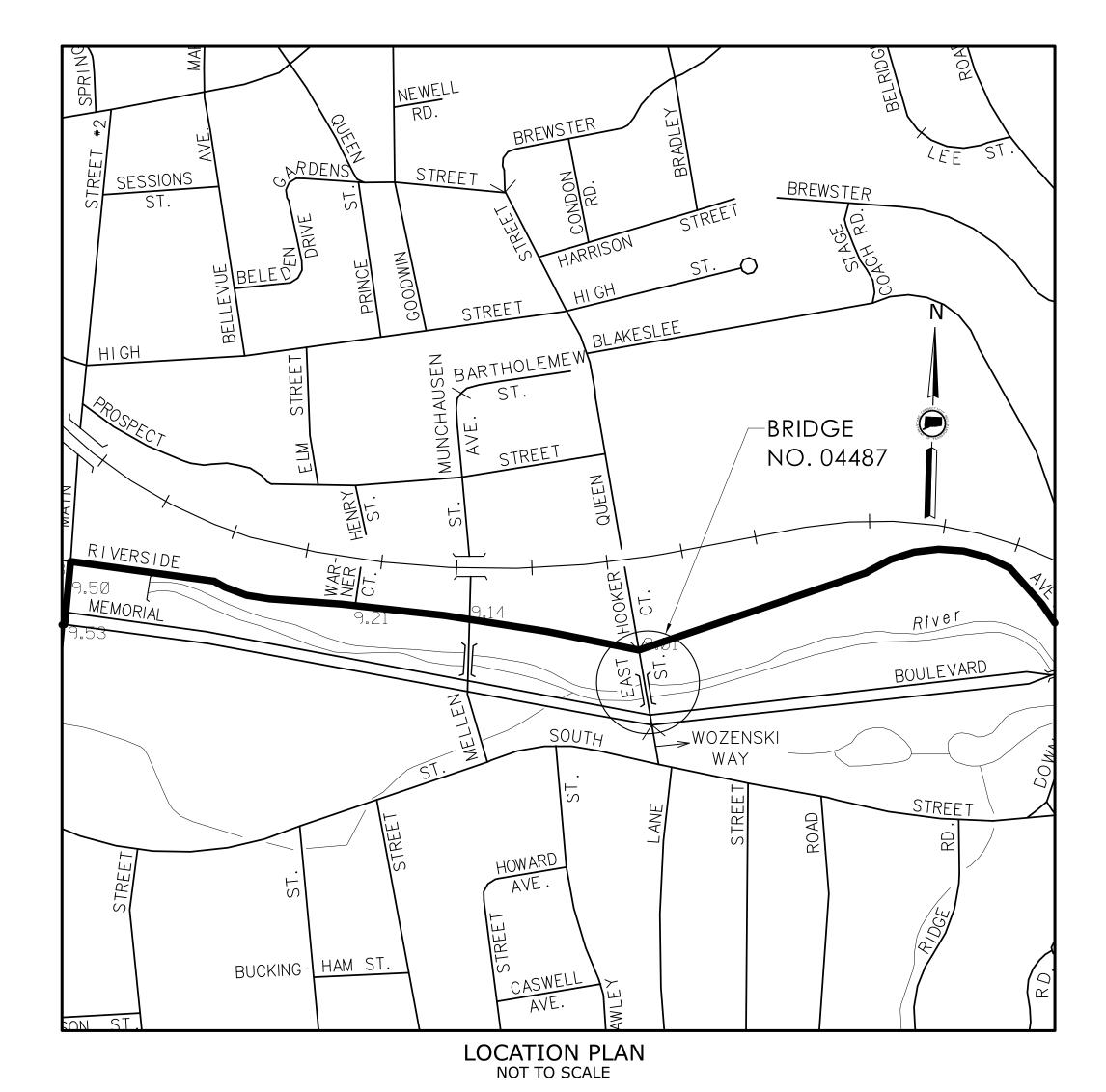
# ENVIRONMENTAL PERMIT PLANS

STATE PROJECT NO. 0017-0192 REPLACEMENT OF BRIDGE NO. 04487 EAST STREET OVER PEQUABUCK RIVER

# Town(s)/City of BRISTOL, CT



## LIST OF DRAWINGS

SHEET NO.	DRAWING TITLE
PMT-01	TITLE SHEET
PMT-02	GENERAL SITE PLAN
PMT-03	WETLAND IMPACT PLAN
PMT-04	100-YEAR FLOODPLAIN IMPACT PLAN
PMT-05	GENERAL BRIDGE PLAN
PMT-06	WATER HANDLING PLAN

### **ENVIRONMENTAL PERMIT PLANS - 02/03/2023**

Bruce H Williams

DEEP Fisheries Division - 03/23/23

115 GLASTONBURY BLVD. DESIGNER/DRAFTER: NAB CHECKED BY: PMB GLASTONBURY, CT 06033

NOT TO SCALE

FINAL DESIGN REVIEW

CITY OF BRISTOL

PROJECT NUMBER: 0017-0192 PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER TOWN(S): BRISTOL DRAWING TITLE: TITLE SHEET

PMT-01

PROJECT LOCATION STATE OF CONNECTICUT **GENERAL NOTES:** 1. FEDERAL AID PROJECT NO. 2. THESE PLANS ARE NOT INTENDED FOR CONSTRUCTION AND ARE INTENDED ONLY

MASSACHUSETTS

DISTRICT 1

DISTRICT 2

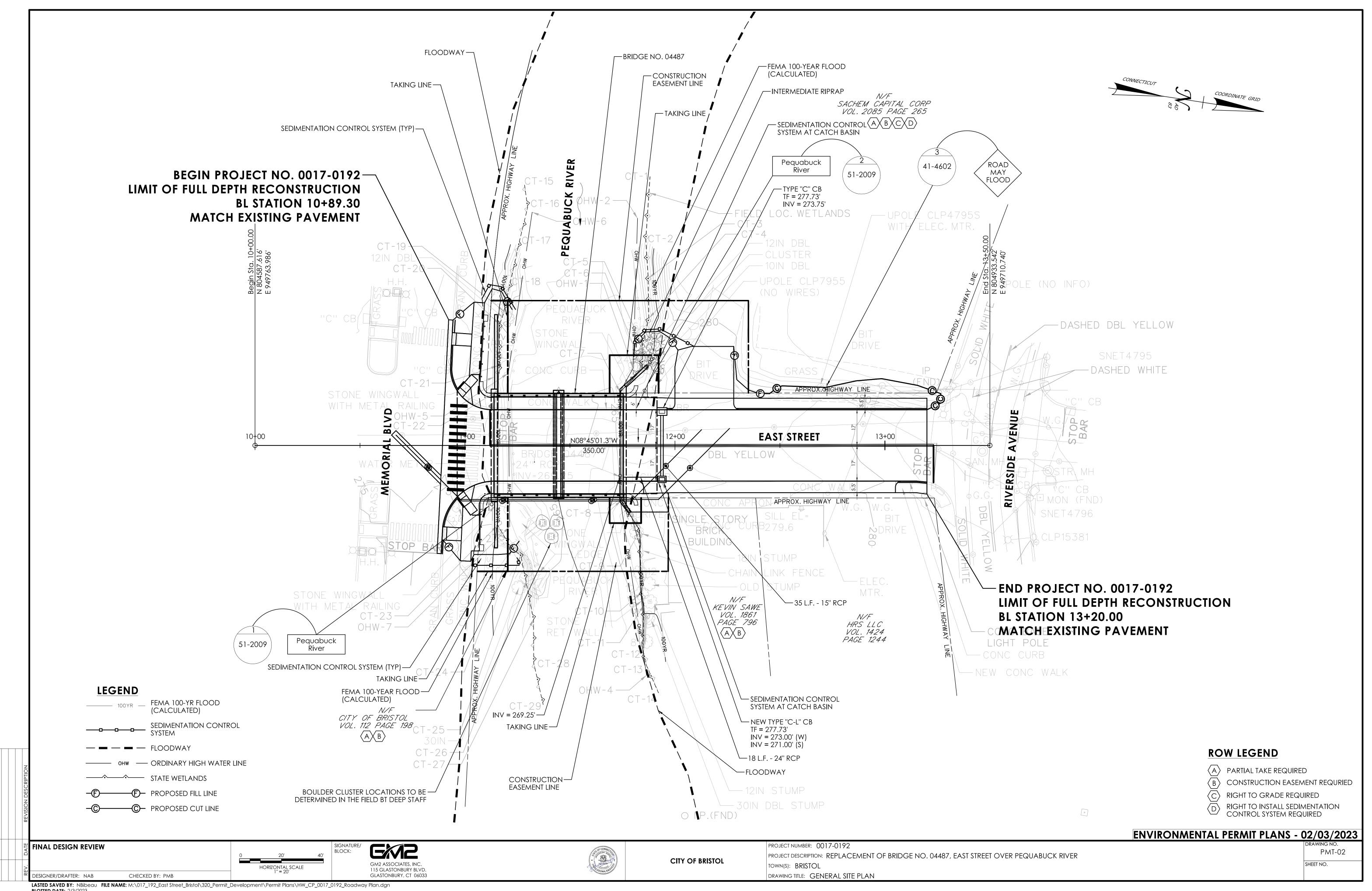
DISTRICT 4

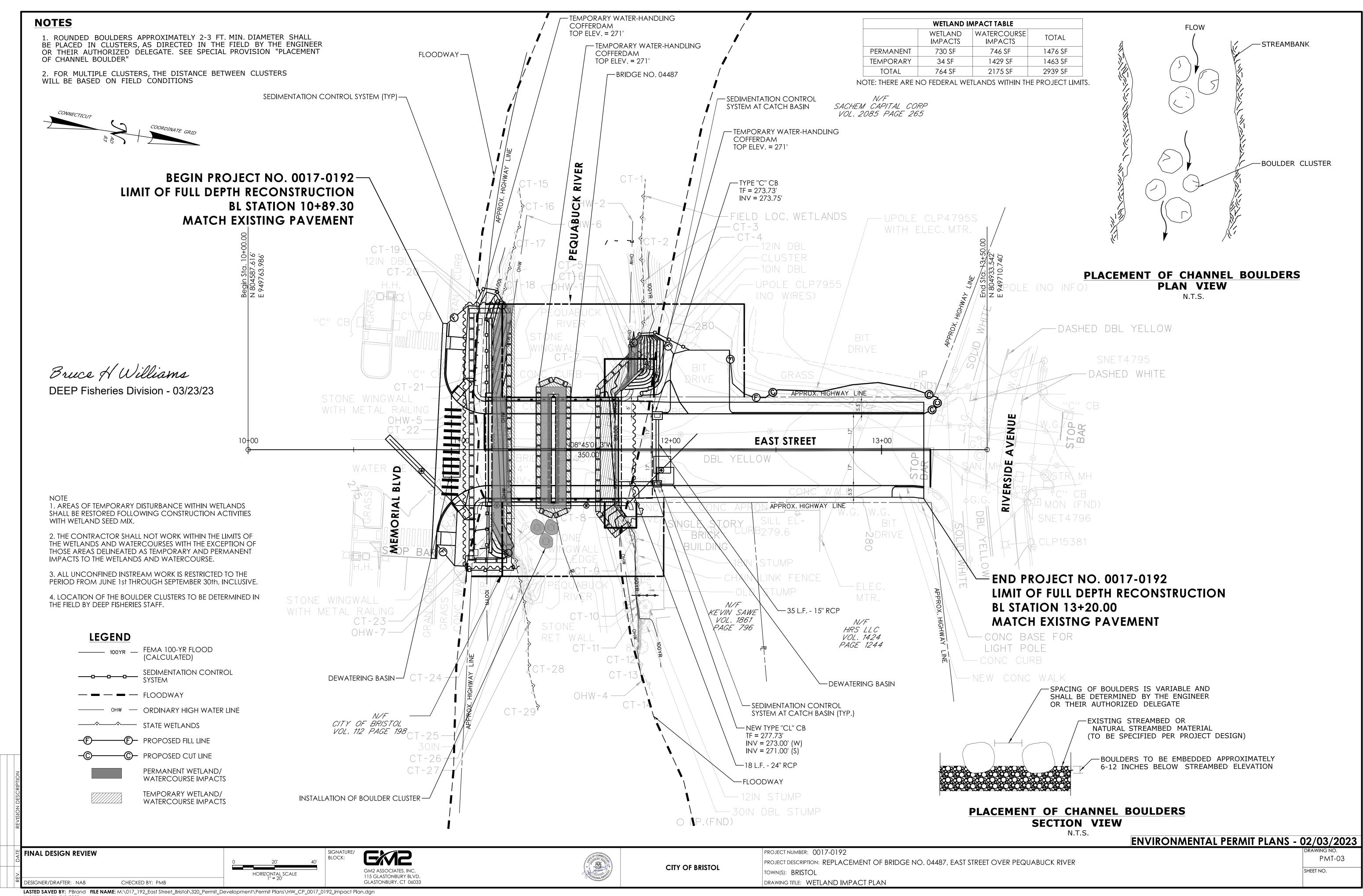
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS, AND WETLAND SOILS,

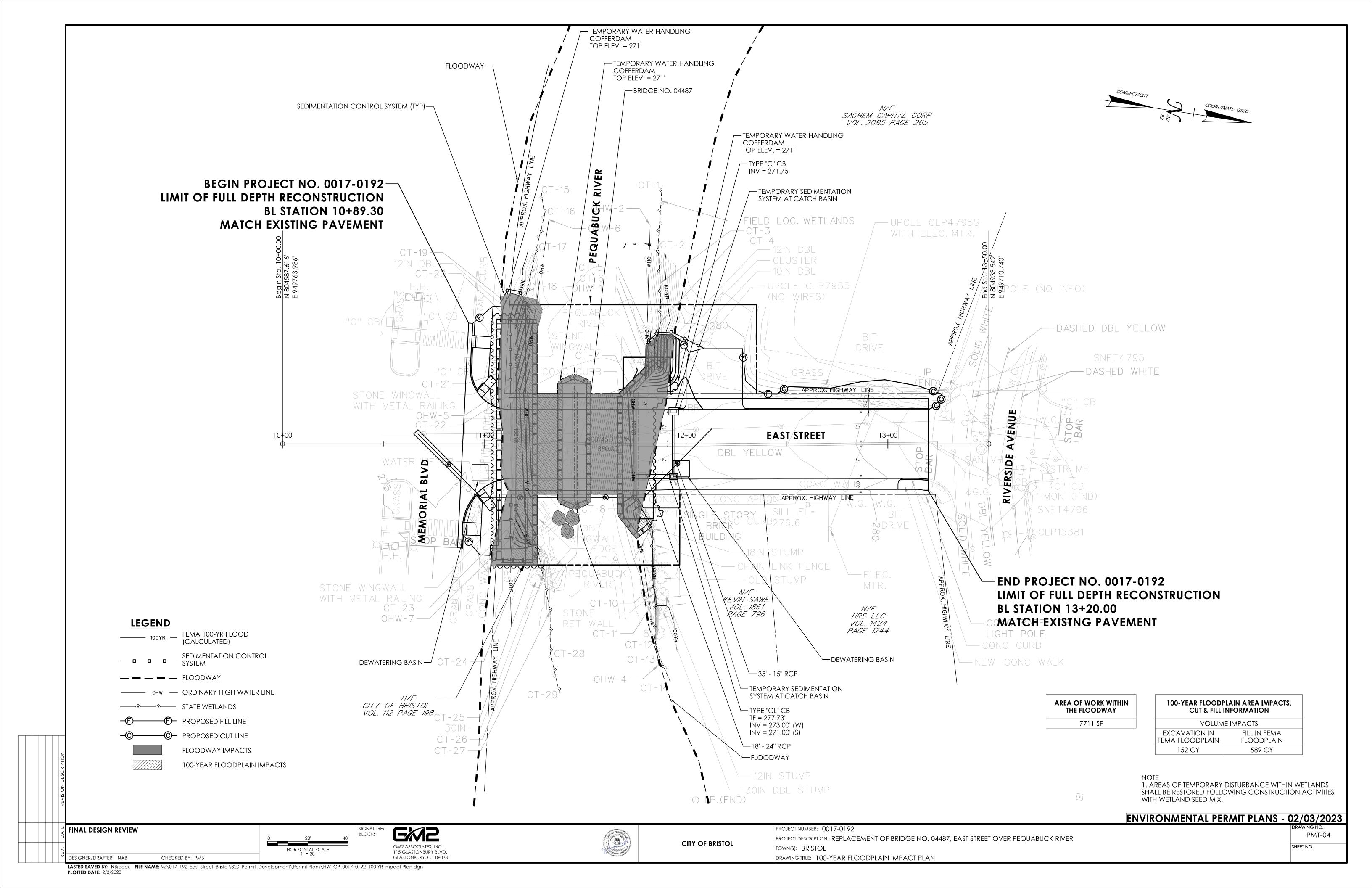
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD 2020

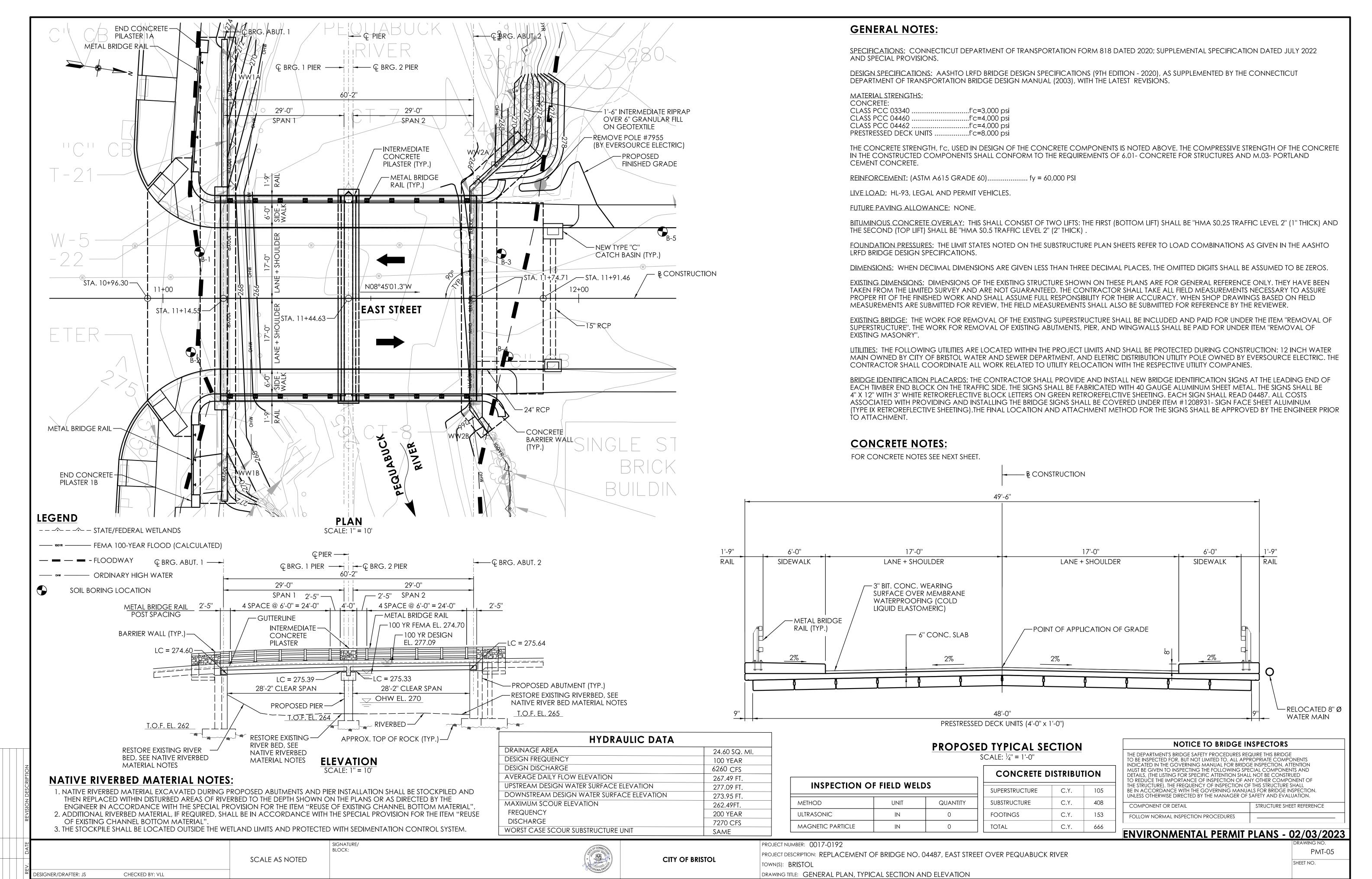
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGE, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818, DATED 2020, SECTION 1.10, AND SUPPLEMENTAL SPECIFICATIONS, DATED JULY 2022, AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.

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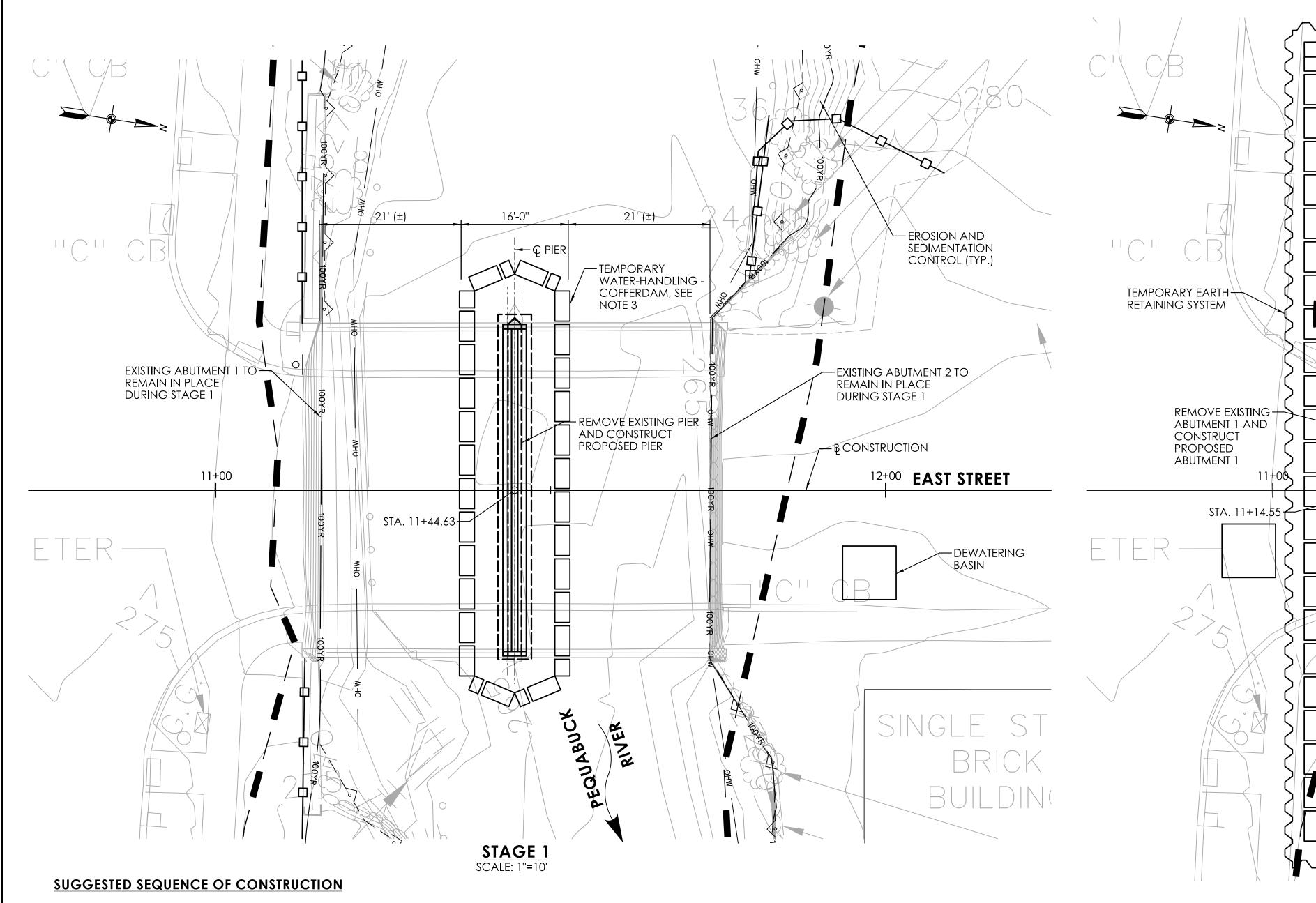






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PLOTTED DATE: 2/3/2023



THE FOLLOWING IS THE SUGGESTED SEQUENCE OF CONSTRUCTION THAT MAY BE FOLLOWED. THE CONTRACTOR SHALL SUBMIT HIS SEQUENCE OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL.

#### PRE-STAGE 1

1. INSTALL DETOUR SIGNS AND PLACE TEMPORARY PRECAST CONCRETE BARRIER CURB, CLOSING EAST STREET TO THROUGH TRAFFIC. PRIOR TO ANY ROAD CLOSURE, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF BRISTOL. SEE SPECIAL PROVISIONS FOR THE ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC" AND THE DETOUR PLAN FOR ADDITIONAL REQUIREMENTS.

- 2. CUT OFF AND CAP EXISTING WATER MAIN FOR THE DURATION OF CONSTRUCTION.
- 3. INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROLS.
- 4. INSTALL DEBRIS SHIELD ABOVE EL. 272 AND REMOVE EXISTING SUPERSTRUCTURE.
- 5. REMOVE DEBRIS SHEILD.

#### STAGE 1

1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 1 TO THE LIMITS SHOWN ON THIS PLAN. SEE WATER HANDLING NOTES FOR ADDITIONAL INFORMATION.

- 2. REMOVE THE EXISTING PIER IN ITS ENTIRETY.
- 3. CONSTRUCT PROPOSED PIER FOOTING, STEM AND PIER CAP.
- 4. REMOVE TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 1.

#### STAGE 2

1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 2 TO THE LIMITS SHOWN ON THIS PLAN. SEE WATER HANDLING NOTES FOR ADDITIONAL INFORMATION.

- 2. REMOVE THE EXISTING ABUTMENTS AND WINGWALLS IN THEIR ENTIRETY.
- 3. CONSTRUCT PROPOSED ABUTMENTS AND WINGWALLS FOOTINGS, AND STEMS.
- 4. BACKFILL PROPOSED BRIDGE AND REMOVE TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 2.

5. INSTALL BOULDER CLUSTERS.

#### POST-STAGE 2

1. INSTALL PRESTRESSED CONCRETE DECK UNITS.

- 2. POUR CONCRETE DECK.
- 3. CONSTRUCT APPROACH SLABS, SIDEWALKS, PILASTERS AND BARRIER WALLS. INSTALL METAL BRIDGE RAILS.
- 4. APPLY MEMBRANE WATERPROOFING AND FIRST LIFT OF BITUMINOUS OVERLAY.
- 5. CONSTRUCT ROADWAY APPROACHES TO THE BRIDGE.
- 6. APPLY FINAL LIFT OF THE BITUMINOUS OVERLAY TO THE ENTIRE PROJECT.
- 7. SAW AND SEAL OVERLAY AT THE ENDS OF THE BRIDGE DECK.
- 8. OPEN ROAD TO TRAFFIC AND PEDESTRIANS AND COMPLETE MISCELLANEOUS WORK.
- 9. INSTALL PROPOSED WATERMAIN.

10. REMOVE EROSION AND SEDIMENTATION CONTROLS UPON PERMANENT STABILIZATION.

TEMPORARY HYDRAULIC DATA		
AVERAGE DAILY FLOW	43.1 CFS	
AVERAGE SPRING FLOW	85.7 CFS	
TEMPORARY DESIGN DISCHARGE	984 CFS	
TEMPORARY DESIGN FREQUENCY	2 YEAR	
STAGE 1		
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	270.44 FT	
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	267.94 FT	
STAGE 2		
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	270.45 FT	
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	267.74 FT	

#### WATER HANDLING NOTES

- 1. THE SUGGESTED METHOD OF CONTROLLING WATER DURING CONSTRUCTION CONSISTS OF A TEMPORARY WATER-HANDLING-COFFERDAMS AS SHOWN ON THIS DRAWING AND SHALL BE PAID FOR UNDER THE ITEM "COFFERDAM AND DEWATERING".
- 2. THIS SUGGESTED WATER HANDLING SCHEME IS FOR THE CONSTRUCTION OF PROPOSED ABUTMENTS, PIER, AND WINGWALLS. THE INSTALLATION OF TEMPORARY WATER-HANDLING-COFFERDAM TO HANDLE WATER FOR ANY OTHER CONSTRUCTION ACTIVITIES IS NOT PERMITTED.

TEMPORARY WATER-HANDLING -COFFERDAM,

20' (±)

-PROPOSED PIER

CONSTRUCTED DURING STAGE

-INSTALL BOULDER

ABUCK

RIVER

STAGE 2

SCALE: 1"=10'

**CLUSTERS** 

SEE NOTE 3

FIER

TEMPORARY WATER-

20' (±)

STA. 11+44.63

HANDLING -COFFERDAM, SEE NOTE 3

- 3. TOP OF THE TEMPORARY WATER-HANDLING-COFFERDAM SHALL BE EL. 271.00 (MIN.).
- 4. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL HIS PROPOSED PLAN FOR WATER HANDLING, INCLUDING METHODS NECESSARY FOR THE CONSTRUCTION OF SUBSTRUCTURE TO BE COMPLETED IN REASONABLY DRY CONDITIONS. REFER TO THE SPECIAL PROVISION FOR THE ITEM "COFFERDAM AND DEWATERING".
- 5. IN ADDITION TO THE PROPOSED METHODS OF HANDLING WATER, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS PROPOSED METHODS OF REMOVING THE EXISTING SUPERSTRUCTURE AND EXISTING SUBSTRUCTURES. EXISTING SUPERSTRUCTURE REMOVAL SHALL BE PAID FOR UNDER THE ITEM 'REMOVAL OF SUPERSTRUCTURE'. REMOVAL OF EXISTING SUBSTRUCTURES SHALL BE PAID FOR UNDER THE ITEM 'REMOVAL OF EXISTING MASONRY'. SEE SPECIAL PROVISIONS.
- 6. NO WORK SHALL BEGIN UNTIL ALL APPROVALS HAVE BEEN OBTAINED FROM THE ENGINEER.

#### TIME-OF-YEAR RESTRICTION

DRAWING TITLE: WATER HANDLING PLAN

ALL UNCONFINED INSTREAMWORK IS RESTRICTED TO THE PERIOD FROM JUNE 1ST THROUGH SEPTEMBER 30TH,

#### **LEGEND**

SEDIMENTATION CONTROL SYSTEM

- EROSION AND SEDIMENTATION

CONTROL (TYP.)

- REMOVE EXISTING

ABUTMENT 2 AND CONSTRUCT

TEMPORARY EARTH RETAINING SYSTEM

\_\_ B CONSTRUCTION

12+00 EAST STREET

-DEWATERING BASIN

PROPOSED ABUTMENT 2

-- → - - STATE WETLANDS

—— 100YR ———— FEMA 100-YEAR FLOOD (CALCULATED)

— — — -FLOODWAY

ORDINARY HIGH WATER

Bruce H Williams DEEP Fisheries Division - 03/23/23

**ENVIRONMENTAL PERMIT PLANS - 02/03/2023** 

SCALE AS NOTED

**EM2** 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033



CITY OF BRISTOL

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PMT-06 SHEET NO.