MULKEY
ENGINEERS & CONSULTANTS
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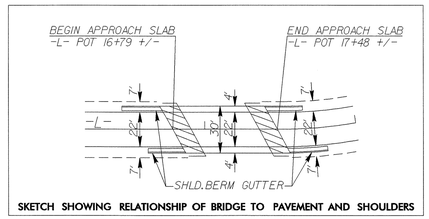
Raleigh, NC 27636
(919) 851-1312
(919) 851-1918 (FAX)
WWW.MULKEYINC.COM

PROJECT REFERENCE NO.	SHEET NO.
B-3808	U0-2

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

REVISIONS



SKETCH SHOWING RELATIONSHIP OF BRIDGE TO PAVEMENT AND SHOULDERS

NAD 83

BEGIN CONSTRUCTION -L- POT 11+00.00

BEGIN CONSTUCTION -DET- POT 12+50.00

-L- PC 11+00.88

-DET- PT 10+00.00

-L- PRC 13+14.52

-DET- PC 14+61.54

-L- PT 15+09.95

-DET- PT 15+24.43

-DET- PC 17+25.77

END BRIDGE -L- POT 17+36 +/-

BEGIN BRIDGE -L- POT 16+91

BEGIN BARRIER -L- POT 17+41.26

-L- PC 17+51.46

END BARRIER BEGIN SHLD. BERM GUTTER -L- POT 19+50

END SHLD. BERM GUTTER 19+95.00

END CONSTRUCTION -L- POT 20+50.00

END CONSTRUCTION -DET- POT 20+00.00

-L- POT 20+69.03

-DET- POT 20+97.27

-DK-10+00.00 RT 18+10.95

PAT FORD WATSON
D.B. 191 PG. 1151

WILLIAM J. & REBA JEAN HUGHES
D.B. 67 PG. 266

ERNEST & LUCY BURLESON
D.B. 62 PG. 24

RONALD & LINA WISE
D.B. 93 PG. 792

SAMUEL & VICKIE S. HUGHES
D.B. 68 PG. 175

ZODIAC DEVELOPERS, INC.
D.B. 104 PG. 270

HENSON CREEK

SR 1126 HENSON CREEK RD

GRAVEL DRIVE

CL 'I' RIPRAP
EST. 11 TONS
EST. 22 SY F.F.

BASE DITCH
SEE DETAIL C
CL 'B' RIPRAP
EST. 80 TONS
EST. 215 SY F.F.

DITCH BLOCK
SEE DETAIL A

'V' DITCH
SEE DETAIL D
CL 'B' RIPRAP
EST. 35 TONS
EST. 105 SY F.F.

EXCAVATE = 280 CY
(SEE DETAIL SHEETS 2-R & 2-S)

TYPE B-77
(SEE DETAIL SHEET 2-P)

FOR BARRIER TRANSITION
(SEE DETAIL SHEET 2-T)

BASE DITCH
SEE DETAIL B
CL 'B' RIPRAP
EST. 85 TONS
EST. 230 SY F.F.
EST. DDE = 240 CY

BURY IN CUT
(SEE DETAIL SHEETS 2-J & 2K)

CL 'I' RIPRAP
EST. 2 TONS
EST. 8 SY F.F.

NOTE:
EXIST. O/H POWER LINE TO REMAIN IN SERVICE - SEE PROJECT SPECIAL PROVISIONS.

NOTE:
EXIST. O/H POWER LINE TO REMAIN IN SERVICE - SEE PROJECT SPECIAL PROVISIONS.

NOTE:
EXIST. O/H TELEPHONE LINE TO BE DROPPED DURING CONSTRUCTION - SEE PROJECT SPECIAL PROVISIONS.

-L-

PI Sta 12+07.73
Δ = 3° 12' 16.5" (RT)
D = 1° 30' 00.0"
L = 213.64'
T = 106.85'
R = 3,819.72'
Se = NC

PI Sta 14+15.39
Δ = 34° 59' 27.9" (LT)
D = 17° 54' 17.8"
L = 195.43'
T = 100.87'
R = 320.00'
Se = 0.06

PI Sta 18+36.86
Δ = 33° 21' 40.1" (LT)
D = 20° 06' 13.6"
L = 165.94'
T = 85.40'
R = 285.00'
Se = 0.06

-DET-

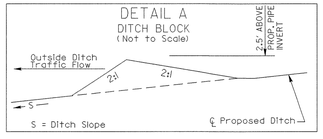
PI Sta 14+93.61
Δ = 27° 40' 12.1" (LT)
D = 44° 00' 00.0"
L = 62.89'
T = 32.07'
R = 130.22'
Se = 0.03

PI Sta 17+69.95
Δ = 37° 28' 39.4" (LT)
D = 44° 00' 00.0"
L = 85.18'
T = 44.17'
R = 130.22'
Se = 0.03

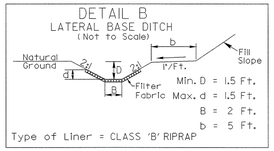
PIPE HYDRAULIC DATA (30" RCP)
DRAINAGE STRUCTURE NO.

DRAINAGE AREA	= 13	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 13	CFS
DESIGN HW ELEVATION	= 3190.25	FT
100 YEAR DISCHARGE	= 21	CFS
100 YEAR HW ELEVATION	= 3190.80	FT
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING DISCHARGE	= 35	CFS
OVERTOPPING ELEVATION	= 3192.00	FT

DETAIL A
DITCH BLOCK
(Not to Scale)



DETAIL B
LATERAL BASE DITCH
(Not to Scale)



Type of Liner = CLASS 'B' RIPRAP

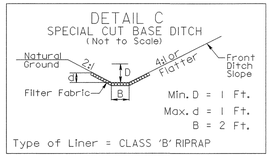
BRIDGE HYDRAULIC DATA
45' - 2I" CORED SLAB BRIDGE

DESIGN DISCHARGE	= 600	CFS
DESIGN FREQUENCY	= 10	YRS
DESIGN HW ELEVATION	= 3176.40	FT
100 YEAR DISCHARGE	= 1300	CFS
100 YEAR HW ELEVATION	= 3181.10	FT
OVERTOPPING DISCHARGE	= 700	CFS
OVERTOPPING FREQUENCY	= 10+	YRS
OVERTOPPING ELEVATION	= 3177.10	FT
DATE OF SURVEY	= 8/23/02	
W.S.ELEVATION AT DATE OF SURVEY	= 3179.10	FT

TBM *1 Elevation = 3,192.18'
N = 847,306.98 E = 1,098,809.75
-BL- Sta.14+02.05 29.47' Left
-L- Sta.12+82.36 23.49' Left
RR SPIKE SET IN BASE OF A 1.3' DIA. HARDWOOD TREE

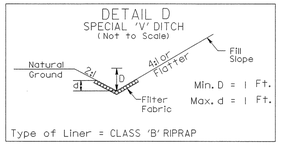
TBM *2 Elevation = 3,172.85'
N = 847,036.47 E = 1,099,710.70
-BL- Sta.24+42.87 16.48' Left
RR SPIKE SET IN BASE OF A 2' DIA. HARDWOOD TREE

DETAIL C
SPECIAL CUT BASE DITCH
(Not to Scale)



Type of Liner = CLASS 'B' RIPRAP

DETAIL D
SPECIAL 'V' DITCH
(Not to Scale)



Type of Liner = CLASS 'B' RIPRAP

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B-3808-1" WITH STATE PLANE GRID COORDINATES OF NORTHING: 847,980.23 (ft) EASTING: 1,098,220.70 (ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99981766 2 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B-3808-1" TO -L- STATION 11+00.00 IS S 42°18' 46.099" E 710.82 (ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NGVD 29