TABLE OF CONTENTS OF SPECIAL PROVISIONS

Note: This Table of Contents has been prepared for the convenience of those using this contract with the sole express purpose of locating quickly the information contained herein; and no claims shall arise due to omissions, additions, deletions, etc., as this Table of Contents shall not be considered part of the contract.

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October 21, 2020
FEDERAL AID PROJECT NO. N/A
STATE PROJECT NO. 171-412

CTfastrak Commuter Parking Lot

Town of Farmington
Federal Aid Project No. N/A

The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 818, 2020, is hereby made part of this contract, as modified by the Special Provisions contained herein. Form 818 is available at the following DOT website link http://www.ct.gov/dot/cwp/view.asp?a=3609&q=430362. The current edition of the State of Connecticut Department of Transportation's "Construction Contract Bidding and Award Manual" ("Manual"), is hereby made part of this contract. If the provisions of this Manual conflict with provisions of other Department documents (not including statutes or regulations), the provisions of the Manual will govern. The Manual is available at the following DOT website link http://www.ct.gov/dot/cwp/view.asp?a=2288&q=259258. The Special Provisions relate in particular to the CTfastrak Commuter Parking Lot in the Town of Farmington.

CONTRACT TIME AND LIQUIDATED DAMAGES

A total of two hundred and forty-four (244) calendar days will be allowed for completion of all work on this project and the liquidated damages charge to apply will be One Thousand Five Hundred Dollars ($1,500) per calendar day.

NOTICE TO CONTRACTOR – POTENTIAL MODIFIED AWARD SCHEDULE

The contractor is hereby given notice that this contract will not be awarded until all State and Federal funding approvals have been received. If funding approvals are not received, this Contract award may be delayed or the Contract may be withdrawn and re-advertised at the discretion of the Department, per section XIII of the Construction Contract Bidding and Award Manual. Any delay to the Contract award or failure to award shall not be the basis for any claims by any bidder.

NOTICE TO CONTRACTOR – PRE-BID QUESTIONS AND ANSWERS

Questions pertaining to DOT advertised construction projects must be presented through the CTDOT Pre-Bid Q and A Website. The Department cannot guarantee that all questions will be answered prior to the bid date. **PLEASE NOTE - at 9:00 am Monday (i.e. typical Wednesday Bid Opening) the project(s) being bid will be closed for questions, at which time questions can no longer be submitted through the Q and A Website.**

Answers may be provided by the Department up to 12:00 noon, the day before the bid. At this time, the Q and A for those projects will be considered final, unless otherwise stated and/or the bid is postponed to a future date and time to allow for further questions and answers to be posted.

If a question needs to be asked the day before the bid date, please contact the Contracts Unit staff and email your question to dotcontracts@ct.gov immediately.

Contractors must identify their company name, contact person, contact email address and phone number when asking a question. The email address and phone number will not be made public.

The questions and answers (if any) located on the Q and A Website are hereby made part of the bid/contract solicitation documents (located on the State Contracting Portal), and resulting contract for the subject project(s). It is the bidder's responsibility to monitor, review, and become familiar with the questions and answers, as with all bid requirements and contract documents, prior to bidding. By signing the bid proposal and resulting contract, the bidder acknowledges receipt of, and agrees to the incorporation of the final list of Q and A, into the contract document.

Contractors will not be permitted to file a future claim based on lack of receipt, or knowledge of the questions and answers associated with a project. All bidding requirements and project information, including but not limited to contract plans, specifications, addenda, Q and A, Notice to Contractors, etc., are made public on the State Contracting Portal and/or the CTDOT website.

NOTICE TO CONTRACTOR - INCREASED REQUIREMENTS FOR CONSTRUCTION FIELD OFFICE

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

The revision to the special provision:

ITEM #0969060A - CONSTRUCTION FIELD OFFICE, SMALL

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

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

NOTICE TO CONTRACTOR – COMPASS SUBMITTALS

Upon execution of the Contract, the Contractor acknowledges and agrees that contractual submittals for this Project shall be submitted and handled through the Department's project management system, COMPASS.

Contractor submittals including, but not limited to, Shop Drawings, Working Drawings, Product Data, RFIs, and RFCs shall be generated and delivered by the Contractor in accordance with the Department's COMPASS Contractor's User Manual. The administering District office will inform the Contractor of other deliverables required to be similarly submitted.

Access credentials for COMPASS will be provided free of charge to the Contractor.

The Department shall not be held responsible for delays, lack of processing or responses to submittals that do not follow the specified guidelines in the COMPASS Contractor's User Manual.

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* have been revised to reflect changes to item names and nomenclature for standard Portland cement concrete (PCC) mix classifications. Special Provisions, plan sheets and select pay items in this Contract may not reflect this change. Refer to the Concrete Mix Classification Equivalency Table below to associate the Concrete Mix Classifications with Former Mix Classifications that may be present elsewhere in the Contract.

Concrete Mix Classification Equivalency Table

New Mix Classification (Class PCCXXXYZ[1])	Former Mix Classification
Class PCC03340	Class "A"
Class PCC03360	Class "C"
Class PCC04460[2]	Class "F"
Class PCC04462[2]	High Performance Concrete
Class PCC04481, 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 (formerly Class "HP1" Concrete; also called 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 is 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 – ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS

This Contract includes the application of materials subject to the Volatile Organic Compounds (VOC) content limits stated in the Regulations of Connecticut State Agencies (RCSA) Sections 22a-174-41 and -41a. All architectural and industrial maintenance (AIM) coatings and applications of such coatings must comply with these regulations.

The Contractor shall submit a Material Safety Data Sheet/Safety Data Sheet or Product Technical Data Sheet developed by the manufacturer of each material that may be subject to the Regulations. The submittal must verify both the type of AIM and its VOC Content. VOC content shall be determined based on the formulation data supplied by the materials manufacturer.

The Contractor may only use AIM coatings that contain VOCs below the respective coating category Phase II limits specified in Table 1 if either:

a) the coating was manufactured on or after May 1, 2018, **or**
b) the coating is being applied after April 30, 2021.

The Contractor may use AIM coatings that contain VOCs exceeding the respective coating category Phase II limits specified in Table 1 only if all of the following four conditions are met:

a) the coating is being applied on or before April 30, 2021,
b) the coating contains VOCs below the applicable Phase I limits specified in Table 1,
c) the coating was manufactured prior to May 1, 2018, **and**
d) the coating container(s) are dated (or date coded) as such.

For any coating that is not categorized within Table 1, the Contractor shall classify the coating as follows and apply corresponding limits in Table 1.

- Registers gloss <15 on an 85-degree meter or <5 on a 60-degree meter) – Flat Coating,
- Registers gloss of ≥15 on an 85-degree meter and ≥5on a 60-degree meter) - Nonflat Coating,
- Registers gloss of ≥70 on a 60-degree meter - Nonflat-High Gloss Coating.

The Contractor must close all containers of coating and solvent when not in use.

Coating container labels must display the date the coating was manufactured, the manufacturer's recommendation regarding thinning with solvent, and the coating's VOC content in grams per liter (g/L) of coating. Certain coating categories as noted in Table 1 have additional labeling requirements.

The Contractor may add additional solvent to a coating only if such addition does not cause the coating to exceed the applicable VOC limit specified Table 1. The Contractor must adhere to type(s) of solvent and maximum amount of solvent recommended by coating manufacturer. VOC content of a thinned coating shall be the VOC content as listed by the manufacturer after thinning in accordance with its recommendation.

TABLE 1		
Coating Category	**Phase I**	**Phase II**
	manufactured prior to May 1, 2018 VOC content limit (g/L)	**manufactured on or after May 1, 2018 VOC content limit (g/L)**
Aluminum roof coating	---[1]	450
Antenna coating	530	---[1]
Antifouling coating	400	---[1]
Basement specialty coating	---[1]	400
Bituminous roof coating	300	270
Bituminous roof primer	350	350
Bond breaker	350	350
Calcimine recoater	475	475
Clear wood coating - Clear brushing lacquer[2]	680	275
Clear wood coating - Lacquer[2,3]	550	275
Clear wood coating - Sanding sealer[2,4]	350	275
Clear wood coating - Varnish[2]	350	275
Concrete curing compound	350	350
Concrete or masonry sealer/ Waterproofing concrete or masonry sealer	400	100
Concrete surface retarder	780	780
Conjugated oil varnish	---[1]	450
Conversion varnish	725	725
Driveway sealer	---[1]	50
Dry fog coating	400	150
Faux finishing coating[2]	350	350
Fire resistive coating	350	350
Fire retardant coating - Clear	650	---[1]
Fire retardant coating - Opaque	350	---[1]
Flat coating	100	50
Floor coating	250	100
Flow coating	420	---[1]
Form-release compound	250	250
Graphic arts coating (sign paint)	500	500
High temperature coating	420	420
Impacted immersion coating	780	780
Industrial maintenance coating[2]	340	250
Industrial maintenance coating	340	250
Low solids coating	120	120
Magnesite cement coating	450	450
Mastic texture coating	300	100
Metallic pigmented coating	500	500

TABLE 1		
Coating Category	**Phase I** manufactured prior to May 1, 2018 VOC content limit (g/L)	**Phase II** manufactured on or after May 1, 2018 VOC content limit (g/L)
Multi-color coating	250	250
Nonflat coating	150	100
Nonflat high gloss coating[2]	250	150
Nuclear coating	450	450
Pre-treatment wash primer	420	420
Primer, sealer and undercoater	200	100
Quick-dry enamel	250	---[1]
Quick-dry primer, sealer and undercoater	200	---[1]
Reactive penetrating carbonate stone sealer[2]	---[1]	500
Reactive penetrating sealer[2]	---[1]	350
Recycled coating	250	250
Roof coating	250	250
Rust preventive coating[2]	400	250
Shellac Clear	730	730
Shellac Opaque	550	550
Specialty primer, sealer and undercoater[2]	350	100
Stain	250	250
Stone consolidant[2]	---[1]	450
Swimming pool coating	340	340
Thermoplastic rubber coating and mastic	550	550
Traffic marking coating	150	100
Traffic marking coating	150	100
Tub and tile refinish	---[1]	420
Waterproofing membrane	---[1]	250
Waterproofing sealer	250	---[1]
Wood coating[2]	---[1]	275
Wood preservative	350	350
Zinc-rich primer[2]	---[1]	340

1 Classify as follows and apply corresponding limits in Table 1.

- Registers gloss <15 on an 85-degree meter or <5 on a 60-degree meter) – Flat Coating,
- Registers gloss of ≥15 on an 85-degree meter and ≥5on a 60-degree meter) – Nonflat Coating
- Registers gloss of ≥70 on a 60-degree meter – Nonflat-High Gloss Coating

2 Container must be appropriately labeled. See RCSA 22a-174-41a

3 "Clear Wood Coating – Lacquer" includes lacquer sanding sealer

4 "Clear Wood Coating - Sanding Sealer" does not include lacquer sanding sealer

-END-

NOTICE TO CONTRACTOR – EARLY SUBMITTALS

Post Bid Opening:

Within seven (7) days after the bid opening, the apparent low bid Contractor shall identify and submit a list of items to the Department which will require submittals, shop drawings, working drawings, procurement of materials, and all other submittals to meet the project schedule in accordance with the contract documents. These items shall include, but not limited to, the following:

- Critical Path Schedule
- Bicycle Stand
- Bus Shelter – Type A
- Decorative Light Pole and Fixture Type A3
- LED Luminaire – Type 2 (Multi-Volt)
- Emergency Call Box
- Material for Tack Coat
- Cut Bituminous Concrete Pavement
- Maintenance and Protection of Traffic
- Temporary Traffic Control Equipment (Drums, Cones, Sand Barrels)
- Signage and Flashers

Post Award:

Within seven (7) days after the award, the Contractor shall submit all items identified and as described above (Post Bid Opening) and any other submittals required to meet the schedule of the project.

The Contractor shall submit all items related to the following items in accordance with special provisions for respective items:

- Readiness Plan – Section 1.03.09

NOTICE TO CONTRACTOR – PROPRIETARY ITEMS

The Contractor is hereby notified that the following item shall be furnished by the specific manufacturer specified below.

Item No.	Item Description	Manufacturer
1017021A	Emergency Call Box	Code Blue
		CohuHD

NOTICE TO CONTRACTOR – UTILITY GENERATED WORK SCHEDULES

The attached project specific utility work schedules were provided to the Connecticut Department of Transportation (Department) by the utility companies regarding their identified work on this project.

The utility scheduling information is provided to assist the Contractor in scheduling its activities. However, the Department does not ensure its accuracy and Section 1.05.06 of the Standard Specifications still is in force.

The utility scheduling information shall be incorporated into the Contractor's pre-award schedule in accordance with the Department's Bidding and Award Manual and Section 1.05.08 of the Contract.

After award, the Contractor shall conduct a utility coordination meeting or meetings to obtain contemporaneous scheduling information from the utilities prior to submitting its baseline schedule to the Department in accordance with Section 1.05.08 of the Contract.

The Contractor shall incorporate the contemporaneous utility scheduling information, into its baseline schedule submittal. The baseline schedule shall include Contractor predecessor and successor activities to the utility work in such detail as acceptable to the Engineer.

UTILITY WORK SCHEDULE Rev 08 02 2016

CTDOT Project Number:	171-412	Town:	FARMINGTON
Project Description:	Ctfastrak COMMUTER PARKING LOT		
CTDOT Utilities Engineer:	CRAIG WALLACE		
Phone:	860 594-2696	Email:	Craig.Wallace@ct.gov
Utility Company:	FRONTIER COMMUNICATIONS		
Prepared By:	MARC SWEENEY	Date Prepared:	8/13/2020
Phone:	860-521-0692	Email:	marc.sweeney@ftr.com

Scope of Work

The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.

This project will require Frontier Communications to place new cable and term on P1441 for services to emergency call boxes.

Special Considerations and Constraints

The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..

PLEASE NOTE THAT ANY TIME FRAME GIVEN AS A START TIME OR DURATION OF WORK CAN BE AFFECTED BY MANY FACTORS INCLUDING, BUT NOT LIMITED TO, MAKE READY WORK, OTHER UTILITIES, PERMIT APPLICATIONS, CHANGES IN SCOPE, INCLEMENT WEATHER, HOLIDAYS AND EMERGENCY SITUATIONS.

UTILITY WORK SCHEDULE Rev 3/2015

CTDOT Project Number: 171-412

Utility Company: FRONTIER COMMUNICATIONS

Prepared By: MARC SWEENEY Total Working Days: 3

Schedule

The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baseline stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of working days required to complete the utility work activity based on historical information and production rates.

Location (Station to Station)	Description of Utility Work Activity	Predecessor Activity	Duration (working days)
696.40	PLACE CABLE & TERMINAL	EVERSOURCE RELOCATES P1441 AND SHIFTS THEIR FACILITIES	2
696.40	SPLICE CABLE AND TERMINAL	CABLE PLACED	1

UTILITY WORK SCHEDULE Rev 08 02 2016

CTDOT Project Number: 171-412	Town: FARMINGTON
Project Description: NEW SERVICE FOR COMMUTER PARKING LOT	
CTDOT Utilities Engineer: Craig Wallace	
Phone: 860-594-2696	Email: craig.wallace@ct.gov
Utility Company: EVERSOURCE ENERGY	
Prepared By: ALISHA SAXBY	Date Prepared: 8/26/2020
Phone: 203-271-4770	Email: isha.mikulak-saxby@eversource.co

Scope of Work

The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.

Eversource will install a new pole in between pole 1440 & 1441. Eversource will relocate pole 1441 approx 10ft to the right to account for new anchor and guy wire. Eversource will install a transformer on pole 1384 and run secondary wire from pole 1384 to pole 1441. Eversource will provide a single phase overhead to underground service from pole 1441 to new pedestal. Bill for new service must be paid prior to any work starting. Once bill is paid, The Line Crew will set the 2 new poles. Once the customer has completed their excavating, conduit installation & meter pedestal, the remaining work by Eversource can be scheduled. The lead time from the date of the last prerequisite is completed is 15 business days.

Special Considerations and Constraints

The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..

Thus project will require traffic control and will be performed during normal business hours. This work will be performed in stages. Early pole set, then remaining work to be completed. The work should take approx 1-2 days working on site. Subject to inclement weather, storm restoration and other emergencies that may occur.

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.

The Contractor shall notify "Call Before You Dig", telephone: 8-1-1 or 1-800-922-4455 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 Department. The Contractor shall allow the Engineer complete access to the work.

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 Contractors operations, shall be repaired to the utility's and Engineer's satisfaction at no cost to the State or the Utilities, including ail materials, labor, etc., required to complete the repairs.

The Contractor's attention is directed to the requirements of 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. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation, as noted above.

When working in the vicinity of Eversource Electric, the following conditions shall apply:

1) Contractor shall provide a minimum of three (3) weeks advance notice to Eversource Electric to arrange for the work to be done. Contractor shall contact Mr. Thomas Woronik, Eversource – Electric Distribution (Phone No. 860-267-3891) before proceeding with any work within 2 feet of a distribution duct bank.

NOTICE TO CONTRACTOR – UTILITY COORDINATION & RELOCATION

Overhead or underground utility lines may conflict with required temporary or permanent construction, or the equipment necessary to perform this work. The contractor should expect that at least some portion of the temporary or permanent construction proposed by this project work, or the equipment required to perform this construction will be under, over or adjacent to existing underground or overhead utility lines. The contractor is required to coordinate the exact location and timing of all utility relocation or protection with the individual utility owners, and to phase his construction operations as required to accommodate all (temporary or permanent) utility relocations. In addition to field meetings and correspondence, this coordination may include staking of locations, excavation and temporary grading, providing access to existing and future utility pole and conduit locations, or other physical work as required to allow for work related to relocation or protection of utilities. The contractor shall engage in the necessary coordination of utility relocations and associated work at no additional cost to the project or owner and shall have no right to additional compensation for delays or staging and phasing of his work as a result of utility relocation work.

The contractor's schedule of operations and construction phasing plans shall show the anticipated utility relocations in the sequence of construction.

The State of Connecticut has corresponded with the utilities expected to be affected by this work and these are listed below with the contact names and phone numbers of field representative personnel.

Name	Representing	Telephone
Lynne DeLucia	Telephone (Frontier Communications)	203-238-5000
Thomas Woronik	Electric (Eversource – Electric Distribution)	860-267-3891

The contractor must coordinate with each utility owner and develop his own schedule of utility relocation work and time required to complete this work based upon his own operational plan and equipment.

NOTICE TO CONTRACTOR – 9.49 – FURNISHING, PLANTING AND MULCHING TREES, SHRUBS, VINES AND GROUND COVER PLANTS

The Contractor is hereby notified that Section 9.49 of the *Standard Specifications* in Form 818 has been revised as follows:

1. The Contractor must secure an Encroachment Permit to work in the plantings area to satisfy the one year warranty requirements.
2. The Encroachment Permit requires a Permit Bond.
3. The Contractor is responsible for the One-Year Establishment Period, 1 year from the date of final acceptance to the satisfactory completion of the planting activities.
4. The Contractor shall secure a Permit Bond in the amount of $10,000 or 20% of the sum of all plant items, whichever is greater, along with an Encroachment Permit from the Department in order to guarantee the One-Year Establishment Period.

See Article 9.49.03-15 for more information.

NOTICE TO CONTRACTOR – UTILITY COMPANIES

It is understood that any references in the contract documents to Northeast Utilities, CL&P and/or Yankee Gas are meant to refer to Eversource.

It is understood that any references in the contract documents to AT&T is meant to refer to Frontier Communications.

NOTICE TO CONTRACTOR – SERVICE CONNECTIONS (UTILITIES)

The electric and communication services to the Project Site require service connections to the applicable utility company's facilities. Utility service connections and installations to the point of the utility service are included as shown and described within the Contract.

The Contractor is responsible for notifying the utility company prior to the need for the utility connection, and for coordinating the service connection and/or relocation requirements with the utility company. The Contractor shall coordinate with the following utility companies:

Electric: Eversource Energy
Communications: Frontier Communications

Where known, utility company representatives are identified elsewhere within the Contract.

NOTICE TO CONTRACTOR – GLOBAL POSITIONING SYSTEM (GPS) COORDINATES FOR SIGNS

The Contractor shall obtain and provide to the Engineer sign installation data, including Global Positioning System (GPS) latitude and longitude coordinates, for all new State owned and maintained signs. The Engineer shall forward the sign data to the Division of Traffic Engineering for upload into the Highway Sign Inventory and Maintenance Management Program (SIMS). Contact Mr. Barry A. Schilling at (860) 594-2769 of the Division of Traffic Engineering regarding any SIMS or GPS questions. Refer to the special provision for Section 12.00 General Clauses For Highway Signing.

NOTICE TO CONTRACTOR – ELECTRONIC ENGINEERING DATA (EED)

The EED is an assembly of engineering data files that were used to produce the Contract plans.

Electronic Engineering Data (EED) is provided for information purposes only. In case of conflict between the EED and the Contract plans and specifications, the contract plans and specifications shall govern. The EED has been reviewed by the Department for quality control purposes, but it is the Contractor's responsibility to build the Project per the contract plans and specifications.

The EED is being provided to the Engineer for GPS/RTS inspection. The Contractor may use the EED to assist in bidding, layout and Automated Machine Control/Guidance.

The EED includes geospatially-correct 2D CAD files and may include horizontal and vertical alignment data files, 3D surface model files (break-line features and triangles) and a preference file. The data is being provided in two formats:

- Native Format
    - Bentley MicroStation CAD files (dgn)
    - Bentley SS2 InRoads Alignment Files (alg)
    - Bentley SS2 InRoads Digital Terrain Models (dtm)
    - Bentley SS2 InRoads Preference File (xin)
- Converted Format (for use in GPS/RTS Site equipment)
    - AutoCAD CAD files (dxf)
    - Alignment files (xml)
    - Surface Models (xml)

For a complete list of EED files, see the EED file manifest (PDF) located in the EED_0171-0412.zip file which is posted with the contract PS&E's on the State Contracting portal.

NOTICE TO CONTRACTOR – 1.05 CONTROL OF THE WORK

1.05.03 – CONFORMITY WITH PLANS AND SPECIFICATIONS (INCLUDING QUALITY CONTROL)

The Contractor is hereby notified that a Quality Management Plan will be required for this Project in accordance with Standard Specifications Article 1.05.03 – Conformity with Plans and Specifications (including Quality Control).

SECTION 1.02 – PROPOSAL REQUIREMENTS AND CONDITIONS

1.02.01 – Contract Bidding and Award:

After the first sentence of the third paragraph, add the Following:

In accordance with the provisions of the Construction Contract Bidding and Award Manual, bidders must be prequalified for **Group No. 5B – Parking Lots and Paved Trails**, to be eligible to bid on this project. Bidders that are not prequalified for this work classification will not be approved to bid on this project.

1.02.04 – Examination of Plans, Specifications, Special Provisions and Site of Work:

Replace the third sentence of the last paragraph with:

The Department cannot ensure a response to inquiries received later than ten (10) days prior to the original scheduled opening of the related bid.

SECTION 1.05 – CONTROL OF THE WORK

Replace Article 1.05.02 *with the following:*

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

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

Project submittals shall be delivered to the Department using the Department's project management system COMPASS. The Contractor shall acquire and maintain access to COMPASS for the delivery of submittals as listed herein. The delivery processes and document tracking procedures shall be performed in accordance with this specification and the COMPASS Contractor's User Manual.

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

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

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

A. Drawings:
   i. Delivered in a single multi-page PDF file.
   ii. Shall be sized ANSI D (34 inches × 22 inches).
   iii. Contain a border, title block and a rectangular box, 2.25 inches wide × 1.75 inches high, in the lower right hand corner for the Department's stamp.
   iv. Text height and width shall be 0.125 inch.
   v. All letter characters shall be uppercase.
   vi. Shall be searchable.
   vii. Shall be black and white.
   viii. Cover Page - shall be digitally signed by the Contractor's Professional Engineer.

ix. All pages shall include a watermark of the Professional Engineer's stamp in a common area.

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

C. Supporting Documentation:
   i. Delivered as an independent single PDF file
   ii. Shall be sized ANSI A (8.5 inches × 11 inches).

a. Working Drawings for Permanent Construction: The Contractor shall supply to the Department a certificate of insurance in accordance with 1.03.07 at the time that the Working Drawings for the Project are submitted.

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

(i) 3 years from the date of acceptance of the work by the Engineer, as evidenced by a State of Connecticut, Department of Transportation form entitled "Certificate of Acceptance of Work," issued to the Contractor; or

(ii) 3 years after the termination of the Contract, whichever is earlier, subject to the continued commercial availability of such insurance.

b. Working Drawings for Temporary Construction: The Contractor shall submit drawings, calculations, procedures and other supporting data to the Department in accordance with this Specification, with the exception of requirements defined under a. Working Drawings for Permanent Construction.

3. Shop Drawings: When required by the Contract, or when ordered to do so by the Engineer, the Contractor shall prepare and deliver Shop Drawings to the Department for review.

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

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

Shop Drawing submission documents shall conform to the following requirements:

A. Delivered in a single multi-page PDF file.
B. Shall be sized ANSI D (34 inches × 22 inches).
C. Contain a border, title block and a rectangular box, 2.25 inches wide × 1.75 inches high, in the lower right hand corner for the Department's stamp.
D. Text height and width shall be 0.125 inch.
E. All letter characters shall be uppercase.
F. Shall be searchable.
G. Shall be black and white.

4. Product Data: When required by the Contract, or when ordered to do so by the Engineer, the Contractor shall prepare and deliver Product Data to the Department for review.

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

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

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

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

Product Data submission documents shall conform to the following requirements:

A. Delivered in a single PDF file
B. Shall be sized ANSI A (8.5 inches × 11 inches).
C. Marked to indicate applicable choices and options.
D. Where non-applicable information and products are included, notations shall be made to clearly delineate applicable from non-applicable information.

5. Submittal Preparation and Processing – Review Timeframes: If the Department deems a submittal incomplete or unacceptable because not all the required documents were attached, documents are incomplete, or are in the incorrect format, the Department will send the submittal back to the Contractor before reviewing. When a submittal is sent back as incomplete, the associated documents have not been reviewed and the review process and any associated timeframe requirements have not begun.

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

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

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

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

6. Department's Action: The Department will review each submittal, mark each with a self-explanatory action stamp, and return the stamped submittal promptly to the Contractor. The Contractor shall not proceed with the part of the Project covered by the submittal until the submittal is marked "No Exceptions Noted" or "Exceptions as Noted" by the Department. The Contractor shall retain sole responsibility for compliance with all Contract requirements. The stamp will be marked as follows to indicate the action taken:

a. If submittals are marked "No Exceptions Noted," the Designer or Engineer has not observed any statement or feature that appears to deviate from the Contract requirements. This disposition is contingent on being able to execute any manufacturer's written warranty in compliance with the Contract provisions.
b. If submittals are marked "Exceptions as Noted," the considerations or changes noted by the Department's Action are necessary for the submittal to comply with Contract requirements. The Contractor shall review the required changes and inform the Department if they feel the changes violate a provision of the Contract or would lessen the warranty coverage.
c. If submittals are marked "Revise and Resubmit," the Contractor shall revise the submittals to address the deficiencies or provide additional information as noted by the Department. The Contractor shall allow an additional review period as specified in 1.05.02-5.

d. If submittals are marked “Rejected,” the Contractor shall prepare and submit a new submittal in accordance with the Department’s notations. The resubmissions require an additional review and determination by the Department. The Contractor shall allow an additional review period as specified in 1.05.02-5.

SECTION 1.06 – CONTROL OF MATERIALS

Article 1.06.01 - Source of Supply, Buy America and Material Quality is amended as follows:

Under **3. Material Quality**, delete the last paragraph and replace with the following:

For the following items the Contractor shall submit in digital format a complete description of the item, complete set(s) of shop drawings, catalog cuts, data sheets and other descriptive literature which completely illustrates such items presented for formal approval.

Approval of the Shop Drawings and catalog cuts shall not change the requirements for a Certified Test Report, Materials Certificate and Certificate of Compliance as may be called for.

Shop drawings shall be submitted on 8-1/2 inch by 11 inch sheets or on 24 inch by 36 inch standard plan sheets. Shop drawings and data sheets shall be required for, but not limited to the following:

Illumination:

- Light Standards
- Conductors
- Luminaires
- Conduit
- Service Items
- Fuses and Fuse Holders
- Breakaway Fuse Kits

Article 1.06.07 - Certified Test Reports and Materials Certificates:

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.

Light Standards
Conductors
Anchor Bolts

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.

Light Standards
Service Items
Conductors
Luminaires
Conduit
Anchor Bolts
Cable
Handholes
Conduit

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:

Cable TV

Comcast of Connecticut, Inc
Mr. Jim Bitzas
Regional Construction
Director 1110 East Mountain
Road Westfield, MA 01085
PHONE: (413) 642-8582
MOBILE: (617) 279-7485
E-MAIL: jim_bitzas@cable.comcast.com

Communication

Level 3 Communications, LLC aka CenturyLink Communications, LLC
Mr. David Vega
Project Manager, OSP Relocations
71 Clinton Road
Garden City, NY 11530
PHONE: (917) 207-4604
E-MAIL: David.Vega@CenturyLink.com
Special Instructions: Send NU Letter to: NationalRelo@CenturyLink.com

Lightower Fiber Networks I, LLC dba Crown Castle Fiber
Mr. Eric Clark
Manager Fiber Construction
1781 Highland Avenue, Suite 102
Cheshire, CT 06410
PHONE: (203) 649-3904
MOBILE: (860) 863-8311
E-MAIL: eric.clark@crowncastle.com

The Southern New England Telephone Company dba Frontier Communications of Connecticut
Ms. Lynne DeLucia
Manager – Engineering &
Construction 1441 North Colony Road
Meriden, CT 06450-4101
PHONE: (203) 238-5000
MOBILE: (860) 967-4389
E-MAIL: lynne.m.delucia@ftr.com
Special Instructions: Map Requests: FTR-CT-MAPREQUEST@ftr.com

Electric

The Connecticut Light and Power Company dba Eversource Energy – Electric Distribution
Mr. Thomas Woronik,
Supervisor - Construction Engineering
22 East High Street
East Hampton, CT 06424
PHONE: (860) 267-3891
E-MAIL: thomas.woronik@eversource.com
Special Instructions: Map Requests: numaprequest@eversource.com

Gas

Algonquin Gas Transmission Company dba Enbridge
Mr. Kenneth Ruel,
Area Supervisor
252 Shunpike Road
Cromwell, CT 06416
PHONE: (860) 894-1600 EXT: 1608 Mobile: 860-982-1806
E-MAIL: Kenneth.Ruel@enbridge.com

Connecticut Natural Gas Corporation, Engineering Department
Mr. Jonathan Gould
Gas Engineer
76 Meadow Street, 2nd Floor
East Hartford, CT 06108
PHONE: (860) 727-3044
E-MAIL: jgould@ctgcorp.com

Kinder Morgan, Inc. (Tennessee Gas Pipeline L.L.C.)
Mr. David Wood,
Project Manager - Ops
8 Anngina Drive
Enfield, CT 06082
PHONE: (860) 763-6005 EXT: Mobile: (413) 530-7117
E-MAIL: David_Wood@kindermorgan.com

Water

Avon Water Company
Mr. Robert W. Wesneski,
Secretary/Superintendent
14 West Main Street
Avon, CT 06001
PHONE: (860) 678-0001 EXT: Mobile:
E-MAIL: avonwater@snet.net

The Connecticut Water Company
Mr. Daniel Lesnieski,
Infrastructure Rehabilitation Manager
446 Smith Street
Middletown, CT 06457
PHONE: (860) 292-2834 EXT: Mobile:
E-MAIL: dlesnieski@ctwater.com

Metropolitan District
Mr. Richard Norris, P.E.
Project Engineer / Utility
Liaison 555 Main Street, P.O.
Box 800
Hartford, CT 06142-0800
PHONE: (860) 278-7850
EXT: 3450
E-MAIL: rnorris@themdc.com

City of New Britain Water Department
Mr. Raymond Esponda,
Director of Utilities Division
1000 Shuttle Meadow Avenue
New Britain, CT 06052
PHONE: (860) 826-3536 EXT: Mobile:
E-MAIL: ray.esponda@newbritainct.gov

Valley Water Systems
Mr. Donald Vaughan,
General Manager & Vice President
37 Northwest Drive
Plainville, CT 06062
PHONE: (860) 747-8000 EXT: Mobile:
E-MAIL: Dvaughan@newenglandservicecompany.com

The following Department representative shall be contacted by the Contractor to coordinate an inspection of the service entrance into the controller/flasher cabinet for controllers within the State right-of-way, when ready for inspection, release, and connection of electrical service. The

local Building Department shall be contacted for electrical service inspections for controllers located on Town roads located within the respective municipality.

Mr. Michael LeBlanc
Property & Facilities
Department of Transportation
Newington, CT 06111
860-594-2238
michael.leblanc@ct.gov

Please provide the electrical service request number provided by the power company. This is a Work Request (WR) Number provided by Eversource (formerly Northeast Utilities [CL&P]). For State-owned traffic signals in Eversource territory, contact the Department's Traffic Electrical Unit to obtain the WR Number.

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:

SR 531 – Colt Highway

The Contractor will not be allowed to perform any work that will interfere with existing traffic operations as follows:

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

Additional Lane Closure Restrictions

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

Article 1.08.07 - Determination of Contract Time:

Delete the second, third and fourth paragraphs and replace them with the following:

When the contract time is on a calendar day basis, it shall be the number of consecutive calendar days stated in the contract, INCLUDING the time period from December 1 through March 31 of each year. The contract time will begin on the effective date of the Engineer's order to commence work, and it will be computed on a consecutive day basis, including all Saturdays, Sundays, Holidays, and non-work days.

Article 1.08.08 - Extension of Time:

Delete the second to last paragraph, "If an approved extension of time…. the following April 1".

Article 1.08.09 - Failure to Complete Work on Time:

Delete the second paragraph, "If the last day...the project is substantially completed" *and replace it with* "Liquidated damages as specified in the Contract shall be assessed against the Contractor per calendar day from that day until the date on which the project is substantially completed.".

SECTION 1.10 – ENVIRONMENTAL COMPLIANCE

In Article 1.10.03—Water Pollution Control:
BEST MANAGEMENT PRACTICES

Add the following after Required Best Management Practices Number 13:

14. Staging, laydown areas and servicing and fueling of equipment on Site are prohibited unless further coordination is done with the Department according to the following specifications. The Contractor shall submit documentation to the Engineer for further approval by the Department's Office of Environmental Planning (OEP) certifying adherence to these conditions as part of the initial Project submittals. Any work that is anticipated to require ground disturbance or any storage of material for more than twenty four (24) hours in a single location must be identified.

    If staging, laydown areas and/or servicing and fueling of equipment are required, the Contractor shall submit, under the initial Project submittals, detailed site plans showing the locations of any staging, laydown, and/ or servicing and fueling areas to the Engineer for approval by the OEP including submittal of a narrative of the Contractor's Best Management Practices for staging, refueling, and a checklist for site cleanup should a spill occur. If it is determined by the OEP that the Project location falls within a sensitive area, the Contractor must adhere to all special requirements and best management practices provided by the OEP.

SECTION 10.00 – GENERAL CLAUSES FOR HIGHWAY ILLUMINATION AND TRAFFIC SIGNAL PROJECTS

Article 10.00.03 – Plans:
In the first paragraph, replace the 2nd, 3rd, and 4th sentences with the following:

> The Contractor shall digitally mark, in red, any changes on the plan(s) using a pdf program. Markups shall also include field-obtained GPS coordinates for installed span pole, mast arm assembly, controller, and light standard locations.
>
> - The GPS technology used should be able to provide coordinates that are within 12" of accuracy.
> - Coordinates provided are to be as accurate as possible for locations where satellite coverage is compromised by tree canopies, buildings, etc.
>
> The Contractor shall submit the digital pdf file(s) to the Engineer and to DOT.TrafficElectrical@ct.gov, for Traffic Signals, prior to requesting the Functional Inspection.
>
> Also prior to requesting the Functional Inspection, the Contractor shall deliver to the Engineer the following:

In item no. 1, replace "Four (4)" with "Digital PDF Files and Five (5)" [paper prints of schematics and wiring diagrams…].

After item no. 3, add an item no. 4 as the following:

> 4. Digital field pictures, in .JPG format and labeled appropriately, of the following constructed items:
>   a. Signals heads facing each approach. The pictures are to be taken along each intersection approach in order to observe the relation between the signal faces and the approach centerline, lane line(s), and edge line.
>   b. Inside of hand holes
>   c. Inside of the controller cabinet
>   d. Traffic foundations (Span poles, MAA, Controller Cabinet, Light Standards, Pedestals)
>   e. Video detector locations and mountings
>   f. Utility Clearances from span wire and MAAs
>   g. Screen shots of detection zones

Article 10.00.10 Section 2. Subsection a) After Part 3, add the following:

4. 360-Degree Video Detection System Tests: The following tests shall be performed on all traffic signals with 360-Degree Video Detection Systems. The test results shall be recorded

and submitted to the Engineer prior to the functional inspection of the traffic signal. Refer to the "Quality Best Practices" attachment to the special provision for Item # 1112286A - 360 DEGREE VIDEO DETECTION PROCESSOR:

a) Cabinet Grounding Test: The cabinet ground shall be tested with a clamp-on ground meter in accordance with the detection system manufacturer's recommendations to ensure a ground reading of a maximum of 25 Ohms. The results of this test shall be recorded.

b) AC Power Test: The AC outlet for the processor shall be checked with a digital voltmeter according to the detection system manufacturer's recommendations to ensure that all three connections for the outlet are properly connected and to verify that the AC voltage from the line to neutral and the line to ground is 120VAC. The results of this test shall be recorded.

c) Ethernet Cable Test: Each Ethernet cable shall be tested with a digital Ethernet cable tester in accordance with the detection system manufacturer's recommendations to ensure the cable length does not exceed 300-ft and ensure a Real World Certification of at least 100 MB. The results of this test shall be recorded.

d) Drain Wire Resistance Test: Each Ethernet cable drain wire shall be checked with a digital voltmeter in accordance with detection system manufacturer's recommendations to ensure that the resistance between the drain wire grounding post and the cabinet ground rod equals 0 Ohms. The results of this test shall be recorded.

Article 10.00.10 Section 2. Subsection b) Part 3. Functional Inspection:
In the first paragraph, after the 2nd sentence, add the following:

Prior to the Functional Inspection, the Contractor shall verify with the CTDOT Traffic Signal Lab that each detection camera is operating properly. In instances where the existing traffic control equipment is being revised or replaced, the verification with the CTDOT Traffic Signal Lab shall be prior to the required Preliminary Functional Test. The Contractor shall have a bucket truck with crew on site during the Functional Inspection to make any necessary aerial signal and detection equipment adjustments as directed by the Engineer.

After the fourth paragraph, add the following:

Upon the successful completion of the Functional Inspection and once all corrections and adjustments resulting from the Functional Inspection are completed, the Contractor shall update as-built plans and pictures to reflect any changes made and submit as required in Section 10.00.03 within 7 days of the completion of the 30-day test.

Article 10.00.12 - Negotiations with utility company: Add the following:

The Contractor shall give notice to utility companies a minimum of 30 days prior to required work or services to the utility company. Refer to Section 1.07 – Legal Relations and Responsibilities for the list of utility companies and representatives the contractor shall use.

The Contractor shall perform all work in conformance with Rules and Regulations of Public Utility Regulatory Authority (PURA) concerning Traffic Signals attached to Public Service Company

Poles. The Contractor is cautioned that there may be energized wires in the vicinity of the specified installations. In addition to ensuring compliance with NESC and OSHA regulations, the Contractor and/or its Sub-Contractors shall coordinate with the appropriate utility company for securing/protecting the site during the installation of traffic signal mast arms, span poles or illumination poles.

When a span is attached to a utility pole, the Contractor shall ensure the anchor is in line with the proposed traffic signal span wire. More than 5 degree deviation will lower the holding strength and is not allowed. The Contractor shall provide any necessary assistance required by the utility company, and ensure the anchor and guy have been installed and properly tensioned prior to attaching the span wire to the utility pole.

SECTION 12.00 – GENERAL CLAUSES FOR HIGHWAY SIGNING

Description:

Work under this item shall conform to the requirements of Section 12.00 supplemented as follows:

12.00.07 – Global Positioning System (GPS) coordinates for signs:

The Contractor shall obtain and provide to the Engineer sign installation data, including Global Positioning System (GPS) latitude and longitude coordinates, for all new permanent State owned and maintained signs (temporary and construction signs are not to be included) installed in the project. The Engineer shall forward the sign data to the Division of Traffic Engineering for upload into the Highway Sign Inventory and Maintenance Management Program (SIMS). Sign data submissions or questions relating to SIMS or GPS shall be sent to DOT-SignInventory@ct.gov.

The horizontal datum is to be set to the State Plane Coordinate System, North American Datum of 1983 (NAD83) in feet. The minimum tolerance must be within 10 feet. The format of the GPS information shall be provided in a Microsoft Office compatible spreadsheet (Excel) file with data for each sign. The record for each sign installed is to be compatible with the anticipated CTDOT Sign Inventory and Management System (CTSIMS). The following format shall be used. However, the data fields noted by "#" are not required for the project submission. These entries will be completed as part of the Traffic Engineering CTSIMS data upload.

The cost of this work shall be included in the cost of the respective sign face – sheet aluminum and sign face – extruded aluminum items. The receipt of this electronic database must be received and accepted by the Engineer prior to final payment for items involving permanent highway signing. The electronic database information shall detail information regarding the sign actually installed by the project.

	Field Number	Type	size	Description
	1	text	20	Record Number (starting at 1…)
	2	text	20	Sign Catalog Number
#	3	text	10	Size Height
#	4	text	10	Size Width
	5	text	25	Legend
#	6	text	10	Background Color
#	7	text	10	Copy Color
	8	Link	25	Material (see acceptable categories)
	9	text	30	Comments if any
#	10	text	20	MUTCD Type
	11	text	15	Town

	12	text	5	Route
	13	text	5	Route direction
#	14	text	10	Highway Log Mileage
	15	text	15	Latitude
	16	text	15	Longitude
	17	text	25	Mounting Type
	18	text	25	Reflective Sheeting Type
	19	date	25	Date Installed
	20	text	10	Number of Posts
	21	text	255	Sheeting Manufacturer name and address
	22	text	15	State Project Number (or)
	23	text	15	Encroachment Permit number.
	24	Graphic	*	Sign Picture Graphic.

* Graphics provided shall be representative of the sign supplied and be in color. Graphic formats shall be either JPG or TIFF and provided with a recommended pixel density of 800 x 600. The graphic shall be inserted in the supplied media in field 24 for each sign.

SECTION M.03 - PORTLAND CEMENT CONCRETE

Replace Section M.03 in its entirety with the following:

M.03.01—Component Materials
M.03.02—Mix Design Requirements
M.03.03—Producer Equipment and Production Requirements
M.03.04—Curing Materials
M.03.05—Non Shrink, Non Staining Grout
M.03.06—Expansive Cement for Anchoring
M.03.07—Chemical Anchors M.03.08—
Joint Materials M.03.09—Protective
Compound/Sealers M.03.10—Formwork

M.03.01 —Component Materials

1. **Coarse Aggregate:** Coarse aggregate shall meet the requirements of M.01.
2. **Fine Aggregate:** Fine aggregate shall meet the requirements of M.01.
3. **Cement:**

(a) Portland: Types I, II, and III Portland cement shall meet the requirements of AASHTO M 85. Type I and Type III Portland cement shall be used only when required or expressly permitted by the Project specification or the Engineer. The use of Type I or III will require that these mixtures be submitted as Non-standard Mix Designs. All cement shall be provided by a mill participating in the Departments' Cement Certification program. The requirements of the Certification Program are detailed in the Departments' Quality Assurance Program for Materials.

(b) Pre-Blended Cements: Binary or Ternary cements consisting of Portland Cement and supplemental cementitious materials may be used provided that all the requirements of M.03.01- 3(a) and -3(c) are met.

(c) Replacement Materials: Unless already approved as a Standard Mix Design, any Contractor proposed Mix Designs with partial replacement of Portland Cement (PC) with fly ash or ground granulated blast furnace slag (GGBFS), shall be submitted in writing to the Engineer for approval prior to the start of work, on a project-by-project basis. The type of material, source, and the percentage of the PC replaced shall be clearly indicated. Upon request, a Certified Test Report for the cement replacement material shall be provided to the Engineer for use during the Mix Design review.

1. Fly Ash: Fly ash to be used as a partial replacement for Portland cement shall meet the requirements of AASHTO M 295, either Class C or Class F, including the uniformity requirements of Table 2A. Loss on Ignition for either class of fly ash shall not exceed 4.0%. Fly ash may be used to replace up to a maximum of 20% of the required Portland cement for mixes without permeability requirements. For mixes with permeability requirements, the maximum of 20% may be exceeded. The fly ash shall be substituted on a weight basis, with a minimum of 1 lb. of fly ash for 1 lb. of Portland cement. Different classes of fly ash or the same class from different sources shall not be permitted on any single project without the written approval of the Engineer.

2. Ground Granulated Blast Furnace Slag (GGBFS): GGBFS used as a partial replacement for Portland cement shall meet the requirements of AASHTO M 302/ASTM C989, Grade 100 or 120. As determined by the Engineer, GGBFS may be used to replace a maximum of 30% of the required Portland cement for mixes without permeability requirements. For mixes with permeability requirements, the maximum of 30% may be exceeded. The Engineer may restrict or prohibit the use of GGBFS if ambient temperatures anticipated during the placement and initial curing of the concrete are low. The GGBFS shall be substituted on a weight basis, with a minimum of 1 lb. of slag for 1 lb. of Portland cement. Different sources of GGBFS shall not be permitted on any single project without the written approval of the Engineer.

4. Water: All water used in the mixing of concrete shall be odorless and clear in appearance. Surface water may be used if not taken from shallow or muddy sources; classified as Class C or Class D on the Department of Energy and Environmental Protection (DEEP) Water Quality Classification mapping; and accommodations have been made to prevent contaminants from entering the supply to the satisfaction of the Engineer. The Engineer may request that water from any surface or ground source be tested in accordance with AASHTO T26 and AASHTO D512 if the appearance or scent of the water is suspect. To be acceptable, the pH of the water must not be less than 6.0 or greater than 8.0 and Chloride Ion Concentration of the water must not exceed 250ppm. Potable water taken directly from a municipal or regional water supply may be used for mixing concrete without testing. Heating or cooling of water may be required to meet mix temperature requirements at time of placement.

5. Admixtures: All admixtures shall perform their function without injurious effects upon the concrete. If requested by the TDC, the Contractor shall present a certified statement from a recognized laboratory attesting to this requirement. A "recognized" laboratory is any cement and concrete laboratory approved and inspected regularly by the Cement and Concrete Reference Laboratory (CCRL). The statement shall contain results of compression tests of cylinder specimens made with concrete utilizing the admixture(s) in proportions equal to those proposed by the Contractor. The results of at least 5 standard 6 inch x 12 inch cylinders of each mix design shall be listed with the results of at least 5 like-sized cylinders not utilizing the admixture(s). Specimens must be made and cured in the laboratory in accordance with AASHTO T 126 and will be tested in accordance with AASHTO T 22.

(a) Air-Entraining Admixtures: In the event that air entrained concrete is required, an admixture meeting the requirements of AASHTO M 154 may be used. Tests for 7 and 28-day compressive and flexural strengths and resistance to freezing and thawing are required whereas tests for bleeding, bond strength and volume change will not be required.

(b) Other Chemical Admixtures: In the event that concrete properties are specified that require the use of additional admixtures, or the Contractor proposes the use of additional admixtures to facilitate placement, the admixtures shall meet the requirements of AASHTO M194M/M, including the 1 year performance data.

M.03.02 —Mix Design Requirements

1. Standard ConnDOT Mix Designs: Standard Mix Designs shall be designed in accordance with applicable sections of ACI 211 and ACI 318. The mixtures shall consist of Portland cement, fine aggregate, coarse aggregate, admixtures, and water proportioned in accordance with Table M.03.02-1. The mixtures shall also be designed to obtain the plastic properties of Portland cement concrete as specified in Table 6.01.03-2.

Table M.03.02-1 Standard Portland Cement Concrete Mixes

Class[1]	Max. Water/Cement[2] ratio	Min. Cement[2] Content - lb./c.y.	Air Content %	Electrical Resistivity (Permeability) kΩ-cm AASHTO T 358
PCC0223Z	0.69	455	6 +/- 1.5	NA
PCC0334Z	0.48	615		NA
PCC0336Z	0.50	564		NA
PCC0354Z	0.49	615		NA
PCC0446Z	0.44	658		NA
PCC04462	0.42			29 minimum
PCC0556Z	0.40			NA
PCC05562	0.40			29 minimum
PCCXXX81[3]	0.46		7.5 +/- 1.5	15 maximum
PCCXXX82	0.40			29 minimum

[1] PCCXXYZ where:
PCC = Portland Cement Concrete
XXX = 28-day minimum compressive strength (psi/100)
Y = Nominal Maximum Aggregate Size (U.S. Sieve No. Designation)
Z = Exposure Factor (See Table M.03.02-1a)

[2] Portland Cement may be partially replaced within a Standard Mix Design by other approved cementitious material meeting the requirements of M.03.01-3(c) if permitted by the Engineer.

[3] When this class is paid for in a surface or structural repair concrete item, the plastic properties necessary for confined placement to ensure appropriate workability for consolidation within the forms shall be noted on the delivery ticket by the concrete supplier.

Table M.03.02-1a Exposure Factor per Application

Exposure		Application
0	Benign	Elements not exposed to weather (buried, enclosed)
1	Moderate	Elements not in contact with salt water or deicing chemicals
2	Severe	Elements in contact with salt water, deicing chemicals, flowing/standing water

Mix designs shall indicate the dosage of admixtures anticipated to provide plastic properties required in the Project specification. Plastic properties of standard mix classes of concrete in the plastic state are listed in Table 6.01.03-2.

Standard Mix Designs are required to be designed and submitted by the concrete producers, and are approved by the Department on a standing basis. Submittal or re-approval of these Standard Mix Designs on an annual basis is not required. Previously approved producer-designed Standard Mixes that have a record of satisfactory performance may be utilized on Department projects unless there is a change in the gravimetric properties or the sources of any materials. Revisions to the Standard Mix Designs, which include changes in component sources, can be submitted at any time to the TDC, but must be approved prior to use on Department projects.

2. Non-Standard CTDOT Mix Designs: Any proposed Mix Designs that do not comply with Table M.03.02-1 are required to be submitted 15 days prior to use on a project-by-project basis and be approved by the TDC prior to use. The use of an approved admixture with an otherwise approved Standard Mix Design is not considered non-standard.

All Non-standard Mix Designs used for load-bearing structures shall contain a minimum of 658 lb./c.y. of cementitious materials.

Concrete used in applications such as flowable fill or controlled low-strength material may be designed with less than 658 lb./c.y. of cementitious materials.

M.03.03 —Producer Equipment and Production Requirements

1. General Requirements: The source of the concrete must be approved by the Engineer prior to use on Department projects. Specifically the location and capacity of the central mix or dry batch plant, and complement of truck mixers/haulers, shall be adequate for continuous placement of concrete on a typical Department project. Approval may be revoked at any time in accordance with 1.06.01.

(a) Inspection: The production facility supplying hydraulic cement concrete shall have a current Certification of Ready Mixed Concrete Production Facilities from the National Ready Mixed Concrete Association (NRMCA), or equivalent certification approved by the Engineer.

(b) In addition to the requirements of approved third party certification, the facility shall produce batch tickets that meet the requirements of 6.01.03-3(a).

(c) Quality Control: The Contractor is responsible for all aspects of Quality Control (QC). As determined by the Engineer, should material delivered to a project not meet specification, the Contractor may be required to submit to the Engineer a corrective procedure for approval within 3 calendar days. The procedure shall address any minor adjustments or corrections made to the equipment or procedures at the facility.

(d) Suspension: As determined by the Engineer, repeated or frequent delivery of deficient material to a Department project may be grounds for suspension of that source of material. A detailed QC plan that describes all QC policies and procedures for that facility may be

required to formally address quality issues. This plan must be approved by the Engineer and fully implemented, prior to reinstatement of that facility.

2. Hand Mixed Concrete: Hand mixing shall be permitted only with the permission of the Engineer. Hand mixed batches shall not exceed 1/2 c.y. in volume. Hand mixing will not be permitted for concrete to be placed under water.

M.03.04 —Curing Materials

1. Water: Any water source deemed acceptable by the Engineer for mixing concrete may be used to provide water for curing purposes. Surface water may be used if classified as Class C or Class D on the Department of Energy and Environmental Protection (DEEP) Water Quality Classification mapping and accommodations have been made to prevent contaminants from entering the supply to the satisfaction of the Engineer. In general, water shall not be taken from shallow or muddy sources. In cases where sources of supply are relatively shallow, the intake pipe shall be enclosed to exclude silt, mud, grass, etc.; and the water in the enclosure shall be maintained at a depth of not less than 2 feet under the intake pipe.

2. Mats: Mats for curing concrete shall be capable of maintaining moisture uniformly on the surface of the concrete. The mats shall not contain any materials such as dyes, sugar, etc., that may be injurious to the concrete.

The length or width of the mats shall be sufficient to cover all concrete surfaces being cured. Should more than one mat be required, sufficient overlap shall be provided by the Contractor as determined by the Engineer.

3. Liquid Membrane-Forming Compound: Liquid membrane-forming compound shall meet the requirements of AASHTO M 148 Type 2, Class B, or shall be a water-soluble linseed oil-based compound meeting the requirements of AASHTO M 148, Type 2.

4. White Polyethylene Sheeting (Film): White polyethylene sheeting (film) shall meet the requirements of AASHTO M 171.

M.03.05 —Non Shrink, Non Staining Grout

1. Bagged (pre-mixed): Bagged (pre-mixed) formulations of non-shrink grout shall meet the requirements of ASTM C1107. The grout shall be mixed with potable water for use. The grout shall be mixed to a flowable consistency as determined by ASTM C230. All bagged material shall be clearly marked with the manufacturer's name, date of production, batch number, and written instructions for proper mixing, placement and curing of the product.

2. Bulk: The Contractor may formulate and design a grout mix for use on the Project in lieu of using a pre-bagged product. The Contractor shall obtain prior written approval of the Engineer for any such proposed Mix Design. Any such Mix Design shall include the proportions of hydraulic cement, potable water, fine aggregates, expansive agent, and any other necessary additive or admixture. This material shall meet all of the same chemical and physical requirements as shall the pre-bagged grout, in accordance with ASTM C1107.

M.03.06 —Expansive Cement for Anchoring

The premixed anchoring cement shall be non-metallic, concrete gray in color and prepackaged. The mix shall consist of hydraulic cement, fine aggregate, expansive admixtures and water meeting the following requirements:

1. The anchoring cement shall have a minimum 24 hour compressive strength of 2,600 psi when tested in accordance with ASTM C109.

2. The water content of the anchoring cement shall be as recommended by the manufacturer. Water shall meet the requirements of M.03.01-4.

The Contractor shall provide a Certified Test Report and Materials Certificate for the premixed anchoring cement in accordance with 1.06.07. The Contractor shall also provide, when requested by the Engineer, samples of the premixed anchoring cement for testing and approval.

M.03.07 —Chemical Anchors

Chemical anchor material must be listed on the Departments' Qualified Products List and approved by the Engineer for the specified use.

The chemical anchor material shall be epoxy or polyester polymer resin. It shall not contain any metals or other products that promote corrosion of steel. The Contractor shall supply the Engineer with a Certified Test Report and Materials Certificate for the chemical anchor material in accordance with 1.06.07. When requested by the Engineer, the Contractor shall also provide samples of the chemical anchor material.

M.03.08 —Joint Materials

1. Transverse Joints for Concrete Pavement: Transverse joints shall consist of corrosion resistant load transfer devices, poured joint seal and in addition, in the case of expansion joints, expansion joint filler all meeting the following requirements:

(a) The corrosion resistant load transfer device shall be coated steel or sleeved steel or be made of corrosion resistant material. The dimensions of any devices used shall be as shown on the plans, exclusive of any coating or sleeving. Core material of coated or sleeved metallic devices shall be steel meeting the requirements of AASHTO M 255M/M 255 Grade 520, or steel having equal or better properties and approved by the Engineer. Nonmetallic devices shall meet the various strength requirements applicable to metallic devices as well as all other requirements stated herein.

(b) All coated load transfer devices shall meet the requirements of AASHTO M 254. Uncoated or sleeved load transfer devices shall meet the applicable physical requirements of AASHTO M 254. The use of field applied bond breakers will not be permitted.

(c) The basis of acceptance for corrosion resistant load transfer devices shall be the submission by the Contractor of a minimum of 2 samples accompanied by Certified Test Reports meeting the requirements of 1.06.07 demonstrating that the load transfer device meets the requirements of AASHTO M 254 for the type of device supplied. The Engineer reserves the right to reject any load transfer device deemed unsatisfactory for use.

2. Joint Filler for Concrete Curbing: Expansion joint filler shall be either preformed expansion joint filler or wood joint filler as indicated on the plans and shall meet the following requirements:

(a) Preformed expansion joint filler shall be the bituminous cellular type and shall meet the requirements of AASHTO M 213.

(b) Boards for wood joint filler shall have 2 planed sides and shall be redwood, cypress or white pine. Redwood and cypress boards shall be of sound heartwood. White pine boards shall be of sound sapwood. Occasional small, sound knots and medium surface checks will be permitted provided the board is free of any defects that will impair its usefulness for the purpose intended. The joint filler may be composed of more than one length of board in the length of the joint, but no board of a length less than 6 feet shall be used; and the

separate boards shall be held securely to form a straight joint. Boards composed of pieces that are jointed and glued shall be considered as one board.

(c) Dimensions shall be as specified or shown on the plans; and tolerances of plus 1/16 inch thickness, plus 1/8 inch depth and plus 1/4 inch length will be permitted.

(d) All wood joint filler boards shall be given a preservative treatment by brushing with creosote oil meeting the requirements of AASHTO M 133. After treatment, the boards shall be stacked in piles, each layer separated from the next by spacers at least 1/4 inch thick; and the boards shall not be used until 24 hours after treatment. Prior to concreting, all exposed surfaces of the wood filler shall be given a light brush coating of form oil.

(e) Testing of board expansion joint filler shall be in accordance with pertinent sections of AASHTO T 42.

3. Longitudinal Joint Devices: The metal used in the fabrication of longitudinal joint devices shall meet ASTM requirements for each type of metal used. The dimensions shall be as shown on the plans.

4. Expansion Joint Fillers for Bridges and Bridge Bearings:

(a) Preformed expansion joint filler for bridges shall meet the requirements of AASHTO M 153, Type I or
Type II.

(b) Pre-molded expansion joint filler for bridge bearings shall meet the requirements of AASHTO M 33.

5. Joint Sealants:

(a) Joint Sealer for Pavement: The joint sealer for pavement shall be a rubber compound of the hot-poured type and shall meet the requirements of AASHTO M 324 Type II unless otherwise noted on the plans or in the special provisions.

(b) Joint Sealer for Structures: Structure joint sealers shall be one of the following type sealants:

1. Where "Joint Seal" is specified on the plans, it shall meet the requirements of the Federal Specifications SS-S-200-E (Self-leveling type), TT-S-0227E (COM-NBS) Type II-Class A (Non-sag type), or 1 component polyurethane-base elastomeric sealants conforming to FS TT-S-00230C Type II-Class A or an approved equal.

   A Certified Test Report will be required in accordance with 1.06.07, certifying that the sealant meets the requirements set forth in the Federal Specification. Should the consignee noted on a Certified Test Report be other than the Prime Contractor, a Materials Certificate shall be required to identify the shipment.

2. Where "Silicone Joint Sealant" is specified on the plans, it shall be one of the following or an approved equal:
   i. Sealant, manufactured by the Dow Corning Corporation, Midland, Michigan 48686-0994
   ii. Dow Corning 888 Silicone Joint Sealant or
   iii. Dow Corning 888-SL Self-Leveling Silicone Joint 48686-0994

6. Closed Cell Elastomer: The closed cell elastomer shall meet the requirements of ASTM D1056, Grade RE-41 B2. The elastomer shall have a pressure-sensitive adhesive backing on one side.

The Contractor shall deliver the closed cell elastomer to the job site a minimum of 30 days prior to installation. Prior to the delivery of the closed cell elastomer, the Contractor shall notify the Engineer of the date of shipment and the expected date of delivery. Upon delivery of the closed cell elastomer to the job site, the Contractor shall immediately notify the Engineer.

Each separate length, roll or container shall be clearly tagged or marked with the manufacturer's name, trademark and lot number. A lot is defined as that amount of closed cell elastomer manufactured at 1 time from 1 batch of elastomer. A batch is defined as that amount of elastomer prepared and compounded at 1 time. The Contractor shall furnish a Certified Test Report in accordance with 1.06.07, confirming that the closed cell elastomer meets the requirements set forth in these specifications. Should the co-signee noted on a Certified Test Report be other than the Prime Contractor, a Materials Certificate shall be required to identify shipment.

The Contractor shall furnish a 1 foot length of closed cell elastomer in each lot for purposes of inspection and testing by the Engineer. The Engineer will cut a 1 foot sample from each lot and inspect the sample for conformance to size, and perform physical tests on the sample as deemed necessary.

The Engineer shall reject any lot or portion of a lot that does not meet the requirements stated herein. A rejected lot or portion of a lot may be resubmitted provided the Contractor has removed or corrected, in a manner acceptable to the Engineer, all non-conforming material.

M.03.09 —Protective Compound/Sealers

The brand and type of material must be listed on the Department's Qualified Products List and approved by the Engineer for the specified use.

M.03.10—Formwork

1. Stay-in-place Forms: Material for stay-in-place metal forms shall be made of zinc-coated (galvanized) steel sheet meeting ASTM Specification A653 (Structural Steel (SS) Grade 33 through 80). The minimum thickness shall be 20 gauge. Coating weight shall meet the requirements of ASTM A924, Class G235, and shall otherwise meet all requirements relevant to steel stay-in-place metal forms and the placing of concrete as specified herein and as noted in the Contract.

Form supports shall either be fabricated and meet the same material requirements as the forms, or be fabricated from structural steel meeting the requirements of ASTM A36 and shall be hot-dip galvanized in accordance with ASTM A123.

Lightweight filler material for forms shall be as recommended by the form manufacturer.

2. Temporary Forms and Falsework: Forms and Falsework shall be of wood, steel or other material approved by the Engineer. This approval does not relieve the Contractor from employing adequately sized materials of sufficient rigidity to prevent objectionable distortion of the formed concrete surfaces caused by pressure of the plastic concrete and other loads incidental to the construction operations.

SECTION M.13 – ROADSIDE DEVELOPMENT

Article M.13.04 – Seed Mixtures:

Replace (a) with the following:

(a) Turf Seed Mix:

In order to preserve and enhance the diversity, the source for seed mixtures shall be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland. One approved seed mixture is detailed below. Other proposed mixtures must be approved by the ConnDOT Landscape Design office.

Species		
Common name	**Scientific name**	**Proportion (Percent)**
Abbey Kentucky Bluegrass	Poa pratensis	25
Ambrose Chewing Fescue	Festuca rubra	15
Envicta Kentucky Bluegrass	Poa pratensis	15
Manhattan Ryegrass	Lolium perenne	20
Pennlawn Red Fescue	Festuca rubra	25

ON-THE-JOB TRAINING (OJT) WORKFORCE DEVELOPMENT PILOT

Description

To provide construction industry related job opportunities to minorities, women and economically disadvantaged individuals; and to increase the likelihood of a diverse and inclusive workforce on Connecticut Department of Transportation (ConnDOT) projects.

All contractors (existing and newcomers) will be automatically placed in the Workforce Development Pilot. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level for new projects. Instead, these requirements will be applicable on an annual basis for each contractor performing work on ConnDOT projects.

The OJT Workforce Development Pilot will allow a contractor to train employees on Federal, State and privately funded projects located in Connecticut. However, contractors should give priority to training employees on ConnDOT Federal-Aid funded projects.

Funding

The Department will establish an OJT fund annually from which contractors may bill the Department directly for eligible trainee hours. The funds for payment of trainee hours on federal-aid projects will be allocated from the ½ of 1% provided for OJT funding, and will be based on hours trained, not to exceed a maximum of $25,000.00 per year; per contractor.

Minorities and Women

Developing, training and upgrading of minorities, women and economically disadvantaged individuals toward journeyperson level status is the primary objective of this special training provision. Accordingly, the Contractor shall make every effort to enroll minority, women and economically disadvantaged individuals as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training whether a member of a minority group or not.

Assigning Training Goals

The Department, through the OJT Program Coordinator, will assign training goals for a calendar year based on the contractor's past two year's activities and the contractor's anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible will be contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time, the Contractor shall enter into an agreement with the Department to provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from one (1) to six (6) per

contractor per calendar year. Each January, a summary of the trainees required and the OJT Workforce Development Pilot package will be sent to participating contractors. The number of trainees assigned to each contractor in the summary will increase proportionately not to exceed 6, as shown in the following table. This package will also be provided to contractors as they become newly eligible for the OJT Workforce Development Pilot throughout the remainder of the year. Projects awarded after September 30 will be included in the following year's Program.

The dollar thresholds for training assignments are as follows:

$4.5 – 8 million=	1 trainee
$ 9 – 15 million=	2 trainees
$16 – 23 million=	3 trainees
$24 – 30 million=	4 trainees
$31 – 40 million=	5 trainees
$41 – and above=	6 trainees

Training Classifications

Preference shall be given to providing training in the following skilled work classifications. However, the classifications established are not all-inclusive:

Equipment Operators	Electricians
Laborers	Painters
Carpenters	Iron / Reinforcing Steel Workers
Concrete Finishers	Mechanics
Pipe Layers	Welders

The Department has on file common training classifications and their respective training requirements; that may be used by the contractors. Contractors shall submit new classifications for specific job functions that their employees are performing. The Department will review and recommend for acceptance the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and the number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

Where feasible, 25% percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

Records and Reports

The Contractor shall maintain enrollment in the program and submit all required reports documenting company compliance under these contract requirements. These documents and any other information shall be submitted to the OJT Program Coordinator as requested.

Upon the trainee's completion and graduation from the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

Trainee Interviews

In order to determine the continued effectiveness of the OJT Program in Connecticut, the department will periodically conduct personal interviews with current trainees and may survey recent graduates of the program. This enables the OJT Program Coordinator to modify and improve the program as necessary. Trainee interviews are generally conducted at the job site to ensure that the trainees' work and training is consistent with the approved training program.

Trainee Wages

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

In no case, will the trainee be paid less than the prevailing rate for general laborer as shown in the contract wage decision (must be approved by the Department of Labor).

Achieving or Failing to Meet Training Goals

The Contractor will be credited for each trainee currently enrolled or who becomes enrolled in the approved training program and providing they receive the required training under the specific training program. Trainees will be allowed to be transferred between projects if required by the Contractor's schedule and workload. The OJT Program Coordinator must be notified of transfers within five (5) days of the transfer or reassignments by e-mail (Phylisha.Coles@ct.gov).

Where a contractor does not or cannot achieve its annual training goal with female or minority trainees, they must produce adequate Good Faith Efforts documentation. Good Faith Efforts are those designed to achieve equal opportunity through positive, aggressive, and continuous result-oriented measures. 23 CFR § 230.409(g) (4). Contractors should request minorities and females from unions when minorities and females are under-represented in the contractor's workforce.

Whenever a contractor requests ConnDOT approval of someone other than a minority or female, the contractor must submit documented evidence of its Good Faith Efforts to fill that position with a minority or female. When a non-minority male is accepted, a contractor must continue to attempt to meet its remaining annual training goals with females and minorities.

Where a contractor has neither attained its goal nor submitted adequate Good Faith Efforts documentation, ConnDOT will issue a letter of non-compliance. Within thirty (30) days of receiving the letter of non-compliance, the contractor must submit a written Corrective Action Plan (CAP) outlining the steps that it will take to remedy the non-compliance. The CAP must be approved by ConnDOT. Failure to comply with the CAP may result in your firm being found non-responsive for future projects.

Measurement and Payment

Optional reimbursement will be made to the contractor for providing the required training under this special provision on ConnDOT Federal-Aid funded projects only.

Contractor will be reimbursed at $0.80 for each hour of training given to an employee in accordance with an approved training or apprenticeship program. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement.

Reimbursement for training is made annually or upon the trainees completion and not on a monthly basis. No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyperson, is caused by the Contractor.

Program reimbursements will be made directly to the prime contractor on an annual basis. To request reimbursement, prime contractors must complete the Voucher for OJT Workforce Development Pilot Hourly Reimbursement for each trainee in the OJT Program. This form is included in the OJT Workforce Development Pilot package and is available on the Department's web site at:

www.ct.gov/dot

The completed form must be submitted to the Office of Contract Compliance for approval. The form is due on the 15th day of January for each trainee currently enrolled and for hours worked on ConnDOT Federal-Aid funded projects only.

SMALL CONTRACTOR AND SMALL CONTRACTOR MINORITY BUSINESS ENTERPRISES (SET-ASIDE)

March, 2001

NOTE: Certain of the requirements and procedures stated in this "Special Provision" are applicable prior to the execution of the Contract.

I. GENERAL

A. The Contractor shall cooperate with the Connecticut Department of Transportation (CONNDOT) in implementing the required contract obligations concerning "Small Contractor" and "Small Contractor Minority Business Enterprise" use on this Contract in accordance with Section 4a-60g of the Connecticut General Statutes as revised. References, throughout this "Special Provision", to "Small Contractors" are also implied references to "Small Contractor Minority Business Enterprises" as both relate to Section IIA of these provisions. The Contractor shall also cooperate with CONNDOT in reviewing the Contractor's activities relating to this provision. This "Special Provision" is in addition to all other equal opportunity employment requirements of this Contract.

B. For the purpose of this "Special Provision", the "Small Contractor(s)" and "Minority Business Enterprise(s)" named to satisfy the set-aside requirement must be certified by the Department of Administrative Services, Business Connections/ Set-Aside Unit [(860) 713-5236 www.das.state.ct.us/busopp.htm] as a "Small Contractor" and "Minority Business Enterprises" as defined by Section 4a-60g Subsections (1) and (3) of the Connecticut General Statutes as revised and is subject to approval by CONNDOT to do the work for which it is nominated pursuant to the criteria stipulated in Section IIC-3.

C. Contractors who allow work which they have designated for "Small Contractor" participation in the pre-award submission required under Section IIC to be performed by other than the approved "Small Contractor" organization and prior to concurrence by CONNDOT, will not be paid for the value of the work performed by organizations other than the "Small Contractor" designated.

D. If the Contractor is unable to achieve the specified contract goals for "Small Contractor" participation, the Contractor shall submit written documentation to CONNDOT's Manager of Construction Operations indicating his/her good faith efforts to satisfy goal requirements. Documentation is to include but not be limited to the following:

1. A detailed statement of the efforts made to select additional subcontract opportunities for work to be performed by each "Small Contractor" in order to increase the likelihood of achieving the stated goal.

2. A detailed statement, including documentation of the efforts made to contact and solicit contracts with each "Small Contractor", including the names, addresses, dates and telephone numbers of each "Small Contractor" contacted, and a description of the information provided to each "Small Contractor" regarding the scope of services and anticipated time schedule of items proposed to be subcontracted and the nature of response from firms contacted.

3. For each "Small Contractor" that placed a subcontract quotation which the Contractor considered not to be acceptable, provide a detailed statement of the reasons for this conclusion.

4. Documents to support contacts made with CONNDOT requesting assistance in satisfying the contract specified or adjusted "Small Contractor" dollar requirements.

5. Document other special efforts undertaken by the Contractor to meet the defined goal.

E. Failure of the Contractor to have at least the specified dollar amount of this contract performed by "Small Contractor" as required in Section IIA of this "Special Provision" will result in the reduction in contract payment to the Contractor by an amount equivalent to that determined by subtracting from the specific dollar amount required in Section IIA, the dollar payments for the work actually performed by each "Small Contractor". The deficiency in "Small Contractor" achievement, will therefore, be deducted from the final contract payment. However, in instances where the Contractor can adequately document or substantiate its good faith efforts made to meet the specified or adjusted dollar amount to the satisfaction of CONNDOT, no reduction in payments will be imposed.

F. All records must be retained for a period of three (3) years following completion of the contract and shall be available at reasonable times and places for inspection by authorized representatives of CONNDOT.

G. Nothing contained herein, is intended to relieve any contractor or subcontractor or material supplier or manufacturer from compliance with all applicable Federal and State legislation or provisions concerning equal employment opportunity, affirmative action, nondiscrimination and related subjects during the term of this Contract.

II. **SPECIFIC REQUIREMENTS**

In order to increase the participation of "Small Contractors", CONNDOT requires the following:

A. Not less than three (3%) percent of the **final** value of this Contract shall be subcontracted to and performed by, and/or supplied by, manufactured by and paid to "Small Contractors" and/or "Small Contractors Minority Business Enterprises".

If the above percentage is zero (0%) AND an asterisk (*) has been entered in the adjacent brackets [ ], this Contract is 100% solely set-aside for participation by "Small Contractors" and/or "Small Contractors Minority Business Enterprises".

B. The Contractor shall assure that each "Small Contractor" will have an equitable opportunity to compete under this "Special Provision", particularly by arranging solicitations, time for the preparation of Quotes, Scope of Work, and Delivery Schedules so as to facilitate the participation of each "Small Contractor".

C. The Contractor shall provide to CONNDOT's Manager of Contracts within Seven (7) days after the bid opening the following items:

1. An affidavit (Exhibit I) completed by each named "Small Contractor" subcontractor listing a description of the work and indicating the dollar amount of all contract(s) and/or subcontract(s) that have been awarded to him/her for the current State Fiscal Year (July 1 - June 30) does not exceed the Fiscal Year limit of $10,000,000.00.

2. A certification of work to be subcontracted (Exhibit II) signed by both the Contractor and the "Small Contractor" listing the work items and the dollar value of the items that the nominated "Small Contractor" is to perform on the project to achieve the minimum percentage indicated in Section IIA above.

3. A certification of past experience (Exhibit III) indicating the scope of work the nominated "Small Contractor" has performed on all projects, public and private, for the past two (2) years.

4. In instances where a change from the originally approved named "Small Contractor" (see Section IB) is proposed, the Contractor is required to submit, in a reasonable and expeditious manner, a revised submission, comprised of the documentation required in Section IIC, Paragraphs 1, 2 and 3 and Section E together with documentation to substantiate and

justify the change, (i.e., documentation to provide a basis for the change) to CONNDOT's Manager of Construction Operations for its review and approval prior to the implementation of the change. The Contractor must demonstrate that the originally named "Small Contractor" is unable to perform in conformity to specifications, or unwilling to perform, or is in default of its contract, or is overextended on other jobs. The Contractor's ability to negotiate a more advantageous contract with another "Small Contractor" is not a valid basis for change. Documentation shall include a letter of release from the originally named "Small Contractor" indicating the reason(s) for the release.

D. After the Contractor signs the Contract, the Contractor will be required to meet with CONNDOT's Manager of Construction Operations or his/her designee to review the following:

1. What is expected with respect to the "Small Contractor" set aside requirements.

2. Failure to comply with and meet the requirement can and will result in monetary deductions from payment.

3. Each quarter after the start of the "Small Contractor" the Contractor shall submit a report to CONNDOT's Manager of Construction Operations indicating the work done by, and the dollars paid to each "Small Contractor" to date.

4. What is required when a request to sublet to a "Small Contractor" is submitted.

E. The Contractor shall submit to CONNDOT's Manager of Construction Operations all requests for subcontractor approvals on standard forms provided by the Department.

If the request for approval is for a "Small Contractor" subcontractor for the purpose of meeting the contract required "Small Contractor" percentage stipulated in Section IIA, a copy of the legal contract between the Contractor and the "Small Contractor" subcontractor must also be submitted at the same time. Any subsequent amendments or modifications of the contract between the Contractor and the "Small Contractor" subcontractor must also be submitted to CONNDOT's Manager of Construction Operations with an explanation of the change(s). The contract must show items of work to be performed, unit prices and, if a partial item, the work involved by both parties.

In addition, the following documents are to be attached:

(1) A statement explaining any method or arrangement for renting equipment. If rental is from a Contractor, a copy of Rental Agreement must be submitted.

(2) A statement addressing any special arrangements for manpower.

(3) A statement addressing who will purchase material.

F. Contractors subcontracting with a "Small Contractor" to perform work or services as required by this "Special Provision" shall not terminate such firms without advising CONNDOT, in writing, and providing adequate documentation to substantiate the reasons for termination if the designated "Small Contractor" firm has not started or completed the work or the services for which it has been contracted to perform.

G. Material Suppliers or Manufacturers

If the Contractor elects to utilize a "Small Contractor" supplier or manufacturer to satisfy a portion or all of the specified dollar requirements, the Contractor must provide the Department with:

1. An executed Affidavit Small Contractor (Set-Aside) Connecticut Department of Transportation Affidavit Supplier or Manufacturer (sample attached), and

2. Substantiation of payments made to the supplier or manufacturer for materials used on the project.

Brokers and packagers shall not be regarded as material Suppliers or manufacturer.

H. Non-Manufacturing or Non-Supplier "Small Contractor" Credit

Contractors may count towards its "Small Contractor" goals the following expenditures with "Small Contractor" firms that are not manufacturers or suppliers:

1. Reasonable fees or commissions charged for providing a bona fide service such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, material or supplies necessary for the performance of the contract provided that the fee or commission is determined by the Department of Transportation to be reasonable and consistent with fees customarily allowed for similar services.

2. The fees charged for delivery of materials and supplies required on a job site (but not the cost of the materials and supplies themselves) when the hauler, trucker, or delivery service is not also the manufacturer of or a regular dealer in the materials and supplies, provided that the fee is determined by the Department of Transportation to be reasonable and not excessive as compared with fees customarily allowed for similar services.

3. The fees or commissions charged for providing any bonds or insurance specifically required for the performance of the Contract, provided that the fee or commission is determined by the Department of Transportation to be reasonable and not excessive as compared with fees customarily allowed for similar services.

III. BROKERING

For the purpose of this "Special Provision", a "Broker" is one who acts as an agent for others in negotiating contracts, purchases, sales, etc., in return for a fee or commission. Brokering of work by a "Small Contractor" is not allowed and is a contract violation.

IV. PRE-AWARD WAIVERS:

If the Contractor's submission of the "Small Contractor" listing, as required by Section IIC indicates that it is unable, by subcontracting to obtain commitments which at least equal the amount required by Section IIA, it may request, in writing, a waiver of up to 50% of the amount required by Section IIA. To obtain such a waiver, the Contractor must submit a completed "Application for Waiver of Small Contractor Minority Business Enterprise Goals" to CONNDOT's Manager of Contracts which must also contain the following documentation:

1. Information described in Section ID.

2. For each "Small Contractor" contacted but unavailable, a statement from each "Small Contractor" confirming its unavailability.

Upon receipt of the submission requesting a waiver, the CONNDOT's Manager of Contracts shall submit the documentation to the Director of the Office of Contract Compliance who shall review it for completeness. After completion of the Director of Contract Compliance's review, she/he should write a narrative of his/her findings of the application for a waiver, which is to include his/her recommendation. The Director of Contract Compliance shall submit the written narrative to the Chairperson of the DBE Screening Committee at least five (5) working days before the scheduled meeting. The Contractor shall be invited to attend the meeting and present his/her position. The DBE Screening Committee shall render a decision on the waiver request within five (5)

working days after the meeting. The DBE Screening Committee's decision shall be final. Waiver applications are available from the CONNDOT Manager of Contracts.

EXHIBIT I Mar. 01

SMALL CONTRACTOR/*MINORITY BUSINESS ENTERPRISE
(* Delete if not Applicable)
SET-ASIDE PROGRAM
(QUALIFICATION AFFIDAVIT)

PROJECT(s) _____
(INCLUDING TOWN & DESCRIPTION)

STATE OF _____CONNECTICUT_____

COUNTY OF_____

I_____,ACTING IN BEHALF
NAME OF PARTY SIGNING AFFIDAVIT
OF_____,DO HEREBY CERTIFY
PERSON FIRM OR ORGANIZATION
AND AFFIRM THAT THE INFORMATION SET FORTH BELOW IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE. AS OF THIS DATE_____THE LIST OF SMALL CONTRACTOR SET-ASIDE PROGRAM - CONTRACTS AND/OR SUBCONTRACTS AWARDED DURING THE CURRENT FISCAL YEAR (JULY 1 - JUNE 30) 20_____ IS AS FOLLOWS:

Col. 1 TOWN AND PROJECT NUMBER	Col. 2 STATE AGENCY WHICH AWARDED CONTRACT	Col. 3 CONTRACT AMOUNT AWARDED UNDER THIS PROGRAM	Col. 4 AMOUNT OF WORK SUBCONTRACTED FROM OTHER FIRMS UNDER THIS PROGRAM	Col. 5 TOTAL AMOUNT OF ALL WORK UNDER THIS PROGRAM Col. 3 Plus Col. 4
	TOTALS	$	$	$

_____
NAME OF PERSON, FIRM OR ORGANIZATION

(FIRM SEAL)

_____
SIGNATURE & TITLE OF OFFICIAL

SWORN TO AND SUBSCRIBED BEFORE ME BY_____

WHO IS PERSONALLY KNOWN TO ME, THIS_____DAY OF_____, 20_____

_____
(NOTARY PUBLIC)

MY COMMISSION EXPIRES_____SEAL

PLEASE NOTE THAT ALL THE WORK AWARDED OR SUBCONTRACTED TO YOUR FIRM UNDER THE SET-ASIDE PROGRAM IN A FISCAL YEAR (JULY 1-JUNE 30) INCLUDING THIS PROJECT, CANNOT BE MORE THAN $10,000,000.00

Mar.01

EXHIBIT II

CERTIFICATION OF WORK TO BE SUBCONTRACTED
NOMINATED SMALL CONTRACTOR/*MINORITY BUSINESS ENTERPRISE

* Delete if not applicable

DEPARTMENT OF TRANSPORTATION
CONTRACT DIVISION
2800 BERLIN TURNPIKE
NEWINGTON, CT 06111

PLEASE INCLUDE A COPY OF CERTIFICATION LETTER

CONTRACTOR_____

ADDRESS_____

TOWN_____PROJECT NO._____

DESCRIPTION OF PROJECT_____

_____

CONTRACT BID AMOUNT $_____

DATE_____

Listed below is the Nominated Small Contractor/Minority Business Enterprise for the above project and the requested data:

Name, Address & Tel No. of the Nominated Firm	ITEM(s)NUMBER(s) and Description of the Item(s) to be performed by and paid to the Subcontractor	Quantities (indicate if partial)	Prime's Bid Amount For Item	Dollar Amount Subcontracted	Small Business Set-Aside Dollar Requirement

Signed By _____
Small Contractor/*Minority Business Enterprise
(Subcontractor)

Signed By_____
Contractor

Title_____

Mar.01

EXHIBIT III

CERTIFICATION
PAST CONSTRUCTION EXPERIENCE

SMALL CONTRACTOR / * MINORITY BUSINESS ENTERPRISES

* Delete if not applicable

PLEASE LIST ALL CONSTRUCTION PROJECTS YOUR ORGANIZATION HAS WORKED ON IN THE PAST TWO FISCAL YEARS

PROJECT LOCATION NUMBER AND DESCRIPTION APPLICABLE	CONTRACT AMOUNT	IF WORK PERFORMED AS PRIME GIVE OWNERS NAME IF WORK PERFORMED AS SUBCONTRACTOR GIVE CONTRACTORS NAME	START DATE	ACTUAL OR ESTIMATED COMPLETION DATE	NAME AND PHONE OF OWNER OR PRIME CONTRACTOR AS

SIGNED BY: _____
SMALL BUSINESS CONTRACTOR
*MINORITY BUSINESS ENTERPRISES

D.O.T. PROJECT NO. _____

* Delete if not applicable

MARCH, 2001

SMALL CONTRACTOR/SMALL CONTRACTOR MINORITY BUSINESS ENTERPRISE (MBE) (SET-ASIDE) CONNECTICUT DEPARTMENT OF TRANSPORTATION AFFIDAVIT – SUPPLIER OR MANUFACTURER

This affidavit must be completed by the State Contractor's designated Small Contractor/ Small Contractor Minority Business Enterprise (MBE), notarized and attached to the contractor's request to utilize a Small Contractor/Small Contractor Minority Business Enterprise (MBE) supplier or manufacturer as a credit towards its Small Contractor/Small Contractor Minority Business Enterprise (MBE) contract requirement; failure to do so will result in not receiving credit towards the contract Small Contractor/Small Contractor Minority Business Enterprise (MBE) requirement.

State Project No. _____
Federal Aid Project No. _____
Description of Project _____

I, _____, acting in behalf of _____
(Name of person signing Affidavit) (Small Contractor/Small Contractor MBE contractor person,
_____ of which I am the_____ affirm that _____
firm, association or certify and corporation) (Title of Person) (Small
_____is a certified Small Contractor/Small
Contractor/Small Contractor MBE person, firm, association or corporation)
Contractor Minority Business Enterprise, as defined by Section 4a-60g of the Connecticut General Statutes, as revised.

I further certify and affirm that _____
(Small Contractor/Small Contractor MBE person, firm, association or corporation)
will assume the actual and contractual responsibility for the provision of the materials and/or supplies sought by _____. If a manufacturer, I produce goods from raw
(State Contractor)
materials or substantially alter them before resale, or if a supplier, I perform a commercially useful function in the supply process.

I understand that false statements made herein are punishable at Law (Sec. 53a-157, CGS, as revised).

_____
(Name of Small Contractor/Small Contractor MBE person, firm, association or corporation)

_____
(Signature and Title of Official making the Affidavit)

Subscribed and sworn to before me, the _____ day of _____ 200____.

_____
Notary Public (Commissioner of the Superior Court)

My Commission Expires _____

CERTIFICATE OF CORPORATION

I, _____, certify that I am the _____ (Official) of the Corporation named in the foregoing instrument; that I have been duly authorized to affix the seal of the Corporation to such papers as require the seal; that _____, who signed said instrument on behalf of the Corporation, was then _____ of said corporation; that said instrument was duly signed for and in behalf of said Corporation by authority of its governing body and is within the scope of its corporation powers.

_____

(Signature of Person Certifying) (Date)

(Corporate Seal)

ITEM #0219011A – SEDIMENT CONTROL SYSTEM AT CATCH BASIN

Description:

This work shall consist of furnishing, placing, maintaining and removing sedimentation control systems at catch basins as shown on the plans and as directed by the Engineer. Maintaining shall include the cleanout and proper disposal of accumulated sediment.

Materials:

Geotextile for this work shall conform to Section 7.55 and M.08.
Crushed stone for this work shall conform to the requirements of Table M.01.02-2 for Size No. 3 coarse aggregate.

Construction Methods:

Sediment Control System at Catch Basin shall be installed by the Contractor at locations shown on the plans or as directed by the Engineer in accordance with the applicable sections of Section 2.19 of the Standard Specifications and the details in the plans.
Stone check dams of crushed stone shall be used to guide runoff into catch basins in unpaved areas.

Method of Measurement:

This work will be measured for payment by the actual number of catch basins installed and accepted with a Sediment Control System at Catch Basin installation.

Basis of Payment:

This work will be paid for at the contract unit price each for 'Sediment Control System at Catch Basin' complete in place, which price shall include all materials, equipment, tools, and labor incidental to the installation, maintenance, replacement, removal and disposal of the system and surplus material including stone check dams. No payment shall be made for the cleanout of accumulated sediment.

Pay Item	Pay Unit
Sediment Control System at Catch Basin	EA

ITEM #0406999A – ASPHALT ADJUSTMENT COST

Description: The Asphalt Adjustment Cost will be based on the variance in price for the performance-graded binder component of hot mix asphalt (HMA), Polymer Modified Asphalt (PMA), and Ultra-Thin Bonded Hot-Mix Asphalt mixtures completed and accepted during the Contract.

The Asphalt Price is available on the Department of Transportation website at:

http://www.ct.gov/dot/asphaltadjustment

Construction Methods:

An asphalt adjustment will be applied only if all of the following conditions are met:

I. For HMA and PMA mixtures:
   a. The HMA or PMA mixture for which the adjustment would be applied is listed as a Contract item with a pay unit of tons.
   b. ***The total quantity for all HMA and PMA mixtures in the Contract or individual purchase order (Department of Administrative Service contract awards) exceeds 1000 tons or the Project duration is greater than 6 months.***
   c. The difference between the posted *Asphalt Base Price* and *Asphalt Period Price* varies by more than $5.00 per ton.

II. For Ultra-Thin Bonded HMA mixtures:
   a. The Ultra-Thin Bonded HMA mixture for which the adjustment would be applied is listed as a Contract item.
   b. The total quantity for Ultra-Thin Bonded HMA mixture in the Contract exceeds:
      i. 800 tons if the Ultra-Thin Bonded HMA item has a pay unit of tons.
      ii. 30,000 square yards if the Ultra-Thin Bonded HMA item has a pay unit of square yards.

      Note: The quantity of Ultra-Thin Bonded HMA measured in tons shall be determined from the material documentation requirements set forth in the Ultra-Thin Bonded HMA item Special Provision.
   c. The difference between the posted *Asphalt Base Price* and *Asphalt Period Price* varies by more than $5.00 per ton.
   d. No Asphalt Adjustment Cost will be applied to the liquid emulsion that is specified as part of the Ultra-Thin Bonded HMA mixture system.

III. Regardless of the binder used in all HMA or PMA mixtures, the Asphalt Adjustment Cost will be based on PG 64-22.

The Connecticut Department of Transportation (CTDOT) will post on its website, the average per ton selling price (asphalt price) of the performance-graded binder. The average is based on the high and low selling price published in the most recent available issue of the **Asphalt Weekly Monitor®** furnished by Poten & Partners, Inc. under the "East Coast Market – New England, New Haven, Connecticut area," F.O.B. manufacturer's terminal.

The selling price furnished from the Asphalt Weekly Monitor ® is based on United States dollars per standard ton (US$/ST).

Method of Measurement:

Formula: **HMA x [PG%/100] x [(*Period Price - Base Price*)] = $ ____**

where

- **HMA:**
  1. For HMA, PMA, and Ultra-Thin Bonded HMA mixtures with pay units of tons: The quantity in tons of accepted HMA, PMA, or Ultra-Thin Bonded HMA mixture measured and accepted for payment.
  2. For Ultra-Thin Bonded HMA mixtures with pay units of square yards: The quantity of Ultra-Thin Bonded HMA mixture delivered, placed, and accepted for payment, calculated in tons as documented according to the Material Documentation provision (Construction Methods, paragraph G) of the Ultra-Thin Bonded HMA Special Provision.
- ***Asphalt Base Price***: The asphalt price posted on the CTDOT website 28 days before the actual bid opening posted.
- ***Asphalt Period Price***: The asphalt price posted on the CTDOT website during the period the HMA or PMA mixture was placed.
- **PG%:** Performance-Graded Binder percentage
  1. For HMA or PMA mixes:
     - PG% = 4.5 for HMA S1 and PMA S1
     - PG% = 5.0 for HMA S0.5 and PMA S0.5
     - PG% = 6.0 for HMA S0.375, PMA S0.375, HMA S0.25 and PMA S0.25
  2. For Ultra-Thin Bonded HMA mixes: PG% = Design % PGB (Performance Graded Binder) in the approved job mix formula, expressed as a percentage to the tenth place (e.g. 5.1%)

The asphalt adjustment cost shall not be considered as a changed condition in the Contract as result of this provision since all bidders are notified before submission of bids.

Basis of Payment: The "Asphalt Adjustment Cost" will be calculated using the formula indicated above. A payment will be made for an increase in costs. A deduction from monies due the Contractor will be made for a decrease in costs.

The sum of money shown on the Estimate and in the itemized proposal as "Estimated Cost" for this item will be considered the bid price although the adjustment will be made as described above. The estimated cost figure is not to be altered in any manner by the bidder. If the bidder should alter the amount shown, the altered figure will be disregarded and the original cost figure will be used to determine the amount of the bid for the Contract.

Pay Item	Pay Unit
Asphalt Adjustment Cost	est.

ITEM #0811005A – CONCRETE WHEEL STOP

Description:

Add the following paragraph:

This item shall consist of concrete wheel stops installed in accordance with the dimensions and details shown on the plans or as ordered and in conformity with these specifications.

Materials:

Add the following to the third sentence:

The concrete for precast concrete curbing and "concrete wheel stops" shall have a…

Add the following sentence to the end of the paragraph:

The reinforcing bars to anchor the concrete wheel stops shall conform to Article M.06.01

Construction Methods:

Add the following paragraph:

6. Concrete wheel stops shall be installed where shown on the plans. The reinforcing bars shall be installed to the depth and location shown for each.

Method of Measurement:

Add the following paragraph:

The number of concrete wheel stops to be included for payment shall be the actual number of concrete wheel stops installed and accepted.

Basis of Payment:

Add the following paragraph:

Concrete Wheel Stops: Payment for this work will be made at the contract unit price for each "Concrete Wheel Stop" of the type specified, complete in place, which price shall include all materials, equipment, tools and labor incidental thereto.

Pay Item	Pay Unit
Concrete Wheel Stop	Ea.

ITEM #0947207A – BICYCLE STAND

PART 1— DESCRIPTION

This item shall consist of furnishing and installing bicycle storage/ parking racks at various railroad stations as shown on the plans and in accordance with these specifications, or as directed by the Engineer.

References

Steel Pipe: ASTM A53 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

Submittals

Product Data: Include physical characteristics such as shape, dimensions, and finish for each bicycle parking rack. Each Stand shall have a parking capacity of 6 bicycles.

Shop Drawings: Show installation details for each bicycle rack.

Samples for Verification: For the following bicycle racks, showing;
Color of the powder coat finish. Prepare 2 inch by 3.5-inch powder coat samples (or larger) from the same material to be used to finish the product

Maintenance Data: For each bicycle parking rack. Include recommended methods for repairing damage to the powder coat finish.

Quality Assurance

Installer Qualifications: An experienced installer who has completed installation of bicycle racks similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.

Manufacturer Qualifications: A firm experienced in manufacturing bicycle parking racks similar to those required for this project and with a record of successful in-service performance.

Source Limitations: Obtain each color, finish, shape and type of bicycle rack from a single source with resources to provide components of consistent quality in appearance and physical properties.

Product Options: Drawings indicate size, shape and dimensional requirements of bicycle racks and are based on the specific system indicated.

Delivery, Storage, And Handling

Store bicycle racks in original undamaged packages and containers until ready for installation. Handle powder coated bicycle racks with sufficient care to prevent any scratches or damage to the finish.

Warranty

Bicycle racks are to carry a one year manufacturer's limited warranty against defects in materials and workmanship. The one year warranty period begins the date the product is shipped from the manufacturer.

PART 2 — MATERIALS

Material For This Work Shall Conform To The Following Requirements:
Heavy Duty Winder: Rack shall be constructed of ASTM A53, 2" Schedule 40 steel pipe (2-3/8" O.D. x 0.154" thick wall (60.3mm x 3.9mm)) or better. Height is 36" (1066.8mm). Rack shall be a minimum of 36" high to provide proper clearance for parked bicycles.

Powder Coating: Triglycidyl isocyanurate (TGIC) powder, a polyester coating.

1. Color as indicated.

Available Manufacturers: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:

1. Bike Security Racks, Inc
   12 Sawyer Loop
   Wentworth, NH 03282
   Phone (800) 545-2757
   www.bikeracks.com

2. Creative Pipe, Inc.
   P.O. Box 2458
   Rancho Mirage, California 92270-1087
   Phone: 1.800.644.8467
   Fax: 1.760.340.5883
   www.creativepipe.com
   Email: sales@creativepipe.com

3. Madrax, Inc.
   1080 Uniek Drive
   Waunakee, WI 53597
   Phone (800) 448-7931
   Fax: (608) 849-1081
   Email: sales@madrax.com

www.madrax.com

4. Approved Equal

PART 3 — CONSTRUCTION METHODS

Installation

Handle and install bicycle parking racks in accordance with manufacturer's recommendations and installation instructions.

Set bicycle racks secured to construction, level and true to line, in correct relationship to adjacent materials.

Bicycle racks shall be grounded to existing station grounding/ bonding system (bare 4/0 AWG copper conductor) by copper conductor sized in accordance with Electrical Code.

PART 4 — METHOD OF MEASUREMENT

This work will be measured for payment by the number of bicycle stands installed and accepted in place.

PART 5 — BASIS OF PAYMENT

This work will be paid for at the contract unit price each for "Bicycle Stand", which price shall include the materials and all necessary tools, equipment and labor required for installation.

ITEM #0947303A – BUS SHELTER – TYPE A

Under this item, the Contractor shall complete all work associated with a sign, depicted on the contract plans as "BUS SHELTER TYPE A", and described in section 107343 of the CSI-formatted specifications, standard specifications, supplemental specification and special provisions.

This item will consist of furnishing and construction of the "Bus Shelter", including but not limited to support, the design and construction of the supports, temporary traffic controls used in operations and removal thereof, all materials, equipment, labor and work. The "Bus Shelters" shall be assembled and installed in strict compliance with the Manufacturer's instructions unless otherwise directed by these specifications or by the Engineer.

Materials:

All materials shall be as required by the Contract Plans, as described in section 107343 of the CSI-formatted Specifications, and Form 818 formatted Specifications including special provisions that make up this item.

Construction Methods:

All methods of construction shall conform to the requirements as stipulated in section 107343 of the CSI-formatted Specifications, and Form 818 formatted Specifications including special provisions that make up this item.

Method of Measurement:

This work, within the designated limits, shall be measured for payment by the number of units installed and accepted.

Basis of Payment:

This work, within the designated limits, will be paid for at the contract unit price for "Bus Shelter Type A", which price shall include all design, administrative and procedural requirements, materials, equipment, labor, and work incidental thereto.

PAY ITEM	PAY UNIT
Bus Shelter - Type A	EA.

ITEM #0950040A – CONSERVATION SEEDING FOR SLOPES

Description: The work included in this item shall consist of providing an accepted stand of established conservation grasses by furnishing and placing seed as shown on the plans, permits, or as directed by the Engineer within the wetland mitigation Sites(s) or other areas when required.

Materials: All conservation grass mixture sources shall be locally obtained within the Northeast USA (New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland) in order to preserve and enhance the diversity of native conservation grass species.

Three qualified conservation seed mixtures are detailed below:

1. **New England Conservation/Wildlife Mix**, New England Wetland Plants, Inc. 820 West Street Amherst, MA 01002, or equal. Rate shall be 1 pound PLS per 1,750 sq. ft.

2. **Mesic to Dry Native Pollinator Mix,** Ernst Conservation Seeds, Inc. 8884 Mercer Pike, Meadville, PA 16335, or equal. Rate shall be 1 pound PLS per 2,178 sq. ft.

3. **Vermont Conservation and Wildlife**, Vermont Wetland Plant Supply, LLC, P.O. Box 153, Orwell, VT 05760, or equal. Rate shall be 1 pound PLS per 2,180 sq. ft.

Fertilizer, if required, shall meet the requirements of Article M.13.03.
Mulch shall meet the requirements of Article M.13.05.
Erosion control matting shall be bio-degradable and meet the requirements of Article M.13.09.

All conservation seed mixture sources shall be reviewed and approved by the Engineer in advance of purchase and prior to application.

The Materials Certificate for all seed mixtures shall have a statement that certifies that the seed mixture does not include any invasive species pursuant to Connecticut General Statutes Sec. 22a-381d or any State Threatened or State Endangered species pursuant to Connecticut General Statutes Sec. 26-303. The seed tags from the bags are to be removed by the Engineer upon delivery and attached to the Materials Certificate. Seeding shall not occur if these requirements are not met.

All approved seed mixtures shall be obtained in sufficient quantities to meet the pure live seed (PLS) application rates as determined by the seed analysis of the mixture.

Construction Methods: Construction methods shall be those established as agronomically acceptable and feasible and shall be approved by the Engineer. The methods described in Article 9.50.03 shall be amended as follows:
Conservation seeding for slopes for wetland mitigation Site(s): Seeding shall occur during the fall season immediately following construction of the wetland mitigation Site(s). Seeding for wetland mitigation Site(s) must occur from August 15th to October 31st.

For non-wetland mitigation Site(s), seeding shall occur during the dates specified in Article 9.50.03-2.

If seed is purchased in bulk rather than by PLS, the rate of application must be adjusted to meet the required PLS seeding rate. This seeding rate shall be increased by the appropriate percentage as determined by the following formula based off of the information provided on the seed tags at delivery.

(Germination Percentage X Purity Percentage)/ 100 = Percentage PLS

The Engineer will verify that the seed is applied at a rate that will allow for 100 percent PLS.

Mowing will not be allowed within areas that are seeded with conservation seed mix, unless authorized by the Engineer.

Method of Measurement: This work will be measured for payment by the number of square yards of surface area of accepted established conservation grasses as specified.

Basis of Payment: This work will be paid for at the Contract unit price per square yard for "Conservation Seeding for Slopes," which price shall include all materials, maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 50% may be made for work completed, but not accepted. Full payment shall not be made until the area has been accepted by the Engineer.

Pay Item	Pay Unit
Conservation Seeding for Slopes	s.y.

ITEM #0950044A – FLOODPLAIN ESTABLISHMENT SEED MIX

Description: This item shall consist of providing an accepted stand of native grasses, forbs and wildflowers in drainage swales and low lying areas as shown on the plans, or as directed by the Engineer. This item shall include all coordination, labor, equipment and materials as specified below, or as otherwise directed by the Engineer.

Work shall include but is not limited to; soil preparation as required, furnishing, blending and placing varied sizes of seed, the application of broadleaf herbicide, as well as the protection and maintenance of seeded areas throughout the warranty period.

Materials: The materials for this work shall conform to the requirements of Section M.13 of Standard Specification Form 818, and as amended below:

Floodplain Seed Mix: In order to preserve and enhance the diversity, the source for seed mixtures shall be locally obtained within the Northeast USA, be of regional origin and of wild ecotype. One approved seed mixture is detailed below, others must be approved.

Species Common name	Species Scientific name	Percentage of Seed
Virginia Wild Rye	Elymus virginicus	18
Creeping Red Fescue	Festuca rubra	18
Little Bluestem	Schizachyrium scoparium	15
Switchgrass	Panicum virgatum	10
Red Clover	Trifolim pretense	8
Tussock Sedge	Carex stricta	8
Big Bluestem	Andropogon gerardii	7
Black Eyed Susan	Budbeckia hirta	5
Rough Bentgrass/Ticklegrass	Agrostis scabra	4
Mountain Mint	Pycnanthemum virginianum	2
New England Aster	Aster novae-angeliae	1
Ox-Eye Sunflower	Heliopsis helianthoides	1
Dense Blazing Star	Liatris spicata	1
Cardinal Flower	Lobelia cardinalis	1
Sensitive Fern	Onoclea sensibilis	1

Mulching: Flex-terra or approved equal.

Herbacide: Glyphosate or other broadleaf herbicide, accompanied by certification. Must be approved by the engineer.

Submittals:

Seed Mix: Submit a sample and guarantees for approval, including the percent by weight of each species, germination percentage, as well as the date the germination test was conducted. Seed must be packaged separately based seed size and texture, or as specified by the manufacturer.

Construction Methods:

General:

The optimal time for seeding is Early Fall. The rate of seed application shall be field determined in Pure Live Seed (PLS) based on the minimum purity and minimum germination of the seed obtained. Calculate the PLS for each seed species in the mix. Adjust the seeding rate for the above composite mix, based on 60 lbs. per acre.

Soil Preparation:

The Contractor shall rake the areas to a uniform surface, and there shall be no erosion rills, or low points for water to collect exceeding 3" over the surface. Preparation of a clean weed free seed bed is essential and must be coordinated with any temporary cover crop requirements. Areas for seeding must be soft and viable to receive seeding. No areas shall be seeded that hard, dry, or crusted. Areas in unacceptable conditions shall be re-tilled and raked prior to seeding.

Seeding: The Contractor shall sort the seeds into 3 groups of seed sizes, small, medium and large, and broadcast the groups separately. Small and medium seeds shall be bulked up with sawdust, vermiculite or sand to assist with spreading. If conditions are drier than usual, watering will be required. The seed shall be sown evenly by an approved mechanical spreader.

After sowing, the seed shall be lightly raked into the ground, and the surface shall be then rolled with a 150-pound roller and watered with a fine spray. No seeding shall be permitted after a rain unless the surface ground is loosened, or when the wind exceeds a gentle breeze or about 5 mph. Late Fall and Winter seeding require an increase in the seeding rate. Fertilization is not recommended.

Maintenance: The contractor shall mow to a height of 6" every 4 weeks during the warranty period, during the growing season: April through October. The Contractor shall monitor the site for broadleaf weeds, and spot spray herbicide as required. Bare spots larger than 4 square feet shall be re-seeded.

Method of Measurement: This work will be measured for payment by the number of square yards of surface area of accepted established grasses as specified. A minimum of 70% of the ground surface must be covered with healthy vegetation.

Basis of Payment: This work will be paid for at the contract unit price per square yard for "Floodplain Seed Mix" which price shall include all materials maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 60% may be made for work completed, but not accepted.

Pay Item	Pay Unit
Floodplain Seed Mix	S.Y.

ITEM #0952051A – CONTROL AND REMOVAL OF INVASIVE VEGETATION

Description: This work shall include the development and implementation of an Invasive Vegetation Removal Plan (IVRP) to outline the materials, labor, and equipment the Contractor plans to use for the complete eradication and treatment of the invasive vegetation. The work shall also include the identification, excavation, removal, and off-Site disposal of unwanted vegetation as indicated on the plan sheets, permits or as directed by the Engineer.

All invasive vegetation listed on the following websites will be subject to eradication:

- Connecticut Invasive Plant Working Group (CIPWG) Invasive Plants Council (http://cipwg.uconn.edu/invasive_plant_list/)
- US Army Corps of Engineers (ACOE) New England District Compensatory Mitigation Guidance Appendix K (http://www.nae.usace.army.mil/portals/74/docs/regulatory/Mitigation/2016_New_England_Compensatory_Mitigation_Guidance.pdf)

All vegetation designated for removal shall be eradicated in its entirety in accordance with the IVRP submitted by the Contractor and approved by the Engineer. Certain situations may require the full and complete mechanical excavation of invasive vegetation including its entire root system. The use of herbicides will not be permitted between the dates of October 1 and May 31.

Materials: All herbicides shall be registered for the species being treated and shall be formulated as applicable for target-species foliar treatment, cut surface, or injection applications. Where work in or immediately adjacent to wetlands is necessary, the product label(s) for any chemical/adjuvant formulation applied must indicate that the formulation is approved for aquatic environments.

Construction Methods:

1. IVRP: Prior to any ground disturbance within the Project limits, the Contractor shall submit an IVRP to the Engineer for review and approval. Within 30 days of receipt of the submittal, the Engineer will notify the Contractor whether the IVRP is approved, rejected or requires modifications by the Contractor. If any part of the plan is not approved, the Contractor shall promptly make any necessary changes and re-submit the entire plan for approval. The entire plan must be approved in writing prior to beginning any work on Site. In all cases, mechanical means shall be considered before the use of herbicides. If mechanical means is neither feasible nor recommended, an explanation must be provided in the IVRP. All removal methods shall prevent the spread of seeds – no mowing or "Brush Hog" equipment will be allowed. The approved methods must be capable of total removal and eradication of all identified invasive species in the designated areas throughout the Contract and the 1-Year Plant Establishment Period.

The IVRP shall include a schedule and outline with the following information:

1) The Contractor's methods of determining invasive vegetation surveyed limits, including:
    a. Stake out the limits prior to the initial treatment
    b. Maintain a record of the staked limits throughout the life of the Contract
2) Identification of the type(s) of invasive species present within the field surveyed limits
3) A marked up plan sheet outlining the invasive species limits and identifying the types of invasive species present within those limits and total square yards of proposed removal
4) For each species present on-Site, the following shall be described:

   a. Methods to eradicate specific invasive plant species for the life of the Contract (e.g. mechanical, herbicide, etc.) shall include any initial, intermediate and 1-Year Plant Establishment Period Treatment eradication methods for each plant species
   b. Types and concentrations of any herbicides to be used, including any adjuvants, SDS sheets, types of tools or machinery to be used
   c. Schedules showing dates and eradication methods for the initial, intermediate, and 1-Year Plant Establishment Period Treatments. This schedule must take into consideration stage construction, the time period required between herbicide application, and the physical removal of the target species wherever such methodology is employed
5) All invasive species are considered controlled materials and are to be taken off-Site to an approved disposal facility. For disposal methods:
   a. Provide address of location, current permits / letters from the town authorizing such activity and a Site map (complete with regulated areas)
   b. Wood chips from invasive species are not allowed to be stockpiled or reused on-Site
   c. Wood chipping on-Site will be allowed if temporarily stored in a properly contained enclosure and removed at the end of the treatment cycle
   d. Invasive plants shall not be buried on-Site
6) Proof of CT DEEP licensure for herbicide application
7) A description of safety equipment required
8) Procedures for handling chemical spills

Where certain species of invasive vegetation are present and identified on the plan sheets, permits, or as identified in the field by the Engineer, the removal via bulk mechanical excavation of such vegetation and the underlying soils may be required as directed. The approved method must be capable of the removal of all soil to a depth where invasive plant material and root system is no longer evident, or as directed by the Engineer.

Whether the Contractor's method of removal is by mechanical excavation or cutting and spraying of herbicides, invasive species must be removed separately from clearing and grubbing operations and disposed at an approved location as described in the Contractor's IVRP.

No equipment or vehicles other than that required to complete the work will be permitted in the areas designated for invasive vegetation removal. Any equipment used to process invasive vegetation, such as chippers and transport vehicles, must be cleaned prior to further use.

Any invasive species control and removal work performed throughout the duration of the Contract that causes damage or soil disturbance shall be repaired at the Contractor's expense within 7 days. It is the Contractor's responsibility to identify additional areas of concern for invasive vegetation within the limits of the Project, notify the Engineer, and to amend the IVRP. The Contractor shall be responsible to identify invasive vegetation at all times of the year and to prepare a plan for its eradication without assistance.

All treatments, with the exception of an initial mechanical excavation of invasive species, will not be allowed outside of the optimal growing season between the dates of October 1 and May 31.

Herbicide applications will not be permitted during any rain event or during windy conditions. Broadcast or uncontrolled spray application will not be permitted and care must be taken to avoid contacting non-target native species. If any non-target native species to remain within the Project

limits are inadvertently treated with herbicide and perish, the Contractor will be responsible to replace in-kind species at no cost to the State.

Remove all twining vines in treetops to the greatest extent possible without damaging the branches of the supporting desired vegetation. Cut and remove vines overtopping tree canopies to the extent practical. Climbing spikes will not be permitted for aerial work.

The Contractor shall also:

1) Maintain the labels for herbicides being used in his/her possession
2) Conduct all herbicide formulations and applications, including the addition of appropriate surfactants and other adjuvants, in strict conformance with the manufacturer's recommendation and per requirements of regulatory agencies
3) Maintain a written record of herbicide application, including the formulation, concentration, area treated, and date for each application. The records are to be provided by the commercial applicator and submitted to the Engineer following each treatment

Flush cut brush and trees shall not be more than 2 inches above the ground line. Prune out any branches on non-treatment plants that are damaged during removal of vegetation. All corrective pruning shall conform to the National Arborists Association Pruning Standards.

Wherever removal operations result in exposed soils, disturbed areas shall be vegetatively stabilized with the appropriate seed mix and protected with hay, cellulous fiber mulch, or erosion control matting.

Once the IVRP is approved, a field review shall be scheduled for the Contractor and Engineer to review the limits of invasive species removal (surveyed and flagged by the Contactor prior to the meeting), the specific species required to be removed, and the Contractor's submitted invasive species removal plan. At this time, the Engineer may identify additional invasive species or designate additional areas for removal that are not included with the Contractor's submitted IVRP.

If changes are required to the approved IVRP during the life of the Contract, these changes shall be documented by the Contractor and resubmitted to the Engineer for review and approval a minimum of 10 days prior to beginning of the additional work associated with the change. The Contractor shall provide a 10 day work notice to the Engineer prior to proceeding with each treatment.

2. Treatments: The treatment schedule below may be modified based on field conditions at the discretion of the Engineer. The Contractor shall provide a 10 day work notice to the Engineer prior to proceeding with each treatment. In all cases, each treatment must be reviewed once the work is performed, and accepted before payment is made for that treatment stage.

Initial Treatment: Shall commence at the beginning of the Contract time, prior to clearing and grubbing activities. Any invasive species found within a proposed cut slope shall be fully eradicated to the satisfaction of the Engineer prior to any earth work operations. After the completion of the initial treatment, the work must be reviewed and accepted by the Engineer prior to any earth excavation in that area. If herbicide is the initial treatment method, a minimum of 14 days is required prior to clearing and grubbing operations, so the herbicide application can take effect.

Intermediate Treatment(s): Shall be conducted during the optimal growing season between the dates of June 1 and September 30 for invasive species up to and including 10 days prior to plant installation

or at the end of the Project if no landscaping plan is in the Contract. Optimal treatment times may be specific to the species being treated and this must be considered and documented when developing the Invasive Vegetation Removal Plan. Several treatments may be required to treat all species that are present.

1-Year Plant Establishment Period Treatment: Treatments as needed or as directed by the Engineer shall be conducted throughout the 1-Year Plant Establishment Period or when required under another Contract item.

Method of Measurement: This work will be measured for payment by the number of square yards of invasive vegetation identified, surveyed, treated and eradicated as required including any required re-treatment of any regrowth or new growth. No additional payment will be made for subsequent treatments. The area for removal will be surveyed and flagged prior to treatment and measured. After a review of the surveyed limits, the Engineer may designate additional areas for removal that are not shown on the plans. These additional areas will be measured for payment and included as part of the Contract work.

Where selective removal is required, the square yards of the drip line of the invasive vegetation will be measured for payment.

Basis of Payment: This work will be paid for at the Contract unit price per square yard for "Control and Removal of Invasive Vegetation." This payment shall include all labor, surveys, materials, tools, and equipment necessary for limits of the invasive area(s); maintenance of the limits throughout the Project; species identification; and cutting, excavation, treating, re-treating, removal, and off-Site disposal of designated invasive plant material. Off-Site disposal of residue shall include the loading, transport, dumping, and fees associated with legal off-site disposal.

- Upon approval of the required IVRP, the Contractor will receive a payment equal to 10% of the estimated Contract value
- Upon initial herbicide or mechanical removal treatment methods as it is described in the IVRP, the Contractor will receive a payment equal to 20% of all areas receiving treatment
- Upon successful completion of the initial treatment period, as determined during the review by the Engineer, the Contractor will receive a payment equal to 20%
- Upon successful completion of the intermediate treatment period as determined during the Site review by the Engineer, the Contractor will receive a payment equal to 20%
- Upon successful completion of the 1-Year Plant Establishment Period covering all treated areas on the Project (or the last treatment for those Projects which may not include a 1-Year Plant Establishment Period), the Contractor will receive final payment equal to the measured areas in place and treated, less any previous payments

Where bulk excavation is required for removal, this work shall be covered under the Contract Item "Earth Excavation" for all excavation in excess of 2 feet. All other vegetation not designated as invasive vegetation shall be removed in compliance with the Item "Clearing and Grubbing" in accordance with Section 2.01.

Vegetative stabilization of disturbed areas will be paid for under the respective Contract Items: "Turf Establishment," "Wetland Grass Establishment," or "Conservation Seeding for Slopes."

Pay Item	Pay Unit
Control and Removal of Invasive Vegetation	s.y.

ITEM #0969060A – CONSTRUCTION FIELD OFFICE, SMALL

Description: Under the item included in the bid document, adequate weatherproof office quarters with related furnishings, materials, equipment and other services, shall be provided by the Contractor for the duration of the work, and if necessary, for a close-out period determined by the Engineer. The office, furnishings, materials, equipment, and services are for the exclusive use of CTDOT forces and others who may be engaged to augment CTDOT forces with relation to the Contract. The office quarters shall be located convenient to the work site and installed in accordance with Article 1.08.02. This office shall be separated from any office occupied by the Contractor. Ownership and liability of the office quarters shall remain with the Contractor.

Furnishings/Materials/Supplies/Equipment: All furnishings, materials, equipment and supplies shall be in like new condition for the purpose intended and require approval of the Engineer.

Office Requirements: The Contractor shall furnish the office quarters and equipment as described below:

Description \ Office Size	Small	Med.	Large	Extra Large
Minimum Sq. Ft. of floor space with a minimum ceiling height of 7 ft.	400	720	1400	2800
Minimum number of exterior entrances.	2	2	2	2
Minimum number of parking spaces.	7	7	10	15

Office Layout: The office shall have a minimum square footage as indicated in the table above and shall be partitioned as shown on the building floor plan as provided by the Engineer.

Unless otherwise approved by the Engineer, office space shall be partitioned into segregated work areas for each user as follows:

- Each work area (or cubicle) shall be a minimum of 8 feet × 8 feet, with full height walls or tall cubicle partitions (minimum 6 feet high), placed to provide a minimum of 6 feet walking space around and between each user work area (for social distancing).
- Only one user (workstation/desk) per work area.
- Desks, tables and other work surfaces shall be arranged so that adjacent users do not face each other.

Tie-downs and Skirting: Modular offices shall be tied-down and fully skirted to ground level.

Lavatory Facilities: For field offices sizes Small and Medium the Contractor shall furnish a toilet facility at a location convenient to the field office for use by CTDOT personnel and such assistants as they may engage; and for field offices sizes Large and Extra Large the Contractor shall furnish two (2) separate lavatories with toilet (men and women), in separately enclosed rooms that are properly ventilated and comply with applicable sanitary codes. Each lavatory shall have hot and cold running water and flush-type toilets. For all facilities the Contractor shall supply lavatory and sanitary supplies as required.

Windows and Entrances: The windows shall be of a type that will open and close conveniently, shall be sufficient in number and size to provide adequate light and ventilation, and shall be fitted with locking devices, blinds and screens. The entrances shall be secure, screened, and fitted with a lock for which four keys shall be furnished. All keys to the construction field office shall be furnished to the CTDOT and will be kept in their possession while State personnel are using the office. Any access to the entrance ways shall meet applicable building codes, with appropriate handrails. Stairways shall be ADA/ABA compliant and have non-skid tread surfaces. An ADA/ABA compliant ramp with non-skid surface shall be provided with the Extra-Large field office.

Lighting: The Contractor shall equip the office interior with electric lighting that provides a minimum illumination level of 100 foot-candles at desk level height, and electric outlets for each desk and drafting table. The Contractor shall also provide exterior lighting that provides a minimum illumination level of 2 foot-candles throughout the parking area and for a minimum distance of 10 ft. on each side of the field office.

Parking Facility: The Contractor shall provide a parking area, adjacent to the field office, of sufficient size to accommodate the number of vehicles indicated in the table above. If a paved parking area is not readily available, the Contractor shall construct a parking area and driveway consisting of a minimum of 6 inches of processed aggregate base graded to drain. The base material will be extended to the office entrance.

Field Office Security: Physical Barrier Devices - This shall consist of physical means to prevent entry, such as: 1) All windows shall be barred or security screens installed; 2) All field office doors shall be equipped with dead bolt locks and regular day operated door locks; and 3) Other devices as directed by the Engineer to suit existing conditions.

Electric Service: The field office shall be equipped with an electric service panel, wiring, outlets, etc., to serve the electrical requirements of the field office, including: lighting, general outlets, computer outlets, electronics, etc., and meet the following minimum specifications:

A. 120/240 volt, 1 phase, 3 wire
B. Ampacity necessary to serve all equipment. Service shall be a minimum 100 amp dedicated to the construction field office.
C. The electrical panel shall include a main circuit breaker and branch circuit breakers of the size and quantity required.
D. Additional 120 volt, single phase, 20 amp, isolated ground dedicated power circuit with dual NEMA 5-20 receptacles will be installed at each desk and personal computer table (workstation) location.
E. Additional 120 volt, single phase, 20 amp, isolated ground dedicated power circuit with dual NEMA 5-20 receptacles will be installed, for use by the Telephone Company.
F. Additional 120-volt circuits and duplex outlets as required meeting National Electric Code requirements.
G. One exterior (outside) wall mounted GFI receptacle, duplex, isolated ground, 120 volt, straight blade.
H. After work is complete and prior to energizing, the State's CTDOT electrical inspector, must be contacted at 860-594-2240. (Do Not Call Local Town Officials)

I. Prior to field office removal, the CTDOT Office of Information Systems (CTDOT OIS) must be notified to deactivate the communications equipment.

Heating, Ventilation and Air Conditioning (HVAC): The field office shall be equipped with sufficient and properly operating, heating, air conditioning, and ventilation equipment to maintain a temperature range of 68°-80° Fahrenheit within the field office. The Contractor shall increase ventilation rates and increase the percentage of outdoor air that circulates into the system where possible.

Telephone Service: The Contractor shall provide telephone service with unlimited nation-wide calling plan. For a Small, Medium and Large field office this shall consist of the installation of two (2) telephone lines: one (1) line for phone/voice service and one (1) line dedicated for the facsimile machine. For an Extra-Large field office this shall consist of four (4) telephone lines: three (3) lines for phone/voice service and one (1) line dedicated for facsimile machine. The Contractor shall pay all charges.

Data Communications Facility Wiring: Contractor shall install a Category 6 568B patch panel in a central wiring location and Cat 6 cable from the patch panel to each PC station, Smart Board location, Multifunction Laser Printer/Copier/Scanner/Fax, terminating in a (Category 6 568B) wall or surface mount data jack. The central wiring location shall also house either the data circuit with appropriate power requirements or a Category 6 cable run to the location of the installed data circuit. The central wiring location will be determined by the CTDOT OIS staff in coordination with the designated field office personnel as soon as the facility is in place.

For Small, Medium and Large field offices the Contractor shall run a CAT 6 LAN cable a minimum length of 25 feet for each CTDOT networked device (including but not limited to: smartboards and Multi-Function Laser Printer/Copier/Scanner/Fax) to LAN switch area leaving an additional 10 feet of cable length on each side with terminated RJ45 connectors. For an Extra-Large field office, the Contractor shall run CAT 6 LAN cables from workstations, install patch panel in data circuit demark area and terminate runs with RJ45 jacks at each device location. Terminate runs to patch panel in LAN switch area. Each run / jack shall be clearly labeled with an identifying Jack Number.

The Contractor shall supply cables to connect the Wi-Fi printer to the Contractor supplied internet router and to workstations/devices as needed. These cables shall be separate from the LAN cables and data Jacks detailed above for the CTDOT network.

The number of networked devices anticipated shall be at least equal to the number of personal computer tables, Multi-Function Laser Printer/Copier/Scanner/Fax, and smartboards listed below.

The installation of a data communication circuit between the field office and the CTDOT OIS in Newington will be coordinated between the CTDOT District staff, CTDOT OIS staff and the local utility company once the Contractor supplies the field office phone numbers and anticipated installation date. The Contractor shall provide the field office telephone number(s) to the CTDOT Project Engineer within 10 calendar days after the signing of the Contract as required by Article 1.08.02. This is required to facilitate data line and computer installations.

Additional Equipment, Facilities and Services: The Contractor shall provide at the field Office at least the following to the satisfaction of the Engineer:

Furnishing Description	Office Size			
	Small	Med.	Large	Extra Large
	Quantity			
Office desk (2.5 ft. x 5 ft.) with drawers, locks, and matching desk chair that have pneumatic seat height adjustment and dual wheel casters on the base.	1	3	5	8
Standard secretarial type desk and matching desk chair that has pneumatic seat height adjustment and dual wheel casters on the base.	-	-	-	1
Personal computer tables (4 ft. x 2.5 ft.).	2	3	5	8
Drafting type tables (3 ft. x 6 ft.) and supported by wall brackets and legs; and matching drafter's stool that have pneumatic seat height adjustment, seat back and dual wheel casters on the base.	1	1	1	2
Conference table, 3 ft. x 12 ft.	-	-	-	1
Table – 3 ft. x 6 ft.	-	-	-	1
Office Chairs.	2	4	8	20
Mail slot bin – legal size.	-	-	1	1
Non-fire-resistant cabinet.	-	-	2	4
Fire resistant cabinet (legal size/4 drawer), locking.	1	1	2	3
Storage racks to hold 3 ft. x 5 ft. display charts.	-	-	1	2
Vertical plan racks for 2 sets of 2 ft. x 3 ft. plans for each rack.	1	1	2	2
Double door supply cabinet with 4 shelves and a lock – 6 ft. x 4 ft.	-	-	1	2
Case of cardboard banker boxes (Min 10 boxes/case)	1	1	2	3
Open bookcase – 3 shelves – 3 ft. long.	-	-	2	2
White Dry-Erase Board, 36" x 48"min. with markers and eraser.	1	1	1	1
Interior partitions – 6 ft. x 6 ft., soundproof type, portable and freestanding.	-	-	6	6
Coat rack with 20 coat capacity.	-	-	-	1
Wastebaskets - 30 gal., including plastic waste bags.	1	1	1	2
Wastebaskets - 5 gal., including plastic waste bags.	1	3	6	10
Electric wall clock.	-	-	-	2
Electronic Level	1	1	1	2

Furnishing Description	Office Size			
	Small	Med.	Large	Extra Large
	Quantity			
Telephone.	1	2	3	-
Full size stapler 20 (sheet capacity, with staples)	1	2	5	8
Desktop tape dispensers (with Tape)	1	2	5	8
8 Outlet Power Strip with Surge Protection	3	4	6	9
Rain Gauge	1	1	1	1
Business telephone system for three lines with ten handsets, intercom capability, and one speaker phone for conference table.	-	-	-	1
Mini refrigerator - 3.2 c.f. min.	1	1	1	1
Hot and cold-water dispensing unit. Disposable cups and bottled water shall be supplied by the Contractor for the duration of the project.	1	1	1	1
Microwave, 1.2 c.f. , 1000W min.	1	1	1	1
Fire extinguishers - provide and install type and *number to meet applicable State and local codes for size of office indicated, including a fire extinguisher suitable for use on a computer terminal fire.	*	*	*	*
Electric pencil sharpeners.	1	2	2	2
Electronic office type printing calculators capable of addition, subtraction, multiplication and division with memory and a supply of printing paper.	1	1	2	4
Small Multi-Function Laser Printer/Copier/Scanner/Fax combination unit, network capable, as specified below under Computer Related Hardware and Software.	1	1		
Large Multi-Function Laser Printer/Copier/Scanner/Fax combination unit, network capable, as specified below under Computer Related Hardware and Software.			1	1
Field Office Wi-Fi Connection as specified below under Computer Related Hardware and Software	1	1	1	1
Wi-Fi Printer as specified below under Computer Related Hardware and Software.	1	1	1	1
Digital Camera as specified below under Computer Related Hardware and Software.	1	1	3	3
Video Projector as specified below under Computer Related Hardware and Software.	-	-	-	1
Smart Board as specified below under Computer Related Hardware and Software.	-	-	-	1
Conference Room Presentation Television as specified below under Computer Related Hardware and Software.	-	-	-	-

Infrared Thermometer, including annual third-party certified calibration, case, and cleaning wipes.	1	1	1	2
Concrete Curing Box as specified below under Concrete Testing Equipment.	1	1	1	1
Concrete Air Meter and accessories as specified below under Concrete Testing Equipment as specified below. Contractor shall provide third party calibration on a quarterly basis.	1	1	1	1
Concrete Slump Cone and accessories as specified below under Concrete Testing Equipment.	1	1	1	1
First Aid Kit	1	1	1	1
Disinfecting wipes, sprays, and other supplies (** as specified below under Maintenance).	**	**	**	**
Hand sanitizer stations (*** maintain one full station at each entrance, restroom, and conference area).	***	***	***	***
Flip Phones as specified under Computer Related Hardware and Software.	-	-	-	-
Smart Phones as specified under Computer Related Hardware and Software.	-	-	-	-

The furnishings and equipment required herein shall remain the property of the Contractor. Any supplies required to maintain or operate the above listed equipment or furnishings shall be provided by the Contractor for the duration of the project.

Computer Related Hardware and Software: The CTDOT will supply by its own means the actual Personal Computers for the CTDOT representatives. The Contractor shall supply the Field Office Wi-Fi Connection, Wi-Fi Printer, Digital Camera(s), Flip Phones, Smart Phones, Multifunction Laser Printer/Copier/Scanner/Fax, Video Projectors, and Smart Board(s), Conference Room Presentation Television, as well as associated hardware and software, meeting the requirements of this specification as well as the latest minimum specifications posted, as of the project advertising date, at CTDOTs web site http://www.ct.gov/dot/cwp/view.asp?a=1410&q=563904

Within 10 calendar days after the signing of the Contract but before ordering/purchasing the Wi-Fi Printer (separate from the Multifunction Laser Printer/Copier/Scanner/Fax), Field Office Wi-Fi, Digital Camera(s), Flip Phones, Smart Phones, Multifunction Laser Printer/Copier/Scanner/Fax, Video Projector(s) and Smart Board(s) as well as associated hardware, the Contractor must submit a copy of their proposed order(s) with catalog cuts and specifications to the Administering CTDOT District for review and approval. The Wi-Fi Printer, Wi-Fi Router, Flip Phones, Smart Phones, digital cameras, Projector(s) and Smart Board(s) will be reviewed by CTDOT District personnel. The Multifunction Laser Printer/Copier/Scanner/Fax will be reviewed by the CTDOT OIS. The Contractor shall not purchase the hardware, software, or services until the Administering CTDOT District informs them that the proposed equipment, software, and services are approved. The Contractor will be solely responsible for the costs of any hardware, software, or services purchased without approval.

The Contractor and/or their internet service provider shall be responsible for the installation and setup of the field office Wi-Fi, Wi-Fi printer, and the configuration of the wireless router as

directed by the CTDOT. Installation will be coordinated with CTDOT District and Project personnel.

After the approval of the hardware and software, the Contractor shall contact the designated representatives of the CTDOT administering District, a minimum of 2 working days in advance of the proposed delivery or installation of the Field Office Wi-Fi Connection, Wi-Fi Printer, Digital Camera(s), Flip Phones, Smart Phones, Multifunction Laser Printer/Copier/Scanner/Fax, Video Projectors and Smart Board(s), as well as associated hardware, software, supplies, and support documentation.

The Contractor shall provide all supplies, paper, maintenance, service and repairs (including labor and parts) for the Wi-Fi printers, copiers, field office Wi-Fi, fax machines and other equipment and facilities required by this specification for the duration of the Contract. All repairs must be performed with-in 48 hours. If the repairs require more than 48 hours, then an equal or better replacement must be provided.

Once the Contract has been completed, the hardware and software will remain the property of the Contractor.

First Aid Kit: The Contractor shall supply a first aid kit adequate for the number of personnel expected based on the size of the field office specified and shall keep the first aid kit stocked for the duration that the field office is in service.

Rain Gauge: The Contractor shall supply install and maintain a rain gauge for the duration of the project, meeting these minimum requirements. The rain gauge shall be installed on the top of a post such that the opening of the rain gauge is above the top of the post an adequate distance to avoid splashing of rainwater from the top of the post into the rain gauge. The location of the rain gauge and post shall be approved by the Engineer. The rain gauge shall be made of a durable material and have graduations of 0.1 inches or less with a minimum total column height of 5 inches. If the rain gauge is damaged the Contractor shall replace it prior to the next forecasted storm event at no additional cost.

Electronic Level: The Contractor shall supply and maintain in working order, for the duration of the Contract, the number of electronic levels, identified in the Additional Equipment, Facilities and Services table of this specification. The electronic levels shall meet the following requirements:

A. 48-inch length, box beam type
B. IP65 water and dust proof
C. 0.1-degree accuracy
D. Backlit display
E. Carrying case included
F. New or like new condition

Concrete Testing Equipment: If the Contract includes items that require compressive strength cylinders for concrete, in accordance with the Schedule of Minimum Testing Requirements for Sampling Materials for Test, the Contractor shall provide the following equipment.

A. Concrete Cylinder Curing Box – meeting the requirements of Section 6.12 of the Standard Specifications.
B. Air Meter – The air meter provided shall be in good working order and meet the requirements of AASHTO T 152.
C. Slump Cone Mold – Slump cone, base plate, and tamping rod shall be provided in like-new condition and meet the requirements of AASHTO T119, Standard Test Method for Slump of Hydraulic-Cement Concrete.

All testing equipment will remain the property of the Contractor at the completion of the project.

Insurance Policy: The Contractor shall provide a separate insurance policy, with no deductible, in the minimum amount of five thousand dollars ($5,000) in order to insure all State-owned data equipment and supplies used in the office against all losses. The Contractor shall be named insured on that policy, and the CTDOT shall be an additional named insured on the policy. These losses shall include, but not be limited to theft, fire, and physical damage. The CTDOT will be responsible for all maintenance costs of CTDOT owned computer hardware. In the event of loss, the Contractor shall provide replacement equipment in accordance with current CTDOT equipment specifications, within seven days of notice of the loss. If the Contractor is unable to provide the required replacement equipment within seven days, the CTDOT may provide replacement equipment and deduct the cost of the equipment from monies due or which may become due the Contractor under the Contract or under any other contract. The Contractor's financial liability under this paragraph shall be limited to the amount of the insurance coverage required by this paragraph. If the cost of equipment replacement required by this paragraph should exceed the required amount of the insurance coverage, the CTDOT will reimburse the Contractor for replacement costs exceeding the amount of the required coverage.

Maintenance: During the occupancy by the CTDOT, the Contractor shall maintain all facilities and furnishings provided under the above requirements, and shall maintain and keep the office quarters clean through the use of professional cleaning including, but not limited to, vacuuming carpet, washing & waxing floors, cleaning restrooms, removal of trash, general cleaning, etc. The general cleaning of the office shall be at least twice weekly. Restrooms, portable toilets and all other high touch areas shall be cleaned and disinfected at least every two days using CDC and Department of Health recommended and non-hazardous techniques. High touch areas to be cleaned include but are not be limited to (depending on the facilities supplied):

A. Arms on chairs
B. Table/Desktops
C. Handrails
D. Doorknobs and handles
E. Countertops
F. Elevator buttons
G. Coffee pots
H. Refrigerator / microwave / dishwasher / toaster handles

I. Water dispensers
J. Cabinet and file drawer knobs / handles
K. Phones and keypads
L. Copier / printer / fax control buttons
M. Sinks and faucets
N. Light switches

In addition, the Contractor shall supply appropriate (CDC and Department of Health recommended and non-hazardous), cleaning and disinfection supplies (wipes and sprays), and single use gloves for the use of the CTDOT representatives, for disinfection of surfaces and equipment in between the 2 day interval noted above. The Contractor shall always maintain a minimum of 500 wipes and 100 pairs of disposable gloves in the field office.

Exterior areas shall be mowed and clean of debris. A trash receptacle (dumpster) with weekly pickup (trash removal) shall be provided. Snow removal, sanding and salting of all parking, walkway, and entrance ways areas shall be accomplished during a storm if on a workday during work hours, immediately after a storm and prior to the start of a workday. If snow removal, salting and sanding are not completed by the specified time, the State will provide the service and all costs incurred will be deducted from the next payment estimate.

Method of Measurement: The furnishing and maintenance of the construction field office will be measured for payment by the number of calendar months that the office is in place and in operation, rounded up to the nearest month.

There will not be any price adjustment due to any change in the minimum computer related hardware and software requirements.

Basis of Payment: The furnishing and maintenance of the Construction Field Office will be paid for at the Contract unit price per month for "Construction Field Office, (Type)," which price shall include all material, equipment, labor, service contracts, licenses, software, repair or replacement of hardware and software, related supplies, utility services, parking area, external illumination, trash removal, snow and ice removal, and work incidental thereto, as well as any other costs to provide requirements of this specified this specification.

Pay Item	Pay Unit
Construction Field Office, (Small)	Month

ITEM #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 "Prosecution and Progress":

SR 531 – Colt Highway

The Contractor shall maintain and protect existing traffic operations at all times.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Engineer.

Article 9.71.03 - Construction Method is supplemented as follows:

General

The Contractor shall not store any material on-site which would present a safety hazard to motorists or pedestrians (e.g. fixed object or obstruct sight lines).

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

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.

Traffic Control During Construction Operations

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for a safer and more efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

Traffic Control Patterns

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder or is within the clear zone. For each situation, the installation of traffic control devices shall be based on the following:

- Speed and volume of traffic.
- Duration of operation.
- Exposure to hazards.

Traffic control patterns shall be uniform, neat, and orderly in order to command respect from the motorist.

Lane reduction tapers should be placed so that the entire length of the taper is installed on a tangent section of roadway and the entire taper area can be seen by the motorist.

All existing conflicting signs shall be removed, covered with an opaque material, or turned so that they are not legible to oncoming traffic prior to implementing a traffic control pattern. The existing signs shall be uncovered or reinstalled once the pattern is removed.

A buffer area should be provided during installation of a traffic control pattern and maintained for the duration of the work. The buffer area shall be free of any equipment, workers, materials, and parked vehicles.

Construction Traffic Control Plans 19 through 25 should be used for moving operations such as line striping, rumble strips, pothole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

Traffic control patterns are not required for vehicles on an emergency patrol type activity or for a short duration stop of up to one hour, as long as the equipment is contained within the shoulder. Flashing lights, arrow boards, truck-mounted or trailer-mounted impact attenuators, and appropriate Trafficperson(s) shall be used when required.

In a situation not adequately covered by the Construction Traffic Control Plans, the Contractor shall contact the Engineer for assistance prior to setting up a traffic control pattern.

Placement of Signs

Signs shall be placed in a position that allows motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads) where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

Allowable Adjustment of Signs and Devices Shown on the Construction Traffic Control Plans

The Construction Traffic Control Plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans.

The proper application of the Construction Traffic Control Plans and installation of traffic control devices is dependent upon actual field conditions.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

Adjustments to the Construction Traffic Control Plans shall only be made at the direction of the Engineer.

Table 1 indicates the minimum taper lengths required for a lane closure based on the posted speed limit and lane width of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the Construction Traffic Control Plans cannot be achieved.

Table 1 – Minimum Taper Length

POSTED SPEED LIMIT (MPH)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE (FEET)	
	FREEWAYS	SECONDARY ROADS
30 OR LESS	180	165
35	245	225
40	320	295
45	540	495
50	600	550
55	660	605
65	780	715

1. Work Zone Safety Meetings

1.a) Prior to the commencement of work, a Work Zone Safety Meeting shall be conducted with representatives from DOT Construction, Connecticut State Police (Local Barracks), Municipal Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the Project. DOT Traffic Engineering shall be invited to the Work Zone Safety Meeting. Other Work Zone Safety Meetings during the course of the Project should be scheduled as needed.

1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the Meeting to outline the anticipated traffic control issues during the construction of this Project. Any issues that can't be resolved at these Meetings will be brought to the attention of the District Engineer and the Office of Construction. The agenda shall include:

i. Review Project scope of work and time;
ii. Review Section 1.08, Prosecution and Progress;
iii. Review Section 9.70, Trafficpersons;
iv. Review Section 9.71, Maintenance and Protection of Traffic;
v. Review Contractor's schedule and method of operations;
vi. Review special concern areas: ramps, turning roadways, medians, lane drops, etc.;
vii. Open discussion of work zone questions and issues;
viii. Discussion of review and approval process for changes in Contract requirements as they relate to work zone areas.

2. General

2.a) Traffic control patterns shall only be installed if the required minimum number of signs, traffic cones, traffic drums, and other equipment (i.e. one Arrow Board for each lane closed, two Truck-Mounted or Trailer-Mounted Attenuators (TMAs), Changeable Message Sign, etc.) are on Site.

2.b) The Contractor shall have spare maintenance and protection of traffic equipment (TMAs, Arrow Board, Changeable Message Sign(s), construction signs, traffic cones, traffic drums, etc.) available at all times in case of mechanical failures, etc. Spare maintenance and protection of traffic equipment installed as a result of a sudden equipment breakdown shall be replaced by the Contractor within 24 hours.

2.c) Failure of the Contractor to have the required minimum number of signs, personnel, and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for lost time.

2.d) In cases of differences of opinion between the Contractor and the Inspection staff, the Contractor shall follow the directions of the Engineer. The matter shall be brought to the District Office for resolution immediately or, in the case of work after regular business hours, on the next business day.

3. Installing and Removing Traffic Control Patterns

3.a) Lane closures shall be installed beginning with the advance warning signs and proceeding forward toward the work area.

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

3.c) Stopping traffic may be allowed within the allowable hours stated in Section 1.08.04:

i. For those activities stated within the Contract.

ii. During paving, milling operations, or similar activities where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway so traffic does not travel across the longitudinal joint or difference in roadway elevation.

iii. To move slow moving equipment across live traffic lanes into the work area.

3.d) The Contractor shall adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.

3.e) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travel path prior to merging with or exiting from the mainline traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.

3.f) Workers are prohibited from crossing the travel lanes on limited access roadways to install and remove signs or other devices on the opposite side of the roadway. Any signs or devices on the opposite side of the roadway shall be installed and removed separately.

4. Implementation of Rolling Road Block (RRB)

4.a) Temporary road closures using a RRB may be allowed on limited access highways for operations associated with the installation and removal of temporary lane closures. RRB may be allowed for the installation and removal of lead signs and lane tapers only and shall meet the following requirements:

i. Refer to the Limitation of Operations Chart provided in Section 1.08.04 for the hours allowed for implementing a RRB operation. The Contractor shall only implement a RRB operation within the hours shown in the Chart.

ii. In areas with good sight lines and full shoulders, signs on the side of the road opposite the traffic pattern should be installed in a separate operation.

iii. TMAs equipped with Arrow Boards shall be used to slow traffic to implement the RRB. State Police Officers in marked vehicles may be used to support the implementation of the RRB. The RRB shall start by having all vehicles, including TMAs and police vehicles, leave the shoulder or on-ramp and accelerate to normal roadway speeds in each lane. The vehicles will then position themselves side by side and decelerate to the RRB speed on the highway.

iv. A Pre-Warning Vehicle, as specified elsewhere in the Contract, shall be used to advise the motorists that sign pattern installation or removal is underway.

v. The RRB duration shall not exceed 15 minutes from the start of the traffic block until all lanes are opened as designated in the Limitation of Operations chart. If the RRB duration exceeds 15 minutes on 2 successive shifts, no further RRB will be allowed until the Contractor obtains approval for a revised installation procedure from the District.

vi. RRB shall not be used to expand a lane closure pattern to an additional lane during the shift. The workers and equipment required to implement the additional lane closure should be staged from within the closed lane. TMAs (and State Police if available) shall be used to protect the workers installing the taper in the additional lane.

vii. Exceptions to these work procedures may be submitted to the District Office for consideration. A minimum of 2 business days shall be allowed for review and comment by the District.

viii. The Engineer and the Contractor will review and discuss the RRB procedures (including any revisions) in advance of the work. The implementation of the agreed upon plan will be reviewed with the State Police during the Work Zone Safety Meeting held before each shift involving temporary lane closures. If the State Police determine that alternative procedures should be implemented for traffic control during the work shift, the Department and Contractor will attempt to resolve any discrepancies with the duty sergeant at the Troop. If the discrepancies are unable to be resolved prior to the start of the shift, then the work will proceed as recommended by the Department. Any unresolved issues shall be addressed the following day.

5. Use of Arrow Boards

5.a) On limited access roadways, one Arrow Board shall be used for each lane that is closed. The Arrow Board shall be installed concurrently with the installation of the traffic control pattern and its placement shall be as shown on the Construction Traffic Control Plans. Additional Arrow Boards shall be deployed if sight distances are limited.

5.b) On non-limited access roadways, the use of an Arrow Board for lane closures is optional. The roadway geometry, sight distance, and traffic volume shall be considered in the decision to use the Arrow Board.

5.c) A vehicle displaying an arrow board shall be equipped with high-intensity rotating, flashing, oscillating, or strobe lights.

5.d) The flashing arrow mode shall be used for lane closure (merge) tapers.

5.e) The flashing arrow mode shall not be used for temporary alternating one-way traffic operations or to laterally shift lanes of traffic.

5.f) The flashing double arrow mode shall only be used for closing a center lane on a multilane roadway where adjacent left and right lanes remain open.

5.g) For shoulder work or roadside work near the shoulder, the Arrow Board shall be positioned in the shoulder and the flashing alternating diamond mode should be used.

5.h) The flashing alternating diamond caution mode should also be used when supplemental Arrow Boards are positioned in an already closed lane.

6. Use of Truck-Mounted or Trailer-Mounted Impact Attenuators (TMAs)

6.a) On limited access roadways, lane closures shall use a minimum of two TMAs to install and remove traffic control patterns. If two TMAs are not available, then the pattern shall not be installed.

6.b) On non-limited access roadways, the use of TMAs to install and remove patterns closing a lane(s) is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to utilize the TMAs.

6.c) On limited access roadways, one TMA shall be placed on the shoulder and the second TMA shall be approximately 1,000 feet ahead blocking the lane to establish the advance and transition signing. The Arrow Board mounted on the TMA shall be in the arrow mode when taking the lane. The sign truck and workers shall be at sufficient distance ahead of the second TMA. In no case shall the TMA be used as the sign truck or a work truck. Once the transition is in place, the TMAs shall travel in the closed lane until all Portable Changeable Message Signs, signs, Arrow Boards, and cones/drums are installed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when traveling in the closed lane.

6.d) A TMA shall be placed prior to the first work area in the pattern. If there are multiple work areas within the same pattern, then additional TMAs shall be positioned at each additional work area as needed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when in the closed lane.

6.e) TMAs shall be positioned a sufficient distance prior to the workers or equipment being protected to allow for appropriate vehicle roll-ahead in the event that the TMA is hit, but not so far that an errant vehicle could travel around the TMA and into the work area. For additional placement and use details, refer to Section 18.06. Some operations, such as paving and concrete repairs, do not allow for placement of the TMA(s) within the specified distances. In these situations, the TMA(s) shall be placed at the beginning of the work area and shall be advanced as the paving or concrete operations proceed.

6.f) TMAs will be paid for in accordance with how the unit is used. If it is used as a TMA and is in the proper location as specified, then it will be paid for at the specified hourly rate for Truck-Mounted or Trailer-Mounted Impact Attenuator. When the TMA is used

as an Arrow Board, it will be paid for at the daily rate for Arrow Board. If a TMA is used to install and remove a pattern and is also used as an Arrow Board in the same day, then the unit will be paid for as a Truck-Mounted or Trailer-Mounted Impact Attenuator for the hours used to install and remove the pattern, typically 2 hours (1 hour to install and 1 hour to remove). If the TMA is also used as an Arrow Board during the same day, then the unit will only be paid for at the daily rate as an Arrow Board.

7. Use of Traffic Drums and Traffic Cones

7.a) On limited-access highways, ramps, and turning roadways:

i. Traffic drums shall be used for taper channelization.
ii. Traffic drums shall be used to delineate raised catch basins and other hazards.
iii. Traffic cones with a minimum height of 42 inches may be used in place of drums in the tangent section of a closed lane or shoulder.
iv. Traffic cones less than 42 inches in height shall not be used.

7.b) On all roadways:

i. Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.
ii. Traffic cones shall not be left unattended.
iii. Traffic cones with a minimum height of 42 inches shall be used when the posted speed limit is 45 MPH or above.

7.c) Typical spacing of traffic drums and/or cones shown on the Construction Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

8. Use of Barricade Warning Lights

8.a) Barricade Warning Lights may be installed on channelizing devices when used in a merge taper. The Barricade Warning Lights shall flash in a sequential pattern when used in a merge taper. The successive flashing shall occur from the upstream end (beginning) of the merge taper to the downstream end (end) of the merge taper.

8.b) Type C Barricade Warning Lights may be used at night to delineate the edge of the travel way.

8.c) Type B Barricade Warning Lights shall be used on post-mounted advanced warning signs.

9. Use of Portable Changeable Message Signs (PCMS)

9.a) On limited access roadways, one PCMS shall be used in advance of the traffic control pattern for all lane closures. Prior to installing the pattern, the PCMS shall be installed and in operation, displaying the appropriate lane closure information. The PCMS shall

be positioned ½ to 1 mile ahead of the start of the lane closure taper. If the distance to the nearest exit ramp is greater than the specified ½ to 1 mile distance, then an additional PCMS shall be positioned a sufficient distance ahead of the exit ramp (and before the previous on-ramp where practical) to alert motorists to the work and therefore offer them an opportunity to take the exit.

9.b) On non-limited access roadways, the use of PCMS for lane closures is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to use the PCMS.

9.c) PCMS should be placed off the shoulder of the roadway and behind a traffic barrier, if practical. Where a traffic barrier is not available to shield the PCMS, it should be placed off the shoulder and outside of the clear zone. If a PCMS has to be placed on the shoulder of the roadway or within the clear zone, it should be placed on the paved shoulder with a minimum of five traffic drums placed in a taper in front of it to delineate its position. The taper shall meet minimum distance requirements for a shoulder closure. The PCMS shall be protected if it is used for a continuous duration of 36 hours or more.

9.d) The PCMS shall be removed from the clear zone and have the display screen cleared and turned 90 degrees away from the roadway when the PCMS is no longer required.

9.e) The PCMS should not be used within 1,000 feet of an existing PCMS or Variable Message Sign (VMS).

9.f) A PCMS message shall:

i. consist of no more than two phases;
ii. contain no more than three lines of text per phase;
iii. have no more than eight characters per line, including spaces.

9.g) The PCMS should be used for specific situations that need to command the motorist's attention which cannot be conveyed with standard construction signs. The PCMS should not be used for generic messages (ex.: Road Work Ahead, Bump Ahead, Gravel Road, etc.) or for messages that need to be displayed for long periods of time, such as during stage construction. These types of messages should be displayed with construction signs. Special signs shall be coordinated with the Office of Construction and the Division of Traffic Engineering for the proper layout/dimensions required.

9.h) Typical messages that are allowed on the PCMS are shown below. Approval must be received from the Office of Construction for any message(s) different than the typical messages shown in Figure 1.

9.i) All messages shall comply with the information provided in Tables 2 and 3.

Message No.	Phase 1	Phase 2
1	LEFT LANE CLOSED	MERGE RIGHT
2	2 LEFT LANES CLOSED	MERGE RIGHT
3	LEFT LANE CLOSED	REDUCE SPEED
4	2 LEFT LANES CLOSED	REDUCE SPEED
5	RIGHT LANE CLOSED	MERGE LEFT
6	2 RIGHT LANES CLOSED	MERGE LEFT
7	RIGHT LANE CLOSED	REDUCE SPEED
8	2 RIGHT LANES CLOSED	REDUCE SPEED
9	LANES CLOSED AHEAD	REDUCE SPEED
10	LANES CLOSED AHEAD	USE CAUTION
11	EXIT XX CLOSED	USE EXIT YY
12	EXIT XX CLOSED USE YY	FOLLOW DETOUR
13	2 LANES SHIFT AHEAD	USE CAUTION
14	3 LANES SHIFT AHEAD	USE CAUTION

Figure 1: Typical PCMS Messages

Table 2: Acceptable Abbreviations

Word Message	Standard Abbreviation	Word Message	Standard Abbreviation
Access	ACCS	Minimum	MIN
Afternoon / Evening	PM	Minor	MNR
Ahead	AHD	Minute(s)	MIN
Alternate	ALT	Monday	MON
Avenue	AVE, AV	Morning / Late Night	AM
Bicycle	BIKE	Mount	MT
Blocked	BLKD	Mountain	MTN
Boulevard	BLVD	National	NATL
Bridge	BR	Normal	NORM
CB Radio	CB	North	N
Center	CTR	Northbound	NBND
Center	CNTR	Oversized	OVRSZ
Chemical	CHEM	Parking	PKING
Circle	CIR	Parkway	PKWY
Compressed Natural Gas	CNG	Pavement	PVMT
Condition	COND	Pedestrian	PED
Congested	CONG	Place	PL
Construction	CONST	Pounds	LBS
Court	CT	Prepare	PREP
Crossing	XING	Quality	QLTY
Crossing (other than highway-rail)	XING	Right	RT
Downtown	DWNTN	Road	RD
Drive	DR	Roadwork	RDWK
East	E	Route	RT, RTE
Eastbound	EBND	Saint	ST
Electric Vehicle	EV	Saturday	SAT
Emergency	EMER	Service	SERV
Entrance, Enter	ENT	Shoulder	SHLDR
Exit	EX	Slippery	SLIP
Express	EXP	South	S
Expressway	EXPWY	Southbound	SBND
Feet	FT	Speed	SPD
Freeway	FRWY, FWY	State, county, or other non-US or non-Interstate numbered route	[Route Abbreviation determined by highway agency]**
Friday	FRI	Street	ST
Frontage	FRNTG	Sunday	SUN
Hazardous	HAZ	Telephone	PHONE
Hazardous Material	HAZMAT	Temporary	TEMP
High Occupancy Vehicle	HOV	Terrace	TER
Highway	HWY	Thruway	THWY
Highway-Rail Grade Crossing	RR XING	Thursday	THURS

Hospital	HOSP	Tons of Weight	T
Hour(s)	HR, HRS	Traffic	TRAF
Information	INFO	Trail	TR
International	INTL	Travelers	TRVLRS
Interstate	I-	Tuesday	TUES
Junction / Intersection	JCT	Turnpike	TPK
Lane	LN	Two-Way Intersection	2-WAY
Left	LFT	Two-Wheeled Vehicles	CYCLES
Liquid Propane Gas	LP-GAS	Upper	UPR
Local	LOC	US Numbered Route	US
Lower	LWR	Vehicle(s)	VEH, VEHS
Maintenance	MAINT	Warning	WARN
Major	MAJ	Wednesday	WED
Maximum	MAX	West	W
Mile(s)	MI	Westbound	WBND
Miles Per Hour	MPH		

** A space and no dash shall be placed between the abbreviation and the number of the route.

Table 3: Unacceptable Abbreviations

Unacceptable Abbreviation	Intended Word	Common Misinterpretation
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (Merge)
LT	Light (Traffic)	Left
PARK	Parking	Park
POLL	Pollution (Index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
WRNG	Warning	Wrong

10. Use of State Police Officers

10.a) State Police may be used only on limited access highways and secondary roadways that are under their primary jurisdiction. A minimum of one Officer may be used per critical sign pattern; however, a State Police presence is not required. Shoulder closures and right lane closures can generally be implemented without the presence of a State Police Officer. Left lane closures may also be implemented without State Police presence in areas with only moderate traffic and wide, unobstructed medians. It may be desirable to have a State Police presence, when available, under specific situations, such as nighttime lane closures; left lane closures with minimal width for setting up advance signs and staging; lane and shoulder closures on turning roadways/ramps or mainline where sight distance is minimal; and closures where extensive turning movements or traffic congestion regularly occur; however, they are not required.

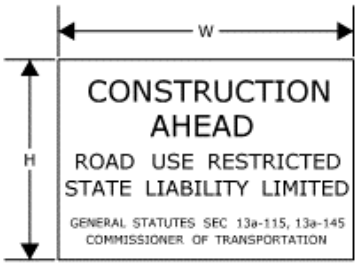
10.b) If a State Police presence is provided, once the pattern is in place, the State Police Officer should be positioned in a non- hazardous location in advance of the pattern to provide advance warning to the motorist. If traffic backs up beyond the beginning of the pattern, then the State Police Officer shall reposition so that they are located prior to the backup. The State Police Officer should not be located immediately behind or within the roll ahead area of any TMA or within the work zone buffer area. The State Police Officer shall not be positioned in such a way that the State Police Officer obstructs any construction warning signs or PCMS from view of the motorist.

10.c) Other functions of the State Police Officer(s) may include:

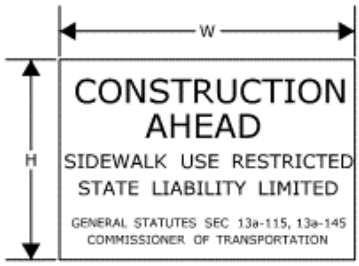
i. Assisting construction vehicles entering and exiting the work area.
ii. Enforcement of motor vehicle laws within the work area, if specifically requested by the Engineer.

10.d) State Police Officers assigned to a work site shall take direction from the Engineer.

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 RAMPS PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.

SIGN 16-E SHALL BE USED ON ALL FREEWAYS AND EXPRESSWAYS.

SIGN 16-H SHALL BE USED ON ALL RAMPS, OTHER STATE ROADWAYS AND MAJOR TOWN/CITY ROADWAYS.

SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.

CONSTRUCTION TRAFFIC CONTROL PLAN
SERIES 16 SIGNS

SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

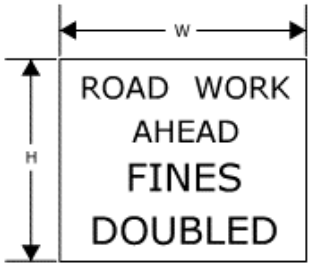
APPROVED Tracy L Fogarty Tracy L. Fogarty, P.E. 2019.10.09 16:30:32-04'00'
PRINCIPAL ENGINEER

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.

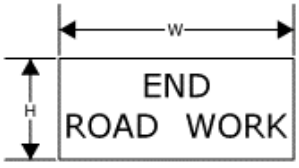
	W	H
31-1906	48"	42"
31-1907	60"	54"



"END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN SHALL BE THE "END ROAD WORK" SIGN.

	W	H
80-9606	36"	18"
80-9612	48"	24"



CONSTRUCTION TRAFFIC CONTROL PLAN

ROAD WORK AHEAD SIGNS

SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

Tracy L. Fogarty, P.E.
2019.09.12 15:54:44 -04'00'

PRINCIPAL ENGINEER

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 $\leqslant$ 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

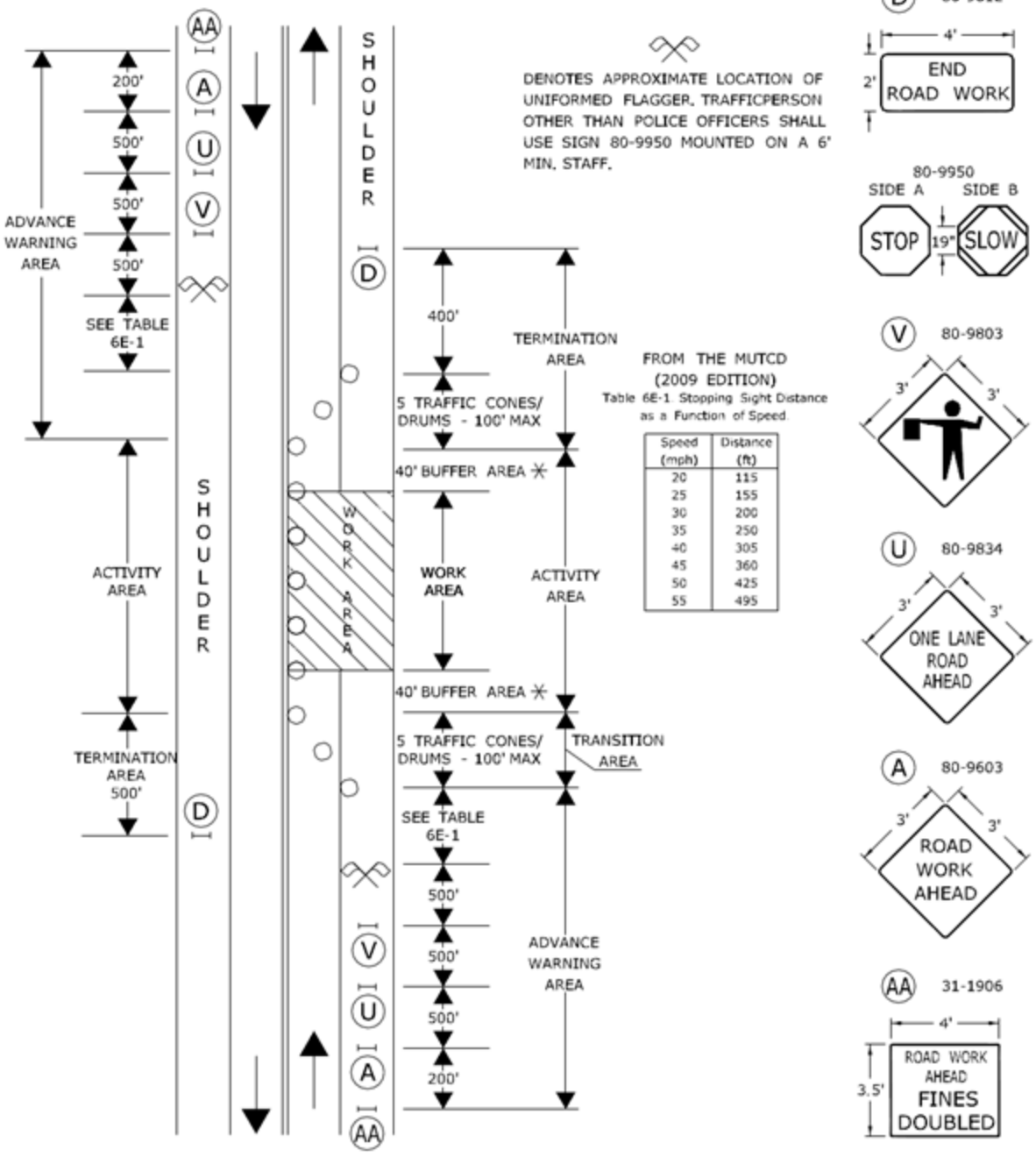
SCALE: NONE

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Tracy L. Fogarty, P.E. 2019.09.13 08:47:47-04'00'
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 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 13 - SHEET 1 OF 2

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED _____ PRINCIPAL ENGINEER

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

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

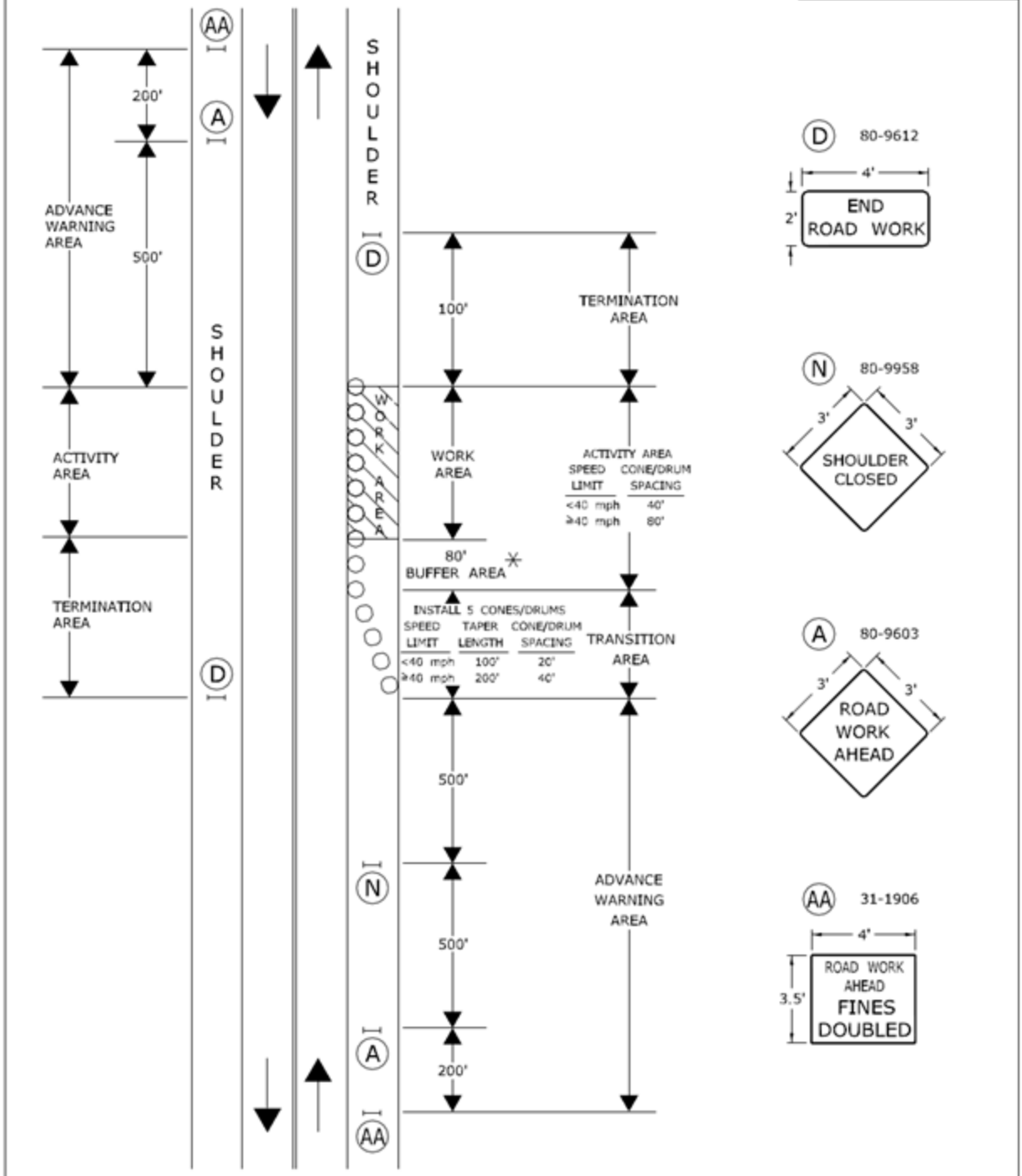
CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

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

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE
71 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 14

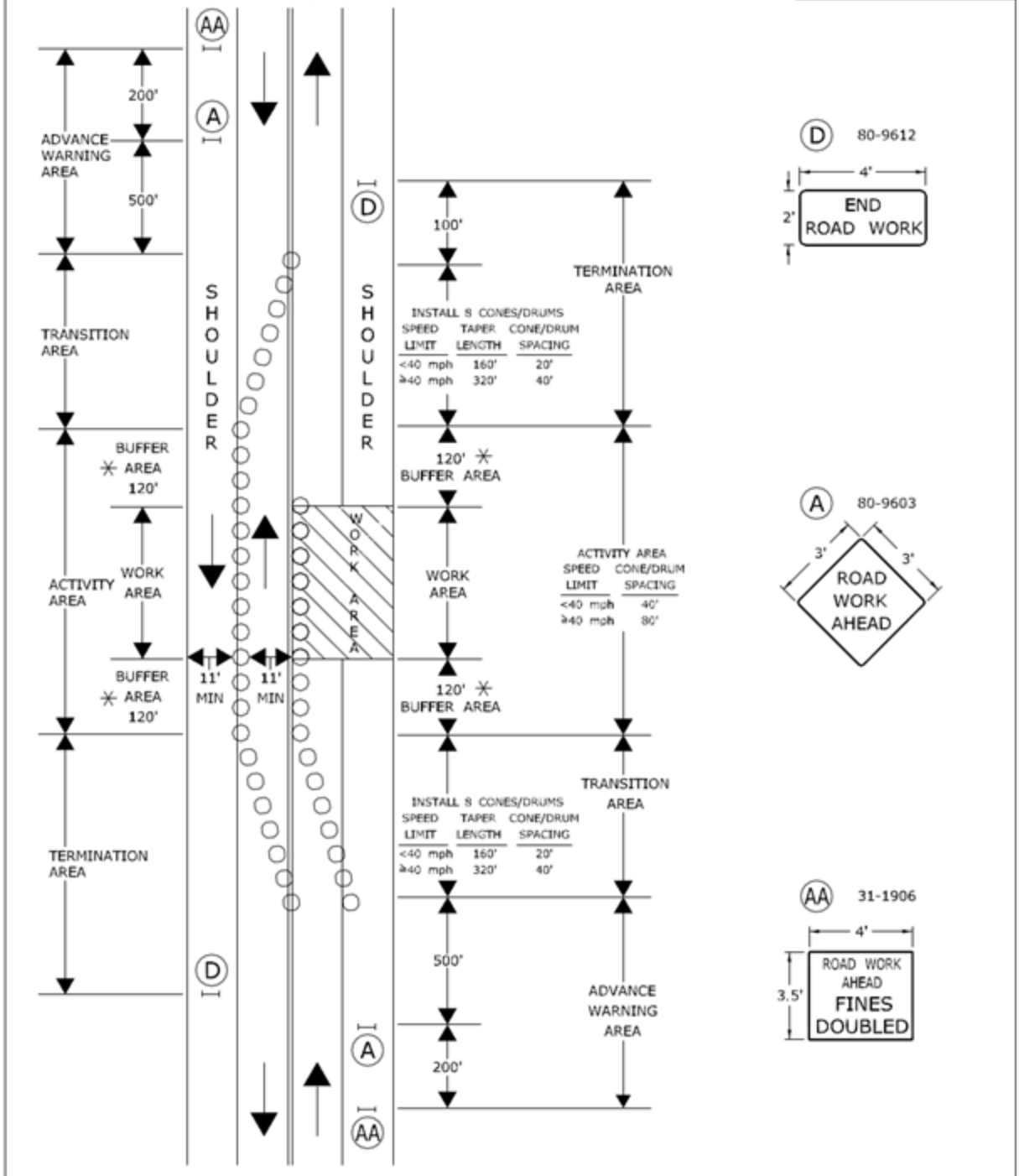
SEE NOTES 1, 2, 4, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:56:09-04'00'
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY

SIGN FACE
62 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 15

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:56:29-04'00'
PRINCIPAL ENGINEER

ITEM #1001001A – TRENCHING AND BACKFILLING

Section 10.01 is amended as follows:

10.01.01 – Description: *Add after the first paragraph:*

Rock, insofar as it applies to trenching and backfilling, shall be defined as rock in definite ledge formation, boulders, or portions of boulders, cement masonry structures, concrete structures, reinforced concrete pipe, Portland cement concrete pavement or base, of 1/2 c.y. or more in volume, removed as indicated or directed from within the payment lines for trench excavation.

Revise the third paragraph to add:
"processed aggregate base, granular fill, suitable backfill material" after "crushed stone".

10.01.02 – Materials: A*dd the following*:

Processed Aggregate Base shall be as specified in M.05.01.
Granular fill shall be specified in M.02.01

10.01.03 – Construction Methods: *Replace the fourth paragraph with the following:*

Where trenching occurs in riprap or crushed stone areas, the surface material shall be replaced in kind. Where trenching in bituminous concrete sidewalk or paved areas, the trench shall be sawcut and backfilled to within the depth from the surface required to replace the removed sidewalk or pavement structure, which shall then be replaced. Suitable backfill material and granular fill shall be used for sidewalks and processed aggregate base shall be used as backfill material for pavement or bituminous concrete surfaces. The edges of all trenches in paved surfaces shall be sawcut to neat lines prior to paving. All trenches in existing paved surfaces, which parallel the curb, shall be no more than 1 1/2 feet from the curb, or when no curb is present, the apparent edge of road. The exception shall be to avoid existing appurtenances such as catch basins, water gates, manholes etc.

10.01.04—Method of Measurement: *Replace the second sentence with the following:*

If rock, conforming to the description given under 10.01.01, is encountered, the Contractor shall strip it of sufficient overlying material to allow for proper measurement, and shall notify the Engineer that the rock surface is ready for measurement.

10.01.05 -- Basis of Payment: *Replace the second paragraph with the following*

It shall also include all sand encasement, suitable backfill material, processed aggregate base, granular fill, backfilling, grading, seeding, fertilizing, mulching, clean-up and disposal of surplus

material, sawcutting sidewalks and paved areas, as well as furnishing and installing curbing, riprap, crushed stone, topsoil, sidewalk, pavement or structure, as the case may be.

Replace the third paragraph with the following and remove the fourth paragraph entirely:

When rock, conforming to the description given under 10.01.01 is encountered within the limits of trenching, its removal will be classified; and the accepted quantities of rock in trench excavation will be paid for at the Contract unit price per cubic yard for "Rock in Trench Excavation." In the absence of a “Rock in Trench Excavation” item, the work will be compensated as extra work.

ITEM #1002010A – LIGHT POLE BASE

Description: This item shall consist of furnishing and installing precast concrete bases for the decorative light poles at the locations and to the dimensions and details shown on the plans or as directed by the Engineer and in conformance with these specifications. Rock, in so far as it applies to "Rock in Foundation Excavation," shall be defined as rock in definite ledge formation, boulders, or portions of boulders, cement masonry structures, concrete structures, or Portland cement concrete pavement which has a cross-sectional area that exceeds 50% of the cross-sectional area of the designed foundation hole.

Materials: The materials for this work shall conform to the applicable requirements of Article 10.02.02 of the Standard Specifications and the following requirements:

Concrete light pole foundation shall be precast as detailed on the Drawings and approved by the lighting manufacturer.

Construction Methods: Excavation for light pole foundation shall be done in conformance with Article 10.00.11 of the Standard Specifications.

The top of the foundation shall be level in all respects. All conduits shall be capped with standard pipe caps until the cable is installed. Electrical conduit of the size indicated shall extend 2 feet outside the foundation. All portions of the foundations which will remain exposed to view shall be to the satisfaction of the Engineer.

Where a foundation is placed within or adjacent to a concrete sidewalk, the entire section of sidewalk between joints shall be replaced in accordance with Section 9.21, unless otherwise directed by the Engineer.

Method of Measurement: This work will be measured for payment by the number of complete and accepted decorative light pole foundations installed and accepted in place. This measurement shall include the electrical conduit sweeps which shall extend 2 feet outside of the foundation.

The rock-in-foundation excavation will be not be measured separately for payment and is included in the price of the Light Pole Base item.

Basis of Payment: This work will be paid for at the Contract unit price each for "Light Pole Base", complete in place, which price shall include all work and materials, including excavation, rock in foundation excavation, disposal of surplus material, concrete, electrical conduit sweeps, conduit caps, ground rod, sleeves, bonding bushings, anchor bolts, backfill, topsoil, grading, seeding, fertilizing, mulching, riprap, processed aggregate base, restoration of bituminous concrete sidewalk and pavement surfaces. All concrete sidewalk replaced due to foundation installation shall be paid for at the Contract unit price for "Concrete Sidewalk".

When rock is encountered within the limits of excavation, its removal will be paid for under this pay item, which price shall include any additional excavation to remove the rock and any

additional concrete required to fill the excavation beyond the designed foundation hole dimensions.

Pay Item	Pay Unit
Light Pole Base	EA

ITEM #1003380A – DECORATIVE LIGHT POLE AND FIXTURE TYPE A3

DESCRIPTION: This item shall consist of furnishing and installing exterior lighting fixtures, LED lamps, drivers, poles, anchor bolts, grounding wire, connections and accessories, complete in place, at the locations and to the dimensions and details shown on the plans or as directed by the Engineer.

The lighting system shall operate from 240 volts, single phase, three wire, 60 Hertz systems or as called for on the project plans. LED luminaires, complete with drivers, shall be installed as shown on the plans.

The plans show the location, number, size and type of lighting units and fixture schedule. All fixtures shall be UL listed.

Lighting plans are diagrammatic, with fixture outlets located approximately to scale but not dimensioned. Raceways are not generally shown. The Installer shall check lighting drawings against field conditions and the drawings of other disciplines for interferences and shall select and lay out locations for outlets and obtain approval for final locations from Engineer.

Fixtures to be installed in wet, damp, moist, corrosive or outdoor locations will be acceptable only when designed and manufactured specifically for outdoor, rugged, weatherproof services. Each part, component, nut, bolt, rivet and spring shall be made of materials of effective corrosion resistance or have been subjected to finishing treatment which will assure such resistance. Fixtures shall be certified by manufacturer for intended purpose.

MATERIALS:

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

SUBMITTALS:

Submit the following in accordance with Form 818 Article 1.05.02.

Product Data: Include photometric curves, illustrations, specifications, schedules and material lists with quantities showing complete details of all proposed equipment.

Contract plans indicate the basis of design light fixtures. If the bidder chooses to provide another manufacturer, a complete photometric lighting analysis showing all the illuminance levels, uniformity, lamp loss factor, lamp depreciation, power densities, etc. shall be provided for review.

QUALITY ASSURANCE:

Comply with applicable local code requirements of the authority having jurisdiction and NEC Articles 225, 250, 410, and 501 as applicable to installation, and construction of exterior building lighting fixtures.

Comply with requirements of UL standards pertaining to exterior lighting fixtures. Provide exterior lighting fixtures and components which are UL-listed and labeled.

Comply with ANSI C2, "National Electrical Safety Code."

SEQUENCING AND SCHEDULING:

Coordinate with other work including conductors and cable, raceways and boxes, to properly interface installation of interior lighting fixtures with other work.

STORAGE AND HANDLING OF POLES:

General: Store poles on decay-resistant treated skids at least 1 ft above grade and vegetation. Support pole to prevent distortion and arrange to provide free air circulation.

Metal Poles: Retain factory-applied pole wrappings until just before pole installation. For poles with nonmetallic finishes, handle with web fabric straps.

WARRANTIES:

Refer to Form 818 Article 1.06.08 and for additional information.

Warranty period: 5 years from the issuance of Certificate of Compliance for LED fixture, factory-installed electrical component system; a minimum of two years for other luminaire components. The warranty shall cover both parts and labor for the complete warranty period.

Replace defective and burned out light bars or drivers for a period of 5 years following the date of Certificate of Compliance.

MANUFACTURERS:

Available Manufacturers: Subject to compliance with CDOT Maintenance requirements, lighting manufacturers offering products that may be incorporated in the work are the following or an approved equal:

1. Beacon
2. Holophane
3. Kim

MATERIALS:

General: Lighting fixtures (luminaires) shall be complete with drivers, mounting brackets and hardware, LED lamps, installation accessories, fixture wire, and all accessories as required, as specified in the Fixture Schedule, as shown on the Contract plans and as required by NEC.See "Ballasts" Article in the Evaluations for discussion on CFR compliance required in "Interference" Subparagraph below.

Coordinate this article with Drawings. Where color rendition or color uniformity is important and several types of HID lamps are used, provide consistent manufacturer designations or ANSI designations to define lamp types. Ceramic, pulse-start, metal-halide lamps in paragraph below are available in ratings from about 40 to 250 W. Besides advantages inherent in pulse-start technology, these lamps have an improved CRI, between 80 and 94, with higher initial and maintained lumen output.

Refractors and Reflectors: All glassware and plastic shall be uniform, free from defects and photometrically tested for distribution by an independent testing laboratory. Plastic diffusers shall be of new virgin-acrylic plastic material. Designer reserves the right to review photometric test.

Conduits: Conduit, including hangers and fittings, shall be installed where shown on the Contract plans and shall be in accordance with Form 818.

Pole Mounted Single and Double Head LED Luminaire. This item shall consist of furnishing and installing a light emitting diode (LED) luminaire of the wattage, distribution, and voltage as specified, completely wired and attached to the arm or bracket of the pole in accordance with the plans and specifications.

1. The housing of the luminaire shall be die cast aluminum with a maximum effective projected area (EPA) of less than 1.0 square feet. The LED luminaire shall be UL 1572 listed for wet locations. The luminaire shall carry a 3G vibration rating. The die-cast aluminum door frame shall feature integral hinges for tool-less entry. The housing shall feature standard black powder coat paint with a 2.5 mil nominal paint thickness. The fixture shall be designed to mount on 2" IP (2.375" O.D.) horizontal tenon and be adjustable +/- 5° to allow for fixture leveling. The luminaire shall provide a two bolt/one bracket slipfitter with cast-in pipe stop and leveling steps. A fixed-in-place bird guard shall seal around the 2" mounting arm.

2. LED optics shall consist of sealed LED. The luminaire optics shall provide warm white light at a standard 4000K CCT with no sacrifice in lumen output. The LEDs shall operate at a drive current of 700mA. The luminaire shall provide an initial delivered lumen output of 5100 lumens or greater, and shall provide an IESNA type II and type III distribution as noted on plans. Minimum 88,000 hours lumen maintenance of 96% at 25C ambient based on absolute photometry. Aluminum heat sinks shall incorporate both conduction and natural convection to transfer heat rapidly away from the LED source.

3. The LED luminaire shall operate at 240 volts and shall draw approximately 55 watts or less. The LED luminaire shall be provided with integral 10kV surge suppression

protection. The electrical components shall have a quick disconnect harness. The LED luminaire shall be suitable for temperature operation from -22°F to 104°F.

4. The LED luminaire shall carry a limited 5-year warranty on the LEDs and the Driver.

5. Construction Method: The LED luminaire shall be installed at the end of the bracket and shall be leveled, securely fastened, properly oriented, connected to the power supply conductors, cleaned, and ready for operation. Conductors shall be run from the terminal block in the luminaire to the distribution circuit in the parapet junction box. Fuses and fuse holders shall be installed in the parapet junction box.

FIXTURE SUPPORT COMPONENTS:

Wind-Load Strength: 90 mph and 1.3 gust factor for total support assembly, including pole, base, and anchorage, where used, to carry the fixtures, supports, and appurtenances at the indicated heights above grade without deflection or whipping.

Arm, Bracket, and Mount Materials: Finish black anodized.

Mountings, Fastenings, and Appurtenances:

1. Corrosion-resistant components compatible with the poles and fixtures that will not cause galvanic action at contact points. Provide mountings that will correctly position the luminaire to provide the indicated light distribution.

Wind Rating: 90 MPH with 1.3 Gust Factor

Pole Shafts: As shown on the lighting schedule.

Transformer Bases: Aluminum box-type assembly placed under the pole and used for wiring access or as a breakaway device.

Aluminum Poles: 6063-T6 alloy. Pole base: 356 or A356 alloy

Metal Pole Grounding Provisions: Welded 1/2-inch threaded lug.

Finish: Black Anodized

Wind Rating: 90 MPH with 1.3 Gust Factor

Bolt Circle: Per Manufacturer’s Recommendation

Foundation: Per plan detail. Bolt circle per pole manufacturer recommendation.

Anchor bolts: Galvanized “J” bolt, sized in accordance with pole manufacturer’s recommendation.

FINISH:

Metal Parts: Manufacturer's standard finish except as otherwise indicated. Finish applied over corrosion-resistant primer, free of streaks, runs, holidays, stains, blisters, and similar defects. Remove fixtures, and accessories showing evidence of corrosion or finish failure during Project warranty period and replace with new items.

Other Parts: Manufacturer's standard finish except as otherwise indicated.

CONSTRUCTION METHODS:

EXAMINATION:

Examine areas and conditions under which lighting fixtures are to be installed, and substrate for supporting lighting fixtures. Notify Engineer in writing of conditions detrimental to proper completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer and with approval of Engineer.

INSTALLATION:

Install all luminaires, lamps and associated supports, fittings, conduit, boxes, wiring and grounding conductors as called for in this section, as shown on the plans, as required and in accordance with the manufacturer's instructions and recommendations.

Prior to the issuance of the Certificate of Compliance, thoroughly clean the luminaires, lamps and accessories and shall replace all lamps which were used for a period equivalent to 50 percent or more of their rated life, at no additional cost.

All fixtures shall be aligned and directed as shown or so as to illuminate the desired area properly. Fixtures shall be directly and rigidly mounted on their supporting structures using bolted connections. The conduit system shall not be used to support fixtures unless called for.

Fixtures shall be mounted plumb, level and in straight lines. Rows of fixtures shall be installed accurately as to line and level. Fastenings and supports shall be firmly set so that the fixtures will not be distorted by handling incident to normal maintenance. All parts including lamps shall be secured to prevent falling or dislocation.

Lighting fixtures shall be positioned to clear all obstructions.

All auxiliary steel, supports and brackets of all kinds for safety erecting the fixtures shall be furnished and installed in place by the Installer.

Where coordination with other equipment is necessary some departure from the locations shown may be permitted on approval of Engineer.

All lighting units when installed shall be set true and shall be free of leaks, warps, dents or other imperfections.

All lighting fixtures shall be directly grounded to the equipment grounding system by means of a conductor of size not less than that required by NEC. If insulated, the ground conductor insulation shall be colored green.

The Installer shall fill in circuit designations on the panelboard directory as soon as permanent connections are completed.

Taps and splices shall be made with insulated wire nut connectors of the setscrew or spring type or with indent compression type connectors. Solid wire shall be terminated at screw type connections by looping around the terminal screw. At panelboards, solid wire may be terminated using screw type pressure terminals; stranded wire may be terminated using saddle type pressure terminals.

GROUNDING:

Provide equipment grounding connections for interior lighting fixtures as indicated under Form 818.

FIELD QUALITY CONTROL:

The Installer is not responsible for the foot candles of illumination provided by the completed systems. However, if after the lighting is installed and in operation, any areas are noted which are obviously under or overlit, the Installer shall promptly advise the Engineer.

Lamps furnished for temporary use during the construction period shall be similar to those shown on the fixture schedule. Fixtures shall be protected and maintained in good condition during construction. At the completion of the work, all fixtures shall be cleaned, inspected, and repaired, or replaced if damaged, and a complete set of new incandescent lamps shall be installed.

ADJUSTING AND CLEANING:

Clean lighting fixtures of dirt and construction debris upon completion of installation. Clean finger-prints and smudges from lenses.

Protect installed fixtures from damage during remainder of construction period.

Adjust aim-able fixtures to provide required light intensities.

METHOD OF MEASUREMENT: Decorative Light Pole and Light Fixture, of the type specified, will be measured as Each installed and accepted in place.

BASIS OF PAYMENT: Decorative Light Pole and Light Fixtures, of the type specified, will be paid for at the contract unit price Each, complete in place and accepted, which price shall include materials, equipment, tools and labor incidental thereto.

Pay Item	Pay Unit
Decorative Light Pole and Fixture Type A3	Ea.

ITEM #1005668.02A – LED LUMINAIRE – TYPE 2 (MULTI-VOLT)

DESCRIPTION: This item shall consist of furnishing and installing a light emitting diode (LED) luminaire of the wattage, distribution, and voltage as specified, completely wired and attached to the arm or bracket of the pole in accordance with the plans and specifications.

MATERIALS: The LED luminaire shall be one of the following:

Philips Lumec, Road Focus, catalog number: **RFL-135W80LED-4K-G2-R2M-UNV-API-BO-SP2-GY3**, with the following characteristics: 136 watts, 18,819 lumens, 4000k CCT, multi-volt, Type II light distribution, and 20kV/10kA surge suppression.

American Electric, Autobahn, catalog number: **ATB2-60BLEDE70-MVOLT-R2-20-NR-NL,** with the following characteristics: 130 watts, 18,193 lumens, 700mA, 4000k CCT, multi-volt, Type II light distribution, and 20kV/10kA surge suppression.

Cooper Lighting, Archeon-L, catalog number: **ARCH-L-AF72-130-D-U-T2U-20K-K-AP**, with the following characteristics: 133 watts, 18,131 lumens, 4000k CCT, multi-volt, Type II light distribution, and 20kV/10kA surge suppression.

General Electric, Evolve, catalog number: **ERL2-0-18-B3-40-1-GRAY-G-I-T,** with the following characteristics: 140 watts, 18,000 lumens, 4000k CCT, multi-volt, Type II wide light distribution, and 20kV/10kA surge suppression.

No alternate luminaires will be accepted. A catalog cut will be required.

Required light distribution shall be as indicated on the plans.

The luminaire housing shall be powder coated grey in color.

The luminaire housing shall not have a photocontrol receptacle.

The luminaire's onboard circuitry shall include a surge protection device (SPD) to withstand high repetition noise transients as a result of utility line switching, nearby lightning strikes, and other interference. The LED luminaire shall be provided with integral 20kV/10kA surge protection which shall conform and be labeled as UL 1449 compliant. The SPD protects the luminaire from damage and failure for common and differential mode transient peak currents up to 10 kA (minimum). SPD performance shall have been tested per procedures in ANSI C136.2/IEEE C62.41-2:2002 category C high exposure. The SPD shall fail in such a way as the Luminaire will no longer operate and the driver will be isolated from additional spikes. The SPD shall be field replaceable.

The LED luminaire shall carry a limited five year warranty on the LEDs and the Driver.

Conductors shall be #10 AWG in accordance with Article M.15.11 of the Standard Specifications. Insulation shall be THHN/THWN and rated for 600 volts. The equipment grounding conductor shall be No. 10 AWG, THHN/THWN, rated for 600 volts. The ground wire shall be green in color.

Fuses and fuse holders shall conform to the requirements of Article M.15.05. Fuses shall be "slow blow" type.

CONSTRUCTION METHOD: The LED luminaire shall be installed at the end of the bracket and shall be securely fastened, properly oriented, connected to the power supply conductors, cleaned, and ready for operation. The luminaire shall be leveled using the internal bubble level within the fixture (if so equipped) or by placing an electronic (digital) level along the flat bottom face of the luminaire. All luminaires suspected of not being leveled shall be re-leveled by the Contractor at the discretion of the Engineer. The Contractor shall ensure that once installed the LED luminaire functions properly.

Fuse holders and fuses shall be installed in the pole base or in the adjacent cast iron junction box for bridge parapet mounted poles. Three No. 10 AWG conductors shall be installed from the fuse holders to the luminaire. The luminaire shall be properly grounded with a No. 10 AWG equipment ground connected between the ground rod/system in the light pole base and the grounding lug in the luminaire.

METHOD OF MEASUREMENT: This work will be measured for payment by the number of LED luminaires installed, complete and accepted.

BASIS OF PAYMENT: This work will be paid for at the contract unit price each for "LED Luminaire – Type 2 (multi-volt)" of the type and size specified, complete and accepted in place, which price shall include all materials including luminaire, LEDs, driver, surge suppressor, conductors, fuses, fuse holders, connections, leveling, grounding, and all labor, tools, equipment and work incidental thereto.

Pay Item	Pay Unit
LED Luminaire – Type 2 (multi-volt)	EA.

ITEM #1017021A – EMERGENCY CALL BOX

DESCRIPTION

This item shall consist of furnishing, installing, integrating, and testing Emergency Call Boxes (ECBs) and all accessories required for a full and complete installation, including all associated equipment, infrastructure, and cabling, as described herein. The ECBs shall provide travelers with a way to directly communicate with the appropriate local public safety dispatch center (911 emergency dispatch) through the local telephone exchange in the event of an emergency.

Each ECB shall consist of the following components:

- Emergency Call Box (ECB)
- ECB freestanding pedestal with concrete foundation
- ECB mount with blue flashing LED light
- Directional signage, as necessary

References and Standards

The ECB shall have the following communication standard:

- ADA compliance
- FCC CFR 47 Part 15

ASTM International:

- ASTM F967-95: Standard Practice for Security Engineering Symbols.

Electronic Industries Alliance / Telecommunications Industry Association (EIA/TIA):

- EIA/TIA-568: Commercial Building Telecommunications Wiring Standard.
- EIA/TIA-606: Administration Standard for the Telecommunication Infrastructure
- EIA/TIA-607: Commercial Building Grounding and Bonding Requirements for Telecommunications
- International Electrotechnical Commission (IEC) 60268: Sound system equipment

MATERIALS

General

The ECB shall communicate directly with the local public safety dispatch center (911 emergency dispatch) via standard telephone cabling connecting through a local pot point of presence to the local telecommunications service provider’s telephone exchange.

Each ECB at each station shall also be equipped with an integrated NightCharge power system (with battery and battery charger) which will ensure that the ECB continues to function even under loss of direct power supply.

The Contractor shall ensure that the ECB meets all required State and National technical requirements for an Emergency Communications System.

The ECB, and all associated equipment and cabling shall comply with the Materials requirements stated in these Specifications. If conflicts exist, this Item specification shall govern.

Manufacturer Requirements

The manufacturer shall be Code Blue, unless otherwise approved by the Department.

The manufacturer of the ECB shall be regularly engaged in the manufacture and production of emergency communications systems.

Physical Requirements

General

The ECB shall consist of the following:

- High visibility, tamper and vandal-proof enclosure;
- A Push Button to initiate emergency calls;
- LED indicators to indicate a call is in progress, and then that a call is connected;
- Appropriate signage, in accordance with ADA requirements;
- Built-in Analog Speakerphone with Loudspeaker and Microphone for hands-free operation; and
- Bi-directional communication.

Enclosure

The ECB shall be easily identified through unique markings, striping or paint, signage, and lighting. ECB markings and designations shall be approved by the Department.

The ECB shall remain easily visible during low light conditions.

A blue flashing light and other visual recognition devices such as strobes or beacons shall be provided as part of the ECB to indicate that the ECB has been activated.

Components that are exposed to exterior environmental conditions shall be able to operate within the range of these environmental conditions.

The enclosure shall be equipped with a retro reflective sticker that is clearly visible at night. The sticker shall read “SOS”, “EMERGENCY” or other message required by the Department.

The ECB shall be designed to resist physical damage due to vandalism. All external hardware shall be constructed tamper resistant.

The enclosure shall be vandal/graffiti resistant, washable, and suitable for wet locations and outdoor environments.

The ECB shall have a brushed stainless steel finish or Safety Blue color finish (as required by the Department).

ECB components shall be corrosion resistant and any PC boards coated to prevent water or moisture damage and fungus growth.

Push Button

A suitable method of identifying the push button shall be provided.

The Push Button shall be uniquely identified with lettering on the button or beside it.

The Push Button shall be ADA compliant with features such as Braille “HELP” label.

LED light

L.E.D. indicators shall be provided for hearing impaired users.

Environmental Requirements

The ECB shall comply with the environmental requirements listed in the table below:

Criteria	**Minimum Conditions to be Met**
Operating Temperatures	Between - 40ºF to +150ºF (- 40ºC to +66ºC)
Storage Temperatures	Between - 40ºF to +150ºF (- 40ºC to +66ºC)
Humidity	5-95% relative humidity, non-condensing
Solid Object and Moisture Protection	IEC IP66 or NEMA 3R
Water and Solvents	Shall withstand water spray on equipment from cleaning floors and walls, industrial solvents, rain, mud, snow and slush, all of which may contain salt, which may come in contact with equipment.

The ECB shall be suitably protected against external EMI / ESI Interference through shielding / grounding.

Electrical Requirements

Item	Requirement
Operating Voltage	24VDC or 48VDC
Input Current	<2.5 Amperes
Input Voltage	120VAC

Functional Requirements

General

The ECB shall provide passengers at each station a quick and reliable means of reporting emergencies or summoning assistance in time of need. The ECB shall communicate with the appropriate local public safety dispatch center.

The ECB shall be ADA compliant and be accessible for all users including the hearing and speaking impaired, the visually impaired, and the mobility impaired.

Push Button

Pushing and releasing the button shall initiate a call-in to a pre-programmed auto-dial number (911).

Once the button is pushed, hands free operation shall occur.

Loudspeaker

The ECB shall allow for adjustment of the volume of audible media to overcome varying ambient noise levels.

The loudspeaker shall be accompanied by an assistive listening system (ALS) that allows those with hearing-impaired persons to use the ECB.

Microphone

The microphone shall be capable of clearly picking up voice communications despite the presence of background noise, such as buses and trains.

Communications

There shall be at least four (4) programmable auto-dial numbers associated with the Push Button.

The ECB shall automatically dial subsequent numbers if the first number is busy or unavailable. The ECB shall be configurable to disable up to three of these four numbers if desired.

The ECB shall have ringing tone to indicate progress of call when button is pressed; confidence tone to indicate call is still connected when on hold; and recorded message in case the line is busy.

The ECB shall automatically end the call connection without the user having to push any buttons when the far-end telephone is disconnected.

"Call Received" LED indicators shall be provided for hearing impaired users.

Diagnostics and Failure Modes

The ECB shall have in-built features for automatic fault detection and diagnosis in case of damages such as line faulty, low DC voltage, defective speaker or microphone.

The ECB control system shall allow remote diagnostics and provide printed reports of diagnostics and operations information.

The ECB control system shall allow for permanent trouble-shooting and maintenance test-result information to be stored locally on a hard disk, or other medium.

The ECB shall operate in a full duplex mode.

The ECB shall have built-in programming port / feature for addressing using a Laptop or Palmtops in the field.

The ECB shall be equipped with the NightCharge power system to ensure continued system operation during power outages for a minimum of 23 hours of standby operation and one hour of activated operation.

Performance Requirements

The ECB shall provide a speaker volume of at least 62 dB at 1 meter.

The loudspeaker shall demonstrate through testing good coverage, the correct Sound Pressure Level (SPL) and good intelligibility, with a Speech Transmission Index (STI – refer to IEC 60268 Part 16) of 0.5 or better under all conditions.

The ECB shall have a mean time between failures (MTBF) of at least 50,000 hours.

Warranty Requirements

The ECB and all associated equipment and cabling shall have a manufacturer-provided equipment warranty for a period of at least two (2) years.

The Contractor shall be responsible for any loss of communications at the ECB due to improper

functioning of the ECB or any of its components or improper connection/termination of communication cables to ECB.

CONSTRUCTION METHODS

Delivery, Storage, and Handling

The Contractor shall be responsible for protecting equipment from damage during fabrication, shipping, storage, installation, testing and acceptance. The Contractor shall be responsible for replacing any damaged equipment, as may be determined by the Engineer.

Installation

An ECB shall be installed at locations as shown on the Drawings.

The ECB shall meet all ADA and accessibility requirements and shall not conflict with ADA accessibility guidelines in normal operation.

The Contractor shall be responsible for installation of the ECB, including installation of the ECB freestanding pedestal.

The Contractor shall be responsible for designing and installing all necessary Emergency Call Box foundations, concrete pads, mounting bolts, and pavement matching. The foundation design shall be stamped by a structural engineer licensed in the State of Connecticut.

The Contractor shall be responsible for providing and installing all necessary support structures and mounting hardware.

The Contractor shall furnish all mounting hardware (i.e., machine screws, nuts, locking washers) to install the ECB.

The blue LED light shall be installed in a visible location to assist law enforcement officials identify the location of the incident and shall be seamlessly integrated into the design of the shelter. The Contractor shall be responsible for connecting the blue LED light to the ECB, and shall coordinate with the Department to finalize the location and wiring details during Design Review.

The Contractor shall be responsible for providing and installing all cabling and connectors necessary to provide power and communications to the ECB.

The dedicated telephone line drops for the ECBs at each station shall be available for connection from the telephone service EBN box, as shown in the Drawings. The Contractor shall be responsible for coordinating with the telephone service company to connect each ECB to the telephone lines, including all cabling, connectors, labor and other incidentals.

The Contractor shall coordinate with utilities to ensure that the Emergency Call Box address and location is properly established within the appropriate local public safety dispatch call center database.

Security/Maintenance

All internal components, including all installed modules, shall be removable and replaceable by a single technician with basic hand tools.

The Contractor is responsible for all testing and documentation required for establishing approval and acceptance of ECBs.

The ECBs shall be tested for, as a minimum, the following:

- Verification of communications from each ECB to the local public safety dispatch center
- Verification of ADA compliance
- Verification of ECB functioning under loss of power to the NightCharge battery

METHOD OF MEASUREMENT

This work shall be measured for payment by the number of units of ECBs of the type specified, installed, integrated, completed, tested and accepted in-place. The unit price for each ECB shall include all materials, equipment, tools, labor, testing, documentation, and other incidentals necessary to complete the work.

BASIS OF PAYMENT

This work will be paid for at the contract unit price each for “Emergency Call Box” complete and accepted in place, which price shall include all material including ECB, Foundations, Connections and Labor, Tools, Equipment and work incidental thereto.

ITEM #1206023A – REMOVAL AND RELOCATION OF EXISTING SIGNS

Section 12.06 is supplemented as follows:

Article 12.06.01 – Description is supplemented with the following:
Work under this item shall consist of the removal and/or relocation of designated side-mounted extruded aluminum and sheet aluminum signs, sign posts, sign supports, and foundations where indicated on the plans or as directed by the Engineer. Work under this item shall also include furnishing and installing new sign posts and associated hardware for signs designated for relocation.

Article 12.06.03 – Construction Methods is supplemented with the following:
The Contractor shall take care during the removal and relocation of existing signs, sign posts, and sign supports that are to be relocated so that they are not damaged. Any material that is damaged shall be replaced by the Contractor at no cost to the State.

Foundations and other materials designated for removal shall be removed and disposed of by the Contractor as directed by the Engineer and in accordance with existing standards for Removal of Existing Signing.

Sheet aluminum signs designated for relocation are to be re-installed on new sign posts.

Article 12.06.04 – Method of Measurement is supplemented with the following:
Payment under Removal and Relocation of Existing Signs shall be at the contract lump sum price which shall include all extruded aluminum and sheet aluminum signs, sign posts, and sign supports designated for relocation, all new sign posts and associated hardware for signs designated for relocation, all extruded aluminum signs, sheet aluminum signs, sign posts and sign supports designated for scrap, and foundations and other materials designated for removal and disposal, and all work and equipment required.

Article 12.06.05 – Basis of Payment is supplemented with the following:
This work will be paid for at the contract lump sum price for "Removal and Relocation of Existing Signs" which price shall include relocating designated extruded aluminum and sheet aluminum signs, sign posts, and sign supports, providing new posts and associated hardware for relocated signs, removing and disposing of foundations and other materials, and all equipment, material, tools and labor incidental thereto. This price shall also include removing, loading, transporting, and unloading of extruded aluminum signs, sheet aluminum signs, sign posts, and sign supports designated for scrap and all equipment, material, tools and labor incidental thereto.

Pay Item	Pay Unit
Removal and Relocation of Existing Signs	L.S.

ITEM #1208931A – SIGN FACE - SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)

Section 12.08 is supplemented and amended as follows:

12.08.01—Description:

Add the following:

This item shall also include field testing of metal sign base posts as directed by the Engineer.

12.08.03—Construction Methods:

Delete the second to last paragraph and add the following:

Metal sign base posts shall be whole and uncut. Sign base post embedment and reveal lengths shall be as shown on the plans. The Contractor shall drive the metal sign base posts by hand tools, by mechanical means or by auguring holes. If an obstruction is encountered while driving or placing the metal sign base post, the Contractor shall notify the Engineer who will determine whether the obstruction shall be removed, the sign base post or posts relocated, or the base post installation in ledge detail shall apply. Backfill shall be thoroughly tamped after the posts have been set level and plumb.

Field Testing of Metal Sign Posts: When the sign installations are complete, the Contractor shall notify the Engineer the Project is ready for field testing. Based on the number of posts in the Project, the Engineer will select random sign base posts which shall be removed by the Contractor for inspection and measurement by the Engineer. After such inspection is completed at each base post location, the Contractor shall restore or replace such portions of the work to the condition required by the Contract. Refer to the table in 12.08.05 for the number of posts to be field tested.

12.08.04—Method of Measurement:

Add the following:

The work required to expose and measure sign base post length and embedment depth using field testing methods, and restoration of such work, will not be measured for payment and shall be included in the general cost of the work.

12.08.05—Basis of Payment:

Replace the entire Article with the following:

This work will be paid for at the Contract unit price per square foot for "Sign Face - Sheet Aluminum" of the type specified complete in place, adjusted by multiplying by the applicable Pay Factor listed in the table below. The price for this work shall include the completed sign, metal sign post(s), span-mounted sign brackets and mast arm-mounted brackets, mounting hardware, including reinforcing plates, field testing, restoration and replacement of defective base post(s), and all materials, equipment, and work incidental thereto.

Pay Factor Scale: Work shall be considered defective whenever the base post length or base post embedment depth is less than the specified length by more than 2 inches. If the number of defects results in rejection, the Contractor shall remove and replace all metal sign base posts on the Project, at no cost to the Department.

Number of Posts to be Tested and Pay Factors (Based on Number of Defects)

Number of Posts in Project =>	**51-100**	**101-250**	**251-1000**	**>1000**
Sample Size=>	**5 Posts**	**10 Posts**	**40 Posts**	**60 Posts**
0 Defects	1.0	1.0	1.025	1.025
1 Defect	0.9	0.95	0.975	0.983
2 Defects	Rejection	0.9	0.95	0.967
3 Defects	Rejection	Rejection	0.925	0.95
4 Defects	Rejection	Rejection	0.9	0.933
5 Defects	Rejection	Rejection	Rejection	0.917
6 Defects	Rejection	Rejection	Rejection	0.9
7 or more Defects	Rejection	Rejection	Rejection	Rejection

Note: Projects with 50 or fewer posts will not include field testing.

CSI SPECIFICATIONS

INDEX OF CSI-FORMATTED SPECIFICATIONS
AND CORRESPONDING ITEM NUMBER FOR
CTfastrak COMMUTER PARKING LOT - COLT HIGHWAY
FARMINGTON, CONNECTICUT
STATE PROJECT NO. 0171-0412

ITEM NO.	CSI SECTION NO.	CSI SECTION NAME
0947303A	107343	TRANSPORTATION STOP SHELTERS

SECTION 107343 - TRANSPORTATION STOP SHELTERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The general provisions of the Contract including General and Supplementary Conditions, and General Requirements apply to work specified in this Section.

B. Form 818 shall mean the State of Connecticut, Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818 or its latest edition and any supplemental specifications.

C. Refer to General Requirements Item #0947303A for additional information.

1.2 SECTION INCLUDES

A. The work included in this item shall consist of providing and installing modular aluminum Bus Shelters and Free-Standing benches as shown on the plans or as directed by the Engineer.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design transportation stop shelters and anchorage to cast-in-place concrete sidewalk, including comprehensive engineering analysis by a qualified professional structural engineer licensed in the state of Connecticut, using performance requirements indicated.

B. Codes and Standards: The structure design and manufacture shall, as a minimum, conform to ASCE (American Society of Civil Engineers) current edition of "Minimum Design Loads for Buildings and Other Structures". The structure shall be manufactured and built to satisfy the Connecticut State Building Code, 2005 Connecticut Supplement and 2009 Amendment. The shelter design and manufacture shall meet all Federal and State Building Code requirements. Shelter manufacturer shall supply plans and calculations stamped by a Registered Professional Engineer licensed in the State of Connecticut and is responsible for obtaining any Third-Party Inspections if required by the State.

C. Structural Performance: Shelters shall be capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Design Loads: Comply with load requirements of the Connecticut State Building Code 2005, 2003 International Building Code and ASCE 7-02.

2. Roof Snow Loads.

3. Wind Loads.

4. Seismic Loads.

5. Collateral Loads: Include additional dead loads other than the weight of shelter structural system for permanent items such as mechanical systems and electrical systems.

6. Load Combinations: Design shelter systems to withstand the most critical effects of load factors and load combinations.

7. Refer to Drawings for additional requirements.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

E. Roofing: Provide complete sheet metal roofing system, including, but not limited to, custom-fabricated metal roof pans, cleats, clips, anchors and fasteners as indicated and as required for a weather-tight installation.

F. Safety Glazing Products (ASTM C 1172): Use materials that have a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation. Category II materials complying with testing requirements in 16 CFR 1201.

1. Subject to compliance with requirements, obtain safety glazing products permanently marked with certification label of SGCC or another certification agency acceptable to authorities having jurisdiction.

1.4 SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for shelters.

B. Shop Drawings: For shelters. Include plans, elevations, sections, details, and attachments to other work.

1. For installed components indicated to comply with design loads and design criteria, include a Certificate of Design signed and sealed by the qualified professional engineer responsible for their preparation.

2. Structural-Framing Drawings: Show complete fabrication of primary and secondary framing. Indicate welds and bolted connections.

3. Sheet metal Roofing Drawings: Show fabrication and installation layout of sheet metal roofing, including plans, elevations and keyed references to termination points. Show details of joining and securing work including patterns of seams.

4. Finish System: Provide information on finishes including type of coatings, prime, and paint materials, mil thickness of coatings and color charts.

5. Expansion Anchor-Bolt Plans: Submit expansion anchor-bolt plans and templates. Include location, diameter, and projection of anchor bolts required to attach shelters to concrete bases. Expansion anchors shall be certified by the International Code Council Evaluation Service (ICC-ES) for installation in cracked concrete. Indicate post reactions at each location.

C. Samples for Initial Selection: For each type of exposed finish for shelter framing, roofing and glazing.
   1. Safety Glazing: Provide 12 inch square sample.
   2. Sheet Metal Roofing: Provide 12 inch long by actual pan width, including finished seam. Include fasteners, cleats, closures and other attachments.

D. Samples for Verification: For each type of exposed finish in manufacturer's standard sizes.

E. Erector Certificates: Signed by manufacturer certifying that erectors comply with requirements.

F. Product Certificates: Signed by manufacturers of pre-engineered structures systems certifying that products furnished comply with requirements.

   1. Certificate of Design: Signed and sealed by a qualified professional engineer licensed in Connecticut. Include the following:
      a. Name and location of Project.
      b. Order number.
      c. Name of manufacturer.
      d. Name of Contractor.
      e. Governing building code and year of edition.
      f. Design Loads: Include dead load, roof live load, collateral loads, roof snow load, deflection, wind loads/speeds and exposure.

G. Evaluation Reports: For anchors, from ICC-ES.

H. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For shelters to include in maintenance manuals.

1.6 COORDINATION

A. Cast-in Anchorage: Coordinate installation of anchorages for shelters. Furnish sleeves, concrete inserts, anchor bolts, and items with integral anchors that are to be embedded in concrete bases. Include setting drawings, templates, and directions for installing anchorages. Deliver such items to Project site in time for installation.

1.7 QUALITY ASSURANCE

A. Provide as specified.

B. Erector Qualifications: An experienced erector who has specialized in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to the manufacturer.

C. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those indicated for this Project in material, design, and extent.

D. Manufacturer Qualifications: A company experienced in manufacturing pre-engineered shelter systems similar to those indicated for this Project and with a record of at least 10 years of successful in-service performance.

E. Source Limitations: Obtain each type of pre-engineered shelter system through one source from a single manufacturer.

1.8 SPARE PARTS

A. Safety Glazing Panels: Furnish to the owner additional safety glazing panels in standard size as indicated on the drawings. Provide panels complete with aluminum sash frame as specified below that matches products that are installed and that are packaged with protective covering for storage and identified with labels describing content.
   1. Quantity: Ten (10) panels.

B. Benches: Furnish to the owner additional benches as specified below that match products installed and that are packaged with protective covering for storage and identified with labels describing content.
   1. Quantity: Two (2) benches.

1.9 WARRANTY

A. Special Warranty: Manufacturer agrees to repair finish or replace shelters that fail in materials or workmanship within specified warranty period.

   1. Warranty Period: Five years from date of Substantial Completion.

C. Special Warranty on Benches: Manufacturer's standard form in which manufacturer agrees to repair finish or replace benches that shows evidence of deterioration of factory-applied finishes or that fail in materials or workmanship within specified warranty period.

   1. Warranty period: Five Years from Date of Substantial Completion

D. Special Warranty on Sheet Metal Roofing Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal roofing that shows evidence of deterioration of factory-applied finishes within specified warranty period.

   1. Finish Warranty period: 20 Years from Date of Substantial Completion.

E. Special Warranty on Laminated Glass: Manufacturer's standard form in which laminated-glass manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MODULAR ALUMINUM SHELTERS

A. Fabricate shelters as an integrated set of modular components ready for assembly on Project site.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide Reverse Barrel Vault bus shelter by Duo-Gard Industries Inc. or approved equal by one of the following manufacturers:

      a. AustinMohawk and Company, Inc.
      b. Brasco International, Inc.
      c. Columbia Equipment Company Inc.

B. Building Style: As indicated on Drawings.

   1. Size: Bus Passenger Shelter Type A equals 96 inches by 192 inches.

   2. Size: Bus Passenger Shelter Type B equals 72 inches by 192 inches.

C. Structural Framework: Fabricated from manufacturer's standard 2.5-by-2.5-by-0.125-inch aluminum tubing, channel, angle, or tee extrusions. Connect framework with exposed mechanical fasteners.

D. Post Bases: Externally adjustable, flanged, aluminum sleeves; minimum 3-inch vertical adjustment. Include shims for leveling. Color and finish to match structural framework.

E. Anchorage: Post-installed anchors, fabricated from stainless steel, with allowable load or strength design capacities calculated to be greater than or equal to the design load.

F. Windows: Extruded-aluminum sash frames, factory glazed with laminated glass with two plies of fully tempered clear float glass.
   1. Thickness of Each Glass Ply: Not less than 3.0 mm.
   2. Interlayer Thickness: Not less than 0.045 inch.
   3. Construction: Laminate glass with PVB interlayer to comply with manufacturer’s written recommendations.
   4. Glazing Pattern: Silk Screen Ceramic Frit with 1/8”dot pattern as indicated on drawings.
   5. Provide safety glazing labeling.

G. Zinc Sheet metal roofing: Titanium Zinc, pre-weathered type (pickling process WITH NO phosphating) with and without backside coating. Backside coating to be elastomeric (no baked-on enamels). Alloy shall be electrolytic high-grade zinc (DIN 1706) with a 99.995 Zn degree of purity and alloying additives of 1% Copper and 1% Titanium
   1. Nominal 1-inch standing seam roof panels.
   2. Fabricate from 0.7mm min. thickness.
   3. Seams: Standing seams, 16 inches o.c. and as indicated on drawings.
   4. Roll size: Half Coils.

S. Accessories: Provide components required for a complete weathertight sheet metal roofing assembly including trim, copings, fasciae, corner units, ridge closures, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of sheet metal roofing, unless otherwise indicated.

   6. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
   7. Seams: Fabricate nonmoving seams with flat-lock seams.
   8. Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA standards.
   9. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
   10. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
      a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" for application but not less than thickness of metal being secured

H. Surface mounted bench: Extruded aluminum frame with wood slats and backrest.
   1. Length: 120 inches.
   2. Overall height: 32 inches.
   3. Bench height: 18 inches.
   4. Depth: 24 inches.
   5. Supports: manufacturer’s standard.
   6. Color and Finish: To match bus shelter.
   7. Wood slat seat and back panels: Nominal 1-1/4 inches by 3 inches with eased edges.
   8. Wood Species: Wood for exterior use, Ipe solid stock, select South American Hardwood.
   9. Fasteners: Attach slats to frame with stainless steel screws.
   10. Anchor bolts: Anchor bolts required to fasten benches to foundations shall be compatible in size and material type with the bench manufacturer’s provided base plate. All anchors shall be corrosion resistant.

I. Shelter Materials:

   1. Aluminum: Alloy and temper recommended by aluminum producer and manufacturer for type of use and finish indicated, and as follows:
      a. Extruded Shapes: ASTM B 221.

J. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Color: Black.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, including concrete bases; accurate placement, pattern, and orientation of anchor bolts; critical dimensions; and other conditions affecting performance of the Work.

B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install sub-framing, furring and other miscellaneous panel support members and anchorages according to ASTM E-1637 and metal panel manufacturer's written recommendations.

3.3 INSTALLATION

A. Install shelters according to manufacturer's written instructions.

B. Set shelters plumb and aligned with full bearing on concrete bases.

C. Fasten shelters securely to concrete base with anchorage indicated.

3.4 ADJUSTING

A. After completing installation, inspect exposed finishes and repair damaged finishes. Replace metal roof panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION

PERMITS AND/OR REQUIRED PROVISIONS:

The following Permits and/or Supplemental to Form 818 and Required Provisions follow this page and are hereby made part of this Contract.

PERMITS AND/OR PERMIT APPLICATIONS

• CTDEEP General Permit for the Discharge of Stormwater And Dewatering Wastewaters from Construction Activities	Prior to Notice to Proceed
• CTDEEP Flood Management Certification	Approved August 21,2020
• CTDEEP Inland Wetland General Permit	Approved September 3,2020
• U.S. Army Corps of Engineers Section 404 Self Verification Notification	Approved September 1,2020

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

STORMWATER POLLUTION CONTROL PLAN

CT*fastrak* Commuter Parking Lot
Farmington, CT

State Project No.: 171-412
EzFile No. 63350

Connecticut Department of Transportation

September 4, 2020

This Stormwater Pollution Control Plan (SPCP) is prepared to comply with the requirements for the General Permit for Stormwater Discharges (GPSD) from Construction Activities. Also to be considered part of the SPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 818) including supplements thereto and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

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1. Site Description

This Stormwater Pollution Control Plan (SWPCP) has been prepared to address potential stormwater impacts that could occur during the course of a project proposed by the Connecticut Department of Transportation (the Department) in Farmington, Connecticut: CT*fastrak* Commuter Parking Lot. See Figure 1 in Appendix A for a vicinity map. The work associated with this project (State Project No. 171-412) constitutes the subject of this SWPCP.

This SWPCP has been prepared in accordance with sound engineering practices and is consistent with the Connecticut Department of Energy and Environmental Protection (CT DEEP) *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities* (effective date October 1, 2013) (General Permit), *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* (2002 Guidelines), and the *2004 Connecticut Stormwater Quality Manual* (2004 SWQ Manual).

Site Description

Background

The proposed project property is owned by the Department and was formerly utilized as a Waste Stockpile Area (WSA). With the success of the CT*fastrak* Bus Rapid Transit (BRT) line, additional parking for the service is required to meet the increased demand. As a result, State Project No. 171-412, a commuter parking lot off Colt Highway at South Road in the town of Farmington, is to be constructed to provide additional parking capacity for potential riders.

Project Work

The commuter parking lot will provide circular, counterclockwise flow for buses with an entrance along S.R. 531 (Colt Highway), approximately 425 feet west of the intersection with South Road and Two Mile Road. The bus loading platform area and provisions for bus passenger shelters will be constructed along the north westerly section of the site. Continuing the one-way flow, the exit will be located 375 feet west of the entrance drive. The site is configured to maximize parking while maintaining separation between the bus flow and the passenger parking areas. All vehicles will utilize the one-way flow through the site. The parking on the western portion will consist of a single aisle with 65 parking spaces. The eastern portion will include an additional 89 parking spaces, including six handicap parking spaces. This eastern section of the site will prohibit buses while providing a circular, two-way flow for vehicles. The handicap parking area is located to the east of the bus loading platform area to provide access. Two bus shelters are to be constructed as part of this project with an area set aside for one future shelter.

The project plans in Attachment C depict the proposed work and disturbance within the project area. All staging, access, equipment movement, and activities needed to facilitate the construction of the project will be conducted within the subject property, within the project area.

There are no discharges to impaired waters listed in the *Impaired Waters Table for Construction Stormwater Discharges*. There are no Aquifer Protection Areas (APAs) in the project area. There are no discharges to a river within the National Wild and Scenic Rivers System or to coastal waters.

According to the CT DEEP's Natural Diversity Database (NDDB) mapping available online at https://www.depdata.ct.gov/naturalresources/endangeredspecies/nddbpdfs.asp and dated June 2020 there are no records of threatened and/or endangered listed species within the project limits. The closest mapped NDDB area is located approximately 0.6 miles southeast of the site.

Although the project proposes approximately 1.4 acres of tree clearing, coordination with the United States Fish and Wildlife Service (USFWS) confirmed that impacts to Federally-listed species, including the Northern Long-eared bat, are not anticipated and no further coordination is needed.

Site work includes removal of the existing WSA, tree clearing, construction of stormwater management systems and associated elements, construction of parking lots and driveways, grading to construct the project improvements, removal of invasive plant species, asphalt installation, and installation of shelters, sidewalks and lighting.

Site Drainage

Existing Drainage

Stormwater currently enters the eastern portion of the site from an existing culvert in the southeast corner of the property (see Appendix A). Stormwater then backs up and ponds once it reaches the existing WSA driveway. West of the WSA driveway, stormwater is conveyed along the southern portion of the site through an existing wetland swale which flows westerly, untreated, into the unnamed perennial watercourse. There is a vegetated swale located on the northern portion of the site that also flows westerly, untreated, into the unnamed perennial watercourse. Stormwater management at the site will be improved with the proposed reconfiguration of the wetland area into a grass swale as described below.

Proposed Drainage

Work at the southeastern portion of the site will include upgrades to the existing culvert outfall with the addition of a riprap apron for velocity dissipation (see plans in Appendix C). The WSA driveway will be regraded and a grass swale constructed with stone check dams to provide for additional infiltration and velocity dissipation. Stormwater will then be conveyed under the proposed eastern access drive via an 18-inch reinforced concrete pipe (RCP) that discharges at a second riprap apron. Stormwater collected from the western part of the parking lot will also discharge to this riprap apron via a 15-inch RCP. Stormwater continues to flow westerly in a grass swale with stone check dams to an endwall that will convey stormwater under the western access drive through a 24-inch RCP that terminates at a new stormwater outfall east of the unnamed perennial watercourse. Stormwater then discharges to a riprap apron to provide velocity dissipation

before entering the watercourse via overland flow. To further mitigate impacts on water quality, on-site catch basins will be outfitted with 4-foot sumps to intercept pollutants and debris and provide additional velocity dissipation before entering the on-site stormwater management system.

Estimated Disturbed Area

The total area for this project site is 3.49 acres. Of this area, 1.75 acres will be disturbed by construction activities.

Estimated Runoff Coefficient

The runoff coefficient assumed for pavement is 0.95. A coefficient of 0.3 is assumed for pervious turf areas.

Pre-Construction

$$\frac{(0.54 \text{ ac.} \times 0.95) + (2.95 \text{ ac.} \times 0.30)}{0.54 \text{ ac.} + 2.95 \text{ ac.}} = 0.40$$

Post-Construction

$$\frac{(1.85 \text{ ac.} \times 0.95) + (1.64 \text{ ac.} \times 0.30)}{1.85 \text{ ac.} + 1.64 \text{ ac.}} = 0.64$$

The estimated runoff coefficient for the project site is currently 0.40. After construction is completed the estimated runoff coefficient is 0.64. See Appendix B – Drainage Calculations.

Receiving Waters

Stormwater from the project area discharges to an unnamed perennial watercourse, which flows into Batterson Park Pond. Batterson Park Pond flows into the Quinnipiac River and ultimately drains to New Haven Harbor and Long Island Sound. The unnamed perennial watercourse is located within the Park regional drainage basin and the Connecticut major drainage basin. See Table 2 in Part V: Stormwater Discharge Information of the General Permit Registration Form for details.

Extent of Wetlands on Site

One on-site wetland was delineated using state and federal definitions. This 0.5 acre delineated wetland meets both state and federal definitions.

There are Flood Emergency Management Agency (FEMA) mapped floodplains (Zone A) in the western portion of the project area, surrounding the unnamed perennial stream. The remainder of the project site is located outside of mapped 100-year floodplains within a Zone X flood zone. There are no adverse impacts to floodplains anticipated from the project. There are excavation and fill activities planned in the on-site floodplains for the installation of the new stormwater outfall and outlet protection, resulting in approximately 170 cubic yards of additional flood storage. A Flood Management General Certification for the project was approved by CTDOT Hydraulics and Drainage, Bureau of Engineering and Construction in August 2020.

2. Construction Sequencing

Construction for this project is scheduled to start in April 2021 and be completed by October 2021.

Proposed construction sequencing includes the following steps:

1) Conduct a preconstruction meeting.
2) Install erosion and sedimentation controls.
3) Perform clearing and grubbing activities.
4) Conduct earth excavation activities to establish grade on the western portion of the site, including establishing swales.
5) Install drainage structures including the two culverts under the driveway entrances.
6) Install riprap outlet protection.
7) Conduct earth excavation activities to establish grade on the eastern segment of the site, including establishing swales.
8) Install subgrade and processed aggregate.
9) Install concrete for pavement.
10) Install hot mix asphalt (HMA).
11) Install sidewalks.
12) Install topsoil/turf establishment.
13) Install signs.
14) Install illumination/call boxes.
15) Install bus shelters.
16) Remove erosion controls when it is determined that disturbed areas have been stabilized.
17) Clean all post-construction stormwater structures of construction sediment and remove any remaining silt fence before filing the "Notice of Termination Form".
18) Perform project cleanup.

If the construction sequencing activities create an area of disturbance with a total contributing drainage area of between two (2) acres and five (5) acres per discharge point, a temporary sediment trap must be provided and the Contractor must submit to the Engineer a revised SWPCP for review and approval. The SWPCP must include locations of the temporary sedimentation trap per discharge point with a capacity to contain 134 cubic yards per acre of material in accordance with the 2002 CT Erosion and Sedimentation Guidelines (2002 Guidelines). The Contractor shall provide an inspection and maintenance plan for the temporary sedimentation trap as part of the amended SWPCP.

If the areas of disturbance with a total contributing drainage area of more than five (5) acres per discharge point, a temporary engineered sedimentation basin must be provided and the Contractor must submit to the Engineer a revised SWPCP for review and approval. The SWPCP must include locations of the temporary engineered sedimentation basin designed and installed in accordance with the 2002 Guidelines. The Contractor shall provide an inspection and maintenance plan or the engineered sedimentation basin as part for the amended SWPCP.

3. Control Measures

Erosion and Sedimentation Controls

Best Management Practices (BMPs) have been incorporated into the project design to minimize erosion and sedimentation (E&S) during construction activities (see the plans in Appendix C for erosion and sedimentation controls). All E&S controls will be installed prior to land disturbing activities, to ensure the reduction of sedimentation in receiving waters and wetlands. All E&S controls will remain in place for the entire duration of the work activities associated with that phase and any other applicable phases. Elements of the 2002 Guidelines and the 2004 SWQ Manual were incorporated into the design of this project. The E&S controls that will be utilized during the project will be determined in the field as appropriate for the situation and location. The controls will include, but will not be limited to:

- Soil stabilization practices (temporary and permanent): siltation fence, hay bales, geotextile fabric, crushed stone, turf establishment, erosion control matting
- Structural practices (temporary and permanent): anti-tracking pads, siltation sacks, storm drain inlet/outlet protection, 4-foot catch basin sumps
- Maintenance practices: sweeping for dust control, water for dust control
- Long-term stormwater management and erosion control practices

It is anticipated that hay bales, siltation fences made of geotextile fabric, and/or erosion control logs will be utilized for E&S controls throughout the project work areas. In addition, anti-tracking pads will be installed at construction entrances as needed to reduce the potential for tracking mud and dirt onto nearby public roadways. Existing drainage inlets will be protected with hay bales as needed throughout construction.

Strict sedimentation controls will be implemented during construction. Prior to any earthwork activity, sediment barriers will be installed at the following locations:

- Toe of all fill slopes in the construction area.
- Around storm drain inlets collecting runoff from areas disturbed by construction activities.
- Around catch basins in paved and unpaved areas.
- At construction entrances and on haul routes as applicable for each phase of the work.

The Department will have a qualified inspector assigned to the project in order to oversee the Contractor's operations to ensure compliance with the provisions of the Contract. Further

Department oversight is provided by the District 4 Environmental Coordinator and the Office of Environmental Planning.

The following timelines will be followed for the proposed construction activities:

- If construction activities are completed to final grade, permanent seeding shall take place within seven (7) days.

- Areas that remain disturbed but inactive for at least 30 days shall receive temporary seeding or soil protection within seven (7) days.

- Areas that will be disturbed past the planting season will be covered with a long-term, non-vegetative stabilization method that will provide protection through the winter.

- The Contractor shall stabilize disturbed areas with temporary or permanent measures as quickly as possible after the land is disturbed. Requirements for soil stabilization are detailed in Form 818 Section 1.10, Environmental Compliance.

Soil Stabilization and Protection

Temporary Stabilization Practices

- Erosion Control Matting: On slopes steeper than 2:1 erosion control matting shall be used to stabilize the topsoil or as necessary and directed by the Engineer.

- Sedimentation Control System (SCS): SCS shall be placed at the toe of the slope or as directed by the Engineer

- Anti-Tracking Pads: Construction entrances (gravel anti-tracking pads) shall be constructed at truck access/exit points to off-road routes. The entrances will be maintained in a condition which will prevent tracking and washing of sediment onto paved surfaces. Periodic top dressing will be provided with additional stone or additional length as conditions demand. Any measures used to trap sediment will be repaired as needed. Sediment spilled, dropped, washed, or tracked onto paved surfaces will be removed as soon as possible. Roads adjacent to a construction site will be left clean at the end of each day. Access road(s) should grade away from the main roadway or waterbody.

- Dust Control: Routine sweeping and application of approved dust suppression agents, including but not limited to, water and calcium chloride, over exposed subbase shall be completed for dust control. Additional measures may be necessary to minimize dust within the project limits as directed by the Engineer.

- Temporary Seeding: On soils to be exposed for a period greater than 1 month but less than 1 year, temporary seeding shall be used to temporarily stabilize the soil until permanent stabilization is be established.

- Catch Basin Inlet Protection: Catch basin inlet protection shall be used to reduce the amount of sediment entering the storm drainage system during construction.

- Stockpile Area: There will not be stockpile areas located at the site.

Stabilization practices shall be implemented after completion, as final grades are reached, within seven (7) days.

Temporary seeding shall be spread over any disturbed areas which will remain inactive for at least 30 days. Areas to remain disturbed through winter shall be protected with non-vegetative stabilization measures. The Contractor must provide an Erosion and Sedimentation Control plan for each winter season during construction operations.

The Contractor may use other controls in the project as necessary if they conform to the 2002 Guidelines and are approved by the Engineer. The Contractor will be required to provide the necessary details for any erosion controls not specifically called for on the project plans.

During construction, all areas disturbed by the construction activity that have not been stabilized, structural control measures, and locations where vehicles enter or exit the site shall be inspected at least once a week and within 24 hours of the end of a storm that generates a discharge. For storms that end on a weekend, holiday or other time in which normal working hours will not commence within 24 hours, an inspection is required within 24 hours following any storm in which 0.5 inches or greater of rain occurs. For lesser storms, inspection shall occur immediately upon the start of subsequent normal working hours.

Permanent Stabilization Practices

During construction, the following methods of permanent stabilization shall be installed:

- Topsoiling: In conjunction with permanent seeding, once final grades have been established, topsoil that meets project specifications shall be applied to provide a suitable growth medium for vegetation.

- Permanent Seeding: Once soils have been brought to final grade; permanent seeding shall be used to stabilize the soil with a vegetative cover**.** Disturbed areas north of the unnamed perennial watercourse shall be seeded with a floodplain establishment seed mix while the remainder of the site shall be seeded with a grass seed mixture that conforms to CTDOT Form 818 M.13.04.

All new embankments disturbed by construction and unpaved areas that are graded or disturbed by construction will receive erosion control matting, topsoil and/or turf establishment. The Contractor may use other permanent stabilization practices approved by the Engineer and conforming to 2002 Guidelines.

Structural Measures

The following structural measures shall be used to divert flows, limit runoff, and minimize the discharge of pollutants:

- Outlet Protection: Outlet protection in the form of a modified riprap apron will be added to the existing culvert in the southeast corner of the property, where stormwater enters the site. An additional riprap apron will be added to the stormwater management system just south of the eastern access drive at a new endwall. A new outfall with an endwall and riprap apron will be installed north of the unnamed perennial watercourse to decrease velocity and the potential for erosion in this area.

- Deep Sump Catch Basins: Deep sump catch basins (4-foot sump) shall be used, especially adjacent to outlets, to intercept pollutants and debris.

Maintenance

All construction activities and related activities shall conform to the requirements of Section 1.10 "Environmental Compliance" of the Department's Standard Specifications, Form 818. In general, all construction activities shall proceed in such a manner so as not to pollute any wetlands, watercourses, water body, and conduit carrying stormwater. The Contractor shall limit, in so far as possible, the surface area of earthen materials exposed by construction activity and immediately provide temporary and permanent pollution control to prevent soil erosion and contamination on the site. Water pollution control provisions and BMPs per Section 1.10, Environmental Compliance of the Standard Specifications shall be administered during construction. Control measures shall be inspected and maintained in accordance with the 2002 Guidelines and as directed by the Engineer.

4. Dewatering Wastewaters

Dewatering Guidelines

Dewatering will be performed as required to maintain the construction areas on the site free from standing water for the duration of the project. Dewatering may be necessary for various excavations conducted during construction activities. In those cases, the dewatering system(s) will be of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of groundwater to allow excavation and construction to proceed on dry, stable subgrades.

When dewatering is necessary, pumps used shall not be allowed to discharge directly into a wetland, watercourse, or stormwater drainage system. Prior to any dewatering, the Contractor must submit to the Engineer a written proposal for specific methods and devices to be used, and must obtain the Engineer's written approval of such methods and devices, including, but not limited to, the pumping of water into a temporary sedimentation basin, providing surge protection at the inlet or outlet of pumps, floating the intake of a pump, or any other method for minimizing and retaining the suspended solids. If the Engineer determines that a pumping operation is causing turbidity problems, the Contractor shall halt said operation until a means of controlling the turbidity is submitted by the Contractor in writing to the Engineer, approved in writing by the Engineer and implemented by the Contractor. No discharge of dewatering wastewater shall contain or cause a visible oil sheen, floating solids or foaming in the receiving water. If required, all activities are to be performed in compliance with the Department’s Form 818.

5. Post-Construction Stormwater Management

Post-construction Guidelines

After the project is complete, the Department will perform the following maintenance and restorative measures:

- Litter/debris and sweepings will be removed from the site regularly.
- Mowing and maintenance of the turf areas and vegetated areas will occur as needed.
- Riprap outlet protection will be inspected and repaired annually or as needed.
- Stormwater drainage system will be cleaned of sediment/debris as directed by the District Drainage Engineer.

Post Construction Performance Standards

Other Development:

The project site is mostly undeveloped with less than 40% effective impervious cover. As a result, the commuter lot must be designed to retain the full water quality volume to the maximum extent practicable for the site. Water quality volume is determined using the following equation:

$$WQV = \frac{(1")(R)(A)}{12}$$

where: WQV = water quality volume (ac-ft)
R = volumetric runoff coefficient
= 0.05+0.009(I)
I = percent impervious cover
A = site area in acres

Area (A) =	3.49	acres
Design Precipitation (P) =	1	inch
% Impervious Cover (I) =	53	
Volumetric Runoff Coefficient (R) =	0.528	

WQV =	**0.153**	**ac-ft**
=	**6682.50**	**cu-ft**

The water quality volume goal for the commuter lot is 0.153 ac-ft. The proposed water quality volume for the site 0.031 ac-ft, achieving 20% of the water quality volume goal. The following is a description of the site restrictions preventing the treatment of the full water quality volume and the proposed measures implemented to minimize the impacts on water quality.

Given the considerable water quality volume goal, the use of infiltration on-site was considered. A preliminary investigation included two infiltration basins located between the proposed commuter lot and Colt Highway. However, soil borings taken at the proposed location of the basins revealed that the existing soil conditions were not suitable for long term infiltration.

Another measure considered was natural dispersion through a vegetative filter. However, the open space surrounding the proposed commuter lot was limited due to the bordering roadways. As a result, the space was not adequate to meet the design requirements of a vegetative filter sloped below 25% with minimum lengths of 25 ft to 50 ft to serve as a water quality treatment measure.

Stormwater treatment has been provided to the extent feasible given site constraints. Adherence to BMPs and the Erosion and Sedimentation Control Plan will avoid and minimize impacts to water quality. The proposed condition consists of two grass-lined swales between the proposed commuter lot and Colt Highway. Though grass channels can be utilized to treat stormwater, a drainage analysis revealed that the flow depth exceeds the minimum depth of 4 inches for a water quality storm to be considered as a water quality treatment measure. Permanent stone check dams within the grass-lined swales are proposed in order to retain a portion of the water quality volume. Furthermore, proposed catch basins with four-foot sumps will be utilized to retain additional stormwater.

Runoff Reduction and LID Practices:

Runoff reduction practices have been integrated into the project design to minimize the post-development runoff volume released to receiving waters. Particularly, the use of LID approaches have been integrated into the project to the extent practicable, including: Grass swales

In accordance with General Permit section 5(b)(2)(C)(ii)(a) "Runoff Reduction and Low Impact Development ("LID") Practices, the selected stormwater design incorporates run-off reduction, meets the performance standard of section 5(b)(2)(C)(i), promotes groundwater recharge, and minimizes post-construction impacts to water quality.

Suspended Solids and Floatables Removal:

New catch basins are proposed that are outfitted with four-foot sumps to remove initial suspended solids and help with removal of floatables.

Velocity Dissipation:

Velocity dissipation is an important long-term control to reduce the potential for erosion and sedimentation within the project area after construction. The project will incorporate the following BMPs to promote long-term, permanent velocity dissipation:

- Permanent turf reinforcement/erosion control matting
- Check dams
- Permanent vegetation on disturbed soil areas
- Scour hole/riprap pads at drainage outlets

- Vegetated swales

Inspections and maintenance of drainage structures will be conducted regularly, and stone ballast will be replaced as needed to maintain long-term control of erosion and sedimentation. In accordance with General Permit 5(b)(2)(C)(ii)(c) “Velocity Dissipation” the stormwater drainage outfalls will be protected by riprap pads to receive the flows. Calculations for the riprap aprons at outfalls are provided in Appendix B.

6. Other Controls

Waste Disposal

Construction site waste shall be properly managed and disposed of during the entire construction period. Additionally, the following practices will be implemented:

- A waste collection area will be designated. The selected area will minimize truck travel through the site and will not drain directly to the adjacent wetlands.
- Containers will have lids, so they can be covered before periods of rain.
- Waste collection shall be scheduled regularly to prevent the containers from overfilling.
- Spills shall be cleaned up immediately.
- Defective containers that may cause leaks or spills will be identified through regular inspection. Any found to be defective will be repaired or replaced immediately.
- Any stockpiling of materials should be confined to the designated area as approved by the Engineer.

Washout Areas

Washout of applicators, containers, vehicles, and equipment for concrete shall be conducted in a designated washout area. No surface discharge of washout wastewaters from the area will be allowed. All concrete wash water will be directed into a container or pit such that no overflows can occur. Washout shall be conducted in an entirely self-contained system and will be clearly designed and flagged or signed where necessary. The washout area shall be located outside of any buffers and at least 50 feet from any stream, wetland, or other sensitive water or natural resources as determined or designated by the Department's Office of Environmental Planning or the Engineer.

The washout area will be site located by the Contractor, approved by the Engineer, and the SWPCP revised as appropriate. The "Concrete Washout Area" detail in Appendix C shows the recommended method of construction for the washout area. The designated area shall be designed and maintained such that no overflows can occur during rainfall or after snowmelt.

Anti-tracking Pads and Dust Control (Form 818- Sections 2.11/9.39/9.42/9.43)

Off –site vehicle tracking of sediments and the generation of dust shall be minimized. Temporary anti-tracking pads from the active work site to the existing pavement will be installed and maintained at the locations shown on the plans. The Contractor shall:

- Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces.
- Provide periodic top dressing with additional stone or additional length as conditions demand.
- Repair any measures used to trap sediment as needed.

- Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces.
- Ensure roads adjacent to a construction site are left clean at the end of each day.

If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then the contractor shall either:

- Increase the length of the construction entrance,
- Modify the construction access road surface, or
- Install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.

For construction activities which cause airborne particulates, wet dust suppression shall be utilized. Construction site dust will be controlled by sprinkling the ground surface with water until it is moist on an as-needed basis. The volume of water sprayed shall be such that it suppresses dust yet also prevents the runoff of water.

Post-Construction

Upon completion of construction activities and stabilization of the site, all post-construction stormwater structures, including the 4-foot catch basin sumps, shall be cleaned of construction sediment and any remaining silt fence shall be removed prior to acceptance of the project by the Department. Sediment shall be properly disposed of in accordance with all applicable laws, regulations, and guidelines.

Maintaining and Storing Vehicles and Equipment

The Contractor shall take measures to prevent any contamination to wetlands and watercourses while maintaining and storing construction equipment on the site. All chemical and petroleum containers stored on site shall be provided with impermeable containment which will hold at least 110% of the volume of the largest container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. All chemicals and their containers shall be stored under a roofed area except for those stored in containers of 100- gallon capacity or more, in which case double-walled tanks will suffice.

The following measures will be practiced while maintaining and storing construction equipment at the site:

- Equipment that may malfunction and cause leaks will be inspected regularly. Equipment that is found to have leaks will be repaired immediately or removed from the site.

- No unnecessary petroleum products will be stored at the site.

- Equipment repair and maintenance will not occur on the site unless the equipment cannot be removed. In this case, all practical measures will be utilized to prevent contamination of surface and groundwater from fuel, coolant, or other engine fluid spills or leaks. If

fueling, repair, or maintenance are necessary on-site, spill kits and absorbents will be maintained at all times, including ground cover/matting.

7. Inspections

Inspection Guidelines

All construction activities shall be inspected initially within the first 30 days, for SWPCP implementation and then weekly for Routine Inspections.

The Permittee will maintain a rain gauge on-site to document rainfall amounts. During construction, all areas disturbed by the construction activity that have not been stabilized, all erosion and sedimentation control measures, all structural control measures, soil stockpile areas, washout areas and locations where vehicles enter or exit the site shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and impacts to receiving waters at least once every seven calendar days and within 24 hours of the end of a storm that generates a discharge.

For storms that end on a weekend, holiday or other time in which working hours will not commence within 24 hours, an inspection is required within 24 hours only for storms that equal or exceed 0.5 inches. For lesser storms, inspection shall occur immediately upon the start of subsequent normal working hours.

Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months. For the final stabilization inspection, once the site has been stabilized for at least three (3) months, such inspection shall be by a qualified inspector to confirm final stabilization and compliance indicated on the Notice of Termination form in Appendix E.

Qualified inspectors provided by the Department's District 4 Office shall conduct inspections.

The following items shall be inspected as described below:

Item	Procedure
Sedimentation Control System (SCS)	The SCS shall be inspected to ensure that the fence line is intact with no breaks or tears. The fence shall be firmly anchored to the ground. Areas where the fence is excessively sagging or where support posts are broken or uprooted shall be noted. Depth of sediment behind the fence shall be noted.
Concrete Washout Area	Containers or pits shall be inspected at least once a week to ensure structural integrity, adequate holding capacity, and will be repaired prior to future use if leaks are present. The contractor shall remove hardened concrete waste when it accumulates to a height of ½ of the container or pit or as necessary to avoid overflows. All concrete waste shall be

	disposed of in a manner consistent will all applicable laws, regulations and guidelines.
Catch Basin Protection	Protective measures shall be inspected to ensure that sediment is not entering the catch basins. Catch basin sumps shall be monitored for sediment deposition. Hay bales shall be inspected to ensure they have not clogged.
Anti-tracking Pad	Locations where vehicles enter or exit the site shall be inspected for evidence of off-site tracking.
Dust Control	Measures shall be taken for the purpose of allaying (diminishing) dust conditions. Measures may include the use of sweeping equipment and/or the application of water or calcium chloride.
General	Construction areas and the perimeter of the site shall be inspected for any evidence of debris that may blow or wash off site or that has blown or washed off site. Construction areas shall be inspected for any spills or unsafe storage of materials that could pollute off site waters.

8. Keeping Plans Current

Revisions to Stormwater Pollution Control Plans

The Department shall amend the Plan if the actions required by the SWPCP fail to prevent pollution or otherwise comply with provisions of the General Permit. The SWPCP shall also be amended whenever there is a change in contractors or sub-contractors at the site. If the results of the inspections require modifications to the SWPCP, the plans shall be revised as soon as practicable after the inspection. Such modifications shall provide for a timely implementation of any changes to non-engineered controls on the site within 24 hours and implementation of any changes to the plan within 3 (three) calendar days following the inspection. For Engineered measures, corrective actions shall be implemented on-site within 7 (seven) days and incorporated into a revised Plan within 10 (ten) days of the date of inspection

In no event shall the requirements to keep the SWPCP current or update a SWPCP, relieve the permittee and their contactor(s) of the responsibility to properly implement any actions required to protect the waters of the State and to comply with all conditions of the permit.

9. Monitoring Requirements

A written report summarizing the scope of the inspection, the name(s) and qualifications of inspection personnel, the date and time of the inspection, major observations relative to the implementation of the SWPCP, and actions taken shall be completed within 24 hours of the inspection. This report shall be retained as part of the SWPCP for at least five years after the date of the inspection.

Turbidity monitoring shall be conducted utilizing the drainage plans and a procedure consistent with 40 CFR Part 136 (http://www.epa.gov/region9/qa/pdfs/40cfr136_03.pdf) and may be taken manually or by an in-situ turbidity probe or other automatic sampling device equipped to take individual turbidity readings. The first sample shall be taken within the first hour of stormwater discharge from the site and at least three grab samples shall be taken during a storm event and shall be representative of the flow and characteristics of the discharge. Sampling shall be conducted at least monthly when there is a discharge of stormwater from the site while construction activity is ongoing, until final stabilization of the drainage area associated with each outfall is achieved.

Samples shall be taken during normal working hours, which for this project shall be defined as Monday through Friday, 7:00 am to 3:30 pm. If a storm continues past working hours, sampling shall resume the following morning or the morning of the next working day following a weekend or Holiday, as long as the discharge continues. Sampling may be temporarily suspended when conditions exist that may reasonably pose a threat to the safety of the person taking the sample.

Within 30 days following the end of each month, the stormwater sampling results shall be submitted on the Stormwater Monitoring Report (SMR) and submit in accordance with Net DMR. The Stormwater Monitoring Report Form is included in Appendix D. If there is no stormwater discharge during a month, sampling is not required, however, SMR's indicating "no discharge" along with the reason, shall still be submitted as required.

10. Contractors

General

This section shall identify all Contractors and Subcontractors who will perform on site actions which may reasonably be expected to cause or have the potential to cause pollution of the waters of the State.

Certification Statement

All contractors and subcontractors must sign the attached statement. All certification will be included in the Stormwater Pollution Control Plan.

State Project No.: 171-412

CT*fastrak* Commuter Parking Lot
Farmington, CT

"I certify under penalty of law that I have read and understand the terms and conditions of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. I understand that as Contractor on the project, I am covered by this General Permit, and must comply with the terms and conditions of this permit, including, but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for this project."

GENERAL CONTRACTOR

Signed:_____ Date:_____

Title:_____

Firm:_____ Telephone:_____

Address:_____

_____

_____

SUBCONTRACTOR

Signed:_____ Date:_____

Title:_____

Firm:_____ Telephone:_____

Address:_____

_____

_____

General:

This Stormwater Pollution Control Plan (SWPCP) is prepared to comply with the requirements for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. Also to be considered part of the SWPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 818) including supplements thereto and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control and 2004 Stormwater Quality Manual.

List of applicable Figures / Plans:

Appendix A - Figures

USGS map	Figure 1
Existing Drainage Areas	DA-001
Proposed Drainage Areas	DA-002

Appendix B – Drainage Calculations

Velocity Dissipation
Water Quality Computations

Appendix C – Plan Sheets

Site Plan	CIV-101
Drainage Plan	CIV-102
Grading Plan	CIV-103

Appendix D – Stormwater Monitoring Report Form

Appendix E – Notice of Termination Form

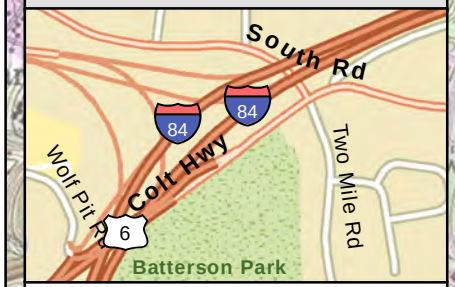
CT*fastrak* Commuter Parking Lot
State Project No. 171-412

Farmington, CT

Appendix A: Figure 1
USGS Vicinity Map

Legend

Approximate Project Limits



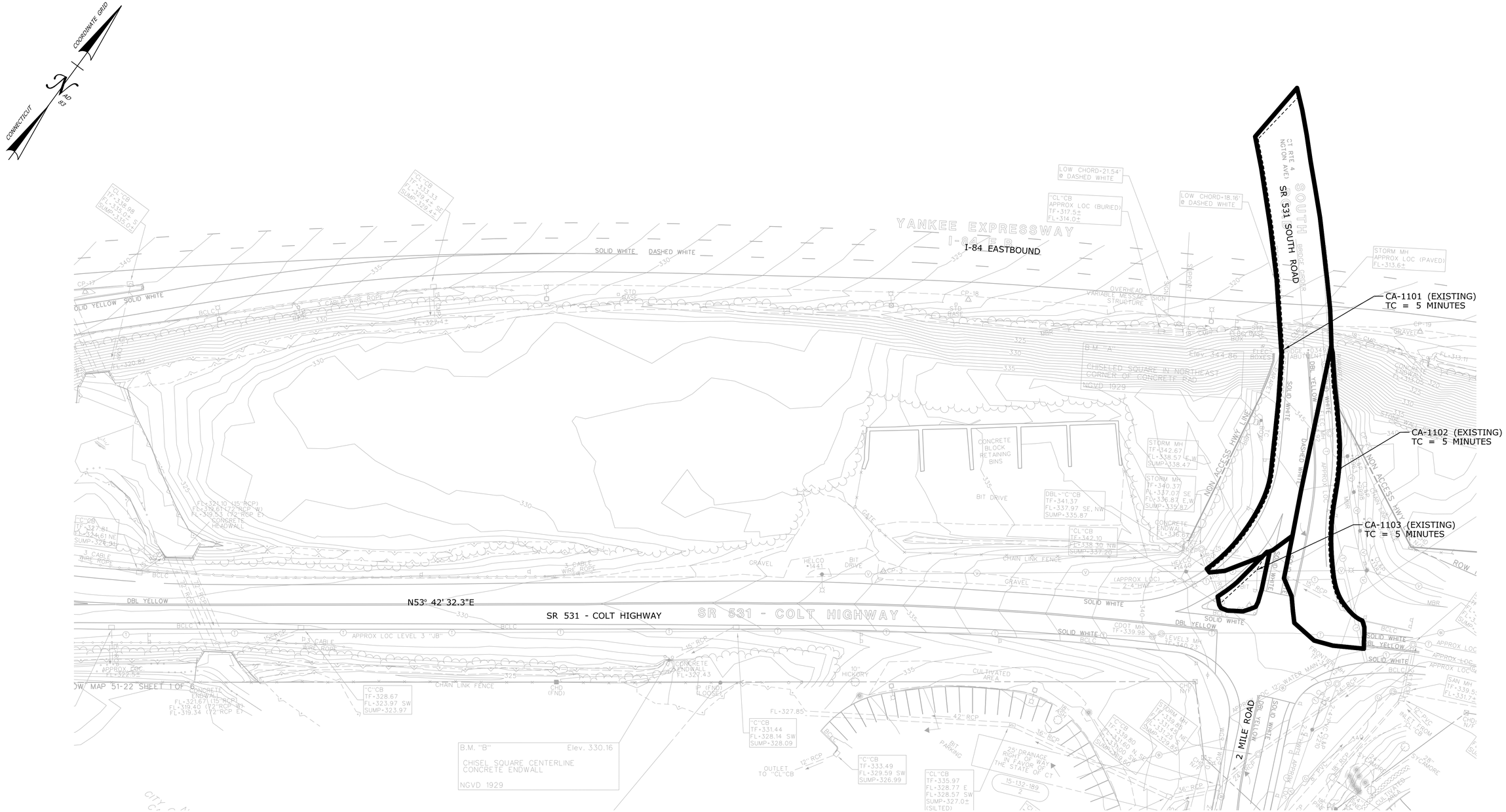
N
W E
S

0 500 1,000 1,500 2,000
Feet

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

Project Site

Copyright:© 2013 National Geographic Society, i-cubed



LEGEND

DRAINAGE AREA

----- TIME OF CONCENTRATION

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/16/2020

DESIGNER/DRAFTER: **S. ZARATE**

CHECKED BY:

SCALE IN FEET
0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA..MSH..DRG..0171..0412..DrainageAreas-Existing.dgn

SIGNATURE/
BLOCK:

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

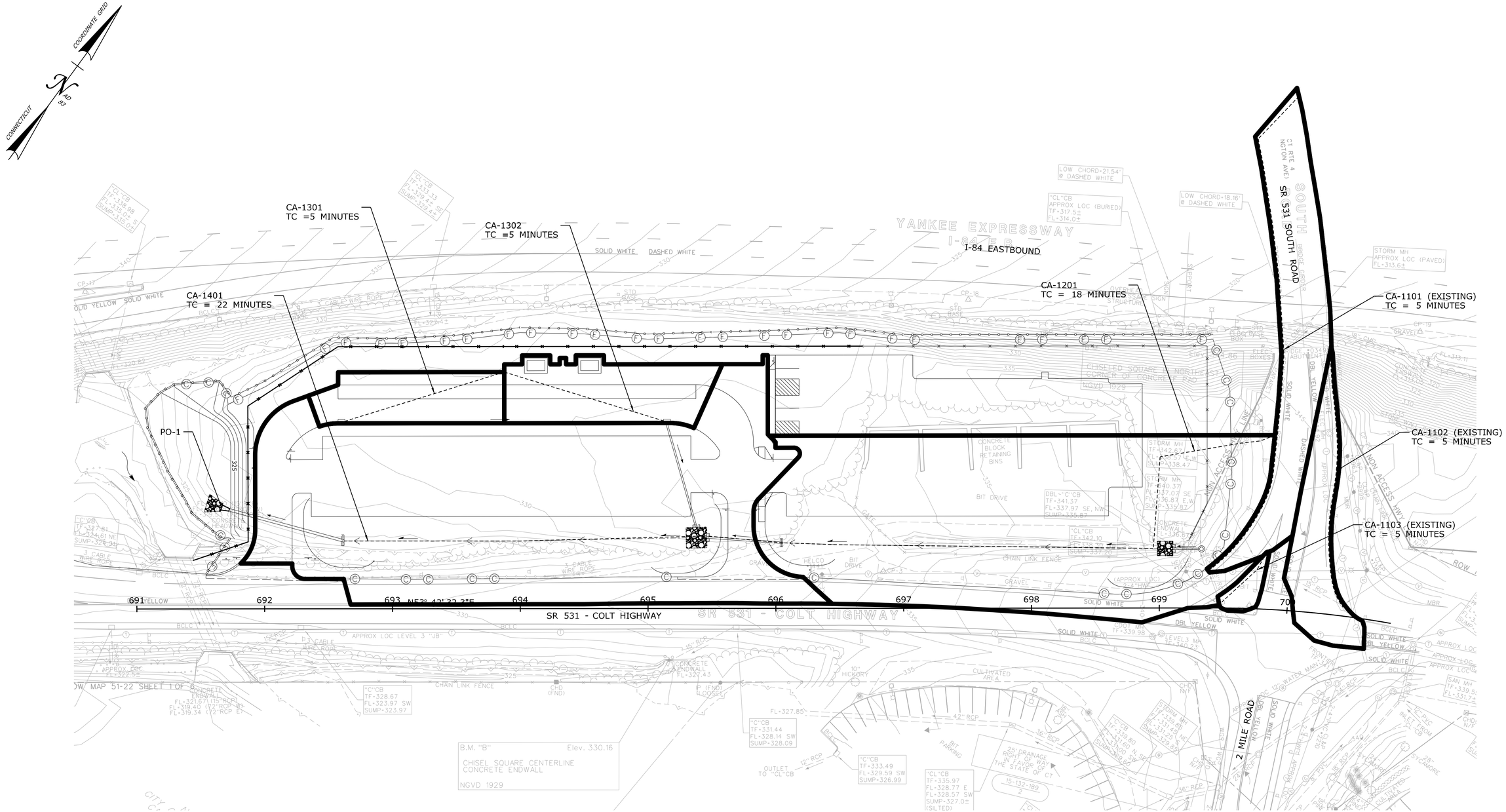
TOWN: **FARMINGTON**

DRAWING TITLE:
EXISTING DRAINAGE AREAS

PROJECT NO. **171-412**

DRAWING NO. **DA-001**

SHEET NO.



LEGEND

DRAINAGE AREA

----- TIME OF CONCENTRATION

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

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SCALE IN FEET
0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA..MSH..DRG..0171..0412..DrainageAreas.dgn

SIGNATURE/ BLOCK:

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

PROJECT NO. **171-412**

DRAWING TITLE: **PROPOSED DRAINAGE AREAS**

DRAWING NO. **DA-002**

SHEET NO.

Appendix B

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	3/24/2020
Location	Commuter Lot - Farmington STA. 699+39.42 LT	Checked	DDS	Date	04/23/20

Drainage Area 12864.75

Drainage Basin **STA. 699+39.42 LT**

Label **CATCH BASIN 1101**

CATCH BASIN 1101				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1101-01	0.30	Pavement	0.95	0.28
SUBTOTAL	0.30			0.28

TOTAL ACREAGE	0.30
COMPOSITE C VALUE	0.95
TOTAL CA	0.28

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	3/24/2020
Location	Commuter Lot - Farmington STA. 700+43.59 LT	Checked	DDS	Date	04/23/20

Drainage Area 6229.24

Drainage Basin **STA. 700+43.59 LT**

Label **CATCH BASIN 1102**

CATCH BASIN 1102				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1102-01	0.14	Pavement	0.95	0.14
SUBTOTAL	0.14			0.14

TOTAL ACREAGE	0.14
COMPOSITE C VALUE	0.95
TOTAL CA	0.14

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	3/24/2020
Location	Commuter Lot - Farmington STA. 699+48.72 LT	Checked	DDS	Date	04/23/20

Drainage Area 877.02

Drainage Basin **STA. 699+48.72 LT**

Label **CATCH BASIN 1103**

CATCH BASIN 1103				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1103-01	0.02	Pavement	0.95	0.02
SUBTOTAL	0.02			0.02

TOTAL ACREAGE	0.02
COMPOSITE C VALUE	0.95
TOTAL CA	0.02

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	3/24/2020
Location	Commuter Lot - Farmington STA. 692+60.23 LT	Checked	DDS	Date	04/23/20

Drainage Area 5732.22

Drainage Basin **STA. 692+60.23 LT**

Label **CATCH BASIN 1301**

CATCH BASIN 1301				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1301-01	0.13	Pavement	0.95	0.13
SUBTOTAL	0.13			0.13

TOTAL ACREAGE	0.13
COMPOSITE C VALUE	0.95
TOTAL CA	0.13

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	3/24/2020
Location	Commuter Lot - Farmington STA. 695+14.90 LT	Checked	DDS	Date	04/23/20
	Drainage Area		7741.21		
	Drainage Basin		**STA. 695+14.90 LT**		
	Label		**CATCH BASIN 1302**		

CATCH BASIN 1302				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1302-01	0.18	Pavement	0.95	0.17
SUBTOTAL	0.18			0.17

TOTAL ACREAGE	0.18
COMPOSITE C VALUE	0.95
TOTAL CA	0.17

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	3/24/2020
Location	Commuter Lot - Farmington	Checked	DDS	Date	04/23/20
	STA. 696+05.41 to 699+10.61 LT				

Drainage Area 50457.48

Drainage Basin **STA. 696+05.41 to 699+10.61 LT**

Label **SWALE 1201**

SWALE 1201				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1201-01	0.40	Pavement	0.95	0.38
CA-1201-02	0.61	Unimproved	0.30	0.18
CA-1201-03	0.15	Pavement	0.95	0.14
SUBTOTAL	1.16			0.70

TOTAL ACREAGE	1.16
COMPOSITE C VALUE	0.61
TOTAL CA	0.70

Runoff Coefficient Worksheet

Project No.	65651	By	SAZ	Date	6/15/2020
Location	Commuter Lot - Farmington STA. 692+62.17 to 695+47.55 LT	Checked	DDS	Date	6/17/2020

Drainage Area 58632.96

Drainage Basin **STA. 692+62.17 to 695+47.55 LT**

Label **SWALE 1401**

SWALE 1401				
SUBAREA	**ACREAGE**	**SURFACE TYPE**	**C VALUE**	**CA**
CA-1401-01	0.78	Pavement	0.95	0.75
CA-1401-02	0.17	Pavement	0.95	0.16
CA-1401-03	0.39	Unimproved	0.30	0.12
SUBTOTAL	1.35			1.02

TOTAL ACREAGE	1.35
COMPOSITE C VALUE	0.76
TOTAL CA	1.02

FOR: Commuter Lot	JOB NO: 65651	SHEET NO:
MADE BY: SAZ	CHECKED BY: DDS	BACKCHECKED BY:
DATE: 03/29/2020	DATE: 04/23/20	DATE:

HNTB

Outlet Protection design for Discharge 1100

Use Type C Apron because of well-defined channel downstream of the outlet

Length: Check table 11-13.1 for L_a

$Q = 3.21$ cfs

S_p = Pipe diameter = 18 in

⇒ Use $L_a = 12$ ft minimum

Width: Use largest result of the following equations (W_3)

$Z = 2.5:1$

$C_b = 2$ ft

$T_{WE} = 0.84$ ft

$W_3 = 3S_p = 3(1.5\text{ ft}) = 4.5$ ft

$W_3 = 2(Z)(T_{WE} + 1\text{ ft}) + C_b$

$= 2(2.5)(0.84+1) + (2) =$ **11.2 ft ← GOVERNS**

$W_3 = 2(Z)(0.7)(S_p) + C_b$

$= 2(2.5)(0.7)(1.5) + 2 = 7.3$ ft

FOR: Comrade Lot	JOB NO: 65651	SHEET NO:
MADE BY: SAZ	CHECKED BY: DDS	BACKCHECKED BY:
DATE: 03/29/2020	DATE: 04/23/20	DATE:

HNTB

Riprap Specification for Discharge 1100 (Swale 1201)

Shear stress $\tau = 0.52\ lb/ft^2 \leq 2.00\ lb/ft^2$ ⇒ Modified

$D_{50\,(Bottom)} = \frac{\tau_p}{K_p} = \frac{0.52}{4} = 0.13' \leq 0.5'$ ⇒ Modified

$D_{50\,(sides)}$ → Need to check for 2.5:1 slopes

$= \frac{K_1}{K_2}\left(D_{50\ BOTTOM}\right)$

K_1 → Figure 7-9

$= \frac{B\,(channel\ base) = 2'}{d\,(flow\ depth) = 0.84'} = 2.38$

⇒ $K_1 = 0.87$

$K_2 = \sqrt{1 - \frac{\sin^2\Theta}{\sin^2\Phi}} = 0.83$

Θ = side slope angle = 21.80°

Φ = Riprap angle of repose (Assume very angular) = 41.09° (Figure 7-11

$D_{50\,(sides)} = \frac{0.87}{0.83}(0.13) = 0.136' \leq 0.50$ ⇒ Modified

FOR: Commuter Lot	JOB NO: 65651	SHEET NO:
MADE BY: SAZ	CHECKED BY: DDS	BACKCHECKED BY:
DATE: 04/13/2020	DATE: 04/23/20	DATE:

HNTB

Outlet protection design for Discharge 1200

Use Type C Apron because it will defined channel downstream of the outlet.

Length: Check table 11-13.1 for L_a

$Q = 4.08$ cfs

S_p = Pipe diameter = 18 in

$\Rightarrow$ Use $L_a = 12$ ft minimum

Width: Use largest result of the following equations (W_3)

$Z = 3:1$ (2:1 < 4:1)

$C_b = 2$ ft

$T_{WE} = 1.34$ ft

$W_3 = 3S_p = (3)(1.5\text{ft}) = 4.5$ ft

$W_3 = 2(Z)(T_{WE} + 1\text{ft}) + C_b$

$= 2(3)(1.34 + 1) + 2 = 16.04$ ft $\leftarrow$ GOVERNS

$W_3 = 2(Z)(0.75S_p) + C_b$

$2(3)(0.75)(1.5) + 2 = 8.3$ ft

FOR:	Connector Lot	JOB NO:	65651	SHEET NO:	
MADE BY:	SAZ	CHECKED BY:	DDS	BACKCHECKED BY:	
DATE:	04/13/2020	DATE:	04/23/20	DATE:	

HNTB

Riprap Specification for Discharge 1200 (Swale 1401A)

Shear stress $\tau_p = 0.34\ lb/ft^2 \leq 2.00\ lb/ft^2$ ⇒ Modified

D_{50} (BOTTOM) $\frac{\tau_p}{K_p} = \frac{0.34}{4.0} = 0.085' \leq 0.50'$ ⇒ Modified

D_{50} (SIDES) → Need to check for 2:1 slopes

$= \frac{K_1}{K_2}\left(D_{50\,(BOTTOM)}\right)$

K_1 → Figure 7-9

$= \frac{B\,(channel\ base) = 2'}{d\,(flow\ depth) = 1.35} = 1.48$

⇒ $K_1 = 0.89$

$k_2 = \sqrt{\frac{1 - \sin^2\theta}{\sin^2\phi}}$ θ = side slope angle = 26.57

ϕ Riprap angle of repose (very angular)

$= 0.73$ $= 41.09°$ (Figure 7-11)

$D_{50(SIDES)} = \frac{0.89}{0.73}(0.085) = 0.104' \leq 0.5$ ⇒ Modified

FOR:	Commuter Lot	JOB NO:	65651	SHEET NO:	
MADE BY:	SAZ	CHECKED BY:	DDS	BACKCHECKED BY:	
DATE:	04/13/2020	DATE:	04/23/20	DATE:	

HNTB

Outlet protection for Discharge ~~Point~~ 1300

Use Type C Apron because of well-defined channel downstream of the ~~co~~ outlet

Length: Check table 11-13.1 for L_2

$Q = 2.05$ cfs

S_p = Pipe diameter = 15in

$\Rightarrow L_2 = 10$ft minimum

Width: Use largest result of the following equations (W_3)

$Z = 3{:}1$ (2:1 to 4:1)

$C_b = 2$ft

$T_{WE} = 1.34$ft

$W_3 = 3S_p = 3(1.25) = 3.75$ft

$W_3 = 2(Z)(T_{WE} + 1) + C_b$

$= 2(3)(2.34) + 2 = 16.04$ $\Rightarrow$ GOVERNS

$W_3 = 2(Z)(0.7\,S_p) + C_B$

$= 2(3)(0.7)(1.25) + 2 = 7.25$ft

FOR: Computer Lot	JOB NO: 65651	SHEET NO:
MADE BY: SAZ	CHECKED BY: DDS	BACKCHECKED BY:
DATE: 04/13/2020	DATE: 04/23/20	DATE:

HNTB

Riprap specification for Discharge 1300 (Swale 14 or B)

Shear $T_p = 0.39\ lb/ft^2 \leq 2.00\ lb/ft^2$ ⇒ Modified

$D_{50(bottom)}$ $\frac{T_p}{K_p} = \frac{0.39}{4.0} = 0.0975 \leq 0.50'$ ⇒ Modified

$D_{50(sides)}$ → Need to check for 2:1 slopes

$= \frac{K_1}{K_2} (D_{50BOTTOM})$

K_1 → Figure 7-9

$= \frac{B(channel\ width) = 2'}{d(flow\ depth) = 1.26'} = 1.59$

⇒ $K_1 = 0.87$

$K_2 = \sqrt{1 - \frac{\sin^2\theta}{\sin^2\Phi}}$ θ = side slope angle = 26.57°

Φ = riprap angle of repose (avg angular)

$= 0.73$ = 41.09° (Figure 7-11)

$D_{50(sides)} = \frac{0.87}{0.73}(0.0975) = 0.12' \leq 0.50$ ⇒ Modified

FOR: Commuter Lot	JOB NO: 65651	SHEET NO:
MADE BY: SAZ	CHECKED BY: DDS	BACKCHECKED BY:
DATE: 04/14/2020	DATE: 04/23/20	DATE:

HNTB

Outlet protection design for Discharge 1400

Use Type A Apron because $TW = 0.97 < 0.5R_p = 1.00ft$

Length: Check table 11-13.1 for L_2

$Q = 7.84$ cfs

S_p = pipe diameter = 24in (2ft)

⇒ Use L_2 = 12ft minimum

Width: Use constants 11.33

$W_1 = 3S_p = 3(2) =$ 6ft

$W_2 = 3S_p + 0.7L_2$

$= 3(2) + (0.7)(12) =$ 14.4ft

Riprap specification:

Outlet velocity = 5.20 fps ⇒ Modified (0-8 fps)

For:	CTDOT MS4	Job No.	0171-0412	Sheet No.	1 OF 1
Made by:	SAZ	Checked by:	DDS	Backchecked by:	
Date:	6/15/2020	Date:	06/17/2020	Date:	

CTDOT MS4 Project Design - MEP Worksheet - Backup

EC1 **Total Project Area**

Total Project Area (SF)	Total Project Area (AC)
151952.01	3.49

EC2 **Pre-Construction DCIA**

Pre-Construction DCIA (SF)	Pre-Construction DCIA (AC)	Pre-Construction DCIA (%)
23457.03	0.54	15.48%

DC1 **WQV Retention Design Goal**

Since the pre-construction DCIA percentage is less than 40%, the WQV retention design goal is 1.0xWQV

Drainage Area	Impervious Area	Pervious Area
Site Total	1.85	1.64
Total	1.85	1.64

Area (A) =	3.49	acres
Design Precipitation (P) =	1	inch
% Impervious Cover (I) =	53	
Volumetric Runoff Coefficient (R) =	0.528	

WQV =	**0.153**	**ac-ft**
=	**6682.50**	**cu-ft**

DC1. Water Quality Volume (WQV) retention design goal (acre-feet) – Determine the **WQV retention design goal** by first calculating the Water Quality Volume (WQV) for the project. The WQV is the volume of runoff generated across a site by one inch (1") of rainfall. The proposed impervious area ($C \geq 0.7$) must be known to determine the WQV.

WQV = (1-inch)(R)(A)/12 WQV = water quality volume (ac-ft)
R = volumetric runoff coefficient = 0.05+0.009(I)
I = percent impervious cover for post-construction condition as designed ($C \geq 0.7$).
A = Total DOT-Owned Project Area in acres.

DC2 **WQV Retained**

Check Dams in Grass Channel	0.029	ac-ft
Catch Basins with 4' Sumps	0.002	ac-ft

DC3 **WQV Treated**

0.000 ac-ft

DC4 **WQV Retained and Treated**

Total	0.031	ac-ft
Remaining Needed	0.123	ac-ft

DC5 **Post-construction DCIA**

Total Impervious Area	1.85	
Subtract Area Contributing to Check Dams in Grass Channel	1.34	ac
Subtract Area Contributing to Catch Basins with 4' Sumps	1.31	ac

DC6 **Pre-construction DCIA**

Pre DCIA (EC2) 0.54 ac

DC7 **Change in DCIA from pre- to post-construction**

Δ DCIA 0.77 ac

HNTB

For:	CTDOT MS4	Job No.	0171-0412	Sheet No.	1 OF 1
Made by:	SAZ	Checked by:	DDS	Backchecked by:	
Date:	4/14/2020	Date:	04/23/20	Date:	

WQV BMP - Catch Basins with 4' Sump

WATER QUALITY VOLUME (WQV) RETAINED

Trapezoidal Vegetated Swale - 2' bottom, side slopes vary between 4:1 and 2:1

Station	Catch Basin Label	Length (ft)	Width (ft)	Depth (ft)	Volume (cu-ft)	Volume (ac-ft)
692+60, LT	1301	3.00	4.00	4.00	48.00	0.0011
695+15, LT	1302	3.00	4.00	4.00	48.00	0.0011

Total Retained by Catch Basins with 4' Sump	**96.00**	**0.002**	**ac-ft**

DISCONNECTED IMPERVIOUS AREA

Drainage Area to BMP (A) = 0.31 acres
= 0.0005 square miles

BMP Drainage Area

Drainage Area	Impervious Area	Pervious Area
CA-1301	0.13	0.00
CA-1302	0.18	0.00
	0.31	0.00

Water Quality Volume

Area (A) =	0.31	acres
Area (A) =	0.0005	square miles
Design Precipitation (P) =	1	inch
% Impervious Cover (I) =	100	
Volumetric Runoff Coefficient (R) =	0.950	
WQV =	0.024	ac-ft

The percentage of the contributing drainage area WQV retained by the catch basins is the following:
% = 0.003/0.024 = 9.1%

Therefore, the disconnected area is will the above percentage of the contributing drainage area to the catch basins
= (11.4%)(0.31ac) = **0.028** **ac**

Total DCIA Catch Basins with 4' Sump	**0.028**	**ac**

HNTB

For:	CTDOT MS4	Job No.	0171-0412	Sheet No.	1 OF 1
Made by:	SAZ	Checked by:	DDS	Backchecked by:	
Date:	6/15/2020	Date:	06/17/2020	Date:	

WQV BMP - Grass Channel with Stone Check Dams

WATER QUALITY VOLUME (WQV) RETAINED

Trapezoidal Vegetated Swale - 2' bottom, side slopes vary between 4:1 and 2:1

Station	Length (ft)	Grade	Effective Check Dam Height (ft)	Cross Sectional Area (sq-ft)	Avg End Area Vol (cu-ft)	Vol. (ac-ft)
692+70, LT	88.00	0.005	0.440	3.880	170.720	0.004
693+58, LT	88.00	0.005	0.440	3.880	170.720	0.004
694+46, LT	88.00	0.004	0.352	3.704	162.976	0.004
696+11, LT	100.00	0.010	1.000	4.750	237.500	0.006
697+11, LT	100.00	0.010	1.000	4.750	237.500	0.006
698+11, LT	100.00	0.010	1.000	4.750	237.500	0.006

Total Retained by Stone Check Dam	1216.916	0.029	ac-ft

DISCONNECTED IMPERVIOUS AREA

Per WQV BMP Grass Channel sheet, it was determined that the WQV for the drainage area to the grass channel was previously calculated to be **0.183** **ac-ft**

The percentage of the contributing drainage area WQV retained by the stone check dams is the following:

% = 0.029/0.183 = 15.5%

Therefore, the disconnected area is will the above percentage of the contributing drainage area to the grass channel

= (15.5%)(3.27ac) = **0.509** **ac**

Total DCIA by Stone Check Dam	0.509	ac

For:	CTDOT MS4	Job No.	0171-0412	Sheet No.	1 OF 1
Made by:	SAZ	Checked by:	DDS	Backchecked by:	
Date:	3/31/2020	Date:	04/23/20	Date:	

WQV BMP - Grass Channel 1201 (STA 696+06 - 698+99)

Drainage Area to BMP (A) = 3.27 acres
= 0.0051 square miles

BMP Drainage Area

Drainage Area	Impervious Area	Pervious Area
CA-1101	0.30	0.00
CA-1102	0.14	0.00
CA-1103	0.02	0.00
CA-1201	0.54	0.61
	1.00	0.61

WATER QUALITY VOLUME (WQV) TREATED

Area (A) =	1.62	acres
Area (A) =	0.0025	square miles
Design Precipitation (P) =	1	inch
% Impervious Cover (I) =	62	
Volumetric Runoff Coefficient (R) =	0.608	

WQV =	0.082	ac-ft
WQV Treated = WQV*0.15=	**0.012**	**ac-ft**

WATER QUALITY FLOW (WQF) CALCULATION

RUNOFF CURVE NUMBER (CN)

Runoff Depth (Q) =	0.608	inches
CN =	96	Figure 2-1 (SWQM)

TIME OF CONCENTRATION (Tc), 10 minute minimum

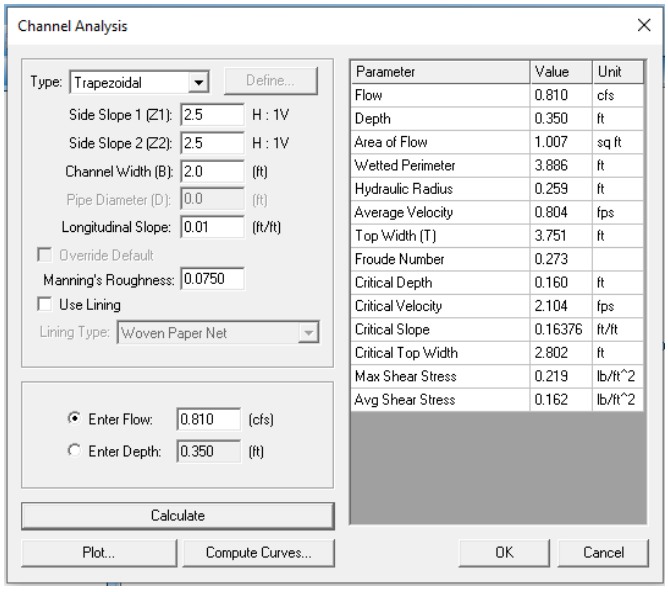
Tc =	18	min
Tc =	0.30	hours

Initial Abstraction (I_a) =	0.083	Table 4-1 (SWQM)
I_a/P Calculation =	0.083	
Unit Peak Discharge (q_u) =	525	Exhibit 4-111 (SWQM)

WQF =	**0.81**	**cfs**

Use WQF to determine if Grass Channel BMP criteria are met for depth and velocity

Hydraulic Toolbox Results:



(Depth greater than 4in => does not meet BMP criteria)

(Velocity less than 1fps => meets BMP criteria)

Since depth does not meet BMP design criteria, treatment and disconnection credits do not apply

HNTB

For:	CTDOT MS4	Job No.	0171-0412	Sheet No.	1 OF 1
Made by:	SAZ	Checked by:	DDS	Backchecked by:	
Date:	6/15/2020	Date:	06/17/2020	Date:	

WQV BMP - Grass Channel 1401 (STA 692+62 - 695+30)

Drainage Area to BMP (A) = 3.27 acres
= 0.0051 square miles

BMP Drainage Area

Drainage Area	Impervious Area	Pervious Area
CA-1101	0.30	0.00
CA-1102	0.14	0.00
CA-1103	0.02	0.00
CA-1201	0.54	0.61
CA-1301	0.13	0.00
CA-1302	0.18	0.00
CA-1401	0.95	0.39
	2.26	1.01

WATER QUALITY VOLUME (WQV) TREATED

Area (A) =	3.27	acres
Area (A) =	0.0051	square miles
Design Precipitation (P) =	1	inch
% Impervious Cover (I) =	69	
Volumetric Runoff Coefficient (R) =	0.672	

WQV =	0.183	ac-ft
WQV Treated = WQV*0.15=	**0.028**	**ac-ft**

WATER QUALITY FLOW (WQF) CALCULATION

RUNOFF CURVE NUMBER (CN)

Runoff Depth (Q) =	0.672	inches
CN =	97	Figure 2-1 (SWQM)

TIME OF CONCENTRATION (Tc), 10 minute minimum

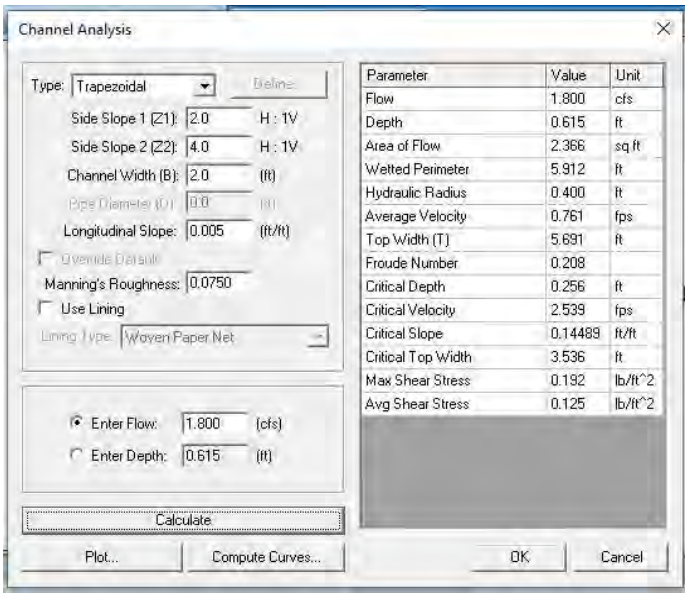
Tc =	21	min
Tc =	0.35	hours

Initial Abstraction (I_a) =	0.062	Table 4-1 (SWQM)
I_a/P Calculation =	0.062	
Unit Peak Discharge (q_u) =	525	Exhibit 4-111 (SWQM)

WQF =	**1.81**	**cfs**

Use WQF to determine if Grass Channel BMP criteria are met for depth and velocity

Hydraulic Toolbox Results:



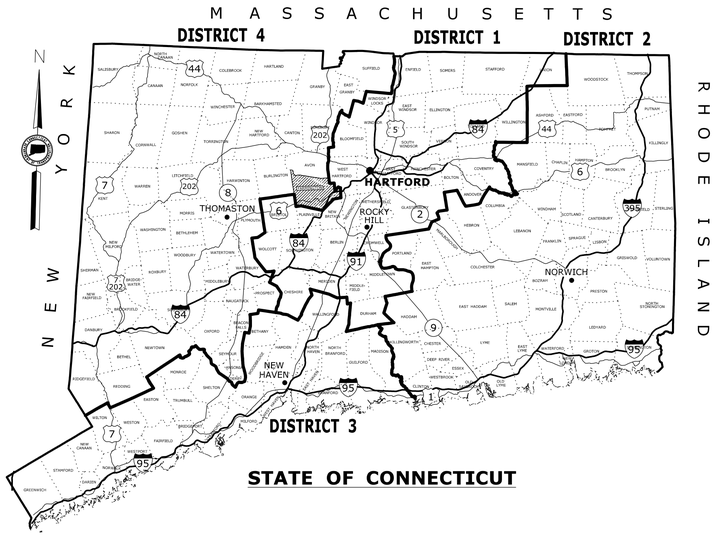
(Depth greater than 4in => does not meet BMP criteria)

(Velocity less than 1fps => meets BMP criteria)

Since depth does not meet BMP design criteria, treatment and disconnection credits do not apply

Appendix C

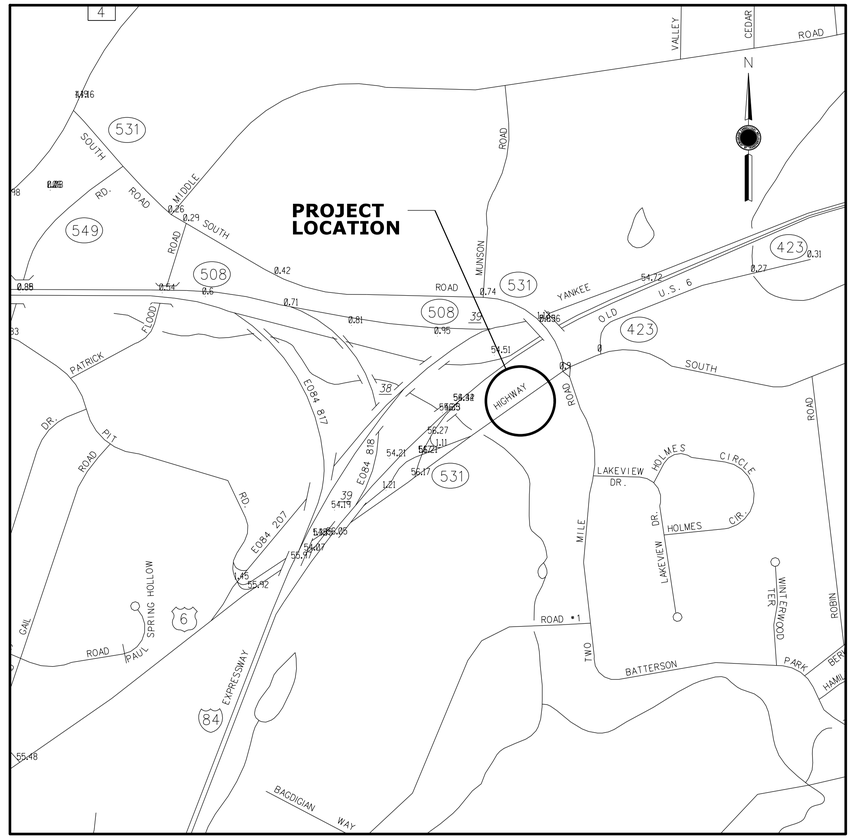
ENVIRONMENTAL PERMIT PLANS
STATE PROJECT 0171-0412
CTfastrak COMMUTER PARKING LOT
TOWN OF FARMINGTON



STATE OF CONNECTICUT

GENERAL NOTES:

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND ACOE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLAND AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN

1" = 600'

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: MAY 15, 2020

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	PMT-001
GENERAL SITE PLAN	PMT-002
WETLAND/WATERCOURSE IMPACT PLAN	PMT-003
100-YEAR FLOODPLAIN IMPACT PLAN	PMT-004
MISCELLANEOUS DETAILS	PMT-005

STANDARD CONVENTIONS

North Arrow, W/No. Coor.
Grid Arrow
Edge Of Road
Concrete Pavement
Dirt Road
B.C.L.C.
Granite Curb
Guide Rail
Concrete Median Barrier
Bit. Walk
Conc. Sidewalk
Railroad Tracks
Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Property Line
Lot Line
Easement Line
Water Edge
Stream
Ditch
TOWN LINE
Highway Line
Street Line
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall

DESIGNED BY:
HNTB CORPORATION

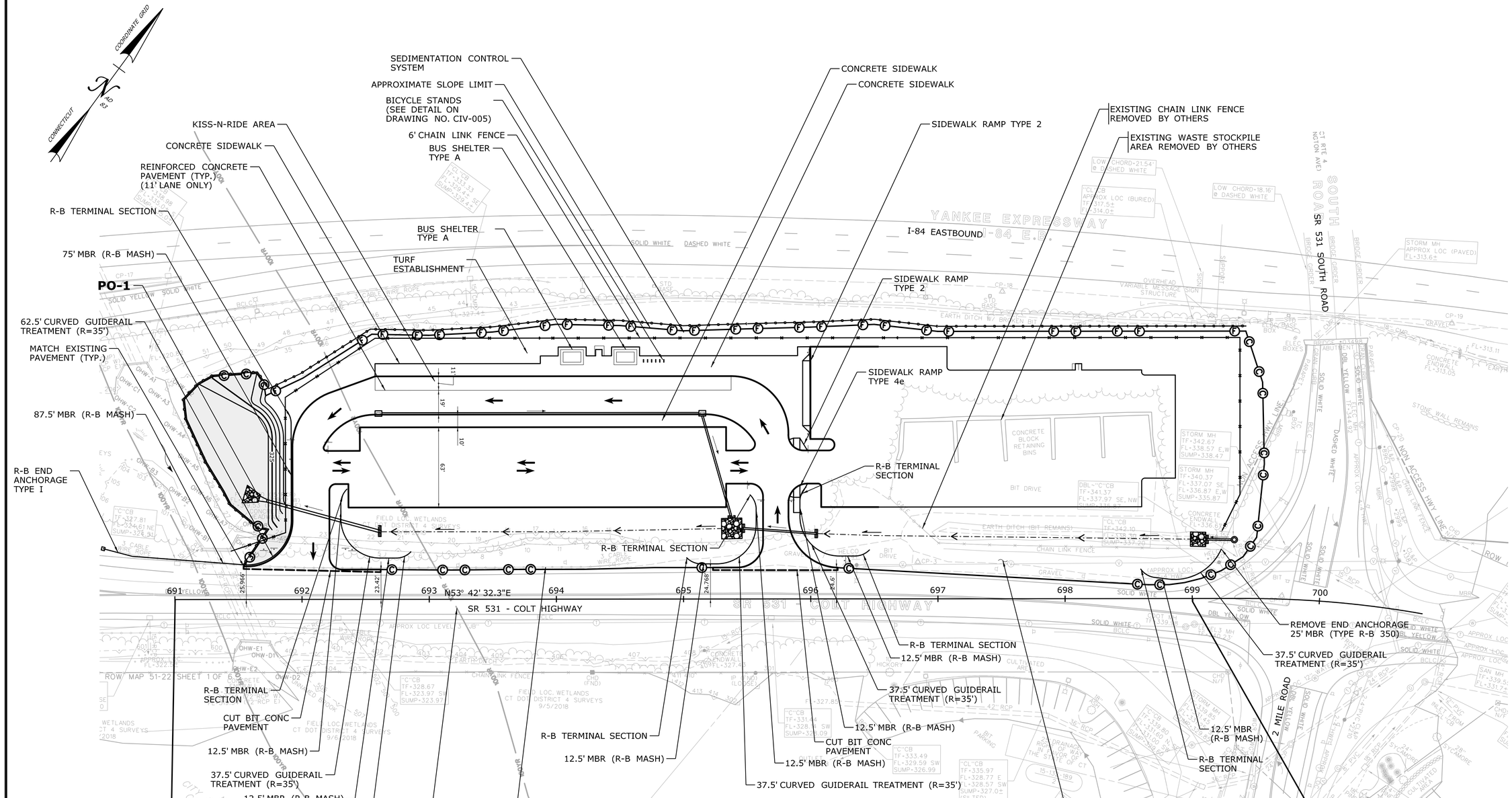
Plans For
Ctfastrak
COMMUTER PARKING LOT

Town(s)/City
FARMINGTON

STATE PROJECT NO.
0171-0412

DRAWING NO.
PMT-001

SHEET NO.
01.01



BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

END STATE PROJECTS NO 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

CHAIN LINK FENCE (6' HIGH)

STATION	OFFSET		STATION	OFFSET	LF
691+44.3	38.0'L	to	691+87.2	52.4'L	45.2
691+87.2	54.2'L	to	691+87.0	158.8'L	106.4
691+87.0	158.8'L	to	692+57.6	205.2'L	84.5
692+57.6	205.2'L	to	699+37.7	205.2'L	680.1
699+37.7	205.2'L	to	699+37.6	81.7'L	123.4
699+37.6	81.7'L	to	699+23.6	53.7'L	31.3

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/22/2020

DESIGNER/DRAFTER: **D. LOGAN**
CHECKED BY: **D. SCHWEITZER**
SCALE IN FEET
0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_MSH_CIV_0171_0412_C001.dgn

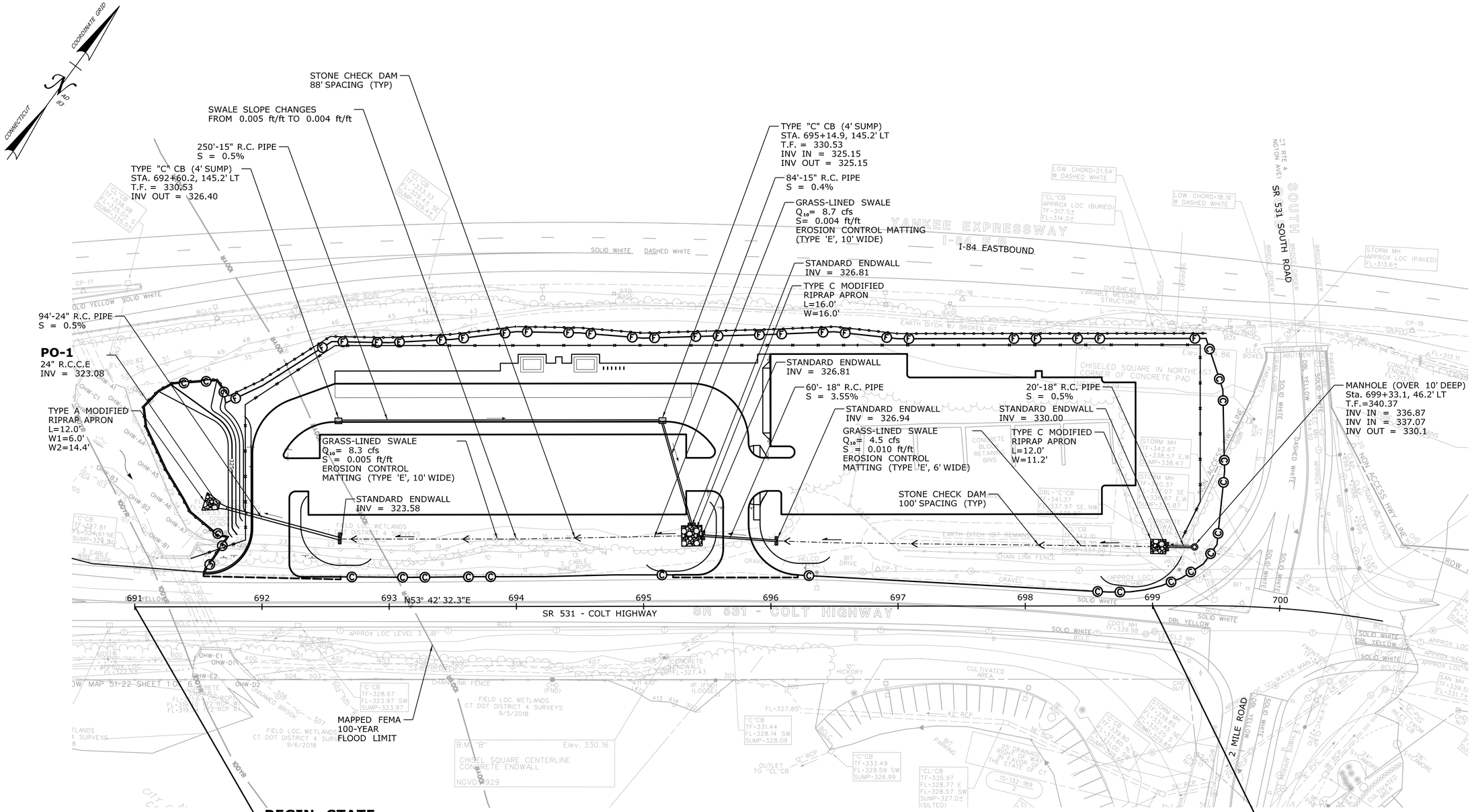
SIGNATURE/ BLOCK:

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **SITE PLAN**

PROJECT NO. **171-412**
DRAWING NO. **CIV-101**
SHEET NO.



SEDIMENTATION CONTROL NOTES

1. INSTALL SEDIMENTATION CONTROL SYSTEM AT LOCATIONS SHOWN ON PLANS AND AT CATCH BASINS

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/22/2020

DESIGNER/DRAFTER: D. LOGAN
CHECKED BY: D. SCHWEITZER
SCALE IN FEET
0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_MSH_DRG_0171_0412_C002.dgn

SIGNATURE/ BLOCK:

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **DRAINAGE PLAN**

PROJECT NO. **171-412**
DRAWING NO. **CIV-102**
SHEET NO.

POINT	STATION	OFFSET
A-1	691+54.1	25.9'LT
A-2	691+92.5	61.8'LT
A-3	691+92.5	120.2'LT
A-4	692+37.4	165.2'LT
A-5	692+57.4	175.2'LT
A-6	692+57.4	185.2'LT
A-7	693+87.4	185.2'LT
A-8	693+87.4	191.2'LT
A-9	694+01.4	191.2'LT
A-10	694+01.4	198.2'LT

POINT	STATION	OFFSET
A-11	694+23.4	198.2'LT
A-12	694+23.4	191.2'LT
A-13	694+43.4	191.2'LT
A-14	694+43.4	198.2'LT
A-15	694+65.4	198.2'LT
A-16	694+65.4	191.2'LT
A-17	695+89.6	191.2'LT
A-18	695+89.8	198.2'LT
A-29	696+08.2	72.2'LT
A-30	696+08.2	88.2'LT

POINT	STATION	OFFSET
A-41	696+25.0	72.2'LT
A-42	694+36.0	191.2'LT
A-43	694+36.0	196.2'LT
A-44	694+31.0	196.2'LT
A-45	694+31.0	191.2'LT
A-46	698+13.2	179.7'LT
A-47	698+13.2	184.7'LT
A-48	698+08.2	184.7'LT
A-49	698+08.2	179.7'LT
A-50	695+37.6	164.2'LT
A-51	692+57.4	164.2'LT
A-52	695+37.6	187.2'LT
A-53	692+57.4	136.2'LT

POINT	STATION	OFFSET
A-19	697+07.3	198.2'L
A-20	697+07.3	182.2'L
A-21	697+09.8	179.7'L
A-22	698+60.1	179.7'L
A-23	698+62.6	175.7'L
A-24	698+86.6	175.7'L
A-25	698+86.6	94.7'L
A-26	698+62.6	94.7'L
A-27	698+60.1	92.2'L
A-28	698+60.1	72.2'L

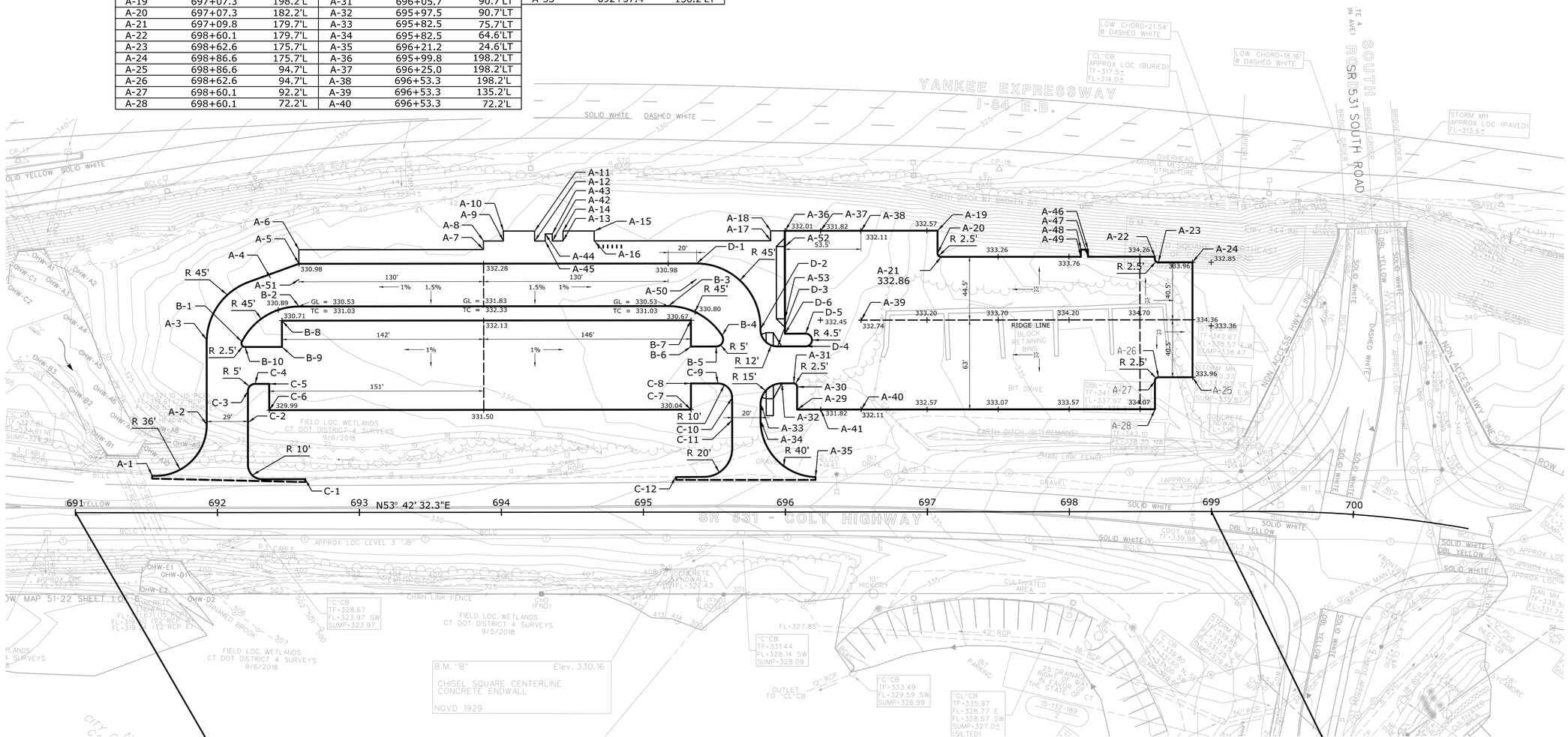
POINT	STATION	OFFSET
A-31	696+05.7	90.7'LT
A-32	695+97.5	90.7'LT
A-33	695+82.5	75.7'LT
A-34	695+82.5	64.6'LT
A-35	696+21.2	24.6'LT
A-36	695+99.8	198.2'LT
A-37	696+25.0	198.2'LT
A-38	696+53.3	198.2'L
A-39	696+53.3	135.2'L
A-40	696+53.3	72.2'L

POINT	STATION	OFFSET
B-1	692+17.2	120.3'LT
B-2	692+57.4	145.2'LT
B-3	695+17.4	145.2'LT
B-4	695+55.4	124.4'LT
B-5	695+51.2	116.7'LT
B-6	695+33.5	116.7'LT
B-7	695+33.5	135.2'LT
B-8	692+45.4	135.2'LT
B-9	693+45.4	116.7'LT
B-10	692+19.4	116.7'LT

POINT	STATION	OFFSET
C-1	692+61.8	23.4'LT
C-2	692+21.5	63.4'LT
C-3	692+21.5	85.7'LT
C-4	692+26.5	90.7'LT
C-5	692+36.5	90.7'LT
C-6	692+36.5	72.2'LT
C-7	695+33.5	72.2'LT
C-8	695+33.5	90.7'LT
C-9	695+52.5	90.7'LT
C-10	695+62.5	80.7'LT

POINT	STATION	OFFSET
C-11	695+62.5	64.8'LT
C-12	695+22.5	24.8'LT

POINT	STATION	OFFSET
D-1	695+37.6	175.2'LT
D-2	695+84.4	129.0'LT
D-3	695+94.4	116.7'LT
D-4	696+14.2	116.7'LT
D-5	696+14.2	125.7'LT
D-6	695+99.7	125.7'LT



CONCRETE CURBING

STATION	OFFSET	REVEAL		STATION	OFFSET	REVEAL	LF
692+57.4	175.2'LT	0"	to	693+22.6	175.2'LT	0"	65.0
693+22.6	175.2'LT	0"	to	693+87.4	175.2'LT	6"	65.0
693+87.4	175.2'LT	6"	to	695+82.6	129.0'LT	6"	222.0
695+97.5	116.7'LT	6"	to	695+99.8	130.2'LT	6"	50.0
695+99.8	145.0'LT	0"	to	695+99.8	154.0'LT	0"	9.0
695+99.8	169.0'LT	0"	to	695+99.8	178.0'LT	0"	9.0
695+99.8	193.0'LT	6"	to	695+99.8	198.0'LT	6"	5.0
692+42.9	142.7'LT	0"	to	692+57.4	145.2'LT	6"	7.0
692+57.4	145.2'LT	6"	to	695+17.4	145.2'LT	6"	260.0
695+17.4	145.2'LT	6"	to	695+36.6	140.9'LT	0"	9.0

SIDEWALK RAMP

STATION	OFFSET	TYPE
695+86.5	79.7'LT	4e
695+86.5	126.2'LT	4e
695+91.2	161.5'LT	2

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/22/2020

DESIGNER/DRAFTER: D. LOGAN
CHECKED BY: D. SCHWEITZER
SCALE IN FEET
0 80 160
SCALE 1"=80'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_MSH_GRD_0171_0412_C003.dgn

SIGNATURE/ BLOCK:

PROJECT TITLE: CTfastrak COMMUTER PARKING LOT

TOWN: FARMINGTON

DRAWING TITLE: LAYOUT & GRADING PLAN

PROJECT NO. 171-412
DRAWING NO. CIV-103
SHEET NO.

NOTES

1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.

2. THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.

LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.

SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.

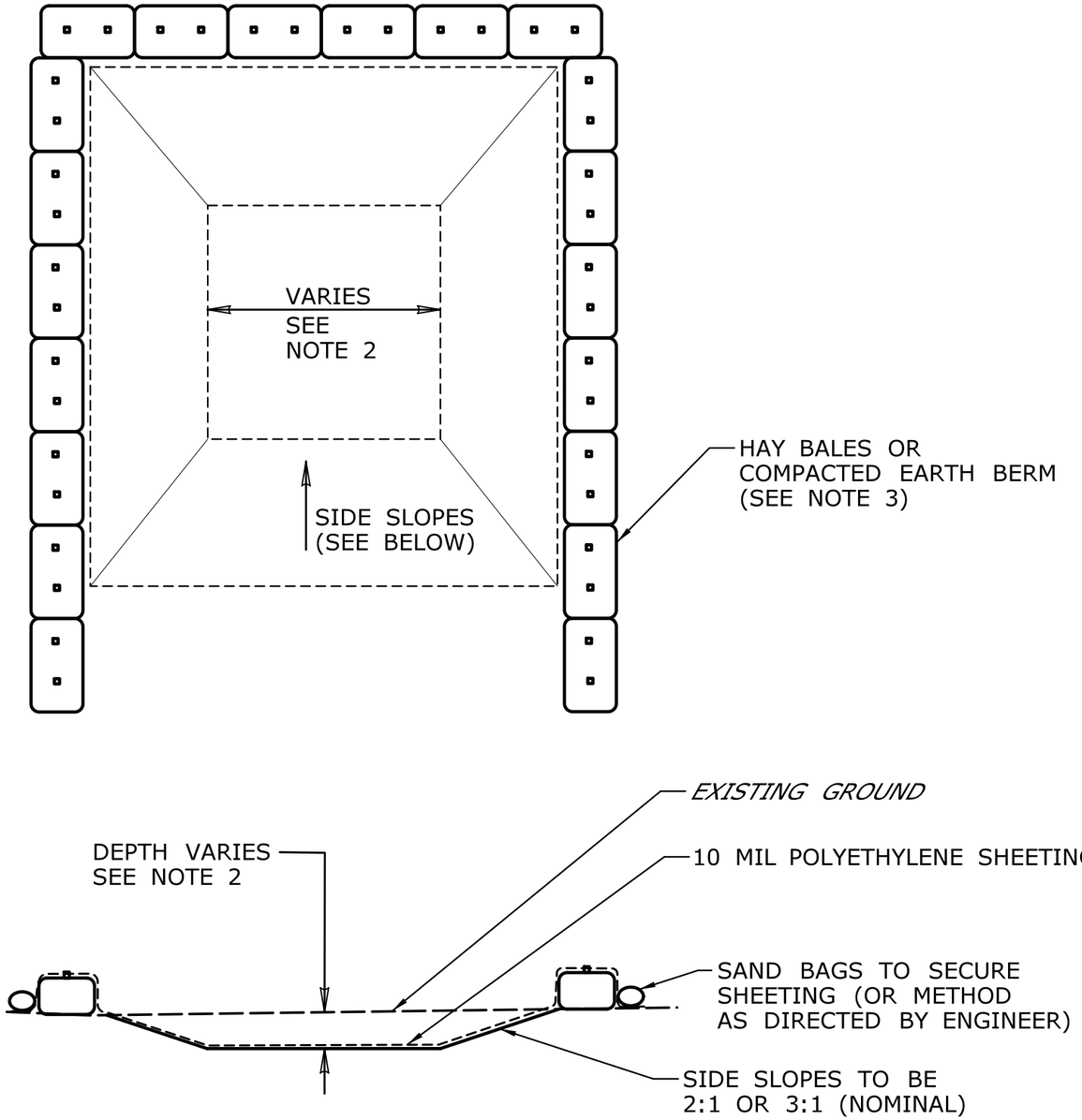
3. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.

4. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD.

5. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.

6. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.

7. PAYMENT FOR THIS ITEM IS TO BE INCLUDED UNDER THE GENERAL COST OF THE WORK FOR THE PROJECT, INCLUDING SITE RESTORATION.



CONCRETE WASHOUT AREA

NOT TO SCALE
(SEE NOTE 2)

Appendix D

Connecticut Department of
Energy & Environmental Protection
Bureau of Materials Management & Compliance Assurance
Water Permitting & Enforcement Division

General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, issued 8/21/13, effective 10/1/13
Stormwater Monitoring Report

SITE INFORMATION

Permittee: **Connecticut Department of Transportation**

Mailing Address: **2800 Berlin Turnpike, P.O. Box 317546**

Business Phone: **860-594-2931** ext.: _____ Fax: _____

Contact Person: **Kimberly C. Lesay** Title: **Transportation Assistant Planning Director**

Site Name: **Former WSA in Farmington, CT**

Site Address: **No formal street address, located between Colt Highway, I-84, & South Road, Farmington, CT 06032**

Receiving Water (name, basin): **Batterson Park Pond and Quinnipiac River, Connecticut major drainage basin**

Stormwater Permit No. GSN _____

SAMPLING INFORMATION (Submit a separate form for each outfall)

Outfall Designation: _____ Date/Time Collected: _____

Outfall Location(s) (lat/lon or map link): _____

Person Collecting Sample: _____

Storm Magnitude (inches): _____ Storm Duration (hours): _____

Size of Disturbed Area at any time: _____

MONITORING RESULTS

Sample #	Parameter	Method	Results (units)	Laboratory (if applicable)
1	Turbidity			
2	Turbidity			
3	Turbidity			
4	Turbidity			

(provide an attachment if more than 4 samples were taken for this outfall) Avg =

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: _____

Signature: _____ Date: _____

Please send completed form to:

DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
79 ELM STREET
HARTFORD, CT 06106-5127
ATTN: NEAL WILLIAMS

Appendix E

General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

Notice of Termination Form

Please complete and submit this form in accordance with the general permit (DEP-PED-GP-015) in order to ensure the proper handling of your termination. Print or type unless otherwise noted.

Note: Ensure that for commercial and industrial facilities, registrations under the *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (DEP-PED-GP-014) or the *General Permit for the Discharge of Stormwater from Commercial Activities* (DEP-PED-GP-004) have been filed where applicable. For questions about the applicability of these general permits, please call the Department at 860-424-3018.

Part I: Registrant Information

1. Permit number: ***GSN***
2. Fill in the name of the registrant(s) as indicated on the registration certificate:

   Registrant: **Connecticut Department of Transportation**
3. Site Address: **2800 Berlin Turnpike, P.O. Box 317546**

   City/Town: **Newington** State: **CT** Zip Code: **06131-7546**
4. Date all storm drainage structures were cleaned of construction sediment:

   Date of Completion of Construction:

   Date of Last Inspection (must be at least three months after final stabilization pursuant to Section 6(b)(6)(D) of the general permit):
5. Check the post-construction activities at the site (check all that apply):

   ☐ Industrial ☐ Residential ☐ Commercial ☐ Capped Landfill

   ☐ Other (describe):

Part II: Certification

"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 those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

Signature of Permittee	Date
Name of Permittee (print or type)	Title (if applicable)

Note: Please submit this Notice of Termination Form to:

STORMWATER PERMIT COORDINATOR
BUREAU OF WATER MANAGEMENT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

m e m o r a n d u m

FLOOD MANAGEMENT GENERAL CERTIFICATION
Project No.: 171-412
Description: CT Fastrak Commuter Parking Lot

Town: Farmington
Date: July 27, 2020

REVISED
August 14, 2020

to: Mr. Michael E. Hogan
Trans. Principal Engineer
Hydraulics and Drainage
Bureau of Engineering and Construction

from: Susan M. Libatique
Trans. Principal Engineer
Bureau of Engineering and Construction

Please review this request for Flood Management General Certification and indicate your concurrence below.

Certification (to be completed by designer)

I have read the Flood Management General Certification and the descriptions for the approved DOT minor activities. This project qualifies for the Flood Management General Certification under:

(X) Minor Safety Improvements and Streetscape Projects
( ) Roadway Repaving, Maintenance & Underground Utilities
(X) Minor Stormwater Drainage Improvements
( ) Removal of Sediment or Debris from a Floodplain
( ) Wetland Restoration Creation or Enhancement
( ) Scour Repairs at Structures; (*Must acquire DEEP Fisheries Concurrence to be eligible*)
( ) Guide Rail Installation
( ) Deck and Superstructure Replacements
( ) Minor Bridge Repairs and Access
( ) Fisheries Enhancements
( ) Surveying and Testing
( ) Bicycle / Pedestrian, Multi Use Trails and Enhancement Projects

The following required documentation is attached in support of this certification:

- Project description
- Location plan
- Description of Floodplain involvement and how project qualifies for general certification
- 8-1/2" by 11" excerpt copy of the FEMA Flood Insurance Rate Map (FIRM) and Floodway Boundary Map (if applicable)
- Design plans, (dated 6/17/2020) with FEMA floodplain and floodway boundaries plotted, cross sections and profiles, as necessary, that clearly depict the floodplain involvement
- FEMA 100-year flood elevation plotted on elevation view (for structures)

Print Name Rudy Franciamore, PE	Title Project Manager
Signature Rudy Franciamore Digitally signed by Rudy Franciamore DN: C=US, E=rfranciamore@hntb.com, CN=Rudy Franciamore Date: 2020.07.27 17:08:28-04'00'	Date 7/27/2020

Concurrence (to be completed by Hydraulics and Drainage)

Based on the documentation submitted, I hereby concur that the project qualifies for Flood Management General Certification.

If there are any changes to the proposed activities within the floodplain or floodway, the project must be re-submitted for review and approval.

Signature Michael E. Hogan Digitally signed by Michael E. Hogan Date: 2020.08.21 10:58:22-04'00'	Date

Bartholomew P. Sweeney - Michael E. Hogan - Dominic AntonioJames A. Fallon - Susan M. Libatique - Nilesh M. Patel - Laurie I. LaRoccaKimberly C. Lesay - Jason M. CoiteJeff Caiola (DEEP)

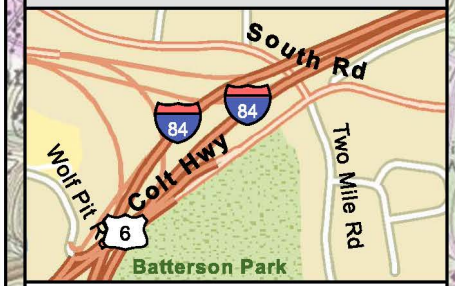
Rev 03/15

CTfastrak Commuter Parking Lot
State Project No. 171-412
Farmington, CT

Attachment A
USGS Overview Map

Legend

Approximate Project Limits



N
W E
S

0 500 1,000 1,500 2,000
Feet

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

Project Site

Copyright:© 2013 National Geographic Society, i-cubed

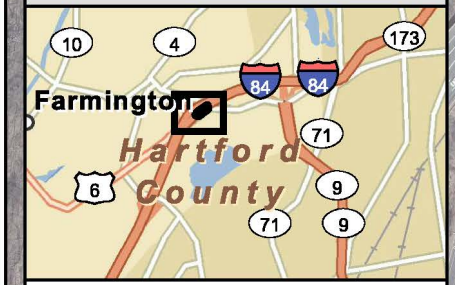
Original In Color - FHI - 5/7/2020 JW

CTfastrak Commuter Parking Lot
State Project No. 171-412
Farmington, CT

Attachment B
Location Plan

Legend

Approximate Project Limits



N
W E
S

0 100 200 300 400
Feet

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

Original In Color - FHI - 5/7/2020 JW

Attachment C
Project Description
CTfastrak Commuter Parking Lot – Farmington
State Project No. 171-412

Background

The proposed project site property is owned by the Connecticut Department of Transportation (CTDOT) and was formerly utilized by the CTDOT as a Waste Stockpile Area (WSA). With the success of the CT*fastrak* Bus Rapid Transit (BRT) line, additional parking for the service is required to meet the increased demand. As a result, CTDOT Project No. 171-412, a commuter parking lot off Colt Highway at South Road in the town of Farmington, is to be constructed to provide additional parking capacity for potential riders.

Proposed Work

The commuter parking lot will provide circular, counterclockwise flow for buses with an entrance along S.R. 531 (Colt Highway), approximately 425 feet west of the intersection with South Road and Two Mile Road. The bus loading platform area and provisions for bus passenger shelters will be constructed along the north westerly section of the site. Continuing the one-way flow, the exit will be located 375 feet west of the entrance drive. The site was configured to maximize parking while maintaining separation between the bus flow and the passenger parking areas. All vehicles will utilize the one-way flow through the site. The parking on the western portion will consist of a single aisle with 65 parking spaces. The eastern portion will include an additional 89 parking spaces, including six handicap parking spaces. This eastern section of the site will prohibit buses while providing a circular, two-way flow for vehicles. The handicap parking area is located to the east of the bus loading platform area to provide access. Two bus shelters are to be constructed as part of this project with an area set aside for one future shelter.

To protect against erosion and sedimentation, this project has been designed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* (2002 Guidelines) and the *2004 Connecticut Stormwater Quality Manual* (2004 SWQ Manual). Prior to the commencement of construction activities, erosion and sedimentation controls will be installed in accordance with the 2002 Guidelines. To construct the project, bulldozers and excavators will be used for minor excavation, filling, and grading. Excavated materials which cannot be used for backfilling will be placed in containers and properly handled and disposed of in accordance with federal and state regulations and CTDOT specifications. All fill material used on the site will be clean fill.

The total area of land disturbance is 1.75 acres. The existing impervious surface area of the project site is approximately 23,258 square feet (sf) or 0.53 acres (ac). The existing WSA will be removed, including the asphalt surfaces associated with it. The area of pavement that will be removed totals approximately 15,891 square feet (0.37 ac). Since the project is the construction of a parking lot, the addition of asphalt surfaces cannot be avoided.

The proposed new impervious surface area totals approximately 80,304 sf (1.84 ac), a net increase of impervious surface of 57,046 sf (1.31 ac). Although there is a net increase in impervious surfaces at the site, the stormwater management improvements planned as part of this project have taken the increase in impervious surface area into account and will not negatively impact the on-site watercourse as described below.

The project plans in Attachment E depict the proposed work and disturbance within the project area. All staging, access, equipment movement, and activities needed to facilitate the construction will be conducted within the subject property, within the project area.

Construction for this project is scheduled to start in April 2021 and be completed by October 2021.

Description of Work in Floodplains

Most of the project activities described above will be conducted outside of the Federal Emergency Management Agency (FEMA) 100-year floodplain (see Attachment D: FEMA Firmette). The FEMA Flood Rate Insurance Map (FIRM) of the project site shows that most of the project area is mapped as outside of the 100-year floodplain (Zone X). There are 100-year floodplains (Zone A) mapped surrounding the unnamed perennial stream on the western portion of the project site. Some of the proposed project activities will occur within this mapped 100-year floodplain area, including:

- Reconfiguration of a grass swale (approximately 60 linear feet)
- Installation of an access drive
- Construction of a new stormwater outfall including approximately 110 feet of 24-inch reinforced concrete pipe (RCP) and riprap apron
- Grading to support the construction of the aforementioned project elements

Work within the 100-year floodplain will not result in any permanent adverse impacts to floodplains. Floodplain cut and fill volumes are summarized in Table 1 and described below. There will be a gain of approximately 170 cubic yards (cy) of flood storage capacity at the project site. This project will not result in permanent impacts to floodways or temporary impacts to floodplains or floodways. There will be no adverse impacts to human health or safety and flooding conditions will not be worsened due to the work planned within floodplains.

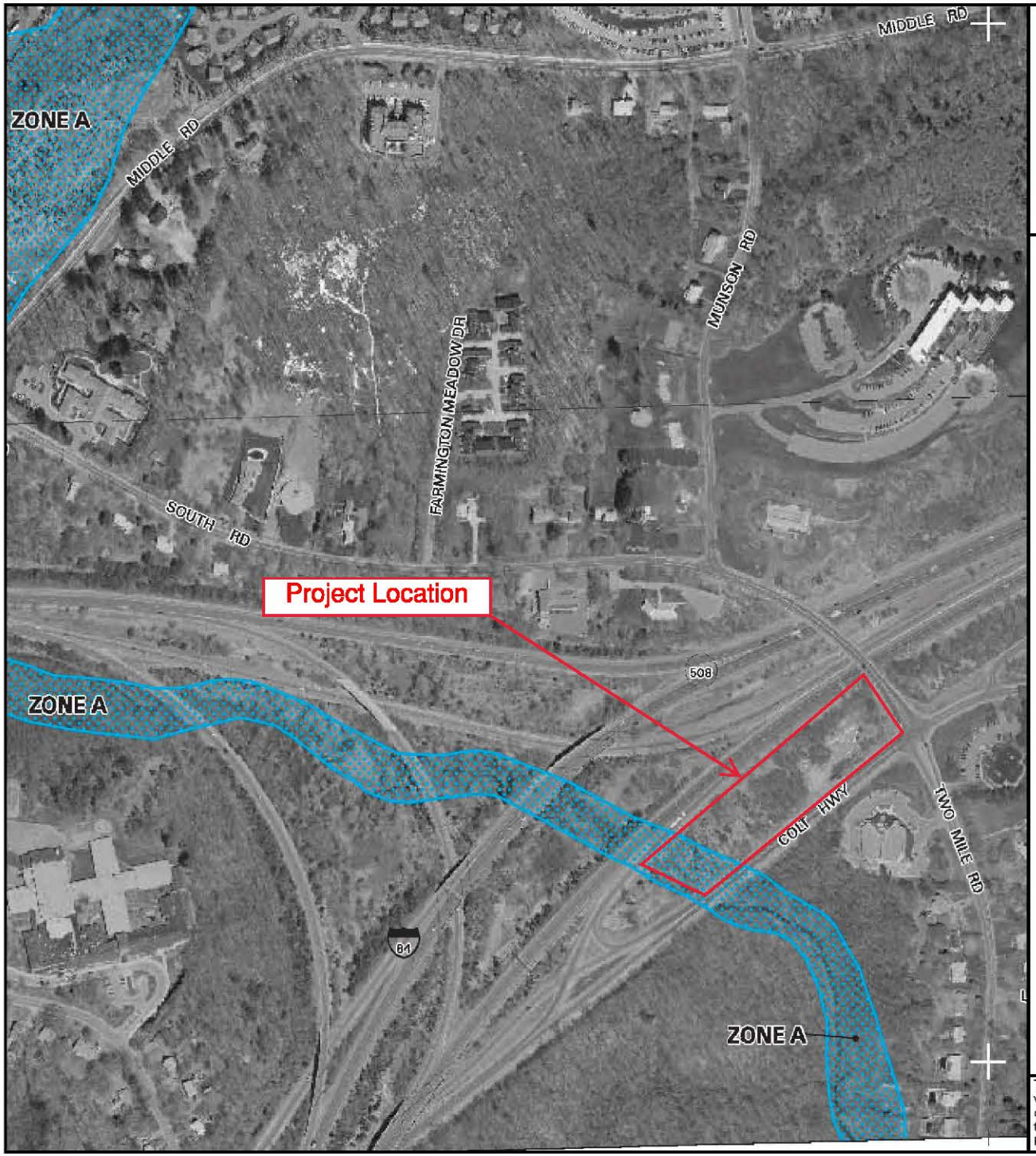
All unpaved, graded areas within the 100-year floodplain will be stabilized with a floodplain establishment seed mix or standard turf establishment.

Table 1: 100-Year Floodplain Cut and Fill Volumes

Cut/Fill Volumes Below 100-year Flood Elevation		
Permanent		
	Cut (cy)	Fill (cy)
FEMA Floodplain	**640**	**470**

Although there is a net increase in the amount of impervious surfaces at the project site, the redesigned stormwater management system will ensure that impacts to the adjacent unnamed watercourse and associated wetlands will be avoided and minimized. The reconfigured grass swale (with stone check dams) and the upgraded outfall and riprap apron will allow for additional velocity reduction of stormwater than the current conditions prior to entering the on-site watercourse and wetlands. The project will also result in additional flood storage capacity along the unnamed watercourse, which will reduce the likelihood of adverse impacts from storm events.

ATTACHMENT D



MAP SCALE 1" = 500'

250 0 500 1000 FEET

NFIP

PANEL 0481F

FIRM

FLOOD INSURANCE RATE MAP

HARTFORD COUNTY, CONNECTICUT (ALL JURISDICTIONS)

PANEL 481 OF 675

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FARMINGTON, TOWN OF	090039	0481	F
WEST HARTFORD, TOWN OF	090082	0481	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 09003C0481F

EFFECTIVE DATE: SEPTEMBER 26, 2008

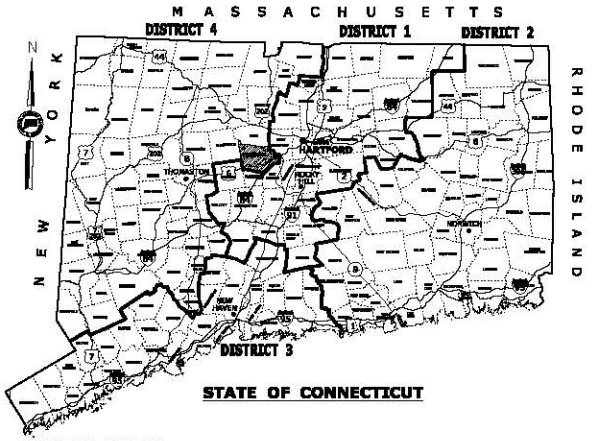
Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

ATTACHMENT E

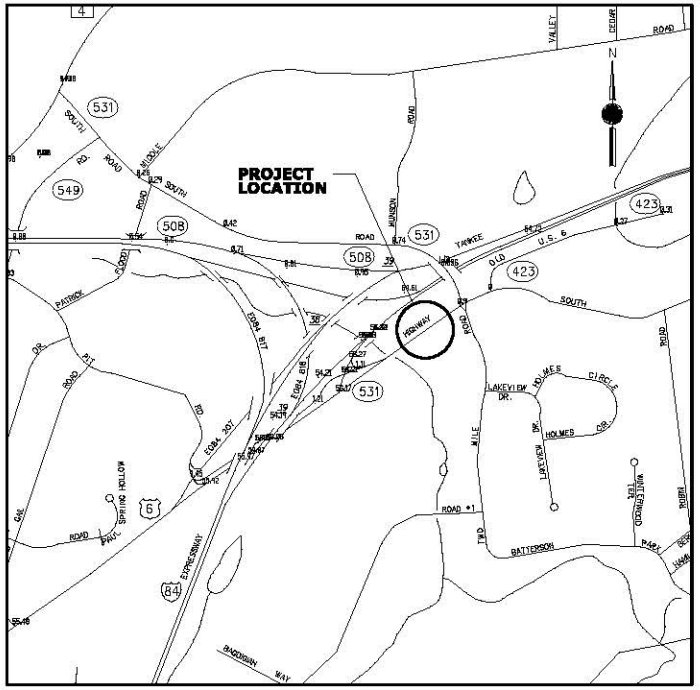
ENVIRONMENTAL PERMIT PLANS
STATE PROJECT 0171-0412
CTfastrak COMMUTER PARKING LOT
TOWN OF FARMINGTON



STATE OF CONNECTICUT

GENERAL NOTES:

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND ACOE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLAND AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN
1" = 600'

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	PMT-001
GENERAL SITE PLAN	PMT-002
WETLAND/WATERCOURSE IMPACT PLAN	PMT-003
100-YEAR FLOODPLAIN IMPACT PLAN	PMT-004
MISCELLANEOUS DETAILS	PMT-005

STANDARD CONVENTIONS

DESIGNED BY: HNTB CORPORATION

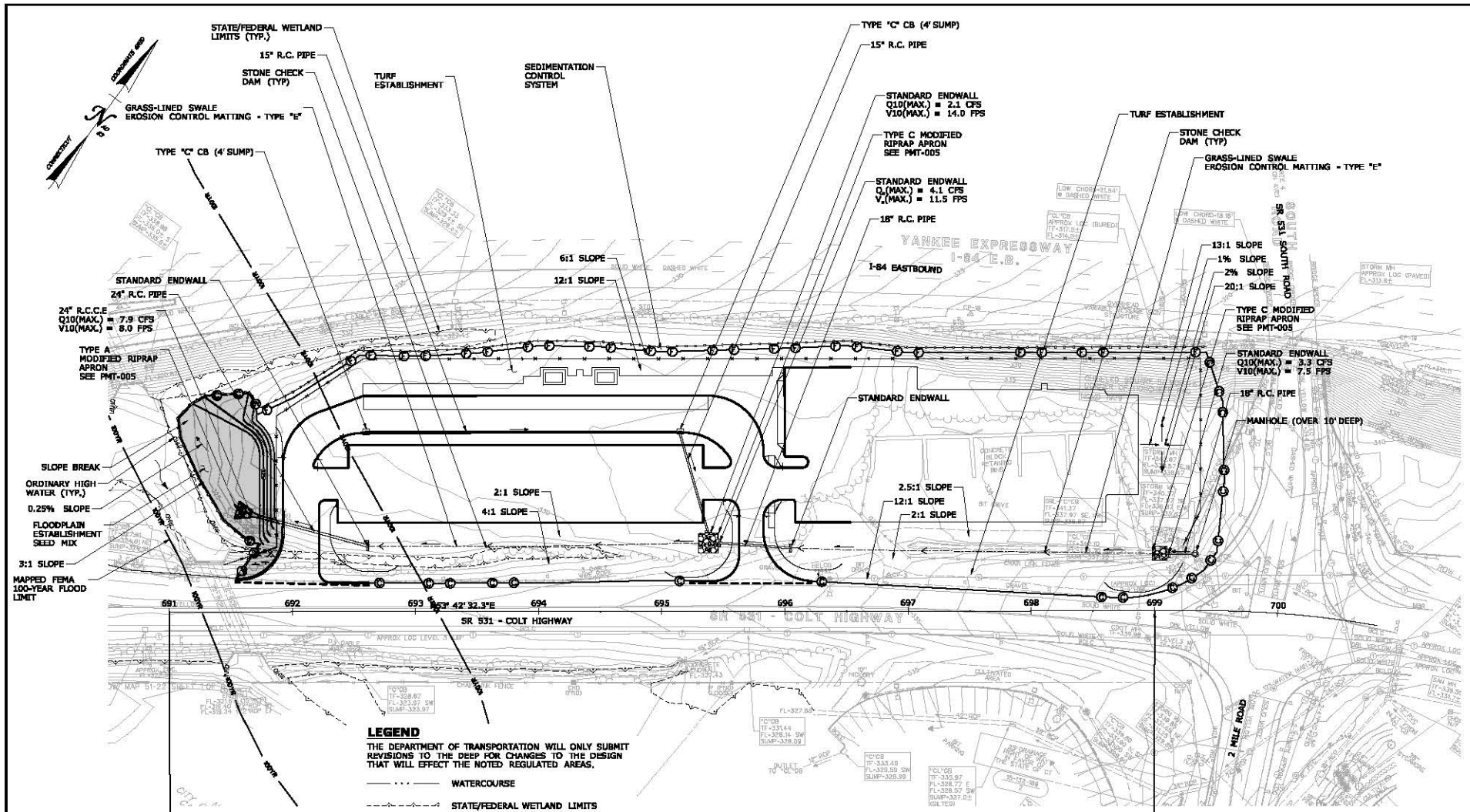
Plans For
Ctfastrak
COMMUTER PARKING LOT

Town(s)/City
FARMINGTON

STATE PROJECT NO.
0171-0412

DRAWING NO.
PMT-001

SHEET NO.
01.01



LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS.

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 8/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\JA_MSH_ENV_0171_0412_PMT-002.dgn

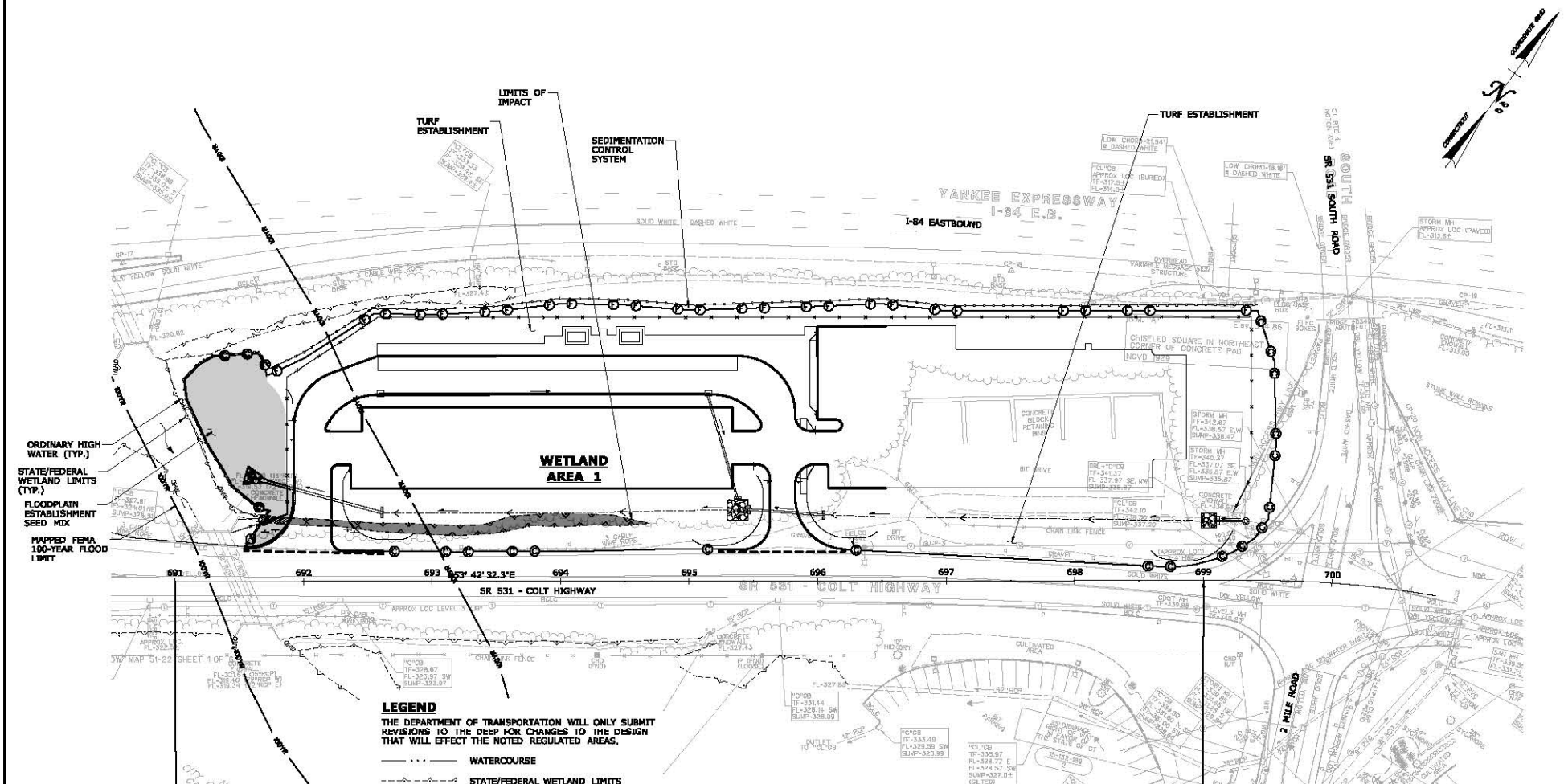
SIGNATURE/BLOCK:

PROJECT TITLE: CTfastrak COMMUTER PARKING LOT

TOWN: FARMINGTON

DRAWING TITLE: GENERAL SITE PLAN

PROJECT NO. 171-412
DRAWING NO. PMT-002
SHEET NO.



BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT WETLAND IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

WETLAND/WATERCOURSE IMPACT TABLE		
	PERMANENT	
AREA DESCRIPTION	AREA (SF)	AREA (ac.)
WETLAND AREA 1	2,139	0.049
TOTAL SITE	2,139	0.049

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

NOTE:

1. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSES WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY OR PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE. ALL DISTURBED AREAS SHALL BE RESTORED.

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 8/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ..\JA_MSH_ENV_0171_0412_PMT-003.dgn

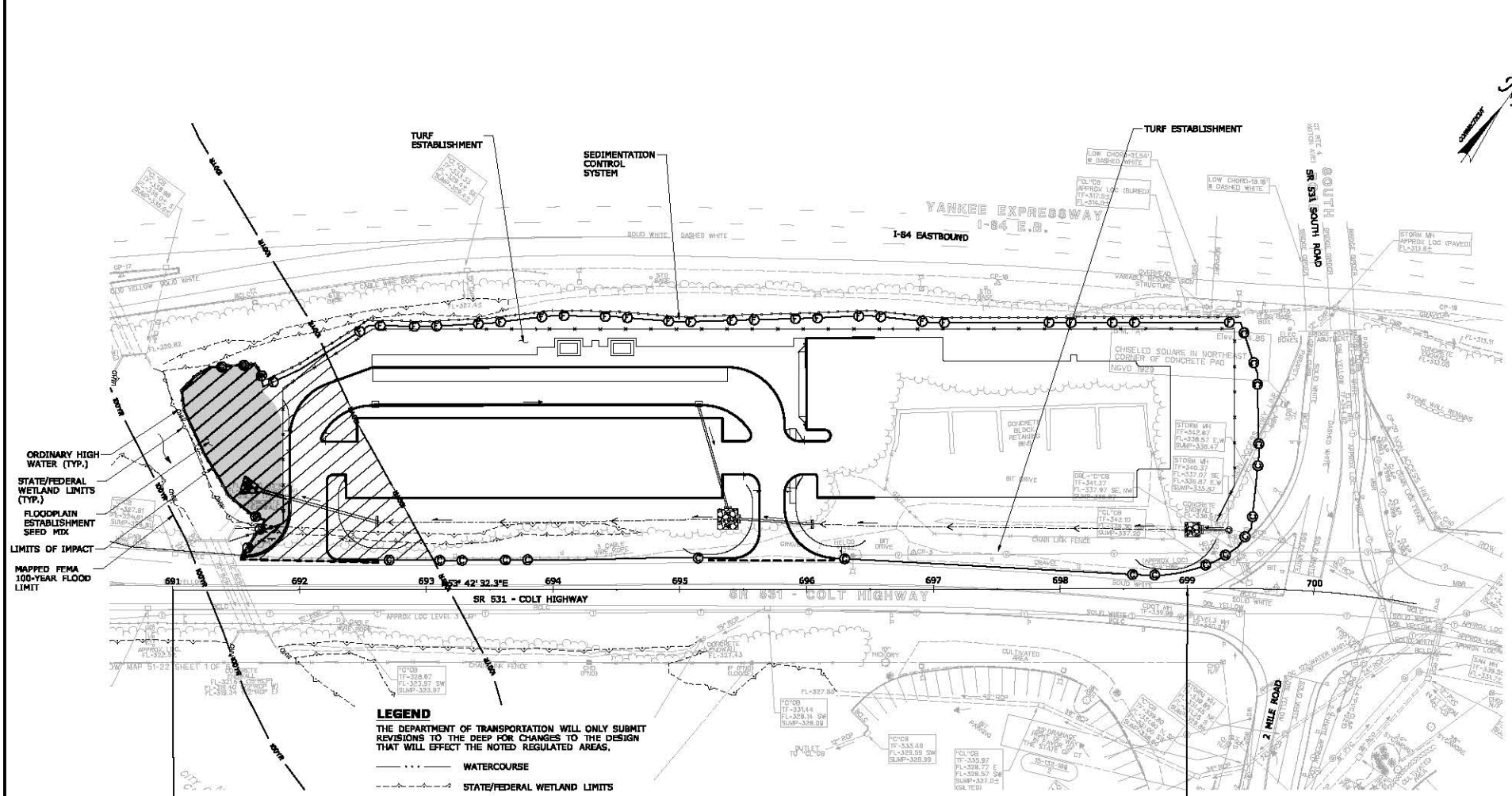
SIGNATURE/BLOCK:

PROJECT TITLE: CTfastrak COMMUTER PARKING LOT

TOWN: FARMINGTON

DRAWING TITLE: WETLAND/WATERCOURSE IMPACT PLAN

PROJECT NO. 171-412
DRAWING NO. PMT-003
SHEET NO.



BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT FLOODPLAIN IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

CUT/FILL VOLUMES BELOW 100-YEAR FLOOD ELEVATION		
PERMANENT		
	CUT (CY)	FILL (CY)
	640	470
TOTAL SITE	640	470

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
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-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 8/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV.0171-0412-PMT-004.dgn

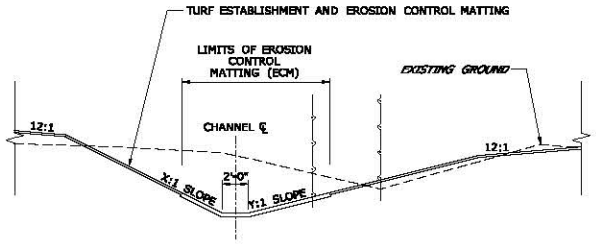
SIGNATURE/BLOCK:

PROJECT TITLE: CTfastrak COMMUTER PARKING LOT

TOWN: FARMINGTON

DRAWING TITLE: 100-YEAR FLOODPLAIN IMPACT PLAN

PROJECT NO. 171-412
DRAWING NO. PMT-004
SHEET NO.



SWALE LIMITS	ECM TYPE	ECM WIDTH	X	Y
STA 692+62 - 694+00	E	10'	2	4
STA 694+00 - 695+30	E	10'	2	4
STA 696+06 - 698+99	E	6'	2.5	2.5

GRASS-LINED SWALE
NOT TO SCALE

RIPRAP APRON

LOCATION	STATION	OFFSET	APRON TYPE	L_a	W_1	W_2	RIPRAP TYPE
COMMUTER LOT	691+59.94	81.33' LT	Type A Riprap Apron	12.0	6.0	14.4	MODIFIED
COMMUTER LOT	695+37.96	55.39' LT	Type C Riprap Apron	16.0	16.0	16.0	MODIFIED
COMMUTER LOT	699+04.61	46.59' LT	Type C Riprap Apron	12.0	11.2	11.2	MODIFIED

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/17/2020

DESIGNED/DRAFTED: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\PA-MSH-ENV-0171-0412-PMT-005.dgn

SIGNATURE BLOCK

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: FARMINGTON

DRAWING TITLE:
MISCELLANEOUS DETAILS

PROJECT NO. 171-412
DRAWING NO. PMT-005
SHEET NO.

ATTACHMENT F

Interagency Meeting Notes

April 16, 2020

MS Teams Meeting

March 19, 2020 Interagency Meeting Notes:

There were no comments on the March 19, 2020 Interagency Meeting notes. The notes are considered accepted.

Project 43-132, Rehabilitation of No. 02166, Route 337 over Morris Creek, East Haven and New Haven

Bridge No. 02166, which supports Route 337 over Morris Creek in the Town of East Haven and the City of New Haven, is comprised of a single 30-foot span of concrete deck units supported by stone masonry abutments and wingwalls. The existing substructure exhibits widespread mortar voids and spalls along the stone masonry abutments, as well as exposed shallow rebar coupled with cracks in the concrete abutment seats. The proposed rehabilitation involves repairing the abutments by repointing and pressure grouting the mortar joints and installing riprap scour protection. Additional tasks include relocating an existing drainage pipe that outlets at the north abutment. The structure currently does not pass the 50-year flow, with the 10-year going over the roadway.

Project Impacts:

Wetland/Watercourse Impacts (coincident for both state and federal):

	CJL ESTIMATE (ELEVATION 4.6')	HTL ESTIMATE (ELEVATION 2.8')	TIDAL VEGETATION (SPARTINA)
Permanent	1,680 sq ft (0.04 acres)	1,680 sq ft (0.04 acres)	
Temporary	4,120 sq ft (0.09 acres)	3,090 sq ft (0.07 acres)	
Total	5,800 sq ft (0.13 acres)	4,770 sq ft (0.11 acres)	350 sq ft (0.01 acres)

Agency Comments:

- DEEP asked for more information regarding the size and reason for the extent of the proposed in-channel riprap. The designer explained that, due to the skew of the structure, the fluctuation in flows cause significant scour and aggradation along both abutments, respectively. DEEP requested that the applications include a detailed explanation. DEEP recommended that maps depicting the depth to bottom of the watercourse also be included with the application to help depict the scour holes.
- DEEP advised that the impacts to the tidal vegetation will require 3:1 mitigation, and that there is a nearby area overtaken by phragmites that could be restored as part of the mitigation. USACE will be conferring with other USACE staff regarding the impacts and mitigation.
- CTDOT H&D stated they will review the hydraulic and scour reports upon the reports' availability and H&D will concur and/or comment on the reports.
- CTDOT OEP requested clarification from DEEP on the jurisdictional line due to downstream tide gate. DEEP will use MHW as the jurisdictional line, not CJL, due to the bridge landward of the tidal gate. MHW elevation should be clearly identified on all relevant plans.

DRAFT

Project 43-132 (continued)

- DEEP questioned if deep catch basin sumps could be used and, if so, to include that in the application's discussions on improvements on water quality before.
- CTDOT OEP recommended that a debris shield be included in the design as a permitted option for use during construction. CT DOT District 3 recommended that it be a floating debris shield.
- CTDOT District 3 Construction asked if the impacts included access to make underdeck repairs. The designer indicated there is no proposed work on the superstructure.
- CTDOT District 3 Construction commented on the lack of outlet protection at the downstream endwall. The designer will evaluate and indicated that the current impact estimates are conservative. Therefore, the impact totals should not need to be increased if design of outlet protection extends into a regulated area.
- CTDOT District 3 Construction asked about the channel width. The designer indicated that the 12-foot width needed to be maintained during each stage.

Permitting Requirements: FM General (pending DOT H&D review of information/grading), USACE PCN (GP 19), DEEP Structures, Dredging & Fill+Tidal Wetlands+401 Water Quality

Action Items:

- CTDOT H&D will review all hydraulic reports and information when available.
- USACE will discuss mitigation among other USACE staff and communicate with DOT OEP.
- OEP and Consultant will coordinate mitigation options with DEEP and USACE.

Project 171-412, Construction of a CTfastrak commuter parking lot located off U.S. Route 6 (Colt Highway) in Farmington

This project consists of construction of a CTfastrak commuter lot (approximately 172 parking spaces) located off U.S. Route 6 (Colt Highway) in Farmington. The project will also include a platform for bus loading, bus shelter, illumination, and drainage improvements consisting of grassed swales. The existing site has been used as a stockpile area for several recent projects in the vicinity. Impacts result from regrading of a wetland area adjacent to the roadway and grading within the floodplain at the western project limits. There are no impacts to the watercourse to the west of the project limits, and the site does not fall within a mapped NDDB area.

Project Impacts:

There are no watercourse impacts. There are no temporary wetland impacts. The permanent (total) wetland impact is 2,139 sf (0.049 ac).

100-year Floodplain Impacts			
Cut:	430 CY	**Fill:**	260 CY

Project 171-412 (continued)

Agency Comments: There was a question from DEEP regarding any potential improvements for water quality discharged from the site. The designer indicated that two catch basins on site will be equipped with 4' deep sumps. Due to on-site soil conditions (site-wide poorly drained soils not suitable for infiltration) no other features for water quality improvement were feasible. Site review for water quality improvements will be documented in the Departments MS4 Maximum Extent Practical project worksheet.
Permitting Requirements: DEEP IW-General, USACE SV (GP-18), CTDOT Flood Management General
Action Items: Finalize design and submit permit applications to respective agencies.

Project No. 42-318, Replacement of Br. 42012, Brewer Street over Pewterpot Brook, East Hartford

Project No. 42-318 consists of approximately a 2,000-foot reconstruction of Brewer Street, in the Town of East Hartford, beginning at Main Street (S.R. 517) and extending just past Glenn Road. This project also includes a full structure replacement for Bridge No. 042012 over Pewterpot Brook, approximately 0.3 mile east of S.R. 517. Bridge No. 042012 is a 15-foot single span multi-type structure (48 feet wide (out to out), originally constructed as a concrete arch in 1938, and widened in 1960 with the addition of a concrete deck slab with concrete abutments on both ends.

The proposed superstructure is steel girders composite with a reinforced concrete deck. The proposed substructure is conventional reinforced concrete abutments on spread footings. The structure has a clear span of 24 feet and passes the 100-year design discharge. The existing drainage system along the limits of the project will be replaced with new systems, one to the east and one to the west of Bridge No. 042012, each discharging onto riprap pads prior to entering Pewterpot Brook.

Project Impacts:

Wetland/Watercourse Impacts (coincident for both state and federal):

	Wetland	Watercourse	Total
Permanent	332 SF (0.008 ac)	233 SF (0.005 ac)	565 SF (0.013 ac)
Temporary	864 SF (0.020 ac)	1,172 SF (0.027 ac)	2,036 SF (0.047 ac)
Total	1,196 SF (0.027 ac)	1,405 SF (0.032 ac)	2,601 SF (0.060 ac)

100-year Floodplain Impacts			
Cut	420 **CY**	**Fill**	1,578 CY

Agency Comments:

- DEEP LWRD asked if DEEP Fisheries concurred with the riprap placement for scour countermeasures and construction of riparian shelves. DEEP Fisheries stated that the design is acceptable. DEEP Fisheries stated that the stream is relatively flat and low gradient. DEEP Fisheries sees no habitat or passage issues and concurs with the wider structure and removal of the upstream screening attached to the existing structure.

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

September 1, 2020

Regulatory Division
File Number: NAE-2020-02238

Kimberly Lesay
CT DOT
2800 Berlin Turnpike PO BOX 317546
Newington, CT 06131-7546

Dear Ms. Lesay:

PROPOSED WORK/LOCATION: Construction of a commuter Parking Lot, Farmington, CT.

We have reviewed your proposal to perform work within Corps of Engineers jurisdiction. We have assigned this file number **NAE-2020-02238.** Please reference this number in any future correspondence with us.

Since your project may have only minimal individual and cumulative impacts on waters and wetlands of the United States, it is authorized by the Corps of Engineers under the Connecticut General Permits (GPs). This authorization does not obviate the need to obtain other federal, state, or local approvals. You are responsible for ensuring that the work meets the terms and conditions of the CT GPs. We have recorded this project as permittee self-verification of the CT GPs in our database.

Please contact me at (978) 318-8703 if you have any questions.

Sincerely,

Kevin R. Kotelly, P.E.
Chief, Permits & Enforcement Branch
Regulatory Division

Enclosure (plans)

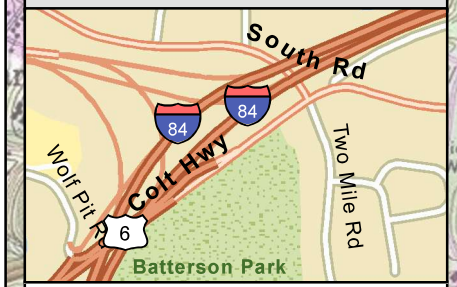
CT*fastrak* Commuter Parking Lot
State Project No. 171-412

Farmington, CT

Attachment A
USGS Vicinity Map

Legend

Approximate Project Limits



N
W E
S

0 500 1,000 1,500 2,000
Feet

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

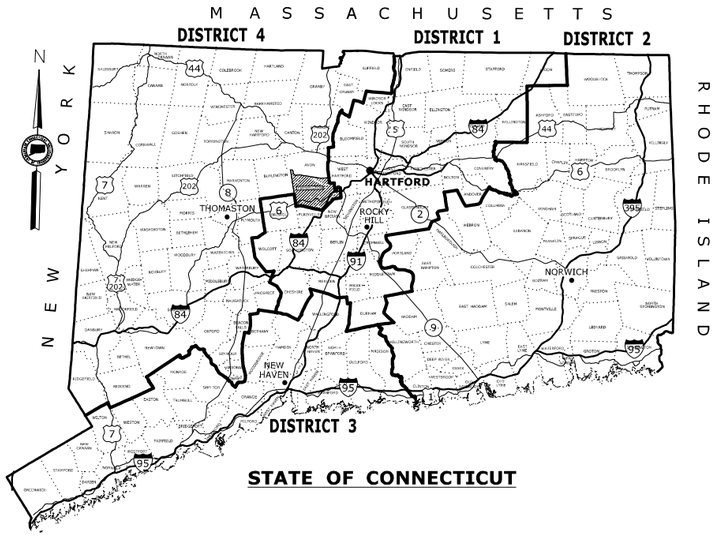
Project Site

Copyright © 2013 National Geographic Society, i-cubed

Original in Color - FHI - 4/29/2020 JW

ATTACHMENT C

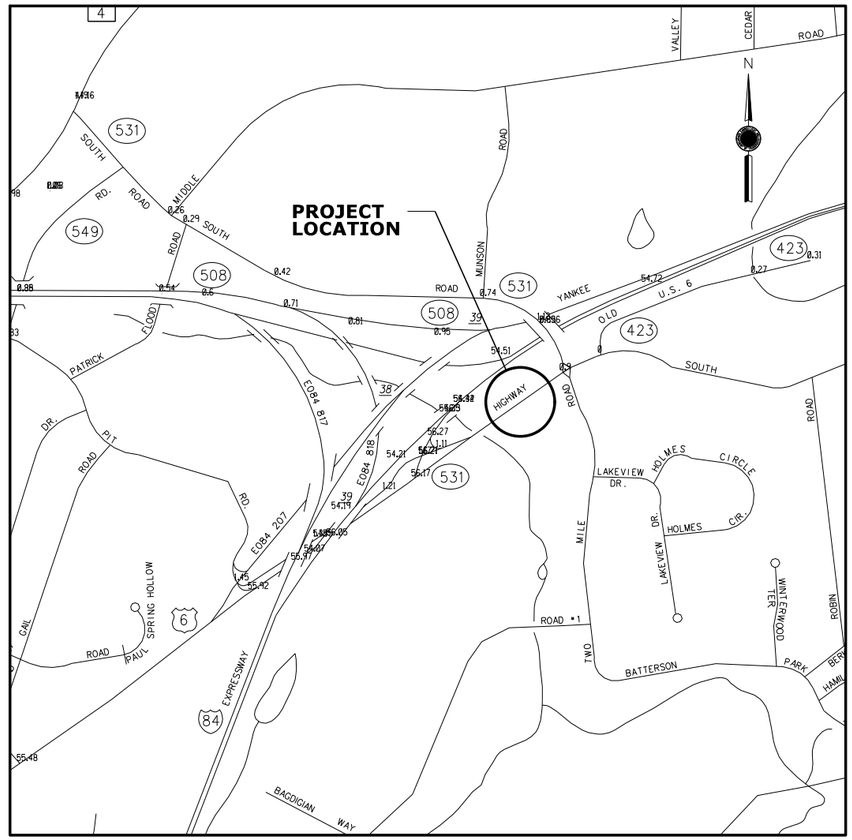
ENVIRONMENTAL PERMIT PLANS
STATE PROJECT 0171-0412
CTfastrak COMMUTER PARKING LOT
TOWN OF FARMINGTON



STATE OF CONNECTICUT

GENERAL NOTES:

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND ACOE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLAND AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN

1" = 600'

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	PMT-001
GENERAL SITE PLAN	PMT-002
WETLAND/WATERCOURSE IMPACT PLAN	PMT-003
100-YEAR FLOODPLAIN IMPACT PLAN	PMT-004
MISCELLANEOUS DETAILS	PMT-005

STANDARD CONVENTIONS

North Arrow, W/No. Coor.
Grid Arrow
Edge Of Road
Concrete Pavement
Dirt Road
B.C.I.C.
Granite Curb
Guide Rail
Concrete Median Barrier
Bit. Walk
Conc. Sidewalk
Railroad Tracks
Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Property Line
Lot Line
Easement Line
Water Edge
Stream
Ditch
TOWN LINE
Highway Line
Street Line
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall

DESIGNED BY:
HNTB CORPORATION

david schweitzer
2020.08.14
05:48:18-04'00'

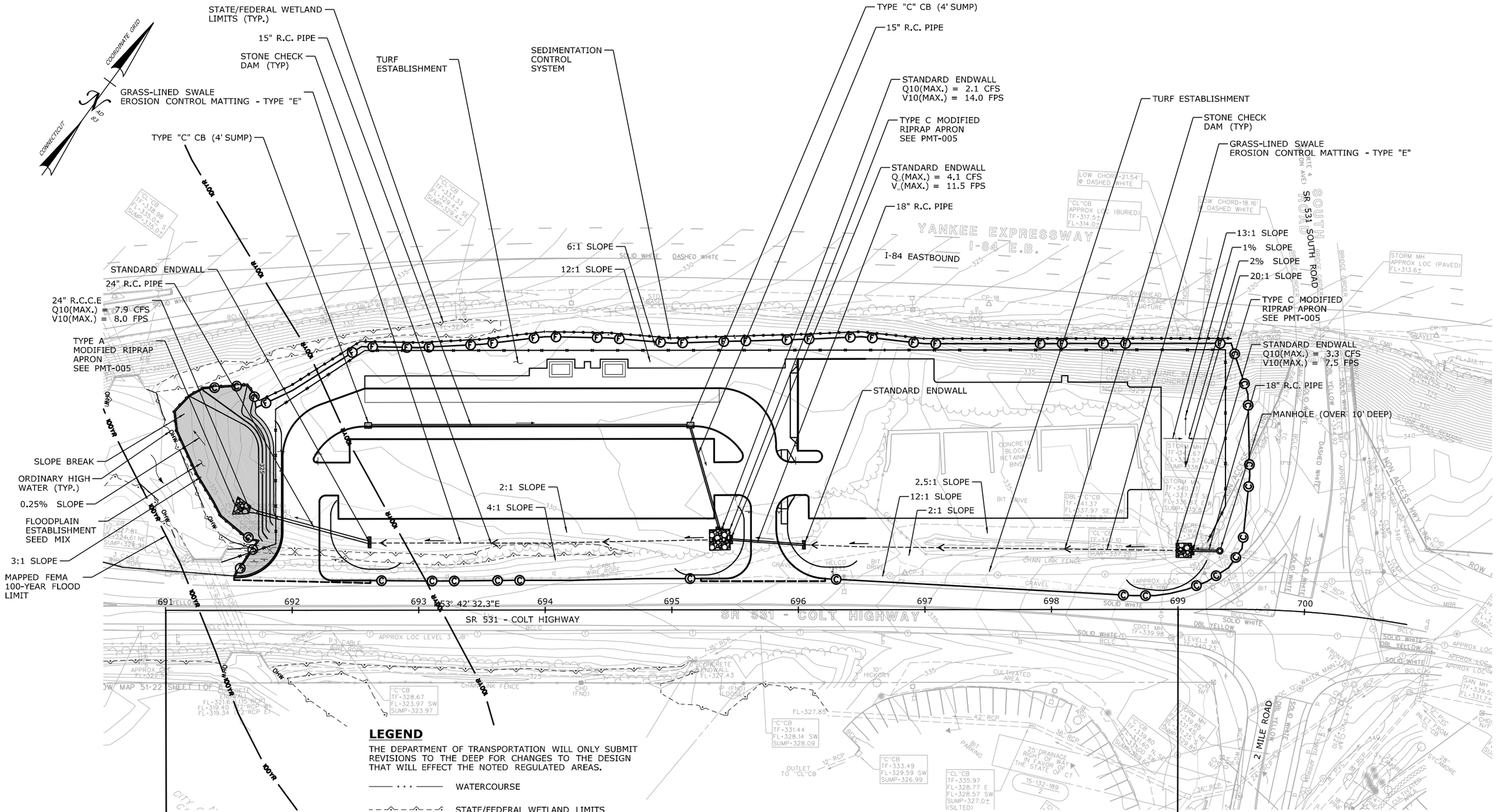
Plans For
Ctfastrak
COMMUTER PARKING LOT

Town(s)/City
FARMINGTON

STATE PROJECT NO.
0171-0412

DRAWING NO.
PMT-001

SHEET NO.
05.01



LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS.

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET
0 40 80
SCALE 1"=40'

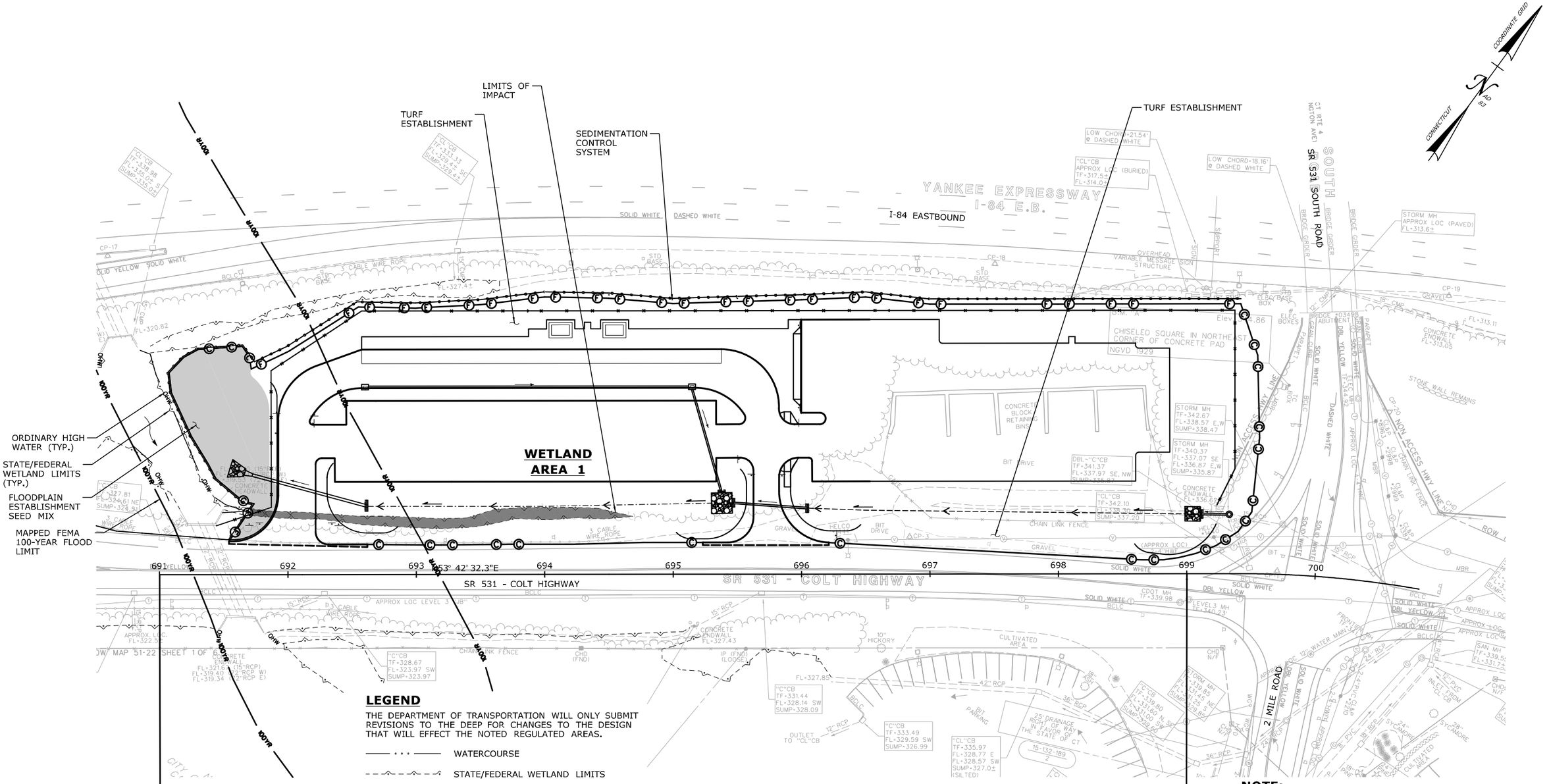
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH_ENV_0171-0412-PMT-002.dgn

HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**
DRAWING TITLE: **GENERAL SITE PLAN**
PROJECT NO. **171-412**
DRAWING NO. **PMT-002**
SHEET NO. **05.02**



LEGEND

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- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT WETLAND IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

WETLAND/WATERCOURSE IMPACT TABLE		
	PERMANENT	
AREA DESCRIPTION	AREA (SF)	AREA (ac.)
WETLAND AREA 1	2,139	0.049
TOTAL SITE	**2,139**	**0.049**

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

NOTE:

1. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSES WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY OR PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE. ALL DISTURBED AREAS SHALL BE RESTORED.

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV-0171-0412-PMT-003.dgn

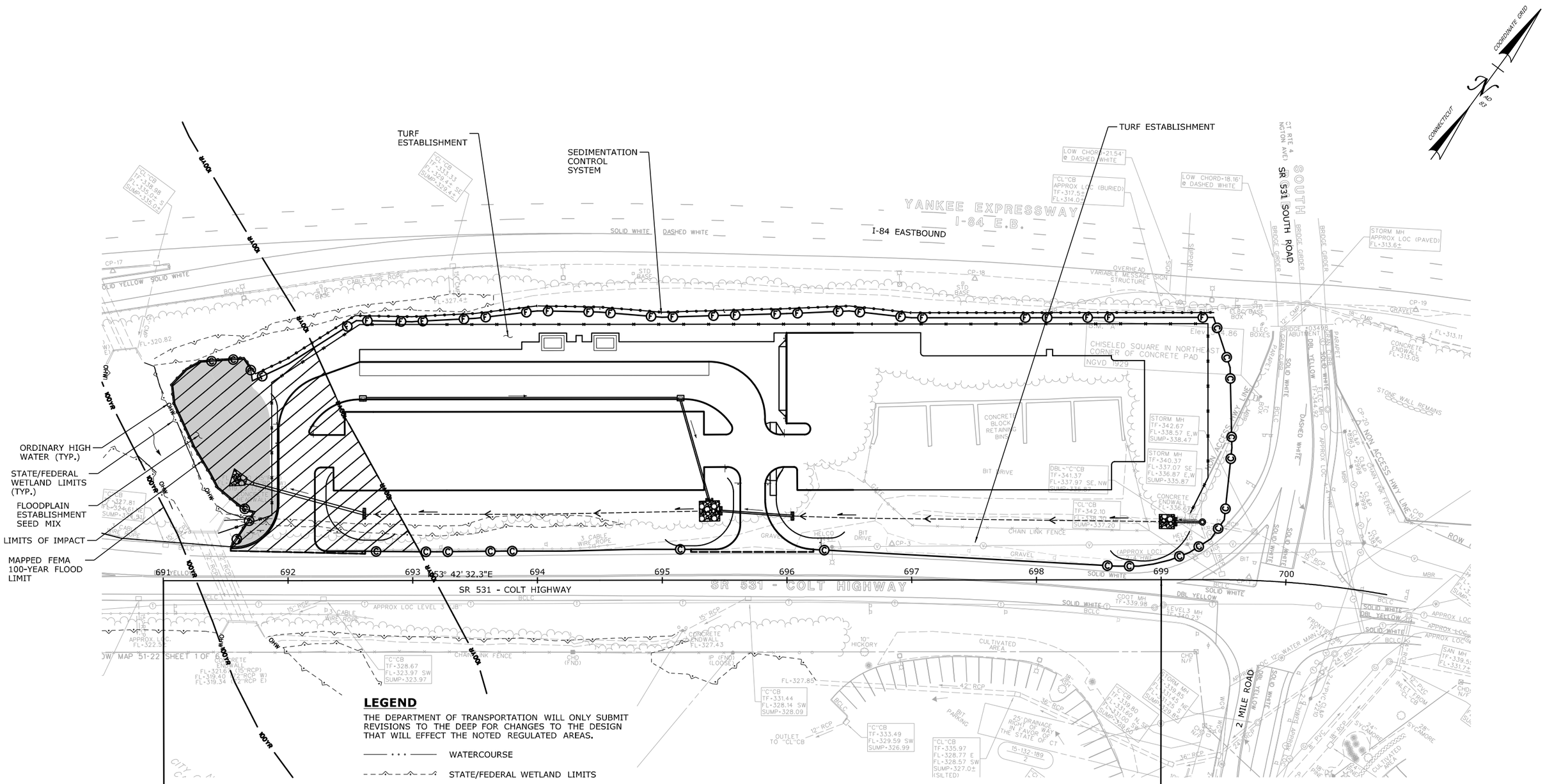
HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **WETLAND/WATERCOURSE IMPACT PLAN**

PROJECT NO. **171-412**
DRAWING NO. **PMT-003**
SHEET NO. **05.03**



LEGEND

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- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT FLOODPLAIN IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

CUT/FILL VOLUMES BELOW 100-YEAR FLOOD ELEVATION		
PERMANENT		
	CUT (CY)	FILL (CY)
	640	470
TOTAL SITE	**640**	**470**

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
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SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV-0171-0412-PMT-004.dgn

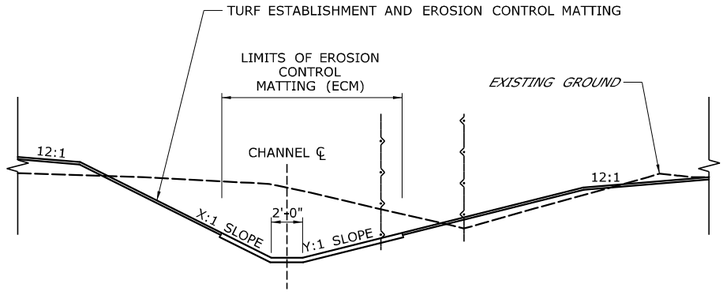
HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-4777
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **100-YEAR FLOODPLAIN IMPACT PLAN**

PROJECT NO. **171-412**
DRAWING NO. **PMT-004**
SHEET NO. **05.04**



SWALE LIMITS	ECM TYPE	ECM WIDTH	X	Y
STA 692+62 - 694+00	E	10'	2	4
STA 694+00 - 695+30	E	10'	2	4
STA 696+06 - 698+99	E	6'	2.5	2.5

GRASS-LINED SWALE

NOT TO SCALE

RIPRAP APRON

LOCATION	STATION	OFFSET	APRON TYPE	L_a	W_1	W_2	RIPRAP TYPE
COMMUTER LOT	691+59.94	81.33' LT	Type A Riprap Apron	12.0	6.0	14.4	MODIFIED
COMMUTER LOT	695+37.96	55.39' LT	Type C Riprap Apron	16.0	16.0	16.0	MODIFIED
COMMUTER LOT	699+04.61	46.59' LT	Type C Riprap Apron	12.0	11.2	11.2	MODIFIED

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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-	-	-	-
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-	-	-	-
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_MSH_ENV_0171_0412_PMT-005.dgn

HNTB Corporation
Engineers Architects Planners
56 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**
DRAWING TITLE: **MISCELLANEOUS DETAILS**

PROJECT NO. **171-412**
DRAWING NO. **PMT-005**
SHEET NO. **05.05**

Applicant: General Public, State of Connecticut **Effective Date: August 19, 2016**
Expiration Date: August 19, 2021

DEPARTMENT OF THE ARMY GENERAL PERMITS FOR THE STATE OF CONNECTICUT & LANDS LOCATED WITHIN THE BOUNDARIES OF AN INDIAN RESERVATION[1]

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues twenty-one (21) General Permits (GPs), listed below, for activities subject to Corps jurisdiction in waters of the United States (U.S.), including navigable waters, within boundaries of the State of Connecticut and lands located within the boundaries of an Indian reservation. These GPs are issued in accordance with Corps regulations at 33 CFR 320 - 332 [see 33 CFR 325.5(c)(1)], and authorizes activity-specific categories of work that are similar in nature and cause no more than minimal individual and cumulative adverse environmental impacts. These GPs will provide protection to the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental effects.

GENERAL CRITERIA

In order for activities to qualify for these GPs, they must meet the terms and eligibility criteria and stipulations listed in Appendix A – General Permits as well as the Appendix B General Conditions.

Projects may qualify for the following:

- Self-Verification (inland) - Self -Verification Notification Form (SVNF) is required
- Self-Verification (coastal) - SVNF NOT required. Corps relies on CT DEEP, OLISP submittals.
- Pre-Construction Notification (PCN) -
    - Inland - Application to and written approval from the Corps is required.
    - Coastal - Notification to Corps provided by CT DEEP, OLISP or by applicants as necessary. Written approval from the Corps is required.

If your project is ineligible for Self-Verification (SV), it may be screened under PCN or may require an Individual Permit. The thresholds for activities eligible for Self-Verification and PCN are defined in Appendix A. These GPs do not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

[1] Indian reservation lands are considered a sovereign nation, and are therefore acknowledged separately from the State of Connecticut for purposes of this General Permit.

Connecticut General Permits

An activity is authorized under GPs 1-21 below only if that activity and the permittee satisfy all of the GP's terms and conditions.

1. Aids to navigation & temporary recreational structures
2. Repair or maintenance of existing currently serviceable, authorized or grandfathered structures/fills, removal of structures
3. Moorings
4. Pile-supported structures & floats, including boat lifts/hoists and other miscellaneous Structures & work
5. Boat ramps and marine railways
6. Utility line activities
7. Dredging, transport & disposal of dredged material, beach nourishment, rock removal & rock relocation
8. Discharges of dredged or fill material incidental to the construction of bridges
9. Shoreline and bank stabilization projects
10. Aquatic habitat restoration, establishment and enhancement activities
11. Fish and wildlife harvesting activities
12. Oil spill and hazardous material cleanup
13. Cleanup of hazardous and toxic waste
14. Scientific measurement devices
15. Survey activities
16. Aquaculture projects and fisheries
17. New/expanded developments & recreational facilities
18. Linear transportation projects – wetland crossings only
19. Stream, river & brook crossings (not including wetland crossings)
20. Energy generation and renewable energy generation facilities and hydropower projects
21. Temporary fill not associated with any other GP activities

US Army Corps of Engineers
BUILDING STRONG®

Errata sheet for the Connecticut General Permits
May 21, 2019

The Corps of Engineers, New England District, has compiled this list of corrections and clarifications for the Connecticut General Permits that were issued on August 19, 2016. We may update this list periodically. Please contact Diane M. Ray at diane.m.ray@usace.army.mil or at (978-318-8831) with any questions or suggestion.

1. GP 7. Revised to allow for beach grading under the Pre-Construction Notification (PCN) process. Beach grading includes the redistribution and regrading of on-site beach sand between mean low water and the high tide line without the addition of any off-site beach sand or other material.

Beach scraping has been deleted from "not authorized under GP 7" paragraph.

2. Replaced "Applicants must also submit two copies of the following to the Corps, on a CD if available and hard copy" under Section 1 – Review Categories-Application Procedures –Inland, paragraph #3 Applying for an Authorization through the PCN process with:

Applicants must also submit one copy of the following to the Corps, on a CD if available, OR hard copy if CD is not available.

3. Replaced "Not authorized" description in Appendix A – General Permits, GP 7 with the following:

Not authorized under GP 7 are: (a) New dredging with >1000 SF of impacts to intertidal areas or saltmarsh or >100 SF of impacts to vegetated shallows; (b) Maintenance dredging and/or disposal with >1/2 acre of impacts to tidal Special Aquatic Sites (SAS); (c) new dredging where the primary purpose is sand mining for beach nourishment; (d) Rock removal and relocation for navigation >1/2 acre; or (e) blasting.

4. Added the following General Condition for clarity:

General Condition 37. Use of Multiple General Permits. The use of more than one GP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the GPs does not exceed the acreage limit of the GP as specified. For example, if a road crossing over inland waters is constructed under GP 18, with an associated utility line crossing authorized by GP 6, the maximum acreage loss of waters of the United States for the total project cannot exceed 1 acre.

5. Replace **General Condition 10 d**. as follows:

d. Federal agencies should follow their own procedures for complying with the requirements of the ESA. Non-Federal representatives designated by the Corps to conduct informal consultation or prepare a biological assessment should follow the requirements in the designation document(s) and the ESA. Federal permittees and non-Federal representatives must provide the Corps with the appropriate documentation to demonstrate compliance with those requirements. The Corps will review the documentation and determine whether it is sufficient to address ESA compliance for the GP activity, or whether additional ESA consultation is necessary. Unless it is required elsewhere in this document, a PCN is not required if: (i) another (lead) Federal agency has completed all required §7 consultation; or (ii) a non-Federal representative designated by the Corps in writing has completed all required §7 informal consultation.

6. The attached Table 1. Connecticut Water Quality Certification was edited for clarity.

TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION
Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses *
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GP 5. Boat Ramps & Marine Railways	Granted	Granted for impacts not exceeding 0.5 acre.
GP 6. Utility Line Activities	Granted	Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **Other activities with impacts exceeding 0.5 acre require individual (regular) Section 401 Water Quality Certification.**
GP 9. Shoreline & Bank Stabilization Projects	Granted for shoreline and banks stabilization activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for shoreline and bank stabilization activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **Other shoreline stabilization activities exceeding 50 feet in length are not eligible for Section 401 Water Quality Certification under SV**. **Other stream, river, or brook bank stabilization activities exceeding 50 feet in total length for one stream bank or 50 feet cumulative length for both stream banks are not eligible for Section 401 Water Quality Certification under SV**. **Activities that include the placement of fill within the streambed beyond the toe of slope of the stream bank are not eligible for Section 401 Water Quality Certification under SV**	Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **Other shoreline stabilization activities exceeding 100 feet in total length require individual (regular) Section 401 Water Quality Certification**. **Other stream, river, or brook bank stabilization activities exceeding 100 feet in total length for one stream bank or 100 feet cumulative length for both stream banks require individual (regular) Section 401 Water Quality Certification.**

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GP 11. Fish & Wildlife Harvesting Activities	Granted	Granted
GP 12. Oil Spill & Hazardous Material Cleanup	Waived	Waived
GP 13. Cleanup of Hazardous & Toxic Waste	Waived	Waived
GP 14. Scientific Measurement Devices	Waived	Waived
GP 15. Survey Activities	Waived	Waived
GP 17. New/Expanded Developments & Recreational Facilities	Granted, except as noted below. **New roadway and driveway crossings in wetlands are not eligible for Section 401 Water Quality Certification under GP 17. (See GP 18.)** **Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP17. (See GP 19.)**	Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative state intra-agency screening process. **Other activities with impacts exceeding 0.5 acre require individual (regular) Section 401 Water Quality Certification.** **New roadway and driveway crossings in wetlands are not eligible for Section 401 Water Quality Certification under GP 17. (See GP 18.)** **Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 18. (See GP 19.)**

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GP 18. Linear Transportation Projects – Wetland Crossings Only	Granted **Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 18. (See GP 19.)**	Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **All other activities with impacts exceeding 0.5 acre require individual (regular) Section 401 Water Quality Certification.** **Stream, river, brook or other watercourse crossings are not eligible for Section 401 Water Quality Certification under GP 18. (See GP 19.)**
GP 19. Stream, River & Brook Crossings (Not Including Wetland Crossings) Continued on next page	Granted for stream, river or brook crossings that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. Granted for all other stream, river, brook or other watercourse crossings by means of a BRIDGE or OPEN-BOTTOM STRUCTURE that meets the following standards: • spans at least 1.2 times the watercourse bank full width, • allows for the continuous, uninterrupted flow of the 50-year frequency storm flows, • no riprap is placed within or across the bed of the brook; and, • appurtenant stream bank stabilization does not exceed 50 feet along any upstream or downstream bank. **Stream, river, brook and other watercourse crossings that do not meet the standards above are not eligible Section 401 Water Quality Certification for Self-Verification.** **Culvert slip lining is not eligible for Section 401 Water Quality Certification for Self-Verification.** **Wetland crossings are not eligible for Section 401 Water Quality Certification under GP 19. (See GP 18.)**	Granted for stream, river or brook crossings that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **All other stream, river and brook crossings require individual (regular) Section 401 Water Quality Certification**. **Wetland crossings are not eligible for Section 401 Water Quality Certification under GP 19. (See GP 18.)**

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GP 19. Stream, River & Brook Crossings (Not Including Wetland Crossings)	Granted for stream, river, brook or other watercourse crossings using a culvert provided: • the tributary watershed to the culvert does not exceed 1 sq. mile (640 acres); • the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert, • for a crossing constructed using a single box or pipe arch culvert, the inverts are set not less than 12 inches below the streambed elevation • for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set not less than 12 inches below the elevation of the streambed, • for a crossing constructed using a pipe culvert, the inverts are set such that not less than 25% of the pipe diameter or 12 inches, whichever is less, is set below the streambed elevation, • the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate, • the structure, including inlet and outlet protection measures, does not otherwise impede the passage of fish and other aquatic organisms, and • the structure allows for continuous flow of the 50-year frequency storm flows	
GP 21. Temporary Fill Not Associated With Any Other GP Activities	Granted	Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **Other activities with impacts exceeding 0.25 acre require individual (regular) Section 401 Water Quality Certification.**

*** ACTIVITIES NOT ELIGIBLE FOR SECTION 401 CERTIFICATION UNDER THIS GENERAL PERMIT CERTIFICATION**

The following activities are not eligible for Section 401 Water Quality Certification under this general permit certification and will require an individual (regular) Section 401 Water Quality Certification:

Detention or retention of stormwater in non-tidal waters, wetlands or watercourses including any watercourse or wetland crossing that by design or default functions to provide stormwater detention, and any construction of a stormwater detention or retention basin in non-tidal waters or wetlands.

Piping, boxing, enclosing or covering of a non-tidal watercourse for a purpose other than a driveway or roadway crossing.

Activities with direct, indirect or secondary impact(s) to: Special Wetlands[(1)], Threatened, Endangered, or Special Concern Species [(2)], Significant Natural Communities/Critical Habitats [(2)] identified by the Connecticut Natural Diversity Database.

Activities within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain**[(3)].**

DEFINITIONS

(1) Special Wetlands: Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands that provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this GP:

Bog: a peat accumulating wetland dominated by sphagnum moss. Typical plant species include sphagnum moss, leatherleaf, black spruce, pitcher plant and sundew.
Calcareous Seepage Swamp: a forested wetland characterized by the discharge of groundwater with a chemistry influenced by an underlying limestone geology.
Cedar Swamp: a forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.
Fen: a peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.
Spruce Swamp: a forested wetland characterized by the presence of Red or Black Spruce.
Vernal Pool: an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish. **All vernal pools are subject to the jurisdiction of the Connecticut Department of Energy and Environmental Protection under Connecticut Water Quality Standards.**

(2) Threatened, Endangered or Special Concern Species; Significant Natural Communities/Critical Habitats: Species listed by CT DEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. General locations of threatened and endangered species and species of special concern, and significant natural communities/critical habitats are identified on maps published by the Connecticut Department of Energy and Environmental Protection entitled "Natural Diversity Data Base Areas" and on the CTECO Interactive Map Viewers at www.cteco.uconn.edu .

(3) **Adverse Effect to Hydraulic Characteristics:** An adverse effect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood flow conveyance in a manner that would impact upstream, downstream or adjacent property.

SECTION 1
REVIEW CATEGORIES AND APPLICATION PROCEDURES FOR PROJECTS WITHIN NON-TIDAL WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT AND LANDS LOCATED WITHIN AN INDIAN RESERVATION

I. ACTIVITIES COVERED:

The discharge of dredged or fill material into Waters of the United States, which is regulated by the Corps under Section 404 of the Clean Water Act (CWA), see 33 CFR 328.

II. REVIEW PROCESS:

1. State and Local Approvals:

In order for authorizations under these GPs to be valid and before commencing any work within Corps jurisdiction, applicants must apply for and obtain State Water Quality Certification as well as any local approvals (see **General Condition 1**):

Water Quality Certification (WQC) under Section 401 of the Federal CWA (33 USC Sec. 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a WQC or waiver from the state water pollution control agency which in Connecticut is the Connecticut Department of Energy and Environmental Protection (CT DEEP) or U.S. EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S. **(**see **attached Water Quality Certification and table**).

The CT DEEP, Inland Water Resources Division (CT DEEP IWRD) has conditionally granted WQC for Self-Verification (SV) activities in inland wetlands and waterways provided those activities meet the criteria as contained in the attached **Appendix A – General Permits** document.

The CT DEEP- IWRD has granted WQC with terms, limitations and conditions specified therein.

The CT DEEP- IWRD has waived WQC for GP 12, GP 13, GP 14, and GP 15.

The U.S. EPA granted WQC for Self-Verification and PCN activities located on lands within the boundaries of an Indian Reservation.

2. General Permit Review Categories:

a. Self-Verification – An application to the Corps is NOT required. However, submittal of the attached Self-Verification Notification Form at Appendix E to the Corps and CT DEEP, IWRD is required prior to commencement of work authorized by these GPs.

Eligibility Criteria

Activities in Connecticut and lands located within the boundaries of an Indian reservation that meet the following criteria are eligible under Self-verification of this General Permit:

- are subject to Corps jurisdiction (See **General Condition 2**),
- meet the criteria of Self-Verification in the attached **Appendix A - General Permits**, and
- meet the General Conditions of the GPs.

Project proponents seeking Self-Verification authorizations must comply with the General Conditions and other federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or outside experts, such as the State Historic Preservation Office and any appropriate Indian tribes, is recommended when there is a high likelihood of the presence of resources of concern.

b. Pre-Construction Notification (PCN) – An application to the Corps is required.

Projects not eligible under Self-Verification of the GPs may be screened under PCN, provided they meet the criteria as defined in the attached **Appendix A – General Permits** for PCN activities.

Eligibility Criteria

Activities in Connecticut and lands located within an Indian reservation that meet the following criteria are eligible under PCN of this General Permit:

- are subject to Corps jurisdiction (See **General Condition 2**),
- meet the criteria of PCN in the attached **Appendix A – General Permits**, and
- meet the General Conditions of the GPs.

3. Applying for an authorization through the PCN process:

Applicants must also submit two copies of the following to the Corps, on a CD if available and hard copy:

- Corps application form (ENG Form 4345) found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainaPermit.aspx
- 8.5” x 11” or 11” x 17” drawings and one large-scale drawing,
- wetlands functions and values assessment,
- Federal wetland delineation documentation (data sheets),
- The CT DEEP addendum found at: http://www.ct.gov/deep/lib/deep/Permits_and_Licenses/LandUse_General_Permits/Inland_Water_General_Permits/CT_addendum_app.pdf
- Correspondence with the State Historic Preservation Office and Tribal Historic Preservation Officer indicating coordination with these entities along with a completed CT SHPO Form. The CT SHPO Form is available on the CT SHPO website under Historic Preservation – Environmental Review at http://www.cultureandtourism.org/cct/lib/cct/Project_Notification_Form_final.pdf
- a plan describing any proposed mitigation along with an Invasive Species Control Plan.

Applicants must concurrently submit three copies of the following to the CT DEEP at the address below:

- the Corps application form,
- 8.5" x 11" or 11" x 17" drawings and one large-scale drawing,
- wetlands functions and values assessment,
- Federal wetlands delineation documentation (data sheets),
- CT DEEP addendum, and
- a plan describing any proposed mitigation.

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

NOTE: Applicants must submit all project revisions and modifications to both agencies.

The Corps will coordinate review of all PCN activities with federal and state agencies to ensure that the proposed activity results in no more than a minimal impact to the aquatic environment. To be eligible and subsequently authorized, an activity must meet the eligibility criteria in **2. General Permit Review Categories** above and result in no more than minimal impacts to the aquatic environment as determined by the Corps in conjunction with the interagency review team which consists of federal and state resource agencies. This may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal.

Written approval from the Corps for PCN activities is required before work can commence.

Emergency Situation Procedures: 33 CFR 325.2 (e) (4) states that an "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures." Notification to the Corps and CT DEEP – IWRD is required. The Corps will determine if a project qualifies as an emergency and will work with all applicable agencies to expedite authorization in emergency situations. If the project qualifies as an emergency, authorization under Self-verification or PCN of the GPs is not required.

Individual Permit Procedures: Work that is **NOT** eligible for authorization under the GPs as defined in the attached **Appendix A – General Permits**, or that does not meet the terms and conditions of the GPs, will require review under the Corps Individual Permit procedures (see 33 CFR Part 325.1). The applicant shall submit the appropriate application materials (including the Corps ENG 4345 application form) to the Corps of Engineers. General information and application forms can be obtained at the Corps web site noted in Paragraph 3 above. An individual Water Quality Certification is required from the CT DEEP, IWRD. **The application form and instructions for Section 401 Water Quality Certification are available from the Connecticut DEEP web site at http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav_GID=1643.**

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GP 19. Stream, River & Brook Crossings (Not Including Wetland Crossings) Continued on next page	Granted for stream, river or brook crossings that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. Granted for all other stream, river, brook or other watercourse crossings by means of a BRIDGE or OPEN-BOTTOM STRUCTURE that meets the following standards: • spans at least 1.2 times the watercourse bank full width, • allows for the continuous, uninterrupted flow of the 50-year frequency storm flows, • no riprap is placed within or across the bed of the brook; and, • appurtenant stream bank stabilization does not exceed 50 feet along any upstream or downstream bank. **Stream, river, brook and other watercourse crossings that do not meet the standards above are not eligible Section 401 Water Quality Certification for Self-Verification.** **Culvert slip lining is not eligible for Section 401 Water Quality Certification for Self-Verification.** **Wetland crossings are not eligible for Section 401 Water Quality Certification under GP 19. (See GP 18.)**	Granted for stream, river or brook crossings that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **All other stream, river and brook crossings require individual (regular) Section 401 Water Quality Certification**. **Wetland crossings are not eligible for Section 401 Water Quality Certification under GP 19. (See GP 18.)**

TABLE 1. CONNECTICUT WATER QUALITY CERTIFICATION
Water Quality Certification – Non-Tidal Waters, Wetlands, and Watercourses *
Department of the Army - General Permits for the State of Connecticut
WQC-201607149

	Self-Verification (SV) **WHERE GRANTED, APPENDIX E: SELF-VERIFICATION NOTIFICATION FORM AND PLANS ARE REQUIRED TO BE FILED WITH CT DEEP – See Appendix E for instructions**	**Pre-Construction Notification (PCN)** **WHERE GRANTED, APPLICATION TO CT DEEP IS REQUIRED – See Section 1, II. 3. (pages 2-3) of the Army Corps GP for instructions**
GP 19. Stream, River & Brook Crossings (Not Including Wetland Crossings)	Granted for stream, river, brook or other watercourse crossings using a culvert provided: • the tributary watershed to the culvert does not exceed 1 sq. mile (640 acres); • the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert, • for a crossing constructed using a single box or pipe arch culvert, the inverts are set not less than 12 inches below the streambed elevation • for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set not less than 12 inches below the elevation of the streambed, • for a crossing constructed using a pipe culvert, the inverts are set such that not less than 25% of the pipe diameter or 12 inches, whichever is less, is set below the streambed elevation, • the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate, • the structure, including inlet and outlet protection measures, does not otherwise impede the passage of fish and other aquatic organisms, and • the structure allows for continuous flow of the 50-year frequency storm flows	
GP 21. Temporary Fill Not Associated With Any Other GP Activities	Granted	Granted for activities that receive written approval from the Connecticut Department of Energy and Environmental Protection (CT DEEP) through a formal cooperative state interagency screening process jointly conducted by the Connecticut Department of Transportation (CT DOT) and CT DEEP. Granted for activities conducted or funded by the Connecticut Department of Energy and Environmental Protection (CT DEEP) that receive written approval through a formal cooperative CT DEEP intra-agency screening process. **Other activities with impacts exceeding 0.25 acre require individual (regular) Section 401 Water Quality Certification.**

*** ACTIVITIES NOT ELIGIBLE FOR SECTION 401 CERTIFICATION UNDER THIS GENERAL PERMIT CERTIFICATION**

The following activities are not eligible for Section 401 Water Quality Certification under this general permit certification and will require an individual (regular) Section 401 Water Quality Certification:

Detention or retention of stormwater in non-tidal waters, wetlands or watercourses including any watercourse or wetland crossing that by design or default functions to provide stormwater detention, and any construction of a stormwater detention or retention basin in non-tidal waters or wetlands.

Piping, boxing, enclosing or covering of a non-tidal watercourse for a purpose other than a driveway or roadway crossing.

Activities with direct, indirect or secondary impact(s) to: Special Wetlands[(1)], Threatened, Endangered, or Special Concern Species [(2)], Significant Natural Communities/Critical Habitats [(2)] identified by the Connecticut Natural Diversity Database.

Activities within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain**[(3)].**

DEFINITIONS

(1) Special Wetlands: Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands that provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this GP:

Bog: a peat accumulating wetland dominated by sphagnum moss. Typical plant species include sphagnum moss, leatherleaf, black spruce, pitcher plant and sundew.
Calcareous Seepage Swamp: a forested wetland characterized by the discharge of groundwater with a chemistry influenced by an underlying limestone geology.
Cedar Swamp: a forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.
Fen: a peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.
Spruce Swamp: a forested wetland characterized by the presence of Red or Black Spruce.
Vernal Pool: an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish. **All vernal pools are subject to the jurisdiction of the Connecticut Department of Energy and Environmental Protection under Connecticut Water Quality Standards.**

(2) Threatened, Endangered or Special Concern Species; Significant Natural Communities/Critical Habitats: Species listed by CT DEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. General locations of threatened and endangered species and species of special concern, and significant natural communities/critical habitats are identified on maps published by the Connecticut Department of Energy and Environmental Protection entitled "Natural Diversity Data Base Areas" and on the CTECO Interactive Map Viewers at www.cteco.uconn.edu .

(3) **Adverse Effect to Hydraulic Characteristics:** An adverse effect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood flow conveyance in a manner that would impact upstream, downstream or adjacent property.

SECTION 2:
REVIEW CATEGORIES & APPLICATION PROCEDURES FOR PROJECTS WITHIN TIDAL, COASTAL AND NAVIGABLE WATERS WITHIN THE STATE OF CONNECTICUT

Connecticut's coastal area is statutorily defined as: all lands and waters within the municipalities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Borough of Woodmont, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Borough of Fenwick, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton (city, Town and Long Point Borough), Mystic and Stonington (Town & Borough) [Section 22a-94(a) CGS].

Navigable Waters: Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Connecticut River has been determined to be a navigable water of the United States. [Refer to Title 33 CFR Part 329]

I. ACTIVITIES COVERED:

- Work and structures that are located in, under or over any navigable water of the U.S. (defined at 33 CFR 329) that affect the course, location, condition, or capacity of such waters; or the excavating from or depositing material in navigable waters. (Regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899);

- The discharge of dredged or fill material into waters of the U.S. (defined at 33 CFR 328), which is regulated by the Corps under Section 404 of the Clean Water Act (CWA)

- The transportation of dredged material for the purpose of disposal in the ocean. The Corps regulates these activities under Section 103 of the Marine Protection, Research and Sanctuaries Act. See 33 CFR 324.

II. REVIEW PROCESS:

1. Connecticut Department of Energy & Environmental Protection, Office of Long Island Sound Programs (DEEP OLISP) approvals:

In order for authorizations under these GPs to be valid and before commencing any work within Corps jurisdiction, applicants are responsible for applying for and obtaining any of the following required State or local approvals (see **General Condition 1**):

Water Quality Certification (WQC) Issuance or waiver under Section 401 of the Federal CWA (33 USC Section 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a WQC or waiver from the state water pollution control agency (CT DEEP) or EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S.

Coastal Zone Management Consistency (CZM) - Concurrence under Section 307 of the Federal CZM Act of 1972, as amended. Section 307(c) of the CZM of 1972, as amended, requires applicants to obtain a certification or waiver from CT DEEP OLISP that the activity complies with the state's CZM program for activities affecting a state's Coastal Area.

Project proponents involving dredging/excavation and associated disposal within the Byram River must also coordinate with NY DOS directly to obtain a certification or waiver that the activity complies with NYDOS' CZM program. Also, all projects with disposal at any of the Long Island Sound Disposal Sites require NY DOS CZM consistency. Additional information can be found at their website: **http://www.dos.ny.gov/opd/programs/consistency/.**

2. Corps Authorizations:

a. Self-Verification (SV) – Applicants are not required to submit an Application or Appendix E to the Corps. Instead, DEEP OLISP will forward copies of application packages and their approvals to the Corps on a weekly basis. If the Corps determines that a project meets this category, the Corps will forward verification of eligibility to the applicant.

Eligibility Criteria
Activities in Connecticut and lands located within the boundaries of an Indian reservation may proceed without application or notification to the Corps if they:

- are subject to Corps jurisdiction
- meet the definition of Self-Verification in **Appendix A - General Permits**, and
- meet the General Conditions of the GPs

Note: Activities subject to Corps jurisdiction that are NOT regulated by the DEEP OLISP will be subject to the Pre-Construction Notification (PCN) screening requirements of the GPs as noted below.

Project proponents seeking eligibility under the SV category must comply with the General Conditions of the GPs and other federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or outside experts such as the State Historic Preservation Office and any appropriate Indian tribes is recommended when there is a likelihood of the presence of resources of concern.

b. Pre-Construction Notification (PCN) (notification/application and written authorization required)

Projects not eligible under the SV category of the GPs may be screened under PCN category, provided they meet the criteria.

Eligibility Criteria
Activities in Connecticut and lands located within the boundaries of an Indian reservation that meet the following criteria **require written approval from the Corps**:

- are subject to Corps jurisdiction,
- meet the definition of PCN in this Section, and
- meet the General Conditions of the GPs

3. Applying for authorization through the PCN process:

a. CT DEEP, OLISP regulated activities

Structures and Dredging Permit Applications: Applicants/agents shall submit to the Corps, a copy of the DEEP Permit Consultation Form for U.S. Army Corps of Engineers Review along with project plans. The Corps will then coordinate this information with the interagency review team (see paragraph 4 below) and then return the form to applicants/agents for their submission to DEEP OLISP.

Certificates of Permission (COPs), General Permits (GPs) and Modifications: OLISP will forward copies of application packages and approvals to the Corps. If a project is determined to meet any of the PCN activities and is complete, the Corps will coordinate these projects with the interagency review team. If the Corps determines that an Individual permit or additional information is required, the Corps will coordinate directly with the applicant/agent.

NOTE: For projects which involve dredging and open water disposal - Applicants/agents must submit requests for sampling plans to the DEEP, OLISP and the Corps simultaneously, along with other required information specific to dredging/open water disposal, a detailed open water disposal site alternative analysis, and a completed New York State, Department of State (NYS DOS) Federal Consistency Assessment Form found at http://nyswaterfronts.com/downloads/pdfs/fcaf2.pdf. Please see our website at http://www.nae.usace.army.mil/Regulatory/ for a list of all required additional information.

b. Aquaculture activities regulated by the Connecticut Department of Agriculture

This refers to marine- and land-based aquaculture activities, including associated structures regulated by the Department of Agriculture, Bureau of Aquaculture (DA/BA), Connecticut General Statutes Section 22-11h.

Applicants should apply directly to the DA/BA using the Joint Application for Aquaculture form found at: http://www.nae.usace.army.mil/reg/Permits/CT_AquacultureApplication.pdf . The DA/BA will forward a copy of the aquaculture application package to the Corps, the State of Connecticut Department of Energy & Environmental Protection's (CT DEEP) Boating Division, Marine Fisheries Division, Office of Long Island Sound Programs (OLISP), and CT DEEP, Inland Water Resources Division (IWRD) for activities impacting inland waters.

These application packages for marine-based activities will be screened by the Corps, the Federal resource agencies, and the CT DEEP, OLISP with input from the CT DEEP Boating and Marine Fisheries Divisions. Screening will also initiate review of the application by the CT DEEP OLISP for Coastal Zone Management consistency concurrence. The CT DEEP OLISP will make a determination on the completeness of the application for CZM consistency review and/or the eligibility of the activity for state aquaculture permit exemption within 30 days from the date of the screening meeting.

4. Review Procedures:

The Corps will coordinate review of all PCN activities with federal and state agencies (interagency review team), as necessary. To be eligible and subsequently authorized, an activity must meet the eligibility criteria listed above and result in no more than minimal impacts to the aquatic environment as determined by the Corps. This may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal. Applicants are responsible for applying for the appropriate state and local approvals. Authorizations under these GPs are not valid until all required CT DEEP, OLISP authorizations are granted.

Emergency Situation Procedures: 33 CFR 325.2 (e)(4) states that an "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures." Notification to the Corps is required. The Corps will determine if a project qualifies as an emergency and will work with all applicable agencies to expedite authorization in emergency situations. If the project qualifies as an emergency, authorization under these General Permits is not required.

Individual/Standard Permit Procedures: Work that is not eligible under PCN activities as described therein or that does not meet the terms and general conditions of the GPs, will require the submission of an application to the Corps for an Individual Permit (see 33 CFR Part 325.1). The applicant should submit the appropriate application form and materials at the earliest possible date. General information and application forms can be obtained at our website at **http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainaPermit.aspx** or by calling us. Individual WQC and CZM consistency concurrence are required, when applicable, from the State of Connecticut before Corps issuance of an individual permit. Individual Water Quality Certification must be obtained from EPA for activities on lands located within the boundaries of an Indian reservation. The Corps encourages applicants to concurrently apply for a Corps Individual Permit and state permits.

APPENDIX A – GENERAL PERMITS

GP 1. AIDS TO NAVIGATION & TEMPORARY RECREATIONAL STRUCTURES (Section 10; navigable waters of the United States)

The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66)

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Aids to navigation and regulatory markers that are not located within Corps Federal Navigation Projects (FNPs*). Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are not located within Corps FNPs **and** are removed within 30 days after use is discontinued. No structures in Submerged Aquatic Vegetation ***FNPs are comprised of Federal Channels, anchorages and turning basins. Please click on the link below for more information:** **http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/**	Work not eligible for SV. Aids to navigation or temporary markers, floats, etc. that are within a Corps FNP. Temporary markers, floats, etc. that are not to be removed within 30 days.

GP 2. REPAIR OR MAINTENANCE OF EXISTING CURRENTLY SERVICEABLE, AUTHORIZED OR GRANDFATHERED* STRUCTURES & FILLS, REMOVAL OF STRUCTURES (Section 10 & 404; tidal and non-tidal waters of the U.S.) Repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Includes removal of structures and fill. **Not authorized under GP 2:** (a) Permanent impacts >1/2 acre in tidal and non-tidal waters and/or wetlands, >1000 SF in tidal Special Aquatic Site (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows.

Self-Verification (SV) Eligible	Pre-Construction Notification (PCN) Required
≤5,000 s.f. of impacts in non-tidal waters & wetlands. No fill in tidal waters & wetlands. Bulkhead replacement via installation of new bulkhead within 18" of existing bulkhead & backfill. Drawdown of impoundment for dam/levee repair provided it does not exceed 18 months and one growing season (April through September) Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project or within the boundaries of the structure or fill. Any bank stabilization measures not directly associated with the structure requires a separate authorization under **GP 9**. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary discharges, such as sandbag cofferdams, access fills, etc. are necessary for construction activities or dewatering of construction sites. Temporary fills must consist of materials and be placed in a manner, that will not be eroded by expected high flows. They must be removed in their entirety and the affected areas returned to pre-construction elevations and must be re-vegetated as appropriate. Work to previously approved tide gates with a Corps-approved operation and maintenance plan and tide gates not affecting the hydraulic regime. No impacts in Special Aquatic Sites (SAS) – see definitions. No slip lining or culvert relining that changes invert elevation. **NOTES:** 1. Removal of bridge structures in navigable waters are covered under **GP 8**, if the Coast Guard issues a bridge permit. 2. Stream, river, brook or other watercourse crossings are not eligible under **GP 2** (See **GP 19**).	Work not eligible for SV. Removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap, minimum necessary to protect the structure. The removal of accumulated sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. Excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer. Drawdown of impoundment for dam/levee repair provided it does not exceed 18 months and one growing season (April through September) *Grandfather dates include work performed & structures installed before 1968 & fill placed before 1975 for Corps purposes only.

GP 3. MOORINGS (Section 10; navigable waters of the U. S.)

New private, non-commercial, non-rental, single-boat moorings & temporary moorings including moorings to facilitate construction or dredging; minor relocation of previously authorized moorings and mooring field expansions, boundary reconfigurations or modifications of previously authorized mooring fields and maintenance and replacement of moorings.

Not authorized under GP 3 are: Moorings within Federal Navigation channels.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
1. Private, non-commercial, non-rental, single-boat moorings and temporary moorings including moorings that facilitate construction or dredging provided: No new moorings located in Federal anchorages; No new moorings located in Special Aquatic Sites (SAS)**;** No new moorings located in shellfish beds; Authorized by local harbormaster/town; When existing, authorized moorings in SAS are going to be replaced, they shall be replaced with low impact mooring technology that prevents mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems. 2. Minor relocation of previously authorized moorings, provided: Authorized by the local harbormaster/town; Not located in SAS; Not located in Federal anchorages.	Work not eligible for SV. Moorings associated with an existing boating facility*. Private moorings without harbormaster or local approval. Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Anchorage. The buffer zone is equal to 3 times the authorized depth of that channel. ***Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.*** ***Locating new individual moorings in SAS, including eelgrass, should be avoided to the maximum extent practicable. If SAS cannot be avoided, plans should show elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems, where practicable. For moorings that appear to impact SAS, the Corps may require an eelgrass survey.***

GP 4. PILE-SUPPORTED STRUCTURES & FLOATS, INCLUDING BOAT LIFTS/HOISTS & OTHER MISCELLANEOUS STRUCTURES & WORK (Section 10; navigable waters of the U.S.) New, expansions, reconfigurations or modifications of structures for navigation access including floats, stairs, and boat/float lifts.

Not authorized under GP 4 are: (a) fill or excavation; (b) no structures within Federal Navigation channels; or (c) structures associated with a NEW boating facility*.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Private residential structures with a length limit not to exceed 40' beyond mean high water and to a depth of -4' mean low water and limited to 4' in width. The fixed pier component of the dock located in tidal wetlands shall be constructed such that the lowest horizontal member of the fixed pier is no lower than five (5) feet off the surface of any underlying wetland area. Floats must be supported at least 18" above the intertidal and shallow sub-tidal substrate during all tidal cycles. No structures located within Submerged Aquatic Vegetation No structures or floats can be located within the buffer zone (3x the authorized depth of the FNP) of the horizontal limits of FNPs. No structures or floats can extend across >25% of the waterway width at mean low water. No new structures within 25' of riparian property line extensions. No new structures or floats associated with boating facilities. No new pile-supported structures within Shellfish Concentration Areas as designated by the Connecticut Department of Environmental Protection, Coastal Area Management Program under CGS Sec. 22a-90 Reconfiguration of existing authorized structures; private or commercial, provided those structures do not extend beyond the existing perimeter of the facility or encroach into Special Aquatic Sites.	Work not eligible for SV. New structures within an existing boating facility, provided those structures do not extend beyond the existing perimeter of the facility. Structures or work in or affecting tidal or navigable waters that are not defined under any other GP activity. Structures that are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. If so, the Corps may require a letter of no objection from the abutter(s). ***Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.***

GP 5. BOAT RAMPS & MARINE RAILWAYS (Sections 10 and 404; tidal and non-tidal waters of the U.S.) Activities required for the construction of boat ramps and marine railways, including excavation and fill.

Not authorized under GP 5: (a) Permanent and temporary fill >1/2 acre of non-tidal waters and/or wetlands, (b) permanent and temporary impacts >1/2 acre in tidal waters; >1000 SF in tidal SAS other than vegetated shallows, or >100 SF in tidal vegetated shallows; or (c) dredging in navigable waters of the U.S. (see GP **7**)

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
No work in tidal waters and wetlands of the United States. ≤5,000 SF of non-tidal waters and/or wetland fill (permanent and temporary). No work April 1 through June 30 in non-tidal waters that support diadromous fish species.	Work not eligible for SV. Work occurs in tidal waters and wetlands of the United States. Boat ramps are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. If so, the Corps may require a letter of no objection from the abutter(s).

GP 6. UTILITY LINE ACTIVITIES (Sections 10 & 404; tidal & non-tidal waters of the U.S.)

Activities required for (a) The construction, maintenance, relocation, repair, & removal of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for utility lines; (b) The construction, maintenance or expansion of utility line substation facilities associated with a power/utility line in non-tidal waters; and (c) The construction and maintenance of foundations for overhead utility line towers, poles, and anchors provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project, does not cause the permanent loss of greater than 1 acre of non-tidal waters of the U.S*. Impacts resulting from mechanized pushing, dragging or other similar activities that redeposit excavated soil material shall be figured into the area limit determination.

Not authorized under GP 6: (a) Permanent and temporary fill >1 acre of non-tidal waters and/or wetlands*, (b) permanent and temporary impacts >1/2 acre in tidal waters; >1000 SF in tidal Special Aquatic Sites other than vegetated shallows, or >100 SF in tidal vegetated shallows; or (c) blasting or storage of equipment in wetlands.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
No work in, over or under tidal waters. No outfalls. ≤5,000 SF of non-tidal waters and/or wetland fill (permanent and temporary). Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments. No silt producing activities from April 1 through June 30 in non-tidal waters that support diadromous fish species. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.	Work not eligible for SV. Overhead utility lines constructed over Section 10 waters and submarine utility lines that are routed in or under such waters. ***See Table 1 Connecticut Water Quality Certification (CT WQC) in Section 1 for additional details on thresholds.*** **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

NOTE: Temporary fills necessary to conduct the utility line activity are also allowed, provided the utility line activity is **within** Corps jurisdiction. Material resulting from trench excavation may be temporarily sidecasted into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. If the utility line activity is not within Corps jurisdiction but temporary fill will be placed in Corps jurisdiction, then see **GP 21** for temporary fills, etc.

GP 7. DREDGING (Section 10; navigable waters of the U.S.), TRANSPORT &DISPOSAL OF DREDGED MATERIAL (Sections 10, 404 &103; tidal waters of the U.S.), BEACH NOURISHMENT (Sections 10 & 404; tidal waters of the U.S.); ROCK REMOVAL (Section 10, navigable waters of the U.S.) &ROCK RELOCATION (Sections 10 & 404; tidal waters of the U.S.)

New, improvement* and maintenance** dredging, including: (a) Disposal of dredged material at a confined aquatic disposal, beach nourishment, near shore, designated open water or ocean water disposal site, provided the Corps finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Rock removal and relocation for navigation.

Not authorized under GP 7 are: (a) New dredging with >1000 SF of impacts to intertidal areas or saltmarsh or > 100 SF of impacts to vegetated shallows; (b) Maintenance dredging and/or disposal with >1/2 acre of impacts to tidal Special Aquatic Sites (SAS); (c) new dredging where the primary purpose is sand mining for beach nourishment; (d) Beach scraping; (e) Rock removal and relocation for navigation >1/2 acre; or (f) blasting.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
No work in non-tidal waters or wetlands. Maintenance dredging (with any amount of yardage) provided: Contained upland disposal; Proper siltation controls used & maintained to prevent runback into waterway/wetland; No impacts to SAS, intertidal areas or shellfish beds; Not located within 100' of vegetated shallows or shellfish areas; No work in the Connecticut River; and Work occurs from October 1 through January 31. Rock/boulder relocation with ≤200 SF of impacts and no impacts to SAS. No rock removal.	Work not eligible for SV. Maintenance dredging not eligible for SV; improvement dredging and new dredging. Disposal options include upland disposal, open water disposal, confined aquatic disposal cells (CAD cells), near-shore disposal or beach nourishment. ****Improvement is dredging to deeper depths in areas previously dredged or authorized.*** *****Maintenance dredging includes areas and depths previously authorized by the Corps and dredged.***

GP 8. DISCHARGES OF DREDGED OR FILL MATERIAL INCIDENTAL TO THE CONSTRUCTION OF BRIDGES (Sections 10 & 404; navigable waters of the U.S.)

Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams abutments, foundation seals, piers, approach fills, and temporary construction and access fills **provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws**. A USCG Authorization Act Exemption or a STURRA (144h) exemption do not constitute USCG authorization.

Not authorized under GP 8 are causeways.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Discharges of dredged or fill material incidental to the construction and modification of bridges. No fill in Special Aquatic Sites. No fill in the Connecticut River.	Work not eligible for SV.

GP 9. SHORELINE & BANK STABILIZATION PROJECTS (Sections 10 & 404; tidal and non-tidal waters of the U.S.) Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, estuarine and ocean waters, and any other open waters. Includes bulkheads, seawalls, riprap, revetments or slope protection & similar structures as well as vegetative planting, soil bioengineering or alternative techniques that are a combination of the two (e.g. living shorelines), specifically for the purpose of shoreline protection. **Not authorized under GP 9 are:** (a) Bank stabilization >500 LF* in total length including both stream banks; (b) Permanent and temporary impacts >1/2 acre in tidal waters, >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows. (c) Stream channelization or relocation activities; or (d) breakwaters, groins and jetties.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Coastal shoreline & bank stabilization projects ≤200 linear feet; and other stream, river, or brook bank stabilization projects ≤200 linear feet (includes total for more than one stream bank) provided: ≤1 cubic yard of fill per linear foot placed between the high tide line (HTL) and mean low water (MLW) or ≤1 cubic yard of fill per linear foot placed waterward of ordinary high water (OHW). No discharge of fill material within SAS, including mudflats, tidal wetlands, Submerged Aquatic Vegetation and/or shellfish beds. Soft stabilization measures such as bioengineered fiber roll revetments or equivalent, shall be used wherever practicable. No vertical stone structures or embankments angled steeper than 1V: 1H. No new bulkheads. No fill within the streambed. Unconfined work, not including installation and removal of cofferdams, is limited to June 30 through September 30 in non-tidal waters supporting diadromous fish. Unconfined work, not including installation and removal of cofferdams, in other non-tidal waters is limited to the low-flow period June 1 through September 30. Work occurring behind a cofferdam may occur at any time. ***See Table 1 CT WQC in Section 1 for additional details on thresholds.***	Work not eligible for SV. The slope of the structure is steeper than 1V:3H in lakes/ponds; and 1V:1H in non-tidal streams and tidal waters and streams. Fill waterward of the HTL in coastal waters including alternative stabilization techniques that are a combination of soft and hard shoreline stabilization techniques that will affect SAS, change the natural shoreline configuration or alter natural or ecological processes. ***See Table 1 CT WQC in Section 1 for additional details on thresholds.***

GP 10. AQUATIC HABITAT RESTORATION, ESTABLISHMENT & ENHANCEMENT ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.) Activities in waters of the United States associated with the restoration, enhancement and establishment of non-tidal and tidal wetlands and riparian areas, including invasive, non-native or nuisance species control; the restoration and enhancement of non-tidal streams and other non-tidal open waters; the relocation of non-tidal waters, including non-tidal streams & associated wetlands for reestablishment of a natural stream morphology and reconnection of the floodplain; the restoration and enhancement of shellfish, finfish and wildlife; and the rehabilitation or enhancement of tidal streams, tidal wetlands and tidal open waters; provided those activities result in net increases in aquatic resource functions and services.

Not authorized under GP 10 are: (a) Conversions of wetlands to open water, except for the excavation of new salt pannes and (b) Artificial reefs.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Special Aquatic Site planting and transplanting ≤100 SF in tidal waters. No new ditching to eliminate mosquito breeding habitat. No thin layer deposition. No fill for purposes of converting marsh to upland. Placement of seed shellfish, spatted-shell or cultch in tidal waters for the restoration or enhancement of existing, publicly-managed, recreational shellfish beds provided there is no placement in or impacts to SAS and does not result in degradation of habitat for other aquatic resources. ≤5,000 SF of non-tidal waterway and/or non-tidal wetland fill provided the activity is supported in writing by a state or non-Corps Federal environmental resource management agency. No stream channelization.	Work not eligible for SV Pro-active salt marsh restoration work that includes draining of ponded dieback areas through excavation of runnels with handheld tools or low-impact ground equipment; blocking or unclogging of historic mosquito ditches to restore tidal flushing; excavation of new salt pannes to increase shorebird and waterfowl foraging habitat and placing excavated materials on the marsh surface for establishing suitable vegetative beds. Pond or lake reestablishment or restoration. Water impoundments. Dam removals. Integrated Marsh Management in tidal wetlands for combined wetland enhancement and mosquito control and reduction.

GP 11. FISH & WILDLIFE HARVESTING ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.) Activities in waters of the United States associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.).

Not authorized by GP 11 are: (a) Artificial reefs, impoundment(s) or semi-impoundment(s) of water; **(b)** Permanent and temporary impacts >1/2 acre in tidal waters, >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows; and **(c)** Shellfish dredging, either mechanical or hydraulic in SAS.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Activities associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging, small fish aggregating and attraction devices such as open water fish concentrators (sea kites, etc.). No permanent impacts to SAS, including salt marshes and Submerged Aquatic Vegetation (SAV). No structures, cages or traps located in SAS.	Work not eligible for SV Devices located in tidal SAS, including salt marsh and SAV.

GP 12. OIL SPILL & HAZARDOUS MATERIAL CLEANUP (Sections 10 and 404; tidal and non-tidal waters of the U.S.): a. Activities conducted in response to a discharge or release of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup, and mitigation efforts, provided activities are done under either **(i)** The Spill Prevent, Control & Countermeasure Plan require by 40 CFR 112.3; **(ii)** The direction or oversight of the Federal on-site coordinator designated by 40 CFR 300; or **(iii)** Any approved existing State, regional or local contingency plan provided that the Regional Response Team concurs with the proposed response efforts or does not object to the response effort. **b.** Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761. **c.** Booms placed in tidal waters. **d.** Use of structures & fills for spill response training exercises. Special Aquatic Sites (SAS) must be restored in place to pre-impact elevations.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
1. Activities that are conducted in accordance with **a.** or **b.** above. 2. Booms placed in navigable waters for hazardous and toxic waste containment, absorption and prevention, provided they are removed upon completion of the cleanup. 3. Temporary impacts for spill response training exercises are ≤5,000 SF in non-tidal waters and ≤1,000 SF in tidal waters, and temporary structures in tidal waters with no impacts to SAS and in place for ≤30 days. **Note:** For activities in non-tidal waters of the U.S., permittees have up to two weeks following commencement of these activities to submit the Self-verification form (Appendix E).	Work not eligible for SV. 1. The activity is planned or scheduled, not an emergency response, and will cause turbidity or sediment resuspension in tidal waters or streams. 2. Permanent structures or impacts for spill response training exercises.

GP 13. CLEANUP OF HAZARDOUS & TOXIC WASTE (Sections 10 and 404; tidal and non-tidal waters of the U.S.) Specific activities to effect the containment, stabilization or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements which are performed, ordered or sponsored by a government agency with established legal or regulatory authority*. Special Aquatic Sites must be restored in place to pre-impact elevations.

Not authorized under GP 13 are: **(a)** the establishment of new disposal sites; or **(b)** the expansion of existing sites used for the disposal of hazardous or toxic waste.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Permanent and temporary impacts are ≤5,000 SF in non-tidal waters and wetlands. Booms placed in navigable waters for oil and hazardous substance containment, absorption and prevention, provided they are removed upon completion of the cleanup. **Notes:** For activities in non-tidal waters of the U.S., permittees have up to two weeks following commencement of these activities to submit the Self-verification form (Appendix E).	Work not eligible for SV. Permanent and temporary impacts are >5,000 SF in non-tidal waters and wetlands. Work in navigable waters of the U.S. other than booms placed for hazardous and toxic waste containment, absorption and prevention.

Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

GP 14. SCIENTIFIC MEASUREMENT DEVICES (Sections 10 and 404; tidal and non-tidal waters of the U.S.) Scientific devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Also eligible are small temporary weirs and flumes constructed primarily to record water quantity and velocity provided the discharge is less than 25 cubic yards.

Not authorized under GP 14 are: (a) Permanent and temporary impacts >1 acre in non-tidal waters and wetlands; and **(b)** Permanent and temporary impacts >1/2 acre in tidal waters, >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows, or >100 SF in tidal vegetated shallows.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Permanent and temporary impacts are ≤1,000 SF in non-tidal waters and wetlands. No impacts in non-tidal SAS, other than non-tidal wetlands. No fill in tidal waters and/or wetlands. No impacts in tidal Submerged Aquatic Vegetation. Devices in tidal waters that do not restrict movement of aquatic organisms and will not adversely affect the course, condition or capacity of a waterway.	Work not eligible for SV.

NOTE: Upon completion of the use of the device to measure and record scientific data, the measuring device, and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.), must be removed to the maximum extent practicable.

GP 15. SURVEY ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)

Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching* and historic resources surveys.

Not authorized under GP 15 are: **(a)** Permanent and temporary fill >1 acre of non-tidal waters and/or wetlands, and **(b)** permanent and temporary impacts >1/2 acre in tidal waters; >1000 SF in tidal Special Aquatic Sites other than vegetated shallows or >100 SF in tidal vegetated shallows.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Permanent and temporary impacts ≤5,000 SF in non-tidal waters and wetlands. No impacts, other than soil borings or core sampling, in tidal waters. No permanent structures or drilling and discharge of excavated material from test wells for oil and gas exploration allowed. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed. **** For the purposes of this GP, the term "exploratory trenching" means mechanical land clearing of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material.***	Work not eligible for SV. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

NOTE: The area in which the exploratory trench is dug must be restored to its preconstruction elevation upon completion of the work and must not drain a water of the United States. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench.

GP 16. AQUACULTURE PROJECTS & FISHERIES (Sections 10 and 404; navigable waters of the U.S.) The installation of buoys, floats, racks, trays, nets, lines or other structures in navigable waters for the containment and cultivation of indigenous species of shellfish and seaweed/kelp. Also authorized are anchored upweller floats, small-scale shellfish hatchery seawater intake/discharge structures, and discharges of dredged or fill material associated with cultivation such as the placement of cultch or spatted-shell on bottom.

Depth of cultch or spatted-shell must comply with Special Conditions in Section 5, Part (h), items (1) through (7) of CT DEEP, General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02) and must not result in visible degradation of habitat for other aquatic resources. All structures must be permitted by State of Connecticut Navigation Safety/Boating Access Unit and marked in conformance with applicable State or U.S. Coast Guard Aids to Navigation. **NOTE: All facilities must be installed and operated in compliance with the attached Appendix C Aquaculture Conditions**

Not authorized under GP 16 are impacts to Special Aquatic Sites, including Submerged Aquatic Vegetation.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Placement of seed shellfish, spatted-shell or cultch for commercial shellfish aquaculture on leased grounds when performed in compliance with the conditions in Section 5 h. of the CT DEEP General Permit for Coastal Maintenance (DEEP-OLISP-GP-2015-02). The installation of temporary (< six months) structures for research, educational or experimental aquaculture gear impacting ≤1,000 SF for indigenous species under the direct supervision of the Dept. of Agricultural, Bureau of Aquaculture provided there is no adverse effect to navigation. Suspended cages or bags located wholly below and within the footprint of an existing authorized fixed or floating structure in water depths ≤ 10 feet MLW; provided no loose lines and there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at mean low water. Shellfish upweller floats not to exceed 160 sf (anchored/berthed only, no piling installation), with a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at mean low water, cannot be located within the buffer of a Federal Navigation Project.	Work not eligible for SV. Vertical-drop longlines and suspended gear for the culture of shellfish or other marine organisms, such as kelp and seaweed. Cages, trays, racks, netting or other structures on the ocean bottom or floating on the water surface used to contain, cultivate or depurate shellfish. For additional information, please see "A Guide for Marine Aquaculture Permitting in Connecticut" for guidance and application materials found at: http://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/CT/AquaculturePermitGuide.pdf Intake and discharge structure with a diameter ≤ 3 inches, for the withdrawal and discharge of water to support small-scale shellfish land-based hatchery with negative impact on source or discharge waters. Activities that involve a change from authorized gear for bottom culture to floating or suspended gear. Boundaries of Submerged Aquatic Vegetation may be required to be located/surveyed in the field. See Corps website for guidance: http://www.nae.usace.army.mil/Portals/74/docs/regulatory/JurisdictionalLimits/Submerged_Aquatic_Vegetation_Survey_Guidance(Updated_7-12-2016).pdf

GP 17. NEW/EXPANDED DEVELOPMENTS & RECREATIONAL FACILITIES (Section 404; non-tidal waters of the U.S.) Discharges of dredged or fill material for the construction or expansion of developments and/or recreational facilities. This GP authorizes attendant features that are necessary for the use such as parking lots, garages, and yards. Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation.

Not authorized under GP 17 are: (a) Permanent impacts that are >1 acre* in non-tidal waters and wetlands; (b) Stormwater treatment or detention systems, or subsurface sewerage disposal systems in waters of the U.S.; and (c) New roadway and driveway crossings in non-tidal waters and/or wetlands. (See **GPs 18 & 19**)

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Permanent and temporary impacts ≤5,000 SF of non-tidal waters and/or wetlands provided no impacts to Special Aquatic Sites other than wetlands (e.g. riffle and pool stream habitat, shellfish beds). **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.	Work not eligible for SV. ***See Table 1 CT WQC in Section 1 for additional details on thresholds.*** **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

GP 18. LINEAR TRANSPORTATION PROJECTS – WETLAND CROSSINGS ONLY (Section 404; non-tidal waters of the U.S.) Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features.

Not authorized under GP 18 are: (a) Permanent and temporary impacts for any single and complete project that are >1 acre* or **(b)** Stream, river, or brook crossing projects (see **GP 19**)

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Permanent and temporary impacts ≤5,000 SF of non-tidal wetland fill provided: No work in non-tidal Special Aquatic Sites other than wetlands. No slip lining or culvert relining that changes invert elevation. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.	Work not eligible for SV. ***See Table 1 CT WQC in Section 1 for additional details on thresholds.*** **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

GP 19. STREAM, RIVER & BROOK CROSSINGS (NOT INCLUDING WETLAND CROSSINGS) (Sections 10 and 404; tidal and non-tidal waters of the U.S.) Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features, provided that work is performed in accordance with Connecticut General Permit Stream Crossing Best Management Practices to the extent practicable - See Appendix G.

Not authorized under GP 19 are: (a) Permanent impacts for any single and complete projects that are >1 acre in non-tidal waters and wetlands*, >1/2 acre in tidal waters of the U.S., >1000 SF in tidal Special Aquatic Sites (SAS) other than vegetated shallows or >100 SF in tidal vegetated shallows; **(b)** Temporary impacts >1 acre in tidal waters, >5000 SF in tidal SAS other than vegetated shallows, or >1000 SF in vegetated shallows; or **(c)** Wetland Crossings (see **GP 18**).

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
No impacts to tidal waters and/or wetlands. Permanent and temporary impacts ≤5,000 SF of non-tidal waters and wetlands provided for stream, river, brook crossings by means of a Bridge or Open-Bottom Structure that meets the following standards: 1. Spans at least 1.2 times the watercourse bank full width, 2. Allows for the continuous, uninterrupted flow of the 50-year frequency storm flows, and 3. No riprap is placed within or across the bed of the brook, and appurtenant stream bank stabilization does not exceed 50 feet along any upstream or downstream bank. Permanent and temporary impacts ≤5,000 SF of non-tidal waters and wetlands provided for stream, river, brook crossings by means of a culvert provided the tributary watershed to the culvert does not exceed 1 sq. mile (640 acres)***** No open trench excavation in flowing waters. Unconfined, in-stream work, not including installation and removal of cofferdams, is limited to the low-flow period, June 1 through September 30 unless CT DEEP requires different resource-driven time of year restriction. Work occurring behind a cofferdam may occur at any time. No stream relocations; no dams or dikes; no new culvert crossings of perennial streams. No slip lining or culvert relining that changes invert elevation. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed. ****See Table 1 CT WQC in Section 1 for additional details on thresholds.***	Work not eligible for SV. ****See Table 1 CT WQC in Section 1 for additional details on thresholds.*** **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

GP 20. ENERGY GENERATION & RENEWABLE ENERGY GENERATION FACILITIES (Sections 10 and 404; tidal waters of the U.S.) & HYDROPOWER PROJECTS (Sections 10 and 404; tidal waters of the U.S.) Structures and work in navigable waters of the U.S. and discharges of dredged or fill material into tidal waters of the U.S. for the construction, expansion, modification or removal of: **(a)** Land-based renewable energy production facilities, including attendant features; **(b)** Water-based wind or hydrokinetic renewable energy generation pilot projects and their attendant features; and **(c)** Discharges of dredged or fill material associated with hydropower projects.

Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots. For each single and complete project in **(b)** above, no more than 10 generation units (e.g., wind turbines or hydrokinetic devices) are authorized in navigable waters of the U.S.

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Not allowed under SV.	**For land-based facilities, impacts are:** Permanent impacts ≤1/2 acre in tidal waters; or ≤ 100 SF in tidal vegetated shallows or ≤ 1,000 SF in other tidal Special Aquatic Sites (SAS). Temporary impacts ≤1 acre in tidal waters; ≤ 1,000 SF in vegetated shallows and ≤ 5,000 SF in other tidal SAS. **For water-based wind or hydrokinetic renewable energy generation pilot projects, and hydropower projects permanent and temporary impacts are:** ≤1/2 acre in tidal waters. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

GP 21. TEMPORARY FILL NOT ASSOCIATED WITH ANY OTHER GP ACTIVITES
(Section 404; non-tidal waters of the U.S.) Temporary discharges, such as sandbag/earth cofferdams, access fills, etc., necessary for construction activities or dewatering of construction sites.

Not authorized under GP 21: Temporary impacts >1 acre in non-tidal waters and wetlands*

Self-Verification (SV) Eligible	**Pre-Construction Notification (PCN) Required**
Temporary impacts ≤5,000 SF of temporary non-tidal waters and/or non-tidal wetland. **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 5,000 SF threshold and should be removed as soon as work is completed.	Work not eligible for SV. ***See Table 1 CT WQC in Section 1 for additional details on thresholds.*** **NOTE**: Construction mats of any area necessary to conduct activities do not count towards the 1 acre threshold and should be removed as soon as work is completed.

APPENDIX B - GENERAL CONDITIONS

1. Other Permits. Permittees must obtain other Federal, State, or local authorizations required by law. Applicants are responsible for applying for and obtaining all required State or local approvals. Work that is not regulated by the State, but is subject to Corps jurisdiction, may be eligible for these General Permits (GPs).

2. Federal Jurisdiction.

a**.** Applicability of the GPs shall be evaluated with reference to Federal jurisdictional limits. Applicants are responsible for ensuring that the limits depicted satisfy the Federal criteria defined at 33 CFR 328 "Waters of the United States." and 33 CFR 329 "Navigable Waters of the United States"

NOTE: Waters of the U.S. include the subcategories "navigable waters of the United States." and "wetlands."

b. Pre-Construction Notification (PCN) Eligible projects require an application to the Corps which must include a delineation of wetlands, other special aquatic sites, and other waters such as lakes and ponds and perennial, intermittent, and ephemeral streams that are on the project site. Wetland delineations must be prepared in accordance with the current federal method required by the Corps. For Corps Wetland Delineation Manual, regional supplements and data sheets, and the National List of Plant Species that Occur in Wetlands, visit our website at http://www.nae.usace.army.mil/Missions/Regulatory.aspx and then click on "Jurisdiction and Wetlands". The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists which can be found at http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. For the Field Indicators for Identifying Hydric Soils in New England, visit: www.neiwpcc.org/hydricsoils.asp.

3. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)

a. Activities must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States (U.S.) to the maximum extent practicable at the project site (i.e., on site). Consideration of mitigation (avoiding, minimizing, rectifying, reducing, or compensating) is required to the extent necessary to ensure that the adverse effects to the aquatic environment are no more than minimal.

b. Applicants should consider riparian/forested buffers for stormwater management and low impact development (LID) best management practices (BMPs) to reduce impervious cover and manage stormwater to minimize impacts to the maximum extent practicable.

c. Compensatory mitigation[1] for effects to waters of the U.S., including direct, secondary and temporal[2], will generally be required for projects with permanent impacts that exceed the SV area limits, and may be required for temporary impacts that exceed the SV area limits, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no secondary effects may generally be excluded from this requirement.

The Corps **Connecticut In-Lieu Fee Program** allows Corps permittees, as compensation for their project impacts to aquatic resources of the United States in Connecticut pursuant to Section 404 of the Clean Water Act, to make monetary payment *in-lieu* of permittee-responsible mitigation. Information is provided at http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx >>Mitigation>>Connecticut In-Lieu Fee Program. Please note that this only applies to Corps required mitigation and additional Connecticut DEEP mitigation may be required.

4. Discretionary Authority. Notwithstanding compliance with the terms and conditions of this permit, the Corps retains discretionary authority to require an Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant Individual Permit review based on the concerns stated above. This authority may be invoked for projects with

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[1] Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Guidance at http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx

[2] Temporal loss: The time lag between the losses of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

cumulative adverse environmental effects that are more than minimal, or if there is a special resource or concern associated with a particular project. Whenever the Corps notifies an applicant that an Individual Permit may be required, authorization under these GPs is voided and no work may be conducted until a Corps Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may be reviewed under these GPs.

5. Single and Complete Projects. The term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. The GPs shall not be used for piecemeal work and shall be applied to single and complete projects.

a. For non-linear projects, a single and complete project must have independent utility. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed, even if the other phases were not built, can be considered as separate single and complete projects with independent utility.

b. Unless the Corps determines the activity has independent utility, all components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project.

c. For linear projects such as power lines or pipelines with multiple crossings, a "single and complete project" is all crossings of a single water of the U.S. (i.e. single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately. If any crossing requires a PCN review or an individual permit review, then the entire linear project shall be reviewed as one project under PCN or the individual permit procedures.

6. Corps Property and Federal Projects.

a. In addition to any authorization under these GPs, proponents must contact the Corps Real Estate Division at (978) 318-8585 for work occurring on or potentially affecting Corps properties and/or Corps-controlled easements to initiate reviews and determine what real estate instruments are necessary to perform work. Permittees may not commence work on Corps properties and/or Corps-controlled easements until they have received any required Corps real estate documents evidencing site-specific permission to work.

b. Any proposed temporary or permanent modification or use of a Federal project (including but not limited to a levee, dike, floodwall, channel, anchorage, seawall, bulkhead, jetty, wharf, pier or other work built but not necessarily owned by the United States), or any use which would obstruct or impair the usefulness of the Federal project in any manner, and/or would involve changes to the authorized Federal project's scope, purpose, and/or functioning, is not eligible for SV and will also require review and approval by the Corps pursuant to 33 USC 408. Where Section 408 is applicable, a decision on a Department of the Army general permit application will not be rendered prior to the decision on a Section 408 request.

7. National Lands. Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary or any area administered by the National Park Service, U. S. Fish and Wildlife Service (USFWS) or U.S. Forest Service are not eligible for SV.

8. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g. National Park Service, U.S. Forest Service, Bureau of Land Management, U. S. Fish and Wildlife Service).

As of July 15, 2016, affected rivers in Connecticut include: the West Branch of the Farmington River from Colebrook to Canton (designated river); the Eightmile River and tributaries in Salem, Lyme and East Haddam (designated river); and the Lower Farmington River from Canton to Windsor (study river – including its tributary Salmon Brook). Additional information can be found at: http://www.rivers.gov/connecticut.php

9. Historic Properties.

a. No undertaking shall cause effects (defined at 33 CFR 325 Appendix C and 36 CFR 800) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places[3], including previously unknown historic properties within the permit area, unless the Corps or another Federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (NHPA). The State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO) and the National Register of Historic Places can assist with locating information on: i) previously identified historic properties; and ii) areas with potential for the presence of historic resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

b. For activities eligible for SV (inland projects), proponents must ensure and document that the activity will not cause effects as stated in 9(a).

c. Proponents must submit a PCN to the Corps as soon as possible if the authorized activity may cause effects as stated in 9(a) to ensure that the Corps is aware of any potential effects of the permitted activity on any historic property that the consultation requirements of Section 106 of NHPA are satisfied.

d. All PCN (inland projects): i) show notification to the SHPO and applicable THPO(s)[4] for their identification of historic properties, ii) state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties, and iii) include any available documentation from the SHPO or THPO(s) indicating that there are or are not historic properties affected. Starting consultation early in project planning can save proponents time and money.

e. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

10. Federal Threatened and Endangered Species.

a. No activity is authorized which: a) is likely to directly or indirectly jeopardize the continued existence of any listed or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat, as identified under the Federal Endangered Species Act (ESA); b) result in take of a listed species or adversely modifies designated critical habitat; or c) violates the ESA.

b. For listed species or critical habitat under U. S. Fish and Wildlife Service (USFWS) jurisdiction, a PCN is required when a proposed project may affect a listed species or designated critical habitat. To ensure compliance with the Endangered Species Act, project proponents must request an 'Official Species List' from the USFWS IPaC website http://ecos.fws.gov/ipac http://ecos.fws.gov/ipac>. This USFWS IPaC website will record the request and immediately email the list to you. Include the list with all applications. An activity is SV eligible if the Official Species List states the northern long-eared bat (NLEB) (Myotis septentrionalis) is present BUT the activity: i) will not remove trees ≥3 inches dbh; ii) is not within the "buffer" of a NLEB hibernacula or maternity roost tree; and iii) does not involve work on an existing dam, riprap or bridges.

[3] The majority of historic properties are not listed on the National Register of Historic Places and may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

[4] Appendix D, #3 Historic Resources, provides contact information and each tribe's "area of concern."

c. For listed species or habitat under NMFS jurisdiction, the Corps will coordinate with NMFS as appropriate for all work eligible for SV that may have an effect on listed species or habitat; therefore SV eligible project proponents are not required to check for listed species or habitat for their projects.

d. Federal applicants should follow their own procedures for complying with the requirements of the ESA. Work may be eligible for SV if another Federal agency has satisfied the requirements of Section 7 of the ESA. Upon request, permittees must provide the Corps with the appropriate documentation to demonstrate compliance with those requirements.

11. Pile Removal and Related Time of Year Restrictions

a. Derelict, degraded or abandoned piles and sheet piles in navigable waters, except for those inside of existing work footprints for piers, must be completely removed or cut and/or driven to 3 feet below the substrate to prevent interference with navigation and in some cases to remove polluting materials. Existing creosote piles in the project area that are affected by project activities should be completely removed. In areas of fine-grained substrates, piles must be removed by the direct, vibratory or clamshell pull method[5] to minimize turbidity and sedimentation impacts. Removed piles shall be disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands, their substrate or mudflats.

b. Piles should either be installed between November 1 and March 15 **OR** must use a soft start each day of pile driving, building up power slowly from a low energy start-up over a period of 20-40 minutes to provide adequate time for fish and marine mammals to leave the vicinity. The buildup of power should occur in uniform stages to provide a constant increase in output. Bubble curtains can be used to reduce sound pressure levels during vibratory or impact hammer pile driving.

12. Navigation.

a. No activity may cause more than a minimal adverse effect on navigation.

b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.

c. Any structure or work that extends closer to the horizontal limits of any Corps Federal Navigation Project than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys. This is applicable to SV and PCN.

d. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

e. The permittee understands and agrees that if future U.S. operations require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

f. An application to the Corps is required for all work in, over or under an FNP or its buffer zone unless otherwise indicated in Appendix A.

[5] Direct Pull: Each piling is wrapped with a choker cable or chain that is attached at the top to a crane. The crane then pulls the piling directly upward, removing the piling from the sediment. Vibratory Pull: The vibratory hammer is a large mechanical device (5-16 tons) that is suspended from a crane by a cable. The vibrating hammer loosens the piling while the crane pulls up. Clamshell Pull: This can remove intact, broken or damaged pilings. The clamshell bucket is a hinged steel apparatus that operates like a set of steel jaws. The bucket is lowered from a crane and the jaws grasp the piling stub as the crane pulls up. The size of the clamshell bucket is minimized to reduce turbidity during piling removal.

13. Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

14. Heavy Equipment in Wetlands. Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as "construction mats") that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written Corps authorization. Similarly, the permittee may request written authorization from the Corps to waive use of mats during frozen or dry conditions. An adequate supply of spill containment equipment shall be maintained on site. Construction mats should be managed in accordance with the following construction mat best management practices:

- Mats should be in good condition to ensure proper installation, use and removal.
- Where feasible, mats should be carried and not dragged unless they are being used as a grading implement.
- Where feasible, place mats in a location that would minimize the amount needed for the wetlands crossing.
- Minimize impacts to wetland areas during installation, use, and removal.
- Install adequate erosion & sediment controls at approaches to mats to promote a smooth transition to, and minimize sediment tracking onto, swamp mats.
- In most cases, construction mats should be placed along the travel area so that the individual boards are resting perpendicular to the direction of traffic. No gaps should exist between mats. Place mats far enough on either side of the resource area to rest on firm ground.
- Provide standard construction mat BMP details to work crews.

15. Temporary Fill.

a. Temporary fill, construction mats and corduroy roads shall be **entirely** removed as soon as they are no longer needed to construct the authorized work. Temporary fill shall be placed in its original location or disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.

b. All temporary fill and disturbed soils shall be stabilized to prevent its eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable. Temporary fill must be placed in a manner that will prevent it from being eroded by expected high flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

d. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Materials shall be placed in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.

e. Construction debris and/or deteriorated materials shall not be located in waters of the U.S.

16. Restoration of Inland Wetland Areas.

a. Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England and shall not contain any species listed in the "Invasive and Other Unacceptable Plant Species" Appendix D in the "New England District Compensatory Mitigation Guidance" found at http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/CompensatoryMitigationGuidance.pdf

b. The introduction or spread of invasive plant species in disturbed areas shall be controlled. If swamp or timber mats are to be used, they shall be thoroughly cleaned before re-use.

c. In areas of authorized temporary disturbance, if trees are cut they shall be cut at or above ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

d. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

17. Coastal Bank Stabilization. Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. For more information on this topic, go to the Corps Coastal Engineering Manual (supersedes the Shore Protection Manual), located at http://chl.erdc.usace.army.mil. Select "Products/ Services," "Publications." Part 5, Chapter 7-8, a (2) c.

18. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encourage to perform work within waters of the U.S. during periods of low-flow or no-flow, or during low tides.

19. Aquatic Life Movements & Management of Water Flows.

a. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Unless otherwise stated, activities impounding water in a stream require a PCN to ensure impacts to aquatic life species are avoided and minimized. All permanent and temporary crossings of waterbodies (e.g., streams, wetlands) shall be:

i. Suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and

ii. Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the culvert. Permanent and temporary crossings of wetlands shall be suitably culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity between the wetlands on either side of the road.

b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when it is necessary to perform the authorized work.

c. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or

manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

20. Discharge of Pollutants. All activities involving any discharge of pollutants into waters of the U.S. authorized under these GPs shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within 6 months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that state water quality standards are met with issuance of the Section 401 WQC (Applicable only to the Section 404 activity).

21. Spawning, Breeding, and Migratory Areas

a. Jurisdictional activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities in jurisdictional waters that provide value as fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

b. Jurisdictional activities in waters of the U.S. that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for obtaining any "take" permits required under the USFWS's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such "take" permits are required for a particular activity.

22. Storage of Seasonal Structures. Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above mean high water (MHW) and **not** in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW.

23. Environmental Functions and Values. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that minimizes any adverse impacts on existing fish, wildlife, and the environmental functions to the extent practicable. The permittee will discourage the establishment or spread of plant species identified as non-native invasive species by any federal or state agency.

24. Vernal Pools.

a. Only vernal pools that meet the current definition of waters of the U.S. are regulated by the Corps.

b. Direct and indirect adverse effects to all vernal pools (VPs), including their envelopes and critical terrestrial habitats (VP Management Areas), shall be avoided and minimized to the maximum extent practicable. Site clearing, grading, and construction activities associated with a regulated activity in the VP Management Area may cause these adverse effects to the VP.

c. When any regulated activities occur within 750 feet of a vernal pool, the following management practices must be followed for all work within any VP Management Area (750' of a VP's edge) *in order to qualify for SV*:

i. No disturbance within the VP Depression or VP Envelope (area within 100 feet of the VP Depression's edge)– does not apply to temporary impact associated with construction mats in previously disturbed areas of existing utility projects or linear transportation projects provided there is a Vegetation Management Plan that avoids, minimizes and mitigates impacts to aquatic resources.

ii. Maintain a minimum of 75% of the Critical Terrestrial Habitat (area within 100-750 feet of the VP Depression's edge) as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris;

iii. Maintain or restore forest corridors connecting wetlands and significant vernal pools;

iv. Minimize forest floor disturbance;

v. Maintain native understory vegetation and downed woody debris; and

vi. Cape Cod style-curbing or no curbing options shall be used on new roads to facilitate amphibian passage.

d. A PCN is required for any regulated activity within 750' of a vernal pool when all work within the VP Management Area does not comply with the SV requirements in (c) above. Information on directional buffers in accordance with the VP Directional Buffer Guidance document may be provided in order to demonstrate minimal impact and avoid compensation requirements. Conservation of the un-impacted area within the VP Management Area will often be required.

25. Invasive Species.

a. The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work shall be avoided. Hence, swamp and timber mats shall be thoroughly cleaned before reuse.

b. Unless otherwise directed by the Corps, all applications for PCN inland projects proposing fill in Corps jurisdiction shall include an Invasive Species Control Plan. Additional information can be found at www.hort.uconn.edu/cipwg/

26. Permit/Authorization Letter On-Site. For PCN projects, the permittee shall ensure that a copy of these GPs and the accompanying authorization letter are at the work site (and the project office) whenever work is being performed, and that all personnel with operational control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means these GPs, including General Conditions and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire authorization letter, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

27. Inspections. The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. The Corps may also require post-construction engineering drawings for completed work or post-dredging survey drawings for any dredging work.

28. Maintenance. The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A – General Permit #7 as well as any conditions included in a written Corps authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a) (2).

29. Property Rights. These GPs do not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

30. **Transfer of GP Verifications**. When the work authorized by these GPs are still in existence at the time the property is transferred, the terms and conditions, including any special conditions, will continue to be binding on the entity or individual who received the authorization, as well as the new owner(s) of the property. If the permittee sells the property associated with a General Permit authorization, the permittee may transfer the General Permit authorization to the new owner by submitting a letter to the Corps to validate the transfer. A

copy of the General Permit authorization letter must be attached to the letter, and the letter must include the following statement: "The terms and conditions of these General Permits, including any special conditions, will continue to be binding on the new owner(s) of the property". This letter should be signed by both the seller and new property owner(s).

31. Modification, Suspension, and Revocation. This permit and any individual authorizations issued thereof may either be modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the United States.

32. Special Conditions. The Corps may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. These may be based on concerns from CT DEEP or a Federal resource agency. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties and/or restoration.

33. False or Incomplete Information. If the Corps makes a determination regarding the eligibility of a project under this permit, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the authorization will not be valid, and the U.S. government may institute appropriate legal proceedings.

34. Abandonment. If the permittee decides to abandon the activity authorized under this General Permit, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

35. Enforcement cases. These GPs do not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action.

36. Duration of Authorization. These GPs expire five years from the date issued as listed at the top of the cover sheet. Activities authorized by these GPs that have either commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will have an additional year from the expiration date to complete the work. The permittee must be able to document to the Corps' satisfaction that the project was under construction or under contract by the expiration date of these GPs. If work is not completed within the one year extended timeframe, the permittee must contact the Corps. The Corps may issue a new authorization provided the project meets the terms and conditions of the CT GPs in effect at the time.

Activities authorized under these GPs will remain authorized until the GP expires, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2). Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

JMcCarthy

Jennifer L. McCarthy
Chief, Regulatory Division

19 Aug 16

Date

APPENDIX C

GENERAL PERMIT 16 - STANDARD AQUACULTURE
TERMS AND CONDITIONS

DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT

2016 Connecticut General Permit

1. Aquaculture activities under this General Permit as identified within Appendix 2, Section F are subject to the current General Permit Conditions and Requirements of the Connecticut General Permit.

2. All gear, including buoys shall be marked and maintained in a manner that will make it identifiable to the specific aquaculture project/lease.

3. Before the authorized structures are installed the project proponent **must** contact the CT DEEP Boating Division, Navigation Safety/Boating Access Unit, P.O. Box 280, 333 Ferry Road, Old Lyme, CT 06371-0280 to either obtain a waiver as to the need to install gear-area boundary marker buoys or submit a permit application and receive authorization for Regulatory Markers (Link to Regulatory Marker Permit). If CT DEEP Boating regulation does not apply, the applicant shall contact the U.S. Coast Guard (USCG), First District; Aids to Navigation Branch at 408 Atlantic Avenue, Boston, MA 02110-3350 (800-848-3942) to coordinate the proper buoy markers. The permittee shall install and maintain lights, markings and other features as the CT DEEP/USCG requires. Note: Documentation of this coordination will be necessary for existing operations that seek reconfigurations and/or new approvals for structures from the Dept. of Army and for authorizations from the CT DA/BA.

4. Gear may not be located over or within beds of submerged aquatic vegetation (SAV) such as eelgrass or turtle grass, and coastal wetlands (salt marsh), nor shall such beds or vegetated marsh areas be damaged or removed. Routine lease activity including cage maintenance, washing etc. shall not occur within 25 feet of the edge of beds of SAV.

5. All gear shall be designed and deployed in such a manner as to limit, to the greatest extent practicable, negative impacts on avian resources such as, but not limited to, shore birds, wading birds or members of the waterfowl group. This is meant to include nesting, feeding or resting activities by migratory birds identified at 50 CFR 10.13.

6. Installation of structures, their mooring tackle and lines and any attendant vessels shall not create a hazard or interfere with existing navigation uses in the waterway, and structures shall be set back from the Federal Navigation Project (FNP) a distance of at least 200 feet. A list of Connecticut FNP projects can be obtained from the U.S Army Corps of Engineers website http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/

7. The right of the public to traverse or utilize the waters not physically occupied by authorized structures and/or moored vessels within the areal limits of the authorized gear perimeter shall not be impeded.

8. The placement of cultch shall comply with all of the Special Conditions in Section 5, part (h), items (1) through (7) of the Connecticut DEEP, General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02) as listed below:

   - Such placement of cultch shall only be conducted by a licensed shellfish operator in beds or areas designated for shellfishing under section 26-194 or section 26-242 of the General Statutes.

   - Such placement of cultch shall be conducted only in appropriate locations for colonization by oysters, based upon factors of salinity, water quality, water circulation patterns and substrate composition.

   - Such placement of cultch shall not be conducted in areas of tidal wetlands or submerged aquatic vegetation beds.

   - (Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains all required authorizations from the Department of Agriculture Bureau of Aquaculture and Laboratory and the local shellfish commission, as applicable.

   - Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains permission in writing from the owner or lessee of such shellfish bed or area.

   - Such placement of cultch shall be conducted in such a manner that it does not exceed a layer of cultch on the seafloor greater than 12” in depth.

   - Such placement of cultch shall be conducted such that the placement does not exceed 1,500 bushels per acre of seafloor.

9. The permittee shall be responsible to remove all gear and associated equipment within any leased or designated shellfish area in the event that the operator surrenders or loses the right to its use. [1]

10. The subject aquaculture activity shall not discernibly interfere with natural sedimentation and erosion processes.

11. Suspended cages or nets for the rearing or grow out of shellfish are permitted as Self Verification, provided they are located wholly below and within the footprint of an existing, authorized fixed or floating structure and provided there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at MLW. The structures that the gear will be adhered to must be in conformance with the structures permit for that "site."

12. Aquaculture projects authorized herein shall not interfere with public shore access at or below mean high water or interfere with the access to any riparian or littoral property.

13. The following conditions may be required as Special Conditions of an authorization to protect Federally-listed, protected sea turtles:

    a. All gear, including buoys shall be marked and maintained in a manner that will make it identifiable to the specific aquaculture project/lease.

    b. The length of the buoy line shall not exceed 23.1 feet (10% of the maximum water depth at MHHW at the lease site)

    c. The gear sites shall be visited by an attendant surface vessel at least once a week, site conditions permitting.

[1] In some situations, a performance bond may be required.

d. If any listed species of sea turtle is observed to be entangled or otherwise interacting with the facility structure, the permittee (or onboard staff) shall immediately contact the Mystic Aquarium & Institute for Exploration, Marine Mammal and Sea Turtle Stranding Program Hotline at 860-572-5955 x107 and notify the NOAA Fisheries 24-hour Hotline at (866) 755-6622. The permittee should also contact the NOAA Fisheries Protected Resources Division, Sea Turtle Stranding & Disentanglement Coordinator at (978) 282-8470 or NERStranding.staff@noaa.gov.

e. The permittee shall keep the enclosed Sea Turtle Handling and Resuscitation Requirements in a visible location on the attendant vessels at all times. If a sea turtle is entangled in the authorized aquaculture gear and comatose or inactive (but not dead), resuscitation should be attempted by following these procedures.

APPENDIX D

CONTACTS FOR CONNECTICUT GENERAL PERMIT:

1. FEDERAL

U.S. Army Corps of Engineers
New England District, Regulatory Division
696 Virginia Road
Concord, Massachusetts 01742-2751
(800) 343-4789 or (978) 318-8335
(978) 318-8303 - fax

National Park Service
North Atlantic Region
15 State Street
Boston, Massachusetts 02109
(617) 223-5203
(Wild & Scenic Rivers)

Federal Endangered Species (F&WS):
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
(603) 223-2541

Federal Endangered Species & EFH (NMFS)
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930
Phone: (978) 281-9102
(978) 281-9301 - fax

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109
(617) 918-2000

Department of Agriculture
Bureau of Aquaculture
P. O. Box 97
190 Rogers Avenue
Milford, Connecticut 06460
(203) 874-0696

2. STATE OF CONNECTICUT

Department of Energy & Environmental Protection

(Coastal Projects)
Office of Long Island Sound Programs
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3034

(Inland Projects)
Inland Water Resources Division
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3019

(Mashantucket Pequot Tribal Nation)
Department of Natural Resources Protection &
Regulatory Affairs
550 Trolley Line Boulevard
P. O. Box 3202
Mashantucket, Connecticut 06338-3202

(Aquaculture Projects)
Connecticut Department of Agriculture
Bureau of Aquaculture & Laboratory
PO Box 97
Milford, CT 06460
(203) 874-0696

(State Endangered Species)
Bureau of Natural Resources
Wildlife Division
Natural Diversity Data
Base
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3011

3. HISTORIC RESOURCES

Tribal Historic Preservation Officers

Mashantucket Pequot Tribal Nation
Marissa Turnbull, THPO
550 Trolley Line Boulevard
P. O. Box 3202
Mashantucket, Connecticut 06338-3202
Phone (860) 396-6887
Fax (860) 396-6914

Mohegan Tribe of Indians of Connecticut
James Quinn, Tribal Historic Preservation Officer
13 Crow Hill Rd.
Uncasville, CT 06382

Mohegan Tribe of Indians of Connecticut
Compliance and Regulations Department
13 Crow Hill Road
Uncasville, CT 06382

Phone (860) 862-6393
Fax (860) 862-6395

Archaeological Information
State Historic Preservation Office
Department of Economic and Community Development
Catherine Labadia, Deputy State Historic Preservation Officer
One Constitution Plaza, 2nd Floor
Hartford, Connecticut 06103-6103
(860) 256-2800 (main)
(860) 256-2764 (direct)

4. ORGANIZATIONAL WEBSITES

U. S. Army Corps of Engineers – New England District
www.nae.usace.army.mil/missions/regulatory.aspx
U. S. Army Corps of Engineers Headquarters www.usace.army.mil (click "Services for the Public")
U.S. Environmental Protection Agency www.epa.gov/owow/wetlands/
National Marine Fisheries Service www.nmfs.noaa.gov
U.S. Fish and Wildlife Service www.fws.gov
National Park Service www.nps.gov/rivers/index.html/
Federal Emergency Management Agency www.fema.gov
Connecticut Dept. of Energy & Environmental Protection http://www.ct.gov/deep/site/default.asp
Connecticut Dept. of Agriculture, Bureau of Aquaculture & Laboratory
http://www.ct.gov/doag/cwp/view.asp?a=3768&q=451508&doagNav=
U.S. Environmental Protection Agency, Region 1 – Low Impact Development-practices and state-specific resources, including CT DEP Stormwater Quality Manual www.epa.gov/ne/topics/water/lid.html
U.S. Environmental Protection Agency – Green Infrastructure website www.epa.gov/greeninfrastructure

US Army Corps of Engineers®
New England District

Appendix E: Self-Verification Notification Form

This form is required for all **non-tidal projects in Connecticut**, but **not** required if work is done within boundaries of Mashantucket Pequot or Mohegan Tribal Lands. **Before** work commences, complete **all** fields (write "none" if applicable); attach project plans (not required for projects involving the installation of construction mats only); and any state or local approval(s); and send to:

Permits & Enforcement Branch B U.S. Army Corps of Engineers 696 Virginia Road Concord, MA 01742-2751 *or* cenae-r@usace.army.mil	*and*	CT DEEP Inland Water Resources Division 79 Elm Street Hartford, CT 06106-5127

****

State or local Permit Number: _____
Date of State or local Permit: _____
State/local Project Manager: _____

Permittee: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Contractor: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Consultant/Engineer/Designer: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Wetland/Soil Scientist Consultant: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Project Location (provide detailed description & locus map): _____
_____
Address, City, State & Zip: _____
Latitude/Longitude Coordinates: _____
Waterway Name: _____
Project Purpose (include all aspects of the project including those not within Corps jurisdiction):
_____
_____
Work Description: _____
_____
_____
_____

Work will be done under the following GP(s) (check all that have associated impacts):

_____**GP. 2 - Repair or maintenance of authorized or grandfathered structures/fills**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 5 - Boat ramps/marine railways**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 6 - Utility line activities (include calculations for each single & complete crossing – attach additional sheet if necessary)**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 9 - Shoreline and bank stabilization projects**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 10 - Aquatic habitat restoration, establishment and enhancement activities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 11 - Fish & wildlife harvesting, enhancement and attraction devices and activities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 12 - Oil Spill and Hazardous material cleanup**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 13 - Cleanup of hazardous and toxic waste**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 14 - Scientific measurements devices**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 15 - Survey activities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 17 - New/expanded developments & recreational facilities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 18 - Linear transportation projects- wetland crossings only (include calculations for each single & complete crossing - attach additional sheet if necessary)**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 19 - Stream, river & brook crossings – not including wetland crossings (include calculations for each single & complete crossing – attach additional sheet if necessary)**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 21 - Temporary fill not associated with any other GP activities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

Does your project include any secondary effects? Yes _____ No _____
(Secondary effects include, but are not limited to non-tidal waters or wetlands drained, flooded, fragmented, or mechanically cleared resulting from a single and complete project. See Appendix F - Definitions.) If YES, describe here: _____
_____
_____
_____

Proposed Work Dates: Start: _____ Finish: _____

Your name/signature below, as permittee, confirms that your project meets the self-verification criteria and that you accept and agree to comply with the applicable terms and conditions in the Connecticut General Permits.

_____ _____
Signature of Permittee **Date**

APPENDIX F - DEFINITIONS

Artificial Reef: A structure which is constructed or placed in waters for the purpose of enhancing fishery resources and commercial and recreational fishing opportunities.

Boating facilities: These provide, rent or sell mooring space, such as marinas, boat/yacht clubs, boat yards, dockominiums, town facilities, dockominiums, etc. Not classified as boating facilities are piers shared between two abutting properties or town mooring fields that charge an equitable user fee based on the actual costs incurred.

Construction mats: Construction, swamp and timber mats (herein referred to as "construction mats") are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some minor maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Dredged material & discharge of dredged material: These are defined at 33 CFR 323.2(c) and (d). The term dredged material means material that is excavated or dredged from waters of the United States.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Expansions: Work that increases the footprint of fill, depth of basin or drainage feature, structures or floats, or slip capacity.

Fill material & discharge of fill material: These are defined at 33 CFR 323.2(e) and (f). The term fill material is defined as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S.

Federal navigation projects (FNPs): These areas are maintained by the Corps; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and are comprised of Corps Federal anchorages, Federal channels and Federal turning basins. Information, including the limits, is provided at http://www.nae.usace.army.mil/Missions/Navigation.aspx

FNP Buffer Zone: The buffer zone of a Corps FNP is equal to three times the authorized depth of the FNP. For additional information see http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Individual Permit: A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

Living Shoreline: A term used to describe a combination of mostly naturally derived materials including plants, shell and rock or manufactured rock-like surfaces that are used along a shoreline exhibiting erosion to dissipate wave energy and to collect naturally deposited sediment.

Maintenance: Maintenance does not include any modification that changes the character, scope, or size of the original fill design.

Navigable waters of the United States: Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Connecticut River has been determined to be a Navigable water of the United States. Refer to Title 33 CFR Part 329.

Ordinary High Water Mark (OHW): A line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas. See 33 CFR 328.3(e).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: reestablishment and rehabilitation.

Secondary effects: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final Section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are a) aquatic areas drained, flooded, fragmented, or mechanically cleared, b) fluctuating water levels in an impoundment and downstream associated with the operation of a dam, c) septic tank leaching and surface runoff from residential or commercial developments on fill, and d) leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).

Shellfish dredging: Shellfish dredging typically consists of a net on a frame towed behind a boat to capture shellfish and leave the sediment behind. Dredges may skim the surface, utilize hydraulic jets, toothed rakes or suction apparatus.

Special aquatic sites: These include inland and saltmarsh wetlands, mud flats, vegetated shallows (submerged aquatic vegetation), sanctuaries and refuges, coral reefs, and riffle and pool complexes. These are defined at 40 CFR 230.3 and listed in 40 CFR 230 Subpart E.

Stream bed: The substrate of the stream channel between the OHW marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the OHW marks, are not considered part of the streambed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Temporary impacts: Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity.

Tide gates: Structures such as duckbills, flap gates, manual and self-regulating tide gates, etc. that regulate or prevent upstream tidal flows.

Utility Line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, data, and telegraph messages, and radio and television communication. The term utility line does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Vegetated shallows: Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass and widgeon grass (*Rupiamaritima*) in marine systems (doesn't include salt marsh) as well as a number of freshwater species in rivers and lakes. Note: These areas are also commonly referred to as submerged aquatic vegetation (SAV).

Vernal pools (VPs): Vernal pools (VPs): For the purposes of these GPs, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish. VP areas are:

• Depression (includes the VP depression up to the spring or fall high water mark, and includes any vegetation growing within the depression),
• Envelope (area within 0-100 feet of the VP depression's edge), and
• Critical terrestrial habitat (area within 100-750 feet of the VP depression's edge).

The envelope and critical terrestrial habitat protect the water quality of the breeding site (e.g., providing shade, leaf litter, and coarse woody material) and support the non-larval life-cycle stages of amphibian species. Note: The Corps may determine that a waterbody should not be designated as a VP based on available evidence.

Weir: A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure (not unlike a dam) and allows water to flow over the top. Weirs are commonly used to alter the flow regime of the river, prevent flooding, measure discharge and help render a river navigable.

Waters of the United States.: Waters of the United States are defined in Title 33 CFR Part 328. These waters include more than navigable waters of the U.S. and are the waters where permits are required for the discharge of dredged or fill material pursuant to Section 404 of the Clean Water Act. Waters of the U.S. include jurisdictional wetlands.

US Army Corps of Engineers ®
New England District

APPENDIX G

Connecticut General Permits
Stream Crossing Best Management Practices (BMPs)

Design and construction guidance may be found in the U.S. Forest Service stream simulation manual, "Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings"[1]. Section 5.3.3 Headcutting Potential and 6.2 Design of the Stream-Simulation Channel Bed are particularly relevant. Sections 7.5.2.3 Construction Methods and 8.2.11 Stream-Simulation Bed Material Placement both show important steps in the project construction. Chapter 6.1 is relevant for proper alignment and construction to prevent bank erosion or streambed scour.

Permanent Crossings in Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Match the velocity, depth, cross-sectional area, and substrate of the existing stream outside the crossing, if it exists, and size crossings such that they do not restrict tidal flow over the full natural tide range seaward of the crossing. The Corps will typically require a low lying property analysis to ensure flooding is not a concern.
2. Construct crossings in dry conditions.

Permanent Crossings in Non-Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Span[2] streams or size culverts or pipe arches such that they are wider than bankfull width (BFW). Spans are strongly preferred as they avoid or minimize disruption to the streambed, and avoid entire streambed reconstruction and maintenance inside the culvert or pipe arch (see 4, 5 & 7 below), which may be difficult in smaller structures. The span width of bridges, box culverts and arches at bankfull elevation should be ≥1.2 times BFW where practicable. In many cases bankfull width is not necessarily interchangeable with the elevation of ordinary high water.[3]
2. Embed culverts or pipe arches below the grade of the streambed. This is not required when ledge/bedrock and/or utilities prevents embedment, in which case spans are preferred. The following depths are recommended to prevent streambed washout, and ensure compliance and long-term success:
    a. ≥ 1-2 feet for box culverts and pipe arches[4], or
    b. ≥ 1-2 feet and at least 25% for round pipe culverts.
3. Match the culvert gradient (slope) with the stream channel profile.
4. Construct crossings carrying normal flows with a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks

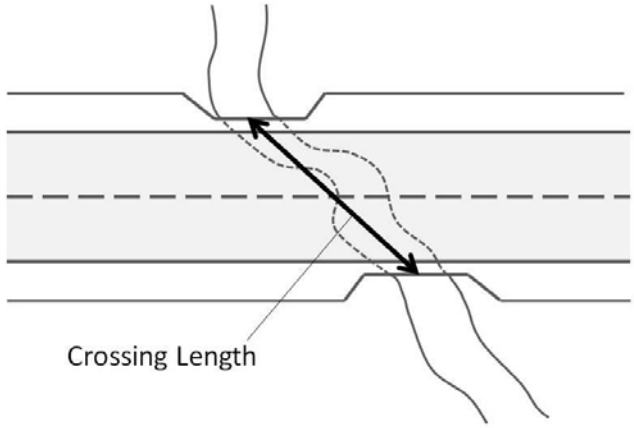
[1] www.nae.usace.army.mil/missions/regulatory.aspx >> "Stream and River Continuity."
[2] For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream. The use of bridge piers or similar supports does not prevent a structure from being considered as a span.
[3] BFW corresponds with "bankfull stage" and this should be field delineated in accordance with the U.S. Forest Service documents: a) U.S. Forest Service stream simulation manual[1]; b) "Stream Channel Reference Sites: An Illustrated Guide to Field Technique[1]" (Harrelson, et al. 1994); and c) "A Guide to Identification of Bankfull Stage in the Northeastern United States".
[4] For 2(a) and 2(b), deeper embedment depths may be needed if there are elements of the constructed stream bed that are greater than 15 inches in diameter.

(mobility, slope, stability, confinement, grain and rock size) at the time of construction and over time as the structure has had the opportunity to pass substantial high flow events.

5. Construct crossings with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows at the time of construction and over time. In order to provide appropriate water depths and velocities at a variety of flows and especially low flows, it is usually necessary to reconstruct the streambed (sometimes including a low flow channel), or replicate or preserve the natural channel within the structure. Otherwise, the width of the structure needed to accommodate higher flows will create conditions that are too shallow at low flows. The grain and rock size, and arrangement of streambed materials within the structure should be in accordance with (4) above. Flows could go subsurface within the structure if only large material is used without smaller material filling the voids.

6. Openness> 0.82 feet (0.25 meters)

Openness is the cross-sectional area of a structure opening divided by its crossing length when measured in consistent units (e.g. feet). For a box culvert, openness = (height x width)/ length.



For crossing structures with multiple cells or barrels, openness is calculated separately for each cell or barrel. At least one cell or barrel must meet the appropriate openness standard. The embedded portion of a culvert is not included in the calculation of cross-sectional area for determining openness.[5]

Openness > 0.82 feet is recommended to make the structure more likely to pass small, riverine wildlife such as turtles, mink, muskrat and otter that may tend to avoid structures that appear too constricted. This openness standard is too small to accommodate large wildlife such as deer, bear, and moose. Structures that meet this openness standard are much more likely than traditional culverts to pass flood flows and woody debris that would otherwise obstruct water passage. It is likely that most structures that meet all the other general standards will also meet this openness standard. However, for some very long structures it may be impractical or impossible to meet this standard.

7. Construct banks on each side of the stream inside the span that match the horizontal profile of the existing stream and banks outside the span. To prevent failure, all constructed banks should have a height to width ratio of no greater than 1:1.5 (vertical:horizontal) unless the stream is naturally incised. Tie the banks into the up and downstream banks and configure them to be stable during expected high flows. Use materials that match the up and downstream banks (avoid the use of angular riprap and armored slopes, except where necessary for structural reasons, in which case they should be top-dressed with natural stream bed material). Construct a wildlife shelf on at least one of the banks. The constructed banks (with a wildlife shelf) will allow for terrestrial passage for wildlife and prevent flow from being focused to one side and

[5] An Openness Ratio Spreadsheet shows how to calculate the open area for embedded pipe culverts to meet the 0.82 standard for openness. See www.nae.usace.army.mil/missions/regulatory.aspx >> Stream and River Continuity.

scouring the bed, especially against the structure's sidewall which may undermine the footings in the case of spans.

Temporary Crossings in Non-Tidal Streams

Temporary crossings shall consist of spans, culverts, construction mats or fords designed and constructed as follows:

1. All temporary crossings:
    a. Impacts to the streambed or banks require restoration to their original condition (see U.S. Forest Service stream simulation manual referenced on page 1 of this document for stream simulation restoration methods). Use geotextile fabric or other appropriate bedding for stream beds and approaches where practicable to ensure restoration to the original grade.
    b. Avoid excavating the stream or embedding crossings.
2. Culverts:
    a. Install energy dissipating devices downstream if necessary to prevent scour.
3. Stream fords: Equipment may ford streams when: it is not feasible to construct a span or culvert (e.g., streams having no or low banks, emergency situations); the natural stream bed and banks consist of ledge, rock or sand that prevents disturbance and turbidity; and there is a stable, gradual approach.
4. Spans: Anchor spans where practicable so they do not wash out during high water.
5. Construction mats: Build construction mat stream crossings in accordance with the Construction Mat BMPs, specifically the Wetland/Stream Channel Crossing section. See www.nae.usace.army.mil/missions/regulatory.aspx >> State General Permits >> Connecticut General Permit Documents.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546
Phone: 860-594-2931

August 24, 2019

Mr. Kevin Kotelly
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Subject: State Project No. 171-412
CTFastrak Commuter Parking Lot
Colt Highway
Town of Farmington

Dear Mr. Kotelly:

Enclosed is one copy of the USACE Self-Verification Notification Form for General Permit 18, Linear Transportation Projects – Wetland Crossing Only. A copy has also been submitted to the Connecticut Department of Energy and Environmental Protection. The project was submitted to the USFWS on 8/4/2020 under the final 4(d) streamlined consultation process for the Northern Long Eared bat by the Department on behalf of USACE as the bat is the only listed species for the project location. No comments have been received from USFWS.

Any questions pertaining to this application may be directed to Mr. Jason M. Coite, of my staff, at 860-594-3448 (jason.coite@ct.gov).

Very truly yours,

Kimberly Lesay Digitally signed by Kimberly Lesay
Date: 2020.08.26 11:14:45 -04'00'

Kimberly Lesay
Transportation Assistant Planning Director
Bureau of Policy and Planning

Attachments
cc: Nathan Margason - USEPA

US Army Corps of Engineers®
New England District

Appendix E: Self-Verification Notification Form

This form is required for all **non-tidal projects in Connecticut**, but **not** required if work is done within boundaries of Mashantucket Pequot or Mohegan Tribal Lands. **Before** work commences, complete **all** fields (write "none" if applicable); attach project plans (not required for projects involving the installation of construction mats only); and any state or local approval(s); and send to:

Permits & Enforcement Branch B
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
or cenae-r@usace.army.mil

and

CT DEEP
Inland Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

****

State or local Permit Number: _____
Date of State or local Permit: _____
State/local Project Manager: _____

Permittee: The Connecticut Department of Transportation
Address, City, State & Zip: 2800 Berlin Turnpike, P.O. Box 317546, Newington, CT 06131-7546
Phone(s) and Email: 860.594.2931 kimberly.lesay@ct.gov

Contractor: TBD
Address, City, State & Zip: _____
Phone(s) and Email: _____

Consultant/Engineer/Designer: HNTB, Inc.
Address, City, State & Zip: 55 Capital Blvd, 4th floor, Rocky Hill, CT 06067
Phone(s) and Email: David Schweitzer, P.E., (860) 256-0424, DSchweitzer@HNTB.com

Wetland/Soil Scientist Consultant: Daniel Hageman, Fitzgerald & Halliday, Inc.
Address, City, State & Zip: 416 Asylum Street, Hartford, CT 06103
Phone(s) and Email: 860-256-4917, dhageman@fhiplan.com

Project Location (provide detailed description & locus map): Site is located north of Colt Highway, west of South Road, and south of I-84 Eastbound, in Farmington, CT. See Attachment A, Vicinity Map
Address, City, State & Zip: Colt Highway, Farmington, CT 06032
Latitude/Longitude Coordinates: 41.721873°/-72.790443°
Waterway Name: Unnamed perennial watercourse
Project Purpose (include all aspects of the project including those not within Corps jurisdiction): The CTfastrak bus line requires additional parking for the service to meet the increased ridership demands. This project (State Project No. 171-412) proposes to address this additional parking demand with the construction of a commuter parking lot in Farmington, CT.
Work Description: This project involves the construction of a commuter parking lot for the CTfastrak bus line on Colt Highway in Farmington, CT. The project includes 154 parking stalls, 6 Handicap spaces, bus shelters, bus platforms, and associated stormwater improvements. See Attachment B, Project Purpose and Work Description for additional details.

Work will be done under the following GP(s) (check all that have associated impacts):

_____GP. 2 - Repair or maintenance of authorized or grandfathered structures/fills
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 5 - Boat ramps/marine railways
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 6 - Utility line activities (include calculations for each single & complete crossing – attach additional sheet if necessary)
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 9 - Shoreline and bank stabilization projects
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 10 - Aquatic habitat restoration, establishment and enhancement activities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 11 - Fish & wildlife harvesting, enhancement and attraction devices and activities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 12 - Oil Spill and Hazardous material cleanup
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 13 - Cleanup of hazardous and toxic waste
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 14 - Scientific measurements devices
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 15 - Survey activities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 17 - New/expanded developments & recreational facilities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

__X__**GP. 18 - Linear transportation projects- wetland crossings only (include calculations for each single & complete crossing - attach additional sheet if necessary)**
Area of total wetland impacts: temporary 0 SF permanent 2,139 SF
Area of total waterway impacts: temporary 0 SF permanent 0 SF

_____**GP. 19 - Stream, river & brook crossings – not including wetland crossings (include calculations for each single & complete crossing – attach additional sheet if necessary)**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 21 - Temporary fill not associated with any other GP activities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

Does your project include any secondary effects? Yes _____ No X
(Secondary effects include, but are not limited to non-tidal waters or wetlands drained, flooded, fragmented, or mechanically cleared resulting from a single and complete project. See Appendix F - Definitions.) If YES, describe here: _____
_____
_____
_____

Proposed Work Dates: Start: April 2021 Finish: October 2021

Your name/signature below, as permittee, confirms that your project meets the self-verification criteria and that you accept and agree to comply with the applicable terms and conditions in the Connecticut General Permits.

Garrett Eucalitto Digitally signed by Garrett Eucalitto Date: 2020.08.26 13:05:41 -04'00'

_____ -_____

Signature of Permittee **Date**

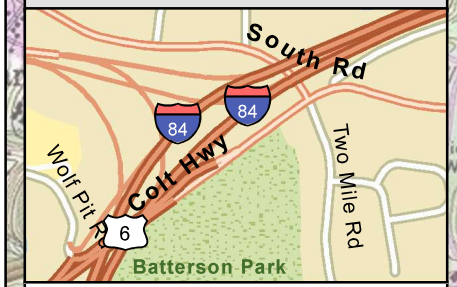
CT*fastrak* Commuter Parking Lot
State Project No. 171-412

Farmington, CT

Attachment A
USGS Vicinity Map

Legend

Approximate Project Limits



N
W E
S

0 500 1,000 1,500 2,000
Feet

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

Project Site

Copyright © 2013 National Geographic Society, i-cubed

Original in Color - FHI - 4/29/2020 JW

Attachment B
Project Purpose and Work Description
CTfastrak Commuter Parking Lot – Farmington
State Project No. 171-412

Background

The proposed project site property is owned by the Connecticut Department of Transportation (CTDOT) and was formerly utilized by the CTDOT as a Waste Stockpile Area (WSA). With the success of the CT*fastrak* Bus Rapid Transit (BRT) line, additional parking for the service is required to meet the increased demand. As a result, CTDOT Project No. 171-412, a commuter parking lot off Colt Highway at South Road in the town of Farmington, is to be constructed to provide additional parking capacity for potential riders.

Proposed Work

The commuter parking lot will provide flow for buses and cars with entrances and exits along S.R. 531 (Colt Highway). The bus loading platform and shelters will be constructed along the north westerly section of the site. The parking area will accommodate 154 vehicles. The project area demarcated on plans (see Attachment C) depicts the proposed work and disturbance within the project area. All staging, access, equipment movement, and activities needed to facilitate the construction will be conducted within the subject property, within the project area. Construction for this project is scheduled to start in April 2021 and be completed by October 2021.

To protect against erosion and sedimentation, this project has been designed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* (2002 Guidelines) and the *2004 Connecticut Stormwater Quality Manual* (2004 SWQ Manual).

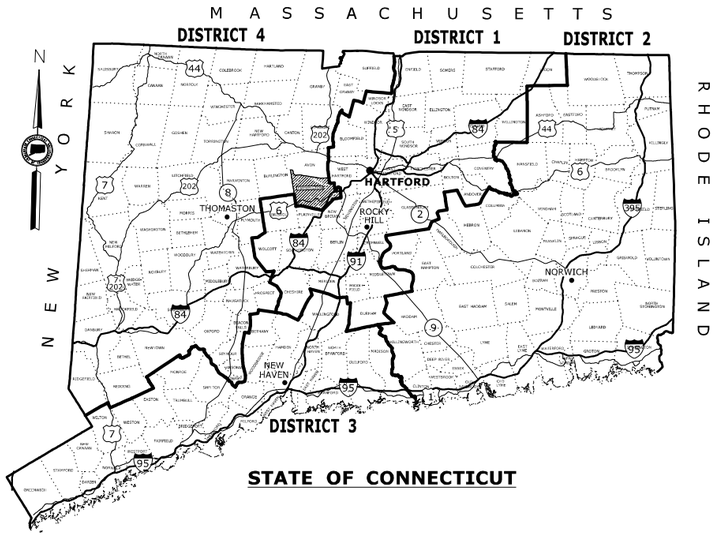
Most of the project activities described above will be conducted outside of regulated resource areas. To facilitate the proposed commuter lot improvements, including upgrading the stormwater management system at the site, work within the on-site wetlands was unavoidable. West of the existing driveway, stormwater is conveyed along the southern portion of the site through the existing wetland which flows westerly, untreated, into the unnamed perennial watercourse. Stormwater management at the site will be improved with the proposed grading to include grass swales along the southern edge of the site. The existing driveway will be regraded and a grass swale constructed with stone check dams to provide velocity dissipation. Stormwater will then be conveyed under the proposed eastern access drive via an 18-inch reinforced concrete pipe (RCP) that discharges at another riprap apron. Stormwater will then continue westerly in a grass swale to another riprap apron that accepts stormwater from the parking lot via a 15-inch RCP. Stormwater continues westerly in a grass swale with stone check dams to an endwall that will convey stormwater under the western access drive through a 24-inch RCP that terminates at a new stormwater outfall with a riprap apron to provide velocity dissipation before entering the watercourse via overland flow. To further mitigate impacts on water quality, on-site catch basins will be outfitted with 4-footsumps.

Description of Work in Wetlands and Watercourses

The construction of the new commuter lot will necessitate the wetland impacts Grading along the southern edge of the site for the construction of the driveway and grass lined swales will result in approximately 2139sf of permanent wetland impacts. There are no temporary impacts in the project. See project plans in Attachment C. There will be no temporary or permanent impacts to the watercourse from the proposed project activities.

ATTACHMENT C

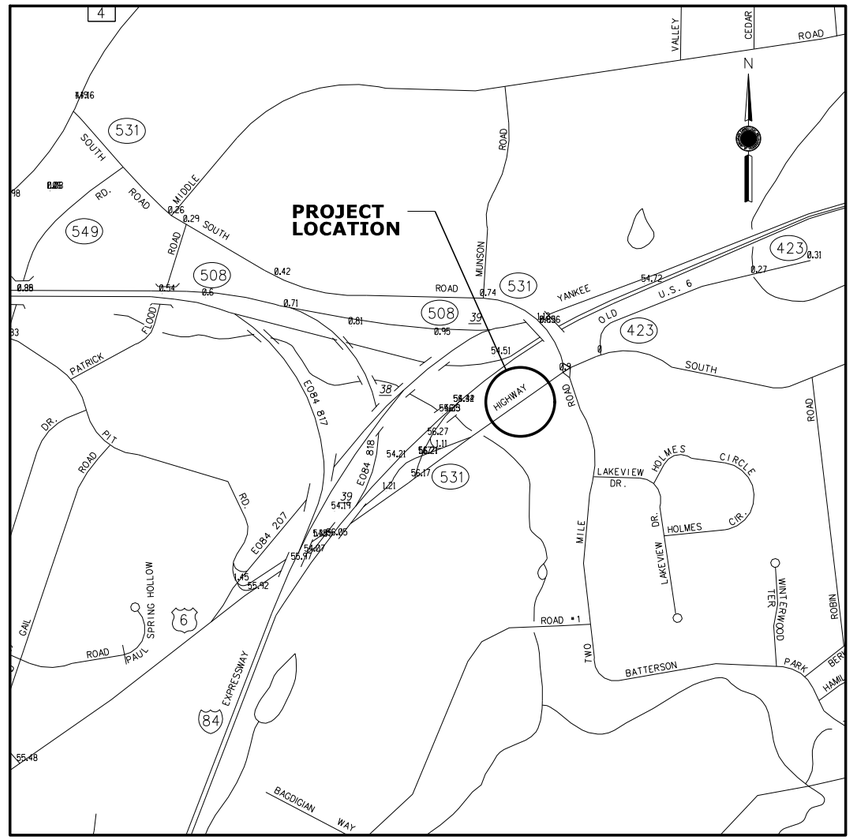
ENVIRONMENTAL PERMIT PLANS
STATE PROJECT 0171-0412
CTfastrak COMMUTER PARKING LOT
TOWN OF FARMINGTON



STATE OF CONNECTICUT

GENERAL NOTES:

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND ACOE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLAND AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN

1" = 600'

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	PMT-001
GENERAL SITE PLAN	PMT-002
WETLAND/WATERCOURSE IMPACT PLAN	PMT-003
100-YEAR FLOODPLAIN IMPACT PLAN	PMT-004
MISCELLANEOUS DETAILS	PMT-005

STANDARD CONVENTIONS

North Arrow, W/No. Coor.
Grid Arrow
Edge Of Road
Concrete Pavement
Dirt Road
B.C.I.C.
Granite Curb
Guide Rail
Concrete Median Barrier
Bit. Walk
Conc. Sidewalk
Railroad Tracks
Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Property Line
Lot Line
Easement Line
Water Edge
Stream
Ditch
TOWN LINE
Highway Line
Street Line
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall

DESIGNED BY:
HNTB CORPORATION

david schweitzer
2020.08.14
05:48:18-04'00'

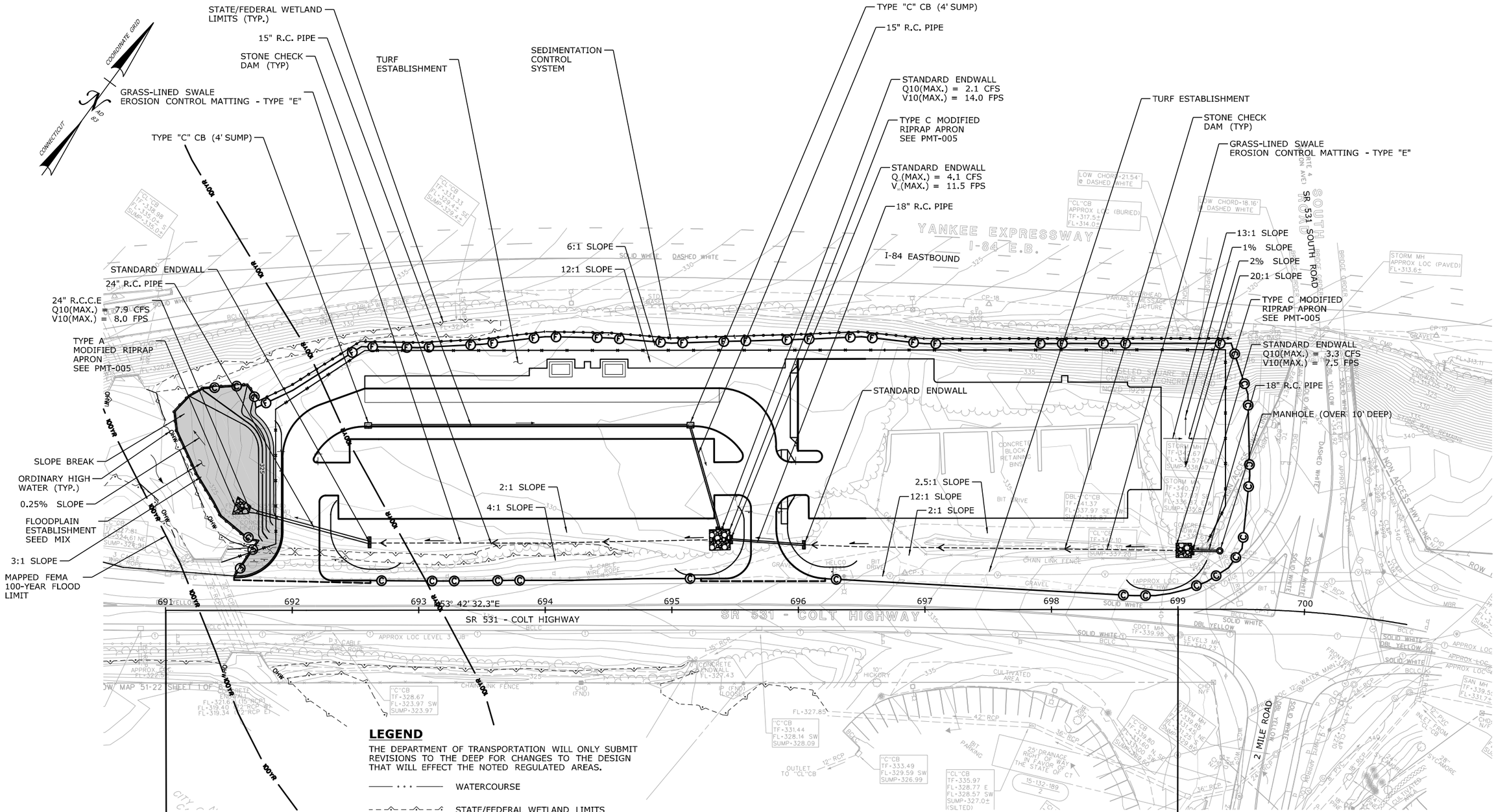
Plans For
Ctfastrak
COMMUTER PARKING LOT

Town(s)/City
FARMINGTON

STATE PROJECT NO.
0171-0412

DRAWING NO.
PMT-001

SHEET NO.
05.01



LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS.

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET
0 40 80
SCALE 1"=40'

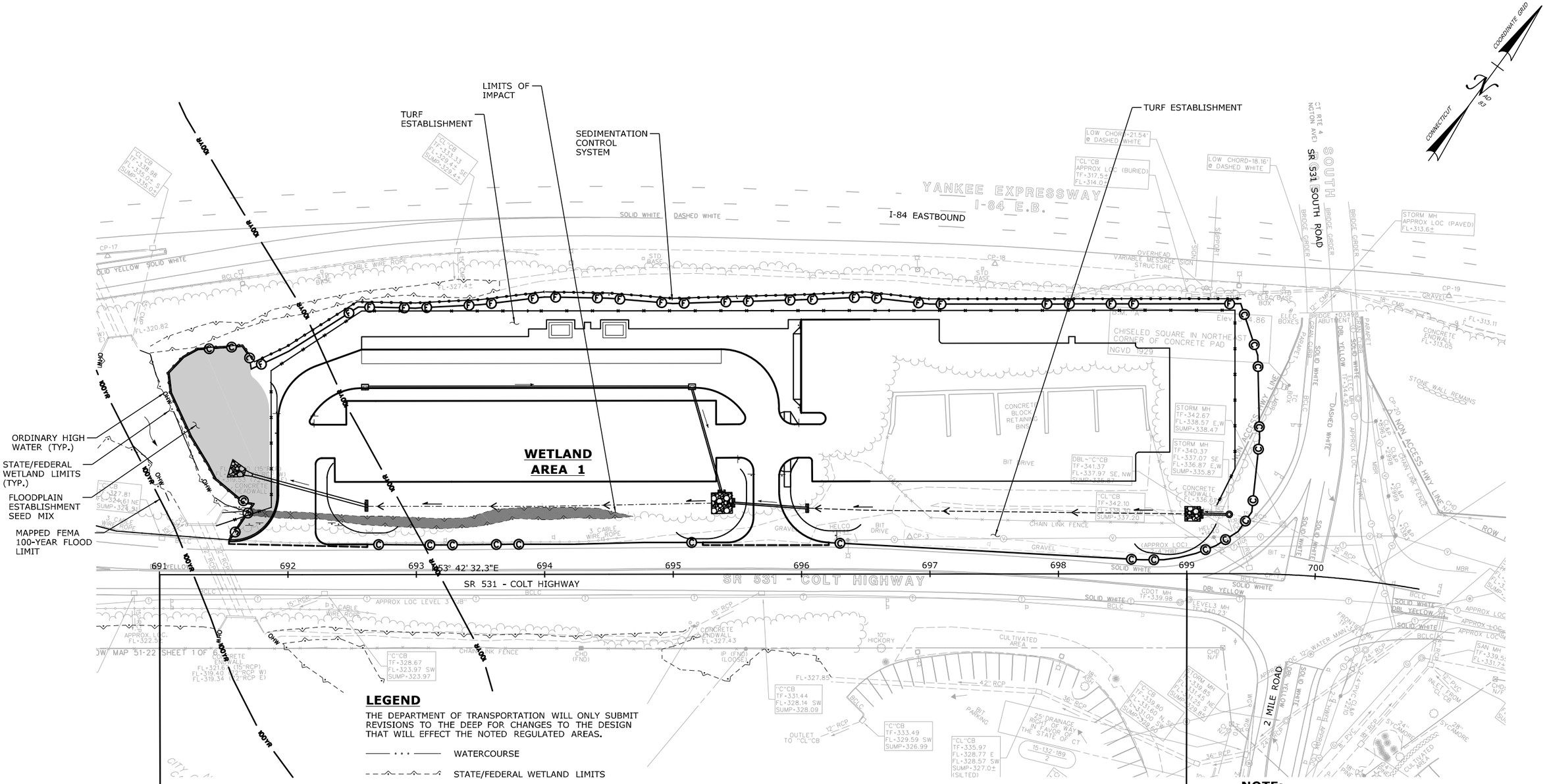
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH_ENV_0171-0412-PMT-002.dgn

HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**
DRAWING TITLE: **GENERAL SITE PLAN**
PROJECT NO. **171-412**
DRAWING NO. **PMT-002**
SHEET NO. **05.02**



LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT WETLAND IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

WETLAND/WATERCOURSE IMPACT TABLE		
	PERMANENT	
AREA DESCRIPTION	AREA (SF)	AREA (ac.)
WETLAND AREA 1	2,139	0.049
TOTAL SITE	**2,139**	**0.049**

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

NOTE:

1. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSES WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY OR PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE. ALL DISTURBED AREAS SHALL BE RESTORED.

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV-0171-0412-PMT-003.dgn

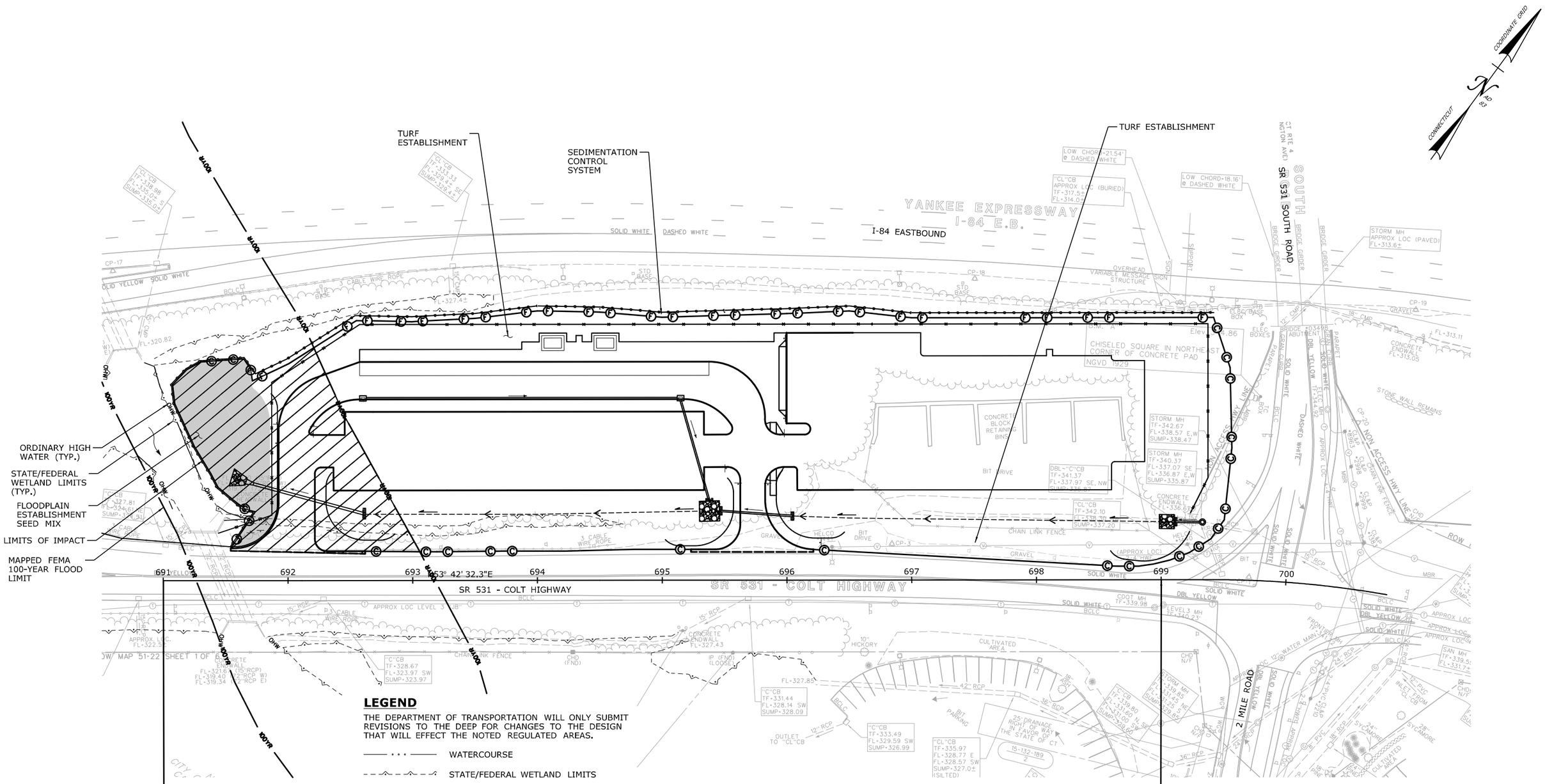
HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **WETLAND/WATERCOURSE IMPACT PLAN**

PROJECT NO. **171-412**
DRAWING NO. **PMT-003**
SHEET NO. **05.03**



LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT FLOODPLAIN IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

CUT/FILL VOLUMES BELOW 100-YEAR FLOOD ELEVATION		
PERMANENT		
	CUT (CY)	FILL (CY)
	640	470
TOTAL SITE	**640**	**470**

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV-0171-0412-PMT-004.dgn

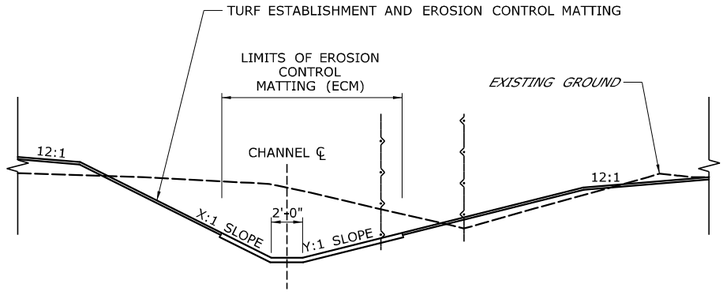
HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-4777
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **100-YEAR FLOODPLAIN IMPACT PLAN**

PROJECT NO. **171-412**
DRAWING NO. **PMT-004**
SHEET NO. **05.04**



SWALE LIMITS	ECM TYPE	ECM WIDTH	X	Y
STA 692+62 - 694+00	E	10'	2	4
STA 694+00 - 695+30	E	10'	2	4
STA 696+06 - 698+99	E	6'	2.5	2.5

GRASS-LINED SWALE

NOT TO SCALE

RIPRAP APRON

LOCATION	STATION	OFFSET	APRON TYPE	L_a	W_1	W_2	RIPRAP TYPE
COMMUTER LOT	691+59.94	81.33' LT	Type A Riprap Apron	12.0	6.0	14.4	MODIFIED
COMMUTER LOT	695+37.96	55.39' LT	Type C Riprap Apron	16.0	16.0	16.0	MODIFIED
COMMUTER LOT	699+04.61	46.59' LT	Type C Riprap Apron	12.0	11.2	11.2	MODIFIED

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_MSH_ENV_0171_0412_PMT-005.dgn

HNTB Corporation
Engineers Architects Planners
56 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**
DRAWING TITLE: **MISCELLANEOUS DETAILS**

PROJECT NO. **171-412**
DRAWING NO. **PMT-005**
SHEET NO. **05.05**

Attachment D

USFWS Northern Long-Eared Bat
Coordination Documentation

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
http://www.fws.gov/newengland

In Reply Refer To: August 04, 2020
Consultation Code: 05E1NE00-2020-TA-3561
Event Code: 05E1NE00-2020-E-10919
Project Name: CTFastrak Commuter Parking Lot at Colt Highway, Farmington

Subject: Verification letter for the 'CTFastrak Commuter Parking Lot at Colt Highway, Farmington' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Amanda Saul:

The U.S. Fish and Wildlife Service (Service) received on August 04, 2020 your effects determination for the 'CTFastrak Commuter Parking Lot at Colt Highway, Farmington' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

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

1. Name

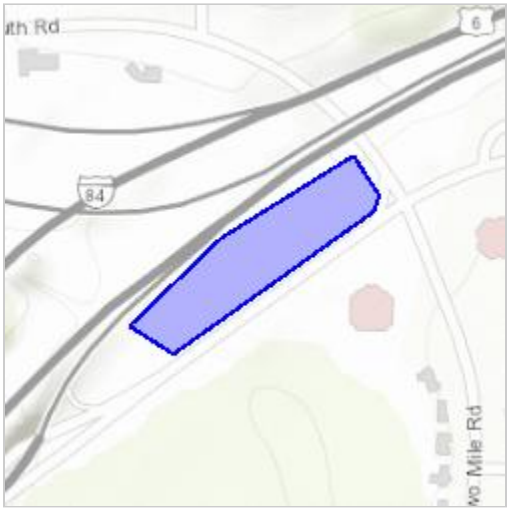
CTFastrak Commuter Parking Lot at Colt Highway, Farmington

2. Description

The following description was provided for the project 'CTFastrak Commuter Parking Lot at Colt Highway, Farmington':

> The project involves the construction of a 189 space commuter parking lot and bus drop-off/pick-up area on Colt Highway in Farmington, CT.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.721944397735925N72.79050597739038W



Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the 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. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

7. Will the action involve Tree Removal?

   Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

   No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

    No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type ‘0’ in questions 1-3.

1. Estimated total acres of forest conversion:

1.5

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type ‘0’ in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type ‘0’ in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type ‘0’ in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?
0

Connecticut Department of
Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
www.ct.gov/deep

KIMBERLY C. LESAY
STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION
2800 BERLIN TPKE
PO BOX 317546
NEWINGTON, CT 06111-4113

9/03/2020

Dear Applicant:

This letter is to confirm the receipt of the following application package:

Applicant/Registrant: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

Permit Type: Construction Activity 8, Activities Authorized Under a Corps General Permit-GP

State Project No. (171-412) This project involves the construction of a commuter parking lot for the CTfastrak bus line on Colt Highway in Farmington, CT The project includes construction of 154 parking stalls, 6 Handicap spaces, bus shelters, bus platforms, and associated stormwater improvements. Former WSA located between Colt Highway, I-84, & South Road.

Your application has been assigned the following number: 202010240
Please include this number on all correspondence regarding this application.

As of today, the following materials have been received:

ITEM	REQUIRED FEE	FEE RECEIVED	RECEIVED ON
Application Package			8/27/2020
Application Fee	0.00		

To complete application submission:

a. Send an empty/blank email to DEEP.LWRDRegulatorySubmittals@ct.gov

b. An automated email response will contain instructions for uploading a PDF of the Transmittal Form and applicable Program Forms, management plans, or additional supporting documents of your application to the LWRD File Transfer Protocol (FTP) website.

c. Follow directions contained in the email for uploading the Transmittal and Application Forms.

The fee for this application has been discounted 100%.

If there are any questions regarding this notice, please feel free to contact the Central Permit Processing Unit at (860) 424-4004 or DEEP.CentralPermits@ct.gov

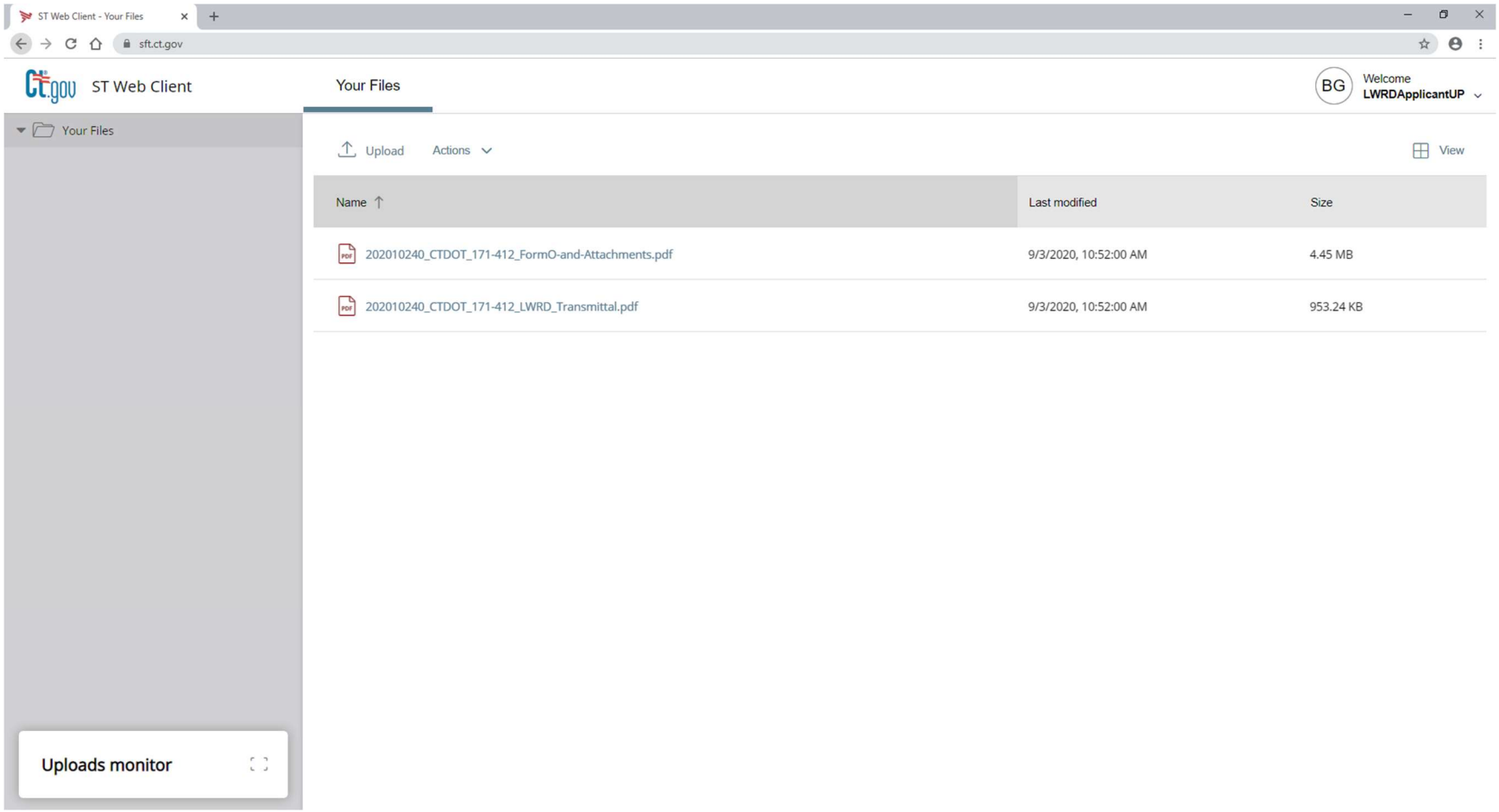
If you have specific technical questions regarding your application, please contact the Land and Water Resources Division at 860-424-3019

Please remember to check your security settings to be sure you can receive e-mails from (ct.gov) addresses. Also, please notify the department if your e-mail address changes.

Thank you.

Sincerely,

Central Permit Processing Unit


ST Web Client - Your Files
sft.ct.gov
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Name
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202010240_CTDOT_171-412_FormO-and-Attachments.pdf
9/3/2020, 10:52:00 AM
4.45 MB
202010240_CTDOT_171-412_LWRD_Transmittal.pdf
9/3/2020, 10:52:00 AM
953.24 KB
Uploads monitor

INTERDEPARTMENTAL MESSAGE **STATE OF CONNECTICUT**

To	NAME, TITLE Central Permit Processing Unit, 1st Floor	DATE August 24, 2020
	AGENCY, ADDRESS Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT. 06106	
From	NAME, TITLE Kimberly C. Lesay, Transportation Assistant Planning Director	TELEPHONE 860-594-2931
	AGENCY, ADDRESS Department of Transportation, 2800 Berlin Turnpike, Newington, CT. 06131-7546	

Kimberly Lesay Digitally signed by Kimberly Lesay Date: 2020.08.26 11:15:48 -04'00'

Subject: **State Project No. 171-412**
CTFastrak Commuter Parking Lot
Colt Highway
Town of Farmington

Attached is the original copy of the DEEP Land & Water Resources Division (LWRD) Water Resources Construction permit application. The project has received a Flood Management General Permit from CTDOT Hydraulics and Drainage Unit, and a copy of that authorization is included in the attachments. A Self-Verification Permit (SV) has been concurrently submitted the U.S. Army Corps of Engineers.

Any questions pertaining to this application may be directed to Mr. Jason M. Coite, of my staff, at (860) 594-3448 (jason.coite@ct.gov).

Attachments

Connecticut Department of Energy & Environmental Protection
Bureau of Water Protection & Land Reuse
Land & Water Resources Division

CPPU USE ONLY
App #s: _____
_____
_____ -DIV
_____ -FM/E
Doc #: _____
Check #: _____

LWRD License Application Transmittal Form

The Land & Water Resources Division (LWRD) License Application * consists of this Transmittal Form and the program -specific form . All application forms can be found on the Department of Energy & Environmental Protection (DEEP) website at www.ct.gov/deep/lwrdpermitapps . Submit application forms per instructions provided in Part VII of this transmittal form.

Part I: License Type and Fee Information

The table below lists various License types issued by DEEP LWRD. If more than one license is necessary for a project, complete only one Transmittal Form. Complete as many Program Forms as applicable for the project. Check the boxes below that correspond with the LWRD license(s) being requested.

Type of License	Program Form	Fee	DEEP USE ONLY
Licenses for Activities in Aquifer Protection Areas			
☐ **Aquifer Protection Area Registration** Check one: ☐ New ☐ Modification[1] of # _____ (no fee) ☐ Renewal of # _____	A	$625	[#996]
☐ **Aquifer Protection Area Permit** Check one: ☐ New ☐ Modification[1] of # _____(no fee) ☐ Renewal of # _____ [1] Note that if you are seeking a *modification*, you should consult the Aquifer Protection Program at 860-424-3019 prior to application submittal to determine whether a registration form is necessary.	B	$1,250	[#995]
Licenses for Activities in Tidal Waters			
☐ **Structures, Dredging & Fill[2]**	C	$660	[#1085]
☐ **Structures, Dredging & Fill[2] and Tidal Wetlands (TW)**	C	$660	[#438]
☐ **Structures, Dredging & Fill[2] and Section 401 Water Quality Certificate (WQC)[3]**	C	$660	[#1632]
☐ **Structures, Dredging & Fill[2]; TW; and Section 401 WQC[3]**	C	$660	[#417]
☐ **Certificate of Permission (if applicable, WQC will be included)** [2] For projects larger than 825 square feet, provide Attachment A with an additional fee. Refer to the instructions (page 4) for fee calculations. [3] For activities requiring a Sec.404 Permit from United States Army Corps of Engineers (USACE).	D	$375	[#410]
General Permit Registration for Coastal Maintenance			
☐ **Marina and Mooring Field Reconfiguration**	E	$700	[#992]
☐ **Remedial Activities Required by Order**	F	$700	[#427]
☐ **Residential Modification to FEMA Standards**	G	$100	[#423]
☐ **Reconstruction of Permitted Structures**	H	$300	[#1741]
General Permit Registration for Minor Coastal Structures			
☐ **4/40 Docks/Access Stairs**	I	$700	[#426]
☐ **Non-Harbor Moorings**	J	$250	[#422]
General Permit Registration for Dolphin Cove			
☐ **Structures, Fill, Obstructions, or Encroachments in Dolphin Cove Lagoon, Stamford**	K	$100	[#420]

Part I: License Type and Fee Information (continued)

Type of License	Program Form	Fee	DEEP USE ONLY
For Federal Agency Activities Only: ☐ **Section 401 Water Quality Certificate (Tidal)**	C	None	[#1186]
Licenses for Activities in Non-Tidal Waters			
☐ **Section 401 Water Quality Certificate (Individual)**[3]	L	None	[#1195]
☐ **Pre-Construction Notification, USACE General Permits for CT**[3]	L	None	[#1188]
☐ **Inland Wetlands and Watercourses**[4]	L	None	[#365]
☐ **Inland Wetlands and Watercourses**[4] **and WQC**[3]	L	None	[#2225]
[3] For activities requiring a Sec.404 Permit from USACE. [4] For State Agency Activities OR Activities Conducted on State Owned/Controlled Lands.			
For State Agency Activity Conducted on State Owned/Controlled Lands Only: **General Permit Registration for Water Resources Construction Activities**			
☐ **Activities 1-4: Maintenance Plans**	M	$2,500	[#2243]
☐ **Activities 5-7: Infrastructure and Public Works Projects**	N	$2,500	[#2244]
☒ **Activity 8: Activities Authorized Under a Corps General Permit** **(Must be submitted after receiving PCN approvals and Flood Management, if applicable.)**	O	$1,250	[#2245]
☐ **Activity 9: Conservation Activities**	O	$1,250	[#2246]
Additional Licenses for Activities **These licenses may be combined with Tidal or Non-Tidal Waters licenses.**			
Water Diversion – Non-consumptive			
☐ Watershed < 0.5 sq. mi.	L	$2,050	[#457]
☐ Watershed ≥ 0.5 sq. mi and < 2.0 sq. mi.	L	$4,000	[#456]
☐ Watershed ≥ 2.0 sq. mi.	L	$6,250	[#455]
For State Agency Activity/Activities Receiving Funding Through a State Agency:			
☐ **Flood Management Certification**	P	None	[#1185]
☐ **Flood Management Certification with Exemption Request**	P	None	[#1185]
Fee from Attachment A, if applicable			
Total	$0		

*For processing purposes, the terms Application and Applicant are synonymous with the terms Registration and Registrant.

In addition to applicable boxes above, check here if your application is:

- ☐ eligible for a municipal 50% discount;
- ☐ for work in tidal waters and being submitted pursuant to CGS section 22a-361(a)(2)(d) to address a violation; or
- ☐ receiving state funding including federal funding administered by the state (to help determine need for Flood Management Certification).

Part II: Project and Site Information

1a. Project: Provide a brief description of project/activity/work: **This project involves the construction of a commuter parking lot for the CTfastrak bus line on Colt Highway in Farmington, CT. The project includes construction of 154 parking stalls, 6 Handicap spaces, bus shelters, bus platforms, and associated stormwater improvements.**

1b. Site Name and Location

Name of Site: Former WSA located between Colt Highway, I-84, & South Road

Address of Site: No formal street address City/Town: Farmington State: CT Zip Code: 06032

Parcel Location/Tax Assessor's Reference: Map N/A Block _____ Lot _____

GPS Coordinates/Latitude and Longitude: Provide the exact location of proposed activity, in degrees/minutes/seconds or in decimal degrees: Latitude: 41.721873° Longitude: -72.790443°

Parcel/Easement size: If the project is located on a parcel, indicate parcel acreage: N/A acres

If the project is located on a utility/transportation right-of-way or easement, indicate dimensions or acres: See permit plans

Part III: Applicant Information

- *If an applicant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, they must be registered with the Secretary of State. If applicable, the applicant's 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 State's database (CONCORD) at portal.ct.gov/SOTS.*
- *If an applicant 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.).*
- *Once an authorization has been received, 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. Applicant/Registrant* Information

Name: Connecticut Department of Transportation

Mailing Address: 2800 Berlin Turnpike, P.O. Box 317546

City/Town: Newington State: CT Zip Code: 06131-7546

Business Phone: 860-594-2931 Ext.: _____

Contact Person: Kimberly C. Lesay Phone: 860-594-2931 Ext: _____

E-mail Address†: kimberly.lesay@ct.gov

†Email is Required. By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject application. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes.

☐ **If co-applicant(s), check this box and attach co-applicant information as Attachment B following this form.**

a) Applicant Type (check one):

☐ individual ☐ federal agency ☒ state agency ☐ municipality ☐ tribal

☐ business entity (if a business entity, complete i through iii below):

i) business type: ☐ corporation ☐ limited liability company ☐ limited partnership ☐ limited liability partnership ☐ statutory trust ☐ Other: _____

ii) provide Secretary of the State business ID #:_____
This information can be accessed at database (CONCORD): portal.ct.gov/SOTS

iii) ☐ check here if your business is **NOT** registered with the Secretary of State's Office.

*For processing purposes, the terms Application and Applicant are synonymous with the terms Registration and Registrant.

Part III: Applicant Information (continued)

b) Applicant's interest in property at which the proposed activity is located:

☒ site owner ☐ option holder ☐ lessee ☐ facility owner

☐ easement holder ☐ operator ☐ other (specify): _____

2. List billing contact, if different than the applicant:

Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: _____ Ext.: _____

Contact Person: _____ Title: _____

E-mail: _____

3. Primary contact for departmental correspondence and inquiries if different than applicant:

Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: _____ Ext.: _____

Contact Person: _____ Title: _____

E-mail: _____

4. Site/Property Owner*, if different than applicant:

Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: _____ Ext.: _____

Contact Person: _____ Title: _____

E-mail: _____

***If the applicant is not the owner, submit written permission from the owner as Attachment C**

5. Facility Owner, if different than applicant:

Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: _____ Ext.: _____

Contact Person: _____ Title: _____

E-mail: _____

6. Facility Operator, if different than applicant:

Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: _____ Ext.: _____

Contact Person: _____ Title: _____

E-mail: _____

Part III: Applicant Information (continued)

7. Attorney or other representative, if applicable.

Firm Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: _____ Ext.: _____

Attorney: _____ Title: _____

E-mail: _____

8. Engineer(s), surveyor(s) and/or other consultant(s) employed or retained to assist in preparing the application and designing or constructing the activity.

Name: HNTB Corporation

Mailing Address: 55 Capital Boulevard, 4th Floor

City/Town: Rocky Hill State: CT Zip Code: 06067

Business Phone: (860) 256-0447 Ext.: _____

Contact Person: Rudy I. Franciamore, PE Title: Sr. Project Manager / Client Service Leader

E-mail: rifranciamore@hntb.com

Service Provided: Engineering Design

Part IV: Pre-Application Coordination

If pre-application coordination occurred, provide DEEP LWRD staff contact information:

Staff Name: Interagency Coordination Meeting Date: 4-16-20

Part V: Supporting Documents

As applicable, check the box by the attachments listed to indicate that they have been submitted. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment A, etc.) and be sure to include the applicant's name as indicated on this application form. Attach the materials below following this transmittal form.

- ☐ Attachment A Structures, Dredging and Fill fee calculation worksheet (if applicable)
- ☐ Attachment B Co-applicant information sheet (if applicable)
- ☐ Attachment C Written permission from land owner (if applicant is not the owner)
- ☐ Attachment D Additional signature sheet (if applicable)

Part VI: Applicant Certification

The applicant(s) *and* any individual(s) responsible for actually preparing the application must sign this section. An application will be considered insufficient unless *all* required signatures are provided.

"I have personally examined and am familiar with the information submitted in the LWRD application 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.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

I certify that the LWRD application is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I certify that I have complied with all notice requirements, if applicable, as listed in Section 22a-6g of the General Statutes."

Garrett Eucalitto Digitally signed by Garrett Eucalitto Date: 2020.08.26 13:06:17 -04'00'	
Signature of Applicant	Date
Garrett T. Eucalitto	Deputy Commissioner
Name of Applicant (print or type)	Title (if applicable)
	8/18/2020
Signature of Preparer (if different than above)	Date
Shawn Callaghan	Project Manager
Name of Preparer (print or type)	Title (if applicable)

☐ Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet as Attachment D. You must include signatures of any person preparing any report or parts thereof required in this application (i.e., professional engineers, surveyors, soil scientists, consultants, etc.).

Part VII: Application Submission

Instructions for submitting an application to DEEP LWRD:

1. Please submit a hardcopy of **only** this completed License Application Transmittal Form and fee, to:

   CENTRAL PERMIT PROCESSING UNIT
   DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
   79 ELM STREET
   HARTFORD, CT 06106-5127

   Applications will not be processed without the fee. Fee shall be non-refundable and shall be paid by check or money order to the Connecticut Department of Energy & Environmental Protection.

2. Upon receipt of the Transmittal Form and fee, the Central Permit Processing Unit (CPPU) will e-mail a confirmation receipt letter to you containing the DEEP assigned application number.

3. Upon receipt of the email from CPPU, electronically submit the full application package with the remaining required forms:
   a. Send an empty/blank email to DEEP.LWRDRegulatorySubmittals@ct.gov
   b. An automated email response will contain instructions for uploading this Transmittal Form and applicable Program Forms, management plans, or additional supporting documents of your application to the LWRD File Transfer Protocol (FTP) website.
   c. Follow directions contained in the email for uploading the application sections.

If you are not capable of submitting the application electronically or if you have other questions or concerns regarding application submittals, please contact LWRD staff at 860-424-3019.

Connecticut Department of
Energy & Environmental Protection
Bureau of Water Protection & Land Reuse
Land & Water Resources Division

LWRD License Application Form O

General Permit Request for Authorization, Water Resources Construction Activities (Activities 8 & 9)

- **Activities Authorized Under a USACE General Permit**
- **Conservation Activities**

All sections of the LWRD License Application, when applicable, must be posted to the DEEP LWRD FTP site as instructed on Part VII of the LWRD Transmittal Form.

Application Number (as assigned in CPPU e-mail): 202010240

Applicant Name (same name used on Part III of the LWRD Transmittal Form): Connecticut Department of Transportation

Supporting Documents

Check the box by the attachments listed to indicate that they have been submitted. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment 31, etc.) and be sure to include the same applicant name used above. NOTE: Attachment numbering is NOT consecutive as the attachments relate to multiple LWRD program applications.

☐	Attachment 29	Attach a copy of USACE PCN authorization, if applicable. USACE PCN # _____
☒	Attachment 31	Attach a copy of either the DEEP Section 401 Pre-Construction Notification (PCN) License or the USACE Self-Verification (SV) submittal, including form and plans. DEEP PCN # _____
☒	Attachment 32	Flood Management Certification (FMC) must be issued prior to submittal of this form, if required. Attach a copy of the FMC License. FMC # _____

CTDOT PROJECT 171-412
CTFASTRAK COMMUTER PARKING LOT
COLT HIGHWAY
FARMINGTON, CT

ATTACHMENT 31

US Army Corps of Engineers®
New England District

Appendix E: Self-Verification Notification Form

This form is required for all **non-tidal projects in Connecticut**, but **not** required if work is done within boundaries of Mashantucket Pequot or Mohegan Tribal Lands. **Before** work commences, complete **all** fields (write "none" if applicable); attach project plans (not required for projects involving the installation of construction mats only); and any state or local approval(s); and send to:

Permits & Enforcement Branch B
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
or cenae-r@usace.army.mil

and

CT DEEP
Inland Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

****

State or local Permit Number: _____
Date of State or local Permit: _____
State/local Project Manager: _____

Permittee: The Connecticut Department of Transportation
Address, City, State & Zip: 2800 Berlin Turnpike, P.O. Box 317546, Newington, CT 06131-7546
Phone(s) and Email: 860.594.2931 kimberly.lesay@ct.gov

Contractor: TBD
Address, City, State & Zip: _____
Phone(s) and Email: _____

Consultant/Engineer/Designer: HNTB, Inc.
Address, City, State & Zip: 55 Capital Blvd, 4th floor, Rocky Hill, CT 06067
Phone(s) and Email: David Schweitzer, P.E., (860) 256-0424, DSchweitzer@HNTB.com

Wetland/Soil Scientist Consultant: Daniel Hageman, Fitzgerald & Halliday, Inc.
Address, City, State & Zip: 416 Asylum Street, Hartford, CT 06103
Phone(s) and Email: 860-256-4917, dhageman@fhiplan.com

Project Location (provide detailed description & locus map): Site is located north of Colt Highway, west of South Road, and south of I-84 Eastbound, in Farmington, CT. See Attachment A, Vicinity Map
Address, City, State & Zip: Colt Highway, Farmington, CT 06032
Latitude/Longitude Coordinates: 41.721873°/-72.790443°
Waterway Name: Unnamed perennial watercourse
Project Purpose (include all aspects of the project including those not within Corps jurisdiction): The CTfastrak bus line requires additional parking for the service to meet the increased ridership demands. This project (State Project No. 171-412) proposes to address this additional parking demand with the construction of a commuter parking lot in Farmington, CT.
Work Description: This project involves the construction of a commuter parking lot for the CTfastrak bus line on Colt Highway in Farmington, CT. The project includes 154 parking stalls, 6 Handicap spaces, bus shelters, bus platforms, and associated stormwater improvements. See Attachment B, Project Purpose and Work Description for additional details.

Work will be done under the following GP(s) (check all that have associated impacts):

_____GP. 2 - Repair or maintenance of authorized or grandfathered structures/fills
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 5 - Boat ramps/marine railways
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 6 - Utility line activities (include calculations for each single & complete crossing – attach additional sheet if necessary)
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 9 - Shoreline and bank stabilization projects
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 10 - Aquatic habitat restoration, establishment and enhancement activities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 11 - Fish & wildlife harvesting, enhancement and attraction devices and activities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 12 - Oil Spill and Hazardous material cleanup
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 13 - Cleanup of hazardous and toxic waste
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 14 - Scientific measurements devices
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 15 - Survey activities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____GP. 17 - New/expanded developments & recreational facilities
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

__X__**GP. 18 - Linear transportation projects- wetland crossings only (include calculations for each single & complete crossing - attach additional sheet if necessary)**
Area of total wetland impacts: temporary 0 SF permanent 2,139 SF
Area of total waterway impacts: temporary 0 SF permanent 0 SF

_____**GP. 19 - Stream, river & brook crossings – not including wetland crossings (include calculations for each single & complete crossing – attach additional sheet if necessary)**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

_____**GP. 21 - Temporary fill not associated with any other GP activities**
Area of total wetland impacts: temporary _____SF permanent _____SF
Area of total waterway impacts: temporary _____SF permanent_____SF

Does your project include any secondary effects? Yes _____ No X
(Secondary effects include, but are not limited to non-tidal waters or wetlands drained, flooded, fragmented, or mechanically cleared resulting from a single and complete project. See Appendix F - Definitions.) If YES, describe here: _____
_____
_____
_____

Proposed Work Dates: Start: April 2021 Finish: October 2021

Your name/signature below, as permittee, confirms that your project meets the self-verification criteria and that you accept and agree to comply with the applicable terms and conditions in the Connecticut General Permits.

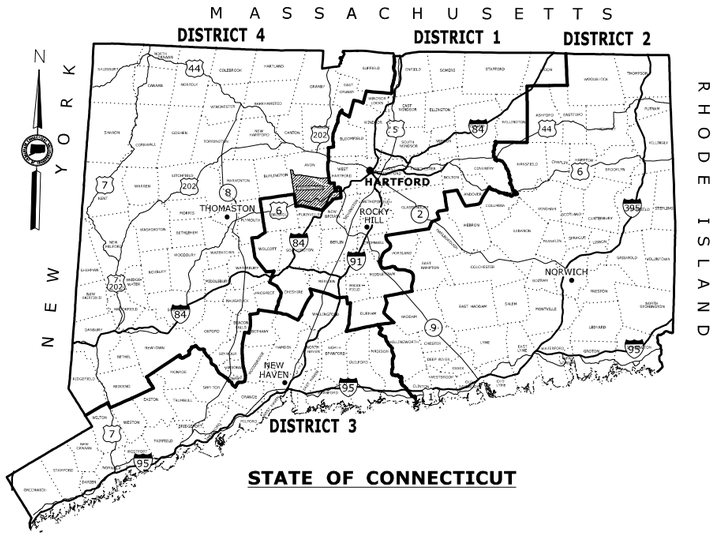
Garrett Eucalitto Digitally signed by Garrett Eucalitto Date: 2020.08.26 13:05:41 -04'00'

_____ -_____

Signature of Permittee **Date**

ATTACHMENT C

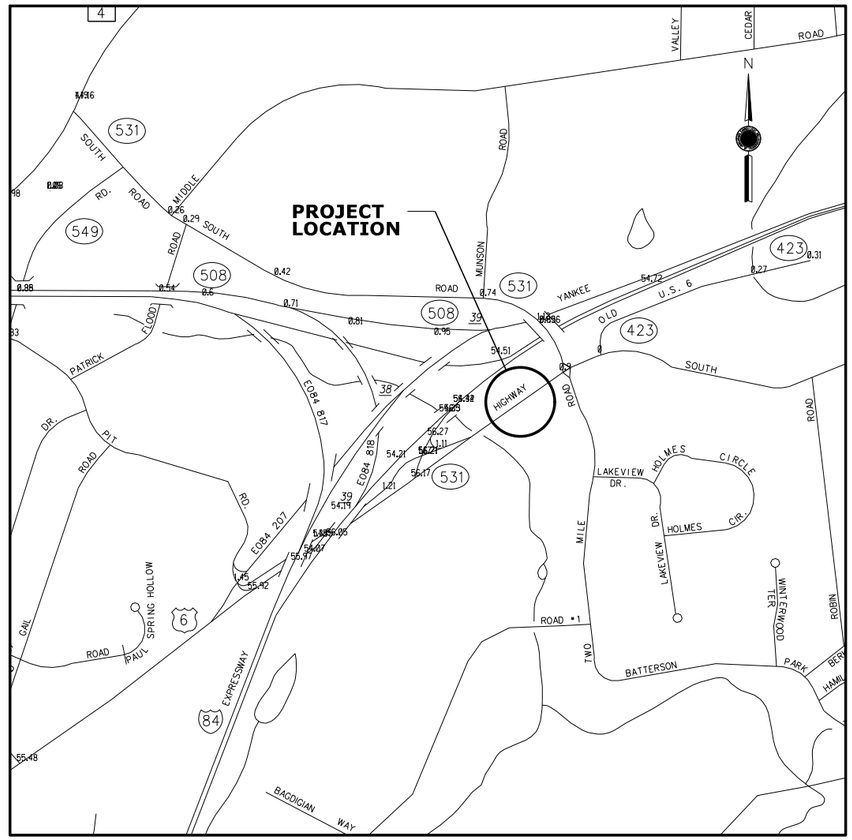
ENVIRONMENTAL PERMIT PLANS
STATE PROJECT 0171-0412
CTfastrak COMMUTER PARKING LOT
TOWN OF FARMINGTON



STATE OF CONNECTICUT

GENERAL NOTES:

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND ACOE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLAND AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN

1" = 600'

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	PMT-001
GENERAL SITE PLAN	PMT-002
WETLAND/WATERCOURSE IMPACT PLAN	PMT-003
100-YEAR FLOODPLAIN IMPACT PLAN	PMT-004
MISCELLANEOUS DETAILS	PMT-005

STANDARD CONVENTIONS

North Arrow, W/No. Coor.
Grid Arrow
Edge Of Road
Concrete Pavement
Dirt Road
B.C.I.C.
Granite Curb
Guide Rail
Concrete Median Barrier
Bit. Walk
Conc. Sidewalk
Railroad Tracks
Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Property Line
Lot Line
Easement Line
Water Edge
Stream
Ditch
TOWN LINE
Highway Line
Street Line
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall

DESIGNED BY:
HNTB CORPORATION

david schweitzer
2020.08.14
05:48:18-04'00'

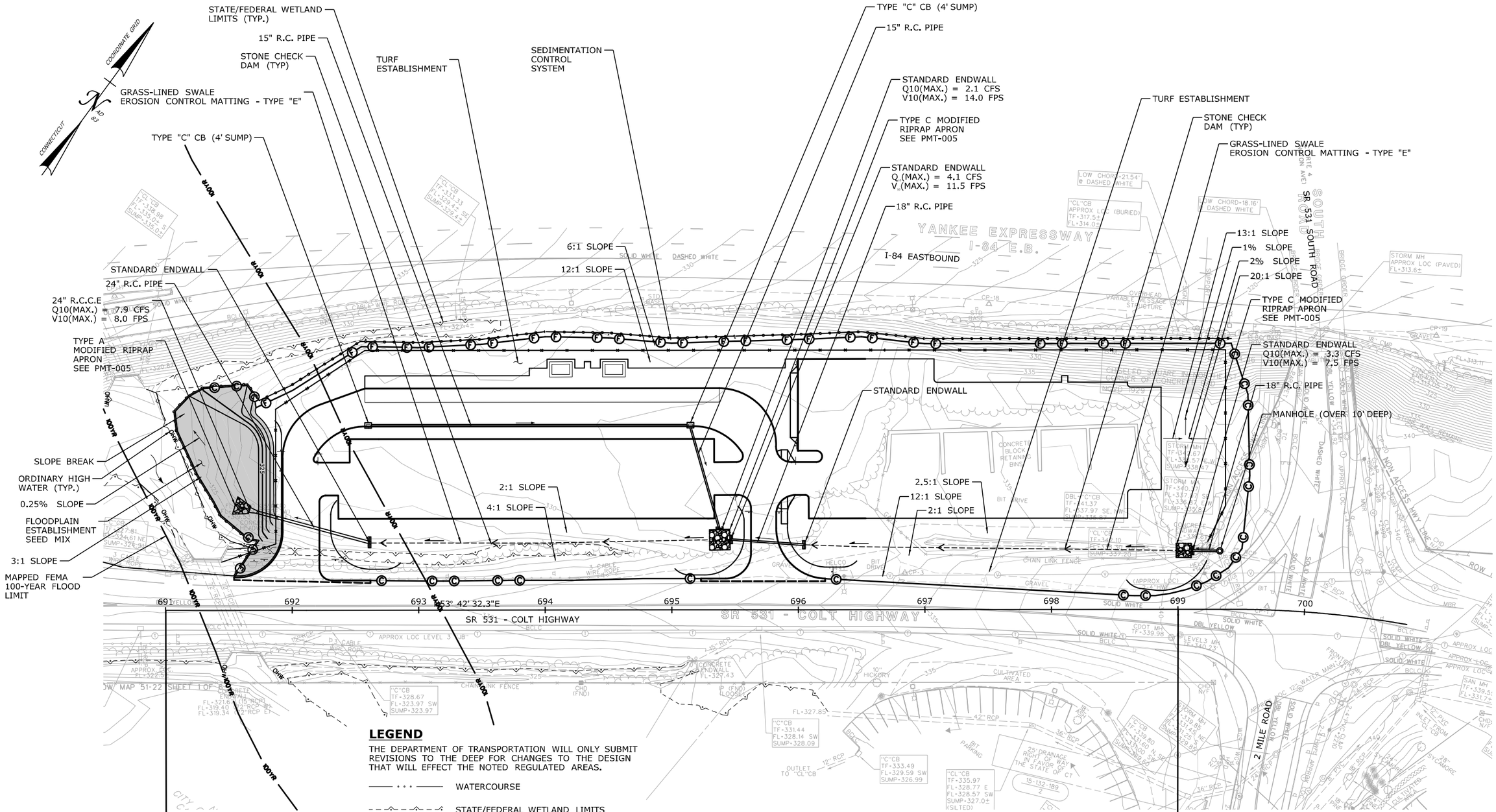
Plans For
Ctfastrak
COMMUTER PARKING LOT

Town(s)/City
FARMINGTON

STATE PROJECT NO.
0171-0412

DRAWING NO.
PMT-001

SHEET NO.
05.01



LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS.

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET
0 40 80
SCALE 1"=40'

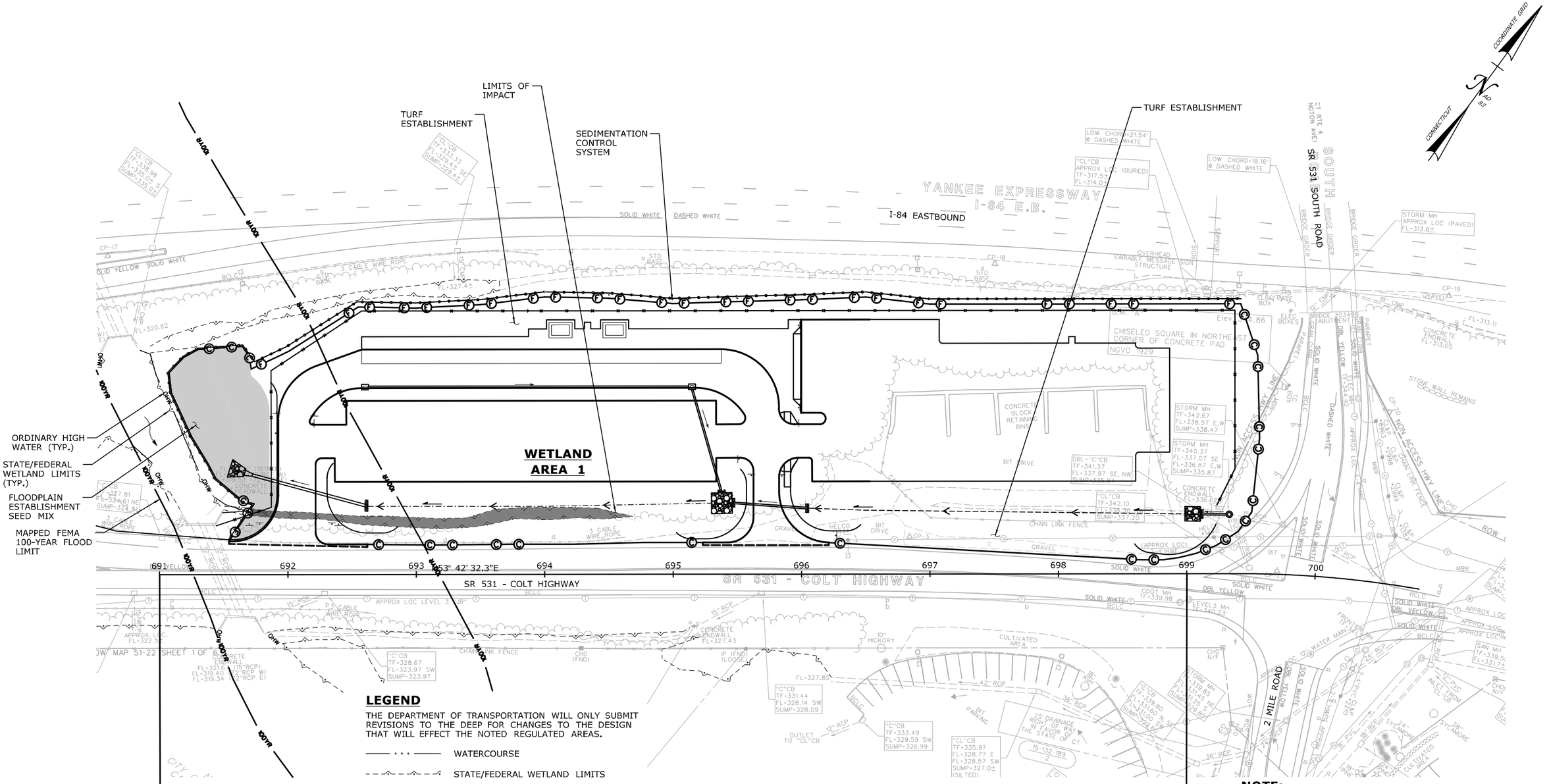
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH_ENV_0171-0412-PMT-002.dgn

HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**
DRAWING TITLE: **GENERAL SITE PLAN**
PROJECT NO. **171-412**
DRAWING NO. **PMT-002**
SHEET NO. **05.02**



LEGEND

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- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT WETLAND IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

WETLAND/WATERCOURSE IMPACT TABLE		
	PERMANENT	
AREA DESCRIPTION	AREA (SF)	AREA (ac.)
WETLAND AREA 1	2,139	0.049
TOTAL SITE	**2,139**	**0.049**

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

NOTE:

1. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSES WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY OR PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE. ALL DISTURBED AREAS SHALL BE RESTORED.

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV-0171-0412-PMT-003.dgn

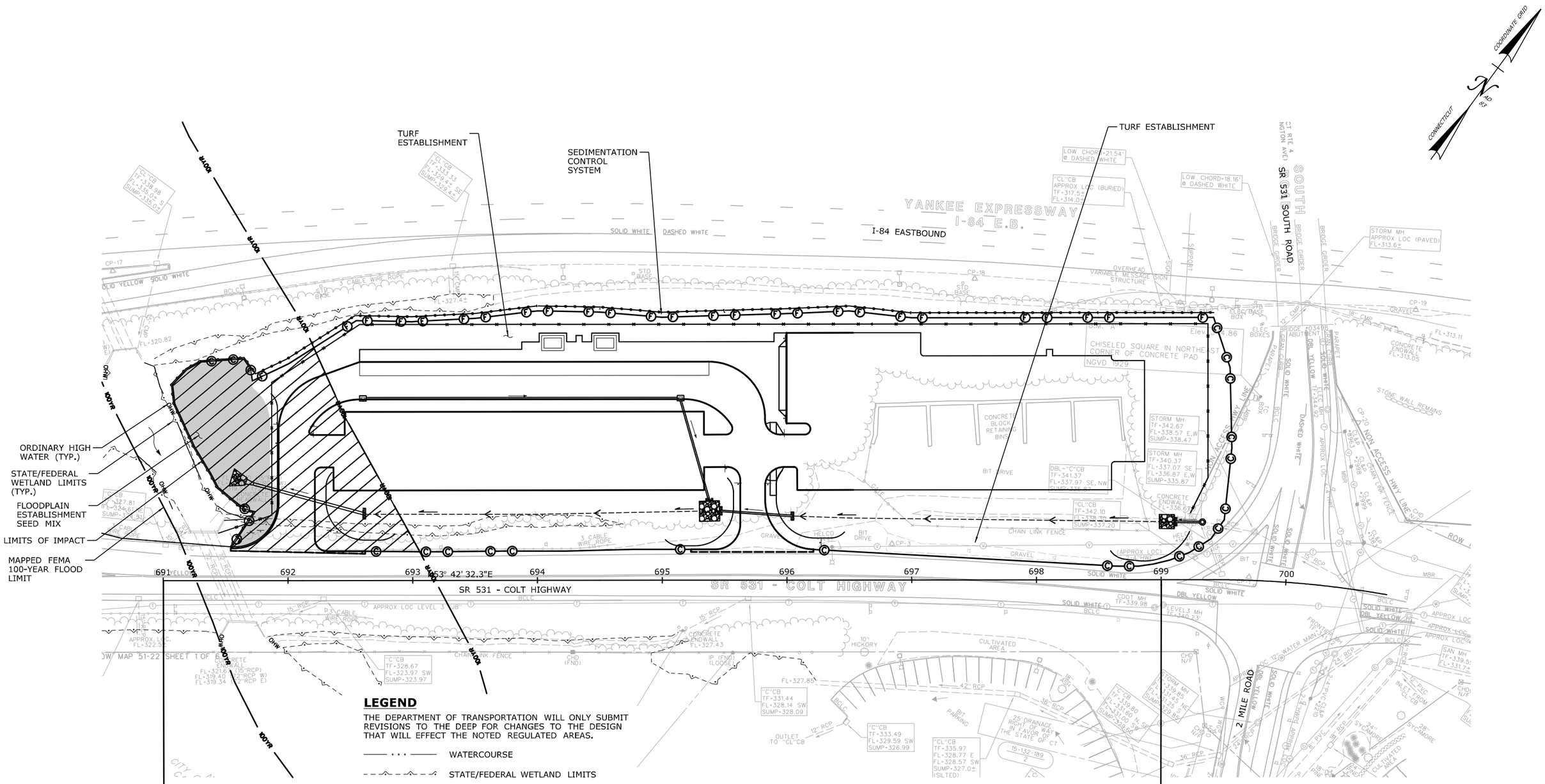
HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **WETLAND/WATERCOURSE IMPACT PLAN**

PROJECT NO. **171-412**
DRAWING NO. **PMT-003**
SHEET NO. **05.03**



LEGEND

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- WATERCOURSE
- STATE/FEDERAL WETLAND LIMITS
- 100-YR — MAPPED FEMA 100-YR FLOOD LIMIT
- OHW — ORDINARY HIGH WATER LEVEL
- SEDIMENTATION CONTROL SYSTEM (SCS)
- PERMANENT FLOODPLAIN IMPACT
- FLOODPLAIN ESTABLISHMENT SEED MIX

NOTE: INVASIVE SPECIES CONTROL WITHIN PROJECT LIMITS

BEGIN STATE PROJECT 171-412
℄ STA. 691+00
N: 823410.59
E: 988673.19

CUT/FILL VOLUMES BELOW 100-YEAR FLOOD ELEVATION		
PERMANENT		
	CUT (CY)	FILL (CY)
	640	470
TOTAL SITE	**640**	**470**

END STATE PROJECT 171-412
℄ STA. 699+00
N: 823884.10
E: 989318.01

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA-MSH-ENV-0171-0412-PMT-004.dgn

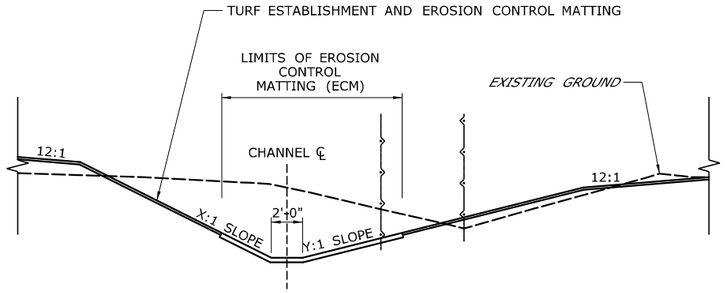
HNTB Corporation
Engineers Architects Planners
55 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-4777
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**

DRAWING TITLE: **100-YEAR FLOODPLAIN IMPACT PLAN**

PROJECT NO. **171-412**
DRAWING NO. **PMT-004**
SHEET NO. **05.04**



SWALE LIMITS	ECM TYPE	ECM WIDTH	X	Y
STA 692+62 - 694+00	E	10'	2	4
STA 694+00 - 695+30	E	10'	2	4
STA 696+06 - 698+99	E	6'	2.5	2.5

GRASS-LINED SWALE

NOT TO SCALE

RIPRAP APRON

LOCATION	STATION	OFFSET	APRON TYPE	L_a	W_1	W_2	RIPRAP TYPE
COMMUTER LOT	691+59.94	81.33' LT	Type A Riprap Apron	12.0	6.0	14.4	MODIFIED
COMMUTER LOT	695+37.96	55.39' LT	Type C Riprap Apron	16.0	16.0	16.0	MODIFIED
COMMUTER LOT	699+04.61	46.59' LT	Type C Riprap Apron	12.0	11.2	11.2	MODIFIED

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JUNE 17, 2020

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
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Plotted Date: 6/19/2020

DESIGNER/DRAFTER: S. ZARATE
CHECKED BY: R. FRANCIAMORE
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA_MSH_ENV_0171_0412_PMT-005.dgn

HNTB Corporation
Engineers Architects Planners
56 Capital Boulevard, 4th Floor
Rocky Hill CT 06067
Tel (860) 257-7377
Fax (860) 257-7394

PROJECT TITLE:
CTfastrak
COMMUTER PARKING LOT

TOWN: **FARMINGTON**
DRAWING TITLE: **MISCELLANEOUS DETAILS**

PROJECT NO. **171-412**
DRAWING NO. **PMT-005**
SHEET NO. **05.05**

CTDOT PROJECT 171-412
CTFASTRAK COMMUTER PARKING LOT
COLT HIGHWAY
FARMINGTON, CT

ATTACHMENT 32

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

m e m o r a n d u m

FLOOD MANAGEMENT GENERAL CERTIFICATION
Project No.: 171-412
Description: CT Fastrak Commuter Parking Lot

Town: Farmington
Date: July 27, 2020

REVISED
August 14, 2020

to: Mr. Michael E. Hogan
Trans. Principal Engineer
Hydraulics and Drainage
Bureau of Engineering and Construction

from: Susan M. Libatique
Trans. Principal Engineer
Bureau of Engineering and Construction

Digitally signed by Nilesh Patel
DN: C=US, E=NileshJpatel@ct.gov, O=Connecticut Department of Transportation, OU=Division of Highway Design, CN=Nilesh Patel
Date: 2020.07.28 09:27:03-04'00'

Please review this request for Flood Management General Certification and indicate your concurrence below.

Certification (to be completed by designer)

I have read the Flood Management General Certification and the descriptions for the approved DOT minor activities. This project qualifies for the Flood Management General Certification under:

(X) Minor Safety Improvements and Streetscape Projects
( ) Roadway Repaving, Maintenance & Underground Utilities
(X) Minor Stormwater Drainage Improvements
( ) Removal of Sediment or Debris from a Floodplain
( ) Wetland Restoration Creation or Enhancement
( ) Scour Repairs at Structures; (*Must acquire DEEP Fisheries Concurrence to be eligible*)
( ) Guide Rail Installation
( ) Deck and Superstructure Replacements
( ) Minor Bridge Repairs and Access
( ) Fisheries Enhancements
( ) Surveying and Testing
( ) Bicycle / Pedestrian, Multi Use Trails and Enhancement Projects

The following required documentation is attached in support of this certification:

- Project description
- Location plan
- Description of Floodplain involvement and how project qualifies for general certification
- 8-1/2" by 11" excerpt copy of the FEMA Flood Insurance Rate Map (FIRM) and Floodway Boundary Map (if applicable)
- Design plans, (dated 6/17/2020) with FEMA floodplain and floodway boundaries plotted, cross sections and profiles, as necessary, that clearly depict the floodplain involvement
- FEMA 100-year flood elevation plotted on elevation view (for structures)

Print Name Rudy Franciamore, PE	Title Project Manager
Signature Rudy Franciamore Digitally signed by Rudy Franciamore DN: C=US, E=rifranciamore@hntb.com, CN=Rudy Franciamore Date: 2020.07.27 17:06:25-04'00'	Date 7/27/2020

Concurrence (to be completed by Hydraulics and Drainage)

Based on the documentation submitted, I hereby concur that the project qualifies for Flood Management General Certification.

If there are any changes to the proposed activities within the floodplain or floodway, the project must be re-submitted for review and approval.

Signature Michael E Hogan Digitally signed by Michael E. Hogan Date: 2020.08.21 10:58:22-04'00'	Date

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

Index

1. Contractor Work Force Utilization / Specific Equal Employment Opportunity

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)

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

7. Executive Orders (State of CT)

8. Non Discrimination Requirement (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised)

9. Whistleblower Provision

10. Connecticut Freedom of Information Act

    a. Disclosure of Records
    b. Confidential Information

11. Service of Process

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

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

14. Forum and Choice of Law

15. Summary of State Ethics Laws

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

17. Campaign Contribution Restriction

18. Tangible Personal Property

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

20. Consulting Agreement Affidavit

Index of Exhibits

EXHIBIT A – Contractor Work Force Utilization / Equal Employment Opportunity (page 12)
EXHIBIT B – Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 15)
EXHIBIT C - Campaign Contribution Restriction (page 23)
EXHIBIT D - State Wage Rates and Other Related Information (page 25)

1. Contractor Work Force Utilization / Equal Employment Opportunity

(a) The Contractor shall comply with the Contractor Work Force Utilization / Equal Employment Opportunity requirements attached at Exhibit B and hereby made part of this Contract, whenever a contractor or subcontractor at any tier performs construction work in excess of $10,000. These goals shall be included in each contract and subcontract. Goal achievement is calculated for each trade using the hours worked under each trade.

(b) Companies with contracts, agreements or purchase orders valued at $10,000 or more will develop and implement an Affirmative Action Plan utilizing the ConnDOT Affirmative Action Plan Guideline. This Plan shall be designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex or national origin, and to promote the full realization of equal employment opportunity through a positive continuation program. Plans shall be updated as required by ConnDOT.

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 817), 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 3l-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

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 the contract as if they had been fully set forth in it. The contract may also be subject to Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services and to Executive Order No. 49 of Governor Dannel P. Malloy, promulgated May 22, 2015, mandating disclosure of certain gifts to public employees and contributions to certain candidates for office. If Executive Order No. 14 and/or Executive Order No. 49 are applicable, they are deemed to be incorporated into and are made a part of the contract as if they had been fully set forth in it. At the Contractor's request, the Department shall provide a copy of these orders to the Contractor.

7. Non Discrimination Requirement (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised): References to "minority business enterprises" in this Section are not applicable to Federal-aid projects/contracts. Federal-aid projects/contracts are instead subject to the Federal Disadvantaged Business Enterprise Program.

(a) For purposes of this Section, the following terms are defined as follows:

(1) "Commission" means the Commission on Human Rights and Opportunities;
(2) "Contract" and "contract" include any extension or modification of the Contract or contract;
(3) "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
(4) "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.
(5) "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
(6) "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;
(7) "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;

(8) "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;

(9) "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

(10) "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 of Connecticut, including, but not limited to municipalities, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state of the United States, including but not limited to, the District of Columbia, Puerto Rico, U.S. territories and possessions, and federally recognized Indian tribal governments, as defined in Connecticut General Statutes § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in subdivision (1), (2), (3), or (4) of this subsection.

(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 insure 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.

Please be aware the Nondiscrimination Certifications can be found at the Office of Policy and Management website:

https://portal.ct.gov/OPM/Fin-PSA/Forms/Nondiscrimination-Certification

8. Whistleblower Provision

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

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

9. Connecticut Freedom of Information Act

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

(b) Confidential Information. The State will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the State receives from the Contractor. However, all materials associated with the Contract are subject to the terms of the FOIA and all corresponding rules, regulations and interpretations. In making such a request, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract conflicts or is in any way inconsistent with this section, this section controls and

shall apply and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking the documentation as "CONFIDENTIAL," DOT will first review the Contractor's claim for consistency with the FOIA (that is, review that the documentation is actually a trade secret or commercial or financial information and not required by statute), and if determined to be consistent, will endeavor to keep such information confidential to the extent permitted by law. See, *e.g.*, Conn. Gen. Stat. §1-210(b)(5)(A-B). The State, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. Should the State withhold such documentation from a Freedom of Information requester and a complaint be brought to the Freedom of Information Commission, the Contractor shall have the burden of cooperating with DOT in defense of that action and in terms of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall the State have any liability for the disclosure of any documents or information in its possession which the State believes are required to be disclosed pursuant to the FOIA or other law.

10. Service of Process

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

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

This Contract is subject to the provisions of Section 3-ll2a of the General Statutes of the State of Connecticut, as revised.

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

The Contractor shall comply, if applicable, with the Health Insurance Portability and Accountability Act of 1996 and, pursuant thereto, the provisions attached at Exhibit C, 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, the summary of State ethics laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes is incorporated by reference into and made a part of the Contract as if the summary had been fully set forth in the Contract.

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 Conn. Gen. Stat. §9-612(f)(1) 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 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, as set forth in "Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations," a copy of which is attached hereto and hereby made a part of this contract, attached as Exhibit D.

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 Affidavit

The Contractor shall comply with Connecticut General Statutes Section 4a-81(a) and 4a-81(b), as revised. Pursuant to Public Act 11-229, after the initial submission of the form, if there is a change in the information contained in the form, a contractor shall submit the updated form, as applicable, either (i) not later than thirty (30) days after the effective date of such change or (ii) prior to execution of any new contract, whichever is earlier.

The Affidavit/Form may be submitted in written format or electronic format through the Department of Administrative Services (DAS) website.

EXHIBIT A

CONTRACTOR WORKFORCE UTILIZATION / EQUAL EMPLOYMENT OPPORTUNITY

1. **Project Workforce Utilization Goals:**
   These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted or funded) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where the work is actually performed.

   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 utilization are expressed in percentage terms for the contractor's aggregate work-force in each trade on all construction work in the covered area, are referenced in the Appendix A below.

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 1.8%				**4.3%**
Chester	Deep River	Essex	Old Lyme	
Westbrook				

LABOR MARKET AREA GOAL ***Minority***
Female

New Haven 3.1%				**17.9%**
Bethany	Branford	Cheshire	Clinton	
East Haven	Guilford	Hamden	Killingworth	
Madison	Meriden	New Haven	North Branford	
North Haven	Orange	Wallingford	West Haven	
Woodbridge				

New London 3.1%				**7.4%**
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				**12.4%**
1.6%				
Bethlehem	Middlebury	Naugatuck	Prospect	
Southbury	Thomaston	Waterbury	Watertown	
Wolcott	Woodbury			

Rev. 4/24/2019

EXHIBIT B

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 (l)(2) of this Section of the Contract, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity, or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity

within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.

(B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return or destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.

(m) Miscellaneous Provisions.

(1) Regulatory References. A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.

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

(3) Survival. The respective rights and obligations of Business Associate shall survive the termination of this Contract.

(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.

Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations

This notice is provided under the authority of Connecticut General Statutes §9-612 (f) (2) and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined on the reverse side of this page).

CAMPAIGN CONTRIBUTION AND SOLICITATION LIMITATIONS

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 (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 (which includes town committees).

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to (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.

On and after January 1, 2011, 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 **knowingly** *solicit* contributions from the state contractor's or prospective state contractor's employees or from a *subcontractor* or *principals of the subcontractor* 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.

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 $2,000 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 up to $2,000 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 not more than $5,000 in fines, or both.

CONTRACT CONSEQUENCES

In the case of a state contractor, contributions made or solicited in violation of the above prohibitions may result in the contract being voided.

In the case of a prospective state contractor, contributions made or solicited in violation of the above prohibitions 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 shall 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 may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "Lobbyist/Contractor Limitations."

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 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.

"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 quasi-public 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, a loan to an individual for other than commercial purposes or any agreement or contract between the state or any state agency and the United States Department of the Navy or the United States Department of Defense.

"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 fundraising 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, serving on the committee that is hosting a fundraising event, introducing the candidate or making other public remarks at a fundraising event, being honored or otherwise recognized at a fundraising event, 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.

"Subcontractor" means any person, business entity or nonprofit organization that contracts to perform part or all of the obligations of a state contractor's state contract. Such person, business entity or nonprofit organization shall be deemed to be a subcontractor until December thirty first of the year in which the subcontract terminates. "Subcontractor" does not include (i) 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 (ii) 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.

"Principal of a subcontractor" 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 subcontractor, 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 subcontractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a subcontractor, which is not a business entity, or if a subcontractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any subcontractor who has managerial or discretionary responsibilities with respect to a subcontract with a state contractor, (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 subcontractor.

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 ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

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

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

Forklift Operator:

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

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

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

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

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

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

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

SPRINKLER FITTERS

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

TILE MARBLE AND TERRAZZO FINISHERS

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

TRUCK DRIVERS

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

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance

of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ***License required, drivers only, per Connecticut General Statutes**.

For example:

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

 Any questions regarding the proper classification should be directed to:

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

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

Minimum Rates and Classifications for
Heavy/Highway Construction

ID#: 20-17747

Connecticut Department of Labor
Wage and Workplace Standards Division

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: #171-412 Project Town: Farmington

State#: #171-412 FAP#: Farmington

Project: Construction of CT Fastrack Commuter Parking Lot (Farmington) II

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	35.72	33.16
2) Carpenters, Piledrivermen	34.53	25.64
2a) Diver Tenders	34.53	25.64
3) Divers	42.99	25.64
03a) Millwrights	34.94	26.19
4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	52.25	22.55
4a) Painters: Brush and Roller	35.62	22.55
4b) Painters: Spray Only	38.62	22.55
4c) Painters: Steel Only	37.62	22.55
4d) Painters: Blast and Spray	38.62	22.55
4e) Painters: Tanks, Tower and Swing	37.62	22.55

As of: December 1, 2020

5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	40.25	29.17+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	36.67	37.62 + a
7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	44.63	32.95
----LABORERS---- -		
8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	31.0	22.15
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	31.25	22.15
10) Group 3: Pipelayers	31.5	22.15
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	31.5	22.15
12) Group 5: Toxic waste removal (non-mechanical systems)	33.0	22.15
13) Group 6: Blasters	32.75	22.15
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	32.0	22.15
Group 8: Traffic control signalmen	18.0	22.15
Group 9: Hydraulic Drills	29.3	18.90
----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air.----		
13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	33.23	22.15 + a
13b) Brakemen, Trackmen	32.26	22.15 + a
----CLEANING, CONCRETE AND CAULKING TUNNEL----		

14) Concrete Workers, Form Movers, and Strippers	32.26	22.15 + a
15) Form Erectors	32.59	22.15 + a
----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----		
16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	32.26	22.15 + a
17) Laborers Topside, Cage Tenders, Bellman	32.15	22.15 + a
18) Miners	33.23	22.15 + a
----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----		
18a) Blaster	39.72	22.15 + a
19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	39.52	22.15 + a
20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	37.54	22.15 + a
21) Mucking Machine Operator	40.31	22.15 + a
----TRUCK DRIVERS----(*see note below)		
Two axle trucks	29.86	25.79 + a
Three axle trucks; two axle ready mix	29.97	25.79 + a
Three axle ready mix	30.03	25.79 + a
Four axle trucks, heavy duty trailer (up to 40 tons)	30.08	25.79 + a
Four axle ready-mix	30.13	25.79 + a
Heavy duty trailer (40 tons and over)	30.35	25.79 + a

Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	30.13	25.79 + a
----POWER EQUIPMENT OPERATORS----		
Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	42.45	25.30 + a
Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver ($3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	42.11	25.30 + a
Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar);Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	41.32	25.30 + a
Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	40.91	25.30 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24	40.28	25.30 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	40.28	25.30 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	39.95	25.30 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	39.59	25.30 + a
Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	39.17	25.30 + a
Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	38.71	25.30 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	36.54	25.30 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	36.54	25.30 + a
Group 12: Wellpoint Operator.	36.48	25.30 + a

Group 13: Compressor Battery Operator.	35.86	25.30 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	34.66	25.30 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	34.23	25.30 + a
Group 16: Maintenance Engineer/Oiler	33.54	25.30 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	38.11	25.30 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	35.53	25.30 + a
**NOTE: SEE BELOW		
----LINE CONSTRUCTION----(Railroad Construction and Maintenance)--- -		
20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
21) Heavy Equipment Operator	42.26	6.5% + 19.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
23) Driver Groundmen	26.5	6.5% + 9.00
23a) Truck Driver	40.96	6.5% + 17.76
----LINE CONSTRUCTION----		
24) Driver Groundmen	30.92	6.5% + 9.70
25) Groundmen	22.67	6.5% + 6.20
26) Heavy Equipment Operators	37.1	6.5% + 10.70
27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20

28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45

Project: Construction of CT Fastrack Commuter Parking Lot (Farmington) II

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional $1.25 per hour for truck drivers.*

***Note: Hazardous waste premium $3.00 per hour over classified rate*

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra $4.00 premium in addition to the hourly wage rate and benefit contributions:

1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)

2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson

Crane with 150 ft. boom (including jib) - $1.50 extra
Crane with 200 ft. boom (including jib) - $2.50 extra
Crane with 250 ft. boom (including jib) - $5.00 extra
Crane with 300 ft. boom (including jib) - $7.00 extra
Crane with 400 ft. boom (including jib) - $10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

~~Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

As of: December 1, 2020

Project: Construction of CT Fastrack Commuter Parking Lot (Farmington) II

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

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: December 1, 2020