department received in response to its Request for Qualifications (RFQ) dated September 21, 2011. This RFP is issued as the second step of the procurement process. The Department will accept Proposals only from Design Builders who have been advised by email that they have been shortlisted.

The Department intends to award a Lump Sum Price Design-Build Contract to the responsive and responsible Design Builder offering a Proposal that is determined by the Department to provide the Low Bid. The Department will make no determination of Best Value. The Department reserves the right to reject any or all Proposals.

###### 1.2.2 Technical Proposal Package and Price Proposal Package

Design Builder shall submit their Technical Proposal Package, Proposal Guaranty Package, and Price Proposal Package by the time and date specified in the Procurement Schedule in Section 1.5.

###### 1.2.3 Pre-Proposal Meeting

The Department will hold an **OPTIONAL** Pre-Proposal meeting of all Design Builders on the date set forth in the Procurement Schedule in Section 1.5 at the following location:

**New Hampshire Department of Transportation  
John O. Morton Building 7 Hazen Drive  
Concord, NH 03302-0483  
Main Lobby Conference Room 114**

The meeting will occur at 1:00 P.M., prevailing local time. Design Builders may have a representative at the Pre-Proposal meeting. The purpose of this informational meeting is to review the; Division 100 – General Provisions for Design-Build Projects, RFP Documents, Draft Contract, and other information provided to the Design Builders by the Department.

### **1.2.4 Proprietary Meetings**

NHDOT will invite each Design Builder to participate in a Proprietary Meeting with the Department and its representatives or consultants, with the anticipated dates for such meetings set forth in the Procurement Schedule. Each meeting would be private, in that only one Design Builder would meet with NHDOT at a time, and is expected to last no longer than one hour per Design Builder. Design Builders are not required to accept an invitation to a Proprietary Meeting.

The purpose of the Proprietary Meetings is to give each Design Builder, in a confidential setting, an opportunity to ask questions and discuss concerns related to the Project, details of the Project scope, and administrative procedures. The meetings are also intended to enable the Department's staff to express, among other things, whether the Design Builder is pursuing an approach that will not meet the RFP Documents or is otherwise unacceptable to the Department.

While the discussions in these Proprietary meetings are intended to be confidential, nothing shall preclude NHDOT from exercising any rights that it may have under this RFP, including the right to issue a clarification or revision of the RFP, or an Addendum, as a result of what is discussed in such meetings.

Nothing herein shall be construed to preclude the Department from speaking with any Design Builder at any time prior to the opening of the Price Proposals, and NHDOT expressly reserves all such rights to do so.

### **1.3 Project Description and Goals**

The Project involves the replacement of the bridge carrying US Route 302 over the Sawyer River in Harts Location, NH with associated roadway approaches, and other ancillary work. It also includes the removal and proper disposal of the existing bridge, and removal and delivery of the recently installed temporary bridge to the Bureau of Bridge Maintenance. Also included is the removal and restoration of the temporary detour roadway, and construction of a new parking area as shown on the conceptual roadway plans.

The Department's primary goals for the Project include the following:

1. Deliver a cost-effective Project.
2. Provide a high quality, aesthetically pleasing, durable project that will require minimal future maintenance.
3. Minimize impacts to traffic, local businesses, and the community during construction that is safe and consistent with standards.

**1.4 Contract Time**

**1.4.1 Contract Completion Date**

All Work, excluding warranty work, required by the Contract must be complete by no later than September 27, 2013. Liquidated Damages will be assessed in accordance with Section 108.09 of the NHDOT Division 100 - General Provisions for Design-Build Projects for each Calendar Day that the Work is extended beyond the Completion Date.

If an earlier Completion Date is identified in the Proposal, and accepted by the Department, then the earlier Completion Date shall become the baseline completion date and shall be incorporated into the Design-Build Contract.

**1.4.2 Work Days**

The Design-Builder’s working days are described in Section 101.128 of the NHDOT Division 100 - General Provisions for Design-Build Projects for this contract.

**1.4.3 Interim Completion Date**

Interim Completion Date for the project that includes the new bridge open to two-way traffic shall be no later than August 31, 2013. Liquidated Damages will be assessed in accordance with Section 108.09 of the NHDOT Division 100 - General Provisions for Design-Build Projects for each Calendar Day that the Work is extended beyond the Interim Completion Date.

**1.5 Procurement Schedule**

Though subject to change, the Department anticipates following the schedule below. Design Builders are cautioned that this schedule is subject to change and the Design Builder should not rely upon it to determine, for example, when actual construction may commence.

<b>Milestone</b>	<b>Date</b>
<b>Optional Pre-proposal Meeting</b>	<b>Thursday, January 5, 2012</b>
<b>Confidential Proprietary Meetings</b>	<b>Thursday, February 9, 2012</b>
<b>NEPA document completed</b>	<b>Thursday, February 9, 2012</b>
<b>Contract Updated with NEPA Commitments</b>	<b>Friday, February 10, 2012</b>
<b>Deadline for Design Builders to Submit Technical Proposal</b>	<b>Thursday March 8, 2012</b>
<b>DOT Determines Pass/Fail of Technical Proposals</b>	<b>Wednesday, March 14, 2012</b>
<b>Deadline for Design Builders to Submit Cure for Technical Proposal</b>	<b>Wednesday, March 28, 2012</b>
<b>Deadline for Design Builders to Submit Price Proposal Package and Public Price Proposal Opening</b>	<b>Wednesday, April 11, 2012, 2:00 PM</b>
<b>NHDOT Issues Letter of Intent to Award with Governor and Executive Council Approval</b>	<b>Friday, April 13, 2012</b>
<b>Contract Award to Design-Builder</b>	<b>Wednesday, May 23, 2012</b>
<b>Bridge Open to Traffic</b>	<b>Friday, August 31, 2013</b>
<b>Design Builder Completes Construction</b>	<b>September 27, 2013</b>

Follow-up clarification requests to any Department-issued material must be submitted within two (2) Days by the Design Builder's designated point-of-contact (only) and submitted to the Department's designated point of contact (only) via email (only). All follow-up clarification requests must be specific as to what it is about the Department's response that is confusing or unclear. No new questions may be asked. The Department will issue clarification responses within three (3) Days after receipt of all follow-up clarification requests.

If any dates are changed, the Department will notify the Design Builders in advance, by email.

### **1.6 Relationship of RFQ to RFP**

Design Builders are advised that the RFP may contain criteria not identified in the RFQ or different from what was identified in the RFQ. In the event of any conflict between the RFQ and the RFP, the RFP shall govern.

Design Builders are reminded that the evaluation process under this RFP constitutes a new and different evaluation from that conducted under the RFQ, requiring the resubmittal of some information provided in the SOQ. Any changes to the Design Builder's organizational structure, Key Personnel submitted in the SOQ, are subject to Section 8.3.

Any other changes to information submitted as part of the SOQ shall be identified and submitted with and included in the Design Builder's technical proposal.

### **1.7 Proposal Payment (Stipend)**

Each unsuccessful Design Builder that submits a responsive Proposal will be entitled to receive a stipend of **\$10,000** pursuant to Section 103.05.2 of the NHDOT Division 100 - General Provisions for Design-Build Projects and the terms of the attached Proposal Payment Agreement.

### **1.8 Department Representative**

The NHDOT Representative and sole point of contact for this RFP is:

**Bob Landry (RLandry@dot.state.nh.us)**  
**New Hampshire Department of Transportation**  
**John O. Morton Building**  
**PO Box 483 | 7 Hazen Drive**  
**Concord, NH 03302-0483**

This representative is the sole Department contact person and addressee for clarification requests, and all other communications about the Project and RFP, the only exception being the submission of the Technical Proposal and Price Proposal. ANY attempt to contact or discuss ANY element of this RFP by ANYONE on the Design Builder's with ANYONE at NHDOT may disqualify the short-listed Design Builder from submitting a Proposal. The NHDOT Representative may be changed by written notice from the Department.

**1.9 Insurance**

Insurance requirements for the Project are set forth in Section 107.11 of the NHDOT Division 100 - General Provisions for Design-Build Projects.

Insurance certificates shall be submitted prior to Contract Execution.

**1.10 Civil Rights Contract Compliance Review**

The scope of this Project in its entirety may undergo a full contract compliance review. The Technical Proposal shall identify the Civil Rights Compliance Manager and describe his or her experience, qualifications, and responsibilities.

**1.11 Quality Control/Quality Assurance**

The Department will be providing Acceptance testing during construction for this project. The Design-Builder shall ensure that all Quality Control (QC) testing equipment is certified as specified by the Department. All other provisions of quality control are as specified in the NHDOT Division 100 - General Provisions for Design-Build Projects.

**1.12 On the Job Training (OJT)**

There are NO OJT requirements for this Project.

**1.13 Disadvantaged Business Enterprise (DBE)**

There is a DBE participation goal of 4% for this Project.

**1.14 Wage Rates**

Federal wage rates apply on this Project and will be provided to the Design Builders.

**1.15 Non-Bid Items**

The Department has established one non-bid item that will be listed by NHDOT on the Design-Build Contract and will be added by the Department to the Lump Sum Bid Price of the Design-Builder to arrive at a total contract amount. This non-bid item is:

- A. An allowance for the QC/QA Pay Adjustments per the NHDOT Standard Specification Section 520.5.9 for concrete in the bridge deck and approach slabs only. This non-bid item does not include payment for the actual concrete bridge deck or approach slab construction. Those costs are included in the Design Builder's lump sum bid price. Because the Design Builder will not be providing quantities of concrete or costs for these (or any other) items, except as otherwise indicated, the Department has established a unit cost of the concrete in these items for the sole and expressed purpose of providing QC/QA Pay Adjustments at \$350.00/CY for approach slab concrete and \$750.00/CY for deck concrete. The provisions in Section 520.5.9 will apply for the pay adjustment factor based on the unit cost regardless of the Design Builder's proposed or actual cost of concrete in the bridge deck and approach slabs. The quantities used for the pay adjustments shall be based on actual, in-place quantities.



**2. PROPOSAL SUBMISSION REQUIREMENTS**

**2.1 Submission of Proposals**

**2.1.1 Time and Location**

Technical Proposal Packages, Price Proposal Packages, and Proposal Guaranty Packages, must be received no later than the time and date specified in the Procurement Schedule. The Design Builder must deliver its Technical Proposal Package, Price Proposal Package, and Proposal Guaranty Package to:

Address for U.S. mail, hand, overnight, or courier delivery:

**Craig A. Green, PE - Assistant Director of Project Development**

**New Hampshire Department of Transportation  
John O. Morton Building  
PO Box 483 | 7 Hazen Drive  
Concord, NH 03302-0483**

**2.1.2 Technical Proposal Package**

The Technical Proposal Package shall be submitted in a separate container clearly marked as follows:

Design Builder's Name  
**Technical Proposal**  
Harts Location 16396A, Design-Build Project  
Container \_\_\_ of \_\_\_

**2.1.3 Price Proposal Package**

The Price Proposal Package must be submitted on the forms supplied by the Department and must be delivered in a sealed envelope capable of holding 8 1/2" x 11" documents without folding and clearly marked as follows:

Design Builder's Name  
**Price Proposal**  
Harts Location 16396A, Design-Build Project  
Container \_\_\_ of \_\_\_

**2.1.4 Proposal Guaranty Package**

The Proposal Guaranty Package must be delivered separately in a sealed business-sized envelope, such that it can be opened without opening the Price Proposal Package, and clearly marked as follows:

Design Builder's Name  
**Proposal Guaranty**  
Harts Location 16396A, Design-Build Project  
Container \_\_\_ of \_\_\_

## 2.2 Proposal Content Requirements

Design Builders shall provide responses to all information requested in this RFP. Failure to respond or failure to provide requested information may result in a determination by the Department, at its sole discretion, that a Proposal is non-responsive and the Department shall have no obligation to compensate any unsuccessful Design Builder for its efforts in preparing a Proposal.

Design Builders shall provide:

1. Three (3) original copies of the Technical Proposal Submission Form (Form A), bearing original signatures in blue ink
2. One (1) each of the letter(s) approving changes in Design Builder's organization (if applicable)
3. One (1) original of the Proposal Guaranty (Form C), separately sealed
4. One (1) original of the Price Proposal (Form D); , separately sealed
5. Twelve (12) sequentially numbered copies of the Technical Proposal including 11" x 17" plans, each of which will also include the following:
  - a. Design Quality Management Plan (DQMP) outline, separately indexed
  - b. Construction Quality Management Plan (CQMP) outline, separately indexed
  - c. Integrated Design & Construction Schedule, separately indexed;

Items 5.a. and 5.b are included in the 50-page limit. Items 5.c. is not included in the 50-page limit.

6. Each copy of the Technical Proposal, exclusive of the 11" x 17" plans, shall be bound or contained in a single volume. **Three ring binders are not permissible.**
7. The Technical Proposal shall be **separated by numbered tabs with Sections** corresponding to the order set forth in this RFP. Tab sheets shall not contain project-specific information, or they will be counted against the page limit.
8. The Technical Proposal shall be no more than fifty (50) pages of information, inclusive of the cover letter, charts, schedules, exhibits, forms, the CQMP outline, the DQMP outline, and other illustrative and graphical information with all pages sequentially numbered. Any Technical Proposal exceeding 50 pages of information will be considered non-responsive and returned to the Design Builder.
9. The Technical Proposal may be printed double sided or single sided.

10. All printing, except for the front cover of the Technical Proposal, charts, schedules, exhibits, plans and other illustrative and graphical information and any appendices, must be Times New Roman, with a font of 12-point, a minimum of single line spacing, and minimum margins of ¾”.
11. Include page number references in the lower right hand corner.
12. Except for charts, schedules, exhibits, and other illustrative and graphical information, all information shall be prepared on 8.5” x 11” white paper.
13. Charts, schedules, exhibits and other illustrative and graphical information may be on 11” x 17” paper, but must be folded to 8.5” x 11”.
14. Preliminary Plan sheets (Highway and Bridge) are to be drawn to an identifiable scale and submitted on 11” x 17” paper and bound as a single plan set.
15. One (1) CD-ROM containing an electronic copy of the Technical Proposal and the 11” x 17” plan set in Adobe Acrobat PDF format.

### 3. PROPOSAL EVALUATION PROCESS

The Department intends to select the Design Builder that offers the lowest responsive and responsible bid price to the Department and the State of New Hampshire after receiving a passing grade on the Technical Proposal. The intent of the Department in this evaluation process is to create a fair and uniform basis for the evaluation of the Proposals in accordance with State and Federal Regulations governing this procurement as described in the evaluation process.

NHDOT, at its sole discretion, may hold interviews with individual Design Builders, ask written questions of the Design Builders, seek written clarifications, conduct discussions on the Proposals, and solicit updated proposals during the evaluation and selection process.

The Proposal must meet the requirements included following minimum technical requirements, in addition to all submission requirements specified in Section 102.03 of the Division 100 – General Provisions for Design-Build Projects and Section 2, to be considered responsive:

#### 3.1 Technical Proposal Evaluation Criteria

NHDOT will evaluate the Technical Proposal from each Design Builder, with such evaluation being based upon a pass/fail set forth in the following Sections.

The information in this Section is intended to assist Design Builders in developing and submitting Technical Proposals that address the Department's goals and expectations for the Project. The information in the Design Builder's Technical Proposal shall be presented in order listed.

##### 3.1.1 Bridge Design Criteria

The Department will evaluate the Design Builder's approach and commitment to delivering solutions for the bridge that meet technical requirements identified in Section 5 and as listed below. The Proposal shall include plans, graphical representations, and narrative descriptions as necessary to enable the Department to understand and evaluate the Design Builder's approach to designing and constructing the bridge and other related structures for this Project.

Prepare and submit the information identified below as part of the Technical Proposal. Design Builders should note that the Technical Proposal will be considered the Preliminary Plan Submission for this bridge as noted in Section 540 of the Bridge Design Manual.

1. Provide the following preliminary plans and details, as applicable:
  - a. A General Plan, Elevation, Bridge Profile, and Typical Section for the new US Route 302 Bridge over the Sawyer River;
  - b. Bridge substructure plans, elevations, and typical sections including required slope protection as shown on the Conceptual Plans provided by the Department;

- c. Any additional plans, details or renderings that the Design Builder feels is necessary to fully convey its bridge design concepts.
2. The new bridge and roadway shall have an overall 44-foot minimum width face of rail to face of rail, consisting of two travel lanes twelve (12) feet wide, and two ten-foot wide shoulders.
3. The bridge shall have a minimum 135-foot centerline of bearing to centerline of bearing with 0 degree skew.
4. The lowest superstructure elevation for the proposed bridge shall be at or above Elevation 874.00.
5. The substructure shall be founded on spread footing foundations and incorporate other foundation elements as needed (i.e. subfootings) to provide a scour resistant substructure that meets the requirements of the scour depth and river channel stability analysis of the site as shown on the conceptual plans.
6. The proposed stone fill slope in front of the abutments shall provide a 2-foot platform at the abutments face for future maintenance needs and shall be no steeper than a 2:1 slope.
7. The structure over Sawyer River shall accommodate the hydraulic opening as shown on the conceptual plans.
8. Bare decks will be allowed provided that stainless steel reinforcing (grade 2304) is used in the deck with 1" of sacrificial concrete. Clad stainless steel will not be allowed. Otherwise decks with epoxy coated reinforcing shall have welded by torch barrier membrane and 2 ½" of pavement per NHDOT Standard Specifications.
9. Bridge railing shall meet the requirements of crash tested TL-4 rail in accordance with NCHRP-350 and be of the proper height for the designated bike route per Bridge Design Manual.
10. The bridge girders, cross frames, and diaphragms shall either be weathering steel or prestressed concrete.
11. Proposed approach slabs shall be protected by either method noted in Item #8.
12. The design for the new bridge structure shall not incorporate the following:
  - a. Timber elements
  - b. Masonry elements
  - c. Fiber reinforced polymer elements
  - d. Fracture critical elements
  - e. Exposed steel substructure components, structural or otherwise

- f. Non-redundant superstructure elements
- g. Open deck grating or orthotropic decks
- h. Any primary superstructure elements above the deck level
- i. MSE wall elements
- j. Reuse of any existing bridge components in the completed project for any purpose, including scour protection.
- k. Driven pile foundation elements

### 3.1.2 Highway/Traffic Design and Construction Concept

Through this Pass/Fail evaluation item, the Department will evaluate the Design Builder's approach and commitment to delivering solutions for highway designs and construction concepts that meet or exceed the minimum technical requirements identified in Section 5. The Proposal shall include plans, graphical representations, and narrative descriptions as necessary to enable the Department to understand and evaluate the Design Builder's approach to designing and construction the roadway elements of the Project.

Prepare and submit the information identified below as part of the Technical Proposal. Design Builders should note that the Technical Proposal will be considered the Preliminary Plan Submission.

1. The Design Speed along US Route 302 shall be maintained at a minimum of 50 mph. US Route 302 roadway approaches shall maintain a minimum of the existing overall 44-foot width, consisting of two travel lanes twelve (12) feet wide, and ten-foot wide shoulders. All work shall be constructed within the existing right-of-way, except at locations where the Design Builder proposes to modify the preliminary design and ROW for its own reasons. If Design Builder wishes to go outside of the existing right-of-way, the Design Builder will be responsible for all efforts and cost in obtaining such rights.
2. The longitudinal tangent grade for the new bridge shall be the same as the existing at 1.8%. The project shall resurface and reconstruct the roadway as shown on the conceptual roadway profile.
3. The maximum cross slope on US Route 302 approaching the bridge shall be two percent (2.0%) in the travel lanes and five percent (5%) in the shoulders.
4. General plans, preliminary drainage and water quality treatments (BMP's), and slope lines.
5. Appropriate typical sections depicting the topline and anticipated pavement and structural box designs.
6. Potential utility conflict plan.

7. A design narrative and supporting design documentation shall be provided to describe the following aspects of the project:
  - A. Geometrics
  - B. Drainage
  - C. Traffic Control
  - D. Right-of-Way
  - E. Utility impacts

**3.1.3 Project Management**

Through this Pass/Fail evaluation item, the Department will evaluate the Design Builder's project management approach in ensuring that the Project goals are met.

1. Provide narrative descriptions of the overall approach to project management. The narrative shall address the following:
  - a. The Design and Construction Organization Chart for the Project, showing key functional positions and organization units to be involved in these efforts and where they will be located, the percent of time that Key Personnel will be dedicated to this Project during their specific work effort and where located, the relationships between positions shown on the chart, and the functional relationships with subcontractors;
  - b. The Preliminary Schedule for the Project, including both design and construction, that will demonstrate that the Design Builder has considered utilities, constructability, maintenance of traffic, and minimization of impacts to traffic;
  - c. The approach to Partnering, including a discussion on how the Partnering process will be used to efficiently resolve disputes:
    - i. Between the Department and the Design-Builder,
    - ii. Between the Design-Builder and third parties, and
2. Provide a narrative describing the overall approach to third party coordination. The narrative shall address the following:
  - a. Identify a Utility Coordinator who will serve as the Design Builder's point of contact for utility issues;
  - b. Identify all affected utilities, the potential impact to each, and the proposed approach to minimizing impacts to the Project and service disruption to the utilities; and

- c. Describe how utilities will be included in the design process and how utility relocations, and adjustments, will be phased with construction to reduce impacts to the traveling public and the general populace.
3. Provide a narrative describing the construction staging and traffic management plan that will be used to safely and efficiently construct each phase of the Project.

### **3.1.4 Project Quality Control**

Through this Pass/Fail evaluation item, the Department will evaluate the Design Builder's approach and commitment to meeting the Project goals and requirements.

1. Provide a detailed outline of the proposed Design Quality Management Plan (DQMP) that meets the requirements of Section 106 of the Design-Build General Conditions. A table of contents (only) of a DQMP is NOT acceptable as an outline. The plan shall address the following:
  - a. How the Design-Builder's design quality management staff will communicate and coordinate with the Department on issues affecting Project quality with specific emphasis on, submittal format and Department review timelines, RFI format and Department response timelines;
  - b. The frequency and methods of design review necessary to comply with the DQMP;
  - c. Requirements for release of design documents for construction;
  - d. Coordination of the work performed by different persons to ensure that conflicts, omissions, or misalignments do not occur between design plans and specifications, and coordination of the review, approval, release, distribution and revision of documents; and
  - e. Method for reviewing and addressing field changes to ensure the original design intent is not compromised.
2. Provide an outline of the proposed Construction Quality Management Plan (CQMP) that meets the requirements of Section 106 of the Design-Build General Conditions. A table of contents (only) of a CQMP is NOT acceptable as an outline. The plan shall address the following:
  - a. How the Design-Builder's construction quality management staff will communicate and coordinate with the Department on issues affecting Project quality with specific emphasis on, inspecting, sampling, testing, (Acceptance Testing by the Department) checking, and documenting the Work, including work performed by subcontractors, fabricators, suppliers, and other vendors;
  - b. Integration of design and construction personnel to ensure quality;
  - c. Environmental compliance monitoring;



- d. Corporate involvement;
- e. Prevention of non-conforming work and corrective action procedures to resolve non-conforming work; and
- f. Approach to inspections and callbacks during the warranty period.

**4. Information Supplied to the Design Builder (see Web Site)****4.1 Information Supplied**

The Department has established a Project website, accessible at <http://www.nh.gov/dot/projects/hartslocation16396a/index.htm> and a password only accessible ftp site at <https://www.nhftp.nh.gov/> to convey information related to the Project. The documents posted on the website and ftp site have the same force and effect as if included as an appendix to this RFP.

**4.2 New Division 100 General Provisions**

Design Builders should take special note that the Department has, for this project, eliminated Division 100 of the NHDOT Standard Specifications for Road and Bridge Construction in its entirety and has replaced it with a new NHDOT Division 100 - General Provisions for Design-Build Projects written for this project, which is available to the Design Builders on the web site.

## 5. Project Design

### 5.1 Highway Design

In addition to the requirements identified in Section 3.1, the Design-Builder shall meet the following requirements of this Section.

#### 5.1.1 Horizontal and Vertical Alignment Control

1. Design Vehicle – WB-50 for US Route 302.
2. Maximum and Minimum Grades – Meet AASHTO and NHDOT Highway Design Manual guidance
3. Normal Crown – Defined at 2%
4. Lane and shoulder width – 12'-10' curbed typical with curb width set
5. Driveways – Defined as per NHDOT Driveway Manual

#### 5.1.2 Surface Treatments

1. Loam/Humus – Defined as per NHDOT Highway Design Manual Volume 2 typicals and specifications
2. Seeding – Define as Slope Seed Type 44 in humus areas, Park Seed Type 15 for loam areas, Wet Basin Meadow Seed Type 62 for Proposed BMP's and Salt Tolerant Grass Seed Type 82 for swales. Loam is to be utilized on slopes that are 4:1 or flatter along the frontage of residential, business and commercial properties. Humus is to be applied on all other slopes.
3. Pavement Markings Materials– All words, symbols, crosswalks and all lane lines within the limits of auxiliary turn lanes shall be thermoplastic (not paint). All lane lines beyond the limits of auxiliary turn lanes shall be retroreflective paint. These materials shall meet NHDOT specifications.
4. Pavement Marking Layout - Meet AASHTO, MUTCD and NHDOT guidance (standard plans)
5. Curbing – Granite curbing shall be used for raised islands and along edge of proposed pavement as per NHDOT Highway Design Manual Volume 2 typicals for roadway. Bridge curb shall be concrete following NHDOT typical and guidance.

### 5.1.3 Drainage and Water Quality

1. The NHDOT Drainage Manual (1998) shall be used for stormwater quality treatment and storage measures. The NHDES Stormwater Manual and NHDES Alteration of Terrain (AoT) Program shall be followed.
2. Concrete pipes shall be used for pipes and culverts that are beneath roadway pavement (travelway or shoulders). Type B or F grates as applicable shall be utilized.
3. The design of BMP's and Erosion Control should follow the guidance provided by the New Hampshire Stormwater Manual (December 2008).
4. There shall be no net increase in discharge flows (pre versus post flow conditions).

### 5.1.4 Traffic Control

1. The traffic control design speed shall be set at 40 mph or greater. Coordinate with the District 1.
2. The minimum width of the travel way during construction phasing shall conform to MUTCD. Additional width shall be provided during the winter months for winter maintenance (4' minimum shoulder widths minimum).
3. Roadside Design Guide to be utilized in conjunction with MUTCD for clearzones, workzones, barrier warrants, and terminal units.
4. One way alternating traffic is permitted on US Route 302 during critical construction operations with acceptable backups of less than ¼ mile. One way alternating traffic will not be allowed during the fall foliage or winter maintenance season (September 15<sup>th</sup> to April 15<sup>th</sup>).
5. Coordination with Town of Harts Location and District 1 is required for traffic shifts.
6. Traffic stoppages and lane closures shall be limited and only allowed during non-peak hour traffic flows for durations that will not cause excessive backups (less than ¼ mile).
7. Officers and flaggers shall be utilized per the Departments Work Zones Policy and Guidelines.

### 5.1.5 Pavement Design

Pavement and pavement structural section shall be designed per the Highway Design Manual for a mean year ADL of 600. The total 20-year ESAL for the SUPERPAVE

Mix Design on this project has been estimated to be less than 10,000,000. High strength pavement shall be used in areas subject to pavement shoving and rutting due to trucks.

### **5.1.6 Utilities**

The existing bridge supports telecommunication and electrical power utilities that are believed to be inactive at present time. Ground level, temporary telecommunication and electrical power utilities exist immediately upstream of the existing bridge, which must not be disturbed during construction. The Design-Builder shall be responsible for coordinating with the utility owners for their future accommodation needs on the proposed bridge. It is anticipated that a total of four 4" conduits will need to be carried under the proposed bridge deck to accommodate these needs - two conduits will be for New Hampshire Electric Co-Op lines and two conduits for Fairpoint Communications lines.

#### **Utility Contacts**

New Hampshire Electric Co-Op  
BG King  
(603) 538-8621

Fairpoint Communications  
Eddie Mendonca  
(603) 645-2721

## 5.2 Geotechnical Design

The Department will conduct a preliminary exploration program for this Project during the Proposal development phase. The Department will provide a geotechnical investigation report that summarizes the existing site conditions, the preliminary exploration program information, and any pre-existing exploration information. A supplemental exploration program will not be conducted by the Department.

Design Builders may examine available Soil Samples at the NHDOT Bureau of Materials and Research provided they meet the requirements for initial contact to the Department's sole point of contact and do not violate any provisions for discussion of the project with any Department personnel, except to the extent needed to provide access to the soil samples.

The Design Builder shall plan a supplemental exploration program and testing as necessary and as required to meet AASHTO design standards for their proposed design. Information about any proposed supplemental exploration program and testing shall be provided in the Proposal.

Upon award of the contract, the selected Design Builder shall engage the services of a qualified geotechnical engineer licensed in the state of New Hampshire to perform geotechnical engineering evaluations and analyses for all aspects of the proposed project designs and to complete the design geotechnical report(s). The design geotechnical report(s) shall be submitted to the Department for review and comment at various stages of the design. The geotechnical engineer shall be considered qualified if they have geotechnical experience on at least five bridge projects completed for a state transportation agency. The qualifications of the geotechnical engineer shall be submitted for approval, and the Department reserves the right to deny approval if the qualifications are considered inadequate.

## 5.3 Bridge Design and Construction

### 5.3.1 Additional Design and Performance Criteria

1. All bridge components should be designed in accordance with the most current AASHTO LRFD Bridge Design Specifications with Interims. Seismic design should be in accordance with the AASHTO Guide Specification for LRFD Seismic Design, 1<sup>st</sup> Edition or the most current AASHTO LRFD Bridge Design Specifications.
2. The bridge should be designed for the HL-93 Live Load with a maximum allowable live load deflection of  $L/1000$ .
3. All construction materials should be in accordance with the Department's Standard Specifications. No experimental or previously unapproved materials should be used without prior written approval from the Department.
4. Corrosion resistant reinforcing steel shall be used in all proposed reinforced concrete for the bridge deck, bridge rail base curbs, wingwall copings, and abutment backwalls.

5. The bridge should be designed to minimize or eliminate transverse roadway joints in the deck (i.e. finger joints, strip seals, and compression joints).
6. The bridge deck should be designed in accordance with criteria specified in the Bridge Design Manual. Empirical deck designs shall not be allowed.
7. Partial-depth, precast concrete stay-in-place deck panels are permissible.
8. The bridge shall not use any bridge elements that require confined entry for bridge inspection.
9. Structural steel bridge coatings shall not be used except as specified in the Bridge Design Manual.
10. A bridge rating, in accordance with Section 915 of the Bridge Design Manual and NHDOT Form 4, shall be submitted with the final design calculations.
11. The existing bridge shall be removed and properly disposed as shown on the conceptual plans, and shall become the property of the Design-Builder. The existing temporary bridge shall be removed in its entirety and shall be delivered to NHDOT Bureau of Bridge Maintenance Franklin Yard.

**6. Environmental**

**6.1 Wetlands**

The Design Builders should be aware that some wetlands exist within the project area. The wetlands have been mapped on the Department's CADD drawings. Additional wetlands may exist beyond the mapped project area. The Department will obtain a wetland permit for the anticipated project impacts as shown on the conceptual plans. Once survey information is received, the Department will develop wetland impact plans that will be posted on the website.

Design Builder will need to obtain the appropriate permits and/or permit amendments if any additional wetlands are impacted, beyond those shown on the conceptual plans.

**6.2 Invasive Species**

The Design Builders should be aware that there may be some invasive plants within the project area. The project site will be mapped by NHDOT on the Department's CADD drawings. Impacts to these areas will need to be addressed appropriately.

**6.3 Section 106 of the National Historic Preservation Act of 1966**

No known archaeological, historic, or cultural properties will be affected by the project as presented by the Department.



**7. Right-of-Way**

All work is anticipated inside of the existing right-of-way (ROW).

**7.1 Payment for Property Rights**

If the Design-Builder wishes to extend their work outside of the existing ROW, all cost shall be borne by the Design Builder. Any and all costs for the Design-Builder's convenience, including operations, conveyance of materials, staging areas, office locations, and any other temporary or permanent property rights not specifically required for the construction of the project, as solely determined by the Department, are not included in this payment provision and must be included in the Design-Builder's Lump Sum Price Proposal.

**8. Reservation of Rights**

In connection with this procurement, NHDOT reserves all rights (which rights shall be exercisable by NHDOT at its sole discretion) available under applicable law, including without limitation, the following, with or without cause and with or without notice:

1. The rights to cancel, withdraw, postpone or extend this RFP in whole or in part at any time prior to the execution by NHDOT of the Design-Build Contract, without incurring any obligations or liabilities.
2. The right to issue a new RFP.
3. The right to reject any and all submittals, responses and proposals received at any time.
4. The right to modify all dates set or projected in this RFP.
5. The right to terminate evaluations of proposals at any time.
6. The right to suspend or terminate the procurement process for the Project, at any time.
7. The right to revise and modify, at any time prior to the Proposal Submittal Date, factors it will consider in evaluating responses to this RFP and to otherwise revise its evaluation methodology.
8. The right to issue addenda, supplements, and modifications to this RFP, including but not limited to modifications of design requirements, evaluation criteria or methodology and weighting of evaluation criteria.
9. The right to hold meetings and conduct discussions and correspondence with one or more of the Design Builders responding to this RFP to seek an improved understanding and evaluation of the responses to this RFP.
10. The right to seek or obtain data from any source that has the potential to improve the understanding and evaluation of the responses to the RFP, including the right to seek clarifications from Design Builders.
11. The right to add or delete Design Builder responsibilities from the information contained in this RFP.
12. The right to appoint and change members of the Evaluation Team.
13. The right to use assistance of outside technical and legal experts and consultants in the evaluation process.
14. The right to waive deficiencies, informalities, and irregularities in a Proposal, accept and review a nonconforming Proposal, or seek clarifications or supplements to a Proposal.

15. The right to disqualify any Design Builder that changes its submittal without NHDOT approval.
16. The right to change the method of award or the evaluation criteria and scoring at any time prior to submission of the Proposals.
17. The right to respond to all, some, or none of the inquiries, questions, and/or requests for clarification received relative to the RFP.
18. The right to use all or part of an unsuccessful short-listed Design Builder's Proposal that accepts a Proposal Payment (Stipend).
19. The right to increase or decrease the number of short-listed Design Builders at its sole discretion.
20. The right to negotiate the allocation of prices identified for specific portions of the work depicted within a Price Proposal.

### **8.1 No Assumption of Liability**

Except for such amounts as may be paid through the Proposal Payment set forth in the NHDOT Division 100 - General Provisions for Design-Build Projects, NHDOT assumes no obligations, responsibilities, or liabilities, fiscal or otherwise, to reimburse all or part of the costs incurred or alleged to have been incurred by parties considering a response to and/or responding to this RFP. All such costs shall be borne solely by each Design Builder and its team members.

Except for such amounts as may be paid through the Proposal Payment set forth in the NHDOT Division 100 - General Provisions for Design-Build Projects, in no event shall NHDOT be bound by, or liable for, any obligations with respect to the Project until such time (if at all) a contract, in form and substance satisfactory to NHDOT, has been executed and authorized by the Department, including approval by the Governor and Council, and, then, only to the extent set forth therein.

### **8.2 Conflict of Interest**

Each Design Builder shall require its proposed team members to identify potential conflicts of interest or real or perceived competitive advantages relative to this procurement. Additional information is set forth in accordance with Division 100 – General Provisions for Design-Build Projects Section 102.01.2.

### **8.3 Requirement to Keep Team Intact**

The team proposed by the Design Builder, including all proposed individuals identified in the Statement of Qualifications (SOQ) submitted in response to the Department's Request for Qualifications (RFQ), including but not limited to the lead contractor, the lead designer, Key Personnel, the organizational structure, and other individuals identified pursuant to the NHDOT Division 100 - General Provisions for Design-Build Projects, shall remain on Design Builder's team for the duration of the procurement process and, if the Design Builder is awarded the Design-Build Contract, the duration of the Design-Build Contract. If extraordinary

circumstances require a proposed change prior to award, the Design Builder must notify the Department Representative of such changes in writing no later than twenty one (21) calendar days prior to the Technical Proposal Submission Date. NHDOT will review such requests and provide a response within five (5) calendar days of its receipt of such proposed changes; however, NHDOT shall have no obligation to approve such proposed changes and may approve or disapprove such changes at its sole discretion. If extraordinary circumstances require a proposed change after award, it must be submitted in writing to the Department Representative. The Department, at its sole discretion, will determine whether to authorize a change. Unauthorized changes to the Design Builder's team at any time during the procurement process may result in the elimination of the Design Builder from further consideration.