

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION

**ACWORTH
X-A001(226), 16301**

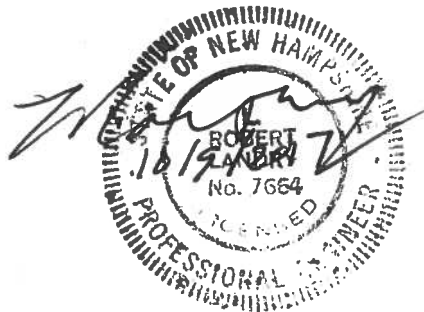
**THIS PROJECT INVOLVES THE REPLACEMENT OF THE RED LIST
BRIDGE (BR. NO. 113/064) THAT CARRIES NH 123A (MAIN ST.) OVER
BOWERS BROOK AND ASSOCIATED APPROACH ROADWAY
IMPROVEMENTS**

**NOTE: PLANS AND SPECIFICATIONS ON THIS PROJECT CANNOT BE
TRANSFERRED TO ANY OTHER FIRM OR ORGANIZATION FOR THE
PURPOSE OF SUBMITTING A BID AS A GENERAL CONTRACTOR
WITHOUT THE KNOWLEDGE AND AUTHORITY OF THE DEPARTMENT.**

NON-TRANSFERABLE: _____

GRAND TOTAL \$ _____

**Sample Proposal
NOT FOR BIDDING PURPOSES**



06/06/17

Supersedes 4/26/00, 12/23/02, 06/30/04, 10/26/09

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

JOHN O. MORTON BUILDING
CONTRACT SECTION

INVITATION FOR BIDS

7 HAZEN DRIVE
POST OFFICE BOX 483
CONCORD, NH 03302

Proposals are to be submitted electronically via <https://icx.exevision.com/nhdot/icx/Index.aspx> by 2:00 o'clock PM, Eastern Time, on **THURSDAY, NOVEMBER 2, 2017** for the following project:

**ACWORTH
X-A001(226), 16301**

THIS PROJECT INVOLVES THE REPLACEMENT OF THE RED LIST BRIDGE (BR. NO. 113/064) THAT CARRIES NH 123A (MAIN ST.) OVER BOWERS BROOK AND ASSOCIATED APPROACH ROADWAY IMPROVEMENTS.

CERTIFIED CHECK/BID BOND: 5% OF THE BID AMOUNT

A schedule of the minimum wages for all labor classifications as determined by the Secretary of Labor pursuant to Section 115 of the Federal Aid Highway Act of 1956 is included in the proposal. Unskilled labor may be hired from lists prepared by the NH Dept. of Employment Security designated in the proposal.

BIDDERS SHOULD ACT PROMPTLY AND SUBMIT ALL QUESTIONS PERTAINING TO THE PROJECT IN WRITING TO JOSEPH ADAMS AT Joseph.Adams@dot.nh.gov AT LEAST FIVE (5) BUSINESS DAYS BEFORE THE HOUR AND DATE SET FOR THE BID OPENING. NO PHONE CALLS OR FAXES WILL BE ACCEPTED.

Plans and specifications (**NOT FOR BIDDING PURPOSES**) may be seen at the at the Office of Const. Industries of MA, 1500 Providence Hwy., Suite 14, Norwood, MA; Assoc. General Contractors of NH, 48 Grandview Rd, Bow, NH; Construction Summary of NH, Inc., 734 Chestnut St., Manchester, NH; Works in Progress, 20 Farrell Street, Suite 103, So. Burlington, VT; Minuteman Press, 95 Brewery Lane, Portsmouth, NH; Signature Press & Blueprinting, Inc., 880 Candia Road Unit 7, Manchester, NH; and Infinite Imaging, 933 Islington Street, Portsmouth NH.

In order to be authorized to bid, the Department's Request for Proposal (RFP) form must be submitted to the Contract Office of the Department of Transportation. Once the RFP form has been approved, the Contractor is authorized to bid. At this time the password card will be issued allowing the Contractor access to the on-line bidding documents, including the Plans and Specifications. In addition, hard-copy Plans and Specifications can be obtained at the Contract Office of the Department of Transportation for THIRTY-FIVE DOLLARS (\$35.00) (**NON-REFUNDABLE**). An additional FIVE DOLLARS (\$5.00) will be charged for shipping fees (**NON-REFUNDABLE**). Checks should be made payable to "Treasurer, State of New Hampshire". Send check with Project Name and No. to the Dept. of Transportation, c/o Finance & Contracts, P.O. Box 483 Hazen Drive, Concord, NH 03302.

Proposals must be **submitted electronically via <https://icx.exevision.com/nhdot/icx/Index.aspx>** and received by the Department of Transportation as specified above no later than the date and time mentioned above, at which time they will be publicly opened and the results immediately posted on the Department's website. A certified check or bid bond shall be submitted electronically at the time of bid in the amount listed above, payable to, "Treasurer, State of New Hampshire," as security for the execution of the contract.

All individuals, firms, partnerships or corporations intending to bid, must file a statement showing their qualifications with the Dept. of Transportation on forms prepared for that purpose at least ten (10) days prior to opening of bids. No authorization to bid will be granted to a prospective bidder **not** prequalified.

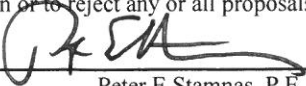
Any information submitted as part of the Invitation to Bids may be subject to public disclosure under RSA 91-A. In addition, in accordance with RSA 9-F:1, any contract entered into as a result of the bid letting will be made accessible to the public online via the website Transparent NH (<http://nh.gov/transparentnh/>).

If contract price is \$35,000 or more, the successful bidder will be required to furnish electronically, at the time of bid submittal, a contract bond in the amount of One hundred (100) percent of their bid.

All bidders will be required to execute a sworn statement pursuant to Section 112(c) of Title 23 USC, certifying that he or she has not either directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with such contract. Civil Rights Act of 1964, 78 Stat. 252, USC 2005d to 2005d-4 and Title 49, Code of Federal Regulations, Dept. of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Dept. of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

The right is reserved to waive any informalities in or to reject any or all proposals.

OCTOBER 10, 2017
F


Peter E. Stannas, P.E.
Director of Project Development



Information Report

ACWORTH
16301
X-A001(226)

County: SULLIVAN
 Date Bids Open: 11/2/2017
 Scope of Work: Replace Red List Bridge carrying NH 123A over Bowers Brook (113/064)
 Location: NH 123A
 Completion Date: 10/12/2018
 Proposal Guarantee: 5% of bid amount

Item Number	Item Description	Unit	Estimated Quantity
ACWORTH 16301			
Bridge			
207.3	UNCLASSIFIED CHANNEL EXCAVATION	CY	370.00
209.201	GRANULAR BACKFILL (BRIDGE) (F)	CY	520.00
501.1	TEMPORARY BRIDGE	U	1.00
502.	REMOVAL OF EXISTING BRIDGE STRUCTURE	U	1.00
503.101	WATER DIVERSION STRUCTURE	U	1.00
503.201	COFFERDAMS	U	1.00
504.1	COMMON BRIDGE EXCAVATION (F)	CY	960.00
504.2	ROCK BRIDGE EXCAVATION	CY	120.00
508.	STRUCTURAL FILL	CY	90.00
520.0106	CONCRETE CLASS AA, HIGH EARLY STRENGTH	CY	27.00
528.311	PRESTRESSED CONCRETE BRIDGE DECK, BUTTED DECK BEAMS (F)	SF	1,210.00
529.1	PRECAST CONCRETE SUBSTRUCTURE (ABUTMENT)	U	2.00
534.3	WATER REPELLENT (SILANE/SILOXANE)	GAL	19.00
538.2	BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F)	SY	60.00
541.5	PVC WATERSTOPS, NH TYPE 5 (F)	LF	66.00

544.2	REINFORCING STEEL, EPOXY COATED (F)	LB	2,808.00
544.7	SYNTHETIC FIBER REINFORCEMENT (F)	LB	140.00
548.11	ELASTOMERIC BEARING PADS (F)	EA	16.00
559.41	ASPHALTIC PLUG FOR CRACK CONTROL (F)	LF	66.00
562.1	SILICONE JOINT SEALANT (F)	LF	143.00
563.23	BRIDGE RAIL T3	LF	76.00
565.232	BRIDGE APPROACH RAIL T3 (STEEL POSTS)	U	2.00
565.2329	BRIDGE APPROACH RAIL T3 (STEEL POSTS) (MODIFIED)	U	2.00
583.6	RIPRAP, CLASS VI	CY	350.00
586.61	PLACING EXCAVATED ROCK FOR VORTEX ROCK WEIR	CY	15.00
593.411	GEOTEXTILE; PERM CONTROL CL.1, NON-WOVEN	SY	460.00
628.5	DIAMOND GRINDING CONCRETE PAVEMENT	SY	116.00
1010.15	FUEL ADJUSTMENT	\$	10,000.00
1010.5	COMPLETION INCENTIVE/ DISINCENTIVE	\$	20,000.00

Roadway

201.1	CLEARING AND GRUBBING (F)	A	0.10
201.881	INVASIVE SPECIES CONTROL TYPE I	SY	160.00
201.882	INVASIVE SPECIES CONTROL TYPE II	SY	250.00
202.7	REMOVAL OF GUARDRAIL	LF	130.00
203.1	COMMON EXCAVATION	CY	1,800.00
203.11	COMMON EXCAVATION - LRS	CY	150.00
203.2	ROCK EXCAVATION	CY	170.00
203.55553	GUARDRAIL EAGRT OFFSET PLATFORM, TL 2	U	2.00
203.6	EMBANKMENT-IN-PLACE (F)	CY	200.00
206.19	COMMON STRUCTURE EXCAVATION EXPLORATORY	CY	10.00
211.11	VIBRATION MONITORING SERVICES	HR	40.00
214.	FINE GRADING	U	1.00

304.1	SAND (F)	CY	560.00
304.2	GRAVEL (F)	CY	610.00
304.3	CRUSHED GRAVEL (F)	CY	620.00
304.32	CRUSHED GRAVEL FOR SHOULDER LEVELING	TON	17.00
304.35	CRUSHED GRAVEL FOR DRIVES	CY	150.00
403.11002	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (QC/QA TIER 2)	TON	380.00
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	TON	31.00
403.6	PAVEMENT JOINT ADHESIVE	LF	5,700.00
410.22	ASPHALT EMULSION FOR TACK COAT	GAL	580.00
417.	COLD PLANING BITUMINOUS SURFACES	SY	65.00
603.00215	15" R.C. PIPE, 2000D	LF	25.00
603.33215	15" CORR. POLYETHYLENE END SECTION	EA	2.00
603.80215	15" PLASTIC PIPE (SMOOTH INTERIOR)	LF	70.00
604.0007	POLYETHYLENE LINER	EA	5.00
604.124	CATCH BASINS TYPE B, 4-FOOT DIAMETER	U	5.00
605.506	6" PERF. CORR. POLYETHYLENE PIPE UNDERDRAIN	LF	190.00
605.79	UNDERDRAIN FLUSHING BASINS	EA	1.00
606.1255	BEAM GUARDRAIL (TERMINAL UNIT TYPE EAGRT, TL 2) (STEEL POST)	U	2.00
606.18001	31" W-BEAM GUARDRAIL WITH 8" OFFSET BLOCK (STEEL POST)	LF	150.00
606.417	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL	LF	110.00
606.84	ANCHOR FOR CURVED GUARDRAIL W/CRT POSTS	U	2.00
609.01	STRAIGHT GRANITE CURB	LF	80.00
609.02	CURVED GRANITE CURB	LF	40.00
618.7	FLAGGERS	HR	800.00
619.1	MAINTENANCE OF TRAFFIC	U	1.00
619.25	PORTABLE CHANGEABLE MESSAGE SIGN	U	2.00
621.2	RETROREFLECTIVE BEAM GUARDRAIL DELINEATOR	EA	10.00

621.31	SINGLE DELINEATOR WITH POST	EA	10.00
621.32	DOUBLE DELINEATOR WITH POST	EA	2.00
622.1	STEEL WITNESS MARKERS	EA	5.00
628.2	SAWED BITUMINOUS PAVEMENT	LF	120.00
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	LF	2,300.00
644.22	SHRUB/FOREST WETLAND SEED MIX	LB	5.00
645.512	COMPOST SOCK FOR PERIMETER BERM	LF	2,210.00
645.531	SILT FENCE	LF	2,200.00
645.7	STORM WATER POLLUTION PREVENTION PLAN	U	1.00
645.71	MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS	HR	100.00
646.51	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND LOAM	SY	1,450.00
670.04501	CONSTRUCT AND REMOVE DIVERSION	U	1.00
670.066	MAILBOX SUPPORT ASSEMBLIES	EA	6.00
670.95	TEMPORARY SAFETY FENCE	LF	140.00
692.	MOBILIZATION	U	1.00
697.11	INVASIVE SPECIES CONTROL AND MANAGEMENT PLAN	U	1.00
697.31	PROJECT OPERATIONS PLAN	U	1.00
698.14	FIELD OFFICE TYPE D	MON	9.00
699.	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL	\$	5,000.00
1010.15	FUEL ADJUSTMENT	\$	10,000.00
1010.3	QUALITY CONTROL QUALITY ASSURANCE (QC/QA) ASPHALT	\$	1,500.00

**NEW HAMPSHIRE DEPARTMENT OF EMPLOYMENT SECURITY
EMPLOYMENT OF NEW HIRES**

The following is a list of the local State Employment Security Offices from which the Contractor may secure the unskilled labor for this project:

Department of Employment Security
151 Pleasant Street, PO Box 159
Berlin, NH 03570-2006
Telephone: (603) 752-5500

Department of Employment Security
404 Washington Street, PO Box 180
Claremont, NH 03743-0180
Telephone: (603) 543-3111

Department of Employment Security
10 West Street, PO Box 1140
Concord, NH 03302-1140
Telephone: (603) 228-4100

Department of Employment Security
518 White Mountain Hwy.
Conway, NH 03818-4205
Telephone: (603) 447-5924

Department of Employment Security
109 Key Road
Keene, NH 03431-3926
Telephone: (603) 352-1904

Department of Employment Security
426 Union Avenue, Suite 3
Laconia, NH 03246-2894
Telephone: (603) 524-3960

Department of Employment Security
646 Union Street, Suite 100
Littleton, NH 03561-5314
Telephone: (603) 444-2971

Department of Employment Security
300 Hanover Street
Manchester, NH 03104-4957
Telephone: (603) 627-7841

Department of Employment Security
6 Townsend West
Nashua, NH 03063-1217
Telephone: (603) 882-5177

Department of Employment Security
2000 Lafayette Road
Portsmouth, NH 03801-5605
Telephone: (603) 436-3702

Department of Employment Security
29 South Broadway
Salem, NH 03079-3026
Telephone: (603) 893-9185

Department of Employment Security
6 Marsh Brook Road
Somersworth, NH 03878
Telephone: (603) 742-3600

06/24/08

Supercedes: 9/11/06, 12/5/90

WAGE RATES
FEDERAL AID PROJECTS

This proposal contains minimum wage determinations as specified by the U.S. Secretary of Labor. Copies of the attached wage determination(s) shall be posted on the bulletin board at the work site and furnished to employees upon request. Furthermore, the wage determination(s) shall be incorporated into all subcontract agreements.

If the Contractor, any subcontractor or lower-tier contractor intend to employ a classification of labor not listed in the attached determination(s), it shall submit a Request for Additional Work Classification(s) to the New Hampshire Department of Transportation, Labor Compliance Office at (603) 271-2467. The Contractor is responsible for ensuring that a Request is submitted for any additional classification of work to be employed by itself, any subcontractor or lower-tier contractor 3-4 weeks before the classification is utilized.

This contract is subject to the Work Hours Act of 1962, P.L. 87-581 and implementing regulations.

General Decision Number: NH170031 01/06/2017 NH31

Superseded General Decision Number: NH20160031

State: New Hampshire

Construction Type: Highway

County: Sullivan County in New Hampshire.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017

* SUNH2011-027 08/15/2011

	Rates	Fringes
CARPENTER (Excluding Form Work).....	\$ 17.55	2.37
CARPENTER (Form Work Only).....	\$ 18.44	1.61
CEMENT MASON/CONCRETE FINISHER...	\$ 18.50	0.00
IRONWORKER, REINFORCING.....	\$ 21.59	0.90
LABORER: Common or General.....	\$ 14.97	1.76
LABORER: Flagger.....	\$ 8.98	2.29
LABORER: Highway/Parking Lot Striping.....	\$ 15.87	0.00
OPERATOR: Backhoe.....	\$ 21.17	2.26
OPERATOR: Broom.....	\$ 16.01	2.52
OPERATOR: Bulldozer.....	\$ 18.60	1.72

OPERATOR: Cold Planer.....	\$ 17.28	3.73
OPERATOR: Crane.....	\$ 20.00	2.52
OPERATOR: Excavator.....	\$ 19.37	3.20
OPERATOR: Grader/Blade.....	\$ 24.11	0.53
OPERATOR: Loader.....	\$ 23.21	5.06
OPERATOR: Paver.....	\$ 21.62	5.93
OPERATOR: Roller.....	\$ 20.89	4.42
OPERATOR: Post Driver/Pounder....	\$ 26.99	11.69
TRUCK DRIVER, Includes all axles including Dump Trucks.....	\$ 17.95	6.06

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate

(weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.
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END OF GENERAL DECISION



September 25, 2017

PROSECUTION OF WORK

DESCRIPTION OF WORK

This project involves the replacement of the Red List bridge (Br. No. existing: 113/064; new: 114/063) that carries NH 123A (Main Street) over Bowers Brook and associated approach roadway improvements. The work begins on NH 123A approximately 250 feet west of the bridge and extends easterly across the bridge approximately 570 feet. Refer to the Plans for detailed information.

The bridge will be closed and traffic detoured via NH 10 and NH 123 during the bridge replacement operations for a period not to exceed 21 calendar days as described herein. The bridge will be replaced using accelerated bridge construction techniques with precast bridge components to allow the majority of the work to be performed during the closure period.

A temporary 10-foot wide gravel pathway and bridge will be constructed, as shown on the Plans and described elsewhere in the Proposal, to provide emergency services access across Bowers Brook and local residents with pedestrian access to the Post Office located at the Village Store.

CONCURRENT WORK

The Department has no previously advertised or anticipated construction projects that will take place in the vicinity and during the life of this contract. In the possible event of concurrent work, the Contractor shall cooperate and coordinate with all other concurrent contracts.

Refer to 105.07 specifically regarding coordination with other contractors working concurrently. Do not duplicate construction signs. Cover, uncover, or remove permanent signs as necessary (subsidiary to Item 619.1 – Maintenance of Traffic) to provide proper signing through the area.

UTILITIES

The following information is provided as a supplement to and in accordance with 105.06, Cooperation with Utilities. Relocation schedules and time frames are as provided and estimated by the individual utilities.

The overall utility relocation time frame is the cumulative total of the individual utilities and their individual activities, including their advance notification time with some concurrent work as stated hereafter.

There are utility installations in the area belonging to, but not necessarily limited to, the following:

<p><u>Liberty Utilities (Elec.)</u> Contact: Anthony Strabone Title: Electric Project Engineering Manager Phone: 603-216-3541 E-mail: Anthony.Strabone@libertyutilities.com</p>	<p><u>FairPoint Communications</u> Contact: David Kestner Title: Network Engineer Phone: 603-433-2119 E-mail: David.Kestner@fairpoint.com</p>
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The Contractor is advised to use caution when working near aerial power distribution and transmission wires, as well as underground power distribution and service wires. Contact the appropriate utility for the precautionary measures required.

Note: The Contractor is responsible for all of the notifications noted below unless otherwise specifically stated.

Aerial:

Liberty Utilities and FairPoint Communications will relocate their aerial wires. Liberty Utilities is responsible for maintenance of utility poles and, with 3 weeks advance notice after the site is available, anticipates 3 weeks to set the new poles, attach new wires and remove the old conductors. With 3 weeks advance notice after Liberty Utilities completes their work, FairPoint Communications anticipates 3 weeks to attach new wires to the new poles, perform splicing operations and remove their old cables and guys. With 2 weeks advance notice after FairPoint Communications completes their work, Liberty Utilities anticipates 1 week to remove the old poles.

Underground:

Privately owned underground facilities are located within the project area as shown on the plans. The Contractor is advised to use extreme caution while excavating in these areas and to utilize Item 206.19 – Common Structure Excavation Exploratory, as directed, to locate these facilities prior to excavating.

There are no underground utility relocations anticipated within the project limits.

Permanent Lighting:

No changes to existing lighting within the project are anticipated. The Contractor shall not disturb existing lighting.

Temporary Lighting:

No temporary lighting within the project is anticipated. The Contractor shall not disturb existing lighting. If portable concrete barrier is installed, other than required on the plans, provide temporary lighting as directed (at the Contractor’s expense).

EXCAVATING, DREDGING OR FILLING STATE WATERS

The work as indicated qualifies under the US Army Corps of Engineers State Programmatic General Permit (PGP). The PGP and its general conditions are available online at www.nae.usace.army.mil/Missions/Regulatory/StateGeneralPermits/NewHampshireGeneralPermit.aspx. The Department has applied for and anticipates that a NH Department of Environmental Services' (NHDES) Wetlands Dredge and Fill permit (file #2017-01989) will be secured from NHDES. The approved Permit, including any special conditions contained therein, will be made available prior to bid opening. The Department has secured the necessary NH Department of Environmental Services' Shoreland Permit to accomplish the work shown on the Plans. A copy of the approved Shoreland Permit is included elsewhere in the Proposal.

To assist the Contractor in preparing a bid, the Wetland Impact and Erosion Control Plans (including the Erosion Control Strategies) and the Wetlands Permit application are available online on the Department's Bureau of Environment Wetland Program Website on the Wetland Applications, Plans, and Permits webpage at www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm.

The Stormwater Pollution Prevention Plan (SWPPP) (Item 645.7) shall demonstrate compliance with the NH Wetlands Dredge and Fill Permit. When preparing the SWPPP particular attention shall be paid to the approved "Erosion Control Plans", "Erosion Control Strategies", "Construction Sequence", and specific conditions in the NH Wetlands Dredge and Fill Permit. The Contractor is directed to review and comply with Section 107.01 as it refers to spillage, and also with regards to erosion, pollution, and turbidity precautions. The Contractor shall be proactive to assure that the appropriate temporary erosion control measures are in place throughout the duration of the project. These documents outline the Department's commitments and strategies to minimize the impacts of construction on the environment.

Work Outside Permitted Area

If the Contractor desires to perform additional work in the wetlands that is not shown on the plans, and which requires a NHDES wetlands or Shoreland permit, the Contractor shall submit a separate application and provide the necessary working plans to the NH Wetlands Bureau and/or US Army Corps of Engineers sufficiently in advance for their review and approval. The Contractor shall not commence with the additional work until the approved permit is in hand. In all cases, the Contractor shall adhere to the permit conditions. Prior to submission to the Wetlands Bureau, the Bureau of Construction and the Bureau of Environment must review any additional impacts. The Department's Permits are only for the work shown in the Proposal.

Contact the Project's Environmental Manager (Marc Laurin, 603-271-3226) at the Department's Bureau of Environment for clarification of wetlands limits, if necessary.

ALTERATION OF TERRAIN

The Contractor is not required to submit an application for coverage under this permit. However, compliance with any, and all, relevant published NHDES Alteration of Terrain Env-Wq 1500 requirements concerning construction activities and structures not depicted in the proposal is required (<http://des.nh.gov/organization/commissioner/legal/rules/index.htm>). The New Hampshire Stormwater Manual Volume 3 Erosion and Sediment Controls During

Construction will be the primary guidance document to be implemented during construction of the proposed project and until the time when the site is permanently stabilized.

The Bidder shall note the Env-Wq 1500 Alteration of Terrain is currently subject to proposed re-adoption with amendment by DES and the General Court. The NHDES web site (<https://www.des.nh.gov/organization/commissioner/legal/rulemaking/index.htm#pwaterq>) has the latest proposal and notices. Once adopted, the Contractor will be required to demonstrate compliance with such rules.

The Stormwater Pollution Prevention Plan (SWPPP) (Item 645.7) shall demonstrate compliance with any, and all, published NHDES Alteration of Terrain (AOT) Env-Wq 1500 requirements. When preparing the SWPPP particular attention shall be paid to Env-Wq 1505 which set limits on exposed soil, stabilization, environmental monitoring, winter conditions and specific requirements for methods for erosion and sediment control.

Sequencing

The Contractor shall submit a construction sequence plan showing compliance relative to the maximum open area and/or winter construction plan as discussed below. The construction sequence plan shall also demonstrate compliance with water quality regulations, and erosion and sediment control and stormwater management requirements. This plan shall be subsidiary to and submitted as part of the project's SWPPP. This plan shall address each phase of construction activity including a proposed construction sequence for the project. Temporary and/or permanent sediment collection/treatment areas shall be constructed as soon as possible and the timing of their construction shall be detailed in the construction sequence plan.

Monitoring and Reporting

The proposed construction shall be monitored as specified by Env-Wq 5015.02, which is in addition to the Construction General Permit (CGP), and as detailed in Item 645.71. In addition to the regular weekly inspections, the monitor shall inspect the site during any rain event in which 0.25 inches of precipitation or more has fallen or within 24 hour of such an event. Note that standard specification 645.3.2.3.1 supersedes AOT regulation. Reporting, in addition to what is required by the CGP, shall include:

- A statement confirming that the requirements of the AOT regulation are being met
- If AOT requirements are not being met, corrective actions including deadlines shall be detailed
- Representative photographs of the project area
- Reports shall be stamped (signed) by a CPESC* or a PE

(*A Certified Erosion, Sediment and Storm Water Inspector (CESSWI) under the direct supervision of CPESC may monitor and sign the inspection reports.)

Winter Work

For the construction period from November 30th* through May 1st, the area of exposed, unstabilized soil shall be limited to one (1) acre and shall be protected against erosion. The allowable area of exposed soil may be increased if a winter construction plan, developed by the SWPPP plan preparer (subsidiary to Item 645.7), is reviewed and approved by the Department. (* Proposed to be October 15th in the amended AOT regulations.)

EPA NPDES CONSTRUCTION GENERAL PERMIT REQUIREMENTS

This project will be subject to the US EPA's Construction General Permit (CGP) issued on January 11, 2017 (<https://www.epa.gov/npdes/stormwater-discharges-construction-activities>) requiring construction sites to implement a range of erosion and sediment controls and pollution prevention measures to control the discharge of pollutants from construction sites. Refer to the Special Attention concerning the Contractor's obligation relative to the National Pollutant Discharge Elimination System (NPDES) Storm Water Construction General Permit as administered by the Environmental Protection Agency (EPA). This project is subject to Notice of Intent, Notice of Termination and other project records to be completed by the Contractor as required in the CGP. NPDES General Guidelines, Notice of Intent and Notice of Termination are available on line in *Doing Business with the DOT* at www.nhdot.com or thru the NHDOT Contracts office.

The Contractor will be responsible to comply with all published EPA regulations. The CGP will require, but is not limited to, the following:

- Assemble a "Stormwater Team" whose principal responsibilities are to develop, oversee, implement and document compliance with the requirements of the CGP. These responsibilities shall be clearly outlined in the SWPPP documents with 24 hour contact information for the Stormwater Team provided.
- The Contractor's Stormwater Team members primary responsibility shall be the day-to-day erosion control related operations and must be afforded the resources (equipment and manpower) required to maintain compliance with the CGP as described in Section 2.1.1.4 of the CGP.
- Initiate stabilization immediately when earth-disturbing activities have temporarily ceased and will not resume for a period exceeding 14 calendar days.
- Manage discharges from dewatering activities, including discharges from dewatering of trenches and excavations.
- Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
- Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater.

The Contractor shall submit four (4) sets of a Storm Water Pollution Prevention Plan (SWPPP) (Item 645.7), as described in the NHDOT Specifications Section 645.3.2 and Part 7 of the National Pollution Discharge Elimination Systems' most recent Construction General Permit for Stormwater Discharges from Construction Activities (CGP). The SWPPP must be approved by the Department and be implemented prior to any earth disturbing activities, and shall graphically depict all required erosion and sediment control and stormwater management elements necessary for compliance with these regulations. In addition, the SWPPP shall include calculations to verify that storm water detention basins (interim, ultimate, or temporary) used to manage stormwater runoff during construction will be able to retain the volume of stormwater runoff received from a 2 year, 24 hour storm event. Perimeter controls, water diversion structures, piping and pumping installations, and all discharge points necessary to control all stormwater runoff from the site, must be incorporated into the SWPPP and shall conform in all aspects to the Standard Specifications for Road and Bridge Construction, Sections 503 and 645, and Special Provisions for Section 645.

It is anticipated that a SWPPP will be necessary for each phase of construction to graphically show the proposed stormwater management and erosion control Best Management Practices (BMPs), and appropriate existing structures and surrounding natural resources. All SWPPP plans shall be annotated upon the full sized Contract Plans and/or Erosion and Sediment Control Base Plans, as provided by the Department. The Department's review of the SWPPP will be in accordance with Section 105.02.

The Contractor shall install, inspect, and maintain all appropriate stormwater management and erosion control BMPs in accordance with the SWPPP and CGP until an area is stabilized, to ensure that the New Hampshire Water Quality Standards (Env-Wq 1703) are not violated. Excavation dewatering shall comply with all state and federal regulations. This work shall be paid under the appropriate item numbers.

The monitoring of the SWPPP shall be paid under Item 645.71 – Monitoring SWPPP and Erosion and Sediment Controls.

Construction activities for this project are controlled by many permits including but not limited to the NH DES Wetlands permit, Alteration of Terrain Regulations and the NPDES Construction General permit. If there are conflicts among these various permits, the most stringent terms, conditions, procedures or regulations shall be followed.

ENVIRONMENTAL COMMITMENTS

Refer to the *Summary of Environmental Issues* document found elsewhere in the proposal.

INVASIVE PLANTS

Under the statutory authority of RSA 430:55 (NH Department of Agriculture) and RSA 487:16-a (NH Department of Environmental Services), the spread of invasive plants listed in Agr 3800 and Env-Wq 1300 is prohibited. The project contains areas of the following prohibited invasive Type I plants: Multiflora Rose and Honeysuckle; and Type II plants: Japanese Knotweed.

To prevent the spread of these plants both within and outside the project area, appropriate containment measures and disposal methods must be in place. Prior to clearing and grubbing operations occurring in areas identified on the General Plans as containing invasive plant species, the Contractor shall mitigate these areas as specified in the Special Provision for Item 201.88X – Invasive Species Control Type X. All work must comply with the NHDOT manual *Best Management Practices for Roadside Invasive Plants* and supporting fact sheet documents, available in the Department's Records Section or online at www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/invasivespecies.htm.

Submit an Invasive Species Control and Management Plan (Item 697.11), which details the specific method(s) of controlling the spread of the identified invasive plants and their proper disposal, for review and approval prior to construction.

Excavation of invasive plants will be paid under the appropriate pay items for the class of excavation being performed. Removing and handling of invasive plants will be paid under Item 201.881 – Invasive Species Control Type I and Item 201.882 – Invasive Species Control Type II, as appropriate. Disposal of invasive plants and associated soils by burying on-site will be paid

under Item 203.6 – Embankment-In-Place. Disposal of invasive plants and associated soils on-site but outside of the roadway section, when allowed, will be paid under either Item 203.1 – Common Excavation or Item 203.6 – Embankment-In-Place. Disposal of invasive plants and associated soils off-site, when allowed, will be paid for as extra work as provided in Section 109.

Periodically review established slopes within the project limits (subsidiary to Item 697.11) for the presence of new populations of invasive plants that have been spread directly by construction activities. Upon approval of follow-up control measures, manage the new populations, which can include, but are not limited to, by pulling and bagging plants or by the application of herbicide. Follow-up control measures will be paid under Item 201.88X, as approved.

Contact the Project's Environmental Manager (Marc Laurin, 603-271-3226) at the Department's Bureau of Environment for questions about invasive plant identification and control methods.

NORTHERN LONG-EARED BAT PROTECTION

The U.S. Fish and Wildlife Service (USFWS) has listed the Northern Long-Eared Bat (NLEB) as threatened under the Endangered Species Act (ESA) to protect the bat and its habitat. This project has been reviewed in accordance with the provisions of the Range-Wide Programmatic Consultation for Indiana Bat and Northern Long-Eared Bat coordinated between the Federal Highway Administration, Federal Railroad Administration, Federal Transit Administration and the U.S. Fish and Wildlife Service. The project has been determined that it *may affect, is likely to adversely affect* the species, as such appropriate mitigation measures shall be employed.

The Contractor shall ensure tree removal is limited to that specified in the project plans. Prior to tree removal the Contractor shall layout the clearing limits in the field (e.g. with bright orange flagging/fencing or another marking method) to ensure all tree clearing work is within the tree clearing limits. Direct temporary lighting away from suitable habitat during the active season (April 15th to October 31st).

The Contractor shall ensure all personnel working on the project site are made aware of the potential presence and protected status of the NLEB. The NLEB flyer, located elsewhere in the Proposal, shall be made available to all personnel and posted on project bulletin boards. The Contractor shall ensure all personnel working on the project site are aware of all environmental commitments related to the NLEB. The Contractor will promptly notify the Engineer and the Project's Environmental Manager (Marc Laurin, 603-271-3226) upon finding any dead, injured or sick bats.

CULTURAL RESOURCES

The Contractor is made aware of the presence of the following historic resources located within and adjacent to the project: the South Acworth Village Historic District and its contributing properties, which include Parcels 3, 4, 5, 6, and 7. The Department has designed and implemented an alternative that minimizes impacts, mitigates, and/or avoids these resources. No further impacts to these historic resources are allowed.

The existing dry-laid stone foundation walls of the former Grange Hall located on Parcel 1 near the intersection of NH 123A and Beryl Mountain Road has been identified as an archaeological site. No impacts to the foundations shall occur. The site boundaries shall be delineated with construction fencing to restrict access to the site as described elsewhere in the Proposal.

LIMITED REUSE SOILS

Within the project limits, Limited Reuse Soils (LRS) are comprised of all topsoil within the existing right-of-way, regardless of its depth. In those instances where there is no measurable topsoil, the material from the top of ground to a depth of six (6) inches is considered LRS. In addition, LRS includes street waste, ditching material, and asphalt pavement that has been ground or pulverized. Soils located below existing paved surfaces will not be considered LRS.

All LRS disturbed during construction activities shall be handled as described in the Soil Management Plan for Limited Reuse Soils (SMP) included with the Special Attention – Supporting Information for Project Operations Plan Development (SA-POP).

For this project, it is anticipated that all LRS will be stockpiled if necessary, and reused within the project limits, and no excess LRS will require off-site disposal.

The Contractor shall prepare and submit a Project Operations Plan (POP) (Item 697.31) to the Department's Bureau of Environment through the Engineer for review and approval at least 15 business days prior to any excavation of LRS. The Bureau of Environment, in concurrence with the Department's Environmental Consultant, will review the proposed POP for compliance with state regulatory requirements, and provide comments to the Engineer. The comments on the proposed POP must be addressed by the Contractor in a revised POP. When all comments have been addressed, the Bureau of Environment will approve the POP. The POP shall specify the Contractor's means and methods for handling and management of LRS in accordance with the SMP. No excavation of LRS may take place until the POP has been approved by the Department.

All excavated LRS shall be reused within the project limits prior to importing fill. Excavation, handling and placement of LRS shall be in accordance with the Best Management Practices (BMPs) described in the SMP.

All costs incurred due to excavating, handling, and stockpiling LRS at approved locations within the project limits will be paid for under Item 203.11 – Common Excavation - LRS. Reuse of LRS within the project limits shall be paid under the contract items for topsoil and embankment material, as appropriate.

Contact the Department's Bureau of Environment (603-271-3226) for questions about limited reuse soils.

MONITORING WELLS

Six off-site monitoring wells, installed as part of an Environmental Site Assessment on the Village Store property (Parcel 4), may be located within the project area. If found to be present, impacts to these wells are to be avoided by the Contractor.

NH DESIGNATED RIVER

This project is located with a ¼ mile of a Designated River. For any work proposed within a ¼ mile of the Designated River not shown on the plans including; the Contractor's method of construction, access, and staging areas, the Contractor shall coordinate with the Cold River Local Advisory Committee.

BRIDGE REMOVAL AND LEAD-BEARING PAINT

The paint system on the existing bridge rail contains hazardous concentrations of lead. Comply with Section 502.3.1.2 requirements for: (1) OSHA 1926.62 worker protection; (2) environmental protection; and (3) Compliance Plan submittal for all construction and demolition-related activities. Also see the Special Attention included elsewhere in the Proposal.

Existing bridge rail that is dismantled, recycled, and reclaimed for reuse does not constitute a hazardous waste.

Do not permit lead-bearing paint chips and debris to enter the environment during any construction activity, including demolition, dismantling, cutting, rivet busting, handling, and shipment. Describe Means and Methods in the Compliance Plan.

Take effective measures for shipment, such as removing loose paint, tightly wrapping and sealing members so paint does not separate from the steel, cutting members into smaller pieces and loading them into a covered roll-off container, etc.

Properly contain, collect, and store lead-based paint chips and debris which separate from the steel during construction activities in sealed and locked containers. Manifest and transport to an approved Treatment/Storage/Disposal (TSD) facility using a licensed hazardous waste transporter in accordance with NHDES regulations.

Appropriately manage the demolition work and any associated hazardous waste during dismantling, handling, and shipment. This work will be subsidiary to Item 502 – Removal of Existing Bridge Structure.

BRIDGE REMOVAL AND CONSTRUCTION OPERATIONS

Bridge removal and construction operations shall be performed in a manner consistent with the Traffic Control Plan, or as otherwise approved by the Engineer.

Special care and precautions, including protective structures as required or ordered, shall be taken to ensure that no debris is allowed to fall in the waterway below during bridge removal and construction operations. All costs for protective structures, required or ordered, shall be subsidiary to the appropriate items of work being performed. The Contractor shall submit all proposed plans, calculations and erection procedures, including protective structures, enclosures or shielding to the Engineer for documentation in accordance with 105.02.

TEMPORARY PATHWAY AND BRIDGE

A temporary 10-foot wide gravel pathway, including a bridge over Bowers Brook, shall be constructed as shown on the Plans. All temporary fill shall be placed on geotextile fabric to facilitate removal and restoration. Stumps and existing topsoil shall not be removed except as

required. No trees shall be removed without approval of the Engineer. The bridge shall have a minimum rail-rail width, clear span length and low steel elevation as shown on the Plans.

The bridge, including superstructure, rail system and substructure shall be designed by a Professional Engineer, Licensed in the State of New Hampshire. Plans and calculations shall be submitted for Documentation in accordance with 105.02. See also the Special Provision for Section 107.11 – Responsibility for Damage Claims as this component will require Professional Liability Insurance.

When no longer required the temporary pathway and bridge shall be completely removed and the area cleaned up, graded, landscaped and restored to the satisfaction of the Engineer to a condition equal to or better than that originally found or as shown on the plans. All costs for design, construction, maintenance and removal of the temporary pathway and bridge, and restoration of disturbed areas shall be included in Item 670.04501 – Construct and Remove Diversion, and Item 501.1 – Temporary Bridge, as appropriate.

VIBRATION MONITORING

There may be the potential for damage to nearby buildings resulting from roadway construction activities. Structures that may be affected by the vibration source shall be monitored for vibrations and settlement, payable under Item 211.11 – Vibration Monitoring Services (not part of the requirement for vibration monitoring required for rock removal operations covered under Section 203 of the Specifications). Monitoring performed under Item 211.11 and Section 203, shall be performed by the same individual(s). The following parcels, as a minimum, shall be included in the vibration monitoring plan:

PARCEL	NAME
3	Archer, Wasserman
4	Symonds
6	United Church of Acworth
7	Acworth Historical Society, Inc.
--	Pierce, Tonioli

EXISTING BRIDGE PLANS

There are no available existing bridge plans. To assist the Contractor in preparing a bid, a copy of the existing bridge flat card (Br. No. 113/064) is available on-line on the *Invitation to Bid* webpage at nhdot.com in the specific project's Proposal Package during the bidding period.

RIGHT-OF-WAY AND PROTECTION OF PROPERTY

Protect all mailboxes and maintain them in accessible locations. Upon completion of the project, mailboxes shall be set at permanent locations as ordered and mounted on new posts and assemblies. All work related to mailbox maintenance and relocation will be subsidiary to Item 619.1 – Maintenance of Traffic. New mailbox supports ordered will be paid under Item 670.066 – Mailbox Support Assemblies.

Permanent and temporary easements necessary for the construction of this project have been acquired with the following property owners, and as shown on the Plans:

PARCEL	NAME
3	Archer, Wasserman
4	Symonds
5	Lord
6	United Church of Acworth
7	Acworth Historical Society, Inc.
8	Turner

There is a drilled well located on the Symonds property (Parcel 4) near the limits of work, which shall not be impacted. The Contract Administrator shall meet with the property owner prior to working adjacent to the property to locate the well.

GEOTECHNICAL INFORMATION

To assist the Contractor in preparing a bid, the GEOTECHNICAL REPORT is available for review during the bidding period. These reports are available on-line on the *Invitation to Bid* webpage at nhdot.com in the specific project's Proposal Package.

CONSTRUCTION REQUIREMENTS

General

1. Temporary fencing shall be placed and maintained as shown on the Plans to delineate the existing dry-laid fieldstone foundation walls of the former Grange Hall located on Parcel 1 near the intersection of NH 123A and Beryl Mountain Road. No equipment or disturbance beyond the fencing is allowed. All costs shall be included in Item 670.95 – Temporary Safety Fence.
2. Vibratory compaction methods for subgrade preparation and base course material placement from Station 200+20 to 202+43 and Station 203+19 to 205+90 are not permitted in these areas due to structures that are in close proximity to the work. Static compaction methods shall be used as described in the Special Provision Amendment to Section 304 – Aggregate Base Course.
3. Areas of Bowers Brook that are temporarily disturbed shall be restored and riparian vegetation shall be re-established once construction is complete. Wetland seed mixtures (Item 644.22 – Scrub / Forest Wetland Seed Mix) shall be applied in areas as shown on the plans, or as directed by the Engineer.

Guardrail/Barrier

1. **Item 606.417 – Portable Concrete Barrier for Traffic Control shall conform to the current NHDOT Standard Plan GR-23.** See also the *Notice to Contractors* regarding portable concrete barrier and linking pin connection located elsewhere in the Proposal.
2. The quantity of Item 606.417 – Portable Concrete Barrier for Traffic Control included in this contract will be the maximum amount paid for this project. Should a greater quantity be required due to Contractor's means and methods, the exceeding quantity shall be at the Contractor's expense.
3. The Contractor is advised of the Special Provision provided for Item 606.1255 – Beam Guardrail (Terminal Unit Type EAGRT, TL 2) (Steel Post).

Pavement Work

1. Item 403.6 – Pavement Joint Adhesive shall be applied to all exposed longitudinal joints for all pavement courses prior to placement of each pavement course pass.

Drainage

1. The requirement for internal video inspection of pipes specified under Section 603.3.7.1 has been waived this project.

Marking and Signing

1. There are no signs to be replaced under the project. If the Contractor damages the existing signs during construction, the Contractor shall be responsible to replace them, at the Contractor's expense, according to NHDOT standards (available upon request).
2. Contact the Bureau of Traffic (Julie Mathews, 603-271-8011) at least one week in advance of final pavement marking operations in order to review the Contractor's layout. The proposed pavement marking layout shall conform to the current edition of the MUTCD and NHDOT Standard Plans.
3. Pavement markings shall extend beyond project paving limits as directed to overlap existing markings disturbed by construction.

EXCAVATIONS

If slopes steeper than 4:1 adjacent to the traveled way or shoulders open to traffic are not protected by existing or new guardrail through non-work hours, protect traffic from these areas using traffic control barrier and temporary lighting if required, as approved by the Engineer at the Contractor's expense.

ELECTRONIC SCHEDULING

The Contractor shall submit an electronic Bar Chart for documentation in accordance with 105.02. Refer to Section 108.03.A - Progress Schedule for detailed information.

SALVAGE OF MATERIALS

If the Department judges the following materials suitable for re-use, salvage, stockpile, and load them onto the indicated recipients vehicles as required under 104.04. Care shall be taken during the removal operations so as not to damage any salvaged materials. Material damaged during removal due to the Contractor's negligence shall be replaced at the Contractor's expense. All costs shall be included in Item 502 – Removal of Existing Bridge Structure or as shown on the Plans. Materials deemed not salvageable, including guardrail posts, shall become the property of the Contractor who is responsible for proper disposal.

Highway Maintenance, District 4

Contact the District 4 Maintenance Engineer (John Kallfelz, 603-352-2302) a minimum of two weeks in advance of material turnover to schedule pickup by Highway Maintenance forces.

- Portable concrete barrier along the south curb line (approximately 7 barrier sections).

Bureau of Bridge Maintenance:

Contact the Bureau of Bridge Maintenance (Doug Haskins, 603-419-0481) a minimum of two weeks in advance of material turnover to schedule pickup by Bridge Maintenance forces.

- All stacked concrete blocks that comprise the temporary southwest bridge wingwall.

WORK HOURS

Do not perform any work involving high noise machinery such as jackhammers or excavating equipment, including starting and warming up the equipment, prior to 7:00 a.m. or after 7:00 p.m., unless otherwise permitted in the contract, or approved by the Engineer.

In addition to the Limitation of Work requirements described in 108.04, do not perform any work during special events scheduled by the Town of Acworth unless otherwise approved by the Contract Administrator. Contact the Acworth Town Administrative Assistant (Kathi Bradt, 603-835-6879) for the schedule of events.

During the bridge closure period work may be performed between the hours of 5:00 a.m. and 9:00 p.m., including Saturdays and Sundays.

SCHEDULE OF WORK

Closure of the bridge and implementation of the detour shall not begin until after Wednesday, July 4, 2018.

In addition, the bridge shall not be closed until construction of the temporary pathway and bridge, as described elsewhere in the Proposal, has been completed and the work accepted by the Engineer, and the precast components necessary for the bridge construction have been accepted for shipment from the fabrication plant(s) to the construction site.

The new bridge shall be opened to a two-lane, two-way traffic pattern on or before the intermediate completion date given elsewhere in the Proposal.

INCENTIVE / DISINCENTIVE

Incentives / disincentives are provided in the contract to encourage early completion of the work during the bridge closure period. See the Special Provision Amendment to Subsection 108.08, Incentive / Disincentive for Early Completion, for additional information.

INTERMEDIATE COMPLETION DATE

The intermediate completion date will be established by adding 21 calendar days to the date when the bridge is closed and traffic is detoured. This date shall not be later than the start of the 2018-2019 school year for the Fall Mountain Regional School District, New Hampshire

School Administrative Unit 60 (SAU 60). Information on SAU 60 may be found on-line at <http://www.sau60.org/>.

No allowance will be given for unfavorable weather or ground conditions (see Special Provision to 108.07) or for delays in materials (see 108.07.B.3).

FINAL COMPLETION DATE

The Final Completion Date is Friday, October 12, 2018. The Special Provision to 108.07 shall only apply to the Intermediate Completion Date.

September 19, 2017

TRAFFIC CONTROL PLAN

The following are considered to be part of the Traffic Control Plan:

1. Sections 618 and 619 of the Standard Specifications
2. Work Zone Traffic Control Standard Plans*
3. *Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition*
4. *Flagger and Uniformed Officer Use in Work Zones Policy and Guidelines**

* Available on line under *Doing Business with DOT>Contractors* at www.nhdot.com or through the NHDOT Contracts Office (603-271-3732).

The above referenced specifications, guidelines, and provisions herein provide minimum requirements and/or guidelines; the Contractor may be directed to expand upon the Traffic Control Plan if conditions warrant.

All Uniformed Officers working on any NHDOT funded project, including municipally managed projects, shall have successfully completed a NHDOT approved course on *The Safe and Effective Use of Law Enforcement Personnel in Work Zones*. The officer shall supply proof of successful course completion upon request.

NOTIFICATION REQUIREMENTS FOR TRAFFIC CONTROL OPERATIONS

Proposed changes in traffic control shall be communicated a minimum of one week in advance of the anticipated change and shall be subject to the approval of the Engineer. An additional notification with specific information on upcoming traffic control operations that will affect traffic shall be provided to the Engineer at least 48 hours in advance of the work.

Call the TMC Operations Supervisor (603-271-6TMC) immediately prior to closing the NH 123A bridge to traffic and immediately upon reopening to traffic. This will only need to be communicated at the implementation of the detour and then once the detour condition has been removed.

In addition, the Contractor shall notify and provide information regarding traffic control operations to the area emergency services noted below prior to commencing major construction activities that may affect, change, or restrict traffic.

Emergency Service Contacts:

1. Steve Morris, Town of Acworth, Fire Chief (603-835-2295)
2. Lt. Jeffrey Ladieu, Dept. of Safety, State Police Headquarters (603-271-3636)

No changes in traffic control or any lane closures or blocked lanes resulting from planned construction activities will be allowed without completing all advanced notification requirements. Significant changes to the traffic control plan may require more time for review. No additional days will be granted for review time.

All costs for this work shall be included in Item 619.1 – Maintenance of Traffic.

MAINTENANCE OF TRAFFIC

1. The bridge will be closed and traffic detoured via NH 10 and NH 123 during the bridge removal and replacement operations for a period not to exceed 21 calendar days as described elsewhere in the Proposal.
2. Access to all residences and businesses shall be maintained at all times.
3. Secure approval prior to any implementation of temporary lane closures. Short term one-lane, alternating two-way traffic will be allowed with approval. Maintain two-way traffic during non-work hours except as otherwise permitted herein.
4. Item 619.25 – Portable Changeable Message Signs shall be used for advance notice of construction activities. *The intent is to reserve the use of these signs for meaningful messages that will help motorists get through the work zone safely and not simply repeat information found on other Construction Signs.*
5. Maintain permanent signing at all times.

ADDITIONAL TRAFFIC CONTROL NOTIFICATION – LANE RESTRICTION

For any traffic control that reduces total contiguous available pavement width to 15 feet or less, complete and fax a Lane Restriction Form two weeks in advance to the NHDOT Permit Office (Fax: 603-271-5990, Tel: 603-271-2691). The Lane Restriction Form may be found elsewhere in the Proposal. The Engineer may require the Contractor to provide signing for alternate routing of wide loads. All costs shall be included in Item 619.1 – Maintenance of Traffic.

PROHIBITION OF UNNECESSARY TRAFFIC OBSTRUCTION

The clear zone measured from the edge of the traveled way open to traffic shall be as follows:

- 15 feet in areas of posted speed limits 40 mph or less,

Work must be performed in such a way that does not adversely affect traffic from both sides of the roadway at any location at the same time.

VARIATION FROM THE TRAFFIC CONTROL PLAN

If the Contractor feels improvements can be made to the Traffic Control Plan for this project, the Contractor shall submit a written proposal to the Department with any necessary plans for consideration and approval.

**OVERSIZE/OVERWEIGHT
LANE RESTRICTION FORM**

**SUBMIT TO OVERSIZE/OVERWEIGHT PERMIT OFFICE
EMAIL: OVERHAUL@DOT.NH.GOV
FAX: 603-271-5990**

Date Submitted: _____

Project Name: _____

Project #: _____

Town: _____

Bridge #: _____

Roadway: _____
(NB, SB, EB, WB)

Crossing: _____
(NB, SB, EB, WB)

Available Travel Width: _____

Time of Day from: _____ **to:** _____

Date Starting: _____

Type of Work: _____

Date Ending: _____

Contact Name: _____

Duration: _____

Phone #: _____

One Lane Traffic: Yes
 No

Cell Phone #: _____

Detour: Yes No

Description: _____

NOTES:

1. Maintain adequate width and geometry for loads up to 10 feet 6 inches wide, 13 feet 6 inches height, and 75 feet long or provide adequate detour route.
2. Submit lane restriction form a minimum of 10 working days prior to: 1) start of lane restriction, 2) change of lane restriction conditions, and 3) change of lane restriction ending date.

September22, 2017

Summary of Environmental Issues

The following is provided to assist in identifying the environmentally sensitive aspects of this project. This notification is neither intended to be all-inclusive nor to replace the need to thoroughly read and abide by all contract documents including but not limited to all applicable state specifications and permits (see the Prosecution of Work (POW) located elsewhere in the proposal for additional information).

Actions To Be Completed Prior to Earth Disturbing Activities (including clearing)

- **Storm Water Pollution Prevention Plan (SWPPP):** A Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the Department for approval at least 15 working days prior to the expected start date.
- **Notice of Intent (NOI):** This project is eligible for coverage under the Environmental Protection Agency's (EPA), National Pollutant Discharge Elimination Systems (NPDES) Construction General Permit (CGP). A Notice of Intent (NOI) shall be filed with the EPA.
- **Erosion Control Strategies:** The Contractor is directed to review and incorporate all applicable provisions outlined by the Department in the Wetland Plans "Erosion Control Strategies and Stabilization Matrix" sheet. This sheet outlines the Department's commitments and strategies to minimize the impacts of construction to the environment. The Erosion Control Strategies and Stabilization Matrix" sheet is available on-line on the Department's Bureau of Environment Wetland Program Website on the Wetland Applications, Plans, and Permits webpage at www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm.
- **Project Bulletin Board:** Environmental documents shall be posted on the project's Bulletin Board. Documents shall include, but are not limited to, signed copies of permits issued by regulatory agencies, NOI tracking numbers, contact information and location of project SWPPP.
- **Invasive Species Control and Management Plan:** An Invasive Species Control and Management Plan shall be submitted to the Department for approval at least 15 working days prior to the expected start date.
- **Endangered/Threatened Species:** The Northern Long-Eared Bat Flyer, included elsewhere in the contract, shall be shared with all operators, employees, and contractors working on the project and operators, employees, and contractors shall be made aware of all applicable environmental commitments.
- **Cultural Resources:** The Grange Hall foundation located on Parcel 1 has been identified as an archaeological site. No impacts to the foundations shall occur. The site boundaries shall be delineated with construction fencing to restrict access to the site.

- **Contaminated Materials Management:** The Contractor shall prepare a Project Operations Plan (POP) detailing strategies for proper management, disposal and reuse of Limited Reuse Soils and submit to the Department for review 15 working days prior to the start of work. A Soils Management Plan prepared by the Department is available for use in preparation of the POP.
- **NHDES/Army Corps of Engineers Wetland Impact Permits:** The Department has applied for the necessary wetland impact permits from the NHDES and USACOE for work as shown on the plans. No work within jurisdictional areas shall occur until the permits have been obtained.

Actions to be Completed During Construction

- **Endangered/Threatened Species:** All sightings of dead or sick bats shall be immediately reported to the NHDOT Bureau of Environment.
- **Cultural Resources:** The following historic resources are located within the project limits: the South Acworth Village Historic District and its contributing properties, which include Parcels 3, 4, 5, 6, and 7. The Department has designed this project to minimize impacts and/or avoids these resources. No further impacts to these historic resources are allowed.
- **Contaminated Materials Management:** It is not anticipated that contaminated soils or groundwater will be encountered by the work as proposed. However, if any visual or olfactory indications of the presence of contamination are encountered, or if the scope of work changes, the Bureau of Environment's Contamination Program (603-271-3226) shall be notified immediately and construction shall be discontinued until the situation is assessed.
- **Limited Reuse Soils:** Limited Reuse Soils (LRS) is comprised of all topsoil within the limits of the existing right-of-way, regardless of its depth. In instances where topsoil is not present in the existing right-of-way, LRS may be defined as soil from the top of ground to a depth of six (6) inches. LRS disturbed during construction activities, shall be handled as described in the Soil Management Plan (SMP) included with the Special Attention – Supporting Information for POP Development (SA-POP).



SHORELAND PERMIT BY NOTIFICATION (PBN)

Water Division / Land Resources Management Bureau /
Shoreland Program



RSA / Rule: RSA 483-B / ENV-Wq 1400

	<input checked="" type="checkbox"/> PBN Accepted, Expires: <u>8/8/2022</u>	Reviewer Initials: <u>SAB</u>
	<input type="checkbox"/> PBN Rejected	Admin Initials: <u>DB</u>
	File #: <u>2017-02279</u>	Amount:
Check #: <u>Exempt</u>		Amount:

This form is for construction, excavation, filing, or other activities that impact less than 1,500 square feet and add no more than 900 square feet of impervious area within a protected shoreland area, which have no impact on water quality, and follow department regulations. The square footage limits do not apply to special project types on page 2.

This form **cannot be used** for projects under the jurisdiction of RSA 482-A, the NH wetlands statute, including many projects within the water, on the bank or a water body, or within the 100 foot tidal buffer zone. This includes but is not limited to waterfront retaining walls, docks, wetlands, and beaches.

A. Project Site Information		RSA 483-B:5-b, I(a) ; Env-Wq 1406.17	
Waterbody name: <u>Cold River</u>		Map: <u>246</u>	Lot: <u>13 & 17</u>
Address: <u>NH Route 123A over Bowers Brook</u>		Block:	Unit:
Town/City: <u>Acworth</u>	State: <u>NH</u>	Zip code: <u>03601</u>	
B. Property Owner Information		Env-Wq 1406.17(a)(1,2), Env-Wq 1406.17(b)(1)	
Name: <u>NH Department of Transportation</u>		E-mail: <u>Jennifer.Reczek@dot.nh.gov</u>	
Address: <u>7 Hazen Drive</u>		Phone: <u>603-271-3734</u>	
Town/City: <u>Concord</u>	State: <u>NH</u>	Zip code: <u>03302</u>	
C. Agent Information		Env-Wq 1406.17(b)(2)	
Name: <u>Jennifer Riordan</u>		E-mail: <u>jriordan@smartenvironmental.com</u>	
Address: <u>72 North Main Street</u>		Phone: <u>603-224-7550</u>	
Town/City: <u>Concord</u>	State: <u>NH</u>	Zip code: <u>03301</u>	

D. Project Description	Env-Wq 1406.17(b)(3, 4, 5)
A complete narrative description of all components of the proposed project must be listed here including all temporary and permanent impacts. Impacts include all construction, excavation, and filling within the protected Shoreland.	
The project involves the replacement of the existing NH Route 123A bridge over Bowers Brook and associated road improvements beginning approximately 250 feet west of the bridge and ending approximately 300 feet east of the bridge. The bridge will be closed during construction and traffic will be diverted on existing roads. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store. The only portion of the project located within the protected Shoreland is the pedestrian path. The path will result in approximately 3,996 square feet of temporary impact within the protected Shoreland. Minor tree and sapling clearing will occur within the 150 to 250 foot buffer.	
Area of net change in impervious surface (in square feet): <u>0</u>	
Total area to be impacted (in square feet): <u>3,996</u>	

E. Standard Project Type and Fee		RSA 483-B:5-b, I(a) (1); RSA 483-B:5-b I. (b)
<input type="checkbox"/>	This project impacts less than 1,500 square feet and adds no more than 900 square feet of additional impervious area.	The permit application fee is \$100 plus \$.10 per square foot of area affected by the proposed activities as listed at the bottom of section D. (e.g. 500 square feet of impacts equals a fee of \$150) Total fee* : \$
F. Special Project Types and Fees		RSA 483-B:5-b, I(a)(2, 3); RSA 483-B:5-b, I(b)(1)
<input type="checkbox"/>	This project is directly related to stormwater management improvements, erosion control, or environmental restoration or enhancement.	The fee for these project types is \$100*
<input checked="" type="checkbox"/>	This is a project for maintenance, repairs, and improvements of public utilities, public roads, or public access facilities.	These project types are fee exempt .

*Fee can be paid with check or money order made out to **Treasurer – State of NH** or by cash.

G. Required Attachments		RSA 483-B:5-b, I(a)
<input checked="" type="checkbox"/>	This application includes: <ul style="list-style-type: none"> • Plans clearly and accurately depicting the work to be completed relative to the reference line of the jurisdictional waterbody, all property lines, and the limits of temporary impacts. • Photographs of the area to be impacted and the date the photos were taken. 	
H. Attachment Details		RSA 483-B:5-b, I(a)
<input type="checkbox"/>	This project proposes an increase in impervious area; therefore the plans include dimensions, locations, and areas of all existing and proposed impervious areas.	The total proposed impervious area within the protected shoreland is:
		<input type="checkbox"/> Between 15% and 20%, therefore the applicant certifies that the impervious area is not more than 20% as per Env-Wq 1406.10(a).
		<input type="checkbox"/> Between 20% and 30%, therefore the plans include a stormwater management system shall be implemented as per RSA 483-B:9, V(g)(2).
<input type="checkbox"/>	Greater than 30%, therefore the plans include a stormwater management system designed and certified by a professional engineer to account for all new development, and how the minimum vegetation point score is met as per RSA 483-B:9, V(g)(1,3).	
<input type="checkbox"/>	Pervious surfaces are included in this project, therefore the plans include the location and type of each surface, a cross-section of each type of pervious surface that shows the construction method, and specifications for how each type of pervious surface will be maintained.	
<input checked="" type="checkbox"/>	Impacts are proposed between 50 and 150 feet of the reference line; therefore the plans include all areas to remain in an unaltered state within the Woodland Buffer as per RSA 483-B:9, V(b)(2)(A).	
<input type="checkbox"/>	Impacts are proposed within 50 feet of the reference line, therefore the plans and photos show all impacted segments within this Waterfront Buffer including existing ground cover and trees.	
<input type="checkbox"/>	Trees or saplings within 50 feet of the reference line will be removed; therefore the plans include how the point score will be met as per RSA 483-B:9, V(a)(2)(D). For more information on the point score and vegetation requirements see the NHDES Vegetation Maintenance Fact Sheet .	

J. Conditions and Certifications

Env-Wq 1406.18, 20

The signature below shall constitute certification that:

- The information provided is true, complete, and not misleading to the knowledge and belief of the signer and the signer is subject to the applicable penalties in RSA 641 Falsification In Official Matters.
- The signer understands that: any permit by notification obtained based on false, incomplete, or misleading information is not valid, an accepted Shoreland permit by notification shall not exempt the work proposed from other state, local, or federal approvals, and **incomplete notifications shall be rejected and the notification fee shall not be returned.**
- The signer accepts the responsibility for understanding and maintaining compliance with RSA 483-B and these rules and the project as proposed complies with the minimum standards established in RSA 483-B:9, V and will be constructed in strict accordance with the proposal.

The following conditions shall apply to all projects in the protected Shoreland, in addition to any project-specific conditions included pursuant to Env-Wq 1406.15 and regardless of whether a permit is obtained:

- Erosion and siltation controls shall be: installed prior to the start of work, be maintained throughout the project, remain in place until all disturbed surfaces are stabilized, appropriate to the size and nature of the project and to the physical characteristics of the site (including soil type, vegetative cover, and proximity to wetlands or surface waters).
- No person undertaking any activity in the protected Shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Ws 1700 or successor rules in Env-Wq 1700.
- Any fill used shall be clean sand, gravel, rock, or other suitable material.
- For any project where mechanized equipment will be used, orange construction fence shall be installed prior to the start of work at the limits of the temporary impact area as shown on the plans approved as part of a permit or accepted as part of a permit by notification, be maintained throughout the project, and remain in place until all mechanized equipment has been removed from the site.

Signature of owner:

(Agent may not sign on owner's behalf)



Date:

7/26/17

2/16/2017

SPECIAL ATTENTION**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT REQUIREMENTS**

Contractors are advised that 40 CFR Part 122 applies to this project. This provision prohibits point source discharges of storm water associated with construction activity to water bodies of the United States without a National Pollutant Discharge Elimination System (NPDES) storm water construction general permit.

This project is eligible for coverage under the reissued NPDES Storm Water Construction General Permit for Storm Water Discharge from construction sites, which was published on January 11, 2017. Contractors apply for coverage under this permit through the Environmental Protection Agency (EPA), Notice of Intent (NOI) website (http://cdx.epa.gov/epa_home.asp) at least 14 days prior to commencement of construction on any site which will result in the disturbance of the land and after your Storm Water Pollution Prevention Plan has been prepared.

Other provisions of the General Permit requires a Storm Water Pollution Prevention Plan to be prepared, implemented, kept current, and maintained on the project site along with inspection reports; and when the project site has been finally stabilized and storm water discharges from construction activities have been eliminated, a Notice of Termination (NOT) must be submitted.

NPDES General Guidelines, including an outline for Construction (Storm Water) Pollution Prevention Plan, Notice of Intent and Notice of Termination are available on the internet at EPA's Stormwater site (www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting).

An "active status" of the all submitted NOI's is required prior to commencing any work on the project.

On both the Notice of Intent (NOI) and the Notice of Termination (NOT) forms the information relative to the Facility Operator Information shall be that of the prime Contractor.

See the attached information for required information for filing for coverage under this permit.

The following statements have been provided for the Contractor, and the consultant service group they choose, to assist in preparation of the Construction General Permit (CGP) Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP).

Section 9.1.2.1.

This project may qualify for coverage under the Alteration of Terrain (AoT) Permit issued by Department of Environmental Services (DES) pursuant to RSA 485-A: 17 and Env-Ws 1500. If so, this requirement is satisfied through a Memorandum of Agreement (MOA) between the NH Department of Transportation and the Department of Environmental Services. All requirements of Env-Ws 1500 are in force even though no permit was issued.

Section 9.1.2.2.

The Department of Transportation has reviewed the project area to determine if there are known contaminants that could be discharged to surface waters. The determination was made either by a review of the NHDES OneStop Geographic Information System, or through investigation and consultation with the NHDES Waste Division. If there are, contaminants present on the site, other waste disposal dewatering options have been arranged and are included in the proposal. Necessary permits to discharge to surface waters have been obtained.

Section 9.1.2.4.

Opportunities to include Post-Construction groundwater recharge using infiltration best management practices (BMPs) were evaluated in accordance the Memorandum of Agreement (MOA) between the NH Department of Transportation and the Department of Environmental Services regarding compliance with Env-Wq 1500 Alteration of Terrain. The Department of Transportation has obtained coverage under its own NPDES General Permit for discharges from its Municipal Separate Storm Sewer System and therefore not subject to others. If feasible as described in our MOA and NPDES permit, appropriate on-site Infiltration BMPs were included in the design of the project.

The following information is provided to help in the Contractor's preparation of the Environmental Protection Agency NPDES Permit NOI Form for the Construction General Permit (CGP). It is expressly understood and agreed that the information has been obtained with reasonable care and recorded in good faith, but the Department assumes no responsibility whatsoever with respect to the sufficiency or accuracy of the information.

Operator Information

The contractor awarded the contract shall fill out all operator information in this section for their eNOI using their company's information. The point of contact listed in this section should be the named responsible party within the construction company for this project.

Project/Site Information

Project Site Name: Acworth 16301
Site Address/Location: NH Route 123A over Bowers Brook
Town: Acworth
State: New Hampshire
Zip Code: 03601
County: Sullivan
Latitude (DD.dddd): 43.1905 N
Longitude (DD.dddd): 72.2835 W
Data Source: Map; GPS Other
Reference Datum: NAD 27, NAD 83 or WGS 84
Estimated Start Date: April 1, 2018
Estimated End Date: October 26, 2018
Estimated Area to be disturbed: 1.0 acres

Type of Construction Site: Single-Family Residential
 Multi-Family Residential
 Commercial
 Industrial
 Institutional
 Highway or Road
 Utility
 Other _____

Will there be demolition of any structure built or renovated before January 1, 1980?

YES, Continue on to the next question.

NO;

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space?

YES

NO

N/A

Was the pre-development land use used for agriculture (see Appendix A for definition of “agricultural land”)?

YES

NO

Is your project located on a property of religious or cultural significance to an Indian tribe?

YES, select a tribe

NO

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?

YES

NO

Are there any surface waters within 50-Feet of earth disturbance on this project?

YES

NO

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)?

YES

NO

List all of the stormwater points of discharge from your facility (surface waters):

Receiving Water: Unnamed Wetlands
Impaired: No
Pollutant: N/A
TMDL ID: N/A
TMDL Name: N/A
Pollutant: N/A
Tier Designation: N/A

Receiving Water: NHRIV801070202-04 COLD RIVER - BOWERS BROOK
Impaired: Yes
Pollutant: pH
TMDL ID: 39273
TMDL Name: NEW HAMPSHIRE STATEWIDE BACTERIA
Pollutant: E. coli
TMDL ID: 33883
TMDL Name: NE REGIONAL MERCURY TMDL
Pollutant: Mercury
Tier Designation: 2

Endangered Species Protection

Using the instructions in Appendix D of the CGP, under which criterion listed below are you eligible for coverage under this permit?

The contractor is eligible to file for coverage under **criteria B** using the Tracking number provided by NHDOT once a SWPPP is accepted and a Department NOI is submitted to EPA

Provide a brief summary of the basis for criterion selection listed above [the necessary content for a supportive basis statement is provided under the criterion you selected].

The FWS “Concurrence with LLA” letter and the “Project Submittal Form” show our consultation effort and that it is consistent with the Project Submittal Form. We have made a No Effect determination documented in the “Supplemental Information Northeastern Bulrush” memo. There is not a requirement to coordinate. A No Effects it is a determination made by the lead Federal Agency. The IPaC tracking number is: 05E1NE00-2016-SLI-1100. NMFS was contacted in November 2013. Bowers Brook is not an EFH stream. Concerns were expressed that impacts to the Cold River were to be avoided, in particular suspended sediments. Best management practices will be employed during construction to control suspended sediments and minimize downstream impacts. Temporary impacts to Bowers Brook will be restored and riparian vegetation will be re-established. A hydraulic assessment was completed and

determined that the proposed bridge will convey the 100-year storm. As such it has determined that there will not be an adverse effect on EFH for Atlantic salmon.

The preparer shall include the attached Natural Heritage Bureau and/or US Fish and Wildlife correspondence in the SWPPP

Historic Preservation

Is the Department requiring, or is the Contractor installing per their SWPPP, any stormwater controls that require subsurface earth disturbance? Are you installing any stormwater controls as described in Appendix E that require subsurface earth disturbances?

YES Continue on to the next question.

NO

Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties?

YES; No Potential to Cause Effects, checked Section 106 Programmatic Agreement Appendix B Certification. The SWPPP preparer shall include the attached the Certification in the SWPPP. You are finished with section.

NO; Continue on to the next question.

Have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties?

YES; No Historic Properties Affected checked Section 106 Programmatic Agreement Appendix B Certification or effects memo. The SWPPP preparer shall include the attached the Certification in the SWPPP. You are finished with this section.

NO; Continue on to the next question.

N/A

Did the SHPO, THPO, or other tribal representative (whichever applies) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties??

YES; Describe the nature of their response:

Written Indication that no historic properties will be affected by the installation of storm water controls. Attach No Adverse Effects Memo to SWPPP.

Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions. Attach an Adverse Effects Memo and MOA to SWPPP.

No agreement has been reached regarding measures to mitigate affects to historic properties from the installation of stormwater controls

Other: (include text)

NO This means the SHPO did not have a timely response

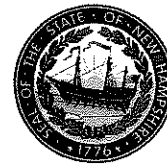
N/A

Certification

A responsible corporate officer should certify this NOI. For more information on the purpose and definition of this responsible party, please see Appendix I (I.11 Signatory Requirements) in the CGP.



THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT, SR. COMMISSIONER

JEFF BRILLHART, P.E. ASSISTANT COMMISSIONER

Acworth X-A001(226) 16301 RPR 5525

No Adverse Effect Memo With De Minimis Impacts

Pursuant to meetings and discussions on December 9 and 11, 2014, and for the purpose of compliance with regulations of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Procedures for the Protection of Historic Properties (36 CFR 800), the NH Division of Historical Resources (NHDHR) and the NH Division of the Federal Highway Administration (FHWA) have coordinated the identification and evaluation of cultural resources with plans to replace the Bowers Brook Bridge (113/064) on NH Route 123A over Bowers Brook in the Town of Acworth.

Based on a review pursuant to 36 CFR 800.4, we determined that the Bowers Brook Bridge, a 1915 jack arch bridge comprised of a single-span I-beam stringer with concrete arch floor, is not individually eligible for the National Register of Historic Places or a contributing resource within the National Register-eligible South Acworth Village Historic District, due to modifications in 1940, 1970, and 2005 that widened the bridge and replaced the guard rails and abutments. Applying the criteria of effect at 36 CFR 800.5, we mutually agree that the project will not have an adverse effect. We agree that no further survey work is needed.

In addition, with NHDHR concurrence of no adverse effect for the above undertaking, FHWA intends to, and by signature below, does make a finding of de minimis impact. NHDHR's signature below represents concurrence with the de minimis finding. Parties to the Section 106 process have been consulted and their concerns have been taken into account. Opportunities for public input took place on June 23, 2014 at the Town Board of Selectmen meeting, on April 24, 2014 at a Public Informational meeting, and following the distribution of Initial Contact Letters on November 4, 2014. Therefore, the requirements of Section 4(f) have been satisfied.

In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

Patrick Bauer, Administrator Date 12/19/14 Federal Highway Administration

Jill Edelmann Date 12/17/2014 Cultural Resources Manager

Concurred with by the NH State Historic Preservation Officer

Elizabeth H. Muzzey Date 1/5/15 State Historic Preservation Officer

c.c. Marc Laurin, NHDOT Chris St. Louis, NHDHR

Robert Landry, NHDOT

S:\Environment\PROJECTS\DESIGN\16301\Cultural\Acworth 16301 NoHistoricPropAffected FHWA.docx

Laurin, Marc

From: Jennifer Riordan <jriordan@smartenvironmental.com>
Sent: Tuesday, November 05, 2013 8:36 AM
To: Marc Laurin; Darren Blood
Cc: Glenn Smart
Subject: Fw: Fwd: NHDOT Project – Acworth 16301

FYI – Below is the response from NMFS.

Jenn

From: [Mike R Johnson - NOAA Federal](#)
Sent: Tuesday, November 05, 2013 8:27 AM
To: jriordan@smartenvironmental.com
Subject: Fwd: NHDOT Project – Acworth 16301

Jennifer,

Lou Chiarella forwarded a copy of your email to him regarding the NH Route 123A bridge in Acworth. I will be the biologist handling the consultation for this project.

As you noted in your email, Cold River has been identified as EFH for Atlantic salmon. And although Bowers Brook is not an EFH stream, construction activities that could result in impacts in Cold River should be avoided. In particular, suspended sediments released during construction should be contained and restricted to the bridge site. General best management practices, such as turbidity curtains and/or coffer dams to control suspended sediments, are usually effective at preventing downstream and nearby impacts. In addition, the stream bottom and adjacent riparian vegetation and banks should be restored after construction. Lastly, we recommend that an assessment be conducted on the capacity of the bridge to convey waters based on projected storm events using models of current and anticipated precipitation and stream flow.

A consultation with NMFS will be necessary only if NH DOT determines there will be adverse affects on EFH for Atlantic salmon. Let me know if you have any questions.

Thanks,

Mike

----- Forwarded message -----

From: Jennifer Riordan <jriordan@smartenvironmental.com>
Date: Mon, Nov 4, 2013 at 1:21 PM
Subject: NHDOT Project – Acworth 16301
To: Lou Chiarella <Lou.Chiarella@noaa.gov>
Cc: Marc Laurin <MLaurin@dot.state.nh.us>, Darren Blood <dblood@gm2inc.com>

Hi Lou,

The NH Department of Transportation is proposing to rehabilitate or replace the existing bridge that carries NH Route 123A over Bowers Brook in the Town of Acworth (refer to attached location map). The existing bridge was built in 1915 and is currently listed on NHDOT's Red List. The bridge suffered significant damage from a 2005 flood event and was repaired, and subsequently added to the Department's 10 Year Plan. Alternatives for rehabilitation and replacement of the bridge are being studied. The existing bridge does not have adequate capacity to convey a 100-year storm event.

The project will begin approximately 300 feet west of the bridge and end approximately 200 feet east of the bridge. The proposed method to maintain traffic is to construct a temporary detour to the south using a combination of private land and Town-owned land and a portion of Beryl Mountain Road. The detour would utilize a portion of private property at the southeast quadrant and cross Bowers Brook onto Town-owned land and tie into Beryl Mountain Road approximately 100 feet south of the intersection with NH Route 123A. The detour would involve a temporary crossing of Bowers Brook. Bowers Brook flows into the Cold River just downstream of the project area. The Cold River is designated as Essential Fish Habitat for Atlantic salmon.

The Smart Associates, Environmental Consultants, Inc. (TSA) is currently teamed with GM2 Associates, Inc. (GM2) to provide professional environmental and engineering services, respectively, for the preliminary planning phase of the subject project. TSA is responsible for the preparation of the environmental documentation. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

Thanks,

Jenn

Jennifer Riordan, CWS, CPESC
The Smart Associates
Environmental Consultants, Inc.
72 N. Main Street
Concord, NH 03301-4983
[\(603\) 224-7550](tel:6032247550) Phone
[\(603\) 224-7890](tel:6032247890) Fax

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Michael R. Johnson
Habitat Conservation Division
NOAA Fisheries
U.S. Department of Commerce
Northeast Regional Office
55 Great Republic Drive
Gloucester, MA 01930
978-281-9130
mike.r.johnson@noaa.gov



Web www.nmfs.noaa.gov
Facebook www.facebook.com/usnoaafisheriesgov
Twitter www.twitter.com/noaafisheries
YouTube www.youtube.com/usnoaafisheriesgov



To: Jennifer Riordan
72 North Main Street
Concord, NH 03301

Date: 2/26/2017

From: NH Natural Heritage Bureau

Re: Review by NH Natural Heritage Bureau of request dated 2/26/2017
NHB File ID: NHB17-0600

Applicant: NH Department of
Transportation

Location: Tax Map(s)/Lot(s):
Acworth

Project Description: The project involves the replacement of the existing NH Route 123A bridge over Bowers Brook and associated road improvements beginning approximately 250 feet west of the bridge and ending approximately 300 feet east of the bridge. The bridge will be closed during construction and traffic will be diverted on existing roads. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store.

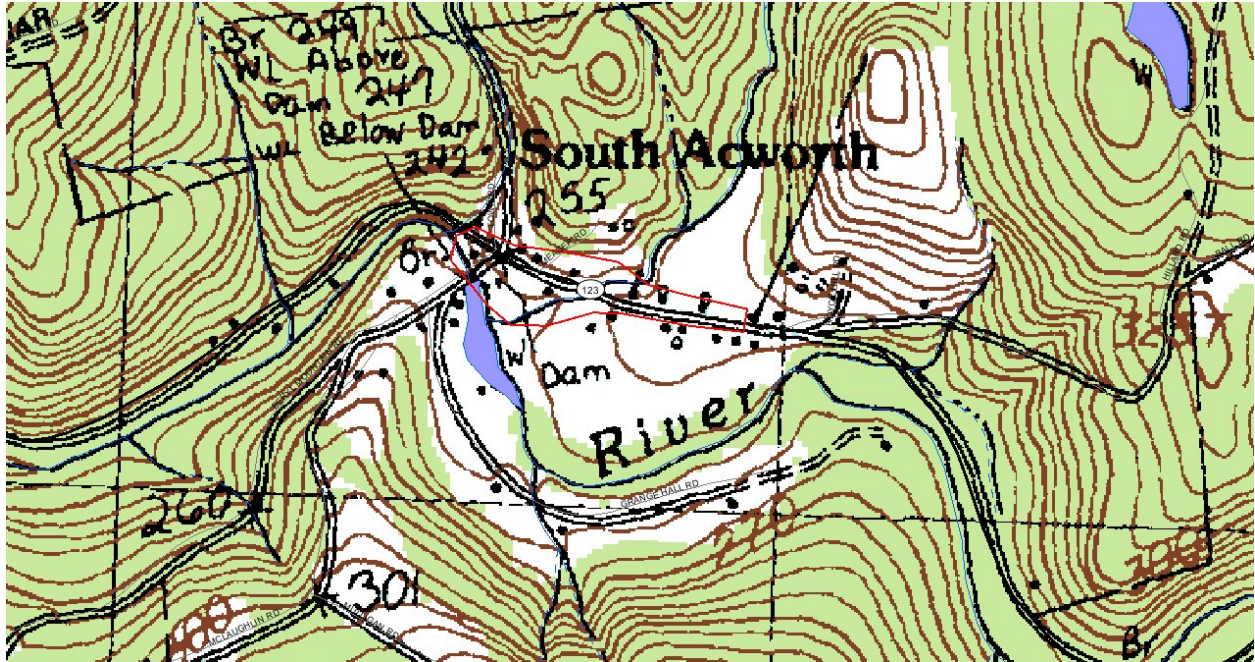
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 2/25/2018.



MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB17-0600



Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and Federal Transit Administration (FTA)

Range-wide Programmatic Consultation for
Indiana Bat and Northern Long-eared Bat

Project Submittal Form

Updated December 2016

If not using the Assisted Determination Key in the U.S. Fish and Wildlife Service (Service) Information for Planning and Conservation (IPaC) System, transportation agencies must provide this submittal form (or a comparable Service approved form) with provide project-level information for use of the range-wide programmatic consultation covering actions that may affect the Indiana bat and/or northern long-eared bat (NLEB). The completed form should be submitted to the appropriate Service Field Office prior to project commencement. For more information, see the Standard Operating Procedure for Site Specific Project(s) Submission in the User's Guide.

By submitting this form, the transportation agency ensures that the proposed project(s) adhere to the criteria and conditions of the range-wide programmatic consultation, as outlined in the biological assessment (BA) and biological opinion (BO). Upon submittal of this form, the appropriate Service Field Office may review the project-specific information provided and request additional information. For projects that may affect, but are not likely to adversely affect (NLAA) the Indiana bat and/or NLEB, if the applying transportation agency is **not** contacted by the Service with any questions or concerns within 14 calendar days of form submittal, it may proceed under the range-wide programmatic consultation and assume concurrence of the NLAA determination made by the Service in the BO. For projects that may affect, and are likely to adversely affect (LAA) the Indiana bat and/or the NLEB, the appropriate Service Field Office will respond (see recommended response letter template) within 30 calendar days of receiving a complete project-level submission, which includes, but may not be limited to this completed form.

Further instructions on completing the submittal form can be found by hovering your cursor over each text box.

1. Date:

2. Lead agency:

This refers to the Federal governmental lead action agency initiating consultation; select FHWA, FRA or FTA as appropriate.

3. Requesting agency:

This refers to the transportation agency completing the form (it may or may not be the same as the Lead Agency).

Name:

Title:

Phone:

Email:

4. Consultation code¹:

5. Project name(s):

6. Project description:

Please attach additional documentation or explanatory text if necessary

7. Project location (county, state):

If not delineated in IPaC, attach shape files

8. For species **other than Indiana bat and NLEB** (from IPaC official species list):

No effect – project(s) are inside the range, but no suitable habitat (see additional information attached).

May affect – see additional information provided for those species (see attached or forthcoming).

Please confirm and identify how the proposed project(s) adhere to the criteria of the BO by completing the following (see User Guide Section 2.0):

¹ Available through IPaC System Official Species List: <https://ecos.fws.gov/ipac/>

NO EFFECT

9. For Indiana bat/NLEB, if applicable, select your no effect determination:

No effect – project(s) are outside the species' range. *submittal form complete*

No effect – project(s) are inside the species range with no suitable **summer** habitat; project(s) must also be greater than 0.5 miles from any hibernaculum unless meeting exceptions listed below. *submittal form complete*

No effect – project(s) do not involve any construction activities (e.g., bridge/**abandoned structure** assessments, property inspections, planning and technical studies, property sales, property easements, and equipment purchases). *submittal form complete*

No effect – project(s) are completely within existing road/rail surface and do not involve percussive or other activities that increase noise above existing traffic/background levels (e.g., road line painting). *submittal form complete*

No effect - project(s) are outside suitable summer bat habitat and limited to the maintenance of existing facilities (e.g., rest areas, stormwater detention basins) with no new ground disturbance.

No effect – project(s) includes maintenance, alteration, or **removal** of bridge(s)/structure(s) and indicate(s) no signs of bats from results of a bridge/**abandoned** structure assessment. *submittal form complete*
Otherwise, please continue below.

MAY AFFECT, NOT LIKELY TO ADVERSELY EFFECT – W/O AMMS

10. For Indiana bat/NLEB, if applicable, select your may affect, NLAA determination (without implementation of AMMs):

NLAA – project(s) are inside the species range and within suitable bat habitat, but **negative** bat presence/absence (P/A) surveys; must also be greater than 0.5 miles from any hibernaculum. *submittal form complete*

NLAA – project(s) are within 300 feet of the existing road/rail surface and in area that contain suitable habitat (but no documented habitat) that do not involve tree removal, but include percussives or other activities that increase noise above existing traffic/background levels (must also be greater than 0.5 miles of a hibernaculum). *submittal form complete*

NLAA – project(s) are limited to slash pile burning (**must also be greater than 0.5 miles from any hibernaculum**). *submittal form complete*

NLAA – project(s) are limited to wetland or stream protection activities associated

with compensatory wetland mitigation that do not clear suitable habitat (**must also be greater than 0.5 miles from any hibernaculum**). *submittal form complete*

NLAA – project(s) *anywhere*, including within 0.5 mile of hibernacula, with suitable summer bat habitat present that are limited to the maintenance of existing facilities (e.g., rest areas, stormwater detention basins) with no new ground disturbance or tree removal/trimming. *submittal form complete*

Otherwise, please continue below.

MAY EFFECT, NOT LIKELY TO ADVERSELY AFFECT – WITH AMMs

11. For Indiana bat/NLEB, if applicable, document your may affect, NLAA determination by completing the following section (**with implementation of AMMs**; use #13 to document AMMs).

Affected Resource/Habitat Type:

a. Trees

Verify that all tree removal occurs greater than 0.5 mile from any hibernaculum

Verify that the project is within 100 feet of existing road/rail surfaces

Verify that no documented Indiana bat and/or NLEB roosts and/or surrounding summer habitat within 0.25 mile of documented roosts will be impacted

Verify that all tree removal will occur outside the active season (i.e., will occur in winter)²:

Acres of trees proposed for removal:

b. Bridge/Structure Work Projects

Proposed work:

Timing of work:

Evidence of bat activity on/in bridge/structure? Yes: No:

Verify that work will be conducted outside the active season, or if during the active season, verify that no roosting bats will be harmed or disturbed in any way

Verify that work will not alter roosting potential in any way

² Coordinate with the local Service Field Office for appropriate dates

Verify that all applicable lighting minimization measures will be implemented

MAY AFFECT, LIKELY TO ADVERSELY AFFECT

12. For Indiana bat/NLEB, if applicable, document your may affect, LAA determination by completing the following section (use #13 to document AMMs).

Affected Resource/Habitat Type:

a. Trees

Verify that all tree removal occurs greater than 0.5 mile from any hibernaculum

Project Location:

0-100 feet from edge of existing road/rail surface

100-300 feet from edge of existing road/rail surface

Verify that no documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted between May 1 and July 31

Verify that no documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted between June 1 and July 31

Timing of tree removal:

Acres of trees proposed for removal:

b. Bridge/Structure Work Projects

Proposed work:

Timing of work:

Verify no signs of a colony

Verify that work will not alter roosting potential in any way

13. For Indiana bat/NLEB, **if applicable to the action type**, the following AMMs will be implemented³ unless P/A surveys and/or bridge/**abandoned** structure assessments⁴ **have occurred to** document that the species are not likely to be present:

General AMM 1 (required for all projects):

³ See AMMs Fact Sheet (Appendix C) for more information on AMMs

⁴ Structure assessment for occupied buildings means a cursory inspection for bat use. For abandoned buildings a more thorough evaluation is required (See User Guide Appendix D for bridge/abandoned structure assessment guidance).

Tree Removal AMM 1
Tree Removal AMM 2 (required for NLAA)
Tree Removal AMM 3 (required for all projects)
Tree Removal AMM 4 (required for NLAA)
Tree Removal AMM 5 (required for LAA)
Tree Removal AMM 6 (required for LAA)
Tree Removal AMM 7 (required for LAA)

Bridge AMM 1
Bridge AMM 2 (required for all projects during active season)
Bridge AMM 3 (required for NLAA during active season)
Bridge AMM 4 (required for NLAA during active season)
Bridge AMM 5 (required for all projects)

Structure AMMs are required for all Indiana bat projects, required for NLAA NLEB projects.

Structure AMM 1
Structure AMM 2
Structure AMM 3
Structure AMM 4

Lighting AMM 1 (required for all projects during the active season)
Lighting AMM 2 (required for all projects)

Hibernacula AMM 1 (required for all projects)

14. For Indiana bat, if applicable, compensatory mitigation measures will also be required to offset adverse effects on the species (see Section 2.10 of the BA). Please verify the mechanism in which compensatory mitigation will be implemented and that sufficient information is provided to the Service.

Range-wide In-Lieu Fee Program, The Conservation Fund

State, Regional, Recovery Unit-Specific In-Lieu Fee Program

Name:

Conservation Bank

Name:

Location:

Local Conservation Site(s)

Name:

Location:

Description:

Acworth 16301

NLEB FHWA Project Submittal Form

Supplemental Information

8. Northeastern bulrush (*Scirpus ancistrochaetus*) is also on the IPaC species list for the project.

The Northeastern bulrush typically grows in palustrine wetlands or vernal ponds surrounded by woodlands. The species is also commonly found on mountain benches, where water collects at a common drainage point.

The project's wetland impacts are to Bowers Brook, which is classified as a riverine, upper perennial, unconsolidated bottom, cobble/gravel wetland, and to its banks. No impacts will occur to palustrine emergent wetlands. Additionally, field reviews conducted in July and August 2013 did not identify Northeastern bulrush within the project limits. There are no vernal ponds or mountain benches within the project limits.

As such a No Effect determination on the Northeastern bulrush has been made as no suitable habitat is present within the project limits and the species was not identified within the project limits.

Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside, from activities above that bore down to the underside, or that could impact expansion joints, from deck removal on bridges, or from structure demolish. Each bridge/structure to be worked on must have a current bridge inspection. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the US Fish and Wildlife Service, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing structures prior to allowing any work to proceed.

DOT Project #	Water Body	Date/Time of Inspection
ACWORTH, 16301	Bowers Brook	April 24, 2017 10:00AM

Route:	County:	Federal Structure ID:	Bat Indicators				Notes: (e.g., number & species of bats, if known. Include the results of thermal, emergent, or presence/absence summer survey)
Check all that apply. Presence of one or more indicators is sufficient evidence that bats may be using the structure.			Visual	Sound	Droppings	Staining	
NH23A	SULLIVAN	—	NO	NO	NO	NO	NO evidence of bat use.

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures			Summary Info (circle all that apply)		
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	✓	Crevices, rough surfaces or imperfections in concrete	✓	Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	None

All crevices >12" deep & not sealed	✓	Spaces between walls, ceiling joists	✓	Possible corridors for netting	None/poor	Marginal	Excellent
All guardrails	✓			Evidence of bats using bird nests, if present?	Yes	(NO)	Bird nests Present
All expansion joints	—						
Spaces between concrete end walls and the bridge deck	✓						
Vertical surfaces on concrete I-beams	—						

Assessment Conducted By: MARC G. LAURIN Signature(s): 

District Environmental Use Only: Date Received by District Environmental Manager: _____

DOT Bat Assessment Form Instructions

1. Assessments must be completed a minimum of 1 year prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. **Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that structure in subsequent years.**
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has obtained clearance from the USFWS, if required. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Estimates of numbers of bats observed should be placed in the Notes column.
4. Any questions should be directed to the District Environmental Manager.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

May 19, 2017

Marc G. Laurin
NH Department of Transportation
7 Hazen Drive
P.O. Box 483
Concord, New Hampshire 03302-0483



Dear Mr. Laurin:

Re: Acworth 16301 – Replacement of NH 123A bridge over Bowers Brook
TAILS: 05E1NE00-2016-F-1100

The U.S. Fish and Wildlife Service (Service) is responding to your request dated April 26, 2017, to verify that the proposed rehabilitation of the NH 123A bridge project (Project) over Bowers Brook in Acworth, New Hampshire may rely on the December 15, 2016, Programmatic Biological Opinion (BO) for federally funded or approved transportation projects that may affect the northern long-eared bat (*Myotis septentrionalis*) (NLEB). We received your request and the associated Project Submittal Form on April 27, 2017.

This letter provides the Service's response as to whether the Project may rely on the BO to comply with section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) for its effects to the NLEB.

The New Hampshire Department of Transportation (NHDOT), as the non-Federal agency representative for the Federal Transportation Agency, has determined that the Project may affect, and is likely to adversely affect the NLEB. The Project will replace the existing NH 123A bridge over Bowers Brook, and includes approximately 550 feet of road improvement and a temporary pedestrian path. Clearing of approximately 0.05 acre of trees will be required for the Project and will likely occur during the bat active season. NHDOT also determined the Project may rely on the programmatic BO to comply with section 7(a)(2) of the ESA, because the Project meets the conditions outlined in the BO and all tree clearing related to the proposed roadwork will occur farther than 0.25 mile from documented roosts and farther than 0.5 mile from any known hibernacula. The Service reviewed the Project Submittal Form and concurs with NHDOT's determination. This concurrence concludes your ESA section 7 responsibilities relative to this species for this Project, subject to the Reinitiation Notice below.

Conclusion

The Service has reviewed the effects of the proposed Project, which include the NHDOT's commitment to implement the impact avoidance, minimization, and compensation measures as indicated on the Project Submittal Form. We confirm that the proposed Project's effects are consistent with those analyzed in the BO. The Service has determined that the Project is consistent with the BO's conservation measures, and the scope of the program analyzed in the BO is not likely to jeopardize the continued existence of the NLEB. In coordination with your agency, the Federal Highway Administration, and the other sponsoring Federal Transportation Agencies, the Service will reevaluate this conclusion annually in light of any new pertinent information under the adaptive management provisions of the BO.

Incidental Take of the Northern Long-eared Bat

The Service anticipates that tree removal associated with the proposed Project will cause incidental take of the NLEB. However, the Project is consistent with the BO, and such projects will not cause take of NLEBs that is prohibited under the final 4(d) rule for this species (50 CFR §17.40(o)). Therefore, this taking does not require exemption from the Service.

Reporting Dead or Injured Bats

The NHDOT, the Federal Highway Administration, its State/local cooperators, and any contractors must take care when handling dead or injured NLEBs that are found at the project site, in order to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the Service to determine whether the level of incidental take exempted by this BO is exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any endangered or threatened species must promptly notify the Service's New England Field Office.

Reinitiation Notice

This letter concludes consultation for the proposed Project, which qualifies for inclusion in the BO issued to the Federal Transportation Agencies. To maintain this inclusion, a reinitiation of this project-level consultation is required where the Federal Highway Administration's discretionary involvement or control over the Project has been retained (or is authorized by law) and if:

1. new information reveals that the Project may affect listed species or critical habitat in a manner or to an extent not considered in the BO;
2. the Project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not considered in the BO; or
3. a new species is listed or critical habitat designated that the Project may affect.

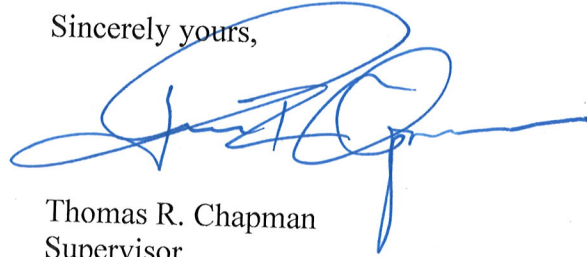
Marc G. Laurin
May 19, 2017

3

In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We appreciate your continued efforts to ensure that this Project is fully consistent with all applicable provisions of the BO. If you have any questions regarding our response, or if you need additional information, please contact Susi von Oettingen of this office at 603-227-6418.

Sincerely yours,



Thomas R. Chapman
Supervisor
New England Field Office

Northern Long-Eared Bat

(Myotis septentrionalis)

NLEB DESCRIPTION:

The Northern Long-Eared Bat (NLEB) is between 3" and 3.7" long with a wingspan of 9" to 10". NLEB are medium to dark brown on back and have tawny to pale brown undersides. NLEB have long ears. NLEB are nocturnal, they are active at night and sleep during the day.



Hibernating NLEB by Ann Froschauer USFWS

PROTECTION:

NLEB populations have been decimated by White-Nose Syndrome, a fungal disease that affects bats during hibernation. When a species experiences a significant population decline and is determined to be at risk, it may be listed under the Endangered Species Act (ESA). The NLEB was listed as threatened under the ESA on April 2, 2015. Threatened species

are likely to become endangered in the foreseeable future and endangered species are in danger of becoming extinct. This listing provides special protections for NLEB, which are intended to help the population recover.

HABITAT:

NLEB habitat is found throughout New Hampshire. NLEB hibernate in caves and mines called hibernacula during winter. NLEB swarm in wooded areas surrounding hibernacula in fall. During late spring and summer NLEB roost and forage in upland forests. During the day NLEB roost under bark and in tree crevices of both live trees and snags (dead trees). NLEB sometimes also roost in caves and structures, like buildings and bridges.

NH DOT CONSERVATION MEASURES:

NH DOT incorporates conservation measures into projects to protect the NLEB. The specific conservation measures for each project are found in the Summary of Environmental Issues. Dead and sick bats of any species must immediately be reported to the Bureau of Environment, call 271-3226. Contact Rebecca Martin at the Bureau of Environment 271-3226 for explanation of NLEB conservation measures.

MORE NLEB INFORMATION:

To learn more about the NLEB visit the USFWS website and search for the species by name.

FHWA Programmatic Consultation Avoidance and Mitigation Measure 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all environmental commitments, including all applicable AMMs.

SPECIAL ATTENTION

LIMITED REUSE SOILS

Limited Reuse Soils (LRS) (see the Special Provision for Section 101.64“A”) are soils that are likely (based on “generator knowledge”¹) and/or demonstrated (through laboratory analyses) to contain contaminant concentrations in the range of the New Hampshire Department of Transportation (NHDOT)-specific Acceptable Reuse Concentrations (ARCs).²

Roadside LRS commonly encountered at NHDOT construction projects include:

- Soils with elevated concentrations of several polynuclear aromatic hydrocarbons (PAHs) and a few common metals;
- Soils with petroleum residue (total petroleum hydrocarbons (TPH)) related to the normal operation of motor vehicles and asphalt pavement;
- Roadway reclaimed stabilized base materials (asphalt pavement surface being pulverized in place along with the underlying road base); and
- Millings.

The NHDOT has determined that roadside LRS may be encountered in all topsoil within the limits of the existing right-of-way, regardless of its depth. In instances where topsoil is not present, soil from the top of ground to a depth of six (6) inches is considered to be LRS. Soils excavated from beyond and/or below the specified LRS limits that do not exhibit visual or olfactory evidence of potential contamination shall not require handling as impacted material.

Soils, which are not included in the definition of LRS, include:

- Soils containing solid waste present at more than *de minimis* amounts.
- Asbestos-impacted soils (i.e., soils containing asbestos or asbestos-containing material).
- Soils containing contaminants at concentrations above the Soil Remediation Standards (SRS) established in Env-Or 600 that are related to a release subject to regulation under Env-Or 600.
- Soils destined for disposal at an appropriately licensed facility, which are subject to analytical testing requirements of that receiving facility.
- *De minimus* volumes of LRS generated through NHDOT projects of limited scope (including guardrail installation, grubbing, etc.) provided soils generated or disturbed by these activities are not destined for off-site disposal or reuse by NHDOT (other than in-situ) or other parties.
- Soils located directly below existing paved surfaces and bridges
- Soils adjacent to access roads.

¹ Generator-knowledge includes the experience and awareness of NHDOT, the landowner (if not currently owned by NHDOT), and/or the NHDOT’s consultant regarding historical development and/or natural background conditions.

² ARCs are summarized in an attachment to the LRS Soil Management Plan.

Soils Management Plan and Project Operations Plan

Contractors are advised that roadside LRS have been identified within the project limits. As such, a Soil Management Plan (SMP) applies to this project. The SMP provides guidance for the identification, handling, storage, reuse, and disposal of LRS soils generated during construction activities.

This project will require the development of a Project Operations Plan (POP), which specifies the Contractor's means and methods for handling, and management of LRS. This will include the implementation of the best management practices (BMPs) described in the SMP. **No excavation in known areas of LRS may take place until the POP has been approved.** In addition, following approval of the POP, the Contractor is required to notify the NHDOT's Bureau of Environment (BOE) at least two weeks prior to beginning excavation in the area(s) of known LRS.

In general, the SMP requires that LRS be reused, with priority, within the project limits on each project, if feasible. Reuse restrictions require that LRS placement be in accordance with the BMPs described in the SMP and with applicable federal, state, and local regulations. If reuse within the project limits with the foregoing restrictions is not possible, alternative disposal options will be identified in the SMP. LRS shall not be stored or disposed of on private land.

The Contractor shall direct questions relating to any of the information herein to the Bureau of Environment's Contamination Program Manager.

ACWORTH
16301

September 26, 2017

SPECIAL ATTENTION

**SUPPORTING INFORMATION FOR
PROJECT OPERATIONS PLAN (POP) DEVELOPMENT**

As described in Item 697.31, Contractors are advised that a Project Operations Plan (POP) is required for the project due to the known presence and/or potential presence of:

Media	Known to be Present	Potentially Present	Not Anticipated
LRS (Impacted Soil)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contaminated Soil (from a point source)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Contaminated Groundwater	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The POP shall specify the Contractor’s means and methods for handling and management of the impacted/contaminated materials referenced above. The Contractor shall review available data included and referenced in these contract documents to determine their means and methods.

The Contractor shall prepare and submit a proposed POP to the Bureau of Environment through the Engineer at least 15 business days prior to excavation of any soil. **No work shall be scheduled (or performed) in known Roadside or Railroad limited reuse soil (LRS areas) until the Bureau of Environment has indicated that the plan conforms to the requirements of the project.** The Department’s Contamination Program/Environmental Consultant will review the proposed POP for compliance with state regulatory requirements, and provide comments to the Engineer. The comments on the proposed POP must be addressed by the Contractor in a revised POP in order to receive approval of the POP from the Department. No excavation of impacted/contaminated soil or dewatering activities in impacted/contaminated areas may take place until the POP has been approved by the Department.

The Contractor shall direct questions relating to any of the information herein to the Bureau of Environment (603-271-3226).

Major Considerations for POP Preparation

The following identifies major considerations for the POP preparation based on review of available information for the Project Area by the Department and/or the Department's Environmental Consultant:

Item	Yes	No	Unknown
Listed Sites within Project Limits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listed Sites within 1,000 feet of Project Limits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited Reuse Soil requiring Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Known Previously-consolidated Cells of Limited Reuse Soil within Project Limits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Known Contaminated Soil (from a point source) requiring Special Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Potentially-Contaminated Soil – Contingency Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dewatering of Known Contaminated Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Potentially-Contaminated Groundwater – Contingency Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional information is available for review as follows:

- Soil Management Plan (SMP, see attached) prepared by the Department.
- Department's available information: Contact the Bureau of Environment (603-271-3226) for review.

Impacted/contaminated Soil

As it relates to impacted/contaminated soil, the Soil Management Plan includes:

<input type="checkbox"/>	Narrative description of impacted/contaminated soil	<input type="checkbox"/>	Cross-sections annotated with vertical extent of contamination	<input type="checkbox"/>	Plan sheets annotated with horizontal extent of contamination
<input type="checkbox"/>	Tabular summary of available soil analytical data	<input checked="" type="checkbox"/>	Designated locations for staging impacted/contaminated soils	<input type="checkbox"/>	Contingency plan for potentially contaminated soil
<input checked="" type="checkbox"/>	Reuse criteria	<input checked="" type="checkbox"/>	Segregation criteria	<input type="checkbox"/>	Equipment Cleaning
<input checked="" type="checkbox"/>	Stockpile management requirements	<input type="checkbox"/>	Soil boring logs / subsurface data	<input type="checkbox"/>	Other

If the Contractor proposes alternate management methods to those outlined in the SMP, then the Contractor shall provide a detailed description of the proposed approach in the POP. The alternate method must be approved by the Bureau of Environment's Environmental Coordinator, in concurrence with the Department's Contamination Program, prior to excavation activities in the area of known contamination.

Soil Management Plan for Limited Reuse Soils/ Unanticipated Potentially Contaminated Soils

EXECUTIVE SUMMARY

Applicability and Objectives

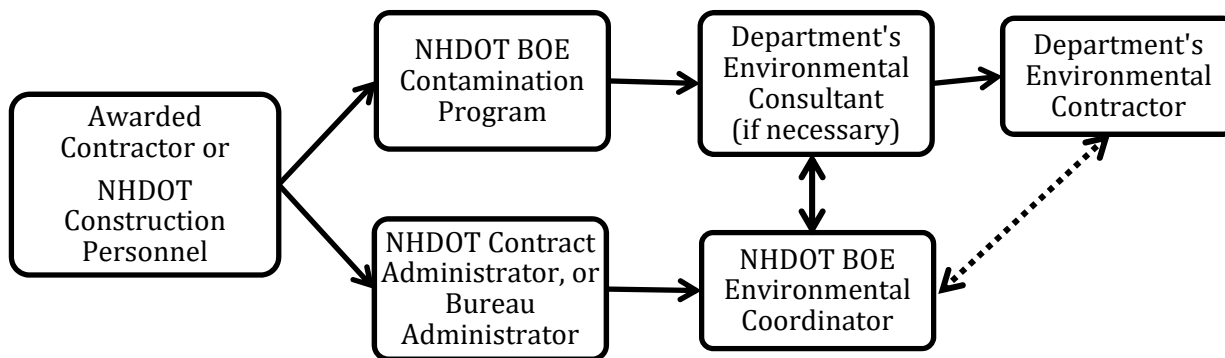
This Soil Management Plan (SMP) describes Best Management Practices (BMPs) that the NH Department of Transportation’s (NHDOT) Project Contractor shall implement to manage Limited Reuse Soils (LRS), and/or unanticipated, potentially contaminated soils, that may be encountered on NHDOT Construction Projects, or during construction-related activities (also referred to as *Projects*), associated with the Acworth, 16301 project.

Notification Requirements

All Projects require the following notification procedures to the Project Manager/lead person:

- At least two weeks notification prior to the Contractor beginning excavation in the area of known LRS identified herein; and
- Immediate notification if the Contractor encounter(s) other potentially contaminated soil and/or groundwater within Project Limits.

Notification Flow Chart



(Note that communication paths occur concurrently)

Contacts	Name	Office	Cell
NHDOT DCE ¹ or Bureau Administrator	Shaun Flynn	603-271-2571	603-419-0129
NHDOT BOE ² Contamination Program	David Kammer	603-271-3226	N/A
NHDOT BOE Environmental Coordinator	Gary Springs	--	603-419-0252
NHDOT’s Environmental Consultant	Contacts will be determined after award. See Contamination Program for contact info.		

¹ District Construction Engineer

² Bureau of Environment

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APPENDICES

Appendix A Summary of Available Analytical Data and NHDOT-specific Allowable Reuse Concentrations

1.0 INTRODUCTION

1.1 Project Description and Project-specific Considerations

This project involves the replacement of the res-listed bridge (Br. No. 113/064) that carries NH Route 123A (Main Street) over Bowers Brook and associated roadway improvements. The work begins on NH 123A approximately 250 feet west of the bridge and extends easterly across the bridge approximately 570 feet.

1.2 Objective

This Generic Soil Management Plan (SMP) describes BMPs that the NHDOT's Project Contractor shall implement to manage LRS that may be encountered during execution of the proposed work, as indicated in project-specific documents. Application of the BMPs is anticipated to reduce the potential for exposure of workers and the public to potential contaminant identified/assumed to be in the LRS, and maintain conditions that are protective of human health and the environment.

This SMP will be included in project-specific documents to support the Prosecution of Work (POW), and/or other related administrative requirements and technical specifications, for the Contractor to address known, suspected, and/or unanticipated LRS. As applicable and required by the project and/or contract documents, the Contractor shall prepare and implement a Project Operations Plan (POP) that describes the Contractor's means and methods to adhere to the provisions of this SMP.

1.3 Applicability and Definitions

This SMP applies to management of LRS that are not otherwise addressed in a NHDES-approved Remedial Action Plan (RAP), or other NHDES-approved project-specific documents based on requirements to comply with the provisions of NHDES regulations (i.e., Env-Or 600 and Env-Sw 903), and with pertinent waivers issued by NHDES. The use of this SMP in lieu of a project-specific document or RAP will be determined by NHDOT based on performance of project-specific environmental due diligence activities, including a review of NHDES-listed sites³ within a 1,000-foot radius of the Project Limits⁴.

For the purposes of this SMP:

- **LRS** are defined as: soils adjacent to roadways, on property under the control of NHDOT, that require removal or relocation, that are likely (based on "generator knowledge"⁵) and/or demonstrated (through field screening or laboratory analyses) to

³ This includes all sites on the NHDES OneStop database, including both active and closed remediation sites.

⁴ Project-specific areas under the control of NHDOT subject to transportation-related construction, and/or construction-related activities that may include easements, rights-of-way, roadways, bridges, drainage features, sidewalks, and other property under the control of NHDOT.

⁵ Generator-knowledge includes the experience and awareness of NHDOT, the landowner (if not currently owned by NHDOT), and/or the NHDOT's consultant regarding current conditions, historic development, previous LRS reuse, and/or natural background conditions.

contain contaminants between naturally occurring background concentrations and NHDOT-specific Allowable Reuse Concentrations (ARCs) provided in the attached table. LRS is associated with impacts related to surficial soil within the roadway network due to the presence and breakdown of asphalt pavement, the normal operation of motor vehicles, and other “non-point sources” of pollution in these areas.

- LRS may be present in street wastes (e.g., soils generated through various activities, such as street sweeping, ditch maintenance, catch basin cleanout, and cleaning of stormwater management infrastructure).
 - LRS may be encountered in all topsoil adjacent to roadway surfaces on property under the control of NHDOT. In instances where topsoil is not present, LRS can be expected to be encountered in soil from the top of ground to a depth of six (6) inches. *NHDOT’s understanding of the specified lateral and vertical limits adjacent to roadways may be updated periodically, and shared with NHDES, based on published research and/or state-specific analytical data.*
 - Soils excavated from beyond and/or below the specified LRS limits, that **DO NOT** exhibit visual or olfactory evidence of potential contamination, shall be presumed to be non-impacted and shall not require handling as impacted material.
 - Soils beyond specified LRS limits that **DO** exhibit visual evidence of LRS impacts (e.g., soils that contain more than *de minimis* amounts of asphalt fragments, and/or are discolored due to asphalt content) shall be determined to meet the definition of LRS, and shall be treated as LRS, whether previously identified or not.
 - LRS also includes any ground or pulverized asphaltic materials.
- **Project Limits** are defined as: project-specific areas under the control of NHDOT, subject to transportation-related construction, and /or construction-related activities that may include easements, rights-of-way, roadways, bridges, drainage features, sidewalks, and other property under the control of NHDOT.

2.0 AREA OF CONCERN

As indicated above, LRS may be encountered within the limits of the existing right-of-way. The assumed area of impact identified in Section 1.3 above are hereafter referred to as the LRS limits. Soils excavated from beyond and/or below the specified LRS limits that do not exhibit visual or olfactory evidence⁶ of potential contamination shall not require handling as impacted material.

⁶ Throughout excavation activities, excavated soils shall be examined for visual and/or olfactory evidence of contamination. Visual evidence shall generally include the presence of visual staining or discoloration, and the presence of ground or pulverized asphalt in more than *de minimis* quantities. Olfactory evidence shall include odd or unusual odors (e.g., petroleum-like, solvent-like).

NHDOT staff shall review the project design documents in conjunction with readily available NHDES files to determine if the project is anticipated to disturb soil at and/or downgradient from NHDES-listed sites. The Contractor shall be aware that contaminated soil may also be present in unknown locations at and in proximity to the Project Limits due to current and/or historic site development, use, practices and/or naturally-occurring geologic conditions.

If the Contractor] encounter(s) unanticipated potentially contaminated soil during construction, [the Contractor/NHDOT construction personnel] shall STOP WORK and contact the NHDOT's Bureau of Environment (603-271-3226) immediately. NHDOT will assist the Contractor with requirements for handling these soils.

3.0 CONSTITUENTS OF CONCERN / ALLOWABLE REUSE CONCENTRATIONS

For this project, it is anticipated that soil in the designated area of the project (soils adjacent to roadways, on property under the control of NHDOT, that require removal or relocation to complete construction/construction activities) is impacted by roadside soils/fill, also known as LRS.

Statewide analytical data collected by NHDOT, as well as nationwide information indicates that roadside soils commonly contain metals (primarily arsenic), polycyclic aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPH) at concentrations above naturally occurring background conditions, and in some cases at concentrations exceeding the applicable SRS.⁷

Available LRS analytical data from the State of New Hampshire are included in Appendix A; expected concentrations for "Acceptable Analytical Concentrations Allowable for Reuse of LRS" within the Project Limits are also identified in Appendix A.

4.0 BMPs IN THE PROJECT LIMITS

The Contractor shall make every effort to utilize LRS in the Project Limits on property under the control of NHDOT as a priority over importing fill unless otherwise directed, provided that the LRS is geotechnically suitable for reuse, and the handling and placement are completed according to the BMPs described in this section, and to applicable federal, state, and local rules and regulations.

The LRS management approach(s) (e.g., reuse within the Project Limits, off-site disposal) will be identified in project-specific documents.

⁷ NHDES Soil Remediation Standards (SRS, promulgated in Env-Or 600 Table 600-2, June 2015). When applied by NHDOT, this SMP should always refer to the version of Env-Or 600 current at the time of use.

4.1 Health and Safety

The Contractor shall plan and conduct operations to prevent damage to existing structures, safeguard people and property, and minimize disruptions to site traffic. The Contractor shall provide safe working conditions in compliance with applicable local, state and federal regulations, including health and safety regulations enforced by the Occupational Safety and Health Administration (OSHA) and/or US Department of Labor, as appropriate.

4.2 Excavation, Handling, and Placement – LRS

The Contractor shall complete earthwork related to LRS as required to meet the lines and grades specified in the project plans and as required by the project-specific contract documents. The work shall be completed to disturb the smallest area of LRS as possible.

NHDOT designs, constructs and maintains all projects under its control so as to prevent or control erosion of the land, and provide appropriate long-term stormwater management and treatment practices, in accordance with contract provisions, engineering standards, guidelines, BMPs, and all applicable regulatory standards, which also apply to the excavation, handling and placement of LRS.

Work shall stop if events occur or are imminent that might generate uncontrolled runoff, such as heavy rainfalls, or dust emissions, such as wind storms.

In all aspects of the work, the Contractor shall exercise care and diligence to prevent the mixing of impacted/presumed impacted soils with uncontaminated materials, and shall prevent migration of wastes and environmentally regulated substances. As LRS material is excavated, care shall be taken to segregate and separately stockpile excavated soil based on color, odor or other physical characteristics considered potentially significant with regard to indicating the level and type of contamination.

LRS can be temporarily stockpiled (as described in Section 4.3 of this SMP) or handled directly as “cut to fill” without segregation or stockpiling to facilitate the following LRS management options:

4.2.1 Reuse within Project Limits – LRS

LRS determined to be suitable for reuse within Project Limits shall be:

- Reused within the footprint of previously-placed NHDOT roadway construction material; or
- Reused only on property under the permanent control of NHDOT (e.g. right-of-way and/or permanent easements adjacent to right-of-way); and
- Reused outside of high-intensity public recreational use areas (e.g., rail trails), unless:
 - Placed two (2) feet below the final ground surface, covered with clean granular fill, or
 - Addressed through another NHDES-approved site-specific capping system.
- Reused outside of residential and playground applications, as well as land used for the production of crops for direct human consumption;
- If reused within 100-year floodplains:

- Available reuse areas outside of 100-year floodplains will have been used first, **or**
- Reuse areas outside of 100-year floodplains are unavailable, **and**
- Reuse will adhere to the erosion and stormwater management and treatment provisions identified above (Section 4.2), as well as other applicable State and Federal regulations, regarding temporary and permanent, erosion controls and stabilization.
- More than 50 feet from a drinking water well or public drinking water supply;
- If reused within 100 feet of water bodies, wetlands, or tidal buffer zones:
 - Available reuse areas beyond 100 feet from water bodies, wetlands, or tidal buffer zones are used first, **or**
 - Reuse areas beyond 100 feet from water bodies, wetlands, or tidal buffer zones are unavailable, **and**
 - Reuse will adhere to the erosion and stormwater management and treatment provisions identified above (Section 4.2), as well as other applicable State and Federal regulations, regarding temporary and permanent, erosion controls and stabilization.
- Outside of drainage features (used for stormwater infiltration), unless adequate separation to groundwater is provided; and
- Outside of other areas that may reasonably be expected to erode during a significant storm event, including areas where erosion might directly discharge to surface water.

LRS can be temporarily stockpiled (as described in Section 4.3 of this SMP) or handled directly as “cut to fill” without segregation or stockpiling.

Where LRS is consolidated into “cells” within the Project Limits in areas that meet the setbacks to environmental receptors outlined above, the horizontal and vertical locations of the LRS consolidation areas shall be shown on as-built drawings provided by the Contractor for NHDOT to track the location of the LRS so that the soils can be managed properly during future re-construction activities, if necessary. The method to obtain the as-built locations shall be consistent with the method (e.g., GPS, survey, etc.) required by the contract documents, or as internally directed.

As approved by NHDOT, if LRS is reused within the LRS footprint, rather than placed in consolidation area(s), the horizontal and vertical locations of these reuse areas are not required to be shown on as-built drawings.

4.2.2 Stockpiling for Future Reuse – LRS

As discussed in Section 6.4 of this SMP, LRS can be temporarily stockpiled on property under the control of NHDOT for future reuse in accordance with the requirements of Section 4.3. For the purposes of this SMP, temporarily stockpiled means for the duration of project construction.

4.2.3 Off-Site Disposal – LRS

LRS generated by the project that cannot be reused as defined in Section 4.2.1 of this SMP can be managed in accordance with Section 6.0 of this SMP.

4.3 Stockpile Management

The Contractor shall manage LRS stockpiles to prevent the discharge of contaminants to the groundwater and surrounding soil⁸. The LRS stockpiles shall be kept separate from other on-site soil stockpiles. Specifically:

- The Contractor shall designate temporary stockpile areas within the project limits, with the location subject to the approval of the NHDOT. NHDOT shall ensure that stockpile locations are not staged near sensitive human health receptors such as public and private water supply wells or sensitive environmental receptors such as wetlands, surface water bodies, or marine environments.
- The Contractor shall establish separate stockpiles for LRS, other unanticipated contaminated soils, and other on-site stockpiled non-LRS stockpiles as encountered.
- The transfer of potentially contaminated materials from the excavation(s) to designated temporary stockpile areas shall be conducted in such a manner as to limit the spread of LRS. If a stockpile is sampled for disposal characterization analyses as described elsewhere in this SMP, then the Contractor shall not add additional material to the stockpile.
- Consistent with applicable State and Federal regulations, regarding temporary and permanent erosion controls and stabilization, the stockpile shall be graded such that stormwater runoff is diverted away from stockpiled materials (with no runoff). The Contractor shall implement appropriate erosion and sediment control measures (e.g., silt fence, hay/straw bales) to prevent stormwater runoff and associated erosion by wind or water, and transport of the soil.
- The Contractor shall secure the stockpile areas (e.g. using caution flagging, fencing, or other equivalent means, as approved by NHDOT), as needed, to limit unauthorized entry and to limit contact of site workers and public access to stockpiled materials.
- The Contractor shall identify the stockpile with the origin and date of generation.
- The Contractor shall store the segregated soils onsite for a period not to exceed the timeframe identified in the project-specific contract documents without NHDOT approval.

⁸ Methods to prevent the discharge of contaminants to the groundwater and surrounding soil during construction may include, among others, preventing the soil from contacting the ground, precipitation, and/or stormwater runoff via the use of 6-mil polyethylene sheeting (with applicable management practices) over and under stockpiles; or over excavating existing soil beneath and around stockpiles once removed to ensure that all stockpiled LRS is removed from the site.

4.4 Equipment Cleaning

Cleaning of all equipment (e.g., tools, heavy machinery, excavating and handling equipment) shall be completed in accordance with the requirements of the contract documents.

5.0 UNANTICIPATED CONDITIONS

If the Contractor encounter(s) unanticipated, potentially contaminated soil, [the Contractor/NHDOT construction personnel] shall immediately STOP WORK, notify the NHDOT, and secure the area. The Contractor shall provide personnel trained in accordance with OSHA 1910.120 to continue work in this area.

The limits of potentially contaminated soil will be established in the field based on the NHDOT Engineer's (i.e., Environmental Consultant, NHDOT construction personnel, or the NHDOT Contamination Program, as defined in the project-specific contract documents) observations and field screening. Field screening completed by the Engineer will include using headspace sampling techniques for total volatile organic compounds (VOCs) using an appropriately calibrated photoionization detector (PID), or other field screening method appropriate for the suspected contaminant. Screening shall be based on visual and olfactory evidence at a frequency identified by the Engineer based on the extent of excavation.

If visual or olfactory evidence, or headspace screening of soils indicate a PID value above a threshold criterion of 50 ppm, the Contractor shall (when authorized by the Engineer) segregate and stockpile the soil as described herein for subsequent laboratory analysis. In accordance with Section 4.3 above, the Contractor shall establish separate stockpiles for LRS and other stockpiled soils, as encountered.

6.0 BMPS FOR EXCESS LRS AND UNANTICIPATED IMPACTED MATERIAL

This section describes the characterization, handling, and disposal requirements when excess LRS is generated by the project that cannot be reused as defined herein. This section also applies to management of unanticipated potentially contaminated soil, if encountered, on a project.

6.1 Characterization of Excess LRS

Excess stockpiled soils and unanticipated impacted materials that cannot be reused as defined herein will be sampled and analyzed for disposal characterization⁹. The entity responsible for the disposal characterization (e.g., NHDOT's Environmental Consultant or

⁹ Excess LRS generated from construction activities undertaken by internal NHDOT construction personnel that does not exhibit visual or olfactory evidence of contamination may be transported to a NHDOT-owned facility for stockpiling until it may be reused along a roadway, within Project Limits, on property under the control of NHDOT, or in another use as may be individually approved by NHDES.

the NHDOT Contamination Program) will be identified in the project-specific contract documents, or internal NHDOT documentation.

Disposal characterization will follow NHDES regulations (i.e., Env-Or 600 and Env-Sw 903), and the requirements of the proposed receiving facility:

- If the quantity of stockpiled LRS is less than 50 tons, sampling and analysis will not be completed, except as required by the receiving facility, in accordance with Env-Or 611.04 (c).
- If the quantity of stockpiled LRS is greater than 50 tons, sampling and analysis will, at a minimum, be based on the requirements of Env-Or-611.04. One composite soil sample will be collected per 200 tons of excavated material up to 2,000 tons, and then one composite soil sample for every additional 500 tons. The composite samples will be obtained from the stockpiled soils by homogenizing at least eight (8) discrete samples collected from newly exposed soil a minimum of 12 inches deep within the stockpile. Samples collected for VOC analysis will be collected as individual methanol-preserved soil samples for the laboratory to composite the individual samples (instead of compositing the soils in the field).

The soil samples will be submitted for disposal characterization parameters consistent with the requirements of the proposed receiving facility, which may include the following, or a subset thereof, and not be limited to: VOCs, TPH, total RCRA-8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), SVOCs or PAHs, pesticides, herbicides, PCBs, ignitability/flashpoint, corrosivity/pH, reactive sulfide, and reactive cyanide.

Approximately two weeks will be required for analysis of the soil (stockpile) samples. The Contractor shall continue to manage the stockpile as described in Section 4.3 of this SMP until the final disposition is determined and the management approach is implemented.

Re-handling of soils in designated stockpile storage areas or exporting those soils from the site shall not occur without prior approval of the NHDOT Engineer or the NHDOT Contamination Program. Impacted/presumed impacted soils shall not be removed from the site unless the procedures described herein are implemented.

6.2 Non-Impacted Soil

Presumably non-impacted soil will include excavated material passing the initial classification criteria (visual and olfactory observations) that does not contain construction-type or other debris (e.g., municipal solid waste). This material shall be managed as non-impacted soil, unless analytical data or generator knowledge indicates the presence of contaminants of concern at concentrations other than what would be naturally occurring in the environment. Unless otherwise provided in project documents, this soil does not need to be managed as LRS, Non-Hazardous Contaminated Soil (NCS), Non-Hazardous Oil-Contaminated Soil (NOCS), or hazardous material.

Excavated material failing to meet the criteria for non-impacted soil for which on-site reuse has not been identified, and which is intended to potentially be shipped off-site for disposal, shall be sampled and tested by a qualified Environmental Consultant or the Contamination Program, as necessary, to determine the potential for on-site reuse as non-impacted, or off-site treatment or disposal/recycling options as impacted material. Potentially contaminated soil designated for additional testing shall be stockpiled in accordance with applicable rules and this SMP.

6.3 Disposition of Impacted Soils

Based on NHDOT experience, impacted soils are not expected to be considered hazardous wastes; however, the ultimate disposition of soils that cannot be reused shall depend on the results of stockpile characterization and an assessment of relevant management options as described herein.

6.3.1 Limited Reuse Soils (LRS)

LRS are the soils as defined herein. Similarly, soils that are chemically analyzed and contain contaminants at concentrations up to the limits provided in Appendix A shall be managed as LRS in accordance with the BMPs defined herein. LRS shall not be transported off the site for reuse at other properties unless otherwise authorized herein.

6.3.2 Non-Hazardous Contaminated Soil (NCS)

NCS is defined in Env-Or 611.02, and consists of soils that contain regulated contaminants, are not a hazardous waste as defined in RSA 147-B:2, VII, and cannot be certified as NOCS pursuant to Env-Or 611.03. Presuming the soil is not considered a RCRA "listed waste," the determination as to whether soil is NCS shall be made based on the results of laboratory analyses.

6.3.3 Non-Hazardous Oil-Contaminated Soil (NOCS)

NOCS is defined in Env-Or 611.02, and consists of soil that is contaminated with oil, is not a hazardous waste, and is certified as required by Env-Or 611.03, which requires documentation that the contamination is derived from an oil discharge from a household or regulated UST facility, and there is no reason to suspect that the soil may have been contaminated by a hazardous waste.

6.3.4 Hazardous Waste Contaminated Soil

Hazardous waste contaminated soil are those soils characterized as a hazardous waste based on the requirements outlined in RSA 147-B:2 VIII, and the hazardous waste identification requirements outlined in Env-Hw 400. Presuming the soil is not considered a Resource Conservation and Recovery Act (RCRA) "listed waste," these soils will be classified as hazardous waste based on the results of laboratory analyses completed (e.g., toxicity characteristic leaching potential [TCLP]). These soils shall be stored, treated, and disposed of in accordance with applicable local, state, and federal requirements, including the New Hampshire Hazardous Waste Rules Env-HW 100-1100.

6.4 Off-Site Management

BMPs for stockpile management provided in Section 4.3 shall apply to soils being temporarily stored outside of the Project Limits, on NHDOT-owned property, with NHDOT approval. This section does not apply to NCS and NOCS, which, when required to be temporarily stockpiled, are both required to be stored within the Project Limits, on NHDOT-owned property/right-of-way.

6.5 Off-Site Disposal

If NHDOT has determined that reuse within the Project Limits with the foregoing BMPs is not possible and that an alternate, site-specific SMP approved by NHDES is not appropriate, then the excess soil will be managed as waste for removal to an authorized treatment or disposal facility holding appropriate federal, state, or local permits, licenses, or approvals (in accordance with Env-Sw 903). The transport and disposal of the material will be managed by the Contractor or by the NHDOT Contamination Program as required by the project-specific contract documents.

Soils subject to management under this SMP shall be managed in general conformance with the following criteria:

- Excess LRS shall not be removed from the Project Limits until it has been sampled and tested by a qualified Environmental Consultant or the NHDOT Contamination Program, as necessary, the results of the chemical analyses have been received, and the materials have been properly classified and approved by the NHDOT Contamination Program or the NHDOT's Environmental Consultant.
- LRS, impacted soil, or hazardous waste transported off-site shall be loaded into properly licensed and permitted vehicles, and transported directly to selected disposal or recycling facilities. Hazardous waste shall not be temporarily stored at an off-site facility.
- Documentation of any handling, management, sampling and analysis, transportation and off-site disposal performed by the Contractor shall be provided by the Contractor to the NHDOT. This documentation does not include sampling and analysis, transportation and off-site disposal that may be performed by NHDOT Contamination Program and/or Environmental Consultant.
- If off-site transport and disposal of LRS and/or impacted soil should occur, any documentation related to these efforts will need to be maintained and provided to NHDOT. More specifically, documentation related to off-site transport and disposal of LRS and/or impacted soil, including but not limited to, bills-of-lading/manifests, weigh tickets, analytical reports and waste profiles, shall be provided by the Contractor to NHDOT's Engineer within five (5) business days of receipt.
- Once final soil disposal options have been approved by the NHDOT or its qualified Environmental Consultant, arrangement for the transport and disposal of NCS or hazardous materials shall be made. Appropriate documentation (e.g., bills of lading,

manifests) shall be used to transport soil from the site to the selected treatment or disposal facility.

- The transporter of LRS and/or impacted soil for off-site treatment or disposal shall be licensed to transport impacted soil, or hazardous material, as appropriate, to appropriate licensed disposal or recycling facilities.

APPENDIX A

Table A.1
Summary of Acceptable Reuse Concentrations
NHDOT Mildly Contaminated Soil - Fill and Railroad Soil

Regulated Analyte	Concentrations and Reference Values in mg/kg							
	RCMP S-1 Soil Standards / NH SRS		RCMP S-2 Soil Standards		RCMP S-3 Soil Standards		RCMP NH Background	
	Maximum Concentration Detected	Acceptable Reuse Concentrations	Maximum Concentration Detected	Acceptable Reuse Concentrations	Maximum Concentration Detected	Acceptable Reuse Concentrations	Maximum Concentration Detected	Acceptable Reuse Concentrations
VOCs								
Benzene	0.3	0.3	0.3	0.3	NE	0.3	0.3	0.3
Butylbenzene (n-)	110	110	110	110	NE	110	110	110
Butylbenzene (sec-)	130	130	130	130	NE	130	130	130
Butylbenzene (tert-)	100	100	100	100	NE	100	100	100
Dichloroethane (1,2-)	0.1	0.1	0.1	0.1	NE	0.1	0.1	0.1
Dioxane (1,4-)	5	5	5	5	NE	5	5	5
Ethylbenzene	120	140	140	140	NE	120	0.019	120
Isopropylbenzene	330	330	330	330	NE	330	0.019	330
Isopropyltoluene (4-)	NS	NS	NS	NS	NE	0.37	0.017	NS
Naphthalene	5	5	5	5	NE	5	0.4	5
Methyl-tert Butyl Ether (MTBE)	0.2	0.2	0.2	0.2	NE	0.2	0.2	0.2
Propylbenzene (n-)	85	85	85	85	NE	85	NA	85
Tetrachloroethylene (PCE)	2	2	2	2	NE	2	2.6	2
Toluene	100	100	100	100	NE	0.175	0.15	100
Trimethylbenzene (1,2,4-)	130	130	130	130	NE	ND	0.26	130
Trimethylbenzene (1,3,5-)	96	96	96	96	NE	ND	0.08	96
Xylene (m,p-)	NS	NS	NS	NS	NE	NA	0.067	NS
Xylene (o-)	NS	NS	NS	NS	NE	NA	0.053	NS
Xylenes (total)	500	1,000	1,500	1,500	NE	0.44	0.64	500
PAHs - Carcinogenic								
Benzo(a)anthracene	1	4	52	52	NE	2.28	4	11
Benzo(a)pyrene	0.7	0.7	5	5	NE	2.71	7.5	8
Benzo(b)fluoranthene	1	4	52	52	NE	5.23	15	52
Benzo(k)fluoranthene	12	36	520	520	NE	1.6	4.1	36
Chrysene	120	360	5,200	5,200	NE	3.05	11	120
Dibenzo(a,h)anthracene	0.7	0.7	5	5	NE	0.11	1.9	5
Indeno(1,2,3-cd)pyrene	1	4	52	52	NE	1.4	6.8	52
PAHs - Noncarcinogenic								
Acenaphthene	340	340	340	340	NE	ND	0.23	340
Acenaphthylene	490	490	490	490	NE	1.1	2.4	490
Anthracene	1,000	2,500	5,000	5,000	NE	0.68	3.7	1,000
Benzo(g,h,i)perylene	NS	NS	NS	NS	NE	1.2	5.7	NS
Carbazole	NS	NS	NS	NS	NE	NA	0.60	NS
Dibenzofuran	NS	NS	NS	NS	NE	NA	0.12	NS
Fluoranthene	960	2,500	5,000	5,000	NE	6.33	15	960
Fluorene	77	77	77	77	NE	ND	0.40	77
Methylnaphthalene (2-)	96	100	100	100	NE	ND	0.25	96
Naphthalene	5	5	5	5	NE	ND	0.42	5
Phenanthrene	NS	NS	NS	NS	NE	3.2	4.9	NS
Pyrene	720	2,500	5,000	5,000	NE	4.4	15	720
Polychlorinated Biphenyls (PCBs)	1	10	25	25	NE	NA	0.11	1
Total Petroleum Hydrocarbons (TPH)	10,000	10,000	10,000	10,000	NE	NA	430	500
Metals								
Arsenic	11	11	47	47	11	15	62	65
Barium	1,000	2,500	5,000	5,000	NE	70	99	1,000
Cadmium	33	280	280	280	2	1.3	2.2	33
Chromium (VI)	130	130	130	130	33	NA	NA	130
Chromium (Total)	1,000	2,500	5,000	5,000	33	260	870	1,000
Lead	400	400	400	400	51	50	170	200
Mercury	7	52	52	52	0.3	0.16	38	7
Selenium	180	1,600	1,600	1,600	5	ND	0.7	180
Silver	89	690	690	690	NE	ND	5.12	89

Notes:

1. Results were provided to Sanborn Head by NHDOT.
2. Concentrations are presented in milligrams per kilogram (mg/kg), which are equivalent to parts per million (ppm), except where noted.
3. Only those analytes detected in one or more samples are shown.
4. "ND" indicates not detected above the laboratory reporting limit.
5. The Soil Remediation Standards (SRS) were promulgated in Env-Or 600 (June 2015). The SRS are generally equivalent to the Method 1 Category S-1 Soil Standards defined by NHDES in the "Contaminated Sites Risk Characterization and Management Policy" (RCMP), dated January 1998 with 2000-2013 revisions and addenda. Method 1 Category S-2 and S-3 Soil Standards and background concentrations defined in the RCMP are also provided.
6. "NS" indicates no standard.
7. "NE" indicates background has not been established.
8. "NA" indicates samples were not analyzed for this parameter.
9. **Yellow** indicates the detected concentration exceeds the "Acceptable Concentrations."
10. **Yellow shading** indicates an apparent discrepancy in the acceptable reuse concentrations between the different types of mildly contaminated soil.
11. **Xylenes (total)** indicates the sum of the detected concentrations of Xylenes (m,p-) and Xylenes (o-).

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SPECIAL ATTENTION

INVASIVE SPECIES

The statutory authority of NH Department of Agriculture RSA 430:55 and NH Department of Environmental Services RSA 487:16-a prohibits the spread of invasive plants listed on the NH Prohibited Species list. Construction activities should avoid impacting areas containing invasive plant species in order to avoid spreading these plants to new sites. If invasive plants cannot be avoided, then the following suggested best management practices (BMPs) should be incorporated into all projects. These BMPs have been summarized from the NHDOT manual “*Best Management Practices for Roadside Invasive Plants.*”

Earthwork:

- Minimize soil disturbance whenever possible outside the limits of excavation.
- Stabilize disturbed soils by seeding and/or using mulch, hay, rip-rap, or gravel that is free of invasive plant material.
- Materials such as fill, loam, mulch, hay, rip-rap, and gravel should not be brought into project areas from sites where invasive plants are known to occur.

Movement of equipment:

- Equipment movement should be from areas not infested by invasive plants to areas infested by invasive plants whenever possible.
- Staging areas should be free of invasive plants to avoid spreading seeds and other viable plant parts.

Removing vegetation:

- In areas where invasive plants will be impacted by construction activities, vegetation should be cut or removed prior to seed maturation (approximately August 1st).
- These invasive plants have the ability to sprout from stem and root fragments: purple loosestrife, phragmites, and Japanese knotweed. Mowing these plants should be avoided. When these plants are cut by other means, all plant material must be destroyed and extra care should be taken to avoid spreading plant fragments.
- Equipment used to cut or remove invasive plants should be cleaned at least daily, as well as prior to transport.

The NHDOT manual “*Best Management Practices for Roadside Invasive Plants*” and supporting fact sheet documents are available on line at www.nh.gov/dot/org/projectdevelopment/environment/documents.htm or through the NHDOT Records Section (603-271- 1601).

Items will be included in the contract under Sections 201 or 697 for projects that will require these control methods.

SPECIAL ATTENTION

1000-1

CHAPTER Env-A 1000 PREVENTION, ABATEMENT, AND CONTROL OF OPEN SOURCE AIR POLLUTION

Statutory Authority: RSA 125-C:4

PART Env-A 1001 OPEN BURNING

Env-A 1001.01 Purpose. The purpose of this part is to regulate emissions of particulate matter and toxic air pollutants from the burning of materials in the open where the products of combustion are discharged directly into the atmosphere rather than through a stack, chimney, or flue, in order to achieve and maintain attainment of the ambient air quality standards in accordance with sections 109 and 110 of the Clean Air Act, and to protect the public health and welfare pursuant to RSA 125-C:1.

Env-A 1001.02 Scope. This part shall apply to any natural person, firm, corporation, association, municipality or state agency that conducts open burning within the state.

Env-A 1001.03 Permissible Burning.

(a) Open burning in any part of the state shall be done only when the following conditions are satisfied:

- (1) When not prohibited by any local ordinance;
- (2) When not prohibited by an official having jurisdiction over open burning;
- (3) When no nuisance is created; and
- (4) When all materials that are burned are in conformance with this part.

(b) Throughout the state, only the following types of burning shall be permissible without authorization from the division:

- (1) Burning of untreated wood, campfire wood, brush or charcoal in a campfire, outdoor grill or outdoor fireplace for recreational purposes or for the preparation of food;
- (2) On-premises burning for the purpose of frost prevention, or agricultural, forestry, or wildlife habitat improvement;
- (3) Burning of solid fuel, liquid fuel, a motor vehicle, or a structure that has been certified to be free of asbestos in accordance with Env-C 400, provided that the following conditions shall be met:

- a. The burning shall be conducted to provide bona fide instruction and training of firefighters in methods of fighting fires;
- b. The burning shall be conducted under the direct control and supervision of qualified instructors; and
- c. Written permission shall have been obtained in advance from the New Hampshire department of resources and economic

development, division of forests and lands, bureau of forest protection; or

(4) Burning of untreated wood, campfire wood or brush in bonfires in conjunction with holiday or festive celebrations.

(c) In an area which has been classified as "attainment" of the ambient air quality standards for particulates pursuant to Env-A 300, the following types of burning shall be permissible without authorization from the division:

(1) Burning of combustible domestic rubbish from a residence where the following conditions exist:

a. There is no public removal service;

b. The burning shall occur on-premises in a waste burner having a capacity of 7 cubic feet or less; and

c. The waste is generated from a residential building containing 4 or less dwelling units;

(2) Periodic on-site burning by the landowner of brush and leaves which originate on-site;

(3) Commercial burning of brush, provided that no other disposal method, such as chipping, can be utilized; or

(4) Burning of untreated wood from the construction or demolition of a building, provided that such burning shall be done in an area which shall be specified and approved by officials having jurisdiction over open burning.

Env-A 1001.04 Division Authorization for Certain Open Burning.

(a) In addition to any other required state or local permits or authorizations, written authorization shall be obtained from the division prior to conducting any of the following types of open burning:

(1) Burning of materials as described in Env-A 1001.03(c), above, in an area of the state that has been classified as "non-attainment" of the ambient air quality standards for particulates pursuant to Env-A 300;

(2) Burning by any city or town of brush or untreated wood from the construction or demolition of a building, provided the material originates within the state; or

(3) Open burning of explosive or dangerous material for which there is no other feasible method of safe disposal.

(b) The open burning in this section shall only be done in an area which is approved by the division and all officials having jurisdiction over open burning.

(c) The written authorization from the division shall include the date, time, and place where the open burning shall be permissible and any conditions and requirements which are necessary to ensure the safeness of the

burning and to properly regulate the emissions.

Env-A 1001.05 Absolute Prohibition Against Burning Tires and Tubes.

(a) No tires, tubes or any portion thereof shall be burned in the ambient air at any place in the state for any reason.

(b) Tires, tubes or any portion thereof which are received at any dump shall be separated from the waste and disposed of by a feasible means other than open burning.

Env-A 1001.06 Absolute Prohibition Against Burning in the Ambient Air at Salvaging or Reclaiming Operations.

(a) A suitable incinerator or other means of compliance approved by the division pursuant to Env-A 1201 shall be employed for all thermal salvaging or reclaiming.

(b) No salvaging or reclaiming operation shall burn anything on-site in the ambient air.

PART Env-A 1002 FUGITIVE DUST

Env-A 1002.01 Purpose. The purpose of this part is to regulate the direct emissions of particulate matter to the atmosphere from activities that involve mining, transportation, storage, use, and removal of mineral material or soil.

Env-A 1002.02 Scope.

(a) This part shall apply to any natural person, firm, corporation, association, municipality or state agency that emits fugitive dust within the state, including those engaged in any of the following:

(1) Commercial mining activities, including the construction, maintenance or operation of a commercial mining or strip mining facility or part thereof;

(2) Construction activities, including building, paving, sweeping, trenching, excavating, filling, or other activity associated with the building of streets, roads, highways, parking lots, shopping centers, housing developments, or other centers of business or residential development;

(3) Maintenance activities, including sweeping, vacuuming, or other activity involved with the upkeep of streets, roads, highways, parking lots, shopping centers, housing developments, or other centers of business or residential development, buildings, bridges, utilities, sewerlines, waterlines, or similar entities;

(4) Demolition activities, including the tearing down of buildings, bridges or other structures; and

(5) Bulk hauling activities, including the transportation and transfer of material over public roads.

(b) This part shall not apply to the following:

- (1) Application of traction enhancement materials, including sand, and de-icing chemicals such as road salt, that have been applied to roads for public safety;
- (2) Normal usage of gravel or dirt roads;
- (3) Resurfacing activities of existing highways where the removal of surplus sand is not necessary; and
- (4) Agricultural industry activities or operations.

Env-A 1002.03 Precautions to Prevent, Abate, and Control Fugitive Dust. Precautions shall be taken and continued throughout the duration of the activity in order to prevent, abate, and control the emission of fugitive dust. Such precautions shall include wetting, covering, shielding, or vacuuming.

05/13/09

SSD: 1/19/95, 4/6/99, 2/14/03 & 7/14/08

SPECIAL ATTENTION

HISTORIC AND ARCHAEOLOGICAL RESOURCES

In order to avoid impacts to archaeological resources, the Contractor shall obtain and submit to the Engineer a written certification from either: 1) the State Archaeologist, or 2) a qualified archaeologist as defined below prior to any offsite excavation or other work at any disposal site, haul road, storage area, staging area, or other areas located outside the right-of-way limits of the project. Such certification shall be made on one of the attached forms. One is intended for site clearance by the state archaeologist and the other for investigation by a qualified archaeologist. Any work in such areas may only commence after receipt of this certification and upon written authorization to proceed by the Engineer.

This Special Attention does not apply to natural materials obtained from pre-existing (i.e., owned and operated by the Contractor prior to bidding on the subject contract) and/or commercially available sources. Commercially available sources is meant to include licensed or permitted sources where anyone could purchase natural materials.

If the State Archaeologist determines that further field investigation is necessary the Contractor must decide whether to pursue alternative locations or to have the site(s) in question evaluated. If the latter is decided, it will be necessary for the Contractor and the Engineer to meet with the NHDOT Bureau of Environment, the Division of Historic Resources and the Federal Highway Administration to determine the appropriate course of action. Note that the latter parties meet twice a month on the first and second Thursdays of each month.

Professional Qualifications for Principal Investigators in Archaeological Investigations

All archaeologists contracting with NHDOT as principal investigators will be qualified for such work, as determined by NHDHR. See **list of qualified archaeological firms at www.nh.gov/nhdhr/consultants_archaeology.html**. According to NHDHR guidelines, principal investigators must meet the minimum standards presented in 36 CFR 61.

These regulations require a graduate degree in archaeology, anthropology, or related field; at least one year full-time professional experience or an equivalent period of training in archaeological research, administration, or management; at least four months of supervised field and analytical experience in general North American archaeology; and demonstrated capability to complete archaeological research through all its phases. These standards distinguish between the prehistorian and historical archaeologist. Each must have a specialization in his/her respective areas and at least one year of full-time professional experience at the supervisory level in the study of the Native American cultural traditions or the historic period.

NHDHR also requires the following additional qualifications. All prehistorians will have at least one year of supervisory experience in the region encompassing the glaciated Northeast. Historical archaeologist will have a least one year of supervisory experience in New England, New Jersey, New York, or Pennsylvania. Historical archaeologists specializing in submerged nautical resources will possess at least one year's experience in the study of such resources along the Atlantic seaboard. NHDOT requires that the principal investigator has successfully completed one or more projects in New Hampshire in a timely manner. Principal investigators will be knowledgeable about the federal and state cultural resources management laws and regulations including those relating to the treatment of human remains in marked and unmarked graves. As soon as research or initial investigations indicate the likely presence of Native American or historic deposits, a principal investigator with training and experience in that area shall supervise the work.

The principal investigator is responsible for each aspect of the project. The principal investigator will maintain sufficient presence in repositories, the field, and laboratory to set up the study, ensure appropriate collection and accurate documentation of data, direct needed modifications as investigations proceed, field-check accuracy of field data, establish and direct analysis, and oversee documentation and preparation of recommendations at its close. In phases II and III as the intensity of excavation increases, it is anticipated that this presence will proportionately rise. All research, field investigations, analysis, and report preparation will be completed within the schedule set in the authorization of work unless notification is given and adequate justification is provided to NHDOT.

Depending on the nature of the site, the prehistoric or historic archaeologist may require additional qualifications or additional personnel qualified in other fields that may not be specified under 36CFR61. For example, projects for NHDOT encounter situations in which personnel with expertise and/or demonstrated experience in geomorphology, botany, faunal analysis, forensic anthropology, and industrial and urban archaeology are needed. These individuals will possess graduate training in their field, two years of professional experience in the area of expertise for which they are being consulted, and the demonstrated ability to complete a research project with a report of findings. Principal investigators may also need to add architectural historians, historians, historical landscape architects, etc. to their team whose professional qualifications will follow those provided in 36 CFR 61.

CERTIFICATION BY NHDHR

For the purpose of compliance with the Special Attention, Historic and Archeological Resources, dated February 14, 2003, relative to Federal-Aid Highway Project No. _____, NHDOT Project No. _____, I certify the following:

1. That I have reviewed the maps, plats, photographs or other identifying geographical information supplied to me by the Contractor.
2. That the areas located on these maps, etc. are to be utilized by the Contractor _____ for the following purposes:
 - a. Excavation area _____.
 - b. Waste material area _____.
 - c. Storage or staging area _____.
 - d. Haul road _____.
 - e. Other (describe) _____

 _____.
3. That I have reviewed the NHDHR site files relative to these locations and proposed uses.
4. On the basis of the above information, I have concluded that:
 - a. The location(s) have been previously reviewed, no resources have been identified, and there is no need for further archaeological evaluation _____.
 - b. The location(s) are such that no further archaeological evaluation is necessary _____.
 - c. The location(s) are such that further field investigation is necessary _____.

NHDHR Review and Compliance Coordinator

Date

Received:

NHDOT Contract Administrator

Date

cc: FHWA
NH Division of Historical Resources
NHDOT, Bureau of Environment

CERTIFICATION BY ARCHAEOLOGICAL CONTRACTOR

For the purpose of compliance with the Special Attention, Historic and Archeological Resources, dated February 14, 2003, relative to Federal-Aid Highway Project No. _____, NHDOT Project No. _____, I certify the following:

1. That I have examined the areas identified on the attached plans, maps, or property plats.
2. That these areas are to be utilized by the Contractor _____ for the following purposes:
 - a. Excavation area _____.
 - b. Waste material area _____.
 - c. Storage or staging area _____.
 - d. Haul road _____.
 - e. Other (describe) _____

 _____.
3. That I have used the following techniques in my examination:
 - a. Literature search _____
 - b. Walkover (describe methodology) _____

 - c. Subsurface testing (if appropriate) _____

4. That in my professional opinion, there is minimal or no likelihood that there are cultural resources (either historic or pre-historic) present or that any such resources present have integrity, and that there is no need for any other evaluative measures prior to the use of the areas described above for the purposes noted.

Archaeological Contractor

Date

Review by: _____
NHDHR Review and Compliance
Coordinator

Date

Received:

NHDOT Contract Administrator

Date

cc: FHWA
NH Division of Historical Resources
NHDOT, Bureau of Environment

01/12/09

SSD: 03/31/08

SPECIAL ATTENTION**LEAD-BEARING PAINT**

This special attention pertains to Item 502, Removal of Existing Bridge Structure, and related construction activities.

The Contractor is advised that the existing paint system(s) on the existing bridge is lead-bearing paint (LBP) and contains hazardous concentrations of lead.

The Contractor shall perform construction and demolition activities (e.g. flame cutting, rivet busting, removal of bridge members, etc.) involving bridge components with LBP in conformance with the applicable worker protection provisions of OSHA 1926.62, Lead Exposure in Construction Final Rule; and LBP debris shall not be permitted to enter the environment in conformance with the environmental protection requirements of the NH Department of Environmental Services.

The Contractor's plan for the removal of the existing bridge shall include worker protection and environmental protection measures. The Contractor shall not commence with bridge removal work without submittal and approval of the compliance plan.

Reference to these regulations shall not preclude or preempt any local, State or Federal regulations that may also apply.

The Contractor will not be held responsible for the abatement of any pre-existing conditions at the bridge site involving LBP.

03/22/12

SSD: 6/7/94, 8/14/97, 3/17/98, 10/31/08, 07/06/10

SPECIAL ATTENTION

Four weeks prior to the start of casting of any precast and/or prestressed items specified below, the Contractor shall notify the Bureau of Materials and Research, Concrete Unit Supervisor (603-271-3151), of intent to start casting and advise them of the name and location of the manufacturer. This will allow the Department time to make arrangements for inspection. Items not documented as being inspected will not be accepted.

The following precast and/or prestressed items will have continuous inspection during casting: all bridge components; box culverts; permanent concrete barrier; special catch basins, drop inlets and manholes over six feet in diameter; concrete pipes greater than 72 inches in diameter; mechanically stabilized earth retaining walls, and precast concrete headwalls.

08/22/17

SSD: 12/3/79, 4/10/80, 11/19/82, 5/9/83, 12/7/90, 12/20/96, 07/14/04, 09/01/05, 08/06/07,
01/07/09, 04/15/09 & 11/30/09, 05/12/10, 02/17/11, 07/16/15, 11/02/15, 12/16/15, 01/20/16,
07/15/16

September 18, 2017

SPECIAL ATTENTION

FUEL ADJUSTMENT

- (a) The shortage of all products in relation to the national and worldwide energy situation has made future costs of fuel unpredictable. For this reason, a price adjustment clause is being inserted in this contract to provide for either additional compensation to the Contractor or payment to the State, depending upon an increase or decrease in the price of fuel.
- (b) The fuel usage factors, which will be applied to the several items of the Contract shall be those set forth in Table 1.
- (c) Price adjustment will be based upon the quantity of fuel incorporated in the work as determined by the factors in Table 1.
- When the monthly sales price determined per paragraph (f) is more than 110% of the fixed base price set forth in paragraph (e), a contract adjustment will be made under Item 1010.15 based on: [monthly sales price less 110% of the fixed base price] multiplied by [item quantity eligible for payment during month] multiplied by [fuel factor].
 - When the monthly sales price determined per paragraph (f) is less than 90% of the fixed base price set forth in paragraph (e), a contract adjustment will be made under Item 1010.15 based on: [monthly sales price less 90% of the fixed base price] multiplied by [item quantity eligible for payment during month] multiplied by [fuel factor].
- (d) The Contractor warrants that its bid prices for this Contract include no allowances for any contingency to cover increased costs for which adjustment is provided herein.
- (e) The fixed base price of fuel will be \$ 2.2868 per gallon.
- This price is used solely to compute price adjustments. The fuel price will be the lower bulk retail price of **ultra low sulfur diesel fuel** for Boston as published by OPIS (Oil Price Information Service) in the Oil Price Daily, formerly known as the Journal of Commerce, and will include current Federal and State taxes.

- (f) The monthly sales price of fuel will be determined by the Department on the 15th calendar day of each month. When the 15th calendar day falls on a Saturday or Sunday, the price from the previous Friday will be utilized. Monthly sales prices will be set in the same manner as indicated in paragraph (e).
- (g) When an adjustment is called for as provided in paragraph (c), the monthly sales price determined in paragraph (f) will be used for work accomplished in the following month.
- (h) No price adjustment will be allowed beyond the Project completion date unless there is a Department-approved extension of time. Price adjustments will be made on quantities adjusted as a result of the final audit.
- (i) The Department will not be responsible for computing or otherwise indicating price adjustments except to the prime contractor, which must make its own arrangements with its subcontractors.
- (j) When no item for Fuel Adjustment is included in the Contract no adjustments will be made.

Pay item and unit:

1010.15 Fuel Adjustment ¹ \$

¹ Not a bid item.

Table 1 - FUEL FACTORS

Item of Work	Item No.	Units	Fuel	
Excavation:				
Earth	203.1_.,4_	gal/c.y.	0.26	
	203.50_.,51_.,52_			
	203.6_.,7_			
	206.1_			
	207.1_			
	504.1_			
Rock	203.2_	gal/c.y.	0.34	
	206.2_			
	207.2_			
	504.2_			
Other	203.3_	gal/c.y.	0.31	
	206.3_			
	207.3_			
	583._			
	585._			
	586._			
	587._			
Bases:				
Unprocessed	209._	gal/c.y.	0.46	
	304.1_.,2_			
Processed ⁴	304.3_	gal/c.y.	0.82	
	304.4_.,5_.,6_			
	508._			
Bituminous Concrete				
Pavement ²	403._	gal/ton	1.90	
	411._			
All Other Items:		gal/\$1,000 of work	13.0	
Excluded Items: ³				
210._	510.61_	550.2_	565.2_	624._
211._	510.65_	560._	565.7_	645.7_
306.31_	521.2_	561._	568._	692._
306.32_	528._	563.1_	592._	697._
410._	544._	563.2_	603.0001	698._
510.31_	548._	563.3_	618._	8_._
510.41_	550.1_	563.7_	619._	10_._

² Item 403.4 & 403.6 shall be calculated using the "All Other Items" category rate.

³ Also excluded are all supplementary agreements, extra work and per specification items.

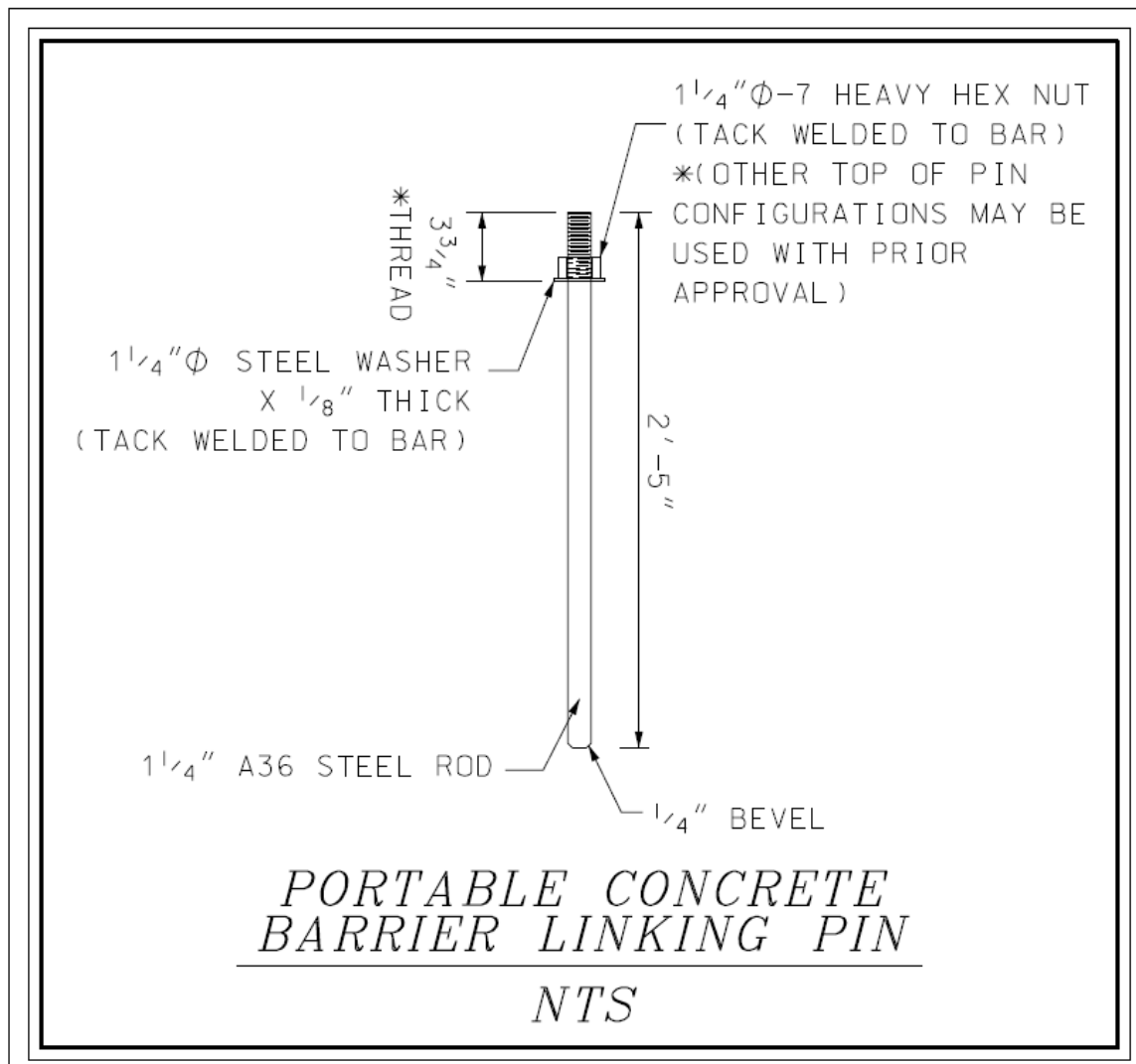
⁴ Item 304.32 shall be calculated using the "All Other Items" category rate.

NOTICE TO CONTRACTORS

Portable Concrete Barrier (PCB)

All contracts advertised after January 1, 2017 on the NHS or with a posted speed of 45 MPH or greater, which includes, but is not limited to, Item 606.417 - Portable Concrete Barrier (For Traffic Control), are not permitted to use PCB with 2-loop connections. Only PCB's that conform to the testing and evaluation criteria of the National Cooperative Highway Research Program (NCHRP) Report 350 or the Manual for Assessing Safety Hardware (MASH) shall be utilized.

All contracts advertised after May 20, 2016 are required to only use smooth 1.25" (A-36 steel) pin connections (see example below for an acceptable *Portable Concrete Barrier Linking Pin* detail). This Notice supersedes the PCB standard detail requirements. This requirement applies, but is not limited, to Item 606.417 - Portable Concrete Barrier (For Traffic Control) and Item 606.41731 - Portable Concrete Barrier for Traffic Control with Drainage Slots.



SPECIAL ATTENTION

ROADSIDE SAFETY HARDWARE WORTHINESS COMPLIANCE WITH NCHRP REPORT 350 AND MASH

The American Association of State Highway and Transportation Officials (AASHTO) has published the Manual for Assessing Safety Hardware (MASH). The main objective of MASH is to present uniform guidelines for the crash testing of both permanent and temporary highway safety hardware and evaluation criteria to assess test results. The need for updated crash criteria was based primarily on the changes to the vehicle fleet since the publication of National Cooperative Highway Research Program (NCHRP) Report 350. Highway safety hardware includes, but is not limited to, longitudinal barriers, crash cushions, attenuators, end terminals, breakaway supports, and work zone hardware/devices.

IMPORTANT: Any hardware that was designed, tested and accepted prior to January 1, 2011 under the NCHRP Report 350 criteria may continue to be used without retesting to MASH criteria. As of January 1, 2011, all new or revised highway safety hardware must be tested or retested and accepted using MASH criteria. If highway safety hardware that has been accepted by FHWA using criteria contained in NCHRP Report 350 fails testing using MASH criteria, AASHTO and FHWA will jointly review the test results and determine a course of action.

Hardware tested under MASH should be considered for use but there is no requirement to use or replace hardware that was accepted prior to January 1, 2011 under NCHRP Report 350. However, all highway safety hardware shall meet the appropriate NCHRP 350 or MASH requirements for the indicated test levels or be exempted by the FHWA from meeting this requirement. However, the Department may, in certain circumstances, require compliance to higher criteria if deemed appropriate.

WORK ZONE TRAFFIC CONTROL DEVICES:

The following is a summary of work zone traffic control devices categories, and their crash testing acceptance requirements, titled "Recommended Procedures for the Safety Performance Evaluation of Highway Features," testing and evaluation criteria as implemented by the AASHTO-FHWA Agreement (350 Agreement) dated July 1, 1998. These categories and associated requirements also apply to newly designed or revised devices that would now fall under MASH testing criteria.

Category I: Small, lightweight devices that are known to be crash-worthy from crash testing or years of demonstrable safe operational performance. These include plastic or rubber cones, tubular markers, flexible delineators, and plastic drums with no lights, batteries, signs, etc. added. For devices to be included in this category there must be virtually no potential that they will penetrate windshields, cause tire damage, or have a significant effect on the control or trajectory of an impacting vehicle. These devices will be allowed based upon developers self-certification.

Category II: Devices that are not expected to produce significant vehicular velocity change, but may be otherwise hazardous. All or parts of the devices may be substantial enough to penetrate a windshield or injure a worker or they may cause instability when driven over or become lodged under a vehicle. The total mass of a Category II device must be less than 45 kg. Examples of this category are barricades, portable sign supports, intrusion detectors and alarms and drums, vertical panels, or cones with lights.

Category III: Devices expected to cause significant velocity change or other potentially harmful reactions in impacting vehicles and Category II devices with a mass greater than 45 kg. Examples of this category are Truck-mounted attenuators (TMA), portable crash cushions and Portable concrete barrier (requires appropriate sized pin and loop or better connection).

Category IV: Crashworthy installations of Category IV devices are encouraged, though not mandated. Examples of this category are portable, usually trailer mounted devices such as area light supports, flashing arrow panels/arrows displays, temporary traffic signals and changeable message signs. However, these types of devices combined with TMA are considered Category III devices.

All category I, II, and III project work zone traffic control devices in use, except portable concrete barrier that transfers tension and moment from segment to segment, shall conform to the testing and evaluation criteria as outlined above. Devices not conforming to the criteria shall be replaced with conforming devices at no expense to the Department.

06/18/13

SSD: 09/01/05, 04/07/09, 11/30/10

SPECIAL ATTENTION**SECTION 606 – GUARDRAIL****W-BEAM RAIL**

There may be situations where standard beam guardrail, set at 30 inches high (or 31 inches high as required by the mid-splice guardrail system), will need to be connected to beam guardrail terminals that have only been crash tested at 27 inches high or bridge approach units that are designed at 27 inches high. This may reflect an existing or new installation. Similarly, new standard beam guardrail may be connected to existing beam guardrail that is not at the 30 inch height (or 31 inch height as stated above). In those circumstances transition the height over 50 feet of the standard rail that is connected to the terminal or bridge approach unit (transition shall be subsidiary to 606 Items).

Set the EAGRT heights according to the manufacturer's recommendation, as accepted under the NCHRP 350 or Manual for Accepting Safety Hardware (MASH) - 2009 criteria. All other terminals, including but not limited to, ELT, MELT, and the CRT, shall be set at the crash acceptance height of 27-inch unless otherwise accepted under crash test acceptance for a higher height.

ALL FA PROJECTS (STEEL & IRON PRODUCTS)

SPECIAL ATTENTION

BUY AMERICA

In accordance with the **BUY AMERICA** requirements of the Federal regulations, all manufacturing processes for steel and iron materials furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

Products of steel include, but are not limited to, such products as structural steel, piles, reinforcing steel, structural plate, steel culverts, guardrail and steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not subject to this clause, only the application process.

A Certificate of Compliance, conforming to the requirements of Section 106.04, shall be furnished for steel and iron materials. Records to be maintained by the contractor for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Special Attention. The lack of these certifications will be justification for rejection of the steel or iron product.

The requirements of said law and regulations do not prevent a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

Upon completion of the project, the Contractor shall certify in writing as to compliance with this Special Attention and also provide the total project delivered cost of all foreign steel and/or iron permanently incorporated into the project. The form for this certification is entitled "Buy America Certificate of Compliance" and can be found at www.NHDOT.com.

SPECIAL ATTENTION**SHIPPING**

In accordance with the **Title 46 - Shipping** requirements of the Federal regulations (46 CFR 381.7), contractors must comply with the Cargo Preference Act (CPA) requirements and implementation regulations for all Federal-aid projects awarded after February 15, 2016. **Title 46 - Shipping** reads as follows:

Title 46 - Shipping

Volume: 8

Date: 2014-10-01

Original Date: 2014-10-01

Title: Section 381. 7 - Federal Grant, Guaranty, Loan and Advance of Funds Agreements.

Context Title 46 - Shipping. CHAPTER II - MARITIME ADMINISTRATION, DEPARTMENT OF TRANSPORTATION. SUBCHAPTER J - MISCELLANEOUS. PART 381 - CARGO PREFERENCE-U.S.FLAG VESSELS.

§ 381.7 Federal Grant, Guaranty, Loan and Advance of Funds Agreements.

In order to insure a fair and reasonable participation by privately owned United States-flag commercial vessels in transporting cargoes which are subject to the Cargo Preference Act of 1954 and which are generated by U.S. Government Grant, Guaranty, Loan and/or Advance of Funds Programs, the head of each affected department or agency shall require appropriate clauses to be inserted in those Grant, Guaranty, Loan and/or Advance of Funds Agreements and all third party contracts executed between the borrower/grantee and other parties, where the possibility exists for ocean transportation of items procured, contracted for or otherwise obtained by or on behalf of the grantee, borrower, or any of their contractors or subcontractors. The clauses required by this part shall provide that at least 50 percent of the freight revenue and tonnage of cargo generated by the U.S. Government Grant, Guaranty, Loan or Advance of Funds be transported on privately owned United States-flag commercial vessels. These clauses shall also require that all parties provide to the Maritime Administration the necessary shipment information as set forth in § 381 .3. A copy of the appropriate clauses required by this part shall be submitted by each affected agency or department to the Secretary, Maritime Administration, for approval no later than 30 days after the effective date of this part. The following are suggested acceptable clauses with respect to the use of United States-flag vessels to be incorporated in the Grant, Guaranty, Loan and/or Advance of Funds Agreements as well as contracts and subcontracts resulting therefrom:

(a) *Agreement Clauses.* Use of United States-flag vessels:

- (1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(b) *Contractor and Subcontractor Clauses.* Use of United States-flag vessels: The contractor agrees

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills--of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

SPECIAL ATTENTION**CONVICT PRODUCED MATERIAL**

In accordance with the requirements of the Federal regulations (23 U.S.C. 114(b)(2), 23 CFR 635.417), essentially all convict produced material is prohibited from Federal-aid highway construction projects. More specifically, materials produced after July 1, 1991, by convict labor, may only be incorporated in a Federal-aid construction projects if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987*.

* Because the Department, Federal Highway Administration, nor New Hampshire Correctional Industries can produce documents to meet condition 2 above, this condition cannot be met for New Hampshire convict produced material.

1/2001
Supersedes 3/90
ALL FA PROJECTS

SPECIAL ATTENTION

LOBBYING

UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

SUBJECT: LIMITATION ON USE OF GRANT OR CONTRACT FUNDS FOR LOBBYING

The lobbying restrictions were established by Section 319 of Public Law 101-121 (Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1990).

The law prohibits Federal funds from being expended by the recipient or any lower tier subrecipients of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement. The extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement is also covered.

Federal-aid contractors, and consultants, as well as lower tier subcontractors and subconsultants are also subject to the lobbying prohibition. To assure compliance, a certification provision is included in all Federal-aid construction solicitations and contracts, and consultant agreements exceeding \$100,000 in Federal funds.

The Contractor shall be aware that by signing and submitting this proposal, he or she is attesting to the requirements of the certification provisions.

During the period of performance of a grant or contract, recipients and subrecipients must file disclosure form (Standard Form LLL) at the end of each calendar year quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any previously filed disclosure form.

Lower tier certifications should be maintained by the next tier above (i.e., prime contractors will keep the subcontractors' certification on file, etc.). Copies of Standard Form LLL will be included in the subcontract package for distribution to successful bidders.

December 24, 1998
Supersedes Spec. Attn. dated 3/29/88 & 12/5/90

FHWA Projects

SPECIAL ATTENTION

**CONTRACT AFFIDAVIT - CERTIFICATION REGARDING DEBARMENT
SUSPENSION**

The separate form entitled, CONTRACT AFFIDAVIT (As Required by Section 112(c) of Title 23 USC) has been deleted from this proposal.

Bidders are advised that the last page of the bidding proposal has been revised to include the same reference, **IN BOLD PRINT**, relative to the non-collusion statement included on the discontinued form.

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The Contractor is advised that 49 CFR 29.510, Appendix A, requires that the Contractor, including all principals, certify that they are not currently under debarment or suspension or have not been under debarment or suspension within the past three years. (For certification instructions see next page).

The certification has been added, **IN BOLD PRINT**, onto the next to the last page of the bidding proposal.

The Contractor is further advised that Appendix B of 49 CFR 29.510 regarding certification of lower tier transactions has been added to Form FHWA-1273.

Appendix A - Certification regarding Debarment, Suspension, and other Responsibility Matters -
Primary Covered Transactions.

Instruction for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of these regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification" Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

SPECIAL ATTENTION

SUMMARY OF REQUIREMENTS FOR FEDERAL-AID PROJECTS

1. Subletting on Federal-aid Contracts:

- a. On Federal-Aid projects, the following documents are required to be incorporated in, and made a part of, every subcontract agreement; including lower-tier subcontract agreements:
 - NHDOT Subcontracting Procedures
 - Required Contract Provisions (FHWA-1273)
 - Disadvantaged Business Enterprise (DBE) Program Requirements (Standard Specification 103.06)
 - Prompt Payment to Subcontractors (Standard Specification 109.09)
 - 41 CFR 60-4 Affirmative Action Requirements
 - Applicable only to contracts or subcontracts in excess of \$10,000
 - U.S. Department of Labor (USDOL) wage rates entitled “GENERAL WAGE DECISION” (as contained in the contract)
 - Does not apply to companies performing Davis-Bacon exempt work (such as testing, monitoring, and inspection services).
- b. Subcontractor Approvals for Companies Who Perform Testing, Monitoring, Inspection Services:
 - 1) Companies and/or independent contractors performing testing, monitoring, or inspection, such as ground penetrating radar, erosion control monitoring, video inspection, SWPPP, environmental testing/monitoring or vibration monitoring, require subcontractor approval.
 - 2) The following subcontractor approval documentation is required:
 - OFC Form 15 - Transmittal Request
 - 15a for State managed projects, or
 - 15b for Local Public Agency (LPA) municipal projects
 - OFC Form 14 - Contractor Acknowledgment Certification
 - OFC Form 26 - Work Certificate
 - Certificate of Insurance showing Workers’ Compensation coverage
Office of Federal Compliance (OFC) staff will verify coverage with the NH Department of Labor (NHDOL).
- c. Contractors will not be approved or authorized to work until all OFC’s Annual Assurance requirements have been fulfilled.
- d. Per NH RSA 228:4-b, Workers’ Compensation Insurance must cover all individuals performing work on site and shall remain in effect for the duration of the contractor’s work on the project. No excluded individual, owner, or officer may perform work on site without exception. All persons working on site must have Workers’ Compensation coverage on file with the NHDOL.

- e. Prime Contractors shall submit consent to sublet packages to the NHDOT at least 5 working days prior to said subcontractor (or lower-tier subcontractor) performing work on site. On LPA projects, the Prime Contractor shall also provide a courtesy copy to the town or the town's consultant, if applicable.
- f. LPA Projects Only: OFC is the sole approval authority for all LPA construction projects. Consents to sublet shall be submitted directly to the OFC.

2. FHWA Form 1273, Required Contract Provisions:

- a. The Prime Contractor shall insert in each subcontract all the stipulations contained in the Required Contract Provisions. Primes shall further require their inclusion in any lower-tier subcontract or purchase order that may in-turn be made. The Required Contract Provisions shall not be incorporated by reference in any case.
- b. In accordance with Section I, Paragraph 1, the Prime Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. This shall include any unpaid wages found to be owed that is not paid by a subcontractor or lower-tier subcontractor.
- c. In accordance with Section I, Paragraph 3, "A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension/debarment or any other action determined to be appropriate by the contracting agency and FHWA."

3. Certified Payrolls and Time Sheets:

- a. Submission Format: Payrolls, as required by FHWA Form 1273, shall be submitted electronically (email) as a pdf document to the NHDOT Contract Administrator, consistently named in the following format: Contractor's name (abbreviated is acceptable) followed by the "week ending" date (yyyy/mm/dd). The Contractor's and each Subcontractor's payroll shall be submitted as separate, individual files.

Example: Plow Brothers Inc 2017-12-09

- b. Multiple Counties/States or Categories (Highway/Building/Heavy): Whenever contracts have multiple wage determinations, contractors shall indicate, on each payroll submission, which wage determination is applicable to the work.
- c. Project Specific: Except for weekly gross pay, deductions, and weekly net pay, all information shown on certified payrolls shall be project specific. Please reference FHWA Form 1273 for additional payroll requirements and limitations.
- d. Time Sheets: Every contractor shall create and maintain time sheets for every worker performing work on the project. This includes salaried employees who perform work in a classification, either intermittently or full time. Time sheets shall record all work performed during the work week, both Federal and non-Federal, shop time, travel time considered work time, including any time considered "hours worked" as described under the Fair Labor Standards Act, Part 785. When requested, Contractors shall provide copies of time sheets to the OFC in support of certified payroll report information being provided. Time sheets, payroll records, and other basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years from final invoice for all laborers and mechanics working at the site of work.

4. Sign-In Sheets:

- a. State Managed Projects: The use of daily sign-in sheets is required for subcontractors performing asbestos abatement. The OFC may also direct the use of daily sign-in sheets on other State managed projects for any contractor who does not accurately report all workers performing work on site on their payrolls. The sign-in sheets shall be administered as described below.
- b. LPA Projects: The use of daily sign-in sheets is **mandatory** on all LPA projects. Every worker must sign in, on a daily basis, prior to performing work on site. The OFC Form 20- Daily Sign-In Record shall be used for this purpose. The Prime Contractor is responsible to ensure all sign-in sheet requirements are met and that sign-in sheets are turned in to the Contract Administrator on a daily basis. Contract Administrators shall review and initial sign-in sheets daily; cross matching what employees have indicated for their work classification and what employers are indicating on certified payroll reports, and also verifying employers of workers signing in have been approved to work by the NHDOT. Sign-in sheets shall be co-located with certified payrolls and filed in a 3-ring binder; newest sign-in sheets on top. Sign-in sheets are an inspection item.

5. Requesting Work Classifications, Classifying Workers, and/or Payment of Wages.

- a. The Prime Contractor is required to submit an additional request to the NHDOT for any classification of labor/equipment that they or their subcontractors shall be utilizing under the contract that is not contained in the Proposal's Federal General Decision.
- b. Conformance submissions shall be in accordance with U.S. Department of Labor Memorandum No. 213, dated March 22, 2013. A copy of the Memorandum can be found at <http://www.wdol.gov/aam/aam213.pdf>.
- c. Unless otherwise instructed by the OFC, a SF 1444 shall be used for this purpose.
- d. Requests must be submitted to the NHDOT prior to any work being performed in the classification(s).
- e. Contractors who do not receive a USDOL conformance decision from the OFC within 45 days of submission should follow-up with the OFC.
- f. Once a decision is received from the USDOL, the OFC will notify the Prime Contractor. In cases when the USDOL stipulates a higher rate of pay than the one proposed by the Contractor, and the Contractor elects not to submit an appeal, restitution, if due, shall be paid to employees within 10 calendar days of being notified by the OFC. Restitution requirements of the NHDOT shall apply.
- g. Appeals shall be filed with the USDOL within 30 calendar days and a courtesy copy forwarded to the OFC at the same time. Restitution, if applicable, does not need to be paid during the time the appeal is under review by the USDOL.
- h. Contractors shall immediately inform the OFC whenever appeal decisions (including reconsideration requests) are received from the USDOL.

- i. In cases when a contractor indicates to the OFC he/she plans to appeal the USDOL decision but fails to provide the OFC proof of submission within 30 calendar days, the contractor shall comply with the original USDOL decision. The OFC will subsequently notify the Contractor that proof of an appeal was not received within 30 days and restitution, if applicable, must be paid to workers within 10 calendar days. Contractors who fail to provide restitution will be deemed “in non-compliance.”
- j. OFC payment release authorization letters (Okay to Pay letters) cannot be accomplished until all wage conformances have been deemed closed (USDOL responses have been received), any pending contractor wage appeals have been finalized, with restitution paid if applicable, and all Prompt Pay requirements have been met.
- k. Job Classifications Descriptions (Laboring Category): While most of skilled and unskilled crafts appearing in Wage Determinations are self-explanatory, the below classifications (not all inclusive) have been described by the NHDOT and are consistent with USDOL requirements. Questions involving correct classification of workers should be addressed prior to performing work on the project. Workers performing in these classifications, according to the description, will be classified by contractors accordingly:
 - 1) Asbestos Abatement: All work associated with asbestos abatement shall be classified as “Laborer,” unless said work involves piping that will be reinsulated. In these cases, “Asbestos Abatement Worker” shall be used.
 - 2) Blaster: Supervises and assists in locating, loading, and firing blast holes with explosives to break up hard materials. This work includes any of the following duties on-site: determining the spacing and depth of drilled holes; determining the amount of explosives, timing and placement of detonators; handling blasting materials in the work area; loading holes with detonators, primers and explosives; tamping and stemming holes; directing the placement of blasting mats or other flyrock controls; and detonating the charges.
 - 3) Brick Mason (also called Brick Layers): Builds and repairs walls, floors, paths/sidewalks, partitions, fireplaces, chimneys, and other structures with brick, pavers, precast masonry panels, concrete block, and other masonry materials, with or without mortar.
 - 4) Carpenter (Form Work Only): Formwork carpenters build the molds that retain wet concrete in the construction of bridges, foundations and other concrete structures. This also includes pre-manufactured forms made of steel, wood or heavy plastic. Work under this class also includes bracing required to hold the forms in place.
 - 5) Carpenter (Excluding Form Work): Involves all carpentry work not directly related to the pouring of concrete. This includes, without limitation, scaffolding, safety rail, platforms, walkways, stairs, demo containment, buildings, and bracing that is not in direct contact with concrete.

Note 1: Any work to dismantle where workers can simply “tear it apart” and where no safety concerns are present can be performed by Common or General Laborers.

Note 2: Questions involving these classes should be addressed prior to performing work on the project.

- 6) Drill Operator: Unless a hand-held tool, which can then be classified and performed as a Common/General Laborer, all drill work shall be performed in the “Drill Operator” classification. Conformances, if needed, shall be consistent with this requirement.
- 7) Guardrail Installer: Except for the “pounder,” each person performing guardrail installation work shall be classified as “Guardrail Installer.”
- 8) Ironworker (Reinforcing): Positions and secures steel bars to placement of reinforced concrete; determines number, size, shape, and location of reinforcing rods from plans, specifications, sketches and/or oral instructions; places and ties reinforcing steel using wire and pliers, sets rods in place, spaces and secures reinforcing rods. May bend steel rods with hand tools or operate a rod-bending machine; may reinforce concrete with wire mesh; may perform other related duties.
- 9) Ironworker (Structural): Performs any combination of the following duties to set beams, hang diaphragms, install bolts, torque bolts, test bolts, raise, place and unite girders, columns and other structural steel members to form completed structures or structure frameworks, working as a member of a crew; sets up hoisting equipment for raising and placing structural steel members; fastens steel members to cable of hoist using chain, cable or rope; signals worker operating hoisting equipment to lift and place steel members. Guides member using guy line (rope) or rides on member to guide it into position. Reads plans; rigs, assembles and erects structural members requiring riveting or welding. May perform other related duties.
- 10) Lead Abatement Worker: All work associated with lead abatement shall be classified as “Lead Abatement Worker”.
- 11) Stone Mason: Builds stone walls, as well as set stone exteriors and floors, lays/sets all cut stone, marble, slate, or stone, with or without mortar. They work with natural cut stone, such as marble, granite, limestone and artificial stone made of concrete, marble chips, or other masonry materials.
- 12) Sweeper/Broom Operators: Whenever Sweeper or Broom does not appear in the Wage Determination, contractors may use the Truck Driver classification for this service if the equipment used is of the over the road type (only). However, anytime the contract has an established classification/rate for “Sweeper or “Broom,” this classification must be used and the minimum rate, as it appears in the contract, shall apply.
- 13) Traffic Coordinator: Performs sign placement and maintenance, including proper set up and relocation of construction sign packages and message boards; designs lane closures in accordance with local, state, and Federal requirements. Please do not confuse this classification with Flagger.

6. Prompt Pay: Prompt pay requirements are outlined in the NHDOT Standard Specifications Section 109.09. Submissions are due no later than the 10th calendar day of each month.

- a. State managed projects: Contractors may use the OFC Form 18 or utilize their own document that contains the same required information unless otherwise instructed by the OFC.

- If no payments were made during the reporting period, contractors shall submit a certification indicating “no payments made to subcontractors.”
- b. LPA projects: Contractors shall use the OFC Form 12.
7. **Mandatory Training**: Prime Contractors who fail to obtain an annual average (based on the calendar year) of at least 60% “Satisfactory” ratings on all OFC Compliance Field Audit Reports may be required to attend a mandatory 4-hour Contractor Compliance Training Class each spring (as scheduled by the OFC). A principal owner or executive officer of the company, and his/her payroll accountant shall attend.
- a. Compliance ratings will be averaged over all projects if a Prime Contractor has multiple projects.
 - b. The OFC has at least two Contractor Compliance Training Seminars each year. Every contractor participating on Federal-aid construction projects is encouraged to attend.
8. **Restitution**: If required, restitution shall be performed in accordance with the OFC guidelines. The OFC Form 8 - Restitution Worksheet and Affidavit shall be used.
9. **Temporary Suspensions**:
- a. Any Contractor, Subcontractor, or Lower-tier Subcontractor found to be in violation of FHWA Form 1273, Required Contract Provisions, made part of its contract, or has failed to comply with OFC Field Audit requirements, will be required to take corrective action before participating in future projects funded by the Department. Corrective action will include, but not limited to, the submission of certified payrolls or other records and reports necessary to verify compliance with the Provisions.
 - b. Any Contractor, Subcontractor or Lower-tier Subcontractor found to have repeatedly violated the FHWA Form 1273, Required Contract Provisions, may be required to complete 4-hours of Federal Contract Compliance Training conducted by the OFC. When mandated, a principal owner and/or company executive and his/her payroll accountant shall attend. Federal Contract Compliance Training must be completed before participation on future projects is authorized. This requirement does not relieve the Contractor of its obligations under the prime contract, nor does it prevent the Department from seeking other remedies or enforcement action, as provided by the governing Rules, Laws, and Federal Regulations.
 - c. Companies will be notified of suspensions in writing. Actions the company must take to have participation privileges restored will be clearly indicated. Companies will also be advised that if a satisfactory response is not received within 30 days of receipt of the suspension notice, the company will be considered “non-responsive.” In cases where companies are non-responsive, and unpaid wages on the part of the subcontractor or lower-tier subcontractor are involved, the matter will then be deferred to the Prime Contractor for payment of wages as provided in Form FHWA 1273, Required Contract Provisions, Section I, Paragraph 3.

10. Right to Withhold Payment: The Department may withhold payments claimed by the Contractor on account of:

- a. Failure of the Contractor to make payments to Subcontractors for materials or labor.
- b. Regulatory non-compliance or enforcement.
- c. Failure to comply with OFC Field Audit Report requirements.
- d. Failure to comply with monthly reporting requirements, as applicable.
- e. For projects with an On-The-Job Training (OJT) requirement, failure to submit OJT Form 1 - On-The-Job Training Acknowledgement and Statement of Intent within 30 days of the project start date.
- f. Failure to submit closeout documentation.
- g. All other causes that the Department reasonably determines negatively affect the State's interest.

11. Final Payment Release: Once final project records are transferred to the OFC, a final review shall be performed to determine compliance with the Federal provisions. Release of any final payment shall not be made to the Contractor until the OFC issues a payment release letter (Okay to Pay) certifying:

- a. All required payrolls, labor, and Equal Employment Opportunity (EEO) documentation have been received and deemed complete and correct.
- b. DBE requirements stipulated in the Contract and/or the Required Contract Provisions have been fulfilled.

12. Deposits in Escrow: Every attempt is made to complete compliance actions and resolve any disputes before the project is completed and final payments are made. Sometimes, however, corrective actions or disputes continue after completion and provisions must be made to ensure that funds are available to pay any wage restitution that is ultimately found due. In these cases, the project can proceed to final closing provided the Prime Contractor, from payments already provided him/her, provides written evidence a deposit of an amount equal to the potential liability for wage restitution and liquidated damages, if applicable, has been deposited in an escrow account. When a final decision is rendered, the Prime Contractor makes disbursements from the account in accordance with the decision. Deposit/escrow accounts are established for one or more of the following reasons:

- a. Where the parties have agreed to amounts of wage restitution that are due but the employer has not yet furnished evidence that all the underpaid workers have received their back wages. The deposit is equal to the amount of restitution due to workers lacking payment evidence. As proper documentation is received, an amount corresponding to the documentation is returned to the depositor. Amounts for any workers who cannot be located are held in the escrow account for three (3) years. Amounts remaining in the account not disbursed by the end of this three-year period shall be returned to the Prime Contractor.
- b. Where underpayments are suspected or alleged and an investigation has not yet been completed. The deposit is equal to the amount of wage restitution and liquidated damages, if applicable, that is estimated to be due. If the final determination of wages due is less than the amount estimated and placed in the escrow account, the escrow

- will be reduced to the final amount and the difference will be returned to the depositor. If the parties agree to the investigative findings, the amounts due to workers will be disbursed from the escrow account in accordance with the schedule of wages due. Amounts for unfound workers will be retained for a period of three (3) years and subsequently disbursed to the depositor as described above in Paragraph 12a.
- c. Where the parties are waiting for the outcome of an administrative hearing that has been or will be filed contesting a final determination of wages due. The deposit shall be equal to the amount of wage restitution and liquidated damages, if applicable, that have been determined to be due. Once the final decision is rendered, disbursements from the escrow account are made in accordance with the decision.

Please direct questions relating to any information in this document to the OFC. See the OFC website for forms, documents, training schedules, contact information, and other helpful material: www.nh.gov/dot/org/administration/ofc/index.htm.

SPECIAL ATTENTION

Disadvantaged Business Enterprise (DBE)

Disadvantaged Business Enterprise (DBE) Policy. It shall be the policy of the New Hampshire Department of Transportation (NHDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE's) to participate in the performance of all contracts and subcontracts financed with Federal funds as specified by the regulations of the United States Department of Transportation (USDOT), Federal Highway Administration and as set forth below.

1. Policy. It is the policy of the United States Department of Transportation to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 Code of Federal Regulation (CFR) Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 applies to this contract.

2. Disadvantaged Business Enterprise (DBE) Obligation. The State and its Contractor agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. **Prime Contractors and subcontractors who further sublet must include this assurance in every subcontract:** *The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by any contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this Contract or such other remedy, as the NHDOT deems appropriate.*

3. Sanctions of Non-Compliance. The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this Contract, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of contract and, after notification of the United States Department of Transportation, may result in termination of this Contract or such remedy as the State deems appropriate.

Overall Statewide DBE Goals. The NHDOT currently employs a race/gender neutral DBE policy to attain its overall statewide DBE goals. This means that unless otherwise stated in the Contract, the NHDOT relies on the voluntary cooperation of all contractors to utilize DBE's on every project, sufficient to meet or exceed the current statewide DBE goal. Although the majority of statewide DBE goals are currently voluntary, failure of the NHDOT to meet or exceed the overall statewide DBE goal as required by the Federal Highway Administration (FHWA), could necessitate placement of mandatory DBE participation requirements on all future statewide projects.

Disadvantaged Business Enterprise (DBE) Program Goals. The New Hampshire Department of Transportation is required to set an overall DBE goal for participation in all transportation related Federal-aid projects. The goal is determined following guidelines set forth in 49 CFR 26.45, and based on the availability of ready, willing and able DBE's who submitted bids for transportation related projects, compared as a percentage of all available contractors who submitted bids for transportation related projects during the same time period. The DBE goal may be adjusted to take into account other factors impacting DBE utilization, in an effort to narrowly tailor the overall DBE goal. The detailed goal setting methodology and current overall DBE goal may be viewed on the NHDOT website at www.nh.gov/dot.

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Disadvantaged Business Enterprise (DBE) Definition. A DBE is defined as a business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purpose of this definition:

- A. “Socially and economically disadvantaged person” means an individual who is a citizen or lawful permanent resident of the United States and who is a Woman, Black, Hispanic, Portuguese, Native American, Asian American, or a member of another group, or an individual found to be disadvantaged by an individual determination of social disadvantage as described in 49 CFR 26 appendix E, determinations of social and economic disadvantage.
- B. “Owned and controlled” means a business which is:
 - (1) A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
 - (2) A partnership, joint venture or limited liability Company in which at least 51% of the beneficial ownership interests is legitimately held by a disadvantaged person(s).
 - (3) A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests are legitimately held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with the percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real economic interest and must include proportionate control over management, capital, and earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of this program, a firm is considered a bona fide DBE.

Certified DBE Directory. The current New Hampshire Unified Disadvantaged Business Enterprise (DBE) Directory is available online at www.nh.gov/dot. This directory contains all currently certified DBE’s available for work in New Hampshire, and is updated monthly. Only firm’s listed in this directory are eligible for DBE credit on NH Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the DBE Coordinator at (603) 271-6612 for assistance.

Counting DBE Participation For Project Goals. In order for payments made to DBE contractors to be counted toward DBE goals, the DBE contractors must perform a commercially useful function (CUF). The DBE must be responsible for execution of the work of the contract and must carry out its responsibilities by actually performing, managing, and supervising the work involved, consistent with standard industry practices. This means that:

- A. The DBE must also be responsible for ordering its own materials and supplies, determining quantity and quality, negotiating price, installing (where applicable) and paying for the material itself;
- B. The DBE must perform work commensurate with the amount of its contract;
- C. The DBE’s contribution cannot be that of an extra participant or a conduit through which funds are passed in order to obtain the appearance of DBE participation;
- D. The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own work force;
- E. None of the DBE’s work can be subcontracted back to the Prime Contractor, nor can the DBE employ the prime’s, or other subcontractor’s supervisors currently working on the project;

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- F. The DBE's labor force must be separate and apart from that of the Prime Contractor or other subcontractors on the project. Transferring crews between primes, subcontractors, and DBE contractors is not acceptable;
- G. The DBE owner must hold a Public Works license and any other professional or craft licenses required for the type of work he/she performs on the project;
- H. The DBE may rent or lease, at competitive rates, equipment needed on the project from customary leasing sources or from other subcontractors on the project.

Allowable credit for payments made to DBEs for work performed. A contractor may take credit for payments made to a certified DBE that satisfies (CUF) requirements at the following rate.

- A. A DBE Prime Contractor; count 100% of the value of work performed by own forces, equipment and materials count towards DBE goals.
- B. An approved DBE subcontractor; count 100% of the value of work performed by the DBE's own forces, equipment and materials, excluding the following:
 - The cost of materials/supplies purchased from a non-DBE Prime Contractor.
 - The value of work provided by non-DBE lower tier subcontractors, including non-DBE trucking to deliver asphalt to a DBE contractor.
- C. A DBE owner-operator of construction equipment; count 100% of expenditures committed.
- D. A DBE manufacturer; count 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Prime Contractor.
- E. A regular DBE dealer/supplier; count 60% of expenditures committed.
A regular dealer/supplier is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment, in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A person may be a dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business, if the person both owns and operates distribution equipment for the products, by the means of a long term agreement, and not by a contract by contract basis.
- F. A DBE Broker; count for DBE credit only the fees or commissions charged for assistance in the procurement, and, fees and transportation charges for the delivery of materials or supplies required at the job site, but not the cost of materials procured. A broker is defined as any person(s) or firm who arranges or expedites transactions for materials or supplies, and does not take physical possession of the materials or supplies at their place of business for resale.
- G. A DBE renter of construction equipment to a contractor; count 20% of expenditures committed, with or without operator.
- H. A bona fide DBE service provider; count 100% of reasonable fees or commissions.
Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.
- I. A trucking, hauling or delivery operation, count 100% of payments when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the materials and supplies. 100% of payments when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees, or commissions, the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.
- J. Any combination of the above.

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Reporting Requirements for Payments Made To DBE's: On all Federal-aid projects, the Prime Contractor is required to report payments made to DBE's during the life of the contract, on a quarterly basis, for the periods covering January 1st–March 31st, April 1st–June 30th, July 1st–September 30th and October 1st–December 31st, The NHDOT will provide the Prime Contractor with a quarterly DBE payments report, detailing all DBE's subcontracted by the Prime Contractor, per project. The Prime Contractor shall report any payments made to DBE's during the requested reporting period. This documentation shall be submitted to the Office of Federal Compliance within the time period stated on the NHDOT quarterly request. Failure of the Prime Contractor to submit this information may result in the Department withholding progress payments.

Removal of Approved DBE From Transportation Related Project: Contractors may not terminate for convenience, any approved DBE subcontractor and perform the work with their own forces, without prior written consent from the NHDOT.

MUNICIPAL PROJECTS ONLY: Timely submission of invoices to Municipalities: Prime Contractors must submit all invoices received for satisfactorily completed work, from any subcontractor/lower-tier subcontractor/material supplier, to Municipalities for payment within 30 days of receipt.

04/27/17

SSD: 1/7/00, 3/22/00, 6/14/00, 2/8/01, 4/2/01, 1/25/02, 4/1/02, 04/15/03, 04/20/04, 05/06/05, 05/19/06, 09/17/07, 06/12/08, 03/04/09, 08/26/09, 06/28/10, 06/10/11, 04/12/12, 04/18/13, 01/02/14, 10/22/14, 01/16/15, 01/15/16, 09/12/16, 02/09/17

SPECIAL ATTENTION

QUALIFIED PRODUCTS LIST

The Qualified Products List is available online at www.nhdot.com on the *Doing Business with DOT>Contractors* webpage. A link to the Qualified Product List (QPL) is shown under the *Products and Materials* heading in the *Engineering/Technical Information* section of this webpage. The QPL is now considered a live document and periodic updates will occur. The QPL in effect on the date of project advertisement shall apply to this contract.

Products added to the QPL can be used under this contract upon issuance of the updated QPL. The Contractor shall not use the anticipated addition of a product to the QPL as a basis for use of a product. A product removed from an updated QPL can still be used under this contract unless specifically directed by the Department that the removed product shall not be used.

SPECIAL ATTENTION**STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,
STANDARD PLANS FOR ROAD CONSTRUCTION & BRIDGE DETAIL SHEETS**

This project will be constructed under the requirements of the 2016 Standard Specifications for Road and Bridge Construction, which has been adopted and will be utilized for projects advertising after March 1, 2016, and the 2010 Standard Plans for Road Construction, including revised Standard Plans.

For Bridge Standard Plans, Bridge Design will include the appropriate standard plans, now referred to as Detail Sheets, in the plan set that pertain to the specific project, as necessary.

The Standard Specifications for Road and Bridge Construction and the Standard Plans for Road Construction manuals are available for purchase from NHDOT Records Section (603-271-3514) or can be viewed on the NHDOT website: <http://www.nh.gov/dot/business/contractors.htm>. The Specification Book and the Standard Plans are located under the *Standards and Specifications* heading while the Bridge Detail Sheets are located under the *Plans and Details* heading.

SPECIAL ATTENTION

**THIS PROJECT IS TO BE BID AND CONSTRUCTED UNDER THE
2010 STANDARD PLANS FOR ROAD CONSTRUCTION**

NOTICE OF STANDARD PLANS

The following table is a list of all of the Standard Plans that have been adopted as additions or revisions to the *Standard Plans for Road Construction*, June 2010 Edition as of the date of this Proposal. The Bidder is responsible to examine each standard to determine its effect, if any, upon the Contract.

Note: All Standard Plans are available on-line:
www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/index.htm.

Note: See also Standard Plans for Road Construction List of Revisions on-line:
www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/documents/errata_2010_standards.pdf.

2010 Highway Standard Plans

Standard Plan	Description	Previous Revision Date	Current Revision Date
CR-1	Granite Curb Details		06/16/10
CR-2	Curb Details		06/16/10
DL-1	Roadside Delineation	06/16/10	03/05/15
DL-2	Interchange Delineation	06/16/10	03/05/15
DL-3	Milled Rumble Strips (Shoulders)	04/03/14	1/25/16
DL-4	Milled Rumble Strips (Shoulders)	04/03/14	1/25/16
DL-5	Milled Rumble Strips (Shoulders)	04/03/14	1/25/16
DL-6	Milled Rumble Strips (Centerline)	06/16/10	1/25/16
DL-7	Milled Rumble Strips (Centerline)	06/16/10	1/25/16
DL-8	Milled Rumble Strips (Centerline)	06/16/10	1/25/16
DP-1	Drainage Pipe Details		06/16/10
DR-1	Grate and Frame Details	06/16/10	8/14/15
DR-2	Grate and Frame, M.H.Cover and Pavement Depression Details	11/5/10	8/14/15
DR-3	Precast Concrete Median Barrier Drainage Details		06/16/10

DR-4	DI-DB, Underdrain Flushing Basin and Polyethylene Liner Details	06/16/10	8/14/15
DR-5	Precast Reinforced Concrete C.B., D.I. and M.H.		06/16/10
ES-1	End Sections for Corrugated Steel and Reinforced Concrete Pipes		06/16/10
EW-1	Earthwork - Muck Excavation		06/16/10
FN-1	Woven Wire Fence		06/16/10
FN-2	Chain Link Fence		06/16/10
GR-1	31" Mid-Splice Beam Guardrail Standard Section - Steel Posts and Hardware Details	06/16/10	8/19/15
GR-2	Beam Guardrail Standard Section - Steel Posts and Hardware Details	05/03/11	8/19/15
GR-2A	Beam Guardrail Standard Section - Wood Posts and Hardware Details	06/16/10	8/19/15
GR-3	Preferred Platform for Energy Absorbing Guardrail Terminal (EAGRT)		Superseded (08/19/15) - See Detail Sheets
GR-4	Alternative Platform for Energy Absorbing Guardrail Terminal (EAGRT)		Superseded (08/19/15) - See Detail Sheets
GR-5	Beam Guardrail Terminal Section Type E-2		06/16/10
GR-6	Beam Guardrail - Terminal Section Type E-2 Hardware Details		06/16/10
GR-7	Beam Guardrail - Terminal Section Type E-2 Modified 30		06/16/10
GR-8	Beam Guardrail - Terminal Section Type E-2 Modified 40		06/16/10
GR-9	Beam Guardrail - Terminal Section Type E-2 Modified 45		06/16/10
GR-10	Beam Guardrail - Terminal Unit Type G-2		06/16/10
GR-11	Beam Guardrail - Thrie Beam Double Faced (Wood Posts)	06/16/10	11/05/10
GR-12	Beam Guardrail - Thrie Beam Double Faced (Steel Posts)	11/05/10	05/03/11
GR-13	Beam Guardrail - Thrie Beam Single Faced (Wood Posts)	06/16/10	11/05/10
GR-14	Beam Guardrail - Thrie Beam Single Faced (Steel Posts)	11/5/10	05/03/11
GR-15	Precast Concrete Barrier 42" F-Shape (Double-Faced)	06/16/10	11/05/10
GR-16	Transition F-Shape Barrier	06/16/10	11/05/10
GR-17	Transition F-Shape Barrier and Guardrail (Wood Posts)	11/05/10	10/30/12
GR-18	Transition F-Shape Barrier and Guardrail (Steel Posts)	11/05/10	10/30/12
GR-19	Single Slope Barrier	11/05/10	04/03/14
GR-20	Transition Single Slope Concrete Barrier, Precast	10/30/12	04/03/14
GR-21	Transition Single Slope Concrete Barrier and Guardrail (Wood Posts)	11/05/10	10/30/12

GR-22	Transition Single Slope Concrete Barrier and Guardrail (Steel Posts)	11/05/10	10/30/12
GR-23	Portable Concrete Barrier 10 foot	06/16/10	10/03/13
HR-1	Handrail Details		06/16/10
HR-2	Concrete Bound and Steps		06/16/10
HW-1	Headwall Details		06/16/10
HW-2	Headwall Details (45° Wings)		06/16/10
HW-3	Headwall Details (2 Pipes 45° Wings)		06/16/10
MB-1	Mailbox Details	06/16/10	02/25/16
PL-1	Planting Details		06/16/10
PL-2	Planting Details		06/16/10
SL-1	Pull Boxes and Conduit Trench Detail		06/16/10
SL-2	Concrete Foundations and Light Pole Base, Type B		06/16/10

2010 Traffic Standard Plans

Standard No.	Description	Previous Revision Date	Current Revision Date
PM-1	Layout Details		02/26/10
PM-2	Tolerances for Pavement Marking Lines		02/26/10
PM-3	Divided Roadway Multiple Lanes with Entrance and Exit Ramps Striping Layout	02/26/10	11/05/10
PM-4	Divided Roadway Multiple Lanes with Entrance and Exit Ramps Striping Layout	02/26/10	11/05/10
PM-5	Divided Roadway Multiple Lanes with Entrance and Exit Ramps Striping Layout		02/26/10
PM-6	Painted Island Details		02/26/10
PM-7	Intersection Details	02/26/10	11/05/10
PM-8	Word and Symbol Lane Layout		02/26/10
PM-9	Pavement Marking at Minor Intersections		02/26/10
PM-10	Turning Lane Extension Details		02/26/10
PM-11	Accessible Parking Details		02/26/10
PM-12	Words and Symbols		02/26/10
PM-13	Words and Symbols		02/26/10
PM-14	Speed Zone Pavement Markings (Divided Highway)		02/26/10
PS-1	Aluminum Plank Details		02/26/10
PS-2	Aluminum Plank Details		02/26/10
PS-3	Aluminum Sheet Details		02/26/10

PS-4	Tubular/ U-Channel Post Detail		02/26/10
PS-5	Steel Beam Details (Non-Breakaway)		02/26/10
PS-6	Steel Beam Details (Non-Breakaway)		02/26/10
PS-7	Steel Beam Details (Breakaway)		02/26/10
PS-8	Steel Beam Details (Breakaway)		02/26/10
PS-9	Breakaway Mounts		02/26/10
PS-10	Breakaway Mounts		02/26/10
SG-1	Route Marker Details		02/26/10
SG-2	Regulatory Signs		02/26/10
SG-3	Regulatory Signs		02/26/10
SG-4	Regulatory Signs		02/26/10
SG-5	Regulatory Signs		02/26/10
SG-6	Regulatory Signs		02/26/10
SG-7	Warning Signs		02/26/10
SG-8	Warning Signs		02/26/10
SG-9	Warning Signs		02/26/10
SG-10	Warning Signs		02/26/10
SG-11	Warning Signs		02/26/10
SG-12	Miscellaneous Signs		02/26/10
SG-13	Informational Signs		02/26/10
SG-14	Informational Signs		02/26/10
TS-1	Traffic Signal Mast Arm Foundation - Type 1A	02/26/10	Superseded (03/30/16) See Detail Sheets
TS-2	Traffic Signal Mast Arm Foundation - Type 1B and 1C	02/26/10	Superseded (03/30/16) See Detail Sheets
TS-3	Traffic Signal Mast Arm Foundation - Type 2	02/26/10	Superseded (03/30/16) See Detail Sheets
TS-4	Quadrupole Loop Detector 2-4-2 Turns		02/26/10
TS-5	Rectangular Loop Detector 3 Turns		02/26/10

Work Zone Traffic Control Standard Plans

Standard No.	Description	Previous Revision Date	Current Revision Date
TC-1	Text Amendment Note Sheet	08/03/04	03/16/17
TC-2	Permanent Construction Signing	08/03/04	03/16/17
TC-3	Two-Way Traffic Lane Shift	08/03/04	03/16/17
TC-4	Bridge Rehabilitation: Stop/Yield Control	08/03/04	03/16/17
TC-5	Single Lane Shift (Divided Highway)	08/03/04	See Detail Sheets
TC-6	Lane Closure with Lane Shift for Speed Reduction (Divided Highway)	08/03/04	03/16/17
TC-7	Multi-Lane Closure (Divided Highway)	08/03/04	03/16/17
TC-8	Construction Signing for Cold-Planed Surfaces	08/03/04	03/16/17

06/09/17

SSD: 03/01/16, 06/10/16, 6/11/16, 06/27/16, 08/03/16, 10/31/16, 11/28/16

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SPECIAL ATTENTION**ERRATA SHEET**

The following table is a list of corrections to the 2016 *Standard Specifications for Road and Bridge Construction*, as of the date of this Proposal.

Section	Description	Correction	Date
<i>DIVISION 100</i>			
104.03	Maintenance of Traffic	Amend 'winter work suspensions' in 104.03 to read 'Winter Suspension'.	06/07/07
<i>DIVISION 200</i>			
<i>DIVISION 300</i>			
<i>DIVISION 400</i>			
<i>DIVISION 500</i>			
		Insert the following footnotes under Table 520-1A:	
		¹ See 3.1.6 TESTING	
		² For mixes containing fly-ash, silica fume, slag, or any other pozzolanic or cementitious material, the water/cement ratio of the concrete mix shall be based on the water cementitious (cement + pozzolanic or cementitious material) ratio of the mix. This water to cementitious ratio shall not exceed those listed in Table 1A. The maximum water/cement ratios listed for Concrete Class B and T are for design purposes only.	
		³ Deck Overlays.	
520	Classes of Concrete	⁴ <u>Maximum</u> 84 day Compressive Strength for Flowable Fill, Excavatable shall not exceed 200 psi.	06/11/16
		⁵ These are recommended values that may be used as a starting point for a mix design that has shown ability to meet the requirements. The amount of cement shall be adjusted and fly-ash or ground granulated blast furnace slag shall be used provided the mix design meets the minimum and does not exceed the maximum compressive strength in accordance with 2.11.1.	
		⁶ Target values shown are for mix design approval only and are not intended for use as quality control or quality assurance requirements.	

Section	Description	Correction	Date
520	Classes of Concrete – Performance Requirements (QC/QA)	Amend the title of <i>Table 420-1B - Class of Concrete – Performance Requirements (QC/QA)</i> to <i>Table 520-1B - Class of Concrete – Performance Requirements (QC/QA)</i>	11/28/16
528	Shear Key Grout for Butted Beams	Amend 528.2.9.1 to read: <i>Grout for shear keys shall be an approved grout as listed in Section 528A of the Qualified Products List.</i> Amend 528.2.9.2 to read: <i>For testing, 3 neat 2” cubes shall be molded and cured in accordance with AASHTO T 106 (ASTM C 109). The average compressive strength of the 3 cubes at 7 days shall be a minimum of 6000 psi.</i>	06/10/16
528	Installation of Deck Panels	Replace last sentence of 528.3.22.6.4 to read: <i>If leveling screws are used, they shall be completely removed and the holes filled with grout listed in Section 528A of the Qualified Products List prior to placement of deck concrete.</i>	06/10/16
550	PTFE Surfaces for Bearings	Amend the first sentence of 550.2.10 to read: <i>PTFE for use in expansion bearing assemblies shall be 100 percent virgin (unfilled) polytetrafluoroethylene polymer...</i>	08/03/16
550	Anchor Rods	Amend 550.3.15.4.1 to read: <i>Anchor rods shall be set in one of the following materials:</i> <i>(a) Non-shrinking, non-ferrous, cement-base grout listed in Section 550A of the Qualified Products List. This grout shall be used only when both the temperature of the masonry and the ambient temperature are kept at 40 °F or above until the grout has cured.</i> <i>(b) Sulfur.</i> Amend the first sentence of 550.3.15.4.2 to read: <i>Non-shrinking, non-ferrous, cement base grout shall be a product as included in Section 550A of the Qualified Products List.</i>	06/10/16
563	Bridge Rail	Amend 4.1 to read: <i>Bridge rail, of the type specified, will be measured by the linear foot to the nearest tenth of a foot.</i>	06/27/16
<i>DIVISION 600</i>			
606	Handrail	Amend 606.2.8.2 to read: <i>Grout for anchoring the pipe posts shall be High Strength, Impact Resistant, Non-shrink Grout as included in Section 528A of the Qualified Products List.</i>	06/10/16

Section	Description	Correction	Date
606	Temporary Impact Attenuators	Amend in 606.2.10.2 the reference to 2.12.4 to 2.10.4.	11/28/16
609	Curbing	Amend the 2 nd sentence of 609.2.5 to read: <i>The non-shrink, non-metallic grout shall be a product as included in Section 550A of the Qualified Products List..</i>	06/10/16
609	Curb anchors	Amend 609.3.1.5.1 to read: <i>Curb anchors shall be set and grouted using non-shrink, non-metallic grout as shown on the plans.</i>	06/10/16
621	Delineators	Add the following to the end of 621.3.1.3: <i>Grout shall be as listed in Section 550A of the Qualified Products List or as directed by the Engineer.</i>	06/10/16
<i>DIVISION 700</i>			
707	Cement Mortar	Amend 2.3 to read: <i>Testing for impurities shall comply with AASHTO T 21. Results that are darker than the standard shall be cause for rejection, except as provided in 2.3.1.</i> Amend 2.3.1 to read: <i>Sand for mortar not conforming to 2.3 shall be tested in accordance with AASHTO T 71 and shall meet the requirements of 5.2.3 of AASHTO M 45.</i>	10/31/16

06/09/17

SSD: 04/14/16, 05/11/16, 06/02/16, 09/15/16, 01/04/17, 02/01/17, 04/06/17

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SPECIAL ATTENTION**THIS PROJECT IS TO BE BID AND CONSTRUCTED UNDER THE
2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION****NOTICE OF SUPPLEMENTAL SPECIFICATIONS**

The following table is a list of all of the Supplemental Specifications that have been adopted as additions or revisions to the *Standard Specifications for Road and Bridge Construction*, **March 2016** Edition as of the date of this Proposal. The Bidder is responsible to examine each item to determine its effect, if any, upon the Contract.

Note: Due to the limited scope of some projects, not all Supplemental Specifications will be included in all Proposals. All Supplemental Specifications are available on-line: www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/.

Section	Description	Revision	Previous Revision Date	Current Revision Date
<i>DIVISION 100</i>				
101.79	Qualified Products List	Revises Frequency of Updates		06/06/17
106.04	Qualified Products List	Revises Frequency of Updates		06/06/17
109.04	Differing Site Conditions, Changes and Extra Work	Regional Adjustment Factor	09/01/10	01/06/12
<i>DIVISION 200</i>				
211.3.4	Vibration Monitoring	Adds reference to pre- and post-construction survey requirements		04/05/17
<i>DIVISION 300</i>				
<i>DIVISION 400</i>				
401	Plant Mix Pavements - General	2.5.1 - Adds winter binder to the design control points (04/05/17) 2.10 – No greater than 1% TRB (06/06/17) 3.10.10.1 – Removes penalty for failing tack (06/06/17) 3.12 – Allows a reduction in use of pneumatic-tired rollers (06/06/17) 3.17.3.1.1 – Revises HMA gradation specification limits, completes addition of winter binder, removes allowance for Aim change after two sub-lots (06/06/17) 4.1.1 – Removes reference to Night Items (06/06/17)	04/05/17	06/06/17

403.1.3	Night Item Removal	Removes all references to Night Items in Section 403		06/06/17
410	Bituminous Surface Treatment	2.1- Adopts new AASHTO Specifications for Emulsions (04/13/16) 3.4.1.1 – Revises pavement conditions, application rate for tack (01/04/17) 2.1.1, 2.1.2, 3.2, 3.3, 3.4 – Identifies tack sampling and penalties for non-conformance (06/06/17)	01/04/17	06/06/17
411.3.5.5	Pneumatic Tired Roller	3.5.5 – Requires the use of pneumatic tired rollers on all Section 411 paving (06/06/17).		06/06/17
<i>DIVISION 500</i>				
538	Barrier Membrane	3.3.5 – Updates the laydown temperature range.		09/15/16
563	Bridge Fence	2.8 – Allows aluminum ties for attaching bridge fence		09/15/16
<i>DIVISION 600</i>				
603	Plastic Pipe	2.3, 2.6 & 2.7 – Updated to include Polypropylene Pipe as well as associated UV Requirements (04/13/16) 2.13 – Adds Contractor’s Option (06/02/16)	04/13/16	06/02/16
605	Plastic Pipe	2.1 & 2.2 – Updated to include Polypropylene Pipe		04/13/16
645	Matting	1.1 – Matting Section Revised and Pay Items Revised (01/04/17) 1.1 – ‘Stabilization’ changed to ‘matting’ (02/01/17)	01/04/17	02/01/17
<i>DIVISION 700</i>				
702	Bituminous Materials	Amends Table 702-1 & 702-2 (04/13/16) Amends Tables, and Adds test method (05/11/16)	04/13/16	05/11/16

October 9, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 101 – DEFINITIONS AND TERMS**

This special provision adds the definition of Limited Reuse Soil and revises the definition of topsoil.

Insert 101.64“A” as follows:

101.64“A” Limited Reuse Soils (LRS). Material within the project that requires a Soils Management Plan* to address soil that is likely and/or demonstrated to contain concentrations of contaminants due to the presence and breakdown of asphalt pavement, the normal operation of motor vehicles, and other “non-point sources” of pollution. The definition of LRS includes:

- All topsoil within the project limits and within the existing right-of-way, regardless of depth.
 - In instances where topsoil is not present, LRS is defined as soil from the top of ground to a depth of six (6) inches.
- Asphalt pavement that has been ground or pulverized (including milled material and reclaimed stabilized base).
- Street waste (catch basin cleanouts, street sweeping, and ditching material).

* For projects where LRS is deemed *de minimis*, soil management will be addressed in the Prosecution of Work and not through a Soils Management Plan.

Revise 101.108 as follows:

101.108 Topsoil. The surface layer of soil consisting of mineral soil mixed with organic matter and vegetative debris that is suitable for plant growth and is typically darker in color than the underlying soil.

S U P P L E M E N T A L S P E C I F I C A T I O N

AMENDMENT TO SECTION 101 – DEFINITIONS

*The purpose of this Supplemental Specification
is to revise frequency of QPL updates.*

Amend 101.79 to read:

101.79 Qualified Products List (QPL). A list of products prequalified by the Engineer as meeting the Contract requirements for specified materials to be incorporated into the Work. The list is maintained and updated by the Bureau of Materials and Research.

SPECIAL PROVISION

AMENDMENT TO SECTION 104 -- SCOPE OF THE WORK

**AMENDMENT TO 104.04 – RIGHTS IN AND USE OF
MATERIALS FOUND ON THE PROJECT**

*This special provision requires Limited Reuse Soil from
within the project limits to be reused on site.*

Amend the first paragraph of 104.04 as follows:

Materials found in the limits of excavation that are suitable for completing bid items of work may be used by the Contractor. The Contractor will be paid both for the removal of the materials at the corresponding Contract unit price and for the pay item for which the removed materials are used. Material defined as LRS found in the limits of excavation must be reused on the Project unless otherwise stated in the Soils Management Plan or as authorized in writing by the Engineer.

Amend the third paragraph of 104.04 as follows:

Material shall not be excavated or removed from within the highway Right-of-Way that is not within the grading limits without written authorization from the Engineer. Material authorized to be removed outside the grading limits may be subject to compensation from the Contractor at an agreed price at the time of authorization. The Contractor must handle LRS in accordance with the Soils Management Plan and provide information in the Project Operations Plan regarding how LRS will be addressed outside the grading limits. Replacement material covered under 104.04 shall be compacted to the density requirements specified for roadway embankment construction.

10/31/16
SSD: 05/13/97, 12/09/98

ACWORTH
16301

September 6, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 105 -- CONTROL OF WORK

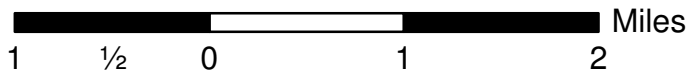
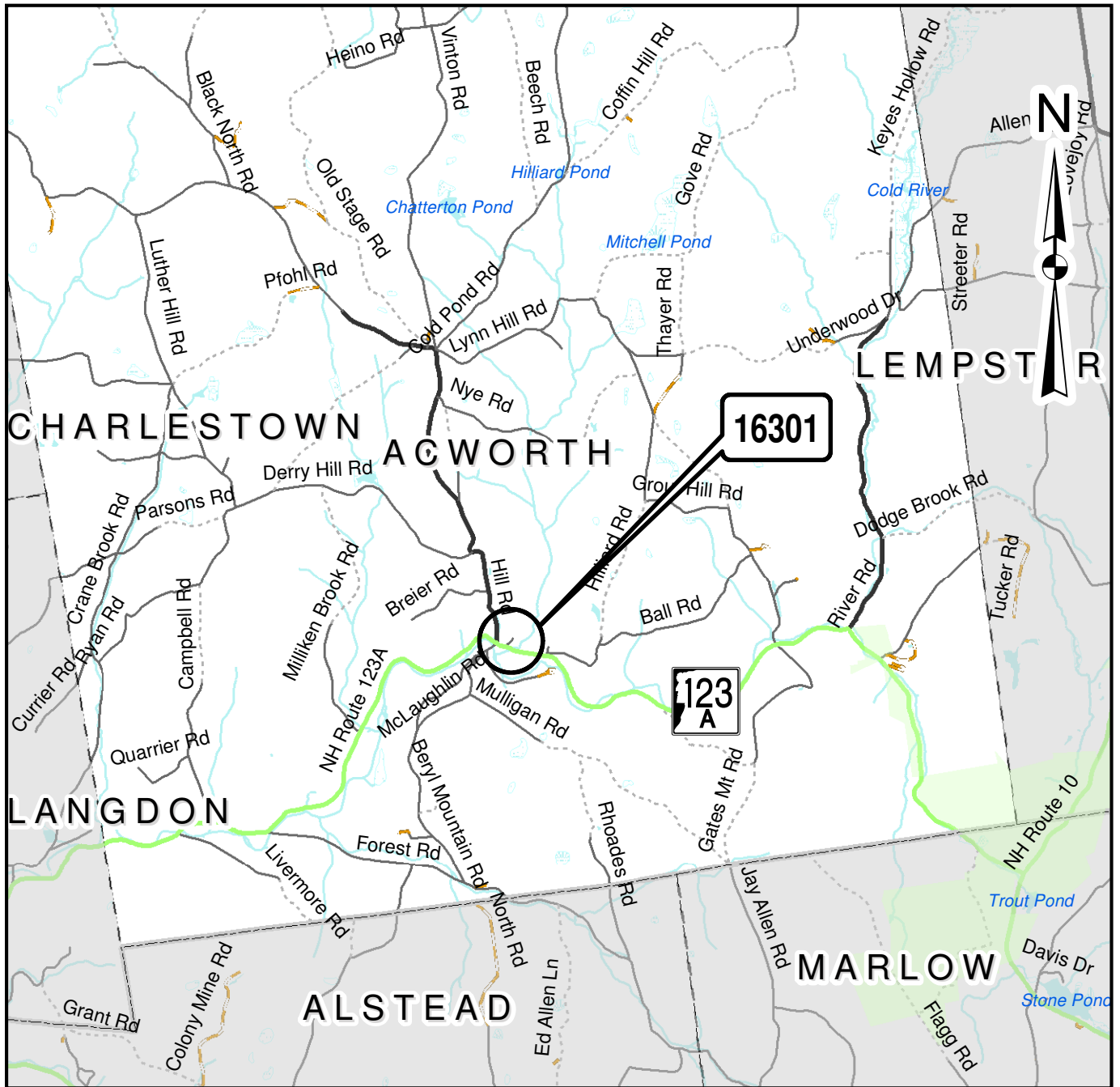
AMENDMENT TO SECTION 105.12 - CONSTRUCTION ZONE(S)

In accordance with Section 105.12 of the Standard Specifications, the construction work zone(s) designated for this contract shall extend 500 ft beyond the work limits as described below and/or as shown on the project layout map on the reverse of this page:

DESCRIPTION OF WORK LIMITS

Along NH 123A, the project begins approximately 250 feet west of the existing bridge over Bowers Brook in the Town of Acworth, and continues easterly across the bridge approximately 570 feet.

ACWORTH - NH 123A

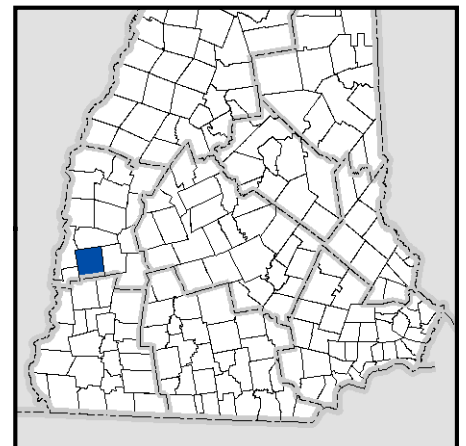


LEGEND

- Streams
- Water Bodies
- US Routes
- State Routes
- Interstates
- Local Roads
- Town Boundary



State #: 16301
Federal #: X-A001 (226)
LOCATION MAP



SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 106 – CONTROL OF MATERIAL**

*The purpose of this Supplemental Specification
is to revise frequency of QPL updates.*

Amend the last paragraph of 106.04 to read:

Products that have been prequalified by Materials and Research and are included on the Qualified Products List (QPL) may be used on projects without further testing, unless otherwise noted on the QPL, but a Certificate of Compliance for the qualified products will be required. The QPL is updated as warranted, and is available online at the Department's Website. A product that is not listed will not be used until qualified through a written request to Materials and Research. Such request should be made with sufficient lead-time to allow necessary testing or research.

October 9, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 106 -- CONTROL OF MATERIAL****AMENDMENT TO 106.10 – DISPOSAL OF SURPLUS AND WASTE MATERIALS**

This special provision includes Limited Reuse Soil in this section.

Amend 106.10 as follows:

When practicable and whenever directed, surplus and waste material, including LRS, shall be disposed of by flattening slopes or for other grading within the project. When specified as embankment-in-place surplus or stockpile surplus, the material shall be placed as shown on the Plans or as directed in the Proposal in accordance with the appropriate specification. In case it is impossible to dispose of all the surplus and waste material in the manner described above, adhere to the following:

- Non-LRS: It shall be the Contractor's responsibility to secure disposal areas for non-LRS surplus and waste materials. Disposal Agreements, as provided by the Department, for such areas must be submitted to the Engineer for approval. The [Disposal Agreement](#) form may be obtained on line at the [Department's Website](#) or from the Engineer.
- LRS: The LRS surplus and waste materials shall be managed as described in the Soils Management Plan.

October 9, 2017

SPECIAL PROVISION

SECTION 107 -- LEGAL RELATIONS AND RESPONSIBILITIES TO PUBLIC

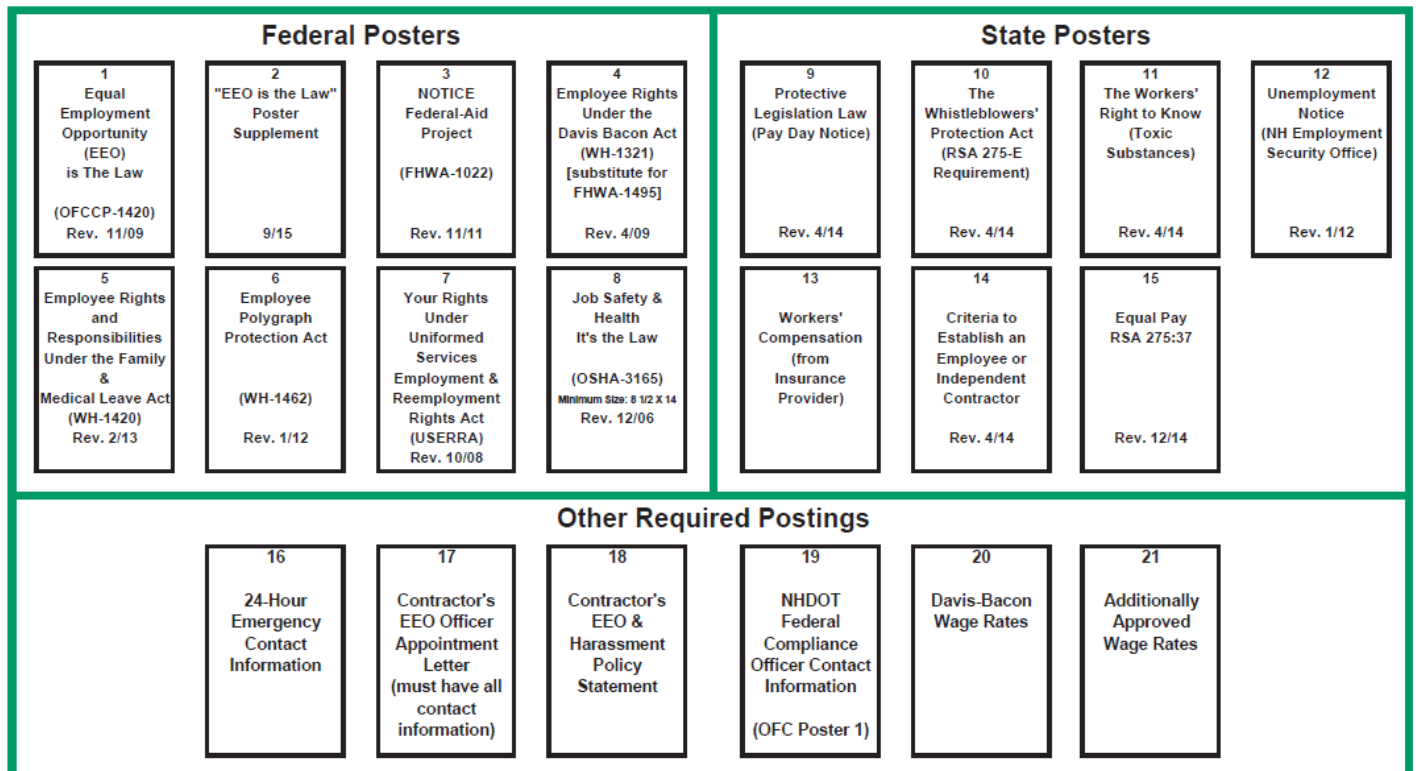
SUBSECTION 107.01 – LAWS TO BE OBSERVED

The intent of this Special Provision is to clarify Bulletin Board requirements.

Add to 107.01’s third paragraph titled *Bulletin Board Requirements* the following:

New Hampshire Department of Transportation Bulletin Board Diagram
(Revision 1-15-16)

NHDOT PROJECT: (NAME) (NUMBER)



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October 9, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 107 -- LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC****AMENDMENT TO SECTION 107.11 -- RESPONSIBILITY FOR DAMAGE CLAIMS**

This specification provides for professional liability insurance required to cover parties responsible for the design of structural elements required under this contract. **Professional Liability Insurance will be required from either the Contractor, Designer or Subcontractor who will be providing the design of the structural elements.** This coverage shall be in-place prior to contract award.

Add to 107.11.B.9:

(a) Professional Liability (errors and omissions) Insurance coverage of not less than \$2,000,000 in the aggregate or \$1,000,000 per claim, and coverage, if claims made, shall extend for a period of a least three years after substantial completion of the construction contract.

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06/20/11

Supersedes Spec. Prov. dated 10/11/83, 1/11/91, 11/20/97 & 09/01/10

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ACWORTH
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October 9, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 108 -- PROSECUTION AND PROGRESS****AMENDING SUBSECTION 108.07 - DETERMINATION CONTRACT TIME
EXTENSION FOR EXCUSABLE, NONEXCUSABLE, NONCOMPENSABLE AND
COMPENSABLE DELAYS****** See Prosecution of Work for applicable completion date(s). ******Amend** the fourth paragraph to read:

The Contractor's plea that insufficient time was specified is not a valid reason for an extension of time. When the contract sets forth a calendar completion date, due consideration will have been given to the Saturdays, Sundays, legal holidays, and the period between December 1 and April 1 inclusive in the anticipated period of construction. **No extension of the contract completion date will be allowed due to such days.** When the contract stipulates a completion date that falls on a Saturday, Sunday, or legal holiday, or when the time as extended by the Engineer falls on a date that is a Saturday, Sunday, or legal holiday, the contract time will be extended to the next working day. **No consideration will be given for unfavorable weather or ground conditions.**

Delete 108.07.B.2.

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16301

September 19, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 108 -- PROSECUTION AND PROGRESS

AMENDING SUBSECTION 108.08 – INCENTIVE / DISINCENTIVE FOR EARLY COMPLETION

Amend 108.08 to read:

108.08 Incentive / Disincentive for Early Completion

For each calendar day the Project, or portion of the Project is completed as specified in the Special Provision before or after the date established in the Contract, payment will be increased or decreased by the amount established below.

The Engineer will determine when the work stage or Project, or portion of the Project, is complete as specified.

108.09 relating to liquidated damages remains in effect and is applicable to the total Contract Time; however, there will not be concurrent assessment of liquidated damages with disincentive assessments. If there are concurrent assessments against the Contractor the larger sum will prevail.

The Contractor shall be paid the amount of incentive, as it is earned, in the progress payment schedule. The Engineer shall deduct the amount of disincentive, as it occurs, in the progress payment schedule.

Should the amount of disincentive and/or liquidated damages, exceed the amount of the final estimate for work performed, and not paid for, the Contractor shall submit a check to the Department in the amount of the difference within 30 days of notice that payment is due.

No time extension will be granted for labor disputes or delays in material deliveries unless it can be shown that such delays are industry wide.

Incentives will be awarded to the Contractor for each full calendar day that the new bridge is opened to two-lane, two-way traffic on minimum 11-foot lanes prior to the intermediate completion date. The intermediate completion date can be found in the Prosecution of Work.

Disincentives will be assessed to the Contractor for each full calendar day after the intermediate completion date that the bridge remains closed to traffic.

The “open-to-traffic” date is the first full calendar day (24-hour period) that traffic is allowed over the new bridge in a two-lane, two-way traffic pattern on minimum 11-foot lanes. The amount of incentive and disincentive will be as follows:

<u>Incentive</u>	<u>Disincentive</u>
\$2,000 per day	\$2,000 per day

A full calendar day will be assessed at 7:01 am on the day of the intermediate completion date. If the bridge is not open-to-traffic at 7:02 am on the day of the intermediate completion date, a one-day disincentive of will be assessed. If the bridge is open-to-traffic at 7:00 am the day before the intermediate completion date, a one-day incentive of will be awarded. Incentive will be paid under Item 1010.5 – Completion Incentive / Disincentive. The maximum amount payable for Item 1010.5 for this project is \$20,000.

The disincentive listed above will supersede liquidated damages for the intermediate completion date.

There is no upper limit to the dollar amount of the disincentive clause.

01/06/12

SSD: 12/07/04, 03/02/06, 08/08/07, 02/12/2008, 03/12/10, 09/01/10

109

SS

Page 1 of 1

S U P P L E M E N T A L S P E C I F I C A T I O N

AMENDMENT TO SECTION 109 -- MEASUREMENT AND PAYMENT

**AMENDMENT TO SUBSECTION 109.04 - DIFFERING SITE CONDITIONS,
CHANGES AND EXTRA WORK.**

Add the following after the first sentence of 109.04.4.4(d):

The average regional adjustment factor is **0.95**.

02/01/11

SSD: 06/27/08, 06/11/09, 03/29/10, 01/18/11

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ACWORTH
16301

October 9, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 201 -- CLEARING AND GRUBBING****Item 201.881 – Invasive Species Control Type I****Item 201.882 – Invasive Species Control Type II****Add** to Description:

1.5 Invasive species control shall consist of furnishing all labor (including, but not limited to, handling, cutting, stockpiling and spraying), materials, services, equipment and supplies required for removal and proper disposal of the vegetation listed in the Prosecution of Work. The intent of this item is to compensate the Contractor for all additional costs incurred due to the handling of invasive species during construction excavations. This item will be paid in addition to the appropriate pay items for the class excavation and/or embankment work being performed. Work shall be done in accordance with the *NHDOT's Best Management Practices for Roadside Invasive Plants* handbook and the specific Invasive Species Control and Management Plan developed for this project. This work shall be coordinated with the NHDOT Bureau of Environment.

1.5.1 Invasive species control type shall be as specified in the item description. The plant species of concern within the project limits will be specified in the Prosecution of Work.

Add: Materials section:

2.1 Backfill to replace contaminated soil that is excavated shall conform to the material requirements of the appropriate section of the Standard Specifications for the material to be placed at that location.

Add to Construction Requirements:**3.4 Invasive Species Control****3.4.1 Type I / Type II**

3.4.1.1 Invasive species control for Types I and II shall consist of:

- Cleaning equipment upon leaving the area of the infestation.

3.4.2 Type I

3.4.2.1 Invasive species control Type I methods shall consist of:

- July 1st through February 1st, when mature fruit are most likely present, chip plants and dispose of in a manner that precludes the spreading of mature seeds and/or fruit. Outside of this time period, usual clearing and grubbing methods shall be used.

3.4.3 Type II

3.4.3.1 Invasive species control Type II methods shall consist of one or more of the following treatment measures:

- Bagging cut plant material for later disposal.
- Removing cut plant material from the site to bury, burn, or stockpile on an impervious surface.
- Removing excavated material from an infested site to bury, or stockpile on an impervious surface.
- Applying herbicides to invasive plants.

3.4.3.2 Herbicides shall be registered with and approved for use by the New Hampshire Department of Agriculture, Division of Pesticide Control and applied by a licensed applicator.

3.4.3.2.1 If herbicide use is proposed, the Contractor, or his licensed herbicide applicator, shall submit a site-specific plan and application to the NH Department of Agriculture, Division of Pesticide Control (contact the Division at 603-271-3550 for information on their permitting process). Issuance of an herbicide application permit(s) may take up to three months for approval.

3.4.3.3 Burning invasive species shall be done in accordance with State and local regulations and Env A-1000 - Prevention, Abatement, and Control of Open Source Air Pollution issued by the New Hampshire Air Resources Division of Environmental Services, a copy of which is included in this Proposal.

3.4.3.3 Excavation, when required, shall be in accordance with the appropriate sections of the Standard Specifications.

3.4.3.4 Backfill in all excavated areas shall be placed and compacted in accordance with the plans and the appropriate sections of the Standard Specifications.

3.4.3.5 When required, disposal of invasive species materials and their contaminated soils by burying shall be in accordance with the appropriate sections of the Standard Specifications for Embankment-in-Place.

3.4.3.6 Monitor the project site for re-growth of invasive species in treated areas. If re-growth occurs secondary treatment shall be preformed. The Engineer may also order areas to receive secondary treatment.

Add to Method of Measurement:

4.6 Invasive species control of the type specified will be measured by the square yard (square meter) to nearest square yard (square meter) from measurements taken on the ground surface covered.

Add to Basis of Payment:

5.7 The accepted quantities of invasive species control of the type specified will be paid for at the contract unit price per square yard (square meter) complete in place.

5.8 Invasive Species Control and Management Plan, including monitoring invasive species re-growth, will be paid under Item 697.11.

5.9 Excavation of invasive species material will be paid under the appropriate contract items for the class of excavation being performed.

5.10 Materials required to replace material for excavated areas will be paid for as Item 203.6 – Embankment-In-Place or other appropriate items in the contract.

5.11 Disposal of invasive species material and their associated soils by burying within the road section will be paid under Item 203.6 – Embankment-In-Place.

5.12 Disposal of invasive species material outside of the road section but within the job limits, when allowed, will be paid as Item 203.1 – Common Excavation or Item 203.6 – Embankment-In-Place. Disposal of any surplus material from this excavation will be subsidiary to the work.

5.12.1 If disposal off-site is approved disposal fees will be paid as provided for in 104.02 and 109.04.

5.13 If standard clearing and grubbing methods are used per 3.4.2.1, no additional payment will be made under Item 201.88X.

Add to Pay Items and Units:

201.881	Invasive Species Control Type I	Square Yard (Square Meter)
201.882	Invasive Species Control Type II	Square Yard (Square Meter)

October 9, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 203 -- EXCAVATION AND EMBANKMENT****Item 203.11 – Common Excavation - LRS**

This special provision addresses Limited Reuse Soil (LRS), including adding an item for excavating, handling, transporting, and stockpiling of LRS. All the requirements as set forth in the Standard Specifications are applicable except as modified or changed herein.

Add to 1.1:

1.1.1 This work shall consist of excavating, handling, transporting, and stockpiling of Limited Reuse Soil (LRS) in conformance with the Soils Management Plan.

Add to 2.1:

2.1.1 Common Excavation – LRS shall consist of all excavation of LRS as defined in 101.64 “A”.

Amend 3.1.2 as follows:

3.1.2 LRS. Topsoil and humus material shall be removed in excavation areas and also in fill areas to such depths as the Engineer may direct. Such material shall be reserved and shall be stockpiled in accessible piles that can be measured readily and accurately by the Engineer. Unless otherwise permitted, each stockpile shall contain a minimum of 200 cy, and have a height of at least 4 ft. Material defined as LRS must be reused on the Project unless otherwise stated in the Soils Management Plan or authorized in writing by the Engineer.

3.1.2.1 In areas where no measureable topsoil exists, the material from the top of ground to a depth of six inches is considered LRS. This material shall be stockpiled for reuse as described in 3.1.2.

Add to 3.7.1:

3.7.1.1 When placing LRS as embankment, refer to the Soils Management Plan for restrictions.

Amend 3.9 as follows:

3.9 Disposal of Surplus and Waste Material.

3.9.1 Definitions.

- (a) Surplus material. Excess material from excavation beyond the minimum requirements of the project but otherwise suitable for use.
- (b) Waste material. Material unsuitable for use in the work except in noncritical areas.
- (c) LRS. See 101.64“A”.

3.9.2 Blank.

3.9.3 When practicable and wherever directed, surplus and waste material shall be used for flattening slopes or for other grading within the project. If LRS materials are being used, refer to the Soils Management Plan for restrictions.

3.9.4 When specified as embankment-in-place surplus or stockpile surplus, the material shall be placed as shown on the plans or as directed in the Proposal in accordance with the appropriate specification.

3.9.5 In case it is impossible to dispose of all the surplus and waste material in the manner described above, the following shall apply:

- (a) Non-LRS: It shall be the Contractor’s responsibility to secure disposal areas for approval for non-LRS surplus and waste materials as part of the excavation items if such areas are not shown on the Plans.
- (b) LRS: The Contractor shall manage the LRS material in accordance with the Soils Management Plan.

3.9.6 If disposal of surplus and waste material is by burying, the cover material shall be graded and shaped as directed by the Engineer. If material is to be placed on private land, the agreements as to how the disposal area is to be left shall be set forth on the Disposal Agreement form provided by the Department in accordance with 106.10. Three signed copies of the Disposal Agreement shall be furnished to the Engineer. Approval of the proposed disposal area will be contingent upon agreement by the Contractor and the property owner to leave the area in such shape that it blends with the surrounding terrain and that erosion is kept to a minimum. Without special permission, slopes shall not be left steeper than 2:1 (horizontal to vertical). No disposal area shall be left in such condition that erosion might result in water pollution by silt or other deleterious substances. Areas shall be left in such shape and condition that material does not wash and block or obstruct drainage ways. If holes caused by settlement appear, they shall be filled as directed. A release from the property owner is required prior to Project Acceptance. LRS material shall only be placed on property under the control of the Department or as specified in the Soils Management Plan.

05/09/17

Page 3 of 4

3.9.7 Unless otherwise ordered, disposal areas shall be covered with material capable of supporting vegetation and either fertilized and seeded with grass seed or planted with seedlings. Seedlings shall be set out in accordance with accepted horticultural practices as directed in the agreement.

3.9.8 Unless permission is given to preserve access roads to disposal areas adjacent to highways, such access roads shall be obliterated.

3.9.9 When the Contract requires the removal of intact existing pavement but does not require recycling, the Contractor is encouraged to save this bituminous material for future reuse. This material is considered to be a valuable resource because of the residual asphalt contained in it. Therefore, no existing bituminous pavement removed shall be incorporated in the embankment. If the Contractor elects to dispose of bituminous material it shall be disposed of in accordance with the Department of Environmental Services Waste Management Division regulations at no expense to the State.

3.9.9.1 Milled or reclaimed pavement shall be disposed of or recycled in accordance with the project's Soils Management Plan.

Amend 3.11.2 as follows:

3.11.2 Sources. Unless otherwise designated in the Contract, the Contractor shall make arrangements for obtaining material for embankment-in-place in accordance with 106.02. Permission to remove material beyond the template lines within the right-of-way and adjacent thereto shall be obtained in writing before any material is removed and will be contingent on many factors and if permission is granted, it will be by the Engineer after review by all interested parties. The Contractor shall provide information in the Project Operations Plan (POP) regarding how LRS will be managed outside the template in accordance with 104.04. Permission may be contingent, among other considerations, upon agreement by the Contractor to leave regular and uniform slopes in the area. Slopes excavated beyond the template lines without authorization shall be refilled when ordered, at no expense to the State. When permission to remove material beyond template lines within the right-of-way is granted, the cubic yard price will be contingent upon material type and agreed upon prior to authorization.

Amend 4.2.1 as follows:

4.2.1 If the actual topsoil (LRS) removal, the actual unsuitable material excavation, or the actual muck excavation beneath embankment areas differs from the estimated quantity shown on the Plans and backfill, an adjustment will be made to the final pay quantity of embankment-in-place equal to the actual increase or decrease from the estimated quantity for the material excavated.

Amend 5.1.4 as follows:

5.1.4 LRS removal will be paid for as Common Excavation-LRS. Payment of Common Excavation-LRS excavation will be full payment for excavating, handling, transporting, and stockpiling LRS at approved locations.

05/09/17

5.1.4.1 When topsoil is overlying muck, excavation will be included in and paid for as muck excavation. Payment of muck excavation will be full payment for excavating, transporting, and stockpiling muck at approved locations.

Add to Pay items and units:

203.11 Common Excavation – LRS

Cubic Yard

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 211 – VIBRATION MONITORING**

The purpose of this Supplemental Specification is to add the reference to the requirements for pre-construction and post-construction surveys.

Replace 3.4 to read:

3.4 Pre-construction and post-construction condition surveys. The Contractor shall conduct a pre-construction condition survey on all structures, including swimming pools and mobile homes, within 150 feet of the anticipated sources of construction related vibrations. A pre-construction survey shall also be conducted on structures that may be affected by construction related vibrations beyond the 150 foot distance as directed by the Engineer or as contained in the approved Vibration Monitoring Plan. The pre-construction surveys shall not be initiated until the Vibration Monitoring Plan has been approved. Upon completion of all construction operations that are a source of construction related vibrations, the Contractor shall conduct a post-construction condition survey of all structures for which a complaint of damage has been received or a damage claim has been filed. Notification of the post-construction survey shall be given to all interested parties, so they may be present during the survey. A copy of all pre-construction condition surveys shall be provided to the Engineer prior to the start of work. A copy of all post-construction condition surveys conducted shall be provided to the Engineer upon completion of the survey. Perform the surveys in accordance with of 203.3.3.3.2 and 203.3.3.3.3.

ACWORTH
16301

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 304 -- AGGREGATE BASE COURSE**

This special provision provides for static compaction procedures to be used in areas adjacent to sensitive structures and neither amends nor modifies the provisions of this section except as noted below.

Add to Construction Requirements:

3.6.5.1 Static compaction procedures shall be used for subgrade preparation and base course material placement from station 200+20 to 202+43 and station 203+19 to 205+90. Compaction equipment, lift thickness, material gradation, water content, and compaction procedures shall be selected by the Contractor so that density requirements of 3.7 are met.

SPECIAL PROVISION

AMENDMENT TO SECTION 304 – AGGREGATE BASE COURSE

Item 304.75_ – Stone Dust Wearing Surface for Trails

Add to Materials:

2.12 Stone Dust Wearing Surface for Trails.

2.12.1 Stonedust shall be a clean, granular, well-graded and free from clay, sand or organic material.

2.12.2 Aggregate shall consists of hard, durable particles or fragments of crushed stone or gravel conforming to the following requirements and gradations (Crushed Aggregate Surface Course Material (3/8” minus)):

- Los Angles abrasion, ASTM C 131 and C 535.....50% max.*
- Fractured faces (one face).....95% min.*
- Fractured faces (two faces).....75% min.*
- Soundness loss, 5 cycles, ASTM C 88 (magnesium).....18% max.*
- Flat/Elongated (length to width >5 ASTM D4791.....15% max.*

*Based on portion retained on the 3/8” sieve

2.12.3 Materials shall be free from organic material and lumps or balls of clay.

2.12.4 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.

2.12.5 Aggregate shall contain a minimum of 5% clay particles by no more than 50% of that portion of material passing the No. 200 sieve size shall be clay. Inorganic clay to be used as binder shall conform to the following:

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

2.12.6 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 midsectional 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.

2.12.7 Gradation shall be obtained by crushing, screening, and blending processes as may be necessary. Material shall meet following screen analysis requirements by weight.

Sieve Designation	Percent Passing
3/8"	90-100%
No. 4	60-81%
No. 8	44-60%
No. 40	20-33%
No. 200	10-16%

Add to 3.5 - Testing for Gradation:

3.5.6 Stone Dust for Wearing Surface for Trails.

3.5.6.1 Within 10 days of award, Contractor shall submit test results from a certified testing laboratory and a Certificate of Compliance.

3.5.6.2 Material tested will be from predetermined stock pile of material

3.5.6.3 In addition to initial testing, Contractor shall perform additional gradation tests and furnish results as materials are processed and/or delivered. Frequency of additional testing shall be 1 test per 500 cubic yards. If source of materials should change after completion of original test, a complete set of tests, as required above, shall be performed again.

3.5.6.4 The Engineer reserves the right to conduct quality control inspection and testing 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 Department.

4/23/09

SSD: 10/21/97, 2/9/98; Reviewed 6/10

**ACWORTH
16301**

October 9, 2017

**SPECIAL PROVISION
AMENDMENT TO SECTION 401 -- PLANT MIX PAVEMENTS - GENERAL**

Amend the second sentence of 2.2.1 to read:

On this project the grade of bituminous material to be used shall be PG 58-28.

04/09/09

SSD: 1/11/1999

ACWORTH
16301

August 29, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 401 -- PLANT MIX PAVEMENTS - GENERAL

Items 403.XX - Hot Bituminous Pavement, XXXXX

Add to 2.5.1:

2.5.1.1 The total 20-year ESAL for the SUPERPAVE Mix Design on this project has been assumed to be less than 5,000,000.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 401 – PLANT MIX PAVEMENTS - GENERAL

The purpose of this Supplemental Specification is to:

- Add “winter binder” to the design control points (2.5.1, 04/05/17)
- Revise material requirements of allowed recycled materials to no greater than 1% TRB (2.10, 06/06/17)
 - Remove the penalty for failing tack from Section 401 (3.10.10.1, 06/06/17)
 - Allow a reduction in the use of pneumatic-tired rollers (3.12, 06/06/17)
- Revise HMA gradation specification limits, complete the addition of “winter binder”, and Remove the allowance for Aim change after two sub-lots (3.17.3.1.1, 06/06/17)
 - Remove all references to Night Items (4.1.1, 06/06/17)

Amend the Minimum Binder Content table under Section 2.5.1 as follows:

Minimum Binder Content		
50 Gyration		75 Gyration
	3/8”	6.0%
5.8%	1/2”	5.5%
5.5%	Winter Binder 3/4”	5.2%
4.9%	3/4”	4.6%
4.6%	1”	4.3%

Amend Table 401-1 – Design Control Points under Section 2.5.1 as follows:

Table 401-1 –Design Control Points*

Standard	Nominal Maximum Aggregate Size											
	1”		3/4”		3/4” Winter Binder		1/2”		3/8”		No. 4	
Sieves	Max.	Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.
Inch	Percentage by Weight Passing Criteria (Control Points)											
2												
1-1/2		100.0										
1	100.0	90.0		100.0	100.0	100.0						
3/4	90.0		100.0	90.0	100.0	90.0	100.0					
1/2			90.0		90.0		100.0	90.0		100.0		
3/8							90.0		100.0	90.0	100.0	99.0
No. 4									90.0		97.0	90.0
No. 8	45.0	19.0	42.0	32.0	48.0	38.0	52.0	42.0	56.0	46.0	75.0	65.0
No. 16											55.0	45.0
No. 30											36.0	26.0
No. 50											30.0	20.0
No. 100											13.0	8.0
No. 200	7.0	1.0	8.0	2.0	8.0	2.0	10.0	2.0	10.0	2.0	8.0	4.0

Amend Section 2.10.1 to read:

2.10.1 Reclaimed asphalt pavement (RAP) may be used in the production of hot mix asphalt. The allowed dust to asphalt ratio shall be as identified in AASHTO M 323. The maximum allowable total reused “asphalt” binder (TRB) in HMA mixes shall be 1.0%. Any changes in the combination of recycled materials shall require a new mix design unless otherwise approved by the Bureau of Materials & Research.

Delete Section 2.10.3.

Delete Section 3.10.10.1.

Amend 3.12.2.1 to read:

3.12.2.1 Immediately after the hot asphalt mix has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling. The initial rolling shall be done with a static or vibratory steel-drum roller. Intermediate rolling shall be done by a pneumatic-tired roller and/or a vibratory/oscillatory roller. Pneumatic-tired rollers shall be used on all pavement leveling courses. Final rolling shall be done with a static steel-drum roller or a roller of the steel-drum three-axle type, locked. The completed course shall be free from ridges, ruts, humps, depressions, objectionable marks, visible segregation, or irregularities and in conformance with the line, grade, and cross-section shown in the Plans or as established by the Engineer. Rollers must be in good mechanical condition, free from excessive backlash, faulty steering mechanism, or worn parts. The empty weight and the ballasted weight shall be properly marked on each roller. The minimum weight of static steel-drum rollers shall be 8 tons. When a vibratory roller is being used, the vibration shall stop automatically when the roller is stopped or reversing direction of travel. A minimum of three rollers shall be used.

Amend 3.12.2.8 to read:

3.12.2.8 Unless the Engineer determines that for the weight and placement conditions a lesser number will be satisfactory to obtain the desired pavement densities, the following is the list of required compaction equipment. The output of each paver placing wearing course (Table 1) materials shall be compacted by the use of one each of the following complement of rollers as a minimum: a static or vibratory steel-wheel roller, a pneumatic-tired or vibratory/oscillatory roller and a three-axle roller or a static steel-wheeled roller. If the required density is not being obtained with the rollers supplied, the use of additional rollers of the specified type may be ordered. Paving widths in excess of 16 ft (5 m) will require additional rollers as ordered.

Amend 3.12.3.3 to read:

3.12.3.3 The type of rollers to be used and their relative position in the compaction sequence shall be the Contractor's option, provided specification densities are attained and with the following stipulations:

- a) Pneumatic-tired rollers shall be used on all pavement leveling courses.
- b) Vibratory rollers shall not be operated in the vibratory mode under the following conditions: When checking or cracking of the mat occurs, when fracturing of aggregate occurs, and on bridge decks.
- c) A minimum of three rollers shall be used.

Amend 3.17.3.1.1 to read:

3.17.3.1.1 Testing. Target values shall be as specified in the job mix formula. All sieve sizes specified in the job mix formula will be evaluated for gradation. The specification limits in Table 401-5 will be used for calculating pay factors for gradation and asphalt binder content.

**Table 401-5 - Gradation and Asphalt Binder Specification Limits
Maximum Aggregate Size**

Property	1"	3/4"	3/4" Winter	1/2"	3/8"
	USL and LSL (Target +/- %)				
1 1/2"	0	0	0	0	0
1-1/4"	0	0	0	0	0
1"	8.0	0	0	0	0
3/4"	8.0	6.0	6.0	0	0
1/2"	7.0	6.0	6.0	5.0	0
3/8"	7.0	6.0	6.0	5.0	5.0
No. 4	4.5	4.5	4.5	4.0	4.5
No. 8	4.5	4.5	4.5	3.5	3.5
No. 16	2.5	2.5	2.5	2.5	2.5
No. 30	2.5	2.5	2.5	2.5	2.5
No. 50	2.5	2.5	2.5	2.5	2.5
No. 100	2.5	2.5	2.5	2.5	2.5
No. 200	1.0	1.0	1.0	1.0	1.0
Asphalt Binder	0.4	0.4	0.4	0.4	0.4

Any subplot with a gradation or asphalt binder content falling outside the ranges of the reject limits in Table 401-6 will be either removed and replaced at the expense of the Contractor or require corrective action to the satisfaction of the Engineer. After replacement or correction, new samples will be taken and the old test results from that subplot will be discarded.

Table 401-6 - Gradation and Asphalt Binder Content Reject Limits (Deviation from Target)

SIEVE SIZE	1"	3/4"	3/4" Winter	1/2"	3/8"
	Percent Passing By Weight – Combined Aggregate				
1-1/4"					
1"					
3/4"	±12	(1)	(1)		
1/2"	(1)	±10	±10	(1)	
3/8"	(1)	(1)	(1)	±10	(1)
No. 4	±9	±9	±9	±9	±9
No. 8	±7	±7	±7	±7	±7
No. 16	±6	±6	±6	±6	±6
No. 30	(1)	(1)	(1)	(1)	(1)
No. 50	(1)	(1)	(1)	(1)	(1)
No. 100	(1)	(1)	(1)	(1)	(1)
No. 200	±3	±3	±3	±3	±3
Asphalt Binder: % of Mix	±1.0	±1.0	±1.0	±0.8	±0.8

(1) Reject limits will be waived for these sieves.

Amend Section 4.1.1 to read:

4.1.1 No separate measurement will be made for lighting necessary or overtime required due to night operations at the plant or at the site.

Amend Section 5.4 to read:

5.4 Plant or project site lighting for hot bituminous pavement, machine or hand method, or overtime required due to night operations will be subsidiary to the paving items.

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 403 – HOT BITUMINOUS PAVEMENT**

The purpose of this Special Provision is to remove all references to Night Items in Section 403.

Delete Section 1.3.

Amend Section 4.1.1 to read:

4.1.1 Hot Bituminous pavement transferred by the Material Transfer Vehicle (MTV) will be measured as prescribed in 401.4.

Amend Section 5.1.1 to read:

5.1.1 Blank.

Replace Pay Items and Units with the following:

Pay items and units:

403.11	Hot Bituminous Pavement, Machine Method	Ton
403.119	Hot Bituminous Pavement, Machine Method, High Strength	Ton
403.12	Hot Bituminous Pavement, Hand Method	Ton
403.4	Material Transfer Vehicle (MTV)	Ton
403.6	Pavement Joint Adhesive	Linear Foot
403.61	Pavement Joint Adhesive (Bridge Base)	Linear Foot
403.65	Echelon Paving	Linear Foot
403.911	Hot Bituminous Bridge Pavement, 1” Base Course	Ton
403.98	Hot Bituminous Concrete Leveling, Machine Method	Ton
403.99	Temporary Bituminous Pavement	Ton
403.XXXX1	Hot Bituminous Pavement, _____ (QC/QA Tier 1)	Ton
403.XXXX2	Hot Bituminous Pavement, _____ (QC/QA Tier 2)	Ton
1010.3	Quality Control/Quality Assurance (QC/QA) for Asphalt	Dollar

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 410 – BITUMINOUS SURFACE TREATMENT

The purpose of this Supplemental Specification is to:

- *Adopt new AASHTO specifications for emulsions (2.1 – 04/13/16)*
- *Revise the pavement conditions and application rates for tack (3.4.1.1 – 01/04/17)*
- *Identify tack sampling and penalties for non-conformance (2.1.1, 2.1.2, 3.2, 3.3, 3.4, 06/06/17)*

Amend 2.1 to read:

2.1 Bituminous material shall be the type and grade specified or ordered and shall conform to the requirements of AASHTO M 140 or M 208, except as amended in Section 702.

2.1.1 Tack shall be sampled as directed by the Engineer using sample containers provided by the Engineer. Samples shall be taken by the operator in the presence of the Engineer. At least 1 qt. of material shall be drained off through the sampling valve and discarded before the sample is taken. Containers shall be sealed with a tight fitting cover immediately after being filled and provided to the Engineer for testing. Any tack that is found to be out of specification will result in non-payment for all tack applied on the date the tack is sampled.

2.1.2 Non-conforming tack will be evaluated by the Engineer to determine if overlying pavement should remain in place. Any pavement left in place shall not relieve the Contractor of the responsibility for latent defects and/or gross mistakes in the pavement layer above it as outlined in section 107.14.

Amend 3.2, 3.3, and 3.4 to read:

3.2 Equipment.

Equipment required for this work shall be as follows:

- (a) A distributor shall be so designed, equipped, maintained, and operated such that bituminous material at even heat may be applied uniformly on variable widths of surface up to 12', at readily determined and controlled rates from 0.02 to 2.0 gal/yd², with uniform pressure, and with an allowable variation from any specified rate not to exceed 0.02 gal. Distributor equipment shall include a tachometer, pressure gauges, accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. Distributors shall be equipped with a power unit for the pump and with full circulation spray bars adjustable laterally and vertically. The spray bar shall contain spray nozzles providing a fan-shaped spray pattern adjusted so the vertical axis is perpendicular to the pavement surface. The spray pattern and spray bar height shall be adjusted to provide a uniform application of the tack coat without double coverage. The distributor shall be equipped with a mechanical device to adjust the spray height as material is discharged to keep a uniform height above the pavement for full coverage without overlapping. The distributor shall also be equipped with a hand-held

spray attachment for applying the material to areas inaccessible to spray bars and to fill in irregular areas to provide full coverage. Approved sampling valves shall be installed in distributors and transport tank trucks to permit taking representative samples of the contents. The recommended location of the sampling valve is in the rear bulkhead of the tank roughly one-third of the height above the bottom. The inlet pipe shall project into the contained liquid as shown in ASTM D 140.

- (b) A rotary power broom for sweeping treated surface.
- (c) A steel-wheeled roller.
- (d) A self-propelled pneumatic-tired roller.
- (e) A sand spreader capable of spreading blotter material in sufficient quantity to prevent traffic pickup of the applied bituminous material.
- (f) A steel-brush drag of an approved type.

3.3 Surface Preparation for Tack Coat. The existing surface shall be patched and shall be free of irregularities to provide a reasonably smooth and uniform surface to receive the treatment. Unstable corrugated areas shall be removed and replaced with suitable patching materials. The edges of existing pavements that are to be adjacent to new pavement shall be cleaned to permit the adhesion of bituminous materials.

3.4 Application of Tack Coat.

3.4.1 Bituminous material shall be uniformly applied with an approved applicator. When ordered, a pressure distributor shall be used. The tack coat shall be applied in such a manner as to offer the least inconvenience to traffic and to permit one-way traffic without pickup or tracking of the bituminous material.

3.4.1.1 A tack coat shall be applied immediately prior to placement of pavement. The rate of application of emulsified asphalt shall be between 0.02 and 0.06 gal/yd², based on the application table below. The Engineer may further modify the rate depending on the relative absorbance and texture of the pavement surface.

Existing Pavement Condition	Application Rate in Gal/yd ²
Smooth HMA	0.02 – 0.04
Milled HMA	0.04 – 0.06

Amend 5.1 to read:

5.1 The accepted quantities of bituminous surface treatment will be paid for at the Item Bid Price per ton for bituminous material, complete in place.

Add Section 5.2.2

5.2.2 The quantity of tack coat used on the day represented by a non-conforming test sample will not be paid.

**ACWORTH
16301**

October 9, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 417 -- COLD PLANING

This special provision addresses the Limited Reuse Soil issue for millings. All the requirements as set forth in the Standard Specifications are applicable except as modified or changed herein.

Add to Description:

3.5 Milled material not designated for salvage shall become property of the Contractor and shall be recycled for RAP purposes.

September 19, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 520 -- PORTLAND CEMENT CONCRETE****Item 520.0106 – Concrete Class AA, High Early Strength**

This special provision provides for concrete class AA, high early strength and neither amends nor modifies the provisions of this section except as noted below.

Add to Table 520-1A – Classes of Concrete:

Table 520-1A - Classes of Concrete

Concrete Class	Minimum Expected 28 Day Compressive Strength ¹	Maximum Water/Cement Ratio ²	Entrained Air Percent	Permeability Target Value ⁶
	PSI			kΩ-cm
AA high early strength	* ⁷	0.400	5 to 9	20

Add to Table 520-1A footnotes:

⁷ Minimum 3-day compressive strength = 3,000 psi
Minimum 7-day compressive strength = 4,000 psi

Add to 1.2 Classes of concrete:

1.2.3 Class AA high early strength shall conform to Class AA, except as noted otherwise in Table 520-1A.

Amend 2.1.1 to read:

2.1.1 Portland cement used for high early strength concrete shall be Type III conforming to AASHTO M 85 or M 240 as appropriate, unless otherwise shown on the plans or permitted. Mill test reports shall be furnished with each delivery of cement.

Amend the last sentence of 3.1.6.1.1 to read:

To determine compliance with Table 520-1A, cylinders shall be tested in accordance with AASHTO T 22 and the test strength shall be the average compressive strength of at least two cylinders tested at the end of the 3-day and 7-day curing periods.

8/16/16, 9/19/17 (deck overlay)

2 of 2

Add to Table 520-9 – CONCRETE CURING:**Table 520-9 – CONCRETE CURING**

Type of Construction	Curing Method	Minimum Number of Days Before Membrane Application	
		Horizontal	Vertical
high early strength concrete	c		

Cure Method “c” – The surface shall receive a wet cure utilizing water retaining material for at least 72 hours. Water retaining material shall be burlap conforming to 2.6.1, cotton mats conforming to 2.6.4 or other approved water retaining material. Water retaining material shall be kept wet for the entire 72 hours. Apply water retaining material in accordance with 3.10.2. During the first 24 hours, the water retaining material shall be kept continuously wet by means of an approved automatic sprinkling or wetting system. After 24 hours, the Contractor may cover the wet water retaining material with a 4 mil minimum white polyethylene film for the remainder of the cure period in lieu of using a sprinkling or wetting system although wetting under the polyethylene may be required.

Amend 4.1 to read:

4.1 Concrete class AA, high early strength will be measured by the cubic yard in place unless otherwise indicated, and in accordance with the following.

Amend 5.1 to read:

5.1 The excepted quantities of concrete class AA, high early strength will be paid for at the Contract unit price per cubic yard complete in place, unless otherwise indicated.

Amend 5.1.1 to read:

5.1.1 The cost of development and testing of alternate mix designs for concrete class AA, high early strength will be subsidiary to the item.

Add to Pay items and units:

520.0106 Concrete Class AA, High Early Strength Cubic Yard

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16301

September 6, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 528 -- PRESTRESSED CONCRETE MEMBERS**

Add to 3.4 Shop Drawings:

3.4.1.1 Procedures for monitoring camber of members, and controlling camber growth as needed, shall be included on the shop drawings.

Amend 3.19.2 to read:

3.19.2 Camber growth of all members shall be monitored and controlled. Mid-span camber shall be measured at transfer of prestress. After transfer of prestress, camber shall be measured at regular time intervals with a frequency sufficient to allow for camber growth to be controlled if necessary. Camber monitoring shall continue until ten (10) days prior to placement of the concrete bridge deck or overpour, unless otherwise directed by the Engineer. Measures shall be taken to control camber growth if it is projected to exceed the estimated mid-span camber given on the plans by $\frac{1}{2}$ ", or if the estimated differential camber between adjacent members is projected to exceed $\frac{1}{2}$ ". Camber measurements and procedures for controlling camber growth shall be submitted to the Engineer for review and approval.

Amend the heading of APPENDIX A to read:

APPENDIX A
SEQUENCE OF CONSTRUCTION FOR
BUTTED BOX AND BUTTED DECK BEAM SUPERSTRUCTURES

Delete APPENDIX B.

September 14, 2017

SPECIAL PROVISION**SECTION 529 -- PRECAST CONCRETE COMPONENTS****Description**

1.1 This work shall consist of manufacturing, storing, transporting and erecting precast concrete footings, abutment and wingwall stems, pier columns and caps, approach slabs, and sleeper slabs, herein referred to as “components”, in accordance with these specifications and in conformance with the lines, grades, design and dimensions shown on the plans or established by the Engineer.

1.1.1 This work shall also include field placement of grout for splice couplers, shear keys, construction joints between abutting components, and for bedding of components, during field assembly.

1.1.2 This work shall also include designing precast components as described herein, or as indicated on the plans. Plans and calculations for all contractor designed components shall be provided in accordance with 1.2 and 1.3.

1.1.2.1 Contractor designed components for this project are as follows: Under Item 529.1 the wingwall footings and stems for the abutments of the NH 123A bridge over Bowers Brook. The wingwalls shown on the plans are conceptual. Alternate wingwall types may be submitted for approval. Alternate wingwall types shall be precast concrete.

1.2 Requirements for Contractor Designed Components. The Contractor shall submit plans and calculations for all contractor designed components for approval in accordance with 105.02.

1.2.1 The plans and calculations shall be prepared, stamped and signed by a Licensed Professional Engineer licensed in the State of New Hampshire.

1.2.2 The calculations shall include a complete and thorough set of hand calculations that are specific to this project to support any computer generated calculations. The calculations shall include all applicable references to the LRFD specifications. A detailed explanation of any symbols and computer programs used in the design shall be provided. Calculations shall be performed in English units, with the final calculation results shown in English units.

1.3 Design Criteria for Contractor Designed Components. Contractor designed components shall meet all requirements of the current AASHTO LRFD Bridge Design Specifications for the applicable Strength and Extreme Event limit states, except as modified herein.

1.3.1 Design criteria for the contractor designed components for this project shall include the following:

- a. Traffic surcharge loads shall be determined in accordance with LRFD Section 3.11.6.4 with a soil unit weight (γ_s) equal to 125 pounds per cubic foot.

- b. Granular backfill (Item 209.201) and structural fill beneath footing (Item 508) shall have a soil internal friction angle (ϕ_f) equal to 34 degrees and a soil unit weight (γ_s) equal to 120 pounds per cubic foot. The existing embankment and roadway base material shall have a soil internal friction angle (ϕ_f) equal to 30 degrees and a soil unit weight (γ_s) equal to 120 pounds per cubic foot.
- c. The nominal bearing resistance for the footings shall be 9 tons per square foot. The resistance factor for bearing (ϕ_b) shall be equal to 0.45.
- d. Failure by sliding at the base of the footing shall be determined in accordance with LRFD Section 11.6.3.6 (10.6.3.4) for a “precast concrete footing”. LRFD Equation 10.6.3.4-2 for the nominal sliding resistance between the soil and the footing shall be taken as $R_t = 0.8 V \tan \phi_f$. The resistance factor for sliding (ϕ_t) shall be equal to 0.90.
- e. Passive resistance from soil in front of the wingwalls shall be neglected in the stability computations.
- f. Buoyancy shall be included in the stability calculations in accordance with LRFD Section 3.7.2.
- g. Differential hydrostatic pressure of at least 3 feet of water shall be included in the stability calculations.
- h. The design shall include the effects of guardrail system loads, rail support slab / barrier loads, soundwall slab loads, or any other loading that causes a soil stress increase behind or within the wall, where applicable.
- i. The design shall include all temporary loads or conditions that may occur during the construction phase, including equipment loads, and the effects of any surface or subsurface water infiltration into the construction site.
- j. The minimum width of the footing shall be as shown on the plans.
- k. Analyses for Extreme Event limit states are not required on this project.

Materials

2.1 Concrete.

2.1.1 Concrete materials shall conform to the requirements of Section 520 for Class AAA with a minimum 28-day compressive strength of 5,000 psi, unless otherwise noted on the plans.

2.1.2 Concrete shall be controlled, mixed, and handled as specified in the pertinent portions of Section 520, unless otherwise specified herein.

2.1.3 Mix Design. The Fabricator shall design and submit for approval the proportions and test results for a concrete mix which shall attain the following: a minimum design compressive strength as detailed on the plans for test cylinders sampled in accordance with the requirements of AASHTO T 141, molded and cured in accordance with the requirements of AASHTO T 23, and tested in accordance with the requirements of AASHTO T 22; a surface resistivity greater than 15 kilohm-centimeter ($k\Omega$ -cm) at 56 days using AASHTO TP 95. The minimum average compressive strength of the proposed mix shall be determined using the procedures in Section 528 Appendix D. Air entrainment shall be targeted at a value of 6.0 percent +/-1.5 percent. Testing shall be in accordance with AASHTO T 119 and T 152.

2.1.3.1 Sixty (60) days prior to the start of fabrication, the mix design shall be submitted to the Department's Bureau of Materials and Research for approval. No concrete shall be placed within the forms until the concrete mix design is approved.

2.1.3.2 The Fabricator shall supply laboratory test reports that contain data on the mineralogy and potential reactivity for all aggregates being used in the concrete mix. All aggregates shall be tested in accordance with the requirements of AASHTO T 303 to determine alkali-silica reactivity. The laboratory supplying the test results shall provide evidence that the laboratory is properly equipped and qualified to perform the test methods. All test results submitted for alkali-silica reactivity shall be from tests conducted within one calendar year from the date the mix design is submitted to the Department.

2.1.3.3 Mix designs using potentially alkali reactive aggregates shall include mitigation for reactivity and shall be submitted to the Department for approval. Mitigation of potentially reactive aggregates shall consist of one or more of the following methods: use of low alkali cement (less than 0.6 percent Na_2O equivalent); use of a mineral admixture; or use of a chemical admixture. The proposed mitigation method will be accepted for use after the Department's Bureau of Materials and Research reviews test results supplied by the Contractor that show the effectiveness of the mitigation. An effective mitigation technique should reduce the mean expansion to below 0.10% for alkali-silica reactivity when tested in accordance with AASHTO T 303.

2.1.3.4 Should a change in sources of material be made, a new mix design shall be established and approved prior to incorporating the new material. When unsatisfactory results or other conditions make it necessary, the Engineer will require a new mix design.

2.1.4 All concrete used in precast components shall contain corrosion inhibitor as listed in the Qualified Products List under Section 520. Corrosion inhibitor shall be used at the rate recommended by the manufacturer.

2.2 Reinforcement for concrete shall conform to the requirements of Section 544. Steel reinforcement shall be epoxy coated unless otherwise noted on the plans.

2.2.1 Grouted splice couplers, used to provide moment connections between components, shall develop a minimum of 125% of the specified yield strength of the reinforcing steel being spliced. Couplers shall be epoxy coated unless otherwise noted on the plans.

2.3 Grout for Component Connections, Joints, and Bedding.

2.3.1 Grout for splice couplers shall be specified by the splice coupler manufacturer.

2.3.2 Grout for shear keys and construction joints between abutting components shall be an approved grout as listed in the Qualified Products List under Section 528 A. High-Strength, Impact-Resistant Non-Shrink Grout.

2.3.2.1 The compressive strength of the grout shall be equal to or greater than the joined components, unless otherwise noted on the plans.

2.3.2.2 The grout when thoroughly mixed shall be readily pourable so that it completely fills the shape of the joint.

2.3.3 Grout for bedding of components shall be an approved flowable non-shrink grout. A non-excavatable flowable fill, conforming to the requirements of Section 520 for Class F with a minimum 28-day compressive strength greater than 200 psi, may be substituted for the grout.

2.4 Corrugated metal pipe (CMP) used to form voids in components as indicated on the plans shall be Type I, 16 gage, galvanized, conforming to Section 603.

2.4.1 CMP voids in components shall be filled with field-cast concrete conforming to the requirements of Section 520 for Class AA with a minimum 28-day compressive strength of 4,000 psi, unless otherwise noted on the plans.

Construction Requirements

3.1 General.

3.1.1 Specifications. Fabrication, transportation and erection of precast concrete components shall conform to the applicable requirements of the current: AASHTO LRFD Bridge Construction Specifications, Section 8: Concrete Structures; AASHTO LRFD Bridge Design Specifications, Section 5: Concrete Structures; PCI MNL-116 Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products; and PCI MNL-135 Tolerance Manual for Precast and Prestressed Concrete Construction; except as modified herein. In the case of conflicting specifications, the most stringent shall apply.

3.1.2 Approval. Prior to performing any work under Section 529, the Contractor must have received approval for all shop drawings and any special contract requirements. The Contractor shall bear full responsibility and costs for all materials ordered or work performed prior to approval or written authorization from the Engineer.

3.2 Special Contract Requirements.

3.2.1 Assembly Plan. A single assembly plan describing all aspects of the work including: handling; lifting; placing; supporting / securing; adjusting; grouting; and backfilling precast components, shall be submitted for approval in accordance with 105.02. The plan shall include, but shall not be limited to, the following:

- a. Detailed shop drawings of all components in accordance with 3.4.
- b. A work area plan depicting temporary and permanent structures, haul roads, utilities and other relevant temporary or permanent site features.
- c. Details of all equipment to be used to lift components including: cranes; excavators; lifting slings; etc. Include crane locations, operating radii, lifting calculations, etc.
- d. Construction loading analysis including calculations to confirm that the magnitude of stress in the components during handling and erection is within acceptable limits. The Contractor shall be responsible for demonstrating that all components have adequate capacity to resist stresses imposed during construction operations.
- e. Detailed sequence of construction and schedule for all operations. Account for setting and cure time of field-cast concrete and grout.
- f. Temporary support requirements for components including leveling bolts and shims, and lateral load and moment resistance. The Contractor shall be responsible for the stability of all components during construction operations.
- g. Procedures for maintaining horizontal and vertical tolerances. Include details of all alignment brackets, jigs, templates, shims, and leveling bolts, etc.

- h. Procedures for controlling tolerances of pile driving operations to maintain proper alignment within the pile pockets of components, where applicable.
- i. Grouting plan specifying the type of grout products proposed for use and the method of installation for all grouted joints and connections, and bedding of components. Grouting of splice couplers shall be in accordance with the splice coupler manufacturer's recommendations.
- j. Loading restrictions, including minimum time period before backfilling operations may proceed, where applicable.

3.2.1.1 The assembly plan shall be submitted for approval a minimum of thirty (30) days prior to the start of fabrication and shall be stamped by a Licensed Professional Engineer, licensed in the State of New Hampshire. Multiple professional engineer stamps may be included on the various portions of the plan; however, **ONE** engineer shall be clearly identified as the Engineer of Record for the entire assembly plan. All questions, comments, and revisions shall be coordinated with the Engineer of Record.

3.2.2 All precast components covered under Section 529 shall be produced by the same fabricator.

3.3 Qualification of the Fabricator. All plants / shops manufacturing components for the Department shall satisfy the following minimum requirements:

3.3.1 Certification. The precast concrete manufacturing plant shall be certified by the Prestressed Concrete Institute Plant Certification Program in product Group B, certification category B1 or higher. The Fabricator shall submit proof of certification prior to the start of production.

3.3.2 Engineering / Drafting. The Fabricator shall have trained, knowledgeable, and experienced drafting personnel available who can produce and check legible, complete, and accurate shop detail drawings.

3.3.3 Specifications. The Fabricator shall have available in the shop all pertinent specifications governing the work.

3.3.4 Technician. The Fabricator shall provide a technician having a minimum of five (5) years continuous experience in the manufacture of precast components, who shall supervise the work.

3.3.5 Quality Control. The Fabricator shall perform quality control functions to insure that the work is in accordance with contract documents and specifications.

3.4 Shop Drawings. The Contractor shall prepare and submit detailed shop drawings for approval in accordance with 105.02. Deviation from the approved shop drawings will not be permitted without written order or approval of the Engineer.

3.4.1 The shop drawings shall be properly titled as to project location and bridge components similar to the title box on the contract plans. The shop drawings shall include, but not necessarily be limited to, the following:

- a. Fully and accurately dimensioned views showing the geometry of the components including all projections, recesses, notches, openings, blockouts, connections, joints and keyways, etc.
- b. Reinforcing bar lists, details, and bending schedules showing the size, spacing, location, and clear cover of reinforcing steel, including any reinforcing steel required, but not shown on the

- contract plans. Reinforcing steel or ties provided under lifting devices shall be shown in detail.
- c. Details and locations of all items to be cast in the components (whether detailed on the contract drawings or provided for the Contractor's convenience) such as inserts, lifting devices, temporary supports, CMP voids, grout ports, etc.
 - d. Details and locations of all leveling bolts used to make fast and accurate adjustments to the vertical position of the components.
 - e. Size and spacing of ports for placing grout for bedding of components based on component size and flowable grout characteristics. The ports shall be arranged so that the grouting operation may progress in a manner that avoids air pockets.
 - f. All necessary modifications to components to resist handling stresses resulting from the proposed method of handling and erection.
 - g. Quantities for each component (concrete volume, reinforcing steel weight and total weight).
 - h. Description of method of curing, handling, storing, and transporting the components.
 - i. Details and locations of all blocking used to support components during storage, and transportation.
 - j. Description of protective measures taken to prevent damage to the concrete by freezing.

3.5 Shop Inspection. A Department representative will inspect the fabrication for quality assurance. This inspection will include the examination of materials, work procedures, and the final fabricated components.

3.5.1 Fabrication shall only be done in the presence of an authorized inspector representing the Department. The Department's authorized quality assurance inspector is herein referred to as the "Inspector".

3.5.2 Notice. A minimum of fourteen (14) days prior to the scheduled start of casting of any component, the Fabricator shall contact the Department's Bureau of Materials and Research to provide notice of the scheduled start date. The Bureau of Materials and Research will assign an Inspector to the scheduled work to provide quality assurance testing. The Inspector will coordinate directly with the Fabricator to determine the casting schedule.

3.5.2.1 In addition to the requirements of 3.5.2, the Fabricator shall contact the Department's Bureau of Materials and Research at least two (2) days before the actual work begins to allow scheduling of independent quality assurance testing.

3.5.3 Cooperation. The Fabricator shall fully cooperate with the Inspector in the inspection of the work in progress.

3.5.3.1 The Fabricator shall allow the Inspector unrestricted access to the necessary areas of the shop during work hours. Work done while the Inspector has been refused access shall be automatically rejected.

3.5.4 Authority. The Inspector shall have the authority to reject any material or workmanship that does not meet the requirements of the contract documents.

3.5.4.1 Inspection at the shop is intended as a means of facilitating the work and avoiding errors. It does not constitute final approval and will not relieve the Contractor from any responsibility in regard to imperfect material or workmanship and the necessity for replacing same.

3.5.5 Acceptance. The Inspector shall affix an acceptance stamp to components ready for shipment. This mark shall be made by paint or ink stamp in a location that will not be visible when the structure is completed.

3.5.5.1 The Fabricator shall present the Inspector with a copy of the shipping invoice to be stamped for verification of inspection and approval prior to shipment.

3.5.5.2 The Inspector's acceptance implies that, in the opinion of the Inspector the components were fabricated from accepted materials and processes and loaded for shipment in accordance with the contract requirements. The Inspector's stamp of acceptance for shipment does not imply that the components will not be rejected by the Engineer if subsequently found to be defective.

3.6 Fabrication of Components.

3.6.1 Reinforcing. Reinforcing shall be furnished, handled and installed in accordance with Section 544.

3.6.1.1 All reinforcing shall be free of dirt, rust, oil, grease, and other deleterious substances.

3.6.1.2 Clearance from the forms shall be maintained by supports, spacers, or hangers in accordance with 544.3.4, and shall be of approved shape and dimension.

3.6.1.3 Matching templates shall be used for accurate placement of grouted splice couplers to ensure fit-up between joined components.

3.6.1.4 All reinforcing shall have 2 ½" minimum clear cover, unless otherwise noted on the plans.

3.6.2 Inserts and Hardware. All items cast in the concrete shall be accurately placed in the position shown on the approved shop drawings and firmly held during the placing and setting of the concrete.

3.6.2.1 Recesses shall be provided around lifting devices to facilitate removal and grouting after erection.

3.6.2.2 Components shall not be fired or drilled into for attachment purposes.

3.6.2.3 All inserts and hardware shall be galvanized unless otherwise noted on the plans.

3.6.3 Forms. Forms shall conform to 520.3.2, and be subject to the approval of the Engineer.

3.6.3.1 Forms shall be made and maintained true to the shapes and dimensions shown on the approved shop drawings. The surface of forms shall be smooth, and if necessary, joints shall be treated so that a minimum of joint marks are evident in the finished component.

3.6.3.2 Forms shall be cleaned before each use.

3.6.4 Concrete Placement and Curing. Concrete shall be controlled, mixed, and handled in accordance with Section 520, unless otherwise specified herein.

3.6.4.1 Concrete shall not be deposited in the forms until the Inspector has approved the placement of the reinforcing. Concrete shall be deposited only in the presence of the Inspector, and in accordance with 520.3.5.

3.6.4.2 Consolidation of concrete shall conform to 520.3.5.4, or as ordered.

3.6.4.3 Continuously wet cure components utilizing water retaining material for a minimum of seven (7) days. Water retaining material shall be burlap conforming to 520.2.6.1, or cotton mats conforming to 520.2.6.4.

3.6.4.4 When the average daily temperature falls below 35°F for more than one day, protective measures shall be taken to prevent damage to the concrete by freezing. Components shall be protected from freezing temperatures (32°F) for five days or until attaining the minimum 28-day compressive strength indicated on the plans, whichever comes first.

3.6.5 Removing Forms and Finish of Components. Forms shall not be removed without approval. Proper care and precautions shall be exercised in removing forms so that no damage results to finished surfaces.

3.6.5.1 All components shall receive a Class 1, Ordinary Finish in accordance with 520.3.12, unless otherwise noted on the plans.

3.6.5.2 All shear key and construction joint surfaces along the edges of abutting components shall be abrasive blast-cleaned prior to shipping.

3.7 Dimensional Tolerances. The PCI Northeast Region Guidelines for Accelerated Bridge Construction Using Precast / Prestressed Concrete Elements Including Guideline Details, Report Number PCINE-14-ABC, available online at: http://www.pcine.org/index.cfm/resources/bridge/Accelerated_Bridge_Construction, shall be used in conjunction with this specification for determining appropriate dimensional fabrication tolerances for precast components.

3.8 Component Damage / Cracking and Repair. The PCI Northeast Region Bridge Member Repair Guidelines, Report Number PCINER-01-BMRG, available online at: http://www.pcine.org/index.cfm/resources/bridge/Specification_and_Guidelines, shall be used in conjunction with this specification to help identify damage and appropriate repair procedures, and determine the potential cause and remedial action.

3.8.1 The Engineer may approve repairs to occasional, non-recurring, and isolated defects. The Contractor shall submit procedures and materials for repairs to the Engineer for approval.

3.8.2 Rejection. Any of the following are considered defects that may constitute cause for rejection of a precast concrete component:

- a. Fabrication not in conformance with the contract documents or plans.
- b. Concrete breakage, full-depth cracking, extensive partial-depth cracking, or other damage determined to be significant by the Engineer.
- c. Defects indicating concrete proportioning, placement and / or consolidation not in conformance with the contract documents or plans.
- d. Components not in conformity with the dimensional fabrication tolerances given herein.

- e. Damaged shear key or construction joint surfaces where such damage would prevent making a satisfactory joint as determined by the Engineer.
- f. Discontinuity or crack in the concrete that would permit moisture to reach the reinforcing steel.
- g. Significant component damage sustained during handling, transportation, or erection as determined by the Engineer.

3.9 Concrete Strength Testing.

3.9.1 Each component cast shall have a minimum of two cylinders made available for testing by the Department at 28 days for quality assurance. Acceptance of the concrete for strength will be based on successfully attaining the minimum 28-day compressive strength indicated on the plans for the two cylinders.

3.9.2 The concrete test cylinders, prepared from fresh concrete at the time of placing, shall be cured under the same temperature and moisture conditions as the precast components.

3.10 Handling, Storing, and Shipping.

3.10.1 Components shall be lifted at the designated points by approved lifting devices embedded in the concrete and proper hoisting procedures.

3.10.2 Storage areas shall be smooth, well compacted, and sufficiently rigid to prevent damage due to differential settlement. Stacks of components may be supported by means of continuous blocking located as indicated on the approved shop drawings. Intermediate blocking between components shall be located directly over the blocking below.

3.10.3 Components may be loaded on a trailer as described above. Shock-absorbing cushioning material shall be used at all bearing points during transportation. Tie-down straps shall be located at the lines of blocking only.

3.10.4 Components shall not be subject to damaging torsional or impact stresses. Damaged components shall be repaired or replaced as directed by the Engineer, at no cost to the Department.

3.10.5 Shipping. Components shall not be transported from the manufacturing plant until they have reached a minimum age of seven (7) days, and the concrete has attained the minimum 28-day compressive strength indicated on the plans, as verified by test cylinders in accordance with 3.9. Components ready for shipment shall have received an acceptance stamp in accordance with 3.5.5.

3.11 Erection of Precast Concrete Components.

3.11.1 Delivery and Field Inspection. Material, workmanship and condition after shipment will be inspected after delivery to the construction site, with this and any previous inspections constituting only partial acceptance.

3.11.2 All work of erecting, supporting, adjusting, and grouting precast components shall be in accordance with the approved assembly plan described in 3.2.1.

3.11.3 After components are in their final erected positions they shall be subject to the inspection and approval of the Engineer. Furnish necessary facilities, including scaffolding and supports, to provide access to the structure to allow for inspection of workmanship.

3.11.4 Sealing of Lifting Holes, Grout Ports, and Leveling Bolts. After components are in their final erected positions, all lifting device recesses, grout ports, leveling bolt recesses, and other recesses used for erection purposes shall be filled with an approved high-strength non-shrink grout.

Method of Measurement

4.1 Precast concrete substructure (abutment) will be measured as a unit. Each precast substructure (abutment), consisting of one abutment, two wingwalls, and associated footings, will be measured as one unit.

4.2 Precast concrete substructure (pier), precast concrete approach slab, and precast concrete sleeper slab, will be measured by the cubic yard of concrete placed as shown on the plans or ordered.

Basis of Payment

5.1 The accepted precast concrete substructure (abutment) will be paid for at the Contract unit price complete in place.

5.2 The accepted quantity of precast concrete substructure (pier), precast concrete approach slab, and precast concrete sleeper slab, will be paid for at the Contract unit price per cubic yard complete in place.

5.3 Reinforcing steel, including splice couplers, will be subsidiary.

5.4 Corrugated metal pipes for forming voids in components will be subsidiary.

5.5 Modifications to components to resist handling stresses resulting from the proposed method of handling and erection, if necessary, will be subsidiary.

5.6 Grout for component connections, joints, and bedding; and concrete for filling voids or closure pours, will be subsidiary.

5.7 The assembly of all precast components, including field placement of grout or concrete, will be subsidiary.

Pay items and unit:

529.1	Precast Concrete Substructure (Abutment)	Unit
529.2	Precast Concrete Substructure (Pier)	Cubic Yard
529.3	Precast Concrete Approach Slab	Cubic Yard
529.301	Precast Concrete Sleeper Slab	Cubic Yard

S U P P L E M E N T A L S P E C I F I C A T I O N
A M E N D M E N T T O S E C T I O N 5 3 8 – B A R R I E R M E M B R A N E

The purpose of this Supplemental Specification is to update the laydown temperature range for pavement overlays in connection of welded barrier membrane.

Amend 3.3.5 to read:

3.3.5 Application of Hot Bituminous Overlay. The deck shall be paved within 3 days of membrane application unless otherwise permitted by the Engineer. The required laydown temperature of pavement overlays used in connection with heat-welded barrier membrane shall be as stipulated on the Qualified Products List. It should be noted that the laydown temperatures are extremely critical in order to preserve membrane integrity.

September 13, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 544 -- REINFORCING STEEL**

This special provision modifies the dosage rate for synthetic fiber reinforcement and neither amends nor modifies the provisions of this section except as noted below.

Amend 3.8 to read: **Synthetic fiber dosage rate.** The dosage rate shall be 5 lb/cy unless otherwise approved, in writing, by the Engineer.

S U P P L E M E N T A L S P E C I F I C A T I O N
A M E N D M E N T T O S E C T I O N 5 6 3 – B R I D G E R A I L

The purpose of this Supplemental Specification is to disallow aluminum in bridge fence applications, except for use as ties.

Amend 1.2 and 1.3 to read:

1.2 Designations. Bridge rails are classified as follows:

Type	Bridge Railing
Steel Tube Railing, 2 Rail	T2
Steel Tube Railing, 3 Rail	T3
Steel Tube Railing, 4 Rail	T4
W-Beam with Steel Tubing	T101
Aluminum Railing (2 Bar)	F2
Aluminum Railing (3 Bar)	F3

1.3 This work shall consist of furnishing and erecting protective screening or snow fence in conformity with details shown on the plans or ordered.

Amend 2.2 to read:

2.2 Steel pipe for bridge railing, shall conform to ASTM A 53, Grade B, seamless unless specified otherwise on the plans.

Amend 2.6 to read:

2.6 Aluminum railing and aluminum and steel appurtenances shall conform to the pertinent materials specified in the latest edition of “A Guide To Standardized Highway Barrier Rail Hardware”, by the AASHTO-AGC-ARTBA Task Force 13, ARTBA (formerly Technical Bulletin No. 268-B AGC Standard Form No. 131, June 1979) as amended.

Amend 2.8 to read:

2.8 Protective screening and snow fence materials shall meet the material requirements shown on the plans and as noted below:

2.8.1 Chain-link fabric shall be 9-guage steel, 1½” mesh, aluminum-coated conforming to AASHTO M181, Type II (ASTM A491).

2.8.2 Wire ties shall be standard round 9-guage aluminum coated steel or 6-guage aluminum alloy conforming to ASTM F626.

2.8.3 Post and rail pipes shall be hot-dip galvanized steel conforming to AASHTO M181, Grade 1 (ASTM F1083). All pipe shall be schedule 40, standard weight.

2.8.4 Tension bars, bar bands, in-line rail clamp, and end rail clamps shall be steel, hot-dip galvanized in accordance with AASHTO M111 (ASTM A123) or AASHTO M232 (ASTM A153), as applicable. All bar bends shall have a beveled edge.

2.8.5 All bolts and nuts shall be steel conforming to ASTM A307 and ASTM A563 Grade A, respectively. Washers shall be hardened steel commercial Type A plain, and shall meet the dimensional requirements of ANSI B18.22. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M111 (ASTM A123) or AASHTO M232 (ASTM A153), as applicable.

Amend 4.1 to read:

4.1 Bridge rail, of the type specified, will be measured by the linear foot, to the nearest tenth of a foot.

Replace Pay items and units with the following:

Pay items and units:

563.22	Bridge Rail T2	Linear Foot
563.221	Bridge Rail T2 with Protective Screening	Linear Foot
563.223	Bridge Rail T2 with Snow Screening	Linear Foot
563.23	Bridge Rail T3	Linear Foot
563.231	Bridge Rail T3 with Protective Screening	Linear Foot
563.233	Bridge Rail T3 with Snow Screening	Linear Foot
563.24	Bridge Rail T4	Linear Foot
563.241	Bridge Rail T4 with Protective Screening	Linear Foot
563.243	Bridge Rail T4 with Snow Screening	Linear Foot
563.3	Bridge Rail T101	Linear Foot
563.72	Bridge Rail F (2-bar)	Linear Foot
563.721	Bridge Rail F (2-Bar) with Protective Screening	Linear Foot
563.723	Bridge Rail F (2-Bar) with Snow Screening	Linear Foot
563.73	Bridge Rail F (3-bar)	Linear Foot
563.731	Bridge Rail F (3-Bar) with Protective Screening	Linear Foot
563.733	Bridge Rail F (3-Bar) with Snow Screening	Linear Foot
563.8	Resetting Bridge Rail	Linear Foot
563.81	Rehabilitation of Bridge Rail	Linear Foot
563.84	Temporary Bridge Rail	Linear Foot
563.94	Protective Screening for Overpass Structures	Linear Foot
563.95	Snow Fence Screening for Overpass Structures	Linear Foot

09/09/16
SSD: 05/08/08, 04/09/10

ACWORTH
16301

October 9, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 565 -- BRIDGE APPROACH RAIL

Item 565.2229 – Bridge Approach Rail T2 (Steel Posts)(Modified)

Item 565.2329 – Bridge Approach Rail T3 (Steel Posts)(Modified)

Item 565.2429 – Bridge Approach Rail T4 (Steel Posts)(Modified)

This special provision provides for a pay item for modified T2 and/or T3 bridge approach rail and neither amends nor modifies the provision of this section except as noted below.

Description

1.1 The Contractor shall furnish and install modified T2, T3 and/or T4 bridge approach rail, at the locations shown on the plans, details or ordered.

Add to pay items and units:

565.2229	Bridge Approach Rail T2 (Steel Posts)(Modified)	Unit
565.2329	Bridge Approach Rail T3 (Steel Posts)(Modified)	Unit
565.2429	Bridge Approach Rail T4 (Steel Posts)(Modified)	Unit

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 583 -- RIPRAP****Item 583.6 – Riprap, Class VI**

This special provision provides for riprap, class VI and neither amends nor modifies the provisions of this section except as noted below.

Add to Table 583-1:

Table 583-1

Riprap Classes and Sizes			Percentage Distribution of Particle Sizes by Volume (cubic feet)			
<u>Class</u>	<u>Nominal Size (in)</u>	<u>Maximum Size (in)</u>	<u>< 15%</u>	<u>15% – 85%</u>	<u>> 85%</u>	<u>Maximum</u>
VI	21	42	2	5.5	13.5	35

Add to Pay item and unit:

583.6 Riprap, Class VI

Cubic Yard

September 15, 2017

SPECIAL PROVISION**SECTION 586 -- PLACING EXCAVATED ROCK****Item 586.61 – Placing Excavated Rock for Vortex Rock Weir****Description**

1.1 This work shall consist of furnishing and placing rock for the construction of a vortex rock weir at designated locations in accordance with the plans or ordered.

Materials

2.1 All rock shall be from excavation within the project or an approved off-site source.

2.2 All rock shall be of similar gradation to Item 583.6, Riprap, Class VI and conform to the following:

- a. Footer rocks shall measure 2'-6" (min.) in two dimensions and shall be long and flat.
- b. Weir (top) rocks shall measure 1'-6" (min.) in two dimensions and be large enough to achieve the desired height when partially buried in the streambed.

Construction Requirements

3.1 The rock weir shall be constructed to the configuration shown on the plans or as directed. The rock shall be close-packed and keyed together to be stable. The surface shall conform to the specified lines and grades.

3.2 The procedure for the construction of the rock weir is as follows:

- a. Excavate a trench along the bottom of the streambed to the minimum footer rock depth.
- b. Place one or two courses of footer rocks. Leave space above the top footer rocks for the below streambed invert portion of the weir rocks.
- c. Place weir rocks on top of footer rocks so that each half of the weir rock rests on one-half of a footer rock below. Offset the weir rock in the upstream direction and place so that the weir rock slopes slightly against the flow direction.

- d. Gap the weir rocks in the middle third of the structure. Ensure the middle third of the structure is properly shaped to direct flow into the center of the channel.
- e. Excavate the scour pool to the design depth.

3.3 Excavated streambed material shall be used to fill voids between the rocks.

3.4 The stream shall be diverted during rock weir construction unless otherwise directed.

Method of Measurement

4.1 Placing excavated rock for vortex rock weir will be measured by the cubic yard.

Basis of Payment

5.1 The accepted quantity of placing excavated rock for vortex rock weir will be paid for at the Contract unit price per cubic yard complete in place.

5.2 Excavation necessary for construction of the rock weir will be subsidiary.

Pay items and units:

586.61	Placing Excavated Rock for Vortex Rock Weir	Cubic Yard
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SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 603 -- CULVERTS AND STORM DRAINS

The purpose of this Supplemental Specification is to allow polypropylene pipe, clarify UV light requirements as well as Contractor's Option requirements.

Amend 2.3 to read:

2.3 Plastic Pipe.

2.3.1 Manufacturers of Polyvinyl Chloride (PVC) pipe, Polyethylene (PE) pipe and Polypropylene (PP) pipe must participate in and maintain compliance with the AASHTO National Transportation Product Evaluation Program (NTPEP) that audits producers of plastic pipe.

2.3.2 Polyvinyl chloride profile wall pipe shall conform to the requirements of AASHTO M 304. PVC pipe and associated fittings shall not be used in applications where it will be exposed to long term ultraviolet light .

2.3.3 Polyethylene pipe shall conform to the requirements of AASHTO M 252 or M 294, Type C, Type S, or Type D as specified on the plans. PE pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black as specified in AASHTO M 294.

2.3.4 Polypropylene pipe shall conform to the requirements of AASHTO M 330, Type C, Type S, or Type D as specified on the plans. PP pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black or ultraviolet light stabilizers as specified in AASHTO M 330.

2.3.5 Only soil tight pipefittings supplied or recommended by the manufacturer shall be used, unless otherwise specified.

2.3.6 When watertight joints are specified, watertight pipefittings supplied or recommended by the manufacturer shall be used and shall conform to ASTM D3212.

2.3.7 When the item description includes plastic pipe or plastic pipe material with the plastic material type not specified, either polyvinyl chloride, polyethylene, or polypropylene pipe shall be furnished meeting the requirements of 2.3.

Amend 2.6 to read:

2.6 Pipe for Slope Drainage.

2.6.1 Pipe for slope drain shall conform to the requirements of 2.3 and shall be limited to Type C.

2.6.2 The pipe coupler for plastic pipe shall consist of a plastic coupler and a minimum of 2 stainless steel or 3 plastic bands installed on the exterior corrugations. Slope pipe coupling bands shall engage a minimum of two full corrugations of each pipe section being joined, and shall be reinforced to meet the criteria for the "Downdrain Joint" category of Section 26 of the AASHTO LRFD Bridge Construction Specifications.

Amend 2.7 to read:

2.7 Pipe for Drives and Minor Approaches.

2.7.1 It shall be the Contractor's option to furnish reinforced concrete pipe or corrugated aluminized steel type 2 pipe, unless otherwise specified, for pipe for drives and minor approaches. Reinforced concrete pipe shall meet the requirements of 2.1. Corrugated aluminized steel pipe shall meet the requirements of 2.2. The strength or thickness shall meet the requirements of Table 3. Where cover is 2' or greater, and where load requirements can be met, polyethylene or polypropylene pipe, meeting the requirements of 2.3, may be used.

Add to Materials:

2.13 Contractor's Option. When the pipe material is not specified in the item description, pipe conforming to either 2.1 or 2.3 shall be supplied. Once selected, pipe of similar type shall be used for the entire pipe run.

Amend Table 3 to read:

Table 3 - Required Strength of Culvert Pipes

Material	Diameter	Strength Concrete	Thickness, in.	
			"Specified" Steel	Pipe Stiffness Plastic
Reinforced Concrete	All	2000 D		
Corrugated Metal	12"-18"		0.064	
	24"-30"		0.079	
	36"		0.109	
Plastic (Polyethylene)	All			Reference AASHTO M294
(Polypropylene)	All			AASHTO M 330

Amend .4 under Pay Items to read:

- .4 Pipe for Slope Drainage (Plastic only) Linear Foot
- B Material
 - 0 Unspecified
 - 1 Blank
 - 2 Blank
 - 3 Blank
 - 4 Plastic

 - C Type
 - 0 Blank
 - 1 Blank
 - 2 Polyethylene (Type C)
 - 3 Polypropylene (Type C)

Amend .8 under Pay Items to read:

- | | Linear Foot |
|--|-------------|
| .8 Plastic Pipe | |
| B Materials | |
| 0 Unspecified | |
| 1 PVC | |
| 2 Polyethylene | |
| 3 Polypropylene | |
| C Type | |
| 1 Corrugated Interior (Type C) | |
| 2 Smooth Interior, Double Wall (Type S) | |
| 3 Smooth Interior, Triple Wall (Type D) | |
| 4 Blank | |
| 5 Corrugated Interior (Type C) (Watertight) | |
| 6 Smooth Interior, Double Wall (Type S) (Watertight) | |
| 7 Smooth Interior, Triple Wall (Type D) (Watertight) | |

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 605 -- UNDERDRAINS**

The purpose of this Supplemental Specification is to remove steel pipe and to allow polypropylene pipe for underdrain.

Amend the Material section to read:

Materials**2.1 Plastic Pipe.**

2.1.1 Manufacturers of plastic pipe must participate in and maintain compliance with, the AASHTO “National Transportation Product Evaluation Program” (NTPEP) that audits producers of plastic pipe.

2.1.2 Polyvinyl Chloride (PVC) Smooth-wall perforated and un-perforated polyvinyl chloride pipe, bends and cleanouts shall conform to AASHTO M 278. Perforated polyvinyl chloride profile wall pipe shall conform to AASHTO M 304.

2.1.3 Polyethylene (PE). Polyethylene drainage tubing 6” in diameter shall conform to AASHTO M 252, Type SP, with either Class 1 or Class 2 perforations. Perforated corrugated polyethylene pipe of nominal sizes 12 to 36” diameter shall conform to AASHTO M 294, with Class 1 perforations. Lengths for all sizes shall not exceed 20 ft.

2.1.4 Polypropylene (PP). Polypropylene corrugated perforated pipe shall conform to AASHTO M 330 for 12” or greater diameter pipe, or ASTM F2376 for 6” pipe. All sizes shall be Type SP.

2.2 Pipe Underdrain, Materials Per Contractor’s Option.

2.2.1 When the item reads 6” pipe underdrain (Contractor’s option), it shall be the Contractor’s option as to whether perforated polyvinyl chloride pipe or perforated corrugated polyethylene drainage tubing or polypropylene pipe is furnished.

2.3 Sand cushion shall be so graded that 90 to 100 percent by weight will pass a 1/2” sieve, and not more than 12 percent will pass a No. 200 sieve.

2.4 Underdrain backfill shall meet the requirements of 209.2.1.

2.5 Molded pull boxes for underdrain flushing basins shall conform to 614.2.6.

2.6 Aggregate for aggregate underdrain shall conform to Table 703-1, Standard Size #4.

2.7 Support membrane shall be non-woven geotextile and conform to Item 593.131 – Geotextile, Subsurface Drainage, Class 3, Non-woven.

Replace Pay items and units with the following:

Pay items and units:

605.4_	_in Perforated Polyvinyl Chloride Pipe Underdrain	Linear Foot
605.5_	_in Perforated Corrugated Polyethylene Pipe	Linear Foot
605.6_	_in Perforated Corrugated Polypropylene Pipe	Linear Foot
605.79	Underdrain Flushing Basins	Each
605.81A	_in Aggregate Underdrain Type 1	Linear Foot
605.82ABC	_in Aggregate Underdrain Type 2, With__Pipe	Linear Foot
605.84015	1-1/2" PVC Plastic Horizontal Drains	Linear Foot
605.9_	_in Pipe Underdrain (Contractor's Option)	Linear Foot

Notes:

A = Width of Underdrain

1 = 18" 2 = 24" 3 = 30" 4 = 36" 5 = 48" 6 = 16"

B = Type of Material

1 = Blank	
2 = Blank	
3 = Blank	
4 = Perforated Polyvinyl Chloride	
5 = Perforated Corrugated Polyethylene	
6 = Perforated Corrugated Polypropylene	

C = Diameter of Pipe

1 = 6" 2 = 12" 3 = 18" 4 = 24" 5 = 4" 8 = 8"

Examples:

605.82311	30" Aggregate Underdrain Type 2, with Perforated Corrugated Polyethylene 6" Pipe	Linear Foot
605.906	6" Pipe Underdrain (Contractor's Option)	Linear Foot

8/21/17

SSD: 10/22/14, 03/02/15, 05/06/15, 04/05/17, 8/18/17

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SPECIAL PROVISION**AMENDMENT TO SECTION 606 -- GUARDRAIL****Item 606.1254 - Beam Guardrail (Terminal Unit Type EAGRT, TL 3) (Steel Post)****Item 606.1255 - Beam Guardrail (Terminal Unit Type EAGRT, TL 2) (Steel Post)****Item 606.12551 - Beam Guardrail (Terminal Unit Type EAGRT, TL 2 – 25') (Steel Post)****Amend** 2.12.1 as follows:

2.12.1 Terminal unit EAGRT shall be an energy absorbing tangent type end unit selected from one of the following (Test Level 3 shall be a fixed-head or through-anchored-head energy absorbing tangent type end unit, no substitutions allowed):

Terminal Name	Manufacturer and/or US Distributor	Test Level
Softstop®	Trinity Highway Products, LLC	TL 2 / TL 3
MSKT	Road Systems, Inc.	TL 2/TL 3

2.12.1.1 The EAGRT shall be FHWA eligible and meet the MASH test level required, at a minimum.

2.12.1.2 The EAGRT designated “TL 2 – 25” shall be a FHWA eligible, MASH Test Level 2 EAGRT unit 25’ in length or less.

Add to 3.3 the following:

3.3.3 The first 12.5’ of the EAGRT unit is assumed gating and the length of need begins at the 3rd post. In addition, the Test Level 3 EAGRT is assumed to require a 50 foot length and the Test Level 2 EAGRT is assumed require a 37.5 foot length. If a terminal of a length other than indicated is selected, or the gating length is other than indicated, then extend or shorten the rail run to maintain the coverage of length-of-need redirecive rail. Refer to the FHWA website (http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm?code=cushions) for the Letters of Acceptance (Eligibility) indicating the beginning of length-of-need for the terminals.

3.3.4 The EAGRT terminal unit designated “TL 2 – 25” shall only be installed in specific situations as shown on the plans or as ordered by the Engineer.

Add to 4.1:

4.1.4.1 Any additional standard rail required to maintain the coverage of the length-of-need (Section 3.3.3) for an EAGRT will not be measured.

Add to 5.1:

5.1.1.1 Any additional standard rail required to maintain the coverage of the length-of-need (Section 3.3.3) will be subsidiary to the EAGRT unit.

Revise item numbers to read:

606.1254	Beam Guardrail (Terminal Unit Type EAGRT, TL 3) (Steel Post)	Unit
606.1255	Beam Guardrail (Terminal Unit Type EAGRT, TL 2) (Steel Post)	Unit
606.12551	Beam Guardrail (Terminal Unit Type EAGRT, TL 2 – 25') (Steel Post)	Unit

1/6/2000

Supersedes Spec. Prov. dated 2/21/95 & 10/20/99

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SPECIAL PROVISION**AMENDMENT TO SECTION 606 -- GUARDRAIL****Item 606.141 - Beam Guardrail (Curved W/CRT Posts)**
Item 606.84 - Anchor for Curved Guardrail W/CRT Posts**Add** to Description:

1.2 The Contractor shall furnish and install steel beam guardrail (curved w/CRT posts) and anchors as detailed on the plans or herein, at the locations shown on the plans, details or ordered.

Add to 3.2:

3.2.7 The Contractor shall install steel beam guardrail (curved w/CRT posts) and anchors as shown on the plans, details or ordered.

Add to 4.1:

4.1.1.1 Anchors for curved guardrail w/CRT posts will be measured by the unit.

Add to 5.1:

5.1.2 The accepted quantities of anchors for curved guardrail w/CRT posts will be paid for at the contract unit price.

Add to pay items and units:

606.141	Beam Guardrail (Curved w/CRT Posts)	Linear Foot (Linear Meter)
606.84	Anchor for Curved Guardrail w/CRT Posts	Unit

09/17/14

SSD: 03/17/10, 03/11/13, 02/18/14, 03/27/14

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SPECIAL PROVISION**AMENDMENT TO SECTION 606 -- GUARDRAIL**

- Item 606.18001 – 31” W-Beam Guardrail with 8” Offset Block (Steel Post)**
- Item 606.18011 – 31” W-Beam Guardrail with 8” Offset Block (8’ Steel Post)**
- Item 606.18021 – 31” W-Beam Guardrail with 8” Offset Block (9’ Steel Post)**
- Item 606.18041 – 31” W-Beam Guardrail with 8” Offset Block (11’ Steel Post)**
- Item 606.18_ - 31” W-Beam Guardrail Long Span (_’-_)”**
- Item 606.184 – 31” W-Beam Guardrail (Reduced Post Spacing)**
- Item 606.28001– 31” Double Faced W-Beam Guardrail with 8” Offset Block (Steel Post)**

This special provision provides for mid-way splice guardrail. All requirements as set forth in the Standard Specifications are applicable except as modified or changed herein for these items only.

Add to Materials:

2.14 31” W-Beam Guardrail. Materials/components required for installation shall be as shown in the plans or as ordered.

2.14.1 Long Span. Refer to detail for offset block sizing.

Add to Construction Requirements:

3.9 31” W-Beam Guardrail. Construction requirements shall be as shown in the plans or as ordered.

Add to pay items and units:

606.18001	31” W-Beam Guardrail with 8” Offset Block (Steel Post)	Linear Foot
606.18011	31” W-Beam Guardrail with 8” Offset Block (8’ Steel Post)	Linear Foot
606.18021	31” W-Beam Guardrail with 8” Offset Block (9’ Steel Post)	Linear Foot
606.18041	31” W-Beam Guardrail with 8” Offset Block (11’ Steel Post)	Linear Foot
606.181	31” W-Beam Guardrail Long Span (12’-6”)	Unit
606.182	31” W-Beam Guardrail Long Span (18’-9”)	Unit
606.183	31” W-Beam Guardrail Long Span (25’)	Unit
606.184	31” W-Beam Guardrail (Reduced Post Spacing)	Linear Foot
606.28001	31” Double Faced W-Beam Guardrail with 8” Offset Block (Steel Post)	Linear Foot

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SPECIAL PROVISION**AMENDMENT TO SECTION 628 -- SAWED PAVEMENT****Item 628.5 – Diamond Grinding Concrete Pavement****Add** to Description:

1.3 This work shall consist of diamond grinding the top surface of a portland cement concrete bridge deck or approach slab, at the locations indicated on the Contract Plans.

Amend 3.2 to read:

3.2 The equipment used to diamond grind the top surface of concrete bridge deck or approach slab shall be a self-propelled machine specifically designed to smooth and texture portland cement concrete, equipped with diamond tipped saw blades.

3.2.1 All equipment used to diamond grind shall be subject to the approval of the Engineer, prior to the start of work.

Add to Construction Requirements:

3.5 The concrete structural slab shall be diamond ground after it has reached an age of 14 days or a minimum compressive strength of 3500 psi.

3.6 Grinding shall be longitudinal, and shall begin and end at lines normal to the pavement centerline in any ground section. The diamond ground surface shall be uniform in appearance with a longitudinal corduroy type texture. The grooves shall be between 0.10 and 0.15 inches wide. The land area between the grooves shall be between 0.065 and 0.125 inches. The peak of the ridges shall be approximately 1/16 inch higher than the bottom of the grooves.

3.6.1 On curved decks, each pass of the diamond grinding machine shall begin on the side of the deck having the smaller radius.

3.6.2 The cutting of grooves over an area already grooved will not be permitted. No cutting blade shall be introduced into an already established groove.

3.6.3 During the diamond grinding operations, the Engineer will verify, at random, that the desired groove depth is being achieved. If it is determined that the desired groove depth is not

begin achieved, the Contractor shall stop the grooving operations and make the necessary adjustments.

3.6.3.1 The Contractor shall supply the Engineer with two accurate easily readable, gages with which to verify the groove depth. The gauges shall be made available to the Engineer one week prior to the anticipated start of the grooving operation. Gauges shall be accompanied by manufacturers instructions for their use, if deemed necessary.

3.7 Slurry, or debris, from the diamond grinding operation shall be continuously removed. The slurry, or debris, shall be disposed of properly by the Contractor.

Add to Method of Measurement:

4.2 Diamond grinding concrete pavement will be measured by the square yard of total surface area to be grooved as noted on the plans.

Add to Basis of Payment:

5.3 The accepted quantity of diamond grinding concrete pavement will be paid for at the contract unit price per square yard complete in place.

5.3.1 No separate payment will be made for supplied gauges.

Add to Pay items and units

628.5	Diamond Grinding Concrete Pavement	Square Yard
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**SPECIAL PROVISION
AMENDMENT TO SECTION 644 - GRASS SEED**

Item 644.22 - Shrub/Forest Wetland Seed Mix

This special provision applies to shrub/ forest wetland seed mix only and does not modify or amend other provisions of 644.

Description

1.1 This work shall consist of furnishing and applying this wetland seed mixture along with site preparation. This seed shall be applied to all shrub/ forest wetland areas shown on the plans or as ordered. The Engineer shall be contacted to coordinate wetland seeding.

1.1.1 The Construction Requirements contained herein shall augment the provisions of 645, 659, and 1009 as appropriate.

Materials

2.1 General

2.1.1 All seed shall meet the requirements specified in section 644.

2.1.2 Individual seed types shall be delivered to the project in separate, labeled, and sealed containers. Official seed tags and shipment invoices from the seed suppliers shall be furnished to the Engineer with each seed delivery on the project. Seed may be sampled and tested by the State to verify the seed tag information.

2.1.2.1 The weight of pure live seed (PLS) is computed by the labeled purity percent times the weight.

2.1.2.2 To illustrate the method of computing the PLS content of individual seed species / variety from the tag data, the following example is given:

Required: 20 pounds (9 kilograms) PLS of a specified seed species / variety.

Seed Tag Data: The specie / variety is 99.41 percent pure and 92 percent germination.

Conversion to PLS: 20 pounds (9 kilograms) divide by the product of .9941 and .92 equals
21.8 pounds (9.8 kilograms) required to meet 20 pounds (9 kilograms)
PLS.

2.1.3 Seed which has become wet, moldy, or otherwise damaged shall not be used.

2.1.4 The Engineer will inspect each seed type for acceptability, upon delivery to the project. Upon acceptance, the seed types shall be thoroughly mixed in specified proportions.

2.2 The seed quality and mixtures based on PLS shall conform to the following table.

TABLE 22
SHRUB/ FOREST WETLAND SEED MIX

Botanical name	Common name	Pure live seed	
		Lbs / acres	kg / ha
Acer rubrum	Red Maple	4.0	4.4
Betula populifolia	Gray Birch	0.5	0.6
Alnus rugosa	Speckled Alder	0.5	0.6
Cornus amomu	Silky Dogwood	2.0	2.2
Ilex verticillata	Winterberry	1.0	1.1
Carex vulpinoides	Fox Sedge	2.2	2.4
Carex crinita	Fringed Sedge	1.0	1.1
Bidens frondosa	Beggar-ticks	2.0	2.2
Juncus effusus	Soft Rush	0.2	0.2
TOTAL		12.2	14.8

2.3 Unavailability of any of the specified seed types shall be verified by submitting a list to the Engineer containing at least 3 sources contacted. Substitutions for the above table will be permitted only upon approval of the Engineer.

Construction Requirements

3.1 General.

3.1.1 All areas to be seeded shall be graded, tilled, and raked to establish a friable seedbed.

3.2 Time of Seeding. The time of seed application shall be in accordance with 644.3.2

3.3 Seeding Method.

3.3.1 Seeding shall be done by dry or hydraulic method. The selected mechanical seeder and applicator shall be those which can assure an accurate and uniform seed distribution. All seeding equipment shall be approved by the Engineer prior to use.

3.3.2 Seed mixtures shall be sown at the specified seeding rates. Inert carriers may be approved to assure proper distribution. Small and large seeds shall be sown separately, unless equipment specifically designed for simultaneous sowing of variable seed sizes is utilized.

3.3.3 The seed shall be applied so as to make firm contact with the seedbed which might require light raking or rolling as directed by the Engineer.

3.3.4 Straw mulch shall be lightly applied in accordance with 645 to each seeded area as soon as possible after seed application. Straw application shall be that which allows 50% of the ground to be visible when standing directly above the mulched area (approximately 75 bales per acre (185 bales per hectare)). The applied straw shall be protected from blowing away by use of an approved tackifier or other approved method.

3.3.5 Immediately after straw mulching operations, water shall be applied with a gentle spray to safeguard against erosion or movement of the crop seed.

3.3.6 Fertilization shall not be required unless otherwise specified by the Engineer.

3.4 Establishment Maintenance.

3.4.1 Shrub/ forest wetland seeded areas shall be kept reasonably moist with weekly watering throughout the first 8 weeks unless otherwise specified by the Engineer. Thereafter, adequate Watering shall be required in dry periods to prevent wilting of the seedlings. The method of watering shall be such that assures a gentle watering without erosion and approved by the Engineer.

3.4.2 The Contractor shall perform any needed work in order to develop and maintain a healthy vegetative cover throughout the duration of the contract. Regularly scheduled monitoring and follow-up maintenance work, including re-watering and re-seeding as necessary shall be the Contractor’s responsibility.

3.5 Liability. The Contractor shall be responsible for developing and maintaining an acceptable density of vegetative cover. To be acceptable, a vegetative cover shall show a reasonably thick, uniform stand, free from sizable areas of thin or bare spots, with a uniform count of at least 10 plants of each species per square foot (100 plants of each species per square meter).

Method of Measurement

4.1 Seed shall be measured by the pound (kilogram) to the nearest 0.1 of a pound (kilogram) based upon the delivery slips and tags furnished the Engineer, but not to exceed the rate specified or ordered. This item shall include labor, straw mulch, as necessary, and all watering.

Basis of Payment

5.1 The accepted quantity of shrub/ forest wetland seed mix will be paid for at the contract unit price per pound (kilogram), ordered and delivered to the site. Straw mulch will be subsidiary. Watering will be subsidiary.

5.1.1 No additional compensation will be made for approved seed substitutions.

Pay items and units:

644.22	Shrub/Forest Wetland Seed Mix	Pound (Kilogram)
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06/18/12

SSD: 09/15/10, 05/24/12, 06/13/12

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SPECIAL PROVISION**AMENDMENT TO SECTION 645 -- EROSION CONTROL****Item 645.512 - Compost Sock for Perimeter Berm**

This special provision provides for compost sock for perimeter berm and neither amends nor modifies the provision of this section except as noted below. The intent of this item is to work in conjunction with or in-lieu of silt fence where entrenched silt fence its not feasible.

Description

1.1 The Contractor shall furnish and install degradable compost socks for perimeter berm at locations shown on the SWPPP plans or as ordered. Removal, if necessary, will be subsidiary to the item, and will be conducted as directed by the Engineer. The compost sock for perimeter berm shall be used as such and is not intended for areas which may receive concentrated flows such as channels or restricted outlets.

Materials**2.1 Compost Sock for Perimeter Berm.** Sock must be:

- A mesh tube, oval to round in cross section, 12 inches in diameter. Sock must have a minimum durability of one year after installation.
- Composed of a knitted biodegradable or photodegradable material with 1/8 to 3/8 inch openings. Fabric must be clean; evenly woven; free of encrusted concrete or other contaminated materials; and free from cuts, tears, broken or missing yarns and thin, open, or weak places.

2.2 Compost Media.

- Compost may be derived from green material consisting of chipped, shredded, or ground vegetation; or clean recycled wood products.
- Compost must not be derived from mixed municipal solid waste and be reasonably free of visible contaminants. Compost must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth. Compost must not possess objectionable odors.

2.3 Chemical, Physical and Biological Parameters.

- Compost products specified for use in this application must meet the criteria specified in Table 1, below.
- Only compost products that meet all applicable state and federal regulations pertaining to its production and distribution may be used in this application. Approved compost products must meet related state and federal chemical contaminant (e.g., heavy metals, pesticides, etc.) and pathogen limits pertaining to the feedstocks (source materials) in which it is derived.

Table 1 – Compost Media Parameters

Parameters	Reported as (units of measure)	Characteristics
pH ²	pH units	5.0 - 8.5
Soluble Salt Concentration ² (electrical conductivity)	dS/m (mmhos/cm)	Maximum 5
Moisture Content	%, wet weight basis	30 – 60
Organic Matter Content	%, dry weight basis	25 – 65
Particle Size	% passing a selected mesh size, dry weight basis	3” (75 mm), 100% passing 1” (25mm), 90% to 100% passing 3/4” (19mm), 70% to 100% passing 1/4” (6.4mm), 30% to 75% passing Maximum: particle size length of 6” (152mm) (no more than 60% passing 1/4” (6.4 mm) in high rainfall/flow rate situations)
Stability ³ Carbon Dioxide Evolution Rate	mg CO ₂ -C per g OM per day	< 8
Physical Contaminants (man-made inerts)	%, dry weight basis	< 1

Note: The composition of this media is similar to the vegetated filter berm media from AASHTO R 51. Very coarse (woody) composts that contain less than 30% of fine particles (1mm in size) shall be avoided, as optimum reductions in total suspended solids (TSS) is desired and berms may be seeded.

Construction Requirements

3.1 Site Preparation. To ensure optimum performance, cut down or remove heavy vegetation, and level uneven surfaces to ensure that the filter sock uniformly contacts the ground surface.

3.2 Installation.

- Prior to installation, clear the area of obstructions including rocks, clods, and debris greater than one inch
- Fill socks uniformly with compost to the desired length such that the logs do not deform. Secure ends.
- When more than one compost sock is required to achieve desired length, join socks longitudinally with a 1 foot 6 inch overlap.
- Compost sock may be installed using installation method Type 1, Type 2, or a combination:
 - Installation method Type 1:
 - Place directly on the ground with good contact with the finish grade.
 - Secure with wood stakes every 4 feet along the length of the compost sock.
 - Secure the ends of the compost sock by placing a stake 6 inches from the end of the compost sock.

- Drive the stakes into the soil so that the top of the stake is less than 2 inches above the top of the compost sock.
- Installation method Type 2:
 - Place directly on the ground with good contact with the finish grade.
 - Secure with rope and notched wood stakes.
 - Drive stakes into the soil until the notch is even with the top of the compost sock.
 - Lace the rope between stakes and over the compost sock. Knot the rope at each stake.
 - Tighten the compost sock to the surface of the slope by driving the stakes further into the soil.
- Install compost sock approximately parallel to the slope contour or as otherwise specified in the SWPPP or ordered by the Engineer.

3.3 Maintenance.

- Inspect compost socks regularly, and after each rainfall event, to ensure that they are intact and functioning correctly. Remove sediment that builds up behind the sock before it interferes with the functionality of the sock. Deposit the removed sediment within the project limits so that the sediment is not subject to erosion by wind or by water.
- Repair or replace split, torn, or unraveling socks. Replace broken or split stakes. Sagging or slumping compost socks must be repaired with additional stakes or replaced. Correct locations where rills and other evidence of concentrated runoff have occurred beneath the socks. Compost socks must be repaired or replaced within 24 hours of identifying the deficiency.
- Remove sock mesh tubes when directed by the Engineer. Cut mesh and empty sock contents in place and rake to distribute evenly.

Method of Measurement

4.1 Compost sock for perimeter berm will be paid for by the linear foot (linear meter) to the nearest 1 foot (one-half meter). Measurement will be along the top of each continuous run complete in place.

Basis of Payment

5.1 The accepted quantity of compost sock for perimeter berm will be paid for at the contract unit price per linear foot (linear meter) installed. No additional payment will be made for overlaps, splices or the anchoring of the system.

Pay items and units:

645.512	Compost Sock for Perimeter Berm	Linear Foot (Linear Meter)
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SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 645 – EROSION CONTROL

*The purpose of this Supplemental Specification
is to update erosion control requirements.*

Replace 1.1 with the following:

1.1 Erosion Control Products. This work shall consist of furnishing and placing hay mulch, bark mulch, “Rolled Erosion Control Products” (RECP), or other material to provide soil stabilization and/or erosion control on slopes or in channels at locations shown on the plans or where ordered.

1.1.1 Temporary Slope Matting Type A (Not Currently Used)

1.1.2 Temporary Slope Matting Type B (Wildlife Friendly) shall be a temporary, biodegradable RECP specified for protection of slopes of 3:1 or flatter. This material may also be specified for temporary protection of channels expected to experience flow-induced shear of 1.5 lbs/ft² or less. These products shall maintain their functional integrity for a minimum of 3 months and then biodegrade.

1.1.3 Temporary Slope Matting Type C (Not Currently Used)

1.1.4 Temporary Slope Matting Type D (Wildlife Friendly) shall be a temporary, biodegradable RECP specified for protection of slopes of 2:1 or flatter. This material may also be specified for temporary protection of channels expected to experience flow-induced shear of 1.75 lbs/ft² or less. These products shall maintain their functional integrity for a minimum of 12 months and then biodegrade.

1.1.5 Permanent Channel Matting Type A shall be a permanent RECP specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.5 lbs/ft² or less. These products are considered to be permanent and shall be non- degradable.

1.1.6 Permanent Channel Matting Type B (Not Currently Used)

1.1.7 Temporary Channel Matting Type A shall be a long term RECP specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.0 lbs/ft² or less. These products are considered temporary and shall biodegrade between 24 and 36 months.

1.1.8 Temporary Channel Matting Type B (Wildlife Friendly) shall be an extended term RECP, specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.0 lbs/ft² or less. These products are considered temporary and shall biodegrade between 12 and 36 months.

Replace the Pay Items with the following:

Pay items and units:

645.11	Mulch	Acre
645.111	Mulch	Square Yard
645.12	Temporary Mulch	Acre
645.15	Bark Mulch ___ in. Deep	Square Yard
645.3	Erosion Stone	Ton
645.42	Temporary Slope Matting Type B (Wildlife Friendly)	Square Yard
645.44	Temporary Slope Matting Type D (Wildlife Friendly)	Square Yard
645.45	Permanent Channel Matting Type A	Square Yard
645.471	Temporary Channel Matting Type A	Square Yard
645.472	Temporary Channel Matting Type B (Wildlife Friendly)	Square Yard
645.48	Erosion Control Mix	Cubic Yard
645.51	Hay Bales for Temporary Erosion Control	Each
645.52	Ryegrass for Temporary Erosion Control	Pound
645.531	Silt Fence	Linear Foot
645.532	Silt Fence with Support Fence	Linear Foot
645.7	Storm Water Pollution Prevention Plan	Unit
645.71	Monitoring SWPPP and Erosion and Sediment Controls	Hour

03/14/14

Supersedes 8/24/98, 2/8/2001, 12/10/04, 02/18/09, 11/03/09, 04/04/11, 07/10/12

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October 9,2017

SPECIAL PROVISION**SECTION 670 -- MISCELLANEOUS INCIDENTALS****Item 670.045XX - Construct and Remove Diversion
Item 670.046XX - Construct and Remove Temporary Widening****Description**

1.1 This work shall consist of constructing and removing diversion(s) or temporary widening(s) at locations shown on the plans; as determined by the Traffic Control Plan; or ordered. All work for diversions and widenings shall include temporary sidewalks where required. The typical section to define the earthwork (excavation and embankment), geotextiles (if necessary), side slopes, shoulders, base courses and pavement requirements will be as shown on the plans or as ordered. (The term “diversion” is defined in Section 6C.09 of the MUTCD and will replace the previously used word “detour” in this specification.)

Materials

2.1 Earthwork materials shall conform to 203.2.

2.2 Aggregate base course materials shall conform to 304.2.

2.2.1 Stone dust wearing surface shall conform to the Special Provision for Item 304.756 – Stone Dust Wearing Surface for Trails.

2.3 Geotextile materials shall conform to 593.2.

2.4 All other materials necessary to construct diversion or widening shall conform to the material requirements of the respective items.

Construction Requirements

3.1 Diversion or widening shall be constructed as shown on the plans or the Contractor may propose an alternate plan.

3.2 Excavation and embankment shall be constructed in accordance with pertinent provisions of 203.3.

3.3 Drainage items shall be installed where necessary or as directed and constructed in accordance with the pertinent provisions of 603.3 and 604.3.

3.4 Aggregate base courses shall be constructed to the depth and width shown on the plans in accordance with the pertinent provisions of 304.3.

3.4.1 Stone dust wearing surface shall conform to the Special Provision for Item 304.756 – Stone Dust Wearing Surface for Trails.

3.5 Required pavement and cold planing shall be constructed as shown on the plans in accordance with the pertinent provisions of 401.3/403.3 and 417.3 respectively.

3.6 Geotextiles shall be constructed and placed as shown on the plans in accordance with the pertinent provisions of 593.3.

3.7 All other items necessary to construct an approved diversion or widening shall be constructed in accordance with the pertinent provisions of the item.

3.7.1 Material(s) not required for the final roadway configuration shall be removed. Material meeting the item specifications after removal may be used elsewhere on the project under appropriate items.

3.7.2 Disposal of unsuitable material(s) removed from a diversion or widened area shall be the responsibility of the Contractor as set forth in the provisions of Section 203.3.9.

Method of Measurement

4.1 Construct and remove diversion or widening will be measured as a unit. A unit shall consist of design, if required, all earthwork (including topsoil excavation), aggregate base courses (including stone dust wearing surface), geotextiles, slope treatment, sidewalks, sawed bituminous pavement, the maintenance of traffic including installing, maintaining and removing construction signs and warning devices and any work not described in 4.1.1. When more than one unit is specified in the Contract, separate item numbers will appear for each separate and complete unit.

4.1.1 Constructing and removing temporary bridges, drainage items, pavement, cold planing, guardrail and concrete barrier, bituminous curb, performing clearing and grubbing and installing and maintaining erosion control measures, pavement markings, and delineators will be measured as provided under the respective items.

Basis of Payment

5.1 The accepted quantity of construct and remove diversion or widening will be paid for at the contract lump sum price.

5.1.1 Removal of items necessary to provide an approved diversion or widening and not needed for the final roadway configuration, including earthwork, and any item not specified in 5.1.2 will be subsidiary to construct and remove diversion.

5.1.2 Constructing and removing temporary bridges, drainage items, pavement, cold planing, guardrail and concrete barrier, performing clearing and grubbing, and installing and maintaining erosion control measures, bituminous curb pavement markings, and delineators will be paid as provided under the respective items.

Pay items and units:

670.045XX	Construct and Remove Diversion	Unit
670.046XX	Construct and Remove Temporary Widening	Unit

ACWORTH
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October 9, 2017

SPECIAL PROVISION**SECTION 670 -- MISCELLANEOUS INCIDENTALS****Item 670.066 - Mailbox Support Assemblies****Item 670.0661 - Multiple Mailboxes Support Assemblies****Description**

1.1 This work shall consist of installing relocated mailboxes or new mailboxes furnished by others on new mailbox support assemblies at locations shown on the plans or as ordered.

1.1.1 The Contractor shall contact the United States Post Office for any additional requirements regarding postal delivery.

Materials

2.1 Support posts shall break away if struck by a vehicle and shall meet the requirements of NCHRP Report 350 for Category II devices. Materials described in 2.1.1, 2.1.2 and 2.1.3 comply with these requirements. Any other support post materials will require a Certificate of Compliance with a Federal Highway Administration (FHWA) Letter of Acceptance stating that the support post material meets the testing and evaluation criteria of NCHRP Report 350.

2.1.1 Steel posts shall be black or galvanized, standard weight conforming to ASTM A 53 without hydrostatic testing or ASTM F 1083 minimum 1-1/2 in (38 mm) and maximum 2 in (50 mm) diameter.

2.1.2 Aluminum posts shall be aluminum alloy 6061-T6 or 6063-T6 conforming to ASTM B 429 minimum 1-1/2 in (38 mm) and maximum 2 in (50 mm) diameter.

2.1.3 Wood posts shall be 4 in x 4 in (100 mm x 100 mm) or 4 in (100 mm) diameter nominal conforming to 568.

2.1.4 Anti-twist devices for metal post shall be of the same material as the post and attached by the use of pipe or muffler type clamps. Other products designed for resisting torsion may be used upon approval.

2.1.5 A list of manufactures of acceptable support post assemblies that meet the requirements of NCHRP 350 can be found on the FHWA Safety Website on Roadside Hardware.

2.2 Mailboxes shall be of light sheet metal or plastic construction conforming to the requirements of the U. S. Postal Service. Newspaper delivery boxes shall be of light sheet metal or plastic construction of minimum dimensions suitable for holding a newspaper. Mailboxes and newspaper delivery boxes shall be furnished by others.

2.3 Post to box attachment coupling and hardware shall be compatible with post and box and shall be of sufficient strength to prevent the box from separating from the post if a vehicle strikes the installation. The exact hardware dimensions and design may vary.

Construction Requirements

3.1 The Contractor shall satisfactorily protect all mailboxes and maintain them in accessible locations throughout the construction period.

3.2 Upon completion of the project, the mailboxes shall be set at permanent locations as shown on the plans or ordered on support assemblies conforming to 2.1 and 2.3. Mailboxes mounted on acceptable mailbox support assemblies shall be salvaged during construction and be reinstalled on the existing acceptable mailbox support assemblies.

3.3 The Contractor shall install the mailbox support assemblies and mailbox at locations and in accordance with Postal regulations.

3.3.1 Mailbox support assemblies shall be set plumb and at the proper offset distance and vertical clearance.

3.3.2 Details as shown in the Standard Plans shall serve as a guide in meeting minimum requirements.

Method of Measurement

4.1 Single or double mailbox support assemblies will be measured by the number of complete assemblies (post) installed.

4.2 Multiple mailboxes support assemblies will be measured as a single unit. This unit shall include all materials and labor required to install the support assembly and mailboxes specified on the plans.

Basis of Payment

5.1 Single or double mailbox support assemblies will be paid for at the contract unit price per each as specified, complete in place.

5.1.1 Mailboxes mounted on acceptable mailbox support assemblies salvaged during construction shall be reinstalled subsidiary to Item 619.1 - Maintenance of Traffic.

5.2 Multiple mailboxes support assemblies will be paid for at the contract lump sum price per each complete in place.

Pay item and units:

670.066	Mailbox Support Assemblies	Each
670.0661	Multiple Mailboxes Support Assemblies	Each

SPECIAL PROVISION

SECTION 670 -- MISCELLANEOUS INCIDENTALS

Item 670.95 - Temporary Safety Fence

Description

1.1 This work shall consist of furnishing, installing, maintaining and removing a safety fence at the areas shown on the plans or ordered.

Materials

2.1 Safety fence shall be of plastic-type, UV stabilized, construction orange in color 4-feet, high and flexible to conform to ground conditions. The support members may be of steel or other approved material.

2.1.1 The minimum properties are as follows:

Minimum Ultimate Tensile Strength	200 lb/ft of width
Temperature Service Range	-40 to 200 °F

Construction Requirements

3.1 The Contractor shall install the safety fence as soon as conditions allow to delineate certain areas and prevent possible intrusion into the area.

3.2 The fence shall be maintained during the contract construction period or until no longer needed. The fence shall then be removed and remain the property of the Contractor.

Method of Measurement

4.1 Temporary safety fence will be measured by the linear foot (linear meter) from end-to-end of each run of fence installed.

Basis of Payment

5.1 The accepted quantity of temporary safety fence will be paid for at the contract unit price per linear foot (linear meter).

5.1.1 The cost of maintaining and removing temporary safety fence will be subsidiary.

Pay items and units:

670.95	Temporary Safety Fence	Linear Foot
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ACWORTH
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October 9, 2017

SPECIAL PROVISION

SECTION 697 -- PROJECT MANAGEMENT PLANS

Item 697.11 - Invasive Species Control and Management Plan

This section is intended to provide and pay for certain Plans associated with project construction.

Description

1.1 This work shall consist of providing an Invasive Species Control and Management Plan, which includes detailing the specific method(s) of controlling the spread of the identified invasive species, and the continued monitoring and management of invasive plant species found on the site for the duration of the contract.

Construction Requirements

3.1 Develop an Invasive Species Control and Management Plan detailing specific measures to control identified invasive plant species within the project area.

3.1.1 The Invasive Species Control and Management Plan shall include updating, modifying, and revising the Plan as appropriate and/or as directed by the Contract Administrator; monitoring existing invasive plant species for the duration of the project; and taking measures to not encourage the establishment of invasive plant species within the project limits.

3.1.2 The Invasive Species Control Plan shall also consist of but not be limited to the following:

- List of plants that were identified within project limits as shown on the plans.
- Appropriate Best Management Practices that will be utilized to prevent the spread of these plants during construction.
- A proposed schedule that describes the sequence of BMPs relative to construction activities.
- If Type II plants are to be excavated, the extent of excavation needs to be noted.
- A preliminary plan showing approximate locations of any proposed disposal area within the project limits, including areas where plants will be buried or stockpiled.
- If invasive plant material or soil that contains invasive plant material will be transported, the method of transport needs to be described.
- If invasive species are to be transported off-site, when allowed, the method of transport needs to be described as well as the terminus of plant material.

- A general overview should be given of how invasive plants will be managed throughout construction, including but not limited to:
 - monitoring of newly established slopes;
 - proposed methods of eradication of any plants that appear in new areas as a result of construction activities and re-growth;
 - general BMPs such as cleaning of equipment, location of staging areas, and importation of weed-free materials, see Invasive Species Special Attention.

3.2 Invasive Species Control and Management Plan shall be submitted for approval through the Contract Administrator to the Bureau of Environment and be compliant with NHDOT’s “Best Management Practices for Roadside Invasive Plants” Manual available on-line at www.nh.gov/dot/bureau/environment/documents.htm and include the continued management of invasive plants during the duration of the project.

3.3 The Contractor shall perform the work necessary to control, remove and dispose of the invasive plant species found on the site as directed and in accordance with Special Provision, Amendment to Section 201 – Clearing and Grubbing, Item 201.881 – Invasive Species Control Type I and/or Item 201.882 – Invasive Species Control Type II.

Method of Measurement

4.1 Invasive Species Control and Management Plan will be measured as a unit.

Basis of Payment

5.1 Invasive Species Control and Management Plan will be paid for at the Contract unit price.

5.1.1 No separate payment will be made for verifying the location of Invasive Species, which shall be considered subsidiary.

Pay item and unit:

697.11	Invasive Species Control and Management Plan	Unit
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11/01/16

SSD: 08/31/11, 08/06/12, 10/28/13

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**ACWORTH
16301**

October 9, 2017

SPECIAL PROVISION**SECTION 697 -- PROJECT MANAGEMENT PLAN****Item 697.31 - Project Operations Plan****Description**

1.1 This work shall consist of developing a site-specific project operations plan and furnishing equipment and supplies needed to implement the plan if Limited Reuse Soils (LRS), asbestos, contaminated soil and/or groundwater, or any other contaminants or materials that may pose a risk to humans health, is expected to be encountered on a project.

Construction Requirements

3.1 General. The Contractor shall develop and submit, through the Engineer, to the Bureau of Environment, for review and approval, a Project Operations Plan (POP) based on the SA-POP and the SMP in conformance with the project requirements 15 business days prior to the start of any work involving any known (or assumed) contaminate on the project. The Bureau of Environment will review the proposed POP for compliance with state regulatory requirements, and provide comments to the Engineer. The comments on the proposed POP must be addressed by the Contractor in a revised POP. When all comments have been addressed, the Bureau of Environment will approve the POP. See the Prosecution of Work (POW) for project specific timeframes for review of submittals. **No excavation in known limited reuse soil areas or contaminated soil areas or dewatering activities in contaminated areas may take place until the POP has been approved.** The Contractor is not relieved of any responsibilities under 29 CFR 1926.65(e).

3.2 Asbestos. The POP shall describe the Contractor's plan to abate Asbestos Containing Material (ACM). The plan shall identify or provide:

- Proposed means and methods. These means and methods shall be protective of human health and the environment and conform to all applicable state and federal rules and regulations unless a waiver has been obtained.
- A list of equipment that will be used during the abatement and or associated site work disturbing ACM.
- Copies of the abatement contractors' licenses and certifications and a list of qualified personnel that will be on site and their contact information.
- Copies of all associated permits, notifications, or waivers (including any correspondence or approvals) necessary to complete the work.
- The proposed locations within the project where ACM may exist, where potential ACM is anticipated to be impacted, and proposed locations for temporary on-site storage, or stockpiles.

- Description of equipment, and personnel decontamination procedures.
- Description of access controls and site security plans (stock pile and storage locations shall be included).
- Description of best management practices (BMPs) and/or Engineering controls, as well as physical and visual controls to be deployed in or around the regulated areas and temporary storage/stockpile locations.
- Steps to inspect and maintain stockpiles until ACM is properly disposed.
- Proposed means and methods of ACM disposal and proposed licensed ACM disposal facility.

3.2.1 Department's Environmental Consultant shall be on site at all times during ACM removal to observe Contractor's work procedures for compliance with applicable regulations and the accepted POP. The Environmental Consultant may conduct aggressive environmental air monitoring of the site. Should representative air samples exceed 0.05 f/cc or visible emissions (dust, debris) observed from the ACM removal operations, work shall stop and the work methods shall be assessed and revised. Work shall not resume until Contractor submits a revised POP, addressing the revised methods, and the Department has approved these revisions.

3.2.1.1 The Contractor shall notify the Engineer at least 2 weeks prior to performing asbestos work to allow time for the Department to notify the Environmental Consultant to be on-site.

3.3 Limited Reuse Soils (LRS). The plan shall identify:

- Proposed means to keep excavation within LRS areas to a minimum
- Proposed means to segregate LRS from other soil encountered during excavation.
- The proposed locations within the project area for containers provided by the Department's Environmental Contractor for LRS.
- The means to prevent leachate, contaminated runoff and windblown impacts from containers of LRS.
- The means to secure the containers to limit public access.
- Steps to inspect and maintain containers until LRS are characterized and properly disposed.

3.3.1 Excavation, handling, on-site transportation and on-site storage of excavated LRS shall be performed in accordance with the POW, SMP and approved POP, as directed.

3.3.2 The Contractor shall notify the Engineer at least 2 weeks prior to performing LRS excavation.

3.4 Contaminated Soil and/or Groundwater. The plan shall identify:

- Proposed means to segregate clean soils from contaminated soil encountered during excavation.

- Proposed means to reduce the waste stream for excess soils that can be reused on site.
- The proposed locations within the project area for stockpiling suspected contaminated soils.
- The means to line and cap stockpiles to prevent leachate, contaminated runoff and windblown impacts from stockpiles of contaminated soils and waste materials.
- The means to secure the stockpile area to limit public access.
- Steps to inspect and maintain stockpiles until materials are characterized and properly disposed and/or reused.

3.4.1 Department's Environmental Consultant shall be on site at all times during contaminated soil/groundwater removal to observe Contractor's work procedures for compliance with applicable regulations and the approved POP.

3.4.2 The POP shall also identify the Contractor's approach to dewater, if groundwater is encountered in areas of identified contamination. The plan shall identify the temporary storage location for water pumped during various phases of the work and the proposed treatment or the disposal location for contaminated groundwater and the proposed means to manage water that has been pumped to a frac tank, or other means of containment, and later found to be acceptable for onsite discharge as "clean" water.

3.4.3 The Contractor, when ordered by the Engineer, will be required to treat contaminated groundwater onsite prior to discharge of the treated water. The Contractor will be responsible for obtaining all necessary permits and approvals for discharging the contaminated groundwater. Potential options to manage the contaminated water include: discharge to municipal sanitary sewer with permission of the municipality under a NHDES Discharge Permit Request; discharge to the ground or groundwater under a NHDES Temporary Groundwater Discharge Permit; disposal as a contaminated water at an appropriate treatment/disposal facility in accordance with all applicable federal, state, and local rules and regulations; or discharge to surface water under the United States Environmental Protection Agency (USEPA) Remediation General Permit (RGP). The POP shall identify the Contractor's proposed standby method for treating contaminated groundwater and discharge of the effluent. The Contractor may assume that the Department's Environmental Consultant will perform sampling and analysis to monitor compliance with the required discharge permit.

3.4.4 Excavation, handling, on-site transportation and on-site stockpiling of excavated materials shall be performed in accordance with the approved POP, as directed.

3.5 Other types of Contaminates/Materials. If other types of known contaminants/materials are identified in the Prosecution of Work, the POP shall also identify the proposed means and methods to abate/segregate/contain the "material" per industry standards.

3.6 Health and safety precautions shall conform to industry standards, including, but not limited to, Department of Labor and OSHA rules and regulations.

3.7 The Contractor shall maintain all furnished equipment and supplies in good working condition and shall provide replacements due to breakdown, damage, usage, or theft within two (2) working days of notice.

3.7.1 Upon completion of project all equipment and supplies shall remain the property of the Contractor.

3.8 Personnel training shall be in accordance with 29 CFR 1926.65(e) for all personnel conducting, supervising, or managing field work. Cost for training shall be the responsibility of the Contractor.

3.9 Should the project have more than one known type of contaminate/material, the Contractor shall identify all means and methods for abatement/segregation/containment/treatment/disposal, as necessary, for all contaminants/materials in one plan for review and approval.

Method of Measurement

4.1 The Project Operations Plan will be measured as unit. A unit shall include any equipment/supplies that are a requirement of the prepared Project Operations Plan, unless specifically stated under other items.

4.1.1 No separate measurement shall be made for replacement equipment/supplies required under 3.1, unless specifically stated under other items.

4.1.2 No separate measurement will be made for multiple “contaminates/materials” plans.

Basis of Payment

5.1 The Project Operations Plan will be paid for at the Item Bid Price per unit.

5.1.1 No separate payment will be made for replacement equipment/supplies or replacement equipment/supplies required under 3.6 unless specifically stated under other items.

5.1.3 Segregating, handling, on-site transportation and on-site stockpiling of excavated materials will be paid under the appropriate 203 Item(s).

5.1.4 Excavation, handling, on-site transportation; on-site stockpiling of excavated ACM (soils) will be paid under Item 203.354 – Excavating and Handling Asbestos Contaminated Soils.

5.1.5 Treatment and disposal of contaminated groundwater will be paid under Item 1009.21 - Treatment and Disposal of Contaminated Groundwater (Frac Tank).

5.1.6 Off-site transportation and disposal of ACM (soils) will be paid for under Item 1009.323

Pay item and unit:

697.31	Project Operations Plan	Unit
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**ACWORTH
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September 7, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 698 – FIELD FACILITIES

This Special Provision provides for additional field office equipment as specified in 698.2.2.3.

Add to 2.2.3 The Contractor shall also provide the following equipment for use by the Engineer (indicated by the checkboxes below):

<input type="checkbox"/> Desktop Computer	Processor:	Intel Core i5, Dual Core 2.4 GHz or better
	Operating System:	Microsoft Windows 10
Quantity: _____	Memory:	8 GB RAM Minimum
	Hard Disk Drive:	500 GB Minimum
	CD-ROM:	DVD +/- RW
	Monitor:	24 inches or larger 1920 x 1080 resolution or better
	Video:	Internal web camera 512 MB Video memory or higher
	Audio:	16 Bit Audio with Speaker and Microphone
	Communication:	Wireless (802.11a/b/g/n compliant) 10/100/1000 Ethernet
	Expansion Ports:	Four USB 2.0/3.0
	Internet Access:	Unlimited, cable modem service. DSL only acceptable if cable unavailable.

Software:

- Microsoft Office 2010, or newer, Professional Version
- Bluebeam Revu (current version), or other approved software, that allows user to create, markup, and edit project documents; collaborate work processes with contracting parties; and offers full integration with Microsoft Office Antivirus software w/updated subscription maintained

Other Equipment:

- Keyboard
- Optical mouse, wireless or with connecting cable
- Surge Protector: 15 Amps, six outlets with circuit breaker control and spike protection
- Ten (10) rewriteable DVD-RW disks with protective covers
- Two (2) flash drives, 64 GB minimum each
- Computer workstation unit: Approximately 6 feet long with 5 pedestal chair and static guard mats.

08/28/17

SSD: 01/06/15, 01/16/15, 12/11/15, 6/13/16, 10/17/16, 01/26/17, 02/24/17, 03/06/17

Laptop Computer

Quantity: 1

Processor: Intel Core i5, Dual Core 2.4 GHz or better
 Operating System: Microsoft Windows 10
 Memory: 8 GB RAM Minimum
 Hard Disk Drive: 500 GB Minimum
 CD-ROM: DVD-RW/CD-RW
 Display: 15.4" or larger, Matte/Non-reflective Finish
 1600 x 900 resolution or better
 Video: Internal web camera
 512 MB Video memory or higher
 Audio: 16 Bit Audio with Speaker and Microphone
 Communication: Wireless (802.11a/b/g/n compliant adapter)
 Expansion Ports: Two USB 2.0/3.0
 Internet Access: Mobile Hotspot - Coverage shall be adequate for the area required and shall be 4G compatible. Unlimited data usage and at least 128 kbps upload and 384 kbps download bandwidth.

Software:

- Microsoft Office 2010, or newer, Professional Version
- Bluebeam Revu (current version), or other approved software, that allows user to create, markup, and edit project documents; collaborate work processes with contracting parties; and offers full integration with Microsoft Office.
- Antivirus software w/updated subscription maintained

Other Equipment:

- Power cord and charger for car and office
- Carrying case
- Optical mouse, wireless
- External USB 2.0 (or 3.0) hard drive for data backup
- Ten (10) rewriteable DVD-RW disks with protective covers
- Two (2) flash drives, 64 GB minimum each

Tablet Computer

Quantity:

Processor: Intel® Core 4020Y (1.5 GHz) or better
 Operating System: IOS 10 or Windows 10 (latest version)
 Memory: 4 GB RAM minimum
 Hard drive: 64 GB minimum
 Wireless: Wi-Fi 802.11ac/802.11 a/b/g/n
 Internet Access: Cellular 4G Data Service or Mobile Hotspot, unlimited usage
 Communication Ports: 1 – USB
 Screen size: 9" minimum
 Data: Unlimited Data Plan

Software Applications:

- Microsoft Office 365 (current version)
- Bluebeam Revu (current version), or other approved software, that allows user to create, markup, and edit project documents; collaborate work processes with contracting parties; and offers full integration with Microsoft Office.
- Antivirus software w/updated subscription maintained.

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SSD: 01/06/15, 01/16/15, 12/11/15, 6/13/16, 10/17/16, 01/26/17, 02/24/17, 03/06/17

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Other Equipment:

- Port car or equivalent DC adapter
- Carrying case
- Bluetooth Keyboard
- Screen Protectors (minimum: 10)

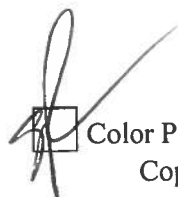
 Monitor

Quantity*: _____

20" Minimum Diagonal View Area

**Note: The Desktop Computer specification requires that a monitor be provided with the desktop when selected. This quantity is in addition to the desktop computer monitor quantity.*

- Color Flat Panel
- Minimum 16:9 aspect ratio with a 1600x900 pixel resolution
- 3ms response time or better
- Adequate graphics card that supports the monitor's resolution; interfaces properly with the field computers and laptops; and provides high definition video display.
- Compatible connecting cable(s)


 Color Printer/Scanner/
Copier

- Laser Jet or Ink Jet
- Network Capable
- Wireless
- Microsoft Windows compatible
- Resolution: 1200 vertical x 1200 horizontal dpi, minimum
- Capable of scan/copy/print 8 ½ x 14 color originals
- Computer disks with software drivers and utilities
- Tray Capacity: 100 sheets, minimum
- Replacement Toner Cartridge(s) as required, with 1 spare on hand at all times
- Speed: 10 sheets per minute, minimum
- Laser Jet or Ink Jet
- Network Capable
- Paper with the following minimum specifications:
 - 8 ½" x 11" sheets – 3 reams to be maintained
 - 8 ½" x 14" cut sheets – 2 reams to be maintained

 High Capacity Color
Copier/Scanner/Printer

- Laser Jet
- Network Capable
- Wireless
- Microsoft Windows compatible
- Resolution: 600dpi color, 1200dpw b&w, minimum
- Capable of scan/copy/print 11 x 17 color originals
- Two dedicated printing trays: (1) 8½ x 11 and (1) 11 x 17
- Tray Capacity: 250 sheets, minimum
- Speed: 30 sheets per minute, minimum
- Duplex printing capable
- Computer disks with software drivers and utilities
- Replacement Toner Cartridge(s) as required, with 1 spare on hand at all times

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SSD: 01/06/15, 01/16/15, 12/11/15, 6/13/16, 10/17/16, 01/26/17, 02/24/17, 03/06/17

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- Paper with the following minimum specifications:
 - 8 ½” x 11” sheets – 3 reams to be maintained
 - 8 ½” x 14” cut sheets – 2 reams to be maintained
 - 11” x 17” cut sheets – 1 ream to be maintained

Smart Phone
 Quantity: 1

Smart Phone with the following minimum specifications:

- Memory: min. 64 MB
- RAM/256 MB (Accessible: 172 MB)
- Resolution/Screen: min. 240x320 pixels, touch screen LCD, portrait & landscape display
- Software: Microsoft® Office Word Mobile, Excel® Mobile, and PowerPoint® Mobile Adobe® Reader® LE PDF viewer, Internet Explorer Mobile, Windows Media Player, Bluetooth profile (or equivalent) enabled
- EV-DO, 1X RTT capable
- Internal flash card: min. 8 GB
- Unlimited data service
- Minimum service area shall be Maine, New Hampshire, Vermont, and Massachusetts with a minimum 90% coverage area. The service plan shall have a New Hampshire calling number, a minimum service plan of 1,000 minutes per month, and unlimited texting.
- Accessories: Wall charger, car charger, screen protector protective case, belt attachment capability, hands-free adapter and owner’s manual

Cellular Phone
 Quantity:

Cellular hand set shall have a 1/3-watt nominal power output, shall have a protective case and belt attachment capability, DC adapter (cigarette lighter operation), battery charger, hands-free adapter, and owner’s manual. The minimum service area shall be Maine, New Hampshire, Vermont, and Massachusetts with a minimum 90% coverage area. The service plan shall have a New Hampshire calling number, a minimum service plan of 1,000 minutes per month, and unlimited texting.

Digital Camera
 Quantity:

Digital camera with the following minimum specifications:

- Min. 8.0 Mega Pixels resolution
- Picture file storage media, compatible for uploading picture data to the computer unit and printer (min. 8 GB)
- Supports jpeg file format
- HD Video capability
- USB interface and cable
- 12-volt DC adapter and AC adapter power supply cables
- Rechargeable with backup set of batteries and charger
- Owner’s manual
- Carrying case

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SSD: 01/06/15, 01/16/15, 12/11/15, 6/13/16, 10/17/16, 01/26/17, 02/24/17, 03/06/17

Video Camera

Quantity: _____

Video Camera with the following minimum specifications:

- New (or used with a recently performed service check verified by an invoice)
- 30 GB internal hard drive
- 34x optical zoom
- Low light capability
- Image stabilization
- USB interface and cable
- Extra battery with charger
- Owner’s manual
- Storage case

2-Drawer File Cabinet

Quantity: _____

In addition to the File Cabinet quantity requirements of 698.2.2.2, provide a 2-drawer file cabinet with the following minimum specifications:

Fire resistant, legal size; inside dimension approximately 10 x 15 x 26 in, each, with lock(s) and key(s). The file shall bear an Underwriters Laboratories “C” Label - 350°F (177° C) for one hour, inside surface.

Internet Access

Unlimited-hours Broadband Internet Access
Wireless router

Telephone Service

Landline phone service with voicemail accessibility.

Telephone

A wired phone with an additional portable handset.

Quantity: _____

3 Hole Punch:

Adjustable, 2 to 3 metal hole punch able to punch through a minimum of 10 sheets of standard paper at once with 9/32” holes and chip tray.

Surge Protector/
Battery Backup

Quantity**: _____

15 Amps, 6 outlets with circuit breaker control and spike protection
****Note: The Desktop Computer specification requires that a surge protector be provided with the desktop when selected. **This quantity is in addition to the desktop computer surge protector quantity.**

Strobe Light

Quantity: 1

Magnetic mount, 20 watt, 12/24 Volt DC (Whelen model VP420M or equivalent) with Port car or equivalent DC adapter.

Concrete Testing
Equipment

In addition to the Concrete Testing Equipment required per section 520.3.1.3.1.2, provide a complete additional set of Concrete Testing Equipment meeting the requirements of Section 520.3.1.3.1.2

08/28/17

SSD: 01/06/15, 01/16/15, 12/11/15, 6/13/16, 10/17/16, 01/26/17, 02/24/17, 03/06/17

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 Portable Turbidimeter

Quantity: _____

Portable Turbidimeter with the following minimum specifications:

- Turbidity Range: 0 to 1000 NTU
- Range: .01 to 1100 NTU
- Accuracy: $\pm 2\%$ of reading or .01 NTU (0 to 500 NTU); $\pm 3\%$ of reading
- Resolution: .01 NTU < 10 NTU; .1 NTU < 100 NTU; 1NTU < 1100 NTU
- Analytical Method: ISO 7027
- Rechargeable battery pack with charger
- Twelve (12) sampling vials
- Calibration kit
- Range: .01 to 1100 NTU

Amend 5.1.2 to read:

5.1.2 For each cell phone and/or Smartphone provided, the monthly service charge, including taxes, and any activation or deactivation fee for cellular phone or mobile telephone service, including toll calls up to 1000 minutes per month per each, shall be paid by the Contractor and shall be subsidiary. Any call time charges, used by State personnel, above the base 1000 minutes per month will be paid as extra work under Section 104.05.

**SUPPLEMENTAL SPECIFICATION
AMENDMENT TO SECTION 702– BITUMINOUS MATERIALS**

The purpose of this Supplemental Specification is to adopt new AASHTO specifications for emulsions.

Amend Section 702 to read:

Table 702-1 – Anionic Asphalt Emulsion

Grade	Rapid-Setting						Medium Setting						Test Method	
	RS-1h		RS-1		RS-2		HFMS-2		MS-4		MS-5			
	min	max	min	max	min	max	min	max	min	max	min	max		
Tests on emulsified asphalt:														
Viscosity, Saybolt Furol at 25°C (77° F), s ^a	20	100	20	100					50	500	50	500		
Viscosity, Saybolt Furol at 50°C (122° F), s ^a					75	400		100 see (d)						
Storage stability test, 24 h, % ^{a,b}		1.0		1.0		1.0				1.0		1.0		
Demulsibility, 35 mL, 0.02 N CaCl ₂ , % ^a	60		60		60									
Coating ability and water resistance														
Coating, dry aggregate							good	75%		75%				T59
Coating, after spraying							fair	see (e) (f)		see (e) (f)				
Coating, wet aggregate							fair							
Coating, after spraying							fair							
Sieve test, % ^{a,b}		0.10		0.10		0.10		0.10		0.10		0.10		
Distillation														
Oil distillate, %									2.0	7.0	0	3.0		
Residue, % ^c	55		55		65		65		65		65			
Tests on residue from distillation:														
Penetration, 25°C (77°F), 100 g, 5 s, 0.1 mm	40	90	90	150	90	150	90	250	200		150	250		T49
Ductility, 25°C (77°F), 5 cm/min, cm	40		40		40		40							T51
Ash content, %		1.0		1.0		1.0		1.0						T111
Float test, 60°C (140°F), s							1200		50		100			T50

Table 702-2 -- Cationic Asphalt Emulsion

Type Grade	Rapid-Setting				Test Method
	CRS-1h		CRS-1		
	min	max	min	max	
Tests on emulsified asphalt:					
Viscosity, Saybolt Furol at 50°C (122°F), s ^a	20	100	20	100	T59
Storage stability test, 24-h, % ^{a,b}		1		1	
Sodium dioctyl sulfosuccinate, % ^a	40		40		
Particle charge test	Positive		Positive		
Sieve test, % ^{a,b}		0.10		0.10	
Distillation:					
Oil Distillate by volume of emulsified asphalt, %		3		3	
Residue, % ^c	60		60		
Tests on residue from distillation:					
Penetration, 25°C (77°F), 100 g, 5 s, 0.1 mm	40	90	90	150	T49
Ductility, 25°C (77°F), 5 cm/min, cm	40		40		T51
Ash content, %		1		1	T111

Footnotes:

- a. This test requirement and associated specification limits are waived for emulsified asphalt products following dilution
- b. This test requirement on representative samples may be waived if successful application of the material has been achieved in the field.
- c. For emulsions that are diluted, the percent residue requirements must be adjusted accordingly.
- d. 50 + when material is used for sealing.
- e. Wet Coating: Weigh 100 ± 0.5 g of aggregate, 20 to 30 mesh (0.85 to 0.60 mm) standard Ottawa sand, into a 600 mL glass beaker and add soft tap water, approximately twice the volume of that of sand. Weigh into the beaker containing the sand and water 8 ± 0.2 g of the emulsion at room temperature and mix for two minutes with a stiff spatula. Cover the mixture with approximately twice its own volume of tap water and pour the water off without further mixing. Repeat this process. After the second rinse, at least 75 percent of the sand shall remain coated.
- f. Stripping: After evaluating the wet coating, place the mixture into a clear 600 mL glass beaker, cover the mixture with tap water, let stand for 1 to 16 hours, and examine. At least 75 percent of the sand shall remain coated.
- g. The coating and stripping tests may be waived when MS-5 is used for sand sealing.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

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

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled “Specific Equal Employment Opportunity Responsibilities”, and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's Equal Employment Opportunity Affirmative Action Program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under the special provisions will be ____ (amount to be filled in by State highway department).

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

[40 FR 28053, July 3, 1975. Correctly redesignated at 46 FR 21156, Apr. 9, 1981]

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION POLICY

Failure to complete the Training Special Provision requirement: When a Contractor fails to complete this Training Special Provision requirement and fails to make and document good faith efforts to fulfill the requirements of this provision, the New Hampshire Department of Transportation Office of Federal Compliance (OFC) shall notify the Prequalification Committee in writing. The Prequalification Committee will inform the Contractor of the OFC notification and require the Contractor to submit a Corrective Action Plan to the OFC. Failure to provide an acceptable Corrective Action Plan could lead to partial or full suspension consistent with the prequalification rules.

41 CFR 60-4 Affirmative Action Requirements 41 CFR 60-4.2 Solicitations

Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)

The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

	Goals for minority participation for each trade	Goals for female participation in each trade
<u>STANDARD METROPOLITAN STATISTICAL AREAS (SMSA)</u>		
SALEM-PLAISTOW	4.0	6.9
MANCHESTER-NASHUA	0.7	6.9
<u>NON-SMSA COUNTIES</u>		
COOS, GRAFTON, SULLIVAN	0.8	6.9
BELKNAP, MERRIMACK, CARROLL, STRAFFORD	3.6	6.9
CHESHIRE	5.9	6.9
ROCKINGHAM	4.0	6.9
HILLSBOROUGH	0.7	6.9

These goals are applicable to all contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal contract compliance programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation addressed as follows:

Director
Federal Contract Compliance Program
US Department of Labor
JFK Building, Room 1612-C
Boston, MA 02203

The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed as noted within in the Contract Special Provisions for Affirmative Action to ensure Equal Employment Opportunity.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

Source 41 CFR 60-4.3 Equal Opportunity Clauses

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and

Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and

Source 41 CFR 60-4.3 Equal Opportunity Clauses

timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR part 60-4 become effective.

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65978, Oct. 3, 1980; 79 FR 72995, Dec. 9, 2014]

NOTICE TO ALL BIDDERS

In accordance with the Section "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)", the New Hampshire Department of Transportation has the authority and responsibility to notify the Office of Federal Contract Compliance Program of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 Code of Federal Regulation Chapter 60.

The Office of Federal Contract Compliance Programs is the sole authority for determining compliance with Executive Order 11246 and 41 Code of Federal Regulation Chapter 60 and the Contractor should contact them regarding related compliance issues.

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

To the U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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6/2017
SSD: 11/2003

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

Proposal of _____
NAME

ADDRESS

Sample Proposal
NOT FOR BIDDING PURPOSES

to furnish and deliver all materials and to perform all work in accordance with the Contract of the State of New Hampshire, Department of Transportation for which proposals will be received until 2:00 o'clock P.M., Prevailing Time on Said project being situated as follows:

N.H. Department of Transportation
John O. Morton Building
Room 130, Contract Section
P. O. Box 483
Concord, NH 03302-0483

Commissioner:

In accordance with the advertisement of the Department of Transportation inviting proposals for the project hereinbefore named and in conformity with the Plans and Specifications on file in the office of the Department of Transportation, I/WE hereby certify that I AM/WE ARE the only person, or persons, interested in this proposal as principals; that this proposal is made without collusion with any person, firm or corporation; that an examination has been made of the Plans, of the Standard Specifications, of the Standard Plans Book, of the Proposal, and applicable addendums, including but not restricted to the Special Attentions, Supplemental Specifications, and Special Provisions attached thereto, and also that an examination has been made of the site of the work; and I, or we, propose to furnish all necessary machinery, equipment, tools, labor and other means of construction, and to furnish all materials specified in the manner and at the time prescribed; and understand that the quantities of work as shown herein are approximate only and are subject to increase or decrease, and further understand that all quantities of work whether increased or decreased are to be performed at the following prices:



Bid Schedule

ACWORTH
16301
X-A001(226)

NOTE: This proposal shall be prepared by the bidder, with the unit prices specified in both words and figures, and the extensions made by the bidder. For complete information concerning these items, see plans, special provisions, supplemental specifications, and 2016 NHDOT Standard Specifications for Road and Bridge Construction.

Item#	Quantity	Description	Unit Price	Amount
201.1	0.10 A	CLEARING AND GRUBBING (F) At _____ Dollars Per A		
201.881	160.00 SY	INVASIVE SPECIES CONTROL TYPE I At _____ Dollars Per SY		
201.882	250.00 SY	INVASIVE SPECIES CONTROL TYPE II At _____ Dollars Per SY		
202.7	130.00 LF	REMOVAL OF GUARDRAIL At _____ Dollars Per LF		
203.1	1,800.00 CY	COMMON EXCAVATION At _____ Dollars Per CY		
203.11	150.00 CY	COMMON EXCAVATION - LRS At _____ Dollars Per CY		
203.2	170.00 CY	ROCK EXCAVATION At _____ Dollars Per CY		
203.55553	2.00 U	GUARDRAIL EAGRT OFFSET PLATFORM, TL 2 At _____ Dollars Per U		
203.6	200.00 CY	EMBANKMENT-IN-PLACE (F) At _____ Dollars Per CY		
206.19	10.00 CY	COMMON STRUCTURE EXCAVATION EXPLORATORY At _____ Dollars Per CY		

Item#	Quantity	Description	Unit Price	Amount
207.3	370.00 CY	UNCLASSIFIED CHANNEL EXCAVATION At _____ Dollars Per CY		
209.201	520.00 CY	GRANULAR BACKFILL (BRIDGE) (F) At _____ Dollars Per CY		
211.11	40.00 HR	VIBRATION MONITORING SERVICES At _____ Dollars Per HR		
214.	1.00 U	FINE GRADING At _____ Dollars Per U		
304.1	560.00 CY	SAND (F) At _____ Dollars Per CY		
304.2	610.00 CY	GRAVEL (F) At _____ Dollars Per CY		
304.3	620.00 CY	CRUSHED GRAVEL (F) At _____ Dollars Per CY		
304.32	17.00 TON	CRUSHED GRAVEL FOR SHOULDER LEVELING At _____ Dollars Per TON		
304.35	150.00 CY	CRUSHED GRAVEL FOR DRIVES At _____ Dollars Per CY		
403.11002	380.00 TON	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (QC/QA TIER 2) At _____ Dollars Per TON		
403.12	31.00 TON	HOT BITUMINOUS PAVEMENT, HAND METHOD At _____ Dollars Per TON		
403.6	5,700.00 LF	PAVEMENT JOINT ADHESIVE At _____ Dollars Per LF		

Item#	Quantity	Description	Unit Price	Amount
410.22	580.00 GAL	ASPHALT EMULSION FOR TACK COAT At _____ Dollars Per GAL		
417.	65.00 SY	COLD PLANING BITUMINOUS SURFACES At _____ Dollars Per SY		
501.1	1.00 U	TEMPORARY BRIDGE At _____ Dollars Per U		
502.	1.00 U	REMOVAL OF EXISTING BRIDGE STRUCTURE At _____ Dollars Per U		
503.101	1.00 U	WATER DIVERSION STRUCTURE At _____ Dollars Per U		
503.201	1.00 U	COFFERDAMS At _____ Dollars Per U		
504.1	960.00 CY	COMMON BRIDGE EXCAVATION (F) At _____ Dollars Per CY		
504.2	120.00 CY	ROCK BRIDGE EXCAVATION At _____ Dollars Per CY		
508.	90.00 CY	STRUCTURAL FILL At _____ Dollars Per CY		
520.0106	27.00 CY	CONCRETE CLASS AA, HIGH EARLY STRENGTH At _____ Dollars Per CY		
528.311	1,210.00 SF	PRESTRESSED CONCRETE BRIDGE DECK, BUTTED DECK BEAMS (F) At _____ Dollars Per SF		
529.1	2.00 U	PRECAST CONCRETE SUBSTRUCTURE (ABUTMENT) At _____ Dollars Per U		

Item#	Quantity	Description	Unit Price	Amount
534.3	19.00 GAL	WATER REPELLENT (SILANE/SILOXANE) At _____ Dollars Per GAL		
538.2	60.00 SY	BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F) At _____ Dollars Per SY		
541.5	66.00 LF	PVC WATERSTOPS, NH TYPE 5 (F) At _____ Dollars Per LF		
544.2	2,808.00 LB	REINFORCING STEEL, EPOXY COATED (F) At _____ Dollars Per LB		
544.7	140.00 LB	SYNTHETIC FIBER REINFORCEMENT (F) At _____ Dollars Per LB		
548.11	16.00 EA	ELASTOMERIC BEARING PADS (F) At _____ Dollars Per EA		
559.41	66.00 LF	ASPHALTIC PLUG FOR CRACK CONTROL (F) At _____ Dollars Per LF		
562.1	143.00 LF	SILICONE JOINT SEALANT (F) At _____ Dollars Per LF		
563.23	76.00 LF	BRIDGE RAIL T3 At _____ Dollars Per LF		
565.232	2.00 U	BRIDGE APPROACH RAIL T3 (STEEL POSTS) At _____ Dollars Per U		
565.2329	2.00 U	BRIDGE APPROACH RAIL T3 (STEEL POSTS) (MODIFIED) At _____ Dollars Per U		
583.6	350.00 CY	RIPRAP, CLASS VI At _____ Dollars Per CY		

Item#	Quantity	Description	Unit Price	Amount
586.61	15.00 CY	PLACING EXCAVATED ROCK FOR VORTEX ROCK WEIR At _____ Dollars Per CY		
593.411	460.00 SY	GEOTEXTILE; PERM CONTROL CL.1, NON-WOVEN At _____ Dollars Per SY		
603.00215	25.00 LF	15" R.C. PIPE, 2000D At _____ Dollars Per LF		
603.33215	2.00 EA	15" CORR. POLYETHYLENE END SECTION At _____ Dollars Per EA		
603.80215	70.00 LF	15" PLASTIC PIPE (SMOOTH INTERIOR) At _____ Dollars Per LF		
604.0007	5.00 EA	POLYETHYLENE LINER At _____ Dollars Per EA		
604.124	5.00 U	CATCH BASINS TYPE B, 4-FOOT DIAMETER At _____ Dollars Per U		
605.506	190.00 LF	6" PERF. CORR. POLYETHYLENE PIPE UNDERDRAIN At _____ Dollars Per LF		
605.79	1.00 EA	UNDERDRAIN FLUSHING BASINS At _____ Dollars Per EA		
606.1255	2.00 U	BEAM GUARDRAIL (TERMINAL UNIT TYPE EAGRT, TL 2) (STEEL POST) At _____ Dollars Per U		
606.18001	150.00 LF	31" W-BEAM GUARDRAIL WITH 8" OFFSET BLOCK (STEEL POST) At _____ Dollars Per LF		
606.417	110.00 LF	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL At _____ Dollars Per LF		

Item#	Quantity	Description	Unit Price	Amount
606.84	2.00 U	ANCHOR FOR CURVED GUARDRAIL W/CRT POSTS At _____ Dollars Per U		
609.01	80.00 LF	STRAIGHT GRANITE CURB At _____ Dollars Per LF		
609.02	40.00 LF	CURVED GRANITE CURB At _____ Dollars Per LF		
618.7	800.00 HR	FLAGGERS At _____ Dollars Per HR		
619.1	1.00 U	MAINTENANCE OF TRAFFIC At _____ Dollars Per U		
619.25	2.00 U	PORTABLE CHANGEABLE MESSAGE SIGN At _____ Dollars Per U		
621.2	10.00 EA	RETROREFLECTIVE BEAM GUARDRAIL DELINEATOR At _____ Dollars Per EA		
621.31	10.00 EA	SINGLE DELINEATOR WITH POST At _____ Dollars Per EA		
621.32	2.00 EA	DOUBLE DELINEATOR WITH POST At _____ Dollars Per EA		
622.1	5.00 EA	STEEL WITNESS MARKERS At _____ Dollars Per EA		
628.2	120.00 LF	SAWED BITUMINOUS PAVEMENT At _____ Dollars Per LF		
628.5	116.00 SY	DIAMOND GRINDING CONCRETE PAVEMENT At _____ Dollars Per SY		

Item#	Quantity	Description	Unit Price	Amount
632.0104	2,300.00 LF	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE At _____ Dollars Per LF		
644.22	5.00 LB	SHRUB/FOREST WETLAND SEED MIX At _____ Dollars Per LB		
645.512	2,210.00 LF	COMPOST SOCK FOR PERIMETER BERM At _____ Dollars Per LF		
645.531	2,200.00 LF	SILT FENCE At _____ Dollars Per LF		
645.7	1.00 U	STORM WATER POLLUTION PREVENTION PLAN At _____ Dollars Per U		
645.71	100.00 HR	MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS At _____ Dollars Per HR		
646.51	1,450.00 SY	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND LOAM At _____ Dollars Per SY		
670.04501	1.00 U	CONSTRUCT AND REMOVE DIVERSION At _____ Dollars Per U		
670.066	6.00 EA	MAILBOX SUPPORT ASSEMBLIES At _____ Dollars Per EA		
670.95	140.00 LF	TEMPORARY SAFETY FENCE At _____ Dollars Per LF		
692.	1.00 U	MOBILIZATION At _____ Dollars Per U		
697.11	1.00 U	INVASIVE SPECIES CONTROL AND MANAGEMENT PLAN At _____ Dollars Per U		

Item#	Quantity	Description	Unit Price	Amount
697.31	1.00 U	PROJECT OPERATIONS PLAN At _____ Dollars Per U		
698.14	9.00 MON	FIELD OFFICE TYPE D At _____ Dollars Per MON		
699.	5,000.00 \$	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL At _____ One and 0/100 Dollars Per \$	\$1.00	\$5,000.00
1010.15	20,000.00 \$	FUEL ADJUSTMENT At _____ One and 0/100 Dollars Per \$	\$1.00	\$20,000.00
1010.3	1,500.00 \$	QUALITY CONTROL QUALITY ASSURANCE (QC/QA) ASPHALT At _____ One and 0/100 Dollars Per \$	\$1.00	\$1,500.00
1010.5	20,000.00 \$	COMPLETION INCENTIVE/ DISINCENTIVE At _____ One and 0/100 Dollars Per \$	\$1.00	\$20,000.00
Grand Total:				

GRAND TOTAL MUST ALSO BE ENTERED ON THE COVER PAGE OF THE PROPOSAL

Sample Proposal
NOT FOR BIDDING PURPOSES

It is further proposed:

To execute the Contract and begin work within 10 days from the date specified in the "Notice to Proceed" and to prosecute said work so as to complete the Bridge Project and its appurtenances on or before October 12, 2018.

To furnish a Contract Bond in the amount of 100 per cent of the Contract award, as security for the construction and completion of the Bridge Project and its appurtenances in accordance with the Plans, Specifications and Contract. The Contractor's attention is called to section 103.05 of the Standard Specifications which reads, in part, as follows: "Unless specifically waived in the Proposal, upon execution of the Contract, the successful Bidder shall furnish the Department a surety bond or bonds equal to the sum of the Contract amount. The form of the bonds(s) shall be acceptable to the Department and the bonding Company issuing the bond(s) shall be licensed to transact business in the State of New Hampshire, and ..."

To certify that the Bidder, in accordance with the requirements of 103.06 and 108.01, intends to sublet, assign, sell, transfer or otherwise dispose of one or more portions of the work and (1) has contacted the appropriate listed disadvantaged businesses and afforded such disadvantaged businesses equal consideration with non-disadvantaged business for all work the Bidder currently proposes to sublet, assign, sell, transfer or otherwise dispose of, (2) may contact additional appropriate disadvantage businesses and will afford such businesses equal consideration with non-disadvantaged businesses for all work the Bidder in the future proposes to sublet, assign, sell, transfer or otherwise dispose of, and (3) will complete enclosed "DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT FORM" and Letters of Intent for each disadvantaged business. The name of the person in the Bidder's organization who has been designated as the liaison officer to administer the disadvantaged business enterprise program is:

(To be completed by the Bidder)

To guarantee all of the work performed under this Contract to be done in accordance with the Specifications and in good and workmanlike manner, and to renew or repair any work which may be rejected, due to defective materials or workmanship, prior to final completion and acceptance of the project.

Enclosed herewith find certified check or bid bond in the amount of **5% OF THE BID TOTAL** made payable to the "Treasurer, State of New Hampshire," as a proposal guarantee which it is understood will be forfeited in the event the Contract is not executed, if awarded by the Department to the undersigned.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions.

(1). The prospective primary participant certifies to the best of its knowledge and belief, that it and all its principals: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification and (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. (2). Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Contract Affidavit

I/We declare under penalty of perjury under the laws of the United States and the State of New Hampshire that, in accordance with the provisions of Title 23 USC, Section 112(c), have not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this Proposal.

Dated: _____

(If a firm or individual)

Signature of Bidder _____

By _____

Address of Bidder _____

Names and addresses of members of the Firm:

(If a Corporation)

Signature of Bidder _____

Title _____

By _____

Business Address _____

Incorporated under the laws of the State of _____

Names of Officers:

President _____

Name

Address

Secretary _____

Name

Address

Treasurer _____

Name

Address

Note: See Subsection 102.07 for signature requirements.