DocuSign Envelope ID: E3F6E1C9-33F0-4225-AA99-D0F3901F63B8

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
BR-0109	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 041453 ENGINEER M. TRAVIS POTTS
DocuSigned by: M. Travis Potts 4/25/2022
4C8182E1E8D4AA...

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 27876 ENGINEER RAINA STARNELL
DocuSigned by: Raina Starnell 4/25/2022
2911C6B3D0C4ED...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ms consultants, inc.
5444 Wade Park Blvd.
Suite 160
Raleigh, NC 27607
NC License Number : C-3239

BEGIN TIP PROJECT BR-0109
-L- POC STA 27+10.00

NAD 83/2011

-L- PC Sta.22+99.29
-L- PC Sta.25+42.58
-L- PT Sta.25+11.25
-L- PT Sta.21+66.67
S 45°13'48" E
S 55°50'55" E
GUY AND JOYCE PRIM DB 977 PG 552
DAVID L. TAYLOR & VICKIE TAYLOR DB 1201 PG 70 P.B. 11 PG. 47
BEGIN CONSTRUCTION -L- STA. 27+00.00
PROPOSED GRAVEL DRIVEWAY
REMOVE 15" CMP
SP. LATERAL V DITCH CL I RIPRAP SEE DETAIL 4A 62 TONS 118 SY GEOTEXTILE
-L- PT Sta.27+84.12
BRG AH S 61°17'14" E
-L- PC Sta.28+68.03
5' LATERAL BASE DITCH CL I RIPRAP SEE DETAIL 4B 55 TONS 200 SY GEOTEXTILE 120 CY DDE
50' TAPER LT & RT
R=10' TYP.
REMOVE EXISTING STRUCTURE
TIE TO EXISTING SWALE
BANK STABILIZATION CL II RIPRAP SEE DETAIL 4C 27 TONS 57 SY GEOTEXTILE EACH SIDE
PREFORMED SCOUR HOLE SEE DETAIL 4E
RECONNECT EXISTING DRIVE AS DIRECTED BY THE ENGINEER
RETAIN
RODNEY GRAY SHORE DB 1282 PG 294
TWIMAN L. CAUDLE REVOCABLE TRUST AGREEMENT DB 1234 PG 606
TWIMAN L. CAUDLE, KAY C. BROWN TRUSTEES UNDER THE TWIMAN L. CAUDLE REVOCABLE TRUST DB 1234 PG 606
DUKE POWER 40' EASEMENT DB 235 PG 959
PERMANENT CONSERVATION EASEMENT DB 1274 PG 282 PB 12 PG 653
-L- PT Sta.32+28.64
-L- PCC Sta.30+37.95
S 31°35'08" E
BM-2

END TIP PROJECT BR-0109
-L- POC STA 30+50.00

-L-		
PI Sta 20+48.00 △ = 13° 12' 42.24" (RT) D = 24° 32' 04.00" L = 53.85' T = 27.04' R = 233.53'	PI Sta 21+20.81 △ = 07° 30' 04.05" (RT) D = 08° 09' 53.74" L = 91.87' T = 46.00' R = 701.73'	PI Sta 24+05.57 △ = 10° 37' 07.29" (LT) D = 5° 00' 34.95" L = 211.96' T = 106.29' R = 1143.69'
PI Sta 26+63.44 △ = 05° 26' 19.70" (LT) D = 02° 15' 06.13" L = 241.54' T = 120.86' R = 2544.55' SE = SEE PLANS RO = SEE PLANS	PI Sta 29+53.27 △ = 11° 23' 26.19" (RT) D = 06° 42' 12.26" L = 169.92' T = 85.24' R = 854.73' SE = 0.04 RO = SEE PLANS DS = 45 MPH	PI Sta 31+34.11 △ = 18° 18' 40.79" (RT) D = 09° 36' 11.09" L = 190.68' T = 96.16' R = 596.64' SE = SEE PLANS RO = SEE PLANS

DETAIL 4A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Natural Ground, 2:1, D, d, 2:1 or Flatter, Fill Slope, Geotextile
Type of Liner= CL. 1 Rip-Rap
Min. D=1.5Ft. Max. d=1.0Ft.
FROM -L- STA. 27+45 TO STA. 28+50 RT

DETAIL 4B
LATERAL BASE DITCH
(Not to Scale)
Natural Ground, 2:1, D, d, 2:1, b, 1'Ft., Fill Slope, GEOTEXTILE ON BANKS ONLY, B
*When B is < 6.0'
Min. D=3.0 Ft. Max. d=2.0 Ft. B=5.0 Ft. b=5.0 Ft.
Type of Liner= CL1 Rip-Rap
FROM -L- STA. 27+60 TO STA. 28+25 LT

DETAIL 4C
BANK STABILIZATION
(Not to Scale)
3' min., 2', WSEL=888.8 8/19/19, CL. II RIPRAP KEYED IN 24" PER DETAIL 876.01, GEOTEXTILE
FROM -L- STA. 28+40 LT TO 28+50 RT
FROM -L- STA. 28+64 LT TO 28+69 RT

DETAIL 4D
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow, 20:1, 10:1, 2', 0.5' Min. 1.0' Max., GI etc.
S=Ditch Slope ℄ Proposed Ditch
FROM -L- STA. 27+15 TO STA. 27+33 LT

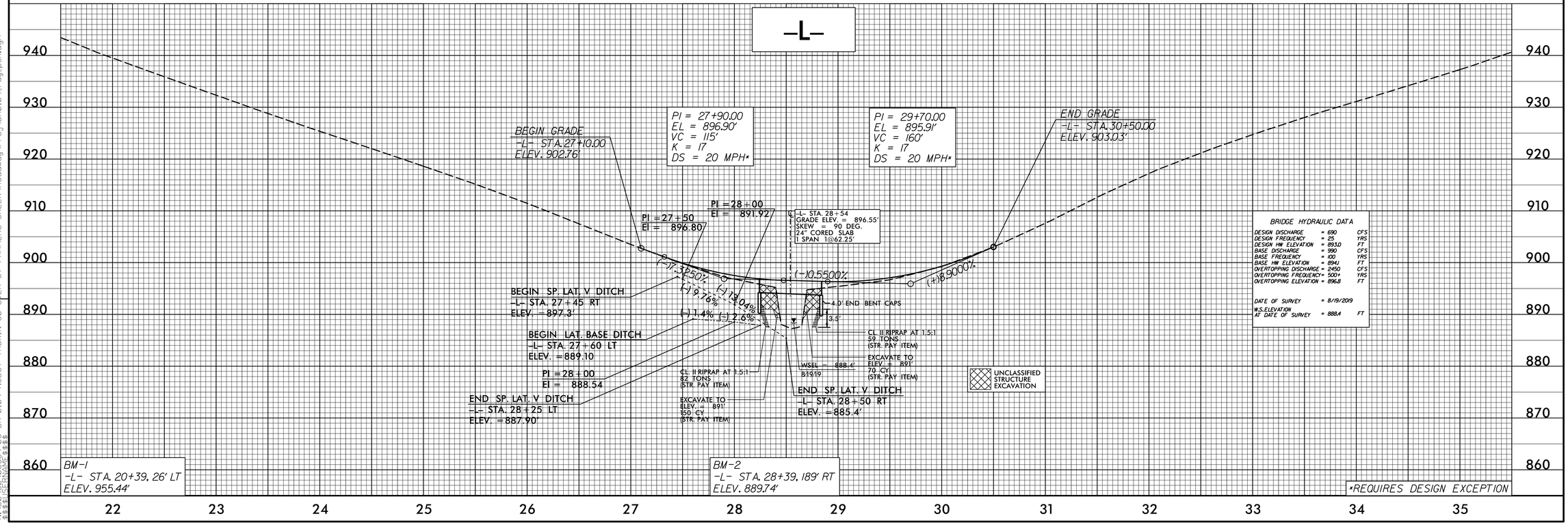
DETAIL 4E
PREFORMED SCOUR HOLE
*NOT TO SCALE
PLAN VIEW
Permanent Soil Reinforcement Matting (PSRM), INSTALL LEVEL AND FLUSH WITH NATURAL GROUND, Pipe or Ditch Outlet, Square Preformed Scour Hole (PSH), (Rip Rap in basin not shown for clarity), Seal with matting around all intersections
SECTION A-A
PIPE (d = 15" OR 18"), FILL SLOPE, INFLOW, D, PSRM, NATURAL GROUND, LINER: CLASS B RIPRAP WITH GEOTEXTILE, B, MIN. 1' TUCK
B=3.0 FT D=1.5 FT W=4.0 FT
-L- STA. 29+00 RT

BRIDGE AND APPROACH SLAB STATIONS
-L- STA. 28+12.00 BEGIN APPROACH SLAB
-L- STA. 28+22.88 BEGIN BRIDGE
-L- STA. 28+85.13 END BRIDGE
-L- STA. 28+95.99 END APPROACH SLAB

SHOULDER BERM GUTTER:
-L- STA. 28+07.00 TO -L- STA. 28+12.00 LT/RT
-L- STA. 28+95.55 TO -L- STA. 29+00.55 LT
-L- STA. 28+96.46 TO -L- STA. 29+10.00 RT

UNCLASSIFIED STRUCTURE EXCAVATION

FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-14



05-APR-2022 13:49
N:\Project\BR0109_rdy_psh.dgn
BR-0109 NCDOT YADKIN 80 OVER UT FARMERS CREEK\Roadway\Proj\