



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



44

William Cass, P.E.
Commissioner

David Rodrigue, P.E.
Assistant Commissioner
Andre Briere, Colonel, USAF (RET)
Deputy Commissioner

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Highway Design
March 27, 2024

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement with HDR Engineering, Inc., Manchester, New Hampshire, Vendor #169983, for an amount not to exceed \$1,491,959.78, for professional engineering and environmental consulting services to improve the Daniel Webster Highway (US 3) in the Town of Bedford, effective upon Governor and Council approval through June 30, 2026. Funding is 100% Federal Funds.

Funds to support this request are available in the following account in State FY 2024 and State FY 2025, and funding is contingent upon the availability and continued appropriation of funds in FY 2026, with the ability to adjust encumbrances between State Fiscal Years through the Budget Office if needed and justified:

	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>
04-096-96-963515-3054 Consolidated Federal Aid			
046-500464 Gen Consultants Non-Benefit	\$250,000	\$1,000,000	\$241,959.78

EXPLANATION

The Department requires improvements to the Daniel Webster Highway (US 3) in the Town of Bedford. The project begins on the Daniel Webster Highway (US 3) from the Airport Access Road EB/WB ramps (northern ramp intersection) north 1.7 miles to Hawthorne Drive (northern intersection). The Department requires professional engineering and environmental consulting services to select an appropriate proposed action that is supported by the community, technically feasible, environmentally permissible, and economical; develop an approved Environmental Document; and bring the proposed action to a public hearing for layout approval. This agreement is included in the State's Ten-Year Transportation Improvement Plan (Bedford, 40664).

The consultant selection process employed by the Department for this qualifications-based contract is in accordance with RSAs 21-I:22, 21-I:22-c, 21-I:22-d, 228:4 and 228:5-a, and all applicable Federal laws and the Department's "Policies and Procedures for Consultant Contract Procurement, Management, and Administration" dated August 25, 2017. The Department's Consultant Selection Committee is a standing committee that meets regularly to administer the process and make determinations. The Committee is comprised of the Assistant Director of Project Development (Chair), the Chief Project Manager, the Administrators of the Bureaus of Highway Design, Bridge Design, Environment, and Materials and Research, and the Municipal Highways Engineer.

The consultant selection process for this qualifications-based contract was initiated by a solicitation for consultant services for Bedford 40664. The assignment was listed as a "Project Soliciting for Interest" on the Department's website on December 31, 2020, asking for letters of interest from qualified firms. From the list of firms that submitted letters of interest, the Committee prepared a long and then short list of Consultants on February 11, 2021, for consideration and approval by the Assistant Commissioner. Upon receipt of that approval, three (3) shortlisted firms were notified on March 1, 2021, through a technical "Request for Proposal" (RFP). Committee members

individually rated the firms on April 22, 2021, using a written ballot to score each firm on the basis of comprehension of the assignment, clarity of the proposal, capacity to perform in a timely manner, quality and experience of the project manager and the team, previous performance, and overall suitability for the assignment. (A compilation of the completed individual rating ballots and the ranking summary form is attached.) The individual rankings were then totaled to provide an overall ranking of the three firms, and the Committee's ranking was submitted to the Assistant Commissioner for consideration and approval. Upon receipt of that approval, the short-listed firms were notified of the results and the highest-ranking firm was asked to submit a fee proposal for negotiations.

The long list of ten (10) consultant firms that were considered for this assignment, with the three (3) short-listed firms shown in bold, is as follows:

<u>Consultant Firm</u>	<u>Office Location</u>
AECOM Technical Services, Inc.	Manchester, NH
CHA Consulting, Inc.	Keene, NH
DuBois & King, Inc.	Bedford, NH
Greenman-Pedersen, Inc.	Bedford, NH
HDR Engineering, Inc.	Manchester, NH
Hoyle Tanner & Associates, Inc.	Manchester, NH
Jacobs Engineering Group, Inc.	Bedford, NH
SLR International Corporation	Bedford, NH
Weston & Sampson Engineers, Inc.	Manchester, NH
WSP USA, Inc.	Merrimack, NH

The firm of HDR Engineering, Inc. was recommended for this contract. This firm has an excellent reputation and has demonstrated their capability to perform the required services. Background information on this firm is attached.

HDR Engineering, Inc. has agreed to furnish the professional engineering services for an amount not to exceed \$1,491,959.78. This is a reasonable fee and is commensurate with the complexity of the project and the scope of the engineering and technical services to be furnished. This project funding is 80% Federal funds with 20% State match. Turnpike toll credit is being utilized for New Hampshire's match requirement, effectively using 100% Federal Funds.

This Agreement has been approved by the Attorney General as to form and execution. The Department has verified that the necessary funds are available. Copies of the fully-executed Agreement are on file at the Secretary of State's Office and the Department of Administrative Services, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

It is respectfully requested that authority be given to enter into an Agreement for consulting services as outlined above.

Sincerely,



William J. Cass, P.E.
Commissioner

Attachments

DESCRIPTION:

Preliminary engineering, environmental services, public involvement services, and final design are needed for improvements to US 3 (South River Road) in the Town of Bedford to include widening, intersection modifications and bicycle and pedestrian facilities. The project begins at the intersection with the Manchester Airport Access Road SB EB ramps and extends north 1.7 miles to the intersection Hawthorne Drive (northern intersection).

	1	1	3	1	1	2	TOTAL	RANK
HDR Engineering, Inc.							9	1
Jacobs Engineering Group, Inc.	2	2	2	3	3	3	15	3
WSP USA, Inc.	3	3	1	2	2	1	12	2

EVALUATION OF TECHNICAL PROPOSALS

Rating Considerations	Scoring of Firms			
	W E I G H T	HDR Engineering, Inc.	Jacobs Engineering Group, Inc.	WSP USA, Inc.
Bedford 40664				
Comprehension of the Assignment	20%	14%	15%	18%
Clarity of the Proposal	20%	18%	15%	17%
Capacity to Perform in a Timely Manner	20%	17%	18%	18%
Quality & Experience of Project Manager/Team	20%	15%	16%	17%
Previous Performance	10%	7%	7%	9%
Overall Suitability for the Assignment	10%	7%	8%	9%
Total:	100%	78%	79%	88%

- Ranking of Firms: 1. WSP USA, Inc.
2. Jacobs Engineering Group, Inc.
3. HDR Engineering, Inc.

EVALUATION OF TECHNICAL PROPOSALS

Rating Considerations	Scoring of Firms			
	W E I G H T	HDR Engineering, Inc.	Jacobs Engineering Group, Inc.	WSP USA, Inc.
Bedford 40664				
Comprehension of the Assignment	20%	18%	17%	18%
Clarity of the Proposal	20%	17%	17%	17%
Capacity to Perform in a Timely Manner	20%	17%	17%	18%
Quality & Experience of Project Manager/Team	20%	17%	16%	16%
Previous Performance	10%	8%	7%	8%
Overall Suitability for the Assignment	10%	6%	7%	7%
Total:	100%	83%	81%	84%

- Ranking of Firms: 1. WSP USA, Inc.
2. HDR Engineering, Inc.
3. Jacobs Engineering Group, Inc.

EVALUATION OF TECHNICAL PROPOSALS

Rating Considerations	Scoring of Firms			
	W E I G H T	HDR Engineering, Inc.	Jacobs Engineering Group, Inc.	WSP USA, Inc.
Bedford 40664				
Comprehension of the Assignment	20%	19%	19%	17%
Clarity of the Proposal	20%	20%	19%	18%
Capacity to Perform in a Timely Manner	20%	19%	19%	17%
Quality & Experience of Project Manager/Team	20%	19%	18%	19%
Previous Performance	10%	8%	8%	8%
Overall Suitability for the Assignment	10%	10%	10%	9%
Total:	100%	95%	93%	88%

- Ranking of Firms: 1. HDR Engineering, Inc.
2. Jacobs Engineering Group, Inc.
3. WSP USA, Inc.

EVALUATION OF TECHNICAL PROPOSALS

Rating Considerations	Scoring of Firms			
	W E I G H T	HDR Engineering, Inc.	Jacobs Engineering Group, Inc.	WSP USA, Inc.
Bedford 40664				
Comprehension of the Assignment	20%	18%	19%	17%
Clarity of the Proposal	20%	18%	18%	17%
Capacity to Perform in a Timely Manner	20%	18%	18%	17%
Quality & Experience of Project Manager/Team	20%	20%	17%	17%
Previous Performance	10%	9%	8%	7%
Overall Suitability for the Assignment	10%	8%	8%	8%
Total:	100%	91%	88%	83%

- Ranking of Firms: 1. HDR Engineering, Inc.
2. Jacobs Engineering Group, Inc.
3. WSP USA, Inc.

EVALUATION OF TECHNICAL PROPOSALS

Rating Considerations	Scoring of Firms			
	W E I G H T	HDR Engineering, Inc.	Jacobs Engineering Group, Inc.	WSP USA, Inc.
Bedford 40664				
Comprehension of the Assignment	20%	19%	15%	20%
Clarity of the Proposal	20%	18%	17%	17%
Capacity to Perform in a Timely Manner	20%	20%	18%	18%
Quality & Experience of Project Manager/Team	20%	18%	16%	17%
Previous Performance	10%	9%	8%	7%
Overall Suitability for the Assignment	10%	9%	7%	8%
Total:	100%	93%	81%	87%

- Ranking of Firms: 1. HDR Engineering, Inc.
2. WSP USA, Inc.
3. Jacobs Engineering Group, Inc.

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ATTACHMENTS

- A. **SCOPE OF SERVICES FOR PRELIMINARY DESIGN** Prepared by HDR, Inc. dated September 27, 2023.

AGREEMENT EXECUTION ATACHMENTS

1. CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS, ETC.
2. CONSULTANT DISCLOSURE STATEMENT FOR PREPARATION OF ENVIRONMENTAL EVALUATIONS
3. CERTIFICATION OF CONSULTANT/SUBCONSULTANT
4. CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION
5. CERTIFICATION FOR FEDERAL-AID CONTRACTS EXCEEDING \$100,000 IN FEDERAL FUNDS
6. SIGNATURE PAGE
7. CERTIFICATION OF GOOD STANDING
8. CERTIFICATION OF AUTHORITY / VOTE
9. CERTIFICATION OF INSURANCE

AGREEMENT
FOR PROFESSIONAL SERVICES

PREAMBLE

THIS AGREEMENT made this 27th day of March in the year 2024 by and between the STATE OF NEW HAMPSHIRE, hereinafter referred to as the STATE, acting by and through its COMMISSIONER OF THE DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the COMMISSIONER, acting under Chapter 228 of the Revised Statutes Annotated, and HDR Engineering, Inc., with principal place of business at HDR Engineering, Inc, in the City of Omaha, State of Nebraska, and New Hampshire local office at 250 Commercial Street , Suite 3007 in the City of Manchester, State of New Hampshire, hereinafter referred to as the CONSULTANT, witnesses that:

The Department of Transportation, State of New Hampshire, hereinafter referred to as the DEPARTMENT, proposes to improve the Daniel Webster Highway (US 3) in the Town of Bedford. The project begins on the Daniel Webster Highway (US 3) from the Airport Access Road EB/WB ramps (northern ramp intersection) north 1.7 miles to Hawthorne Drive (northern intersection).

The DEPARTMENT requires professional engineering and environmental consulting services to select an appropriate proposed action that is supported by the community, technically feasible, environmentally permissible, and economical; develop an approved Environmental Document; and bring the proposed action to a public hearing for layout approval.

The CONSULTANT'S Fee Proposal dated December 12th, 2023, is hereby adopted by reference and considered to be part of this AGREEMENT.

This AGREEMENT becomes effective upon approval by the Governor and Council.

ARTICLE I - DESCRIPTION OF PROFESSIONAL SERVICES TO BE RENDERED

NOW THEREFORE, in consideration of the undertakings of the parties hereinafter set forth, the DEPARTMENT hereby engages the CONSULTANT, who agrees to render services to the DEPARTMENT which shall include, but not be restricted to, the following items, in accordance with conditions and terms hereinafter set forth:

A. LOCATION AND DESCRIPTION OF PROJECT

This project involves the study of improvements to the Daniel Webster Highway (US 3) in the Town of Bedford. The project begins at Airport Access Road EB/WB ramps (northern ramp intersection) north 1.7 miles to Hawthorne Drive (northern intersection). Some key considerations to be aware of include the following:

- Consideration of the August 2007 "Route 3 Corridor Access Management Plan" prepared by VHB for the Town of Bedford.
- The segment of US 3 to be improved is mostly comprised of one travelled lane in each direction with varying lane configurations are several intersections within the corridor.
- Localized improvements have been made at key intersections and some commercial developments to add turning lanes, shoulders, and traffic signals.
- The corridor is subject to peak traffic volumes, which restricts mobility particularly in the vicinity of the key intersections.
- Shoulders or sidewalks are not consistent, which hinders the mobility of non-motorized users.
- There are numerous private and commercial driveways within the segment.

The objective of the project is to develop an alternative that will improve the safety and traffic operations of the corridor. The central goal of the project will be to achieve an appropriate balance between the needs of motorized, non-motorized, and transit users with providing safe and efficient access to abutting properties while minimizing impacts to environmental resources. As the development of improvement alternatives proceed, it will be crucial to work closely with all other appropriate public or private stakeholders to gain consensus on design decisions.

The development of the preliminary engineering for this project is expected to be performed in two phases Preliminary Design (Part B) and Final Design (Part C). This scope of services is for the first phase Preliminary Design (Part B) only. The purpose of this first phase of the project is to develop and evaluate design alternatives for improving US 3. Preliminary Design efforts will: 1.) develop and evaluate improvements alternatives; 2.) identify all impacted natural and cultural resources potentially affected by the proposed action, and investigate means of minimizing or mitigating the impacts; 3.) prepare an environmental document for the proposed action; 4.) assist the Department with public

involvement support services, including preparation of a Hearing plan, and minor revisions to the selected alternative resulting from hearing comments and 5.) identify and document the existing right-of-way.

B. SCOPE OF WORK (GENERAL)

The goals of the Preliminary Design engineering efforts of this project are to select an appropriate proposed action that is supported by the community, technically feasible, environmentally permissible, and economical; develop an approved Environmental Document; and bring the proposed action to a public hearing for layout approval.

Assuming a successful Public Hearing, and upon completion of the Preliminary Design (Part B), the DEPARTMENT reserves the right to either negotiate a scope and fee for Final Design (Part C) to prepare final design plans, specifications and estimates for the project limits, or terminate the contract.

The development of improvement alternatives will include a dynamic public participation program involving public and private stakeholders and the general public in the decision-making process to aid in the determination of the proposed action.

C. SCOPE OF WORK (SPECIFIC)

The tasks for Preliminary Design have been divided into three categories: Preliminary Design, Environmental Documentation and Public Participation. The Preliminary Design tasks cover the work required to reevaluate and develop improvement alternatives to arrive at a proposed action. The Environmental Documentation tasks cover the work required to document impacts of the alternatives to all relevant natural and cultural resources. The Public Participation tasks cover public outreach for all aspects of the project. Final design will be undertaken by Part 'C' of the design efforts and will encompass the engineering efforts needed to advance the design from NEPA approval to project advertising.

1. Preliminary Design

a. Data Collection

The CONSULTANT shall collect any pertinent information available within the project limits including, lane geometries, traffic control information, utility locations, or other available materials. The CONSULTANT shall conduct a field review of the project area to identify key engineering controls, topographic features, natural and cultural resource constraints, and land uses that could have a bearing on the design.

The CONSULTANT shall gather traffic volume data as needed to analyze existing and future traffic operations under both no-build and build conditions within the project area. The Department will provide the traffic counts that are currently available for the Route 3

corridor through the NHDOT Transportation Data Management System. The Consultant will collect Turning Movement Counts (TMCs) on a Tuesday, Wednesday or Thursday non-holiday from 6-9 AM and 3-6 PM on days where snow is not expected at the following locations:

1. Daniel Webster Highway (US3) & Airport Access Road EB
2. Daniel Webster Highway (US3) & Airport Access Road WB Ramps/E.Point Drive,
3. Daniel Webster Highway (US3) & Technology Drive (north)/Commerce Drive
4. Daniel Webster Highway (US3) & Hawthorne Drive (northern intersection)

At the following intersections, TMCs will be collected on a Tuesday, Wednesday or Thursday non-holiday from 6AM to 6PM on days where snow is not expected. This data will be used along with the crash analysis to determine if any new traffic control is needed on US 3 at any of these locations:

1. Daniel Webster Highway (US3) & Iron Horse Drive.
2. Daniel Webster Highway (US3) & Technology Drive (South)/Autumn Lane
3. Daniel Webster Highway (US3) & Harvey Road
4. Daniel Webster Highway (US3) & Commerce Park North
5. Daniel Webster Highway (US3) & Hawthorne Drive (south)/Cedarwood Drive

The TMCs will be classified into the following categories: passenger vehicles, motorcycles, single unit trucks, buses, tractor trailers, pedestrians and bicycles. The CONSULTANT shall process the raw TMC data to create peak hour volume turning movement diagrams, calculate truck percentages and peak hour factors. The roadway network will be balanced for each peak hour with discrepancies applied to high volume driveways as needed. The traffic data will be submitted to the DEPARTMENT for review prior to the development of the design alternatives.

In addition, the CONSULTANT will collect traffic data to facilitate the pavement design. The FHWA 13-category axle-based classification will be obtained within the corridor. The ATR should also collect speed data to assist with safety and speed analyses.

Additional data to support multimodal analysis, safety, public outreach, and the environmental documentation will be collected by the CONSULTANT, as identified in ATTACHMENT A.

b. Topographic Survey mapping and Existing ROW Plan Preparation

The DEPARTMENT will conduct the topographic survey(s) and process the data, which the CONSULTANT will then incorporate into the digital terrain model and base

plan. The most recent ortho-rectified digital aerial photographs will be provided by the DEPARTMENT if needed.

The CONSULTANT will submit requests for supplemental survey as necessary as outlined in ATTACHMENT A. All supplemental topographic data request will be handled in the same manner.

c. Existing Right-of-Way Plan Development

This work will be performed a CONSULTANT Licensed to practice the profession of Land Surveying in New Hampshire. The CONSULTANT shall be responsible for coordination efforts and will participate in the ROW meetings that will be scheduled with the DEPARTMENT. The CONSULTANT shall be responsible for the coordination and be available for direct contact for all survey related communications with the DEPARTMENT, including the scheduling of a kickoff meeting with the Bureau of Right of Way for the purpose of obtaining the DEPARTMENT's Right of Way record information for the subject corridor.

The CONSULTANT shall complete an Existing Right of Way Survey of the identified section of Daniel Webster Highway (US 3), including all intersecting municipal or State roads extending to a minimum distance of 500 ft. beyond the limits of the proposed improvements. All survey work must be completed in accordance with the minimum standards for a Category 3 Urban Class Boundary Survey as defined in the - NH Land Rules 500 and comply with the Technical Standards portion of the aforementioned, and duly defined in the 2017 NHDOT Survey and Technical Standards Manual, requiring all survey work to be supervised by a NH Licensed Land Surveyor. The survey shall include, but is not limited to, a complete field survey locating all available boundary and right of way monumentation and all relevant lines of occupation along the subject corridor. The CONSULTANT shall prepare an Existing ROW Plan set depicting the ROW limits, record alignments, all standard surveying mapping geometrics, including metes and bounds, curve data, tie lines, additional state interests and easements, centerline station and offset information for all relevant existing Right of Way record lines and monuments.

The CONSULTANT will develop the Existing Right of Way survey and control through the following process:

- i. ROW Facilitation Meeting: An initial meeting with the DEPARTMENT for project overview, review of historic ROW information and turnover of DEPARTMENT project data and ROW.

- ii. Records Research: The CONSULTANT's is required to research the following record archival venues until all relevant record information to the subject corridor is obtained for consideration of the Right of Way limit determination; municipal records, historical records, state archive records, DOT records, county registry and probate records, and other facilities as needed.
 - iii. Boundary Survey: The CONSULTANT shall complete the boundary survey in accordance with aforementioned standards with an expected process as follows. Any planned deviation from this process must be approved by the DEPARTMENT prior to execution.:
 - 1. Field reconnaissance of Right-of-Way and abutting boundary monuments.
 - 2. Establish geodetic control network on NH State Plane Coordinate System.
 - 3. Conduct an, on the ground field survey, of the existing Right-of-Way and abutting boundary monuments.
 - 4. Process survey control data using least squares adjustment at 95% confidence level. Process side shot data on adjusted control network and verify.
 - 5. Develop Right-of-Way alignments and establish Right-of-Way limits based on the processed field survey data.
 - iv. Existing ROW Plan Review: The CONSULTANT shall submit Preliminary Right of Way Plans and a written Survey Report outlining the basis of the survey findings and final Right of Way determination. for review by the DEPARTMENT's Bureau of Right of Way Land Titles Section. The CONSULTANT will be required to attend all ROW facilitation meetings that involve survey related discussions.
 - v. Development of Final Existing ROW Plan: The CONSULTANT shall address all DEPARTMENT comments resulting from the Preliminary ROW Plan review through a written explanation of how review comments were addressed. Once finalized, the CONSULTANT will be required to record the Existing Right of Way Plan in the applicable County Registry of Deeds. The CONSULTANT shall provide the DEPARTMENT with the Exiting ROW Plans in DGN file format and one full size PDF copy of the recorded plan. The CONSULTANT shall provide the DEPARTMENT with all supporting survey data, including but not limited to; raw data files, adjustment reports, field book notes, geodetic control data, coordinate file of all survey points in ASCII file format and alignment data in .cl or XML format.
- d. Traffic Analysis & Reporting

The CONSULTANT shall complete any macroscopic and microscopic evaluations for the various alternatives as needed to analyze existing and future traffic operations under both no-build and build conditions within the project area. Traffic analysis for each corridor alternative is anticipated to be developed as a corridor-wide model to account for interaction between the series of closely spaced intersections. Capacity analyses are anticipated to be done using Synchro/SimTraffic for signalized and unsignalized intersections and SIDRA for roundabouts.

It is assumed that construction will be completed in 2028. Traffic volumes will be projected to 2048 using an annual growth rate which will be developed through coordination of the Town of Bedford, Southern NH Regional Planning Commission, NHDOT, and calculated based on research of historical data in the area. One AM & one PM scenario will be analyzed for up to each design alternative identified in ATTACHMENT A for the corridor and intersections and the no-build condition.

A traffic operations report will be compiled documenting existing, no-build and build traffic conditions, traffic modeling methodology and results, signal warrant results. The traffic analysis will be reported in terms of Level of Service (LOS) based on delay outputs from Synchro and queue data based on five averaged runs of SimTraffic, as well as and other Measures of Effectiveness (MOEs) determined appropriate for the project and proposed by the CONSULTANT. The results of the traffic and crash data analysis will be submitted to NHDOT for comment, which will be incorporated in the final Design Report.

c. Crash Data Collection & Analysis

The CONSULTANT shall evaluate crash data provided by the DEPARTMENT (in Excel format) to understand the safety performance within the project area. The CONSULTANT shall consider how the alternatives would impact safety.

Crash data for each intersection/roadway segment tabulating crash records based on type, location and severity up to ten-years. The CONSULTANT shall assess and note patterns of the tabulated data to address potential traffic safety problems. Collision diagrams will not be required.

The results of the crash data analysis will be presented in a safety evaluation memorandum that will be submitted to NHDOT for review prior to incorporation in the final Design Report. When appropriate, the AASHTO Highway Safety Manual will be referred to in order to predict the safety performance of the proposed design alternatives.

f. Alternative Development & Evaluation

The CONSULTANT will develop and evaluate a range of alternatives and investigate their consequences to allow the DEPARTMENT to select a proposed action. The range of alternatives will utilize the data collection, traffic analysis, and established design constraints from the right-of-way, environmental, public involvement, and design efforts to assess and reduce alternatives for further development to two (2) reasonable alternatives. The alternatives development will coincide with the public outreach working group, informational and public officials' meetings.

- i. Reasonable Alternatives: Each alternative will be developed to an equal level of detail. Lanes, shoulders, slope impact limits, right of way requirements, environmental impacts, and potential water quality protection measures will be determined for each reasonable alternative.

It is anticipated that up to two (2) different reasonable design alternatives will be developed for the US 3 corridor. Each alternative will be submitted to the Department for review in roll plot format. Each submission will include conceptual level plan, profile, typical sections and cross-sections. In locations where the proposed improvements are minimal and the roadway footprint does not change (e.g. minimal widening, milling and resurfacing, etc.), general (non-critical) cross-sections will not be provided. Cross-sections at all typical (non-critical) driveway locations will not be required.

Conceptual level traffic control will be presented at this time to determine if there are major differences in the alternatives. This is expected to be a short explanation with critical sections, showing phasing, if needed.

A basic drainage study will be performed for the project area. The purpose of this study is to identify existing drainage patterns, establish proposed drainage outlets, and determine the right-of-way that will be required for BMP measures. A basic drainage study will be performed for the project based on conceptual drainage and preliminary BMP locations. The purpose of this study is to identify existing drainage patterns, evaluate culverts and stream crossings, establish presumed proposed drainage outlets with approximate flows and determine the right-of-way that will be required for the conceptual BMP measures developed. There will be no closed system analysis or design performed as part of this study. A report will be provided outlining the conceptual pre and post flows at all the presumed outlet

locations. This study will be performed only for one of the design alternatives (likely the one featuring the most impervious surface area).

The alternatives will be summarized in a comparison matrix and accompanied by conceptual level cost estimates, with clear explanations of assumptions used to develop the estimates. Calculations supporting the major item categories will be provided at a level consistent with the level of design detail.

g. Post-Hearing Submission

The CONSULTANT will revise and further develop the selected alternative to address and satisfy the DEPARTMENT's response to Public Hearing public comments. The Post-Hearing Submission will follow the DEPARTMENT's Post-Hearing Design Review Checklist and Project Development Process. The submission shall consist revised selected alternative roadway, traffic control, drainage and water quality, presentation plans, and other alternative plans developed as well as design, traffic, and drainage reports affected by the public hearing response and DEPARTMENT comments.

h. Cost Estimates:

Conceptual cost estimates will be developed to progress preliminary design and reduce the range of alternatives for the alternatives. The conceptual alternatives will be compared using a cost per lane mile approach from data supplied by the DEPARTMENT.

For the reasonable alternatives and prior to the Public Hearing an estimate will be provided that quantifies items such as pavement, roadway select materials, earthwork, structures, and other major cost items as appropriate, and apply the Department's current weighted average unit prices. Other items such as drainage, traffic control, signing and pavement markings will be estimated on a percentage basis. A spreadsheet will be provided by the Department to assist in the development of this estimate. Right of way acquisition costs will be determined from approximate assessed value of impacted property, relocation assistance and other associated acquisition expenses. Environmental mitigation costs will be estimated based on approximate impacts of wetlands and streams.

i. Design Report

The CONSULTANT shall prepare a Design Report to document the existing conditions within the corridor, and to summarize the design decisions and engineering details of the proposed action. Any rejected alternatives should also be documented to explain the justification for their rejection. The Design Report format will be supplied by the Department. If a design exception is required, the CONSULTANT shall prepare the

design exception document and shall provide supporting documentation to justify the exception.

j. Project Team Meetings

Project team meetings will be held periodically over the course of the Preliminary Design. Informal meetings (in-person or virtual) will take place, when needed, to discuss design details, coordinate internal DEPARTMENT meetings, coordinate submissions, environmental documentation, or other information to clarify expectations and advance the project are included in the Preliminary Engineering, Environmental, and Public Involvement efforts.

Formal Project Meetings (in-person or virtual), as referred to as Over-the-Shoulder Meetings, requiring multiple Bureaus and formal decisions when questions and issues that may include resource constraints, impacts of alternatives, schedule, and cost issues. These meetings will involve CONSULTANT and DEPARTMENT staff, but may also include representatives of the Town, Southern NH Planning Commission, state or federal agencies, or others as appropriate.

It is anticipated that a total of six (6) project team meetings will be held for the duration of the project. These meetings are in addition to the working group and public informational meetings listed under the Public Participation section below.

k. Approved action deliverables

The CONSULTANT'S final submission shall include hard copy of plans, as well as electronic CAD/D files. The CAD/D files shall consist of the base plans with enhancements in MicroStation format, using DEPARTMENT naming conventions, line styles and character styles. The CAD/D files shall also contain a proposed 3D top line model, complete out to the slope limits. The horizontal, vertical (profiles), and pavement layout shall allow further development toward final design. In addition, the following shall be provided for the preferred alternative: design calculations to support superelevations, preliminary traffic control plan/critical sections, draft construction schedule, proposed right-of-way layout, major utility impacts documented, draft typical sections, cost estimate with supporting quantity calculations, and outstanding issues/concerns.

l. Computer Aided Design/Drafting (CAD/D) files:

All CAD/D files shall be in accordance with the Deliverable Requirements described in the DEPARTMENT'S CAD/D Procedures and Requirements in effect at the time this AGREEMENT was executed, or any later version. All files submitted must be fully compatible with the current version of MicroStation being used by the DEPARTMENT.

(The DEPARTMENT'S CAD/D Procedures and Requirements document can be found on the CAD/D website by following the "Downloads" link at www.nh.gov/dot/cadd/ .).

At the completion of Preliminary Design, the Consultant shall provide the Department a 3D model of the proposed top roadway surface (LandXML (preferred) or DTM format) for the preferred alternative only. This model will include basic elements such as roadway super-elevation, side slopes, location of curbs, sidewalks, guardrail, BMP measures (water quality location identified but not fully designed with final grades) and retaining walls. No detailed intersection or driveway modeling will be included.

2. Environmental Documentation

a. Data Collection

The CONSULTANT shall review relevant data sources to identify all environmental resources and/or constraints present within the Project Area. Resources to be identified include:

i. Water-Based Resources

1. Groundwater: Data regarding aquifers, public water supplies and wells within the study area will be gathered from appropriate sources such as the GRANIT GIS database, New Hampshire Department of Environmental Services (NHDES) mapping, NHDES Drinking Water and Groundwater Bureaus, inventory data, municipal data or municipal mapping. The CONSULTANT will describe these resources and display them on project mapping. Data will also be needed to identify any sensitive resources directly adjacent and potentially down gradient of the project area. The mapped resources will be assessed and described in terms of their current and potential use and their relative proximity and potential hydrological connection to the project area. In addition, consideration shall be given to stormwater conveyance and treatment in the vicinity of the drinking water supplies and wellhead protection areas.
2. Surface Waters: The CONSULTANT will review all current regulatory requirements and constraints associated with surface water resources which will be identified and summarized in the environmental document. A review of the most recently approved State 303(d) list will be conducted to identify water quality impairments and Total Maximum Daily Loads (TMDLs) within the project area. The proposed action and alternatives, if necessary, will be assessed to determine adherence to any existing TMDL implementation plans, watershed management plans, and active water quality related permits including but not limited to NHDES

Alteration of Terrain (AOT) and; EPA NPDES for Small Municipal Separate Storm Sewers (MS4), and for Construction activities (CGP).

The CONSULTANT will investigate appropriate water quality treatment measures necessary to minimize nutrient impacts on surface waters. This shall include a pavement area analysis to determine the percent of the pavement treated prior to discharge with the goal of 100% capture and treatment. The approximate size and placement of structural Best Management Practices (BMPs) will be shown at the Public Hearing. BMP placement and type will be compliant with current AOT requirements and consideration soil conditions, depth to bedrock, groundwater tables, wellhead protection areas, drinking water protections, groundwater protections, and the proximity to the project's stormwater discharge points.

The CONSULTANT will assess chloride (salt) loadings based on the number of travel lanes for the existing and proposed facility. An assessment of existing operational BMPs will be conducted and compared to the Department's MS4 procedures for winter maintenance and presented in the environmental document.

3. Floodplains: FEMA floodplain and floodway information will be gathered from appropriate sources and displayed on project mapping.
4. Wetlands: The CONSULTANT will delineate wetlands and determine their functions and values within the study area limits based on state and federal criteria and will collect sufficient field data to document the delineation. Wetlands will continue to be identified using the 2007 wetland permit numerical designation. If access to private property is required, landowners will be notified by the DEPARTMENT. The CONSULTANT will survey wetland flagging using a GPS unit with sub-meter accuracy. The CONSULTANT will note any unusual features such as invasive species, disturbed areas, or uncommon wetland types such as bogs or vernal pools. This information will be provided in plan format and in a report that is stamped by a Certified Wetland Scientist (CWS) with a current NH certification, which includes the location of the features, classifications of wetlands present within the wetlands, descriptions of the each wetland's hydrology, soils and vegetation, flagging number system of each delineated feature, photographs, functions and values (including the Wetlands Function-Value Evaluation Form from the Highway Methodology Workbook Supplement), Wetland Determination Data Plot Forms with paired upland and wetland sample data points, and the results of the stream crossing assessments. If required, the CONSULTANT will identify

potential wetland mitigation opportunities either within the project corridor or the surrounding area.

5. Stream Crossings: The CONSULTANT will identify all intermittent and perennial stream crossings within the project study limits. The CONSULTANT will complete stream crossing field data collection assessments for any of the streams identified as tier 3 in accordance with Env-Wt 900 and any applicable NHDOT field data collection forms. The delineations at streams shall be at a minimum 100' upstream and downstream of the crossing. Data collection shall include a longitudinal profile through the crossing with relative inlet and outlet invert elevations and upstream and downstream streambed elevations. The CONSULTANT will determine the watershed size for each crossing and determine the corresponding Tier classification using the USGS Stream Stats tool. The CONSULTANT will perform Stream Crossing Evaluations in accordance with the NHDES Stream Crossing Rules Env-Wt 900 series to aid in determination of a design that meets the NHDES Stream Crossing Guidelines and/or alternative design. The specific streams crossing assessments and evaluations are identified in ATTACHMENT A.

ii. Land-Based Resources

1. Soils: Soil series within the study area will be mapped based on existing databases, including the distribution of prime, statewide, local, or unique farmland soils.
2. Active Farmlands: Active farmlands will be identified and described.
3. Public and Conserved Lands: Publicly owned lands, bicycle and pedestrian trails, and privately conserved lands will be identified.
4. Section 4(f) Resources: Public parks, historic sites, fish and wildlife refuges, or other areas subject to Section 4(f) will be identified.
5. Section 6(f) Resources: Lands receiving Section 6(f) funds will be identified based on coordination with the Department of Natural & Cultural Resources (DNCR) the NH Department of Resources and Economic Development.

iii. Wildlife

1. Wildlife and Habitat: Wildlife resources will be identified with information from the NH Wildlife Action Plan and supplemented as needed by field reconnaissance.
2. Fisheries: The fisheries resource information will be updated based on coordination with NH Fish and Game and the US National Marine Fisheries Service.

3. Threatened and Endangered Species: Threatened and endangered species information will be gathered through coordination with the NH Department of Natural and Cultural Resources, NH Fish and Game Department, and the US Fish and Wildlife Service, as well as field investigations. The CONSULTANT will use the US Fish and Wildlife Service's on-line Information for Planning and Consultation (IPaC) tool for review of identified federally-listed species, as well as the Natural Heritage Bureau's datacheck tool.

iv. Cultural Resources (Historic):

The CONSULTANT will prepare and submit, through the DEPARTMENT, a NH Division of Historical Resources (NHDHR) Request for Project Review (RPR) form for Transportation projects or the Section 106 Programmatic Agreement Appendix A or B Certification Forms, as applicable. The CONSULTANT will be responsible to complete all National Register eligibility survey forms in accordance with NHDHR Survey Policy and Manuals. The CONSULTANT will conduct all Section 106 public outreach efforts with Consulting Parties and municipalities. The CONSULTANT will prepare a draft effect memo and, if needed, e106 for submission to the Advisory Council on Historic Preservation and a Memorandum of Agreement for the Adverse Effect. If needed, following a determination of adverse effect, the CONSULTANT will coordinate with the DEPARTMENT, the lead federal agent, NHDHR, and Consulting Parties on appropriate mitigation.

Preparation of an Architectural Survey Plan (ASP) is assumed as a planning document for NHDHR.

v. Cultural Resources (Archaeology):

The CONSULTANT shall undertake a Phase IA Archaeological Sensitivity Assessment followed by a Phase IB Intensive Archaeological Investigation of areas of sensitivity that may be impacted by the project alternatives, if necessary. The CONSULTANT shall produce a comprehensive report indicating the results of the investigations, identifying areas of sensitivity, and presenting recommendations, if needed for Phase II Determination of Eligibility and Phase III Data Recovery. The CONSULTANT shall complete all necessary phases of archaeology as required to reach a Public Hearing, understanding that additional phases may be completed in Part B.

Should the Phase IA investigation identify any sensitive areas that may be impacted by the design alternatives, these areas may be further evaluated through a

Phase IB investigation to determine if resources are present. The CONSULTANT will provide a report in Part A to summarize Phase IA/IB findings and recommendations. Phase II and any other archeological investigations will be included as an environmental commitment in the NEPA documentation and advanced during Preliminary Design (Part B) of the project.

vi. Social and Economic Resources:

The DEPARTMENT will develop the socio-economic analysis of the regional social and economic resources. The CONSULTANT will review the Department's analysis and identify the relationship between the study area transportation/circulation pattern, regional and local municipalities' Master Plans, and the businesses and residents within its immediate influence. The CONSULTANT will prepare a short narrative that summarize the applicability of the Department's analysis to this corridor.

vii. Noise:

The CONSULTANT shall perform, as necessary, tasks required to assess the potential effects on noise levels at receptors adjacent to the project to determine and/or achieve compliance with the FHWA Procedures for Abatement of Highway Traffic Noise and Construction Noise (23 CFR 772) and the DEPARTMENT'S *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I and Type II Highway Projects* (the Noise Policy).

The project is anticipated to be a Type I project with scope to include existing conditions noise monitoring, model development and consideration of mitigation. The study will be prepared in accordance with the DEPARTMENT'S 2016 Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I Highway Projects and FHWA's 2011 *Highway Traffic Noise: Analysis and Abatement Guidance*. The noise study will include the following specific sub-tasks:

1. **Identification of Receptors.** A review of existing land use will be conducted based on aerial photography and field reconnaissance to identify noise sensitive receptors within approximately 200 feet of the project per the Noise Abatement Criteria activity classifications. The status of any proposed developments will be researched to determine if any may be considered "permitted" before the NEPA process is completed and thus potentially require assessment of noise impacts and mitigation.
2. **Noise Monitoring for Model Validation.** Existing conditions noise monitoring will be conducted for up to six locations (with one set of measurements at each

location). Traffic counts (including vehicle classification) will be conducted simultaneously. The sound level meter will meet or exceed the requirements set forth in the ANSI S1.4-1983 Standards for Type I quality and accuracy.

3. **GIS data analysis and Traffic Noise Model (TNM) input data development.** This task includes obtaining TNM input data (elevation, roadways, receptors, tree zones, ground zones etc.) and processing this data for entry into the model.
4. **TNM modeling.** The noise model will be validated for the six monitoring locations. An existing conditions model will be developed and run using 2019 traffic volumes/classification consistent with the baseline condition developed for the traffic study. Two future Build condition models will be developed—one for the 2026 opening year and one for the 2046 design year. A spreadsheet format will be used to summarize existing and future traffic noise levels and quantify the number of noise impacts per the DEPARTMENT'S traffic noise policy. The Build condition TNM modeling will be conducted for the preferred alternative only, potential differences with other alternatives will be discussed qualitatively for NEPA purposes.
5. **Noise abatement.** If noise impacts are predicted, noise abatement measures will be evaluated for feasibility and reasonableness. This will include modeling of possible noise barrier reasonableness per the 2016 DEPARTMENT noise policy.
6. **Information for Noise-Compatible Land Use Planning.** The approximate distance to the future 2046 66 dBA contour line will be disclosed in the technical memo to inform future land use planning (a detailed future noise contour map is not included).
7. **Report.** A brief noise technical memo will be prepared to document the study results and recommendations. One round of review/revision by the DEPARTMENT is assumed.

viii. Air Quality:

The CONSULTANT shall perform, as necessary, tasks required to assess the potential air quality impacts of the project to determine and/or achieve compliance with the State of New Hampshire Air Quality Implementation Plan, and the provisions set forth in the Clean Air Act Amendments (CAAA) and the National Environmental Policy Act (NEPA).

As a former nonattainment area for 1997 8-hr ozone NAAQS, the project area is subject to EPA's November 2018 *Transportation Conformity Guidance for the South*

Coast II Court Decision. The NEPA documentation will discuss this guidance and the compliance of the project with transportation conformity. It is assumed that there will be no need for formal CO or PM2.5 hot-spot analysis and interagency coordination for purposes of transportation conformity. For NEPA purposes, a qualitative analysis indicating changes in LOS and traffic volumes and comparing the proposed conditions to other similar projects found not to result in significant air quality impacts will be completed. No quantitative regional emissions analyses are included.

ix. Invasive Species:

The CONSULTANT will determine the presence of invasive species in conjunction with other project field investigations. The type and extent of each distinctive invasive plant population will be identified within the project limits. Approximate locations of populations will be located with GPS and shown on the project plans.

x. Contaminated Properties:

A database search will be undertaken to identify areas with records of hazardous materials or contamination within 1,000 feet of the project limits. This work will also require a review of historic aerial photographs to evaluate past and current land use, and field surveys of the project area to look for observable physical evidence of contamination or potential contamination sources. This information will be described in a summary report that includes a list of all parcels with potential contamination concerns. The CONSULTANT will coordinate with the DEPARTMENT's Bureau of Environment's Contamination Program to confirm findings and will assess measures required to conduct geotechnical investigations within areas of potential contamination.

xi. Limited Reuse Soil (LRS):

The CONSULTANT shall determine the quantity of LRS generated during construction, by phase if applicable, and determine the ability, due to quantities and any applicable construction phasing, to reuse the LRS within the project limits. The CONSULTANT shall determine and provide figures for potential temporary on-construction-site stockpile locations for excavated LRS.

xii. Construction Impacts:

The CONSULTANT shall perform, as necessary, tasks required to assess the potential construction impacts on the natural, cultural and socio-economic resources present within the project areas qualitatively and include identification of BMP's to

minimize impacts. Potential construction impacts and likely mitigation measures will be described. These may include detours during construction; erosion and sediment control; air, noise, and dust pollution; and special measures that may be needed to protect water quality.

b. Agency Coordination

The CONSULTANT will attend up to three (3) of the DEPARTMENT's monthly Natural Resource Agency meetings and coordinate a field meeting, if needed, with the agencies to review resource impacts. The CONSULTANT will also attend up to three (3) of the DEPARTMENT's monthly Cultural Resource meetings and possible field visit, with the lead federal agent and the NHDHR to discuss historic resources and Section 106 findings. The CONSULTANT will be responsible for supplying support graphics, making presentations and preparing meeting minutes.

c. Project Purpose and Need

The CONSULTANT will develop a formal Purpose and Need Statement for the project consistent with NEPA and other Federal guidelines.

d. Alternatives Development and Evaluation

The CONSULTANT will develop a Summary Matrix of the impacts and effects of the reasonable design alternatives for use by the DEPARTMENT and stakeholders as a planning tool determine the proposed alternative.

The summary matrix will quantify the impacts of each alternative onto the project critical resources. For the purpose of the NEPA documentation, a detailed summary matrix is not anticipated. Rather, the alternatives screening and selection process will be summarized for the anticipated Non-Programmatic Categorical Exclusion.

e. Description of Proposed Action

The CONSULTANT will describe the Proposed Action in detail, including location, dimensions, traffic patterns, amenities or facilities such as pedestrian crossings, construction issues, and estimated costs. Conceptual plan, profile, and cross-section views will be included.

f. Environmental Impacts of the Proposed Action

As outlined in ATTACHMENT A, the CONSULTANT will identify resource impacts, potential measures to minimize or mitigate impacts, and possible resource enhancements that could be achieved by the Proposed Alternatives, for the following resources/impacts:

Land Use	Social and Economic Resources	Farmlands
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Air Quality	Noise	Groundwater Resources
Surface Water Resources	Chloride Loading	Pollutant Loading (TN, TP & TSS)
Floodplains	Wetlands	Wetland Mitigation
Wildlife/ Vegetation/ Fisheries	Threatened or Endangered Species*	Parks/Recreation/Conservation Lands
Cultural Resources	Hazardous Materials/Contamination	Limited Reuse Soils
Visual Resources	Environmental Justice (provided by the DEPARTMENT)	Construction Impacts
Summary of Impacts	Environmental Commitments	

An individual Categorical Exclusion (non-Programmatic) is assumed for purposes of the scope of work and cost. The environmental narrative accompanying the Categorical Exclusion documentation package is anticipated to be approximately 20 pages based on the size, type and context of the project. Mapping for the report will be limited to a topographic map and simple aerial overview (3-4 sheets). Agency correspondence and supporting materials will be provided in appendices.

The floodplain evaluation for the NEPA review will map the location of floodplain/floodway encroachments and discuss project compliance with Executive Order 11988.

For purposes of Section 7 compliance, it is assumed that the project will have “no effect” on federally-listed species.

Land acquisition impacts will be summarized, including any potential displacements.

A detailed analysis of neighborhoods, land use, community services, farmlands, energy and utilities is not anticipated to be required.

g. Section 4(f)

If necessary, the CONSULTANT will prepare a Section 4(f) evaluation that complies with applicable Federal laws and regulations, including Section 4(f) of the Department of Transportation Act, 23 CFR 774, FHWA’s *Section 4(f) Policy Paper*, and other resources as appropriate. The evaluation will include: a description of Section 4(f) resources; a description of any project “use” of the resources; an alternatives analysis, including a least

overall harm analysis; measures to minimize harm; coordination activities with NH State Historic Preservation Officer (SHPO), lead Federal agency; and conclusions.

Potential historic and parkland resources potentially subject to Section 4(f) will be identified and mapped. In terms of level of effort, it is assumed that the preferred alternative will have only a de minimis impact to Section 4(f) resources. An individual Section 4(f) review, that has extensive alternatives analysis requirements is not anticipated.

h. Section 6(f)

If any Section 6(f) properties are identified in the scope above and potential impacts to 6(f) properties are required to be quantified. Preliminary activities identified no section 6(f) resources; therefore this scope assumes that there are no 6(f) properties impacted.

i. Draft Environmental Document/Section 4(f) Evaluation

The Draft Environmental Document will document the resource impacts outlined in Section C.2.f above. The Environmental Document will incorporate, either directly or by reference, the alternatives analysis and conclusions reached in Section C.2.d above and in the subsequent selection of the proposed alternative. The document will also identify which environmental permits are required, but the actual permit applications will not be undertaken until final design. The Section 4(f) evaluation, resource reports, agency correspondence, and public meeting summaries will be appended. An administrative Draft will be prepared for review by the DEPARTMENT and the lead Federal agency. After comments are addressed by the CONSULTANT, the Draft Environmental Document will be submitted to the DEPARTMENT, the lead Federal agency, and all other parties as directed, for review. Four printed copies and 3 CDs of the Draft Environmental Document /4(f) Evaluation shall be provided by the CONSULTANT.

It is assumed that the level of environmental study for this project will be a Categorical Exclusion (CE) with supporting technical documentation.

j. Final Environmental Document/Section 4(f) Evaluation

Following review of the Draft Environmental Document and comments received at the Public Hearing, the CONSULTANT will meet with the DEPARTMENT and the lead Federal agency to review and address comments as needed. The CONSULTANT will then revise and resubmit the document. It is anticipated one review will be necessary. Four printed copies of the Final Environmental Document/4(f) Evaluation will be provided to the DEPARTMENT as well as 1 CD (or thumb drive) of the document.

It is assumed that the level of environmental study for this project will be an individual Categorical Exclusion with supporting technical documentation. The Draft Environmental

Document package will be revised based on DEPARTMENT and FHWA comments. Two rounds of DEPARTMENT review and one round of FHWA review are anticipated.

3. Public Participation

The CONSULTANT shall support a dynamic public participation process that enhances the DEPARTMENT'S "Public Involvement Procedures for New Hampshire Transportation Improvement Projects". The CONSULTANT shall prepare presentation graphics, handouts and support displays for public participation and posting to the DEPARTMENT's project webpage and be available to make presentations and draft meeting minutes. Specific tasks include:

a. Prepare a Public Involvement Plan

The CONSULTANT will prepare a Public Involvement Plan outlining all elements of the tasks listed below. Virtual tools (mobile applications, visualizations, do-it-yourself videos, crowdsourcing, virtual town hall, etc.) should be considered as part of the plan and used when appropriate. It is envisioned the Public Involvement Plan will kick-off the public outreach for the project by initiating contact and input with the Town, setting public involvement goals and expectations, and include a detailed schedule of all activities. It is assumed that implementation of the plan will be a joint effort, performed by the Consultant, the DEPARTMENT, and the Town. The following tasks will be outside of the CONSULTANT scope of work:

- Preparation of public informational meeting/hearing notices.
- Coordination and reservation of meeting spaces.
- Mailing list development and coordination.
- Formally responding to public inquiries (outside of the public hearing, public informational and working group meetings). It is envisioned that the DEPARTMENT will respond to public inquiries with CONSULTANT's input.

FHWA Every Day Counts Initiative 5: An allowance has been established for encouraging virtual public involvement throughout the duration of the project. These efforts are intended to supplement the graphic material prepared for the Working Group, Public Official, and Public Informational meetings:

- Provide content for the project website hosted on the DEPARTMENT site.
- Provide content for social media accounts the Department currently maintains.
- Incorporate polling and survey tools, such as interactive, real-time polling by text into Public Meetings and workshops.

- Live-stream meetings on social media and post 'educational' videos of the project in-between meetings
- The CONSULTANT shall help prepare one questionnaire/survey for each of the public informational meetings to solicit additional input on the design alternatives. MetroQuest is an online public engagement tool that utilizes game-like planning techniques to create compelling, interactive, and educational surveys. MetroQuest is currently licensed by the DEPARTMENT offering 14 screen templates designed to optimize engagement quickly (within five minutes) and the platform is compatible with any device – laptops, tablets, smart phones, and kiosks. The CONSULTANT will support the creation of said surveys through the DEPARTMENT.
- The CONSULTANT shall gather and draft responses to public inquiries received through the project website and other social media outlets for approval and distribution. The CONSULTANT shall prepare meeting minutes for distribution amongst design team members.

b. Working Group / Project Advisory Committee Meetings

The CONSULTANT, in consultation with the Town, will assist the DEPARTMENT in identifying appropriate stakeholders and assembling a working group whose role will be to advise the design team on the development and evaluation of design alternatives. Working group meetings will be held as needed with project stakeholders to review and discuss alternatives and to facilitate local input into important design decisions. The CONSULTANT will prepare any needed informational handouts and presentation materials, will assist with presentations as needed, and will document the proceedings.

It is assumed that six (6) working group/technical advisory committee meetings will be held throughout the duration of the project. A Working Group meeting may be held in advance of the two public information meetings and in advance of the public hearing. The Group's expertise will assist in the formulation and exploration of the early, larger set of alternatives, will inform the development of the preferred alternative and will enhance the public hearing process. It is advantageous to garner the Working Group's feedback before sharing project progress with the public.

It is assumed that no more than 4-5 representatives from the CONSULTANT and its subconsultants will attend these meetings. Generally, no advertising is needed for the working group meetings, as once the working group is established, these meetings will be announced on the project website and/or by E-mail.

c. Public Informational Meetings & Public Official Meetings

Three (3) Public Informational Meetings and two (2) Public Official Meetings will be held to involve the public and other interested parties (including any Section 106 Consulting Parties) in the project development process. It is assumed the first Public Informational Meeting will take place early in the design to facilitate discussion of the reasonable range of design alternatives, while the second Public Informational Meeting will focus on the proposed action and will occur during the NEPA process prior to finalizing the Draft Environmental Document. The two (2) public officials' meetings are assumed to support the alternative decision-making and briefings with the Town leadership and/or planning level committees.

The CONSULTANT will prepare any needed informational handouts, presentation materials and graphics, and will assist with presentations and technology, as needed. As outlined in ATTACHMENT A, it is assumed the appropriate technical and number of staff to present, manage, conduct, support and facilitate meetings from the CONSULTANT and its subconsultants will attend these meetings. It is assumed that the following tasks will be outside of the CONSULTANT'S scope of work:

- Providing a stenographer to capture meeting minutes.
- Advertising the meeting in local media and project website.

d. Public Hearing

A formal Public Hearing will be held at the end of Preliminary Design for layout of the proposed action and environmental document to include the existing metes and bounds property boundary information. The CONSULTANT will prepare any needed informational handouts and presentation materials and will assist with presentations as needed. The CONSULTANT will also assist the DEPARTMENT in formally addressing comments received through the public hearing process.

D. SCOPE OF WORK (PROJECT MANAGEMENT)

Project management described in this section is not associated with the management of the design, it is defined to be services related to public interaction, supporting the DEPARTMENT's project manager, and coordinating and leading multi-discipline meetings during the duration of the design development, as assigned by the DEPARTMENT. The CONSULTANT's assignments will be determined based on the DEPARTMENT's availability due to the project schedule and conflicting responsibilities with other projects managed by the DEPARTMENT. The CONSULTANT may provide the following project management services during this contract:

- Coordinate with all Bureaus within the DEPARTMENT to track progress of requests, milestones and respond to questions. The DEPARTMENT's project lead shall be kept informed of all correspondence with other Bureaus.
- Managing project schedules and current construction estimates.
- Assistance, as needed, as a project liaison with the Town. The DEPARTMENT's project manager shall be the primary point of contact for the public.
- Lead internal meetings leading up to advertising the project, including but not limited to: Project Kickoff Meeting, Over-the-Shoulder Design Review Meetings, Estimate Review Committee Meetings, Traffic Control Committee Meetings, Natural and Cultural Resource Meetings, and Front Office Meetings.
- Lead internal review meetings between the CONSULTANT and the DEPARTMENT

E. QUALITY CONTROL

The CONSULTANT shall be the Engineer-of-Record for this work, as such the CONSULTANT shall be responsible to ensure that the design and supporting documentation is accurate, checked, and thoroughly reviewed prior to each submission. DEPARTMENT staff will review the CONSULTANT'S submissions to ensure that DEPARTMENT objectives are being met and standard practices and procedures are adhered to. It is the CONSULTANT's and the Engineer-of-Record's responsibility to ensure the design is complete, accurate and meets all DEPARTMENT requirements.

The DEPARTMENT will reject any data that does not comply with the above. The DEPARTMENT will decide when the data and services have fully met the project requirements. The CONSULTANT will not be paid for insufficient work.

The CONSULTANT's designated Quality Control personnel shall sign-off on each submission prior to transmittal to the DEPARTMENT. The CONSULTANT shall, upon request, provide to the DEPARTMENT any and/or all QC documentation pertaining to work efforts on the project.

F. MATERIAL FURNISHED BY THE DEPARTMENT OF TRANSPORTATION

The DEPARTMENT will furnish the following data to the CONSULTANT:

1. Electronic files in US Customary units of the following information in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements for incorporation into the plans by the CONSULTANT:
 - a. Any available electronic topographical mapping within the project area shall be provided along with any pertinent electronic supporting information (survey field notes, ASCII point file, SDR data files, etc.).

- b. Any additional topographic surveys of adjacent parcels, mitigation sites, wetland boundaries, or other pertinent items deemed necessary by the project team will be undertaken and processed by the DEPARTMENT. Incorporation of this information into the topographic base plan shall be the responsibility of the CONSULTANT.
 - c. Electronic drawings in MicroStation format of roadway typical cross-sections and other detail sheets shall be provided, when available from the DEPARTMENT'S CAD/D library, upon request by the CONSULTANT, in accordance with the current DEPARTMENT CAD/D Procedures and Requirements.
 - d. Electronic drawings in MicroStation format of the existing utilities, if provided to the DEPARTMENT by the utility. The CONSULTANT shall be prepared to provide an electronic copy of the preliminary base plans to the DEPARTMENT for submission to and use by the utilities. The CONSULTANT shall be responsible for the incorporation of this utility information (either in paper or electronic format) into the plans, in accordance with the current DEPARTMENT CAD/D Procedures and Requirements.
2. Prints of the following information:
 - a. Any information outlined in Article I.D.1.a thru d. above (electronic information) both existing and proposed, when available, for verification by the CONSULTANT.
 - b. Any additional information not available electronically (e.g., utilities) for the CONSULTANT to incorporate into the plans in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements.
 3. Right-of-Way data: Any additional information collected or prepared by the DEPARTMENT that could supplement the CONSULTANT's Right-of-Way Boundary (Section C.1.c.) (e.g., existing right-of-way layout per record plans, property lines to a tax map level, parcel owners, title abstracting, etc.) will be provided by the DEPARTMENT in MicroStation format for incorporation into the plans by the CONSULTANT.
 4. Plans of prior highway and bridge construction projects within the project limits, as available.
 5. The location of all existing and proposed utilities through direct contact with the various utility companies.
 6. Geotechnical investigations and recommendations, if available: Electronic files of the Environmental resource data collected in previous studies.
 7. Crash data and Safety Analysis within the study area.
 8. Ground survey, as needed, within the study area to supplement the digital surface model. The DEPARTMENT will process the raw survey data and incorporate into the digital surface model.

G. WORK SCHEDULE AND PROGRESS REPORTS

The CONSULTANT shall begin performance of the services designated in the AGREEMENT promptly upon receipt from the DEPARTMENT of a Notice to Proceed and the material to be furnished as herein described. The CONSULTANT shall complete these services without delay unless unable to do so for causes not under the CONSULTANT'S control.

The CONSULTANT'S sequence of operation and performance of the work under the terms of this AGREEMENT shall be varied at the direction of the DEPARTMENT to give priority in critical areas so that schedules and other STATE commitments, either present or future, can be met.

The CONSULTANT shall report progress to the DEPARTMENT in conjunction with DEPARTMENT'S Standardized Invoicing process. Invoices shall be submitted for each month that there has been more than \$10,000 in cumulative billable work since the last invoice, and at least quarterly. For months with no progress or less than \$10,000 cumulative work since the last invoice, a status report briefly describing the reasons for little or no progress shall be submitted.

H. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS

The submissions shall be as necessary in accordance with the study process and environmental analysis as outlined above. Each submission shall be supplemented with such electronic copies of MicroStation drawings, illustrations, and descriptive matter as are necessary to facilitate a comprehensive understanding and review of proposed concepts.

The CONSULTANT will be expected to support their design proposals and any issues resulting from review by the DEPARTMENT or in the public participation phase (including agency coordination), with alternative studies and reasonably itemized cost comparisons for alternate concepts.

1. **Presentation and Documentation:** The CONSULTANT shall prepare updated colored presentation plans at each formal submission and for presentation at DEPARTMENT meetings as defined below. This is in addition to any public informational/hearing meetings.
2. **Technical Reports:** The CONSULTANT shall prepare technical reports, as necessary, throughout the duration of the project to document and summarize relevant technical data. This includes, but is not limited to: Design Report, stormwater reports, or Geotechnical Reports. The intent is to support the design through documentation of critical design decisions with technical reports and supporting material.
3. **Design Report:** The CONSULTANT shall update the Design Report using the NHDOT's most recent form, at each submission to document the existing conditions within the project, and to summarize the design decisions and engineering details of the proposed action.
4. **Design Exceptions:** Design exceptions, if required, will be completed by the CONSULTANT.

5. Project Collaboration Meetings: It is expected that over the course of the project, a series of informal collaboration meetings will be held. These collaboration meetings, attended by key Department staff and key Consultant staff, are to be held well in advance of formal submissions. The Consultant will update Department staff on the project status and their approach to various design issues followed by an open and collaborative discussion with Department staff and the Consultant team sharing their thoughts and suggestions on how best to advance the design. Meetings and staff requirements have been identified in ATTACHMENT A. The consultant shall be responsible for scheduling the meetings, preparing an agenda and other presentation materials, and for preparing meeting notes.
6. Project Management Meetings: It is expected that over the course of the project, Project Management Meetings will be held at least bi-monthly through the duration of the design. They will take place to discuss a variety of project management issues, such as outstanding issues, and design schedule. The CONSULTANT shall be responsible for meeting minutes.
7. Department Meeting Presentations: The CONSULTANT shall prepare, present, and explain the project when requested by the DEPARTMENT. These meetings could include, but aren't limited to, Front Office, Estimate Review Committee, Traffic Control Committee, Design Submission meetings, Pre-Advertising meeting, Natural and Cultural Resource meetings. This shall include the preparation and explanation of sketches, alternatives, and plans during the project development process. Meeting notes and conference report memos shall be the responsibility of the CONSULTANT.

Upon completion of the AGREEMENT, the CONSULTANT shall turn over all documentation, including, but not limited to, all reports, test results, drawings, plans, and all financial supporting documentation in their original format and in the format submitted to the DEPARTMENT.

I. DELIVERABLES

All work and supporting documents compiled under this AGREEMENT shall be developed by the CONSULTANT and delivered to the DEPARTMENT according to the following formats:

Electronic Transfer of Data: The DEPARTMENT requires the following to ensure compatibility with software used by the DEPARTMENT and to ensure the efficient and timely exchange of computer files between the DEPARTMENT and the CONSULTANT.

All files submitted must be fully compatible with the formats listed in this document without any conversion or editing by the DEPARTMENT. Any files requiring conversion and/or editing by the DEPARTMENT will not be accepted. All files shall be virus free. All files shall use the DEPARTMENT'S file naming convention.

Computer Aided Design/Drafting (CAD/D) files: All CAD/D files shall be in accordance with the Deliverable Requirements described in the DEPARTMENT'S CAD/D Procedures and Requirements in effect at the time this AGREEMENT was executed, or any later version. All files submitted must be fully compatible with the current version of MicroStation being used by the DEPARTMENT. (The DEPARTMENT'S CAD/D Procedures and Requirements document can be found on the CAD/D website by following the "Downloads" link at www.nh.gov/dot/cadd/.)

Word Processing, Spreadsheet, and Database Files: For each Phase, all relevant files shall be provided in a format fully compatible, as appropriate, with the following:

- Word Processing: Microsoft Word 2016 or NHDOT compatible version
- Spreadsheets: Microsoft Excel 2016 or NHDOT compatible version
- Databases: Microsoft Access 2016 or NHDOT compatible version

These specifications will be updated as necessary to reflect changes in DEPARTMENT software such as adding new software or updating to new versions of existing software. In such instances, the CONSULTANT will be promptly notified.

Computer File Exchange Media: Electronic files shall be exchanged between the DEPARTMENT and the CONSULTANT using the following media as appropriate for Windows Operating Systems:

- USB Flash Drive: Files on flash drives should be actual size, not compressed.
- File Transfer Sites: Bluebeam, SharePoint
- Email: Files 20 MB or smaller may be transferred via email. If compressed, the files should be self-extracting and encrypted based on content.

Copies: The Consultant shall provide hard (paper) and electronic copies of the deliverables for each Phase of Work. For all deliverables, provide electronic copies in two electronic versions; an electronic version in the original electronic file format (i.e., MicroStation (*.dgn), Microsoft Word (*.docx), Microsoft Excel (*.xlsx), etc.) and an electronic version in Adobe Acrobat (*.pdf) file format.

Website Information:

- Website Content: All external NHDOT websites created under this AGREEMENT shall meet the ADA Section 508 requirements as stated in the NH DoIT Website Standards. Those standards are outlined in Vendor Resources and Procurement | NH Department of Information Technology.
- Website Documents: All documents posted to a website created for this project, or that are submitted to be posted to a NHDOT website, shall meet ADA Section 508 accessibility requirements. A checklist for document compliance is provided in <https://www.section508.gov/create/>.

Upon completion of the AGREEMENT, the CONSULTANT shall turn over all documentation, including, but not limited to, all reports, test results, drawings, plans, and all financial supporting documentation in the formats described above.

J. DATE OF COMPLETION

In accordance with the Governor and Council Resolution authorizing this AGREEMENT, the date of completion for the Preliminary Design (Part B) professional services rendered under this AGREEMENT is June 30, 2026.

ARTICLE II

ARTICLE II – COST PLUS FIXED FEE COMPENSATION OF CONSULTANT

A. GENERAL FEE

In consideration of the terms and obligations of this AGREEMENT, the STATE, through the DEPARTMENT, hereby agrees to pay and the CONSULTANT agrees to accept as full compensation for all services rendered to the satisfaction of the DEPARTMENT under this AGREEMENT, an amount equal to the sum of the following costs:

- 1) Actual salaries approved by the DAPARTMENT paid to technical and other employees by the CONSULTANT, including salaries to principals, for the time such employees are directly utilized on work necessary to fulfill the terms of this AGREEMENT.

An overtime premium of one and one half times the direct labor rate for non-exempt employees working beyond the standard 40 hours per workweek may be allowed for special circumstances when approved by the DEPARTMENT in writing in advance. The overhead portion of non-exempt employees' salary rates shall not be adjusted. Engineers are not eligible for overtime premium rates.

Direct salary costs are estimated at:

\$389,488.20

- 2) Overhead costs applicable to the direct salary costs. The audited indirect cost rate, as submitted to and approved by the DEPARTMENT, will be applied to the direct salary costs. The CONSULTANT'S audited indirect cost rate for fiscal year ending December 31, 2022, 157.28% shall be used for invoicing for the life of the AGREEMENT.

Overhead costs are estimated at:

\$612,587.04

- 3) A fixed fee amount based on the estimated risk to be borne by the CONSULTANT [maximum 10.00% of Labor Costs (including overhead costs)] for profit and non-reimbursed costs.

The fixed fee is:

\$100,207.52

- 4) Reimbursement for direct expenses, including, but not limited to, subconsultants with a subcontract value of less than \$200,000, printing, reproductions and travel not included in normal overhead expenses. The reimbursable costs for mileage and for per diem (lodging and meals) shall be

ARTICLE II

that allowed by the CONSULTANT'S established policy but shall not exceed that allowed in the Federal Acquisition Regulations (Subpart 31.205-46) and in the Federal Travel Regulation. Mileage and per diem costs shall be subject to approval by the DEPARTMENT. Subconsultants with a subcontract value of less than \$200,000 shall be invoiced as direct expenses and do not require individual invoices.*

Direct expenses are estimated at:

\$102,166.44

5) Reimbursement for actual cost of subconsultants is estimated as follows:

Fitzgerald and Halliday, Inc. \$174,465.88

Doucet Survey, Inc. \$113,044.70

AGREEMENT NOT-TO-EXCEED TOTAL \$1,491,959.78

The amount payable under categories 1), 2), 4), and 5) may be reallocated within the not-to-exceed total upon mutual agreement of the DEPARTMENT and the CONSULTANT. Reallocations shall be properly documented for Final Audit purposes, but do not require a formal amendment.

The total amount to be paid under this AGREEMENT shall not exceed \$1,491,959.78, the sum of the amounts shown in Article II, Section A (which amount is based on the CONSULTANT'S fee and manhour estimates of 7,331 hours), except by agreement of all parties made after supplemental negotiations and documented by a formal amendment to the AGREEMENT. Should circumstances beyond the control of the CONSULTANT require extension of the time of completion more than one (1) year, the general fee may be renegotiated and documented by a formal amendment to the AGREEMENT; however, the fixed fee (b) shall not change for reasons of work duration alone. The fixed fee (b) shall only change when there has been a significant increase or decrease in the scope of work outlined in this AGREEMENT.

B. METHOD OF COMPENSATION FOR SPECIAL ASSISTANT TO THE NHDOT SERVICES

The method of compensation for the Special Assistant to the NHDOT tasks under this agreement will be Specific Rates of Pay (The Contract Labor Rates for the Specific Rates of Pay format include profit.)

The following cost items are incorporated as part of this AGREEMENT:

ARTICLE II

1. **Contract Labor Rates** – The contract labor rate will be a firm-fixed-price for the duration of the AGREEMENT. The contract labor rates will be the total hourly wage for the labor classification including overhead, profit, and escalation of labor adjustment, as follows:

- a. Direct Labor Rate (\$104.35/hr.)
- + b. Direct Labor Rate x Overhead Rate (157.28%)
- + c. (\$104.35) + (\$164.12) x 1.10*
- = Contract Labor Rate (\$295.32/hr.)

*Rate of Profit

SPECIAL ASSISTANT TO THE NHDOT CONTRACT LABOR RATES (PER HOUR)

<u>Classification</u>	<u>Hourly Rate</u>	<u>OH Rate</u>	<u>Profit</u>	<u>Contract Labor Rate</u>
Special Assistant to the NHDOT	\$ 104.35	\$ 164.12	\$ 26.85	\$ 295.32

* The Contract Labor Rates in the above table shall apply for any 24 hours of the day. No overtime pay will be allowed.

The CONSULTANT shall not work overtime without prior approval of the DEPARTMENT.

- 2. **Overhead Factor** - The negotiated overhead factor for Special Assistant to the NHDOT (157.28%) shall remain fixed at that rate for the life of the Contract and shall not be subject to change as a result of a final audit.
- 3. **Profit** - The fixed cost per hour for profit shall remain fixed for the life of the AGREEMENT. The negotiated rate and cost per hour for profit for this AGREEMENT is 10% which relates to \$26.85/hour.
- 4. **Invoicing and Payment** - Payments on account of the fee for services rendered under this AGREEMENT will be made by the DEPARTMENT based on a completely itemized, project-by-project bill submitted on a monthly or other approved basis by the CONSULTANT. The CONSULTANT shall also submit with the itemized bill, Department approved backup weekly time sheets for the employee showing the charges by project and signed by a Department representative.

C. LIMITATION OF COSTS

- 1. Costs incurred against this AGREEMENT shall not exceed the total amount specified in Article II, Section A unless otherwise authorized. The CONSULTANT shall give the DEPARTMENT a ninety (90)-day written notice when it appears that this limit will be exceeded.
- 2. It is expected that the total cost to the STATE shall be the not-to-exceed amount specified in Article II, Section A, and the CONSULTANT agrees to use best efforts to perform the work

ARTICLE II

specified in the AGREEMENT and all obligations under this contract within this not-to-exceed amount.

3. The STATE shall not be obligated to reimburse the CONSULTANT for costs incurred in excess of the not-to-exceed amount specified in Article II, Section A.
4. Changes to the scope of work shall not be considered an authorization to the CONSULTANT to exceed the not-to-exceed amount specified in Article II, Section A.

D. PAYMENTS

Monthly payments on account of services rendered under this AGREEMENT may be made upon submission of invoices by the CONSULTANT to the DEPARTMENT. The CONSULTANT shall follow the DEPARTMENT'S Standardized Invoicing format. The fixed fee shall be invoiced during the billing period based upon the overall percent complete calculated within the approved progress report found in the DEPARTMENT'S Standardized Invoicing.

Actual salaries paid and the indirect cost rate shown in Article II, Section A, shall be used until such time as true costs of salary burden and overhead are fixed by Final Audit. At that time, payments shall be adjusted to agree with the indirect cost rates as determined by Final Audit for the period in which the work was performed, as approved by the DEPARTMENT.

E. ANNUAL INDIRECT COST RATE SUBMISSIONS

The CONSULTANT and all subconsultants with a subcontract value of \$200,000 or greater shall submit their audited indirect cost rate and related documents annually for the life of this AGREEMENT as follows:

To comply with the Federal Acquisition Requisitions (FAR), the CONSULTANT'S Indirect Cost Rate Audit must meet the following requirements:

- Be conducted by an independent Certified Public Accountant (CPA), a Federal government agency, or another state transportation agency.
- Be conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) issued by the U.S. Government Accountability Office (GAO) and with the cost principles and procedures set forth in Part 31 of the FAR.
- Follow the guidance of the most recent American Association of State Highway Transportation Officials Uniform Audit and Accounting Guide for Audits of Architectural and Engineering Consulting Firms (AASHTO Audit Guide).

In addition to the Indirect Cost Rate Audit, CONSULTANTS shall submit the following documentation:

ARTICLE II

- AASHTO Internal Control Questionnaire (ICQ) for Consulting Engineers form with the required attachments.
- Certification of Final Indirect Costs as required pursuant to 23 CFR 172.11 and FHWA Order 4470.1A.
- Complete copy of the CONSULTANT'S annual audited financial statements.
- Analysis of reasonableness of executive compensation as outlined in the AASHTO Audit Guide.
- Cognizant letter, if available.
- A listing of all contracts, with dollar amounts, the CONSULTANT has currently with the DEPARTMENT as a prime consultant or subconsultant.

Annual indirect cost rate submissions are due within 6 months of the CONSULTANT'S fiscal year end and shall be submitted to the DEPARTMENT'S Internal Audit Office electronically to DOT-InternalAudit@dot.nh.gov or in writing.

F. RECORDS, REPORTS AND FINAL AUDIT

The CONSULTANT shall maintain adequate cost records for all work performed under this AGREEMENT. All records and other evidence pertaining to cost incurred shall be made available at all reasonable times during the AGREEMENT period and for three (3) years from the date of final expenditure report for examination by the STATE, Federal Highway Administration, or other authorized representatives of the Federal Government, and copies thereof shall be furnished if requested. Applicable cost principles are contained in the Federal Acquisition Regulations (FAR) in Title 48 of the Code of Federal Regulations (Subpart 31.2 and Subpart 31.105).

The DEPARTMENT shall have the right, at the time of Final Audit, to review all items charged on this project. If, in the opinion of the DEPARTMENT, such payment is unreasonable, the CONSULTANT shall be required to justify such payment or payments before they will be approved as direct or indirect costs.

All costs as described in Article II Section A.1 through A.5 are to be determined by actual records kept during the term of the AGREEMENT, which are subject to Final Audit by the STATE and Federal Governments. The final payment, and all partial payments made, may be adjusted to conform to this Final Audit. In no case will any adjustments exceed the not-to-exceed amount specified in Article II, Section A. All Subconsultant costs may also be subject to Final Audit by the STATE and Federal Governments.

ARTICLE III

ARTICLE III – GENERAL PROVISIONS

A. HEARINGS, ETC.

The DEPARTMENT will make all arrangements for and hold all necessary hearings in connection with the project.

B. CONTRACT PROPOSALS

After the CONSULTANT has furnished to the DEPARTMENT contract drawings, special provisions, specifications, and estimate of quantities by items, the DEPARTMENT will prepare the documents for receipt of proposals from construction contractors and for execution of a construction contract or contracts.

ARTICLE IV

ARTICLE IV – STANDARD PROVISIONS

A. STANDARD SPECIFICATIONS

The CONSULTANT agrees to follow the provisions of the Design Manuals, Standard Specifications for Road and Bridge Construction, and Standard Plans for Road and Bridge Construction of the DEPARTMENT; A Policy on Geometric Design of Highways and Streets and LRFD Bridge Design Specifications of the American Association of State Highway and Transportation Officials (AASHTO), and amendments thereto, and/or other professional codes or standards applicable to the services to be performed under this AGREEMENT. When a publication (including interim publications) is specified, it refers to the most recent date of issue in effect at the time of execution of this AGREEMENT.

B. REVIEW BY STATE AND FHWA – CONFERENCES – INSPECTIONS

It is mutually agreed that all portions of the work covered by this AGREEMENT shall be subject to the inspection by duly-authorized representatives of the STATE and Federal Highway Administration, United States Department of Transportation, at such time or times as the STATE or Federal Highway Administration deems appropriate.

The location of the office where the work will be available for inspection by STATE and Federal Highway Administration representatives is New Hampshire local office at 250 Commercial Street, Suite 3007 in the City of Manchester, State of New Hampshire.

It is further mutually agreed that any party, including the duly-authorized representatives of the Federal Highway Administration, may request and obtain conferences, visits to the site, and inspection of the work at any reasonable time.

C. EXTENT OF CONTRACT

1. Contingent Nature of AGREEMENT

Notwithstanding anything in this AGREEMENT to the contrary, all obligations of the STATE, including, without limitation, the continuance of payments, are contingent upon the availability and continued appropriation of funds, and in no event shall the STATE be liable for any payments in excess of such available appropriated funds. In the event of a reduction or termination of those funds, the STATE shall have the right to terminate this AGREEMENT.

2. Termination

The DEPARTMENT shall have the right at any time, and for any cause, to terminate the work required of the CONSULTANT by this AGREEMENT by written notice of such termination provided to the CONSULTANT by the DEPARTMENT, and, in the event of such a termination

ARTICLE IV

of this AGREEMENT without fault on the part of the CONSULTANT, the CONSULTANT shall be entitled to compensation for all work theretofore satisfactorily performed, pursuant to this AGREEMENT, such compensation to be fixed, insofar as possible, based upon the work performed prior to termination. If no contract or contracts for construction of the project contemplated by this AGREEMENT is (are) entered into within two (2) years after satisfactory completion of the services outlined in Article I, all of the services contemplated by this AGREEMENT shall be deemed to have been completed.

It shall be a breach of this AGREEMENT if the CONSULTANT shall fail to render timely the services required under this AGREEMENT, in accordance with sound professional principles and practices, to the reasonable satisfaction of the DEPARTMENT, or shall be in such financial condition as to be unable to pay its just debts as they accrue, or shall make an assignment for the benefit of creditors, or shall be involved in any proceeding, voluntary or involuntary, resulting in the appointment of a receiver or trustee over its affairs, or shall become dissolved for any cause. In the event of the happening of any one or more of the foregoing contingencies, or upon the substantial breach of any other provisions of this AGREEMENT by the CONSULTANT, its officers, agents, employees, and subconsultants, the DEPARTMENT shall have the absolute right and option to terminate this AGREEMENT forthwith, and, in addition, may have and maintain any legal or equitable remedy against the CONSULTANT for its loss and damages resulting from such breach or breaches of this AGREEMENT; provided, however, that as to all plans, drawings, tracings, estimates, specifications, reports, proposals, sketches, diagrams, and calculations, together with all material and data theretofore furnished to the DEPARTMENT by the CONSULTANT, of a satisfactory nature in accordance with this AGREEMENT, which plans, drawings, tracings, etc., are of use to the DEPARTMENT, the CONSULTANT shall be entitled to a credit, based on the contract rate for the work so performed in a satisfactory manner and of use and benefit to the DEPARTMENT.

D. REVISIONS TO REPORTS, PLANS OR DOCUMENTS

The CONSULTANT shall perform such additional work as may be necessary to correct errors in the work required under the AGREEMENT caused by errors and omissions by the CONSULTANT without undue delays and without additional cost to the DEPARTMENT.

Furthermore, prior to final approval of plans, specifications, estimates, reports, or documents by the DEPARTMENT, the CONSULTANT shall make such revisions of them as directed by the DEPARTMENT, without additional compensation therefor, except as hereinafter provided:

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1. If, after its written approval thereof, the DEPARTMENT shall require changes to the plans or documents that revise engineering or other factors specifically approved, thereby necessitating revisions of the contract plans or documents, or,
2. When applicable, if during the term of this AGREEMENT, a revision of the alignment is ordered by the DEPARTMENT to the extent that the revised alignment will lie completely or partially outside the limit of the survey data plotted by the CONSULTANT (this does not apply to those adjustments and refinements to the alignments anticipated under the scope of work), or,
3. If, after approval by the DEPARTMENT of the final contract plans or documents, the CONSULTANT shall be ordered in writing by the DEPARTMENT to make revisions, or to perform services other than those necessary to adapt said plans, reports, or documents to conditions observed during field inspections and encountered during construction; the CONSULTANT shall be entitled to compensation therefor in accordance with Article II, Section A, such compensation to be in addition to the fee specified in Article II, Section A, for its original work on the plans, reports or documents.

E. ADDITIONAL SERVICES

If, during the term of this AGREEMENT, additional professional services are required due to a revision in the limits of the project, or it becomes necessary to perform services not anticipated during negotiation, the DEPARTMENT may, in writing, order the CONSULTANT to perform such services, and the CONSULTANT shall be paid a fee in accordance with the provisions of Article II, Section A.

If, during the term of this AGREEMENT, additional professional services are performed by the CONSULTANT due to the fact that data furnished by the DEPARTMENT are not usable or applicable, the STATE will, upon written approval by the DEPARTMENT, reimburse the CONSULTANT for such additional design services in accordance with the provisions of Article II, Section A.

If additional services are performed by the CONSULTANT through its own acts, which are not usable or applicable to this project, the cost of such additional services shall not be reimbursable.

F. OWNERSHIP OF PLANS

All data, plans, drawings, tracings, estimates, specifications, proposals, sketches, diagrams, calculations, reports, or other documents collected, prepared, or undertaken either manually or electronically by the CONSULTANT under the provisions of this AGREEMENT, immediately shall become the property of the DEPARTMENT, and, when completed, shall bear the CONSULTANT'S endorsement. The CONSULTANT shall surrender to the DEPARTMENT, upon demand at any time,

ARTICLE IV

or submit to its inspection, any data, plan, drawing, tracing, estimate, specification, proposal, sketch, diagram, calculation, report, or document which shall have been collected, prepared, or undertaken by the CONSULTANT pursuant to this AGREEMENT, or shall have been hitherto furnished to the CONSULTANT by the DEPARTMENT. The CONSULTANT shall have the right, with the written approval of the DEPARTMENT, to use any of the data prepared by it and hitherto delivered to the DEPARTMENT at any later stage of the project contemplated by this AGREEMENT. Any reuse or modification of such plans for purposes other than those intended by the Consultant herein shall be at the Department's sole risk and without liability to the Consultant.

G. SUBLETTING

The CONSULTANT shall not sublet, assign or transfer any part of the CONSULTANT'S services or obligations under this AGREEMENT without the prior approval and written consent of the DEPARTMENT.

All subcontracts shall be in writing and those exceeding \$10,000 shall contain all provisions of this AGREEMENT, including "Certification of CONSULTANT/Subconsultant". A copy of each subcontract shall be submitted for the DEPARTMENT'S files.

For subconsultants working on design, hazardous materials, geotechnical services, etc., the minimum limits of their professional liability (errors and omissions) insurance coverage shall be not less than \$2,000,000 in the aggregate, with a deductible of not more than \$75,000. For subconsultant contracts with less risk, e.g., wetland evaluations, materials inspection and testing, structural steel fabrication inspection, underwater bridge inspection, research, bridge deck condition surveys, land surveying, mapping, noise studies, air-quality studies, etc., the minimum limits of their professional liability (errors and omissions) insurance coverage shall be not less than \$1,500,000 in the aggregate, with a deductible of not more than \$50,000. For subconsultant contracts with no risk, e.g., archaeology, cultural resources, data gathering, traffic counting etc., professional liability insurance shall not be required. Subconsultants completing field exploration for geotechnical, hazardous materials/environmental, and subsurface exploration shall also have pollution liability insurance coverage not less than \$2,000,000 in the aggregate, with a deductible of not more than \$75,000. If coverage is claims made, the period to report claims shall extend for not less than three years from the date of substantial completion of the construction contract.

H. GENERAL COMPLIANCE WITH LAWS, ETC.

The CONSULTANT shall comply with all Federal, STATE, and local laws and ordinances applicable to any of the work involved in this AGREEMENT and shall conform to the requirements

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and standards of STATE, municipal, railroad, and utility agencies whose facilities and services may be affected by the construction of this project. The services shall be performed so as to cause minimum interruption to said facilities and services.

I. BROKERAGE

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the STATE shall have the right to annul this Contract without liability, or, at its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

J. CONTRACTUAL RELATIONS

1. Independent Contractor

The CONSULTANT agrees that its relation to the STATE is as an independent contractor and not as an agent or employee of the STATE.

2. Claims and Indemnification

a. Non-Professional Liability Indemnification

The CONSULTANT agrees to defend, indemnify and hold harmless the STATE and all of its officers, agents, and employees from and against any and all claims, liabilities, or suits arising from (or which may be claimed to arise from) any (i) acts or omissions of the CONSULTANT or its subconsultants in the performance of this AGREEMENT allegedly resulting in property damage or bodily injury, and/or, (ii) misconduct or wrongdoing of the CONSULTANT or its subconsultants in the performance of this AGREEMENT.

b. Professional Liability Indemnification

The CONSULTANT agrees to indemnify and hold harmless the STATE and all of its officers, agents, and employees from and against any and all claims, liabilities, or suits arising from (or which may be claimed to arise from) any negligent acts or omissions of the CONSULTANT or its subconsultants in the performance of professional services covered by this AGREEMENT.

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- c. These covenants shall survive the termination of the AGREEMENT. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the STATE, which immunity is hereby reserved by the STATE.

3. Insurance

a. Required Coverage

The CONSULTANT shall, at its sole expense, obtain and maintain in force the following insurance:

1. Commercial or comprehensive general liability insurance, including contractual coverage, for all claims of bodily injury, death, or property damage, in policy amounts of not less than \$250,000 per occurrence and \$2,000,000 in the aggregate (STATE to be named as an additional insured); and
2. Comprehensive automobile liability insurance covering all motor vehicles, including owned, hired, borrowed, and non-owned vehicles, for all claims of bodily injury, death, or property damage, in policy amounts of not less than \$500,000 combined single limit; and
3. Professional liability (errors and omissions) insurance coverage of not less than \$2,000,000 per claim and in the annual aggregate. If coverage is claims made, the coverage shall be kept in effect for not less than three years from the date of substantial completion of the construction contract. No retention (deductible) shall be more than \$75,000; and
4. workers' compensation and employer's liability insurance as required by law.

b. Proof of Insurance

The policies described in paragraph (a) of this section and Section G shall be in the standard form employed in the STATE, issued by underwriters licensed or approved by the Department of Insurance of the STATE. Each policy shall contain a clause prohibiting cancellation or material modifications of the policy earlier than 30 days, or 10 days in cases of non-payment of premium, after written notice thereof has been received by the STATE. The CONSULTANT shall provide to the STATE a certificate of insurance evidencing the required coverages, retention (deductible), and cancellation clause prior to submittal of the AGREEMENT to Governor and Council for approval and shall have a continuing duty to provide new certificates of insurance as the policies are amended or renewed.

4. No Third-Party Rights

It is not intended by any of the provisions of the AGREEMENT to make the public, or any member thereof, a third-party beneficiary of the AGREEMENT, or to authorize anyone not a

ARTICLE IV

party to this AGREEMENT to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract. The duties, obligations, and responsibilities of the parties to this AGREEMENT with respect to third parties shall remain as imposed by law. No portion of this AGREEMENT shall be understood to be a waiver of the STATE'S sovereign immunity.

5. Construction of AGREEMENT

This AGREEMENT is executed in a number of counterparts, each of which is an original and constitutes the entire AGREEMENT between the parties. This AGREEMENT shall be construed according to the laws of the STATE.

K. AGREEMENT MODIFICATION

The assignment of the CONSULTANT, generally established by the scope of work in this AGREEMENT, shall not be modified in any way without prior approval of the Governor and Council.

L. EXTENSION OF COMPLETION DATE(S)

If, during the course of the work, the CONSULTANT anticipates that one or more of the completion dates specified in this AGREEMENT cannot be met, it shall be the CONSULTANT'S responsibility to notify the DEPARTMENT in writing at least ninety (90) days prior to the completion date(s) in question. The CONSULTANT shall state the reasons that a completion date(s) cannot be met and request a revised date(s) for consideration by the DEPARTMENT.

M. TITLE VI (NONDISCRIMINATION OF FEDERALLY-ASSISTED PROGRAMS)

COMPLIANCE

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees and successors in interest agrees as follows:

- (1) Compliance with Regulations: The CONSULTANT shall comply with Title VI of the Civil Rights Act of 1964 regulations relative to nondiscrimination in federally-assisted programs of the DEPARTMENT, such regulations entitled Title 49 Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the REGULATIONS), and which are herein incorporated by reference and made a part of this AGREEMENT.
- (2) Nondiscrimination: The CONSULTANT, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, religion, age, sex, handicap, sexual orientation, or national origin in the selection and retention of subconsultants, including procurements of materials and leases of equipment specific to this project. The CONSULTANT shall not participate either directly or indirectly in the discrimination

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prohibited by Section 21.5 of the REGULATIONS, including employment practices when the AGREEMENT covers a program set forth in Appendix B of the REGULATIONS.

- (3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a subcontract, including procurements of materials or leases of equipment specific to the project, each potential subconsultant or supplier shall be notified by the CONSULTANT of the CONSULTANT'S obligations under this AGREEMENT and the REGULATIONS relative to nondiscrimination on the grounds of race, color, religion, age, sex, handicap, sexual orientation, or national origin.
- (4) Information and Reports: The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the DEPARTMENT or the Federal Highway Administration to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the DEPARTMENT or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.
- (5) Sanctions for Noncompliance: In the event of the CONSULTANT'S noncompliance with nondiscrimination provisions of this AGREEMENT, the DEPARTMENT shall impose sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies; and/or
 - (b) cancellation, termination, or suspension of the AGREEMENT, in whole or in part.
- (6) The CONSULTANT shall take such action with respect to any subcontract or procurement as the DEPARTMENT or the Federal Highway Administration may direct as a means of enforcing such provisions, including sanctions for noncompliance, provided, however, that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a subconsultant or supplier as a result of such direction, the CONSULTANT may request the DEPARTMENT to enter into such litigation to protect the interests of the STATE, and, in addition, the CONSULTANT may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE IV

(7) 23 CFR 710.405(b) and Executive Order 11246 entitled "Equal Employment Opportunity," as amended by Executive Order 11375 and as supplemented in Department of Labor REGULATIONS (41 CFR Part 60), shall be applicable to this AGREEMENT and any subagreements hereunder.

(8) Incorporation of Provisions: The CONSULTANT shall include the provisions of paragraphs (1) through (7) in every subcontract, including procurements of materials and leases of equipment specific to the project, unless exempt by the REGULATIONS, or directives issued pursuant thereto.

In accordance with EXECUTIVE ORDER 11246, the DEPARTMENT has the authority and responsibility to notify the Office of Federal Contract Compliance Programs of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 CFR Part 60. The Office of Federal Contract Compliance Programs is solely responsible for determining compliance with Executive Order 11246 and 41 CFR Part 60 and the CONSULTANT should contact them regarding related compliance issues.

N. DISADVANTAGED BUSINESS ENTERPRISE POLICY REQUIREMENTS

1. Policy. It is the policy of the United States Department of Transportation (USDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE's), as defined in 49 Code of Federal Regulations (CFR) Part 26, to participate in the performance of agreements and any subagreements financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 apply to this AGREEMENT.
2. Disadvantaged Business Enterprise (DBE) Obligation. The STATE and its CONSULTANTS agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of agreements and any subagreements financed in whole or in part with Federal funds. In this regard, the STATE and its CONSULTANTS shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that disadvantaged business enterprises have the opportunity to compete for and perform work specified in the agreements. The STATE and its CONSULTANTS shall not discriminate on the basis of race, color, religion, age, sex, handicap, sexual orientation, or national origin in the award and performance of agreements financed in whole or in part with Federal funds.
3. Sanctions for Non-Compliance. The CONSULTANT is hereby advised that failure of the CONSULTANT, or any Subconsultant performing work under this AGREEMENT, to carry out the requirements set forth in paragraphs 1 and 2 above, shall constitute a breach of

ARTICLE IV

agreement and, after the notification of the United States Department of Transportation, may result in termination of this AGREEMENT by the STATE or such remedy as the STATE deems appropriate.

O. DOCUMENTATION

The CONSULTANT shall document the results of the work pursuant to the professional standard of care. This shall include preparation of progress reports, plans, specifications, and estimates and similar evidences of attainment of objectives called for in this AGREEMENT.

P. CLEAN AIR AND WATER ACTS

If the amount of the AGREEMENT or subcontract thereunder exceeds \$100,000, the CONSULTANT or subconsultant shall comply with applicable standards, orders, or requirements issued under Section 306 of the Federal Clean Air Act (43 U.S.C. 1857(h)), Section 508 of the Federal Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15), which prohibit the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities. The CONSULTANT or subconsultant shall report violations to the FHWA and to the U. S. Environmental Protection Agency Assistant Administrator for Enforcement (EN-329).



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**Bedford 40664 – US Route 3
Part B – Preliminary Design
Scope of Services and Fee Assumptions
New Hampshire Department of Transportation (NHDOT)**

Project Description

Bedford 40664 – US Route 3 (Daniel Webster Highway), from East Point Drive and the northernmost ramps of Manchester Airport Access Road (Raymond Wiczorek Drive) interchange to Hawthorne Drive (north) intersection, encompasses the study of approximately 1.7 miles of US Route 3 to improve safety and mobility for all users with the central goal of achieving an appropriate balance between the needs of motorized, non-motorized, and transit users of the corridor. Some of the existing highway features and conditions to be aware of include the following:

- “Route 3 Corridor Access Management Plan” along Daniel Webster Highway was completed in August 2007 by VHB for the town of Bedford.
- The segment of US Route 3 to be improved is mainly comprised of one travel lane in each direction with varying lane configurations at several intersections within the corridor.
- Several incremental roadway improvements have been made in recent years within the study area to mitigate traffic impacts from private developments. These localized improvements include traffic mitigation with the addition of through lanes, turning lanes, shoulder widening and traffic signals installations.
- The corridor is subject to peak traffic volumes, which restricts mobility particularly in the vicinity of the key intersections.
- Shoulder widths are inconsistent, and the sidewalk is generally limited to the ends of the project study area, which significantly hinders the mobility of non-motorized users.
- There are numerous private and commercial driveways within the corridor.

This “Part B” contract includes Preliminary Engineering, Public Participation and National Environmental Policy Act (NEPA) Documentation services to evaluate and determine a selected alternative that meets funding constraints and approval by the public and environmental agencies. “Part C” services beyond the Pre-Preliminary Design Phase are not included in the contract. “Part B” of this project will focus on close coordination with the stakeholders; development of a proposed alternative that is technically feasible, environmentally permissible, and economical; development of an approved Draft Environmental Study; and bringing the proposed alternative to a public hearing for NEPA and ROW layout approval, as needed.

Purpose & Objective

The objective of the project is to develop an alternative that will improve the safety and mobility along the US Route 3 corridor for all users within the context of the prior corridor access management objectives. The purpose of this first phase of the project is to deliver an alternative development process that will:

- 1) Research, collect gather, and analyze existing traffic (motorized, bike and pedestrian) and geometric conditions.
- 2) Identify impacted natural and cultural resources potentially affected by the alternatives and investigate means of minimizing or mitigating the impacts.
- 3) Develop and assess improvement alternatives to address traffic operations and safety for all modes of transportation within the US Route 3 corridor between the Airport Access interchange and

Hawthorne Drive. Evaluation of the alternatives includes preliminary engineering, impact analysis, conceptual cost estimating, and preparation of exhibits to assist in the decision-making process.

- 4) Prepare a Public Outreach Plan and Program to engage public and private stakeholders in the selected alternative decision-making process consistent with the Department's "Public Involvement Procedures for New Hampshire Transportation Improvement Projects."
- 5) Prepare an Environmental Document for the proposed alternative.
- 6) Assist with NEPA/ROW public hearing plan for the proposed alternative and obtain approval for advancing into Part C.

This Part B Scope and Fee Assumptions document is HDR's interpretation of the "BEDFORD 40664, X-A004(462), US ROUTE 3 IMPROVEMENTS, PART 'B' SCOPE OF WORK" defined by the NHDOT in Article 1 of the Contract.

Client Information

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

HDR Team

Prime Consultant: HDR Engineering, Inc. (HDR)

Subconsultants:

Doucet Survey Inc. (DSI) - Boundary Survey & ROW Lead
Fitzgerald & Halliday, Inc. (FHI) – Public Outreach Lead
Independent Archeological Consulting, Inc. (IAC) – Archeological Subconsultant
Preservation Company (PC)– Historical Subconsultant
Accurate Counts – Traffic Counts
Normandeau Associates, LLC – Bat Acoustic Survey

INTRODUCTION

The Bedford 40664 – US Route 3 Corridor Part B Design Contract is to provide preliminary engineering, environmental services, public involvement services, and project manager level services.

1.0 PROJECT MANAGEMENT

Project Management is expected for the entire 24-month duration of the Part B task, to successfully navigate the project development process through the public hearing and post-hearing obligations and to meet agency and stakeholders' expectations of the proposed alternative.

1.1 Part B Initiation and Coordination with NHDOT

The Project Team will perform the following tasks as a part of the Project Initiation and Coordination with NHDOT:

- Project startup and contract initiation to prepare a contract and subconsultant agreements.
- Coordination with NHDOT to identify additional activities (if any) or necessary modifications to the contract.

1.2 Coordination with Subconsultants

The Project Team will coordinate the approved project scope with subconsultants, and track progress compared to approved budgets and schedules.

1.3 Project Schedule Management

The Project Team will perform the following tasks as part of Project Schedule Management:

- Prepare the initial project schedule for design and reviews.
- Periodically update the design schedule, bi-monthly.
- The Part B project duration is expected to be 24 months with notice to proceed anticipated in Winter 2023/24.
- The project schedule will provide tasks, task durations, identify task precedents and dependents, as well as project milestones. The project schedule will not be resource loaded.

1.4 Develop and Prepare Monthly Progress Reports and Invoices

The Project Team will develop and provide monthly invoicing and progress reports. HDR will review subconsultant invoices prior to inclusion in the Project Team invoice.

1.5 Task Closeouts

The Project Team has developed a scope of work to determine the preliminary engineering and NEPA permitting for the corridor based on an initial corridor concept.

In addition, the task includes the final closeout of the Part B project, including the delivery of electronic files, reports, plans, presentations, and other materials prepared for the Project.

1.6 Project Management Plan and Quality Assurance Plan

The Project Team will develop a Project Management Plan, including key contacts, organizational chart, safety requirements, and the project schedule, with a list of deliverables.



The Project Team will also develop a Quality Assurance/Quality Control Plan, including a schedule of QC reviews, identify required credentials for QC reviewers, and provide requirements for documentation of QC reviews.

Deliverables:

- Project Schedule
- Monthly Invoicing
- Project Closeout Documents and Files

Assumptions:

- The anticipated project schedule is 24 months. Project reporting and invoicing, Quality Control Reviews and deliverable schedule have been estimated for 24 months.
- The project schedule will not be resource loaded.

2.0 DATA COLLECTION

The Department will provide topographic survey. A design field inventory, and Right-of-Way (ROW) boundary survey of the existing US Route 3 corridor will be completed under this task. Under data collection, this task will also include the collection of traffic field data for US Route 3 and its intersections and corridor vehicle classifications.

2.1 Facilitation & Coordination Meeting

A meeting will be scheduled to obtain field survey controls and coordinate right-of-way monumentation efforts between the Project Team and NHDOT. The meeting will include the following:

- Project Overview
- Preliminary records review in preparation for coordination meeting
- Turnover of DOT project data and ROW files
- Confirmation of project limits

2.2 Base Plan Preparation

Using electronic topographic survey data from Microstation, text point files, LandXML, and other formats provided by the Department, the Project Team will convert the information to a digital surface model and topographic base plan for use by the team members for design needs. Typical software platforms utilized by the team members include:

- MicroStation Connect, OpenRoads, & ArcGIS (HDR)
- AutoCAD, Carlson & MicroStation (DSI)
- AutoCAD and ArcGIS (FHI)

2.2.1 Field Inventory (For design purposes)

The Project Team will evaluate existing roadway layout and features with regards to existing corridor deficiencies and implementation of proposed alternatives. The team will review the following data within the study area defined above:

- Roadway pavement layout

- Roadway features to include existing curbs, retaining walls, traffic signs and structures, traffic signal equipment, aerial and underground utilities (if marked on the surface), existing sidewalks and curb ramps.
- Drainage features to include closed drainage and culvert locations; catch basins, closed drainage systems, roadway cross slopes resulting in drainage issues, and general inlet and outlet conditions.
- Roadway signage.
- Existing traffic control features.
- Existing roadway geometry.
- Truck routes.
- Street lighting.
- Sight Distance to include a review of areas with limited existing sight distances.
- Transit and school bus routes, including desk top review of bus stop locations and typical stopping patterns (i.e., on/in the travel lane, in the shoulder, off road, or other).
- Pedestrian and bicycle accommodations.

2.2.2 Not Used

2.2.3 Electronic File Review, Coordination, and CADD Setup

The Project Team is responsible for processing electronic and hard copy, as applicable, files provided by the NHDOT to create required base mapping and three dimensional (3D) models, right-of-way plans and property owner information in the Project Team's software platform.

The Project Team's efforts anticipated within this task include:

- Collection and review, organization, distribution to team members and assembly of files for the Project Team's use for the project.
- Assembly and collection of existing record plans and as-built drawings from the NHDOT.
- Initial project setup, including collaboration tools, SharePoint sites, and websites for successful collaboration with the Project Team and NHDOT.
- CADD setup of the project to meet the NHDOT's 2022 CAD/D Procedures and Requirements provided on the Department's website: <https://www.nh.gov/dot/cadd/> for OpenRoads projects.

2.3 ROW Records Research & Data Collection

The Project Team will be responsible for collecting property research, monumentation data, bounds and property boundary pins to establish an existing monumentation of the highway Right-of-Way. The Project Team will research town, county, and state records, including the following:

- Town road and property records
- State right-of-way and archive records
- County road, court, registry, and probate records.
- Abutter's deeds and plans

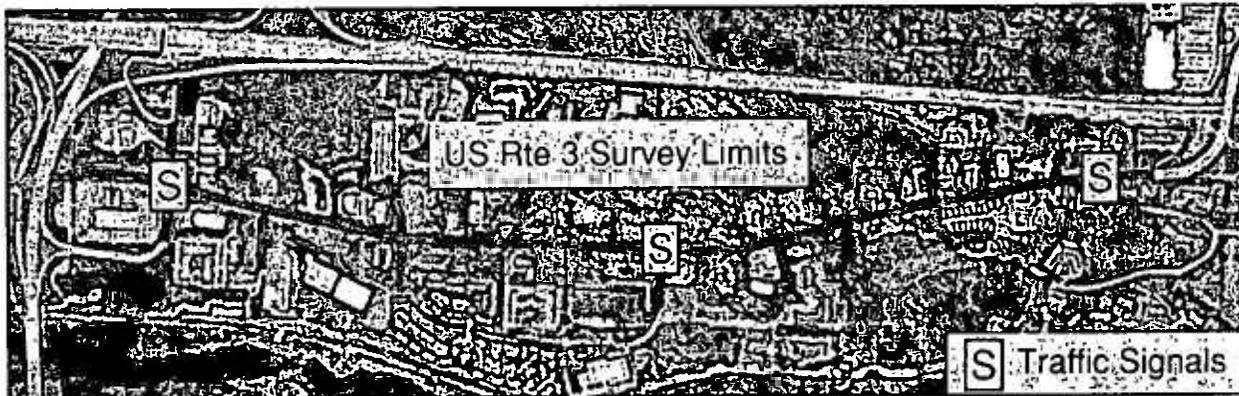
2.4 ROW Boundary (Route) Survey

The Project Team will provide services under the supervision of a Professional Licensed Surveyor (PLS). Efforts associated with the survey will include the following:

- Field recovery of right-of-way and abutting boundary monuments.
- Establish a geodetic control network on NH State Plane Coordinate System.
- Perform boundary survey of existing right-of-way.

- Process survey control data using least squares adjustment at a 95% confidence level. Side shot data will be processed on adjusted controls and verified.
- Develop legacy alignments and establish right-of-way limits based on survey and boundary control standards of practice at the current NHLA Ethics and Standards.

The proposed boundary survey limits for Part B, supervised by a NH Licensed Surveyor, include the 1.7-mile segment of US Route 3 beginning at the overpass of the Manchester Airport Access Road (Raymond Wiczorek Drive) through to 500 feet north of the Hawthorne Drive (North) intersection. The limits include all intersecting municipal or State roadways extending to a minimum distance of 500 ft along the roadway approaches.



2.5 Develop Preliminary Right-of-Way Plan

The Project Team will attend, as needed, ROW facilitation meetings with NHDOT and submit a preliminary existing right-of-way plan with a narrative Survey Report outlining the basis of the survey findings and right-of-way determination to NHDOT for review. The plans will incorporate information developed as part of Sections 2.3 and 2.4.

2.6 Existing ROW Plan Review Meeting

The Project Team will attend a ROW facilitation meeting to discuss Preliminary ROW Plan and Survey Report.

2.7 Develop Final Existing Right-of-Way Plan

After receipt of NHDOT comments, the Project Team will develop the final existing right-of-way plan and provide a written narrative of how NHDOT review comments were addressed. The right-of-way plan will be submitted in CADD format (DWG) and PDF. Hard copies will not be provided. A plan showing existing boundary monumentation and survey traverse will be submitted in CAD format (DWG). Geodetic control data will be submitted in ASCII file format. The existing right-of-way plan will be recorded with the county registry.

2.8 Traffic Data Collection

The data collection program will include Automatic Traffic Recorders (ATRs), Video Turning Movement Counts (VTMCs), field inventories and field observations within the study area along US Route 3.

2.8.1 Permanent Traffic Recorders Data

Additional ATR data will be obtained from the NHDOT Transportation Data Management System. There are two permanent Continuous Count Stations that will be considered, at a minimum: FEET (Station 02037090) and DW Highway (Station 02297001).

2.8.2 Video Turning Movement Counts (VTMC)

Video Turning Movement Counts (VTMC) for the travel modes specified below will be collected for one representative non-holiday weekday (Tuesday, Wednesday, or Thursday) and Saturday (one representative non-holiday weekend during good weather conditions (conducive to walking and cycling) at the following locations identified within the study area:

- US Route 3 intersections:
 - Airport Access Road EB Ramps (signalized)A
 - Airport Access Road WB Ramps/East Point Drive (signalized)
 - Iron Horse Drive (unsignalized)
 - Technology Drive (South)/Autumn Lane (unsignalized)
 - Harvey Road (unsignalized)
 - Commerce Drive/Technology Drive (North) (signalized)
 - Commerce Park (N) (unsignalized)
 - Moore Crossing Road (unsignalized)
 - Hawthorne Drive (South)/Cedarwood Drive (unsignalized)
 - Sunset Lane (unsignalized)
 - Hawthorne Drive (North) (signalized)

The turning movement counts will be collected from 6 AM to 6 PM to develop the following peak periods during the school year:

- AM peak period (7:00 AM – 9:00 AM)
- PM peak period (4:00 PM – 6:00 PM)
- Saturday (11:00 AM – 1:00 PM)

All VTMCs will identify vehicle classifications which include:

- Passenger cars (include 4-tire vans and pick-up trucks)
- Motorcycles
- Medium trucks (2 axles/6 tires or 3 axles)
- Heavy trucks (4+ axles) - including WB-40, WB-50, WB-62 and WB-67
- Pedestrians
- Bicyclists
- Buses

2.8.3 Vehicle Axle Classification for Average Daily Load (ADL)

To facilitate pavement design coordination through NHDOT, 7-day Automatic Traffic Recorder (ATR) counts for obtaining FHWA category axle-based classifications as outlined in the FHWA Traffic Monitoring Guide (December 2022) will be obtained at a location south of Autumn Lane on US Route 3 and collection of speed data during this period.

- Class 1 – Motorcycles
- Class 2 – Passenger Vehicles

- Class 3 – Four Tire, Single Units
- Class 4 – Buses
- Class 5 – Two Axle, Six Tire, Single Units
- Class 6 – Three Axle, Single Units
- Class 7 – Four or more Axles, Single Units
- Class 8 – Four or less Axles, Single Trailer
- Class 9 – Five Axle Tractor Semitrailers
- Class 10 – Six or more Axles, Single Trailers
- Class 11 – Five or less Axles Multi-trailers
- Class 12 – Six Axles, Multi-trailers,
- Class 13 – Seven or More Axles, Multi-trailers

2.8.4 Signal Timing and ITS Infrastructure

In addition, the Project Team will collect the signal timing and cabinet data from the Signal Systems along the corridor from the Bureau of Traffic; as well as coordinate with NHDOT Transportation System Management and Operation (TSMO) to document Intelligent Transportation System infrastructure located along the FEET and Manchester Airport Access Road near the US Route 3 study area.

Deliverables:

- Digital surface model and topographic base plan
- Existing Right-of-Way Plan in CADD format (DWG) and in PDF.
- Plan showing existing boundary monumentation and survey traverse in CADD format.
- Geodetic data control in ASCII file format.
- Survey Report outlining the basis of the survey findings ROW determination.
- Traffic count data

Assumptions:

- Ground survey will be performed by the Department and provided in NHDOT CAD format (MicroStation Connect/OpenRoads). Conversion of files to a usable format will not be required.
- All files developed by HDR will meet NHDOT CAD Deliverables including integrating DSI's Microstation files for use in plan development.
- It is anticipated that one revision following the OTS will be required for the Final Existing ROW Plan submittal.

3.0 TRAFFIC ANALYSIS AND ALTERNATIVES EVALUATION

The Traffic Analysis and Alternatives Evaluation for the No Build and Build Conditions will use the traffic counts collected in Section 2.8. HDR will develop base conditions traffic assignments, develop design criteria, and identify project constraints for alternative assessment with the Department and Stakeholders in order to identify a reasonable range of alternatives to be advanced in the study and used in the NEPA documentation.

The traffic analysis evaluation will review proposed intersection and corridor geometry to determine the appropriate alternatives. After the alternative's evaluation, the Project Team will progress up to two (2) build corridor options to analyze the requirements to improve operations and safety for all modes of transportation in Section 4.

3.1 Roadway & Intersection Traffic Data Forecasting

The traffic analysis study area will include the US Route 3 corridor from East Point Drive and the northernmost ramps of the Manchester Airport Access Road (Raymond Wieczorek Drive) interchange to Hawthorne Drive (north). The US Route 3 corridor is shared by vehicles, pedestrians, and bicyclists, so the data collection and analysis will include all these travel modes.

The following distinct traffic scenarios will be analyzed during the AM and PM peak period weekday and Saturday mid-day conditions. These analysis time periods will be analyzed during the scenarios below:

- Opening Year 2028
- Future Year 2048

3.1.1 Develop Future Traffic Network Volume

The development of the 2028 Opening and 2048 Future Year volumes will include projecting the background growth and approved and planned developments, which includes their proposed mitigation measures, as well as any planned regional projects.

HDR will use the data from permanent count stations and traffic information from NHDOT's Transportation Data Management System (TDMS) to confirm pandemic adjustment factors in the project area. The methodologies will be documented showing the adjustment to traffic volumes (if any) to the pre-pandemic (2019) levels. The 2019 seasonal adjustment factor will be applied to the data to determine the average month. The post pandemic growth factor shall be assumed at 1% or greater.

The Project Team shall develop traffic volume diagrams for the three (3) traffic analysis periods (weekday peak hour AM, PM and Saturday Mid-day periods) and two (2) assumed corridor geometries. The diagrams will cover the following scenarios:

- Opening Year 2028 – no restriction of current access
- Future Year 2048 – no restriction of current access
- Opening Year 2028 – with raised median between all existing and proposed signalized intersections
- Future Year 2048 – with raised median between all existing and proposed signalized intersections

3.2 Methodology Letter of Understanding (MLOU) and Project Measures of Effectiveness (MOEs)

The Methodology Letter of Understanding is a brief memorandum and outline of the proposed traffic forecasting and analysis methodology. This will include the study area definition, intersections to be analyzed and type (signalized or unsignalized), analysis years, software, and relevant information submitted for NHDOT approval of the volume forecasting and analysis process and documentation. The information will provide an adequate level of forecasting and analysis and identify the measures of effectiveness (MOEs).

3.2.1 Not Used

3.2.2 No-Build Traffic Operations Analysis

A traffic operations analysis will be conducted within the study area from Section 2.8.2 using Synchro (traffic modeling software) in accordance with the Synchro Inputs Checklist on the NHDOT website, and other pertinent documents referenced therein.

The No-Build 2028 and 2048 volumes alternatives will be evaluated to assist with the alternative's development and screening in Section 3.3.2.

The results of these analyses will provide a quantitative assessment for vehicular traffic operations of the existing roadway conditions using the 2028 and 2048 volumes.

3.2.3 Signal Warrant Analysis

The Project Team will develop 2028 Opening Year and 2048 Future Year volumes for Traffic Signal Warrant 1 (8th Hour Vehicular Volume) and Warrant 2 (4th Hour Vehicular Volume) evaluation. It is assumed that only two (2) intersections will require signal warrant evaluation: Technology Drive (south)/Autumn Lane and Hawthorne Drive/Cedarwood Drive at each of the unsignalized intersections listed under Section 2.8.2. HDR will complete a signal warrant analysis utilizing the methodologies outlined in the latest Manual for Uniform Traffic Control Devices (MUTCD) and NCHRP 457. All nine (9) warrants will be evaluated. HDR will calculate the volume redistribution for all 12 hours of turning movement data and prepare an engineering opinion of the appropriateness of signalized traffic control for those unsignalized intersections where Warrant 1 or 2 are met. In preparing the engineering opinion, HDR will consider the number of warrants met, how strongly they are met, other traffic control alternatives, results of the traffic analysis, when the traffic warrants are forecasted to be met, traffic gaps from nearby existing or proposed signals, directional flow patterns, reasonable alternate routes, and other factors.

3.2.4 Not Used

3.2.5 Safety Analysis, Crash Data Request and Review

The crash data will be requested from the Department for the study area and the time period will be coordinated with the Department. Still, however, it is anticipated that up to 10 years of data will be made available to the Project Team. The Department will tabulate, and sort crash data collected from the Department of Safety for HDRs use in the preliminary engineering documentation. A qualitative analysis of the available crash data will be performed by HDR for the study area to determine crash patterns, crash issues, identify pedestrian and bicycle related crashes, and identify any potential improvements that may be implemented to reduce and prevent crashes.

3.2.6 Draft Traffic and Safety Analysis Summary Report

A draft traffic and safety analysis summary report will be compiled. This document will include: no-build (2028 and 2048 volumes), a summary of the crash analysis, multi-modal accommodations, and traffic analysis. It will also include the summary of the development of the traffic base network used for analysis and traffic signal warrant assessment from Section 3.2.3.

The report will be updated in Section 4.2.1 when build alternatives have been developed, evaluated and analyzed per Section 3.3.

3.3 Alternatives Development

This task includes the initial investigation of constraints, establishment of design criteria, and prioritization of project goals. A workshop will be held to kick off development of concepts, which will be reduced to a shortlist of concepts through the public involvement process. Further refinement and traffic analysis of the concepts will be completed in Section 4.0.

3.3.1 Establishment of Roadway Design Controls and Criteria

This task efforts focus on establishing the design controls and criteria needed for the preliminary and final design including, but not limited to, existing concerns, design criteria, and needs and concerns of the project for bridge, clear zone, drainage and water quality, pavement design, right-of-way, traffic management,

utilities, multi-modal needs, and other requirements of the NHDOT Project Development process. A Design Criteria Form will be prepared.

3.3.2 Alternatives Development and Screening

In advance of the alternative identification with the collection of field data outlined in Section 2, the input from the kickoff public input through the Stakeholder Outreach Meetings in Section 8.0, the Project Team and NHDOT will define the project's purpose and need and associated goals and objectives. The Alternatives Development and Screening task will be structured to create evaluation criteria that will determine if the alternatives meet the project's purpose and need. The alternatives engineering effort will then be focused on developing reasonable and cost-effective options to meet the project goals. The process establishes the rationale for elimination of alternatives that will be discussed within the NEPA documentation as alternatives considered but dismissed. Using these criteria, the team will identify a shortlist of alternatives to develop and analyze in greater detail. The process will follow the approach outlined below:

3.3.2.1 Preliminary Screening & Evaluation Criteria

The Preliminary Screening and Evaluation Criteria will utilize available data from the existing traffic analysis and data gathering efforts to provide a high level qualitative and quantitative review intended to identify fatal flaws, general performance characteristics and large environmental impacts. The purpose of this screening is to eliminate the obviously infeasible alternatives or alternatives that do not meet the Purpose and Need and identify up to four (4) alternatives which appear to appropriately achieve the project goals for consideration. In evaluation of screening alternatives, the following approach will be utilized:

- Review of multi-modal traffic data collection, analysis of the past traffic studies and the existing conditions traffic network model.
- Review of the existing conditions, project data, and a field walk to identify design criteria and project controls, along with gathering anecdotal information relevant to the project for the purpose of gaining a broader perspective for brainstorming of concepts.
- Develop design criteria and prioritization of area resources and potential areas of conflict.
- Fostering potential alternatives discussion with the stakeholders as outlined in Section 8.0

The Project Team proposes to consolidate alternatives into four (4) alternatives for Preliminary Screening and Evaluation by:

- Past NHDOT and RPC studies in congruence with general understanding for Project Purpose and Need
- Consolidating stakeholder input
- Order of magnitude cost comparisons
- Collaborating with Department staff
- Preliminary traffic analysis of Build alternatives (up to four (4) alternatives)
- Documenting the alternatives analysis results per Highway Design's Design Report template

The preliminary screening will evaluate the horizontal and vertical alignment, identify stopping sight distance issues, and intersection detection issues and solutions. The median design: TWLTL or raised median will include review of the traffic volumes, traffic operations, crash data, and safety benefits to establish the applicable option. The preliminary screening and median review will consider potential environmental impacts and constructability.

A traffic operations analysis will be conducted for the study area intersections described in Section 2.8.2 using Synchro and SIDRA (traffic modeling software) in accordance with the Synchro Inputs Checklist on the NHDOT website, and other pertinent documents referenced therein.

The 2048 Build volumes for up to four (4) intersection configurations from the alternatives screening will be analyzed and the results will provide a qualitative assessment for traffic operations for the build intersections. This analysis will help determine the up to two (2) configurations for design outlined in Section 3.3.2.2.

3.3.2.2 Final Screening and Evaluation Criteria (Alternative Selection) Screening

With the Department's acceptance of the preliminary screening alternatives, the Project Team will be tasked with evaluating the feasibility of up to two (2) of the four (4) preliminary screening alternatives (for improved horizontal and vertical alignments) with a combination of signalized/unsignalized intersections and/or combination of roundabout configuration at the eleven (11) at-grade intersections along the corridor to advance into Section 4, Alternative Development and Evaluation. An outcome of this final screening will be to refine the four (4) alternatives from the preliminary screening into up to two (2) efficient, effective, and contextually appropriate "build" alternatives for the corridor. The No-Build Alternative (No-Action) will be carried through the entire evaluation and assessment process and will be considered as the third alternative.

The final screening and evaluation will result in a listing of up to two (2) alternatives and include high-level screening of performance-based design, traffic operations and safety, multi-modal (transit, pedestrian, bicycle) operations and safety, potential natural and cultural resource impacts, right-of-way property impacts, stakeholder conflict, geometric challenges, and program level costs of each alternative, as necessary.

Upon acceptance of the Final Screening and Evaluation Criteria by the Department, two (2) build corridor alternatives will be further refined into a preferred alternative in Section 4.0 with illustrative design sufficient to provide:

- Plan and profile of roadways
- Typical sections of roadways
- Preliminary right-of-way impacts
- Program Level Estimates

The illustrative designs for the roadways and major structures will be completed to allow for the evaluation of resource impacts and permitting needs, and satisfactorily demonstrate the pertinent design criteria. A second meeting with the NHDOT will be scheduled to review the findings in Section 3.3 and reduce the number of potential alternatives to be further developed and analyzed in Section 4.0.

3.4 Project Team Coordination & Technical Support

The Project Team will coordinate traffic data collection, assist with the preparation of traffic related planning, environmental requirements (see Section 7.0), public outreach activities (see Section 8.0) and assistance to Special Assistant to NHDOT Project Manager for internal and external coordination (see Section 9.0). Traffic data compiled from NHDOT sources and collected by HDR will include traffic volumes, truck percentages, signal timing parameters, crash data and traffic operational delay data to coordinate support air quality and noise (see Section 7.0). No additional data will be collected to support environmental permitting and documentation.

3.5 QA/QC

The Project Team will perform QA/QC reviews of the draft and final calculations, analyses, and reports in accordance with the Quality Management Plan.

Deliverables:

- Draft & Final Methodology Letter of Understanding (MLOU) and Project Measures of Effectiveness (MOEs)
- Draft Traffic and Safety Analysis Summary Report
- Preliminary Screening and Evaluation Criteria
- Draft Design Report (Alternatives Analysis)
- Design Criteria Form

Assumptions:

- Capacity analyses are anticipated to be done using Synchro for signalized and unsignalized intersections, and SIDRA for roundabouts.
- Deliverables are anticipated to be referenced materials and design layouts for support of the NEPA documentation.
- It is assumed that two (2) intersections will meet one or both warrants for fee estimation.

4.0 Alternative Development and Evaluation

Alternative development and evaluation will commence upon acceptance by the Department of the alternatives from Section 3.3.2.2. The reasonable range of alternatives that were screened and identified from Section 3.3 will be included in the project documentation for the determination of the selected preferred alternative or "Build Alternative" in the NEPA documentation process (Section 8). The Project Team is responsible for documenting that the recommended alternatives comply with applicable standards and criteria. Where appropriate, the required variances will be identified.

The illustrative designs for the roadways and, if needed, major structures will be completed sufficiently to allow for the evaluation of resource impacts and permitting needs, and satisfactorily demonstrate the pertinent design criteria.

4.1 Roadway & Traffic Design

The build alternatives will be further developed with input from screening performed in Sections 2.0 and 3.0. The corridor and intersection concepts are expected to include the limits identified in the Project Description on page 1 above.

4.1.1 Traffic Operations Analysis

A traffic operations analysis will be conducted for the study area intersections described in Section 2.8.2 using Synchro and SIDRA (traffic modeling software) in accordance with the Synchro Inputs Checklist on the NHDOT website, and other pertinent documents referenced therein.

The 2048 Build volumes for up to four (4) intersection configurations from the alternatives screening in Section 3.3.2.1 will be analyzed and the results will provide a qualitative assessment for traffic operations for

the build intersections. This analysis will help determine the up to two (2) configurations for design outlined in Section 3.3.2.2.

HDR will refine the Synchro and SIDRA models from Section 3.3 as needed to satisfy NEPA requirements and identify a preferred alternative for the corridor and the intersections. The supporting and technical documentation will be provided for the no-build (2028 and 2048 volumes) and up to two (2) 2048 build options. The final traffic analyses will be provided for the No-Build and the one (1) preferred build alternative developed for the hearing plan. This documentation will be used for satisfying NEPA requirements.

Capacity analyses are anticipated to be done using Synchro for signalized intersections meeting signal warrants and unsignalized intersections, and SIDRA for roundabouts.

4.1.2 Roadway Design – Preparation of Plans, Profiles, Typical and Sections

The Project Team shall refine the up to two (2) build alternatives based on the results of the final screening from Section 3.3.2.2 through the preparation of concepts.

The Preparation of Concepts - plans, profiles, typicals and cross sections task involves development of typical sections and conceptual plans and graphics to determine the impacts, costs, and advantages and disadvantages of each concept. These concepts will be developed concurrently with traffic macro-simulation to establish that design elements meet or exceed capacity for the 2048 design year while providing accommodations for transit, pedestrian, and bicycles within the project limits. Draft concepts will be prepared for the Department's approval utilizing design software, CAD, and GIS. This effort will include:

- Roll plan submission of the two alternatives to include general plans, profiles, and cross sections of each roadway as identified in Section 3.3.2.2 including active transportation accommodations.
- Inclusion of environmental resources, bridges, and/or culverts and consideration for overhead sign structures.
- Typical Sections of Improvement
- Median Alternative Evaluation for traffic management to include TWLTL, raised median and/or combination raised median with dedicated reverse direction turns.
- Preliminary Traffic Management and Sequencing, Typical/Critical Sections
- Preliminary Water Quality Designs and potential BMPs determined by a Pavement Only Analysis of each alternative.
- Preliminary Utility Conflict Identification for each alternative
- Environmental Impact identification for each alternative
- Support conceptual cost estimate for each alternative as outlined in Section 4.1.8. Only the major items will be quantified. Other items will be accounted for via assumed cost percentages of the major items. An itemized estimate including all quantities is not required.

4.1.3 Multi-Modal/Active Transportation Facility Design Evaluation

The Project Team will consider the needs of all roadway users and evaluate multi-modal requirements and impacts associated with the conceptual alternatives and stakeholder engagement. The Project Team will consider both on and off-road facilities for multi-modal users based on the SNHPC Ped Bike Plan, Bedford Pedestrian & Bicycle Connectivity Master Plan (2014), and input gathered through local stakeholders.

4.1.4 Right-of-Way Impact Determination and Preliminary Layout

For conceptual alternatives requiring additional impact and easements, the Project Team will assist the Department in identification of potential right-of-way acquisitions and easements required for the public hearing plan.



4.1.5 Decision Matrix – Alternative Evaluation and Comparison

The successful project documentation will compare the reasonable alternatives in a decision matrix to identify performance-based design and specific Measures of Effectiveness such as but not limited to:

- Safety (expected crash reduction – all modes)
- LOS / Delay / Travel (all modes)
- Miles of accessible sidewalk and bike lane/shoulder
- Number of accessible pedestrian crossings of US Route 3
- Ease of connect-ability to adjacent Heritage Trail

The matrix evaluation will assess the impacts to the natural environmental and cultural resources as assembled through Section 7.0 Environmental Coordination. The matrix will provide a rational method for evaluation of alternative's merit, tabulate impacts, and allow for the selection of an alternative meeting the goals of the project and documentation required.

4.1.6 Constructability, Traffic Management and Traffic Control Impacts Evaluation

The project team will evaluate construction sequencing and traffic management requirements to construct the selected alternative in Section 4.1.2 to include the following:

- Preparation of materials, attendance, and presentation at the Department's Traffic Control Committee (TCC) Meeting

4.1.7 TSM/TDM Strategies Evaluation

A brief Intelligent Transportation Systems (ITS) analysis will be conducted to determine ITS infrastructure requirements and identify high level strategies to help improve the operations of the US Route 3 corridor from the interchange access with I-293 through to the interchange with the Manchester Airport Access Road. TDM will be limited to support the NEPA documentation process. TSM will be limited to signal coordination through TSMO. TDM measures such as transit expansion may be limited due to lack of town support and operational expansion concerns by Manchester Transit Authority.

4.1.8 Preliminary Cost Estimates & Quantities

Preliminary Cost Estimates will be prepared to assist in decisions and supporting program requirements.

4.1.9 Not Used

4.2 Reporting and Documentation

4.2.1 Draft Traffic and Safety Analysis Summary Report

The Draft Traffic and Safety Analysis Summary report will be updated to include the 2048 Build alternatives analysis for the two (2) alternatives chosen for design from Section 3.3.2.2 and the preferred alternative from Section 4.1.2.

This report may be final however it may be refined based on Section 6.1. If it is not refined, it will be a final report.

4.2.2 Not Used

4.2.3 Preparation and Submission of Draft Design Report



The Draft Design Report will document the existing roadway, traffic and bridge conditions, proposed alternatives, design criteria, and needs and concerns of the project for bridge, clear zone, drainage and water quality, pavement design, environmental impacts, right-of-way, traffic control devices, construction traffic management, utilities, multi-modal needs, and other requirements of the NHDOT Project Development process.

4.2.4 Revisions and Submission of Final Design Report

The Project Team will incorporate, respond to, and consolidate comments of the Draft Design Report to finalize the document.

4.3 Project Team Coordination

Coordination between the team members to exchange technical knowledge through collaboration tools, conference calls, email correspondences, and working group meetings. Team coordination will include assistance for the Public Hearing (see Section 8.9) and support to Special Assistant to NHDOT Project Manager for internal and external coordination (see Section 9.0).

4.4 QA/QC

The Project Team will perform QA/QC reviews of the draft and final deliverables in accordance with the Quality Management Plan.

4.5 Over-the-Shoulder (OTS) & NHDOT Coordination Meetings

Over-the-shoulder (OTS) and coordination meetings with NHDOT are assumed for this design phase. Five (5) meetings have been assumed with traffic and design engineers and environmental specialists to facilitate the design direction, prepare for future meetings, identify new opportunities for the project area, deliverable review and concurrence, and other potential changes required for a quality submission.

Deliverables:

- Draft Alternatives concept plans, profiles, typicals & cross sections and evaluations submitted through the Over-the-Shoulder Meetings
- Final Traffic Analysis Report
- Preliminary traffic management & sequencing, typical/critical Sections & impacts
- Preparation of materials, attendance and presentation at the Department's Traffic Control Committee (TCC) Meeting
- Preliminary water quality designs and potential BMPs determined by a pavement only analysis of each alternative
- Decision matrix – evaluation and comparison of alternatives
- Utility and environmental impact worksheet documentation
- Conceptual estimate and quantities of major items only for each alternative. Final Concepts included in the Design Report
- Draft & Final Design Report

Assumptions:

- One round of comment revisions is anticipated between Draft reports and the Final Submissions.
- The final documents are expected to be included in the appendix of the NEPA document for final FHWA review and approval.
- Video detection is anticipated in any new or upgraded traffic signal installation.

5.0 NHDOT DESIGN FACILITATION & COORDINATION

5.1 Utility Design Coordination

The Project Team will provide required plans and support documentation for the Department to complete the Utility Verification. The Project Team will be responsible for transcribing and incorporating existing utility information into existing utility CAD files (DGN) following the NHDOT CADD Manual. This scope assumes that NHDOT Bureau of Highway Design, Design Services Section will perform utility investigations including:

- Perform required 1st Verification correspondences and meetings with utilities.
- No Additional Meetings are required for coordination with Design Services and Utility Companies for Part B Design Services.

5.2 Additional Survey Request & Coordination

The Project Team will prepare and provide a survey request for required topographic survey to support Part B and prepare the project for Part C Design. This scope assumes:

- Correspondences and request will be provided electronically.
- No Additional topographic survey is required by the HDR Project Team.
- No Additional Meetings are required for coordination with the Department.

5.3 Geotech Coordination

The Project Team will prepare a subsurface exploratory plan for submission to Material & Research in support of the preferred alternative. The plan will be developed after field reconnaissance for recommended locations for the geotechnical test borings to evaluate soil conditions, ledge lines for vertical and horizontal roadway alignment changes, signal mast arm foundations, overhead sign structure foundations and subsurface groundwater depths and bedrock depths at the proposed BMP areas as identified under Section 7.6.3.

Deliverables:

- Base plans and electronic deliverables, as required.
- Subsurface exploratory plan.

Assumptions:

- This scope assumes that NHDOT will complete the topographic survey for the NH Turnpike stormwater basin constructed under Bedford 13527.
- No additional meetings are required for coordination with Design Services and Utility Companies for Part B Design Services.
- All correspondences and request will be provided electronically.

6.0 POST-HEARING/FINAL SUBMISSION

The Post-Hearing/Final submission will follow the Department's Project Development Process and include submittal of a refined alternative from the Public Hearing to satisfy the Department's response to public comments. The task deliverables are a submission for any revisions of public hearing plan and previous submitted materials in Section 4.0 for the selected alternative. A new alternative is not envisioned or



included in this effort. The Project Team will support the Bureaus of Highway Design, Traffic, Environment and Right-of-Way to prepare the selected alternative for Final Design under Part C.

6.1 Traffic Design

The Project Team will supplement previously developed analyses from the alternatives analysis, as required to support the Public Hearing comments and responses. This effort may require additional traffic analyses and updating the technical report based on the Public Hearing.

6.2 Roadway Design

The refined alternative is expected to address design changes that arise through the hearing process and finalize post-hearing comments. The Post-Hearing/Final Submission will include refinement of the following items, as necessary:

6.2.1 Post-Hearing/Final Submission Plan Revisions

Upon receipt of the Public Hearing Comments, the Project Team will make recommendations to the Department for adjustments, as necessary, and incorporate the Department's revisions to prepare the plans and files for use in a Part C Design. No additional or new plans are expected to be developed for this submission. The Post-Hearing/Final Submission includes revisions to the following plans developed under Section 4.0:

- Roll plan submission of refined alternative to include general plans, profiles, and cross sections (assumed at every 50') for each roadway.
- Typical Sections of proposed US Route 3 improvement.
- Preliminary traffic management revisions to sequencing concepts and typical/critical sections.
- Incorporation of any additional environmental resources, culvert, utilities, traffic signal, and potential sign structure locations to support the conceptual estimate.
- Additional or revised Best Management Practices refined through the hearing process.
- No separate multi-modal facility within the US Route 3 corridor and project limits. Multi-modal facilities will include sidewalks for pedestrians and shoulders for bicycles.

6.2.2 Preliminary Estimating

The Project Team will adjust the conceptual estimate and quantities of major items only for the selected alternative as may be required through the final Public Hearing Comment Response utilizing the Department's Preliminary Cost Estimating worksheet.

6.2.3 Final Documentation

In addition, the Project Team will revise and update the documentation previously submitted in accordance with the Public Hearing recommendations and revisions. Anticipated efforts for reevaluation include:

- Existing utilities, conflicts and potential costs based on hearing comments and utility coordination.
- Environmental impact update and summary of the environmental commitments, including reevaluation of the preliminary water quality designs and adjustments made to previous calculations and analysis.
- Updates to the preliminary construction duration/estimate based on the plan revisions and comments.
- Revisions and updates to the geometric reports, design calculations, and design variances or exceptions required based on the revisions.

- Revisions to the Design Report, a separate or new capital Design Report is not included in this effort.
- Compile final CAD/D files for turnover per NHDOT 2022 CAD/D Procedures and Requirements.

6.3 Project Team Coordination and Prepare Submission

The task includes preparation of materials and submission of the Post-Hearing/Final Submission documents for the environmental, roadway, public involvement, and traffic team. The Project Team will provide support and assistance to the Special Assistant to NHDOT Project Manager for internal and external coordination (See Section 9.0).

6.4 QA/QC

The Project Team will perform QA/QC reviews of the draft and final deliverables in accordance with the Quality Management Plan.

6.5 OTS & NHDOT Coordination Meetings (1 Assumed)

Over-the-shoulder (OTS) and coordination meetings with NHDOT are assumed for this design phase. One (1) meeting is assumed with traffic and design engineers and environmental specialists to facilitate the design direction of the Post-Hearing/Final Submission.

Deliverables:

- Revised Roadway and Traffic Post-Hearing/Final Plans, Estimates, and Documentation
- Final project CAD/D files.

Assumptions:

- Only the Selected Alternative presented in the Public Hearing will be revised and prepared for Part C Final Design, not included in this scope of services.
- It is assumed that only minor revisions will be necessary through the Public Hearing adjustments which will not change the selected alignment line and grade.
- The conceptual estimate will be a refined program estimate by major items and use of percentages based on engineering judgment and past bid history for the selected alternative. An itemized estimate including all quantities is not anticipated.
- Attendance and resubmission to the Traffic Control Committee is not required
- A preliminary signal plan is not required for pre-preliminary; however, considerations for signal layout will be given during development of the estimate and right-of-way layout in Section 4.0.

7.0 ENVIRONMENTAL COORDINATION

For scoping considerations, the Project Team assumes the level of documentation required to satisfy the National Environmental Protection Act (NEPA) will be a Categorical Exclusion (CE), as outlined in the project checklist provided by the Department. As the alternatives are developed, and a preferred alternative is identified, the documentation required may be modified to meet the requirements under NEPA. Upon review and consolidation of the build alternatives through the Alternatives evaluation process, the environmental documentation will be refined for inclusion in the CE.

7.1 Data Collection

Existing resource data will be collected through state and federal data sites (reports and GIS mapping), existing environmental documents for nearby projects, environmental permit applications for nearby projects, corridor studies, and mapping and information from local governments.

An initial "desktop" collection of available resource information such as the National Wetlands Inventory (NWI) mapping, waterways or watercourses maps, Soil Survey data, and appropriate Hydric Soil Lists will be completed to facilitate screening and before conducting the wetland delineation within the data collection task above. A one-day field visit will be undertaken to ground truth the GIS data and to identify any sensitive habitat within the study area. Mapping will be prepared for key resources including floodplains, wetlands, soils, active farmlands, public and conserved lands, cultural resources, sensitive habitat, and contaminated properties. This mapping and baseline documentation will be used by the Project Team in the initial development of the range of alternatives.

7.2 Purpose and Need Development & Agency Coordination

The Project Team will develop the Purpose and Need in coordination with FHWA and NHDOT. In addition, the Project Team will conduct agency coordination required for the NEPA document (and future environmental permits under Part B) with FHWA, NHDOT, U.S. Fish and Wildlife Service (FWS), the National Oceanic and Atmospheric Administration (NOAA), U.S. Army Corps of Engineers New England District Regulatory Division, New Hampshire Department of Environmental Services (NHDES), New Hampshire Fish and Game (NHFG), the New Hampshire Natural Heritage Bureau (NHNHB), NH Division of Parks and Recreation, NH Division of Forest and Lands, NH Office of Strategic Affairs, Southern NH Regional Planning Commission and the Town of Bedford including the Town Council, Historic District Commission, Conservation Commission, Highway Safety Committee, Planning Board and Water & Sewer Advisory Committee. In addition, the Project Team is expected to attend Natural Resource Agency Coordination Meetings held by the NHDOT.

7.2.1 Purpose and Need Development

The Project Team will prepare a written description of the project and a concise Purpose and Need statement. The Purpose and Need will be submitted to NHDOT and FHWA for review and concurrence. Revisions will be made based on comments received.

7.2.2 Agency Coordination Letters

For these coordination letters, existing project and site information will be used where available.

- **New Hampshire Natural Heritage Bureau Review**

The Project Team will use the DataCheck tool on the NHNHB website to conduct initial coordination with this agency. A brief project description will be prepared to accompany the coordination. No separate coordination letter will be prepared under this scope.

- **U.S. Fish and Wildlife Service Review**

The Project Team will conduct a web based, IPaC consultation for the project to identify listed species which may occur in the project area.

- **New Hampshire Fish and Game**



It is assumed a separate coordination letter will be prepared for the NHFG based upon the results from the NHHNB coordination process.

- **National Oceanic and Atmospheric Administration**

A project letter is proposed for NOAA NMFS, but it may not be required based upon stream involvement. This would be confirmed with NMFS at the outset of the project.

- **NH Office of Strategic Initiatives**

Conservation Land Stewardship Program and Floodplain Management Program.

- **Southern NH Regional Planning Commission**

A separate coordination letter will be prepared under this scope.

- **NH Department of Natural & Cultural Resources (DNCR) LWCF**

A separate coordination letter will be prepared for the DNCR to identify potential parks, forest lands, recreational properties, and conservation areas that may be present in the study area, including Land and Water Conservation Funds (LWCF) funded properties.

- **New Hampshire Department of Environmental Services (NHDES)**

It is assumed there will be no separate letter prepared for the NHDES, since they are notified of the project through the coordination process.

- **Town of Bedford**

Coordination Letters will be provided to Bedford Town Council, Town Manager, Public Works Director, Economic Development Planning Director, Police Chief, Fire Chief and Emergency Management Director, Historic District Commission, Conservation Commission, Highway Safety Committee, Planning Board and Water & Sewer Advisory Committee.

- **New Hampshire Land and Community Heritage Investment Program**

Initial contact letter to the LCHIP to determine if LCIP or LCHIP lands/easements are located within or adjacent to the project area.

7.2.3 Listed Species Consultation

It is assumed there will be listed species in the project area, therefore, it is assumed supporting documentation/maps will subsequently be prepared by the Project Team for submittal to USFWS by NHDOT for review via the IPaC website system. The Project Team will complete the regulatory review determination key in the USFWS IPaC webtool for NHDOT's use in consultation with USFWS. NHDOT will provide the USFWS concurrence letter for inclusion in the NEPA document. It is assumed a Biological Assessment will not be required.

7.2.4 Natural Resource Meetings

The Project Team is anticipated to attend three (3) Natural Resource Agency Coordination Meetings held by the NHDOT to present the environmental aspects of the initial data gathering as well as important feedback during alternatives screening in Task 2 and Task 3 to assist in determining the build alternatives. It is



assumed three members of the Project Team will attend each meeting and the Project team will prepare the meeting notes.

7.3 Bat Survey

The Project Team will complete a bat species survey within the project limits for federally endangered northern long-eared bat (*Myotis septentrionalis*; NLEB) and the federally proposed endangered tricolored bat (*Perimyotis subflavus*). The Project Team will conduct a Phase 1 habitat screening and a Phase 2 presence/absence surveys following the USF&W Service' 2023 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines. As required under these Guidelines, the potential bat habitat areas for linear elements located within 300 feet of the roadway will be divided into unique (non-overlapping) 3,200-foot (1 km) segments for a total of four (4) segments. Two detectors will be deployed at two locations within each segment for two nights for a total of four detector nights per segment. The Project Team will include up to two (2) non-linear survey methodology actions outside 300 ft. roadway corridor for potential siting of water quality basins to include 14-detector nights surveyed within each segment as prescribed by the USF&W Guidelines.

All call files will be analyzed using a USFWS-approved automated bat call classification software package (e.g. Kaleidoscope Pro) and manually examined by a trained bat acoustic expert as outline in the Guidelines. Interim results of the call analysis will be submitted to the NHDOT for review and a final report will be submitted for inclusion onto the NEPA documents.

7.4 Wetland Delineation and Invasive Species Review

As part of the preliminary design, delineation of wetlands and watercourses that may be impacted by construction is required. Under Section 7.1, the Project Team reviewed available resource information such as the National Wetlands Inventory (NWI) mapping, waterways or watercourses maps, Soil Survey data, and appropriate Hydric Soil Lists before conducting the wetland delineation. Field delineation will be conducted in accordance with the U.S. Army Corps of Engineers (USACE) 1987 Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region and the definitions contained in 33 CFR 3.23.2(a) through (f). Additionally, wetland resources will be delineated in accordance with State of New Hampshire regulations and guidelines by a New Hampshire Certified Wetland Scientist (NHCWS). All wetland resources will be assessed for their respective functions and values in accordance with the U.S. Army Corps of Engineers New England District Highway Methodology Supplement dated 1999. It is assumed the delineation will include all existing and proposed drainage discharge locations for the 402 permit (adjacent to the Route 3 and intersecting roadways). The Project Team assumes two field days for two staff to conduct the wetland delineation. If access to private property is required, it is assumed this will be arranged by NHDOT.

As part of the scope of work for Wetlands Delineation and Invasive Species Review, the following tasks will be completed by the Project Team:

- Once the range of alternatives are selected for the evaluation under Task 3, the staff will conduct a field investigation to identify and delineate wetlands within the proposed project area. The three (3) parameters utilized to identify wetlands -- hydrophytic vegetation, hydric soils and wetlands hydrology -- will be evaluated. This effort will include the preparation of eight (8) Delineation Field Sheets, for four (4) transects, within wetland areas. Wetlands will be delineated up to 100 feet from the designated limits of disturbance for the project. Flags associated with this task will be surveyed by the Project Team using a GPS with sub-meter accuracy. The initial level delineation will be reassessed after selection of the preferred alternative and adjusted Delineation Field Sheets will be prepared.



- Upon survey completion, the wetlands limits and Cowardin wetland type, in accordance with NHDOT standards, will be shown on the plans for identification.
- Prepare a Draft and Final Wetland Delineation Report detailing the results of the delineation. The Report will contain a narrative, site location map, site photographs, Functions and Values assessment work sheets, wetland/upland data sheets, and applicable mapping. The Wetland Delineation Report will be stamped by a New Hampshire Certified Wetland Scientist.
- The Project Team will also identify the Ordinary High Water (OHW) elevation in the field for all perennial watercourses within the project area. Elevations will be marked 50-feet upstream and downstream of all culvert and bridge crossings. The OHW elevation will be marked by placing a wire flag at the appropriate elevation. The location of OHW flags will be documented with a GPS with sub-meter accuracy in the field. The edge of water for perennial watercourse will be marked on both sides to a distance of up to 100-feet from the designated limits of disturbance for the project.
- Top-of-Bank will be marked for all perennial watercourses on both sides to a distance of up to 100-feet from the designated limits of disturbance for the project.
- Intermittent watercourses will be marked with a center line, unless there are identifiable "banks", in which case the Top-of Bank on both sides of the watercourse will be marked to a distance of up to 100-feet from the designated limits of disturbance for the project. Also, any identifiable OHW marks will be flagged in the field with a single flag.
- Once the preferred alternative is identified under Section 4, the Project Team will re-assess wetland boundaries and downstream constraints for hydraulic discharge beyond the roadway project limits, such as for stormwater management basins beyond the existing ROW.

The Project Team will conduct an invasive species inventory in the field of the prominent invasive species within the areas of proposed activity in the study area based on the invasive plant species listed by NH Department of Agriculture in Agr 3800 and NH Department of Environmental Services Env-Wq 1300. It is important to note that this work should be performed during the growing season. The Project Team will GPS survey all occurrences of populations, or patches, of the above-listed invasive species within all proposed construction areas associated with the project.

Species density, aerial coverage and/or stem counts will not be collected or estimated as part of the inventory. The Project Team will document the boundary of invasive species in the field with a sub-meter accuracy GPS Unit. The Project Team will then transfer the invasive species GIS layers to digital plans. It is assumed the NHDOT will provide invasive species management specifications under Phase C.

7.5 Stream Crossing Assessment

The Project Team will identify all intermittent and perennial stream crossings within the project study area limit of disturbance and use the USGS StreamStats tool and LIDAR, if needed, to estimate the watershed sizes for each stream crossing. Based upon a corridor review of the topo survey, three total (intermittent and perennial) stream crossings (Stebbins Brook and two unnamed systems) are anticipated for assessment, two identified under USGS StreamStats. The Project Team will field evaluate and perform visual inspections of each crossing and document, including cross sectional channel geometry measurements of the existing stream within a reference reach as required by the NHDES Stream Crossing Rules (Env-Wt 900); perform hydraulic calculations to determine design capacity, calculate peak discharge, predict channel geometry based on *Regional Hydraulic Curves*, headwater and tailwater flooding conditions; and confirm water course impairments, flood plain, water body classifications, Aquatic Organism Passage requirements, and potential impacts with the environmental project team to determine/verify the Tier classification for each crossing in accordance with the NHDES Stream Crossing Rules (Env-Wt 900). The level of detail of field inspection and data collection will be based on the requirements of the *NHDES Stream Crossing Rules (Env-Wt 900)* and

represented in the Stream Crossing Worksheet. Two Tier 1 assessments and one Tier 3 assessment is anticipated. The stream assessment for Stebbins Brook will be completed once the preferred alternative is identified under Section 4.0 and impact area anticipated to the brook have been determined.

The task will comply with Env-Wt 900 rules to include a geomorphic review and analysis of the water course characteristics to determine proposed structure designs. Draft and Final Technical Memoranda will be produced describing methods and results and will be supported by graphics and photographs of crossing areas to assist the Department with recommendations for the Final Design and Permitting, expected to be completed in Part C Services.

7.6 Surface and Groundwater Analysis

7.6.1 Data Analysis and Background Review

Data will be gathered, documented, and reviewed for existing surface waters and water quality within the project area. Information to be gathered will include the NHDES Surface Water Quality Assessment and latest version of 303d impaired waters listing and other relevant information. Data compilation and review will be conducted and will build upon existing GIS data layers including LiDAR contour topographic data, land use/land cover, impervious surfaces, NRCS soil survey, roads, and infrastructure such as water, sewer, outfalls, catch basins, manholes, and parcel boundaries.

7.6.2 Pavement Runoff Analysis for Existing and Proposed Conditions

A runoff analysis for transportation areas will be conducted to differentiate point source and non-point sources for MS4 compliance review. A corridor subcatchment area assessment will be completed to determine drainage patterns and will trace discharge from US Route 3 to all discharge locations including but not limited to, private, municipal, and state systems. The Project Team will evaluate the preferred alternative for compliance with MS4 and NHDES Alteration of Terrain Administrative Rules Env-Wq 1500 to include an assessment of New Development and Redevelopment. For New Development criteria, an assessment of retaining stormwater on site by using the natural flow patterns with runoff from impervious services to achieve 80% or more removal of total suspended solids and at least 50% removal of both total nitrogen and total phosphorus through appropriate treatment BMPs will be completed. The pavement runoff analysis will be documented in a Draft and Final Pavement Runoff Analysis Technical Memoranda.

7.6.3 Determine Appropriate Size and Placement of Structural BMPs

The Project Team will investigate appropriate water quality treatment measures and determine the appropriate BMP size and location within the project area for presentation at the Public Hearing. This will include considerations of the preliminary engineering topographic survey to identify site constraints and hydraulics. Recommended BMPs will be designed to accommodate post-development peak flow runoff for the 2-year, 10-year and 50-year, 24-hour storm events. A site walk of the project area will be undertaken to facilitate the analysis. A summary of the BMP sizing and placement will be documented in Draft and Final Water Quality Treatment Measure Technical Memoranda.

7.6.4 NH Turnpike BMP Assessment Constructed Under Bedford 13527

The Project Team will prepare an assessment of the Detention Basin #3 constructed under Project 13527 (US Rte. 3 over F.E. Everette Turnpike) which has experienced damage to the micro pool lining resulting in loss of efficiency. The Project Team will complete a forensic assessment for the existing basin consisting of a review of the topographic survey (provided by NHDOT), and a desk top review of as-built construction plans, geotechnical report, drainage design, construction field notes and maintenance records. The



Assessment Report will include recommendations for retrofit and rehabilitation that can be completed under the Part C phase should the basin not be expanded for use under the preferred alternative.

7.7 Cultural Resources (Historic)

7.7.1 Request for Project Review Form

The Project Team will initiate the Section 106 process by preparing a Request for Project Review (RPR) form for submission to the New Hampshire Division of Historical Resources (NHDHR). The form will include a description of the project with supporting documentation/maps, a defined project boundary, documentation of architectural resources within the project area, and description of potential ground-disturbing activity and known archeological resources. A preliminary Area of Potential Effect (APE) will be proposed at this time for SHPO review. This task will require a site visit to determine the APE and to photograph properties within the APE. In addition, a file review through EMMIT will be conducted at NHDHR for previously identified historic resources, both architectural and archeological, and research on construction dates will be undertaken through online assessor's data. Two (2) rounds of comments on the Draft form are assumed.

7.7.2 Historic Resources Survey

The Project Team will prepare an Architectural Survey Plan (ASP), if required by NHDHR, which will encompass properties within the defined APE. Major narrative sections with a table of resources and recommendations will include a discussion of methodology, applicable NHDHR Historic Context(s), an overview of the developmental and architectural history of the area, and Bibliography/References. Note that the ASP will not make eligibility determinations, but instead it will make survey recommendations if necessary. The extent of the area evaluated will be determined based on the visual and direct APE defined for the project. It is assumed that up to 6 properties requiring an inventory form within the APE will be necessary.

7.7.3 Section 106 Coordination and Meetings

The Project Team will assist with the preparations for and attend up to four (4) Cultural Resources Coordination Meetings to discuss potential eligibility and effects determinations for the project. This will include the preparation of PowerPoint presentations, handouts, and preparation for the meeting including team conference calls. The Project Team will prepare minutes for each meeting documenting the topics of discussion, comments and issues, follow-up action items, and any agreements or resolutions discussed. Minutes of the meeting will be distributed electronically.

7.7.4 Cultural Resources Impact Analysis

Within the area of Potential Effect (APE), the Project Team will prepare an existing conditions document (a summary of the resources, the Phase 1A Archaeological Assessment, and the Request for Project Review Form), the Determination of Effect, Effects Forms, and supporting project documentation for submission to NHDHR. Up to four (4) Effects Forms are assumed. Effects forms will only be prepared for the Preferred Alternative at conclusion of alternative screening (Section 4) for incorporation into a project effect memo. Two rounds of review by NHDOT and FHWA are assumed. This packet will be adapted for submission to the Advisory Council on Historic Preservation (ACHP) through the e106 system. It is assumed NHDOT and FHWA will coordinate Native consultation, if any, with support provided by the Project Team.

7.7.5 Memorandum of Agreement

The Project Team will work with NHDOT, FHWA, NHDHR, and ACHP to prepare a Memorandum of Agreement (MOA) for the Project, if required. Two rounds of comments are assumed on the MOA. It is



assumed NHDOT will coordinate signature of the MOA. The Project Team will also prepare an e106 submission.

7.8 Stone Walls

The Project Team will identify and evaluate stonewalls within the project limits in accordance with the Stonewall Policy Guidelines to determine if they would qualify for reconstruction.

7.9 Cultural Resources (Archaeology)

The Project Team will conduct a Phase 1A Archaeological Sensitivity Assessment for the project. The APE for the study is assumed to follow US Route 3 from its interchange with the Manchester Airport Access Road to the intersection with Hawthorne Drive. The study will adhere to NHDHR's Archaeological Standards and Guidelines (2018). As part of the study, the following information will be compiled for the project area:

- Project information including the project size, location, and plans. The project area and APE will be identified on the most recent USGS quadrangle and, if available, maps prepared from the project plans provided by the client will be included.
- Environmental information including a description of mapped soils, bedrock geology, physiography and hydrology in the vicinity of the project area.
- Discussion of existing conditions within the project area including present land use and evidence of prior disturbance. A site visit will be conducted to observe and photograph existing conditions.
- A description of previously reported archeological and historical resources in the vicinity of the project area. This information will be obtained during research and will include known archeological sites, previous archeological surveys, and National Register listed and eligible archeological sites.
- Historical maps and an interpretation of potential historic resources within the project area.
- Soil coring and/or shovel testing information to assess the likelihood of intact soils and of possible archeological deposits.
- An assessment of the archeological sensitivity and potential of the project area and recommendations regarding Phase IB testing.

The Project Team will prepare the Draft Phase 1A for review by NHDOT and FHWA, respond to one round of comments on the report, and deliver digital copies to NHDOT and one hard copy of a Final report for transmission to NHDHR. Should the Phase IA investigation determine that a Phase IB Intensive Archeological Investigation would be necessary, such work would be undertaken in subsequent phases of design.

7.10 Noise Analysis

The Project Team will complete an assessment of the project area to determine whether it meets the definition of a Type I Project, and if a noise analysis will be required. For this scope, it is assumed a noise analysis will be required. The proposed Noise Analysis will follow the New Hampshire Department of Transportation (NHDOT) *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I or Type II Highway Projects (November 2016)*.

- Existing noise measurements will be taken to validate the accuracy of the TNM (Traffic Noise Model). This work will entail travel to the project area and performance of validation noise monitoring at up to 6 locations throughout the project area and to include the identification of the activity category of each property, as well as the number of receptors at each multi-unity property. The Project Team will contact the Town of Bedford Planning Department to determine if any planned development, land use proposals are located within the project limits that may be approved

by the NEPA document publication, and if so, will include those sites in the assessment. All receptors located within 200 feet throughout the project corridor will be identified.

- This work will utilize CADD files of the proposed alignments and other data made available to the Project Team (GIS parcel information, aerials, etc.).
- The Project Team will predict the noise levels for the existing year no build condition, opening year build condition and design year build condition to determine if potential mitigation options are feasible and reasonable.
 - This analysis will use the most recent approved Federal Highway Administration (FHWA) Traffic Noise Model (TNM), Version 2.5 to predict the noise levels at each receptor within the project area for the existing year no build, opening year build and design year build for each preferred alternative.
 - If necessary, model and determine if noise barriers are feasible and reasonable. For purpose of this scope, it is assumed that up to three (3) locations will be evaluated for potential abatement alternatives. The results will be documented in detail in a noise technical report as well as summarized in the environmental document. Any feasible and reasonable abatement alternatives shall be identified, and public comment solicited during the NEPA public involvement process identified in the PUBLIC ENGAGEMENT AND COMMUNICATION section located elsewhere in this scope. For the purposes of this scope, it is assumed that no objections to any proposed noise mitigation will be received during the NEPA public involvement process and the need to obtain votes from benefitted receptors will not be necessary.
 - This analysis will utilize survey information made available to HDR by the NHDOT as well as data developed during the alternatives analysis study within Section 3.0. This will include peak hourly traffic volumes, vehicle mix in % autos, % medium trucks, % heavy trucks, % buses, and % motorcycles, posted speeds, alignments, as well as roadway, receiver and terrain elevations.
- The Project Team will develop a draft noise technical report and implement comments into a final report.
- Should FHWA mandate an updated TNM model prior to finalizing the NEPA determination, the Project Team will apply the FHWA conversion tool to convert from the TNM Version 2.5 model to the latest TNM 3.x model.
- Perform QA/QC reviews of the analysis and report.

7.11 Air Quality Assessment

The Bedford US Route 3 project would generate air pollutant emissions from both construction and operation of the project. With respect to National Ambient Air Quality Standards, the project area is designated by EPA as in attainment for all criteria air pollutants and is expected to remain in attainment with respect to all NAAQS, including the newest NAAQS, the 2015 ozone standard of 70 parts per billion. No NAAQS maintenance area status currently exists in the project area.

The air quality study area is proposed to include the US Route 3 and immediate vicinity surrounding the corridor. Based on the current NAAQS status of the project area the project is not subject to Transportation Conformity requirements under 40 CFR 93, Subpart A. Therefore, a qualitative air quality assessment is proposed for documenting the impacts of this project under the National Environmental Policy Act and no quantitative analyses are expected for this project. The qualitative assessment will include a Level of Service (LOS) comparison between no action and with action scenarios to determine if the congestion would worsen under the with action scenario.

7.12 Contaminated Properties Review

The Project Team will identify contaminated/hazardous materials sites located either directly within the project footprint or within reasonable project limits where a contamination source could directly or indirectly affect the project area.

The screening of contaminated properties will consist of the following tasks: 1) review of historic aerial photographs to evaluate past and current land use within the project areas, 2) review of State and Federal regulatory databases, which will entail reviewing NHDES OneStop Database files for listed sites within 1,000 feet of the project, listed landfill sites within 4,000 feet of the project, review of the NHDES PFAS sampling map for water quality exceedances within 4,000 feet of the project and performing an EDR search, and 3) a site reconnaissance of the project areas to look at land use and observable physical evidence of contamination or potential contamination sources. The information will be described in a summary report that includes a list of all parcels with potential contamination concerns. It is assumed that RASCAL database will not need to be populated during this phase of the project.

Appropriate LRS language will be incorporated into the environmental document. Additionally, review of the following records will occur to determine if any work will impact suspected ACM, if present:

- As Built Plans
- Maintenance Records
- Repair Records
- Construction Date
- Utilities

7.13 Section 4(f) Evaluation

If applicable, the Project Team will prepare an Individual Section 4(f) evaluation which will include a discussion of the applicability of Section 4(f) to the project, alternatives, findings, and measures to minimize harm. A Draft Individual Section 4(f) Evaluation will be provided to FHWA and NHDOT for review. The Project Team will then revise the Draft Evaluation to address comments received by NHDOT and FHWA, resubmit the documentation to NHDOT and FHWA for their final review, and issue a Final Individual Section 4(f) Evaluation.

7.14 Section 6(f) Consultation

The Project Team will prepare a letter to the NH Department of Natural and Cultural Resources confirming there are no Section 6(f) resources within the project area and thus that a Section 6(f) evaluation will not be required.

7.15 Environmental Study Document (Individual CE)

For the development of this scope, the Project Team will prepare an Individual Categorical Exclusion (CE) in accordance with the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) Guidelines, FHWA Guidelines and NHDOT Guidelines. The CE will draw upon analysis prepared under other tasks and supplement it as necessary to develop the required NEPA document.

In general, the CE process will:

- provide for project notification to Federal, State and local agencies.
- provide for cooperative consultation among agencies through agency coordination.

- assess the environmental impacts, both adverse and beneficial, of the Proposed Action and No Action on the natural, cultural, and social environment.
- identify unavoidable adverse environmental effects.
- identify mitigation measures to address and minimize adverse environmental impacts from the construction, operation, and maintenance of the Proposed Action.
- identify potential permits and certifications needed to complete the project.

Additionally, the environmental process will address specific legislative requirements (Executive Orders, agency coordination, Section 4(f), Section 6(f), and Section 106, among others), by identifying specific findings and necessary follow-on actions within the environmental document.

The CE will assess the environmental impacts associated with a single Build Alternative, which will be identified as the Preferred Alternative in the Design Report. Alternatives considered during the planning process but eliminated from detailed analysis will also be discussed in a summary form in the CE, however detailed environmental analysis for all the alternatives considered will not be provided.

7.15.1 Project Description, Purpose and Need and Agency Coordination

After consolidation of the build alternatives, the approved project description and Purpose and Need statement will be included in the CE as well as in all public and agency notifications issued relative to NEPA processing. A summary of agency coordination will also be prepared as part of this task.

7.15.2 Preferred Alternative and Alternatives Dismissed

The CE will evaluate a single Build Alternative and a No-Build Alternative. The alternative screening and selection process leading to the identification of the Preferred Build Alternative will be summarized in the CE. In addition, a detailed description of the Preferred Alternative will be developed and included in the CE.

7.15.3 Affected Environment and Environmental Consequences

Land Use

Existing land uses in the study area will be described. Potential impacts that will be explored include changes in land use, and consistency with local, regional, and state plans of development. The existing conditions discussion will provide the foundation for the discussion of Secondary and Cumulative Impacts.

Social and Economic Resources

Demographic data including income and employment statistics will be collected by the consultant team for the project study corridor. Information on existing neighborhoods, neighborhood organizations, and/or important community assets/resources in the study area will also be collected. Sources of information to be consulted include the US Census and the 2020 draft Bedford Master Plan.

Potential social and economic impacts associated with the Proposed Action will be analyzed and mitigation measures (if any) will be identified. The impact assessment will focus primarily on direct physical impacts and will consider the following issues among others:

- Community disruption including change of access to, from, or within existing residential or non-residential areas.
- Right-of-Way impacts (access partial and full property acquisitions).
- Interruption of emergency and community services.
- Adverse and/or beneficial impacts on the local tax base and employment.



- Consistency with the 2020 Draft Bedford Master Plan.

Farmlands

The Project Team will identify prime, unique, and farmlands of statewide importance within the study area. If impacts are to occur, a Farmland Conversion Impact form will be completed.

Air Quality

Based on the findings of the Air Quality Assessment, existing air quality conditions and impacts of the Build and No-Build Alternatives will be summarized in the CE. The analysis will include impacts related to both construction and operation. Appropriate mitigation measures will also be identified, if needed.

Noise

Based on the findings of the Noise Assessment, existing noise conditions and impacts of the Build and No-Build Alternatives will be summarized in the CE. The analysis will include impacts related to both construction and operation of the interchange. Appropriate mitigation measures will also be identified, if needed.

Surface and Groundwater Quality

Data on existing groundwater within the study area will be collected from sources such as the Town of Bedford, NH GRANIT, and NHDES. These resources and potential impacts of the Preferred Alternative will be described in the CE. The CE will also summarize the findings of the Surface Water Analysis and BMPs.

Floodplains

The Project Team will identify and describe regulatory floodways and 100-year floodplain zones in the study area using National Flood Insurance Program (NFIP) maps and/or information developed by the Federal Emergency Management Agency (FEMA) and/or the state of New Hampshire. Potential project encroachments into floodplains and floodways will be identified and described and measures proposed to minimize flood risks and to mitigate adverse impacts will be suggested, as required by Executive Order 11988.

Wetlands

The findings of the wetland delineation will be summarized in the CE. Direct and indirect, and temporary and permanent impacts of the Build Alternative will be assessed in terms of both quantity (acreage and volume) and quality (functions and values). Methods to avoid and minimize wetland impacts will be assessed and described. If there are no practicable alternatives to avoid impacting wetlands, potential mitigation options will be discussed. The CE will summarize resource agency coordination on mitigation requirements. Conceptual wetland mitigation compensation options will be addressed in the CE, based on regulatory agency coordination.

Wildlife, Vegetation and Threatened and Endangered Species

Existing terrestrial and aquatic habitats in the study area, and wildlife corridors and wildlife and vegetation within them, will be identified and described in terms of location and characteristics. Existing information may include the New Hampshire Wildlife Action Plan, coordination with NH Fish and Game Department, existing GIS mapping, aerial photographs. A NH Fish and Game Threatened and Endangered Species Consultation memo will be prepared in accordance with the MOA between DOT



and NH Fish and Game regarding Fis 1004, seeking design review and recommended conservation measures from. Field investigation will supplement this task to verify existing data, and fill in gaps, as needed. Field work may include photographs and notes documenting habitat and wildlife. The initial assessment will be based upon site photos and photo map, topo map, aerial map, project plan showing proposed area of disturbance. No detailed surveys are included in this task. In addition, the presence and/or absence of endangered and threatened species and habitats will be documented in the CE. Potential impacts from the project will be identified and described and measures to avoid, minimize and mitigate impacts will be presented. A summary of coordination with regulatory agencies and mitigation discussions will be included in this narrative.

Parks/Recreation/Conservation Lands

Public parks, recreation areas and conservation lands will be identified within the project area. Potential impacts to these resources resulting from the implementation of the Preferred Alternative will be described. This analysis will include coordination with the Section 4(f) Evaluation and Section 6(f) compliance, as applicable.

Cultural Resources

As part of the Request for Project Review, the Project Team will define a Draft Area of Potential Effects (APE) for the project. The CE will describe the APE and historic and archaeological resources located within this area, as identified through a windshield survey, research at NHDHR, the Phase 1A Archaeological Survey, and a Project Area Form. The Project Team will also summarize the effects of the Build Alternative on these resources and identify mitigation measures agreed upon through the Section 106 consultation process.

Hazardous Materials

The Project Team will summarize the results of the records search in the CE. The potential for project impacts from hazardous materials/contaminated sites will then be evaluated. The Project Team will coordinate with NHDOT to evaluate the presence of asbestos or lead painting on existing infrastructure structures and will assess measures required to conduct geotechnical investigations within areas of potential contamination.

Visual Resources

The Project Team will complete a visual analysis which will define the viewshed, document existing visual conditions within the viewshed, and assess impacts to visual resources resulting from the Build Alternative. Simulations prepared as part of the Public Participation will be used as the foundation for the analysis.

Environmental Justice

No work is carried under this scope for assessing and describing Environmental Justice (EJ) Impacts. It is assumed that the NHDOT Office of Federal Compliance will complete the EJ Analysis and provide it to the Project Team for inclusion in the document.

Traffic and Transportation

Existing traffic conditions and the impacts of the No-Build and Build Alternatives on traffic and transportation will be summarized in the CE based on the findings in the Preliminary Design Report. The existing roadway network in the project area will be described including information on traffic volumes,

vehicle mix, and circulation patterns. The potential for impacts to the transportation system due to construction, as well as any operational impacts, will be identified and described. This includes impacts to emergency access. Measures to mitigate these impacts will be presented in the CE.

Considerations Relating to Pedestrians and Bicyclists

Existing pedestrian and bicyclist facilities in the project vicinity and existing safety issues will be described based on the findings in the Preliminary Design Report. Potential impacts to these facilities due to the construction and implementation of the project will also be discussed.

Public Utilities and Services

The Project Team will review existing public utilities and services information provided by NHDOT in the project area to determine if any public utilities will be removed, replaced, or relocated under the Build Alternative. Impacts and mitigation measures will be summarized.

Construction Impacts

Impacts associated with construction of the Build Alternative will be discussed, including those related to:

- Land use
- Neighborhoods
- Access/vehicular traffic circulation
- Business vitality
- Air Quality
- Noise
- Water quality/stormwater/wetlands
- Wildlife and listed species
- Floodplains and resiliency
- Provision of emergency services
- Hazardous waste/contamination

This analysis will consider potential impacts from construction activities and necessary avoidance, minimization, and mitigation measures.

Environmental Commitments

The Project Team will prepare a summary of Environmental Commitments for inclusion within the CE.

7.15.4 Permits, Approvals and Certifications

The Project Team will identify a list of potential required permits for construction and operation of the Proposed Action, including state and federal permits and approvals.

7.15.5 References, Citations and Appendices

The Project Team will develop a list of sources and gather relevant appendices for inclusion within the CE. Appendices may include supporting studies and agency coordination letters.

7.15.6 Preparation of Supporting Graphics

Standard 8.5x11 inch and 11x17 inch report graphics will be prepared to illustrate relevant project elements for the CE document. Where necessary, this mapping will be supplemented by existing GIS information. A maximum of five (5) base report graphics for the CE are estimated for this scope of work.

7.15.7 Draft Individual CE

The Project Team will prepare an Administrative Draft CE, along with an electronic copy in MS Word format for purposes of utilizing Track Changes and submit to NHDOT for their internal review and comment, and for their distribution to FHWA for comment, as appropriate. The draft CE is anticipated to be up to 20 pages (not including appendices) based upon the project size, type and context. Up to two (2) hard copies of the draft CE will be provided for distribution and review at Public Hearing and an PDF copy will be posted to project website prior to Public Hearing.

7.15.8 Final CE

Upon receiving comments from NHDOT and FHWA on the Draft CE, and following the Public Hearing, the Project Team will meet with NHDOT and FHWA to review and address comments, as needed. The Project Team will then submit four (4) Final CE printed copies, one (1) CD and an electronic PDF.

7.16 Meetings and Coordination

The Project Team will attend up to two (2) meetings and up to four (4) conference calls with NHDOT Bureau of Environment (BOE) in support of the preparation of the CE during Part B.

7.17 Project Team Coordination

Coordination between the HDR team and subconsultants will be necessary throughout the course of the study. It is assumed this will include up to three (3) meetings and six (6) conference calls.

Deliverables:

- Agency coordination letters as indicated in Section 7.2.2
- Draft and Final Wetland Delineation Reports
- Invasive Species Management Plan sheets
- Draft and Final Stream Crossing Assessment Technical Memoranda
- Draft and Final Pavement Runoff Analysis Technical Memoranda
- Draft and Final Water Quality Treatment Measure Technical Memoranda
- Draft and Final Request for Project Review Form
- Draft and Final Project Area Form
- Draft and Final Effects Forms (4)
- Draft and Final Memorandum of Agreement
- Draft and Final Phase 1A Archaeological Sensitivity Assessment
- Draft and Final Noise Technical Report
- Draft and Final Air Quality Assessment
- EDR screening report.
- Draft and Final CE/ 4(f) Evaluation
- Forensic Assessment Report for the Existing Water Quality Basin constructed under Project 13527

Assumptions:

- Listed in subsections above.

8.0 PUBLIC ENGAGEMENT AND COMMUNICATION

The Project Team shall support a dynamic public participation process that enhances NHDOT practices as stated in the guidance document, "NEPA Public Involvement Manual" (January 2021).

The Project Team will develop a Public Outreach and Communication Plan. The Project Team will identify stakeholders, key issues, and existing communications networks, such as newspapers, newsletters, radio stations, and electronic communication/social media tools that assist the entire team in meeting the project goals.

To develop the plan a site visit will be made shortly after project kick-off to view the project area and meet one-on-one with town officials and key stakeholders as defined in Sections 8.1 through 8.4 to understand key issues and identify effective methods of communicating with the public. Potential locations for public and stakeholder meetings will be examined as well as locations for informal communications such as bulletin boards at retail shops, library, town hall, social clubs, markets, and Facebook pages.

A draft public involvement plan will be developed and presented to NHDOT within 30-days of the initial site visit. Following NHDOT approval, it will be shared with the Project Advisory Committee (PAC) at its first meeting to solicit ideas and recommendations. Following the PAC meeting, the plan will be finalized, and implementation will begin immediately.

8.1 Public Officials (PO) Meetings

The Project Team will attend up to two (2) individual Public Official Meetings such as a briefing at a Town Council meeting. The Project Team will set up a template for materials, such as PowerPoint presentations and meeting handouts before these meetings. These templates can be used at future PAC and Public Informational Meetings (PIM) / hearings. No Section 106 consulting party's meetings will be covered by this task. It is assumed that there will be three (3) attendees to include two (2) HDR attendees (Project Manager and Senior Road Design Staff) and one (1) FHI attendee the public officials' meetings.

8.2 Project Advisory Committee (PAC) Meetings

A PAC will be established for this project in collaboration with NHDOT and the Project Team to review and discuss alternatives and to facilitate local input into important design decisions. Members of this committee will include representatives from the Regional Planning, the Town of Bedford, and US Route 3 corridor members assigned after consultation with the Town. The intent of the US Route 3 PAC is to involve local stakeholders and citizen representation in the decision process.

The primary responsibility of the PAC will be to participate in the overall project process, provide and disseminate information, review and comment on draft documents and Section 106-related issues and address specific environmental, social and economic issues associated with the development of project recommendations. The Project Team will provide PAC members a reasonable timeframe to review materials in advance of each PAC meeting. All project information will be sent electronically.

In addition to appropriate NHDOT staff, the following are anticipated to participate in the project PAC:

- Representatives from the Town of Bedford as designated by Town Council. The goal is to have a diverse representation of the Town with no more than five (5) members from local committees or boards, Town and School Staff, residents, area businesses, with interest in the project.
- A representative from Southern NH Regional Planning Commission.
- A representative from Bedford School District.

- A representative from Manchester Boston Regional Airport.
- Others as identified, including through Environmental Justice Outreach, and approved by NHDOT.
- NHDOT District 5 Maintenance Engineer or delegate.

It is anticipated that the PAC will meet in person up to six (6) times during this project. It is assumed that there will be four (4) to six (6) attendees to include Project Manager, Senior Road Design Staff, Senior Traffic Design Staff and/or Lead Environmentalist and one (1) to two (2) FHI Public Outreach attendees. The Project Team will:

- Fully develop the role and objectives of the PAC with NHDOT, so that the advisory role is clearly understood by all.
- Develop a tentative PAC meeting schedule, corresponding to key decision points in the project.
- Maintain a database of PAC members.
- Be responsible for scheduling the date and time, identifying the meeting location, and developing draft meeting notices for NHDOT approval.
- Prepare a draft agenda for each PAC meeting.
- Revise and finalize each PAC meeting agenda.
- Develop and coordinate meeting materials (e.g., reports, slides, illustrations, graphics, designs, and maps).
- Send (via mailed postcard or email) meeting reminders to each of the PAC members three days prior to each meeting.
- Distribute/publish (ground mail, email) PAC meeting notices and agenda to PAC Members, all draft documents to each PAC member and posting meeting notices and agenda on the project web site, two weeks prior to the scheduled meeting.
- Facilitate each PAC meeting (At the first PAC meeting, present the objectives of the project, answer questions to clarify the objectives, and respond to general questions about the project).
- Distribute meeting notes to PAC members.

8.3 Public Informational Meetings (PIM)

The purpose of the Public Informational Meetings is to obtain input from the public regarding the development of this project and its recommendations. These meetings will be planned to coordinate public participation in the NEPA process (including Section 106 requirements), both for public scoping and review of the Individual Categorical Exclusion (CE). The Project Team will conduct these PIMs in-person, virtual, or a hybrid of both. In-person meetings will be "open house" style with considerable in-person discussion, a brief presentation, and a question-and-answer period. The Project Team recommends the use of two-way polling and communication tools, such as Poll Everywhere, if virtual meetings are desired. In addition, PIMs can be streamed via Facebook and other social media sites if there is a desire to broadcast to those who may want to view the meetings this way.

The Project Team will attend up to three (3) Public Informational Meetings held at key project milestones (first meeting for a Stakeholder meeting prior to initiation of design, second meeting to facilitate discussion of the reasonable range of design alternatives and a third meeting to focus on the proposed action). It is assumed that there will be four (4) to six (6) attendees to include Project Manager, Senior Road Design Staff, Senior Traffic Design Staff and/or Lead Environmentalist, as well as two (2) FHI Public Outreach attendees. The PIM meetings are expected to last up to two hours each. The Project Team will be expected to arrive one hour prior to each meeting to set up for the meeting and stay a half hour after the meeting, as may be needed, to interact one-on-one with the public/respond to individual questions as well as return the room to its original set up.

For each of these meetings, the Project Team will be responsible for coordinating the following:

- Scheduling the date, time, and recommended meeting location.
- Developing an agenda for meetings for NHDOT approval.
- Conducting a dry-run of presentation for NHDOT before meeting.
- Presenting the project materials at the meeting.

No formal stenographer or audio recording is assumed for this task. NHDOT will be responsible for preparation of PIM meeting notices, coordination and reservation of meeting spaces and mailing notices.

8.4 Preparation and Documentation of Meetings

The Project Team will be responsible for the preparation of all meeting presentations and provide a written summary of all PAC, PIM, and PO meetings. The Project Team will:

- Develop handout material, including display graphics (up to eight (8) boards per meeting) for NHDOT review and approval prior to publication. It is assumed that materials for the PIM will utilize information developed for corresponding PAC meetings.
- Prepare ten (10) PowerPoint presentations for use at PAC, PIM, and PO meetings.
- Prepare ten (10) written meeting summaries that will be submitted to NHDOT for review, approval and posting on the project website.
- Prepare and revise alternative graphics, plans, and renderings created during alternative design phases and engineering tasks.
- Revise, finalize, and distribute meeting notes to attendees.

8.5 Communications Materials and Activities

8.5.1 Public Outreach and Communication Plan

This Public Outreach and Communication Plan outlines how the study team will inform and seek input from the communities, stakeholders, regulatory agencies, and the traveling public during the study process. Methods of outreach include PIM meetings, stakeholder meetings, PAC meetings, and PO meetings. In addition, surveys, website updates, media, fact sheets, e-bulletins, and other forms of outreach can be utilized, as appropriate. The engagement strategy is designed to be a transparent and open process. Public opinion and comments will be documented and considered in the development of study recommendations. Meetings will be held virtually or in-person, as appropriate.

This plan is a living document. It will be regularly revisited and refined throughout the study as outreach needs evolve. Because of the ongoing COVID-19 pandemic, the public engagement process is designed to be flexible.

8.5.2 Contact List

The Consultant will create and maintain a mailing list of interested parties throughout the project process. The Interested Parties mailing list shall include, but may not be limited to:

- Legislators from US Congress, Executive Council, State Representative and Senate.
- Individuals or organizations that have indicated an interest in this project.
- Stakeholders.
- Media.
- Abutters.
- Section 106 Consulting parties.

- Local Municipal Officials; and
- Others.

8.5.3 E-bulletins

The Project Team will produce up to four (4) e-bulletins over the course of the project to inform the public about project developments and special topics. The e-bulletin communications will be designed as short (no more than equivalent of an 8 1/2" x 11" page) and designed for electronic formatting. Potential topics and milestones for e-bulletins could include:

- Summary of land use, current and future, in the project area.
- At the beginning of the project, announcing the project and advertising the first public meeting, the PAC and how to stay informed about the project.
- At development of final draft alternatives phase when alternatives are ready for public review and a PIM is scheduled.
- At the conclusion of the design phase announcing the preferred design and next steps, including schedule for construction.

In addition to posting on the NHDOT project website, the e-bulletins will be sent to the Town, local employers, and other civic-focused Facebook and social media networks for distribution.

Project updates are expected throughout the process, materials are assembled from effort through tasks in Preliminary Engineering and Environmental Coordination and would not change based on the complexity of the project.

8.5.4 Media Relations

The Project Team will provide supportive materials to NHDOT communications staff to assist the department with publicizing public meetings in newspapers, radio and TV stations that cover the Bedford area. The Project Team will provide a draft media advisory to NHDOT for four (4) public meetings with pertinent information on the date, time, location and purpose of the public meetings and project status. Outreach to media outlets will occur within two weeks in advance of four (4) public meetings. NHDOT will be responsible for initiating all media contact.

Draft media advisories are expected throughout the process, materials are assembled from effort through tasks in Preliminary Engineering and Environmental Coordination and would not change based on the complexity of the project.

8.5.5 Website Content

The Project Team will provide NHDOT relevant project information in electronically formatted files for the agency to post in the "Project Information Center" section "Project Specific Information" subsection of the NHDOT website - <http://www.nh.gov/dot/projects/index.htm>. Information provided may include notices of upcoming public meetings, meeting presentations, meeting summaries, project reports, educational videos, e-bulletins and contact information on how to communicate with the Project Team. The Project Team will also review project page and update monthly, for the duration of the project.

In addition, the Consultant will provide information about the project for posting on the town of Bedford website.

Website coordination is expected throughout the process, materials are assembled from effort through tasks in Preliminary Engineering and Environmental Coordination and would not change based on the complexity of the project.

8.5.6 Online Survey Tool

The Project Team will utilize a crowdsourcing online and mobile digital tool to assemble ideas, comments, and suggestions into a voting forum to engage public input, facilitate public involvement, allow for collaboration, and promote transparency. The Project Team will develop up to two (2) online surveys at an agreed upon time in the project. The surveys will launch at two separate times during the project process, but each survey will tailor different questions for different stakeholders (i.e., an elected official may be asked to answer a different set of questions than a business owner or an abutter). The Project Team will monitor information generated through crowdsourcing and provide a summary of the forum and voting.

8.5.7 Project Visualizations

The Project Team will compile a video visualization of the two (2) proposed alternatives as developed under Section 4.0. The video will be composited using a split-screen view with existing conditions represented on the left side of the screen and the proposed conditions represented on the right. For the representation of the existing condition, it is assumed that NHDOT will capture video via an unmanned aerial system (aka drone), flying approximately 80 - 100 feet above the roadway from South to North with advance coordination with HDR for on flight specifics. Drone video speed may be adjusted to match proposed condition flyover. The Project Team will construct the corridor and immediate surroundings in a 3D modeling & visualization platform such as 3DS Max. A terrain / topographic model will be textured with aerial (satellite) imagery. Existing buildings / structures will be included in simplified volumetric gray massings. Existing trees will be approximated in the 3D model. The proposed corridor will be constructed in 3D models from the two (2) alternatives with striping and animated vehicles added to represent build year typical condition. Flyover animation of the proposed alternatives will be created using a similar camera perspective to the drone video, but at a faster pace so that the 2.2 miles can be flown over in approximately 2 – 3 minutes.

The project visualization graphics can aid with communicating concepts during PAC meetings, the third PIM, and the public hearing.

8.6 Other Communication Activities

Throughout the course of Part B, miscellaneous communication activities will occur with members of the public, especially during the periods leading up to and following PIMs. A sampling of communication tasks we anticipate are:

- Coordination with the Town of Bedford to send out e-alerts in advance of upcoming meetings.
- Design and mailing of flyers to community gathering locations.
- Develop and maintain a database of all comments received.
- Directly respond to comments or coordinate a response from another member of the study team.
- Track all comments and responses within database.
- Provide reports of comments for NHDOT within the monthly progress report.
- It is assumed that these communication activities will not exceed 2 hours per month.

The Project Team will provide completed and phase-specific content (text, photos, graphics, and links) to support project promotion and educational presentation for NHDOT's distribution through social media outlets, including the Department's Facebook page and Twitter.

Communication is expected throughout the process, materials are assembled from effort through tasks in Preliminary Engineering and Environmental Coordination and would not change based on the complexity of the project.

8.7 NHDOT Coordination Meetings

Project Team and NHDOT coordination meetings are anticipated to provide public meeting expectations, delivery, set agendas, and dry runs prior to the public outreach process. The following meetings are anticipated with the NHDOT:

- One (1) meeting prior to each Public Advisory Committee
- One (1) meeting prior to each of the Public Officials or Public Information Meetings
- One (1) meeting prior to the Public Hearing

8.8 Team Coordination Meetings

Internal coordination meetings are anticipated to provide the appropriate design, management, and supporting information to administer the public meetings in a professional manner. It is assumed two (2) staff each from HDR and FHI will conference to coordinate information for up to twelve (12) public meetings outlined above.

8.9 Public Hearing

The Project Team will support NHDOT in conducting one (1) Public Hearing.. For this meeting, the Consultant will be responsible for:

- Bureaus of Highway Design and Right-of-Way general administration, support, and documentation of the State and City rights-of-way, corridor, parcels, and existing easements.
- Preparation of colored Hearing Plans and Public Hearing handout.
- Preparing up to three (3) boards for use at the hearing.
- Conducting a dry-run of presentation for NHDOT before the hearing.
- Support DOT in presenting the project materials at the hearing.
- Review NHDOT transcript for Public Hearing and provide PowerPoint presentations used at Public Hearing for posting to the project website.

It is assumed that the Project Team will not provide a formal stenographer or audio recording for this task. For meeting attendance, it is assumed there will be up to three (3) HDR team members to include Project Manager, Senior Environmental Coordinator and FHI Public Outreach Coordinator to assist at the Public Hearing.

Deliverables:

- Draft and Final Public Outreach and Communication Plan,
- One (1) Stakeholder Meeting
- Up to two (2) Public Official Meetings.
- Up to six (6) PAC Meetings.
- Two (2) Public Information Meetings.
- Up to 10 PowerPoint presentations for meetings.
- Up to 10 meeting summaries.
- Up to four (4) e-bulletins.
- Up to two (2) short videos.
- One (1) online interactive map application.

- Up to six (6) NHDOT Coordination meetings.
- One (1) Public Hearing Plan and Handouts.
- Two (2) alternative corridor drone fly-through simulations.

Assumptions:

- NHDOT to provide access to Metroquest crowdsourcing online.
- NHDOT to provide drone corridor video for development of corridor simulations.
- Graphics presented will be completed during development of the project and will be utilized in presentations, no additional or new graphics are anticipated in Section 8.4.
- For Section 8.5 Communications Materials and Activities, it is assumed:
 - Stakeholder Meetings – envisioned as a “blank sheet” with the standard materials, aerials and base mapping or survey as appropriate.
 - For Public Informational Meetings, the materials will be representative of the increasing effort in the process.
 - Meeting #1 will be a summary of review of Alternatives Screening. Anticipated materials include aerial plans, aerial images and video of potent solutions from other projects, and solution graphics prepared as needed.
 - Meeting #2 will be a presentation of materials for the two alternatives through Section 4.0 to include aerial plans, color graphics of solutions evaluated, drive through animation, a project specific narration is not anticipated for Part B.
- No formal stenographer or audio recording is required by the HDR Team for meetings identified under the meeting tasks. A stenographer or audio recording for the Public Hearing will be provide by NHDOT.

9.0 Special Assistant to NHDOT Project Manager

The HDR leadership team will provide special assistance to NHDOT Project Manager for internal and external project management oversight and project coordination. The designated Special Assistant to NHDOT Project Manager lead will not serve as the HDR Project Manager, who will have responsibilities as outlined under Section 1.0. This role as Special Assistant to NHDOT Project Manager will related to public interaction, supporting the DEPARTMENT's project manager, and coordinating and leading multi-discipline meetings during the duration of the design while serving as an extension of the Department's staff. Special services anticipated are as follows:

- Coordinate with the Department's Project Manager for status and project updates affecting scope, estimates and schedule. Respond to project inquiries (internal and external) and request for project information.
- Coordinate with HDR's Project team for project management, traffic, road design, survey, geotechnical, public outreach and environmental oversight.
- Represent the Department as the point of contact for the Town of Bedford and Regional Planning.
- Coordinate presentation material for Public Official Meetings, PAC meetings, Public Information meetings and the Public Hearing, attend meetings and assist in the meeting notes.
- Assist in coordination with utility companies for documentation of existing utilities.
- Lead internal NHDOT meetings for project overview to include, but not limited to:
 - Estimate Review Committee Meetings.
 - Traffic Control Committee Meetings.
 - Commissioners/Directors Review Meetings.
 - Overview of information for all public official and public information meetings.
 - Presentation of reasonable range of alternatives and the preferred alternative.
 - Discussions on environmental mitigation commitments.
 - Pre-presentation for Public Hearing.



- Project scope and budget meetings as may be needed.
- Assist NHDOT Project Manager with Public Hearing to include coordination with Bureau of Right of Way for Pre-Hearing overview with Commission/Special Committee and to assist with Public Hearing presentation.
- Assist NHDOT Project Manager in responding to Public Hearing written comments, review of Public Hearing transcript and preparation of draft and final *Report of the Commissioner*.
- Assist NHDOT Project Manager in preparation of the Findings of Necessity meeting with the Hearing Commission or Special Committee.

The Special Assistant to NHDOT Project Manager is intended to serve as an extension of the Department's Project Manager.

Assumptions:

- The Special Assistant to NHDOT Project Manager will not review or approve project invoices for the HDR Project Team.
- All project Consultant Agreements, contract oversight and scope adjustments will be under the responsibility of the HDR Project Manager and NHDOT Project Manager.
- Project estimates uploading into ProMIS will be completed by the Department. The NHDOT Project Manager will provide updates on project expenditure reports throughout Part B to coordinate estimate reviews and updates.
- FHWA coordination and process reviews, if required, will be overseen by the Department with assistance as needed through the Special Assistant to NHDOT Project Manager.
- Estimated project coordination meetings over 24 months are expected as follows:
 - 30 Coordination Meetings with NHDOT Project Manager and Bureau Staff (1 hr./mtg plus travel time)
 - 12 Town of Bedford Liaison Meetings
 - 8 meetings with Town staff (Town Manager, Public Works Director, Planning Director, Parks and Recreation Manager, Economic Director, etc.)
 - 4 meetings with various Town Boards for project overviews (Planning, Conservation, Economic Development, and/or Historic Commission)
 - 12 Public Meetings
 - 2 Town Official Meetings
 - 6 Public Advisory Meetings
 - 3 Public Information Meetings
 - 1 Public Hearing and 2 Special Committee Meetings
 - 12 external meetings with Local Neighborhood Venues and property owners (1 hr./mtg plus travel time)
 - 9 NHDOT Internal Project Coordination Meetings
 - 2 Estimate Review Committee Meetings (2 hrs./mtg plus travel time.)
 - 1 Traffic Control Committee Meeting (2 hrs./mtg plus travel time)
 - 6 Commissioner/Director Review Meetings (2 hrs./mtg plus travel time)
 - 4 RPC Meetings (assuming 2 per year; 2 hrs./mtg plus travel time)

Attachment 2

**CONSULTANT DISCLOSURE STATEMENT
FOR PREPARATION OF
ENVIRONMENTAL EVALUATIONS**

I hereby affirm that I have read and reviewed the Council on Environmental Quality (CEQ) regulation [40 CFR 1506.5(C)] and related guidance issued by CEQ and that pursuant thereto this firm has no financial or other interest in the outcome of this project.

I further hereby affirm that the information provided herein is true and correct and acknowledge that any knowingly false statement or false representation as to any material part contained herein may subject me to a fine and/or imprisonment, pursuant to pertinent provisions of the United States Code.

3/22/24

(Date)

Katherine R. Foster

(Signature)

Attachment 3

CERTIFICATION OF CONSULTANT/SUBCONSULTANT

Heather H. Ivester

I hereby certify that I am the _____ and duly-authorized representative of the firm of HDR Engineering Inc. _____ and that neither I nor the above firm I here represent has:

- (a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above CONSULTANT) to solicit or secure this Contract,
- (b) agreed, as an express or implied condition for obtaining this Contract, to employ or retain the services of any firm or person in connection with carrying out the Contract, or
- (c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above CONSULTANT) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the Contract:

I/WE do also, under penalty of perjury under the laws of the United States, certify that, except as noted below, the company or any person associated therewith in the capacity of (owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of Federal funds): (a) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency; (b) has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past three years; (c) does not have a proposed debarment pending; and (d) has not been indicted, convicted or had a civil judgment rendered against (it) by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

except as here expressly stated (if any):

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

I acknowledge that this certificate is to be furnished to the State Department of Transportation and the Federal Highway Administration, U. S. Department of Transportation, in connection with this Contract involving participation of Federal-aid highway funds, and is subject to applicable State and Federal laws, both criminal and civil.

3/22/24

(Date)

Heather H. Ivester

(Signature)

Attachment 4

CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION

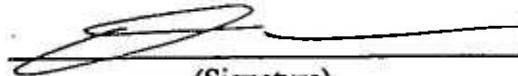
DAVID RODRIGUE, P.E.
ASSISTANT COMMISSIONER

I hereby certify that I am the _____ of the Department of Transportation of the State of New Hampshire, and the above consulting firm or its representatives has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Contract, to:

- (a) employ or retain, or agree to employ or retain, any firm or person, or
- (b) pay, or agree to pay, to any firm, person, or organization, any fee, contribution, donation, or consideration of any kind:

except as here expressly stated (if any):

3/27/24
(Date)


(Signature)

Attachment 5

**CERTIFICATION FOR FEDERAL-AID CONTRACTS
EXCEEDING \$100,000 IN FEDERAL FUNDS**

The prospective participant certifies, by signing and submitting this agreement, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower-tier subcontracts which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Attachment 6

IN WITNESS WHEREOF the parties hereto have executed this AGREEMENT on the day and year first above written.

Consultant

WITNESS TO THE CONSULTANT

By: Claine McCarty

Dated: 3/22/24

CONSULTANT

By: Matthew J. Freitas
NE Area Manager - Senior Vice President

(TITLE)
3/22/24
Dated: _____

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: Patasha White

Dated: 3/27/24

THE STATE OF NEW HAMPSHIRE

By: [Signature]

DAVID RODRIGUE, P.E.
ASSISTANT COMMISSIONER
DOT COMMISSIONER
Dated: 3/27/24

Attorney General

This is to certify that the above AGREEMENT has been reviewed by this office and is approved as to form and execution.

Dated: 4/26/2024

By: [Signature]
Assistant Attorney General

Secretary of State

This is to certify that the GOVERNOR AND COUNCIL on _____ approved this AGREEMENT.

Dated: _____

Attest:
By: _____
Secretary of State

State of New Hampshire

Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that HDR ENGINEERING, INC. is a Nebraska Profit Corporation registered to transact business in New Hampshire on June 17, 1985. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 84977

Certificate Number: 0006663302



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 9th day of April A.D. 2024.

A handwritten signature in black ink, appearing to read "D. Scanlan", is written over a faint circular stamp.

David M. Scanlan
Secretary of State

Certificate of Authority # 1

(Corporation, Non-Profit Corporation)

Corporate Resolution

I, Elizabeth C. Buell, hereby certify that I am duly elected Clerk/Secretary/Officer of
(Name)
HDR Engineering, Inc.. I hereby certify the following is a true copy of a vote taken at
(Name of Corporation)

a meeting of the Board of Directors/shareholders, duly called and held on January 1, 2024
by Consent and Agreement
~~at which a quorum of the Directors/shareholders were present and voting.~~

Heather Ivester, Senior Vice President
VOTED: That _____ (may list more than one person) is
(Name and Title)

duly authorized to enter into contracts or agreements on behalf of

HDR Engineering, Inc. with the State of New Hampshire and any of
(Name of Corporation)

its agencies or departments and further is authorized to execute any documents
which may in his/her judgment be desirable or necessary to effect the purpose of
this vote.

I hereby certify that said vote has not been amended or repealed and remains in full force
and effect as of the date of the contract to which this certificate is attached. This authority
remains valid for thirty (30) days from the date of this Corporate Resolution. I further certify
that it is understood that the State of New Hampshire will rely on this certificate as evidence that
the person(s) listed above currently occupy the position(s) indicated and that they have full
authority to bind the corporation. To the extent that there are any limits on the authority of any
listed individual to bind the corporation in contracts with the State of New Hampshire, all such
limitations are expressly stated herein.

DATED: 03.22.2024

ATTEST: _____

Elizabeth C. Buell
(Name & Title)

Elizabeth C. Buell, Assistant Secretary





CERTIFICATE OF LIABILITY INSURANCE

6/1/2024

DATE (MM/DD/YYYY)

3/20/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000 kcasu@lockton.com	CONTACT NAME: _____	
	PHONE (A/C, No, Ext): _____	FAX (A/C, No): _____
E-MAIL ADDRESS: _____		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: Lloyd's of London		
INSURER B:		
INSURER C:		
INSURER D:		
INSURER E:		
INSURER F:		

COVERAGES * CERTIFICATE NUMBER: 20399352 REVISION NUMBER: XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: _____			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX DAMAGE TO RENTED PREMISES (Ea occurrence) \$ XXXXXXXX MED EXP (Any one person) \$ XXXXXXXX PERSONAL & ADV INJURY \$ XXXXXXXX GENERAL AGGREGATE \$ XXXXXXXX PRODUCTS - COM/PROP AGG \$ XXXXXXXX \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident) \$ XXXXXXXX BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX AGGREGATE \$ XXXXXXXX \$ XXXXXXXX
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	NOT APPLICABLE			PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ XXXXXXXX E.L. DISEASE - EA EMPLOYEE \$ XXXXXXXX E.L. DISEASE - POLICY LIMIT \$ XXXXXXXX
A	ARCH & ENG PROFESSIONAL LIABILITY	N	N	P001412300	6/1/2023	6/1/2024	PER CLAIM: \$2,000,000 AGGREGATE: \$2,000,000.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 BEDFORD X-A004(462) 40664 PART B

CERTIFICATE HOLDER**CANCELLATION See Attachment**

20399352
 STATE OF NEW HAMPSHIRE
 DEPARTMENT OF TRANSPORTATION
 7 HAZEN DRIVE
 CONCORD NH 03302-0483

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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This endorsement, effective: 06/01/2023 - 06/01/2024

Forms a part of policy no.: P001412300

Issued to: HDR Engineering, Inc.

By: Lloyd's of London

NOTICE OF CANCELLATION TO CERTIFICATE HOLDERS ENDORSEMENT

Except respect cancellation non-payment premium (10 day notice cancellation), the **Insurer** shall give 30 day notice cancellation the Certificate Holder(s) set forth herein, provided that:

The **First Named Insured** is required by contract give notice cancellation the Certificate Holder, and

Prior the **Insurer** sending notice cancellation the **First Named Insured** the **First Named Insured** shall provide the **Insurer** in writing, either directly or through the **First Named Insured** broker record, the name each person or organization requiring notice cancellation and the corresponding address such person or other employee responsible receipt of notice of cancellation on behalf of such organization.

Notice cancellation be sent in accordance the terms and conditions the policy, except that the **Insurer** may provide written notice individually or collectively the Certificate Holders by email at the current email address given by the **First Named Insured** Proof sending the notice of cancellation by email shall be sufficient proof of notice.

Any failure provide notice cancellation the Certificate Holder due inaccurate or incomplete information provided by the **First Named Insured** shall remain the sole responsibility the **First Named Insured**

The following definitions apply to this endorsement:

1. **First Named Insured** means the Named Insured shown in Item 1. of Declarations.
2. **Insurer** means the insurance company shown in the header on the Declarations.

All other terms and conditions of the policy remain the same

AGENCY CUSTOMER ID: _____

LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY Willis Towers Watson Midwest, Inc.		NAMED INSURED HDR Engineering, Inc. 1917 South 67th Street Omaha, NE 68106	
POLICY NUMBER See Page 1		EFFECTIVE DATE: See Page 1	
CARRIER See Page 1	NAIC CODE See Page 1		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

PROJECT: Bedford X-A004(462) 40664 Part B

Additional Insured: STATE

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED LOCATION(S) GENERAL AGGREGATE LIMIT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Designated Location(s):

All locations owned by or rented to the Named Insured

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

- A. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage A, and for all medical expenses caused by accidents under Section I – Coverage C, which can be attributed only to operations at a single designated "location" shown in the Schedule above:
1. A separate Designated Location General Aggregate Limit applies to each designated "location", and that limit is equal to the amount of the General Aggregate Limit shown in the Declarations.
 2. The Designated Location General Aggregate Limit is the most we will pay for the sum of all damages under Coverage A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard", and for medical expenses under Coverage C regardless of the number of:
 - a. Insureds;
 - b. Claims made or "suits" brought; or
 - c. Persons or organizations making claims or bringing "suits".
 3. Any payments made under Coverage A for damages or under Coverage C for medical expenses shall reduce the Designated Location General Aggregate Limit for that designated "location". Such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Location General Aggregate Limit for any other designated "location" shown in the Schedule above.
 4. The limits shown in the Declarations for Each Occurrence, Damage To Premises Rented To You and Medical Expense continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Location General Aggregate Limit.

B. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage A, and for all medical expenses caused by accidents under Section I – Coverage C, which cannot be attributed only to operations at a single designated "location" shown in the Schedule above:

1. Any payments made under Coverage A for damages or under Coverage C for medical expenses shall reduce the amount available under the General Aggregate Limit or the Products-completed Operations Aggregate Limit, whichever is applicable; and
2. Such payments shall not reduce any Designated Location General Aggregate Limit.

C. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-completed Operations Aggregate Limit, and not reduce the General Aggregate Limit nor the Designated Location General Aggregate Limit.

D. For the purposes of this endorsement, the Definitions Section is amended by the addition of the following definition:

"Location" means premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.

E. The provisions of Section III – Limits Of Insurance not otherwise modified by this endorsement shall continue to apply as stipulated.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED CONSTRUCTION PROJECT(S) GENERAL AGGREGATE LIMIT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Designated Construction Project(s):

All construction projects not located at premises owned, leased or rented by a Named Insured

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

- A. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage A, and for all medical expenses caused by accidents under Section I – Coverage C, which can be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. A separate Designated Construction Project General Aggregate Limit applies to each designated construction project, and that limit is equal to the amount of the General Aggregate Limit shown in the Declarations.
 2. The Designated Construction Project General Aggregate Limit is the most we will pay for the sum of all damages under Coverage A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard", and for medical expenses under Coverage C regardless of the number of:
 - a. Insureds;
 - b. Claims made or "suits" brought; or
 - c. Persons or organizations making claims or bringing "suits".
 3. Any payments made under Coverage A for damages or under Coverage C for medical expenses shall reduce the Designated Construction Project General Aggregate Limit for that designated construction project. Such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Construction Project General Aggregate Limit for any other designated construction project shown in the Schedule above.
 4. The limits shown in the Declarations for Each Occurrence, Damage To Premises Rented To You and Medical Expense continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Construction Project General Aggregate Limit.

B. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage A, and for all medical expenses caused by accidents under Section I – Coverage C, which cannot be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:

1. Any payments made under Coverage A for damages or under Coverage C for medical expenses shall reduce the amount available under the General Aggregate Limit or the Products-completed Operations Aggregate Limit, whichever is applicable; and
2. Such payments shall not reduce any Designated Construction Project General Aggregate Limit.

C. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-completed Operations Aggregate Limit, and not reduce the General Aggregate Limit nor the Designated Construction Project General Aggregate Limit.

D. If the applicable designated construction project has been abandoned, delayed, or abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.

E. The provisions of Section III – Limits Of Insurance not otherwise modified by this endorsement shall continue to apply as stipulated.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable limits of insurance;

whichever is less.

This endorsement shall not increase the applicable limits of insurance.

SCHEDULE

Name Of Additional Insured Person(s)
Or Organization(s):

Location(s) Of Covered Operations

Any person or organization with whom you have agreed through written contract, agreement or permit to provide additional insured coverage

All locations as required by a written contract or agreement entered into prior to an "occurrence" or offense

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

A Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable limits of insurance;

whichever is less.

This endorsement shall not increase the applicable limits of insurance.

SCHEDULE

Name Of Additional Insured Person(s)
Or Organization(s):

Any person or organization to whom or to which you are required to provide additional insured status in a written contract, agreement or permit except where such contact or agreement is prohibited.

Location And Description Of Completed Operations

Any location where you have agreed, through written, contract, agreement, or permit, to provide additional insured coverage for completed operations

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY
AGAINST OTHERS TO US (WAIVER OF SUBROGATION)**

This endorsement modifies insurance provided under the following:

- COMMERCIAL GENERAL LIABILITY COVERAGE PART
- ELECTRONIC DATA LIABILITY COVERAGE PART
- LIQUOR LIABILITY COVERAGE PART
- POLLUTION LIABILITY COVERAGE PART DESIGNATED SITES
- POLLUTION LIABILITY LIMITED COVERAGE PART DESIGNATED SITES
- PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
- RAILROAD PROTECTIVE LIABILITY COVERAGE PART
- UNDERGROUND STORAGE TANK POLICY DESIGNATED TANKS

SCHEDULE

<p>Name Of Person(s) Or Organization(s):</p> <p>As required by written contract or agreement.</p>
<p>Information required to complete this Schedule, if not shown above, will be shown in the Declarations.</p>

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of Section IV – Conditions:

We waive any right of recovery against the person(s) or organization(s) shown in the Schedule above because of payments we make under this Coverage Part. Such waiver by us applies only to the extent that the insured has waived its right of recovery against such person(s) or organization(s) prior to loss. This endorsement applies only to the person(s) or organization(s) shown in the Schedule above.

Policy Number TB2-641-444950-033
Issued by Liberty Mutual Fire Insurance Company

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**PRIMARY AND NONCONTRIBUTORY –
OTHER INSURANCE CONDITION**

This endorsement modifies insurance provided under the following:

**COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART**

The following is added to Section IV – Conditions 4. Other Insurance and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed prior to a loss, that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.
- (3) This insurance is excess over any other insurance available to the additional insured for which it is also covered as an additional insured by attachment of an endorsement to another policy providing coverage for the same "occurrence", claim or "suit".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

SCHEDULE

<p>Name Of Person(s) Or Organization(s): As required by written contract</p>
<p>Information required to complete this Schedule, if not shown above, will be shown in the Declarations.</p>

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph A.1. of Section II – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph D.2. of Section I – Covered Autos Coverages of the Auto Dealers Coverage Form.

Policy Number: AS2-641-444950-043
Issued by: Liberty Mutual Fire Insurance Company

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED - NONCONTRIBUTING

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
GARAGE COVERAGE FORM
MOTOR CARRIERS COVERAGE FORM
TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" under the Who Is An Insured Provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage form.

Schedule

Name of Person(s) or Organizations(s):

Any person or organization where the Named Insured has agreed by written contract to include such person or organization

Regarding Designated Contract or Project:

Any

Each person or organization shown in the Schedule of this endorsement is an "insured" for Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured Provision contained in Section II of the Coverage Form.

The following is added to the Other Insurance Condition:

If you have agreed in a written agreement that this policy will be primary and without right of contribution from any insurance in force for an Additional Insured for liability arising out of your operations, and the agreement was executed prior to the "bodily injury" or "property damage", then this insurance will be primary and we will not seek contribution from such insurance.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY
AGAINST OTHERS TO US (WAIVER OF SUBROGATION)**

This endorsement modifies insurance provided under the following:

- AUTO DEALERS COVERAGE FORM
- BUSINESS AUTO COVERAGE FORM
- MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

SCHEDULE

Name(s) Of Person(s) Or Organization(s):

Any person or organization for whom you perform work under a written contract of the contract requires you to obtain this agreement from us but only if the contract is executed prior to the injury or damage occurring.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The **Transfer Of Rights Of Recovery Against Others To Us** condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

Where required by contract or written agreement prior to loss.

Issued by: Liberty Insurance Corporation

For attachment to Policy No WA7-64D-444950-013
\$

Effective Date 06/01/2023

Premium

Issued to: HDR Engineering, Inc.

WC 00 03 13
Ed. 4/1/1984

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Page 1 of 1

Policy Number TB2-641-444950-033
 Issued by Liberty Mutual Fire Insurance Company

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NOTICE OF CANCELLATION OR MATERIAL REDUCTION IN COVERAGE TO THIRD PARTIES

This endorsement modifies insurance provided under the following:

- BUSINESS AUTO COVERAGE PART
- MOTOR CARRIER COVERAGE PART
- GARAGE COVERAGE PART
- TRUCKERS' COVERAGE PART
- EXCESS AUTOMOBILE LIABILITY INDEMNITY COVERAGE PART
- SELF-INSURED TRUCKER EXCESS LIABILITY COVERAGE PART
- COMMERCIAL GENERAL LIABILITY COVERAGE PART
- EXCESS COMMERCIAL GENERAL LIABILITY COVERAGE PART
- PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
- LIQUOR LIABILITY COVERAGE PART
- COMMERCIAL LIABILITY - UMBRELLA COVERAGE FORM

Schedule		
Name of Other Person(s) / Organization(s):	Email Address or mailing address:	Number Days Notice:
As required by written contract or written agreement	As required by written contract or written agreement	30

- A. If we cancel this policy for any reason other than nonpayment of premium, or make a material reduction in coverage, we will notify the persons or organizations shown in the Schedule above. We will send notice to the email or mailing address listed above at least 10 days, or the number of days listed above, if any, before the cancellation becomes effective. In no event does the notice to the third party exceed the notice to the first named insured.
- B. This advance notification of a pending cancellation or material reduction of coverage is intended as a courtesy only. Our failure to provide such advance notification will not extend the policy cancellation date nor negate cancellation of the policy.

All other terms and conditions of this policy remain unchanged.

Policy Number AS2-641-444950-043
Issued by Liberty Mutual Fire Insurance Company

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NOTICE OF CANCELLATION OR MATERIAL REDUCTION IN COVERAGE TO THIRD PARTIES

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE PART
MOTOR CARRIER COVERAGE PART
GARAGE COVERAGE PART
TRUCKERS COVERAGE PART
EXCESS AUTOMOBILE LIABILITY INDEMNITY COVERAGE PART
SELF-INSURED TRUCKER EXCESS LIABILITY COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
EXCESS COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
COMMERCIAL LIABILITY – UMBRELLA COVERAGE FORM

Schedule		
Name of Other Person(s) / Organization(s):	Email Address or mailing address:	Number Days Notice:
As:required by written contract or written agreement		30

- A. If we cancel this policy for any reason other than nonpayment of premium, or make a material reduction in coverage, we will notify the persons or organizations shown in the Schedule above. We will send notice to the email or mailing address listed above at least 10 days, or the number of days listed above, if any, before the cancellation becomes effective. In no event does the notice to the third party exceed the notice to the first named insured.
- B. This advance notification of a pending cancellation or material reduction of coverage is intended as a courtesy only. Our failure to provide such advance notification will not extend the policy cancellation date nor negate cancellation of the policy.

All other terms and conditions of this policy remain unchanged.

NOTICE OF CANCELLATION TO THIRD PARTIES

- A. If we cancel this policy for any reason other than nonpayment of premium, we will notify the persons or organizations shown in the Schedule below. We will send notice to the email or mailing address listed below at least 10 days, or the number of days listed below, if any, before cancellation becomes effective. In no event does the notice to the third party exceed the notice to the first named insured.
- B. This advance notification of a pending cancellation of coverage is intended as a courtesy only. Our failure to provide such advance notification will not extend the policy cancellation date nor negate cancellation of the policy.

Schedule

Name of Other Person(s) / Organization(s):	Email Address or mailing address:	Number Days Notice:
As required by written contract or agreement		30

All other terms and conditions of this policy remain unchanged.

Issued by Liberty Insurance Corporation

For attachment to Policy No. WA7-64D-444950-013 Effective Date 06/01/2023

Premium \$

Issued to HDR Engineering, Inc.

Endorsement

No.