Special Provisions for: Bridport STP CULV(29)

1. LABOR SUPPLY. Available workers for this Contract may be obtained from Manager, Employment & Training, Middlebury, VT. The latest edition of the DBE Registry can be obtained from the Office of Civil Rights and Labor's Webpage at the following address: www.aot.state.vt.us/CivilRights/default.htm. Contractors that do not have access to the internet may obtain a copy from the Office of Contract Administration upon request.

2. CONTRACT COMPLETION DATE. This Contract shall be completed on or before July 31, 2015.

3. NOTICE TO BIDDERS. U.S. Department of Labor Davis-Bacon wage rates are applicable to this Contract. Copies of the applicable rates are included in this proposal.

4. CONTACT WITH THE AGENCY. From the time of advertising until the actual bid opening for this Contract, all prospective Contractors, subcontractors, and suppliers shall direct all inquiries related to this project solely to the Agency's Office of Contract Administration at (802) 828-2641. This number may also be accessed via the Agency's TTY/TDD Telecommunications Relay Service at 1-800-253-0191.

   The deadline for submitting inquiries related to this project to the Office of Contract Administration is 4:30 p.m. Eastern Standard Time on XXX, 2014. No exceptions will be made to this requirement.

5. NOTICE TO BIDDERS. The Contractor is hereby notified that in the absence of the Engineer, the Agency's Safety Officer and the Agency's Hazardous Materials and Waste Coordinator shall each have the authority to suspend work when they determine that a serious safety or environmental violation exists on the job site. The period of time work is suspended due to a serious safety or environmental violation will not be justification for an extension of time.

6. STANDARD SPECIFICATIONS. The provisions of the 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, as modified herein, shall apply to this Contract.

7. SUPPLEMENTAL SPECIFICATIONS AND CONTRACT REQUIREMENTS. The Contractor's attention is directed to the following specifications and contract requirements included in the Proposal form and effective for this Contract:

   Required Contract Provisions for Federal-Aid Construction
   Standard Federal EEO Specifications
   VT Agency of Transportation Contractor Workforce Reporting Requirements
   Workers' Compensation; State Contracts Compliance Requirement
   General Special Provisions dated May 6, 2014
   Bulletin 3.5 Attachment C: Standard State Provisions for Contracts and Grants
   Vermont Minimum Labor & Truck Rates
   Disadvantaged Business Enterprise (DBE) Policy Contract Requirements
   U.S. Department of Labor Davis-Bacon Wage Rates
   Stream Alteration Consultation (e-mail) dated November 5, 2013
   Individual Wetland Permit #2013-288 dated February 20, 2014
   Endangered & Threatened Species Takings Permit #EH-2014-10 dated June 1, 2014

Army Corps of Engineers Category 1 Self-Verification Form (BR #2)
Army Corps of Engineers Category 1 Self-Verification Form (BR #5)
Army Corps of Engineers General Permit #NAE-2012-1167 dated December 6, 2012
Certification for Federal-Aid Contracts
Contractor's EEO Certification Form
Debarment & Non-Collusion Affidavit

8. NOTICE TO BIDDERS – CONTRACT INSURANCE REQUIREMENTS. The Contractor is hereby notified that in the event of a discrepancy between the stated insurance requirements of Bulletin 3.5 Attachment C: Standard State Provisions for Contracts and Grants and those of Subsection 103.04 of the Standard Specifications for Construction, the requirements of Subsection 103.04 of the Standard Specifications for Construction shall govern.

9. NOTICE TO BIDDERS – ADDITIONAL CONTRACT REQUIREMENT. For construction and transportation projects over $250,000.00, a payroll process by which during every pay period the Contractor collects from the subcontractors or independent contractors a list of all workers who were on the jobsite during the pay period, the work performed by those workers on the jobsite, and a daily census of the jobsite. This information, including confirmation that Contractors, subcontractors, and independent contractors have the appropriate workers' compensation coverage for all workers at the jobsite, and similar information for the subcontractors regarding their subcontractors shall also be provided to the Department of Labor and to the Department of Banking, Insurance, Securities, and Health Care Administration, upon request, and shall be available to the public.

10. NOTICE TO BIDDERS – RE-DESIGNATION OF VTRANS OFFICIALS. The Contractor is hereby notified of the following re-designation of VTrans officials as referenced in the Contract Documents:

Where in the Contract Documents it reads:	It shall be read as and shall mean:
Director of Program Development	Chief Engineer
Assistant Director of Program Development	Deputy Chief Engineer
Roadway, Traffic, and Safety Engineer; Roadway Program Manager; Highway Safety & Design Engineer; Structures Engineer; Structures Program Manager	Director of Project Delivery Bureau
Chief of Local Transportation Facilities	Director of Municipal Assistance Bureau
Construction Engineer; Materials and Research Engineer	Director of Construction and Materials Bureau
Director of Operations	Director of Maintenance and Operations Bureau

11. NOTICE TO BIDDERS - INCENTIVE/DISINCENTIVE (I/D). The Agency's intent is to have the bridge closure periods be as short a duration as possible. To encourage the Contractor to provide a maximum effort to complete the Identified Work for I/D within the periods as defined below, the Agency is willing to pay an incentive.

(a) Dates.

(1) Bridge No. 2. The allowable BCP is ~~three~~ five (~~3~~ 5) consecutive calendar days (~~72~~ 120 hours), herein defined as the I/D period. During the BCP, the Contractor will be allowed to work 24 hours per day. The BCP shall be scheduled to exclude holiday periods.

Night work will be allowed during the BCP. See Special Provision Nos. 12 NOTICE TO BIDDERS - REQUIREMENTS FOR NIGHTTIME WORK and 13 NOTICE TO BIDDERS – NIGHTTIME WORK RESTRICTIONS for additional information and requirements.

Upon any Contractor's receipt of the VAOT Contract award letter, the Contractor shall submit to the VAOT Construction Section for review and approval a certified letter indicating the BEGIN CONSTRUCTION DATE for the BCP work. This letter shall be received by the Construction Section a minimum of seven (7) calendar days prior to the BEGIN CONSTRUCTION DATE indicated in the letter. The BEGIN CONSTRUCTION DATE shall be determined by the Contractor.

(2) Bridge No. 5. The allowable BCP is three (~~5~~ 3) consecutive calendar days (~~120~~ 72 hours), herein defined as the I/D period. During the BCP, the Contractor will be allowed to work 24 hours per day. The BCP shall be scheduled to exclude holiday periods.

Night work will be allowed during the BCP. See Special Provision Nos. 12 NOTICE TO BIDDERS - REQUIREMENTS FOR NIGHTTIME WORK and 13 NOTICE TO BIDDERS – NIGHTTIME WORK RESTRICTIONS for additional information and requirements.

Upon any Contractor's receipt of the VAOT Contract award letter, the Contractor shall submit to the VAOT Construction Section for review and approval a certified letter indicating the BEGIN CONSTRUCTION DATE for the BCP work. This letter shall be received by the Construction Section a minimum of seven (7) calendar days prior to the BEGIN CONSTRUCTION DATE indicated in the letter. The BEGIN CONSTRUCTION DATE shall be determined by the Contractor.

The I/D periods as established above for this Contract are absolutely fixed and will not be changed for any Act of God, omission, improper action, direction of the Engineer, or any other reason unless done so by the Secretary and only under extreme conditions as determined by the Secretary.

(b) Identified Work. All work required to open the new bridge to traffic as specified below:

- New culvert installed and backfilled;
- Guardrail (permanent or temporary) installed;
- Approaches acceptable for maintaining two-way traffic during non-working hours, as determined by the Engineer.

Following the end of the BCP, the Contractor shall maintain a minimum of one-lane, two-way traffic during working hours and shall maintain two-lane, two-way traffic during non-working hours. Wherever one-lane, two-way traffic is maintained by the Contractor, the traveling public shall not be delayed more than 10 minutes unless otherwise directed by the Engineer.

At all times that traffic is allowed through the construction zone, roadway grade shall be maintained at the top of subgrade and shall allow passage of a WB-67 truck between barriers.

(c) Pay Schedule.

15,000

(1) Bridge No. 2. The Contractor will receive a lump sum compensation of ten thousand dollars ($10,000) for completing the Identified Work on or before the end of the I/D period (allowable BCP).

In addition, the Contractor will be compensated at a rate of five hundred dollars ($500) per hour that the Identified Work is completed before the end of the I/D period (allowable BCP), up to a maximum total payment as specified herein.

The maximum amount payable under the incentive clause shall be sixteen thousand dollars ($16,000) (including the lump sum payment).

32,000

For each day after the I/D period (allowable BCP) that the Identified Work remains uncompleted, the Contractor will be assessed a disincentive at a rate of five hundred dollars ($500) per hour. There shall be no maximum on the disincentive amount.

This assessed disincentive is separate from, and will be imposed in addition to, liquidated damages which may be imposed for failure to complete the Contract on time.

10,000

(2) Bridge No. 5. The Contractor will receive a lump sum compensation of fifteen thousand dollars ($15,000) for completing the Identified Work on or before the end of the I/D period (allowable BCP).

In addition, the Contractor will be compensated at a rate of seven hundred dollars ($700) per hour that the Identified Work is completed before the end of the I/D period (allowable BCP), up to a maximum total payment as specified herein.

The maximum amount payable under the incentive clause shall be ~~thirty-one thousand eight~~ hundred dollars (~~$31,800~~) (including the lump sum payment). 17,000

For each day after the I/D period (allowable BCP) that the Identified Work remains uncompleted, the Contractor will be assessed a disincentive at a rate of seven hundred dollars ($700) per hour. There shall be no maximum on the disincentive amount.

This assessed disincentive is separate from, and will be imposed in addition to, liquidated damages which may be imposed for failure to complete the Contract on time.

(e) Underruns and Overruns. The proposal indicates an estimated quantity for each Contract pay item. The fact that the actual amounts used in the construction of this project may vary from the estimate will not be a basis or cause for changing any of the conditions for I/D.

The Agency recognizes that additional work beyond the work indicated in the Plans is always possible in any construction contract. The Agency is willing to pay for necessary additional work in accordance with the terms and requirements of the Contract and the Standard Specifications for Construction, however, the Contractor shall absorb any resulting construction time within the original project and CPM Schedules, and there will be no adjustments or changes to the I/D dates or I/D conditions.

(f) Payment. Payment will be made as specified in Section 900.

12. NOTICE TO BIDDERS – REQUIREMENTS FOR NIGHTTIME WORK. The Contractor is hereby notified that night work will be allowed within the bridge closure period. For the purposes of this Contract, "night" shall mean from the hours of 7:00 p.m. until 5:00 a.m. of the following day. The Engineer may abbreviate this time period as necessary for safety considerations.

Night work shall be performed in accordance with the National Cooperative Highway Research Program (NCHRP) Report 476 – "Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance and Construction". A copy of this guideline specification may be downloaded from the following website: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_476.pdf.

Prior to beginning night work, the Contractor shall design a lighting system and present it to the Engineer for approval. The Contractor shall not perform any night work or activities within the project limits until the lighting system has been fully approved and is in place on the project.

The designed lighting system shall be mobile, shall be mounted separately from other construction equipment, shall illuminate the entire work area to daylight intensity with minimal glare, and shall be a surrounding design that minimizes shadows in the work area as much as possible.

All costs associated with the lighting system will be considered incidental to Contract item 900.645 Special Provision (Traffic Control, All-Inclusive).

13. NOTICE TO BIDDERS - NIGHTTIME WORK RESTRICTIONS. The Contractor is hereby notified that during the bridge closure period, no work shall be performed between the hours of 9:00 p.m. and 5:00 a.m. that creates a noise level exceeding 75 decibels. The decibel level shall be measured from the point of activity to the nearest occupied residence.

Construction activities expected to reach this noise threshold include pneumatic hammers, hoe-ram, and similar impact type equipment.

The Contractor shall provide the Engineer, for the duration of the nighttime work, with a sound level meter capable of measuring this noise criteria during the bridge closure period.

Sound level meters shall be Rion NL-20, CESVA SC-160, Extech 407780 or an approved equal capable of meeting IEC60651: 1979 Type 2 and IEC60804: 1985 Type 2 Standards.

The cost for providing this equipment and meeting the specified noise level criteria will not be paid for separately, but will be considered incidental to all other Contract items.

14. NOTICE TO BIDDERS. All temporary construction signs shall meet the following requirements:

A. Where sign installations are not protected by guardrail or other approved traffic barriers, all sign stands and post installations shall meet National Cooperative Highway Research Program (NCHRP) Report 350 or the AASHTO Manual for Assessing Safety Hardware (MASH). The appropriate resource shall be determined as described in the MASH publication. No sign posts shall extend over the top of the sign installed on said post(s). When anchors are installed, stub shall not be greater than 100 mm (4 inches) above existing ground.

B. As a minimum, roll up sign material shall have ASTM D 4956 Type VI fluorescent orange retroreflective sheeting.

C. All post-mounted signs and solid substrate portable signs shall have ASTM D 4956 Type VII, Type VIII, or Type IX fluorescent orange retroreflective sheeting.

D. All retroreflective sheeting on traffic cones, barricades, and drums shall be at a minimum ASTM D 4956 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.

H. Speed zones, if used, should be a maximum of 16 kph (10 mph) below existing posted speeds. Temporary speed limit certificates must be approved by the Director of Program Development.

15. NOTICE TO BIDDERS. All retroreflective sheeting on permanent signs (signs to remain after the project is completed) shall be at a minimum ASTM D 4956 Type III sheeting, unless otherwise shown on the Plans.

16. UTILITIES.

Bridge No.2

Existing aerial facilities owned by Green Mountain Power Corporation will be adjusted, as necessary, by employees or agents of the above company in accordance with the approximate aerial utility relocation route shown on the Plans.

Existing aerial facilities owned by Waitsfield Champlain Valley Telecom (WCVT) will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

Existing underground facilities owned by Waitsfield Champlain Valley Telecom (WCVT) will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

An existing underground water main owned by Tri-Town Water District #1 is not expected to require adjustment. The Contractor is cautioned to protect this water main from damage. The Contractor shall contact Tri-Town Water District #1 at least ten (10) working days prior to beginning work on this bridge so as to allow Tri-Town Water District #1 the opportunity to expose their existing water main.

Tri-Town Water District #1 shall be allowed free and full access within the project limits with the tools, materials, and equipment necessary to replace and relocate their facilities if necessary. There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with Tri-Town Water District #1 or their facilities.

Bridge No.5

Existing underground facilities owned by Waitsfield Champlain Valley Telecom (WCVT) will be adjusted, as necessary, by employees or agents of the above company in accordance with the approximate aerial utility relocation route shown on the Plans.

Existing underground facilities owned by Waitsfield Champlain Valley Telecom (WCVT), from Plan Station 20+96 left to Plan Station 23+63 left (along the edge of the existing paved shoulder) have been abandoned in place.

Existing underground facilities owned by Waitsfield Champlain Valley Telecom (WCVT), crossing VT Route 125 at approximate Plan Station 23+63, will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

Existing aerial facilities owned by Green Mountain Power Corporation will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

An existing underground water main owned by Tri-Town Water District #1 is not expected to require adjustment. The Contractor is cautioned to protect this water main from damage. The Contractor shall contact Tri-Town Water District #1 at least ten (10) working days prior to beginning work on this bridge so as to allow Tri-Town Water District #1 the opportunity to expose their existing water main.

Tri-Town Water District #1 shall be allowed free and full access within the project limits with the tools, materials, and equipment necessary to replace or relocate their facilities if necessary. There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with Tri-Town Water District #1 or their facilities:

Contracts for the above listed utility companies are:

Green Mountain Power:	Larry Fusco	- (802)747-5460
WCVT:	Kathi McGrath	- (802)496-8323
Tri-Town Water District #1:	Ed Devino	- (802)758-2202

The Contractor is advised that exploratory excavation to locate existing underground facilities may be necessary to protect these facilities from damage. Where approved by the Engineer, these utilities shall be located and/or exposed by methods such as air/vacuum excavation and/or hand digging to determine their exact location. This exploratory work shall be classified as Trench Excavation of Earth, Exploratory and payment will be made under Contract item 204.22.

Employees or agents of the above listed 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 or their facilities.

Vermont Statues Annotated, Title 30, Chapter 86 (“Dig Safe”) requires notice to Dig Safe before starting excavation activities. The Contractor must telephone Dig Safe at 811 at least 48 hours (excluding Saturdays, Sundays and legal holidays) before, but not more than 30 days before, starting excavation activities at any location. In addition, before excavation and/or pavement grinding in or on the state highway right-of-way, the Contractor must contact the Agency’s District Transportation Administrator to obtain/verify the location of Agency’s underground utility facilities or to confirm the absence of such facilities.

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.

All Contractors, subcontractors or material suppliers involved in any project-related activity shall comply with all applicable and regulations related to working around live electrical lines; including, but not limited to maintaining the required minimum clear distance from an electrical utility facility. The Contractor's Competent Safety Officer shall be well versed in OSHA and VOSHA regulations, and shall be capable of implementing a plan to conform to these regulations during prosecution of work.

17. HIGHWAY 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 the highway or intersecting highways. All trucks or equipment so stopped or parked shall be at least 1.2 m (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 of workers will not be permitted to stop or park on the shoulders or right-of-way of the highway or intersecting highways.

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.

18. SPECIAL CONSTRUCTION REQUIREMENTS.

A. Unless otherwise permitted in writing by the Engineer, the Contractor shall not work during the holiday periods for Memorial Day, July Fourth, and Labor Day. The Engineer shall give a written order designating the time of observance of these holidays and of any additional holidays required by the season, anticipated traffic, and local custom. As specified in Subsection 105.14, and except as otherwise allowed under Special Provision No. 11(a), construction operations shall not be performed on any Sunday without the specific authorization of the Engineer.

Designated holiday periods shall begin at 12:00 noon on the day before the weekend or holiday, whichever applies, and shall end at 7:00 a.m. on the day after the holiday or the weekend, as appropriate.

B. The Contractor shall maintain a safe access to all drives and intersecting side roads at all times during the construction of this project.

C. Two-way radios shall be provided by the Contractor when requested by the Engineer for use by traffic control personnel. All costs for furnishing and using two-way radios will not be paid for directly, but will be considered incidental to Contract item 900.645 Special Provision (Traffic Control, All-Inclusive).

D. The Contractor shall have available on the project the current editions of the Manual on Uniform Traffic Control Devices (MUTCD) and the Standard Highway Signs and Markings (SHSM) Book. Information for obtaining these publications may be found at: http://mutcd.fhwa.dot.gov/index.htm.

ASPHALT PRICE ADJUSTMENT

19. SUPPLEMENTAL SPECIFICATION - ASPHALT PRICE ADJUSTMENT, dated April 6, 2010, is hereby made a new Subsection of the Specifications, superseding all previous editions and their modifications.

20. SUPPLEMENTAL SPECIFICATION - ASPHALT PRICE ADJUSTMENT, dated April 6, 2010, GENERAL REQUIREMENTS AND CONDITIONS, part (b) text, is hereby modified by being deleted in its entirety and replaced with text "NOT USED".

The index price for asphalt cement is $XXX.00 per ton.

In addition to materials produced under Contract pay item(s) as allowed in GENERAL REQUIREMENTS AND CONDITIONS, part (a) of the Supplemental Specification, asphalt cement produced under Contract items 900.680 Special Provision (Bituminous Concrete Pavement, Small Quantity) will be included for adjustment.

If an emulsified asphaltic liquid is used in the Contract work under any Contract item subject to the Asphalt Price Adjustment provisions and that liquid is not included in the table under subpart (5) of PRICE ADJUSTMENT PROCEDURES of the Supplemental Specification, the ACEA as defined in subpart (5) for that liquid will be that as determined by averaging Contractor certified test results for the project.

SECTION 108 – PROSECUTION AND PROGRESS

21. 108.11 DETERMINATION OF EXTENSION OF CONTRACT TIME FOR COMPLETION, part (b) Determination of Contract Completion Date Extension, is hereby modified by adding new subpart (11) as follows:

(11) The days from April 15th to December 1st, inclusive, on which the weather or condition of the ground caused suspension of the work.

22. 108.12 FAILURE TO COMPLETE WORK ON TIME, part (c) Liquidated Damages; General; Days Charged, is hereby modified by deleting the DAILY CHARGE FOR LIQUIDATED DAMAGES FOR EACH WORKING DAY OF DELAY table in its entirety and replacing it with a new table as follows:

DAILY CHARGE FOR LIQUIDATED DAMAGES
FOR EACH WORKING DAY OF DELAY

Original Contract Amount		
From More Than ($)	To And Including ($)	Daily Charge Per Day of Delay ($)
0	500,000	1,200.00
500,000	1,000,000	1,300.00
1,000,000	1,500,000	1,400.00
1,500,000	3,000,000	1,800.00
3,000,000	5,000,000	2,300.00
5,000,000	10,000,000	3,500.00
10,000,000	20,000,000	5,900.00
20,000,000+	---------	10,700.00

SECTION 490 – SUPERPAVE BITUMINOUS CONCRETE PAVEMENT

23. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby modified by deleting the fourth row (for "Dust Proportion") in its entirety and replacing it with the following:

Dust Proportion (Filler/Asphalt Ratio)	0.60 - 1.20 (Wet Sieve) (Dry Sieve for Production - Types IS and IIS: 0.50 - 1.20 Types IIIS, IVS, and VS: 0.50 – 1.00)

24. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby further modified by deleting the sixth row (for "Voids in Mineral Aggregate") in its entirety and replacing it with the following:

Voids in Mineral Aggregate (VMA)%	12.5 min.	13.5 min.	14.5 min	15.5 min.	16.5 min.	17.5 min.

25. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby still further modified by deleting the ninth row (for "Voids Filled With Asphalt") in its entirety.

26. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby still further modified by deleting footnotes (3), (4), and (5) in their entirety.

27. 490.03 COMPOSTION OF MIXTURE, part (b) Design Criteria, is hereby modified by deleting the heading "Voids Filled With Asphalt (VFA)" and the equation "VFA = 100 x ((VMA – V_a)/VMA)" in the second paragraph.

28. 490.03 COMPOSITION OF MIXTURE, part (c) Mix Design, is hereby modified by deleting the phrase ", and a single percentage for VFA" in the first sentence of the third paragraph.

29. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03C – PRODUCTION TESTING TOLERANCES is hereby modified by deleting the seventh (last) row (for "VFA") in its entirety.

30. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03C – PRODUCTION TESTING TOLERANCES is hereby further modified by deleting footnote 2 in its entirety.

SECTION 501 – HPC STRUCTURAL CONCRETE

31. 501.02 MATERIALS, is hereby modified by adding the following:

Where a shrinkage admixture will be used in placing concrete as allowed by the Contract Documents, the following requirements shall be met:

A shrinkage compensating admixture shall be added during the initial concrete mixing phase or as recommended by the chemical manufacturer product representative. The shrinkage compensating admixture shall be one of the products listed below. The final dosage rate will be determined by the product representative and the concrete producer. The dosage rate volume is computed into the final water/cementitious ratio.

Manufacturer: Sika Construction Product Division
Product name: – Sika Control 40
Tel.: 1-800-933-7452
Website: http://www.sikaconstruction.com/tds-cpd-SikaControl40-us.pdf

Manufacturer: The Euclid Chemical Company
Product name: Eucon SRA
Tel.: 1-800-321-7628
Website: http://www.euclidchemical.com/fileshare/ProductFiles/techdata/euconsra.pdf

Manufacturer: BASF (Master Builders)
Product name: Tetraguard AS20
Tel.: 1-800-628-9900
Website: http://www.basf-admixtures.com/NR/rdonlyres/84C7EC12-F527-44FD-A8B9-3A007609FF76/0/TETRAGUARD_AS20_DS307.pdf

Manufacturer: Grace Construction Products
Product name: Eclipse Plus
Tel.: 1-877-423-6491
Website: http://www.na.graceconstruction.com/concrete/download/EC-13B_2.pdf

SECTION 652 – EROSION PREVENTION & SEDIMENT CONTROL PLAN

32. SECTION 652 – EROSION PREVENTION & SEDIMENT CONTROL PLAN, is hereby made a new Section of the Specifications as follows:

33. 652.01 DESCRIPTION. This work shall consist of designing, furnishing, and submitting for acceptance modifications to the Contract Erosion Prevention & Sediment Control Plan (hereinto known as the EPSC Plan), becoming a co-permittee with the Agency of Transportation, State of Vermont on associated permits, monitoring the EPSC Plan using an On-Site Plan Coordinator, and maintaining the erosion prevention and sediment control measures to ensure the effectiveness of the EPSC Plan.

34. 652.02 MATERIALS. Materials required for the field work maintenance of the EPSC Plan shall meet all requirements of the appropriate Section of the VAOT Standard Specifications for Construction.

    Materials including manuals, checklists, forms, and other supporting documentation necessary to meet the requirements of these provisions and maintain compliance with associated permits shall be made available to the Engineer by the Contractor and maintained on site by the Contractor. Supporting documents associated with the requirements of General Permit 3-9020 are available upon request to ANR or from the ANR Stormwater web page. The *VTrans Erosion Prevention and Sediment Control Plan Contractor Checklist* and *Low Risk Site Inspection Form* are available from the VTrans Construction Environmental Engineer.

35. 652.03 QUALIFICATIONS. Modifications to the EPSC Plan shall be prepared and signed by a Licensed Professional Civil Engineer registered in the State of Vermont or a qualified professional in erosion prevention and sediment control, certified by CPESC, Inc. or equivalent, hereinafter called the “Preparer.”

36. 652.04 EROSION PREVENTION & SEDIMENT CONTROL PLAN. The EPSC Plan, developed using a combination of structural, non-structural, and vegetative practices to adequately prevent erosion and control sedimentation, and meeting the requirements of the *VTrans Erosion Prevention & Sediment Control Plan Designer Checklist (Non-Jurisdictional and Low Risk)* or the *Vermont Standards & Specifications for Erosion Prevention & Sediment Control* based on area of disturbance and risk, has been included in the Contract Documents.

    The Contractor shall use the EPSC Plan included in the Contract and, at the onset of construction as well as throughout the duration of the project, modify it to describe changing conditions and illustrate how the criteria of the determined risk will be upheld. For Non-Jurisdictional and Low Risk projects, the Contractor shall use the *VTrans Erosion Prevention and Sediment Control Plan Contractor Checklist*. For Moderate Risk projects, the Contractor shall modify the Contract EPSC Plan in accordance with the General Permit 3-9020 Parts 4 through 6. If a modification to the EPSC Plan at a Low or Moderate Risk project alters any criteria of the determined risk, an updated Risk Evaluation shall be prepared.

    The Contractor may use the Agency’s EPSC Plan sheet(s) as a basis for necessary modifications; however, if necessary to convey the sequential nature and phases of construction activities and associated erosion prevention and sediment control measures, several plan sheets showing successive site conditions are recommended.

All work shown in the EPSC Plan shall be included in the Contractor's CPM Progress Schedule, as required by Subsection 108.03.

37. 652.05 SUBMITTALS. Three sets of the modified EPSC Plan as well as the updated Risk Evaluation, stamped and signed by the Preparer, shall be submitted to the Construction Engineer as Construction Drawings in accordance with Section 105. Submittals shall occur after award of the Contract but not later than the Pre-Construction Conference to allow time for review by the Agency. An Acceptance Memo or comments will be provided to the Contractor within 10 working days.

The Contractor shall respond to comments as soon as possible, but not more than 10 days after the date of VTrans initial correspondence. Agency review time for response to comments will be completed within an additional 10 working days. Modifications or additions to the EPSC Plan will not be considered as an acceptable delay of the work under Subsection 108.11.

All subsequent modifications to the EPSC Plan and updates to the Risk Evaluation will be reviewed and forwarded to the ANR by the Agency as appropriate.

Construction activities for EPSC Plan modifications that do not require authorization from the ANR shall commence only after the EPSC Plan has been accepted by the Agency. Construction activities for EPSC Plan modifications that do require authorization from the ANR shall commence only after that authorization has been granted.

38. 652.06 MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN. The Contractor shall designate a person (On-Site Plan Coordinator) who is directly responsible for the on-site implementation of the EPSC Plan. This person shall generally be on-site on a daily basis during active construction and have the authority to halt construction activities if necessary. The On-Site Plan Coordinator shall have demonstrated experience in construction practices as they relate to erosion prevention and sediment control as well as a general understanding of State and Federal environmental regulations and permits pertaining to the National Pollutant Discharge Elimination System Construction Program. The On-Site Plan Coordinator shall be proficient at reading and interpreting engineering and EPSC plans. Preference will be given to a Licensed Professional Civil Engineer registered in the State of Vermont or a qualified professional in erosion prevention and sediment control, certified by CPESC, Inc. or equivalent. The qualifications of the On-Site Plan Coordinator shall be included in the EPSC Plan. The Engineer, if not satisfied with the performance of this individual, may at any time request a replacement.

During active construction and periods of inactivity, the On-Site Plan Coordinator shall be responsible for inspections and reporting.

(a) Active Construction. Inspections shall occur once every seven calendar days and within 24 hours of the end of a storm event that results in a discharge of stormwater from the site. During the winter construction season (October 15th to April 15th, inclusive), inspections at all sites shall occur daily.

For Non-Jurisdictional and Low Risk projects, inspections shall be conducted using the Agency's *EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects).*

For Moderate Risk projects, inspections shall be conducted using the *General Permit 3-9020 Inspection Report for Moderate Risk Projects* referenced in the Permit and available upon award of the Contract.

Immediate action shall be taken to correct the discharges of sediment, including halting or reducing construction activities as necessary, until the discharge and/or the condition is fully corrected. Corrective actions shall be recorded on the monitoring reports and shown on the EPSC Plan. Each report shall be signed by the On-Site Plan Coordinator.

(b) Inactive Construction. Periods such as shutdown during the winter season shall require inspection and reporting of erosion prevention and sediment control measures. The Contractor shall contact the Engineer prior to conducting any inspections. The inspections shall be conducted at least once every 30 days and within 24 hours of any storm or significant snow melt event that may cause stormwater runoff to leave the construction site. The Contractor shall provide, within 24 hours, the necessary personnel, equipment, and materials to repair or correct any deficiencies identified during inspection. All deficiencies and corrective measures taken shall be documented on the reports.

Copies of all reports shall be submitted to the Engineer within 24 hours of inspection or when corrective measures were taken. Copies of all reports shall be kept on site in the Contractor's project files.

39. 652.07 MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN. This work shall consist of providing all labor and equipment necessary for field maintenance of erosion prevention and sediment control items in the Contract, and providing materials and labor necessary for installing, monitoring, maintaining and, where necessary, removing additional measures needed to correct deficiencies that develop during construction that lessen the performance of the EPSC Plan. Erosion prevention and sediment control measures shall be maintained by the Contractor and removed when authorized by the Engineer. The Contractor shall establish vegetation in all areas disturbed during removal of the erosion prevention and sediment control measures.

Any maintenance required due to the failure of the Contractor to follow the EPSC Plan in its accepted form shall be performed at no additional cost to the Agency.

40. 652.08 METHOD OF MEASUREMENT. The quantity of EPSC Plan to be measured for payment will be on a lump sum basis in the complete and accepted work.

The quantity of Monitoring EPSC Plan will be measured to the nearest 1/4 hour for the actual number of authorized hours spent monitoring, reviewing, and reporting on the construction site(s), including waste, borrow and staging areas or other support activities, as it relates to the EPSC Plan. Travel time and other time not spent at the construction site(s) or time not authorized will not be measured for payment (i.e. travel expenses, clerical staff time, copying, miscellaneous expenses, overhead, etc.).

The quantity of Maintenance of EPSC Plan will be on a lump unit basis for all such field maintenance provided for in the Contract, excluding waste, borrow and staging areas or other support activities.

41. 652.09 BASIS OF PAYMENT. The accepted quantity of EPSC Plan will be paid for at the Contract lump sum price. Payment will be full compensation for the initial preparation of modifications, submittals, and all incidentals necessary to complete the work. Subsequent modifications to the EPSC Plan during Construction will be considered incidental to Contract item 652.10.

Partial payments will be made as follows:

(a) The first payment of 50 percent of the lump sum price for the EPSC Plan will be paid for upon acceptance of the EPSC Plan for the entire project.

(b) The second payment of 35 percent of the lump sum price for the EPSC Plan will be made on the first estimate following the completion of 50 percent of the project.

(c) The third payment of 15 percent of the lump sum price for the EPSC Plan will be made when the project is substantially complete.

The accepted quantity of Monitoring EPSC Plan will be paid for at the Contract unit price per hour. Payment will be full compensation for performing the work specified. Payment will not be made unless a report for the monitoring is submitted to and accepted by the Engineer.

The accepted quantity of Maintenance of EPSC Plan will be paid for as specified for force account work in Subsection 109.06. Payments will be drawn against the Contract Lump Unit amount. To provide a common proposal for all bidders, the Agency has entered an amount in the proposal to become part of the Contractor's total bid. Maintenance related to material supply and disposal areas shall be performed in accordance with Subsection 105.29.

Payment will be made under:

Pay Item	Pay Unit
652.10 EPSC Plan (VT 125 – Bridge No. 2)	Lump Sum
652.10 EPSC Plan (VT 125 – Bridge No. 5)	Lump Sum
652.20 Monitoring EPSC Plan	Hour
652.30 Maintenance of EPSC Plan (N.A.B.I.) (VT 125 – Bridge No. 2)	Lump Unit
652.30 Maintenance of EPSC Plan (N.A.B.I.) (VT 125 – Bridge No. 5)	Lump Unit

SECTION 690 – FUEL PRICE ADJUSTMENT

42. In addition to materials produced under Contract pay item(s) included in Table 1 Pay Item Fuel Usage Factors and Quantity Thresholds as allowed under this Section, fuel usage under Contract item 900.680 Special Provision (Bituminous Concrete Pavement, Small Quantity) will be included for adjustment, utilizing the Fuel Usage Factors for item 490.30 in Table 1.

43. SECTION 690 – FUEL PRICE ADJUSTMENT, is hereby made a new Section of the Specifications as follows:

44. 690.01 GENERAL REQUIREMENTS AND CONDITIONS

(a) This specification contains price adjustment provisions for fuel used on Vermont Agency of Transportation (Agency) construction projects. This price adjustment clause is being inserted in this Contract to provide for either additional compensation to the Contractor or a payment to the Agency, depending upon an increase or decrease in the average price of diesel fuel or gasoline during the construction of this project.

(b) These provisions apply to this Contract only as specified herein through the fuel usage factors set forth in Table 1. No further fuel price adjustments will be allowed under this Contract.

(c) It is understood by the Contractor that a price adjustment increase may cause the Agency to decrease the quantities of the Contract pay items subject to adjustment under these provisions. Provisions providing for decreased quantities and item cancellation in this paragraph are separate and take precedence, notwithstanding any other provisions of this Contract.

(d) No price adjustment will be paid for work performed after the Contract Completion Date, as modified by Change Order, if applicable.

(e) Price Adjustment, Fuel will be determined for a pay item if each of the following criteria is met:

(1) the pay item is included in the original awarded Contract;

(2) the original awarded Contract bid quantity for the pay item equals or exceeds the quantity threshold indicated in Table 1.

(f) Any increase in the total Contract amount due to fuel price adjustment will not be justification for an extension of time under Subsection 108.11.

In such cases that estimated quantities are used to determine estimated fuel price adjustments throughout the duration of the Contract, reconciliation of those estimated adjustments will be made upon the determination of actual final quantities and final adjustments to the total final quantity made by prorating those estimated adjustments over the applicable fuel price adjustment periods previously paid. Reconciliation of any fuel price adjustment will only be performed in those instances where the actual final quantity differs by more than five percent from the total estimated quantity. Payments owed to either the Contractor or VTrans will not be subject to any applicable interest claims.

45. 690.02 PRICE ADJUSTMENT PROCEDURES

(a) Prior to advertising for bids, Index Prices for both a gallon of diesel fuel and a gallon of gasoline will be established by the Agency using retail prices reported by the Energy Information Administration (EIA) for the New England Region. The Index Prices will be set monthly using the first EIA posting falling either on or after the 1st calendar day of that month. The Contract Index Prices will be the most recent Index Prices set by the Agency at the time of advertising for bids. These prices are included below and will be the base from which price adjustments are computed.

The index price (retail) for gasoline is $x.xx per gallon. The index price (retail) for diesel fuel is $x.xx per gallon.

(b) For the duration of the Contract, Posted Prices for both a gallon of diesel fuel and a gallon of gasoline will be established monthly by the Agency. The Posted Prices will be established in the same manner as the Index Prices.

(c) A Price Adjustment will be paid or credited for diesel fuel and/or gasoline only when the Posted Price of diesel fuel and/or gasoline increases or decreases 5 percent or more over its respective Index Price.

(d) Payment for Price Adjustment, Fuel will be based upon the quantity of fuel incorporated in the work as determined by the fuel usage factors in Table 1 of this specification for both diesel fuel and gasoline, multiplied by the algebraic difference between the Posted Price and the Index Price for either diesel fuel or gasoline, respectively.

(e) Payment for Price Adjustment, Fuel shall be computed as follows:

PA = Price Adjustment (LU in $)
IPD = Index Price, Diesel Fuel ($/gallon)
IPG = Index Price, Gasoline ($/gallon)
PPD = Posted Price, Diesel Fuel ($/gallon)
PPG = Posted Price, Gasoline ($/gallon)
FUFD = Fuel Usage Factor, Diesel Fuel (gallon/unit)
FUFG = Fuel Usage Factor, Gasoline (gallon/unit)

For PPD/IPD <= 0.95 or >= 1.05 and PPG/IPG > 0.95 and < 1.05:
PA = FUFD X Pay Item Quantity X (PPD – IPD)

For PPD/IPD > 0.95 and < 1.05 and PPG/IPG <= 0.95 or >= 1.05:
PA = FUFG X Pay Item Quantity X (PPG – IPG)

For PPD/IPD and PPG/IPG <= 0.95 or >= 1.05:
PA = [FUFD X (PPD – IPD) + FUFG X (PPG – IPG)] X Pay Item Quantity

(f) The Contract bid prices for the applicable pay items will be paid under the Contract. The price adjustment, when such adjustment is required as specified in part (c) of this Subsection, will be made subsequent to the month in which the applicable Contract work was performed and will be entered on the next bi-weekly estimate.

(g) Payment for Price Adjustment, Fuel shall be debited or credited against the Contract price (Lump Unit) bid for Price Adjustment, Fuel.

Payment will be made under:

Pay Item	Pay Unit
690.50 Price Adjustment, Fuel (N.A.B.I.)	Lump Unit

Table 1
Pay Item Fuel Usage Factors and Quantity Thresholds

Work Category	Pay Item No.	Usage Factor Units		Diesel Fuel (FUFD)		Gasoline (FUFG)		Quantity Threshold	
		Metric	English	Metric	English	Metric	English	Metric	English
Excavation	203.15	GAL/CM	GAL/CY	0.38	0.29	0.2	0.15	2,500	3,000
	203.16	GAL/CM	GAL/CY	0.51	0.39	0.24	0.18	2,000	2,500
	204.25	GAL/CM	GAL/CY	0.46	0.35	0.21	0.16	2,000	2,500
	208.30	GAL/CM	GAL/CY	0.46	0.35	0.21	0.16	1,500	2,000
	208.35	GAL/CM	GAL/CY	0.51	0.39	0.24	0.18	1,500	2,000
Borrow	203.30	GAL/CM	GAL/CY	0.38	0.29	0.20	0.15	2,500	3,000
	203.31	GAL/CM	GAL/CY	0.38	0.29	0.20	0.15	2,500	3,000
	203.32	GAL/CM	GAL/CY	0.38	0.29	0.20	0.15	2,500	3,000
Granular Backfill For Structures	204.30	GAL/CM	GAL/CY	1.31	1.00	0.21	0.16	1,200	1,500
Cold Planing, Bituminous Pavement	210.10	GAL/SM	GAL/SY	0.16	0.12	0	0	11,000	15,000
Subbase	301.25	GAL/CM	GAL/CY	1.11	0.85	0.73	0.56	750	1,000
	301.35	GAL/CM	GAL/CY	1.11	0.85	0.73	0.56	750	1,000
Reclaimed Stabilized Base	310.20	GAL/SM	GAL/SY	0.05	0.04	0	0	30,000	35,000
Pavement	406.25	GAL/T	GAL/TON	3.37	3.06	0.95	0.86	450	500
	406.27	GAL/T	GAL/TON	3.37	3.06	0.95	0.86	450	500
	490.30	GAL/T	GAL/TON	3.37	3.06	0.95	0.86	450	500
Concrete	501.32	GAL/CM	GAL/CY	0.98	0.75	0.33	0.25	750	1,000
	501.33	GAL/CM	GAL/CY	0.98	0.75	0.33	0.25	750	1,000
	501.34	GAL/CM	GAL/CY	0.98	0.75	0.33	0.25	750	1,000
Stone Fill	613.10	GAL/CM	GAL/CY	0.51	0.39	0.24	0.18	1,500	2,000
	613.11	GAL/CM	GAL/CY	0.51	0.39	0.24	0.18	1,500	2,000
	613.12	GAL/CM	GAL/CY	0.51	0.39	0.24	0.18	1,500	2,000
	613.13	GAL/CM	GAL/CY	0.51	0.39	0.24	0.18	1,500	2,000
Guardrail	621.20	GAL/M	GAL/LF	0.59	0.18	0.16	0.05	1,500	5,000
	621.205	GAL/M	GAL/LF	0.59	0.18	0.16	0.05	1,500	5,000
	621.21	GAL/M	GAL/LF	0.59	0.18	0.16	0.05	1,500	5,000
	621.215	GAL/M	GAL/LF	0.59	0.18	0.16	0.05	1,500	5,000

SECTION 900 – SPECIAL PROVISION ITEMS

STONE FILL, CULVERT LINING

46. DESCRIPTION. This work shall consist of furnishing and placing stone fill inside box culverts to facilitate aquatic organism passage.

47. MATERIALS. Stone for Stone Fill, Culvert Lining shall meet the requirements shown in the Plans.

48. PLACING. Stone fill shall be placed at the bottom of the concrete box as shown in the Plans. Place the stone such that it does not cause segregation or damage to the concrete box.

    Fill in the voids in the stone with a mixture of fines from the existing stream bed material. Fill voids by hand tamping with metal tamping rods, plate compactors, and water pressure with a metal wand to reach between stones.

    Once all material has been placed in the stream channel, the Contractor shall slowly wet the stream to minimize the effects of the initial sediment pulse. Every attempt shall be made to minimize the movement of sediment downstream of the site.

49. METHOD OF MEASUREMENT. The quantity of Special Provision (Stone Fill, Culvert Lining) to be measured for payment will be the number of cubic meters (cubic yards) installed in the complete and accepted work, measured within the limits shown on the Plans or as directed by the Engineer.

50. BASIS OF PAYMENT. The accepted quantity of Special Provision (Stone Fill, Culvert Lining) will be paid for at the Contract unit price per cubic meter (cubic yard). Payment will be full compensation for furnishing, transporting, and placing the material specified and 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 Fill, Culvert Lining)	Cubic Yard

WILDLIFE GUIDE FENCE

51. DESCRIPTION. This work shall consist of furnishing and installing wildlife guide fence at the locations indicated on 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 621 of the Standard Specifications.

52. MATERIALS. Materials shall meet the requirements of the Contract Documents.

53. CONSTRUCTION REQUIREMENTS. Fence shall be constructed in conformance with the configuration shown on the Plans.

54. METHOD OF MEASUREMENTS. The quantity of Special Provision (Wildlife Guide Fence) to be measured for payment will be the number of meters (linear feet) of fence installed in the complete and accepted work.

55. BASIC OF PAYMENT. The accepted quantity of Special Provision (Wildlife Guide Fence) will be paid for at the Contract unit price per meter (linear foot). Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified, including concrete bases and carriage bolts, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
900.640 Special Provision (Wildlife Guide Fence)	Linear Foot

TEMPORARY RELOCATION OF STREAM

56. DESCRIPTION. This work shall consist of temporary stream relocation including erosion prevention and sediment control, channel maintenance, and debris removal in accordance with these specifications.

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

Geotextile Fabrics.....649.02
Stone Fill, Type II.....706.04(b)

Other materials may be used. These shall be detailed on the EPSC Plan and are subject to approval.

58. GENERAL. Prior to their construction, the Contractor shall submit to the Engineer site-specific plans, including all construction, erosion prevention and sediment control, and maintenance details, for providing temporary stream relocations at stream crossings specified in the Plans. These details shall be developed in accordance with the requirements of Section 652 and will be considered a component of the overall project EPSC Plan.

All relocation plans must be approved by the Agency of Natural Resources prior to being submitted to the Engineer. These plans shall provide for the mean annual flood ($Q_{2.33}$), as a minimum, and shall be designed and stamped by a Professional Engineer registered in the State of Vermont. The plans shall address erosion prevention and sediment control, channel maintenance, debris removal, and the materials and methods of creating the upstream diversion from the existing stream channel. These plans shall conform to any permits, both State and Federal, which have been issued for this project.

The Contractor shall provide for crossing the relocated stream channel for the duration of its existence so as not to impact the free flow of the stream or to increase any flood levels or potential for property damage upstream or downstream of the project site.

It shall be incumbent upon the Contractor to determine the level of protection required to protect the work. However, the protection of existing facilities, structures, and property must also be undertaken and any damage thereto shall be repaired by the Contractor at no additional expense to the State. In addition, the temporary diversion shall not increase in any way flood levels or property damage upstream or downstream of the project site.

In-stream construction shall be undertaken during the period from July 15th through October 1st. Any changes to this period shall be approved in writing by the Vermont Agency of Natural Resources. It shall be the responsibility of the Contractor to obtain any variances to the in-stream construction period.

Excavation for the relocated stream channel shall be made in conformance with the requirements for channel excavation as specified in Subsection 203.06.

Furnishing and installing Geotextile Fabrics and Stone Fill shall be in conformance with the requirements of Sections 649 and 613, respectively.

Furnishing and installing pipes shall be in conformance with Section 601.

The upstream diversion shall be done in such a manner as to minimize erosion and sedimentation. Upstream diversion shall not be done when stream conditions are such that the possibility of excessive erosion and sedimentation will occur.

The relocation shall be maintained, throughout the time it is in place, free from debris, logs, stumps, and other obstructions which might impair the free-flow of water through the diversion.

After completion of the new permanent channel improvements and the rediversion of channel flow through the new permanent channel, the entire length of the temporary channel shall be excavated to remove all muck, sediment, debris, and foreign matter.

Any portion of the temporary channel which falls outside of the embankment limits shall be restored to match the existing ground and shall be included in the unit price bid for Temporary Relocation of Stream.

Any turf establishment required outside of the embankment limits shall be paid for under the appropriate Contract items.

59. METHOD OF MEASUREMENT. The quantity of Special Provision (Temporary Relocation of Stream) to be measured for payment shall be on a unit basis for each temporary stream location specified, installed, maintained, and removed in the complete and accepted work.

Where a temporary relocation of stream is constructed for the convenience of the Contractor and is not specified in the Plans or ordered by the Engineer, the costs for the temporary relocation shall be considered incidental to all other Contract items.

60. BASIS OF PAYMENT. The accepted quantity of Special Provision (Temporary Relocation of Stream) will be paid for at the Contract lump sum price for each temporary stream relocation. Payment will be full compensation for designing, as necessary, constructing, including all required materials, maintaining, and removing each temporary stream relocation.

Payment for the design and detailing of erosion prevention and sediment control measures for Temporary Relocation of Stream will be considered incidental to Contract item 652.10.

Payment for the monitoring and maintenance of erosion prevention and sediment control measures for Temporary Relocation of Stream will be considered incidental to Contract items 652.20 and 652.30, respectively.

Payment for erosion prevention and sediment control measures for Temporary Relocation of Stream will be made under the appropriate items in the Contract.

When the construction of the temporary stream relocation is completed, operational, and accepted, a payment of 75 percent of the Contract lump sum price will be allowed. The remaining 25 percent of the Contract lump sum price will be paid when the temporary stream relocation has been removed and the site restored and stabilized to the satisfaction of the Engineer.

Payment will be made under:

Pay Item	Pay Unit
900.645 Special Provision (Temporary Relocation of Stream)(VT 125 - Bridge No. 2)	Lump Sum
900.645 Special Provision (Temporary Relocation of Stream)(VT 125 - Bridge No. 5)	Lump Sum

TRAFFIC CONTROL

61. DESCRIPTION. This work shall consist of establishing and maintaining traffic control measures to protect the traveling public and construction operations as indicated 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 641 of the Standard Specifications.

62. SUBMITTALS. The Contractor shall submit to the Engineer for approval a site-specific traffic control plan in accordance with Subsection 105.03. The traffic control plan shall conform to the requirements of the MUTCD and all applicable Agency Standard Drawings. Where conflicts exist, the MUTCD will govern. Each phase of construction shall be included in the submitted traffic control plan. The Contractor shall allow the Agency 7 calendar days to review and approve the proposed traffic control plan before it is to be implemented.

63. TRAFFIC CONTROL DEVICES. Temporary traffic barrier shall meet the requirements of Section 621. Traffic control devices shall meet the requirements of Section 641. Temporary pavement markings and removal of existing pavement markings shall meet the requirements of Section 646. Temporary traffic signal systems shall meet the requirements of Section 678.

64. METHOD OF MEASUREMENT. The quantity of Special Provision (Traffic Control, All-Inclusive) to be measured for payment will be on a lump sum basis for providing traffic control in the complete and accepted work.

The quantity for Flaggers will be measured separately in accordance with Section 630.

65. BASIS OF PAYMENT. The accepted quantity of Special Provision Traffic Control, All-Inclusive) will be paid for at the Contract lump sum price.

Partial payments will be made as follows:

(a) The first 15% of the Contract lump sum price will be paid upon approval of the Contractor’s traffic control plan.

(b) The remaining 85% of the Contract lump sum price will be paid on a prorated basis for the estimated duration of the Contract work remaining.

Payment will be full compensation for preparing, implementing, inspecting, maintaining, and removing the applicable traffic control plan and required traffic control devices, including but not limited to temporary traffic barrier, temporary pavement markings, signing and message boards, and temporary traffic signal systems; and for furnishing all labor, tools, materials, equipment, and incidentals necessary to complete the work.

Flaggers will be paid for separately under Contract item 630.15.

Payment will be made under:

Pay Item	Pay Unit
900.645 Special Provision (Traffic Control, All-Inclusive) (VT 125- Bridge No. 2)	Lump Sum
900.645 Special Provision (Traffic Control, All-Inclusive) (VT 125- Bridge No. 5)	Lump Sum

INCENTIVE/DISINCENTIVE (I/D)

66. INCENTIVE/DISINCENTIVE (I/D), is hereby made a new Section of the Specifications as follows:

The payment of monies for performance under the Incentive/Disincentive (I/D) specifications contained in these Special Provisions shall be as follows:

1. For the incentive payment as described in part (c) of Special Provision No. 11, the Contractor will be paid in the next bi-weekly estimate in which the Contractor has satisfactorily met the requirements of I/D.

2. For the disincentive penalties as described in part (c) of Special Provision No. 11, the Engineer will deduct the amount due the Agency from the monies due the Contractor on the next bi-weekly estimate.

Payment will be made under:

Pay Item	Pay Unit
900.650 Special Provision (Incentive/Disincentive) (N.A.B.I.)(VT 125 – Bridge No. 2)	Lump Unit
900.650 Special Provision (Incentive/Disincentive) (N.A.B.I.)(VT 125 – Bridge No. 5)	Lump Unit

BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY

67. DESCRIPTION. This work shall consist of constructing one or more courses of bituminous mixture on a prepared foundation in accordance with these specifications and the specific requirements of the type of surface being placed, and in reasonably close conformity with the lines, grades, thicknesses, and typical cross sections shown on the Plans or established by the Engineer.

The work under this Section shall be performed in accordance with these provisions, the Plans, and the appropriate provisions of Section 406 or Section 490 of the Standard Specifications.

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

Performance-Graded Asphalt Binder.....702.02
Emulsified Asphalt, RS-1H or CRS-1H.....702.04
Aggregate for Marshall Bituminous Concrete Pavement...704.10(a)
Aggregate for Superpave Bituminous Concrete Pavement..704.10(b)

Aggregate shall meet requirements relating to Section 406 or 490, where so specified.

The grade of PG asphalt binder used to produce bituminous concrete pavement shall be 58-28. Substitutions will be accepted based on availability where the upper end temperature value is greater than 58°C (136°F) and/or the lower end temperature value is less than -28°C (-18°F).

69. DESIGN MIX TYPES. Design mix types may be substituted based on mix availability. Allowable mix type substitutions will be accepted on a one to one thickness relationship, except as listed in Tables A and B below.

TABLE A – ALLOWABLE 40 MM (1½") MIX TYPE IVS SUBSTITUTIONS

Design ESALs (millions)	Design	Allowable Substitution	
	490.30 Superpave Bituminous Concrete Pavement	406.25 Bituminous Concrete Pavement*	406.27 Med. Duty Bituminous Concrete Pavement*
< 0.3	TYPE IVS	TYPE III	TYPE III
0.3 to < 10	TYPE IVS	TYPE III	-

*Per Section 406.

TABLE B – ALLOWABLE 90 MM (3½") MIX TYPE IIS SUBSTITUTIONS

Design ESALs (millions)	Design	Allowable Substitution	
	490.30 Superpave Bituminous Concrete Pavement	406.25 Bituminous Concrete Pavement*	406.27 Med. Duty Bituminous Concrete Pavement*
< 0.3	TYPE IIS	TYPE I	TYPE I
0.3 to < 10	TYPE IIS	TYPE I	-

*Per Section 406

70. COMPOSITION OF MIXTURE.

(a) Gradation. Gradation shall meet the requirements of Section 406 or 490, as appropriate.

(b) Design Criteria. Design Criteria shall meet the requirements of Section 406 or 490, as appropriate.

(c) Mix Design. Standard mix design will be in accordance with Subsection 490.03 with an n value of 65 gyrations. Allowable substitutions based on pre-existing approved mix designs and/or n values for intended Contract suppliers are listed in Table C below. A request for substitutions must be submitted in writing to the Engineer a minimum of 10 working days prior to production. Any substitutions from the standard mix design or mix types as detailed in the Plans shall not result in any increase in cost to the Agency.

TABLE C – ALLOWABLE SPECIFICATION SUBSTITUTIONS

Design ESALs (millions)	Acceptable Specification Substitution		
	Superpave Bituminous Concrete Pavement (Gyrations)	Bituminous Concrete Pavement* (75 Blow)	Med. Duty Bituminous Concrete Pavement* (50 Blow)
< 0.3	50	✓	✓
0.3 to < 10	65[1]	✓	-

[1]Standard mix design specification.
*Per Section 406

(d) Quality Acceptance.

(1) General. Acceptance sampling and testing will be conducted in accordance with the Agency's Quality Assurance Program as approved by FHWA. Bituminous concrete mixtures designated under these specifications will be sampled a minimum of once per day of production or 500 metric tons (sublot), or other sublot size deemed appropriate, and evaluated by the Agency for each mix type (each mix design) in accordance with the following acceptance guidelines.

(2) Acceptance Guidelines. Temperature of the bituminous mixture shall be tested using the Verified Thermometer test method and PG Asphalt Binder content determined from the batch slip. Gradation shall be tested in accordance with AASHTO T 30. Mixture volumetric properties (air voids and VMA) shall be calculated in accordance with Subsections 406.03(b) or 490.03(b), as appropriate.

(3) Non-Compliant Material.

a. Rejection by Contractor. The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material at no expense to the Agency. Any such new material will be sampled, tested, and evaluated for acceptance.

b. For any non-compliant material outside the production testing tolerances contained in the applicable Table 406.03C or 490.03C, the representative material (sublot) shall be assessed a mixture pay adjustment factor, PF(mix), of (-0.200).

(e) Boxed Samples. If Agency plant inspectors are not available for daily testing and inspection functions, then box samples will be taken by the Engineer at the project site to afford verification of mixture volumetrics/properties. Boxed samples will be processed and results reported to the Engineer within ten working days of being received at the Agency Central Laboratory in Berlin, Vermont. Gradation shall be tested in accordance with AASHTO T 30. Maximum Specific Gravity shall be tested in accordance with AASHTO T 209. Boxed samples will be assessed a mixture pay adjustment factor of 0.000.

71. COMPACTION. Special Provision (Bituminous Concrete Pavement, Small Quantity) will be analyzed for density according to the procedure specified below.

The density of the compacted pavement shall be at least 92.0%, but not more than 97.0%, of the corresponding daily average maximum specific gravity for each mix type (each mix design) of bituminous mix placed during each day, or placed per bridge for any bridge project. For material that falls outside of this range, payment will be made by adjusting the daily production totals in accordance with Table D:

TABLE D – DENSITY PAY FACTORS

AVERAGE DENSITY	DENSITY PAY FACTOR, PF(d)
89.0% - 90.4%	- 0.150
90.5% - 91.9%	- 0.100
92.0% - 93.4%	0.000
93.5% - 95.4%	0.150
95.5% - 97.0%	0.000
97.1% - 98.5%	- 0.100

When the Contract allows for a pay adjustment for mat density and the Agency elects to not take cores of any pavement course, the Density Pay Factor (PF(d)) will be considered equal to 0.000.

Bridges with a length equal to, or greater than, six meters (20 feet) will be cored for analyzing density of the bridge deck pavement. The minimum number of cores (taken from the center of the travel lane) shall be two, or as directed by the Engineer. Bridges with a length less than six meters (20 feet) will not be cored. Bridge decks or approaches will not be cored within three meters (10 feet) of a bridge or construction joint.

Bridge deck core areas shall be repaired with hot bituminous mix to the satisfaction of the Engineer at no additional cost to the Agency.

The cores taken for acceptance testing will be the final cores taken for determination of densities.

When the Contract does not allow for a pay adjustment for mat density the Contractor shall, prior to performing any construction operations, submit to the Engineer for approval the proposed rolling pattern and compaction equipment to be used on the project. Random investigative cores will be taken by Agency personnel on the first day's production of any pavement course, with the exception of the leveling course, to verify effectiveness of the proposed rolling pattern and equipment.

Pending results of the investigative cores, necessary adjustments to the proposed rolling pattern and/or equipment shall be made by the Contractor to achieve densities as directed by the Engineer.

72. METHOD OF MEASUREMENT. The quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) to be measured for payment will be the number of metric tons (tons) for a lot of mixture (each type) complete in place in the accepted work (Q) as determined from the weigh tickets.

The quantities of all applicable Pay Adjustments calculated for the project will be determined as specified below.

When applicable, and when the mixture pay factor, PF(mix), for a lot of Special Provision (Bituminous Concrete Pavement, Small Quantity) is less than 0.000, the measured quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) placed will be multiplied by such pay factor to determine a Mixture Pay Adjustment, (PA(mix)), to the accepted tonnage placed (Q) for that lot based on the Contract bid price (B), as follows:

$$PA(mix) = PF(mix) \times Q \times B$$

When applicable, and when the density pay factor, PF(d), for a lot of Special Provision (Bituminous Concrete Pavement, Small Quantity) is less than 0.000, the measured quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) placed that day, or placed per bridge for any bridge project, will be multiplied by such pay factor to determine a Mat Density Pay Adjustment, (PA(d)), to the accepted tonnage placed (Q) for that lot based on the Contract bid price (B), as follows:

$$PA(d) = PF(d) \times Q \times B$$

73. BASIS OF PAYMENT. The measured quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) will be paid for at the Contract unit price per metric ton (ton). Payment shall be full compensation for furnishing, mixing, hauling, and placing the material specified and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment for Pay Adjustments shall be debited against the Contract prices (Lump Units) bid for the Pay Adjustment items.

The cost of repairing bridge deck core areas will not be paid for separately, but will be considered incidental to Special Provision (Bituminous Concrete Pavement, Small Quantity).

The costs of furnishing testing facilities and supplies at the plant will be considered included in the Contract unit price of Special Provision (Bituminous Concrete Pavement, Small Quantity).

The costs of obtaining, furnishing, transporting, and providing the straightedges required by Subsection 406.16 or Subsection 490.16, as appropriate, will be paid for under the appropriate Section 631 pay item included in the Contract.

The costs associated with obtaining samples for acceptance testing will be incidental to the cost of Special Provision (Bituminous Concrete Pavement, Small Quantity).

When not specified as items in the Contract, the costs of cleaning and filling joints and cracks, sweeping and cleaning existing paved surfaces, the emulsified asphalt applied to tack these surfaces, and tacking of manholes, curbing, gutters, and other contact surfaces will not be paid for directly, but will be incidental to Special Provision (Bituminous Concrete Pavement, Small Quantity).

Special Provision (Bituminous Concrete Pavement, Small Quantity) mixture approved by the Engineer for use in correcting deficiencies in the base course constructed as part of the Contract will not be paid for as Special Provision (Bituminous Concrete Pavement, Small Quantity), but will be incidental to the Contract item for the specified type of base course.

Special Provision (Bituminous Concrete Pavement, Small Quantity) mixture used to correct deficiencies in an existing pavement or to adjust the grade of a bituminous concrete surface completed under the Contract will be paid for at the Contract unit price for Special Provision (Bituminous Concrete Pavement, Small Quantity).

Payment will be made under:

Pay Item	Pay Unit
900.650 Special Provision (Mat Density Pay Adjustment, Small Quantity)(N.A.B.I.)	Lump Unit
900.650 Special Provision (Mixture Pay Adjustment) (N.A.B.I.)	Lump Unit
900.680 Special Provision (Bituminous Concrete Pavement, Small Quantity)	Ton