

Burlington Bike Path Phase 3a Rehabilitation
Contract Documents

City of Burlington, Vermont
Parks, Recreation & Waterfront



Date of Issuance: March 27, 2019

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Attachment A – VT DEC Construction Stormwater Permit NOI

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Attachment C – US Army Corps of Engineers Section 404 Permit

Attachment D – Corrective Action Plan

* The pages above marked with asterisks must be completed and signed and included in bid submittal

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ADVERTISEMENT FOR BIDS

City of Burlington
Parks, Recreation & Waterfront
645 Pine Street, Suite B
Burlington, VT 05401

Sealed BIDS for the construction of the **City of Burlington, Burlington Bike Path Phase 3a Rehabilitation** are due to the City of Burlington, Vermont, at the office of Parks, Recreation & Waterfront, 645 Pine Street, Suite B, Burlington, Vermont 05401 by 4:00 p.m., Friday, April 26, 2019. Bids will be publicly opened and read aloud in the large conference room immediately after the bid deadline passes. An optional pre-bid conference is scheduled for 9:00 a.m., Thursday, April 11, 2019 to be held in the large conference room at the City of Burlington Parks, Recreation & Waterfront, 645 Pine Street, Suite B, Burlington, Vermont 05401. The duration of the meeting is estimated to be 1 hour.

Each BID must be accompanied by a certified check payable to the OWNER in the amount of 5% of the bid price. A BID bond may be used in lieu of a certified check.

A copy of the CONTRACT DOCUMENTS and PLANS may be examined after 10:00 a.m. on Monday, April 1, 2019 at the office of Burlington Parks, Recreation & Waterfront located at 645 Pine Street, Suite B, Burlington, VT 05401. Plans and contract documents may be obtained from VHB by contacting Dorie Jones (contact information provided below).

Hard copies (11"x17" plans & 8 ½" x 11" contract documents) may be purchased for \$100.00 per set. Electronic (PDF) copies may be obtained at no cost. Prospective bidders must formally request contract documents and will be included on the list of contractors taking out plans. This list shall be used to distribute addendums or other pertinent information as needed.

Plan and Contract Document Requests:

VHB
Dorie Jones
40 IDX Drive, Building 100
Suite 200
South Burlington, VT 05403
Email: djones@vhb.com

Questions (via email only) Due:

April 19, 2019 @ 5:00 PM
Parks, Recreation & Waterfront
Jon Adams-Kollitz, Parks Project Coordinator
645 Pine Street, Suite B
Burlington, VT 05401
Email: jadamskollitz@burlingtonvt.gov
With subject line "Burlington Bike Path
Rehab Phase 3a Questions"

A Performance Bond and a Payment Bond each in an amount equal to one hundred percent (100%) of the contract price will be required. Irrevocable letters of Credit from an approved bank may be used in lieu of the Performance and Payment Bonds or cash in the amount equal to one hundred percent (100%) of the contract price at the approval of the City.

A contract awarded under this Advertisement of Bids will be funded by the City of Burlington.

This contract is subject to the Burlington Women and Construction Trades Ordinance and the Burlington Livable Wage Ordinance.

The City of Burlington reserves the right to reject or waive any informalities in, or to reject any and all proposals, or to accept any proposal deemed in the best interest of the City of Burlington.

INSTRUCTIONS TO BIDDERS

March 2019

BIDS for the Burlington Bike Path Phase 3a Rehabilitation project, will be received by the Burlington Parks, Recreation & Waterfront Department (herein called the "OWNER"), at 645 Pine Street, Suite B, Burlington, Vermont until 4:00 p.m., Friday, April 26, 2019. Bids will be publicly opened and read aloud in the large conference room immediately after the bid deadline passes. An optional pre-bid conference is scheduled for 9:00 a.m., Friday, April 11, 2019 to be held in the large conference room at the City of Burlington Parks, Recreation & Waterfront, 645 Pine Street, Suite B, Burlington, Vermont 05401. The duration of the meeting is estimated to be 1 hour.

Each BID must be submitted in a sealed envelope, addressed to Burlington Parks, Recreation and Waterfront Department at 645 Pine St., Suite B, Burlington, Vermont. Each sealed envelope containing a BID must be plainly marked on the outside as the BURLINGTON BIKE PATH PHASE 3a REHABILITATION, and should bear on the outside the name of the BIDDER, and their address. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at Burlington Parks, Recreation & Waterfront Department, 645 Pine St., Suite B, Burlington, Vermont 05401.

The following items must be completed and signed and included in the bid submittal:

- Bid Form
- Bid Bond
- City of Burlington Livable Wage Ordinance Compliance Certificate
- City of Burlington Union Deterrence Ordinance Compliance Certificate
- City of Burlington Outsourcing Ordinance Compliance Certificate.

This project is funded with public funds and will require compliance with all federal, state and local rules and regulations including:

A. Civil Rights & Equal Employment Opportunity: The contractor shall not discriminate on the basis of race, color, national origin, sex, physical disability or veteran status in the award and performance of USDOT assisted contracts.

B. Livable Wage Ordinance City of Burlington Code of Ordinances 21-80 et seq.: Requires payment of an annually adjusted "livable wage" to employees working on the funded project.

C. Pre-qualification of Construction Contractors: All bidders on this project shall be pre-qualified for Bicycle and/or Pedestrian (Transportation) Path Construction by the Vermont Agency of Transportation, Contract Administration a minimum of seven (7) working days prior to the bid opening.

D. Union Deterrence Ordinance 21-100 et seq.: It is the policy of the City of Burlington to limit letting contracts to organizations that provide union deterrence services to other companies.

E. Outsourcing Ordinance 21-90 et seq.: It is the policy of the City of Burlington to let service contracts to contractors, subcontractors and vendors who perform work in the United States.

All BIDS must be made on the required BID form(s) and must be accompanied by a certified check payable to the OWNER for 5% of the bid price. A BID bond may be used in lieu of a certified check.

All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully

completed and executed when submitted. Bidders shall remove and submit the BID form separate from the volume of CONTRACT DOCUMENTS.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified, shall not be considered. No BIDDER may withdraw a BID within 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID form by examination of the site and a review of the drawings and/or specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

All questions by prospective BIDDERS as to the interpretations of the INSTRUCTIONS TO BIDDERS, Forms of PROPOSAL, form of CONTRACT, Plans, Specifications or BONDS, must be submitted in writing to Jon Adams-Kollitz, Parks Project Coordinator; City of Burlington, Department of Parks, Recreation & Waterfront, Email: jadamskollitz@burlingtonvt.gov. All questions shall be emailed and have the following in the subject line: "Burlington Bike Path Rehab Phase 3a Questions". No questions will be accepted after April 19, 2019 at 5:00 p.m. An interpretation of all questions so raised which, in the City's opinion, require interpretation, will be included in an addendum to be furnished to all bidders on the list of contractors that have obtained plans and contract documents. Failure of any BIDDER to receive any such ADDENDA or interpretation shall not relieve such BIDDER from any obligation under their BID as submitted. All ADDENDA so issued shall become part of the CONTRACT DOCUMENTS.

In the event there is any discrepancy in the PROPOSAL between any unit price and the extended totals, the unit price shall govern and the extended totals in each case shall be corrected accordingly. No BID will be accepted which does not contain a unit price for each item in this PROPOSAL.

Prospective BIDDERS and their agents will be permitted to make, at their own responsibility and expense, such investigations over the site of the proposed work as they deem necessary. They must satisfy themselves by personal examination of the location of the proposed work, and by such other means as they deem necessary, as to the actual conditions and requirements of the WORK. Prices bid shall include every and all costs for the construction complete between the limits indicated on the Plans and/or as set out in the Specifications.

At the time of the opening of BIDS, each BIDDER will be presumed to have inspected the site and to have read and to be thoroughly familiar with the CONTRACT DOCUMENTS (including all ADDENDA). The failure or omission of any BIDDER to receive or examine any form, instrument, or documents shall in no way, relieve any BIDDER from the obligation in respect to their BID.

All bids received by the date and time specified in the solicitation will be publicly opened and total bid amounts read aloud. The time and place of opening will be as specified in the solicitation. Bidders and other interested persons may be present.

At the BIDDER'S request the OWNER shall provide all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from any officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve them from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a certified check payable to the OWNER for 5% of the bid price. As soon as the BID prices have been compared, the OWNER will return the certified checks of all except the three lowest responsive, responsible BIDDERS. When the Agreement is executed, the certified checks of the two remaining unsuccessful BIDDERS will be returned. The certified check of the successful BIDDER will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A BID BOND may be used in lieu of a certified check.

A performance BOND and a payment BOND, each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract. Irrevocable Letters of Credit from an approved bank may be used in lieu of the performance and payment bonds, each in the amount of one-hundred percent (100%) of the contract price, with the approval of the City.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) business days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may, at their option, consider the BIDDER in default, in which case the BID BOND or certified check accompanying the proposal shall become the property of the OWNER.

The party to whom the contract is awarded shall provide a work schedule to the OWNER within 10 days of award in the critical path form.

A pre-construction conference will be held in the Burlington Parks, Recreation & Waterfront Department, 645 Pine Street, soon after delivery of the NOTICE OF AWARD. The CONTRACTOR will be notified of the exact time and date. Those invited shall include departments affected by construction activities, and topics of discussion shall include coordination and scheduling of work requirements by all concerned parties.

The OWNER, within ten (10) business days of receipt of acceptable performance BOND, payment BOND and Agreement signed by the party to whom the Agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE, withdraw their signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon,

the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as they deem necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER, all such information and data for this purpose as the OWNER may request.

A conditional or qualified BID will not be accepted.

Award will be made to the responsive, responsible BIDDER that is deemed to provide the best value to the City. A responsive, responsible bidder is any bidder who meets all the requirements of the Instructions to Bidders, completes the required documents, and has successfully completed projects of similar magnitude and scope.

To ensure a high level of construction quality, maximize the bike path's lifespan, and minimize maintenance and repairs on the Burlington Bike Path, the City will use an evaluation matrix to score all proposals submitted within the Burlington Bike Path Phase 3a Construction bid process.

The City WILL NOT be required to accept the low bid. The following outlines additional content that will be REQUIRED as part of all bid proposals, including a Qualifications Detail, Technical Proposal, and Cost Proposal.

1) Qualifications Detail consisting of:

- a) Cover letter including statement of understanding & approach to this project;
- b) Proposed Project Team Members: A description of the team composition, areas of expertise, and role of each sub-contractor on the team. Clearly indicate the applicant's designated project manager as well as sub-contractors who will be assigned to the work and their respective expertise in such work;
- c) Specific Project Experience: Descriptions detailing completed, similar or relevant project experience that the applicant has executed. Links to similar or relevant projects are encouraged;
- d) List of References: Provide a minimum of three client references with which the applicant has provided similar design/bid/build services within the last five years. Include the name and telephone number of the contact person and a description of the role and services provided to that contact.

2) Technical Proposal consisting of:

- a) A description of the approach to be taken toward completion of the project, an explanation of any variances to the proposed scope of work as outlined in the contract documents, and any insights into the project gained as a result of developing the proposal;
- b) A scope of work that includes steps to be taken, including any products or deliverables;
- c) A summary that clearly identifies the percentage of work to be completed by the prime contractor and each sub-contractor;
- d) A proposed schedule that indicates project milestones and overall time for completion;

3) Cost Proposal consisting of:

- a) Cost proposal to be submitted per the contract documents.

EVALUATION CRITERIA

In compliance with the City of Burlington's Procurement Policy, BPRW will evaluate all complete proposals from qualified Contractors on the following criteria. Contractors will be scored up to a maximum of 100 points based on the following evaluation criteria:

BPRW BID EVALUATION CRITERIA

Project: Burlington Bike Path Phase 3a Construction

1 - Competitive Cost Proposal & Value	25 points
2 - Qualifications	15 points
3 - Ability to Meet Schedule	10 points
4 - Project Understanding	10 points
5 - Depth of Skills	10 points
6 - Demonstration of Innovation	10 points
7 - Level of Experience	10 points
8 - Quality, Clarity & Completeness of Proposal	<u>10 points</u>
Total Points	100

BID OPENING AND CONTRACTOR SELECTION PROCESS:

All bids are due by 4:00 pm on April 26, 2019.

An informal bid opening will be held at this time in the Large Conference Room at 645 Pine Street. The City is NOT required to hold a public bid opening but will do so. This bid opening will NOT indicate who the award winner is, but rather let Contractors know where their bids fall within the range of all bids received.

The City expects to complete bid analysis and notification to all parties by Friday, May 24, 2019, including the Notice of Award (NOA).

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT, shall apply to the contract throughout.

This PROJECT is subject to all of the Safety and Health Regulations (CFR 29, Part 1926 and all subsequent amendments) as promulgated by the U.S. Department of Labor on August 1, 1991 (VOSHA). The CONTRACTOR shall become familiar with the requirements of these regulations.

CONTRACTS for work under this proposal will obligate the CONTRACTORS and SUBCONTRACTORS not to discriminate in employment practices.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall, in no way, relieve any BIDDER from any obligation in respect to their BID.

The BIDDER awarded the CONTRACT shall supply the names and addresses of major material SUPPLIERS and SUB-CONTRACTORS to the OWNER. The BIDDER, as prime contractor, must perform a minimum of 50% of the work.

BIDDERS must satisfy themselves with respect to the locations of buried utilities in the work area which may have an impact on their ability to perform the WORK. All coordination between the Utilities and the

BIDDER is the responsibility of the BIDDER.

Bidder shall comply with DIG SAFE per Title 30, Vermont Statutes.

The Contractor shall not commence work under this contract until they have obtained all the insurance required hereunder and such insurance has been approved by the OWNER, nor shall the CONTRACTOR allow any subcontractor to commence work on their subcontract until all similar insurance required of the subcontractor has been so obtained and approved. Approval of the insurance by the OWNER shall not relieve or decrease the liability of the CONTRACTOR hereunder.

The Contractor shall take out and maintain during the life of the contract such Comprehensive General Bodily Injury Liability and Property Damage Liability Insurance and Automobile Bodily Injury Liability and Property Damage Liability as shall protect them and any subcontractor performing work covered by this contract for claims for damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract, whether such operations by the contractor or by any subcontractor or by anyone directly or indirectly employed by either of them.

The Method of Measurement and Basis of Payment for all contract items shall follow the Vermont Agency of Transportation ("VTrans") 2018 Standard Specification for Construction, unless modified in these Contract Documents.

A bidder may submit a unit bid price that is obviously below the cost of the item. If the City awards and enters into a contract with a BIDDER that has submitted a unit bid price that is obviously below cost, the contractor shall be obligated to perform the work under such item as indicated in the contract documents and/or as directed by the Engineer.

When it is indicated in the contract documents that payment or cost of work and/or materials are incidental to one or more other contract items (but not to specific other items), such costs shall be included by the bidder in the price bid for all other contract items.

By submitting a bid, a prospective bidder/contractor certifies that it shall report in writing to the City any error or inconsistency discovered in the plans, proposal, specifications, or contract documents immediately upon discovery of such error or inconsistency.

By submitting a bid, a prospective bidder/contractor certifies that it shall assert no claim, cause of action, litigation, or defense against the City unless notice was provided to the City in writing of any error or inconsistency found in the plans, proposal, specifications, and/or contract documents immediately upon discovery of such error or inconsistency.

By submitting a bid an entity certifies that it is familiar with all Federal, State and local laws, ordinances and regulations which affect in any way the materials, equipment, haul roads, used in or upon the work, the conduct of the work, and the persons engaged or employed in the performance of the work to be performed pursuant to the contract.

By submitting a bid an entity certifies that it shall forthwith report in writing to the City any provisions in the plans, proposal, specifications or proposed contract that the bidder/contractor believes conflicts with or inconsistent with any Federal, State or local law, ordinance or regulation.

By submitting a bid a prospective Bidder certifies that if, during its investigation of the work in the process of preparing its bid, it discovers or encounters subsurface or latent physical conditions at a project site differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, it shall notify in writing the City of the specific differing conditions immediately upon discovering or encountering the differing site conditions.

An entity further certifies that if it fails to notify the City of any differing site conditions as described above, it shall waive any and all rights that it might have to additional compensation from the City for additional work as a result of the differing site conditions and that it shall not bring a claim for additional compensation because of differing site conditions.

By submitting a bid, a prospective bidder/contractor certifies that no claim or defense of ignorance or misunderstanding concerning Federal, State or local laws, ordinances and/or regulations will be employed by a bidder/contractor or considered by the City in claims, litigation, alternative dispute resolution procedures, or other matters concerning the contract for which the bid is submitted.

INSURANCE

Insurance Coverage Requirements:

By submitting a bid, a perspective bidder certifies that it carries all insurance types and amounts described in Section 4 of the City of Burlington – Standard Contract Conditions.

INDEMNIFICATION

By submitting a bid, a perspective bidder agrees to the indemnification in Section 1 of the City of Burlington – Standard Contract Conditions.

BID FORM

Proposal of _____ (hereinafter called
"CONTRACTOR"), organized and existing under the laws of the State of _____
doing business as _____ (corporation, partnership, individual)
To the City of Burlington (hereinafter called "OWNER")

In compliance with the Advertisement and Instructions to Bidders of the City of Burlington for the **Burlington Bike Path Phase 3a Rehabilitation**, and in conformity with the Bid Form, Contract, Specifications and Contract Drawings, I, or we, hereby certify that I am, or we are, the only person, firm, or corporation; that an examination has been made of the Bid Form, Contract, the Contract Drawings, the Specifications, and the site of the work, and that I, or we, propose to furnish all necessary machinery, equipment, tools, labor and other means of construction, and all materials specified, in the manner and at the time prescribed, understanding that the quantities of work as shown herein are approximate only and are subject to increase or decrease and that all quantities of work, whether increased or decreased, are to be performed at the following unit prices (including sales tax and all other applicable taxes and fees):

ATTENTION TO CONTRACTORS

This Proposal shall be filled in by the CONTRACTOR, written IN WORDS AND IN FIGURES and the extensions properly made in figures.

For complete information concerning these items see Specifications, Contract Drawings, and Contract.

By submission of this Bid, each Bidder certifies, and in the case of a joint Bid, each party thereto certifies as to their own organization, that its Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.

The Bidder hereby agrees to commence Work under this contract on the date of issuance of the Notice to Proceed and to reach Substantial Completion of the entire work excluding final landscaping prior to November 15, 2019. Final landscaping and removal of temporary erosion control features may be completed in the Spring of 2020, and the entire project must reach Final Completion prior to May 22, 2020.

BID SCHEDULE**UNIT PRICE CONTRACT**Work Description: **Burlington Bike Path Phase 3a Rehabilitation – Base Bid**

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
201.10	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	LS	\$	1	\$
	Unit Price in Words:				
201.15	REMOVAL OF MEDIUM TREES	EA	\$	10	\$
	Unit Price in Words:				
203.15	COMMON EXCAVATION	CY	\$	2,900	\$
	Unit Price in Words:				
203.16	SOLID ROCK EXCAVATION	CY	\$	10	\$
	Unit Price in Words:				
203.28	EXCAVATION OF SURFACES AND PAVEMENTS	CY	\$	630	\$
	Unit Price in Words:				
203.30	EARTH BORROW	CY	\$	100	\$
	Unit Price in Words:				
203.31	SAND BORROW	CY	\$	220	\$
	Unit Price in Words:				
204.20	TRENCH EXCAVATION OF EARTH	CY	\$	10	\$
	Unit Price in Words:				
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	\$	5	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY		90	\$
	Unit Price in Words:				
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	\$	1,280	\$
	Unit Price in Words:				
404.65	EMULSIFIED ASPHALT	CWT	\$	42	\$
	Unit Price in Words:				
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	\$	1,940	\$
	Unit Price in Words:				
507.11	REINFORCING STEEL, LEVEL I	LB	\$	19,800	\$
	Unit Price in Words:				
522.35	STRUCTURAL LUMBER AND TIMBER, TREATED	MFBM	\$	4.00	\$
	Unit Price in Words:				
601.2605	12" CPEP(SL)	LF	\$	35	\$
	Unit Price in Words:				
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	\$	1	\$
	Unit Price in Words:				
604.412	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	EACH	\$	1	\$
	Unit Price in Words:				
609.10	DUST CONTROL WITH WATER	MGAL	\$	235	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
613.10	STONE FILL, TYPE I	CY	\$	310	\$
	Unit Price in Words:				
613.11	STONE FILL, TYPE II	CY	\$	30	\$
	Unit Price in Words:				
616.21	VERTICAL GRANITE CURB	LF	\$	140	\$
	Unit Price in Words:				
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	\$	40	\$
	Unit Price in Words:				
618.30	DETECTABLE WARNING SURFACE	SF	\$	20	\$
	Unit Price in Words:				
620.12	CHAIN-LINK FENCE, 6 FEET	LF		880	\$
	Unit Price in Words:				
620.21	BRACING ASSEMBLY FOR CHAIN-LINK FENCE, 6 FEET	EA		5	\$
	Unit Price in Words:				
620.50	REMOVING AND RESETTING FENCE	LF	\$	2,620	\$
	Unit Price in Words:				
620.55	REMOVAL OF EXISTING FENCE	LF	\$	1,930	\$
	Unit Price in Words:				
629.20	ADJUST ELEVATION OF VALVE BOX	EA	\$	1	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
630.15	FLAGGERS	HR	\$	100	\$
	Unit Price in Words:				
631.10	FIELD OFFICE, ENGINEERS	LS	\$	1	\$
	Unit Price in Words:				
635.11	MOBILIZATION/DEMOBILIZATION	LS	\$	1	\$
	Unit Price in Words:				
641.10	TRAFFIC CONTROL	LS	\$	1	\$
	Unit Price in Words:				
646.2111	4 INCH YELLOW LINE, WATERBORNE PAINT	LF	\$	1,700	\$
	Unit Price in Words:				
646.2141	6 INCH WHITE LINE, WATERBORNE PAINT	LF	\$	50	\$
	Unit Price in Words:				
646.241	12 INCH WHITE LINE, WATERBORNE PAINT	LF	\$	10	\$
	Unit Price in Words:				
646.261	24 INCH STOP BAR, WATERBORNE PAINT	LF	\$	10	\$
	Unit Price in Words:				
646.301	LETTER OR SYMBOL, WATERBORNE PAINT	EACH	\$	60	\$
	Unit Price in Words:				
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF		60	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
649.11	GEOTEXTILE FOR ROADBED SEPARATOR	SY	\$	3,510	\$
	Unit Price in Words:				
649.31	GEOTEXTILE UNDER STONE FILL	SY	\$	3,850	\$
	Unit Price in Words:				
649.61	GEOTEXTILE FOR FILTER CURTAIN	SY	\$	500	\$
	Unit Price in Words:				
651.15	SEED	LB	\$	220	\$
	Unit Price in Words:				
651.18	FERTILIZER	LB	\$	630	\$
	Unit Price in Words:				
651.20	AGRICULTURAL LIMESTONE	TON	\$	3	\$
	Unit Price in Words:				
651.35	TOPSOIL	CY	\$	510	\$
	Unit Price in Words:				
653.10	HAY MULCH	TON	\$	3	\$
	Unit Price in Words:				
653.20	ROLLED EROSION CONTROL PRODUCT, TYPE I	SY	\$	1,120	\$
	Unit Price in Words:				
653.41	INLET PROTECTION DEVICE, TYPE II	EACH	\$	2	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
653.475	SILT FENCE, TYPE I	LF	\$	50	\$
	Unit Price in Words:				
653.476	SILT FENCE, TYPE II	LF	\$	1,200	\$
	Unit Price in Words:				
653.55	PROJECT DEMARCATION FENCE	LF	\$	5,470	\$
	Unit Price in Words:				
656.30	DECIDUOUS TREES	EACH	\$	57	\$
	Unit Price in Words:				
656.35	DECIDUOUS SHRUBS	EACH	\$	123	\$
	Unit Price in Words:				
656.41	PERENNIALS	EACH	\$	277	\$
	Unit Price in Words:				
656.65	LANDSCAPE WATERING	MGAL	\$	14	\$
	Unit Price in Words:				
656.85	TREE PROTECTION	LS		1	\$
	Unit Price in Words:				
675.20	TRAFFIC SIGNS, TYPE A	SF	\$	36	\$
	Unit Price in Words:				
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	\$	110	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
675.50	REMOVING SIGNS	EA	\$	12	\$
	Unit Price in Words:				
675.60	RESETTING SIGNS	EA	\$	4	\$
	Unit Price in Words:				
678.23	WIRED CONDUIT	LF	\$	700	\$
	Unit Price in Words:				
679.24	REMOVE STREET LIGHT ASSEMBLY	EA	\$	9	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (STONE REVETMENT MATERIAL)	CY	\$	3,230	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (STONE SCREENINGS)	CY	\$	320	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (EXPOSED AGGREGATE CONCRETE)	CY	\$	155	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (SAND SEED BANK)	CY	\$	95	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (MANAGEMENT OF CLASS 1 SOILS)	CY	\$	175	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (DISPOSAL OF CLASS 1 SOILS)	CY	\$	530	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
900.608	SPECIAL PROVISION (MANAGEMENT OF CLASS II SOILS)	CY	\$	440	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (DISPOSAL OF CLASS II SOILS)	CY	\$	1,320	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (MANAGEMENT OF CLASS III SOILS)	CY	\$	220	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (DISPOSAL OF CLASS III SOILS)	CY	\$	660	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (MANAGEMENT OF CLASS IV SOILS)	CY	\$	45	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (DISPOSAL OF CLASS IV SOILS)	CY	\$	135	\$
	Unit Price in Words:				
900.608	SPECIAL PROVISION (CONTAMINATED MEDIA)	CY	\$	20	\$
	Unit Price in Words:				
900.620	SPECIAL PROVISION (RELOCATE BOULDER)	EACH	\$	1	\$
	Unit Price in Words:				
900.620	SPECIAL PROVISION (BIKE RACK)	EA	\$	6	\$
	Unit Price in Words:				
900.620	SPECIAL PROVISION (BIKE TUNING STATION)	EA	\$	1	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
900.620	SPECIAL PROVISION (LANDSCAPE BENCH)	EA	\$	10	\$
	Unit Price in Words:				
900.620	SPECIAL PROVISION (ORNAMENTAL LIGHT)	EA	\$	10	\$
	Unit Price in Words:				
900.640	SPECIAL PROVISION (ORNAMENTAL FENCE)	LF	\$	1,200	\$
	Unit Price in Words:				
900.645	SPECIAL PROVISION (HELICAL LIGHTING FOUNDATIONS)	LS	\$	1	\$
	Unit Price in Words:				

Total Base Bid (in numbers) _____

Total Base Bid (written in words)

BID SCHEDULE – ADD ALTERNATE BID

UNIT PRICE CONTRACT

Work Description: **Burlington Bike Path Phase 3a Rehabilitation – Add Alternate Construction**

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
203.15	COMMON EXCAVATION	CY	\$	500	\$
	Unit Price in Words:				
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HR	\$	15	\$
	Unit Price in Words:				

Item Number	Item Description	Unit	Unit Price	Amount	Total Price
613.11	STONE FILL, TYPE II	CY	\$	580	\$
	Unit Price in Words:				
613.12	STONE FILL, TYPE III	CY	\$	75	\$
	Unit Price in Words:				
613.13	STONE FILL, TYPE IV	CY	\$	75	\$
	Unit Price in Words:				
651.15	SEED	LB	\$	4	\$
	Unit Price in Words:				
651.18	FERTILIZER	LB	\$	12	\$
	Unit Price in Words:				
651.20	AGRICULTURAL LIMESTONE	TON	\$	0.25	\$
	Unit Price in Words:				
651.35	TOPSOIL	CY	\$	10	\$
	Unit Price in Words:				
653.10	HAY MULCH	TON	\$	0.25	\$
	Unit Price in Words:				
653.10	SILT FENCE, TYPE I	LF	\$	700	\$
	Unit Price in Words:				

Total Add Alternate Bid (in numbers) _____

Total Add Alternate Bid (written in words) _____

By submission of this BID, each CONTRACTOR certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to the BID with any other CONTRACTOR or competitor.

CONTRACTOR acknowledges receipt of the following ADDENDUM:

Respectfully submitted:

(Signature) (Address)

(Title) (Date)

_____ Being duly sworn, deposes and says that (s)he is

_____ Of _____
(Name of Organization)

And that answers to the foregoing questions and all statements contained therein are true and correct.

Sworn to before me this _____ day of _____, 20____

(Notary Public)

My commission expires _____

(Seal – if BID is by corporation)

ATTEST: _____

BID BOND

KNOWN BY ALL BY THESE PRESENT, that we, the undersigned,

as Principal, and _____ as _____

Surety, are hereby held and firmly bound unto the City of Burlington
as OWNER in the penal sum of _____
for the payment of which, well and truly to be made, we hereby jointly and severally find ourselves,
successors and assigns.

Signed this _____ day of _____, 2019.

The Condition of the above obligation in such that whereas the

Principal has submitted to City of Burlington a certain
BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for Burlington Bike
Path Phase 3a Rehabilitation

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall
execute and deliver a contract in the Form of Contract attached hereto (properly completed
in accordance with said BID) and shall furnish a BOND for their faithful performance of said
contract, and for the payment of all persons performing labor or furnishing materials in
connection therewith, and shall in all other respects perform the agreement created by the
acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in
force and effect; it being expressly understood and agreed that the liability of the Surety for
any and all claims hereunder shall, in no event, exceed the penal amount of this obligation
as herein
stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and
its BOND shall be in no way impaired or affected by any extension of the time within which the
OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and those present to be signed by their proper officers, the day and year first set forth above.

Principal (L.S.)

Surety

By: _____

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

NOTICE OF AWARD

To: _____

PROJECT Description: **Burlington Bike Path Phase 3a Rehabilitation**

The OWNER has considered the BID submitted by you for the above described WORK in response to its Information for Bidders, dated _____, 2019.

You are hereby notified that your BID has been accepted for all items, in the amount of \$_____.

You are required by the Information for Bidders and Special Conditions to execute the Agreement and furnish the required CONTRACTOR'S Performance BOND, Payment BOND and certificates of insurance, within five (5) business days from the date of this Notice to you.

If you fail to execute said Agreement and do not furnish said BONDS within five (5) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 2019.

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD for the Burlington Bike Path Phase 3a Rehabilitation project is hereby acknowledged.

By: _____ Date: _____

Title: _____

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AGREEMENT

THIS AGREEMENT, is made this _____ day of _____, 2019, by and between City of Burlington, hereinafter called the "OWNER" and _____ doing business as a corporation hereinafter called "CONTRACTOR". WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of the Burlington Bike Path Phase 3a Rehabilitation Project as described in the CONTRACT DOCUMENTS.
2. The CONTRACTOR will furnish all the material, supplies, tools, equipment, labor, traffic control measurements, and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the WORK required by the CONTRACT DOCUMENTS on the date of issuance of the NOTICE TO PROCEED and will substantially complete the work by November 15, 2019, unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
 - ***Substantial Completion is defined as the date when, in the opinion of the Resident Engineer, the work to be performed pursuant to the Contract has been sufficiently complete to enable use of the Project or facilities for the intended purpose.***The entire project must reach Final Completion prior to May 22, 2020.
4. The CONTRACTOR agrees to perform all the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein as shown in the BID schedule. The CONTRACTOR shall perform a minimum of 50% of the work with their own forces.
5. The term "CONTRACT DOCUMENTS" means and includes the following:
 - (A) ADVERTISEMENT FOR BIDS
 - (B) INSTRUCTIONS TO BIDDERS
 - (C) BID FORM
 - (D) BID BOND
 - (E) NOTICE OF AWARD
 - (F) AGREEMENT
 - (G) PERFORMANCE BOND
 - (H) PAYMENT BOND
 - (I) NOTICE TO PROCEED
 - (J) CHANGE ORDER
 - (K) CITY OF BURLINGTON – STANDARD CONTRACT CONDITIONS
 - (L) CITY OF BURLINGTON – SUPPLEMENTARY CONDITIONS
 - (M) CITY OF BURLINGTON – GENERAL SPECIFICATIONS
 - (N) SPECIAL PROVISIONS
 - (O) VTRANS 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION
 - (P) CITY OF BURLINGTON – LIVABLE WAGE ORDINANCE
 - (Q) CITY OF BURLINGTON – UNION DETERRENCE ORDINANCE
 - (R) CITY OF BURLINGTON – OUTSOURCING ORDINANCE
 - (S) DRAWINGS PREPARED BY VHB, NUMBERED 1 – 72, DATED MARCH 2019

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.
7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate, each of which shall be deemed an original on the date first above written.

OWNER: CITY OF BURLINGTON

Name _____

Signature _____

Title _____

(SEAL)

Attest _____

Name _____
(Please Type)

Title _____

CONTRACTOR:

Firm _____

Name and Title _____

Signature _____

Address _____

(SEAL)

Attest: _____

Name: _____
(Please Type)

Title _____

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**Certificate of Acknowledgment of Contractor
of a Corporation for
CONTRACT AGREEMENT**

State of (_____)

County of (_____) ss:

On this _____ day of _____, 2019,

before me personally came _____,

to me known, who being duly sworn did say as follows: that he/she

resides at _____

and is the _____

of _____, the corporation

described in and which executed the foregoing instrument; that he knows the corporate seal of said corporation; that the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation; and that by the like order he/she signed thereto his/her name and official designation.

Notary Public

(Seal)

My commission expires _____

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Performance Bond

KNOW ALL MEN AND WOMEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership or Individual)

and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

City of Burlington
(Name of Owner)

645 Pine St, Suite B, Burlington, Vermont 05401
(Address of Owner)

hereinafter called OWNER, and the in the aggregate penal sum of _____
_____ Dollars, \$(_____) in lawful money of the United States, for
the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors,
administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with
the OWNER, dated the ____ day of _____, 2019, a copy of which is hereto attached and
made a part hereof for the construction of:

The City of Burlington – Burlington Bike Path Phase 3a Rehabilitation.

NOW, THEREFORE, if the principal shall well, truly and faithfully perform its duties, all the undertakings,
covenants, terms, conditions and agreements of said contract during the original term thereof, and any
extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the
one year guaranty period, and if the PRINCIPAL shall satisfy all claims and demands incurred under such
contract, and shall fully indemnify and save harmless the OWNER and GOVERNMENT from all costs and
damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER and
GOVERNMENT all outlay and expense which the OWNER and GOVERNMENT may incur in making good any
default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the liability of the PRINCIPAL AND SURETY hereunder to the GOVERNMENT shall
be subject to the same limitations and defenses as may be available to them against a claim hereunder by

the OWNER, provided however, that the GOVERNMENT may, at its option, perform any obligations of the OWNER required by the contract.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than twenty percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND, the Contract or the Loan Documents shall include and alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in ____ (number) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 2019.

ATTEST:

Principal

(Principal Secretary)

(SEAL)

By: ____ (s)

Address: _____

Witness as to Principal

Address: _____

Surety

ATTEST:

By: _____
Attorney-in-Fact

Witness as to Surety

Address: _____

Address: _____

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570) as amended and be authorized to transact business in the State where the PROJECT is located.

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Payment Bond

KNOW ALL MEN OR WOMEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership or Individual)

and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

City of Burlington

(Name of Owner)

645 Pine St., Suite B, Burlington, Vermont 05401

(Address of Owner)

hereinafter called OWNER, and unto all persons, firms, and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____ 2019, a copy of which is hereto attached and made a part hereof for the construction of:

The City of Burlington – Burlington Bike Path Phase 3a Rehabilitation

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and for all labor costs incurred in such WORK including that by a SUBCONTRACTOR, and to any mechanic or materialman lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the SUBCONTRACTORS, and persons, firms, and corporations having a direct contract with the PRINCIPAL or its SUBCONTRACTORS.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) Unless claimant, other than one having a direct contract with the PRINCIPAL (or with the GOVERNMENT in the event the GOVERNMENT is performing the obligations of the OWNER), shall have given written notice to any two of the following: The PRINCIPAL, the OWNER, or the SURETY above named within ninety (90) days after such claimant did or performed the list of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer. (b) After the expiration of one (1) year following the date of which PRINCIPAL ceased work on said CONTRACT, is being understood, however, that if any limitation embodied in the BOND is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that this BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the Contract as so amended. The term "Amendment", wherever used in this BOND and whether referring to this BOND, the contract or the loan Documents shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER or GOVERNMENT and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in ____ (number) counterparts, each one of which shall be deemed an original, this, the _____ day of _____ 2019.

ATTEST:

Principal

(Principal Secretary)

(SEAL)

By: ____ (s)

Address: _____

Witness as to Principal

Address: _____

Surety

ATTEST:

By: _____
Attorney-in-Fact

Witness as to Surety

Address: _____

Address: _____

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570) as amended and be authorized to transact business in the State where the PROJECT is located.

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NOTICE TO PROCEED

To: _____ Date: _____
Contractor

Project: **City of Burlington – Burlington Bike Path Phase 3a Rehabilitation.**

You are hereby notified to commence WORK in accordance with the AGREEMENT dated _____ 2019, and you are to substantially complete the WORK prior to November 15, 2019, with Final Completion prior to May 22, 2020.

Owner: **City of Burlington**

Name: _____

Title: _____

Signature: _____

Date: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED
is hereby acknowledged.

Contractor: _____

Name: _____

Title: _____

Signature: _____

Date: _____

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CHANGE ORDER # _____

Project No. _____ Date: _____

Contract No. _____ Agreement Date: _____

CONTRACT TITLE: _____ ORIGINAL PRICE: _____

OWNER (GRANTEE): **City of Burlington** _____

CONTRACTOR: _____

The following changes are hereby made to the CONTRACT DOCUMENTS:

DESCRIPTION:

JUSTIFICATION:

PRICE:

Current Contract Price per most recent C.O. : \$ _____
This C.O. will (not change/increase/decrease)
the Contract Price by: \$ _____
The new Contract Price including this C.O. is: \$ _____

TIME:

Current Contract Calendar Days as per most
recent C.O.: DAYS _____
This C.O. will (not change/increase/decrease)
the Contract Calendar Days By: DAYS _____
The new Contract Calendar Days including this
C.O. is DAYS _____
The new Contract Completion Date is, therefore: _____
(Reflects increases or decreases in
Contract Time as authorized by this C.O.)

REQUESTED BY: _____
(Contractor, Owner, Engineer,)

SIGNATURES/APPROVALS:

Recommended by: _____

Accepted by: _____
(Contractor)

Ordered by: _____
(Owner)

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**General Contractor's or Subcontractor's
Release and Waiver of Lien**

For and in consideration of the receipt of \$ _____, in payment for labor and/or materials furnished, the undersigned does hereby waive, release and relinquish any and all claims, demands and rights of lien for all work, labor, materials, machinery or other goods, equipment or services done, performed or furnished for the construction located at the site hereinafter described, to wit:

Burlington Bike Path Rehabilitation Phase 3a – City of Burlington, VT
(Project Name and Owner)

_____, Vermont as of _____
(Date)

The undersigned further warrants and represents that any and all valid labor and/or materials and equipment bills, now due and payable on the property hereinabove described in behalf of the undersigned, have been paid in full to date of this waiver, or will be paid from these funds.

\$ _____
Total Paid to Date This Contract

Current Payment Due

\$ _____
Total Billed to Date This Contract

Contractor/Sub-Contractor

(Witness)

Contractor/Subcontractor

By: _____

(Witness)

Title: _____

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Certificate of Substantial Completion

Owner's Project No.: _____ Engineer's Project No.: _____

Project: _____

Contractor: _____ Contract Date: _____

Contract For: _____

Project or Specified Part Shall Include _____

DEFINITION OF SUBSTANTIAL COMPLETION

The date of Substantial Completion of a Project or specified part of a Project is the date when the construction is sufficiently completed, in accordance with the Contract Documents, so that the Project or specified part of the Project can be utilized for the purpose for which it was intended.

To: _____
(Owner)

And To: _____
(Contractor)

Date of Substantial Completion: _____

The Work performed under this contract has been inspected by authorized representatives of the Owner, Contractor and Engineer, and the Project is hereby declared to be substantially completed on the above date.

If a tentative list of items to be completed or corrected is appended hereto, the failure to include an item on it does not alter the responsibility of the CONTRACTOR to complete all the WORK in accordance with the Contract Documents and contract time.

Recommended by:

Engineer Authorized Representative Date

Approved by:

Owner Authorized Representative Date

The Contractor accepts the above Certificate of Substantial Completion.

Contractor

Authorized Representative

Date

Exceptions as to Guarantees and Warranties:

Attachments:

Certificate of Final Completion of Work

Contract No.: _____ Agreement Date: _____

Contract Description: _____

FINAL CERTIFICATION OF CONTRACTOR

I hereby certify that the WORK as identified in the Final Estimate of Payment for construction CONTRACT WORK dated _____, represents full compensation for the actual value of WORK completed. All WORK completed conforms to the terms of the AGREEMENT and authorized changes.

Date

CONTRACTOR: _____

Signature: _____

Title: _____

FINAL CERTIFICATION OF ENGINEER

I have reviewed the CONTRACTOR'S Final Payment Request dated _____ and hereby certify that to the best of my knowledge, the cost of the WORK identified on the Final Estimate represents full compensation for the actual value of WORK completed and that the WORK has been completed in accordance with the terms of the AGREEMENT and authorized changes.

Date

ENGINEER: _____

Signature: _____

Title: _____

FINAL ACCEPTANCE OF OWNER

I, as representative of the OWNER, accept the above Final Certifications and authorize Final Payment in the amount of \$ _____.

OWNER: _____

Date: _____

Authorized Representative: _____

Title: _____

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CITY OF BURLINGTON - SUPPLEMENTARY CONDITIONS

1. Maintenance of Traffic

Work shall be performed in accordance with all portions of Sections 104.04, excluding 104.04A(b) of the VTrans Standard Specifications.

2. Hours of Work

The CONTRACTOR is limited to working 7:00 AM to 4:00 PM, Monday through Friday and 7:00 AM to 4:00 PM, Saturday unless a waiver is requested in writing and is granted by the Owner.

3. Business/Driveway Access

The CONTRACTOR shall notify property owners or residents 24 hours in advance before blocking access to any drives. Access shall be provided to all drives during non-working hours. The Contractor shall maintain pedestrian access to homes and businesses at all times.

4. Construction Signing

The CONTRACTOR shall erect and maintain adequate construction signing for protection of the public on all Project streets and adjacent streets in accordance with Sections 104.04, 107.07, 107.08, and 107.09 of the VTrans Standard Specifications.

5. Dust Control

Work shall be performed in accordance with all portions of Sections 105.24 and 609 of the VTrans Standard Specifications.

6. Temporary Barricades

The CONTRACTOR shall provide and maintain temporary barricades in all locations where any hazard to the public may occur or as ordered by the OWNER or to protect public safety as described in portions of Section 107 of the VTrans Standard Specifications.

7. Maintenance of Utility Services

The CONTRACTOR shall maintain all existing utility services to homes at all times except during switch-overs from existing services to new services and cooperate with utilities as described in Sections 105.07 and 107.13 of the VTrans Standard Specifications.

8. Emergency Work

Prior to the start of construction, the CONTRACTOR shall submit a list of personnel authorized and capable to operate all necessary equipment, to be contracted on call, complete with telephone numbers and addresses, should any emergency work be required within the project limits during non-working hours. If the CONTRACTOR is not available to perform the required repairs, the municipality or its

assigns will perform the required work and reduce the Contract value by a like amount plus 15% administrative costs and all related expenses.

9. Explosive Materials and Use of Explosives

Work shall be performed in accordance with all portions of Sections 106.08, 107.11 and 107.12 of the VTrans Standard Specifications.

10. Utility Work

The CONTRACTOR must coordinate work and cooperate with Burlington Electric, Burlington Water, Burlington Telecom, Fairpoint, Comcast, Level 3, TelJet, and Vermont Gas, as needed. There may be an inspector from Burlington Electric Department on site, if needed.

Employees or agents of the above listed utility companies are to be allowed full and free access within the project limits with the tools, materials, and equipment necessary to install, operate, maintain, place, replace, relocate and remove their facilities. There will be no extra compensation paid to the CONTRACTOR for any inconvenience caused by working around and with the utility company. Should the CONTRACTOR desire additional adjustments of utility facilities for his or her convenience, proper arrangements shall be in conformance with subsection 105.07 and 107.13 of the VTrans Standard Specifications.

CITY OF BURLINGTON – GENERAL SPECIAL PROVISIONS

Standard Specifications. The provisions of the 2018 VTrans STANDARD SPECIFICATIONS FOR CONSTRUCTION, as modified herein, shall apply to this Contract unless they conflict with previously defined terms or provisions provided by the City of Burlington. In case of conflict, the City provisions shall govern.

Contract Completion Date. This Contract shall be substantially completed on or before November 15, 2019 per Substantial Completion in Agreement.

Utilities. The Contractor is advised to use caution when working around aerial or underground utilities to protect the facilities from damage.

Employees or agents of utility companies are to be allowed free and full access within the project limits with the tools, materials, and equipment necessary to install, operate, maintain, place, replace, relocate, and remove their facilities.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with the companies.

Act No. 86 of 1987 (30 VSA Chapter 86) ("Dig Safe") requires that notice be given prior to making an excavation. It is suggested that the Permit Holder or his/her contractor telephone 1-888-344-73 at least 48 hours before, and not more than 30 days before, beginning any excavation at any location.

Should the Contractor desire additional adjustments of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.07 of the Standard Specifications for Construction.

Notice to Bidders. All temporary construction signs shall meet the following requirements:

- A. All sign stands and post installation shall be National Cooperative Highway Research Program Report (NCHRP) 350 compliant.
- B. As a minimum, roll up sign material shall have ASTM D 4956-01 Type VI fluorescent orange retro-reflective sheeting.
- C. All post-mounted signs and solid substrate portable signs shall have ASTM D 4956-01 Type VII, Type VIII, or Type IX fluorescent orange retro-reflective sheeting.
- D. All retro-reflective sheeting on traffic cones, barricades, and drums shall be at a minimum ASTM Type III sheeting.
- E. All stationary signs shall be mounted on two 4.5 kg/m (3 lb/ft) flanged channel posts or 51 mm (2 inch) square steel inserted in 57 mm (2 ¼") galvanized square steel anchors. No sign posts shall extend over the top edge of sign installed on said posts.
- F. Prior to placing temporary work zone signs on the project, the Contractor must furnish for the Engineer's approval a detail for temporary work zone signs on steel posts showing stubs projecting a maximum of 100 mm (4 inches) above ground level and bolts for sign post.

- G. Construction signs shall be installed so as to not interfere with nor obstruct the view of existing traffic control devices, stopping sight distance, and corner sight distance from drives and town highways.

All retro-reflective sheeting on permanent signs (signs to remain after the project is completed) shall be at a minimum ASTM Type III sheeting, unless otherwise shown on the Plans.

Construction Vehicle Parking Restrictions. Only such trucks and equipment as are necessary for the construction of this project will be permitted to stop or park on the shoulders or right-of-way of City roadways. All trucks or equipment so stopped or parked shall be at least 4 feet from the edge of the thru traffic lanes. Parking or stopping on the traveled portion of the roadway will not be permitted unless authorized by the Engineer to meet field conditions.

Private automobiles or workers will not be permitted to stop or park on the shoulders or right-of-way of the highway.

Each of the Contractor's trucks or equipment used for the construction of this project and permitted to park or stop as provided above shall be equipped with flashing light signals on the front and rear and the signals shall be operating at all times when parked or stopped on the highway unless otherwise authorized by the Engineer.

The flashing light signals shall be visibly distinct from and physically separate from the hazard warning system required by Federal and State motor vehicle laws and regulations. At least one of these flashing light signals shall be visible to traffic approaching from any angle at all times.

Qualified traffic control personnel shall be employed whenever the Contractor's vehicles or equipment (including that which belongs to the individual workers) enter or leave the traffic flow. All movement, in or out of the traffic flow, shall be with the flow of traffic.

SECTION 101 – Definitions and Terms

101.02, Definitions, are hereby modified by deleting the existing definitions and replacing as follows:

Actual Completion Date – Date noted in the Completion and Acceptance memorandum on which designated responsible Municipal personnel have reviewed the project and determined that all Contract work is complete and all Contract requirements have been met, generally considered to be the last day the Contractor performed physical work on any contract item.

Agency – Wherever the word Agency appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the **City of Burlington** except when referenced to documents or publications.

Board – Wherever the term Board or Transportation Board appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Transportation Board of the State of Vermont or its successor.

Chief of Contract Administration – Wherever the term Chief of Contract administration appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean the City of Burlington's Director of Parks, Recreation & Waterfront.

Construction Engineer – Wherever the term Construction Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Resident Engineer and/or Full Time City Employee in Responsible Charge.

Director of Project Development – Wherever the terms Director of Project Development, director of Engineering and Construction, Director of Construction and Maintenance, Director, or Chief Engineer appears on the plans, in any specification, or in the Contract, they shall be read as and shall mean; the City of Burlington's Director of Parks, Recreation & Waterfront.

Director of Program Development – Wherever the term Director of Program Development appears on the plans, in any specification, or in the contract it shall read as, and shall mean; The City of Burlington's Director of Parks, Recreation & Waterfront.

Engineer – Wherever the term Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Resident Engineer (RE).

Final Acceptance Date – Wherever the term Final Acceptance Date appears on the plans, in any specification, or in the Contract, it shall mean the date that **City of Burlington** signs the Final Completion Certificate.

Materials and Research Engineer – Whenever the term Materials and Research Engineer appears on the plans, in any specification, or in the Contract, it shall be read as, and shall mean; Resident Engineer.

Proposal Form – Whenever the term Proposal Form appears on the plans, in any specification, or in the Contract it shall be read as, and shall mean; the BID FORM unless specifically referenced otherwise in these Special Provisions.

Regional Construction Engineer – Whenever the term Regional Construction Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Resident Engineer.

Secretary – Wherever the term Secretary appears on the plans, in any specification, or in the contract it shall be read as, and shall mean; the **City of Burlington**.

State – Wherever the term State appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the **City of Burlington**.

ADD the following definitions:

Addendum (Addenda) – Contract revisions developed after advertisement and before opening bids.

Advertisement – A public announcement, inviting bids for work to be performed or materials to be furnished.

Agreement – The written instrument which is evidence of the agreement between **City of Burlington** and the Contractor.

Award – The formal acceptance by **City of Burlington** of a proposal.

Calendar Day – Any day shown on the calendar, beginning and ending at midnight.

Change Order – A document recommended by the Engineer, signed by the Contractor and **City of Burlington** authorizing changes in the plans or quantities or both, within the scope of the Contract, establishing the basis of payment and time adjustments for the Work affected by the changes.

Consultant Engineer – Whenever the term Consultant Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the registered engineer or specialist who acts for a client or owner.

Completion – Completion of the project occurs when the Contractor has completed all work required by the Contract and has satisfactorily executed and delivered to the Engineer all documents, certificates and proofs of compliance required by the contract.

Contract – The written agreement between **City of Burlington** and a contractor setting out the obligations of the parties to the contract for the performance of the work described therein.

General Special Provisions – Approved additions and revisions to the Standard Specifications for Construction.

Incidental and Incidental Item – These terms are used to indicate work for which no direct payment will be made. Such work is incidental to items having contract prices, and the bid prices submitted by the contractor shall be sufficient to absorb the cost of all work designated as incidental or as incidental items.

Resident Engineer – An entity employed by **City of Burlington** to perform supervisory duties including the oversight of testing services on the project.

Invitation for Bids – An advertisement for receiving proposals for all work and/or materials on which bids are invited from prospective contractors.

Local Project Manager – A person or firm employed or appointed by **City of Burlington** to provide administrative services for the project.

Owner – **City of Burlington**

Prequalification:

Annual Prequalification – The Agency of Transportation process by which an entity is generally approved to bid on contracts advertised by the Local Project Sponsor. Depending on the project size annual prequalification may be the only prequalification necessary.

Prequalification Administrator – An Agency of Transportation employee charged with administration of the prequalification process for the Prequalification Committee.

Proposal – The offer of a bidder, on the prescribed form, to perform work and/or provide materials at the price quoted in the offer.

Special Provisions – Additions and revisions to the Standard Specifications for Construction, Supplemental Specifications, General Special Provisions, Plans, or other documents that are part of a particular contract.

Standard Specifications – The Vermont Agency of Transportation book entitled 2018 Standard Specifications For Construction and the specifications included therein, as approved for general and repetitive use and application in Agency/Municipal projects.

Surety – An individual or legal entity acceptable to **City of Burlington** executing the bond or bonds furnished by the bidder or contractor.

Testing Firm – An independent firm employed by **City of Burlington** or Resident Engineer to perform all sampling and testing of materials as specified in the Contract Documents.

Work – The furnishing of all labor, materials, equipment, and incidentals necessary or convenient to the successful completion of a project and the carrying out of all duties and obligations imposed by a contract.

Working Day – A calendar day during which normal construction operations could proceed for a major part of the daylight hours, and specifically excluding Sundays, and those days of the standard work week on which holidays are celebrated.

The following sections represent modifications to the VTrans 2018 Standard Specifications for Construction:

Section 105 – Control of the Work

105.03, Plans and Working Drawings, paragraph 1, part (b) Working Drawings, and subpart (3) Categories of Working Drawings, a. Fabrication Drawings, and subpart b. Construction Drawings; where the Structures Engineer is mentioned it shall mean the BPRW Director not the Agency's Structures Engineer. In addition, Construction drawings under Section 501A and 510A normally submitted to the Construction Engineer shall be submitted to both the Resident Engineer and the BPRW Director not the Agency's Structures Engineer.

The address where these drawings should be sent is:

Cindi Wight
Director and Harbormaster
Burlington Parks, Recreation & Waterfront
645 Pine Street
Burlington, VT 05401
Telephone: 802-864-0123

105.09, Construction Stakes, Part (a) Initial Layout, (b) Permanent Marking Layout delete these paragraphs in their entirety and replace with the following:

Horizontal and vertical control information for the project shall be provided in accordance with the City of Burlington General Conditions, Section 10 SURVEY, PERMITS, REGULATIONS. The Contractor will be responsible for the accuracy and preservation of the staking.

105.20 Claims for Adjustments, (a) Claims Process - In General; Delete the second, third and fourth sentence and replace with the following:

Claims must be evaluated first by the Engineer and then by the Local Project Manager. Should a claim be ruled in favor of the Contractor, it will be allowed, in whole or in part, and paid as provided in the Contract. Should a claim be denied in whole or in part by the Local Project Manager the Contractor may appeal to the governing body of the project sponsor. Should a claim be denied in whole or in part by the governing body of the project sponsor, the Contractor may appeal to the Director of Program Development.

(e) Claims Documentation Requirements; in the first sentence, replace Construction Engineer with Local Project Manager.

Section 106 – Control of Material

106.03 Samples and Tests, Add the following two paragraphs to the beginning:

A qualified independent testing firm hired directly by **City of Burlington** or indirectly by **City of Burlington** through its Resident Engineer shall be responsible for all acceptance sampling and testing of materials and completed work.

The Contractor shall be responsible for their Quality Control. The cost of their Quality Control shall be considered incidental to the payment items in the bid. Any sampling, testing, retesting, and submission of reports and certifications by the Contractor as required by the contract documents and plans shall be considered incidental to the payment items in the bid.

Change the last word in the first paragraph from Agency to **City of Burlington**.

Delete the first sentence of the second paragraph and replace with the following:

Samples will be taken and testing performed by qualified personnel of the testing firm in accordance with the requirements of the latest edition of the Vermont Agency of Transportation's Quality Assurance Program and Material Sampling Manual for Level 3.

http://vtransengineering.vermont.gov/sites/aot_program_development/files/documents/materialsandresearch/MandR2010_MSM_Final_030110.pdf

Modify the last sentence of the third paragraph to read as follows:

Copies of all test results shall be forwarded directly to the Resident Engineer and the Contractor by the testing firm.

Section 108 – Prosecution and Progress

108.12 Failure to Complete Work on Time. Add the following sentence after the last sentence of paragraph (c)

“Reference Section 15 of the General Conditions provided by the City of Burlington for additional detail on liquidated damages.”

Section 641 – Traffic Control

Supplemental Information: The Contractor is hereby advised that, due to certain permitting restrictions, no construction will be allowed along the Barge Canal until after August 22, 2019.

The anticipated sequence of construction is as follows:

1. Construct Segment 0 (Queen City Park Road to Home Avenue)
2. Construct the path improvements within Segments 1 and 2 (Proctor Place and Harrison Avenue)
3. Construct the path north of the Barge Canal Bridge, excluding the mill/fill of the Perkins Pier area.
4. Construct the path along the Barge Canal
5. Construct the mill/fill of the Perkins Pier area.

The Contractor may stage construction with additional phases or different sequences with the approval of the Resident Engineer, and as allowed under the project permits.

Section 651 – Turf Establishment

Section 651.03 - Add the following after the last paragraph:

Submit certificates of inspection required by law for transportation to the Resident Engineer. Inspection by governmental officials at point of origin does not preclude rejection of materials at project site.

Samples and Product Data: Prior to delivery to site, submit samples, test data, and manufacturers' literature for the following items:

1. Organic Amendments: 1 pint for each type
2. Topsoil: ½ pound
3. Soil Mixes: ½ pound for each type
4. Sand: ½ pound
5. Chemical Additives: 1 pint for each type

Labeling: Furnish standard products in unopened manufacturer's standard containers bearing original labels showing quantity, analysis and name of manufacturer.

Storage: Store products with protection from weather or other conditions which would damage or impair the effectiveness of the product.

Testing of Materials: Obtain an agricultural suitability analysis of the soil from an accredited soils laboratory at the contractor's cost. The analysis shall verify the suitability of the existing soils, analyze the soil texture, organic and chemical qualities and recommend additional soil amendments beyond those specified. Additional amendments recommended by the analysis beyond those specified shall be an additional cost. A minimum of three (3) samples shall be taken from the site. Submit soils analysis and recommendations to the Resident Engineer for acceptance. Amend topsoil per accepted soils analysis report.

The soil amendments currently specified will be the minimum incorporated. Remove rejected materials immediately from the site at Contractor's expense. Contractor shall pay cost of all on-site soil testing and of materials not meeting specifications.

Moisture Content: Do not work soil when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in air or that clods will not break readily. Apply water, if necessary to bring soil to an optimum moisture content for tilling and planting. Maintain within 2 percent above or below optimum moisture content at all times during the work.

Clearing of Debris: Clear all planting areas of stones 2 inches in diameter and larger, weeds, debris and other extraneous materials prior to amending existing soil and incorporating imported topsoil.

Cultivation: Rip or cultivate all areas to be soil conditioned to a depth of 6 in. for all lawn and grass area and 18" for all perennial and ground cover immediately prior to amending existing soil.

Trees to Remain: Hand cultivate within the dripline of existing trees to remain. Depth of cultivation shall not exceed 2 inches. Cultivate immediately prior to amending existing soil.

Notification: Submit to the Resident Engineer in writing all soils or drainage conditions considered detrimental to growth of plant materials. State condition and submit proposal and cost estimate for correcting condition.

Section 651.04 – Add the following after the last paragraph:

Responsibility:

1. Contractor shall be responsible for proper repair to landscape, utilities, fences, pavements and other site improvements damaged by seeding operations under this Section.
2. Contractor shall pay for repairs to existing site improvements damaged during construction at no cost to the Owner.
3. Contractor shall identify prepared sod areas requiring protection and shall provide traffic control.

Clearing: Prior to any soil preparation, existing vegetation not to remain and which might interfere with the specified soil preparation shall be mowed, grubbed, raked, and the debris removed from the site. Prior to or during grading or tillage operations, the ground surface shall be cleared of materials which might hinder final operations.

Seeding Areas: Remove weeds, debris, rubble, rocks, and plant material larger than 1/2" not scheduled to remain.

Repair: Re-establish grade and specified conditions to existing or damaged sod areas prior to placing sod. Provide smooth grade transitions at interface with existing sod areas.

Fine Grading: Perform as required to maintain positive drainage, prevent ponding and direct run-off into catch basins, drainage structures, etc., and as required to provide smooth well-contoured surface prior to proceeding. Tolerance: +/-0.10 ft.

Prior to seeding low maintenance grasses, irrigate for a minimum of three weeks to allow germination of weed seeds.

Turf Soil Preparation: Spread the following amendments over the entire irrigated turf and incorporate into the top four inches of soil by discing or roto-tilling until a uniform mixture is obtained with no pockets of soil or amendments remaining. Fertilizer and conditioners shall be applied as required by test results of topsoil. A starter fertilizer made up of nitrogen and phosphorus shall be applied at the time of seeding. Acceptable ratios include 1-2-1, 1-3-1, 1-4-2, or 1-5-0.

Subsequent Applications: Distribute fertilizer uniformly at a rate of 1 lb. actual nitrogen per 1,000 S.F. using 20-5-10 with at least 50% Sulfur coated Urea. (Note: This fertilizer application only applies if project has not been accepted by the Resident Engineer by this date).

Section 651.05(a) – Replace the entire Section with the following:

Topsoil –

- A. General Qualifications: Use as a planting medium for the project only fertile, friable, well-drained soil, of uniform quality, free of stones over 1 in. diameter, sticks, oils, chemicals, plaster, concrete, pests and infestations and other deleterious materials. Conduct soil analysis and submit soil analysis as indicated above in "Testing of Material" for imported topsoil.
 - 1. Spread topsoil to achieve a uniform depth of 6" for lawn areas.
 - 2. Apply topsoil using a hand roller to lightly compact topsoil.
 - 3. Confirm topsoil meets all testing requirements.
- B. Organic Matter: All topsoil shall be tested and have a minimum organic matter content of 2.5%. Contractor shall amend topsoil that does not meet this requirement and retest at contractor's cost.
- C. Samples: The Resident Engineer reserves the right to take samples of imported topsoil delivered to the site for conformance to the Specifications and have it tested at the Contractor's expense.
- D. Rejected Topsoil: Immediately remove rejected topsoil off the site at Contractor's expense.
- E. Stockpiling: If stockpiling is requested, locations and amounts of stockpiles will be designated by the Resident Engineer.

Fine Sand –

A. Physical Properties (dry weight basis):

Percent Passing	Sieve Size
100	4.76 mm (4, 4 mesh)
95-100	1.00 mm (#18, 16 mesh)
65-100	500 micron (#35, 32 mesh)
0- 50	250 micron (#60, 60 mesh)
0- 20	105 micron (#140, 150 mesh)
0- 5	53 micron (#270, 270 mesh)

B. Chemical Properties:

1. Salinity: The saturation extract conductivity shall not exceed 3.0 milliohms/cm @ 25 degrees C.
2. Boron: The concentration in the saturation extract shall not exceed 1.0 ppm.
3. Sodium: The sodium absorption ratio (SAR) as calculated from analysis of the saturation extract shall not exceed 6.0.

Chemical Additives –

The following additives may or may not be used depending on the outcome of the soil's agricultural suitability report.

- A. Ground Limestone: Agricultural limestone containing not less than 85% of total carbonates, ground to such fineness that 50% will pass #100 sieve and 90% will pass #20 sieve.
- B. Dolomite Lime: Agricultural grade mineral soil conditioner containing 35% minimum magnesium carbonate and 49% minimum calcium carbonate, 100% passing #65 sieve. "Kaiser Dolomite 65 AG" as manufactured by Kaiser, Inc. Mineral Products Department, or equal.
- C. Gypsum: Agricultural grade product containing 80% minimum calcium sulphate.
- D. Iron Sulfate (Ferric or Ferrous): Supplied by a commercial fertilizer supplier, containing 20% to 30% iron and 35% to 40% sulphur.
- E. Sulphate of Potash: Agricultural grade containing 50% to 53% of water-soluble potash.
- F. Single Superphosphate: Commercial product containing 20% to 25% available phosphoric acid.
- G. Ammonium Sulphate: Commercial product containing approximately 21% ammonia.
- H. Ammonium Nitrate: Commercial product containing approximately 34% ammonia.
- I. Calcium Nitrate: Agricultural grade containing 15-1/2% nitrogen.
- J. Urea Formaldehyde: Granular commercial product containing 38% nitrogen.
- K. I.B.D.U. (Iso-Butyldiene Diurea: Commercial product containing 31% nitrogen.

Section 651.06(a)(1) - Add the following after the last paragraph:

Seed Materials: Subject to inspection and acceptance. Resident Engineer reserves the right to reject prior to acceptance, any work and seed materials which in the opinion of the Resident Engineer fails to meet the specifications. Deliver seed to site in original unopened container bearing manufacturer's guaranteed seed analysis, name, trade name, trademark, warranty and conformance to state law.

1. Material shall be inspected by the Resident Engineer upon arrival at job site. Primarily for quality; however, other requirements are not waived even though visual inspection results in acceptance. Inspection will be made daily during seeding operations, at completion and at end of warranty period by Resident Engineer.
2. Store seed in cool, dry place prior to application.
3. Unacceptable materials shall be immediately removed from job site.

Seed material shall consist of the following, and be manufactured by the L.D. Oliver Seed Company.

1. Ornamental Mix: 40% fescue, 30% Kentucky Bluegrass, 30% perennial ryegrass
2. Conservation Mix: 5% Micro-clover, 5% Birds Foot Trefoil, 65% Fine Fescue (20% Chewings, 25% Strong, 10% Slender, 10% Hard), 20% Perennial Rye Grass, 5% Colonial Bentgrass

Seed Certificates: State, Federal and other inspection certificates shall accompany the invoice for materials showing source or origin. Submit to Resident Engineer prior to acceptance of material.

Notification: Give notice requesting inspection by Resident Engineer at least 7 days prior to the anticipated date of completion. All sod must be alive and healthy in order to be considered complete.

Maintenance: The maintenance period shall begin immediately after each area is seeded and continue until final acceptance of entire project, which is one year from date of accepted substantial completion. During this time, the Contractor shall be responsible for watering, mowing, spraying, weeding, aerating, fertilizing, and all related work as necessary to ensure that seeded areas are in a vigorous growing condition. Furnish all supervision, labor, material and equipment to maintain turf areas, including winterization and start-up procedures. Seed shall be visibly germinated in twenty days, with 50% coverage in 45 days and 90% coverage in 60 days. Any deficiency shall be reseeded and fertilized with starter fertilizer until a suitable coverage is achieved.

Watering: Initially water seeded areas upon completion of convenient work areas until installation is complete. Water seeded areas sufficiently to moisten subsoil at least 4" deep in a manner not to cause erosion or damage to adjacent finished surfaces. Water shall be free of substances harmful to plant growth. For frequency of watering, see the Landscape Maintenance specification.

Fertilizers: Deliver inorganic or chemical fertilizer to site in original unopened container bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark, warranty and conformance to state law. Furnish delivery receipts for all organic and chemical fertilizers used to the Resident Engineer.

1. Material shall be inspected upon arrival at job site.
2. Immediately remove unacceptable material from job site.

If work has not received final acceptance within 45 days after initial fertilizer application to seeded

areas, repeat fertilizer application to maintain optimal vigor.

Mowing and Trimming: Mow and trim around trees (keeping mulch in saucers and beds), walls, fences, etc., maintaining turf at 2" to 2-3/4" height. Do not remove more than 33% of grass leaf in single mowing. Remove grass clippings from pavement areas.

Re-seeding: All seeded grass areas are to be assured of obtaining a satisfactory stand of growth. The total area occupied by bare spots larger than 0.5 square feet must not exceed ten percent (10%) of the total seeded area. Maximum single bare spot size of non-irrigated seed is two (2) square feet. All seeded grass areas which do not meet the satisfactory stand of growth qualification shall be reseeded with additional straw mulch applied by mechanical crimper. Re-seed areas in May following initial seeding that in the opinion of the Resident Engineer are not adequately established.

After one growing season, there shall be no visual difference between seed and healthy non-irrigated seed areas.

Insect and Disease Control: As required, using insecticides and fungicides approved by Owner.

Section 656 – Planting Trees, Shrubs and Vines

Replace Section 656 Planting Trees, Shrubs and Vines, in its entirety, with the following:

PART 1 - GENERAL

1.01 DESCRIPTION

This work shall consist of furnishing, transporting, planting, and transplanting various size trees, shrubs, vines, perennials, and ground cover plants.

1.02 QUALITY ASSURANCE

A. Certificates:

1. Submit certificates of inspection as may be required by local law for transportation of each shipment of plants along with invoice to the Resident Engineer. Inspection by Federal or State Governments at place of growth does not preclude rejection of plants at project site.

B. Applicable Standards: Apply standards for plant materials as described in the following:

1. "American Standard for Nursery Stock," May 2, 1986 Edition, American Association of Nurserymen, Inc. This Section shall supersede these criteria in the event of contradiction or ambiguity.
2. Hortus III - 1976 Edition, Bailey Hortorium, Cornell University.

1.03 PROTECTION OF EXISTING PLANTS TO REMAIN

A. General:

1. Contractor shall make every effort to minimize or prevent tree damage that may result from proposed construction activities.
2. Trees to be saved are identified in the Drawings. Contractor shall not damage or remove

these trees without written authorization by the Resident Engineer. Additional trees not shown on the Drawings may be identified during construction.

B. Soil Compaction:

1. To prevent soil compaction, designated routes for equipment and foot traffic by work crews shall be predetermined prior to commencing construction activities. These routes shall be marked at the site, before construction commences, with durable fencing material that is a minimum of four feet in height (flagging tape or any other material that may be torn down, moved, or accessed through is not acceptable).
2. It shall be the responsibility of the project supervisor to inform all construction crew members of access route location, and to ensure that only these routes are used.
3. To prevent tree root smothering, soil, supplies, equipment or any other material shall not be piled within dripline. Material shall not be placed within dripline or less than 15 feet from trunk, whichever is greater, of pyramidal or columnar shaped trees.
4. No heavy objects such as wood pallets, metal railings, etc., shall lean against or come into contact with the tree trunk.

C. Tree Fencing:

1. Fencing material shall encircle any tree whose outer dripline edge is within 20 feet of any construction activities.
2. Fencing material shall be a bright, contrasting color, durable, and a minimum of four feet in height (See Figure 2). Posts used shall be comparable to metal T-post or heavier weight, and placed to a depth or no less than two feet below ground level.
3. Fencing material shall be placed at the drip line or 15 feet from tree trunk, whichever is greater, and maintained in an upright position throughout the duration of construction activities.

D. Attachment of Foreign Materials to Trees: The attachment or installation to trees of any metal material, sign, cable, wire, nail, swing, or any other material that is foreign to the natural structure of the tree, is prohibited. Standard arboricultural techniques (such as bracing and cabling) that are performed by tree professionals are excepted.

E. Maintenance Requirements:

1. Additional maintenance may be required by Contractor for all existing trees in close proximity to construction activities to reduce stress related tree problems.
2. Root Protection:
 - a. Trees having roots cut between the months of March and August may be required to receive supplemental deep root watering once per week for a minimum of two months after the date of the root cut. When roots are cut between September 1 and October 15, supplemental watering is needed once per week until October 31.
 - b. Tree roots shall not be fertilized for a period of one year following the cessation of construction activities.
3. Compaction Mitigation:
 - a. Soil around tree drip line shall be aerated before and after construction activities. This is necessary even when compaction results from heavy foot traffic. Conventional turf aeration equipment is acceptable, although the Resident Engineer may approve deeper

- aeration.
- b. When foot traffic or equipment use is unavoidable within the drip line, the area within drip line shall be mulched with wood chips to a depth of six inches prior to construction activity. Six-inch mulch depth shall be maintained for the duration of the project, and shall be removed upon completion.
- 4. Pruning: No pruning shall occur during or after construction activities except for the removal of dead or damaged branches, or to prevent branch damage. Pruning of healthy branches shall be delayed for a period of two years.

1.04 SUBMITTALS

- A. Samples: Submit prior to delivery to site. Attach product name, address of manufacturer and/or supplier to each sample.
 - 1. Mulch: One (1) pint.
 - 2. Nylon Tree Strap: One (1)

1.05 SELECTION, TAGGING AND ORDERING OF PLANT MATERIAL

- A. Documentation: Submit documentation within 60 days after Notice to Proceed that all plant materials have been ordered. Arrange procedure for review of plant materials at time of submission.
- B. Review: Request for review of plant materials and quantity at place of growth or from nursery shipment site at least 7 days in advance of shipping to site. Right is reserved to refuse review at this time if, in Resident Engineer's judgment, a sufficient quantity of plants is not available.
- C. Transportation: Contractor shall accompany Resident Engineer to all review(s) of plant materials at the nursery. Resident Engineer will review and tag plants at place of growth and upon delivery for conformity to specifications.
- D. Distant Material: Submit photographs with a person adjacent to plants for preliminary review. Such review shall not impair the right of review and rejection during progress of the work.
- E. Unavailable Material: If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of Contract price. Substantiate such proof in writing no later than 20 days after award of contract. Approval of late substitutions is at the sole discretion of the Resident Engineer.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Labeling: Furnish products in manufacturer's standard containers bearing original labels legibly showing quantity, analysis, genus/species and name of manufacturer/grower.

- B. Storage: Store products with protection from weather or other conditions that would damage or impair the effectiveness of the product. Protect metal containers from sun during summer months with temperatures above 80 degrees F. Protect plants from sun or drying winds. Keep plants that cannot be planted immediately upon delivery in the shade, well-protected and well-watered. Heel in and protect with burlap all B&B plant materials which cannot be planted upon delivery.
- C. Handling: Do not lift or handle container plants by tops, stems or trunks at any time. Do not bind or handle plants with wire or rope at any time.
- D. Anti-Desiccant: At Contractor's option, spray all evergreen or deciduous plant material in full leaf immediately before transporting with anti-desiccant. Apply an adequate film over trunks, branches, twigs and foliage.
- E. Digging: Dig ball and burlap plants with firm, natural balls of earth of diameter not less than that recommended by USDA Standard for Nursery Stock, and of sufficient depth to include the fibrous and feeding roots.

1.07 ANALYSES OF SAMPLES AND TESTS

- A. Sampling: Right is reserved to take and analyze samples of materials for conformity to specifications at any time. Furnish samples upon request.
- B. Rejected Materials: Remove rejected materials immediately from the site at Contractor's expense. Pay cost of testing of materials not meeting specifications.

1.08 MAINTENANCE PERIOD AND FINAL ACCEPTANCE

- A. Work Included specifically included for maintenance includes:
 - 1. Watering, pruning, weed control and replacement of mulch for trees, shrubs, groundcovers, and perennials.
 - 2. Mowing, edging, fertilization, watering and weed control within turf areas.
 - 3. Winter watering as required.
 - 4. Monthly site inspection of potential insect, pest and disease problems and filing of monthly status report.
 - 5. Weekly clean-up of trash, litter and debris.
- B. Work which may be required under this Section, but which if required will be considered a claim for extra work (see General Conditions), include the following:
 - 1. Insect, pest and disease control.
 - 2. Plant replacement due to theft, vandalism, or accidental damage by others after final acceptance. (Supplemental unit prices will apply for one (1) year following final acceptance).
 - 3. Repair of damages to the irrigation system which have not been caused by Contractor's maintenance practices or negligence.

C Work Force

1. Experience: The landscape maintenance firm shall have a full-time foreman assigned to the job for the duration of the contract. He shall have a minimum of four years' experience in landscape maintenance supervision, with experience or training in entomology, pest control, soils, fertilizers and plant identification.
2. Labor Force: The landscape maintenance firm's labor force shall be thoroughly familiar and trained in the work to be accomplished.
3. Supervision: The foreman shall directly supervise the work force at all times. Notify Resident Engineer of all changes in supervision.
4. Identification: Provide proper identification at all times for landscape maintenance firm's vehicles and labor force.

D. Submittals - Submit copies each of the following items to the Resident Engineer:

1. Schedule of maintenance operations and monthly status report including list of all equipment and materials proposed for the job.
2. All licenses and insurances required by the local governing authority and the State of Vermont pertaining to this work.
3. Monthly record of all herbicides, insecticides and disease control chemicals used for the project.

E. Project Conditions

1. Site Visit: At beginning of maintenance period, visit and walk the site with the Resident Engineer to clarify scope of work and understand existing project/site conditions.
2. Documentation of Conditions: Document general condition of existing trees, shrubs, vines, groundcovers and lawn recording all plant materials which are damaged or dying, if any.

F. Scheduling

1. Perform all maintenance during hours mutually agreed upon between City and Contractor.
2. Work force shall be present at the project site at least once a week and as often as necessary to perform specified maintenance in accordance with the approved maintenance schedule.

G. Fertilizers

1. Provide fertilizers from one of the following manufacturers:

Sierra Chemical Company
1001 Yosemite Drive
Milipitas, CA 95035
(408) 263-8080

W.R. Grace and Co.
Agricultural Chemicals
Group Memphis, TN 38101

BFC Chemicals, Inc.
Wilmington, DE 19805

EarthWorks
30 Morgan Hill Rd
Easton, PA 18042
620-250-9560

Lebanon Turf
1600 E. Cumberland St.
Lebanon, PA 17042
1800-233-0628

Green Mountain Fertilizer (GMF)
26 Sunset Ave.
Milton, VT 05468

Or Approved Equal Product

2. Tightly-compressed, slow-release and long-lasting complete fertilizer tablets bearing manufacturer's label of guaranteed analysis of chemicals present.
3. Balanced, once-a-season application controlled-release fertilizers with a blend of coated prills which supply controlled-release nitrogen, phosphorus and potassium, and uncoated, rapidly soluble prills containing nitrogen and phosphorous.

H. Execution

1. Duration: Continuously maintain each plant and each portion of groundcover area after installation, during progress of work, and for a period of 90 days after completion of all planting work following Final Acceptance.
2. Protection:
 - a. Protect all planting areas from damage of all kinds from beginning of work until Final Acceptance.
 - b. Maintenance includes temporary protection fences, barriers and signs as required for animal protection.

I. Replacements

1. Immediately treat or replace plants which become damaged or injured due to Contractor's operations or negligence, as directed by Resident Engineer at no additional cost to Owner.
2. Replacement plants shall be of acceptable size, condition and variety.

J. Watering Basins

1. Maintain all watering basins around plants so that enough water can be applied to establish moisture through major root zones.
2. For supplemental hand watering, use a water wand to break the water force. Do not permit crown roots to become exposed to air through dislodging of soil and mulch.
3. Water as frequently as necessary to maintain healthy growth of trees. The amount and frequency of irrigation will depend on several factors, amount of rainfall, daily temperatures,

- wind conditions, moisture-holding capacity of soil, and drainage.
4. Maintain original depth of mulch to reduce evaporation and frequency of watering.
 5. In rainy season, open basins to allow surface drainage away from the root crown where excess water may accumulate. Restore watering basins at end of rainy season.
- K. Resetting - Reset plants to proper grades or upright position.
- L. Weed Control
1. All areas between plants, including watering basins, shall be weed free.
 2. Control weeds through proper cultural practices including cultivation, hand removal and hoeing, being careful to avoid damage to plant material.
 3. Proceed with the application of pre-emergent and selective systemic herbicides only at the approval of the Owner's Representative.
- M. Pruning
1. Prune trees to select and develop permanent scaffold branches that are smaller in diameter than the trunk or branch to which they are attached, and which have vertical spacing of 18 in. to 48 in. in radial orientation so as not to overlay one another.
 2. Prune trees to eliminate diseased or damaged growth, and narrow V-shaped branch forks that lack strength. Reduce toppling and wind damage by thinning out crowns.
 3. Prune trees to maintain growth within space limitations, maintaining a natural appearance and balancing crown with roots.
 4. Stripping of lower branches ("raising up") of young trees will not be permitted.
 5. Retain lower branches in a "tipped back" or pinched condition to promote caliper trunk growth (tapered trunk). Do not cut back to fewer than six buds or leaves on such branches. Only cut lower branches flush with the trunk after the tree is able to stand erect without staking or other support.
 6. Thin out and shape evergreen trees when necessary to prevent wind and storm damage. Do primary pruning of deciduous trees during the dormant season. Do not permit any pruning of trees prone to excessive "bleeding" during growth season.
 7. Prune damaged trees or those that constitute health or safety hazards at any time of year as required.
 8. Make all cuts clean and close to the trunk, without cutting into the branch collar. "Stubbing" will not be permitted. Cut smaller branches flush with trunk or lateral branch. Make larger cuts (1 in. in diameter or larger) parallel to shoulder rings with the top edge of the cut at the trunk or lateral branch.
 9. Branches too heavy to handle shall be precut in three stages to prevent splitting or peeling of bark. Make the first two cuts 18 in. or more from the trunk to remove the branch. Make the third cut at the trunk to remove the resulting stub.
 10. Do not prune or clip shrubs into balled or boxed forms unless specifically called for by design.
- N. Staking or Guying of Trees
1. Inspect stakes and guys at least once a month to check for rubbing that causes bark wounds.
- O. Maintenance of Existing Trees and Shrubs to Remain
1. General: Conform to all applicable paragraphs regarding pruning, watering, spraying and

- fertilizing of new plant materials as specified in this section.
2. Be alert to symptoms of construction damage to root systems of existing trees and shrubs as evidenced by wilting, unseasonal or early flowering or loss of leaves, and insect or disease infestation due to declining vigor.
 3. Give notification in writing of all evidence of declining tree or shrub vigor immediately upon discerning the problem. Take appropriate interim measures to mitigate the severity of the problem as specified in this section.
 4. Submit written proposal and cost estimate for the correction of all conditions before proceeding with permanent correction work.

P. Seeded Grasses

1. Watering
 - a. Water lawns at such frequency as weather conditions require, to replenish soil moisture to 6 in. below root zone.
 - b. Provide a total of 1 in. of water weekly during hot summer weather, in two (2) applications per week.
 - c. Water at night if irrigation system is electrically controlled. Otherwise, waterings shall be done during early mornings.
2. Weed Control - Control broadleaf weeds, primarily Canadian Thistle.
3. Mowing and Edging - Mow grasses as directed by the Owner.
4. Reseeding of Lawn Areas - Match existing seed mix of adjacent areas.
5. Renovating - Top dress with 1/4" of compost in early spring.

Q. Perennials

1. Watering
 - a. Species, sizes of plants, container sizes and orientation shall dictate frequency of watering. Submit to Owner a watering schedule for different seasonal requirements.
2. Weed Control - All planting beds with perennials shall be weed-free at all times.
3. Pruning
 - a. Limit pruning to removal of damaged or dead twigs and foliage.
 - b. Remove spent flowers on a weekly basis.

R. Insects, Pests, and Disease Control

1. Inspection: Inspect all plant materials for signs of stress, damage and potential trouble from the following:
 - a. Presence of insects, moles, voles, gophers, ground squirrels, snails and slugs in planting areas.
 - b. Discolored or blotching leaves or needles.
 - c. Unusually light green or yellowish green color inconsistent with normal green color of leaves.
2. Personnel: Perform spraying for insect, pest and disease control only by licensed, qualified, trained personnel.
3. Application: Spray with extreme care to avoid all hazards to any person or pet in the area or adjacent areas.

S. The 90-Day Maintenance Period

1. Preliminary Review: As soon as all plantings are completed per Contract Documents, hold a preliminary review to determine the condition of the work.
2. Date of Review: Submit a written request at least five (5) working days prior to anticipated date of review.
3. Beginning of the 90 Day Maintenance Period: The date on which the Resident Engineer issues a letter of Final Acceptance to the Contractor.

T. Final Acceptance

1. Acceptance:
 - a. Work will be accepted by the Resident Engineer upon satisfactory completion of all work, including maintenance period, but exclusive of replacement of materials under the Warranty Period.
 - b. Submit a written request to Resident Engineer for review of Final Acceptance at least five (5) working days prior to anticipated Final Review date, which is at the end of the Maintenance Period.
2. Corrective Work:
 - a. Work requiring corrective action or replacement shall be performed within ten (10) calendar days after the Final Review.
 - b. Perform corrective work and materials replacement in accordance with the Drawings and Specifications, and shall be made by the Contractor at no cost to the Owner.
 - c. After corrective work is completed, the Contractor shall again request a Final Review for Final Acceptance as outlined above.
 - d. Continue maintenance of all landscaped areas until all corrective measures have been completed and accepted.
3. Conditions for Acceptance of Work at End of Maintenance Period:
 - a. Each plant shall be alive and thriving, showing signs of growth and no signs of stress, disease, or any other weaknesses.
 - b. All plants not meeting these conditions shall be replaced and a 90 Day Maintenance Period commenced for such plants.
4. Final Acceptance Date: The date on which the Resident Engineer issues a Letter of Final Acceptance. Upon Final Acceptance, the Owner will assume responsibility for maintenance of the work.

1.09 WARRANTY PERIOD

- A. Warranties - Warranty period shall begin when Resident Engineer issues letter for Final Acceptance:
 1. Correct Species: Warrant that all plant materials are true to species and variety.
 2. Vigor: Warrant that all trees and shrubs planted (except those species specifically noted below) under this Contract will be healthy and in flourishing condition of active growth one year from date of Final Acceptance. Similarly, warranty perennial and groundcover for two (2) full growing season from date of Final Acceptance.
- B. Delays: All delays in completion of planting operations that extend the planting into more than one planting season shall extend the Warranty Period correspondingly.
- C. Condition of Plants: Plants shall be free of dead or dying branches and branch tips, with all foliage

of a normal density, size and color.

- D. Replacements: As soon as weather conditions permit, replace, without cost to Owner all dead plants and all plants not in a vigorous, thriving condition, as determined by Project Manager during and at the end of Warranty Period. Replacement trees shall have similar warranty for one year from date of replacement planting.
- E. Exclusions: Contractor shall not be held responsible for failures due to neglect by Owner, vandalism, etc., during Warranty Period. Report such conditions in writing to the Resident Engineer.

1.10 REPLACEMENTS

- A. Guarantee: For a period of one (2) years after final acceptance of all work and at no additional cost to the Owner, the Contractor is to replace any new or transplanted plant material that is dead, or that is, in the opinion of the City Arborist in consultation with the Resident Engineer, in unhealthy or unsightly condition, or that has lost their natural shape due to dead branches or excessive pruning of dead branches, or that has been damaged beyond repair due, in the judgment of the Resident Engineer, to inadequate maintenance and/or protection from animal damage or the natural elements.
- B. Failed Materials:
 - 1. Plant materials exhibiting conditions which are determined as being unacceptable due to workmanship by the Contractor shall be repaired and/or replaced at no additional cost to the Owner as determined by Resident Engineer.
 - 2. Closely match replacements to adjacent specimens of the same species. Apply all requirements of this Specification to all replacements.
 - 3. Contractor shall be held responsible for a maximum of two (2) replacements for each failed tree and shrub after final acceptance during warranty period.
- C. Incorrect Materials:
 - 1. During Warranty Period, replace at no cost to Owner all plants revealed as being untrue to name.
 - 2. Provide replacements of a size and quality to match the planted materials at the time the mistake is discovered.
- D. Existing Tree Protection: In addition to any other criminal or civil penalty, if , as the result of the violation, the injury, mutilation, or death of a tree, shrub, or other plant located on the Owner's property is caused, the cost of repair or replacement of such tree, shrub, or other plant shall be borne by the party in violation. Replacement value of trees and shrubs shall be determined in accordance with the latest revision of "Valuation of Landscape Trees, Shrubs, and Other Plants," as published by the International Society of Arboriculture.

PART 2 – PRODUCTS AND MATERIALS: In accordance with Section 656.02, and as follows:

2.01 PLANT MATERIALS

- A. General: Verify that all container stock has been grown in the containers in which delivered for at least two (2) months, but not over two (2) years for shrubs or one (1) year for perennials. Do not install container plants that have cracked or broken balls of earth when taken from container.
 - 1. Growing Conditions: Plants shall be nursery-grown in accordance with good horticultural practices under similar climatic conditions to those of the project for at least two years unless otherwise specifically authorized. Collected material shall be identified for approval by the Resident Engineer.
 - 2. Appearance: All plants shall be exceptionally heavy, symmetrical, tightly knit, and so trained or favored in development and appearance as to be superior in form for their species, with regard to number of branches, compactness and symmetry.
 - 3. Vigor: Plants shall be sound, healthy and vigorous, well branched and densely foliated when in leaf. They shall be free of disease, insect pests, eggs, or larvae. They shall have healthy, well-developed root systems. Plants shall be free from physical damage or adverse conditions that would prevent thriving growth.
- B. Condition of Root System: Samples must prove to be completely free of circling, kinked or girdling trunk surface and center roots and show no evidence of a root-bound condition.
- C. Measurements:
 - 1. General: Measure plants when branches are in their normal upright position. Height and spread dimensions specified refer to main body of plant and not branch tip to tip. Take caliper measurement at a point on the trunk 6 in. above natural ground line for trees up to 4 in. in caliper and at a point 12 in. above the natural ground line for trees over 4 in. in caliper. Evergreen trees shall be measured from the base of the tree to the midpoint of the top central leader.
 - 2. Size Range: If a range of size is given, do not use plant materials less than the minimum size. Not less than 40 percent of the plants shall be as large as the maximum size specified. The measurements specified are the minimum size acceptable and are the measurements after pruning, where pruning is required. Plants that meet the measurements specified, but not possess a normal balance between height and spread shall be rejected.
 - 3. Substitutions: Substituted plants shall be true to species and variety and shall conform to measurements specified except that plants larger than specified may be used if accepted. Use of such plants shall not increase Contract price. If larger plants are accepted, increase the ball of earth in proportion to the size of the plant.
- D. Pruning: Do not prune plants before delivery.
- E. Condition: Trees which have multiple leaders, unless specified, or damaged or crooked leaders, will be rejected. Trees having a main leader shall not have been headed back. Trees with abrasions of the bark, sunscalds, disfiguring knots, or fresh cuts of limbs over 3/4 in. which have not completely callused, will be rejected.

2.02 COMMERCIAL FERTILIZERS

- A. Top-dress Fertilizer: Complete fertilizer, 50 percent of the nitrogen to be derived from natural organic sources or urea-form. Available phosphoric acid shall be from superphosphate, bone or tankage. Potash shall be derived from muriate of potash containing 60 percent potash:
 - 16% Nitrogen
 - 6% Phosphoric Acid
 - 8% Potash
- B. Perennials: Diammonium Phosphate (18-46-0).

2.03 STAKING MATERIALS

- A. Tree Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches by length indicated, pointed at one end.
- B. Wire Ties: 11 gauge, single strand, galvanized steel.
- C. Nylon Straps: 2" X 12" wide nylon/cotton weave with ¾" grommet at each end as accepted by Resident Engineer.

2.04 GUYING MATERIALS

- A. Anchor and Hardware:
 - 1. Standard Steel 'T' posts, dark green; 2'-6" long. Cut flush to the ground after guying trees.
 - 2. Hardware: 11 gauge, single strand, galvanized steel wire ties with rubber, two-ply, dark-colored, ½"- 5/8" diameter protective hose loops or approved equal.
 - 3. Plastic Guy Covers: 3/8 in. diameter x 3 ft. long white plastic tubing. Provide for all guyed installations as identified in the field by the Resident Engineer.
 - 4. Provide for all guyed installations of evergreen trees.

2.05 TREE PROTECTION MATERIALS

- A. Tree Wrap: Tree wrapping material shall be first quality, 4" wide bituminous, impregnated tape, corrugates or crepe brown paper, specifically manufactured for tree wrapping and having a quality to resist insect infestation.

2.06 MULCH

- A. Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs,

consisting of one of the following:

1. Type: Ground or shredded hemlock bark, dark brown in color.

2.07 ANTI-DESICCANT

- A. Type: Anti-desiccants for retarding excessive loss of plant moisture and inhibiting wilt shall be sprayable, water insoluble vinyl-vinylidene complex which will produce a moisture retarding barrier not removable by rain or snow.
- B. Manufacturer: Wilt-pruf Formula NCF as manufactured by Nursery Specialty Products, Greenwich, CT, or accepted equal.

PART 3 - EXECUTION

3.01 REPLANT REVIEW

- A. General: Do not commence planting work prior to acceptance of soil preparation.
- B. Finish Grades: Finish grades for all planting areas shall have been established by in accordance to the Drawings. Verify that all grades are within 1 in. plus or minus of required finish grade and that all soil amendments have been installed as specified. Fine rake planting beds prior to planting shrubs.
- C. Notification: Submit written notification of all conditions inconsistent with specifications for soil preparation and mixing.

3.02 LAYOUT AND EXCAVATION OF PLANTING AREAS

- A. Layout and Staking: Lay out all trees, shrubs and container locations as shown on Drawings. Owner and City Arborist in consultation with Resident Engineer reserves the right to review and adjust plant locations.
- B. Review: Locations of plants will be checked in the field and will be adjusted to exact position before planting begins. Right is reserved to refuse review at this time if, in the Resident Engineer's opinion, an insufficient quantity of plants is available.
- C. Equipment for Digging Plant Pits: Use of an auger or Vermeer spade to dig plant pits is prohibited. Backhoe is acceptable, with scarification of the tree pit after excavation - see below.

3.03 PLANTING OPERATIONS

- A. Handling and De-potting of Plant Materials:

1. Metal Containers: Cut can on two sides with accepted cutting tool. Do not use spade.
 2. Plastic Containers: Tip container to horizontal orientation and carefully remove shrub. Support rootball during installation to prevent cracking or shedding of soil.
 3. Balled and Burlap Plants: Avoid all damage to rootballs. If rootball is cracked or broken during handling, plant will be rejected. Lift and carry by bottom of ball only. Do not remove wrapping until plant is set in plant pit. Cut and remove all wire completely from around root ball and peel burlap away from the entire rootball prior to backfilling.
- B. Installation:
1. Scarification:
 - a. Plant Rootball: After removing plant from container, scarify the sides of the rootball to a depth of 1 in. at four to six equally-spaced locations around the perimeter of the ball. Completely sever or remove all circling roots over 3/8 in. diameter.
 - b. Plant Pit: Excavate deep enough to accommodate the ball and bed of prepared back fill mix. Compact before setting of plants. Scarify sides of plant pit, thoroughly breaking up all surfaces and eliminating all "glazed" areas.
 2. Positioning: Top of root flare shall be placed at or slightly above finished grade. Thoroughly foot tamp all backfill. Position plant in planting pit, maintaining plumb condition.
 3. Backfilling:
 - a. Use backfill mix as specified on the Drawings to backfill plant pits. Brace each plant plumb and rigidly in position until planting soil has been tamped solidly around the ball and roots.
 - b. When plant pits have been backfilled approximately 2/3 full, water thoroughly and saturate rootball, before installing remainder of the backfill mix to top of pit, eliminating all air pockets.
 4. Staking and/or Guying: When required, stake or guy as detailed.
- C. Adjustment: Adjust plants so that after full settlement has occurred, the grade at the base of the plants is 2 in. above the adjacent planting finish grade.
- D. Watering Basin: Form saucer with 3 in. high berm centered around tree and shrub pits 12 in. wider than ball diameter.
- F. Watering: Water all plants immediately after completion of planting operations.
- G. Labels: Remove all nursery-type plant labels, wires and ties from plants.

3.04 STAKING AND GUYING

- A. General:
1. Trees shall be able to stand upright without support, and shall return to the vertical after their tops have been deflected horizontally and released. Stake or guy trees which do not meet this qualification.
 2. All plant materials shall remain plumb and straight for all given conditions from installation through the guarantee period.

- B. Staking (Deciduous Trees):
 - 1. Locate stakes in a line with trunk of tree, perpendicular to prevailing wind and as close to the main trunk as is practical, avoiding root injury. Drive stakes at least 30 in. into firm ground. See Planting Details.
 - 2. Wire support straps shall be placed around the trunk in a single loop. Run wire through grommets on support strap, tighten, and keep taut.

3.05 MULCHING

- A. Install a 2-inch deep layer of specified mulch over all planting areas including tree and shrub watering basins unless otherwise noted on drawings ensuring that mulch is not in contact with the bark of the tree.

3.06 PERENNIAL PLANTING

- A. Planting: Plant plants at optimum depth for proper growth. Avoid air pockets. Equally spaced triangularly, at distances called for in the Drawings. See Planting Details.
- B. Fertilizers: Apply top-dress fertilizer at the rate of 3 pounds per 1,000 square feet immediately after planting.
- C. Watering: Water bed thoroughly after fertilizer application. Wash all fertilizer from leaves of plant materials.

3.07 TREE WRAPPING

- A. Wrap trunks of deciduous trees with sun-sensitive bark with a spiral wrapping to the height of the third branch.
- B. Wrap from top down and tape wrapping securely in place.

PART 4 – METHOD OF MEASUREMENT: In accordance with Section 656.12.

PART 5 – BASIS OF PAYMENT: In accordance with Section 656.13.

SECTION 406 – Marshall Bituminous Concrete Pavement

406.04 Weather and Seasonal Limitations

Delete the third and subsequent paragraphs, and replace with the following text:

The paving season shall be extended beyond the date of October 15th for the application of all bituminous materials. Bituminous materials shall be applied at the discretion and agreement of the Resident Engineer, Construction Engineer and City of Burlington Project Manager.

GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS
2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION

SECTION 103 – TAXES AND INSURANCE

103.03 STATE SALES TAX is hereby modified by deleting the phrase “(see *Vermont Sales and Use Tax Regulations*, No. 226-2 and 226-7 and 32 V.S.A. § 9743(4))” and the phrase “(see 32 V.S.A. § 9741(44)).” from the first paragraph.

103.03 STATE SALES TAX is hereby further modified by adding the following reference to the end of the first paragraph:

(see 32 V.S.A. § 9743(4), 32 V.S.A. § 9741(30), 32 V.S.A. § 9741(44), and the *Vermont Sales and Use Tax Regulations*, Reg. § 1.9741(34)-5 and Reg. § 1.9743).

SECTION 105 – CONTROL OF THE WORK

105.14 SUNDAY, NIGHT, AND HOLIDAY WORK is hereby modified by relabeling part (c), “Application.”, as “(d) Application.” and part (d), “Other Provisions Not Affected.”, as “(e) Other Provisions Not Affected.”

105.16 LOAD RESTRICTIONS, part (c), Penalty and Reduction for Overweight Operation., is hereby modified by changing the phrase “23 V.S.A. § 1391(a)” to read “23 V.S.A. § 1391a”.

SECTION 406 – BITUMINOUS CONCRETE PAVEMENT

406.03C REQUIREMENTS FOR BOTH MARSHALL AND SUPERPAVE BITUMINOUS MIXTURES is hereby modified by changing the name of part (e) from “Pay Factor Determination.” to “Air Voids Pay Factor (PF_{AV}) Determination.”

406.19 METHOD OF MEASUREMENTS is hereby modified by changing the name of part (c) from “Longitudinal Joint Pay Factor.” to “Longitudinal Joint Pay Adjustment.”

SECTION 506 – STRUCTURAL STEEL

506.19 BOLTING AND CONNECTIONS, part (c), is hereby modified by adding the sentence “Unless otherwise indicated on the plans, *ASTM F 3125/F 3125 M* Grade A 325 hex head bolts shall be used.” immediately following the sentence “Bolts shall be tightened to develop a tension not less than 5% more than the minimum bolt tension specified in Table 506.19A.”

506.19 BOLTING AND CONNECTIONS is hereby modified by relabeling part (d), “Acceptance of Bolt Tensioning.” as “(e) Acceptance of Bolt Tensioning.”

506.19 BOLTING AND CONNECTIONS is hereby further modified by adding a new part “(d) Bolt Tensioning Methods.” All of the text and tables following paragraph ten, beginning with the phrase “Bolts shall be tensioned by the Contractor in the presence of the Engineer...” and ending with Note 4 of Table 506.19B, shall be moved to the new part (d).

All references to “Column 3 of Table 506.19B” within the text identified above shall be replaced with the phrase “Column 4 of Table 506.19B”.

SECTION 510 – PRESTRESSED CONCRETE

510.12 GROUT, part (b), is hereby modified by deleting the phrase “requirements of Subsection 707.03(c)(1) and Subsection 707.03(c)(3).” from the fifth paragraph and replacing it with the phrase “requirements of Subsection 707.03(a)(1) and Subsection 707.03(a)(3).”

SECTION 540 – PRECAST CONCRETE

540.11 GROUT, part (b), is hereby modified by deleting the phrase “requirements of Subsection 707.03(c)(1) and Subsection 707.03(c)(3).” from the fifth paragraph and replacing it with the phrase “requirements of Subsection 707.03(a)(1) and Subsection 707.03(a)(3).”

540.12 POST-TENSIONING is hereby modified by deleting the phrase “requirements of Subsection 510.12(b).” from the second paragraph and replacing it with the phrase “requirements of Subsection 540.11(b).”

SECTION 605 – UNDERDRAINS

605.02 MATERIALS is hereby modified by adding the following as the eighth entry in the Subsection listing:

Geotextile for Underdrain Trench Lining720.05

605.02 MATERIALS is hereby further modified by deleting the sentence “Geotextile shall meet the requirements of Table 720.01A for Geotextile for Underdrain Trench Lining.”

SECTION 625 – SLEEVES FOR UTILITIES

625.02 MATERIALS is hereby modified by deleting the fifteenth entry, “Well Casing.....741.01”, from the Subsection listing.

SECTION 630 – UNIFORMED TRAFFIC OFFICERS AND FLAGGERS

630.04 FLAGGERS, is hereby modified by deleting part (a) in its entirety and replacing it with the following:

- (a) Requirements. The Contractor shall verify that Flaggers meet the following requirements. Flaggers shall have successfully completed a 4-hour training course taught by a certified instructor within the last 24 months and shall carry proof of training at all times when on the Project. Certified instructors shall have successfully completed one of the following courses:
- (1) Associated General Contractors of VT Traffic Control Technician/Flagger Trainer Course
 - (2) American Traffic Safety Services Association Flagger Instructor Training Course
 - (3) National Safety Council Flagger Instructor Course

SECTION 631 – FIELD OFFICE

631.08 TESTING EQUIPMENT, GROUT, is hereby modified by deleting “1 Set of specimen molds meeting the requirements of *AASHTO T 106 M/T 106*” and replacing it with the following:

Specimen molds meeting the requirements of *AASHTO T 106 M/T 106*. The number of molds shall be sufficient to perform both the acceptance testing required for the contract item and any necessary control of work testing. Each specimen mold shall be capable of producing 3 individual cubes.

SECTION 641 – TRAFFIC CONTROL

641.03 TRAFFIC CONTROL DEVICES is hereby modified by adding the following as the thirteenth paragraph, immediately following the phrase “...each consisting of a maximum of three lines of eight characters.”:

Each PCMS unit shall be tamper-resistant. The control cabinet shall be locked when not in use. Each PCMS shall also have a security system that will only allow access if a code or password is entered. The default code or password shall be changed upon deployment of the PCMS by the Contractor. PCMS boards featuring remote access shall also be password protected.

SECTION 646 – RETROREFLECTIVE PAVEMENT MARKINGS

646.07 DURABLE PAVEMENT MARKINGS, parts (e)(1) and (g)(1), are both hereby modified by deleting the phrase “paver-placed pavement” from each part and replacing it with the phrase “bonded wearing course”.

646.07 DURABLE PAVEMENT MARKINGS is hereby further modified by relabeling part (g), “Polyurea Paint.” as “(h) Polyurea Paint.”

646.07 DURABLE PAVEMENT MARKINGS is hereby further modified by adding the following as the new part (g):

- (g) Preformed Thermoplastic. Preformed thermoplastic shall be one of the Thermoplastic Pavement Markings, Type B listed on the Agency’s *Approved Products List*.

646.09 OTHER RELATED MARKINGS, Table 646.09A, is hereby modified by deleting the first row and replacing it with the following:

Marking Material	Recess Depth (mils)
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SECTION 649 – GEOTEXTILE FABRIC

649.02 MATERIALS is hereby modified by being deleted in its entirety and replaced with the following:

649.02 MATERIALS. Materials shall meet the requirements of the following Subsections:

Geotextile for Roadbed Separator	720.02
Geotextile Under Railroad Ballast.....	720.03
Geotextile Under Stone Fill	720.04
Geotextile for Underdrain Trench Lining.....	720.05
Geotextile for Filter Curtain	720.06

Geotextiles shall conform to the following:

- (a) Where sewn seams are used, the Contractor shall furnish the manufacturer’s wide strip tensile test results as part of the certification. The results must verify that the seam meets or exceeds the specified average minimum roll values for the grab tensile strength of the geotextiles, or wide strip tensile strength for reinforcement applications.
- (b) Field seams, where used, shall be in accordance with the manufacturer’s recommendations.

SECTION 653 – EROSION PREVENTION AND SEDIMENT CONTROL

653.02 MATERIALS is hereby modified by inserting the following as the fourth and fifth entries in the Subsection listing:

Geotextile Under Stone Fill.....	720.04
Geotextile for Silt Fence	720.07

653.02 MATERIALS is hereby further modified by deleting the phrase “Geotextile Under Stone Fill shall be in accordance with Section 720 and Table 720.01A. Geotextile for Silt Fence shall be in accordance with Section 720 and Table 720.01A.”

653.08 RUNOFF CONTROL MEASURES is hereby modified by deleting the first paragraph of Subsection 653.08(a)(1) in its entirety and replacing it with the following:

- (1) Check Dam, Type I. Check Dam, Type I shall be placed in channels and on Geotextile Under Stone Fill meeting the requirements of Subsection 720.04.

653.08 RUNOFF CONTROL MEASURES is hereby further modified by deleting Subsection 653.08(b)(1) and Subsection 653.08(b)(2) in their entirety and replacing them with the following:

- (1) Silt Fence, Type I. Silt Fence, Type I shall be constructed of posts and Geotextile for Silt Fence meeting the requirements of Subsection 720.07.
- (2) Silt Fence, Type II. Silt Fence, Type II shall be constructed of posts, Geotextile for Silt Fence meeting the requirements of Subsection 720.07, and woven wire reinforcement.

653.09 TREATMENT MEASURES is hereby modified by deleting the second paragraph of Subsection 653.09(a), beginning with “Stabilized Construction Entrances shall be constructed of stone...”, in its entirety and replacing it with the following:

Stabilized Construction Entrances shall be constructed of stone meeting the requirements of Subsection 704.17 and shall be placed on top of Geotextile Under Stone Fill meeting the requirements of Subsection 720.04.

653.09 TREATMENT MEASURES is hereby further modified by deleting the third paragraph of Subsection 653.09(b)(1), beginning with “Stake and fabric devices...”, in its entirety and replacing it with the following:

Stake and fabric devices shall be constructed of Geotextile for Silt Fence meeting the requirements of Subsection 720.07 and stakes approved by the Engineer.

653.09 TREATMENT MEASURES is hereby further modified by deleting the second paragraph of Subsection 653.09(b)(3), beginning with “Inlet Protection Device, Type III shall be constructed of Aggregate...”, in its entirety and replacing it with the following:

Inlet Protection Device, Type III shall be constructed of Aggregate for Erosion Prevention and Sediment Control and shall be placed on top of Geotextile Under Stone Fill meeting the requirements of Subsection 720.04.

SECTION 675 – TRAFFIC SIGNS

675.02 MATERIALS is hereby modified by deleting the first entry, “Paint for Traffic Signs.....708.06”, from the Subsection listing.

SECTION 677 – OVERHEAD TRAFFIC SIGN SUPPORTS

677.03 GENERAL is hereby modified by adding the sentence “Field verification testing for Direct Tension Indicators is not required.” immediately following the sentence “High-Strength Bolts, Nuts, and Washers shall be tensioned in accordance with Subsection 506.19.”

SECTION 678 – TRAFFIC CONTROL SIGNALS

678.09 ERECTION OF POSTS AND POLES is hereby modified by adding the sentence “Field verification testing for Direct Tension Indicators is not required.” immediately following the sentence “High-Strength Bolts, Nuts, and Washers shall be tensioned in accordance with Subsection 506.19.”

SECTION 679 – STREET LIGHTING

679.02 MATERIALS is hereby modified by deleting the fifth material entry, “Bracket Arms.....753.04”, from the Subsection listing.

679.02 MATERIALS is hereby further modified by inserting the following as the fifth and sixth entries in the Subsection listing:

Bracket Arms, Aluminum.....753.04(a)
Bracket Arms, Steel753.04(b)

679.05 BRACKET ARMS is hereby modified by deleting the first sentence of the Subsection and replacing it with the following:

Bracket arms shall be free of defects and burrs. Bracket arms shall be able to withstand a vertical load of 100 pounds and a horizontal load of 50 pounds without fracture or permanent deformation and shall be installed as shown in the Contract Documents.

Bracket arms installed on aluminum posts shall be in accordance with Subsection 753.04(a). Bracket arms installed on steel or wood posts shall be in accordance with Subsection 753.04(b).

SECTION 680 – TRAVEL INFORMATION SIGNS

680.02 MATERIALS is hereby modified by deleting the second entry, “Paint for Traffic Signs.....708.06”, from the Subsection listing.

SECTION 707 – JOINT MATERIALS

707.14 PREFORMED JOINT FILLER, Table 707.14A, is hereby modified by deleting the reference to “*AASHTO T 42* /” from column 3.

SECTION 708 – PAINTS, STAINS, AND TRAFFIC MARKING MATERIALS

708.06 PAINT FOR TRAFFIC SIGNS is hereby modified by being deleted in its entirety and replaced with the following:

708.06 THIS SUBSECTION RESERVED.

SECTION 711 – CULVERTS, STORM DRAINS, AND SEWER PIPES, METAL

711.02 CORRUGATED ALUMINUM ALLOY PIPE, PIPE ARCHES, AND UNDERDRAINS, part (a)(2)c., is hereby modified by deleting the phrase “requirements of Subsection 711.01(a)(2)c.” and replacing it with the phrase “requirements of Subsection 711.01(a)(1)c.”

SECTION 713 – REINFORCING STEEL, STRAND, AND WELDED WIRE REINFORCEMENT

713.04 COLD DRAWN STEEL WIRE is hereby modified by deleting the reference to “*AASHTO M 32 M/M 32*” and replacing it with “*AASHTO M 336 M/M 336*”.

713.05 WELDED WIRE REINFORCEMENT is hereby modified by deleting the phrase “*AASHTO M 55 M/M 55* or *AASHTO M 221 M/M 221*” and replacing it with “*AASHTO M 336 M/M 336*”.

SECTION 720 – GEOTEXTILES

SECTION 720 – GEOTEXTILES is hereby modified by being deleted in its entirety and replaced with the following:

SECTION 720 – GEOTEXTILES

720.01 GENERAL. Geotextiles shall be evaluated in accordance with the NTPEP geotextiles work plan and in compliance with the NTPEP audit program for geotextiles. Geotextiles shall be one of the products listed on the Agency’s *Approved Products List* for the respective material specification.

720.02 GEOTEXTILE FOR ROADBED SEPARATOR. Geotextile for Roadbed Separator shall conform to *AASHTO M 288*, Table 1, Class 1 for Geotextile Strength Property Requirements, and shall conform to *AASHTO M 288*, Table 3 for Separation Geotextile Property Requirements.

720.03 GEOTEXTILE UNDER RAILROAD BALLAST. Minimum Average Roll Values (MARV) for Geotextile Under Railroad Ballast shall be as required in Table 720.03A.

TABLE 720.03A – MARV FOR GEOTEXTILE UNDER RAILROAD BALLAST

Geotextile Property	Test Method	MARV
Elongation Criteria at Failure ¹	<i>ASTM D 4632/ D4632 M</i>	≥ 50%
Grab Strength (lbs)	<i>ASTM D 4632/ D4632 M</i>	225
Tear Strength (lbs)	<i>ASTM D 4533/ D 4533 M</i>	115
Puncture Strength (lbs)	<i>ASTM D 6241</i>	850
Permittivity (s ⁻¹)	<i>ASTM D 4491/ D 4491 M</i>	0.70
Apparent Opening Size (mm)	<i>ASTM D 4751</i>	0.21 max. (No. 70 Sieve)
UV Resistance (% Strength Retained)	<i>ASTM D 4355/ D 4355 M</i>	70% at 500 hours of exposure
Structure	--	Nonwoven only

¹ Elongation corresponds to Maximum Grab Tensile Strength as measured in accordance with the requirements of *ASTM D 4632/D 4632 M*.

720.04 GEOTEXTILE UNDER STONE FILL. Geotextile Under Stone Fill shall conform to *AASHTO M 288*, Table 1, Class 1 for Geotextile Strength Property Requirements, and shall conform to *AASHTO M 288*, Table 5 for Stabilization Geotextile Property Requirements. Geotextile structure shall not be slit film.

720.05 GEOTEXTILE FOR UNDERDRAIN TRENCH LINING. Geotextile for Underdrain Trench Lining shall conform to *AASHTO M 288*, Table 1, Class 3 for Geotextile Strength Property Requirements, with a minimum elongation of 20%. Geotextile for Underdrain Trench Lining shall conform to *AASHTO M 288*, Table 2 (> 50% of in situ soil passing the No. 200 (0.075 mm) sieve) for Subsurface Drainage Geotextile Requirements. Geotextile structure shall be nonwoven and shall not be slit film.

720.06 GEOTEXTILE FOR FILTER CURTAIN. Minimum Average Roll Values (MARV) for Geotextile for Filter Curtain shall be as required in Table 720.06A.

TABLE 720.06A – MARV FOR GEOTEXTILE FOR FILTER CURTAIN

Geotextile Property	Test Method	MARV
Elongation Criteria at Failure ¹	<i>ASTM D 4632/D 4632 M</i>	20% max.
Grab Strength (lbs)	<i>ASTM D 4632/D 4632 M</i>	200
Tear Strength (lbs)	<i>ASTM D 4533/D 4533 M</i>	50
Puncture Strength (lbs)	<i>ASTM D 6241</i>	430
Permittivity (s ⁻¹)	<i>ASTM D 4491/D 4491 M</i>	0.28
Apparent Opening Size (mm)	<i>ASTM D 4751</i>	0.21 max. (No. 70 Sieve)
UV Resistance (% Strength Retained)	<i>ASTM D 4355/D 4355 M</i>	70% at 500 hours of exposure
Structure	--	Woven only

¹ Elongation corresponds to Maximum Grab Tensile Strength as measured in accordance with the requirements of *ASTM D 4632/D 4632 M*.

720.07 GEOTEXTILE FOR SILT FENCE. Geotextile for Silt Fence shall conform to *AASHTO M 288*, Table 8 for Temporary Silt Fence Property Requirements. Geotextile structure shall be woven.

SECTION 725 – CONCRETE CURING MATERIALS AND ADMIXTURES

725.01 CONCRETE CURING MATERIALS, part (d) is hereby modified by being deleted in its entirety and replaced with the following:

- (d) Liquid Membrane-Forming Compounds. Liquid membrane-forming compounds shall be one of the products listed on the Agency's *Approved Products List* and shall meet the following requirements:
- (1) Liquid membrane-forming compounds shall be evaluated in accordance with the NTPEP concrete curing compounds work plan.
 - (2) Liquid membrane-forming compounds shall conform to the requirements of *ASTM C 309*, Type 1-D or Type 2, Class B.
 - (3) Liquid membrane-forming compounds shall not be allowed to freeze.

725.02 CHEMICAL ADMIXTURES, part (a) is hereby modified by being deleted in its entirety and replaced with the following:

- (a) General Requirements. Non-bulk quantities of chemical admixtures shall be delivered in the manufacturer's original containers marked with the manufacturer's name and product name. Bulk quantities shall be accompanied by a delivery slip indicating both the manufacturer's name and the product name. Chemical admixtures shall be one of the products listed on the Agency's Approved Products List for the respective material specification, shall be evaluated in accordance with the NTPEP concrete admixtures work plan, and shall meet the requirements of the respective material specification below.

SECTION 753 – HIGHWAY ILLUMINATION

753.04 BRACKET ARMS is hereby modified by being deleted in its entirety and replaced with the following:

753.04 BRACKET ARMS.

- (a) Bracket Arms, Aluminum. Single member bracket arms and the main member of truss-type arms shall be fabricated from seamless aluminum tube conforming to the requirements of *ASTM B 221/B 221 M*, Alloy 6063-T6 or Alloy 6061-T6. Other members of truss-type arms shall conform to the requirements of *ASTM B 221/B 221 M*, Alloy 6063-T6. All screws, nuts, bolts and other hardware for mounting bracket arms to the light pole shall be stainless steel, unless otherwise specified.
- (b) Bracket Arms, Steel. Components of single member and truss-type bracket arms shall be fabricated from standard steel pipe meeting the requirements of *ASTM A 53/A 53 M* or *ASTM A 501/A 501 M*.

SECTION 900 - SPECIAL PROVISIONS

EXPOSED AGGREGATE CONCRETE

1. **DESCRIPTION.** This work shall consist of the construction of exposed aggregate concrete shoulders where indicated on the construction documents. Work shall be consistent with VTrans Standard Specifications Section 618, with the additions and modifications below.
2. **MATERIALS.** Materials shall meet the requirements of Section 618.02 except as indicated below.
 - a. Concrete shall conform to the requirements of Section 541 for Concrete, Class B. No fly ash is required in the mix.
 - b. Coarse aggregate materials for concrete shall be red quartzite meeting the requirements of Section 704.02A.
 - c. Reinforcing Steel shall meet the requirements of Section 507.
3. **REFERENCES.** Work shall meet the requirements of the following reference standards.
 - a. The State of Vermont, Agency of Transportation "Standard Specifications for Construction", dated 2018 (designated VAOT), and the latest revision of the Agency of Transportation "General Special Provisions".
 - b. American Concrete Institute (ACI) sections: 318, 301, 308, 330.
4. **SUBMITTALS.** The contractor shall submit and / or provide the following for approval by the Owner, Engineer, and Landscape Architect prior to any permanent installation of exposed aggregate concrete under the contract.
 - a. Samples for each exposed product and for each color and texture specified, minimum 2-gallon volume per sample.
 - b. Test pour of the proposed mix design, minimum size 4 square feet, placed and finished in the manner proposed for the final concrete installation. Note that this material may remain in the finished work if approved by the Owner, Engineer, and Landscape Architect.
 - c. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments in accordance with ACI 301 and 318.
 - d. Include service record data for proposed aggregate materials indicating absence of deleterious expansion of concrete due to alkali aggregate reactivity.
 - e. Product data for any surface retardants proposed for use.

5. **FINISHING.** Use bristle brushes to remove cement paste between coarse aggregate to a depth of 1/8 inch once concrete has set sufficiently to avoid dislodging aggregate from the surrounding matrix. The exposed aggregate finish is only required for portions of the concrete that will ultimately be exposed and viewable to the public. The areas that will be paved-over by the Path surface need not have an exposed finish.
6. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Exposed Aggregate Concrete) to be measured for payment will be the number of Cubic Yards of the approved material installed in the complete and accepted work.
7. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Exposed Aggregate Concrete) will be paid at the Contract unit price per Cubic Yard. Payment will constitute full compensation for furnishing, transporting, handling, placing, and finishing the materials specified, including expansion joint material, as well as for furnishing all labor, tools, equipment, and incidentals necessary to complete the work. Submittals and test pour shall be incidental to this item along with any cleaning needed to remove excess cement paste from the exposed aggregate surface.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.608 Special Provision (Exposed Aggregate Concrete)	Cubic Yard

STONE SCREENINGS

1. DESCRIPTION.

This work shall consist of furnishing and placing shoulders of approved aggregate on a prepared surface. The stone screenings shall not be blue or grey, but shall be red in color.

The work under this Section shall be performed in accordance with Section 402 of the Standard Specifications and the following.

2. MATERIALS.

Materials shall meet the requirements of subsection 704.12 – AGGREGATE FOR SURFACE COURSE AND SHOULDERS amended as follows:

AMEND: TABLE 704.12A – AGGREGATE FOR SURFACE COURSE AND SHOULDERS as follows:

Sieve Designation	Percentage by Mass (Weight) Passing Square Mesh Sieves
3/8 inch	100
No. 4	90 to 100
No. 8	75 to 85
No. 100	15 to 20

No. 200	5 to 10
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Materials shall be free from organic material and lumps or balls of clay.

Material passing the No. 4 sieve shall consist of natural or crushed sand and fine mineral particles. The material including any blended filler, shall have a plasticity index of not more than 6 and a liquid limit of not more than 25 when tested in accordance with ASTM D4318.

It is desirable (but not strictly required) that aggregate contain a minimum of 5% clay particles and no more than 50% of that portion of material passing the No. 200 sieve size shall be clay. Inorganic clay to be included as binder shall conform to the following:

Passing No. 200.....75%
Liquid Limit.....30 min.
Plastic Index.....8 min.

The fraction of material passing the No. 200 sieve size shall be determined by washing as indicated in ASTM D1140, "Amount of Material in Soils Finer than the No. 200 Sieve." The fractured faces for the coarse aggregate portion (retained on the No. 4 Sieve) shall have an area of each face equal to at least 75% of the smallest midsection area of the piece. When two fractured faces are contiguous, the angle between the planes of fractures shall be at least 30 degrees to count as two fractured faces. Fractured faces shall be obtained by mechanical crushing.

Material samples and Certificates of Compliance shall be provided to the Engineer for review and approval prior to purchase and delivery to the project site of bulk quantities.

The owner reserves the right to conduct quality control inspection and testing at any time to determine the reliability of the test results and Certificate of Compliance. Materials delivered that do not comply with the specifications and/or certificates shall be removed from the site at no cost to the Owner.

3. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Stone Screenings) to be measured for payment will be the number of Cubic Yards of the approved material installed in the complete and accepted work.
4. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Stone Screenings) will be paid at the Contract unit price per Cubic Yard. Payment will constitute full compensation for furnishing, transporting, handling, placing, and finishing the materials specified, as well as for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item

Pay Unit

900.608 Special Provision (Stone Screenings)

Cubic Yard (CY)

SAND SEED BANK

1. **DESCRIPTION.** This work shall consist of excavating the existing top layer of sand from the bed of Lake Champlain, stockpiling it, and then placing it in front of the stone revetment once it is constructed.
2. **MATERIALS.** Existing sand and silt from the lake bed.
3. **CONSTRUCTION.** The existing lake bed material shall be vacuum excavated or carefully excavated by other means to a depth of 6", stockpiled and protected during construction of the revetment, and then spread in an even layer in front of the revetment.
4. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Sand Seed Bank) to be measured for payment will be the number of Cubic Yards of the approved material installed in the complete and accepted work.
5. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Sand Seed Bank) will be paid at the Contract unit price per Cubic Yard. Payment will constitute full compensation for excavating, transporting, handling, and stockpiling the materials on-site and protecting it from erosion, and then spreading back on the lake bed, as well as for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.608 Special Provision (Sand Seed Bank)	Cubic Yard

STONE REVETMENT MATERIAL

1. **DESCRIPTION.** This work shall consist of the construction of stone fill to form a revetment where indicated on the construction documents. Work shall be consistent with VTrans Standard Specifications Section 618, with the additions and modifications below.
2. **MATERIALS.** Materials shall meet the requirements of Section 613.
3. **REFERENCES.** Work shall meet the requirements of the following reference standards.
 - a. The State of Vermont, Agency of Transportation "Standard Specifications for Construction", dated 2018 (designated VAOT), and the latest revision of the Agency of Transportation "General Special Provisions".
4. **CONSTRUCTION.** Construction of the revetment shall consist of placing a 50/50 blend of Stone Fill, Type III and Stone Fill, Type IV at the lines and grades indicated on the plans. Existing sand and other aggregate materials excavated from the lakebed to form the keyway for the stone

revetment material shall be interspersed in the Stone Fill to partially fill voids once the placement of the stone is completed.

5. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Stone Revetment Material) to be measured for payment will be the number of Cubic Yards of the approved material installed in the complete and accepted work.
6. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Stone Revetment Material) will be paid at the Contract unit price per Cubic Yard. Payment will constitute full compensation for furnishing, transporting, handling, and placing the materials specified, including excavating the keyway and dispersing the excavated lakebed material, as well as for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.608 Special Provision (Stone Revetment Material)	Cubic Yard

MANAGEMENT AND DISPOSAL OF CONTAMINATED MEDIA

1. **DESCRIPTION.** This work shall consist of excavating, managing and properly disposing of contaminated soils from all project areas in reasonably close conformity with the lines, grades, and typical cross sections shown on the Plans or established by the Engineer. The work shall include proper identification, classification, excavation, management, treatment, transportation, and final placement or disposal of contaminated soils. All management of contaminated soils will be completed in accordance with the general practices outlined in the Burlington Bike Path Rehabilitation Project – Phase 1b Corrective Action Plan (“Corrective Action Plan”) which is included in the contract documents.

This work shall also include management, treatment, and disposal of other contaminated media, if encountered. All management of other contaminated media will be completed in accordance with the general practices included in the Burlington Bike Path Rehabilitation Project – Phase 1b Corrective Action Plan which is included in the contract documents.

Soil pre-characterization of Phase 3A is currently taking place and will be completed prior to construction. Although the general practices identified in the Corrective Action Plan shall be employed and Soil Management Plan specific to Phase 3A will be generated and specifically describe actions require to manage soils

2. **CLASSIFICATION.** Contaminated soils are expected to be encountered and must be excavated and managed to complete construction. The Contractor shall follow the general guidance in the Corrective Action Plan that is included in the contract documents, and as may be amended by the Owner and its Engineer.

Contaminated soils will be classified in the following categories which are reliant upon the Vermont Agency of Natural Resources Investigation and Remediation of Contaminated Properties Rule ("IRule"; effective July 27, 2017) which includes soil screening values ("SSVs") for residential and industrial sites and field screening methods and thresholds for when further testing is required. The IRule can be found at the following website address: https://dec.vermont.gov/sites/dec/files/wmp/Sites/07.11.2017.Adopted.Rule_for_SOS_filing.pdf

In general, contaminated soil will be identified by results of pre-construction soil characterization and/or field screening procedures during excavation activities. Field screening will be completed by a qualified environmental professional and will include visual observations and soil headspace readings using a daily-calibrated photo ionization detector ("PID"). Field screening guidelines provided in Corrective Action Plan and/or Soil Management Plan shall be followed. Prior to construction figures will be provided identifying where within the project limits, the following Soil Classifications are located.

A. Soils

Soils shall be classified and managed as follows:

a) Class I Soils

- i. Soils with PAH concentrations less than the residential SSV (0.076 ppm) and no other contaminant impacts exceeding their respective residential SSV – unencumbered reuse on or offsite is acceptable; and,
- ii. soils with field screening readings using a PID of less than 1 ppm; and
- iii. soils where no visual evidence of contamination exists, as determined by qualified field personnel; and
- iv. soils originating from the project site and excluding clean borrow or fill.

Class I Soils shall be managed in accordance with the site-specific Corrective Action Plan and the Phase 3A Soil Management Plan (pending).

b) Class II Soils

- i. Soils with PAH concentrations between Residential (0.076 ppm) and Urban Background (0.58 ppm) – unencumbered reuse anywhere on project or relocation to another "urban" background area (see ANR Atlas Interest Locator <https://anrmaps.vermont.gov/websites/ANRA5/default.html>) or nearby stump dump soils with PID field screening readings of less than 10 ppm; and
- ii. soils that exhibit no more than minor visual or olfactory evidence of contamination consistent with the contaminants that exceed the residential SSVs, as determined by qualified environmental professional; and
- iii. soils originating from the project site.
- iv. Except, soils with other contaminant impacts exceeding their respective residential SSVs shall not be classified as Class II soils.

Class II Soils shall be managed in accordance with the site-specific Corrective Action Plan and Phase 3A Soil Management Plan (pending) and shall be disposed of within "urban" background area (as defined by the ANR Interest Locator) and shall be managed according

to engineering controls and erosion prevention measures included in the Contract Documents.

c) Class III Soils

- i. Development soils as defined by the 2017 IRule with PAH concentrations greater than Urban Background (0.58 ppm) reuse on project under isolation barrier or offsite disposal at an approved facility and used as alternative daily cover; and,
- ii. Non-Development soils as defined by the 2017 IRule with Soils impacted by contaminants other than PAHs at concentrations that exceed residential soil screening values as defined by the 2017 IRule that can be disposed at an approved facility and used as alternative daily cover; and,
- iii. soils that exhibit visual or olfactory evidence of contamination consistent with the contaminants that exceed the respective SSVs, as determined by qualified environmental personnel; and
- iv. soils that are not classified as hazardous waste; and
- v. soils originating from the project site.

Class III Soils shall be managed in accordance with the site-specific Corrective Action Plan and Phase 3A Soil Management Plan (pending) and shall be disposed of at a certified solid waste disposal facility for use as alternative daily cover, pending authorization by the facility or shall be managed according to engineering controls and erosion prevention measures included in the Contract Documents.

d) Class IV Soils

- i. Non-Development soils as defined by the 2017 IRule with Soils impacted by contaminants at concentrations that exceed industrial SSVs. These soils are not acceptable for use as alternative daily cover, but are acceptable for disposal as “non-hazardous” solid waste at a certified landfill.

B. Contaminated Media

If other contaminated media, appurtenances or materials not specified herein are encountered on the project site and must be removed or modified during construction activities, excavation work shall stop in the vicinity of this contaminated media. The Contractor shall notify the Owner and shall implement a contaminated media management plan which will be developed by the Owner in conjunction with the Engineer and Environmental Manager. The contaminated media management plan shall be submitted to, and approved by, Vermont DEC WMPD. The contaminated media management plan shall include field observations of the materials, storage, sampling, monitoring, modification methods, treatment methods and disposal methods for contaminated media in accordance with all applicable regulations.

- 3. GENERAL CONSTRUCTION REQUIREMENTS.** Complete copies of the details of the Plans and the Corrective Action Plan shall be provided to the contractor. The Contractor shall either follow the Corrective Action Plan or submit an alternate plan which must be approved by the Vermont DEC WMPD and the Owner in conjunction with the Engineer and Environmental Manager, prior to implementation.

Unless otherwise directed in writing by the Engineer, the Contractor shall comply with all practices outlined in the Corrective Action Plan. All changes to the general practices of the Corrective Action Plan ordered in writing by the Engineer will be paid for as Extra Work.

The Contractor shall develop and follow their own Health & Safety Plan and shall ensure that all personnel working in direct contact with soil, groundwater and other contaminated media are OSHA HAZWOPER trained.

The Owner shall hire a qualified environmental professional who shall monitor contamination levels of excavated soils, encountered groundwater or other contaminated media, and ensure that the general procedures of the Corrective Action Plan are followed. This person shall be known as the Environmental Manager.

If during the excavation of petroleum contaminated soil, the Contractor encounters any condition or situation which is different from that expected, the Contractor shall immediately stop work in the vicinity of this contamination and notify the Owner, Engineer and Environmental Manager. All excavation operations in the contaminated area shall cease until the condition or situation can be evaluated. The evaluation shall include, but is not limited to, the determination of health or other hazards to the Contractor's personnel and the immediate neighborhood, the possibility of explosion, requirements for protective clothing, and special excavation, transportation and/or disposal requirements. Any further testing or deviations from the general management strategies in the Corrective Action Plan will be coordinated with the Vermont DEC WMPD.

If unidentified contaminated media are encountered during construction beyond those identified in the Plans or Corrective Action Plan, the Contractor shall excavate and properly dispose of the contaminated media as necessary and be compensated under the same Contract items applied to those areas of identified contamination.

No additional compensation or allowance for additional Contract time will be made for any delays incurred waiting for an agreement(s) to be executed, for failure to make an agreement(s), nor for any delays incurred in executing the Corrective Action Plan or amendments to the Corrective Action Plan.

4. **METHOD OF MEASUREMENT.** The quantities of Special Provision (Management of Soils, Class I, Class II, Class III, and Class IV), Special Provision (Disposal of Soils, Class I, Class II, Class III, and Class IV), and Special Provision (Contaminated Media) to be measured for payment will be the number of cubic yards of material removed and designated for remediation and/or disposal, as indicated in the Corrective Action Plan or as directed by the Engineer, as measured in its original position by cross sections, in the complete and accepted work. The quantity shall be computed by the method of average end areas, or when impractical, by other acceptable methods involving three-dimensional measurement. The limits for payment shall not exceed those indicated on the Plans or designated by the Engineer in writing. The method of mass centers for computing volumes will be allowed only when the method has been used in the original design computations. Note that some of these materials could be in solid, or semi-solid form.

Excavation requiring more than one handling prior to final placement will not be measured for payment for the additional handling unless specifically called for in the Contract Documents.

5. **BASIS OF PAYMENT.** The accepted quantities of Special Provision (Management of Soils, Class I, Class II, and Class III), Special Provision (Disposal of Soils, Class I, Class II, Class III, and Class IV), and Special Provision (Contaminated Media) will be paid for at the Contract unit price per Cubic Yard. Payment shall be full compensation for performing the work specified, including research; employee training; monitoring; and developing and complying with the Health and Safety Plan; classifying, and segregating materials; performing any testing required, satisfactorily storing, transporting and disposing of contaminated materials and for providing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

Payment for contaminated soils re-used on the project will be made as follows:

- a) The first payment of 50% of the actual quantity will be paid when the material is placed at the designated fill site.
- b) The remaining 50% of the actual quantity will be paid when the material has been incorporated back into the project and fully stabilized.

Payment for contaminated soils not re-used on the project, and other contaminated media will be made as follows:

- a) The first payment of 67% of the actual quantity will be paid when the material is placed at a treatment site or otherwise properly removed from the project.
- b) The remaining 33% of the actual quantity will be paid when proper disposal in accordance with the Plans and Corrective Action Plan has been completed documented to the owner by submission of waste manifests. The remaining 33% of the actual quantity will not be paid if proper disposal of the contaminated soil, or other media is not accomplished prior to Final Inspection.

<u>Pay Item</u>	<u>Pay Unit</u>
900.608 Special Provision (Management of Class I Soils)	(Cubic Yard)
900.608 Special Provision (Disposal of Class I Soils)	(Cubic Yard)
900.608 Special Provision (Management of Class II Soils)	(Cubic Yard)
900.608 Special Provision (Disposal of Class II Soils)	(Cubic Yard)
900.608 Special Provision (Management of Class III Soils)	(Cubic Yard)
900.608 Special Provision (Disposal of Class III Soils)	(Cubic Yard)
900.608 Special Provision (Management of Class IV Soils)	(Cubic Yard)
900.608 Special Provision (Disposal of Class IV Soils)	(Cubic Yard)
900.608 Special Provision (Contaminated Media)	(Cubic Yard)

LANDSCAPING BOULDERS

1. **DESCRIPTION.** This work shall consist of furnishing and installing, or relocating existing boulders at the locations indicated in the Plans. Existing boulders shall remain the property of the City of Burlington, VT and shall be stockpiled or reused on-site in locations to be determined by the Engineer and the City.
2. **CONSTRUCTION REQUIREMENTS.** The Contractor shall install or relocate the boulders in such a manner as to prevent damage, and as detailed on the Plans.
3. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Furnish and Install Boulder) and Special Provision (Relocate Boulder) to be measured for payment will on an Each basis in the complete and accepted work.
4. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Furnish and Install Boulder) and Special Provision (Relocate Boulder) will be paid for Each at the Contract unit price. Payment shall be full compensation for removing existing boulders and stockpiling or relocating them to the satisfaction of the Engineer; furnishing and installing new boulders; and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
900.620	Special Provision (Furnish and Install Boulder)	Each
900.620	Special Provision (Relocate Boulder)	Each

LANDSCAPING BENCH

1. **DESCRIPTION.** This work shall consist of furnishing and installing a landscape bench on a concrete foundation at the location(s) indicated in the Plans.
2. **CONSTRUCTION REQUIREMENTS.** The Contractor shall install the bench in such a manner as to prevent damage, and as detailed on the Plans.
3. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Landscape Bench) to be measured for payment will on an Each basis in the complete and accepted work.
4. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Landscape Bench) will be paid for Each at the Contract unit price. Payment shall be full compensation for furnishing and installing the bench, concrete foundation and all mounting hardware; and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.620 Special Provision (Landscape Bench)	Each

ORNAMENTAL FENCE

1. **DESCRIPTION.** This work shall consist of constructing ornamental fence at the location(s) indicated in the Contract Documents and as directed by the Engineer.

The work under this Section shall be performed in accordance with these provisions, the Plans, and Sections 525 and 541 of the Standard Specifications.

2. **GENERAL REQUIREMENTS.** Ornamental fence shall be of dimensions and materials as indicated on the drawings. Steel components of fencing shall be powder coated black after galvanizing in accordance with ASTM D7803.

Prior to ordering materials, the Contractor shall submit details for proposed new ornamental fence to the Engineer for approval.

3. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Ornamental Fence) to be measured for payment will be the number of linear feet installed in the complete and accepted work. Measurement will be along the top of the fence from outside to outside of end posts for each continuous run of fence.

4. **BASIS OF PAYMENT.** The accepted quantity of Special Provision (Ornamental Fence) will be paid for at the Contract unit price per Linear Foot. Payment will be full compensation for furnishing, transporting, handling, assembling, placing, galvanizing, and coating the railing components; furnishing and installing the concrete footings, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.640 Special Provision (Ornamental Fence)	Linear Foot

HELICAL LIGHTING FOUNDATIONS

1. **DESCRIPTION.** This Work shall consist of designing and constructing Helical Lighting Foundations in accordance with the Plans and as directed by the Engineer. The Helical Lighting System shall be the CHANCE® system by Hubbell Power Systems with a 24" diameter precast concrete collar by Enterprise Concrete Collars or approved equal. The concrete collar shall be precast and shall be designed with a 4" reveal above finished grade and a ¼" chamfered edge.

2. **MATERIALS.** Materials shall conform to the project Plans.
3. **SUBMITTALS.** The Contractor shall submit shop drawings of helical anchor and 24" diameter concrete collar for review and approval. Submittal shall include a certification from a Vermont licensed Professional Engineer that the helical lighting foundation system has been designed to meet or exceed the loading requirements to support the light poles and their associated EPA rating and other applicable building codes.
4. **METHOD OF MEASUREMENT.** The quantity of Special Provision (Helical Lighting Foundations) to be measured for payment will be on a Lump Sum basis in the complete and accepted Work. The Lump Sum price will include all helical lighting foundations necessary for the Work and as shown on the Plans.
5. **BASIS OF PAYMENT.** The price stated for Special Provision (Helical Lighting Foundation) will be paid for at the Contract Lump Sum price. Payment will include full compensation for performing any and all necessary excavation; furnishing and installing all materials detailed on the Plans; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the Work.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
900.645	Special Provision (Helical Lighting Foundations)	Lump Sum

BIKE RACKS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Bike Racks

1.2 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Samples: For exposed finish and color specified.
- C. Maintenance data.
- D. Shop drawings.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
1. Products: Subject to compliance with requirements, provide products from one of the manufacturers specified.

2.2 MATERIALS

- A. Steel: See Section 01101 – Bid and Contract Procedures, 1.2C – Buy American provisions for all steel and iron products.
1. Tubing: Cold-formed steel tubing complying with ASTM A 500.
 2. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester-TGIC, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

- B. Anchors, Fasteners, Fittings, and Hardware: Commercial quality; tamperproof, vandal and theft resistant; concealed, recessed, and capped or plugged. Provide as required for site furnishings' assembly, mounting, and secure attachment.
 - 1. Material: Manufacturer's standard, corrosion-resistant-coated or non-corrodible materials.
- C. Nonshrink, Nonmetallic Grout: ASTM C 1107; for exterior applications.
- D. Erosion-Resistant Anchoring Cement: Factory-packaged formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended for exterior applications.

2.3 BIKE RACK

- A. Products:
 - 1. Bike Rack: Hoop Rack Heavy Duty (refer to detail)
 - 2. Manufacturers:
 - a. Derovations, Inc.
 - b. Or Approved equal
- B. Frames: Comprised of tubular steel. See manufacturers shop drawings.
- C. Installation Method: As indicated on Drawings. Comply with all manufacturers recommendations.
- D. Finish: Powder Coated.
 - 1. Color: Black

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Complete field assembly of bike racks, where required as per Manufacturer's specifications.
- B. Unless otherwise indicated, install bike racks after landscaping and paving have been completed.
- C. See drawings for installation method.
- D. Install bike racks level, plumb and, true at locations directed by the City.

PART 4 - PAYMENT

4.1 METHOD OF MEASUREMENT

- A. The quantity of Special Provision Bike Rack will be paid on an each (EA) basis to install bike racks in the designated locations within the limits shown on the plans.

4.2 BASIS OF PAYMENT

- A. The accepted quantity of Special Provision Bike Rack will be paid for at the Contract EA price. The bike racks, installation, and all necessary materials shall be paid for incidental to this pay item.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.620 Special Provision Bike Rack	EA

END SECTION

BIKE TUNING STATION

PART 1 GENERAL

1.1 Summary

- A. This section includes specifications for the Fixit.

1.2 Quality Assurance

- A. **Installer Qualifications:** An experienced installer who has completed installation of bicycle repair stands similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.
- B. **Manufacturer Qualifications:** A firm experienced in manufacturing bicycle repair stands similar to those required for this project and with a record of successful in-service performance.
- C. **Source Limitations:** Obtain each color, finish, shape and type of bicycle repair stand from a single source with resources to provide components of consistent quality in appearance and physical properties.
- D. **Product Options:** Drawings indicate size, shape and dimensional requirements of bicycle repair stands and are based on the specific system indicated.

1.3 Submittals

- A. **Product Data:** Include physical characteristics such as shape, dimensions, bicycle parking capacity and finish for each bicycle repair stand.
- B. **Shop Drawings:** Show installation details for each bicycle repair stand.
- C. **Samples for Verification:** Submit finish samples for review and verification.
- D. **Maintenance Data:** For each bicycle repair stand.
 - 1. Include recommended methods for repairing damage to the finish.

1.4 Delivery, Storage and Handling

- A. Upon delivery, before signing for shipment, inspect for any damages and notate on the B.O.L.
- B. Store bicycle repair stands in original undamaged packages and containers until ready for installation
- C. Handle bicycle repair stands with sufficient care to prevent any scratches or damage to the finish.

5. Warranty

- A. Bicycle racks carry a one year manufacturer's limited warranty against defects in materials and workmanship. The one year warranty period begins the date the product is shipped from the manufacturer.
- B. The air pump for the Dero Air Kit and Dero Fixit Rack have limited operating temperatures ranges.
 - 1. Air Kit 2 and 3: -30F to 120F.

PART 2 PRODUCTS

2.1 Acceptable Manufacturers

- A. Provide bicycle repair stands manufactured by DERO BIKE RACK CO., 42 Northern Stacks Drive, Suite 100, Minneapolis, MN 55421, 1-888-337-6729. Fax: 612-331-2731
Website: www.dero.com

2.2 Materials

- A. Main body: 6 x 3/16" tube.
- B. Bike Hanger: 1.5" sch. 40 pipe, 1/4" plate.
- C. Foot: 10" dia. x .25" plate.
- D. Tool tethers: 5/32" stainless steel cable.
- E. Manual air pump.
- F. Hand tools:
 - 1. Philips and flat head screwdrivers
 - 2. 2.5, 3, 4, 5, 6, 8mm Allen wrenches
 - 3. Headset wrench
 - 4. Pedal wrench
 - 5. 8, 9, 10, 11mm box wrenches
 - 6. Tire levers

2.3 Finishes

- A. A hot-dipped galvanized finish performed after fabrication is standard.
- B. Over 250 high quality TGIC powder-coated colors are available from Dero Bike Rack Co.
 - 1. A TGIC powdercoat finish is available.
 - 2. For powder coated/ painted racks, the following specifications are required: Part is prepared for painting with hard sandblasting. An epoxy primer is electrostatically applied. A final TGIC, UV resistant polyester powder coat is applied. Final coating mil thickness shall be no less than 6 mils.

- C. Thermoplastic coatings may be added over hot-dipped galvanized finishes. In addition to an increased thickness (8-10mils), the thermoplastic finish offers superior impact resistance over powder coating.
- D. Color: Black

2.4 Fixit

A. Space Use

1. The Fixit can accommodate one bike at a time and will use approximately the amount of space listed in the installation diagrams.
2. To ensure that the Fixit is convenient and safe for bicyclists, use these minimum space use configurations when installing the Fixit next to a wall or street.

B. Setbacks

1. Wall Setback: The back of the Fixit should be at least 12" from a wall. Both sides of the Fixit should be 36" from either wall.
2. No part of the Fixit should protrude onto a walkway, bike lane, or common area.
3. Street Setback: For Fixits running parallel to the street, a 96" setback is recommended. For Fixits installed perpendicular to the street, a 60" setback is the minimum.
4. The foot-mounted Fixit has one 10" dia. x .25" plate that is installed onto a concrete base with 4 masonry anchors. 3/8" anchors are the standard anchor shipped with this rack.

PART 3 EXECUTION

3.1 Installation

- A. It is the responsibility of the installer to ensure that all base materials into which the rack will be installed can support the rack and will not be damaged by any required installation procedures.

3.2 Ordering Information

- A. When ordering or specifying this rack, make sure the product type, pump type, finish and fastener type (if applicable) are included. Contact your Dero representative for a current price list or to place an order.

3.3 Included with every Bike Rack

- A. Included in the price is a hot-dipped galvanized finish. The foot-mounted Fixit includes 4 wedge anchors or concrete spikes.

PART 1 - PAYMENT

4.1 METHOD OF MEASUREMENT

- A. The quantity of Special Provision Bike Tuning Station will be paid on an each (EA) basis to install bike tuning station in the designated locations within the limits shown on the plans.

4.2 BASIS OF PAYMENT

- A. The accepted quantity of Special Provision Bike Tuning Station will be paid for at the Contract EA price. The bike tuning station, installation, and all necessary materials shall be paid for incidental to this pay item.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.620 Special Provision Bike Tuning Station	EA

END SECTION

SPECIAL PROVISION ORNAMENTAL LIGHT

PART 1 – GENERAL

- 1.01 **DESCRIPTION.** This work shall consist of furnishing and installing ornamental light poles, fixtures, lights, foundations, wiring, and all incidentals, as shown in the Plans and as directed by the Engineer.

The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 679 of the Standard specifications.

- 1.02 **MATERIALS.** Materials shall be in accordance with Section 679 and the following requirements:

- (a) **Concrete:** Concrete shall meet the requirements of Section 541 for Concrete, Class B.
- (b) **Light Poles:** Poles shall be decorative aluminum 4" round. The pole shall have a 14 foot mounting height.
- (c) **Base Cover:** The decorative base cover shall be made from two cast-aluminum pieces fastened together with stainless steel hardware around the base of the light pole. The base cover shall be complete with a door to access the pole maintenance opening.
- (d) **Finish:** The light poles, bases, base covers and fixture adapters shall be a "black" surface treatment , thermosetting polyester resin based powder coating.
- (e) **Light Fixtures:** The luminaires shall have a glass globe, with decorative base adaptor, with finials, with decorative band and vertical support. Each luminaire shall include a photoelectric cell. All Type B light fixtures will require a decorative twin mounting arm.
- (f) **Fixture/Lamps:** The lamp wattage for the luminaires shall be 63watt LED with a kelvin rating of 4,000. The optical system shall be Type III distribution.
- (g) **Wiring:** The Contractor shall provide and install all wiring for the proposed lighting system. The wire shall be copper, 600 volt insulated, type XHHW-2 to the gages as provided by the electrical contractor.
- (h) **Banner Arms:** The banner arms shall be able to accommodate banners that are 18"x36". The banners arms shall be designed to fit on a pole, using a central tubing insert through two opposite holes. All connecting hardware should be stainless steel.
- (i) **Duplex Receptacle:** The light fixture/pole shall include a 120V duplex receptacle with common ground fault interrupter with a weather proof cover.

Manufacturer Ordering Summary

The ordering information for equivalent ornamental street lights for Fixture Types A, B and C are as follows:

Fixture A:

Manufacturer:	Architectural Area Lighting
Luminaire	UCM
Hood	Straight (STR), No Luminous Element
LED Wattage	32watt
Lamp Temperature	4,000K
Optical System	T3
Voltage	120-277v
Pole	DB6-4F14
Pole Options	GFI w/ waterproof cover
Mounting Arm:	SLA17
Banner Arms	(Two Arms, spaced to accommodate 48" banner)
Finish	BLK (Black)

Fixture B:

Manufacturer:	Architectural Area Lighting
Luminaire	UCM
Hood	Straight (STR), No Luminous Element
LED Wattage	32watt
Lamp Temperature	4,000K
Optical System	T3
Voltage	120-277v
Pole	DB6-4F14
Pole Options	GFI w/ waterproof cover
Mounting Arm:	SLA17-2
Banner Arms	(Two Arms, spaced to accommodate 48" banner)
Finish	BLK (Black)

Fixture C:

Manufacturer:	Architectural Area Lighting
Luminaire	UCM
Hood	Straight (STR), No Luminous Element
LED Wattage	32watt
Lamp Temperature	4,000K
Optical System	T3
Voltage	120-277v
Mounting Arm:	WMA17 (Wall mount)
Finish	BLK (Black)

Local Contact:
Swaney Lighting
PO Box 1597
Scarborough, ME 04070
207-883-7100 tel.

PART 2 - EXECUTION

2.01 CONSTRUCTION REQUIREMENTS.

The Contractor shall submit manufacturer's descriptive literature for materials specified in accordance with 105.03.

Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.

Ornamental lights shall only be installed in the locations specified on the plans and in accordance with manufacturer's instructions.

2.02 SUBMITTALS.

The Contractor shall submit shop drawings of light fixture, pole, and banner arms for review and approval.

PART 3 - PAYMENT

1.04 METHOD OF MEASUREMENT. The quantity of Special Provision (Ornamental Light) will be measured by the number of units installed, complete with all poles, light fixtures, lamps, anchors, grounding, receptacles, wiring, photocells, banner arms, accessories and incidentals. Wired conduit will be measured and paid separately.

1.05 BASIS OF PAYMENT. The accepted quantity of Special Provision(Ornamental Light) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.620 Special Provision (Ornamental Light-Fixture A)	Each
900.620 Special Provision (Ornamental Light-Fixture B)	Each
900.620 Special Provision (Ornamental Light-Fixture C)	Each

END OF SECTION

ATTACHMENT 1 – BURLINGTON’S LIVABLE WAGE ORDINANCE

ARTICLE VI. LIVABLE WAGES¹

21-80 Findings and purpose.

In enacting this article, the City council states the following findings and purposes:

- (a) Income from full-time work should be sufficient to meet an individual’s basic needs;
- (b) The City of Burlington is committed to ensuring that its employees have an opportunity for a decent quality of life and are compensated such that they are not dependent on public assistance to meet their basic needs;
- (c) The City of Burlington is committed, through its contracts with vendors and provision of financial assistance, to encourage the private sector to pay its employees a livable wage and contribute to employee health care benefits;
- (d) The creation of jobs that pay livable wages promotes the prosperity and general welfare of the City of Burlington and its residents, increases consumer spending with local businesses, improves the economic welfare and security of affected employees and reduces expenditures for public assistance;
- (e) It is the intention of the City council in passing this article to provide a minimum level of compensation for employees of the City of Burlington and employees of entities that enter into service contracts or receive financial assistance from the City of Burlington.

(Ord. of 11-19-01; Ord. of 10-21-13)

21-81 Definitions.

As used in this article, the following terms shall be defined as follows:

(a) *Contractor or vendor* is a person or entity that has a service contract with the City of Burlington where the total amount of the service contract or service contracts exceeds fifteen thousand dollars (\$15,000.00) for any twelve (12) month period, including any subcontractors of such contractor or vendor.

(b) *Grantee* is a person or entity that is the recipient of financial assistance from the City of Burlington in the form of grants, including any contractors or subgrantees of the grantee, that exceed fifteen thousand dollars (\$15,000.00) for any twelve (12) month period.

(c) *Covered employer* means the City of Burlington, a contractor or vendor or a grantee as defined above. The primary contractor, vendor, or grantee shall be responsible for the compliance of each of its subcontractors (or of each subgrantee) that is a covered employer.

(d) *Covered employee* means an "employee" as defined below, who is employed by a "covered employer," subject to the following:

(1) An employee who is employed by a contractor or vendor is a "covered employee" during the period of time he or she expends on furnishing services under a service contract with the City of

Burlington, notwithstanding that the employee may be a temporary or seasonal employee;

(2) An employee who is employed by a grantee who expends at least half of his or her time on activities funded by the City of Burlington is a "covered employee."

(e) *Designated accountability monitor* shall mean a nonprofit corporation which has established and maintains valid nonprofit status under Section 501(c)(3) of the United States Internal Revenue Code of 1986, as amended, and that is independent of the parties it is monitoring.

(f) *Employee* means a person who is employed on a full-time or part-time regular basis. In addition, commencing with the next fiscal year, a seasonal or temporary employee of the City of Burlington who works ten (10) or more hours per week and has been employed by the City of Burlington for a period of four (4) years shall be considered a covered employee commencing in the fifth year of employment. "Employee" shall not refer to volunteers working without pay or for a nominal stipend, persons working in an approved apprenticeship program, persons who are hired for a prescribed period of six (6) months or less to fulfill the requirements to obtain a professional license as an attorney, persons who are hired through youth employment programs or student workers or interns participating in established educational internship programs.

(g) *Employer-assisted health care* means health care benefits provided by employers for employees (or employees and their dependents) at the employer's cost or at an employer contribution towards the purchase of such health care benefits, provided that the employer cost or contribution consists of at least one dollar and twenty cents (\$1.20) per hour. (Said amount shall be adjusted every two (2) years for inflation, by the chief administrative officer of the City.) (h) *Livable wage* has the meaning set forth in Section [21-82](#).

(i) *Retaliation* shall mean the denial of any right guaranteed under this article, and any threat, discipline, discharge, demotion, suspension, reduction of hours, or any other adverse action against an employee for exercising any right guaranteed under this article. Retaliation shall also include coercion, intimidation, threat, harassment, or interference in any manner with any investigation, proceeding, or hearing under this article.

(j) *Service contract* means a contract primarily for the furnishing of services to the City of Burlington (as opposed to the purchasing or leasing of goods or

property). A contract involving the furnishing of financial products, insurance products, or software, even if that contract also includes some support or other services related to the provision of the products, shall not be considered a service contract.

(Ord. of 11-19-01; Ord. of 10-21-13)

21-82 Livable wages required.

- (a) Every covered employer shall pay each and every covered employee at least a livable wage no less than:
 - (1) For a covered employer that provides employer assisted health care, the livable wage shall be at least thirteen dollars and ninety-four cents (\$13.94) per hour on the effective date of the amendments to this article.
 - (2) For a covered employer that does not provide employer assisted health care, the livable wage shall be at least fifteen dollars and eighty-three cents (\$15.83) per hour on the effective date of the amendments to this article.
 - (3) Covered employees whose wage compensation consists of more or other than hourly wages, including, but not limited to, tips, commissions, flat fees or bonuses, shall be paid so that the total of all wage compensation will at least equal the livable wage as established under this article.
- (b) The amount of the livable wage established in this section shall be adjusted by the chief administrative officer of the City as of July 1 of each year based upon a report of the Joint Fiscal Office of the State of Vermont that describes the basic needs budget for a single person but utilizes a model of two (2) adults residing in a two (2) bedroom living unit in an urban area with the moderate cost food plan. Should there be no such report from the Joint Fiscal Office, the chief administrative officer shall obtain

and utilize a basic needs budget that applies a similar methodology. The livable wage rates derived from utilizing a model of two (2) adults residing in a two (2) bedroom living unit in an urban area with a moderate cost food plan shall not become effective until rates meet or exceed the 2010 posted livable wage rates. Prior to May 1 preceding any such adjustment and prior to May 1 of each calendar year thereafter, the chief administrative officer will provide public notice of this adjustment by posting a written notice in a prominent place in City Hall by sending written notice to the City council and, in the case of covered employers that have requested individual notice and provided contact information to the chief administrative officer, by notice to each such covered employer. However, once a livable wage is applied to an individual employee, no reduction in that employee's pay rate is permissible due to this annual adjustment.

- (c) Covered employers shall provide at least twelve (12) compensated days off per year for full-time covered employees, and a proportionate amount for part-time covered employees, for sick leave, vacation, personal, or combined time off leave.

(Ord. of 11-19-01; Ord. of 5-2-11; Ord. of 6-13-11; Ord. of 10-21-13)

21-83 Applicability.

(a) This article shall apply to any service contract or grant, as provided by this article that is awarded or entered into after the effective date of the article. After the effective date of the article, entering into any agreement or an extension, renewal or amendment of any contract or grant as defined herein shall be subject to compliance with this article.

(b) The requirements of this article shall apply during the term of any service contract subject to the article. Covered employers who receive grants shall comply with this article during the period of time the funds awarded by the City of Burlington are being expended by the covered employer.

21-84 Enforcement.

- (a) Each service contract or grant covered by this article shall contain provisions requiring that the covered employer or grantee submit a written certification, under oath, during each year during the term of the service contract or grant, that the covered employer or grantee (including all of its subcontractors and subgrantees, if any) is in compliance with this article. The failure of a contract to contain such provisions does not excuse a covered employer from its obligations under this article. The covered employer shall agree to post a notice regarding the applicability of this section in any workplace or other location where employees or other persons contracted for employment are working. The covered employer shall agree to provide payroll records or other documentation for itself and any subcontractors or subgrantees, as deemed necessary by the chief administrative officer of the City of Burlington, within ten (10) business days from receipt of the City of Burlington's request.
- (b) The chief administrative officer of the City of Burlington may require that a covered employer submit proof of compliance with this article at any time, including but not limited to:
 - (1) Verification of an individual employee's compensation;
 - (2) Production of payroll, health insurance enrollment records, or other relevant documentation; or
 - (3) Evidence of proper posting of notice.

If a covered employer is not able to provide that information within ten (10) business days of the request, the chief administrative officer may turn the matter over to the City attorney's office for further enforcement proceedings.

(c) The City of Burlington shall appoint a designated accountability monitor that shall have the authority:

- (1) To inform and educate employees of all applicable provisions of this article and other applicable laws, codes, and regulations;
- (2) To create a telephonic and electronic accountability system under this article that shall be available at all times to receive complaints under this article;
- (3) To establish and implement a system for processing employees' complaints under this article, including a system for investigating complaints and determining their initial credibility; and
- (4) To refer credible complaints to the City attorney's office for potential enforcement action under this article.

The designated accountability monitor shall forward to the City of Burlington all credible complaints of violations within ten (10) days of their receipt.

(d) Any covered employee who believes his or her covered employer is not complying with this article may file a complaint in writing with the City attorney's office within one (1) year after the alleged violation. The City attorney's office shall conduct an investigation of the complaint, during which it may require from the covered employer evidence such as may be required to determine whether the covered employer has been compliant, and shall make a finding of compliance or noncompliance within a reasonable time after receiving the complaint. Prior to ordering any penalty provided in subsection (e), (f), or (g) of this section, the City attorney's office shall give notice to the covered employer. The covered employer may request a hearing within thirty (30) days of receipt of such notice. The hearing shall be conducted by a hearing officer appointed by the City attorney's office, who shall affirm or reverse the finding or the penalty based upon evidence presented by the City attorney's office and the covered employer.

- (e) The City of Burlington shall have the right to modify, terminate and/or seek specific performance of any contract or grant with a covered employer from any court of competent jurisdiction, if the covered employer has not complied with this article.
- (f) Any covered employer who violates this article may be barred from receiving a contract or grant from the City for a period up to two (2) years from the date of the finding of violation.
- (g) A violation of this article shall be a civil offense subject to a civil penalty of from two hundred dollars (\$200.00) to five hundred dollars (\$500.00). All law enforcement officers and any other duly authorized municipal officials are authorized to issue a municipal complaint for a violation of this article. Each day any covered employee is not compensated as required by this article shall constitute a separate violation.
- (h) If a complaint is received that implicates any City of Burlington employee in a possible violation of this article, that complaint will be handled through the City's personnel procedures, not through the process outlined in this article.
- (i) Any covered employee aggrieved by a violation of this article may bring a civil action in a court of competent jurisdiction against the covered employer within two (2) years after discovery of the alleged violation. The court may award any covered employee who files suit pursuant to this section, as to the relevant period of time, the following:
 - (1) The difference between the livable wage required under this article and the amount actually paid to the covered employee;
 - (2) Equitable payment for any compensated days off that were unlawfully denied or were not properly compensated;

- (3) Liquidated damages in an amount equal to the amount of back wages and/or compensated days off unlawfully withheld or fifty dollars (\$50.00) for each employee or person whose rights under this article were violated for each day that the violation occurred or continued, whichever is greater;
 - (4) Reinstatement in employment and/or injunctive relief; and
 - (5) Reasonable attorneys' fees and costs.
- (j) It shall be unlawful for an employer or any other person to interfere with, restrain, or deny the exercise of, or the attempt to exercise, any right protected under this article. No person shall engage in retaliation against an employee or threaten to do so because such employee has exercised rights or is planning to exercise rights protected under this article or has cooperated in any investigation conducted pursuant to this article.

(Ord. of 11-19-01; Ord. of 2-17-04; Ord. of 5-2-11; Ord. of 10-21-13)

21-85 Other provisions.

- (a) No covered employer shall reduce the compensation, wages, fringe benefits or leave available to any covered employee in order to pay the livable wage required by this article. Any action in violation of this subsection shall be deemed a violation of this article subject to the remedies of Section [21-84](#).
- (b) No covered employer with a current contract, as of the effective date of this provision, with the City of Burlington for the use of property located at the Burlington International Airport may reduce, during the term of that contract, the wages of a covered employee below the livable wage as a result of amendments to this article.

(c) Where pursuant to a contract for services with the City, the contractor or subcontractor incurs a contractual obligation to pay its employees certain wage rates, in no case except as stated in subsection (d) of this section, shall the wage rates paid pursuant to that contract be less than the minimum livable wage paid pursuant to this article.

(d) Notwithstanding subsection (c) of this section, where employees are represented by a bargaining unit or labor union pursuant to rights conferred by state or federal law and a collective bargaining labor agreement is in effect governing the terms and conditions of employment of those employees, this chapter shall not apply to those employees, and the collective bargaining labor agreement shall control.

(e) Covered employers shall inform employees making less than twelve dollars (\$12.00) per hour of their possible right to the Earned Income Tax Credit under federal and state law.

(f) The chief administrative officer of the City shall have the authority to promulgate rules as necessary to administer the provisions of this article, which shall become effective upon approval by the City council.

(Ord. of 11-19-01; Ord. of 10-21-13)

21-86 Exemptions.

An exemption from any requirement of this article may be requested for a period not to exceed two (2) years:

(a) By a covered employer where payment of the livable wage would cause substantial economic hardship; and

(b) By the City of Burlington where application of this article to a particular contract or grant is found to violate specific state or federal statutory, regulatory or constitutional provisions or where granting the exemption would be in the best interests of the City.

A covered employer or grantee granted an exemption under this section may reapply for an exemption upon the expiration of the exemption. Requests for exemption may be granted by majority vote of the City council. All requests for exemption shall be submitted to the chief administrative officer. The finance committee of the City of Burlington shall first consider such request and make a recommendation to the City council. The decision of the City council shall be final.

(Ord. of 11-19-01; Ord. of 10-21-13)

21-87 Severability.

If any part or parts or application of any part of this article is held invalid, such holding shall not affect the validity of the remaining parts of this article.

(Ord. of 11-19-01; Ord. of 10-21-13)

21-88 Annual reporting.

On or before April 15 of each year, the City attorney's office shall submit a report to the City council that provides the following information:

- (a) A list of all covered employers broken down by department;
- (b) A list of all covered employers whose service contract did not contain the language required by this article; and
- (c) All complaints filed and investigated by the City attorney's office and the results of such investigation.

(Ord. of 10-21-13)

21-89 Effective date.

The amendments to this article shall take effect on January 1, 2014, and shall not be retroactively applied.

(Ord. of 10-21-13)

ATTACHMENT 1

Certification of Compliance with the City of Burlington's Livable Wage Ordinance

I, _____, on behalf of _____ ("the Contractor") in connection with a contract for _____ services that we provide to the City, hereby certify under oath that the Contractor (and any subcontractors under this contract) is and will remain in compliance with the City of Burlington's Livable Wage Ordinance, B.C.O. 21-80 et seq., and that

(1) as a condition of entering into this contract or grant, we confirm that all covered employees as defined by Burlington's Livable Wage Ordinance (including the covered employees of subcontractors) shall be paid a livable wage (as determined, or adjusted, annually by the City of Burlington's chief administrative officer) and provided appropriate time off for the term of the contract;

(2) a notice regarding the applicability of the Livable Wage Ordinance shall be posted in the workplace(s) or other location(s) where covered employees work;

(3) we will provide verification of an employee's compensation, produce payroll or health insurance enrollment records or provide other relevant documentation (including that of any subcontractor), as deemed necessary by the chief administrative officer, within ten (10) business days from receipt of a request by the City;

(4) we will cooperate in any investigation conducted by the City of Burlington's City Attorney's office pursuant to this ordinance; and

(5) we will not retaliate (nor allow any subcontractor to retaliate) against an employee or other person because an employee has exercised rights or the person has cooperated in an investigation conducted pursuant to this ordinance.

Date _____ By: _____
Contractor

Subscribed and sworn to before me:

Date _____
Notary

ATTACHMENT 2 - BURLINGTON'S UNION DETERRENCE ORDINANCE

ARTICLE VIII. UNION DETERRENCE

21-100 Policy.

It is the policy of the City of Burlington to limit letting contracts to organizations that provide union deterrence services to other companies.

(Ord. of 3-27-06/4-26-06)

21-101 Definitions.

- (a) *Contractor or vendor.* A person or entity that has a contract with the City of Burlington primarily for the furnishing of services (as opposed to the purchasing of goods), including any subcontractors of such contractor or vendor.
- (b) *Government funded project.* Any contract for services which involves any City funds and the total amount of the contract is fifteen thousand dollars (\$15,000.00) or more. Burlington School Department contracts shall not be considered government funded projects under this article.
- (c) *Union deterrence services.* Services provided by a contractor, subcontractor or vendor that are not restricted to advice concerning what activities by an employer are prohibited and permitted by applicable laws and regulations, but extend beyond such legal advice to encouraging an employer to do any of the following:
- 1) Hold captive audience, (i.e., mandatory) meetings with employees encouraging employees to vote against the union;
 - 2) Have supervisors force workers to meet individually with them to discuss the union;
 - 3) Imply to employees, whether through written or oral communication, that their employer may have to shut down or lay people off if the union wins the election;
 - 4) Discipline or fire workers for union activity;
 - 5) Train managers on how to dissuade employees from supporting the union.
- (d) *Substantial portion of income.* For the purposes of this article, substantial portion of income shall mean greater than ten (10) percent of annual gross revenues or one hundred thousand dollars (\$100,000.00), whichever is less.

(Ord. of 3-27-06/4-26-06)

21-102 Implementation.

- (a) No contract for a government funded project shall be let to any contractor, subcontractor, or vendor who
- 1) Advises or has advised an employer to conduct any illegal activity in its dealings with a union.
 - 2) Advertises union deterrence services as specialty services;
 - 3) Earns a substantial portion of its income by providing union deterrence services to other companies in order to defeat union organizing efforts.
- (b) Prior to the commencement of work on a government funded project a contractor, subcontractor or vendor shall provide written certification that it has not advised the conduct of any illegal activity, it does not currently, nor will it over the life of the contract provide union deterrence services in violation of this article.

(Ord. of 3-27-06/4-26-06)

21-103 Enforcement.

- (a) Any contractor, subcontractor or vendor who files false or materially misleading information in connection with an application, certification or request for information pursuant to the provisions of this article or provided union deterrence services during the life of a contract for a government funded project shall be deemed to be in violation of this article.
- (b) The City of Burlington shall have the right to modify, terminate and or seek specific performance of any contract for a government funded project if the contractor, subcontractor or vendor has not complied with this article.

(Ord. of 3-27-06/4-26-06)

21-104—21-110 Reserved.

ATTACHMENT 2

Certification of Compliance with the City of Burlington's
Union Deterrence Ordinance

I, _____, on behalf of _____ (Contractor) and in connection with the _____ project, hereby certify under oath that _____ (Contractor) has not advised the conduct of any illegal activity, and it does not currently, nor will it over the life of the contract advertise or provide union deterrence services in violation of the City's union deterrence ordinance.

Dated at _____, Vermont this ____ day of _____, 2019.

By: _____ Duly Authorized
Agent

ATTACHMENT 3 - BURLINGTON'S OUTSOURCING ORDINANCE

ARTICLE VII. OUTSOURCING **21-90 Policy.**

It is the policy of the City of Burlington to let service contracts to contractors, subcontractors and vendors who perform work in the United States.

(Ord. of 11-21-05/12-21-05)

21-91 Definitions.

- (a) *Contractor or vendor.* A person or entity that has a contract with the City of Burlington primarily for the furnishing of services (as opposed to the purchasing of goods), including any subcontractors of such contractor or vendor.
- (b) *Government funded project.* Any contract for services which involves any City funds and the total amount of the contract is fifty thousand dollars (\$50,000.00) or more. Burlington School Department contracts shall not be considered government funded projects under this article.
- (c) *Outsourcing.* The assigning or reassigning, directly, or indirectly through subcontracting, of services under a government funded project to workers performing the work outside of the United States.

(Ord. of 11-21-05/12-21-05)

21-92 Implementation.

- (a) No contract for a government funded project shall be let to any contractor, subcontractor, or vendor who is outsourcing, or causing the work to be performed outside of the United States or Canada.
- (b) Prior to the commencement of work on a government funded project a contractor, subcontractor or vendor shall provide written certification that the services provided under the contract will be performed in the United States or Canada.

(Ord. of 11-21-05/12-21-05)

21-93 Exemption.

An exemption from requirements of this article may be authorized by the chief administrative officer based upon a determination that the services to be performed for the government funded project are not available in the United States or Canada at a reasonable cost. Any such exemption decision by the chief administrative officer shall be reported to the board of finance in writing within five (5) days. The board of finance may, if it should vote to do so, override the exemption decision if such vote occurs within fourteen

(14) days of the date of the chief administrative officer's communication to such board.

(Ord. of 11-21-05/12-21-05)

21-94 Enforcement.

- (a) Any contractor, subcontractor or vendor who files false or materially misleading information in connection with an application, certification or request for information pursuant to the provisions of this article or outsources work on a government funded project shall be deemed to be in violation of this article.
- (b) A violation of this article shall be a civil offense subject to a civil penalty of from one hundred dollars (\$100.00) to five hundred (\$500.00). All law enforcement officers and any other duly authorized municipal officials are authorized to issue a municipal complaint for a violation of this article. Each day any violation of any provision of this article shall continue shall constitute a separate violation.
- (c) The City of Burlington shall have the right to modify, terminate and or seek specific performance of any contract for a government funded project if the contractor, subcontractor or vendor has not complied with this article.

(Ord. of 11-21-05/12-21-05)

21-95—21-99 Reserved.

ATTACHMENT 3

Certification of Compliance with the City of Burlington's Outsourcing Ordinance

I, _____, on behalf of _____ (Contractor) and in connection with the _____ project, hereby certify under oath that (1) Contractor shall comply with the City of Burlington's Outsourcing Ordinance (Ordinance §§ 21-90 – 21-93); (2) as a condition of entering into this contract or grant, Contractor confirms that the services provided under the above-referenced contract will be performed in the United States or Canada.

Dated at _____, Vermont this ____ day of _____, 2019.

By: _____ Duly Authorized
Agent

Subscribed and sworn to before me: _____
Notary

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ATTACHMENT A

[VT DEC Low Risk General Permit 3-9020 – Notice of Intent]

To be provided at a later date.

ATTACHMENT B

[VT DEC Individual Stormwater Permit (INDS) – Notice of Intent]

To be provided at a later date.

ATTACHMENT C

[US Army Corps of Engineers Section 404 Permit]

To be provided at a later date.

ATTACHMENT D
[Corrective Action Plan]

To be provided at a later date.