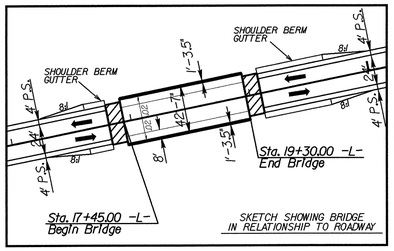
PROJECT REFERENCE NO.	SHEET NO.
B-3623	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 022999 ENGINEER GREG S. PURVIS — WANG ENGINEERING

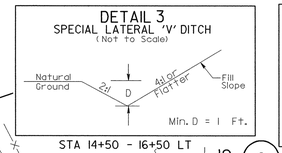
HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 9334 ENGINEER W. HENRY WELLS IV — 12/8/04 — SUNGATE DESIGN GROUP



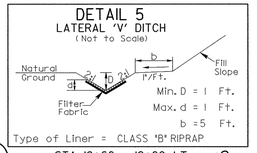
* DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE K VALUE AND VERTICAL STOPPING SIGHT DISTANCE.

▨ – PAVEMENT REMOVAL (OBLITERATE)

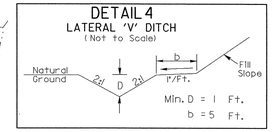
PLEASE NOTE: DO NOT DISTURB THE EXIST. 16" WATER LINE OR THE EXIST. 6" FORCE MAIN DURING CONSTRUCTION



STA 14+50 - 16+50 LT



STA 18+60 - 19+80 LT



STA 19+80 - 21+00 LT
EST. 146 CY DDE

6" DECK DRAINS @ 12' OC BEG BRIDGE TO 18+10 & 18+70 TO END BRIDGE LT & RT

B623-1
PINC 16+24.47
STA. 21+85.77 -L-
81.52' LT.

EDNA ALICE HILL
DB 456 PG 187

EDDYNE McKENZIE STARCHER
DB 1348 PG 002

PI Sta 15+32.16
Δ = 10° 39' 01.8" (LT)
D = 6° 51' 42.4"
L = 155.22'
T = 77.83'
R = 835.00'
DS = 50
SE = 0.06

PT Sta. 15+22.84 TEMPORARY SHIFT 1

T-5 10+00.00
ELEV=537.02'
REBAR & CAP SET
STA. 19+10.88 -L-
161.79' LT.

EXCAVATE EXISTING ROADWAY FILL (STRUCTURE PAY ITEM)
BL-3 -
-BL- PINC 13+07.08=
-T- PINC 11+09.76
ELEV=546.36'
STA. 19+79.82 -L-
77.03' LT.

LAT 'V' DITCH W/ 42 TONS CL 'B' RIPRAP AND 125 SY FF (DETAIL #5)

CLASS 'B' RIPRAP + 2 TONS 7 SY FILTER FABRIC

LAT 'V' DITCH (DETAIL #4)

TEMPORARY PAVEMENT

EXISTING R/W TO BE ABANDONED

PT Sta. 12+92.59
PT Sta. 16+09.54 -L-

EXCAVATE EXISTING ROADWAY FILL (STRUTURE PAY ITEM)
PCSta. 14+63.35

REMOVE BRIDGE

TEMPORARY PAVEMENT

SPECIAL 'V' DITCH (DETAIL #3)

REMOVE AND RESET 48" WW FENCE

PCSta. 14+54.33 -L-
PCSta. 12+23.21

POT Sta. 8+00.00
PCSta. 8+24.80
PT Sta. 11+00.54
PT Sta. 10+55.83
PCSta. 10+10.80
POT Sta. 10+00.00
TEMPORARY SHIFT 1

-L-
PI Sta 9+63.21
Δ = 12° 24' 30.2" (LT)
D = 4° 30' 00.0"
L = 275.14'
T = 138.41'
R = 1,273.24'

BL-7
PINC 5+00.00
STA. 10+64.14 -L-
34.14' LT.

B3623-2
PINC 7+63.94
STA. 13+29.10 -L-
25.56' LT.

36" CONC TEST HOLE #1
27.36' (LT) -L-REV- 12+32.26
TOP UTICITY = 577.18'

48" CLF
IS BK D
12" DIP
12" MTL
16" W
8" W
12" GRAVEL
30" PRIVATE R/W
EXISTING R/W
SR 1136
2' BST
HARRISBURG
WOODS
REEDY CREEK

S 28° 03' 32.7" E
S 42° 17' 32.0" E
S 40° 28' 22.9" E -L-
S 57° 37' 56.0" E
S 51° 07' 24.7" E

BEGIN TIP PROJECT B-3623
POT Sta. 12+30.00 -L-
BEGIN CONSTRUCTION
POT Sta. 12+54.11 -L-

TEMPORARY SHIFT 1
PI Sta 10+33.34
Δ = 6° 45' 13.3" (LT)
D = 14° 59' 56.0"
L = 45.03'
T = 22.54'
R = 382.00'

TEMPORARY SHIFT 1
PI Sta 12+58.00
Δ = 10° 24' 24.0" (LT)
D = 14° 59' 56.0"
L = 69.38'
T = 34.79'
R = 382.00'

TEMPORARY SHIFT 1
PI Sta 14+93.16
Δ = 8° 55' 20.1" (LT)
D = 14° 59' 56.0"
L = 59.49'
T = 29.80'
R = 382.00'

DETAIL 1
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Natural Ground
2:1
d
B
4:1 or Flatter
Fill Slope
Filter Fabric
Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
Type of Liner = CLASS 'B' RIPRAP

STA 14+30 - 15+50 RT

DETAIL 2
LATERAL BASE DITCH
(Not to Scale)
Natural Ground
2:1
d
B
2:1
T/Ft.
Fill Slope
Filter Fabric
Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
b = 5 Ft.
* When B Is < 6.0'
Type of Liner = CLASS 'B' RIPRAP

STA 15+50 - 18+00 RT
EST. 53 CY DDE

JERRY WAYNE LINKER
DB 757 PG 383 WOODS

JERRY WAYNE LINKER
DB 757 PG 383

W. K. ALEXANDER, ESTATE
** SEE NOTE TO LEFT
DB 158 PG 301

DOROTHY G. SNYDER
WB 1998-E-258
DB 264 PG 272

** NOTE: THIS PROPERTY IS SHOWN ON CABARUS COUNTY TAX MAPPING AS PART OF THE LAND OWNED BY LINKER. MR. LINKER STATES THAT HE DOES NOT OWN THIS LAND AND HIS DEED AGREES WITH THIS STATEMENT. W.K. ALEXANDER SOLD THE LAND ON THE OTHER SIDE OF THE ROAD TO MEDLIN, WHO SOLD IT TO STARCHER. ALEXANDER'S ORIGINAL DEED AGREED WITH LINKER'S DEED BUT THE PARCELS HE SOLD TO MEDLIN ONLY WENT TO THE CENTER OF THE CURRENT ROAD, LEAVING THE TRIANGLE SHOWN HERE.

2' BASE SPECIAL DITCH W/ 54 TONS CL 'B' RIPRAP AND 153 SY FF (DETAIL #1)

2' BASE SPECIAL DITCH W/ 112 TONS CL 'B' RIPRAP AND 318 SY FF (DETAIL #2)

CLASS II RIPRAP AND FILTER FABRIC (STRUCTURE PAY ITEM)
T-6 12+25.60
ELEV=534.80'
REBAR & CAP SET
STA. 19+63.12 -L-
37.60' LT.

Sta. 17+45.00 -L- Begin Bridge
Sta. 17+21.00 -L- Begin Appr. Slab

Sta. 19+54.00 -L- End Appr. Slab
Sta. 19+30.00 -L- End Bridge

PCSta. 20+64.19 -L-
PCSta. 10+00.00
TEMPORARY SHIFT 2
PT Sta. 10+22.10
PCSta. 10+25.49

PT Sta. 10+52.25 -L-

PI Sta 22+57.03
Δ = 26° 00' 30.2" (RT)
D = 6° 51' 42.4"
L = 379.03'
T = 192.84'
R = 835.00'
DS = 50
SE = 0.06

TEMPORARY SHIFT 2
PI Sta 10+11.05
Δ = 2° 55' 39.8" (RT)
D = 13° 15' 00.0"
L = 22.10'
T = 11.05'
R = 432.42'

TEMPORARY SHIFT 2
PI Sta 10+38.88
Δ = 4° 00' 49.0" (LT)
D = 14° 59' 56.0"
L = 26.76'
T = 13.39'
R = 382.00'

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 5900
DESIGN FREQUENCY	= 25
DESIGN HW ELEVATION	= 544.4
BASE DISCHARGE	= 8430
BASE FREQUENCY	= 100
BASE HW ELEVATION	= 546.0
OVERTOPPING DISCHARGE	= 12340
OVERTOPPING FREQUENCY	= 500
OVERTOPPING ELEVATION	= 559.07
DATE OF SURVEY	= 10/08/02
W.S.ELEVATION AT DATE OF SURVEY	= 529.70

SEE STRUCTURE PLANS S-1 THRU S-34

PI = 21+01.37
EL = 558.37'
K = 49*
VC = 302.43'
DS = 55 mph

PI = 15+61.23
EL = 561.07'
K = 49*
VC = 269.4'
DS = 55 mph

BM*3
-BL- STA 12+24.33
48.1' LEFT
ELEV. 539.49'

BM*2
-BL- STA 5+09.32
81.6' LEFT
ELEV. 591.02'

* DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE K VALUE AND VERTICAL STOPPING SIGHT DISTANCE.

BEGIN RESURFACING STA 12+65.00 EL = 579.31
25' TAPER TO EXIST.
STA 12+90.00 EL = 577.73
END RESURF. BEGIN GRADE STA 13+50.00 EL = 573.75
PROPOSED GRADE
EXISTING GROUND
BEGIN BRIDGE STA 17+45.00
END BRIDGE STA 19+30.00
(-)0.5008%
(+)5.612%
10.000%
6.000%
15.998%
7.000%
8.238%
10.400%
3.600%
8.000%
6.500%
SPECIAL DITCH RT.
SPECIAL DITCH LT.
LAT. DITCH RT.
LAT 'Y' DITCH W/ CL B RIP-RAP LT.
℄ BENT #1 STA 18+05.00
℄ BENT #1 STA 18+70.00

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B3623-1" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 569011.966(ft) EASTING: 1524557.358(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987300 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B3623-1" TO -L- STATION 22+00.00 IS 82.87'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

MATCHLINE STA 22+00.00 SEE SHEET 5

610 600 590 580 570 560 550 540 530 520

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

...\Proj\B3623_dgn\B3623_plan04.dgn 08/07/2006 03:27:03 PM