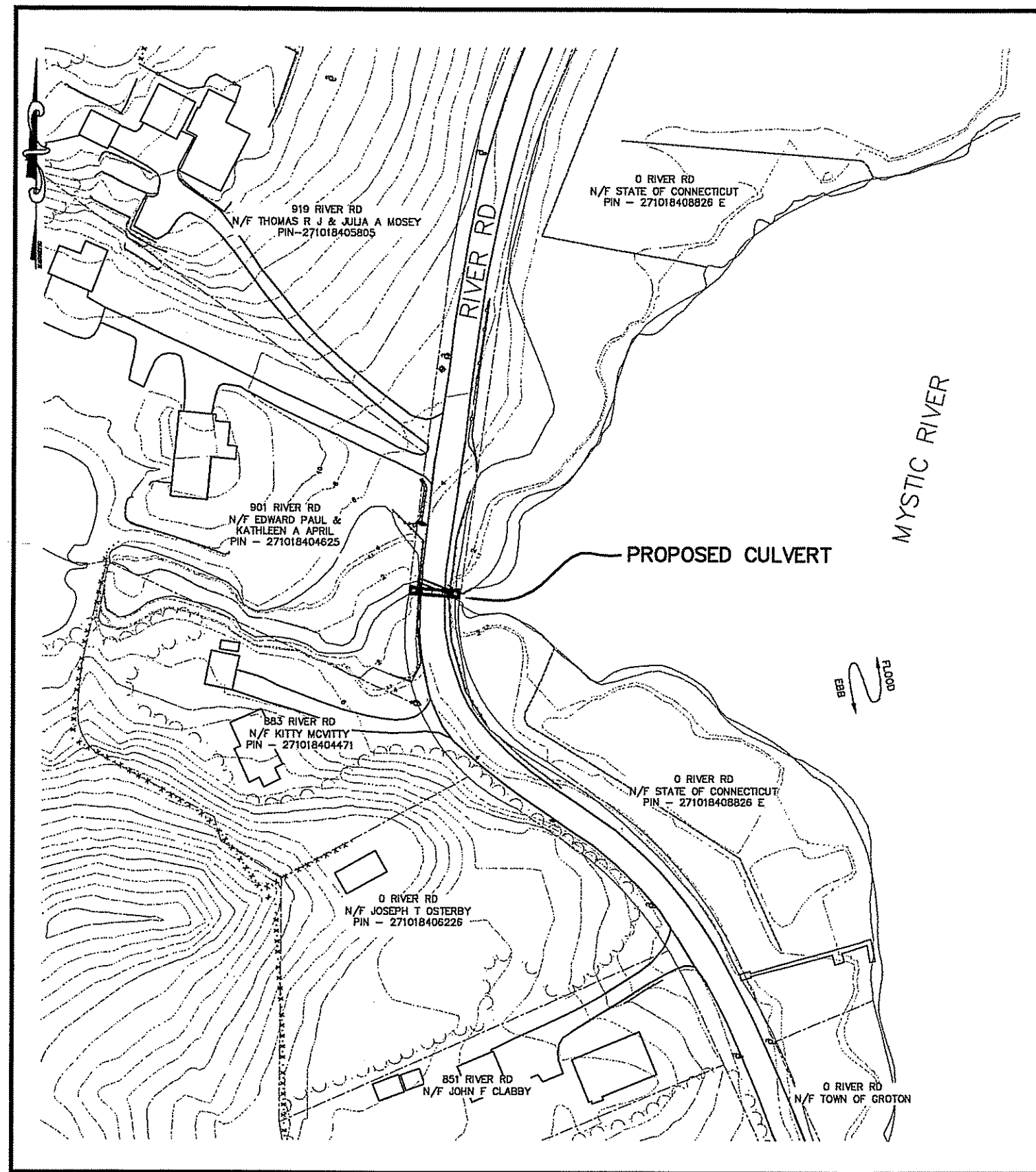
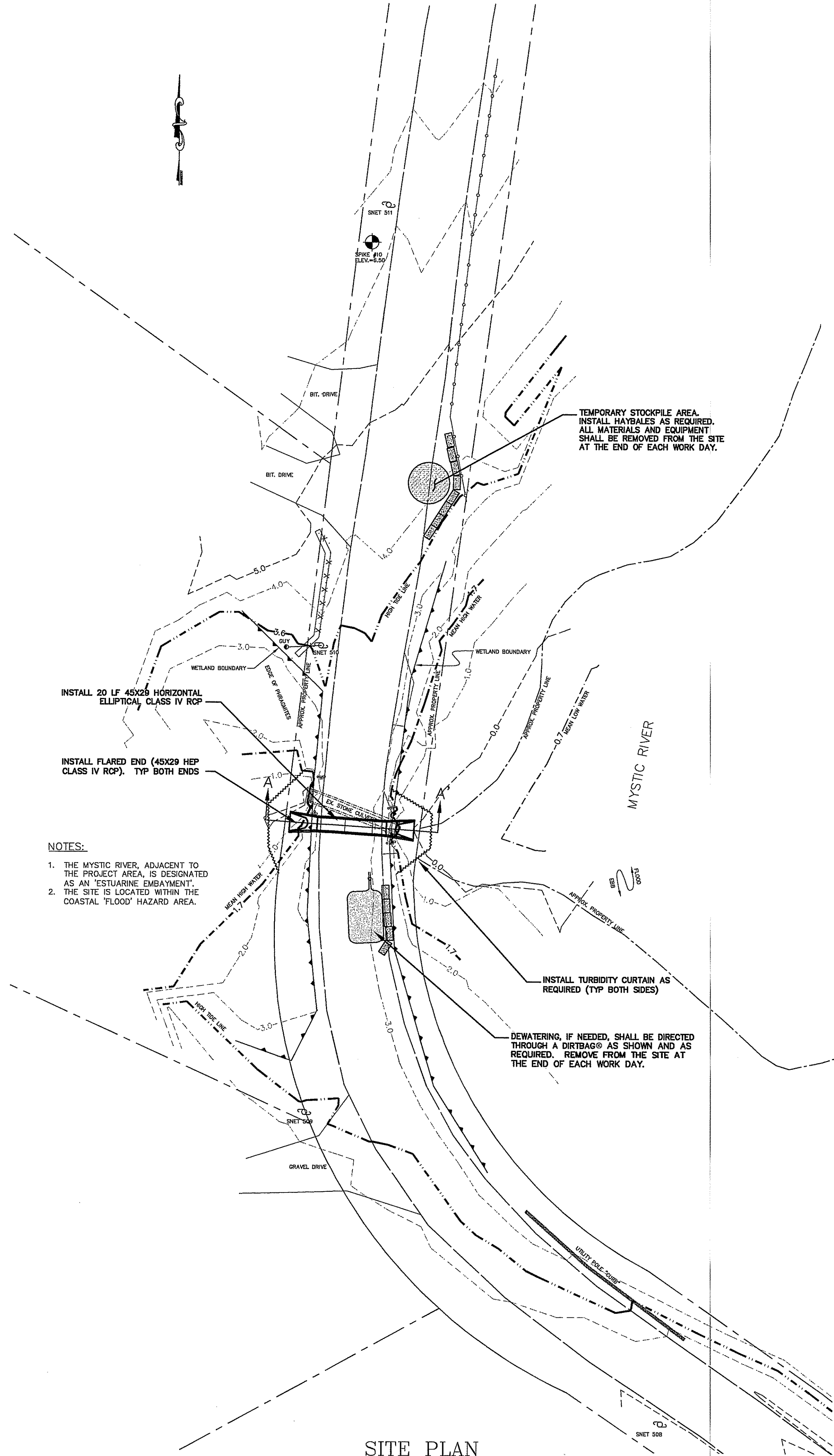


**SITE LOCATION**  
 SCALE: 1" = 2000' (CHECK BEFORE USING)



**SITE VICINITY**  
 SCALE: 1" = 100' (CHECK BEFORE USING)



**NOTES:**

1. THE MYSTIC RIVER, ADJACENT TO THE PROJECT AREA, IS DESIGNATED AS AN 'ESTUARINE EMBAYMENT'.
2. THE SITE IS LOCATED WITHIN THE COASTAL 'FLOOD' HAZARD AREA.

TEMPORARY STOCKPILE AREA. INSTALL HAYBALES AS REQUIRED. ALL MATERIALS AND EQUIPMENT SHALL BE REMOVED FROM THE SITE AT THE END OF EACH WORK DAY.

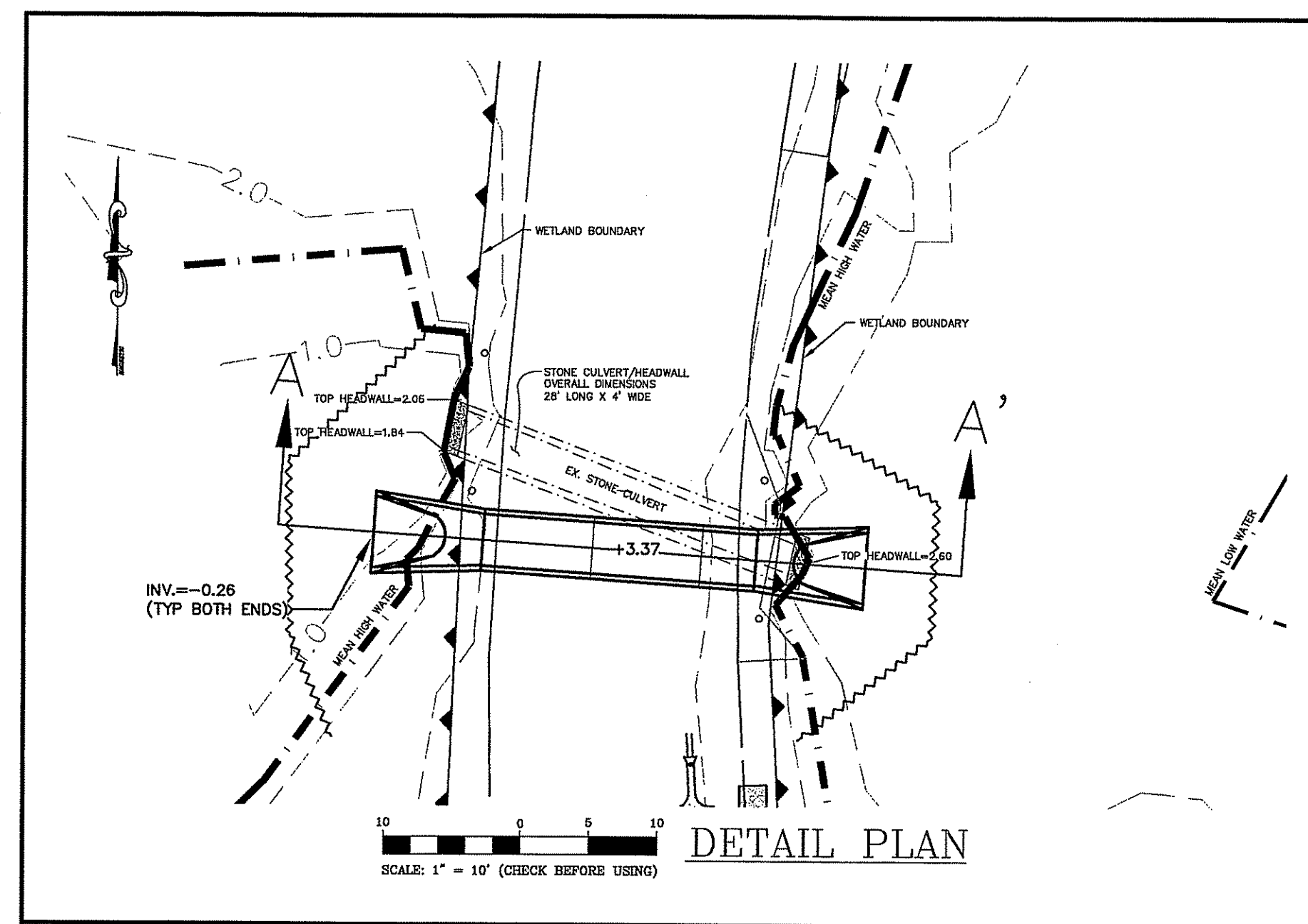
INSTALL 20 LF 45X28 HORIZONTAL ELLIPTICAL CLASS IV RCP

INSTALL FLARED END (45X28 HEP CLASS IV RCP) TYP BOTH ENDS

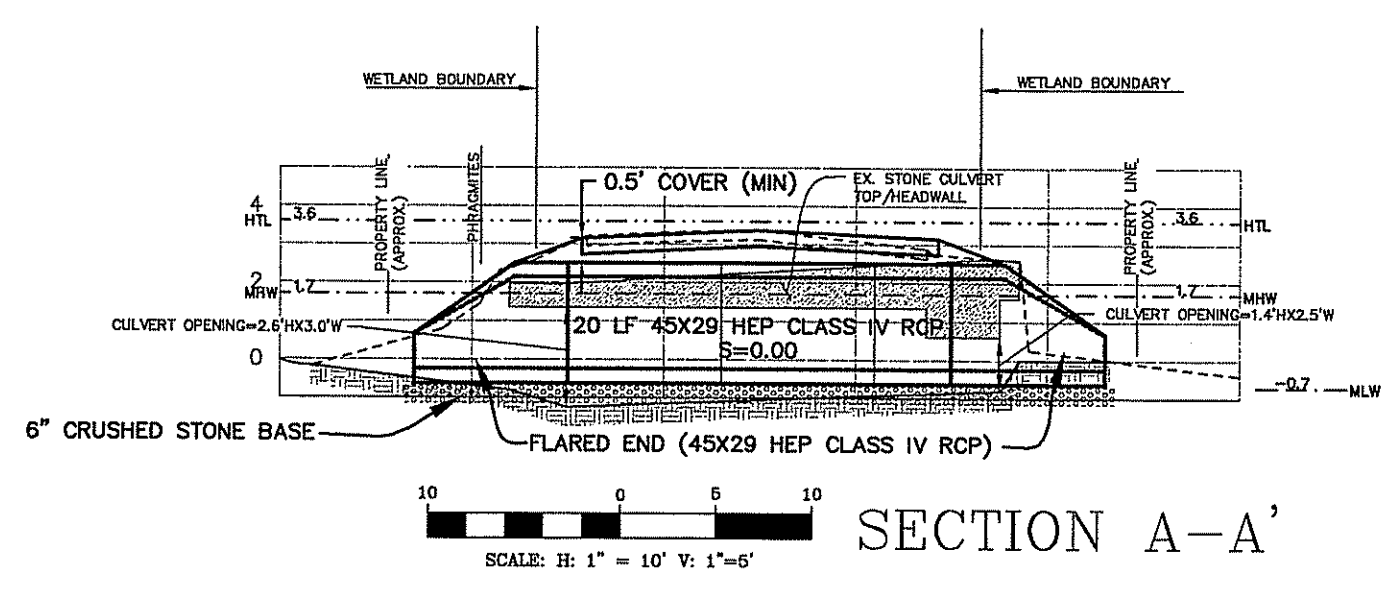
INSTALL TURBIDITY CURTAIN AS REQUIRED (TYP BOTH SIDES)

DEWATERING, IF NEEDED, SHALL BE DIRECTED THROUGH A DIRTBAG® AS SHOWN AND AS REQUIRED. REMOVE FROM THE SITE AT THE END OF EACH WORK DAY.

**SITE PLAN**  
 SCALE: 1" = 20' (CHECK BEFORE USING)



**DETAIL PLAN**  
 SCALE: 1" = 10' (CHECK BEFORE USING)



**SECTION A-A'**  
 SCALE: H: 1" = 10' V: 1" = 4"

**NARRATIVE:**

THIS PROJECT HAS BEEN PROPOSED TO CORRECT AN UNSAFE CONDITION RELATED TO A FAILING CULVERT.

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" PRIOR TO EXCAVATION AT 1-800-922-4455.
2. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. OTHER UTILITIES MAY EXIST.
3. THIS PLAN WAS PREPARED FROM A LAND SURVEY PERFORMED BY THE TOWN OF GROTON DEPARTMENT OF PUBLIC WORKS.
4. ELEVATIONS ARE BASED ON NATIONAL GEODETIC SURVEY DATUM (NGVD) 1929 WITH REFERENCE TO CONNECTICUT GEODETIC SURVEY BENCHMARK 1318 LOCATED ON THE WESTERLY SIDE OF RIVER ROAD, NORTHERLY OF UNITED STATES ROUTE 95.
5. HORIZONTAL CONTROL IS BASED ON CONNECTICUT GEODETIC SURVEY MONUMENTS 1884X AND 1885X, LOCATED ON CONNECTICUT ROUTE 27, WEST OF RIVER ROAD.
6. PROPERTY LINES ARE TAKEN FROM TOWN OF GROTON GIS MAPPING AND ARE APPROXIMATE.

**CONSTRUCTION SEQUENCE:**

1. IMPLEMENT TRAFFIC CONTROL MEASURES
2. INSTALL EROSION AND SEDIMENTATION CONTROLS
3. SAWCUT ROAD
4. EXCAVATE TO SUBGRADE, REMOVE EX. STONE CULVERT. PROMPTLY REMOVE EXCAVATED MATERIALS FROM THE SITE.
5. INSTALL CRUSHED STONE BASE
6. INSTALL FLARED ENDS AND CULVERT
7. BACKFILL TO SUBGRADE
8. INSTALL PROCESSED GRAVEL ROAD BASE
9. INSTALL BITUMINOUS CONCRETE ROAD
10. LOAM AND SEED EDGE OF ROAD AND OTHER DISTURBED AREAS.
11. UPON STABILIZATION, REMOVE EROSION AND SEDIMENTATION CONTROLS.

**SITE PLAN NOTES:**

1. THE CONTRACTOR SHALL INSTALL, INSPECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS IN ACCORDANCE WITH THE DRAWINGS AND THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL". WORK SHALL BE CONDUCTED DURING LOW TIDE. ALL REMOVED SEDIMENTS SHALL BE DISPOSED AT AN APPROVED LOCATION. INSTALLED MEASURES SHALL BE INSPECTED ROUTINELY AND CLEANED, REPAIRED OR REMOVED AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD. ALL MEASURES WILL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. NO MATERIALS OR EQUIPMENT SHALL BE LEFT WITHIN THE REGULATED AREA AFTER CONSTRUCTION.
2. THE TOWN OF GROTON ENVIRONMENTAL PLANNER SHALL BE NOTIFIED A MINIMUM OF 7 DAYS PRIOR TO THE START OF CONSTRUCTION.
3. STOCKPILED MATERIALS SHALL BE PROTECTED BY SILT FENCE OR HAY BALE BARRIER.
4. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, THE CONTRACTOR SHALL USE A "DIRTBAG" AS MANUFACTURED BY ACME DYNAMICS/ACF ENVIRONMENTAL. THE "DIRTBAG" SHALL BE SIZED TO HANDLE THE ACTUAL FLOW NEEDED, AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. IT SHALL BE CHANGED WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR PASS WATER AT A REASONABLE RATE.
5. EVERY EFFORT SHALL BE MADE TO PREVENT SEDIMENT LADEN WATER FROM LEAVING THE WORK AREA.
6. FINISH GRADING SHALL CONSIST OF 4" TOPSOIL AND SEED.
7. PERMANENT SEED MIX SHALL BE APPLIED BETWEEN APRIL 15 AND JUNE 30 OR BETWEEN AUGUST 15 AND SEPTEMBER 30 AS FOLLOWS:  
 REED CANARY GRASS - 0.45#/1000 SF.  
 RED TOP - 0.10#/1000 SF.  
 FERTILIZER - 10-10-10, 7.5#/1000 SF.  
 LIME - 90#/1000 SF.
8. ANNUAL RYE GRASS SHALL BE APPLIED TO ALL UNFINISHED AREAS BY OCTOBER 30 OF EACH YEAR AT A RATE OF 1#/1000 SF.
9. WATER SHALL BE APPLIED AS NECESSARY TO CONTROL DUST.

**REFERENCED PERMITS:**

- THE FOLLOWING PERMITS/APPROVALS HAVE BEEN OBTAINED FOR THIS PROJECT AND SHALL BE AN INTEGRAL PART OF THIS PLAN:
1. A CERTIFICATE OF PERMISSION (COP-2005-124-AD) WAS ISSUED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION ON DECEMBER 16, 2005.
  2. THE PLAN WAS APPROVED BY THE TOWN OF GROTON PLANNING COMMISSION AT THEIR JANUARY 10, 2006 MEETING. THE COMMISSION REQUESTED THAT THE EXISTING STONE CULVERT BE DOCUMENTED PRIOR TO REMOVAL AND THAT SOME OF THE LARGE STONES BE REUSED TO HELP DISGUISE THE NEW FLARED ENDS.
  3. AUTHORIZATION HAS BEEN GRANTED BY THE DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS UNDER THE CONNECTICUT PROGRAMATIC GENERAL PERMIT (CGP, PERMIT NO. 41) IN A LETTER DATED NOVEMBER 7, 2005.
  4. THIS PLAN IS A COMPOSITE OF THE PLANS PREPARED FOR THE ABOVE-REFERENCED PERMITS, LAST REVISED 11-04-05

**TOWN OF GROTON**  
**DEPARTMENT OF PUBLIC WORKS**  
 ENGINEERING  
 134 GROTON LONG POINT ROAD  
 GROTON, CONNECTICUT 06340  
 (860) 448-4066

**RIVER ROAD**  
**CULVERT REPLACEMENT**  
 Near 901 River Road  
 Construction Drawing

REV.	DATE	DESCRIPTION

FILE NO.:  
 PROJECT NO.: **04-0513**

DESIGNED BY: **pbg** DATE: **01-06**  
 DRAWN BY: **pbg** DATE: **01-06**  
 CHECKED BY: DATE:  
 APPROVED BY: DATE:

SCALE: **As Shown**

DATE: **January 25, 2006**

PAGE NO.: **1 of 1**