

TOWN OF WALLINGFORD

Department of Finance Bureau of Purchases 45 South Main Street Wallingford, Connecticut 06492

Telephone (203) 294-2115 Fax (203) 294-2119

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BID NO.	DATE OF BID OPE	ENING	NING TIME OF BID OPENING INSURANCE REQUIREMENTS					
25-063	January 21, 2	026	26 2:00 P.M., Prevailing Local Time Liability See General Terms & Cor					
BID ITEM								
Rehabilitation of Bridge # 04392 Toelles Road Over Quinnipiac River								
PRE-BID M	MEETING: LOCATIO	N			PRE-BID: DATE	PRE-BID: TIME		
A pre-bid meeting will be held at Town Hall, Room 315, 45 So. Main Street Wellingford OT. January 7, 2026 10:00 A.M.								
	Nallingford, CT							
AMOUNT (AMOUNT OF BID SURETY PERFORMANCE BOND CONTRACT PERIOD OR DATE DELIVERY REQUIRED							
	General	100% 5	See General Terms & Conditions	Δς S	As Soon As Possible - Please Specify			
Terms 8	& Conditions	100/00	ce ceneral rennis a conditions	, 13 C	700117101 033IDIC - 1	loade openiy		

INVITATION TO BID

Sealed proposals will be received by the Purchasing Agent for the Town of Wallingford, in Room 206, Town Hall, 45 South Main Street, Wallingford, Connecticut, 06492, for furnishing the commodities and/or services herein listed to town agencies.

AFFIRMATION OF BIDDER

The undersigned bidder affirms and declares:

to the awarding of a bid.

- That this contract proposal is executed and signed by said bidder with full knowledge and acceptance of the provisions of the General terms & Conditions, Bid Specifications and Bid Proposal which are made a part of the contract.
- 2) That should any part of this proposal be accepted in writing by the Purchasing Agent within ninety (90) calendar days from the date of bid opening, said bidder will furnish and deliver the commodities and/or services for which this proposal is made, in the quantities and at the prices bid, and in compliance with the Specifications.

Type of Business	☐ Proprietorship	☐ Partnership		☐ Sub Chapter S Corp	•		Corporation	
Company Name				Doing Business As (Trade Name)				
Business Address			City		State		Zip Code	
Signature of Person Author	rized to Sign This Bid		Title		Date			
Print Name of Signer			Phone		Email			
Time Name of Signer			1 Hone		Eillall			
Further information as	nd references on any indi-	vidual or company	placing	g a bid may be required by	the Tov	wn of V	Wallingford prior	

General Instructions:

Proposals are to be:

- * Delivered to the Purchasing Department, Room 206, Town Hall, 45 South Main Street, Wallingford, Connecticut, 06492.
- * Submitted in duplicate unless otherwise indicated in the specifications.
- * Submitted using the blank proposal forms furnished.
- * Submitted in a sealed opaque envelope clearly marked as a public bid including the bid number and the bidder's name and address.
- * Made out and signed in the corporate, or other, name of bidder and signed by an authorized person to fully and properly execute the bid.

Proposals received later than the time and date specified for the bid opening will not be considered.

Amendments to or withdrawal of proposals received later than the time and date set for the opening will not be considered.

In order to be considered, exceptions to the bid must be made on the exceptions page or a clearly marked attachment.

ELECTRONIC CHANGES TO ANY OF THE BID PAGES INCLUDING THE SPECIFICATIONS AND GENERAL TERMS & CONDITIONS IS NOT ALLOWED AND MAY RESULT IN THE REJECTION OF THE BID.

Bidders or their representatives may be present at the bid opening. Bids are opened at the Wallingford Town Hall in room 205 immediately after the date and time stated in the bid.

The Town of Wallingford may require further information and references on any individual or company placing a bid prior to the awarding of a bid.

The Purchasing Agent reserves the right to amend and/or cancel the bid invitation prior to the time and date of the bid opening.

The Purchasing Agent reserves the right to correct an award erroneously made as a result of a clerical error on the part of the Town of Wallingford.

A contract shall not be awarded to any corporation, firm or individual who has an unpaid and overdue debt to the Town by nonpayment of taxes, by debt or contract, or who is in default as surety or otherwise by any obligation to the Town.

The Town of Wallingford is an Affirmative Action/Equal Opportunity Employer. Small, Minority, Women and Disadvantaged Business Enterprises are encouraged to respond

PURCHASING AGENT TOWN OF WALLINGFORD

BID PROPOSAL

The undersigned	, doing business in the City/Town of
	, submits herewith, in conformity with the
general terms and conditions	and specifications for the above mentioned public bid, the following proposal for:
Rehabilitation of Bridge # 0	4392 Toelles Road Over Quinnipiac River

STRUCTURAL ITEMS						
Item	Description	иом	Qty.	Unit Price	Extension	
0204001	COFFERDAM AND DEWATERING	L.F.	228	\$	\$	
0214100	COMPACTED GRANULAR FILL	C.Y.	40	\$	\$	
0401441	½" PREFORMED EXPANSION JOINT FILLER	S.F.	13	\$	\$	
0406171	HMA S0.5	TON	65	\$	\$	
0406173	HMA S0.25	TON	33	\$	\$	
0406194A	JOINT AND CRACK SEALING IN BITUMINOUS CONCRETE PAVEMENT	L.F.	333	\$	\$	
0406303	SAWING AND SEALING JOINTS	L.F.	64	\$	\$	
0409005	REMOVAL OF EXISTING WEARING SURFACE	S.Y.	532	\$	\$	
0503001	REMOVAL OF SUPERSTRUCTURE	L.S.	1		\$	
0520036A	ASPHALTIC PLUG EXPANSION JOINT SYSTEM	C.F.	28	\$	\$	
0521014	STEEL-LAMINATED ELASTOMERIC BEARINGS	EA.	4	\$	\$	
0601120	BRIDGE DECK CONCRETE (SIP FORMS)	C.Y.	132	\$	\$	
0601121	PARAPET CONCRETE	L.F.	320	\$	\$	
0601123	APPROACH SLAB CONCRETE	C.Y.	48	\$	\$	
0602030	DEFORMED STEEL BARS - GALVANIZED	LB.	53510	\$	\$	
0602901	DRILLING HOLES AND GROUTING DOWELS	EA.	487	\$	\$	
0603076A	TRUSS BRIDGE SUPERSTRUCTURE	L.S.	1		\$	
0603768	STRUCTURAL STEEL	LB.	2041	\$	\$	
0703011	INTERMEDIATE RIPRAP	C.Y.	31	\$	\$	
0707009A	MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)	S.Y.	567	\$	\$	
0819002A	PENETRATING SEALER PROTECTIVE COMPOUND	S.Y.	149	\$	\$	
0904051A	3 TUBE CURB MOUNTED BRIDGE RAIL	L.F.	240	\$	\$	

BID PROPOSAL

	HIGHWAY ITEMS					
Item	Description	иом	Qty.	Unit Price	Extension	
0201001	CLEARING AND GRUBBING	L.S.	1		\$	
0202000	EARTH EXCAVATION	C.Y.	99	\$	\$	
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	L.F.	135	\$	\$	
0209001	FORMATION OF SUBGRADE	S.Y.	235	\$	\$	
0219001	SEDIMENTATION CONTROL SYSTEM	L.F.	455	\$	\$	
0219011A	SEDIMENTATION CONTROL SYSTEM AT CATCH BASIN	EA.	1	\$	\$	
0304002	PROCESSED AGGREGATE BASE	C.Y.	358	\$	\$	
0305000	PROCESSED AGGREGATE	TON	42	\$	\$	
0406170	HMA S1.0	TON	8	\$	\$	
0406171	HMA S0.5	TON	134	\$	\$	
0406236	MATERIAL FOR TACK COAT	GAL.	115	\$	\$	
0409001	FINE MILLING OF BITUMINOUS CONCRETE (0" TO 4")	S.Y.	720	\$	\$	
0813451	GRANITE STONE TRANSITION CURBING	L.F.	20	\$	\$	
0910030	THRIE BEAM BRIDGE ATTACHMENT	EA.	2	\$	\$	
0910300	METAL BEAM RAIL (R-B MASH)	L.F.	427	\$	\$	
0911923	R-B END ANCHORAGE – TYPE 1	EA.	1	\$	\$	
0912503	REMOVE METAL BEAM RAIL	L.F.	583	\$	\$	
0944000	FURNISHING AND PLACING TOPSOIL	S.Y.	315	\$	\$	
0949828	ACER RUBRUM RED MAPLE 3'- 4' HT. WHIPS B.R.	EA.	3	\$	\$	
0949852	ACER SACCHARINUM SILVER MAPLE 2"- 2 1/2" CAL. B.B.	EA.	3	\$	\$	
0950029A	TURF ESTABLISHMENT – NEW ENGLAND MIX	S.Y.	218	\$	\$	
0950040A	CONSERVATION SEEDING FOR SLOPES	S.Y.	98	\$	\$	
0969060A	CONSTRUCTION FIELD OFFICE, SMALL	MO.	12	\$	\$	
0975004	MOBILIZATION AND PROJECT CLOSEOUT	L.S.	1		\$	
0980020	CONSTRUCTION SURVEYING	L.S.	1		\$	
1803300	IMPACT ATTENUATION SYSTEM	EA.	1	\$	\$	

BID PROPOSAL

TRAFFIC ITEMS						
ltem	Description	UOM	Qty.	Unit Price	Extension	
0822100.10	TEMPORARY TRAFFIC BARRIER	L.F.	80	\$	\$	
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	EST.	1		\$9,000.00	
0970007	TRAFFICPERSON (UNIFORED FLAGGER)	HR.	80	\$	\$	
097001A	MAINTENANCE AND PROTECTION OF TRAFFIC	L.S.	1	\$	\$	
0976002	BARRICADE WARNING LIGHTS – HIGH INTENSITY	DAY	1200	\$	\$	
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	4	\$	\$	
1204122A	PROJECT SIGN	EA.	1	\$	\$	
1208931	SIGN FACE – SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)	S.F.	15	\$	\$	
1210102	4"YELLOW EPOXY RESIN PAVEMENT MARKINGS	L.F.	710	\$	\$	
1220027	CONSTRUCTION SIGNS	S.F.	380	\$	\$	
	TOTAL AMOUNT OF BASE BID:					

Total Amount in Words:				
		DOLLARS and		
	CENTS.			
Work can begin within	days after notice to proceed			
Terms & Conditions. It is		to contact CH	RO and t	o comply with all
Payment Terms (Net 30	will be used unless specified other	erwise)		
Payment Terms (Net 30 Company Name	will be used unless specified other Date		Phone	
`	-		Phone State	Zip Code
Company Name	Date			Zip Code
Company Name Address	Date City Title		State	

EXCEPTIONS

The undersigned bidder proposes the following exceptions for **Rehabilitation of Bridge # 04392 Toelles Road Over Quinnipiac River.**

Exceptions will be considered to the product or service specifications only. All other conditions or agreements submitted in response to the bid, unless specifically requested, will be rejected.

Any and all price changes related to these exceptions are specifically stated herewith.

Exception

Price Change (Show + or -)

Name (Print)	Phone	
Sign	Date	

SPECIFICATIONS

For

Rehabilitation of Bridge # 04392 Toelles Road Over Quinnipiac River

Intent:

The Intent of these specifications is to obtain a Contractor that will furnish all labor, supervision, tools, materials, and equipment necessary to perform the rehabilitation of Toelles Road Bridge No. 04392, as shown within the attached drawings and specifications.

Basis of Award:

The Town intends to award the bid to the responsive and responsible bidder offering the lowest total estimated cost.

Inquiries:

Questions concerning the work requirements of this bid are to be submitted through the Purchasing Portal at www.wallingfordct.gov or at https://wallingford.procureware.com. Verbal inquiries and any subsequent verbal responses will not be binding to the Town of Wallingford. Answers to questions will be posted on the Purchasing Portal or via an addendum emailed to all registered bidders who have downloaded the bid online.

Pre-bid Meeting:

The Town will conduct a pre-bid meeting for this Bid on January 7, 2026 at 10:00 A.M. at Town Hall, Room 315, 45 So. Main Street, Wallingford, CT, Wallingford, CT 06492. In order to familiarize themselves with the work requirements, bidders are **STRONGLY** encouraged to attend the pre-bid meeting, to determine the scope and requirements of the work as specified. Failure to attend the pre-bid meeting will not relieve the successful bidder of any of the responsibilities of the contract.

Examination Of Site Conditions:

Bidders must satisfy themselves by personal examination of the locations and site of the proposed work as to the actual conditions and requirements of the work and inform themselves fully of the conditions relating to the construction and labor under which the work will be performed. No claim because of the lack of knowledge by the Contractor regarding the site, the proposed work, or content of the specifications and drawings will be allowed. At the date fixed for opening of Bids, it will be presumed that each Bidder has made an examination of the locations and site of work to be done under this Contract and has satisfied himself to the actual conditions and requirements.

Prevailing Wage Rates:

This project shall be subject to prevailing wage rates. Enclosed within these specifications are prevailing wage rates as issued by the State of Connecticut Department of Labor. The successful bidder shall include any additional costs associated with prevailing wage rates as part of its bid.

Definitions:

The word "Town" as used throughout these documents shall refer to the Town of Walingford, Connecticut acting through its Mayor and Town Council.

The phrase "Mayor" as used throughout these documents shall mean the Mayor of the Town of Walingford.

The word "Director" as used throughout these documents refers to the Director of Public Works of the Town of Walingford.

The word "Engineer" as used throughout these documents refers to the Town Engineer of the Town of Walingford.

The word "Bidder" as used throughout these documents refers to the party or parties submitting a bid to perform the work to be done or materials to be furnished under the Contract; the legal representatives of such party or parties.

The word "Contractor" as used throughout these documents refers to the party or parties contracting to perform the work to be done or materials to be furnished under the Contract; the legal representatives of such party or parties.

Subcontractors:

The Contractor shall submit a "List of Subcontractors". The Contractor may utilize the services of Subcontractors subject to the approval of the Town of Wallingford. All Subcontractors are required to comply with Contract provisions. The Contractor is required to retain at least fifty percent (50%) of the contract work.

SBE/MBE AND CONTRACT COMPLIANCE REQUIREMENTS:

Notwithstanding the provisions for CHRO Small Business Enterprise (SBE) requirements as outlined in Article 19 of this section, the contractor shall not sublet any portion of the work without written permission. In no case may it sublet more than 49% of the monetary value of the Contract (i.e., the major units of work of the Contract shall be performed by the Contractor). If the Contractor sublets any part of the work, this does not relieve it or the bonding company of liabilities and obligations to the Town. There is no contractual relationship between any subcontractor and the Town; the Engineer deals only with the Contractor. For the purposes of this section, costs attributable directly to equipment purchase costs shall neither be attributable to general contractor nor subcontractor.

The Contractor must not assign or dispose of his Contract in any way without the written consent of the Engineer in conjunction with that of the Mayor. Disposal must be for a cause only.

Work Schedule:

The Contractor shall contact the Public Works Department prior to the start of any work associated with this Contract.

No work will be performed at night or on Sundays or legal holidays except in case of emergency and only to the extent necessary to make the work safe. The normal work day shall be considered as any eight (8) hour period falling between 7:00 am and 5:00 pm, Monday through Friday. Special clearance will be required for work outside these times.

Engineer Estimate Of Work:

In the event that quantities of materials and/or services are provided and unit prices are requested, the estimate of work and material by which the bids will be compared, are as shown in the Proposal and are solely for the purpose of comparing proposals received and are approximate only and are not guaranteed. In such circumstance, the parts of the work have been divided into items in order to allow the bidder to bid for the different portions of the work in accordance with his estimate of their cost; so that in event of an increase or decrease of the quantities of any item of work, the actual quantity executed may be paid for at the price bid for that particular item of work.

Contractor Qualifications:

Bidders, if requested, must be able to present satisfactory evidence that they are capable and fully prepared with necessary capital, personnel, materials, and equipment to do the work to be contracted for under this Proposal.

Bidders must be registered with the State of Connecticut Department of Transportation as fully qualified to perform construction for a Group 10 major bridge structure work classification or greater and shall provide evidence of such registration as part of its bid submission, via a separate attachment.

Please note that in the event that the Town of Wallingford requests financial information (e.g., financial statements), such materials may remain confidential, if provided in a separate envelope clearly marked "Confidential."

Certificate Of Good Standing:

Any corporation whose Proposal is being considered for acceptance by the Town may be required, if requested, to provide a "Certificate of Good Standing" from the Secretary of the State's Office for Connecticut.

Commission on Human Rights Opportunities:

This contract is subject to state contract compliance requirements, including nondiscrimination statutes and spending allocation goals. State law requires a minimum spending allocation goal of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification as Small Business Enterprises ("SBE") from the Connecticut Department of Administrative Services ("DAS"). A minimum spending allocation goal of 6.25% of the state-funded portion for subcontractors holding current DAS certification as Minority-, Women-, and/or Disabled-owned businesses ("M/W/DisBE"). The contractor must demonstrate good faith effort to meet the 25% spending allocation goals.

The Contractor who is selected to perform this State project must comply with Connecticut General Statute Secs. 4a-60, 4a-60a, 4a-60g., and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5. An Affirmative Action Plan must be filed with and approved by the Commission on Human Rights and Opportunities prior to the commencement of construction.

State law requires a minimum of twenty-five (25%) percent of the contract to be set aside for award to subcontractors holding current certifications from the Connecticut Department of Administrative Services (DAS) under the provisions of Connecticut General Statute Sec. 4a-60g, as amended. (25% of the work with DAS certified Small and Minority owned businesses and 25% of that work with DAS certified Minority, Women and/or Disabled owned businesses.) The Contractor must demonstrate good faith effort to meet the twenty-five (25%) percent set-aside goals.

For municipal public works contracts and quasi-public agency projects, the Contractor must file a written or electronic non-discrimination certification with the Commission on Human Rights and Opportunities (CHRO). Forms can be found at:

http://www/ct/gov/opm/cwp/view.asp?a+2982&q=390928&opmNav GID=1806

Contract Execution:

The person or persons whose Proposal is accepted will be required to furnish all insurance certificates in amounts as hereinafter specified, within five (5) days from the date of notice of the award; said person or persons will also be required to furnish all performance and payment bonds within three (3) days from request by the Town, and at least three (3) days prior to the signing of the Contract.

The person or persons whose Proposal is accepted will be required to execute a contract, in substantially the form annexed, as scheduled by the Office of the Mayor. Once the contract is executed via formal contract signing at Wallingford Town Hall, the Contractor will be issued a Town Purchase Order for the contract.

Contracts valued at less than \$50,000.00 may be executed directly via the issuance of a purchase order, at the discretion of the Town.

Inclusion Of Contract Provisions:

The bidders' attention is directed to the form of this agreement, which includes as a part of it in addition to the Information for Bidders, Bid Proposal, General Provisions, Special Provisions, Specifications, Measurement and Payment, Contract Drawings and Standard Detail Drawings.

<u>Personnel Requirements</u>:

All work under the contract shall be performed by competent and proficient tradesman employed by the Contractor and under his supervision. Helpers and Apprentices may be used, but only under direct supervision of the job Foreman.

Inspection And Testing Of Materials:

Minimum testing requirements must meet or exceed those shown in Chapter 7 of the latest version of the CT DOT Materials Testing Manual: Suggested Minimum Schedule for Acceptance Testing (LOTCIP)' revised 4/2/2019, also found in the most recent addition of the LOTCIP Guidelines and included within the Contract Documents. The Final Materials Certification must be submitted to the Department though the COG by the Town of Wallingford upon completion and acceptance of construction.

Proposals are to be submitted in duplicate complete with:

- Cover Page
- Bid Proposal Forms
- Exceptions Page
- CHRO Contract Compliance Regulations Notification to Bidders Forms

OWNER-CONTRACTOR AGREEMENT

This agreement, made and concluded by and between the Town of Wallingford, a municipal corporation organized and existing under the laws of the State of Connecticut, acting herein by its Purchasing Agent, duly authorized, hereinafter designated the "Town", party of the first part, and (being party named in the attached copy of the proposal) hereinafter designated the "Contractor", party of the second part.

- A. WITNESSETH, That the parties to these presents, each in consideration of the agreements on the part of the other herein contained have agreed and hereby agree for themselves, their heirs, successors and assigns as follows:
 - All to be in accordance with the terms of the proposal for said work submitted to the Purchasing Agent of the Town of Wallingford, and made part of this contract.
- B. ENGINEER TO BE JUDGE. The Engineer of the Town of Wallingford and his duly authorized representatives, hereinafter referred to as the "Engineer", shall determine acceptableness, quality, character, nature and fitness of all the work done and materials furnished under this contract, and of the amount, quality, and classification of the several kinds of work for which payment is made, and he shall decide whether there has been compliance in the performance of this contract. The entire work shall be done under his supervision and to his satisfaction, and his estimates and his decisions upon all questions relating to the right of said Contractor to payments under this agreement. Inspectors shall not be deemed authorized to accept notices or waive any of the provisions hereof or modify any order or orders of said Engineer.
- C. (1) CHANGES AND EXTRA WORK. The Engineer may, in writing and without notice to surety, alter and change the line, grade, plan, form, position, dimensions or materials of the work herein contemplated, or any part thereof, in a manner not inconsistent with the general layout of said improvement, either before or after its commencement, or may order in writing any extra work which he may deem necessary in connection therewith. If such alterations diminish the quantity of work to be done they shall not be made the basis of a claim for damages, or for anticipated profits on the work that may be dispensed with. If they increase the amount of work, such increase shall be paid for according to the quantity actually done, and at the unit prices established for such work under this contract, or actual reasonable cost, as determined by the Engineer, plus fifteen (15) percent of said cost, in the discretion of the Engineer, at a lump sum price mutually agreed upon before commencing said work; provided, however, that no payment for extra work done or materials furnished shall be made unless such extras shall have been ordered in writing by the Engineer and additional funding is received and evidenced by a change order. Should alterations in the character of the work be, in the opinion of the Engineer, productive of increased cost or result in decreased cost to the Contractor, a fair and equitable sum thereof, to be agreed upon in writing by the Contractor and the Engineer before such work is begun, shall be added to or deducted from the contract price, as the case may be, providing funds are available.
 - (2) EXTRA CLAIMS TO BE MADE PROMPTLY. No claim for payment in addition to the amount so awarded, on account of extra work done (which has been approved by the Engineer prior to commencement of the work) or, materials furnished or damages sustained, shall be considered unless the Contractor shall make the same to the Engineer, in writing within twenty (20) days after the date of doing the work or the sustaining of the damages for which said compensation is claimed and shall, when requested, file with the Engineer an itemized statement of, and vouchers for, the quantities and prices of such work, materials, or damages; and it is agreed that the filing of said claim as above specified (together with said statement and vouchers when requested) shall be a condition precedent to the right of the Contractor to receive any additional compensation under this contract.

- D. (1) CONTRACTOR'S CONTROL OF WORK-ASSIGNMENT The Contractor shall not assign this contract or any interest therein, nor sublet any part of the work contemplated hereunder, nor part with control or charge thereof, without the written consent of the Purchasing Agent. Any such attempted assignment or subletting shall, at the option of the Purchasing Agent, forthwith work an avoidance of this contract, or may be treated by the Purchasing Agent as null and void.
 - The Contractor may, with the consent of and subject to the approval of the Engineer in each case, employ subcontractors to supply material and perform parts of the work required herein. But, the Engineer shall be notified in advance and his written approval secured before subcontractors are employed on the work. The employment of subcontractors will not relieve the general Contractor of full responsibility for all parts of the work.
 - (2) CONTRACTOR TO HAVE SUPERINTENDENT The Contractor shall keep a competent superintendent on the ground whenever any work is being done who shall receive orders in the Contractor's absence, and the Contractor shall obey them as if received by him personally.
- E. (1) CONTRACTOR RESPONSIBLE FOR WHOLE WORK. The Contractor shall be responsible for the entire work until its final acceptance, and any unfaithful or imperfect work or defective material that may be discovered at any time before said final acceptance shall be immediately corrected or removed by Contractor on requirement of the Engineer, except that, notwithstanding anything to the contrary of this Agreement, the Contractor shall not be responsible for the repair or replacement of defective material or parts supplied to the Contractor by an agency of the Town.
 - (2) DEFECTS. In case the nature of the defects is such that it is not expedient to have them corrected, the Engineer shall have the right to deduct from the amount due the Contractor on the final settlement of the accounts such sum of money as he considers a proper equivalent for the difference between the value of the materials or work specified and that furnished, or a proper equivalent for the damage.
 - The inspection of the work and materials by the Engineer shall not relieve the Contractor of any of his obligations to fulfill his contract as herein described. Any defective work shall be made good and unsuitable materials shall be rejected, notwithstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment.
 - (3) EXAMINATIONS The Contractor shall at any time make such openings, and to such extent, to or through such part or parts of the said structures as the Engineer shall direct, and he shall restore the part of the work so disturbed to the satisfaction of the Engineer. Should the work or materials be found defective in any respect, the whole of the expense incurred thereby shall be defrayed by the Contractor, but, if otherwise, by the Town.
 - (4) PARTIAL PAYMENT NOT CONSTRUED AS ACCEPTANCE. It is also agreed that this is an entire contract for one whole and complete work, and that no partial payments on account by the Town, nor the presence of the Engineer or inspectors, or their supervision or inspection of work or materials, nor the use of parts of the proposed structure constitute an acceptance of any part of the work before its entire completion and final acceptance.
- F. MAY BE USED BEFORE COMPLETION. The Town shall have the right to use any of the work or structures herein described or may grant permission to any person or persons to use or make connections therewith during the progress of the work herein contracted for, and the Contractor shall not intervene with or obstruct such use. No extra allowance shall be made to said Contractor on this account, nor shall such use be construed to constitute approval or acceptance by the Town of any part of the work.

G. (1) COMMENCEMENT AND COMPLETION OF WORK. The Contractor shall commence all work on the ground within the time stated therefore in the information for bidders for this work, or in the Notice To Proceed or other direction of the Engineer, and shall prosecute the same in such sections and in such order as the Engineer may direct, and shall complete the said structures and all work connected therewith within the time stipulated therefore in the Supplementary Conditions.

The Town will, during the term of this Contract, issue Work Authorizations to the contractor for specific work to be performed by the contractor. Upon receipt of the subject Work Authorization, the contractor shall verify the work to be performed and confirm that the estimated quantities and costs are agreeable. Within ten (10) calendar days from the date the Work Authorization is issued, the contractor shall sign and return the Work Authorization to the Town. Unless otherwise approved in writing by the Town Engineer, the work specified in the Work Authorization shall commence within ten (10) calendar days following the return of the signed Work Authorization by the contractor. In no case, unless otherwise specified in writing, shall the contractor not begin construction activities of the work specified in said Work Authorization more than twenty (20) calendar days from the date the Work Authorization. is issued. Failure on the part of the contractor to adhere to this process shall be a basis for the termination of this contract, with-holding of outstanding payments, with-holding of any retainage or other actions or remedies as deemed appropriate by the Town to ensure compliance with the terms and conditions of this contract.

The Contractor shall submit to all such delays, suspensions or obstructions aforesaid when ordered or notified in writing by the Engineer, without compensation therefore, and will make no claims for damages against the Town on account of such delays, suspensions, obstructions and orders, other than for such an extension of time as the Engineer may deem just within which to complete such portions of the work as are affected by the delay.

(2) EXTENSION OF TIME If the Contractor is delayed in the prosecution or completion of the work by or on account of any act or omission of the Town, or by strikes or causes beyond control of the Contractor, he may be entitled to such reasonable extension of time for the completion of the work as may be decided upon by the Engineer, provided, however, that no claim for an extension of time for any reason shall be allowed unless, within three days after such delay occurs, notice in writing of the fact of said delay, its causes, and the extension claims, shall be given by the Contractor to the Engineer.

If the delay is unreasonable or interferes with Town plans for the project, the Engineer may terminate this contract. If the Engineer terminates the contract, the Contractor will be entitled to payment for work completed. The permitting of the Contractor to go on and finish the work, or any part of it, after the time fixed for its completion or after the date to which the time for completion may have been extended shall in no way operate as a waiver on the part of the Town of any rights under this contract.

- H. (1) MAINTENANCE The Contractor agrees to maintain the work in good repair for such period and in such manner as may be set forth in the specifications.
 - (2) ENGINEER MAY MAKE REPAIRS Whenever, before the expiration of the above specified maintenance period, the Engineer shall give written notice, postage prepaid, to the business address of the Contractor, to make any repairs so required, and if the Contractor shall fail to make such repairs to the satisfaction of the Engineer within three days from the date of mailing of said notice, then the Engineer shall have the right to employ such other person or persons as he may deem proper to make the same, and the Town shall pay the expense thereof out of any money otherwise due to the Contractor for
 - said expenses. It is, however, mutually agreed that the Engineer, at his discretion, and at the Contractor's expense, may make repairs without notice to the Contractor in cases where, in his opinion, public safety required such work to be done at once.
- I. (1) CONTRACTOR'S DUTIES AND LIABILITIES The Contractor shall comply with all local, state, and national laws

and regulations, and with all Town ordinances in the prosecution of the work, and shall secure all necessary permits and licenses.

(2) CONTRACTOR LIABLE FOR DAMAGES.

- a. The Contractor shall indemnify and save harmless the Town, its officers, agents and employees against and from all damages, costs and expenses which they or any of them may suffer by, from or out of any and all claims for payment for materials or labor used or employed in the execution of this contract, and also for injuries or damages received or sustained to person or property, or both, in consequence of or resulting from any work performed by said Contractor, or of or from any negligence in guarding said work, or of or from any act or omission of said Contractor, and said Contractor shall also indemnify and save harmless said Town from all claims under the Workmen's Compensation Act arising under or out of this contract.
- b. Employees' Workers' Compensation Insurance shall be provided by Connecticut law and custom.
- c. The Contractor shall carry insurance under which the Town and the State of Connecticut shall be named as an additional insured for the whole duration of this work, including the maintenance period provided herein, with an approved insurance company or companies licensed to write such insurance in Connecticut.
- d. See the Bidding Requirements for required types and minimum insurance coverage.
- e. Sub-contractors must be protected by insurance the same as the principal contractor.
- f. It is agreed between the parties hereto that the amount of insurance set forth above does not in any way limit the liability of the Contractor to the Town by virtue of his promise to hold the Town harmless so that in the event that any claim results in a settlement or judgement in an amount above said limits, the Contractor shall be personally liable to the Town for the difference.
- g. Certificates of the insurance company or companies, must be submitted to the Purchasing Department, the Town Engineer, and the State of Connecticut Department of Transportation before the Contractor starts work on the site. Should any insurance expire or be terminated during the period in which the same is required by this contract, the Purchasing Department, the Town Engineer, and Department of Transportation shall be notified and such expired or terminated insurance must be replaced with new insurance and a new certificate furnished to the Purchasing Department, the Town Engineer, and the Department of Transportation. There shall be no lapse in coverage.
- h. Failure to provide the required insurance and certificates may, at the option of the Town, be held to be a willful violation of this contract.
- (3) CONTRACTOR SHALL PROTECT THE PUBLIC. All work in conjunction with this project must be performed in accordance with the provisions of the State of Connecticut Department of Transportation Standard Specifications for Roads and Bridges and Incidental Construction Form 819, the most recent supplements thereto, and the special provisions which are attached. All reference to the State of Connecticut or the Department of Transportation shall be applicable to the Town of Wallingford or its designated personnel.
- (4) PATENTS. The Contractor shall defend any suits or proceedings brought against the Town for alleged infringements of patents or by reason of any method of construction, or appliances, and material furnished under this contract, and shall pay any damages or costs that may be awarded against the Town as a result of such suits, free of all expense to the Town.
- J. (1) AVOIDANCE OF CONTRACT. If the work to be done under this agreement shall be abandoned, or at any time suspended for three days or more without written consent of the Purchasing Agent, or if at any time the Engineer shall be of the opinion that the Contractor is willfully violating any of the conditions or agreements of this contract, including but not limited to the Work Authorization procedures and timeframes thereto, or that the

progress of the work is, in his opinion, being so delayed that said work cannot be completed within the required time, the Engineer may give written notice, postage prepaid, to the Contractor, at his business address, to that effect. If the Contractor shall not, within ten (10) days after the mailing of such notice, take such measures as will, in the judgement of the Engineer, insure the satisfactory completion of work, he may, by and with the consent of said Purchasing Agent, notify the Contractor in writing, to discontinue all work under this contract; and it is hereto agreed that said Contractor shall no longer have any right or claim to possession of the ground, or such part thereof as the Engineer may designate; and the Town may, by means of such other agents or contractors as shall to it seem advisable, complete the work herein described, or such part thereof as it may deem necessary, and may take possession of and use such implements, tools, and materials or facilities used for or in connection with the operations or the fulfillment of this contract, except as otherwise provided. The Contractor shall not remove any portion of the plant or any materials after receiving such notice as aforesaid. And said Town is hereby authorized and empowered to apply sums of money due or to become due to said Contractor under this contract by way of reduction in damages, and as part payment of such additional expense incurred by the Town as aforesaid.

- (2) ENGINEER MAY PROTECT WORK. It is, however, mutually agreed that the Engineer, at his take measures to protect the work under construction, the adjacent ground, pipes, and other structures where in his opinion safety requires such work to be done at once.
- K. (1) PAYMENTS. The Town will pay and the Contractor will receive, as full compensation for furnishing all materials, labor and equipment for doing all work, assuming all duties, risks, and liabilities, and all obligations required by this contract, the amount stated in the proposal, or the sums of money computed at the several unit prices stated in the proposal submitted by the Contractor to the Town. It is hereby understood and agreed that the number of units that are incorporated in or made necessary by the work are covered by the contract. A copy of said proposal is made a part of this contract. The Town may make such deductions from these sums as are provided for in this contract.
 - (2) APPLICATION FOR PAYMENT. The Contractor shall submit to the Engineer an itemized Application for Payment if required, supported by such data substantiating the Contractor's right to payment as the Engineer may require. Retainage, if required, will be will be detailed within the specification section of the bid.
 - (3) CERTIFICATE FOR PAYMENT. The Engineer will within seven (7) days after the receipt of the Contractor's Application for Payment, either issue a Certificate of Payment to the Town, with a copy to the Contractor, for such amount as the Engineer determines is properly due, or notify the Contractor in writing his reasons for withholding such Certificate. The issuance of a Certificate of Payment will constitute a representation by the Engineer to the Town based on his observations at the site and the data comprising the Application for Payment, that the Work has progressed to the point indicated; that, to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to evaluation of the Work for conformance with the Contract Documents upon Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in his Certificate); and that the Contractor is entitled to payment in the amount certified. However, by issuing a Certificate of Payment, the Engineer shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that he has reviewed the construction means, methods, techniques, sequences or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the moneys previously paid on account of the Contract Sum.

- (4) PROGRESS PAYMENTS At such times as the Contractor deems it reasonable based upon the work completed and materials supplied, but in no event more than once in each calendar month, the Contractor may submit Application for Payments in accordance with paragraph K(2) hereof. The Town shall within fifteen (15) business days of receipt of a Certificate of Payment from the Engineer make such payments as certified.
- (5) PAYMENTS WITHHELD. The Engineer may decline to certify payment and may withhold his Certificate in whole or in part to the extent reasonably necessary to protect the Town, if in his opinion he is unable to make representations to the Town as provided in Subparagraph K(3) hereof. If the Engineer is unable to make such representations to the Town and to certify payment in the amount of the Application, he will notify the Contractor as provided in Subparagraph K(3) hereof. If the Contractor and the Engineer cannot agree on a revised amount, the Engineer will promptly issue a Certificate for Payment for the amount for which he is able to make such representations to the Town. The Engineer may also decline to certify payment or, because of subsequently discovered evidence or subsequent observations, he may nullify the whole or any part of any Certificate of Payment previously issued, to such extent as may be necessary in his opinion to protect the Town from loss because of:
 - a. defective work not remedied;
 - b. third party claims filed or reasonable evidence indicating probable filing on such claims;
 - c. failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
 - d. reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 - e. damage to the Town or another contractor;
 - f. reasonable evidence that the Work will not be completed within the Contract Time;
 - g. persistent failure to carry out the Work in accordance with the Contract Documents; or
 - h. unreasonable or unnecessary delay in performing the work.
 - i. failure to submit certified payroll records when so required on a "prevailing wage rate project.
 - (6) FINAL COMPLETION AND FINAL PAYMENT Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final application for Payment, the Engineer will promptly make such inspection and, when he finds the Work acceptable under the Contract Documents and the Contract fully performed, he will promptly issue a final Certificate for Payment stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable. The Engineer's final Certificate of Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth herein have been fulfilled.

Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the Engineer (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Town or its property might in any way be responsible, have been paid or otherwise satisfied; (2) consent of surety, if any, to final payment; and (3) if required by the Town, other data establishing payment of satisfaction of all such obligations, such as receipts, releases or waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Town. If any Subcontractor refuses to furnish a release or waiver required by the Town, the Contractor may furnish a bond satisfactory to the Town to indemnify it against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the Town all monies that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application of Payment.

- (7) No interest is to be allowed or paid by the Town upon any monies retained under the provisions of this contract.
- L. PAYMENT OF SUB-CONTRACTORS. The Contractor, within forty-five (45) days after payment to such Contractor by the Town, shall pay any amounts due subcontractors, whether for labor performed or materials furnished, when such labor or materials have been included in a requisition submitted by such Contractor and paid by the Town.
- M. <u>AUTHORITY AND DUTIES OF INSPECTOR</u>. An Inspector is a representative (but not a duly authorized representative as referred to in Article B of this Contract) of the Engineer assigned to make any and all necessary inspections of the work performed and materials furnished by the Contractor. Inspectors shall be authorized to inspect all work done and materials furnished. Such inspection may extend to all or any part of the work and to the preparation or manufacture of the materials to be used. In case of a dispute arising between the Contractor and the Inspector as to materials furnished or the matter of performing the work, the Inspector shall have the authority to reject material or suspend the work until the question at issue can be referred to and decided by the Engineer. The Inspector shall not be authorized to revoke, alter, enlarge, relax or release any requirements of the work, nor to issue instruction contrary to the plans and specifications.

The Inspector shall not act as foreman or perform other duties of the Contractor nor interfere with the management of the work by the Contractor. Any advice which the Inspector may give the Contractor shall in no way be construed as binding the Engineer or the Town in any way or nor releasing the Contractor from the fulfillment of the terms of the Contract.

- N. CONTENTS OF CONTRACT. The contract shall consist of all documents in the bid including the contract Proposal; the Non-Collusive Bid Statement; the Information for Bidders and Bidding Requirements; the Owner-Contractor Agreement and the Technical Specifications; Appendices; the Contract Drawings, and any and all addenda referenced in Public Bid 25-063.
 - The general features of said work are shown on the drawings on file in the office of the Engineer, referred to in the proposal for this work which are made a part of this contract, and the Engineer shall furnish the Contractor with such additional plans as may be necessary to show the details of construction, which are to be considered as illustrating the requirements set forth in this contract and specifications are to be followed by the Contractor in carrying out the work hereunder.
- O. FAIR EMPLOYMENT PRACTICES. The Contractor hereby agrees that neither he nor his subcontractors will refuse to hire or employ or to barge or to discharge from employment an individual or to discriminate against him in compensation or in terms, conditions or privilege of employment because of race, color, religious creed, age, sex, national origin or ancestry, except in the case of bona fide occupational qualification or need.
 - The Contractor further agrees that neither he nor his subcontractors will discharge, expel or otherwise discriminate against any person because he has opposed any unfair employment practice or because he has filed a complaint or testified or assisted in any proceeding under Section 31-127 of the Connecticut General Statutes. The advertisement of employment opportunities will be carried out in such a matter as not to restrict such employment so as to discriminate against individuals because of their race, color, religious creed, age, sex, national origin or ancestry, except in the case of a bona fide occupational qualification or need.
 - The terms stated above are taken from Section 31-126 of the Connecticut General Statutes, "Unfair Employment Practices."

- P. COMPLIANCE WITH WAGE RATES ACT (If Applicable). In accordance with Section 31-53 of the Connecticut General Statutes, the following provision is made a part of this Agreement:
 - The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of section 31-53 shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day.
- Q. COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) REQUIREMENTS: The Contractor hereby agrees that all construction work under this contract will be performed in conformance with all current and applicable OSHA requirements, and that any costs for said compliance shall be included in the various contract items.
- R. <u>For clarity, this Contractor Contract and Bid include additional parts, documents and terms listed in Section 2.0 of the Bid General Terms and Conditions, all of which are incorporated by reference herein.</u>
- S. Miscellaneous Terms and Conditions
 - 1. Governing Law. See Bid Terms and Conditions Section 27.0
 - 2. Jurisdiction and Venue See Bid Terms and Conditions Section 27.0
 - 3. Severability See Bid Terms and Conditions Section 27.0
 - 4. Additional Terms and Conditions See Bid Terms and Conditions

The total amount of this contract \$	
IN WITNESS WHEREOF, the parties hereto	have set their hands and seals thisday of
Signed, Sealed and Delivered in the presence of:	TOWN OF WALLINGFORD
	By: Glen Masewicz, Purchasing Agent CONTRACTOR:
	Ву:

LICENSES

	COMPANY NAME/ADDRESS/PHONE NUME	BER	REPRESENTATIVE
1.			
2.			
3.			
4.			
4.			

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REFERENCES FOR SIMILAR WORK

COMPANY NAME/ADDRESS/PHONE NUI	MBER	REPRESENTATIVE	
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PROPOSED SUBCONTRACTORS

COMPANY/INDIVIDUAL NAME/ADDRESS/PHO	NE LICEN	ISE NUMBER
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2		
3		
4		
5		

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CONTRACTOR SITE VERIFICATION FORM

Public Bid 25-063
Rehabilitation of Bridge No. 04392
Toelles Road over the Quinnipiac River
Wallingford, CT

AN INDIVIDUAL by the name of				_
and representing	(Company I			-
hereby attest that I have field w conditions.	alked the site	e for the above referenced p	roject and am	familiar with the existing
	Date	:	Signature	
Title				

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Town of Wallingford, CT Non-Collusion Affidavit

The undersigned certifies under penalty of false statement that this proposal or contract has been made, submitted and executed in good faith and without collusion or fraud with any other person, and without any agreement designed to limit independent bidding or competition. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

The bid has been arrived at by the bidder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid, designed to limit independent bidding or competition; and the contents of the bid have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid and will not be communicated to any such person prior to the official opening of the bid.

I further certify that I have not provided or directed to be provided gifts, meals, or gratuities, as defined in Sec. 43-8 of the Wallingford Code of Ordinances to any official or employee of the Town of Wallingford responsible for awarding or administering this bid or contract.

Please complete and sign

Legal Name of Bidder:		
Business Address:		
Name of Authorized Agent:	Title:	
Phone	Email:	
Signature:	Date:	

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Town of Wallingford, CTNon-Use of Fracking Waste Material

We hereby certify under penalty of perjury that no natural gas waste or oil waste will be used by the undersigned bidder or any contractor, sub-contractor, agent or vendor agent in connection with the bid; nor will the undersigned bidder or any sub-contractor, agent or vendor agent thereof apply any natural gas waste or oil waste to any road or real property within the Town of Wallingford as a result of the submittal of this bid if selected.

For the purposes of this certification, the terms 'oil waste' and 'natural gas waste' do not include products derived from the distillation or refinement of petroleum such as asphalt or bitumen

(Company Name)	
 Date	By: Signature
	Title

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GENERAL TERMS AND CONDITIONS

- 1.0 All bids are subject to these Bid General Terms and Conditions, Bid Specifications and Contract Proposal as provided.
- 2.0 The contract shall consist of all bid documents including the Invitation to Bid; General Instructions; Bid Proposal; Specifications; the General Terms and Conditions and any and all Insurance or Bonds required; as well as any, Contract; Drawings, Appendices; Addenda the Bidders Response, as well as, any other document that was issued and made part of the bid.
- 3.0 Should any conflict in terms herein exist between the above documents which are included in the current bid, the terms of the Bid General Terms and Conditions shall supersede, control, govern and supplant and take priority over any conflicting terms in the other documents which are all made a part of the Bid.
- 4.0 Price:

Bid prices will include delivery, F.O.B. destination, without extra compensation.

5.0 Taxes:

The Town of Wallingford is exempt from the payment of the Excise Taxes imposed by the Federal Government, and the Sales and Use Tax of the State of Connecticut. Such taxes should not be included in the bid price. Exemption certificates will be furnished to the successful bidder.

6.0 Award:

The Purchasing Agent reserves the right to make an award which, in his judgment and recommendation from the department, following bid evaluations; best meets the specifications and is deemed in the best interest of the Town of Wallingford. The Town reserves the right to increase or decrease all quantities indicated in this bid.

The Purchasing Agent further reserves the right to reject any or all bids, in whole or in part; to award any item, group of items or total bid unless otherwise specified by the bidder, and to waive informality or technical defects, if, in his judgment, the best interests of the Town of Wallingford will be served.

- 7.0 Price Discrepancies:
 - In the event there is a discrepancy between the unit price and extended price the unit price will prevail.
 - In the event there is a discrepancy between the written price and numeric price the written price will prevail.
- 8.0 <u>Multiple Year Bid Pricing</u>:

For multiple year bids, the bid price for each successive year is to be greater than <u>or</u> equal to the preceding year. Front loaded bids may be rejected.

9.0 Additional Departments:

The quoted prices will be made available to any Town of Wallingford department or agency wishing to utilize the vendor's service. Anticipated user departments may include, but shall not be limited to, Board of Education, Water & Sewer, Electric Division, and Public Works.

10.0 Laws:

All deliveries shall comply in every respect with all applicable laws of the Federal Government and/or the State of Connecticut.

11.0 Permits:

It is the responsibility of the successful bidder to obtain all Federal, State and local permits when needed. If the permit is for a bid specific project, all fees imposed by the Town, for permits issued by the Town of Wallingford will be waived. All State or Federal permitting fees to be collected by the Town will not be waived.

12.0 Hold Harmless & Indemnification Agreement:

The bidder assumes full responsibility for its negligent acts, errors or omissions and agrees to hold harmless and indemnify the Town of Wallingford, its agents and servants, from and against any and all claims, suits, damages, costs, losses and expenses resulting from such negligent acts, errors or omissions while conducting activities associated with this bid.

13.0 Anti Trust Claim Assignment Clause:

The contractor or subcontractor offers and agrees to assign to the Town of Wallingford, all right, title and interest in all causes of action it may have under Section 4 of the Clayton Act, 15 U.S.C. Section 15, or under Chapter 624 of the General Statutes of Connecticut, arising out of the purchase of services, property or intangibles of any kind pursuant to a public purchase contract or subcontract. This assignment shall be made and become effective at the time the Town of Wallingford awards or accepts such contract, without further acknowledgement by the parties.

14.0 Non-Collusive Bid Statement

The bidder, being fully informed regarding the accuracy of the statements made herein, certifies that:

- a. The bid has been arrived at by the bidder independently and has been submitted without collusion with, and without any agreement, understanding, or planned common course of action with, any other vendor of materials, supplies, equipment, or services described in the invitation to bid, designed to limit independent bidding or competition, and,
- b. The contents of the bid have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid, and will not be communicated to any such person prior to the official opening of the bid.

The bidder further certifies that this statement is executed for the purposes of inducing the Town of Wallingford to consider the bid and make an award in accordance therewith.

15.0 Non Discrimination Clause:

Pursuant to Section 4a-60 and 4a-60a of the Connecticut General Statutes as amended by Public Act 07-142 and 07-245, the bidder agrees and warrants that he or his subcontractors will in the performance of the contract not discriminate or permit discrimination against any person or group of people on the grounds of race, color, religious creed, age, marital status, civil union, national origin, ancestry, sex, sexual orientation, mental retardation, including physical disability unless it is shown by the contractor that the physical disability prevents performance of the work. In addition, the contractor agrees to comply with all other provisions of the aforementioned statutes.

- 15.1 Prior to entering into a contract and the issuance of a purchase order, the bidder shall provide to the Town documentation such as a company or corporate policy adopted by the governing body that supports the nondiscrimination agreement and warranty as stated above.
- 15.2 The Contractor further agrees that neither he nor his subcontractors will discharge, expel or otherwise discriminate against any person because he has opposed any unfair employment practice or because he has filed a complaint or testified or assisted in any proceeding under Section 31-127 of the Connecticut General Statutes. The advertisement of employment opportunities will be carried out in such a manner as not to restrict or discriminate against individuals because of their race, color, religious creed, age, sex, national origin or ancestry, except in the case of a bona fide occupational qualification or need.

16.0 Safety Standards:

All contractors and their employees, agents and subcontractors are required to comply with all EPA, NFPA and OSHA safety standards at all times while working on site. The Contractor and employees, agents and subcontractors found to be in non-compliance may be removed from the work site, as well as subject to forfeiture of payment and/or contract termination. The Town reserves the right to inspect the work site at any time for safety compliance.

The Town may require the contractor as well as any agents and subcontractors to provide a copy of their OSHA 300 log for the three previous years for review.

17.0 Debarment:

The Purchasing office reviews any bid being considered to assure that neither the contractor nor any subcontractor being utilized is subject to state or federal debarment based on published debarment lists. Persons or firms currently debarred under the Federal Davis Bacon Act that are included on the State Debarment List pursuant to Connecticut General Statutes, Section 31-53a, as amended, shall not be awarded a contract. No contract shall be awarded to any firm, corporation, partnership or association in which such persons or firms have an interest until the expiration date listed has passed.

18.0 Performance, Labor and Material Bond (If Applicable):

To insure the faithful execution of the contract, according to its provisions, the bidder awarded the contract will be required to provide at his own expense, to the Town of Wallingford, a Performance Bond for the full amount of the contract and also furnish a Labor and Material Bond. The bond must be written by a company licensed to write business in the State of Connecticut and shall be furnished prior to the issuance of a Contract or a Purchase Order.

DRS Guarantee Bond (for out-of-state contractors only); A non-resident contractor working in Connecticut and a surety company licensed to do business in Connecticut shall use Form AU-766

19.0 Bid Bond (If Applicable):

A Certified Check, Cashier's Check or Bid Bond in the amount stated on the contract proposal, made payable to the "Treasurer, Town of Wallingford", must be submitted with each bid, as a guarantee that in case the contract is awarded, the bidder will execute such contract and furnish satisfactory Performance and Labor and Material Bond if required. Unsuccessful bidders shall be entitled to return of surety where the Agent has required bid deposits. A successful bidder shall forfeit any surety required by the Agent upon failure on his part to enter into a contract within ten (10) days after being notified of the award.

20.0 Toxic Substances:

In accordance with Section 31-40M of the General Statutes of Connecticut, any person who supplies any toxic substances as defined in 31-40J shall provide the following information:

- a. The generic or basic chemical name of the toxic substance.
- b. The level at which exposure to the substance is determined to be hazardous, if known.
- c. The acute and chronic effects of exposure of hazardous levels.
- d. The symptoms of such effects.
- e. The appropriate emergency treatment.
- f. Proper conditions for safe use and exposure to such toxic substance.
- g. Procedures for cleanup of leaks and spills of such toxic substance.
- h. A label on each container of any such substance which states, in a clearly legible and conspicuous form, that a toxic substance is contained therein.

This information should be disclosed at the time of the bid opening and chemical Safety Data Sheets (S.D.S.) sheets will also be required if the products meet the toxic substance criteria.

21.0 Training:

Pursuant to Connecticut General Statutes, Section 31-53b contractors must furnish proof to the Labor Commission that all employees performing manual labor on public building projects have completed a course in construction safety. The statute applies to all public building projects where state funds are involved and the total construction cost is \$100,000 or more.

22.0 Payment Terms:

Payment terms will be considered in an award under the following conditions:

A) Preferred Payment Terms:

Any discount effective either for 30 days or based on "10/EOM" (10 days after the end of the month, e.g., 2%/30 days or 2/10 EOM). The minimum payment term is 20 days from receipt of invoice. Shorter payment terms or C.O.D will not be considered unless stated in the bid.

B) Secondary Payment Terms:

Any discount effective for 20 days, e.g., 2%/20 days.

If bids are tied, the longer payment period will be considered the lower bid. For example, thirty days terms are better than twenty days terms, providing the same percentages apply (such as 1% or 2%).

C) Short Period Payment Terms:

Payment terms of less than 20 days, even with a discount, are not considered comparable to longer period payment terms due to the special handling of the payment required in such short check-processing period. Such terms will not be considered in an award except in the case of a tie bid.

22.1 It shall be understood that the cash discount period will be from receipt of invoice and not from the date of the invoice.

23.0 <u>Liability Insurance (If Applicable):</u>

The General Terms and Conditions require the bidder awarded the contract to maintain in force during the performance of the work policies of workers compensation insurance, employers liability, bodily injury liability and property damage insurance covering the operations of the contractor and the use of all motor vehicles employed by the contractor. A certificate of insurance evidencing this fact that the contractor has secured the required insurance shall be filed with the Town of Wallingford at the time of the execution of this contract. It is further required that the Town of Wallingford be named as an additional insured. This should be shown under the description of operations portion of the certificate of insurance. All certificates should also indicate a notice of cancellation complying with state statute.

24.0 Minimum Requirements for Certificate of Insurance

A. Commercial General Liability

Products and completed operations insurance for ongoing and completed operations shall be maintained for a period of two (2) years after the acceptance of the Project by the Department. Applicable minimum coverage amounts:

- Minimum Single Occurrence Amount: \$ 2,000,000.00
- Minimum Annual Aggregate Amount: \$4,000,000.00

B. Automobile Liability

The Contractor shall obtain automobile liability insurance covering the operation of all motor vehicles, including those hired or borrowed, that are used in connection with the Project for all damages arising out of: (1) bodily injury to or death of all persons and/or (2) injury to or destruction of property; in any one accident or occurrence. This policy shall not be subject to an annual aggregate limitation.

• Minimum Single Occurrence Amount: \$ 2,000,000.00

C. Excess (Umbrella Liability) Liability

- The requirement that an umbrella policy be provided will depend on a case-by-case evaluation. Your exposure to catastrophic loss arising from the work or service being performed will determine the limit required.
- D. Workers Compensation & Employers Liability
 - Per Connecticut Statutes
- E. Professional Errors & Omissions Insurance
 - \$1,000,000.00

25.0 Stipulations:

A contract issued as the result of a bid shall not be considered exclusive. The Town reserves the right to contract with other vendors for similar services when deemed appropriate.

- 25.1 The Town maintains the right to withhold payment for unsatisfactory materials and/or workmanship until such time that the defect is corrected. If the defect is not satisfactorily repaired within 60 days, the Town may elect to have the repair made by an alternate vendor and subtract the cost from the Contractor's invoice. The Town also reserves the right to deduct from the vendor's billing any costs incurred as a result of inferior or unsatisfactory materials and/or workmanship.
- 25.2 The Town reserves the right to cancel the contract at any time with no cost to the Town. Any violations of the contract specifications shall be deemed to be justification to cancel the contract. Should it become necessary for the Town to write a letter notifying the contractor of unsatisfactory work, it will become the first step in terminating the contract for cause. If it is necessary to repeat this procedure, the third letter will constitute notice of termination of the contract for cause. The Town's decision shall be final and without recourse or cost to the Town. Furthermore, the Town reserves the right to deduct from the vendor's invoices any costs incurred due to the cancellation of a contract for cause. If the cancellation is for budgetary considerations or is based upon the discretionary right of the Town then the cancellation shall be upon thirty (30) days written notice.
- 25.3 The Town reserves the right not to award the continuation of a multiple-year bid. The award of each year's contract is contingent upon adoption and approval of budgetary funds for this purpose.
- 26.0 All contractors and their subcontractors shall provide a waiver of and to any mechanics liens prior to the start of the contracted work.
- 27.0 General Provisions.
- 27.1 <u>Integration</u>. This Bid Agreement is intended to be and constitutes the final, complete and exclusive agreement regarding the subject matter of this Bid and all prior or contemporaneous agreements, understandings, representations and statements, oral or written, are merged into and superseded by this Bid Agreement. No parol or extrinsic evidence of any kind and no course of dealing or usage of trade or course of performance shall be used to vary, contradict, supplement or add to the terms of this Bid Agreement.
- 27.2 <u>Amendment</u>. No amendment, modification, termination or waiver of this Bid Agreement or any of its provisions shall be valid unless it is in writing and signed by the Party against which such amendment, modification, termination or waiver is sought to be enforced.
- 27.3 <u>Binding Effect</u>. This Bid Agreement shall bind and inure to the benefit of the Parties and their respective successors, assigns and legal representatives. Except as otherwise stated in this Bid Agreement, no person or entity other than the Parties shall have any rights under, or be deemed a beneficiary of, this Agreement.
- 27.4 <u>Governing Law</u>. This Bid Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Connecticut without regard or reference to choice of law provisions or rules.

- 27.5 <u>Jurisdiction and Venue</u>. Any dispute relating in any way to this Bid Agreement shall be litigated only in a court located in Connecticut, subject to the provisions of this Bid Agreement. The Parties irrevocably consent and submit to the exclusive jurisdiction of the state courts in Connecticut in connection with any action, dispute or proceeding arising out of or relating to this Agreement and the Parties also consent to service of process by any means authorized by Connecticut law.
- 27.6 <u>Severability</u>. If any one or more of the provisions of this Bid Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such invalidity, illegality or unenforceability shall not affect any other provisions of this Bid Agreement and this Bid Agreement shall be construed as if such invalid, illegal or unenforceable provisions had never been included in this Bid Agreement.
- 27.7 <u>Interpretation</u>. This Bid Agreement has been negotiated at arm's length. Any rule of law or legal decision that would require interpretation of this Bid Agreement against the drafter is not applicable and is waived.
- 27.8 <u>Attorneys' Fees</u>. Each Party shall pay his or its own attorneys' fees, costs and related expenses incurred by them or it in connection with the Action and with the negotiation, preparation, execution and delivery of this Bid Agreement. The prevailing Party in any litigation between or including the Parties arising out of or relating to this Bid Agreement shall be entitled to an award of their or its reasonable attorneys' fees and costs and charges incurred in such litigation.
- 27.9 <u>Non-Appropriations Clause.</u> In the event Town of Wallingford funds are not appropriated by the Town Council for each fiscal year the Bid Agreement is in effect, the Bid Agreement will terminate at the end of the last fiscal year in which Town funds were appropriated by the Town's Council. Termination for non-appropriation of funds will be without additional costs or penalties to the Town of Wallingford. The Town of Wallingford will give 30 days' notice of such determination not to appropriate funds, but in no event later than 60 days prior to the end of the current fiscal year.
- 27.10 <u>Contracts for Goods & Services.</u> All contracts to be included in the Bid Agreement must have been made a part of the Bid Invitation and approved, reviewed, and drafted by the Law Department of the Town of Wallingford.
- 27.11 <u>Free of Defects.</u> The Bidder warrants that all materials to be incorporated or provided and all work performed shall be free of all defects and shall meet all relevant standards of merchantability for the purposes intended for no less than one year from completion of work provided.
- 27.12 <u>No Automatic Renewals.</u> No Bid Agreement shall automatically renew unless the Town of Wallingford is made aware of the renewal 90 days prior to the renewal date in writing and has the right to terminate prior to the automatic renewal thereof.
- 27.13 <u>No online changing Terms Incorporated</u>. No Bid Agreement shall incorporate terms that may refer to unilaterally changeable terms by Bidder publishing new terms online.
- 27.14 <u>Right to User Data.</u> No Bid Agreement shall allow the Bidder to retain Town of Wallingford data, and all personal data shall be offered to be returned at the termination of the Bid Agreement term.
- 27.15 Connecticut Freedom of Information Act. As codified in Chapter 14 of the Connecticut General Statutes as amended, the parties hereto agree to comply with the provisions of said Connecticut Freedom of Information Act.

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. <u>See</u> Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following <u>BIDDER CONTRACT COMPLIANCE MONITORING REPORT</u> must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category.

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; stone/metal workers; painting precious workers; cementing/gluing machine operators and tenders: etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.

Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa.

Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or

Asian or 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. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa.

American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

origin, regardless of race.

17HC11 Blader Information	
Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number Or Social Security Number
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. YesNoBidder is a minority business enterprise YesNo (If yes, check ownership category) BlackHispanic Asian American American Indian/Alaskan NativeIberian Peninsula Individual(s) with a Physical Disability_ Female
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes_ No_
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? YesNo	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? YesNo
Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? YesNo	Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes No Yes No
Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? YesNo	9. Does your company have a mandatory retirement age for all employees? Yes No Yes No Yes No Yes No Yes No **The description of the property of the
Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? YesNo	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? YesNoNA
5. Do you notify the Ct. State Employment Service of all employment openings with your company? YesNo	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? YesNoNA
Does your company have a collective bargaining agreement with workers? YesNo 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? YesNo	12. Does your company have a written affirmative action Plan? YesNo If no, please explain.
6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes No	13. Is there a person in your company who is responsible for equal employment opportunity? YesNo If yes, give name and phone number

1	Will the work of this contract	include subcontractors	or suppliers?	Yes	No	

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above?

Yes__ No__

PART IV - Bidder E	Employment	Informati	ion		Date	<u>:</u>					
JOB CATEGORY *	OVERALL TOTALS		HITE Hispanic	BLA (not of H origin)	ispanic	HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

^{*}NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

ART V - Bidder Hiring and Recruitment Practices						(Page 5)		
Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				any of the below listed ats that you use as alification	3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination			
SOURCE	YES	NO	% of applicants provided by source					
State Employment Service					Work Experience			
Private Employment Agencies					Ability to Speak or Write English			
Schools and Colleges					Written Tests			
Newspaper Advertisement					High School Diploma			
Walk Ins					College Degree			
Present Employees					Union Membership			
Labor Organizations					Personal Recommendation			
Minority/Community Organizations					Height or Weight			
Others (please identify)					Car Ownership			
					Arrest Record			
					Waga Garnishmants			

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

Construction Contracts - Required Contract Provisions (State Funded Only Contracts)

Index

- 1. Specific Equal Employment Opportunity Responsibilities
- 2. Contract Wage Rates
- 3. Americans with Disabilities Act of 1990, as Amended
- 4. Connecticut Statutory Labor Requirements
 - a. Construction, Alteration or Repair of Public Works Projects; Wage Rates
 - b. Debarment List Limitation on Awarding Contracts
 - c. Construction Safety and Health Course
 - d. Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited
 - e. Residents Preference in Work on Other Public Facilities (Not Applicable to Federal Aid Contracts)
- 5. Tax Liability Contractor's Exempt Purchase Certificate (CERT 141)
- 6. Executive Orders (State of CT)
- 7. Non-Discrimination Requirement and Certification (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised)
- 8. Whistleblower Provision
- 9. Connecticut Freedom of Information Act
 - a. Disclosure of Records
 - b. Confidential Information
- 10. Service of Process
- 11. Substitution of Securities for Retainages on State Contracts and Subcontracts
- 12. Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- 13. Forum and Choice of Law
- 14. Summary of State Ethics Laws
- 15. Audit and Inspection of Plants, Places of Business and Records
- 16. Campaign Contribution Restriction

- 17. Tangible Personal Property
- 18. Bid Rigging and/or Fraud Notice to Contractor
- 19. Consulting Agreements Representation
- 20. Sovereign Immunity
- 21. Large State Contract Representation for Contractor
- 22. Large State Contract Representation for Official or Employee of State Agency
- 23. Iran Investment Energy Certification
- 24. Access to Contract and State Data
- 25. Affirmative Action Policy Statement
- 26. Compliance with Consumer Data Privacy and Online Monitoring

Index of Exhibits

- EXHIBIT A Specific Equal Employment Opportunity Responsibilities (page 16)
- EXHIBIT B Affirmative Action Policy Statement (page 26)
- EXHIBIT C Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 30)
- EXHIBIT D State Wage Rates and Other Related Information (page 38)

1. Specific Equal Employment Opportunity Responsibilities

The Contractor shall comply with the Specific Equal Employment Opportunity requirements, as applicable, attached at Exhibit A and hereby made part of this Contract.

2. Contract Wage Rates

The Contractor shall comply with:

The State wage rate requirements indicated in Exhibit D hereof are hereby made part of this Contract.

Prevailing Wages for Work on State Highways; Annual Adjustments. With respect to contracts for work on state highways and bridges on state highways, the Contractor shall comply with the provisions of Section 31-54 and 31-55a of the Connecticut General Statutes, as revised.

As required by section 1.05.12 (Payrolls) of the State of Connecticut, Department of Transportation's Standard Specification for Roads, Bridges and Incidental Construction (FORM 818), as may be revised, every Contractor or subcontractor performing project work on a federal aid project is required to post the relevant prevailing wage rates as determined by the United States Secretary of Labor. The wage rate determinations shall be posted in prominent and easily accessible places at the work site.

3. Americans with Disabilities Act of 1990, as Amended

This provision applies to those Contractors who are or will be responsible for compliance with the terms of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. 12101 et seq.), (Act), during the term of the Contract. The Contractor represents that it is familiar with the terms of this Act and that it is in compliance with the Act. Failure of the Contractor to satisfy this standard as the same applies to performance under this Contract, either now or during the term of the Contract as it may be amended, will render the Contract voidable at the option of the State upon notice to the contractor. The Contractor warrants that it will hold the State harmless and indemnify the State from any liability which may be imposed upon the State as a result of any failure of the Contractor to be in compliance with this Act, as the same applies to performance under this Contract.

4. Connecticut Statutory Labor Requirements

(a) Construction, Alteration or Repair of Public Works Projects; Wage Rates. The Contractor shall comply with Section 31-53 of the Connecticut General Statutes, as revised. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to

any employee welfare fund, as defined in subsection (i) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

- **(b) Debarment List. Limitation on Awarding Contracts.** The Contractor shall comply with Section 31-53a of the Connecticut General Statutes, as revised.
- (c) Construction Safety and Health Course. The Contractor shall comply with section 31-53b of the Connecticut General Statutes, as revised. The contractor shall furnish proof to the Labor Commissioner with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 of the Connecticut General Statutes, as revised, on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

Any employee required to complete a construction safety and health course as required that has not completed the course, shall have a maximum of fourteen (14) days to complete the course. If the employee has not been brought into compliance, they shall be removed from the project until such time as they have completed the required training.

Any costs associated with this notice shall be included in the general cost of the contract. In addition, there shall be no time granted to the contractor for compliance with this notice. The contractor's compliance with this notice and any associated regulations shall not be grounds for claims as outlined in Section 1.11 – "Claims".

- (d) Awarding of Contracts to Occupational Safety and Health Law Violators **Prohibited.** The Contract is subject to Section 31-57b of the Connecticut General Statutes, as revised.
- (e) Residents Preference in Work on Other Public Facilities. NOT APPLICABLE TO FEDERAL AID CONTRACTS. Pursuant to Section 31-52a of the Connecticut General Statutes, as revised, in the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available, then to residents of other states.

5. Tax Liability - Contractor's Exempt Purchase Certificate (CERT – 141)

The Contractor shall comply with Chapter 219 of the Connecticut General Statutes pertaining to tangible personal property or services rendered that is/are subject to sales tax. The Contractor is responsible for determining its tax liability. If the Contractor purchases materials or supplies pursuant to the Connecticut Department of Revenue Services' "Contractor's Exempt Purchase Certificate (CERT-141)," as may be revised, the Contractor acknowledges and agrees that title to such materials and supplies installed or placed in the project will vest in the State simultaneously with passage of title from the retailers or vendors thereof, and the Contractor will have no property rights in the materials and supplies purchased.

Forms and instructions are available anytime by: Internet: Visit the DRS website at www.ct.gov/DRS to download and print Connecticut tax forms; or Telephone: Call 1-800-382-9463 (Connecticut calls outside the Greater Hartford calling area only) and select Option 2 or call 860-297-4753 (from anywhere).

6. Executive Orders and Other Enactments

- (a) All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the Client Agency's authority to require compliance with the Enactments.
- (b) This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.
- (c) This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017, concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04. If any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.

7. Non-Discrimination

- (a) For purposes of this Section, the following terms are defined as follows:
 - i. "Commission" means the Commission on Human Rights and Opportunities;

- ii. "Contract" and "contract" include any extension or modification of the Contract or contract:
- iii. "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
- iv. "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender- related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose;
- v. "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
- vi. "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements;
- vii. "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;
- viii. "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;
- ix. "minority business enterprise" means any small contractor or supplier of materials fifty- one percent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of Connecticut General Statutes § 32- 9n; and
- x. "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, including but not limited to any federally

- recognized Indian tribal governments, as defined in C.G.S. § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in the immediately preceding enumerated items (1), (2), (3), or (4).
- (b) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, status as a victim of domestic violence, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, status as a victim of domestic violence, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved;
 - (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this Section and Connecticut General Statutes §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes
 - §§ 46a-56, 46a-68e and 46a-68f; and (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this Section and Connecticut General Statutes § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.
- (c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.
- (d) The Contractor shall develop and maintain adequate documentation, in a manner

prescribed by the Commission, of its good faith efforts.

- (e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes §46a-56; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.
- (f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.
- (g) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes § 46a-56; and (4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and Connecticut General Statutes § 46a-56.
- (h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes § 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the

Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

(i) Pursuant to subsection (c) of section 4a-60 and subsection (b) of section 4a-60a of the Connecticut General Statutes, the Contractor, for itself and its authorized signatory of this Contract, affirms that it understands the obligations of this section and that it will maintain a policy for the duration of the Contract to assure that the Contract will be performed in compliance with the nondiscrimination requirements of such sections. The Contractor and its authorized signatory of this Contract demonstrate their understanding of this obligation by (A) having provided an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations under such sections, (B) signing this Contract, or (C) initialing this nondiscrimination affirmation in the following box:

8. Whistleblower Provision

The following clause is applicable if the Contract has a value of Five Million Dollars (\$5,000,000) or more.

Whistleblowing. This Contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of information to any employee of the contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of this Contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the Contractor.

9. Connecticut Freedom of Information Act

(a) Disclosure of Records. This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to FOIA and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General

Statutes.

(b) Confidential Information. The State will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the State receives from the Contractor. However, all materials associated with the Contract are subject to the terms of the FOIA and all corresponding rules, regulations and interpretations. In making such a request, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract conflicts or is in any way inconsistent with this section, this section controls and shall apply, and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking the documentation as "CONFIDENTIAL," DOT will first review the Contractor's claim for consistency with the FOIA (that is, review that the documentation is actually a trade secret or commercial or financial information and not required by statute), and if determined to be consistent, will endeavor to keep such information confidential to the extent permitted by law. See, e.g., Conn. Gen. Stat. §1-210(b)(5) (A-B). The State, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. Should the State withhold such documentation from a Freedom of Information requester and a complaint be brought to the Freedom of Information Commission, the Contractor shall have the burden of cooperating with DOT in defense of that action and in terms of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall the State have any liability for the disclosure of any documents or information in its possession which the State believes are required to be disclosed pursuant to the FOIA or other law.

10. Service of Process

The Contractor, if not a resident of the State of Connecticut, or, in the case of a partnership, the partners, if not residents, hereby appoints the Secretary of State of the State of Connecticut, and his successors in office, as agent for service of process for any action arising out of or as a result of this Contract; such appointment to be in effect throughout the life of this Contract and six (6) years thereafter.

11. Substitution of Securities for Retainages on State Contracts and Subcontracts

This Contract is subject to the provisions of Section 3-ll2a of the General Statutes of the State

of Connecticut, as revised.

12. Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The Contractor shall comply, if applicable, with the Health Insurance Portability and Accountability Act of 1996 and, pursuant thereto, the provisions attached at Exhibit B, and hereby made part of this Contract.

13. Forum and Choice of Law

Forum and Choice of Law. The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

14. Summary of State Ethics Laws

Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes (a) the State has provided to the Contractor the summary of State ethics laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes, which summary is incorporated by reference into and made a part of this Contract as if the summary had been fully set forth in this Contract; (b) the Contractor represents that the chief executive officer or authorized signatory of the Contract and all key employees of such officer or signatory have read and understood the summary and agree to comply with the provisions of state ethics law; (c) prior to entering into a contract with any subcontractors or consultants, the Contractor shall provide the summary to all subcontractors and consultants and each such contract entered into with a subcontractor or consultant on or after July 1, 2021, shall include a representation that each subcontractor or consultant and the key employees of such subcontractor or consultant have read and understood the summary and agree to comply with the provisions of state ethics law; (d) failure to include such representations in such contracts with subcontractors or consultants shall be cause for termination of the Contract; and (e) each contract with such contractor, subcontractor or consultant shall incorporate such summary by reference as a part of the contract terms.

15. Audit and Inspection of Plants, Places of Business and Records

(a) The State and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's and

Contractor Parties' plants and places of business which, in any way, are related to, or involved in, the performance of this Contract. For the purposes of this Section, "Contractor Parties" means the Contractor's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the Contractor is in privity of oral or written contract and the Contractor intends for such other person or entity to Perform under the Contract in any capacity.

- (b) The Contractor shall maintain and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the State and its agents.
- (c) The State shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the State suspects fraud or other abuse, or in the event of an emergency, the State is not obligated to provide any prior notice.
- (d) The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Agreement, or (ii) the expiration or earlier termination of this Agreement, as the same may be modified for any reason. The State may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.
- (e) The Contractor shall cooperate fully with the State and its agents in connection with an audit or inspection. Following any audit or inspection, the State may conduct, and the Contractor shall cooperate with an exit conference.
- (f) The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

16. Campaign Contribution Restriction

For all State contracts, defined in section 9-612 of the Connecticut General Statutes as having a value in a calendar year of \$50,000 or more, or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this Contract represents that they have received the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice.

17. Tangible Personal Property

- (a) The Contractor on its behalf and on behalf of its Affiliates, as defined below, shall comply with the provisions of Conn. Gen. Stat. §12-411b, as follows:
 - (1)For the term of the Contract, the Contractor and its Affiliates shall collect and remit to the State of Connecticut, Department of Revenue Services, any Connecticut use tax due under the provisions of Chapter 219 of the Connecticut General Statutes for items of tangible personal property sold by the Contractor or by any of its Affiliates in the same manner as if the Contractor and such Affiliates were engaged in the business of selling tangible personal property for use in Connecticut and had sufficient nexus under the provisions of Chapter 219 to be required to collect Connecticut use tax;
 - (2)A customer's payment of a use tax to the Contractor or its Affiliates relieves the customer of liability for the use tax;

- (3) The Contractor and its Affiliates shall remit all use taxes they collect from customers on or before the due date specified in the Contract, which may not be later than the last day of the month next succeeding the end of a calendar quarter or other tax collection period during which the tax was collected;
- (4) The Contractor and its Affiliates are not liable for use tax billed by them but not paid to them by a customer; and
- (5)Any Contractor or Affiliate who fails to remit use taxes collected on behalf of its customers by the due date specified in the Contract shall be subject to the interest and penalties provided for persons required to collect sales tax under chapter 219 of the general statutes.
- (b) For purposes of this section of the Contract, the word "Affiliate" means any person, as defined in section 12-1 of the general statutes, that controls, is controlled by, or is under common control with another person. A person controls another person if the person owns, directly or indirectly, more than ten per cent of the voting securities of the other person. The word "voting security" means a security that confers upon the holder the right to vote for the election of members of the board of directors or similar governing body of the business, or that is convertible into, or entitles the holder to receive, upon its exercise, a security that confers such a right to vote. "Voting security" includes a general partnership interest.
- (c) The Contractor represents and warrants that each of its Affiliates has vested in the Contractor plenary authority to so bind the Affiliates in any agreement with the State of Connecticut. The Contractor on its own behalf and on behalf of its Affiliates shall also provide, no later than 30 days after receiving a request by the State's contracting authority, such information as the State may require to ensure, in the State's sole determination, compliance with the provisions of Chapter 219 of the Connecticut General Statutes, including, but not limited to, §12-411b.

18. Bid Rigging and/or Fraud – Notice to Contractor

The Connecticut Department of Transportation is cooperating with the U.S. Department of Transportation and the Justice Department in their investigation into highway construction contract bid rigging and/or fraud.

A toll-free "HOT LINE" telephone number 800-424-9071 has been established to receive information from contractors, subcontractors, manufacturers, suppliers or anyone with knowledge of bid rigging and/or fraud, either past or current. The "HOT LINE" telephone number will be available during normal working hours (8:00 am - 5:00 pm EST). Information will be treated confidentially, and anonymity respected.

19. Consulting Agreement Representation

Pursuant to section 4a-81 of the Connecticut General Statutes, the person signing this Contract on behalf of the Contractor represents, to their best knowledge and belief and subject to the penalty of false statement as provided in section 53a-157b of the Connecticut General Statutes, that the Contractor has not entered into any consulting agreements in connection with this Contract, except for the agreements listed below or in an attachment to this Contract. "Consulting agreement" means any written or oral agreement to retain the services, for a fee, of a consultant for the purposes of (A) providing counsel to a contractor, vendor, consultant or other entity seeking to conduct, or conducting, business with the State, (B) contacting, whether in writing or orally, any executive, judicial, or administrative office

of the State, including any department, institution, bureau, board, commission, authority, official or employee for the purpose of solicitation, dispute resolution, introduction, requests for information, or (C) any other similar activity related to such contracts. "Consulting agreement" does not include any agreements entered into with a consultant who is registered under the provisions of chapter 10 of the Connecticut General Statutes as of the date such contract is executed in accordance with the provisions of section 4a-81 of the Connecticut General Statutes.

Consultant's Name and Title		Name of Firm (if applicable)
Start Date	End Date	Cost
The basic terms of t	he consulting agreement ar	re:
Description of Serv	ices Provided	
1		The control was a second
Is the consultant a f	ormer State employee or fo	ormer public official? YES NO
If YES:		
Name of Former Sta	ate Agency	Termination Date of Employment

20. Sovereign Immunity

The parties acknowledge and agree that nothing in the Solicitation or the Contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of the Contract. To the extent that this section conflicts with any other section, this section shall govern.

21. Large State Contract Representation for Contractor

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the Contractor, for itself and on behalf of all of its principals or key personnel who submitted a bid or proposal, represents:

(1) That no gifts were made by (A) the Contractor, (B) any principals and key personnel of the Contractor, who participate substantially in preparing bids, proposals or negotiating State contracts, or (C) any agent of the Contractor or

principals and key personnel, who participates substantially in preparing bids, proposals or negotiating State contracts, to (i) any public official or State employee of the State agency or quasi- public agency soliciting bids or proposals for State contracts, who participates substantially in the preparation of bid solicitations or requests for proposals for State contracts or the negotiation or award of State contracts, or (ii) any public official or State employee of any other State agency, who has supervisory or appointing authority over such State agency or quasi-public agency;

- (2) That no such principals and key personnel of the Contractor, or agent of the Contractor or of such principals and key personnel, knows of any action by the Contractor to circumvent such prohibition on gifts by providing for any other principals and key personnel, official, employee or agent of the Contractor to provide a gift to any such public official or State employee; and
- (3) That the Contractor is submitting bids or proposals without fraud or collusion with any person.

22. Large State Contract Representation for Official or Employee of State Agency

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the State agency official or employee represents that the selection of the person, firm or corporation was not the result of collusion, the giving of a gift or the promise of a gift, compensation, fraud or inappropriate influence from any person.

23. Iran Investment Energy Certification

- (a) Pursuant to section 4-252a of the Connecticut General Statutes, the Contractor certifies that it has not made a direct investment of twenty million dollars or more in the energy sector of Iran on or after October 1, 2013, as described in Section 202 of the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010, and has not increased or renewed such investment on or after said date.
- (b) If the Contractor makes a good faith effort to determine whether it has made an investment described in subsection (a) of this section, then the Contractor shall not be deemed to be in breach of the Contract or in violation of this section. A "good faith effort" for purposes of this subsection includes a determination that the Contractor is not on the list of persons who engage in certain investment activities in Iran created by the Department of General Services of the State of California pursuant to Division 2, Chapter 2.7 of the California Public Contract Code. Nothing in this subsection shall be construed to impair the ability of the State agency or quasi-public agency to pursue a breach of contract action for any violation of the provisions of the Contract.

24. Access to Contract and State Data

The Contractor shall provide to the Client Agency access to any data, as defined in Conn. Gen Stat. Sec. 4e-1, concerning the Contract and the Client Agency that are in the possession or control of the Contractor upon demand and shall provide the data to the Client Agency in a format prescribed by the Client Agency and the State Auditors of Public Accounts at no additional cost.

25. Affirmative Action Policy Statement

The Contractor shall comply with the Affirmative Action Policy Statement, as applicable, attached at Exhibit B and hereby made part of this Contract.

26. Compliance with Consumer Data Privacy and Online Monitoring

Pursuant to section 4e-72a of the Connecticut General Statutes, Contractor shall at all times comply with all applicable provisions of sections 42-515 to 42-525, inclusive, of the Connecticut General Statutes, as the same may be revised or modified.

EXHIBIT A

CONNECTICUT REQUIRED SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES October 2023

1. General:

a) Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246, Executive Order 11375 are set forth in Required Contract Provisions (Form PR-1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23 U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968, 49 CFR

Part 21, 4a-60a and 46a-68c to 46a-68f of the Connecticut General Statutes. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

b) "Company" refers to any entity doing business with the Connecticut Department of Transportation and includes but is not limited to the following:

Contractors and Subcontractors Consultants and Subconsultants Suppliers of Materials and Vendors (where applicable) Municipalities (where applicable) Utilities (where applicable)

- c) The Company will work with the Connecticut Department of Transportation (CTDOT) and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.
- d) The Company and all his/her subcontractors or subconsultants holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in volume 60, Chapter 4, Section 1, subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The company will include these requirements in every subcontract of \$10,000 or more with such modification of language as necessary to make them binding on the subcontractor or subconsultant.
- e) CTDOT shall require each contractor with contracts of \$10,000 or more or who have fifty or more employees and are awarded a public works contract, to comply with all existing procedures of CTDOT's Contract Compliance Program.

2. Equal Employment Opportunity Policy:

a) Companies with contracts, agreements or purchase orders valued at \$10,000 or more or who have fifty or more employees are required to comply with the Affirmative Action contract requirements. By signing a contract with CTDOT the contractor's commits to complying with federal and state requirements to provide equal employment opportunity to all persons without regard to their race, color, religion, creed, sex, gender identity or expression, marital status, age, national origin, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through a positive and continuous efforts.

3. Project Workforce Utilization Goals:

These goals are applicable to all construction projects performed in the covered area work (whether the project is federal or state funded). If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where the work is actually performed.

- a. Appendix A establishes the goals for minority and female utilization in all crafts statewide on all State Funded construction projects.
- b. Appendix B establishes the goals for minority and female utilization in all crafts statewide on Federally assisted or funded construction projects.

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 which contain the applicable goals for minority and female participation.

The goals for minority and female participation are expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

State Utilization Goals See Appendix A Federal Utilization Goals See Appendix B

4. Executive Order 11246

The Contractor's compliance with Executive Order 11246 and 41-CFR Part 60-4 shall be based on its implementation of the specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(A) and its efforts to meet the goals established for the geographical area where the contract is to be performed. 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 hour performed.

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 Pan does not excuse any covered Contractor's of subcontractor's failure to take good faith efforts to achieve the plan goals and timetables.

The Contractor shall implement the specific affirmative action standards provided in 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 (OFCCP) 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.

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 Contractors obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant hereto.

In order for the nonworking training hours of apprentices and trainees to be counted in meeting the workforce utilization 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.

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.
- 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 thereafter; along with whatever additional actions the Contractor may have taken.
 - d) Provide immediate written notification to CTDOT when the Union or Unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women 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 that which expressly target 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 b 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. Review at least annually, the company EEO Policy and affirmative action obligations with all employees having any responsibility for hiring, assignments, layoffs, terminations, or other employment decisions, 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.
- g) 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.
- h) 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.
- i) 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 project worksite and in other areas of the Contractor's workforce.
- j) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- k) 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 opportunities through appropriate training opportunities.
- l) 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.

- m) 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.
- n) 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.
- o) Conduct a review at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations:

Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (a 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 a 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 work-force participation, makes a good faith effort to meet with individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

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 Executive Order 11246 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 under-utilized).

The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

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.

The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps so as to achieve maximum results from its efforts to ensure equal

employment opportunity.

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 here of 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.

Nothing herein provided shall be construed as a limitation upon the application of their 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). The Director of the Office of Federal Contract Compliance Programs, from time to time, shall issue goals and timetables for minority and female utilization which shall be based on appropriate work- force, demographic or other relevant data and which shall cover construction projects or construction contracts performed in specific geographical areas. The goals, which shall be applicable to each construction trade in a covered contractor's or timetables, shall be published as notices in the Federal Register, and shall be inserted by the Contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2.

5. Subcontracting:

- a. The Company will use his/her best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Companies shall obtain lists of minority-owned construction firms from the Office of Equity.
- b. The Company will use its best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

6. Records and Reports:

- a. The Company will keep such records as are necessary to determine compliance with equal employment opportunity obligations. The records kept by the Company will be designed to indicate:
 - 1. The number of minority and non-minority group members and women employed in each classification on the project.
 - 2. The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women; (applicable only to contractors who rely in whole or in part on unions as a source of their work force),
 - 3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 - 4. The progress and efforts being made in securing the services of minority group

- subcontractors or subcontractors with meaningful minority and female representation among their employees.
- 5. Records of internal and external communication and outreach to document its affirmative efforts.

b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation.

c. For Federal Highway Administration funded projects only:

The Company will submit an annual report to CTDOT each July or as otherwise directed, for the duration of the project, indicating the number of minorities, 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 PR 1391. If on-the-job training is being required by "Training Special Provision", the Company will be required to furnish Form FHWA 1409 and 1415 as required by CTDOT.

STATE FUNDED PROJECTS (only)

<u>APPENDIX A</u> (Labor Market Goals)

<u>LABOR MARKET AREA GOAL</u> <u>Female</u>

Minority

geport			22.	.7%
Ansonia	Beacon Falls	Bridgeport	Derby	_
Easton	Fairfield	Milford	Monroe	
Oxford	Seymour	Shelton	Stratford	
Trumbull	Seymour		Structoru	
Danbury 3.8%				10.7%
Bethel	Bridgewater	Brookfield	Danbury	
Kent	New Fairfield	New Milford	Newtown	
Redding	Ridgefield	Roxbury	Sherman	
Washington	S	·		
Danielson 1.8%				4.3%
Brooklyn	Eastford	Hampton	Killingly	
Pomfret	Putnam	Scotland	Sterling	
Thompson	Voluntown	Union	Woodstock	
Hartford 2.1%				13.7%
Andover	Ashford	Avon	Barkhamsted	
Belin	Bloomfield	Bolton	Bristol	
Burlington	Canton	Chaplin	Colchester	
Columbia	Coventry	Cromwell	Durham	
East Granby	East Haddam	East Hampton	East Hartford	
East Windsor	Ellington	Enfield	Farmington	
Glastonbury	Granby	Haddam	Hartford	
Harwinton	Hebron	Lebanon	Manchester	
Mansfield	Marlborough	Middlefield	Middletown	
Newington	Plainville	Plymouth	Portland	
Rocky Hill	Simsbury	Somers	South Windsor	
Southington	Stafford	Suffield	Tolland	
Vernon	West Hartford	Wethersfield	Willington	
Winchester	Windham	Windsor	Windsor Locks	
Lower River 1.8%				4.3%
Chester	Deep River	Essex	Old Lyme	

<u>LABOR MARKET AREA GOAL</u>

Minority

Female

New Haven				17.9%
3.1%				
Bethany	Branford	Cheshire	Clinton	
East Haven	Guilford	Hamden	Killingworth	
Madison	Meriden	New Haven	North Branford	
North Haven	Orange	Wallingford	West Haven	
Woodbridge				
New London				7.4%
3.1%				
Bozrah	Canterbury	East Lyme	Franklin	
Griswold	Groton	Ledyard	Lisbon	
Montville	New London	North Stonington	Norwich	
Old Lyme	Old Saybrook	Plainfield	Preston	
Salem	Sprague	Stonington	Waterford	
Hopkinton	RI – Westerly Rho	ode Island		
Stamford 2.1%				33.2%
Darien	Greenwich	New Canaan	Norwalk	
Stamford	Weston	Westport	Wilton	
Torrington 1.8%				4.3%
Canaan	Colebrook	Cornwall	Goshen	
Hartland	Kent	Litchfield	Morris	
Norfolk	North Canaan	Salisbury	Sharon	
Torrington	Warren	·		
Waterbury 1.6%				12.4%
Bethlehem	Middlebury	Naugatuck	Prospect	
Southbury	Thomaston	Waterbury	Watertown	
Wolcott	Woodbury			

EXHIBIT B

AFFIRMATIVE ACTION POLICY STATEMENT (October 2023)

It is the policy of this firm to assure that applicants are employed, and that employees are treated during employment, without regard to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through positive and continuous affirmative efforts. Such action shall include employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or terminations, rates of pay or other forms of compensation, selection for training/apprenticeship, pre- apprenticeship opportunities, and on-the-job training opportunities.

This firm will implement, monitor, enforce and achieve full compliance with this Affirmative Action Policy Statement in conjunction with the applicable Federal and State laws, regulations, executive orders, and contract provisions, including but not limited to those listed below:

Dissemination of Policy:

All members of the firm 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, this firm's Equal Employment Opportunity (EEO) policy and contractual responsibilities to provide EEO in each grade and classification of employment. These actions shall include:

- 1. 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 firm's EEO policy and its implementation will be reviewed and explained. These meetings will be conducted by the EEO officer.
- 2. 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.
- 3. All personnel who are engaged in direct recruitment for the firm will be instructed by the EEO Officer of the contractor's procedures for locating and hiring minority group employees.
- 4. Notices and posters setting forth the firm's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- 5. The firm'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.
- 6. Sexual Harassment Prevention Resources including training and remedies must be available to all employees. See Connecticut General Assembly Public Acts <u>19–16</u> and <u>19–93</u>.

Recruitment:

When advertising for employees, the firm will include in all advertisements the notation; "An Affirmative Action/Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area where the workforce would normally be derived.

- 1. The firm will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants. To meet this requirement, the firm will identify referral sources and establish procedures for recruitment to obtain the referral of minority and female applicants.
- 2. In the event the firm has a valid bargaining agreement providing for exclusive hiring referrals, he/she is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The United States Department of Labor has held that where implementation of such agreements has had the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.) The firm will encourage his/her present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

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 an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved. The following procedures shall be followed:

- 1. The firm will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of personnel.
- 2. The firm 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 correction action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- 3. The firm shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- 4. The firm will promptly investigate all complaints of alleged discrimination made to the firm 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 actions shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

Training and Promotion:

The firm will assist in locating, qualifying, and increasing the skills of minorities and women. The firm will utilize the following tools to identify training and promotional opportunities in the firm:

- 1. The firm will advise employees and applicants for employment of available training programs and the entrance requirements.
- 2. The firm will periodically review the training and promotion of minority group and female employees and will encourage eligible employees to apply for such training and promotion.

Unions:

If the firm relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the firm either directly or through a contractor's association acting as agent will include the procedures set forth below:

- 1. The firm will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- 2. The firm will use best efforts to incorporate an EEO clause into each union agreement to the extent that such union will be contractually bound to refer applicants without regard to their to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability,
 - learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved.
- 3. The firm is to obtain information as to the referral practices and policies of the labor union except that to the extent that such information is within the exclusive possession of the labor union and such labor union refuses to furnish the information to the contractor, the contractor shall notify the Connecticut Department of Transportation (CTDOT) of the efforts made to obtain the information.
- 4. In the event the union is unable to provide the firm with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies. (The United States Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations under Executive Order 11246 as amended, and in compliance with 23 CFR Part 230, the firm will notify CTDOT.

Selection of Subcontractors:

The firm will not discriminate on the grounds race, color, religion, sex, sexual orientation, gender identity or expression, marital status, national origin, ancestry, age, intellectual

disability, learning disability, physical disability, including, but not limited to, blindness, or status as a veteran in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

1. The firm shall use his/her best efforts to ensure subcontractor/subconsultant compliance with Federal and State Equal Opportunity (EO) and EEO requirements.

Records and Reports:

The Contractor shall keep records as necessary to document compliance with EO/EEO requirements. Such reports shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation. The following records should be maintained:

- 6. The number of minority and non-minority group members and women employed in each work classification;
- 7. The progress and efforts being made in cooperation with unions, when applicable to increase the employment opportunities for minorities and women;
- 8. The documentation showing progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
- 9. Complaints of Discrimination.

In implementing this policy and ensuring that affirmative action is being provided, each time a hiring opportunity occurs this firm will contact and request referrals from minority and female organizations, referral sources, and media sources. All advertising will emphasize that the firm is "An Affirmative Action/Equal Opportunity Employer."

In order to substantiate this firm's efforts and affirmative actions to provide equal opportunity, the firm will maintain and submit, as requested, documentation such as referral request correspondence, copies of advertisements utilized and follow-up documentation to substantiate that efforts were made in good faith. This firm will maintain the necessary internal audit procedures and record keeping systems to report the firm's affirmative action efforts.

It is understood by Owner/CEO/President of the firm and the firm's Equal Employment Opportunity Officer and supervisory and managerial personnel that failure to effectively implement, monitor and enforce this firm's affirmative action program and/or failure to adequately document and submit as required, the affirmative actions taken and efforts made to recruit and hire minority and female applicants in accordance with our affirmative action program in each instance of hire, will result in this firm being required to recommit itself to a modified and more stringent affirmative action program as a condition of approval. It is recognized that this policy is a contractual requirement and is a prerequisite for performing services for the contracting agency. This policy in addition to CTDOT's EO/EEO contract provisions and requirements, shall constitute the CTDOT Affirmative Program requirements.

The ultimate responsibility for the full implementation of this firm's Affirmative Action

Program rests with the Chief Executive Officer of this firm.

Rev. 4/24/2019

EXHIBIT C

Health Insurance Portability and Accountability Act of 1996 ("HIPAA").

- (a) If the Contactor is a Business Associate under the requirements of the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the Contractor must comply with all terms and conditions of this Section of the Contract. If the Contractor is not a Business Associate under HIPAA, this Section of the Contract does not apply to the Contractor for this Contract.
- (b) The Contractor is required to safeguard the use, publication and disclosure of information on all applicants for, and all clients who receive, services under the Contract in accordance with all applicable federal and state law regarding confidentiality, which includes but is not limited to HIPAA, more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E; and
- (c) The State of Connecticut Agency named on page 1 of this Contract (hereinafter the "Department") is a "covered entity" as that term is defined in 45 C.F.R. § 160.103; and
- (d) The Contractor, on behalf of the Department, performs functions that involve the use or disclosure of "individually identifiable health information," as that term is defined in 45 C.F.R. § 160.103; and
- (e) The Contractor is a "business associate" of the Department, as that term is defined in 45 C.F.R. § 160.103; and
- (f) The Contractor and the Department agree to the following in order to secure compliance with the HIPAA, the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act (hereinafter the HITECH Act), (Pub. L. 111-5, sections13400 to 13423), and more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E.
- (g) Definitions
 - (1) "Breach shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(1))
 - (2) "Business Associate" shall mean the Contractor.
 - (3) "Covered Entity" shall mean the Department of the State of Connecticut named on page 1

of this Contract.

- (4) "Designated Record Set" shall have the same meaning as the term "designated record set" in 45 C.F.R. § 164.501.
- (5) "Electronic Health Record" shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(5))
- (6) "Individual" shall have the same meaning as the term "individual" in 45 C.F.R. § 160.103 and shall include a person who qualifies as a personal representative as defined in 45 C.F.R. § 164.502(g).
- (7) "Privacy Rule" shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and parts 164, subparts A and E.
- (8) "Protected Health Information" or "PHI" shall have the same meaning as the term "protected health information" in 45 C.F.R. § 160.103, limited to information created or received by the Business Associate from or on behalf of the Covered Entity.
- (9) "Required by Law" shall have the same meaning as the term "required by law" in 45 C.F.R. § 164.103.
- (10) "Secretary" shall mean the Secretary of the Department of Health and Human Services or his designee.
- (11) "More stringent" shall have the same meaning as the term "more stringent" in 45 C.F.R. § 160.202.
- (12) "This Section of the Contract" refers to the HIPAA Provisions stated herein, in their entirety.
- (13) "Security Incident" shall have the same meaning as the term "security incident" in 45 C.F.R.§ 164.304.
- (14) "Security Rule" shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. part 160 and parts 164, subpart A and C.
- (15) "Unsecured protected health information" shall have the same meaning as the term as defined in section 13402(h)(1)(A) of HITECH. Act. (42 U.S.C. §17932(h)(1)(A)).
- (h) Obligations and Activities of Business Associates.
 - (1) Business Associate agrees not to use or disclose PHI other than as permitted or required by this Section of the Contract or as Required by Law.

- (2) Business Associate agrees to use appropriate safeguards to prevent use or disclosure of PHI other than as provided for in this Section of the Contract.
- (3) Business Associate agrees to use administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of electronic protected health information that it creates, receives, maintains, or transmits on behalf of the Covered Entity.
- (4) Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate of a use or disclosure of PHI by Business Associate in violation of this Section of the Contract.
- (5) Business Associate agrees to report to Covered Entity any use or disclosure of PHI not provided for by this Section of the Contract or any security incident of which it becomes aware.
- (6) Business Associate agrees to ensure that any agent, including a subcontractor, to whom it provides PHI received from, or created or received by Business Associate, on behalf of the Covered Entity, agrees to the same restrictions and conditions that apply through this Section of the Contract to Business Associate with respect to such information.
- (7) Business Associate agrees to provide access, at the request of the Covered Entity, and in the time and manner agreed to by the parties, to PHI in a Designated Record Set, to Covered Entity or, as directed by Covered Entity, to an Individual in order to meet the requirements under 45 C.F.R. § 164.524.
- (8) Business Associate agrees to make any amendments to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 C.F.R. § 164.526 at the request of the Covered Entity, and in the time and manner agreed to by the parties.
- (9) Business Associate agrees to make internal practices, books, and records, including policies and procedures and PHI, relating to the use and disclosure of PHI received from, or created or received by, Business Associate on behalf of Covered Entity, available to Covered Entity or to the Secretary in a time and manner agreed to by the parties or designated by the Secretary, for purposes of the Secretary determining Covered Entity's compliance with the Privacy Rule.
- (10)Business Associate agrees to document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (11)Business Associate agrees to provide to Covered Entity, in a time and manner agreed to by the parties, information collected in accordance with clause h. (10) of this Section of the Contract, to permit Covered Entity to respond to a request by an Individual for an

accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder. Business Associate agrees at the Covered Entity's direction to provide an accounting of disclosures of PHI directly to an individual in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.

- (12)Business Associate agrees to comply with any state or federal law that is more stringent than the Privacy Rule.
- (13) Business Associate agrees to comply with the requirements of the HITECH Act relating to privacy and security that are applicable to the Covered Entity and with the requirements of 45 C.F.R. sections 164.504(e), 164.308, 164.310, 164.312, and 164.316.
- (14) In the event that an individual requests that the Business Associate (a) restrict disclosures of PHI; (b) provide an accounting of disclosures of the individual's PHI; or (c) provide a copy of the individual's PHI in an electronic health record, the Business Associate agrees to notify the covered entity, in writing, within two business days of the request.
- (15) Business Associate agrees that it shall not, directly or indirectly, receive any remuneration in exchange for PHI of an individual without (1) the written approval of the covered entity, unless receipt of remuneration in exchange for PHI is expressly authorized by this Contract and (2) the valid authorization of the individual, except for the purposes provided under section 13405(d)(2) of the HITECH Act,(42 U.S.C. § 17935(d)(2)) and in any accompanying regulations

(16) Obligations in the Event of a Breach

- A. The Business Associate agrees that, following the discovery of a breach of unsecured protected health information, it shall notify the Covered Entity of such breach in accordance with the requirements of section 13402 of HITECH (42 U.S.C. 17932(b) and the provisions of this Section of the Contract.
- B. Such notification shall be provided by the Business Associate to the Covered Entity without unreasonable delay, and in no case later than 30 days after the breach is discovered by the Business Associate, except as otherwise instructed in writing by a law enforcement official pursuant to section 13402 (g) of HITECH (42 U.S.C. 17932(g)). A breach is considered discovered as of the first day on which it is, or reasonably should have been, known to the Business Associate. The notification shall include the identification and last known address, phone number and email address of each individual (or the next of kin of the individual if the individual is deceased) whose unsecured protected health information has been or is reasonably believed by the Business Associate to have been, accessed, acquired, or disclosed during such breach.
- C. The Business Associate agrees to include in the notification to the Covered Entity at

least the following information:

- 1. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.
- 2. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code).
- 3. The steps the Business Associate recommends that individuals take to protect themselves from potential harm resulting from the breach.
- 4. A detailed description of what the Business Associate is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
- 5. Whether a law enforcement official has advised either verbally or in writing the Business Associate that he or she has determined that notification or notice to individuals or the posting required under section 13402 of the HITECH Act would impede a criminal investigation or cause damage to national security and; if so, include contact information for said official.
- D. Business Associate agrees to provide appropriate staffing and have established procedures to ensure that individuals informed by the Covered Entity of a breach by the Business Associate have the opportunity to ask questions and contact the Business Associate for additional information regarding the breach. Such procedures shall include a toll-free telephone number, an e-mail address, a posting on its Web site and a postal address. Business Associate agrees to include in the notification of a breach by the Business Associate to the Covered Entity, a written description of the procedures that have been established to meet these requirements. Costs of such contact procedures will be borne by the Contractor.
- E. Business Associate agrees that, in the event of a breach, it has the burden to demonstrate that it has complied with all notification's requirements set forth above, including evidence demonstrating the necessity of a delay in notification to the Covered Entity.
- (i) Permitted Uses and Disclosure by Business Associate.
 - (1) General Use and Disclosure Provisions Except as otherwise limited in this Section of the Contract, Business Associate may use or disclose PHI to perform functions, activities, or services for, or on behalf of, Covered Entity as specified in this Contract, provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.
 - (2) Specific Use and Disclosure Provisions

- (A) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI for the proper management and administration of Business Associate or to carry out the legal responsibilities of Business Associate.
- (B) Except as otherwise limited in this Section of the Contract, Business Associate may disclose PHI for the proper management and administration of Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person, and the person notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.
- (C) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI to provide Data Aggregation services to Covered Entity as permitted by 45 C.F.R. § 164.504(e)(2)(i)(B).
- (j) Obligations of Covered Entity.
 - (1) Covered Entity shall notify Business Associate of any limitations in its notice of privacy practices of Covered Entity, in accordance with 45 C.F.R. § 164.520, or to the extent that such limitation may affect Business Associate's use or disclosure of PHI.
 - (2) Covered Entity shall notify Business Associate of any changes in, or revocation of, permission by Individual to use or disclose PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.
 - (3) Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.
- (k) Permissible Requests by Covered Entity. Covered Entity shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under the Privacy Rule if done by the Covered Entity, except that Business Associate may use and disclose PHI for data aggregation, and management and administrative activities of Business Associate, as permitted under this Section of the Contract.
- (1) Term and Termination.
 - (1) Term. The Term of this Section of the Contract shall be effective as of the date the Contract is effective and shall terminate when the information collected in accordance with clause h. (10) of this Section of the Contract is provided to the Covered Entity and all of the PHI provided by Covered Entity to Business Associate, or created or received by Business Associate on behalf of Covered Entity, is destroyed or returned to Covered Entity, or, if it is infeasible to return or destroy PHI, protections are extended to such

information, in accordance with the termination provisions in this Section. Termination for Cause Upon Covered Entity's knowledge of a material breach by Business Associate, Covered Entity shall either:

- (A) Provide an opportunity for Business Associate to cure the breach or end the violation and terminate the Contract if Business Associate does not cure the breach or end the violation within the time specified by the Covered Entity; or
- (B) Immediately terminate the Contract if Business Associate has breached a material term of this Section of the Contract and cure is not possible; or
- (C) If neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.

(2) Effect of Termination

- (A) Except as provided in (1)(2) of this Section of the Contract, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.
- (B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return or destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.

(m) Miscellaneous Provisions.

- (1) Regulatory References. A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.
- (2) Amendment. The Parties agree to take such action as in necessary to amend this Section of the Contract from time to time as is necessary for Covered Entity to comply with requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.

- (3) Survival. The respective rights and obligations of Business Associate shall survive the termination of this Contract. Effect on Contract. Except as specifically required to implement the purposes of this Section of the Contract, all other terms of the Contract shall remain in force and effect.
- (4) Construction. This Section of the Contract shall be construed as broadly as necessary to implement and comply with the Privacy Standard. Any ambiguity in this Section of the Contract shall be resolved in favor of a meaning that complies, and is consistent with, the Privacy Standard.
- (5) Disclaimer. Covered Entity makes no warranty or representation that compliance with this Section of the Contract will be adequate or satisfactory for Business Associate's own purposes. Covered Entity shall not be liable to Business Associate for any claim, civil or criminal penalty, loss or damage related to or arising from the unauthorized use or disclosure of PHI by Business Associate or any of its officers, directors, employees, contractors or agents, or any third party to whom Business Associate has disclosed PHI contrary to the provisions of this Contract or applicable law. Business Associate is solely responsible for all decisions made, and actions taken, by Business Associate regarding the safeguarding, use and disclosure of PHI within its possession, custody or control.
- (6) Indemnification. The Business Associate shall indemnify and hold the Covered Entity harmless from and against any and all claims, liabilities, judgments, fines, assessments, penalties, awards and any statutory damages that may be imposed or assessed pursuant to HIPAA, as amended or the HITECH Act, including, without limitation, attorney's fees, expert witness fees, costs of investigation, litigation or dispute resolution, and costs awarded thereunder, relating to or arising out of any violation by the Business Associate and its agents, including subcontractors, of any obligation of Business Associate and its agents, including subcontractors, under this section of the contract, under HIPAA, the HITECH Act, the Privacy Rule and the Security Rule.

EXHIBIT D

State Wages and Other Related Information

Please refer to the Department of Labor website for the latest updates, annual adjusted wage rate increases, certified payroll forms and applicable statutes.

http://www.ctdol.state.ct.us/wgwkstnd/prevailwage.htm

Prevailing Wage Law Poster Language

THIS IS A PUBLIC WORKS PROJECT Covered by the PREVAILING WAGE LAW CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or

subcontractor

performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to

public building contracts entered into on or after July 1, 2007, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007; It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (3) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (4) The internet website for the federal OSHA Training

Institute is

http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.htm l;

- (5) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (6) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (7) Proof of completion may be demonstrated through either: (a) the presentation of a bona fide student course completion card issued by the federal OSHA Training Institute; or (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (8) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;
- (9) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31- 53(f) on which such employee's name first appears;
- (10) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (11) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (12) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (13) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and Regulations clarifying the statute are currently in the regulatory process and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (14) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute. Over the past few years, the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute. The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- Laborers (Group 4) Mason Tenders operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut, but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007, the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION CONTRACTORS WAGE CERTIFICATION FORM

Construction Manager at Risk/General Contractor/Prime Contractor

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION CONTRACTORS WAGE CERTIFICATION FORM

Construction Manager at Risk/General Contractor/Prime Contractor

<u>,of</u>								
Officer, Owner, Authorized Rep.		Company Name						
do hereby certify that the								
, , <u> </u>		Company Name	;					
-		Street						
_		City						
and all of its subcontractors	will pay all work	ers on the						
	Project Name a	and Number						
	Street and City	,						
the wages as listed in the so which is attached hereto).	chedule of prevaili	ing rates required	d for such project (a copy of					
			Signature					
Subscribed and sworn to bef	ore me this	day of	,					
			N - D 11					
			Notary Public					
Return to: Connecticut Dep Wage & Workpl Division 200 Fo Wethersfield, C	ace Standards lly Brook Blvd.							
Rate Schedule Issued (Date)								

Information Bulletin Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

□ ASBESTOS WORKERS

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

□ ASBESTOS INSULATOR

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

□ BOILERMAKERS

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

□ BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE
MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS,
TERRAZZO WORKERS, TILE SETTERS

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

☐ <u>CARPENTERS, MILLWRIGHTS, PILEDRIVERMEN, LATHERS, RESILEINT</u> FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

□ LABORER, CLEANING

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

□ DELIVERY PERSONNEL

If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site, then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

□ ELECTRICIANS

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. *License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.

☐ ELEVATOR CONSTRUCTORS

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. *License required by Connecticut General Statutes: R-1, 2, 5, 6.

□ FORKLIFT OPERATOR

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

GLAZIERS

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

☐ IRONWORKERS

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

INSULATOR

Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

□ LABORERS

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

□ PAINTERS

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of

any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic artwork and drywall hhg for any and all types of building and residential work.

□ LEAD PAINT REMOVAL

Painter's Rate 1. Removal of lead paint from bridges. 2. Removal of lead paint as preparation of any surface to be repainted. 3. Where removal is on a Demolition project prior to reconstruction. • Laborer's Rate 1. Removal of lead paint from any surface NOT to be repainted. 2. Where removal is on a TOTAL Demolition project only.

□ PLUMBERS AND PIPEFITTERS

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. *License required per Connecticut General Statutes: P-1,2,6,7,8,9 J1,2,3,4 SP-1,2 S- 1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.

□ POWER EQUIPMENT OPERATORS

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment.

*License required, crane operators only, per Connecticut General Statutes.

□ ROOFERS

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

□ SHEETMETAL WORKERS

Fabricate, assembles, installs and repairs sheet metal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheet metal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sunshades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and

composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

□ SPRINKLER FITTERS

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

*License required per Connecticut General Statutes: F-1, 2, 3, 4.

☐ TILE MARBLE AND TERRAZZO FINISHERS

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

TRUCK DRIVERS

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are required to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. *License required, drivers only, per Connecticut General Statutes.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

Any questions regarding the proper classification should be directed to:

Public Contract Compliance Unit Wage and Workplace Standards Division Connecticut Department of Labor 200 Folly Brook Blvd, Wethersfield, CT 06109 (860) 263-6543.

Connecticut Department of Labor Wage and Workplace Standards Division

FOOTNOTES

 \sqcap Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons (Building Construction) and (Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators (Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for

the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Rev. 7/1/19

SEE BELOW FOR STATE WAGE RATES

INSERT STATE WAGES HERE





THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Sec. 31-53b. Worker training requirements for public works projects. Enforcement. Regulations.

Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (h) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 46 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268, and, on or after July 1, 2012, that any plumber or electrician subject to the continuing education requirements of section 20-334d, who has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration five or more years prior to the date such electrician or plumber begins work on such public works project, has completed a supplemental refresher training course of at least four hours in duration in construction safety and health taught by a federal Occupational Safety and Health Administration authorized trainer.

- (b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.
- (c) Not later than January 1, 2012, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or, in the case of a supplemental refresher training course, shall include, but not be limited to, an update of revised Occupational Safety and Health Administration standards and a review of required construction hazards training, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project or, in the case of supplemental refresher training, a student course completion card issued by said Occupational Safety and Health Administration authorized trainer dated not earlier than five years prior to the date such electrician or plumber begins work on such public works project.
- (d) This section shall not apply to employees of public service companies, as defined in section <u>16-1</u>, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or

picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1; P.A. 10-47, S. 2; P.A. 11-63, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009; P.A. 10-47 made a technical change in Subsec. (a); P.A. 11-63 amended Subsec. (a) by adding provision re supplemental refresher training course for plumbers and electricians subject to Sec. 20-334d, amended Subsec. (c) by adding provisions re regulations and subject matter of refresher training course and refresher training course student completion cards, and made technical changes, effective July 1, 2011.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- Laborers (Group 4) Mason Tenders operates forklift solely to assist a mason to a maximum height of nine feet only.
- Power Equipment Operator (Group 9) operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

Connecticut General Statute Sec. 31-55a. Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

(P.A. 02-69, S. 1.)

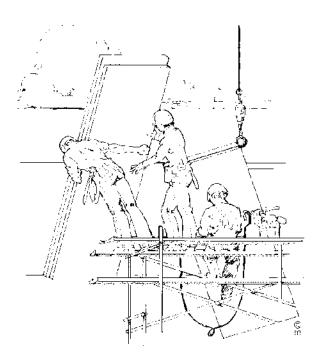
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached "Contracting Agency Certification Form" to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

[∞] Inquiries can be directed to (860) 263-6790.



CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

1,, acting in my	y official capacity as
authorized representative	title
	ted at
contracting agency	address
do hereby certify that the total dollar amount o	of work to be done in connection with
,1	ocated at
project name and number	address
shall be \$, which includes	all work, regardless of whether such project
consists of one or more contracts.	
CONTRACTO	OR INFORMATION
Name:	
Address:	
Authorized Representative:	
Approximate Starting Date:	
Approximate Completion Date:	
Signature	Date
Return To: Connecticut Department of Lab	oor
Wage & Workplace Standards	
Contract Compliance Unit	
200 Folly Brook Blvd.	
Wethersfield, CT 06109	
Date Issued:	

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM

I,	of
Officer, Owner, Authorized Rep.	Company Name
do hereby certify that the	
<u> </u>	Company Name
	Street
	City
and all of its subcontractors will pay all wor	rkers on the
Project Name and	d Number
Street and City	
the wages as listed in the schedule of prevai is attached hereto).	iling rates required for such project (a copy of which
	Signed
Subscribed and sworn to before me this	day of
Return to:	Notary Public
Connecticut Department of I Wage & Workplace Standar 200 Folly Brook Blvd. Wethersfield, CT 06109	
Rate Schedule Issued (Date):	

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency. CONTRACTOR NAME AND ADDRESS:						PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS WEEKLY PAYROLL									Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109					
												SUBCONTRACTOR NAME & ADDRESS				WORKER'S COMPENSATION INSURANCE CARRIER				
PAYROLL NUMBER	Week-l Da	_	PROJECT NAME & A	ADDRES	S											POLICY # EFFECTIVE EXPIRATION				
PERSON/WORKER,	APPR	MALE/	WORK			DA	AY AND DATE Total ST I				BASE HOURLY	TYPE OF	GROSS PAY	Т	TOTAL DEDUCTIONS			GROSS PAY FOR		
ADDRESS and SECTION	%	FEMALE AND RACE*	CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	S	M	T HOURS W	W	ТН	F	S	Hours Total O/T Hours	RATE TOTAL FRINGE BENEFIT PLAN CASH	FRINGE BENEFITS Per Hour 1 through 6 (see back)	FOR ALL WORK PERFORMED THIS WEEK	FICA	FEDERAL WITH- HOLDING	WITH-	LIST OTHER	THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												\$ Base Rate \$ Cash Fringe \$ Base Rate \$ Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$ 1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$ 7. \$ 7. \$ 7. \$ 7. \$ 7. \$ 7. \$ 7. \$ 7							
												\$ Base Rate \$ Cash Fringe \$ Base Rate	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$ 1. \$ 2. \$ 3. \$							
12/9/2013 WWS-CP1		*IF REQU	UIRED									\$ Cash Fringe *SEE REVERSE	4. \$ 5. \$ 6. \$ SIDE					P	AGE NUMBER	OF

*FRINGE BENEFITS EXPLANATION (P):

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:	
	4) Disability
	5) Vacation, holiday
3) Life Insurance	6) Other (please specify)
CERTIFIED ST	ATEMENT OF COMPLIANCE
For the week ending date of	,
I,of	, (hereafter known as
Employer) in my capacity as	(title) do hereby certify and state:
Section A:	
	ve been paid the full weekly wages earned by them during eneral Statutes, section 31-53, as amended. Further, I
a) The records submitted are true ar	nd accurate;
contributions paid or payable on beh defined in Connecticut General State of wages and the amount of paymen person to any employee welfare fund	nechanic, laborer or workman and the amount of payment or half of each such person to any employee welfare fund, as utes, section 31-53 (h), are not less than the prevailing rate at or contributions paid or payable on behalf of each such d, as determined by the Labor Commissioner pursuant to tutes, section 31-53 (d), and said wages and benefits are not equired by contract;
	n all of the provisions in Connecticut General Statutes, applicable for state highway construction);
	a worker's compensation insurance policy for the duration of erage has been provided to the contracting agency;
gift, gratuity, thing of value, or compindirectly, to any prime contractor, pemployee for the purpose of improper	ickbacks, which means any money, fee, commission, credit, pensation of any kind which is provided directly or prime contractor employee, subcontractor, or subcontractor erly obtaining or rewarding favorable treatment in in connection with a prime contractor in connection with a ntractor; and
	a certified payroll which he knows to be false is a class D be fined up to five thousand dollars, imprisoned for up to
- ·	opy of the construction safety course, program or tified payroll required to be submitted to the contracting rsons name first appears.
(Signature)	(Title) Submitted on (Date)

THIS IS A PUBLIC DOCUMENT

DO NOT INCLUDE SOCIAL SECURITY NUMBERS

### WEEKLY PAYROLL PERSON/WORKER, APPR MALE; WORK DAY AND DATE Total ST BASE HOURLY TYPE OF AND	Week-Ending Date: Contractor or Subcontractor Business Name:			
ADDRESS and SECTION 76 AND 76				
ADDRESS and SECTION				
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10 Certification Number HOURS WORKED EACH DAY				
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*IF REQUIRED				
12/9/2013 WWS-CP2 NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1) PAGE NUMBER	a .			

Information Bulletin Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

• ASBESTOS WORKERS

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

ASBESTOS INSULATOR

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

• BOILERMAKERS

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

• <u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR</u> LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

LABORER, CLEANING

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

DELIVERY PERSONNEL

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages <u>are not required</u>. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.
- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

• ELECTRICIANS

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. *License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.

• ELEVATOR CONSTRUCTORS

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. *License required by Connecticut General Statutes: R-1,2,5,6.

• FORK LIFT OPERATOR

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

GLAZIERS

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

• IRONWORKERS

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

• <u>INSULATOR</u>

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

• LABORERS

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

• PAINTERS

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

• LEAD PAINT REMOVAL

- Painter's Rate
 - 1. Removal of lead paint from bridges.
 - 2. Removal of lead paint as preparation of any surface to be repainted.
 - 3. Where removal is on a Demolition project prior to reconstruction.
- Laborer's Rate
 - 1. Removal of lead paint from any surface NOT to be repainted.
 - 2. Where removal is on a *TOTAL* Demolition project only.

• PLUMBERS AND PIPEFITTERS

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. *License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.

• POWER EQUIPMENT OPERATORS

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. *License required, crane operators only, per Connecticut General Statutes.

ROOFERS

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

• SHEETMETAL WORKERS

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

• SPRINKLER FITTERS

Installation, alteration, maintenance and repair of fire protection sprinkler systems. *License required per Connecticut General Statutes: F-1,2,3,4.

• TILE MARBLE AND TERRAZZO FINISHERS

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

• TRUCK DRIVERS

~How to pay truck drivers delivering asphalt is under <u>REVISION</u>~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. *License required, drivers only, per Connecticut General Statutes.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

Any questions regarding the proper classification should be directed to:

Public Contract Compliance Unit

Wage and Workplace Standards Division

Connecticut Department of Labor

200 Folly Brook Blvd, Wethersfield, CT 06109

(860) 263-6790.

Connecticut Department of Labor Wage and Workplace Standards Division FOOTNOTES

Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons (Building Construction) and

(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Dredging (Heavy)

- a. Paid Holidays: New Year's Day, Martin Luther King, Jr.'s Birthday, Memorial Day, Good Friday, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.
- b. Vacation: Eight Percent (8%) of the straight time rate, multiplied by the total hours worked.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

STATE OF CONNECTICUT

Certificate of Compliance with Connecticut General Statute Section 31 - 57b

I hereby certify that all of the statements herein contained below have been examined by me, and to the best of my knowledge and belief are true and correct.

ti de and correct.				
The			HAS / HAS N	OT
Income and the second s	Company Name		(Cross out Non-applica	
standard, order or regulation reited in accordance with the reitation and such citation has	promulgated pursuant to such ac provisions of any State Occupati not been set aside following app	et, during the onal Safety oeal to the a	e three year period preceding the and Health Aet of 1970, and not appropriate agency of court having	and Health Act (OSHA) or of any bid, provided such violations were abated within the time fixed by the g jurisdiction or HAS / HAS NOT y employee in the three-year period
The list of violations (if applied	cable) is attached.			
	(Name of Firm, Organization or Corporation)			
Signed:		Written Sigi	aghina:	
		rruen sigi	iature:	
	Name Typed:		(Corporation Seal)	
Title:				
	(Title	of Above Pe	erson, typed)	
Dated:				
State of)			
County of)	ss:	A.D., 20	
)			
Sworn to and personally appear	ared before me for the above,		(Name of Firm, Organization,	C
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Signer and Sealer of the foreg	oing instrument of and acknowle	- EQ	me to be the free act and deed of	
(Name of Person appearing in	front of Notary or Clerk)	, and hi	s/her free act and deed as	
(Title of Person appearing in)	front of Notary or Clerk)	<u>9</u> ₹0		
My Commission Expires:		ë <u>r.</u>	(Notary Public)	(Seal)

Local Transportation Capital Improvement Program (LOTCIP)

4/2/2019

ONLY Applies to Municipal Adminstered LOTCIP Projects not on National Highway System

Material Name	Unit	Test/Doc	cumentation	Frequency 1 per	Notes
Anchor Bolts	ea.		MC	project	1 per size
Asphalt Emulsions (CSS-1, RS-1 or SS-1)	gal		MC	10k	
Bituminous Concrete (HMA)	ton	D 2950	FLDT	day	See Note 3
Cement - Portland Type I/II	bag		FLDT	project	empty bag
Chemcial Anchor	lb.	QPL	MC	project	
Concrete-Ready Mixed	c.y.	T22	FLDL	75	4 cylinders
Construction Signing	ea.		MC	project	
Geotextile	s.y.	QPL	MC	project	
Gravel (Bank Run or Crushed)	c.y.	T27	LABT	5k	
Grout, Non-shrink	bag		MC	project	
Masonry Brick & Block (Solid)	ea.		FLDT	project	See Note 1
Pipe - Reinforced Concrete	1.f.		PC-1	project	See Note 1
Pipe (Metal & Plastic) All types	lf		MC	project	See Note 1
Pipe Arch - Aluminum	lf		MC	project	See Note 1
Precast Concrete Items (not pipe)	ea.		PC-1	Item type	
Prestressed Concrete Members	ea.		LABT	1	See Note 2 & 3
Reclaimed Misc. Aggregate	c.y.	T27/Che	em Analysis	2500	See Note 5
Reclaimed Waste	c.y.	T180	LABT	50k	See Note 5
Sand (Masonry /Trenching & Backfilling)	c.y.	T27	LABT	2500	
Sheet Piling	1.f.		MC	project	See Note 4
Sign Post	ea		MC	project	See Note 1
Span Pole - Steel or Wood	ea.		MC	project	See Note 3
Steel Reinforcing Bars (Plain or Epoxy)	lb.	T244	MC	200t	
Stone (Broken/Crushed)	c.y.	T27	LABT	20k	
Structural Steel	cw	Shop	Drawings	project	Notes 2, 3 & 4
Traffic Signal Equipment	ea.		MC	project	NA

Notes

1	Material should be inspected on the project site prior to use. Suspect material should be physically tested to determine conformance.		
2	QC Inspection should be provided and documented during fabrication.		
3	Contact the Department of Transportation Division of Materials Testing to determine vendor qualifications and QA inspection availablity.		
4	Documentation should be provided to determine conformance to Buy America requirements.		
5	FORM MAT-212 should be completed and provided by the Contractor prior to use of material.		

Test Method/Test Type

LABT	Laboratory Test	
FLDT	Test performed in the field	
QPL	ConnDOT Qualified Products List	
	(http://www.ct.gov/dot/lib/dot/documents/dresearch/conndot_qpl.pdf)	
PC-1	MAT-308 Required from producer with shipment	
MC*	Materials Certificate	

^{*}Should comply with ConnDOT Standard Specification Section 1.06.07

ConnDOT - LOTCIP MATERIALS CERTIFICATION

LOTCIP PROJECT NO.:	
LOTCIP PROJECT DESCRITION:	
MUNICIPALITY:	
THIS IS TO CERTIFY THAT:	
Results of tests on acceptance samples indicate the mathematical the construction operations controlled by sampling an and specifications I and that such results compare far sampling and testing.	nd testing were in conformity with approved plans
Exceptions to the plans and specifications are documelow:	mented in the project records and are also listed
• NONE	
Certified by Designer of Record (PE, licensed in CT):	
Signature:	Date:
Typed Name:	
Title:	
License No :	

REHABILITATION OF BRIDGE NO. 04392 TOELLES ROAD OVER QUINNIPIC RIVER PROJECT NO. L148-0003 WALLINGFORD, CT

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October 16, 2025

Rehabilitation of Bridge No. 04392 Toelles Road over the Quinnipiac River Town of Wallingford

LOTCIP Project No. L148-0003

The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 819, 2024, as revised by the Supplemental Specifications dated January 2025 (otherwise referred to collectively as "ConnDOT Form 819") is hereby made part of this contract, as modified by the Special Provisions contained herein. Form 819 is available at the following DOT website link https://portal.ct.gov/dot/business/manuals?language=en_US. The current edition of the State of Connecticut Department of Transportation's "Construction Contract Bidding and Award Manual" ("Manual"), is hereby made part of this contract. If the provisions of this Manual conflict with provisions of other Department documents (not including statutes or regulations), the provisions of the Manual will govern. The Manual is available at the following DOT website link https://portal.ct.gov/dot/-/media/dot/contracts/constructioncontractbidding-awardmanual.pdf?rev=148e4dfd33234f0da93b0315c20e8ad8. The Special Provisions relate in particular to the Rehabilitation of Bridge No. 04392 Toelles Road over the Quinnipiac River in the Town of Wallingford.

CONTRACT TIME AND LIQUIDATED DAMAGES

Three hundred sixty-five (365) calendar days will be allowed for completion of the work on this Contract and the liquidated damages charge to apply will be One Thousand Two Hundred Dollars (\$1,200.00) per calendar day.

NOTICE TO CONTRACTOR – VERIFICATION OF PLAN DIMENSIONS AND FIELD MEASUREMENTS

The Contractor is responsible for verifying all dimensions before any work is begun. Dimensions of the existing structures shown on the plans are for general reference only; they are not guaranteed. The Contractor shall take all field measurements necessary to assure proper fit of the finished work and shall assume full responsibility for their accuracy. When shop drawings and/or working drawings based on field measurements are submitted for approval and/or review, the field measurements shall also be submitted for reference by the reviewer.

In the field, the Contractor shall examine and verify all existing and given conditions and dimensions with those shown on the plans. If field conditions and dimensions differ from those shown on the plans, the Contractor shall use the field conditions and dimensions and make the appropriate changes to those shown on the plans as approved by the Engineer. All field conditions and dimensions shall be so noted on the drawings submitted for approval.

There shall be no claim made against the Town by the Contractor for work pertaining to modifications required by any difference between actual field conditions and those shown by the details and dimensions on the contract plans. The Contractor will be paid at the unit price bid for the actual quantities of materials used or for the work performed, as indicated by the various items in the contract.

NOTICE TO CONTRACTOR – MINIMUM CONCRETE COMPRESSIVE STRENGTH

The concrete strength or allowable design stress specified in the General Notes is for design purposes only. The minimum compressive strength of concrete in constructed components shall comply with the requirements of Section 6.01 Concrete for Structures.

NOTICE TO CONTRACTOR - PORTLAND CEMENT CONCRETE (PCC) MIX CLASSIFICATIONS

SECTIONS 6.01 and M.03 MIX CLASSIFICATION EQUIVALENCY

Sections 6.01 *Concrete for Structures* and M.03 *Portland Cement Concrete* are herein revised to reflect changes to item names and nomenclature for standard Portland Cement Concrete (PCC) mix classifications. Other Special Provisions, standard specifications, plan sheets and select pay items in this Contract may not reflect this change. Refer to the Concrete Mix Classification Equivalency Table below to associate the Concrete Mix Classifications with Former Mix Classifications that may be present elsewhere in the Contract.

Concrete Mix Classification Equivalency Table

New Mix Classification (Class PCCXXXYZ ¹)	Former Mix Classification	
Class PCC03340	Class "A"	
Class PCC03360	Class "C"	
Class PCC04460 ²	Class "F"	
Class PCC04462 ²	High Performance Concrete	
Class PCC04481,	Class "S"	
PCC05581	Class 5	

Table Notes:

- 1. See Table M.03.02-1, Standard Portland Cement Concrete Mixes, for the new Mix Classification naming convention.
- 2. Class PCC04462 (low permeability concrete) is to be used for the following cast-in-place bridge components: decks, bridge sidewalks, and bridge parapets.

Where called for in the Contract, **Low Permeability Concrete** shall be used, as specified in Sections 6.01 and M.03. Please pay special attention to the requirements for Class PCC04462, including:

- Submittal of a mix design developed by the Contractor and a concrete supplier at least 90 days prior to placing the concrete
- Testing and trial placement of the concrete mix to be developed and discussed with the Department

The Department will not consider any requests for change to eliminate the use of Low Permeability Concrete on this Project.

NOTICE TO CONTRACTOR – PRECAST/PRESTRESSED PORTLAND CEMENT CONCRETE (PRC) MIX CLASSIFICATIONS

SECTIONS 5.14 and M.14 MIX CLASSIFICATIONS

Sections 5.14 *Prefabricated Concrete Structural Components* and M.14 *Prefabricated Concrete Members* have been revised as of the January 2022 supplements to Form 818 and should be thoroughly reviewed. The Precast/Prestressed Portland Cement Concrete Mix Classification Table is provided below. These classes of concrete should only appear within Prefabricated (Precast/Prestressed) items.

Table M.14-1 Precast/Prestressed Portland Cement Concrete Mix Classes

Class	28-day Strength (psi)	Resistivity (kΩ-cm) at 56 days AASHTO T 358	Entrained Air
PRC04060	4,000	NA	6.0 +/- 1.5%
PRC04062	4,000	29	6.0 +/- 1.5%
PRC05060	5,000	NA	5.0 +/- 1.5%
PRC05062	5,000	29	5.0 +/- 1.5%
PRC06060	6,000	NA	5.0 +/- 1.5%
PRC06062	6,000	29	5.0 +/- 1.5%
PRC08060	8,000	NA	5.0 +/- 1.5%
PRC08062	8,000	29	5.0 +/- 1.5%
PRC10060	10,000	NA	4.0 +/- 1.5%
PRC10062	10,000	29	4.0 +/- 1.5%

PRCXXXYZ() PRC=Precast/Prestressed Concrete

XXX = 28-day strength (x100 psi) Y=Stone size (No. 6 = No. 67)

Z= (0=no resistivity requirement, 2=resistivity requirement)

NOTICE TO CONTRACTOR – DETOUR PREREQUISITES

The Contractor shall complete the following tasks prior to the initiation of detour:

- 1- All shop and working drawings shall be submitted for review and shall be approved.
- 2- All precast substructure elements shall be cast and approved.
- 3- All materials needed for the project shall be onsite.

NOTICE TO CONTRACTOR - NOTIFY OF ROAD CLOSURE

The Contractor shall provide advanced notices of the closure of Toelless Road, which include at least a 4-week notice, to the following parties:

Ms. Alison Kapushinski Town Engineer Town of Wallingford 45 South Main Street Wallingford, CT 06492

Phone number: 203-294-2035 engineering@wallingfordct.gov

NOTICE TO CONTRACTOR -ROAD CLOSURE PERMIT

The Contractor shall acquire a road closure permit from the Town of Wallingford and the Town of North Haven prior to closing the road and initiating the detour.

NOTICE TO CONTRACTOR — PERMITS

The Contractor is hereby notified of permits associated with the work. The Contractor is bound to any conditions listed as part of the permit application approvals.

The Contractor may be required to incorporate special protections to perform the work while minimizing impacts to the environmentally sensitive surroundings.

The following permit approvals and conditions are included in Attachment A:

- U.S. Army Corps. Of Engineers Permit Approval
- The Town of Wallingford Inland Wetlands and Watercourse Commissions Permit Approval Letter with Conditions.
- The Town of North Haven Inland Wetlands and Watercourse Commissions Permit Approval Letter with Conditions.
- The Town of North Haven Planning and Zoning Commission Approval Letter.
- CTDEEP Fisheries
- NDDB Review
- State Historic Preservation Office (SHPO)

NOTICE TO CONTRACTOR — U.S. ARMY CORPS OF ENGINEERS GENERAL PERMIT CONDITIONS

The Contractor is hereby notified of the following special conditions per the U.S. Army Corps of Engineers (USACE) general permit verification letter included in Attachment A. The Contractor is bound to any conditions listed as part of the permit application approvals.

Project Specific Special Conditions:

- 1. The permittee shall complete and return the Work-Start Notification Form, included in Attachment A as part of the USACE verification letter, to the USACE office at least two weeks prior to the anticipated construction start date.
- 2. The permittee shall complete and return the Completion Certification Form, included in Attachment A as part of the USACE verification letter, to the USACE office at least one month following the completion of the authorized work.
- 3. The Contractor must maintain the activity herein in good condition and in conformance with the terms and conditions of the general permit verification authorization. The Contractor is not relieved of this requirement if they abandon the permitted activity, although they may make a good faith transfer to a third party in compliance with a general condition of these GPs. Should they wish to cease to maintain the authorized activities, or should they desire to abandon it without a good faith transfer, they must obtain a modification of this authorization from the USACE office, which may require restoration of the area.
- 4. All construction shall be completed in accordance with the limits of construction and construction sequences detailed on the enclosed plans. If the plans change or construction methods for work within Quinnipiac River at N 41.432642°, W -72.850857°, please contact USACE immediately to discuss modification of this authorization. The USACE must approve any changes before they are undertaken.

The general permit verification is valid until December 15, 2026. Contractor must commence or be under contract to commence the work authorized herein by December 15, 2026 and complete the work by December 15, 2027 (ONE YEAR AFTER VERIFICATION EXPIRATION). If not, the Permittee or Contractor must contact the USACE office to determine the need for further authorization before beginning or continuing the activity. It is recommended to contact the USACE office before the authorization expires to discuss if permit reissuance is a possibility.

NOTICE TO CONTRACTOR - PROCUREMENT OF MATERIALS

Upon award, the Contractor shall proceed with shop drawings, working drawings, procurement of materials, and all other submittals required to complete the work in accordance with the contract documents.

NOTICE TO CONTRACTOR - PROTECTION OF EXISTING UTILITIES

Existing utilities shall be maintained during construction. The Contractor shall verify the location of underground and overhead utilities. Construction work within the vicinity of utilities shall be performed in accordance with current safety regulations.

Representatives of the various utility companies shall be allowed access to the work, by the Contractor.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

In order to notify utility companies the number 1-800-922-4455 (Call Before You Dig), in accordance with Sections 16-345 through 16-359 of the Public Utilities Regulatory Authority (PURA) state statutes, must be called at least two (2) full working days prior to the start of excavation. This notification will enable the utility companies to mark out their facilities in the field.

Contractors are cautioned that it is their responsibility to verify locations, conditions, and field dimensions of all existing features, as actual conditions may differ from the information shown on the plans or contained elsewhere in the specifications.

There are special areas of concern with regards to existing and proposed utilities within the limits of this project. They are the following.

Underground utility lines are being permanently relocated. The Contractor must coordinate this with the respective utility company prior to any construction. The Contractor must employ protective measures when working around these new locations.

The Contractor shall have the location of the underground utilities marked out prior to the excavation.

Any work related to the temporary support of existing utilities shall be paid for under the item "Temporary Support of Utilities".

The Contractor shall perform all work in such a manner that will protect each Utility Company's facilities from damage. This may include excavation by hand methods as well as modified compaction methods when working close to underground Utilities.

The Contractor shall consider in his bid any inconvenience and work required to meet these conditions. The work to repair or replace any damage caused by the Contractor's Operations will be made solely at the Contractor's expense.

The Contractor's attention is directed to the requirements of Article 1.07.13 – Contractor's Responsibility for Adjacent Property, Facilities and Services. In areas where a minimum 3 feet nominal cover cannot be maintained, the Contractor shall employ positive methods of protection such as steel plates to insure load transfer around the utilities. Further equipment wheel loads shall not exceed 24,000 pounds where construction equipment traverses water mains.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

NOTICE TO CONTRACTOR – INCREASED REQUIREMENTS FOR CONSTRUCTION FIELD OFFICE

This Notice is to alert the Contractor of the increased size and other requirements for the Contract item "Construction Field Office, (Medium)" due to Covid-19 and other considerations.

The revisions to special provisions:

ITEM #0969060A - CONSTRUCTION FIELD OFFICE, SMALL
ITEM #0969062A - CONSTRUCTION FIELD OFFICE, MEDIUM
ITEM #0969064A - CONSTRUCTION FIELD OFFICE, LARGE
ITEM #0969066A - CONSTRUCTION FIELD OFFICE, EXTRA LARGE

include but not limited to, increased field office size, increased ventilation requirements, increase cleaning requirements, and additional field office supply requirements.

All costs for these requirements shall be included in the Construction Field Office item included in the Contract.

NOTICE TO CONTRACTOR - TIME OF YEAR RESTRICTIONS

The Contractor is hereby notified of the following time of year restrictions:

In-Water Work

The Contractor is hereby alerted to the time of year restrictions imposed by the Environmental Permits contained elsewhere in this contract. Work activities shall be conducted in low-flow period from July 1 to September 30. No in-stream work should occur in the Quinnipiac River between November 1 and April 1 while wood turtles are in their over-wintering hibernacula.

The Contractor should consider all of the above restrictions when scheduling work in order to complete the project in the allotted number of calendar days.

NOTICE TO CONTRACTOR – ENCROACHMENT PERMIT

The Contractor shall submit an application for an Encroachment Permit from ConnDOT District 3 for placement, maintenance, and removal of all work zone items including construction signs on CTDOT Right of Way prior to start of work.

Link to CTDOT Encroachment Permit web page as follows:

https://portal.ct.gov/dot/permits/highways/encroachment-permit?language=en_US

NOTICE TO CONTRACTOR – TOWN NOTIFICATION

The Contractor shall provide notice to the Town of Wallingford Environmental Planner two week prior to the expected started date for the project, and upon completion of the work.

Erin O'Hare Environmental Planner Town of Wallingford 45 South Main Street Wallingford, CT 06492 Phone number: 203-294-2093

towngov@wallingfordct.gov

The Town of Wallingford Environmental Planner and the Town of North Haven Zoning Enforcement Officer shall be notified after the sedimentation and erosion control measures have been installed and an inspection must be performed by both agencies prior to commencing any further work.

Erin O'Hare

Environmental Planner

Town of Wallingford

45 South Main Street

Wallingford, CT 06492

North Haven, CT 06473

Plane Ellis

Zoning Enforcement Officer

Town of North Haven

18 Church Street

North Haven, CT 06473

Phone number: 203-294-2093 Phone number: 203-239-5321 towngov@wallingfordct.gov Ellis.Jane@northhaven-ct.gov

NOTICE TO CONTRACTOR – ACCESS ROAD STAKING

If the Contractor chooses to use the suggested construction access road and staging area southeast of the bridge, the access road, staging area, and sedimentation control system and/or exclusionary fencing shall be staked out by a licensed Land Surveyor in the state of Connecticut at the location and limits as shown on the Contract Plans and per the requirements stated in the Contract Documents.

SECTION 1.03 - AWARD AND EXECUTION OF CONTRACT

Article 1.03.02 - Award and Execution of Contract:

After the second sentence of the only paragraph add the following:

The successful bidder is hereby notified of the Town's intent to award this contract within 44 days of the bid opening.

Article 1.03.08 - Notice to Proceed and Commencement of Work:

Change the first paragraph to read as follows:

The Contractor shall commence and proceed with the Contract work on the date specified in a written Notice to Proceed issued by the Engineer to the Contractor. The date specified will be no later than 45 calendar days after the date of the execution of the Contract by the Department, however, the contractor is hereby put on notice that it is the Department's intent to issue the Notice to Proceed no later than 24 calendar days after the date of the execution of the Contract by the Department.

SECTION 1.05 – CONTROL OF THE WORK

Replace Article 1.05.02 with the following:

1.05.02 – Plans, Working Drawings, Shop Drawings, Product Data, Submittal Preparation and Processing - Review Timeframes, Town's Action:

1. Plans: The plans prepared by the Town of Wallingford show the details necessary to give a comprehensive idea of the construction contemplated under the Contract. The plans will generally show location, character, dimensions, and details necessary to complete the Project. If the plans do not show complete details, they will show the necessary dimensions and details, which when used along with the other Contract documents, will enable the Contractor to prepare Working Drawings, Shop Drawings or Product Data necessary to complete the Project.

Project submittals shall be delivered to the following:

Ms. Alison Kapushinski Town Engineer Town of Wallingford 45 South Main Street Wallingford, CT 06492

Phone number: 203-294-2035 engineering@wallingfordct.gov

2. Working Drawings: When required by the Contract or when ordered to do so by the Engineer, the Contractor shall prepare and submit the Working Drawings, signed, sealed and dated by a qualified Professional Engineer licensed to practice in the State of Connecticut, for review. The Working Drawings shall be submitted sufficiently in advance of the work detailed, to allow for their review in accordance with the requirements specified in 1.05.02-5 (including any necessary revisions, resubmittal, and final review). There will be no direct payment for furnishing any Working Drawings, procedures or supporting calculations, but the cost thereof shall be considered as included in the general cost of the work.

The Contractor is only required to deliver paper copies that have been stamped with "No Exceptions Noted" or "Exceptions as Noted." Guidance to the Contractor for the number of properly sized paper copies will be provided by the Town.

All Working Drawing submission documents shall conform to the following requirements:

A. Drawings:

- i. Delivered in a single multi-page PDF file.
- ii. Shall be sized ANSI D (34 inches × 22 inches).

- iii. Contain a border, title block and a rectangular box, 2.25 inches wide × 1.75 inches high, in the lower right hand corner for the Town's stamp.
- iv. Text height and width shall be 0.125 inch.
- v. All letter characters shall be uppercase.
- vi. Shall be searchable.
- vii. Shall be black and white.
- viii. Cover Page shall be digitally signed by the Contractor's Professional Engineer.
- ix. All pages shall include a watermark of the Professional Engineer's stamp in a common area.

B. Calculations

- i. Delivered in a single PDF file
- ii. Shall be sized ANSI A (8.5 inches × 11 inches).
- iii. Cover Page shall be digitally signed by the Contractor's Professional Engineer.

C. Supporting Documentation:

- i. Delivered as an independent single PDF file
- ii. Shall be sized ANSI A $(8.5 \text{ inches} \times 11 \text{ inches})$.
- a. Working Drawings for Permanent Construction: The Contractor shall supply to the Town a certificate of insurance in accordance with 1.03.07 at the time that the Working Drawings for the Project are submitted.

The Contractor's designer, who prepares the working drawings, shall secure and maintain at no direct cost to the State a Professional Liability Insurance Policy for errors and omissions in the minimum amount of \$2,000,000 per error or omission. The Contractor's designer may elect to obtain a policy containing a maximum \$250,000 deductible clause, but if the Contractor's designer should obtain a policy containing such a clause, they shall be liable to the extent of at least the deductible amount. The Contractor's designer shall obtain the appropriate and proper endorsement of its Professional Liability Policy to cover the indemnification clause in this Contract, as the same relates to negligent acts, errors or omissions in the Project work performed by them. The Contractor's designer shall continue this liability insurance coverage for a period of

- (i) 3 years from the date of acceptance of the work by the Engineer, as evidenced by a State of Connecticut, Town of Transportation form entitled "Certificate of Acceptance of Work," issued to the Contractor; or
- (ii) 3 years after the termination of the Contract, whichever is earlier, subject to the continued commercial availability of such insurance.
- b. Working Drawings for Temporary Construction: The Contractor shall submit drawings, calculations, procedures and other supporting data to the Town in accordance with this Specification, with the exception of requirements defined under a. Working Drawings for Permanent Construction.
- 3. Shop Drawings: When required by the Contract, or when ordered to do so by the

Engineer, the Contractor shall prepare and deliver Shop Drawings to the Town for review.

Shop Drawings shall be submitted sufficiently in advance of the work detailed, to allow for their review in accordance with the requirements specified in 1.05.02-5 (including any necessary revisions, resubmittal, and final review). There will be no direct payment for furnishing any Shop Drawings but the cost thereof shall be considered as included in the general cost of the work.

The Contractor is only required to deliver paper copies that have been stamped with "No Exceptions Noted" or "Exceptions as Noted." Guidance to the Contractor for the number of properly sized paper copies will be provided by the Town.

Shop Drawing submission documents shall conform to the following requirements: A. Delivered in a single multi-page PDF file.

- B. Shall be sized ANSI D (34 inches \times 22 inches).
- C. Contain a border, title block and a rectangular box, 2.25 inches wide × 1.75 inches high, in the lower right hand corner for the Town's stamp. D. Text height and width shall be 0.125 inch.
- E. All letter characters shall be uppercase.
- F. Shall be searchable.
- G. Shall be black and white.
- **4. Product Data:** When required by the Contract, or when ordered to do so by the Engineer, the Contractor shall prepare and deliver Product Data to the Town for review.

Product Data shall be submitted sufficiently in advance of the work detailed, to allow for their review in accordance with the requirements specified in 1.05.02-5 (including any necessary revisions, resubmittal, and final review). There will be no direct payment for furnishing any Product Data but the cost thereof shall be considered as included in the general cost of the work.

The Contractor shall submit the Product Data in a single submittal for each element of construction.

The Contractor shall mark each copy of the Product Data submittal to show applicable choices and options. Where Product Data includes information on several products that are not required, copies shall be marked to indicate the applicable information. Product Data shall include the following information and confirmation of conformance with the Contract to the extent applicable: manufacturer's printed recommendations, compliance with recognized trade association standards, compliance with recognized testing agency standards, application of testing agency labels and seals, notation of coordination requirements, Contract item number, and any other information required by the individual Contract provisions.

The Contractor is only required to deliver paper copies that have been stamped with "No Exceptions Noted" or "Exceptions as Noted." Guidance to the Contractor for the number of properly sized paper copies will be provided by the Town.

Product Data submission documents shall conform to the following requirements:

- A. Delivered in a single PDF file
- B. Shall be sized ANSI A (8.5 inches \times 11 inches).
- C. Marked to indicate applicable choices and options.
- D. Where non-applicable information and products are included, notations shall be made to clearly delineate applicable from non-applicable information.
- **5. Submittal Preparation and Processing Review Timeframes:** If the Town deems a submittal incomplete or unacceptable because not all the required documents were attached, documents are incomplete, or are in the incorrect format, the Town will send the submittal back to the Contractor before reviewing. When a submittal is sent back as incomplete, the associated documents have not been reviewed and the review process and any associated timeframe requirements have not begun.

The Contractor shall allow 30 calendar days for submittal review by the Town, from the date receipt is acknowledged by the Town. For any submittals stamped with "Revise and Resubmit" or "Rejected," the Town is allowed an additional 20 calendar days for review of any resubmissions.

An extension of Contract time will not be authorized due to the Contractor's failure to transmit submittals sufficiently in advance of the work to permit processing.

The furnishing of Shop Drawings, Working Drawings or Product Data, or any comments or suggestions by the Designer or Engineer concerning Shop Drawings, Working Drawings or Product Data, shall not relieve the Contractor of any of its responsibility for claims by the State or by third parties, as per 1.07.10.

The furnishing of the Shop Drawings, Working Drawings and Product Data shall not serve to relieve the Contractor of any part of its responsibility for the safety or the successful completion of the Project construction.

- **6. Town of Wallingford's Action:** The Town will review each submittal, mark each with a self explanatory action stamp, and return the stamped submittal promptly to the Contractor. The Contractor shall not proceed with the part of the Project covered by the submittal until the submittal is marked "No Exceptions Noted" or "Exceptions as Noted" by the Town. The Contractor shall retain sole responsibility for compliance with all Contract requirements. The stamp will be marked as follows to indicate the action taken:
- a. If submittals are marked "No Exceptions Noted," the Designer or Engineer has not observed any statement or feature that appears to deviate from the Contract requirements.

- This disposition is contingent on being able to execute any manufacturer's written warranty in compliance with the Contract provisions.
- b. If submittals are marked "Exceptions as Noted," the considerations or changes noted by the Town's Action are necessary for the submittal to comply with Contract requirements. The Contractor shall review the required changes and inform the Town if they feel the changes violate a provision of the Contract or would lessen the warranty coverage.
- c. If submittals are marked "Revise and Resubmit," the Contractor shall revise the submittals to address the deficiencies or provide additional information as noted by the Town. The Contractor shall allow an additional review period as specified in article 1.05.02-5.
- d. If submittals are marked "Rejected," the Contractor shall prepare and submit a new submittal in accordance with the Town's notations. The resubmissions require an additional review and determination by the Town. The Contractor shall allow an additional review period as specified in article 1.05.02-5.

SECTION 1.06 – CONTROL OF MATERIALS

Add the following paragraph at the end of Article 1.06.01:

1.06.01 – Source of Supply and Quality:

Telecommunications Equipment or Services: In accordance with the FY 2019 National Defense Authorization Act (NDAA), 2 CFR 200.216, and 2 CFR 200.471, Federal agencies are prohibited from obligating or expending financial assistance for projects that install or use telecommunications and video surveillance services and equipment from:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities)
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities)

As a result of this prohibition, contractors and subcontractors are prohibited from providing such telecommunication or video surveillance equipment, services, or systems on Town projects.

This prohibition is not limited to those contractors or subcontractors that directly use equipment, systems, or services provided by those companies, it also prohibits the indirect use of any equipment, systems or services manufactured or provided by others for which such equipment or services act as a substantial component, or as critical technology as part of the system(s). By signing the Contract, the Contractor certifies that it will not provide, nor does it directly or indirectly use covered telecommunications equipment or video surveillance services or equipment from the entities above.

<u>SECTION 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES</u>

1.07.10—Contractor's Duty to Indemnify the State Against Claims for Injury or Damage: is amended as follows:

Add the following after the only paragraph:

"It is further understood and agreed by the parties hereto, that the Contractor shall not use the defense of Sovereign Immunity in the adjustment of claims or in the defense of any suit, including any suit between the State and the Contractor, unless requested to do so by the State."

Revise the title of this Article to read "Contractor's Duty to Indemnify the Town Against Claims for Injury or Damage."

In the first sentence, delete the words "the Department". Replace the word "State" with "Town" throughout this Article.

Replace the word "Commissioner" with "Engineer" throughout this Article.

1.07.11—Opening of Section of Project to Traffic or Occupancy: is amended as follows: Replace the word "State" with "Town" throughout this Article.

1.07.13 — Contractor's Responsibility for Adjacent Property and Services: is supplemented with the following:

The Contractor's attention is directed to the fact that there are utilities on the existing bridge. Overhead utilities (including utility poles, pole guys and overhead wires) and buried utilities do exist in the immediate vicinity of the project.

The Contractor shall be liable for all damages and claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

The following companies and their representatives shall be contacted by the Contractor to coordinate the protection of their utilities on the construction site two (2) weeks prior to the start of any work on the project involving their utilities:

The Town of Wallingford - Electric Division

Mr. Jake Arborio General Manager 100 John Street Wallingford CT

Phone: (203) 985-5553

Email: Jake.arborio@wallingfordct.gov

The Town of Wallingford - Water and Sewer Division

Mr. Neil M Amwake, P.E.

General Manager

377 South Cherry Street

Wallingford, CT 06492

Phone: (203) 949-2670

Email: neil.amwake@wallingfordct.gov

Southern New England Telephone Company dba Frontier Communications of Connecticut

Ms. Lynne Delucia

Manager – Engineering & Construction

1441 North Colony Road

Meriden, Connecticut 06450-4101

Phone: (203) 238-5000

Email: Lynn.m.delucia@ftr.com

Comcast of Connecticut, Inc.

Mr. Christopher Simeone Construction Manager CT/NY

222 New Park Drive Berlin CT 06037

Phone: (860) 491-6701

Email: christopher simeone@cable.comcast.com

Crown Castle Fiber, LLC

Mr. Mark Bonanno

Manager, Network Construction 1800 West Park Dr., Suite 250 Westborough, MA 01581

Phone: (508) 616-7818

Email: Mark.Bonsnno@crowncastle.com

Yankee Gas Services Company dba Eversource Energy - Gas

Mr. Kenneth Cook, Lead Engineer, Gas Project Engineering

107 Selden Street, Mail Stop NUE2

Berlin, CT 06037 Phone: 860-978-5465

E-MAIL: kenneth.cookiii@eversource.com

Algonquin Gas Transmission Company dba Enbridge

Mr. Kenneth Ruel, Area Supervisor 252 Shunpike Road Cromwell, CT 06416

Phone: (860) 894-1600 EXT: 1608 Mobile: 860-982-1806

E-MAIL: Kenneth.Ruel@enbridge.com

All work shall be in conformance with Rules and Regulations of Public Utility Regulatory Authority (PURA) concerning Traffic Signals attached to Public Service Company Poles.

Representatives of the various utility companies shall be allowed access to the project site at all times.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

SECTION 1.08 – PROSECUTION AND PROGRESS

Section 1.08 is supplemented and amended as follows:

Throughout this Section, make the following substitutions for all occurrences of the word(s) identified below for substitution:

Substitute "Town for "Department" and for "State". Substitute "Engineer" for "Commissioner".

1.08.03 - Prosecution of Work: Is supplemented as follows:

The Contractor shall not be permitted to interrupt traffic along the detour route for any continuous period of time due to construction operations until both of the following conditions are satisfied:

- 1. The Contractor has secured all of the required approvals from the Town, and
- 2. The Contractor has, as much as practical, all of the required materials needed on the site or readily available for that construction which requires the interruption of traffic.

1.08.04 - Limitation of Operations - Is supplemented as follows:

In order to provide for traffic operations as outlined in the Special Provision "Maintenance and Protection of Traffic," the Contractor will not be permitted to perform any work which will interfere with the described traffic operations on all project roadways as follows:

Toelles Road

Monday through Friday between 6:00 a.m. and 9:00 a.m. & between 3:00 p.m. and 6:00 p.m. Saturday and Sunday between 10:00 a.m. and 6:00 p.m.

The Contractor will be allowed to close Toelles Road in the vicinity of the bridge no. 04392 being replaced and detour traffic for a maximum duration of 200 consecutive days beginning on Thursday April 1, 2026 at 7:00 a.m. and ending on or before Milestone Completion Date of Friday November 19, 2026 at 3:00 p.m. During roadway closures, the Contractor shall detour traffic as shown on the Detour Plans contained in the contract plans.

The Contractor shall notify the Engineer at least 14 days in advance of the start of the Toelles Road closure. The Contractor shall coordinate with the Town of Wallingford prior to roadway closures.

Additional Lane Closure Restrictions

It is anticipated that work on adjacent projects will be ongoing simultaneously with this project. The Contractor shall be aware of those projects and anticipate that coordination will be required to maintain proper traffic flow at all times on all project roadways, in a manner consistent with these specifications and acceptable to the Engineer.

The Contractor will not be allowed to perform any work that will interfere with traffic operations on a roadway when traffic operations are being restricted on that same roadway, unless there is at least a one mile clear area length where the entire roadway is open to traffic or the closures have been coordinated and are acceptable to the Engineer. The one mile clear area length shall be measured from the end of the first work area to the beginning of the signing pattern for the next work area.

SECTION 1.10-ENVIRONMENTAL COMPLIANCE

In Article 1.10.03-Water Pollution Control: REQUIRED BEST MANAGEMENT PRACTICES

Add the following after Required Best Management Practices Number 13:

14. The Contractor is hereby notified that State Special Concern Glyptemys insculpta (Wood turtle), Terrapene c. carolina (Eastern box turtle) and Clemmys gutatta (Spotted turtle) have been documented within the Project limits.

The stretch north and south of the Quinnipiac River is highly suitable habitat for wood turtle, spotted turtle, and eastern box turtle. Wood turtles require riparian habitats bordered by floodplain, woodland or meadows. They hibernate in the banks of the river in submerged tree roots. Their summer habitat includes pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. This species has been negatively impacted by the loss of suitable habitat.

Eastern box turtles are found in well-drained forest bottomlands and a matrix of open deciduous forests, early successional habitats, fields, gravel pits and powerlines. They are dormant between November 1st and April 1st in only a few inches from the surface in forested habitat.

Spotted turtle are associated with wetland and vernal pools. Over the course of a season and lifetime, individuals will travel large distances (up to 1km) over upland forest and fields between multiple wetlands.

The Contractor shall implement the following protection protocol:

Pre-construction Protection Measures:

- 1. To reduce impacts to potentially hibernating wood turtles, the commencement of construction activities should begin during the active season to allow for pre-construction turtle sweeps. Because wood turtles hibernate in deep pools, log jams, and undercut riverbanks, detection of this species during the inactive season is difficult.
- 2. To reduce impacts to hibernacula, no clearing of trees or root tangles which may serve as hibernacula habitat should be removed. In cases where these trees need to be removed for accessibility of construction equipment, a herpetologist should be on site to monitor the removal process. The root bundles of these trees should be left intact and not removed from the riverbank. A pre-construction meeting with the engineer and construction firm should occur with a herpetologist to flag all trees and/or root bundles that should remain intact. This meeting should also have an educational portion to familiarize engineers, environmental monitors, and construction personnel to the presence of listed turtle species, their sensitive nature, identifying characteristics, and protection status in the state.
- 3. The existing terrestrial passage corridor under bridge 04392 should remain intact in the new design plans to allow for linear movements of turtles and other wildlife species (Figure 2e).

Construction Protection Measures:

- Hire a qualified herpetologist to be on site to ensure these protection guidelines remain in effect and prevent turtles and their habitats from being impacted during construction activities. This is especially important during the months of March through June when turtles are actively moving within the river (March and April) and selecting nesting sites (May and June) across the larger landscape.
- No in-stream work should occur in the Quinnipiac River between November 1st and April 1st while wood turtles are in their over-wintering hibernacula.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance to the greatest extent possible. All exclusionary fencing should be inspected by a qualified herpetologist prior to the commencement of construction activities (including clearing and grubbing).
- Exclusionary fencing must be at least 20 in tall and buried to 6-inches or secured to and remain in contact with the ground and be inspected and maintained daily by construction personnel to secure any gaps or openings at ground level that may let animals pass through. Do not use plastic or netted silt-fence.
- A qualified herpetologist should inspect the exclusionary barrier on a weekly basis to ensure it is being appropriately maintained.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed and swept for individual turtles and blocked with exclusionary silt fence to prevent turtle's re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species descriptions and the possible presence of listed species and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals. A relocation plan should be discussed in detail with all construction personnel prior to the commencement of construction. No turtles should be relocated without prior coordination with a qualified herpetologist.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access points. No turtles should be relocated without prior coordination with a qualified herpetologist.
- In areas where silt fence is used for exclusion, it shall be removed as soon as construction is completed, and the area is stable to allow for wildlife passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitats blocked off with exclusionary silt fence.

- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows, floodplain forests, and seasonal pools.
- The Contractor and/or consulting herpetologist must search the work area each morning prior to any work being done. When falling trees adjacent to the Quinnipiac River, cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- When falling trees adjacent to the Quinnipiac River, cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Limit to the greatest extent possible any equipment used within 100 feet of the river when not required.
- Any confirmed sightings of wood, box, or spotted turtles should be reported and documented with the NDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641). All species documented by the contractor should be photographed if possible and immediately shared with a qualified herpetologist to discuss the appropriate relocation measures.

ITEM #0219011A – SEDIMENT CONTROL SYSTEM AT CATCH BASIN

Description: Work under this item shall consist of furnishing, installing, maintaining, replacing, and removing sediment control system at catch basins, herein referred to as Silt Sack, at the locations as shown on plans or as directed by the Engineer. The work shall also include removal of accumulated sediment, and disposal of accumulated sediment,

Materials: The Silt Sack must be commercially produced and marketed for the specific application(s) on the Project. All Silt Sack must be manufactured from a specially designed woven polypropylene geotextile sewn material. The Silt Sack must be able to handle flows of at least 180 gallons per minute per square foot, fit any sized catch basin or drop inlet, and be UV resistant.

The Silt Sack product shall be one of the following or an approved equal:

- 1. Siltsack®
- 2. Dandy Sack®
- 3. FleXstorm Catch-ItTM
- 4. PIG®Sediment-Drain Filter
- 5. ACF Environmental Silt Sack

The Sediment Control System at Catch Basin must have the following features: two dump straps attached at the bottom to facilitate the emptying of the Silt Sack and lifting straps to be used to lift the Silt Sack from the catch basin or drop inlet. The Silt Sack shall have a restraint cord approximately halfway up to keep the sides away from the catch basin or drop inlet walls. When required, a curb deflector shall be installed as directed by the Engineer.

Product Data for the Silt Sack to be used by the Contractor must be submitted for review and acceptance by the Engineer or their authorized delegate prior to the installation on-Site.

Construction Methods: The Contractor shall install the Silk Sack per the manufacturer's instructions and recommendations at each catch basin or drop inlet as shown on the plans or as directed by the Engineer to provide inlet protection to prevent silt, sediment, or debris from entering the stormwater drainage system.

When the Silt Sack becomes 1/2 full of accumulated sediment, the Contractor shall empty, clean, and replace the Silt Sack back into the catch basin or drop inlet. Sediment emptied shall be considered unsuitable material and be disposed of at an off-Site approved upland facility per federal, State, and local environmental laws and regulations.

At the completion of the Project, the Contractor shall remove all Silt Sacks within the Project limits. Any spilled sediment material during removal operations shall be removed by the Contractor at no cost to the State.

Method of Measurement: Sediment Control System at Catch Basin will be measured as each installed, maintained, accepted, and removed. There will be no separate measurement for maintenance or replacement associated with this item.

Basis of Payment: The item "Sediment Control System at Catch Basin" will be paid at the Contract unit price for each completed system in place and accepted, which price shall include installing, maintaining, replacing, removal of material, off-Site disposal of accumulated material, materials, equipment, tools, and labor incidental thereto.

The cost of installing hay bales, geotextile, check dam, or fiber roll for inlet protection shall be paid for under their respective Contract item or special provision.

Pay Item Pay Unit Sediment Control System at Catch Basin ea.

<u>ITEM #0406194A – JOINT AND CRACK SEALING OF BITUMINOUS</u> CONCRETE PAVEMENT

Description: This work consists of furnishing and applying hot-applied rubberized asphalt crack sealer to bituminous concrete pavement joints and cracks. It shall be constructed in close conformity with the lines, grades, thicknesses, and typical cross sections shown on the plans or established by the Engineer. Joint and Crack Sealing of Bituminous Concrete Pavement may be used in conjunction with other repair treatments including joint and crack filling or patching, in which case the sequence of treatments will be provided in the Plans or directed by the Engineer.

For the purposes of this document, the word "crack" includes all longitudinal (along the direction of travel) and transverse (perpendicular to the direction of travel) cracks and joints. All work specified for "crack(s)" herein shall apply to all types of cracks and joints unless otherwise specified.

Materials:

- Crack Seal: The crack seal material shall be composed of a hot-applied, rubberized asphalt meeting AASHTO M 324 Type II requirements. The crack seal material will also contain a minimum of 10% crumb rubber by weight. The Contractor must submit to the Engineer all Material Safety Data Sheet documents from the material manufacturer prior to the commencement of work. During work progress, the Contractor must submit to the Engineer the manufacturer's Material Certificate for compliance to AASHTO M 324 Type II requirements for each batch or lot of material utilized on the Contract.
- 2. Optional Barrier Material Backer Rod: The backer rod shall be a heat resistant material compatible with the crack sealant and acceptable to the manufacturer of the sealant. No bond or reaction shall occur between the sealant and the rod. It shall be of a non-water absorbent material and shall not melt or shrink when hot sealant is poured on it.
 - The backer rod shall have a maximum of 5% absorption when immersed in water for 24 hours with the ends sealed. The backer rod shall be of such a size that compression is required for installation in the crack, so that it maintains its position during the sealing operation. Backer rod shall be dry.
- 3. Optional Barrier Material Hot Mix Asphalt (HMA): Any HMA placed in the bottom of a crack between 1.5 and 2 inches wide shall be HMA S0.25 Traffic Level 2 and shall meet all requirements of Section 4.06 Bituminous Concrete.

The Contractor must submit to the Engineer all Material Safety Data Sheet documents from the material manufacturer(s) prior to the commencement of work. During work progress, the Contractor must submit to the Engineer the manufacturer's Material Certificate for compliance to applicable specifications for each batch or lot of material utilized on the Contract.

Construction Methods: The crack sealing operation shall proceed in accordance with the requirements of the "Maintenance and Protection of Traffic" and "Prosecution and Progress" specifications.

- 1. Equipment: The equipment used by the Contractor shall include, the following:
 - a. Melter Applicator: The unit shall consist of a boiler kettle equipped with pressure pump, hose, and applicator wand; the boiler kettle may be a combination melter and pressurized applicator of a double-boiler type with space between the inner and outer shells filled with heat transfer oil. Heat transfer oil shall have a flash point of not less than 600°F. The kettle shall include a temperature control indicator. The kettle shall be capable of maintaining the crack seal material at the manufacturer's specified application temperature range. The kettle shall include an insulated applicator hose and application wand. The hose shall be equipped with a shutoff control. The kettle shall include a mechanical full sweep agitator to provide continuous blending. The unit shall be equipped with thermometers to monitor the material temperature and the heating oil temperature. The unit shall be equipped with thermostatic controls that allow the operator to regulate material temperature up to at least 425°F.
 - b. Application Wand and Squeegee Applicator: The material shall be applied with a wand followed by a squeegee applicator. The squeegee applicator shall be of commercial/industrial quality designed with a "U" shaped configuration. It shall be of a size adequate to strike off, flush with the surrounding pavement surface and without overflow around the sides, all crack seal material placed. This tool shall be either attached to the applicator wand or used separately as its own long handled tool.
 - c. Hot Air Lance: The unit shall be designed for cleaning and drying the pavement surface cracks. Minimum compressed air capacity shall be 100 psi. The compressed air emitted from the tip of the lance shall be capable of achieving a temperature of at least 1500°F.
 - d. Vertically Mounted Power Driven Wire Brush: This tool shall be used to remove any dirt, debris, or vegetation to the depths specified that cannot be removed by the hot air lance. It shall be of adequate size and power to remove all material from cracks as specified.
- 2. <u>Weather Requirements:</u> Work shall not be performed unless the pavement is dry. No frost, snow, ice, or standing water may be present on the roadway surface or within the cracks. The ambient temperature must be 40°F and rising during the field application operations for work to proceed.
- 3. <u>Material Mixing Procedure:</u> The prepackaged material shall be added to the melter applicator in the presence of the Engineer. It shall then be mixed and heated to the recommended application temperature. The crack seal material shall never exceed 400°F.

4. <u>Determination of Cracks to be Sealed:</u> The width and depth requirements for cracks to be sealed are as follows:

All crack width determinations shall be made by measuring the crack width flush at the surface of the pavement prior to being sealed. A straightedge shall be used whenever necessary to establish the location or limits of the flush surface of the pavement.

All cracks from $^{1}/_{8}$ inch up to 1.5 inches wide shall be prepared and sealed as stated below. Cracks that are between $^{1}/_{8}$ inch and 1.5 inches wide, but eventually taper in width below the minimum $^{1}/_{8}$ inch, shall also be prepared and sealed as stated below. Only cracks that are less than $^{1}/_{8}$ inch wide throughout their entire length shall be excluded.

Transverse cracks, where a portion of the crack (50% or less) exceeds a width of 1.5 inches, up to 2 inches, shall also be prepared and sealed as stated below.

All joints to be sealed that are raveled (loss of the pavement surface material) shall be at least ½ inch in depth at the joint's deepest point. The minimum width of a raveled joint must be ½ inch. The maximum width of a raveled joint to be sealed is 3 inches.

Any cracks exceeding the width and depth requirements specified above shall be repaired using separate items.

5. <u>Crack Preparation:</u> Cracks to be sealed shall be treated with a hot air lance prior to application of the crack seal material. Two (2) passes minimum shall be made with the hot air lance. The hot air lance operation shall proceed at a rate no greater than 120 feet per minute. There shall be no more than 10 minutes between the second hot air lance treatment and the material application.

The use of the hot air lance is not intended to heat the crack. It is to be used to blow all debris from the crack to the depths specified below and to remove any latent moisture from the crack until the inside of the crack is completely dry as determined by the Engineer. "Moisture" does not include standing water. The hot air lance is not to be used to boil off or blow standing water from the bottom of a crack. If standing water is present in the bottom of any crack, the sealing operation shall be postponed until such time that the standing water evaporates naturally. The Contractor may use compressed, oil-free air (not heated) to blow standing water from a crack to help accelerate the natural evaporation process. If standing water remains after using compressed air, the crack shall be allowed to dry naturally until remaining standing water evaporates. The hot air lance shall be used after visible water has evaporated. If a crack is already completely dry as determined by the Engineer, the hot air lance shall be operated at its lowest temperature possible.

The hot air lance is to be used to blow all debris from cracks (not including raveled joints) to a depth of at least $\frac{3}{4}$ inch for cracks between $\frac{1}{8}$ inch and $\frac{3}{4}$ inch wide, and to a depth of 1.25 inches for cracks between $\frac{3}{4}$ inch and 2 inches wide. The hot air lance shall be used to blow

all debris from raveled joints to a depth of 1 inch or the full depth of the joint, whichever is smaller.

In the event that cracks are packed tightly with debris, dirt, vegetation, or other material, except previously placed sealant or filler, the Contractor shall use a vertically mounted power driven wire brush to remove all material and burnish the sides of the crack to the depths specified above. Cracks treated with the power driven wire brush shall subsequently be treated with a hot air lance as described in this section. The use of both the power driven wire brush and the hot air lance shall result in the complete removal of all material in the crack (except previously placed sealant or filler) to the depths specified above such that the sides of the crack are completely free and clean of any debris and moisture.

In the event that cracks have depths greater than 2 inches below the pavement surface, the Contractor may place a barrier composed of backer rod as specified herein. The backer rod shall be placed in a manner leaving 1.25 inches below the elevation of the pavement surface for crack seal material. Use of backer rod will not be allowed for cracks wider than 1.5 inches or less than ½ inch wide. For cracks between 1.5 and 2 inches wide, HMA S0.25 Traffic Level 2 may be placed in the bottom of the prepared crack. HMA shall be placed and compacted with a steel T-bar approved by the Engineer in a manner leaving 1.25 inches below the elevation of the pavement surface for crack seal material.

- 6. Crack Sealing: As soon as cracks have been prepared, they shall be filled to refusal along their entire length with the crack sealant material. The treatment material shall be maintained at the manufacturer's specified/recommended application temperature range at all times. The sealing operation shall be suspended if the temperature of the crack seal material falls outside the specified temperature range and shall remain suspended until the crack seal material is brought within the specified temperature range. Sealed cracks are to be squeegeed immediately following application of the crack seal material, striking excess sealer flat to the adjacent pavement surface. There shall be no build-up of treatment material above or adjacent to the crack at any time. If the initial application of crack sealant material fails to fill the crack or shrinks upon cooling such that there is a depression formed of at least ¼ inch or greater, a second application of sealant shall be placed over the first application.
- 7. Protection of Sealed Cracks: Traffic shall not be permitted on the pavement until the crack seal material is set so that the material does not track and is not deformed or pulled out by tires. If the work under this item is being performed prior to placing a hot mix overlay or other surface treatment, a detackifier or blotting agent will not be allowed. If work under this item is not followed by placement of an overlay of any kind, a detackifier or blotting agent may be used. If a detackifier or blotting agent is used, it shall be one recommended by the supplier of the crack seal material and shall be used as recommended by the supplier, except that no paper, cotton, or other organic materials shall be allowed. Information on the type and usage of a detackifier or blotting agent shall be presented to the Engineer for their written acceptance prior to use.

8. <u>Removal and Disposal of Material:</u> All debris generated from the operations described above shall be removed from the roadway by the Contractor.

Treatment material remaining in the Contractor's kettle at the close of the daily work session shall be discarded. At no time shall treatment material be re-heated for use in subsequent crack sealing applications unless permitted by the Engineer following a review of specific circumstances.

All debris and surplus treatment material shall be properly disposed in accordance with Article 1.10.03 and State of Connecticut law.

9. Acceptance of Work: When work is complete, an inspection shall be scheduled with the Engineer. The Engineer will note all deficiencies including, areas exhibiting adhesion failure, cohesion failure, tracking of sealant material, and missed cracks. Work identified by the Engineer as not acceptable shall be repaired at the Contractor's expense. The Contractor shall notify the Engineer upon completion of any corrective work performed.

Method of Measurement: This work will be measured by the total number of linear feet of cracks sealed as indicated in the Contract plans and as measured, verified, and accepted by the Engineer.

Basis of Payment: This work will be paid for at the Contract unit price per linear foot for "Joint and Crack Sealing of Bituminous Concrete Pavement" complete and accepted in place. The price shall include all submittals, materials, equipment, tools, and labor incidental thereto. No payment will be made to the Contractor prior to submittal of required documents.

Pay Item Pay Unit Joint and Crack Sealing of Bituminous Concrete Pavement 1.f.

ITEM #0520036A - ASPHALTIC PLUG EXPANSION JOINT SYSTEM

Description: Work under this item shall consist of furnishing and installing an asphaltic plug expansion joint system (APJ) in conformance with ASTM D6297, as shown on the plans, and as specified herein.

Work under this item shall also consist of the removal and disposal of bituminous concrete, membrane waterproofing, existing joint components and sealing elements, cleaning and sealing median barrier joints, parapet joints, and sidewalk joints.

Work under this item excludes the removal of Portland cement concrete headers.

Materials: The APJ component materials shall conform to ASTM D6297 and the following:

Aggregate: The aggregate shall meet the following requirements:

- a) Loss on abrasion: The material shall show a loss on abrasion of not more than 25% using AASHTO Method T96.
- b) Soundness: The material shall not have a loss of more than 10% at the end of five cycles when tested with a magnesium sulfate solution for soundness using AASHTO Method T 104.
- c) Gradation: The aggregate shall meet the requirements of Table A below:
- d) Dust: aggregate shall not exceed 0.5% of dust passing the #200 sieve when tested in accordance with AASHTO T-11.

Table A

Square Mesh Sieves	1"	3/4"	1/2"	3/8"	No. 4
	(25.0 mm)	(19.0 mm)	(12.5 mm)	(9.5 mm)	(4.75 mm)
% passing	100	90 - 100	20 - 55	0 - 15	0 - 5

A sample of the aggregate shall be submitted to the Department with a Certified Test Report in accordance with Article 1.06.07 for each 20 tons of loose material or its equivalent number of bags delivered to the job site. The Certified Test report must include a gradation analysis resulting from a physical test performed on the actual material that accompanies the report.

Anti-Tacking Material: This material shall be a fine graded granular material with 100% passing the $^{3}/_{16}$ " sieve and no more than 5% passing the #200 when tested in accordance with AASHTO T-27.

<u>Backer Rod</u>: All backer rods shall satisfy the requirements of ASTM D5249, Type 1. <u>Bridging Plate</u>: The bridging plates shall be steel conforming to the requirements of ASTM A36 and be a minimum ¹/₄" thick and 8" wide. For joint openings in excess of 3" the minimum

plate dimensions shall be 3/8" thick by 12" wide. Individual sections of plate shall not exceed 4' in length. Steel locating pins for securing the plates shall be size 16d minimum, hot-dip galvanized, and spaced no more than 12" apart.

Concrete Leveling Material: Shall be a cementitious-based material that conforms to ASTM C928 Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repair, for R3 performance requirements in Table 1 and achieve the following:

- a. Final set in 45 Minutes
- b. 2500 psi compressive strength in 24 hours
- c. 5000 psi compressive strength in 7 days

<u>Parapet Sealant</u>: The sealant used in parapet joint openings shall be a single component non-sag silicone sealant that conforms to the requirements of ASTM D5893.

<u>Sidewalk Sealant:</u> The sealant used in sidewalk joint openings shall be a rapid cure, self-leveling, cold applied, two-component silicone sealant. The silicone sealant shall conform to the requirements listed in Table B:

Table B

Properties - As	Test Method	Requirement
Supplied		
Extrusion Rate	ASTM C1183	200-600 grams/min
Leveling	ASTM C639	Self-Leveling
Specific Gravity	ASTM D792	1.20 to 1.40
Properties - Mixed	Test Method	Requirement
Tack Free Time	ASTM C679	60 min. max.
Joint Elongation –	ASTM D5329 1,2,3	600% min
Adhesion to concrete		
Joint Modulus @	ASTM D5329 1,2,3	15 psi max
100% elongation		
Cure Evaluation	ASTM D5893	Pass @ 5 hours

- 1. Specimens cured at $77\pm3^{\circ}$ F and $50\pm5\%$ relative humidity for 7 days
- 2. Specimens size: ½"wide by ½"thick by 2" long
- 3. Tensile Adhesion test only

The date of manufacture shall be provided with each lot. No sealant shall be used beyond its maximum shelf-life date.

The two-part silicone sealants shown in Table C are known to have met the specified requirements:

Table C

Product	Supplier
Dow Corning 902RCS	Dow Corning Corporation
	2200 W Salzburg Road
	Auburn, Michigan 48611
	BASF/Watson Bowman Acme Corporation
Wabo SiliconeSeal	95 Pineview Drive
	Amherst, New York 14228

Other two-component silicone joint sealants expressly manufactured for use with concrete that conform to the aforementioned ASTM requirements will be considered for use provided they are submitted in advance for approval to the Engineer. Other joint sealants will be considered for use only if a complete product description is submitted, as well as documentation describing at least five installations of the product. These documented installations must demonstrate that the product has performed successfully for at least three years on similar bridge expansion joint applications.

A Materials Certificate and Certified Test Report for the asphaltic binder shall be submitted by the Contractor in accordance with the requirements of Article 1.06.07 certifying that the asphaltic binder satisfies the requirements of the most current version of ASTM D6297.

A Materials Certificate for all other components of the APJ, leveling material, backer rod and sealant used in sealing parapet and sidewalk joint openings, shall be submitted by the Contractor in accordance with the requirements of Article 1.06.07

Construction Methods: The APJ shall be installed at the locations shown on the plans and in stages in accordance with the traffic requirements in the special provisions "Maintenance and Protection of Traffic" and "Prosecution and Progress".

At least 30 days prior to start of the work, the Contractor shall submit to the Engineer for approval a detailed Quality Control Plan for the installation of the APJ. The submittal shall include:

- a) A list of all manufactured materials and their properties to be incorporated in the joint system, including, but not limited to the asphaltic binder, anti-tack material, backer rod, sealant, leveling material, as well as the aggregate's source.
- b) A detailed step by step installation procedure and a list of the specific equipment to be used for the installation. The Quality Control Plan must fully comply with the specifications and address all anticipated field conditions, including periods of inclement weather.

The APJ shall not be installed when bituminous concrete overlay or joint cutout is wet. The APJ shall only be installed when the bridge superstructure surface temperature is within the limits specified in Table D and when the ambient air temperature is within the range of 45°F to 95°F. The bridge superstructure surface temperature range is determined using the thermal movement range provided on the contract plans for the proposed APJ deck installation location and the selected APJ product.

Table D

Installation Restrictions				
Designed Deck Joint Thermal Movement Range ²	Bridge Superstructure Surface Temperature			
0" to 1"	45° F to 95° F			
1-1/8"	45° F to 90° F			
1-1/4"	45° F to 80° F			
1-3/8"	45° F to 70° F			
1-1/2"	45° F to 65° F			

^{1.} The superstructure surface temperature shall be determined from the average of three or more surface temperature readings taken at different locations on the interior girder surfaces by the Contractor as directed by the Engineer. Temperature measurements of the superstructure shall be taken by the contractor with a calibrated hand held digital infrared laser-sighted thermometer on the surfaces of an interior steel girder, or interior concrete girder protected from direct sunlight. The infrared thermometer to be supplied by the Contractor for this purpose shall meet certification requirements of EN61326-1, EN61010-1, and EN60825-1 maintained by the European Committee for Electrotechnical Standardization (CENELEC). The thermometer shall have a minimum distance-to-spot ratio of 50:1 and shall have adjustable emissivity control. The thermometer shall have a minimum accuracy value of ±1% of reading or ±2°F, whichever is greater. The thermometer shall be used in strict accordance with the manufacturer's written directions. An additional infrared thermometer satisfying the same standards to be used in this application shall also be provided to the Engineer for quality assurance purposes.

2. Linear interpolation may be used to determine an allowable surface temperature range for thermal movement ranges in between values shown in the table, as approved by the Engineer.

Prior to installing the APJ, the Contractor shall determine the exact location of the deck joint beneath the bituminous concrete overly.

The APJ shall be installed symmetrically about the deck joint opening to the dimensions shown on the plans or as directed by the Engineer; not to exceed 24 inches measured perpendicular to the deck joint. The proposed saw cut lines shall be marked on the bituminous concrete overlay by the Contractor and approved by the Engineer, prior to saw-cutting. The saw-cuts delineating the edges of the APJ shall extend full depth of the bituminous concrete overlay.

The existing bituminous concrete overlay, waterproofing membrane and/or existing expansion joint material, within the saw cut limits shall be removed and disposed of by the Contractor to create the joint cutout.

Concrete surfaces that will support the bridging plates shall be smooth and form a plane along and across the deck joint. Rough or damaged concrete surfaces shall be repaired with a leveling compound meeting the requirements of this specification. Deteriorated concrete areas within the joint limits shall be repaired as directed by the Engineer: such repairs, when deemed necessary by the Engineer, shall be compensated for under the applicable concrete deck repair items in the Contract. The existing and repaired concrete surfaces shall provide continuous uniform support for the bridging plate and prevent the plate from rocking and deflecting.

Prior to the installation of the backer rod, all horizontal and vertical surfaces of the joint cutout shall be abrasive blast cleaned using an oil-free, compressed air supply. The entire cutout shall then be cleared of all loose blast media, dust, debris and moisture using an oil-free, hot air lance capable of producing an air stream at 3,000°F with a velocity of 3,000 feet per second.

A single backer rod, with a diameter at least 25% greater than the existing joint opening at the time of installation, shall be installed at an inch below the bridging plate in the existing deck joint opening between the concrete edges.

Asphaltic binder shall be heated to a temperature within the manufacturer's recommended application temperature range which shall be provided in the Quality Control Plan. During application, the temperature of the binder shall be maintained within this range. In no case shall the temperature of the binder go below 350° F nor exceed the manufacturer's recommended maximum heating temperature.

Asphaltic binder shall then be poured into the joint opening until it completely fills the gap above the backer rod. A thin layer of binder shall next be applied to the all horizontal and vertical surfaces of the joint cutout.

Bridging plates shall be abrasive blast-cleaned on-site prior to installation and then placed over the deck joint opening in the joint cutout. The plates shall be centered over the joint opening and secured with locating pins along its centerline. The plates shall be placed end to end, without overlap, such that the gap between plates does not exceed ½. The plates shall extend to the gutter line and be cut to match the joint's skew angle, where concrete support exists on both sides of the joint. Within APJ installation limits, where concrete support does not exist at both sides of the joint opening (such as where a bridge deck end abuts a bituminous concrete roadway shoulder), bridging plates shall not be installed. Installed bridging plates shall not rock or deflect in any way. After installation of bridging plates, a thin layer of asphaltic binder shall be applied to all exposed surfaces of the plates.

The remainder of the joint cutout shall then be filled with a mixture of hot asphaltic binder and aggregate prepared in accordance with the submitted Quality Control Plan and the following requirements:

- The aggregate shall be heated in a vented, rotating drum mixer by the use of a hot-compressed air lance to a temperature of between 370° F. to 380° F. This drum mixer shall be dedicated solely for the heating and, if necessary, supplemental cleaning of the aggregate. Venting of the gas and loose dust particles shall be accomplished through ¼" drilled holes spaced no more than 3" on center in any direction along the entire outside surface of the drum
- Once the aggregate has been heated, it shall then be transferred to a secondary drum mixer where it shall be fully coated with asphaltic binder. A minimum of two gallons of binder per 100lbs of stone is required.
- The temperature of the aggregate and binder shall be monitored by the contractor with a calibrated digital infrared thermometer.
- The coated aggregate shall be loosely placed in the joint cutout in lifts not to exceed 2 inches
- Each lift shall be leveled, compacted and then flooded with hot asphaltic binder to the level of the aggregate to fill all voids in the coated aggregate layer. The surface of each lift shall be flooded until only the tips of the aggregate protrude out of the surface.
- The final lift shall be placed such that no stones shall project above the level of the adjacent overlay surface following compaction of the coated aggregate.
- Following installation of the final lift, sufficient time and material shall be provided to allow all voids in the mixture to fill. This step may be repeated as needed.
- The joint shall then be top-dressed by heating the entire area with a hot-compressed air lance and applying binder. The final joint surface must be smooth with no protruding stones and be absent of voids.
- Once top-dressed, the joint shall have an anti-tack material spread evenly over the entire surface to prevent tracking.

The Contractor shall be responsible for removing all binder material that leaks through the joint and is deposited on any bridge component, including underside of decks, headers, beams, diaphragms, bearings, abutments and piers.

Traffic shall not be permitted over the joint until it has cooled to 130° F when measured with a digital infrared thermometer. Use of water to cool the completed joint is permitted.

Sidewalk, parapet, and/or curb joint openings

Before placement of any sealing materials in parapets, curbs, or sidewalks, the joints shall be thoroughly cleaned of all scale, loose concrete, dirt, dust, or other foreign matter by abrasive blast cleaning. Residual dust and moisture shall then be removed by blasting with oil free compressed air using a hot air lance. Projections of concrete into the joint space shall also be removed. The backer rod shall be installed in the joint as shown on the plans. The joint shall be clean and dry before the joint sealant is applied. Under no circumstances is the binder material to be used as a substitute for the joint sealant.

Whenever abrasive blast cleaning is performed under this specification, the Contractor shall take adequate measures to ensure that the abrasive blast cleaning will not cause damage to adjacent traffic or other facilities.

The joint sealant shall be prepared and placed in accordance with the manufacturer's instructions and with the equipment prescribed by the manufacturer. Extreme care shall be taken to ensure that the sealant is placed in accordance with the manufacturer's recommended thickness requirements.

The joint sealant shall be tooled, if required, in accordance with the manufacturer's instructions.

Primer, if required, shall be supplied by the sealant manufacturer and applied in accordance with the manufacturer's instructions.

When the sealing operations are completed, the joints shall be effectively sealed against infiltration of water. Any sealant which does not effectively seal against water shall be removed and replaced at the Contractor's expense.

Any installed joint that exhibits evidence of failure, as determined by the Engineer, such as debonding, cracking, rutting, or shoving of the APJ mixture shall be removed and replaced full-width and full-depth to a length determined by the Engineer at no additional cost to the State.

Method of Measurement: This work will be measured for payment by the number of cubic feet of "Asphaltic Plug Expansion Joint System" installed and accepted within approved horizontal limits. No additional measurement will be made for furnishing and installing backer rod and joint sealant in the parapets, concrete medians, curbs and/or sidewalks.

Basis of Payment: This work will be paid for at the contract unit price per cubic foot for "Asphaltic Plug Expansion Joint System," complete in place, which price shall include the sawcutting, removal and disposal of bituminous concrete, membrane waterproofing, existing joint

components and sealing elements, the furnishing and placement of the leveling compound, cleaning of the joint surfaces, furnishing and installing bridging plates, the furnishing and installing of the asphaltic plug joint mixture, the cost of furnishing and installing joint sealant in the parapets, concrete medians, curbs and sidewalks, and all other materials, equipment including, but not limited to, portable lighting, tools, and labor incidental thereto. No additional payment shall be made for the 12" wide bridging plates that are required for deck joint openings with widths in excess of 3".

If directed by the Engineer, additional deck repairs will be addressed and paid for under the applicable concrete deck repair items in the Contract.

ITEM #0603076A - TRUSS BRIDGE SUPERSTRUCTURE

Description: Work under this item shall consist of designing, fabricating, galvanizing, transporting and erecting a fully engineered galvanized steel truss as shown in the plans. The Truss fabricator shall be a CTDOT approved steel fabricator. The intended fabricator shall be identified in the Contractor's bid proposal. The trusses shall be manufactured to match the dimensions and sizes specified in the contract drawings. The low chord elevation of the structure shall be met.

If the Contractor's manufacturer/fabricator proposes to change the dimensions of the trusses than those shown in the contract plans, then this change shall be submitted to the Engineer for approval. This will be followed by a submission of a complete structural design of the truss and working drawings stamped by a Professional Engineer licensed in the State of Connecticut, shall be submitted for the Engineer's review.

Supplier/Fabricator Qualifications:

Proposed suppliers must have at least ten (10) years' experience in designing and fabricating the vehicular truss structures and a minimum of five (5) successful bridge projects of similar style and construction as shown in the contract drawings, each of which has been in service at least three (3) years. Reference projects shall list the location, bridge size, owner, and a primary contact for reference for each project.

The Town of Wallingford or Engineer will evaluate and verify the accuracy of the submittal prior to bid. If the Town determines that the qualifying criteria have not been met, then the contractor's proposed supplier shall be rejected. Alternative suppliers not pre-approved prior to bid will not be allowed after the bid opening.

The Contractor must provide the following documentation, for any proposed supplier who is not pre-approved, at least 20 business days prior to bid:

All documentation to ensure the proposed substitution will follow these specifications. This shall include:

- 1. Project specific representative drawings for bridge projects listed above with material and design code references.
- 2. Warranty Information
- 3. AISC Shop Certification
- 4. Welder Qualifications
- 5. AWS Certified Fabricator Certification
- 6. Professional Engineer registered in the State of Connecticut who will be performing the design of the truss.

- 7. Copy of the manufacturer's Quality Assurance Program Manual
- 8. The name and qualifications of the Technical Assistant that will conduct on-site assistance during field installation of the structure until secure and stable.

Materials: All structural members shall have a minimum thickness of material in accordance with AASHTO section 6.7.3.

Galvanized Bridge – Galvanized truss and its parts shall be fabricated from domestic melt and manufactured wide flange beam and/or channel shapes designated ASTM A709 Grade 50. Steel plate shall be designated ASTM A709 Grade 50. Minimum yield (Fy) shall be 50,000 psi.

Concrete Decks with Stay in Place Forms – Stay in place (SIP) corrugated metal deck forms shall have a minimum depth of 2". The minimum thickness of the SIP forms shall be not less than 18 gauge and shall have G165 galvanized coating. SIP forms shall be attached to supporting members in the field utilizing either 5/8" puddle welds or with self-tapping screws approved by the SIP form manufacturer. All formwork for concrete floor: side forms and end dams along with deck pans shall be supplied by bridge manufacturer. If required, polystyrene insulation in the SIP forms shall be provided and installed by the purchaser or installer.

Providing, pouring and finishing of class PCC04462 psi (4000 psi) concrete and the furnishing and installing the reinforcement shall be the responsibility of the Contractor.

Structural Fasteners - All bolted connections shall utilize F3125 or F3125M High Strength Structural Bolts -Type 1 hot dip galvanized bolts for galvanized bridges. Hot dip galvanizing shall be in accordance with ASTM A-153 specifications.

Welding materials shall be in strict accordance with the American Welding Society (AWS) Structural welding code, D1.1. and ANSI/AASHTO/AWS D1.5 Bridge welding code for structural steel members. Welders shall be certified in accordance with the weld process to be used.

Elastomeric and Laminated Elastomeric Bearing Pads – Shall be custom molded from neoprene Elastomeric and laminated elastomeric bearing pads shall be custom molded from neoprene or natural rubber. Laminated pads shall be reinforced with internal steel plates and vulcanize-bonded to alternating layers of the elastomer during the molding process and shall conform to the specification of item: Steel Laminated Elastomeric Bearings.

Final anchor bolt locations to be established with final bridge design. The existing abutment foundations are to be maintained. The fabricated truss shall not impose loads greater than the capacity of the existing bridge foundation. The existing foundations have been checked for load reactions and dimensional information provided in the contract drawings. Suppliers must submit loads, reactions, dimensions, bridge seat elevations and bridge loads prior to bid.

Construction Methods:

1. Design:

(a) Design Criteria: The design of the truss shall be in accordance with the American Association of State Highway Transportation Officials (AASHTO) LRFD Bridge Design Specifications, 9th Edition with interim revisions.

(b) Reference Codes and Standards:

- (i) American Institute of Steel Construction (AISC) Steel Construction Manual 13th Edition
- (ii) American Welding Society (AWS) D1.5 Bridge Welding Code (AWS D1.1 for welding not covered in AWS D1.5)
- (iii) Research Council on Structural Connections (RCSC) Specifications for Structural Joints using F3125 or F3125M High Strength Structural Bolts.
- (iv) AASHTO/NSBA S2.1 Steel Bridge Fabrication Guide Specifications, 2nd Edn.
- (v) ANSI/AF&PA National Design Specification (NDS) for Wood Construction 2012 Edition.

Open truss bridges shall be designed per AASHTO section 6.14.2 and by a professional engineer experienced in pony truss bridge design and top chord stability criteria utilizing elastic lateral restraints.

In addition to normal dead loads, the truss bridge shall be designed for the following:

- (i) Vehicle Loads: The bridge(s) shall be designed for HL-93 loading in accordance with AASHTO section 3.6.1.2, Legal and CTDOT Permit Vehicles as per CTDOT Load Rating Manual.
- (ii) Wind Load: The bridge structure shall be designed for wind loads in accordance AASHTO section 3.8.1
- (iii) Seismic: The bridge shall be designed for seismic loads of the intensity required by AASHTO in accordance with AASHTO section 3.10
- (iv) Load Combinations: Combination of loads shall be as per AASHTO Section 3.4

Bridge design shall be performed by a Registered Professional Engineer who is an employee of the Bridge Manufacturer and shall have a minimum 5 years of experience designing steel vehicular bridges. The Engineer shall be registered in the State of Connecticut and shall provide signed and sealed design drawings and structural calculations for design review and approval. The Contractor shall be responsible for verification of all field dimensions prior to bridge fabrication.

2. Shop Prequalification:

- (a) Fabricators producing material for the project shall be qualified in accordance with CTDOT Standard Specification Section 1.05.18.
- **(b)** Shop Welders: Prior to performing any welding on the projects under this specification, all welders shall be qualified to weld in accordance with the welding code(s) specified on the approved drawings or otherwise stated in the Contract.
- **3. Field Prequalification Field Welders:** Field welders shall be certified in accordance with CTDOT Standard Specification Section 1.05.17.

4. Submittals:

(a) Shop Drawings: Prior to any fabrication, the Contractor shall submit shop drawings in accordance with 1.05.02 to the Engineer for review. Shop drawings shall include a

- cambering procedure and diagram. In the case of trusses, the Contractor is responsible for calculation of the camber (lengthening and shortening) of all truss members.
- **(b) Shop Schedule:** The Contractor shall submit a detailed shop fabrication schedule to the Engineer for review within 30 days of the Notice to Proceed unless otherwise agreed to by the Engineer. At a minimum the schedule shall include the start date, milestone dates, and completion date. Any significant changes shall be brought to the attention of the Engineer immediately.
- **(c) Welding Procedures:** Prior to start of fabrication or field welding, all welding procedures shall be submitted for review and approval in accordance with CTDOT Standard Specification Section 1.05.17.
- (d) Working Drawings for Falsework and Erection of Structural Steel: Prior to erecting any steel fabricated under this specification, the Contractor shall submit drawings and supporting calculations, including erection stresses, in accordance with CTDOT Standard Specification Section 1.05.02, to the Engineer.

The working drawings submittal shall include the following:

- 1. Title block with Contract number, Project identification number (PIN), town, and structure number and name.
- 2. Plan of the work area showing support structures, roads, etc., Federal and State regulated areas as depicted on the plans, utilities, or any other information relative to erection.
- 3. A detailed narrative describing the erection sequence for main members and secondary members (diaphragms and floor beams), noting use of holding cranes or temporary supports.
- 4. Delivery location of each truss and floor beams.
- 5. Location of each crane for each pick.
- 6. Capacity chart for each crane and boom length used in the work.
- 7. The capacity of the crane and of all lifting and connecting devices shall be adequate for the total pick load including spreaders and other materials. No picks shall be allowed over vehicular or pedestrian traffic unless otherwise noted on the plans or permitted by the Engineer.
- 8. Pick point location(s) on each member.
- 9. Lifting weight of each member including clamps, spreader beams, etc.
- 10. Lift and setting radius for each pick (or maximum lift radius).
- 11. Description of lifting devices or other connecting equipment.
- 12. Truss tie-down details or other method of stabilizing erected trusses.
- 13. Bolting requirements, including the minimum number of bolts and erection pins required to stabilize members during the erection sequence.
- 14. Blocking details for stabilizing members supported on expansion bearings and on bearings that do not limit movement in the transverse direction.
- 15. The method and location for temporary supports including shoring, false work, holding cranes, guys, etc. The Engineer will review, but not approve details of temporary supports. The design, erection, and stability of these supports shall be the sole responsibility of the Contractor. Temporary supports are not permitted within the Quinnipiac River.
- 16. Offsets necessary to adjust expansion bearings during erection to provide for temperature variance and dead load rotation.

The following notes shall be included on the Erection Drawings:

- 1. Cranes shall be operated in accordance with the Connecticut Town of Public Safety regulations.
- 2. The Contractor shall be responsible for verifying the weight of each lift and for insuring the stability of each member during all phases of erection.
- 3. Members shall be subject to only light drifting to align holes. Any drifting that results in distortion of the member or damage to the holes will be cause for rejection of the member.
- 4. Field reaming of holes shall not be performed unless required by the Contract drawings or approved by the Engineer.

The Contractor shall submit working drawings to the Engineer at least 60 calendar days in advance of their proposed use. If the proposed method of erection requires additional members or modifications to the existing members of the structure, such additions and modifications shall be made by the Contractor at no additional cost to the Town of Wallingford.

- **5. Shop Fabrication:** Unless otherwise shown on the plans or indicated in the Special Provisions, Structural Steel shall be fabricated in accordance with the AASHTO LRFD Bridge Construction Specifications, amended as follows:
 - (a) Fabricator: Bridge fabricator shall be certified by the American Institute of Steel Construction to have the personnel, organization, experience, capability, and commitment to produce fabricated structural steel for Advanced (Major) or Intermediate (Major) Steel Bridges with Sophisticated Paint Endorsement and Fracture Critical Endorsement as set forth in the AISC Certification Program.

In addition to the AISC Certification requirements, the bridge fabricator shall hold current A.W.S. Certified Welding Fabricator (CWF) certification.

To ensure consistently high levels of quality fabrication, bridge supplier shall be the designer and manufacturer of the bridge and shall not assign, sublet, or subcontract any part of bridge fabrication.

Bridge fabricator shall maintain two full-time Certified Welding Inspectors (CWI's) on staff for inspection of bridge fabrication, maintaining accurate records, and other necessary aspects of bridge fabrication to ensure compliance with the fabricator's AISC Quality Control plan.

Bridge fabricator shall maintain a full time SSPC Level I Bridge Coatings Inspector on staff for inspection and quality assurance of bridge coatings application(s).

Workmanship, fabrication, and shop connections shall be in accordance with American Association of State Highway and Transportation Officials Specifications (AASHTO).

(b) Notification: The Contractor shall submit written notification to both the Engineer and the Town of Wallingford not less than 30 calendar days prior to start of fabrication. No material shall be manufactured or worked in the shop before notifying the Town of Wallingford and Engineer. The notification shall include the name and location of the

fabrication shop where the work will be done so that arrangements can be made for an audit of the facility and the assignment of a Quality Assurance Inspector by the Town of Wallingford.

(c) Camber: The trusses shall be cambered in accordance with the Contract Documents and the structural design computations to offset the predicted total dead load deflection and to accommodate the profile grade indicated on the plans. Mechanical cambering may be used where allowed by the applicable construction specifications. Heat cambering by experienced personnel may be utilized when required.

All members shall be cambered prior to heat curving and galvanizing. The fabricator is responsible to determine what allowances should be made. Rolled, plate-rolled, or fabricated sections shall be cambered to the total amount shown on the plans and within the camber deviation tolerances permitted for welded beams and girders, as indicated in the ANSI/AASHTO/AWS D1.5 Bridge Welding Code. The Contractor must submit to the Engineer for approval, a plan for corrective action if the actual camber is not within tolerance.

- (d) Welding: Unless otherwise indicated in the Contract, all work shall be performed in accordance with ANSI/AASHTO/AWS D1.5 Bridge Welding Code. Structural connection welding will comply with AWS D1.1. All welding shall utilize E70 or E80 series electrodes. The weld process used shall be Flux Core Arc Welding (FCAW) or Shielded Manual Arc Welding (SMAW) per ANSI/AASHTO/AWS D1.5 "Bridge Welding Code." All welds shall be visually inspected by a Certified Welding Inspector. Welding operators shall be properly accredited experienced operators, each of whom shall submit satisfactory evidence of experience and skill in welding structural steel with the kind of welding to be used in the work, and who have demonstrated the ability to make uniform acceptable welds meeting the size and type of weld required.
- **(e) Bolt Holes:** All bolt hole fabrication for high strength, slip critical bolted connections shall conform to the workmanship requirements of the Research Council on Structural Connections (RCSC) Specifications for Structural Joints using F3125 or F3125M bolts. Computer Numerically Controlled (CNC) drilling equipment shall be utilized as a manufacturing method to accommodate accurate hole location and finish.
- **(f) Bolting:** All shop and field bolting shall comply with AASHTO Construction Specifications, Section 11 and the RCSC Specifications referenced herein. Shop and field bolts shall be tightened using the Turn-of-Nut Method (AASHTO 11.5.6.4.4 or RCSC 8.2.1); or by a tension controlled (TC) wrench and bolt system (ASTM F1852) or by use of Direct Tension Indicating (DTI) washers.
- **(g) Preassembly of Field Connections:** Field connections of main members, floor beams, and trusses shall be preassembled prior to erection as necessary to verify the geometry of the completed structure and field splicing. The Contractor shall propose an appropriate method of preassembly for review and comment by the Engineer. The method and details of preassembly shall be consistent with the erection procedures shown on the working

drawings and camber diagrams. As a minimum, the preassembly procedure shall consist of assembling three contiguous panels accurately adjusted for line and camber. Successive assemblies shall consist of at least 1 section or panel of the previous assembly plus two or more sections or panels added at the advancing end. All falsework, tools, machinery, and appliances, including drift pins and bolts necessary for the expeditious handling of the work shall be provided by the Contractor at no additional cost to the Town of Wallingford.

(h) Finishes:

- i. All Blast Cleaning shall be done in the fabricator's OSHA compliant indoor facility. Blast operations shall use Best Management Practices and exercise environmentally friendly blast media recovery systems. Abrasive blast media shall be recyclable steel grit designed to produce the specified blast profile.
- **ii.** Proper personal protective equipment (PPE) shall be used in accordance with OSHA regulations for PPE for blasting operations.

Airborne dust shall be collected by a dust collection system designed for that purpose.

iii. Bridges which are to be Galvanized shall be hot dipped galvanized in accordance with ASTM A123 for structural steel and ASTM A 153 for galvanized hardware.

iv. Applicator's Qualifications: Unless directed otherwise by the Engineer, SSPC-QP3 or AISC Complex Protective Coatings Endorsement certification is required for all coating work SSPC-QP3 certification. Provide a current SSPC-QP3 certification with the bid and maintain certification throughout the duration of the project.

(i) Inspection: The Contractor shall furnish facilities for the inspection of material and workmanship in the shop by the Engineer. The Engineer and any representative of the Engineer shall be allowed free access to the necessary parts of the premises. The Quality Assurance Inspector will provide Quality Assurance (QA) inspection at the fabrication shop to assure that all applicable Quality Control plans and inspections are adequately adhered to and maintained by the Contractor during all phases of the fabrication. A thorough inspection of a random selection of elements at the fabrication shop may serve as the basis of this assurance.

Prior to shipment to the Project, each individual piece of structural steel shall be stamped or marked in a clear and permanent fashion by a representative of the fabricators' Quality Control (QC) Town to indicate complete final inspection by the fabricator and conformance to the Project specifications for that piece. The stamp or mark must be dated. A Materials Certificate in accordance with CTDOT Standard Specification Section 1.06.07 may be used in lieu of individual stamps or markings, for all material in a single shipment. The Materials Certificate must list each piece within the shipment and accompany the shipment to the Project Site. Following the final inspection by the fabricator's QC personnel, the Engineer may select pieces of structural steel for re-inspection by the QA inspector. Should non-conforming pieces be identified, all similar pieces must be re-inspected by the fabricator and repair procedure(s) submitted to the Engineer for approval. Repairs will be made at the Contractor's expense. The pieces selected for re-inspection and found to be in conformance, or adequately repaired pieces, may be stamped or marked by

the QA inspector. Such markings indicate the Engineer takes no exception to the pieces being sent to the Project Site. Such marking does not indicate acceptance or approval of the material by the Engineer. Following delivery to the Project Site, the Engineer will perform a visual inspection of all material to verify shipping documents, fabricator markings, and that there was no damage to the material or coatings during transportation and handling. The Engineer is not responsible for approving or accepting any fabricated materials prior to final erection and assembly at the Project Site.

- (i) Nondestructive Testing: All nondestructive testing of structural steel and welding shall be performed as designated in the plans and specifications. Such testing shall be performed by personnel approved by the Engineer. Personnel performing radiographic, ultrasonic, or magnetic particle testing shall be certified as an NDT Level II technician in accordance with the American Society for Non-Destructive Testing (ASNT), Recommended Practice SNT-TC-1A. Nondestructive testing shall be performed in accordance with the procedures and standards set forth in the AASHTO/AWS D1.5, Bridge Welding Code. The Town reserves the right to perform additional testing as determined by the Engineer. All nondestructive testing shall be witnessed by the authorized Quality Assurance Inspector. Certified reports of all tests shall be submitted to the Engineer for review. Each certified report shall identify the structure, member, and location of weld or welds tested. Each report shall also list the length and location of any defective welds and include information on the corrective action taken and results of all retests of repaired welds. Should the Engineer require nondestructive testing on welds not designated in the Contract, the cost of such inspection shall be borne by the Contractor if the testing indicates that any weld is defective. If the testing indicates the weld to be satisfactory, the actual cost of such inspection will be paid by the Department.
- **(k) Marking:** Each member shall be identified with an erection mark corresponding with the member identification mark on the approved shop drawings. Identification marks shall be applied on the member with a method and in a location in accordance with standard industry practice.
- (I) Material Traceability: The Manufacturer shall maintain a program to receive, inspect, record and trace materials used in the Bridge. Material Test Reports shall be used to prove domesticity, and document chemistry and physical test records. Certificates of Conformance shall be used to document compliance with specifications. Traceability shall be met by heat and lot numbers of records from the producing mill or supplier. This program shall be in evidence by the Manufacturer's AISC Certification, and a written copy found in the Manufacturer's AISC Certification Manual.
- (m) Shipping, Handling, Storage and Receiving: The Contractor shall make all arrangements necessary to properly load, transport, unload, handle and store all material. The Contractor shall furnish to the Engineer copies of all shipping statements. The weight of the individual members shall be shown on the statements. Members having a weight of more than 3 tons shall have the weight marked thereon. All material shall be unloaded promptly upon delivery. The Contractor shall be responsible for any demurrage charges. Damage to any material during transportation, improper storage, faulty erection, or

undocumented fabrication errors may be cause for rejection of said material at the Project Site. Top lateral bracing shall be installed in tub girders prior to shipping and erection of the field pieces. All costs associated with any corrective action will be borne by the Contractor.

- **6. Field Erection:** A meeting shall be held on Site prior erection of the truss structure. The Contractor shall name the person responsible for the steel erection work and provide copies of all crane operator licenses. Proposed equipment, rigging, timetable, and methods shall be proposed at this meeting.
 - (a) Delivery: Trusses and associated members and parts will be delivered by truck to a location nearest to the site accessible by roads. Hauling permits and freight charges are the responsibility of the manufacturer. The manufacturer will notify the Town of Wallingford in advance of the expected arrival time. Information regarding delays after the trucks depart the plant such as inclement weather, delays in permits, re-routing by public agencies or other circumstances will be passed on to the Contractor as soon as possible. The expense of such unavoidable delays will be accepted by the Contractor.
 - **(b)** Coordination: A manufacturer's Technical Assistant must be present at the project site while the primary structure components are installed. The Contractor shall notify the Manufacturer or their representative at least two weeks in advance of the planned installation.
 - (c) Lifting: The manufacturer will advise the Contractor of the actual lifting weights, attachment points and all necessary information to install the bridge. Unloading, splicing, bolting, and proper lifting equipment is the responsibility of others. The Manufacturer will advise the Owner/Contractor of the attachment points and other necessary information required to install the bridge. The method and sequence of erection shall be the responsibility of the Contractor. Unloading, stabilization, splicing, bolting, and proper rigging, and lifting are the responsibility of the Contractor.
 - (d) Falsework: Any temporary work shall be constructed in accordance with the working drawings. The Contractor shall verify that the quality of materials and work employed are consistent with their design. All truss and associated members shall be stabilized with falsework, temporary braces, or holding cranes until adjacent truss is erected. Enough floor beams shall be connected to provide necessary lateral support as shown in the erecting diagrams. No temporary supports or bents are permitted under the bridge or in the Quinnipiac River.
 - (e) Anchorages: Anchor bolts and similar materials which are to be placed during the erection of the structural steel shall be carefully and accurately set to the requirements of CTDOT Standard Specification Section 6.01.03.
 - **(g) Welded Connections:** Unless otherwise shown on the plans or indicated by the special provisions, welding of structural steel shall be done in accordance with ANSI/AASHTO/AWS D1.5 Bridge Welding Code. The Contractor's welding and

inspection procedures for each type of field weld and field tacking must be submitted to the Engineer. The Contractor must provide an AWS Certified Welding Inspector (CWI) in accordance with AWS D1.5. The CWI must be qualified and certified in accordance with the provisions of AWS QC1, Standard for Qualification and Certification of Welding Inspectors. The CWI shall make visual inspection of all welds. The Contractor will perform magnetic particle inspection, ultrasonic testing inspection, or radiographic testing inspection of field welds when required on the plans or special provisions. Each test may be witnessed by the Quality Assurance Inspector. Welds or sections of welds containing imperfections determined to be unacceptable by either the CWI shall be removed and rewelded by the Contractor at their expense. Welds so removed and replaced shall be reinspected by the CWI. All costs for re-inspection or testing of such welds shall be borne by the Contractor.

(h) High Strength Bolted Connections: The assembly of structural connections using high-strength bolts shall be installed to develop the minimum required bolt tension specified in Table A. The Manufacturer's Certified Test Report, including the rotational capacity test results must accompany the fastener assemblies. Fastener Assemblies delivered without the certified reports will be rejected.

Table A.	Minimum	Rolt Te	neion	in kii	nex
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Bolt Size (Inches)	ASTM F3125 Grade A325	ASTM F3125 Grade A490
5/8	19	24
3/4	28	35
7/8	39	49
1	51	64
1 1/8	64	80
1 1/4	81	102
1 3/8	97	121
1 1/2	118	148

^{*}Equal to 70% of specified minimum tensile strength of bolts (as specified in ASTM Specifications for tests of full-size F3125 Grade A325 and F3125 Grade A490 bolts with UNC threads, loaded in axial tension) rounded to the nearest kip.

Bolts, nuts and washers from each rotational-capacity lot shall be shipped in the same container. If there is a single production lot number for each size of nut and washer, the nuts and washers may be shipped in separate containers. Each container shall be permanently marked with the rotational capacity lot number such that identification will be possible at any stage prior to installation. Assemblies of bolts, nuts and washers shall be installed from the same rotational-capacity lot. Pins, small parts and packages of bolts, washers, and nuts shall be shipped in boxes, crates, kegs, or barrels. A list and description of the contained materials shall be plainly marked on the outside of each shipping container.

Bolted Parts: All material within the grip of the bolt shall be steel; there shall be no compressible material, such as gaskets or insulation, within the grip. Bolted steel shall fit

solidly together after the bolts are tensioned. The length of the bolts shall be such that the end of the bolt will be flush with or outside of the face of the nut when properly installed.

Surface Conditions: At the time of assembly, all connection surfaces, including surfaces adjacent to the bolt head and nut, shall be free of scale, except tight mill scale, and shall be free of dirt or other foreign material. Burrs that would prevent solid seating of the connected parts in the snug tight condition shall be removed.

Paint is permitted on the faying surface, including slip critical connections, only when shown on the plans. The faying surfaces of slip-critical connections shall meet the requirements of the following paragraphs, as applicable:

- 1. Connections specified to have uncoated faying surfaces: any paint, including any inadvertent over spray, shall be excluded from areas closer than one bolt diameter, but not less than 1.0 inch, from the edge of any hole and all areas within the bolt pattern.
- 2. Connections specified to have painted faying surfaces shall be blast cleaned and coated in accordance with the Contract and shall not be assembled until the coating system has been properly cured.
- 3. Connections specified to have galvanized faying surfaces shall be hot dip galvanized in accordance with ASTM A123 and shall subsequently be roughened by means of hand wire brushing. Power wire brushing is not permitted.

Installation: At the pre-erection meeting, the Contractor shall inform the Engineer of its planned method of tensioning high strength bolts. Acceptable methods are:

- 1. Turn-of-Nut
- 2. Calibrated Wrench Fastener Assemblies: A "fastener assembly" is defined as a bolt, a nut, and a washer. Only complete fastener assemblies of appropriately assigned lot numbers shall be installed.

Fastener assemblies shall be stored in a sheltered area protected from dirt and moisture. Only as many fastener assemblies as are anticipated to be installed and tensioned during a work shift shall be taken from protected storage. Fastener assemblies not used shall be returned to protected storage at the end of the shift. Prior to installation, fastener assemblies shall not be cleaned of lubricant. Fastener assemblies which accumulate rust or dirt resulting from site conditions shall be cleaned, relubricated, and tested for rotational capacity prior to installation. All galvanized nuts shall be lubricated with a lubricant containing a visible dye. Plain bolts must be oily to the touch when delivered and installed.

Lubricant shall be removed prior to painting.

All bolts shall have a hardened washer under the turned element (nut or bolt head). All hardened washers shall conform to the requirements of ASTM F436.

Where necessary, washers may be clipped on 1 side to a point not closer than 7/8 of the bolt diameter from the center of the washer.

Bolt Tension Measuring Device: The Contractor shall provide a calibrated bolt tension measuring device (a Skidmore-Wilhelm calibrator (Skidmore) or other acceptable bolt tension always indicating device) when, and at all locations where high-strength fasteners are being installed and tensioned. The tension measuring device (Skidmore) shall be calibrated by an approved testing agency at least annually. The Skidmore shall be used to perform the rotational-capacity test of the fastener assemblies. The Skidmore will also be used to substantiate

- 1. the suitability of the fastener assembly to satisfy the requirements of Table A, including lubrication as required,
- 2. calibration of the installation wrenches, if applicable, and
- 3. the understanding and proper use by the Contractor of the selected method of tensioning to be used.

Complete fastener assemblies shall be installed in properly aligned holes and then tensioned by the Turn-of-Nut or Calibrated Wrench method to the minimum tension specified in Table A. Tensioning may be done by turning the bolt while the nut is prevented from rotating when it is impractical to turn the nut. Impact wrenches, if used, shall be of adequate capacity and sufficiently supplied with air to perform the required tensioning of each bolt in approximately 10 seconds.

Bolts shall be installed in all holes of the connection and the connection brought to a snug condition. Snug is defined as having all the plies of the connection in firm contact. Snugging shall progress systematically from the most rigid part of the connection to the free edges. The bolts of the connection shall then be tightened in a similar manner as necessary until the connection is properly tensioned.

Nuts shall be located, whenever practical, on the side of the connection which will not be visible from the traveled way.

Unless otherwise approved by the Engineer fastener assemblies shall be brought to full tension immediately following snugging.

Fully tensioned fastener assemblies shall not be reused. Retightening previously tensioned bolts which may have been loosened by the tensioning of adjacent bolts shall not be considered as reuse.

Rotational-Capacity Tests: In addition to the Certified Test Reports, on site Rotational-capacity tests may be required by the Engineer. This test shall be performed by the Contractor at the location where the fasteners are installed and tensioned. When performed in the field, the procedure shall meet the requirements of ASTM F3125 Annex A2.

Turn-of-Nut Installation Method: At the start of the work, the Contractor shall demonstrate that the procedure used by the bolting crew to develop a snug condition and to control the turns from a snug condition develops the tension required in Table A. To verify their procedure, the Contractor shall test a representative sample of not less than 3 complete fastener assemblies of each diameter, length and grade to be used in the work. This shall be performed at the start of work using a Skidmore. Periodic retesting shall be performed when ordered by the Engineer.

After snugging the connection, the applicable amount of rotation specified in Table B shall be achieved.

During the tensioning operation there shall be no rotation of the part not turned by the wrench. Tensioning shall progress systematically from the most rigid part of the connection to its free edges.

TABLE B: Nut Rotation from the Snug Condition Geometrya.h.c of Outer Faces of Bolted Parts

Bolt Length (measured from underside of head to end of bolt)	Both Faces Normal to Bolt Axis	One Face Normal to Bolt Axis and Other Face Sloped Not More Than 1:20, Bevel Washer Not Used	Both Faces Sloped Not More Than 1:20 From Normal to Bolt Axis, Bevel Washer Not Used
Up to and including 4 diameters	1/3 turn	1/2 turn	2/3 turn
Over 4 diameters but not exceeding 8 diameters	1/2 turn	2/3 turn	5/6 turn
Over 8 diameters but not exceeding 12 diameters	2/3 turn	5/6 turn	1 turn

- (a) Nut rotation, as used in Table B, shall be taken as relative to the bolt, regardless of the element (nut or bolt) being turned. For bolts installed by 1/2 turn and less, the tolerance should be plus or minus 30 degrees; for bolts installed by 2/3 turn and more, the tolerance should be plus or minus 45 degrees. To determine the nut rotation for installation and inspection of the fasteners, the nut and the end of the bolt or the head of the bolt and the adjacent steel shall be match marked.
- (b) The values, given in Table B, shall be applicable only to connections in which all material within grip of the bolt is steel.
- (c) No research work has been performed by the Research Council on Riveted and Bolted Structural Joints to establish the turn-of-nut procedure when bolt lengths exceed 12 diameters. For situations in which the bolt length, measured from the underside of the head to the end of the bolt, exceeds 12 diameters, the required rotation shall be determined by actual tests in a suitable tension device simulating the actual conditions.

Calibrated Wrench Installation Method: Calibrated wrench method may be used only when the installation wrenches are properly calibrated daily, or as determined by the Engineer. Standard torques determined from tables or from formulas which are assumed to relate torque to tension shall not be acceptable.

The Contractor shall demonstrate to the Engineer periodically that all equipment and wrenches are providing a torque which has been calibrated to produce the minimum tension specified in Table A. The installation procedures shall be verified periodically, as determined by the Engineer, for each bolt diameter, length and grade using the fastener assemblies that are being installed in the work. This verification testing shall be accomplished in a Skidmore by tensioning 3 complete fastener assemblies of each diameter, length and grade from those being installed with a hardened washer under the element turned.

When significant difference is noted in the surface condition of the bolts, threads, nuts or washers, as determined by the Engineer, wrenches shall be recalibrated. The Contractor shall verify during the installation of the assembled steel work that the wrench adjustment

selected by the calibration does not produce a nut or bolt head rotation from snug greater than that permitted in Table B. If manual torque wrenches are used, nuts shall be turned in the tensioning direction when torque is measured.

When calibrated wrenches are used to install and tension bolts in a connection, bolts shall be installed with hardened washers under the element turned to tension the bolts. Once the connection has been snugged, the bolts shall be tensioned using the calibrated wrench. Tensioning shall progress systematically from the most rigid part of the connection to its free edges. A calibrated torque wrench shall be used to "touch up" previously tensioned bolts which may have been relaxed as a result of the subsequent tensioning of adjacent bolts until all bolts are tensioned to the prescribed amount.

Inspection: The Contractor shall provide all the material, equipment, tools and labor necessary for the inspection of the bolted connections. Access to the bolted parts and fastener assemblies, both before and after the fasteners are installed and tensioned, shall be provided.

The Contractor is responsible for Quality Control (QC). The Contractor shall review this specification with its Project personnel prior to performing the work. The Contractor shall verify the proper markings, surface conditions and storage of fastener assemblies. The Contractor shall inspect the faying surfaces of connections for compliance with the plans and specifications. The Contractor shall provide to the Engineer a copy of their written QC report for each shift of the calibration or verification testing specified. This report shall confirm that the selected procedure is properly used and that the fastener assemblies installed meet the tensions specified in Table A. The Contractor shall monitor the installation of fasteners in the work to assure that the selected procedure, as demonstrated in the initial testing to provide the specified tension, is routinely and properly applied.

The Contractor, in the presence of the Engineer, shall inspect the tensioned bolts using an inspection torque wrench, as defined below.

Inspection tests shall be performed within 24 hours of bolt tensioning to prevent possible loss of lubrication or corrosion influence on tensioning torque.

The inspection torque wrench shall be calibrated as follows: Three (3) bolts of the same grade, size, and condition as those under inspection shall be placed individually in a device calibrated to measure bolt tension. This calibration operation shall be done at least once each inspection day. There shall be a washer under the part turned in torquing each bolt. In the calibrated device, each bolt shall be tightened by any convenient means to the specified tension. The inspection wrench shall then be applied to the tensioned bolt to determine the torque required to turn the nut or head 5 degrees in the tightening direction. The average of the torque required for all 3 bolts shall be defined as the job-inspection torque. Twentyfive percent (25%), but a minimum of 2, of the tensioned bolts shall be selected by the Engineer for inspection in each connection. (The Engineer may reduce the number of bolts tested at a connection to 10% based on the Contractor's past performance and splice location.) The job-inspection torque shall then be applied to each selected assembly with the inspection torque wrench turned in the tightening direction. If all inspected bolt heads or nuts do not turn, the bolts in the connection shall be properly tensioned. If the torque turns 1 or more bolt heads or nuts, the job-inspection torque shall then be applied to all bolts in the connection or to the satisfaction of the Engineer. Any bolt whose head or nut turns shall be re-tensioned and re-inspected. The Contractor may, however, retension all the bolts in the connection with the inspection torque wrench and resubmit it for inspection, so long as the bolts are not over-tensioned or damaged by this action.

(f) Field Corrections and Misfits: Reaming of bolt holes during erection shall be permitted only with approval of the Engineer. No excessive forces shall be applied to any member to provide for proper alignment of the bolt holes.

The correction of minor misfits involving minor amounts of reaming, cutting, grinding and chipping shall be considered a legitimate part of the erection. However, any error in the shop fabrication or deformation resulting from handling and transportation may be cause for rejection. The Contractor shall be responsible for all misfits, errors and damage and shall make the necessary corrections and replacements.

(g) Warranty: The manufacturer shall provide a warranty against defects in material and workmanship for a period of ten years. Galvanized finishes may have an extended limited warranty provided by the galvanizer.

Method of Measurement: Payment under this item will be at the Contract lump sum price for truss bridge superstructure.

Basis of Payment: The galvanized structural steel trusses, floor beams, bearing plates and associated parts completed and accepted structure, will be paid for at the Contract lump sum price for "Truss Bridge Superstructure".

Payment shall include structural steel, galvanizing finish complete in place, which price shall include design, quality control, furnishing, fabricating, transporting, storing, erecting, welding, surface preparation, galvanizing and all materials including fastener assemblies, equipment, tools, and labor incidental thereto.

All remaining work including, but not limited to, preparation of shop drawings, fabricating, transporting, storage and handling, erecting, surface preparation and all materials, equipment, tools, and labor incidental thereto, will be paid for under "Truss Bridge Superstructure"

Pay Item Pay Unit Truss Bridge Superstructure L.S.

ITEM #0707009A - MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)

Description: Work under this item consists of furnishing and installing a seamless elastomeric waterproofing membrane system applied to a concrete or steel surface as shown on the plans, and as directed by the Engineer. Work shall also include conditioning of the surface to be coated, and all submittals and quality-control testing noted herein.

The completed membrane system shall be comprised of a primer coat, reinforcing material as specified or directed, membrane coating (minimum total thickness of 80 mil and maximum total thickness not to exceed 120 mil), an additional 40 mil membrane layer with aggregate broadcast into the material while still wet, and an application of tack coat.

Materials: The Contractor shall select a waterproofing membrane system from the Department's Qualified Products List (QPL) for Spray-Applied Membrane Waterproofing System. All materials incorporated in the work shall meet the Manufacturer's specification for the chosen system. A Manufacturer is the original source of supply as defined in Article 1.06.01 of CTDOT's Standard Specifications. The Engineer will reject any system that is not on the QPL.

Reinforcing material (to bridge gaps, joints and cracks) shall be as recommended by the manufacturer.

Aggregate: The aggregate shall be a nonfriable, durable #8 aggregate stone with no more than one-half percent (0.5%) passing the #200 sieve by weight.

Concrete Deck Repair Material: Depressions greater than ½ inch that are required to be filled before application of the membrane shall be repaired with a neat repair mortar as approved by the Engineer. If the repair includes engagement of reinforcing steel, the repair shall be performed under separate, appropriate Contract items.

Construction Methods:

- 1. Submittals:
 - At least 30 days prior to installation of the membrane system, the Contractor shall submit to the Engineer the following:
 - (a) A Site-specific Installation Plan that includes, but is not limited to, the manufacturer's recommended equipment, materials and procedure for:
 - 1) Authorization by Manufacturer of applicator
 - 2) Safety precautions, SDS documents
 - 3) On site storage of material
 - 4) preparation of the deck surface and recommended surface moisture content at time of priming
 - 5) Pre-treatment or preparation procedure at cracks and gaps, treatment at curbs, vertical surfaces or discontinuities
 - 6) Overspray protections (masking and shielding)

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- 7) Method and equipment for taking/calculating onsite temperatures and dewpoint temperatures as well as listing of acceptable temperature and dewpoint ranges for application of primer and/or membrane
- 8) Method and equipment for application of the primer and membrane
- 9) Treatment of already primed areas when delays occur; include allowable time frame for covering already placed primer or treatment if the primed surface is compromised
- 10) Treatment at overlap areas
- 11) Method for placement of the aggregated coat
- 12) All Quality Control (QC Plan) tests and procedures to be performed prior to and during the membrane system's installation
- 13) Recommended repair methods for system non-compliant issues identified during application
- (b) Materials Certificate for the primer, membrane and aggregate in accordance with the requirements of Article 1.06.07.
- (c) Concrete Mix Design: At least two weeks before installation, the Contractor shall submit the concrete mix design to the Engineer for acceptance. For RSCP material, NTPEP lab test data shall be submitted that demonstrates that the concrete mix matches the mix that was tested by NTPEP and meets the pre-qualification criteria in the QPL. This test data shall be submitted with a Materials Certificate and a Certified Test Report in accordance with Article 1.06.07.

Automated mechanical applicators will be considered for approval for use, provided there is a trial installation area to demonstrate that the required thickness can be consistently achieved. The Installation Plan shall identify and differentiate between areas using automated applicators and areas where hand application will be used, such as on vertical surfaces and at areas prior to installation of reinforcing material.

2. A technical representative, in the direct employ of the manufacturer, shall be present on-Site immediately prior to and during application of the membrane. The technical representative shall not be part of the installer crew or a foreman but is on Site solely to assist with QC. The technical representative shall review environmental conditions for proper application, inspect and approve the surface prior to priming, provide guidance on the handling, mixing and addition of components, observe application of the primer and membrane. The technical representative is required to notify the Engineer immediately when conditions are not within acceptable parameters and any further installation will be analyzed by the Engineer under Article 1.06.04. The technical representative shall perform all required QC testing and remain on the Project site until the membrane has fully cured.

All QC testing, including verbal direction or observations at the time of installation, shall be recorded and submitted to the Engineer for inclusion in the Project records. The QC testing data shall be received by the Department's Project personnel prior to any paving over the finished membrane, or within 24 hours following completion of any staged portion of the work.

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3. Applicator Approval: The Contractor's membrane Applicator shall be fully trained and authorized by the membrane manufacturer and shall have successfully completed at least six spray membrane projects in the past two years. The Contractor shall furnish references from those projects, including names of contact persons and the names, addresses and phone numbers of persons who supervised the projects. This information shall be submitted to the Engineer prior to the submittal of the Installation Plan. The Engineer shall have sole authority to determine the adequacy and compliance of the submitted information. Inadequate proof of ability to perform the work will be grounds to reject proposed applicators.

4. Job Conditions:

(a) Environmental Requirements: Air and substrate temperatures shall be between 40°F and 104°F and the substrate shall be above the dew point. Outside of this range, the Manufacturer shall be consulted.

The Applicator shall be provided with adequate disposal facilities for nonhazardous waste generated during installation of the membrane system. The applicator shall follow safety instructions regarding respirators and safety equipment.

Extra care shall be taken to prevent the introduction of moisture onto the area to be membraned including, but not limited to, locating water rest break areas/devices away from the works, prevent vehicles from accessing the prepared areas that may have AC units that drip water. If there is any potential for moisture to impact application, operations shall cease until conditions warrant proper adherence to specification requirements.

(b) Safety Requirements: All open flames and spark producing equipment shall be removed from the work area prior to commencement of application.

Personnel not involved in membrane application or inspection duties shall be kept out of the work area.

5. Delivery, Storage and Handling:

- (a) Packaging and Shipping: All components of the membrane system shall be delivered to the Site in the Manufacturer's packaging, clearly identified with the product type, lot and batch number, manufactured date and expiry or "Best-used-by Date."
- (b) Storage and Protection: The Applicator shall be provided with a storage area for all components. The area shall be cool, dry and out of direct sunlight and shall be in accordance with the Manufacturer's recommendations and relevant health and safety regulations.

Copies of Safety Data Sheets (SDS) for all components shall be kept on Site for review by the Engineer or other personnel.

- (c) Shelf Life Membrane Components: Packaging of all membrane components shall include a shelf-life date sealed by the Manufacturer. No membrane components whose original shelf life has expired shall be used.
- 6. Pre-application Meeting: A minimum one week prior to beginning any membrane waterproofing work, an on-site Pre-application meeting shall be scheduled to review all requirements of the approved Installation Plan. This meeting shall include representatives from the membrane system's Manufacturer and from the Installer as well as the Prime Contractor.

7. Surface Preparation:

- (a) Protection: The Contractor shall be responsible for the protection of equipment, adjacent areas, and affected pedestrians/traffic from over spray or other contamination. Permanent highway features adjacent to the work such as, but not limited to, curbs, parapets, sidewalks and bridge joints shall be masked prior to application of the materials.
- (b) Surface Preparation: Surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae, growth, laitance, friable matter, dirt, bituminous products, previous waterproofing materials or any material that will affect the proper bonding/adhesion of the membrane to the surface receiving the membrane application. If required, degreasing shall be done by detergent washing in accordance with ASTM D4258.

Sharp peaks and discontinuities within the areas to be coated shall be ground smooth. Any peak greater than ½ inch above the surface profile of the prepared substrate shall be ground to the surrounding elevation and voids and holes greater than ½" in the surface patched with appropriate material. The surface shall be abrasively cleaned, in accordance with ASTM D4259, to provide a sound substrate free from laitance and shall achieve a Concrete Surface Profile (CSP) as defined by the International Concrete Repair Institute (ICRI) of between 4 and 6. The QC representative shall have on their person and available for use by Department Engineers, a full CSP Chip Set to confirm concrete surface meets above profile requirement. Areas not falling within the noted range shall be re-addressed as needed.

Steel components to receive membrane waterproofing shall be blast cleaned in accordance with the Society of Steel Protective Coatings' SSPC-SP6, Commercial Blast Cleaning, and shall be coated with the membrane waterproofing system within the same work shift.

- 8. Inspection and Testing: Prior to priming of the surface, the Engineer, the Applicator and Manufacturer's technical representative shall inspect and approve the prepared substrate.
 - (a) Random tests for deck moisture content shall be conducted on the substrate by the Contractor at the Site using a "Sovereign Portable Electronic Moisture Master Meter,"

"Tramex CMEXpertII Concrete Moisture Meter" or approved equal. The minimum frequency shall be one test per 1000 s.f. but not less than three tests per shift for each contiguous section worked on during that shift. Additional tests may be required if atmospheric conditions change and retesting of the substrate moisture content is warranted.

The membrane system shall not be installed on substrate with a moisture content greater than 6%, or at a moisture content above the amount recommended by the written submittal installation documentation from the system's Manufacturer.

- (b) The ambient air temperature and dew point temperature readings shall be taken immediately prior to starting any primer or membrane application and continuously throughout the installation process. No primer or membrane application shall be allowed if the difference between the two is 5° deg or less, or is not within the recommended air and dew point temperature ranges noted in the submitted Installation Plan from the system's Manufacturer.
- (c) Random tests for adequate tensile bond strength shall be conducted by the Contractor on the substrate using an adhesion tester in accordance with the requirements of ASTM D7234 for concrete substrate or ASTM D4541 for steel substrate. The minimum frequency shall be one test per 5,000 s.f. but not less than three adhesion tests per shift for each contiguous section worked on during that shift. The locations of the pull tests shall be at least a distance from each other equal to or greater than 1/3 of the width or length (whichever is greater) of the area being worked in that section. The location of the pull tests shall be located in accordance with ASTM D3665 or a statistically based procedure of stratified random sampling approved by the Engineer.

Adequate surface preparation will be indicated by tensile bond strengths of the substrate greater than or equal to 150 psi or failure in a concrete surface and greater than or equal to 300 psi for steel surfaces.

If the tensile bond strength is lower than the minimum specified, the Engineer may request additional substrate preparation.

(d) Grouted joints, materials that the membrane cannot bond to, and cracks or discontinuities that cannot be bridged over by the membrane material shall be covered by a reinforcing material recommended by the membrane system's Manufacturer prior to application of membrane layers as approved or directed by the Engineer.

9. Application:

- (a) The System shall be applied in the following distinct steps as follows:
 - 1) Substrate preparation,
 - 2) Priming,
 - 3) Reinforcing material application over grouted joints, cracks, etc., embedded in wet membrane bonding layer,

- 4) Membrane application,
- 5) Membrane with aggregate.
- (b) Immediately prior to the application of any components of the System, the surface shall be adequately dry (see Section 8(a) of this specification) and any remaining dust or loose particles shall be removed using clean, dry, oil-free compressed air or industrial vacuum.
- (c) Where the area to be treated is bound by a vertical surface (e.g. curb or wall), the membrane system shall be continued up the vertical, if shown on the plans or directed by the Engineer.
- (d) The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results, in accordance with the Manufacturer's recommendations or as approved or directed by the Engineer. All components shall be used from its original packaging (barrels) or be discarded no mixing of like materials from different batches shall be allowed.
- (e) A neat finish with well-defined boundaries and straight edges shall be provided by the Applicator.
- (f) Primer: The primer shall consist of one coat with an overall coverage rate of 125 to 175 s.f./gal unless otherwise recommended in the Manufacturer's written instructions.

All components shall be measured and mixed in accordance with the Manufacturer's recommendations.

The primer shall be spray applied using a single component spray system approved for use by the Manufacturer. If required by Site conditions and allowed by the manufacturer brush, squeegee or roller application will be allowed.

The primer shall be allowed to cure tack-free for a minimum of 30 minutes or as required by the Manufacturer's instructions, whichever time is greater, prior to application of the first lift of waterproofing membrane.

Porous concrete (brick) may require a second coat of primer should the first coat be absorbed.

Bond Strength: Random tests for adequate adhesion capacity shall be conducted on the primed substrate in accordance with the requirements of ASTM D7234 for concrete or ASTM D4541 for steel substrate. The minimum frequency shall be one test per 5,000 s.f. but not less than three adhesion tests per shift for each contiguous section worked on during that shift. The locations of the pull tests shall be at least a distance from each other equal to or greater than 1/3 of the width or length (whichever is greater) of the area being worked in that section. The location of the pull tests shall be located in accordance

with ASTM D3665 or a statistically based procedure of stratified random sampling approved by the Engineer.

Adequate adhesion will be indicated by tensile bond strengths of primer to the substrate greater than or equal to 150 psi or failure in a concrete surface and greater than or equal to 300 psi for steel surfaces.

Any primer not adequately applied shall be removed and new primer applied at the Contractor's expense, as directed by Engineer.

Delays to the membrane installation following installation of the primer may necessitate remedial measures. Re-application of the primer or any work required due to, but not limited to, precipitation, ambient or dew point temperatures falling out of allowable zone, materials dropped on the surface, shall be accomplished as outlined in the Installation Plan.

(g) Membrane and Reinforcing Material: Application of the membrane on the primed surface shall not commence until the primer is cured and adequate adhesion capacity achieved as described in Section 9(f) of this specification.

The waterproofing membrane shall consist of two equal 40 mil coats for a total dry film thickness of a minimum 80 mils but not to exceed 120 mils. successive coats shall be of a contrasting color to aid in Quality Assurance and inspection.

Hand sprayer application of a single layer at 80 mils may be allowed after demonstration on a test section of not less than 100 sq. feet, of the applicator's ability to meet specified tolerances has been reviewed and found acceptable to the Engineer.

Use of an automated mechanical applicator to achieve the required thicknesses in either one or two equal layers, may be allowed after demonstration on a test section of not less than 100 sq. feet, of the applicator's ability to meet specified tolerances has been reviewed and found acceptable to the Engineer.

Reinforcing material, if required, shall be applied as described in the Installation Plan.

The substrate shall be coated in a methodical manner.

Thickness checks: For each layer, checks for wet film thickness using a gauge pin or standard comb-type thickness gauge shall be carried out once every 100 s.f. Where rapid set time of the membrane does not allow for wet film thickness checks, ultrasonic testing (steel surfaces only), calibrated point-penetrating (destructive) testing, in-situ sampling (cutout of small sections for measuring thicknesses), or other methods approved by the Engineer shall be employed for determination of dry film thickness. The measured thickness of each and every individual test of the membrane shall be greater than or equal to the required thickness.

Bond Strength: Random tests for adequate adhesion shall be conducted on the membrane in accordance with the requirements of ASTM D7234 for concrete substrate or ASTM D4541 for steel substrate. The minimum test frequency shall be one test per 5,000 s.f. but no less than three adhesion tests per bridge. Adequate adhesion will be indicated by tensile bond strengths of the membrane to the substrate of greater than or equal to 150 psi or failure in a concrete surface, and greater than or equal to 300 psi for steel surfaces.

Repair the membrane system following destructive testing and correct any deficiencies in the membrane system or substrate noted during QC testing in accordance with the Manufacturer's recommendations to the satisfaction of the Engineer at no additional cost to the State.

- (h) Repairs: For areas left untreated or where the membrane hasn't bonded or becomes damaged, a patch repair shall be carried out to restore the integrity of the system. The damaged areas shall be cut back to sound materials, abraded and wiped with solvent (e.g. acetone or other manufacturer-recommended material) up to a width of at least six inches on the periphery, removing any contaminants unless otherwise recommended by the Manufacturer. The substrate shall be primed as necessary and tested for adhesion before the membrane layer(s) are applied. A continuous layer shall be obtained over the substrate with a six-inch overlap onto any adjacent existing membrane. The repaired area shall be tested for adhesion, with a minimum of one test per repair area.
- (i) Overlapped areas: Where the membrane is to be joined to existing cured material, the overlapped area shall be cut back to sound material if necessary, abraded and wiped with solvent (e.g. acetone or other manufacturer-recommended material) or cleaned in accordance with the Installation Plan, up to a width of at least six inches prior to application of the overlapping membrane material. A continuous layer shall be obtained over the substrate with a six-inch overlap onto existing membrane. The overlapped section shall be tested for adhesion, with a minimum of one test per 200 lineal feet.
- (i) Aggregated Finish:
 - 1) Apply an additional 40 mil thick layer of the membrane material immediately followed by an aggregate coating, before the membrane cures, at a rate to fully cover the coated area to a point where no membrane material is visible. The membrane and aggregate shall be fully integrated after the aggregate has been applied and the membrane cured.
 - 2) Using motorized mechanical sweepers followed by a vacuum or motorized blower apparatus, remove all loose and excess aggregate and fines from the surface, to the satisfaction of the Engineer, and dispose of properly prior to application of tack coat and overlay.
 - 3) Traffic shall not be allowed to travel on the completed membrane system without prior approval of Engineer upon consultation with Manufacturers technical representative.

- 4) Localized areas not fully coated following removal of loose aggregate, defined as being at least 90% covered with well-adhered aggregate within any one square foot area, shall be touched-up with additional membrane and aggregate as needed. These areas shall then be swept and/or vacuumed or blown again prior to application of tack coat and overlay.
- 5) Tack coat: a Tack Coat Emulsion shall be applied to the aggregated finish prior to covering with a bituminous concrete mat. Material shall be applied in two coats of 0.06 0.08 gal/s.y. allowing it to break in between coats. This work shall be done as part of the paving operation and paid under separate, applicable Contract items.
- 10. Final Review: The Engineer and the Applicator shall jointly review the area(s) over which the completed system has been installed. Any irregularities or other criteria that do not meet the requirements of the Engineer shall be addressed at this time.

Method of Measurement: This item will be measured by the number of square yards of waterproofed surface completed and accepted.

Basis of Payment: This item will be paid for at the Contract unit price per square yard of "Membrane Waterproofing (Cold Liquid Elastomeric)," complete and accepted in place, which price shall include submittals, Pre-Work Meeting, all surface preparation, furnishing, storing and applying the system, technical representative and Quality Control testing, and any necessary repairs and remediation work as well as all materials, equipment, tools, labor incidental to this work.

The asphalt emulsion (tack coat) will be paid separately.

Pay Item Pay Unit Membrane Waterproofing (Cold Liquid Elastomeric) s.y.

ITEM #0819002A - PENETRATING SEALER PROTECTIVE COMPOUND

Description: Work under this item shall consist of cleaning concrete surfaces of dirt, dust, and debris, and furnishing and applying a clear, penetrating sealer to concrete surfaces where shown on the plans, to provide a barrier against the intrusion of moisture and chlorides. This work also includes furnishing, installing, and removing platforms, scaffolding, ladders, and other means of access as well as shields, as required, to protect adjacent areas and traffic from overspray.

Materials: The penetrating sealer shall conform to Article M.03.09. A Materials Certificate shall be submitted for the penetrating sealer in accordance with Article 1.06.07. A product not listed on the Qualified Products List (QPL) may be considered for approval. A Certified Test Report shall be submitted in accordance with Article 1.06.07 indicating that the product being considered conforms to the Test Requirements listed on the QPL.

Construction Methods:

<u>Submittals</u>: The Contractor shall submit to the Engineer Safety Data Sheets (SDS), Technical Data Sheets and product literature for the approved sealer. The literature shall include written instructions how to apply the sealer to vertical and horizontal surfaces, and where required, overhead surfaces. Application rate and number of applications of sealer shall be addressed.

The Contractor shall submit to the Engineer, in accordance with Article 1.05.02, written procedures for cleaning the concrete surfaces prior to sealer application The submittal shall include proposed equipment and materials and shall address how adjacent traffic and other areas shall be protected from dust, debris and overspray during the cleaning and application processes. Where the sealer is to be applied to parapets before pavement is placed, the submittal shall address protection of the deck and curb to which membrane waterproofing will be applied. Should the membrane already be present, the submittal shall address shielding of the membrane. It shall also indicate how vegetation and regulated areas shall be protected from overspray. The submittal shall address the conditions under which work may proceed, including wind speed, temperature and precipitation. It shall also include procedures to be followed to protect the work should unfavorable weather conditions occur before the product has been absorbed.

The Contractor shall inspect the surfaces to be sealed to identify surface cleaning needs before submitting the procedures. The Contractor shall identify concrete surfaces that:

- Need repair
- Require special attention or cleaning procedures
- Have been previously treated with coatings or curing compounds that would hinder penetration of the sealer into the concrete
- Will be new or newly repaired

Written procedures shall include observations listed above. Application of penetrating sealer to new concrete shall be addressed in the application procedures. Forms for surfaces of new concrete to receive penetrating sealer shall not be treated using form release oil, which can inhibit or prevent penetration of the sealer into the concrete.

L148-0003 ITEM #0819002A

<u>Surface Preparation</u>: Concrete surfaces to which penetrating sealer will be applied shall be clean and free of grease, oil, and other surface contaminants, including biological growth. Dry surfaces may be cleaned by sweeping with brushes or brooms, and blowing clean with oil-free, compressed air. The Contractor shall take care not to damage the concrete surface finish during cleaning operations. Care shall be taken so that cleaning methods do not damage joint sealant or other components of the structure that are to remain.

<u>Application</u>: Application of the sealer may begin only after the Engineer evaluates the concrete surfaces and determines that conditions for installation comply with the accepted written application procedures.

The sealer shall be applied in accordance with the accepted application procedures at the rate specified by the manufacturer. The Contractor shall monitor and record the number of square feet of concrete surface sealed and the number of gallons of sealer applied over that surface area to verify that the required application rate is being met. A minimum of three applications of sealer shall be assumed to be needed. After the first application of the sealer, curing time shall be recorded and submitted to the Engineer. Additional applications of sealer shall be applied as specified in the application instructions, provided adequate time between applications and appropriate curing of the sealer have occurred. For each application, the Contractor shall record the area and number of gallons of sealer applied as well as the curing time for that application. The Contractor may be directed to apply sealer in up to three separate applications if concrete surfaces readily absorb the previous application.

If the Contractor is directed to apply more than three applications of sealer, the additional applications will be compensated as extra work. Should salts, oil or other visually undesirable materials be evacuated from the concrete by the penetrating sealer and remain on the surface after sufficient rain events have occurred, the Engineer may order surface cleaning of the concrete as extra work.

The Engineer shall be provided access to inspect the concrete surface during application and after the sealer has had adequate time to cure.

Method of Measurement: This work will be measured for payment by the actual number of square yards of concrete, sealed and accepted, within the designated limits. The area will be measured once, regardless of the number of applications required.

Basis of Payment: This work will be paid for at the Contract unit price per square yard for "Penetrating Sealer Protective Compound," complete, which price shall include all equipment tools, labor and materials, incidental thereto, including the preparation of the concrete surfaces and proper disposal of debris.

The following are not included in the cost of this item and will be considered Extra Work:

• Special cleaning procedures ordered by the Engineer to properly prepare the concrete surface for application of the penetrating sealer (such as removal of tightly adherent biological growth, graffiti, or other difficult-to-remove surface contaminants)

L148-0003 ITEM #0819002A

- Additional applications of sealer as noted in the Construction Methods
- Cleaning of evacuated material from sealed surfaces as ordered by the Engineer.

Pay Item Penetrating Sealer Protective Compound S.y.

Pay Unit s.y.

L148-0003 ITEM #0819002A

ITEM #0904051A – 3-TUBE CURB MOUNTED BRIDGE RAIL

Description: Work under this item shall consist of fabricating, galvanizing, transporting and erecting a curb mounted bridge rail comprised of anchorages, concrete inserts, plates, posts, rails, fasteners and epoxy grout in accordance with the plans.

Materials: Structural steel shapes and plates shall meet the requirements of ASTM A572, Grade 50. Hollow structural sections shall meet the requirements ASTM A500, Grade C or ASTM A501, Grade B. Certified Test Reports and Materials Certificates shall be submitted in accordance with Article 1.06.07. The Certified Test Reports shall address that the steel meets the requirements of Article 1.06.01, Buy America.

All exposed steel shapes, plates and hollow structural sections shall have a controlled content of silicon within the range 0.0% to 0.4% or 0.15% to 0.25%. Before galvanizing, mill test certificates verifying silicon content shall be submitted to the Engineer and the galvanizer.

All steel shapes, plates and hollow structural sections shall be hot-dip galvanized in accordance with ASTM A123.

All high strength bolts shall meet the requirements of ASTM F3125, Grade A325, Type 1. Nuts shall conform to ASTM A563, Grade DH. Circular, flat, hardened steel washers shall meet the requirements of ASTM F436. The bolts, nuts and washers shall be galvanized in accordance with ASTM F2329 or ASTM B695, Class 55.

The anchor rods shall be fully threaded rods in accordance with ASTM F1554, Grade 105. The nuts shall meet the requirements of ASTM A563, Grade DH. The washers shall meet the requirements of ASTM F436. The bolts, nuts and washers shall be galvanized in accordance with ASTM F2329 or ASTM B695, Class 55.

Dome head bolts with wrench slots shall meet the requirements of ASTM F3125, Grade A325, Type 1 or ASTM A449, Grade 1. The nuts shall meet the requirements of ASTM A563, Grade DH. The washers shall meet the requirements of ASTM F436. The bolts, nuts and washers shall be galvanized in accordance with ASTM F2329 or ASTM B695, Class 55.

Concrete inserts shall meet the requirements shown on the plans. The concrete inserts shall be hot dip galvanized in accordance with ASTM A153. The bolts shall meet the requirements of ASTM A307 and the washers shall meet the requirements of ASTM F436. The bolts and washers shall be galvanized in accordance with ASTM F2329.

Epoxy grout shall capable of being installed in the void below the baseplate and meet the following requirements:

Compressive strength, ASTM C579, @ 73 degrees F, 10,000 psi Tensile strength, ASTM C307 @ 7 days or ASTM D638 @ 7 days, 2,000 psi Bond strength to concrete, ASTM C882, concrete failure Bond strength to steel, ASTM C882, 2,500 psi

Volatile organic compounds (VOC), 0.0 Color, gray or concrete gray

Damaged areas of the hot-dip galvanized coatings shall be repaired in accordance with ASTM A780 amended as follows:

Paints containing zinc dust used for repairs shall contain either between 65% to 69% metallic zinc by weight or greater than 92% metallic zinc by weight in dry film.

Construction Methods:

A. Submittals: Prior to fabrication, the Contractor shall submit shop drawings for the bridge rail at each location in accordance with Article 1.05.02 and welding procedures in accordance with Article 1.05.17.

Prior to placing the epoxy grout, the Contractor shall submit the following to the Engineer for review in accordance with Article 1.05.02 Product Data requirements:

- 1. A copy of the epoxy grout manufacture's data sheet documenting the grout meets the specification requirements.
- 2. A copy of the epoxy grout manufacturer's printed installation instructions (MPII)
- 3. A copy of the epoxy grout manufacturer's printed safety instructions
- **B.** Fabrication Requirements: The steel fabricator shall meet the requirements of the AISC Certification Program for Manufacturers of Bridge and Highway Components (CPT).

Shop fabrication of the bridge rail shall meet the requirements of Article 6.03.03-3. Structural steel elements of the bridge rail shall be prepared for galvanizing in accordance with Article M.06.02.

After galvanizing, surfaces with inadequate zinc thickness shall be repaired in the shop according to ASTM A780 and ASTM A123, with the exception that only brush applied flat, light gray zinc rich coating shall be permitted. Aerosol spray or galvanizing repair stick products shall not be used. Surfaces of galvanized steel that are damaged after the galvanizing operation shall be repaired in accordance with ASTM A780 whenever damage exceeds 0.1875 inch in width or 4 inches in length. Damage that occurs in the shop shall be repaired in the shop.

C. Installation Requirements: The anchor rods shall be securely bolted to anchor plates to create anchorage assemblies. The anchorage assemblies shall be accurately positioned and restrained to prevent movement during field placement of the concrete. The concrete inserts shall be accurately positioned and restrained against movement during the placement of concrete.

Field installation of the rail components shall be as shown on the plans.

The connection of the post baseplate to the anchor rods shall be a double nut connection. The post baseplate shall be installed on washers supported by leveling nuts. The baseplate shall be secured in place with a washer topped with a nuts at each anchor rod.

High-strength bolts, including nuts and washers, shall be installed and tensioned in accordance with Subarticle 6.03.03-5(f).

Dome headed bolts shall be installed with a washer, a lock washer and nut.

Epoxy grout shall be placed between the concrete curb and the baseplate at all post locations. The concrete and steel surfaces that will be in contact with the grout shall be dry, clean and free of all loose concrete and contaminants. The galvanized surface of the baseplate shall not be abrasively cleaned. Solvent cleaning is acceptable if allowed by the epoxy grout manufacturer. The grout shall be placed within an area formed around each baseplate. The forms shall be liquid tight and treated with a form release agent. The forms shall have chamfer strips placed along all vertical and horizontal finished grout edges. The vertical faces of the grout shall extend beyond the vertical edges of the baseplate.

Prior to placing the epoxy grout, the curb concrete shall have obtained the compressive strength shown on the plans.

The grout shall be mixed and placed in accordance with the manufacturer's printed installation and safety instructions. Conditions, including the temperature of the mixed grout, air and substrate, at the time of the installation shall meet the manufacturer's recommendations. The grout shall be placed from one side allowing it to flow beneath the baseplate to the formed surfaces and avoid air entrapment. After removal of the forms, rough surfaces and edges shall be trimmed or ground down to provide smooth surfaces and defined edges.

Damage that occurs to the hot-dip galvanized surfaces during transport or during installation shall be repaired in accordance with the requirements of ASTM A780. If paint containing zinc dust is used for repairs, the dry coating thickness shall be at least 50% greater than the thickness of the adjacent hot-dip galvanized coating, but no greater than 4.0 mils. The paint shall be brush applied. The use of aerosol spray cans or galvanizing repair stick is not permitted. The color of the finished repair area shall match the color of the adjacent hot-dip galvanized surface at the time of the repair to the satisfaction of the Engineer.

During installation of the rail and any component parts, the Contractor shall take necessary precautions to prevent any injury or property damage from any falling materials.

All work shall proceed in accordance with the special provisions "Maintenance and Protection of Traffic" and "Prosecution and Progress."

Method of Measurement: This work will be measured for payment by the number of linear feet of bridge rail installed, complete and accepted, measured within the pay limits shown on the plans.

Basis of Payment: This work will be paid for at the Contract unit price per linear foot for "3-Tube Curb Mounted Bridge Rail," complete and accepted in place, which price shall include all materials, equipment, tools, and labor incidental thereto.

Pay Item Pay Unit 3-Tube Curb Mounted Bridge Rail 1.f.

<u>ITEM #0950029A - TURF ESTABLISHMENT - NEW ENGLAND MIX</u>

Description: The work included in this item shall consist of providing an accepted stand of established native wildflowers and grasses by furnishing and placing seed as shown on the plans or as directed by the Engineer.

Materials: The materials for this work shall conform to the requirements of Section M.13 of Standard Specification Form 819. All seed mixtures shall be supplied by Companies that specializes in native seed mixes and to the requirements below. All seed mixes shall be free of invasive species. The following mix shall be used for this item:

New England Erosion Control / Restoration Mix:

In order to preserve and enhance the diversity, the source for seed mixtures shall be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland. One approved seed mixture is detailed below. Other proposed mixtures must be approved by the Engineer.

PA New England Province Riparian Mix - ERNMX-253

Percetage	Botanical Name	Common Name
15.00 %	Schizachyrium scoparium, Fort Indiantown Gap-PA Ecotype	Little Bluestem, Fort Indiantown Gap-PA Ecotype
12.10 %	Sorghastrum nutans, 'Holt'	Indiangrass, 'Holt'
12.00 %	Andropogon gerardii, 'Niagara'	Big Bluestem, 'Niagara'
12.00 %	Elymus virginicus, Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
11.80 %	Panicum clandestinum, Tioga	Deertongue, Tioga
10.00 %	Elymus riparius, PA Ecotype	Riverbank Wildrye, PA Ecotype
5.00 %	Carex vulpinoidea, PA Ecotype	Fox Sedge, PA Ecotype
5.00 %	Panicum rigidulum, PA Ecotype	Redtop Panicgrass, PA Ecotype
5.00 %	Panicum virgatum, 'Habitat'-NJ Ecotype	Switchgrass, 'Habitat'-NJ Ecotype
2.40 %	Heliopsis helianthoides, PA Ecotype	Oxeye Sunflower, PA Ecotype
2.00 %	Juncus effusus	Soft Rush
2.00 %	Verbena hastata, PA Ecotype	Blue Vervain, PA Ecotype
1.90 %	Asclepias incarnata, PA Ecotype	Swamp Milkweed, PA Ecotype
1.00 %	Senna hebecarpa, VA & WV Ecotype	Wild Senna, VA & WV Ecotype
0.60 %	Aster pilosus, PA Ecotype	Heath Aster, PA Ecotype
0.50 %	Eupatorium perfoliatum, PA Ecotype	Boneset, PA Ecotype
0.50 %	Monarda fistulosa, Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype
0.50 %	Vernonia noveboracensis, PA Ecotype	New York Ironweed, PA Ecotype
0.30 %	Eupatorium fistulosum, PA Ecotype	Joe Pye Weed, PA Ecotype
0.20 %	Aster sagittifolius, PA Ecotype	Arrowleaf Aster, PA Ecotype
0.20 %	Solidago patula, PA Ecotype	Roughleaf Goldenrod, PA Ecotype

Seeding Rate: 20 lbs/acre with 30 lbs/acre of a cover crop. For a cover crop use either grain oats (1 Jan to 31 Jul) or grain rye (1 Aug to 31 Dec).

Submittals:

Submit a sample and product literature and guarantees in accordance with the requirements of the General Conditions for the Following: Submit native seed mixtures for approval prior to application of seed and all empty seed bags to the Engineer. Species types within Native Seed Mixtures listed below may vary dependent upon season and / or the availability of species' seed. Submit a sample of mulch for approval prior to application.

<u>Construction Methods</u>: Construction Methods shall be those established as agronomically acceptable and feasible and that are approved by the Engineer. Preparation of a clean weed free seed bed is necessary for optimal results. The seed shall be mulched in accordance with Article 9.50.03.

Areas shall be made friable and receptive to seeding by methods approved by the Engineer. In all cases, the final prepared area shall meet the lines and grades for such surfaces as shown on plans, or as directed by the Engineer. In no event will seeding be allowed on hard or crusted surfaces. All areas shall be reasonably free of weeds taller than three (3) inches. Removal of the weed growth from the slope areas shall be by approved methods, including hand mowing, which do not rut or scar the slope surface, or cause disruption of the slope lines and grades. Seeding on level areas shall not be permitted until all weed growth is removed.

<u>Seeding Season:</u> Apply seed in accordance with the supplier's recommendations as well as the dates specified in section 9.5. These periods may be extended or reduced according to prevailing weather conditions at the time, upon approval by the Engineer. If the Contractor seeds outside of seasonal periods, any additional materials furnished and placed to establish growth shall be done at the Contractors expense. The Contractor must also re-seed, mulch and repair, any areas seeded, that are damaged by fire, erosion, or any other cause, as directed by the engineer at no additional expense.

<u>Seeding Methods:</u> Seed shall be uniformly applied by mechanical spreader, or in small areas by hand and approved by the Engineer. Before any seed is sown, the ground shall be raked until the surface is smooth, friable and uniform in texture. No seed shall be applied in any area that has not been so prepared. The seed shall be sown evenly. After sowing, the seed shall be raked and or rolled lightly into the ground, and watered thoroughly with a fine spray. Extreme care shall be taken during seeding and raking so that no change in grading is made and that the seed is not raked from one spot to another.

<u>Method of Measurement</u>: This work will be measured for payment by the number of square yards of surface area of accepted established grasses as specified or by the number of square yards of surface area of seeding actually covered and as specified.

Basis of Payment: This work will be paid for at the contract unit price per square yard for "Turf Establishment – New England Mix" which price shall include all materials maintenance,

equipment, tools, labor, and work incidental thereto. Partial payment of up to 60% may be made for work completed, but not accepted.

Pay Item	<u>Pay Unit</u>
Turf Establishment – New England Mix	s.v

ITEM #0950040A - CONSERVATION SEEDING FOR SLOPES

Description: The work included in this item shall consist of providing an accepted uniform stand of established conservation seed mixture by furnishing and placing seed and cover crop as shown on the plans, permits, or as directed by the Engineer within the wetland mitigation Sites(s) or other areas when required.

Materials: All conservation seed mixture sources shall be obtained within the New England States, New York, Pennsylvania, New Jersey, Delaware, Virginia or Maryland to preserve and enhance the diversity of native conservation grass and plant species.

Four qualified conservation seed mixtures are detailed below:

- 1. New England Conservation/Wildlife Mix, New England Wetland Plants, Inc. 820 West Street Amherst, MA 01002, or equal. Rate shall be 25 lbs. PLS per acre (1 lb. PLS per 1,750 sq. ft.)
- **2. Mesic to Dry Native Pollinator Mix,** Ernst Conservation Seeds, Inc. 8884 Mercer Pike, Meadville, PA 16335, or equal. Rate shall be 20 lbs. PLS per acre (1 lb. PLS per 2,178 sq. ft.)
- **3. Vermont Conservation and Wildlife**, Vermont Wetland Plant Supply, LLC, P.O. Box 153, Orwell, VT 05760, or equal. Rate shall be 20 lbs. PLS per acre (1 lb. PLS per 2,178 sq. ft.)
- **4. Upland Partial Shade to Full Sun Mixture**, Chesapeake Valley Seed, 8869 Greenwood Place, Suite C, Savage, MD 20763, or equal. Rate shall be 25 lbs. PLS per acre (1 lb. PLS per 1,750 sq. ft.)

The Contractor must apply 30 lbs. of cover crop per acre in conjunction with the qualified conservation seed mixture selected. The 30 lbs. of cover crop shall consist of grain oats when seeding between March 15 to June 30 or grain rye when seeding between August 15 to October 31.

Fertilizer, if required, shall meet the requirements of Article M.13.03.

Mulch shall meet the requirements of Article M.13.05.

Erosion control matting shall be bio-degradable and meet the requirements of Article M.13.09.

The Contractor shall submit the selected qualified conservation seed mixture or equal including cover crop seed mixture information to the Engineer for review and acceptance in advance of purchase and prior to application.

The Materials Certificate for all seed mixtures shall have a statement that certifies that the seed mixture does not include any invasive species pursuant to Connecticut General Statutes Sec. 22a-381d or any State Threatened or State Endangered species pursuant to Connecticut General

Statutes Sec. 26-303. The seed tags from the bags are to be removed by the Engineer upon delivery and attached to the Materials Certificate. Seeding shall not occur if these requirements are not met.

All approved seed mixtures shall be obtained in sufficient quantities to meet the pure live seed (PLS) application rates as determined by the seed analysis of the mixture.

Construction Methods: Construction methods shall be those established as agronomically acceptable and feasible and shall be accepted by the Engineer. The methods described in Article 9.50.03 shall be amended as follows:

Preparation of Seedbed Areas:

- a. Level Areas, Median Areas, Interchanges and Lawns: These areas shall be made friable and receptive for seeding by discing or by other accepted methods to the satisfaction of the Engineer. The final prepared surface which has been seeded shall meet the lines and grades for such surface areas as shown on the plans, permits or as directed by the Engineer. In no event, will seeding be permitted on hard or crusted soil surface.
- b. Slope and Embankment Areas: These areas shall be made friable and receptive to seeding by accepted methods which will not disrupt the line and grade of the slope surface. In no event, will seeding be permitted on hard or crusted soil surface.

All areas to be seeded shall be reasonably free from weeds taller than 3 inches. Level Areas, Median Areas, Interchanges and Lawns: Seeding shall not be permitted until substantial weed growth is removed and accepted by the Engineer. Slope and Embankment Areas: Removal of weed growth shall be those methods which do not rut or scar the slope surface or cause excessive damage of the slope line or grade as accepted by the Engineer.

Conservation seeding for slopes for wetland mitigation Site(s): Seeding shall occur during the fall season immediately following construction of the wetland mitigation Site(s). Seeding for wetland mitigation Site(s) must occur from August 15 to October 31.

For non-wetland mitigation Site(s), seeding shall occur during the dates specified in Article 9.50.03-2.

If seed is purchased in bulk rather than by PLS, the rate of application must be adjusted to meet the required PLS seeding rate. This seeding rate shall be increased by the appropriate percentage as determined by the following formula based off the information provided on the seed tags at delivery.

(Germination Percentage X Purity Percentage) / 100 = Percentage PLS

The Engineer will verify that the seed is applied at a rate that will allow for 100 percent PLS.

Mowing will not be allowed within areas that are seeded with conservation seed mix, unless authorized by the Engineer.

Method of Measurement: This work will be measured for payment by the number of square yards of surface area of accepted established conservation grasses as specified.

Basis of Payment: This work will be paid for at the Contract unit price per square yard for "Conservation Seeding for Slopes," which price shall include all materials, maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 50% may be made for work completed, but not accepted. Full payment shall not be made until the area has been accepted by the Engineer.

Pay Item	Pay Unit
Conservation Seeding for Slopes	s.y.

ITEM #0969060A - CONSTRUCTION FIELD OFFICE, SMALL

Description:

Under the item included in the bid document, adequate weatherproof office quarters with related furnishings, materials, equipment and other services, shall be provided by the Contractor for the duration of the work, and if necessary, for a close-out period determined by the Engineer. The office, furnishings, materials, equipment, and services are for the exclusive use of Municipal forces and others who may be engaged to augment Municipal forces with relation to the Contract. The office quarters shall be located convenient to the work site and installed in accordance with Article 1.08.02. This office shall be separated from any office occupied by the Contractor. Ownership and liability of the office quarters shall remain with the Contractor.

Furnishings/Materials/Supplies/Equipment: All furnishings, materials, equipment and supplies shall be in like new condition for the purpose intended and require approval of the Engineer.

Office Requirements: The Contractor shall furnish the office quarters and equipment as described below:

Description \ Office Size	Small	Med.	Large
Minimum Sq. Ft. of floor space with a minimum ceiling height of 7 ft.	400	400	1000
Minimum number of exterior entrances.		2	2
Minimum number of parking spaces.	7	7	10

Office Layout: The office shall have a minimum square footage as indicated in the table above, and shall be partitioned as shown on the building floor plan as provided by the Engineer.

<u>Tie-downs and Skirting:</u> Modular offices shall be tied-down and fully skirted to ground level.

<u>Lavatory Facilities</u>: For field offices sizes Small and Medium the Contractor shall furnish a toilet facility at a location convenient to the field office for use by Municipal personnel and such assistants as they may engage; and for field office size Large the Contractor shall furnish two (2) separate lavatories with toilet (men and women), in separately enclosed rooms that are properly ventilated and comply with applicable sanitary codes. Each lavatory shall have hot and cold running water and flush-type toilets. For all facilities the Contractor shall supply lavatory and sanitary supplies as required.

Windows and Entrances: The windows shall be of a type that will open and close conveniently, shall be sufficient in number and size to provide adequate light and ventilation, and shall be fitted with locking devices, blinds and screens. The entrances shall be secure, screened, and fitted with a lock for which four keys shall be furnished. All keys to the construction field office shall be furnished to the Municipality and will be kept in their possession while Municipal personnel are using the office. Any access to the entrance ways shall meet applicable building codes, with appropriate handrails. Stairways shall be ADA/ABA compliant and have non-skid tread surfaces.

<u>Lighting:</u> The Contractor shall equip the office interior with electric lighting that provides a minimum illumination level of 100 foot-candles at desk level height, and electric outlets for each desk and drafting table. The Contractor shall also provide exterior lighting that provides a minimum illumination level of 2 foot-candles throughout the parking area and for a minimum distance of 10 ft. on each side of the field office.

<u>Parking Facility:</u> The Contractor shall provide a parking area, adjacent to the field office, of sufficient size to accommodate the number of vehicles indicated in the table above. If a paved parking area is not readily available, the Contractor shall construct a parking area and driveway consisting of a minimum of 6 inches of processed aggregate base graded to drain. The base material will be extended to the office entrance.

<u>Field Office Security:</u> Physical Barrier Devices - This shall consist of physical means to prevent entry, such as: 1) All windows shall be barred or security screens installed; 2) All field office doors shall be equipped with dead bolt locks and regular day operated door locks; and 3) Other devices as directed by the Engineer to suit existing conditions.

<u>Electric Service</u>: The field office shall be equipped with an electric service panel, wiring, outlets, etc., to serve the electrical requirements of the field office, including: lighting, general outlets, computer outlets, calculators etc., and meet the following minimum specifications:

- A. 120/240 volt, 1 phase, 3 wire
- B. Ampacity necessary to serve all equipment. Service shall be a minimum 100 amp dedicated to the construction field office.
- C. The electrical panel shall include a main circuit breaker and branch circuit breakers of the size and quantity required.
- D. Additional 120 volt, single phase, 20 amp, isolated ground dedicated power circuit with dual NEMA 5-20 receptacles will be installed at each desk and personal computer table (workstation) location.
- E. Additional 120 volt, single phase, 20 amp, isolated ground dedicated power circuit with dual NEMA 5-20 receptacles will be installed, for use by the Telephone Company.
- F. Additional 120-volt circuits and duplex outlets as required meeting National Electric Code requirements.
- G. One exterior (outside) wall mounted GFI receptacle, duplex, isolated ground, 120 volt, straight blade.
- H. After work is complete and prior to energizing, the Municipalities electrical inspector, must be contacted.

<u>Heating</u>, <u>Ventilation and Air Conditioning (HVAC)</u>: The field office shall be equipped with sufficient heating, air conditioning and ventilation equipment to maintain a temperature range of 68°-80° Fahrenheit within the field office.

<u>Telephone Service</u>: The Contractor shall provide telephone service with unlimited nation-wide calling plan. For a Small, Medium and Large field office this shall consist of the installation of two

(2) telephone lines: one (1) line for phone/voice service and one (1) line dedicated for the facsimile machine. The Contractor shall pay all charges.

Data Communications Facility Wiring:

The Contractor shall supply cables to connect the Computer(s), Wi-Fi printer and Multi-Function Laser Printer/Copier/Scanner/Fax to the Contractor supplied internet router and to workstations/devices as needed.

<u>Additional Equipment, Facilities and Services:</u> The Contractor shall provide at the field Office at least the following to the satisfaction of the Engineer:

Furnishing Description		Office Size		
		Med.	Large	
		Quantity		
Office desk (2.5 ft. x 5 ft.) with drawers, locks, and matching desk				
chair that have pneumatic seat height adjustment and dual wheel	1	3	5	
casters on the base.				
Personal computer tables (4 ft. x 2.5 ft.).	2	3	5	
Drafting type tables (3 ft. x 6 ft.) and supported by wall brackets and				
legs; and matching drafters stool that have pneumatic seat height	1	1	1	
adjustment, seat back and dual wheel casters on the base.				
Conference table, 3 ft. x 12 ft.	-	-	-	
Table – 3 ft. x 6 ft.	-	-	-	
Office Chairs.	2	4	8	
Mail slot bin – legal size.	-	-	1	
Non-fire resistant cabinet.	-	-	2	
Fire resistant cabinet (legal size/4 drawer), locking.	1	1	2	
Storage racks to hold 3 ft. x 5 ft. display charts.	-	-	1	
Vertical plan racks for 2 sets of 2 ft. x 3 ft. plans for each rack.	1	1	2	
Double door supply cabinet with 4 shelves and a lock – 6 ft. x 4 ft.	-	-	1	
Case of cardboard banker boxes (Min 10 boxes/case)	1	1	2	
Open bookcase – 3 shelves – 3 ft. long.	-	-	2	
White Dry-Erase Board, 36" x 48"min. with markers and eraser.	1	1	1	
Interior partitions – 6 ft. x 6 ft., soundproof type, portable and			c	
freestanding.	-	-	6	
Wastebaskets - 30 gal., including plastic waste bags.	1	1	1	
Wastebaskets - 5 gal., including plastic waste bags.		3	6	
Telephone.		1	1	
Full size stapler 20 (sheet capacity, with staples)	1	2	5	
Desktop tape dispensers (with Tape)		2	5	
8 Outlet Power Strip with Surge Protection		4	6	

Furnishing Description		Office Size		
		Med.	Large	
		Quantity		
Rain Gauge	1	1	1	
Mini refrigerator - 3.2 c.f. min.	1	1	1	
Hot and cold water dispensing unit. Disposable cups and bottled				
water shall be supplied by the Contractor for the duration of the	1	1	1	
project.				
Microwave, 1.2 c.f., 1000W min.	1	1	1	
Fire extinguishers - provide and install type and *number to meet				
applicable State and local codes for size of office indicated, including a	*	*	*	
fire extinguisher suitable for use on a computer terminal fire.				
Electric pencil sharpeners.	1	2	2	
Electronic office type printing calculators capable of addition,				
subtraction, multiplication and division with memory and a supply of	1	2	2	
printing paper.				
Small Multi-Function Laser Printer/Copier/Scanner/Fax combination				
unit, network capable, as specified below under Computer Related	1	1		
Hardware and Software.				
Large Multi-Function Laser Printer/Copier/Scanner/Fax combination				
unit, network capable, as specified below under Computer Related			1	
Hardware and Software.				
Field Office Wi-Fi Connection as specified below under Computer	4	4	1	
Related Hardware and Software	1	1	1	
Wi-Fi Printer as specified below under <u>Computer Related Hardware</u>	1	1	1	
and Software.	1	1	1	
Digital Camera as specified below under Computer Related Hardware	1	1	3	
and Software.	1	1	3	
Desktop and/or Laptop Computer w/software as specified below	1	1	•	
under Computer Related Hardware and Software	1	1	2	
Infrared Thermometer, including annual third party certified	1	1	1	
calibration, case, and cleaning wipes.	1	1	1	
Concrete Curing Box as specified below under Concrete Testing	1	1	1	
Equipment.	1	1	1	
Concrete Air Meter and accessories as specified below under				
Concrete Testing Equipment as specified below. Contractor shall	1	1	1	
provide third party calibration on a quarterly basis.				
Concrete Slump Cone and accessories as specified below under	1	1	1	
Concrete Testing Equipment.	1	1	1	
First Aid Kit	1	1	1	

The furnishings and equipment required herein shall remain the property of the Contractor. Any supplies required to maintain or operate the above listed equipment or furnishings shall be provided by the Contractor for the duration of the project.

Computer Related Hardware and Software: The Contractor will supply by its own means the actual Personal Computer(s) for the Municipal representatives. The Contractor shall supply the Field Office Wi-Fi Connection, Wi-Fi Printer, Digital Camera(s) and Multifunction Laser Printer/Copier/Scanner/Fax as well as associated hardware and software, must meet the requirements of this specification as well as the latest minimum specifications posted, as of the project advertising date, at CTDOTs web site:

http://www.ct.gov/dot/cwp/view.asp?a=1410&q=563904

Within 10 calendar days after the signing of the Contract but before ordering/purchasing the Computers, Wi-Fi Printer, the Multifunction Laser Printer/Copier/Scanner/Fax), Field Office Wi-Fi and Digital Camera(s) as well as associated hardware, the Contractor must submit a copy of their proposed order(s) with catalog cuts and specifications to the Municipality or their Representative for review and approval. The Computers, Wi-Fi Printer, Multifunction Laser Printer/Copier/Scanner/Fax, Wi-Fi Router and digital cameras will be reviewed by Municipal personnel or their Representative. The Contractor shall not purchase the hardware, software, or services until the Municipality or their Representative informs them that the proposed equipment, software, and services are approved. The Contractor will be solely responsible for the costs of any hardware, software, or services purchased without approval.

The Contractor and/or their internet service provider shall be responsible for the installation and setup of the field office Wi-Fi, Wi-Fi printer, Computer(s) and the configuration of the wireless router as directed by the Municipality. Installation will be coordinated with Municipal and Project personnel.

After the approval of the hardware and software, the Contractor shall contact the designated representatives of the Municipality, a minimum of 2 working days in advance of the proposed delivery or installation of the Field Office Wi-Fi Connection, Computer(s), Wi-Fi Printer, Digital Camera(s), and Multifunction Laser Printer/Copier/Scanner/Fax, as well as associated hardware, software, supplies, and support documentation.

The Contractor shall provide all supplies, paper, maintenance, service and repairs (including labor and parts) for the Computer(s), Wi-Fi printers, copiers, field office Wi-Fi, fax machines and other equipment and facilities required by this specification for the duration of the Contract. All repairs must be performed with-in 48 hours. If the repairs require more than a 48 hours then an equal or better replacement must be provided.

Once the Contract has been completed, the hardware and software will remain the property of the Contractor.

<u>First Aid Kit:</u> The Contractor shall supply a first aid kit adequate for the number of personnel expected based on the size of the field office specified and shall keep the first aid kit stocked for the duration that the field office is in service.

Rain Gauge: The Contractor shall supply install and maintain a rain gauge for the duration of the project, meeting these minimum requirements. The rain gauge shall be installed on the top of a post such that the opening of the rain gauge is above the top of the post an adequate distance to avoid splashing of rain water from the top of the post into the rain gauge. The Location of the rain gauge and post shall be approved by the Engineer. The rain gauge shall be made of a durable material and have graduations of 0.1 inches or less with a minimum total column height of 5 inches. If the rain gauge is damaged the Contractor shall replace it prior to the next forecasted storm event at no additional cost.

<u>Concrete Testing Equipment:</u> If the Contract includes items that require compressive strength cylinders for concrete, in accordance with the Schedule of Minimum Testing Requirements for Sampling Materials for Test, the Contractor shall provide the following equipment.

- A) Concrete Cylinder Curing Box meeting the requirements of Section 6.12 of the Standard Specifications.
- B) Air Meter The air meter provided shall be in good working order and meet the requirements of AASHTO T 152.
- C) Slump Cone Mold Slump cone, base plate, and tamping rod shall be provided in like-new condition and meet the requirements of AASHTO T119, Standard Test Method for Slump of Hydraulic-Cement Concrete.

All testing equipment will remain the property of the Contractor at the completion of the project.

Maintenance: During the occupancy by the Municipality, the Contractor shall maintain all facilities and furnishings provided under the above requirements, and shall maintain and keep the office quarters clean through the use of weekly professional cleaning to include, but not limited to, washing & waxing floors, cleaning restrooms, removal of trash, etc. Exterior areas shall be mowed and clean of debris. A trash receptacle (dumpster) with weekly pickup (trash removal) shall be provided. Snow removal, sanding and salting of all parking, walkway, and entrance ways areas shall be accomplished during a storm if on a workday during work hours, immediately after a storm and prior to the start of a workday. If snow removal, salting and sanding are not completed by the specified time, the Municipality will provide the service and all costs incurred will be deducted from the next payment estimate.

Method of Measurement:

The furnishing and maintenance of the construction field office will be measured for payment by the number of calendar months that the office is in place and in operation, rounded up to the nearest month.

There will not be any price adjustment due to any change in the minimum computer related hardware and software requirements.

Basis of Payment:

The furnishing and maintenance of the Construction Field Office will be paid for at the Contract unit price per month for "Construction Field Office, (Type)," which price shall include all material, equipment, labor, service contracts, licenses, software, repair or replacement of hardware and software, related supplies, utility services, parking area, external illumination, trash removal, snow and ice removal, and work incidental thereto, as well as any other costs to provide requirements of this specification.

<u>Pay Item</u>	Pay Unit
Construction Field Office, (Type)	Month

ITEM NO. 0971001A – MAINTENANCE AND PROTECTION OF TRAFFIC

Article 9.71.01 – Description *is supplemented by the following:*

The Contractor shall maintain and protect traffic as described by the following and as limited in the special provision for Section 1.08 - Prosecution and Progress:

Toelles Road

1. The Contractor will be permitted to close Toelles Road to through traffic and detour traffic as shown on the Detour Plans. The Contractor shall notify the Engineer at least 14 days in advance of implementing the detour.

All Other Roadways

During the allowable periods and when the Contractor is actively working, the Contractor will be permitted to maintain and protect at least an alternating one-way traffic operation on a paved travel path not less than 11 feet in width and no more than 300 feet in length, unless specified elsewhere in the Contract. There shall be no more than one alternating one-way traffic operation within the Project limits without prior approval of the Engineer.

Commercial and Residential Driveways

The Contractor shall maintain access to and egress from all commercial and residential driveways throughout the Project limits. The Contractor will be permitted to temporarily close affected driveways while actively working with coordination and permission from the owner or proprietor.

Article 9.71.03 - Construction Methods *is supplemented as follows:*

General

Unpaved travel paths will only be permitted for areas requiring full depth and full width reconstruction. The unpaved section shall be the full width of the road and shall be perpendicular to the travel lanes. The Contractor will be allowed to maintain traffic on processed aggregate for a duration not to exceed 10 calendar days and opposing traffic lane dividers shall be used as a centerline.

The Contractor is required to delineate any raised structures within the travel lanes, so that the structures are visible day and night, unless there are specific Contract plans and provisions to temporarily lower these structures prior to the completion of work.

The Contractor shall schedule operations so that pavement removal and roadway resurfacing shall be completed full width across a roadway or bridge section by the end of a work shift, or as directed by the Engineer.

When the installation of all intermediate courses of bituminous concrete pavement is completed for the entire roadway, the Contractor shall then install the final course of bituminous concrete pavement.

When the Contractor is excavating adjacent to the roadway, the Contractor shall provide a 3 foot shoulder between the work area and travel lanes, with traffic drums spaced every 50 feet. At the end of the work shift if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary bituminous concrete traversable slope of 4:1 or flatter that is acceptable to the Engineer.

The Contractor, during the course of any active overhead construction work, shall close the lanes directly below the work area for the entire length of time overhead work is being undertaken.

When an existing sign is to be relocated or replaced, the work shall be completed during the same work shift.

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

Existing Signing

The Contractor shall maintain all existing overhead and side-mounted signs within the Project limits throughout the duration of the Project. The Contractor shall temporarily relocate signs and sign supports as many times as deemed necessary, and shall install temporary sign supports if necessary and as directed by the Engineer.

Requirements for Winter

The Contractor shall schedule a meeting with representatives of the Department, including the offices of Maintenance and Traffic, and the Town/City to determine any interim traffic control measures the Contractor shall accomplish prior to winter to provide safety to motorists and permit adequate snow removal procedures. This meeting shall be held prior to October 31 of each year and will include, but not be limited to, discussion of the status and schedule of the following items: lane and shoulder widths, pavement restoration, traffic signal work, pavement markings, and signing.

Signing Patterns

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory.

Pavement Markings - Non-Limited Access Roadways

During construction, the Contractor shall maintain all pavement markings on paved surfaces on all roadways throughout the limits of the Project.

Temporary pavement markings shall be installed on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work shift.

Permanent Epoxy Resin Pavement Markings shall be installed on the final course of bituminous concrete pavement within 10 calendar days of the final pavement installation if no Pavement Marking Grooves are proposed.

Temporary Pavement Markings

Temporary pavement markings that will be in place for less than 72 continuous hours may consist of temporary plastic pavement marking tape at the Contractor's expense. Additionally;

- 1. These temporary pavement markings shall include centerlines, lane lines (solid and broken), and stop bars.
- 2. Centerlines shall consist of two 4 inch wide yellow markings, 2 feet in length, side by side, 4 inches apart, at 40 foot intervals.
- 3. Lane lines shall consist of 4 inch wide white markings, 2 feet in length, at 40 foot intervals.
- 4. No passing zones shall be posted with signs in those areas where the final centerlines have not been established on two-way roadways.
- 5. Stop bars may consist of two 6 inch wide white markings or three 4 inch wide white markings placed side by side.
- 6. The temporary plastic pavement marking tape shall be installed in accordance with Section 12.12.
- 7. The Contractor shall remove and dispose of the temporary plastic pavement marking tape prior to another course of bituminous concrete pavement being installed.

Temporary pavement markings that will be in place for 72 continuous hours or more should consist of temporary painted pavement markings and shall be installed in accordance with Section 12.09. The markings shall include centerlines, edge lines, lane lines (solid and broken), lane-use arrows, and stop bars on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work shift Edge lines and lane-use arrows are not required if the next course of bituminous concrete pavement will be placed within 10 calendar days.

All temporary pavement markings exposed throughout the winter shall be Epoxy Resin Pavement Markings, unless directed otherwise by the Engineer.

Temporary pavement markings, as described above, shall be maintained until the permanent pavement markings are installed.

Final Pavement Markings

Refer to Pavement Marking Groove special provisions for pavement marking requirements. Permanent epoxy resin pavement markings shall be installed in accordance with Section 12.10 and the applicable Traffic Engineering Standard Drawings.

If Temporary Plastic Pavement Marking Tape is installed, then the Contractor shall remove and dispose of these markings during the same work shift that the permanent epoxy resin pavement

markings are to be installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall be at the Contractor's expense.

Traffic Control During Construction Operations

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for a safer and more efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

Traffic Control Patterns

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder or is within the clear zone. For each situation, the installation of traffic control devices shall be based on the following:

- Speed and volume of traffic.
- Duration of operation.
- Exposure to hazards.

Traffic control patterns shall be uniform, neat, and orderly in order to command respect from the motorist.

Lane reduction tapers should be placed so that the entire length of the taper is installed on a tangent section of roadway and the entire taper area can be seen by the motorist.

All existing conflicting signs shall be removed, covered with an opaque material, or turned so that they are not legible to oncoming traffic prior to implementing a traffic control pattern. The existing signs shall be uncovered or reinstalled once the pattern is removed.

A buffer area should be provided during installation of a traffic control pattern and maintained for the duration of the work. The buffer area shall be free of any equipment, workers, materials, and parked vehicles.

Construction Traffic Control Plans 19 through 25 should be used for moving operations such as line striping, rumble strips, pothole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

Traffic control patterns are not required for vehicles on an emergency patrol type activity or for a short duration stop of up to one hour, as long as the equipment is contained within the shoulder. Flashing lights, arrow boards, truck-mounted or trailer-mounted impact attenuators, and appropriate Trafficperson(s) shall be used when required.

In a situation not adequately covered by the Construction Traffic Control Plans, the Contractor shall contact the Engineer for assistance prior to setting up a traffic control pattern.

Placement of Signs

Signs shall be placed in a position that allows motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads) where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

Allowable Adjustment of Signs and Devices Shown on the Construction Traffic Control Plans

The Construction Traffic Control Plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans.

The proper application of the Construction Traffic Control Plans and installation of traffic control devices is dependent upon actual field conditions.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

Adjustments to the Construction Traffic Control Plans shall only be made at the direction of the Engineer.

Table 1 indicates the minimum taper lengths required for a lane closure based on the posted speed limit and lane width of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the Construction Traffic Control Plans cannot be achieved.

Table 1 – Minimum Taper Length

POSTED SPEED	MINIMUM TAPER LENGTH		
LIMIT	FOR A SINGLE LANE CLOSURE (FEET)		
(MPH)	FREEWAYS	SECONDARY ROADS	
30 OR LESS	180	165	
35	245	225	
40	320	295	
45	540	495	
50	600	550	
55	660	605	
65	780	715	

1. Work Zone Safety Meetings

- 1.a) Prior to the commencement of work, a Work Zone Safety Meeting shall be conducted with representatives from DOT Construction, Connecticut State Police (Local Barracks), Municipal Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the Project. DOT Traffic Engineering shall be invited to the Work Zone Safety Meeting. Other Work Zone Safety Meetings during the course of the Project should be scheduled as needed.
- 1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the Meeting to outline the anticipated traffic control issues during the construction of this Project. Any issues that can't be resolved at these Meetings will be brought to the attention of the District Engineer and the Office of Construction. The agenda shall include:
 - i. Review Project scope of work and time;
 - ii. Review Section 1.08, Prosecution and Progress;
 - iii. Review Section 9.70, Trafficpersons;
 - iv. Review Section 9.71, Maintenance and Protection of Traffic;
 - v. Review Contractor's schedule and method of operations;
 - vi. Review special concern areas: ramps, turning roadways, medians, lane drops, etc.;
 - vii. Open discussion of work zone questions and issues;
 - viii. Discussion of review and approval process for changes in Contract requirements as they relate to work zone areas.

2. General

- 2.a) Traffic control patterns shall only be installed if the required minimum number of signs, traffic cones, traffic drums, and other equipment (i.e. one Arrow Board for each lane closed, two Truck-Mounted or Trailer-Mounted Attenuators (TMAs), Changeable Message Sign, etc.) are on Site.
- 2.b) The Contractor shall have spare maintenance and protection of traffic equipment (TMAs, Arrow Board, Changeable Message Sign(s), construction signs, traffic cones, traffic drums, etc.) available at all times in case of mechanical failures, etc. Spare maintenance and protection of traffic equipment installed as a result of a sudden equipment breakdown shall be replaced by the Contractor within 24 hours.
- 2.c) Failure of the Contractor to have the required minimum number of signs, personnel, and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for lost time.
- 2.d) In cases of differences of opinion between the Contractor and the Inspection staff, the Contractor shall follow the directions of the Engineer. The matter shall be brought to the

District Office for resolution immediately or, in the case of work after regular business hours, on the next business day.

3. Installing and Removing Traffic Control Patterns

- 3.a) Lane closures shall be installed beginning with the advance warning signs and proceeding forward toward the work area.
- 3.b) Lane closures shall be removed in the reverse order, beginning at the end of the work area, or traffic control pattern, and proceeding back toward the advance warning signs.
- 3.c) Stopping traffic may be allowed within the allowable hours stated in Section 1.08.04:
 - i. For those activities stated within the Contract.
 - ii. During paving, milling operations, or similar activities where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway so traffic does not travel across the longitudinal joint or difference in roadway elevation.
 - iii. To move slow moving equipment across live traffic lanes into the work area.
- 3.d) The Contractor shall adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.
- 3.e) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travel path prior to merging with or exiting from the mainline traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.
- 3.f) Workers are prohibited from crossing the travel lanes on limited access roadways to install and remove signs or other devices on the opposite side of the roadway. Any signs or devices on the opposite side of the roadway shall be installed and removed separately.

4. Implementation of Rolling Road Block (RRB)

- 4.a) Temporary road closures using a RRB may be allowed on limited access highways for operations associated with the installation and removal of temporary lane closures. RRB may be allowed for the installation and removal of lead signs and lane tapers only and shall meet the following requirements:
 - i. Refer to the Limitation of Operations Chart provided in Section 1.08.04 for the hours allowed for implementing a RRB operation. The Contractor shall only implement a RRB operation within the hours shown in the Chart.
 - ii. In areas with good sight lines and full shoulders, signs on the side of the road opposite the traffic pattern should be installed in a separate operation.
 - iii. TMAs equipped with Arrow Boards shall be used to slow traffic to implement the RRB. State Police Officers in marked vehicles may be used to support the implementation of the RRB. The RRB shall start by having all vehicles,

- including TMAs and police vehicles, leave the shoulder or on-ramp and accelerate to normal roadway speeds in each lane. The vehicles will then position themselves side by side and decelerate to the RRB speed on the highway.
- iv. A Pre-Warning Vehicle, as specified elsewhere in the Contract, shall be used to advise the motorists that sign pattern installation or removal is underway.
- v. The RRB duration shall not exceed 15 minutes from the start of the traffic block until all lanes are opened as designated in the Limitation of Operations chart. If the RRB duration exceeds 15 minutes on 2 successive shifts, no further RRB will be allowed until the Contractor obtains approval for a revised installation procedure from the District.
- vi. RRB shall not be used to expand a lane closure pattern to an additional lane during the shift. The workers and equipment required to implement the additional lane closure should be staged from within the closed lane. TMAs (and State Police if available) shall be used to protect the workers installing the taper in the additional lane.
- vii. Exceptions to these work procedures may be submitted to the District Office for consideration. A minimum of 2 business days shall be allowed for review and comment by the District.
- viii. The Engineer and the Contractor will review and discuss the RRB procedures (including any revisions) in advance of the work. The implementation of the agreed upon plan will be reviewed with the State Police during the Work Zone Safety Meeting held before each shift involving temporary lane closures. If the State Police determine that alternative procedures should be implemented for traffic control during the work shift, the Department and Contractor will attempt to resolve any discrepancies with the duty sergeant at the Troop. If the discrepancies are unable to be resolved prior to the start of the shift, then the work will proceed as recommended by the Department. Any unresolved issues shall be addressed the following day.

5. Use of Arrow Boards

- 5.a) On limited access roadways, one Arrow Board shall be used for each lane that is closed. The Arrow Board shall be installed concurrently with the installation of the traffic control pattern and its placement shall be as shown on the Construction Traffic Control Plans. Additional Arrow Boards shall be deployed if sight distances are limited.
- 5.b) On non-limited access roadways, the use of an Arrow Board for lane closures is optional. The roadway geometry, sight distance, and traffic volume shall be considered in the decision to use the Arrow Board.
- 5.c) A vehicle displaying an arrow board shall be equipped with high-intensity rotating, flashing, oscillating, or strobe lights.
- 5.d) The flashing arrow mode shall be used for lane closure (merge) tapers.

- 5.e) The flashing arrow mode shall not be used for temporary alternating one-way traffic operations or to laterally shift lanes of traffic.
- 5.f) The flashing double arrow mode shall only be used for closing a center lane on a multilane roadway where adjacent left and right lanes remain open.
- 5.g) For shoulder work or roadside work near the shoulder, the Arrow Board shall be positioned in the shoulder and the flashing alternating diamond mode should be used.
- 5.h) The flashing alternating diamond caution mode should also be used when supplemental Arrow Boards are positioned in an already closed lane.

6. Use of Truck-Mounted or Trailer-Mounted Impact Attenuators (TMAs)

- 6.a) On limited access roadways, lane closures shall use a minimum of two TMAs to install and remove traffic control patterns. If two TMAs are not available, then the pattern shall not be installed.
- 6.b) On non-limited access roadways, the use of TMAs to install and remove patterns closing a lane(s) is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to utilize the TMAs.
- 6.c) On limited access roadways, one TMA shall be placed on the shoulder and the second TMA shall be approximately 1,000 feet ahead blocking the lane to establish the advance and transition signing. The Arrow Board mounted on the TMA shall be in the arrow mode when taking the lane. The sign truck and workers shall be at sufficient distance ahead of the second TMA. In no case shall the TMA be used as the sign truck or a work truck. Once the transition is in place, the TMAs shall travel in the closed lane until all Portable Changeable Message Signs, signs, Arrow Boards, and cones/drums are installed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when traveling in the closed lane.
- 6.d) A TMA shall be placed prior to the first work area in the pattern. If there are multiple work areas within the same pattern, then additional TMAs shall be positioned at each additional work area as needed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when in the closed lane.
- 6.e) TMAs shall be positioned a sufficient distance prior to the workers or equipment being protected to allow for appropriate vehicle roll-ahead in the event that the TMA is hit, but not so far that an errant vehicle could travel around the TMA and into the work area. For additional placement and use details, refer to Section 18.06. Some operations, such as paving and concrete repairs, do not allow for placement of the TMA(s) within the specified distances. In these situations, the TMA(s) shall be placed at the beginning of the work area and shall be advanced as the paving or concrete operations proceed.

6.f) TMAs will be paid for in accordance with how the unit is used. If it is used as a TMA and is in the proper location as specified, then it will be paid for at the specified hourly rate for Truck-Mounted or Trailer-Mounted Impact Attenuator. When the TMA is used as an Arrow Board, it will be paid for at the daily rate for Arrow Board. If a TMA is used to install and remove a pattern and is also used as an Arrow Board in the same day, then the unit will be paid for as a Truck-Mounted or Trailer-Mounted Impact Attenuator for the hours used to install and remove the pattern, typically 2 hours (1 hour to install and 1 hour to remove). If the TMA is also used as an Arrow Board during the same day, then the unit will only be paid for at the daily rate as an Arrow Board.

7. Use of Traffic Drums and Traffic Cones

- 7.a) On limited-access highways, ramps, and turning roadways:
 - i. Traffic drums shall be used for taper channelization.
 - ii. Traffic drums shall be used to delineate raised catch basins and other hazards.
 - iii. Traffic cones with a minimum height of 42 inches may be used in place of drums in the tangent section of a closed lane or shoulder.
 - iv. Traffic cones less than 42 inches in height shall not be used.
- 7.b) On all roadways:
 - i. Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.
 - ii. Traffic cones shall not be left unattended.
 - iii. Traffic cones with a minimum height of 42 inches shall be used when the posted speed limit is 45 MPH or above.
- 7.c) Typical spacing of traffic drums and/or cones shown on the Construction Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

8. Use of Barricade Warning Lights

- 8.a) Barricade Warning Lights may be installed on channelizing devices when used in a merge taper. The Barricade Warning Lights shall flash in a sequential pattern when used in a merge taper. The successive flashing shall occur from the upstream end (beginning) of the merge taper to the downstream end (end) of the merge taper.
- 8.b) Type C Barricade Warning Lights may be used at night to delineate the edge of the travel way.
- 8.c) Type B Barricade Warning Lights shall be used on post-mounted advanced warning signs.

9. Use of Portable Changeable Message Signs (PCMS)

- 9.a) On limited access roadways, one PCMS shall be used in advance of the traffic control pattern for all lane closures. Prior to installing the pattern, the PCMS shall be installed and in operation, displaying the appropriate lane closure information. The PCMS shall be positioned ½ to 1 mile ahead of the start of the lane closure taper. If the distance to the nearest exit ramp is greater than the specified ½ to 1 mile distance, then an additional PCMS shall be positioned a sufficient distance ahead of the exit ramp (and before the previous on-ramp where practical) to alert motorists to the work and therefore offer them an opportunity to take the exit.
- 9.b) On non-limited access roadways, the use of PCMS for lane closures is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to use the PCMS.
- 9.c) PCMS should be placed off the shoulder of the roadway and behind a traffic barrier, if practical. Where a traffic barrier is not available to shield the PCMS, it should be placed off the shoulder and outside of the clear zone. If a PCMS has to be placed on the shoulder of the roadway or within the clear zone, it should be placed on the paved shoulder with a minimum of five traffic drums placed in a taper in front of it to delineate its position. The taper shall meet minimum distance requirements for a shoulder closure. The PCMS shall be protected if it is used for a continuous duration of 36 hours or more.
- 9.d) The PCMS shall be removed from the clear zone and have the display screen cleared and turned 90 degrees away from the roadway when the PCMS is no longer required.
- 9.e) The PCMS should not be used within 1,000 feet of an existing PCMS or Variable Message Sign (VMS).
- 9.f) A PCMS message shall:
 - i. consist of no more than two phases;
 - ii. contain no more than three lines of text per phase;
 - iii. have no more than eight characters per line, including spaces.
- 9.g) The PCMS should be used for specific situations that need to command the motorist's attention which cannot be conveyed with standard construction signs. The PCMS should not be used for generic messages (ex.: Road Work Ahead, Bump Ahead, Gravel Road, etc.) or for messages that need to be displayed for long periods of time, such as during stage construction. These types of messages should be displayed with construction signs. Special signs shall be coordinated with the Office of Construction and the Division of Traffic Engineering for the proper layout/dimensions required.
- 9.h) Typical messages that are allowed on the PCMS are shown below. Approval must be received from the Office of Construction for any message(s) different than the typical messages shown in Figure 1.
- 9.i) All messages shall comply with the information provided in Tables 2 and 3.

	Phase 1	Phase 2	Message No.	Phase 1	Phase 2
1	LEFT LANE CLOSED	MERGE RIGHT	9	LANES CLOSED AHEAD	REDUCE SPEED
2	2 LEFT LANES CLOSED	MERGE RIGHT	10	LANES CLOSED AHEAD	USE CAUTION
3	LEFT LANE CLOSED	REDUCE SPEED	11	EXIT XX CLOSED	USE EXIT YY
4	2 LEFT LANES CLOSED	REDUCE SPEED	12	EXIT XX CLOSED USE YY	FOLLOW DETOUR
5	RIGHT LANE CLOSED	MERGE LEFT	13	2 LANES SHIFT AHEAD	USE CAUTION
6	2 RIGHT LANES CLOSED	MERGE LEFT	14	3 LANES SHIFT AHEAD	USE CAUTION
7	RIGHT LANE CLOSED	REDUCE SPEED			
8	2 RIGHT LANES CLOSED	REDUCE SPEED			

Figure 1: Typical PCMS Messages

Table 2: Acceptable Abbreviations

Word Message	Standard	Word Message	Standard	
<u> </u>	Abbreviation) () ()	Abbreviation	
Access	ACCS	Minimum	MIN	
Afternoon / Evening	PM	Minor	MNR	
Ahead	AHD	Minute(s)	MIN	
Alternate	ALT	Monday	MON	
Avenue	AVE, AV	Morning / Late Night	AM	
Bicycle	BIKE	Mount	MT	
Blocked	BLKD	Mountain	MTN	
Boulevard	BLVD	National	NATL	
Bridge	BR	Normal	NORM	
CB Radio	CB	North	N	
Center	CTR	Northbound	NBND	
Center	CNTR	Oversized	OVRSZ	
Chemical	CHEM	Parking	PKING	
Circle	CIR	Parkway	PKWY	
Compressed Natural Gas	CNG	Pavement	PVMT	
Condition	COND	Pedestrian	PED	
Congested	CONG	Place	PL	
Construction	CONST	Pounds	LBS	
Court	CT	Prepare	PREP	
Crossing	XING	Quality	QLTY	
Crossing (other than highway-rail)	XING	Right	RT	
Downtown	DWNTN	Road	RD	
Drive	DR	Roadwork	RDWK	
East	Е	Route	RT, RTE	
Eastbound	EBND	Saint	ST	
Electric Vehicle	EV	Saturday	SAT	
Emergency	EMER	Service	SERV	
Entrance, Enter	ENT	Shoulder	SHLDR	
Exit	EX	Slippery	SLIP	
Express	EXP	South	S	
Expressway	EXPWY	Southbound	SBND	
Feet	FT	Speed	SPD	
Freeway	FRWY, FWY	State, county, or other	[Route Abbreviation	
Tiechay		non-US or non-Interstate	determined by highway	
		numbered route	agency]**	
Friday	FRI	Street	ST	
Frontage	FRNTG	Sunday	SUN	
Hazardous	HAZ	Telephone	PHONE	
Hazardous Material	HAZMAT	Temporary	TEMP	
High Occupancy Vehicle	HOV	Terrace	TER	
Highway	HWY	Thruway	THWY	
Highway-Rail Grade Crossing	RR XING	Thursday	THURS	

Hospital	HOSP	Tons of Weight	T
Hour(s)	HR, HRS	Traffic	TRAF
Information	INFO	Trail	TR
International	INTL	Travelers	TRVLRS
Interstate	I-	Tuesday	TUES
Junction / Intersection	JCT	Turnpike	TPK
Lane	LN	Two-Way Intersection	2-WAY
Left	LFT	Two-Wheeled Vehicles	CYCLES
Liquid Propane Gas	LP-GAS	Upper	UPR
Local	LOC	US Numbered Route	US
Lower	LWR	Vehicle(s)	VEH, VEHS
Maintenance	MAINT	Warning	WARN
Major	MAJ	Wednesday	WED
Maximum	MAX	West	W
Mile(s)	MI	Westbound	WBND
Miles Per Hour	MPH		

^{**} A space and no dash shall be placed between the abbreviation and the number of the route.

Table 3: Unacceptable Abbreviations

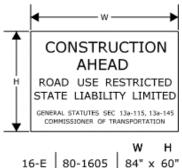
Unacceptable Abbreviation	Intended Word	Common Misinterpretation
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (Merge)
LT	Light (Traffic)	Left
PARK	Parking	Park
POLL	Pollution (Index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
WRNG	Warning	Wrong

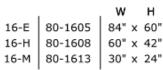
10. Use of State Police Officers

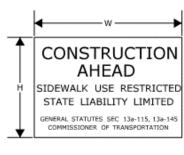
- 10.a) State Police may be used only on limited access highways and secondary roadways that are under their primary jurisdiction. A minimum of one Officer may be used per critical sign pattern; however, a State Police presence is not required. Shoulder closures and right lane closures can generally be implemented without the presence of a State Police Officer. Left lane closures may also be implemented without State Police presence in areas with only moderate traffic and wide, unobstructed medians. It may be desirable to have a State Police presence, when available, under specific situations, such as nighttime lane closures; left lane closures with minimal width for setting up advance signs and staging; lane and shoulder closures on turning roadways/ramps or mainline where sight distance is minimal; and closures where extensive turning movements or traffic congestion regularly occur; however, they are not required.
- 10.b) If a State Police presence is provided, once the pattern is in place, the State Police Officer should be positioned in a non- hazardous location in advance of the pattern to provide advance warning to the motorist. If traffic backs up beyond the beginning of the pattern, then the State Police Officer shall reposition so that they are located prior to the backup. The State Police Officer should not be located immediately behind or within the roll ahead area of any TMA or within the work zone buffer area. The State Police Officer shall not be positioned in such a way that the State Police Officer obstructs any construction warning signs or PCMS from view of the motorist.
- 10.c) Other functions of the State Police Officer(s) may include:
 - i. Assisting construction vehicles entering and exiting the work area.
 - ii. Enforcement of motor vehicle laws within the work area, if specifically requested by the Engineer.
- 10.d) State Police Officers assigned to a work site shall take direction from the Engineer.

Rev. Date 03/19/25











SIGN 16-S SHALL BE USED ON ALL PROJECTS THAT REQUIRE SIDEWALK RECONSTRUCTION OR RESTRICT PEDESTRIAN TRAVEL ON AN EXISTING SIDEWALK.

SERIES 16 SIGNS SHALL BE INSTALLED IN ADVANCE OF THE TRAFFIC CONTROL PATTERNS. SERIES 16 SIGNS SHOULD BE LOCATED TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHOULD BE INSTALLED ON MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED-ACCESS HIGHWAYS, THESE SIGNS SHOULD BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMPS PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.

SIGN 16-E SHALL BE USED ON ALL FREEWAYS AND EXPRESSWAYS.

SIGN 16-H SHALL BE USED ON ALL RAMPS, OTHER STATE ROADWAYS AND MAJOR TOWN/CITY ROADWAYS.

SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.

CONSTRUCTION TRAFFIC CONTROL PLAN

SERIES 16 SIGNS

SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & CONSTRUCTION

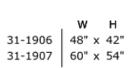
APPROVED

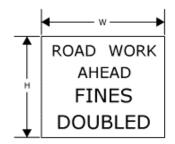
PRINCIPAL ENGINEER
Tracy L. Fagusty, P.E. 2019.10.09 16:20:32-0008

REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

THE REGULATORY SIGN "ROAD WORK AHEAD FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY AND MUNICIPAL ROAD IN CONNECTICUT WHERE THERE ARE WORKERS PRESENT ON THE HIGHWAY.

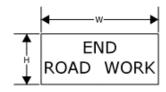
THE "ROAD WORK AHEAD FINES DOUBLED" REGULATORY SIGN SHALL BE PLACED AFTER THE SERIES 16 SIGN AND IN ADVANCE OF THE "ROAD WORK AHEAD" SIGN.





"END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN SHALL BE THE "END ROAD WORK" SIGN.



CONSTRUCTION TRAFFIC CONTROL PLAN
ROAD WORK AHEAD
SIGNS

SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

PRINCIPAL ENGINEER
Tracy L Fogaty, P.E. 2019.08.12 15 54:44 0//07

NOTES FOR TRAFFIC CONTROL PLANS

- IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
- SIGNS (A), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED IN ADVANCE TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
- 3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
- 4. TRAFFIC CONES AND PORTABLE CONSTRUCTION SIGNS SHALL NOT BE LEFT UNATTENDED.
- ALL CONFLICTING SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
- IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 48 HOURS, THEN
 ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED,
 AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS
 SHALL BE INSTALLED.
- DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT

 40 MPH).
- IF THIS PLAN IS TO REMAIN IN OPERATION FROM SUNSET TO SUNRISE, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
- A PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF MILE TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
- 10 SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180'
35	245'
40	320'
45	540'
50	600'
55	660'
65	780'

CONSTRUCTION TRAFFIC CONTROL PLAN

NOTES

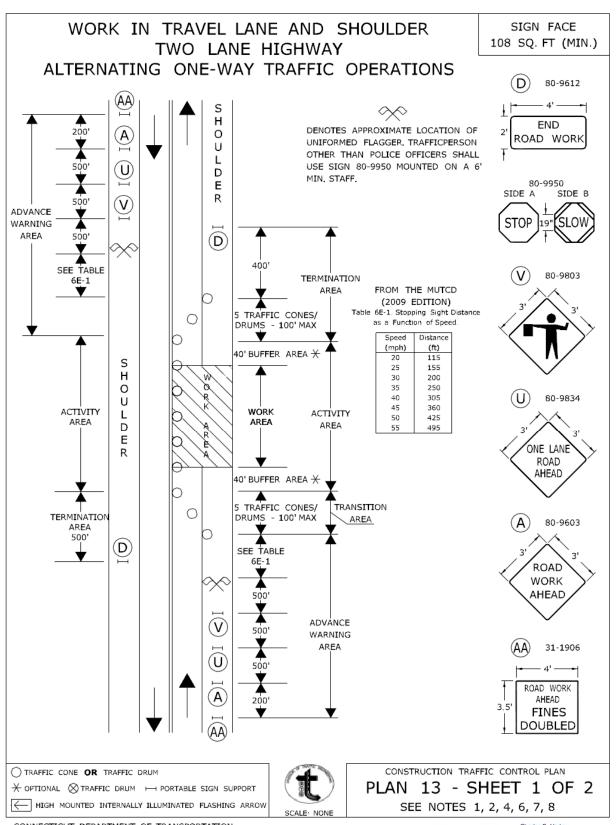
SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Tony of Figure Troy L FOGRIN-P.E. 2019/08:13 0647:47-04'00'

PRINCIPAL ENGINEER



CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:55:23-04'00'

ITEM #0971001A

L148-0003

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



TRAFFIC CONE OR TRAFFIC DRUM

★ OPTIONAL ⊗ TRAFFIC DRUM → PORTABLE SIGN SUPPORT

HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



CONSTRUCTION TRAFFIC CONTROL PLAN

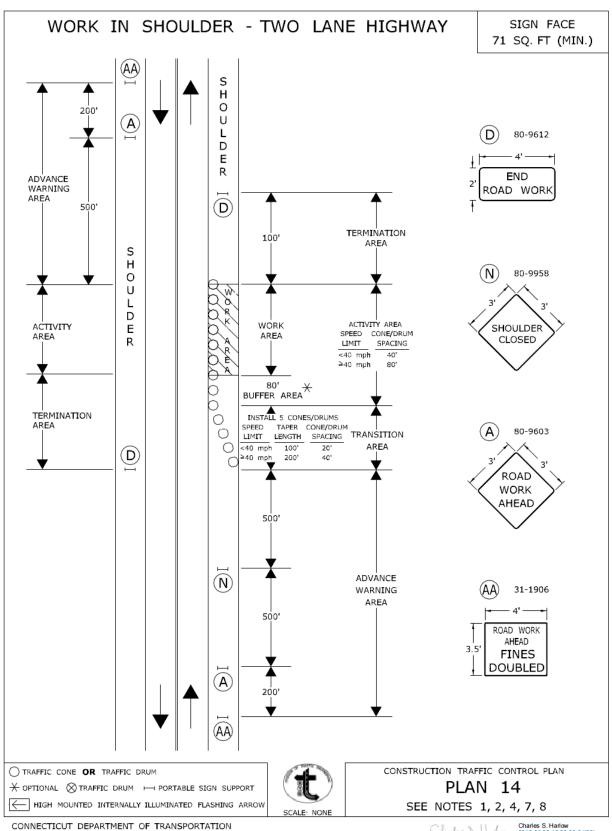
PLAN 13 - SHEET 2 OF 2

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Chille S. LL Charles S. Harlow 2012.06.05 15:55:45-04'00'



BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Chains 8. 11.4—Charles S. Harlow 2012.06.05 15.56:09-04:00'

ITEM #1204122A – PROJECT SIGN

Description:

The work under this item shall consist of furnishing and installing a Local Transportation Capital Improvement Program (LOTCIP) project sign in the location as determined by the Engineer prior to construction and in accordance with the dimensions and details described herein. The final location of the plan shall be approved by the Engineer prior to installation.

Construction Methods:

SIGN PANEL:

Signs should be made from suitable materials to perform effectively for a minimum of 3 years. Example of allowable materials include 3/4" MDO-EXT-APA Plywood or 0.125-gauge sheet aluminum. The following types of materials shall not be used: mesh, non-rigid, roll-up, corrugated or waffle board types substrates, foam core and composite aluminum sign substrates.

Suitable attachments shall be provided so that the signs can be firmly attached to the sign supports without causing damage to the signs.

Signs may be painted or use non-reflective plastic sheeting. Paint shall be extremely durable, high quality, semi-gloss enamel resistant to air, sun and water. Non-reflective plastic sheeting shall be permanently adhered to the backing. The material shall withstand 3 years' vertical, south-facing exterior exposure.

COLORS:

All letters and symbols shall be blue code #0000FF rgb, (0, 0, 255), pantone 294, or approved equal. Background shall be white code #FFFFFF, rgb, (255, 255, 255), or approved equal. If plywood is used for the sign panel, the back of the panel shall be painted matte black.

TYPEFACE: Helvetica Medium

SIGN SUPPORT: Sign panels shall be attached to vertical sign support posts. All sign supports shall have breakaway features that meet AASHTO requirements contained in the current "Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals". The breakaway features shall be structurally adequate to carry the sign panel at 60-mph wind loading. Installation shall be in accordance with the manufacturer's recommendations. A minimum 2-ft embedment depth below the ground line is required.

LOCATION: The signs SHALL be installed parallel to the travelway, so they are NOT

easily viewable by drivers, as the signs are not MUTCD compliant and not

intended to be roadway signs.

L148-0003 ITEM #1204122A The lateral offset from the edge of road to the face of sign should be 6-12 feet. 12 feet is preferred where space is available for installation. When installed on a trail, the lateral offset should be 2 feet.

The bottom of the sign should be mounted 7 feet above the edge of road.

DURATION:

The signs shall be erected for the life of the construction project. This means that they should be erected only after Notice to Proceed has been given to the contractor and should be removed with all other construction related signs at the end of the project considered to be the point that acceptance of the construction work is given.

Method of Measurement:

This work will be measured for payment per each project sign installed complete and to the satisfaction of the Engineer.

Basis of Payment:

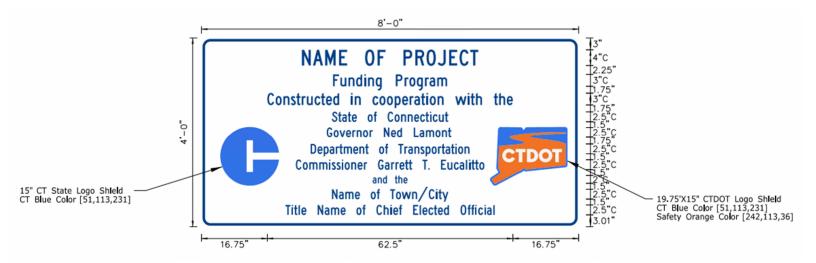
This work will be paid for at the contract unit price bid per each "Project Sign", which shall include all materials, labor and equipment necessary for furnishing and installing the project sign, completed and accepted, as detailed herein.

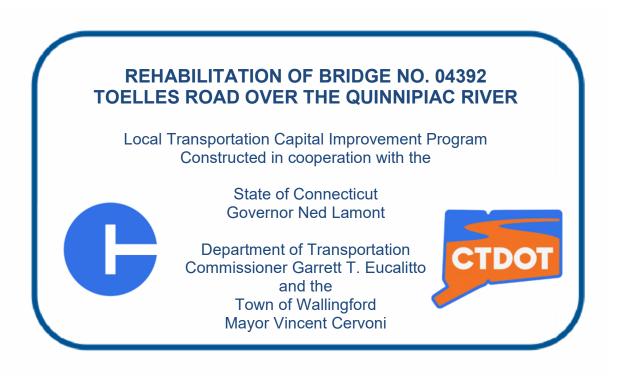
<u>Description</u>

Project Sign

EA

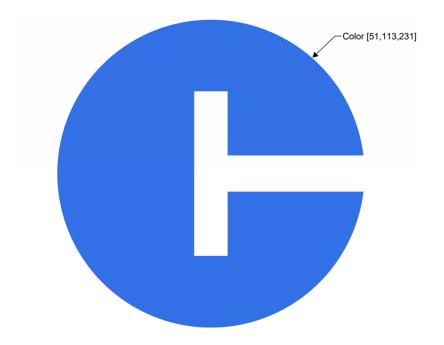
L148-0003 ITEM #1204122A



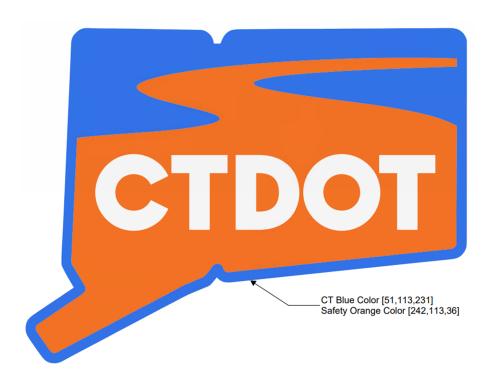


L148-0003 ITEM #1204122A

$\underline{\mathsf{STATE}}\ \underline{\mathsf{SEAL}}$



CTDOT LOGO



L148-0003 ITEM #1204122A

ATTACHMENT A Permits



DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT NEW ENGLAND DISTRICT OFFICE 696 VIRGINIA ROAD CONCORD MASSACHUSETTS 01742-2751

November 6, 2025

Regulatory Division
Connecticut & Rhode Island Section

Alison Kapushinski Town of Wallingford 45 South main Street Wallingford, CT 06492

Via Email: a.kapushinski@wallingfordct.gov

Dear Ms. Kapushinski:

This letter is in response to the application you submitted to the U.S. Army Corps of Engineers (USACE), New England District on June 26, 2025, and additional information received July 31, August 20, 27, and September 12, 2025, for a Department of the Army general permit verification. We have assigned this project file number NAE-2025-01520, which you should reference in all correspondence with this office.

A review of the information provided indicates the proposed work would include temporary and permanent discharge of fill material below the ordinary high water mark to construct a cofferdam and place riprap associated with bank and abutment protection for a bridge on the Quinnipiac River in New Haven County, Connecticut (N 41.432642°, W -72.850857°). The proposed project would discharge fill material within approximately 100 square feet of waters of the United States. The work is shown on the enclosed plan sheets, numbering 2 pages, dated August 25, 2021.

Based on the information you have provided, we verify that the activity is authorized under General Permit, RGP 2 for maintenance of an existing currently serviceable structure, of the May 6, 2022, federal permit known as the Connecticut General Permits (GPs). If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised application must be submitted to this office for written approval before work is initiated.

Any deviation from the terms and conditions of the permit, or your submitted plans, may subject the permittee to the enforcement provisions of our regulations. Therefore, in the event changes to this project are contemplated, it is recommended you coordinate with this office prior to proceeding with the work. This office must approve any changes before you undertake them. You must perform this work in compliance with the terms and conditions of the GPs listed above, and also in compliance with the following special conditions:

Project Specific Special Conditions:

- 1. The permittee shall complete and return the enclosed Work-Start Notification Form to this office at least two weeks prior to the anticipated construction start date.
- The permittee shall complete and return the enclosed Completion Certification Form to this office at least one month following the completion of the authorized work.
- 3. You must maintain the activity herein in good condition and in conformance with the terms and conditions of this authorization. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with a general condition of these GPs. Should you wish to cease to maintain the authorized activities, or should you desire to abandon it without a good faith transfer, you must obtain a modification of this authorization from this office, which may require restoration of the area.
- 4. All construction shall be completed in accordance with the limits of construction and construction sequences detailed on the <u>enclosed plans</u>, <u>numbering 2 pages</u>, <u>dated August 25, 2021</u>. If you change the plans or construction methods for work within Quinnipiac River at N 41.432642°, W -72.850857°, please contact us immediately to discuss modification of this authorization. The USACE must approve any changes before you undertake them.

This verification is valid until December 15, 2026. You must commence or be under contract to commence the work authorized herein by December 15, 2026 and complete the work by December 15, 2027 (ONE YEAR AFTER VERIFICATION EXPIRATION). If not, you must contact this office to determine the need for further authorization before beginning or continuing the activity. It is recommended that you contact this office before this authorization expires to discuss if permit reissuance is a possibility.

This GP verification and any associated authorizations does not preclude the necessity to obtain any other federal, state, or local permits, licenses, and/or certifications, which may be required.

This determination becomes valid only after the Connecticut Department of Energy & Environmental Protection (DEEP) issues or waives the following applicable State permits: Certificate of Permission (COP); General Permit (LIS-GP); Tidal Wetlands Permit; Structures and Dredging and Filling Permit; Water Quality Certification (WQC) as required under Section 401 of the Clean Water Act; and/or a Section 307 Coastal Zone Management Act consistency determination. In the event the DEEP denies any of these permits, this determination becomes null and void. The address of the DEEP office for your area is provided in the enclosed GP.

If you have any questions related to this verification or have issues accessing documents referenced in this letter, please contact Brian Bartels, project manager at <u>316-617-9534</u>, or by email at <u>brian.c.bartels@usace.army.mil</u>. This agency continually strives to improve our customer service. To better serve you, please complete the <u>Customer Service Survey</u>.

Sincerely,

Jon T. Coleman Team Lead

Technical Regional Execution Center North Atlantic Division

Enclosures

Cc (w/enclosures):

Emina Puskarevic, Al Engineers (via epuskarevic@aiengineers.com)

Work-Start Notification Form

File Number: NAE-2025-01520 State: Connecticut County: New Haven

Permittee: Town of Wallingford, Alison Kapushinski

Date Verification Issued: 11/6/2025 Project Manager: Brian Bartels

At least two weeks prior to commencing the activity authorized by this permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS
New England District
Attn: Brian Bartels
696 VIRGINIA ROAD
CONCORD, MA 01742-2751
or
brian.c.bartels@usace.army.mil
316-617-9534

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers (USACE) representative. Failure to comply with any terms or conditions of this authorization may result in the USACE suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

The people (e.g. contractor) listed below will do the work, and they understand the permit's conditions and limitations.

Contractor Name/Contractor Firm: _ Business Address:	
Contractor Phone and Email:	
Proposed Construction Dates: Sta	art: Finish:
Signature of Permittee	 Date

U.S. Army Corps of Engineers (USACE)

CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT

For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.

Form Approved -OMB No. 0710-0003 Expires 2027-10-31

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0003, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PURPOSE: This form is used by recipients of U.S. Army Corps of Engineer Regulatory permits to certify compliance with the permit terms and conditions.

Your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, New England District, Regulatory Office.

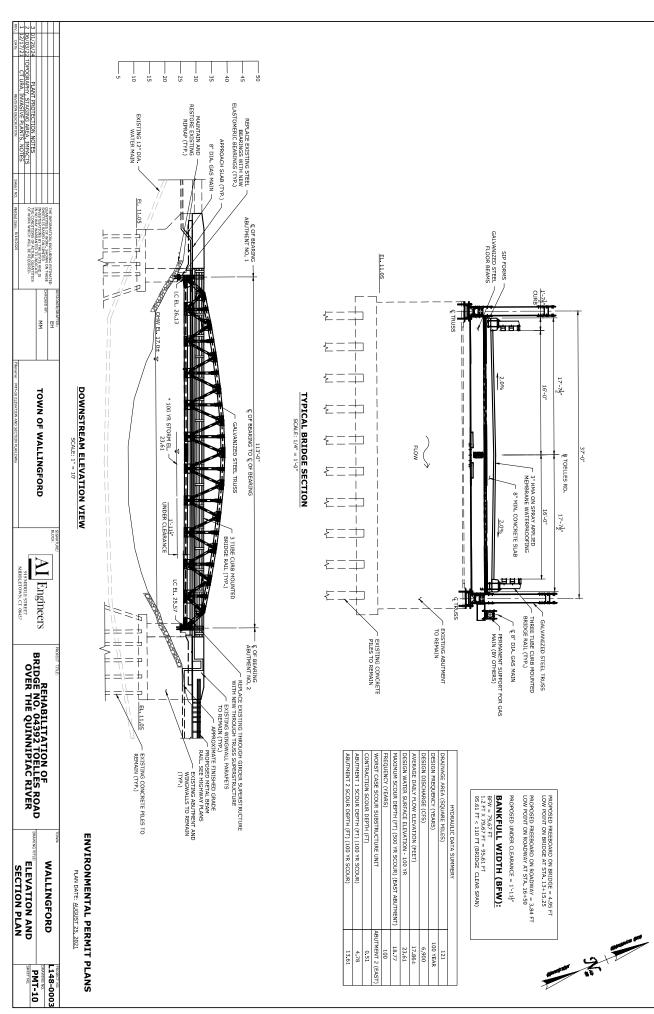
The certification can be submitted by email at birde-nc-bartels@usace.army.mil or by mail at the below address:

U.S. Army Corps of Engineers
New England District Office

Street Address: 696 Virginia Road

City: Concord State: Massachusetts Zip Code: 01742-2751

COMPLETED BY THE CORPS					
Corps Action Number:	NAE-202	5-01520			
Permit Type: General Permit					
General Permit Number and Name (if applicable):	02 for maintenance of a currently serviceable structure				
Name of Permittee:	Alison Kapushinski				
Project Name:	Town of Wallingford, CT				
Project Location (physical address):	N 41.432642°, W 72.850857°				
Wallingford, Connecticut					
	PERMITTEE'S CERTIFICATION				
Date Work Started:					
Date Work Completed:					
Enclose photographs showing the completed project (if available).					
I hereby certify the with all of the permit terms and conditions, and that any conditions.		•	above referenced permit has beer ation has been completed in acco	·	
Name		Date	Signature		





JAMES E. VITALI

ERIN O'HARE

ENVIRONMENTAL AND NATURAL RESOURCES PLANNER

WALLINGFORD TOWN HALL 45 SOUTH MAIN STREET WALLINGFORD, CT 06492 TELEPHONE (203) 294-2093 FAX (203) 294-2095

CERTIFIED LETTER # 7021 0950 0000 4590 8383

October 25, 2021

Town of Wallingford c/o/ Engineering Department 45 South Main Street Wallingford, CT 06492

Re: IWWC #A21-7.4 / Toelles Road - Quinnipiac River - Town of Wallingford - (bridge superstructure replacement & substructure maintenance)

NOTICE OF DECISION

To Whom It May Concern:

Pursuant to Section 22a-42a (d) (1) of the Connecticut General Statutes and Section 11 of the Inland Wetlands and Watercourses Regulations of the Town of Wallingford, as amended, the Wallingford Inland Wetlands and Watercourses Commission, at its Regular Meeting, June 5, 2019, voted to:

- Declare IWWC #A21-7.4 / Toelles Road Quinnipiac River Town of Wallingford (bridge superstructure replacement & substructure maintenance) not a Significant Impact activity; and voted to:
- Approve IWWC #A21-7.4 / Toelles Road Quinnipiac River Town of Wallingford
 - (bridge superstructure replacement & substructure maintenance) with conditions,
 outlined in the Environmental Planner's Report dated October 6, 2021 (see
 conditions listed below), relative to bridge work as per the following submittals:
 - Application form; dated 7/13/21; submitted 7/14/21, with attached documents, including soils report, floodplain information, flood contingency planning
 - Site plan set, "Environmental Permit Plans Replacement of Bridge No. 04392
 Over the Quinnipiac River in the Town of Wallingford"; prepared by AI Engineers; dated Aug. 25, 2021; submitted Aug. 27, 2021
 - Letter to Erin O'Hare, Environmental Planner, from Alison Kapushinski, Town Engineer, re: IWWC #A21-7.4; dated Aug. 27, 2021
 - 'Preliminary Hydraulic and Scour Report Replacement of Bridge No. 04392", prepared by AI Engineers; dated 6/27/21; submitted 7/14/21
 - Natural Diversity Database report; prepared by REMA Ecological Services, LLC; dated 8/9/21; submitted 8/11/21
 - "Town of Wallingford IWWC Permit Meeting Rehabilitation of Bridge No. 04392 – Toelles Road Over the Quinnipiac River, Wallingford, CT" (PowerPoint presentation); prepared by AI Engineers; document copy of presentation at IWWC Regular Meeting on Oct. 6, 2021; copy submitted 10/7/21

Conditions of Approval are as follows:

Per Environmental Planner's Report dated October 6, 2021:

- Final revised documents to be submitted to the Environmental Planner within one month
 of approval. Plans shall depict URA boundary, activities within URA and associated
 impact figures, topography of river bank in vicinity of access drive terminus, grading for
 access drive, completed wetlands boundary in vicinity of northeast side of bridge, and
 property information for abutters. Report documents shall be revised to include updated
 figures, etc.
- 2. Copies of the Sediment & Erosion Control Plan, Water-Handling Plan, Dewatering Plan, and Flood Contingency Plan, to be prepared by Contractor (per Application Report detailed requirements, pages 16 & 17), to be submitted to Environmental Planner for review and for the file.
- 3. Work activities to be conducted in low-flow period from July 1 to Sept. 30.
- 4. Environmental Planner is to be notified two weeks from expected start date for the Project.
- 5. Erosion control measures are installed and installation inspected by the Environmental Planner for adequacy prior to any further work on the site.
- 6. Those portions of the access drive to be removed shall be stabilized with straw mulch and seeded with appropriate type of conservation mix.
- 7. Invasive plants (Mugwort and Japanese knotweed) located in the northeast, northwest and southeast quadrants of the Project Area to be eradicated during the Construction Phase.
- 8. The temporary access is allowed to remain a permanent access with graveled improvements to remain in that area of the access drive located <u>above</u> the Floodway boundary. Proposal at the request of the Rivers Advocates (letter dated 9/30/21; submitted 10/01/21). The Town Engineer and the Water Division approved this proposal in concept. A proper easement will need to be obtained by Rivers Advocates from the owner the 39 Toelles Road property for this gated access.

Commencement Date and Duration of Permit

You may commence once all permits are obtained and conditions of approval are satisfied. You are hereby advised that the permit shall be valid for five years.

Giving Notice

The Permittee shall notify the Environmental Planning office (203-294-2093) prior to the commencement of work and also upon completion of work to allow for a timely final inspection. In addition, the Permittee shall immediately inform the IWWC of any problems involving wetlands or watercourses which have developed in the course of, or which are caused by, the authorized work.

Erosion Control Measures

Erosion and sedimentation control measures, as stipulated in the plan approved, must be in place and meet with the approval of the Environmental Planner prior any site disturbance and prior to commencement of any work on the property including grading and any disturbance of the soil. Timely implementation and maintenance of sediment and erosion control measures are a condition of this permit. All sediment and erosion control measures must be maintained until all

disturbed areas are stabilized. Activity beyond the limits of the silt fencing installed is not permitted. Removal or relocation of the silt fencing installation will be treated as a violation of the permit.

Best Management Practices

The Permittee shall employ Best Management Practices, consistent with the terms and conditions of this permit, to control storm water discharges and to prevent erosion and sedimentation and to otherwise prevent pollution of wetlands or watercourses. For information and technical assistance, contact the Environmental Planner (203-294-2093) or the IWWC.

Storage of Equipment or Material

No equipment or material including without limitation, fill, construction materials, or debris, shall be deposited, placed, or stored in any wetland or watercourse on or off-site unless specifically authorized by this permit.

Terms and Conditions Agreement

All work and all regulated activities conducted pursuant to this authorization shall be consistent with the terms and conditions of this permit. Any structures, excavation, fill obstructions, encroachments or regulated activities not specifically identified and authorized herein shall constitute a violation of this permit and may result in its modification, suspension or revocation. Upon initiation of the activities authorized herein, the Permittee thereby accepts and agrees to comply with the terms and conditions of this permit. In evaluation of this application, the IWWC has relied on information provided by the Applicant and, if such information subsequently proves to be false, deceptive, incomplete and/or inaccurate, this permit shall be modified, suspended, or revoked.

Property Rights

This permit is subject to and does not derogate any present or future property rights or other rights or powers of the Town of Wallingford, and conveys no property rights in real estate of material or any exclusive privileges, and is further subject to any and all regulations pertinent to the property or activity affected hereby.

Transfer of Property

Should the property be transferred prior to commencement of approved activity, or during work activities, the permit must be transferred and, as per Section 11.9.e., written consent of the Commission is required for transfer of the permit.

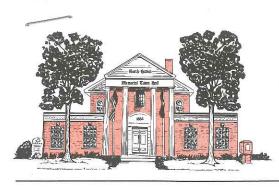
For further information regarding this matter you may contact the Environmental Planner at (203) 294-2093.

Very truly yours.

∕a∕es∕ Ε. Vitali, Chairman,

Inland Wetlands and Watercourses Commission

CC: Alison Kapushinksi, Town Engineer



TOWN OF NORTH HAVEN

MEMORIAL TOWN HALL / 18 CHURCH STREET NORTH HAVEN, CONNECTICUT 06473



REPLY TO:

Land Use Office Inland Wetlands Commission Tel. (203) 239-5321 Fax (203) 234-2130

15 September 2021

Ms. Alison Kapushinski Town of Wallingford 45 South Main Street Wallingford, CT 06492

RE: #I21-08 Application of the Town of Wallingford, Applicant & Owner, relative to the Toelles Road Bridge over the Quinnipiac River, seeking a Permit to Conduct Regulated Activity. Plan Entitled: Replacement of Bridge No. 04392 over the Quinnipiac River in the Town of Wallingford, Connecticut. Prepared by: AI Engineers. Dated: 4/23/2021. Scale: 1"=20'. R-20 Zoning District.

Dear Ms. Kapushinski,

Please be advised that during the deliberation session of the Inland Wetlands Commission meeting held on Wednesday, August 25, 2021, the Commission voted to approve the above referenced application subject to the following conditions:

- 1. Submit revised plans which include:
 - a. A note indicating "Inland Wetlands Application #I21-08, Permit to Conduct Regulated Activity".
 - b. Horizontal and vertical limits of the proposed temporary cofferdam on the bridge elevation.
 - c. A plan for the removal of all mugwort and knotweed in the project area.
- 2. Soil and erosion controls must be inspected by the Zoning Enforcement Officer before work may commence.

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3. The owner must maintain (repair/replace when necessary) the siltation control until all regulated activity is completed and all disturbed areas are permanently stabilized.

Unless all conditions of approval as set forth above are addressed, this approval will expire on September 3, 2022. The Commission may grant no more than two (2) six (6) month extensions to the approval.

Please note that one (1) set of revised drawings should be submitted for review after all outstanding issues (conditions of approval as set forth above), are adequately addressed. If there are any questions relative to the conditions of approval, please call the Town prior to submitting the revised plans. This will avoid costly and time consuming revisions and reviews, therefore expediting the process for you as the applicant.

This approval is subject to compliance with any and all Inland Wetlands Regulations of the Town of North Haven.

Very truly yours,

Frank H. Bumsted, Chairman Inland Wetlands Commission

FHB/pm

cc: First Selectman



TOWN OF NORTH HAVEN

MEMORIAL TOWN HALL / 18 CHURCH STREET NORTH HAVEN, CONNECTICUT 06473



REPLY TO:

Tel. (203) 239-5321 Fax (203) 234-2130

PLANNING & ZONING COMMISSION

13 October 2021

Application of the Town of North Haven for the replacement of the Toelles Road RE: #P21-25 Bridge over the Quinnipiac River.

I, Alan A. Fredricksen, Land Use Administrator to the Planning & Zoning Commission of the Town of North Haven, Connecticut, hereby certify: at a duly called meeting of the Commission, held on Monday, October 4, 2021, the following motion was introduced by Mrs. Ranciato-Viele and seconded by Mr. Giulietti. The motion was to approve application #P21-25 - Section 8-24 Referral - Application of the Town of North Haven for the replacement of the Toelles Road Bridge over the Quinnipiac River.

RESOLVED: that the Planning & Zoning Commission of the Town of North Haven approves the following pursuant to Section 8-24 of the General Statutes of Connecticut:

A positive referral for the Application of the Town of North Haven for the replacement of the Toelles Road Bridge over the Quinnipiac River.

Members Voted: Carlson – yes

Cummings – yes

Giulietti – yes

Ranciato-Viele - yes

Williams - yes

Dated this 13th day of October 2021

Respect

Alan A. Fredricksen

Land Use Administrator

AAF/pm

cc: First Selectman

CERTIFIED MAIL RETURN RECEIPT



STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546 Phone: (860) 594-2157

This section to be filled out by DOT OEP Staff: **OEP STAFF: Andrew Davis** DATE SENT TO DEEP FISHERIES: 9/27/2022 **SUBJECT: Toelles Road over Quinnipiac River Type of Permit: △**1. **DOT** Culvert/Bridge Projects Project#: L148-0003 ☐ 2. Diversion ☐ 3. PGP/Inland Wetland Bridge#: 04392 ☐ 4. Water Quality Certification **Applicant: Wallingford** Town: Wallingford Lat/Long: 41.432652/-72.85087 **Waters: Quinnipiac River Sub Regional Basin #:**

Project Scope: The purpose of the project is to replace the deck and superstructure of the existing Toelles Road Bridge over the Quinnipiac River on the Wallingford/North Haven line.

MUST SUBMIT PLANS AND PICTURES WITH THIS FORM. If unable to include please explain: LOTCIP Application is attached to this email which has all the project information.

This section to be filled out by DEEP Fisheries Staff:

FISHERIES REVIEWER: Bruce Williams

DATE SUBMITTED TO OEP: 09/28/22

Fisheries Resources: The Quinnipiac River in Wallingford supports a diverse fish community, including populations of diadromous fish including Alewife, American Eel, American Shad, Blueback Herring, Sea Lamprey, Striped Bass, and White Perch. These species are passed, and their numbers are documented by the DEEP Fisheries Division at the Harry O. Haakonsen fishway, located approximately 2.5 miles upstream from the site. Federally endangered Atlantic Sturgeon may also be seasonally present in this stretch of the river from May to November.



STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546 Phone: (860) 594-2157

Coldwater stream / fisheries present: $\Box 1$. YES $\boxtimes 2$. NO

Comments/Recommendations: No in-water work is planned at this site, but to protect diadromous fish during their spring migration the Fisheries Division makes the following recommendations:

- 1. Many species of diadromous fish migrate at night and bright artificial lights may interfere with their migration. During the spring migration period from April 1 to June 30, artificial lighting for construction related activities should not be directed on to the water surface.
- 2. Loud construction activities like jack hammering may also interfere with fish migrations and should be prohibited from sunset to sunrise from April 1 to June 30, inclusive. Loud construction noises are defined as those exceeding 90 decibels, as measured at the water's surface at the point closest to the source of the noise.
- 3. No construction materials should be allowed to fall into the water and every effort should be made to retrieve any materials that do.

 \square No DEEP Fisheries Concerns

CC. Peter Aarrestad, Director, DEEP Fisheries Division



December 1, 2024

Michael Greer A I Engineers 919 Middle Street Middletown, CT 06457 mgreer@aiengineers.com

Project: Rehabilitation of Bridge 04392 Toelles Road over Quinnipiac River in Wallingford, Connecticut

NDDB Portal Filing No.: 111210

NDDB Final Determination No.: 202406358 (Revised)

Expiration Date: December 1, 2026

Dear Michael Greer,

I have re-reviewed Natural Diversity Database maps and files regarding the area delineated on the map provided for a Rehabilitation of Bridge No. 04932, Toelles Road over Quinnipiac River in Wallingford, Connecticut. According to our records there are known extant populations of State Endangered Floerkea proserpinacoides (False mermaidweed) from this project property. We also have current extant records of State Special Concern Glyptemys insculpta (Wood turtle), Terrapene c. carolina (Eastern box turtle) and Clemmys gutatta (Spotted turtle) in the vicinity of this proposed project as well as fish. I have outlined protection measures below.

Floerkea proserpinacoides (False mermaid-weed)

State Status: Endangered

Habitat: Damp, shaded, alluvial woods; early, spring-flooding stream bottoms

Blooms: April and May

Wood turtle require riparian habitats bordered by floodplain, woodland or meadows. They hibernate in the banks of the river in submerged tree roots. Their summer habitat includes pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. This species has been negatively impacted by the loss of suitable habitat.

Eastern box turtle are found in well-drained forest bottomlands and a matrix of open deciduous forests, early successional habitats, fields, gravel pits and powerlines. They are dormant between November 1st and April 1st in only a few inches from the surface in forested habitat.

Spotted turtle are associated with wetland and vernal pools. Over the course of a season and lifetime, individuals will travel large distances (up to 1km) over upland forest and fields between multiple wetlands.

Required Turtle Protection

We received Final Report Wood Turtle Habitat Assessment and Protection Measures Project: Rehabilitation of Bridge 04392 Toelles Road over Quinnipiac River in Wallingford, Connecticut developed by Dennis P. Quinn of Quinn Ecological, LLC and received by the NDDB Program on November 22, 2024. The report is accepted and the NDDB Program concurs with the protection measures. The NDDB Program does not anticipate adverse impacts to State Listed Turtle Species listed above, if the following protection protocols are implemented. Pre-construction Protection Measures:

- 1. To reduce impacts to potentially hibernating wood turtles, the commencement of construction activities should begin during the active season to allow for pre-construction turtle sweeps. Because wood turtles hibernate in deep pools, log jams, and undercut riverbanks, detection of this species during the inactive season is difficult.
- 2. To reduce impacts to hibernacula, no clearing of trees or root tangles which may serve as hibernacula habitat should be removed. In cases where these trees need to be removed for accessibility of construction equipment, a herpetologist should be on site to monitor the removal process. The root bundles of these trees







should be left intact and not removed from the riverbank. A pre-construction meeting with the engineer and construction firm should occur with a herpetologist to flag all trees and/or root bundles that should remain intact. This meeting should also have an educational portion to familiarizes engineers, environmental monitors, and construction personnel to the presence of listed turtle species, their sensitive nature, identifying characteristics, and protection status in the state.

3. The existing terrestrial passage corridor under bridge 04392 should remain intact in the new design plans to allow for linear movements of turtles and other wildlife species (Figure 2e).

Construction Protection Measures:

- Hire a qualified herpetologist to be on site to ensure these protection guidelines remain in effect and prevent turtles and their habitats from being impacted during construction activities. This is especially important during the months of March through June when turtles are actively moving within the river (March and April) and selecting nesting sites (May and June) across the larger landscape.
- No in-stream work should occur in the Quinnipiac River between November 1st and April 1st while wood turtles are in their over-wintering hibernacula.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance to the greatest extent possible. All exclusionary fencing should be inspected by a qualified herpetologist prior to the commencement of construction activities (including clearing and grubbing).
- Exclusionary fencing must be at least 20 in tall and buried to 6-inches or secured to and remain in contact with the ground and be inspected and maintained daily by construction personnel to secure any gaps or openings at ground level that may let animal pass through. Do not use plastic or netted silt-fence.
- A qualified herpetologist should inspect the exclusionary barrier on a weekly basis to ensure it is being appropriately maintained.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed and swept for individual turtles and blocked with exclusionary silt fence to prevent turtle's re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species descriptions and the possible presence of listed species and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals. A relocation plan should be discussed in detail with all construction personnel prior to the commencement of construction. No turtles should be relocated without prior coordination with a qualified herpetologist.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access points. No turtles should be relocated without prior coordination with a qualified herpetologist.
- In areas where silt fence is used for exclusion, it shall be removed as soon as construction is completed, and the area is stable to allow for wildlife passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitats blocked off with exclusionary silt fence.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows, floodplain forests, and seasonal pools.
- The Contractor and/or consulting herpetologist must search the work area each morning prior to any work being done. When falling trees adjacent to the Quinnipiac River, cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.

- Limit to the greatest extent possible any equipment used within 100 feet of the river when not required.
- Any confirmed sightings of wood, box, or spotted turtles should be reported and documented with the NDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641). All species documented by the contractor should be photographed if possible and immediately shared with a qualified herpetologist to discuss the appropriate relocation measures.

Plant Protection

We reviewed this project in NDDB 202100262 and NDDB 202207775 and identified the State Endangered *Floerkea proserpinacoides* from this project site. We received the <u>Listed Species Survey Report for Floerkea proserpinacoides</u> for the project area prepared by REMA Ecological Services and dated August 9, 2021. The results of the survey were acceptable with respect to the identification and mapping of Endangered *Floerkea proserpinacoides*. However, we did not concur with the conclusion that "the project does not pose a short- or long-term threat to the targeted plant species". The plants are immediately adjacent to the bridge structure. This is a very tight clearance for a major construction project. These subpopulations are also immediately adjacent to steep slopes running down from bridge abutment area, and therefore at risk from sedimentation impacts if erosion control is not installed correctly and maintained, and ultimately fails. In addition, it appears, after looking at the project area on the maps and the REMA narrative on these occurrences, that all of the *Floerkea proserpinacoides* populations may be located in the "cleared and grubbed" area, and subject to adverse impacts from this bridge project.

For the above reasons we determined that this project would have a **direct adverse impact** on the overall State Endangered *Floerkea proserpinacoides* plant population at this location.

In order to prevent adverse impacts to State Endangered *Floerkea proserpinacoides* a complete protection and mitigation plan for the project site was required to be developed and sent to the NDDB Program before the NDDB Program would be able to provide a final determination on this project.

We received a 2024 email on May 31, 2024, focusing and summarizing the results of Tighe & Bond field survey for the *Floerkea proserpinacoides* developed by Richard Caravan. The field delineations from 2024 were provided in summary and a map was also provided of the locations. We received a <u>Toelles Road Bridge Rehabilitation (Bridge 04392) Plant Protection and Conservation Plan</u> dated October 12, 2023, and revised on April 2, 2024, developed by Richard Canavan. The protection plan was accepted and we concur with the plant protection protocols for the endangered *Floerkea proserpinacoides* known from this project site. The protection protocols are taken from the plan and listed below. If these protocols are followed we do not anticipate adverse impacts to the State Endangered *Floerkea proserpinacoides* known to occur in this project area.

Pre-Construction Plant Survey

- 1. A qualified botanist, which will be referred to as the 'Project Botanist' in this Plan, will conduct a spring (Apr 15 May 15) survey. The Town of Wallingford will confirm the Project Botanist's qualifications with NDDB prior to survey work. The Project Botanist will map any changes to the location and extent of Floerkea proserpinacoides in the Project area. The Project Botanist shall assess the population numbers of Floerkea proserpinacoides individual plants at each location where it is found. The Project Botanist shall submit a report of the survey findings to NDDB prior to the commencement of construction.
- 2. The Project Botanist assess any impacts to *Floerkea proserpinacoides* as part of the spring survey. It is expected that the Project will be completed within a single growing season.
- 3. If the Project construction is extended beyond a single growing season, then a new survey will be required each spring (April 15 May 15). The spring survey results will inform the Project design where plant protection fencing should be installed or relocated.
- 4. This temporary fencing, which is typically orange construction fence stapled to wooden stakes, should be visible for construction workers to avoid sensitive areas. Protection fencing should be installed at the limits of Project work north and south of the abutment on the west side of the Quinnipiac River and at the

southern limit of the staging area. This temporary fencing must be kept in good repair for the duration of the Project. Fencing should be installed between the work area and outer limit of plants to avoid debris trapping in high river stage and the fencing from damaging plants.

- 5. The Project Botanist will meet with the Project Erosion and Sedimentation (E&S) Control Monitor to review plant locations and habitat conditions.
- 6. The Project Botanist will make the monitor(s) aware of the plant and its habitat at the site prior to Project work activities. The Project E&S Control Monitor must make sure that E&S controls are well-maintained and eroded sediment is prevented from being deposited in *Floerkea proserpinacoides* areas.
- 7. If there are incursions of workers, equipment, or eroded sediment into any Floerkea proserpinacoides area, construction must be halted until the Project Botanist assesses the impacts to the Floerkea proserpinacoides habitat and population, develops recommendations for correcting and/or mitigating those impacts, and a report submitted to NDDB for our biologists' review. Upon our approval, correcting and/or mitigating measures should be implemented, and their implementation documented, and that documentation submitted to NDDB. Then construction may resume.

Bridge Superstructure Demolition

Shielding is placed under a bridge structure during demolition to contain debris so it does not fall into the river below the bridge. It is anticipated that shielding would be installed from the bridge itself and not require access from land adjacent to the bridge. The shielding installation and eventual riprap installation may also require a floating work platform. This installation method will avoid ground disturbance and is discussed in greater detail in the Floating Work Platform section. Installing shielding will protect areas outside of the existing structure and will avoid ground disturbance. The shielding will prevent impacts to *Floerkea proserpinacoides* during the demolition phase of the Project.

The following Plan condition is included to address the demolition phase of the rehabilitation Project:

Shielding will be installed below the bridge prior to demolition to contain debris and prevent material from falling into the river or land under and adjacent to the bridge. Shielding installation will be from the bridge deck and/or using a floating work platform. No equipment will be placed on land adjacent to the bridge and no ground disturbance will occur for shielding installation.

Temporary Gas Line

A temporary gas line will be installed to maintain service during demolition and construction. This gas line will be supported on a separate temporary span downstream of the bridge. The temporary span and gas line will be supported by temporary concrete block foundations on either side of the Quinnipiac River south of the bridge abutments. The construction of the temporary span foundation will require equipment access near the temporary span foundations and ground disturbance to construct the temporary span support structure. The locations for the temporary supports are constrained by the location of the existing gas main, an existing water line, and sheeting installed during the initial construction of the road bridge. The temporary gas line installation will avoid or minimize impacts to *Floerkea proserpinacoides* by implementing the following avoidance measures:

- Reviewing the field mapping and protective fencing for protected plants prior to construction. Modifying the design of the temporary span to avoid F*loerkea proserpinacoides*.
- Minimizing ground disturbance to access the existing gas line at the approach to the bridge to provide the temporary footing.
- Placing E&S control barriers at the limit of ground disturbance required for the connect to the existing underground gas main and support footings.
- Placing E&S control barriers at the limit of trenching ground disturbance required for to the connect to the existing underground gas main and support footings.
- Placing the concrete blocks and span materials using equipment stationed on the bridge, roadway approaches, or contractor staging area to avoid ground disturbance.

The avoidance approach for the temporary gas line is included in the following Plan condition:

- 1. Avoid ground disturbance below elevation 20 feet and in mapped protected plant areas while installing the temporary gas main. Install erosion and sedimentation controls at the downslope limit of trenching for temporary line connection to the existing line in the approach roadways and below grading necessary to construct the footings for the temporary span support. I
- 2. Maintain E&S controls when the temporary gas mains are removed. Seed disturbed soils with annual rye after the installation of the temporary span to stabilize disturbed areas while the road bridge construction is ongoing. Coordination is required between gas line and bridge contractors to ensure adjacent activities, such as the installation of the coffer dam and the temporary gas line supports, do not create conflicts or extend into plant habitat areas.

Floating Work Platform A contractor may wish to use a floating work platform for accessing the bridge during some portions of the work. Using a platform can provide access under the bridge that might otherwise occur from the riverbank.

The following Plan condition addresses the placement, use, storage, and removal of a float to avoid disturbance to the riverbanks:

• A temporary floating work platform may be used for tasks including the installation and removal of shielding, or the placement of riprap. The launching, use, and retrieval of a float should be made from the bridge deck to avoid riverbank disturbances or from areas where no protected plants were mapped. During use and storage, secure the float so that it does not contact the riverbed material and cause sediment resuspension. The float may be grounded on the cofferdam or riprap if doing so will not impact the cofferdam.

Riprap Placement: The Project includes riprap restoration at the abutment faces along the Quinnipiac River and along the edge of the abutments parallel to Toelles Road. This riprap placement was part of the original design of the abutments and is included for scour protection.

Avoidance measures at the wingwalls and abutments will include the following Plan conditions during riprap placement:

- ✓ Review the mapped locations of *Floerkea proserpinacoides* prior to installing cofferdam components and riprap. If *Floerkea proserpinacoides* is present near proposed riprap placement at the wingwalls, reduce riprap placement to 10 feet from the wall face on the upstream face and 5 feet from the wall face on the downstream face. If *Floerkea proserpinacoides* is present in areas that require riprap placement for scour protection, then delay riprap placement over plants until June 15th .
- ✓ Install coffer dam components, such as sandbags, before riprap placement. Install cofferdam from the roadway, bridge deck, or barge. Place the riprap in the area protected by the coffer dams as shown on the plans while avoiding ground disturbance in areas outside of the area protected by coffer dams. Remove the cofferdam after riprap placement is completed and ensure that riprap remains in place during cofferdam removal. Maintain plant protection fencing until work is completed.

Access Road and Staging Area: The Project design includes a new construction access road and staging area southeast of the bridge. This proposed disturbance ensures that an additional area for staging and operating a crane is available, if necessary. The proposed staging area does not include any areas of previously identified *Floerkea proserpinacoides*. The proposed grading for the access and staging area is confined by an E&S barrier. This barrier will help avoid disturbing habitat outside of the work area. The staging area is a 30' by 30' area, graded level.

Ideally, the Project would be constructed without the access road and staging area. If the access road and staging area is required, it is recommended to reduce the size of the staging area toward the river or to the south if feasible. If the access and staging area are partially or fully constructed, then post-construction restoration will be required. Wallingford intends to have bidders include fees for restoring and monitoring the access road and staging area as part of the construction. This requirement will ensure that the access road and staging area will only be constructed if necessary. Post-construction restoration and monitoring requirements will be accounted for with the contractor bids.

The following Plan conditions address avoidance measures associated with the access road and staging area:

- ✓ It is recommended that the access road and staging area not be constructed if not required for construction of the Project. If the staging area is required, but can be reduced in size, then reducing the disturbance area is also recommended. If required, the Access Road and Staging Area Restoration described in the Project Plant Protection and Conservation Plan must be followed.
- ✓ Erosion control barrier installation must occur prior to ground disturbance for access road and staging area construction. Ensure that the area is isolated from the surrounding environment.

Erosion and Sedimentation Controls Monitoring: The Project E&S Control Monitor should meet the qualifications of a 'Qualified Inspector' as defined in the Connecticut Construction Stormwater General Permit. The Project Botanist will show the E&S Control Monitor where *Floerkea proserpinacoides* is present and has been mapped in the Project area. The E&S Control Monitor can use the USGS stream gage upstream of the Project site to review river stage conditions (see Quinnipiac River at Wallingford, CT – 01196500 at waterdata.usgs.gov). Based on the stream gage data, the E&S Control Monitor can determine if high river water may require additional monitoring.

The following Plan conditions are included for E&S control monitoring:

- ✓ A Project E&S Control Monitor will be assigned to inspect the E&S controls. The E&S Control Monitor will meet the requirements of a CT Construction Stormwater 'Qualified Inspector' and will review the locations of protected plants in the Project area with the Project Botanist.
- ✓ Monitoring will occur weekly and more frequently if floodwaters inundate rare plants, E&S controls, or the protective fencing.
- ✓ Reporting will include weekly assessments of the condition of E&S controls and fencing including photos.
- ✓ The Project E&S Control Monitor will observe any open soil areas at the construction site to assess the potential for sedimentation.
- Reporting will be sent to both the contractor and Wallingford Engineering Department.
- ✓ Reporting will document recommended maintenance and/or repair and note if recommendations remain open for multiple weeks.
- ✓ The Project E&S Control Monitor will make recommendations through the Wallingford Engineering Department. The contractor will be responsible for maintaining and/or repairing E&S controls and plant protection fencing.

Access Road and Staging Area Restoration: The area of the access road and proposed staging area includes invasive plants including Japanese Knotweed (Fallopia japonica), multiflora rose (Rosa multiflora), garlic mustard (Alliaria petiolata), and mugwort (Artemisia vulgaris) based on the photos and map notes from the REMA listed species report. The upper 6-inches of native soil must be excavated during gravel removal of the access road and staging area. This native soil removal will limit the spread of invasive plant species during restoration. Regrading will include the placement of 6-inches of clean topsoil to restore the access road and staging area. The clean topsoil will provide a seed bed to compensate for the removal of gravel and the pre-existing native soil.

The roadway shoulder slope will be seeded with an erosion control seed mix such as NEWP Erosion Control/Restoration Mix for Dry Sites or Ernst Seeds Native Steep Slope Mix w/Annual Ryegrass. The staging area will be seeded with the Ernst Seed mix PA New England Province Riparian Mix. Straw mulch will be placed over soil after seeding or hydroseed. The seeding of the disturbed areas should also include annual rye (*Lolium multiflorum*) for initial soil stabilization.

Six trees will be planted at the toe of the restored access road slope and in the staging area. These trees will be a minimum of 4' tall to outcompete weeds and limit mortality by deer browse. The trees should include at least one of the following: Red Maple (*Acer rubrum*), Silver Maple (*Acer saccharinum*), and Cottonwood (*Populus deltoides*). Ideally a minimum of two different species will be planted. The E&S control barriers for the access road and staging area must be maintained until the disturbed areas are vegetatively stabilized. The Project E&S Control Monitor will monitor the stabilization of this area and determine when controls can be removed.

The following Plan condition is included for access road and staging area restoration:

✓ If constructed, the access road and staging area must be restored in accordance with the Plant Protection Plan and with any floodplain grading requirements of local approvals.

Project Completion: The E&S Control Monitor will notify the contractor when all temporary E&S controls, water handling materials, and plant protection fences can be removed. Project construction must be completed, and all disturbed areas stabilized before the E&S Control Monitor notifies the contractor. The E&S Control Monitor will conduct a final inspection to confirm the removal of temporary construction materials.

The following Plan condition is included for Project completion:

✓ The E&S Control Monitor will determine when the site is stabilized and notify the contractor that temporary E&S controls and plant protection fencing can be removed. The E&S Control Monitor will conduct a final inspection following the removal of temporary controls to confirm site stability and the removal of construction materials.

Forest Clearing and Grubbing: Tree removal required for construction is anticipated to be adjacent to the existing cleared roadway and along existing canopy edges. Tree removal required for crane operation would not include grubbing. The opportunity for additional tree planting in the vicinity of the bridge is limited. The existing roadway right-of-way is narrow and overhead wires are present north of the bridge. Modifications to the limits of clearing for this Project are not anticipated to have long-term impacts to this population of *Floerkea proserpinacoides*. The proposed tree-cutting is in the vicinity of the existing roadway and overhead utilities where tree cutting and trimming occurs for routine maintenance.

The following Plan condition is included for tree removal, trimming, and grubbing:

- ✓ Tree removal and grubbing is only permitted within the Project's limit of disturbance as shown on the Project plans with the limits of E&S controls or cofferdams. E&S controls must be in place before root grubbing occurs.
- ✓ Tree removal and tree trimming must only be what is required for the safe construction of the Project. Tree trimming is preferred to tree removal.
- ✓ The removal of trees, trimming of branches, other vegetation cutting, and the removal of woody debris at the riverbank must avoid ground disturbance and impacts to areas of protected plants. Perform vegetation management from a bucket truck on the roadway where feasible.

Post-Construction Mitigation Monitoring: A minimum of three years is required to confirm that disturbed areas are restored. The three-year monitoring will be required if the access road and staging area are constructed. If construction activities impact areas outside of the proposed riprap placement at the abutments and gas line relocation footings, then threeyear monitoring will be required. Post-construction monitoring would occur in late April/early May to allow for mapping of *Floerkea proserpinacoides*.

The post-construction monitoring will include:

- Conduct *Floerkea proserpinacoides* field mapping and data collection as conducted in the Pre-Construction phase.
- Observe and report ground stability and total vegetation coverage in areas disturbed by the Project.
- Report a percent coverage of invasive species in the disturbed areas.
- Report the condition of any tree plantings in disturbed areas including approximate height.
- Record the percent coverage of invasives in a reference area north of Toelles Road
- Provide any recommendations to the Town of Wallingford (for example, tree replanting, vine removal).

The post-construction monitoring may conclude after three years if the restoration areas are stabilized with vegetation, and the height and coverage of planted trees are increasing.

The following Plan condition is included for post-construction mitigation monitoring:

✓ Conduct post-construction monitoring in accordance with the Plant Protection Plan if the Project disturbs the ground beyond the rip-rap placement and temporary gas line supports.

NDDB Reporting: As part of the implementation of this Plant Protection and Conservation Plan, the Project Botanist and Project E&S Control Monitor and plant protection monitor will be preparing reports for the applicant, the Town of Wallingford, and their contractor. The Project team will self-report any direct impacts to *Floerkea*

proserpinacoides during the Project and include discussion of how impacts occurred, and mitigation steps taken. A summary report will be prepared following the completion of the Project that will include electronic copies of plant surveys and a summary of E&S control monitoring. Additional post-construction monitoring reports, if required, will be provided to the Town of Wallingford and copied to NDDB.

The following Plan condition is included for NDDB reporting:

- ✓ Provide a Project report to NDDB following construction and report any *Floerkea proserpinacoides* mapping and data collection that occurs as part of the Project.
- ✓ If unavoidable long-term impacts to the plant population is observed, monitoring and corrective action will be taken until the long-term adverse impacts are corrected though additional mitigation action by the town of Wallingford.
- ✓ Monitoring reports to the NDDB Program will include a narrative section, maps, photographs and qualifications of the qualified botanist doing the reporting.

Protection for State Listed Fish

According to our information, there are records for Federal and State Endangered shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus*) and State Special Concern blueback herring in the vicinity of this project. Please be advised that a DEEP Fisheries Biologist will review the permit applications you may submit to DEEP regulatory programs to determine if your project could adversely impact banded sunfish. DEEP Fisheries Biologists are routinely involved in pre-application consultations with regulatory staff and applicants in order to identify potential fisheries issues and work with applicants to mitigate negative effects, including to endangered species. If you have not already talked with a Fisheries Biologist about your project, you may contact the Permit Analyst assigned to process your application for further information, including the contact information for the Fisheries Biologist assigned to review your application. The consultation form can be found here: Fisheries Consultation Form (ct.gov)

This NDDB review is valid for two years. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by December 1, 2026.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov. Thank you for consulting the Natural Diversity Data Base.

Sincerely,

Dawn M. McKay

Dawn M. mokay

Environmental Analyst 3

450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | ct.gov/historic-preservation

PROJECT REVIEW COVER FORM

This is: a new subm	ittal \square supplemental information \square other	Date Submitted: June 22, 2022					
Project Informatio	ON .						
Project Name: Rehabili	itation of Bridge No. 04392 Over the Quinnipiac	River					
Project Proponent: Tow	vn of Wallingford						
The individual or group sponsoring, organizing, or proposing the project.							
Project Street Address: Toelles Road, 0.1 mi east of South Turnpike Road							
Include street number, street name, and or Route Number. If no street address exists give closest intersection.							
City or Town: Wallingt		County: New Haven					
Please use the municipality name and not the village or hamlet.							
Project Description (REQUIRED)							
Please summarize the project below. <u>In a separate attachment</u> , describe the project in detail. As applicable, provide any information regarding past land use, project area size, renovation plans, demolitions, and/or new construction. The project proposes to replace the superstructure of Bridge No. 04392 over the Quinnipiac River. See attached project description.							
List all state and federal agencies involved in the project and indicate the funding, permit, license or approval program pertaining to the proposed project:							
pertaining to the propose	d project:						
Agency Type	d project: Agency Name	Program Name					
		Program Name LOTCIP					
Agency Type	Agency Name	_					
Agency Type ■ State □ Federal	Agency Name ConnDOT	LOTCIP					
Agency Type ■ State □ Federal ■ State ■ Federal	Agency Name ConnDOT ACOE / DEEP	LOTCIP Self Verification Permit					
Agency Type ■ State □ Federal ■ State □ Federal □ State □ Federal □ State □ Federal	Agency Name ConnDOT ACOE / DEEP Town of Wallingford	LOTCIP Self Verification Permit Local Inland Wetlands Permit Local Inland Wetlands Permit					
Agency Type ■ State □ Federal ■ State □ Federal □ State □ Federal □ State □ Federal	Agency Name ConnDOT ACOE / DEEP Town of Wallingford Town of North Haven	LOTCIP Self Verification Permit Local Inland Wetlands Permit Local Inland Wetlands Permit					
Agency Type ■ State □ Federal ■ State □ Federal □ State □ Federal □ State □ Federal	Agency Name ConnDOT ACOE / DEEP Town of Wallingford Town of North Haven	LOTCIP Self Verification Permit Local Inland Wetlands Permit Local Inland Wetlands Permit on for your review request:					
Agency Type State Federal State Federal State Federal State Federal State Federal State Federal Based on the information	Agency Name ConnDOT ACOE / DEEP Town of Wallingford Town of North Haven eral agency involvement, please state the rease FOR SHPO USE Of the above name	LOTCIP Self Verification Permit Local Inland Wetlands Permit Local Inland Wetlands Permit on for your review request:					
Agency Type State Federal State Federal State Federal State Federal State Federal State Federal Based on the information Connecticut State History	Agency Name ConnDOT ACOE / DEEP Town of Wallingford Town of North Haven eral agency involvement, please state the rease FOR SHPO USE Of the above name aric Preservation Office that no historic proper	LOTCIP Self Verification Permit Local Inland Wetlands Permit Local Inland Wetlands Permit on for your review request: NLY d property and project, it is the opinion of the					
Agency Type State Federal State Federal State Federal State Federal State Federal State Federal Based on the information	Agency Name ConnDOT ACOE / DEEP Town of Wallingford Town of North Haven eral agency involvement, please state the rease FOR SHPO USE Of the shown name aric Preservation Office that no historic properations.	Self Verification Permit Local Inland Wetlands Permit Local Inland Wetlands Permit con for your review request: NLY d property and project, it is the opinion of the rties will be affected by the proposed activities.*					

450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | DECD.org

PROJECT REVIEW COVER FORM

CULTURAL RESOURCES IDENTIFICATION

Background research for previously identified historic properties within a project area may be undertaken at the SHPO's office. To schedule an appointment, please contact Catherine Labadia, 860-500-2329 or Catherine.labadia@ct.gov. Some applicants may find it advantageous to hire a qualified historic preservation professional to complete the identification and evaluation of historic properties.

Are there	any histo	oric properties listed on	the State or National Reg	ister of Historic	Places within the project area? (Select one)	
□ Yes	■ No	☐ Do Not Know	If yes, please identify	y:		
Architecture Are there any buildings, structures, or objects within the Area of Potential Effects (houses, bridges, barns, walls, etc.)? The area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. If you're not sure, check "I don't know." Yes (attach clearly labeled photographs of each resource and applicable property cards from the municipality assessor) No (proceed to next section) I don't know (proceed to next section) Date the existing building/structures/objects were constructed: If the project involves rehabilitation, demolition, or alterations to existing buildings older than 50 years, provide a work plan						
(If window replacements are proposed, provide representative photographs of existing windows). Archeology						
Does the	Does the proposed project involve ground disturbing activities?					
Yes (provide below or attach a description of current and prior land use and disturbances. Attach an excerpt of the soil survey map for the project area. These can be created for free at: https://websoilsurvey.nrcs.usda.gov I No CHECKLIST (Did you attach the following information?)						
		Required for all Pro	pjects	Require	d for Projects with architectural resources	
■ Coi	npleted	Form	•	☐ Work pla	ns for rehabilitation or renovation	
■ Ma	p clearly	labelled depicting pr	oject area	☐ Assessor	s Property Card	
■ Pho	tograph	s of current site condi	tions	Required for	Projects with ground disturbing activities	
■ Site	or proje	ect plans for new cons	struction	☐ Soil surve	ey map	
Suggested Attachments, as needed						
1 *	□ Supporting documents needed to explain project □ Supporting documents identifying historic properties ■ Historic maps or aerials (available at http://magic.lib.uconn.edu or https://www.historicaerials.com/)					
_	Alison Ka	pushinski, P.E.		Firm/Agency:	Wallingford Town Engineer	
Address: Wallingford Town Hall, 45 South Main Street						
City: M	/allingfo	rd	State:	СТ	Zip: 06492	
Phone:	ne: 203-294-2035 Email: a.kapushinski@wallingfordct.gov					

Federal and state laws exist to ensure that agencies, or their designated applicants, consider the impacts of their projects on historic resources. At a minimum, submission of this completed form with its attachments constitutes a request for review by the Connecticut SHPO. The responsibility for preparing documentation, including the identification of historic properties and the assessment of potential effects resulting from the project, rests with the federal or state agency, or its designated applicant. The role of SHPO is to review, comment, and consult. SHPO's ability to complete a timely project review largely depends on the quality of the materials submitted. Please mail the completed form with all attachments to the attention of: Environmental Review, State Historic Preservation Office, 450 Columbus Boulevard, Suite 5, Hartford, CT. Electronic submissions are not accepted at this time.

ATTACHMENT B Toelles Road Bridge Rehabilitation (Bridge No. 04392)

Plant Protection and Conservation Plan

Toelles Road Bridge Rehabilitation (Bridge No. 04392) Plant Protection and Conservation Plan

To: CTDEEP Natural Diversity Database **From:** Richard Canavan, Tighe & Bond

COPY: Alison Kapushinski, Wallingford Engineering; Michael Greer, AI Engineers

DATE: October 12, 2023, revised April 2, 2024

Introduction

This Plant Protection and Conservation Plan (Plan) has been prepared for the Toelles Road Bridge Rehabilitation Project (Project). This Project is the replacement of the existing bridge superstructure on the existing abutments. The bridge (Bridge No. 04392) carries Toelles Road over the Quinnipiac River in Wallingford and North Haven, Connecticut. The rehabilitation is being conducted by the Town of Wallingford with support from the Local Transportation Capital Improvement Program (LOTCIP). This Plan was developed in accordance with NDDB Preliminary Assessment No. 202207775.

Tighe & Bond botanist Richard Canavan, who observed the site on December 9, 2022, and January 27, 2023, prepared this Plan. Representative photos from the site visits are attached. The following documents were reviewed in the development of this Plan:

- Environmental Permit Plans: Rehabilitation of Bridge 04392 over the Quinnipiac River, Rev. date 11/4/2022, prepared by AI Engineers
- Highway Drawings: Rehabilitation of Bridge 04392 over the Quinnipiac River, Rev. date 10/22/2022, prepared by AI Engineers
- Temporary gas main relocation plan, date 9/30/2022, prepared by EcoDesign, LLC.
- REMA Ecological Services: Survey report of Floerkea proserpinacoides, 8/9/2021
- Moorhead, W. H. III and E. J. Farnsworth. 2004. Floerkea proserpinacoides Willd. (False mermaid-weed) Conservation and Research Plan for New England. New England Wild Flower Society, Framingham, Massachusetts, USA. (cited in the REMA report)
- NDDB Preliminary Assessment No. 202207775, 8/17/2022

Following the field and document review, meetings were conducted with Wallingford Engineering, AI Engineering, and Tighe & Bond to discuss anticipated construction methods and how to incorporate avoidance measures for the construction of this Project.

Project Activities and Avoidance Measures

This Plan seeks to avoid activities in previously mapped areas of False mermaid-weed (*Floerkea proserpinacoides*) and its potentially suitable habitat. Based on the plant survey conducted in 2021 and the Project plans, some locations of *Floerkea proserpinacoides* are very close to the Project work area. The closest mapped location of *Floerkea proserpinacoides* is within approximately one foot of the western abutment. East of the

Quinnipiac River, the closest mapped plants to the Project work area are approximately 28 feet.

This section discusses avoidance measures by Project activities and includes Plant Protection Conditions that will be incorporated into the Project. The action items are separated by construction elements and the NDDB requirements for the Plan. Descriptions of the Project activities in this narrative provide context for the Plan conditions. The numbered Plan conditions in this narrative will be included in the Project plans as notes. A photo log and Project plan set are attached to this Plan for reference.

Pre-Construction Plant Survey

In accordance with Item #3 of the NDDB Preliminary Assessment, a qualified botanist, which will be referred to as the 'Project Botanist' in this Plan, will conduct a spring survey. The Project Botanist will map any changes to the location and extent of *Floerkea proserpinacoides* in the Project area. The Town of Wallingford will confirm the Project Botanist's qualifications with NDDB prior to survey work. The Project Botanist will also assess any impacts to *Floerkea proserpinacoides* as part of the spring survey. It is expected that the Project will be completed within a single growing season. If the Project construction is extended, then a new survey will be required each May.

The spring survey results will inform the Project design where plant protection fencing should be installed or relocated. This temporary fencing, which is typically orange construction fence stapled to wooden stakes, should be visible for construction workers to avoid sensitive areas. Protection fencing should be installed at the limits of Project work north and south of the abutment on the west side of the Quinnipiac River and at the southern limit of the staging area.

The Project Botanist will meet with the Project Erosion and Sedimentation (E&S) Control Monitor to review plant locations and habitat conditions (see Plan Condition #10 below for requirements of the Project E&S Control Monitor). The Project Botanist will make the monitor(s) aware of the plant and its habitat at the site prior to Project work activities. Plan conditions for this task are:

- 1. NDDB-approved botanist to conduct a spring survey for *Floerkea proserpinacoides* and map population areas with GPS. Mark the limits of plants near construction areas with pin flags. Estimate quantity of individuals within areas where *Floerkea proserpinacoides* is observed.
- 2. The contractor will install temporary construction safety fencing (i.e., staked orange plastic fencing) to separate the construction area from the identified plant locations. Only install fencing between the work area and outer limit of plants to avoid debris trapping in high river stage and the fencing from damaging plants.

Bridge Superstructure Demolition

Shielding is placed under a bridge structure during demolition to contain debris so it does not fall into the river below the bridge. It is anticipated that shielding would be installed from the bridge itself and not require access from land adjacent to the bridge. The shielding installation and eventual riprap installation may also require a floating work platform. This installation method will avoid ground disturbance and is discussed in greater detail in the Floating Work Platform section. Installing shielding will protect areas outside of the existing structure and will avoid ground disturbance. The shielding will prevent impacts to Floerkea

proserpinacoides during the demolition phase of the Project. The following Plan condition is included to address the demolition phase of the rehabilitation Project:

3. Shielding will be installed below the bridge prior to demolition to contain debris and prevent material from falling into the river or land under and adjacent to the bridge. Shielding installation will be from the bridge deck and/or using a floating work platform. No equipment will be placed on land adjacent to the bridge and no ground disturbance will occur for shielding installation.

Temporary Gas Line

A temporary gas line will be installed to maintain service during demolition and construction. This gas line will be supported on a separate temporary span downstream of the bridge. The temporary span and gas line will be supported by temporary concrete block foundations on either side of the Quinnipiac River south of the bridge abutments. The construction of the temporary span foundation will require equipment access near the temporary span foundations and ground disturbance to construct the temporary span support structure. The locations for the temporary supports are constrained by the location of the existing gas main, an existing water line, and sheeting installed during the initial construction of the road bridge. The temporary gas line installation will avoid or minimize impacts to Floerkea proserpinacoides by implementing the following avoidance measures:

- Reviewing the field mapping and protective fencing for protected plants prior to construction. Modifying the design of the temporary span to avoid *Floerkea* proserpinacoides if feasible
- Minimizing ground disturbance to access the existing gas line at the approach to the bridge to provide the temporary span footing
- Placing E&S control barriers at the limit of ground disturbance required for the connect to the existing underground gas main and support footings
- Constructing the temporary concrete block footings at elevations above 20 feet NAVD88 (above elevations where *Floerkea proserpinacoides* was previously found)
- Placing the concrete blocks and span materials using equipment stationed on the bridge, roadway approaches, or contractor staging area to avoid ground disturbance.

The avoidance approach for the temporary gas line is included in the following Plan condition:

4. Avoid ground disturbance below elevation 20 feet and in mapped protected plant areas while installing the temporary gas main. Install erosion and sedimentation controls at the downslope limit of trenching for temporary line connection to the existing line in the approach roadways and below grading necessary to construct the footings for the temporary span support. Maintain E&S controls when the temporary gas mains are removed. Seed disturbed soils with annual rye after the installation of the temporary span to stabilize disturbed areas while the road bridge construction is on-going. Coordination is required between gas line and bridge contractors to ensure adjacent activities, such as the installation of the coffer dam and the temporary gas line supports, do not create conflicts or extend into plant habitat areas.

Floating Work Platform

A contractor may wish to use a floating work platform for accessing the bridge during some portions of the work. Using a platform can provide access under the bridge that might otherwise occur from the riverbank. The following Plan condition addresses the placement, use, storage, and removal of a float to avoid disturbance to the riverbanks:

5. A temporary floating work platform may be used for tasks including the installation and removal of shielding, or the placement of riprap. The launching, use, and retrieval of a float should be made from the bridge deck to avoid riverbank disturbances or from areas where no protected plants were mapped. During use and storage, secure the float so that it does not contact the riverbed material and cause sediment resuspension. The float may be grounded on the cofferdam or riprap if doing so will not impact the cofferdam.

Riprap Placement

The Project includes riprap restoration at the abutment faces along the Quinnipiac River and along the edge of the abutments parallel to Toelles Road. This riprap placement was part of the original design of the abutments and is included for scour protection. At the western abutment, the limits of proposed riprap and cofferdam placement are approximately 15 feet from the face of the wingwall. The REMA report mapping shows the limits of *Floerkea proserpinacoides* to be approximately 17 feet from the wingwall.

Avoidance measures at the wingwalls and abutments will include the following Plan conditions during riprap placement:

- 6. Review the mapped locations of *Floerkea proserpinacoides* prior to installing cofferdam components and riprap. If *Floerkea proserpinacoides* is present near proposed riprap placement at the wingwalls, reduce riprap placement to 10 feet from the wall face on the upstream face and 5 feet from the wall face on the downstream face. If *Floerkea proserpinacoides* is present in areas that require riprap placement for scour protection, then delay riprap placement over plants until June 15th.
- 7. Install coffer dam components, such as sandbags, before riprap placement. Install cofferdam from the roadway, bridge deck, or barge. Place the riprap in the area protected by the coffer dams as shown on the plans while avoiding ground disturbance in areas outside of the area protected by coffer dams. Remove the cofferdam after riprap placement is completed and ensure that riprap remains in place during cofferdam removal. Maintain plant protection fencing until work is completed.

Access Road and Staging Area

The Project design includes a new construction access road and staging area southeast of the bridge. This proposed disturbance ensures that an additional area for staging and operating a crane is available, if necessary. The proposed staging area does not include any areas of previously identified *Floerkea proserpinacoides*. The proposed grading for the access and staging area is confined by an E&S barrier. This barrier will help avoid disturbing habitat outside of the work area. The staging area is a 30' by 30' area, graded level.

Ideally, the Project would be constructed without the access road and staging area. If the access road and staging area is required, it is recommended to reduce the size of the staging area toward the river or to the south if feasible. If the access and staging area are partially or fully constructed, then post-construction restoration will be required. Wallingford intends to have bidders include fees for restoring and monitoring the access road and staging area as part of the construction. This requirement will ensure that the access road and staging area will only be constructed if necessary. Post-construction restoration and monitoring requirements will be accounted for with the contractor bids. The following Plan conditions address avoidance measures associated with the access road and staging area:

- 8. It is recommended that the access road and staging area not be constructed if not required for construction of the Project. If the staging area is required, but can be reduced in size, then reducing the disturbance area is also recommended. If required, the Access Road and Staging Area Restoration described in the Project Plant Protection and Conservation Plan must be followed.
- 9. Erosion control barrier installation must occur prior to ground disturbance for access road and staging area construction. Ensure that the area is isolated from the surrounding environment.

Erosion and Sedimentation Controls Monitoring

The NDDB Preliminary Assessment requirements include provision for a qualified site monitor to inspect E&S controls and protective fencing (Item #1). Maintaining and/or repairing these E&S controls and protective fencing and photo-documenting their condition is also required (Item #2). To meet these requirements, this Plan requires that a Project 'E&S Control Monitor' be assigned to the Project. The Project E&S Control Monitor should meet the qualifications of a 'Qualified Inspector' as defined in the Connecticut Construction Stormwater General Permit. The Project Botanist will show the E&S Control Monitor where Floerkea proserpinacoides is present and has been mapped in the Project area.

The E&S Control Monitor can use the USGS stream gage upstream of the Project site to review river stage conditions (see Quinnipiac River at Wallingford, CT – 01196500 at waterdata.usgs.gov). Based on the stream gage data, the E&S Control Monitor can determine if high river water may require additional monitoring.

The following Plan conditions are included for E&S control monitoring:

- 10. A Project E&S Control Monitor will be assigned to inspect the E&S controls. The E&S Control Monitor will meet the requirements of a CT Construction Stormwater 'Qualified Inspector' and will review the locations of protected plants in the Project area with the Project Botanist.
- 11. Monitoring will occur weekly and more frequently if floodwaters inundate rare plants, E&S controls, or the protective fencing. Reporting will include weekly assessments of the condition of E&S controls and fencing including photos. The Project E&S Control Monitor will observe any open soil areas at the construction site to assess the potential for sedimentation. Reporting will be sent to both the contractor and Wallingford Engineering Department. Reporting will document recommended maintenance and/or repair and note if recommendations remain open for multiple weeks. The Project E&S Control Monitor will make recommendations through the

Wallingford Engineering Department. The contractor will be responsible for maintaining and/or repairing E&S controls and plant protection fencing.

Erosion and Sedimentation Controls and Mitigation

The Project includes E&S controls and design measures to contain any sediment generated by activities within the work area. The main sedimentation control for this Project is avoiding ground disturbance. Very limited grading is required, because this Project is replacing the bridge superstructure but retaining the existing abutments. Grading for a temporary access road and staging area for equipment access to the bridge may be required (see the Access Road and Staging Area section above). Rapidly stabilizing soils is another means to limit any potential sedimentation. If the access road and staging area are constructed, the ground should be stabilized as soon as possible after grading. Stabilizing the area with stone will minimize the time open soil is exposed to potential rainfall. Once the area is stabilized with stone, the opportunity for sedimentation or erosion is significantly reduced.

As noted previously, the Project contractor will be responsible for maintaining E&S controls and installing additional controls if needed. The Project includes a turbidity curtain and cofferdam to protect the riprap placement at the abutments from the river flows. It is recommended that turbidity curtain installation occur before cofferdam installation. The E&S Control Monitor should review turbidity curtain installation to ensure that the anchor points above the river are not impacting protected plants. Following the cofferdam installation, the area can be reviewed to see if the turbidity curtain can be removed.

As noted in the Temporary Gas Line section above, additional E&S controls should be placed at the limit of trenching. The demolition debris shielding noted in the Bridge Superstructure Shielding section above also provides protection to the surrounding environment.

Item #4 in the NDDB Preliminary Assessment requires establishing a mitigation and recovery plan if E&S controls fail and plants are impacted. If an accidental release of sediment from the Project area were to occur, then sediment removal would occur by hand. Rakes and shovels would be used to remove any layers of sediment above the existing ground surface. Sediment would be removed from the Project area for proper off-site disposal. The Project E&S Control Monitor would supervise sediment removal and E&S control repairs would be documented in that week's monitoring report.

The following Plan condition is included for E&S controls and mitigation:

12. If sedimentation occurs from the construction area into protected plant areas during construction, removal of sediment must occur with hand tools and under the supervision of the Project E&S Control Monitor.

Access Road and Staging Area Restoration

The area of the access road and proposed staging area includes invasive plants including Japanese Knotweed (*Fallopia japonica*), multiflora rose (*Rosa multiflora*), garlic mustard (*Alliaria petiolata*), and mugwort (*Artemisia vulgaris*) based on the photos and map notes from the REMA listed species report. The upper 6-inches of native soil must be excavated during gravel removal of the access road and staging area. This native soil removal will limit the spread of invasive plant species during restoration. Regrading will include the placement of 6-inches of clean topsoil to restore the access road and staging area. The clean topsoil

will provide a seed bed to compensate for the removal of gravel and the pre-existing native soil.

The roadway shoulder slope will be seeded with an erosion control seed mix such as NEWP Erosion Control/Restoration Mix for Dry Sites or Ernst Seeds Native Steep Slope Mix w/Annual Ryegrass. The staging area will be seeded with the Ernst Seed mix PA New England Province Riparian Mix. Straw mulch will be placed over soil after seeding or hydroseed. The seeding of the disturbed areas should also include annual rye (*Lolium multiflorum*) for initial soil stabilization.

Six trees will be planted at the toe of the restored access road slope and in the staging area. These trees will be a minimum of 4' tall to outcompete weeds and limit mortality by deer browse. The trees should include at least one of the following: Red Maple (*Acer rubrum*), Silver Maple (*Acer saccharinum*), and Cottonwood (*Populus deltoides*). Ideally a minimum of two different species will be planted.

The E&S control barriers for the access road and staging area must be maintained until the disturbed areas are vegetatively stabilized. The Project E&S Control Monitor will monitor the stabilization of this area and determine when controls can be removed.

The following Plan condition is included for access road and staging area restoration:

13. If constructed, the access road and staging area must be restored in accordance with the Plant Protection Plan and with any floodplain grading requirements of local approvals.

Project Completion

The E&S Control Monitor will notify the contractor when all temporary E&S controls, water handling materials, and plant protection fences can be removed. Project construction must be completed, and all disturbed areas stabilized before the E&S Control Monitor notifies the contractor. The E&S Control Monitor will conduct a final inspection to confirm the removal of temporary construction materials.

The following Plan condition is included for Project completion:

14. The E&S Control Monitor will determine when the site is stabilized and notify the contractor that temporary E&S controls and plant protection fencing can be removed. The E&S Control Monitor will conduct a final inspection following the removal of temporary controls to confirm site stability and the removal of construction materials.

Forest Clearing and Grubbing

Item #5 of the Plan requirements in the NDDB Preliminary Assessment states the following:

The plan should specify the locations of the forest clearing and grubbing, quantify the expected short and long-term impacts to the Floerkea proserpinacoides subpopulations, and include protective measures that will avoid impacts to the Floerkea proserpinacoides and/or measures that will mitigate the expected impacts from forest clearing and restore the Floerkea proserpinacoides occurrence to preconstruction condition or better.

This comment reflects a statement from the REMA report:

Excessive tree-cutting in the vicinity of the bridge work, could reduce shade levels over the western floodplain terraces, extending forty to fifty feet from the bridge, such that sun-loving grasses and weeds would tend to quickly fill in the bare soil niches needed by Floerkea for establishment.

It is not clear whether the statement in the REMA report was addressing potential clearing beyond the project plans; however, excessive tree-cutting is not allowed for this Project and is not proposed. The Project plans show the limit of grading as the areas of riprap placement, temporary gas line supports, and the access road and staging area. No grubbing would occur outside of those Project areas. No trees are present in the areas of riprap placement since those areas are too close to the roadway and bridge abutments. Periodic vegetation maintenance occurs in these areas. There is a twin trunk tree between the bridge and overhead wires at the northwest quadrant of the bridge that will likely need to be cut or trimmed for construction (see photo log). Trees in the access road and staging area would be cut and grubbed if construction work is required in that area. Access road and staging area restoration includes tree planting to reestablish a tree canopy. Any additional tree cutting would be limited to what is necessary to safely operate cranes and other equipment for the Project.

Tree removal required for construction is anticipated to be adjacent to the existing cleared roadway and along existing canopy edges. Tree removal required for crane operation would not include grubbing. The opportunity for additional tree planting in the vicinity of the bridge is limited. The existing roadway right-of-way is narrow and overhead wires are present north of the bridge. Modifications to the limits of clearing for this Project are not anticipated to have long-term impacts to this population of *Floerkea proserpinacoides*. The proposed tree-cutting is in the vicinity of the existing roadway and overhead utilities where tree-cutting and trimming occurs for routine maintenance.

The following Plan condition is included for tree removal, trimming, and grubbing:

- 15. Tree removal and grubbing is only permitted within the Project's limit of disturbance as shown on the Project plans with the limits of E&S controls or cofferdams. E&S controls must be in place before root grubbing occurs.
- 16. Tree removal and tree trimming must only be what is required for the safe construction of the Project. Tree trimming is preferred to tree removal.
- 17. The removal of trees, trimming of branches, other vegetation cutting, and the removal of woody debris at the riverbank must avoid ground disturbance and impacts to areas of protected plants. Perform vegetation management from a bucket truck on the roadway where feasible.

Post-Construction Mitigation Monitoring

Item #6 of the Plan requirements in the NDDB Preliminary Assessment requires post-construction monitoring of the site. A minimum of three years is required to confirm that disturbed areas are restored. The three-year monitoring will be required if the access road and staging area are constructed. If construction activities impact areas outside of the proposed riprap placement at the abutments and gas line relocation footings, then three-year monitoring will be required. Post-construction monitoring would occur in late April/early

May to allow for mapping of *Floerkea proserpinacoides*. The post-construction monitoring will include:

- Conduct *Floerkea proserpinacoides* field mapping and data collection as conducted in the Pre-Construction phase
- Observe and report ground stability and total vegetation coverage in areas disturbed by the Project
- Report a percent coverage of invasive species in the disturbed areas
- Report the condition of any tree plantings in disturbed areas including approximate height
- Record the percent coverage of invasives in a reference area north of Toelles Road
- Provide any recommendations to the Town of Wallingford (for example, tree replanting, vine removal)

The post-construction monitoring may conclude after three years if the restoration areas are stabilized with vegetation, and the height and coverage of planted trees are increasing.

The following Plan condition is included for post-construction mitigation monitoring:

18. Conduct post-construction monitoring in accordance with the Plant Protection Plan if the Project disturbs the ground beyond the rip-rap placement and temporary gas line supports.

NDDB Reporting

As part of the implementation of this Plant Protection and Conservation Plan, the Project Botanist and Project E&S Control Monitor and plant protection monitor will be preparing reports for the applicant, the Town of Wallingford, and their contractor. The Project team will self-report any direct impacts to *Floerkea proserpinacoides* during the Project and include discussion of how impacts occurred, and mitigation steps taken. A summary report will be prepared following the completion of the Project that will include electronic copies of plant surveys and a summary of E&S control monitoring. Additional post-construction monitoring reports, if required, will be provided to the Town of Wallingford and copied to NDDB.

The following Plan condition is included for NDDB reporting:

19. Provide a Project report to NDDB following construction and report any *Floerkea* proserpinacoides mapping and data collection that occurs as part of the Project.

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