

ENVIRONMENTAL PERMIT PLANS

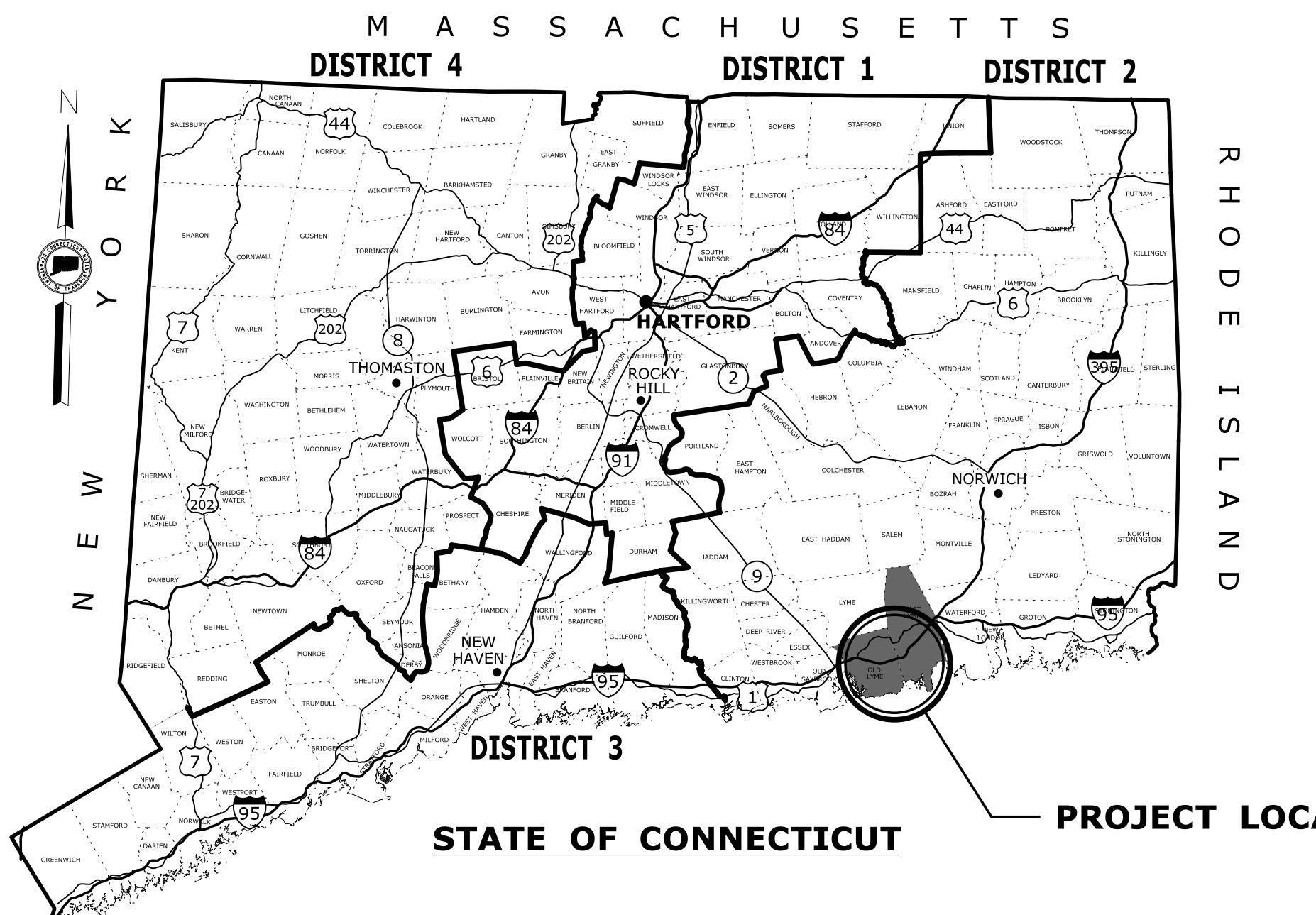
STATE PROJECT NO. XXXX-XXXX

REPLACEMENT OF BRIDGE NO. XXXXX

ROUTE X OVER A RIVER

IN A TOWN

Guide for the Development of the Permit Plan Set



SAMPLE PROJECT USED FOR PLANS

The following sample project involves replacing 4-60" CMPs with a three-sided arch. The project is planned to be constructed in 4 stages. Cofferdams and water-handling-cofferdams will be used. The following permits are anticipated for this project:
 DEEP Land & Water Resources Division Flood Management Certification (LWRD FMC)
 DEEP Structures, Dredging & Fill Tidal Wetlands w/Section 401 WQC (LWRD SD&FTW)
 US Army Corps of Engineers Pre-Construction Notification (USACE PCN)

It is important to note that permanent impacts to vegetated tidal wetlands will likely trigger the need for mitigation. For projects requiring mitigation, coordination with OEP early in the project design is important to allow enough time to work through the mitigation process and develop mitigation plans. If mitigation is required, mitigation plans will be a part of the final permit plan set.

The sample project falls within a mapped FEMA area an elevation provided on the FEMA map. This elevation is used in determining the floodplain impact area. An 8 1/2" x 11" FEMA map is provided within the permit application. A floodway is also present in the project area.

Impact areas include ALL areas to be impacted due to the project construction and activities related to the project, both temporary and permanent. Engineering judgement should be used to determine the amount of area the contractor needs to perform the work, while trying to minimize the disturbance to the tidal resources. The designer should also evaluate any utility work and access roads that may be needed as part of the project and include any of those associated impacts.

NOTE: This sample project has been altered from the actual project to produce this sample set of plans. This sample project is a smaller tidal area crossing. Work on larger bridges over navigable waterways require additional information and have additional permitting requirements. The Designer should consult with OEP to ensure necessary items are included in the permit plans. Tidal projects often have greater variation in site specifics than inland projects and closer coordination with OEP is recommended.

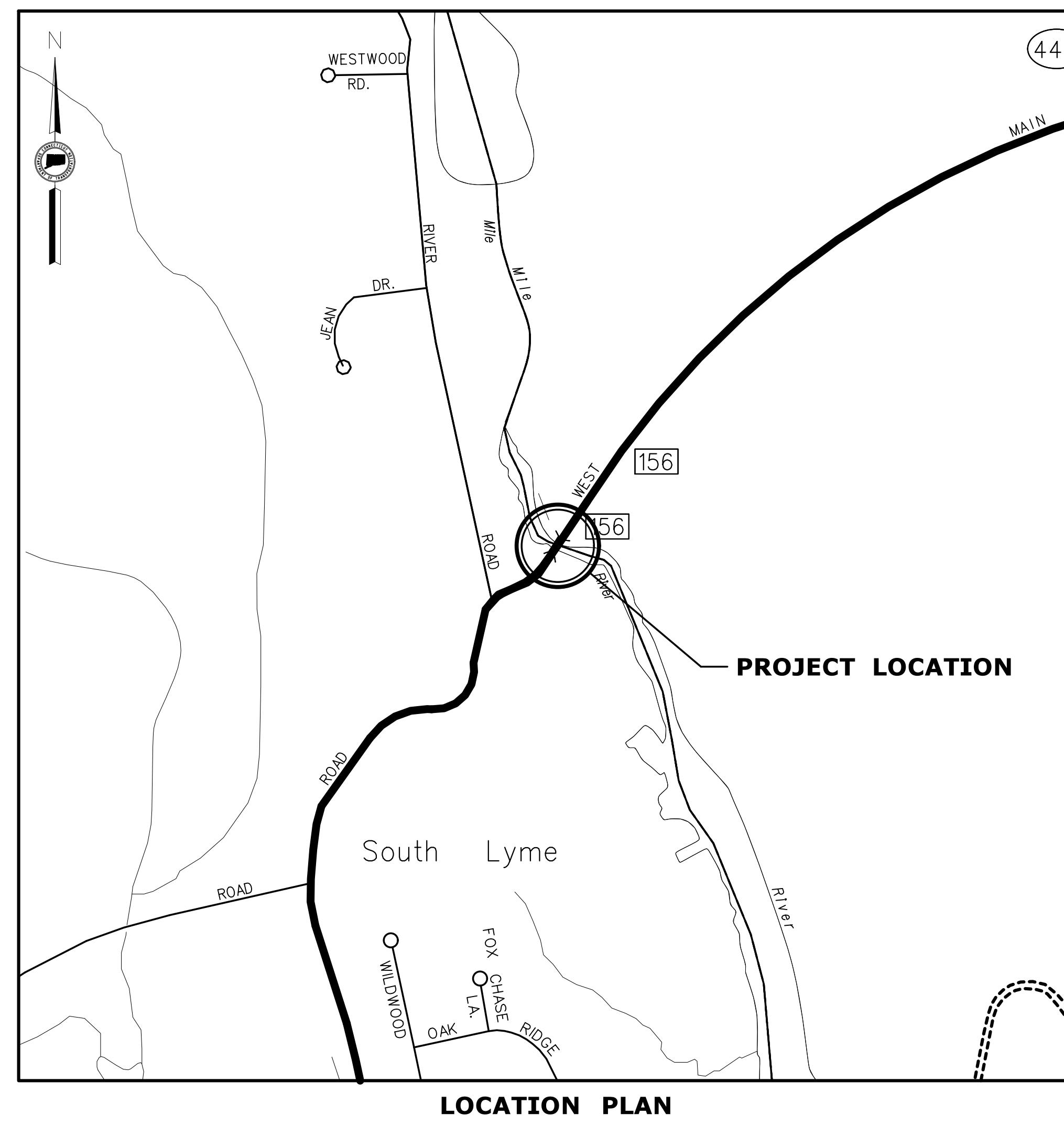
GENERAL NOTES

See Title Sheet guidance note 4

- THESE PLANS ARE NOT FOR CONSTRUCTION AND ARE ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
- THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND USACE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
- FOR A DESCRIPTION OF THE TIDAL WETLANDS AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
- 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 (2011) VERTICAL DATUM BASED ON NAVD OF 1988.
- ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES, AND INCIDENTAL CONSTRUCTION, FORM 819, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPS) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE DEEP CONNECTICUT GUIDELINES FOR SOIL EROSION & SEDIMENT CONTROL AND THE DEEP CONNECTICUT STORMWATER QUALITY MANUAL.

IMPORTANT TO DESIGNER: PRIOR TO BEGINNING THE DEVELOPMENT OF THE TIDAL PERMIT PLANS, CONSULTATION SHOULD OCCUR WITH OEP/EPC.

ALSO NOTE: PRELIMINARY PERMIT PLAN DEVELOPMENT SHOULD BE INITIATED AFTER THE 30% DESIGN REVIEW HAS BEEN COMPLETED. PLEASE ENSURE ANY PERTINENT/APPLICABLE 30% DESIGN REVIEW COMMENTS ARE INCORPORATED INTO THE PERMIT PLANS.



LIST OF DRAWINGS	
DRAWING TITLE	DRAWING NO.
TITLE SHEET	PMT-01
EXISTING CONDITION PLAN	PMT-02
GENERAL SITE PLAN	PMT-03
WETLAND/WATERCOURSE IMPACT PLAN	PMT-04
100-YEAR FLOOD IMPACT PLAN	PMT-05
ELEVATION AND SECTION PLAN	PMT-06
STAGING AND WATER HANDLING PLAN	PMT-07
PERMIT PLANTING PLAN	PMT-08

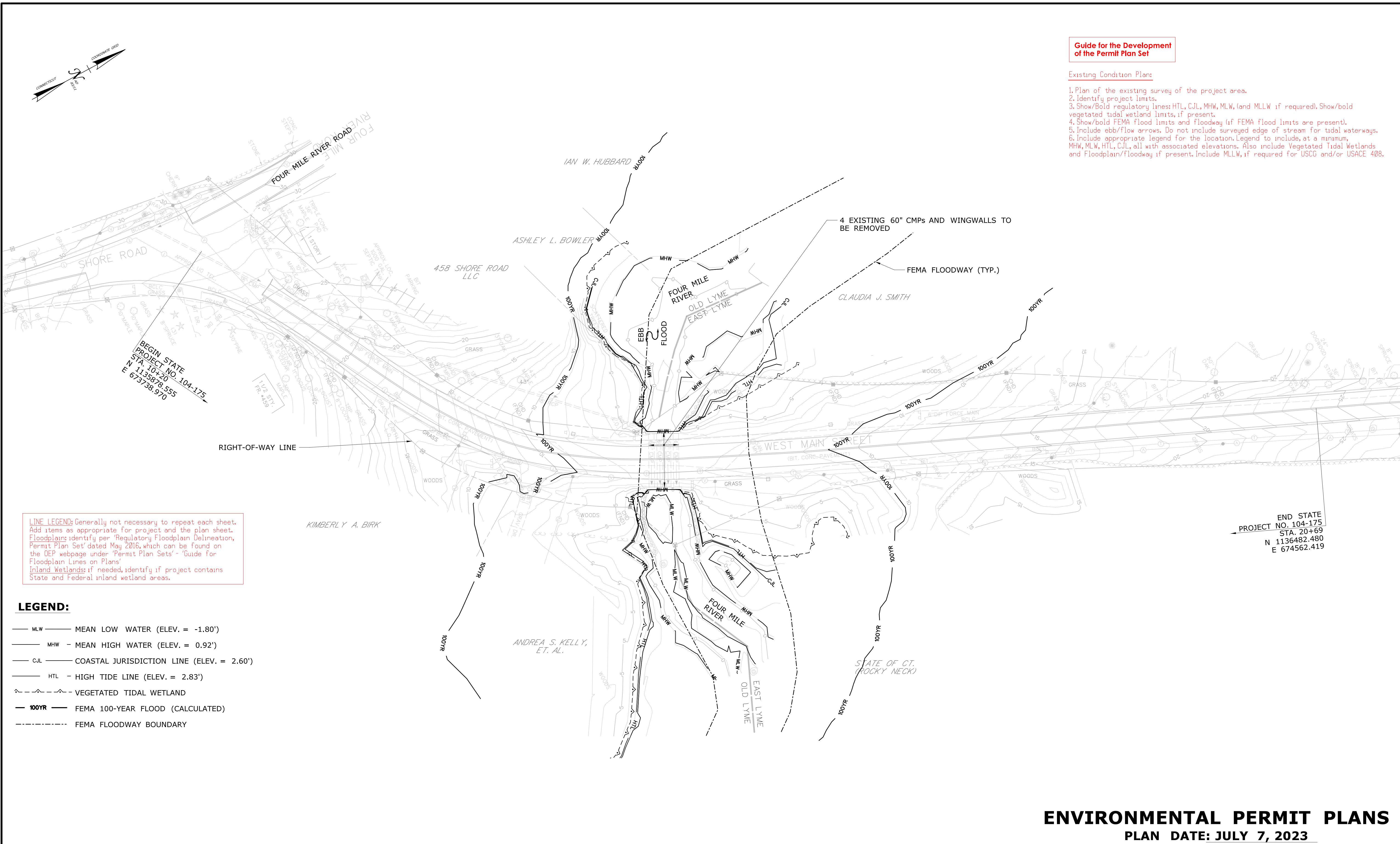
Block for Consultant stamp and signature if applicable

DESIGNED BY:
Consultant Name
Address



PLAN DATE: APRIL 2, 2024

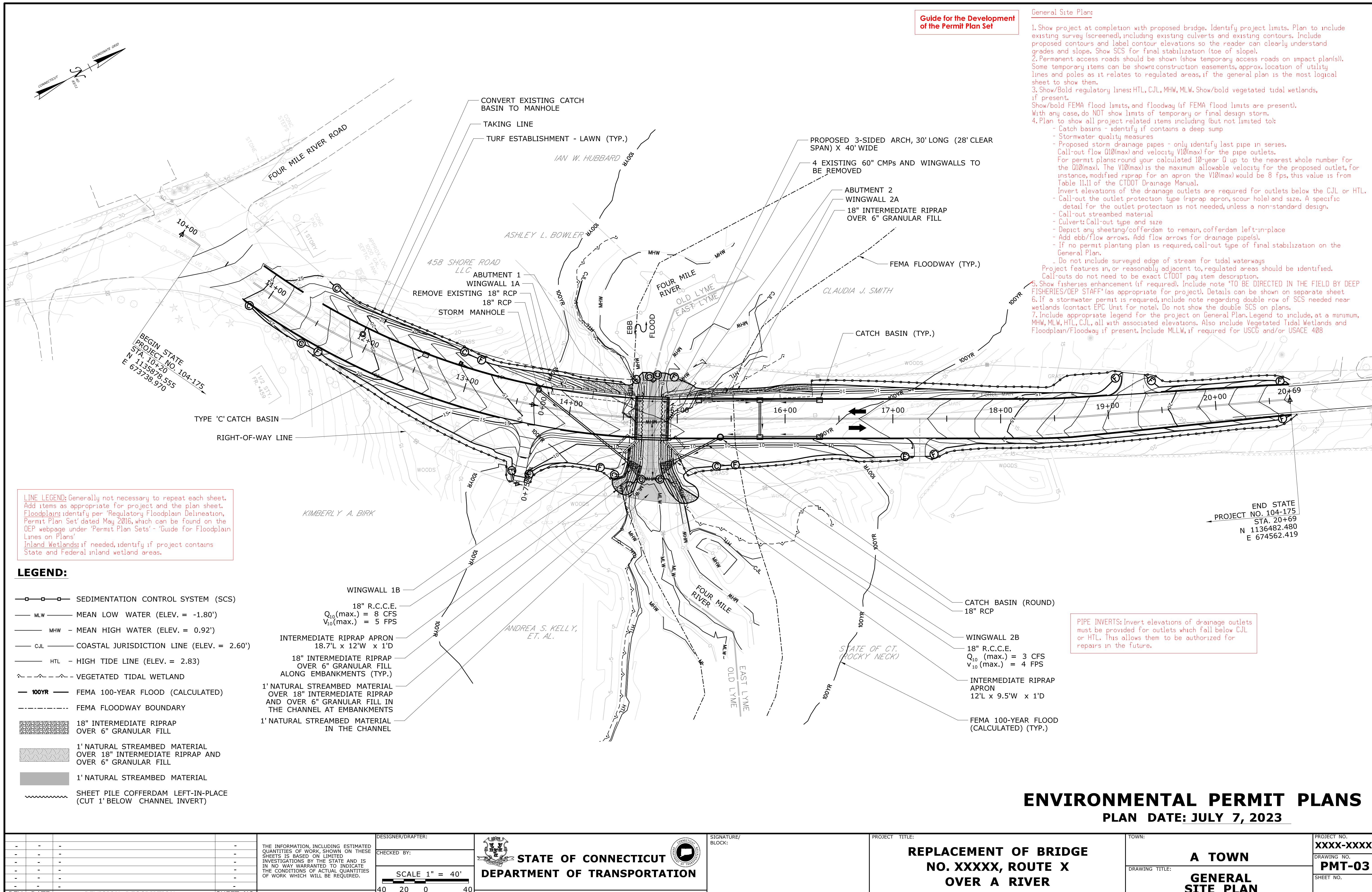
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-	-	-	CHECKED BY:		REPLACEMENT OF BRIDGE NO. XXXXX, ROUTE X OVER A RIVER	A TOWN
-	-	-				DRAWING TITLE: PMT-01
-	-	-				SHEET NO.
-	-	-				
-	-	-	SCALE AS NOTED			
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS AND IS STABIL AND IS NOT GUARANTEED TO BE STABIL AND INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.				STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		
				Filename: ...1200.EPP.MSH.0104.0175.(2713)-Title Sheet.dgn		

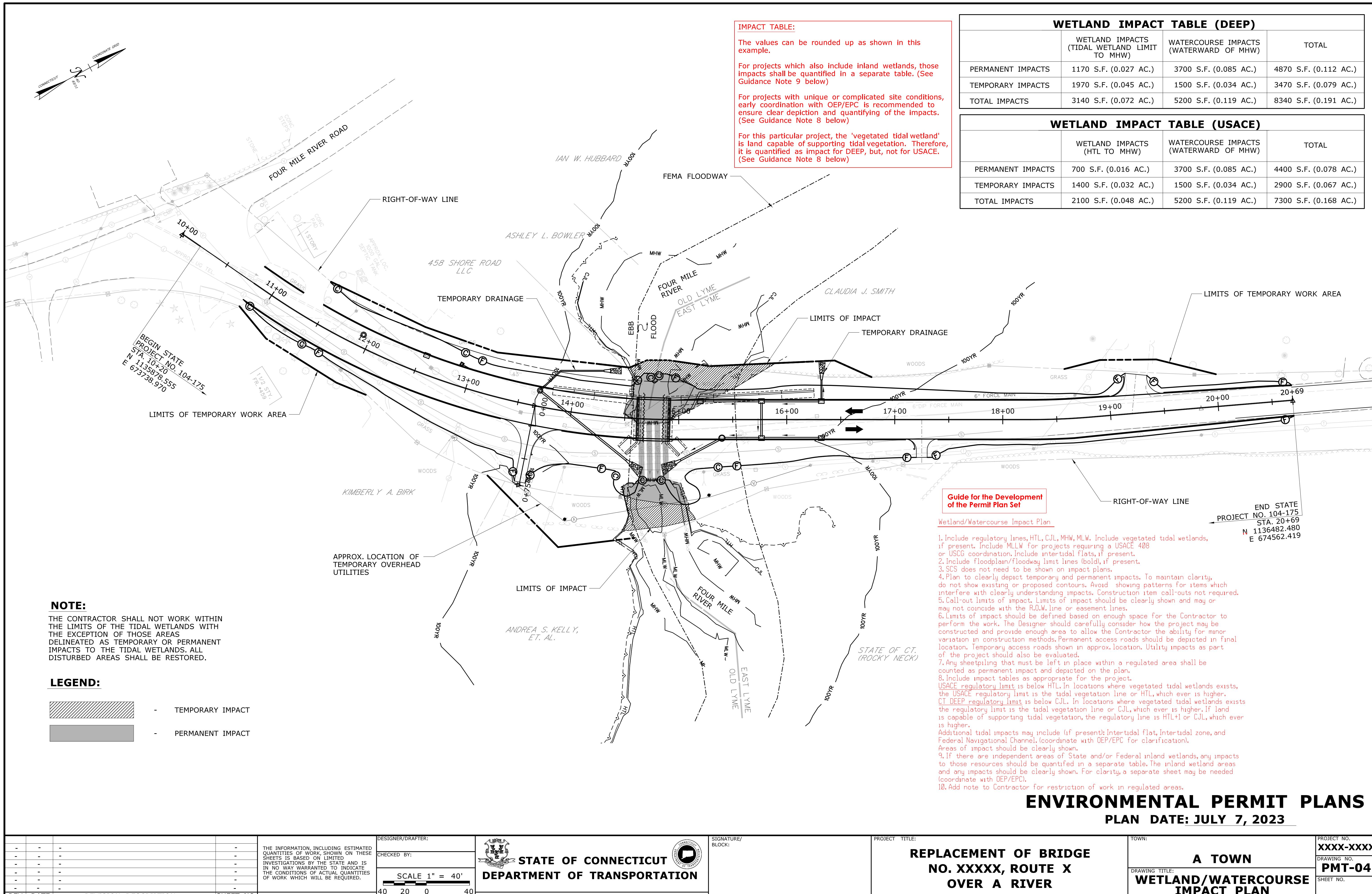


ENVIRONMENTAL PERMIT PLANS

PLAN DATE: JULY 7, 2023

REVISION DATE	REVISION DESCRIPTION	SHEET NO.	DESIGNER/DRAFTER:	CHECKED BY:	SCALE 1" = 40'	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/BLOCK:	PROJECT TITLE:	TOWN:	PROJECT NO. XXXX-XXXX
-	-	-	-	-	40 20 0 40	Plotted Date: 7/31/2023	Filename: ...1201-EPP.MSH.0104.0175.(2713)-Existing Conditions.dgn	REPLACEMENT OF BRIDGE NO. XXXXX, ROUTE X OVER A RIVER	A TOWN	DRAWING NO. PMT-02

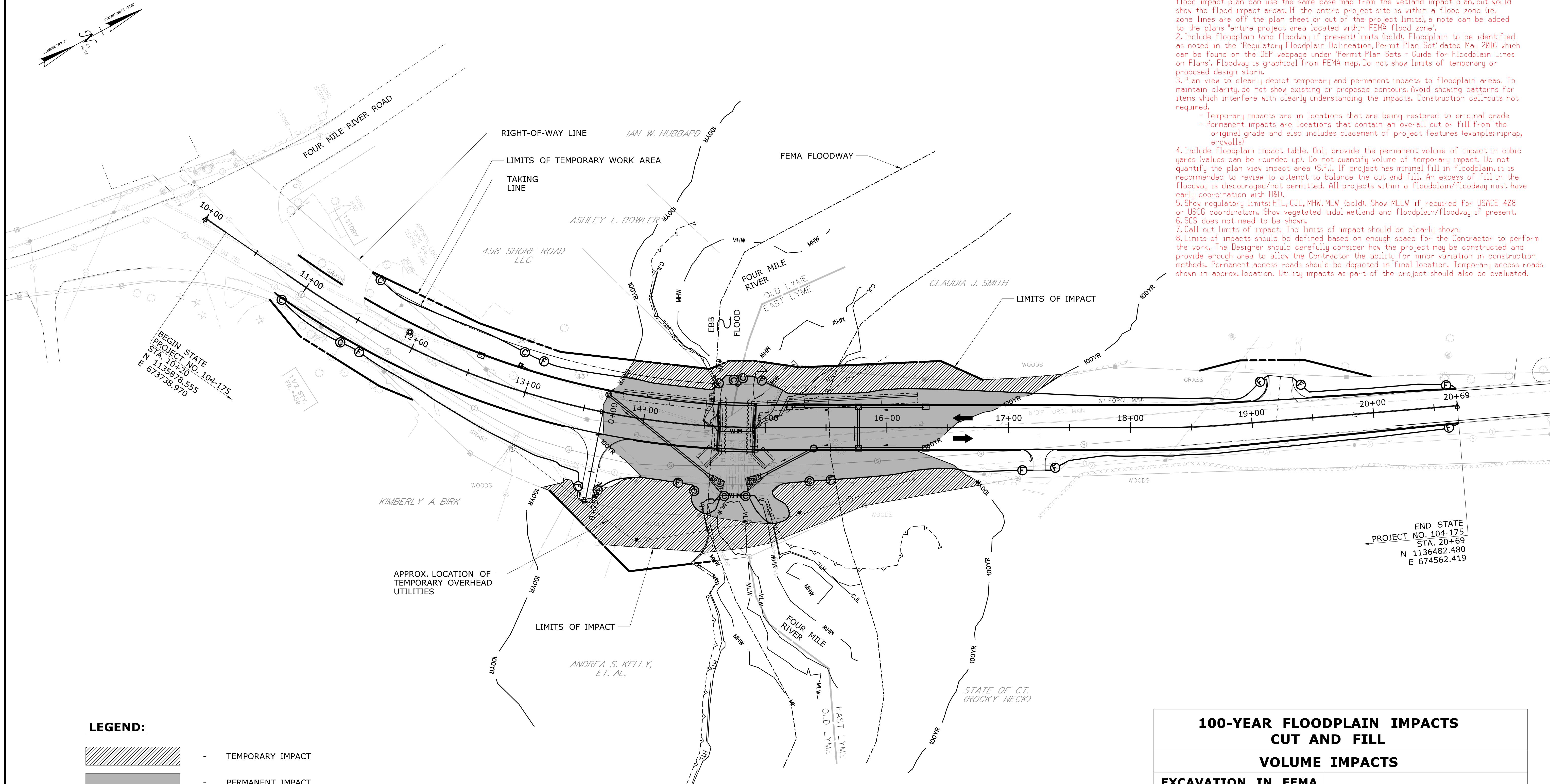




Guide for the Development
of the Permit Plan Set

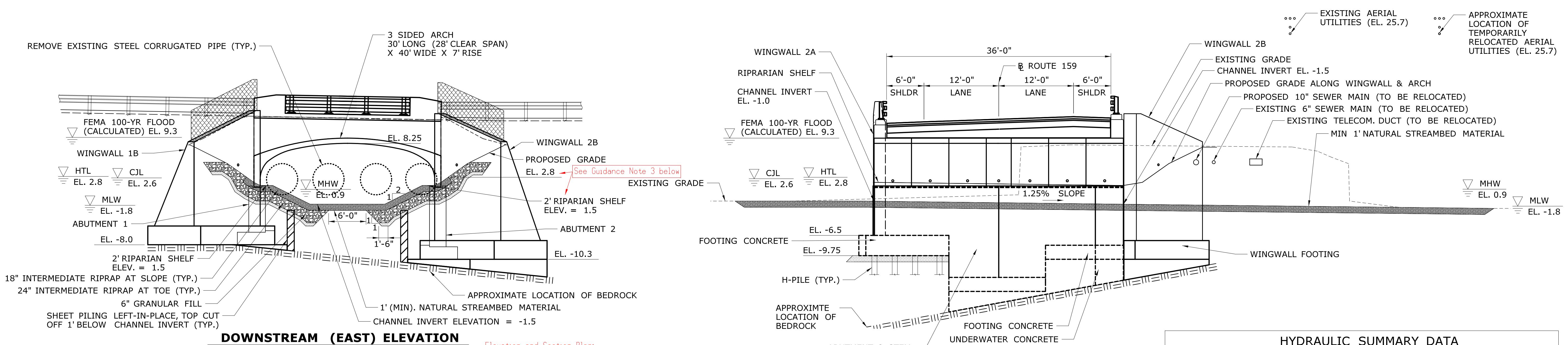
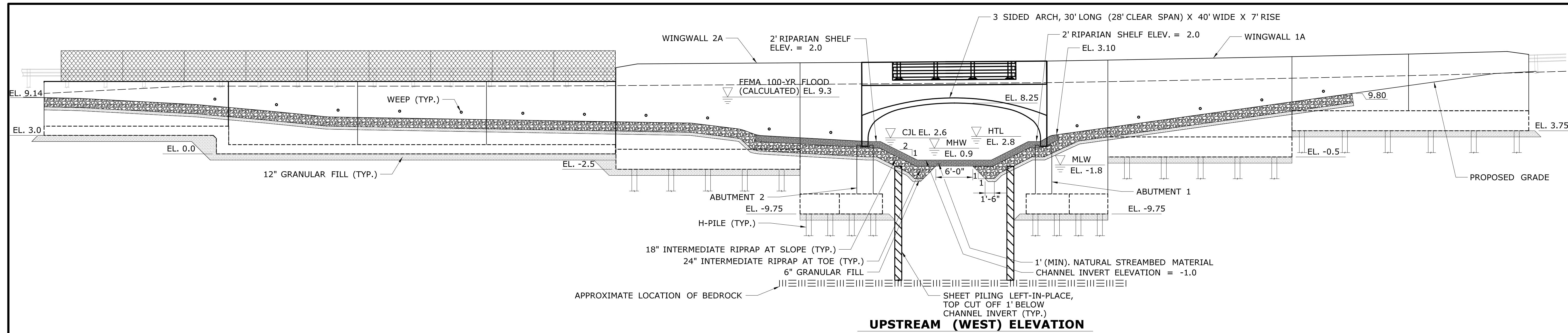
Flood Impact Plan

- This sheet is not necessary if there are no impacts to a floodplain/floodway. The flood impact plan can use the same base map from the wetland impact plan, but would show the flood impact areas. If the entire project site is within a flood zone (ie, zone lines are off the plan sheet or out of the project limits), a note can be added to the plans 'entire project area located within FEMA flood zone'.
- Include floodplain (and floodway if present) limits (bold). Floodplain to be identified as noted in the 'Regulatory Floodplain Delineation Permit Plan Set' dated May 2016 which can be found on the OEP webpage under 'Permit Plan Sets - Guide for Floodplain Lines on Plans'. Floodway is graphical from FEMA map. Do not show limits of temporary or proposed design storm.
- Plan view to clearly depict temporary and permanent impacts to floodplain areas. To maintain clarity, do not show existing or proposed contours. Avoid showing patterns for items which interfere with clearly understanding the impacts. Construction call-outs not required.
 - Temporary impacts are in locations that are being restored to original grade
 - Permanent impacts are locations that contain an overall cut or fill from the original grade and also includes placement of project features (example: riprap, endwalls)
- Include floodplain impact table. Only provide the permanent volume of impact in cubic yards (values can be rounded up). Do not quantify volume of temporary impacts. Do not quantify the plan view impact area (S.F.). If project has minimal fill in floodplain, it is recommended to review to attempt to balance the cut and fill. An excess of fill in the floodway is discouraged/not permitted. All projects within a floodplain/floodway must have early coordination with H&D.
- Show regulatory limits: HTL, CJL, MHW, MLW (bold). Show MLLW if required for USACE 408 or USCG coordination. Show vegetated tidal wetland and floodplain/floodway if present.
- SCS does not need to be shown.
- Call-out limits of impact. The limits of impact should be clearly shown.
- Limits of impacts should be defined based on enough space for the Contractor to perform the work. The Designer should carefully consider how the project may be constructed and provide enough area to allow the Contractor the ability for minor variation in construction methods. Permanent access roads should be depicted in final location. Temporary access roads shown in approx. location. Utility impacts as part of the project should also be evaluated.



ENVIRONMENTAL PERMIT PLANS
PLAN DATE: JULY 7, 2023

-	-	-	-	DESIGNER/DRAFTER:	SIGNATURE/BLOCK:	PROJECT TITLE:	TOWN:	PROJECT NO. XXXX-XXXX	
-	-	-	-	CHECKED BY:				DRAWING NO.	
-	-	-	-					PMT-05	
-	-	-	-	SCALE 1" = 40'				SHEET NO.	
				<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>		<p>REPLACEMENT OF BRIDGE NO. XXXXX, ROUTE X OVER A RIVER</p>			
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/31/2023		Filename: ...1203.EPP.MSH.0104.0175.(2713)-100 Year Flood Impacts.dgn				



NATIVE STREAMBED MATERIAL NOTES:

1. NATIVE CHANNEL MATERIAL EXCAVATED DURING THE CONSTRUCTION SHALL BE STOCKPILED AND THEN REPLACED WITHIN THE PROPOSED CHANNEL TO THE DEPTH SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE SPECIAL PROVISION "EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL". ANY SUBGRADE EXCAVATION MATERIAL IS TO BE INSPECTED BY OEP PRIOR TO REUSE.
2. ADDITIONAL CHANNEL MATERIAL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION "SUPPLEMENTAL STREAMBED CHANNEL MATERIAL". SUPPLEMENTAL MATERIAL SHALL MATCH EXISTING MATERIAL. SUPPLEMENTAL MATERIAL SHALL BE REVIEWED AND ACCEPTED BY THE ENGINEER OF THEIR AUTHORIZED DELEGATE PRIOR TO DELIVERY TO THE SITE.
3. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE TIDAL WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

Elevation and Section Plan:

1. Include inlet and outlet views and longitudinal section view to show elevations for 100-year flood (or the design year as applicable), HTL, CJL, MHW, MLW, and inverts. Inverts. Inverts (or the culvert(s)) can be depicted to the tenth (example: 98.1) to allow tolerance with installation. Also include MLLW if required.

2. Extend longitudinal view to depict where proposed grade meets existing (this should be along the centerline of the watercourse). Include slope on longitudinal view if a pipe/culvert. Include flow arrow.

3. Type of bedding and riprap used should be shown and depth called out. For natural streambed material, identify top elevation for placement along stream bank (Elev. is often project specific. Consult with OEP for confirmation). A riparian/wildlife shelf is not required; however, can include if feasible.

4. Add streambed material notes (as applicable for the project) and supplemental streambed material note, if needed.

5. Show locations of utility crossings over the waterway (temp. and perm.). Refer to CFR-2012-TITLE33-VOL3-SEC322-5 for additional information.

7. Include hydraulic data table as appropriate for project. Do not need scour information in the data table.

8. Plan sheet does not need to show unnecessary construction notes and comments. Sheet should show items pertinent to environmental permitting.

9. If project is proposing to leave sheeting in place within a regulated area, show sheeting in elevation views with call-out. Sheet is to be cut minimum 1 ft. below proposed channel invert. (For navigational waterways, this depth may be more. Consult with OEP for confirmation).

10. For projects within a navigable waterway, show the vertical and horizontal dimensions and limits of the existing and proposed opening within the navigational channel. Projects on navigational waterways generally require additional information and may have additional permitting requirements. Early consultation and coordination with OEP is recommended.

Hydraulic Data Calculated by DOT's Hydraulics and Drainage Unit or Consultant

HYDRAULIC SUMMARY DATA	
DRAINAGE AREA (SQ. MI.)	6.2
MEAN LOW WATER (FT)	-1.8
MEAN HIGH WATER (FT)	0.9
COASTAL JURISDICTION LINE (FT)	2.6
HIGH TIDE LINE (1-YEAR TIDE) (FT)	2.8
10-YEAR TIDE (FT)	5.2
100-YEAR TIDE (FT)	9.3
DESIGN FREQUENCY/EVENT	TIDAL: 10-YEAR RIVERINE: 100-YEAR
DESIGN DISCHARGE (CFS)	1,070
DESIGN WATER SURFACE ELEVATION - EBB DIRECTION (FT)	6.2
DESIGN WATER SURFACE ELEVATION - FLOOD DIRECTION (FT)	9.0 (FEMA 100-YEAR)

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: JULY 7, 2023

REVISION DESCRIPTION	SHEET NO.	DESIGNER/DRAFTER:	CHECKED BY:	SIGNATURE/BLOCK:	PROJECT TITLE:	TOWN:
-	-	-	-	-	REPLACEMENT OF BRIDGE NO. XXXXX, ROUTE X OVER A RIVER	A TOWN
REV. DATE	REVISION DESCRIPTION	SHEET NO.	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SCALE: 1/8" = 1'-0"	Filename: ...1204-EPP.MSH.0104-0175.(2713)-Elevation & Section Plan.dgn	DRAWING NO. PMT-06
						DRAWING TITLE: ELEVATION AND SECTION PLAN
						SHEET NO.

WATER HANDLING NOTES:

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY WATER HANDLING SYSTEM AS REQUIRED DURING CONSTRUCTION OF THE NEW STRUCTURE.
2. A DEWATERING BASIN SHALL BE ESTABLISHED OUTSIDE OF THE TIDAL WETLAND LIMITS.
3. TEMPORARY WATER-HANDLING-COFFERDAM SHALL CONSIST OF AN APPROVED SYSTEM THAT THE CONTRACTOR ELECTS TO USE WHICH WILL SAFELY CONVEY WATER FLOWS THROUGH THE CONSTRUCTION AREA, SHALL BE ABLE TO SUPPORT CONSTRUCTION ACTIVITY AND SHALL CONFORM TO PERMITS.
4. WATER HANDLING MEASURES SHALL NOT EXCEED IMPACT AREAS SHOWN ON THE TIDAL WETLAND AND FLOODPLAIN IMPACT SHEETS OF THE PERMIT PLANS.
5. ANY STORM DRAINAGE DISCHARGING INTO A CONFINED WORK AREA FROM EXISTING OR PROPOSED STORM DRAINAGE PIPES SHALL BE DIVERTED OR PUMPED OUTSIDE THE CONFINED AREAS. PUMPS/PIPES SHALL BE SIZED BY THE CONTRACTOR TO HANDLE THE EXPECTED FLOWS AND BE DISCHARGED TO A STABLE LOCATION. THE CONTRACTOR SHALL SUBMIT THE MEANS AND METHODS OF HANDLING STORM DRAINAGE TO THE ENGINEER FOR APPROVAL AND IS INCLUDED AS PART OF WATER HANDLING.

TIME-OF-YEAR BMP NOTE:

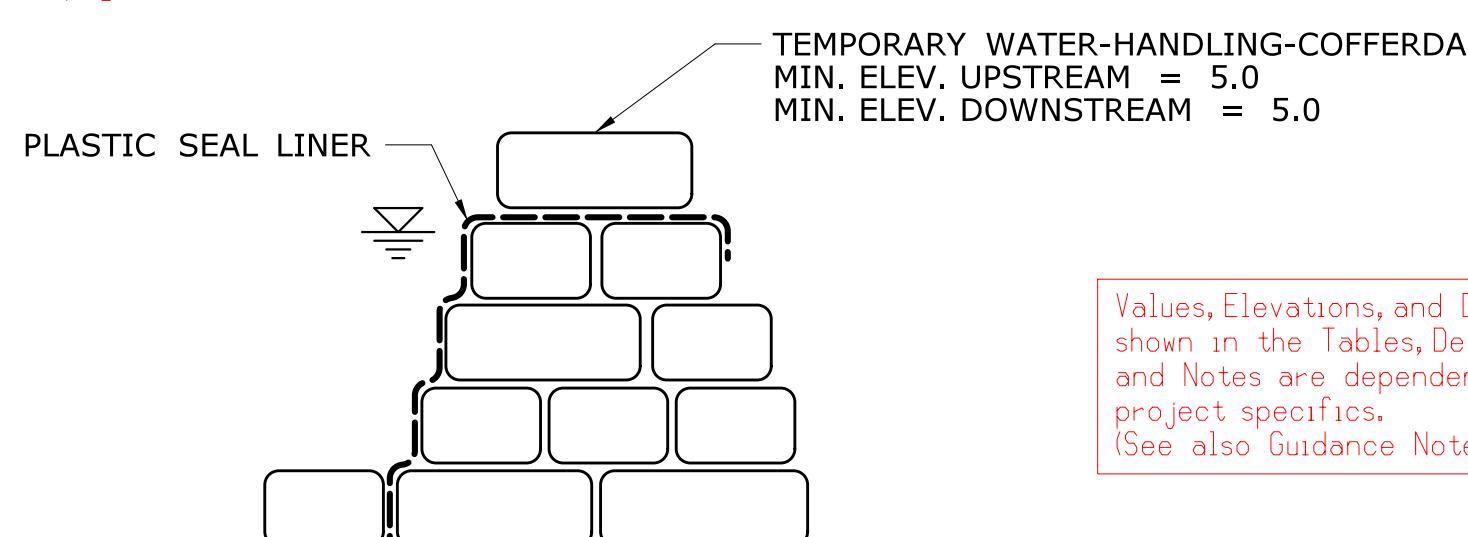
DUE TO THE PRESENCE OF ANADROMOUS FISH RUN, THE IN-WATER WORK, INCLUDING THE INSTALLATION AND REMOVAL OF WATER-HANDLING COFFERDAMS AND COFFERDAMS, IS PROHIBITED FROM MARCH 15 THROUGH MAY 30, INCLUSIVE.

See Guidance Note 6 below

Staging/Water Handling Plan:

1. The purpose of this plan sheet is to show the regulating agency the general intended scheme for construction/staging of the project and also the method(s) intended for water handling. It is expected that more detailed plans may be developed for final construction and also submitted by the contractor. It is intended that these permit plans are general enough that later contract plans can comply with the intent of the permit plans.
2. Include "SUGGESTED SEQUENCE OF CONSTRUCTION" which lists the basic information for construction of the project as it relates to regulated areas. Include general work within tidal wetlands/waters, and the installation of items such as (but not limited to):
 - Sedimentation Control System (SCS) (install and then removal upon final stabilization)
 - Debris shield (if required) with a minimum elevation (no need to show in view, can state in sequence)
 - Installation and removal of water handling system
 - Fisheries enhancements (include notifying DEEP Fisheries 10 days in advance of installation, if required)
 - Installation of plantings as required for the project.
3. Show dewatering basin (approx. location).
4. Include appropriate water-handling-cofferdam detail and the proposed top elevation of the water-handling-cofferdam. The temporary hydraulic condition for handling water should be reviewed to determine the required minimum water-handling-cofferdam elevation. The elevation should be set a minimum of 1 ft. above the HTL elevation or the minimum required elevation determined by the temporary hydraulic condition, whichever is higher. A maximum elevation may also be specified depending on project requirements. If the project requires multiple water handling configurations that require different top elevations, include the elevations per stage in the detail.
5. Include temporary hydraulic table as appropriate for the project. If the project requires multiple water handling configurations/stages that will require different temporary Water Surface Elevations (WSE), include the WSEs per stage, as needed, in the table.
6. Note any Time-of-Year in-water work restrictions (may be Federal and/or State or include additional requirements). Time-of-year restrictions are project specific, designer should review regulatory comments and consult with OEP for guidance. In addition to Fisheries TOY BMP Note, include a separate section titled "Protected Species Time-of-Year" and list any regulatory requirement for a protected species noted from the USFWS IPaC or CTDEEP NDB reviews. For example: "Tri-Colored Bat - No trimming, cutting, or removal of trees with a 3" dbh or greater from April 15 to October 15". These would also be project specific and as noted in the USFWS letter and Section 1.10 specification. Consult OEP for guidance.

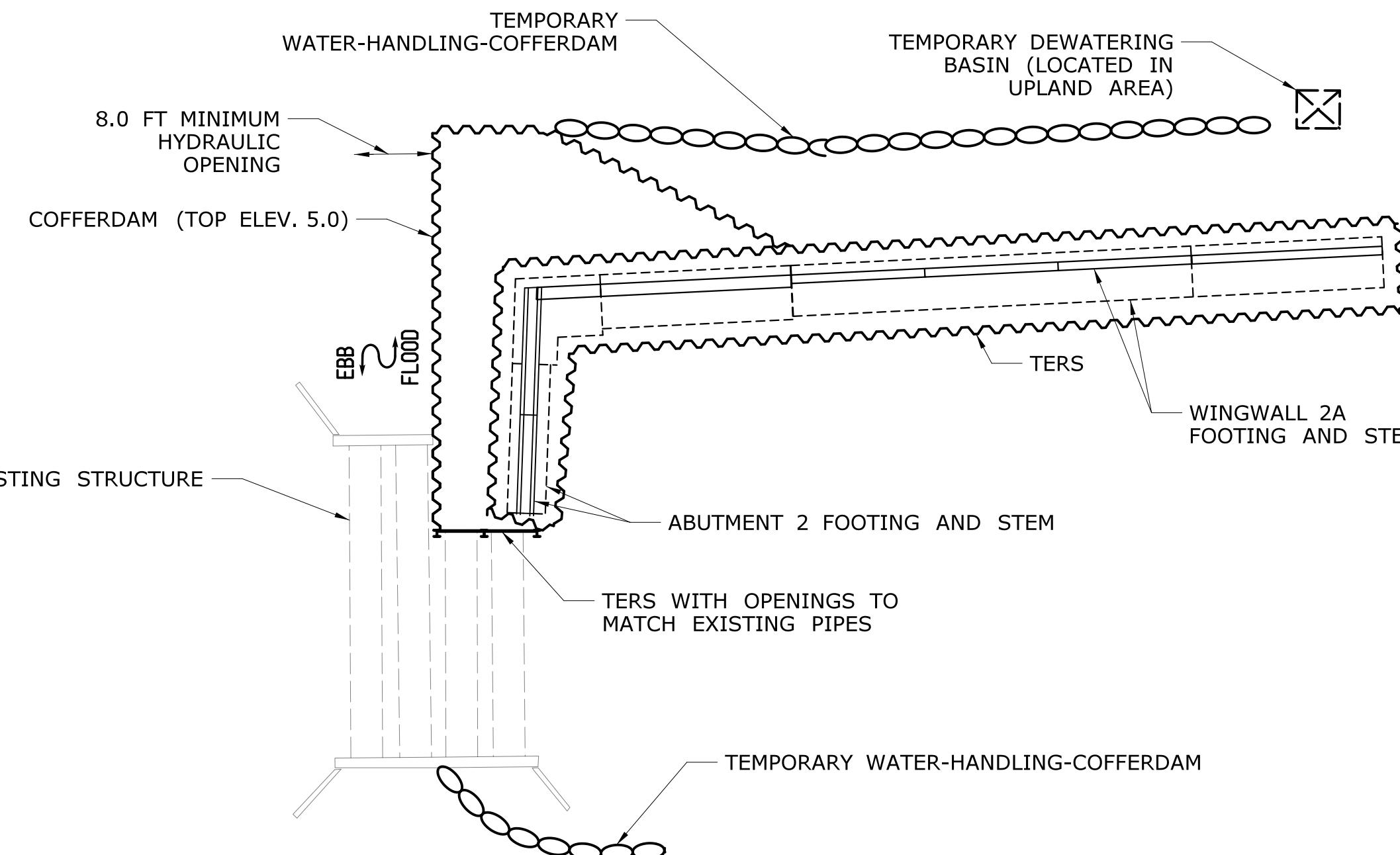
NOTE: This sample project had a complicated water handling, however, for other projects that have a simpler water handling scheme, the designer can use the Department's Water Handling Typical Schematics which can be found on the OEP webpage.



WATER-HANDLING-COFFERDAM SANDBAGS (NOT TO SCALE)

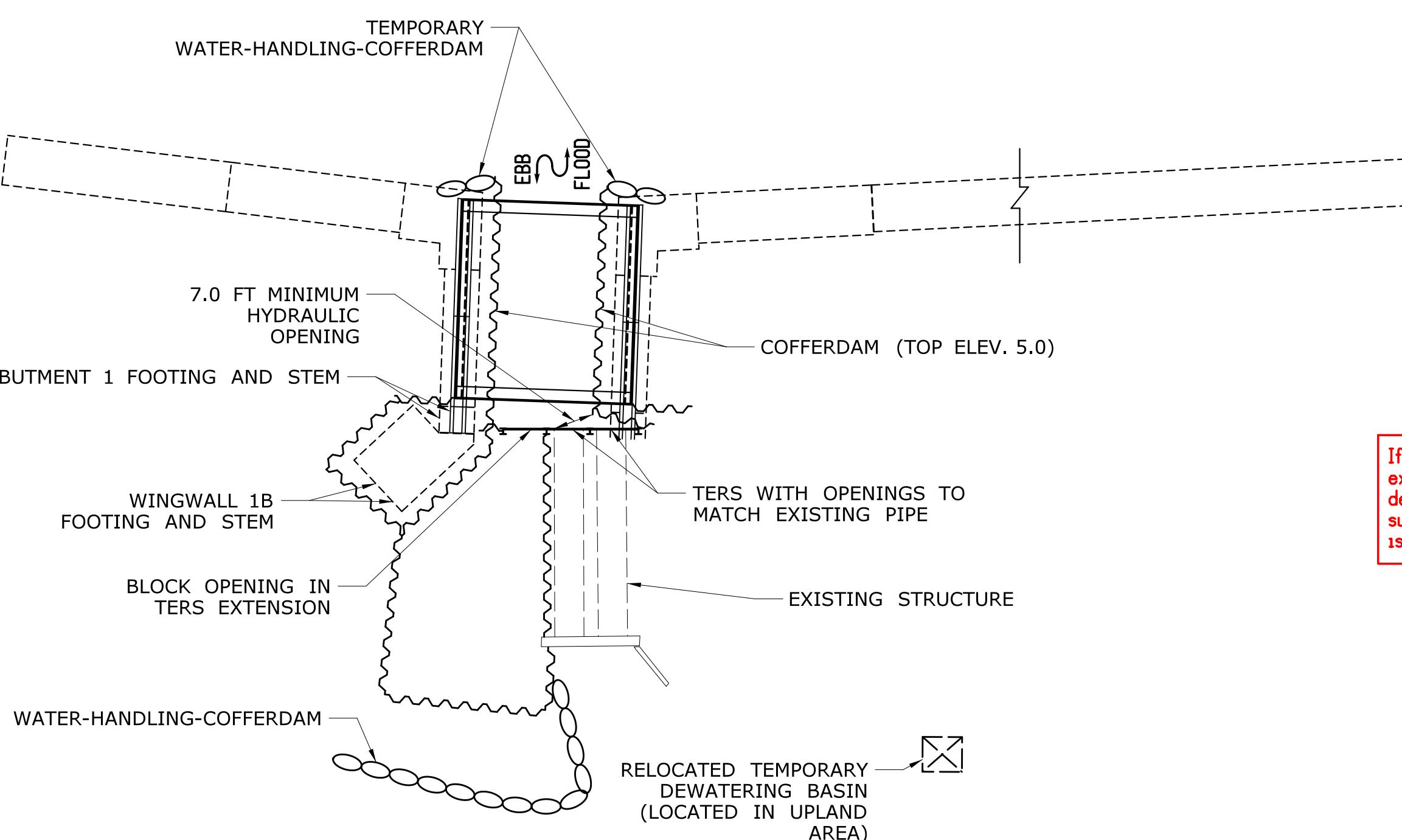
TEMPORARY HYDRAULIC DATA	
MEAN LOW WATER (FT)	-1.8
MEAN HIGH WATER (FT)	0.9
COASTAL JURISDICTION LINE (FT)	2.6
HIGH TIDE LINE (1-YEAR TIDE) (FT)	2.8
TEMPORARY DESIGN FREQUENCY	TIDAL: HTL RIVERINE: 5-YEAR
TEMPORARY DESIGN DISCHARGE (CFS)	370
TEMPORARY WATER ELEVATION (FT) STAGE 1	4.0
TEMPORARY WATER ELEVATION (FT) STAGE 2	4.5

Temp. Hydraulic Data values calculated by DOT's Hydraulics and Drainage Unit or Consultant (See also Guidance Note 5)



PROPOSED WATER HANDLING STAGE 1A (AND 1B - MIRROR)

SCALE: 1" = 20'



PROPOSED WATER HANDLING STAGE 2A (AND 2B - MIRROR)

SCALE: 1" = 20'

SUGGESTED SEQUENCE OF CONSTRUCTION:

STAGE 1A:

1. INSTALL SEDIMENTATION CONTROL SYSTEM, REMOVE INVASIVE SPECIES AND CLEAR AND GRUB.
2. INSTALL COFFERDAM UP THROUGH THE CENTERLINE OF THE EXISTING STRUCTURE.
3. INSTALL TEMPORARY WATER-HANDLING-COFFERDAMS AND DEWATERING BASIN.
4. INSTALL TEMPORARY EARTH RETAINING SYSTEM (TERS).
5. PARTIALLY REMOVE EXISTING STRUCTURE.
6. COMPLETE COFFERDAM INSTALLATION.
7. CONSTRUCT PORTION OF ABUTMENT 2 AND WINGWALL 2A.
8. PARTIALLY REMOVE COFFERDAM AROUND WINGWALL 2A AND INSTALL RIPRAP AND STREAMBED MATERIAL WITHIN THE CHANNEL AND ALONG THE WINGWALL.

STAGE 1B:

9. PARTIALLY REMOVE COFFERDAM TO ALLOW WATER TO FLOW THROUGH PIPES AS NEEDED. INSTALL COFFERDAMS TO SURROUND THE EXISTING STRUCTURE.
10. RELOCATE TEMPORARY WATER-HANDLING-COFFERDAMS AND DEWATERING BASIN.
11. INSTALL TEMPORARY EARTH RETAINING SYSTEM EXTENSION.
12. PARTIALLY REMOVE EXISTING STRUCTURE.
13. COMPLETE COFFERDAM INSTALLATION.
14. CONSTRUCT PORTION OF ABUTMENT 1 AND WINGWALL 1A.
15. PARTIALLY REMOVE COFFERDAM ALONG WINGWALL 1A AND INSTALL RIPRAP AND STREAMBED MATERIAL IN THE CHANNEL AND ALONG THE WINGWALL.

STAGE 1C:

16. RELOCATE TEMPORARY WATER-HANDLING-COFFERDAMS AND REMOVE PORTIONS AS NEEDED.
17. CONSTRUCT ARCH (STAGE 1 PORTION)
18. INSTALL PORTIONS OF COFFERDAM FOR STAGE 2 AS NEEDED.

STAGE 2A:

19. INSTALL COFFERDAM THROUGH THE CENTERLINE OF THE EXISTING STRUCTURE AND AROUND THE REMAINING PORTION OF THE EXISTING STRUCTURE. INSTALL TEMPORARY WATER-HANDLING-COFFERDAMS AND DEWATERING BASIN.
20. PARTIALLY REMOVE EXISTING STRUCTURE AND INSTALL REMAINING COFFERDAM AROUND WINGWALL 1B.
21. INSTALL RIPRAP AND STREAMBED MATERIAL.
22. COMPLETE ABUTMENT 1 CONSTRUCTION AND CONSTRUCT WINGWALL 1B.

STAGE 2B:

23. PARTIALLY REMOVE COFFERDAM AS NEEDED, REMOVE TEMPORARY WATER-HANDLING-COFFERDAM, PARTIALLY REMOVE TEMPORARY EARTH RETAINING SYSTEM, AND BLOCK OPENING IN TEMPORARY EARTH RETAINING SYSTEM.
24. INSTALL COFFERDAM SURROUNDING THE EXISTING STRUCTURE AND REMOVE REMAINING EXISTING STRUCTURE.
25. INSTALL RIPRAP AND STREAMBED MATERIAL.
26. INSTALL COFFERDAM.
27. COMPLETE ABUTMENT 2 CONSTRUCTION AND CONSTRUCT WINGWALL 2B.

STAGE 2C:

28. REMOVE COFFERDAMS WITHIN CHANNEL AND TEMPORARY EARTH RETAINING SYSTEM AND RELOCATE TEMPORARY WATER-HANDLING-COFFERDAM AS NEEDED.
29. COMPLETE ARCH CONSTRUCTION (STAGE 2).
30. REMOVE COFFERDAM AT WINGWALL 2B.
31. CUT LEFT-IN-PLACE COFFERDAM AND COMPLETE RIPRAP AND STREAMBED INSTALLATION.

STAGE 2D:

32. RELOCATE TEMPORARY WATER-HANDLING-COFFERDAM AND DEWATERING BASIN.
33. REMOVE COFFERDAM AT WINGWALL 1B.
34. CUT LEFT-IN-PLACE COFFERDAM AND COMPLETE RIPRAP AND STREAMBED INSTALLATION.
35. REMOVE TEMPORARY WATER-HANDLING-COFFERDAM AND DEWATERING BASIN.
36. INSTALL FINAL SEEDING AND PLANTINGS.
37. REMOVE SEDIMENTATION CONTROL SYSTEM UPON FINAL STABILIZATION.

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: MAY 7, 2024

REVISION DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 6/7/2024	DESIGNER/DRAFTER:	SIGNATURE/BLOCK:	PROJECT TITLE:	TOWN:	
-	-	-	-	CHECKED BY:		REPLACEMENT OF BRIDGE NO. XXXXX, ROUTE X OVER A RIVER	A TOWN	
-	-	-	-				PROJECT NO. XXXX-XXXX	
-	-	-	-				DRAWING NO. PMT-07	
-	-	-	-				SHEET NO.	
-	-	-	-				STAGING AND WATER HANDLING PLAN	
				STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SCALE AS NOTED	Filing No.: ...1205.EPP.MSH.0104.0175.(2713)-Water Handling Plan.dgn		

PERMIT PLANTING ITEMS

Botanical Name	Common Name and Size	Quantity	Spacing (o.c.)	Wetland Indicator	Comments
CORNUS ALBA	RED OSIER 3'-4' HT. B.B.	20 ea.	6' On Center	FAC	
ILEX VERTICILLATA	COMMON WINTERBERRY 3'-4' HT. B.B.	25 ea.	6' On Center	FACW	
ALNUS INCANA	SPECKLED ALDER 4'-5' HT. B.B.	20 ea.	6' On Center	FACW	
AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY 5'-6' HT. B.B.	10 ea.	Field Locate	FAC	
VIBURNUM LENTAGO	NANNYBERRY VIBURNUM 3'-4' HT. B.B.	25 ea.	5' On Center	FAC	
SAMBUCUS CANADENSIS	COMMON ELDERBERRY 3'-4' HT. B.B.	20 ea.	6' On Center	FACW	
ACER RUBRUM	RED MAPLE 2"-2 1/2" CAL B.B.	2 ea.	Field Locate	FAC	
HIBISCUS MOSCHEUTOS	ROSE MALLOW 18"-24" HT. CONTAINER	20 ea.			
BACCHARIS HALIMIFOLIA	GROUNDSEL TREE 2"-3" B.B.	20 ea.			
IVA FRUTESCENS	JESUIT'S-BARK 2"-3" HT. B.B.	20 ea.			
SPARTINA ALTERNIFLORA	SMOOTH CORDGRASS 2" PLUGS	1000 ea.	1' On Center		
SPARTINA PATENS	SALTMEADOW CORDGRASS	300 ea.	1' On Center		

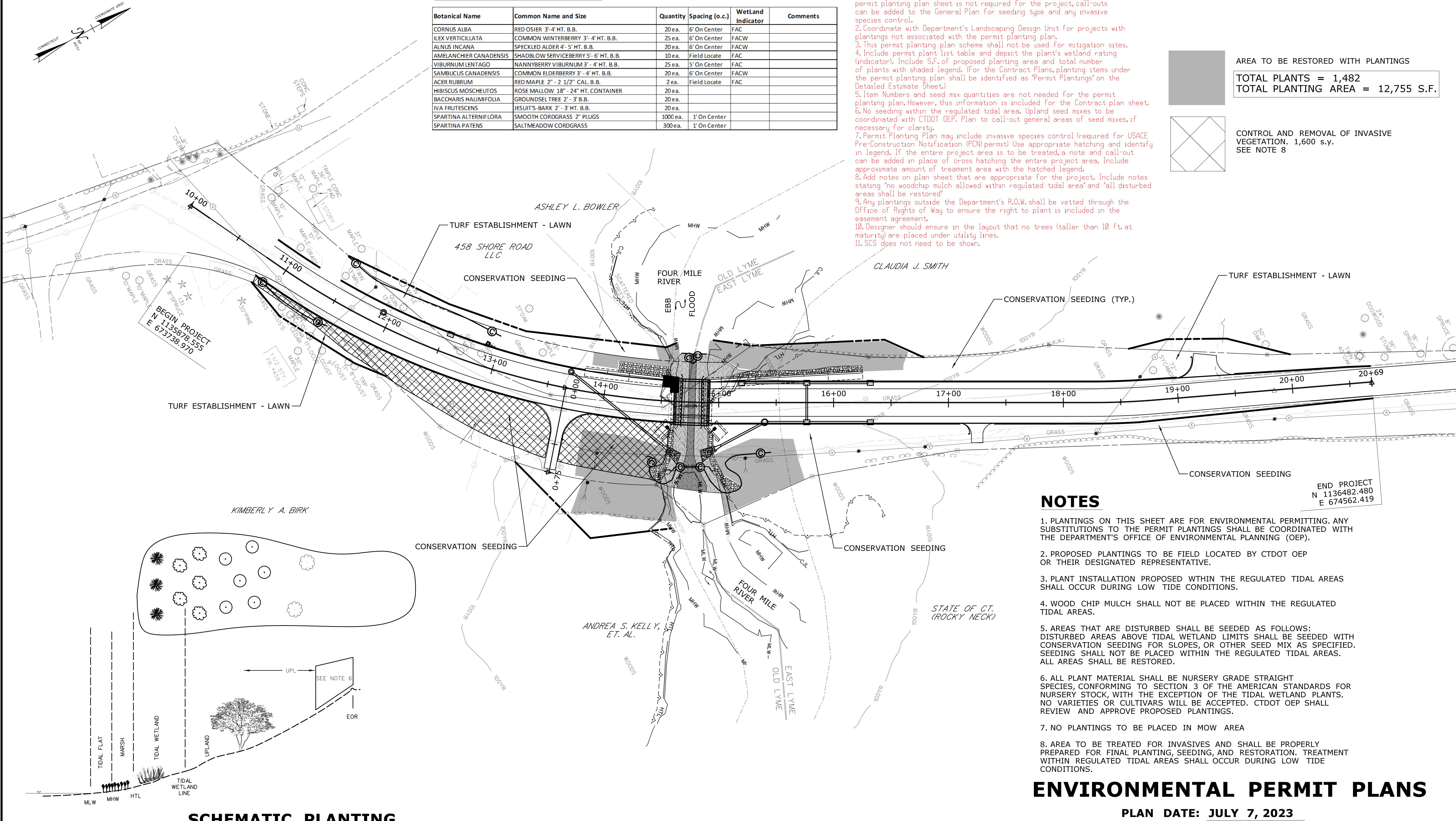
Permit Planting Plan (if required):

1. Plan depicts completed project with proposed planting area (shaded) as related to the environmental permit planting plan. If a designated permit planting plan sheet is not required for the project, call-outs can be added to the General Plan for seeding type and any invasive species control.
2. Coordinate with Department's Landscaping Design Unit for projects with plantings not associated with the permit planting plan.
3. This permit planting plan scheme shall not be used for mitigation sites.
4. Include permit plant list table and depict the plant's wetland rating (indicator). Include S.F. of proposed planting area and total number of plants with shaded legend. (For the Contract Plans, planting items under the permit planting plan shall be identified as "Permit Plantings" on the Detailed Estimate Sheet.)
5. Item Numbers and seed mix quantities are not needed for the permit planting plan. However, this information is included for the Contract plan sheet.
6. No seeding within the regulated tidal area. Upland seed mixes to be coordinated with CTDOT OEP. Plan to call-out general areas of seed mixes, if necessary for clarity.
7. Permit Planting Plan may include invasive species control (required for USACE Pre-Construction Notification (PCN) permit). Use appropriate hatching and identify in legend. If the entire project area is to be treated, a note and call-out can be added in place of cross hatching the entire project area. Include approximate amount of treatment area with the hatched legend.
8. Add notes on plan sheet that are appropriate for the project. Include notes stating "no woodchip mulch allowed within regulated tidal area" and "all disturbed areas shall be restored".
9. Any plantings outside the Department's R.O.W. shall be vetted through the Office of Rights of Way to ensure the right to plant is included in the easement agreement.
10. Designer should ensure in the layout that no trees (taller than 10 ft. at maturity) are placed under utility lines.
11. SCS does not need to be shown.

AREA TO BE RESTORED WITH PLANTINGS

TOTAL PLANTS = 1,482
TOTAL PLANTING AREA = 12,755 S.F.

CONTROL AND REMOVAL OF INVASIVE VEGETATION. 1,600 s.y.
SEE NOTE 8



ENVIRONMENTAL PERMIT PLANS

PLAN DATE: JULY 7, 2023

DESIGNER/DRAFTER:	CHECKED BY:	SIGNATURE/BLOCK:	PROJECT TITLE:	TOWN:	PROJECT NO. XXXX-XXXX
STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	REPLACEMENT OF BRIDGE NO. XXXXX, ROUTE X OVER A RIVER	A TOWN	DRAWING NO. PMT-08
REV. DATE	REVISION DESCRIPTION	SHEET NO.	APPROVED BY:	DRAWING TITLE: PERMIT PLANTING PLAN	SHEET NO.
Plotted Date: 7/31/2023			Filename: ...Br 02713 PMT-08.dgn		