



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.
Commissioner

10
DEC 03 2025

David Rodrigue, P.E.
Assistant Commissioner

Her Excellency, Governor Kelly A. Ayotte
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Highway Design
September 4, 2025

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement with HEB Engineers, Inc., North Conway, NH, Vendor #155401, for an amount not to exceed \$763,865.20, for preliminary design services, effective upon Governor and Council approval through November 30, 2027. 100% Federal Funds.

Funds are available in the following account for Fiscal Years 2026 and 2027, and are anticipated to be available in Fiscal Year 2028, upon the availability and continued appropriation of funds in the future operating budget(s), with the authority to adjust encumbrances between fiscal years within the price limitation through the Budget Office, if needed and justified:

04-096-96-963515-3054	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>
Consolidated Federal Aid			
046-500464 Gen Consultants Non-Benefit	\$150,000	\$413,865.20	\$200,000

EXPLANATION

The Department requires professional engineering, surveying, and environmental consulting services to improve NH 104 in the Town of Bristol. The project begins near School Street and proceeds easterly, approximately 0.7 miles, to the pavement joint near Rite Aid. The Project will also complete an evaluation for the potential of a multiuse path from the pavement joint near Rite Aid easterly, approximately 0.3 miles, to the intersection of Ayers Island Road. This agreement is included in the State's Ten-Year Transportation Improvement Plan (Bristol 40636).

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 Bristol 40636, Preliminary Design. The assignment was listed as a "Project Soliciting for Interest" on the Department's website on June 23, 2023, 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 August 10, 2023, for consideration and approval by the Assistant Commissioner. Upon receipt of that approval, three (3) shortlisted firms were notified on September 28, 2023, through a technical "Request for Proposal" (RFP). Committee members individually rated the firms on November 9, 2023, using a written ballot to score each firm based on 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 six (6) consultant firms that were considered for this assignment, with the three (3) short-listed firms shown in bold, is as follows:

Consultant Firm

Office Location

BETA Group, Inc.

Manchester, NH

CMA Engineers, Inc.

Portsmouth, NH

HEB Engineers, Inc.

North Conway, NH

Howard Stein Hudson

Boston, MA

Weston & Sampson

Manchester, NH

Wright-Pierce

Portsmouth, NH

The firm, HEB Engineers 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.

HEB Engineers, Inc. has agreed to provide the professional engineering services for an amount not to exceed \$763,865.20. 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 (Bristol, 40636) 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.

The Department of Transportation has determined that the Consultant is in good standing with the Secretary of State's Office, has secured the required levels of insurance, and has provided evidence of authority to execute and be bound by the contract. Documents supporting these assertions are available at the agency, for review upon request.

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:

The Projects include preliminary engineering, survey, public involvement, right-of-way, final design, and associated environmental services for two (2) roadway improvement projects in the Town of Bristol.

SERVICES REQUIRED: STRC, RDWY, ENV, HYD, SURV, ROW, PINV, TRAF, GEOT, UTIL

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name				
Comprehension of the Assignment	20%	16%	17%	17%
Clarity of the Proposal	20%	15%	17%	17%
Capacity to Perform in a Timely Manner	20%	17%	17%	17%
Quality & Experience of Project Manager/Team	20%	17%	16%	18%
Previous Performance	10%	7%	7%	7%
Overall Suitability for the Assignment	10%	7%	7%	7%
Total:	100%	79%	81%	81%

Ranking of Firms: 1. Howard Stein Hudson
2. HEB Engineers, Inc.
3. CMA Engineers, Inc.

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name				
Comprehension of the Assignment	20%	14%	14%	17%
Clarity of the Proposal	20%	15%	15%	17%
Capacity to Perform in a Timely Manner	20%	18%	18%	18%
Quality & Experience of Project Manager/Team	20%	17%	16%	17%
Previous Performance	10%	8%	6%	7%
Overall Suitability for the Assignment	10%	9%	7%	9%
Total:	100%	81%	76%	85%

Ranking of Firms: 1. Howard Stein Hudson
2. CMA Engineers, Inc.
3. HEB Engineers, Inc.

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name				
Comprehension of the Assignment	20%	17%	18%	15%
Clarity of the Proposal	20%	17%	17%	16%
Capacity to Perform in a Timely Manner	20%	17%	17%	16%
Quality & Experience of Project Manager/Team	20%	18%	17%	16%
Previous Performance	10%	7%	8%	6%
Overall Suitability for the Assignment	10%	7%	8%	6%
Total:	100%	83%	85%	75%

Ranking of Firms: 1. HEB Engineers, Inc.
2. CMA Engineers, Inc.
3. Howard Stein Hudson

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name				
Comprehension of the Assignment	20%	16%	16%	16%
Clarity of the Proposal	20%	15%	15%	15%
Capacity to Perform in a Timely Manner	20%	17%	17%	17%
Quality & Experience of Project Manager/Team	20%	17%	17%	16%
Previous Performance	10%	8%	6%	6%
Overall Suitability for the Assignment	10%	7%	8%	6%
Total:	100%	78%	79%	76%

Ranking of Firms: 1. HEB Engineers, Inc.
2. CMA Engineers, Inc.
3. Howard Stein Hudson

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name: Bristol 40636-41579				
Comprehension of the Assignment	20%	18%	20%	18%
Clarity of the Proposal	20%	18%	20%	16%
Capacity to Perform in a Timely Manner	20%	20%	18%	14%
Quality & Experience of Project Manager/Team	20%	20%	20%	16%
Previous Performance	10%	5%	5%	5%
Overall Suitability for the Assignment	10%	10%	10%	9%
Total:	100%	91%	95%	78%

Ranking of Firms: 1. HEB Engineers, Inc.
2. CMA Engineers, Inc.
3. Howard Stein Hudson

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name: Bristol 40636 & 41579				
Comprehension of the Assignment	20%	16%	18%	15%
Clarity of the Proposal	20%	17%	17%	16%
Capacity to Perform in a Timely Manner	20%	17%	17%	17%
Quality & Experience of Project Manager/Team	20%	17%	17%	17%
Previous Performance	10%	7%	6%	6%
Overall Suitability for the Assignment	10%	7%	8%	8%
Total:	100%	81%	83%	79%

Ranking of Firms: 1. HEB Engineers, Inc.
2. CMA Engineers, Inc.
3. Howard Stein Hudson

Rating Considerations	Scoring of Firms			
	W E I G H T	CMA Engineers, Inc.	HEB Engineers, Inc.	Howard Stein Hudson
Project Name: Bristol 40636-41579				
Comprehension of the Assignment	20%	15%	15%	16%
Clarity of the Proposal	20%	16%	17%	16%
Capacity to Perform in a Timely Manner	20%	14%	15%	18%
Quality & Experience of Project Manager/Team	20%	13%	14%	15%
Previous Performance	10%	9%	9%	8%
Overall Suitability for the Assignment	10%	2%	3%	1%
Total:	100%	69%	73%	74%

Ranking of Firms: 1. Howard Stein Hudson
2. HEB Engineers, Inc.
3. CMA Engineers, Inc.

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CMA Engineers, Inc.	3	2	2	2	2	2	3	16	3
HEB Engineers, Inc.	2	1	3	1	1	1	2	11	1
Howard Stein Hudson	1	3	1	3	3	3	1	15	2

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ATTACHMENTS

- A. **SCOPE OF SERVICES FOR PRELIMINARY DESIGN** Prepared by HEB Engineers, Inc. dated March 12, 2025.
- B. Bristol 40636 DEI Acknowledgement

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

BRISTOL
X-A004(445)
40636
PRELIMINARY DESIGN

AGREEMENT
FOR PROFESSIONAL SERVICES

PREAMBLE

THIS AGREEMENT made this 24th day of September in the year 2025 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 HEB Engineers, Inc., with principal place of business at 2605 White Mountain Highway, in the Town of North Conway, 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 NH 104 in the Town of Bristol. The project begins near School Street and proceeds easterly, approximately 0.7 miles, to the pavement joint near Right Aid. The Project will also complete an evaluation for the potential of a multiuse path from the pavement joint near Rite Aid easterly, approximately 0.3 miles, to the intersection of Ayers Island Road.

The DEPARTMENT requires professional engineering, surveying, and environmental consulting services under said project for the preparation of environmental documents, engineering plans and reports, and other work as needed to progress through the environmental review and public outreach process for this project. These services are outlined in the CONSULTANT'S Scope of Services dated March 12, 2025, and Fee Proposal dated July 9, 2025. The Scope of Services is included in this AGREEMENT as Attachment A. The Fee Proposal 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

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 reconstruction, widening, and the addition of a sidewalk to NH 104 from School Street easterly approximately 0.7 miles to the pavement joint west of Danforth Brook Road. And, the design of a pedestrian and cycling path from the pavement joint west of Danforth Brook Road easterly approximately 0.3 miles to Ayers Island Rd.

B. GENERAL SCOPE OF WORK

The development of the engineering for this project is expected to be performed in two phases: 1) Preliminary Design, to study and prepare preliminary engineering plans suitable for a Public Information Meeting(s), Design Public Hearing (if needed), and completion of NEPA documentation; and 2) Final Design, to prepare final plans, specifications and estimates for the bridge and associated roadway improvements. This contract is for Preliminary Design services. Final Design is not included in this Agreement. Assuming a successful Public Hearing, and upon completion of Preliminary Design, the DEPARTMENT reserves the right to either negotiate a scope and fee for Final Design or terminate the contract.

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. The development of improvement alternatives will include public participation involving public and private stakeholders and the general public in the decision-making process to aid in the determination of the proposed action, and the development of an approved NEPA document.

The work shall be as described in the CONSULTANT'S Scope of Services, Attachment A, and requires the development and refinement of engineering plans and technical documentation. The following general tasks may be included in Preliminary Design:

1. Develop and evaluate roadway and intersection alternatives.
2. Preliminary design of roadways, intersections, traffic features, bridges and other necessary design elements.
3. Evaluation of existing bridge structures.

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4. Design of bridge preservation, rehabilitation and/or replacement alternatives for each crossing.
5. Design of ancillary structures.
6. Develop a preliminary Traffic Control Plan that is acceptable and economical for travelers.
7. Consider construction phasing, constructability, and construction access.
8. Complete reports and/or studies summarizing concepts and recommendations.
9. Identify all impacted natural and cultural resources potentially affected by the proposed action and investigate means of minimizing or mitigating the impacts.
10. Prepare an environmental document and any potential for a Section 4(f) evaluation, for the proposed action to comply with the National Environmental Policy Act (NEPA) (including Cultural Resource investigations in accordance with Section 106 of the National Historic Preservation Act) and the identification of any permitting requirements.
11. Assist the Department with public involvement, including preparation of illustrative plans and exhibits for any meetings, including a Hearing plan.
12. Topographic survey mapping.
13. Identify and document the existing right-of-way.
14. Geotechnical services.
15. Utility coordination.

The CONSULTANT shall be responsible for developing engineered plans through an iterative process of design and review involving the DEPARTMENT, STATE, and Federal environmental resource agencies, regional planning commissions, the local community, and the public.

The CONSULTANT shall be responsible for the preparation of complete preliminary designs, including all plans, specifications for work not included in the current specifications of the DEPARTMENT, computations, estimates, and documents for required submissions to the DEPARTMENT, the Federal Highway Administration, and/or any other STATE or Federal agency, that may be required.

The engineering design shall take into consideration all factors affecting the cost of the construction, such as site-specific foundation considerations; earthwork quantities; erosion and sedimentation control; traffic control; water-quality-treatment issues; construction phasing and complexity; utilities affected; right-of-way needs; environmental issues and commitments; cost; construction materials; etc.

The CONSULTANT shall, when requested by the DEPARTMENT, render such assistance as required, including the preparation and explanation of sketches and plans for, or at, any meetings or

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conferences held by the DEPARTMENT. Meeting notes and conference memos shall be the responsibility of the CONSULTANT.

Designs shall conform to the current standards, specifications, policies, and guidelines enumerated in the Federal Aid Policy Guide, Subchapter G, Part 625, or to 23 Code of Federal Regulations, Part 625 and the DEPARTMENT'S standards, including published Design Manuals, Guidelines, Directives and Design Memoranda, and the most current Standard Plans for Road Construction, except as otherwise approved.

All plotting, drafting, and calculations performed by the CONSULTANT shall be independently checked by members of the CONSULTANT'S staff other than those who performed the original work. The work of each stage submission or interim study submissions (including quantity estimates) shall have been appropriately checked. The CONSULTANT shall verify all computations and design calculations. The CONSULTANT shall furnish all study plans, work plans, alternate studies, and estimates indexed in accordance with DEPARTMENT procedures.

The CONSULTANT'S Licensed Professional Engineer stamp for the State of New Hampshire shall appear on the construction plans, reports, and other documents that will be submitted to the DEPARTMENT in accordance with RSA 310-A. Stamps shall be those of the professional engineers who prepared them or under whose direct supervisory control they were prepared.

C. MATERIALS 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. 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.
2. Right-of-Way data: Any additional information collected or prepared by the DEPARTMENT that could supplement the CONSULTANT'S Right-of-Way Boundary (e.g. existing right-of-way layout per record plans, property lines to a tax map level, parcel owners, title abstracting,

ARTICLE I

etc.) will be provided by the DEPARTMENT in MicroStation format for incorporation into the plans by the CONSULTANT.

3. Plans of prior highway and bridge construction projects within the project limits, as available.
4. The location of all existing and proposed utilities through direct contact with the various utility companies.
5. Geotechnical investigations and recommendations, if available: Electronic files of the Environmental resource data collected in previous studies.
6. Crash data within the study area, if applicable.
7. Traffic count data, if applicable.
8. The DEPARTMENT's latest high-resolution color aerial photography (which is geo-referenced and ortho-rectified).
9. Latest bridge inspection reports, if applicable.
10. Conceptual design and layout of highway lighting (temporary and permanent), if available and applicable.
11. Conceptual design and layout of ITS features, if applicable.

D. WORK SCHEDULE AND PROGRESS REPORTS

See Supplemental Scope of Work, Attachment A for additional detail on the services to be provided.

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 are encouraged to be submitted monthly, and at a minimum they 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.

E. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS

The submissions shall be in accordance with the attached Scope of Work. Each submission shall be supplemented with such drawings, illustrations, and descriptive matter as are necessary to facilitate a comprehensive understanding and review of proposed concepts and designs. The CONSULTANT

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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.

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.

Bridge Design Submissions: The plan submissions for bridge structures shall follow, in general, the NHDOT Bridge Design Manual and the "Instructions for Consulting Engineers Concerning Routine Procedures on Bridge Design Projects" formats prepared by the DEPARTMENT

F. **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 under the "CAD/D Downloads" tab at CAD/D | Department of Transportation.)

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

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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:

- 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:

- a. 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.
 - b. Website Documents: All documents posted to a website created under this AGREEMENT, or that are submitted to be posted to a NHDOT website, shall meet ADA Section 508 accessibility requirements. Compliance requirements can be found at <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.

G. 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

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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 Quality Control documentation pertaining to work efforts on the project.

H. Date of Completion

In accordance with the Governor and Council Resolution authorizing this AGREEMENT, the date of completion for the Design of professional services rendered under this AGREEMENT is November 30, 2027 (approximately 24 months from the date of approval by the Governor and Council).

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 DEPARTMENT 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:

\$189,803.87

- 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, 2023, 216.92% shall be used for invoicing for the life of the AGREEMENT.

Overhead costs are estimated at:

\$411,722.56

- 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: \$60,152.64

- 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 that allowed by the CONSULTANT'S established policy but shall not exceed

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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: \$97,441.03

- 5) Reimbursement for potential unpaid indirect costs, 2.5% of the direct labor total, should the DEPARTMENT owe the CONSULTANT funds, and the negotiated funds have been exhausted at the time of reconciliation. These funds are added after profit and shall not be reallocated for any reason.

Indirect Cost Rate Reconciliation:

\$4,745.10

AGREEMENT NOT-TO-EXCEED TOTAL \$763,865.20

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 \$763,865.20, the sum of the amounts shown in Article II, Section A (which amount is based on the CONSULTANT'S fee and manhour estimates of 4,876.5 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. 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

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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.

C. PAYMENTS

Monthly payments on account of services rendered under this AGREEMENT will be made upon submission of invoices by the CONSULTANT to the DEPARTMENT. The CONSULTANT shall follow the DEPARTMENT'S Standardized Invoicing format. The CONSULTANT shall invoice monthly for work performed in order to not accrue undue outstanding liability to the DEPARTMENT. 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.

D. 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:

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- 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.

E. 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.

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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.

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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 2605 White Mountain Highway, North Conway, NH 03860.

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 of this AGREEMENT without fault on the part of the CONSULTANT, the CONSULTANT

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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.

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 and standards of STATE, municipal, railroad, and utility agencies whose facilities and services may be

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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.

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.

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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 in the aggregate. 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. 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 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 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

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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 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

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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.
- (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.

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- (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 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.

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O. DOCUMENTATION

The CONSULTANT shall document the results of the work to the satisfaction of the DEPARTMENT and the Federal Highway Administration. 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).

Attachment A - Scope of Services for Preliminary Design

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

BRISTOL
40636

PART B -- PRELIMINARY DESIGN
SCOPE OF WORK
MARCH 12, 2025

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DESCRIPTION OF PROJECT

The purpose of the project is to better accommodate pedestrians and cyclists on NH Route 104 (Summer Street) in Bristol from approximately School Street easterly to Rite Aid. Currently the road has limited or no shoulders for cyclists and informal, deteriorated, or no sidewalks. Safety improvements and speed mitigation countermeasures will be evaluated to address run-off-the-road crashes.

The Project will also evaluate the feasibility of a multiuse path from approximately Rite Aid easterly to Ayers Island Road to connect the proposed sidewalk to the baseball field on Ayers Island Road.

Ancillary features like, but not limited to, drainage, guardrail, and ROW needs will be addressed for each alternative.

The Preliminary Design engineering services identified in this scope of work include, but are not limited to, investigating the existing conditions; preparing the survey and right-of-way; conducting an alternatives analysis; preparing preliminary highway plans; NEPA coordination and preparing the Environmental Document; geotechnical services; public involvement; and the project administration. The design should progress such that a preferred alternative is selected, and detailed on Preliminary Design plans, estimates, and reports. This information will be summarized and presented to the public, then the Environmental Document will be finalized and submitted for approval.

Anticipated Improvements

- American with Disabilities Act (ADA) compliant sidewalk facilities
- Pedestrian crossings
- Wider shoulders for bicyclists
- Highway geometry
- Roadway reconstruction/rehabilitation
- Curbing and drainage
- Multi-use pathway between Rite Aid and Ayers Island Road
- Roadside safety

SCOPE OF WORK

HEB Engineers, Inc. will hereby be referred to as the CONSULTANT and the State of New Hampshire Department of Transportation will hereby be referred to as the DEPARTMENT.

Tasks to complete include:

1.0 EXISTING CONDITIONS

1.1 Review of Previous Plans/Existing Information

The CONSULTANT will compile and review available existing plans and records relevant to the project including but not limited to survey, mapping, traffic, ~~existing signal timings~~, utility, drainage, and bridge information where appropriate. The CONSULTANT will prepare a project location plan and a project

description based on the review of previous plans and existing information. All relevant documents will be organized and filed within the project folder.

1.2 Field Reconnaissance

The CONSULTANT will perform a desktop review and conduct a comprehensive field reconnaissance to evaluate existing conditions including general layout, geometry, topography, drainage, structures, facilities, amenities, site access, etc., and observe existing traffic flow patterns, traffic operational issues, pedestrian and bicycle activity, physical site characteristics, land use, environmental issues, utilities, and other issues that could affect the outcome of the project. The field visits will be conducted to ensure that the existing conditions are consistent with the mapping for the level of design being performed. Significant features (e.g., utilities, drainage, culverts, bridges, walls, transmission lines, etc.) will be identified. The CONSULTANT will take "before" photos for future reference, and provide photos to the DEPARTMENT.

Along with the desktop review, five (5) site visits are anticipated for Field Reconnaissance:

- One (1) during the weekday daytime during the Data Collection phase for "before" photos.
- Two (2) to observe traffic operations during the peak periods.
- One (1) during alternatives analysis to evaluate the proposed impacts of design alternatives.
- One (1) while preparing the Preliminary Design plans to confirm the design.

1.3 Traffic Data Collection

The CONSULTANT will coordinate with National Data & Surveying Services (NDS) to collect traffic volume counts as follows:

a. Roadway Segment Volume Counts

7-day, 24-hour counts to determine average daily traffic (ADT), vehicle speeds, and FHWA 13-category vehicle classifications on NH Route 104 west of Ayers Island Road. This information will be used for pavement design, calculating ADTs on the Cover Sheet, and evaluating targeted speed alternatives.

b. Turning Movement Counts

NH Route 104 at Ayers Island Road

- Wednesday or Thursday (7 AM to 7 PM)

The CONSULTANT will confirm the planned count dates with the DEPARTMENT's Bureau of Traffic, Research Section before scheduling turning movement counts. These counts are needed for alternative analysis at the intersection of Ayers Island Road.

c. Origin-Destination Survey

1.4 Base Year Traffic Operational Volumes

Using the data collected under Task 1.3 the CONSULTANT will use the NHDOT TDMS to determine whether an upward volume adjustment would be needed to reflect the 2019 pre-COVID conditions for AADT or any hour(s). The data will need to be adjusted to average month conditions using the 2019 monthly adjustment data available on the NHDOT website.

The CONSULTANT will develop background traffic growth forecasts based on historic growth rates supplemented with specific growth tied to known development activity. Growth during pandemic years

shall be assumed to be zero or greater and during post-pandemic years shall be assumed to be 1% or greater. Projected traffic will be for the years 2030 and 2050. These assumptions and projections will be provided to NHDOT for concurrence prior to conducting any warrants or analyses.

The CONSULTANT will develop base year ADT and future year ADT for the Cover Sheet.

The CONSULTANT will develop base year traffic networks for weekday AM and PM peak hours of the average month. The CONSULTANT will submit the developed traffic volume networks and supporting calculations to the DEPARTMENT for review.

1.5 Base Year Traffic Operational Analysis

The CONSULTANT will conduct traffic operational analyses for the study area intersection of NH Route 104 at Ayers Island Road for the Base Year Weekday PM Peak. This will include a review of the traffic data, and adjusting the volumes, as necessary, for the Base Year.

1.6 Crash Data and Safety Analysis

The CONSULTANT will request crash data from the DEPARTMENT for the study area. The period of crash data analysis will be determined in coordination with the DEPARTMENT, but is anticipated that the most recent ten (10) years of data will be made available. The crash data will be analyzed for the study area to determine crash patterns, crash issues, and identify pedestrian and bicycle related crashes. The summary of the data will include the development of crash diagrams.

Crash modification factors for improvements will be considered as part of the alternatives analysis phase. However, a formal safety analysis with software, such as FHWA's Interactive Highway Safety Design Model (IHSDM) or similar software, or a benefit-cost analysis are not anticipated as a deliverable.

~~1.7 Floodplain and FEMA data collection~~

~~1.8 Bridge Data Collection~~

~~1.9 Utility Verifications~~

The CONSULTANT will coordinate with the DEPARTMENT Utility Section to obtain existing utility information within the project area. Information, either electronic or paper, will be incorporated by the CONSULTANT into the project base plan. The CONSULTANT will provide a survey base plan, including legacy alignments, to the DEPARTMENT for distribution to utility agencies.

~~1.10 Subsurface Utility Exploration~~

Section 1 Deliverables:

It is anticipated that three (3) hard copies, with half-scale plan sheets, will be delivered via US Mail, along with the digital files to the DEPARTMENT:

- Base Year Traffic Operational Volumes
- Base Year Traffic Operational Analysis
- Crash Data and Safety Analysis summary
- Utility Verification survey base plan

2.0 SURVEY AND RIGHT-OF-WAY

The CONSULTANT shall complete an Existing-Features and Right of Way Survey of the project area. The survey will begin at the intersection of NH Route 104 at North Main Street and Central Square Street and extend to 1,000 LF beyond Ayers Island Road. A minimum of 75 feet on either side of the existing centerline will be surveyed. In select areas, additional survey will be collected due to anticipated property acquisitions, steep grades, or significant features. The area of topographical survey is approximately 32 acres. Information for the existing stormwater drainage system within the project limits will also be captured to the outlets, including survey area at the outlets. A diagram of the described survey limits above is attached.

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 Lan Rules 500 and be in compliance 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 topography, site features, all available boundary and right-of-way monumentation, and all relevant lines of occupation along the subject corridor.

2.1 ROW Facilitation Meetings

The CONSULTANT will lead facilitation meetings to coordinate between the CONSULTANT and the DEPARTMENT. The first meeting will be at initiation of survey and right-of-way efforts and will include a project overview, turnover of DOT project data and ROW files, and confirmation of the project limits. The second meeting will review the preliminary existing right-of-way plan submission as outlined below in 2.4 Base Plan Preparation. It is anticipated that three (3) members of the CONSULTANT team will attend these meetings.

2.2 Records Research

The CONSULTANT 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

2.3 Survey

The CONSULTANT will provide services under the supervision of a Licensed Land Surveyor (LLS). Efforts associated with survey will include the following:

a. Topographic Survey

Topographic survey will include, but not be limited to, planimetric features such as roadways, bridges, walls, fences, curbing, gutters, swales, tree lines, culverts, signs, ditches, driveways, pavement striping and surface-visible utilities, including drainage invert elevations, pipe size and material and outfall pipes if visible. Boring / pavement core locations will also be located. The data collection will occur when the site is free from snow and ice to ensure each of the planimetric features are captured in the survey. The CONSULTANT will survey wetland flagging as part of the topographic survey.

b. Existing ROW Survey

- Field recovery of right-of-way and abutting boundary monuments.
- Establish geodetic control network on NH State Plane Coordinate System.
- Perform survey of existing right-of-way.
- Process survey control data using least squares adjustment at 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 NHLSA Ethics and Standards.

2.4 Base Plan Preparation

The CONSULTANT will prepare a base plan with existing right-of-way information for the DEPARTMENT for review. The plans will incorporate DEPARTMENT survey, if available, and information and information developed as part of Tasks 2.2 Records Research and 2.3 Survey. The base plan will be developed at a scale of 1" = 50' and contours drawn at a 1-foot interval.

2.5 Existing Right-of-Way Plan Development

The CONSULTANT will prepare a preliminary existing right-of-way plan and surveyor report for DEPARTMENT review. After receipt of the DEPARTMENT comments, the CONSULTANT will develop final existing right-of-way plans. The submission of plans will include the plan as well as a written narrative describing how comments were addressed.

The right-of-way plan will be submitted in both CADD format (DWG and DGN) as well as in PDF. Hard copies will not be provided.

A plan showing existing boundary monumentation and survey traverse will be submitted in CADD format (DGN and DWG). Geodetic control data will be submitted in ASCII file format.

The existing Right-of-Way Plan will be recorded by the CONSULTANT with the county registry.

2.6 Survey Notice Letters

The DEPARTMENT will send Survey Notice letters to all abutting property owners and select Town Officials. The CONSULTANT shall provide a list of the Owners of Record and their mailing address for all properties within the survey area a minimum of four weeks prior to initiating any field survey work. The DEPARTMENT and CONSULTANT will coordinate the timing of the letter distribution and the initiation of field work.

Section 2 Deliverables:

- Base Plan and Surveyors Report including existing topographic features and existing right-of-way limits.
- Existing Right-of-Way Plan in CADD format (DWG and DGN) and in PDF.
- Plan showing existing boundary monumentation and survey traverse in CADD format.
- Geodetic data control in ASCII file format.
- Survey properties' Owner of Record and mailing addresses.

3.0 ALTERNATIVE ANALYSIS

3.1 Description of Anticipated Alternatives

The CONSULTANT will develop alternatives to meet the project intent while considering the ROW, environmental, and potential economic constraints. The CONSULTANT will then submit the conceptual alternatives to the DEPARTMENT for their review and concurrence.

NH Route 104 from School Street and Rite Aid

The roadway cross section along NH Route 104 between School Street and Rite Aid will need to be determined. Roadway widening to better accommodate bicyclists is anticipated. New curbing and sidewalks are anticipated on both sides of NH Route 104 from School Street to 105 Summer Street. New curbing and a sidewalk are only anticipated along one side of NH Route 104 from 105 Summer Street to Rite Aid.

There is an existing mid-block pedestrian crossing at School Street, which services Bristol Elementary School; this crossing should be upgraded to meet current standards. An additional mid-block crossing and the need for Rectangular Rapid Flashing Beacons will be evaluated. The evaluation will be submitted to the Bureau of Traffic for review and acceptance.

The CONSULTANT will investigate the impacts of roadway widening, and make horizontal and vertical adjustments to the baseline while checking cross sections and slope limits to evaluate impacts to Right-of-Way, utilities, and the environment. Based on a review of the project site, there are multiple constraints relative to steep side slopes, short and/or steep driveways, and properties close to the roadway. There may be historical properties to consider towards the downtown area. Investigating the roadway typical section is an iterative process, with each iteration geometrical adjustments are made to avoid or minimize impacts.

Along with the roadway typical sections and geometry, the limits of step box widening, full-depth pavement reconstruction, and rehabilitation will need to be determined. Currently, it is anticipated that there will be full-depth pavement reconstruction along NH Route 104 from School Street to Rite Aid and that the section from Rite Aid to Ayers Island Road will be pavement milling and paving only. The CONSULTANT will coordinate with the DEPARTMENT's Pavement Management Section, providing the engineering data acquired in 1.3 Traffic Data Collection to the Bureau of Traffic Research Section for an ADL calculation and 7.0 Geotechnical Services, to determine a preferred pavement design for the corridor. The services associated with coordinating with the DEPARTMENT and selecting the desired pavement treatments for the project will be included in 3.6.c. Typical Section Study.

The CONSULTANT will investigate the roadway geometry through the S-Curve on Summer Street. Additional coordination is anticipated with the DEPARTMENT in selecting a target speed for the S-Curve and tangents. The work associated with investigating the curve geometry and coordinating appropriate treatments is included in 3.6.a. Alignment & Profile Study.

NH Route 104 from Rite Aid and Ayers Island Road

The CONSULTANT will investigate the conceptual design of a multi-use pathway along NH Route 104 between Rite Aid and Ayers Island Road. The multi-use pathway is anticipated to utilize the existing curb-

to-curb roadway footprint. The work associated with developing the typical section between Rite Aid and Ayers Island Road will be included in 3.6.c. Typical Section Study.

Revisions to the intersection at Ayers Island Road may be required based on the anticipated cross section for the multi-use pathway. If the shoulders are narrowed and traffic is shifted to add a multi-use pathway within the existing roadway footprint, then the left-turn treatment will be eliminated into Ayers Island Road. The intersection should be evaluated to determine if it is acceptable to remove left-turn treatment on NH Route 104. The evaluation of the intersection at Ayers Island Road and the work associated with the lane shift are included in 3.6.b. Intersection Geometrics.

3.2 Design Criteria Document

The CONSULTANT will produce a Design Criteria Document, using the Bureau of Highway Design's template, providing a summary of manuals and codes to be adhered to, and software to be utilized in design. This document will be submitted to the DEPARTMENT for review and comment.

3.3 Future Year Traffic Volumes

A traffic analysis will be conducted to evaluate traffic conditions in various situations, including:

- Future No-Build
- Future Build alternatives
- Construction Phasing (for each alternative)

If the route is shared by vehicles, pedestrians, and bicyclists then the analysis will include all these travel modes, as applicable. The CONSULTANT will submit the proposed traffic volumes, in accordance with the Traffic Operations Analysis Outline, to the DEPARTMENT for concurrence before moving ahead with work under task 3.4 Alternatives Traffic Operational Analysis.

3.4 Alternatives Traffic Operational Analysis

The CONSULTANT will conduct traffic operational analyses for the study area intersections like the analyses conducted for the base year condition, for the future year No Build, and each of the Build alternatives. Capacity, level of service, queuing, as well as turn lane and signal warrant analyses will be conducted as appropriate. The CONSULTANT will submit the results which will be summarized in tabular form. The CONSULTANT will utilize NCHRP 457 to assess turn-lane treatment at the intersection.

3.5 Hydrology & Hydraulics – Large Culvert/Bridge

3.6 Highway Alternative Development

a. Alignment & Profile Study

The CONSULTANT will conduct an alignment and profile study to provide a review of the various alignments and profiles that can be considered for this site. Its purpose will be to select the preferred alignment and profiles for each of the alternatives. Potential alternatives for evaluation include, but not limited to:

- Re-configure the roadway geometry at the S-Curve to correct curvature for existing operating speeds, or as deemed appropriate based on the crash history.
- Evaluate roadway geometry and the necessary traffic calming measures to reduce vehicle speeds on the tangents to a target speed for the S-Curve.
- Evaluate corridor Right-of-Way, environmental, utility, and cost impacts.

- Consider corridor safety, mobility, economic outcomes, and community benefits.

b. Intersection Geometrics

The CONSULTANT will evaluate intersection options and layouts that consider the purpose and need and constraints of the site. Potential alternatives for evaluation include, but not limited to:

- Evaluate traffic calming measures for westbound traffic.
- Evaluate left-turn treatment at NH Route 104 and Ayers Island Road.
- Evaluate and provide treatment recommendations for up to two (2) uncontrolled pedestrian crossings.

c. Draft Design Report

The Design Report will be developed in accordance with the NHDOT Design Report format and include development of the project's Purpose and Need.

d. Typical Section Study

The CONSULTANT will conduct a typical section study of the corridor including all lanes, bike path, and sidewalks. The CONSULTANT will coordinate with the DEPARTMENT's Pavement Management Section to determine appropriate pavement treatments for the project. Potential alternatives for evaluation include, but not limited to:

NH Route 104 (Summer Street) from School Street to Rite Aid

- Widened roadway that improves pedestrian and bicycle facilities.

NH Route 104 (Summer Street) from Rite Aid to Ayers Island Road

- Revise roadway cross section to include a multi-use pathway.

Deliverables for each Highway Design Alternative Package will include:

- Concept plans and profiles, top line typical sections, impact limits. Digital files and three (3) hard copies, plan sheets at half-scale (full scale 22" x 34" sheets at 1" = 20').
- Design Calculations with a brief design narrative for each alternative (including Excel Files, if available)
- Outstanding Issues or Concerns
- Color plan

3.7 ~~Bridge Alternative Development~~

3.8 Alternatives Evaluation

The CONSULTANT will evaluate each alternative against the project Purpose and Need statement and other key criteria for the project. These criteria will include items such as safety, multimodal accommodations, traffic flow, traffic control, utility conflicts, right-of-way impacts, environmental factors, etc. Discussion of the evaluation will be included in the relevant Highway or Bridge submission.

a. Decision Matrix Development

The CONSULTANT will develop a decision matrix for alternatives evaluation. Each of the alternatives will be scored and summarized in a comparison matrix, providing a quantitative analysis of the options to make a recommendation. Alternatives will be evaluated on a series of

criteria which will be established in conjunction with the DEPARTMENT. These criteria will include items such as safety, multimodal accommodations, traffic flow, traffic control, utility conflicts, right-of-way impacts, environmental factors, etc. The matrix will account for cost, and the scoring criteria will be weighted to reflect the DEPARTMENT's priorities developed as a part of the Purpose and Need statement. The CONSULTANT shall use the matrix to make a recommendation with qualifying statements justifying preferred alternative(s) to meet the project's Purpose and Need statement.

b. Alternatives Summary Technical Memorandum (Highway)

To supplement the Design Report and Decision Matrix developed under Tasks 3.6.c Typical Section Study and 3.8.a Decision Matrix Development, the CONSULTANT will prepare a written memorandum describing the alternatives under consideration which can be shared with Stakeholder groups and the public. This memorandum will explain each alternative's ability to meet the project Purpose and Need, and describe the benefits, risks, impacts, concerns, and future design considerations for each.

3.9 Estimates

The CONSULTANT will prepare construction cost estimates for each alternative. The estimates will provide a comprehensive construction cost of each alternative. Traffic control costs will also be developed including any potential Smart Work Zone measures, if needed. The cost estimates will utilize the NHDOT Estimate Review Committee guidance documentation.

Section 3 Deliverables

It is anticipated that three (3) hard copies, with half-scale plan sheets, will be delivered via US Mail, along with the digital files to the DEPARTMENT.

- Conceptual Alternatives
- Design Criteria Document
- Future Year Traffic Volumes
- Alternatives Traffic Operational Analysis
- NHDOT Highway Design Report
- Highway Design Alternatives Package
- Decision Matrix
- Alternatives Summary Technical Memorandum
- Construction Cost Estimates

4.0 PRELIMINARY HIGHWAY AND BRIDGE PLANS

4.1 Description of Anticipated Alternative

NH Route 104 from School Street to Rite Aid

The Anticipated Alternative will widen NH Route 104 to a 32-foot-wide roadway section. New curbing and sidewalks are anticipated on both sides of the road between School Street and 105 Summer Street. From 105 Summer Street to Rite Aid new curbing and sidewalk is only anticipated along the south side of NH Route 104. There is an existing uncontrolled crossing at the School Street intersection, that should be

upgraded with new signing, pavement markings, and overhead illumination. Adding a second uncontrolled crossing at Spruce Street or 105 Summer Street is not anticipated under this project.

Widening on the existing alignment will be a combination of partial depth roadway reconstruction for the existing roadway and full-depth step box widening for the additional width. Driveway matches, drainage, and guardrail work are anticipated through this section along both sides of the road.

At the S-Curve minor geometric revisions such as correcting superelevation or slightly shifting the curves north to make more room for sidewalks are anticipated. There will likely be grading impacts down the embankment on the south side of NH Route 104, a retaining wall is not anticipated in this area. It is assumed a combination of minor geometric revisions and additional signing in advance of the curves, is enough to achieve the desired target speed, which is currently anticipated to be 30 mph (the posted speed limit).

The total acquisition of two (2) single-family residential properties is anticipated due to impacts associated with the roadway widening and new sidewalk. Other impacts in this area include grading impacts to private property, the relocation of fire hydrants, and the relocation of a few utility poles (the pole alignment is mostly on the north side of NH Route 104). Minor underground utility relocations may be required to accommodate the new stormwater system. Large retaining walls are not anticipated, however, some smaller landscaping walls, 3 feet or less, may be required to reduce grading impacts on private property.

It is anticipated that the Environmental Document will be an Individual Categorical Exclusion with Section 4(f) Evaluation with adverse effect. Coordination with the appropriate environmental agencies is anticipated throughout Preliminary Design. Impacts to the Sugar Hill State Forest are not anticipated under this scope.

NH Route 104 from Rite Aid to Ayers Island Road

To accommodate a multi-use pathway within the existing roadway footprint, it is anticipated the travel lanes will need to be shifted prior to Ayers Island Road. The lane shift should provide a safer transition through the intersection to the proposed roadway cross section, which will include a barrier-separated multi-use pathway.

The guardrail along NH Route 104 through this section appears damaged and does not appear to be MASH compliant, and would therefore need to be upgraded under the project. It is anticipated the existing end unit pads are adequate, and the guardrail and end anchorages can be replaced at their current locations.

Stormwater modifications along the south side of NH Route 104 are anticipated due to the installation of the rigid barrier. Modifications would include new catch basins against the rigid barrier, with drainage pipes connecting into the existing slope drains.

Full-depth roadway reconstruction is not anticipated along NH Route 104 for this section, except in the areas of trenching for the stormwater system modifications. It is anticipated the roadway crown will be relocated to the new center line through cold planing and overlaying. It is anticipated that no utility relocations or Right-of-Way is required for this section.

4.2 Highway

A preferred alternative will be chosen based on the Alternatives Evaluation. This alternative and process will be documented as part of the Design Report. The CONSULTANT will develop the Pre-Hearing plans in accordance with the applicable chapters of the latest Highway Design Manual.

The submission will be developed per NHDOT's Pre-Hearing Checklist. The submission will include:

- Pre-Hearing plans, profiles, 50-foot interval as well as critical and side road cross sections (top line), and typical sections of all roads impacted.
- Intersection plans showing pavement layout and lane use, if applicable.
- Design Calculations.
- Identification of potential impacts beyond the ROW.
- Proposed Right-of-Way layout.
- Utility impacts as evident at this stage.
- Develop geotechnical request for borings related to stormwater BMPs. The results will be utilized to refine and confirm feasibility of the BMP design during the Slope and Drain phase.
- Estimated Construction duration.
- Outstanding Issues or Concerns (in Design Report).
- Preliminary Drainage Evaluation, See [4.4 Preliminary Drainage Design](#).
- Preliminary Traffic Management Plans (TMP), including traffic control plans (TCP) for each phase of construction. As described in task [4.5 Traffic Control Plans](#).
- Preliminary estimates, as described in task [4.6 Estimate](#).
- Post Hearing submittal.

4.3 Bridge

4.4 Preliminary Drainage Design

Existing and Proposed watershed areas will be delineated, and approximate areas quantified. The conceptual drainage for the project will be developed to identify locations available and approximate size of stormwater treatment practices and other structure. A conceptual base map will be provided showing the features to be designed in later phases. The intent of the drainage design on this project is to improve the existing drainage facilities by providing raised curbing and new drainage structures and pipes. The drainage infrastructure will also need to meet Alteration of Terrain (AoT) requirements. Due to the existing and newly proposed paved areas within the project limits; an AoT permit is anticipated for the project. The project is not located within an MS4-regulated area.

The CONSULTANT will:

- Measure existing and newly generated pavement areas.
- Determine run-off volume to be treated; utilizing HydroCAD software.
- Coordinate potential post-construction stormwater Best Management Practices (BMPs) with the Water Quality Program Manager.
- Determine preliminary sizing, location, and impacts of potential BMP measures/devices, to be included with the Preliminary Design deliverables.

The existing drainage outlets will be located under task [2.3 Survey](#). It is anticipated that the existing drainage system and outlets will not meet the new AoT requirements and that a Stormwater Pond and/or

other post-construction BMP treatments may be required to collect, detain, and release stormwater runoff at a controlled rate.

4.5 Traffic Control Plans

The Traffic Control analysis at the Preliminary Design stage needs to consider whether temporary Right-of-Way impact are needed to construct the project. The CONSULTANT will develop preliminary traffic control plans for each phase of construction. These plans should be developed to a similar level as the overall design and identify the number of major phases needed to construct the project. For purposes of this scope three major phases are assumed. The plans developed during this phase will be adequate to support a presentation to the Traffic Control Committee.

- Phase 1 – School Street to Merrimack Street (1,400 LF)
- Phase 2 – Merrimack Street to Rite Aid (1,900 LF)
- Phase 3 – Rite Aid to Ayers Island Road (1,700 LF)

In each Phase, it is anticipated any required utility relocations and stormwater installations would occur first. Two-way traffic will be maintained whenever practicable, otherwise one-lane, alternating two-way traffic will be utilized.

The roadway work of widening, adjusting the profile, forming subgrade, and placing base courses and binder pavements for Phases 1 and 2 will likely need to be accomplished under an alternative one-way traffic pattern.

The CONSULTANT will evaluate traffic volumes to determine allowable working hours and a maximum distance for an alternating one-way traffic pattern. The CONSULTANT will also prepare typical sections and Traffic Control Plans for all phases that show widening, temporary pavement, barrier layout, and other required traffic control devices. Due to the proximity of residential development, night work is not anticipated.

This task includes the review of traffic volumes, evaluating constructability, and preparing any typical sections, traffic control plans, and construction phasing plans. The plans developed during this phase will be adequate to support a presentation to the Traffic Control Committee.

4.6 Estimate

The Construction cost estimate for the selected alternative will be updated. The estimate will provide a comprehensive construction cost for the project, including traffic control costs. The cost estimates will be based on major item quantities and category percentages in accordance with the NHDOT Estimate Review Committee guidance documentation.

4.7 ~~Hydraulics and Scour~~

Section 4 Deliverables:

It is anticipated that three (3) hard copies, with half-scale plan sheets, will be delivered via US Mail, along with the digital files to the DEPARTMENT:

- Preliminary Highway Design Submission
- Preliminary Drainage Report
- Traffic Control Plans

- Preliminary Design Public Hearing Estimate
- Post-Hearing Highway Design Submission

~~5.0 SLOPE AND DRAIN~~

6.0 ENVIRONMENT

The CONSULTANT will review and follow the stepwise environmental review process laid out in the DEPARTMENT'S "Project Environmental Process Manual" at <https://www.dot.nh.gov/project-environmental-process-manual>.

6.1 Air Quality

The CONSULTANT will review the project for:

a. Clean Air Act Amendments (CAAA) Conformity

The CONSULTANT will review the most recent major Statewide Transportation Improvement Program (STIP) amendment available on the Department's website.

- The project scope will be reviewed to ensure it is accurately represented in the STIP. If not, a STIP amendment may be required.
- If the project is listed as "regionally significant", an air quality analysis may be required.
- If the CAA Code is listed as "not exempt" (N/E), an air quality analysis may be required.
- If the project is inconsistent with those types of projects listed in Table 2 of 40 CFR § 93.126 which are exempt from the requirement to determine conformity, an air quality analysis may be required.

For the purposes of this scope, it is assumed that this project will demonstrate CAAA conformity and that coordination with the Department's Bureau of Environment, Bureau of Planning and Community Assistance, and/or the Regional Planning Commission to ensure CAAA conformity will not be necessary.

b. NEPA Requirements

The CONSULTANT will review the project for potential adverse air quality impacts.

- The CONSULTANT shall identify and complete the necessary level of Mobile Source Air Toxic (MSAT) analysis based upon the most recent version of the Federal Highway Administration's (FHWA) Federal Highway Administration (FHWA) Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. For the purposes of this scope, it is assumed that MSAT's will be documented utilizing Appendix A - Prototype Language for Exempt Projects.
- If the project results in decreases in the level of service (LOS) below a LOS C in the design year, on any public roadway within or adjacent to the project area, an air quality analysis may be required. The CONSULTANT will initiate coordination with the Department's Air Quality and Noise Program Manager to identify if additional qualitative or quantitative air quality impact assessment will be necessary to determine if the project will result in adverse air quality impacts. For the purposes of this scope, it is assumed that a quantitative analysis will not be necessary.
- If the project requires the preparation of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS):

- A quantitative air quality assessment of the 3 worst intersections will be necessary for both NEPA purposes as well as to demonstrate CAAA conformity.
- A greenhouse gas and climate change assessment will be necessary in accordance with the most recent version of the Council on Environmental Quality (CEQ) NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change.

For the purposes of this scope, it is assumed that air quality impacts will not be identified and that the identification and evaluation of potential mitigation measures will not be necessary.

6.2 Noise

The CONSULTANT will assess the project area to identify existing noise conditions and potential noise impacts related to the project. The CONSULTANT will identify and recommend to the DEPARTMENT the noise project type as defined in the DEPARTMENT's *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I or Type II Highway Projects (April 2016)*. For projects deemed by the DEPARTMENT to be Type I, a noise analysis will be conducted. For the purposes of this scope, it is not anticipated that the project will be identified as a Type 1 project and thus a noise analysis will not be necessary.

6.3 Contamination

The CONSULTANT will coordinate with the DEPARTMENT's Environmental Manager and Contamination Program Manager and, in addition to the tasks below, provide appropriate language on Limited Reuse Soils (LRS), Per- and polyfluoroalkyl substances (PFAS), or other contamination in the Environmental Document and identify the need for further analysis or coordination during the Final Design.

a. Hazardous/contaminated material sites

The CONSULTANT will identify contaminated/hazardous materials sites located within 1,000 ft of the project area and any listed landfill site within 4,000 ft of the project; it is noted that the Bristol Transfer Station is within 4,000 ft of the project. Review of local, state, and Federal inventories/databases of confirmed and potential hazardous waste/release sites will be conducted, including data contained within the New Hampshire Department of Environmental Services OneStop Database and Environmental Database Reports (EDR). Identification of hazardous materials/release sites will be completed using available records, documents, maps, and aerial photographs. The Federal, state, and local records will be reviewed, evaluated, and compiled in a records search report documenting the environmental database search. The potential for project impacts from hazardous materials/contaminated sites, including the location of contaminated soil and/or groundwater in relation to proposed work for evaluating soil and/or groundwater management to include construction dewatering discharges to groundwater and/or surface waters, will be documented in the environmental document.

b. Groundwater

The CONSULTANT will review NH Department of Environmental Services (NHDES) PFAS sampling maps for water quality exceedances within 1,000' of the project. The CONSULTANT will assess the potential for encountering PFAS impacted soils and groundwater.

c. Limited Reuse Soils (LRS)

The CONSULTANT will determine if the project will generate excess LRS. The CONSULTANT will assess the suitability of reuse and staging areas for LRS and include any temporary and/or permanent stockpile areas and/or permanent areas for LRS reuse within the environmental review for the project.

d. Lead paint & Asbestos

6.4 Endangered Plant/Wildlife

a. US Fish and Wildlife, National Oceanic and Atmospheric Administration, NH Natural Heritage Bureau, and NH Fish and Game

The CONSULTANT will request a NH Natural Heritage Bureau (NHB) database review via the NHB DataCheck Tool, and the US Fish & Wildlife Service (USFWS) Official Species List via Information for Planning and Conservation (IPaC) webtool for the study area. This project is not located in coastal areas (Great Bay and tributaries, Little Bay and tributaries, Piscataqua River and tributaries, and Hampton Harbor and tributaries) therefore, the CONSULTANT will not review the National Oceanic and Atmospheric Administration (NOAA) Greater Atlantic Region ESA Section 7 Mapper for the study area. Fish and wildlife habitat will be identified based on the state Wildlife Action Plan, the NH Fish and Game (NHF&G) Wildlife Corridors map and field observations, to be conducted during the wetland delineation. The CONSULTANT will communicate information about wildlife corridors and habitat strongholds to the design team to facilitate incorporation of the corridors/strongholds into project planning in accordance with RSA 228:46-c.

Following the initial coordination noted above to identify potential concerns, The CONSULTANT will coordinate with the NHB at the DEPARTMENT'S Natural Resource Agency Coordination Meetings, included in 9.2 Natural Resource Meetings, and via email regarding rare plant species, and exemplary natural communities.

If the results of the NHB DataCheck Tool indicate "no records" of wildlife species present, or that no impacts to wildlife species are expected, or if the project is limited to work within the area of existing pavement in an existing state right-of-way, no coordination or communication with NHF&G is required. In all other situations, the information listed in Fis 1004 will be compiled for coordination with NHF&G. The information will be provided to the DEPARTMENT for review, with one round of comments addressed. The CONSULTANT will provide the information to NHF&G for comment and will respond to questions. It is assumed that there are no projects records in the project area and additional coordination with NHB and NHF&G will not be required.

The CONSULTANT will coordinate with the design team/DEPARTMENT to ensure any NHF&G and NHB conservation recommendations are acceptable. If there are concerns with recommendations, the CONSULTANT will coordinate with the DEPARTMENT's Bureau of Environment to develop a response to NHF&G/NHB. The CONSULTANT will send the response to the NHF&G/NHB recommendations.

- ~~• For this scope of work, it is assumed that the following items will be necessary: [XXX may be present.] If necessary, a plant survey will be completed in suitable habitat that may be impacted by the project. A survey plan will be submitted to NHB and the DEPARTMENT for~~

~~approval ahead of completion of the survey. A letter report will be prepared to summarize the findings and will be submitted to the DEPARTMENT, NHB and, if applicable, USFWS. If rare plants are identified the NHB Rare Plant Reporting Form will be completed and submitted to NHB by the CONSULTANT.~~

- ~~• [XXX may be present.] If necessary, [discuss additional requirements].~~
- The project is located within the range of the northern long-eared bat and tricolored bat, listed as federally endangered species and proposed as endangered, respectively. It is anticipated that the project will be eligible for review under the *Federal Highway Administration and Federal Railroad Administration Range-wide Biological Assessment for Transportation Projects for Indiana Bat and Northern Long-Eared Bat Programmatic Consultation*.
 - The project does include impacts to bridges and culverts. The CONSULTANT will review the culverts 3' in diameter and larger, and bridges to assess their use or suitability for bat roosting habitat. The current version of the USFWS Range-wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines Appendix K Assessing & Surveying Bridges & Culverts for Bat Use.
- An acoustic survey is included in this scope. The Consultant will coordinate with Biodiversity Research Institute (BRI), and complete the regulatory review determination key in the USFWA IPaC tool for use in the DEPARTMENT's coordination with USFWS. The CONSULTANT will coordinate with the design team to determine which Avoidance and Minimization Measures are acceptable for the project, such as, a time of year restriction for tree clearing. The DEPARTMENT will provide the CONSULTANT with USFWS concurrence letter for inclusion in the Environmental Document.
- The Northern Long-Eared Bat and Monarch Butterfly are anticipated to be present on the IPaC Official Species List for the project area. It is anticipated that a no effect determination will be appropriate for the project. If necessary, the CONSULTANT will complete the Northeast Species Determination Key in IPaC or will draft a letter for the DEPARTMENT to send to USFWS to initiate informal consultation to arrive at a determination of may affect, not likely to adversely affect.
- Development of a stand-alone Biological Assessment and support for Section 7 Endangered Species Act formal consultation with USFWS or NOAA are not included in this scope.
- The project area is not known to include habitat for Bald Eagles- The CONSULTANT will not complete the Northeast Bald Eagle Project Screening Form for the project and provide appropriate avoidance measures to the design team for incorporation into project planning. If the project is unable to implement all the recommended avoidance measures from the screening form, the CONSULTANT will prepare a letter to facilitate coordination with the USFWS regional eagle coordinator to determine the appropriate next steps. The letter will include a brief description of the project, including its location and when project activities are planned to start; the activity category(s) from the screening form; the ID number(s) (e.g., AM 5) of the Avoidance Measure(s) the project is unable to implement; and the nest location(s), if available.

b. NOAA/Essential Fish Habitat (EFH) Coordination

6.5 Invasive Species

The CONSULTANT will identify species and approximate limits of invasive plants within the study area. This will be completed with the wetland delineation. Approximate limits of invasive plant populations will be provided to the DEPARTMENT in a file format compatible with DEPARTMENT standards. All invasive plant occurrences will be identified as polygon features and labelled as NHDOT Type I or NHDOT Type II species. Potential disturbance to invasive plants during construction will be assessed and appropriate items and estimates will be determined. This task includes one (1) site visit to flag identified species and approximate limits of invasive plants. This task also includes any documentation of invasive species. The surveyors will locate the flagging in the field to include the flagged areas on the basemap/CAD files. This surveying effort is included in 2.3 Survey.

6.6 Historic/Archaeological

The CONSULTANT will coordinate with a Historic SUBCONSULTANT, the Preservation Company, and an Archaeological SUBCONSULTANT, Independent Archaeological Consulting (IAC), in the development of the NH Division of Historical Resources (NHDHR) Request for Project Review (RPR) form for Transportation Projects, Section 106, and other tasks identified in 6.6 Historic/Archaeological.

- a. Initiate Section 106/Cultural Resources Review – Included in Preservation Company and IAC scopes.
- b. Resource Identification – Included in Preservation Company and IAC scopes
- c. Assessment of Effects – Included in Preservation Company and IAC scopes

➤ Effect Review Sheets – Included in Preservation Company scope

The CONSULTANT will prepare Effect Review sheets per NHDHR guidance. This effort should be completed when there will be noticeable change to the resource. This effort includes completing the effect tables, narratives to support effect justifications and supporting photos and graphics.

➤ Effect Memo

The CONSULTANT will prepare the draft Section 106 Effect Memo. Examples will be provided by the DEPARTMENT.

d. Resolution of Adverse Effects

For the purposes of this scope, it is assumed that the project will have an adverse effect on historic resources

➤ e106

If the project results in an adverse effect to historic resources, the CONSULTANT will prepare the documentation required by 36 CFR 800 for notifying the Advisory Council on Historic Preservation (ACHP) of the adverse effects following the ACHP Electronic Section 106 Documentation Submittal System (e106) guidelines. This will entail:

- Completion of the e106 Documentation Submittal Form;
- Compilation of Section 106 consultation correspondence and meeting minutes;
- Project location map; and
- Photographs.

This information will be submitted to the DEPARTMENT in pdf format. The DEPARTMENT will coordinate with FHWA on the submission of the documentation to ACHP.

➤ *Memorandum of Agreement*

If the project results in an adverse effect to historic resources, the CONSULTANT will prepare a draft Memorandum of Agreement (MOA) outlining the agreed upon mitigation stipulations. The CONSULTANT will coordinate with the DEPARTMENT and any consulting parties to determine potential mitigation measures.

e. Consulting Parties and Public Involvement

➤ *Cultural Resource Agency Coordination Meetings – See 9.3 Cultural Resource Meetings*

➤ *Consulting Parties*

Section 106 Consulting Parties are any persons or organizations with a vested interest in the cultural resources located in or adjacent to a project area. The lead Federal agent is responsible for formally accepting Consulting Parties. The CONSULTANT will maintain a list of any identified Consulting Parties, and inform them of any project meetings or milestones. The DEPARTMENT is responsible for any dispute resolution.

➤ ~~*Tribal Consultation*~~

~~The DEPARTMENT, working with the lead Federal Agency, will be responsible for any Tribal coordination.~~

6.7 Water Quality

The CONSULTANT will identify and gather data related to the requirements included in Alteration of Terrain, Small Municipal Separate Storm Sewer (NIC), Construction General, Water Quality Certification (NIC) and New Hampshire Dredge & Fill permits regarding surface waters, aquifers, public water supplies, drinking water source protection areas, and Wellhead Protection Areas within the study area from appropriate sources such as the GRANIT GIS database, NHDES mapping, or municipal mapping. The CONSULTANT will describe these resources and display them on project mapping, describe permitting needs in the NEPA document, incorporate the permit requirements into the engineered design and proposal for bids. This information may include but not limited to:

- 303(d) impairments
- TMDLs
- Class A waters
- Outstanding Resource Waters
- Shoreland Protection jurisdiction
- Proximity to lakes and ponds.
- Project size
- Determine a significant alteration of terrain
- Impervious area (existing and newly generated)
- Area of earth disturbing activity
- Relative AOT Permit-by-Rule activities
- Proximity to remediation sites
- Existing and proposed MS4s (NIC)
- Source Water Protection Areas

- Private and public well sanitary radii
- Designated Rivers jurisdiction
- WOTUS jurisdiction
- Construction sequence in relationship to sediment and erosion control
- Construction timeline for winter work
- Identification of point and non-point sources
- Identification of point and non-point source discharges
- Placement of perimeter controls, channel protection and natural buffers
- Development of stream diversion plans
- Determination of Maximum Extent Practicable
- Use of mixing zones

It is assumed that stormwater quality treatment will be required and that the project will require coverage under the EPA Construction General Permit. The CONSULTANT will attend two (2) meetings with the DEPARTMENT's Water Quality Program Manager to review the treatment requirements. The potential for the project to affect water quality, including pollutants causing impairments, and the new impervious surfaces and total treated pavement will be addressed and summarized in a memo for review and concurrence by the DEPARTMENT's Water Quality Program Manager.

Permitting and compliance requirements pertaining to the NHDES Alteration of Terrain and construction water quality will be identified and the appropriate environmental commitments will be included in the Environmental Document.

6.8 Floodplains & Floodways

The CONSULTANT 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. It is anticipated that no potential encroachments into floodplains and floodways are identified. ~~[The NH Department of Business and Economic Affairs, Office of Planning and Development will be contacted to provide guidance. 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.]~~

6.9 Public and Conserved Lands

Public and conserved lands will be identified and mapped based on existing information from NH GRANIT and public input. If impacts outside the existing right-of-way are anticipated, the CONSULTANT will coordinate with the Land and Community Heritage Investment Program (LCHIP) and the Conservation Land Stewardship (CLS) Program to determine if these groups hold an interest in any properties in the vicinity of the project. It is assumed that the project will not impact public and conserved lands. It is noted that Sugar Hill State Forest is owned by the NH Department of Natural and Cultural Resources (DNCR), and minor coordination with LCHIP and CLS is anticipated after the initial coordination letters.

6.10 Section 6(f)

If impacts outside the existing right-of-way are anticipated, the CONSULTANT will coordinate with the NH Department of Natural and Cultural Resources (DNCR), Division of Parks and Recreation's Land & Water

Conservation Fund program to identify Section 6(f) investment properties. For the purposes of this scope, it is assumed that the project will not impact Section 6(f) properties.

6.11 Wetlands, Stream Crossing Assessments, & Wetland Mitigation

a. Identification

The CONSULTANT will coordinate with North Country Soil Services (NCSS) to delineate wetlands and streams, including ordinary high water and top-of-bank, within the study area. The CONSULTANT's Environmental Specialist will assist NCSS with the wetland delineation. Descriptive information, Cowardin classification, functions and values, site sketches, and photographs of jurisdictional areas will be collected. Features will be delineated with flags labeled with an alpha-numeric sequence and each flag will be located with a GPS unit with sub-meter accuracy.

The delineation will be completed in accordance with the US Army Corps of Engineers Wetlands Delineation Manual (Jan. 1987); Regional Supplement to the Corps Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0, January 2012) and the 2022 Waters of the United States Waters Rule. Reference standards will include Field Indicators of Hydric Soils in the United States (Version 8.2, 2018), the National List of Plant Species that Occur in Wetlands (on-line), and Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979). It is assumed that up to three (3) upland and wetland data points will be completed to confirm wetland boundaries and wetland types; Danforth Brook and three unnamed streams. Wetland Determination Data Plot Forms will be prepared at each data point.

If there are any streams within the project area, the CONSULTANT will determine the watershed size for each crossing and determine the corresponding Tier classification using the USGS StreamStats tool. Based on USGS StreamStats mapping, it is assumed there are up to four (4) potential stream crossings located within the project area. The CONSULTANT will complete a stream assessment for any stream crossings according to the requirements of the NHDES Stream Crossing Rules (Env-Wt Part 900). The CONSULTANT will summarize the results of the stream assessment, determine geomorphic characteristics of the reference reach, and determine the Rosgen stream type. They will also summarize design considerations for a geomorphically compatible crossing design using the results of the stream assessment and design guidance from the NHDES Stream Crossing Rules and UNH Stream Crossing Guidelines into consideration.

Field data required to complete invasive species identification will be collected concurrently with the delineation.

The CONSULTANT will locate the flagging in the field to include the flagged areas on the basemap/CAD files. This surveying effort is included in 2.3 Survey.

GPS data will be processed using the differential correction tool in Pathfinder Office and checked with NHDOT survey and aerial imagery in ArcMap. Corrected data will be provided to the DEPARTMENT in a file format consistent with DEPARTMENT standards.

The CONSULTANT will assist NCSS in preparing the Wetlands Function-Value Evaluation Form from the Highway Methodology Workbook Supplement for each individual wetland that is

delineated. Such information should be made available and discussed at Natural Resource Agency Coordination meetings.

b. Assessment

The CONSULTANT will calculate preliminary impacts to wetlands and surface waters for each alternative and determine the permitting and mitigation requirements based on the preliminary impacts.

The CONSULTANT will calculate the in-lieu fee based on preliminary impacts. It is assumed that the project will result in permanent wetland and/or stream impacts that will not require consideration of off-site permittee responsible mitigation in accordance with NHDES Wetlands Bureau Rules. If off-site permittee responsible mitigation is required, the CONSULTANT will contact one local land trust and the Conservation Commission to seek potential mitigation projects, unless such projects were provided to the CONSULTANT in response to initial contact letters. For purposes of this scope, it is anticipated the CONSULTANT will coordinate with the Town to assess potential mitigation sites. Information on potential local projects will be summarized in a letter report and provided to the DEPARTMENT. This task does not include the field review of potential mitigation projects. The CONSULTANT will attend one (1) meeting to discuss impacts and potential mitigation. Prior to any coordination with NHDES or presentation at Natural Resource Agency Coordination meetings, the CONSULTANT will coordinate with the DEPARTMENT.

6.12 Identification of Environmental Permits

The CONSULTANT will identify the state of New Hampshire and federal environmental permits required for this project. Permitting coordination may extend into the PPS&E phase.

The CONSULTANT will also check for NH Designated and Wild and Scenic Rivers in the vicinity of the project area and will identify all public waters under the jurisdiction of the Shoreland Water Quality Protection Act within 250 feet of the project limits, as well as the availability of any statutory exemptions.

6.13 Miscellaneous

a. Farmland

The CONSULTANT will map the soil series within the study area based on existing databases, including the distribution of prime, statewide, local, or unique farmland soils. For the purposes of this scope, it is not assumed that a Farmland Conversion Impact Rating Form for Corridor Type Projects will be required. If required, the CONSULTANT will complete the Rating Form (NRCS-CPA-106) and will coordinate directly with the NRCS on completion of the form.

b. Climate Change/Resilience

The CONSULTANT will assess the Build Alternatives and No Build Alternative in terms of their overall resiliency and potential to withstand impacts that could arise due to climate change, in accordance with DEPARTMENT guidelines. Topics that will be addressed include, increased precipitation and the potential for an increase in and severity of storm events, and the potential effect these factors will have on the Build Alternatives and No-Build Alternative.

c. Coastal Zone Consistency

d. Environmental Justice

The DEPARTMENT will provide an Environmental Justice Analysis for the project, and the CONSULTANT will document the findings of the analysis in the environmental document.

e. Socioeconomic Assessment

The CONSULTANT will identify socioeconomic considerations and impacts within the study area such as business and economic impacts, visual impacts, changes in land use, and consistency with local, regional, and state plans of development.

6.14 Public Involvement (Environmental)

a. Initial Contact Letters:

The CONSULTANT will send the DEPARTMENT's Bureau of Environment standard initial contact letter to town officials and the Regional Planning Commission. A draft letter will be provided to the DEPARTMENT for review prior to distribution. The CONSULTANT will respond to feedback or questions in coordination with the DEPARTMENT.

6.15 Preparation of the Environmental Document

The CONSULTANT will prepare the following applicable environmental document:

National Environmental Policy Act (NEPA)

As part of preliminary design for a federally-funded (or project requiring federal approval), the CONSULTANT will prepare the NEPA document to identify and describe natural resources and resource impacts proposed for the project including technical reports prepared by others, state the Purpose and Need, summarize alternatives considered, describe potential measures to minimize or mitigate impacts, list environmental commitments, and will include maps, correspondence with natural resource agencies, and photographs. For the purposes of this scope, it is assumed that the Environmental Document will be an Individual CE with Section 4(f) Evaluation with adverse effect.

a. Draft Environmental Document

An administrative Draft Environmental Document as identified above will be prepared and provided to the DEPARTMENT and FHWA/the lead Federal Agency (if applicable) for review, it is anticipated there will be two (2) iterations of DEPARTMENT review and comment on the Draft Environmental Document. The CONSULTANT will revise the administrative Draft Environmental Document to address comments received by the DEPARTMENT and any other reviewing agencies. This revised Draft Environmental Document will be made available for public and/or FHWA legal sufficiency review, as applicable, prior to the Public Hearing.

b. Final Environmental Document

Following the comment period and/or public hearing, the Draft Environmental document will be revised by the CONSULTANT to address any comments and responses or revisions based FHWA legal sufficiency review and/or on the Public Hearing testimonies, as detailed in the Report of the Commissioner. A draft version of the Final Environmental Document will be provided to the DEPARTMENT and FHWA/the lead Federal Agency (if applicable) for review. The CONSULTANT will revise the Final Environmental Document to address any comments received during this review and submit to the DEPARTMENT for final NEPA Classification.

6.16 Section 4(f)

For projects with FHWA involvement the CONSULTANT will identify parks, wildlife and waterfowl refuges, historic sites, or other areas subject to Section 4(f). For purposes of this scope, it is assumed that this project will require the preparation of an Individual Section 4(f) evaluation in accordance with 23 CFR 771.135 of the Department of Transportation Act of 1966.

The CONSULTANT will prepare an Individual 4(f) Evaluation, for the project which will include a discussion of the applicability of Section 4(f) to the project, purpose and need, existing conditions, description of the 4(f) properties, impacts to 4(f) properties, description of avoidance alternatives, description of other alternatives, least harm analysis (if applicable), Programmatic applicability (if applicable), coordination and public participation, findings, and measures to minimize harm.

An administrative Draft Individual Section 4(f) Evaluation will be provided to FHWA and the DEPARTMENT for initial review. The CONSULTANT will then revise the draft evaluation to address comments received from the DEPARTMENT and FHWA, resubmit the documentation to the DEPARTMENT and FHWA for review approximately 30 days prior to the Public Hearing. If the project requires an Individual 4(f) analysis, the Draft 4(f) Evaluation will be submitted for a preliminary legal sufficiency review. Following the legal sufficiency review and public comment period, the document will be revised to address any comments received and responses or revisions based on the Public Hearing testimonies, as detailed in the Report of the Commissioner. The revised Section 4(f) Evaluation will be provided to the DEPARTMENT for distribution to FHWA for final review, and if necessary, final legal sufficiency review. Any FHWA comments will be addressed prior to submission of the Environmental Document/Final Individual 4(f) Evaluation to complete the NEPA evaluation.

~~6.17 US Army Corps of Engineers (USACE) Section 14 of the Rivers and Harbors Act of 1899, 33 USC 408 (Section 408)~~

~~6.18 US Coast Guard~~

7.0 GEOTECHNICAL SERVICES

The CONSULTANT will coordinate with SW Cole Engineering, Inc. (SW Cole) on Geotechnical Services. See attached SUBCONSULTANT scope for additional information.

~~7.1 Subsurface exploration plan~~ – Included in SW Cole scope

~~7.2 Subsurface Explorations~~ – Included in SW Cole scope

In collaboration with the DEPARTMENT, the CONSULTANT will coordinate, manage, and oversee a preliminary subsurface exploration as summarized below.

The CONSULTANT will meet the Bureau of Materials and Research (BOM) to finalize the Non-destructive testing, pavement boring and coring program which is detailed below. It is anticipated that 2 members of the consultant team will attend these meetings.

~~a. Pavement Evaluation~~

~~b. Borings~~

~~7.3 Material Testing and Evaluation~~ – Included in SW Cole scope

~~7.4 Geotechnical Report~~ – Included in SW Cole scope

Section 7 Deliverables:

It is anticipated that three (3) hard copies, with half-scale plan sheets, will be delivered via US Mail, along with the digital files to the DEPARTMENT.

The CONSULTANT will provide a draft geotechnical engineering report to the DEPARTMENT for review and comment. A final geotechnical engineering report will be submitted addressing the DEPARTMENT's comments on the draft submission.

8.0 PUBLIC INVOLVEMENT

8.1 Public Outreach Plan

The CONSULTANT will prepare a Public Outreach Plan. This task includes identifying stakeholders and key issues, as well as existing communications networks (such as newspapers, newsletters, radio stations, and electronic communication/social media tools). A draft public involvement plan will be developed and reviewed by the DEPARTMENT. Following the DEPARTMENT approval.

8.2 Project Working Group

A Project Working Group (PWG) will be established for this project in collaboration with the DEPARTMENT and the CONSULTANT. The PWG will operate less formally and ensure major stakeholders are engaged in advance of public informational meetings. The primary responsibility of the PWG 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 CONSULTANT will provide PWG members with a reasonable opportunity to review materials in advance of a scheduled advisory committee meeting. All project information will be e-mailed, or a hard copy will be sent via mail.

In addition to appropriate DEPARTMENT staff, relevant individuals, and parties of interest (such as town officials, representatives of local boards, commissions, and associations, businesses, residents, and others as identified and approved by the DEPARTMENT) will be invited to participate in the project PWG.

It is anticipated that the PWG will meet up to five (5) times during this project. It is anticipated that two (2) members of the consultant team will attend these meetings and that the attendees will be knowledgeable about the project and able to speak to the major project concerns/topics, including key environmental resources and issues. Two (2) conference calls will be required to prepare for these meetings.

The CONSULTANT will:

- Fully develop the role and objectives of the PWG with the DEPARTMENT, so that the advisory role is clearly understood by all.
- Work with the DEPARTMENT and the PWG to ensure that representation is appropriate.
- Develop a tentative PWG meeting schedule, corresponding to key decision points in the project. Plan five (5) meetings of the PWG.
- Maintain a database of PWG members.
- Be responsible for scheduling the date and time, identifying the meeting location, and developing draft meeting notices for the DEPARTMENT approval.
- Prepare a draft agenda for each PWG meeting.
- Revise and finalize each PWG meeting agenda.

- Develop and coordinate meeting materials (i.e., reports, slides, illustrations, graphics, designs, and maps).
- Send (via email) meeting reminders to each of the PWG members three days prior to each meeting.
- Distribute (via email) PWG meeting notices, agenda and any draft documents to PWG members.
- Prepare meeting notices for placement on the project web site two weeks prior to the scheduled meeting.
- Facilitate each PWG meeting (At the first PWG meeting, present the objectives of the project, answer questions to clarify the objectives, and respond to general questions about the project).
- Revise and finalize meeting notes.
- Distribute meeting notes to PWG members.
- Make meeting notes available on a project webpage.

8.3 Public Officials Meetings

The CONSULTANT and DEPARTMENT may attend Public Officials Meetings to update community leaders [and abutters] regarding project development. These meetings will be held during the regularly scheduled meetings of the municipalities governing board or council. This scope includes three (3) Public Officials Meetings. These meetings are expected to last up to one hour each. It is anticipated that up to three (3) members of the consultant team will attend these meetings and that attendees will be knowledgeable about the project and able to speak to the major project concerns/topics, including key environmental resources and issues. One (1) conference call per meeting, three (3) total calls, will be required to prepare for these meetings.

For each of these meetings, the CONSULTANT will be responsible for:

- ~~Scheduling the date;~~
- Developing an agenda for meetings for the DEPARTMENT approval;
- Developing handout material, including display graphics for the DEPARTMENT review and approval prior to publication;
- Conducting a dry-run of the presentation for the DEPARTMENT before meeting (not the Front Office Meeting);
- Presenting the project materials, in conjunction with DEPARTMENT staff, at the meeting;
- Developing draft conference reports and summary of the comments received at each meeting and making changes based on the DEPARTMENT review and comments;
- Preparing approved conference reports for posting on the project webpage;
- Providing any PowerPoint presentations and any additional display graphics from meetings for posting on the project webpage.

8.4 Public Informational Meetings

Public informational meetings will be held to obtain input from the public regarding project development. 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 environmental document. This scope includes two (2) Public Information Meetings held at key project milestones. Meetings will be held in convenient and accessible locations. These meetings are expected to last up to three (3) hours each. It is anticipated that three (3) members of the consultant team will attend these meetings and that attendees will be knowledgeable about the project and able to speak to the major project

concerns/topics, including key environmental resources and issues. Four (4) conference calls, two (2) for each meeting, will be required to prepare for these meetings.

For each of these meetings, the CONSULTANT will be responsible for:

- ~~Scheduling the date, time and meeting location;~~
- Developing an agenda for meetings for the DEPARTMENT approval;
- Developing handout material, including display graphics for the DEPARTMENT review and approval prior to publication;
- Conducting a dry-run of presentation for the DEPARTMENT before meeting;
- Presenting the project materials, in conjunction with DEPARTMENT staff, at the meeting;
- Developing draft conference reports and summary of the comments received at each meeting and making changes based on the DEPARTMENT review and comments;
- Preparing approved conference reports for posting on the project webpage;
- Maintaining a log of each meeting; and
- Providing any PowerPoint presentations from meetings for posting on the project webpage.

8.5 Stakeholder Meetings

The CONSULTANT will, in conjunction with the DEPARTMENT, meet one-on-one with residents and businesses affected by the project as well as provide briefings to civic groups or local governmental entities. Meetings will include the DEPARTMENT personnel as appropriate. Up to five (5) meetings are included in this scope.

For each of these meetings, The CONSULTANT will be responsible for:

- Scheduling the date, time and meeting location;
- Reviewing the agenda and handout material and/or presentation with the DEPARTMENT prior to the meeting;
- Presenting the project materials at the meeting; and
- Developing minutes and summary of the comments received at each meeting and distributing them to the DEPARTMENT.

8.6 Outreach Materials

a. Contact List

The CONSULTANT shall 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
- Other interested parties.

b. Media Relations

The CONSULTANT will provide supportive materials to the DEPARTMENT communications staff to assist the department with publicizing public meetings in newspapers, radio and TV stations that cover the local area. The CONSULTANT will provide a draft media advisory to the DEPARTMENT for three (3) public meetings with pertinent information on the date, time, location and purpose of the public meetings and project status. The DEPARTMENT will be responsible for initiating all media contact.

c. Newsletters

d. Websites

The CONSULTANT will provide the DEPARTMENT relevant project information in electronically formatted files for the agency to post in the "Project Center" section "Project Specific Information" subsection of the DEPARTMENT website. Information provided may include notices of upcoming public meetings, meeting presentations, color plans, newsletters, project reports, conference reports, and contact information on how to communicate with the project team.

e. Comments

The CONSULTANT will develop and maintain a database of all comments and responses received. Track all comments and responses within the database. The CONSULTANT will draft responses to comments, and if requested by the DEPARTMENT, respond directly to the public.

f. Meeting mailers/postcards

g. Visualizations

It is anticipated that visualizations for this project will include color plans, photographs/videos, charts, and other project-related graphics summarized in a PowerPoint presentation. Live traffic simulations or animated renderings are not anticipated.

h. Surveys

8.7 Public Hearing

The CONSULTANT will prepare for and attend one Public Hearing to be held at a date and time determined by the DEPARTMENT. The Public Hearing will be attended by up to three (3) staff members. This task includes:

- Development of presentation, slideshow, and exhibit materials, including the colored hearing handout, a colored hearing roll plan and colored section and elevation view drawings for the Hearing and modified graphics, if necessary for the Finding of Necessity.
- The CONSULTANT will prepare for, provide plans, and attend one (1) Pre-Hearing Utility Meeting.
- The CONSULTANT will attend one (1) virtual Hearing preparation meeting with Department staff.
- The CONSULTANT will prepare for, provide plans, and attend one (1) Pre-Hearing Conference "Dry Run" with the Special Committee or Commission.
- The CONSULTANT will attend and present at one (1) Public Hearing.
- The CONSULTANT will be required to provide an environmental hearing statement to be presented by the DEPARTMENT at the Public Hearing as well as the Pre-Hearing Conference.
- The CONSULTANT will provide responses to Hearing comments, as requested by the DEPARTMENT, to assist in the preparation of the Report of the Commissioner.

- Review the Public Hearing transcript for accuracy and provide comments to the DEPARTMENT.
- The CONSULTANT will prepare for and attend one (1) Finding Necessity Meeting (at NHDOT) to present the Department's responses to the Public Hearing comments.
- If any of these meetings entail a virtual component, the CONSULTANT will prepare a slideshow for use during the meeting.

9.0 MEETINGS

The CONSULTANT will attend the following meetings. The CONSULTANT will prepare agendas in advance of the meetings and be responsible for the preparation of conference reports/minutes to document all meetings.

Meetings required include:

9.1 Kick Off Meeting

The CONSULTANT will coordinate to hold a kickoff meeting with the DEPARTMENT to discuss the scope of work, review near and long-term project milestones, and establish communication protocols and decision-making structure.

9.2 Natural Resource Meetings

The CONSULTANT will attend two (2) virtual NHDOT Natural Resource Agency Coordination Meetings, attendance is anticipated to include up to three (3) staff members. These meetings provide environmental regulatory agencies an opportunity to review proposed designs, design alternatives, and potential impacts throughout design. Agencies include FHWA, US Environmental Protection Agency (EPA), US Fish and Wildlife Service, ACOE, NH Fish and Game Department, NHHNB, and NHDES. The CONSULTANT will prepare a presentation for this meeting in collaboration with the DEPARTMENT and will assist in presenting the proposed project and resource concerns. The CONSULTANT will also be responsible for taking meeting minutes. Two (2) conference calls may be required to prepare for these meetings.

9.3 Cultural Resource Meetings

The CONSULTANT will prepare for and attend two (2) virtual Cultural Resources Agency Coordination Meetings to discuss any historical and/or archeological involvement near the project location (Area of Potential Effect [APE]); attendance is anticipated to include up to three (3) staff members. This will include the preparation of PowerPoint presentations and handouts. Participants include the State Historic Preservation Office (SHPO), US Army Corps of Engineers (ACOE), and FHWA. The CONSULTANT will prepare a Request for Projects Review (RPR) form and submit it to the Bureau of Environment Cultural Resources Program two (2) weeks prior to the scheduled meeting. One (1) digital copy via E-mail, and one (1) hard copy will be submitted. The CONSULTANT will prepare minutes for each meeting documenting the topics of discussion, comments and issues, follow-up action items, and any agreements or resolutions discussed. The CONSULTANT will also participate in up to two (2) Conference Calls for additional coordination and meeting preparation with the Cultural Resource Agency, IAC, and/or Preservation Co.

9.4 Design 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 CONSULTANT and DEPARTMENT staff, will be held in advance of each formal submission, as needed. The CONSULTANT will provide an update on the project status and their approach to various design issues, followed by an open and collaborative discussion with the DEPARTMENT staff members to determine how to best advance the design. Attendees will be

determined based on the topics to be discussed. The CONSULTANT will be responsible for scheduling these meetings. For purposes of this scope, it is assumed that four (4) virtual design meetings will be included in this scope. It is anticipated up to three (3) staff members will be in attendance, and the meeting will last one (1) hour.

9.5 Submission Review Meetings

At each design phase, the CONSULTANT and DEPARTMENT will meet to discuss critical items and review comments. It is anticipated that there will be three (3) virtual submission review meetings during the Preliminary Design phase.

9.6 Front Office Meetings

The CONSULTANT will prepare for and be the lead presenter at six (6) in-person Front Office Meetings. These meetings are anticipated ahead of each Public Officials Meeting, Public Informational Meetings, for review of the alternatives meeting, ahead of the Public Hearing, for substantial scope of work or design changes, to review special construction requirements, and significant cost changes. The CONSULTANT will provide illustrative plans to hang in-person, PowerPoint presentations (as applicable), Front Office Project Information Sheet (FOPIS), and be the lead for all meetings. The FOPIS and any presentation materials will be submitted to the DEPARTMENT for review two weeks prior to the meeting date. Six (6) conference calls may be required to prepare for these meetings.

9.7 Estimate Review Committee Meetings

The CONSULTANT will prepare for and be the lead presenter at two (2) virtual Estimate Review Committee Meetings. These meetings are anticipated ahead of presenting at Front Office Meetings to ensure the committee agrees with how the estimate has been prepared. Preparation includes completing necessary cost estimates (typically as part of the design task), requesting to be placed on the agenda, and preparation of the presentation. Items should be submitted to the DEPARTMENT for review two weeks prior to the meeting date. Two (2) conference calls may be required to prepare for these meetings.

9.8 Traffic Control Committee Meetings

The CONSULTANT will prepare for and attend one (1) virtual Traffic Control Committee Meeting to present the project traffic control plan. Preparation includes completing the Traffic Control Memo, requesting to be placed on the agenda, and preparation of any necessary cross-sections or other graphics needed to fully explain the project's anticipated traffic control measures and strategies. One (1) conference call may be required to prepare for these meetings.

9.9 Bi-Weekly Project Management Meetings

The CONSULTANT's Project Manager will attend fifty-two (52) virtual Project Management Meetings with the DEPARTMENT's Project Manager, on a bi-weekly basis over a 24-month period. It is anticipated these will be half-hour meetings to discuss project progress and schedule, upcoming meetings or milestones, and identify any roadblocks well in advance. More detailed discussions and guidance on project design are included in 9.4 Design Collaboration Meetings.

10.0 PROJECT ADMINISTRATION

10.1 Project Management

The CONSULTANT will perform general administration of the project, including email and phone communications, meetings and coordination, as well as preparing progress reports and routine schedule updates.

10.2 Project Coordination with the DEPARTMENT

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

- Project startup, team coordination meetings including conference reports and prepare contract agreements.
- Coordination with the DEPARTMENT to identify additional activities (if any) or necessary modifications to contract.

10.3 Coordination with Subconsultants

The CONSULTANT will coordinate approved project scope with subconsultants, and track progress compared to approved budgets and schedules. Subconsultants will be included in meetings, as required, during the design progress.

10.4 Invoicing and Progress Reports

The CONSULTANT will develop and provide monthly invoicing and progress reports. All invoices, including SUBCONSULTANT invoices, will be reviewed by The CONSULTANT for completeness and accuracy prior to inclusion in the CONSULTANT invoice.

10.5 Project Schedule Management

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

- Prepare the initial project schedule for design and reviews.
- The design schedule will be reviewed monthly and updated when needed. The updated version shall be submitted with the next Invoice.
- The project duration for this Agreement is expected to be 24 months with notice to proceed.

10.6 General Project Assumptions

- The project will be developed in Imperial/English units.
- The CONSULTANT will coordinate with SUBCONSULTANTS on the identified support tasks within this scope of work. CONSULTANT coordination with a SUBCONSULTANT includes communications on design decisions, review of deliverables, meetings, and correspondence required to plan and execute tasks. Administrative tasks, such as preparing subconsultant agreements and invoicing are included in 10.3 Coordination with Subconsultants.

10.7 Project Closeout

Coordinate closeout of project Preliminary Design phase, including satisfactory delivery of electronic files, reports, plans, etc.



6.6 Historic/Archaeological

HEB Engineers, Inc. will hereby be referred to as the CONSULTANT, has engaged Independent Archaeological Consulting, LLC (IAC) which will hereby be referred to as the SUBCONSULTANT, for environmental services. The SUBCONSULTANT understands that the project is being administered by the State of New Hampshire Department of Transportation which will hereby be referred to as the DEPARTMENT. The project includes approximately 1 mile of roadway reconstruction and bicycle and pedestrian improvements on NH Route 104 (Summer Street) in Bristol, NH, between the intersection of School Street and Ayers Island Road.

- a. ~~Initiate Section 106/Cultural Resources Review – Included in Historic SUBCONSULTANT scope~~
- b. Resource Identification

➤ ~~Architectural Survey Plan (ASP) – Included in Historic SUBCONSULTANT scope~~

➤ ~~Inventory Forms – Included in Historic SUBCONSULTANT scope~~

➤ *Archaeology*

Should the DEPARTMENT and/or NHDHR determine that areas within the APE are sensitive for archaeological concerns, all necessary archaeology will be completed per NHDHR's *Standards and Guidelines for Archaeological Investigations in New Hampshire*. The investigations are to be performed under the guidance of a 36 CFR 61 qualified archaeologist. The following phases of archaeology may be needed:

➤ *Phase IA Archaeological Sensitivity Assessment*

Phase IA investigation is conducted at locations where previous archaeological surveys of the area are absent or insufficient, where areas of disturbance may be absent and environmental qualities of the area suggest the potential for archaeological sensitivity. If required, the SUBCONSULTANT will complete a Phase IA investigation per NHDHR's standards and as follows:

- Conduct a site file search of the New Hampshire Division of Historical Resources (NHDHR) online database EMMIT to identify any known sites within 2.0 km of the project areas, especially along nearby waterways.
- Conduct a review of soil maps, LiDAR images, surficial geology, and USGS topographic quadrangles to articulate the potential resources – water, well-drained soil for campsites or agriculture, lithic sources for tools, or clay for Native American or Euroamerican pottery or bricks – that would encourage Pre-Contact and/or Post-Contact settlement.
- Assess whether the project area meets the criteria for Pre-Contact Native American or Post-Contact Euroamerican activity or occupation, as well as the likely site types (e.g., campground, hunting station, lithic workshop, homestead, mill site).
- Conduct a site inspection to view existing conditions of the project area, identify obvious disturbances or features (such as cellar holes, stone foundations, wells, or surface artifact scatters), and refine the desktop assessment based on real-world ground conditions.



➤ ~~Phase IB Intensive Archaeological Investigation~~

~~Phase IB investigations undertake systematic field testing of areas identified as archaeologically sensitive during the Phase IA. If required, the SUBCONSULTANT will complete Phase IB investigations, per NHDHR's standards, which can determine the presence or absence of archaeological sites.~~

➤ ~~Phase II Determination of Eligibility~~

~~Phase II investigations evaluate the National Register significance of the archaeological site through more extensive and intensive excavation; an understanding of the site's physical integrity; horizontal and vertical boundaries within the APE; artifact and feature distribution; areas of disturbance; and areas of occupation, function, cultural affiliation; and associated contexts. If required, the SUBCONSULTANT will complete any Phase II investigations per NHDHR standards.~~

➤ ~~Additional outreach determined by ASP or archaeology concerns~~

~~Should additional outreach be needed during the identification phase, the SUBCONSULTANT will work with the DEPARTMENT to determine appropriate parties and methods of outreach.~~

c. Assessment of Effects

➤ Effect Review Sheets

It is anticipated that there are eligible resources within the APE that have the potential to be impacted, and the SUBCONSULTANT will prepare Effect Review sheets per NHDHR guidance. This effort should be completed when there will be noticeable change to the resource. This effort includes completing the effect tables, narratives to support effect justifications and supporting photos and graphics.

➤ Effect Memo

The SUBCONSULTANT will prepare the draft Section 106 Effect Memo. Examples will be provided by the DEPARTMENT.

d. Resolution of Adverse Effects

Resolution of Adverse Effects will be coordinated by the CONSULTANT.

For the purposes of this scope, it is assumed that the project will have an adverse effect on historic resources

➤ e106

If the project results in an adverse effect to historic resources, the CONSULTANT will prepare the documentation required by 36 CFR 800 for notifying the Advisory Council on Historic Preservation (ACHP) of the adverse effects following the ACHP Electronic Section 106 Documentation Submittal System (e106) guidelines. This will entail:

- Completion of the e106 Documentation Submittal Form;
- Compilation of Section 106 consultation correspondence and meeting minutes;
- Project location map; and



● ~~Photographs.~~

~~This information will be submitted to the DEPARTMENT in pdf format. The DEPARTMENT will coordinate with FHWA on the submission of the documentation to ACHP.~~

➤ ~~Memorandum of Agreement~~

~~If the project results in an adverse effect to historic resources, the CONSULTANT will prepare a draft Memorandum of Agreement (MOA) outlining the agreed upon mitigation stipulations. The CONSULTANT will coordinate with the DEPARTMENT and any consulting parties to determine potential mitigation measures.~~

e. ~~Consulting Parties and Public Involvement – Included in PRIME scope~~

9.3 Cultural Resource Meetings

The CONSULTANT will prepare for and attend two (2) virtual Cultural Resources Agency Coordination Meetings to discuss any historical and/or archeological involvement near the project location (Area of Potential Effect [APE]); the SUBCONSULTANT is expected to attend to assist with questions. The CONSULTANT will prepare the PowerPoint presentations and handouts. Participants include the State Historic Preservation Office (SHPO), US Army Corps of Engineers (ACOE), and FHWA. The CONSULTANT will prepare a Request for Projects Review (RPR) form and submit it to the Bureau of Environment Cultural Resources Program two (2) weeks prior to the scheduled meeting. One (1) digital copy via E-mail, and one (1) hard copy will be submitted. The CONSULTANT will prepare minutes for each meeting documenting the topics of discussion, comments and issues, follow-up action items, and any agreements or resolutions discussed. The CONSULTANT and SUBCONSULTANT will also participate in up to two (2) Conference Calls for additional coordination and meeting preparation with the Cultural Resource Agency.



6.6 Historic/Archaeological

HEB Engineers, Inc. will hereby be referred to as the CONSULTANT, has engaged Preservation Company which will hereby be referred to as the SUBCONSULTANT, for environmental services. The SUBCONSULTANT understands that the project is being administered by the State of New Hampshire Department of Transportation which will hereby be referred to as the DEPARTMENT. The project includes approximately 1 mile of roadway reconstruction and bicycle and pedestrian improvements on NH Route 104 (Summer Street) in Bristol, NH, between the intersection of School Street and Ayers Island Road.

a. Initiate Section 106/Cultural Resources Review

The CONSULTANT and SUBCONSULTANT will evaluate the project and complete the Section 106 Programmatic Agreement Appendix A or B Certification form, as applicable. If Appendix A or B cannot be used, 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. For the purpose of this scope, it is assumed that an RPR is required.

An RPR is required, the CONSULTANT and SUBCONSULTANT will follow NHDHR's guidelines for completing a Transportation RPR and submit a draft RPR package electronically to the DEPARTMENT's Environmental Manager and Cultural Resources Program for review. After making any requested revisions, the CONSULTANT will submit to the DEPARTMENT one (1) electronic copy, and to the NHDHR one (1) hard copy, of the final package once signed by the DEPARTMENT's Cultural Resource Program.

If the project may make appropriate use of a Section 106 Program Comment, the CONSULTANT will prepare the necessary forms and submit them to the DEPARTMENT.

In addition to the report preparation and revisions, this scope item includes a desktop review of EMMIT, a site visit, and site photography to review and document potential resources within the APE.

b. Resource Identification

➤ *Architectural Survey Plan (ASP)*

The SUBCONSULTANT will complete the ASP per NHDHR's guidelines on completing the ASP and NHDHR's Survey Policy. The CONSULTANT shall evaluate the project area and propose an Area of Potential Effect (APE) for consideration of cultural resources. This scope item will require one (1) additional site visit.

➤ *Inventory Forms*

It is anticipated the NHDHR will request the preparation of individual inventory forms and/or Historic District Area form for historic resources that may be affected by the project. The SUBCONSULTANT will complete the inventory forms per NHDHR's Survey Policy. It is also anticipated that two (2) individual survey forms for 150 Summer Street and 236 Summer Street will be required.



- ~~Archaeology — Included in Archaeological SUBCONSULTANT scope~~
- ~~Should the DEPARTMENT and/or NHDHR determine that areas within the APE are sensitive for archaeological concerns, all necessary archaeology will be completed per NHDHR's Standards and Guidelines for Archaeological investigations in New Hampshire. The investigations are to be performed under the guidance of a 36 CFR 61-qualified archaeologist. The following phases of archaeology are assumed to be needed:~~
 - ~~Phase IA Archaeological Sensitivity Assessment — Included in Archaeological SUBCONSULTANT scope~~

Phase IA investigation is conducted at locations where previous archaeological surveys of the area are absent or insufficient, where areas of disturbance may be absent and environmental qualities of the area suggest the potential for archaeological sensitivity. If required, the CONSULTANT will complete a Phase IA investigation per NHDHR's standards.
 - ~~Phase IB Intensive Archaeological Investigation — Included in Archaeological SUBCONSULTANT scope~~

Phase IB investigations undertake systematic field testing of areas identified as archaeologically sensitive during the Phase IA. If required, the CONSULTANT will complete Phase IB investigations, per NHDHR's standards, which can determine the presence or absence of archaeological sites.
 - ~~Phase II Determination of Eligibility~~

Phase II investigations evaluate the National Register significance of the archaeological site through more extensive and intensive excavation; an understanding of the site's physical integrity; horizontal and vertical boundaries within the APE; artifact and feature distribution; areas of disturbance; and areas of occupation, function, cultural affiliation; and associated contexts. If required, the CONSULTANT will complete any Phase II investigations per NHDHR standards.
 - ~~Additional outreach determined by ASP or archaeology concerns~~

Should additional outreach be needed during the identification phase, the CONSULTANT will work with the DEPARTMENT to determine appropriate parties and methods of outreach.
- c. Assessment of Effects
 - Effect Review Sheets

The SUBCONSULTANT will prepare Effect Review sheets per NHDHR guidance. This effort should be completed when there will be noticeable change to the resource. This effort includes completing the effect tables, narratives to support effect justifications and supporting photos and graphics.
 - Effect Memo — Included in PRIME scope

The CONSULTANT will prepare the draft Section 106 Effect Memo. Examples will be provided by the DEPARTMENT.
- d. Resolution of Adverse Effects — Included in PRIME scope



e. Consulting Parties and Public Involvement – *Included in PRIME scope*

9.3 Cultural Resource Meetings

The CONSULTANT will prepare for and attend two (2) virtual Cultural Resources Agency Coordination Meetings to discuss any historical and/or archeological involvement near the project location (Area of Potential Effect [APE]); the SUBCONSULTANT is expected to attend to assist with questions. The CONSULTANT will prepare the PowerPoint presentations and handouts. Participants include the State Historic Preservation Office (SHPO), US Army Corps of Engineers (ACOE), and FHWA. The CONSULTANT will prepare a Request for Projects Review (RPR) form and submit it to the Bureau of Environment Cultural Resources Program two (2) weeks prior to the scheduled meeting. One (1) digital copy via E-mail, and one (1) hard copy will be submitted. The CONSULTANT will prepare minutes for each meeting documenting the topics of discussion, comments and issues, follow-up action items, and any agreements or resolutions discussed. The CONSULTANT and SUBCONSULTANT will also participate in up to two (2) Conference Calls for additional coordination and meeting preparation with the Cultural Resource Agency.

7.0 GEOTECHNICAL SERVICES

HEB Engineers, Inc. will hereby be referred to as the CONSULTANT, has engaged S.W. Cole Engineer, Inc. will hereby be referred to as the SUBCONSULTANT, for geotechnical services. The SUBCONSULTANT understands that the project is being administered by the State of New Hampshire Department of Transportation will hereby be referred to as the DEPARTMENT. The project includes approximately 1 mile of roadway reconstruction and bicycle and pedestrian improvements on NH Route 104 (Summer Street) in Bristol, NH, between the intersection of School Street and Ayers Island Road.

7.1 Subsurface exploration plan

The SUBCONSULTANT will coordinate an exploration program consisting of, but not limited to, test borings, provide soils laboratory testing, and make a geotechnical evaluation of the findings as they relate to the proposed construction.

7.2 Subsurface Explorations

In collaboration with the DEPARTMENT and the CONSULTANT, the SUBCONSULTANT will coordinate, manage, and oversee a preliminary subsurface exploration as summarized below.

The SUBCONSULTANT will meet the Bureau of Materials and Research (M&R) to finalize the Non-destructive testing, pavement boring and coring program which is detailed as follows:

a. Pavement Evaluation

The CONSULTANT will locate and mark pavement core and boring locations in the field by measuring from existing site features or with GPS prior to the subsurface exploration for utility clearance. The CONSULTANT will engage a drilling subcontractor to advance pavement cores and borings as summarized below. The subcontractor will coordinate work zone traffic control (WZTC) during drilling where required.

Up to 27 pavement cores and borings will be advanced within the existing roadway for the pavement evaluation. These will be advanced to estimated depths of 20 feet and include sampling of the subbase and subgrade.

- i. Coordinate and observe three (3) days of test boring explorations along Summer Street within the project limits, generally spaced at 200-foot intervals (25 - 27 pavement cores and borings are anticipated).
- ii. The test borings will be at modified continuous intervals to 9 feet (0-2, 2-4, 5-7, and 7-9 feet) using a split-spoon sampler and Standard Penetration Testing (SPT) procedures in accordance with ASTM D1586.
- iii. These will be advanced to estimated depths of 20 feet or refusal (whichever is shallower), rock coring is not anticipated.
- iv. Coordinate work zone traffic control (WZTC) during drilling where required.
- v. Provide flaggers, sign package, and traffic cones to delineate work areas for WZTC, in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- vi. Measure pavement thickness and obtain bulk samples of pavement base and subbase materials at select exploration locations for laboratory gradation testing.

- vii. Backfill explorations with sand/gravel fill and repair the pavement at the exploration location with asphalt cold patch.
- viii. A geotechnical engineer will observe the preliminary subsurface explorations so that proper drilling and sampling methods are utilized and to adjust the explorations in the field as warranted based on the conditions encountered. Boring logs will be prepared using the NHDOT's gINT® format template. The engineer will also take photographs of the split spoon samples and rock cores and describe the split spoon samples in accordance with the NHDOT's modified Burmister visual-manual classification system and describe rock core samples in accordance with the International Society for Rock Mechanics classification system, measure groundwater levels, and prepare field logs documenting the subsurface conditions.
- ix. Locating borings and pavement cores is included in the PRIME's Scope, Task 2.3 Survey
- x. Obtain a Right of Way Activities Permit from the DEPARTMENT's District 2 Office.

b. Borings

After approval of the Alternatives Analysis, the SUBCONSULTANT will locate and mark boring locations in the field by measuring from existing site features or with GPS prior to the subsurface exploration for utility clearance. The SUBCONSULTANT will advance borings as summarized below. The SUBCONSULTANT will contact Dig Safe prior to beginning work and coordinate work zone traffic control during drilling where required. Coordinate landowner access to complete subsurface investigations to include property notification letters. ~~Borings to support the bridge and structure alternatives are as follows:~~

7.3 Material Testing and Evaluation

The SUBCONSULTANT will perform the geotechnical laboratory index testing of up to ten (10) selected soil samples of existing base and subbase soils. Soil testing will include:

- Moisture content
- Sieve analysis as described by ASTM D6913 or ASTM D2216.

7.4 Geotechnical Report

The SUBCONSULTANT will prepare a geotechnical engineering report as outlined below:

a. Pavement

The SUBCONSULTANT will prepare a written report outlining the findings and geotechnical recommendations for rehabilitation or reconstruction of the pavement using the exploration findings and the laboratory testing results. An evaluation relative to the potential reuse of existing pavement and base/subbase soil when reclaimed will be included. The Geotechnical Report outline will be as follows:

- Introduction
- Summary of the Subsurface Exploration and the Conditions Encountered
- Boring Logs and Location Plan
- Laboratory Test Results
- Pavement Core Photographs

- Preliminary pavement recommendations

b. Roadway

The SUBCONSULTANT will prepare the report in general accordance with the NHDOT Highway Design Manual. Earth retaining structures are not included in this scope of work. The roadway geotechnical engineering report will include at a minimum the following:

- Approach embankment and slope recommendations.
- Roadway base course and underdrain recommendations.
- Identification and recommendations relating to muck or unsuitable soils.
- Plan notes and contractual provisions to be incorporated in contract documents.

c. Bridge

d. Appendices

The SUBCONSULTANT will include the following appendices in the geotechnical report:

- Figures
- Boring Location Plan
- Subsurface Profiles
- Laboratory Testing Results
- Geotechnical Calculations

Deliverables:

The SUBCONSULTANT will provide a draft geotechnical engineering report to the CONSULTANT and the DEPARTMENT for review and comment. A final geotechnical engineering report will be submitted addressing the CONSULTANT and DEPARTMENT's comments on the draft submission.

Attachment B – Bristol 40636 DEI Acknowledgement

The State and the Contractor acknowledge that RSA Chapter 21-I and Executive Order 14173 of January 21, 2025, place prohibitions on DEI initiatives and activities. To the extent any provision in this Contract conflicts with any applicable state or federal law, such provision is null and void.

DMA

JP

Attachment 1

**CERTIFICATION WITH REGARD TO THE PERFORMANCE OF
PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO
THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS**

The CONSULTANT , proposed subconsultant _____, hereby certifies that it has , has not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Order 11246 and that it has , has not _____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

HEB Engineers, Inc.

(Company)

By: _____

President

(Title)

Date: August 18, 2025

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by consultants and proposed subconsultants only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime consultants and subconsultants who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such consultant submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Revised: June, 1980) **NOTE: TO BE COMPLETED BY CONSULTANT WHEN SIGNING AGREEMENT.**

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

Attachment 2

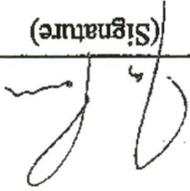
I hereby affirm that I have read and reviewed the Council on Environmental Quality (CEQ) regulation [40 CFR 1506.5(b)(4)] and related guidance issued by CEQ and that pursuant thereto this firm has no financial or other interest in the outcome of this project.

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.

(Date)

August 18, 2025

(Signature)



Attachment 3

CERTIFICATION OF CONSULTANT/SUBCONSULTANT

I hereby certify that I am the President and duly-authorized representative of the firm of HEB Engineers, 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 ineligibility 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.

August 18, 2025

(Date)



(Signature)

CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION

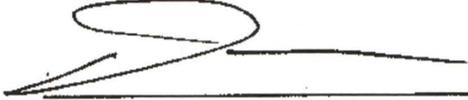
DAVID RODRIGUE, P.E.
ASSISTANT COMMISSIONER

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):

10/24/25
(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: [Signature]
Vice President

Dated: August 18, 2025

CONSULTANT

By: [Signature]
President
(TITLE)

Dated: August 18, 2025

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: [Signature]

Dated: 9/24/25

THE STATE OF NEW HAMPSHIRE

By: [Signature]
DAVID RODRIGUE, P.E.
ASSISTANT COMMISSIONER
DOT-COMMISSIONER

Dated: 9/24/25

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: 10/22/25

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

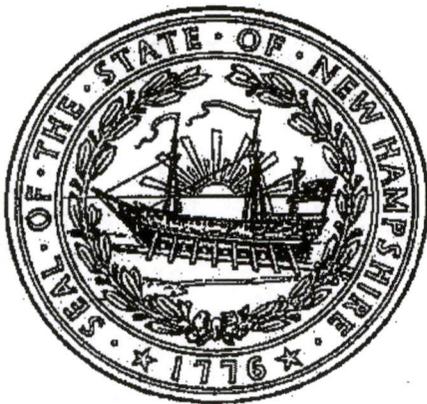
Department of State

CERTIFICATE

I, David M. Scanlan, Secretary of State of the State of New Hampshire, do hereby certify that HEB ENGINEERS, INC. is a New Hampshire Profit Corporation registered to transact business in New Hampshire on January 14, 1981. 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: 9012

Certificate Number: 0007247587



IN TESTIMONY WHEREOF,
I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 29th day of July A.D. 2025.

A handwritten signature in black ink, appearing to read "David M. Scanlan".

David M. Scanlan
Secretary of State

HEB Engineers, Inc.

Certificate of Vote
And
Certificate of Authority

I, Joshua M. McAllister, hereby certify that I am duly elected Secretary of HEB Engineers, Inc.

I hereby certify the following is a true copy of a vote taken at a special meeting of the Board of Directors of the Corporation held on August 18, 2025 at which time a quorum of the Board was present and voting.

Voted:

Jay J. Poulin, President of HEB Engineers, Inc. is duly authorized by the Corporation to enter into a specific contract with the State of New Hampshire, Department of Transportation to provide Professional Services for the Bristol 40636 Project and further is authorized to execute any documents which may in his 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 effects as of August 18, 2025, and that Jay J. Poulin is the duly elected President, respectively, of this Corporation. 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. This authority remains valid for thirty (30) days from the date of this Certificate of Authority.

Attest:

Date: August 18, 2025



Joshua M. McAllister
Corporate Secretary

State of New Hampshire
County of Carroll

Subscribed and sworn to (or affirmed) before me this 18th day of August 2025 by Joshua M. McAllister.



Notary Public

Madelyn L. Glavin
NOTARY PUBLIC
State of New Hampshire
My Commission Expires 10/18/2028



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/27/2025

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 Brown & Brown Insurance Services, Inc. 107 Audubon Rd Wakefield MA 01880		CONTACT NAME: Lauren Rago PHONE (A/C, No, Ext): (781) 245-5400 FAX (A/C, No): (781) 245-5463 E-MAIL ADDRESS: Lauren.Rago@bbrown.com	
INSURED Heb Engineers, Inc PO BOX 440 NORTH CONWAY NH 03860		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Continental Casualty Company	NAIC # 20443
		INSURER B: Nutmeg Insurance Company	39608
		INSURER C: Sentinel Insurance Company, Ltd.	11000
		INSURER D: XL Specialty Insurance Company	37885
		INSURER E:	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 2025 **REVISION NUMBER:**

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
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:		Y	6020788901	11/01/2025	11/01/2026	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" 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 <input type="checkbox"/> AUTOS ONLY			08UECBD7795	11/01/2025	11/01/2026	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			6020792026	11/01/2025	11/01/2026	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	08WECBL7VZR	11/01/2025	11/01/2026	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Arch/Eng Professional Liability including Pollution			DPR5039909	03/28/2025	03/28/2026	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)

Re: Bristol 40636 X-A004(445), Bristol, NH
New Hampshire Department of Transportation is included as additional insured under the general liability policy subject to same terms and conditions. 30 day notice of cancellation except 10 day notice for non-payment of premium. Professional Liability has an aggregate deductible of \$75,000.

CERTIFICATE HOLDER New Hampshire Department of Transportation 7 Hazen Drive, P.O. Box 483 Concord NH 03301-0483	CANCELLATION 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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