TIP PROJECT: R-4750

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4750	EC-1	

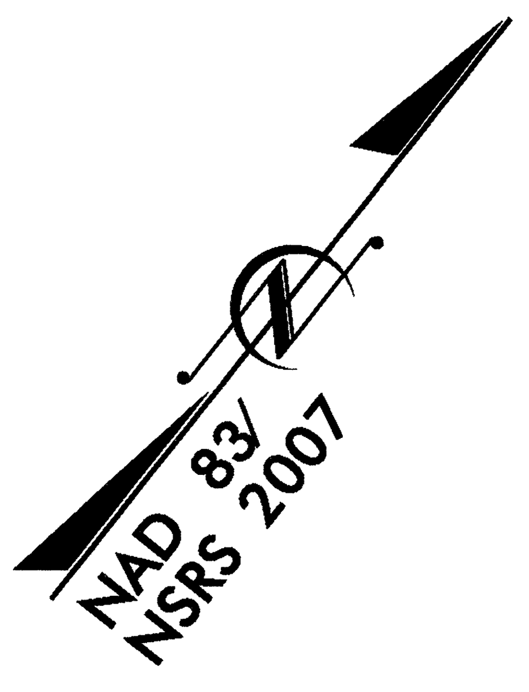
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

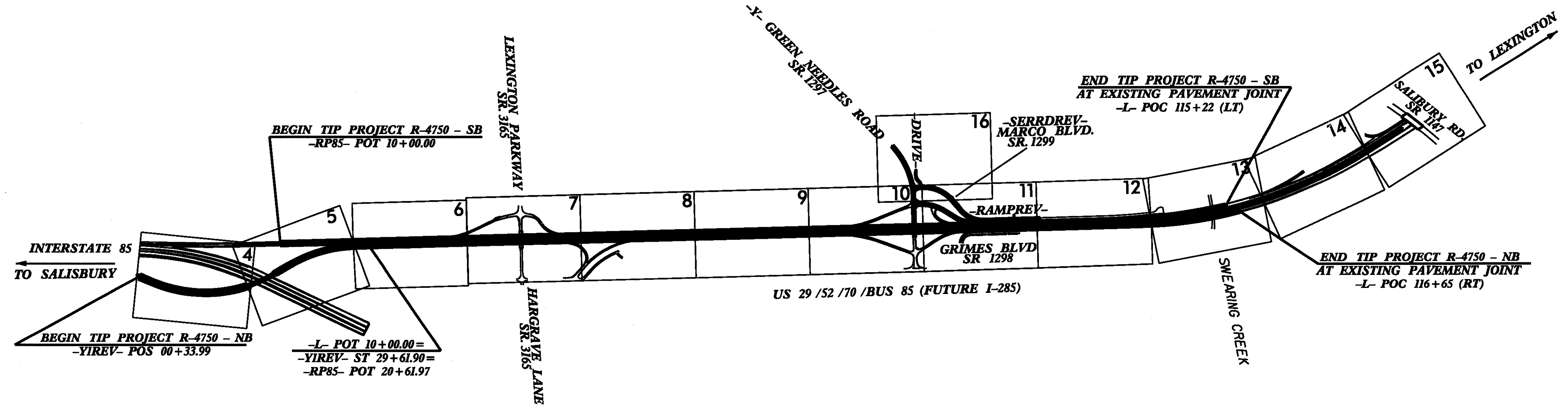
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

DAVIDSON COUNTY

LOCATION: US 29 /52 /70 /BUS 85 (FUTURE I-285) FROM NORTH OF INTERSTATE HIGHWAY 85 TO JUST SOUTH OF SR 1147 OLD SALISBURY ROAD, SOUTH MAIN STREET

TYPE OF WORK: Grading, Drainage, Paving, Fencing, Signing, and Structures





EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	SW / CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

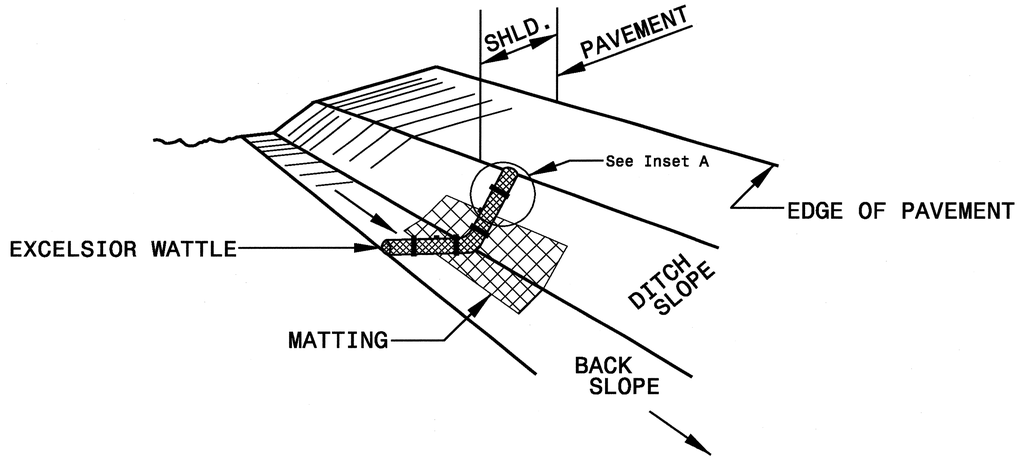
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

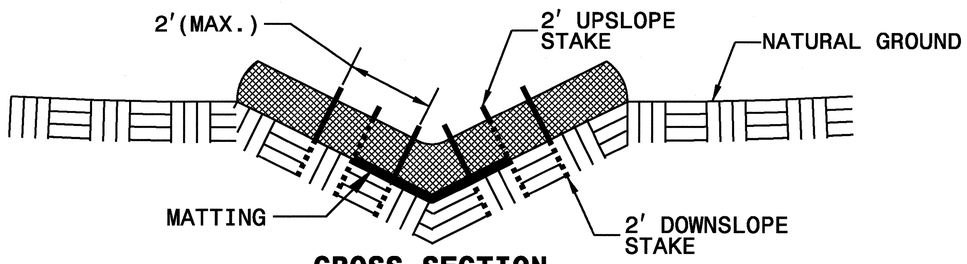
1604.01	Railroad Erosion Control Detail
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drains
1630.01	Riser Basin
1630.02	Silt Basin Type B
1630.03	Temporary Silt Ditch
1630.04	Stilling Basin
1630.05	Temporary Diversion
1630.06	Special Stilling Basin
1631.01	Matting Installation
1632.01	Rock Inlet Sediment Trap Type A
1632.02	Rock Inlet Sediment Trap Type B
1632.03	Rock Inlet Sediment Trap Type C
1633.01	Temporary Rock Silt Check Type A
1633.02	Temporary Rock Silt Check Type B
1634.01	Temporary Rock Sediment Dam Type A
1634.02	Temporary Rock Sediment Dam Type B
1635.01	Rock Pipe Inlet Sediment Trap Type A
1635.02	Rock Pipe Inlet Sediment Trap Type B
1640.01	Coir Fiber Baffle
1645.01	Temporary Stream Crossing

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

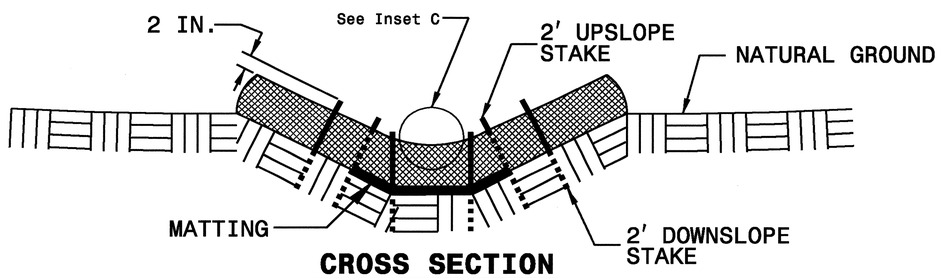
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

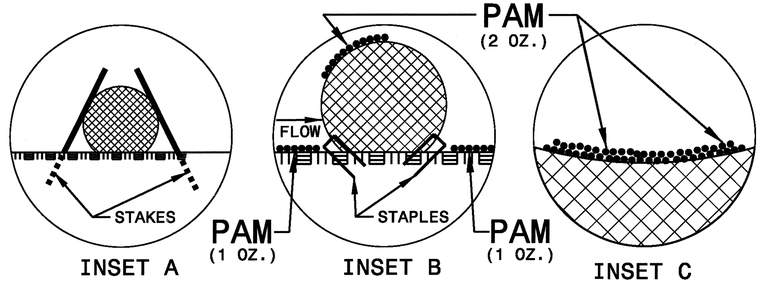
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

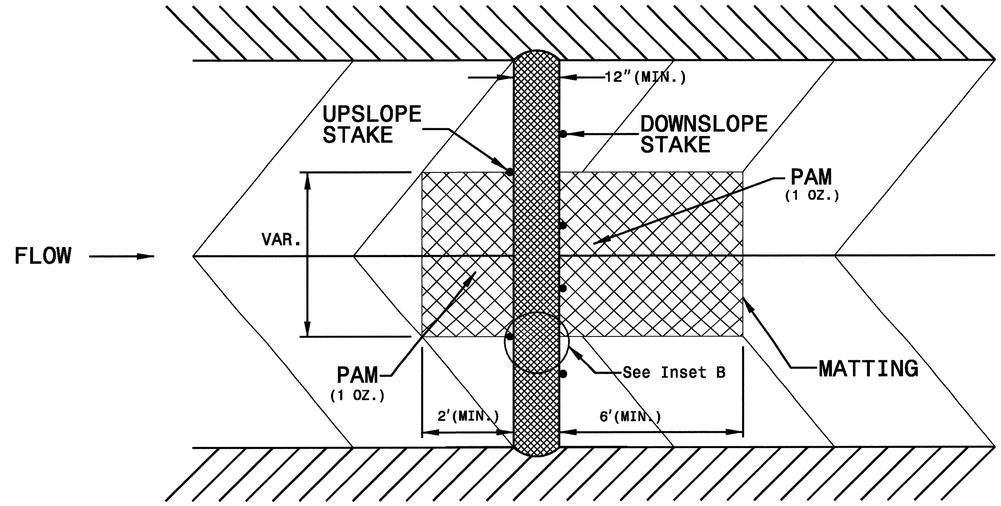
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

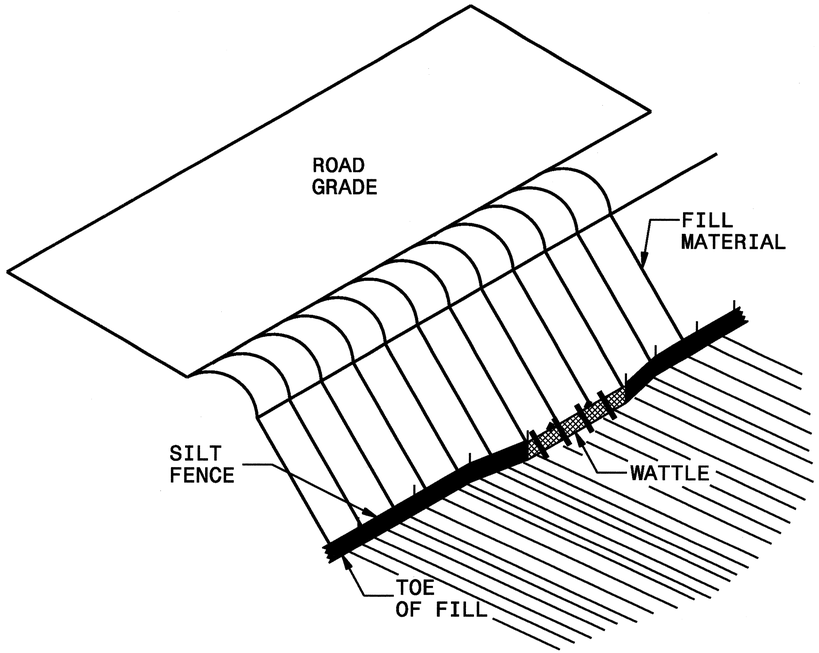




TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT FENCE WATTLE BREAK DETAIL



ISOMETRIC VIEW

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

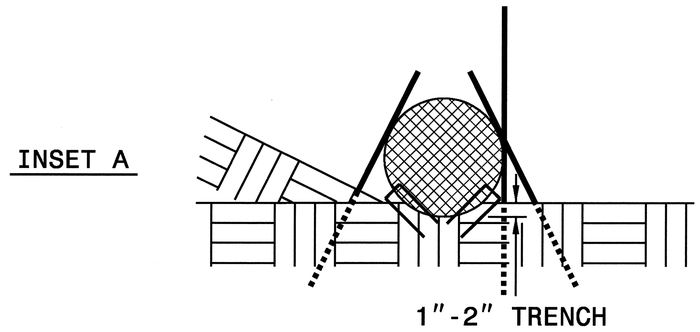
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

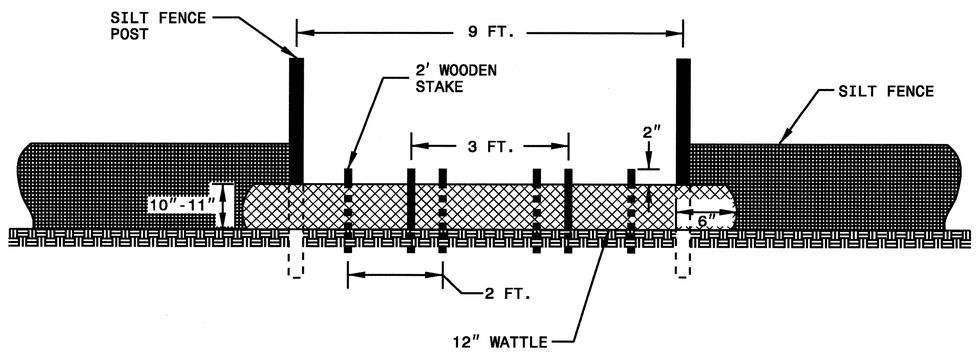
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

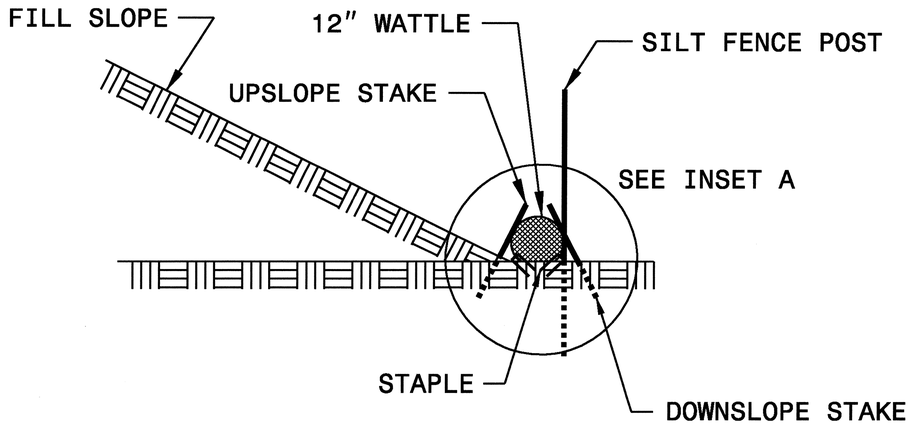
WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.





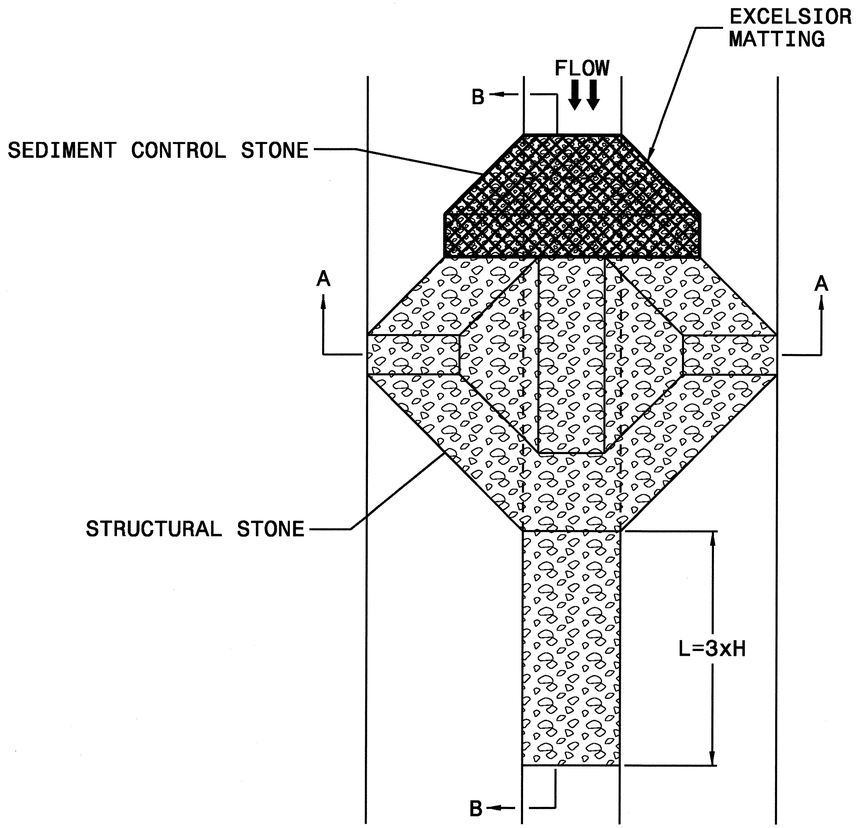
VIEW FROM SLOPE



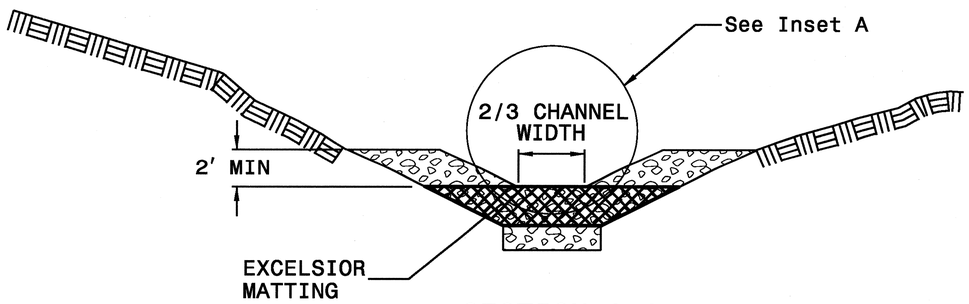
SIDE VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN



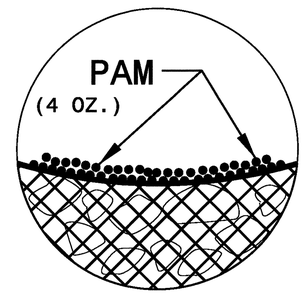
SECTION A-A

NOTES

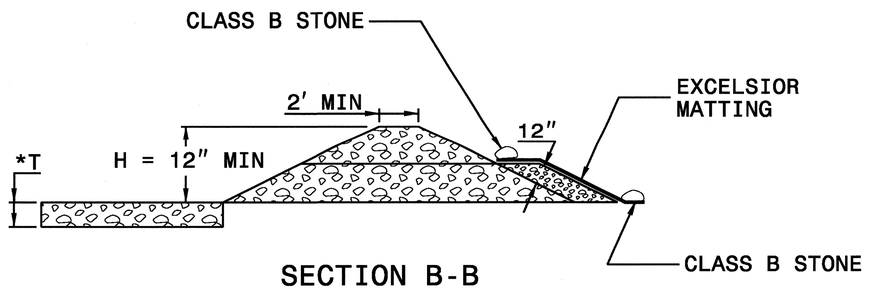
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION B-B

*T = 12" MIN., 18" MAX.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
11	-RAMPREV-	14+00	16+50	LT	285
16	-SERRDREV-	13+00	17+50	RT	615
				SUBTOTAL	900
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					7600
				TOTAL	8500
				SAY	8500

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
16	-DRIVE-	11+00	12+00	LT	125
16	-SERRDREV-	11+50	17+50	LT	630
			SUBTOTAL		755
	ADDITIONAL PSRM TO BE INSTALLED				0
				TOTAL	755
				SAY	755

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

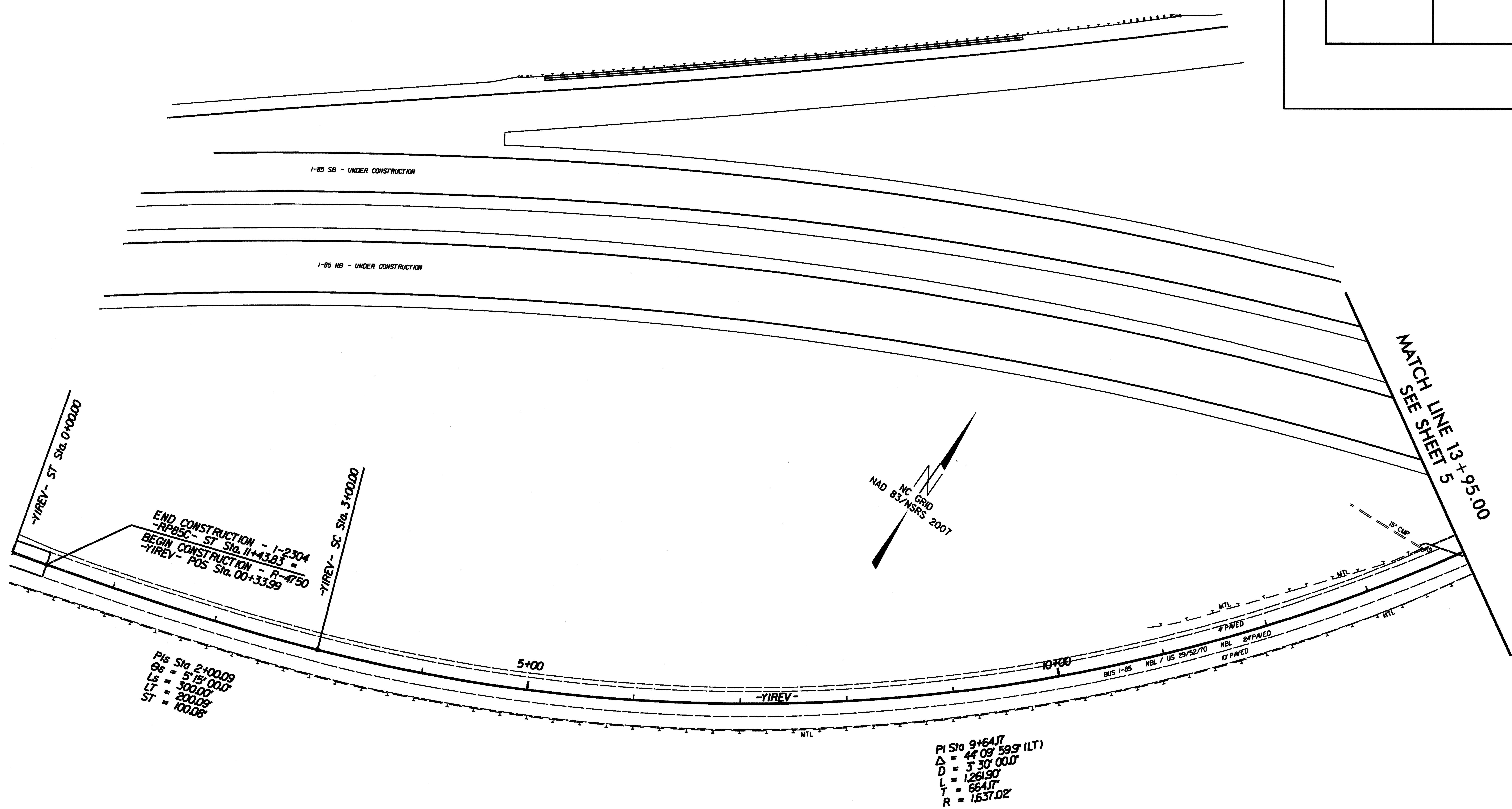
SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

MATCH LINE 13+95.00
SEE SHEET 4

SEE SHEET 6

-RP85B- I-2304 PT Sta. 15+84.37

-RP85B-

BEGIN WW-FENCE +00 -RP85- 96.34

24" CONC

EXISTING R/W

+83.72 -RP85- 96.09 R/W MON

+85.26 -RP85- 116.05

S/E MON

EXISTING R/W

DI

BUS I-85 SBL/US 29/52/70 SBL 24' P/W/ED 10' P/W/ED

-RP85-

END CONSTRUCTION - I-2304
-RP85B- POT Sta. 21+15.08=

BEGIN CONSTRUCTION -R-4750
-RP85- POT Sta. 10+00.00

24" CONC 4' P/W/ED

15+00

N 48° 07' 00.0" E

12304 BY22-50

DI

18" CONC

25+00

-RP85-

18" CONC

-YIREV- CS Sta. 15+61.90

-YIREV- SRS Sta. 18+61.90

Pls Sta 16+61.98
Θs = 5° 15' 00.0"
Ls = 300.00'
LT = 200.09'
ST = 100.08'

20+00

4' P/W/ED

-YIREV-

BUS I-85 NBL/US 29/52/70 NBL 24' P/W/ED

10' P/W/ED

-YIREV-

BUS

12304 BY22-49

15+00

BRIDGE NO. 137

12304 BY22-49 BM#1
S 24°15'-29.49 W 88.56'
ELEV=698.95'

TO BM#1

I-85 SB - UNDER CONSTRUCTION

I-85 NB - UNDER CONSTRUCTION

-YIREV- SC Sta. 21+61.90

EXISTING R/W

R/W MON.

48" WW & ISBW

Pls Sta 20+61.99
Θs = 5° 15' 00.0"
Ls = 300.00'
LT = 200.09'
ST = 100.08'

Pl Sta 24+13.86
Δ = 11° 29' 59.9" (RT)
D = 3° 30' 00.0"
L = 500.00'
T = 251.96'
R = 1,637.02'

48" WW & ISBW

-YIREV-

S/E MON.

EXP

48" WW

-YIREV- CS Sta. 26+61.90

Pls Sta 27+61.98
Θs = 5° 15' 00.0"
Ls = 300.00'
LT = 200.09'
ST = 100.08'

BST

CMOC

ISMTLBUS

BST

L7

BST

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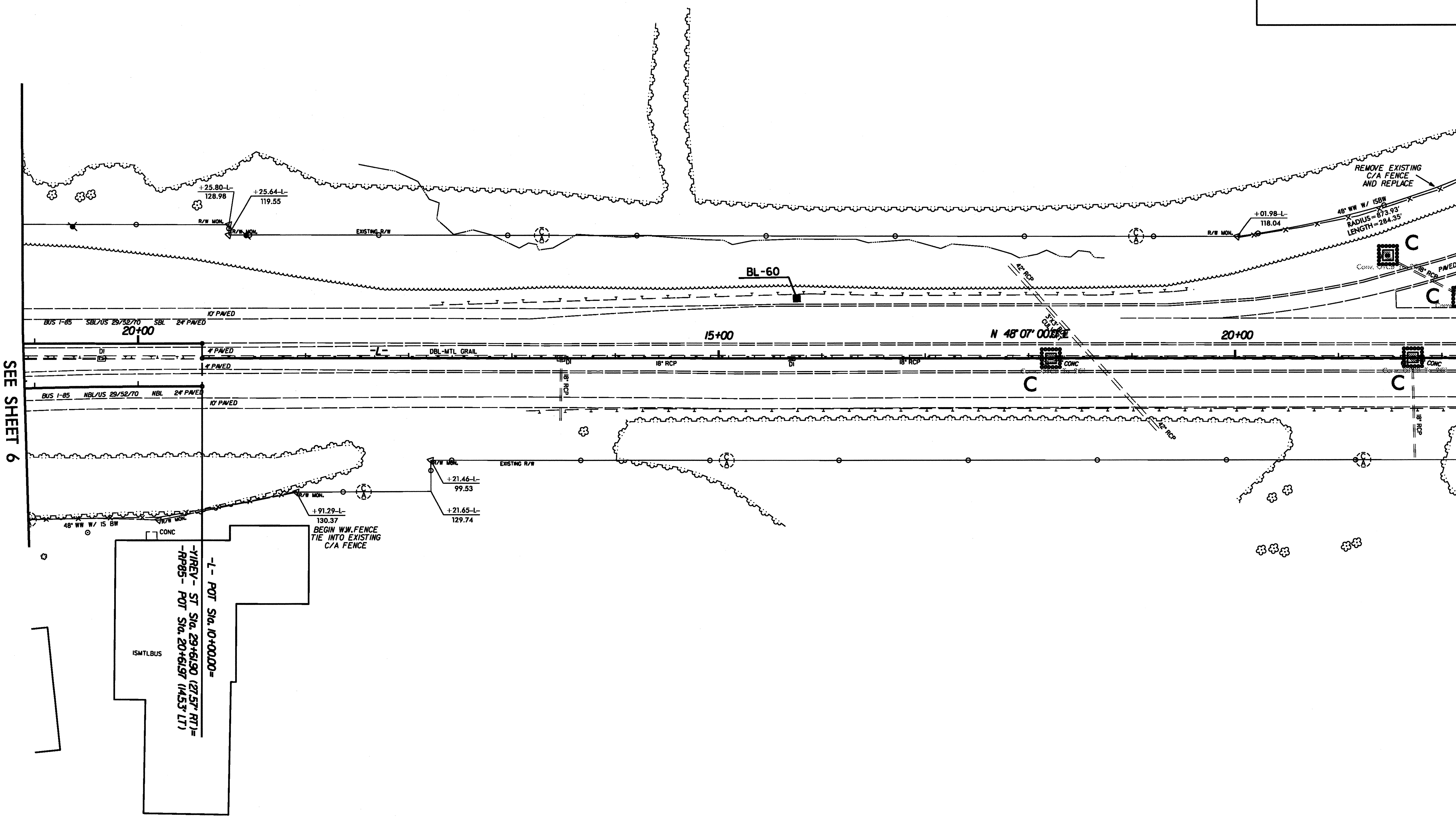
PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-6/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



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PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

MATCH LINE 22+20
SEE SHEET 6

MATCH LINE 36+15.00
SEE SHEET 8

-L- PI Sta. 26+09.06
Δ = 00°02'26.5" (RT)

BL-61

BRIDGE NO. 35

LEXINGTON PKWY - SR 3365
23' PAVED
23' CONC

HARPER RD - SR 3365
22' PAVED

BUS I-85 SBL/US 29/52/70 SBL 24' PAVED

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

10' PAVED
2' PAVED
16' PAVED
2' PAVED
4' PAVED
11' PAVED
4' PAVED

CONC PAVED

DBL-MTL GRAIL

18" RCP
24" RCP

CB CONC

EXISTING R/W

48" WW W/ IS BW

REMOVE EXISTING C/A FENCE AND REPLACE

END W.W. FENCE TIE INTO EXISTING C/A FENCE
27+11.58-L-
362.78

27+16.73-L-
334.61

+91.40-L-
332.95

25+05.47-L-
302.98
RADIUS = 899.51'
LENGTH = 214.89'

22+73.46-L-
198.30

BEGIN W.W. FENCE TIE INTO EXISTING C/A FENCE
+71.55-L-
245.56

+53.67-L-
188.28

+72.41-L-
88.80

+30.07-L-
98.94

END W.W. FENCE
28+28.83-L-
419.54

BEGIN W.W. FENCE
29+27.14-L-
420.65

+28.74-L-
125.43

+29.08-L-
109.63
RADIUS = 406.46'
LENGTH = 153.17'

+70.08-L-
110.35

+28.02-L-
124.59

35+19.67-L-
138.82
RADIUS = 167.73'
LENGTH = 71.63'

35+78.99-L-
178.00

35+80.08-L-
274.19

36+13.25-L-
274.44
RADIUS = 79.77'
LENGTH = 37.50'

35+95.12-L-
306.87

36+10.00-L-
321.34

35+01.62-L-
435.99

END W.W. FENCE
34+33.89-L-
465.07

R/W MON.

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-8/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

NAD 83/NSRS 2007
NC GRID

MATCH LINE 36+15.00
SEE SHEET 7

BL-62

BL-63

EXISTING R/W

END W.W.FENCE TIE INTO EXISTING BARRIER WALL

BEGIN REMOVE AND REPLACE EXISTING GLARE SCREEN

+07.44-L- 53.67

EIP

END REMOVE AND REPLACE EXISTING GLARE SCREEN

BEGIN W.W.FENCE TIE INTO EXISTING BARRIER WALL

+65.04-L- 53.40

+81.27-L- 63.78

FENCE POST

48" WW W/SBW C/A FOLLOWS EXISTING FENCE LINE

REMOVE EXISTING C/A FENCE AND REPLACE

OLD HARGRAVE RD SR 1222
24' PAVED

R/W MON.

+99.91-L- 73.99

+06.93-L- 76.09

RADIUS = 2824.79'
LENGTH = 107.04'

JERSEY BARRIER W/ 48" MESH

10' PAVED

18" RCP

BUS I-85 SBL/US 29/52/70 SBL 24' PAVED

40+00

45+00

50+00

2' PAVED

-L-

DBL-MTL GRAIL

N 48° 04' 33.2" E

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

10' PAVED

HW

NCGS MONUMENT "LIN"

CONC

PAVED

15' CONC

2' PAVED

+81.41-L- 142.17

RADIUS = 953.60'
LENGTH = 173.62'

EXISTING R/W

EIP

+91.40-L- 171.05

R/W MON.

RADIUS = 967.60'
LENGTH = 104.40'

+59.10-L- 119.65

+60.63-L- 133.34

EXISTING R/W

+63.26-L- 113.49

48" WW W/ 1S BW

REMOVE EXISTING C/A FENCE AND REPLACE

+12.62-L- 113.94

+11.94-L- 124.29

RADIUS = 984.00'
LENGTH = 471.82'

DICKSON ST
19' PAVED

EXISTING R/W

+89.58-L- 396.80

BEGIN W.W.FENCE

+31.71-L- 458.17

MATCH LINE 50+10.00
SEE SHEET 9

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rgrigg AT BENTLEY

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-9/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

NC GRID
NAD 83/NSRS 2007

MATCH LINE 50+15.00
SEE SHEET 8

MATCH LINE 64+15.00
SEE SHEET 10

EXISTING R/W

OLD HARGRAVE RD SR 1222

+37.62-L-
76.69

+72.26-L-
118.92

+13.07-L-
149.37

+13.12-L-
119.40

REMOVE EXISTING
C/A FENCE
AND REPLACE

C/A FOLLOWS EXISTING FENCE LINE

48" WW W/ 1S BW

48" WW W/ 1S BW (DILAPIDATED)

FENCE POSTS

EIP

R/W MON.

BL-64

18" RCP

42" RCP

30"X38" RCP

DCB

CONC

10' PAVED

BUS I-85 SBL/US 29/52/70 SBL 24' PAVED

2' PAVED

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

55+00

60+00

-L-

DBL-MTL GRAIL

+05.81-L-
93.95

+09.17-L-
113.95

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8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-10/CONST JO
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007 NC GRID

MATCH LINE –Y– 18+50.00
SEE SHEET 16

MATCH LINE 64+15.00
SEE SHEET 9

MATCH LINE 78+00.00
SEE SHEET 11

RADIUS=1341.39'
LENGTH=491.43'

–L– PI Sta. 71+25.89
00°05'42.8" (LT)

+12.97–L–
149.28

+14.00–L–
129.33

+47.92–L–
129.10

+28.69–L–
218.51

+34.33–L–
203.63

R/W MON.

EXISTING R/W

24" RCP

18" RCP

4"BST

15"CONC

54" RCP

–Y–POT Sta. 19+52.97

J6 (APPROX)

Conv. to 2GI

PAVED CONC

BL-65

10' PAVED

65+00

70+00

75+00

BUS I-85 NBL/US 29/52/70 SBL 24' PAVED

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

2' PAVED

CONC CB

DBL-MTL GRAIL

4.45' POT

RICHARD ST SR 1225

+78.13–L–
93.95

48" WW W/ 15 SW (DILAPIDATED)

RADIUS=1110.63'
LENGTH=316.07'
C/A FOLLOWS EXISTING FENCE LINE

+89.34–L–
142.92

REMOVE EXISTING
C/A FENCE
AND REPLACE

+97.83–L–
187.66

TO JB
PIPE EXPOSED

JB (APPROX)

EXPRD-POT
Sta. 7+73.87

+17.23–L–
352.58

+16.66–L–
419.75

END
WW FENCE
+71.45–L–
464.35

+39.40–EXRPD–
75.00

HW1

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rchen
ENVIRON

3/26/13

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-11/CONST.11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NAD 83/NSRS 2007 NC GRID

MATCH LINE -RAMPREV- 12+00.00 SEE SHEET 16

MATCH LINE -SERRDREV- 14+50.00 SEE SHEET 16

MATCH LINE 78+00.00 SEE SHEET 10

MATCH LINE 91+95.00 SEE SHEET 12

-RAMPREV-PI Sta 16+83.14
Δ = 33° 26' 41.6" (LT)
D = 11° 45' 00.0"
L = 284.65'
T = 146.56'
R = 487.52'

-SERVDREV-PI Sta 18+62.77
Δ = 5° 00' 58.4" (LT)
D = 16° 00' 00.0"
L = 318.85'
T = 170.87'
R = 358.10'

-RAMPREV-PI Sta 15+39.98
Δ = 32° 54' 06.5" (RT)
D = 12° 15' 00.0"
L = 268.55'
T = 138.57'
R = 467.52'

-SERRDREV-PT Sta. 15+39.98

-SERVDREV-PC Sta. 16+99.93

-SERRDREV-PT Sta. 20+10.75

-RAMPREV-PT Sta. 18+21.28

-EXRPD-SC Sta. 2+00.00

-EXRPD- CS Sta. 3+61.67

-EXRPD- ST Sta. 5+61.67

-L- POT Sta. 84+01.20 40.08' RT

-EXRPD- ST Sta. 0+00.00=

-EXRPD-

PI Sta 4+28.49	PI Sta 2+81.27	PI Sta 1+33.51
θs = 9° 00' 00.0"	Δ = 14° 33' 00.0" (LT)	θs = 9° 00' 00.0"
Ls = 200.00'	D = 9° 00' 00.0"	Ls = 200.00'
LT = 133.51'	L = 161.67'	LT = 133.51'
ST = 66.82'	T = 81.27'	ST = 66.82'
	R = 636.62'	

Tarboroughs Restaurant Properties, LLC
D.B. 847 Pg. 753
D.B. 582 Pg. 970

Gregory S. Hoskins
D.B. 1005 Pg. 128
Tract II

BL-66

MARCO BLVD SR 1299 24' BST

GRIMES BLVD SR 1298 24' PAVED

VIRGINIA ST SR 1225

N 47°58'50.4" E

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rchan AT REVZILLA

3/26/13

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-12/CONST12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

NC GRID
NAD 83/NSRS 2007

MATCH LINE 91+95.00
SEE SHEET 11

-SEVRDREV-POT Sta. 26+98.26

-RAMPREV-L-POT Sta. 26+00.00

-L- TS Sta. 102+03.24

-L- SC Sta. 105+03.24

MATCH LINE 105+90.00
SEE SHEET 13

EXISTING R/W

EIP

R/W MON.

MARCO BLVD SR 1299 24' BST

/48" MESH

18" RCP

DI

CB

12' PAVED

24" RCP

MESH CHANGES

JERSEY BARRIER W/28" MESH

15" RCP

JB2

95+00

100+00

105+00

BUS I-85 NBL/US 29/52/70 SBL 24' PAVED

4' PAVED

CONC

DBL-MTL GRAIL

DILAPIDATED

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

11' PAVED

GRIMES BLVD SR 1298
24' PAVED

RIER W/48" MESH

BL-67

Pis Sta 104+03.24
θs = 1° 30' 00.0"
Ls = 300.00'
LT = 200.0'
ST = 100.0'

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nguyen
ELT REVERSED

8/17/99

NAD 83/NSRS 2007
NC GRID

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-13/CONST13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE 105+90.00
SEE SHEET 12

EIP
15" RCP
CB
END REMOVE AND REPLACE EXISTING GLARE SCREEN
+53.67-L-
82.60
15" RCP
DI
24" RCP
48" WW W/15 RW
SNEAKING CREEK
4" PVED
BUS I-85 NBL/US 29/52/70 SBL 36" PVED
4" PVED
DBL-MTL GRAIL
-L-
110+00
4" PVED
BUS I-85 NBL/US 29/52/70 NBL 24" PVED
12" PVED
BRIDGE NO. 525
BRIDGE NO. 43
PVED CONC
24" RCP
115+00
DI
24" RCP
DI
4" CONC
24" CONC
10" CONC
PVED CONC
-L-
ARRIER W/28" MESH
GRIMES BLVD SR 1298
24" PVED
DI
15" RCP
END REMOVE AND REPLACE EXISTING GLARE SCREEN
+01.93-L-
69.59
48" WW W/15BW
BL-68

MATCH LINE 119+85.00
SEE SHEET 14

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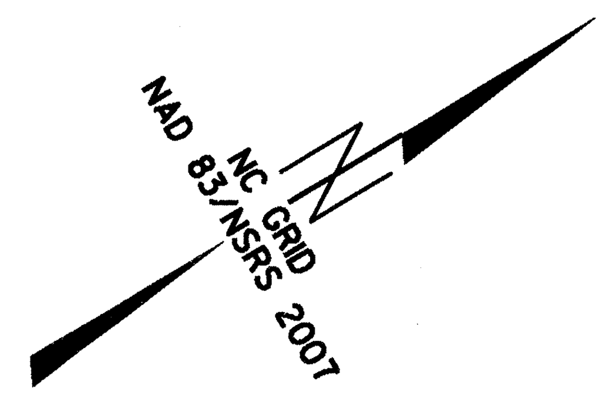
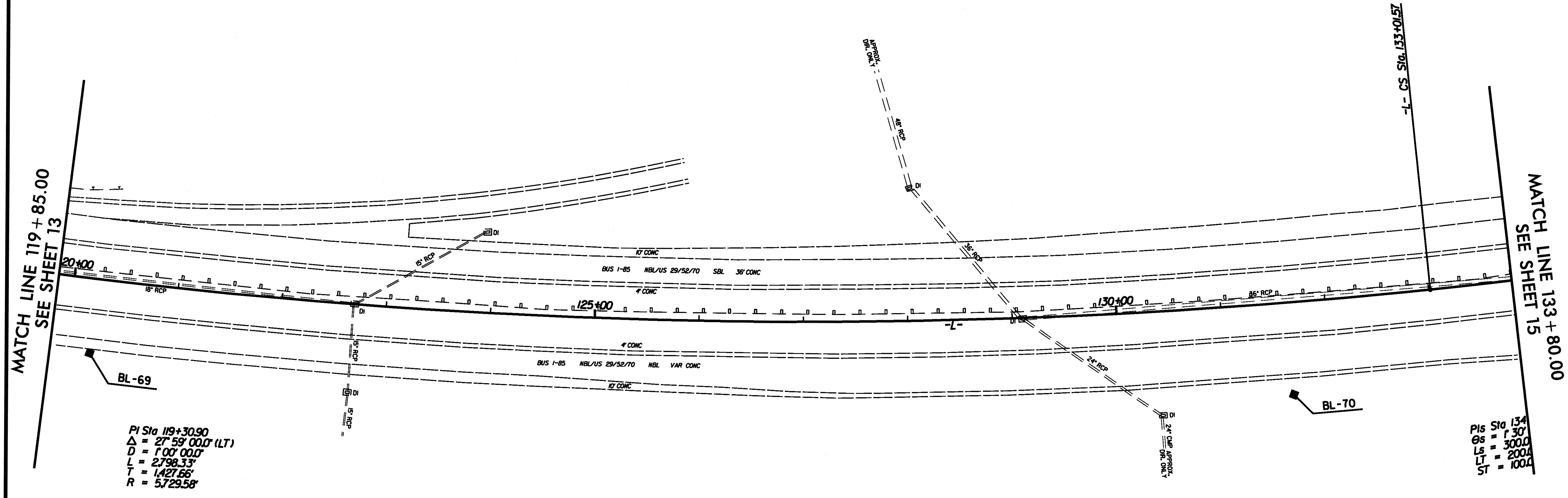
mstephen
$$$$ REVISIONS $$$$

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-14/CONST 14

R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14





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3/26/13

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15	PROJECT REFERENCE NO.	SHEET NO.
	R-4750	EC-15/CONST J5
	R/W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007 NC GRID

MATCH LINE 133+80.00
SHEET 14

-L- ST Sta. 136+01.57

-L- POT Sta. 139+06.91

L35+00

N 16°59'50.4" E
-L-

BL-71

BM#3
24" Hy 20' W
ELEV.=714.05'

BM#3
14.64'

N

SALISBURY RD. - SR 1147

18" RCP

24" RCP

24" CMP
APPROX.
DRL ONLY

DI

CB

+01.58
00.0'

3/26/13

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-16/CONST J6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID
NAD 83/NSRS 2007

-Y-PC Sta. 10+00.00

-Y-PI Sta 13+63.17
Δ = 4° 38' 42.7" (RT)
D = 6° 00' 00.0"
L = 694.09'
T = 363.17'
R = 954.93'

-DRIVE-POT Sta. 10+00.00

-DRIVE-PI Sta 11+15.87
Δ = 49° 53' 06.5" (LT)
D = 76° 23' 39.7"
L = 65.30'
T = 34.88'
R = 75.00'

-DRIVE-PI Sta 11+78.88
Δ = 46° 58' 38.0" (RT)
D = 76° 23' 39.7"
L = 61.49'
T = 32.59'
R = 75.00'

-DRIVE-PC Sta. 10+80.99

-DRIVE-PRC Sta. 11+46.29

-SERRDREV-PI Sta 13+27.04
Δ = 51° 28' 11.0" (RT)
D = 12° 15' 00.0"
L = 469.82'
T = 256.88'
R = 467.72'

-DRIVE-PT Sta. 12+07.78

-DRIVE-POT Sta. 12+33.03

-SERRDREV-POC Sta. 11+00.00

-SERRDREV-PC Sta. 10+70.16

-SERRDREV-POT Sta.10+00.00
= -Y-POC Sta.15+88.17

-Y-PT Sta. 16+94.09

-RAMPREV-POT Sta.10+00.00
= -Y-POC Sta.11+92.49

GPS R4750-2
GPS R4750-2 TO BM#2
N 51°41' 08" E 38.84'
ELEV.=734.08'

GPS R4750-1

ISBK&MTLBUS

LPT, LLC
D.B. 1606 Pg. 526

U.S. Xpress, Inc., a Nevada Corporation
D.B. 1726 Pg. 339

MATCH LINE -Y- 18+50.00
SEE SHEET 10

MATCH LINE
-RAMPREV- 12+00.00
SEE SHEET 11

MATCH LINE
-SERRDREV- 14+50.00
SEE SHEET 11

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-17/CONST.A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

I-85 SB - UNDER CONSTRUCTION

I-85 NB - UNDER CONSTRUCTION

MATCH LINE 13+95.00
SEE SHEET 5

-YIREV- ST Sta. 0+00.00

END CONSTRUCTION - I-2304
-RP85C- ST Sta. 11+43.83 =
BEGIN CONSTRUCTION - R-4750
-YIREV- POS Sta. 00+33.99

-YIREV- SC Sta. 3+00.00

NC GRID
NAD 83/NSRS 2007

15" CMP

Pls Sta 2+00.09
Θs = 5° 15' 00.0"
Ls = 300.00'
LT = 300.09'
ST = 100.05'

5+00

10+00

-YIREV-

MTL

4' PAVED

BUS I-85 NBL / US 29/52/70 NBL 24' PAVED

10' PAVED

PI Sta 9+64.17
Δ = 44° 09' 59.9" (LT)
D = 3° 30' 00.0"
L = 1,261.90'
T = 664.17'
R = 1,637.02'

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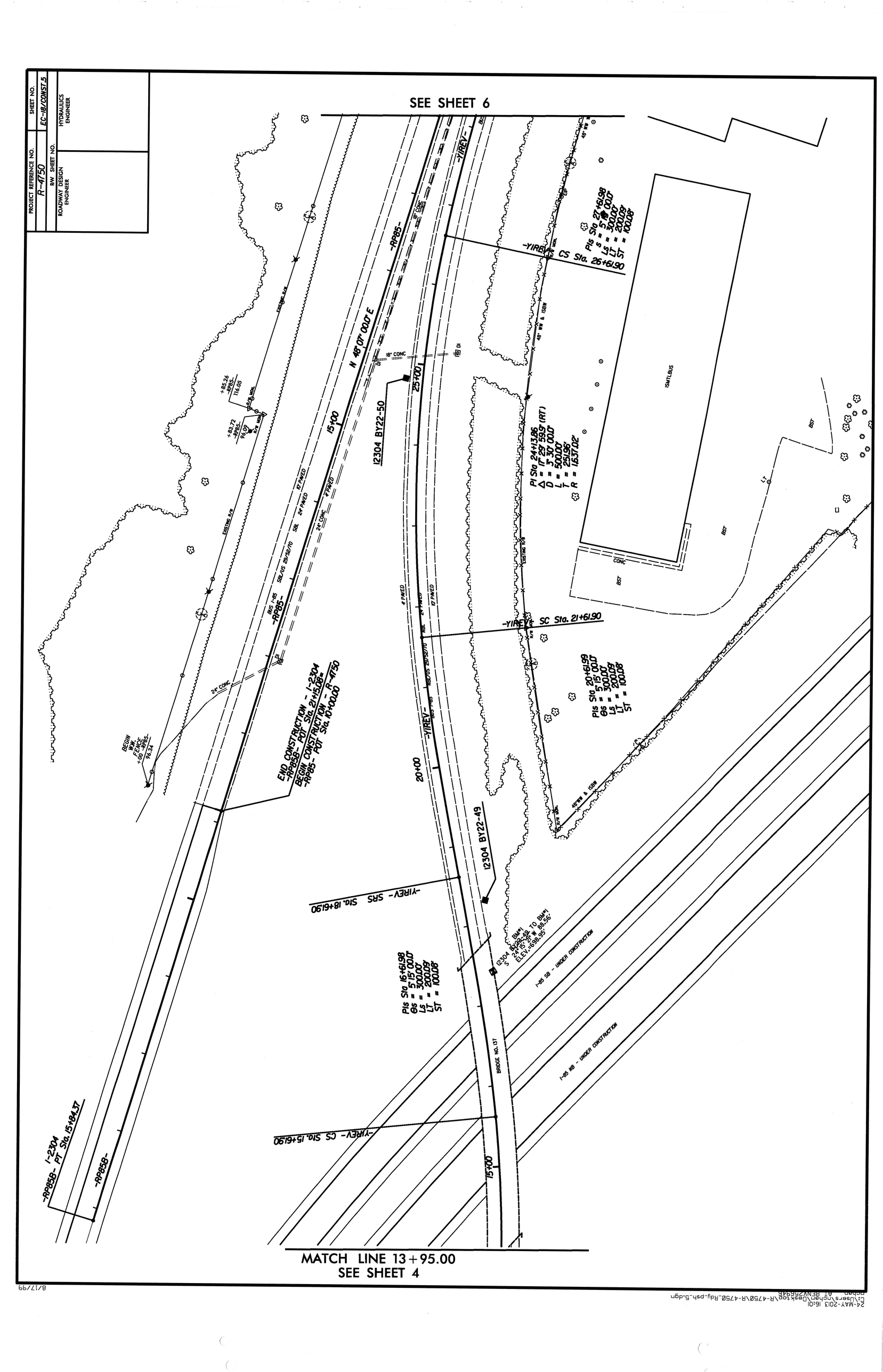
ROADD AT BENTLEY



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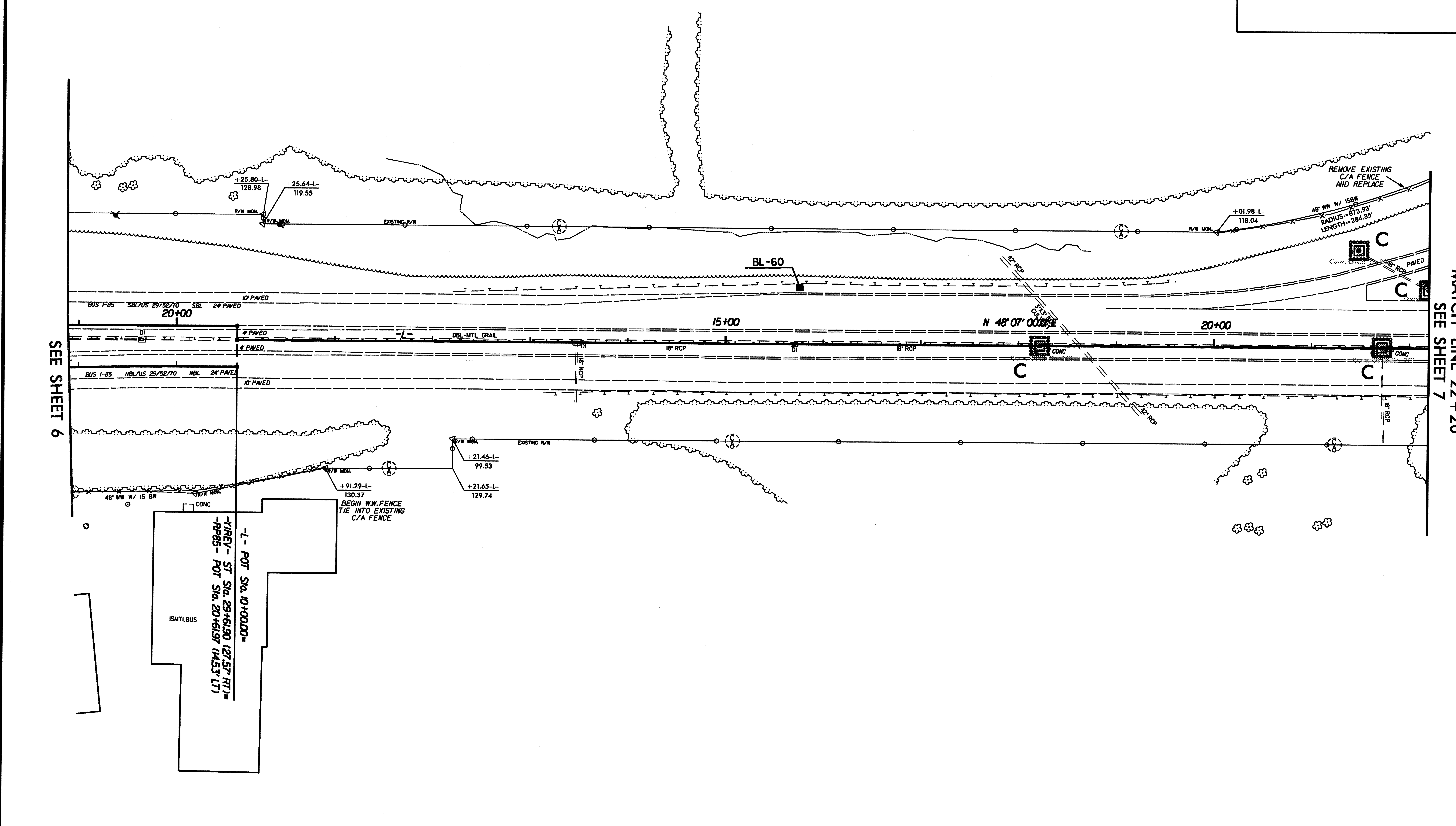
PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-19/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-20/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE 22+20
SEE SHEET 6

MATCH LINE 36+15.00
SEE SHEET 8

END W.W. FENCE
TIE INTO EXISTING
C/A FENCE
27+16.73-L-
334.61

27+11.58-L-
362.78

+91.40-L-
332.95

25+05.47-L-
302.98

RADIUS=899.51'
LENGTH=214.89'

REMOVE EXISTING
C/A FENCE
AND REPLACE

22+73.46-L-
198.30

BEGIN W.W. FENCE
TIE INTO EXISTING
C/A FENCE
+71.55-L-
245.56

+53.67-L-
188.28

REMOVE EXISTING
C/A FENCE
AND REPLACE

+72.41-L-
88.80

-L- PI Sta. 26+09.06
Δ 00°02'26.8" (RT)

BL-61

BRIDGE NO. 35

LEXINGTON PKWY - SR 3165

HARRISBURG BYP - SR 3165

BUS I-85 SBL/US 29/52/70 SBL 24' PAVED

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

DBL-MTL GRAIL

25+00

30+00

35+00

+30.07-L-
98.94

END W.W. FENCE
28+28.83-L-
419.54

BEGIN W.W. FENCE
29+27.14-L-
420.65

+29.08-L-
109.63

+28.74-L-
125.43

+28.02-L-
124.59

+70.08-L-
110.35

RADIUS=406.46'
LENGTH=153.17'

RADIUS=167.73'
LENGTH=71.63'

35+19.67-L-
138.82

35+78.99-L-
178.00

35+80.08-L-
274.19

36+13.25-L-
274.44

RADIUS=79.77'
LENGTH=37.50'

35+95.12-L-
306.87

36+10.00-L-
321.34

35+01.62-L-
435.99

END W.W. FENCE
34+33.89-L-
465.07

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-21/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007 NC GRID

MATCH LINE 36+15.00
SEE SHEET 7

BL-62

END W.W.FENCE TIE INTO EXISTING BARRIER WALL

BEGIN REMOVE AND REPLACE EXISTING GLARE SCREEN

+07.44-L-
53.67

EIP

END REMOVE AND REPLACE EXISTING GLARE SCREEN

BEGIN W.W.FENCE TIE INTO EXISTING BARRIER WALL

+65.04-L-
53.40

JERSEY BARRIER W/ 48" MESH

+81.27-L-
63.78

FENCE POST

48" WW W/ IS BW

C/A FOLLOWS EXISTING FENCE LINE

BL-63

EIP

R/W MON.

EXISTING R/W

OLD HARGRAVE RD SR 1222
24' PAVED

REMOVE EXISTING C/A FENCE AND REPLACE

+99.91-L-
73.99

+06.93-L-
76.09

RADIUS = 2824.79'
LENGTH = 107.04'

10' PAVED

BUS I-85 SBL/US 29/52/70 SBL 24' PAVED

2' PAVED

2' PAVED

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

10' PAVED

HW

40+00

45+00

50+00

-L-

DBL-MTL GRAIL

N 48°04'33.2"E

CONC

CONC P/MED

15' CONC

2' PAVED

RADIUS = 984.00'
LENGTH = 471.82'

DITCH 57' TO P/MED

EXISTING R/W

+89.58-L-
396.80

BEGIN W.W.FENCE
+31.71-L-
458.17

+81.41-L-
142.17

RADIUS = 953.60'
LENGTH = 173.62'

EXISTING R/W

EIP

+91.40-L-
171.05

R/W MON.

+59.10-L-
119.65

+60.63-L-
133.34

RADIUS = 967.60'
LENGTH = 104.40'

EXISTING R/W

+63.26-L-
113.49

48" WW W/ IS BW

REMOVE EXISTING C/A FENCE AND REPLACE

+12.62-L-
113.94

+11.94-L-
124.29

MATCH LINE 50+10.00
SEE SHEET 9

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-22/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID NAD 83/NSRS 2007

MATCH LINE 50+15.00
SEE SHEET 8

OLD HARGRAVE RD SR 1222

EXISTING R/W

+37.62-L-
76.69

FENCE POSTS

+72.26-L-
118.92

REMOVE EXISTING C/A FENCE AND REPLACE

C/A FOLLOWS EXISTING FENCE LINE
48" RW W/ 1S BW

R/W MON.

48" WW W/ 1S BW

+13.07-L-
149.37

+13.12-L-
119.40

EIP

EXISTING R/W

REMOVE EXISTING C/A FENCE AND REPLACE

BL-64

18" RCP

DCB

42" RCP

18" RCP

10' PAVED

BUS I-85 SBL/US 29/52/70 SBL 24' PAVED

2' PAVED

3'X3' BOX

55+00

18" RCP CONC

60+00

DBL-MTL GRAIL

-L-

CONC

Conv. Coll. to 2GI

BUS I-85 NBL/US 29/52/70 NBL 24' PAVED

10' PAVED

42" RCP

+05.81-L-
93.95

R/W MON.

+09.17-L-
113.95

R/W MON.

REMOVE EXISTING C/A FENCE AND REPLACE

48" WW W/ 1S BW (DILAPIDATED)

EXISTING R/W

MATCH LINE 64+15.00
SEE SHEET 10

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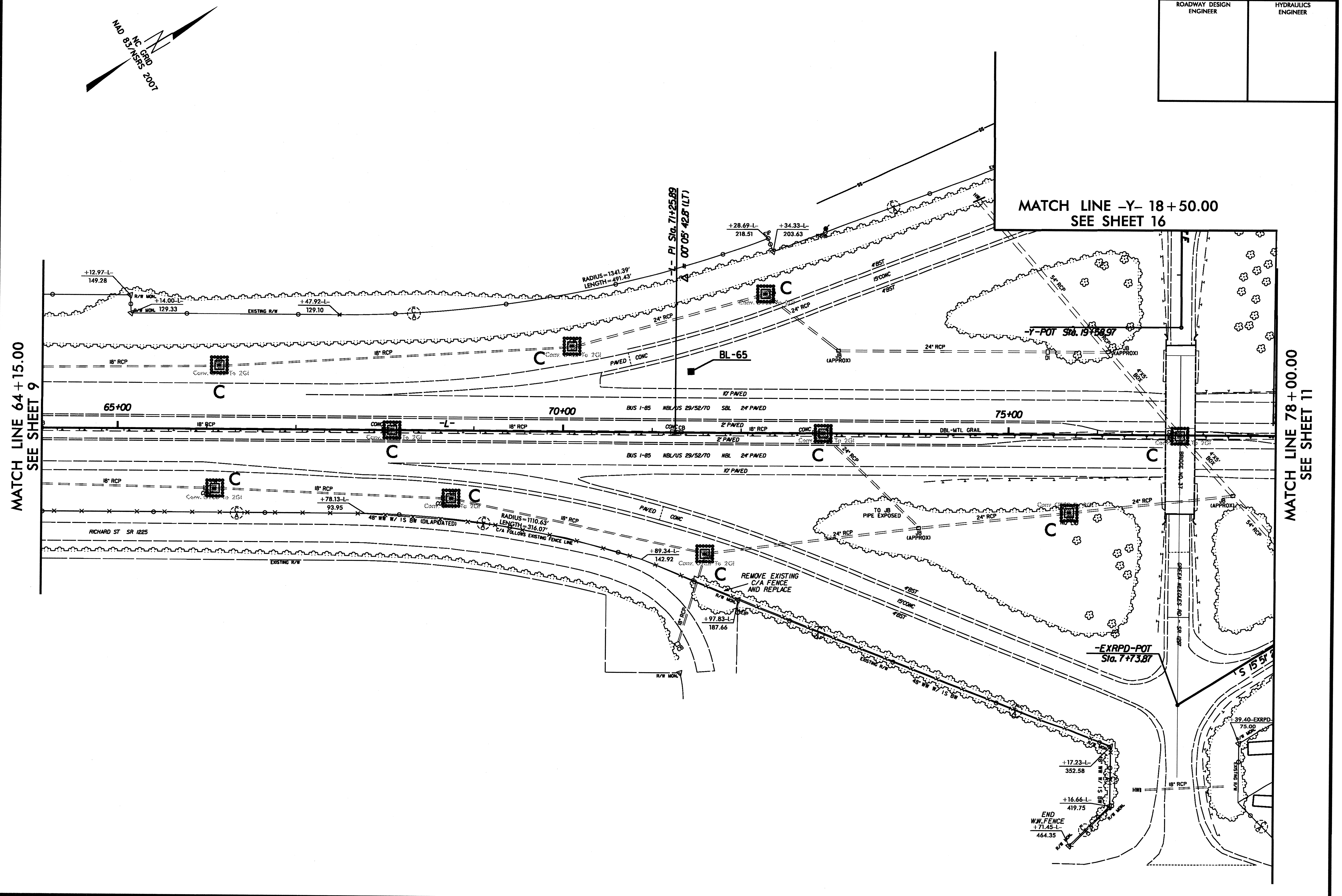
ROADWAY DESIGNER

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-23/CONST JO
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-24/CONST.JI
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE -RAMPREV- 12+00.00 SEE SHEET 16

MATCH LINE -SERRDREV- 14+50.00 SEE SHEET 16

MATCH LINE -RAMPREV-PC Sta 10+40.00 SEE SHEET 10

MATCH LINE 91+95.00 SEE SHEET 12

NAD 83/NSRS 2007 NC GRID

24 x 12 x 3 ID 11.2F

50 x 12 x 3 ID 11.1F

26 x 12 x 3 ID 11.3F

-SERVRDREV-PT Sta. 15+39.98

-SERVRDREV-PC Sta. 16+91.90

-RAMPREV-PI Sta 16+83.14
Δ = 33° 26' 40.5" (LT)
D = 41° 45' 00.0"
L = 284.65'
T = 148.65'
R = 137.52'

-SERVRDREV-PI Sta 18+62.77
Δ = 51° 00' 58.4" (LT)
D = 16° 00' 00.0"
L = 318.85'
T = 170.87'
R = 358.10'

-SERRDREV-PT Sta.20+10.75

-RAMPREV-PI Sta 12+40.00
Δ = 32° 54' 06.5" (RT)
D = 12° 54' 59.2"
L = 254.99'
T = 130.51'
R = 455.72'

-EXRPD- CS Sta. 3+61.67

-EXRPD- ST Sta. 5+61.67

-EXRPD-SC Sta. 2+00.00

-EXRPD- ST Sta. 0+00.00= 84+01.20 40.08' RT

-EXRPD-

PIs Sta 4+28.49	PI Sta 2+81.27	PIs Sta 1+33.51
Θs = 9° 00' 00.0"	Δ = 14° 33' 00.0" (LT)	Θs = 9° 00' 00.0"
Ls = 200.00'	D = 9° 00' 00.0"	Ls = 200.00'
LT = 133.51'	L = 161.67'	LT = 133.51'
ST = 66.82'	T = 81.27'	ST = 66.82'
	R = 636.62'	

BL-66

Yarborough's Restaurant Properties, LLC
D.B. 847 Pg. 753
D.B. 562 Pg. 970

Gregory K. Hedrick
D.B. 1005 Pg. 426
Tract II

MARCO BLVD SR 1299 24' BST

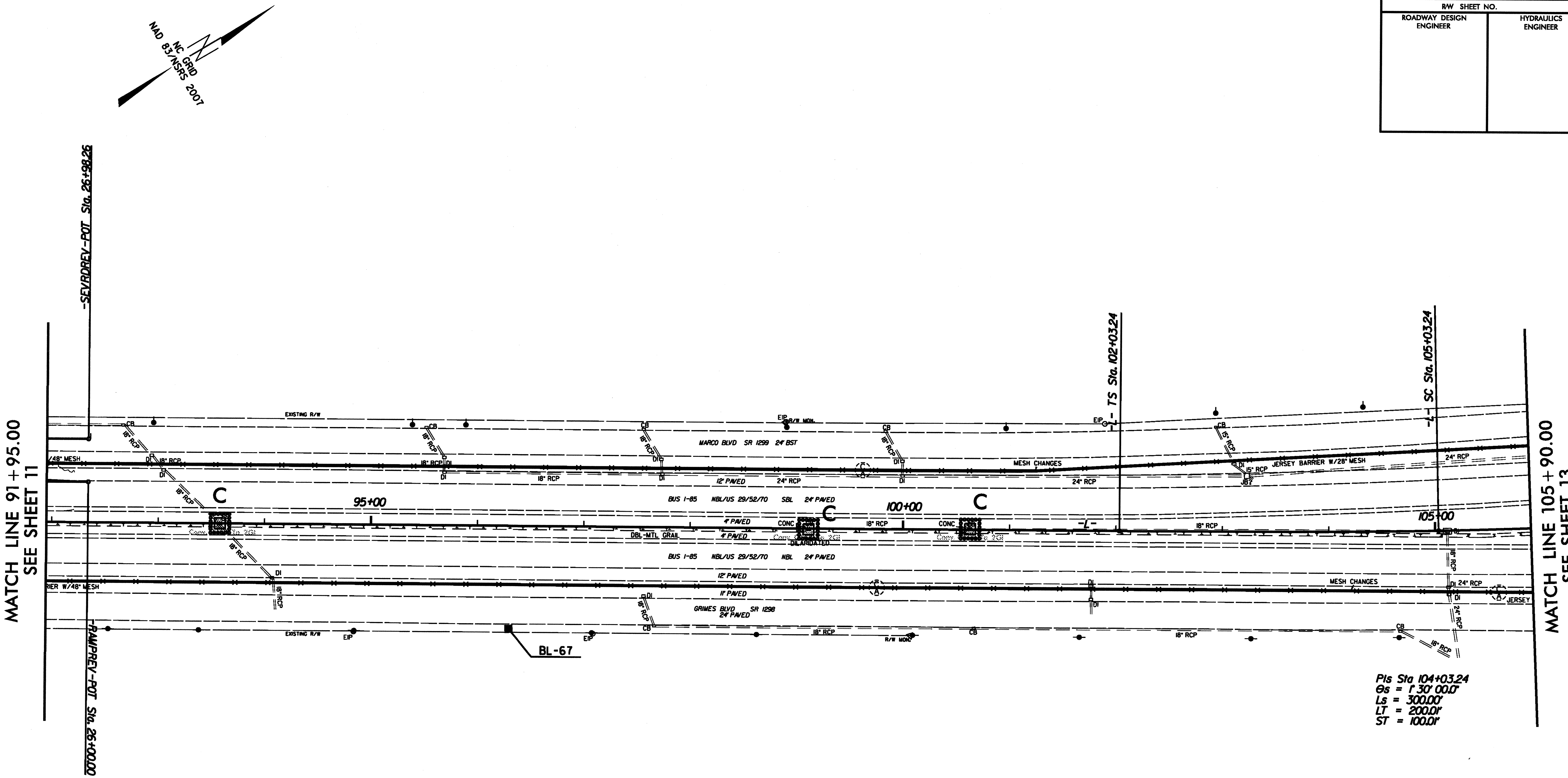
GRIMES BLVD 24' PAVED SR 1298

VIRGINIA ST SR 1225

N 48°11'06" E 160.78'
N 47°31'29" E 99.98'
N 48°16'05" E 162.32'
N 48°04'25" E 194.33'
N 47°39'31" E 106.77'
N 47°58'50.4" E
355.56' N 48°05'05" E
100.70' N 48°15'21" E

3/26/13

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-25/CONST.12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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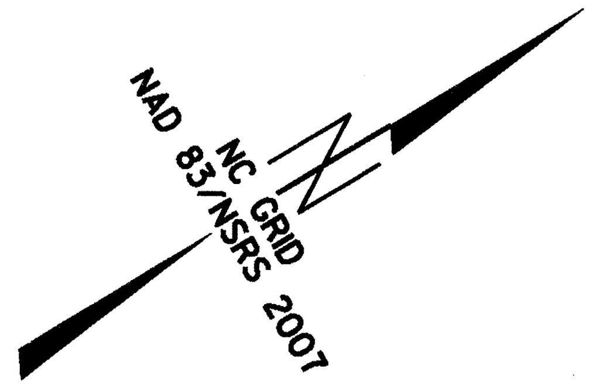
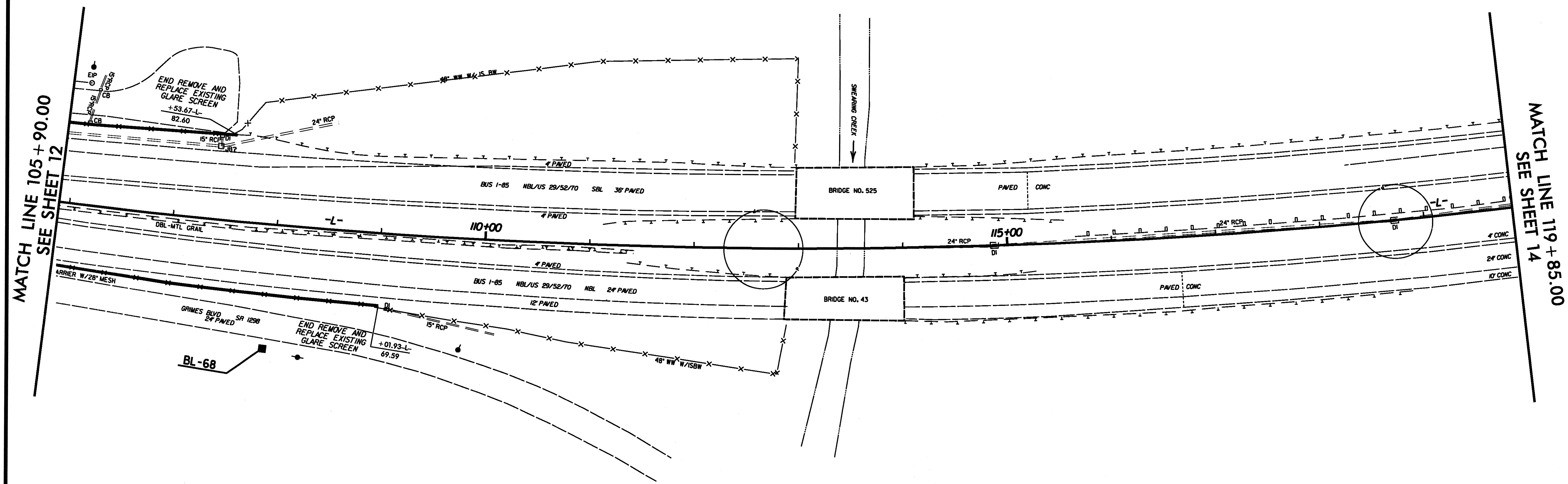
nchan AT RENV25636

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-26/CONST J3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





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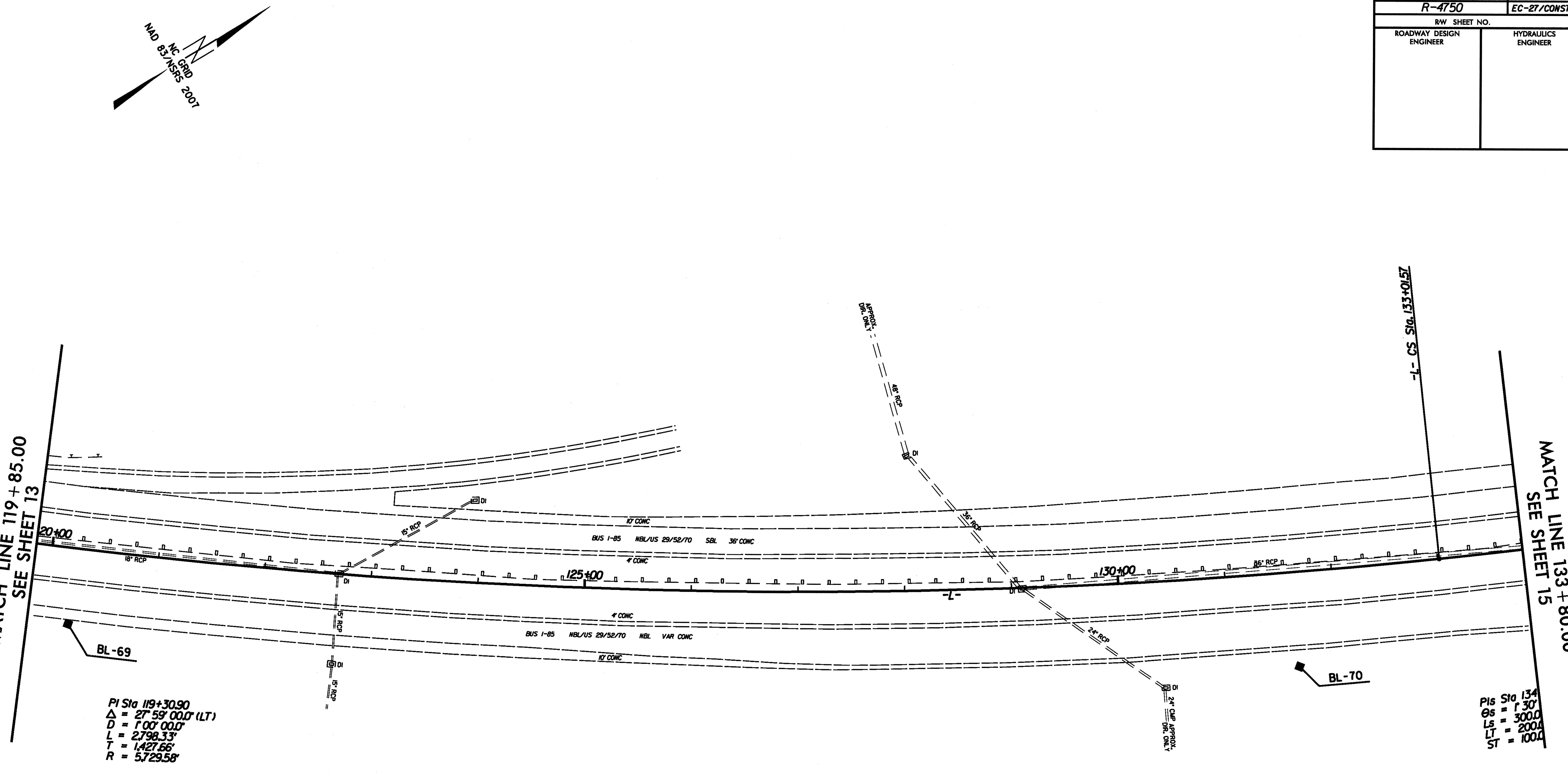
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-27/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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3/26/13

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-28/CONST J5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007 NC GRID

MATCH LINE 133+80.00
SHEET 14

-L- ST Sta. 136+01.57

-L- POT Sta. 139+06.91

135+00

N 16° 59' 50.4" E
-L-

BL-71

BM#3
BL-71 20' W 134.64'
24" RCP
ELEV.=714.05'

CB
18" RCP
DI
18" RCP
18" RCP
24" RCP
DI
24" CMP
APPROX. DR. ONLY

+01.58
00.0'

SALISBURY RD. - SR 1147

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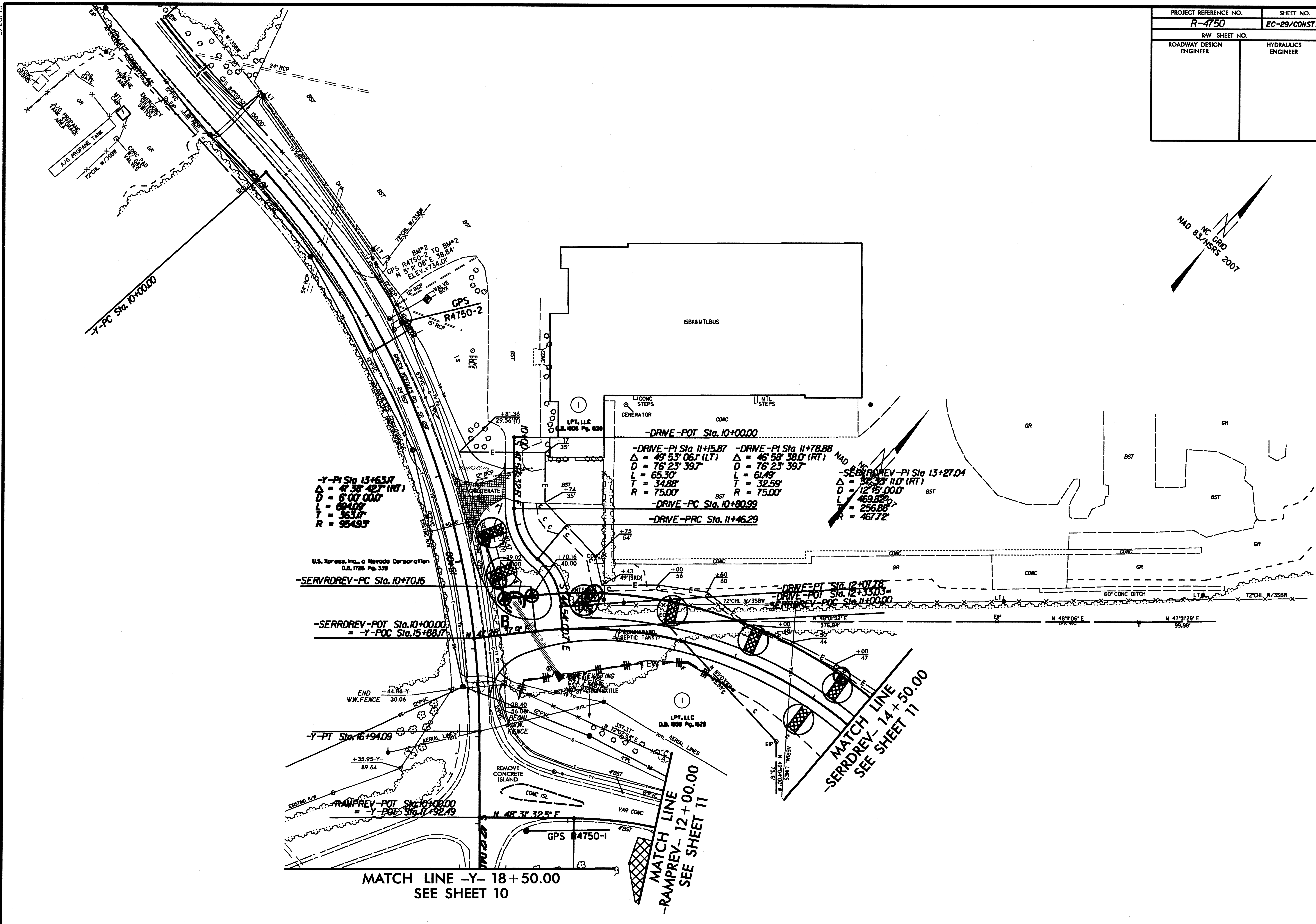
mpeters
ENVIRONMENTAL

3/26/13

PROJECT REFERENCE NO.	SHEET NO.
R-4750	EC-29/CONST J6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



28-MAY-2013 14:43
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