

TOWN OF PUTNAM



CONTRACT DOCUMENTS

FOR

Replacement of the Danco Drive Bridge over Perry Brook (Bridge No. 115008)

Project No. 9115-00008

PUTNAM, CT

Sealed Bids for “Replacement of Danco Drive Bridge over Perry Brook” will be received until 2:00 P.M. local time on Thursday September 12, 2024, in Conference Room 109, at the Municipal Complex at 200 School Street, Putnam, CT. Bids will then be publicly opened and read in aloud in Conference Room 109 immediately following the deadline. Bids must be sealed and marked “**Replacement of Danco Drive Bridge over Perry Brook (Bridge No. 115008)**”.

Town of Putnam

REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)

Putnam, Connecticut

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SECTION A

LEGAL NOTICE
ADVERTISEMENT FOR BIDS

REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER
PERRY BROOK (BRIDGE NO. 115008)
PUTNAM, CONNECTICUT
PROJECT No. 9115-0008

The Town of Putnam, Connecticut will receive sealed bids for "Replacement of the Danco Drive Bridge over Perry Brook (Bridge No. 1150008)" project until 2:00 p.m. local time on September 12, 2024, at the Municipal Complex at 200 School Street, Putnam, Conference Room #109, after which no bids will be accepted and at which time and place they will be publicly opened and read aloud. Bids must be sealed and marked **"Replacement of Danco Drive Bridge over Perry Brook (Bridge No. 1150008)"**.

Work under this contract includes replacement of the existing bridge on Danco Drive over Perry Brook and the reconstruction of the approaches on Danco Drive with a dual precast concrete box culvert bridge. The Information for Bidders, Form of Bid, Specifications, and other contract documents may be obtained by emailing denise.geeza@putnamct.us.

Form 818 Standard Specifications and Supplemental Specifications may be obtained via the Connecticut Department of Transportation's website:
<http://www.ct.gov/dot/cwp/view.asp?a=3609&q=430362>.

Bidders shall submit two (2) original copies of their Proposal on the forms provided, in a sealed envelope plainly marked with the appropriate project title.

Attention of bidders is directed to certain requirements of this Contract, which require that minimum rates to be paid for labor of the various classifications shall be in accordance with the current schedule of wages established by the Connecticut Department of Labor as provided in the General Statutes of Connecticut, as revised.

A pre-bid conference to review the project will be held at the Putnam Municipal Complex, Putnam Town Hall, Conference Room #109, which is located at 200 School Street, Putnam, Connecticut, August 28, 2024, at 10:00 a.m. All prospective bidders are urged to attend.

A satisfactory Bid Bond or Certified Check in the amount equal to five percent (5%) of the base bid shall be submitted with each bid. The Bid Bond shall be made payable to the Town of Putnam and shall be properly executed by the Bidder. A 100% Performance, Labor and Material Bond is also required. All sureties must be listed on the most recent IRS Circular 570.

Bids, to receive consideration, must be in the hands of the authorized representative of the town, no later than the day and hour at the location mentioned above. The Town of Putnam reserves the right to accept or reject any or all bids; to waive informalities; or, to accept any bid deemed in the best interests of the Town of Putnam.

Bidders are requested to note that the award of this Contract is subject to the following conditions and contingencies:

- 1) The approval of such governmental agencies as may be required by law.
- 2) The appropriation of adequate funds by the proper agencies.
- 3) This Contract is subject to state set-aside and contract compliance requirements as found within the "Bid Language for Municipalities" document on the Commission on Human Rights and Opportunities (CHRO) website:
(<https://portal.ct.gov/-/media/CHRO/bidlanguage16pdf.pdf>).

All bids will be considered valid for a period of ninety (90) days. No bidder may withdraw their bid within ninety (90) days after the actual date of the bid opening. Additionally, the contract documents require the prompt commencement of the work.

CONTRACTORS that find discrepancies, ambiguity, omission, inconsistency and/or errors in or between plans, specifications, quantities, and other matters, must immediately notify CDM Smith.

No interpretation of the meaning of the Plans, Specifications or other pre-bid documents will be made to any BIDDER orally. Every request for such interpretation should be made in writing addressed to CDM Smith, 101 East River Drive, East Hartford, CT 06108, attention Michael Egan, P.E., email eganmp@cdmsmith.com in writing not less than ten days before the scheduled bid opening.

Any and all such interpretations and any the specifications which, if issued. Will be posted to the town webpage <https://www.putnam.us/government/town-administrator/bidsrfps> not later than four days prior to the date fixed for the opening of bids. Failure of any BIDDER to review any such ADDENDUM or interpretation shall not relieve such BIDDER from any obligations under his bid as submitted. ALL ADDENDA so issued shall become part of the Contract Documents.

Mayor
Town of Putnam, Connecticut

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER
MBE's, WBE's AND SBE's AND SECTION 3 DESIGNATED
ENTERPRISES ARE ENCOURAGED TO APPLY

SECTION B - BIDDER REQUIREMENTS

SCHEDULE OF PRICES
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

Elaine Sistare
Town of Putnam
Putnam, CT 06238

Having carefully examined the Contract Documents, including the Information for Bidders, General Conditions, Special Conditions, Technical Specifications and Drawings for the various categories of work, the undersigned hereby proposes to complete the below listed work for the lump sum and unit prices for the work in place for the following items and quantities listed under each category of work. In case of discrepancy, the amount shown in words will govern.

The Town of Putnam reserves the right to eliminate from the contract any of the Bid Items of work shown on the bid form in the event it deems it to be in the best interest of the Town. Items with quantities bid as non-lump sum will be paid at the unit bid price submitted whether or not the quantity used differs from the Estimated Quantity by any amount, significant or otherwise.

ITEM NO.	QUANTITY	UNIT OF MEASURE	DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	UNIT BID DOLLAR FIGURE	TOTAL PRICE DOLLAR FIGURE
0000901	0.05	acre	SEEDING _____ Dollars and _____ Cents per Acre	\$ _____	\$ _____
0000905	27.0	c.y.	TOPSOILING _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0201011	1.0	LS	REMOVAL OF TREES _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
0201013	98.0	l.f.	REMOVAL OF EXISTING FENCE _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0201198	1.0	LS	REMOVE AND RELOCATE STONES _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
0201211	2.0	ea.	REMOVE SIGN _____ Dollars and _____ Cents per Each	\$ _____	\$ _____
0202000	700.0	c.y.	EARTH EXCAVATION _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0202216	20.0	c.y.	EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0202217	1.0	est.	SUPPLEMENTAL STREAMBED CHANNEL MATERIAL Five Hundred, Forty Dollars and Zero Cents per Estimate (12 Cubic Yards @ \$45/C.Y.)	\$ <u>540.00</u>	\$ <u>540.00</u>
0202452	2.0	ea.	TEST PIT _____ Dollars and _____ Cents per Each	\$ _____	\$ _____

Subtotal - Page 2 \$ _____

SCHEDULE OF PRICES
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

ITEM NO.	QUANTITY	UNIT OF MEASURE	DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	UNIT BID DOLLAR FIGURE	TOTAL PRICE DOLLAR FIGURE
0204001	101.0	l.f.	COFFERDAM AND DEWATERING _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0204189	1.0	LS	HANDLING WATER - PRECAST CONCRETE BOX CULVERT _____ Dollars and _____ Cents	\$ _____	\$ _____
0209001	800.0	s.y.	FORMATION OF SUBGRADE _____ Dollars and _____ Cents per Square Yard	\$ _____	\$ _____
0216000	680.0	c.y.	PERVIOUS STRUCTURE BACKFILL _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0219001	1000.0	l.f.	SEDIMENTATION CONTROL SYSTEM _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0212000	283.0	c.y.	SUBBASE _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0305000	67.0	ton	PROCESSED AGGREGATE _____ Dollars and _____ Cents per Ton	\$ _____	\$ _____
0406164	2.0	ton	THIN FRICTION WEARING COURSE - TYPE 1 _____ Dollars and _____ Cents per Ton	\$ _____	\$ _____
0406170	138.0	ton	HMA S1 _____ Dollars and _____ Cents per Ton	\$ _____	\$ _____
0406171	117.0	ton	HMA S0.5 _____ Dollars and _____ Cents Per Ton	\$ _____	\$ _____
0406293	81.0	s.y.	FINE MILLING (0" TO 2.5") _____ Dollars and _____ Cents per Square Yard	\$ _____	\$ _____
0406303	97.0	l.f.	SAWING AND SEALING JOINTS _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____

SCHEDULE OF PRICES
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

ITEM NO.	QUANTITY	UNIT OF MEASURE	DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	UNIT BID DOLLAR FIGURE	TOTAL PRICE DOLLAR FIGURE
0406321	328.0	l.f.	HMA LONGITUDINAL JOINT SEALANT _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0503001	1.0	LS	REMOVAL OF SUPERSTRUCTURE _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
0601062	51.0	c.y.	FOOTING CONCRETE _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0601064	115.0	c.y.	ABUTMENT AND WALL CONCRETE _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0601139	76.0	l.f.	12' X 8' PRECAST CONCRETE BOX CULVERT _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0601640	4770.0	c.i.	1" CLOSED CELL ELASTOMER _____ Dollars and _____ Cents per Cubic Inch	\$ _____	\$ _____
0602030	12357	lb.	DEFORMED STEEL BARS - GALVANIZED _____ Dollars and _____ Cents per Pound	\$ _____	\$ _____
0703010	73.0	c.y.	STANDARD RIPRAP _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0707001	117.0	s.y.	MEMBRANE WATERPROOFING (WOVEN GLASS FABRIC) _____ Dollars and _____ Cents per Square Yard	\$ _____	\$ _____
0708001	190.0	s.y.	DAMPPROOFING _____ Dollars and _____ Cents per Square Yard	\$ _____	\$ _____
0714020	800.0	s.f.	TEMPORARY SHEET PILING _____ Dollars and _____ Cents per Square Foot	\$ _____	\$ _____
0716000	170.0	s.f.	TEMPORARY EARTH RETAINING SYSTEM _____ Dollars and _____ Cents per Square Foot	\$ _____	\$ _____

SCHEDULE OF PRICES
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

ITEM NO.	QUANTITY	UNIT OF MEASURE	DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	UNIT BID DOLLAR FIGURE	TOTAL PRICE DOLLAR FIGURE
0728001	123.0	ton	CRUSHED STONE FOR SLOPE PROTECTION _____ Dollars and _____ Cents per Ton	\$ _____	\$ _____
0728033	130.0	c.f.	NO.8 CRUSHED STONE _____ Dollars and _____ Cents per Cubic Foot	\$ _____	\$ _____
0755013	113.0	s.y.	GEOTEXTILE EROSION CONTROL CLASS A _____ Dollars and _____ Cents per Square Yard	\$ _____	\$ _____
0815001	102.0	l.f.	BITUMINOUS CONCRETE LIP CURBING _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0819002	136.0	s.y.	PENETRATING SEALER PROTECTIVE COMPOUND _____ Dollars and _____ Cents per Square Yard	\$ _____	\$ _____
0822100.02	280.0	l.f.	TEMPORARY TRAFFIC BARRIER (PINNED) _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0822100.03	70.0	l.f.	TEMPORARY TRAFFIC BARRIER (BOLTED) _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0910023	2.0	ea.	R-B TERMINAL SECTION _____ Dollars and _____ Cents per Each	\$ _____	\$ _____
0910300	538.0	l.f.	METAL BEAM RAIL (R-B MASH) _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0911923	1.0	ea.	R-B END ANCHORAGE-TYPE I _____ Dollars and _____ Cents per Each	\$ _____	\$ _____
0911924	1.0	ea.	R-B END ANCHORAGE-TYPE II _____ Dollars and _____ Cents per Each	\$ _____	\$ _____
0912499	570.0	l.f.	REMOVE CABLE GUIDE RAIL _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____

SCHEDULE OF PRICES
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

ITEM NO.	QUANTITY	UNIT OF MEASURE	DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	UNIT BID DOLLAR FIGURE	TOTAL PRICE DOLLAR FIGURE
0913011	24.0	l.f.	5' CHAIN LINK FENCE _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0913952	129.0	l.f.	PROTECTIVE FENCE (5' HIGH) _____ Dollars and _____ Cents per Linear Foot	\$ _____	\$ _____
0974001	170.0	c.y.	REMOVAL OF EXISTING MASONRY _____ Dollars and _____ Cents per Cubic Yard	\$ _____	\$ _____
0974106	1.0	LS	TIMBER SUPPORT MAT _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
1504010	1.0	LS	TEMPORARY SUPPORT OF UTILITIES _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____

GENERAL CONTRACT ITEMS

ITEM NO.	QUANTITY	UNIT OF MEASURE	DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	UNIT BID DOLLAR FIGURE	TOTAL PRICE DOLLAR FIGURE
0201001	1.0	LS	CLEARING AND GRUBBING _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
0971001	1.0	LS	MAINTENANCE AND PROTECTION OF TRAFFIC _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
0975004	1.0	LS	MOBILIZATION AND PROJECT CLOSEOUT _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____
0980020	1.0	LS	CONSTRUCTION SURVEYING _____ Dollars and _____ Cents per Lump Sum	\$ _____	\$ _____

Bid security attached in the amount of 10% of the base bid is to become the property of the Town of Putnam in the event the contract and bond are not executed within the time set forth in the contract documents, documents, as liquidated damages for the delay and additional expenses to the Town of Putnam caused thereby.

BIDDER: _____

ADDRESS: _____

PHONE NUMBER: _____

SIGNED: _____ DATE: _____

PRINTED: _____

TITLED: _____

Subtotal – Page 6 \$ _____

SCHEDULE OF PRICES
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

BID SUMMARY

DESCRIPTION OF SCHEDULED ITEM WITH UNIT BID PRICE IN WORDS	
TOTAL - Page 2	\$ _____
TOTAL - Page 3	\$ _____
TOTAL - Page 4	\$ _____
TOTAL - Page 5	\$ _____
TOTAL - Page 6	\$ _____
<u>Total Base Bid:</u>	\$ _____

TOTAL PROJECT	\$ _____	
BASE BID		(In Figures)
TOTAL PROJECT	\$ _____	
BASE BID		(In Words)

Project# 9115-00008
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK
PROJECTED CONTRACTOR SCHEDULE

	Week																										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Phase 1																											
Construction Staking																											
Clearing & Grubbing																											
Erosion and Sediment Controls																											
Earthwork (roadway)																											
Temporary Sheet piling and MP&T Setup																											
Demolition of West Portion of 115008																											
Install Box Culvert Cells																											
Install Outlet Wingwalls/ Headwalls																											
Install Temp Roadway Support																											
Install Temporary Roadway, Fill/Pavement																											
Phase 2																											
Switch Over MP&T and Traffic Pattern																											
Excavate Earthwork (roadway)																											
Demolition of East Portion of 115008																											
Removal of Old Northfield																											
Install Box Culvert Cells																											
Install Inlet Wingwalls/ Headwalls																											
Install New Utilities																											
Install Inlet Riprap Slope Protection																											
Remove Temporary Sheet piling and MP&T																											
Earthwork (roadway)																											
Roadway Embankment Grading and Bituminous Curbing																											
Final Milling and Paving																											
Metal Beam Rail installation																											
Final Plantings & Landscaping																											
Project Close out																											

QUALIFICATIONS OF BIDDER

The Bidder is required to submit on the following pages the information required in regard to qualifications for the Work.

- A. The location, character, cost, date and names of engineers or officials of similar work previously constructed by the undersigned are as follows:

- B. The equipment which will be available for performing the work under this contract is as follows:

- C. The undersigned has failed to complete satisfactorily the following contracts, including also those in which the surety has participated. (If there have been no contracts which the bidder has failed to complete satisfactorily, including also those in which the surety has participated, the bidder shall definitely so state.)

Name of Bidder

Address

(USE BACK OF SHEET, IF NECESSARY)

NON-COLLUSIVE BID STATEMENT

All bidders are required to sign a Non-Collusive Bid Statement with all public bids as follows:

1. 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 or materials, supplies, equipment, or services described in the Advertisement for Bids, designed to limit independent bidding or competition, and
2. 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.

Name of Bidder: _____

Address: _____

Signature: _____ Title: _____

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 current.

The _____ **HAS / HAS NOT**
Company Name (Cross out Non-applicable)

been cited for three (3) or more will full or serious or serious violations of any Occupational Safety and Health Act (OSHA) or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act of 1970, and not abated within the time fixed by the citation and such citation has not been set aside following appeal to the appropriate agency of court having jurisdiction or **HAS / HAS NOT** (Cross out Non-applicable) received one or more criminal convictions related to the injury or death of any employee in the three-year period preceding the bid.

The list of violations (if applicable) is attached.

(Name of Firm, Organization or Corporation)

Signed:

(Written Signature)

(Name Typed)

(Corporation Seal)

Title:

(Title of Above Person, typed)

Dated:

State of

)

County of

)

ss:

A.D., 20_____

Sworn to and personally appeared before me for the above, _____
(Name of Firm, Organization, Corporation)

Signer and Sealer of the foregoing instrument of and acknowledged the same to be the free act and deed of

_____, and his/her free act and deed as
(Name of Person appearing in front of Notary or Clerk)

(Title of Person appearing in front of Notary or Clerk)

My Commission Expires:

(Notary Public)

(Seal)

SECTION C

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INFORMATION FOR BIDDERS

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INFORMATION FOR BIDDERS

1. Receipt & Opening of Bids

Sealed bids or proposals for performing the work hereinafter described will be received at the Town Administrator's Office, Town Hall, 200 School Street, Putnam, Connecticut, until the time and date as shown on the title page of this proposal.

2. Preparation of Bid

Bids must be made on the form furnished by the Town of Putnam and attached hereto. Bidders will state, both in numerals and in words, the proposed price for the work. If any price is omitted, the blank may be filled with the highest price proposed by any other bidder for such omitted item or the entire proposal may be rejected.

The unit price for each of the several items in the proposal of each bidder shall include its pro rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. Any bid not conforming to this requirement may be rejected as informal. The special attention of all bidders is called to this provision, for should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor compensation allowed.

3. Competency of Bidders

The Town reserves the right to select bidders and may refuse to issue a bid form to any individual, firm or corporation based upon, but not limited to, one or more of the following facts:

- (1) For having defaulted on previous contracts or is currently in litigation or arbitration with the Town of Putnam.
- (2) For having failed to complete contracts within the time required without acceptable reasons.
- (3) For having performed similar work in an unsatisfactory manner.
- (4) For having failed to prosecute work continuously, diligently and cooperatively in an orderly sequence.
- (5) When in the Town's judgment the bidder does not have the required experience in the class of work to be bid on, fails to have proper labor and equipment to prosecute the work within the time allowed, or fails to have sufficient capital and quick assets to finance the work.

4. Rejection of Bids

Bids may be rejected if they show any irregularities, omissions, alteration of form or additions not called for, or do not comply with instructions to bidders, or contain

conditional or alternate bids unless bids on alternate materials are specifically called for in the bid form.

5. Errors or Omissions

The Contractor shall be and is required to check all dimensions and quantities on the Contract Drawings and all statements in the Information for Bidders and Specifications before undertaking any portion of the work and shall notify the Engineer of all errors or omissions therein, which he may discover by such examination and checking. The Contractor will not be allowed to take advantage of any error or omission in these Specifications or in the Contract Drawings or in the Information for Bidders. Full instructions will be issued by the Engineer should such error or omission be discovered, and the Contractor shall carry out such instructions as if originally specified.

6. Subcontracts

The bidder is advised that any person, firm or other party to whom it is proposed to award a subcontract under this contract must be acceptable to and approved by the Town.

7. Qualifications of Bidder

The Town of Putnam may make such investigation as deemed necessary to determine the ability of the bidder to discharge his contract. The bidder shall furnish the town with all such information and data as may be required for that purpose. The town reserves the right to reject any bid if the bidder fails to satisfactorily convince the town that he is properly qualified by experience and facilities to carry out the obligation of the contract and to satisfactorily complete the work called for herein. Conditional bids will not be accepted.

8. Disqualification of Bidders

Any or all bids will be rejected if there is reason to believe that collusion exists among the bidders, and no participants in such collusion will be considered in future proposals for the same work. Bids in which the prices obviously are unbalanced may be rejected. Unbalanced prices shall be interpreted to mean that the unit price for any item is such that it is unreasonable for that particular item when considered by itself and not considered in connection with the bid submitted on any other item or items. No contract will be awarded except to competent bidders capable of performing the class of work contemplated.

9. Bid Security

The bid must be accompanied by a bid bond which shall be not less than ten (10) percent of the amount of the bid. The bid bond shall be duly executed by the bidder as principal and having a surety thereon which shall be acceptable to the town. Certified checks or bank drafts will not be accepted.

No bidder may withdraw his bid within sixty (60) calendar days after the actual date of bid opening.

10. Damages for Failure to Enter into Contract

The party to whom the contract is awarded will be required to execute the agreement and obtain the performance and payment bond within ten (10) calendar days from the date when notice of award is delivered to the bidder. In case of failure of the bidder to execute the agreement and submit bond forms, the town may, at its option, consider the bidder in default, in which case the bid security accompanying the proposal shall be called.

11. Addenda & Interpretations

Any request from prospective bidder for interpretation of meaning of contract drawings, specifications or other contract documents shall be made in writing to CDM Smith, 101 East River Drive, East Hartford Connecticut, 06108 Attention Michael Egan, P.E., and to be given consideration must be received at least ten (10) days prior to date fixed for opening of bids. Interpretations will be made in form of written addenda to contract documents, which addenda shall become a part of contract. Addenda will be posted of the town webpage least four (4) days prior to date for opening of bids to all those who requested bid packages. Failure of any bidder to receive any such addenda shall not relieve bidder from any obligation under his proposal as submitted.

12. Execution of Contract & Notice to Proceed

Upon receipt of acceptable Performance Bond, Payment Bond (labor and materials), Insurance Certificates and signed Agreement, the Town will, within ten (10) days, enter into and sign the Agreement unless it deems it not to be in the best interest of the Town.

The Notice to Proceed shall be issued within ten (10) days of the execution of the agreement by the town. Should there be reasons why the notice to proceed cannot be issued within such period, the time may be extended by mutual agreement.

It is the intent for the Contractor to commence construction immediately, but in no case exceed ten (10) days from the date on the notice to proceed.

13. Time of Completion

The bidder must agree to commence work on or about April 1, 2025, as specified on the Notice to Proceed from the Town Administrator and to faithfully complete the project within the calendar days allowed in the contract.

The bidder will be levied liquated damages in the amount of \$1000 a day for every consecutive calendar day the project is not substantially complete past the calendar days allowed in the contract.

14. Conditions of Work

At the date fixed for opening of bids, it will be presumed that each bidder has made an examination of location and site work to be done under contract; has satisfied himself as to actual conditions, requirements and quantities of work; and has read and become thoroughly familiar with Contract Documents, including contract drawings, specifications, and addenda.

15. Security and Faithful Performance

In addition to the agreement, the successful bidder shall also provide, within the time stipulated above, a surety bond by a company satisfactory to the Town in an amount equal to one hundred (100) percent of estimate total contract price recorded in proposal of contract as executed.

16. Method of Award

The contract will be awarded to the responsible bidder submitting the lowest total base bid complying with the conditions of these contract documents. The bidder to whom the award is made will be notified at the earliest possible date. The successful bidder shall execute and deliver to the Town, within ten (10) days after notification of the award, an agreement in the form included in the contract documents, in such number as the Town shall require.

The Town also reserves the right to reject any or all bids, for any reason the Town deems advisable, and to award contract or contracts to any of contractors bidding on work regardless of amount of bid. It is intended that contract or contracts will be awarded to lowest responsible and eligible bidder (or bidders) possessing skill, ability, and integrity necessary to faithfully perform the work.

Any bid in which the prices obviously are unbalanced is a cause for the bid to be rejected. Unbalanced prices shall be interpreted to mean that the unit price for any item is such that it is unreasonable for the particular item when considered by itself and not considered in connection with the bid submitted on any other item or items.

17. Laws and Regulations

The bidder's attention is directed to the fact that all applicable federal and state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

18. Sales Tax

Under the terms of the regulations referring to CONTRACTORS and SUBCONTRACTORS issued by the State Tax Commission in administration of the State Sales and Use Tax, to which the bidder is referred, the contractor may purchase materials or supplies to be consumed in the performance of this contract without payment of tax and shall not include in his bid nor charge any use or sales tax thereon. The Town of Putnam is exempt from the payment of Sales Tax.

Any non-resident Contractor shall obtain and provide to the Town of Putnam a certificate from the Connecticut Commissioner of Revenue Services of compliance with Connecticut General Statutes Section 12-430(7) or the Town will be required to deduct

six and thirty-five hundredths percent (6.35%) of all amounts payable to such non-resident Contractor and pay it over to the Commissioner of Revenue Services.

19. Rights-of-Way

The Town shall provide, upon request, any information which is pertinent to and delineates and describes the land owned and rights-of-way acquired or to be acquired.

20. Limit of Construction

The bidder is advised that the limit of construction lines shown on the plans have been established based on funding allocation and the Engineer's construction estimate. The bid will be based upon the limit lines established. However, the bidder is advised that the town may elect to extend or delete portions of the contract.

REPLACEMENT OF THE DANCO DRIVE BRIDGE
OVER PERRY BROOK

INDEX--SPECIAL CONDITIONS

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5.	Coordination of Utilities	SC – 1
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REPLACEMENT OF THE DANCO DRIVE BRIDGE
OVER PERRY BROOK
SPECIAL CONDITIONS

1. INSPECTION

Authorized representatives and agents of the Town of Putnam shall have access and be permitted to inspect all work, materials, payrolls, contract records, invoices of materials and other relevant data in the development and progress of the project.

2. LABOR STANDARDS/WAGE RATES

The State and Federal minimum occupational wage rates and labor standards provisions shall apply.

3. PERMITS

All permits have been obtained by the Town of Putnam subsequent to the bidding of the project. Copies of all permits are included in the Contract Documents for the Contractors use.

4. STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION (D.O.T.)
SPECIFICATION STANDARDS

All references to D.O.T. Specifications shall apply to Form 818

5. COORDINATION OF UTILITIES

The Contractor shall make adequate provisions to allow utility work to be completed on this project. The Contractor shall coordinate with the utility company or contractor performing the work to insure uninterrupted work and minimize conflicts. No additional compensation will be allowed under the contract for delays, utility changes or associated work unless, in the opinion of the Engineer, such compensation is warranted and deemed to be in the best interest of the Town of Putnam. The following utility companies are provided:

Town of Putnam Sewer and WaterWater and Sewer
Eversource Energy Gas
Frontier..... Telephone

6. SAFETY SIGNS AND TRAFFIC CONTROL

The Contractor shall furnish all warning signs, barricades, detour signs, including appropriate illumination, to insure the safety of local traffic, cyclists, pedestrians, workmen, or any person in the vicinity of the construction area and establish such warning and traffic signs as directed.

7. DAILY CLEANUP

Before the completion of each day's work, the Contractor shall be responsible for cleaning up and removing or relocating all excavated material, debris, equipment and the like and for temporarily backfilling or filling excavations as necessary to insure the continuous flow of traffic in roadways where work is progressing, including access to private property during non-working hours.

8. SIGNS

Any signs disturbed or removed by the Contractor, whether shown on the plans or not, shall be reset or replaced at the Contractor's expense as directed by the Engineer. Any traffic control devices damaged due to negligence shall be replaced by the contractor at his expense.

9. SURVEYS

The Contractor will furnish all lines, grades and measurements in laying out the work. Such stakes or marks as the Contractor may set shall be preserved by the Contractor. If such stakes are moved or destroyed by any party, they shall be replaced by the Contractor at the Contractor's expense.

If any existing Putnam Highway bounds, Department of Transportation bounds, or any other public or private property bounds are disturbed during construction, they will be carefully and exactly replaced under the supervision of the Engineer. This work shall be at the expense of the Contractor.

10. REPORTS, RECORDS AND DATA

The Contractor and each of his subcontractors shall submit to the Town, schedules of quantities and costs, progress schedules, payroll reports, estimates, records and other data as the Town may request concerning the work performed or to be performed under this contract.

11. RIGHT TO ELIMINATE WORK

The Town of Putnam reserves the right to eliminate from the Contract any of the items of work.

12. CONDITIONS OF THE SITE AND CONSTRAINTS

The Contractor shall furnish all warning signs and barricades to insure the safety of local traffic and pedestrians in the vicinity of the construction area. The work site will be maintained in an orderly manner and protected to insure that no possibility exists where people may wander onto the construction site, fall into an open excavation or be injured due to the site conditions. If in the opinion of the Engineer or the Inspector, the site is not protected against such possibilities, the Contractor may be directed to provide temporary fencing or other protective measures to insure the safety of the work area. Any such measures so ordered will be at the expense of the Contractor. No additional compensation will be granted.

Required precautions shall be taken concerning noise, clean up, safety, security, etc.

All excavation, trench cuts or other temporary disturbances of the travel surface shall be filled, leveled, and compacted in order to maintain vehicle passage. Gravel, stone, temporary bituminous, or other methods used to stabilize an area for safe passage will be the responsibility of the Contractor.

The Contractor shall be limited to activities between 6:00AM and 6:00PM, unless approved in writing by the Town and Engineer.

13. SANITARY PROVISIONS

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements and regulations of the State Department of Health or of other bodies or tribunals having jurisdiction therewith.

14. USE OF RECLAIMED MATERIALS

Notwithstanding any language to the contrary in the Contract Documents, including the Technical Specifications, Form 818, etc. the Contractor shall not use any reclaimed materials on this project.

15. PROJECT SCHEDULE

The project shall start on or about April 1, 2025, and shall be completed within 180 calendar days. The Contractor shall supply the Town with a project schedule prior to the notice to proceed.

16. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

The Contractor shall, after being awarded the Contract but prior to starting work, furnish Certificates of Insurance, including Automobile, Commercial General Liability, Professional Liability, Umbrella Liability, and Worker's Compensation insurance in accordance with CTDOT Form 818 Section 1.03.07.

Each Policy of Insurance shall include a waiver of subrogation in favor of the Town of Putnam and the State of Connecticut and shall provide no less than thirty (30) days notice to the Town of Putnam in the event of a cancellation or change in conditions or amounts of coverage. The Commercial General Liability, Automobile and Umbrella Liability shall name the Town of Putnam and State of Connecticut as additionally insured.

Certificates of Insurance, acceptable to the Town of Putnam shall be delivered to the Town of Putnam prior to the commencement of the work and kept in force throughout the term hereof.

The above insurance requirements shall also apply to all Subcontractors and the Contractor shall not allow any Subcontractor to commence work until the Subcontractor's insurance has been so obtained and approved.

17. INDEMNIFICATION

The Contractor shall indemnify and hold harmless the Town and its agents and employees from and against all claims, damages, losses and expenses including

attorney's fees arising out of or resulting from the performance or the Work provided that any such claim, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the Town or any of its agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this article shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workmen's Compensation Acts, Disability Benefits Acts or other employee benefit acts.

The obligations of the Contractor under this article shall not extend to the liability of the Town, its agents or employees arising out of (a) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications or (b) the giving of or the failure to give directions or instructions by the Town, its Engineer, agents or employees provided such giving or failure to give is the primary cause of injury or damage.

CHRO BID LANGUAGE FOR MUNICIPAL PROJECT

The contractor who is selected to perform this State project must comply with CONN. GEN. STAT. §§ 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5

State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. § 4a-60g. (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 25% 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. Forms can be found at:

http://www.ct.gov/opm/cwp/view.asp?a=2982&q=390928&opmNav_GID=180

Non-Discrimination and Affirmative Action Provisions

(A)(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, sexual orientation, 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. The Contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, 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; (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 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 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 sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant

CHRO BID LANGUAGE FOR MUNICIPAL PROJECT

to sections 46a-56, 46a-68e, 46a-68f and 46a-86; (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 section 46a-56.

- (B) Any Contractor who is a party to a municipal public works contract or quasi-public agency project, where any such contract is valued at less than \$50,000 for each year of the contract, shall provide the Commission on Human Rights and Opportunities with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subsection (A)(1) above, provided if there is any change in such representation, the Contractor shall provide the updated representation to the Commission not later than 30 days after such change. Any Contractor who is a party to a municipal public works contract or a quasi-public agency project, where any such contract is valued at \$50,000 or more for any year of the contract, shall provide the Commission with any one of the following: (1) Documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholder, managers, members or other governing body of such Contractor that complies with the nondiscrimination agreement and warranty under subsection (A)(1) of this section; (2) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (a) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and the executive director of the Commission on Human Rights and Opportunities or designee certifies that the prior resolution complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section; or (3) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section and is in effect on the date the affidavit is signed..
- (C) If the Contract is a municipal public works contract or a quasi-public agency project, the Contractor agrees and warrants that s/he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project. The Contractor shall include the provisions of subdivision (A)(1) of this section in every subcontract or purchase order entered into to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. 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 section 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 regarding a state contract, the contractor may request the state of Connecticut

CHRO BID LANGUAGE FOR MUNICIPAL PROJECT

to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

- (D) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent 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 section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "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. Determination of the Contractor's good faith efforts shall include, but shall not be eliminated 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 on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in municipal public works contracts or quasi-public agency projects. "Municipal public works project" means that portion of an agreement entered into on or after October 1, 2015, between any individual, firm or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, finance by the state funding in an amount equal to fifty thousand dollars or less. "Quasi-public agency project" means the construction, rehabilitation, conversion, extension, demolition or repair of a building or other changes or improvements in real property pursuant to a contract entered into on or after October 1, 2015, which is financed in whole or in part by a quasi-public agency using state funds, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

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. [See Section 46a-68j-30\(10\)\(E\)](#) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT 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.

2) Description of Job Categories (as used in Part IV Bidder Employment Information) (Page 2)

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; precious stone/metal workers; painting 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)

<p><u>White</u> (not of Hispanic Origin)-All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.</p> <p><u>Black</u> (not of Hispanic Origin)-All persons having origins in any of the Black racial groups of Africa.</p> <p><u>Hispanic</u>- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.</p>	<p><u>Asian or Pacific Islander</u>- 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.</p> <p><u>American Indian or Alaskan Native</u>- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.</p>
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BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART 1 – Bidder 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? Yes <input type="checkbox"/> No <input type="checkbox"/> -Bidder is a minority business enterprise? Yes <input type="checkbox"/> No <input type="checkbox"/> (If yes, check ownership category) Black <input type="checkbox"/> Hispanic <input type="checkbox"/> Asian American <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Iberian Peninsula <input type="checkbox"/> Individual(s) with a Physical Disability <input type="checkbox"/> Female <input type="checkbox"/> -Bidder is certified as above by State of CT? Yes <input type="checkbox"/> No <input type="checkbox"/>
Bidder Parent Company: (If any)	
Other Locations in CT: (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes <input type="checkbox"/> No <input type="checkbox"/>	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.? Yes <input type="checkbox"/> No <input type="checkbox"/>
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes <input type="checkbox"/> No <input type="checkbox"/>	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes <input type="checkbox"/> No <input type="checkbox"/>
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes <input type="checkbox"/> No <input type="checkbox"/>	9. Does your company have a mandatory retirement age for all employees? Yes <input type="checkbox"/> No <input type="checkbox"/>
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes <input type="checkbox"/> No <input type="checkbox"/>	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? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes <input type="checkbox"/> No <input type="checkbox"/>	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? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
6. Does your company have a collective bargaining agreement with workers? Yes <input type="checkbox"/> No <input type="checkbox"/>	12. Does your company have a written affirmative action Plan? Yes <input type="checkbox"/> No <input type="checkbox"/> If no, please explain.
6a. If yes, do the collective bargaining agreements contain non-discrimination clauses covering all workers? Yes <input type="checkbox"/> No <input type="checkbox"/>	
6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of CT? Yes <input type="checkbox"/> No <input type="checkbox"/>	13. Is there a person in your company who is responsible for equal employment opportunity? Yes <input type="checkbox"/> No <input type="checkbox"/> 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 additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes ☐ No ☐

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		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)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		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	
					Wage Garnishments	

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)
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**STATE OF CONNECTICUT
COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES**

NOTICE CONCERNING CONTRACT COMPLIANCE RESPONSIBILITIES

TO ALL LABOR UNIONS, WORKERS REPRESENTATIVES AND VENDORS:

Any contract this contractor has with the State of Connecticut or political subdivisions of the state, other than municipalities, shall be performed in accordance with CONN. GEN. STAT. Section 4a-60 and Section 4a-60a.

This means that this contractor:

1. Agrees to provide the Commission on Human Rights and Opportunities (CHRO) with any information concerning this contractor's employment practices and procedures which relates to the Commission's responsibilities under CONN. GEN. STAT. Sections 4a-60 or 46a-56 or Section 4a-60a.; and
2. Agrees to include the provisions of CONN. GEN. STAT. Section 46a-60(a) and Section 4a-60a in each and every subcontract and purchase order and to take whatever action the CHRO deems necessary to enforce these provisions.

WITH REGARD TO RACE, COLOR, RELIGIOUS CREED, AGE, MARITAL STATUS, NATIONAL ORIGIN, ANCESTRY, SEX, MENTAL RETARDATION OR PHYSICAL DISABILITY, this means that this contractor:

1. Shall not discriminate or permit discrimination against anyone;
2. Shall take affirmative action so that persons applying for employment are hired on the basis of job-related qualifications and that employees once hired are treated without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or physical disability, unless the contractor can show that the disability prevents performance of the work involved;
3. Shall state in all advertisements for employees that it is an affirmative action-equal opportunity employer;
4. Shall comply with CONN. GEN. STAT. Sections 4a-60, 46a-68e and 46a-68f and with each regulation or relevant order issued by the CHRO under CONN. GEN. STAT. Sections 46a-56, 46a-68e and 46a-68f; and
5. Shall make, if the contract is a public works contract, good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials.

WITH REGARD TO SEXUAL ORIENTATION, GENDER IDENTITY OR EXPRESSION:

1. The contractor will not discriminate or permit discrimination against anyone, and employees will be treated without regard to their sexual orientation, gender identity or expression once employed; and
2. The contractor agrees to fully comply with Section 4a-60a and each regulation or relevant order issued by the CHRO under CONN. GEN. STAT. Section 46a-56.

Persons having questions about this notice or their rights under the law are urged to contact the:

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES AFFIRMATIVE
ACTION AND CONTRACT COMPLIANCE UNIT

450 Columbus Boulevard, Suite 2
Hartford, CT 06103
(860) 541-4709

COPIES OF THIS NOTICE SHALL BE POSTED IN CONSPICUOUS PLACES
AVAILABLE TO ALL EMPLOYEES AND APPLICANTS FOR EMPLOYMENT

**Checklist for Municipalities
For Contracting
Effective October 1st, 2015**

- ☐ Post the bid notice with [CHRO language](#) included
- * You do not have to have your bid documents pre-approved by CHRO prior to going out to bid
- ☐ Provide bid documents to bidders with CHRO language included ([Notification to Bidders/Contract Compliance Monitoring Report](#))
- ☐ Check CHRO website for [contractor non-discrimination affidavit list](#)
- * Non-Discrimination Affidavit must be current prior to contract award
- ☐ Check with [CT Law Journal](#) and the [Department of Labor](#) to ensure contractor is not debarred
- ☐ Send either Notification of Contract Award or Intent to Award Contract Notice to selected bidder and copy to CHRO (email Alvin.Bingham@ct.gov)
 - ☐ \$50,000.00 to \$499,999.99 [Notification of Contract Award](#)
 - ☐ \$500,000.00 equal to or greater than [Intent to Award Contract Notice](#)
- ☐ Execute contract with [non-discrimination and set-aside language](#)
 - ☐ \$50,000.00 to \$499,999.99 when awarded
 - ☐ \$500,000.00 equal to or greater than only when:
 - ☐ Contractor has submitted an approved Affirmative Action Plan to CHRO **OR**
 - ☐ Request [authorization from CHRO to execute contract](#) and retain 2% per month of the total contract value until contractor has submitted an approved Affirmative Action Plan to CHRO and CHRO has granted approval
- * Please seek confirmation from your contractor that they have submitted their plan to CHRO; if a contractor's plan is not received the contractor's failure to submit may be reported to our Legal Department

For Contracts Equal to or Greater than \$500,000.00

The contract cannot be awarded without an approved Affirmative Action Plan **OR** authorization from CHRO to award and retain 2%

- ☐ Contact CHRO AA/CC Unit to request authorization to execute the contract prior to the contractor's Affirmative Action Plan being approved (email Alvin.Bingham@ct.gov)
- ☐ Execute Contract when CHRO gives approval to do so, within two (2) business days
- ☐ Retain 2% of the total state-funded portion of the contract per month until CHRO approves the contractor's Affirmative Action Plan
- ☐ The municipality receives written notice from CHRO to release the 2% retainage
- ☐ Release the 2% retainage to the contractor

SECTION D

AGREEMENT
REPLACEMENT OF THE DANCO DRIVE
BRIDGE OVER PERRY BROOK
PUTNAM, CT

THIS AGREEMENT made the _____ day of _____, in the year Two Thousand Twenty Four; BY AND BETWEEN the TOWN OF PUTNAM, a municipal corporation in the County of Windham and State of Connecticut, hereinafter called the "Owner" and *TO BE DETERMINED*, hereinafter called the "Contractor".

WITNESSETH:

That the Owner and the Contractor, for the consideration hereinafter named agree as follows:

ARTICLE 1. CONTRACT DOCUMENTS

This Contract shall consist of and shall include this Agreement, "CONTRACT DOCUMENTS FOR THE REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK, PUTNAM, CT ", Information for Bidders, Bid Proposal, Drawings, Maps, Technical Specifications, Special Conditions, General Conditions, Addenda, Modifications (whether issued prior to or after opening of bids or execution of this Agreement).

All of the foregoing underlined items are herein referred to as the "CONTRACT" for purpose of convenience. Wherever a particular document in said "CONTRACT" requires a signature, the execution of this Agreement shall constitute the execution or signature on said document.

The Contractor represents that it (he or she) is familiar with the "CONTRACT" and shall initial front page of the "CONTRACT" for which it (he or she) shall be responsible.

In addition to the "CONTRACT", Contractor agrees to all federal, state, and local laws, rules and regulations as they may be applicable.

ARTICLE 2. SCOPE OF WORK

The Contractor shall furnish all of the labor, material specified, tools, equipment and other facilities and things necessary or proper for and incidental to, and perform all of the work for the construction of improvements as more fully described in the "CONTRACT." The Contractor has informed himself fully in regard to all conditions pertaining to the place where the work is to be done and other circumstances affecting the work.

ARTICLE 3. RESPONSIBILITY

The Contractor shall be responsible for the care and protection of all materials and equipment at the job site and shall be responsible for any loss from whatever cause. The Contractor shall be responsible for and agrees to hold harmless the Town of Putnam from any claims made as a result of unstable conditions created by the method used in excavation. For the scope of indemnification and for a more specific description of the

AGREEMENT
REPLACEMENT OF THE DANCO DRIVE
BRIDGE OVER PERRY BROOK
PUTNAM, CT

responsibility of the Contractor and the Town, reference is made to Number 17 Indemnification found in the Special Conditions of the document "CONTRACT DOCUMENTS FOR THE REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK PUTNAM, CT".

Appropriate insurance coverage as specified in Number 16 of said Special Conditions shall be provided at the time of execution to secure the Contractor's obligations herein specified.

ARTICLE 4. TIME OF COMMENCEMENT

The work shall be commenced as follows:

The Contractor will commence work on or about April 1, 2025, and shall be completed, substantially, on September 30, 2025.

ARTICLE 5. CONTRACT SUM

The Owner shall pay the Contractor for the performance of the "CONTRACT", subject to the additions and deductions provided in the "CONTRACT" in current funds not to exceed the sum of _____ Dollars and ____ Cents (\$_____.____). All payments shall be made in accordance with the provisions of the "CONTRACT". The Contractor has obtained all the information he needs to enable him to estimate fully and fairly the costs of the work herein contemplated.

ARTICLE 6. MEDIATION

All claims, disputes or other matters in question between the parties to this Contract arising out of or relating to this Contract or breach thereof shall be submitted to non-binding mediation. On the written notice of either party to the other of the election to submit any dispute under this Contract to mediation, each party shall designate its representative and shall meet at the Putnam Town Hall within ten (10) days after the service of notice. The parties themselves shall then attempt to resolve the dispute within ten (10) days of meeting.

Should the parties themselves be unable to agree on a resolution of this dispute, then the parties shall appoint a third party, who shall be a competent and impartial party and who shall be acceptable to each party, to mediate the dispute. Each party shall pay the fees and expenses of the party mediator and such costs shall be borne equally by both parties. Upon agreement of the parties, either party may waive the first step in the mediation process and appoint a mutually acceptable mediator.

AGREEMENT
REPLACEMENT OF THE DANCO DRIVE
BRIDGE OVER PERRY BROOK
PUTNAM, CT

Any third party mediator designated to serve in accordance with the provisions of the Contract shall be disinterested and shall be qualified to evaluate the performance of both parties.

This process shall be considered as a condition precedent to moving to court.

During the mediation process, the Contractor shall continue the work.

ARTICLE 7. COURT LITIGATION AND WAIVER OF JURY TRIAL

Notwithstanding the existence of any provision for arbitration of disputes in the Contract or any legislation providing for arbitration, any dispute arising under this Contract shall not be submitted to arbitration and the parties shall be left to their remedies at law. It is further expressly agreed that both parties waive and relinquish their right to a trial by jury of any dispute arising out of this Contract. The intent of the parties is not to have a jury decide any aspect of any dispute which may arise under this Contract.

ARTICLE 8. EQUITABLE RELIEF

Nothing herein shall prevent either party from obtaining a court order enforcing the mediation process or such other temporary or equitable relief until such time that the dispute is settled or finally adjudicated.

ARTICLE 9. SUCCESSORS

This Agreement shall be binding upon the heirs, successors, and assigns of the parties. The Contractor has no right to assign its obligations under this Agreement without written approval of the Owner.

[BLANK ON PURPOSE]

AGREEMENT
REPLACEMENT OF THE DANCO DRIVE
BRIDGE OVER PERRY BROOK
PUTNAM, CT

IN WITNESS WHEREOF, the parties hereto executed this Agreement, the day and year first above written.

Signed, Sealed and Delivered in
the presence of:

TOWN OF PUTNAM

By _____
Norman B. Sweeney, Jr
Mayor
Duly Authorized

TO BE DETERMINED

By _____
NAME
Its TITLE
Duly Authorized

PERFORMANCE BOND
TOWN OF PUTNAM, CONNECTICUT

KNOW ALL MEN BY THESE PRESENTS

THAT WE, _____ of the Town of _____, County of _____ and State of Connecticut; as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the TOWN OF PUTNAM, hereinafter called OWNER in the sum of _____ (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, whereas the Principal has entered into a certain written contract with the Owner, dated _____ day of _____, 2024, a copy of which is hereunto attached and made a part hereof for the construction of:

S. R. T. S. : REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)

NOW THEREFORE, if the Principal shall well and truly keep, and perform its duties, all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect. PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

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

PERFORMANCE BOND
TOWN OF PUTNAM, CONNECTICUT

IN WITNESS WHEREOF, WE HAVE SET our hands and seals this _____ day of _____, 2024.

Witness	_____ Principal
	L.S.

By: _____ L.S.

Witness	_____ Surety
	L.S.

By: _____ L.S.

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

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Connecticut.

PAYMENT BOND

TOWN OF PUTNAM, CONNECTICUT

KNOW ALL MEN BY THESE PRESENTS

THAT WE, _____ of the Town of _____, County of _____ and State of Connecticut; as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the TOWN OF PUTNAM, hereinafter called OWNER in the sum of _____ (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, whereas the Principal has entered into a certain written contract with the Owner, dated _____ day of _____, 2024, a copy of which is hereunto attached and made a part hereof for the construction of:

S. R. T. S. : REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)

NOW THERE, if the Principal shall promptly make payment to persons, firms, subcontractors, and corporations furnishing materials for a performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

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

PROVIDED, FURTHER, there are no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

PAYMENT BOND

TOWN OF PUTNAM, CONNECTICUT

IN WITNESS WHEREOF, WE HAVE SET our hands and seals this _____ day of
_____, 2024.

Witness Principal _____ L.S.

Witness Surety _____ L.S.

_____ By: _____ L.S.

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

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Connecticut.

NOTICE OF AWARD

TO: _____

PROJECT: REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK
(BRIDGE NO. 115008)

In response to your Bid submitted on _____, 2024, for the above described work, you are hereby notified that your Bid has been accepted for the unit prices quoted.

You are required by the Information for Bidders to execute the Agreement and furnish the required Performance and Labor Bonds and Certificates of Insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this _____ day of _____, 2024.

TOWN OF PUTNAM
(Owner)

By _____

Norman B.
Sweeney, Jr
Mayor

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by

this _____ day of _____, 2024.

By (Please Print)

Title _____

NOTICE TO PROCEED

Date: _____

TO: (Contractor)

PROJECT: REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK
(BRIDGE NO. 115008)

You are hereby notified to commence work in accordance with the Agreement date _____
_____, 2024, on or about _____, **2024**, and you are
to complete the work as indicated in the Instruction to Bidders, section, "Time of Completion".

TOWN OF PUTNAM
(Owner)

By:

Norman B.
Sweeney, Jr
Mayor

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by

this _____ day of _____, 2024.

By: _____

Title: _____

SECTION E
CONTRACT SPECIFICATIONS

NOTICE TO CONTRACTORS

NOTICE TO CONTRACTOR - CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

With regard to a State contract as defined in P.A. 07-1 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 the bid proposal form in response to the State's solicitation expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising prospective state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice. The attached SEEC Form 11 is also made a part of this solicitation.

For all State contracts as defined in P.A. 07-1 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 expressly acknowledges receipt of 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. The attached SEEC Form 11 is also made a part of this Contract.

SEEC FORM 11

NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

This notice is provided under the authority of Connecticut General Statutes 9-612(g)(2), as amended by P.A. 07-1, and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined below):

Campaign Contribution and Solicitation Ban

No *state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract or state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall make a contribution to, or *solicit* contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee; In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

Duty to Inform

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

Penalties for Violations

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

- Civil penalties – Up to \$2000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of \$2000 or twice the amount of the prohibited contributions made by their principals.
- Criminal penalties – Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or \$5000 in fines, or both.

Contract Consequences

Contributions made or solicited in violation of the above prohibitions may result, in the case of a state contractor, in the contract being voided. Contributions made or solicited in violation of the above prohibitions, in the case of a prospective state contractor, shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances

exist concerning such violation. The State will not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information and the entire text of P.A 07-1 may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "State Contractor Contribution Ban."

Definitions:

"State contractor" means a person, business entity or nonprofit organization that enters into a state contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. "State contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Prospective state contractor" means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. "Prospective state contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasipublic agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Principal of a state contractor or prospective state contractor" means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state contractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has managerial or discretionary responsibilities with respect to a state contract, (v) the spouse or a dependent child who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

"State contract" means an agreement or contract with the state or any state agency or any

quasipublic agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services,

(ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. "State contract" does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan or a loan to an individual for other than commercial purposes.

"State contract solicitation" means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

"Managerial or discretionary responsibilities with respect to a state contract" means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

"Dependent child" means a child residing in an individual's household who may legally be claimed as a dependent on the federal income tax of such individual.

"Solicit" means (A) requesting that a contribution be made, (B) participating in any fund-raising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.

NOTICE TO CONTRACTOR – CODE OF ETHICS

The Contractor shall comply with the provisions contained in Section 1-86e of the Connecticut General Statutes, which provides as follows:

(a) No person hired by the state as a Contractor or independent contractor shall:

(1) Use the authority provided to the person under the contract, or any confidential information acquired in the performance of the contract, to obtain financial gain for the person, an employee of the person or a member of the immediate family of any such person or employee; (2) Accept another state contract which would impair the independent judgment of the person in the performance of the existing contract; or (3) Accept anything of value based on an understanding that the actions of the person on behalf of the state would be influenced.

(b) No person shall give anything of value to a person hired by the state as a Contractor or independent contractor based on an understanding that the actions of the Contractor or independent contractor on behalf of the state would be influenced.

The following clause is applicable to those contracts with a value of five hundred thousand dollars (\$500,000) or more:

The Contractor shall comply with the Code of Ethics for Public Officials, Conn. Gen. Stat. §§ 179 et seq., and Code of Ethics for Lobbyists, Conn. Gen. Stat. §§1-91 et seq., when and where applicable. Insofar as state contractors are concerned, a summary of the most relevant provisions of the Codes of Ethics is contained in the Summary of State Ethics Laws for Current and Potential State Contractors. The Contractor acknowledges receiving such Summary, which is incorporated herein by reference. The Summary may change from time to time and may be accessed via the Internet at www.ethics.state.ct.us.

The Contractor agrees that the above clause will also be incorporated in all of its contracts with its subcontractors and consultants.

The Contractor agrees that any instance of its violating the Code of Ethics or the Department of Transportation Ethics Policy will be sufficient cause for the Department to terminate any or all of the Contractor's pending contracts with the Department.

In addition, the Contractor hereby acknowledges and agrees to comply with the policies enumerated in "Connecticut Department of Transportation Policy Statement Policy No. F&A-10,

Subject: Code of Ethics Policy", dated June 1, 2007, a copy of which is attached hereto and made a part hereof.



CONNECTICUT DEPARTMENT OF TRANSPORTATION POLICY STATEMENT

POLICY NO. F&A-10
June 1, 2007

SUBJECT: Code of Ethics Policy

The purpose of this policy is to establish and maintain high standards of honesty, integrity, and quality of performance for all employees of the Department of Transportation ("DOT" or "Department"). Individuals in government service have positions of significant trust and responsibility that require them to adhere to the highest ethical standards. Standards that might be acceptable in other public or private organizations are not necessarily acceptable for the DOT.

It is expected that all DOT employees will comply with this policy as well as the Code of Ethics for Public Officials, and strive to avoid even the appearance of impropriety in their relationships with members of the public, other agencies, private vendors, consultants, and contractors. This policy is, as is permitted by law, in some cases stricter than the Code of Ethics for Public Officials. Where that is true, employees are required to comply with the more stringent DOT policy.

The Code of Ethics for Public Officials is State law and governs the conduct of all State employees and public officials regardless of the agency in which they serve. The entire Code, as well as a summary of its provisions, may be found at the Office of State Ethics' web site: www.ct.gov/ethics/site/default.asp. For formal and informal interpretations of the Code of Ethics, DOT employees should contact the Office of State Ethics or the DOT's Ethics Compliance Officer or her designee.

All State agencies are required by law to have an ethics policy statement. Additionally, all State agencies are required by law to have an Ethics Liaison or Ethics Compliance Officer. The DOT, because of the size and scope of its procurement activities, has an Ethics Compliance Officer who is responsible for the Department's: development of ethics policies; coordination of ethics training programs; and monitoring of programs for agency compliance with its ethics policies and the Code of Ethics for Public Officials. At least annually, the Ethics Compliance Officer shall provide ethics training to agency personnel involved in contractor selection, evaluation, and supervision. A DOT employee who has a question or is unsure about the provisions of this policy, or who would like assistance contacting the Office of State Ethics, should contact the Ethics Compliance Officer or her designee.

The DOT Ethics Compliance Officer is:

Denise Rodosevich, Managing Attorney
Office of Legal Services

**For questions, contact the Ethics
Compliance Officer's Designee:**

Alice M. Sexton, Principal Attorney
Office of Legal Services
2800 Berlin Turnpike
Newington, CT 06131-7546
Tel. (860) 594-3045

To contact the Office of State Ethics:

Office of State Ethics
20 Trinity Street, Suite 205
Hartford, CT 06106
Tel. (860) 566-4472
Facs. (860) 566-3806
Web: www.ethics.state.ct.us

Enforcement

The Department expects that all employees will comply with all laws and policies regarding ethical conduct. Violations of the law may subject an employee to sanctions from agencies or authorities outside the DOT. Whether or not another agency or authority imposes such sanctions, the Department retains the independent right to review and respond to any ethics violation or alleged ethics violation by its employees. Violations of this policy or ethics statutes, as construed by the DOT, may result in disciplinary action up to and including dismissal from State service.

Prohibited Activities

1. ***Gifts:*** DOT employees (and in some cases their family members) are prohibited by the Code of Ethics and this Policy from accepting a gift from anyone who is: (1) doing business with, or seeking to do business with, the DOT; (2) directly regulated by the DOT; (3) prequalified as a contractor pursuant to Conn. Gen. Stat. §4a-100 by the Commissioner of the Department of Administrative Services (DAS); or (4) known to be a registered lobbyist or a lobbyist's representative. These four categories of people/entities are referred to as "restricted donors." A list of registered lobbyists can be found on the web site of the Office of State Ethics (www.ct.gov/ethics/site/default.asp). A list of prequalified consultants and contractors, *i.e.*, those seeking to do business with the DOT, can be found on the DOT's Internet site under "Consultant Information" and "Doing Business with ConnDOT," respectively.

The term "gift" is defined in the Code of Ethics for Public Officials, Conn. Gen. Stat. §1-79(e), and has numerous exceptions. For example, one exception permits the acceptance of food and/or beverages valued up to \$50 per calendar year from any one donor and consumed on an occasion or occasions while the person paying or his representative is present. Therefore, such food and/or beverage is not a "gift." Another exception permits the acceptance of items having a value up to ten dollars (\$10) provided the aggregate value of all things provided by the donor to the recipient during a calendar year does not exceed fifty dollars (\$50). Therefore, such items are not a "gift." Depending on the circumstances, the "donor" may be an individual if the individual is bearing the expense, or a donor may be the individual's employer/group if the individual is passing the expense back to the employer/group he/she represents.

This policy requires DOT employees to immediately return any gift (as defined in the Code of Ethics) that any person or entity attempts to give to the employee(s). If any such gift or other item of value is received by other than personal delivery from the subject person or entity, the item shall be taken to the Office of Human Resources along with the name and address of the person or entity who gave the item. The Office of Human Resources, along with the recipient of the item of value, will arrange for the donation of the item to a local charity (e.g., Foodshare, local soup kitchens, etc.). The Office of Human Resources will then send a letter to the gift's donor advising the person of the item's donation to charity and requesting that no such gifts be given to DOT employees in the future.

2. ***Contracting for Goods or Services for Personal Use With Department Contractors, Consultants, or Vendors:*** Executive Order 7C provides that: "Appointed officials and state employees in the Executive Branch are prohibited from contracting for goods and services, for personal use, with any person doing business with or seeking business with his or her agency, unless the goods or services are readily available to the general public for the price which the official or state employee paid or would pay."

3. ***Gift Exchanges Between Subordinates and Supervisors/Senior Staff:*** A recent change in the Code of Ethics prohibits exchanges of gifts valued at \$100 or more between (*i.e.*, to and from) supervisors and employees under their supervision. The Citizen's Ethics Advisory Board has advised that: (1) the monetary limit imposed by this provision is a per-gift amount; (2) gifts given between supervisors and subordinates (or *vice versa*) in celebration of a "major life event," as defined in the Code of Ethics, need not comply with the \$100 limit; and (3) the limitations imposed by this provision apply to a direct supervisor and subordinate *and to any individual up or down the chain of command*. The Citizen's Ethics Advisory Board has also advised that supervisors or subordinates may not pool their money to give a collective or group gift valued at \$100 or more, even though each of the individual contributions is less than \$100.
4. ***Acceptance of Gifts to the State:*** A recent change to the Code of Ethics for Public Officials modified the definition of the term "gift" to limit the application of the so-called "gift to the State" exception. In general, "gifts to the State" are goods or services given to a State agency for use on State property or to support an event and which facilitate State action or functions. Before accepting any benefit as a "gift to the State," DOT employees should contact the Ethics Compliance Officer.
5. ***Charitable Organizations and Events:*** No DOT employee shall knowingly accept any gift, discount, or other item of monetary value for the benefit of a charitable organization from any person or entity seeking official action from, doing or seeking business with, or conducting activities regulated by, the Department.
6. ***Use of Office/Position for Financial Gain:*** DOT employees shall not use their public office, position, or influence from holding their State office/position, nor any information gained in the course of their State duties, for private financial gain (or the prevention of financial loss) for themselves, any family member, any member of their household, nor any "business with which they are associated." In general, a business with which one is associated includes any entity of which a DOT employee or his/her immediate family member is a director, owner, limited or general partner, beneficiary of a trust, holder of 5 percent or more stock, or an officer (president, treasurer, or executive or senior vice president).

DOT employees shall not use or distribute State information (except as permitted by the Freedom of Information Act), nor use State time, personnel, equipment, or materials, for other than State business purposes.

7. ***Other Employment:*** DOT employees shall not engage in, nor accept, other employment that will either impair their independence of judgment with regard to their State duties or require or induce them to disclose confidential information gained through their State duties.

Any DOT employee who engages in or accepts other employment (including as an independent contractor), or has direct ownership in an outside business or sole proprietorship, shall complete an Employment/Outside Business Disclosure Form (see attached) and submit it to the Department's Human Resources Administrator. Disclosure of other employment to the DOT Human Resources Administrator shall *not* constitute approval of the other employment for purposes of the Code of Ethics for Public Officials.

Inquiries concerning the propriety of a DOT employee's other employment shall be directed to the Office of State Ethics to assure compliance with the Code of Ethics for Public Officials. Employees anticipating accepting other employment as described above should give ample time (at least one month) to the Office of State Ethics to respond to such outside employment inquiries.

No employee of the DOT shall allow any private obligation of employment or enterprise to take precedence over his/her responsibility to the Department.

8. **Outside Business Interests:** Any DOT employee who holds, directly or indirectly, a financial interest in any business, firm, or enterprise shall complete an Employment/Outside Business Disclosure Form (see attached) and submit it to the Department's Human Resources Administrator. An indirect financial interest includes situations where a DOT employee's spouse has a financial interest in a business, firm, or enterprise. A financial interest means that the employee or his spouse is an owner, member, partner, or shareholder in a non-publicly traded entity. Disclosure of such outside business interests to the DOT Human Resources Administrator shall *not* constitute approval of the outside business interest under this Policy or the Code of Ethics for Public Officials. DOT employees shall not have a financial interest in any business, firm, or enterprise which will either impair their independence of judgment with regard to their State duties or require or induce them to disclose confidential information gained through their State duties. Inquiries concerning the propriety of a DOT employee's outside business interests shall be directed to the Office of State Ethics to assure compliance with the Code of Ethics for Public Officials.
9. **Contracts With the State:** DOT employees, their immediate family members, and/or a business with which a DOT employee is associated, may not enter into a contract with the State, other than pursuant to a court appointment, valued at \$100 or more unless the contract has been awarded through an open and public process.
10. **Sanctioning Another Person's Ethics Violation:** No DOT official or employee shall counsel, authorize, or otherwise sanction action that violates any provision of the Code of Ethics.
11. **Certain Persons Have an Obligation to Report Ethics Violations:** If the DOT Commissioner, Deputy Commissioner, or "person in charge of State agency procurement" and contracting has reasonable cause to believe that a person has violated the Code of Ethics or any law or regulation concerning ethics in State contracting, he/she *must* report such belief to the Office of State Ethics. All DOT employees are encouraged to disclose waste, fraud, abuse, and corruption about which they become aware to the appropriate authority (see also Policy Statement EX.O.-23 dated March 31, 2004), including, but not limited to, their immediate supervisor or a superior of their immediate supervisor, the DOT Office of Management Services, the Ethics Compliance Officer, the Auditors of Public Accounts, the Office of the Attorney General, or the Office of the Chief State's Attorney.
12. **Post-State Employment Restrictions:** In addition to the above-stated policies of the Department, DOT employees are advised that the Code of Ethics for Public Officials bars certain conduct by State employees *after they leave State service. Upon leaving State service:*
 - **Confidential Information:** DOT employees must never disclose or use confidential information gained in State service for the financial benefit of any person.
 - **Prohibited Representation:** DOT employees must *never* represent anyone (other than the State) concerning any "particular matter" in which they participated personally and substantially while in State service and in which the State has a substantial interest.

DOT employees also must not, for one year after leaving State service, represent anyone other than the State for compensation before the DOT concerning a matter in which the State has a substantial interest. In this context, the term "represent" has been very broadly defined. Therefore, any former DOT employee contemplating post-State employment work that might involve interaction with any bureau of DOT (or any Board or Commission administratively under the DOT) within

their first year after leaving State employment should contact the DOT Ethics Compliance Officer and/or the Office of State Ethics.

- **Employment With State Vendors:** DOT employees who participated substantially in, or supervised, the negotiation or award of a State contract valued at \$50,000 or more must not accept employment with a party to the contract (other than the State) for a period of one year after resigning from State service, if the resignation occurs within one year after the contract was signed.

13. **Ethical Considerations Concerning Bidding and State Contracts:** DOT employees also should be aware of various provisions of Part IV of the Code of Ethics that affect any person or firm who: (1) is, or is seeking to be, prequalified by DAS under Conn. Gen. Stat. §4a-100; (2) is a party to a large State construction or procurement contract, or seeking to enter into such a contract, with a State agency; or (3) is a party to a consultant services contract, or seeking to enter into such a contract, with a State agency. These persons or firms shall not:

- With the intent to obtain a competitive advantage over other bidders, solicit any information from an employee or official that the contractor knows is not and will not be available to other bidders for a large State construction or procurement contract that the contractor is seeking;
- Intentionally, willfully, or with reckless disregard for the truth, charge a State agency for work not performed or goods not provided, including submitting meritless change orders in bad faith with the sole intention of increasing the contract price, as well as falsifying invoices or bills or charging unreasonable and unsubstantiated rates for services or goods to a State agency; and
- Intentionally or willfully violate or attempt to circumvent State competitive bidding and ethics laws.

Firms or persons that violate the above provisions may be deemed a nonresponsible bidder by the DOT.

In addition, no person with whom a State agency has contracted to provide consulting services to plan specifications for any contract, and no business with which such person is associated, may serve as a consultant to any person seeking to obtain such contract, serve as a contractor for such contract, or serve as a subcontractor or consultant to the person awarded such contract.

DOT employees who believe that a contractor or consultant may be in violation of any of these provisions should bring it to the attention of their manager.

Training for DOT Employees

A copy of this policy will be posted throughout the Department, and provided to each employee either in hard copy or by e-mail. As set forth above, State law requires that certain employees involved in contractor/consultant/vendor selection, evaluation, or supervision must undergo annual ethics training coordinated or provided by the Ethics Compliance Officer. If you believe your duties meet these criteria, you should notify your Bureau Chief to facilitate compilation of a training schedule. In addition, the DOT Ethics Compliance Officer can arrange for periodic ethics training provided by the Office of State Ethics. Finally, the Department will make available, on its web site or otherwise, a copy of this policy to all vendors, contractors, and other business entities doing business with the Department.

Important Ethics Reference Materials

It is strongly recommended that every DOT employee read and review the following:

- Code of Ethics for Public Officials, Chapter 10, Part 1, Conn. General Statutes Sections 1-79 through 1-89a found at: www.ct.gov/ethics/site/default.asp
- Ethics Regulations Sections 1-81-14 through 1-81-38, found at: www.ct.gov/ethics/site/default.asp
- The Office of State Ethics web site includes summaries and the full text of formal ethics advisory opinions interpreting the Code of Ethics, as well as summaries of previous enforcement actions: www.ct.gov/ethics/site/default.asp. DOT employees are strongly encouraged to contact the Department's Ethics Compliance Officer or her designee, or the Office of State Ethics with any questions or concerns they may have.

(This Policy Statement supersedes Policy Statement No. F&A-10 dated January 6, 2006)


Ralph J. Carpenter
COMMISSIONER

Attachment

List 1 and List 3

(Managers and supervisors are requested to distribute a copy of this Policy Statement to all employees under their supervision.)

cc: Office of the Governor, Department of Administrative Services, Office of State Ethics

Department of Transportation Employment & Outside Business Disclosure Form

In accordance with Department of Transportation (Department) Policy Statement No. F&A-10, Code of Ethics Policy, I am hereby advising the Department that in addition to my current DOT position, I have other employment and/or a direct or indirect financial interest in an outside business as follows:

1. Full name of outside employer, or entity in which I or my spouse have a financial interest (e.g., ownership or member/partner): _____

2. Location of Employer/Entity disclosed above: _____

3. Nature of my/my spouse's relationship to employer/entity disclosed above (check at least one):

- ☐ Employee or Independent Contractor (circle one)
- ☐ Owner/Member/Partner/etc.
- ☐ Family Member of Owner/Member/Partner/etc.

4. State agency(ies) with which above employer/entity is doing business or seeking Business (write "N/A" if not applicable): _____

5. Job Title at Outside Employer: _____

6. Job Responsibilities at Outside Employer: _____

7. Current State Title: _____

8. Current State Job Responsibilities: _____

9. Name/Title of Current State Supervisor: _____

I understand that the filing of this Disclosure with the DOT Human Resources Administrator does not relieve me of any obligations I have to comply with the Code of Ethics for Public Officials, and does not constitute approval of my outside employment and/or financial interests under the Code of Ethics for Public Officials. *Employees engaging in outside employment are strongly urged to seek written approval of their outside employment from the Office of State Ethics, 20 Trinity Street, Hartford, CT 06106.* I also understand that if either my State or outside employment/financial interest changes in location or function I am required to notify the Department immediately.

Signed: _____
Printed Name: _____

Date: _____

NOTICE TO CONTRACTOR – GIFT CERTIFICATION DISCLOSURE

Pursuant to Connecticut General Statutes, Section 4-252 and Executive Order No. 7C, paragraph 10, the Contractor is notified of subsections (c) and (d) of this Section as follows. The Contractor must incorporate the planning date indicated below under subsection (e) on Certification Form 1, at the time the Contract is executed.

(c) The official of the person, firm or corporation awarded the contract, who is authorized to execute the contract, shall certify on such form as the State shall provide the following:

(1) That no gifts were made between the date that the state agency or quasi-public agency began planning the project, services, procurement, lease or licensing arrangement covered by the contract and the date of execution of the contract, by (A) such person, firm, corporation, (B) any principals and key personnel of the person, firm or corporation, who participated substantially in preparing the bid or proposal or the negotiation of the contract, or (C) any agent of such person, firm, corporation or principals and key personnel, who participated substantially in preparing the bid or proposal or the negotiation of the contract, to (i) any public official or state employee of the state agency or quasi-public agency soliciting bids or proposals for the contract, who participated substantially in the preparation of the bid solicitation or request for proposals for the contract or negotiation or award of the contract, 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 person, firm or corporation, or agent of such person, firm or corporation or principals and key personnel, knows of any action by the person, firm or corporation to circumvent such prohibition on gifts by providing for any other principals and key personnel, official, employee or agent of the person, firm or corporation to provide a gift to any such public official or state employee; and

(3) That the person, firm or corporation made the bid or proposal without fraud or collusion with any person.

(d) Any bidder or proposer that does not make the certifications required under subsection (c) of this section shall be disqualified and the state agency or quasi-public agency shall award the contract to the next highest ranked proposer or the next lowest responsible qualified bidder or seek new bids or proposals.

NOTICE TO CONTRACTOR – GIFT AND CAMPAIGN CONTRIBUTION CERTIFICATION

OPM Ethics Form 1

Rev. 5-26-15
Page 1 of 2



STATE OF CONNECTICUT GIFT AND CAMPAIGN CONTRIBUTION CERTIFICATION

Written or electronic certification to accompany a State contract with a value of \$50,000 or more, pursuant to C.G.S. §§ 4-250, 4-252(c) and 9-612(f)(2) and Governor Dannel P. Malloy's Executive Order 49.

INSTRUCTIONS:

Complete all sections of the form. Attach additional pages, if necessary, to provide full disclosure about any lawful campaign contributions made to campaigns of candidates for statewide public office or the General Assembly, as described herein. Sign and date the form, under oath, in the presence of a Commissioner of the Superior Court or Notary Public. Submit the completed form to the awarding State agency at the time of initial contract execution and if there is a change in the information contained in the most recently filed certification, such person shall submit an updated certification either (i) not later than thirty (30) days after the effective date of such change or (ii) upon the submittal of any new bid or proposal for a contract, whichever is earlier. Such person shall also submit an accurate, updated certification not later than fourteen days after the twelve-month anniversary of the most recently filed certification or updated certification.

CHECK ONE: ☐ Initial Certification ☐ 12 Month Anniversary Update (Multi-year contracts only.)
☐ Updated Certification because of change of information contained in the most recently filed certification or twelve-month anniversary update.

GIFT CERTIFICATION:

As used in this certification, the following terms have the meaning set forth below:

- 1) "Contract" means that contract between the State of Connecticut (and/or one or more of its agencies or instrumentalities) and the Contractor, attached hereto, or as otherwise described by the awarding State agency below;
- 2) If this is an Initial Certification, "Execution Date" means the date the Contract is fully executed by, and becomes effective between, the parties; if this is a twelve-month anniversary update, "Execution Date" means the date this certification is signed by the Contractor;
- 3) "Contractor" means the person, firm or corporation named as the contractor below;
- 4) "Applicable Public Official or State Employee" means any public official or state employee described in C.G.S. §4-252(c)(1)(i) or (ii);
- 5) "Gift" has the same meaning given that term in C.G.S. § 4-250(1);
- 6) "Principals or Key Personnel" means and refers to those principals and key personnel of the Contractor, and its or their agents, as described in C.G.S. §§ 4-250(5) and 4-252(c)(1)(B) and (C).

I, the undersigned, am a Principal or Key Personnel of the person, firm or corporation authorized to execute this certification on behalf of the Contractor. I hereby certify that, no gifts were made by (A) such person, firm, corporation, (B) any principals and key personnel of the person firm or corporation who participate substantially in preparing bids, proposals or negotiating state contracts or (C) any agent of such, firm, corporation, or principals or 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 request 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.

I further certify that no Principals or Key Personnel know of any action by the Contractor to circumvent (or which would result in the circumvention of) the above certification regarding **Gifts** by providing for any other Principals, Key Personnel, officials, or employees of the Contractor, or its or their agents, to make a **Gift** to any Applicable Public Official or State Employee. I further certify that the Contractor made the bid or proposal for the Contract without fraud or collusion with any person.

CAMPAIGN CONTRIBUTION CERTIFICATION:

I further certify that, on or after January 1, 2011, neither the Contractor nor any of its principals, as defined in C.G.S. § 9-612(f)(1), has made any **campaign contributions** to, or solicited any contributions on behalf of, any exploratory committee, candidate committee, political committee, or party committee established by, or supporting or authorized to support, any candidate for statewide public office, in violation of C.G.S. § 9-612(f)(2)(A). I further certify that **all lawful campaign contributions** that have been made on or after January 1, 2011 by the Contractor or any of its principals, as defined in C.G.S. § 9-612(f)(1), to, or solicited on behalf of, any exploratory committee, candidate committee, political committee, or party committee established by, or supporting or authorized to support any candidates for statewide public office or the General Assembly, are listed below:

Lawful Campaign Contributions to Candidates for Statewide Public Office:

<u>Contribution Date</u>	<u>Name of Contributor</u>	<u>Recipient</u>	<u>Value</u>	<u>Description</u>

Lawful Campaign Contributions to Candidates for the General Assembly:

<u>Contribution Date</u>	<u>Name of Contributor</u>	<u>Recipient</u>	<u>Value</u>	<u>Description</u>

Sworn as true to the best of my knowledge and belief, subject to the penalties of false statement.

Printed Contractor Name

Printed Name of Authorized Official

Signature of Authorized Official

Subscribed and acknowledged before me this _____ day of _____, 20____.

Commissioner of the Superior Court (or Notary Public)

My Commission Expires

NOTICE TO CONTRACTOR – ETHICS SUMMARY

The current “Acknowledgment of Receipt of Summary of State Ethics Laws” must be completed by you and should be submitted with your bid for any large state construction or procurement contract as defined in Section 32 of Public Act 05-287. The Town of Putnam will not accept a bid for a large state construction or procurement contract without such Acknowledgment.

In addition, if you are awarded such a contract, you will be required to obtain from your sub-contractors and consultants a fully and properly executed copy of the attached “Subcontractor and/or Consultant Acknowledgment of Receipt of Summary of State Ethics Laws,” and to submit said copies to the initiating unit.

NOTICE TO CONTRACTOR – CONTRACTOR TRAINING REQUIREMENT FOR 10 HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

In accordance with Connecticut General Statute 31-53b and Public Act No. 08-83, the Contractor is required to furnish proof that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53, 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.

Proof of compliance with the provisions of the statute shall consist of a student course completion card issued by the federal Occupational Safety and Health Administration, or other such proof as deemed appropriate by the Commissioner of the Connecticut Department of Labor, dated no earlier than five years prior to the commencement of the project. Each employer shall affix a copy of the construction safety course completion card for each applicable employee to the first certified payroll submitted to the Town of Putnam on which the employee's name first appears.

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.

This section does not apply to employees of public service companies, as defined in section 16-1 of the 2008 supplement to the General Statutes, 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.

The internet website for the federal Occupational Safety and Health Training Institute is <http://www.osha.gov/fso/ote/training/edcenters>.

Additional information regarding this statute can be found at the Connecticut Department of Labor website, <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>.

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".

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 - REQUIREMENTS OF TITLE 49, CODE OF FEDERAL REGULATIONS PART 26

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

NOTICE TO CONTRACTOR - BIDRIGGING AND/OR FRAUDS

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 bidrigging and/or frauds.

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 bidrigging and/or frauds either past or current. The "HOT LINE" telephone number will be manned during normal working hours (8 A.M. - 5 P.M. EST.), and information will be treated confidentially, and anonymity respected.

NOTICE TO CONTRACTOR - PROTECTION AND COORDINATION OF EXISTING UTILITIES

Existing utilities shall be maintained during construction except as specifically stated herein and/or noted on the plans and as coordinated with the utilities. The Contractor shall verify the location of underground, structure mounted and overhead utilities. Construction work within the vicinity of utilities shall be performed in accordance with current safety regulations and coordination with the utility owner.

The Contractor shall notify "Call Before You Dig", dial 811 or 1-800922-4455, go to CBYD.com for the location of public utility, in accordance with Section 16-345 of the Regulations of the Department of Utility Control.

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

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.

The Contractor shall notify the Engineer prior to the start of work and shall be responsible for all coordination with the Town and utility companies. The Contractor shall allow the Engineer complete access to the work.

The Contractor's attention is directed to the requirements of CTDOT Form 818; Section 1.07.13 – "Contractor's Responsibilities for Adjacent Property, Facilities and Services".

Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., water, sanitary, gas, electric ducts, communication ducts, etc., will be encountered and, if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation. There will be no separate payment for the support of existing utilities. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation, as noted above.

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.

Any damage to any existing private and public utility, as a result of the Contractor's operations, shall be repaired to the utility's and Engineer's satisfaction at no cost to the Town or the Utilities, including all materials, labor, etc., required to complete the repairs.

The Contractor shall coordinate all utility relocations with the respective utility company.

The Contractor shall notify appropriate utility companies two weeks in advance of the required valve box adjustments as shown on the plans. The contractor will be responsible for resetting the valve boxes, unless directed otherwise.

Listed below are the contacts for each utility company:

Mr. Brian Lynch
Superintendent
Town of Putnam Water Pollution Control Authority
126 Church Street
Putnam, CT 06260

Ms. Lynne DeLucia
Manager – Engineering and Construction
The Southern New England Telephone Company dba Frontier Communications of Connecticut
1441 North Colony Road
Meriden, CT 06450-4101

Mr. Kenneth Cook
Lead Engineer, Gas Project Engineering
107 Selden Street, Mail Stop NUE2
Berlin, CT

NOTICE TO CONTRACTOR - AS-BUILT PLANS

The Contractor shall be responsible for furnishing as-built drawings upon completion of the project. The Contractor has an option to submit as-builts electronically or by hand and shall be maintained as the work progresses. The as-builts should clearly define any deviations from the original plans either geometrically (horizontal or vertical) or changes in materials used. Final payment will not be released until the final as-built drawings have been furnished to the Town.

This work shall be performed on a continuing basis and shall be included in the general cost of the work. No separate payment will be made for As-Built Drawings. This information will be used by the Municipality and may serve as public information.

NOTICE TO CONTRACTOR – STAGING AND LAYDOWN AREAS

The Contractor must submit to the Engineer for review and approval any areas he intends to use for staging and laydown. In addition to review and approval by the Engineer, potential sites to be obtained by the Contractor from private owners must be submitted to the Town of Putnam for approval. The Contractor must submit verification of approval by the property owner to the Engineer prior to use.

NOTICE TO CONTRACTOR – DUST CONTROL

The Contractor is responsible for controlling air pollution at all times during work of this contract, 24 hours a day, 7 days per week, including non-working hours, weekends and holidays.

The Contractor shall comply with all State and Federal regulations pertaining to dust control. Particular attention shall be made to the Regulations of Connecticut State Agencies Section 22a174-18 a,b “Control of Particulate Matter and Visible Emissions.”

The contractor shall submit a dust control plan to the Engineer within 30 days after the Award of the Contract. The dust control plan shall include contact information for the responsible individual(s) from the contractor (24-hour availability) who have authority to implement necessary controls. The plan should detail dust control procedures for anticipated activities that may typically generate dust (ex. Jack hammering, saw-cutting pavement, haul roads, material storage sites, etc.)

The cost for the dust control submittal associated with this “Dust Control” notice shall be included in the general cost of the contract. Payment for the application of dust control items included in the Contract will be under those respective items.

NOTICE TO CONTRACTOR – ENVIRONMENTAL PROTECTION

The Contractor's operations must be performed in a manner such that impacts to the environment, particularly wetland areas, are limited in accordance with the State of Connecticut Department of Energy and Environmental Protection and local regulatory agencies. The following must be adhered to:

1. No construction shall proceed until proper sedimentation and erosion control methods have been installed as the sequence of construction necessitates.
2. No equipment, materials, or machinery shall be stored, cleaned, or repaired within fifty (50) feet of any wetland or watercourse.
3. No objectionable materials resulting from any clearing activity shall be disposed of in any wetland or watercourse. This includes but is not limited to; stumps, tree roots, matted roots, wood chips, and other debris.
4. Where dewatering is necessary, the pump shall not discharge directly into the wetland or watercourse. Proper methods and devices shall be utilized, such as pumping the water into a temporary sedimentation basin or sediment chamber, providing surge protection at the inlet and the outlet of pumps, or floating the intake of the pump, or other method to minimize and retain the suspended solids. If the pumping operation is causing turbidity problems, said operation shall cease until such time as feasible means of controlling turbidity are determined and implemented.
5. Dumping of oil or other deleterious materials on the ground is forbidden. The applicant shall provide a means of catching, retaining, and properly disposing of drained oil, removed oil filters, or other deleterious material. Hazardous Materials absorbent pads shall be stored on-site throughout the duration of the project. All oil spills shall be reported immediately to the CT DEEP's Emergency Response Unit at 866-37-7745 or 860-424-3338.
6. All activities shall conform and be at all times consistent with applicable water quality standards and management practices of the Federal Clean Water Act (1972), Connecticut's Water Quality Standards and other applicable guidance such as CTDOT Form 818 and CTDEEP 2004 Stormwater Quality Manual.
7. All work shall be performed in accordance with local inland wetland and watercourses regulations suggested under the permit granted.

NOTICE TO CONTRACTOR - CONTRACT TIME AND LIQUIDATED DAMAGES

This project is described under Section 1.08 – Prosecution and Progress.

The contract time and liquidated damages are described below.

180 calendar days will be allowed for completion of the work included, and the liquidated damages charge to apply will be \$1000 per calendar day.

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 (k Ω -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 - 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 PCCXXYZ 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, PCC05581	Class "S"

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 – CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818

The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 818 and supplements thereto dated January 2023 (otherwise referred to collectively as "Form 818") is hereby made part of this contract. The Standard Specifications as defined below shall apply to the various items of work which constitute the construction contemplated under this Contract except as amended, supplemented or replaced by the Special Provisions of this Contract and as described herein.

Within the Standard Specifications and Special Provisions of this Contract, the following definitions shall apply:

1. Standard Specifications: Shall mean the State of Connecticut Department of Transportation, Bureau of Highways, "Standard Specifications for Roads, Bridges and Incidental Construction, Form 818 and supplements thereto dated January 2023."

CTDOT, District, State, Department, Commissioner: Town of Putnam or its Engineer, Construction Manager, Inspector or other authorized representative or agent of the Owner.

Inspector/Engineer: Engineer, Construction Manager, Inspector or other authorized representative or agent of the Owner.

Laboratory: Independent laboratory retained by the Contractor, as approved by the Town of Putnam or its Engineer.

2. Applicable Safety Code: Shall mean the latest edition including any and all amendments, revisions, and additions thereto of the Federal Department of Labor, Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Construction", the State of Connecticut Labor Department, "Construction Safety Code", or State of Connecticut "Building Code", whichever is the more stringent for the applicable requirement.
3. Items: Reference within the text of these Specifications to Items without a number but a title only, are Special Provision Items within this Contract. Sections or Articles referred to with a number refer to the Standard Specifications defined above.
4. Local Regulatory Agency(ies): is defined as the governing body or authority having jurisdiction over or responsibility for a particular activity within the Scope of this Contract. They may be as specifically defined within the Special Conditions or Special Provisions, otherwise, the Contractor shall be responsible to determine same in the local area of the Contract and should be cognizant of the limit of jurisdiction within the project area.

5. These Specifications, where used in the text of the Special Provision Items, shall mean the Special Provisions of this Contract.

Payment will only be made for items in the Bid Proposal. Other items may be included in the Standard or Technical Specifications but payment for those items not listed in the Bid Proposal will be included in the cost of other items of work. Bid Proposal Items may have alphanumeric designations consistent with applicable sections or articles in the Standard or Technical Specifications.

In the case of any conflicts between the Special Provisions, Plans, and Standard Specifications, the order of governance in order of descending authority shall be as follows:

1. Special Provisions, 2. Plans, 3. Standard Specifications.

NOTICE TO CONTRACTOR – PRIME CONTRACTOR MINIMUM WORK REQUIREMENT

The prime contractor is hereby notified that, at a minimum, they shall perform at least 50% of contact work. Exact requirements are stated in Section 1.08.01 - Prosecution and Progress, and read as follows:

“1.08.01—Transfer of Work or Contract: The Contractor shall perform with its own organization Contract work with a value under the Contract of at least 50% of the original total Contract value. If the Contractor sublets, sells, transfers, or otherwise disposes of any part of the Contract work without the Commissioner's prior written consent, the Contractor will not be relieved of any Contractual or other legal responsibility in connection therewith. Such an unauthorized act by the Contractor shall constitute a material breach of the Contract, and the Commissioner may, in such a case, terminate the Contract without further compensation to the Contractor.”

NOTICE TO CONTRACTOR – BRIDGE LOAD RATING FOR CONTRACTOR’S EQUIPMENT AND VEHICLE USAGE

Upon execution of the Contract, the Contractor acknowledges and agrees that there is limited use of the existing Danco Drive bridge crossing due to its existing “critical” condition.

Construction staging and laydown areas will be made available for the Contractor’s use at the dead end of Danco Drive. However, delivery of precast concrete structure and heavy machinery must consider the weight limits of the existing structure.

The precast concrete box culvert segments shall be designed and ordered by the Contractor; Preliminary shipping weights provided in the plans for a single box culvert was estimated to be approximately 34 kips. The existing bridge structure is currently load posted for 7 tons and all traffic is required to completely stop before crossing the bridge to limit impact loads to the existing structure. The existing structure clear span is approximately 20’-7”.

An existing condition load rating is available for the Contractor’s review, see Appendix C.

The Town of Putnam shall not be held responsible for delays in construction deliveries, disruptions to the local business operations along Danco Drive, damage to the existing structure and utilities, or damage to the Contractor’s equipment should the existing structure fail under excessive loading by the Contractor, or the Contractor’s vendors.

SPECIAL PROVISIONS

SECTION 1.05 - CONTROL OF THE WORK

Article 1.05.02 – Plans, Working Drawings and Shop Drawings are supplemented as follows:

Sub article 1.05.02 – (2) is supplemented as follows:

When required by the contract documents or when ordered by the Engineer, the Contractor shall prepare and submit product data sheets, working drawings, and/or shop drawings for review before fabrication. The packaged set of product data sheets, working drawings, and/or shop drawings shall be submitted in an electronic document format (.pdf).

The packaged set submitted in an electronic portable format (.pdf) shall be in an individual file with appropriate bookmarks for each item. The electronic files for product data sheets shall be created on ANSI A (8 1/2" x 11"; 216mm x 279 mm: letter) sheets. Working drawings and shop drawings shall be created on ANSI B (11" x 17"; 279 mm x 432 mm: Ledger/tabloid) sheets.

Please send the pdf documents via email to:

Eganmp@cdmsmith.com

Working Drawings

Item 0204001 – Cofferdam and Dewatering

Item 024189A – Handling Water – Precast Concrete Box Culvert

Item 0503001 – Removal of Superstructure

Item 061139A – 12' x 8' Precast Box Culvert

Lifting and seating devices

Installation of precast components

Item 0714020 – Temporary Sheet Piling

Item 0716000A – Temporary Earth Retaining System

Item 0974001 – Removal of Existing Masonry

Item 0974106A – Timber Support Mat

Item 1504010A – Temporary Support of Utilities

Shop Drawings

Item 0601139A – 12' x 8' Precast Box Culvert

Rev. Date 7/8/24

Precast Concrete components

Item 0602030 – Deformed Steel Bars - Galvanized

Item 0913952A – Protective Fence (5' High)

SECTION 1.06 - CONTROL OF MATERIALS

Article 1.06.07 - Certified Test Reports and Materials Certificates:

After Article 1.06.07-1 add the following:

1) For the materials in the following items, a Certified Test Report will be required confirming their conformance to the requirements set forth in these plans or specifications or both. Should the consignee noted on a Certified Test Report be other than the Prime Contractor, then Materials Certificates shall be required to identify the shipment.

- Aggregate
- Bituminous Concrete
- Portland Cement Concrete
- Joint Sealant
- Closed Cell Elastomer
- Metal Beam Rail

After Article 1.06.07-2 add the following:

2) For the materials in the following items, a Materials Certificate will be required confirming their conformance to the requirements set forth in these plans or specifications or both.

- Temporary Traffic Barrier
- Traffic Drums
- Temporary Earth Retaining System
- Joint Sealant
- Closed Cell Elastomer
- Reinforcing Steel
- Metal Beam Rail
- Penetrating Sealer Protective Compound
- Waterproofing Membrane (Woven Glass Fabric)

SECTION 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES

Article 1.07.13 – Contractor's Responsibility for Adjacent Property, Facilities and Services:

Supplement as follows:

The following company and representative shall be contacted by the Contractor to coordinate the protection of their utilities on this project 30 days prior to the start of any work on this project involving their utilities:

Mr. Brian Lynch
Superintendent
Town of Putnam Water Pollution Control Authority
126 Church Street
Putnam, CT 06260

Ms. Lynne DeLucia
Manager – Engineering and Construction
The Southern New England Telephone Company dba Frontier Communications of Connecticut
1441 North Colony Road
Meriden, CT 06450-4101

Mr. Kenneth Cook
Lead Engineer, Gas Project Engineering
107 Selden Street, Mail Stop NUE2
Berlin, CT 06037

SECTION 1.08 - PROSECUTION AND PROGRESS

Article 1.08.04 - Limitation of Operations - Add the following:

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:

Danco Drive

The Contractor shall not perform any work that will interfere with traffic operations during the below State observed Legal Holidays and Legal Holiday Periods.

A. On the following State observed Legal Holidays:

New Year's Day	Labor Day
Good Friday	Thanksgiving Day
Memorial Day	Christmas Day
Independence Day	

B. During the following Legal Holiday Periods:

- i. When an above Legal Holiday is celebrated on a Sunday or Monday: From 6:00 a.m. the immediately preceding Friday to 6:00 a.m. the immediately following Tuesday.
- ii. When an above Legal Holiday is celebrated on a Tuesday, Wednesday, or Thursday: From 6:00 a.m. the day before to 6:00 a.m. the day after, except Thanksgiving (see below for Thanksgiving specific restrictions).
- iii. When an above Legal Holiday is celebrated on a Friday or Saturday: From 6:00 a.m. the immediately preceding Thursday to 6:00 a.m. the immediately following Monday.
- iv. Thanksgiving: From 6:00 a.m. the Wednesday before to 6:00 a.m. the Monday after.

During all other times:

- A. The Contractor shall maintain and protect traffic to provide one lane of alternating traffic as shown on plans and indicated in the "Maintenance and Protection of Traffic" Specifications.
- B. The Contractor will be allowed to halt traffic for a period not to exceed 10 minutes to actively perform and specific tasks, as approved by the Engineer, between a.m. 10:00 AM and 3:00 PM. during all non-Legal Holiday Periods.

ITEM #0201211A – REMOVE SIGN

Description: Work under this item shall consist of removing and disposing of the sign panel, posts, and foundations from the work site. The ground shall be restored to the natural contours as directed and accepted by the Engineer.

Materials: No materials required for this item.

Construction Methods: No construction methods required for this item.

Method of Measurement: The work under this item, being paid for EACH sign removed and disposed as identified in the plans, or as directed by the Engineer.

Basis of Payment: This work will be paid for at the contract unit price for each “Remove Sign” which price shall include the complete removal and disposal from the work site, equipment, tools, labor, and all work incidental to restoring the ground to natural contours.

Pay Item	Pay Unit
Remove Sign	ea.

ITEM #0202216A – EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL

Description: This work shall consist of excavating existing channel bottom material, herein referred to as natural streambed material, in areas where the channel bottom is to be disturbed and regraded to create a work area for a bridge, culvert, articulated concrete block placement, cofferdam installation, as shown on the plans or as directed by the Engineer. This item shall also include the stockpiling and protecting of the excavated material on-Site, subsequent placement, top dressing, or backfilling of the excavated stockpiled material within the watercourse, as shown on the plans or as directed by the Engineer.

Materials: The material for this item shall consist of the existing naturally-formed rocks, cobbles, gravel, soils and clean natural sediments from within the channel.

Any material excavated from shale, ledge (bedrock) formations broken from larger boulders, or material with sharp acute edges will not be accepted. Broken concrete will not be accepted.

Geotextile: Geotextile shall be as specified in M.08.01-19 Geotextiles.

Construction Methods:

1. Stockpiling of Material. The Contractor shall submit for the Engineer's approval a proposed location for stockpiling material. The proposed location shall be upland where disruption to the stream channel or impact to wetland areas caused by moving the natural streambed material to and from the stockpile are minimized. The Contractor shall prepare the area approved by the Engineer, suitable in size and location for stockpiling the natural streambed material.

The stockpile shall be located where it can remain undisturbed for the duration of the stream channel reconstruction or as shown on the plans and shall be protected using sedimentation control measures. The stockpile area shall be free of debris and cleaned adequately to prevent mixing with underlying soil or other materials, including the use of a separation barrier such as: high-survivability geotextile fabric, polyethylene sheeting, or similar. The stockpile area shall be adequately covered to protect the excavated natural streambed material from erosion by rain, wind, or other forces.

2. Excavation of Natural Streambed Material. The Contractor shall notify the Engineer 10 days in advance of excavation and placement of natural streambed material activities. The Engineer will identify the limits of the exposed natural streambed material during excavation under this item. The Engineer will identify the bottom limit of excavation, an amount up to but not exceeding 24 inches in depth, unless approved by the Engineer or their authorized delegate, based upon visual inspection of the natural streambed material. After the limits of excavation have been determined, the Contractor shall excavate the natural streambed material, separate from any other roadway, structure, channel or unsuitable material excavation on Site. After the natural streambed material has been excavated, it shall be placed in the pre-approved stockpile area.

3. Backfilling and Placement with Natural Streambed Material. The stockpiled natural streambed material shall be placed as fill material as specified at the designated location(s) to the required thickness and elevation as shown on the plans or as directed by the Engineer or their authorized delegate. Placement methods likely to cause segregation of the various sizes of stone will not be permitted. Placement techniques shall prevent integration with non-natural streambed material and shall keep the natural streambed material relatively homogenous. The natural streambed material shall be placed in a manner that replicates the original condition of the channel prior to excavation and to the elevation as shown on the plans.

4. Top Dressing with Natural Streambed Material. The stockpiled natural streambed material shall be used as top dressing over riprap or other material as specified at the designated location(s) to the required thickness and elevation as shown on the plans or as directed by the Engineer or their authorized delegate. Placement techniques shall prevent integration with the non-natural streambed material and shall keep the natural streambed material relatively homogenous. The natural streambed material shall be placed in a manner that replicates the original condition of the channel prior to excavation and to the elevation as shown on the plans.

5. Site Maintenance. When backfilling, placing, or top dressing, the Contractor shall perform all containment, diversion, or other separation of the channel flow to minimize sediment transport downstream.

The disposal of any surplus and/or unsuitable material shall be in accordance with Article 1.09.04.

If the Engineer determines that there is an insufficient quantity of natural streambed material within the Project limits, the Contractor shall procure Supplemental Streambed Channel Material as specified under Item #0202217A.

If it is required for the Project to have washing-in of supplemental streambed material, the Contractor shall procure Washing-in Supplemental Streambed Material as specified under Item #0202218A.

The pre-approved stockpile areas shall be restored to the satisfaction of the Engineer. Work to restore/regrade stockpile areas will be paid for under the respective pay item(s).

Method of Measurement: This work will be measured for payment by the number of cubic yards of natural streambed material excavated, stockpiled, maintained, installed, and accepted.

The Engineer will delineate the horizontal pay limit prior to the start of excavation. The vertical pay limit will be measured from the top of the existing channel bottom to the bottom of excavation required specifically for the stockpiling of channel bottom material.

Any material excavated beyond the approved horizontal pay limits or deeper than the depth of natural streambed material identified and approved by the Engineer will not be measured for payment under this item. Should such additional excavation be required to complete the Contract work, it will be measured for payment separately under the applicable pay item(s).

Basis of Payment: Payment for this work will be made at the Contract unit price per cubic yard for "Excavation and Reuse of Existing Channel Bottom Material." The price shall include all materials, equipment, geotextile, tools, and labor incidental to the preparation of the stockpile area, excavation of natural streambed material, hauling of the material to the stockpile, and separation of any rock ledge or concrete debris, storing, and protecting (including sedimentation controls and covering) excavated material.

Payment for clearing and grubbing of the approved stockpile area will be included in the item "Clearing and Grubbing."

Payment for the removal and proper disposal of all surplus and/or unsuitable material will be in accordance with Article 1.09.04 – Extra and Cost-Plus Work.

Riprap or other specified material as shown on the plan will be paid for under the respective items.

Payment for supplemental streambed channel material will be included in the Item #0202217A "Supplemental Streambed Channel Material." If no item appears in the proposal, payment for the work will be in accordance with Article 1.09.04 – Extra and Cost-Plus Work.

Payment for washing in supplemental streambed channel material will be included in the Item #0202218A "Washing-in Supplemental Streambed Material." If no item appears in the proposal, payment for the work will be in accordance with Article 1.09.04 – Extra and Cost-Plus Work.

Payment for all containment, diversion or other separation of stream flow will be included in the item "Cofferdam and Dewatering" or special provision for "Handling Water."

Pay Item	Pay Unit
Excavation and Reuse of Existing Channel Bottom Material	c.y.

ITEM #0202217A – SUPPLEMENTAL STREAMBED CHANNEL MATERIAL

Description: This work shall consist of procuring, transporting, and placing supplemental streambed channel material, herein referred to as supplemental streambed material, meeting the visual inspection requirements herein, along stream bank/channel improvement locations as shown on the plans or denoted on the Project's permit applications. This item shall also include any necessary temporary protection and stockpiling of the supplemental streambed material on-Site, subsequent placement, top dressing, or backfilling of the supplemental streambed material within the watercourse, as shown on the plans or as directed by the Engineer.

Materials: When a sufficient quantity of material is not available from the existing streambed channel for placement, top dressing, or backfilling within the permitted footprint of the stream bank/channel improvement locations, the Contractor shall furnish supplemental streambed material from an off-Site source. Supplemental streambed material must be visually inspected and accepted by the Engineer or their authorized delegate prior to being delivered to the Site. The Contractor shall notify the Engineer at least 10 working days in advance of the need for inspection of proposed off-Site material.

The supplemental streambed material for this item shall be consistent with the existing naturally-formed cobbles and rocks, gravel, and clean natural sediments found within the existing channel. Rock excavated from shale, ledge (bedrock) formations broken from larger boulders, broken concrete or angular material, or material with sharp acute edges will not be accepted.

Geotextile: Geotextile shall be as specified in M.08.01-19 Geotextiles.

Construction Methods:

1. Stockpiling of Material. At the start of construction, the Contractor shall prepare an area, approved by the Engineer, suitable in size and location for stockpiling the supplemental streambed material. The Contractor shall select an upland location where disruption to the stream channel or impact to wetland areas caused by moving the supplemental streambed material to and from the stockpile are minimized during the placement of material. The stockpile shall be located where it can remain undisturbed for the duration of the stream channel construction and shall be protected using sedimentation control measures.

The stockpile area shall be free of debris and cleaned adequately to prevent mixing with underlying soil or other materials, including the use of high-survivability geotextile fabric, or similar, if required. The stockpile area shall be adequately covered to protect the supplemental streambed channel material from erosion by rain or other forces. After supplemental streambed material and existing natural streambed material have been placed in the stockpile areas, no other excavated or off-Site material shall be placed in the stockpiles.

2. Backfilling and Placement with Supplemental Streambed Material. The stockpiled supplemental streambed material shall be placed as fill material as specified at the designated location(s) to the required thickness and elevation as shown on the plans or as directed by the

Engineer or their authorized delegate. Placing this material by methods likely to cause segregation of the various sizes of stone will not be permitted. Placement techniques shall prevent integration with non-natural streambed material and shall keep the streambed material relatively homogenous. The streambed material shall be placed in a manner that replicates the original condition of the channel prior to excavation and to the elevation as shown on the plans.

3. Top Dressing with Supplemental Streambed Material. The stockpiled supplemental streambed material shall be used as top dressing over riprap or other material as specified at the designated location(s) to the required thickness and elevation as shown on the plans or as directed by the Engineer or their authorized delegate. Placement techniques shall prevent integration with the non-natural streambed material and shall keep the streambed material relatively homogenous. The streambed material shall be placed in a manner that replicates the original condition of the channel prior to excavation and to the elevation as shown on the plans.

4. Site Maintenance. When placing, backfilling, or top dressing streambed material, the Contractor shall perform all containment, diversion, or other separation of the channel flow to minimize sediment transport downstream.

If it is required for the Project to have washing-in of supplemental streambed material, the Contractor shall procure Washing-in Supplemental Streambed Material as specified under Item #0202218A.

The pre-approved stockpile areas shall be restored to the satisfaction of the Engineer. Work to restore/regrade stockpile areas will be paid for under the respective pay item(s).

Method of Measurement: Work under this item will be measured for payment as provided under Article 1.09.04 – Extra and Cost-Plus Work.

The sum of money shown on the estimate and in the itemized proposal as “Estimated Cost” for this work will be considered the price bid even though payment will be made only for actual work performed. The estimated cost figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figures will be disregarded and the original price will be used to determine the total amount bid for the Contract.

Basis of Payment: Payment for “Supplemental Streambed Material” shall include all materials, equipment, geotextile, tools, and labor incidental to the preparation of the stockpile area, hauling of the material to the stockpile, placement of supplemental streambed material, and separation of any rock ledge or concrete debris, storing, and protecting (including sedimentation controls and covering) excavated material.

Payment will be as specified under Article 1.09.04 – Extra and Cost-Plus Work.

Payment for clearing and grubbing of the approved stockpile area will be included in the item “Clearing and Grubbing.”

Payment for excavation and reuse of existing channel bottom material will be included in the Item #0202216A "Excavation and Reuse of Existing Channel Bottom Material."

Payment for washing in supplemental streambed material will be included in the Item #0202218A "Washing-in Supplemental Streambed Material." If no item appears in the proposal, the work will be in accordance with Article 1.09.04 – Extra and Cost-Plus Work.

Payment for all containment, diversion or other separation of stream flow will be included in the item "Cofferdam and Dewatering" or special provision for "Handling Water."

Pay Item	Pay Unit
Supplemental Streambed Channel Material	est.

ITEM # 0202452A – TEST PIT

Description:

The work covered under this item includes furnishing all labor, equipment, materials, and incidentals necessary to perform all operations in connection with excavating and backfilling by machine and/or by hand exploratory test pits at locations indicated or directed by the Engineer. The purpose of the test pits is for locating and examining soils, groundwater, drains, pipes, rocks, utilities, structure foundations, or any other obstacles.

Construction Methods:

Test pit excavations shall have neat, clean-cut, and vertical sides; hand-digging shall be employed when required by the Engineer. Sawcut shall be performed where necessary and as directed by the Engineer.

It shall be agreed that the Contractor entered into this contract with full knowledge that in any work involving excavation, operation in public highways or adjacent to other developments, obstacles, difficulties, unforeseen soil or groundwater conditions, etc., may be encountered, and that the Contractor has included in the bid and contract obligations the assumptions of the risks and costs to which such obstacles, etc., may be present. Contractor shall “Call Before You Dig” before any excavation work.

Perform all work in conformance with local, state, and federal codes.

Dig test pits so as to ensure that underground utilities or structures are not damaged. It shall be the Contractor’s sole responsibility for any damages incurred during excavation operations. Any damages shall be repaired or replaced by the Contractor to the satisfaction as directed by the Engineer at the Contractor’s own expense.

Contractor shall notify the Engineer of any revealed conflicts which may require design revisions, relocations, and/or adjustments as early as possible to avoid unnecessary delays. The Engineer shall be allowed sufficient time to perform all necessary design revisions. No work shall be started within areas of conflict until so authorized.

Protect each pit with steel plates, other coverings, fences, barriers, or other appropriate materials as deemed necessary. Do not backfill pits until authorized. Compact backfill materials 95% to the sub-grade elevation or as otherwise directed.

The surface of test pit areas shall be restored to a condition equal or better than original as approved by the Engineer. Test pits throughout the project area are to be completed prior to beginning actual construction activities.

Method of Measurement:

Test pits will be measured for payment by the number of each test pit dug within the limits and to the depths as ordered and approved by the Engineer. Approximate dimensions of each test pit are 4' wide x 4' long x 5' deep for a total excavation and restoration of 3 CY.

Basis of Payment:

The cost of the sawcut, excavation, removal of pavement, restoration of the surface of the test pit areas, and associated construction work will be included in the test pit cost.

Pay Item

Test Pit

Pay Unit

EA

ITEM #0204189A - HANDLING WATER

Description: Work under this item shall consist of designing, furnishing, installing, maintaining, and removing of a temporary water handling system. This may include water-handling-cofferdams, bypass pipes, bypass pumps/hoses, temporary energy dissipation, sump pumps, drainage channels, water handling for ancillary drainage, and dewatering.

A temporary water handling system redirects water beyond, through, or around the limits of construction to allow work to be done in the dry.

Materials: The materials required for this work shall be as shown on the plans, on the accepted Contractor's Working Drawing submittal, or as ordered by the Engineer.

Construction Methods: The Contractor shall prepare and submit written procedures for handling water. Working Drawings, in accordance with Article 1.05.02, shall also be prepared and submitted.

The Contractor shall consider stream conditions, water elevations, expected weather, and risks associated with the Site to determine the type of temporary water handling system required to redirect water away from work being performed. The system shall be designed to comply with the Temporary Hydraulic Table in the Contract plans and be compatible with the stage of construction and Maintenance and Protection of Traffic scheme, as indicated in the Contract, and shall conform to Section 1.10.

The Contractor shall be responsible to maintain and repair the water handling system throughout the duration of the Contract. If the system becomes damaged, displaced, or not functioning properly due to construction activities, stream conditions or storm events, the Contractor shall be responsible to remediate the system back to working order per plan or as required at the direction of the Engineer.

Unless otherwise directed by the Engineer, all temporary water handling system components shall be removed in an acceptable manner when no longer required.

Bypass Pumping:

The bypass pump system shall be designed by the Contractor to comply with the Temporary Hydraulic Table in the Contract plans.

When incorporating a bypass pump/hose system, the Contractor shall provide a means to maintain continuous flow to the downstream channel to protect resources, unless otherwise noted in the Contract plans or as accepted by the Engineer. The Contractor shall provide for both maintaining continuous flow and accommodating temporary design flows using appropriate pump size for each case, valving, metering, or adjusting the flow during construction.

A pump screen shall be provided on the intake with maximum 0.5 inch diameter openings.

Method of Measurement: The work under this item, being paid on a lump sum basis, will not be measured for payment.

Basis of Payment: This work will be paid for at the Contract lump sum price for "Handling Water – Precast Concrete Box Culvert" completed and accepted, which price shall include

designing (including submittals and Working Drawings), furnishing, installing, maintaining, and removing of all temporary water handling system components as are necessary for completion of the work. This price shall include all materials, equipment, tools, labor and work incidental thereto.

A schedule of values for payment shall be submitted to the Engineer for review and comment.

Pay Item	Pay Unit
Handling Water – Precast Concrete Box Culvert	l.s.

ITEM #0601087A – ARCHITECTURAL FORM LINER

Description: The work shall include the architectural finish, by use of a form liner, of colored formed concrete surfaces using simulated stone form liners, and a color stain system designed to closely duplicate the appearance of natural stone as described herein. Patterning of simulated stone masonry shall appear natural and non-repeating. Form liner will be used on precast concrete wingwalls and cast-in-place concrete wingwall closure pours. This item shall include the following:

- 1) Furnishing, installing, and removing architectural form liner that will be used to produce a simulated stone facing on exposed surfaces of wingwalls and headwalls, and to the limits shown on the plans or requested by the Engineer.
- 2) Grouting, patching and hand or tool finishing work after the forms are removed as necessary to remove lines and irregularities on the finished facing that are not in keeping with the intended “look” of the simulated stone facing.
- 3) Color staining of the concrete surfaces as may be required by the style of simulated stone facing used, including test panels to establish colors and patterns of staining before initiating this portion of the work.
- 4) Preparation, submittal and approval of pattern layout drawings, maximizing re-use and minimizing cutting of form liners, for each wingwall and headwall, or other surface where form liners are to be used.

Materials: Form liners shall be reusable, made of high-strength urethane, and easily attachable to forms. Molds shall not compress more than ¼” when concrete is poured at the rate of 9 vertical feet per hour. Molds shall be removable without causing deterioration of surface of underlying concrete.

Acceptable concrete form liner manufacturers and form liner patterns are:

- 1) Custom Rock Formliners, as manufactured by Custom Rock International, Inc., St. Paul,] MN 55116, (800) 637-2447. Pattern: No. 2209 – New England Drystack
- 2) Fitzgerald Formliners, as manufactured by Fitzgerald Formliners, 1500 East Chestnut Street, Santa Ana CA 92701, (800) 547-7760. Pattern: No. 17033 – Sierra Drystack
- 3) An equal form liner approved by the Engineer, which conforms to the parameters and is of similar appearance to the patterns of the above.

Release Agent - The release agent shall be compatible with the form liners, simulated stone masonry and with the color stain system, as recommended by the manufacturer.

Form Ties - The form ties shall be designed to separate at least one inch back from the finished surface, leaving only a neat hole that can be plugged with patching material.

Color Stain - Special penetrating stain mix as provided by the manufacturer, shall achieve color variations present in the natural stone being simulated by the pattern selected for the project. The Engineer shall select a color pattern from photos of completed projects. The stain shall create a

surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, alkali, fungi, sunlight or weathering. The stain shall be a water borne, low V.O.C. material less than 11.25 lb/cf and shall meet requirements for; weathering resistance - 2000 hours accelerated exposure in accordance with the 3-bulb test of ASTM G23, scrub test - 100 revolutions, abrasion resistance (Tabor CF-10) - 500 cycles, adhesion – 0.04” cross cuts on glass pass 3 or higher on a scale of 1 to 5 in accordance with ASTM D3359, chemical resistance - ASTM 1308. The Contractor shall submit a Certified Test Report for the color stain.

Grout – A grout suitable for the application of finishing concrete and correcting irregularities in the finished facing shall be selected by the Contractor and submitted for approval by the Engineer prior to use.

Construction Methods: The manufacturer of the simulated stone form liners and custom coloring systems shall demonstrate at least three (3) years of experience making custom simulated stone form liners and color stains to create formed concrete surfaces to match natural stone shapes, surface textures and colors. Evidence and color pictures of projects actually constructed over the last five years shall be submitted prior to approval.

The Contractor or Subcontractor who is to install the form liners and perform the work shall demonstrate at least three (3) years of experience placing vertically formed architectural concrete, including training in the manufacturer’s special techniques as may be required in achieving realistic surfaces.

An authorized representative from both the form liner manufacturer and the color stain manufacturer (if color stain is used) shall be present at the site for installation of the facing test panel and during placing of all structural concrete utilizing form liners.

Prior to initiating any work, a meeting shall be scheduled by the Contractor to assure full understanding of the work by all parties involved and to coordinate the work. Included for attendance shall be the manufacturer’s authorized representatives, the Contractor, the Subcontractor (installer), the Engineer, and the Town.

The Contractor shall submit the following for approval by the Engineer prior to beginning the form operations:

Photographs - Color photographs of at least three (3) similar projects recently performed by the Contractor (or his Subcontractor) and at least three (3) similar projects recently produced by the manufacturer.

Form Tie Sample - A sample, description, and demonstration of the form tie the Contractor proposes to use.

Pattern Layout Drawings (3 copies) - Layout drawings shall be the plan, elevation, and details showing the overall pattern, joint locations, form tie locations, weephole locations, drainage and other protrusions, and any other special considerations. These drawings shall maximize re-use of form liners and minimize cutting of form liners and shall be approved prior to installation of the form liners.

Concrete Facing Test Panel - At least 30 days prior to placing structural concrete requiring form liners, a concrete test panel shall be built on-site, using the same materials and methods of work force that will be used for the project. Location of the test panel shall be approved by the Engineer and the concrete test panel shall conform to the following:

- 1) The size of the test panel shall be 5 square yards, or larger if needed to adequately illustrate the pattern selected.
- 2) The test pattern shall contain an area demonstrating simulated stone masonry butt joint, the continuation of the pattern through an expansion joint and an outside corner.
- 3) The test panel shall include staining as may be required for the selected pattern.
- 4) The test panel shall be removed when it is no longer needed, to the satisfaction of the Engineer.

The test panel requirement may be waived, if in the opinion of the Engineer, all parties involved adequately understand the requirements and the intended look of the final finished surfaces.

All work associated with the process of form lining, texturing and color staining of the hardened concrete shall be performed in strict accordance with the manufacturer's recommendations and as approved by the Engineer. The Contractor shall:

- Provide, cut and install the form liners in accordance with the approved pattern drawings for each structural component
- Provide and apply manufacturer's release agent
- Hand carve top exposed texture surfaces (as applicable)
- Remove form liner after concrete is sufficiently set to avoid damage
- Patch, grind or brush hammer form liner seams as required
- Power wash hardened concrete just prior to staining
- Power wash and patch form liners as may be required before re-use

Form Liners: Design and pattern of the form lined concrete surfaces shall follow the manufacturer's standard drawing and the approved pattern layout drawings. The completed color and formed concrete surfaces shall match the pattern, color and texture of the approved test panel and shall accurately simulate the appearance of real stone, demonstrating the colors that may be apparent due to aging, rusting, and staining from oxidation, soil and/or vegetation.

All form liners shall be placed with less than 1/4" separation between form liners. Form liners shall be securely attached to the forms with wood or sheet metal screws, securely bolted through the forms with bolts secured into threaded inserts in the back of the form liners, or securely bolted through the form liner and forming system with flat head bolts inserted in a pattern joint, all according to manufacturer's recommendations for the pattern and form liner used. Construction

adhesives may be used but not on re-usable form liners.

Release of Form Liners: Only manufacturer recommended form release agents shall be utilized and shall be applied to the form liners before the concrete is placed. Release agents shall be applied in strict accordance with release agent manufacturer recommendations. Hand-charged sprayers will only be allowed if a thin uniform coating of release agent is obtained on the form liner.

Form liners shall be removed from the wall within 24 hours of placing the concrete. The form liners may be detached from the forms and then removed from the concrete, or they may remain attached to the forms and the entire forming system removed from the concrete. Remove the form liners from the top, down. Curing of concrete may be accomplished with form liners and forms placed back against the wall after the initial detachment. Curing compounds shall not be used, as they are incompatible with the color staining material.

Care & Cleaning of Form Liners: Form liners shall be cleaned the same day they are removed from the wall with a power wash and mild detergent. Synthetic brushes with stiff bristles may be used on stubborn areas. Mild acid washes may also be used. Solvents shall not be used. If necessary, patching of holes shall be performed with 100% clear silicone caulk. Form liners shall be stored inside or under a protective, non-transparent cover, in a vertical position.

Wall Patching and Preparation: After form liners are removed from the hardened concrete, the textured uncolored surface shall be prepared for color staining. All holes larger than 3/8" in greatest principal dimension shall be filled with concrete patching material as approved by the Engineer. All honeycombed areas shall be filled and textured to match surrounding areas. Seam lines and other unnatural protrusions shall be ground down to match adjacent areas with a hand-held power grinder using discs made for concrete. Grinding of seams shall be performed immediately after removal of the form liners. Perform final bush hammering to blend defects and ground areas into the final rock texture. In particular, the process of wall patching and preparation shall be subject to approval of the manufacturer and Engineer.

Color Staining: All color staining shall be performed by the manufacturer, or their authorized representative, and the hardened concrete shall be a minimum of 30 days old before color staining is applied. The Contractor shall power wash the wall to free it from latent, dirt, oil and other objectionable materials. After the wall has dried, the color staining process is applied using colors approved by the Engineer. Color staining shall be applied in such a way that the stones shall have individual colorations from one to the other. Water-based stains shall be used in air temperatures ranging from 50 degrees F to 100 degrees F. Solvent-based stains shall be used in air temperatures of 50 degrees F and below, but in no case when the temperature of the hardened concrete is 40 degrees F and falling.

All staining work shall be scheduled after backfilling is completed to avoid contaminating or damaging of the surfaces. After staining is complete and approved, and topsoil shall be placed in a way that does not damage the finished surfaces.

Method of Measurement: The portion of the work covered under this special provision and associated with construction of textured and colored formed concrete surfaces using simulated stone form liners and a color stain system, shall be measured for payment by the actual number of

square yards of concrete patterned on precast or cast-in-place concrete surfaces, within the pay limits shown on the drawings or as approved by the Engineer.

Basis of Payment: Architectural Form Liner shall be paid at the Contract unit price per square yard of Architectural Form Liner, installed and accepted, which price shall include architectural form liner, release agents, form ties, color stains or additives, pattern drawings, test panels, scaffolding, patching, preparation, cleaning, staining, submittals, and all materials, equipment, tools and labor incidental thereto.

Pay Item	Pay Unit
Architectural Form Liner	s.y.

ITEM #0601139A – 12' X 8' PRECAST CONCRETE BOX CULVERT

Description: Work under this item consists of furnishing and installing a precast concrete box culvert as shown on the plans and as ordered by the Engineer. This item also includes all hardware, inserts, dowels for connections, reinforcing steel and joint materials as shown on the plans.

Four-Sided Precast Box Culvert in fourteen (14) linking segments, cast-in-place (C-I-P) concrete nosing, wingwalls, cutoff walls and headwalls, weep hole drains cast into the precast culvert sidewalls at 10'-0" maximum spacing, expansion joint sealant around the perimeter of the precast box culvert segments, all galvanized mild steel reinforcement, formwork and falsework required to support the C-I-P, headwalls, and cutoff walls.

Materials:

- The concrete mix design shall meet the requirements of M.03.02, Class PCC05562, and shall be submitted to the Engineer.
- All reinforcing steel, including dowel bar mechanical connectors, shall be galvanized and shall meet the requirements of M.06.01.
- All threaded concrete inserts, lifting fixtures, and miscellaneous hardware cast into precast concrete components shall be galvanized in accordance with ASTM A153 or ASTM B695 Grade 50. All portions of the lifting and seating devices shall be recessed from the finished concrete surface.
- Non-shrink grout shall meet the requirements of M.03.05 and be suitable for submerged applications.
- Gaskets shall meet the requirements of ASTM D1056, C1677 or C990.
- Geotextiles shall be the "Separation (High Survivability)" type and shall be selected from the Department's Qualified Product List.

Construction Methods:

1. Submittals: All submittals shall include a title sheet with the following:

- Project number, town and crossing.
 - Bridge number, when shown on the plans.
 - Design code, as applicable.
 - Contact information for fabricator – contact information shall include name and address of the fabricator and the name of contact person with phone number and email address.
- (a) Shop Drawings - Precast Concrete Components:** Prior to fabrication, the Contractor shall submit an individually packaged set of shop drawings for the precast concrete components for each precast box culvert location to the Engineer for review, in accordance with the plans and 1.05.02. Each shop drawing package shall include details necessary for fabrication of each unique component, handling and installation of the precast concrete components, supporting documents for all materials incorporated into the precast concrete components and for other materials provided by the fabricator.

- (b) **Working Drawings - Lifting and Seating Devices :** Prior to fabrication, the Contractor shall submit working drawings and supporting computations for the embedded lifting and seating devices required for the handling and installation of the precast concrete components at each box culvert location to the Engineer for review in accordance with 1.05.02. Prior to applying load to the embedded devices, the concrete shall attain the minimum concrete compressive strength associated with the safe working load of the device.
- (c) **Working Drawings - Installation of Precast Concrete Components:** Prior to installation of the precast concrete components, the Contractor shall submit working drawings and supporting computations for the lifting and placement of the precast concrete components, to the Engineer for review in accordance with 1.05.02. Cranes shall be operated in accordance with the Connecticut Department of Public Safety regulations. The Contractor shall be responsible for verifying the weight of each lift. The working drawing submittal shall include, but not be limited to the following:
- Plan of the work area showing all structures, roads, railroad tracks, Federal and State regulated areas as depicted on the plans, overhead and subsurface utilities, property lines, or any other information relative to erection. No picks shall be allowed over vehicular, pedestrian, railway or vessel traffic.
 - A detailed narrative describing the lifting and installation sequence.
 - Manufacture's data sheet for the crane(s) including the load/capacity chart. The capacity of the crane shall be adequate for the total lift/pick load including rigging, spreaders and other materials. In the area of railroads and navigable waterways, the capacity shall be as required by the regulatory authorities.
 - Manufacturer's data sheets and product data sheets for all rigging (slings, spreader bars, blocks, etc.), lifting devices, and other connecting equipment and hardware listing the number, type, size, arrangement and capacity of each.
 - Location of each crane for each pick.
 - Crane support measures, including any support beneath the outriggers such as bearing pads, crane mats, planking or special decking, or other means to transfer the crane's total weight (including the lifted load) into the earth or structure beneath it.
 - Delivery location of each component.
 - Boom length and the lift and setting radius for each pick (or maximum lift radius).
 - Pick point location(s) on each component.
 - Lifting weight of each component including rigging (clamps, spreader beams, etc.)
- (d) **Product Data – Field Installed Materials:** Prior to installation of the precast concrete components, the Contractor shall submit product data for field installed materials, such as non-shrink grout, geotextile, etc., not addressed in other submissions to the Engineer for review in accordance with 1.05.02.
- 2. Fabrication and Manufacture:** The fabrication and manufacture of the precast concrete components shall meet the requirements of M.08.02-4 as supplemented by the following:
- (a) **Reinforcing Steel:** Reinforcing steel shall be fabricated and installed in accordance with Articles 6.02.03-2 through 6.02.03-5. The welding of reinforcement is not permitted.

- (b) **Test Cylinders:** During the casting of the components, the Contractor shall cast a minimum of four 4 inch × 6 inch test cylinders in accordance with AASHTO T23 during each production run. Cylinders shall be cured under the requirements of ASTM C31 and shall be used to confirm that the concrete meets the requirements of M.03.02.
- (c) **Placing Concrete:** Concrete shall not be deposited in the forms until the Contractor has inspected the reinforcing steel, including all other embedded components, and has documented such inspection.

Concrete shall not be deposited into the forms when the ambient temperature is below 40°F or above 100°F, unless adequate heating or cooling procedures have been previously approved by the Engineer. The concrete temperature shall be 60°F to 90°F at the time of placement.

Truck-mixed or transit-mixed concrete will not be allowed.

Production during the winter season, from November 15 to March 15 inclusive, will be permitted only on beds located in a completely enclosed structure of suitable size and dimension that provides a controlled atmosphere for the protection of the casting operation and the product.

Outside concreting operations will not be permitted during rainfall unless the operation is completely under cover.

The concrete shall be vibrated internally, or externally, or both, as needed to provide adequate flow and consolidation of the concrete. The vibration shall be provided in such a manner as to avoid displacement of reinforcing steel, forms, or other components. There shall be no interruption in the placement of concrete. Concrete shall be placed and vibrated sufficiently to produce a surface free from imperfections such as honeycombing, segregation, cracking, or checking.

Any deficiencies noted in the components may be cause for rejection.

- (d) **Finishing:** All fins, runs, or mortar shall be removed from the concrete surfaces which will remain exposed. Form marks on exposed surfaces shall be smoothed by grinding. All exposed, outside concrete surfaces shall be given a grout clean-down finish in accordance with 6.01.03-10.

Exposed faces of the C-I-P headwalls and nosing shall be given Architectural Form Liner finish, paid under item 0601087.

- (e) **Handling and Storage:** Any precast concrete components damaged during storage, transportation or handling shall be repaired or replaced by the Contractor, at its own expense, as directed by the Engineer.
- (f) **Repairs:** The Contractor shall submit to the Engineer, for review, any proposed methods or materials to be used in the repair of precast concrete components or defective surfaces. Precast concrete components with defective area greater than 10% as determined by the Engineer will be rejected.

- 3. Fabrication Tolerances:** Tolerances of forming precast concrete box sections shall be as follows:
- (a) Internal Dimensions:** The internal dimensions shall be within 1% of the design dimensions or within 1 1/2 inches, whichever is less.
 - (b) Roof, Floor and Wall Thickness:** The roof, floor and wall thickness shall be within 1/4 inch of the thicknesses shown in the design.
 - (c) Laying Length of Opposite Surfaces:** Variations in laying lengths of two opposite surfaces of the box section shall be less than 1/8 inch/foot of internal span up to 3/4 inch maximum.
 - (d) Length of Section:** The length of a section shall not vary from the designed length by more than 1/2 inch in any box section.
- 4. Pre-assembly of Box Sections:** Box sections shall conform to all dimensions within tolerances specified herein. Adjacent sections shall be assembled without a gasket at the manufacturing plant to ensure that all tolerances are met prior to shipping. All sections that will be joined with mechanical connectors shall be pre-assembled, complete with fasteners, to confirm alignment. The Department shall be given at least 2 working days' notice to inspect and evaluate the sections prior to shipping.
- 5. Field Representative:** The Contractor shall arrange with the precast manufacturer to have the services of a competent field representative at the work site prior to any unloading or installation of the proposed precast box culvert segments to instruct the work crews in proper pick-up and installation procedures – including the joint sealant application.

The field representative shall remain at the job site after work commences and continue to instruct until the representative and the Contractor, Inspector and/or Engineer are satisfied that the crew has mastered the technique of installing the precast culvert box segments successfully.

The Contractor shall be completely responsible for the expense of the services of the required field representative and the bid contract price shall be full compensation for all costs in connection therewith. The Contractor shall have no claim for any damage caused to the precast box culvert segments during installation procedures. Should any damage occur the Contractor and the field representative shall provide corrective procedure to the Engineer for approval at no additional cost to the State.

- 6. Installation:** The installation of the precast concrete box sections and components shall be in accordance with the plans and the following:
- (a)** The installation of the precast concrete box sections shall proceed as required by the sequence of construction, stage construction plans, and the special provisions entitled "Prosecution and Progress" and "Maintenance and Protection of Traffic."
 - (b)** Prior to installing the inlet and outlet end box culvert sections, a bed of non-shrink grout shall be placed on the cut-off walls. The end box culvert sections shall be connected to

the cut-off wall using galvanized dowels installed in cast or drilled holes and bonded with non-shrink grout.

- (c) All box culvert lap joints shall be sealed with rubber gaskets and must provide a silt-tight fit. A positive means, through the use of seating devices, shall be used for pulling each section against the adjacent section to assure a silt-tight joint. The gasket shall be uniformly compressed to a minimum of 1/2 of its uncompressed width. The joint opening between adjacent seated sections on all interior surfaces of the culvert shall be uniform and match the width shown on the plans. The interior surfaces on either side of the lap joints of the adjacent seated sections shall form a smooth and continuous plane, free from irregularities.
- (d) After its installation, any box section, as determined by the Engineer, not acceptable in vertical or horizontal alignment for any reason, including but not limited to settlement, displacement, excess camber or misfit, shall be removed by the Contractor and correctly installed, as directed by the Engineer and at the Contractor's expense.
- (e) The lap joints on the exterior of the roof and the interior of the floor and the lap joints on the interior and exterior of the walls (full height on each side) shall be filled with non-shrink grout after seating the sections. The exposed portions of the lap joints within the haunches or fillets on the interior of the culvert sections shall also be filled with non-shrink grout. The non-shrink grout shall be finished smooth and flush with the adjacent concrete surface.

All portions of the lifting and seating devices that extend to or beyond the finished concrete surface shall be removed. All fixtures or holes cast into the sections for lifting or seating shall be completely filled with non-shrink grout and finished smooth and flush with the adjacent concrete surface.

The surface preparation, mixing, placing, curing, and finishing of the non-shrink grout shall follow the written instructions provided by the manufacturer of the grout. The Contractor shall furnish the Engineer with copies of the instructions.

Prior to the passage of flowing water over the with non-shrink grout, the non-shrink grout shall attain a minimum compressive strength of 3,000 psi.

- (f) Geotextile shall be placed on the exterior surface of the roof and walls of the culvert over the lap joints between the culvert sections. The geotextile shall extend 12 inches to each side of the joint and shall be attached to the culvert with silicone caulk.

7. **Erection Tolerances:** The Contractor shall be responsible for ensuring the overall length of the box culvert meets the layout requirements on the plans within all acceptable tolerances as specified in the contract.

Method of Measurement: The work for the precast concrete box culvert will not be measured for payment but will be paid for by the linear foot of precast concrete box culvert as dimensioned on the plans along each box culvert cell, completed and accepted.

Basis of Payment: The work for the precast concrete box culvert will be paid for at the Contract unit price per linear foot for “12’ x 8’ Precast Concrete Box Culvert,” completed in place and accepted, which price shall include all equipment, materials, tools and labor incidental to the manufacture, shipping, repair and installation of the precast concrete box culvert of the specified size at the locations shown on the plans.

Pay Item	Pay Unit
12’ x 8’ Precast Concrete Box Culvert	l.f.

ITEM #0707001A – WATERPROOFING MEMBRANE (WOVEN GLASS FABRIC)

Description: This item shall consist of furnishing and applying a membrane system of waterproofing to the top surface of buried concrete culverts and at other locations shown on the plans or ordered.

Materials: The materials for this work shall meet the requirements of M.12.04 for primer, woven glass fabric saturated with asphalt, seal coat, and for asphalt flashing cement. A Materials Certificate shall be submitted for the waterproofing membrane in accordance with Article 1.06.07.

Construction Methods: Concrete surfaces which are to be waterproofed shall be smooth, free from projections or holes, which might cause puncturing of the membrane fabric. The surface shall be thoroughly cleaned of loose or foreign substances.

No priming or waterproofing shall be done in wet weather nor when the temperature of the air or concrete surface is below 35°F, without special authorization from the Engineer.

1. Primer: Beginning at the low point of the surface to be waterproofed, the primer shall be applied in one coat at a rate of 0.1 gal./s.y. The cure time of the primer shall be as recommended by the manufacturer.

2. Membrane Fabric: The waterproofing fabric and the seal coat shall be applied as follows:

The asphalt shall be heated to a temperature of about 300°F (not over 350°F) with frequent stirring to avoid local overheating. The heating kettles shall be equipped with approved thermometers. Waterproofing shall begin at the low point of the surface so that water will run over and not against or along the laps. A section about 20 inches wide and the full length of the surface shall be mopped with hot asphalt, and a strip of fabric of half width shall be rolled into it, pressed into place to eliminate all air bubbles and to obtain close conformity with the surface. This strip and an adjacent section of the surface of a width equal to slightly more than half the width of the fabric being used, shall then be mopped with hot asphalt, and a full width of fabric rolled into it, completely covering the first strip, and pressed into place as before. This second strip and adjacent section of the concrete surface shall then be mopped with hot asphalt and the next succeeding strips of fabric "shingled" on so that there will be 2 layers of fabric at all points with laps not less than 2 inches wide. All end laps shall be at least 12 inches.

This process shall be continued until the entire surface to be waterproofed has been covered. The fabric shall then be given a final mopping of hot asphalt. The mopping on concrete shall cover the surface so that no gray spots appear, and on fabric it shall be sufficiently heavy to completely conceal the weave.

Special care shall be taken that all laps are thoroughly sealed down. Care shall be taken to prevent injury to the finished membrane by the passage over it of men and equipment. Any damage which may occur shall be repaired by patching. Patches shall extend at least 12 inches beyond the outermost damaged portion, and the second ply shall extend at least 3 inches beyond the first.

Method of Measurement: The quantity to be paid for under this item will be the number of square yards of waterproofed surface in the completed and accepted work.

Basis of Payment: This item will be paid for at the Contract unit price per square yard for "Membrane Waterproofing (Woven Glass Fabric)" which price shall be full compensation for furnishing all material, equipment, labor and incidentals necessary to complete the item.

Pay Item	Pay Unit
Membrane Waterproofing (Woven Glass Fabric)	s.y.

ITEM #0716000A – TEMPORARY EARTH RETAINING SYSTEM

Description: Work under this item for temporary earth retaining system shall conform to the requirements of Article 7.16 as supplemented and amended as follows:

This section includes furnishing and installing temporary shoring measures to retain earthen fill supporting bituminous overlay and vehicular traffic adjacent to active construction on Bridge No. 150008. Additionally, this item shall include the Contractor's design, fabrication, installation, and maintenance of a temporary concrete moment slab with a concrete parapet barrier. Locations for placement of the temporary shoring and concrete moment slab shall be as specified on the Plans and/or as directed by the Engineer.

Materials: Steel shoring braces (if used), aggregate filled gabions (if used) and concrete moment slabs shall conform to the following:

- Temporary steel bracing supports and anchors shall meet the requirements of M.06.02
- Temporary concrete moment slabs shall meet the requirements of M.03.02
- Temporary aggregate filled gabions shall conform to Article 7.04.
- Mild steel reinforcement shall meet the requirements of M.06.01
- Anchoring bonding adhesives for temporary parapet to the moment slab connection shall conform to Article 6.10 and the manufacturer's recommendations.
- Repair grout shall conform to the requirements of M.03.05
- Pervious Structure Backfill and Crushed Stone shall meet the requirements of M.02.05

All temporary shoring elements shall be removed to a minimum of 3'-0" below the finished groundline, and properly disposed of off-site when phased construction work is complete. Contractor shall coordinate with precast concrete fabricator on installation of threaded bar inserts into the box culvert top slab for securing the shoring braces.

Construction Methods: After approval of the contractor working drawings, the temporary shoring support shall be installed on top of the new precast concrete box culvert segments, as depicted in the contract plans or as directed by the Engineer. Contractor shall not drill anchorage holes into the precast concrete box culvert segments. If anchoring the bracing to the top slab is required, galvanized threaded bar inserts need to be installed during the fabrication of the box culvert segments. Contractor shall place Pervious Structure Backfill in 12-inch-thick lifts ensuring adequate compaction against the temporary shoring. The method of installing and removing temporary shoring supports shall minimize damage to the surface of the precast box culvert.

The temporary concrete moment slab shall be placed on base layer of clean crushed stone, 6-inches thick. The temporary moment slab may be formed and cast-in-place, or precast and installed on site. The total length of temporary moment slab required is approximately 30-feet. The temporary concrete parapet may be post installed into the moment slab or cast-in-place with a construction joint and lapped mild steel reinforcement. The traffic face of the temporary moment slab installed parapet shall align with the adjoining temporary traffic barrier (pinned) at each end.

Submittals: Before fabrication, the contractor shall prepare working drawings, as well as complete design calculations to the Engineer for approval in accordance with Article 1.05.02(b). These working drawings shall include the complete details of the methods, materials, and equipment that are proposed to be used.

The design live load for the temporary elements shall be the H20 vehicle. Drawings and calculations shall be stamped by a Profession Engineer registered in the State of Connecticut.

Furthermore, working drawings shall include the following unless otherwise approved in advance:

- Layout plans for the shoring installation into the box culvert.
- Layout plans and typical section of the temporary moment slab and temporary concrete parapet.
- Type, size, location and spacing of the proposed inserts for the temporary shoring braces.
- Design checks for temporary shoring anchor tensile and shear loads.
- Design checks of the temporary moment slab for sliding and overturing under impact loading.
- Shear and tension design checks of the temporary parapet/moment slab interface under impact loading.

Method of Measurement: Temporary Earth Retaining System will be measured for payment by the number of square feet of Temporary Earth Retaining System completed and accepted. Incidental items included in this measurement shall include the temporary moment slab and temporary parapet, compacted pervious structure backfill, 6-inch-thick base layer of crushed stone under the temporary moment slab, and all working drawings and design calculations, including resubmissions if required. The temporary earth retaining system must be removed to a minimum of 3'-0" below the finished roadway elevation once the phased construction is complete.

Basis of Payment: Payment for this work will be made at the Contract unit price per square foot for "Temporary Earth Retaining System" which price shall include all design, materials, anchorages, maintenance, equipment and labor incidental to the construction and removal of the temporary earth retaining system required at the locations specified in the plans. The price shall also include all design, materials, mild steel, equipment and labor incidental to the construction and removal of the temporary moment slab and parapet. Any common earth retaining system required for staged construction will be measured for payment only once.

Damages to the incurred by the Contractor shall not be an additional cost to the Contract.

Pay Item	Pay Unit
Temporary Earth Retaining System	s.f.

ITEM #0728033A – NO. 8 CRUSHED STONE

Description: Work under this item shall consist of furnishing and placing crushed stone for wingwalls and culvert where shown on the plans or as directed by the Engineer.

Materials: The material for this work shall conform to the requirements of Table M.01.02-2 or No. 8 coarse aggregate.

Construction Methods: The crushed stone shall be placed by suitable methods which will not crush the stone and shaped to a smooth, uniform grade as shown on the plans or as directed by the Engineer.

Method of Measurement: Crushed stone shall be measured by the cubic foot, completed and accepted by the Engineer. The volume shall be measured prior to placement and agreed by both the Engineer and Contractor prior to placement.

Basis of Payment: This work will be paid for at the contract unit price per cubic foot of “No. 8 Crushed Stone” complete in place, which price shall include all materials, tools, equipment, and labor incidental thereto.

Pay Item
No. 8 Crushed Stone

Pay Unit
c.f.

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:

Submittals: 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.

Surface Preparation: 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.

Application: 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)

- Additional applications of sealer as noted in the Construction Methods
- Cleaning of evacuated material from sealed surfaces as ordered by the Engineer.

Pay Item	Pay Unit
Penetrating Sealer Protective Compound	s.y.

ITEM #0822100.02A – TEMPORARY TRAFFIC BARRIER (PINNED)

Description: Work under this item shall consist of furnishing, installing, relocating and removing temporary precast concrete barrier curb for use on structures as shown on the plans or as directed by the Engineer. This work shall also include the drilling, grouting, and later removal of anchor bolts, and the cleaning and subsequent grouting and sealing of anchor bolt holes after the barrier is removed.

Work under this item shall also consist of the design, fabrication, furnishing, installation, and removal of temporary precast barrier curb and anchorages as indicated on the drawings, as directed by the Engineer and in accordance with these specifications.

Materials:

1. The barrier shall be precast concrete conforming to Article 8.21.02-1.
2. Manufacturer identification and casting date shall be permanently marked on each barrier unit by means of a non-corrosive metal or plastic tag in the location shown on the plan. When used barrier is furnished, the Contractor shall provide documentation stating from where the material came, what project it will be used on, the casting dates, and certification that the barrier conforms to all State requirements.
3. Reinforcing steel shall conform to the requirements of ASTM A615, Grade 60.
4. Lifting hooks, keys, bolts, devices and attachments shall be of the size indicated on the plans or of a design satisfactory for the purpose intended as approved by the Engineer.
5. Loop bars shall be bent from smooth bar steel conforming to AISI 1018 (Hot-rolled). Ends shall be hot-dip galvanized in accordance with AASHTO M111.
6. Non-shrink grout shall conform to subarticle M.03.05.
7. Barrier shall be accepted on the basis of the manufacturer's certification, as defined in Article M.08.02-4.
8. Sealant for patching holes in bituminous overlays shall be a cold-applied bituminous sealer conforming to M.08.01-15.

Construction Methods:

Fabrication: The barrier shall be precast concrete in conformance with the pertinent requirements of Article 8.21.03 and the plans, except that penetrating sealer protective compound is not required.

Installation: The barrier shall be placed as shown on the plans or as directed by the Engineer. The barriers shall be secured to the roadway in accordance with the CTDOT Standard drawing sheets 0822. Anchor pins shall be embedded a minimum of 18" into the flexible pavement.

Connection of Barrier Units: The barrier shall be joined together with threaded connection rods, washers, and heavy hex nuts in accordance with the plans.

Cutting of Anchor Pins: protruding anchor pins shall be saw cut off flush with the surface of the concrete to remain. Any protrusion remaining after the pins are cut shall then be ground down to flush with the concrete surface. Contractor shall take every precaution to not create a space or hole during saw cutting and grinding.

When the barrier is no longer required, it shall be removed from the work site and become the property of the Contractor.

Relocation of Barrier: The Contractor shall relocate the barrier and its appurtenances to locations within the project limits as shown on the plans or as ordered by the Engineer.

Method of Measurement: This work will be measured for payment along the centerline of the top of the concrete structure barrier and will be the actual number of linear feet of temporary concrete traffic barrier furnished, installed and accepted.

Relocated temporary traffic barrier will not be measured as an additional cost. The total length of barrier needed in all stages of construction is measured under this item. Storage of concrete barrier will not be measured for payment. Relocation of the temporary traffic barrier to provide access to a project work area or for the convenience of the Contractor's operations will not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price per linear foot for "Temporary Traffic Barrier (Pinned)", complete in place, which price shall include all furnishing, transportation, initial installation, relocating, final removal, storage, materials, reinforcing steel, connection rods, and all equipment, tools, and labor incidental thereto. The cost of furnishing, installing, and cutting of anchor pins shall also be included for payment under this item. Each temporary structure barrier will be paid for once regardless of the number of times it is used on the project. Any barrier units that become lost, damaged or defaced shall be replaced by the Contractor at no cost to the State.

The cost of designing, furnishing, installing, and removing the temporary traffic barrier and anchorages shall also be included for payment under this item.

Pay Item	Pay Unit
Temporary Traffic Barrier (Pinned)	l.f.

ITEM #0913952A – PROTECTIVE FENCE (5' HIGH)

Work under this item shall conform to the requirements of Section 9.13 amended as follows:

9.13.01 - Description: Add the following:

Work under this item shall consist of furnishing, installing, and maintaining a protective chain link fence with a minimum height of 5-feet to protect the fall hazard off the culvert headwall and wingwalls. The fence shall follow the concrete headwall and wingwall geometry as shown on the plans and as ordered by the Engineer.

9.13.02 - Materials: Delete the article and replace with the following:

The materials for this work shall conform to the requirements of Article M.10.05.

Steel posts and rails shall conform to the requirements of ASTM F1043, Group IC, for heavy industrial fence. The posts, rails, and hardware fittings shall be galvanized and equipped with a spray-applied, zinc-rich thermosetting epoxy base and a spray-applied thermosetting “no mar” triglycidyl isocyanurate (TGCI) polyester powder. The color of the posts, rails, and fittings shall be black.

Base plates shall conform to A36 and shall be shop welded to the fence posts. All burrs and sharp edges shall be removed and smoothed before galvanizing.

All molded pads shall be manufactured from new unvulcanized elastomer and unused synthetic fibers, with a weight proportion of fiber content equal to approximately one-half of the total weight of the pad. The pads shall be formed into single sheets of 1/8-inch minimum thickness with a tolerance of plus or minus 10 percent. The pads shall have Durometer hardness within the range of 70 to 90.

The chain link fabric shall be made of black polyvinyl chloride (PVC) coated steel chain-link type, Class conforming to the specifications of ASTM F668 Class 2B. The fence shall be #9 gage core wire and galvanized prior to the PVC coating. The mesh shall be 2” and knuckled at both the top and bottom.

All fence components including the post-base assemblies, rails, fittings, and anchorages shall be hot-dip galvanized after fabrication in accordance with ASTM A153.

Concrete for anchorages shall be Class PCC03341 and shall meet the requirements of Article M.03.01.

9.13.03 - Construction Methods: Delete the article and replace with the following: Construction of the Protective Fence (5’ High) shall be as indicated in the Contract Drawings and shall be subject to approval of the ENGINEER.

Before fabricating any materials, the Contractor shall submit shop drawings to the Engineer for approval in accordance with Article 1.05.02. These drawings shall include but not be limited to the following information: a layout plan showing all post and rail spacing, all baseplate grades, all fence and anchor rod details, material lists and material designations and the name and telephone number of a person to contact who can answer questions about the shop drawings.

A suitable driving cap shall be used to ensure that no damage is caused to the post or to the galvanization. Posts installed on the headwall, and all other type posts shall be set in concrete acceptable to the Engineer.

In earth, the hole for the concrete footing shall extend at least 4 inches below the bottom of the post but not less than 12 inches in diameter for terminal, pull or corner posts. The tops of the concrete footings shall be crowned to shed water.

All base plates shall have full contact with the molded pad and concrete bearing surface and shall be caulked all around with a waterproof silicone rubber sealant.

The posts shall be erected plumb, and the top and bottom rails set parallel with the top of the wall. The fabric shall be stretched tightly between end posts and fastened securely with stretcher bar bands. The fabric shall be attached to the rails and line posts as shown on the plans. Dome caps shall be installed on top of all posts.

The Contractor shall maintain the fencing in good condition during the construction phase and shall immediately repair any damaged sections. Areas where galvanizing has been damaged shall be repaired in accordance with ASTM A780 with two coats of galvanizing compound. The final dry film thickness shall be a minimum of 2 to 3 mils. Damage to PVC coating shall be repaired as directed by the manufacturer.

9.13.04 - Method of Measurement: Delete the article and replace with the following:

This work will be measured for payment by the number of linear feet of completed and accepted protective fence (5' high), measured from outside to outside of terminal posts.

9.13.05 - Basis of Payment: Delete the article and replace with the following:

This item will be paid for at the contract unit price per linear foot for "Protective Fence (5' High)", which price shall include all materials, equipment, tools, excavation, backfill, disposal of surplus material and labor incidental thereto.

Pay Item	Pay Unit
Protective Fence (5' High)	l.f.

ITEM #0915000A – TREE PROTECTION

Description: The work under this item shall conform to the relevant provisions of Section 9.15 and shall be for furnishing and installing temporary tree trunk protection and for limb pruning to prevent injury to the tree from construction equipment and activities.

Trunk armoring is for instances where construction activity (the use of heavy equipment) comes close enough to potentially damage the tree trunk or limbs. It is to be used where shown on the plans and as directed by the Engineer.

Arborist services referenced herein shall be compensated under this Item.

Tree trimming work consists of removing all dead, dying, broken and certain other limbs and branches as described hereinafter and the removal of all stubs of limbs and branches from all designated trees located within the project limits in this contract and the satisfactory disposal of all such removed debris.

All pruning and tree work shall be in conformance with the American National Standards Institute (ANSI) Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance.

All work performed under this item shall be performed or supervised by a Connecticut certified arborist with proof of certification submitted to the Engineer prior to the commencement of any work. Prior to the start of work the Contractor shall provide a copy of arborist resume and certification for approval. In addition, the Contractor shall provide the Engineer with a copy of the ANSI Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance.

TREE: Shall be defined as having a diameter of 4 inches or over, measured at a point 3 feet above the average ground.

LIMBS AND BRANCHES: Shall be defined as wood having a diameter of ½ inch or over and wood that has a diameter of less than ½ inch shall be considered a TWIG.

A DYING LIMB OR BRANCH: May have live growth at some point but shall be removed if found to be in an unhealthy condition.

Materials: Trunk armoring shall be such that it prevents damage to the trunk from construction equipment. Selected material shall be such that installation and removal will not damage the trunk.

Acceptable materials include 2x4 wood cladding with wire or metal strapping, or, for instances when duration of construction activities is less than three months, corrugated plastic pipe mounted with duct tape. Height of cladding shall be from base of tree (including root flare) to the bottom of the first branch or as recommended by the Arborist. Material and methods shall be approved by the Engineer.

Other materials or methods may be acceptable if approved by the Arborist.

Arborist: The work under this Item is for the services of a Certified Arborist. Arborist shall be an International Society of Arboriculture (ISA) Certified Arborist or a Massachusetts Certified Arborist. The Arborist shall have at least 10 years of experience in tree care, including tree protection during construction, and shall demonstrate a familiarity with the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance Part 1 Pruning, Part 5 Construction Management Standards, and Part 9 Tree Risk Assessment.

The Arborist's general responsibilities include recommending and/or overseeing tree work and care.

The Arborist for this item shall not be from the same company as the company responsible for selective clearing or tree removal work.

The Arborist shall be responsible for the following tasks:

- Oversight
 - direct or execute pruning of branches and/or roots, air spading, and/or other tree care operations
- Monitoring and Inspections
 - periodically inspect fencing and ensure root zones are properly protected and clear of equipment and materials as required by the Engineer
 - reevaluate tree protection measures for various phases of a project
 - submit inspection notes with relevant and dated photos to the Engineer.
- Special Care
 - oversee tree pruning for health and aesthetics
 - recommend fertilization and amendments

Construction Methods: Prior to construction activities, the Engineer, the Contractor, and the Arborist, shall review trees noted in the field to be protected. Final decision as to trees armored and/or pruned shall be per the Engineer and the Arborist.

Trees to be removed shall be painted or otherwise marked.

Trees to be retained shall be marked such that it does not mar or damage the tree and such that marker is not easily removed. As applicable to the work and scope of the project, trees designated for removal or to be retained shall be noted on the plan and/or in the arborist's report and photographed.

Trees designated to remain that are damaged or removed by construction activities shall be noted and photographed for inclusion in inspection reports submitted to the Engineer.

Care shall be taken to avoid damage to the bark during installation and removal of armoring. Trunk armoring shall be replaced and maintained such that it is effective for as long as required and shall be removed immediately upon completion of work activities adjacent to trees. Pruning of limbs shall conform to the techniques and standards of the most recent ANSI A300 standards.

While it is not the intent that every dead, dying and/or broken twig be removed from trees requiring trimming, the tree worker will be required to remove all such twigs accessible in the areas of the tree in which he/she is working.

If directed by the Engineer, specific trees or parts thereof which are so located that damage may result from dropping shall be reduced by rope or cable lowering.

Tree shaping may be required on trees, where up-branching done under this contract has distorted the natural symmetry of the tree. Tree shaping shall consist of the removal of limbs and branches from other locations of the tree where removal is desirable to restore natural symmetry.

All sucker growth on all tree trunks within the limits of the contract shall be removed from the ground level to the beginning of the main branch system.

Recognized tree surgery practices direct that all limbs and branches which require removal and all stubs regardless of age be cut NEARLY flush, either to a union with the next larger sound limb, or branch, or NEARLY flush to the trunk of the tree.

By cutting NEARLY, but not quite, flush with the trunk, limb or branch, the "collar" is left at the top of the wound (in the crotch of the union). This will permit the callus growth to cover the wound in a shorter period of time.

Burning of removed tree debris will not be permitted within the project site.

All trimmed materials shall become the property of the Contractor and shall be legally disposed of outside of the site of the work.

Method of Measurement: The work under this item, being paid on a lump sum basis, will not be measured for payment.

Basis of Payment: This work will be paid for at the Contract lump sum price for "Tree Protection" which price shall include the procuring the field services of a Certified Arborist, trunk protection systems and all materials, equipment, tools, labor and all work incidental to furnishing, installing, and maintaining the temporary trunk protection system until no longer required. It shall also include all materials, equipment tools, labor and all work incidental to the satisfactory removal and disposal of the trunk protection systems. Additionally, this price shall include the trimming and removal of selected trees including all materials, equipment tools, labor and all work incidental to the satisfactory removal and disposal of the tree trimmings from the project site.

A schedule of values for payment shall be submitted to the Department for review and comment prior to payment.

A schedule of values for payment shall be submitted to the Engineer for review and comment.

Pay Item	Pay Unit
Remove Sign	ea.

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.

Article 9.71.03 - Construction Methods *is supplemented as follows:*

General

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 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 Putnam and the Engineer 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 -

During construction, the Contractor shall maintain all pavement markings 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 shall consist of temporary painted pavement markings and shall be installed in accordance with Section 12.09. The markings shall include 4 inch wide white lane lines (solid and broken), 4 inch wide edge lines, lane-use arrows at the stop bar. Temporary 12 inch wide white stop bars shall consist of temporary pavement marking tape, as described below.

Refer to Pavement Marking Groove special provisions for pavement marking requirements.

Temporary 12 inch wide white stop bars consisting of temporary plastic pavement marking tape shall be installed on exit ramps if permanent Epoxy Resin Pavement Markings are not installed by the end of the work shift on the final course of bituminous concrete pavement. Temporary stop bars may consist of two 6 inch wide white markings or three 4 inch wide white markings placed side by side. The Contractor shall remove and dispose of these markings when the permanent Epoxy Resin Pavement Markings are installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape is included under the applicable temporary pavement marking items.

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 paid for under the appropriate pay items.

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.

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.

1. Work Zone Safety Meetings

- 1.a) Prior to the commencement of work, a Work Zone Safety Meeting shall be conducted with representatives from the Engineer, Putnam, 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. 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 are on Site.
- 2.b) The Contractor shall have spare maintenance and protection of traffic equipment (construction signs, traffic cones, traffic drums, etc.) available at all times in case replacement of individual components is required 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.

3. Installing and Removing Traffic Control Patterns

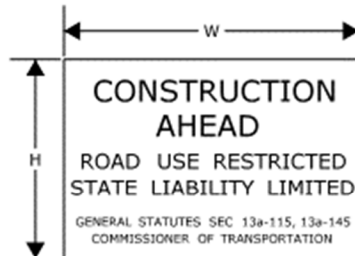
- 3.a) Lane closures shall be installed beginning with the advance warning signs and proceeding forward toward the work area.
- 3.b) Lane closures shall be removed in the reverse order, beginning at the end of the work area, or traffic control pattern, and proceeding back toward the advance warning signs.
- 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.

7. Use of Traffic Drums and Traffic Cones

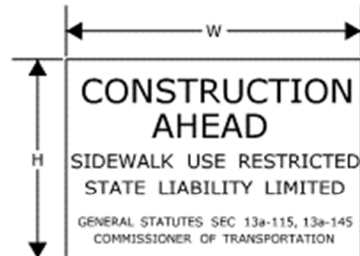
- 7.a) On limited-access highways, ramps, and turning roadways:
 - i. Traffic drums shall be used for taper channelization.
 - ii. Traffic drums shall be used to delineate raised catch basins and other hazards.

- 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.

SERIES 16 SIGNS



		W	H
16-E	80-1605	84" x 60"	
16-H	80-1608	60" x 42"	
16-M	80-1613	30" x 24"	



		W	H
16-S	80-1619	48" x 30"	

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 RAMP 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

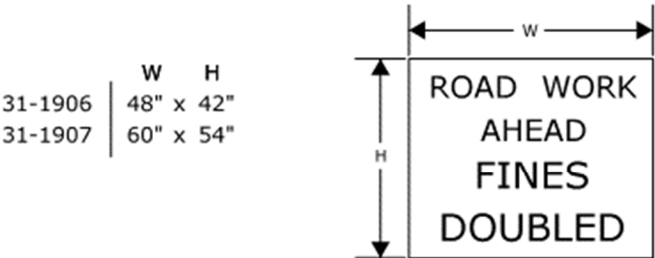
PRINCIPAL ENGINEER

Tracy L. Fogarty, P.E.
2019.10.09 16:30:32-0400

REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

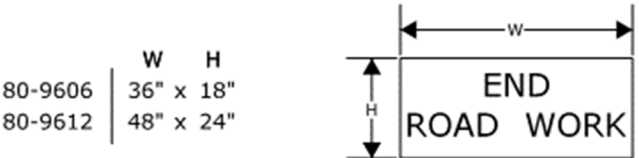
THE REGULATORY SIGN "ROAD WORK AHEAD FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY AND MUNICIPAL ROAD IN CONNECTICUT WHERE THERE ARE WORKERS PRESENT ON THE HIGHWAY.

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

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (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.
5. 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.
6. 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.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT \leq 40 MPH).
8. 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.
9. 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

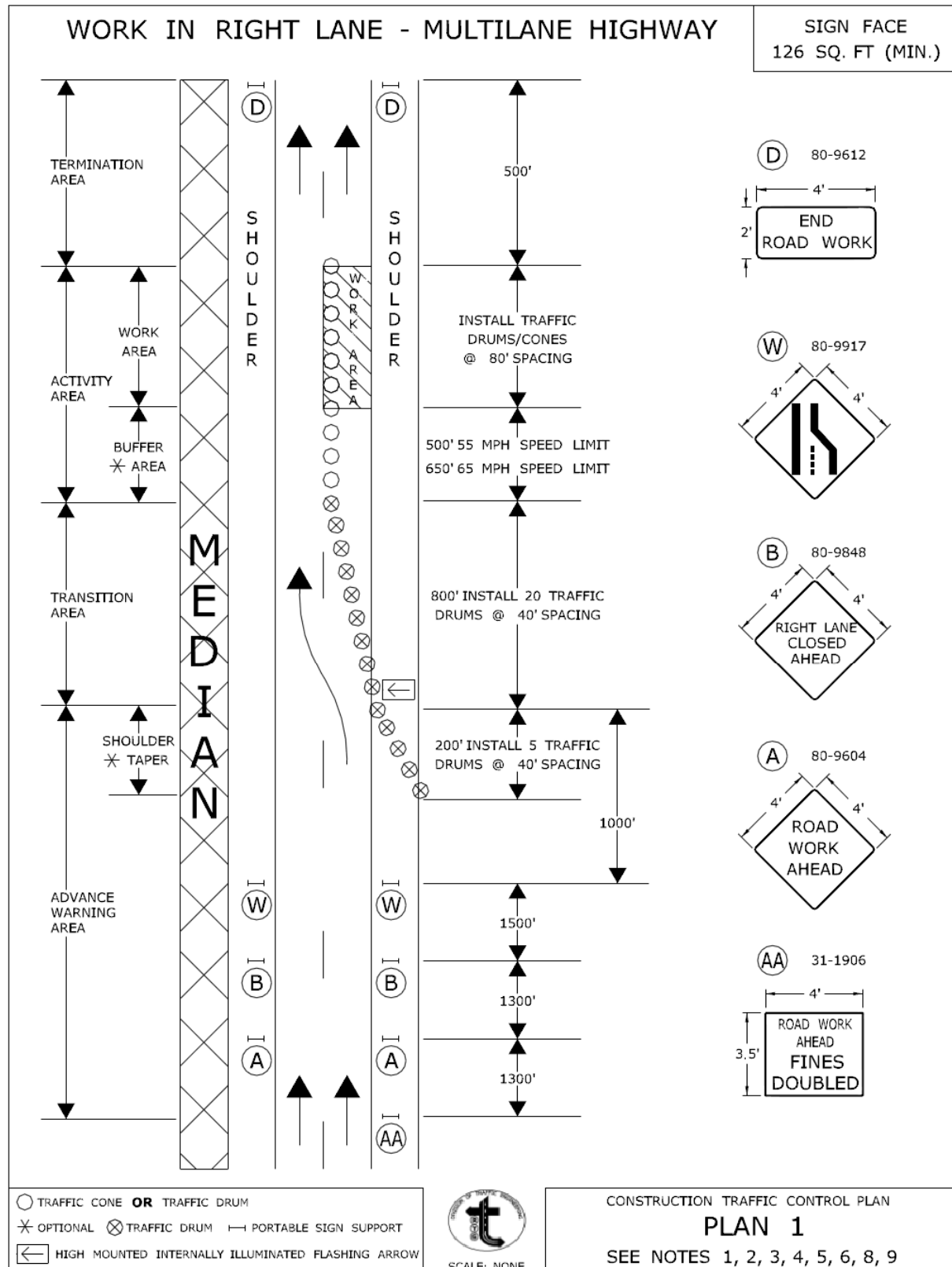
SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

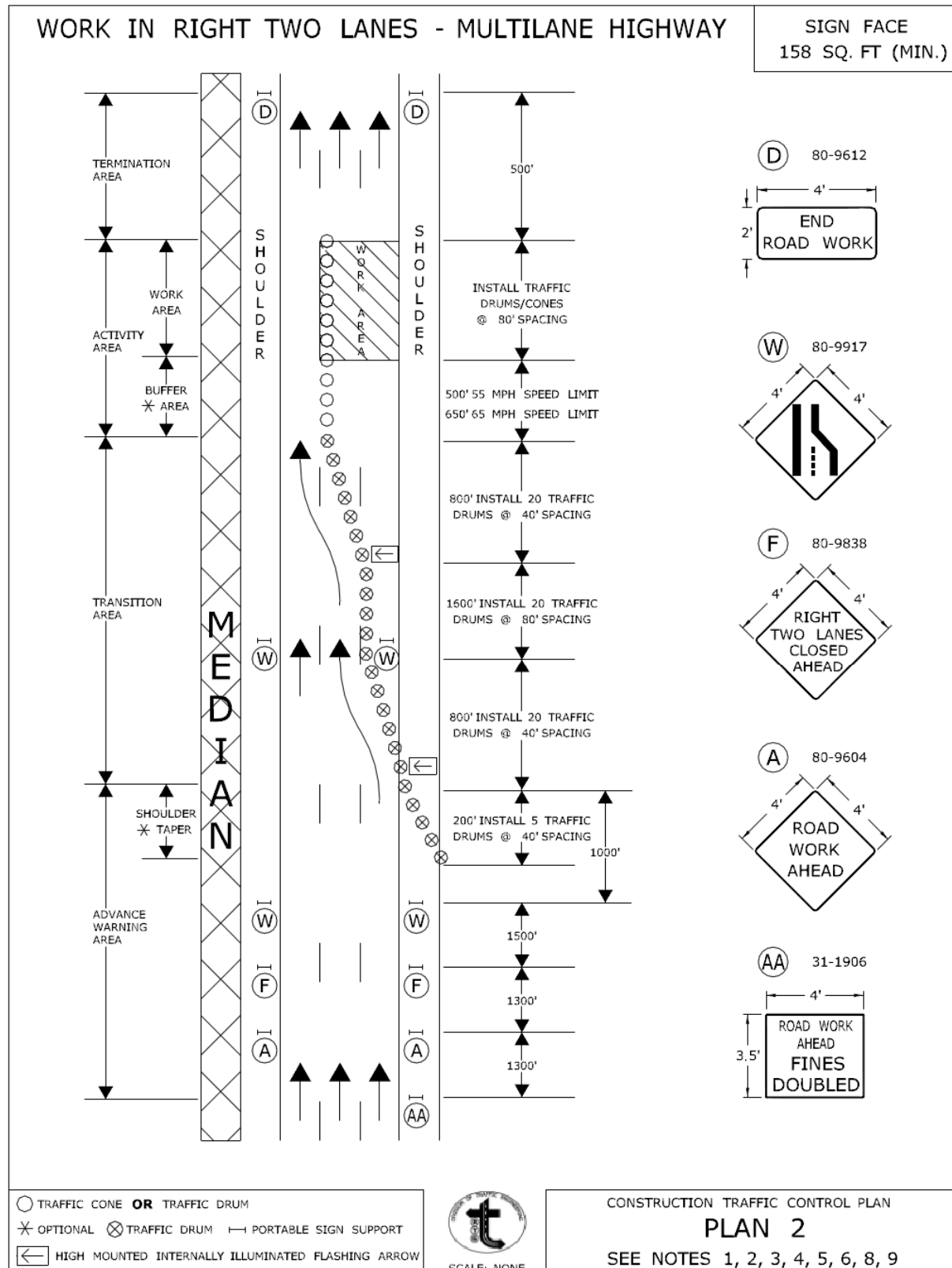
Tracy L. Fogarty
PRINCIPAL ENGINEER

Tracy L. Fogarty, P.E.
2019.08.13 06:47:47-0400



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED *Charles S. Harlow* 2012.06.05 15:51:00-0400
PRINCIPAL ENGINEER

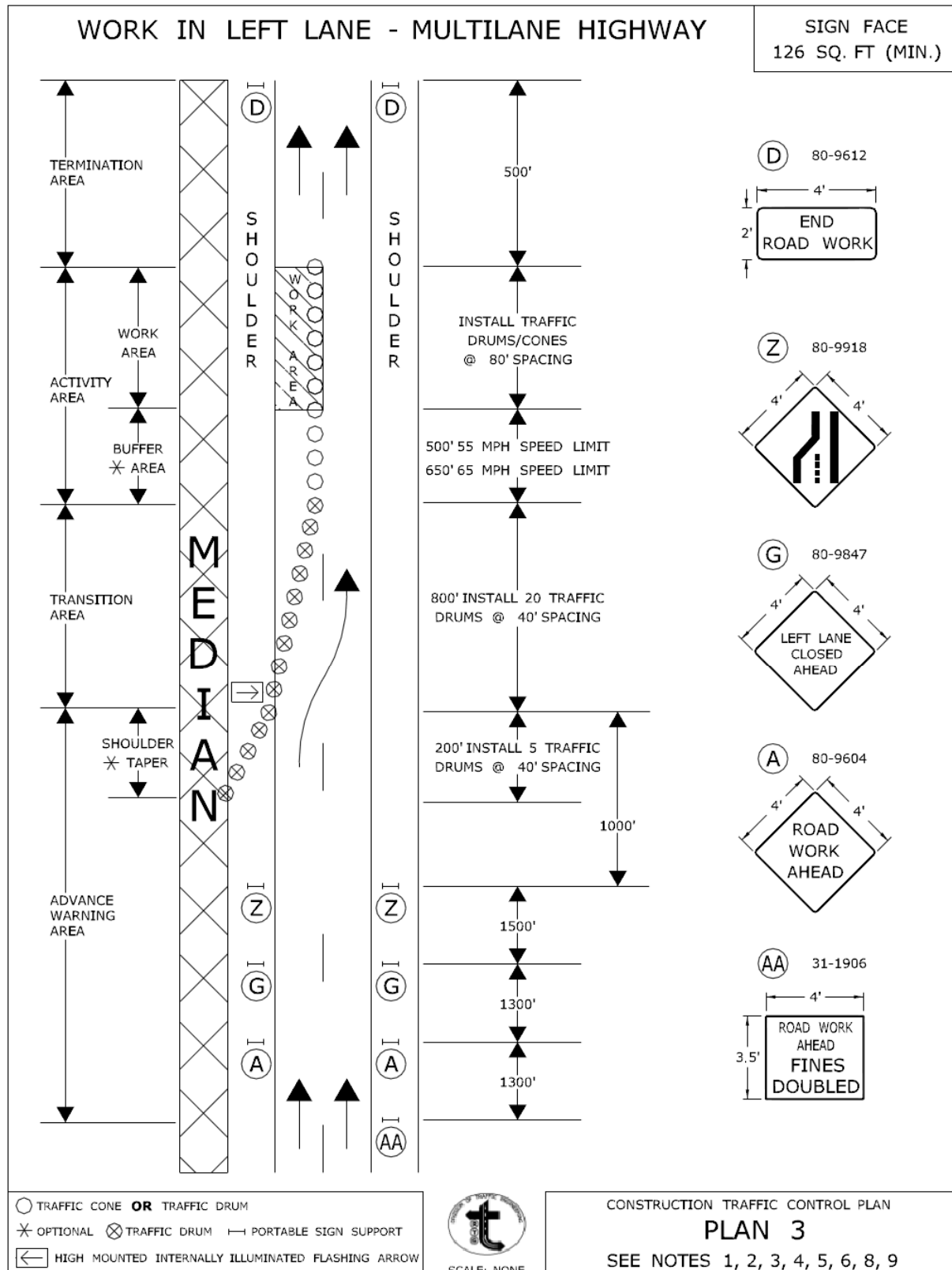


CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

Charles S. Harlow
2012.06.05 15:51:23-04'00'



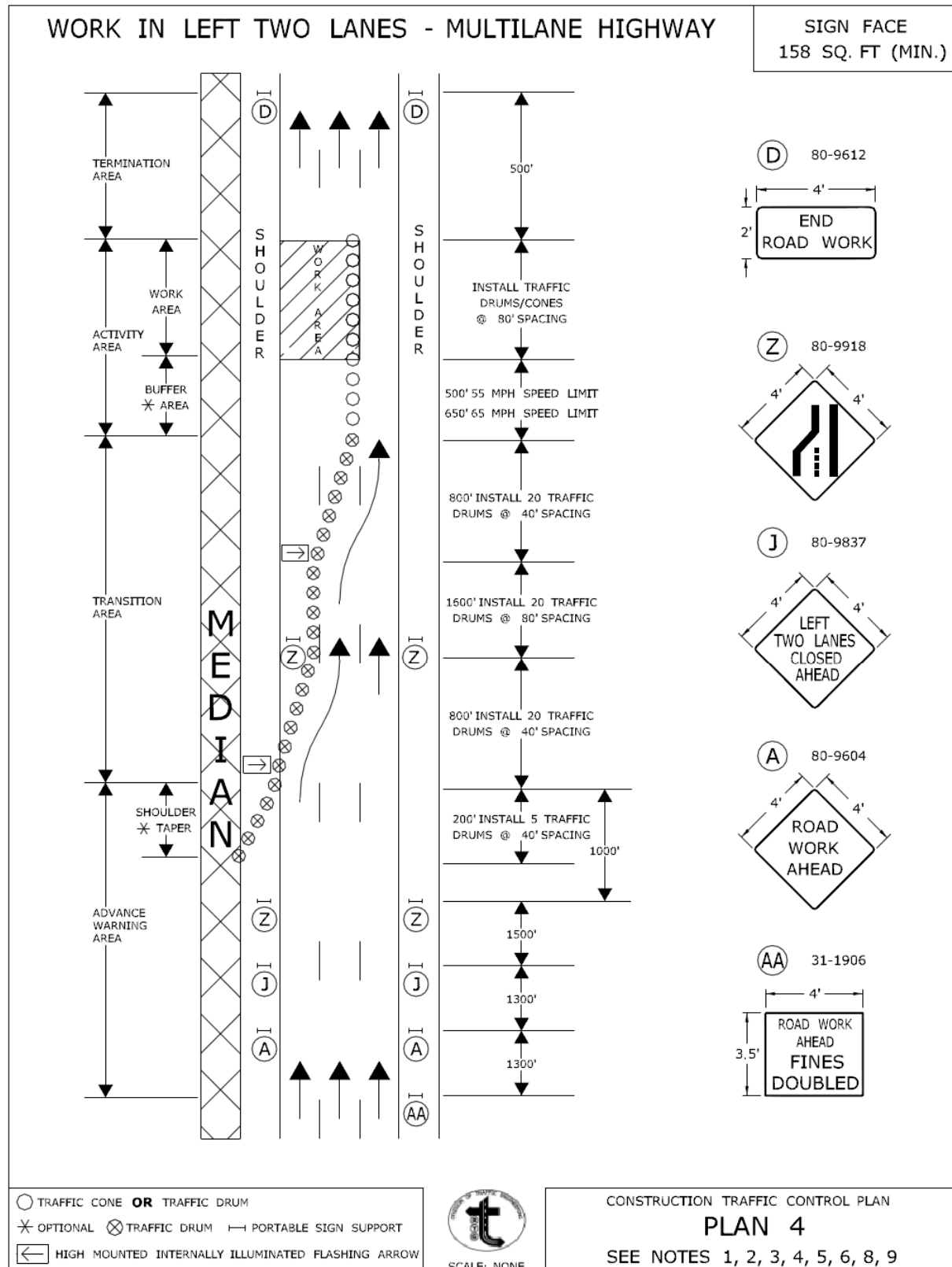
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BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

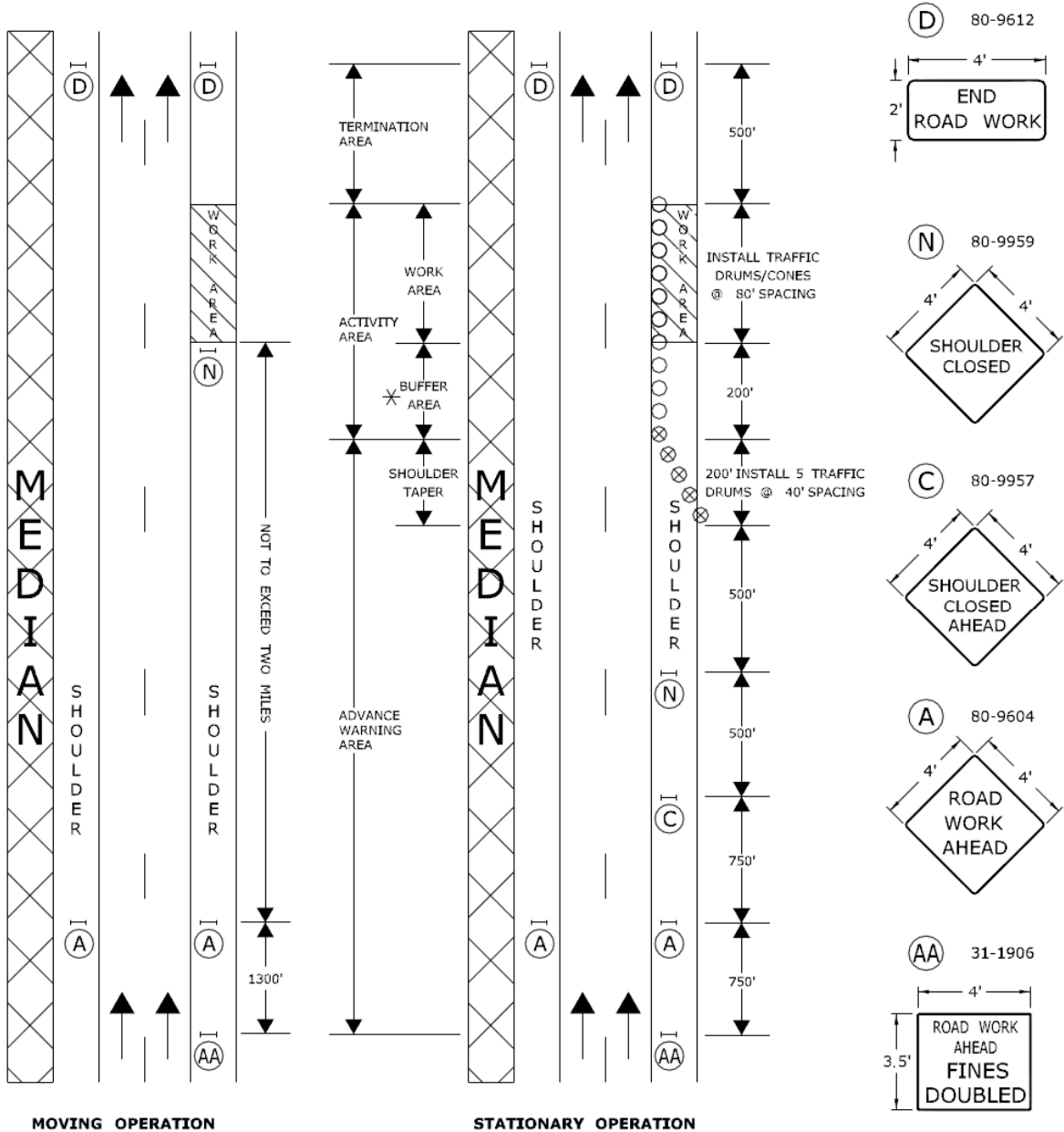
Charles S. Harlow
2012.06.05 15:51:46-0400

ITEM #0971001A



WORK IN SHOULDER AREA - MULTILANE HIGHWAY

SIGN FACE
94 SQ. FT (MIN.)



- TRAFFIC CONE **OR** TRAFFIC DRUM
- * OPTIONAL ⊗ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ← HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 6

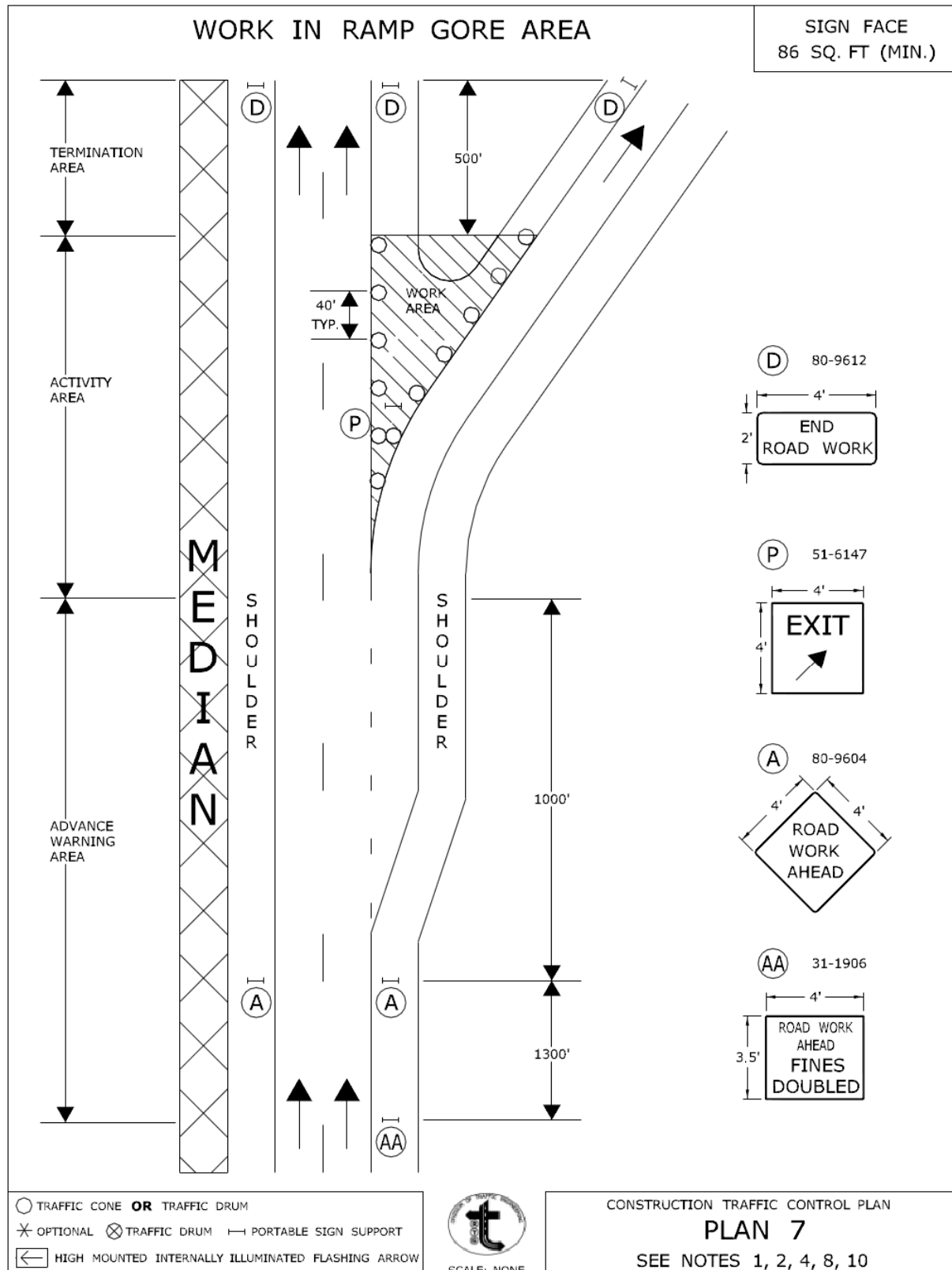
SEE NOTES 1, 2, 4, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

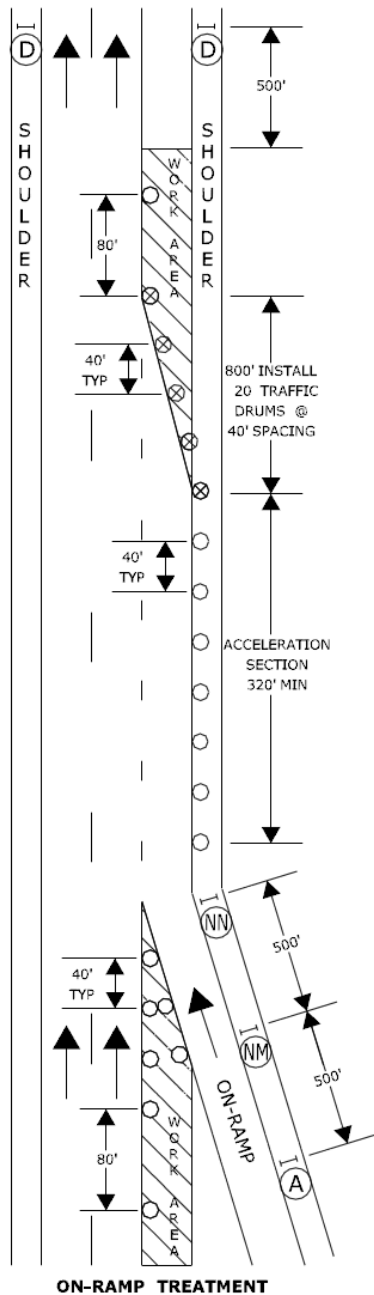
Charles S. Harlow
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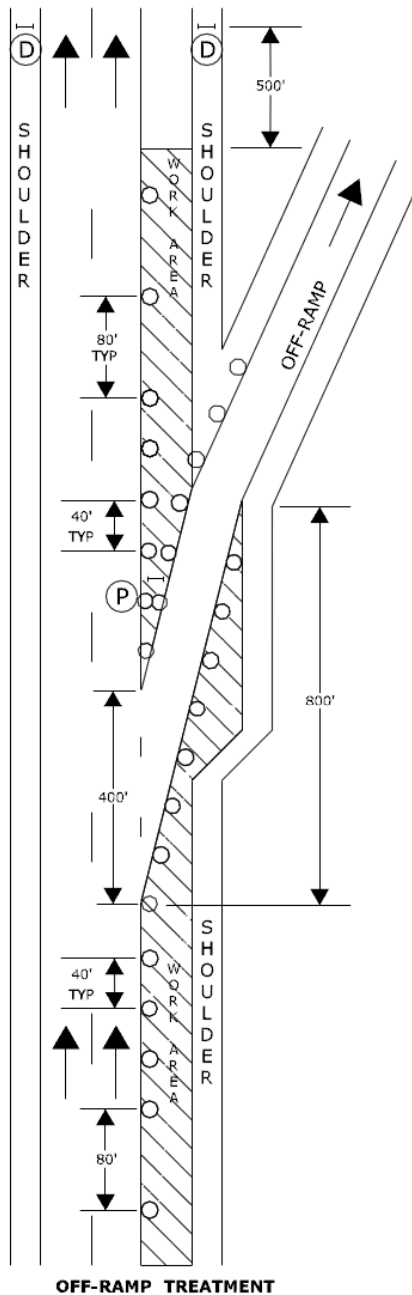
CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

TYPICAL RAMP TREATMENTS FOR MAINLINE LANE CLOSURE - MULTILANE HIGHWAY

SIGN FACE
SQ. FT VARIES

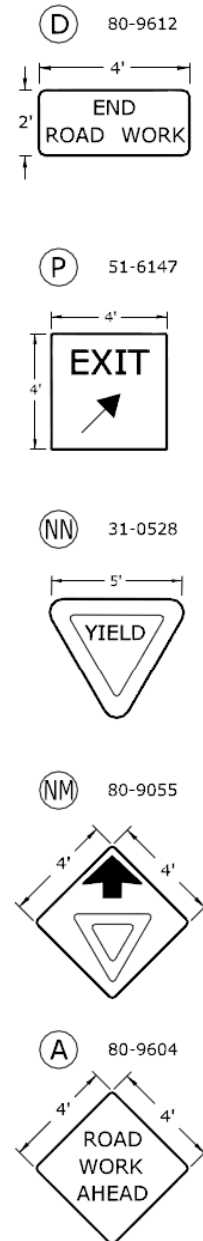


ON-RAMP TREATMENT



OFF-RAMP TREATMENT

USE TRAFFIC CONTROL PLAN 1 TO CLOSE THE RIGHT LANE



- TRAFFIC CONE OR TRAFFIC DRUM
- ✱ OPTIONAL ✕ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 8

SEE NOTES 1, 2, 3, 4, 5, 6, 8, 9, 10

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

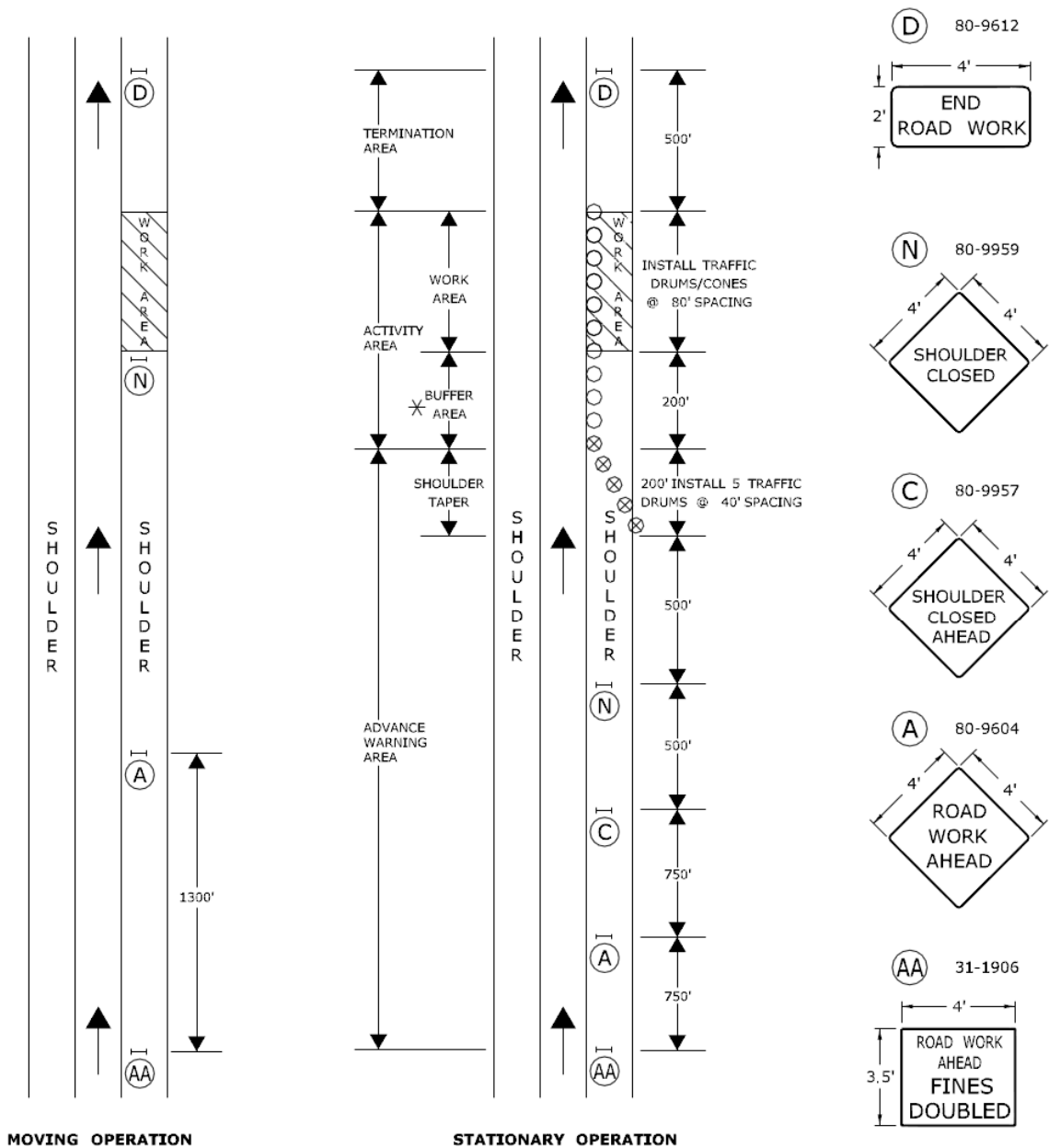
APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

Charles S. Harlow
2012.06.05 15:53:31-0400

WORK IN SHOULDER AREA - TURNING ROADWAYS / RAMP

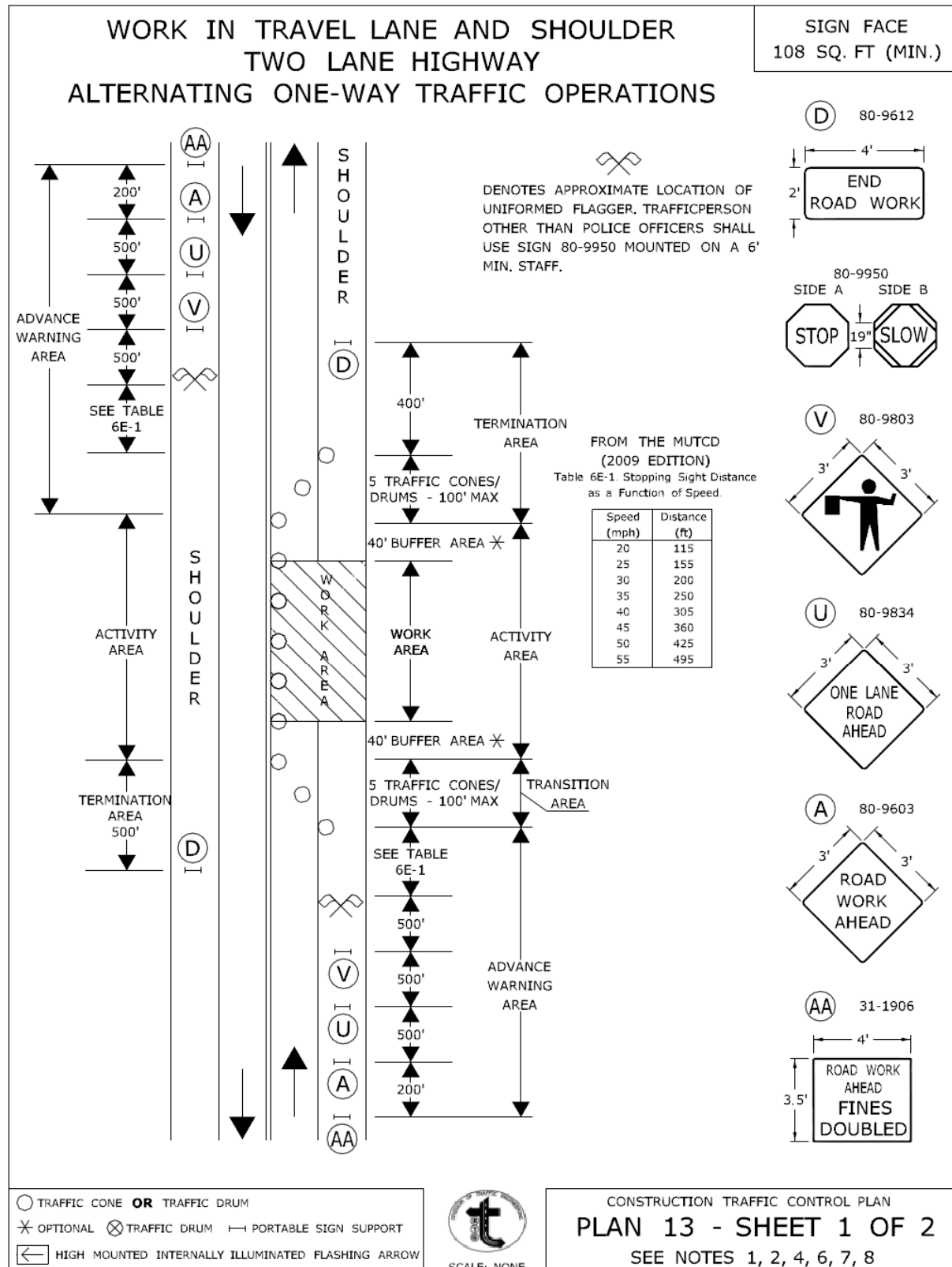
SIGN FACE
70 SQ. FT (MIN.)



CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER



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APPROVED

Charles S. Harlow
2012.06.05 15:55:23-04'00"
PRINCIPAL ENGINEER

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



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

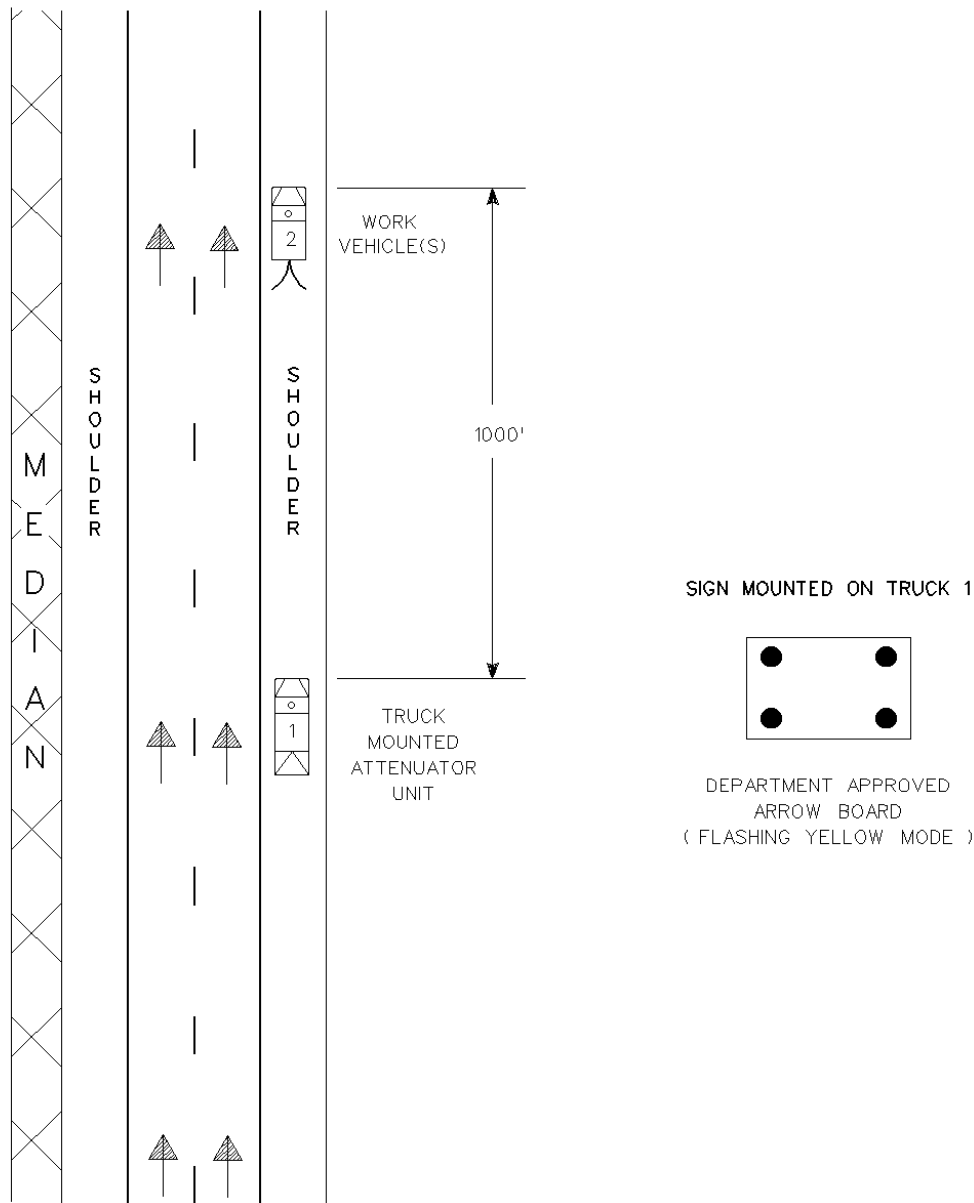
CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

Charles S. Harlow
2012.06.05 15:55:45-04'00'

MOVING OPERATION ON RIGHT SHOULDER
MULTILANE HIGHWAY & SECONDARY ROADWAYS



REV'D 1-02

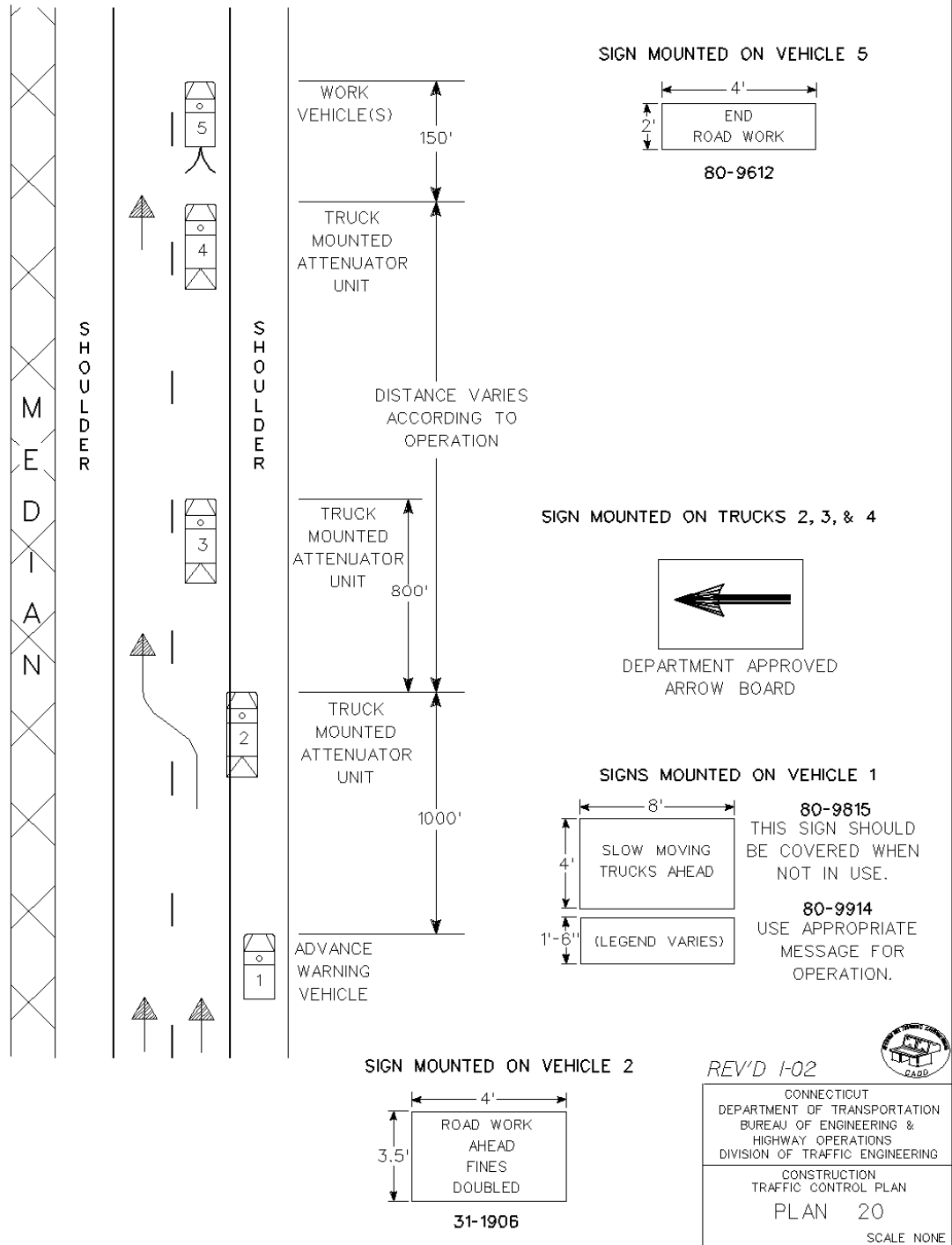
CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

CONSTRUCTION
TRAFFIC CONTROL PLAN
PLAN 19

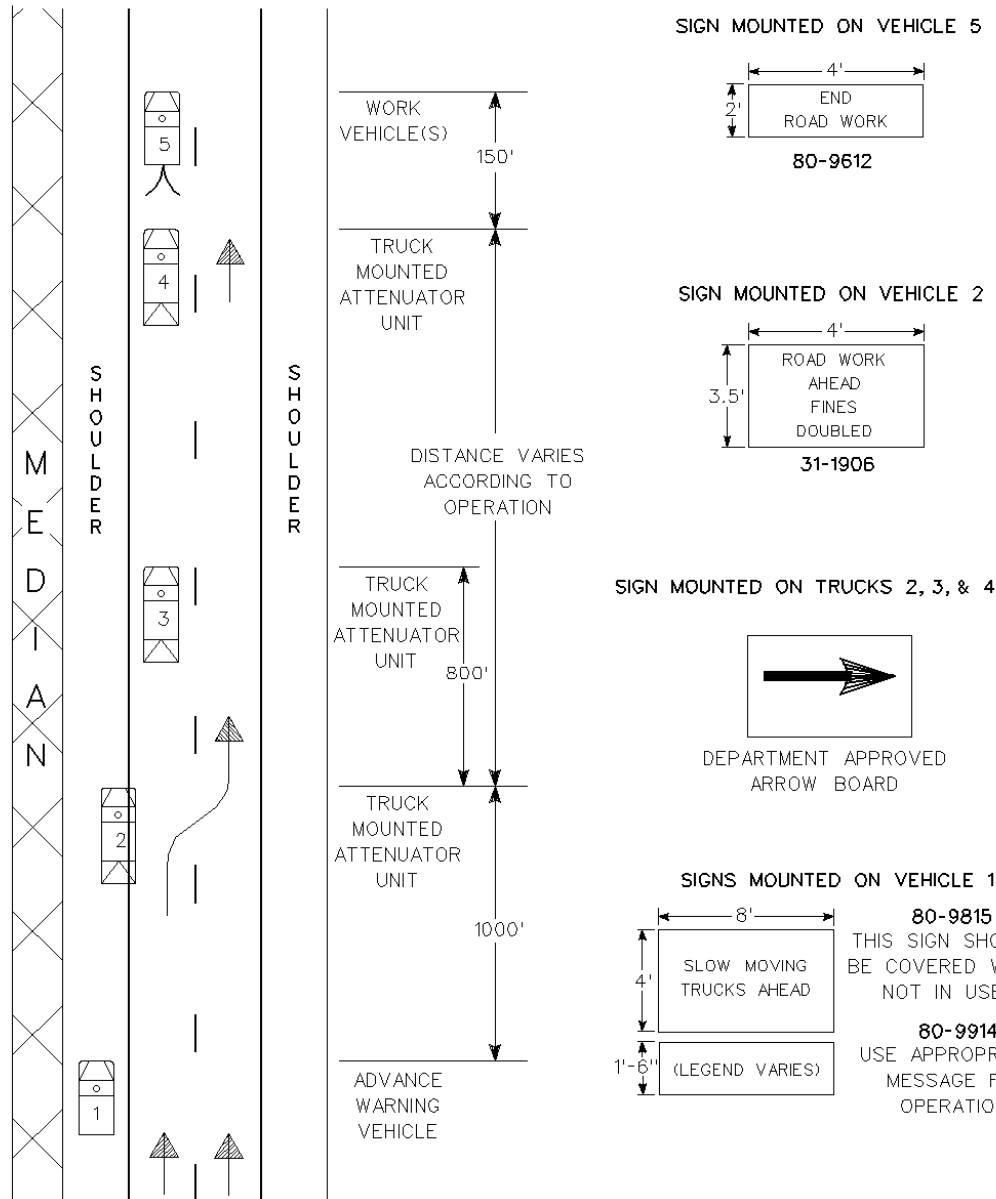
SCALE NONE

APPROVED J. McCall DATE 1-30-02
PRINCIPAL ENGINEER

MOVING OPERATION IN RIGHT LANE AND OUTSIDE SHOULDER AT THE SAME TIME MULTILANE HIGHWAY



MOVING OPERATION IN LEFT LANE AND INSIDE SHOULDER AT THE SAME TIME MULTILANE HIGHWAY



WHEN THE LEFT SHOULDER WIDTH CANNOT ACCOMMODATE A VEHICLE, THEN
ADVANCE WARNING VEHICLE 1 MAY DRIVE PARTIALLY IN THE LANE.

REV'D 1-02



CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING

CONSTRUCTION
TRAFFIC CONTROL PLAN
PLAN 21

SCALE NONE

APPROVED John D. McCall DATE 1-30-02
PRINCIPAL ENGINEER

Article 9.71.05 – Basis of Payment *is supplemented by the following:*

The temporary relocation of signs and supports, and the furnishing, installation and removal of any temporary supports shall be paid for under the item “Maintenance and Protection of Traffic”.

ITEM #0974106A – TIMBER SUPPORT MAT

Description: Work under this item shall consist of the supplying, placement, relocation, and removal of temporary timber support mats (commonly known as crane mats), as shown on the plans or as directed by the Engineer. In general, these mats shall be used when equipment needs to be located/operated within the edges of watercourses, in wetlands, or on unsuitable ground where the ground will not support the weight of the equipment.

Materials: Temporary timber support mats shall be constructed from untreated hardwood timbers connected with durable metal fasteners. Their size shall be large enough to provide useable space to operate the equipment, while located completely within the edges of the mat or adjacent mats, and small enough to be easily transported, placed, relocated and removed from the site. Timber support mats shall not exceed 40 feet in length.

Submittals: Prior to placing the timber support mats, the Contractor shall verify that the mats to be used can support the equipment that will be operating on top of them. The contractor shall submit Working Drawings in accordance with Article 1.05.02-2(b) for the proposed timber mat, including the timber mat dimensions, fasteners, and distributed loading computations of the proposed equipment.

Construction Methods: Temporary support mats shall be used to prevent disturbance to streambeds and wetlands and prevent equipment from bearing directly on these surfaces. Small sections of timber matting shall be placed at the top of the stream banks on either side of the stream parallel to the flow of water to act as supports for a larger timber mat spanning the stream. Timber support mats, bearing on the bottom of streams, shall not be placed immediately adjacent to each other across the stream, preventing the flow of water.

The method of installing and removing timber mats shall minimize damage to the surface they are placed on. Installation, relocation, and removal of timber mats shall be done in a progressive fashion such that the equipment moving them is always supported on a timber mat which is already in place or on suitable stable ground.

All timber support mats shall be removed from the site upon the completion of construction activities. Damage to the ground below them shall be repaired as shown in the plans or as directed by the Engineer.

Method of Measurement: This work under this item, being paid for on a Lump Sum basis, will not be measured for payment.

Basis of Payment: Payment for this work will be made at the contract lump sum price for “Timber Support Mat”, when the use of the timber mats is complete and they have been removed from the site, which price shall include all materials, tools, equipment, and labor incidental thereto.

Pay Item	Pay Unit
Timber Support Mat	LS

ITEM #1504010A – TEMPORARY SUPPORT OF UTILITIES

Description: Work under this item shall consist of designing, furnishing, placing, relocating, and subsequently removing temporary supports for the existing utilities shown on the plans and accordance with these specifications or as ordered by the Engineer in conjunction with the appropriate utility approval. Work under this item shall also include facilitating the placement of the existing utility in its final relocated position in coordination with the Utility.

It shall be the responsibility of the Contractor to coordinate this Work with the Utility. Any damage to the Utility caused by the Contractor's operations, which affects the operation of the utility service shall be repaired by the Utility at the Contractor's expense.

Prior to construction, the Contractor shall arrange and meet with the Utilities for scheduling and coordination regarding this work. The Contractor shall then, within 5 days, file documentation of that meeting and the resulting agreements in a project memorandum to the Engineer. The Engineer shall be informed by the Contractor of and prior to this meeting and may attend at their discretion.

The Contractor is advised that no service interruptions resulting from their operations will be allowed. The Contractor shall exercise extreme caution when installing the temporary supports and during construction. When installing the temporary supports the respective utility company representatives shall be present. Also, refer to "Section 1.07 - Legal Relations and Responsibility to the Public" contained elsewhere herein.

Materials: The materials for this work shall conform to the following requirements:

- Structural Steel shall conform to ASTM A36
- Bolts shall conform to ASTM F3125 Grade 325
- Threaded rods shall conform to ASTM A307
- Portland Cement Concrete shall be Class PCC03340
- All timber and lumber shall be sound and free from any defect that may impair its strength.

Construction Methods: The Contractor shall prepare and submit Working Drawings and calculations showing the proposed method of support for each utility to be supported. The supports shall safely carry all utility dead loads as well as any imposed loadings under all possible construction conditions. Said supports shall be constructed in a manner that will not interfere with the proposed structure replacement.

Working drawings and calculations shall be prepared and signed and sealed by a licensed Professional Engineer in the State of Connecticut. Preparation and submittal of working drawings shall conform to the requirements of Section 1.05.02-2.

The Working Drawings and calculations shall be submitted to the respective Utility companies for approval. Following Utility approval, the approved drawings and calculations shall be submitted to the Engineer at least three weeks prior to the beginning of construction. No work will be allowed in the vicinity of any utility until the Contractor receives approval of the support method from both

the Engineer and the respective Utility company.

The Contractor shall use every effort to protect all utilities from damage of any nature which might result from carelessness or negligence in any operations. The Contractor shall be held solely and strictly responsible for any damage resulting from such carelessness or negligence.

A periodic inspection of the temporary utility supports shall be conducted by the Contractor as directed by the Engineer. The Contractor shall relocate temporary supports as required to accommodate construction activities, including installation and removal of temporary sheeting, and installation of precast concrete box culvert segments. The cost for the relocation of the temporary supports shall be included in the price of "Temporary Support of Utilities".

When the temporary utility support systems are no longer required, they shall be removed from the site by the Contractor.

When backfilling around the utilities, care shall be taken to ensure adequate compaction of the soil around the utility without imposing undue stress to the buried utilities.

Method of Measurement: The work under this item, being paid on a lump sum basis, will not be measured for payment.

Basis of Payment: This work will be paid for at the Contract lump sum price for "Temporary Support of Utilities" which price shall include the design of the support systems and all materials, equipment, tools, labor and all work incidental to furnishing, installing, relocating, and maintaining the temporary utility support system until no longer required. It shall also include all materials, equipment tools, labor and all work incidental to the satisfactory removal and disposal of the temporary utility support system. A schedule of values for payment shall be submitted to the Department for review and comment prior to payment.

A schedule of values for payment shall be submitted to the Engineer for review and comment.

Pay Item	Pay Unit
Temporary Support of Utilities	l.s.

CONSTRUCTION CONTRACTS

STATE REQUIRED CONTRACT PROVISIONS

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)
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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
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13. Forum and Choice of Law
14. Summary of State Ethics Laws
15. Audit and Inspection of Plants, Places of Business and Records
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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

Index of Exhibits

- EXHIBIT A – Specific Equal Employment Opportunity Responsibilities (page 14)
EXHIBIT B – Affirmative Action Policy Statement (page 22)
EXHIBIT C – Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 26)
EXHIBIT D - State Wage Rates and Other Related Information (page 34)

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. NonDiscrimination

- (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, 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, 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 3-112a 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)
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Start Date	End Date	Cost
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The basic terms of the consulting agreement are: _____

Description of Services Provided: _____

Is the consultant a former State employee or former public official? ☐ YES ☐ NO

If YES: _____

Name of Former State 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.

EXHIBIT A

CONNECTICUT REQUIRED SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES July 2022

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.
- g) 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.
- h) Disseminate the Contractor's EEO Policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.

- i) Direct its recruitment efforts, both oral and written, to minority female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the project worksite and in other areas of the Contractor's workforce.
- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for opportunities through appropriate training opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n) Ensure that all facilities and company activities are nonsegregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p) Conduct a review at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations:

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 hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status, (e.g. mechanic, apprentice, trainee, helper, or laborer) dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

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)

APPENDIX A

(Labor Market Goals)

LABOR MARKET AREA GOAL

Minority

Female

Bridgeport		22.7%	
1.4%			
Ansonia	Beacon Falls	Bridgeport	Derby
Easton	Fairfield	Milford	Monroe
Oxford	Seymour	Shelton	Stratford

Trumbull

Danbury				10.7%
3.8%				

Bethel	Bridgewater	Brookfield	Danbury
Kent	New Fairfield	New Milford	Newtown
Redding	Ridgefield	Roxbury	Sherman
Washington			

Danielson				4.3%
1.8%				

Brooklyn	Eastford	Hampton	Killingly
Pomfret	Putnam	Scotland	Sterling
Thompson	Voluntown	Union	Woodstock

Hartford				13.7%
2.1%				

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				4.3%
1.8%				

Chester	Deep River	Essex	Old Lyme
Westbrook			

LABOR MARKET AREA GOAL**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%
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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 Rhode 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 (July 2022)

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 19-16 and 19-93.

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.)
3. 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, sections 13400 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 insure 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 notifications 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.

(l) 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.
- (2) 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.

(3) 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 is 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.
- (4) 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.
- (5) 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.
- (6) 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.

(7) 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;
- (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 ULTIMATELY ARISE CONCERNING 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**

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to: Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

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.

□ **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT 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.

□ **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.

□ **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 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 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, assemble, install and repair 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, fascia, 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 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**

□ 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

APPENDIX A - PERMITS

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET

NORWICH, CT 06360

(860) 886-1966

(860) 886-9165 FAX

June 15, 2023

USACOE

Regulatory Division - Branch B,
U.S. Army Corps of Engineers,
New England District, 696 Virginia Road,
Concord, MA 01742-2751

<mailto:cenae-r-ct@usace.army.mil>

CTDEEP

State of Connecticut
Department of Energy & Environmental Protection
79 Elm Street, Hartford
CT 06106-5127

<mailto:DEEP.LWRDRegulatorySubmittals@ct.gov>

RE: Danco Drive Bridge Replacement
Putnam CLA 6930

Dear ACOE and CTDEEP:

- This letter is to accompany the application materials for a USCASOE/CTDEEP application on behalf of the Town of Putnam. The subject project is the replacement of the existing roadway bridge that carries Danco Drive over Perry Brook in Putnam CT. CLA Engineers believes that the proposed activities are regulated by USACOE and CTDEEP and fall under the CTGP 19 under the Pre Construction Notification (PCN) category.
- Attachment A - ENG Form 4345
- Attachment B - Summary Direct, Indirect and Secondary Impacts
- Attachment C - Photographs
- Attachment D - Topographic Map
- Attachment E - OHW and Wetland Boundary Determination
- Attachment F - Project Purpose and Need and Alternatives
- Attachment G - USFWS Threatened and Endangered Species and CTDEEP NDDB and Fisheries Coordination
- Attachment H – SHPO/THPO Coordination

Plans are provided in a separate PDF document

Please contact me with any questions.

Sincerely,

Robert C Russo

Robert C. Russo
Soil Scientist

Attachment A
ENG Form 4345

U.S. Army Corps of Engineers (USACE)
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
 33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved -
OMB No. 0710-0003
Expires: 02-28-2022

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the 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. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcl.dod.mil/Privacy/SORNSIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Elaine Middle - Last - Sistare Company - Town of Putnam CT E-mail Address - Elaine.sistare@putnamct.us	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Robert Middle - Last - Russo Company - CLA Engineers E-mail Address - brusso@claengineers.com
6. APPLICANT'S ADDRESS: Address- 200 School Street City - Putnam State - CT Zip - 06260 Country - USA	9. AGENT'S ADDRESS: Address- 317 Main Street City - Norwich State - CT Zip - 06360 Country - USA
7. APPLICANT'S PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax 860 963 6800 x	10. AGENTS PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax 860 227 4895 860 886 1966

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Robert Russo CLA Eng. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.


 SIGNATURE OF APPLICANT

6-8-2023
 DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Danco Drive Bridge Replacement	
13. NAME OF WATERBODY, IF KNOWN (if applicable) Perry Brook	14. PROJECT STREET ADDRESS (if applicable) Address Danco Drive
15. LOCATION OF PROJECT Latitude: N 41.90012 Longitude: W -71.89637	City - Putnam State - CT Zip - 06260
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID NA Municipality Danco Drive Right of Way Section - NA Township - Range -	

17. DIRECTIONS TO THE SITE

CT I-395 south to Kennedy Drive Putnam exit. Right at the end of the ramp onto Kennedy Drive. After 0.3 miles, left onto Danco Drive. Proceed 800 feet to the Danco Dr bridge.

18. Nature of Activity (Description of project, include all features)

Replacement of existing bridge. Project includes: phased demolition and removal of existing bridge including deck, wing walls and abutments, constructing new bridge of pre-cast box culverts with one foot of native material in bottom. New headwalls and wingwalls will be cast in place. Erosion and sedimentation and dewatering will be per CTDEEP 2002 Manual. Demolition debris will be disposed off properly off site. Utilities will be maintained within the bridge deck. Disturbed areas will be vegetatively stabilized.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

Existing bridge is currently load limited due to deterioration. Per recent inspections, the entire structure requires replacement.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

The fill is required in order to install the new box culverts and place one foot of native material within them.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Concrete 128 cy	3/8 in crushed stone 83 cy	Temporary common fill 130 cy
Streambed material 40 cy	Previous structure backfill 454 cy	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 0.03 permanent 0.04 temporary

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The new bridge is being constructed on the location of the existing bridge to the extent practical so that there is minimal new disturbance. E&S and dewatering will be done per the CTDEEP 2002 Manual to minimize construction related impacts. One foot of native material will be placed in the culvert bottoms to re-create a natural stream bed. No unconfined work will take place in the channel.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list)

a. Address- Putnam Precision Molding 11 Danco Dr

City - Putnam State - CT Zip - 06260

b. Address- Roland Toutant 80 Bungy Hill Rd

City - Woodstock State - CT Zip - 06281

c. Address- Danco Properties LLC 45 Danco Dr

City - Putnam State - CT Zip - 06260

d. Address- Danco Rd LLC 21 Forest Rd

City - Webster State - MA Zip - 01570

e. Address- CTDOT 2800 Berlin Turnpike

City - Newington State - CT Zip - 06111

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
Town of Putnam	Inland Wetlands	#22-09	Sept 14, 2022	Oct 12, 2022	
CTDEEP	Sec 401	NA	April 2023	NA	NA

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Clair Stator

6-8-2023

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Attachment B
Summary Direct, Indirect and
Secondary Impacts

Inland Water Resource Impact Table
CT Department of Energy and Environmental Protection

Please add as many rows as necessary into the tables below.

Wetlands*			Direct Fill Impact				Additional Impact		Total Impact	
Wetland Name (Field ID)	Wetland Type: Existing (PFO/PSS/PEM)	Wetland Type: Proposed (if conversion) (PFO/PSS/PEM)	Activity ¹	Temporary or Permanent (T / P)	Impact Area (square feet)	Fill Volume (cubic yards)	Activity ²	Impact Area (square feet)	CT/STATE Wetlands (square feet)	FEDERAL Wetlands (square feet)
Total Wetland Impacts (all wetlands)										

Watercourses and Waterbodies									Direct Fill Impact				Additional Impact		Total Impact	
Water Name (Field ID)	Water Name (USGS Name, if applicable)	Water Type (Perennial, Intermittent ³ , Pond, Lake, Impoundment)	Flow Type ⁴	Substrate ⁵	Water Quality Class ⁶	Drainage Area (square miles)	Bank/Edge Vegetation		Activity ¹	Temporary or Permanent (T / P)	Impact Area (square feet)	Fill Volume (cubic yards)	Activity ²	Impact Area (square feet)	CT/STATE Waters (square feet)	FEDERAL Waters (square feet)
							Type	% Cover								
Total Watercourse Impacts (all watercourses/waterbodies)																

*CT defines inland wetlands as "land, including submerged land, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain" per the United States Department of Agriculture's Natural Resources Conservation Service Soil Survey. [\[CGS §22a-38\(15\)\]](#)

¹Identify Direct Fill activity; examples may include use of timber mats, construction of a structure, road, trail, parking lot, etc.

²Identify Additional Impact activity; examples may include vegetation clearing, vegetation conversion, excavation/dredging, draining/dewatering/drawdown, inundation/flooding, grading, etc.

³CT defines intermittent watercourse as: "delineated by a defined permanent channel and bank and the occurrence of two or more of the following : (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a storm incident, and (C) the presence of hydrophytic vegetation." [\[CGS §22a-38\(16\)\]](#)

⁴Watercourse flow characteristics include pools, runs, and/or riffles. If intermittent, write NA

⁵Watercourse substrates include silt/clay, sand, gravel, cobble, boulder, and/or bedrock.

⁶For Water Quality Classification information, review the [Connecticut Water Quality Standards and Classifications](#).

Attachment C

Photographs

Section 4

Photographs



Photo 1: Approach 1, looking north



Photo 2: Approach 2, looking south



Photo 3: Abutment 1, looking southeast



Photo 4: Abutment 2, looking northeast



Photo 5: Feature Crossed (Perry Brook), looking west



Photo 6: Feature Crossed (Perry Brook), looking east



Photo 7: West Elevation, looking east (upstream)



Photo 8: East Elevation, looking west (downstream)



Photo 43: Northeast Wingwall, looking north



Photo 44: Stream channel from bridge, looking upstream

Attachment D

Topographic Map



neccog

Neccog GIS Site



Legend

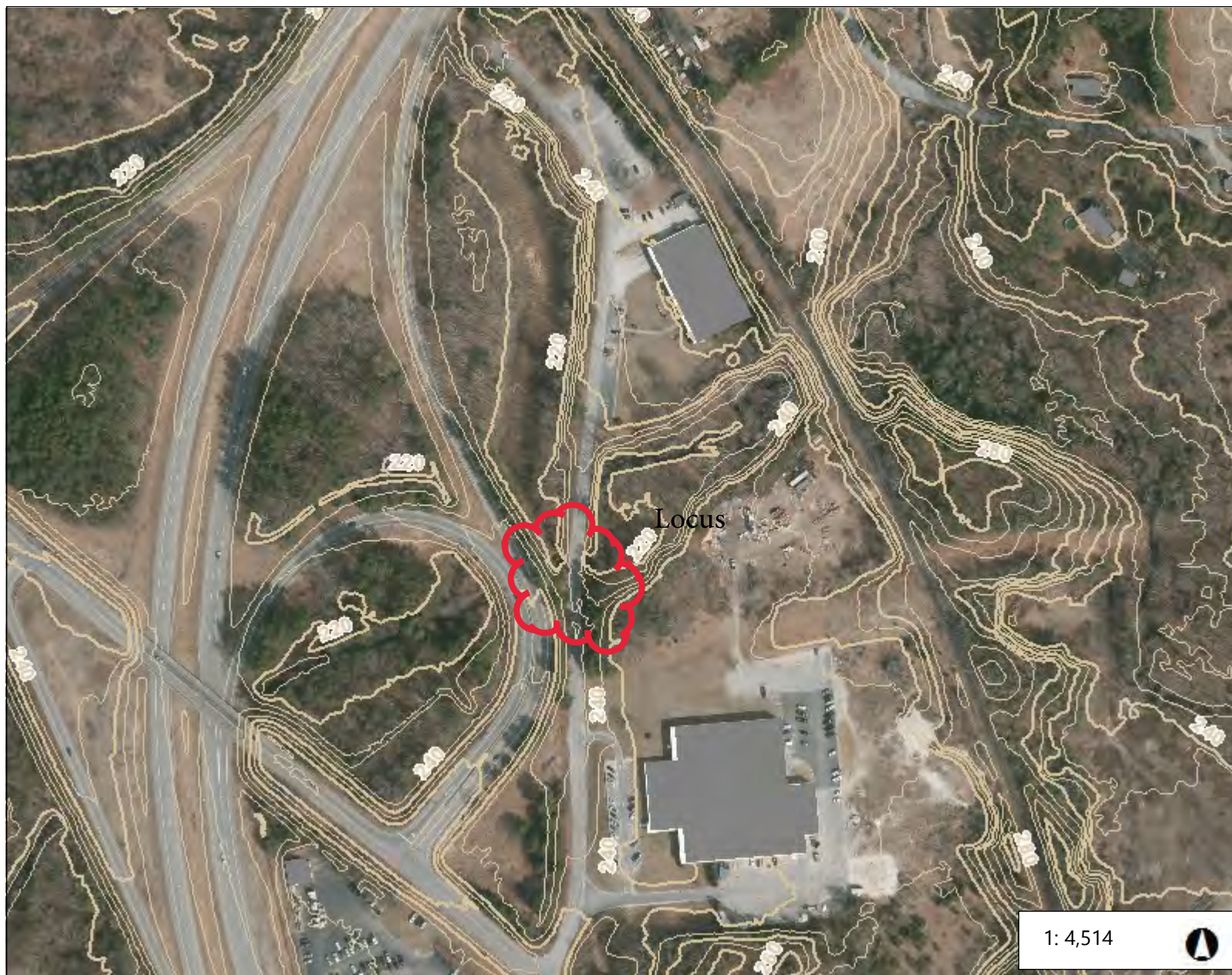
- Town
- Buildings 2012
- Parcels

Site Locus

Danco Drive Bridge
Replacment

Notes

Enter Map Description



1: 4,514



0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Attachment E
OHW and Wetland Boundary
Determination

From: [Egan, Michael P.](#)
To: [B Russo](#)
Cc: [Flietstra, Jason C.](#)
Subject: FW: Danco Drive - Hydraulic Revisions
Date: Wednesday, May 10, 2023 4:09:16 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)

Bob,

I am forwarding you the email we had with our Hydraulic Designers Lauren Turner and Clayton McCathern. As noted in their response to Jason Flietstra the hydraulic designers confirmed how they determined the OHW elevation. Let us know if any additional information. Once completed we will get Putnam to sign.

Mike Egan

From: Turner, Lauren A. <turnerla@cdmsmith.com>
Sent: Tuesday, December 20, 2022 3:31 PM
To: Egan, Michael P. <eganmp@cdmsmith.com>; Flietstra, Jason C. <flietstrajc@cdmsmith.com>
Cc: McCathern, Clayon <mccathernc@cdmsmith.com>; Aulicino, Noah M. <aulicinonm@cdmsmith.com>
Subject: FW: Danco Drive - Hydraulic Revisions

Hi Jason/Michael,

Please see our responses to the questions on the project below in [blue](#) and let me know if you have any questions!

Thank you,

Lauren A Turner, PE, M. ASCE

Water Resources Engineer
CDM Smith
1441 Main Street, Suite 1000, Columbia, SC 29201
803.758.4518
Connect with me on LinkedIn @LaurenTurner
[cdmsmith.com](#)



From: Flietstra, Jason C. <flietstrajc@cdmsmith.com>
Sent: Friday, December 16, 2022 1:43 PM
To: Turner, Lauren A. <turnerla@cdmsmith.com>; McCathern, Clayon <mccathernc@cdmsmith.com>
Cc: Egan, Michael P. <eganmp@cdmsmith.com>
Subject: RE: Danco Drive - Hydraulic Revisions

Lauren, Clayton,

Thank you for meeting with us this afternoon. To summarize our call, and the questions we are looking to have verified/answered are listed below:

1. Are we providing more than 1'-0" for freeboard to the top of roadway elevation?
 - The current model has the 100-year flood elevation as 223.43' and the top of Danco Drive at the bridge is approximately at elevation 230.0'. Therefore we can maintain the 1'-0" freeboard requirement.
Confirmed, the FG elevation is 230.0 and the 100 year flood elevation is 223.43'. The culvert low chord is 222.0'. As such, there is substantial freeboard from the roadway despite pressure flow conditions at the opening.
2. Is the consideration for a high-flow, low-flow culvert arrangement warranted for fish passage at this location?
 - This would entail re-sizing one of the culverts to be 1-foot shorter in height, while holding the top slab elevation, since existing utilities hinder our ability to put the top limit of our culvert slab above elevation 222.0'. This would require the use of a "custom" box culvert for the high-flow channel which we are trying to avoid, but if the brook water flow warrants that set-up, we would move forward with a design. The OHW water is labeled as 218.77', and this same elevation is noted for the "average daily flow elevation" on the Hydraulic Data table on sheet S-08 (attached). Maybe this is mislabeled in the table, but if not, it would seem that there is plenty of flow through the area and a high-low culvert arrangement is not warranted. Reviewing the 50%AEP event (2yr), at the unconstricted cross section confirms this run correlates with vegetation change elevations. As such, the 2year WSEL at the culvert face will be used as the OHW elevation. This value is 218.77'. The average daily flow would have needed to be taken at the time of survey/site inspection which we did not perform. This value would need to come from your team that performed the site inspection.
3. Verify that we are providing the 1.2 bankfull width (BFW) allowance.
 - If we are looking at out-out of the exterior culvert walls, then I believe we satisfy this requirement based on a OHW-to-OHW measurement upstream of 18-feet. I'm not 100% sure if the whole culvert width can be used (which is what we've preliminarily assumed) or if this is limited to just one box culvert. The requirement is stated in the attached Connecticut General Permits Stream Crossing Best Management Practices document. We have confirmed the OHW of 218.77'. Please confirm with your team that this meets the requirement that we are trying to achieve. From the GP that you sent, it appears that there is a discrepancy in OHW and BFW which is stated corresponds to "bankfull stage" (see highlighted below). If this is the case, I believe we would also need this value from your team as it states it needs to be "field delineated."





Thanks again for your assistance and short turnaround with these questions.

Jason

From: Egan, Michael P. <eganmp@cdmsmith.com>

Sent: Friday, December 9, 2022 4:36 PM

To: Turner, Lauren A. <turnerla@cdmsmith.com>; Flietstra, Jason C. <flietstrajc@cdmsmith.com>

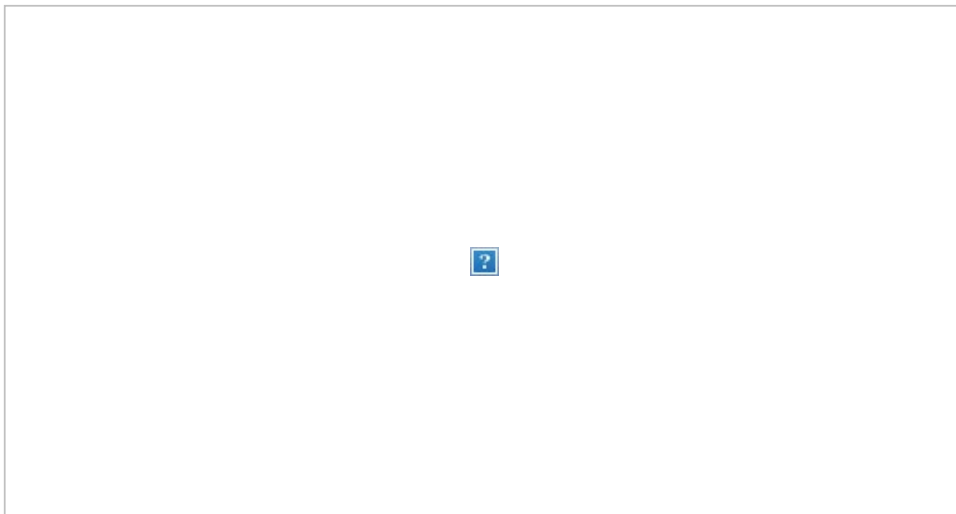
Cc: McCathern, Clayon <mccathernc@cdmsmith.com>

Subject: Danco Drive - Hydraulic Revisions

Lauren/Jason,

I would like to discuss some of the comments we got in our Pre-Application Meeting with the CTDEEP. They recommended a few things to the CTDEEP discussed:

1. Provide a Low-Flow, High-Flow Channel
2. Make the Main Low-Flow channel the Main channel bigger Box (10'x 16'?)
3. Both would still have the natural Streambed.
4. Align the Low-Flow Mani Channel box more in line with the existing Channel.



Looks like we meet their criteria for the freeboard of 100 year at least 1 foot below roadway elevation.

If we make these changes they think this can be submitted as a Self-Verification Permit which will expedite the overall project.

Looking to set up a time on Tuesday to discuss. Will set up a meeting then.

Michael P. Egan, PE, PMP

Project Manager

CDM Smith

77 Hartland Street, Suite 201, East Hartford, CT 06108

w: 860.529.7615; f: 860.290.7845; direct: 860.808.2254

mobile: 860-324-8994

eganmp@cdmsmith.com

cdmsmith.com



Attachment F
Project Purpose and Need
and Alternatives

Danco Rd Bridge Replacement Description

The project is located in Putnam, Connecticut along Danco Dr. Approximately 800 feet north of Park Rd. near Exit 45 and the northbound entrance ramp of I-395. The existing structure is a 25 foot single span structure with vertical abutments. Perry Brook flows east to west through the site location until eventually converging with the Quinebaug River 1,700 feet downstream. However, only 60 feet downstream of Danco Road, the flow enters two 9' diameter CMP culverts under the northbound entrance and exit ramps of I-395.

The proposed structure over Perry Brook will consist of two rectangular concrete box culverts, each with a width of 12 feet and a rise of 8 ft. Both boxes will have a solid concrete bottom with 1 foot of embedment into the streambed. As such, scour will be negligible. The overall length of the opening will be 40' 4". The structure will include a cast-in-place headwall as well as concrete wingwalls, with a low chord elevation of 222.0' (NAVD88). The bridge replacement will be on location, within the footprint of previous disturbance for Danco Drive.

Project Purpose and Need

Recent bridge inspections have documented that the Danco Drive Bridge is in critical need of replacement. The 2020 Bridge Inspection Report is included to document this need.

Alternatives

Alternatives investigated for the replacement of the Danco Drive Bridge over Perry Brook included a new rolled beam bridge span structure or a dual box culvert. Adjacent precast concrete deck beams and box beams were also considered, however due to the need to support the existing utilities these superstructure alternatives were quickly eliminated from consideration. The span structure proposed increased the existing span from the existing bridge, setting the new deep foundation driven pile abutments behind the existing masonry abutments. The base of the existing abutments would be maintained to form the channel and then sloped back the new pile supported stub abutments. The rolled beams would be composite with the new cast-in-place concrete deck and steel bridge railing proposed over concrete parapets. For this alternative, the vertical profile over Perry Brook would need to be increased, and therefore the existing 24-inch sewer and water lines currently supported under the bridge would need to be extended and supported between the proposed rolled beams. Given their location adjacent to the pumping station south of the bridge on Danco Drive, their location and elevation cannot be altered, and in their supported position are exposed to potential damage during flood events. Additionally, the use of steel superstructures over water is less preferred when compared to precast concrete superstructures.

A 3-sided precast box culvert was also considered, leaving an open channel bottom on deep pile driven abutments. However, the large span required using a single 3-sided box would be a customized design and may have put limitations on the fabricators ability to form a ship the precast segments to the site. The use of deep pile driven foundations would also have longer lead

times during construction and create a more complicated staged construction process. Therefore, the 3-sided box culvert alternative was eliminated as an alternative for a dual sided box culvert.

The selected alternative, that was advanced to the Final Design Stage, is the dual 12x10 Precast Concrete box culverts. The box culverts would be supported on one foot of granular fill and with return/cutoff walls at the inlet and outlet sections. The fill over the boxes is contained with full height concrete headwalls and can contain and protect the sewer and water lines that would be in the fill above the boxes. The typical box culvert dimensions are more common and can be fabricated by any precast concrete plant. The smaller box culvert segments will also better facilitate staged construction of the proposed water crossing. For these reasons the box culvert alternative was favored by the Town of Putnam, their Public Works Department, and their Sewer and Water Department.

DECEMBER 18, 2020



BRIDGE NO. 115008 INSPECTION

DANCO DRIVE OVER PERRY BROOK IN PUTNAM, CT

SWEENEY, KENNETH P.

CDM SMITH

77 Hartland Street, Suite 201, East Hartford, CT 06108

Table of Contents

LOCATION MAP 1

Section 1 Executive Summary 2

Section 2 BRI – 18, Bridge Inspection Form..... 3

Section 3 Field Notes & Sketches 10

Section 4 Photographs 15



Report Title Page

Project No.: Task Order No. 3 – Master Service Agreement

Structure: Bridge No. 115008 – Danco Drive over Perry Brook, Putnam

Inspected By: CDM Smith, Inc.

Professional Certifications:

I HEREBY CERTIFY THAT IS REPORT, INCLUDING ALL OF ITS CONTENTS, HAS BEEN APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF CONNECTICUT.



PM/QAQC: Michael Egan, PE

CT License No.: 17418

Date: April 9, 2021

LOCATION MAP



Section 1

Executive Summary

Bridge No. 115008 carries Danco Drive over Perry Brook in Putnam, Connecticut. This single span bridge consists of five (5) steel girders of various section size and one (1) timber beam supporting a timber deck at the western portion of the superstructure, and eight (8) concrete encased steel girders supporting a jack-arched concrete deck on the eastern portion of the superstructure. For purposes of this report the superstructure members are numbered from west to east. See Figure 1: Bridge Plan and Figure 2: Typical Section for details. The bridge superstructure is supported on stone masonry abutments. The bridge is estimated to have been built in 1950. The overall length of the structure is 25.13 feet and the curb-to-curb width is 27.3 feet.

The inspection completed on November 18, 2020 was performed to document the configuration and detailed condition of the bridge and associated elements. This effort was completed to identify repair or rehabilitation items to ensure the safety of the traveling public. During this inspection the bridge was found to be in poor condition. The Town of Putnam was notified of the deficiencies documented for the superstructure in BRI – 18, Bridge Inspection Form, and Town Highway Superintendent Travis Serrine visited the inspection team in the field on the day of the inspection. A separate correspondence to Town Administrator Elaine Sistare was sent on November 20, 2020 to confirm the discussion between Travis Serrine and the inspection team regarding temporary actions to be taken by the Town of Putnam to remove live load from the deteriorated steel beams on the western portion of the superstructure. A separate load rating analysis of the superstructure was performed to determine the safe load carrying capacity of the eastern portion of the superstructure and is submitted in a separate report.

Below are the overall ratings of the bridge elements; rated from 9 (“Excellent”) to 1 (“Imminent”).

Deck: (Rated – 4 “Poor”)

Approach Condition: (Rated – 4 “Poor”)

Superstructure: (Rated – 2 “Critical”)

Substructure: (Rated – 4 “Poor”)

Channel and Channel Protection: (Rated – 4 “Poor”)

Section 2

BRI – 18, Bridge Inspection Form

58. DECK

OVERALL RATING: 4

	Rating	
Overlay	5	<p>The bituminous concrete wearing surface is in fair condition. There are three (3) areas of potholes and previous patches (Photo 11). The first area is located 6' from Abutment 1 and measures 2' diameter near centerline of the travelway. The second area is located 10' from Abutment 1 and measures 4' diameter (Photo 12). The patch material has deteriorated and three (3) small potholes have formed measuring up to 9" diameter x 1" deep. The third area is located at Abutment 2 and measures 27" long x 46" wide (Photo 13). This area also exhibits one pothole 7" diameter x 3¼" deep.</p> <p>Additionally, there are longitudinal and transverse cracks up to ¼" wide throughout. There is one longitudinal reflective crack in the southbound travel lane measuring ½" wide above the timber/concrete deck interface (Photo 14).</p>
Deck Str.-Condition	5	<p>The wooden deck, previously noted in poor condition during the Visual Condition Assessment performed on 10/23/2019, is in fair condition. The exposed face of the transverse deck members at the west fascia and overhanging portion of the deck exhibit moderate wood rot and splitting (Photo 15). The remaining portions of the timber deck does exhibit leakage between the wood planks; however, the timber deck members remain in fair to good condition.</p> <p>The concrete deck on the east portion of the bridge is in fair condition and typically exhibits discoloration and random cracking but remains solid (Photo 10).</p>
Curbs	4	<p>The bridge has a concrete curb at the east fascia. The steel pipe bridge rail posts are embedded into the concrete curb. The curb is in fair condition throughout except for at the first and last bridge rail posts.</p> <p>At Post 1 from Abutment 1 the outboard face of the curb is spalled 12" high x 13" long x 2.5" deep exposing the deteriorated base of the steel pipe post (Photo 18).</p> <p>At Post 4 from Abutment 1 the concrete curb is spalled 12" high x 16" long x 12" deep (full depth) (Photo 19).</p> <p>The top left corner of the concrete curb exhibits longitudinal cracking, however the concrete sounds solid when struck with a hammer.</p>
Median	N	
Sidewalk	N	

Parapet	N	
Railing	2	<p>The bridge has two different types of railing. At the west fascia there are two steel posts near the third points of the span with the approach guiderail steel cable carried continuous across the bridge. At the east fascia the bridge rail consists of a steel pipe bridge rail embedded in the concrete curb. The approach guide rail steel cable is carried across the bridge and attached to the steel pipe posts. The bridge railing at both west and east is in critical condition.</p> <p>Two of the four posts on the east side steel pipe railing can be moved freely. At Posts 1 and 4 from Abutment 1 the concrete curb is spalled exposing the base of the posts which exhibit 100% section loss (Photo 18 & Photo 19). At the rail to post connection at Post 3 the steel pipe bridge rail exhibits severe pre-paint corrosion up to 50% at the bottom rail and 30% at the top. (Photo 20).</p> <p>At the west bridge rail, the bottom steel cable is slack, and the top cable is loose (Photo 17). The bottom steel cable is severed approximately 75' north of the bridge. The steel posts exhibit surface rust throughout but are in fair to good condition.</p> <p>The west bridge rail would not be able to redirect errant vehicles. Mitigating factors for assessing the railing '2' instead of '1' is the low speed and low volume of traffic on Danco Drive.</p>
Paint	4	<p>The east bridge railing exhibits scattered locations of paint failure with pinpoint rust (Photo 20). The west bridge rail posts exhibit surface corrosion throughout with no measurable loss of section (Photo 17). The steel cables at both west and east exhibit surface corrosion.</p>
Fence	N	
Drains	N	
Lighting Standard	N	
Utility Type/Size	3	<p>There are four utility pipes located below the bridge.</p> <p>Pipe 1 is located beside the west fascia. The pipe is in fair condition however the protective wrapping is deteriorated and beginning to fail (Photo 7).</p> <p>Pipe 2 is located below Girders 3 & 4, is insulated, and is in good condition. This utility is supported by two independent steel beams which span between the abutments. The beams are in critical condition and exhibit widespread paint failure and section loss with 90% - 100% section loss in the bottom flange and lower portion of the webs (Photo 21 & Photo 22). There was no noted distress or deterioration of the utility pipe due to the condition of the support beams.</p> <p>Pipe 3 is located between Girders 12 & 13 and is in good condition.</p>

		Pipe 4 is located below Girder 13 and is in fair condition with surface rust throughout.
Construction Joints	N	
Expansion Joints	N	

APPROACH CONDITIONS:	OVERALL RATING: 4	
-----------------------------	--------------------------	--

	<u>Rating</u>	
Approach Slab	N	
Relief Joints	N	
Approach Guide Rail	1	<p>The approach guide rails are in critical condition. The steel cables on the east side are continuous across the bridge. Both cables are loose and two wooden posts at the northeast approach, directly adjacent to the bridge, are broken (Photo 24). The third posts exhibits extensive rot. The wooden posts on the southeast approach are displaced and leaning.</p> <p>The west side steel cable railing is continuous with the bridge steel cable railing. The bottom cable is slack, and the top cable is loose. The bottom cable is broken approximately 75' north of the bridge. at the northwest approach and several posts are leaning.</p>
Approach Pavement	5	<p>The approach pavement at both north and south approaches is in fair condition. There are random longitudinal and transverse cracks up to ¼" wide and wheel line rutting (Photo 25). There is transverse reflective cracking at both abutments (Photo 23).</p> <p>There is an area of settlement and signs of ponding in the shoulder at the northwest approach, adjacent to the bridge (Photo 26).</p> <p>The approach shoulders exhibit up to 4" of sand and debris buildup (Photo 24). The buildup prevents proper cross drainage of runoff and has resulted in a buildup of debris along the bridge shoulders, most notably along the west fascia (Photo 16).</p>
Approach Embankment	6	

TRAFFIC SAFETY FEATURES:

	<u>Rating</u>	
Bridge Railings	0	Do not meet the current standards.
Transitions	0	Do not meet the current standards.
Approach Guardrails	0	Do not meet the current standards.
Approach Guardrail Ends	0	Do not meet the current standards.

59. SUPERSTRUCTURE:**OVERALL RATING: 2**

	<u>Rating</u>	
Bearing Devices	5	Only the Girder 3 bearing is visible for inspection and exhibits no notable defects.
Stringers	N	
Girders	2	<p>Girders 1 thru 6, excluding timber Girder 3, are in critical condition. These steel beams exhibit widespread extensive section loss to the flanges and lower portion of the web (Photo 27 thru Photo 32). See Figure 1: Bridge Plan for section loss documented for each girder. Based on the extensive loss of section, these girders are assumed to have no live load carrying capacity.</p> <p>Timber Girder 3 is in satisfactory condition with no noted defects.</p> <p>The concrete encased Girder 8 is in poor condition. The concrete exhibits widespread cracks and spalls with efflorescence and rust staining. The following spalls were documented at the bottom flange:</p> <ul style="list-style-type: none"> • Spall 1 – 4' from Abutment 1, 6" long x 6" wide x 1/2" deep • Spall 2 – 8' from Abutment 1. 24" long x 6" wide x 1 1/2" deep • Spall 3 – At Abutment 2, 4' long x full width x 1 1/2" deep <p>The exposed part of the steel beam has approximately 5% section loss with active corrosion and delamination (Photo 33: Girder G8 bottom flange near Abutment 2, looking to Abutment 2).</p> <p>The concrete encasement on Girders 9 thru 14 is in fair condition, with random scattered minor cracks in the lower portion of the west and east faces near the abutments (Photo 34). The concrete encased girders show no indication of distress to the underlying steel girders, and the concrete is solid when struck with a hammer.</p> <p>Based on the discussion between the inspection team and Town of Putnam Highway Superintendent Travis Serrine, it is advised to cordon off the roadway above Girders 1 thru 6 to keep any live load off of these deteriorated girders.</p>
Floor Beams	N	
Trusses-General	N	
Trusses-Portal	N	
Trusses-Bracing	N	
Paint	1	The paint system on the exposed steel girders, Girders 1, 2 & 4 thru 6, has failed throughout, specifically on the top and bottom flanges and the lower portions of the web (Photo 9). The remaining paint is faded, cracking, and provides little to no protection to the underlying steel (Photo 27).
Rust	1	The exposed steel girders exhibit paint failure throughout with extensive corrosion and severe section loss. See Girder note for additional details.

Machinery Mov. Span	N	
Rivets and Bolts	N	
Welds and Cracks	N	
Timber Decay	6	
Concrete Cracking	5	
Collision Damage	N	
Member Alignment	8	
Deflect. Under Load	N	(N) Normal; (E) Excessive.
Vibr. Under Load	N	(N) Normal; (E) Excessive.
Stand Pipes	N	
Barrel Ladders	N	

60. SUBSTRUCTURE:**OVERALL RATING: 4**

	<u>Rating</u>	
Abutments-Stem	4	<p>The masonry abutments are typically in fair to poor condition. Both abutments exhibit cracked and missing mortar throughout on 50% and 30% of the area for Abutment 1 and 2 respectively (Photo 35 & Photo 36). There are minor voids from missing or loose pointer stones. Particularly below Girder 6 at Abutment 1 and at the waterline at Abutment 2. Deterioration at the water line at Abutment 2 is due to abrasion from the stream flow. There is a void due to a missing stone below Girders 4 & 5 at Abutment 2 at the bottom course which measures 14" high x 15" wide x 36" deep (Photo 38). The east portion of the abutments supporting the encased steel girders is typically in better condition.</p> <p>The west corner of Abutment 2 exhibits a partial localized collapse due to scour below the bottom course of the masonry stem (Photo 37). This is a severe condition and should be addressed as soon as possible. The area of shifted and missing stones measures 4' high with voids up to 24" high x 26" wide x 48" deep.</p>
Abutments-Backwall	5	
Abutments-Footings	N	
Abutments-Settlement	5	
Abutments-Wingwalls	5	<p>The masonry wingwalls are in fair condition. There is vegetation overgrowth behind all the walls, and all four wingwalls exhibit cracks, voids, and missing mortar throughout (Photo 39 - Photo 43).</p> <p>In the southeast wingwall there is a large void measuring 18" high x 3' wide x 21" deep approximately 4' from the junction with Abutment 1 (Photo 41). The southeast wingwall remains stable.</p>

Piers/Bents-Caps	N	
Piers/Bents-Pile Bent	N	
Piers/Bents-Columns	N	
Piers/Bents-Footings	N	
Piers/Bents-Settlement	N	
Erosion-Scour	4	There is an approximately 10" deep scour hole at the west side of Abutment 2. This has led to a partial collapse of the masonry wall (Photo 37). See Abutments-Stem notes for additional details.
Concrete Crack-Spall	N	
Steel Corrosion	N	
Paint	N	
Timber Decay	N	
Collision Damage	N	
Debris	7	

61. CHANNEL AND CHANNEL PROTECTION**OVERALL RATING: 4**

	<u>Rating</u>	
Channel Scour	4	There is minor localized scour at the center of the stream upstream (east) of the bridge. Downstream, aggradation has formed a gravel bar which restricts flow through the south barrel of the downstream culvert (Photo 5) The stream channel appears stable since the Visual Condition Assessment performed on 10/23/19. The channel bed material is composed of sand and large stones.
Embankment Erosion	6	
Debris	N	
Vegetation	4	There is heavy vegetation overgrowth and debris at the east (upstream) fascia (Photo 44). This includes a large fallen tree which spans the channel (Photo 8). This vegetation and debris should be removed from the channel.
Channel Change	4	Perry Brook flows east to west below the bridge. Approximately 20' upstream of the bridge the channel bends 90 degrees north and follows Danco Drive approximately 150' north of Abutment 2 (Photo 6 & Photo 44). The flow below the bridge is directed at the west corner of Abutment 2 causing a scour issue and partial collapse of the abutment stem. Downstream of the bridge approximately 20' there is a 2-barrel steel culvert (Photo 5). Each barrel measures 9' diameter. The flow is restricted from the south barrel as noted in the Channel Scour note above.
Fender System	N	

Inspector's Signatures:



1. Kenneth P Sweeney Date: 04/09/2021

2. George Rakib

George K Rakib Date: 04/09/2021

P.E. Signature:



Michael Egan P.E.# 17418 Date: 04/09/2021

Reviewed By:



Mark E Fabend Date: 04/09/2021

Attachment G
USFWS Threatened and
Endangered Species
and
CTDEEP NDDB and Fisheries
Coordination



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104



In Reply Refer To:
Project code: 2023-0073203
Project Name: Danco Drive Bridge Replacement

April 24, 2023

Federal Action Agency (if applicable): Putnam town

Subject: Record of project representative's no effect determination for 'Danco Drive Bridge Replacement'

Dear Bob Russo:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 24, 2023, for 'Danco Drive Bridge Replacement' (here forward, Project). This project has been assigned Project Code 2023-0073203 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may

include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New England Ecological Services Field Office and reference Project Code 2023-0073203 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Danco Drive Bridge Replacement

2. Description

The following description was provided for the project 'Danco Drive Bridge Replacement':

Located at the existing crossing of Danco Dr over Perry Brook, complete bridge replacement, to be constructed May through October of 2024

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.900037100000006,-71.89642492042893,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. The proposed action does not intersect an area where the northern long-eared bat is likely to occur, based on the information available to U.S. Fish and Wildlife Service as of the most recent update of this key. If you have data that indicates that northern long-eared bats are likely to be present in the action area, answer "NO" and continue through the key.

Do you want to make a no effect determination?

Yes

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Putnam town
Name: Bob Russo
Address: 317 Main Street
Address Line 2: 317 Main Street
City: Norwich
State: CT
Zip: 06360
Email: brusso@claengineers.com
Phone: 8608861966



Connecticut Department of
Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division

CPPU USE ONLY

App #: _____

Doc #: _____

Check #: No fee required

Program: Natural Diversity Database
Endangered Species

Hardcopy _____ Electronic _____

Request for Natural Diversity Data Base (NDDB) State Listed Species Review

Please complete this form in accordance with the [instructions](#) (DEEP-INST-007) to ensure proper handling of your request.

There are no fees associated with NDDB Reviews.

Part I: Preliminary Screening & Request Type

Before submitting this request, you must review the most current Natural Diversity Data Base "State and Federal Listed Species and Significant Natural Communities Maps" found on the [DEEP website](#). These maps are updated twice a year, usually in June and December.

Does your site, including all affected areas, fall in an NDDB Area according to the map instructions:

☒ Yes ☐ No **Enter the date** of the map reviewed for pre-screening: December 2021 _____

This form is being submitted for a :

☒ New NDDB request

☐ Renewal/Extension of a NDDB Request, **without** modifications and within **two years** of issued NDDB determination (no attachments required)

[CPPU Use Only - NDDB-Listed Species Determination # 1736]

☐ New **Safe Harbor Determination** (optional) must be associated with an application for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

☐ Renewal/Extension of an existing Safe Harbor Determination

☐ With modifications

☐ Without modifications (no attachments required)

[CPPU Use Only - NDDB-Safe Harbor Determination # 1736]

Enter NDDB Determination Number for Renewal/Extension:

Enter Safe Harbor Determination Number for Renewal/Extension:

Part II: Requester Information

If the requester is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, the name shall be stated **exactly as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of the State's database CTData SOTS Portal. (<http://searchctbusiness.ctdata.org/>)*

If the requester is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the [Request to Change company/Individual Information](#) to the address indicated on the form.

1. Requester*

Company Name: CLA Engineers

Contact Name: Bob Russo

Address: 317 Main St.

City/Town: Norwich

State: CT

Zip Code: 06360

Business Phone: 860 227 4895

ext.

**E-mail: brusso@claengineers.com

****By providing this email address you are agreeing to receive official correspondence from the department, at this electronic address, concerning this request. Please remember to check your security settings to be sure you can receive emails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes**

a) Requester can best be described as:

☐ Individual ☐ Federal Agency ☐ State agency ☐ Municipality ☐ Tribal

☒ *business entity (* if a business entity complete i through iii):

i) Check type ☒ corporation ☐ limited liability company ☐ limited partnership
☐ limited liability partnership ☐ statutory trust ☐ Other:

ii) Provide Secretary of the State Business ID #: 3991106 This information can be accessed at the

Secretary of the State's database (CONCORD). (www.concord-sots.ct.gov/CONCORD/index.jsp)

iii) ☐ Check here if your business is **NOT** registered with the Secretary of State's office.

b) Acting as (Affiliation), pick one:

☐ Property owner ☐ Consultant ☐ Engineer ☐ Facility owner ☐ Applicant

☒ Biologist ☐ Pesticide Applicator ☐ Other representative:

2. List Primary Contact to receive Natural Diversity Data Base correspondence and inquiries, if different from requester.

Company Name:

Contact Person:

Title:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.

**E-mail:

Part III: Site Information

This request can only be completed for one site. A separate request must be filed for each additional site.

1. SITE NAME AND LOCATION

Site Name or Project Name: Danco Dr. Bridge

Town(s): Putnam

Street Address or Location Description:

Danco Drive 600 ft north of Kennedy Drive

Size in acres, or site dimensions: 130 ft x 100 ft

Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):

Latitude: 41.9001

Longitude: -71.89637

Method of coordinate determination (check one):

☐ GPS ☒ Photo interpolation using [CTECO map viewer](#) ☐ Other (specify):

2a. Describe the current land use and land cover of the site.

Existing roadway bridge

b. Check all that apply and enter the size in acres or % of area in the space after each checked category.

☐ Industrial/Commercial _____

☐ Residential _____

☐ Forest _____

☐ Wetland _____

☐ Field/grassland _____

☐ Agricultural _____

☐ Water _____

☐ Utility Right-of-way _____

☒ Transportation Right-of-way 100

☐ Other (specify): _____

Part IV: Project Information

1. PROJECT TYPE:

Choose Project Type: Bridge work , If other describe: _____

2. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? ☐ Yes ☒ No If yes, explain.

Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

Remove and replace existing Danco Dr, bridge over Perry Brook. Excavators trucks and cranes will be used to both demolish and replace the bridge. De-watering diversion consistent with the CTDEEP 2002 Manual will be employed as will erosion and sedimentation BMPs

4. If this is a renewal or extension of an existing Safe Harbor request *with* modifications, explain what about the project has changed.

5. Provide a contact for questions about the project details if different from Part II primary contact.

Name:

Phone:

E-mail:

Part V: Request Requirements and Associated Application Types

Check *one* box from either Group 1, Group 2 *or* Group 3, indicating the appropriate category for this request.

Group 1. If you check one of these boxes, complete Parts I – VII of this form and submit the required attachments A and B.

- ☐ Preliminary screening was negative but an NDDB review is still requested
- ☐ Request regards a municipally regulated or unregulated activity (no state permit/certificate needed)
- ☐ Request regards a preliminary site assessment or project feasibility study
- ☐ Request relates to land acquisition or protection
- ☐ Request is associated with a *renewal* of an existing permit or authorization, with no modifications

Group 2. If you check one of these boxes, complete Parts I – VII of this form and submit required attachments A, B, *and* C.

- ☒ Request is associated with a *new* state or federal permit or authorization application or registration
- ☐ Request is associated with modification of an existing permit or other authorization
- ☐ Request is associated with a permit enforcement action
- ☐ Request regards site management or planning, requiring detailed species recommendations
- ☐ Request regards a state funded project, state agency activity, or CEPA request

☐ **Group 3.** If you are requesting a **Safe Harbor Determination**, complete Parts I-VII and submit required attachments A, B, and D. Safe Harbor determinations can only be requested if you are applying for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

If you are filing this request as part of a state or federal permit application(s) enter the application information below.

Permitting Agency and Application Name(s):

CTDEEP and USACE Section 401 and 404 permits _____

Related State DEEP Permit Number(s), if applicable: _____

State DEEP Enforcement Action Number, if applicable: _____

State DEEP Permit Analyst(s)/Engineer(s), if known: _____

Is this request related to a previously submitted NDDB request? ☐ Yes ☒ No

If yes, provide the previous NDDB Determination Number(s), if known: _____

Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

<input checked="" type="checkbox"/> Attachment A:	Overview Map: an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.
<input checked="" type="checkbox"/> Attachment B:	Detailed Site Map: fine scaled map showing site boundary and area of work details on aerial imagery with relevant landmarks labeled. (Site and work boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)
<input checked="" type="checkbox"/> Attachment C:	Supplemental Information, Group 2 requirement (attached, DEEP-APP-007C) <input checked="" type="checkbox"/> Section i: Supplemental Site Information and supporting documents <input type="checkbox"/> Section ii: Supplemental Project Information and supporting documents
<input type="checkbox"/> Attachment D:	Safe Harbor Report Requirements, Group 3 (attached, DEEP-APP-007D)

Part VII: Requester Certification

The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."	
Signature of Requester (a typed name will substitute for a handwritten signature)	Date
Robert C. Russo	CSS
Name of Requester (print or type)	Title (if applicable)
Signature of Preparer (if different than above)	Date
Name of Preparer (print or type)	Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Or email request to: deep.nddbrequest@ct.gov

Attachment C: Supplemental Information, Group 2 requirement

Section i: Supplemental Site Information

1. Existing Conditions

Describe all natural and man-made features including wetlands, watercourses, fish and wildlife habitat, floodplains and any existing structures potentially affected by the subject activity. Such features should be depicted and labeled on the site plan that must be submitted. Photographs of current site conditions may be helpful to reviewers.

The bridge crosses Perry Brook, a perennial stream with fish and wildlife habitat. The stream has a sand and cobble bottom, is 1-2 feet deep and has an approximately 20 foot wide channel. In the vicinity of the bridge the right of way has been maintained with low herbaceous and shrub cover.

☒ **Site Photographs (optional) attached**

☒ **Site Plan/sketch of existing conditions attached**

2. Biological Surveys

Has a biologist visited the site and conducted a biological survey to determine the presence of any endangered, threatened or special concern species ☐ Yes ☒ No

If yes, complete the following questions and submit any reports of biological surveys, documentation of the biologist's qualifications, and any NDDB survey forms.

Biologist(s) name: _____

Habitat and/or species targeted by survey: _____

Dates when surveys were conducted: _____

☐ **Reports of biological surveys attached**

☐ **Documentation of biologist's qualifications attached**

☐ **[NDDB Survey forms](#) for any listed species observations attached**

Section ii: Supplemental Project Information

1. Provide a schedule for all phases of the project including the year, the month and/or season that the proposed activity will be initiated and the duration of the activity.

Schedule not yet available

2. Describe and quantify the proposed changes to existing conditions and describe any on-site or off-site impacts. In addition, provide an annotated site plan detailing the areas of impact and proposed changes to existing conditions.

Proposed site conditions are shown on the attached plans. The bridge will be replaced with twin box culverts backfilled with 1 foot of native streambed material.

☒ **Annotated Site Plan attached**

Attachment D: Safe Harbor Report Requirements

Submit a report, as Attachment D, that synthesizes and analyzes the information listed below. Those providing synthesis and analysis need appropriate qualifications and experience. A request for a safe harbor determination shall include:

- 1. Habitat Description and Map(s), including GIS mapping overlays, of a scale appropriate for the site, identifying:**
 - wetlands, including wetland cover types;
 - plant community types;
 - topography;
 - soils;
 - bedrock geology;
 - floodplains, if any;
 - land use history; and
 - water quality classifications/criteria.
- 2. Photographs** - The report should include photographs of the site taken from the ground and also all reasonably available aerial or satellite photographs and an analysis of such photographs.
- 3. Inspection** - A visual inspection(s) of the site should be conducted, preferably when the ground is visible, and described in the report. This inspection can be helpful in confirming or further evaluating the items noted above.
- 4. Biological Surveys** - The report should include all biological surveys of the site where construction activity will take place that are reasonably available to a registrant. A registrant shall notify the Department's Wildlife Division of biological studies of the site where construction activity will take place that a registrant is aware of but are not reasonably available to the registrant.
- 5. Based on items #1 through 4 above, the report shall include a Natural Resources Inventory of the site of the construction activity.** This inventory should also include a review of reasonably available scientific literature and any recommendations for minimizing adverse impacts from the proposed construction activity on listed species or their associated habitat.
- 6. In addition, to the extent the following is available at the time a safe harbor determination is requested, a request for a safe harbor determination shall include and assess:**
 - Information on Site Disturbance Estimates/Site Alteration information
 - Vehicular Use
 - Construction Activity Phasing Schedules, if any; and
 - Alteration of Drainage Patterns



Connecticut Department of
Energy & Environmental Protection
Bureau of Natural Resources
Fisheries Division

DEEP Fisheries Consultation Form

To the Applicant - Prior to the submission of your license application to the Connecticut Department of Energy & Environmental Protection (DEEP) Water Planning and Management Division (WPMD) or Land and Water Resources Division (LWRD) or Water Permitting and Enforcement Division (WPED), please complete Part I below and e-mail the following to deep.inland.fisheries@ct.gov:

1. this completed DEEP *Fisheries Consultation Form*;
2. a site location map,
3. a PDF version of the proposed project plans including a site survey of existing conditions (if available), and
4. photos of the site.

Fisheries Division staff will contact you if further details are needed. Once the Fisheries Division staff returns the completed form to you, please include the form, and any signed plans (if applicable) in your license application submittal to DEEP.

Part I: Applicant and Site Information (*to be completed by APPLICANT*)

1. Applicant/Registrant Information

Name: Town of Putnam

Mailing Address: 200 School Street

City/Town: Putnam

State: CT

Zip Code: 06260

Business Phone: 860-963-6800

Ext.: 113

Contact Person: Elaine Sistare

Phone: 860-963-6800

Ext: 113

E-mail Address: elanine.sistare@putnamct.us

2. Engineer/Surveyor/Agent Information (list as applicable)

Name: CLA Engineers

Mailing Address: 317 Main St

City/Town: Norwich

State: CT

Zip Code: 06360

Business Phone: 860 886 1966

Ext.: _____

Contact Person: Bob Russo

Phone: 860 227 2895

Ext: _____

E-mail Address: brusso@claengineers.com

Service Provided: consultant

3. Site Location:

Name of Site: Danco Rd Bridge

Address of Site or Location Description: Danco Rdr

City/Town: Putnam

State: CT

Zip Code: 06260

Parcel Location/Tax Assessor's Reference: Map NA

Block NA

Lot NA

Name of Stream or Waterbody: Perry Brook

4. Activity: Check the box best describing your activity: (check all that apply):

☐ new public/fishing access;

☐ maintenance dredging

☐ new docks and marinas on the Connecticut River;

☐ beach nourishment

☐ coastal/tidal dredging projects;

☒ cofferdam installation

☒ activities in inland/non-tidal waterbodies and watercourses;

☒ conducting construction activity within a 100-foot buffer of a Cold Water Stream Habitat

☐ withdrawal of water from a non-tidal/inland river, stream, pond or lake;

☐ withdrawal of water from a wetland, marsh, swamp, or bog hydrologically connected to a non-tidal/inland river, stream, pond or lake;

☐ withdrawal of groundwater from stratified drift deposits hydrologically connected to a non-tidal/inland river, stream, pond or lake.

Note: Fisheries consultation is **not required** for docks and marinas on Long Island Sound.

Part I: Applicant and Site Information (to be completed by APPLICANT) (continued)

5. **DEEP Pre-application Contact:** Indicate name of permit analyst or engineer, if applicable.
Farrah Ashe, Joe Cassone
6. **Project Description:** Provide or attach a brief, but thorough, description of the project including any measures to protect, enhance or restore fish populations:
See Attachment 1

Part II: Fisheries Determination (To be completed by DEEP Fisheries Staff only)

To Fisheries Staff - This completed consultation form is required to be submitted as part of an application to DEEP. The application has not yet been submitted to DEEP. Please review the enclosed materials and determine whether the project will significantly impact any fisheries or fisheries habitat. You may provide comments or recommendations regarding the proposal. Send this completed form to the applicant and copy the DEEP analyst, if known, or the applicable WPMD/LWRD/WPED Supervisor. If the proposed work **WILL** significantly impact any fisheries and/or habitat or if you have any comments or concerns regarding the regulatory review for this project, contact the DEEP analyst, if known, or the applicable WPMD/LWRD/WPED Supervisor.

DEEP FISHERIES DIVISION DETERMINATION

Date Consultation Form received: _____

Please check applicable boxes and return the completed Consultation Form to the applicant:

- ☐ I have determined that the work described in Part I of this form and attachments **WILL NOT** significantly impact any fisheries and/or habitat;
- ☐ I have determined that the work described in Part I of this form and attachments **WILL NOT** significantly impact any fisheries and/or habitat **if the below Recommendations are followed**; and/or,
- ☐ I have determined that the work described in Part I of this form and attachments **WILL NOT** significantly impact any fisheries and/or habitat **if the design features shown on the attached plans are incorporated**. Fisheries staff to sign and date plans and return to the applicant with the completed Consultation Form.

COMMENTS/RECOMMENDATIONS (or check here if these are attached following this page: ☐):

"By entering my name below, I agree that I am providing my legal signature, and am legally bound by the determination above."

Signature of Fisheries Division Staff

Date

Print Name of Fisheries Division Staff

Title

April 7, 2022

Bob Russo
CLA Engineers, INC
317 Main St
Norwich, CT 06360
brusso@claengineers.com

NDDDB DETERMINATION NUMBER: 202203654

Project: Danco Drive Bridge over Perry Brook, 600' north of Kennedy Dr in, Putnam, CT

Expiration: April 7, 2024

I have reviewed Natural Diversity Data Base (NDDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) documented nearby and may be impacted by your project.

Wood turtle (*Glyptemys insculpta*)- State Special Concern

Banded sunfish (*Enneacanthus obesus*)- State Special Concern

Wood turtle

Individuals of this species are riverine and riparian obligates, overwintering and mating in clear, cold, primarily sand-gravel and rock bottomed streams and foraging in riparian zones, fields and upland forests during the late spring and summer. They hibernate in the banks of the river in submerged tree roots between November 1 and March 31. Their summer habitat focuses within 90m (300ft of rivers) and they regularly travel 300m (0.2 mile) from rivers during this time. During summer they seek out early successional habitat: pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers.

Construction:

Land disturbance activities that have the potential to run over adult turtles or unearth hibernating turtles or turtle nests need to consider local habitat features and apply fencing and/or time of year restrictions as appropriate.

- I do not anticipate impacts from this project if it occurs when turtles are dormant, between November 1- March 31.

For construction activities, between April- October 31:

- Exclusionary practices will be used to prevent any turtle access into areas where heavy equipment will be used.
- Exclusionary fencing shall be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working must be apprised of the species description and the possible presence of a listed species.
- The Contractor search the work area each morning prior to any work being done.

- 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 point. This animal is protected by law and should not be relocated off-site.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable and disturbance is finished to allow for reptile and amphibian passage to resume.

State listed fish:

DEEP Fisheries Biologists review permit applications submitted to DEEP regulatory programs to determine whether projects might adversely affect listed species. If you have not already consulted with a DEEP Fisheries Biologist, please submit the [DEEP Fisheries Consultation Form](#) to (Deep.inland.fisheries@ct.gov).

If link is incorrect, the form can be found here:

https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Common_Forms/fisheriesconsultationappdoc.doc

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 Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted 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 in the NDDB as it becomes available.

Please contact me if you have any questions (shannon.kearney@ct.gov). Thank you for consulting with the Natural Diversity Data Base and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist



**Connecticut Department of
Energy & Environmental Protection**

Applicant Compliance Information

DEEP ONLY

App. No. _____

Co./Ind. No. _____

Applicant Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

*E-mail:

If you answer yes to any of the questions below, you must complete the Table of Enforcement Actions on the reverse side of this sheet as directed in the instructions for your permit application.

- A. During the five years immediately preceding submission of this application, has the applicant been convicted in any jurisdiction of a criminal violation of any environmental law?

☐ Yes ☐ No

- B. During the five years immediately preceding submission of this application, has a civil penalty been imposed upon the applicant in any state, including Connecticut, or federal judicial proceeding for any violation of an environmental law?

☐ Yes ☐ No

- C. During the five years immediately preceding submission of this application, has a civil penalty exceeding five thousand dollars been imposed on the applicant in any state, including Connecticut, or federal administrative proceeding for any violation of an environmental law?

☐ Yes ☐ No

- D. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal court issued any order or entered any judgement to the applicant concerning a violation of any environmental law?

☐ Yes ☐ No

- E. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal administrative agency issued any order to the applicant concerning a violation of any environmental law?

☐ Yes ☐ No

Table of Enforcement Actions

(1) Type of Action	(2a) Date Commenced	(2b) Date Terminated	(3) Jurisdiction	(4) Case/Docket/ Order No.	(5) Description of Violation

☐ Check the box if additional sheets are attached. Copies of this form may be duplicated for additional space.

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET

NORWICH, CT 06360

(860) 886-1966

(860) 886-9165 FAX

April 24, 2023

Environmental Review
State Historic Preservation Office,
450 Columbus Boulevard,
Suite 5, Hartford, CT. 06103

RE: Danco Drive Bridge Replacement
Putnam
CLA 6930

Dear SHPO:

This letter is to accompany the SHPO coordination materials for a USCASOE/CTDEEP application on behalf of the Town of Putnam. The Environmental Project Review Cover Form, plans with locus map, photographs, soil survey map and additional project information are enclosed as Attachments A-E.

Please contact me with any questions.

Sincerely,

Robert C Russo

Robert C. Russo
Soil Scientist

Attachment A
Project Review Cover Form



PROJECT REVIEW COVER FORM

This is: ☐ a new submittal ☐ supplemental information ☐ other Date Submitted: _____

PROJECT INFORMATION

Project Name: _____

Project Proponent: _____
The individual or group sponsoring, organizing, or proposing the project.

Project Street Address: _____
Include street number, street name, and or Route Number. If no street address exists give closest intersection.

City or Town: _____ County: _____
Please use the municipality name and **not** the village or hamlet.

PROJECT DESCRIPTION (REQUIRED)

Please summarize the project below. In a separate attachment, describe the project in detail. As applicable, provide any information regarding past land use, project area size, renovation plans, demolitions, and/or new construction.

List all state and federal agencies involved in the project and indicate the funding, permit, license or approval program pertaining to the proposed project:

Agency Type	Agency Name	Program Name
<input type="checkbox"/> State <input type="checkbox"/> Federal		
<input type="checkbox"/> State <input type="checkbox"/> Federal		
<input type="checkbox"/> State <input type="checkbox"/> Federal		
<input type="checkbox"/> State <input type="checkbox"/> Federal		

If there is no state or federal agency involvement, please state the reason for your review request:

FOR SHPO USE ONLY

Based on the information submitted to our office for the above named property and project, it is the opinion of the Connecticut State Historic Preservation Office that no historic properties will be affected by the proposed activities.*

Jonathan Kinney
Deputy State Historic Preservation Officer

Date

*All other determinations of effect will result in a formal letter from this office



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 historic properties listed on the State or National Register of Historic Places within the project area? (Select one)

☐ Yes ☐ No ☐ Do Not Know

If yes, please identify: _____

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 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>

☐ No

CHECKLIST (Did you attach the following information?)

Required for all Projects <input type="checkbox"/> Completed Form <input type="checkbox"/> Map clearly labelled depicting project area <input type="checkbox"/> Photographs of current site conditions <input type="checkbox"/> Site or project plans for new construction	Required for Projects with architectural resources <input type="checkbox"/> Work plans for rehabilitation or renovation <input type="checkbox"/> Assessor's Property Card Required for Projects with ground disturbing activities <input type="checkbox"/> Soil survey map
Suggested Attachments, as needed <input type="checkbox"/> Supporting documents needed to explain project <input type="checkbox"/> Supporting documents identifying historic properties <input type="checkbox"/> Historic maps or aerials (available at http://magic.lib.uconn.edu or https://www.historicaerials.com/)	

PROJECT CONTACT

Name: _____ Firm/Agency: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

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
Locus Map and Plans
(Under separate cover)

Attachment C

Photographs

Section 4

Photographs



Photo 1: Approach 1, looking north



Photo 2: Approach 2, looking south



Photo 3: Abutment 1, looking southeast



Photo 4: Abutment 2, looking northeast



Photo 5: Feature Crossed (Perry Brook), looking west



Photo 6: Feature Crossed (Perry Brook), looking east



Photo 7: West Elevation, looking east (upstream)



Photo 8: East Elevation, looking west (downstream)



Photo 43: Northeast Wingwall, looking north



Photo 44: Stream channel from bridge, looking upstream

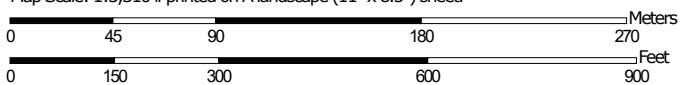
Attachment D

Soil Survey Map

Soil Map—State of Connecticut (Danco Drive)



Map Scale: 1:3,310 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84




**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

9/6/2022
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut

Survey Area Data: Version 21, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 14, 2011—Oct 8, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	7.0	17.1%
103	Rippowam fine sandy loam	8.5	20.8%
306	Udorthents-Urban land complex	25.4	62.1%
Totals for Area of Interest		40.9	100.0%

Attachment E
Supporting Document
(Project Description)

Attachment 1, Danco Rd Bridge Replacement Description

The project is located in Putnam, Connecticut along Danco Dr. Approximately 800 feet north of Park Rd. near Exit 45 and the north bound entrance ramp of I-395. The existing structure is a 25 foot single span structure with vertical abutments. Perry Brook flows east to west through the site location until eventually converging with the Quinebaug River 1,700 feet downstream. However, only 60 feet downstream of Danco Road, the flow enters two 9' diameter CMP culverts under the northbound entrance and exit ramps of I-395.

The proposed structure over Perry Brook will consist of two rectangular concrete box culverts, each with a width of 12 feet and a rise of 8 ft. Both boxes will have a solid concrete bottom with 1 foot of embedment into the streambed. As such, scour will be negligible. The overall length of the opening will be 40' 4". The structure will include a cast-in-place headwall as well as concrete wingwalls, with a low chord elevation of 222.0' (NAVD88). The bridge replacement will be on location, within the footprint of previous disturbance for Danco Drive.

May 4, 2023

Mr. Robert C. Russo
CLA Engineers, Inc.
317 Main Street
Norwich, CT 06360
(sent only via email to brusso@claengineers.com)

Subject: Replacement of Bridge 115008
Danco Drive over Perry Brook
Putnam, Connecticut


Dear Mr. Russo,

The Connecticut State Historic Preservation Office (SHPO) is in receipt of your request for our comments regarding potential effects to historic properties. The proposed project is subject to permitting by the United States Army Corps of Engineers and the Connecticut Department of Energy and Environmental Protection. As a result, the proposed undertaking is subject to review pursuant to the National Historic Preservation Act and the Connecticut Environmental Policy Act. SHPO understands that the Town of Putnam plans to replace the bridge carrying Danco Drive over Perry Brook with two rectangular precast concrete box culverts and cast-in-place headwall and wingwalls. The extant structure is described as a single span structure with stone masonry abutments and wingwalls.

There are no archeological sites or properties listed on the National Register of Historic Places recorded within or immediately adjacent to the Area of Potential Effect (APE) for this project. The Danco Drive bridge was reviewed by the Connecticut Department of Transportation in 1990 and assigned Bridge Number 11008. At the time of inspection the bridge, constructed in 1950, was not assessed for inclusion on the National Register of Historic Places (NRHP) applying the criteria for evaluation (36CFR 60.4[a-d]). The existing structure is a common design with no known associations; it is SHPO's opinion that the existing bridge is not eligible for listing on the NRHP. Although the area surrounding the APE is considered archaeologically sensitive. Project plans indicate that proposed work will be confined to disturbed deposits associated with previous bridge construction as well as saturated soils not well coordinated with archaeological deposits. Based on the information provided to our office, it is SHPO's opinion that no historic properties will be affected by this project.

This office appreciates the opportunity to review and comment upon this project. Do not hesitate to contact Cory Atkinson, Staff Archaeologist and Environmental Reviewer, for additional information at (860) 500-2458 or cory.atkinson@ct.gov.

Sincerely,

A handwritten signature in blue ink, reading "Jonathan Kinney".

Jonathan Kinney
State Historic Preservation Officer



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS AND
MAINTENANCE



- ☐ DISTRICT 1 (1107 Cromwell Avenue, Rocky Hill, CT 06067) (860) 258-4544
- ☐ DISTRICT 3 (140 Pond Lily Avenue, New Haven, CT 06515) (203) 389-3000
- ☒ DISTRICT 2 (171 Salem Turnpike, Norwich, CT 06360) (860) 823-3230
- ☐ DISTRICT 4 (359 South Main Street, Thomaston, CT 06787) (203) 591-3627

Date: 7-26-2024

APPLICATION FOR REVIEW OF ENCROACHMENT PERMIT

The attached check list is to be included with and considered part of the application.
(PLEASE FILL OUT COMPLETELY. NOTE: **ORIGINAL SIGNATURE OF OWNER REQUIRED - BLUE INK**)

PMT-1 Rev.10/18

Description of Project: Replacment of the Danco Road Bridge over Perry Brook in Putnam Connecticut

Location: Danco Road over Perry Brook, Putnam. See the Attached Location Map.

(complete street address, if none, provide map/block/lot information and provide plan(s) as needed)

Town and Zip Code: Putnam

FOR COMMERCIAL PROPOSALS ONLY

Proposed Gross Floor Area (GSF) and Land Use: _____ Total Parking Spaces: _____

Planning and Zoning Approval:

Date Received: _____ Date Expected: _____ Not Required: ☒

Property Owner's Name as noted in the Municipal Land Records: Town of Putnam, CT

If there is more than one land owner, a separate application page shall be shown for each)

Street Address: 200 School Street

Town, State, & Zip Code: Putnam, CT 06260

Telephone: 860-963-6800 ext 103

Mobile Number: _____

Email: barney.seney@putnamct.us

Developer/Applicant/Representative's Name (if different from Owner): Town of Putnam, CT

Street Address: 200 School Street

Town, State, & Zip Code: Putnam, CT 06260

Telephone: 860-963-6800 ext 113

Mobile Number: 860-372-1755

Email: Elaine.Sistare@putnamct.us

By signing this form, the owner indicates that the authorized representative designated below is conferred general authority to act on behalf of the owner/developer with respect to all matters arising from the review of this application.

[Signature]

Property Owner's Signature (Original/Blue Ink)

Norman B. Seney, Jr. Mayor

Property Owner's Name

[Signature]

Developer/Applicant/Representative's Signature (Original)

Elaine Sistare, PE

Developer/Applicant/Representative's Name (Typed)

Town Administrator

Developer/Applicant/Representative's Title

Fee: (for DOT use) #
\$ Rec'd:

Name of Surety Company: _____

Bond Amount: _____ Required Amount for Job: _____ Bond #: _____

Name of Party to whom Bond is Issued: _____

Phone Number: _____

Insurance Policy Number: _____ Expiration: _____

Name of Party to whom Insurance is Issued: _____

Phone Number: _____

In evaluating this application, the Office of Maintenance will rely on the information provided by the applicant. If such information subsequently proves to be false, deceptive, incomplete, and/or inaccurate, the Department reserves the right to deny the reviewed application and require a resubmission.

☐ OSTA

☐ TRAFFIC

☐ DRAINAGE

☐ PDU

☐ DISTRICT

☐ PUBLIC TRANS.

☐ OTHER

APPENDIX B – PLAN LIST

PLAN LIST
TOWN OF PUTNAM, CONNECTICUT
REPLACEMENT OF THE DANCO DRIVE BRIDGE OVER PERRY BROOK (BRIDGE NO. 115008)
PROJECT #9115-00008

2024 Construction Plan List

Roadway Plan Sheets

Sheet No.	Sheet Title
TYP-01	TYPICAL SECTION
RPP-01	ROADWAY PLAN AND PROFILE
RCS-01	ROADWAY CROSS SECTIONS
TTM-01	TEMPORARY TRAFFIC MANAGEMENT PLANS (1 OF 2)
TTM-02	TEMPORARY TRAFFIC MANAGEMENT PLANS (2 OF 2)
ROW-01	RIGHT-OF-WAY PLAN
MDS-01	MISCELLANEOUS DETAILS

Structural Plan Sheets

Sheet No.	Sheet Title
S-01	GENERAL PLAN
S-02	GENERAL NOTES
S-03	BORING LOGS
S-04	STAGE CONSTRUCTION (1 OF 2)
S-05	STAGE CONSTRUCTION (2 OF 2)
S-06	WATER HANDLING PLANS (1 OF 2)
S-07	WATER HANDLING PLANS (2 OF 2)
S-08	CULVERT SECTIONS
S-09	CULVERT ELEVATION
S-10	CULVERT DETAILS (1 OF 2)
S-11	CULVERT DETAILS (2 OF 2)
S-12	HEADWALL AND CUTOFF WALL DETAILS
S-13	INLET WINGWALL DETAILS
S-14	OUTLET WINGWALL DETAILS
S-15	PROTECTIVE FENCE (5' HIGH) DETAILS
S-16	TEMPORARY PRECAST CONCRETE BARRIER (TPCB) (1 OF 4)
S-17	TEMPORARY PRECAST CONCRETE BARRIER (TPCB) (2 OF 4)
S-18	TEMPORARY PRECAST CONCRETE BARRIER (TPCB) (3 OF 4)
S-19	TEMPORARY PRECAST CONCRETE BARRIER (TPCB) (4 OF 4)

APPENDIX C – EXISTING LOAD RATING REPORT

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

BRIDGE LOAD RATING REPORT

Structure No. 115008

Danco Drive

over

Perry Brook

Putnam



BY PLACEMENT OF THE PROFESSIONAL ENGINEERING STAMP AND SIGNATURE I HEREBY STATE THAT I HAVE PERFORMED AN INDEPENDENT CHECK OF THE METHODS, ASSUMPTIONS, LOAD DISTRIBUTION, COMPUTER INPUT FILE(S) AND ALL CALCULATIONS FOR THIS LOAD RATING REPORT FOR THE BRIDGE NUMBER STATED ABOVE. BY STAMPING AND SIGNING ABOVE, I CONFIRM THAT I AGREE WITH ALL METHODS, ASSUMPTIONS, LOAD DISTRIBUTIONS, AND CALCULATIONS CONTAINED IN THIS RATING REPORT.

**CDM
Smith**

CDM Smith, Inc.

77 Hartland Street | Suite 201, East Hartford, CT 06180

12/02/2020

Kenneth P. Sweeney

(860) 529-7615

CONNECTICUT DEPARTMENT OF TRANSPORTATION

BUREAU OF ENGINEERING AND CONSTRUCTION

OFFICE OF ENGINEERING

GENERAL INFORMATION

Structure No.:	115008	City/Town:	Putnam	Route:	N/A	Mile Point:	N/A
Feature Carried:	Danco Drive					Year Built:	1950
Feature Crossed:	Perry Brook					Year Rebuilt:	N/A
Project No.:		Construction No.:		Billable Project No.:			
Superstructure Boundary Conditions:	Simple						
Superstructure Type:	Multi-beam						
Superstructure Material:	Steel						
Substructure Type:	N/A						
Deck Type:	Monolithic						
Deck Material:	Concrete						
Composite:	No						
Original Design Code:	Unknown						
Original Design Load:	Unknown						
Evaluation Code:	LRFR						
Design Load:	HL-93						
Analysis Method :	Line Girder						
Basis of Rating:	Member Deterioration						

* Ability to customize field

Rated By:	Kenneth P. Sweeney	Date:	12/02/2020
Reviewed By:	Jason C. Flietstra, PE	Date:	12/03/2020
Company Name:	CDM Smith, Inc.	Phone No.:	(860) 529-7615
Company Address:	77 Hartland Street Suite 201, East Hartford, CT 06180		

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING AND CONSTRUCTION
OFFICE OF ENGINEERING

AASHTO DESIGN VEHICULAR RATING SUMMARY								
LIVE LOAD	RF	TONS	SPAN/ CELL	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x.xL)	LIMIT STATE	CONTROLLING MECHANISM
INV HL-93 Truck	0.19	N/A	1	G8	10.29	0.5L	Service II	Flexure
OPR HL-93 Truck	0.24	N/A	1	G8	10.29	0.5L	Service II	Flexure

AASHTO FATIGUE RATING SUMMARY						
LIVE LOAD	RF	EXP. YEAR	SPAN	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x.xL)
N/A		N/A				N/A

SERVICE III DESIGN AND LEGAL RATING SUMMARY						
LIVE LOAD	RF	TONS	SPAN/ CELL	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x.xL)
N/A		N/A				N/A
N/A		N/A				N/A

* Ability to customize field

CONNECTICUT DEPARTMENT OF TRANSPORTATION

BUREAU OF ENGINEERING AND CONSTRUCTION

OFFICE OF ENGINEERING

AASHTO LEGAL VEHICULAR RATING SUMMARY								
LIVE LOAD	RF	TONS	SPAN/ CELL	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x,xL)	LIMIT STATE	CONTROLLING MECHANISM
Type 3	0.31	7.75	1	G8	10.29	0.5L	Service II	Flexure
Type 3S2	0.34	12.24	1	G8	10.29	0.5L	Service II	Flexure
Type 3-3	0.38	15.2	1	G8	10.29	0.5L	Service II	Flexure
SU4	0.26	7.02	1	G8	10.29	0.5L	Service II	Flexure
SU5	0.25	7.75	1	G8	10.29	0.5L	Service II	Flexure
SU6	0.24	8.34	1	G8	10.29	0.5L	Service II	Flexure
SU7	0.24	9.29	1	G8	10.29	0.5L	Service II	Flexure

CONNECTICUT LEGAL VEHICULAR RATING SUMMARY								
LIVE LOAD	RF	TONS	SPAN/ CELL	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x.xL)	LIMIT STATE	CONTROLLING MECHANISM
CT-L73.0	0.21	7.66	1	G8	10.29	0.5L	Service II	Flexure
CT-L3S2	0.29	11.6	1	G8	10.29	0.5L	Service II	Flexure
CT-HS20	0.27	9.72	1	G8	10.29	0.5L	Service II	Flexure
CT-H20	0.27	5.4	1	G8	10.29	0.5L	Service II	Flexure

EMERGENCY VEHICULAR RATING SUMMARY									
LIVE LOAD	RF	GVW (Tons)	AXLE (Tons)	SPAN /CELL	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x.xL)	LIMIT STATE	CONTROLLING MECHANISM
Type EV2	0.25	7.18	4.18	1	G8	10.29	0.5L	Service II	Flexure
Type EV3	0.17	7.31	5.27	1	G8	10.29	0.5L	Service II	Flexure

* Ability to customize field

**CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING AND CONSTRUCTION
OFFICE OF ENGINEERING**

CONNECTICUT PERMIT VEHICULAR RATING SUMMARY

LIVE LOAD	RF	TONS	SPAN/ CELL	CONTROLLING MEMBER	MEMBER LENGTH (ft)	CONTROL LOC (x,xL)	LIMIT STATE	CONTROLLING MECHANISM
CT-P76.5	0.29	11.09	1	G8	10.29	0.5L	Service II	Flexure
CT-P120(6)	0.29	17.39	1	G8	10.29	0.5L	Service II	Flexure
CT-P140(7)a	0.29	20.29	1	G8	10.29	0.5L	Service II	Flexure
CT-P140(7)b	0.27	18.9	1	G8	10.29	0.5L	Service II	Flexure
CT-P160(8)a	0.28	22.4	1	G8	10.29	0.5L	Service II	Flexure
CT-P160(8)b	0.25	20	1	G8	10.29	0.5L	Service II	Flexure
CT-P180(9)	0.27	24.3	1	G8	10.29	0.5L	Service II	Flexure
CT-P200(10)	0.24	24	1	G8	10.29	0.5L	Service II	Flexure
CT-P380	0.31	58.9	1	G8	10.29	0.5L	Service II	Flexure

ADDITIONAL VEHICULAR RATING SUMMARY

[illegible]

* Ability to customize field

CONNECTICUT DEPARTMENT OF TRANSPORTATION

BUREAU OF ENGINEERING AND CONSTRUCTION

OFFICE OF ENGINEERING

SPECIFICATIONS

Bridge Load Rating Manual version	2018.01.0			
AASHTO The Manual for Bridge Evaluation version	3rd	edition with the	2018	interims
AASHTO LRFD Bridge Design Specifications version	8th	edition with the	2017	interims
Recent Routine/Indepth Bridge Inspection date (yyyy)				

CONSTRUCTION RECORDS

None Available

ADDITIONAL REFERENCES

10/23/2019 CDM Smith Visual Condition Assessment
11/18/2020 CDM Smith Field Inspection

CALCULATION TOOLS

AASHTOWare Bridge Rating Version 6.8.4.3001
Mathcad v.15.0

Methodology

Methodology

Analysis Method

1. The structure was analyzed using AASHTOWare BrR 6.8.4.3001 as a 2D Line Girder System Analysis.

Comments

1. The load rating was performed as part of the Master Services Agreement Task Order No. 3.
2. The load rating and load rating report have been prepared in accordance with the CTDOT Bridge Load Rating Manual (BLRM).
3. Plans documenting the configuration of the bridge are not available for use in load rating. The load rating input information is based on field measurements of the bridge geometry taken during the Field Inspection completed on November 18, 2020.
4. Bridge component labeling follows the CTDOT Bridge Inspection Manual (west to east) based on the long direction of Danco Drive (north).
5. The bridge consists of a single span mixed beam bridge. Girders G1, G2, and G4 thru G6 consist of various steel sections. Girder G3 is a timber section. Girders G7 thru G14 are concrete encased steel sections.
6. Girders G1 thru G6 support a timber deck, and Girders G7 thru G14 support a concrete deck. The varying deck construction types provides a separation between the west (G1 thru G6) and east (G7 thru G14) portions of the structure.
7. Only the east portion of the structure was modeled in the BrR file. Based on the severe deterioration documented during the Field Inspection, the west portion of the structure, G1 thru G6, is assumed to have no live load carrying capacity and is therefore not modeled.
8. Girders G7 thru G14 are spaced 2 feet – 10.5 inches on center.
9. The Girder G7 concrete encasement at the north abutment has failed and exposed the bottom flange for a length of 4 feet. The bottom flange was measured to be 5.5 inches wide with an average thickness of 0.402 inches.
10. The Girder G7 bottom flange exhibited minor section loss in the area of the failed concrete encasement. Girders G8 thru G14 remained concealed by the concrete cover.
11. No deck haunch was observed due to the concealed nature of the girders.
12. No visible diaphragms or stiffeners were observed for Girders G7 thru G14.
13. The wearing surface was measured along the west curb line to be 5 inches thick. The load factor at the strength limit state for the wearing surface is reduced to 1.25 as the wearing surface was field measured. This is done in accordance with BLRM 2.2.1.
14. The concrete encased I-sections are analyzed assuming pinned support conditions per BLRM 6.9.3.
15. Visible bearing at Girder G3 was measured to be 13" long.
16. Per the Connecticut Department of Transportation requirements, the use of AASHTOWare shall be used for load rating state bridges, and the LRFR is the only method of rating accepted which requires the use the HL-93 design vehicle and all applicable legal and permit loads with use of the CTDOT Bridge Load Rating Form. However, understanding that Danco Drive will unlikely see the HL-93 design load, or several of the legal and permit loads, any load postings shall be dependent on the H20 and HS20 ratings.

17. The CT-H20 and CT-HS20 Legal Loads have been highlighted in the rating results for each member.

Assumptions

1. The bridge structure is estimated to have been built in 1950.
2. AASHTO Manual for Bridge Evaluation (3rd Edition), with 2019 Interim Revisions (MBE) was used to determine the material properties for the structure. Concrete Prior to 1959 (MBE Table 6A.5.2.1-1), Unknown reinforcing steel constructed prior to 1954 (MBE Table 6A.5.2.2-1), and Structural Steel 1936 to 1963 (MBE Table 6A.6.2.1-1).
3. The concrete deck is assumed to be 7 inches thick, and non-composite with the steel girders.
4. The concrete curb at the east fascia measures 12.5 inches high x 12 inches wide are input as sidewalks in the BrR model with no pedestrian load.
5. Based on the field measured values, Girders G7 thru G14 are assumed to be W14x26 sections.
6. Girder G7 is assumed to have 5% bottom flange section loss in the area of the exposed bottom flange. Girders G8 thru G14 remained concealed and are assumed to exhibit no deterioration.
7. Concrete encasement for girders was entered as a uniform non-composite dead load for each girder.
8. The span length (Centerline-of-Bearing to Centerline-of-Bearing) is taken as the measured Abutment-to-Abutment length of 19' – 6" plus 6½" from face of Abutment to Centerline-of-Bearing at each abutment.

Rated Members

1. Girders G7, G8 thru G13 (linked as G8), G14.

Calculations



Client: Town of Putnam, CT
 Project: Task Order No. 3 (MSA)
 Detail: 115008 BrR Inputs

Job No.: 254773
 Date Checked: 12/02/2020
 Checked By: JCF

Computed by: KPS
 Date: 12/01/2020
 Page No.: 1

115008 AASHTOWARE Bridge Rating Input

Girder Geometry

Plans documenting the configuration of the bridge are not available for use in load rating. The load rating input information is based on field measurements of the bridge configuration taken during the Field Inspection completed on November 18, 2020.

Span Length:	$L_{\text{span}} := 19.5\text{ft} + 2 \cdot 6.5\text{in} = 20.583\text{ ft}$	(CL Brg to CL Brg)
Number of Girders:	$N_{\text{West}} := 6$	[Note: Due to the sever corrosion of the west beams supporting timber deck, only the east portion of the bridge is considered]
	$N_{\text{East}} := 8$	
Flange Width (G7 thru G14)	$b_f := 5.5\text{in}$	[Note: Measurements of Girder G7 exposed bottom flange with minor section loss noted]
Flange Thickness (G7 thru G14)	$t_f := \text{mean}(0.494\text{in}, 0.375\text{in}, 0.338\text{in}) = 0.402\text{ in}$	
Concrete Cover	$\text{Cover} := 1.5\text{in}$	
Concrete Encasement Width	$b_{\text{conc}} := 8.75\text{in}$	
Depth from Top of Curb to bottom of G14 (East Fascia)	$d_{\text{fascia}} := 34.5\text{in}$	
Height of Curb	$h_{\text{curb}} := 12.5\text{in}$	
Assumed Deck Thickness	$t_{\text{deck}} := 7\text{in}$	
Girder Depth (G7 thru G14)	$d := d_{\text{fascia}} - h_{\text{curb}} - t_{\text{deck}} - \text{Cover} = 13.5\text{ in}$	
Assumed Girder Section	W14x26	[Note: Based on the width and thickness measurements at Girder G7, Girders G8-G14 are assumed to have no section losses as these girders remain fully encased in concrete]
Left Concrete Deck Overhang	$\text{EastOverhang1} := \frac{b_{\text{conc}}}{2} = 0.365\text{ ft}$	
Girder G7 thru G14 Spacing:	$S_{\text{East}} := 34.5\text{in} = 2.875\text{ ft}$	
Right Concrete Deck Overhang	$\text{EastOverhang2} := \frac{b_{\text{conc}}}{2} = 0.365\text{ ft}$	
East Out to Out:	$\text{East}_{\text{out.to.out}} := \text{EastOverhang1} + 7S_{\text{East}} + \text{EastOverhang2} = 20.854\text{ ft}$	
Weight of Concrete:	$\gamma_{\text{concrete}} := 145\text{pcf} + 5\text{pcf} = 150\text{ pcf}$	(LRFD Table 3.5.1-1 for Normal Weight Concrete plus 5 pcf for reinforcement)
Weight of Steel:	$\gamma_{\text{steel}} := 490\text{pcf}$	BLRM 2.1.1.c)



Client: Town of Putnam, CT
 Project: Task Order No. 3 (MSA)
 Detail: 115008 BrR Inputs

Job No.: 254773
 Date Checked: 12/02/2020
 Checked By: JCF

Computed by: KPS
 Date: 12/01/2020
 Page No.: 2

Dead Loads:

Girders:

Girder self-weight will be calculated by BrR.

AASHTOWare BrR cannot model concrete encasement. The dead load for the encasement is entered as a uniform non-composite dead load.

$$\text{Area of Steel Section} \quad A_{W14 \times 26} := 7.69 \text{ in}^2$$

$$\text{Area of Encased Beam} \quad A_{\text{Conc}} := b_{\text{conc}} \cdot (d + \text{Cover}) = 131.25 \cdot \text{in}^2$$

$$\text{Concrete Dead Load} \quad DL_{\text{Conc}} := \gamma_{\text{concrete}} \cdot (A_{\text{Conc}} - A_{W14 \times 26}) = 0.129 \cdot \text{klf}$$

Diaphragm Load:

There were no visible diaphragms present on the east portion of the bridge (Girders G7 thru G14) which would contribute to the dead load of the superstructure.

Bridge Rail:

The weight of the metal pipe bridge rail on top of the concrete curb

$$\text{Number of Posts:} \quad N_{\text{post}} := 4$$

$$\text{Weight of Single Post:} \quad W_{\text{post}} := 9.12 \text{ plf} \quad (\text{Pipe 3.5 in Diameter})$$

$$\text{Height of Post above Curb:} \quad h_{\text{post}} := 34 \text{ in}$$

$$\text{Length of Bridge:} \quad L_{\text{railing}} := 23 \text{ ft} + 2 \text{ in} = 23.167 \text{ ft}$$

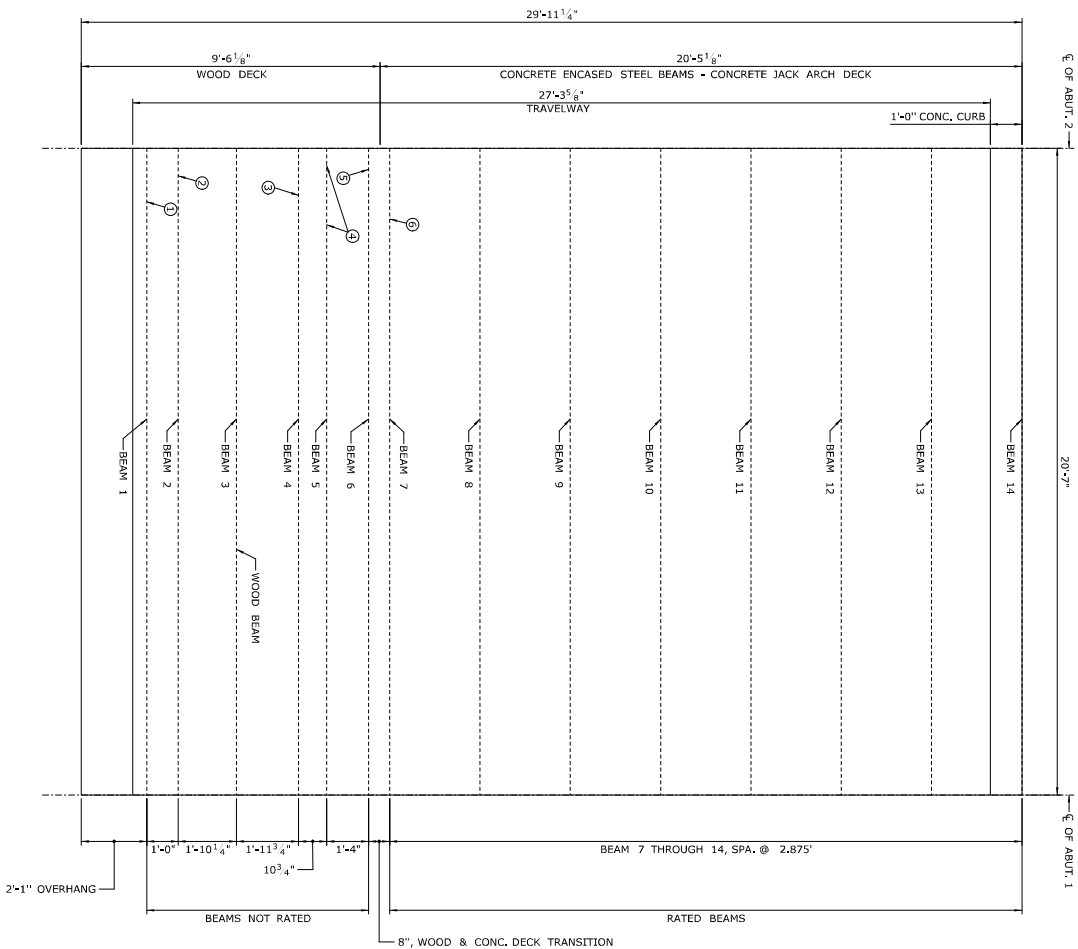
$$\text{Weight of Metal Pipe Rail:} \quad W_{\text{rail}} := 5.80 \text{ plf} \quad (\text{Pipe 2.5 in Diameter})$$

$$\text{Bridge Rail Weight:} \quad W_{\text{bridge.rail}} := \frac{N_{\text{post}} \cdot W_{\text{post}} \cdot h_{\text{post}}}{L_{\text{railing}}} + 2W_{\text{rail}} = 0.016 \cdot \text{klf}$$

Utility Load:

The superstructure does not support any of the utility pipes which span beneath the bridge.

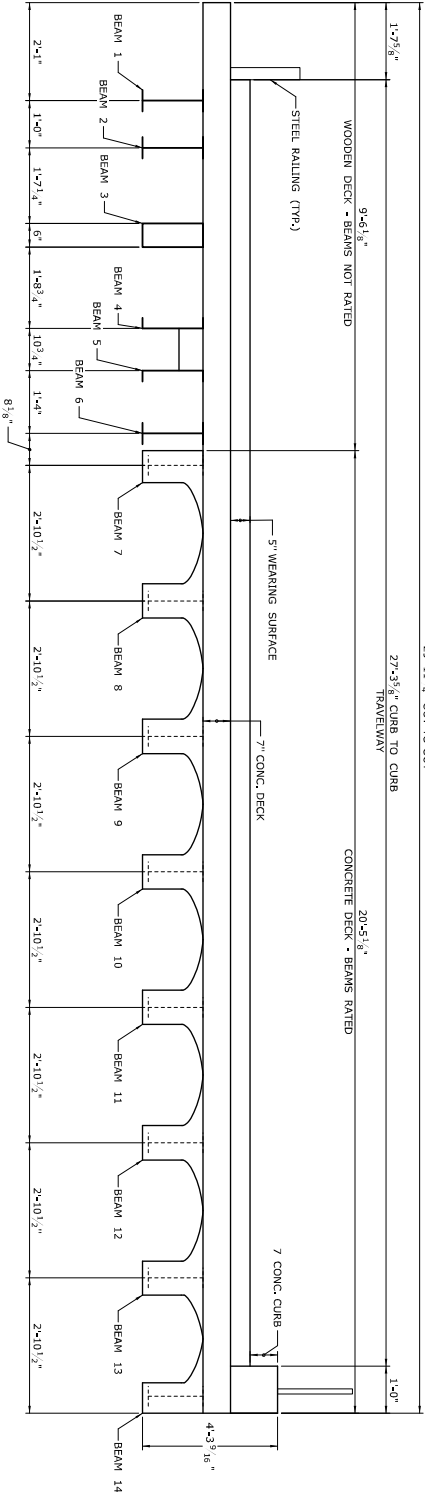
Schematics



- NOTES:**
1. GIRDER G1 - TOP & BOTTOM FLANGE SECTION LOSS 60.00% THROUGHOUT SPAN WEB LOSS OF 100% IN LOWER 5' THROUGHOUT SPAN
 2. GIRDER G2 - TOP & BOTTOM FLANGE SECTION LOSS 40% THROUGHOUT SPAN
 3. GIRDER G4 - TOP & BOTTOM FLANGE SECTION LOSS OF 5% THROUGHOUT SPAN
 4. GIRDER G5 - WEB LOSS OF 100% IN LOWER 3' AT ABUTMENT 2. GIRDER G5 - WEB LOSS OF 100% IN LOWER 1' AT ABUTMENT 2. TOP & BOTTOM FLANGE THROUGHOUT THE REMAINDER OF THE BRIDGE EXHIBIT 10% LOSS.
 5. GIRDER G6 - EXHIBITS 90-100% LOSS THROUGHOUT SPAN ON BOTH FLANGES AND WEB
 6. GIRDER G7 - BOTTOM FLANGE SECTION LOSS OF 5% AT ABUTMENT 2, 4'-0\"/>

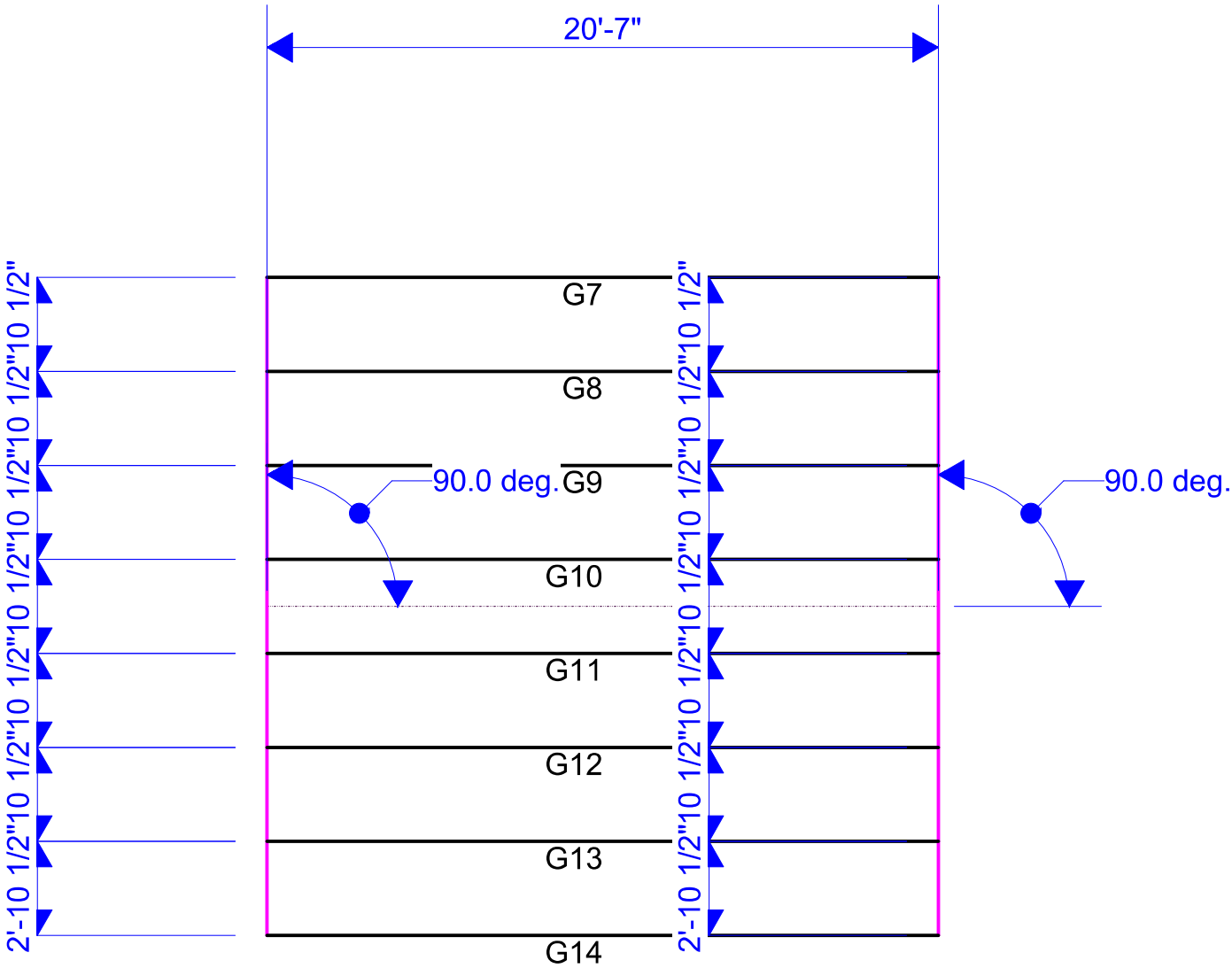
PLAN

DESIGNATION		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE BRIDGE INSPECTION AND BRIDGE RATING ON DANCO ROAD OVER PERRY BROOK	TOWN TOWN OF PUTNAM	PROJECT NO. -
CHECKED BY GKR	SCALE AS NOTED				
DATE	PROJECT DESCRIPTION	SHEET NO. 1	ISSUED DATE 12/12/2020	DRAWING NO. 1	SHEET NO. 1



REVISIONS		DESCRIPTION		PROJECT TITLE		TOWN		PROJECT NO.	
NO.	DATE	BY	REASON	NO.	DATE	BY	REASON	NO.	DATE
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115008
115008 - Span 01_Girders G7 thru G14
DANCO DR / PERRY BROOK
12/02/20

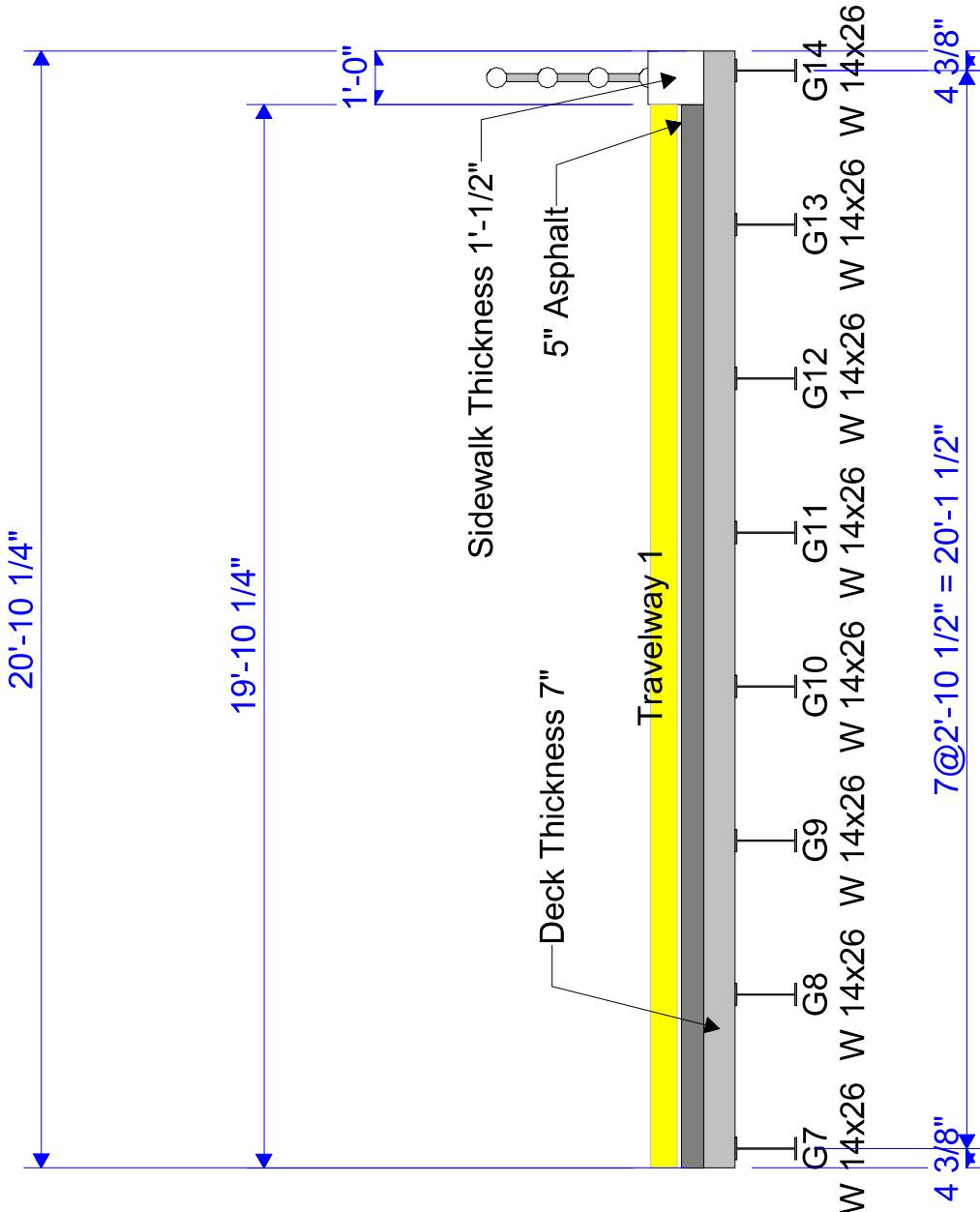


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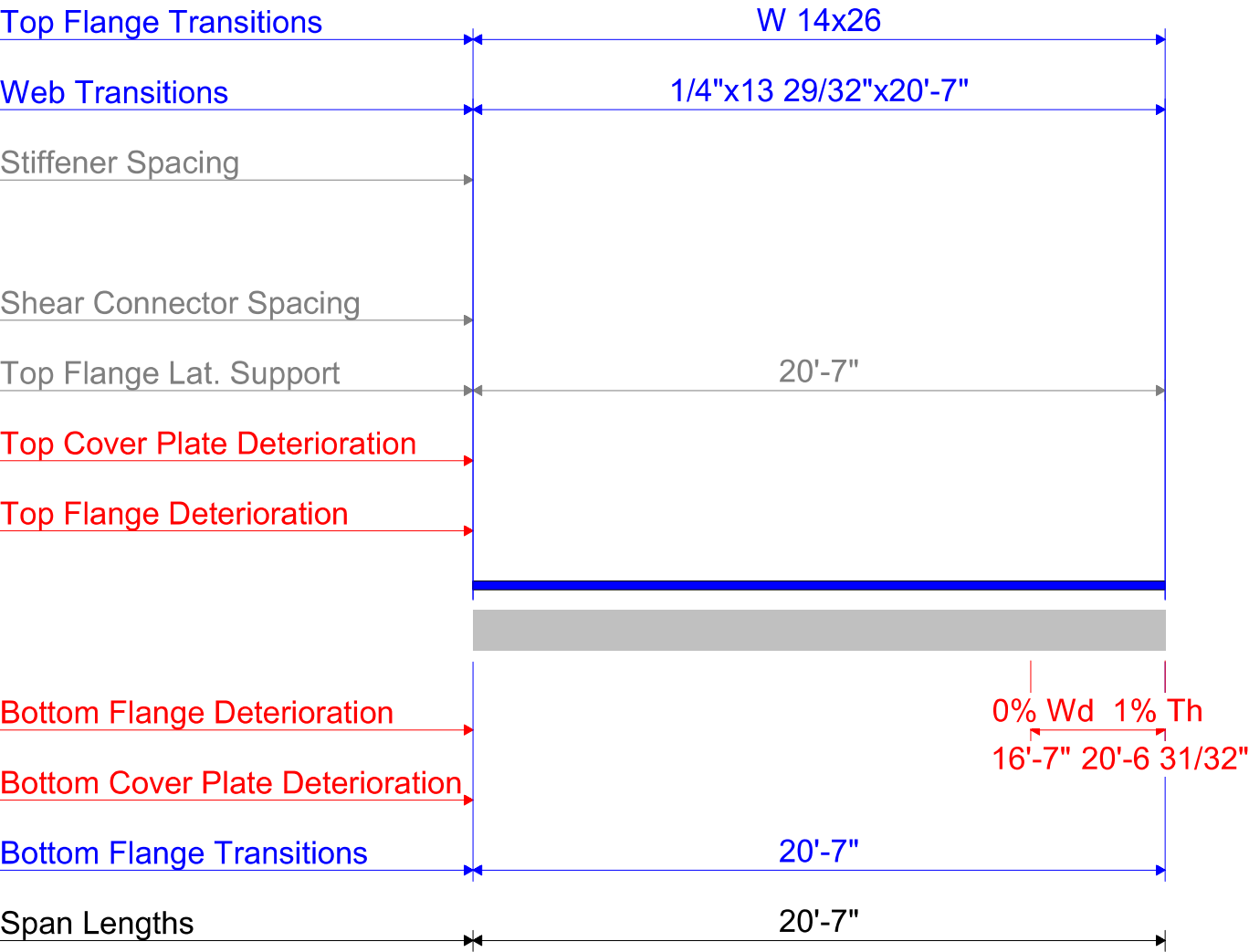
115008 - Span 01_Girders G7 thru G14

DANCO DR / PERRY BROOK

12/02/20

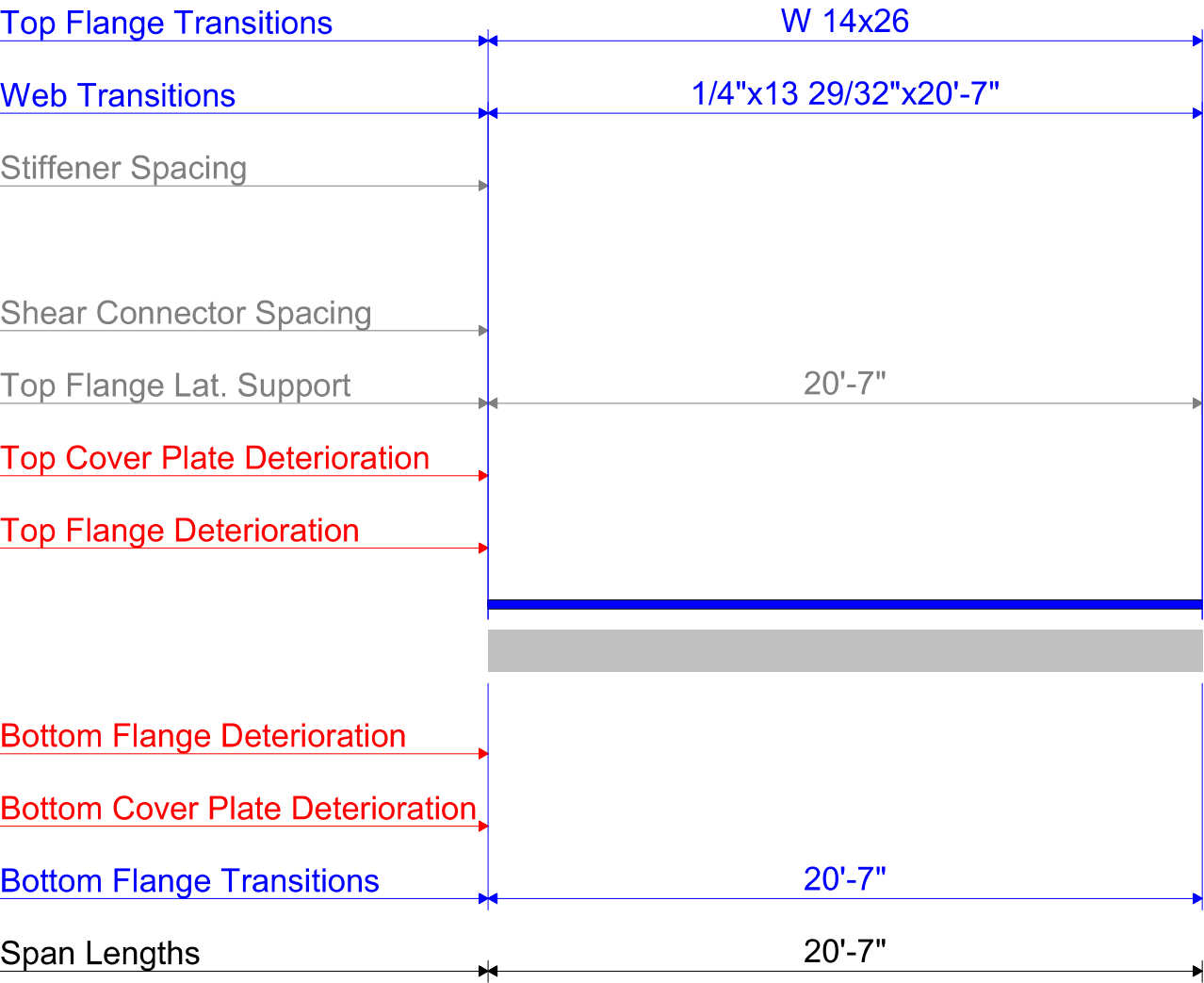


115008
115008 - Span 01_Girders G7 thru G14 - G7
DANCO DR / PERRY BROOK
12/02/20



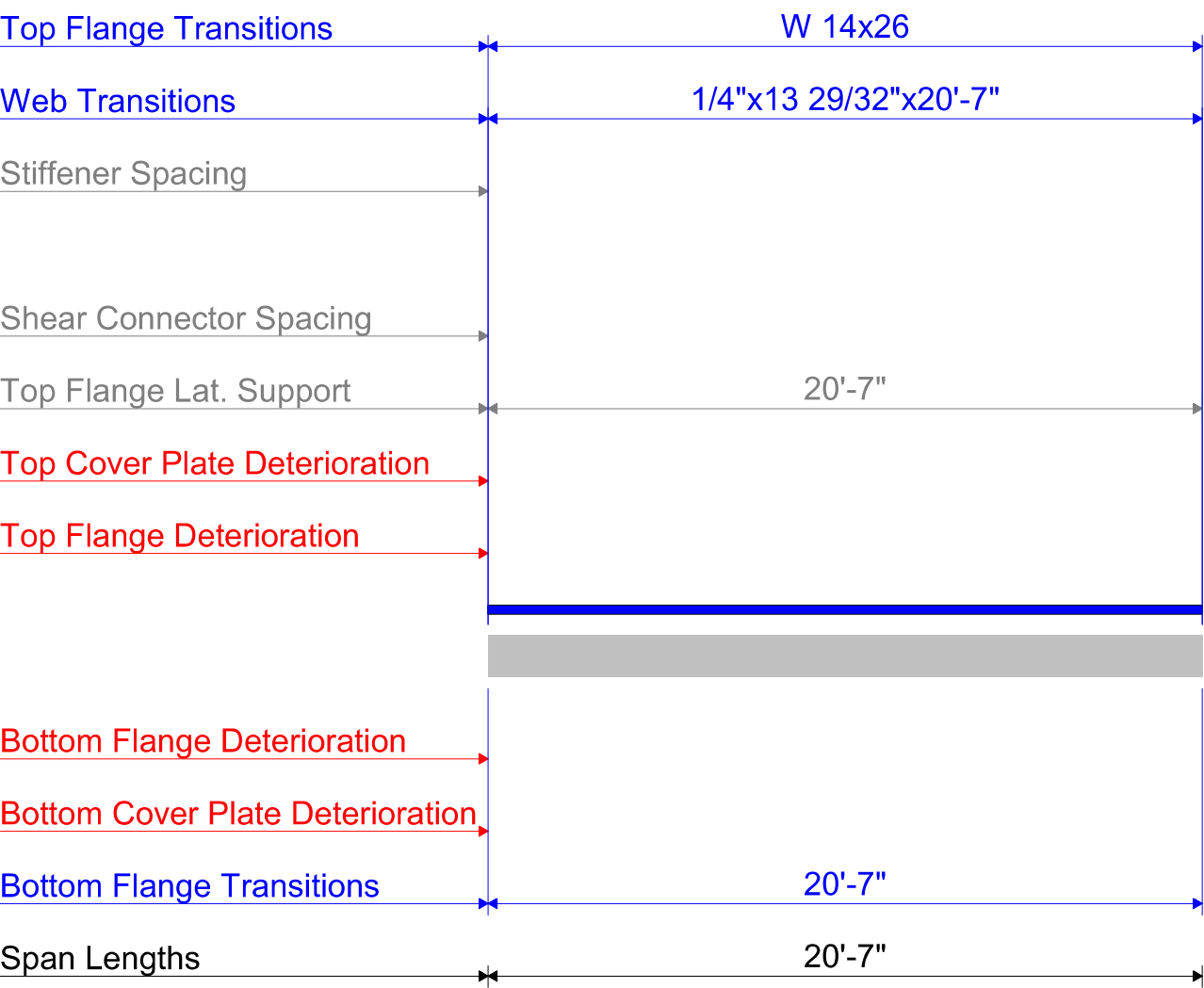
- Notes:
- * All flange length dimensions are horiz. (length along flange may differ).
 - * Transverse stiffener pairs shown in red.
 - * Single transverse stiffener shown in blue.
 - * Bearing stiffeners shown in green.
 - * Dimensioning starts and ends at CL bearings.
 - * X denotes cross frame locations.

115008
115008 - Span 01_Girders G7 thru G14 - G8
DANCO DR / PERRY BROOK
12/02/20



- Notes:
- * All flange length dimensions are horiz. (length along flange may differ).
 - * Transverse stiffener pairs shown in red.
 - * Single transverse stiffener shown in blue.
 - * Bearing stiffeners shown in green.
 - * Dimensioning starts and ends at CL bearings.
 - * X denotes cross frame locations.

115008
115008 - Span 01_Girders G7 thru G14 - G14
DANCO DR / PERRY BROOK
12/02/20



- Notes:
- * All flange length dimensions are horiz. (length along flange may differ).
 - * Transverse stiffener pairs shown in red.
 - * Single transverse stiffener shown in blue.
 - * Bearing stiffeners shown in green.
 - * Dimensioning starts and ends at CL bearings.
 - * X denotes cross frame locations.

AASHTOWare BrR Input

Bridge

Bridge Id:	115008	
Creation Timestamp:	Monday, November 30,	
	2020 15:44:18	
Last Modified Timestamp:	Wednesday, December 02,	
	2020 09:40:31	
Description:	Danco Drive over Perry	
	Brook	
System Of Units:	US Customary	
Location:	PUTNAM	
Length:	25.13	ft
Facility Carried:	DANCO DR	
Feature Intersected:	PERRY BROOK	
Route Number:		
Year Built:	1950	
Mile/Km Post:		mi
National Highway System Indicator:	0	
Truck Percent:		
Traffic ADT:		
Directional Percent:		%
Recent ADTT:		
Traffic Design ADTT:		
Expected annual ADTTSL growth rate:		
Fatigue Importance Factor :	Main Arterial, Interstate,	
	Other	
Importance Factor Override Indicator:	FALSE	
Importance Factor Override:		
Impact Factor Type:	Standard - AASHTO	
Impact Factor Adjustment:		
Impact Factor Override:		%
LRFD Fatigue Impact Factor:	15.0	%
LRFD Constant Impact Factor:	33.0	%
LRFD Multiple Presence Factors Reduce Based On ADTT Indicator:		

Materials

Structural Steel Material

Name:	1936 to 1963	
Description:	Built 1936 to 1963 - steel unknown	
Si Or Us Type:	US Customary	
Yield Strength:	33.000	ksi
Tensile Strength:	66.000	ksi
Coefficient Of Thermal Expansion:	0.0000065000	1/F
Density:	0.4900	kcf
Modulus Of Elasticity:	29000.00	ksi

Concrete Material

Name:	Prior to 1959	
Description:	Unknown Concrete Prior to 1959 (MBE Table 6.A.5.2.1-1)	
Si Or Us Type:	US Customary	
28 Day Compressive Strength:	2.500	ksi
Initial Compressive Strength:		ksi
Density For DL:	0.150	kcf
Density For Modulus Of Elasticity:	0.145	kcf
Coefficient Of Thermal Expansion:	0.0000060000	1/F
Poissons Ratio:	0.200	
Composition Type:	Normal	
Modulus Of Rupture:	0.379	ksi
Shear Factor:	1.000	
LRFD Modulus Of Elasticity:	3413.80	ksi
LRFD Initial Modulus Of Elasticity:	0.00	ksi

Reinforcing Steel Material

Name:	Unknown steel constructed prior to 1954	
Description:	MBE Table 6A.5.2.2-1	
Si Or Us Type:	US Customary	
Yield Strength:	33.000	ksi
Modulus Of Elasticity:	29000.00	ksi
Ultimate Strength:		ksi
Reinforcing Bar Type:	Plain	

Beam Shapes

Steel Beam Shapes

Steel I Shape

Name:	W 14x26	
Description:	W 14x26 Imported from AISC Tables (1994)	
Si Or Us Type:	US Customary	
Shape Type:	W Shape	
Depth:	13.9100	in
Flange Width Bf:	5.0250	in
Flange Thickness Tf:	0.4200	in
Web Thickness Tw:	0.2550	in
Distance K:	0.9375	in
Area:	7.690	in^2
Nominal Weight Or Mass:	26.000	lb/ft
Ixx:	245.000	in^4
Iyy:	8.910	in^4
Zx:	40.200	in^3
Zy:	5.540	in^3

Nominal Depth: 14.0000 in

Appurtenances

Railing

Name: Generic Metal Pipe Bridge Rail
 Description:
 Si Or Us Type: US Customary
 Weight Per Length: 0.016 kip/ft

LRFD Multiple Presence Factors

Number Loaded Lanes Greater Than Indicator	Multiple Presence Factor
1	FALSE 1.200
2	FALSE 1.000
3	FALSE 0.850
3	TRUE 0.650

Superstructure Definitions

Girder System Structure Def

Name: Span 01_Girders G7 thru G14

Description:

Creation Timestamp: Monday, November 30, 2020 16:54:46

Last Modified Timestamp: Wednesday, December 02, 2020 09:40:31

System Of Units: US Customary

Number Of Girders: 8

Number Of Spans: 1

Frame Structure Simplified Definition Indicator:

LRFD - Lanes Available to Trucks:

LRFD - Override Truck Fraction Indicator: FALSE

LRFD - Override Truck Fraction:

Average Humidity: 80.000 %

Girder Spacing Display Type: Perpendicular

Impact Factor Adjustment:

Impact Factor Override: %

Impact Factor Type: Standard - AASHTO

LRFD Constant Impact Factor: 33.0 %

LRFD Fatigue Impact Factor: 15.0 %

Dead Load 1 Distribution Type: Tributary Area

Dead Load 2 Distribution Type: Uniformly to All Girders

Consider Effective Slab Thickness For Rating Indicator: TRUE
 Default Analysis Method: LFD
 Deck Exposure Factor:
 Consider Wearing Surface For Rating Indicator: TRUE
 LRFR Model Non-Composite Regions As Non-Composite Indicator: FALSE

Span Lengths

Span Length (ft)

1 20.5833

Load Case Description

Name	Description	Load Type	Stage Name	Load Application Time (Days)
DC1_Addt'l Encasement	DC acting on non-composite section	D,DC	Non-composite (Stage 1)	
DC2_Bridge Railing	DC acting on long-term composite section	D,DC	Composite (long term) (Stage 2)	
DC2_Curb	DC acting on long-term composite section	D,DC	Composite (long term) (Stage 2)	
DW_WS	DW acting on long-term composite section	D,DW	Composite (long term) (Stage 2)	

Structure Framing Plan Details

Support Skew

Support Number	Skew Degrees	Frame Connections Indicator
1	0.0000	FALSE
2	0.0000	FALSE

Girder Spacings

Bay Number	Start Spacing ft	End Spacing ft
1	2.8750	2.8750
2	2.8750	2.8750

3	2.8750	2.8750
4	2.8750	2.8750
5	2.8750	2.8750
6	2.8750	2.8750
7	2.8750	2.8750

Diaphragm Locations

Bottom Flange Lateral Bracing Location

Structure Typical Section

Concrete Deck

Deck Concrete Name:	Prior to 1959	
Deck Type:	Concrete	
Deck Load Case Name:		
Deck Load Case Engine Assigned Indicator:	TRUE	
Width Left Start:	10.43	ft
Width Left End:	10.43	ft
Left Overhang Start:	0.36	ft
Left Overhang End:	0.36	ft
Width Right Start:	10.43	ft
Width Right End:	10.43	ft
Total Deck Thickness:	7.0000	in
Modular Ratio Sustained Factor:	3.000	

Steel Railings

Name	Load Case Name	Measured To Front Face Indicator	Offset Reference Type	Offset at Start (ft)	Offset at End (ft)	Face Left Indicator
Generic Metal Pipe Bridge Rail	DC2_Bridge Railing	FALSE	Right Edge	0.35	0.35	TRUE

Sidewalk

Width (in)	Thickness (in)	Concrete Name	Load Case Name	Measured To Left Face Indicator	Offset Reference Type	Offset Start (ft)	Offset End (ft)
12.0000	12.5000	Prior to 1959	DC2_Curb	FALSE	Right Edge	0.00	0.00

Travelway

Number Of Lanes	Distance (ft)	Length (ft)	Offset Left Start (ft)	Offset Right Start (ft)	Offset Left End (ft)	Offset Right End (ft)
1	0.00	20.58	-10.43	9.43	-10.43	9.43

Wearing Surface

Wearing Surface Material Name: Asphalt
 Wearing Surface Description: Asphalt Wearing Surface
 Wearing Surface Thickness: 5.0000 in
 Wearing Surface Density: 155.000 pcf
 Wearing Surface Load Case Name: DW_WS

Girder Member

Name: G7
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Wednesday, December 02, 2020 09:31:40
 Same As Structure Member Name:
 Member Alternative Name - Existing: G7
 Member Alternative Name - Current: G7
 Pedestrian Live Load Force: lb/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name: G7
 Description:
 System Of Units: US Customary
 Self Load Case Engine Assigned Indicator: TRUE
 Self Load Case Name:
 Additional Self Load: kip/ft

Additional Self Load Percent:		%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR	
Beam Projection End:	6.5000	in
Beam Projection Start:	6.5000	in
LRFR Condition Factor:	Good or Satisfactory	
LRFR Field Measured Section Properties Indicator:	FALSE	
LRFR System Factor Override:	FALSE	
LRFR System Factor:	All Other Girder/Slab Bridges	
Impact Factor Type:	Standard - AASHTO	
Impact Factor Override:		%
Impact Factor Adjustment:		
Simple DL Continuous LL Indicator:	FALSE	
Default Rating Method:	LRFR	
LRFR POI Tenth Points Indicator:	TRUE	
LRFR POI Section Change Points Indicator:	TRUE	
LRFR POI User-Defined Points Indicator:	TRUE	
LRFR POI Generated At Stiffeners Indicator:	FALSE	
LRFR Allow Moment Redistribution Indicator:	TRUE	
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE	
LRFR Allow Plastic Redistribution Indicator:	TRUE	
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE	
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE	
LRFR Consider Deck Reinf Development Length Indicator:	TRUE	
LRFR Distribution Factor Application Method Type:	By Axle	
LRFR Consider Flange Lateral Bending Stress Indicator:		
Haunch Embedded Flange Indicator:		
Haunch Type:	Flange edges	
Sufficiently connected to act as a unit:	FALSE	

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.216	0.259					Constant
Shear	0.00	20.583	0.216	0.259					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
W 14x26	1936 to 1963	0.00	20.58

Lateral Support Range

Distance Length

(ft)	(ft)
0.00	20.58

Bearing Stiffeners

Steel Flange Plate Deterioration Ranges

Top Flange Indicator Distance Length Percent Thickness Loss Percent Width Loss

	(ft)	(ft)	(%)	(%)
FALSE	16.58	4.00	0.5	0.0

Girder Member

Name: G8
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Wednesday, December 02, 2020 09:35:34
 Same As Structure Member Name:
 Member Alternative Name - Existing: G8
 Member Alternative Name - Current: G8
 Pedestrian Live Load Force: lb/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
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2

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name: G8
 Description:
 System Of Units: US Customary
 Self Load Case Engine Assigned Indicator: TRUE

Self Load Case Name:		
Additional Self Load:		kip/ft
Additional Self Load Percent:		%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR	
Beam Projection End:	6.5000	in
Beam Projection Start:	6.5000	in
LRFR Condition Factor:	Good or Satisfactory	
LRFR Field Measured Section Properties Indicator:	FALSE	
LRFR System Factor Override:	FALSE	
LRFR System Factor:	All Other Girder/Slab Bridges	
Impact Factor Type:	Standard - AASHTO	
Impact Factor Override:		%
Impact Factor Adjustment:		
Simple DL Continuous LL Indicator:	FALSE	
Default Rating Method:	LRFR	
LRFR POI Tenth Points Indicator:	TRUE	
LRFR POI Section Change Points Indicator:	TRUE	
LRFR POI User-Defined Points Indicator:	TRUE	
LRFR POI Generated At Stiffeners Indicator:	FALSE	
LRFR Allow Moment Redistribution Indicator:	TRUE	
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE	
LRFR Allow Plastic Redistribution Indicator:	TRUE	
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE	
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE	
LRFR Consider Deck Reinf Development Length Indicator:	TRUE	
LRFR Distribution Factor Application Method Type:	By Axle	
LRFR Consider Flange Lateral Bending Stress Indicator:		
Haunch Embedded Flange Indicator:		
Haunch Type:	Flange edges	
Sufficiently connected to act as a unit:	FALSE	

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.500	0.600					Constant
Shear	0.00	20.583	0.500	0.600					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
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W 14x26 1936 to 1963 0.00 20.58

Lateral Support Range

Distance Length

(ft)	(ft)
0.00	20.58

Bearing Stiffeners

Girder Member

Name: G9
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Tuesday, December 01, 2020 18:42:40
 Same As Structure Member Name: G8
 Member Alternative Name - Existing: G9
 Member Alternative Name - Current: G9
 Pedestrian Live Load Force: lb/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name: G9
 Description:
 System Of Units: US Customary
 Self Load Case Engine Assigned Indicator: TRUE
 Self Load Case Name:
 Additional Self Load: kip/ft

Additional Self Load Percent:		%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR	
Beam Projection End:	6.5000	in
Beam Projection Start:	6.5000	in
LRFR Condition Factor:	Good or Satisfactory	
LRFR Field Measured Section Properties Indicator:	FALSE	
LRFR System Factor Override:	FALSE	
LRFR System Factor:	All Other Girder/Slab Bridges	
Impact Factor Type:	Standard - AASHTO	
Impact Factor Override:		%
Impact Factor Adjustment:		
Simple DL Continuous LL Indicator:	FALSE	
Default Rating Method:	LRFR	
LRFR POI Tenth Points Indicator:	TRUE	
LRFR POI Section Change Points Indicator:	TRUE	
LRFR POI User-Defined Points Indicator:	TRUE	
LRFR POI Generated At Stiffeners Indicator:	FALSE	
LRFR Allow Moment Redistribution Indicator:	TRUE	
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE	
LRFR Allow Plastic Redistribution Indicator:	TRUE	
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE	
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE	
LRFR Consider Deck Reinf Development Length Indicator:	TRUE	
LRFR Distribution Factor Application Method Type:	By Axle	
LRFR Consider Flange Lateral Bending Stress Indicator:		
Haunch Embedded Flange Indicator:		
Haunch Type:	Flange edges	
Sufficiently connected to act as a unit:	FALSE	

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.500	0.600					Constant
Shear	0.00	20.583	0.500	0.600					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
W 14x26	1936 to 1963	0.00	20.58

Lateral Support Range

Distance Length
(ft) (ft)
 0.00 20.58

Girder Member

Name: G10
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Tuesday, December 01, 2020 18:42:51
 Same As Structure Member Name: G8
 Member Alternative Name - Existing: G10
 Member Alternative Name - Current: G10
 Pedestrian Live Load Force: lb/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name:	G10
Description:	
System Of Units:	US Customary
Self Load Case Engine Assigned Indicator:	TRUE
Self Load Case Name:	
Additional Self Load:	kip/ft
Additional Self Load Percent:	%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR
Beam Projection End:	6.5000 in
Beam Projection Start:	6.5000 in
LRFR Condition Factor:	Good or Satisfactory
LRFR Field Measured Section Properties Indicator:	FALSE
LRFR System Factor Override:	FALSE
LRFR System Factor:	All Other Girder/Slab Bridges
Impact Factor Type:	Standard - AASHTO

Impact Factor Override:	%
Impact Factor Adjustment:	
Simple DL Continuous LL Indicator:	FALSE
Default Rating Method:	LRFR
LRFR POI Tenth Points Indicator:	TRUE
LRFR POI Section Change Points Indicator:	TRUE
LRFR POI User-Defined Points Indicator:	TRUE
LRFR POI Generated At Stiffeners Indicator:	FALSE
LRFR Allow Moment Redistribution Indicator:	TRUE
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE
LRFR Allow Plastic Redistribution Indicator:	TRUE
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE
LRFR Consider Deck Reinf Development Length Indicator:	TRUE
LRFR Distribution Factor Application Method Type:	By Axle
LRFR Consider Flange Lateral Bending Stress Indicator:	
Haunch Embedded Flange Indicator:	
Haunch Type:	Flange edges
Sufficiently connected to act as a unit:	FALSE

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.500	0.600					Constant
Shear	0.00	20.583	0.500	0.600					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
W 14x26	1936 to 1963	0.00	20.58

Lateral Support Range

Distance (ft)	Length (ft)
0.00	20.58

Girder Member

Name: G11
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Tuesday, December 01, 2020 18:42:58
 Same As Structure Member Name: G8
 Member Alternative Name - Existing: G11
 Member Alternative Name - Current: G11
 Pedestrian Live Load Force: 1b/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
----------------	----------------------------------------	----------------------------------------	-----------------------------------------	---------------------------------------

1

2

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name:	G11
Description:	
System Of Units:	US Customary
Self Load Case Engine Assigned Indicator:	TRUE
Self Load Case Name:	
Additional Self Load:	kip/ft
Additional Self Load Percent:	%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR
Beam Projection End:	6.5000 in
Beam Projection Start:	6.5000 in
LRFR Condition Factor:	Good or Satisfactory
LRFR Field Measured Section Properties Indicator:	FALSE
LRFR System Factor Override:	FALSE
LRFR System Factor:	All Other Girder/Slab Bridges
Impact Factor Type:	Standard - AASHTO
Impact Factor Override:	%
Impact Factor Adjustment:	
Simple DL Continuous LL Indicator:	FALSE
Default Rating Method:	LRFR
LRFR POI Tenth Points Indicator:	TRUE
LRFR POI Section Change Points Indicator:	TRUE
LRFR POI User-Defined Points Indicator:	TRUE

LRFR POI Generated At Stiffeners Indicator:	FALSE
LRFR Allow Moment Redistribution Indicator:	TRUE
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE
LRFR Allow Plastic Redistribution Indicator:	TRUE
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE
LRFR Consider Deck Reinf Development Length Indicator:	TRUE
LRFR Distribution Factor Application Method Type:	By Axle
LRFR Consider Flange Lateral Bending Stress Indicator:	
Haunch Embedded Flange Indicator:	
Haunch Type:	Flange edges
Sufficiently connected to act as a unit:	FALSE

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.500	0.600					Constant
Shear	0.00	20.583	0.500	0.600					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
W 14x26	1936 to 1963	0.00	20.58

Lateral Support Range

Distance (ft)	Length (ft)
0.00	20.58

Girder Member

Name:	G12
Description:	
Creation Timestamp:	Monday, November 30, 2020 16:54:46
Last Modified Timestamp:	Tuesday, December 01, 2020 18:43:15
Same As Structure Member Name:	G8
Member Alternative Name - Existing:	G12

Member Alternative Name - Current: G12

Pedestrian Live Load Force: 1b/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
-------------------	-----------------	-----------------------	--------------------------	-----------------------	--------------------------	-----------------------	--------------------------

1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name:	G12
Description:	
System Of Units:	US Customary
Self Load Case Engine Assigned Indicator:	TRUE
Self Load Case Name:	
Additional Self Load:	kip/ft
Additional Self Load Percent:	%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR
Beam Projection End:	6.5000 in
Beam Projection Start:	6.5000 in
LRFR Condition Factor:	Good or Satisfactory
LRFR Field Measured Section Properties Indicator:	FALSE
LRFR System Factor Override:	FALSE
LRFR System Factor:	All Other Girder/Slab Bridges
Impact Factor Type:	Standard - AASHTO
Impact Factor Override:	%
Impact Factor Adjustment:	
Simple DL Continuous LL Indicator:	FALSE
Default Rating Method:	LRFR
LRFR POI Tenth Points Indicator:	TRUE
LRFR POI Section Change Points Indicator:	TRUE
LRFR POI User-Defined Points Indicator:	TRUE
LRFR POI Generated At Stiffeners Indicator:	FALSE
LRFR Allow Moment Redistribution Indicator:	TRUE
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE
LRFR Allow Plastic Redistribution Indicator:	TRUE
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE
LRFR Consider Deck Reinf Development Length Indicator:	TRUE
LRFR Distribution Factor Application Method Type:	By Axle
LRFR Consider Flange Lateral Bending Stress Indicator:	

Haunch Embedded Flange Indicator:
 Haunch Type:
 Sufficiently connected to act as a unit:

Flange edges
 FALSE

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.500	0.600					Constant
Shear	0.00	20.583	0.500	0.600					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
W 14x26	1936 to 1963	0.00	20.58

Lateral Support Range

Distance (ft)	Length (ft)
0.00	20.58

Girder Member

Name: G13
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Tuesday, December 01, 2020 18:43:21
 Same As Structure Member Name: G8
 Member Alternative Name - Existing: G13
 Member Alternative Name - Current: G13
 Pedestrian Live Load Force: lb/ft

Member Loads

Distributed Member Loads

Load Case Name	Load	Load	Direction Type	WS Field Measured
----------------	------	------	----------------	-------------------

	Distance (ft)	Length (ft)	Start (kip/ft)	End (kip/ft)		
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X	X	Y	Y	Z	Z	Override Z Rot Spring
-------------------	---	---	---	---	---	---	--------------------------

	Rotation Spring Constant (kip- in/rad)	Translation Spring Constant (kip/ft)	Rotation Spring Constant (kip- in/rad)	Translation Spring Constant (kip/ft)	Rotation Spring Constant (kip- in/rad)	Translation Spring Constant (kip/ft)	Const Indicator
1							
2							

Member Alt - Steel Rolled Beam - Schd

Name:	G13	
Description:		
System Of Units:	US Customary	
Self Load Case Engine Assigned Indicator:	TRUE	
Self Load Case Name:		
Additional Self Load:		kip/ft
Additional Self Load Percent:		%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR	
Beam Projection End:	6.5000	in
Beam Projection Start:	6.5000	in
LRFR Condition Factor:	Good or Satisfactory	
LRFR Field Measured Section Properties Indicator:	FALSE	
LRFR System Factor Override:	FALSE	
LRFR System Factor:	All Other Girder/Slab Bridges	
Impact Factor Type:	Standard - AASHTO	
Impact Factor Override:		%
Impact Factor Adjustment:		
Simple DL Continuous LL Indicator:	FALSE	
Default Rating Method:	LRFR	
LRFR POI Tenth Points Indicator:	TRUE	
LRFR POI Section Change Points Indicator:	TRUE	
LRFR POI User-Defined Points Indicator:	TRUE	
LRFR POI Generated At Stiffeners Indicator:	FALSE	
LRFR Allow Moment Redistribution Indicator:	TRUE	
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE	
LRFR Allow Plastic Redistribution Indicator:	TRUE	
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE	
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE	
LRFR Consider Deck Reinf Development Length Indicator:	TRUE	
LRFR Distribution Factor Application Method Type:	By Axle	
LRFR Consider Flange Lateral Bending Stress Indicator:		
Haunch Embedded Flange Indicator:		
Haunch Type:	Flange edges	
Sufficiently connected to act as a unit:	FALSE	

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.500	0.600					Constant
Shear	0.00	20.583	0.500	0.600					Constant
Deflection	0.00	20.583	0.150	0.150					Constant

Steel Rolled Shape Range

Steel Shape Name	Steel Name	Distance (ft)	Length (ft)
W 14x26	1936 to 1963	0.00	20.58

Lateral Support Range

Distance (ft)	Length (ft)
0.00	20.58

Girder Member

Name: G14
 Description:
 Creation Timestamp: Monday, November 30, 2020 16:54:46
 Last Modified Timestamp: Wednesday, December 02, 2020 09:40:31
 Same As Structure Member Name:
 Member Alternative Name - Existing: G14
 Member Alternative Name - Current: G14
 Pedestrian Live Load Force: lb/ft

Member Loads

Distributed Member Loads

Load Case Name	Distance (ft)	Length (ft)	Load Start (kip/ft)	Load End (kip/ft)	Direction Type	WS Field Measured
DC1_Addt'l Encasement	0.00	20.58	0.129	0.129	X direction	FALSE

Settlement

Load Case	Support Number	X Translation Settlement (in)	Y Translation Settlement (in)	Z Rotation Settlement (Radians)
	1			
	2			

Supports

General

Support Number	Support Type	X Translation Type	Y Translation Type	Z Rotation Type
1	Pinned	Fixed	Fixed	Free
2	Pinned	Fixed	Fixed	Free

Elastic

Support Number	X Translation Spring Constant (kip/ft)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Override Z Rot Spring Const Indicator
1				
2				

3D General

Support Number	Support Type	X Rotation Type	X Translation Type	Y Rotation Type	Y Translation Type	Z Rotation Type	Z Translation Type
1	Pinned	Free	Fixed	Free	Fixed	Free	Fixed
2	Roller	Free	Free	Free	Fixed	Free	Free

3D Elastic

Support Number	X Rotation Spring Constant (kip-in/rad)	X Translation Spring Constant (kip/ft)	Y Rotation Spring Constant (kip-in/rad)	Y Translation Spring Constant (kip/ft)	Z Rotation Spring Constant (kip-in/rad)	Z Translation Spring Constant (kip/ft)	Override Z Rot Spring Const Indicator
1							

Member Alt - Steel Rolled Beam - Schd

Name:	G14
Description:	
System Of Units:	US Customary
Self Load Case Engine Assigned Indicator:	TRUE
Self Load Case Name:	
Additional Self Load:	kip/ft
Additional Self Load Percent:	%
Analysis Module Name - LRFR:	Legacy AASHTO LRFR
Beam Projection End:	6.5000 in
Beam Projection Start:	6.5000 in
LRFR Condition Factor:	Good or Satisfactory
LRFR Field Measured Section Properties Indicator:	FALSE
LRFR System Factor Override:	FALSE
LRFR System Factor:	All Other Girder/Slab Bridges
Impact Factor Type:	Standard - AASHTO
Impact Factor Override:	%
Impact Factor Adjustment:	
Simple DL Continuous LL Indicator:	FALSE
Default Rating Method:	LRFR
LRFR POI Tenth Points Indicator:	TRUE
LRFR POI Section Change Points Indicator:	TRUE
LRFR POI User-Defined Points Indicator:	TRUE
LRFR POI Generated At Stiffeners Indicator:	FALSE
LRFR Allow Moment Redistribution Indicator:	TRUE
LRFR Use Appendix A6 For Flexural Resistance Indicator:	TRUE
LRFR Allow Plastic Redistribution Indicator:	TRUE
LRFR Evaluate Remaining Fatigue Life Indicator:	FALSE
LRFR Ignore Long Reinf In Negative Moment Capacity:	FALSE
LRFR Consider Deck Reinf Development Length Indicator:	TRUE
LRFR Distribution Factor Application Method Type:	By Axle
LRFR Consider Flange Lateral Bending Stress Indicator:	
Haunch Embedded Flange Indicator:	
Haunch Type:	Flange edges
Sufficiently connected to act as a unit:	FALSE

LRFD Live Load Distribution Factors

Action Type	Distance (ft)	Length (ft)	Multi Lane Factor	Single Lane Factor	Start Single Lane Factor	End Single Lane Factor	Start Multi Lane Factor	End Multi Lane Factor	Factor Variation Type
Moment	0.00	20.583	0.042	0.050					Constant
Shear	0.00	20.583	0.042	0.050					Constant

Rating Results

Bridge Name: 115008
NBI Structure ID: 115008
Bridge ID: 115008

Analyzed By: BrR
Analyze Date: Wednesday, December 02, 2020 11:39:00
Analysis Engine: Legacy AASHTO LRFR Engine Version 6.8.4.3001
Analysis Preference Setting: None

Report By: brr
Report Date: Wednesday, December 02, 2020 15:21:10

Structure Definition Name: Span 01_Girders G7 thru G14
Member Name: G7
Member Alternative Name: G7

Load and Resistance Factor Rating Summary

Girder Summary									
Live Load	Rating			Capacity		Location		Impact	Lane
		Factor	Controls	(Ton)	Span	(ft)	Percent		
HL-93 (US)	Inventory	0.493	SERVICE-II Steel Flexure Stress	17.74	1	10.29	50.0	As Requested	As Requested
HL-93 (US)	Operating	0.641	SERVICE-II Steel Flexure Stress	23.06	1	10.29	50.0	As Requested	As Requested
SU4	Legal	0.690	SERVICE-II Steel Flexure Stress	18.64	1	10.29	50.0	As Requested	As Requested
SU5	Legal	0.654	SERVICE-II Steel Flexure Stress	20.28	1	10.29	50.0	As Requested	As Requested
SU6	Legal	0.622	SERVICE-II Steel Flexure Stress	21.61	1	10.29	50.0	As Requested	As Requested
SU7	Legal	0.622	SERVICE-II Steel Flexure Stress	24.09	1	10.29	50.0	As Requested	As Requested
Type 3	Legal	0.814	SERVICE-II Steel Flexure Stress	20.34	1	10.29	50.0	As Requested	As Requested
Type 3-3	Legal	0.988	SERVICE-II Steel Flexure Stress	39.52	1	10.29	50.0	As Requested	As Requested

Type 3S2	Legal	0.892	SERVICE-II Steel Flexure Stress	32.13	1	10.29	50.0	As Requested	As Requested
CT-H20	Legal	0.697	SERVICE-II Steel Flexure Stress	13.93	1	10.29	50.0	As Requested	As Requested
CT-HS20	Legal	0.697	SERVICE-II Steel Flexure Stress	25.07	1	10.29	50.0	As Requested	As Requested
CT-L3S2	Legal	0.768	SERVICE-II Steel Flexure Stress	30.74	1	10.29	50.0	As Requested	As Requested
CT-L73.0	Legal	0.557	SERVICE-II Steel Flexure Stress	20.33	1	10.29	50.0	As Requested	As Requested
CT-P120 (6)	Permit	0.745	SERVICE-II Steel Flexure Stress	44.70	1	10.29	50.0	As Requested	As Requested
CT-P140 (7)a	Permit	0.747	SERVICE-II Steel Flexure Stress	52.26	1	10.29	50.0	As Requested	As Requested
CT-P140 (7)b	Permit	0.695	SERVICE-II Steel Flexure Stress	48.67	1	10.29	50.0	As Requested	As Requested
CT-P160 (8)a	Permit	0.728	SERVICE-II Steel Flexure Stress	58.27	1	10.29	50.0	As Requested	As Requested
CT-P160 (8)b	Permit	0.663	SERVICE-II Steel Flexure Stress	53.05	1	10.29	50.0	As Requested	As Requested
CT-P180 (9)	Permit	0.699	SERVICE-II Steel Flexure Stress	62.94	1	10.29	50.0	As Requested	As Requested
CT-P200 (10)	Permit	0.635	SERVICE-II Steel Flexure Stress	63.54	1	10.29	50.0	As Requested	As Requested
CT-P380	Permit	0.816	SERVICE-II Steel Flexure Stress	155.10	1	10.29	50.0	As Requested	As Requested
CT-P76.5	Permit	0.756	SERVICE-II Steel Flexure Stress	28.92	1	10.29	50.0	As Requested	As Requested
CT-TLC	Permit	0.713	SERVICE-II Steel Flexure Stress	99.61	1	10.29	50.0	As Requested	As Requested
	Legal	0.665		19.13	1	10.29	50.0		

Type EV2			SERVICE-II Steel Flexure Stress					As Requested	As Requested
Type EV3	Legal	0.446	SERVICE-II Steel Flexure Stress	19.19	1	10.29	50.0	As Requested	As Requested

Note:

"N/A" indicates not applicable

*** indicates not available

Bridge Name: 115008

NBI Structure ID: 115008

Bridge ID: 115008

Analyzed By: BrR

Analyze Date: Wednesday, December 02, 2020 11:39:00

Analysis Engine: Legacy AASHTO LRFR Engine Version 6.8.4.3001

Analysis Preference Setting: None

Report By: brr

Report Date: Wednesday, December 02, 2020 15:21:14

Structure Definition Name: Span 01_Girders G7 thru G14

Member Name: G8

Member Alternative Name: G8

Load and Resistance Factor Rating Summary

			Girder Summary						
			Rating	Capacity		Location			
Live Load			Factor Controls	(Ton)	Span	(ft)	Percent	Impact	Lane
HL-93 (US)	Inventory	0.192	SERVICE-II Steel Flexure Stress	6.91	1	10.29	50.0	As Requested	As Requested
HL-93 (US)	Operating	0.249	SERVICE-II Steel Flexure Stress	8.98	1	10.29	50.0	As Requested	As Requested
SU4	Legal	0.269	SERVICE-II Steel Flexure Stress	7.26	1	10.29	50.0	As Requested	As Requested
SU5	Legal	0.255	SERVICE-II Steel Flexure Stress	7.90	1	10.29	50.0	As Requested	As Requested
SU6	Legal	0.242	SERVICE-II Steel Flexure Stress	8.41	1	10.29	50.0	As Requested	As Requested

SU7	Legal	0.242	SERVICE-II Steel Flexure Stress	9.38	1	10.29	50.0	As Requested	As Requested
Type 3	Legal	0.317	SERVICE-II Steel Flexure Stress	7.92	1	10.29	50.0	As Requested	As Requested
Type 3-3	Legal	0.385	SERVICE-II Steel Flexure Stress	15.39	1	10.29	50.0	As Requested	As Requested
Type 3S2	Legal	0.347	SERVICE-II Steel Flexure Stress	12.51	1	10.29	50.0	As Requested	As Requested
CT- H20	Legal	0.271	SERVICE-II Steel Flexure Stress	5.42	1	10.29	50.0	As Requested	As Requested
CT- HS20	Legal	0.271	SERVICE-II Steel Flexure Stress	9.76	1	10.29	50.0	As Requested	As Requested
CT- L3S2	Legal	0.299	SERVICE-II Steel Flexure Stress	11.97	1	10.29	50.0	As Requested	As Requested
CT- L73.0	Legal	0.217	SERVICE-II Steel Flexure Stress	7.92	1	10.29	50.0	As Requested	As Requested
CT- P120 (6)	Permit	0.290	SERVICE-II Steel Flexure Stress	17.40	1	10.29	50.0	As Requested	As Requested
CT- P140 (7)a	Permit	0.291	SERVICE-II Steel Flexure Stress	20.35	1	10.29	50.0	As Requested	As Requested
CT- P140 (7)b	Permit	0.271	SERVICE-II Steel Flexure Stress	18.95	1	10.29	50.0	As Requested	As Requested
CT- P160 (8)a	Permit	0.284	SERVICE-II Steel Flexure Stress	22.69	1	10.29	50.0	As Requested	As Requested
CT- P160 (8)b	Permit	0.258	SERVICE-II Steel Flexure Stress	20.66	1	10.29	50.0	As Requested	As Requested
CT- P180 (9)	Permit	0.272	SERVICE-II Steel Flexure Stress	24.51	1	10.29	50.0	As Requested	As Requested
CT- P200 (10)	Permit	0.247	SERVICE-II Steel Flexure Stress	24.74	1	10.29	50.0	As Requested	As Requested
	Permit	0.318		60.39	1	10.29	50.0		

CT-P380			SERVICE-II Steel Flexure Stress					As Requested	As Requested
CT-P76.5	Permit	0.294	SERVICE-II Steel Flexure Stress	11.26	1	10.29	50.0	As Requested	As Requested
CT-TLC	Permit	0.277	SERVICE-II Steel Flexure Stress	38.79	1	10.29	50.0	As Requested	As Requested
Type EV2	Legal	0.259	SERVICE-II Steel Flexure Stress	7.45	1	10.29	50.0	As Requested	As Requested
Type EV3	Legal	0.174	SERVICE-II Steel Flexure Stress	7.47	1	10.29	50.0	As Requested	As Requested

Note:

"N/A" indicates not applicable

*** indicates not available

Bridge Name: 115008

NBI Structure ID: 115008

Bridge ID: 115008

Analyzed By: BrR

Analyze Date: Wednesday, December 02, 2020 11:39:00

Analysis Engine: Legacy AASHTO LRFR Engine Version 6.8.4.3001

Analysis Preference Setting: None

Report By: brr

Report Date: Wednesday, December 02, 2020 15:21:18

Structure Definition Name: Span 01_Girders G7 thru G14

Member Name: G14

Member Alternative Name: G14

Load and Resistance Factor Rating Summary

			Girder Summary						
			Rating	Capacity	Location				
Live Load			Factor Controls	(Ton)	Span	(ft)	Percent	Impact	Lane
HL-93 (US)	Inventory	2.549	SERVICE-II Steel Flexure Stress	91.77	1	10.29	50.0	As Requested	As Requested
HL-93 (US)	Operating	3.314	SERVICE-II Steel Flexure Stress	119.30	1	10.29	50.0	As Requested	As Requested

SU4	Legal	3.572	SERVICE-II Steel Flexure Stress	96.44	1	10.29	50.0	As Requested	As Requested
SU5	Legal	3.385	SERVICE-II Steel Flexure Stress	104.94	1	10.29	50.0	As Requested	As Requested
SU6	Legal	3.217	SERVICE-II Steel Flexure Stress	111.79	1	10.29	50.0	As Requested	As Requested
SU7	Legal	3.217	SERVICE-II Steel Flexure Stress	124.65	1	10.29	50.0	As Requested	As Requested
Type 3	Legal	4.210	SERVICE-II Steel Flexure Stress	105.24	1	10.29	50.0	As Requested	As Requested
Type 3-3	Legal	5.112	SERVICE-II Steel Flexure Stress	204.47	1	10.29	50.0	As Requested	As Requested
Type 3S2	Legal	4.617	SERVICE-II Steel Flexure Stress	166.21	1	10.29	50.0	As Requested	As Requested
CT- H20	Legal	3.604	SERVICE-II Steel Flexure Stress	72.07	1	10.29	50.0	As Requested	As Requested
CT- HS20	Legal	3.604	SERVICE-II Steel Flexure Stress	129.73	1	10.29	50.0	As Requested	As Requested
CT- L3S2	Legal	3.976	SERVICE-II Steel Flexure Stress	159.03	1	10.29	50.0	As Requested	As Requested
CT- L73.0	Legal	2.882	SERVICE-II Steel Flexure Stress	105.20	1	10.29	50.0	As Requested	As Requested
CT- P120 (6)	Permit	3.854	SERVICE-II Steel Flexure Stress	231.24	1	10.29	50.0	As Requested	As Requested
CT- P140 (7)a	Permit	3.862	SERVICE-II Steel Flexure Stress	270.36	1	10.29	50.0	As Requested	As Requested
CT- P140 (7)b	Permit	3.597	SERVICE-II Steel Flexure Stress	251.80	1	10.29	50.0	As Requested	As Requested
CT- P160 (8)a	Permit	3.768	SERVICE-II Steel Flexure Stress	301.45	1	10.29	50.0	As Requested	As Requested
	Permit	3.431		274.47	1	10.29	50.0		

CT-P160 (8)b			SERVICE-II Steel Flexure Stress					As Requested	As Requested
CT-P180 (9)	Permit	3.618	SERVICE-II Steel Flexure Stress	325.62	1	10.29	50.0	As Requested	As Requested
CT-P200 (10)	Permit	3.287	SERVICE-II Steel Flexure Stress	328.71	1	10.29	50.0	As Requested	As Requested
CT-P380	Permit	4.223	SERVICE-II Steel Flexure Stress	802.41	1	10.29	50.0	As Requested	As Requested
CT-P76.5	Permit	3.911	SERVICE-II Steel Flexure Stress	149.61	1	10.29	50.0	As Requested	As Requested
CT-TLC	Permit	3.686	SERVICE-II Steel Flexure Stress	515.37	1	10.29	50.0	As Requested	As Requested
Type EV2	Legal	3.442	SERVICE-II Steel Flexure Stress	98.96	1	10.29	50.0	As Requested	As Requested
Type EV3	Legal	2.308	SERVICE-II Steel Flexure Stress	99.27	1	10.29	50.0	As Requested	As Requested

Note:

"N/A" indicates not applicable

***" indicates not available

Appendix

Appendix

- 10/23/2019 CDM Smith Visual Condition Assessment

Danco Drive over Perry Brook

Bridge No. 115008

Visual Condition Assessment Prepared for



The Town of Putnam, CT



Prepared By: CDM Smith

Inspection Date: 10/23/19

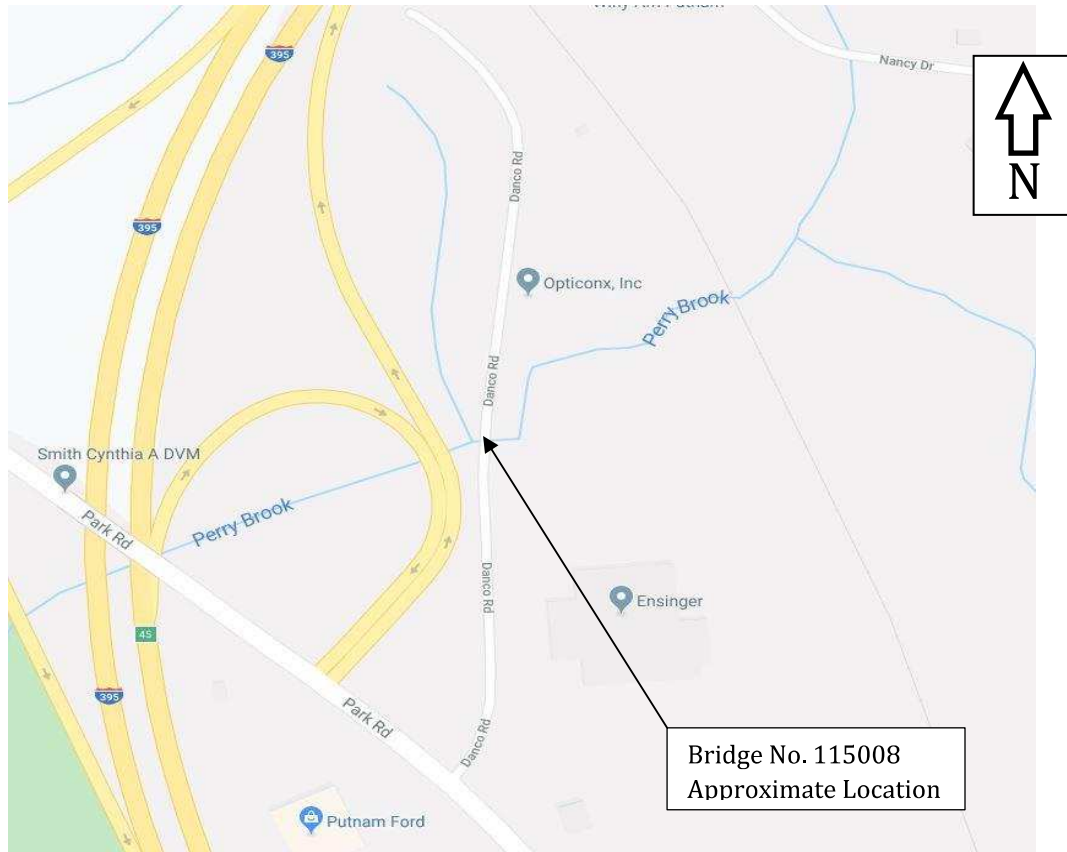
Inspectors: S Schreiber, PE _____

G Rakib _____

Q.C. Review: M Fabend, PE _____

P.M.: M Egan, PE _____

Location Map



This structure is a one (1) span mixed beam bridge that was built in 1950 (estimated date). The bridge carries Danco Drive and spans north to south over Perry Brook. This visual inspection was conducted on October 23, 2019 to identify and prioritize maintenance activities and repairs to effectively extend the service life of the bridge and to ensure the safety of the traveling public.

The eastern portion of the bridge superstructures consists of eight concrete encased steel beams supporting a jack-arched concrete deck. The western portion of the bridge superstructure consists of five steel beams and one wood beam supporting a wooden deck. For the purposes of this report the beams will be numbered from east to west and are composed as follows:

- Beams 1-8: Concrete encased steel beams supporting the concrete jack arch deck
- Beams 9-11 and 13-14: Steel beams supporting the wood deck
- Beam 12: Wood beam supporting the wood deck

Four utility pipes span under the bridge. For the purposes of this report they will be numbered from east to west, e.g. Pipe 1 is the easternmost utility pipe. Pipe 3 is supported by independent steel beams, the condition of which are discussed as part of Item 58.12 – Utilities.

Inventory Information:

Date Constructed:..... 1950 (estimated)
 Route Carried:.....Danco Drive
 Feature Intersected:.....Perry Brook
 Structure Type: Mixed Beam Bridge (13 steel beams, 1 wood beam)
 Number of Spans: 1
 Span Length: 19 feet
 Deck Type:..... Arched Concrete Slab and Wood Deck
 Number of Lanes on Bridge:..... 2
 Roadway Width: 29 feet
 Bridge Width:..... 31.5 feet

Inspection Findings:

Item 58.1 - Wearing Surface: The wearing surface is in fair condition. There are moderate potholes, patches and cracks throughout the asphalt wearing surface (Photo 1). There is settlement and debris accumulation at the northwest shoulder (Photo 2).

Item 58.2 – Deck Condition: The wooden deck is in poor condition. The fascia and overhanging portion of the deck exhibit moderate wood rot and splitting as well as active leakage through the wood planks (Photo 3).

The concrete deck is in fair condition and typically exhibits discoloration and random cracking (Photo 4).

Item 58.8 – Railing: The bridge railing is in poor condition. Two of the four posts on the east side steel pipe railing can be moved freely, allowing two of the three railing panels to freely move (Photo 5). There are spalls in the concrete bases of the two posts that move freely, and the posts are rusting (Photo 6). The railing exhibits scattered locations of paint failure, rust spots, and minor holes throughout, and the underlying concrete curb base has major longitudinal cracks for the full length.

The bottom cable on the west side steel cable bridge railing is slack, and the top cable is loose (Photo 7). The steel posts exhibit surface rust throughout.

Item 58.12 – Utilities: Pipe 1 is in fair condition and has surface rust throughout. Pipe 2 is in good condition. Pipe 3 is insulated and appears to be in good condition. Pipe 4 is in fair condition. The protective wrapping around Pipe 4 is deteriorating and peeling (Photo 8).

The steel beams supporting Pipe 3 are in poor condition and exhibit widespread paint failure, section loss, and bottom flange delamination (Photo 9).

Approach Roadway: The approach roadway on both sides of the bridge is in fair condition. There are random asphalt cracks, minor settlement, and wheel line rutting on both approaches, as well as debris accumulating at the curbs (Photo 10).

The approach railings are in poor condition. The steel cables on the east side are continuous across the bridge. Both cables are loose and two wooden posts at the northeast approach have broken (Photo 11). The wooden posts on the southeast approach are displaced and leaning.

The west side steel cable railing is continuous with the bridge steel cable railing, therefore the bottom cable is similarly slack and the top cable is loose. The bottom cable is broken at the northwest approach and a post appears to be missing (Photo 12).

Item 59.4 – Beams: Beams 1-8 are hidden by concrete encasement. The encasement on Beams 1-7 appears to be in fair condition, with random scattered minor cracks and spalls, and shows no indication of distress to the underlying steel beams (Photo 4). The encasement on Beam 8 is in poor condition, and the exposed portions of the beam are also in poor condition. The concrete exhibits widespread cracks and spalls with efflorescence and rust staining, and part of the underlying steel beam is exposed. The exposed part of the steel beam has major section loss and bottom flange delamination (Photo 13).

Beams 9, 13, and 14 are in poor condition. These steel beams exhibit widespread paint failure, section loss, and bottom flange delamination and/or loss of width (Photo 13). Beam 12 is in fair condition and appears stable (Photo 14).

Beams 8, 9, 13, and 14 have likely lost structural capacity due to deterioration and should be repaired or replaced.

Item 60.1 – Abutment Stems: The masonry abutments are typically in fair condition and have minor voids and cracks throughout (Photo 15). There are larger voids at the waterline on the north abutment, due to erosion of the mortar. The northwest corner of the north abutment wall has partially collapsed due to scour undermining below (Photo 16). This is a severe condition and should be repaired as soon as possible.

Item 60.1 – Wingwalls: The masonry wingwalls are in fair condition. There is vegetation overgrowth behind all of the walls, and all four wingwalls exhibit cracks and voids throughout (Photo 17).

Item 61.1 – Channel Scour: There is an approximately 10" deep scour hole at the west side of the north abutment that has led to a partial collapse of the masonry wall (Photo 16). There is also minor localized scour at the center of the stream on the east end.

Item 61.3 – Channel Debris: There is heavy debris throughout the channel. Accumulation beyond the bridge to the west has cut off the south side of the waterway (Photo 18). The debris should be removed from the channel and the waterway restriction should be cleared.

Photos:



Photo 1: Moderate potholes, patches, and cracks on the bridge wearing surface



Photo 2: Settlement and debris accumulation at the northwest shoulder



Photo 3: Rotting wood and active leakage on the west fascia



Photo 4: Typical jack arch concrete deck and encased steel beam condition



Photo 5: East side bridge railing



Photo 6: Hole in curb, and rusting and unanchored bridge rail post at the northeast corner



Photo 7: Slack and loose steel cables on the west side bridge railing



Photo 8: Protective wrapping peeling off Pipe 4



Photo 9: Paint failure, section loss, and bottom flange delamination to the beams supporting Pipe 3



Photo 10: Widespread asphalt cracks, minor settlement, wheel line rutting, and debris accumulation at curbs on the north approach



Photo 11: Loose cables and broken posts at the northeast approach railing

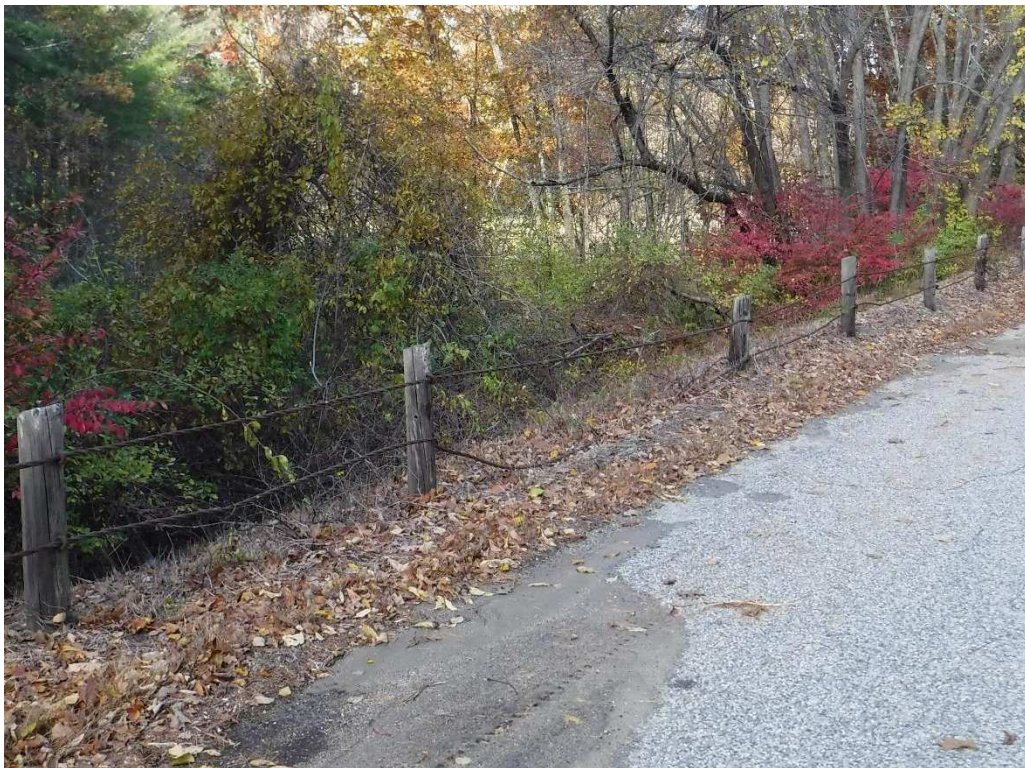


Photo 12: Broken cable and missing post at the northwest approach railing



Photo 13: Severe deterioration to Beams 8 and 9



Photo 14: West side of Beam 12



Photo 15: Minor voids and cracks in the north abutment



Photo 16: Partial abutment collapse at the northwest abutment corner due to undermining



Photo 17: Overgrowth and voids at the northwest wingwall



Photo 18: Restricted waterway due to accumulation west of the bridge

Recommended Repairs and Inspection Frequency:

Several of the bridge beams are in poor condition and have likely lost structural capacity. A follow-up inspection is recommended to fully measure the degree of section loss to these beams, plus structural analysis to determine the bridge's safe load carrying capacity. Regular inspections should be scheduled for every 12 to monitor the condition of the deteriorated beams and the progression of scour under the north abutment. Inspection frequency may be decreased after these issues have been remediated.

Several elements of the bridge are in poor condition and a complete bridge replacement project is recommended. The below repairs can be performed to improve safety on the bridge, but further repairs are not recommended due to the severity of the bridge deterioration. Instead, to reduce loading on the deteriorated portions of the bridge, traffic should be kept off the west part of Danco Drive over the bridge through the placement of traffic barrels. These barrels should remain in place until the bridge is closed or replaced. Note that concrete barriers are not recommended for the traffic restriction due to the additional weight they would place on the bridge.

The estimated cost of a complete bridge replacement is \$750,000, based on the expected size of the bridge and typical per-square-foot bridge construction costs.

Corrective Action	Estimated Construction Cost/Recommended Schedule		
	Immediate	18 Months	2 to 5 Years
Seal wearing surface cracks and patch potholes	* \$1,000	---	---
Tighten and re-attach bridge and approach railing cables	* \$1,000	---	---
Placement of traffic barrels	* \$1,000	---	---

* Note: It is assumed that repairs indicated by an asterisk are to be provided by in house maintenance staff and other recommended repairs or rehabilitations will be provided by a contractor.

Appendix

- 11/18/2020 CDM Smith Field Inspection Condition Photographs

DECEMBER 18, 2020



BRIDGE NO. 115008 INSPECTION

DANCO DRIVE OVER PERRY BROOK IN PUTNAM, CT

SWEENEY, KENNETH P.

CDM SMITH

77 Hartland Street, Suite 201, East Hartford, CT 06108

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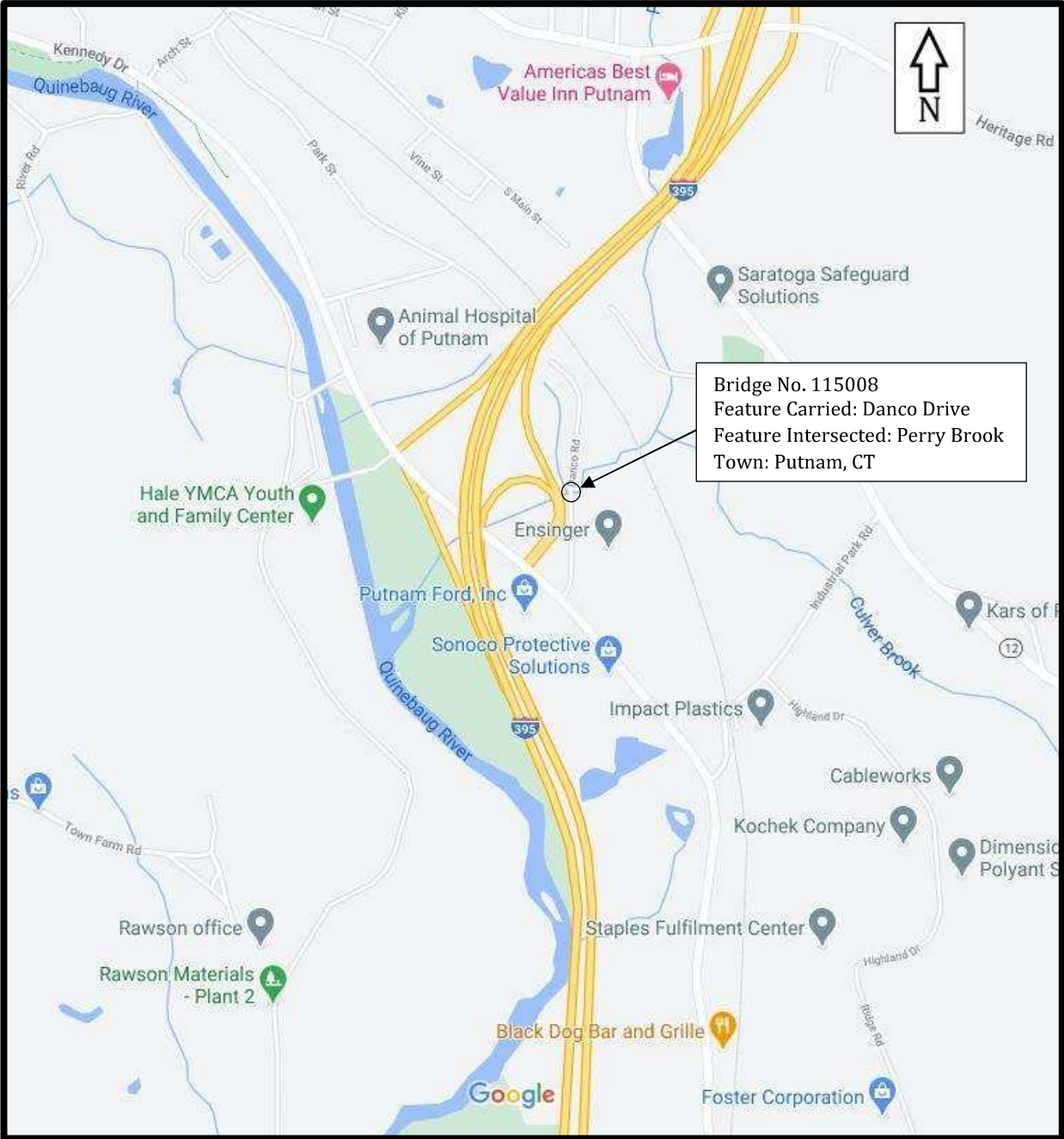
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LOCATION MAP



Section 1

Executive Summary

Bridge No. 115008 carries Danco Drive over Perry Brook in Putnam, Connecticut. This single span bridge consists of five (5) steel girders of various section size and one (1) timber beam supporting a timber deck at the western portion of the superstructure, and eight (8) concrete encased steel girders supporting a jack-arched concrete deck on the eastern portion of the superstructure. For purposes of this report the superstructure members are numbered from west to east. See Figure 1: Bridge Plan and Figure 2: Typical Section for details. The bridge superstructure is supported on stone masonry abutments. The bridge is estimated to have been built in 1950. The overall length of the structure is 25.13 feet and the curb-to-curb width is 27.3 feet.

The inspection completed on November 18, 2020 was performed to document the configuration and detailed condition of the bridge and associated elements. This effort was completed to identify repair or rehabilitation items to ensure the safety of the traveling public. During this inspection the bridge was found to be in poor condition. The Town of Putnam was notified of the deficiencies documented for the superstructure in BRI – 18, Bridge Inspection Form, and Town Highway Superintendent Travis Serrine visited the inspection team in the field on the day of the inspection. A separate correspondence to Town Administrator Elaine Sistare was sent on November 20, 2020 to confirm the discussion between Travis Serrine and the inspection team regarding temporary actions to be taken by the Town of Putnam to remove live load from the deteriorated steel beams on the western portion of the superstructure. A separate load rating analysis of the superstructure was performed to determine the safe load carrying capacity of the eastern portion of the superstructure and is submitted in a separate report.

Below are the overall ratings of the bridge elements; rated from 9 (“Excellent”) to 1 (“Imminent”).

Deck: (Rated – 4 “Poor”)

Approach Condition: (Rated – 4 “Poor”)

Superstructure: (Rated – 2 “Critical”)

Substructure: (Rated – 4 “Poor”)

Channel and Channel Protection: (Rated – 4 “Poor”)

Section 2

BRI – 18, Bridge Inspection Form

58. DECK

OVERALL RATING: 4

	Rating	
Overlay	5	<p>The bituminous concrete wearing surface is in fair condition. There are three (3) areas of potholes and previous patches (Photo 11). The first area is located 6' from Abutment 1 and measures 2' diameter near centerline of the travelway. The second area is located 10' from Abutment 1 and measures 4' diameter (Photo 12). The patch material has deteriorated and three (3) small potholes have formed measuring up to 9" diameter x 1" deep. The third area is located at Abutment 2 and measures 27" long x 46" wide (Photo 13). This area also exhibits one pothole 7" diameter x 3¼" deep.</p> <p>Additionally, there are longitudinal and transverse cracks up to ¼" wide throughout. There is one longitudinal reflective crack in the southbound travel lane measuring ½" wide above the timber/concrete deck interface (Photo 14).</p>
Deck Str.-Condition	5	<p>The wooden deck, previously noted in poor condition during the Visual Condition Assessment performed on 10/23/2019, is in fair condition. The exposed face of the transverse deck members at the west fascia and overhanging portion of the deck exhibit moderate wood rot and splitting (Photo 15). The remaining portions of the timber deck does exhibit leakage between the wood planks; however, the timber deck members remain in fair to good condition.</p> <p>The concrete deck on the east portion of the bridge is in fair condition and typically exhibits discoloration and random cracking but remains solid (Photo 10).</p>
Curbs	4	<p>The bridge has a concrete curb at the east fascia. The steel pipe bridge rail posts are embedded into the concrete curb. The curb is in fair condition throughout except for at the first and last bridge rail posts.</p> <p>At Post 1 from Abutment 1 the outboard face of the curb is spalled 12" high x 13" long x 2.5" deep exposing the deteriorated base of the steel pipe post (Photo 18).</p> <p>At Post 4 from Abutment 1 the concrete curb is spalled 12" high x 16" long x 12" deep (full depth) (Photo 19).</p> <p>The top left corner of the concrete curb exhibits longitudinal cracking, however the concrete sounds solid when struck with a hammer.</p>
Median	N	
Sidewalk	N	

Parapet	N	
Railing	2	<p>The bridge has two different types of railing. At the west fascia there are two steel posts near the third points of the span with the approach guiderail steel cable carried continuous across the bridge. At the east fascia the bridge rail consists of a steel pipe bridge rail embedded in the concrete curb. The approach guide rail steel cable is carried across the bridge and attached to the steel pipe posts. The bridge railing at both west and east is in critical condition.</p> <p>Two of the four posts on the east side steel pipe railing can be moved freely. At Posts 1 and 4 from Abutment 1 the concrete curb is spalled exposing the base of the posts which exhibit 100% section loss (Photo 18 & Photo 19). At the rail to post connection at Post 3 the steel pipe bridge rail exhibits severe pre-paint corrosion up to 50% at the bottom rail and 30% at the top. (Photo 20).</p> <p>At the west bridge rail, the bottom steel cable is slack, and the top cable is loose (Photo 17). The bottom steel cable is severed approximately 75' north of the bridge. The steel posts exhibit surface rust throughout but are in fair to good condition.</p> <p>The west bridge rail would not be able to redirect errant vehicles. Mitigating factors for assessing the railing '2' instead of '1' is the low speed and low volume of traffic on Danco Drive.</p>
Paint	4	<p>The east bridge railing exhibits scattered locations of paint failure with pinpoint rust (Photo 20). The west bridge rail posts exhibit surface corrosion throughout with no measurable loss of section (Photo 17). The steel cables at both west and east exhibit surface corrosion.</p>
Fence	N	
Drains	N	
Lighting Standard	N	
Utility Type/Size	3	<p>There are four utility pipes located below the bridge.</p> <p>Pipe 1 is located beside the west fascia. The pipe is in fair condition however the protective wrapping is deteriorated and beginning to fail (Photo 7).</p> <p>Pipe 2 is located below Girders 3 & 4, is insulated, and is in good condition. This utility is supported by two independent steel beams which span between the abutments. The beams are in critical condition and exhibit widespread paint failure and section loss with 90% - 100% section loss in the bottom flange and lower portion of the webs (Photo 21 & Photo 22). There was no noted distress or deterioration of the utility pipe due to the condition of the support beams.</p> <p>Pipe 3 is located between Girders 12 & 13 and is in good condition.</p>

		Pipe 4 is located below Girder 13 and is in fair condition with surface rust throughout.
Construction Joints	N	
Expansion Joints	N	
APPROACH CONDITIONS:		OVERALL RATING: 4
	<u>Rating</u>	
Approach Slab	N	
Relief Joints	N	
Approach Guide Rail	1	<p>The approach guide rails are in critical condition. The steel cables on the east side are continuous across the bridge. Both cables are loose and two wooden posts at the northeast approach, directly adjacent to the bridge, are broken (Photo 24). The third posts exhibits extensive rot. The wooden posts on the southeast approach are displaced and leaning.</p> <p>The west side steel cable railing is continuous with the bridge steel cable railing. The bottom cable is slack, and the top cable is loose. The bottom cable is broken approximately 75' north of the bridge. at the northwest approach and several posts are leaning.</p>
Approach Pavement	5	<p>The approach pavement at both north and south approaches is in fair condition. There are random longitudinal and transverse cracks up to ¼" wide and wheel line rutting (Photo 25). There is transverse reflective cracking at both abutments (Photo 23).</p> <p>There is an area of settlement and signs of ponding in the shoulder at the northwest approach, adjacent to the bridge (Photo 26).</p> <p>The approach shoulders exhibit up to 4" of sand and debris buildup (Photo 24). The buildup prevents proper cross drainage of runoff and has resulted in a buildup of debris along the bridge shoulders, most notably along the west fascia (Photo 16).</p>
Approach Embankment	6	

TRAFFIC SAFETY FEATURES:

	<u>Rating</u>	
Bridge Railings	0	Do not meet the current standards.
Transitions	0	Do not meet the current standards.
Approach Guardrails	0	Do not meet the current standards.
Approach Guardrail Ends	0	Do not meet the current standards.

59. SUPERSTRUCTURE:**OVERALL RATING: 2**

	<u>Rating</u>	
Bearing Devices	5	Only the Girder 3 bearing is visible for inspection and exhibits no notable defects.
Stringers	N	
Girders	2	<p>Girders 1 thru 6, excluding timber Girder 3, are in critical condition. These steel beams exhibit widespread extensive section loss to the flanges and lower portion of the web (Photo 27 thru Photo 32). See Figure 1: Bridge Plan for section loss documented for each girder. Based on the extensive loss of section, these girders are assumed to have no live load carrying capacity.</p> <p>Timber Girder 3 is in satisfactory condition with no noted defects.</p> <p>The concrete encased Girder 8 is in poor condition. The concrete exhibits widespread cracks and spalls with efflorescence and rust staining. The following spalls were documented at the bottom flange:</p> <ul style="list-style-type: none"> • Spall 1 – 4' from Abutment 1, 6" long x 6" wide x 1/2" deep • Spall 2 – 8' from Abutment 1. 24" long x 6" wide x 1 1/2" deep • Spall 3 – At Abutment 2, 4' long x full width x 1 1/2" deep <p>The exposed part of the steel beam has approximately 5% section loss with active corrosion and delamination (Photo 33: Girder G8 bottom flange near Abutment 2, looking to Abutment 2).</p> <p>The concrete encasement on Girders 9 thru 14 is in fair condition, with random scattered minor cracks in the lower portion of the west and east faces near the abutments (Photo 34). The concrete encased girders show no indication of distress to the underlying steel girders, and the concrete is solid when struck with a hammer.</p> <p>Based on the discussion between the inspection team and Town of Putnam Highway Superintendent Travis Serrine, it is advised to cordon off the roadway above Girders 1 thru 6 to keep any live load off of these deteriorated girders.</p>
Floor Beams	N	
Trusses-General	N	
Trusses-Portal	N	
Trusses-Bracing	N	
Paint	1	The paint system on the exposed steel girders, Girders 1, 2 & 4 thru 6, has failed throughout, specifically on the top and bottom flanges and the lower portions of the web (Photo 9). The remaining paint is faded, cracking, and provides little to no protection to the underlying steel (Photo 27).
Rust	1	The exposed steel girders exhibit paint failure throughout with extensive corrosion and severe section loss. See Girder note for additional details.

Machinery Mov. Span	N	
Rivets and Bolts	N	
Welds and Cracks	N	
Timber Decay	6	
Concrete Cracking	5	
Collision Damage	N	
Member Alignment	8	
Deflect. Under Load	N	(N) Normal; (E) Excessive.
Vibr. Under Load	N	(N) Normal; (E) Excessive.
Stand Pipes	N	
Barrel Ladders	N	

60. SUBSTRUCTURE:**OVERALL RATING: 4**

	<u>Rating</u>	
Abutments-Stem	4	<p>The masonry abutments are typically in fair to poor condition. Both abutments exhibit cracked and missing mortar throughout on 50% and 30% of the area for Abutment 1 and 2 respectively (Photo 35 & Photo 36). There are minor voids from missing or loose pointer stones. Particularly below Girder 6 at Abutment 1 and at the waterline at Abutment 2. Deterioration at the water line at Abutment 2 is due to abrasion from the stream flow. There is a void due to a missing stone below Girders 4 & 5 at Abutment 2 at the bottom course which measures 14" high x 15" wide x 36" deep (Photo 38). The east portion of the abutments supporting the encased steel girders is typically in better condition.</p> <p>The west corner of Abutment 2 exhibits a partial localized collapse due to scour below the bottom course of the masonry stem (Photo 37). This is a severe condition and should be addressed as soon as possible. The area of shifted and missing stones measures 4' high with voids up to 24" high x 26" wide x 48" deep.</p>
Abutments-Backwall	5	
Abutments-Footings	N	
Abutments-Settlement	5	
Abutments-Wingwalls	5	<p>The masonry wingwalls are in fair condition. There is vegetation overgrowth behind all the walls, and all four wingwalls exhibit cracks, voids, and missing mortar throughout (Photo 39 - Photo 43).</p> <p>In the southeast wingwall there is a large void measuring 18" high x 3' wide x 21" deep approximately 4' from the junction with Abutment 1 (Photo 41). The southeast wingwall remains stable.</p>

Piers/Bents-Caps	N	
Piers/Bents-Pile Bent	N	
Piers/Bents-Columns	N	
Piers/Bents-Footings	N	
Piers/Bents-Settlement	N	
Erosion-Scour	4	There is an approximately 10" deep scour hole at the west side of Abutment 2. This has led to a partial collapse of the masonry wall (Photo 37). See Abutments-Stem notes for additional details.
Concrete Crack-Spall	N	
Steel Corrosion	N	
Paint	N	
Timber Decay	N	
Collision Damage	N	
Debris	7	

61. CHANNEL AND CHANNEL PROTECTION**OVERALL RATING: 4**

	Rating	
Channel Scour	4	There is minor localized scour at the center of the stream upstream (east) of the bridge. Downstream, aggradation has formed a gravel bar which restricts flow through the south barrel of the downstream culvert (Photo 5) The stream channel appears stable since the Visual Condition Assessment performed on 10/23/19. The channel bed material is composed of sand and large stones.
Embankment Erosion	6	
Debris	N	
Vegetation	4	There is heavy vegetation overgrowth and debris at the east (upstream) fascia (Photo 44). This includes a large fallen tree which spans the channel (Photo 8). This vegetation and debris should be removed from the channel.
Channel Change	4	Perry Brook flows east to west below the bridge. Approximately 20' upstream of the bridge the channel bends 90 degrees north and follows Danco Drive approximately 150' north of Abutment 2 (Photo 6 & Photo 44). The flow below the bridge is directed at the west corner of Abutment 2 causing a scour issue and partial collapse of the abutment stem. Downstream of the bridge approximately 20' there is a 2-barrel steel culvert (Photo 5). Each barrel measures 9' diameter. The flow is restricted from the south barrel as noted in the Channel Scour note above.
Fender System	N	

Spur Dikes & Jetties	N	
Rip Rap	N	

62. CULVERT & RETAINING WALL:**OVERALL RATING: N**

	Rating	
Barrel	N	
Concrete	N	
Steel	N	
Timber	N	
Headwall	N	
Cutoff Wall	N	
Debris	N	
Retaining Wall System	N	
Footing	N	

LOAD POSTING: N**MISCELLANEOUS:**

Minimum Vertical Under Clearance:	
Posted Clearance Under Bridge:	
Posted Clearance on Bridge:	
Advanced Warning:	
Speed Limit:	
Character of Traffic:	Low volume servicing one business at the far (north) side of the bridge. Bridge is located on a dead end roadway.

Additional Notes:

- The bridge is logged from south to north, which is opposite from the Visual Condition Assessment performed on 10/23/2019.
- Perry Brook flows from east to west below the structure.
- The bridge was inspected using waders and a 25' aluminum extension ladder.

Additional Comments:

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Section 3

Field Notes & Sketches

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Figure 1: Bridge Plan

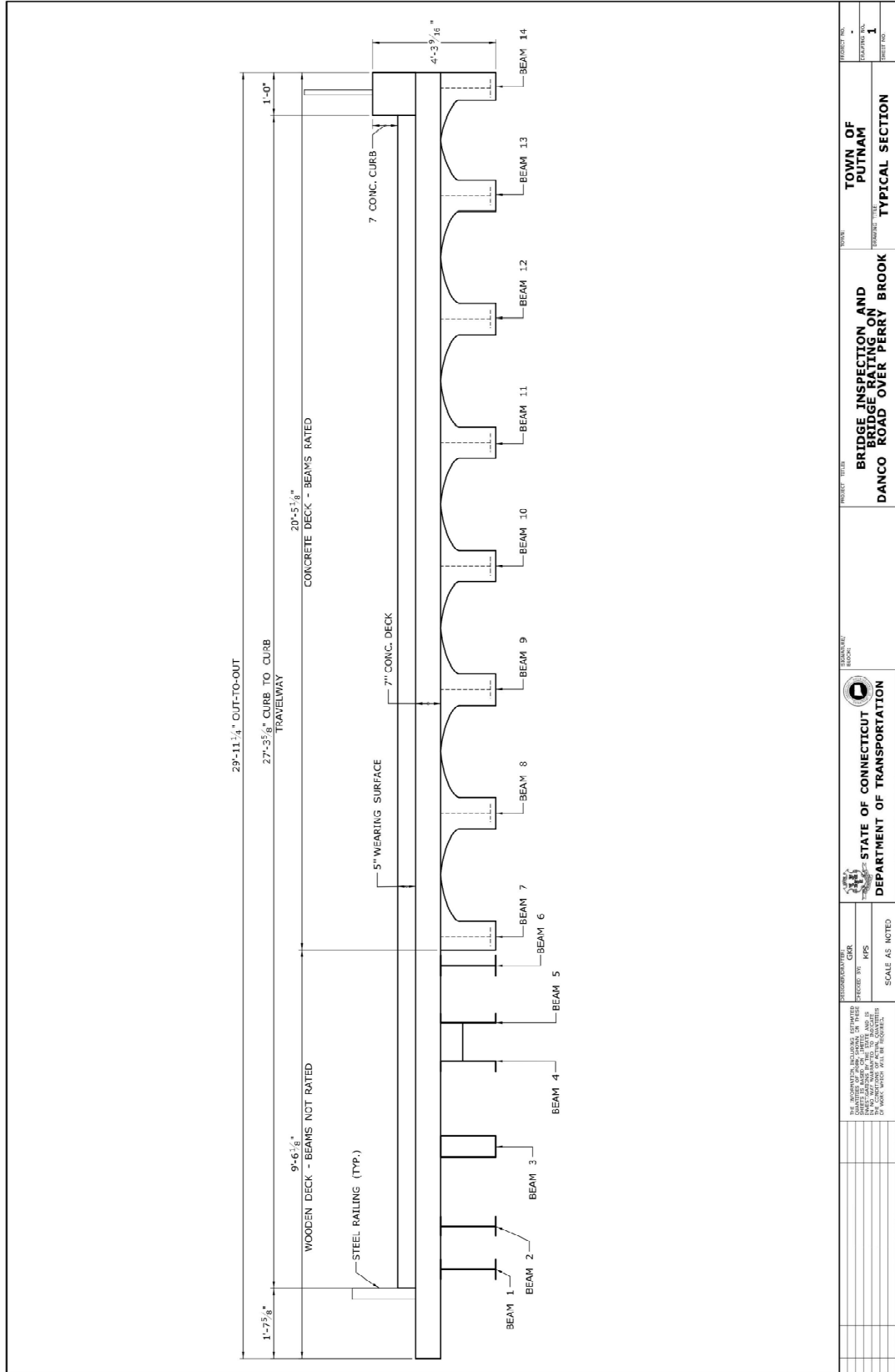


Figure 2: Typical Section

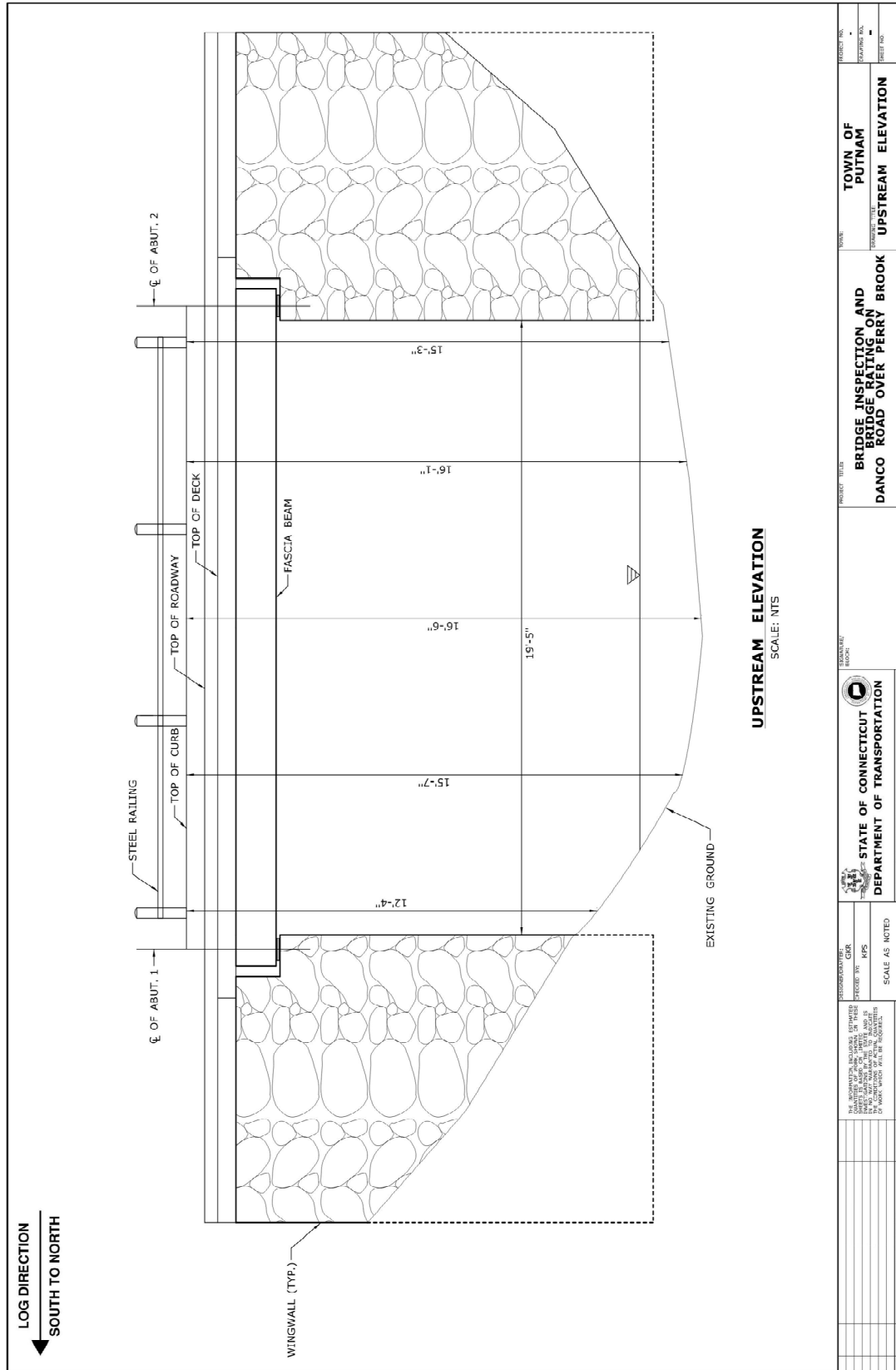


Figure 3: Upstream Channel Readings

Section 4

Photographs



Photo 1: Approach 1, looking north



Photo 2: Approach 2, looking south



Photo 3: Abutment 1, looking southeast



Photo 4: Abutment 2, looking northeast



Photo 5: Feature Crossed (Perry Brook), looking west



Photo 6: Feature Crossed (Perry Brook), looking east



Photo 7: West Elevation, looking east (upstream)



Photo 8: East Elevation, looking west (downstream)



Photo 9: Typical Framing on west portion of superstructure, looking to Abutment 2



Photo 10: Typical Framing on east portion of superstructure, looking to Abutment 2



Photo 11: Bridge wearing surface, from Abutment 1 looking to Abutment 2



Photo 12: Area of asphalt patching and pothole near travelway centerline, 6 ft. from Abutment 1, looking west



Photo 13: Area of asphalt patching near travel way centerline at Abutment 2, looking north



Photo 14: Longitudinal crack in asphalt wearing surface in southbound travel lane, looking to Abutment 2



Photo 15: West deck fascia, from Abutment 1 looking to Abutment 2



Photo 16: Southbound travel lane shoulder near Abutment 2, looking to Abutment 1



Photo 17: West bridge rail from Abutment 2, looking to southwest



Photo 18: East bridge rail at Post 1 (from Abutment 1) base, looking northwest



Photo 19: East bridge rail at Post 4 (from Abutment 1) base, looking east



Photo 20: East bridge rail at Post 3 (from Abutment 1), looking east



Photo 21: West utility support beam below Girder G3, looking to east



Photo 22: East utility support beam below Girder G3 near Abutment 2, looking to northwest



Photo 23: Approach pavement at Abutment 2, looking east



Photo 24: Northeast approach guiderail, looking southeast.



Photo 25: North approach pavement from west, looking to southeast



Photo 26: North approach at Southbound travel lane shoulder, looking southwest



Photo 27: Girder G1 near midspan, looking to Abutment 1



Photo 28: Girder G1 bottom flange near midspan, looking to east



Photo 29: Girder G5 east face at Abutment 2, looking north



Photo 30: Girder G6 west face at Abutment 2, looking north



Photo 31: Girder G6 east face at Abutment 2, looking north



Photo 32: Girder G6 east face near Abutment 2, looking to Abutment 1



Photo 33: Girder G8 bottom flange near Abutment 2, looking to Abutment 2



Photo 34: Girders 11 & 12 at Abutment 1, looking southwest



Photo 35: Abutment 1 at west, looking south



Photo 36: Abutment 2 junction with northwest wingwall, looking north



Photo 37: Abutment 2 at west, looking north

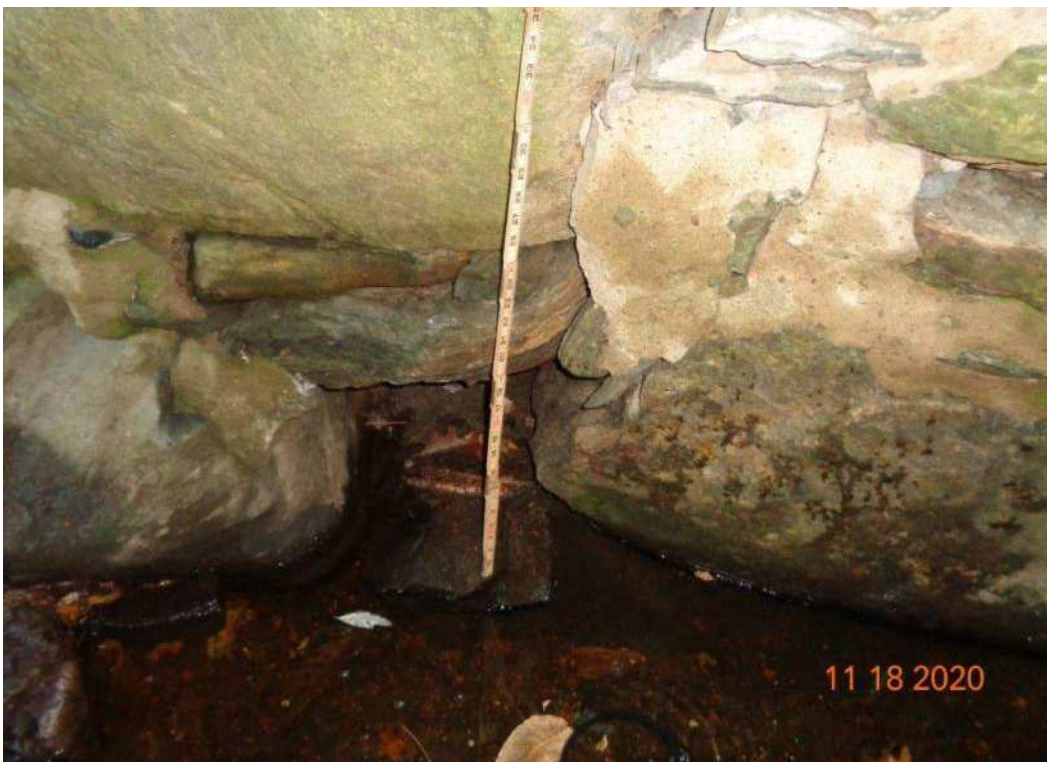


Photo 38: Abutment 2 below Girders G4 & G5, looking north



Photo 39: Southwest Wingwall, looking south



Photo 40: Southeast Wingwall, looking south



Photo 41: Void in Southeast Wingwall, looking south



Photo 42: Northwest Wingwall, looking northeast



Photo 43: Northeast Wingwall, looking north



Photo 44: Stream channel from bridge, looking upstream