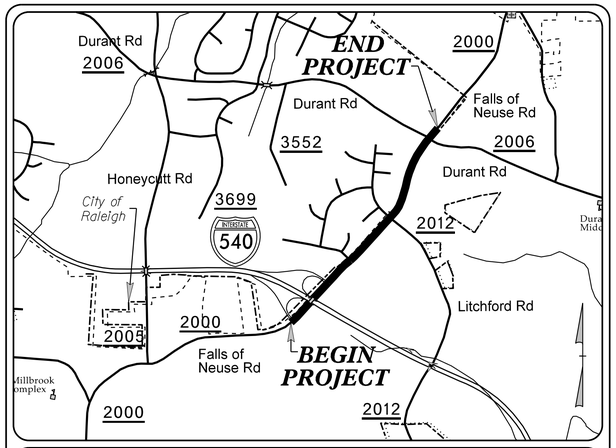
TIP PROJECT: U-5826



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WAKE COUNTY

LOCATION: FALLS OF NEUSE ROAD (SR 2000)
FROM I-540 TO DURANT ROAD (SR 2006)

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND SIGNALS

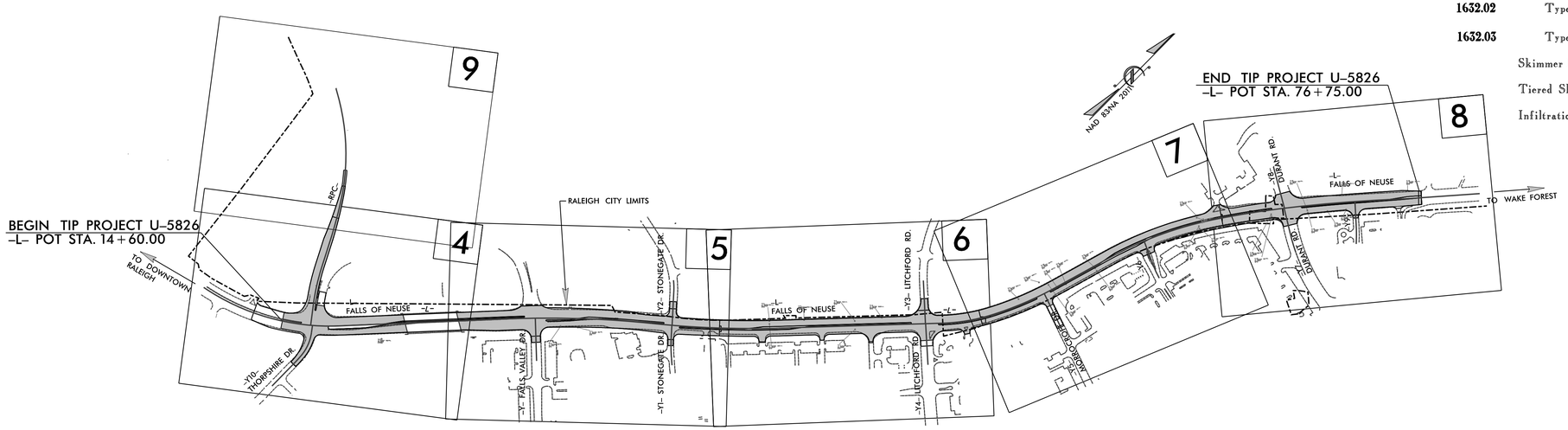
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5826	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
44398.1.1	NA	P.E.	

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	EW 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	SK
	Tiered Skimmer Basin	
	Infiltration Basin	

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.



GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

Prepared in the Office of:

SUNGATE DESIGN GROUP, P.A.

905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-890

Designed by:

MATTHEW C. EDWARDS, EI 3992
NAME *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

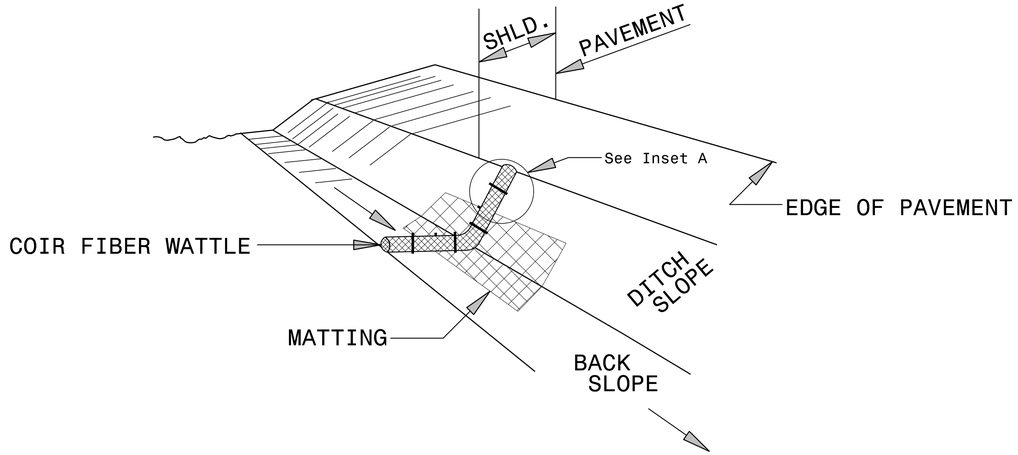
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

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

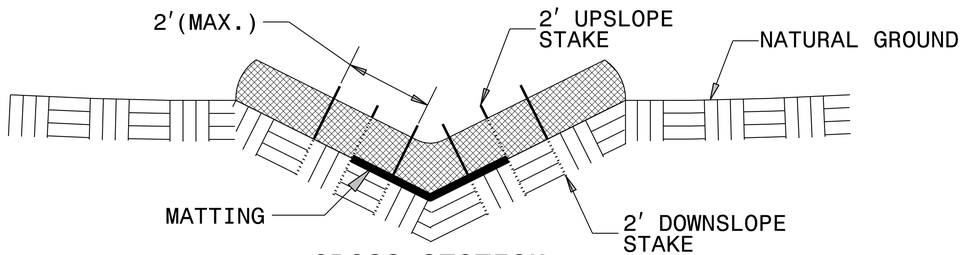
8/9/2019
U5826_EC_dsn_psh_01.dgn
MEDWARDS

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

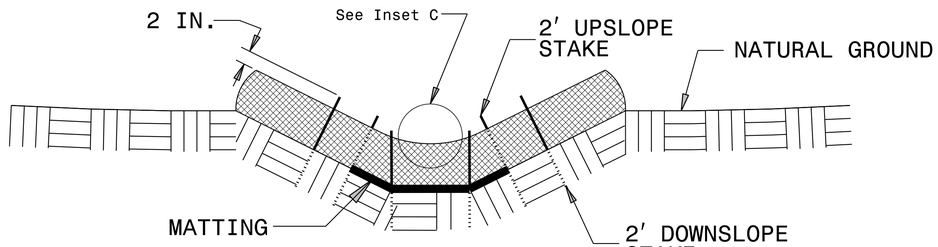
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) 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.

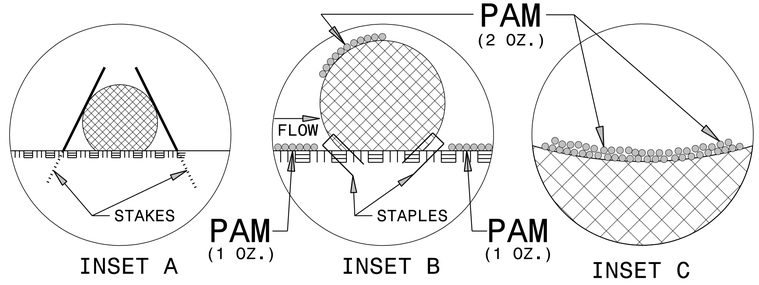
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

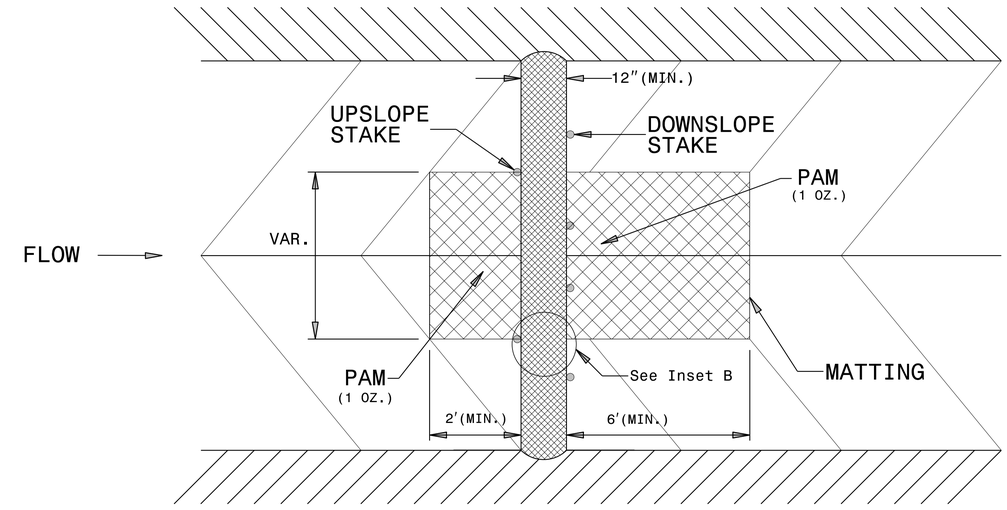
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.

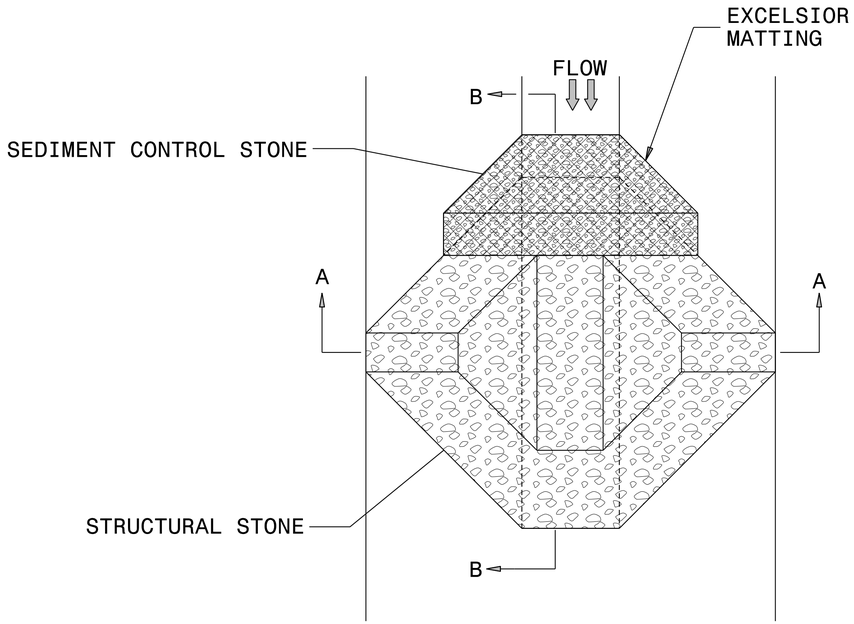




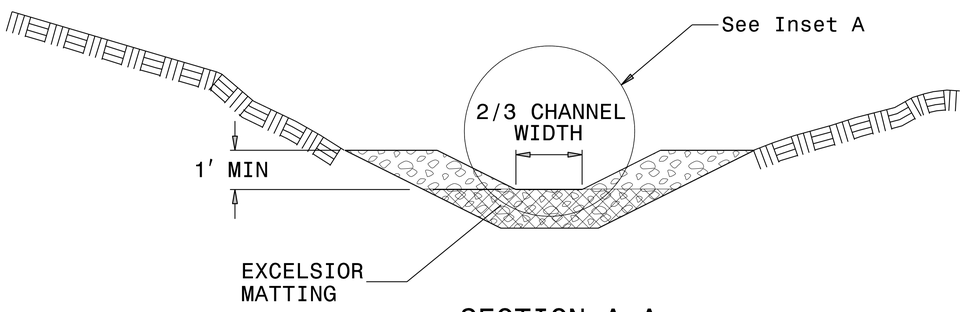
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-2A
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

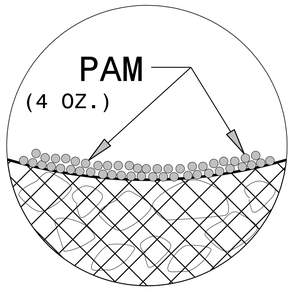
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

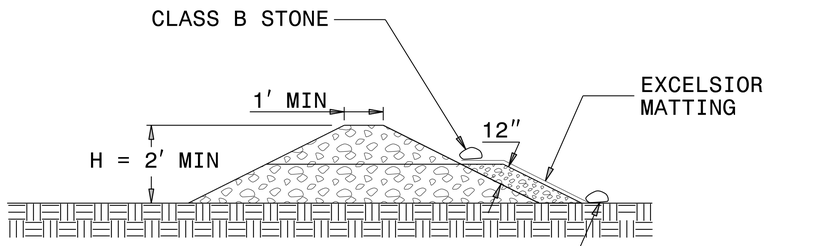
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5826	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)
4	-L-	13+00	15+50	RT	245
4	-L-	16+75	19+00	RT	115
4	-RPC-	17+00	20+50	RT	270
4	-RPC-	17+00	20+50	RT	590
5	-L-	29+25	32+50	LT	350
5	-L-	36+00	36+75	RT	55
6	-L-	38+50	40+00	RT	105
6	-L-	41+00	42+25	RT	90
7	-L-	60+50	64+75	LT	535
9	-RPC-	16+00	17+00	RT	80
9	-RPC-	15+75	17+00	RT	180
				SUBTOTAL	2615
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					15120
				TOTAL	17735
				SAY	18000

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

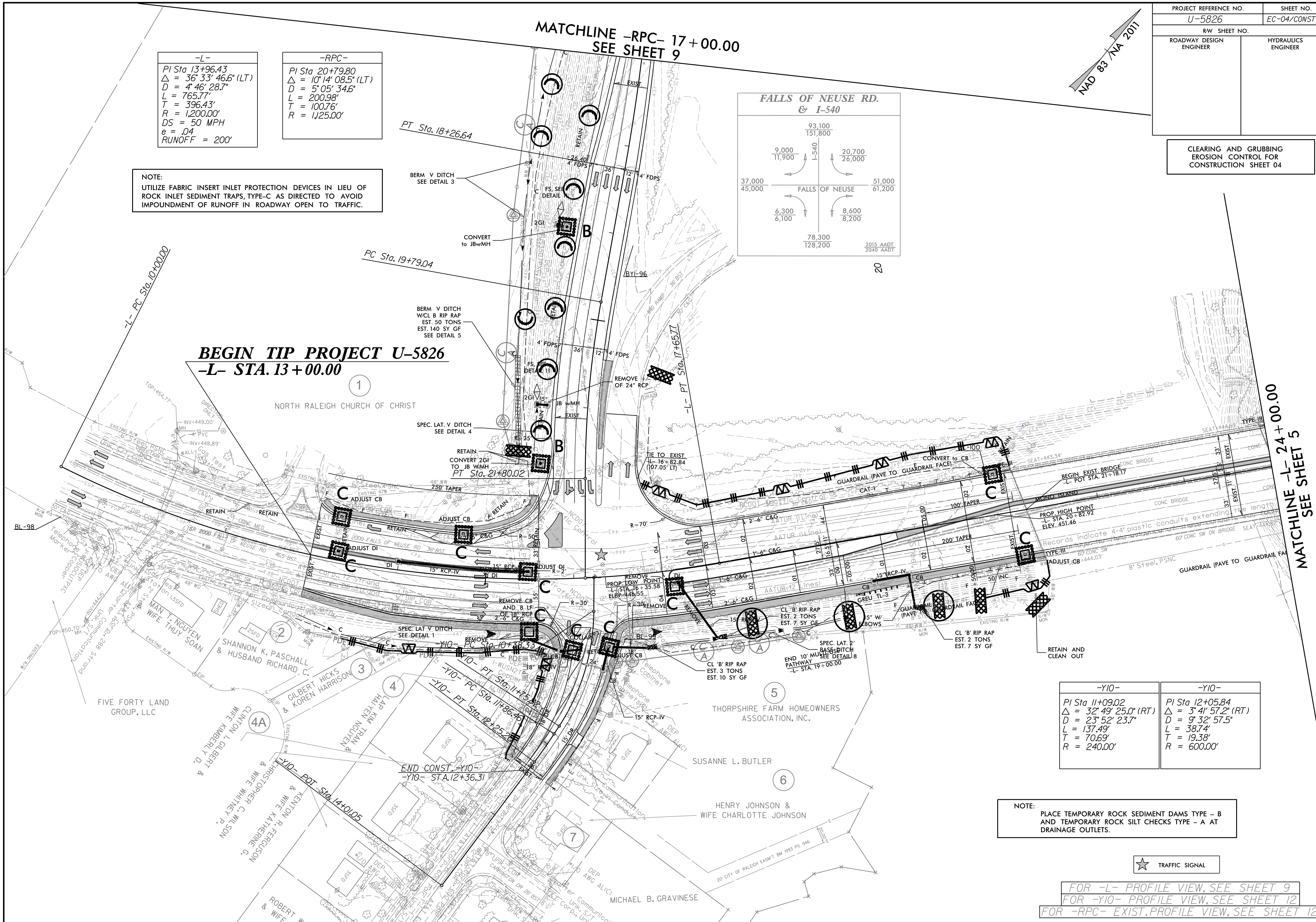
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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.

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-04/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04



-L-
PI Sta 13+96.43
△ = 36° 33′ 46.6″ (LT)
D = 4° 46′ 28.7″
L = 765.77′
T = 396.43′
R = 1,200.00′
DS = 50 MPH
e = .04
RUNOFF = 200′

-RPC-
PI Sta 20+79.80
△ = 10° 14′ 08.5″ (LT)
D = 5° 05′ 34.6″
L = 200.98′
T = 100.76′
R = 1,125.00′

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

-Y10-	-Y10-
PI Sta 11+09.02	PI Sta 12+05.84
△ = 32° 49′ 25.0″ (RT)	△ = 3° 41′ 57.2″ (RT)
D = 23° 52′ 23.7″	D = 9° 32′ 57.5″
L = 137.49′	L = 38.74′
T = 70.69′	T = 19.38′
R = 240.00′	R = 600.00′

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

☆ TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEET 9
FOR -Y10- PROFILE VIEW, SEE SHEET 12
FOR -RPC- EXIST. PROFILE VIEW, SEE SHEET 12

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-05/CONST.05

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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

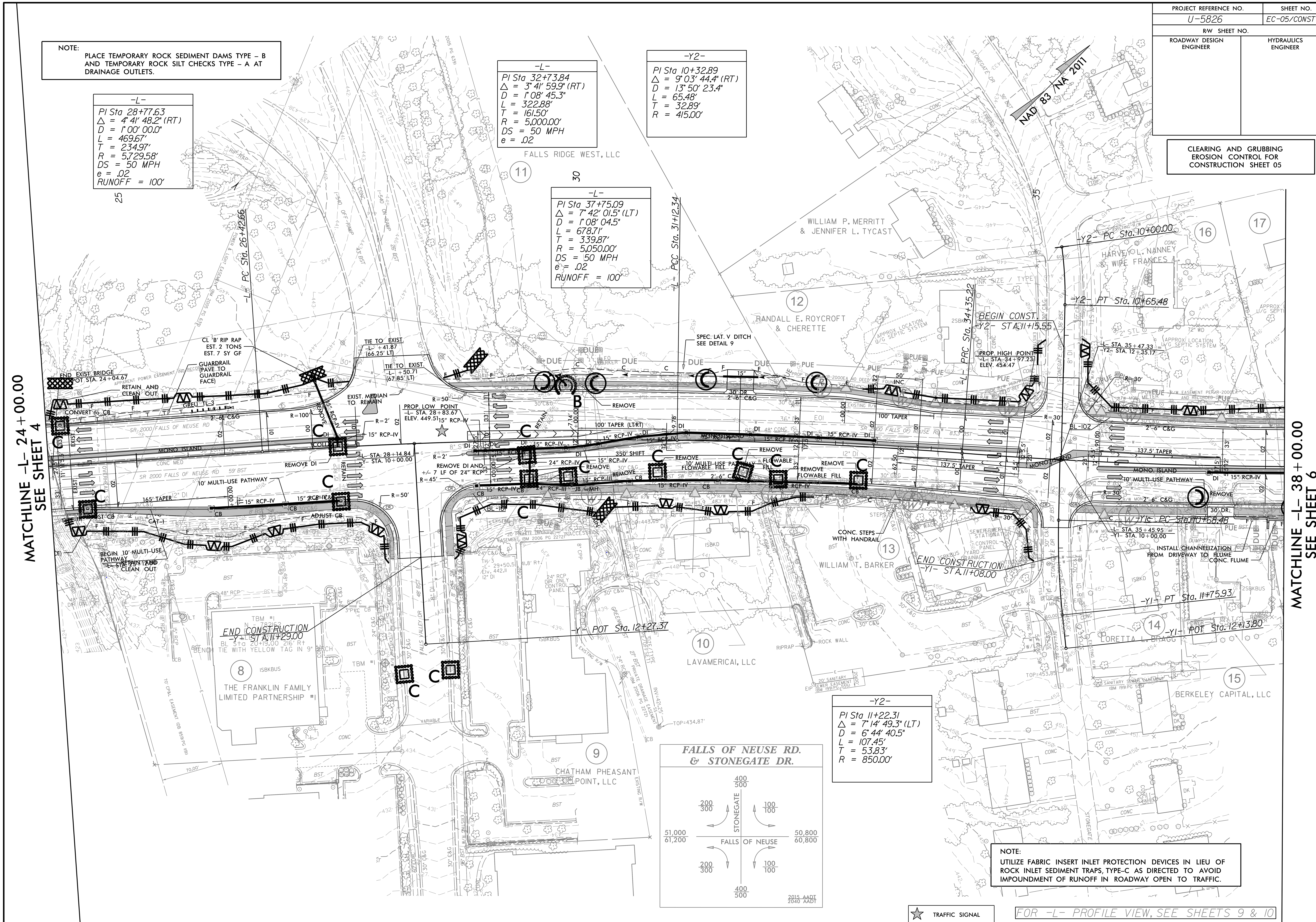
-L-
PI Sta 28+77.63
Δ = 4° 41' 48.2" (RT)
D = 1° 00' 00.0"
L = 469.67'
T = 234.97'
R = 5,729.58'
DS = 50 MPH
e = .02
RUNOFF = 100'

-L-
PI Sta 32+73.84
Δ = 3° 41' 59.9" (RT)
D = 1° 08' 45.3"
L = 322.88'
T = 161.50'
R = 5,000.00'
DS = 50 MPH
e = .02

-L-
PI Sta 37+75.09
Δ = 7° 42' 01.5" (LT)
D = 1° 08' 04.5"
L = 678.71'
T = 339.87'
R = 5,050.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-Y2-
PI Sta 10+32.89
Δ = 9° 03' 44.4" (RT)
D = 13° 50' 23.4"
L = 65.48'
T = 32.89'
R = 415.00'

-Y2-
PI Sta 11+22.31
Δ = 7° 14' 49.3" (LT)
D = 6° 44' 40.5"
L = 107.45'
T = 53.83'
R = 850.00'



NAD 83 / NA 2011
MATCHLINE -L- 24+00.00 SEE SHEET 4
MATCHLINE -L- 38+00.00 SEE SHEET 6
FALLS RIDGE WEST, LLC
WILLIAM P. MERRITT & JENNIFER L. TYCAST
RANDALL E. ROYCROFT & CHERETTE
HARVEY L. NANNEY & WIFE FRANCES L.
WILLIAM T. BARKER
LAVAMERICAI, LLC
THE FRANKLIN FAMILY LIMITED PARTNERSHIP
CHATHAM PHEASANT POINT, LLC
LORETTA L. BRAGG
BERKELEY CAPITAL, LLC
-L- PC Sta. 26+42.66
-L- PCC Sta. 31+12.34
-L- PRC Sta. 34+35.22
-Y2- PC Sta. 10+00.00
-Y2- PT Sta. 10+65.48
BEGIN CONST. -Y2- STA. 11+15.55
END CONSTRUCTION -Y1- STA. 11+08.00
END CONSTRUCTION -Y- STA. 11+29.00
-Y- POT Sta. 12+27.37
-Y1- PC Sta. 10+68.48
-Y1- PT Sta. 11+75.93
-Y1- POT Sta. 12+13.80
PROP. LOW POINT -L- STA. 28+83.67 ELEV. 449.51
PROP. HIGH POINT -L- STA. 34+97.23 ELEV. 454.47
CL 'B' RIP RAP EST. 2 TONS EST. 7 SY GF
GUARDRAIL (PAVE TO GUARDRAIL FACE)
END EXIST. BRIDGE POT STA. 24+04.67
RETAIN AND CLEAN OUT
CONVERT to CB
TIE TO EXIST. -L- +41.87 (66.25' LT)
TIE TO EXIST. -L- +50.71 (67.85' LT)
EXIST. MEDIAN TO REMAIN
REMOVE DI AND +/- 7 LF OF 24" RCP
SPEC. LAT. V DITCH SEE DETAIL 9
10' MULTI-USE PATHWAY
BEGIN 10' MULTI-USE PATHWAY
CONC. STEPS WITH HANDRAIL
INSTALL CHANNELIZATION FROM DRIVEWAY TO FLUME
CONC. FLUME
MONO ISLAND
REMOVE
FLOWABLE FILL

FALLS OF NEUSE RD. & STONEGATE DR.

400
500
STONEGATE
200
300
100
100
51,000
61,200
FALLS OF NEUSE
50,800
60,800
200
300
100
100
400
500
2015 AADT
2040 AADT

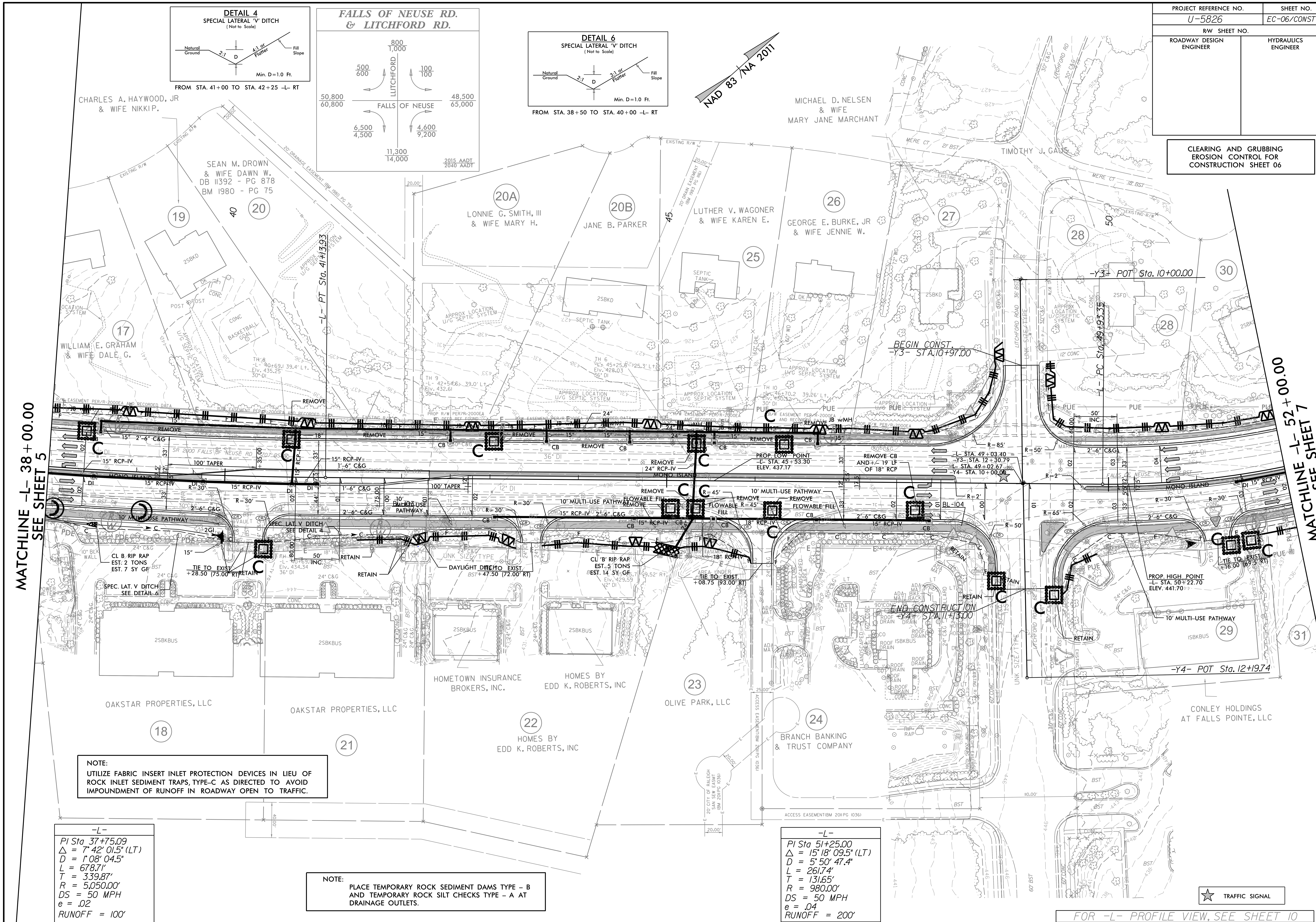
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

☆ TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEETS 9 & 10

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-06/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

-L-
PI Sta 37+75.09
Δ = 7° 42' 01.5" (LT)
D = 1° 08' 04.5"
L = 678.71'
T = 339.87'
R = 5,050.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

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

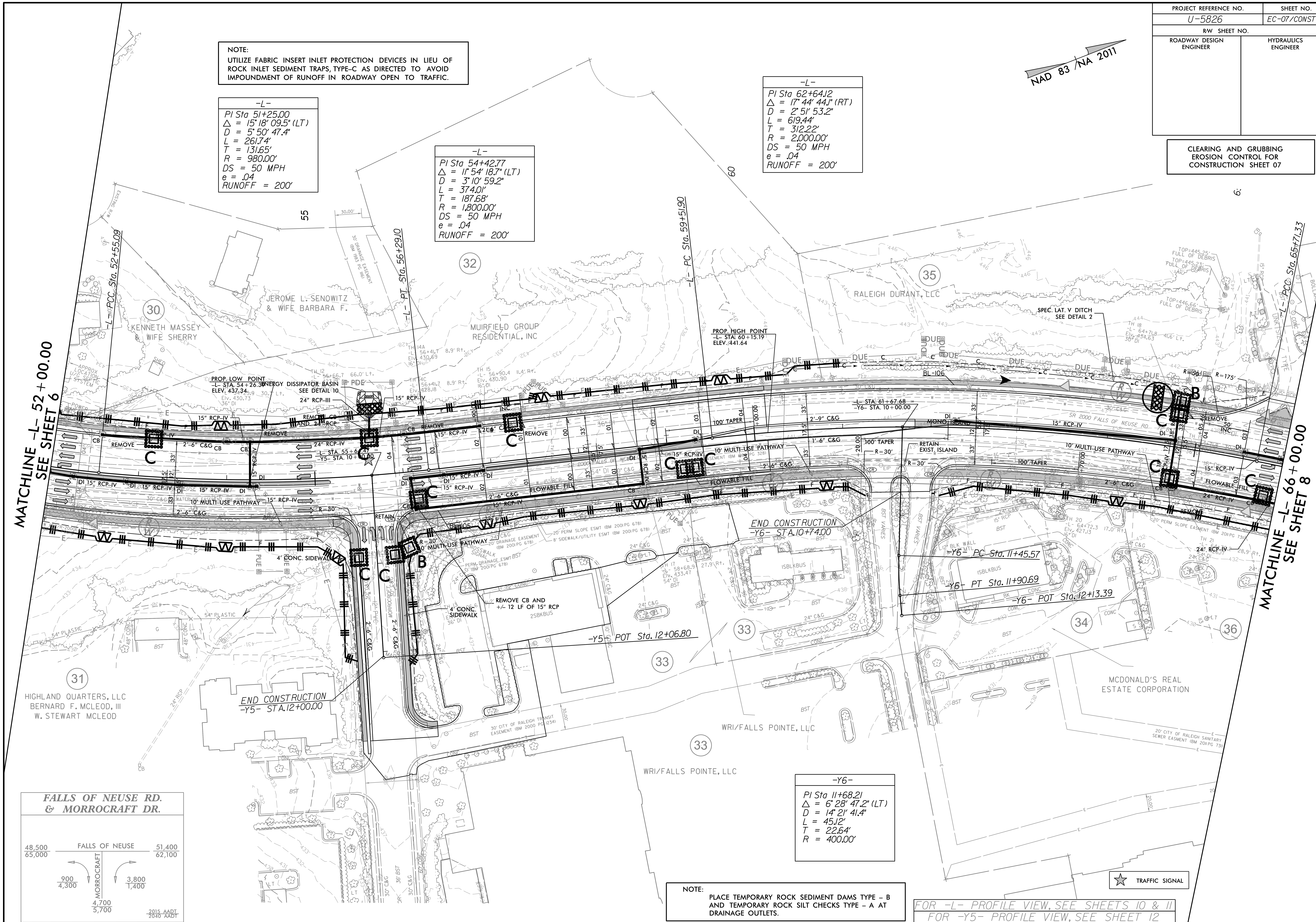
-L-
PI Sta 51+25.00
Δ = 15° 18' 09.5" (LT)
D = 5° 50' 47.4"
L = 261.74'
T = 131.65'
R = 980.00'
DS = 50 MPH
e = .04
RUNOFF = 200'

FOR -L- PROFILE VIEW, SEE SHEET 10

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-07/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



-L-
PI Sta 51+25.00
△ = 15° 18′ 09.5″ (LT)
D = 5° 50′ 47.4″
L = 261.74′
T = 131.65′
R = 980.00′
DS = 50 MPH
e = .04
RUNOFF = 200′

-L-
PI Sta 54+42.77
△ = 11° 54′ 18.7″ (LT)
D = 3° 10′ 59.2″
L = 374.01′
T = 187.68′
R = 1,800.00′
DS = 50 MPH
e = .04
RUNOFF = 200′

-L-
PI Sta 62+64.12
△ = 17° 44′ 44.1″ (RT)
D = 2° 51′ 53.2″
L = 619.44′
T = 312.22′
R = 2,000.00′
DS = 50 MPH
e = .04
RUNOFF = 200′

-Y6-
PI Sta 11+68.21
△ = 6° 28′ 47.2″ (LT)
D = 14° 21′ 41.4″
L = 45.12′
T = 22.64′
R = 400.00′

FALLS OF NEUSE RD. & MORROCRAFT DR.

FALLS OF NEUSE	
West: 48,500 / 65,000	East: 51,400 / 62,100
Left turn: 900 / 4,300	Right turn: 3,800 / 1,400
MORROCRAFT: 4,700 / 5,700	

2015 AADT / 2040 AADT

★ TRAFFIC SIGNAL

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

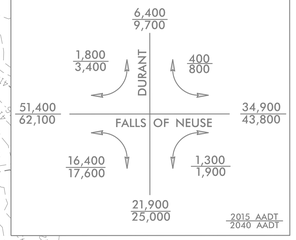
FOR -L- PROFILE VIEW, SEE SHEETS 10 & 11
FOR -Y5- PROFILE VIEW, SEE SHEET 12

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-08/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

NAD 83 /NA 2011

FALLS OF NEUSE RD. & DURANT RD.



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

END TIP PROJECT U-5826
-L- STA. 76+75.00

MATCHLINE -L- 66+00.00
SEE SHEET 7

-L- PCC Sta. 69+58.84

-Y8- POT Sta. 10+00.00

-L- PRC Sta. 74+95.91

-L- PT Sta. 76+73.93

-L- POT Sta. 79+87.75

35 RALEIGH DURANT, LLC

39 CHILDRENS BIBLE MINISTRIES OF NC, INC

36 KOHL'S DEPARTMENT STORES, INC.

37 W. SHELBURNE BRANNAN GERALD R. RADFORD & DEWEY C. CRUTCHFIELD TRUSTEES FOR THE J.J. CROWDER LODGE #743 A.F. & A.M.

38 WAKEMED PROPERTY SERVICES

-L-
PI Sta 72+27.49
Δ = 4° 06' 10.4" (RT)
D = 0° 45' 50.2"
L = 537.07'
T = 268.65'
R = 7,500.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-L-
PI Sta 75+84.93
Δ = 1° 21' 36.1" (LT)
D = 0° 45' 50.2"
L = 178.03'
T = 89.02'
R = 7,500.00'
DS = 50 MPH
e = NC

-L-
PI Sta 67+65.18
Δ = 4° 26' 25.8" (RT)
D = 1° 08' 45.3"
L = 387.51'
T = 193.85'
R = 5,000.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-Y9-
PI Sta 11+64.77
Δ = 4° 28' 09.1" (RT)
D = 6° 49' 29.9"
L = 65.48'
T = 32.78'
R = 840.00'

-Y7-
PI Sta 11+64.77
Δ = 4° 28' 09.1" (RT)
D = 6° 49' 29.9"
L = 65.48'
T = 32.78'
R = 840.00'

-Y7-
PI Sta 11+83.85
Δ = 4° 51' 03.9" (LT)
D = 5° 43' 55.1"
L = 846.3'
T = 42.36'
R = 1,000.00'

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

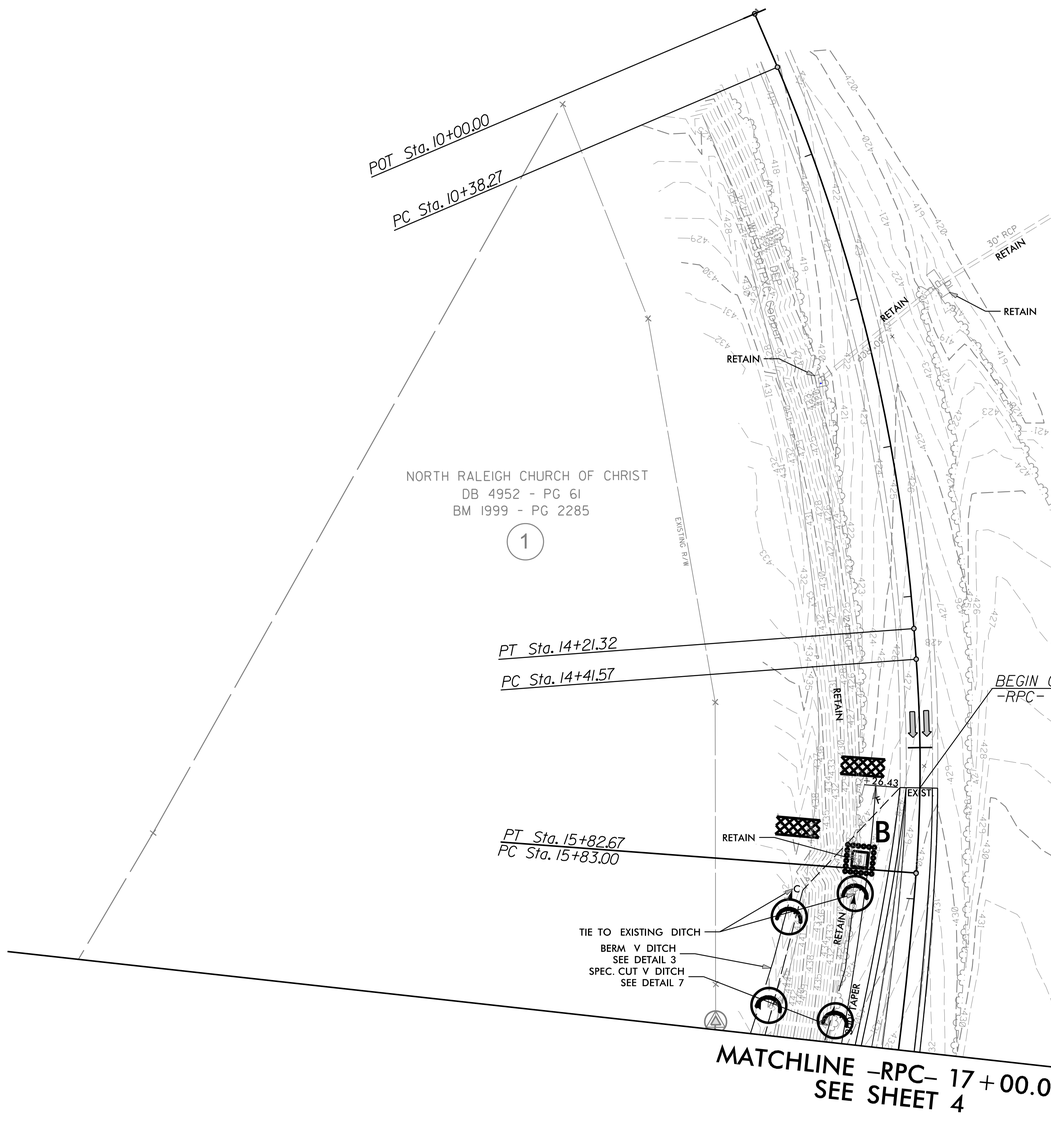
TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEET 11

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-09/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 /NA 2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09



-RPC-
PI Sta 12+31.54
△ = 18° 51' 18.3" (RT)
D = 4° 55' 20.0"
L = 383.05'
T = 193.27'
R = 1,164.00'

-RPC-
PI Sta 15+12.25
△ = 8° 30' 36.2" (RT)
D = 6° 01' 52.1"
L = 141.10'
T = 70.68'
R = 950.00'

-RPC-
PI Sta 17+04.93
△ = 5° 56' 24.0" (RT)
D = 2° 26' 17.2"
L = 243.63'
T = 121.92'
R = 2,350.00'

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

FOR -RPC- PROFILE VIEW, SEE SHEET 13

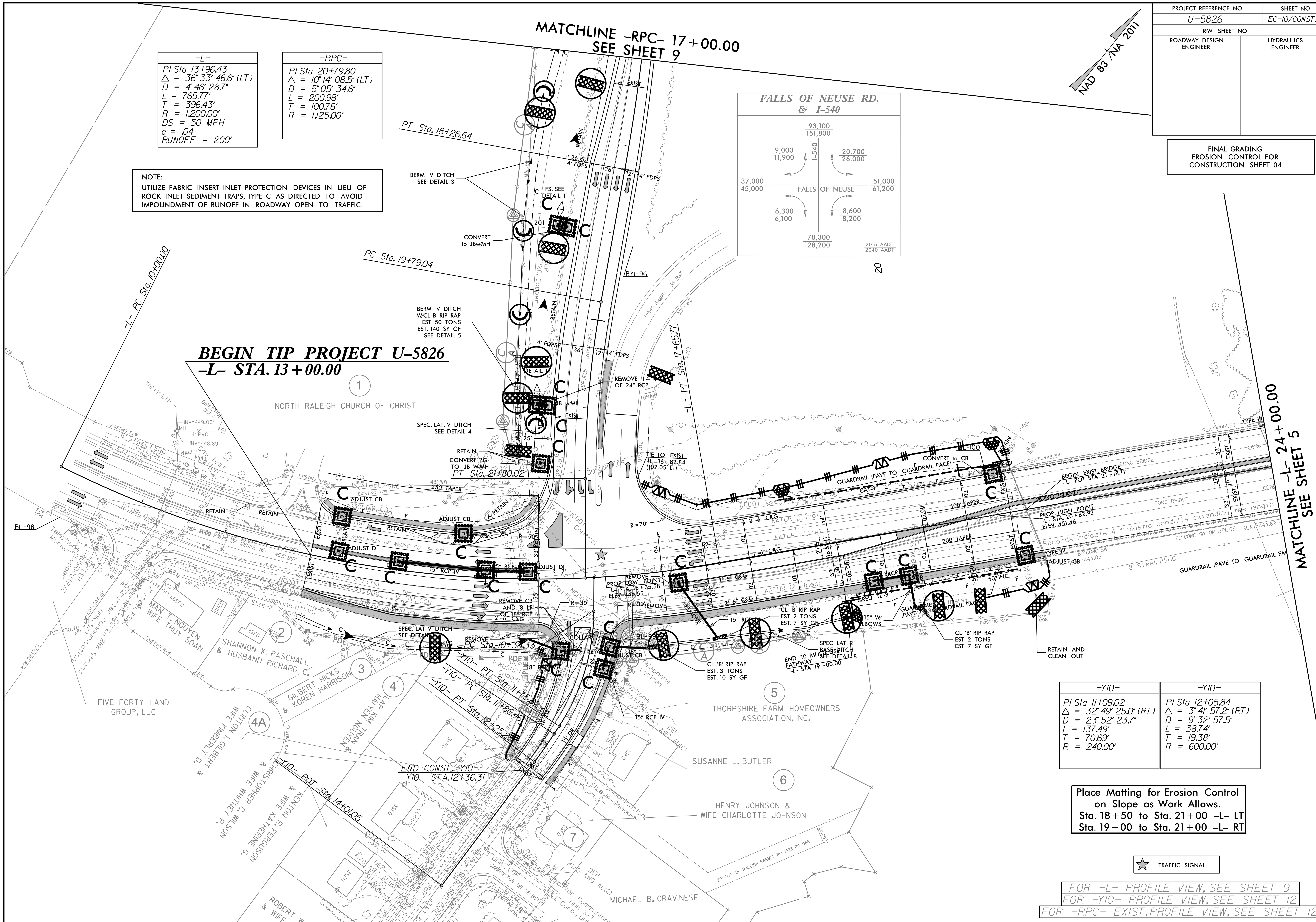
PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-10/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

-L-
PI Sta 13+96.43
△ = 36° 33′ 46.6″ (LT)
D = 4° 46′ 28.7″
L = 765.77′
T = 396.43′
R = 1,200.00′
DS = 50 MPH
e = .04
RUNOFF = 200′

-RPC-
PI Sta 20+79.80
△ = 10° 14′ 08.5″ (LT)
D = 5° 05′ 34.6″
L = 200.98′
T = 100.76′
R = 1,125.00′

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



-Y10-
PI Sta 11+09.02
△ = 32° 49′ 25.0″ (RT)
D = 23° 52′ 23.7″
L = 137.49′
T = 70.69′
R = 240.00′

-Y10-
PI Sta 12+05.84
△ = 3° 41′ 57.2″ (RT)
D = 9° 32′ 57.5″
L = 38.74′
T = 19.38′
R = 600.00′

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 18+50 to Sta. 21+00 -L- LT
Sta. 19+00 to Sta. 21+00 -L- RT

☆ TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEET 9
FOR -Y10- PROFILE VIEW, SEE SHEET 12
FOR -RPC- EXIST. PROFILE VIEW, SEE SHEET 12

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-11/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

MATCHLINE –L– 24+00.00
SEE SHEET 4

MATCHLINE –L– 38+00.00
SEE SHEET 6

-L-
PI Sta 28+77.63
△ = 4° 41' 48.2" (RT)
D = 1° 00' 00.0"
L = 469.67'
T = 234.97'
R = 5,729.58'
DS = 50 MPH
e = .02
RUNOFF = 100'

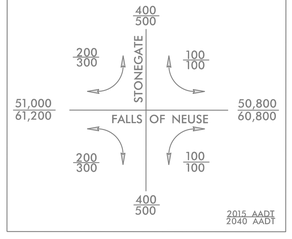
-L-
PI Sta 32+73.84
△ = 3° 41' 59.9" (RT)
D = 1° 08' 45.3"
L = 322.88'
T = 161.50'
R = 5,000.00'
DS = 50 MPH
e = .02

-Y2-
PI Sta 10+32.89
△ = 9° 03' 44.4" (RT)
D = 13° 50' 23.4"
L = 65.48'
T = 32.89'
R = 415.00'

-L-
PI Sta 37+75.09
△ = 1° 42' 01.5" (LT)
D = 1° 08' 04.5"
L = 678.71'
T = 339.87'
R = 5,050.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-Y2-
PI Sta 11+22.31
△ = 7° 14' 49.3" (LT)
D = 6° 44' 40.5"
L = 107.45'
T = 53.83'
R = 850.00'

FALLS OF NEUSE RD.
& STONEGATE DR.



Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 25+00 to Sta. 26+50 –L– RT
Sta. 30+50 to Sta. 32+50 –L– RT

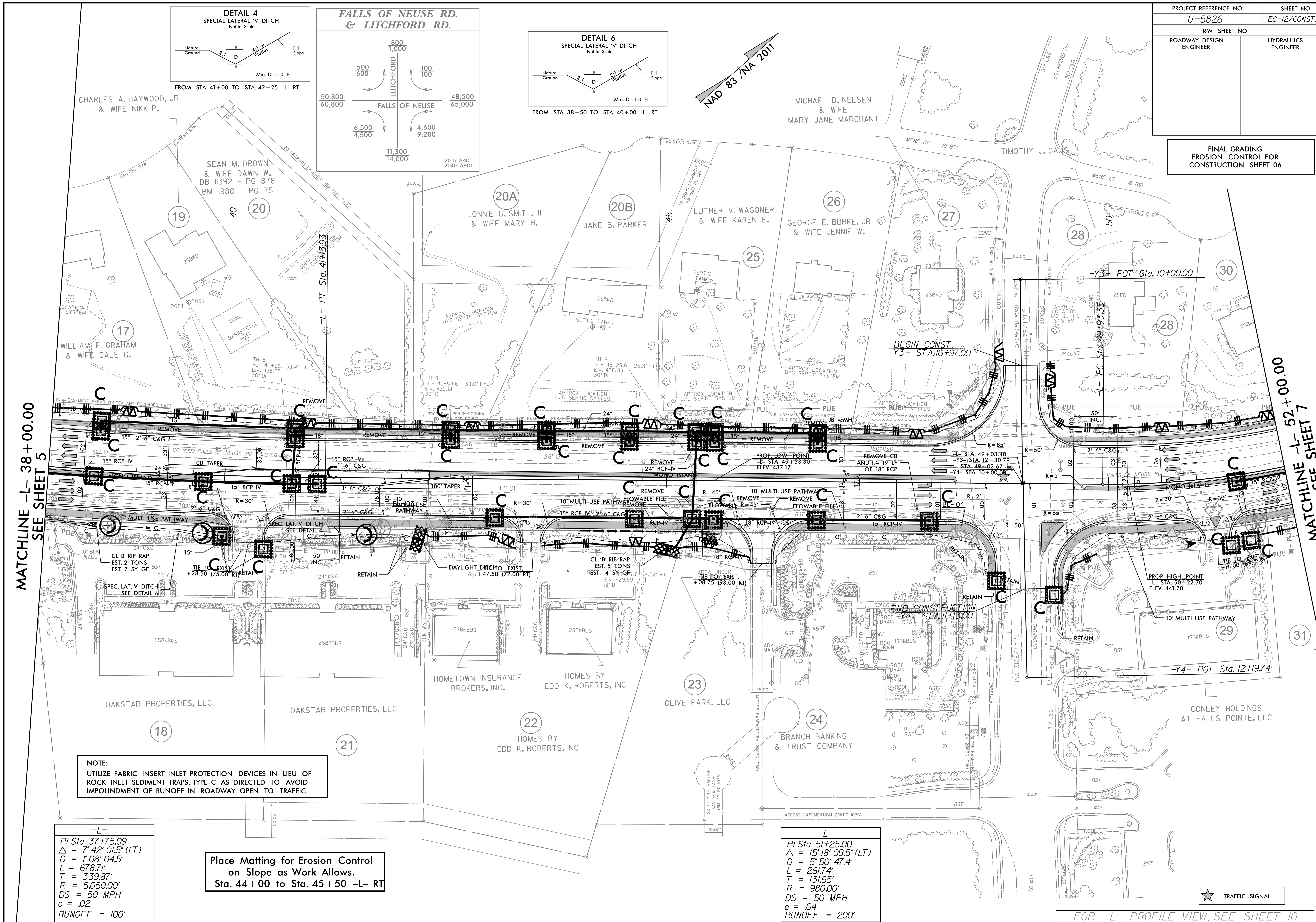
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

☆ TRAFFIC SIGNAL

FOR –L– PROFILE VIEW, SEE SHEETS 9 & 10

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-12/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 44+00 to Sta. 45+50 -L- RT

-L-
PI Sta 37+75.09
Δ = 7° 42' 01.5" (LT)
D = 1° 08' 04.5"
L = 678.71'
T = 339.87'
R = 5,050.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-L-
PI Sta 51+25.00
Δ = 15° 18' 09.5" (LT)
D = 5° 50' 47.4"
L = 261.74'
T = 131.65'
R = 980.00'
DS = 50 MPH
e = .04
RUNOFF = 200'

TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEET 10

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-13/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

-L-
PI Sta 51+25.00
△ = 15° 18' 09.5" (LT)
D = 5° 50' 47.4"
L = 261.74'
T = 131.65'
R = 980.00'
DS = 50 MPH
e = .04
RUNOFF = 200'

-L-
PI Sta 54+42.77
△ = 11° 54' 18.7" (LT)
D = 3° 10' 59.2"
L = 374.01'
T = 187.68'
R = 1,800.00'
DS = 50 MPH
e = .04
RUNOFF = 200'

-L-
PI Sta 62+64.12
△ = 17° 44' 44.1" (RT)
D = 2° 51' 53.2"
L = 619.44'
T = 312.22'
R = 2,000.00'
DS = 50 MPH
e = .04
RUNOFF = 200'

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 52+50 to Sta. 55+00 -L- RT

NAD 83 /NA 2011

MATCHLINE -L- 52+00.00
SEE SHEET 6

MATCHLINE -L- 66+00.00
SEE SHEET 8

-L- PC Sta. 52+55.09

-L- PT Sta. 56+29.10

-L- PC Sta. 59+51.90

-L- PT Sta. 65+71.33

30 KENNETH MASSEY & WIFE SHERRY

JEROME L. SENOWITZ & WIFE BARBARA F.

32

MUIRFIELD GROUP RESIDENTIAL, INC

35 RALEIGH DURANT, LLC

31 HIGHLAND QUARTERS, LLC
BERNARD F. MCLEOD, III
W. STEWART MCLEOD

33 WRI/FALLS POINTE, LLC

34 MCDONALD'S REAL ESTATE CORPORATION

36

PROP. LOW POINT
-L- STA. 54+26.36
ELEV. 437.34

PROP. HIGH POINT
-L- STA. 60+15.19
ELEV. 441.64

ENERGY DISSIPATER BASIN SEE DETAIL 10

SPEC. LAT. V DITCH SEE DETAIL 2

REMOVE CB AND +/- 12 LF OF 15" RCP

4' CONC. SIDEWALK

END CONSTRUCTION
-Y5- STA.12+00.00

-Y5- POT Sta. 12+06.80

END CONSTRUCTION
-Y6- STA.10+74.00

-Y6- PC Sta. 11+45.57

-Y6- PT Sta. 11+90.69

-Y6- POT Sta. 12+13.39

-L- STA. 55+66.47
-Y5- STA. 10+00.00

-L- STA. 61+67.68
-Y6- STA. 10+00.00

-Y6-
PI Sta 11+68.21
△ = 6° 28' 47.2" (LT)
D = 14° 21' 41.4"
L = 45.12'
T = 22.64'
R = 400.00'

FALLS OF NEUSE RD. & MORROCRAFT DR.

	FALLS OF NEUSE	
48,500 / 65,000		51,400 / 62,100
900 / 4,300	MORROCRAFT	3,800 / 1,400
4,700 / 5,700		

2015 AADT
2040 AADT

TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEETS 10 & 11
FOR -Y5- PROFILE VIEW, SEE SHEET 12

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-14/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

NAD 83 /NA 2011

FALLS OF NEUSE RD. & DURANT RD.

	6,400 / 9,700	
1,800 / 3,400	DURANT	400 / 800
51,400 / 62,100	FALLS OF NEUSE	34,900 / 43,800
16,400 / 17,600		1,300 / 1,900
	21,900 / 25,000	

2015 AADT / 2040 AADT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

END TIP PROJECT U-5826
-L- STA. 76+75.00

MATCHLINE -L- 66+00.00
SEE SHEET 7

35 RALEIGH DURANT, LLC

39 CHILDRENS BIBLE MINISTRIES OF NC, INC

36 KOHL'S DEPARTMENT STORES, INC.

37 W. SHELBURNE BRANNAN GERALD R. RADFORD & DEWEY C. CRUTCHFIELD TRUSTEES FOR THE J.J. CROWDER LODGE #743 A.F. & A.M.

38 WAKEMED PROPERTY SERVICES

-Y8- POT Sta. 10+00.00

-L- PCC Sta. 69+58.84

-L-
PI Sta 72+27.49
Δ = 4° 06' 10.4" (RT)
D = 0° 45' 50.2"
L = 537.07'
T = 268.65'
R = 7,500.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-L- PRC Sta. 74+95.91

-L-
PI Sta 75+84.93
Δ = 1° 21' 36.1" (LT)
D = 0° 45' 50.2"
L = 178.03'
T = 89.02'
R = 7,500.00'
DS = 50 MPH
e = NC

-L- PT Sta. 76+73.93

-L- POT Sta. 79+87.75

END CONSTRUCTION
-Y7- STA. 10+90.60

-Y7- PC Sta. 11+41.49

END CONSTRUCTION
-Y9- STA. 10+84.00

-Y9- PC Sta. 11+31.99

-Y7- PT Sta. 12+26.12

AY7- POT Sta. 12+39.39

-Y9- PT Sta. 11+97.47

-Y9- POT Sta. 12+27.00

-L-
PI Sta 67+65.18
Δ = 4° 26' 25.8" (RT)
D = 1° 08' 45.3"
L = 387.51'
T = 193.85'
R = 5,000.00'
DS = 50 MPH
e = .02
RUNOFF = 100'

-Y9-
PI Sta 11+64.77
Δ = 4° 28' 09.1" (RT)
D = 6° 49' 29.9"
L = 65.48'
T = 32.78'
R = 840.00'

-Y7-
PI Sta 11+64.77
Δ = 4° 28' 09.1" (RT)
D = 6° 49' 29.9"
L = 65.48'
T = 32.78'
R = 840.00'

-Y7-
PI Sta 11+83.85
Δ = 4° 51' 03.9" (LT)
D = 5° 43' 55.1"
L = 84.63'
T = 42.36'
R = 1,000.00'

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 70+50 to Sta. 74+00 -L- LT
Sta. 66+50 to Sta. 68+50 -L- RT

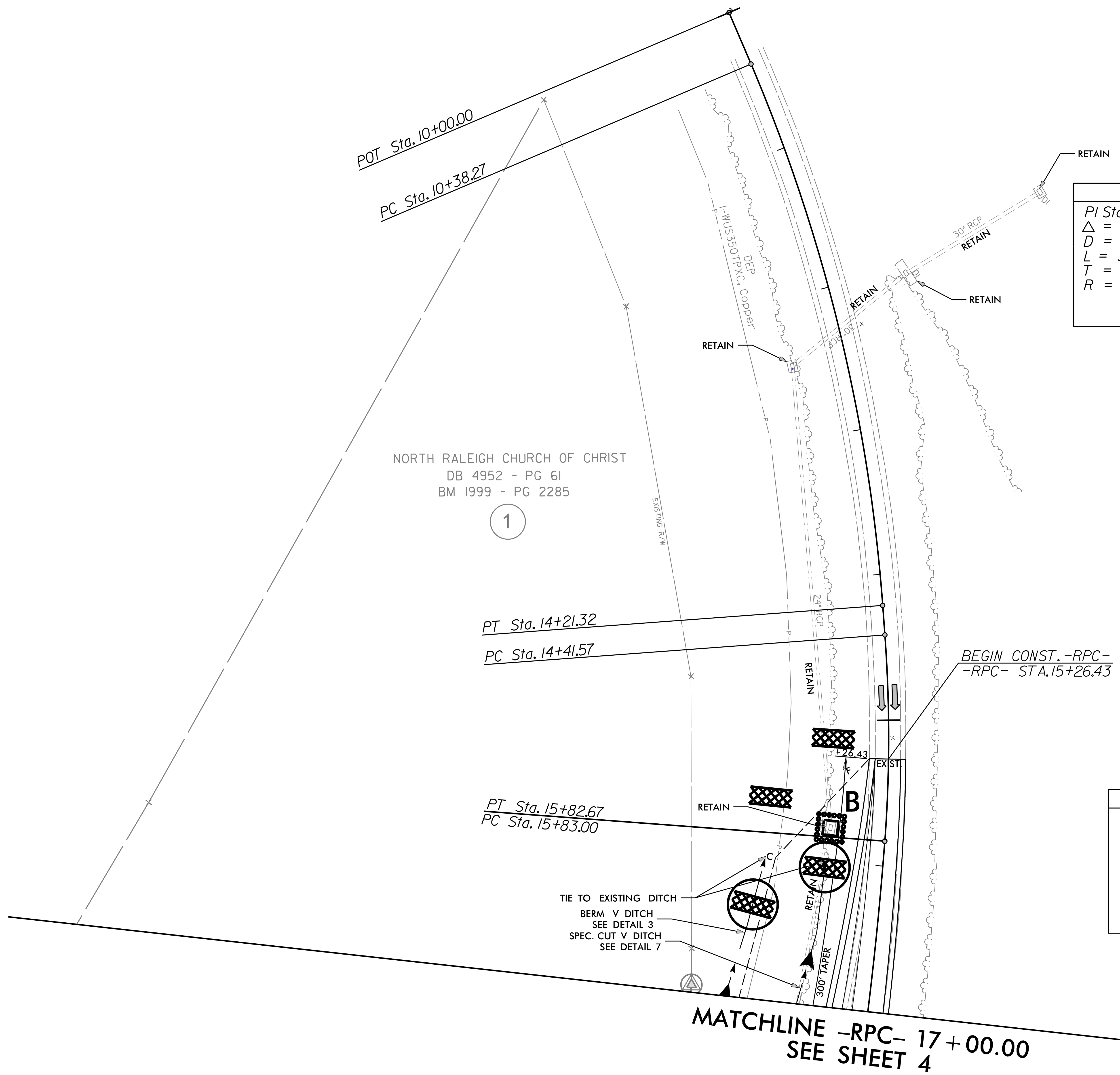
TRAFFIC SIGNAL

FOR -L- PROFILE VIEW, SEE SHEET 11

PROJECT REFERENCE NO.	SHEET NO.
U-5826	EC-15/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

NAD 83/NA 2011



-RPC-
PI Sta 12+31.54
△ = 18° 51' 18.3" (RT)
D = 4° 55' 20.0"
L = 383.05'
T = 193.27'
R = 1,164.00'

-RPC-
PI Sta 15+12.25
△ = 8° 30' 36.2" (RT)
D = 6° 01' 52.1"
L = 141.10'
T = 70.68'
R = 950.00'

-RPC-
PI Sta 17+04.93
△ = 5° 56' 24.0" (RT)
D = 2° 26' 17.2"
L = 243.63'
T = 121.92'
R = 2,350.00'

FOR -RPC- PROFILE VIEW, SEE SHEET 13