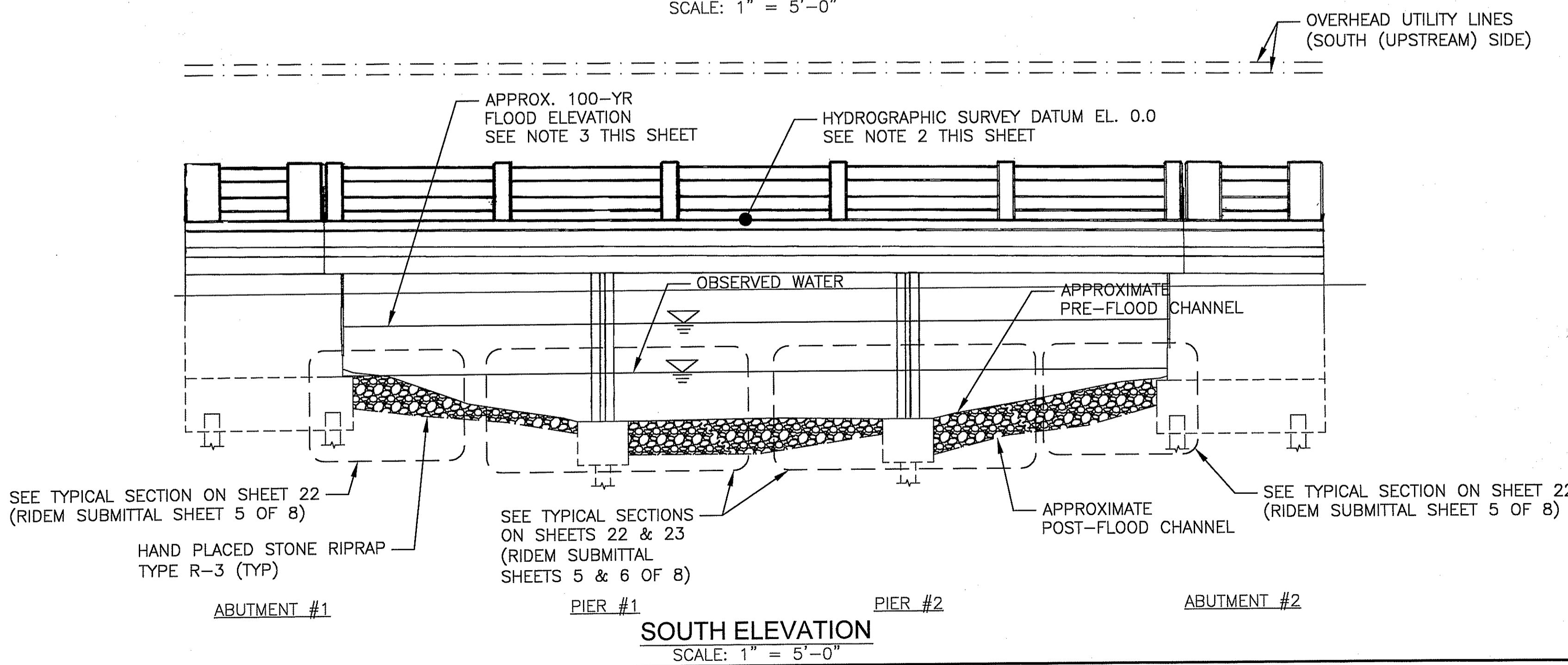
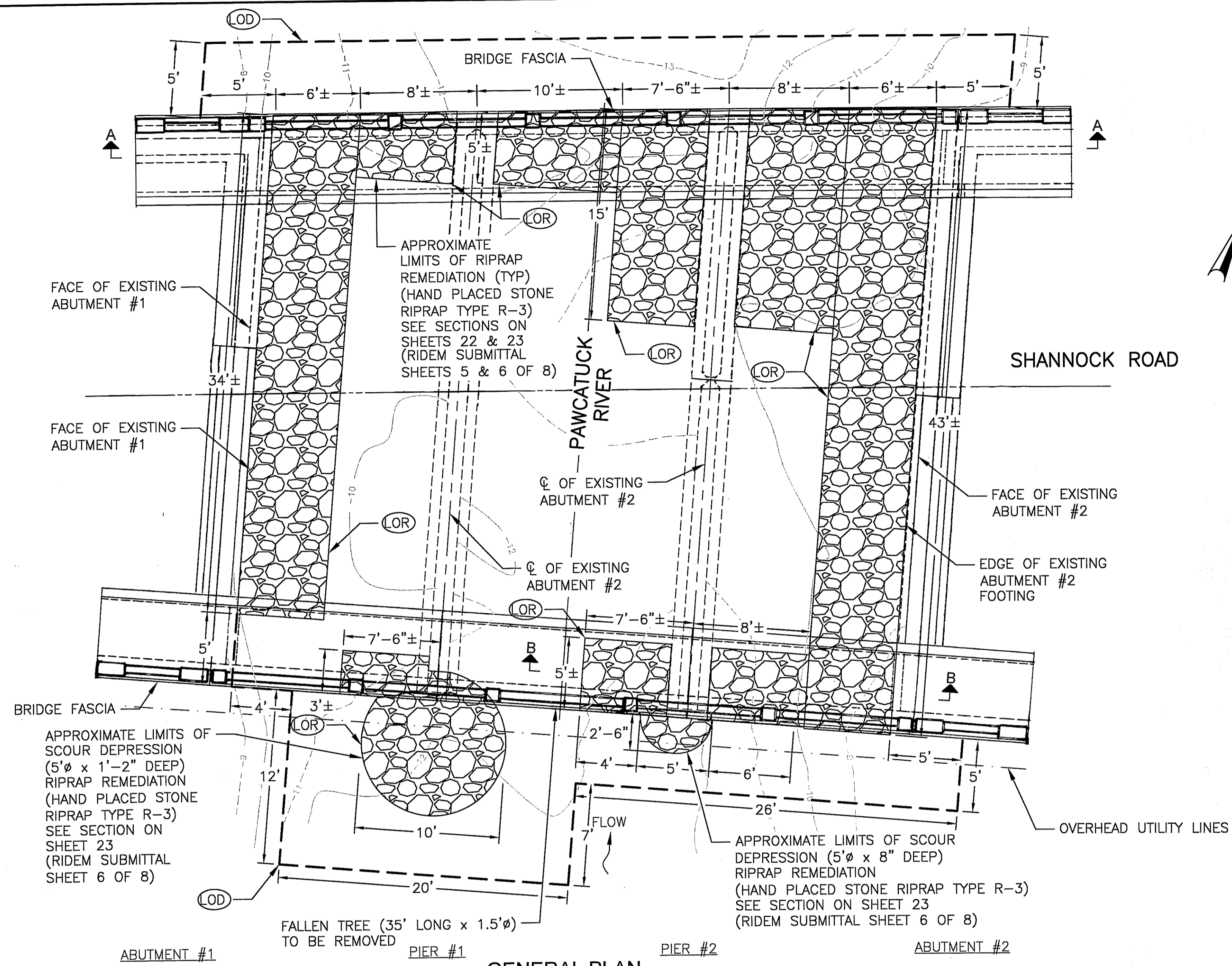
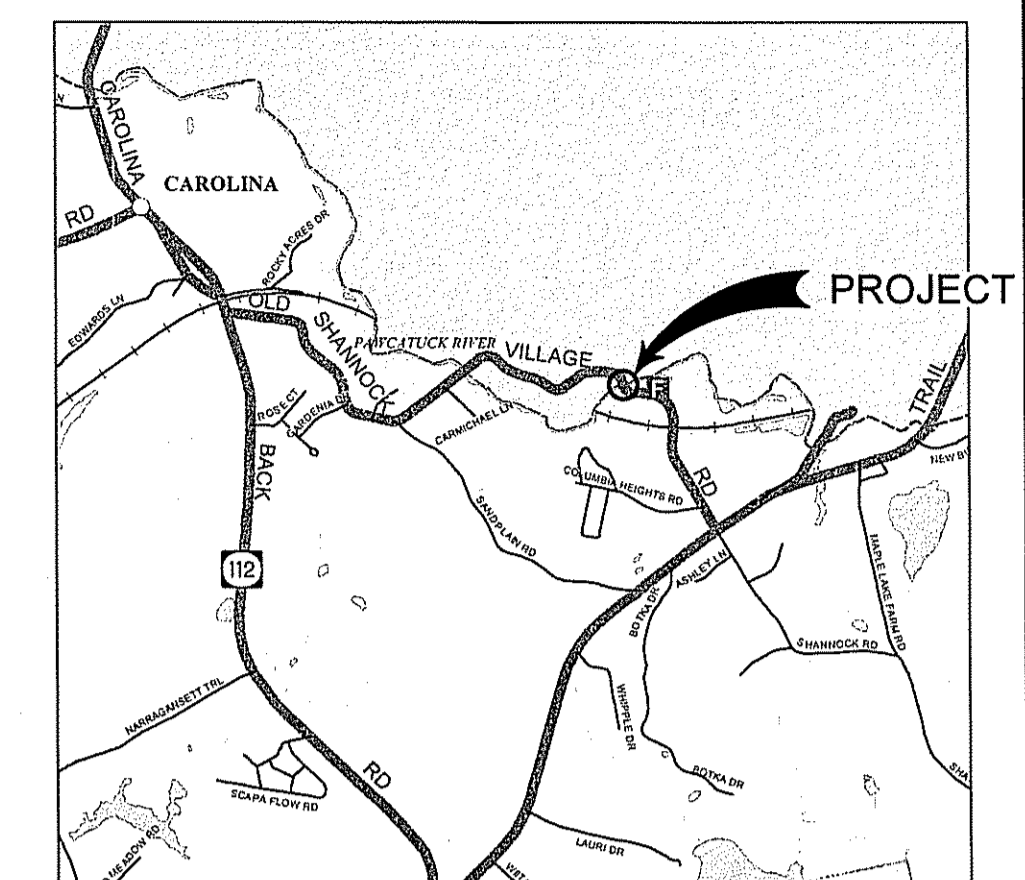


FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI	FLD-EMRG (003)	2011	21	41

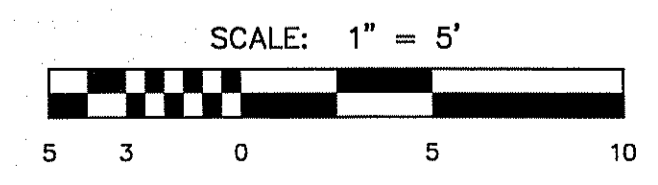


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 09 2013 FILE # 13-0018
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

- NOTES:**
1. THE PRE-FLOOD CHANNEL WAS APPROXIMATED USING ONE OR A COMBINATION OF THE FOLLOWING: HYDROGRAPHIC SURVEY DATA FROM 2010, CROSS SECTION INFORMATION FROM THE RIDOT 1996 BRIDGE SCOUR EVALUATIONS, AND ORIGINAL BRIDGE PLANS.
 2. HYDROGRAPHIC CONTOURS ARE BELOW THE DATUM ELEVATION AND ARE SHOWN FOR CONTRACTOR INFORMATION ONLY. THE HYDROGRAPHIC DATUM (DATUM ELEVATION 0.0) IS LOCATED AT THE TOP OF THE CURB.
 3. THE APPROXIMATE 100-YEAR FLOOD ELEVATION WAS INTERPRETED FROM THE LATEST FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS (COMMUNITY # 44009C-0159-H, OCTOBER 19, 2010). THE 100-YEAR FLOOD ELEVATION IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 4. THE FLOW RATES FOR THE CORRESPONDING DESIGN STORM EVENTS ARE FROM THE RIDOT 2010 SCOUR CRITICAL BRIDGE - PLAN OF ACTION REPORTS AND THE APPROXIMATE FLOW VELOCITIES ARE FROM THE RIDOT 1996 BRIDGE SCOUR EVALUATIONS. BOTH THE FLOW RATES AND VELOCITIES ARE PROVIDED FOR INFORMATION ONLY.
 Q10 = 1,119 cfs
 Q50 = 1,643 cfs
 Q100 = 1,904 cfs
 OBSERVED STREAM VELOCITY (08/10/1994) = 2.0 fps

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

THOMAS H. PECHILLO, JR.
No. 8803
REGISTERED PROFESSIONAL ENGINEER
CIVIL



COLLINS ENGINEERS
101 HAMMER MILL ROAD
ROCKY HILL, CT 06067
(860) 571.0384

REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION	
NO.	DATE	BY	STATEWIDE SCOUR REMEDIATION BRIDGE #005801	
			CHARLESTOWN & RICHMOND RHODE ISLAND	
			PLAN & ELEVATION	
			CHECKED BY <u>BMF</u> DATE <u>02/01/13</u> SCALE <u>1"=5'</u>	

