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Engineers | Scientists | Planners | Designers

101 Walnut Street
 PO Box 9151
 Watertown, MA 02472-4026

Client Authorization

New Contract: Date: September 30, 2019
 Amendment No.: Project No.: 82699.16
Project Name: MassDOT Contract No. 109461
 Town of Buckland – Municipal Bridge Improvements Program

		Cost Estimate	
		Amendment	Contract Total
To:	Ms. Heather Butler Town of Buckland 17 State Street Shelburne Falls, MA 01370	Labor:	\$75,222.19
		Expenses:	\$3,779.40
		TOTAL:	\$79,001.59
E-mail:	twnadmin@town.buckland.ma.us	<input type="checkbox"/> Lump Sum	<input type="checkbox"/> Time & Expenses
		<input type="checkbox"/> Lump Sum + Expenses	
		<input checked="" type="checkbox"/> Cost + Fixed Fee	<input type="checkbox"/> Labor Multiplier
Phone No:	413-625-6330 Ext. 5	Estimated Date of Completion:	12/31/2021

The following Exhibits are made part of this Agreement and incorporated herein:

- Exhibit A – VHB Scope of Work and Workhour Estimate
- Exhibit B – Vanasse Hangen Brustlin, Inc. Terms and Conditions

VHB understands it must accept all applicable terms and conditions of the Prime Agreement between Massachusetts Department of Transportation and the Town of Buckland, MA, identified as MassDOT Contract No. 109461, Action Item dated September 18, 2019 with an effective date of September 16, 2019.

Prepared By: **A. Burkholder**

Department Approval: **M. Shamon**

Please execute this Client Authorization for VHB to proceed with the above scope of services at the stated estimated costs. No services will be provided until it is signed and returned to VHB.

Subject to attached terms & conditions.

Subject to terms & conditions in our original agreement dated

Vanasse Hangen Brustlin, Inc. Authorization

By: Mark E. Shamon
 Print: Mark E. Shamon, PE
 Title: Managing Director, T&HD
 Date: 9/30/19

Client Authorization (Please sign original and return)

By: Heather Butler
 Print: Heather Butler
 Title: Town Administrator
 Date: 9/30/19

EXHIBIT A

Rehabilitation of Apple Valley Road over Upper Branch Clesson Brook

B-28-029 (5D5)

Buckland,
Massachusetts

Prepared for **Town of Buckland
Buckland, Massachusetts**

Prepared by  **Vanasse Hangen Brustlin, Inc.
Watertown, Massachusetts**

**Project File No. 82699.16
Submitted: August 15, 2019**

"Exhibit B"

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PART A – PROJECT TEAM AND DESCRIPTION

The following information provides a comprehensive description of tasks that are required to design this MassDOT project. The following tasks have been numbered and consistent with the appropriate Section of the Work Hour Estimate Form. The project is comprised of the following entities used to complete their specific tasks:

Vanasse Hangen Brustlin (VHB)	Project Management
Vanasse Hangen Brustlin (VHB)	Structural Engineering
Vanasse Hangen Brustlin (VHB)	Highway Engineering
Vanasse Hangen Brustlin (VHB)	Environmental Services
Vanasse Hangen Brustlin (VHB)	Survey
None Anticipated	Geotechnical Engineering

PROJECT DESCRIPTION

The existing bridge structure is in good condition however, scour has occurred, and the abutment foundations are undermined and in need of repair. This project will rehabilitate the structure to repair the undermining and provide scour countermeasures to prevent future scour and undermining. Structural modifications to the existing abutments, superstructure, and modifications to the roadway are not anticipated.

The intent of this project is to construct improvements at the location and utilize the budget that has been allocated for construction under the Municipal Small Bridge Program. VHB anticipates coordinating closely with the Town of Buckland and MassDOT during (and following) the preliminary 25% design phase.

PROJECT LIMITS

The project limits will be no more than approximately 50' from the center of the bridge and approximately 50' upstream and downstream of the bridge.

The following describes the limits of survey and the associated project limits:

1. Apple Valley Road over Upper Branch Clesson Brook: approximately 50-feet on either side of the bridge, measured from the centerline of the structure (100-feet in all) and 50-feet upstream and downstream from the centerline of structure (100-feet in all).

SERVICES NOT INCLUDED

The following services are not anticipated and, therefore, not included in this Agreement:

- In accordance with Land Court procedures, preparation of final right-of-way plans, layout plans, taking plans, and descriptions involving the alteration of Land Court parcels.

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- Investigation, identification testing, or analysis of hazardous waste or materials.
- Evaluation of existing culverts or design of new culverts or bridges.
- Programmatic Section 4(f) Evaluation or preparation of an individual Programmatic Section 4(f).
- Impacts to wetlands assumed to be less than 5,000 square feet and an individual Water Quality Certificate from the MassDEP is not required.
- Bottom up estimating and incentive/ disincentive calculations.
- Retaining wall design or geotechnical evaluations for embankments or bridge substructures.
- Impacts to parkland or infrastructure of historical significance.
- Test pits.
- Preparation of design plans that need to be reviewed by MassDOT, other than the bridge section as part of the Chapter 85 design process.
- This design process is not anticipated to follow a traditional MassDOT design process.
- Right-of-Way plans are not anticipated to be needed. VHB has allocated a budget to assist with the development of rights of entries.
- Design of sidewalks or widening of bridge to accommodate future sidewalks or bicycle accommodating shoulders or bicycle lanes. It is anticipated that this project does not need to meet the healthy transportation initiative established by MassDOT.
- Pavement design or testing is not included. It is anticipated that the profile over the bridge will be held or slightly increased; however, pavement cores will be collected on each bridge. It is anticipated that a street opening permit will not be needed from the Town.

Should services be required in these areas, or areas not previously described, VHB will prepare an Amendment, at the Town's request, that includes a Scope of Services, Compensation, and Schedule.

TOWN-FURNISHED INFORMATION

It is understood that VHB will perform services under the sole direction of the Town. In the performance of these services, VHB will coordinate its efforts with those of other project team members, as required. The Town will provide VHB with project-related technical data including, but not limited to, the following:

- Any relevant data that supports existing conditions, utilities, pavement, property owners and boundaries, etc.
- Police detail services as required for field work, as and if needed (survey or other).
- Water and Sewer information and any other improvements within project limits.

VHB will be entitled to rely on the accuracy of information provided by the Town, and shall have no liability for utilizing such data that contains errors or omissions while completing these services.

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PART B – TASK DESCRIPTIONS

The following information provides a comprehensive description of tasks that may be required to design a MassDOT project through the Chapter 85 design process. It is understood that certain projects may have specific circumstances that will require that additional tasks be defined and negotiated. Additional tasks shall be numbered consistent with the appropriate Section and added to the Work Hour Estimate Form. It is anticipated that the design plans will be sent to MassDOT structures in Boston for review as part of the Chapter 85 design process and that no other Department or DOT will review the plans.

SECTION 100 PROJECT DEVELOPMENT ENGINEERING

The bridge has been evaluated and the project was developed in the process of submitting a grant proposal under the Municipal Small Bridge Program. The application included an anticipated scope for the project and the application has been approved by MassDOT. Therefore, there will be no work under Section 100.

SECTION 150 ENVIRONMENTAL

The following has been prepared with the anticipation that the MassDOT Environmental Department will not need to review the project and associated permitting.

The Consultant shall prepare permit or approval applications, with supporting documentation and plans, to satisfy the requirements found in the following state and federal environmental regulations, as necessary, or as specified in the scope of services in the Special Provisions:

- Section 404 of the Clean Water Act – U.S. Army Corps of Engineers (33 USC § 1344);
- Section 401 of the Clean Water Act – Water Quality Certification (33 USC § 1341, administered by state regulation found in 314 CMR 9.00); and
- Massachusetts Wetland Protection Act (MGL c. 131 § 40);

The following task descriptions included in this Section provide a basic description of the various actions to be taken in the environmental permitting process.

170 USACE Section 404 General Permits for Massachusetts

The Project will require work within a Water of the U.S. subject to jurisdiction under Section 404 of the US Clean Water Act (CWA), and will therefore require a permit from the U.S. Army Corps of Engineers (USACE). This scope assumes that the Project will require a Pre-Construction Notification (PCN) under General Permit (GP) 10 of the General Permits for Massachusetts because it involves modifications to an existing stream crossing that does not meet Massachusetts Stream Crossing Standards. VHB will prepare documentation for PCN permitting

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under the USACE New England Division General Permits for Massachusetts. Backup documentation may include the information generated in accordance with the requirements of Section 2.4.2.5, *Environmental Requirements for the Preliminary (25 Percent) Design Submission of the Project Development & Design Guide*.

176 Wetland Resource Area Delineation

VHB will conduct wetland resource area delineation in accordance with the Massachusetts Wetlands Protection Act (WPA), the Federal Clean Water Act, the *Corps of Engineers Wetlands Delineation Manual (1987 edition)*, and guidance in *Clarification and Interpretation of the 1987 Manual*, dated March 6, 1992. This scope assumes that flag locations will be recorded in the field with a handheld GPS device capable of sub meter accuracy. This task includes all field time associated with delineating the wetland boundaries and time attending local, state, and federal site meetings to review and verify wetland boundary lines. If applicable, documentation will be provided on state Appendix G Wetland Delineation Forms or US Army Corps Wetland Determination Forms for submittal to regulatory agencies.

179 WPA Notice of Intent (NOI)

The Project will require work near or within regulated wetland resource areas subject to jurisdiction under the WPA. VHB will prepare and submit an NOI to the local conservation commission in accordance with the WPA. This scope assumes that the Project will not require any wetland replication design. Tasks include preparation of all associated forms and backup documentation; permit plans, coordination during review, site walks, and attendance at up to two Conservation Commission hearings and a site walk if required by the Commission. This scope assumes that a separate peer review process will not be necessary.

The proposed work is presumed to impact less than 5,000 square feet of vegetated wetlands and waters and the Order of Conditions issued by the Conservation Commission will serve as the Water Quality Certificate (WQC).

SECTION 200 FUNCTIONAL DESIGN REPORT

See description under Task 100, a functional design report is not anticipated to be needed and therefore will not be prepared for this project. This includes addressing Complete Streets Initiatives. Traffic Management will be prepared as part of the highway and bridge tasks below.

SECTION 220 DESIGN EXCEPTION REPORT

The development of a Design Exception Report is not needed and therefore not included.

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**SECTION 230 INTERCHANGE JUSTIFICATION/
MODIFICATION REPORT (IJR/IMR)**

Section 230 does not apply to this project and therefore is not included.

SECTION 300 PRELIMINARY/ 25% HIGHWAY DESIGN SUBMISSION

The following describes the survey limits to be collected for the development of a base plan for this project; in addition, this section describes the hydraulic scope for the project. Since the scope of work is limited to scour repairs, no highway plans will be developed for this project.

301 Project Initiation and Data Compilation

Compile and review all available documents of existing features and planned projects near the proposed work. Included, as part of this task, is the investigation of utility installations, previous subsurface explorations (if any), and right of way research. VHB will coordinate with the Town of Buckland on any relevant and available information.

302 Utility Coordination

Contact utility companies to verify locations of existing utilities and to assess impacts to those facilities. Ensure that the proposed design addresses impacts associated with accommodating both existing and proposed utilities. Provide a list of utility companies that may be affected by the proposed work in the special provisions.

303 Survey Coordination and Controls

VHB will perform a field survey for the project limits to locate existing ground features along the roadway and approximately 20-feet from the roadway edge. The survey will include the locations of such features as; paved areas, curbing, guardrail, walls, surface utilities that are located within the limits of work, and the existing bridge structure. In addition, ground elevations will be taken at sufficient locations to produce one-foot (1') contours throughout the project limits. Benchmarks will be set. Horizontal and vertical control will be based on the Massachusetts Grid System of 1983 and NAVD of 1988.

The Right of Way will be determined from record layout plans. If a layout plan is not available, the Right-of-Way will be shown graphically from research performed at the Town and Registry or provided by the Town of Buckland. Property lines will be shown graphically from existing town layouts or assessor maps, including abutter names. Abutter names will be shown on the base plan with recording and assessor information. Any monuments found will be shown on the base plan.

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Surface utilities within the limit of the roadway will be field located. Any underground utilities will be shown from plans of record supplied by the utility companies. Drainage and sewer rims and inverts will be determined and shown on the base plan, if any.

Survey will include collection of stream channel and floodplain geometry to support hydraulic modeling. This will consist of at cross-sections at the upstream and downstream bridge fascia as well as at least 3 upstream cross-sections and 3 downstream cross-sections, and a longitudinal profile of the stream channel centerline extending at least 250 feet upstream and downstream of the crossing.

The survey will meet current MassDOT English standards including horizontal and vertical control. The base plan will be drafted in an AutoCAD Civil 3D 2016 drawing format.

304 Base Plans, Profiles and Typical Sections

Perform field review of base plan information. Verify the location of existing features.

305 Field Reconnaissance

Work under this task included with Task 155.

306 Plot Existing Layout Lines

Plot and calculate all existing layout line geometry and note all property owners.

307 Meetings and Liaison

Attend one meeting with the Town of Buckland to discuss the project, review existing conditions and discuss the approach for advancing the project. It is assumed that this meeting will be held via telephone conference.

308 Determine Roadway Cross Section

Roadway cross section will not be modified, therefore, this task not included.

309 Preliminary Horizontal Geometry

Horizontal geometry will not be modified, therefore, this task not included.

310 Preliminary Vertical Geometry

Vertical geometry will not be modified, therefore, this task not included.

311 Cross Section Studies

No work under this section.

312 Prepare Cross Sections

No work under this section.

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313 Plot Proposed Layout and Easements

Easements and layouts are not anticipated as the existing bridge footprint is not anticipated to change. Rights-of-entries are anticipated to be needed for construction and will be prepared under the right-of-way section.

314 Pavement Design

Pavement design is not anticipated to be needed and therefore not included

315 Typical Sections

No work under this section.

316 Construction Details

Highway details are not anticipated to be needed and therefore are not included. Details associated with the project will be prepared as part of the bridge tasks.

317 Hydrological Studies and Hydraulics Report

VHB will conduct a hydrologic, hydraulic, and scour analysis to provide recommendations for and support of the proposed scour repairs and countermeasures for the bridge Apple Valley Road over Upper Branch Clesson Brook in Buckland, Massachusetts. Because the proposed project will likely include in-stream scour countermeasures, it is assumed that the crossing will not need to meet the Massachusetts Stream Crossing Standards. The site is located within a NFIP Special Flood Hazard Area (SFHA) Zone "A" as shown on the effective Flood Insurance Rate Map (FIRM) Panel 250109B, dated September 27, 1985. Zone "A" represents a floodplain delineated by approximate methods; the Flood Insurance Study (FIS) for Buckland, Massachusetts does not study Upper Branch Clesson Brook by detailed methods and no existing hydrologic or hydraulic data is available. Because the project is not located within a regulatory floodway, a No-Rise Certification is not required in accordance with NFIP regulations.

Prior to the start of the modeling, VHB will perform a site visit to assess stream geomorphology including documentation of existing scour conditions, evidence of channel aggradation or degradation, and lateral channel stability. As water levels permit, VHB will complete a pebble count and/or grab sample of the stream bed material through a representative reference reach during the site visit or make a visual estimate of the bed material sizing.

VHB will perform a hydrologic analysis to estimate flood discharges of Upper Branch Clesson Brook using MassGIS land cover data and regional regression equations developed for Massachusetts by the United States Geological Survey. Based on this hydrology, the hydraulic analysis will be completed using the United States Army Corps of Engineers Hydraulic Engineer Center Riverine Analysis System (HEC-RAS) version. 5.0.7.

The hydraulic model will extend approximately 500 feet upstream and downstream of the subject bridge and will incorporate bridge and channel geometry collected by VHB field

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topographic survey, supplemented by sub-meter LiDAR digital terrain model (DTM) data collected by USGS in 2015, in addition to field measurements and observations from the site visit. VHB will evaluate two hydraulic models representing existing and proposed conditions. VHB will present results from the hydraulic analysis and make a determination of the hydraulic adequacy of the crossing to pass the 10% Annual Exceedance Probability (AEP) hydraulic design flood with the recommended 1-foot of freeboard.

Based on the hydraulic model, VHB will calculate the maximum predicted scour depth at bridge substructures. For this analysis, VHB will incorporate grain size analysis of the streambed collected during the field evaluation. VHB will calculate contraction and abutment scour depths in accordance with the methodology presented in the Hydraulic Engineering Circular (HEC) 18 published by the Federal Highway Administration (FHWA) in April 2012 and the Massachusetts Department of Transportation LRFD Bridge Manual. This analysis will also include selection and sizing of recommended scour countermeasures to protect existing substructures. VHB understands that the existing bridge substructure consists of concrete abutment breast walls set on concrete spread footings; the footings of both abutments are undermined with full stream flow piping below the north abutment.

As Apple Valley Road is a Rural Minor Road, VHB will prepare a Hydraulic Report consistent with the guidelines of the MassDOT LRFD Bridge Manual, Part I, Section 2.6. The Hydraulic Report will present the results of the hydraulic analysis and provide recommendations for scour countermeasures.

The Hydraulic Report will be submitted to MassDOT for review and comment; VHB assumes one (1) round of comments and revisions for this scope.

318 Preliminary Drainage and Utility Studies

Country drainage exists today and is anticipated to be maintained with the project. This task is not anticipated to be needed.

319 Lane Configurations

Not anticipated and therefore not included in this scope of work.

320 Traffic Signals

There are no traffic signals within the project limits, therefore, this task is not included.

321 Signs and Pavement Markings

Striping is not anticipated and therefore this task is not included. Any signs to be included will be provided as part of the bridge design.

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322 Traffic Management

It is anticipated that no work will be conducted on or near the roadway and therefore there is no work under this task.

323 Reserved

This Task is not used.

324 Constructability Review

Work under this task is included in Task 715

325 Quality Control (QC) Review

Work under this task is included in Task 761

326 Preliminary Construction Estimate

Work under this task is included in Task 756

327 Submission Checklists

Not anticipated to be needed and therefore not included.

328 Modifications and Revisions

Not anticipated to be needed and therefore not included.

329 Value Engineering (VE)

Not anticipated to be needed and therefore not included.

330 Construction Contract Time Determination

Not anticipated to be needed and therefore not included.

331 Incentives/Disincentives

Not anticipated to be needed and therefore not included.

SECTION 350 DESIGN PUBLIC HEARING

351 Hearing Preparation

Public hearings are not anticipated to be needed. Public outreach or meetings will be coordinated with the Town of Buckland as part of other tasks.

352 Design Public Hearing

Public outreach or meetings will be coordinated with the Town of Buckland as part of other tasks.

SECTION 400 75% HIGHWAY DESIGN SUBMISSION

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The tasks associated with Section 400 and a 75% Highway Design Submission are not required for Municipal Small Bridge Program projects and therefore are not included.

SECTION 450 FINAL HIGHWAY DESIGN SUBMISSION

451 Respond to Preliminary Design Comments

Responses to comments are not anticipated and comments will be incorporated into the final design plans, see next task 452.

452 Finalize Plans

Prepare a set of plans addressing all comments received from the Preliminary Design/ 25% Guidebook.

453 Finalize Special Provisions

Work for this task included with Task 757.

454 Finalize Quantity and Cost Estimate (W.A.B.A. & Calculation Book)

Work for this task included with Task 756.

455 Quality Control (QC) Review

Work for this task included with Task 761.

456 Submission Check List

This is not anticipated to be needed and therefore not included.

457 Bottom Up Estimate and Reconciliation (if required)

This is not anticipated to be needed and therefore not included.

458 Construction Contract Time Determination

This is not anticipated to be needed and therefore not included.

459 Incentives/Disincentives

This is not anticipated to be needed and therefore not included.

SECTION 500 RIGHT OF WAY

Since the project involves structural rehabilitation only, it is anticipated that there will not be a need to secure right of way. VHB has allocated 4 hours to assist the Town with acquiring rights of entries for any access or other work related to the proposed project.

501 Rights of Entries

This is not anticipated to be needed and therefore not included

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502 Layout Plans and Order of Taking

This is not anticipated to be needed and therefore not included.

503 Written Instrument

This is not anticipated to be needed and therefore not included.

504 Final Right of Way Plans

This is not anticipated to be needed and therefore not included.

SECTION 600 GEOTECHNICAL DESIGN

Geotechnical work is not required for this project and therefore no work is anticipated under the following tasks.

601 Preliminary Engineering

602 Subsurface Exploration

603 Laboratory Testing

604 Geotechnical Engineering, Report & Recommendations

605 MassDOT Comment Response and Report Finalization

SECTION 700 PROJECT DEVELOPMENT – STRUCTURAL

The Consultant shall establish the site parameters and constraints that will impact the design and construction of the bridge structure through a field investigation, review of information related to the existing structure (if any), review of available hydraulic and scour data, geotechnical data, environmental information, and cultural resource information, hazmat information. The Consultant shall use this information to determine the most appropriate type of structure for the site that addresses these parameters and constraints to be pursued in the Final Bridge Design work.

701 Field Investigation

Conduct a field inspection to review the bridge site and adjacent conditions, and establish project parameters and constraints. Evaluate the ground and river survey to determine the parameters for bridge design.

702 Determine Bridge Configurations

No work under this task

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703 Preliminary Structural Analysis

Perform a preliminary analysis of the existing foundation to determine its appropriate type of repair for the scour and undermining.

704 Comparative Design and Cost Analyses

No work under this task

705 Preliminary Structures Report Preparation

No work under this task

706 Bridge Type Selection Worksheet Preparation

No work under this task

707 Meetings and Liaison

Attend one meeting and coordinate with the Town of Buckland to review results of preliminary analyses. It is assumed that this meeting will be held via telephone conference.

708 Hydraulics Study and Report (Bridges over Water)

Refer to scope listed under Task 317

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SECTION 710 SKETCH PLANS (PRELIMINARY/ 25% PLANS)

711 Establish Boring Locations

No work under this task.

712 Reserved

This task is not needed.

713 Sketch Plan Development

Formal Sketch Plans are not required for projects under the Small Bridge Program. The Consultant will prepare 25% bridge plans for review by MassDOT in accordance with Small Bridge Program documentation.

714 Meetings, Coordination and Liaison

Respond to comments received from the 25% submittal in Task 713

715 Constructability Review

Review the design of the proposed structure to ensure that the structure does not present any unusual matters that would unduly increase the cost the project or present potential scheduling delays during construction resulting in claims for extra work. Attention must be given to the proposed construction staging and available right of way.

716 Submission Checklist

No work under this task.

SECTION 750 FINAL BRIDGE DESIGN (100% Plans)

751 Structural Design – Superstructure

No work under this task.

752 Structural Design – Substructure

Prepare the design calculations and perform an independent design check of the calculations for all substructure components, including any cofferdams and permanent excavation support system requirements in accordance with the MassDOT Bridge Manual.

753 Bridge Layout Geometrics

No work under this task.

754 Contract Drawings

Prepare the structural drawings in accordance with the MassDOT Bridge Manual and check the drawings for content and accuracy.

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755 First Review Submission

Prepare and submit the bridge design plans for MassDOT review and subsequent resolution of the comments and recommendations received from MassDOT.

756 Quantity Cost Estimates

Prepare the quantity calculations, and perform an independent check of the quantity calculations of the bridge items and related cost estimates.

757 Special Provisions

Prepare the bridge special provisions in accordance with the MassDOT Bridge Manual.

758 Second Review Submission

Prepare and submit updated final bridge designs plans for MassDOT review and subsequent resolution of MassDOT comments and recommendations.

759 FHWA Reviews

No work under this task

760 Meetings and Liaison

Participate in meetings and coordinate in scheduling and advancing the bridge design.

761 Constructability and Quality Control (QC) Review

Perform an independent review of the project by an experienced engineer who is not directly involved in the preparation of the contract documents. Review shall focus on the practicality of constructing the structure based on access to site, equipment needs, material properties, etc. Provide an overall review of the plans, specifications and estimate for conformity to the Guidebook, the Standard Specifications for Highways and Bridges, the latest Supplemental Specifications, the Bridge Manual, the Construction and Traffic Standard Details, and the latest Engineering and Policy Directives.

762 Submission Check List

No work under this task.

SECTION 800 PS&E SUBMISSION

Municipal Small Bridge Program requires a 25% and 100% submission only, therefore, Section 800 does not apply to this project.

SECTION 900 CONSTRUCTION ENGINEERING

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901 Pre-Bid Services

Coordination with the Town of Buckland on bidding the proposed project. It is anticipated that VHB will prepare the appropriate bid documents and advertise with assistance from the town. VHB has budgeted 40 hours for coordination on bidding the project and reviewing bids received. If needed, these hours can be used for VHB to participate in Pre-Bid Conference or provide written responses to contractor's questions.

902 Pre-Construction Conference

Work under this task is not included.

903 Highway Shop Drawings and Signal Permit

Work under this task is not included.

904 Bridge and Wall Shop Drawings

Work under this task is not included.

905 Bridge Construction Procedures

Work under this task is not included.

906 Furnishing Advice and Field Visits

VHB has included up to 18 hours for answering contractor questions, providing clarifications, and one field visit, if required, during construction.

907 Geotechnical Construction Evaluation

Work under this task is not included.

908 Bridge Rating and Photographs

Work under this task is not anticipated.

MassDOT - HIGHWAY DIVISION
SCOPING WORKBOOK Form 1.3 Work Hour Estimate

City/Town	Backlog	Contract No.						
Location:	Apple Valley Road	Assignment No.:						
Revisions Effective:	Small Bridge Program	Profile No.:						
SECTION 100								
PROJECT DEVELOPMENT ENGINEERING								
		PIC	PM	SE	Eng	AE	ET	TOTAL
101	Project Concept Preparation (Development of Purpose and Need)							
102	Preliminary Project Area Analysis							
103	Reasonable Alternative(s) Identification							
104	Alternatives Analysis & Report Preparation							
105	Project Design Schedule Development and Monthly Updates							
	SUBTOTAL							
SECTION 150								
ENVIRONMENTAL								
		PIC	PM	SE	Eng	AE	ET	TOTAL
151	Early Environmental Coordination Design Submission Checklist							
152	Hist./Arch. - Federal Section Section 106 and State Chapter 254							
153	Reserved							
154	Hazardous Materials Research/Review							
155	Project Development Meetings and Hearings		4	12		8		24
156	NEPA/MEPA Determination							
157	NEPA - Categorical Exclusion (CE)							
158	NEPA - Environmental Assessment (EA)							
159	NEPA - Draft Environmental Impact Statement (EIS)							
160	NEPA - Final Environmental Impact Statement (EIS)							
161	NEPA - Supplemental Environmental Impact Statement (SEIS)							
162	NEPA - Reevaluation							
163	MEPA - Environmental Notification Form (ENF)							
164	MEPA - Draft Environmental Impact Report (DEIR)							
165	MEPA - Final Environmental Impact Report (FEIR)							
166	MEPA - Notice of Project Change (NOPC)							
167	MEPA - Supplemental Environmental Impact Report (SEIR)							
168	Reserved							
169	Reserved							
170	USACE Section 404 General Permit (PGP)		2	16		26		44
171	USACE Individual Section 404 Permit							
172	U.S. Coast Guard Bridge Permit							
173	Programmatic Section 4(f) Evaluation							
174	Draft Individual Section 4(f) Evaluation							
175	Final Individual Section 4(f) Evaluation							
176	Wetland Resource Area Delineation			12		16		28
177	WPA Abbr. Notice of Resource Area Determination (ANRAD)							
178	WPA Request for Determination of Applicability (RDA)							
179	WPA Notice of Intent (NOI)		2	16		34	8	60
180	WPA Variance							
181	Chapter 91 License/Permit Application							
182	Water Quality Certification							
183	Coastal Zone Management Consistency Review							
184	Wildlife/Rare Species Assessment							
185	Essential Fish Habitat Assessment							
186	Reserved							
187	Impaired Waterbody Assessment and Water Quality Data Form							
	SUBTOTAL		8	56		84	8	156

MassDOT - HIGHWAY DIVISION
SCOPING WORKBOOK Form 1.3 Work Hour Estimate

City/Town:	Buckland	Contract No.:						
Location:	Apple Valley Road	Assignment No.:						
Revisions Effective:	Small Bridge Program	Proj Info No.:						
SECTION 200								
FUNCTIONAL DESIGN REPORT (FDR)								
		PIC	PM	SE	Eng	AE	ET	TOTAL
201	Establish Purpose and Need							
202	Public and Agency Outreach							
203	Evaluate Existing Conditions / Context							
204	Prepare Traffic Volumes							
205	Conduct Safety Analysis							
206	Evaluate Signal Warrants							
207	Operational Analysis for Existing Conditions							
208	Establishment of Basic Design Controls and Evaluation Criteria							
209	Development of Alternatives							
210	Operational Analysis for Future Conditions							
211	Preferred Alternative							
212	Complete Streets							
213	GreenDOT							
214	Traffic Management							
215	Construction Cost							
216	Conclusion and Recommendation							
217	Report Preparation							
	SUBTOTAL							
SECTION 220								
DESIGN EXCEPTION REPORT								
		PIC	PM	SE	Eng	AE	ET	TOTAL
221	Evaluate 13 Controlling Criteria							
222	Perform Incremental Evaluation							
223	Prepare Narrative/Report							
	SUBTOTAL							
SECTION 230								
INTERCHANGE JUSTIFICATION / MODIFICATION REPORT (IJR / IMR)								
		PIC	PM	SE	Eng	AE	ET	TOTAL
231	Prepare an IJR/IMR							
	SUBTOTAL							
SECTION 300: PRELIMINARY ENGINEERING								
25% HIGHWAY DESIGN SUBMISSION								
		PIC	PM	SE	Eng	AE	ET	TOTAL
301	Project Initiation and Data Compilation							
302	Utility Coordination							
303	Survey Coordination and Controls			2	16	8	16	42
304	Base Plans, Profiles and Typical Sections					4		4
305	Field Reconnaissance							
306	Plot Existing Layout Lines				4	2		6
307	Meetings and Liaison			1	1			2
308	Determine Roadway Cross Section							
309	Preliminary Horizontal Geometry							
310	Preliminary Vertical Geometry							
311	Cross Section Studies							
312	Prepare Cross Sections							
313	Plot Proposed Layout and Easements							

MassDOT - HIGHWAY DIVISION
SCOPING WORKBOOK Form 1.3 Work Hour Estimate

City/Town	Buckland	Contract No.:						
Location:	Apple Valley Road	Assignment No.:						
Revisions Effective:	Small Bridge Program	ProjInfo No.:						
SECTION 300 (Cont'd)								
25% HIGHWAY DESIGN SUBMISSION								
		PIC	PM	SE	Eng	AE	ET	TOTAL
314	Pavement Design							
315	Typical Sections							
316	Construction Details							
317	Hydrological Studies and Hydraulics Report		4	22	60	24	22	132
318	Preliminary Drainage and Utility Studies							
319	Lane Configurations							
320	Traffic Signals							
321	Signs and Pavement Markings							
322	Traffic Management							
323	Reserved							
324	Constructability Review							
325	Quality Control (QC) Review							
326	Preliminary Construction Estimate							
327	Submission Checklists							
328	Modifications and Revisions							
329	Value Engineering (VE)							
330	Construction Contract Time Determination							
331	Incentives/Discincentives							
	SUBTOTAL:		4	25	61	38	38	156
SECTION 350								
DESIGN PUBLIC HEARING								
		PIC	PM	SE	Eng	AE	ET	TOTAL
352	Hearing Preparation							
353	Design Public Hearing							
	SUBTOTAL:							
SECTION 400								
75% HIGHWAY DESIGN SUBMISSION								
		PIC	PM	SE	Eng	AE	ET	TOTAL
401	Response to 25% Comments							
402	Field Reconnaissance							
403	Meetings, Liaison and Coordination							
404	Utility Coordination							
405	Final Horizontal Design Geometrics							
406	Final Vertical Design Geometrics							
407	Pavement Design							
408	Typical Cross Sections							
409	Plot Cross Section							
410	Plot Proposed Layout and Easements							
411	Construction Plans							
412	Grading and Tie Plans							
413	Drainage and Water Supply Details							
414	Traffic Signs							
415	Guide Sign Design & Overhead Directional (OD) Elevations							
416	Traffic Signals and Plan Preparation							
417	Pavement Markings and Plan Preparation							
418	Traffic Management							
419	Highway Lighting Plans and Details							
420	Landscaping and Plan Preparation							

MassDOT - HIGHWAY DIVISION

SCOPING WORKBOOK Form I.3 Work Hour Estimate

City/Town	Buckland	(Contract No.:						
Location:	Apple Valley Road	Assignment No.:						
Revisions Effective:	Small Bridge Program	Proj Info No.:						
SECTION 400 (Cont'd)								
75% HIGHWAY DESIGN SUBMISSION								
		PIC	PM	SE	Eng	AE	ET	TOTAL
421	Erosion Control							
422	Miscellaneous Contract Plans							
423	Quantity & Cost Estimate (Weighted Average Bid Application)							
424	Special Provisions							
425	Constructability and Quality Control (QC) Review							
426	Submission Checklist							
427	Bottom Up Estimate and Reconciliation (if required)							
428	Construction Contract Time Determination							
429	Incentives/Disincentives with Road User Calculation							
SUBTOTAL								
SECTION 450								
100% HIGHWAY DESIGN SUBMISSION/ FINAL ENGINEERING								
		PIC	PM	SE	Eng	AE	ET	TOTAL
451	Respond to 25% Comments							
452	Finalize Plans							
453	Prepare Special Provisions							
454	Finalize Quantity and Cost Estimate (W.A.B.A. & Calculation Book)							
455	Quality Control (QC) Review							
456	Submission Checklist							
457	Bottom Up Estimate and Reconciliation (if required)							
458	Construction Contract Time Determination							
459	Incentives/Disincentives							
SUBTOTAL								
SECTION 500								
RIGHT OF WAY								
		PIC	PM	SE	Eng	AE	ET	TOTAL
501	Preliminary Right of Entry Plans							
502	Layout Plans and Order of Taking							
503	Written Instrument							
504	Final Right of Way Plans							
SUBTOTAL								
SECTION 600								
GEOTECHNICAL DESIGN								
		PIC	PM	SE	Eng	AE	ET	TOTAL
601	Research Available Subsurface Data							
602	Field Reconnaissance							
603	Subsurface Investigation Plan							
604	Subsurface Investigation Inspection							
605	Office Studies, Analysis and Testing							
606	Geotechnical Report							
607	Meetings, Reviews and Liaison							
608	Final Plans, Specifications and Estimates							
SUBTOTAL								

MassDOT - HIGHWAY DIVISION
SCOPING WORKBOOK Form 1.3 Work Hour Estimate

City/Town: Buckham	Contract No.:						
Location: Apple Valley Road	Assignment No.:						
Revisions Effective: Small Bridge Program	Proj/lab No.:						
SECTION 700							
PROJECT DEVELOPMENT - STRUCTURAL							
	PIC	PM	SE	Eng	AE	ET	TOTAL
701 Field Investigation			6	6			12
702 Determine Bridge Configurations							
703 Preliminary Structural Analysis			1	4	8	4	17
704 Comparative Design and Cost Analysis							
705 Preliminary Structures Report Preparation							
706 Bridge Type Selection Worksheet Preparation							
707 Meetings and Liaison			2	2			4
708 Hydraulic Study and Report (Bridges over Water)							
SUBTOTAL			9	12	8	4	33
SECTION 710							
SKETCH PLANS (25% Plans)							
	PIC	PM	SE	Eng	AE	ET	TOTAL
711 Establish Boring Locations							
712 Reserved							
713 Sketch Plan Development			1	4	12	16	33
714 Meetings, Coordination and Liaison			2	4			6
715 Constructability Review			1				1
716 Submission Checklist							
SUBTOTAL			4	8	12	16	40
SECTION 750							
FINAL BRIDGE DESIGN (100% Plans)							
	PIC	PM	SE	Eng	AE	ET	TOTAL
751 Structural Design - Superstructure							
752 Structural Design - Substructure				2	4	2	8
753 Bridge Layout Geometrics							
754 Contract Drawings			2	2	8	24	36
755 First Review Submission		1			4	4	9
756 Quantity Cost Estimates			2		4		6
757 Special Provisions			4	4			8
758 Second Review Submission		1			2	4	7
759 FHWA Reviews							
760 Meetings and Liaison			4	4			8
761 Constructability and Quality Control (QC) Review		1	1				2
762 Submission Check List							
SUBTOTAL		3	13	12	22	34	54
SECTION 800							
PS&E SUBMISSION							
	PIC	PM	SE	Eng	AE	ET	TOTAL
801 Respond to 100% Comments							
802 Finalize Plans, Specifications and Estimate							
803 Prepare Detail Sheets							
804 Combine Highway and Bridge							
805 Quality Control (QC) Review							
806 Finalize Bottom Up Estimate and Estimate Reconciliation (if required)							
807 Finalize Construction Contract Time Determination							
808 Finalize Incentives/Disincentives							
SUBTOTAL							

MassDOT - HIGHWAY DIVISION

SCOPING WORKBOOK Form 1.3 Work Hour Estimate

City/Town	Buckland	Contract No.:							
Location:	Apple Valley Road	Assignment No.:							
Revisions	Effectiv Small Bridge Program	ProjInfo No.:							
SECTION 998									
CONSTRUCTION ENGINEERING									
	PIC	PM	SE	Eng	AE	ET	TOTAL		
901 Pre-Bid Services		2	2	8	16	12	40		
902 Pre-Construction Conference									
903 Highway Shop Drawings and Signal Permit									
904 Bridge and Wall Shop Drawings									
905 Bridge Construction Procedures									
906 Furnishing Advice and Field Visits			2	8	8		18		
907 Geotechnical Construction Evaluation									
908 Bridge Rating and Photographs									
	SUBTOTAL			2	4	16	24	12	58

Direct Expenses

Design Expenses

Printing	\$800.00				
Travel	\$752.40	6 trips @	220 mi	\$ 0.57	per mile
Filing Fees	\$1,450.00				
Mail	\$150.00				
H&H Travel	\$125.40	1 trips @	220 mi	\$ 0.57	per mile

\$3,277.80

Construction Expenses

Travel	\$501.60	4 Trips @	220 mi	\$ 0.57	per mile
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8 NOI packages * \$50/package + other printing
Travel to Town for wetland delineation, hearings, site walk
NOI Filing Fee (Category 4)
10 notifications * \$8.46/notification + other mailing



STANDARD TERMS AND CONDITIONS. The engagement of VHB by Client is under the following terms and conditions. These terms and conditions are an integral part of the collective Agreement between Client and VHB.

SCOPE OF SERVICES. VHB shall perform the services set forth in the attached Scope of Services. Requests for additional services and any associated fee adjustment must be authorized in writing before additional services can begin.

PERFORMANCE STANDARDS. VHB's services require decisions that are not based upon science, but rather upon judgmental considerations. In the performance or furnishing of professional services hereunder, VHB, and those it is responsible for, shall exercise the degree of skill and care ordinarily exercised by similarly practicing professionals performing similar services under similar conditions in the same locality ("Standard of Care"). VHB shall be entitled to rely on the accuracy and completeness of data, reports, surveys, requirements, and other information provided by Client.

SCHEDULE. VHB shall perform its services as set forth in the Scope of Services as expeditiously as consistent with the Standard of Care and the orderly progress of the Work. VHB shall not be responsible for failure to perform or for delays in the services arising out of factors beyond the reasonable control or without the fault or negligence of VHB.

PAYMENT. The fee estimate for the proposed Scope of Services is valid for 60 days from the date of Proposal. All schedules set forth in the attached Scope of Services commence upon receipt of a signed Agreement and, if requested, a retainer. Retainers will be applied to the last invoice. A RETAINER OF \$[] IS REQUIRED BEFORE SERVICES WILL COMMENCE.

Invoices will be rendered monthly and are due upon receipt. Any invoice unpaid more than 30 days after date of invoice will bear interest at 1-1/2 percent per month.

If Client fails to pay any invoice within 45 days of the date of invoice, VHB may, without waiving any other claim or right against Client or incurring any liability for delay, suspend the services until VHB has been paid in full. Sealed plans, final documents, reports, and attendance at meetings/hearings will not be provided unless payment for services is current.

If VHB is performing services for Client under multiple projects, payments must be current on all projects for services hereunder to continue. Client acknowledges VHB's right to suspend services and withhold plans and documents, as provided above, if any payments are overdue. If services are suspended for 30 days or longer, upon resuming services VHB shall be entitled to expenses incurred in the interruption and resumption of its services. If

services are suspended for 90 days or longer, VHB shall be entitled to expenses incurred in the interruption and resumption of its services and fees for remaining services shall be equitably adjusted.

The parties agree to coordinate invoices to assure timely payment. At minimum, VHB's project manager and Client's representative will confer as often as necessary about any issues involving invoicing and collections. Client's representative will contact VHB's project manager forthwith upon receipt of an invoice about any questions or issues concerning invoiced amounts. If Client's representative and VHB's project manager are unable to resolve any questions or issues, Client's representative will line item any disputed or questionable amount and pay VHB. VHB, at its option, may revise and resubmit disputed amounts at a later date.

Should it become necessary to utilize legal or other resources to collect any or all monies rightfully due for services rendered under this Agreement, VHB shall be entitled to full reimbursement of all such costs, including reasonable attorneys' fees, as part of this Agreement.

OWNERSHIP OF WORK PRODUCT. All work products (whether in hard or electronic form) prepared by VHB pursuant to the Agreement are instruments of service with respect to the Project and are not authorized, intended or represented to be suitable for reuse by Client or others on extensions of the Project or on any other Project. Any reuse by Client or a third person or entity authorized by Client without written verification or adaptation by VHB for the specific application will be at Client's sole risk and without liability or legal exposure to VHB. Client shall release, defend, indemnify and hold harmless VHB from all claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting therefrom. Any such verification or adaptation will entitle VHB to additional compensation at rates to be agreed upon by VHB and Client, third person, or entity seeking to reuse said documents.

Client recognizes that information recorded on or transmitted as electronic media, including CADD documents ("Electronic Documents") is subject to undetectable alteration, either intentional or unintentional, due to, among other causes, transmission, conversion, media degradation, software error, or human alteration. Accordingly, the Electronic Documents are provided to Client for informational purposes only and are not represented as suitable for any use or purpose.

VHB retains the copyright in all work products produced in connection with this Agreement, unless otherwise agreed to in writing by an authorized VHB representative. VHB licenses to Client on a non-exclusive basis the use of work products produced solely in connection with this Agreement. The license



may be revoked for any failure of Client to perform under this Agreement.

CERTIFICATIONS. VHB shall not be required to sign any documents, no matter by whom requested, that would result in VHB having to certify, guarantee or warrant the existence of conditions whose existence VHB cannot wholly ascertain. Any certification provided by VHB shall be so provided based on VHB's knowledge, information, and belief subject to the preceding sentence, and shall reflect no greater certainty than VHB's professional opinion developed through and consistent with the Standard of Care. VHB shall be compensated for any work necessary to assess project compliance with regulatory standards for purposes of such certification.

INSURANCE. VHB agrees to carry the following insurance during the term of this Agreement:

- Workmen's Compensation and Employer's Liability Insurance in compliance with statutory limits
- Comprehensive General Liability Insurance including Products Completed, Contractual, Property, and Personal Injury coverage with combined single limits of \$1,000,000 per occurrence and \$2,000,000 in the aggregate
- Professional Liability Insurance with a limit of \$1,000,000 per claim and in the aggregate
- Automobile Liability Insurance including non-owned and hired automobiles with a combined single limit of \$1,000,000 per occurrence

Certificates of insurance will be furnished upon request. If Client requires additional insurance coverage, and it is available, Client agrees to reimburse VHB for such additional expense.

INDEMNITY. Client and VHB shall at all times indemnify and save harmless each other, their officers, and employees on account of damages, losses, expenses, reasonable counsel fees, and compensation arising out of any claims for damages, personal injuries and/or property losses sustained by any person or entity, to the extent caused by the negligent acts, errors or omissions of the indemnifying party, its employees, or subcontractors in connection with the Project, and/or under this Agreement.

Client agrees to the fullest extent permitted by law, to indemnify and hold harmless VHB, its officers, employees and subconsultants from and against any and all claims, suits, demands, liabilities costs including reasonable attorneys' fees, and defense costs caused by, arising out of, or in any way connected with the detection, presence, handling, removal, abatement, or disposal of any asbestos or hazardous or toxic substances, products, or material that exist on, about, or adjacent to the job site.

LIMITATION ON VHB'S RESPONSIBILITY AND JOBSITE SAFETY. VHB will not be responsible for the acts or omissions of

contractors or others at the Site, except for its own subcontractors and employees. Neither the professional activities of VHB nor the presence of VHB or its employees or subconsultants at a project site shall relieve the other parties on this project of their obligations, duties, and, including, but not limited to, construction means, methods, sequence, techniques, or procedures necessary for performing, superintending, and coordinating the Work in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. VHB and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. Client agrees that Contractor shall be solely responsible for job site safety and warrants that this intent shall be carried out in Client's contract with Contractor.

ALLOCATION OF RISK. In recognition of the relative risks and benefits of the Project to both Client and VHB, the risks have been allocated such that Client agrees that to the fullest extent permitted by law, VHB's total liability in the aggregate to Client and any persons or entities claiming by, through or under Client, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to the Project and/or this Agreement from any cause or causes, including, but not limited to, VHB's negligence, errors, omissions, strict liability, statutory liability, indemnity obligation, breach of contract or breach of warranty shall not exceed the higher of \$50,000 (fifty thousand dollars), or ten (10) percent of the compensation actually paid to VHB. Client and VHB may agree to a higher limitation of liability for an increased fee.

DISPUTE RESOLUTION. All questions in dispute under this Agreement shall be submitted to non-binding mediation as a condition precedent to the institution of legal proceedings. On the written notice of either party to the other of the election to submit any dispute under this Agreement to mediation, each party shall designate their representative and shall meet within ten (10) days after the service of the notice. The parties shall then attempt to resolve the dispute within ten (10) days of meeting. Should the parties be unable to agree on a resolution of the dispute, then the parties shall proceed with mediation in accordance with the mediation rules of the American Arbitration Association. The cost of mediation shall be borne equally by both parties. This Agreement shall be governed and construed in accordance with the laws of the Commonwealth of Massachusetts.

LEGAL SUPPORT. To the extent VHB is required to respond to any dispute resolution process, including, but not limited to, requests for document production, discovery or a request to appear in any deposition or legal proceeding, which is related to the Scope of Services but does not arise out of VHB's negligent



acts, errors or omissions, Client shall compensate VHB for all costs incurred by VHB, including reasonable attorneys' fees.

DESCRIPTIVE HEADINGS AND COUNTERPARTS. The headings contained in this Agreement are for convenience of reference only and shall not constitute a part hereof, or define, limit or in any way affect the meaning of any of the terms or provisions hereof. This Agreement may be executed in two or more counterparts, and any party hereto may execute any such counterpart, which, when executed and delivered, shall be deemed to be an original and all of such counterparts taken together shall be deemed to be one and the same instrument.

EXCLUSIVE REMEDIES. In the event that any dispute is not remedied through the alternative dispute resolution procedures set forth herein, all claims, actions, and rights of action arising from or relating in any way to this Agreement or the services performed thereunder, whether in contract, tort, indemnity and all other rights of action whatsoever, shall be filed in a court of competent jurisdiction within three years of the completion of such services, or all such claims, actions and rights of action shall be waived. Recovery under this Agreement shall be limited by the parties' agreement on Allocation of Risk and the remainder of this section.

Notwithstanding any other provision of this Agreement, neither party shall be liable to the other for any liquidated, incidental, special, indirect or other consequential damages incurred, regardless of the nature of the cause or whether caused by Client or VHB, or their employees, subconsultants, or subcontractors. Consequential damages include, without limitation, loss of use, loss of profits, loss of production, or business interruption; however, the same may be caused.

VHB and Client waive all claims against each other arising out of or related to this Agreement or the services to the extent that losses, damages, and liabilities associated with such claims have been compensated by the proceeds of property insurance or any other insurance policy.

VHB makes no warranties or guarantees, express or implied, under this Agreement or any other contract document with respect to its provision of professional services. In entering into this Agreement, Client has relied only upon the representations set forth in this Agreement. No verbal warranties, representations, or statements shall be considered a part of this Agreement or a basis upon which Client relied in entering into this Agreement.

NO THIRD PARTY BENEFICIARIES. Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, a third party against either Client or VHB. In addition, nothing herein shall be construed as creating a contractual relationship between Client and any VHB employee,

representative, or consultant. Client agrees that in the event of a dispute regarding this Agreement or the services rendered by VHB hereunder, Client shall only seek recourse against VHB and waives any right to pursue a claim against VHB's individual directors, officers or employees.

VHB's commitments as set forth in this Agreement are based on the expectation that all of the services described in this Agreement will be provided. In the event Client later elects to reduce VHB's Scope of Services, Client hereby agrees to release, hold harmless, defend, and indemnify VHB from any and all claims, damages, losses or costs associated with or arising out of such reduction in services.

SEVERABILITY. The invalidity or unenforceability of any provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

TAXES. Any taxes or fees, enacted by local, state, or federal government and based on gross receipts or revenues, will be invoiced to and payable by Client as an additional amount due under this Agreement.

PROJECT SPECIFIC PROVISIONS. To the extent the Scope of Services involves any of the following services/geographies, the following general provisions apply accordingly:

AMERICANS WITH DISABILITIES ACT (ADA). Client understands and agrees that ADA standards are evolving and subject to varying, potentially contradictory interpretations and applications. VHB will use its reasonable professional efforts and judgment to interpret applicable ADA requirements and other federal, state and local laws, rules, codes, ordinances, and regulations as they apply to the project. VHB cannot and does not warrant or guarantee that Client's Project will comply with all ADA requirements or ADA interpretations or other applicable regulatory interpretations.

CLIMATE CHANGE/FLOOD ANALYSIS. Consultant shall not be responsible or liable for any damages, losses, litigation, expenses, counsel fees and compensation arising out of any claims, damages, personal injuries and/or property losses related to flooding conditions whether directly or indirectly due to flood water damage, and Client shall at all times indemnify and hold harmless VHB, its respective officers, agents and employees on account of any related claims, damages, losses, expenses and counsel fees related thereto.

CONSTRUCTION PHASE SERVICES

SITE VISITS. VHB shall make periodic site visits upon the request of Client or as otherwise agreed in writing by Client and VHB for



the limited purpose of determining whether work is in general conformance with VHB's plans and specifications. Such visits are not intended to be an exhaustive check or a detailed inspection of Contractor's work. VHB shall not supervise or have control over Contractor's work nor have any responsibility for construction ways, means, methods, techniques, sequences, or procedures selected by Contractor nor for Contractor's safety precautions or programs in connection with the Work.

SHOP DRAWINGS. VHB's review and approval of submittals such as shop drawings, product data, samples, and other data, shall be for the limited purpose of checking for conformance with the design concept and the information in VHB's documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades, or construction safety precautions, all of which are the sole responsibility of Contractor and other unrelated parties. Review of a specific item shall not indicate that VHB has reviewed the entire assembly of which the item is a component. VHB shall not be responsible for any deviations from VHB's documents or other documents that are not brought to the attention of VHB in writing by Contractor. VHB shall not be required to review partial submissions or those for which submission of correlated items have not been received.

GEOTECHNICAL SERVICES. Client understands that VHB does not perform geotechnical services directly and, if requested, will retain a geotechnical subconsultant on behalf of Client, and VHB shall rely on the accuracy and completeness of data furnished as if the geotechnical services were contracted directly through Client.

TANK INSPECTION. Client will provide VHB with available underground storage tank (UST) documentation as necessary. VHB assumes that the documentation and site plans will be in order, be complete and meet regulatory compliance standards. VHB's inspection services are to fulfill regulatory requirements and do not include invasive testing or equipment calibration and testing. Accordingly, Client expressly agrees that VHB shall have no liability for equipment functioning or malfunctioning, product releases or spills.

LSP SERVICES – PROJECTS LOCATED IN MASSACHUSETTS. In accordance with the Massachusetts General Laws Chapter 21E, the performance of the services contained in this Agreement may require the engagement of a Licensed Site Professional (LSP) registered with the Commonwealth of Massachusetts under Massachusetts General Law Chapter 21A and the regulations promulgated by the Massachusetts Department of Environmental Protection (MADEP) thereunder (collectively the LSP Program). These laws and regulations place upon the LSP certain professional obligations owed to the public, including in some

instances a duty to disclose the existence of certain environmental contaminants to the MADEP. In the event that any site for which VHB has provided LSP services is audited by MADEP pursuant to the provisions of the Massachusetts Contingency Plan, VHB shall be entitled to additional compensation to provide such services as may be necessary to assist Client in its response to MADEP.

Client understands and acknowledges that in the event the LSP's obligations under the LSP Program conflict in any way with the terms and conditions of this Agreement or the wishes or intentions of Client, the LSP is bound by law to comply with the requirements of the LSP Program. Accordingly, Client recognizes that the LSP shall be immune for all civil liability resulting from any alleged and/or actual conflict with the LSP Program. Client also agrees to hold VHB and its LSP harmless for any claims, losses, damages, fines, or administrative, civil, or criminal penalties resulting from the LSP's fulfillment of its obligations under the LSP Program.

**PROJECTS LOCATED IN FLORIDA.
FLORIDA STATUTES SECTION
558.0035 (2013), AN INDIVIDUAL
EMPLOYEE OR AGENT MAY NOT BE
HELD INDIVIDUALLY LIABLE FOR
ECONOMIC DAMAGES RESULTING
FROM NEGLIGENCE OCCURRING
WITHIN THE COURSE AND SCOPE
OF THIS AGREEMENT.**

