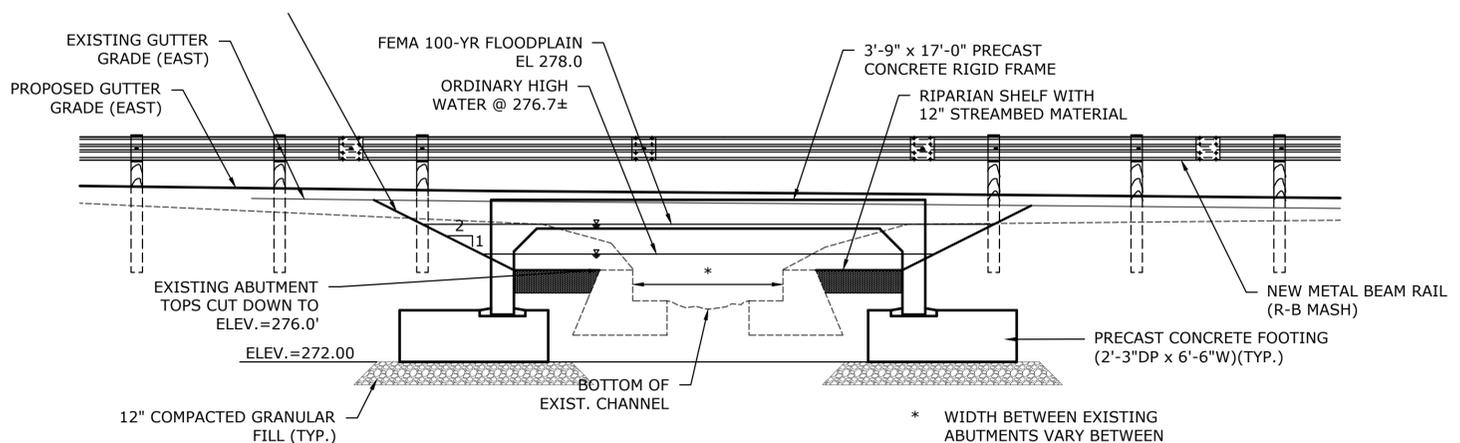


GENERAL PLAN
SCALE: 1" = 10'



UPSTREAM ELEVATION VIEW
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- ENVIRONMENTAL:**
- ENTIRETY OF THE AREA SHOWN IN THESE PLANS LIES WITHIN FEMA ZONE-AE
 - ENTIRETY OF AREA SOUTH OF BR. 007002 WITHIN THE UPLAND REVIEW AREA
- SPECIFICATIONS:** CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 (2020), AND SPECIAL PROVISIONS.
- DESIGN SPECIFICATIONS:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION 2020, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003), INCLUDING REVISIONS DATED 12/2019.
- MATERIAL STRENGTHS:**
- CONCRETE:**
ALL PRECAST CONCRETE BASED ON $f_c = 5000$ PSI
- REINFORCEMENT:**
ASTM A615, GRADE 60 $f_y = 60$ KSI
- THE CONCRETE STRENGTH, f_c , USED IN DESIGN OF THE CONCRETE COMPONENTS ARE NOTED ABOVE. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF "SECTION 6.01 - CONCRETE FOR STRUCTURES", AND "M.03 - PORTLAND CEMENT CONCRETE"
- LIVE LOAD:** HL-93, LEGAL AND PERMIT VEHICLES
- FUTURE PAVING ALLOWANCE:** NONE
- BITUMINOUS CONCRETE OVERLAY:** OVERLAY ON THE BRIDGE SHALL HAVE A BASE LIFT OF 1" OF HMA S0.25 TRAFFIC LEVEL 2. THE FINAL LIFT SHALL BE 2" OF HMA S0.5 TRAFFIC LEVEL 2.
- FOUNDATION PRESSURES:** THE LIMIT STATES NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFER TO THE LIMIT STATES AS GIVEN IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- DIMENSIONS AND ELEVATIONS:** ALL DIMENSIONS SHOWN ON THE PLANS ARE IN FEET AND INCHES EXCEPT IF NOTED OTHERWISE. WHEN ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS ARE ASSUMED TO BE ZEROS.
- EXISTING DIMENSIONS:** ANY DIMENSIONS SHOWN OF THE EXISTING STRUCTURE ARE INCLUDED FOR GENERAL REFERENCE ONLY AND MAY NOT DEPICT AS-BUILT CONDITIONS NOR ALL MODIFICATIONS MADE SINCE ORIGINAL CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.
- TRAFFIC:** ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISIONS "MAINTENANCE AND PROTECTION OF TRAFFIC" AND "PROSECUTION AND PROGRESS"
- UTILITY RELOCATION:** THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE RESPECTIVE UTILITY COMPANIES IN ADVANCE OF THE REPLACEMENT OF BRIDGE NO. 007002.
- SUBSTRUCTURE AND SUPERSTRUCTURE REMOVAL:** BEFORE INITIATING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL DEFINING THE METHOD FOR CONSTRUCTION AND PROTECTION OF DEBRIS FROM FALLING INTO JOHN HALL BROOK DURING THE REMOVAL OF THE EXISTING BRIDGE SUPERSTRUCTURE. COST TO BE INCLUDED FOR PAYMENT UNDER THE ITEMS "REMOVAL OF EXISTING MASONRY" AND "REMOVAL OF SUPERSTRUCTURE".

HYDRAULIC DATA SUMMARY	
DRAINAGE AREA (SQUARE MILES)	0.88
DESIGN FREQUENCY (YEAR)	50
DESIGN DISCHARGE (CFS)	241
AVERAGE DAILY FLOW (CFS)	1.65
MEAN ORDINARY HIGH WATER ELEVATION (FEET)	276.70
DESIGN WATER SURFACE ELEVATION - U.S. (FT)	278.49
DESIGN WATER SURFACE ELEVATION - D.S. (FT)	277.57
MAXIMUM TOTAL SCOUR DEPTH (FT)	3.97
FREQUENCY (YEAR)	100
DISCHARGE (CFS)	292
WORST CASE SCOUR SUBSTRUCTURE UNIT	SOUTH ABUTMENT

ENVIRONMENTAL PERMITTING PLANS: 6/20/2022

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/20/2022

DESIGNER/DRAFTER: MG
CHECKED BY: EJ

ENGINEER:

919 MIDDLE STREET
MIDDLETOWN, CT 06457

Filename: PMT-01 GENERAL PLAN ELEVATION AND NOTES.DWG

SIGNATURE/BLOCK:

PROJECT TITLE:
**REPLACEMENT OF BRIDGE NO. 007002
EDGEWOOD ROAD OVER
JOHN HALL BROOK**

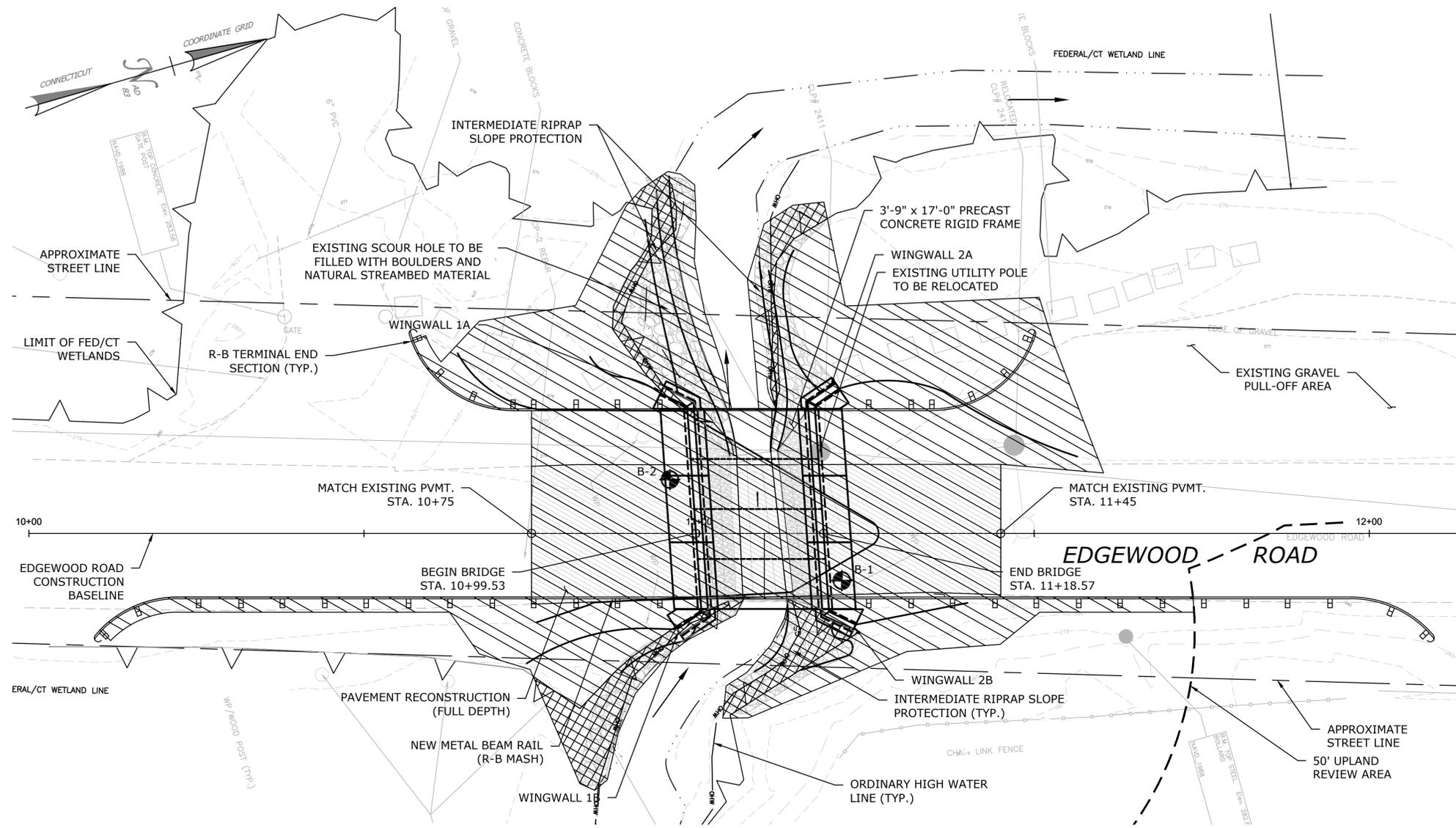
TOWN:
BERLIN

DRAWING TITLE:
**GENERAL PLAN,
ELEVATION AND NOTES**

PROJECT NO.
3129

DRAWING NO.
PMT-01

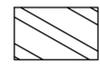
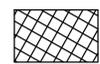
SHEET NO.



GENERAL PLAN
SCALE: 1" = 10'

LEGEND

THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

-  PERMANENT UPLAND REVIEW AREA IMPACTS
-  PERMANENT WETLAND IMPACTS
-  PERMANENT WATERCOURSE IMPACTS

WETLAND/WATERCOURSE IMPACT TABLE				
	WETLAND	WATERCOURSE	50' UPLAND REVIEW AREA	TOTAL
IMPACT AREA	358 S.F. (0.008 AC.)	611 S.F. (0.014 AC.)	3,982 S.F. (0.091 AC.)	4,951 S.F. (0.113 AC.)

GENERAL NOTES:

- ENVIRONMENTAL:
- ENTIRETY OF THE AREA SHOWN IN THESE PLANS LIES WITHIN FEMA ZONE-AE
 - ENTIRETY OF AREA SOUTH OF BR. 007002 WITHIN THE UPLAND REVIEW AREA

ENVIRONMENTAL PERMITTING PLANS: 6/20/2022

REPLACEMENT OF BRIDGE NO. 007002 EDGEWOOD ROAD OVER JOHN HALL BROOK	BERLIN	PROJECT NO. 3129 DRAWING NO. PMT-02 SHEET NO.
DRAWING TITLE: WETLAND AND WATERCOURSE IMPACTS		

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/20/2022

DESIGNER/DRAFTER: DL
CHECKED BY: EJ

ENGINEER:



919 MIDDLE STREET
MIDDLETOWN, CT 06457

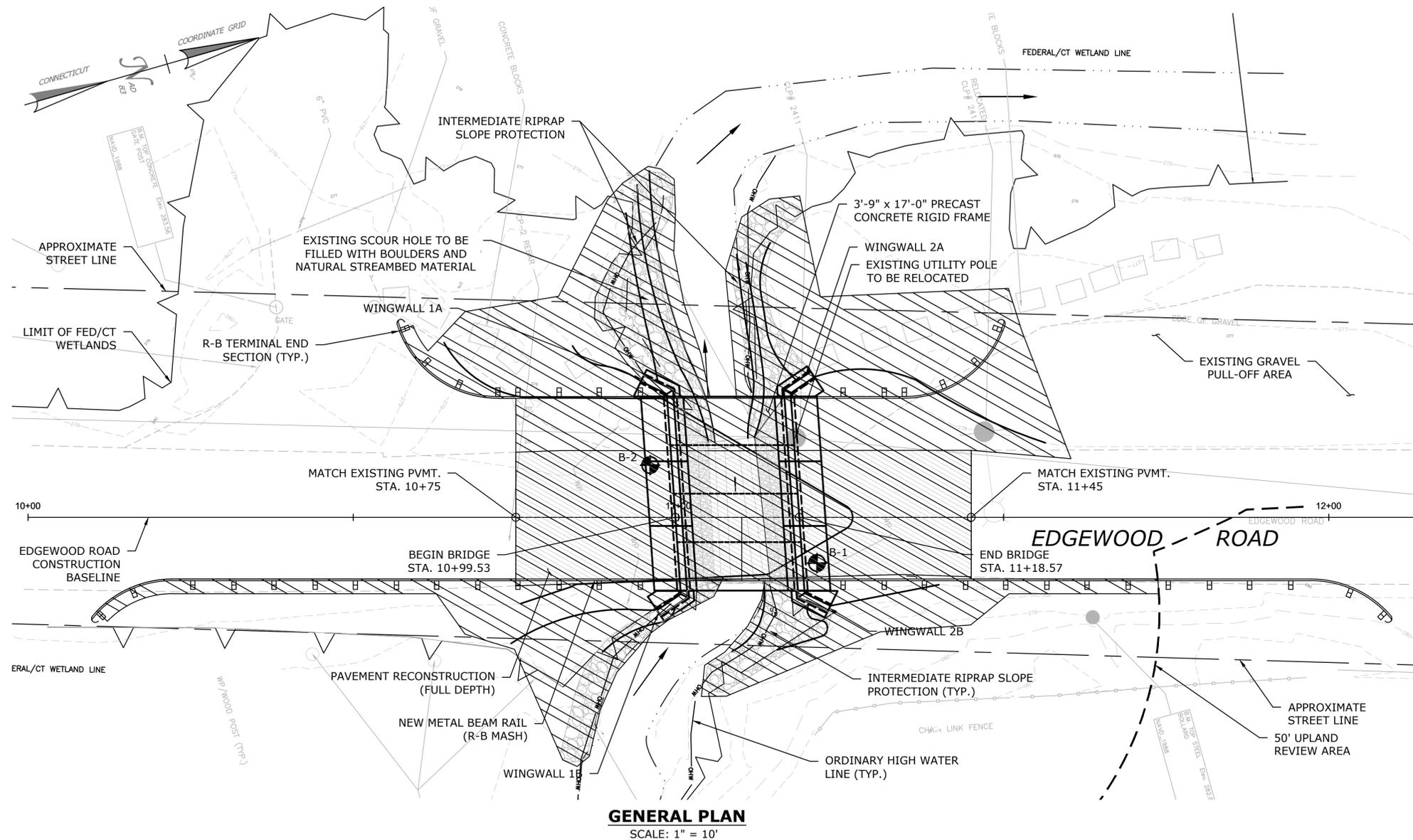
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SIGNATURE/
BLOCK:

PROJECT TITLE:
**REPLACEMENT OF BRIDGE NO. 007002
EDGEWOOD ROAD OVER
JOHN HALL BROOK**

TOWN:
BERLIN

PROJECT NO.
3129
DRAWING NO.
PMT-02
SHEET NO.



LEGEND

 PERMANENT FLOODPLAIN IMPACTS

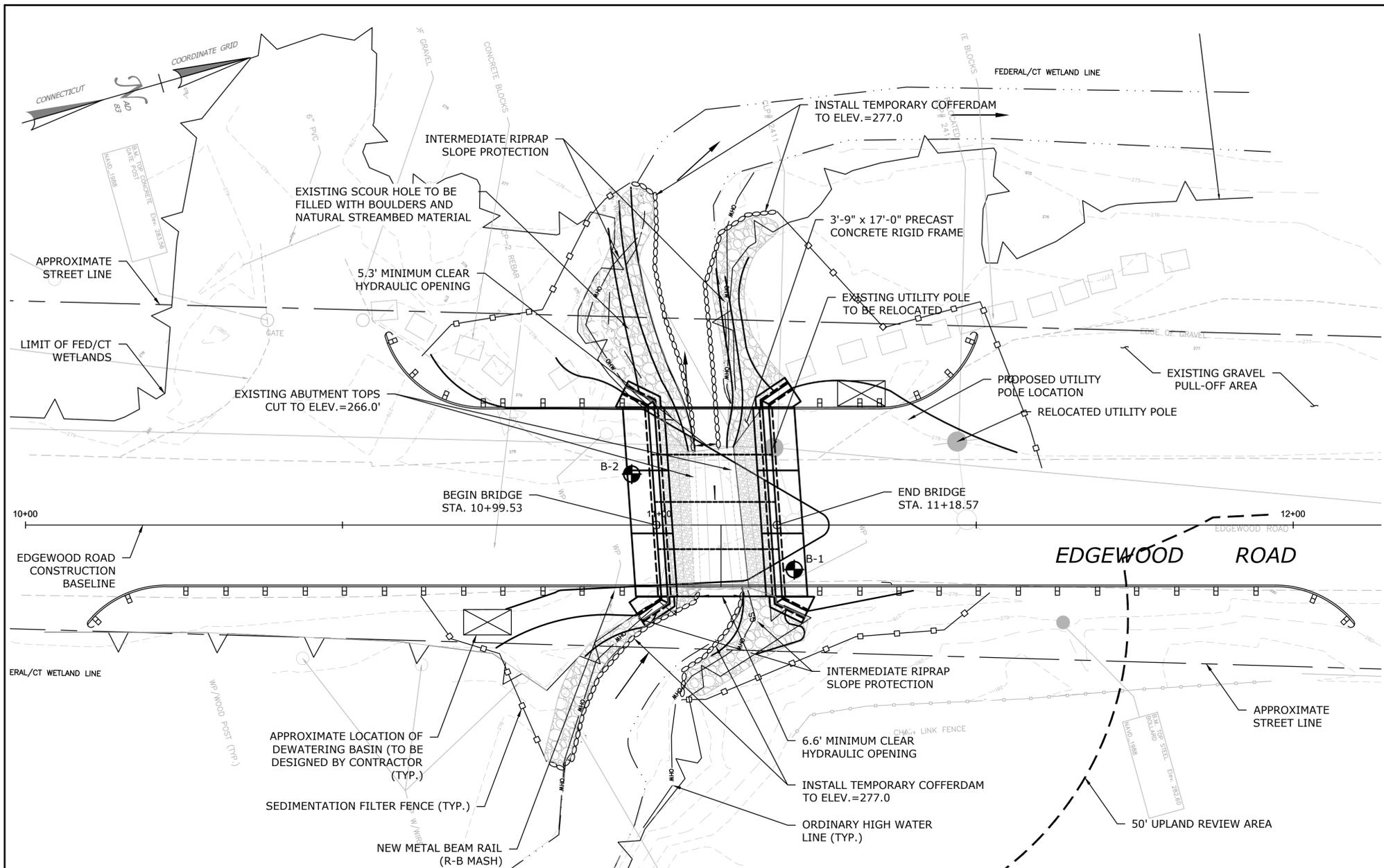
FEMA 100 YEAR FLOODPLAIN IMPACTS		
CUT	FILL	NET
30.3 CY	12.2 CY	18.1 CY (CUT)

GENERAL NOTES:

- ENVIRONMENTAL:
 1. ENTIRETY OF THE AREA SHOWN IN THESE PLANS LIES WITHIN FEMA ZONE-AE
 2. ENTIRETY OF AREA SOUTH OF BR. 007002 WITHIN THE UPLAND REVIEW AREA

ENVIRONMENTAL PERMITTING PLANS: 6/20/2022

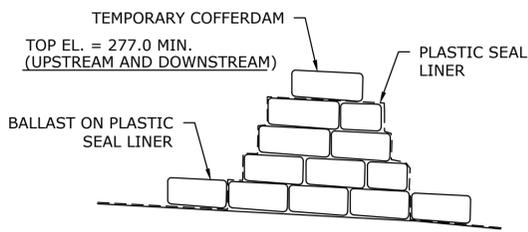
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 6/20/2022	DESIGNER/DRAFTER: DL CHECKED BY: EJ	ENGINEER:	 919 MIDDLE STREET MIDDLETOWN, CT 06457 Filename: PMT-03 FLOODPLAIN IMPACTS.DWG	SIGNATURE/BLOCK:	REPLACEMENT OF BRIDGE NO. 007002 EDGEWOOD ROAD OVER JOHN HALL BROOK	TOWN:	BERLIN FLOODPLAIN IMPACTS	PROJECT NO. 3129 DRAWING NO. PMT-03 SHEET NO.
REV. DATE REVISION DESCRIPTION SHEET NO.								



WATER HANDLING PLAN

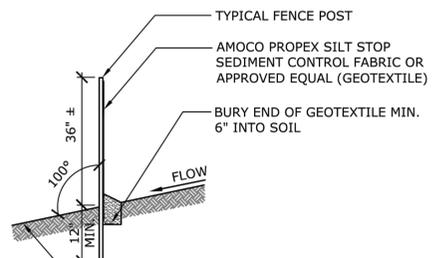
SCALE: 1" = 10'

TEMPORARY HYDRAULICS DATA SUMMARY	
AVERAGE DAILY FLOW (CFS)	
AVERAGE SPRING FLOW (CFS)	
2-YEAR FREQUENCY DISCHARGE (CFS)	
TEMPORARY DESIGN DISCHARGE (CFS)	
TEMPORARY DESIGN FREQUENCY (YEARS)	
TEMPORARY WATER SURFACE ELEVATION - UPSTREAM (FT)	277.0
TEMPORARY WATER SURFACE ELEVATION - DOWNSTREAM (FT)	277.0



TEMPORARY COFFERDAM

NOT TO SCALE



SEDIMENT FILTER FENCE

NOT TO SCALE

SUGGESTED CONSTRUCTION SEQUENCE:

1. MOBILIZE AND INSTALL CONSTRUCTION SIGNS.
2. INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES.
3. PERFORM NECESSARY CLEARING AND GRUBBING.
4. PLACE TPCBC AND IMPLEMENT DETOUR.
5. INSTALL NEW UTILITY POLE AND RELOCATE OVERHEAD UTILITIES.
6. INSTALL TEMPORARY COFFERDAM AND DEWATER.
7. CUT TOP OF EXISTING ABUTMENTS TO ELEVATIONS SHOWN ON PLANS.
8. EXCAVATE AND INSTALL PROPOSED PRECAST FOOTINGS.
9. CONSTRUCT RIPARIAN SHELF.
10. INSTALL PRECAST CONCRETE 3-SIDED FRAME SECTIONS AND PRECAST WINGWALLS.
11. CONSTRUCT CHANNEL EMBANKMENT GRADING, FILL DOWNSTREAM SCOUR HOLE, AND INSTALL INTERMEDIATE RIPRAP SLOPES PER CONSTRUCTION DETAILS.
12. REMOVE TEMPORARY COFFERDAM.
13. RECONSTRUCT ROADWAY, TACK COAT, PAVE, INSTALL GUIDE RAIL, END DETOUR AND OPEN THE BRIDGE TO TRAFFIC.
14. FINALIZE GRADING AND TOP SOIL/TURF ESTABLISHMENT.
15. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE REMOVED AFTER IMPACTED AREAS ARE STABILIZED AND VEGETATION AS BEEN ESTABLISHED.

WATER HANDLING NOTES:

1. ANY UNCONFINED IN-STREAM WORK SHOULD BE RESTRICTED TO THE PERIOD JULY 1ST THROUGH SEPTEMBER 30TH.
2. THE CONTRACTOR SHALL MAINTAIN FLOW BETWEEN THE TEMPORARY WATER-HANDLING-COFFERDAMS AS SHOWN DURING CONSTRUCTION OF THE NEW STRUCTURE.
3. EQUIPMENT SHALL NOT BE PERMITTED IN THE STREAMBED WITHOUT APPROVAL FROM THE ENGINEER.
4. A DEWATERING BASIN SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS. THE LOCATION OF THE DEWATERING BASIN IS APPROXIMATE. THE EXACT POSITION MAY VARY BASED ON THE PUMPING DESIGN SUBMISSION AND APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR UNDER THE ITEM "HANDLING WATER".
5. TEMPORARY WATER HANDLING COFFERDAMS SHALL BE DESIGNED BY THE CONTRACTOR TO SAFELY CONVEY WATER THROUGH THE CONSTRUCTION AREA AND BE ABLE TO SUPPORT THE CONSTRUCTION ACTIVITY AND SHALL CONFORM TO PERMITS. THIS WORK WILL BE PAID FOR UNDER THE ITEM "WATER HANDLING".
6. TEMPORARY COFFERDAMS SHALL BE DESIGNED BY THE CONTRACTOR TO SUPPORT THE CONSTRUCTION ACTIVITY AND EXCAVATION TO REMOVE THE EXISTING ABUTMENTS AND WINGWALLS AND SHALL CONFORM TO PERMITS. THIS WORK WILL BE PAID FOR UNDER THE ITEM "COFFERDAM AND DEWATERING".

NATIVE STREAMBED MATERIAL NOTES:

1. NATIVE STREAMBED MATERIAL EXCAVATED DURING THE BRIDGE REPLACEMENT SHALL BE STOCKPILED AND THEN REPLACED WITHIN THE BRIDGE TO THE DEPTH SHOWN ON THE PLANS, AS DIRECTED BY THE ENGINEER, AND IN ACCORDANCE WITH THE PERMIT DOCUMENTS.
2. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND WITHIN THE R.O.W./CONSTRUCTION EASEMENTS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

ENVIRONMENTAL PERMITTING PLANS: 6/20/2022

DESIGNER/DRAFTER: MG		ENGINEER:		PROJECT TITLE:		TOWN:		PROJECT NO.	
CHECKED BY: EJ		AI Engineers		REPLACEMENT OF BRIDGE NO. 007002		BERLIN		3129	
		919 MIDDLE STREET MIDDLETOWN, CT 06457		EDGEWOOD ROAD OVER JOHN HALL BROOK		DRAWING TITLE:		DRAWING NO.	
Plotted Date: 6/20/2022		Filename: PMT-04 WATER HANDLING AND CONSTRUCTION SEQUENCE PLAN.DWG				WATER HANDLING AND CONSTRUCTION SEQUENCE PLAN		PMT-04	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.					SHEET NO.	