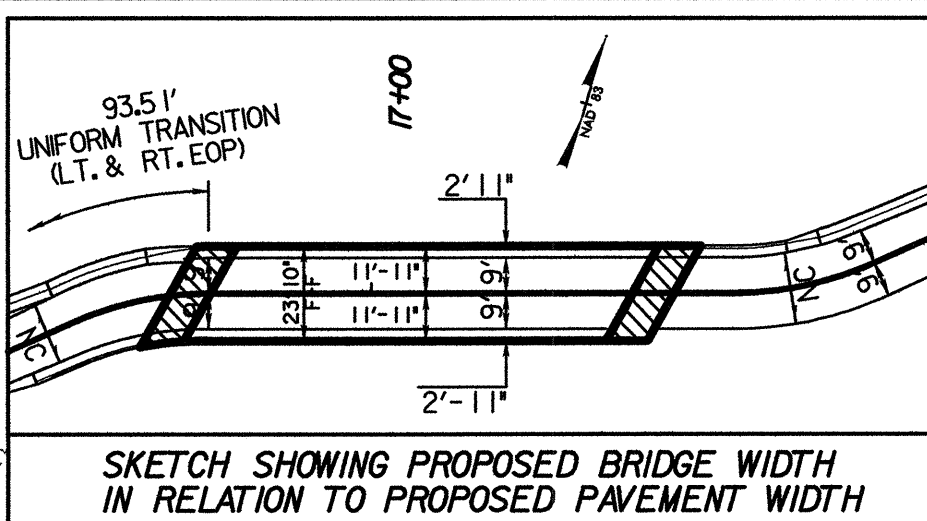


DATUM DESCRIPTION

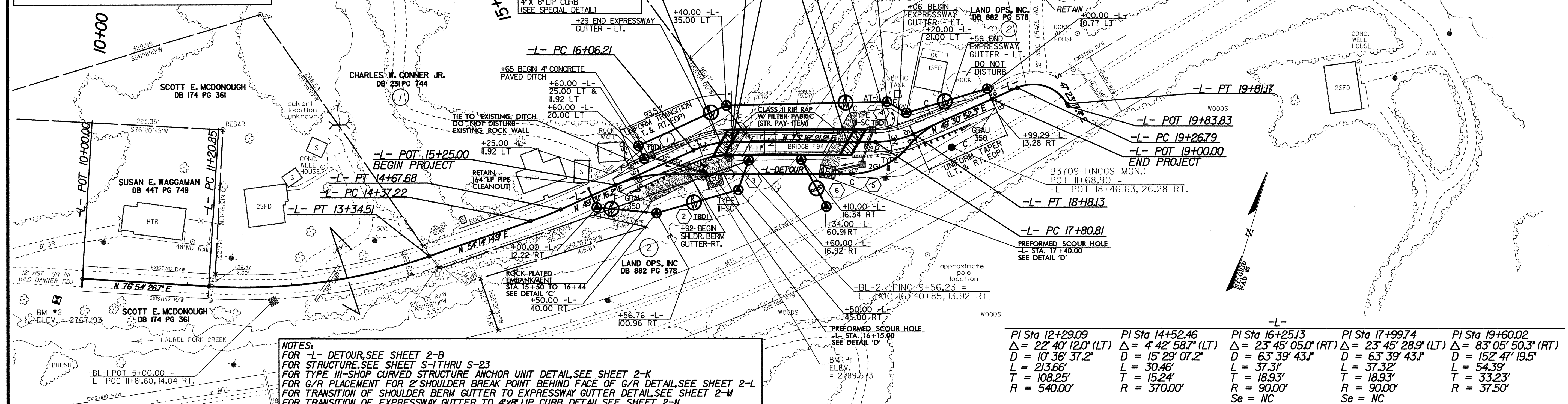
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY MCDOT FOR MONUMENT "B-3709-1" WITH STATE PLANE GRID COORDINATES OF NORTHING: 902,083.8946(FI) EASTING: 1,191,700.8974(FI) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987953 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B-3709-1" TO L- STA. 15+25.00 IS S 66° 58' 43.5" W - 32275 (FI) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NGVD 29



DESIGN EXCEPTION FOR 20mph DESIGN SPEED

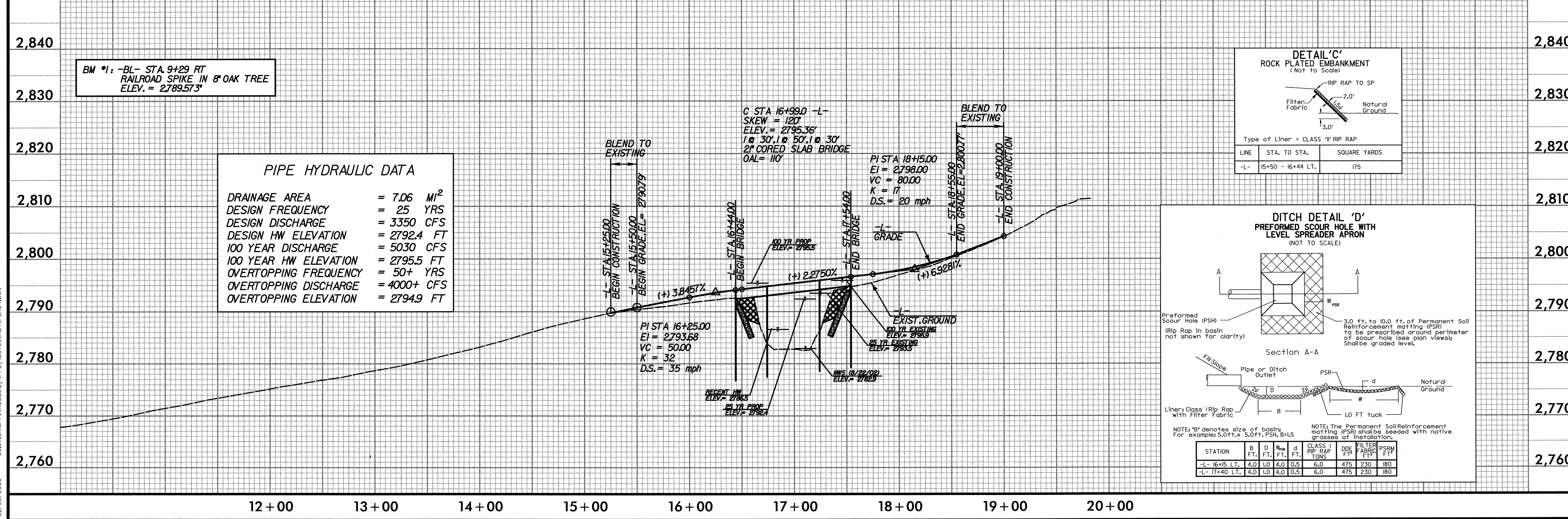


PROJECT REFERENCE NO. B-3709	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 19663 M. J. SCOTT 2-23-05	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 20787 D. W. HARRIS 2-23-05



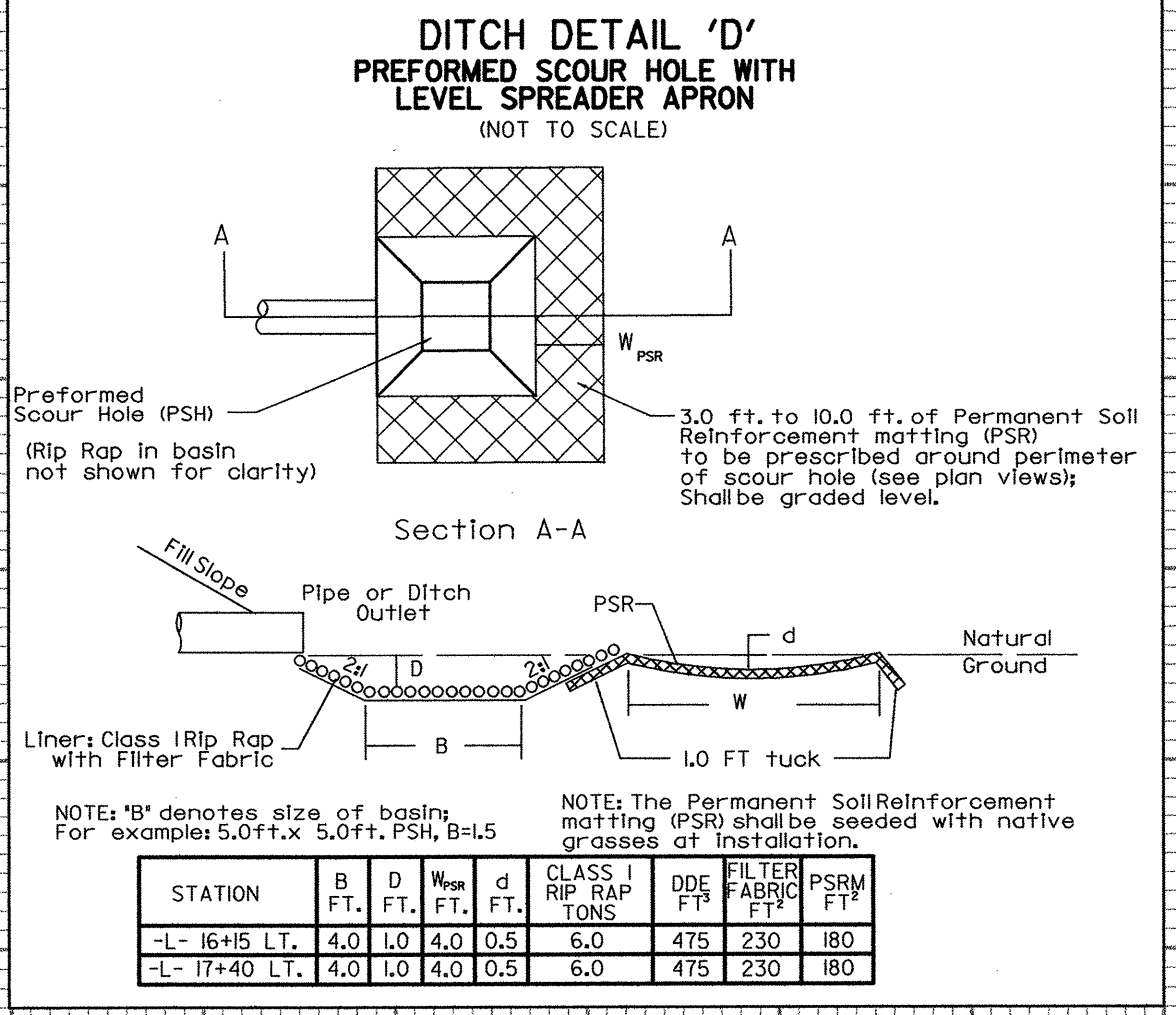
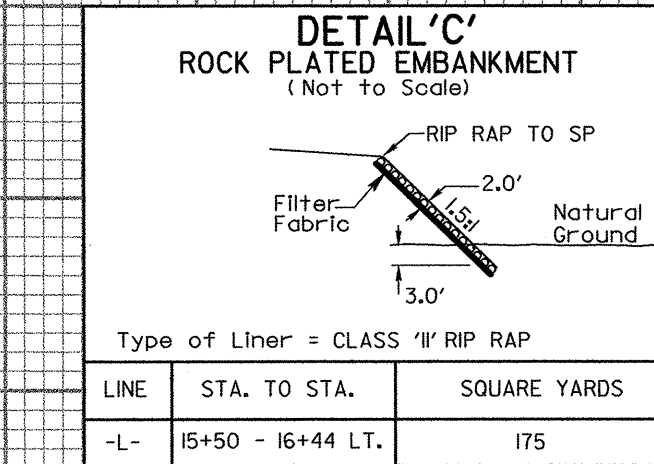
NOTES:
 FOR -L- DETOUR, SEE SHEET 2-B
 FOR STRUCTURE, SEE SHEET S-1 THRU S-23
 FOR TYPE III-SHOP CURVED STRUCTURE ANCHOR UNIT DETAIL, SEE SHEET 2-K
 FOR G/R PLACEMENT FOR 2' SHOULDER BREAK POINT BEHIND FACE OF G/R DETAIL, SEE SHEET 2-L
 FOR TRANSITION OF SHOULDER BERM GUTTER TO EXPRESSWAY GUTTER DETAIL, SEE SHEET 2-M
 FOR TRANSITION OF EXPRESSWAY GUTTER TO 4'x8' LIP CURB DETAIL, SEE SHEET 2-N

-L- PI Sta 12+29.09 Δ = 22° 40' 12.0" (LT) D = 10' 36' 37.2" L = 213.66' T = 108.25' R = 540.00'	-L- PI Sta 14+52.46 Δ = 4° 42' 58.7" (LT) D = 15' 23' 07.2" L = 30.46' T = 15.24' R = 370.00'	-L- PI Sta 16+25.13 Δ = 23° 45' 05.0" (RT) D = 63' 39' 43.1" L = 37.31' T = 18.93' R = 900.00' Se = NC	-L- PI Sta 17+99.74 Δ = 23° 45' 28.9" (LT) D = 63' 39' 43.1" L = 37.32' T = 18.93' R = 900.00' Se = NC	-L- PI Sta 19+60.02 Δ = 83° 05' 50.3" (RT) D = 152' 47' 19.5" L = 54.39' T = 33.23' R = 37.50'
---	--	--	--	---



PIPE HYDRAULIC DATA

DRAINAGE AREA	= 7.06 MI ²
DESIGN FREQUENCY	= 25 YRS
DESIGN DISCHARGE	= 3350 CFS
DESIGN HW ELEVATION	= 2792.4 FT
100 YEAR DISCHARGE	= 5030 CFS
100 YEAR HW ELEVATION	= 2795.5 FT
OVERTOPPING FREQUENCY	= 50+ YRS
OVERTOPPING DISCHARGE	= 4000+ CFS
OVERTOPPING ELEVATION	= 2794.9 FT



02/23/2005 08:37:51 AM F:\Roadway\Pr-j\B3709_RDY\F5H04.DGN