TIP PROJECT: U-5748

CONTRACT: C204786

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

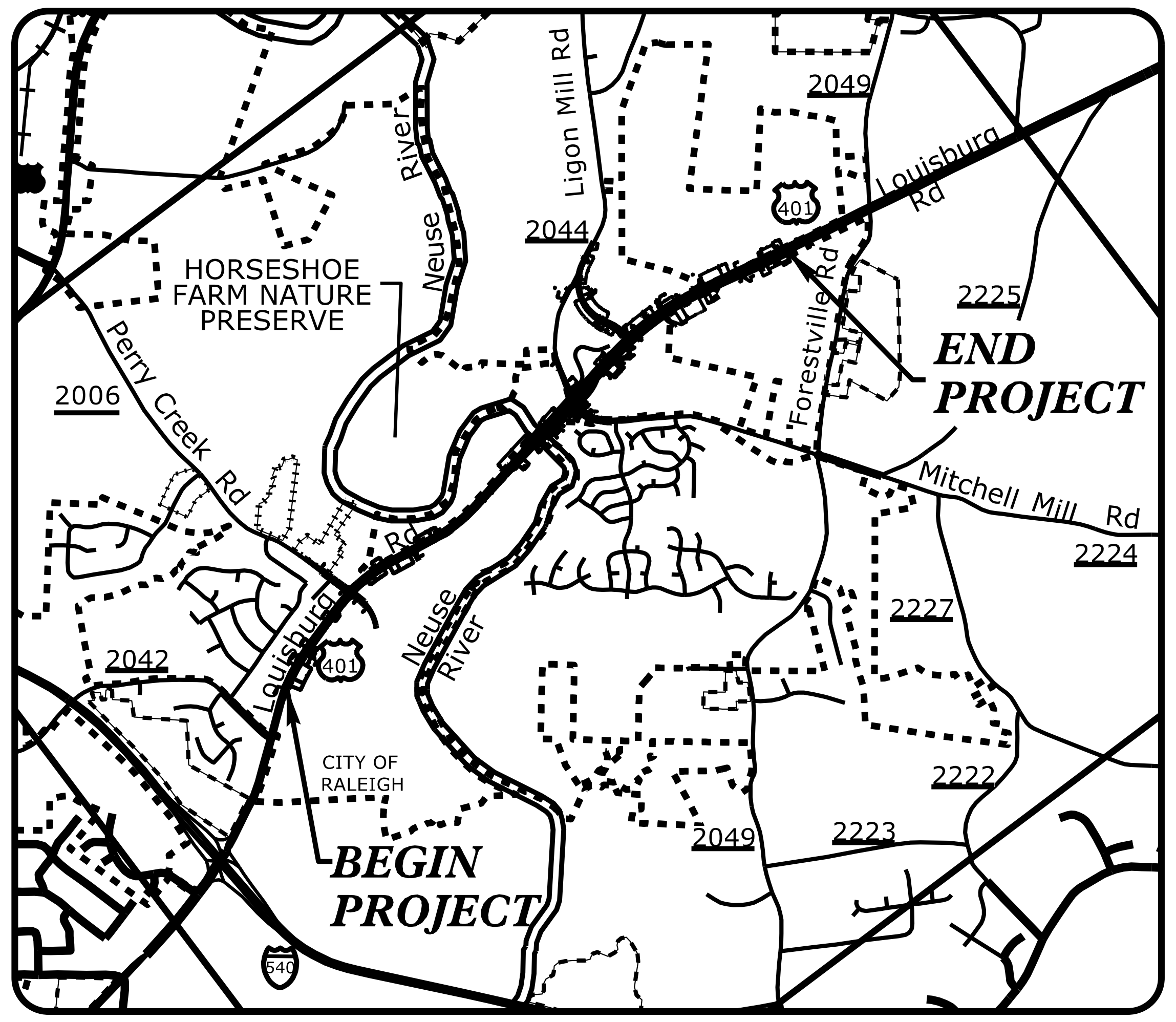
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WAKE COUNTY

LOCATION: US 401 (LOUISBURG RD) AT SR 2044 (LIGON MILL RD) /
SR 2224 (MITCHELL MILL RD) AND SR 2006 (PERRY CREEK
ROAD) INTERSECTION IMPROVEMENTS
TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5748	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50168.1.1		P.E.
50168.2.1		R/W & UTILITIES
50168.3.1		CONSTRUCTION

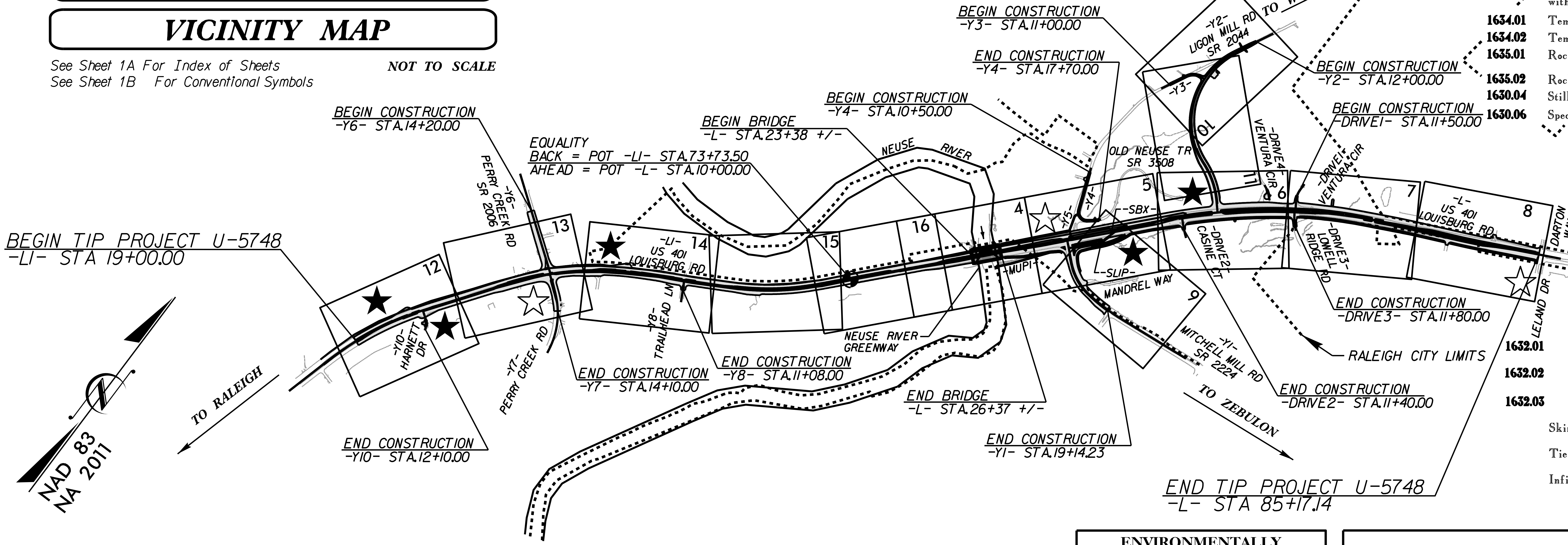


HORSESHOE FARM NATURE PRESERVE
Perry Creek Rd
2006
Neuse River
Ligon Mill Rd
2049
2044
401
Louisburg Rd
Forestville Rd
2225
END PROJECT
Mitchell Mill Rd
2224
2227
2042
CITY OF RALEIGH
2222
2049
2223
BEGIN PROJECT
540

VICINITY MAP

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

NOT TO SCALE



BEGIN CONSTRUCTION -Y3- STA.11+00.00
END CONSTRUCTION -Y4- STA.17+70.00
BEGIN CONSTRUCTION -Y4- STA.10+50.00
-Y2- LIGON MILL RD SR 2044 TO WAKE FOREST
BEGIN CONSTRUCTION -Y2- STA.12+00.00
BEGIN CONSTRUCTION -DRIVE1- STA.11+50.00
BEGIN CONSTRUCTION -Y6- STA.14+20.00
BEGIN BRIDGE -L- STA.23+38 +/-
EQUALITY BACK = POT -L1- STA.73+73.50 AHEAD = POT -L- STA.10+00.00
NEUSE RIVER
OLD NEUSE TR SR 3508
-Y3-
10
-DRIVE4- VENTURA CIR
-DRIVE1- VENTURA CIR
-Y6- PERRY CREEK RD SR 2006
BEGIN TIP PROJECT U-5748 -L1- STA 19+00.00
12
13
-L1- US 401 LOUISBURG RD
14
15
16
4
5
-Y5-
-Y4-
-SBX-
-MUPI-
-SLIP-
6
11
7
8
-L- US 401 LOUISBURG RD
DARTON WAY
-DRIVE2- CASINE CT
-DRIVE3- LOWELL RIDGE RD
MANDREL WAY
9
-Y10- HARNETT DR
-Y7- PERRY CREEK RD
-Y8- TRAILHEAD LN
NEUSE RIVER GREENWAY
END CONSTRUCTION -DRIVE3- STA.11+80.00
LELAND DR
RALEIGH CITY LIMITS
-Y1- MITCHELL MILL RD SR 2224
END CONSTRUCTION -DRIVE2- STA.11+40.00
TO RALEIGH
NAD 83 NA 2011
END CONSTRUCTION -Y7- STA.14+10.00
END CONSTRUCTION -Y8- STA.11+08.00
END BRIDGE -L- STA.26+37 +/-
END CONSTRUCTION -Y10- STA.12+10.00
END CONSTRUCTION -Y1- STA.19+14.23
TO ZEBULON
END TIP PROJECT U-5748 -L- STA 85+17.14
TO ROLESVILLE

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	BW 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	

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

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

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.

AECOM

Prepared in the Office of:
AECOM
Firm License No. F-0342
5438 Wade Park Boulevard, Suite 200
Raleigh NC 27607
+1-919-460-6200

Designed by:

RENE REMY, CPESC, CPSWQ ***3125***
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		

9:45:25 AM
ts\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\230_U5748_EC_tsh.dgn
RemyR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-02
R/W SHEET NO.	

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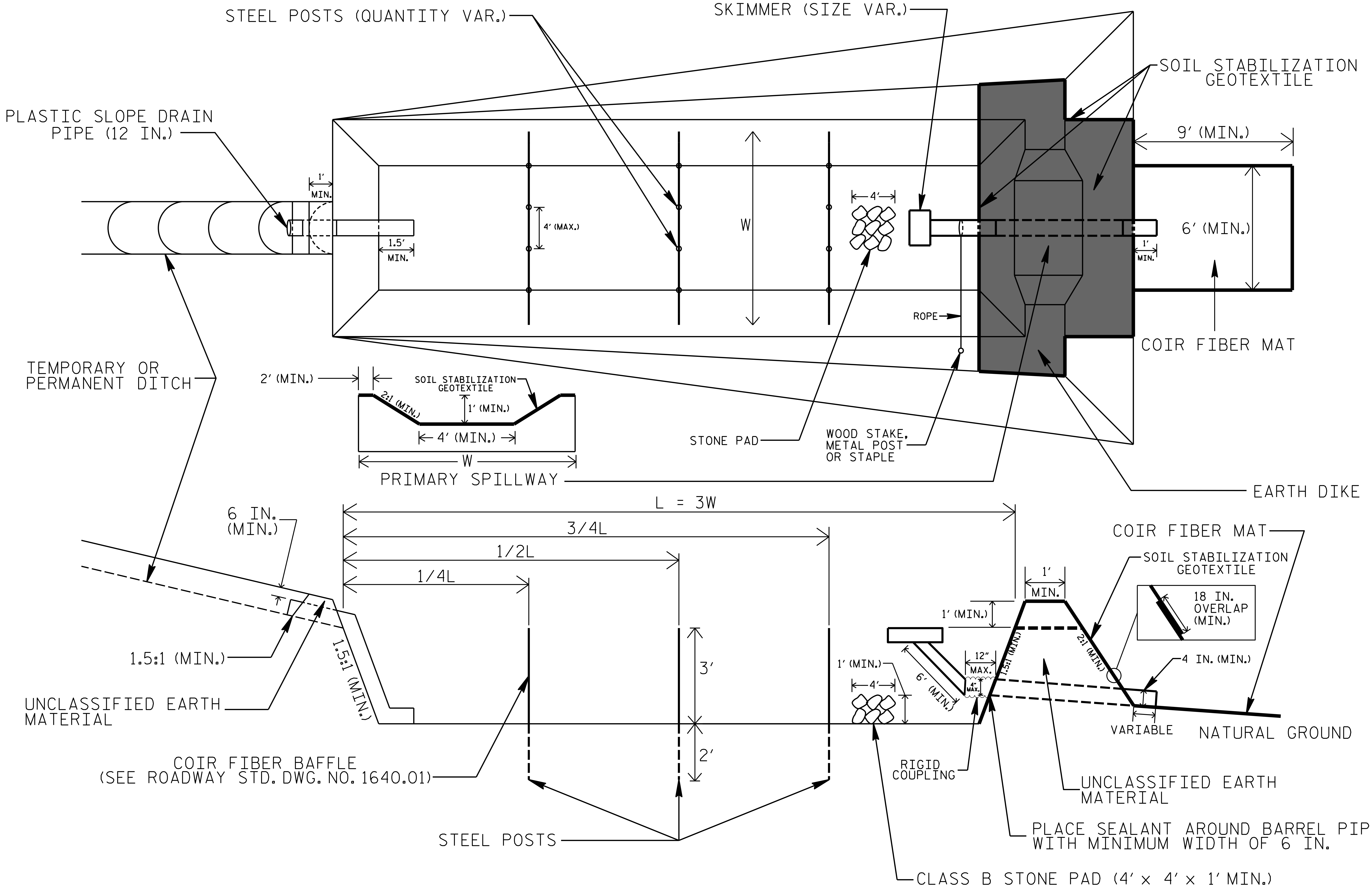
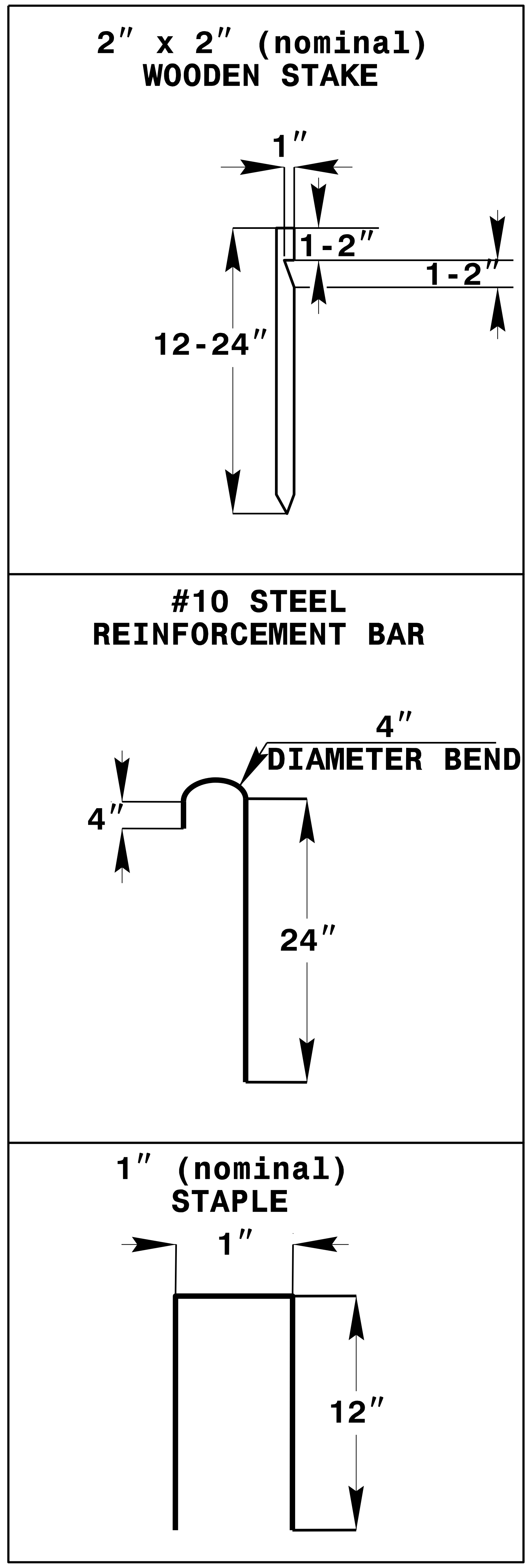
SKIMMER BASIN WITH BAFFLES DETAIL


STEEL POSTS (QUANTITY VAR.)
SKIMMER (SIZE VAR.)
SOIL STABILIZATION GEOTEXTILE
PLASTIC SLOPE DRAIN PIPE (12 IN.)
1' MIN.
1.5' MIN.
4' (MAX.)
W
4'
9' (MIN.)
6' (MIN.)
1' MIN.
ROPE
COIR FIBER MAT
TEMPORARY OR PERMANENT DITCH
2' (MIN.)
SOIL STABILIZATION GEOTEXTILE
2:1 (MIN.)
1' (MIN.)
4' (MIN.)
W
PRIMARY SPILLWAY
STONE PAD
WOOD STAKE, METAL POST OR STAPLE
EARTH DIKE
L = 3W
3/4L
1/2L
1/4L
6 IN. (MIN.)
COIR FIBER MAT
SOIL STABILIZATION GEOTEXTILE
1' MIN.
18 IN. OVERLAP (MIN.)
1' (MIN.)
1.5:1 (MIN.)
1.5:1 (MIN.)
3'
2'
1' (MIN.)
4'
6' (MIN.)
12" MAX.
1" MAX.
1.5:1 (MIN.)
2:1 (MIN.)
4 IN. (MIN.)
VARIABLE
NATURAL GROUND
UNCLASSIFIED EARTH MATERIAL
COIR FIBER BAFFLE (SEE ROADWAY STD. DWG. NO. 1640.01)
RIGID COUPLING
UNCLASSIFIED EARTH MATERIAL
PLACE SEALANT AROUND BARREL PIPE WITH MINIMUM WIDTH OF 6 IN.
STEEL POSTS
CLASS B STONE PAD (4' x 4' x 1' MIN.)


2" x 2" (nominal) WOODEN STAKE
1"
1-2"
1-2"
12-24"
#10 STEEL REINFORCEMENT BAR
4" DIAMETER BEND
4"
24"
1" (nominal) STAPLE
1"
12"

COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

5/14/99

9:45:42 AM
54-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_EC02_Skimmer Basin Detail.dgn
RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-02A
R/W SHEET NO.	

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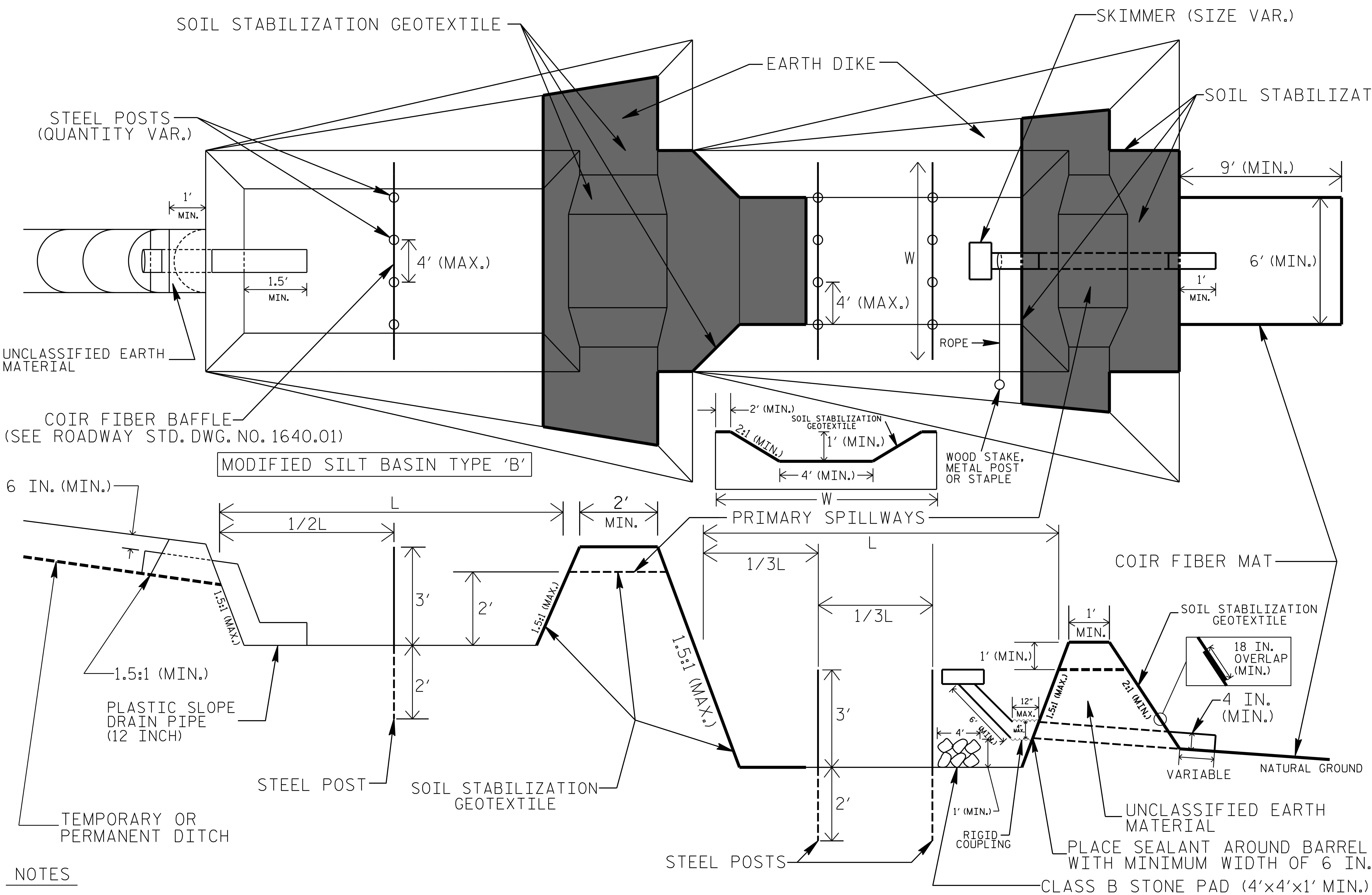
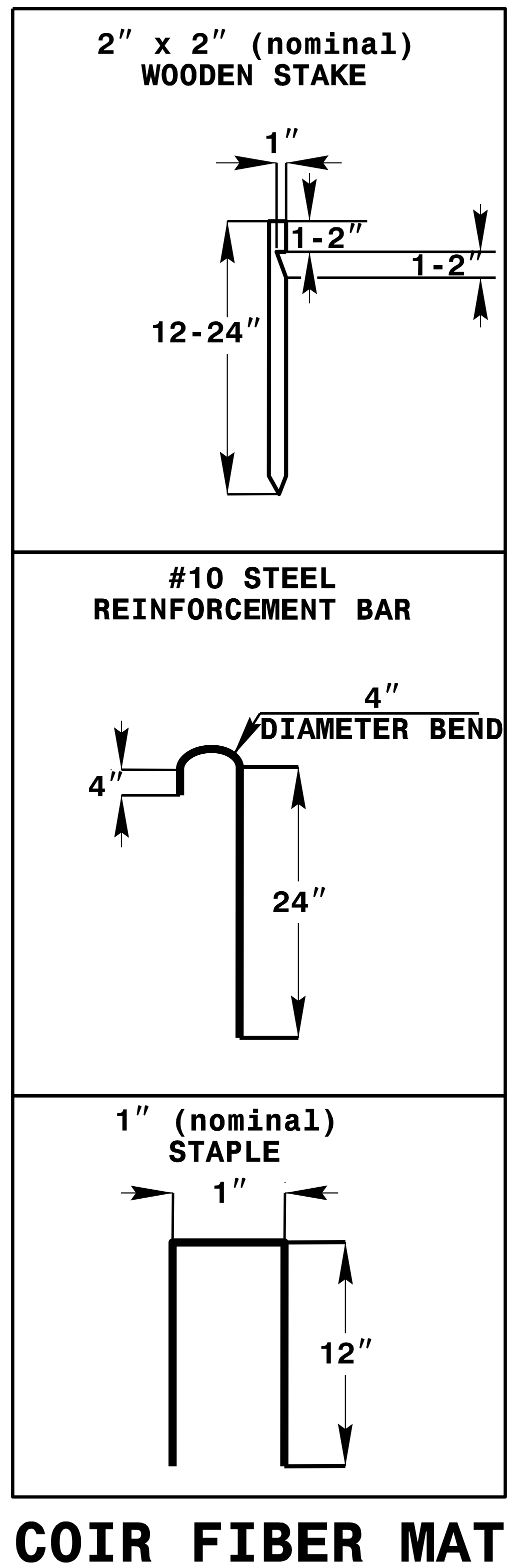
TIERED SKIMMER BASIN DETAIL


SOIL STABILIZATION GEOTEXTILE
SKIMMER (SIZE VAR.)
EARTH DIKE
SOIL STABILIZATION GEOTEXTILE
STEEL POSTS (QUANTITY VAR.)
1' MIN.
1.5' MIN.
4' (MAX.)
9' (MIN.)
W
4' (MAX.)
6' (MIN.)
1' MIN.
ROPE
UNCLASSIFIED EARTH MATERIAL
COIR FIBER BAFFLE (SEE ROADWAY STD. DWG. NO. 1640.01)
MODIFIED SILT BASIN TYPE 'B'
2' (MIN.)
SOIL STABILIZATION GEOTEXTILE
2:1 (MIN.)
1' (MIN.)
4' (MIN.)
W
WOOD STAKE, METAL POST OR STAPLE
6 IN. (MIN.)
L
1/2L
2' MIN.
PRIMARY SPILLWAYS
L
1/3L
1/3L
3'
2'
2'
1.5:1 (MAX.)
1.5:1 (MAX.)
1.5:1 (MAX.)
1.5:1 (MIN.)
PLASTIC SLOPE DRAIN PIPE (12 INCH)
STEEL POST
SOIL STABILIZATION GEOTEXTILE
TEMPORARY OR PERMANENT DITCH
3'
2'
COIR FIBER MAT
1' MIN.
1' (MIN.)
SOIL STABILIZATION GEOTEXTILE
18 IN. OVERLAP (MIN.)
12" MAX.
4" MAX.
6" MIN.
4'
1.5:1 (MAX.)
2:1 (MIN.)
4 IN. (MIN.)
VARIABLE
NATURAL GROUND
1' (MIN.)
RIGID COUPLING
UNCLASSIFIED EARTH MATERIAL
PLACE SEALANT AROUND BARREL PIPE WITH MINIMUM WIDTH OF 6 IN.
STEEL POSTS
CLASS B STONE PAD (4'x4'x1' MIN.)


2" x 2" (nominal) WOODEN STAKE
1"
1-2"
1-2"
12-24"
#10 STEEL REINFORCEMENT BAR
4" DIAMETER BEND
4"
24"
1" (nominal) STAPLE
1"
12"

COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY WEIR LENGTHS (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

5/14/99

9:45:52 AM
5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_EC02A_Tiered Skimmer Basin Detail.dgn
RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-02B
R/W SHEET NO.	

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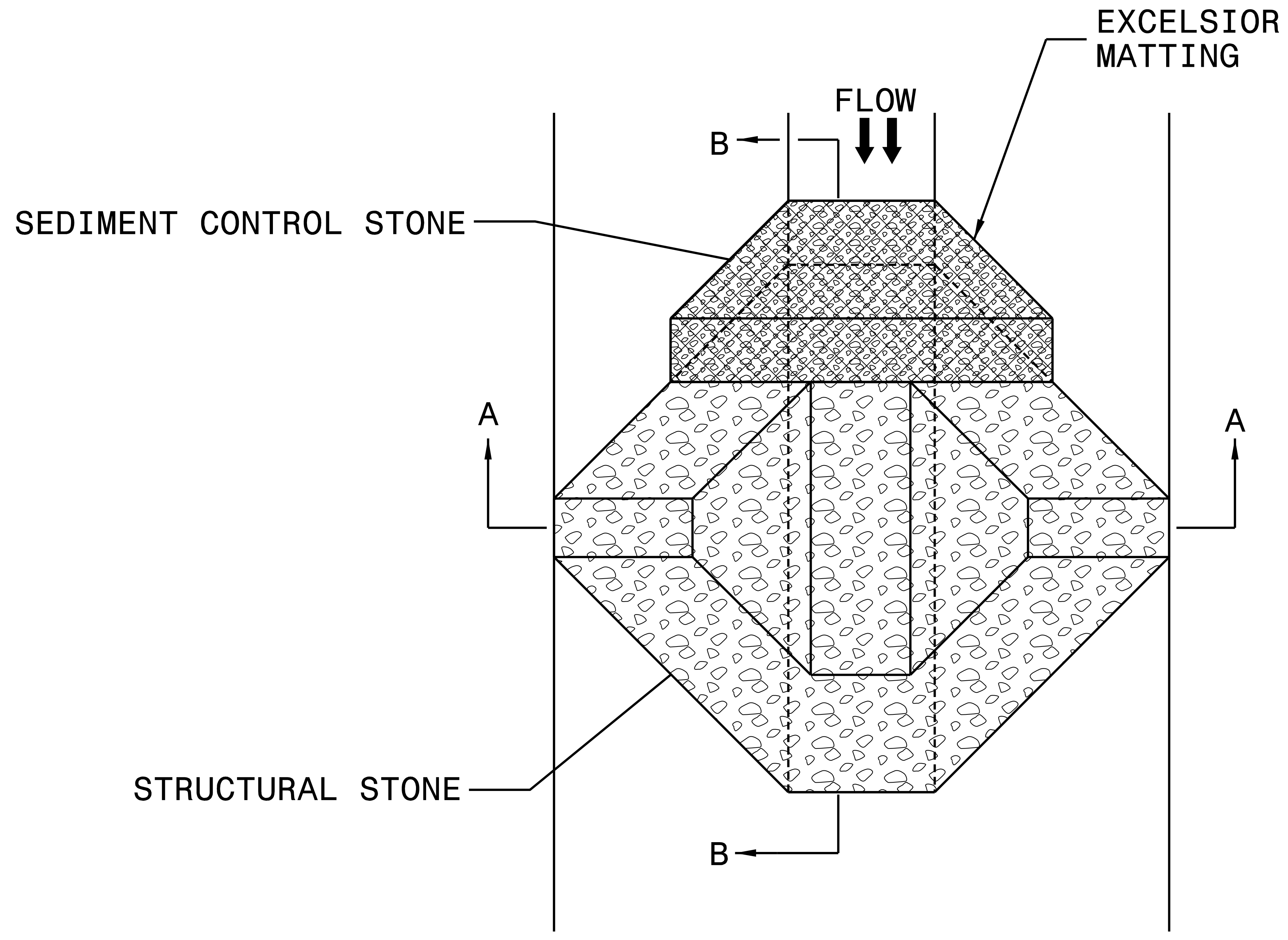
TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)


EXCELSIOR MATTING
FLOW
B
SEDIMENT CONTROL STONE
A
A
STRUCTURAL STONE
B

PLAN

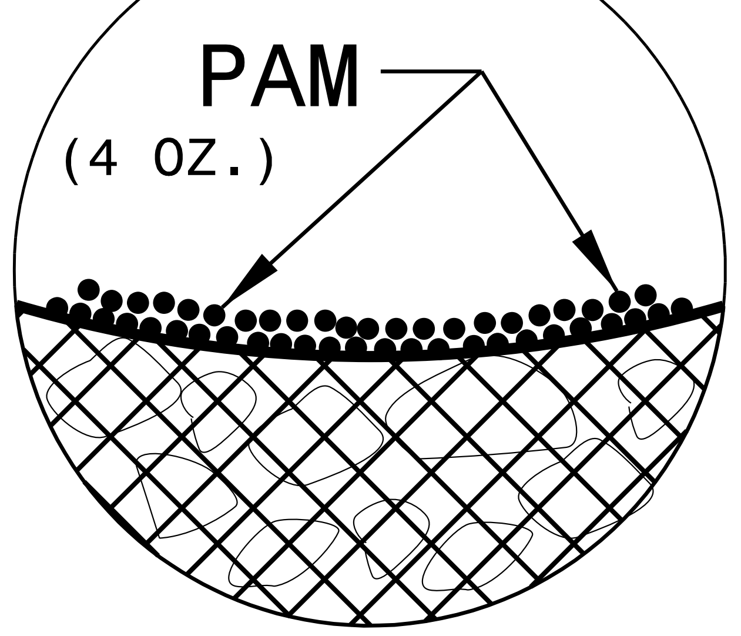
NOTES:

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

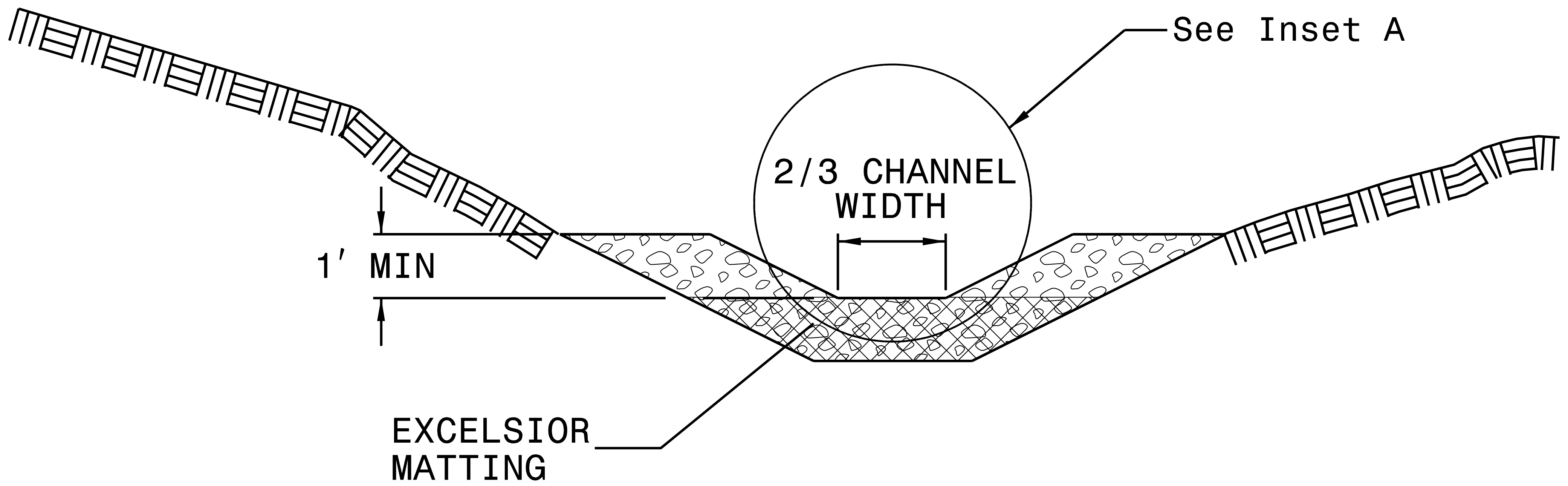
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

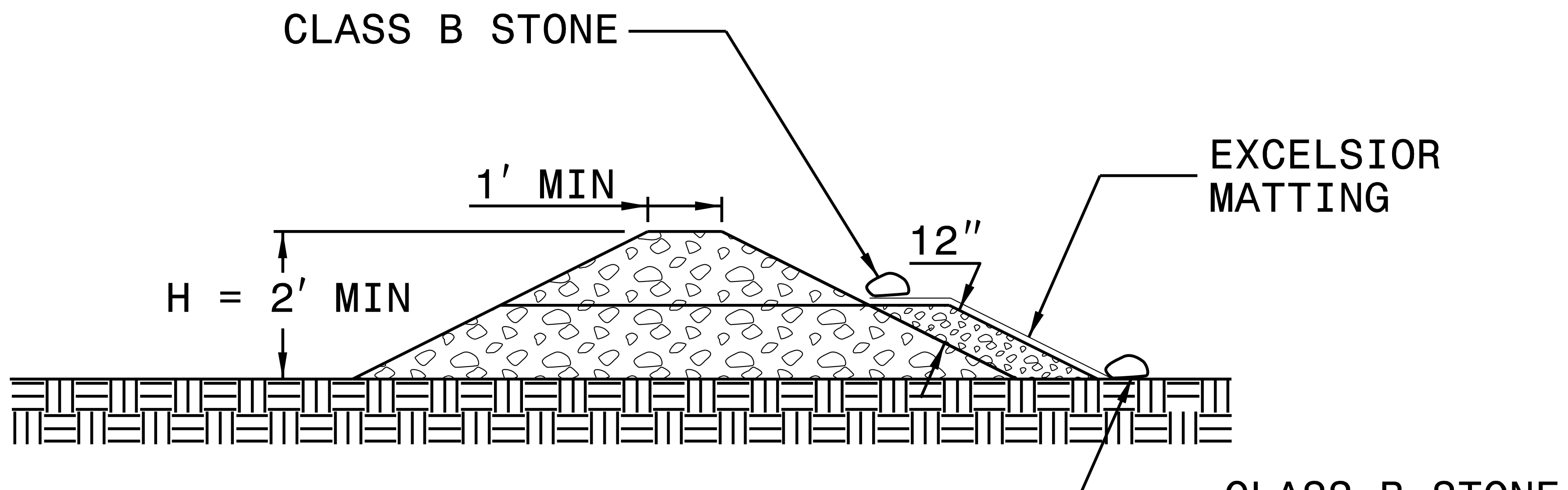
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A


See Inset A
2/3 CHANNEL WIDTH
1' MIN
EXCELSIOR MATTING

SECTION A-A


CLASS B STONE
EXCELSIOR MATTING
1' MIN
12"
H = 2' MIN
CLASS B STONE

SECTION B-B

NOT TO SCALE

5/14/99

U-5748 Ligon MJ1\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_EC02B_TRSC A with PAM Detail.dgn
9:46:04 AM

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-02A
R/W SHEET NO.	

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COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

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.

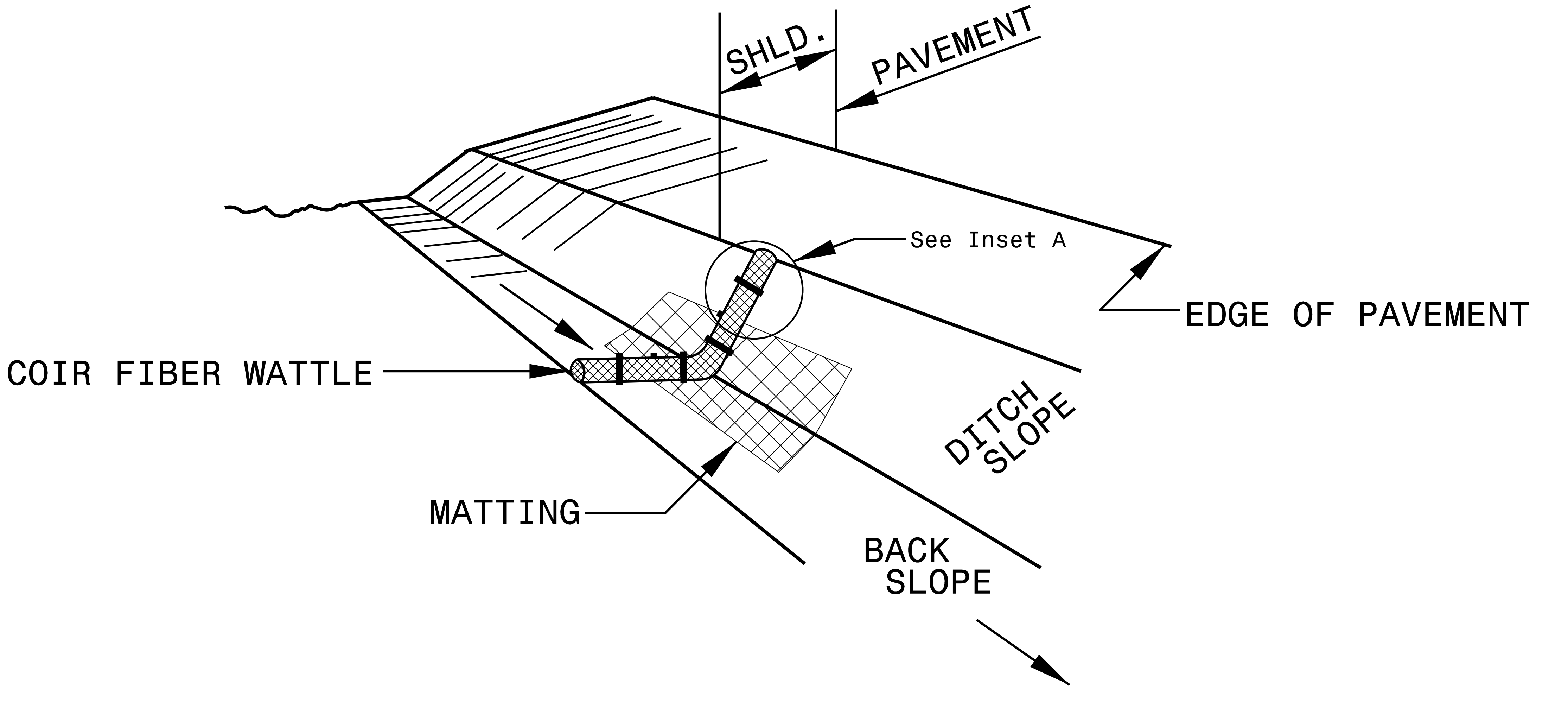
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

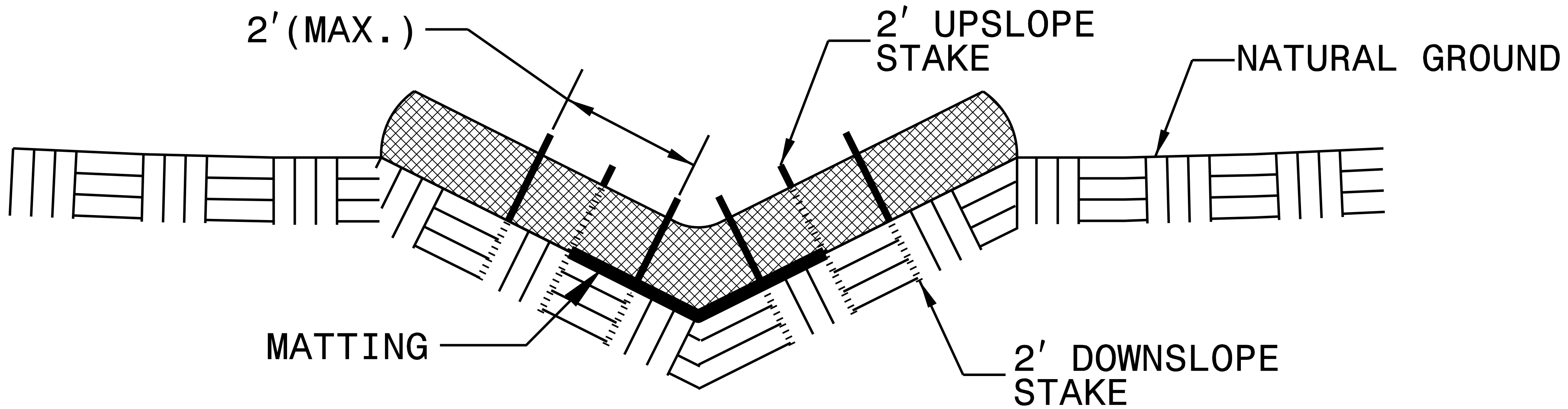
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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.

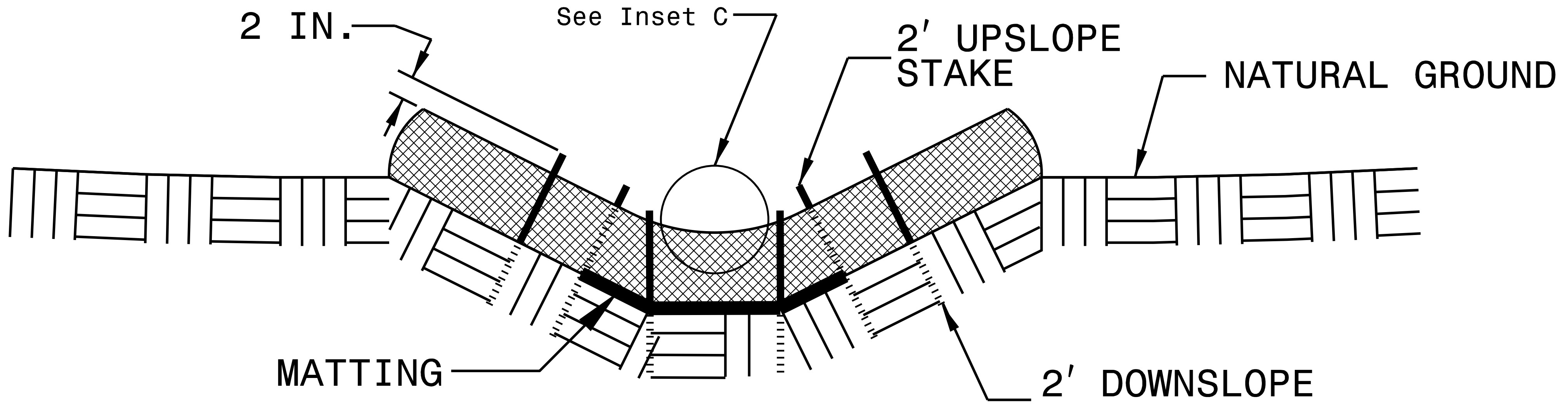
INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.


SHLD.
PAVEMENT
See Inset A
EDGE OF PAVEMENT
COIR FIBER WATTLE
DITCH SLOPE
MATTING
BACK SLOPE

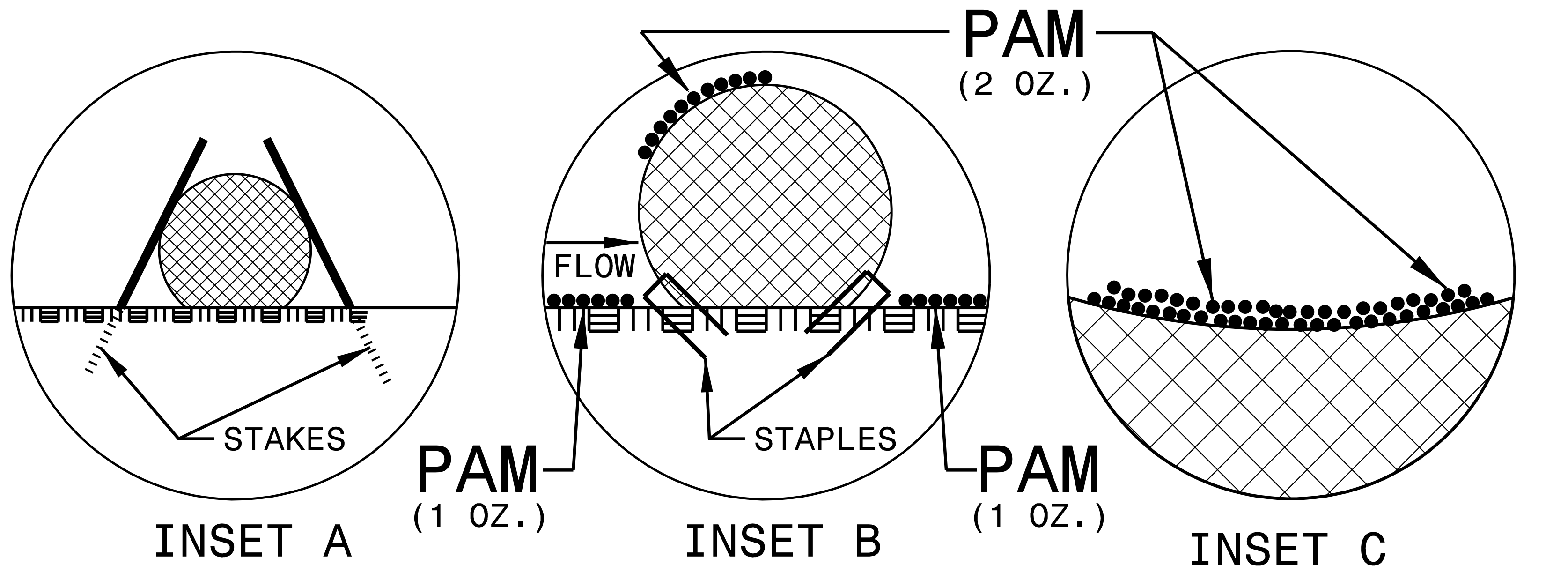
ISOMETRIC VIEW

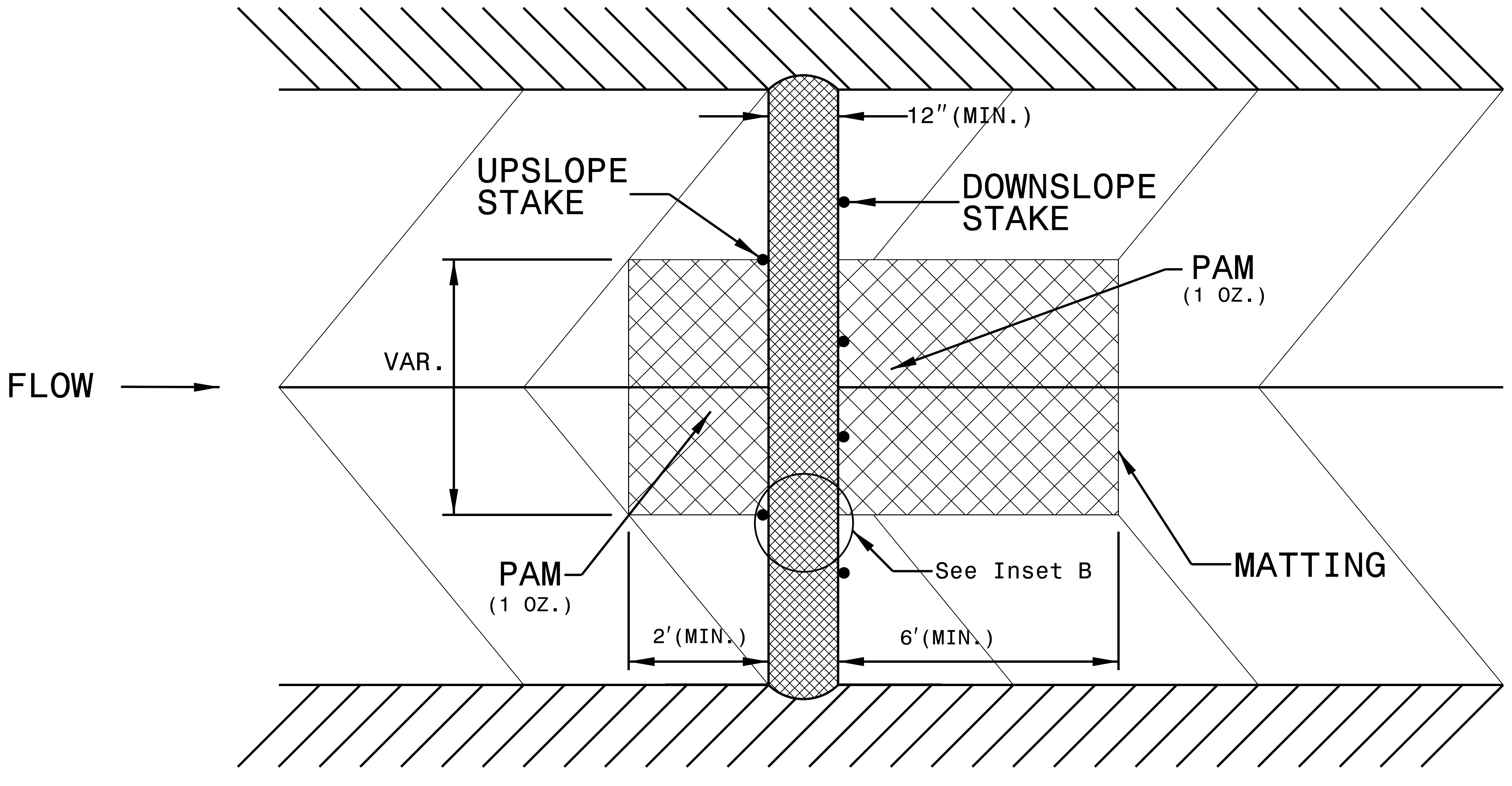

2'(MAX.)
2' UPSLOPE STAKE
NATURAL GROUND
MATTING
2' DOWNSLOPE STAKE

CROSS SECTION
VEE DITCH


2 IN.
See Inset C
2' UPSLOPE STAKE
NATURAL GROUND
MATTING
2' DOWNSLOPE STAKE

CROSS SECTION
TRAPEZOIDAL DITCH


PAM
(2 OZ.)
FLOW
STAKES
STAPLES
PAM
(1 OZ.)
PAM
(1 OZ.)
INSET A
INSET B
INSET C


12"(MIN.)
UPSLOPE STAKE
DOWNSLOPE STAKE
PAM
(1 OZ.)
VAR.
FLOW
PAM
(1 OZ.)
See Inset B
MATTING
2'(MIN.)
6'(MIN.)

TOP VIEW

5/14/99

U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_EC02C_Wattle With PAM Detail.dgn
9:46:14 AM
RemuR

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-03
R/W SHEET NO.	

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5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
	IN DITCHES				
4	-L-	22+18	23+71	RT	120
4	-L-	25+98	26+50	RT	80
4	-L-	23+10	23+50	LT	55
5	-L-	30+10	30+50	RT	40
5	-Y5-	11+00	12+50	RT	115
6	-L-	52+80	57+44	LT	645
6	-Y2-	31+00	33+00	RT	450
6	-L-	51+00	58+10	MED	2,095
7	-L-	58+10	66+00	MED	1,745
7	-L-	67+50	72+00	MED	995
7	-DRIVE 1-	11+50	11+75	RT	35
8	-L-	81+00	84+73	LT	495
8	-L-	79+50	80+50	RT	90
8	-L-	83+50	84+80	RT	150
8	-L-	72+00	84+50	MED	2,765
10	-Y2-	18+00	18+50	RT	125
10	-Y2-	20+00	23+50	RT	705
10	-Y2-	12+50	17+00	LT	665
10	-Y2-	17+00	23+50	LT	985
10	-Y3-	14+00	15+00	LT	155
11	-Y2-	26+00	33+00	LT	1,410
11	-Y2-	26+50	33+00	RT	1,455
			STRAW	TOTAL	15,375
				SAY	15,500
				SUBTOTAL	20,965
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					84,045
	TOTAL EXCELSIOR ON SLOPES				25,650
				TOTAL	130,660
				SAY	131,000

EXCELSIOR MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
	IN DITCHES				
5	-L-	35+07	38+65	RT	365
5	-L-	40+85	42+59	RT	400
5	-L-	44+00	42+59	LT	270
5	-Y4-	12+50	15+50	LT	350
6	-L-	44+00	47+00	LT	490
6	-L-	48+00	49+24	LT	270
6	-L-	46+59	49+26	LT	410
7	-L-	61+50	64+50	LT	420
7	-DRIVE 1-	11+50	11+75	LT	30
10	-Y2-	12+50	16+00	RT	2,065
			EXCELSIOR	TOTAL	5,070
				SAY	5,465

U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_EC03_Soil Stabilization Summary.dgn
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PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-03A
R/W SHEET NO.	

Prepared in the Office of:
AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMNT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-L-	69+00	69+50	LT	65
			SUBTOTAL		65
	ADDITIONAL PSRM TO BE INSTALLED				0
				TOTAL	65
				SAY	100

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

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-5748	EC-04/CONST.4
R/W SHEET NO.	

Prepared in the Office of: AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
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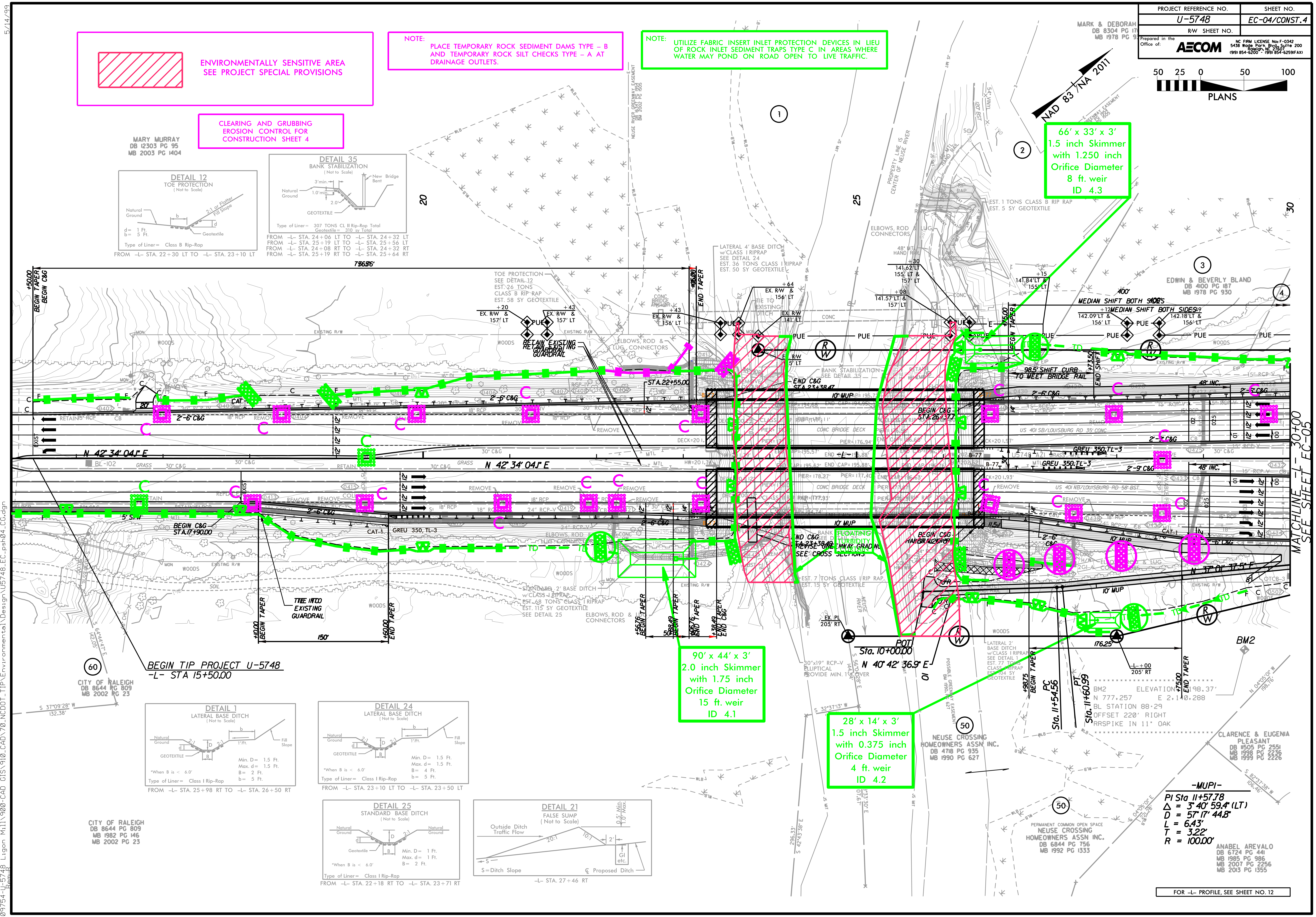

50 25 0 50 100
PLANS
NAD 83/NA 2011
20
25
30
MATCHLINE -L- 30+00 SEE SHEET EC-05
BEGIN TIP PROJECT U-5748
-L- STA 15+50.00
POT Sta. 10+00.00
N 40° 42′ 36.9″ E
N 42° 34′ 04.1″ E
N 37° 01′ 37.5″ E
STA. 22+55.00
STA 17+90.00
BEGIN C&G
END C&G
STA 23+38.47
BEGIN C&G
STA 26+37.7
10′ MUP
CONC BRIDGE DECK
GREU 350, TL-3
98.5′ SHIFT CURB TO MEET BRIDGE RAIL
MEDIAN SHIFT BOTH SIDES
RETAIN EXISTING GUARDRAIL
TIE INTO EXISTING GUARDRAIL
150′
+10.00 BEGIN TAPER
+60.00 END TAPER
+50.00 BEGIN TAPER BEGIN C&G
176.25′
-L- +00 205′ RT
EX. PL 205′ RT
+75.00 END TAPER
PT Sta. 11+60.99
PC Sta. 11+54.56
30″x19″ RCP-V ELLIPTICAL PROVIDE MIN. 1′ COVER
TOE PROTECTION SEE DETAIL 12 EST. 26 TONS CLASS B RIP RAP EST. 58 SY GEOTEXTILE
LATERAL 4′ BASE DITCH w/CLASS I RIPRAP SEE DETAIL 24 EST. 36 TONS CLASS I RIPRAP EST. 50 SY GEOTEXTILE
STANDARD 2′ BASE DITCH w/CLASS I RIPRAP EST. 68 TONS CLASS I RIPRAP EST. 115 SY GEOTEXTILE SEE DETAIL 25
BANK STABILIZATION SEE DETAIL 35
EST. 1 TONS CLASS B RIP RAP EST. 5 SY GEOTEXTILE
EST. 7 TONS CLASS I RIP RAP EST. 15 SY GEOTEXTILE
ELBOWS, ROD & LUG CONNECTORS
PROPERTY LINE IS CENTER OF NEUSE RIVER
NEUSE RIVER GREENWAY EASEMENT DB 16347 PG 1954 BM 2002 PG 1505
NEUSE RIVER
WOODS
PUE
TD

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

66′ x 33′ x 3′
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
8 ft. weir
ID 4.3

90′ x 44′ x 3′
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
15 ft. weir
ID 4.1

28′ x 14′ x 3′
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 4.2

DETAIL 12
TOE PROTECTION
(Not to Scale)

d= 1 Ft.
b= 5 Ft.
Type of Liner= Class B Rip–Rap

FROM –L– STA. 22+30 LT TO –L– STA. 23+10 LT

DETAIL 35
BANK STABILIZATION
(Not to Scale)

Type of Liner= 307 TONS CL II Rip–Rap Total
Geotextile= 310 sy Total

FROM –L– STA. 24+06 LT TO –L– STA. 24+32 LT
FROM –L– STA. 25+19 LT TO –L– STA. 25+56 LT
FROM –L– STA. 24+08 RT TO –L– STA. 24+32 RT
FROM –L– STA. 25+19 RT TO –L– STA. 25+64 RT

DETAIL 1
LATERAL BASE DITCH
(Not to Scale)

Min. D= 1.5 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0′
Type of Liner= Class I Rip–Rap

FROM –L– STA. 25+98 RT TO –L– STA. 26+50 RT

DETAIL 24
LATERAL BASE DITCH
(Not to Scale)

Min. D= 1.5 Ft.
Max. d= 1.5 Ft.
B= 4 Ft.
b= 5 Ft.
*When B is < 6.0′
Type of Liner= Class I Rip–Rap

FROM –L– STA. 23+10 LT TO –L– STA. 23+50 LT

DETAIL 25
STANDARD BASE DITCH
(Not to Scale)

Min. D= 1 Ft.
Max. d= 1 Ft.
B= 2 Ft.
*When B is < 6.0′
Type of Liner= Class I Rip–Rap

FROM –L– STA. 22+18 RT TO –L– STA. 23+71 RT

DETAIL 21
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow
S=Ditch Slope
℄ Proposed Ditch

–L– STA. 27+46 RT

MARY MURRAY
DB 12303 PG 95
MB 2003 PG 1404

MARK & DEBORAH
DB 8304 PG 170
MB 1978 PG 93

EDWIN & BEVERLY BLAND
DB 4100 PG 187
MB 1978 PG 930

CITY OF RALEIGH
DB 8644 PG 809
MB 2002 PG 23

CITY OF RALEIGH
DB 8644 PG 809
MB 1982 PG 146
MB 2002 PG 23

NEUSE CROSSING
HOMEOWNERS ASSN INC.
DB 4718 PG 935
MB 1990 PG 627

PERMANENT COMMON OPEN SPACE
NEUSE CROSSING
HOMEOWNERS ASSN INC.
DB 6844 PG 756
MB 1992 PG 1333

CLARENCE & EUGENIA
PLEASANT
DB 11505 PG 2551
MB 1998 PG 2236
MB 1999 PG 2226

ANABEL AREVALO
DB 6724 PG 441
MB 1985 PG 986
MB 2007 PG 2256
MB 2013 PG 1355

BM2 ELEVATION = 198.37′
N 777,257 E 2,140,288
BL STATION 88+29
OFFSET 220′ RIGHT
RRSPIKE IN 11" OAK

-MUPI-
PI Sta 11+57.78
Δ = 3° 40′ 59.4″ (LT)
D = 57° 17′ 44.8″
L = 6.43′
T = 3.22′
R = 100.00′

FOR –L– PROFILE, SEE SHEET NO. 12

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5/14/99

REVISIONS

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RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-05/CONST.5
R/W SHEET NO.	

Prepared in the
Office of:
AECOM

NC FIRM LICENSE No: F-0342
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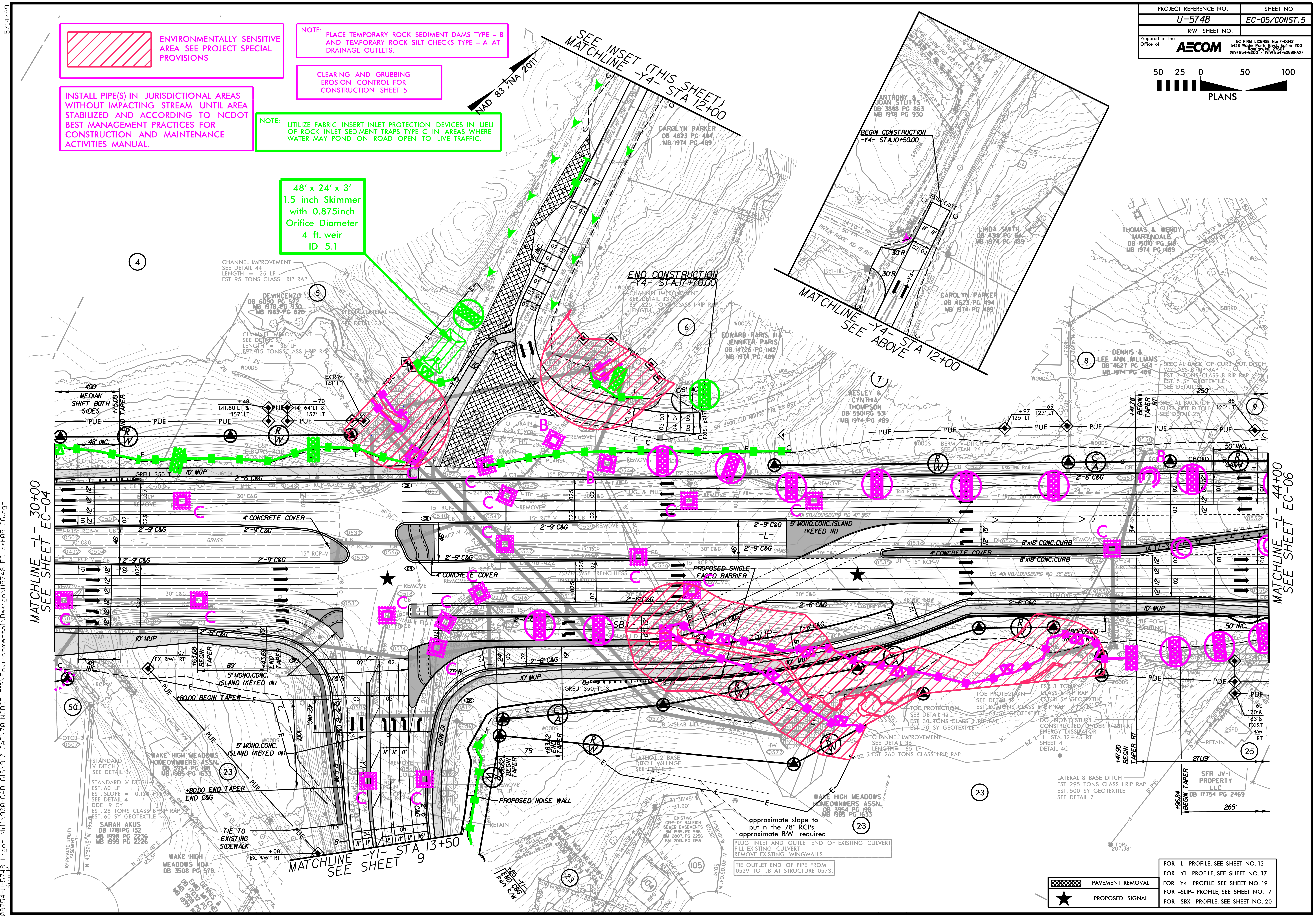
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)


50 25 0 50 100
PLANS
NAD 83 /NA 2011
SEE INSET (THIS SHEET)
MATCHLINE -Y4- STA 12+00
MATCHLINE -Y4- STA 12+00
SEE ABOVE
MATCHLINE -L- 30+00
SEE SHEET EC-04
MATCHLINE -L- 44+00
SEE SHEET EC-06
MATCHLINE -Y1- STA 13+50
SEE SHEET 9
BEGIN CONSTRUCTION
-Y4- STA.10+50.00
END CONSTRUCTION
-Y4- STA.17+70.00
48′ x 24′ x 3′
1.5 inch Skimmer
with 0.875inch
Orifice Diameter
4 ft. weir
ID 5.1
CHANNEL IMPROVEMENT
SEE DETAIL 44
LENGTH = 25 LF
EST. 95 TONS CLASS I RIP RAP
CHANNEL IMPROVEMENT
SEE DETAIL 43
EST. 225 TONS CLASS I RIP RAP
LENGTH=35 LF
ANTHONY & JOAN STUTTS
DB 3898 PG 863
MB 1978 PG 930
CAROLYN PARKER
DB 4623 PG 494
MB 1974 PG 489
DEVINCENZO
DB 6090 PG 572
MB 1978 PG 930
MB 1985 PG 820
EDWARD PARIS III & JENNIFER PARIS
DB 14726 PG 1142
MB 1974 PG 489
WESLEY & CYNTHIA THOMPSON
DB 5501 PG 531
MB 1974 PG 489
LINDA SMITH
DB 4318 PG 64
MB 1974 PG 489
THOMAS & WENDY MARTINDALE
DB 15010 PG 610
MB 1974 PG 489
DENNIS & LEE ANN WILLIAMS
DB 4627 PG 584
MB 1974 PG 489
WAKE HIGH MEADOWS HOMEOWNWERS ASSN.
DB 3954 PG 198
MB 1985 PG 1633
SARAH AKUS
DB 1718 PG 132
MB 1998 PG 2236
MB 1999 PG 2226
SFR JV-I PROPERTY LLC
DB 17754 PG 2469
4′ CONCRETE COVER
PROPOSED SINGLE FACED BARRIER
PROPOSED NOISE WALL
5′ MONO.CONC.ISLAND (KEYED IN)
+80.00 BEGIN TAPER
+80.00 END TAPER
END C&G
TIE TO EXISTING SIDEWALK
10′ MUP
TOE PROTECTION
SEE DETAIL 12
EST. 30 TONS CLASS B RIP RAP
EST. 70 SY GEOTEXTILE
TOE PROTECTION
SEE DETAIL 12
EST. 20 TONS CLASS B RIP RAP
EST. 44 SY GEOTEXTILE
EST. 3 TONS CLASS B RIP RAP
EST. 11 SY GEOTEXTILE
DO NOT DISTURB
CONSTRUCTED UNDER R-2814A
ENERGY DISSIPATOR
-L- STA. 12+45 RT
SHEET 4
DETAIL 4C
CHANNEL IMPROVEMENT
SEE DETAIL 36
LENGTH= 65 LF
EST. 260 TONS CLASS I RIP RAP
LATERAL 8′ BASE DITCH
EST. 295 TONS CLASS I RIP RAP
EST. 500 SY GEOTEXTILE
SEE DETAIL 7
STANDARD V-DITCH
SEE DETAIL 34
approximate slope to
put in the 78″ RCPs
approximate R/W required
PLUG INLET AND OUTLET END OF EXISTING CULVERT
FILL EXISTING CULVERT
REMOVE EXISTING WINGWALLS
TIE OUTLET END OF PIPE FROM
0529 TO JB AT STRUCTURE 0573.
TOP=
207.38′
+47.90 BEGIN TAPER RT
+96.84 BEGIN TAPER
271.19′
265′

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

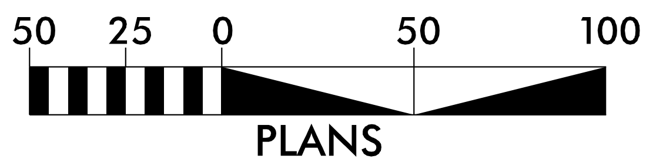
NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

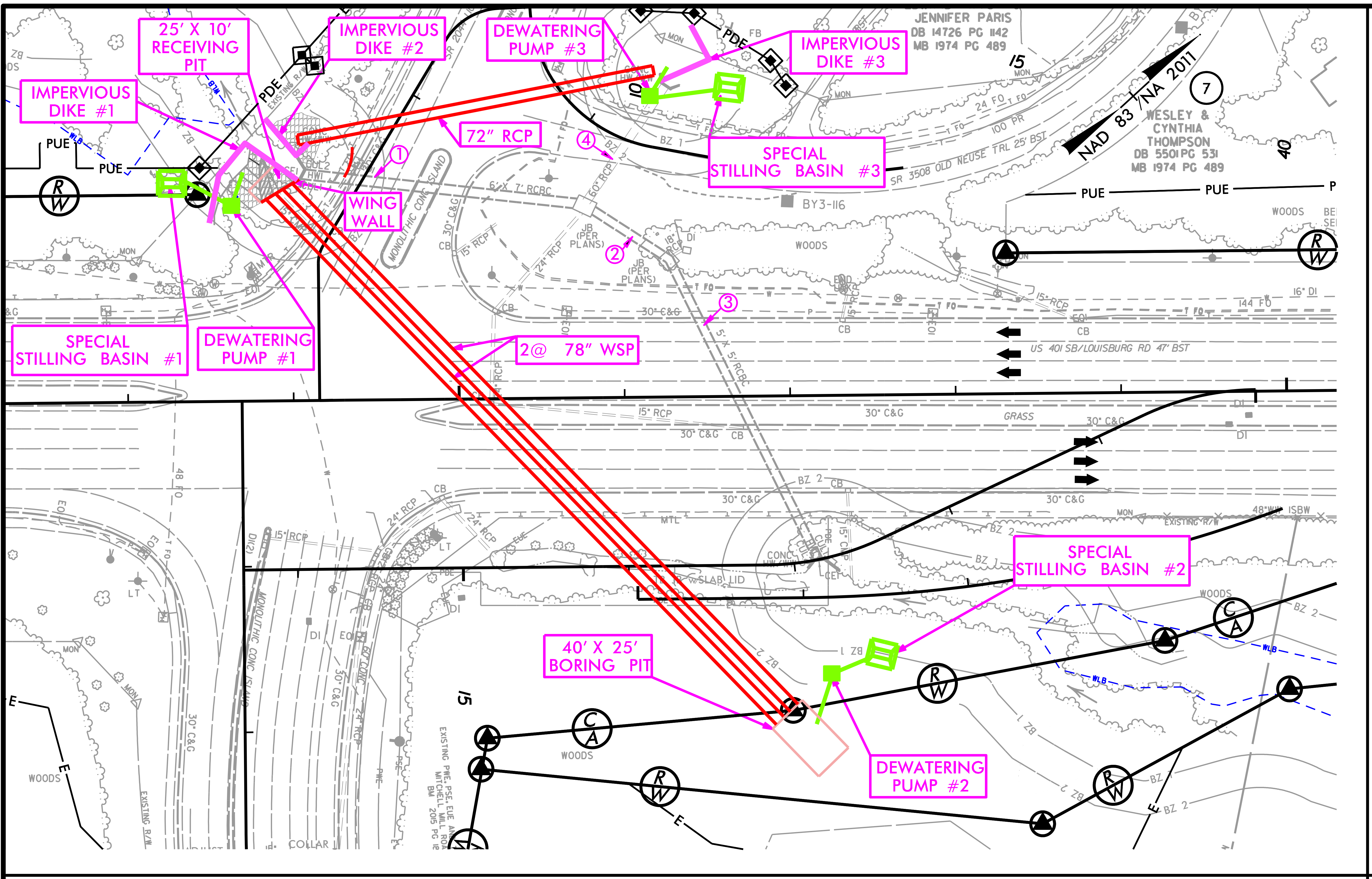
▨	PAVEMENT REMOVAL
★	PROPOSED SIGNAL

FOR -L- PROFILE, SEE SHEET NO. 13
FOR -Y1- PROFILE, SEE SHEET NO. 17
FOR -Y4- PROFILE, SEE SHEET NO. 19
FOR -SLIP- PROFILE, SEE SHEET NO. 17
FOR -SBX- PROFILE, SEE SHEET NO. 20

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-05A/CONST.5
R/W SHEET NO.	

Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

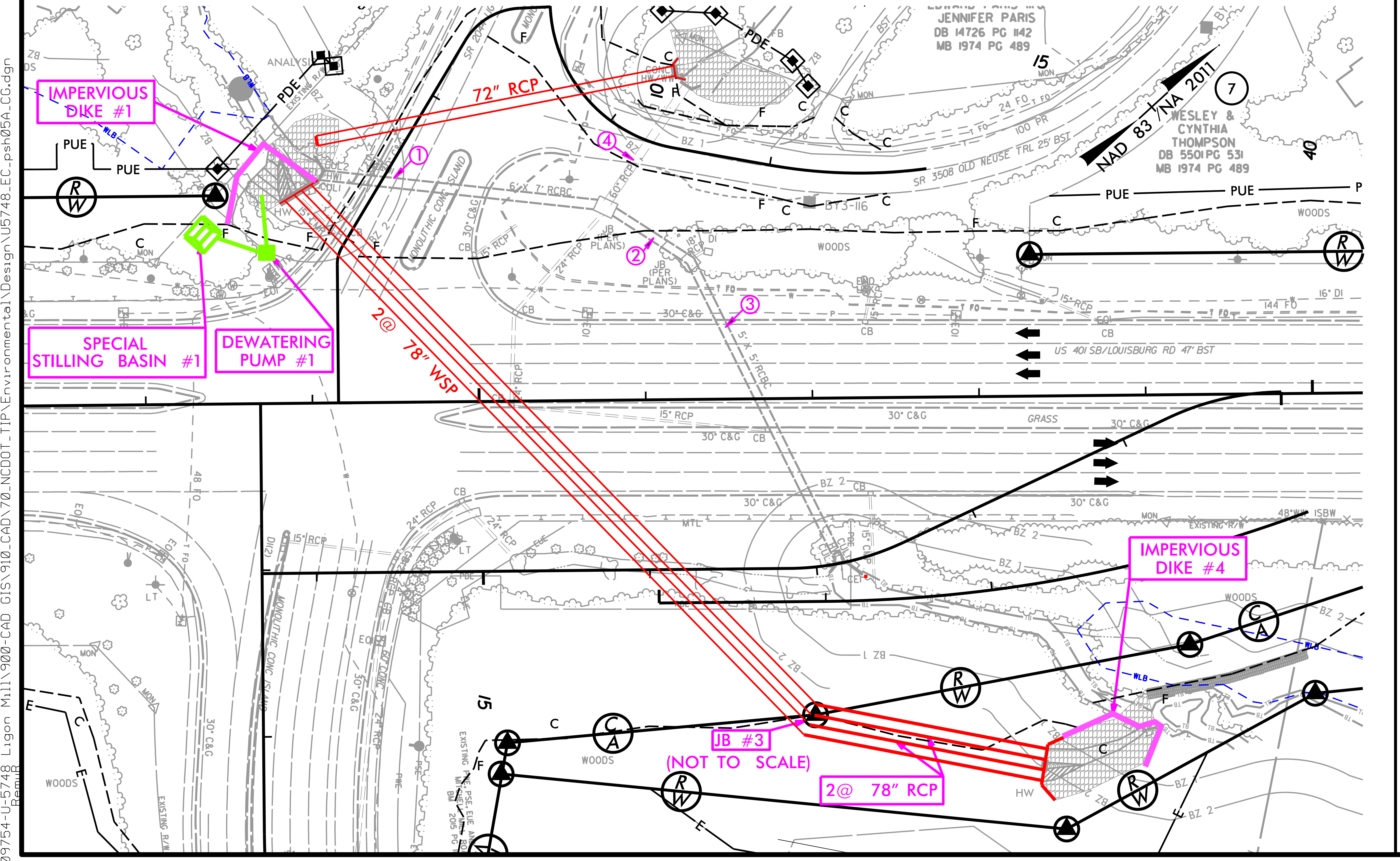

50
25
0
50
100
PLANS


25' X 10' RECEIVING PIT
IMPERVIOUS DIKE #2
DEWATERING PUMP #3
IMPERVIOUS DIKE #3
IMPERVIOUS DIKE #1
72" RCP
SPECIAL STILLING BASIN #3
WING WALL
SPECIAL STILLING BASIN #1
DEWATERING PUMP #1
2@ 78" WSP
SPECIAL STILLING BASIN #2
40' X 25' BORING PIT
DEWATERING PUMP #2
JENNIFER PARIS
DB 14726 PG 1142
MB 1974 PG 489
WESLEY & CYNTHIA THOMPSON
DB 5501 PG 531
MB 1974 PG 489
NAD 83/NA 2011
US 401 SB/LOUISBURG RD 47' BST
SR 3508 OLD REUSE TRL 25' BST
PUE
WOODS
①
②
③
④

CONSTRUCTION SEQUENCE
STA. 35+13 –L–
FOR PROPOSED 2 @ 78″
STA. 15+86 –Y4–
FOR PROPOSED 72″

PHASE I

1. INSTALL IMPERVIOUS DIKE #1, SPECIAL STILLING BASIN #1 AND DEWATERING PUMP #1.
2. REMOVE SOUTHERN WING WALL AT THE OUTLET OF EXISTING CULVERT #1.
3. CONSTRUCT THE 40′ X 25′ BORING PIT AND THE 25′ X 10′ RECEIVING PIT.
4. INSTALL SPECIAL STILLING BASIN #2, AND DEWATERING PUMP #2.
5. WHILE MAINTAINING FLOW IN THE EXISTING BOX CULVERTS #1, #2, #3 AND #4, INSTALL THE DUAL 78″ WSP (TRENCHLESS INSTALLATION), INSTALL OUTLET CHANNEL AND BANK STABILIZATION INSIDE THE IMPERVIOUS DIKES #1 AND #2, USING DEWATERING PUMP AS NEEDED.
6. WHILE MAINTAINING FLOW IN EXISTING 60″ RCP (CULVERT #4), INSTALL IMPERVIOUS DIKES #2 AND #3; SPECIAL STILLING BASIN #3 AND DEWATERING PUMP #3
7. INSTALL 72″ RCP AND INLET BANK STABILIZATION. USING IMPERVIOUS DIKE AND USE DEWATERING PUMP AS NEEDED WHILE INLET STABILIZATION IS INSTALLED AND MAY NEED TO ADJUST IMPERVIOUS DIKE #3 TO COMPLETE RIP RAP INSTALLATION.


IMPERVIOUS DIKE #1
72" RCP
SPECIAL STILLING BASIN #1
DEWATERING PUMP #1
2@ 78" WSP
IMPERVIOUS DIKE #4
JB #3
(NOT TO SCALE)
2@ 78" RCP
JENNIFER PARIS
DB 14726 PG 1142
MB 1974 PG 489
WESLEY & CYNTHIA THOMPSON
DB 5501 PG 531
MB 1974 PG 489
NAD 83/NA 2011
US 401 SB/LOUISBURG RD 47' BST
SR 3508 OLD REUSE TRL 25' BST
PUE
WOODS
①
②
③
④

CONSTRUCTION SEQUENCE
STA. 35+13 –L–
FOR PROPOSED 2 @ 78″
STA. 15+86 –Y4–
FOR PROPOSED 72″

PHASE II

1. REMOVE THE BORING AND RECEIVING PITS, SPECIAL STILLING BASINS #2, AND #3 AND DEWATERING PUMPS #2, AND #3.
2. INSTALL IMPERVIOUS DIKE #4.
3. INSTALL JUNCTION BOX #3, THE DUAL 78″ RCP, AND INLET BANK STABILIZATION. USE IMPERVIOUS DIKE AND DEWATERING PUMP AS NEEDED TO MAINTAIN A DRY WORK AREA.
4. CONSTRUCT THE REMAINING SECTION OF THE OUTLET BANK STABILIZATION. USE IMPERVIOUS DIKE AND DEWATERING PUMP AS NEEDED TO MAINTAIN A DRY WORK AREA.
5. REMOVE IMPERVIOUS DIKES #1 AND #4 AND DEWATERING PUMP #1 AND DIVERT FLOW INTO THE NEWLY CONSTRUCTED DUAL 78″ PIPES.
6. REMOVE IMPERVIOUS DIKES #2 AND #3 AND DIVERT FLOW INTO THE NEWLY CONSTRUCTED DUAL 72″ RCP.
7. PLUG AND FILL EXISTING CULVERT #4.

PHASE III

1. PLUG AND FILL EXISTING RCBC #1, #2, AND #3.
2. FILL EXISTING CHANNEL FROM THE INLET OF EXISTING RCBC #3 TO THE INLET OF THE NEW 78″ RCP.
3. COMPLETE ROADWAY.

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PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-06/CONST.6
R/W SHEET NO.	

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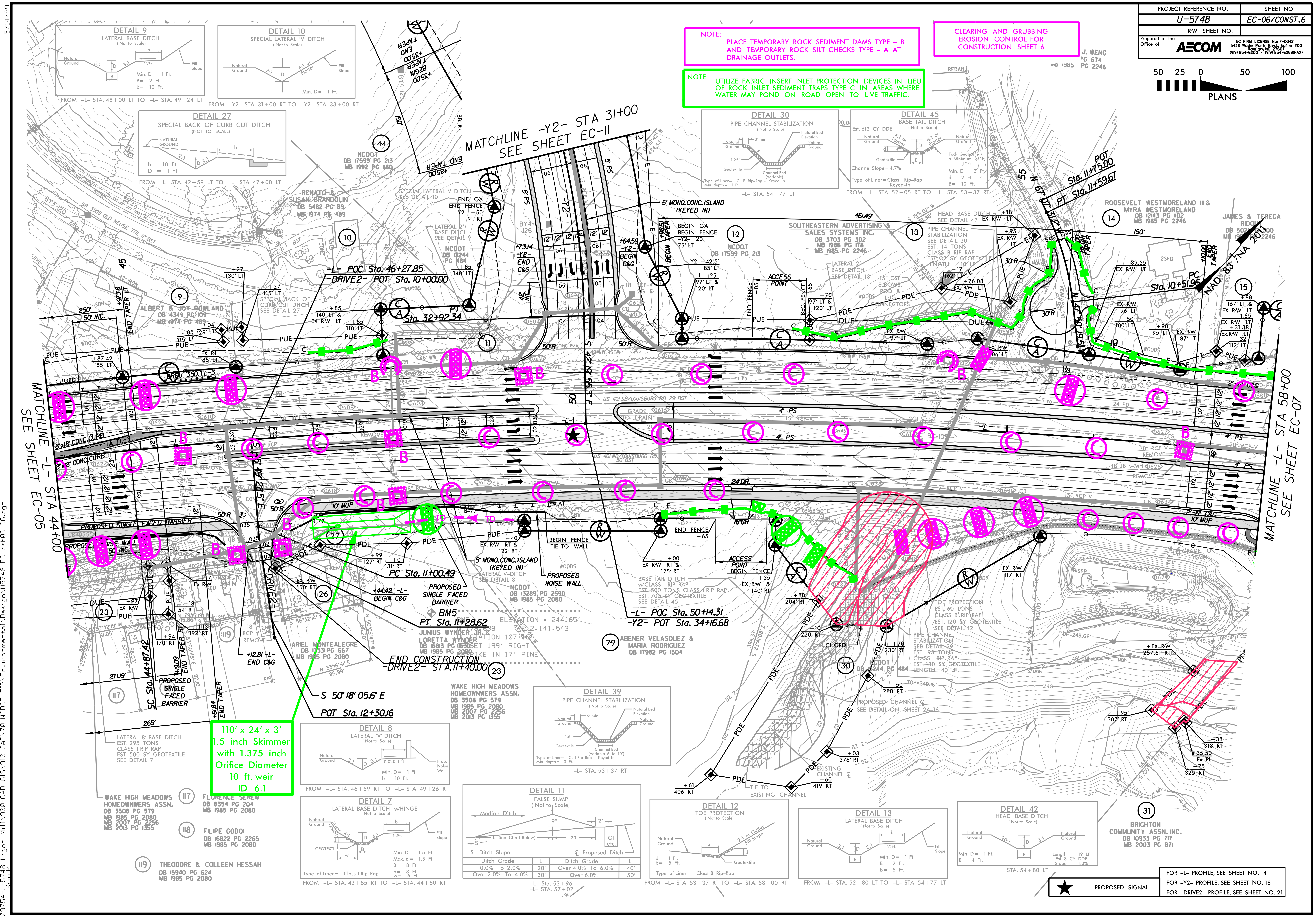
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


50 25 0 50 100
PLANS
MATCHLINE -Y2- STA 31+00 SEE SHEET EC-11
MATCHLINE -L- STA 44+00 SEE SHEET EC-05
MATCHLINE -L- STA 58+00 SEE SHEET EC-07
DETAIL 9 LATERAL BASE DITCH (Not to Scale)
FROM -L- STA. 48+00 LT TO -L- STA. 49+24 LT
DETAIL 10 SPECIAL LATERAL 'V' DITCH (Not to Scale)
FROM -Y2- STA. 31+00 RT TO -Y2- STA. 33+00 RT
DETAIL 27 SPECIAL BACK OF CURB CUT DITCH (NOT TO SCALE)
FROM -L- STA. 42+59 LT TO -L- STA. 47+00 LT
DETAIL 30 PIPE CHANNEL STABILIZATION (Not to Scale)
-L- STA. 54+77 LT
DETAIL 45 BASE TAIL DITCH (Not to Scale)
Est. 612 CY DDE
FROM -L- STA. 52+05 RT TO -L- STA. 53+37 RT
DETAIL 39 PIPE CHANNEL STABILIZATION (Not to Scale)
-L- STA. 53+37 RT
DETAIL 8 LATERAL 'V' DITCH (Not to Scale)
FROM -L- STA. 46+59 RT TO -L- STA. 49+26 RT
DETAIL 7 LATERAL BASE DITCH wHINGE (Not to Scale)
FROM -L- STA. 42+85 RT TO -L- STA. 44+80 RT
DETAIL 11 FALSE SUMP (Not to Scale)
-L- Sta. 53+96
-L- STA. 57+02
DETAIL 12 TOE PROTECTION (Not to Scale)
FROM -L- STA. 53+37 RT TO -L- STA. 58+00 RT
DETAIL 13 LATERAL BASE DITCH (Not to Scale)
FROM -L- STA. 52+80 LT TO -L- STA. 54+77 LT
DETAIL 42 HEAD BASE DITCH (Not to Scale)
Length = 19 LF
Est. 8 CY DDE
Slope = 1.0%
STA. 54+80 LT
-L- POC Sta. 46+27.85
-DRIVE2- POT Sta. 10+00.00
PT Sta. 32+92.34
PC Sta. 11+00.49
PT Sta. 11+28.62
END CONSTRUCTION -DRIVE2- STA.11+40.00
POT Sta. 12+30.16
S 50° 18' 05.6" E
-L- POC Sta. 50+14.31
-Y2- POT Sta. 34+16.68
POT Sta. 11+75.00
PT Sta. 11+59.67
PC Sta. 10+51.96
110' x 24' x 3'
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 6.1
NCDOT DB 17599 PG 213 MB 1992 PG 1180
RENATO & SUSAN BRANDOLIN DB 5482 PG 89 MB 1974 PG 489
ALBERT & JOY ROWLAND DB 4349 PG 109 MB 1974 PG 489
SOUTHEASTERN ADVERTISING & SALES SYSTEMS INC. DB 3703 PG 302 MB 1986 PG 178 MB 1985 PG 2246
ROOSEVELT WESTMORELAND III & MYRA WESTMORELAND DB 12143 PG 1102 MB 1985 PG 2246
JAMES & TERESA RIDOUT
ABENER VELASQUEZ & MARIA RODRIGUEZ DB 17982 PG 1504
JUNIUS WYNDER JR. & LORETTA WYNDER DB 16813 PG 1530 MB 1985 PG 2080
ARIEL MONTEALEGRE DB 1331 PG 667 MB 1985 PG 2080
WAKE HIGH MEADOWS HOMEOWNERS ASSN. DB 3508 PG 579 MB 1985 PG 2080 MB 2007 PG 2256 MB 2013 PG 1355
FLORENCE SEREM DB 8354 PG 204 MB 1985 PG 2080
FILIPE GODOI DB 16822 PG 2265 MB 1985 PG 2080
THEODORE & COLLEEN HESSAH DB 15940 PG 624 MB 1985 PG 2080
BRIGHTON COMMUNITY ASSN. INC. DB 10933 PG 717 MB 2003 PG 871
US 401 SB/LOUISBURG RD
US 401 NB/LOUISBURG RD
PROPOSED NOISE WALL
PROPOSED SINGLE FACED BARRIER
BM5

★ PROPOSED SIGNAL

FOR -L- PROFILE, SEE SHEET NO. 14
FOR -Y2- PROFILE, SEE SHEET NO. 18
FOR -DRIVE2- PROFILE, SEE SHEET NO. 21

5/14/99
10:53:30 AM
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PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-06A/CONST.6
R/W SHEET NO.	

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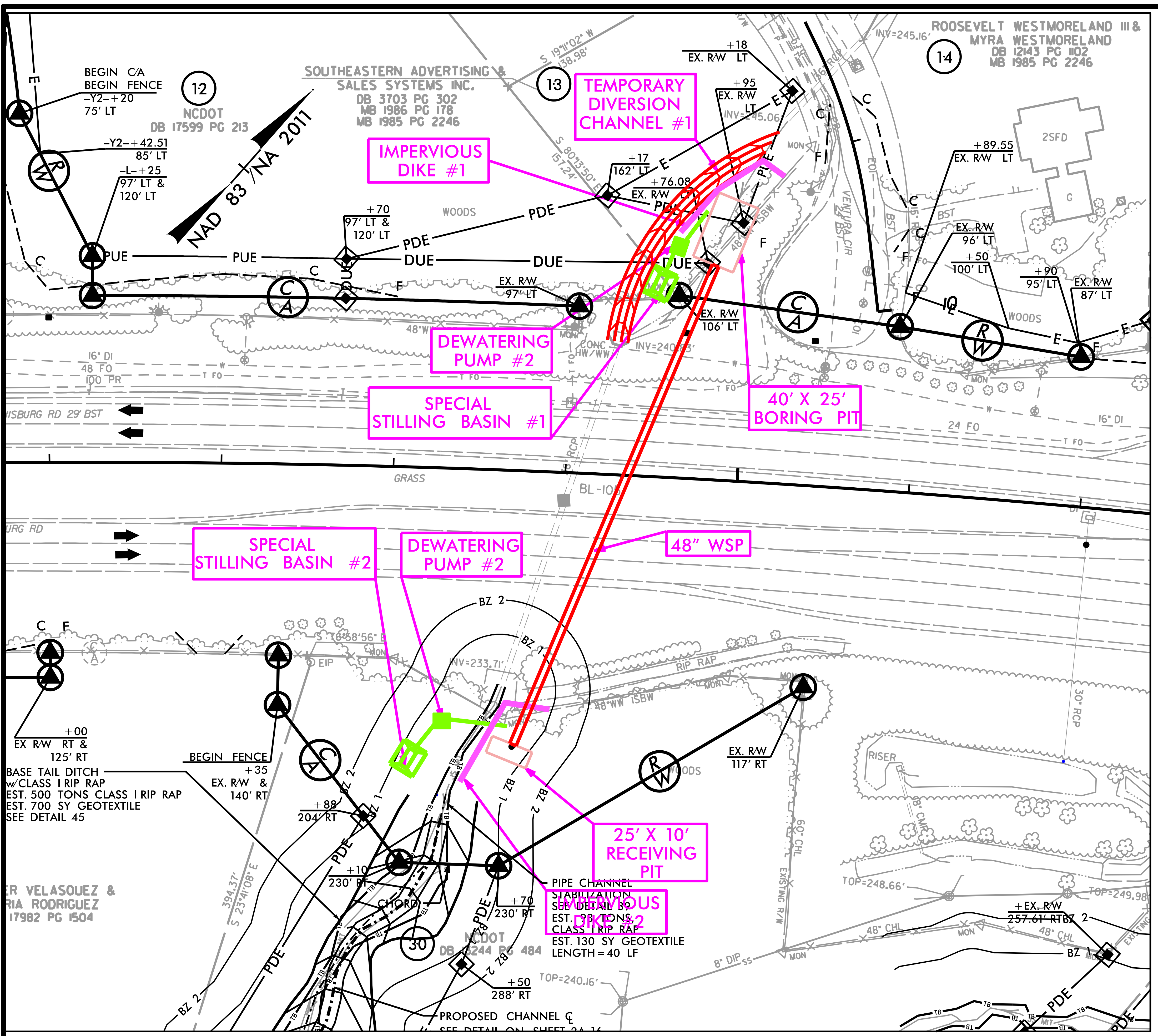
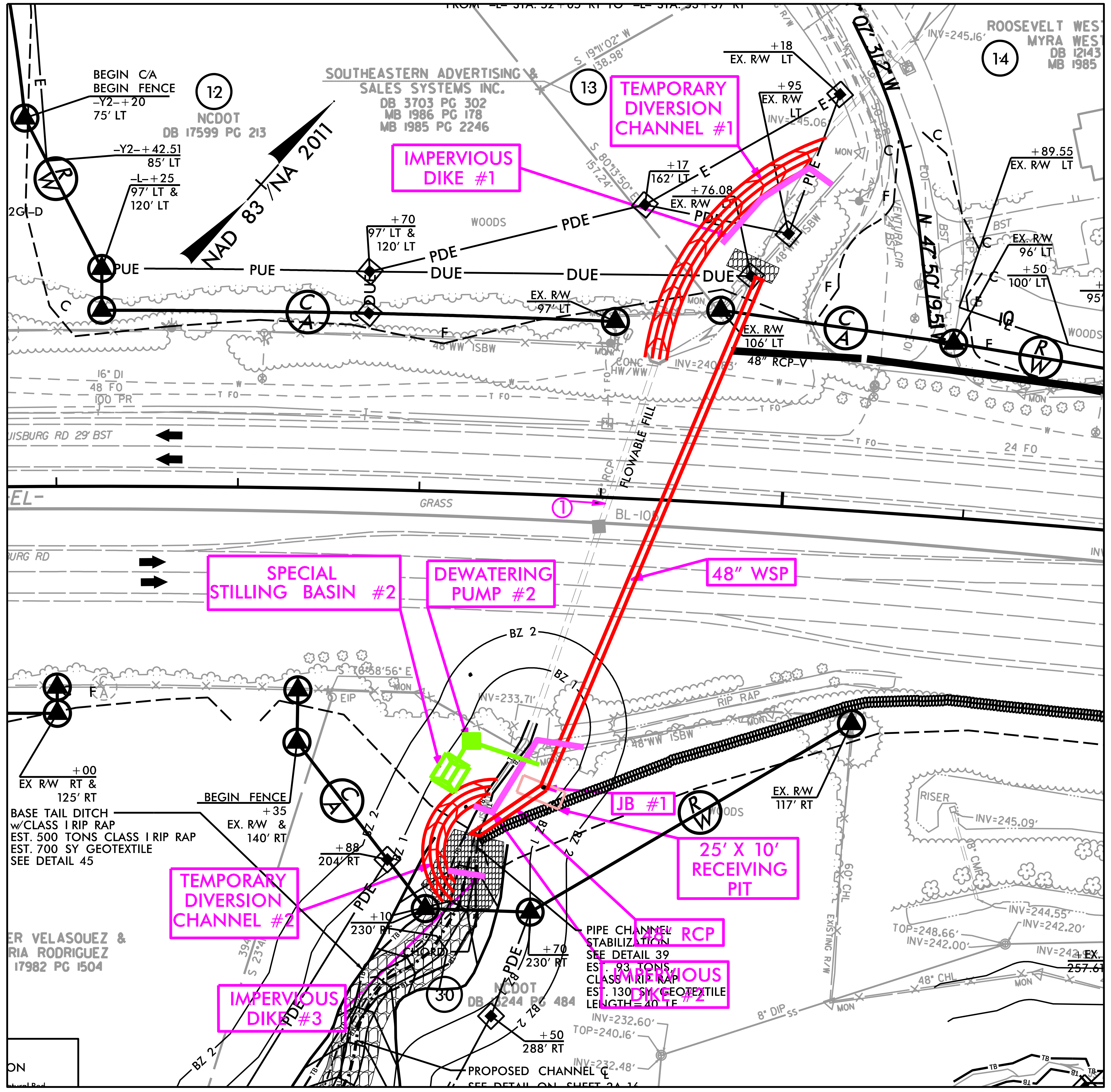


TEMPORARY DIVERSION CHANNEL #1
IMPERVIOUS DIKE #1
DEWATERING PUMP #2
SPECIAL STILLING BASIN #1
40' X 25' BORING PIT
SPECIAL STILLING BASIN #2
DEWATERING PUMP #2
48" WSP
25' X 10' RECEIVING PIT
IMPERVIOUS DIKE #2
NAD 83/NA 2011
SOUTHEASTERN ADVERTISING & SALES SYSTEMS INC.
ROOSEVELT WESTMORELAND III & MYRA WESTMORELAND
NCDOT
BEGIN C/A BEGIN FENCE
PIPE CHANNEL STABILIZATION SEE DETAIL 39 EST. 98 TONS CLASS I RIP RAP EST. 130 SY GEOTEXTILE LENGTH = 40 LF
BASE TAIL DITCH w/CLASS I RIP RAP EST. 500 TONS CLASS I RIP RAP EST. 700 SY GEOTEXTILE SEE DETAIL 45
PROPOSED CHANNEL



TEMPORARY DIVERSION CHANNEL #1
IMPERVIOUS DIKE #1
SPECIAL STILLING BASIN #2
DEWATERING PUMP #2
48" WSP
JB #1
25' X 10' RECEIVING PIT
TEMPORARY DIVERSION CHANNEL #2
48" RCP
IMPERVIOUS DIKE #2
IMPERVIOUS DIKE #3
FLOWABLE FILL
48" RCP-V
NAD 83/NA 2011
PIPE CHANNEL STABILIZATION SEE DETAIL 39 EST. 93 TONS CLASS I RIP RAP EST. 130 SY GEOTEXTILE LENGTH = 40 LF
PROPOSED CHANNEL

50 25 0 50 100
PLANS

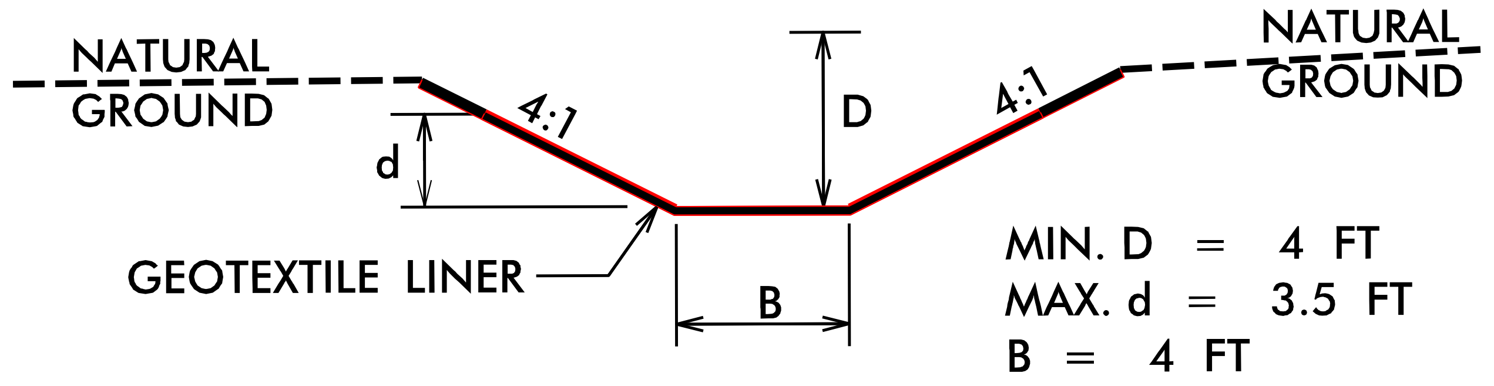
CONSTRUCTION SEQUENCE
STA. 54+35 –L–
FOR PROPOSED 48" WSP

PHASE I

1. CONSTRUCT TEMPORARY DIVERSION CHANNEL #1. USE DEWATERING PUMP AS NEEDED TO MAINTAIN DRY WORK AREA WHILE DIVERSION CHANNEL IS CONSTRUCTED.
2. DIVERT FLOW INTO THE TEMPORARY DIVERSION CHANNEL.
3. INSTALL IMPERVIOUS DIKES #1 AND #2, SPECIAL STILLING BASINS #1 AND #2, DEWATERING PUMPS #1 AND #2.
4. CONSTRUCT THE 40' X 25' BORING PIT AND THE 25' X 10' RECEIVING PIT.
5. INSTALL THE 48" WSP (TRENCHLESS INSTALLATION).
6. REMOVE THE BORE PIT, SPECIAL STILLING BASIN #1, DEWATERING PUMP #1, AND INSTALL INLET BANK STABILIZATION.

TEMPORARY DIVERSION CHANNEL

(NOT TO SCALE)



NATURAL GROUND
NATURAL GROUND
4:1
4:1
D
d
B
GEOTEXTILE LINER

MIN. D = 4 FT
MAX. d = 3.5 FT
B = 4 FT

TYPE OF LINER = GEOTEXTILE FOR SOIL STABILIZATION

CONSTRUCTION SEQUENCE
STA. 54+35 –L–
FOR PROPOSED 48" WSP

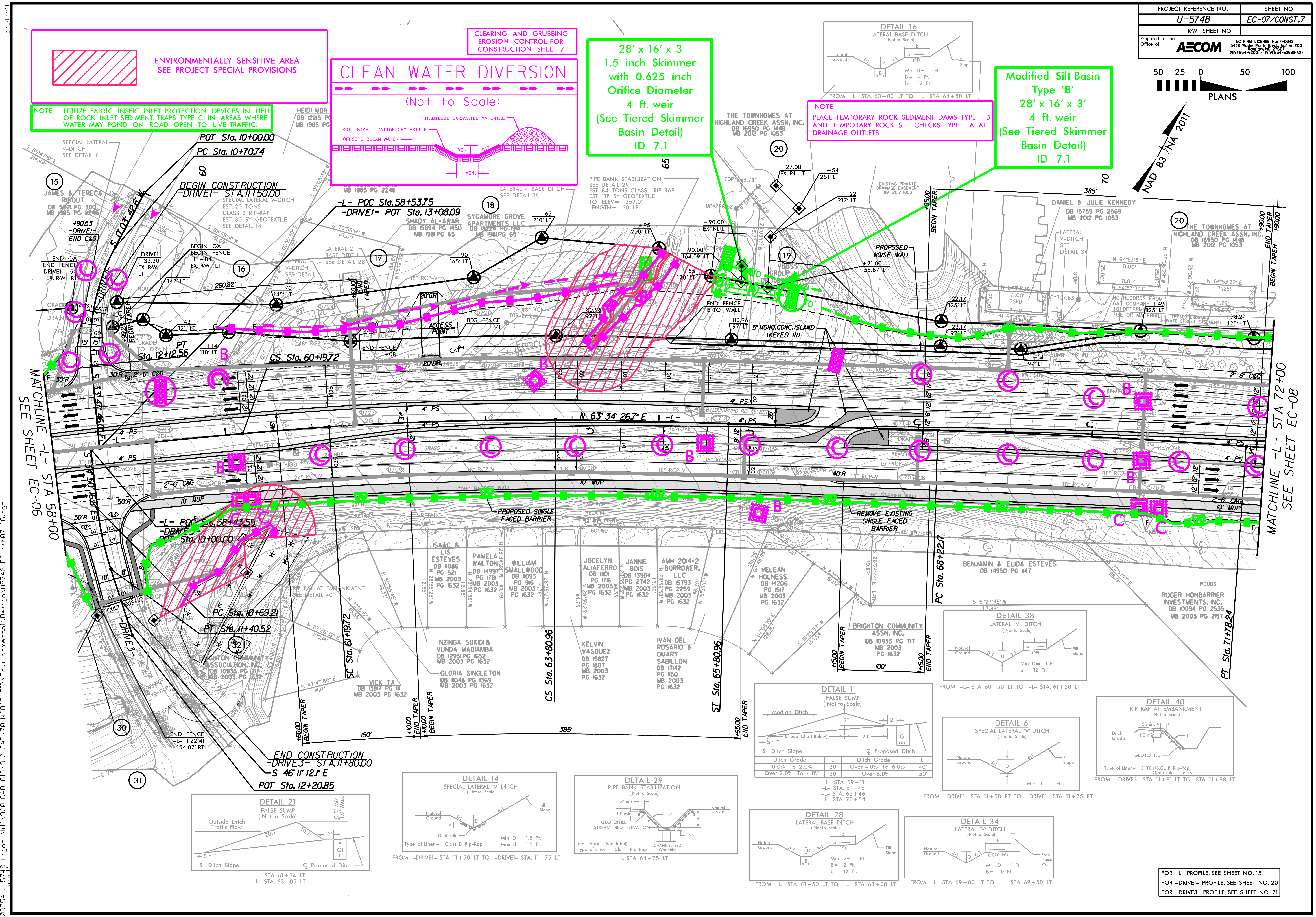
PHASE II

1. CONSTRUCT TEMPORARY DIVERSION CHANNEL #2.
2. USE DEWATERING PUMP AS NEEDED, RECONFIGURE IMPERVIOUS DIKE #2 AND INSTALL IMPERVIOUS DIKE #3.
3. REMOVE THE RECEIVING PIT, INSTALL MANHOLE JUNCTION BOX AND THE 48" RCP.
4. INSTALL THE SECTION OF THE OUTLET BANK STABILIZATION INSIDE IMPERVIOUS DIKE #2 AND TEMPORARY DIVERSION CHANNEL #2.
5. REMOVE IMPERVIOUS DIKES #2 AND #3, SPECIAL STILLING BASIN #2, AND DEWATERING PUMP #2.
6. USE DEWATERING PUMP AS NEEDED, REMOVE THE TEMPORARY DIVERSION CHANNEL #1 AND A SECTION OF TEMPORARY DIVERSION CHANNEL #2 UP TO THE RIP RAP OUTLET STABILIZATION. DIVERT FLOW INTO THE NEWLY INSTALLED 48" WSP. LINE RECONSTRUCTED CHANNEL BANK ON UPSTREAM SIDE OF ROADWAY WITH MATTING.
7. USE IMPERVIOUS DIKES AND DEWATERING PUMP AS NEEDED, WHILE REMAINING SECTION OF TEMPORARY DIVERSION CHANNEL #2 IS BEING FILLED AND RIP RAP BANKS PROTECTION INSTALLED.
8. PLUG AND FILL EXISTING 36" RCP #1.
9. COMPLETE ROADWAY.

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-07/CONST.7
R/W SHEET NO.	

Prepared in the Office of: AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)


50 25 0 50 100
PLANS
NAD 83/NA 2011
MATCHLINE -L- STA 58+00 SEE SHEET EC-06
MATCHLINE -L- STA 72+00 SEE SHEET EC-08
POT Sta. 10+00.00
PC Sta. 10+70.74
BEGIN CONSTRUCTION -DRIVE1- STA.11+50.00
-L- POC Sta.58+53.75
-DRIVE1- POT Sta.13+08.09
PT Sta. 12+12.56
CS Sta. 60+19.72
-L- POC Sta.58+43.55
-DRIVE3- POT Sta.10+00.00
PC Sta. 10+69.21
PT Sta. 11+40.52
SC Sta. 61+19.72
CS Sta. 63+80.96
ST Sta. 65+80.96
PC Sta. 68+22.17
PT Sta. 71+78.24
N 63° 34' 26.7" E
END CONSTRUCTION -DRIVE3- STA.11+80.00
S 46° 11' 12.1" E
POT Sta. 12+20.85
END FENCE -L- +22.41 154.07' RT
SPECIAL LATERAL V-DITCH SEE DETAIL 6
SPECIAL LATERAL V-DITCH EST. 20 TONS CLASS B RIP-RAP EST. 30 SY GEOTEXTILE SEE DETAIL 14
LATERAL 4' BASE DITCH SEE DETAIL 16
LATERAL 2' BASE DITCH SEE DETAIL 28
LATERAL V-DITCH SEE DETAIL 38
LATERAL V-DITCH SEE DETAIL 34
PIPE BANK STABILIZATION SEE DETAIL 29 EST. 84 TONS CLASS I RIP RAP EST. 118 SY GEOTEXTILE TO ELEV= 257.0' LENGTH= 30 LF
RIP RAP AT EMBANKMENT SEE DETAIL 40
JAMES & TERECA RIDOUT DB 5021 PG 300 MB 1985 PG 2246
HEIDI MOR. DB 12215 PG MB 1985 PG
SHADY AL-AWAR DB 15894 PG 1450 MB 1981 PG 65
SYCAMORE GROVE APARTMENTS LLC DB 18224 PG 1914 MB 1981 PG 65
THE TOWNHOMES AT HIGHLAND CREEK ASSN, INC. DB 16950 PG 1448 MB 2012 PG 1053
EXISTING PRIVATE DRAINAGE EASEMENT BM 2012 1053
DANIEL & JULIE KENNEDY DB 15759 PG 2569 MB 2012 PG 1053
BENJAMIN & ELIDA ESTEVES DB 14950 PG 1147
ROGER HONBARRIER INVESTMENTS, INC. DB 10094 PG 2535 MB 2003 PG 2157
BRIGHTON COMMUNITY ASSN. INC. DB 10933 PG 717 MB 2003 PG 1632
ISAAC & LIS ESTEVES DB 11086 PG 521 MB 2003 PG 1632
PAMELA WALTON DB 14997 PG 1781 MB 2003 PG 1632
WILLIAM SMALLWOOD DB 11093 PG 916 MB 2003 PG 1632
JOCELYN ALIAFERRO DB 11101 PG 1716 MB 2003 PG 1632
JANNIE BOIS DB 13904 PG 2742 MB 2003 PG 1632
AMH 2014-2 BORROWER, LLC DB 15793 PG 2259 MB 2003 PG 1632
VELEAN HOLNESS DB 14206 PG 1517 MB 2003 PG 1632
NZINGA SUKIDI & VUNDA MADIAMBA DB 12951 PG 1652 MB 2003 PG 1632
GLORIA SINGLETON DB 11048 PG 1369 MB 2003 PG 1632
VICK TA DB 13817 PG 111 MB 2003 PG 1632
KELVIN VASQUEZ DB 15827 PG 1807 MB 2003 PG 1632
IVAN DEL ROSARIO & OMARY SABILLON DB 17142 PG 1150 MB 2003 PG 1632
BRIGHTON COMMUNITY ASSOCIATION, INC. DB 10933 PG 717 MB 2003 PG 1632
PROPOSED NOISE WALL
PROPOSED SINGLE FACED BARRIER
REMOVE EXISTING SINGLE FACED BARRIER
5' MONO.CONC.ISLAND (KEYED IN)
END FENCE TIE TO WALL
BEG FENCE
ACCESS POINT
BEGIN CONSTRUCTION
10' MUP
4' PS
2'-6" C&G
S 61°27'45" W 317.88'
385'
150'
100'
+15.00 BEGIN TAPER
+15.00 END TAPER
+60.00 BEGIN TAPER
+10.00 END TAPER
+10.00 BEGIN TAPER
+95.00 END TAPER
+05.00 BEGIN TAPER
+90.00 END TAPER
15
17
18
19
20
30
31
32
60
65
70
B
C

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

▨ ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

CLEAN WATER DIVERSION

(Not to Scale)

STABILIZE EXCAVATED MATERIAL
SOIL STABILIZATION GEOTEXTILE
OFFSITE CLEAN WATER
1' MIN.
2:1
1' MIN.

28' x 16' x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.1

Modified Silt Basin
Type 'B'
28' x 16' x 3'
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.1

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

DETAIL 16
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, 3:1, B, b, 1"/Ft., Fill Slope

Min. D = 1 Ft.
B = 4 Ft.
b = 12 Ft.

FROM -L- STA. 63+00 LT TO -L- STA. 64+80 LT

DETAIL 38
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 3:1, D, 3:1, b, 1"/Ft., Fill Slope

Min. D = 1 Ft.
b = 12 Ft.

FROM -L- STA. 60+50 LT TO -L- STA. 61+50 LT

DETAIL 11
FALSE SUMP
(Not to Scale)

Median Ditch, 9", 2', L (See Chart Below), 20', GI etc., S

S = Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-L- STA. 59+11
-L- STA. 61+46
-L- STA. 65+46
-L- STA. 70+54

DETAIL 6
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 3:1, D, 4:1, Fill Slope

Min. D = 1 Ft.

FROM -DRIVE1- STA. 11+50 RT TO -DRIVE1- STA. 11+75 RT

DETAIL 40
RIP RAP AT EMBANKMENT
(Not to Scale)

Ditch Grade, 5'min., 1.0'min., 1', GEOTEXTILE

Type of Liner = 3 TONS,CL B Rip-Rap
Geotextile = 6 sy

FROM -DRIVE3- STA. 11+81 LT TO STA. 11+88 LT

DETAIL 21
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow, 20:1, 10:1, 2', 0.5' Min., 1.0' Max., GI etc., S

S = Ditch Slope
℄ Proposed Ditch

-L- STA. 61+54 LT
-L- STA. 63+05 LT

DETAIL 14
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 3:1, d, D, 4:1, Geotextile, Fill Slope

Type of Liner = Class B Rip-Rap
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.

FROM -DRIVE1- STA. 11+50 LT TO -DRIVE1- STA. 11+75 LT

DETAIL 29
PIPE BANK STABILIZATION
(Not to Scale)

3'min., 1.0'min., 1.5', GEOTEXTILE, STREAM BED ELEVATION, Natural Ground, d, 1.25', CHANNEL BED (Variable)

d = Varies (See label)
Type of Liner = Class I Rip Rap

-L STA. 64+75 LT

DETAIL 28
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 3:1, D, 3:1, B, b, 1"/Ft., Fill Slope

Min. D = 1 Ft.
B = 2 Ft.
b = 12 Ft.

FROM -L- STA. 61+50 LT TO -L- STA. 63+00 LT

DETAIL 34
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 4:1, D, 6:1, b, 0.020 ft/ft, Prop. Noise Wall

Min. D = 1 Ft.
b = 10 Ft.

FROM -L- STA. 69+00 LT TO -L- STA. 69+50 LT

FOR -L- PROFILE, SEE SHEET NO. 15
FOR -DRIVE1- PROFILE, SEE SHEET NO. 20
FOR -DRIVE3- PROFILE, SEE SHEET NO. 21

5/14/99

\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh07_CG.dgn
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RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-08/CONST.8
R/W SHEET NO.	

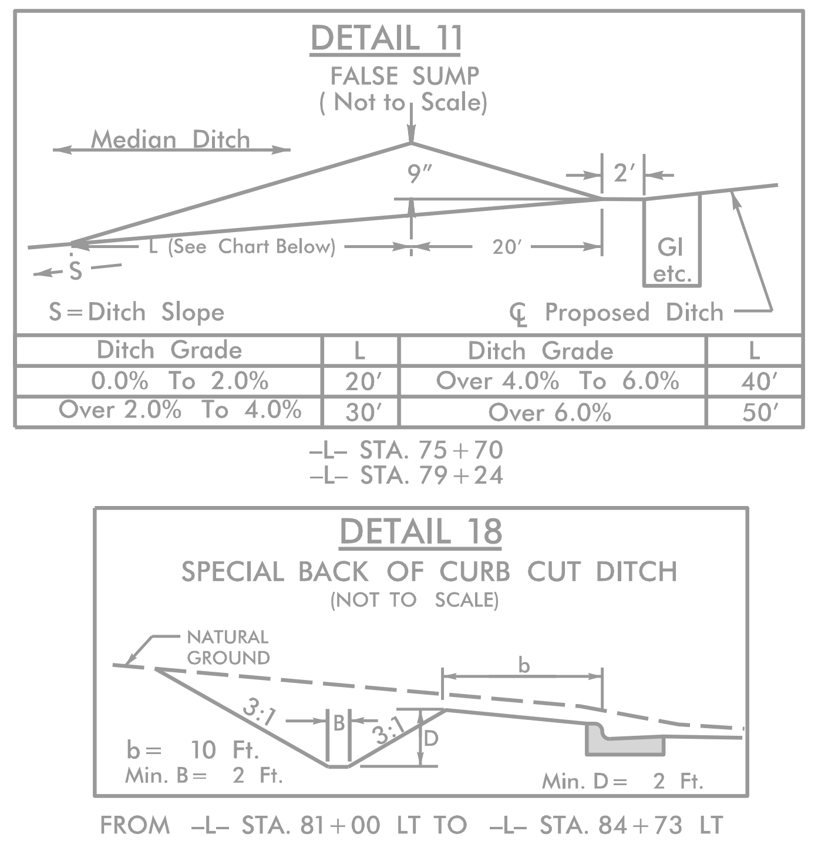
Prepared in the Office of: AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.



DETAIL 11

FALSE SUMP
(Not to Scale)

Median Ditch
9″
2′
L (See Chart Below)
20′
S
GI etc.
S = Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20′	Over 4.0% To 6.0%	40′
Over 2.0% To 4.0%	30′	Over 6.0%	50′

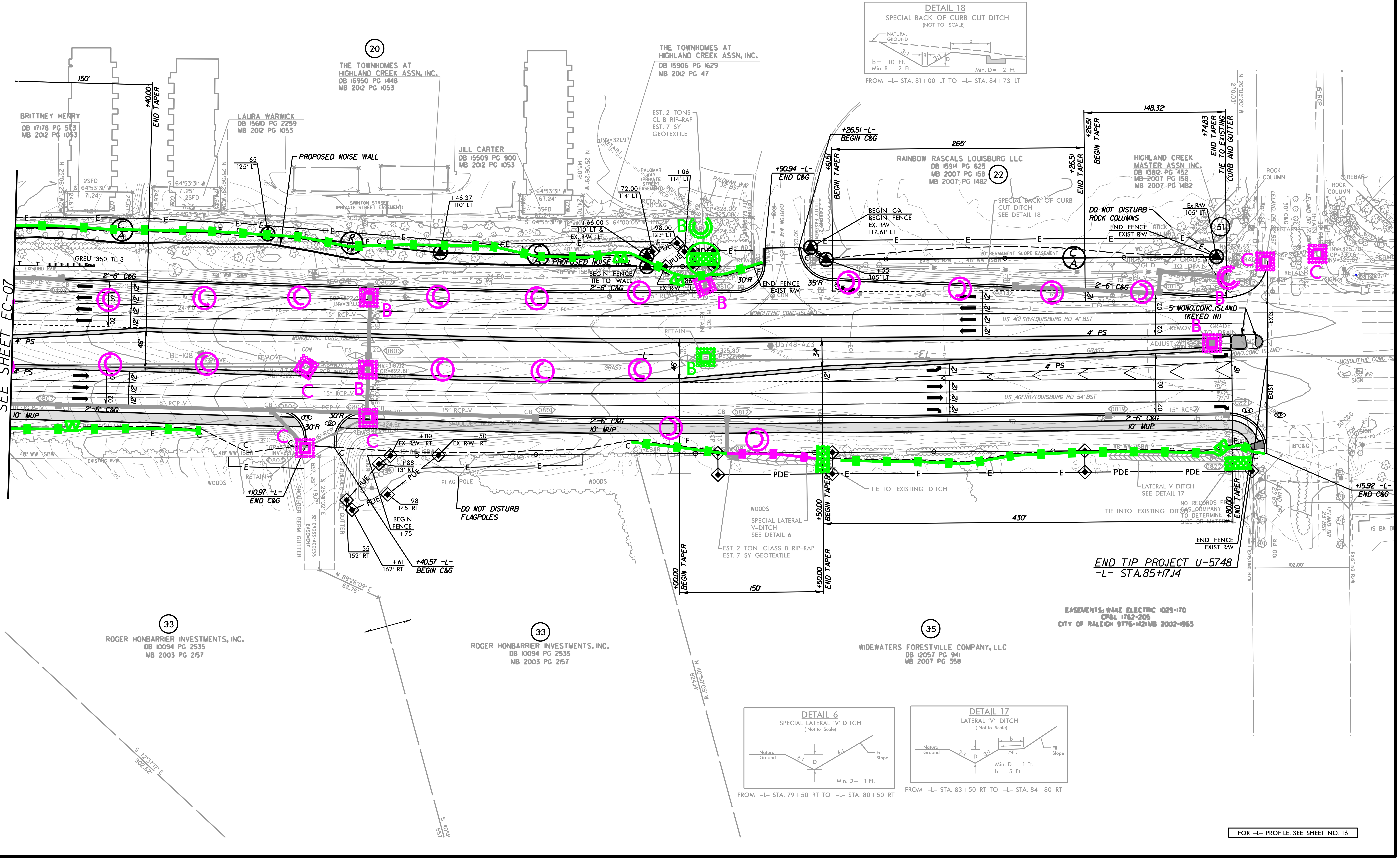
–L– STA. 75+70
–L– STA. 79+24

DETAIL 18

SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

NATURAL GROUND
b
3:1
B
3:1
D
b = 10 Ft.
Min. B = 2 Ft.
Min. D = 2 Ft.

FROM –L– STA. 81+00 LT TO –L– STA. 84+73 LT



NAD 83/NA 2011
50 25 0 50 100
PLANS
MATCHLINE -L- STA 72+00 SEE SHEET EC-07
THE TOWNHOMES AT HIGHLAND CREEK ASSN. INC. DB 16950 PG 1448 MB 2012 PG 1053
BRITTNEY HENRY DB 17178 PG 513 MB 2012 PG 1053
LAURA WARWICK DB 15610 PG 2259 MB 2012 PG 1053
JILL CARTER DB 15509 PG 900 MB 2012 PG 1053
THE TOWNHOMES AT HIGHLAND CREEK ASSN. INC. DB 15906 PG 1629 MB 2012 PG 47
RAINBOW RASCALS LOUISBURG LLC DB 15914 PG 625 MB 2007 PG 158 MB 2007 PG 1482
HIGHLAND CREEK MASTER ASSN INC. DB 13812 PG 452 MB 2007 PG 158 MB 2007 PG 1482
ROGER HONBARRIER INVESTMENTS, INC. DB 10094 PG 2535 MB 2003 PG 2157
WIDEWATERS FORESTVILLE COMPANY, LLC DB 12057 PG 941 MB 2007 PG 358
PROPOSED NOISE WALL
+40.00 END TAPER
EST. 2 TONS CL B RIP-RAP EST. 7 SY GEOTEXTILE
+26.51 -L- BEGIN C&G
+90.94 -L- END C&G
SPECIAL BACK OF CURB CUT DITCH SEE DETAIL 18
DO NOT DISTURB ROCK COLUMNS
US 401 SB/LOUISBURG RD 41' BST
US 401 NB/LOUISBURG RD 54' BST
-EL-
5' MONO.CONC.ISLAND (KEYED IN)
+10.97 -L- END C&G
+40.57 -L- BEGIN C&G
DO NOT DISTURB FLAGPOLES
SPECIAL LATERAL V-DITCH SEE DETAIL 6
EST. 2 TON CLASS B RIP-RAP EST. 7 SY GEOTEXTILE
LATERAL V-DITCH SEE DETAIL 17
TIE TO EXISTING DITCH
+00.00 BEGIN TAPER
+50.00 END TAPER
+50.00 BEGIN TAPER
+80.00 END TAPER
+15.92 -L- END C&G
END TIP PROJECT U-5748 -L- STA.85+17.14
EASEMENTS: WAKE ELECTRIC 1029-170 CP&L 1762-205 CITY OF RALEIGH 9776-1421MB 2002-1963
A
B
C

DETAIL 6

SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground
3:1
D
4:1
Fill Slope
Min. D = 1 Ft.

FROM –L– STA. 79+50 RT TO –L– STA. 80+50 RT

DETAIL 17

LATERAL 'V' DITCH
(Not to Scale)

Natural Ground
3:1
D
3:1
b
1″/Ft.
Fill Slope
Min. D = 1 Ft.
b = 5 Ft.

FROM –L– STA. 83+50 RT TO –L– STA. 84+80 RT

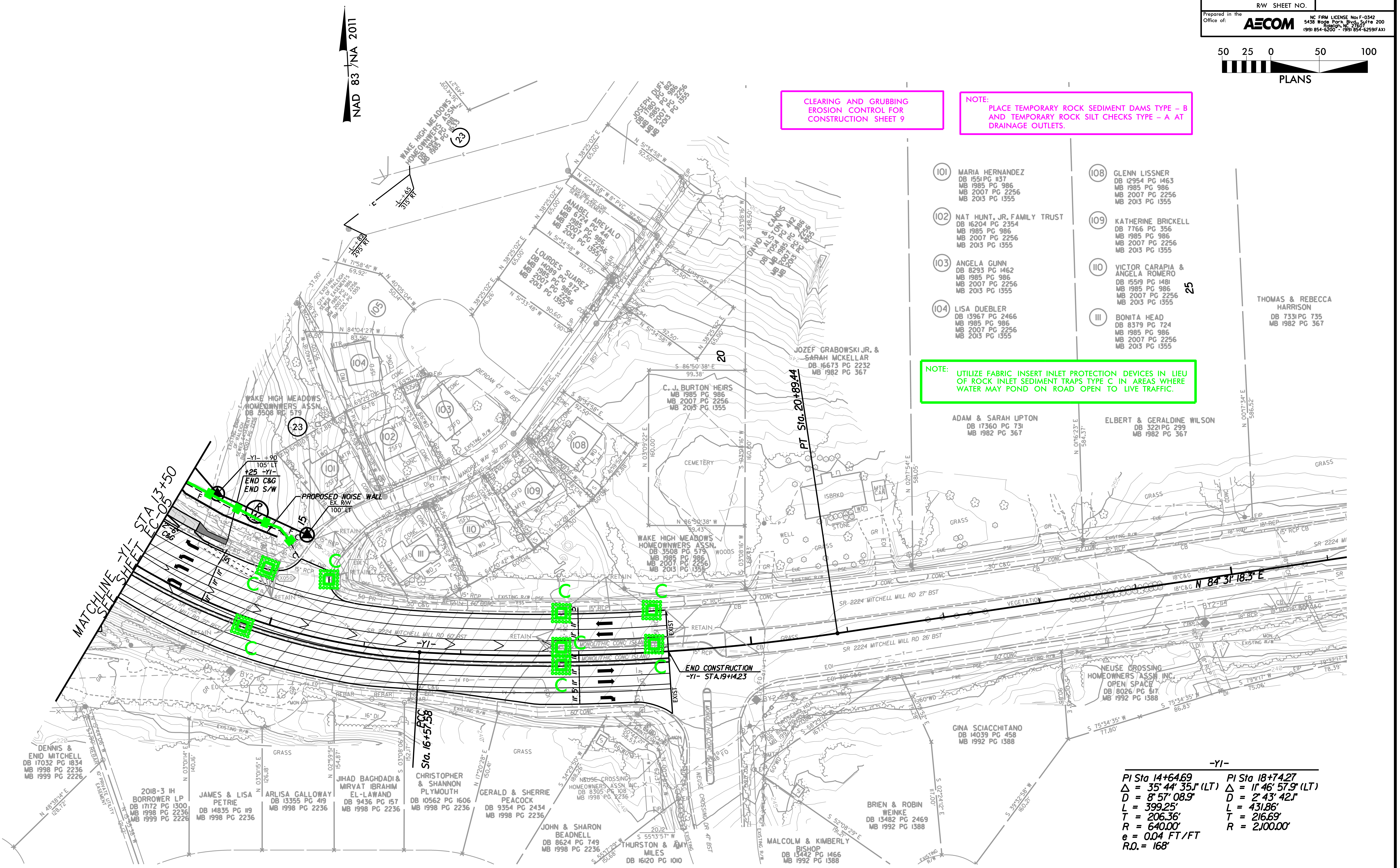
FOR -L- PROFILE, SEE SHEET NO. 16

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-09/CONST.9
R/W SHEET NO.	

Prepared in the Office of:
AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

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


50 25 0 50 100
PLANS
NAD 83 / NA 2011
MATCHLINE -Y1- STA 13+50
SEE SHEET EC-05
-Y1- 12+90 105' LT
+25 -Y1- END C&G END S/W
PROPOSED NOISE WALL
EX. R/W 100' LT
PT Sta. 20+89.44
POC Sta. 16+57.58
END CONSTRUCTION -Y1- STA.19+14.23
N 84° 31' 18.3" E
SR 2224 MITCHELL MILL RD 60' BST
SR 2224 MITCHELL MILL RD 27' BST
SR 2224 MITCHELL MILL RD 26' BST
-Y1-
MONOLITHIC CONC ISLAND
CEMETERY
WAKE HIGH MEADOWS HOMEOWNERS ASSN. DB 3508 PG 579
WAKE HIGH MEADOWS HOMEOWNERS ASSN. DB 3508 PG 579 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
C. J. BURTON HEIRS MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
LOURDES SUAREZ DB 14089 PG 972 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
AMABEL AREVALO
DAVID & CANDIS ALSTON
JOSEPH DUFF
JOZEF GRABOWSKI JR. & SARAH MCKELLAR DB 16673 PG 2232 MB 1982 PG 367
ADAM & SARAH UPTON DB 17360 PG 731 MB 1982 PG 367
ELBERT & GERALDINE WILSON DB 3221 PG 299 MB 1982 PG 367
THOMAS & REBECCA HARRISON DB 7331 PG 735 MB 1982 PG 367
NEUSE CROSSING HOMEOWNERS ASSN. INC. OPEN SPACE DB 8026 PG 617 MB 1992 PG 1388
GINA SCIACCHITANO DB 14039 PG 458 MB 1992 PG 1388
BRIEN & ROBIN WEINKE DB 13482 PG 2469 MB 1992 PG 1388
MALCOLM & KIMBERLY BISHOP DB 13442 PG 1466 MB 1992 PG 1388
THURSTON & AMY MILES DB 16120 PG 1010
JOHN & SHARON BEADNELL DB 8624 PG 749 MB 1998 PG 2236
GERALD & SHERRIE PEACOCK DB 9354 PG 2434 MB 1998 PG 2236
CHRISTOPHER & SHANNON PLYMOUTH DB 10562 PG 1606 MB 1998 PG 2236
JIHAD BAGHDADI & MIRVAT IBRAHIM EL-LAWAND DB 9436 PG 157 MB 1998 PG 2236
ARLISA GALLOWAY DB 13355 PG 419 MB 1998 PG 2236
JAMES & LISA PETRIE DB 14835 PG 119 MB 1998 PG 2236
2018-3 IH BORROWER LP DB 17172 PG 1300 MB 1998 PG 2236 MB 1999 PG 2226
DENNIS & ENID MITCHELL DB 17032 PG 1834 MB 1998 PG 2236 MB 1999 PG 2226
NEUSE CROSSING DR 41' BST
GRASS
RETAIN
20
25

101	MARIA HERNANDEZ	DB 1551 PG 1137 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
102	NAT HUNT, JR. FAMILY TRUST	DB 16204 PG 2354 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
103	ANGELA GUNN	DB 8293 PG 1462 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
104	LISA DUEBLER	DB 13967 PG 2466 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
108	GLENN LISSNER	DB 12954 PG 1463 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
109	KATHERINE BRICKELL	DB 7766 PG 356 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
110	VICTOR CARAPIA & ANGELA ROMERO	DB 15519 PG 1481 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
111	BONITA HEAD	DB 8379 PG 724 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

-Y1-

PI Sta 14+64.69	PI Sta 18+74.27
Δ = 35° 44' 35.1" (LT)	Δ = 11° 46' 57.9" (LT)
D = 8° 57' 08.9"	D = 2° 43' 42.1"
L = 399.25'	L = 431.86'
T = 206.36'	T = 216.69'
R = 640.00'	R = 2,100.00'
e = 0.04 FT/FT	
R.O. = 168'	

FOR -Y1- PROFILE, SEE SHEET NO. 17

5/14/99

9:50:50 AM
\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh09_CG.dgn
RemuR

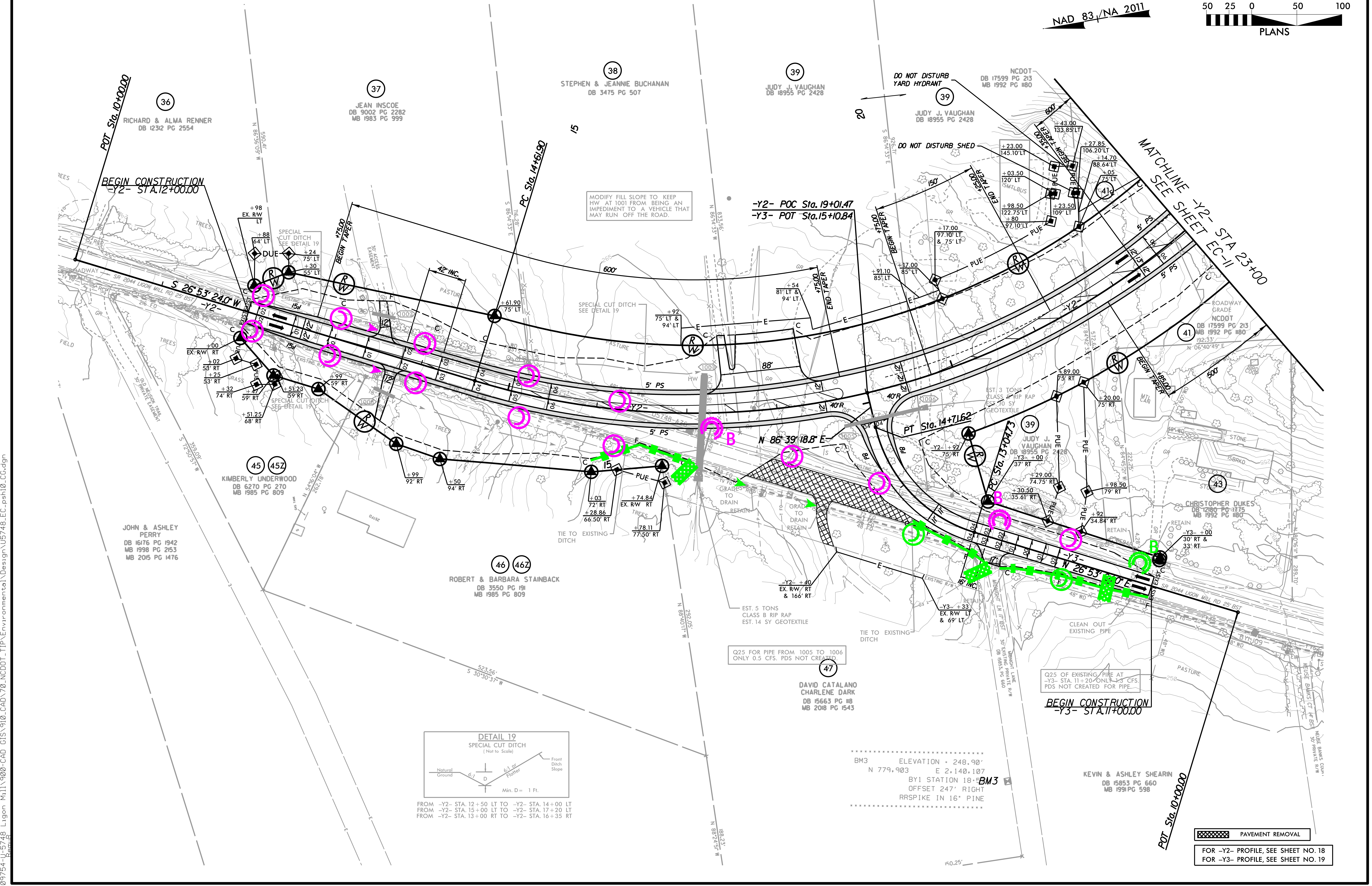
PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-10/CONST.10
R/W SHEET NO.	

Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10


50 25 0 50 100
PLANS
NAD 83/NA 2011
POT Sta. 10+00.00
BEGIN CONSTRUCTION -Y2- STA.12+00.00
S 26°53'24.0" W
-Y2-
36
RICHARD & ALMA RENNER
DB 12312 PG 2554
37
JEAN INSCOE
DB 9002 PG 2282
MB 1983 PG 999
38
STEPHEN & JEANNIE BUCHANAN
DB 3475 PG 507
39
JUDY J. VAUGHAN
DB 18955 PG 2428
PC Sta. 14+61.90
MODIFY FILL SLOPE TO KEEP HW AT 1001 FROM BEING AN IMPEDIMENT TO A VEHICLE THAT MAY RUN OFF THE ROAD.
-Y2- POC Sta. 19+01.47
-Y3- POT Sta.15+10.84
600'
DO NOT DISTURB YARD HYDRANT
DO NOT DISTURB SHED
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
MATCHLINE -Y2- STA 23+00
SEE SHEET EC-11
SPECIAL CUT DITCH SEE DETAIL 19
BEGIN TAPER
END TAPER
5' PS
PUE
DUE
N 86°39'18.8" E
PT Sta. 14+71.62
PC Sta. 13+04.73
EST. 3 TONS CLASS B RIP RAP EST. 10 SY GEOTEXTILE
45 45Z
KIMBERLY UNDERWOOD
DB 6270 PG 270
MB 1985 PG 809
JOHN & ASHLEY PERRY
DB 16176 PG 1942
MB 1998 PG 2153
MB 2015 PG 1476
46 46Z
ROBERT & BARBARA STAINBACK
DB 3550 PG 191
MB 1985 PG 809
TIE TO EXISTING DITCH
GRADE TO DRAIN
RETAIN
EST. 5 TONS
CLASS B RIP RAP
EST. 14 SY GEOTEXTILE
Q25 FOR PIPE FROM 1005 TO 1006
ONLY 0.5 CFS. PDS NOT CREATED.
47
DAVID CATALANO
CHARLENE DARK
DB 15663 PG 118
MB 2018 PG 1543
41
43
CHRISTOPHER DUKES
DB 12180 PG 1775
MB 1992 PG 1180
-Y3-
N 26°53'
CLEAN OUT EXISTING PIPE
Q25 OF EXISTING PIPE AT -Y3- STA. 11+20 ONLY 1.3 CFS. PDS NOT CREATED FOR PIPE.
BEGIN CONSTRUCTION -Y3- STA.11+00.00
PASTURE
KEVIN & ASHLEY SHEARIN
DB 15853 PG 660
MB 1991 PG 598
POT Sta. 10+00.00
DETAIL 19
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
6:1
D
6:1 or Flatter
Front Ditch Slope
Min. D = 1 Ft.
FROM -Y2- STA. 12+50 LT TO -Y2- STA. 14+00 LT
FROM -Y2- STA. 15+00 LT TO -Y2- STA. 17+20 LT
FROM -Y2- STA. 13+00 RT TO -Y2- STA. 16+35 RT
BM3 ELEVATION = 248.90'
N 779,903 E 2,140,107
BY1 STATION 18+5
OFFSET 247' RIGHT
RRSPIKE IN 16" PINE
BM3
▩ PAVEMENT REMOVAL
FOR -Y2- PROFILE, SEE SHEET NO. 18
FOR -Y3- PROFILE, SEE SHEET NO. 19

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-11/CONST.11
R/W SHEET NO.	

Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
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Raleigh, NC 27607
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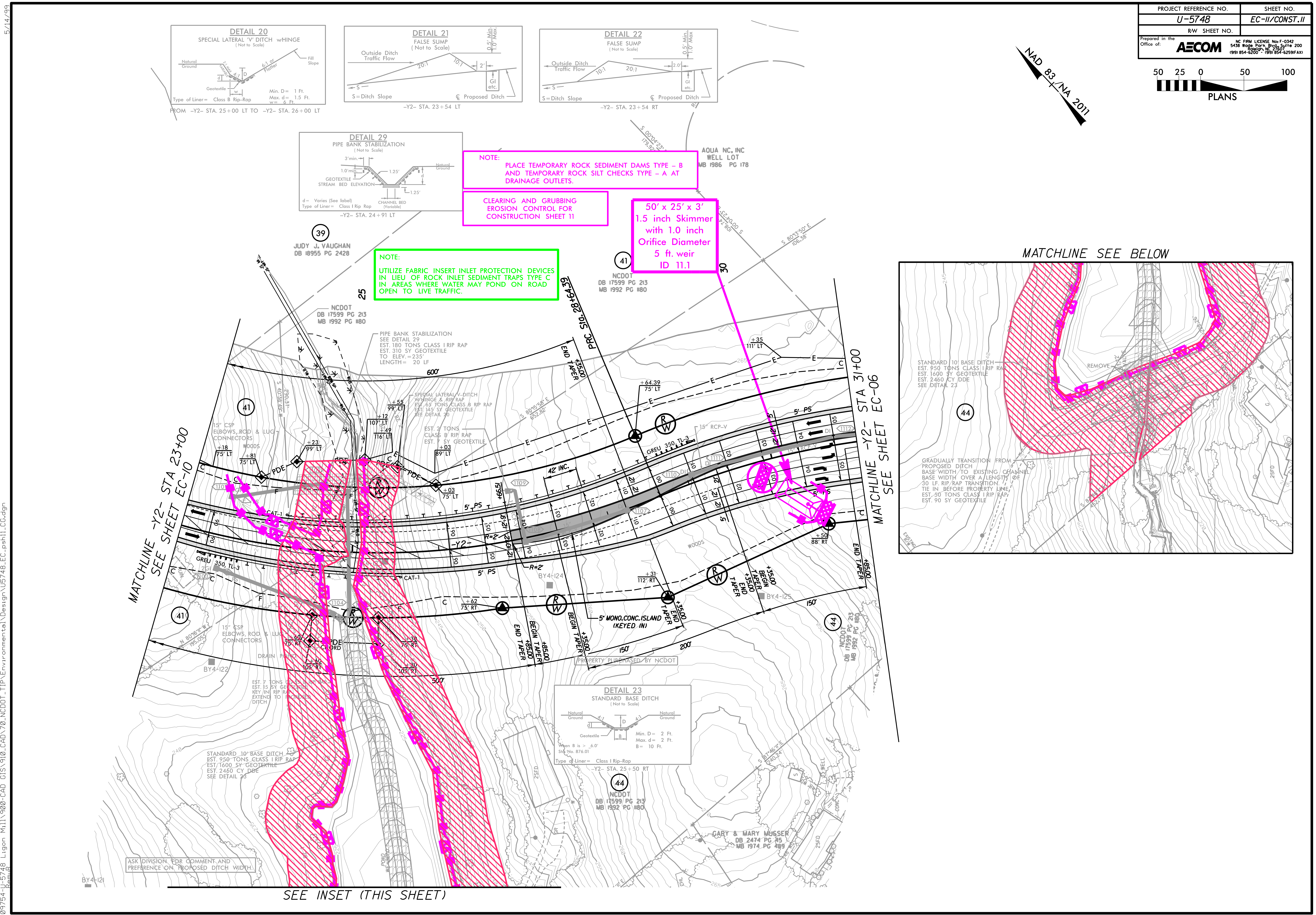
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

50′ x 25′ x 3′
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 11.1

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

DETAIL 20
SPECIAL LATERAL 'V' DITCH w/HINGE
(Not to Scale)
Type of Liner = Class B Rip–Rap
Min. D = 1 Ft.
Max. d = 1.5 Ft.
w = 6 Ft.
FROM –Y2– STA. 25+00 LT TO –Y2– STA. 26+00 LT

DETAIL 21
FALSE SUMP
(Not to Scale)
S = Ditch Slope
–Y2– STA. 23+54 LT

DETAIL 22
FALSE SUMP
(Not to Scale)
S = Ditch Slope
–Y2– STA. 23+54 RT

DETAIL 29
PIPE BANK STABILIZATION
(Not to Scale)
d = Varies (See label)
Type of Liner = Class I Rip Rap
–Y2– STA. 24+91 LT

DETAIL 23
STANDARD BASE DITCH
(Not to Scale)
When B is > 6.0′
Std. No. 876.01
Min. D = 2 Ft.
Max. d = 2 Ft.
B = 10 Ft.
Type of Liner = Class I Rip–Rap
–Y2– STA. 25+50 RT

PIPE BANK STABILIZATION
SEE DETAIL 29
EST. 180 TONS CLASS I RIP RAP
EST. 310 SY GEOTEXTILE
TO ELEV. = 235′
LENGTH = 20 LF

STANDARD 10′ BASE DITCH
EST. 950 TONS CLASS I RIP RAP
EST. 1600 SY GEOTEXTILE
EST. 2460 CY DDE
SEE DETAIL 23

GRADUALLY TRANSITION FROM PROPOSED DITCH BASE WIDTH TO EXISTING CHANNEL BASE WIDTH OVER A LENGTH OF 30 LF. RIP RAP TRANSITION. TIE IN BEFORE PROPERTY LINE.
EST. 50 TONS CLASS I RIP RAP
EST. 90 SY GEOTEXTILE

ASK DIVISION FOR COMMENT AND PREFERENCE ON PROPOSED DITCH WIDTH.

NAD 83/NA 2011
50 25 0 50 100
PLANS
Natural Ground
Geotextile
6:1 or Flatter
Fill Slope
Outside Ditch Traffic Flow
20:1
10:1
0.5′ Min. 1.0′ Max.
GI etc.
℄ Proposed Ditch
GEOTEXTILE
STREAM BED ELEVATION
CHANNEL BED (Variable)
39
JUDY J. VAUGHAN
DB 18955 PG 2428
41
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
AQUA NC, INC
WELL LOT
MB 1986 PG 178
PRC Sta. 28+64.39
MATCHLINE –Y2– STA 23+00 SEE SHEET EC-10
MATCHLINE –Y2– STA 31+00 SEE SHEET EC-06
MATCHLINE SEE BELOW
SEE INSET (THIS SHEET)
SPECIAL LATERAL V-DITCH W/HINGE & RIP RAP
EST. 2 TONS CLASS B RIP RAP
15″ CSP ELBOWS, ROD & LUG CONNECTORS
WOODS
PDE
CAT-1
GREU 350 TL-3
5′ PS
42″ INC.
-Y2-
R=2′
END TAPER
BEGIN TAPER
5′ MONO.CONC.ISLAND (KEYED IN)
PROPERTY PURCHASED BY NCDOT
DRAIN POND
BY4-122
BY4-124
BY4-125
BY4-121
44
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
GARY & MARY MUSSER
DB 2474 PG 45
MB 1974 PG 489
REMOVE
EXISTING R/W
150′
200′
500′
600′

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-IIA/CONST.II
R/W SHEET NO.	

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5438 Wade Park Blvd., Suite 200
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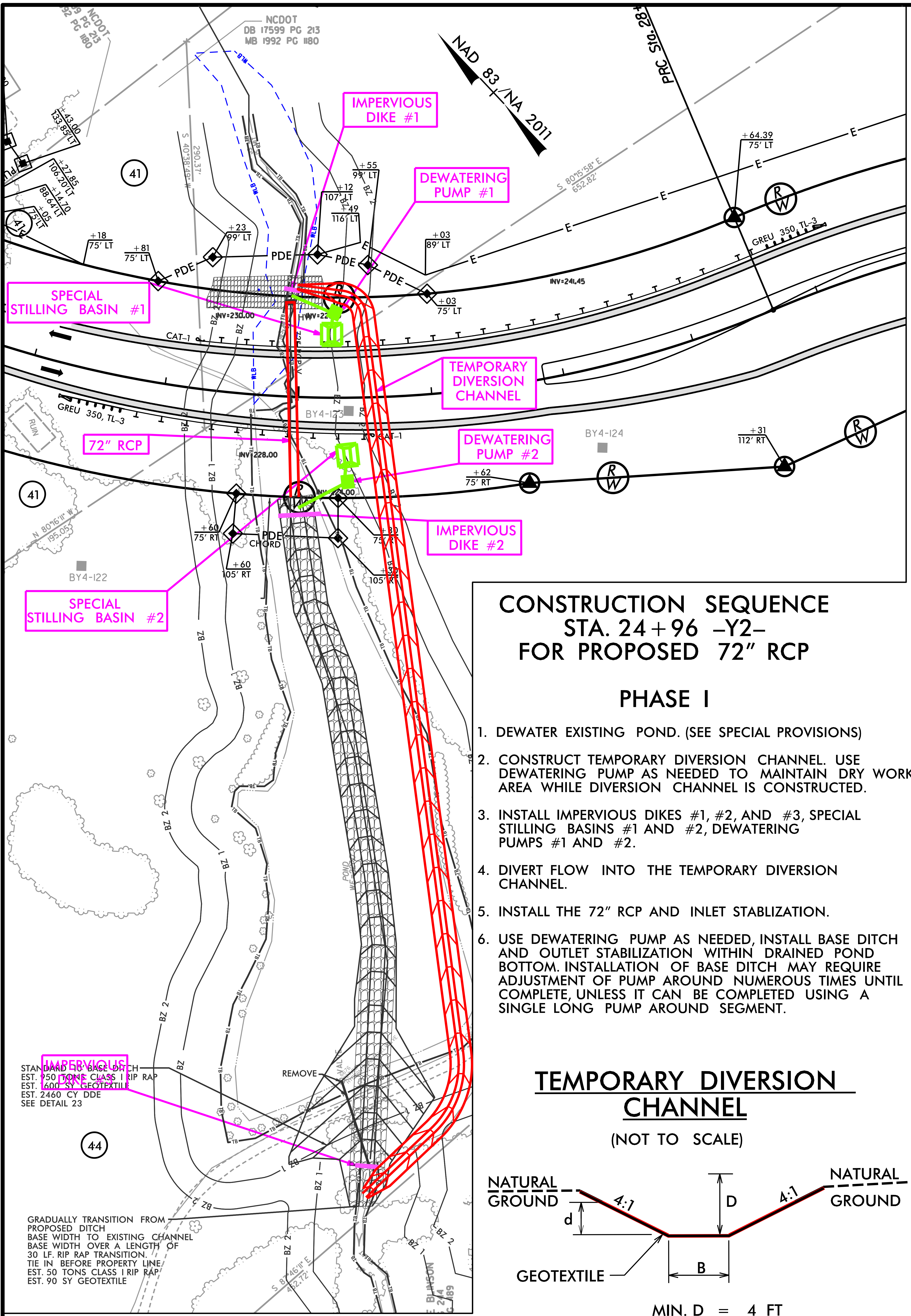
50 25 0 50 100
PLANS


NCDOT
DB 17599 PG 213
MB 1992 PG 180
NAD 83 / NA 2011
PRC Sta. 28+
IMPERVIOUS DIKE #1
DEWATERING PUMP #1
SPECIAL STILLING BASIN #1
TEMPORARY DIVERSION CHANNEL
72" RCP
DEWATERING PUMP #2
IMPERVIOUS DIKE #2
SPECIAL STILLING BASIN #2
IMPERVIOUS DIKE #3
41
44
PDE
CAT-1
GREU 350, TL-3
INV=241.45
INV=230.00
INV=228.00
BY4-I23
BY4-I24
BY4-I22
+64.39 75' LT
+55 99' LT
+12 107' LT
+49 116' LT
+23 99' LT
+03 89' LT
+18 75' LT
+81 75' LT
+03 75' LT
+31 112' RT
+62 75' RT
+60 75' RT
+60 105' RT
CHORD
REMOVE
STANDARD 10' BASE DITCH
EST. 950 TONS CLASS I RIP RAP
EST. 1600 SY GEOTEXTILE
EST. 2460 CY DDE
SEE DETAIL 23
GRADUALLY TRANSITION FROM PROPOSED DITCH
BASE WIDTH TO EXISTING CHANNEL
BASE WIDTH OVER A LENGTH OF
30 LF. RIP RAP TRANSITION.
TIE IN BEFORE PROPERTY LINE.
EST. 50 TONS CLASS I RIP RAP
EST. 90 SY GEOTEXTILE
NATURAL GROUND
4:1
D
d
B
GEOTEXTILE

CONSTRUCTION SEQUENCE
STA. 24+96 –Y2–
FOR PROPOSED 72" RCP

PHASE I

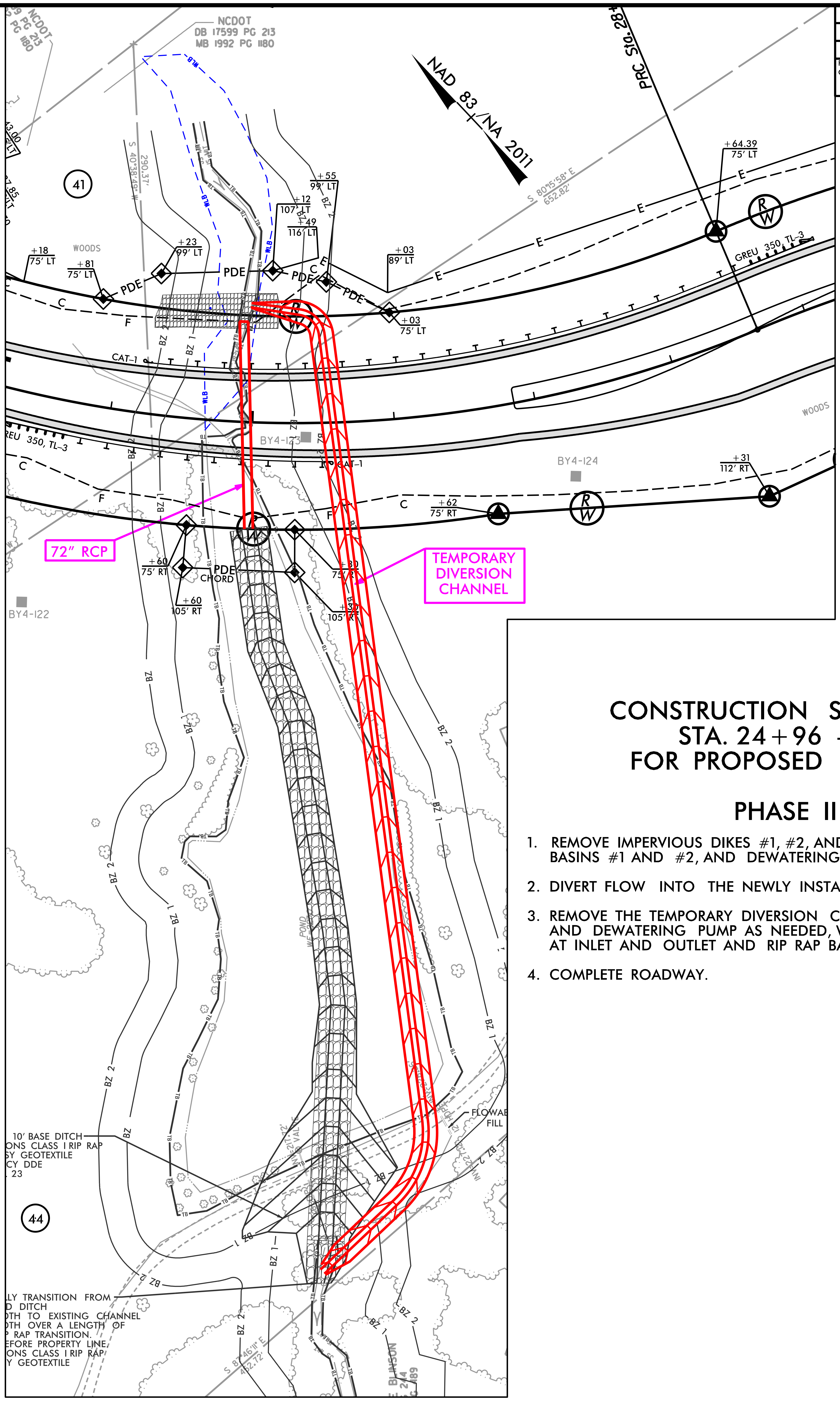
1. DEWATER EXISTING POND. (SEE SPECIAL PROVISIONS)
2. CONSTRUCT TEMPORARY DIVERSION CHANNEL. USE DEWATERING PUMP AS NEEDED TO MAINTAIN DRY WORK AREA WHILE DIVERSION CHANNEL IS CONSTRUCTED.
3. INSTALL IMPERVIOUS DIKES #1, #2, AND #3, SPECIAL STILLING BASINS #1 AND #2, DEWATERING PUMPS #1 AND #2.
4. DIVERT FLOW INTO THE TEMPORARY DIVERSION CHANNEL.
5. INSTALL THE 72" RCP AND INLET STABLIZATION.
6. USE DEWATERING PUMP AS NEEDED, INSTALL BASE DITCH AND OUTLET STABILIZATION WITHIN DRAINED POND BOTTOM. INSTALLATION OF BASE DITCH MAY REQUIRE ADJUSTMENT OF PUMP AROUND NUMEROUS TIMES UNTIL COMPLETE, UNLESS IT CAN BE COMPLETED USING A SINGLE LONG PUMP AROUND SEGMENT.

TEMPORARY DIVERSION CHANNEL

(NOT TO SCALE)

MIN. D = 4 FT
MAX. d = 3.5 FT
B = 6 FT

TYPE OF LINER = GEOTEXTILE FOR SOIL STABILIZATION


NCDOT
DB 17599 PG 213
MB 1992 PG 180
NAD 83 / NA 2011
PRC Sta. 28+
72" RCP
TEMPORARY DIVERSION CHANNEL
41
44
WOODS
PDE
CAT-1
GREU 350, TL-3
BY4-I23
BY4-I24
BY4-I22
+64.39 75' LT
+55 99' LT
+12 107' LT
+49 116' LT
+23 99' LT
+03 89' LT
+18 75' LT
+81 75' LT
+03 75' LT
+31 112' RT
+62 75' RT
+60 75' RT
+60 105' RT
CHORD
FLOWAB FILL
10' BASE DITCH

CONSTRUCTION SEQUENCE
STA. 24+96 –Y2–
FOR PROPOSED 72" RCP

PHASE II

1. REMOVE IMPERVIOUS DIKES #1, #2, AND #3, SPECIAL STILLING BASINS #1 AND #2, AND DEWATERING PUMPS #1 AND #2.
2. DIVERT FLOW INTO THE NEWLY INSTALLED 72" RCP.
3. REMOVE THE TEMPORARY DIVERSION CHANNEL. USE IMPERVIOUS DIKES AND DEWATERING PUMP AS NEEDED, WHILE DIVERSION IS BEING FILLED AT INLET AND OUTLET AND RIP RAP BANKS PROTECTIONS INSTALLED.
4. COMPLETE ROADWAY.

5/14/99

9:52:12 AM
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RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-12/CONST.12
R/W SHEET NO.	

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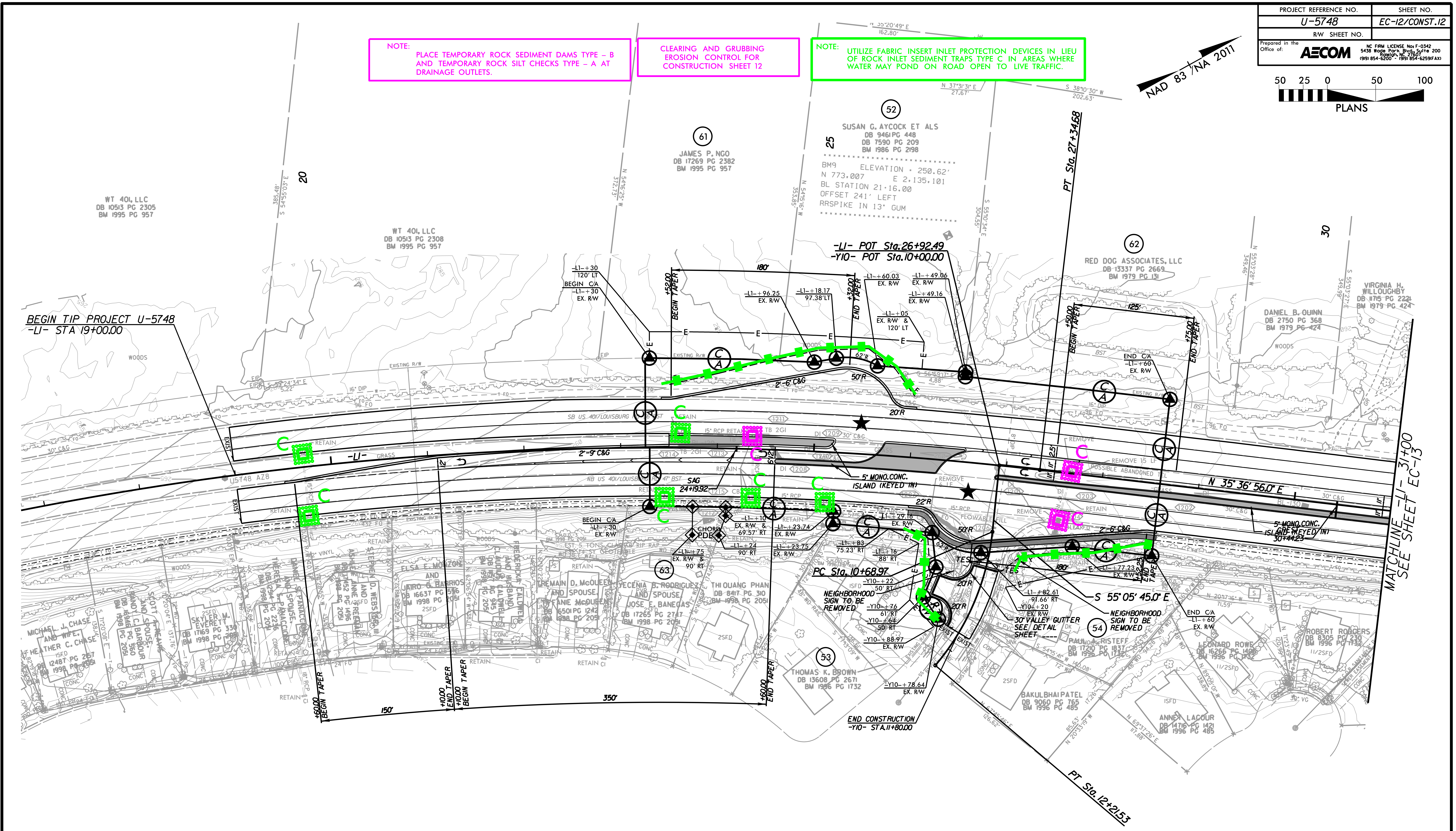
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


NAD 83 / NA 2011
50 25 0 50 100
PLANS
20
25
30
WT 401, LLC
DB 10513 PG 2305
BM 1995 PG 957
WT 401, LLC
DB 10513 PG 2308
BM 1995 PG 957
61
JAMES P. NGO
DB 17269 PG 2382
BM 1995 PG 957
52
SUSAN G. AYCOCK ET ALS
DB 9461 PG 448
DB 7590 PG 209
BM 1986 PG 2198
BM9 ELEVATION = 250.62'
N 773,007 E 2,135,101
BL STATION 21+16.00
OFFSET 241' LEFT
RRSPIKE IN 13" GUM
62
RED DOG ASSOCIATES, LLC
DB 13337 PG 2669
BM 1979 PG 131
DANIEL B. QUINN
DB 2750 PG 368
BM 1979 PG 424
VIRGINIA H. WILLOUGHBY
DB 1715 PG 2221
BM 1979 PG 424
BEGIN TIP PROJECT U-5748
-L1- STA 19+00.00
WOODS
EXISTING R/W
16" DIP
96 FO
30" C&G
RETAIN
GRASS
-L1-
U5748 AZ8
EXIST
SB US 401/LOUISBURG
NB US 401/LOUISBURG
-L1- + 30
120' LT
BEGIN C/A
-L1- + 30
EX. R/W
+52.00 BEGIN TAPER
180'
-L1- + 96.25
EX. R/W
-L1- + 18.17
97.38' LT
+32.00 END TAPER
-L1- + 60.03
EX. R/W
-L1- + 49.06
EX. R/W
-L1- + 49.16
EX. R/W
-L1- + 05
EX. R/W &
120' LT
-L1- POT Sta. 26+92.49
-Y10- POT Sta. 10+00.00
62'R
50'R
20'R
2'-6" C&G
2'-9" C&G
PT Sta. 27+34.68
+50.00 BEGIN TAPER
125'
+75.00 END TAPER
END C/A
-L1- + 60
EX. R/W
5" MONO. CONC. ISLAND (KEYED IN)
N 35° 36' 56.0" E
CREST 30+44.23
MATCHLINE -L1- 31+00
SEE SHEET EC-13
REMOVE 15 LF
POSSIBLE ABANDONED TEL
SAG 24+19.92
BEGIN C/A
-L1- + 30
EX. R/W
CHORD
PDE
-L1- + 10
EX. R/W & 69.57' RT
-L1- + 24
90' RT
-L1- + 75
EX. R/W & 90' RT
-L1- + 23.74
EX. R/W
-L1- + 23.75
EX. R/W
-L1- + 83
75.23' RT
-L1- + 16
88' RT
-L1- + 29.16
EX. R/W
22'R
PC Sta. 10+68.97
-Y10- + 22
50' RT
NEIGHBORHOOD SIGN TO BE REMOVED
-Y10- + 76
61' RT
-Y10- + 64
50' RT
-Y10- + 88.97
EX. R/W
-Y10- + 78.64
EX. R/W
END CONSTRUCTION
-Y10- STA. 11+80.00
PT Sta. 12+21.53
-L1- + 82.61
91.66' RT
-Y10- + 20
EX. R/W
30" VALLEY GUTTER SEE DETAIL SHEET ----
-L1- + 77.23
EX. R/W
+52.25 END TAPER
S 55° 05' 45.0" E
NEIGHBORHOOD SIGN TO BE REMOVED
END C/A
-L1- + 60
EX. R/W
63
53
THOMAS K. BROWN
DB 13608 PG 2671
BM 1996 PG 1732
54
PAUL A. RISTEFF
DB 17210 PG 1837
BM 1996 PG 1732
BAKULBHAI PATEL
DB 9060 PG 765
BM 1996 PG 485
ANNEY LACOUR
DB 14716 PG 1421
BM 1996 PG 485
LEONARD ROWE
DB 16266 PG 1406
BM 1996 PG 1732
ROBERT RODGERS
DB 8305 PG 230
BM 1996 PG 1732
+60.00 BEGIN TAPER
150'
+10.00 END TAPER
+10.00 BEGIN TAPER
350'
+60.00 END TAPER
C
A

-L1-

PI Sta 21+32.83
Δ = 20° 30' 59.4" (RT)
D = 1° 41' 09.6"
L = 1,216.87'
T = 615.02'
R = 3,398.32'
e = EXIST.

-Y10-

PI Sta 11+47.63
Δ = 34° 22' 23.2" (RT)
D = 22° 31' 50.8"
L = 152.56'
T = 78.65'
R = 254.30'
e = EXIST.

★ PROPOSED SIGNAL

FOR -L1- PROFILE, SEE SHEET NO. 28
FOR -Y10- PROFILE, SEE SHEET NO. 31

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-13/CONST.13
R/W SHEET NO.	

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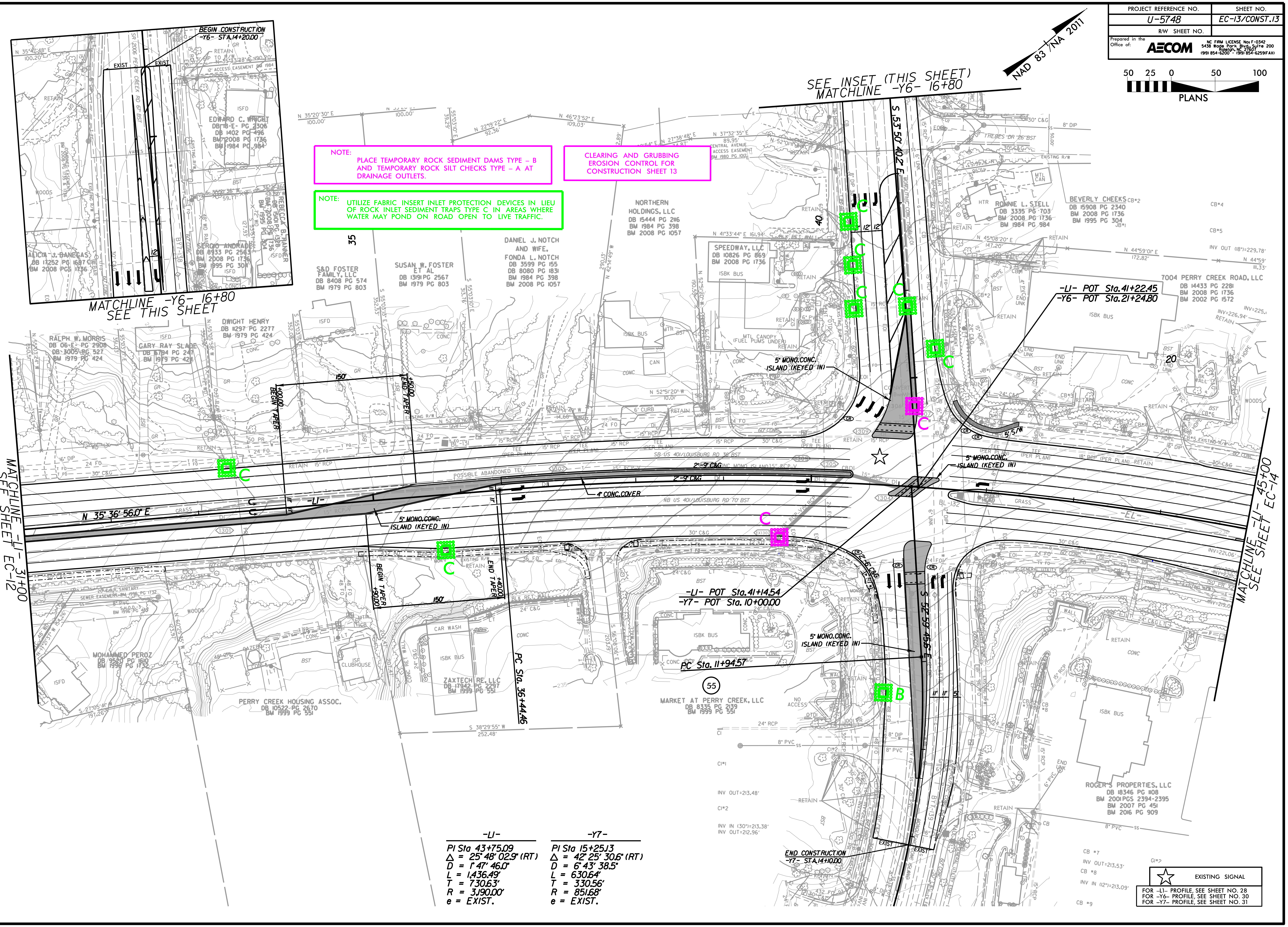
50 25 0 50 100
PLANS
NAD 83/NA 2011
SEE INSET (THIS SHEET)
MATCHLINE -Y6- 16+80
MATCHLINE -Y6- 16+80
SEE THIS SHEET
BEGIN CONSTRUCTION
-Y6- STA.14+20.00
MATCHLINE -L1- 31+00
SEE SHEET EC-12
MATCHLINE -L1- 45+00
SEE SHEET EC-14
N 35° 36' 56.0" E
S 53° 50' 40.2" E
-L1- POT Sta.41+22.45
-Y6- POT Sta.21+24.80
-L1- POT Sta.41+14.54
-Y7- POT Sta.10+00.00
PC Sta. 11+94.57
PC Sta. 36+44.46
5' MONO.CONC. ISLAND (KEYED IN)
4' CONC.COVER
2'-9" C&G
BEGIN TAPER +00.00
END TAPER +50.00
150'
END CONSTRUCTION
-Y7- STA.14+10.00
C
B
NORTHERN HOLDINGS, LLC
DANIEL J. NOTCH AND WIFE, FONDA L. NOTCH
SPEEDWAY, LLC
S&D FOSTER FAMILY, LLC
SUSAN W. FOSTER ET AL
DWIGHT HENRY
RALPH W. MORRIS
GARY RAY SLADE
MOHAMMED PEROZ
PERRY CREEK HOUSING ASSOC.
ZAXTECH RE, LLC
MARKET AT PERRY CREEK, LLC
RONNIE L. STELL
BEVERLY CHEEKS
7004 PERRY CREEK ROAD, LLC
ROGER'S PROPERTIES, LLC
EDWARD C. WRIGHT
REBECCA B. BANNER
SERGIO ANDRADE
ALICIA J. BANEGAS
SB US 401/LOUISBURG RD
NB US 401/LOUISBURG RD
55
35

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

-L1-
PI Sta 43+75.09
Δ = 25° 48' 02.9" (RT)
D = 1° 47' 46.0"
L = 1,436.49'
T = 730.63'
R = 3,190.00'
e = EXIST.

-Y7-
PI Sta 15+25.13
Δ = 42° 25' 30.6" (RT)
D = 6° 43' 38.5"
L = 630.64'
T = 330.56'
R = 851.68'
e = EXIST.

☆ EXISTING SIGNAL

FOR -L1- PROFILE, SEE SHEET NO. 28
FOR -Y6- PROFILE, SEE SHEET NO. 30
FOR -Y7- PROFILE, SEE SHEET NO. 31

5/14/99

9:52:38 AM
s\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh13_CG.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-14/CONST.14
R/W SHEET NO.	

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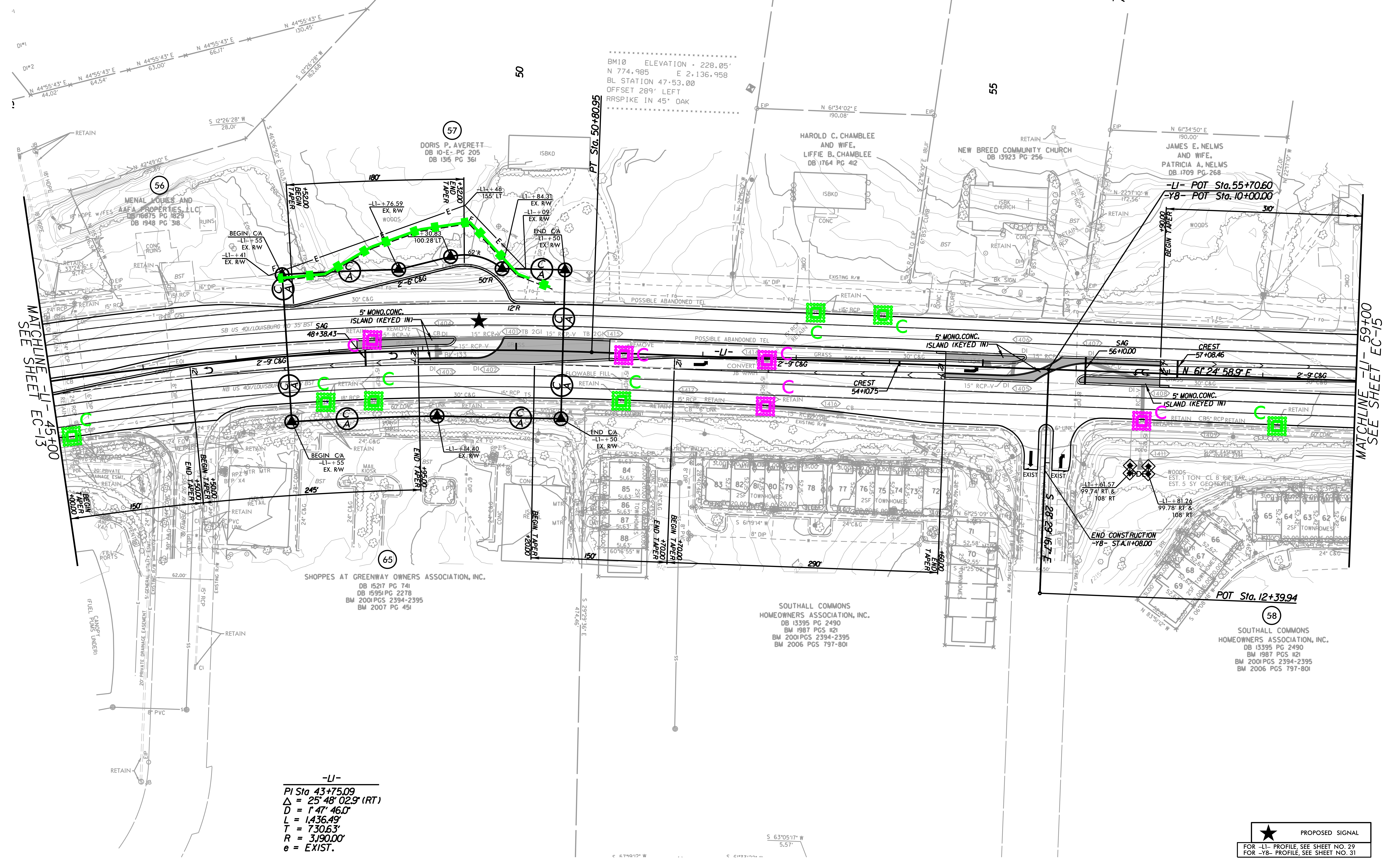
NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14


50 25 0 50 100
PLANS
NAD 83/NA 2011
BM10 ELEVATION = 228.05'
N 774,985 E 2,136,958
BL STATION 47+53.00
OFFSET 289' LEFT
RRSPIKE IN 45" OAK
PT Sta. 50+80.95
50
55
MATCHLINE -L1- 45+00 SEE SHEET EC-13
MATCHLINE -L1- 59+00 SEE SHEET EC-15
DORIS P. AVERETT DB 10-E- PG 205 DB 1316 PG 361
MENAL LOUIS AND AAFA PROPERTIES, LLC DB 16875 PG 1829 DB 1948 PG 318
HAROLD C. CHAMBLEE AND WIFE, LIFFIE B. CHAMBLEE DB 1764 PG 412
NEW BREED COMMUNITY CHURCH DB 13923 PG 256
JAMES E. NELMS AND WIFE, PATRICIA A. NELMS DB 1709 PG 268
-L1- POT Sta. 55+70.60
-Y8- POT Sta. 10+00.00
SHOPPES AT GREENWAY OWNERS ASSOCIATION, INC. DB 15217 PG 741 DB 15951 PG 2278 BM 2001 PGS 2394-2395 BM 2007 PG 451
SOUTHALL COMMONS HOMEOWNERS ASSOCIATION, INC. DB 13395 PG 2490 BM 1987 PGS 1121 BM 2001 PGS 2394-2395 BM 2006 PGS 797-801
END CONSTRUCTION -Y8- STA.11+08.00
POT Sta. 12+39.94
SAG 48+38.43
SAG 56+10.00
CREST 54+10.75
CREST 57+08.46
N 61° 24' 58.9" E
5' MONO.CONC. ISLAND (KEYED IN)
SB US 401/LOUISBURG RD
NB US 401/LOUISBURG RD
56
57
58
65

-L1-

PI Sta 43+75.09
Δ = 25° 48' 02.9" (RT)
D = 1° 47' 46.0"
L = 1,436.49'
T = 730.63'
R = 3,190.00'
e = EXIST.

★ PROPOSED SIGNAL

FOR -L1- PROFILE, SEE SHEET NO. 29
FOR -Y8- PROFILE, SEE SHEET NO. 31

5/14/99

9:52:56 AM
...\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh14_CG.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-15/CONST.15
R/W SHEET NO.	

Prepared in the Office of: AECOM

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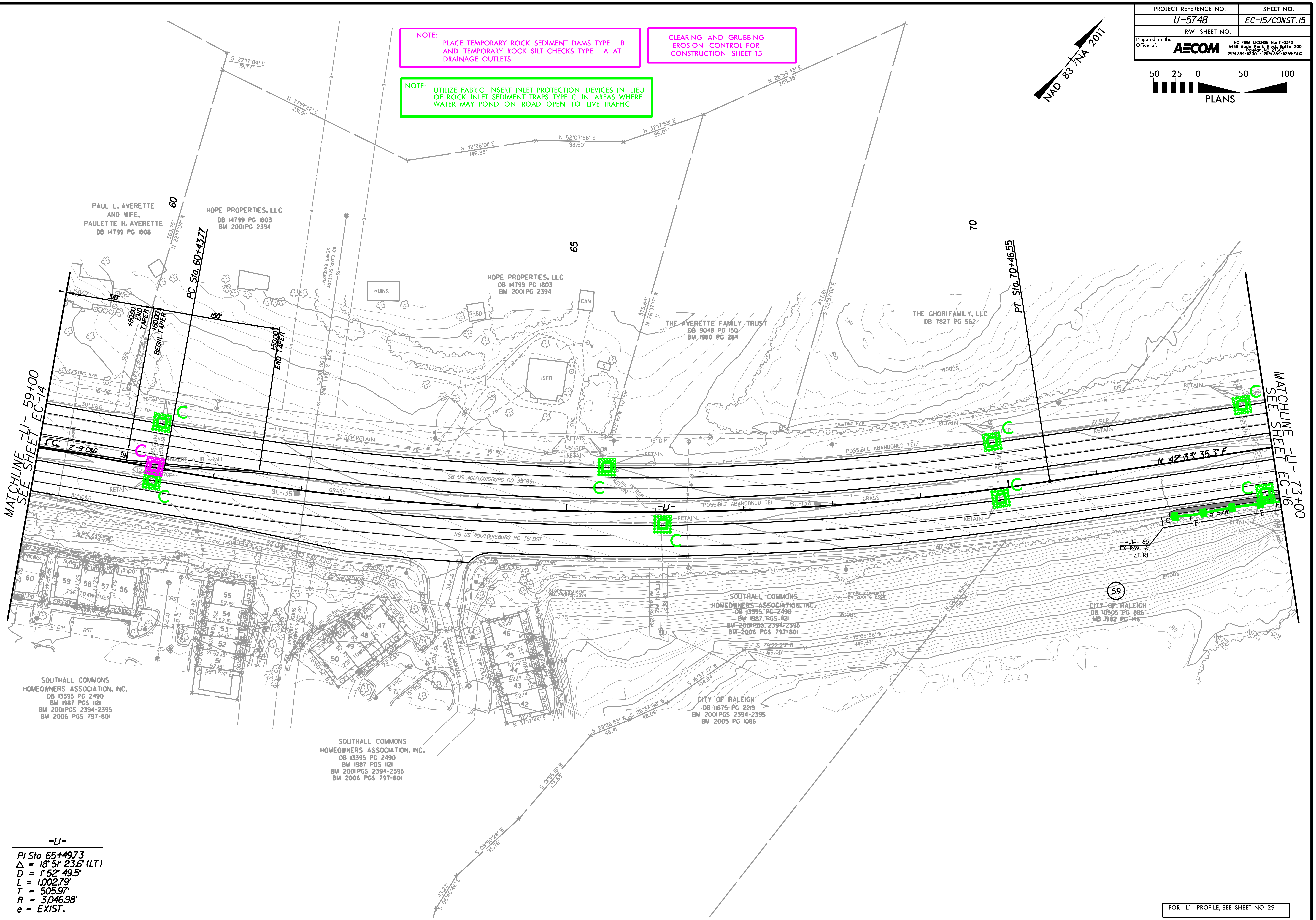
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

50 25 0 50 100
PLANS

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


NAD 83 / NA 2011
S 22°17'04" E 19.77'
N 77°19'22" E 231.91'
N 42°26'01" E 146.93'
N 52°07'56" E 98.50'
N 32°17'53" E 95.07'
N 26°59'43" E 249.38'
PAUL L. AVERETTE AND WIFE, PAULETTE H. AVERETTE DB 14799 PG 1808
369.75' N 22°17'04" W
60
HOPE PROPERTIES, LLC DB 14799 PG 1803 BM 2001 PG 2394
PC Sta. 60+43.77
310'
150'
+80.00 END TAPER
+80.00 BEGIN TAPER
+50.00 END TAPER
RUINS
SHED
CAN
ISFD
65
70
THE AVERETTE FAMILY TRUST DB 9048 PG 150 BM 1980 PG 284
THE GHORI FAMILY, LLC DB 7827 PG 562
PT Sta. 70+46.55
WOODS
EXISTING R/W
16" DIP
30" C&G
2'-9" C&G
RETAIN
15" RCP RETAIN
CONVERT to JB w/MH
SB US 401/LOUISBURG RD 35' BST
NB US 401/LOUISBURG RD 35' BST
BL-135
BL-136
GRASS
-L1-
POSSIBLE ABANDONED TEL
N 42°33' 35.3" E
C
MATCHLINE -L1- 59+00 SEE SHEET EC-14
MATCHLINE -L1- 73+00 SEE SHEET EC-16
5' S/W
-L1- + 65 EX. R/W & 71' RT
SLOPE EASEMENT BM 2001 PG 2394
60" CONC
59
CITY OF RALEIGH DB 10505 PG 886 MB 1982 PG 146
SOUTHALL COMMONS HOMEOWNERS ASSOCIATION, INC. DB 13395 PG 2490 BM 1987 PGS 1121 BM 2001 PGS 2394-2395 BM 2006 PGS 797-801
CITY OF RALEIGH DB 11675 PG 2219 BM 2001 PGS 2394-2395 BM 2005 PG 1086
S 43°09'58" W 146.37'
S 49°22'29" W 69.08'
S 16°37'47" W 104.84'
S 26°37'06" W 48.06'
S 29°26'53" W 46.41'
S 01°55'18" W 123.53'
S 08°50'28" W 95.76'
N 00°01'49" E 156.54'
TOWNHOMES
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42

-L1-
PI Sta 65+49.73
Δ = 18° 51' 23.6" (LT)
D = 1° 52' 49.5"
L = 1,002.79'
T = 505.97'
R = 3,046.98'
e = EXIST.

FOR -L1- PROFILE, SEE SHEET NO. 29

5/14/99

9:53:20 AM
...\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh15_CG.dgn
RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-16/CONST.16
R/W SHEET NO.	

Prepared in the Office of: **AECOM**
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

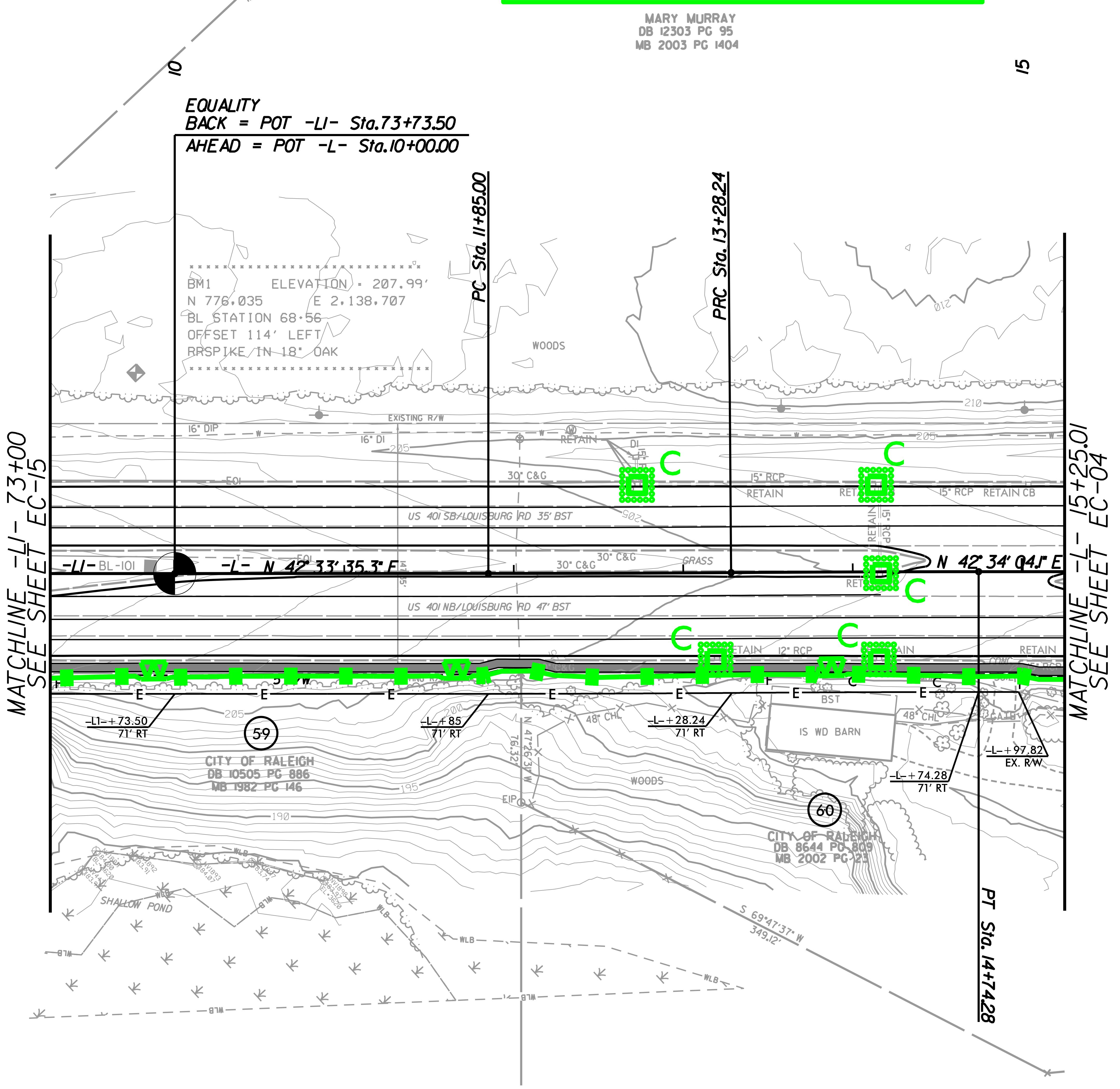
NAD 83/NA 2011

50 25 0 50 100
PLANS

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


MARY MURRAY
DB 12303 PG 95
MB 2003 PG 1404
N 00°34'11" W 1555.54'
10
15
EQUALITY
BACK = POT -L1- Sta.73+73.50
AHEAD = POT -L- Sta.10+00.00
PC Sta. 11+85.00
PRC Sta. 13+28.24
PT Sta. 14+74.28
BM1 ELEVATION = 207.99'
N 776,035 E 2,138,707
BL STATION 68+56
OFFSET 114' LEFT
RRSPIKE IN 18" OAK
WOODS
EXISTING R/W
16" DIP
16" DI
RETAIN
30" C&G
15" RCP
15" RCP RETAIN CB
US 401 SB/LOUISBURG RD 35' BST
-L1- BL-101
-L- N 42° 33' 35.3" E
N 42° 34' 04.5" E
30" C&G
GRASS
US 401 NB/LOUISBURG RD 47' BST
12" RCP
RETAIN
C
C
C
C
C
MATCHLINE -L1- 73+00
SEE SHEET EC-15
MATCHLINE -L- 15+25.01
SEE SHEET EC-04
-L1- + 73.50 71' RT
59
CITY OF RALEIGH
DB 10505 PG 886
MB 1982 PG 146
-L- + 85 71' RT
-L- + 28.24 71' RT
48" CHL
BST
1S WD BARN
-L- + 74.28 71' RT
-L- + 97.82
EX. R/W
WOODS
60
CITY OF RALEIGH
DB 8644 PG 809
MB 2002 PG 23
S 69°47'37" W 349.12'
SHALLOW POND
WLB

-L-

PI Sta 12+56.62
Δ = 0° 24' 37.3" (LT)
D = 0° 17' 11.3"
L = 143.24'
T = 71.62'
R = 20,000.00'
e = EXIST.

PI Sta 14+01.26
Δ = 0° 25' 06.1" (RT)
D = 0° 17' 11.3"
L = 146.04'
T = 73.02'
R = 20,000.00'
e = EXIST.

FOR -L1- PROFILE, SEE SHEET NO. 30

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-17/CONST.4
R/W SHEET NO.	

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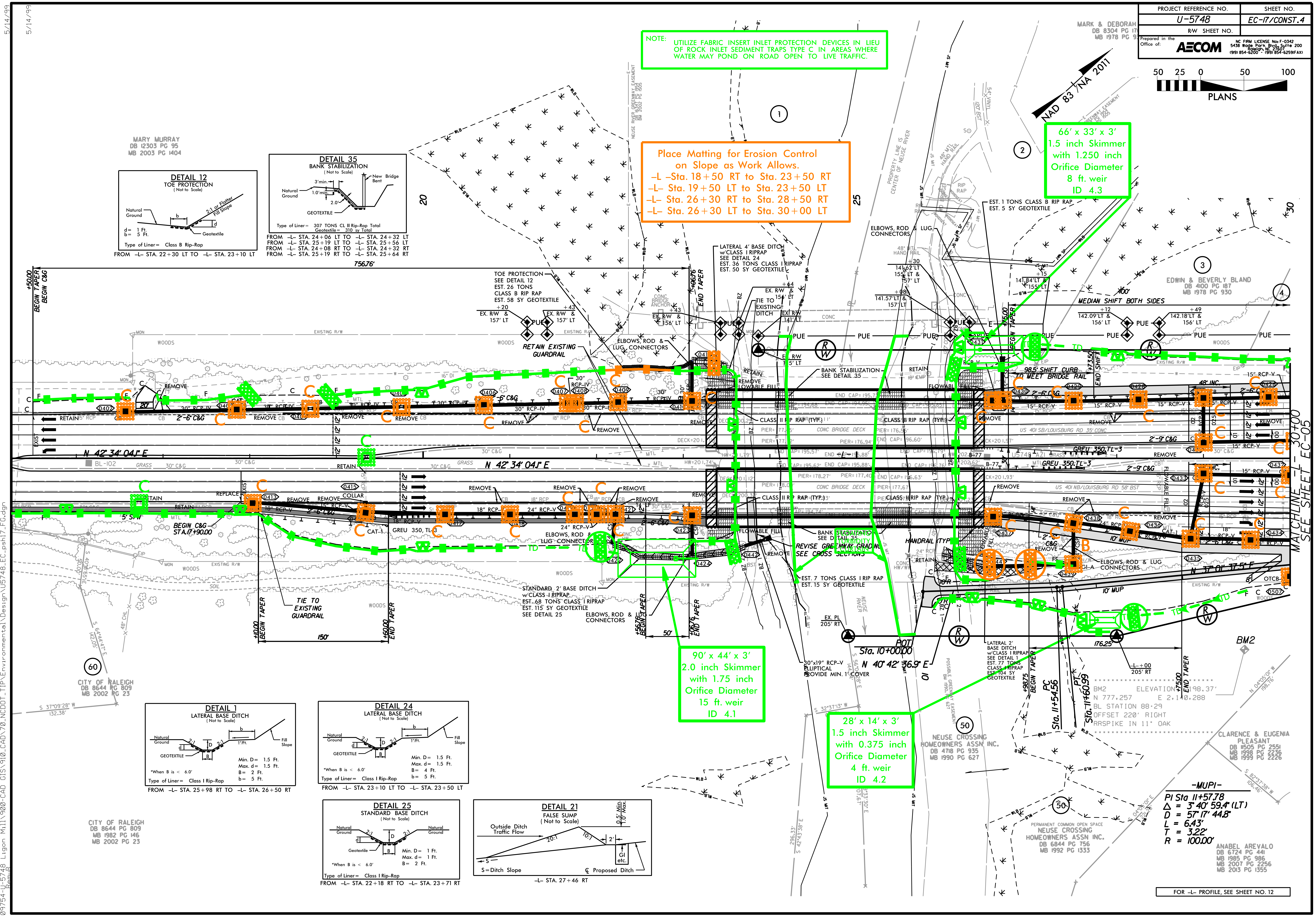
AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)



50 25 0 50 100
PLANS
NAD 83/NA 2011
MARK & DEBORAH
DB 8304 PG 17
MB 1978 PG 9
MARY MURRAY
DB 12303 PG 95
MB 2003 PG 1404
EDWIN & BEVERLY BLAND
DB 4100 PG 187
MB 1978 PG 930
CITY OF RALEIGH
DB 8644 PG 809
MB 2002 PG 23
CITY OF RALEIGH
DB 8644 PG 809
MB 1982 PG 146
MB 2002 PG 23
NEUSE CROSSING
HOMEOWNERS ASSN INC.
DB 4718 PG 935
MB 1990 PG 627
PERMANENT COMMON OPEN SPACE
NEUSE CROSSING
HOMEOWNERS ASSN INC.
DB 6844 PG 756
MB 1992 PG 1333
CLARENCE & EUGENIA
PLEASANT
DB 11505 PG 2551
MB 1998 PG 2236
MB 1999 PG 2226
ANABEL AREVALO
DB 6724 PG 441
MB 1985 PG 986
MB 2007 PG 2256
MB 2013 PG 1355
NEUSE RIVER GREENWAY EASEMENT
DB 16347 PG 1954
BM 2002 PG 1505
PROPERTY LINE IS
CENTER OF NEUSE RIVER
①
②
③
④
㊿
(60)
20
25
N 42°34′04.1″ E
N 37°01′37.5″ E
N 40°42′36.9″ E
BL-102
BM2
BM2 ELEVATION = 198.37′
N 777,257 E 2,140,288
BL STATION 88+29
OFFSET 220′ RIGHT
RRSPIKE IN 11″ OAK
Sta. 10+00.00
POT
PC Sta. 11+54.56
PT Sta. 11+60.99
MEDIAN SHIFT BOTH SIDES
98.5′ SHIFT CURB TO MEET BRIDGE RAIL
BEGIN TAPER BEGIN C&G +50.00
BEGIN C&G STA.17+90.00
TOE PROTECTION
SEE DETAIL 12
EST. 26 TONS
CLASS B RIP RAP
EST. 58 SY GEOTEXTILE
LATERAL 4′ BASE DITCH
w/CLASS I RIPRAP
SEE DETAIL 24
EST. 36 TONS CLASS I RIPRAP
EST. 50 SY GEOTEXTILE
EST. 1 TONS CLASS B RIP RAP
EST. 5 SY GEOTEXTILE
STANDARD 2′ BASE DITCH
w/CLASS I RIPRAP
EST. 68 TONS CLASS I RIPRAP
EST. 115 SY GEOTEXTILE
SEE DETAIL 25
LATERAL 2′ BASE DITCH
w/CLASS I RIPRAP
SEE DETAIL 1
EST. 77 TONS
CLASS I RIPRAP
EST. 104 SY
GEOTEXTILE
EST. 7 TONS CLASS I RIP RAP
EST. 15 SY GEOTEXTILE
BANK STABILIZATION
SEE DETAIL 35
RETAIN EXISTING GUARDRAIL
TIE TO EXISTING GUARDRAIL
ELBOWS, ROD & LUG CONNECTORS
REVISE GREENWAY GRADING
SEE CROSS SECTIONS
30″x19″ RCP-V
ELLIPTICAL
PROVIDE MIN. 1′ COVER
CONC BRIDGE DECK
CLASS II RIP RAP (TYP.)
HANDRAIL (TYP)
US 401 SB/LOUISBURG RD
US 401 NB/LOUISBURG RD
GREU 350 TL-3
10′ MUP
WOODS
REMOVE
RETAIN
PUE
TD

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

Place Matting for Erosion Control on Slope as Work Allows.
–L –Sta. 18+50 RT to Sta. 23+50 RT
–L– Sta. 19+50 LT to Sta. 23+50 LT
–L– Sta. 26+30 RT to Sta. 28+50 RT
–L– Sta. 26+30 LT to Sta. 30+00 LT

66′ x 33′ x 3′
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
8 ft. weir
ID 4.3

90′ x 44′ x 3′
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
15 ft. weir
ID 4.1

28′ x 14′ x 3′
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 4.2

DETAIL 12
TOE PROTECTION
(Not to Scale)

Natural Ground
2:1 or Flatter Fill Slope
Geotextile
d = 1 Ft.
b = 5 Ft.
Type of Liner = Class B Rip–Rap

FROM –L– STA. 22+30 LT TO –L– STA. 23+10 LT

DETAIL 35
BANK STABILIZATION
(Not to Scale)

Natural Ground
3′min.
1.0′min.
2.0′
GEOTEXTILE
New Bridge Bent
Type of Liner = 307 TONS CL II Rip–Rap Total
Geotextile = 310 sy Total

FROM –L– STA. 24+06 LT TO –L– STA. 24+32 LT
FROM –L– STA. 25+19 LT TO –L– STA. 25+56 LT
FROM –L– STA. 24+08 RT TO –L– STA. 24+32 RT
FROM –L– STA. 25+19 RT TO –L– STA. 25+64 RT

DETAIL 1
LATERAL BASE DITCH
(Not to Scale)

Natural Ground
GEOTEXTILE
Fill Slope
2:1
1″/Ft.
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2 Ft.
b = 5 Ft.
*When B is < 6.0′
Type of Liner = Class I Rip–Rap

FROM –L– STA. 25+98 RT TO –L– STA. 26+50 RT

DETAIL 24
LATERAL BASE DITCH
(Not to Scale)

Natural Ground
GEOTEXTILE
Fill Slope
2:1
1″/Ft.
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 4 Ft.
b = 5 Ft.
*When B is < 6.0′
Type of Liner = Class I Rip–Rap

FROM –L– STA. 23+10 LT TO –L– STA. 23+50 LT

DETAIL 25
STANDARD BASE DITCH
(Not to Scale)

Natural Ground
Geotextile
2:1
Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
*When B is < 6.0′
Type of Liner = Class I Rip–Rap

FROM –L– STA. 22+18 RT TO –L– STA. 23+71 RT

DETAIL 21
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

–L– STA. 27+46 RT

-MUPI-
PI Sta 11+57.78
Δ = 3° 40′ 59.4″ (LT)
D = 57° 17′ 44.8″
L = 6.43′
T = 3.22′
R = 100.00′

FOR –L– PROFILE, SEE SHEET NO. 12

5/14/99

9:54:04 AM
...\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh17_FG.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-18/CONST.5
R/W SHEET NO.	

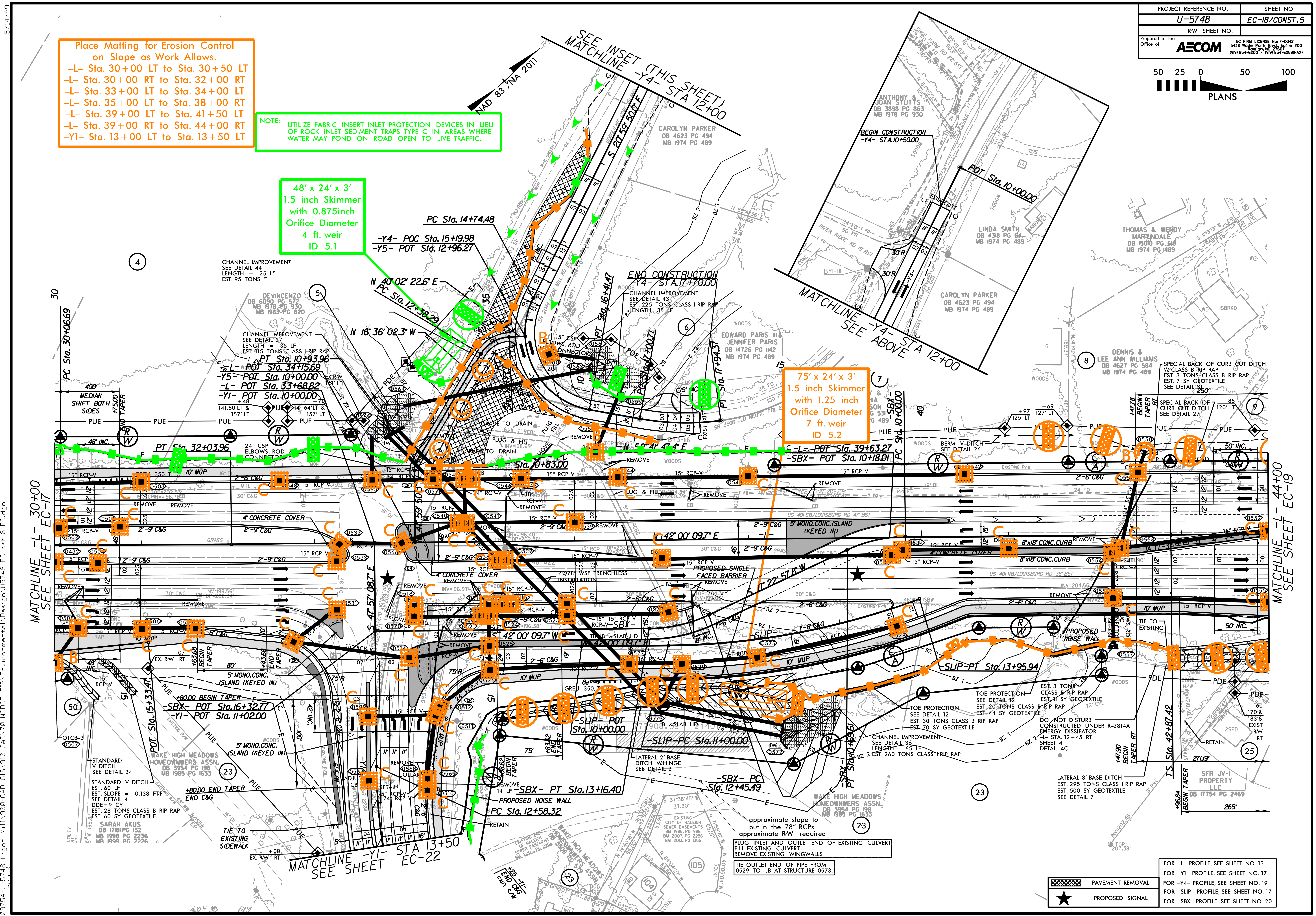
Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 30+00 LT to Sta. 30+50 LT
-L- Sta. 30+00 RT to Sta. 32+00 RT
-L- Sta. 33+00 LT to Sta. 34+00 LT
-L- Sta. 35+00 LT to Sta. 38+00 RT
-L- Sta. 39+00 LT to Sta. 41+50 LT
-L- Sta. 39+00 RT to Sta. 44+00 RT
-Y1- Sta. 13+00 LT to Sta. 13+50 LT

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

48' x 24' x 3'
1.5 inch Skimmer
with 0.875inch
Orifice Diameter
4 ft. weir
ID 5.1

75' x 24' x 3'
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 5.2


50 25 0 50 100
PLANS
NAD 83/NA 2011
SEE INSET (THIS SHEET) MATCHLINE -Y4- STA 12+00
MATCHLINE -Y4- STA 12+00 SEE ABOVE
BEGIN CONSTRUCTION -Y4- STA.10+50.00
POT Sta. 10+00.00
END CONSTRUCTION -Y4- STA.17+70.00
PC Sta. 14+74.48
-Y4- POC Sta. 15+19.98
-Y5- POT Sta. 12+96.27
PC Sta. 12+38.29
N 40°02' 22.6" E
N 16°36' 02.3" W
PT Sta. 10+93.96
-L- POT Sta. 34+15.69
-Y5- POT Sta. 10+00.00
-L- POT Sta. 33+68.82
-Y1- POT Sta. 10+00.00
PT Sta. 32+03.96
-L- POT Sta. 39+63.27
-SBX- POT Sta. 10+18.01
Sta. 10+83.00
PC Sta. 30+06.69
MATCHLINE -L- 30+00 SEE SHEET EC-17
MATCHLINE -L- 44+00 SEE SHEET EC-19
MATCHLINE -Y1- STA 13+50 SEE SHEET EC-22
-SBX- POT Sta. 16+32.77
-Y1- POT Sta. 11+02.00
-SLIP- POT Sta. 10+00.00
-SLIP-PC Sta. 11+00.00
-SLIP-PT Sta. 13+95.94
-SBX- PT Sta. 13+16.40
PC Sta. 12+58.32
-SBX- PC Sta. 12+45.49
N 42°00' 09.7" E
S 42°00' 09.7" W
CHANNEL IMPROVEMENT SEE DETAIL 44 LENGTH = 25 LF EST. 95 TONS
CHANNEL IMPROVEMENT SEE DETAIL 37 LENGTH = 35 LF EST. 115 TONS CLASS I RIP RAP
CHANNEL IMPROVEMENT SEE DETAIL 43 EST. 225 TONS CLASS I RIP RAP LENGTH = 35 LF
CHANNEL IMPROVEMENT SEE DETAIL 36 LENGTH = 65 LF EST. 260 TONS CLASS I RIP RAP
SPECIAL BACK OF CURB CUT DITCH W/CLASS B RIP RAP EST. 3 TONS CLASS B RIP RAP EST. 7 SY GEOTEXTILE SEE DETAIL 31
SPECIAL BACK OF CURB CUT DITCH SEE DETAIL 27
TOE PROTECTION SEE DETAIL 12 EST. 20 TONS CLASS B RIP RAP EST. 44 SY GEOTEXTILE
TOE PROTECTION SEE DETAIL 12 EST. 30 TONS CLASS B RIP RAP EST. 70 SY GEOTEXTILE
EST. 3 TONS CLASS B RIP RAP EST. 11 SY GEOTEXTILE
DO NOT DISTURB CONSTRUCTED UNDER R-2814A ENERGY DISSIPATOR -L- STA. 12+45 RT SHEET 4 DETAIL 4C
LATERAL 8' BASE DITCH EST. 295 TONS CLASS I RIP RAP EST. 500 SY GEOTEXTILE SEE DETAIL 7
LATERAL 2' BASE DITCH W/HINGE SEE DETAIL 2
STANDARD V-DITCH SEE DETAIL 34
STANDARD V-DITCH EST. 60 LF EST. SLOPE = 0.138 FT/FT SEE DETAIL 4 DDE = 9 CY EST. 28 TONS CLASS B RIP RAP EST. 60 SY GEOTEXTILE
approximate slope to put in the 78" RCPs approximate R/W required
PLUG INLET AND OUTLET END OF EXISTING CULVERT FILL EXISTING CULVERT REMOVE EXISTING WINGWALLS
TIE OUTLET END OF PIPE FROM 0529 TO JB AT STRUCTURE 0573.
PROPOSED SINGLE FACED BARRIER
PROPOSED NOISE WALL
CAROLYN PARKER DB 4623 PG 494 MB 1974 PG 489
ANTHONY & JOAN STUTTS DB 3898 PG 863 MB 1978 PG 930
LINDA SMITH DB 4318 PG 64 MB 1974 PG 489
THOMAS & WENDY MARTINDALE DB 15010 PG 610 MB 1974 PG 489
DEVINCENZO DB 6090 PG 572 MB 1978 PG 930 MB 1985 PG 820
EDWARD PARIS III & JENNIFER PARIS DB 14726 PG 1142 MB 1974 PG 489
DENNIS & LEE ANN WILLIAMS DB 4627 PG 584 MB 1974 PG 489
WAKE HIGH MEADOWS HOMEOWNERS ASSN. DB 3954 PG 198 MB 1985 PG 1633
SARAH AKUS DB 17181 PG 132 MB 1998 PG 2236 MB 1999 PG 2226
SFR JV-1 PROPERTY LLC DB 17754 PG 2469
US 401 SB/LOUISBURG RD 47' BST
US 401 NB/LOUISBURG RD 38' BST
10' MUP
4' CONCRETE COVER
5' MONO.CONC.ISLAND (KEYED IN)
8"x18" CONC.CURB

▨	PAVEMENT REMOVAL
★	PROPOSED SIGNAL

FOR -L- PROFILE, SEE SHEET NO. 13
FOR -Y1- PROFILE, SEE SHEET NO. 17
FOR -Y4- PROFILE, SEE SHEET NO. 19
FOR -SLIP- PROFILE, SEE SHEET NO. 17
FOR -SBX- PROFILE, SEE SHEET NO. 20

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-19/CONST.6
R/W SHEET NO.	

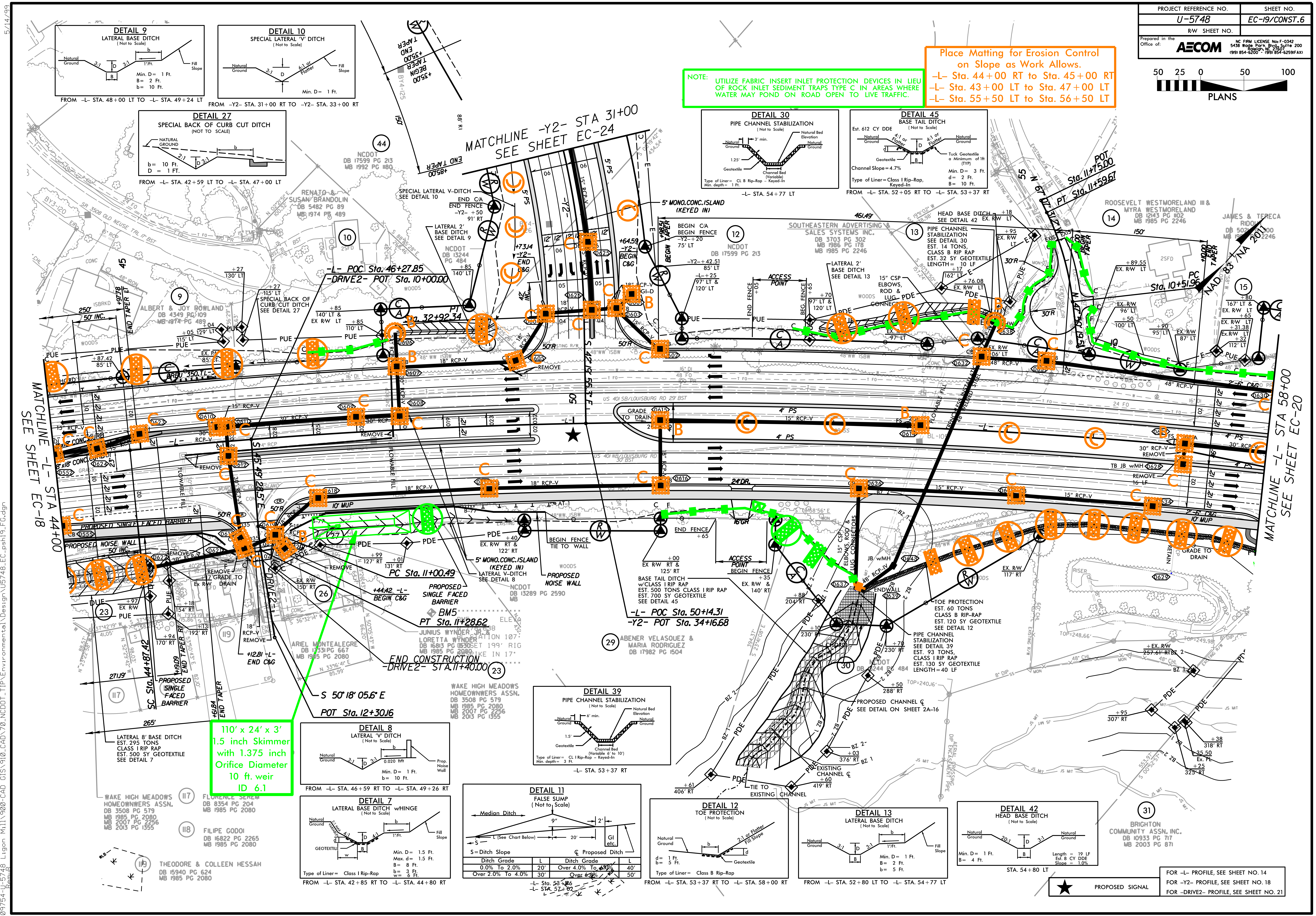
Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

50 25 0 50 100
PLANS

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

Place Matting for Erosion Control on Slope as Work Allows.
–L– Sta. 44+00 RT to Sta. 45+00 RT
–L– Sta. 43+00 LT to Sta. 47+00 LT
–L– Sta. 55+50 LT to Sta. 56+50 LT

110' x 24' x 3'
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 6.1



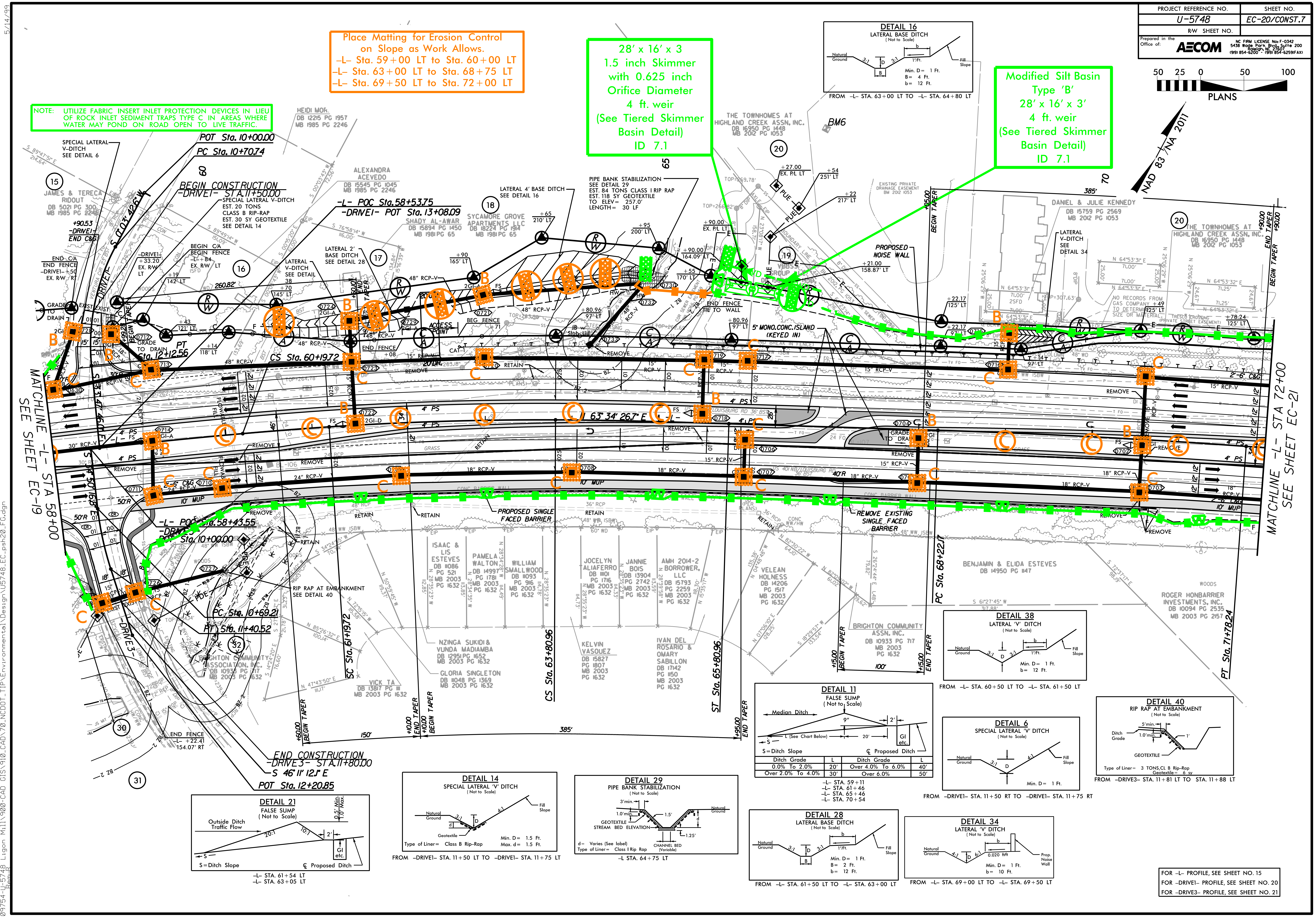
DETAIL 9 LATERAL BASE DITCH (Not to Scale)
FROM –L– STA. 48+00 LT TO –L– STA. 49+24 LT
DETAIL 10 SPECIAL LATERAL 'V' DITCH (Not to Scale)
FROM –Y2– STA. 31+00 RT TO –Y2– STA. 33+00 RT
DETAIL 27 SPECIAL BACK OF CURB CUT DITCH (NOT TO SCALE)
FROM –L– STA. 42+59 LT TO –L– STA. 47+00 LT
DETAIL 30 PIPE CHANNEL STABILIZATION (Not to Scale)
–L– STA. 54+77 LT
DETAIL 45 BASE TAIL DITCH (Not to Scale)
Est. 612 CY DDE
FROM –L– STA. 52+05 RT TO –L– STA. 53+37 RT
MATCHLINE -Y2- STA 31+00 SEE SHEET EC-24
MATCHLINE -L- STA 44+00 SEE SHEET EC-18
MATCHLINE -L- STA 58+00 SEE SHEET EC-20
-L- POC Sta. 46+27.85
-DRIVE2- POT Sta. 10+00.00
-L- POC Sta. 50+14.31
-Y2- POT Sta. 34+16.68
PC Sta. 11+00.49
PT Sta. 11+28.62
END CONSTRUCTION -DRIVE2- STA.11+40.00
POT Sta. 12+30.16
S 50°18'05.6" E
5' MONO.CONC.ISLAND (KEYED IN)
US 401 SB/LOUISBURG RD
US 401 NB/LOUISBURG RD
PROPOSED NOISE WALL
PROPOSED SINGLE FACED BARRIER
PROPOSED CHANNEL SEE DETAIL ON SHEET 2A-16
BASE TAIL DITCH w/CLASS I RIP RAP EST. 500 TONS CLASS I RIP RAP EST. 700 SY GEOTEXTILE SEE DETAIL 45
TOE PROTECTION EST. 60 TONS CLASS B RIP-RAP EST. 120 SY GEOTEXTILE SEE DETAIL 12
PIPE CHANNEL STABILIZATION SEE DETAIL 39 EST. 93 TONS CLASS I RIP RAP EST. 130 SY GEOTEXTILE LENGTH = 40 LF
PIPE CHANNEL STABILIZATION SEE DETAIL 30 EST. 14 TONS CLASS B RIP RAP EST. 32 SY GEOTEXTILE LENGTH = 10 LF
LATERAL 8' BASE DITCH EST. 295 TONS CLASS I RIP RAP EST. 500 SY GEOTEXTILE SEE DETAIL 7
DETAIL 39 PIPE CHANNEL STABILIZATION (Not to Scale)
–L– STA. 53+37 RT
DETAIL 8 LATERAL 'V' DITCH (Not to Scale)
FROM –L– STA. 46+59 RT TO –L– STA. 49+26 RT
DETAIL 7 LATERAL BASE DITCH w/HINGE (Not to Scale)
FROM –L– STA. 42+85 RT TO –L– STA. 44+80 RT
DETAIL 11 FALSE SUMP (Not to Scale)
DETAIL 12 TOE PROTECTION (Not to Scale)
FROM –L– STA. 53+37 RT TO –L– STA. 58+00 RT
DETAIL 13 LATERAL BASE DITCH (Not to Scale)
FROM –L– STA. 52+80 LT TO –L– STA. 54+77 LT
DETAIL 42 HEAD BASE DITCH (Not to Scale)
Length = 19 LF Est. 8 CY DDE Slope = 1.0%
STA. 54+80 LT
BRIGHTON COMMUNITY ASSN. INC. DB 10933 PG 717 MB 2003 PG 871
WAKE HIGH MEADOWS HOMEOWNERS ASSN.
ABENER VELASQUEZ & MARIA RODRIGUEZ DB 17982 PG 1504
SOUTHEASTERN ADVERTISING & SALES SYSTEMS INC.
ROOSEVELT WESTMORELAND III & MYRA WESTMORELAND
THEODORE & COLLEEN HESSAH
FILIPE GODOI
ARIEL MONTEALEGRE
ALBERT & JOY ROWLAND
RENATO & SUSAN BRANDOLIN

PROPOSED SIGNAL

FOR –L– PROFILE, SEE SHEET NO. 14
FOR –Y2– PROFILE, SEE SHEET NO. 18
FOR –DRIVE2– PROFILE, SEE SHEET NO. 21

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-20/CONST.7
R/W SHEET NO.	

Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)



50 25 0 50 100
PLANS
NAD 83/NA 2011
POT Sta. 10+00.00
PC Sta. 10+70.74
BEGIN CONSTRUCTION -DRIVE1- STA.11+50.00
-L- POC Sta.58+53.75
-DRIVE1- POT Sta. 13+08.09
CS Sta. 60+19.72
PT Sta.12+12.56
L 63° 34' 26.7" E
MATCHLINE -L- STA 58+00 SEE SHEET EC-19
MATCHLINE -L- STA 72+00 SEE SHEET EC-21
-L- POC Sta.58+43.55
-DRIVE3- POT Sta. 10+00.00
PC Sta. 10+69.21
PT Sta. 11+40.52
SC Sta. 61+19.72
CS Sta. 63+80.96
ST Sta. 65+80.96
PC Sta. 68+22.17
PT Sta. 71+78.24
END CONSTRUCTION -DRIVE3- STA.11+80.00
S 46° 11' 12.1" E
POT Sta. 12+20.85
END FENCE -L- +22.41 154.07' RT
PROPOSED NOISE WALL
PROPOSED SINGLE FACED BARRIER
REMOVE EXISTING SINGLE FACED BARRIER
5' MONO.CONC.ISLAND (KEYED IN)
RIP RAP AT EMBANKMENT SEE DETAIL 40
SPECIAL LATERAL V-DITCH SEE DETAIL 6
SPECIAL LATERAL V-DITCH EST. 20 TONS CLASS B RIP-RAP EST. 30 SY GEOTEXTILE SEE DETAIL 14
LATERAL 4' BASE DITCH SEE DETAIL 16
LATERAL 2' BASE DITCH SEE DETAIL 28
LATERAL V-DITCH SEE DETAIL 38
LATERAL V-DITCH SEE DETAIL 34
PIPE BANK STABILIZATION SEE DETAIL 29 EST. 84 TONS CLASS I RIP RAP EST. 118 SY GEOTEXTILE TO ELEV= 257.0' LENGTH= 30 LF
JAMES & TERECA RIDOUT DB 5021 PG 300 MB 1985 PG 2246
HEIDI MOR. DB 12215 PG 1957 MB 1985 PG 2246
ALEXANDRA ACEVEDO DB 15545 PG 1045 MB 1985 PG 2246
SHADY AL-AWAR DB 15894 PG 1450 MB 1981 PG 65
SYCAMORE GROVE APARTMENTS LLC DB 18224 PG 1914 MB 1981 PG 65
THE TOWNHOMES AT HIGHLAND CREEK ASSN, INC. DB 16950 PG 1448 MB 2012 PG 1053
BM6
EXISTING PRIVATE DRAINAGE EASEMENT BM 2012 1053
DANIEL & JULIE KENNEDY DB 15759 PG 2569 MB 2012 PG 1053
ISAAC & LIS ESTEVES DB 11086 PG 521 MB 2003 PG 1632
PAMELA WALTON DB 14997 PG 1781 MB 2003 PG 1632
WILLIAM SMALLWOOD DB 11093 PG 916 MB 2003 PG 1632
JOCELYN ALIAFERRO DB 11101 PG 1716 MB 2003 PG 1632
JANNIE BOIS DB 13904 PG 2742 MB 2003 PG 1632
AMH 2014-2 BORROWER, LLC DB 15793 PG 2259 MB 2003 PG 1632
VELEAN HOLNESS DB 14206 PG 1517 MB 2003 PG 1632
BENJAMIN & ELIDA ESTEVES DB 14950 PG 1147
ROGER HONBARRIER INVESTMENTS, INC. DB 10094 PG 2535 MB 2003 PG 2157
BRIGHTON COMMUNITY ASSN. INC. DB 10933 PG 717 MB 2003 PG 1632
NZINGA SUKIDI & VUNDA MADIAMBA DB 12951 PG 1652 MB 2003 PG 1632
GLORIA SINGLETON DB 11048 PG 1369 MB 2003 PG 1632
VICK TA DB 13817 PG 111 MB 2003 PG 1632
KELVIN VASQUEZ DB 15827 PG 1807 MB 2003 PG 1632
IVAN DEL ROSARIO & OMARY SABILLON DB 17142 PG 1150 MB 2003 PG 1632
150'
385'
100'

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 59+00 LT to Sta. 60+00 LT
-L- Sta. 63+00 LT to Sta. 68+75 LT
-L- Sta. 69+50 LT to Sta. 72+00 LT

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

28' x 16' x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.1

Modified Silt Basin
Type 'B'
28' x 16' x 3'
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.1

DETAIL 16
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
B= 4 Ft.
b= 12 Ft.
FROM -L- STA. 63+00 LT TO -L- STA. 64+80 LT

DETAIL 38
LATERAL 'V' DITCH
(Not to Scale)
Min. D= 1 Ft.
b= 12 Ft.
FROM -L- STA. 60+50 LT TO -L- STA. 61+50 LT

DETAIL 11
FALSE SUMP
(Not to Scale)
S=Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-L- STA. 59+11
-L- STA. 61+46
-L- STA. 65+46
-L- STA. 70+54

DETAIL 6
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D= 1 Ft.
FROM -DRIVE1- STA. 11+50 RT TO -DRIVE1- STA. 11+75 RT

DETAIL 40
RIP RAP AT EMBANKMENT
(Not to Scale)
Type of Liner= 3 TONS,CL B Rip-Rap
Geotextile= 6 sy
FROM -DRIVE3- STA. 11+81 LT TO STA. 11+88 LT

DETAIL 21
FALSE SUMP
(Not to Scale)
S=Ditch Slope
℄ Proposed Ditch
-L- STA. 61+54 LT
-L- STA. 63+05 LT

DETAIL 14
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Type of Liner= Class B Rip-Rap
Min. D= 1.5 Ft.
Max. d= 1.5 Ft.
FROM -DRIVE1- STA. 11+50 LT TO -DRIVE1- STA. 11+75 LT

DETAIL 29
PIPE BANK STABILIZATION
(Not to Scale)
d= Varies (See label)
Type of Liner= Class I Rip Rap
-L STA. 64+75 LT

DETAIL 28
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
B= 2 Ft.
b= 12 Ft.
FROM -L- STA. 61+50 LT TO -L- STA. 63+00 LT

DETAIL 34
LATERAL 'V' DITCH
(Not to Scale)
Min. D= 1 Ft.
b= 10 Ft.
FROM -L- STA. 69+00 LT TO -L- STA. 69+50 LT

FOR -L- PROFILE, SEE SHEET NO. 15
FOR -DRIVE1- PROFILE, SEE SHEET NO. 20
FOR -DRIVE3- PROFILE, SEE SHEET NO. 21

5/14/99
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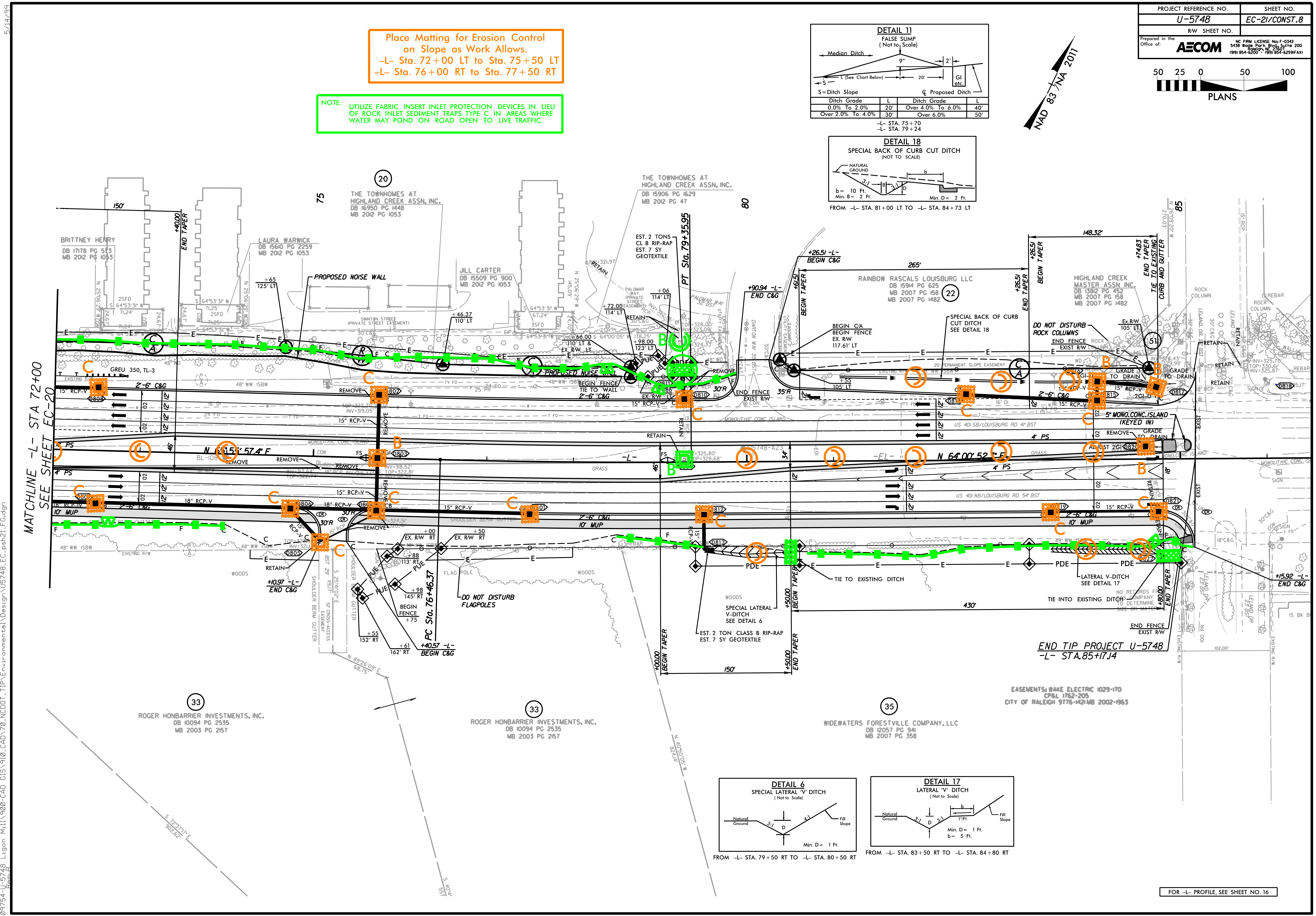
PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-21/CONST.8
R/W SHEET NO.	

Prepared in the Office of: AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

Place Matting for Erosion Control on Slope as Work Allows.
–L– Sta. 72+00 LT to Sta. 75+50 LT
–L– Sta. 76+00 RT to Sta. 77+50 RT

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


50 25 0 50 100
PLANS
NAD 83/NA 2011
MATCHLINE -L- STA 72+00
SEE SHEET EC-20
BRITTNEY HENRY
DB 17178 PG 513
MB 2012 PG 1053
LAURA WARWICK
DB 15610 PG 2259
MB 2012 PG 1053
THE TOWNHOMES AT HIGHLAND CREEK ASSN, INC.
DB 16950 PG 1448
MB 2012 PG 1053
JILL CARTER
DB 15509 PG 900
MB 2012 PG 1053
THE TOWNHOMES AT HIGHLAND CREEK ASSN, INC.
DB 15906 PG 1629
MB 2012 PG 47
RAINBOW RASCALS LOUISBURG LLC
DB 15914 PG 625
MB 2007 PG 158
MB 2007 PG 1482
HIGHLAND CREEK MASTER ASSN INC.
DB 13812 PG 452
MB 2007 PG 158
MB 2007 PG 1482
ROGER HONBARRIER INVESTMENTS, INC.
DB 10094 PG 2535
MB 2003 PG 2157
WIDEWATERS FORESTVILLE COMPANY, LLC
DB 12057 PG 941
MB 2007 PG 358
20
22
33
35
75
80
85
PROPOSED NOISE WALL
+40.00 END TAPER
PT Sta. 79+35.95
PC Sta. 76+46.37
EST. 2 TONS CL B RIP-RAP EST. 7 SY GEOTEXTILE
EST. 2 TON CLASS B RIP-RAP EST. 7 SY GEOTEXTILE
+90.94 -L- END C&G
+26.51 -L- BEGIN C&G
+40.57 -L- BEGIN C&G
+10.97 -L- END C&G
+15.92 -L- END C&G
SPECIAL BACK OF CURB CUT DITCH SEE DETAIL 18
SPECIAL LATERAL V-DITCH SEE DETAIL 6
LATERAL V-DITCH SEE DETAIL 17
DO NOT DISTURB ROCK COLUMNS
DO NOT DISTURB FLAGPOLES
TIE TO EXISTING DITCH
TIE INTO EXISTING DITCH
N 64°00'52" E
N 64°15'57.4" E
US 401 SB/LOUISBURG RD 41' BST
US 401 NB/LOUISBURG RD 54' BST
5' MONO.CONC.ISLAND (KEYED IN)
GREU 350, TL-3
10' MUP
WOODS
GRASS
END TIP PROJECT U-5748
-L- STA.85+17.14
EASEMENTS: WAKE ELECTRIC 1029-170
CP&L 1762-205
CITY OF RALEIGH 9776-1421 MB 2002-1963
A
B
C

DETAIL 11

FALSE SUMP
(Not to Scale)

Median Ditch
9"
2'
L (See Chart Below)
20'
GI etc.
S
S = Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 75+70
–L– STA. 79+24

DETAIL 18

SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

NATURAL GROUND
b
3:1
B
3:1
D

b = 10 Ft.
Min. B = 2 Ft.
Min. D = 2 Ft.

FROM –L– STA. 81+00 LT TO –L– STA. 84+73 LT

DETAIL 6

SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground
3:1
D
4:1
Fill Slope

Min. D = 1 Ft.

FROM –L– STA. 79+50 RT TO –L– STA. 80+50 RT

DETAIL 17

LATERAL 'V' DITCH
(Not to Scale)

Natural Ground
3:1
D
3:1
b
1"/Ft.
Fill Slope

Min. D = 1 Ft.
b = 5 Ft.

FROM –L– STA. 83+50 RT TO –L– STA. 84+80 RT

FOR –L– PROFILE, SEE SHEET NO. 16

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-22/CONST.9
R/W SHEET NO.	

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5438 Wade Park Blvd., Suite 200
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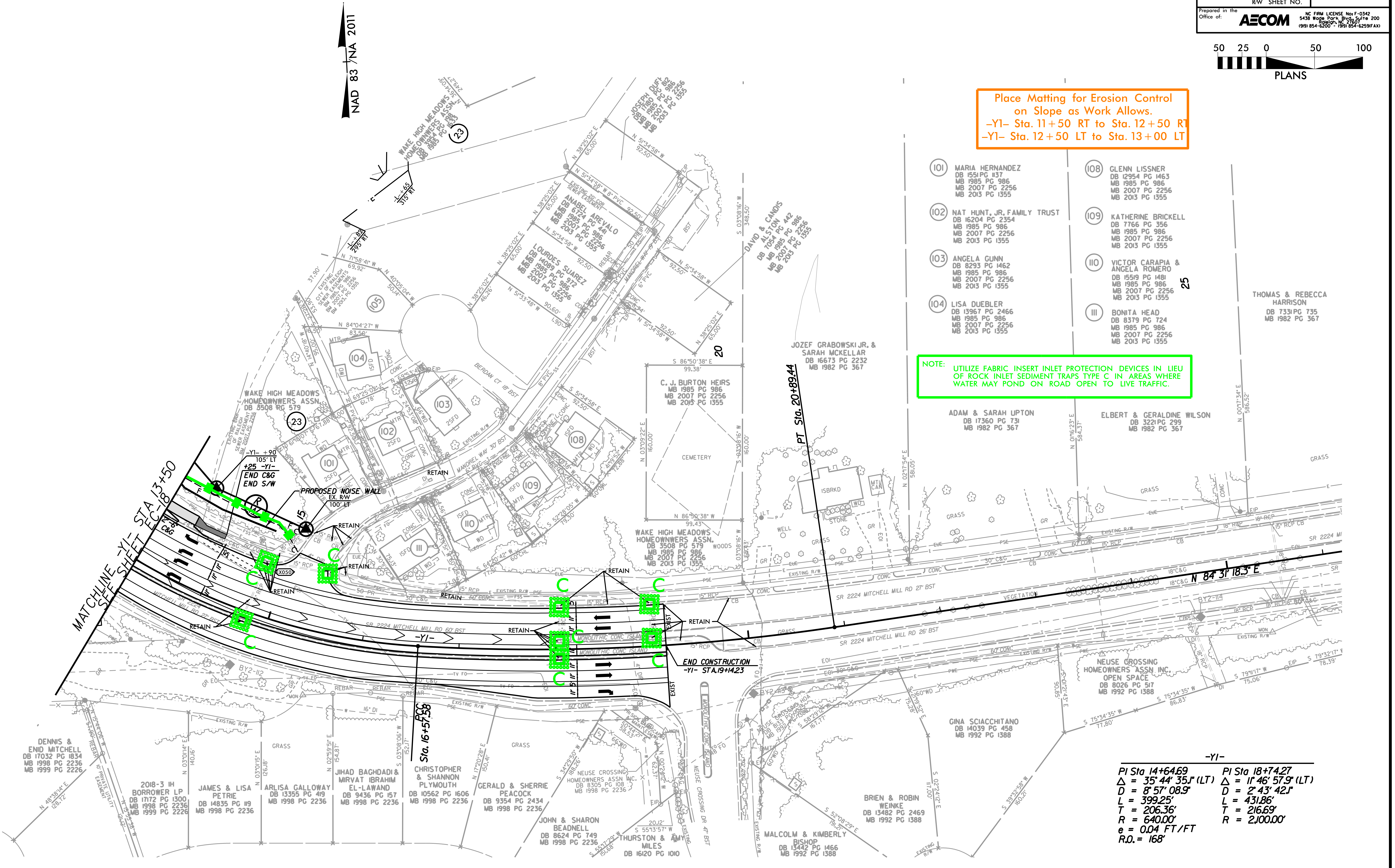
50 25 0 50 100
PLANS
NAD 83 /NA 2011
MATCHLINE -Y1- STA 13+50
SEE SHEET EC-18
-Y1- +90
105' LT
+25 -Y1-
END C&G
END S/W
PROPOSED NOISE WALL
EX. R/W
100' LT
RETAIN
C
EX050
2'-6" C&G
SR 2224 MITCHELL MILL RD 60' BST
SR 2224 MITCHELL MILL RD 27' BST
SR 2224 MITCHELL MILL RD 26' BST
-Y1-
POC Sta. 16+57.58
PT Sta. 20+89.44
N 84° 31' 18.3" E
MONOLITHIC CONC ISLAND
END CONSTRUCTION
-Y1- STA.19+14.23
EXIST
WAKE HIGH MEADOWS HOMEOWNWERS ASSN.
DB 3508 PG 579
MB 1985 PG 986
MB 2007 PG 2256
MB 2013 PG 1355
CEMETERY
C. J. BURTON HEIRS
JOZEF GRABOWSKI JR. & SARAH MCKELLAR
DB 16673 PG 2232
MB 1982 PG 367
THOMAS & REBECCA HARRISON
DB 7331 PG 735
MB 1982 PG 367
NEUSE CROSSING HOMEOWNERS ASSN. INC. OPEN SPACE
DB 8026 PG 517
MB 1992 PG 1388
GINA SCIACCHITANO
DB 14039 PG 458
MB 1992 PG 1388
BRIEN & ROBIN WEINKE
DB 13482 PG 2469
MB 1992 PG 1388
MALCOLM & KIMBERLY BISHOP
DB 13442 PG 1466
MB 1992 PG 1388
THURSTON & AMY MILES
DB 16120 PG 1010
JOHN & SHARON BEADNELL
DB 8624 PG 749
MB 1998 PG 2236
GERALD & SHERRIE PEACOCK
DB 9354 PG 2434
MB 1998 PG 2236
CHRISTOPHER & SHANNON PLYMOUTH
DB 10562 PG 1606
MB 1998 PG 2236
JIHAD BAGHDADI & MIRVAT IBRAHIM EL-LAWAND
DB 9436 PG 157
MB 1998 PG 2236
ARLISA GALLOWAY
DB 13355 PG 419
MB 1998 PG 2236
JAMES & LISA PETRIE
DB 14835 PG 119
MB 1998 PG 2236
2018-3 IH BORROWER LP
DB 17172 PG 1300
MB 1998 PG 2236
MB 1999 PG 2226
DENNIS & ENID MITCHELL
DB 17032 PG 1834
MB 1998 PG 2236
MB 1999 PG 2226
GRASS
WOODS
20
25

Place Matting for Erosion Control on Slope as Work Allows.
-Y1- Sta. 11+50 RT to Sta. 12+50 RT
-Y1- Sta. 12+50 LT to Sta. 13+00 LT

(101)	MARIA HERNANDEZ DB 1551 PG 1137 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355	(108)	GLENN LISSNER DB 12954 PG 1463 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
(102)	NAT HUNT, JR. FAMILY TRUST DB 16204 PG 2354 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355	(109)	KATHERINE BRICKELL DB 7766 PG 356 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
(103)	ANGELA GUNN DB 8293 PG 1462 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355	(110)	VICTOR CARAPIA & ANGELA ROMERO DB 15519 PG 1481 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355
(104)	LISA DUEBLER DB 13967 PG 2466 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355	(111)	BONITA HEAD DB 8379 PG 724 MB 1985 PG 986 MB 2007 PG 2256 MB 2013 PG 1355

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

ADAM & SARAH UPTON
DB 17360 PG 731
MB 1982 PG 367

ELBERT & GERALDINE WILSON
DB 3221 PG 299
MB 1982 PG 367

-Y1-

PI Sta 14+64.69	PI Sta 18+74.27
Δ = 35° 44' 35.1" (LT)	Δ = 11° 46' 57.9" (LT)
D = 8° 57' 08.9"	D = 2° 43' 42.1"
L = 399.25'	L = 431.86'
T = 206.36'	T = 216.69'
R = 640.00'	R = 2,100.00'
e = 0.04 FT/FT	
R.O. = 168'	

FOR -Y1- PROFILE, SEE SHEET NO. 17

5/14/99

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PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-23/CONST.10
R/W SHEET NO.	

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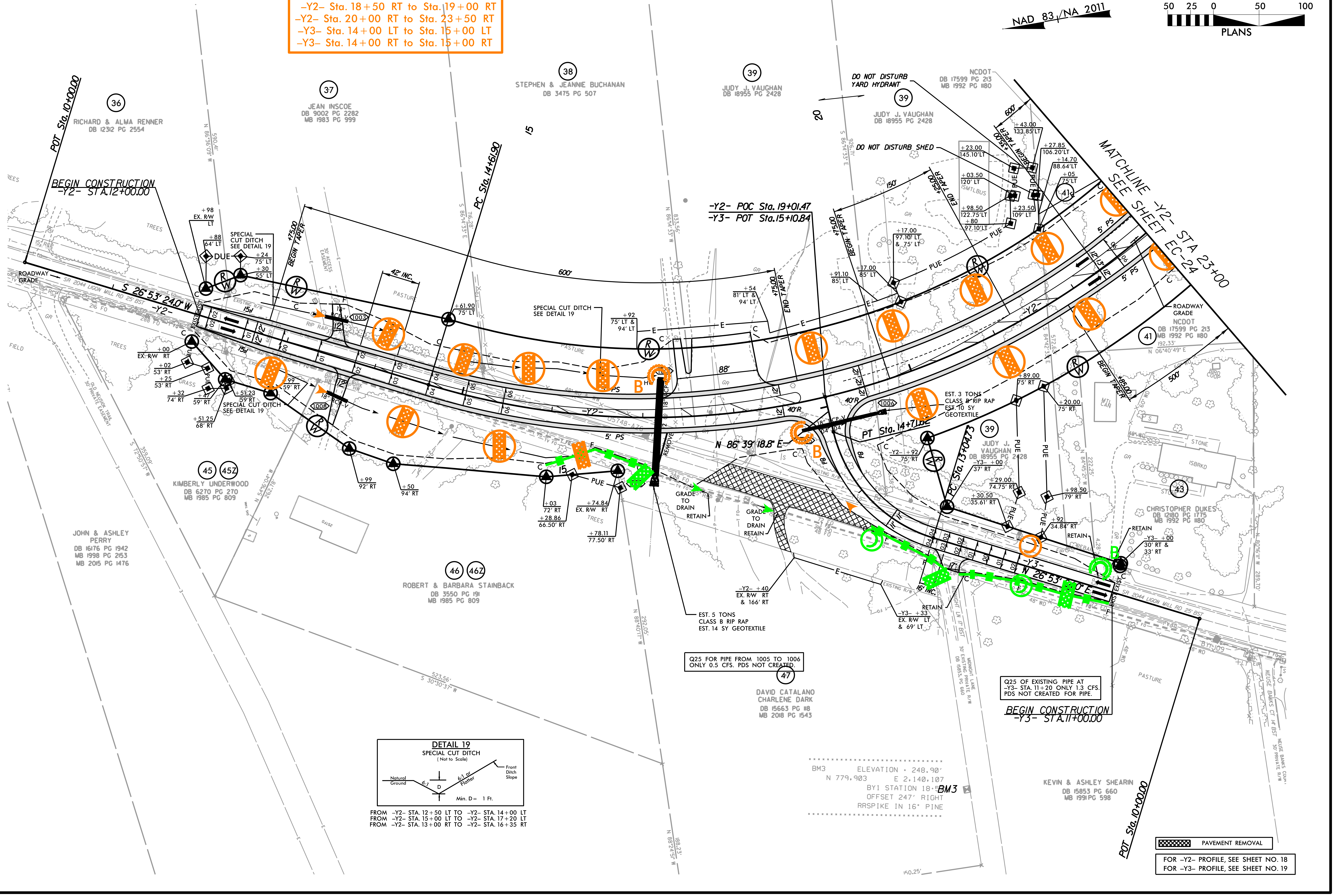
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

Place Matting for Erosion Control
on Slope as Work Allows.
-Y2- Sta. 18+50 LT to Sta. 23+00 LT
-Y2- Sta. 18+50 RT to Sta. 19+00 RT
-Y2- Sta. 20+00 RT to Sta. 23+50 RT
-Y3- Sta. 14+00 LT to Sta. 15+00 LT
-Y3- Sta. 14+00 RT to Sta. 15+00 RT


NAD 83/NA 2011
50 25 0 50 100
PLANS
POT Sta. 10+00.00
BEGIN CONSTRUCTION
-Y2- STA.12+00.00
RICHARD & ALMA RENNER
DB 12312 PG 2554
JEAN INSCOE
DB 9002 PG 2282
MB 1983 PG 999
STEPHEN & JEANNIE BUCHANAN
DB 3475 PG 507
JUDY J. VAUGHAN
DB 18955 PG 2428
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
DO NOT DISTURB YARD HYDRANT
DO NOT DISTURB SHED
MATCHLINE -Y2- STA 23+00
SEE SHEET EC-24
PC Sta. 14+61.90
-Y2- POC Sta. 19+01.47
-Y3- POT Sta.15+10.84
S 26°53'24.0" W
N 86°39'18.8" E
PT Sta. 14+71.62
PC Sta. 13+04.73
SPECIAL CUT DITCH SEE DETAIL 19
EST. 3 TONS CLASS B RIP RAP
EST. 10 SY GEOTEXTILE
EST. 5 TONS CLASS B RIP RAP
EST. 14 SY GEOTEXTILE
GRADE TO DRAIN
RETAIN
ROADWAY GRADE
KIMBERLY UNDERWOOD
DB 6270 PG 270
MB 1985 PG 809
JOHN & ASHLEY PERRY
DB 16176 PG 1942
MB 1998 PG 2153
MB 2015 PG 1476
ROBERT & BARBARA STAINBACK
DB 3550 PG 191
MB 1985 PG 809
DAVID CATALANO
CHARLENE DARK
DB 15663 PG 118
MB 2018 PG 1543
CHRISTOPHER DUKES
DB 12180 PG 1775
MB 1992 PG 1180
KEVIN & ASHLEY SHEARIN
DB 15853 PG 660
MB 1991 PG 598
BEGIN CONSTRUCTION
-Y3- STA.11+00.00
BM3

Q25 FOR PIPE FROM 1005 TO 1006 ONLY 0.5 CFS. PDS NOT CREATED.

Q25 OF EXISTING PIPE AT -Y3- STA. 11+20 ONLY 1.3 CFS. PDS NOT CREATED FOR PIPE.

BM3 ELEVATION = 248.90'
N 779,903 E 2,140,107
BY1 STATION 18+57
OFFSET 247' RIGHT
RRSPIKE IN 16" PINE

DETAIL 19
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground
6:1
D
6:1 or Flatter
Front Ditch Slope
Min. D = 1 Ft.

FROM -Y2- STA. 12+50 LT TO -Y2- STA. 14+00 LT
FROM -Y2- STA. 15+00 LT TO -Y2- STA. 17+20 LT
FROM -Y2- STA. 13+00 RT TO -Y2- STA. 16+35 RT

▩ PAVEMENT REMOVAL

FOR -Y2- PROFILE, SEE SHEET NO. 18
FOR -Y3- PROFILE, SEE SHEET NO. 19

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-24/CONST.II
R/W SHEET NO.	

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NC FIRM LICENSE No: F-0342
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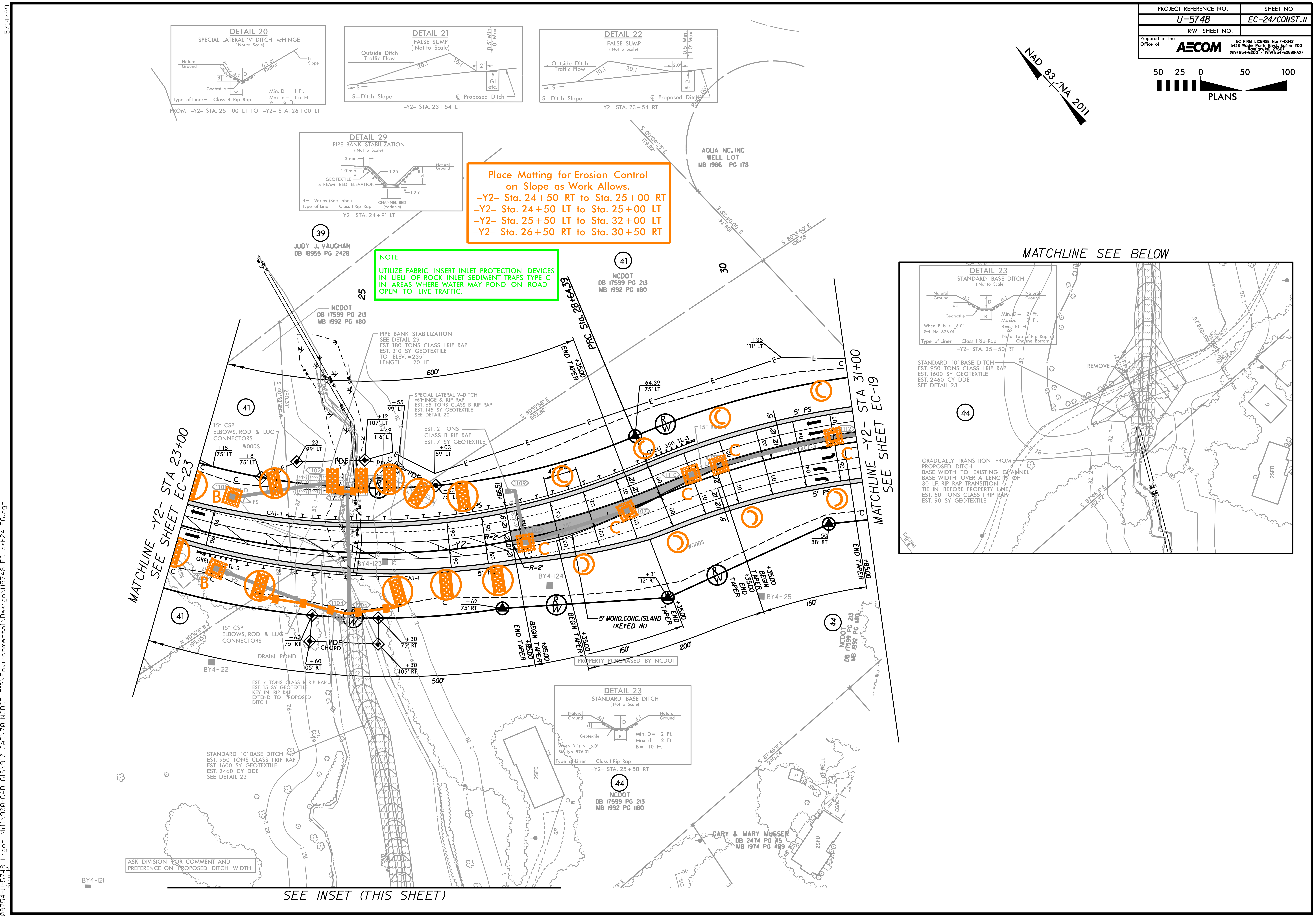

50 25 0 50 100
PLANS
NAD 83/NA 2011
DETAIL 20
SPECIAL LATERAL 'V' DITCH w/HINGE
(Not to Scale)
Natural Ground
2:1 MAX VARIABLE
4:1
D
6:1 or Flatter
Fill Slope
d
Geotextile
w
Type of Liner = Class B Rip-Rap
Min. D = 1 Ft.
Max. d = 1.5 Ft.
w = 6 Ft.
FROM -Y2- STA. 25+00 LT TO -Y2- STA. 26+00 LT
DETAIL 21
FALSE SUMP
(Not to Scale)
Outside Ditch
Traffic Flow
20:1
10:1
2'
0.5' Min. 1.0' Max.
GI etc.
S
S = Ditch Slope
℄ Proposed Ditch
-Y2- STA. 23+54 LT
DETAIL 22
FALSE SUMP
(Not to Scale)
Outside Ditch
Traffic Flow
10:1
20:1
2.0'
0.5' Min. 1.0' Max
GI etc.
S
S = Ditch Slope
℄ Proposed Ditch
-Y2- STA. 23+54 RT
R=100.00'
DETAIL 29
PIPE BANK STABILIZATION
(Not to Scale)
3' min.
1.0' min.
1.25'
Natural Ground
GEOTEXTILE
STREAM BED ELEVATION
1.25'
d
d = Varies (See label)
Type of Liner = Class I Rip Rap
CHANNEL BED (Variable)
-Y2- STA. 24+91 LT
S 00°04'23" E 179.92'
AQUA NC, INC
WELL LOT
MB 1986 PG 178
S 00°04'23" E 108.74'
S 80°13'50" E 106.38'
39
JUDY J. VAUGHAN
DB 18955 PG 2428
41
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
25
30
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
PRC Sta. 28+64.39
PIPE BANK STABILIZATION
SEE DETAIL 29
EST. 180 TONS CLASS I RIP RAP
EST. 310 SY GEOTEXTILE
TO ELEV. = 235'
LENGTH = 20 LF
600'
END TAPER +35.00
+35
111' LT
+64.39
75' LT
S 40°38'49" W 290.37'
SPECIAL LATERAL V-DITCH
W/HINGE & RIP RAP
EST. 65 TONS CLASS B RIP RAP
EST. 145 SY GEOTEXTILE
SEE DETAIL 20
S 80°15'58" E 652.82'
+55
99' LT
+12
107' LT
+49
116' LT
EST. 2 TONS
CLASS B RIP RAP
EST. 7 SY GEOTEXTILE
+03
89' LT
41
15" CSP
ELBOWS, ROD & LUG
CONNECTORS
WOODS
+18
75' LT
+81
75' LT
+23
99' LT
PDE
1101
1102
1105
1109
1110
1108
1107
1112
B
FS
CAT-1
+66.51
+03
75' LT
5' PS
15" RCP
350 TL-3
GREU
R=2'
-Y2-
MATCHLINE -Y2- STA 23+00 SEE SHEET EC-23
MATCHLINE -Y2- STA 31+00 SEE SHEET EC-19
WOODS
+50
88' RT
END TAPER +85.00
BEGIN TAPER +35.00
END TAPER +35.00
150'
BY4-125
44
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
GREU
TL-3
BY4-123
BY4-124
CAT-1
+31
112' RT
+62
75' RT
5" MONO.CONC.ISLAND
(KEYED IN)
END TAPER +35.00
41
15" CSP
ELBOWS, ROD & LUG
CONNECTORS
+60
75' RT
PDE
CHORD
+30
75' RT
DRAIN POND
+60
105' RT
+30
105' RT
N 80°16'11" W 195.05'
BY4-122
1104
1106
END TAPER +85.00
BEGIN TAPER +85.00
BEGIN TAPER +35.00
150'
200'
PROPERTY PURCHASED BY NCDOT
500'
EST. 7 TONS CLASS B RIP RAP
EST. 15 SY GEOTEXTILE
KEY IN RIP RAP
EXTEND TO PROPOSED
DITCH
STANDARD 10' BASE DITCH
EST. 950 TONS CLASS I RIP RAP
EST. 1600 SY GEOTEXTILE
EST. 2460 CY DDE
SEE DETAIL 23
DETAIL 23
STANDARD BASE DITCH
(Not to Scale)
Natural Ground
4:1
D
4:1
Natural Ground
d
Geotextile
B
Min. D = 2 Ft.
Max. d = 2 Ft.
B = 10 Ft.
When B is > 6.0'
Std. No. 876.01
Type of Liner = Class I Rip-Rap
-Y2- STA. 25+50 RT
44
NCDOT
DB 17599 PG 213
MB 1992 PG 1180
2SFD
GR
S 87°46'11" E 240.24'
WELL
GARY & MARY MUSSER
DB 2474 PG 45
MB 1974 PG 489
ASK DIVISION FOR COMMENT AND
PREFERENCE ON PROPOSED DITCH WIDTH.
POND
BY4-121
SEE INSET (THIS SHEET)
MATCHLINE SEE BELOW
DETAIL 23
STANDARD BASE DITCH
(Not to Scale)
Natural Ground
4:1
D
4:1
Natural Ground
d
Geotextile
B
Min. D = 2 Ft.
Max. d = 2 Ft.
B = 10 Ft.
When B is > 6.0'
Std. No. 876.01
Note: Top of Rip-Rap at Channel Bottom
Type of Liner = Class I Rip-Rap
-Y2- STA. 25+50 RT
STANDARD 10' BASE DITCH
EST. 950 TONS CLASS I RIP RAP
EST. 1600 SY GEOTEXTILE
EST. 2460 CY DDE
SEE DETAIL 23
REMOVE
44
GRADUALLY TRANSITION FROM
PROPOSED DITCH
BASE WIDTH TO EXISTING CHANNEL
BASE WIDTH OVER A LENGTH OF
30 LF. RIP RAP TRANSITION.
TIE IN BEFORE PROPERTY LINE.
EST. 50 TONS CLASS I RIP RAP
EST. 90 SY GEOTEXTILE
S 87°46'11" E 452.72'
INV=228.26'
2SFD
G
EXISTING R/W
BZ 1
BZ 2
TB

Place Matting for Erosion Control on Slope as Work Allows.
-Y2- Sta. 24+50 RT to Sta. 25+00 RT
-Y2- Sta. 24+50 LT to Sta. 25+00 LT
-Y2- Sta. 25+50 LT to Sta. 32+00 LT
-Y2- Sta. 26+50 RT to Sta. 30+50 RT

NOTE:

UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

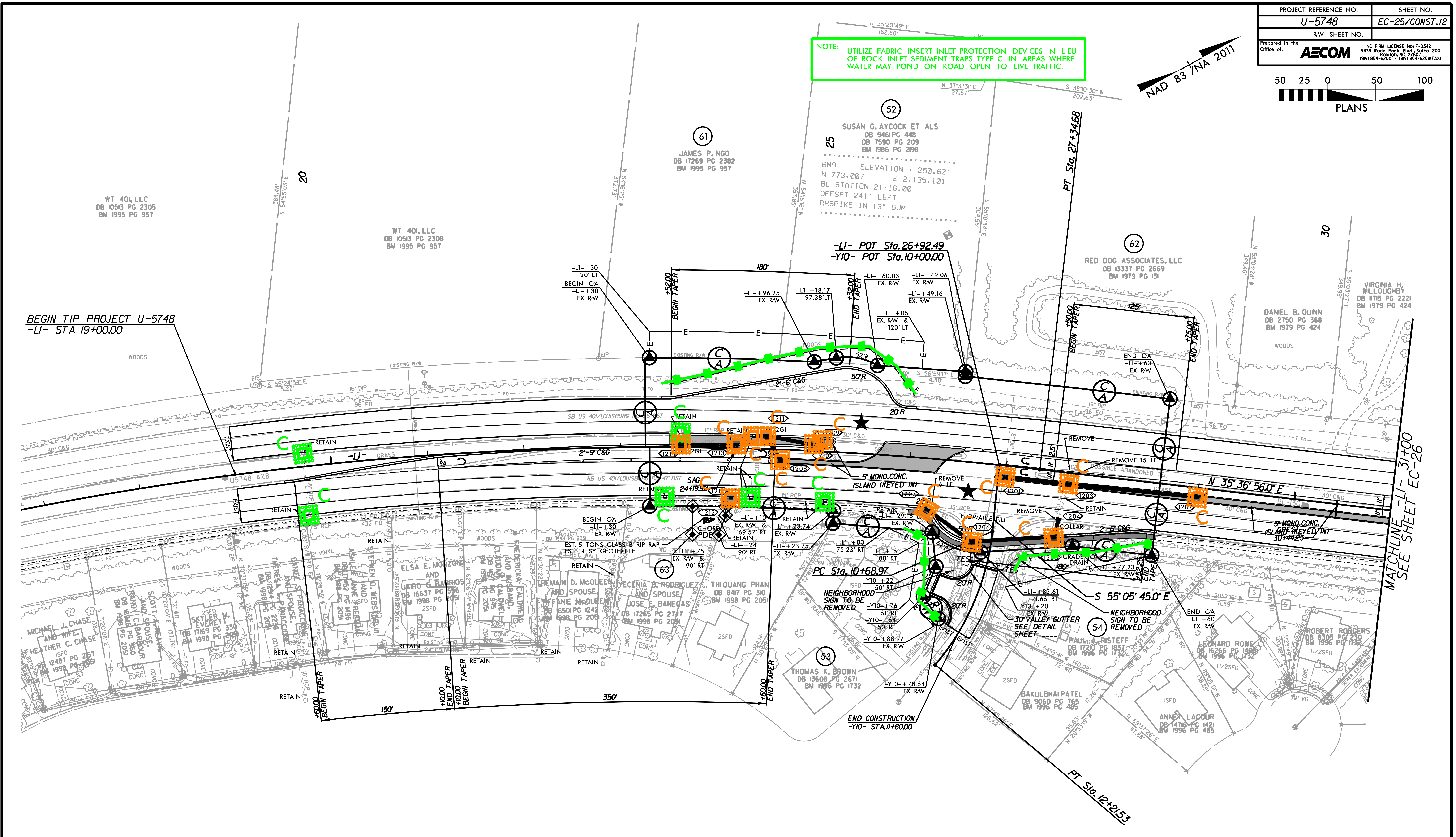
5/14/99

9:56:31 AM
\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh24_FG.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-25/CONST.12
R/W SHEET NO.	

Prepared in the Office of: AECOM
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


50 25 0 50 100
PLANS
NAD 83 /NA 2011
BEGIN TIP PROJECT U-5748
-L1- STA 19+00.00
-L1- POT Sta.26+92.49
-Y10- POT Sta.10+00.00
PT Sta. 27+34.68
PC Sta. 10+68.97
PT Sta. 12+21.53
END CONSTRUCTION
-Y10- STA.11+80.00
MATCHLINE -L1- 31+00
SEE SHEET EC-26
N 35° 36' 56.0" E
S 55° 05' 45.0" E
SB US 401/LOUISBURG RD
NB US 401/LOUISBURG RD
WT 401, LLC
DB 10513 PG 2305
BM 1995 PG 957
WT 401, LLC
DB 10513 PG 2308
BM 1995 PG 957
JAMES P. NGO
DB 17269 PG 2382
BM 1995 PG 957
SUSAN G. AYCOCK ET ALS
DB 9461 PG 448
DB 7590 PG 209
BM 1986 PG 2198
BM9 ELEVATION = 250.62'
N 773,007 E 2,135,101
BL STATION 21+16.00
OFFSET 241' LEFT
RRSPIKE IN 13" GUM
RED DOG ASSOCIATES, LLC
DB 13337 PG 2669
BM 1979 PG 131
DANIEL B. QUINN
DB 2750 PG 368
BM 1979 PG 424
VIRGINIA H. WILLOUGHBY
DB 1715 PG 2221
BM 1979 PG 424
THOMAS K. BROWN
DB 13608 PG 2671
BM 1996 PG 1732
BAKULBHAI PATEL
DB 9060 PG 765
BM 1996 PG 485
ANNE LACOUR
DB 14716 PG 1421
BM 1996 PG 485
LEONARD ROWE
DB 16266 PG 1490
BM 1996 PG 1732
ROBERT ROGERS
DB 8305 PG 235
BM 1996 PG 1732
THI QUANG PHAN
DB 8417 PG 310
BM 1998 PG 2051
5' MONO.CONC. ISLAND (KEYED IN)
NEIGHBORHOOD SIGN TO BE REMOVED
30' VALLEY GUTTER SEE DETAIL SHEET
EST. 5 TONS CLASS B RIP RAP
EST. 14 SY GEOTEXTILE
FLOWABLE FILL
REMOVE
RETAIN
BEGIN TAPER
END TAPER
2'-6" C&G
2'-9" C&G
WOODS

-L1-

PI Sta 21+32.83
Δ = 20° 30' 59.4" (RT)
D = 1° 41' 09.6"
L = 1,216.87'
T = 615.02'
R = 3,398.32'
e = EXIST.

-Y10-

PI Sta 11+47.63
Δ = 34° 22' 23.2" (RT)
D = 22° 31' 50.8"
L = 152.56'
T = 78.65'
R = 254.30'
e = EXIST.

★ PROPOSED SIGNAL

FOR -L1- PROFILE, SEE SHEET NO. 28
FOR -Y10- PROFILE, SEE SHEET NO. 31

5/14/99

9:56:59 AM
\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh25_FG.dgn
RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-26/CONST.13
R/W SHEET NO.	

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NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
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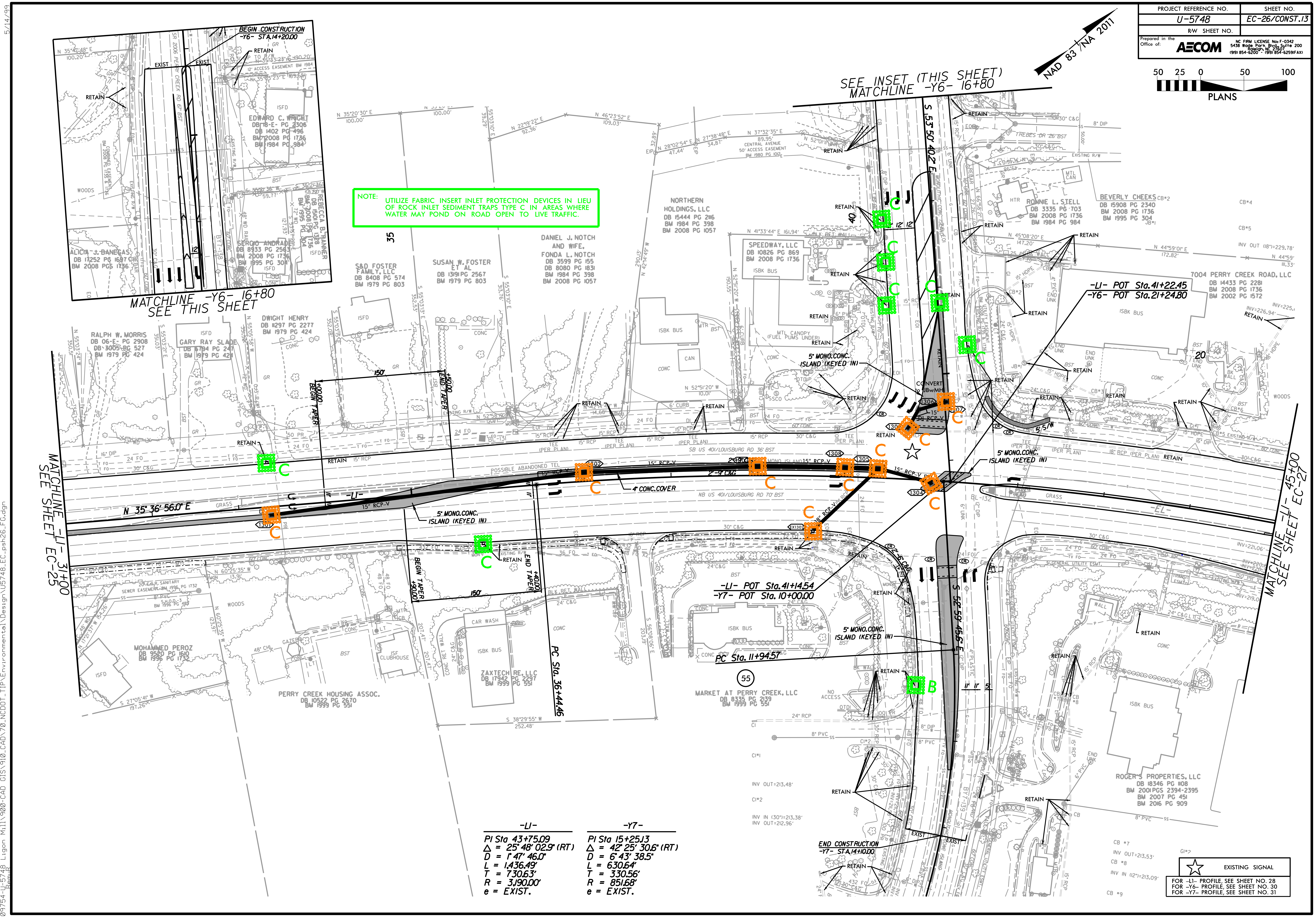
50 25 0 50 100
PLANS
NAD 83/NA 2011
SEE INSET (THIS SHEET)
MATCHLINE -Y6- 16+80
MATCHLINE -Y6- 16+80
SEE THIS SHEET
BEGIN CONSTRUCTION -Y6- STA.14+20.00
MATCHLINE -L1- 31+00 SEE SHEET EC-25
MATCHLINE -L1- 45+00 SEE SHEET EC-27
-L1- POT Sta.41+22.45
-Y6- POT Sta.21+24.80
-L1- POT Sta.41+14.54
-Y7- POT Sta.10+00.00
PC Sta.11+94.57
PC Sta.36+44.46
END CONSTRUCTION -Y7- STA.14+10.00
N 35° 36' 56.0" E
S 53° 50' 40.2" E
S 52° 59' 45.6" E
5' MONO.CONC. ISLAND (KEYED IN)
4" CONC.COVER
CONVERT to JBw/MH
BEGIN TAPER +00.00
END TAPER +50.00
BEGIN TAPER +90.00
END TAPER +40.00
SB US 401/LOUISBURG RD 36' BST
NB US 401/LOUISBURG RD 70' BST
RETAIN
C
B
NORTHERN HOLDINGS, LLC
SPEEDWAY, LLC
DANIEL J. NOTCH AND WIFE, FONDA L. NOTCH
SUSAN W. FOSTER ET AL
S&D FOSTER FAMILY, LLC
DWIGHT HENRY
GARY RAY SLADE
RALPH W. MORRIS
MOHAMMED PEROZ
PERRY CREEK HOUSING ASSOC.
ZAXTECH RE, LLC
MARKET AT PERRY CREEK, LLC
ROGERS PROPERTIES, LLC
7004 PERRY CREEK ROAD, LLC
BEVERLY CHEEKS
RONNIE L. STELL
EDWARD C. WRIGHT
REBECCA B. TANNER
SERGIO ANDRADE
ALICIA J. BANEGAS

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

-L1-
PI Sta 43+75.09
Δ = 25° 48' 02.9" (RT)
D = 1° 47' 46.0"
L = 1,436.49'
T = 730.63'
R = 3,190.00'
e = EXIST.

-Y7-
PI Sta 15+25.13
Δ = 42° 25' 30.6" (RT)
D = 6° 43' 38.5"
L = 630.64'
T = 330.56'
R = 851.68'
e = EXIST.

☆ EXISTING SIGNAL

FOR -L1- PROFILE, SEE SHEET NO. 28
FOR -Y6- PROFILE, SEE SHEET NO. 30
FOR -Y7- PROFILE, SEE SHEET NO. 31

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-27/CONST.14
R/W SHEET NO.	

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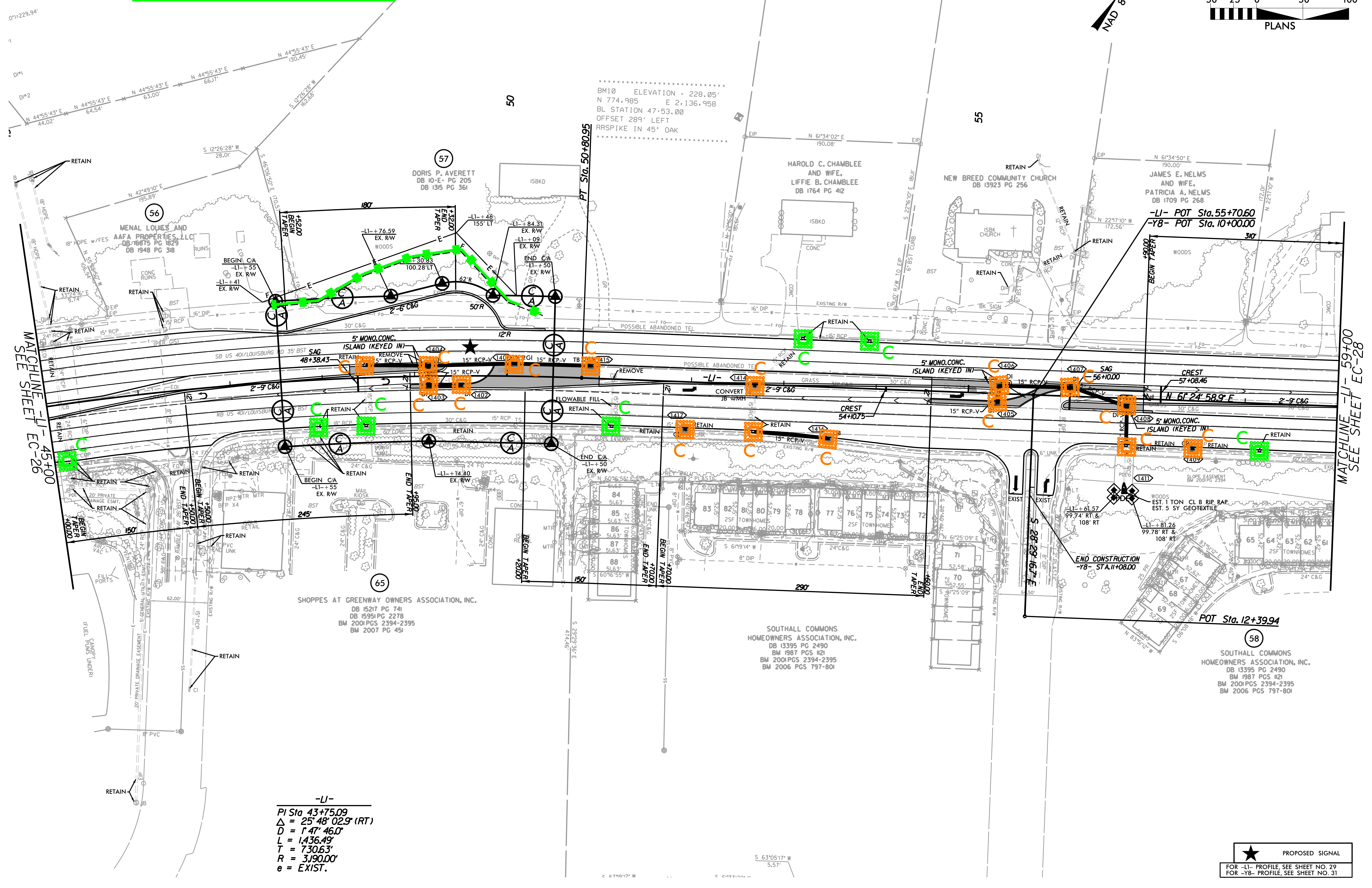
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


50 25 0 50 100
PLANS
NAD 83 / NA 2011
BM10 ELEVATION = 228.05'
N 774,985 E 2,136,958
BL STATION 47+53.00
OFFSET 289' LEFT
RRSPIKE IN 45" OAK
MATCHLINE -L1- 45+00 SEE SHEET EC-26
MATCHLINE -L1- 59+00 SEE SHEET EC-28
PT Sta. 50+80.95
50
55
DORIS P. AVERETT DB 10-E- PG 205 DB 1315 PG 361
MENAL LOUIS AND AAFA PROPERTIES, LLC DB 16875 PG 1829 DB 1948 PG 318
HAROLD C. CHAMBLEE AND WIFE, LIFFIE B. CHAMBLEE DB 1764 PG 412
NEW BREED COMMUNITY CHURCH DB 13923 PG 256
JAMES E. NELMS AND WIFE, PATRICIA A. NELMS DB 1709 PG 268
SHOPPES AT GREENWAY OWNERS ASSOCIATION, INC. DB 15217 PG 741 DB 15951 PG 2278 BM 2001 PGS 2394-2395 BM 2007 PG 451
SOUTHALL COMMONS HOMEOWNERS ASSOCIATION, INC. DB 13395 PG 2490 BM 1987 PGS 1121 BM 2001 PGS 2394-2395 BM 2006 PGS 797-801
-L1- POT Sta. 55+70.60
-Y8- POT Sta. 10+00.00
POT Sta. 12+39.94
END CONSTRUCTION -Y8- STA.11+08.00
SAG 48+38.43
SAG 56+10.00
CREST 54+10.75
CREST 57+08.46
N 61°24'58.9" E
5' MONO.CONC. ISLAND (KEYED IN)
SB US 401/LOUISBURG RD
NB US 401/LOUISBURG RD
2'-9" C&G
15" RCP-V
RETAIN
REMOVE
BEGIN TAPER
END TAPER
EST. 1 TON CL B RIP RAP
EST. 5 SY GEOTEXTILE
56 57 58 65

-L1-
PI Sta 43+75.09
Δ = 25° 48' 02.9" (RT)
D = 1° 47' 46.0"
L = 1,436.49'
T = 730.63'
R = 3,190.00'
e = EXIST.

★ PROPOSED SIGNAL

FOR -L1- PROFILE, SEE SHEET NO. 29
FOR -Y8- PROFILE, SEE SHEET NO. 31

5/14/99

9:57:47 AM
...\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh27_FG.dgn
RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-28/CONST.15
R/W SHEET NO.	

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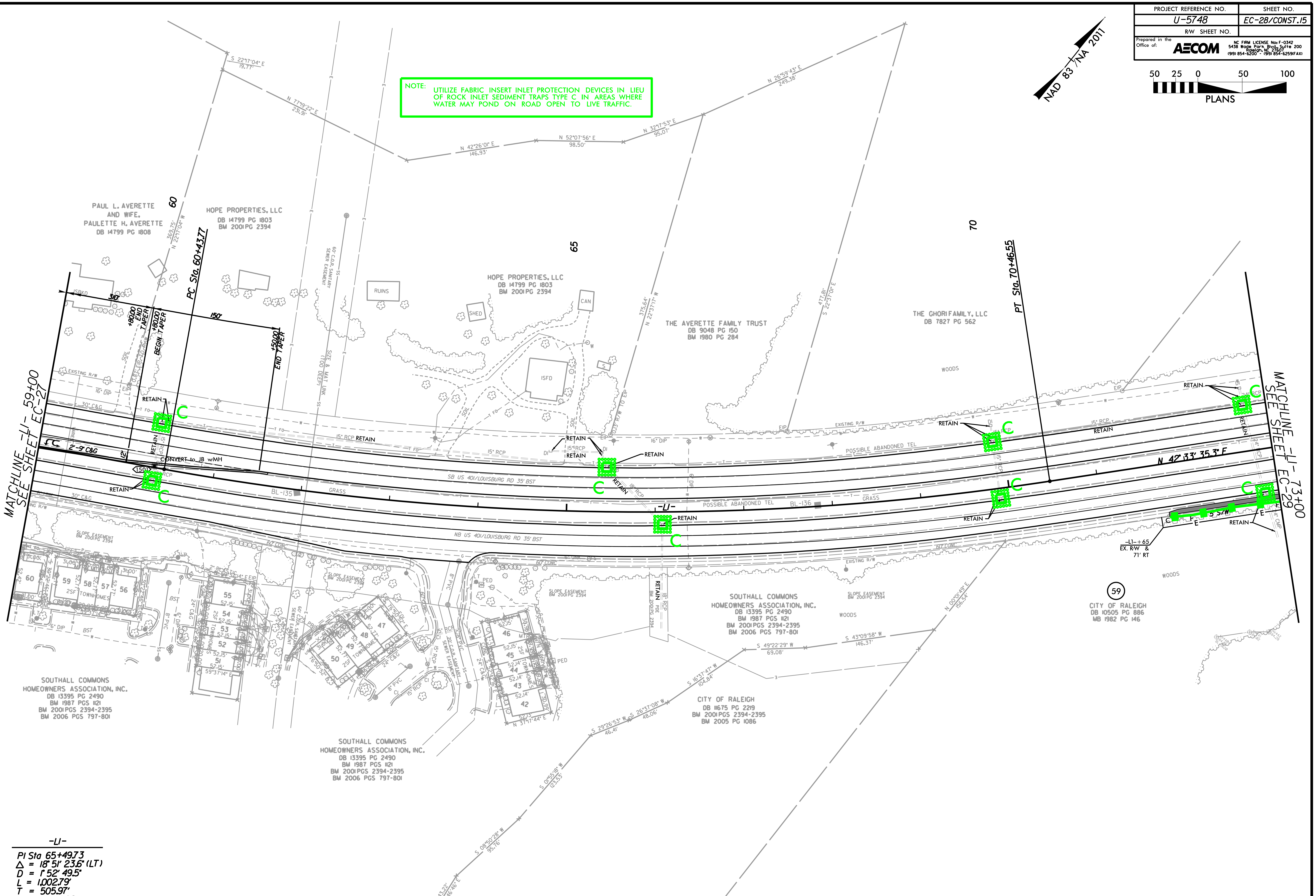
NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.



50 25 0 50 100
PLANS
NAD 83 / NA 2011
MATCHLINE -L1- 59+00 SEE SHEET EC-27
MATCHLINE -L1- 73+00 SEE SHEET EC-29
PC Sta. 60+43.77
PT Sta. 70+46.55
N 42° 33' 35.3" E
SB US 401/LOUISBURG RD 35' BST
NB US 401/LOUISBURG RD 35' BST
-L1-
BL-135
BL-136
RETAIN
C
E
CONVERT to JB w/MH
+80.00 END TAPER
+80.00 BEGIN TAPER
+50.00 END TAPER
150'
POSSIBLE ABANDONED TEL
-L1- + 65 EX. R/W & 71' RT
PAUL L. AVERETTE AND WIFE, PAULETTE H. AVERETTE DB 14799 PG 1808
HOPE PROPERTIES, LLC DB 14799 PG 1803 BM 2001 PG 2394
THE AVERETTE FAMILY TRUST DB 9048 PG 150 BM 1980 PG 284
THE GHORI FAMILY, LLC DB 7827 PG 562
SOUTHALL COMMONS HOMEOWNERS ASSOCIATION, INC. DB 13395 PG 2490 BM 1987 PGS 1121 BM 2001 PGS 2394-2395 BM 2006 PGS 797-801
CITY OF RALEIGH DB 11675 PG 2219 BM 2001 PGS 2394-2395 BM 2005 PG 1086
59
CITY OF RALEIGH DB 10505 PG 886 MB 1982 PG 146
WOODS
RUINS
SHED
CAN
ISFD
60
65
70

-L1-

PI Sta 65+49.73
Δ = 18° 51' 23.6" (LT)
D = 1° 52' 49.5"
L = 1,002.79'
T = 505.97'
R = 3,046.98'
e = EXIST.

FOR -L1- PROFILE, SEE SHEET NO. 29

5/14/99

9:58:08 AM
\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh28_FG.dgn
RemuR

PROJECT REFERENCE NO.	SHEET NO.
U-5748	EC-29/CONST.16
R/W SHEET NO.	

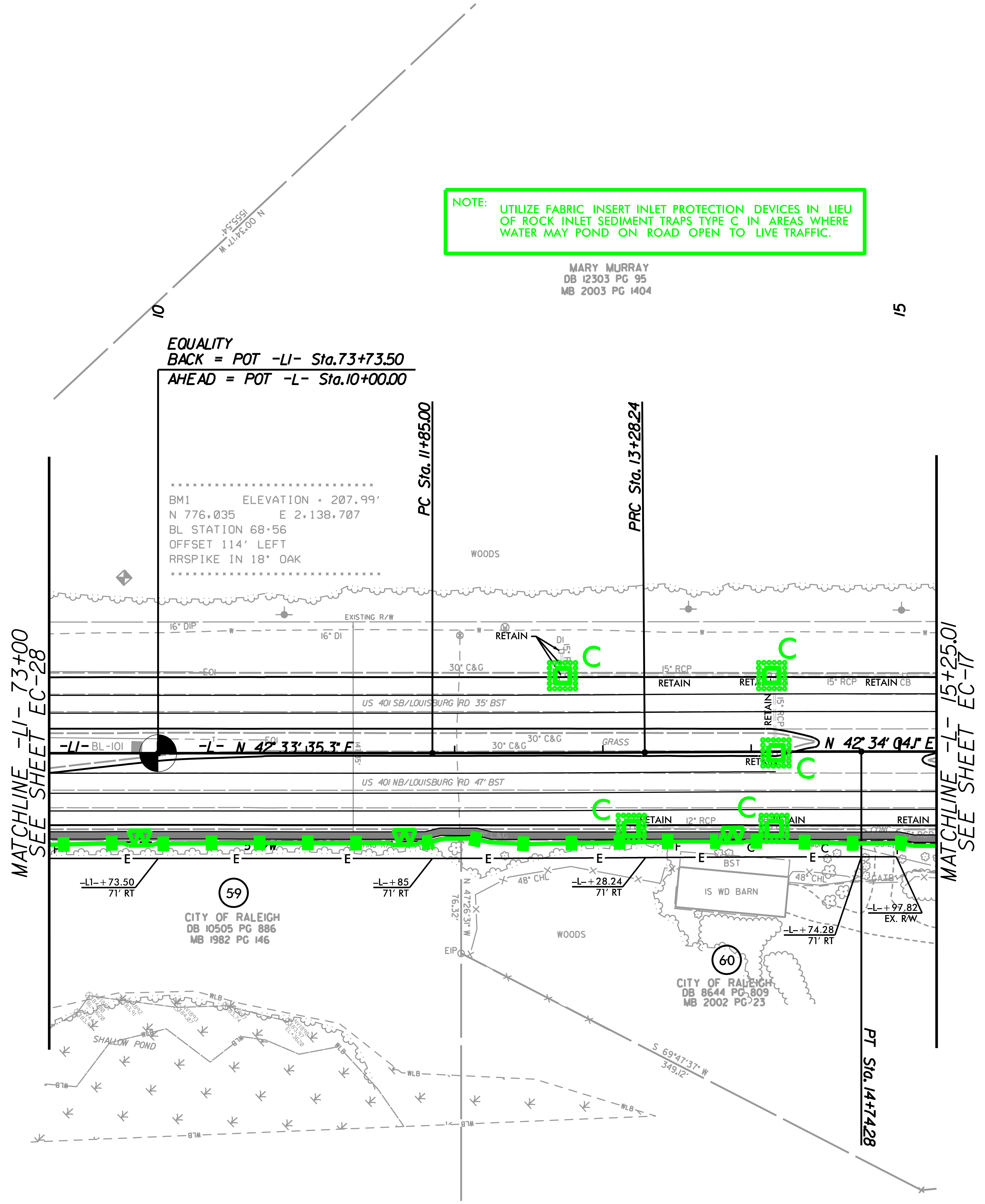
Prepared in the Office of: AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

NAD 83/NA 2011

50 25 0 50 100
PLANS

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS TYPE C IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.


N 15°55'54" W
10
15
MARY MURRAY
DB 12303 PG 95
MB 2003 PG 1404
EQUALITY
BACK = POT -L1- Sta.73+73.50
AHEAD = POT -L- Sta.10+00.00
PC Sta. 11+85.00
PRC Sta. 13+28.24
BM1 ELEVATION = 207.99'
N 776,035 E 2,138,707
BL STATION 68+56
OFFSET 114' LEFT
RRSPIKE IN 18" OAK
WOODS
EXISTING R/W
16" DIP
16" DI
RETAIN
DI
C
30" C&G
15" RCP
RETAIN
15" RCP
RETAIN CB
US 401 SB/LOUISBURG RD 35' BST
-L1- BL-101
-L- N 42° 33' 35.3" E
30" C&G
GRASS
N 42° 34' 04.1" E
US 401 NB/LOUISBURG RD 47' BST
12" RCP
RETAIN
E
-L1-+73.50
71' RT
59
CITY OF RALEIGH
DB 10505 PG 886
MB 1982 PG 146
-L-+85
71' RT
N 47°26'31" W
76.32'
EIP
48" CHL
-L-+28.24
71' RT
BST
IS WD BARN
WOODS
-L-+74.28
71' RT
-L-+97.82
EX. R/W
60
CITY OF RALEIGH
DB 8644 PG 809
MB 2002 PG 23
S 69°47'37" W
349.12'
PT Sta. 14+74.28
SHALLOW POND
WLB
MATCHLINE -L1- 73+00
SEE SHEET EC-28
MATCHLINE -L- 15+25.01
SEE SHEET EC-17

-L-

PI Sta 12+56.62
Δ = 0° 24' 37.3" (LT)
D = 0° 17' 11.3"
L = 143.24'
T = 71.62'
R = 20,000.00'
e = EXIST.

PI Sta 14+01.26
Δ = 0° 25' 06.1" (RT)
D = 0° 17' 11.3"
L = 146.04'
T = 73.02'
R = 20,000.00'
e = EXIST.

FOR -L1- PROFILE, SEE SHEET NO. 30

5/14/99

\60609754-U-5748 Ligon Mill\900-CAD GIS\910_CAD\70_NCDOT_TIP\Environmental\Design\U5748_EC_psh29_FG.dgn
9:58:37 AM
RemuR