INTERDEPARTMENTAL MESSAGE

STATE OF CONNECTICUT

To	NAME, TITLE	DATE					
10	Central Permit Processing Unit, 1 st Floor	Month Day, 2017					
	AGENCY, ADDRESS						
	Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT. 06106						
From	NAME, TITLE	TELEPHONE					
1 10111	Mark F. Carlino, Transportation Planning Director 860-594-2099						
	AGENCY, ADDRESS						
	Department of Transportation, 2800 Berlin Turnpike, Newington, CT. 06131-7546						

Subject: State Project No. 63-703

Relocation of I-91 Northbound Interchange 29 and Widening of I-91 Northbound

and Route 15 Northbound to I-84 Eastbound City of Harford and Town of East Hartford

Attached is one original copy of the request for permit authorization for the General Permit for Water Resource Construction Activities (LWRD General Permit) associated with the above referenced project.

Any questions pertaining to this application may be directed to Mr. Andrew H. Davis, Transportation Supervising Planner of my staff, at (860) 594-2157.

Attachments

Naomi C. Hodges /nch

cc: Susan M. Libatique –Sebastian Cannamela – Meredith Andrews

Andrew H. Davis – Christopher W. Samorajczyk Mark F. Carlino – Kevin F. Carifa – Andrew Piraneo

Michael E. Masayda – Michael F Kelley

District 1 Construction - Ravi V Chandran - Donald L. Ward



Connecticut Department of Energy & Environmental Protection

	CPPU USE ONLY
App #:	
Doc #:	
Check #:	

Permit Application Transmittal Form

Please complete this transmittal form in accordance with the instructions in order to ensure the proper handling of your application(s) and the associated fee(s). Print legibly or type.

Part I: Applicant Information:

- *If an applicant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, applicant's name shall be stated exactly as it is registered with the Secretary of State.
- 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.).

Applicant: Connecticut Department of Transportation		
Mailing Address: 2800 Berlin Turnpike		
City/Town: Newington	State:	Zip Code: 06131-7546
Business Phone:	ext.:	
Contact Person: Mark F. Carlino	Phone: 860-594	I-2099 ext.
E-Mail: Mark.Carlino@ct.gov		
Applicant (check one): ☐ individual ☐ *business entity ☐ federal agent *If a business entity, list type (e.g., corporation, limited partnership, etc.): ☐ Check if any co-applicants. If so, attach additional sheet(s) with the		, _ , , _
Please provide the following information to be used for billing purposes of	only, if different:	
Company/Individual Name:		
Mailing Address:		
City/Town:	State:	Zip Code:
Contact Person:	Phone:	ext.
Dart II. Draigat Information		

Part II: Project Information

Brief Description of Project: (Example: Development of a 50 slip marina on Long Island Sound)

The relocation of I-91 Northbound Interchange 29 and widening of I-91 Northbound route 15 Northbound to I-84 Eastbound. Reconstruction, repair, and stabilization of existing stormwater outfalls and drainage culverts

Location (City/Town): Hartford & East Hartford, CT

Other Project Related Permits (not included with this form):

Permit Description	Issuing Authority	Submittal Date	Issuance Date	Denial Date	Permit #
Section 404 PCN	ACOE	DATE			
PGP Addendum Stormwater GP	DEEP DEEP	DATE TBD			

Part III: Individual Permit Application and Fee Information

New, Mod. or Renew	Individual Permit Applications	Initial Fees	No. of Permits Applied For	Total Initial Fees	Original + Required Copies		
	AIR EMISSIONS						
	New Source Review ☐ Revision ☐ minor mod	\$940.00			1 + 0		
	Title V Operating Permits ☐ Revision ☐ minor mod ☐ non-minor mod	none			1 + 0		
	Title IV	none			1+0		
	Clean Air Interstate Rule (CAIR)	none			1 + 0		
	WATER DISCHARGES						
	To Groundwater	\$1300.00			1+1		
	To Sanitary Sewer (POTW)	\$1300.00			1+1		
	To Surface Water (NPDES)	\$1300.00			1+1		
	INLAND WATER RESOURCES-						
	Dam Safety	none			1 + 2		
	Flood Management Certification	none			1+1		
	Inland Wetlands and Watercourses	none					
	Inland 401 Water Quality Certification	none			1+5		
	FERC- Hydropower Projects- 401 Water Quality Certification	none			1 +1		
	Water Diversion	*			1 + 5		
	OFFICE OF LONG ISLAND SOUND PROGRAMS						
	Certificate of Permission	\$375.00			1 + 2		
	Coastal 401 Water Quality Certification	none			1 + 2		
	Structures and Dredging/and Fill/Tidal Wetlands	\$660.00			1 + 2		
	WASTE MANAGEMENT						
	Aerial Pesticide Application	*			1 + 2		
	Aquatic Pesticide Application	\$200.00			1+0		
	CGS Section 22a-454 Waste Facilities	*			1+1		
	Disruption of a Solid Waste Disposal Area	\$0			1+1		
	Hazardous Waste Treatment, Storage and Disposal Facilities	*			1+1		
	Marine Terminal License	\$100.00			1+0		
	Stewardship	\$4000.00			1+1		
	Solid Waste Facilities	*			1+1		
	Waste Transportation	*			1+0		
		Subtotal =					
	GENERAL PERMITS and AUTHORIZATIONS Subtot	als Page 3 &4 ➡					
		otals Page 5	1	0			
	1 -	otals Page 6					
	Т	OTAL ➡	1	100%			
	Indicate whether municipal discount or state waiver applies. Less Applicable Discount						
	,	AMOUNT REMI	TTED ➡				
Check	# Check or money order sho "Department of Energy an						

[★] See fee schedule on individual application.

Part IV: General Permit Registrations and Requests for Other Authorizations Application and Fee Information

✓	General Permits and Other Authorizations	Initial Fees	No. of Permits Applied For	Total Initial Fees	Original + Required Copies
	AIR EMISSIONS				
	Limit Potential to Emit from Major Stationary Sources of Air Pollution	\$2760.00			1 + 0
	Diagnostic and Therapeutic X-Ray Devices (Medical X-Ray) Registration	\$190.00/Xray device			1+0
	Radioactive Materials and Industrial Device Registration (Ionizing Radiation)	\$200.00			1 + 0
	Emergency/Temporary Authorization	**			**
	License Revocation Request	\$0			**
	Other, (please specify):				
	WATER DISCHARGES				
	Boiler Blowdown Wastewater	Expired- wa	stewater disch	arge authorized und	er MISC GP
	Categorical Industry User to a POTW Discharges > 10,000 gpd Discharges < 10,0000 gpd	\$6250.00 \$3125.00			1 + 0
П	Domestic Sewage	\$625.00			1+0
	Food Preparation Establishment Wastewater	,	No Re	egistration	
П	Food Processing Wastewater	\$500.00			1+0
П	Groundwater Remediation Wastewater to a Sanitary Sewer	\$500.00			1+0
	Groundwater Remediation Wastewater to a Surface Water Registration Only Approval of Registration by DEEP	\$625.00 \$1250.00			1 + 0
	Hydrostatic Pressure Testing Wastewater Registration Only Approval of Registration by DEEP (natural gas pipelines)	\$625.00 \$1250.00			1 + 0
	Miscellaneous Discharges of Sewer Compatible Wastewater Registration Only Approval of Registration by DEEP	\$500.00 \$1000.00			1 + 0
	Nitrogen Discharges		No Re	gistration	
	Non-Contact Cooling and Heat Pump Water (Minor)	\$625.00			1 + 0
	Photographic Processing Wastewater (Minor)	Expired- wa	stewater disch	arge authorized und	er MISC GP
	Point Source Discharges from Application of Pesticides	\$200.00			1 + 0
	Printing & Publishing Wastewater (Minor) Flow < 40 gpd	\$500.00 \$100.00			1 + 0
	Stormwater Associated with Commercial Activities	\$300.00			1 + 0
	Stormwater Associated with Industrial Activities <50 employees—see general permit for additional requirements	\$500.00 \$1000.00			1 + 0
	>50 employees-see general permit for additional requirements Stormwater & Dewatering Wastewaters-Construction Activities	\$1000.00 ★			1 + 0
	Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)	\$250.00			1 + 0

[★] See fee schedule on registration/application.

^{★★} Contact the specific permit program for this information. (Contact numbers are provided in the instructions)

Part IV: General Permit Registrations and Requests for Other Authorizations (continued)

WATER DISCHARGES (continued)			
☐ Subsurface Sewage Disposal Systems Serving Existing Facilities	* *		1+0
☐ Swimming Pool Wastewater - Public Pools and Contractors	\$500.00		1 + 0
☐ Tumbling or Cleaning of Parts Wastewater (Minor)	Expired- wastewater	discharge authoriz	ed under MISC GP
Vehicle Maintenance Wastewater ☐ Registration Only ☐ Approval of Registration by DEEP	\$625.00 \$1250.00		1 + 0
☐ Water Treatment Wastewater	\$625.00		1+0
☐ Emergency/Temporary Authorization - Discharge to POTW	\$1500.00		1+0
☐ Emergency/Temporary Authorization - Discharge to Surface Water	\$1500.00		1 + 0
☐ Emergency/Temporary Authorization - Discharge to Groundwater	\$1500.00		1 + 0
Other, (please specify):			
Note: Carry subtotals over to Part III, page 2 of this form.	ubtotal =		

[★] See fee schedule on registration/application.

Contact the specific permit program for this information. (Contact numbers are provided in the instructions)

Part IV: General Permit Registrations and Requests for Other Authorizations (continued)

✓	General Permits and Other Authorizations	Initial Fees	No. of Permits Applied For	Total Initial Fee	Original + Required Copies
	AQUIFER PROTECTION PROGRAM				
	Registration for Regulated Activities	\$625.00			1 + 0
	Permit Application to Add a Regulated Activity	\$1250.00			1 + 0
	Exemption Application from Registration	\$1250.00			1 + 0
	INLAND WATER RESOURCES				
	Diversion of Remediation Groundwater		No Re	gistration	
	Diversion of Water for Consumptive Use: Reauthorization Categories	\$2500.00			1 + 0
	Diversion of Water for Consumptive Use: Authorization Required	\$2500.00			1 + 4
	Diversion of Water for Consumptive Use: Filing Only	\$1500.00			1+1
	Programmatic General Permit	*			1 +3
\boxtimes	Water Resource Construction Activities	*	1	0	1 +0
	Emergency/Temporary Authorization	**			**
	Notice of High Hazard Dam or a Significant Hazard Dam	\$0			1 +0
	Other, (please specify):				
	OFFICE OF LONG ISLAND SOUND PROGRAMS				
	4/40 Docks	\$700.00			1+1
	Beach Grading	\$100.00			1+1
	Buoys or Markers	No Registration			
	Coastal Remedial Activities Required by Order	\$700.00			1+1
	Dock Reconstruction	\$300.00			1+1
	Harbor Moorings		No Re	egistration	
	Maintenance of Catch Basins and Tide Gates		No Re	egistration	
	Marina and Mooring Field Reconfiguration	\$700.00			1+1
	Minor Seawall Repair		No Re	egistration	
	Non-harbor Moorings	\$100.00			1+1
	Osprey Platforms and Perch Poles	none			1+1
	Pump-out Facilities (no fee for Clean Vessel Act grant recipients)	\$100.00			1+1
	Programmatic General Permit	*			1+1
	Removal of Derelict Structures	\$100.00			1+1
	Residential Flood Hazard Mitigation	\$100.00			1+1
	Swim Floats	\$100.00			1+1
	Emergency/Temporary Authorization	**			**
	Other, (please specify):				
N	ote: Carry subtotals over to Part III, page 2 of this form.	ototal 🖶	1	0	

See fee schedule on registration/application.

Contact the specific permit program for this information.

(Contact numbers are provided in the instructions)

Part IV: General Permit Registrations and Requests for Other Authorizations (continued)

✓	General Permits and Other Authorizations	Initial Fees	No. of Permits Applied For	Total Initial Fee	Original + Required Copies
	WASTE MANAGEMENT				
	Addition of Grass Clippings at Registered Leaf Composting Facilities	\$500.00			1 + 0
	Beneficial Use Determination	*			1 + 0
	Certain Recycling Facilities:				
	Drop-site Recycling Facility	\$200.00			1 + 0
	Limited Processing Recycling Facility	\$500.00			1 + 0
	Recyclables Transfer Facility	\$500.00			1 + 0
	Single Item Recycling Facility	\$500.00			1 + 0
	Collection and Storage of Post Consumer Paint	\$0			1 + 0
	Contaminated Soil and/or Staging Management (Staging/Transfer) New Registrations New Approval of Registrations Renewal of Registrations Renewal of Approval of Registrations	\$250.00 \$1500.00 \$250.00 \$750.00			1 + 0 1 + 0 1 + 0 1 + 0
	Connecticut Solid Waste Demonstration Project	\$1000.00			1 + 0
	Disassembling Used Electronics	\$2000.00			1 + 0
	Leaf Composting Facility	none			1+1
	Municipal Transfer Station	\$800.00			1+1
	One Day Collection of Certain Wastes and Household Hazardous Waste	\$1000.00			1 + 0
	Sheet leaf Composting Notification	\$0			**
	Special Waste Authorization Landfill or RRF Disposal Asbestos Disposal homeowner	\$660.00 \$300.00 \$0			1+0
	Storage and Processing of Asphalt Roofing Shingle Waste	\$2500.00			1 + 0
	Storage and Processing of Scrap Tires for Beneficial Use	\$1250.00			1 + 0
	Emergency/Temporary Authorization	**			**
	Other, (please specify):				
	REMEDIATION				
	In Situ Groundwater Remediation: Enhance Aerobic Biodegradation	*			1 + 2
	In Situ Groundwater Remediation: Chemical Oxidation	\$500.00			1 + 0
	Emergency/Temporary Authorization	*			**
No	ote: Carry subtotals over to Part III, page 2 of this form.	ototal =			

[★]See fee schedule on registration/application.

(Contact numbers are provided in the instructions)

Affirmative Action, Equal Employment Opportunity and Americans with Disabilities

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act (ADA). Please contact us at (860) 418-5910 or deep.accommodations@ct.gov if you: have a disability and need a communication aid or service; have limited proficiency in English and may need information in another language; or if you wish to file an ADA or Title VI discrimination complaint.

^{**}Contact the specific permit program for this information.



DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546

Month XX, 2017

TO: Attn: Thomas A. Harley

Planning & Zoning Commission Chair

505 Silas Deane Highway Wethersfield, CT 06109

FROM: Mark F. Carlino

Transportation Planning Director Bureau of Policy and Planning

SUBJECT: Notification of Submittal of Application to the Department of Energy and

Environmental Protection (DEEP) for General Permit for Water Resource

Construction Activities

PROJECT: State Project No. 63-703

Relocation of I-91 Northbound Interchange 29 and Widening of I-91 Northbound

and Route 15 Northbound to I-84 Eastbound City of Harford and Town of East Hartford

Enclosed is a copy of our Request for Authorization under the State of Connecticut Department of Energy and Environmental Protection's General Permit for Water Resource Construction Activities. If your agency wishes to comment on the enclosed application, comments must be submitted to the State Department of Energy and Environmental Protection.

Comments should be directed to:

Land and Water Resources Division Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127



DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546

Month XX, 2017

TO: Attn: Daniel O'Dea

Inland Wetland Commission Chair

740 Main Street

East Hartford, CT 06108

FROM: Mark F. Carlino

Transportation Planning Director Bureau of Policy and Planning

SUBJECT: Notification of Submittal of Application to the Department of Energy and

Environmental Protection (DEEP) for General Permit for Water Resource

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Comments should be directed to:

Land and Water Resources Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127



DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546

Month XX, 2017

TO: Attn: Peter Bonzani

Planning and Zoning Commission Chair

Development Department 740 Main Street, 2nd Floor East Hartford, CT 06108

FROM: Mark F. Carlino

Transportation Planning Director Bureau of Policy and Planning

SUBJECT: Notification of Submittal of Application to the Department of Energy and

Environmental Protection (DEEP) for General Permit for Water Resource

Construction Activities

PROJECT: State Project No. 63-703

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Comments should be directed to:

Land and Water Resources Division Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127



DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546

Month XX, 2017

TO: Attn: Sara Bronin

Planning & Zoning Commission and Inland Wetland Commission Chair 250 Constitution Plaza, 4th Floor

Hartford, CT 06103

FROM: Mark F. Carlino

Transportation Planning Director Bureau of Policy and Planning

SUBJECT: Notification of Submittal of Application to the Department of Energy and

Environmental Protection (DEEP) for General Permit for Water Resource

Construction Activities

PROJECT: State Project No. 63-703

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Comments should be directed to:

Land and Water Resources Division Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127



DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546

Month XX, 2017

TO: Attn: Rick Doran

Conservation Commission Chair

505 Silas Deane Highway Wethersfield, CT 06109

FROM: Mark F. Carlino

> Transportation Planning Director Bureau of Policy and Planning

SUBJECT:

Notification of Submittal of Application to the Department of Energy and Environmental Protection (DEEP) for General Permit for Water Resource

Construction Activities

PROJECT: State Project No. 63-703

Relocation of I-91 Northbound Interchange 29 and Widening of I-91 Northbound

and Route 15 Northbound to I-84 Eastbound City of Harford and Town of East Hartford

Enclosed is a copy of our Request for Authorization under the State of Connecticut Department of Energy and Environmental Protection's General Permit for Water Resource Construction Activities. If your agency wishes to comment on the enclosed application, comments must be submitted to the State Department of Energy and Environmental Protection.

Comments should be directed to:

Land and Water Resources Division Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127



DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546

Month XX, 2017

TO: Attn: Louis Sanzaro

Inland Wetland Commission Chair

505 Silas Deane Highway Wethersfield, CT 06109

FROM: Mark F. Carlino

> Transportation Planning Director Bureau of Policy and Planning

SUBJECT:

Notification of Submittal of Application to the Department of Energy and Environmental Protection (DEEP) for General Permit for Water Resource

Construction Activities

PROJECT: State Project No. 63-703

Relocation of I-91 Northbound Interchange 29 and Widening of I-91 Northbound

and Route 15 Northbound to I-84 Eastbound City of Harford and Town of East Hartford

Enclosed is a copy of our Request for Authorization under the State of Connecticut Department of Energy and Environmental Protection's General Permit for Water Resource Construction Activities. If your agency wishes to comment on the enclosed application, comments must be submitted to the State Department of Energy and Environmental Protection.

Comments should be directed to:

Land and Water Resources Division Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127

Naomi C. Hodges/nch

bcc:

Susan M. Libatique –Sebastian Cannamela – Meredith Andrews Andrew H. Davis – Christopher W. Samorajczyk Mark F. Carlino – Kevin F. Carifa – Andrew Piraneo



FORM COMPLETED: YES NO

GIS CODE #:	 	 	 	
For DEEP Use Only				

79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

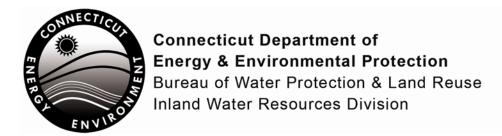
Please complete and mail this form in accordance with the instructions on pages 2 and 3 to:

DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106

Incomplete or incomprehensible forms will be mailed back to the municipal inland wetlands agency.

	PART I: Must Be Completed By The Inland Wetlands Agency
1.	DATE ACTION WAS TAKEN: year: Click Here for Year month: Click Here for Month
2.	CHOOSE ACTION TAKEN (see instructions for codes): Click Here to Choose a Code
3.	WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4.	NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
	(type name) (signature)
	PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant
5.	TOWN IN WHICH THE ACTION IS OCCURRING (type name): Hartford
	does this project cross municipal boundaries (check one)? yes ⊠ no □
	if yes, list the other town(s) in which the action is occurring (type name(s)): East Hartford,
6.	LOCATION (click on hyperlinks for information): USGS quad map name: Hartford South & North or quad number: 52;37
	subregional drainage basin number: 4000; 4005; 4500
7.	NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Connecticut Department of Transportation
8.	NAME & ADDRESS / LOCATION OF PROJECT SITE (type information): Charter Oak Bridge over the Connecticut River
	briefly describe the action/project/activity (check and type information): temporary permanent description: Relocation of I-91 NB Interchange 29 and widening of Route 15 NB to I-84
9.	ACTIVITY PURPOSE CODE (see instructions for codes): <u>N</u>
10.	ACTIVITY TYPE CODE(S) (see instructions for codes): 9, 10, 14, Click for Code
11.	WETLAND / WATERCOURSE AREA ALTERED (type acres or linear feet as indicated):
	wetlands: <u>0.086</u> acres open water body: <u>0.05</u> acres stream: <u>82.00</u> linear feet
12.	UPLAND AREA ALTERED (type acres as indicated): 0.0 acres
13.	AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type acres as indicated): 0.00 acres
DA	TE RECEIVED: PART III: To Be Completed By The DEEP DATE RETURNED TO DEEP:

FORM CORRECTED / COMPLETED: YES NO



Request for Authorization Form for the General Permit for Water Resource Construction Activities

Please complete this form in accordance with the <u>general permit</u> (DEEP-IWRD-GP-013) to ensure the proper handling of your request. Print or type unless otherwise noted. You must submit the fee along with this completed form.

CPPU USE ONLY
App #:
Doc #:
Check #:
Program: GP IWRD Construction Activities

Part I: Request and Fee Type

Check the appropriate box identifying the request type.

□ \$5000 [#1757] for each Request for Authorization for Section 3(a)(1), (a)(2), (a)(3), (a)(4), (a)(5), (a)(6), or (a)(7) activities under the subject general permit, unless you qualify as one of the following: □ \$2500 [#1758] for each Request for Authorization for Section 3(a)(8) or 3(a)(6), or (a)(7) activities under the subject general per unless you qualify as one of the following: □ \$1250 for any municipality				
\$2500 for electronic filing*	☐ \$1250 for electronic filing*			
*In order to file electronically, ALL supporting documents under Part VI of this application must be submitted in an electronic format on a CD, along with this original completed application in hard copy.				
The request will not be processed without the fee. The fee shall be non-refundable and shall be paid by check or money order to the Department of Energy and Environmental Protection.				
Town where site is located: <u>Hartford and East Hartford</u> Brief Description of Project: The relocation of I-91 Northbound Interchange 29 and widening of I-91 Northbound route 15 Northbound to I-84 Eastbound. Reconstruction, repair, and stabilization of existing stormwater outfalls and drainage culverts.				

Part II: Requestor Information

- If a requester is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, requester'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). (www.concord-sots.ct.gov/CONCORD/index.jsp)
- If a requester is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).
- If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the Request to Change Company/Individual Information to the address indicated on the form. If there is a change in name of the entity holding a DEEP license or a change in ownership, contact the Office of Planning and Program Development (OPPD) at 860-424-3003. For any other changes you must contact the specific program from which you hold a current DEEP license.

1.	Requester Name: Connecticut Department of Transportation	on
	Mailing Address: 2800 Berlin Turnpike	
	City/Town: Newington	State: CT Zip Code: 06131-7546
	Business Phone:	ext.:
	Contact Person: Mark F. Carlino	Phone: 860-594-2099 ext.
	E-mail: mark.carlino@ct.gov	
	*By providing this e-mail address you are agreeing to receive department, at this electronic address, concerning the subject security settings to be sure you can receive e-mails from "ct. department if your e-mail address changes."	ct request. Please remember to check your
a)	Requester Type (check one):	
	☐ individual ☐ federal agency ☐ state ag	gency municipality tribal
	☐ *business entity (*If a business entity complete i through	iii):
	i) check type: corporation limited liability comp limited liability partnership statutor	· — · · · ·
	ii) provide Secretary of the State business ID #:	This information can be accessed at DNCORD/index.jsp)
	iii)	e Secretary of State's office.
	Check here if any co-registrants. If so, attach additional sheet above.	(s) with the required information as requested
b)	Requester's interest in property at which the proposed activit	y is to be located:
		☐ easement holder ☐ operator
	other (specify):	

Part II: Requestor Information (continued)

2.	Billing contact, if different than the requester.				
	Name:				
	Mailing Address:				
	City/Town:	State:	Zip Code:		
	Business Phone:	ext.			
	Contact Person:	Title:			
	Email:				
3.	Primary contact for departmental correspondence and i	nquiries, if diffe	erent than the requester.		
	Name:				
	Mailing Address:				
	City/Town:	State:	Zip Code:		
	Business Phone:	ext.			
	Contact Person:	Title:			
	Email:				
	*By providing this e-mail address you are agreeing to receiv department, at this electronic address, concerning the subje- security settings to be sure you can receive e-mails from "ct department if your e-mail address changes.	ct request. Plea	se remember to check your		
4.	Attorney or other representative, if applicable:				
	Firm Name:				
	Mailing Address:				
	City/Town:	State:	Zip Code:		
	Business Phone:	ext.			
	Attorney:				
	Email:				
5.	Site Owner, if different than the requester.				
	Name:				
	Mailing Address:				
	City/Town:	State:	Zip Code:		
	Business Phone:	ext.			
	Contact Person:	Title:			
	Email:				

Part II: Requestor Information (continued)

6.	Engineer(s) or other consultant(s) employed or retained to assist in preparing the request or in designing or constructing the activity.				
	Name: CME Associates, Inc.				
	Mailing Address: 101 East River Drive 1 ST Floor				
	City/Town: East Hartford	State: CT	Zip Code:	06108	
	Business Phone: 860-290-4100	ext. 1148			
	Contact Person: Naomi Hodges	Title: Environ r	nental Scie	ntist	
	Email: nhodges@cmeengineering.com				
	Service Provided: Design and Environmental Services				
	☐ Check here if additional sheets are necessary, and label	and attach then	n to this shee	et.	

Part III: Site Information

1.	SITE NAME AND LOCATION
	Name of Site: Charter Oak Bridge Project
	Street Address or Location Description: Northern terminus: Route 15 at I-84 E; Southern terminus: I-91 NB interchange 27, near Hartford/Wethersfield line
	City/Town: Hartford & East Hartford State: CT Zip Code:
	Tax Assessor's Reference: Map Block Lot
	Latitude and longitude of the exact location of the proposed activity in degrees, minutes, and seconds or in decimal degrees: Latitude: 41.7503 Longitude: -72.6571
	Method of determination (check one):
	☐ GPS ☐ USGS Map ☐ Other (please specify): CTECO
	If a USGS Map was used, provide the quadrangle name:
2.	INDIAN LANDS: Is or will the facility be located on federally recognized Indian lands? ☐ Yes ☒ No
3.	COASTAL BOUNDARY: Is the activity which is the subject of this registration located within the coastal boundary as delineated on DEEP approved coastal boundary maps? ☐ Yes ☐ No
	If yes, and this registration is for a new authorization, or a modification of an existing authorization where the physical footprint of the subject activity is modified, you must submit a <u>Coastal Consistency Review</u> <u>Form</u> (DEEP-APP-004) with your registration as Attachment C.
	Information on the coastal boundary is available at www.cteco.uconn.edu/map_catalog.asp (Salact the town and then colors aparts) boundary if the town is not within the coastal boundary in
	(Select the town and then select coastal boundary. If the town is not within the coastal boundary you will not be able to select the coastal boundary map.) or the local town hall or on the "Coastal
	Boundary Map" available at DEEP Maps and Publications (860-424-3555).

Part III: Site Information (continued)

4.	ENDANGERED OR THREATENED SPECIES: According to the most current "State and Federal Listed Species and Natural Communities Map", is the project site located within an area identified as a habitat for endangered, threatened or special concern species? ☐ Yes ☐ No Date of Map: June 2017
	If yes, complete and submit a <u>Request for NDDB State Listed Species Review Form</u> (DEEP-APP-007) to the address specified on the form. Please note NDDB review generally takes 4 to 6 weeks and may require additional documentation from the registrant.
	A copy of the completed <i>Request for NDDB State Listed Species Review Form</i> and the CT NDDB response <i>must</i> be submitted with this completed registration as Attachment D.
	For more information visit the DEEP website at www.ct.gov/deep/nddbrequest or call the NDDB at 860-424-3011.
5.	AQUIFER PROTECTION AREAS: Is the site located within a mapped Level A or Level B Aquifer Protection Area, as defined in CGS section 22a-354a through 22a-354bb?
	☐ Yes ☐ No If yes , check one: ☐ Level A or ☐ Level B
	If Level A , are any of the <u>regulated activities</u> , as defined in RCSA section 22a-354i-1(34), conducted on this site? Yes No
	If yes , and your business is not already registered with the Aquifer Protection Program, contact the <u>local</u> aquifer protection agent or DEEP to take appropriate actions.
	For more information on the Aquifer Protection Area Program visit the DEEP website at www.ct.gov/deep/aquiferprotection or contact the program at 860-424-3020.
6.	CONSERVATION OR PRESERVATION RESTRICTION: Is the property subject to a conservation or preservation restriction? ☐ Yes ☐ No
	If Yes, proof of written notice of this registration to the holder of such restriction or a letter from the holder of such restriction verifying that this registration is in compliance with the terms of the restriction, must be submitted as Attachment E.
<u> </u>	
Part	t IV: Construction Activity Details
1.	Proposed Date of Initiation of Activity: 2018
2.	Anticipated Date of Completion: 2022
3.	Name of the wetland or watercourse involved with or adjacent to the subject activity:
	Wetlands associated with the Connecticut and Hockanum Rivers and various drainageways.
4.	Is the subject activity within a watercourse or floodplain?
5.	Will the subject activity be within a FEMA floodway? ☐ Yes ☐ No
6.	If the project requires a Flood Management Certification for the subject activity, provide the Flood
	Management Certification Number: FM General-FM201200688C

Part IV: Construction Activity Details (continued)

7.	Disturbance to wetlands, waterco	urse	es and flood plains:	
	Wetlands (acres): excavation: temp= 3.198	fill:	permanent=0.086	total disturbance: 3.284
	Floodplain (cubic yards):			
	excavation: -232	fill:	232	net: 0
	Watercourse (linear feet): tempo	rary	and permanent = 290	
8.	Describe the present and intende and the reason for conducting or			nich the subject activity will be conducted
	Please see attached.			
9.	Describe all natural and manmad	e fe	atures impacted by the si	ubject activity, including wetlands,
	watercourses, fish and wildlife ha impact of the subject activity on s			res and appurtenances thereto, and the
	Please see attached.			
\boxtimes	Check here if additional sheets ar	e ne	ecessary, and label and a	ttach them to this sheet.

Part IV #8 - Describe the present and intended use(s) of the property at which these subject activity will be conducted and the reason for conducting or maintaining the activity.

Executive Summary:

Existing Conditions:

This project begins on I-91 NB in the vicinity of Wethersfield Cove at approximately the Hartford/Wethersfield town line, extending northerly along I-91 NB to just past the Charter Oak Bridge overpass. It also extends along State Route 5/15 NB from Interchange 87 at I-91 Interchange No. 27 in Hartford to approximately 700 feet north of Interchange 91 - Silver Lane just before the I-84 EB merge.

Interchange 29 is a partial interchange that provides a connection between I-91 NB and Route 5/15 NB, as well as between Route 5/15 SB and I-91 SB. Immediately northeast of the interchange, Route 5/15 crosses the Connecticut River as the Charter Oak Bridge. Interchange 29 on I-91NB is a single-lane off-ramp that has a steep vertical grade and near capacity traffic volumes at 1,790 vehicles in the evening peak hour with significant percentage of heavy vehicles at approximately 11%.

In addition, once ramp traffic reaches the top of the vertical grade, traffic must weave across traffic on Route 5/15 NB destined for an exit to Route 2/Main Street on the east end of the bridge in East Hartford. Combined, these factors cause a significant delay in traffic on I-91 NB, higher than expected crash rates and the queuing of traffic onto the mainline of the highway.

The existing traffic queues extend onto I-91 NB mainline, taking up the right lane of the three-lane facility. The length of the queue varies, but has been observed to extend approximately 1.4 miles south to the vicinity of the Wethersfield/Hartford town line and the I-91 Bridge over Wethersfield Cove. From visual observations, it appears that these queues are not only occurring during normal peak hours of traffic (weekdays 7:00 to 9:00 AM and 4:00 to 6:00 PM), but outside those hours as well. The safety issues are compounded by drivers that routinely cut into the right-lane queue from the center lane, which impedes traffic flow in the left lane and further increases congestion on I-91 in this area.

Proposed Project:

Widen I-91 NB from Interchange 27 to Interchange 29

To relieve congestion, address significant safety concerns and provide an efficient I-91 to I-84 connection, I-91 NB will be widened to extend the four lane travel lane section from Interchange 27 to Interchange 29. This widening will occur on the easterly side of I-91 NB and will require modifications to four existing bridges. The roadways under Bridge Nos. 00813 (I-91 over Route 15), 01466 (I-91 over the SB entrance to I 91 SB and Route 15 SB), and 00480 (I-91 over Airport Road) will be lowered to maintain minimum vertical clearances.

Relocate the I-91 NB Exit Ramp at Interchange 29

To address the adverse vertical grade and limited capacity of the existing ramp, it is proposed to remove the existing ramp and provide a major diverge on I-91 NB just south of the overpass of Route 15. The diverge will consist of three lanes of I-91 NB traffic maintained to the right (existing condition) and two lanes to the left via a new bridge over Route 15. This will require realignment of Route 15 and widening of the southern approach to the Charter Oak Bridge. To avoid widening the Charter Oak

Bridge over the Connecticut River, existing pavement markings on Route 15 NB will be modified to accommodate the added lane from the new I-91 NB Interchange 29 ramp. These four travel lanes on Route 15 NB will be carried across the bridge to the existing lane drop at Interchange 90 to Route 2 and Route 5.

Widen Route 15 NB from the Charter Oak Bridge to the Silver Lane Underpass

Due to the proximity of the four lane merge and lane drop at Interchange 90, it is proposed that Route 15 will be widened to three travel lanes from Interchange 90 to the Silver Lane underpass, prior to merging with I-84 Eastbound (EB). This widening addresses congestion concerns on Route 15 and allows for a more desirable distance prior to the I-84 EB merge. The improvement will require widening two bridges on Route 15 (Route 15 over Route 5 and Route 15 over Silver Lane). A noise barrier wall is proposed along the Route 5/15 SB on-ramp from Silver Lane and the existing noise barrier walls along Route 5/15 NB will be relocated due to the roadway widening.

The proposed project also includes the repair to several drainage systems, stormwater treatment improvement through the installation of deep sump catch basins and hydrodynamic separators, and steel strengthening and beam end painting to the Charter Oak Bridge. Work on the Charter Oak Bridge roadway over the Connecticut River includes the milling, paving, joint replacement and restriping of Route 15 NB. Due to the reconfigured lane arrangement, several scuppers are proposed to be reconstructed, relocated or removed to prevent scupper grates from being within the travel lanes. This work will include a debris shield to prevent construction debris from falling into the river and resource areas, which will not extend past the bottom flange of the main beams . Scupper outlets will discharge in the same manner as they currently do. A detailed aerial map of the project area can be found as an attachment in Attachment A.

Additional permits being sought include a Flood Management General Certification through CTDOT Hydraulics & Drainage Division, CTDEEP Programmatic General Permit Addendum for 401 Water Quality Certification, CTDEEP Construction Stormwater General Permit, CT General Coastal Permit, and ACOE Section 404 Pre-Construction Notification.

Part IV #9 – Describe all natural and manmade features impacted by the subject activity, including wetland, watercourses, fish and wildlife habitat, floodplains, and structures and appurtenances thereto, and the impact of the subject activity on such feature.

Natural Features

The project is located within a highly developed urban highway corridor. Natural features include the wetlands associated with the Connecticut and Hockanum Rivers, FEMA Floodplain, and freshwater marsh. There are also created wetlands, and swales designed for stormwater conveyance.

Drainage outfalls transport roadway runoff to many of the wetlands and watercourses. These drainage ditches serve as flood flow alteration as they provide conveyance for surface water runoff to flow to the Connecticut River. Due to the high percentage of impervious surfaces of the Charter Oak Bridge and surrounding roadways, constructed drainage features are required to transport stormwater.

The excavated ditches also function as sediment / toxicant retention as fines settle out from water transported into the excavated channels. They also function as nutrient retention because nutrients are likely to reside in sediment deposited into the channels; due to clay soils below the channels and drainage outlets above the base of the channels, nutrients will be trapped within the channels. The excavated channels within the vicinity of the Charter Oak Bridge Project were dug into clay-rich soils, therefore there is a hydraulic disconnect between surface water and the underlying groundwater.

<u>Proposed Impacts:</u> Wetlands located within the project corridor are anticipated to be impacted due to the work proposed for this project. Proposed scope of work includes the construction of temporary and permanent access roads and the reconstruction and replacement of several outlets within the wetland systems located within the project area. The project also proposes temporary water handling. Water handling within Bridge No. 06654, which carries an unnamed watercourse from Wetland system I to Folly Brook Reservoir, is required due to the lowering of the Airport Roadway profile. The existing junction chamber will need to be modified and its roof lowered. Water handling is also needed for the construction patching to the roof of a culvert (Bridge No. 03244) within Wetland B. Adverse impacts to these watercourses are not anticipated.

Steel strengthening and beam end painting will also occur to the Charter Oak Bridge's superstructure. The project proposes to utilize construction mats to provide access while minimizing impacts to Wetland Systems K, L, Q, R, and W. Construction mats will be removed following the completion of construction at each site. Any wetlands impacted by the work shall be restored utilizing a wetland or floodplain seeding mix. Disturbed areas will be revegetated following construction.

Wetlands

The project proposes to perform work within several of the wetland systems occurring in the project area. These wetlands have been categorized into separate systems: Wetland Systems A-W. The location of these wetlands can be found on the attached plans located within Attachment B and on Figure 2.

Wetland System A (PMT-03 and PMT-04) is located at the southern terminus of the project. This wetland is a palustrine scrub shrub wetland dominated by common reed (*Phragmites australis*). Additional species identified include other invasive species like multi-flora rose (*Rosa multiflora*) and purple loosestrife (*Lythrum salicaria*). Much of the area just outside of the delineation limits has been disturbed due to the major Metropolitan District Commission (MDC) project. This wetland functions as sediment/toxicant retention, shoreline stabilization, and groundwater recharge. The project proposes the reconstruction of outlet 40 within this system. The existing corrugated metal pipe is 18 inches in diameter with standard end wall treatment. There is significant debris and deposition at the outlet. The existing pipe and end wall will be replaced. The area immediately at the outlet will be excavated for the placement of the Type 1 scour hole. The pipe will be replaced with an 18 inch corrugated HDPE pipe. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

Wetland System B (PMT-03) is a managed palustrine scrub shrub wetland. It is part of a culverted system which is hydrologically connected to Wetland System A. Routine clearing occurs within this area for maintenance associated with the flood control dike system. Wetland species located in this area include silky dogwood (Cornus amomum), black willow (Salix nigra), blackberry species (Rubus spp.) common reed and soft rush (Juncus effusus). Wetland System B functions as flood flow alteration and sediment/toxicant retention. Within Wetland System B, the project proposes the reconstruction of outlets 10 and 15.2. The existing outlet 10 consists of a corrugated metal pipe is a 15 inch in diameter with a standard concrete end wall. The bituminous pad at the outlet is deteriorated and a scour hole is present that is 3 feet in diameter and 2 feet deep. For outlet 10, the existing pipe and end wall will be removed and replaced. The area immediately at the outlet will be excavated for the placement of the Type 1 scour hole. The pipe will be replaced with a 15 inch corrugated HDPE pipe. This work will include access through the upland area. The existing outlet 15.2 is a concrete box culvert (Bridge No. 03244), carrying flows from Wetland System A to Wetland System B. There is evidence of scour at the outlet. For outlet 15.2, the project proposes the placement of a Type 1 scour hole modified riprap at the outlet. This outlet will be accessed from upland. The area will be excavated and scour hole riprap will be installed at the outlet. Concrete patching is to occur to the roof within the culvert of Bridge No. 03244. Information about this work below OHW is located in the watercourses section. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

Wetland System C (PMT-04) is located within a deep depression of an I-91 and Route 5/15 gore area. This is a palustrine forested wetland. An area of steep upland fill is located along most of the northeastern side. Located at the toe of the slope is an intermittent watercourse which flows into Folly Brook Reservoir. Wetland System C is dominated by green ash (*Fraxinus pennsylvanica*), silver maple (*Acer saccharinum*), Morrow's honeysuckle, Japanese knotweed (*Polygonum cuspidatum*), and silky dogwood. Other invasive species to note within the area include tree of heaven (*Ailanthus altissima*), garlic mustard (*Alliaria petiolata*), and oriental bittersweet (*Celastrus orbiculatus*). Wetland System C functions as flood flow alteration, sediment/toxicant retention, and streambank stabilization. The project proposes the reconstruction of outlet 30 located within Wetland System C. The existing outlet has moderate buildup of trash, debris and woody vegetation. The project proposes for the existing pipe and end wall to be removed and replaced. The area immediately at the outlet will be excavated for the placement of the Type A apron. The pipe will be replaced with a 15 inch corrugated HDPE pipe. This outlet will be accessed from upland. The functions of this wetland will not

be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

<u>Wetland System D</u> (PMT-05) is a scrub shrub wetland located within a completely enclosed gore area between I-91 and Route 5/15. This wetland system is concave with the lower areas centralized along the center of the median. Dominant vegetation consists of common reed, silver maple, box elder (*Acer negundo*), black elderberry (*Sambucus nigra*) Morrow's honeysuckle, and European buckthorn (*Rhamnus cathartica*). Wetland System D functions as flood flow alteration and sediment/toxicant retention. Outlets 60, 70, 75, 80, and 95 are proposed to be reconstructed.

- Outlet 60's existing pipe is 15 inches in diameter with standard enwall treatment. A scour hole
 is present at the outlet 2 feet below the invert. The slope pavement is also deteriorated. The
 project proposes the reconstruction of outlet 60. The area will be excavated and an extended
 Type C apron will be installed from the end wall to a more stable outlet.
- Outlet 70 is a concrete culvert is 15 inches in diameter with standard end wall treatment. The
 end wall is undermined and scoured. The concrete below the invert exhibits some pitting. The
 project proposes the reconstruction of outlet 70. The area will be excavated and an extended
 Type C apron will be installed from the end wall to a more stable outlet.
- Outlet 75 is an 18 inch corrugated pipe with deterioration. The project proposes the
 reconstruction of outlet 75. The pipe will be replaced with a 24 inch corrugated HDPE pipe. A
 Type 2 scour hole will be placed at the outlet.
- Outlet 80 is 15 inches in diameter with standard end wall treatment. The outlet is mostly full of sediment. There is no outlet protection. The project proposes the reconstruction of outlet 80. The area will be excavated and a Type B apron will be installed at the end wall.
- Outlet 95 is a corrugated metal pipe that is 15 inches in diameter with standard wing type end wall. There is deterioration of the pipe at the outlet. The project proposes the replacement of outlet pipe 95. The existing pipe will be removed and wingwall patched. The pipe will be replaced with a corrugated HDPE pipe. The outlet is to remain as it is stable.
- Bridge No. 03613 is a cross culvert connecting Wetland System D to Wetland System C. The
 project proposes to raise the headwall and wingwalls 5 feet to support the proposed fill slope.
 Temporary impacts to the wetland at the inlet to this culvert are anticipated for the proposed
 extension. Changes to the culvert will opening will not occur.

Access to several of these outlets will include an access road and the construction of a permanent stone wetland crossing consisting of 1 foot of modified riprap on top of geotextile fabric to facilitate the crossing of equipment with minor permanent impacts to Wetland System D. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

Wetland System I (PMT-06, PMT-07, and PMT-08) is a large palustrine emergent wetland located north of Airport Road, between I-91 and Route 5/15. This wetland was originally created as mitigation area associated with State Project No. 63-434. The southern portion of this wetland is bordered along the west edge by an entombed landfill. There will be disturbance of the landfill liner for the widening of I-91 NB. CTDOT will be obtaining a "Disruption of a Solid Waste Disposal Area" permit. The work requiring landfill disruption will not impact the wetland. Vegetation present along the southern portion of this wetland includes eastern cottonwood (*Populus deltoides*), black willow, red maple (*Acer rubrum*), oriental bittersweet, Morrow's honeysuckle, and garlic mustard. The northern portion of this wetland is dominated by common reed and broadleaf cattails (*Typha latifolia*). This area stores

water and appears to be nearly permanently inundated. Drainage outfalls introduce roadway stormwater runoff from both I-91 and Route 5/15, to this wetland. Wetland System I functions as flood flow alteration, sediment/toxicant retention, wildlife habitat, and groundwater recharge. A temporary access road placed within a portion of the Wetland System I is proposed alongside I-91 NB for the contractor to be able to construct the slope (approx. Sta. 158+00 to 161+00 on PMT-08). This section of the road will utilize timber mats and be revegetated after construction. The project proposes construction at outlets 131, 135.2, 140, 155, 160, 170, 175, 180, 185, 190, 204, 215, and Bridge No. 06654 located within Wetland System I.

- For Outlets 140, 155, 160, 170, 175, and 180 the concrete circular 15 inch pipes (Outlet 180 is 12 inches) at each location has standard end wall treatment. The pipes themselves are in good condition however, the existing paved outlet protection is deteriorated. The project proposes to replace the deteriorated paved outlet protection with a Type C apron at all of these outlets.
- Outlet 131 is a corrugated metal pipe 18 inches in diameter with standard wing type end wall. There is deterioration of the pipe at the outlet. The project proposes the replacement of outlet pipe 131 and wingwall repairs. The existing 18 inch corrugated metal pipe will be replaced with an 18 inch corrugated HDPE pipe.
- Outlet 135.2's concrete culvert is 30 inches in diameter. There is significant debris and trash at the outlet. The project proposes the reconstruction of outlet 135.2. Access to the outlet will be from upland. The area will be excavated and an extended Type C apron will be installed from the end wall to a more stable outlet.
- Outlet 185's corrugated metal pipe is 12 inches in diameter with a metal flared end. The flared
 end section is rotted away and undermined trees and debris located directly in front of the
 outlet causing the swale to realign naturally. The project proposes the reconstruction of
 outlet 185. The existing pipe and end wall will be removed. The area at the outlet will be
 excavated for the placement of the Type 1 scour hole. The pipe will be replaced with a 24 inch
 corrugated HDPE pipe.
- Traces of Outlet 190 were found during field inspection. Some standing water and trash are in the location of where outlet 190 should be. Per existing plans, outlet 190 is a corrugated metal pipe that is 40 inches in diameter. The project proposes the reconstruction of outlet 190. The existing pipe and end wall will be removed. The area at the outlet will be excavated for the placement of the Type 1 scour hole. The pipe will be replaced with a 12 inch corrugated HPDE pipe. Access to these outlets will be from the road shoulder from Route 5/15 Southbound.
- Outlet 205's corrugated metal pipe is 15 inches in diameter with a metal flared end. There is deterioration at the outlet. The flared end and pipe are rotted at the outlet. There is significant deposition along the outlet swale to the wetland. A small scour hole is at the outlet. A tree at the original swale caused the swale to realign around it. The project proposes the reconstruction of outlet 205. The existing pipe and culvert end will be removed and replaced. The area immediately at the outlet will be excavated for the placement of the Type 1 scour hole at the culvert end. The pipe will be replaced with a 15 inch corrugated HDPE pipe.

- Outlet 215's corrugated metal pipe is 12 inches in diameter with mitered end treatment. The project proposes the reconstruction of outlet 215. The existing pipe and culvert end will be removed and replaced. The area at the outlet will be excavated for the placement of the Type B apron at the culvert end. The pipe will be replaced with a 12 inch corrugated HDPE pipe.
- Bridge No. 06654: Wetland I discharges by way of a water course flowing along the east side of I-91 NB, then crosses under Airport Road and I-91 and discharges adjacent to the I-91 SB Exit 28 off ramp to US 5/RTE 15 SB via twin 106 inch x 68 inch reinforced concrete elliptical pipes. Due to the lowering of the Airport Roadway profile by approximately 1.5 feet to increase vertical clearance under I-91, an existing junction chamber located at Sta 45+00 50R will need to be modified and its roof structure lowered. Information about this work below OHW is located in the watercourses section. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

Wetland System J (PMT-08) is a palustrine emergent wetland with standing water located on the east side of Route 5/15. The dominant vegetation in Wetland System J is common reed, staghorn sumac (*Rhus typhina*), and oriental bittersweet. Wetland System J functions as sediment/toxicant retention. Outlet 195.1 is a twin concrete culvert that has double 48 inch barrels with a standard wing type end wall. The culvert and structure are in good condition. The project proposes the excavation and removal of the accumulated sediment in this area below OHW and surrounding wetland. No permanent impacts are proposed. The functions of this wetland will not be negatively impacted by the proposed work. The wetland will remain intact and continue to provide its wetland functions.

Wetland System K (PMT-10 and PMT-11) is a palustrine scrub shrub wetland located on the east side of the Connecticut River west of Route 2. This wetland system is seasonally flooded by the Connecticut River and at the time of the delineation, flood waters were receding from the site, exposing new deposits of alluvial materials. The vegetation is dominated by red maple, silver maple, reed-canary grass (*Phalaris arundinacea*), and box elder. Wetland System K functions as flood flow alteration, shoreline stabilization, wildlife habitat, and groundwater recharge. The project proposes the construction of a temporary access utilizing construction mats. Temporary access for construction equipment and materials on top of construction matting will occur beneath the Charter Oak Bridge within Wetland System K for the superstructure rehabilitation of Bridge No. 06000A (Charter Oak Bridge). The functions of this wetland will not be negatively impacted by the proposed work. The wetland will remain intact after the conclusion of construction and continue to provide its wetland functions.

Wetland System L (PMT-10) is a state only wetland located on the east side of the Connecticut River, west of Route 2. Wetland System L is associated with Wetlands K and Q. This wetland system is seasonally flooded by the Connecticut River. The vegetation in this wetland system includes Japanese knotweed, grasses (Festuca spp.), clover (Trifolium spp.), common dandelion (Taraxacum officinale), silver maple, and red maple. Wetland System L functions as flow alterations and groundwater recharge. The project proposes the construction of a temporary access utilizing construction mats. Temporary access for construction equipment and materials on top of construction matting will occur beneath the Charter Oak Bridge within Wetland System L for the superstructure rehabilitation of Bridge No. 06000A. The functions of this wetland will not be negatively impacted by the proposed

work. The wetland will remain intact after the conclusion of construction and continue to provide its wetland functions.

Wetland System Q (PMT-10 and PMT-11) is a palustrine forested wetland located beneath the Charter Oak Bridge on the east side of the Connecticut River. The wetland is dominated by red maple, silver maple, poison ivy (Toxicodendron radicans), and boxelder. The principal functions and values of this wetland system are floodflow alteration, wildlife habitat, and groundwater recharge. The project proposes the construction of a temporary access road utilizing construction mats. Temporary access for construction equipment and materials on top of construction matting will occur beneath the Charter Oak Bridge within Wetland System Q for the superstructure rehabilitation of Bridge No. 06000A. The functions of this wetland will not be negatively impacted by the proposed work. The wetland will remain intact after the conclusion of construction and continue to provide its wetland functions.

Wetland System R (PMT-11) is a palustrine scrub-shrub wetland that is located northeast of Route 2 and connects to the Hockanum River. The dominant vegetation includes red maple, pussy willow (Salix discolor), black willow, common reed, oriental bittersweet, and poison ivy. Wetlands System R principal functions and values of are floodflow alteration, groundwater recharge, nutrient removal, and wildlife habitat. The project proposes the construction of a temporary access utilizing construction mats. Temporary access for construction equipment and materials on top of construction matting will occur beneath the Charter Oak Bridge within Wetland System R for the superstructure rehabilitation of Bridge No. 06000A.

Construction sequencing for access to Wetland Systems K-R is suggested to take place in 2 phases. Phase 1 includes the placement of construction mats for the access to the underside of the Charter Oak Bridge. This construction includes the steel superstructure strengthening to the bridge. Once the construction mats are set, the strengthening work can commence. Phase 2 consists of removing the construction mats. It is anticipated that the construction mats will be in a location for a maximum of 2 months before being moved to other locations of work. Since this portion of the construction takes place within FEMA floodplain the contractor will be required to follow the stipulations set forth in the Flood Management General Certification. All areas temporarily disturbed will be revegetated as depicted on the landscaping plans.

Wetland System T (PMT-12) is a palustrine forested and scrub shrub wetland which is located in the median area south of Route 5/15, north of the Route 5/15 off ramp to Main Street. Dominant vegetation within the system includes red maple, silver maple, eastern cottonwood, northern spicebush (Lindera benzoin), common reed, Japanese knotweed, poison ivy, and oriental bittersweet. The project proposes temporary impacts to this wetland for the reconstruction of outlet 245. Access to this outlet requires the construction of an access road which may require temporary impacts to Wetland System T. This area will have minor impacts without any placement of riprap or fill within the regulated area. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

<u>Wetland System V</u> (PMT-12) is a palustrine forested and scrub shrub wetland which is located north of Route 15 and directly connects with the Hockanum River. The dominate vegetation includes red maple, silver maple, eastern cottonwood, pussy willow (*Salix discolor*), black willow, speckled alder

(Alnus incana), common reed, sensitive fern (Onoclea sensibilis), and poison ivy. Wetland System V functions as flood flow alteration, groundwater recharge, nutrient removal, and wildlife habitat. The project proposes the reconstruction of outlet 230. The existing concrete outlet is 24 inches in diameter. The outlet is unstable and submerged. There are upstream slope failures, holes, and scouring. The outlet will be accessed utilizing an existing access road. The existing pipe and end wall will be removed. The area at the outlet will be excavated for the placement of the Type 2 scour hole. The pipe will be replaced with a 24 inch HPDE pipe. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

<u>Wetland System W</u> (PMT-13) is a palustrine forested and scrub shrub wetland located north of silver lane and south of I-84. The dominant vegetation includes black willow, weeping willow (*Salix sepulcralis*), red maple, common reed, Japanese knotweed, and oriental bittersweet. Wetland System W functions as flood flow alteration, groundwater recharge, nutrient removal, and wildlife habitat. Within Wetland System W, the project proposes the reconstruction of 3 outlets: outlet 260, 275, and 280.

- Outlet 260 is a concrete pipe that is 24 inches in diameter with standard end wall treatment.
 The outlet is unstable and submerged. The top of the headwall is covered by a steep slope.
 The project proposes the reconstruction of outlet 260. This outlet will be accessed from upland utilizing Silver Lane. The area at the end wall will be excavated for the placement of a Type 2 scour hole.
- Outlet 275's existing corrugated metal pipe is 12 inches in diameter with a metal flared end.
 There is large concrete block debris used to stabilize the slope. There is also sediment and
 debris at the outlet covering and displacing riprap. The project proposes the reconstruction of
 outlet 275. This work will include access via a partially temporary access road, utilizing
 construction mats where equipment must encroach on wetland limits. The existing pipe and
 culvert end will be removed and replaced. The area at the outlet will be excavated for the
 placement of the Type 1 scour hole at the culvert end. The pipe will be replaced with a 12 inch
 corrugated HDPE pipe.
- Outlet 280 could not be found. It is buried and submerged. The project proposes the reconstruction of outlet 280. This work will include an access road, utilizing construction mats where equipment must encroach on wetland limits. The existing pipe and culvert end will be removed and replaced. The area at the outlet will be excavated for the placement of the Type 1 scour hole at the culvert end. The pipe will be replaced with a 12 inch HDPE pipe. The functions of this wetland will not be negatively impacted by the proposed work. The majority of the wetland will remain intact and continue to provide its wetland functions.

Watercourses

Major watercourses located within the project area include the Connecticut and Hockanum Rivers. The Connecticut River flows approximately north to south beneath the Charter Oak Bridge within the limits of the project. The Connecticut River is a tidal navigable waterway and also designated as an impaired waterbody. Work is proposed on the Charter Oak Bridge, but no work is proposed below the waterline at the bridge. The Hockanum River, which flows into the Connecticut River, is adjacent to the project area.

<u>Proposed Impacts:</u> Direct impacts to the Connecticut and Hockanum rivers are not anticipated for this project. Work on the Charter Oak Bridge roadway over the Connecticut River includes the milling, paving, joint replacement and restriping of Route 15 NB. Due to the reconfigured lane arrangement, several scuppers are proposed to be reconstructed, relocated or removed to prevent scupper grates from being within the travel lanes. This work will include a debris shield to prevent construction debris from falling into the river and resource areas, which will not extend past the bottom flange of the main beams. Scupper outlets will discharge in the same manner as they currently do. There will be no work conducted below the Coastal Jurisdiction Line (CJL) and Ordinary High Water (OHW) elevations of the Connecticut and Hockanum Rivers. Temporary impacts below the OHW are associated with the waters of Wetland system B, I and J.

Work below OHW in Wetland B includes concrete patching to occur to the roof within the culvert of 15.2 (Bridge No. 03244). Since much of the year, this wetland system does not have standing water within the culvert it is anticipated that this work will be done in the dry. However, in the event of flow, sandbags will be placed within the culvert to isolate the work area. During peak flows the sandbags will be allowed to be overtopped.

Wetland I discharges by way of a water course flowing along the east side of I-91 NB, then crosses under Airport Road and I-91 and discharges adjacent to the I-91 SB Exit 28 off ramp to US 5/RTE 15 SB via twin 106 inch x 68 inch reinforced concrete elliptical pipes. Due to the lowering of the Airport Roadway profile by approximately 1.5 feet to increase vertical clearance under I-91, an existing junction chamber located at Sta 45+00 50R will need to be modified and its roof structure lowered. It is proposed to temporarily divert the flow through the northerly pipe of the twin pipes so that the other can be used as access to the junction chamber. It is estimated that the duration of work required to lower the roof of the junction chamber will be about two months. A temporary sand bag cofferdam will be installed on the upstream side of one of the pipes. The diversion structure will be sized to divert the temporary flow but will be able to be topped if a storm event occurs during construction, to minimize flooding upstream. Since the pipes are subject to a high tailwater and back flow, a temporary sand bag diversion structure will be placed downstream as well, with the same overtopping design. A temporary 24 inch pipe will be provided to convey normal flows through the northern pipe and through the chamber to the outlet side of the chamber. This will allow the southern pipe and chamber to be dewatered for access. A dewatering basin will be installed adjacent to the chamber to pump the water prior to flowing back into the watercourse. The temporary pipe will also allow the diverted flow to be conveyed through the chamber enclosed in the pipe and protected from any debris from the demolition of the existing roof of the chamber. Once the existing top has been removed and the new top constructed, the temporary pipe, diversion structures and dewatering basin will be removed and the area restored to its original condition.

Work below OHW in Wetland J includes the excavation and removal of the accumulated sediment in this area below OHW. Permanent impacts to the watercourse of Wetland System J are not anticipated.

Fish and wildlife habitat

A National Diversity Database (NDDB) area is mapped within the project corridor. These areas are associated with species within and around the Connecticut and Hockanum Rivers. Impacts to fish and

wildlife habitat are not anticipated. NDDB screening of the project area has shown records of the State Threatened *Falco peregrinus* (Peregrine Falcon) nesting on the Charter Oak Bridge. In order to protect this species, any proposed construction activities that occur below the deck of the Charter Oak Bridge, or approach ramps, within 400 feet from the known nest, shall be completed during nonnesting season months (August – March). No construction activities and/or inspections that will impact the falcons will be permitted between April 1st and July 31st. The project will adhere to best management practices Section 1.10 spec included in the project contract and included in Attachment D. Potential fisheries impacts were discussed with representatives from CTDEEP Fisheries at the August 17, 2017 Interagency Meeting and no concerns were raised regarding work proposed in the watercourses. A Critical Habitat Floodplain Forest is mapped along the eastern bank of the Connecticut River. The Forested portion of the mapped floodplain forest will not be impacted by the proposed project. A section of the emergent portion the mapped habitat will be temporarily impacted for the placement of construction mats beneath the bridge. The overall impacts of the project activity to the adjacent upland habitats are considered insignificant due to the highly disturbed and urbanized environment.

Floodplains

A portion of the project occurs within the area being protected by the levee system associated with the Connecticut River. This area, west of the Connecticut River, is within the five-hundred year FEMA floodplain elevation in the Hartford portion of the project. One-hundred year floodplain, FEMA Zone AE, is present at the northeast limit of the proposed project. Floodplain, FEMA Zone AE, is present north of Route 15, on the east side of the Connecticut River. East of the River, FEMA Zone AE is also mapped in the area of the Route 15, Route 2 interchange, associated with the Hockanum River. The Connecticut River, which flows approximately north to south beneath the Charter Oak Bridge, is mapped as FEMA Zone AE. Areas of Floodway are designated at the channels of both the Hockanum River and the Connecticut River.

Proposed Impacts: The project will not result in any permanent fill in floodway, minor work in mapped floodplain is proposed at existing stormwater outfalls. Temporary access for construction equipment and materials on top of construction matting will occur beneath the Charter Oak Bridge for the superstructure rehabilitation of Bridge No. 06000A. Construction mats are also proposed to be used for access to outlet numbers 230, 275, and 280. Permanent impacts will include removing and replacing material for the installation of a hydrodynamic separator, a portion of an access road, and riprap and riprap aprons. This work will have a net zero impact. Three existing roads within floodplain will be utilized for access to proposed work. This includes access at the Charter Oak Landing Park, the Multi-Use Trail path in East Hartford, and an existing utility access road located adjacent to Wetland System V. It is anticipated that these roads will be used solely for the transportation of construction equipment. No improvements or changes to these roads are proposed. All work within floodplain will be required to adhere to the conditions stipulated within the Flood Management General Certification. Sedimentation and erosion controls are included in the design in accordance with ConnDOT standards. The project will also include the appropriate construction debris containment systems. All temporary facilities or equipment requiring work in or placement within floodplain and floodway will be removed in a timely manner from the site in case of a flood warning.

Best Management Practices

Project disturbance is minimized by the installation of sedimentation and erosion control barriers and by revegetating disturbed areas following the completion of the project. The project utilizes existing vegetated swales and sheet flow over densely vegetated areas to provide water quality. The project also proposes the installation of deep sump catch basins and the use of hydrodynamic separators to provide secondary treatment of stormwater where area is not available for other water quality practices.

Much of the project impacts are limited to the repair of eroded and deficient drainage structures. Any wetlands impacted by the work shall be restored utilizing wetland or floodplain seeding mix. Disturbed areas utilized to construct temporary access roads will be revegetated following construction as appropriate. As stated above, construction matting will be used as depicted on the plans. Construction mats will be removed following the completion of construction at each site. The project includes proper erosion and sedimentation control measures, water handling measures, and a planting plan to re-vegetate disturbed areas post construction. Areas encroaching upon wetland limits will be seeded with a native wetland seed mix. Removal of invasive species in the project limits are included per Department Specifications "Control & Removal of Invasive Vegetation". The project has been designed in conformance with 2002 E&S and 2004 Stormwater Quality Manual. The project also conforms to Form 817; Section 1.10.

Mitigation

The proposed compensatory mitigation plan will utilize payment to the U.S. Army Corps of Engineers New England Division In-Lieu Fee Program of approximately \$83,000 to compensate for the permanent and temporary loss of Federal wetlands. This payment will be put towards future compensatory wetland mitigation, as administered by Audubon Connecticut under the In-Lieu Fee Program. In-Lieu Fee Worksheet and proposal record of meeting are attached.

Impacts to regulated areas have been organized and described below:

Table 1: Wetland Impact Table								
	Temporar		-	orary	Perma		Total Impacts by	
Wetland System	(Construc	tion Mats)	Impacts		Impa	acts	Site	
	sqft	acres	sqft	acres	sqft	acres	sqft	acres
Wetland A	0	0	267	0.006	19	0.0004	286	0.007
Wetland B	0	0	1,029	0.024	558	0.013	1,587	0.036
Wetland C	0	0	209	0.005	51	0.001	260	0.006
Wetland D	0	0	6,203	0.142	1,475	0.034	7,678	0.176
Wetland I	2,572	0.059	5,486	0.126	846	0.019	8,904	0.204
Wetland J	0	0	144	0.003	0	0	144	0.003
Wetland K	71,026	1.631	0	0	0	0	71,026	1.631
Wetland L STATE ONLY WETLAND	13,435	0.308	0	0	0	0	13,435	0.308
Wetland Q	7,898	0.181	0	0	0	0	7,898	0.181
Wetland R	25,513	0.586	0	0	0	0	25,513	0.586
Wetland T	0	0	0	0	126	0.003	126	0.003
Wetland V	0	0	1,406	0.032	304	0.007	1,710	0.039
Wetland W	3,195	0.073	941	0.022	383	0.009	4,519	0.104
Totals	123,639	2.838	15,685	0.360	3,762	0.086		

Table 2: Watercourse Impact Table*								
Wetland System	Temporary (Construct	•	-	orary acts	Perma Impa		Total Im by S	•
	sqft	acres	sqft	acres	sqft	acres	sqft	acres
Br. No. 03244	0	0.00	450	0.010	1,462	0.034	1012	0.044
Wetlands A & B	0	0.00	430	450 0.010	7.010 1,402	0.034	1912	0.044
Br No. 06654	0	0.00	2 407	0.000	0	0	2407	0.000
Wetland I	0	0.00	3,497	0.080	0	0	3497	0.080
Wetland J	0	0.00	275	0.006	0	0	275	0.006
Totals	0	0	4,222	0.097	1,462	0.034		

^{*} Includes area below Ordinary High Water

Table 3: Total State, Federal, and Watercourse Impact Table					
Total Temporary Impacts	143,546 sqft	3.295 acres			
Total Permanent	5,224 sqft	0.120 acres			
Total Temporary and Permanent Impacts	148,770 sqft	3.416 acres			

Table 4: 100-YR Floodplain Impact Table					
Location	Temporary Impact Area	Permanent Impact Area	Excavation in Floodplain	Fill in Floodplain	
	sqft	sqft	CY	CY	
Charter Oak Landing Park (PMT- 14) Sta 194+00 to 198+00	48,485	0	0	0	
Charter Oak Bridge (PMT-15) Sta 206+00 to 212+50	108,245	0	0	0	
Wetland System R (PMT-16) Sta 212+50 to 224+00	75,920	0	0	0	
Wetland System V and T (PMT-17) Sta 224+00 to 234+50	2,841	2,175	196	196	
Wetland System W (PMT-18) Sta 256+50 to 268+00	6,856	383	36	36	
Totals	242,347	2,558	232	232	

Part V: Supporting Documents

Check the applicable box below for each attachment being submitted with this request. 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 requester's name as indicated on this request. *In order to file electronically, ALL supporting documents must be submitted in an electronic format on a CD with this original completed application in hard copy.*

	Location Map: A depiction, on an 8.5" x 11" copy of the relevant portion of the most recent version of the United States Geologic Survey topographic map (Scale 1:24,000), of the exact location of the property at which such activity will be conducted.
Attachment B:	Site plan pursuant Section 4(c) (2) (I) of the subject general permit.
Attachment C:	Coastal Consistency Review Form (DEEP-APP-004), if applicable.
	Copy of the completed <i>Request for NDDB State Listed Species Review Form</i> (DEEP-APP-007) and the NDDB response, if applicable.
☐ Attachment E:	Conservation or Preservation Restriction Information, if applicable.
	A copy of the Category 2 approval letter from the Army Corps of Engineers, or a copy of the Appendix 1A: Category 1 Certification Form filed with the US Army Corps of Engineers, if applicable.
Attachment G:	Drainage Maintenance Plan, Trail Maintenance Plan, Boat Launch Maintenance Plan, or Beach Maintenance Plan for Inland Beaches as defined in Section 2 of the subject general permit, if applicable.
	Other information provided by requester (list): Project Area Photos, Flood Management General Certification, CTDEEP Fisheries Correspondence & Sign-Off, In-Lieu Fee Worksheet and Interagency Coordination Meeting Notes

Part VI: Requester Certification

The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided. If the requester is the preparer, please mark N/A in the spaces provided for the preparer.

"I have personally examined and am familiar with the informatic attachments thereto, and I certify that based on reasonable invi- individuals responsible for obtaining the information, the submit to the best of my knowledge and belief.	estigation, including my inquiry of the
I certify that this general permit request for authorization is on the commissioner without alteration of the text.	complete and accurate forms as prescribed by
I understand that the subject activity is authorized only on or aft approval of registration with respect to such activity.	er the date the commissioner issues a written
I certify that a complete copy of this request for authorization, in sent by regular or certified mail or was hand delivered to the multiplanning commission or combined planning and zoning commission municipality which is or may be affected by the subject activity.	unicipal wetlands agency, zoning commission,
I understand that a false statement in the submitted information accordance with section 22a-6 of the General Statutes, pursua and in accordance with any other applicable statute."	
Signature of Requester	Date
Thomas J. Maziarz	Bureau Chief, Policy and Planning
Name of Requester (print or type)	Title (if applicable)
Macmi Hodges Signature of Preparer (if different than above)	10/12/17
Signature of Preparer (if diff e fent than above)	Date
Naomi Hodges	Environmental Scientist
Name of Preparer (print or type)	Title (if applicable)
Check here if additional signatures are required. If so, ple copies to this sheet. You must include signatures of any required in this registration (i.e., professional engineers,	person preparing any report or parts thereof

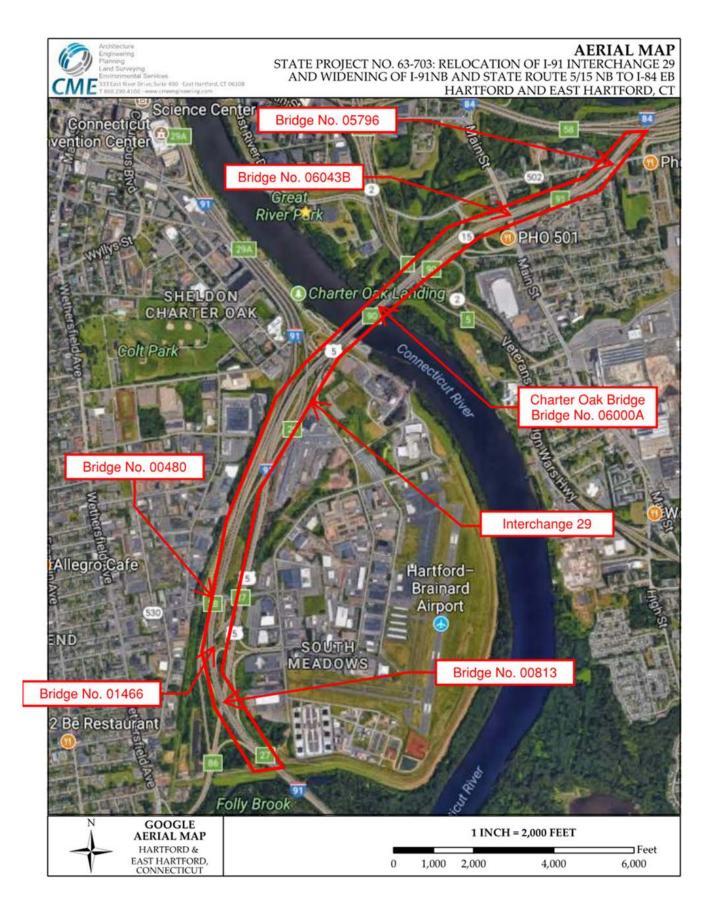
Note: Please submit this completed Request for Authorization, Fee, and all Supporting Documents to:

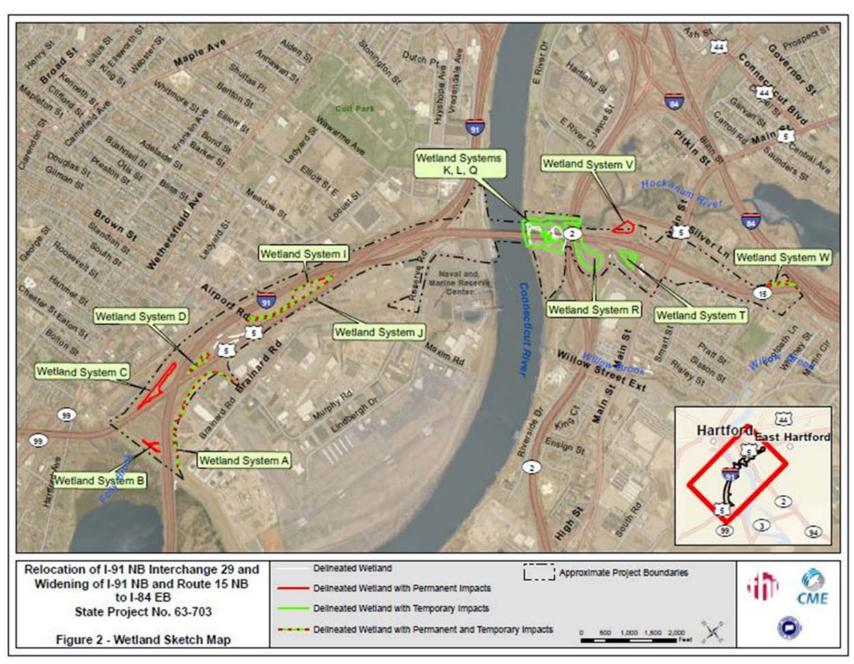
CENTRAL PERMIT PROCESSING UNIT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION 79 ELM STREET HARTFORD, CT 06106-5127

You must submit a complete copy of this completed request for authorization, including supporting documents, to the municipal wetlands agency, zoning commission, planning commission or combined planning and zoning commission, and conservation commission of each municipality which is or may be affected by the subject activity.

Attachment A

Location Map Aerial Map Wetland Location Map



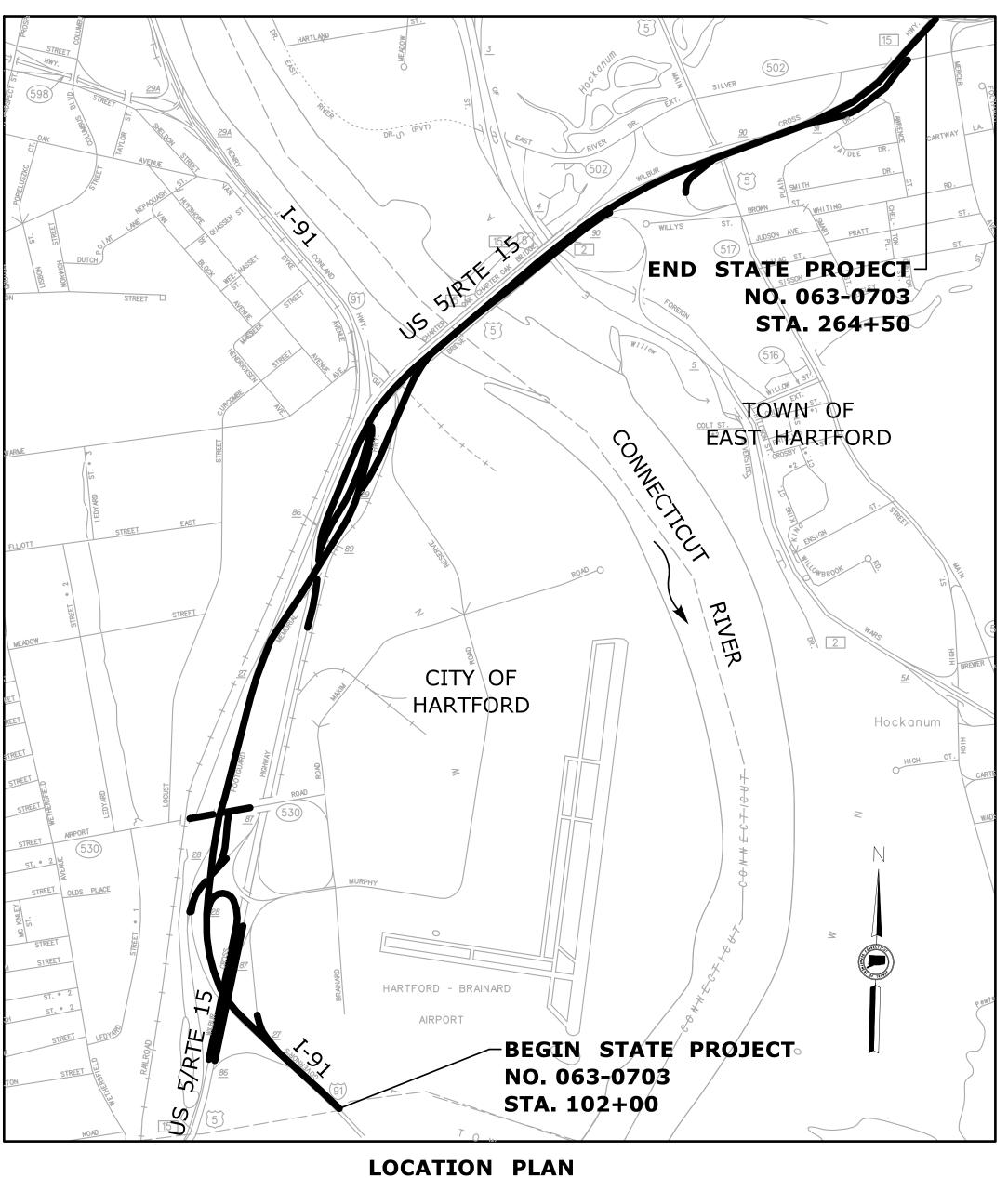


Attachment B

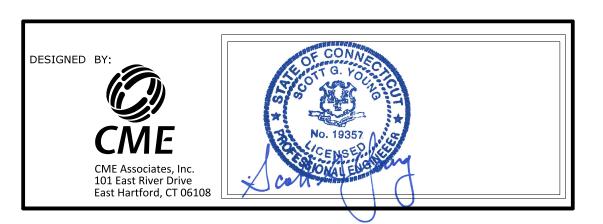
Permitting Plans

RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING M A S S A C H U S E T T S OF I-91 NB AND ROUTE 15 NB

CITY OF HARTFORD TOWN OF EAST HARTFORD



	LIST OF DRAWINGS		
DRAWING NO.	DRAWING TITLE		
PMT-01	TITLE SHEET		
PMT-02	40 SCALE INDEX PLAN		
PMT-03 TO 13	ENVIRONMENTAL PERMIT PLANS		
PMT-14 TO 18	100-YEAR FLOOD IMPACT PLANS		
PMT-19 TO 25 MISCELLANEOUS PLANS & DETAILS			
PMT-26 TO 35	PLANTING PLANS		



ENVIRONMENTAL PERMIT PLANS

PLAN DATE: OCTOBER Ø2, 2017

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.

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING

PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.

SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.

VERTICAL DATUM BASED ON NAVD 1988.

THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND

2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND USACE FOR CHANGES TO THE DESIGN THAT WILL AFFECT

PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING

3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS AND WETLAND SOILS

4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983

5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH

MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION

CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.

THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND

INCIDENTAL CONSTRUCTION, FORM 817, SECTION 1.10 AND WILL ALSO FOLLOW BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL

SHEET NO. Plotted Date: 10/3/2017

GENERAL NOTES:

REGULATED AREAS.

REVISION DESCRIPTION

REV. DATE

DISTRICT 4

 \propto

DISTRICT 1

STATE OF CONNECTICUT

PROJECT

LOCATION

RAC CEE SCALE AS NOTED

STATE OF CONNECTICUT **DEPARTMENT OF TRANSPORTATION**

Filename: HW_MSH_0063_703_03_PMT.DGN



2000

SCALE

1000

CME ASSOCIATES, INC. 101 East River Drive, East Hartford, CT 06108 888-291-3227 | www.cmeengineering.com

3000 FEET

RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB

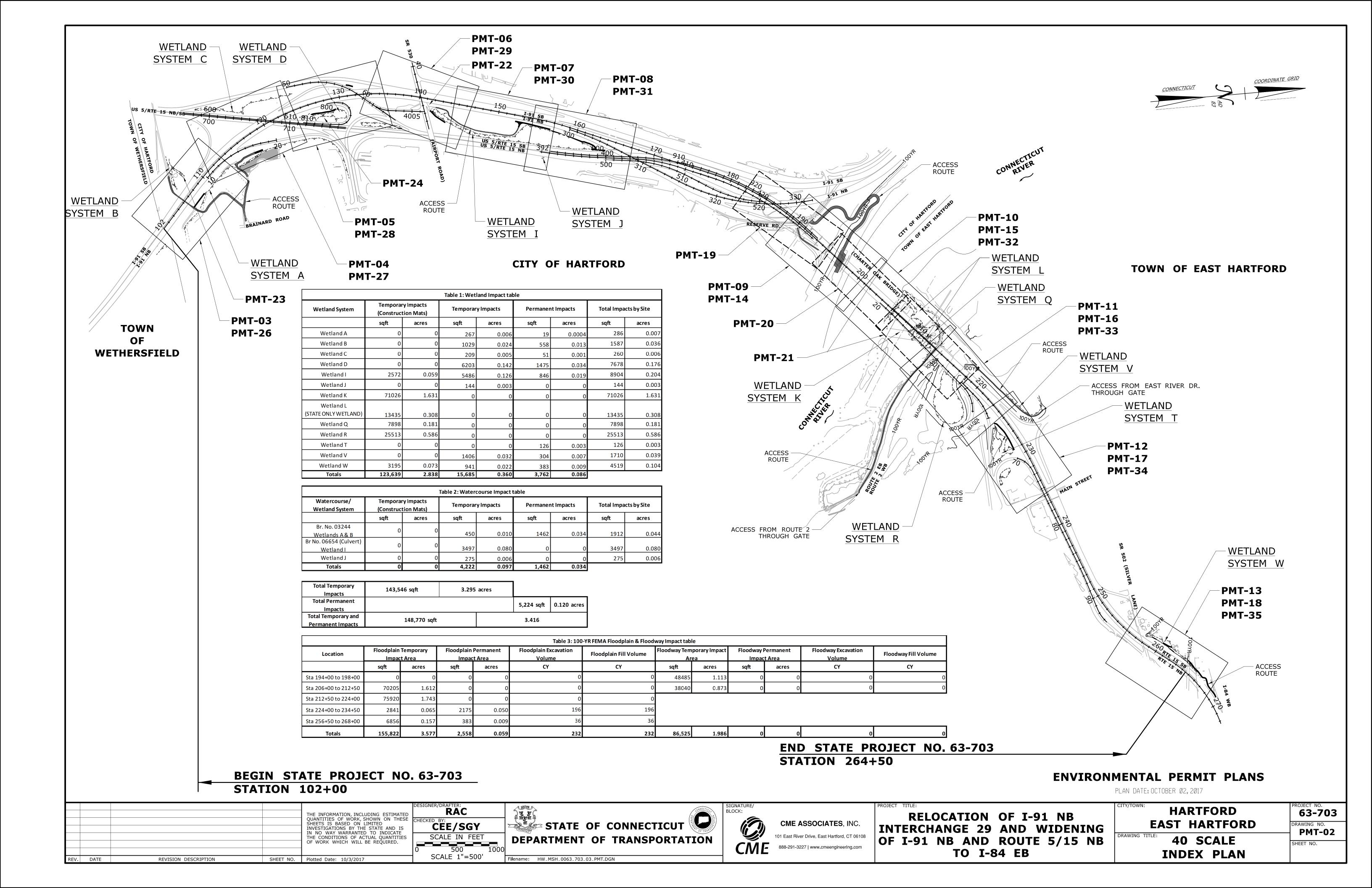
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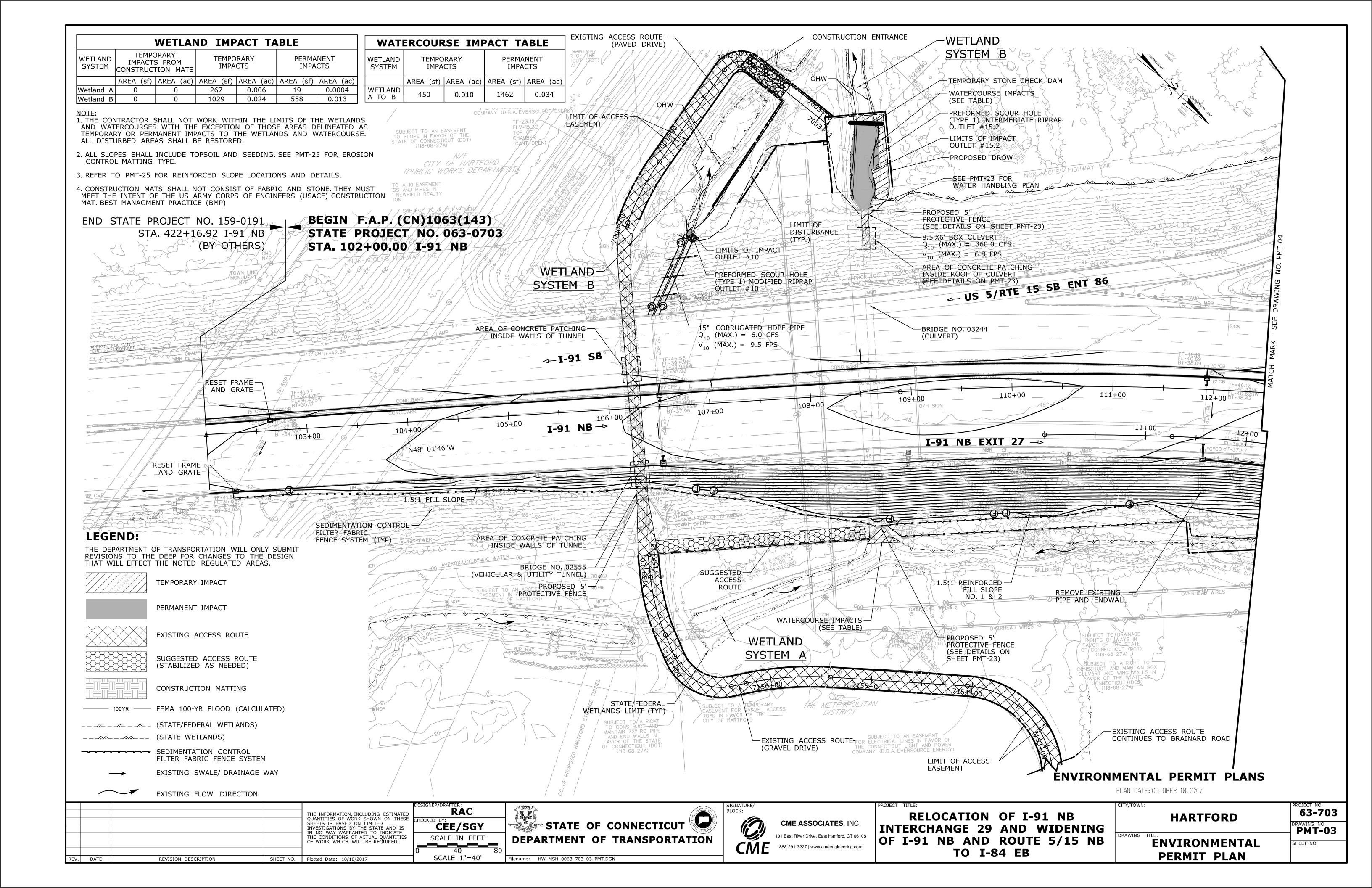
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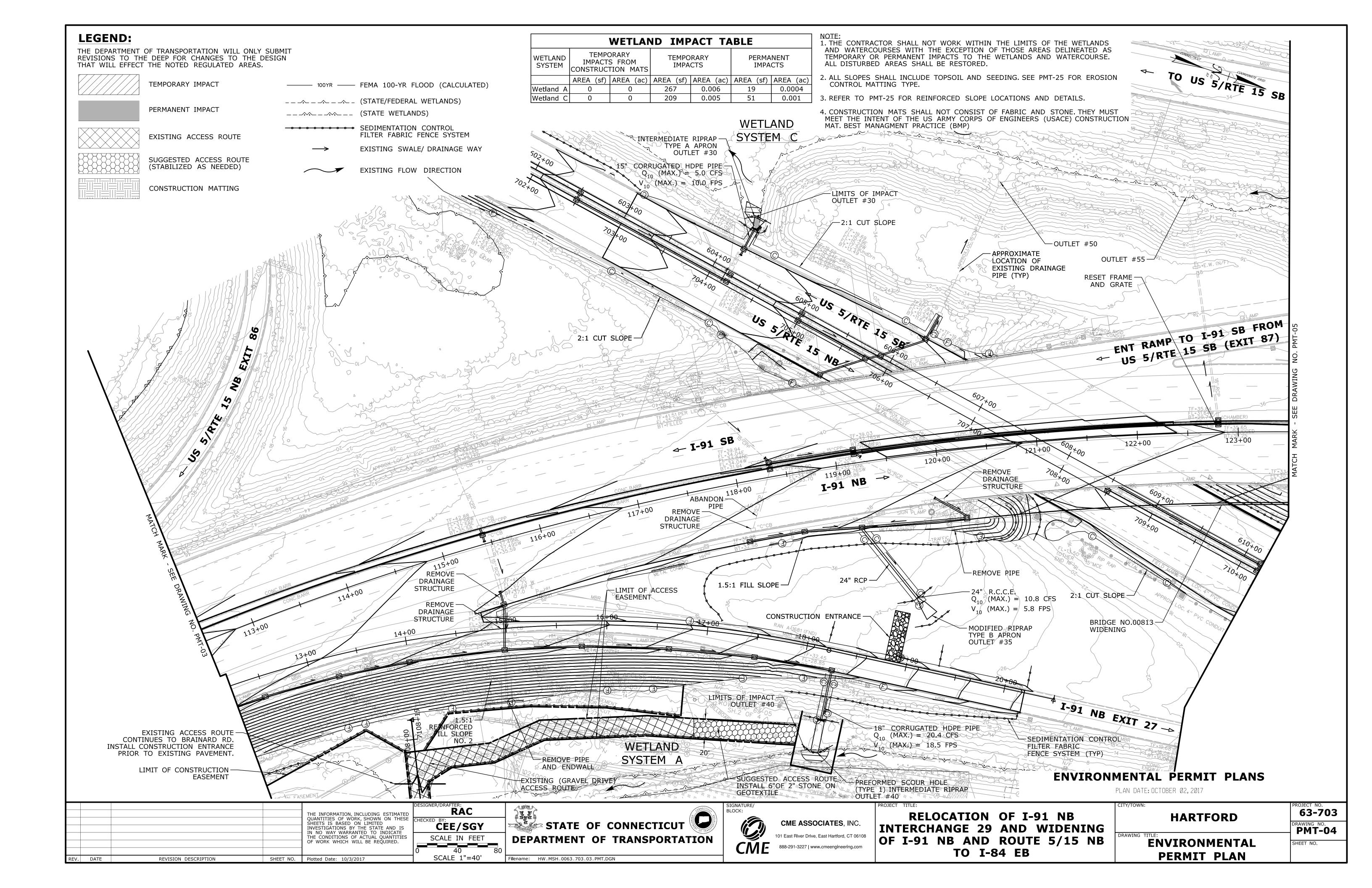
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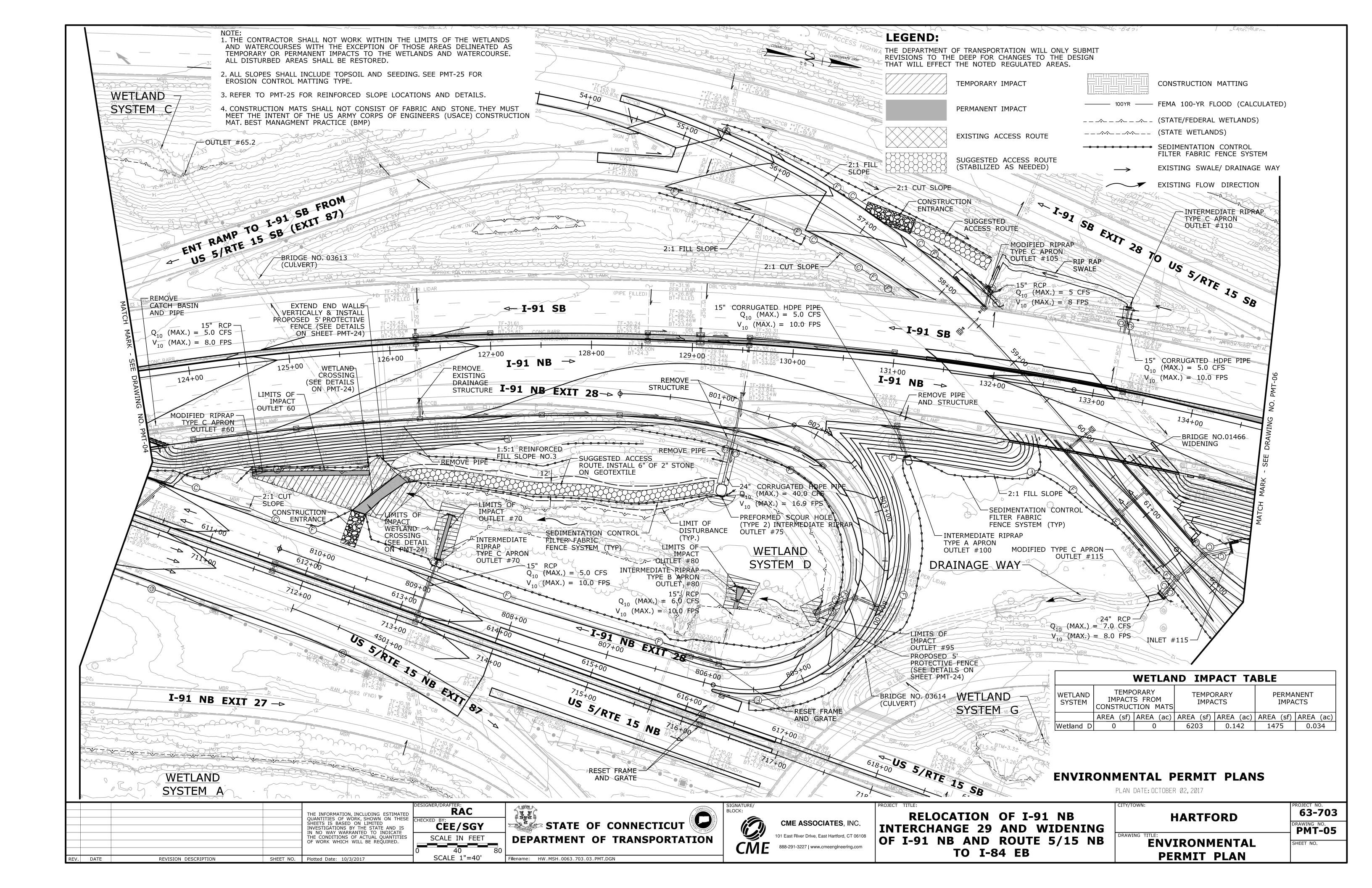
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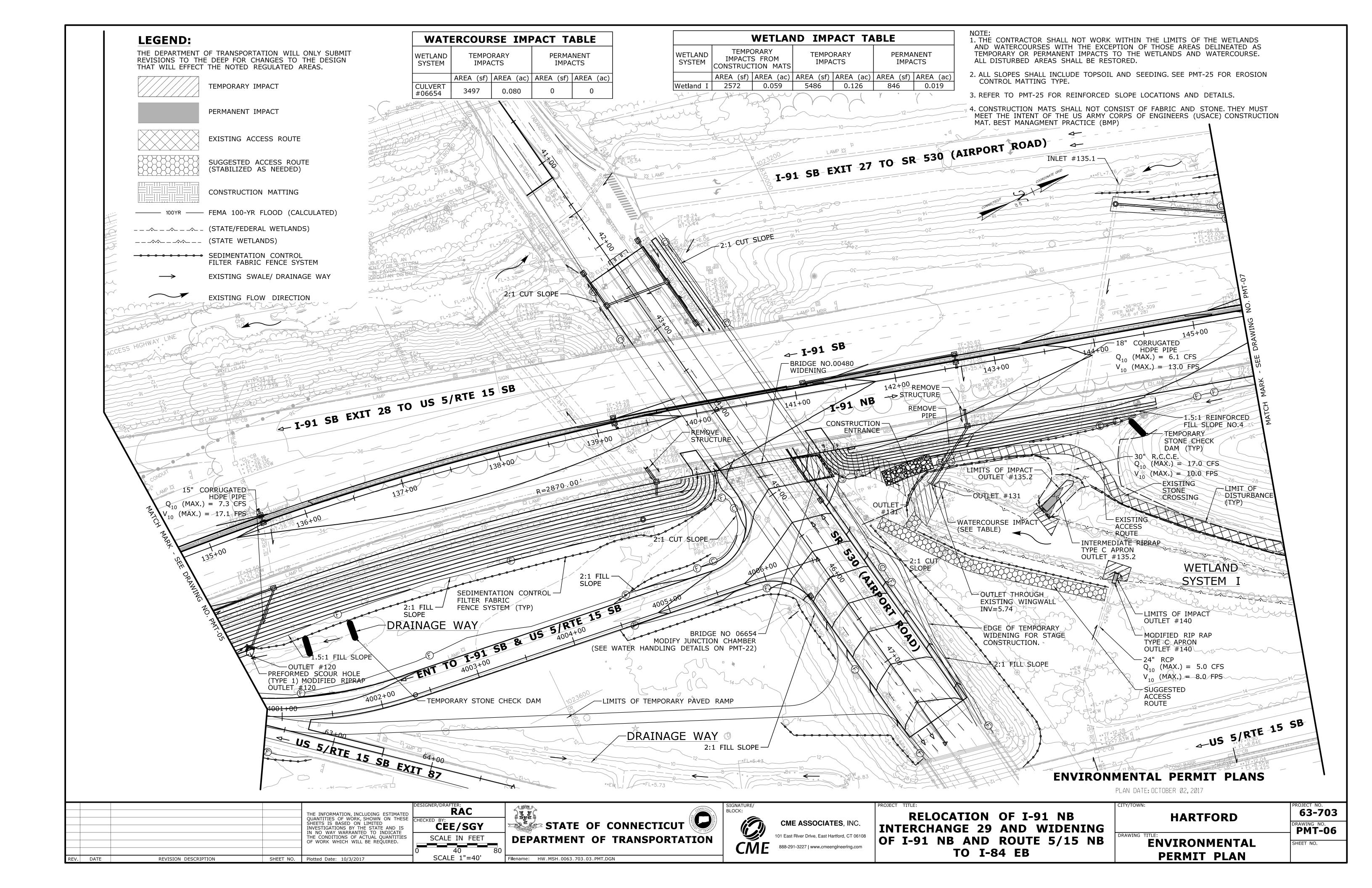
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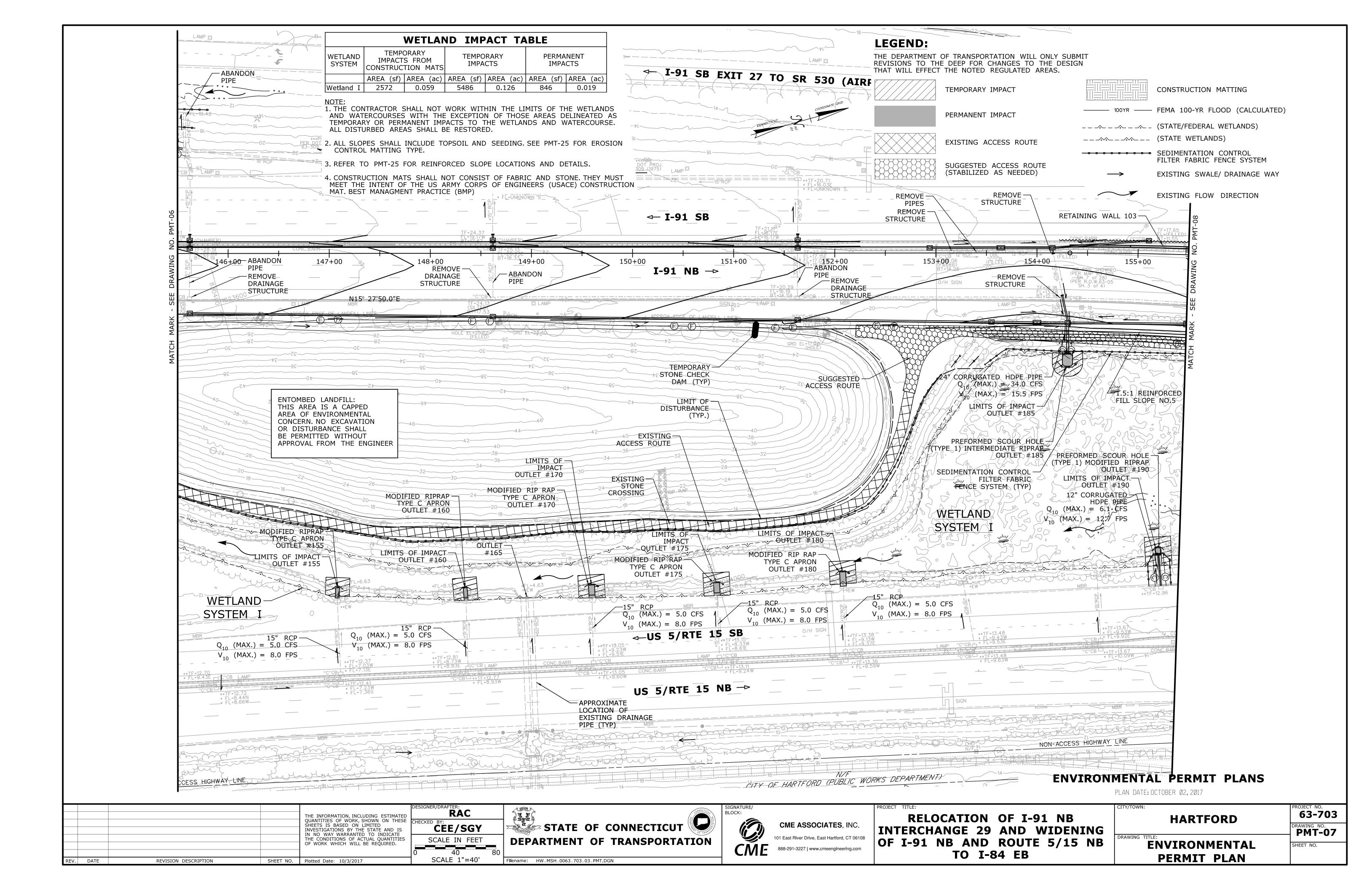


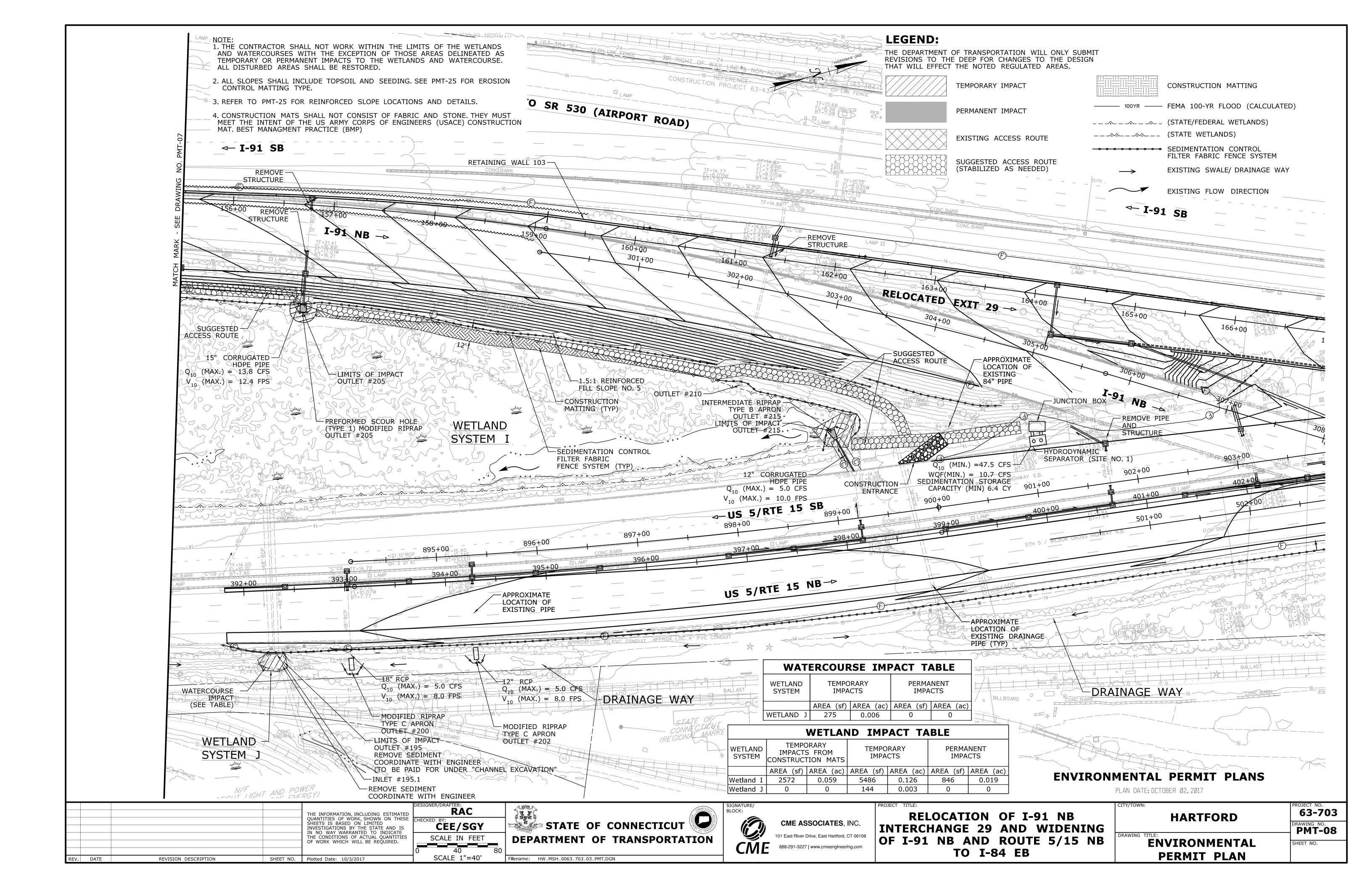


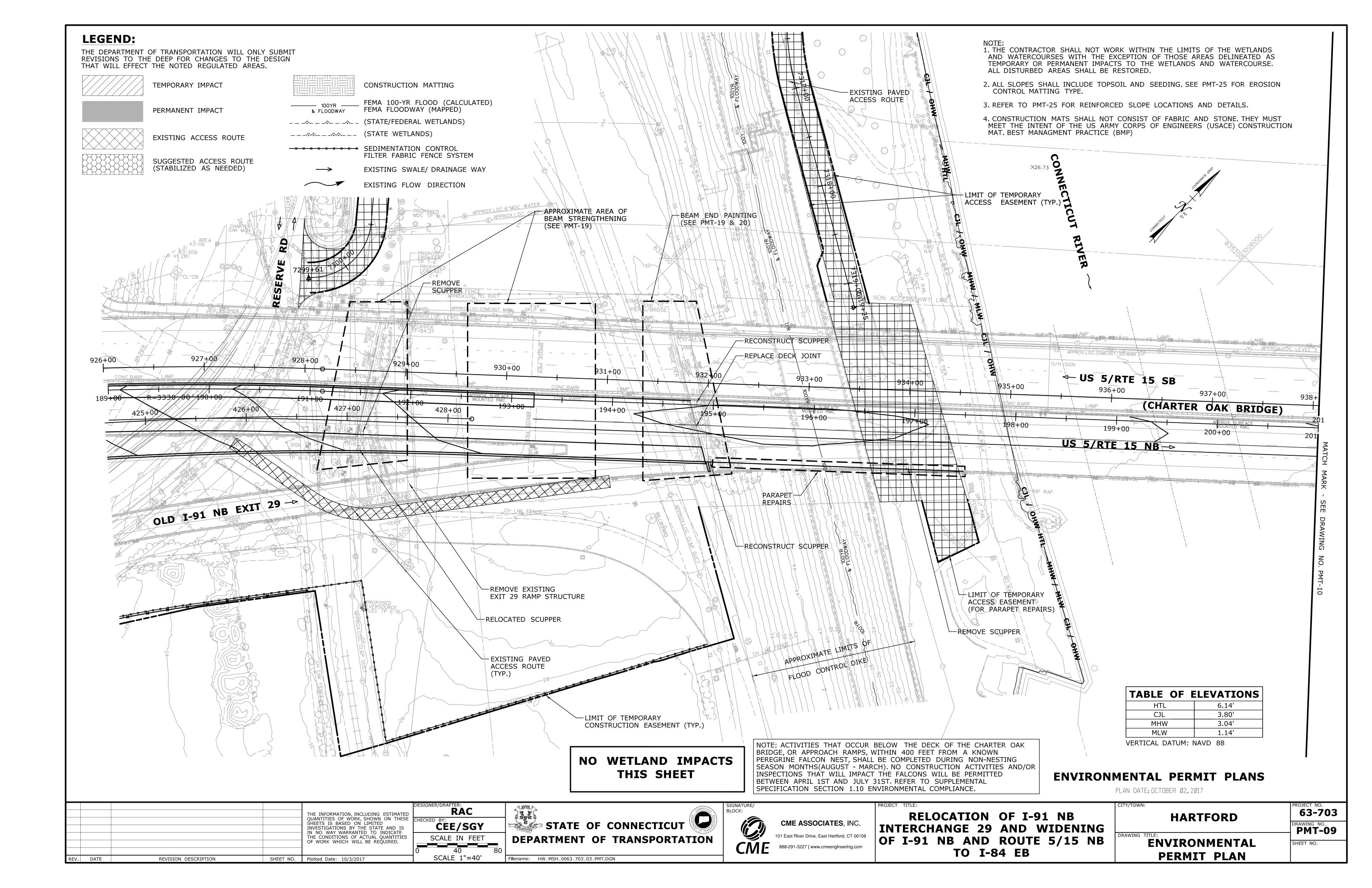


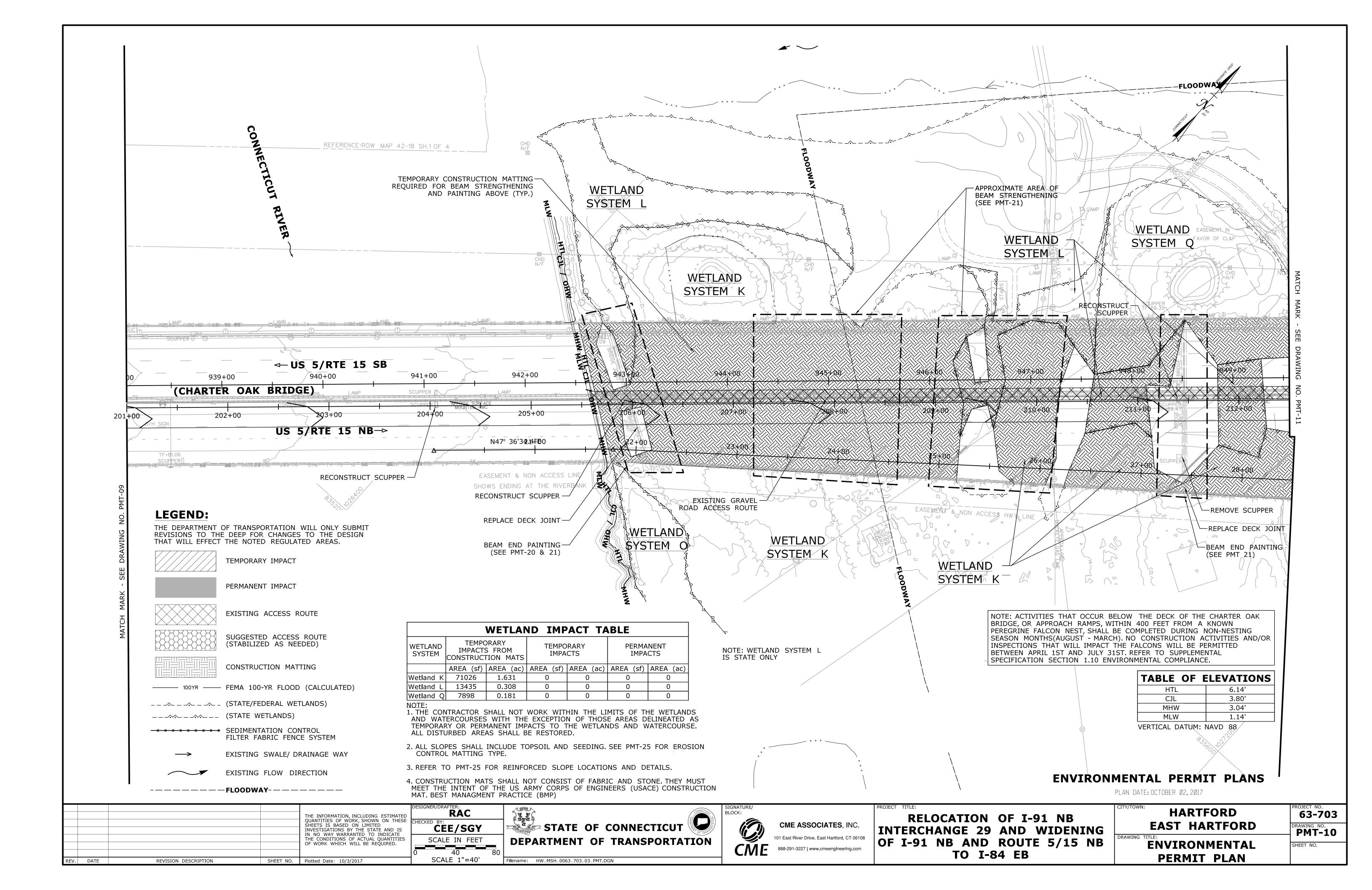


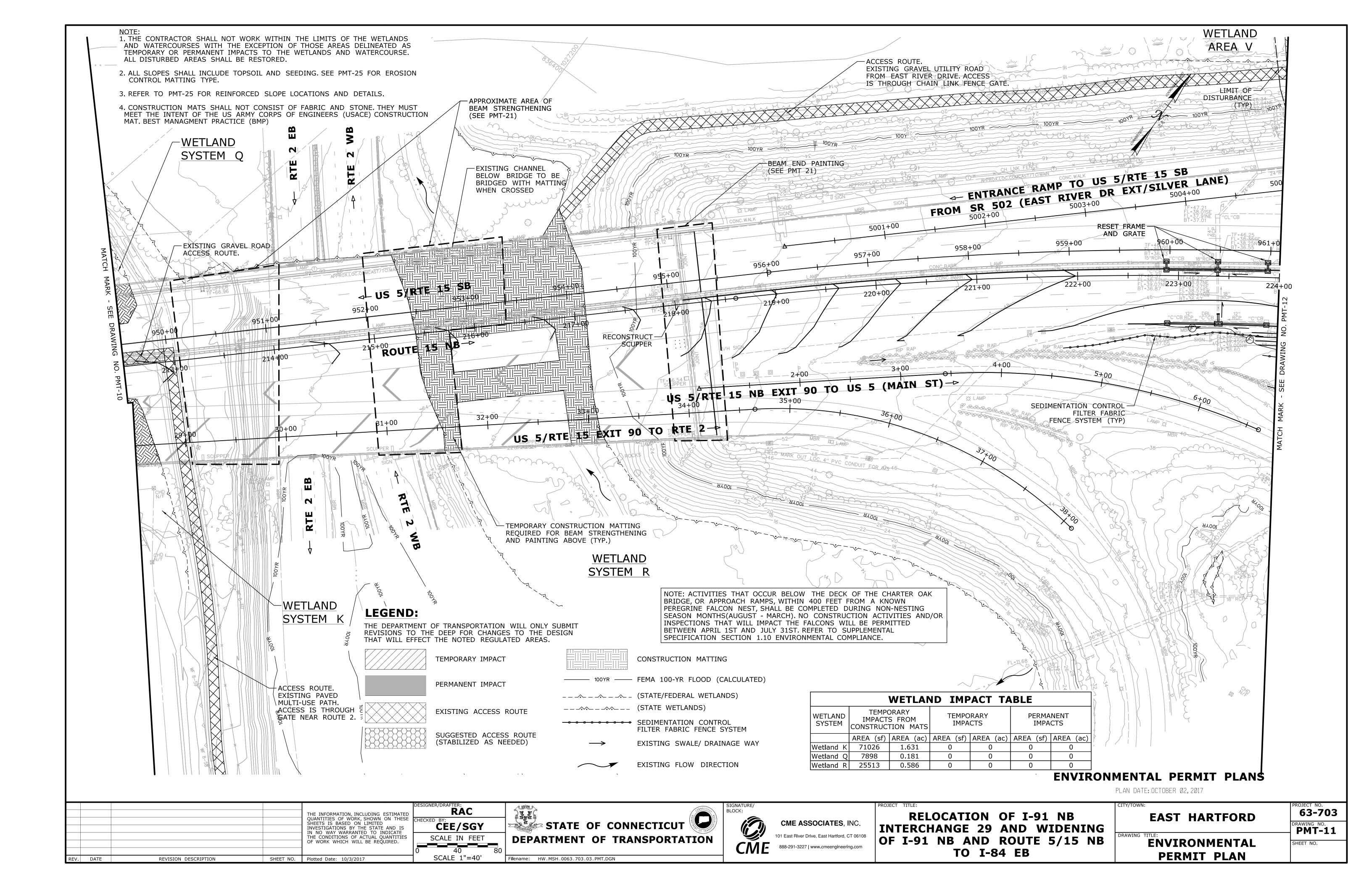


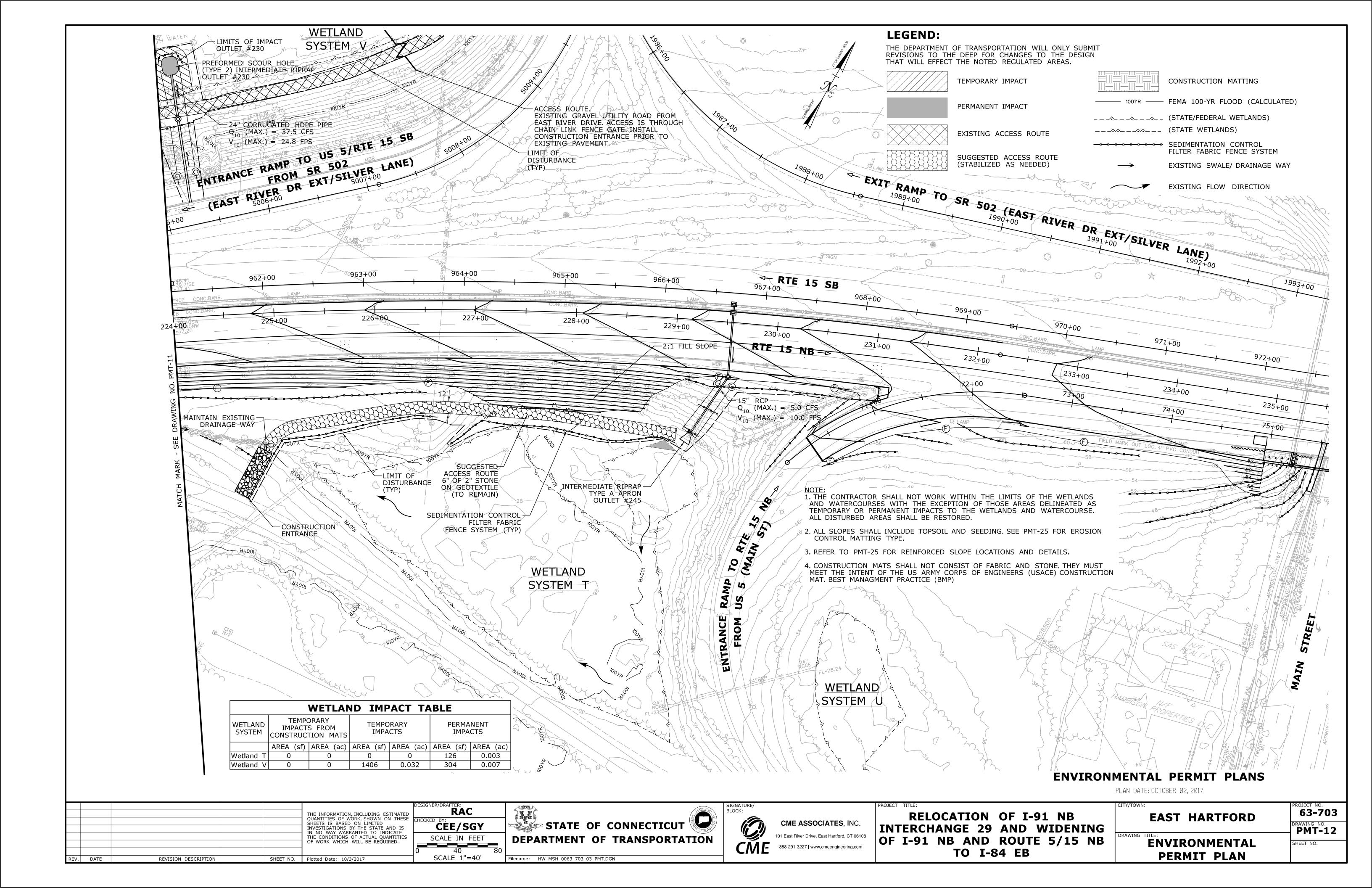


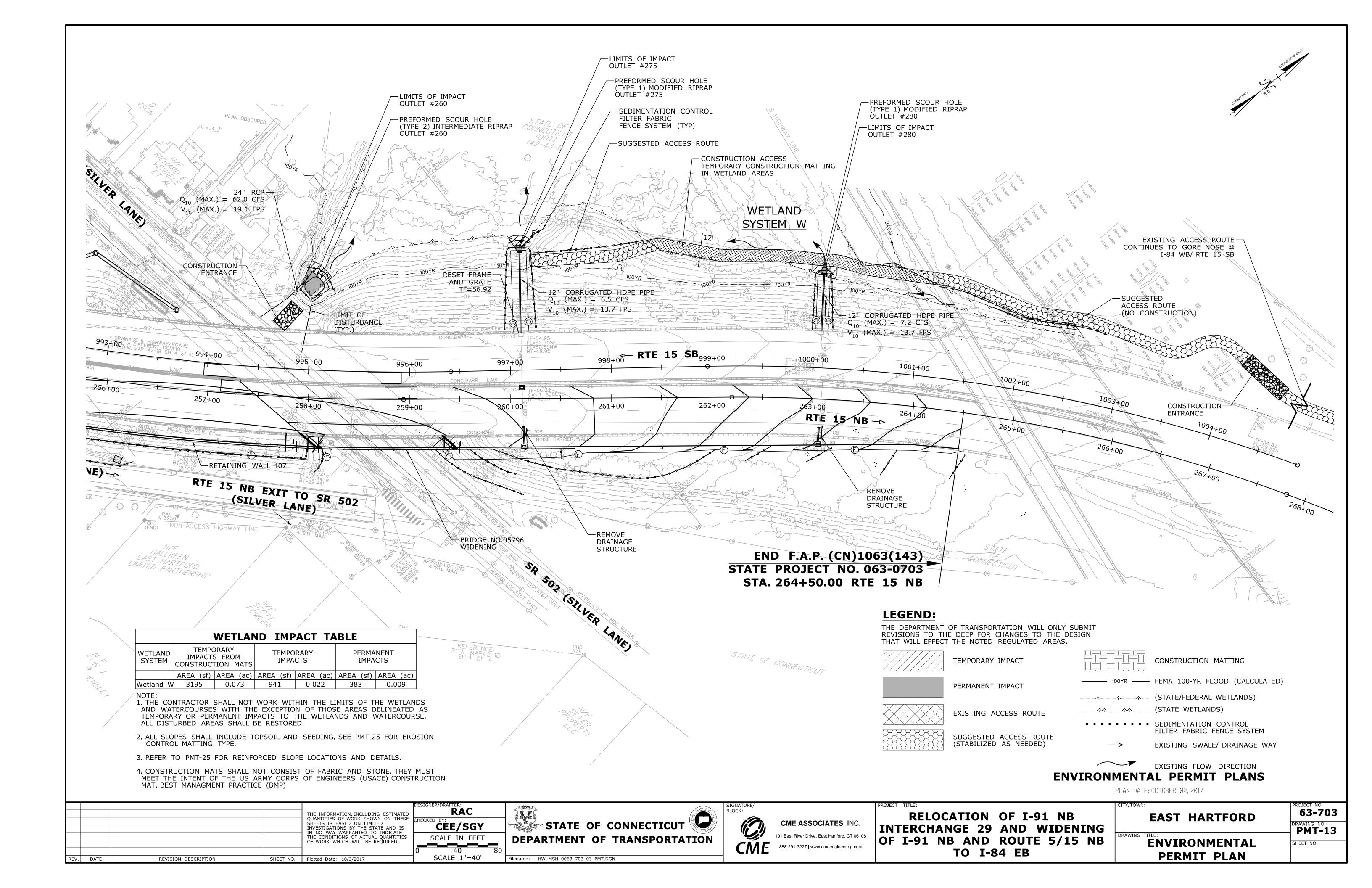


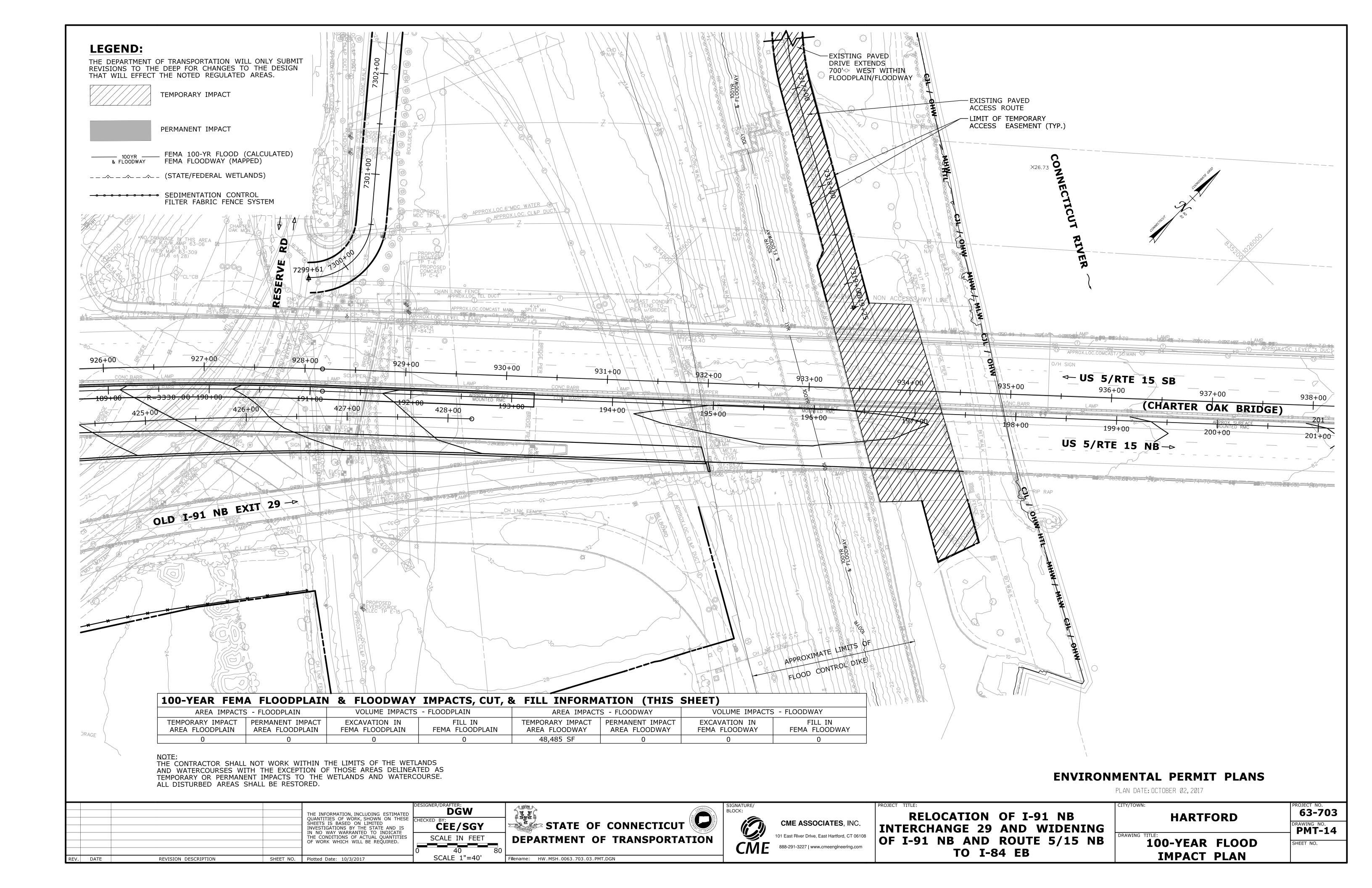


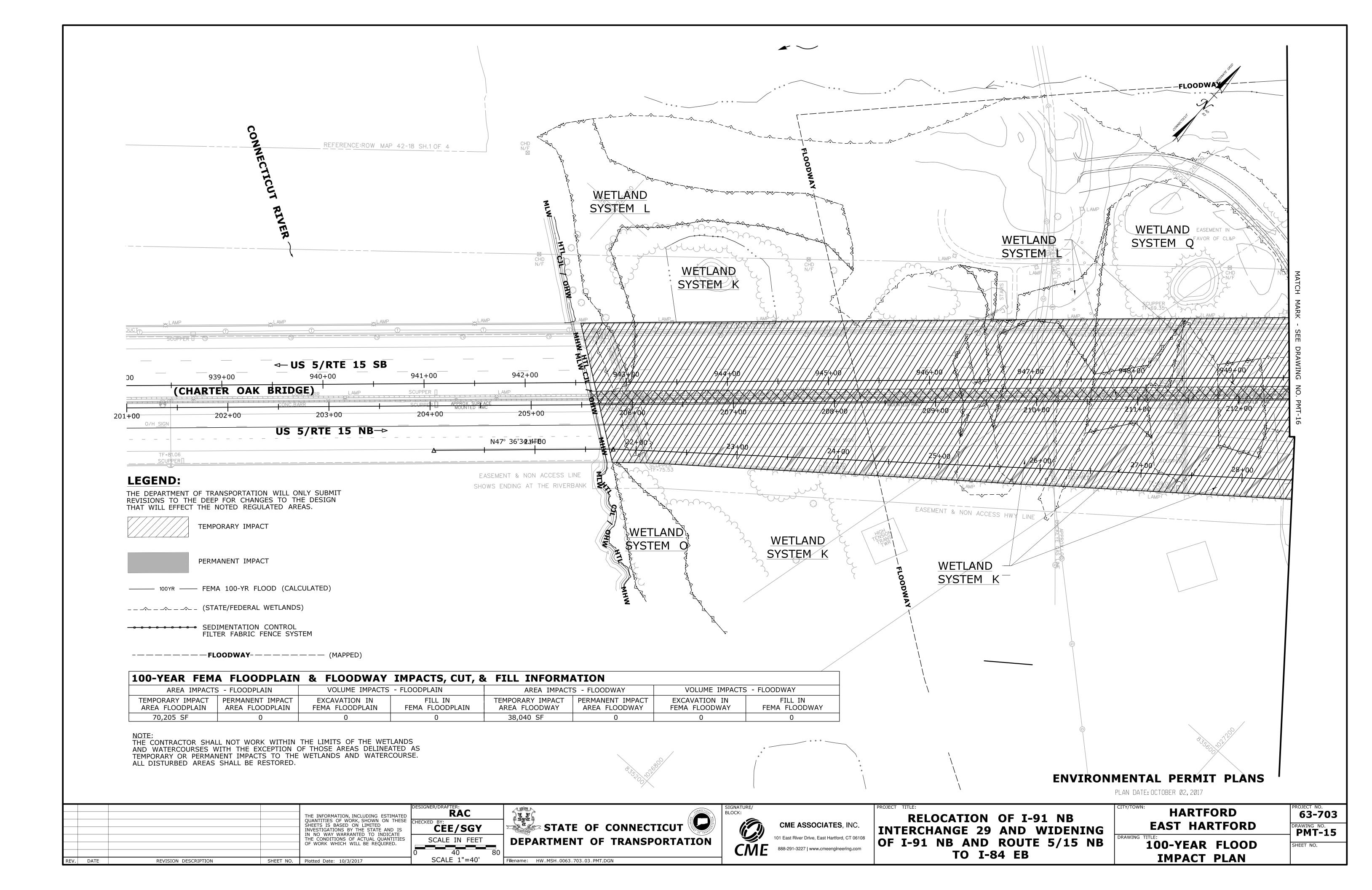


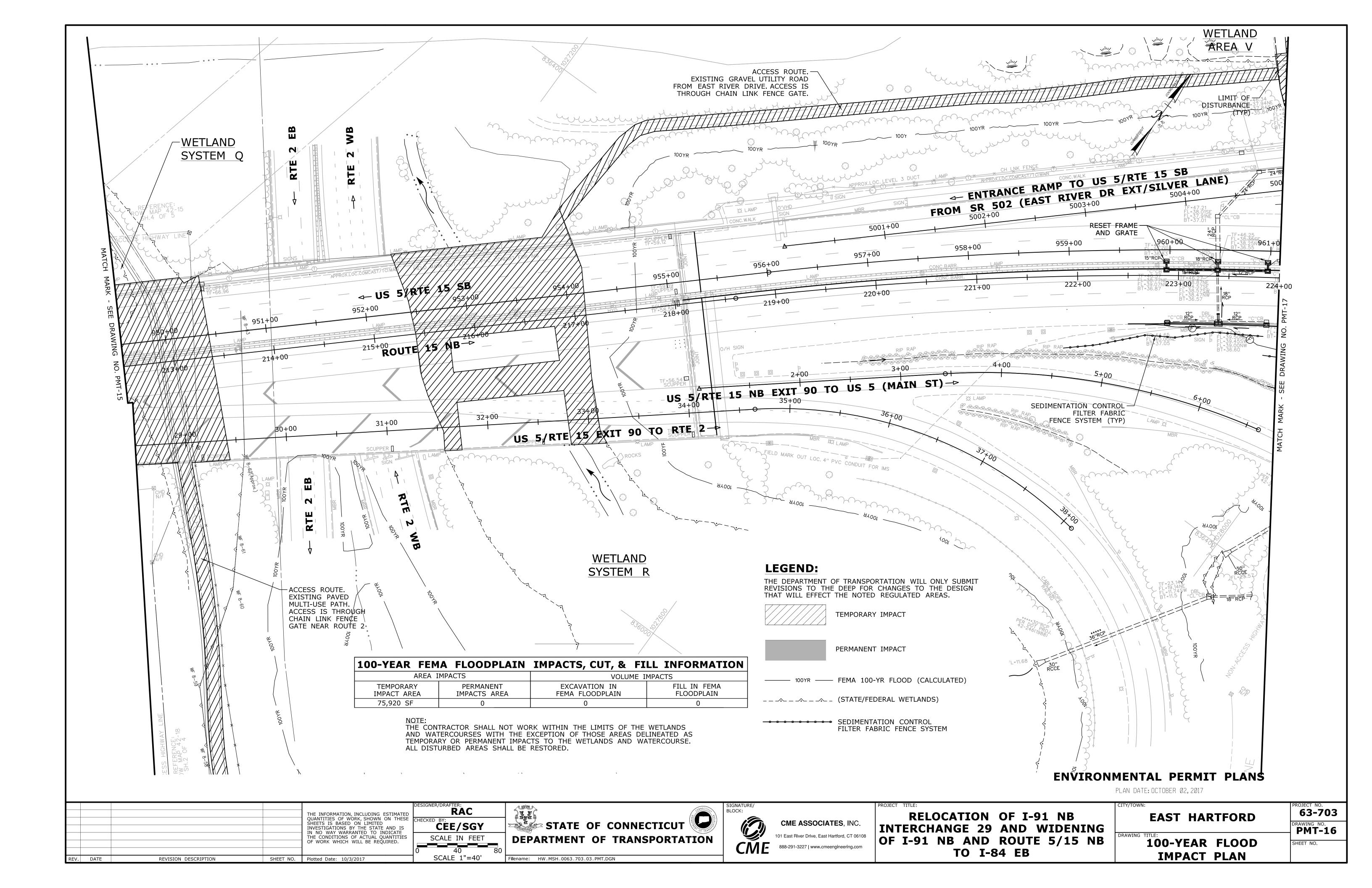


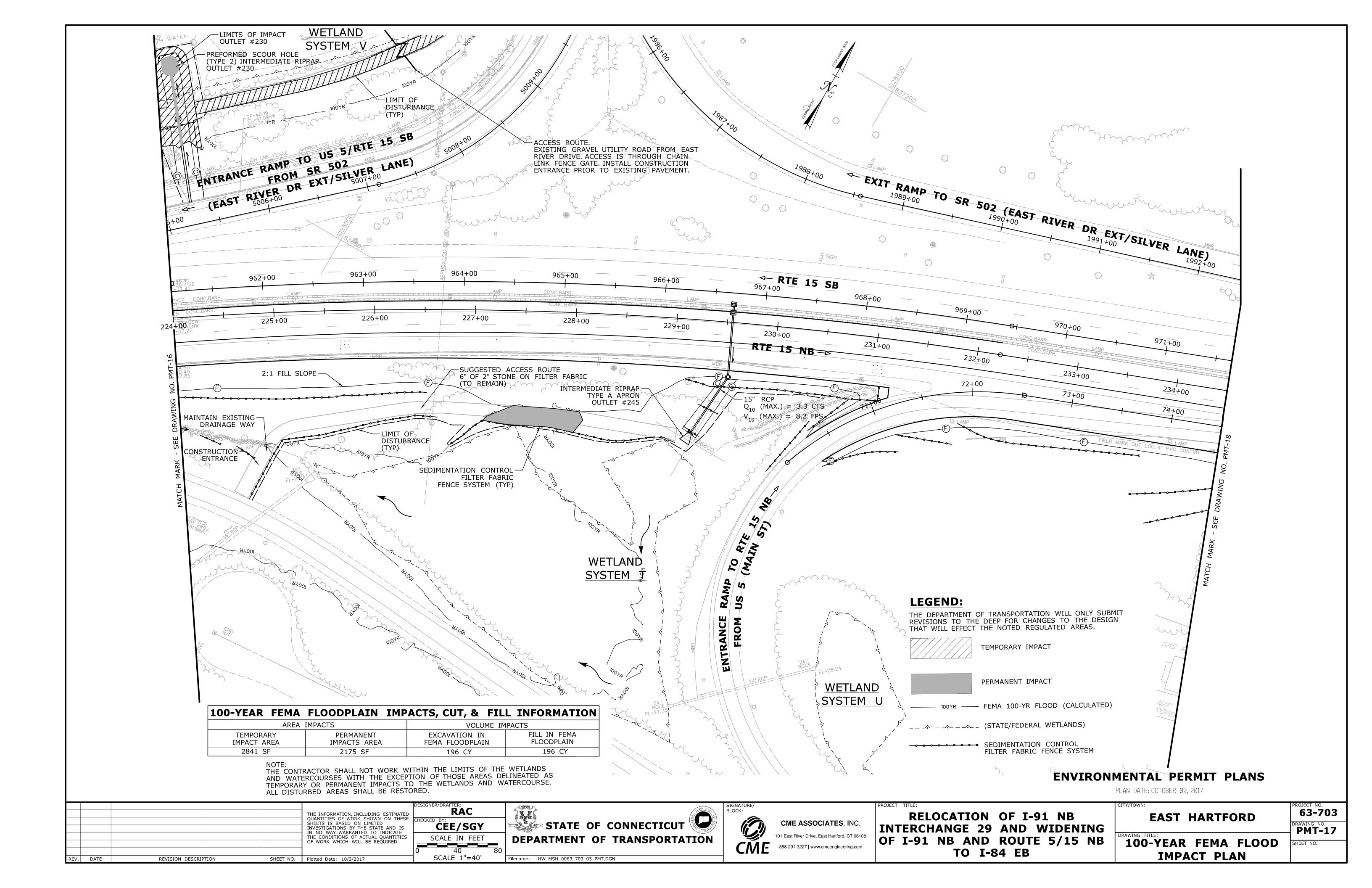


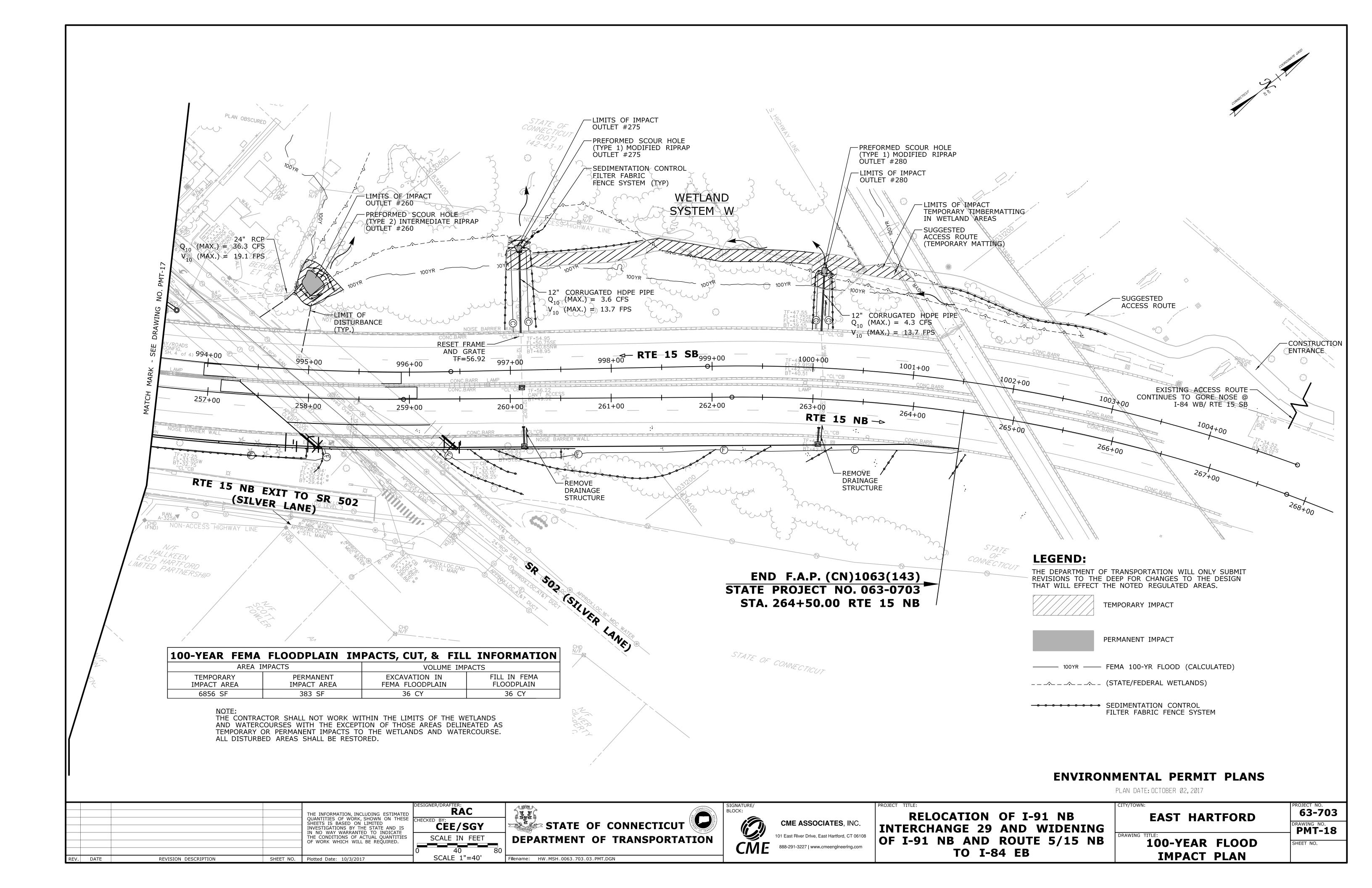


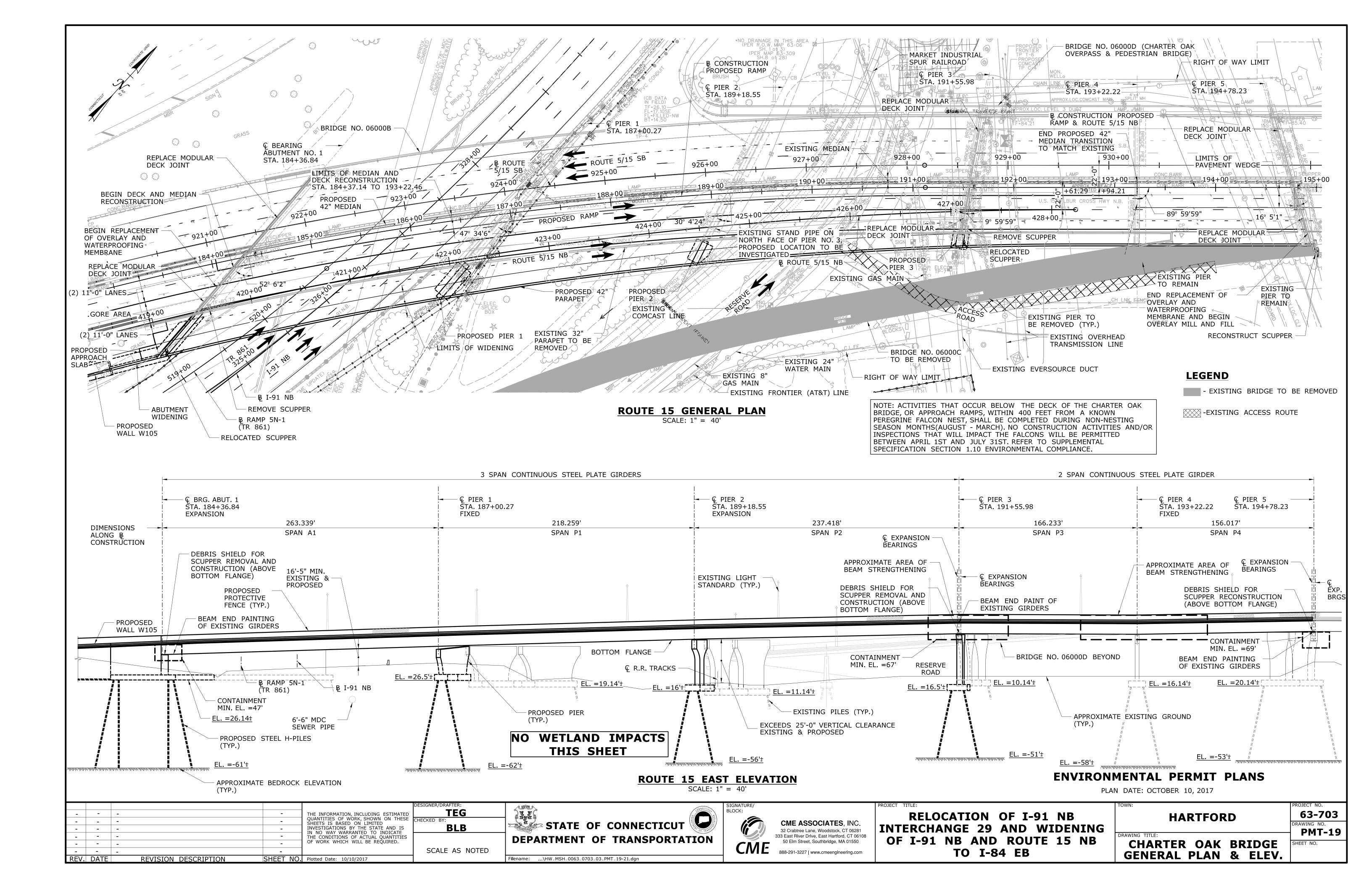


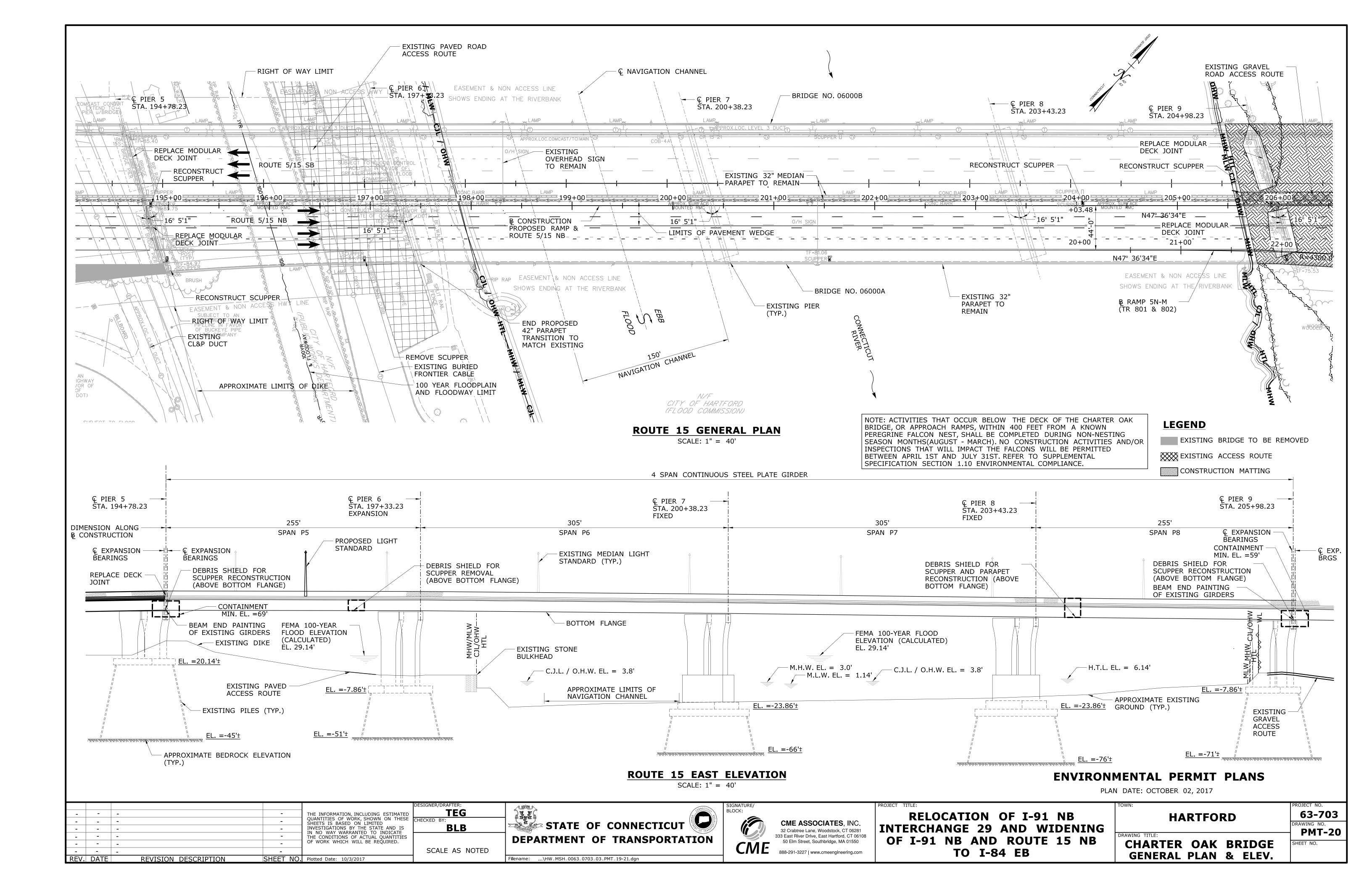


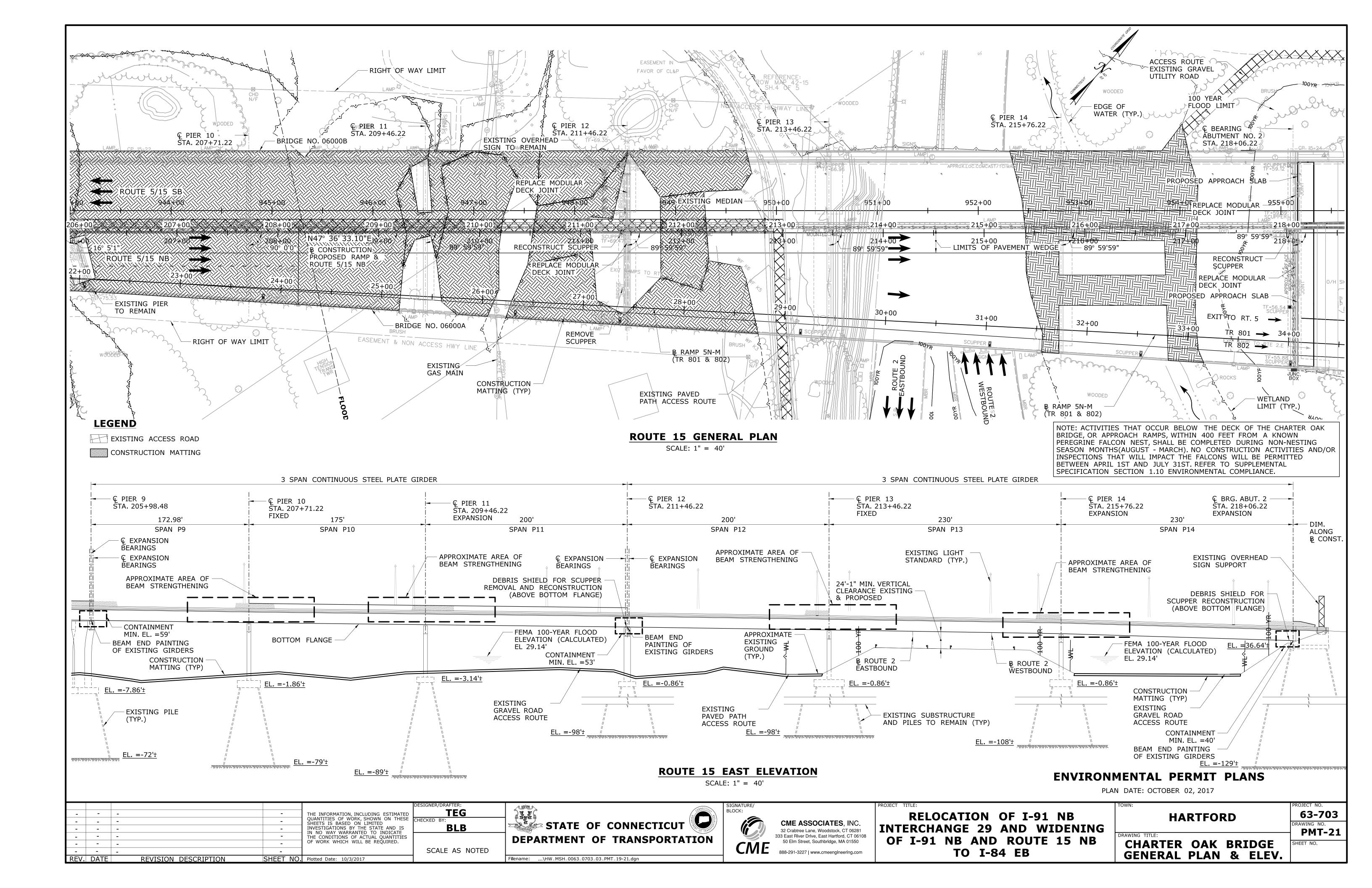


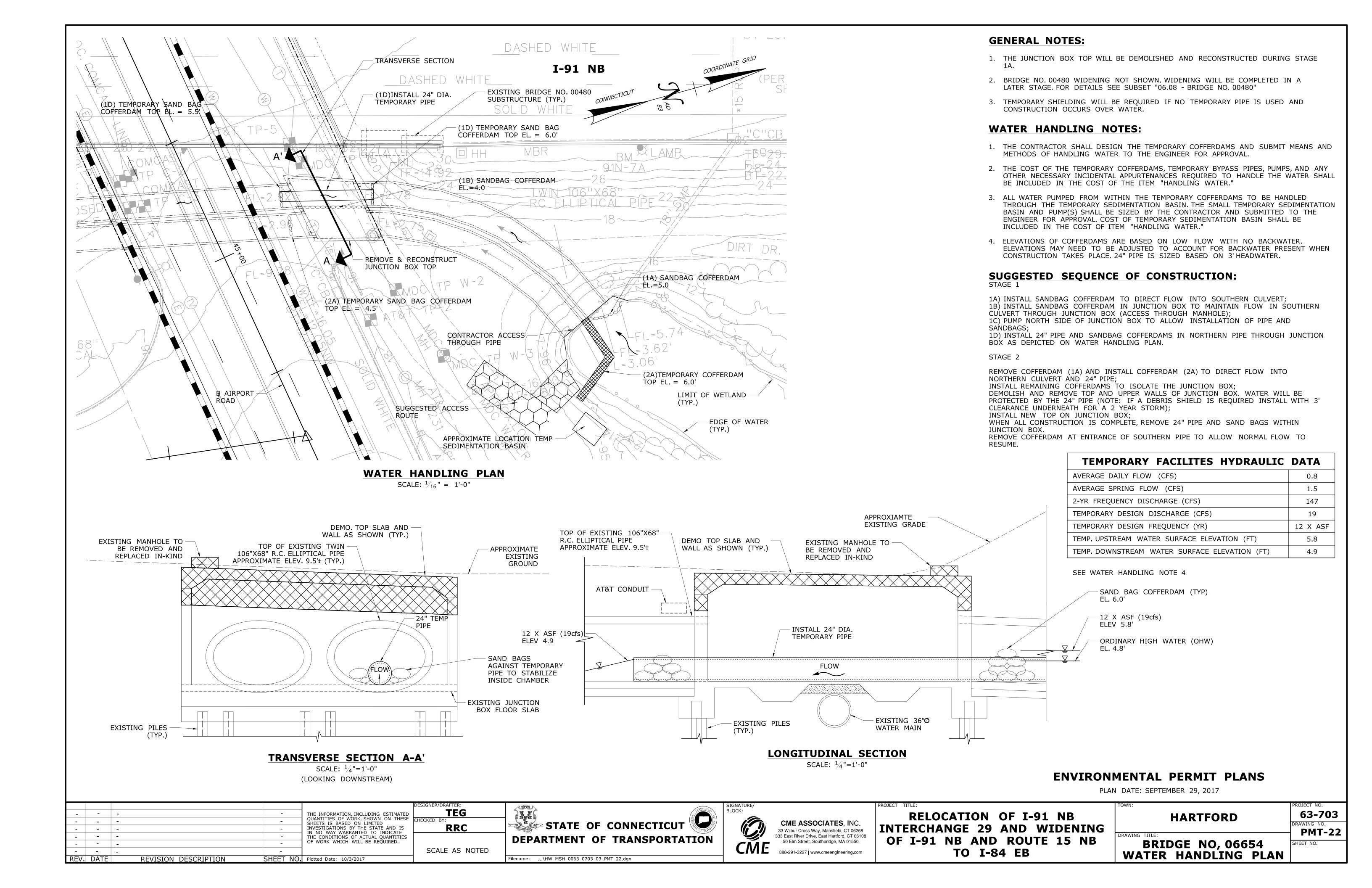


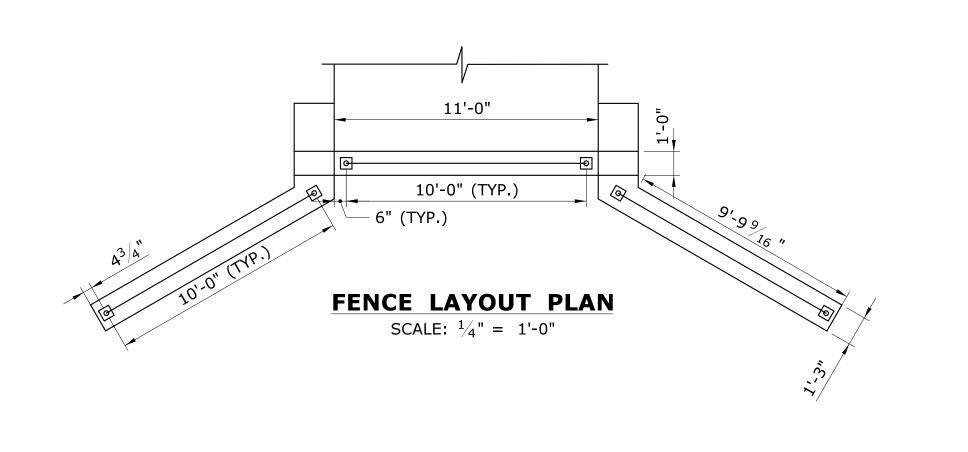


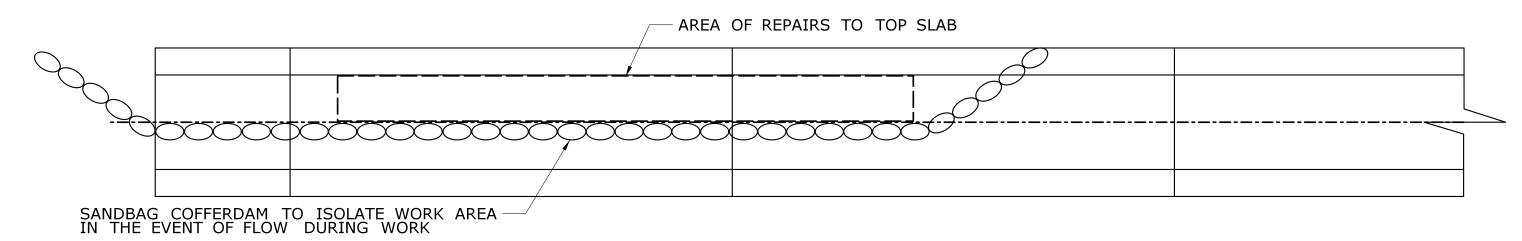






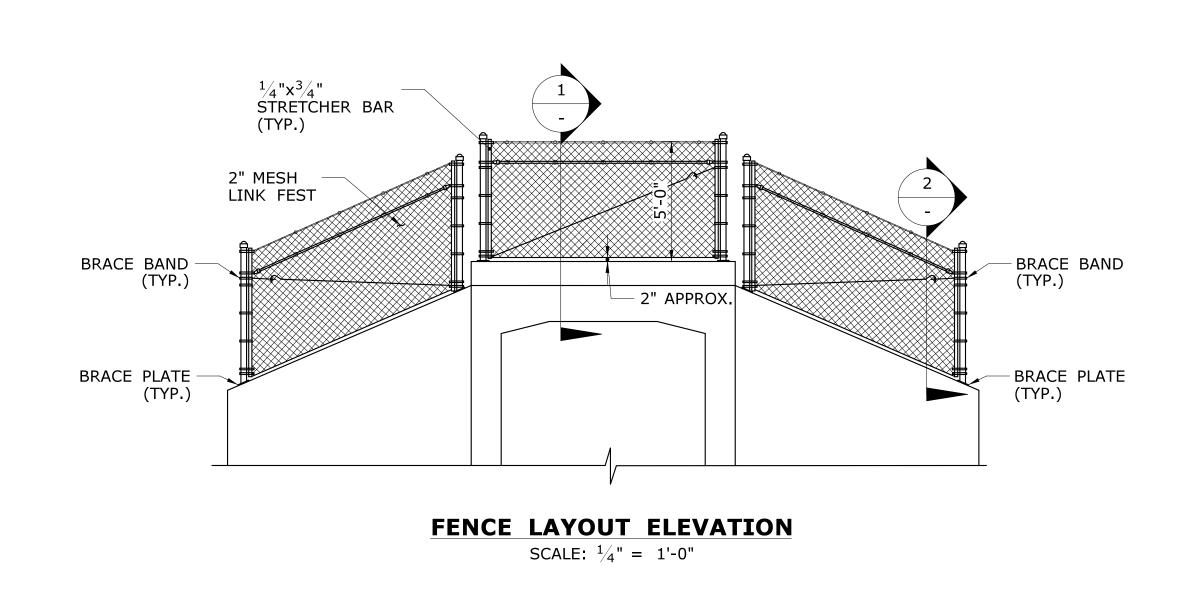


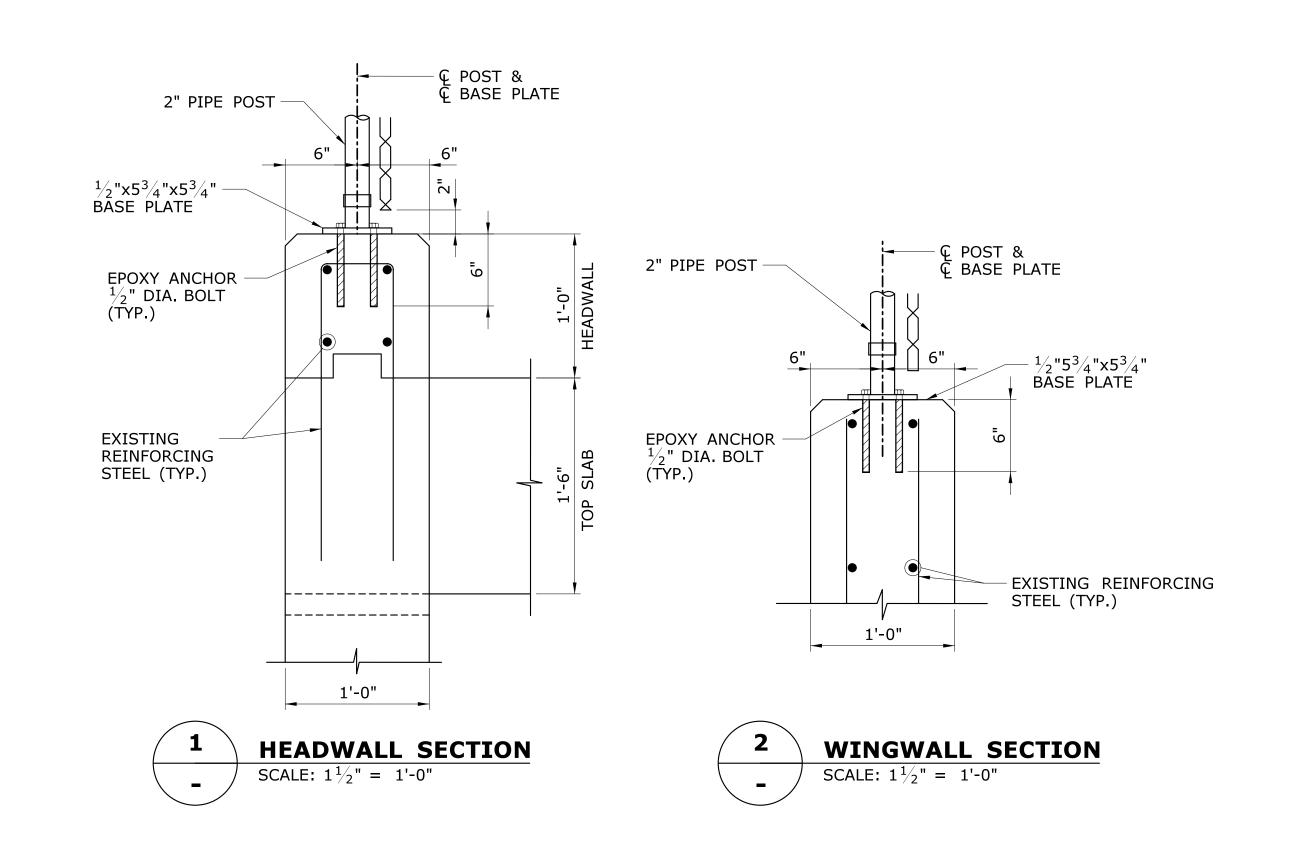


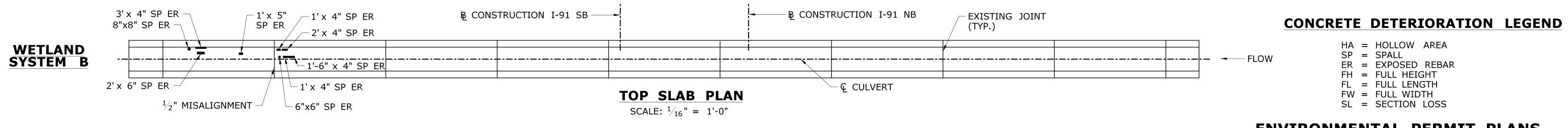


NOTE: WORK SHALL BE PERFORMED DURING PERIODS OF NO FLOW (WHEN THE CULVERT IS DRY). IN THE EVENT OF FLOW THE WATERCOURSE SHALL BE PROTECTED FROM THE WORK BY SANDBAG COFFERDAM

WATER HANDLING PLAN SCALE: NTS



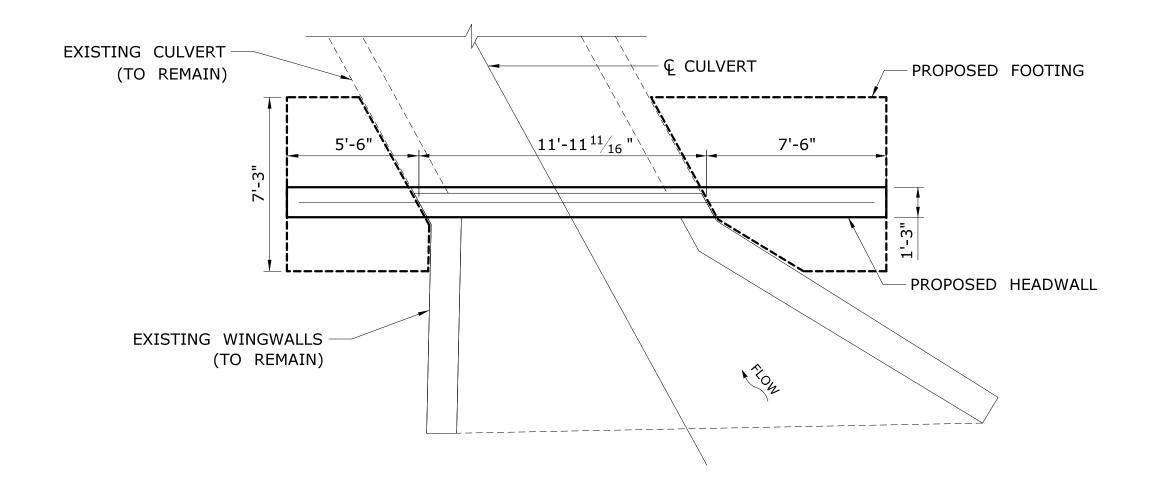




ENVIRONMENTAL PERMIT PLANS

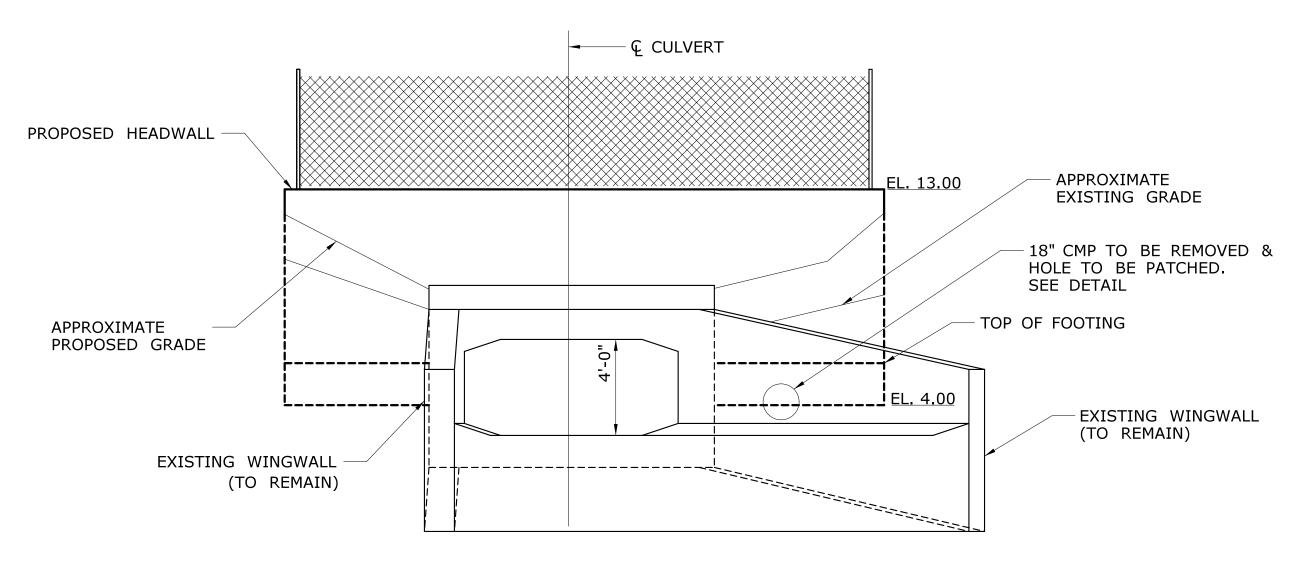
PLAN DATE: SEPTEMBER 29, 2017

		THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE	DESIGNER/DRAFTER: ABC CHECKED BY:	CONNECTION	SIGNATURE/ BLOCK:		RELOCATION OF I-91 NB	TOWN: HARTFORD	PROJECT NO. 63-703
		SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL OUANTITIES	RRC	STATE OF CONNECTICUT		CME ASSOCIATES, INC. 33 Wilbur Cross Way, Mansfield, CT 06268 33 East River Drive, East Hartford, CT 06108	INTERCHANGE 29 AND WIDENING	DRAWING TITLE:	PMT-23
		OF WORK WHICH WILL BE REQUIRED.	SCALE AS NOTED	DEPARTMENT OF TRANSPORTATION	CME	50 Elm Street, Southbridge, MA 01550 888-291-3227 www.cmeengineering.com	OF I-91 NB AND ROUTE 15 NB TO I-84 EB	BRIDGE NO. 03244 REHABILITATION DETAIL	SHEET NO.
REV. DATE	REVISION DESCRIPTION	SHEET NO. Plotted Date: 10/3/2017		Filename:\HW_MSH_0063_0703_03_PMT_23.dgn				KLIIADILIIAIION DLIAIL	.9



LAYOUT PLAN

SCALE: $\frac{1}{4}$ " = 1'-0"

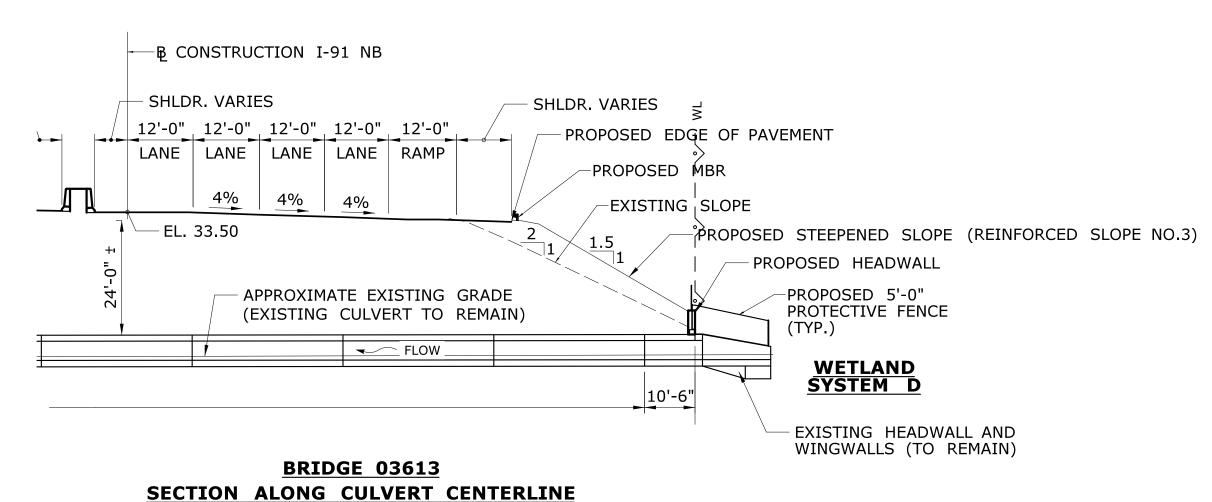


HEADWALL ELEVATION

SCALE: $\frac{1}{4}$ " = 1'-0"

NOTE: PROTECTIVE FENCE NOT SHOWN FOR CLARITY

(LOOKING NORTH) SCALE: NTS



SCOPE OF WORK

IMPROVEMENTS TO BRIDGE NO. 03613 INCLUDE THE FOLLOWING:

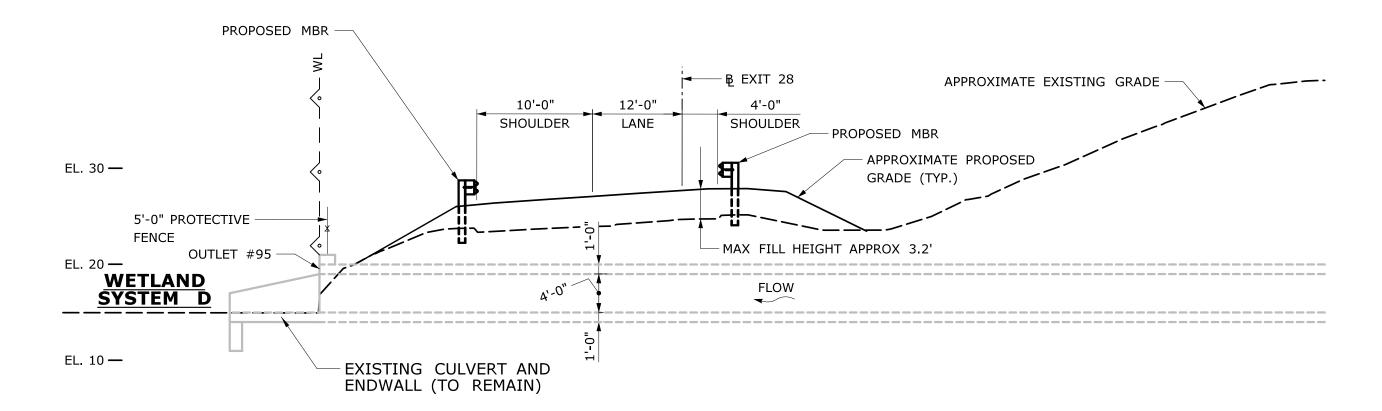
1. EXTEND EXISTING HEADWALL AND WINGWALLS.

2 INCTALL PROTECTIVE FENCE

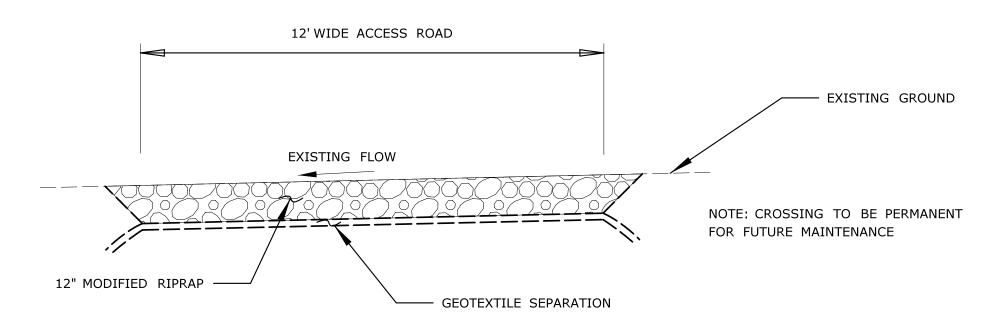
2. INSTALL PROTECTIVE FENCE.

IMPROVEMENTS TO BRIDGE NO. 03614 INCLUDE THE FOLLOWING:

1. INSTALL PROTECTIVE FENCE.



BRIDGE 03614
SECTION ALONG CULVERT CENTERLINE



WETLAND D CROSSING
WETLAND CROSSING SECTION
STA. 809+55, 85' RT TO 809+25, 115' RT

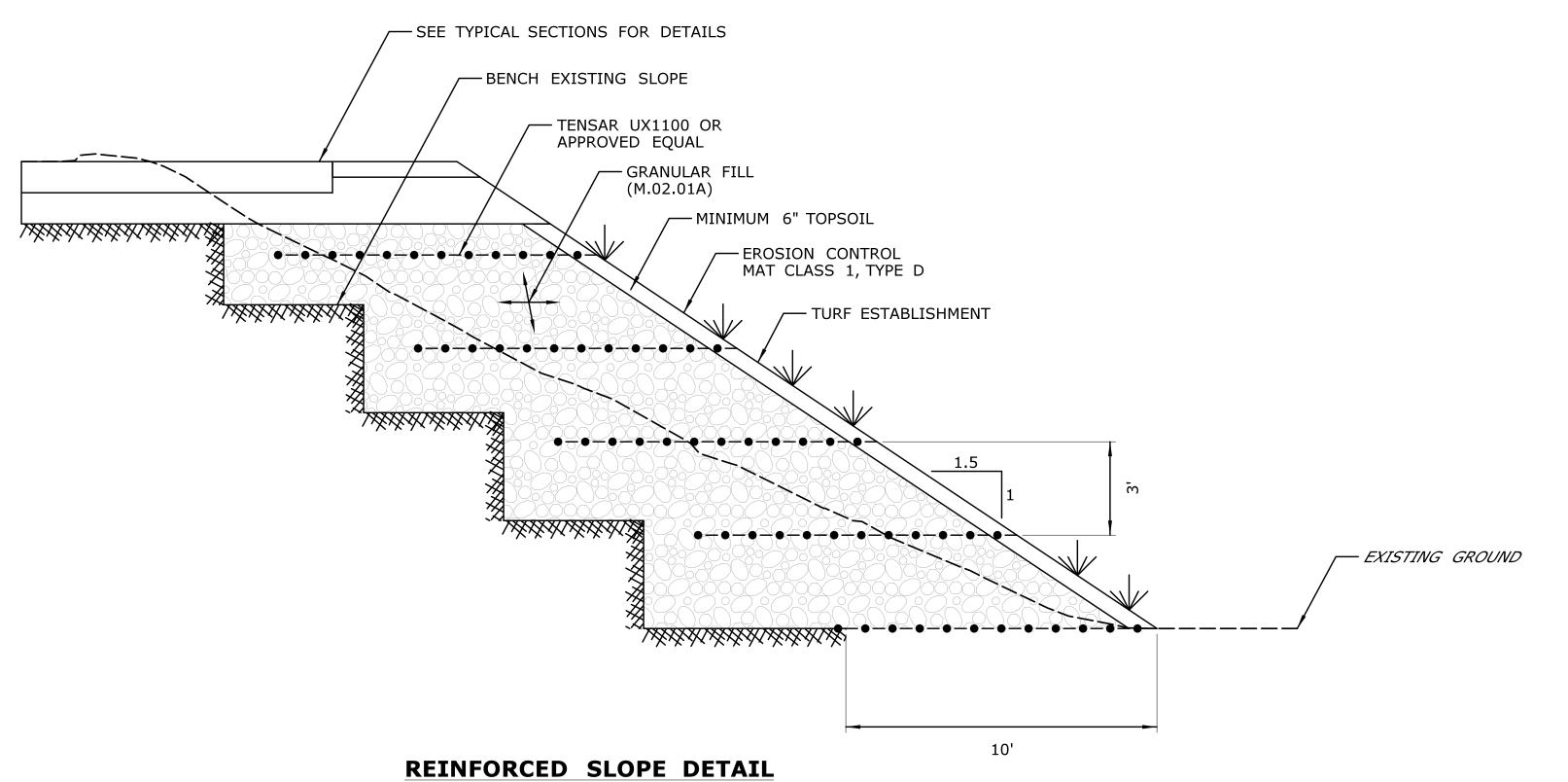
SCALE: NTS

ENVIRONMENTAL PERMIT PLANS

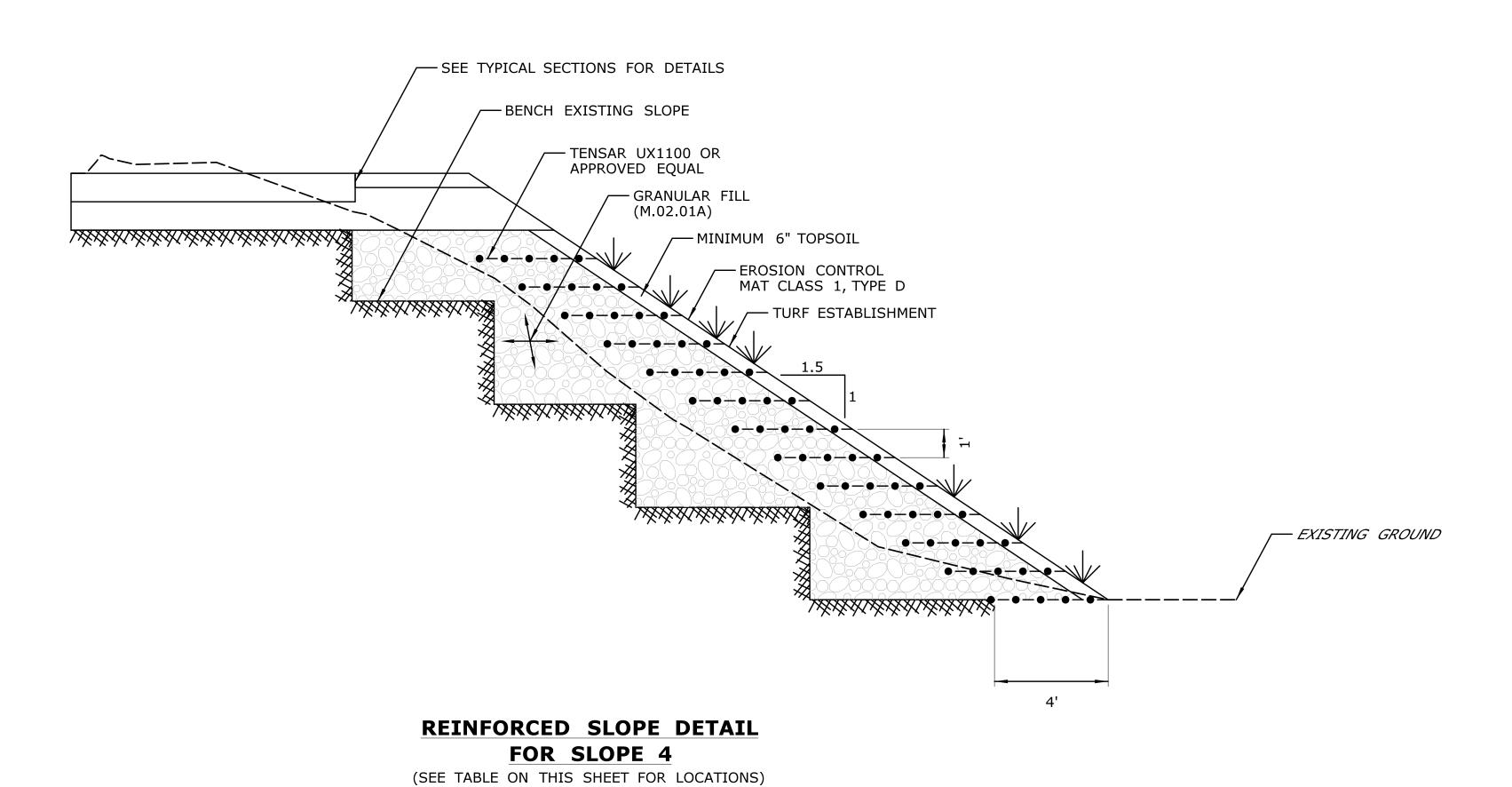
PLAN DATE: OCTOBER Ø2, 2017

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	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE CHECK	RAC		CME	F 4000014TF0 INIO	RELOCATION OF I-91 NB	HARTFORD	63-703
	SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE	CEE/SGY	STATE OF CONNECTICUT		E ASSOCIATES, INC.	INTERCHANGE 29 AND WIDENING		PMT-24
	THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DEPARTMENT OF TRANSPORTATION	101 East	River Drive Fast Hartford CT 06108	OF I-91 NB AND ROUTE 5/15 NB	DRAWING TITLE:	SHEET NO
	So	CALE AS NOTED		CME 888-29-	91-3227 www.cmeengineering.com	TO I-84 EB	DETAILS AT WETLAND D	311221 110.
REV. DATE REVISION DESCRIPTION SH	ET NO. Plotted Date: 10/3/2017		Filename: HW_MSH_0063_703_03_PMT,DGN			10 101 25		

EL. 0 —



FOR SLOPE 1, 2, 3, AND 5
(SEE TABLE ON THIS SHEET FOR LOCATIONS)



	PROPOSED REINFORCED SL	OPES	
SLOPE NO.	LOCATION	HEIGHT (FT)	LENGTH (FT)
1	I-91 NB STA. 105+50 TO 110+25 RT	35	475
2	EXIT 27 RAMP STA. 10+00 TO 18+00 RT	28	800
3	I-91 NB STA. 123+88 TO 128+00 RT	24	422
4	I-91 NB STA. 141+25 TO 144+58 RT	15	333
5	I-91 NB STA. 153+33 TO 162+50 RT	25	927

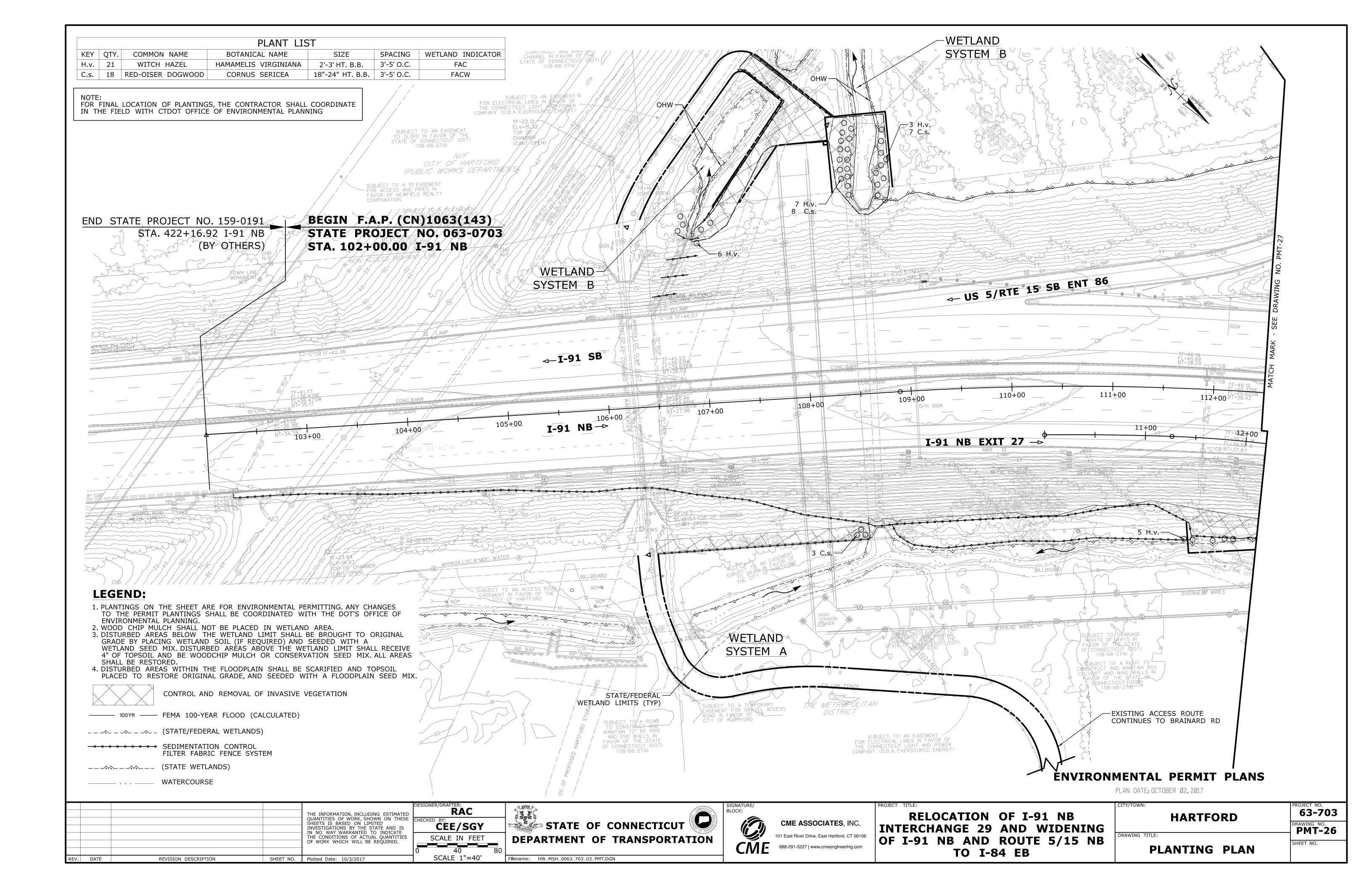
REINFORCING LENGTH				
SLOPE NO.	LAYERS	L (FT)		
1 & 2	ALL	10		
3	ТОР	12		
3	OTHER	10		
4	ALL	4		
5	TOP 2	13		
5	OTHER	10		

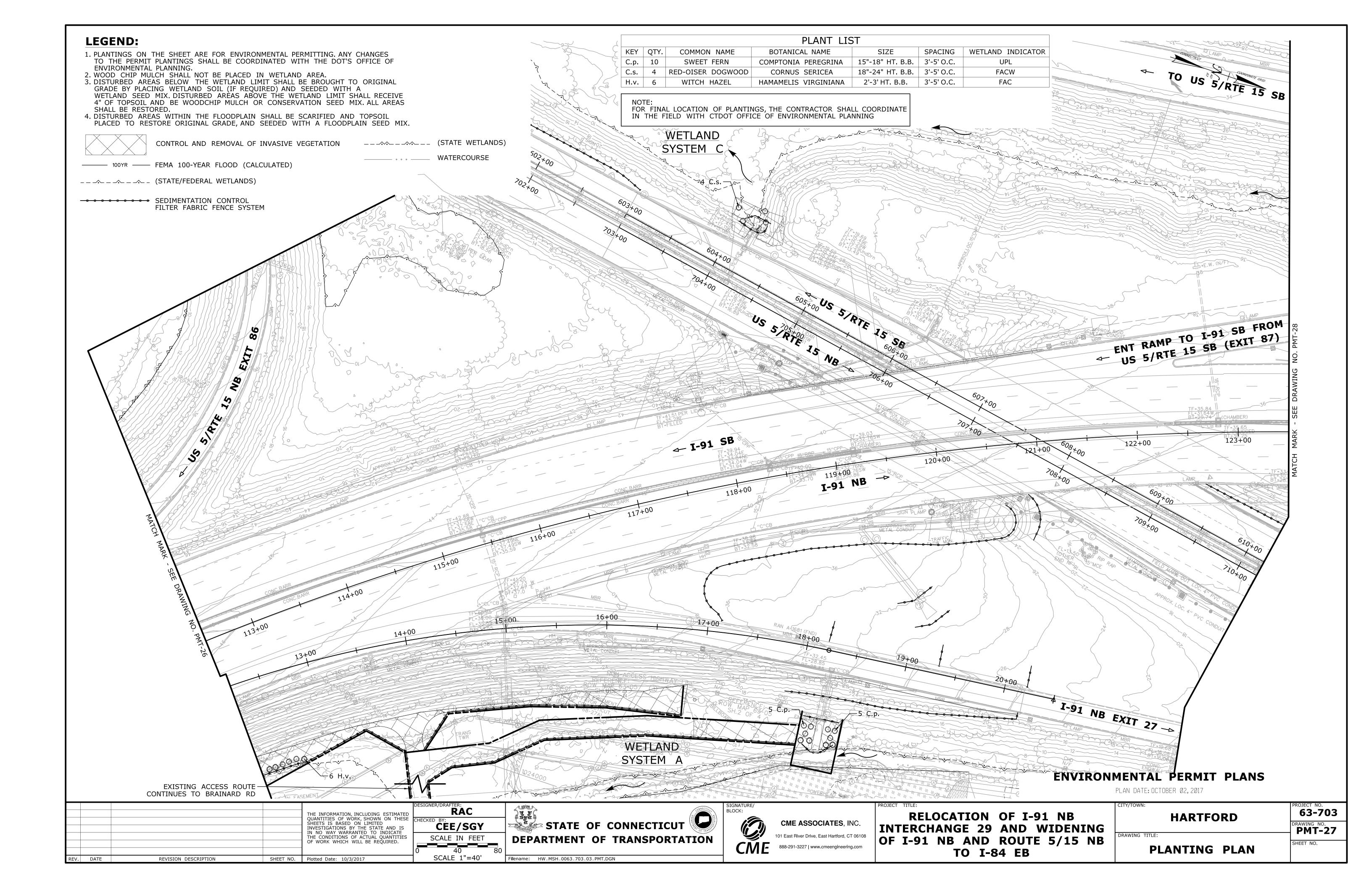
EROSION CONTROL MATTING (FO	OR SLOPE PROTECTION)
LOCATION	MATTING
I-91 NB STA. 103+00 TO 110+25 RT	EROSION CONTROL MATTING TYPE D
I-91 NB STA. 123+88 TO 128+00 RT	EROSION CONTROL MATTING TYPE D
I-91 NB STA. 130+40 TO 132+44 RT	EROSION CONTROL MATTING TYPE D
I-91 NB STA. 311+50 TO 314+00 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 406+25 TO 409+00 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 704+50 TO 705+50 LT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 704+00 TO 705+50 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 706+88 TO 708+01 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 SB STA. 605+50 TO 607+00 LT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 SB STA. 609+25 TO 610+38 LT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 708+00 TO 712+50 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 911+00 TO 920+50 RT	EROSION CONTROL MATTING TYPE D
I-91 NB STA. 134+15 TO 140+06 RT	EROSION CONTROL MATTING TYPE D
I-91 NB STA. 141+25 TO 144+58 RT	EROSION CONTROL MATTING TYPE D
I-91 NB STA. 153+33 TO 162+50 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 NB STA. 409+44 TO 418+98 RT	EROSION CONTROL MATTING TYPE D
RTE 15 STA. 223+76 TO 228+97 RT	EROSION CONTROL MATTING TYPE D
RTE 15 STA. 234+31 TO 234+97 RT	EROSION CONTROL MATTING TYPE D
AIRPORT RD STA. 42+25 TO 43+25 LT	EROSION CONTROL MATTING TYPE D
AIRPORT RD STA. 42+25 TO 43+00 RT	EROSION CONTROL MATTING TYPE D
AIRPORT RD STA. 44+75 TO 47+75 LT	EROSION CONTROL MATTING TYPE D
EXIT 27 RAMP STA. 10+00 TO 17+73 RT	EROSION CONTROL MATTING TYPE D
EXIT 28 RAMP STA. 802+08 TO 804+39 LT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 EXIT 87 RAMP STA. 59+03 TO 59+84 RT	EROSION CONTROL MATTING TYPE D
US 5/RTE 15 EXIT 87 RAMP STA. 60+27 TO 61+14 LT	EROSION CONTROL MATTING TYPE D
RELOCATED EXIT 29 RAMP STA. 164+55 TO 166+28 RT	EROSION CONTROL MATTING TYPE D

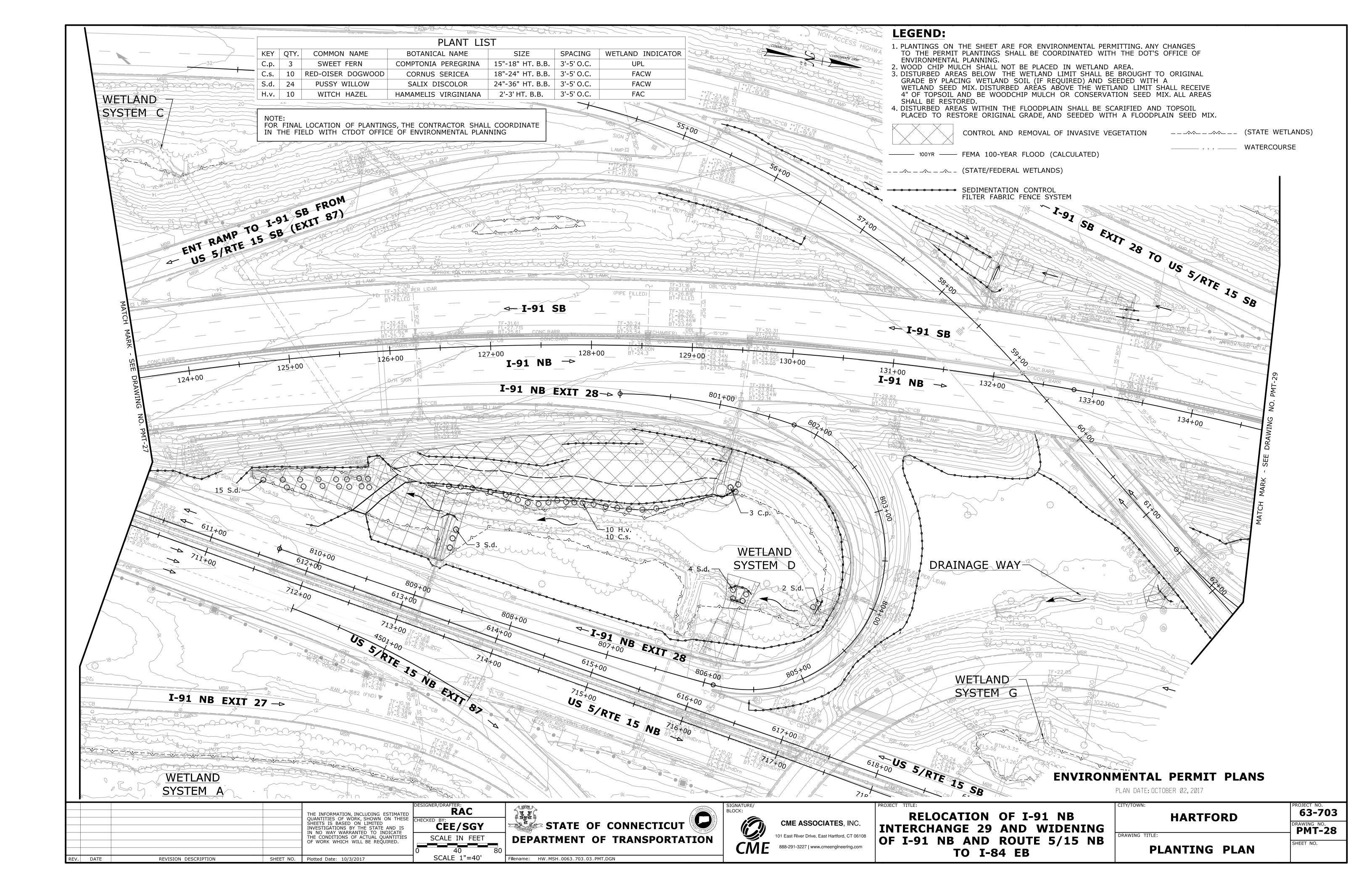
ENVIRONMENTAL PERMIT PLANS

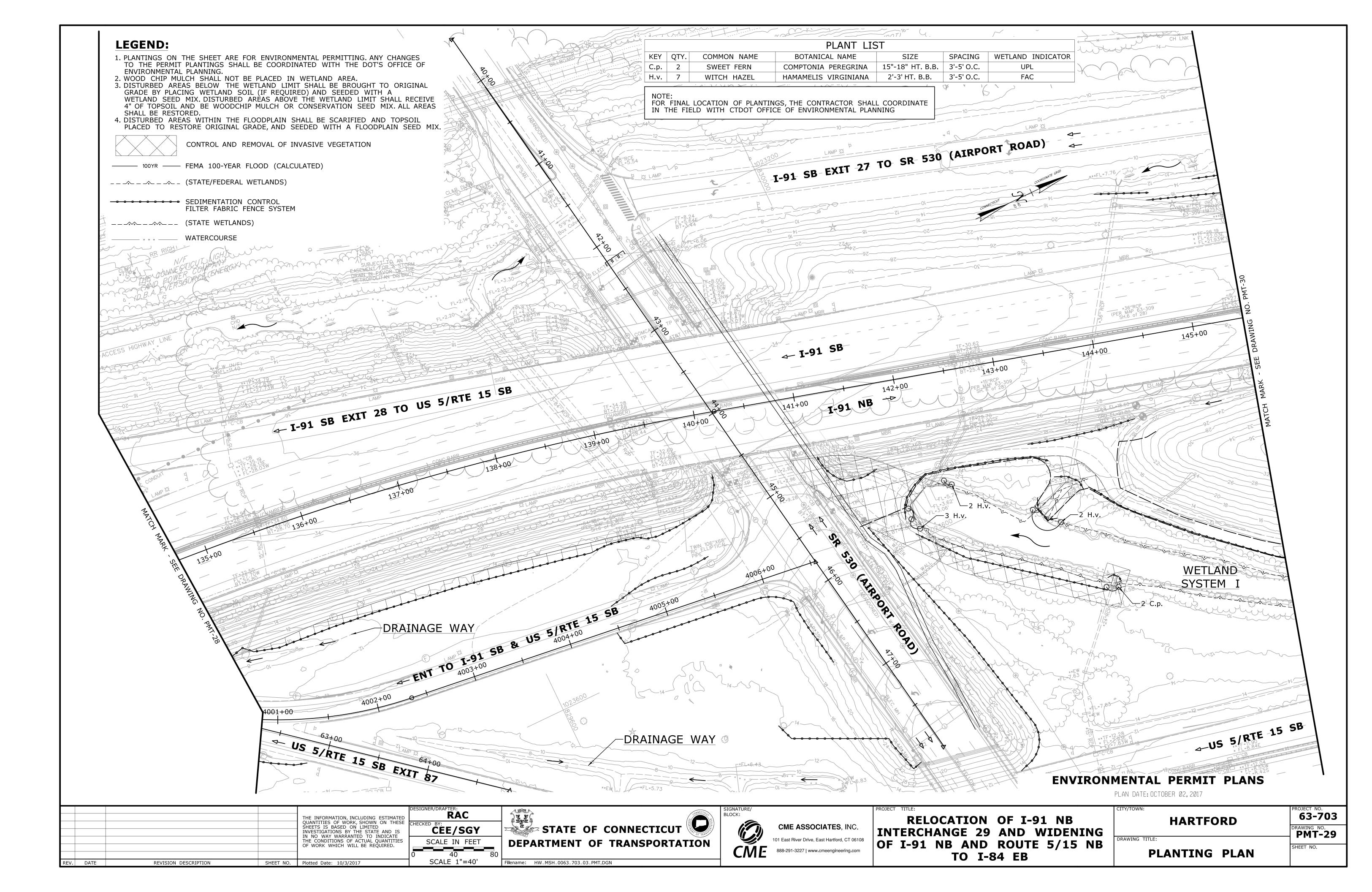
PLAN DATE: OCTOBER Ø2, 2017

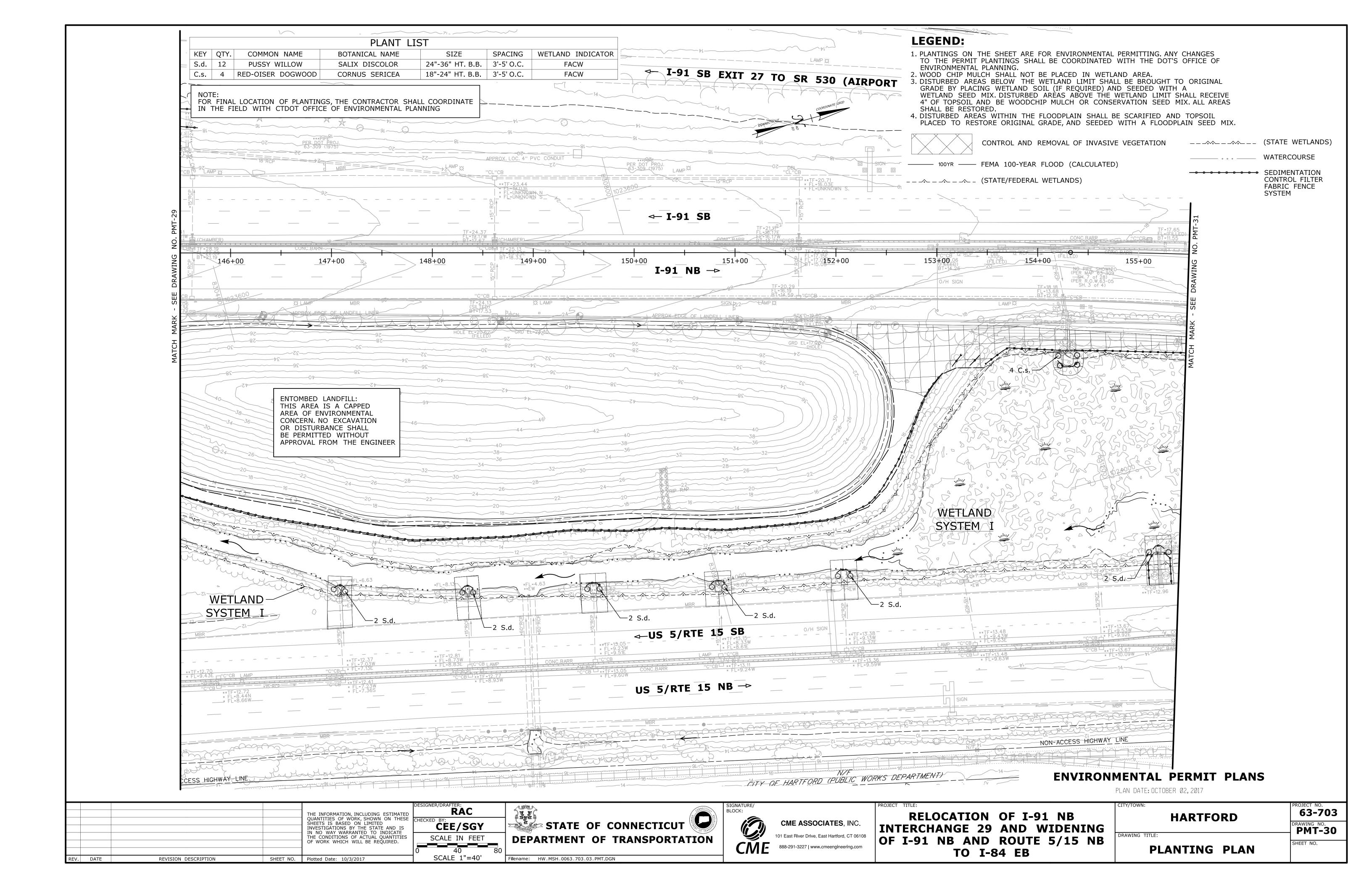
							PLAN DATE: UCTUBER 02, 2017	
		THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS	DESIGNER/DRAFTER: K. MCDYER CHECKED BY: S. WEXELL	STATE OF CONNECTICUT	SIGNATURE/ BLOCK:	RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING	HARTFORD EAST HARTFORD	PROJECT NO. 63-703 DRAWING NO. PMT-25
		IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	DEPARTMENT OF TRANSPORTATION		OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	REINFORCED SLOPE DETAIL	CHEET NO
REV. DATE REVISION DESCRIPTION	SHEET NO.	Plotted Date: 10/3/2017		Filename: HW_MSH_0063_703_03_PMT.DGN				

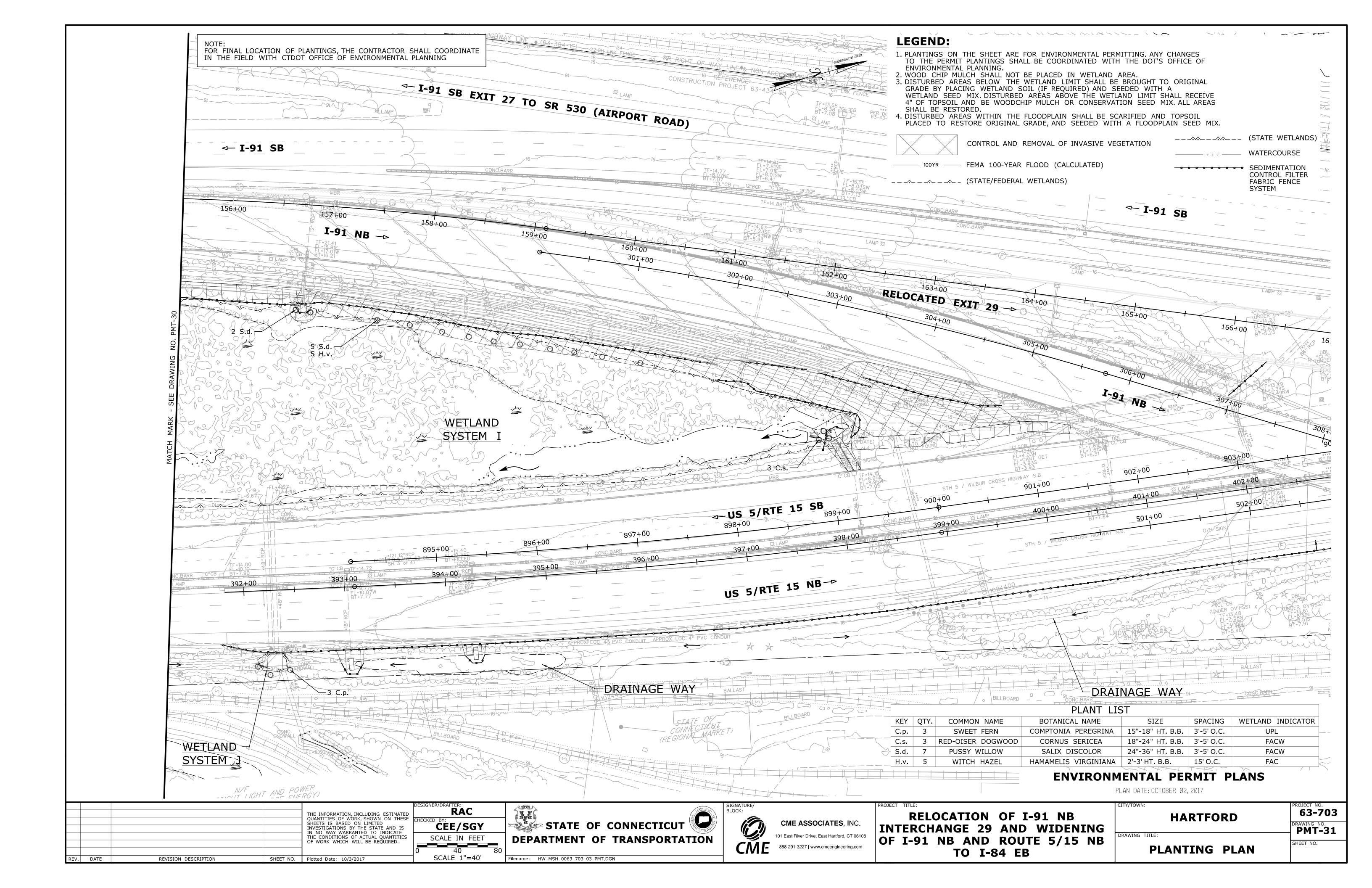


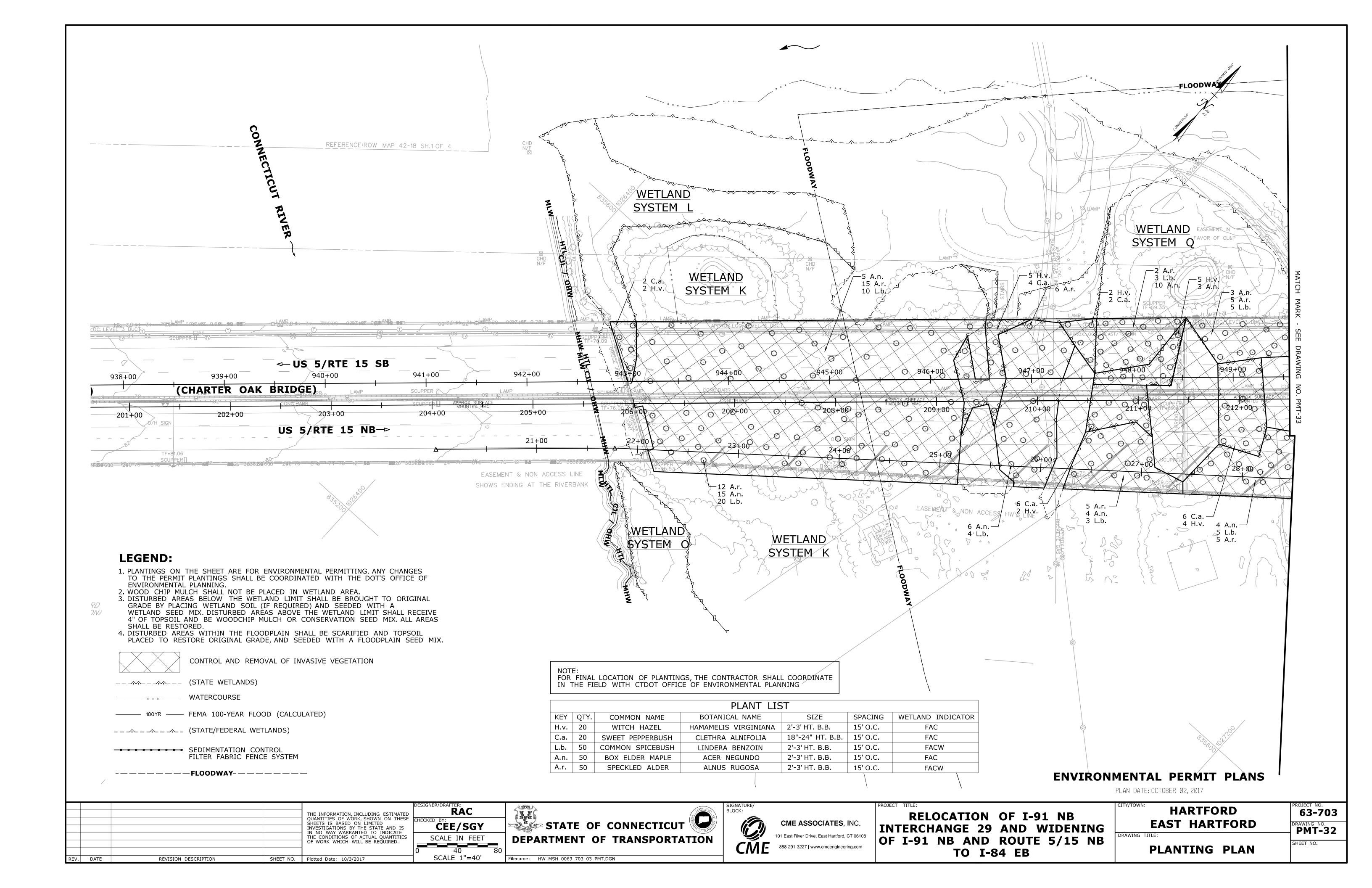


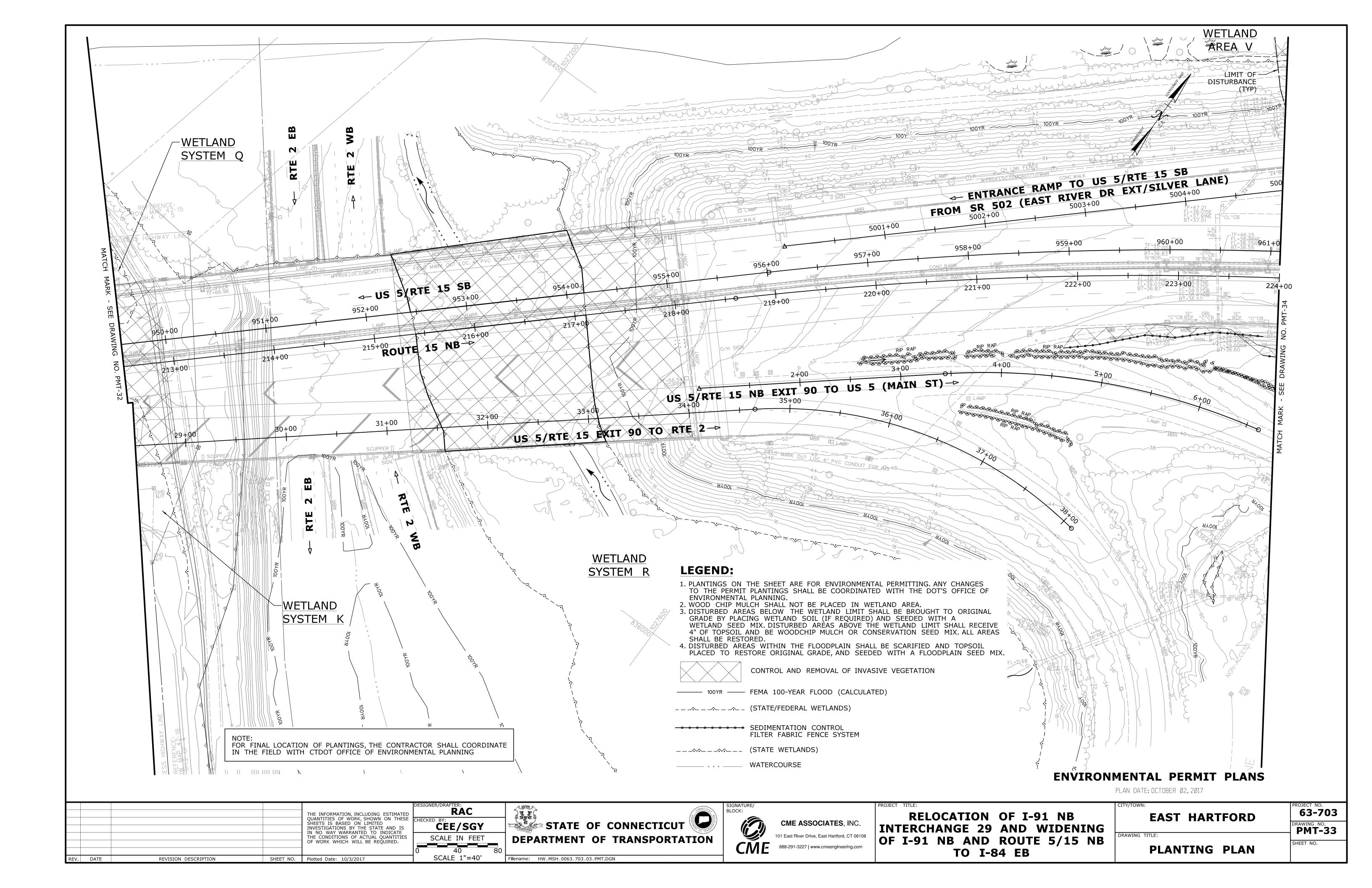


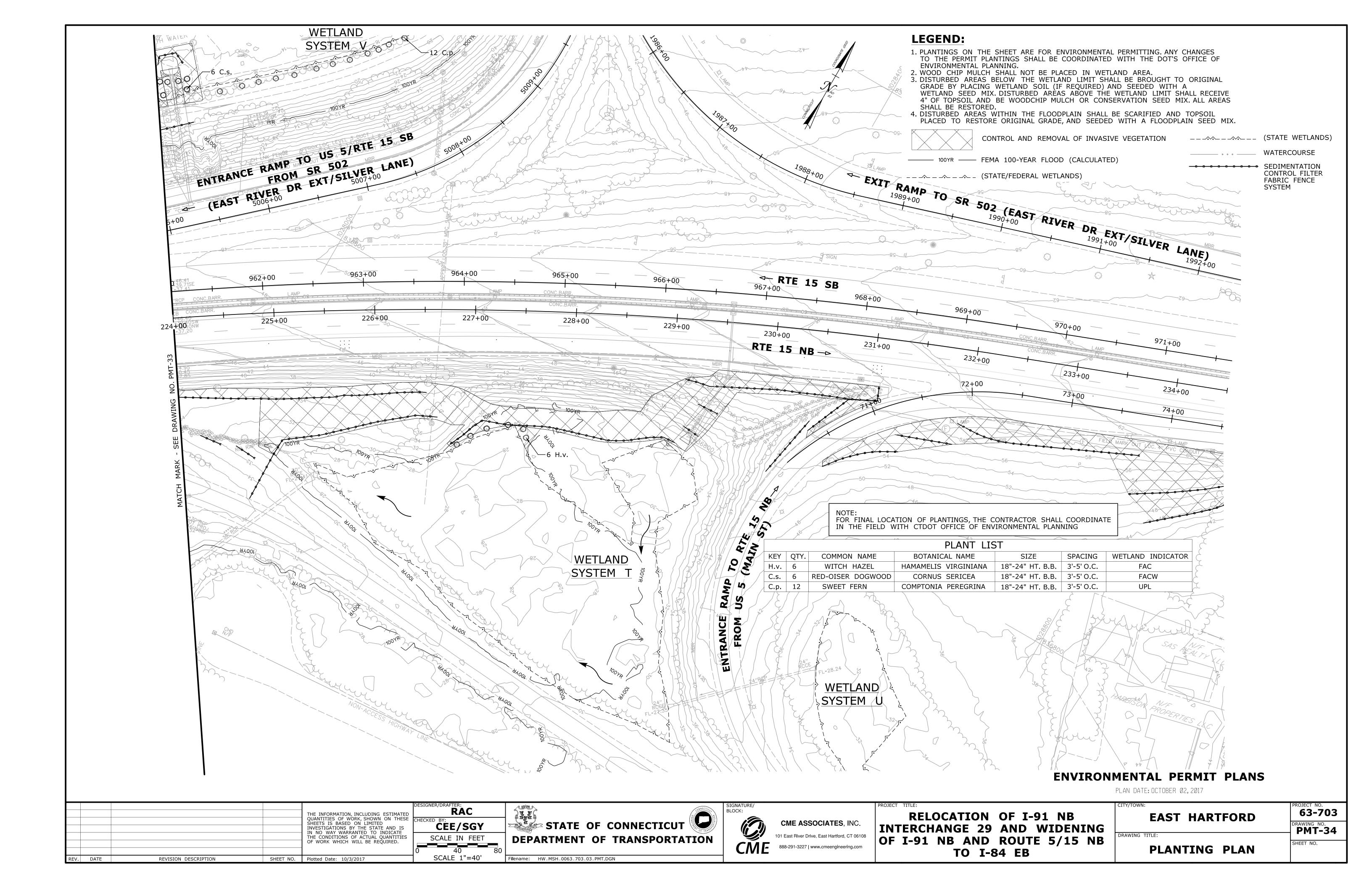


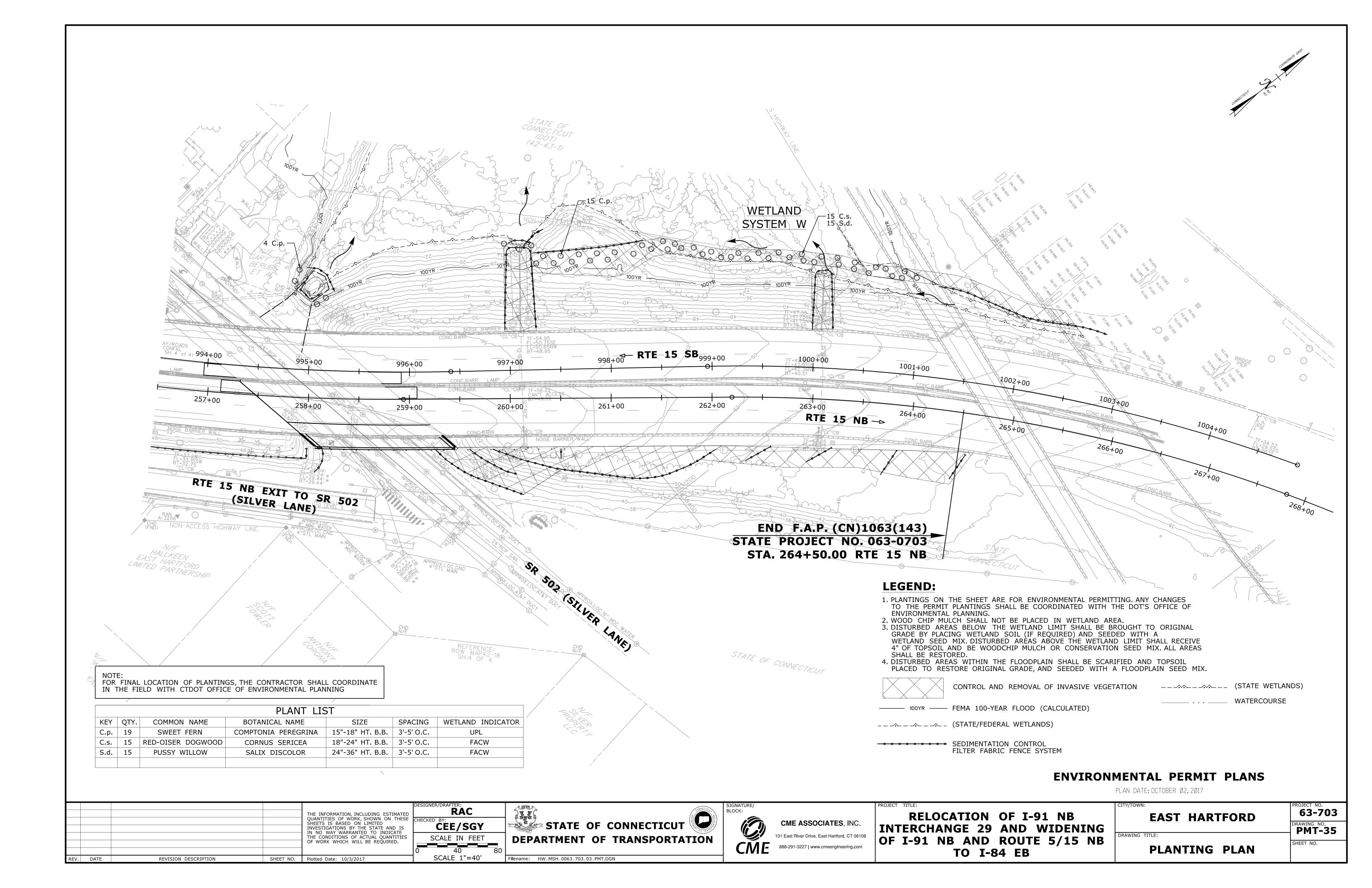












Attachment D NDDB Determination Letter and Contra	actor Spec	



July 10, 2017

Mr. Christopher Samorajczyk
State of Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131
christopher.samorajczyk@ct.gov

Project: CTDOT Project No. 63-703, I-91 Northbound Interchange 29 and Widening of the I-91

Northbound and Route 15 to I-84 Eastbound in Hartford and East Hartford, Connecticut

Request No.: 201615172

Dear Christopher,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed CTDOT Project No. 63-703, I-91 Northbound Interchange 29 and Widening of the I-91 Northbound and Route 15 to I-84 Eastbound in Hartford and East Hartford, Connecticut. According to our information we have records for State Threatened *Falco peregrinus* (peregrine falcon) from the vicinity of this project. Thank you for including the protocols you will follow to ensure the protection of the nesting peregrine falcon with respect to this project. I concur that by utilizing these protocols that the proposed activities will not have an adverse impact on the peregrine falcons that may nest on these bridges. This determination is good for two years. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by July 10, 2019.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination.

Sincerely,

Dawn M. McKay

Eaun M. md

Environmental Analyst 3

SECTION 1.10 ENVIRONMENTAL COMPLIANCE

In Article 1.10.03-Water Pollution Control: BEST MANAGEMENT PRACTICES

Add the following after Best Management Practice Number 13:

14. The peregrine falcon (*Falco peregrinus*) is a state threatened species which has adapted to life in urban settings and currently uses the Charter Oak Bridge for the purposes of nesting. In Connecticut the peregrine falcon is associated with bridges for nesting and brood rearing purposes. Peregrines will actively and aggressively defend the nest, whether a nest box or natural nest, up to and sometimes past 75 yards. The peregrine will attack anyone or anything that comes within the area of its nest. Peregrine falcons are Connecticut's largest falcon and can measure up to 20 inches. Adults are slate gray above and pale underneath with fine bars and spots of black; they have long pointed wings with a narrow tail. Young falcons have the same composite but are darker underneath and browner all over. The peregrine falcon nesting season occurs between the months of April and July. For this reason, special conditions regarding the timing of work on the structures, and immediate area, that have nesting falcons must be adhered to. Any change in construction sequencing or timing of proposed work on these bridges must be coordinated with the Department.

In order to protect this species, any proposed construction activities that occur below the deck of the Charter Oak Bridge, or approach ramps, within 400 feet from the known nest, shall be completed during non-nesting season months (August – March). No construction activities and/or inspections that will impact the falcons will be permitted between April 1st and July 31st.

The Contractor shall through the Engineer at least 10 days prior to the commencement of any construction activities, arrange for a CT DOT Environmental Inspector from the Office of Environmental Planning (OEP) or their authorized delegate to be available to meet and discuss proper protocol for maintaining environmental commitments made to the protection of this species and habitat.

This species is protected by state laws which prohibit killing, harming, taking, or keeping them in your possession. Workers shall be notified of the existence of peregrine falcons in this area and be apprised of the laws protecting them. Photographs and the laws protecting peregrine falcons (species ID sheets will be provided by OEP) shall be posted in the Contractor's and DOT field offices. Any observations of this species are to be immediately reported to OEP at (860) 594-2937 or (860) 594-2938.

Attachment F

PCN Approval
[Pending - Approval]

Attachment H

Project Area Photos
Flood Management General Certification [Pending Approval]
ACOE In-Lieu Fee Mitigation Worksheet
Interagency Regulatory Meeting Notes
Fisheries Correspondence

Attachment H

Project Area Photos



Wetland System A – facing north



Wetland System A – facing northwest towards I-91





Wetland System B – facing east towards I-91



Wetland System B – facing east towards I-91



Wetland System C - facing north



Wetland System C – facing south at the northern end of the system



Wetland System D – facing south in the median towards I-91



Wetland System D – facing west where the I-91 NB off ramp enter Route 5/15 SB south of Airport Rd



Wetland System I – facing north from median between I-91 and Route 5/15



Wetland System I – facing northeast from Airport Road



Wetland System K – facing north towards Route 2 from the multi-use trail



Wetland System L-facing northwest from the pedestrian staircase under the Charter Oak Bridge



 $We tland\ System\ L-facing\ west\ from\ beneath\ the\ Charter\ Oak\ Bridge$



Wetland System M – facing northeast on the east side of the Hockanum River



Wetland System N – facing northwest towards the multi-use trail



Wetland System P- facing northwest towards the multi-use trail and Route 2



Wetland System Q – facing northeast towards Route 2 and the Charter Oak Bridge



Wetland System R – facing northeast in the median of Route 5/15 NB off ramp to Route 2 WB



Wetland System V - facing southwest towards the Hockanum River south of River Road Extension



Wetland System W – facing northeast towards I84 from Silver Lane

Attachment H Flood Management General Certification [Pending Approval]	

Attachment H
ACOE In-Lieu Fee Mitigation Worksheet



Architecture

Engineering

Planning

Project Management
Land Surveying

Environmental Science

State Project No. 63-703 In-Lieu Fee Mitigation Proposal

The proposed compensatory mitigation plan will utilize payment to the U.S. Army Corps of Engineers New England Division In-Lieu Fee Program of approximately \$83,000 to compensate for the permanent loss of Federal wetlands. This payment will be put towards future compensatory wetland mitigation, as administered by Audubon Connecticut under the In-Lieu Fee Program. See calculations below:

Impact to occur in Connecticut River Service Area (\$10.11/square foot)

Direct Impacts

Permanent fill in federal wetlands		3,762	*\$10.11=	\$38,033.82
Permanent fill in watercourses		1,462	*\$10.11 =	\$14,780.82
	Subtotal		=	\$52,814.64
Temporary fill in federal wetlands		15,685	*0.15*\$10.11=	\$23,786.30
Temporary work in watercourses		4,222	*0.15*\$10.11=	\$6,402.66
	Subtotal		=	\$30,188.96

Secondary Impacts

None anticipated

TOTAL:: \$83,003.60



860.290.4100



www.cmeengineering.com

Attachment H Interagency Regulatory Meeting Notes			

Interagency Coordination Meeting Notes July 20, 2017 DOT Room 3130

Meeting Minutes:

May and June's meeting notes were raised for discussion. No comments were made.

0120-0093 Bridge 02540, Route 85 over Little Brook, Salem

7/20/2017 – This project proposes the replacement of bridge No. 02540 and was previously presented at the Interagency Meeting on 5/18/2017. The project received initial Fisheries coordination comments on 1/31/2017. The current bridge is hydraulically inadequate and the superstructure is in poor condition. The drainage area is 1.2 square miles. Information/photos were presented regarding lack of fish passage (perched outlets, dam with steep spillway) just upstream. Engineering staff noted that a 3-sided open bottom replacement alternative (discussed in the previous Interagency Meeting) had been examined but the Department had finally decided on a 4-sided 12' x 8.5' box culvert for a number of reasons, (limit of temporary impact to 2 weeks, allows a short-term detour, one season total construction duration, addresses scour concerns without a deep foundation on piles, and no need to temporarily widen the roadway that caused additional temporary impacts.) The proposed box culvert will accommodate the 100-year/24-hour storm flow, meets 1.2 times bank full width, and will incorporate DEEP fisheries recommendations, including:

- Sunken bottom with existing streambed material. Invert to be buried 2' (1' minimum recommended by DEEP fisheries).
- Provide a defined low flow channel.
- Provide a riparian shelf through the structure.

<u>Project Impacts:</u> Specific impacts were not quantified, but are minimal (<5000sf), and design concepts are proposed to minimize impacts including: 1) Choice of an alternative so that the roadway does not need to be temporarily widened. 2) The proposed bridge is sized to allow for future roadway improvements without additional watercourse impacts. 3) The bridge being proposed has a long service life with minimal future maintenance.

<u>Permitting Requirements:</u> A PCN from the ACOE is anticipated. No other permits were discussed. <u>Agency Comments:</u> Brian Murphy (DEEP) stated that the selected alternative was acceptable. Bob Gilmore (DEEP) concurred.

Action Items:

0122-0103 Bridge 02929, Route 80 over Deep River, Deep River

07/20/2017 – This project involves replacement of the existing 25 foot span steel beam structure with a 38 foot span precast concrete arch structure. The current superstructure is in poor condition and the bridge is scour critical. The current structure is a steel multi-girder with cast in place reinforced concrete deck and is hydraulically inadequate. The drainage area is 3.36 square miles. The project is not in an NDDB area or aquifer protection area. Three alternatives were considered prior to selecting the recommended alternative. The recommended alternate was selected, in part, because it minimizes raising the roadway profile. The proposed span is 37.8'+/- with a 9' wide channel bottom, 3:1 channel slopes, and riparian shelfs in both sides of the channel. Bankfull width is 20 feet.

Project Impacts: 1868 sq.ft. of wetland impacts and 14,880 sq.ft. of floodplain impacts. The recommended alternative will require the smallest change in existing roadway profile and minimize grading required in the adjacent floodplain. The proposed concrete arch structure will be designed to function with an existing downstream wingwall to avoid additional impacts.

<u>Permit Requirements:</u> A USACE SV would be appropriate if the stream channel were not being relocated. A USACE PCN is required as currently proposed because the stream channel is being relocated 5 to 7 feet.

Agency Comments: Brian Murphy (DEEP) inquired about changes in channel width, water depth, and channel location. The designers confirmed that the channel would be moving 5 to 7 feet. After extensive discussion, the designers indicated that the channel directly under the bridge would change shape from a rectangle to a trapezoid but water elevations and depths would remain substantially the same. The current span length is 25' and it was noted that the proposed channel bottom would narrower than in existing conditions. Bob Gilmore (DEEP) and Brian Murphy inquired if the amount of scour protection was necessary as Bob Gilmore wanted to see the rip rap minimized. The designer stated that smaller, modified rip-rap, was proposed as required to protect the banks and not the structure. Concerns over the constructability of the proposed rip rap and channel were raised due to the limited space and anticipated construction sequence. Design staff agreed to review this issue.

Brian Murphy noted that he had not made any fisheries coordination comments yet and still needed to visit the site.

Action Items: Design staff needs to further consider the constructability of any proposed rip rap stabilization measures given the space constraints below the arch, equipment required, and anticipated construction sequence. Design staff needs to explore the feasibility of increasing the proposed channel bottom by removing the northern proposed riparian shelf or revising grades and also possibly lessening channel relocation. Associated impacts on water depths need to be computed as part of any proposed changes.

0004-0116/0004-0118 Route 10 at Avon Old Farms Road, Avon

07/20/2017 – This project involves replacing the existing bridge over the Farmington River with a new bridge on a revised alignment adjacent to the existing Old Farms Road. Improvements will also occur on Route 10 to improve the intersection with the relocated Avon Old Farms Road. This project was first initiated in March 1995 and had 90% Bridge design in April 2007 and 70% Roadway design in July 2010. Current FDP is May 2018. This job has been presented in greater detail in other settings and only a summary is presented today. Old Farms Road overtops during a 10 year flood event. Bridge 04470 is functionally obsolete and structurally deficient. Congestion occurs due to poor geometry at the Old Farms Road and Route 10 intersection. These issues are addressed by raising the profile of Old Farms Road, replacing bridge 04470, and reconstructing Old Farms Road at Route 10. CTDOT Coordination to address environmental impacts has been on-going, for example:

- A wetlands mitigation package involving land conservation is being coordinated with CT DEEP. It
 was noted that a portion of the Town land that was being considered for conservation purposes
 to the extreme north of the project is not included in the mitigation package due to a Town of
 Farmington request.
- A CLOMR has been approved for FEMA impacts.
- A 4(f) parkland land swap has been approved.

- CT DEEP fisheries recommendations are incorporated into the design, including the creation of a car-top boat launch, fisheries enhancements, and riparian bank restoration.
- Provisions for State Listed Species are ongoing, including invasive species removal and an approved Incidental Take Report.

For reference purposes, wetland impacts have been separated into 5 sites. Site 1 is State-Only wetland Farmington River Floodplain impacts, Site 2 is Farmington River impacts, and Sites 3-5 are culvert sites on Route 10.

Project Impacts:

Wetland Impacts: Sites 1 - 5	Permanent	Temporary	Total
State	2.41	1.30	3.70
Federal	0.04	0.06	0.10
Below OHW	0.15	0.47	0.62
TOTAL	2.60	1.83	4.43

<u>Permit Requirements:</u> ACOE PCN, FMC-E, IWW Individual, Individual 401 WQC, Incidental Take Approval, CLOMR, Stormwater Registration.

Agency Comments: Bruce Williams (DEEP) noted that he was not familiar with the project details and Justin Giorlando (CTDOT) agreed to provide him with any additional project information that he needed upon request. Bruce Williams inquired about the timing and origin of previous fisheries comments and there was a discussion about the fisheries recommendations (noted above) that have been included into the project that resulted from coordination with former DEEP staff (Don Mysling). Bruce Williams asked if there were previous comments related to salmon and shad. DOT OEP and design staff briefly noted the timeline of previous fisheries coordination (including the origin of the proposed boat launch) and Kim Lesay (Consultant) stated that she was planning to provide a package of the most current information to DOT OEP for distribution to fisheries. Kim Lesay noted that culvert locations #3,#4, & #5 have not been considered fisheries resources. Susan Lee (USACE) asked about Federal coordination of protected mussels and CTDOT staff noted that a 2012 survey did not find any federally protected mussels and no federal mussel coordination was proposed. A programmatic exists for federally required coordination. CTDOT staff confirmed that coordination related to State listed mussels was ongoing and would be completed prior the start of the project. Bob Gilmore (DEEP) noted that approval of the mitigation package was not yet completed.

Action Items: The consultant needs to provide the most current information applicable to fisheries to DOT OEP for transmittal to DEEP Fisheries.

0063-0703 Charter Oak Bridge/I-91/RT 15, East Hartford/Hartford

07/20/2017 —Andy Davis conducted this presentation for the purpose of discussing the USACE In-Lieu Fee for this project. The project involves interchange improvements to the I-91 North/Charter Oak Bridge/Route 15 project area. This relocation and widening project has a number of temporary and permanent impact locations primarily related to rip-rap placement, culvert work/outlet stabilization, and mat placement for cranes. The impact locations were presented with images to show a sample of the kinds of impacts and wetlands types being impacted and present a draft In-Lieu fee proposal. The impact areas are generally disturbed areas and/or adjacent to highway on/off ramps, bridges, or existing culverts. A proposed compensatory mitigation plan for the impacts prepared by the CTDOT utilizes a payment through the USACE New England Division in-Lieu Fee Program. The calculation in the

compensatory mitigation plan uses a \$10.11/square foot valuation (Connecticut River Service Area) and a 15% multiplier applied to the temporary impacts.

<u>Project Impacts:</u> Impact numbers are semi-final in nature and will change. Permanent impacts: 6,665 sq.ft.; Temporary Impacts: 119,344 sq.ft.

<u>Permit Requirements:</u> Permit requirements were previously determined and not further discussed at this meeting.

Agency Comments: Susan Lee (USACE) asked if there was any revised guidance on the multiplier applied to temporary impacts in the compensatory mitigation plan. CTDOT OEP staff stated that they had found no new guidance and had used the multiplier used in previous compensatory mitigation plans (15%). Susan Lee stated that the temporary impact from mats should be removed from the in-lieu fee calculation. Otherwise, she indicated that the methodology applied was acceptable.

<u>Action Items:</u> Design staff needs to finalize impacts prior to the In-Lieu fee being finalized and recalculate the fee after excluding the temporary mat areas.



Interagency Coordination Meeting Notes

August 17, 2017 DOT Room 3130

Meeting Minutes:

July's meeting notes were presented. No comments were made.

128-151 Sidewalk and Road Improvements for Riverside Road, Drake Hill Road Bridge (Bridge 05637), and Hopmeadow Street, Simsbury

8/17/2017 - The project proposes changing the profile of a section of Riverside Road to reduce the frequency of flooding from the backwater of the Farmington River during significant flooding events. The Farmington River is a Wild & Scenic River in the vicinity of the project and the FEMA mapped floodway/floodplain is very wide. Work will include raising the roadway profile and adjusting storm drainage. Additionally, repairs will be made to the Drake Hill Road Bridge, including removal and replacement of the expansion joint system, patching of the existing concrete deck, replacement of the bituminous concrete wearing surface and repaving of the bridge approaches. The Town's preferred proposal will raise a 1,250 linear foot portion of Riverside Road above the 100-year flood elevation. Without compensating cuts, this results in a slight increase in the 100-year flood elevation (+0.01 feet). To mitigate the increase, three compensatory flood storage and conveyance areas were considered adjacent to the Farmington River. The selected area is located north of the Drake Hill Road Bridge between the bridge and an existing boathouse on the western bank of the river. The work in this area will include clearing and removal of vegetation and excavation of a 230 ft. x 70 ft. area approximately 3 ft. deep. This cut of 2300CY to compensate for 2850CY of fill will result in a decrease of 0.01 - 0.02 ft. in the 100-year water surface elevation. The area proposed for cuts is located within state wetlands and will be replanted with native vegetation. The project proposes to preserve vegetation along the bank of the Farmington River. If vegetation along the bank of the river needs to be removed, stabilization measures will be evaluated. No work will be conducted within federal wetlands or below the ordinary high water mark of the Farmington River.

<u>Project Impacts:</u> There will be no impacts to federal wetlands and waters. All impacts associated with the project will be to state wetlands (about 14,000 sf). The Town stated that they felt they could satisfy their flood storage zoning regulations.

<u>Permitting Requirements:</u> The project will require an FM-MOU and local Inland Wetlands Permit, but as presented, no 401WQC or USACE permits.

Agency Comments: DOT H&D stated that the project will be eligible for an FM-MOU provided that the Town approves the floodplain impacts. DEEP Fisheries stated there are concerns with the flood storage/conveyance area and that there is a sensitive species in the area (a federally-listed mussel.) Also there are concerns about the proposed work along the banks of the river and the project will need a DEEP Fisheries review. OEP staff stated that the project will need to be submitted to DEEP Wildlife for an NDDB review. DEEP asked if there are other areas further away from the riverbank which could be used for flood storage and conveyance. The consultant stated that moving the storage and conveyance area away from the bank will likely not help with the conveyance in the hydraulic model, but will look at manipulating the shape of the area to limit the work along the riverbank. There was discussion on how to proceed if the flood storage and conveyance area was removed. DOT H&D indicated that a CLOMR would be required from FEMA. There were questions as to whether Bob Gilmore of DEEP (not present) might have concerns with the compensation being done utilizing state wetlands. Subsequent to the meeting, Mr. Gilmore stated that he had reviewed the project PowerPoint presentation and did not like impacting the wetland resource to provide compensation.

<u>Action Items:</u> A package needs to be sent to DEEP Fisheries and NDDB. Mike Hogan (H&D) agreed to send Jeff Caiola an email to discuss the town possibly not being able to achieve compensation for storage volume (per their own zoning regs) and whether an FM-MOU could still be issued.

Subsequent to the meeting, OEP submitted project information to DEEP Fisheries for review on 8/17/17, and an updated NDDB Review was submitted to OEP for review and processing with DEEP and a NDDB package was submitted to DEEP on 8/28/17. Mike H. sent an email to Jeff C. on 8/21/17. Jeff C. responded that if the Town makes an exception to the required compensation for the lost storage, there would be no need to go to DEEP for an FMC and the MOU process could be utilized. He also mentioned that he was not supportive in impacting wetlands for flood storage compensation, which was one of the alternatives looked at in the project design.

86-91 Bridges 01309 & 02617, Route 109 over Wigwam Reservoir and East Morris Brook, Morris

8/17/2017 – The project includes rehabilitation of Bridge No. 02617 over East Morris Brook and replacement of Bridge No. 01309 over Wigwam Reservoir.

Bridge 02617: Bridge No. 02617 consists of a twin box culvert and rehabilitation will consist of repair of the top slab, floor, walls and joints of both cells of the box culvert and repair of the northeast wingwall and 12' of existing concrete apron located at the outlet. Water handling will consist of installing cofferdams and dewatering one box culvert at a time to complete the necessary repairs. A native planting plan has been provided for Bridge No. 02617 and around the proposed outlet protection.

Impacts: Rehabilitation of Bridge No. 02617 will result in 4,130 sq. ft. of temporary watercourse impacts and 20 sq. ft. of temporary wetland impacts.

Bridge 01309: Replacement of Bridge No. 01309 will consist of installation of a steel multi-girder superstructure on micropile supported integral precast concrete abutments placed behind the existing abutments. The existing abutments will be removed down to the existing footings. The work will be completed during an 8-week full closure and detour. Due to the water level in Wigwam Reservoir, a floating debris shield has been proposed for replacement of Bridge No. 01309, . The floating debris shield will be anchored to both abutments and will serve as both a debris shield for removal of the existing structure and work platform for installation of the new structure. Additionally, the invasive species control area has been reduced due to areas of invasive species extending beyond the Departments' rights-of-way.

<u>Impacts:</u> Replacement of Bridge No. 01309 will result in 2,870 sq. ft. of temporary watercourse impact and 125 sq. ft. of temporary and 50 sq. ft. of permanent wetland impacts. Adding the floating debris shield increases the total project's wetland and water course impacts area above 5000 sf (total area combined for both bridges).

<u>Permit Requirements:</u> The project will require a combined Flood Management Certification for both bridges, a Self-Verification Form (GP19) for each bridge and a General Permit for Water Resource Construction Activities for each bridge.

Agency Comments: ACOE stated that each bridge can be permitted separately under SV 19. ACOE stated that the floating debris shield would not be considered fill if it was not founded on the streambed. Due to the uncertainty of the water level in the reservoir, the area for the floating debris shield will be permitted as temporary impact. ACOE stated that the permanent impacts for Bridge No. 02617 will need to account of the repairs to the concrete apron at the culvert outlet. DEEP Fisheries does not have any concerns with the proposed project.

<u>Action Items:</u> Updated plans need to be submitted to OEP for review and transmittal to DEEP Fisheries for final sign-off.

0063-0703 Charter Oak Bridge/I-91/RT 15, East Hartford/Hartford

8/17/2017 – The project involves interchange improvements to the I-91 North/Charter Oak Bridge/Route 15 project area. This relocation and widening project has a number of temporary and permanent impact locations primarily related to rip-rap placement, culvert work/outlet stabilization, and mat placement. For this meeting, the consultant identified the temporary wetland impacts due to timber matting required to perform beam end painting and steel strengthening below the Charter Oak Bridge. Additional watercourse impacts were also presented associated with culvert repairs (concrete patching), outlet protection and lowering of the top of an existing buried junction chamber. Water handling at these locations will consist of sandbag cofferdams and a temporary pipe through the existing structure.

Impacts discussed: Temporary wetland impacts from crane mats are approximately as follows:

Wetland K - 68,000 sf. Wetland L - 13,500 sf Wetland Q - 7,900 sf

Additional watercourse impacts due to providing outfall protection, culvert repairs and lowering of the structure on Airport road:

Outfall to Wetland B - 520 sf temporary and 1971 sf permanent (pre-formed scour hole)

Wetland I (the lowering of the structure roof) – 3549 sf temporary

Permit Requirements: The wetland impacts associated with the timber mat installation will not change the permit needs previously identified (IW-Gen, DEEP PGP, FM-Gen, ACOE PCN/401 WQC)

Agency Comments: DEEP Fisheries stated they had no concerns with the proposed watercourse impacts. ACOE stated that MHW and the HTL need to be added to the plans. DEEP and ACOE agreed that the additional impacts associated with the timber mat installation would not require a change in the permit needs previously identified for the project.

<u>Action Items:</u> Provide plans to OEP for DEEP Fisheries final sign-off.

Attachment H

Fisheries Correspondence

Fisheries Correspondence

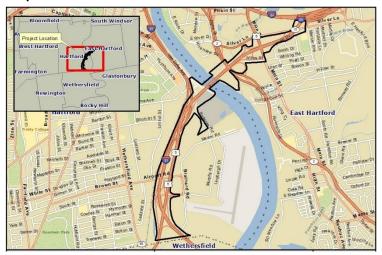
Applicant: State of Connecticut, Department of Transportation

Project No.: 63-703

Project Title: Relocation of I-91 Northbound Interchange 29 and Widening of I-91 Northbound and

Route 15 Northbound to I-84 Eastbound, Hartford & East Hartford

Proposed Action



The proposed project includes the widening of I-91 NB for approximately 4,300 feet to provide four lanes from Interchange 27 to 29. The four lanes on I-91 NB will then further widen to five lanes and bifurcate; with the two left-hand lanes diverging as the new Interchange 29 off-ramp, and the remaining three lanes continuing on as I-91NB. The new Exit 29 two-lane off-ramp geometry (major diverge) is anticipated to relieve congestion and address safety concerns due to

motorists entering the ramp queue from the center lane of I-91 NB. Design elements, when possible and practicable, have incorporated stormwater treatment. Impacts to regulated areas as a result of the project are largely upgrades to existing drainage outfalls throughout the project, and temporary access within the floodplain to perform steel strengthening and painting under the Charter Oak Bridge. No work will occur within the Connecticut River.

As a follow-up to the August 17, 2017 Interagency meeting, this package of information is being submitted for limited work in watercourses which will be required at three sites, Bridge 03244 (Wetlands A and B) and Bridge 06654 (Wetlands I and J) and Wetland System J. The work at these sites is further described below.

Bridge No. 03244 and outfall 15.2 (PMT-03 Wetlands A & B)

Bridge No. 03244 carries a small perennial stream beneath I-91 from the north to south. The watercourse passes from the MDC property to the north of I-91 to the south of I-91 through this 5-foot x 6-foot box culvert. Minor temporary impacts will occur below the ordinary high water (OHW) line within the culvert to facilitate concrete patching to the ceiling. The existing outlet displays evidence of scour. The project proposes the



placement of a Type 1 scour hole with modified riprap at the outlet, which constitutes much of the permanent impact. A temporary stone check dam will also be installed during construction. This outlet will be accessed from the upland.

Bridge No. 06654 (PMT 06 & 26 Wetland I)

Wetland I discharges by way of a watercourse flowing along the east side of I-91 NB, then crosses under Airport Road and I-91 and discharges adjacent to the I-91 SB Exit 28 off ramp to US 5/RTE 15 SB via twin 106-inch x 68 inch reinforced concrete elliptical pipes. Work in Wetland I includes activities at Structure No. 06654. Work consists of temporary water handling for reconfiguration of the ceiling of a junction chamber, which is necessary to lower existing Airport Road. To accomplish this work, temporary water handling of the flow through the northerly pipe of the twin pipes is



proposed so that the southern pipe can be used as access to the junction chamber. It is estimated the duration of work will be approximately two months, therefore temporary water handling is proposed in this area (see PMT-26). A temporary sand bag cofferdam will be installed at the inlet (shown above). The temporary system will be designed to accommodate a flow equal to four times the average spring flow. Based on the temporary flow and the site conditions it is recommended that a temporary 24-inch pipe be provided to convey normal flows through the northern pipe and through the chamber to the outlet side of the chamber. Once the existing chamber top has been removed and the new top constructed, the temporary pipe, diversion structures and dewatering basin will be removed and the area restored to its original condition.

Outlet 195 / Inlet 195.1 (Wetland J PMT-08)

Outlet 195.1 is a twin concrete culvert that has double 48-inch barrels with a standard wing type end wall. The culvert and structure are in good condition. The project proposes the excavation and removal of the accumulated sediment in this area. Only temporary impacts to wetlands and area below the OHW line are proposed in this work area.



Best Management Practices

BMPs will primarily consist of erosion and sedimentation controls during and after construction. These controls will consist of the installation of filter fabric fence and/or hay bales, and any additional sedimentation control systems as deemed necessary by the on-site engineer. In all cases the Contractor shall adhere to and comply with the State of Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 817), Section 1.10 – Environmental Compliance and the Department of Energy and Environmental Protection's "2002 Connecticut Guidelines for Soil Erosion and Sediment Control".

RELOCATION OF I-91 NB
INTERCHANGE 29 AND WIDENING
OF I-91 NB AND ROUTE 15 NB
TO I-84 EB

M A S S A C H U S E T T S

STATE OF CONNECTICUT

DISTRICT 1

PROJECT

LOCATION

DISTRICT 4

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GENERAL NOTES:

REGULATED AREAS.

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING

PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.

SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.

VERTICAL DATUM BASED ON NAVD 1988.

THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND

2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND USACE FOR CHANGES TO THE DESIGN THAT WILL AFFECT

PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING

3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS AND WETLAND SOILS

4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983

5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH

MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION

CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.

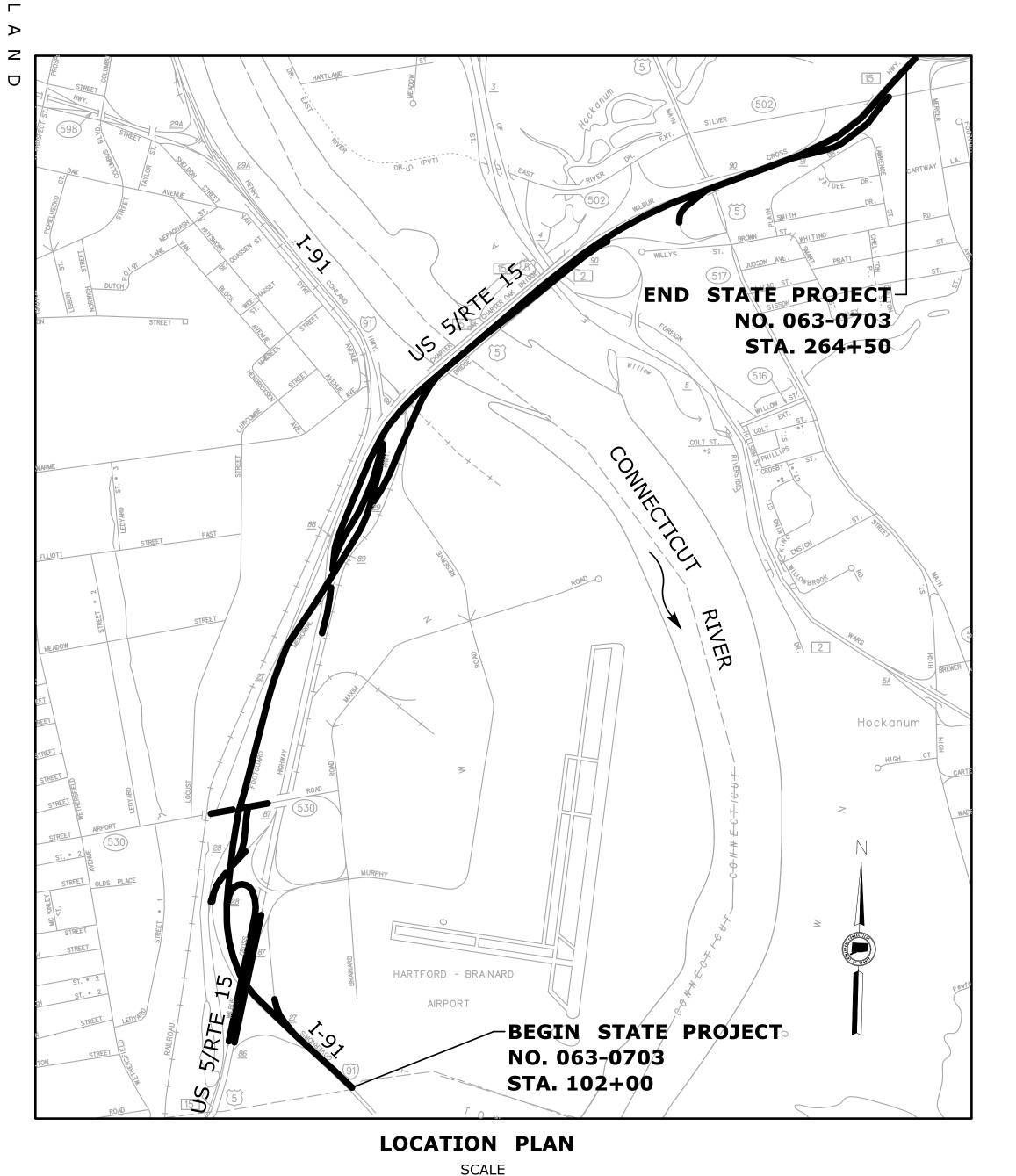
THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND

INCIDENTAL CONSTRUCTION, FORM 817, SECTION 1.10 AND WILL ALSO FOLLOW

BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL

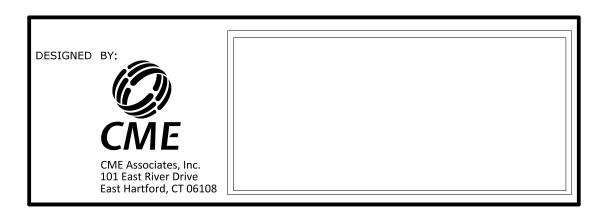
in the

CITY OF HARTFORD TOWN OF EAST HARTFORD



DEEP/Fisheries Division

LIST OF DRAWINGS		
DRAWING NO. DRAWING TITLE		
PMT-01	TITLE SHEET	
PMT-02	40 SCALE INDEX PLAN	
PMT-03 TO 18	ENVIRONMENTAL PERMIT PLANS	
PMT-19 TO 22	100-YEAR FLOOD IMPACT PLANS	
PMT-23 TO 29	MISCELLANEOUS PLANS & DETAILS	
PMT-30 TO 39	PLANTING PLANS	



ENVIRONMENTAL PERMIT PLANS

PLAN DATE: AUGUST 28, 2017

HARTFORD RAC STATE OF CONNECTICUT 63-703 **RELOCATION OF I-91 NB** THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED **CME ASSOCIATES**, INC. **EAST HARTFORD** DRAWING NO. CEE INTERCHANGE 29 AND WIDENING INVESTIGATIONS BY THE STATE AND IS **PMT-01** IN NO WAY WARRANTED TO INDICATE DRAWING TITLE: 101 East River Drive, East Hartford, CT 06108 THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. **DEPARTMENT OF TRANSPORTATION** OF I-91 NB AND ROUTE 5/15 NB SHEET NO. 888-291-3227 | www.cmeengineering.com TITLE SHEET SCALE AS NOTED TO I-84 EB Filename: HW_MSH_0063_703_03_PMT.DGN REVISION DESCRIPTION SHEET NO. Plotted Date: 8/29/2017 REV. DATE

1000

2000

3000 FEET

