


TIP PROJECT: R-2814A

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
WAKE COUNTY

**LOCATION: US 401 FROM SR 2044 (LIGON MILL ROAD)
 TO SOUTH OF SR 2226 (JONESVILLE ROAD)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND SIGNALS

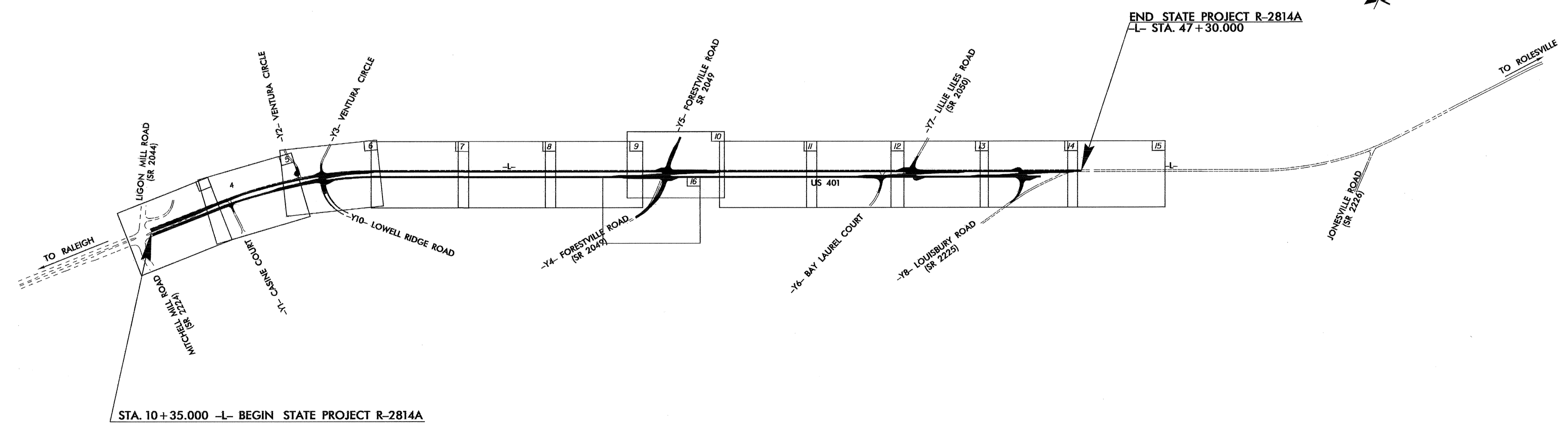


ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2814A	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
	Temporary Silt Fence	
	Special Sediment Control Fence	~ ~ ~
1622.01	Temporary Berms and Slope Drains	—
1630.01	Riser Basin	⊙
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle	~
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	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭



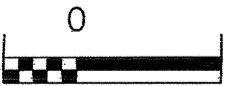
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.


THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS

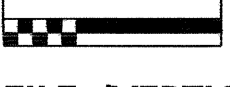
ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

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

GRAPHIC SCALE

0

 PLANS

0

 PROFILE (HORIZONTAL)

0

 PROFILE (VERTICAL)

**ROADSIDE ENVIRONMENTAL UNIT
 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA**

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27601
2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway metric standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.03 Temporary Silt Ditch	1634.02 Temporary Rock Sediment Dam Type B
1630.05 Temporary Diversion	1635.01 Rock Pipe Inlet Sediment Trap Type A
1632.02 Rock Inlet Sediment Trap Type B	1635.02 Rock Pipe Inlet Sediment Trap Type B
1633.01 Temporary Rock Silt Check Type A	

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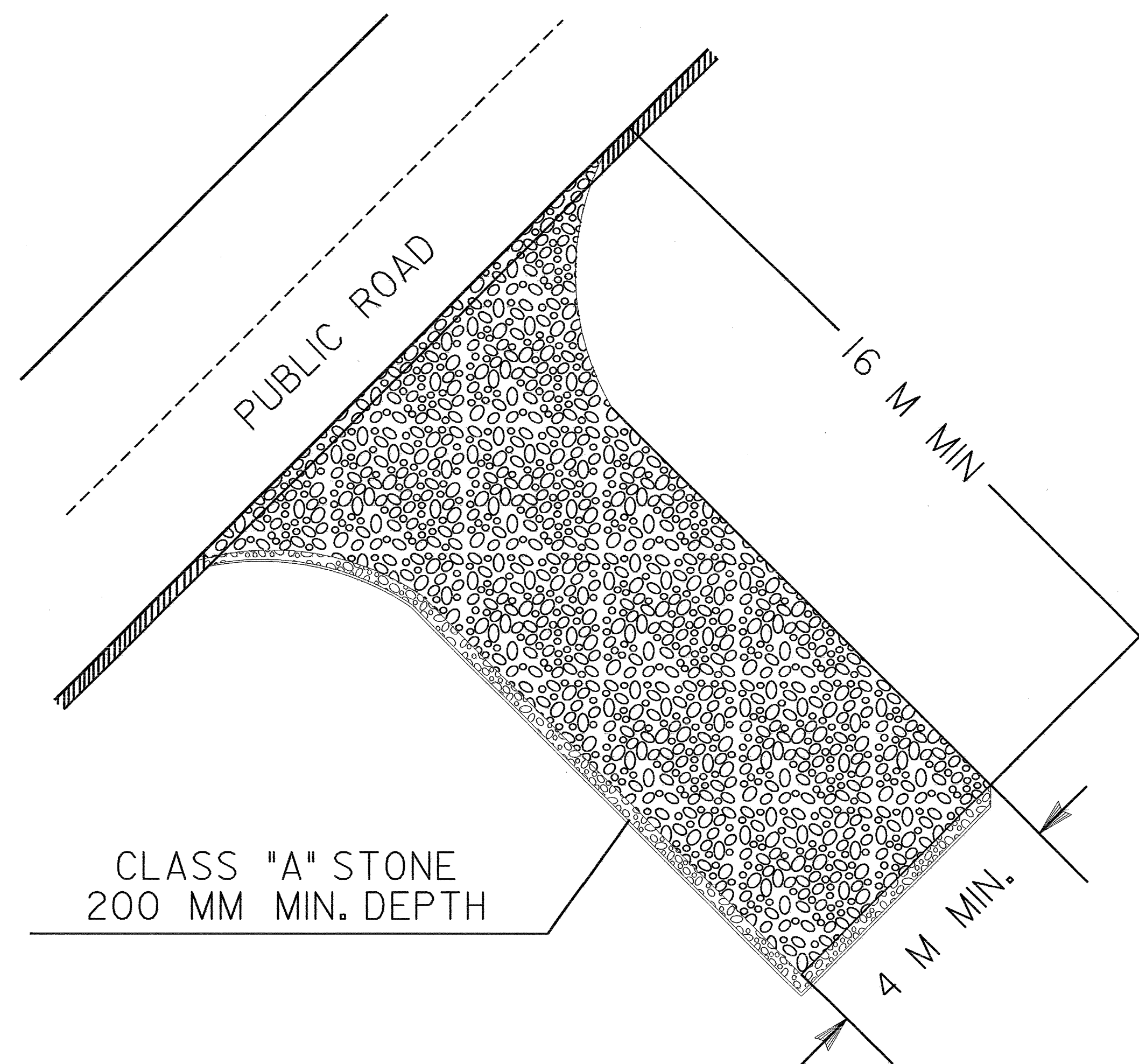


PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

NOTES:

1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. GRAVEL CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER

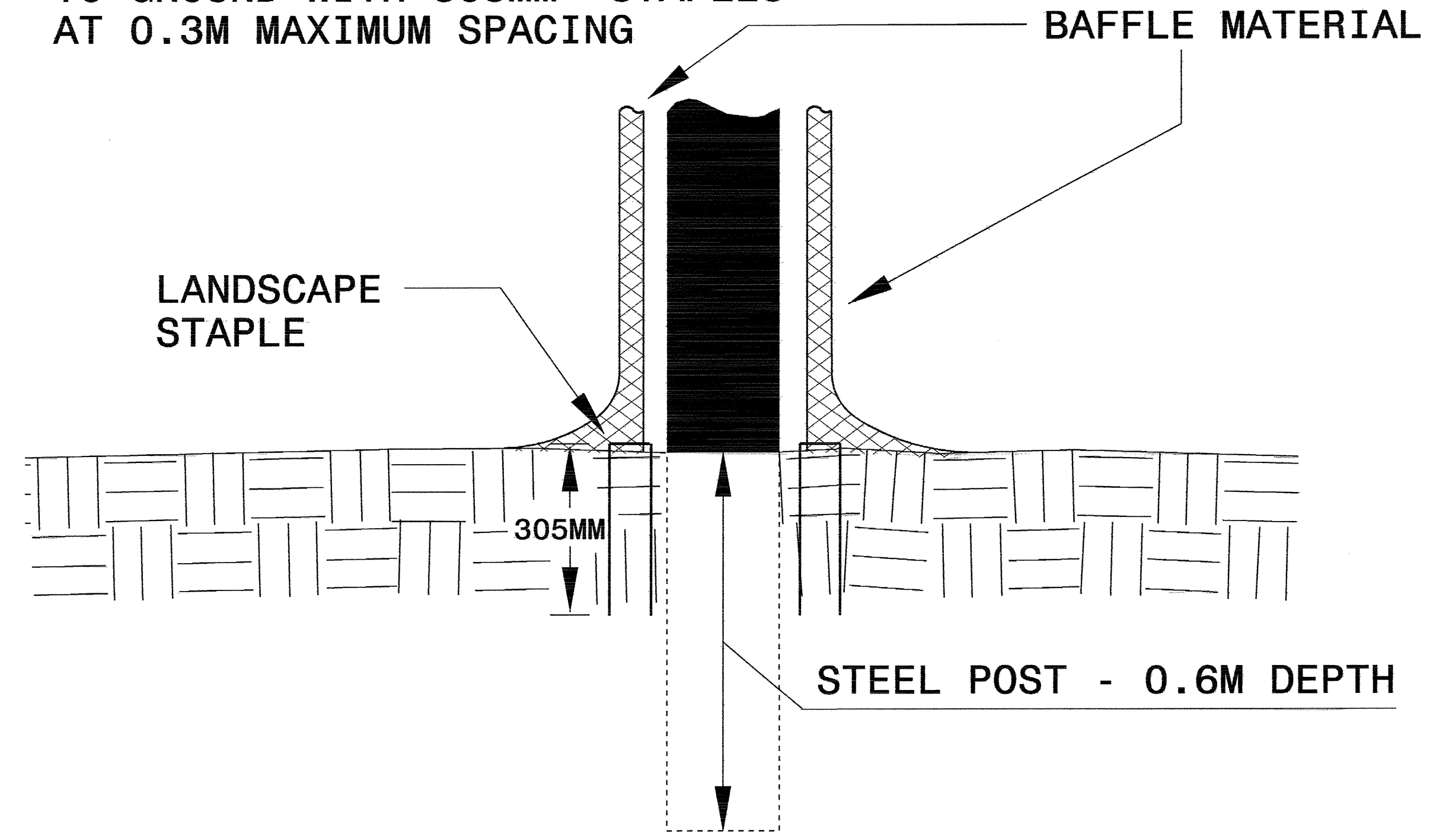
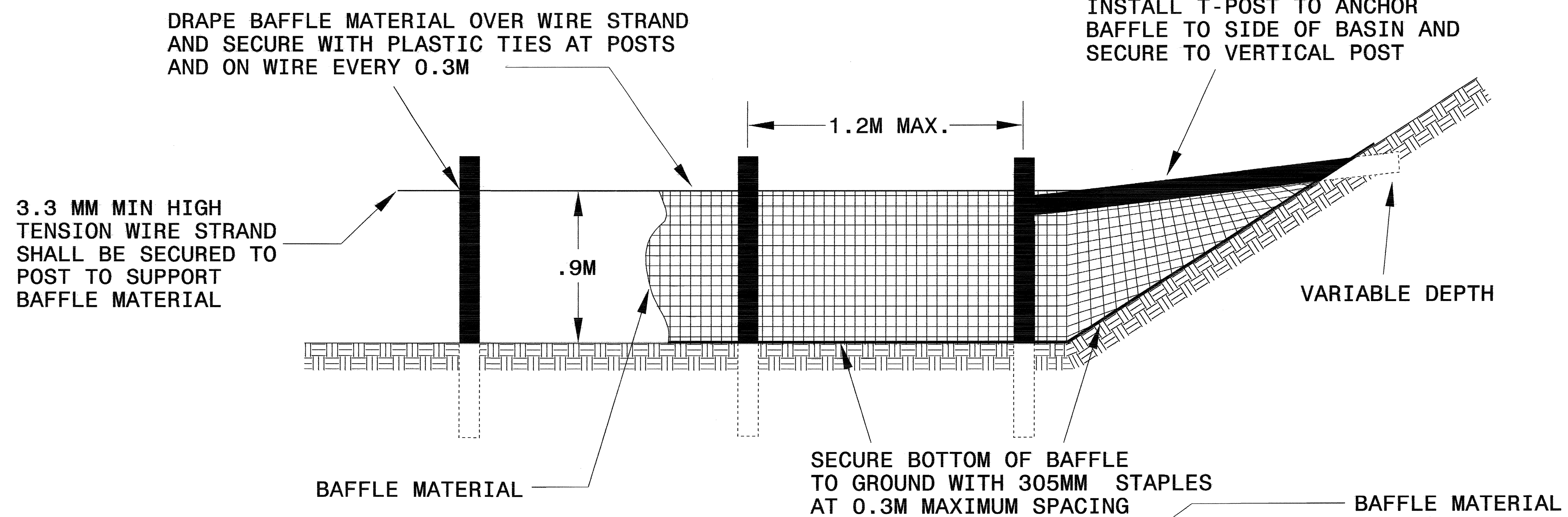


NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE



PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER


COIR FIBER BAFFLE DETAIL

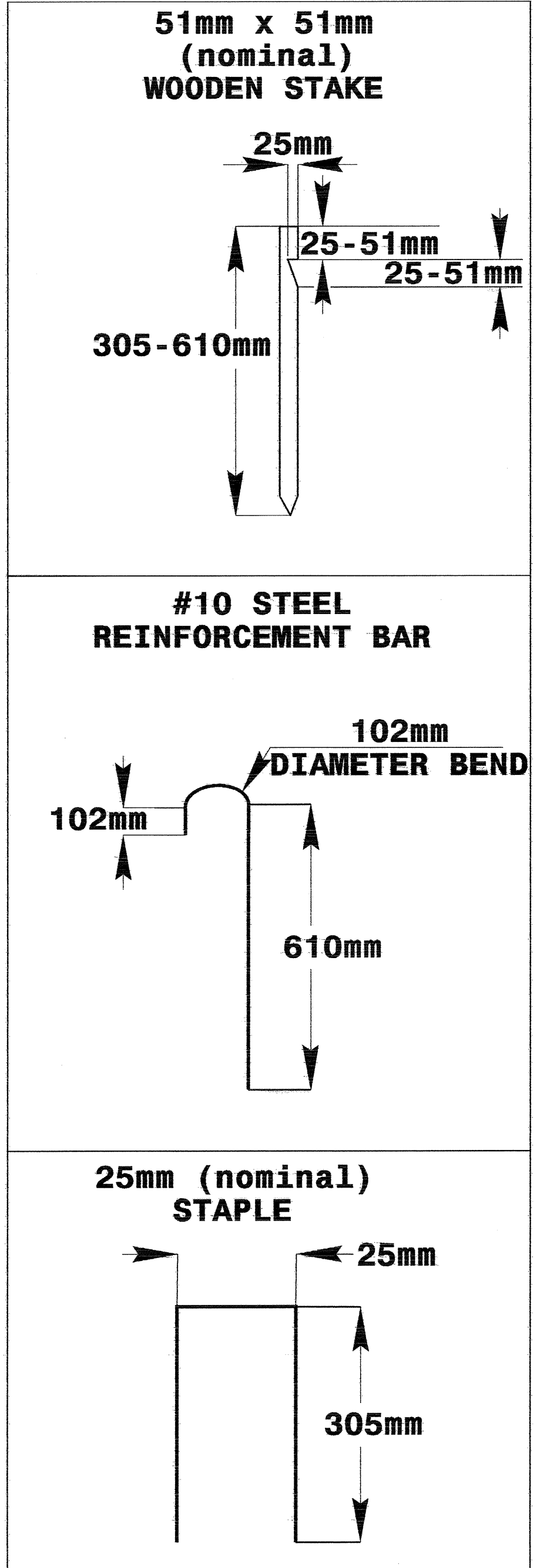
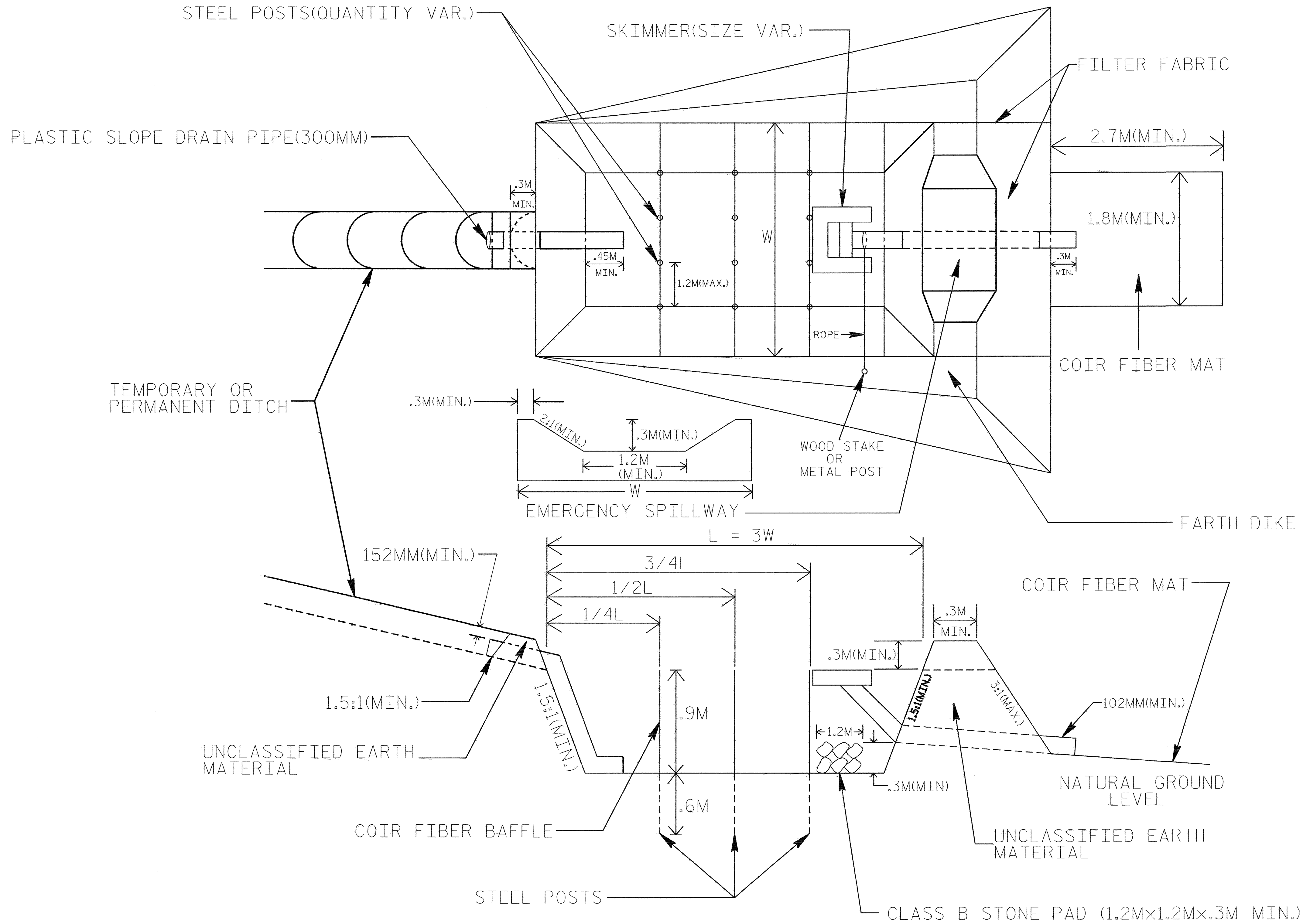


1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH.
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 6 M IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 305MM LANDSCAPE STAPLES

SKIMMER BASIN WITH BAFFLES DETAIL

	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	EC-2B
	R/W SHEET NO.	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 1.5M.
3. MINIMUM BASIN WIDTH SHALL BE 3M.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (M) USING $Q/0.074$, WHERE Q IS FLOW RATE (CMS) INTO BASIN.

NOT TO SCALE



PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL SEDIMENT CONTROL FENCE DETAIL

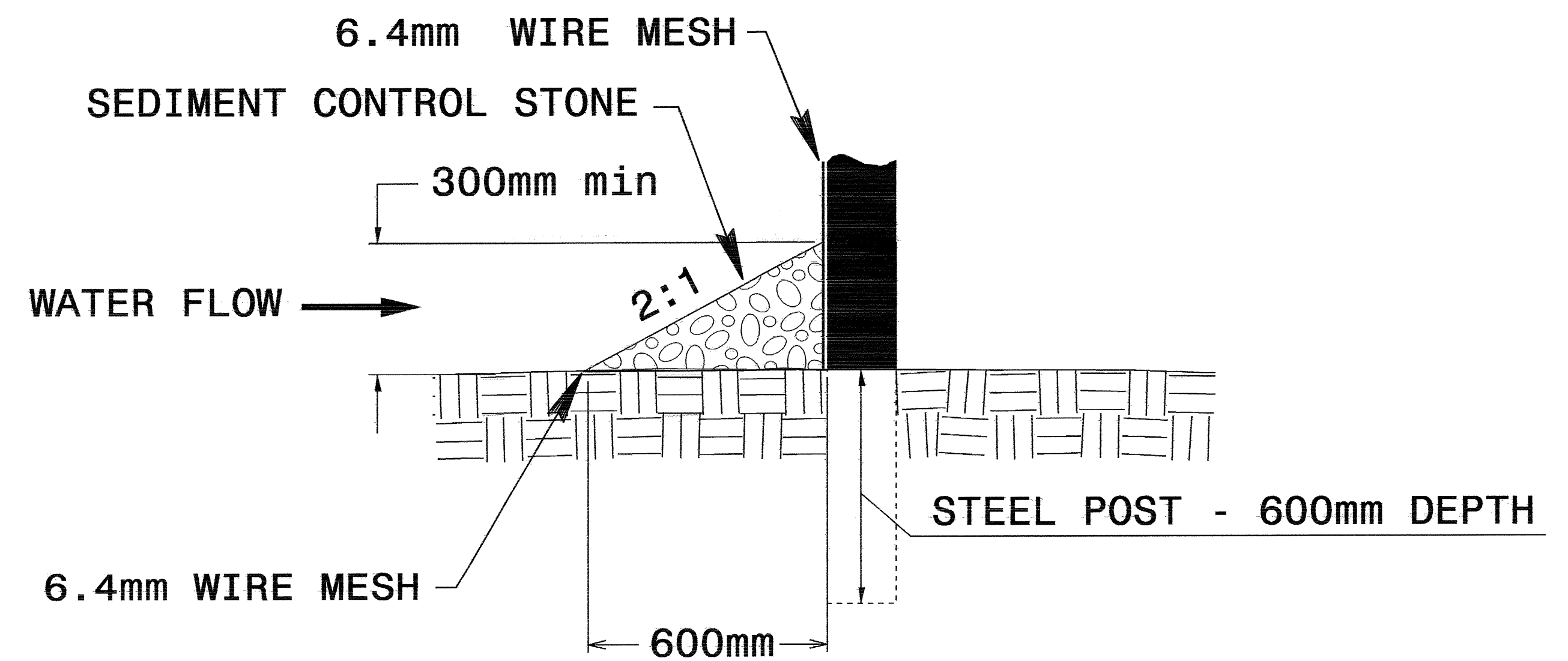
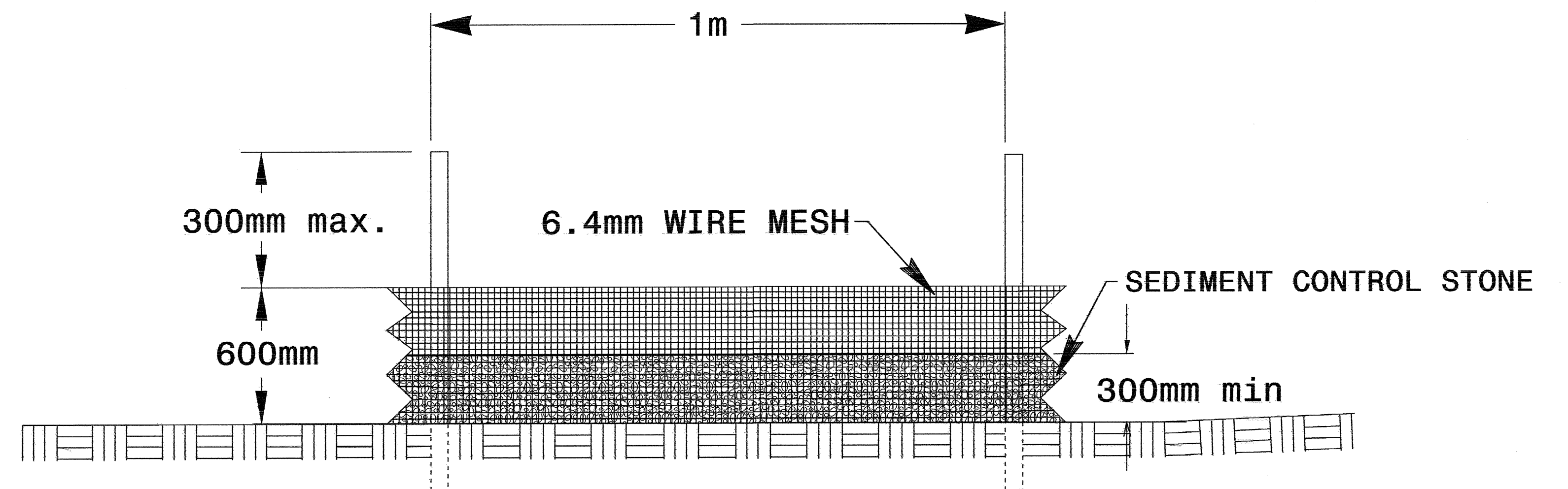
GENERAL NOTES:

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

USE 0.65mm HARDWARE CLOTH WIRE MESH WITH 6.4 mm MESH OPENINGS.

INSTALL 1.5m SELF FASTENER ANGLE STEEL POST 600mm DEEP MINIMUM.

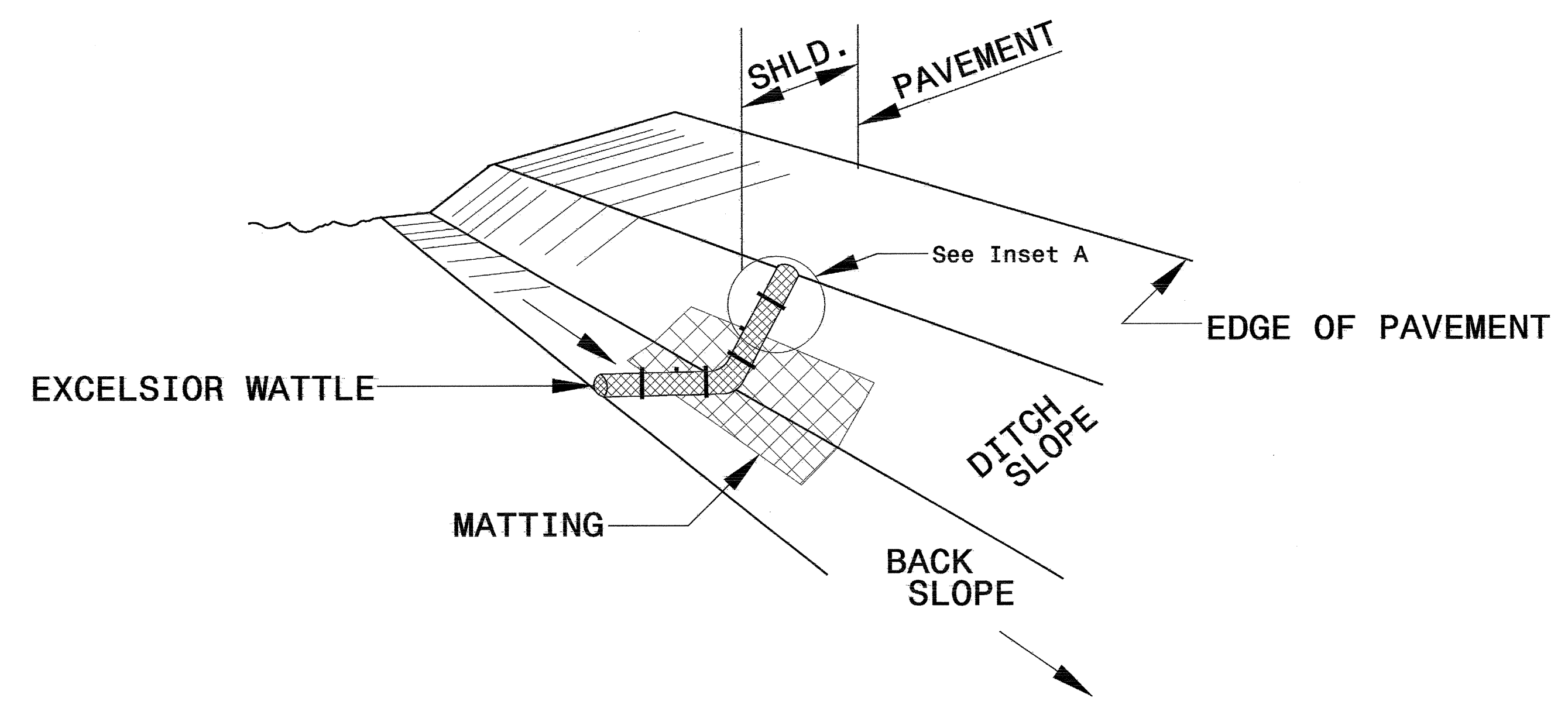
SPACE POST A MAXIMUM OF 1m.



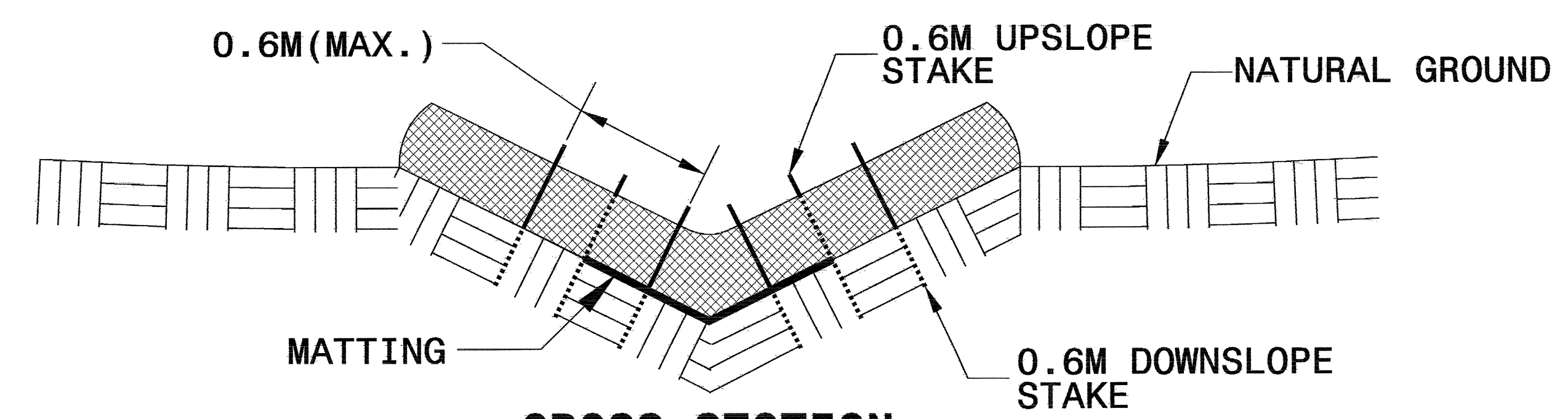


PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

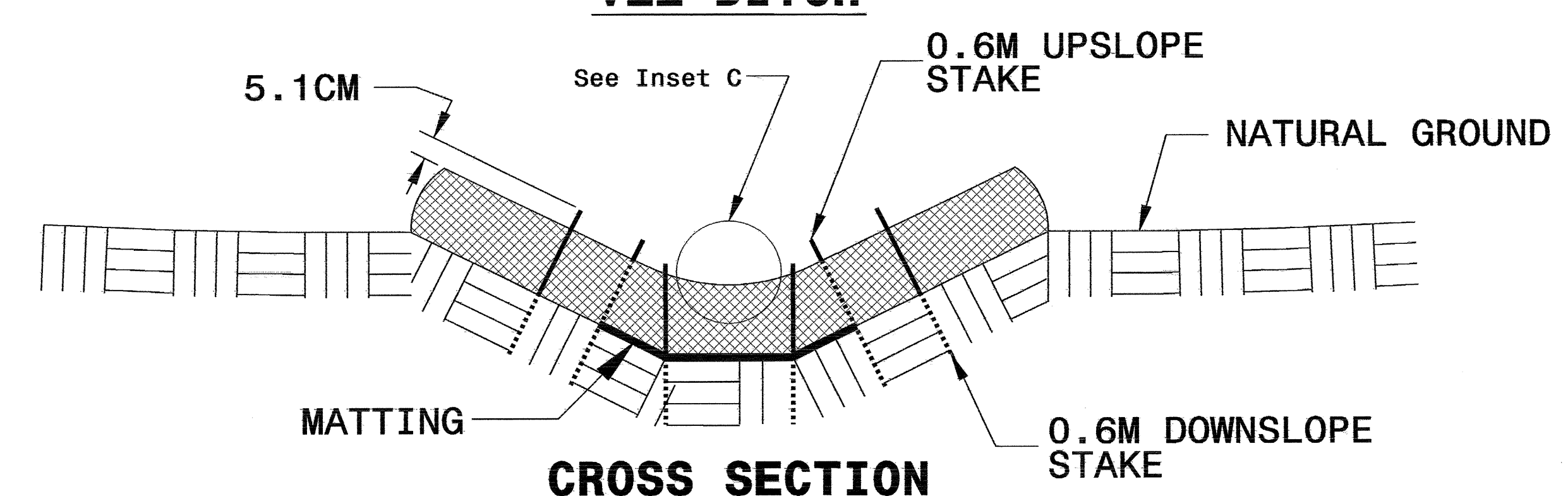
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



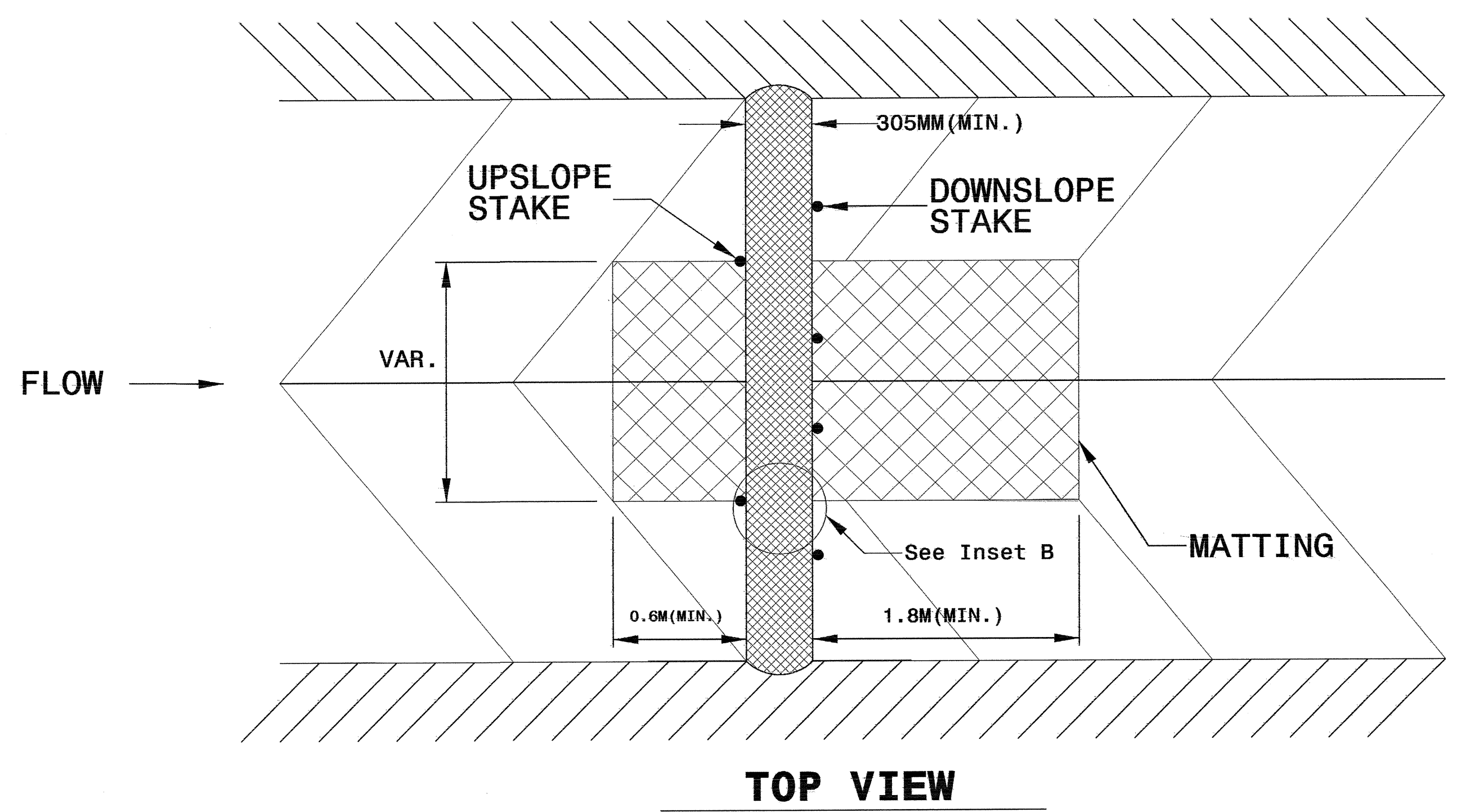
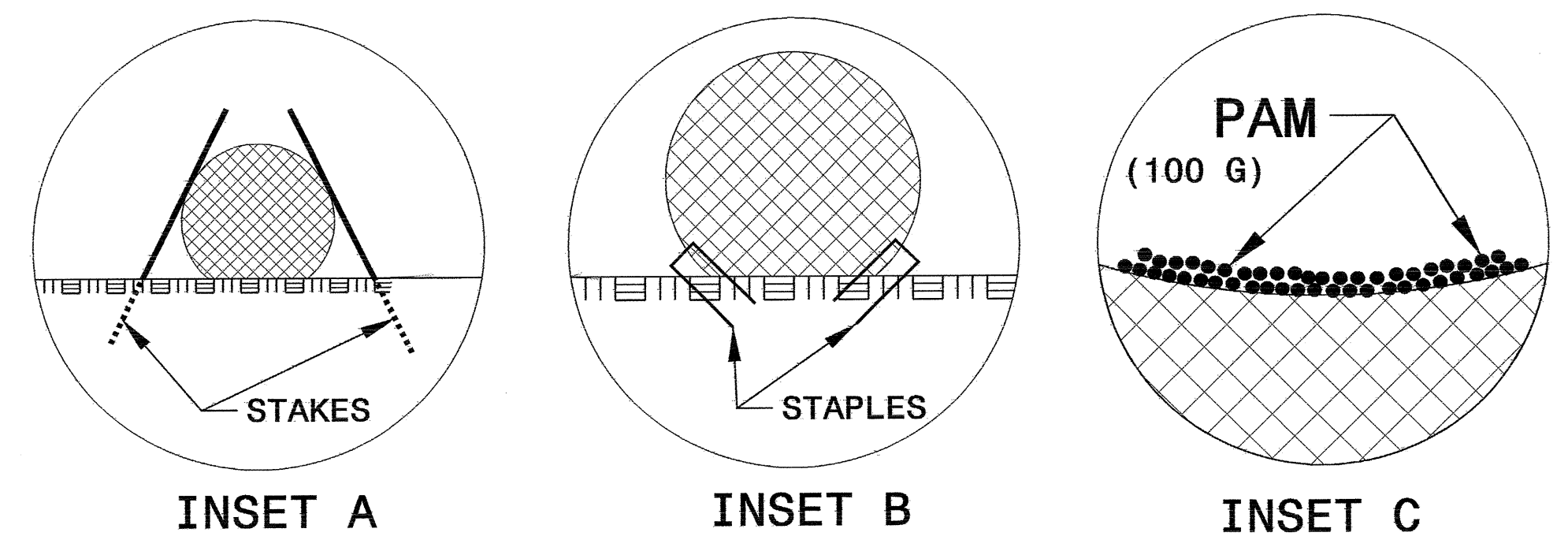
CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

- USE MINIMUM 305 MM DIAMETER EXCELSIOR WATTLE.
- USE 0.6 M WOODEN STAKES WITH A 5.1 CM BY 5.1 CM 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 3 MM DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 305 MM IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 0.3 LINEAR METER 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 100 GRAMS OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 12 MM.

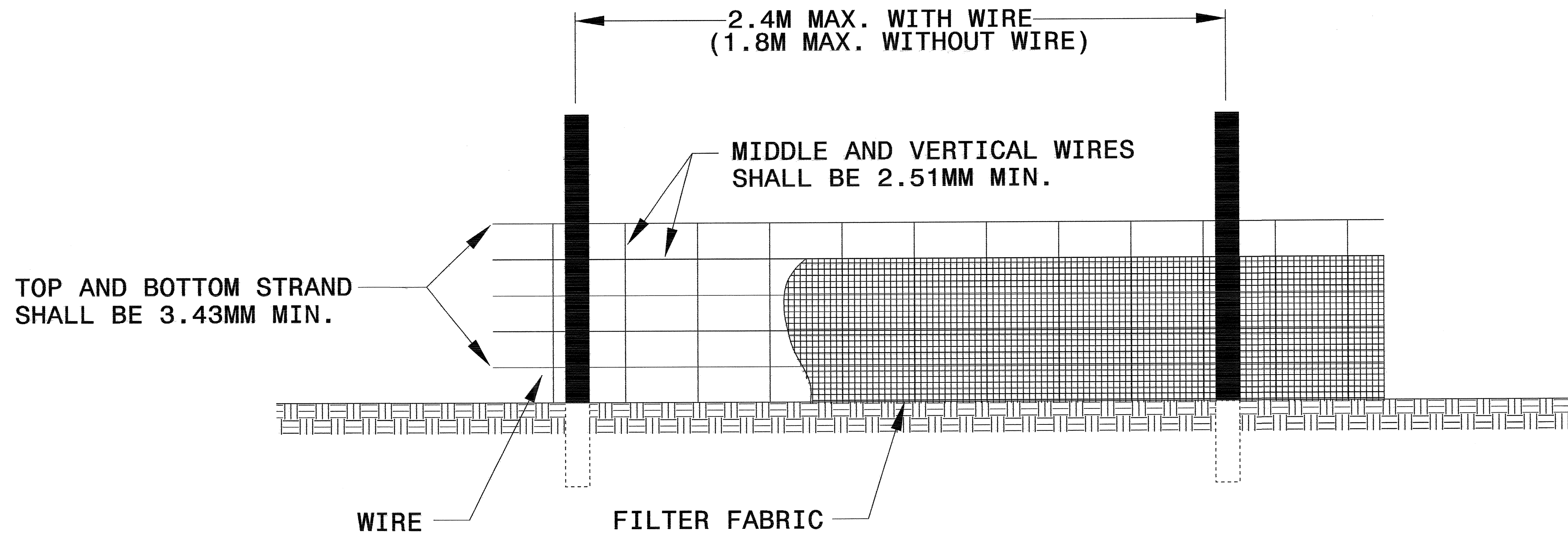


TOP VIEW



PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-2E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY SILT FENCE DETAIL

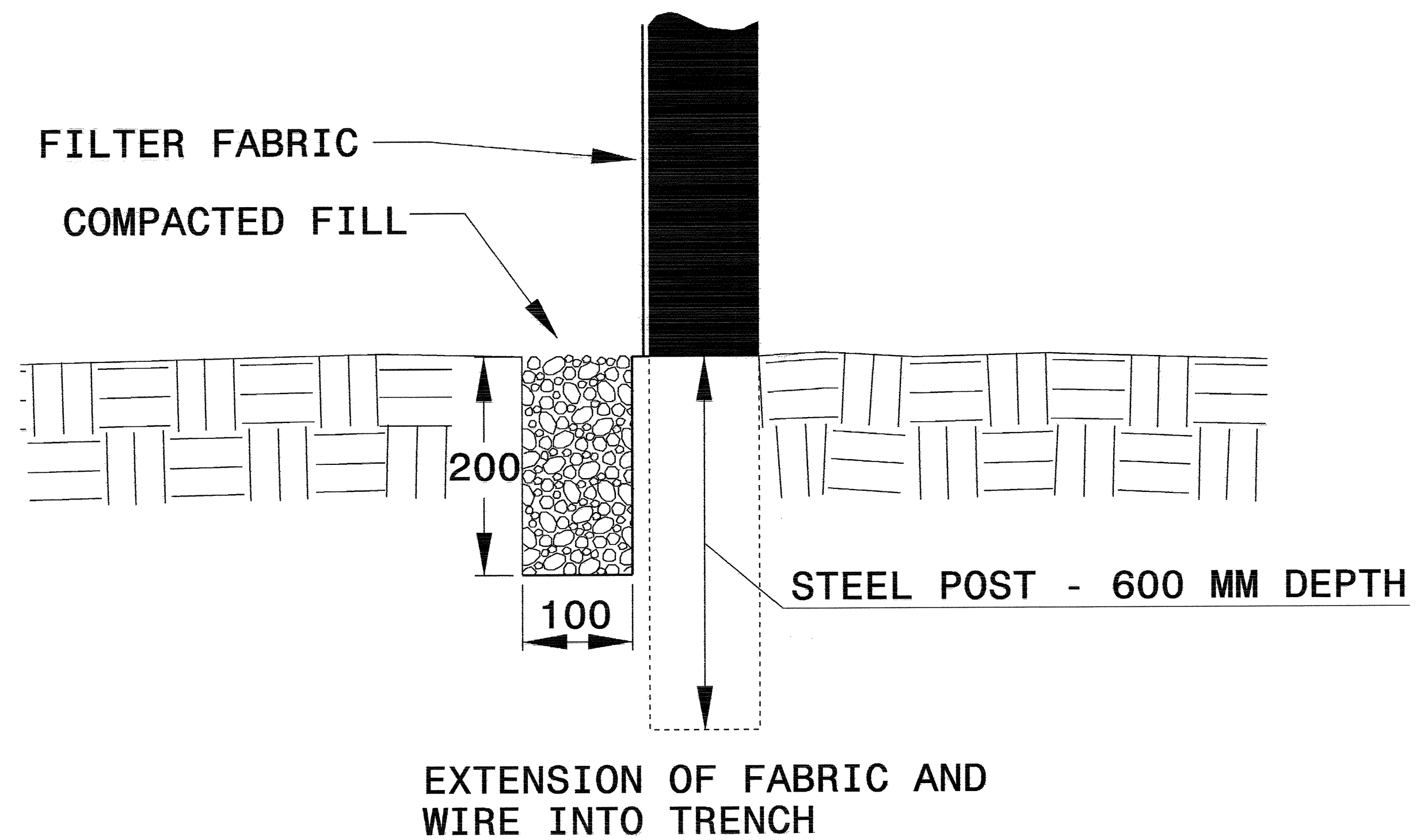


NOTES

USE WIRE A MINIMUM OF 800MM IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 300MM STAY SPACING.

USE FILTER FABRIC A MINIMUM OF 900MM IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

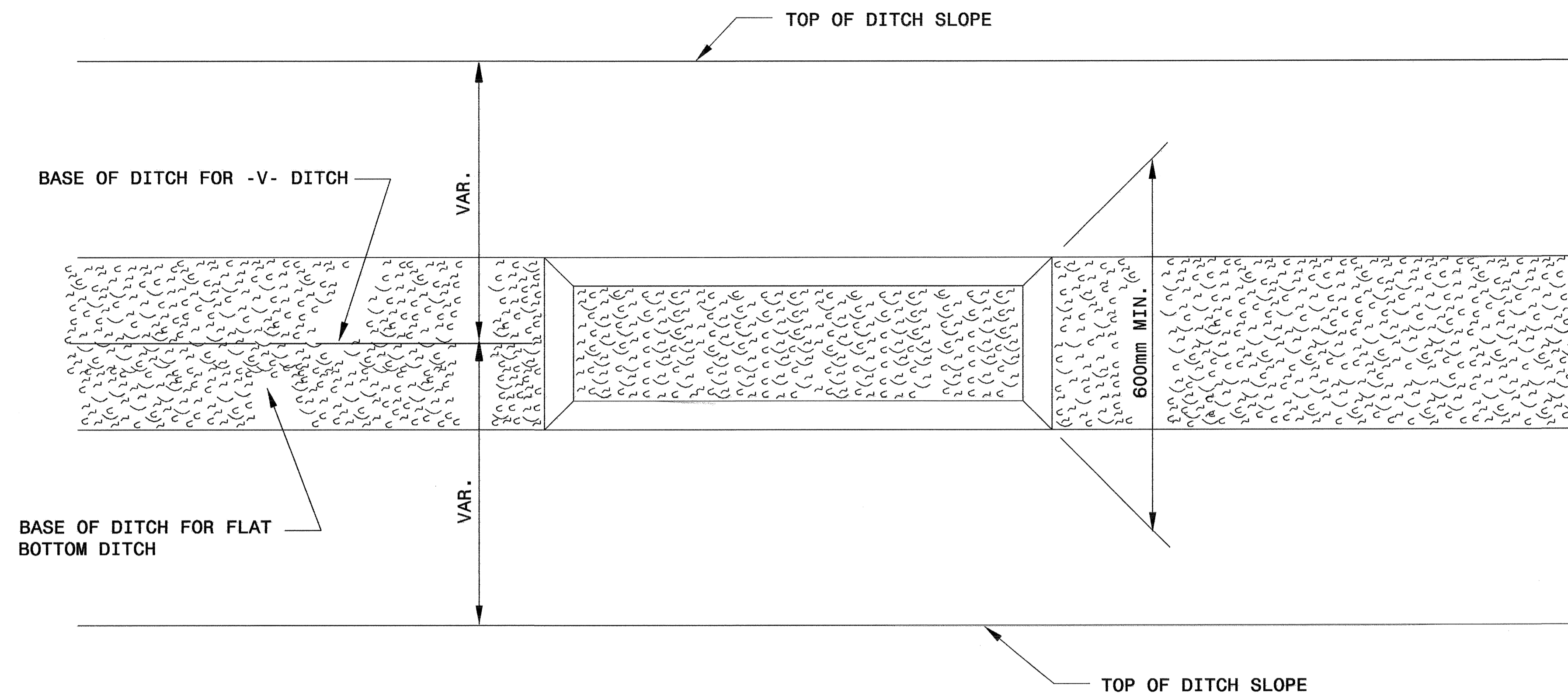
PROVIDE 1.5M STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE. ANGLE STEEL TYPE.



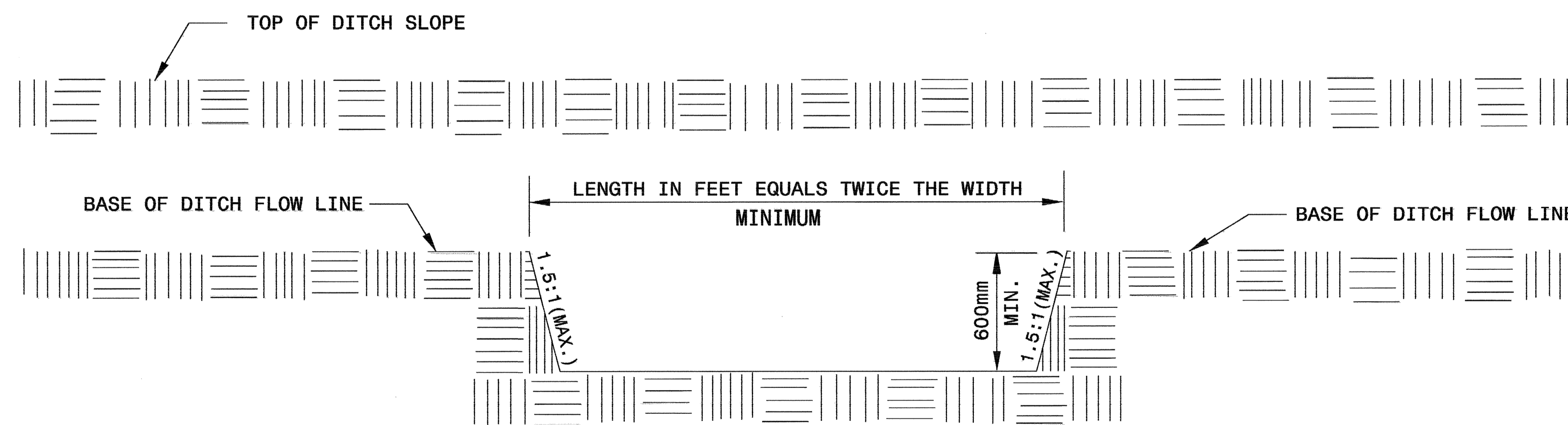


PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-2F
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



PLAN

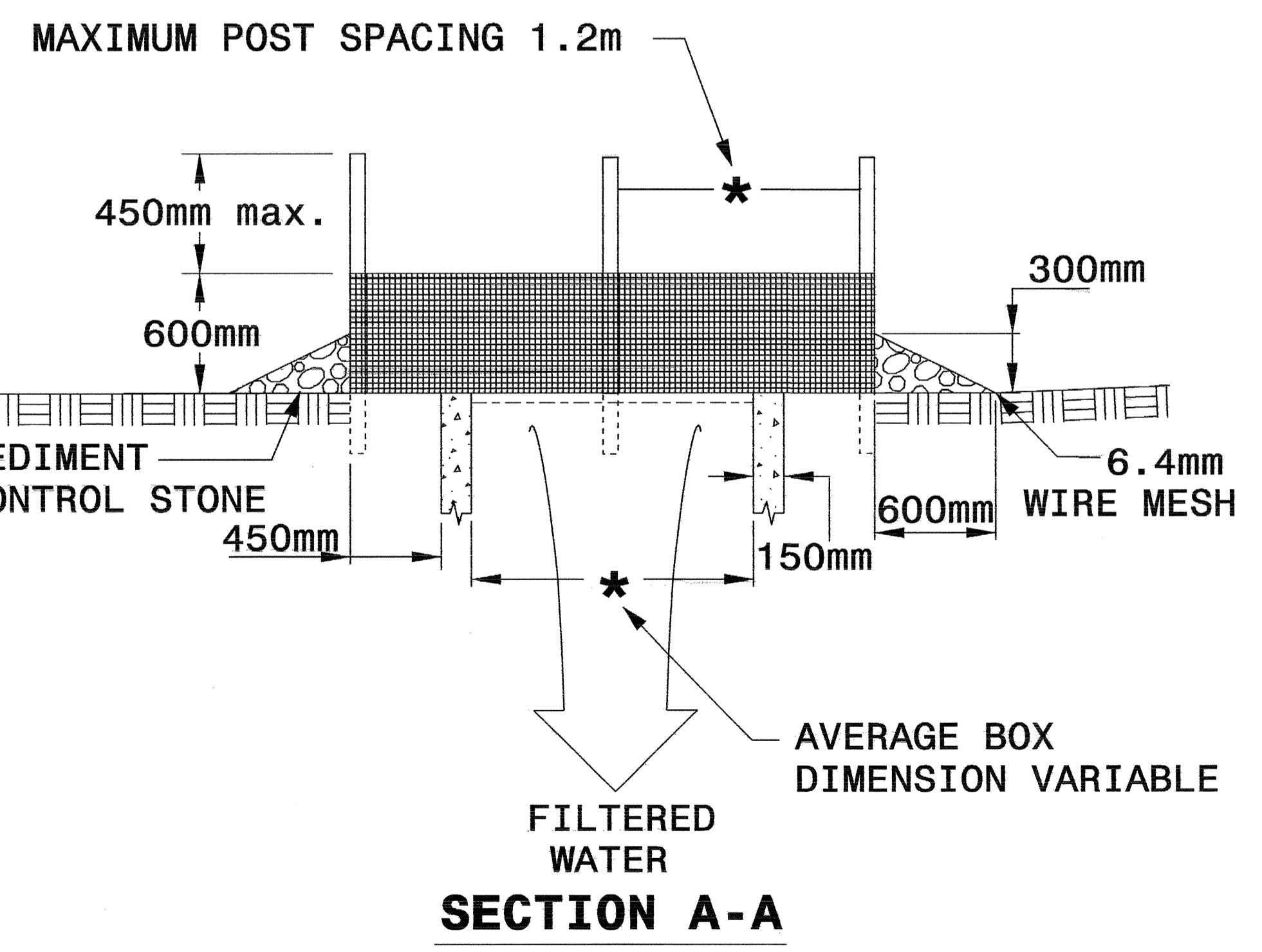
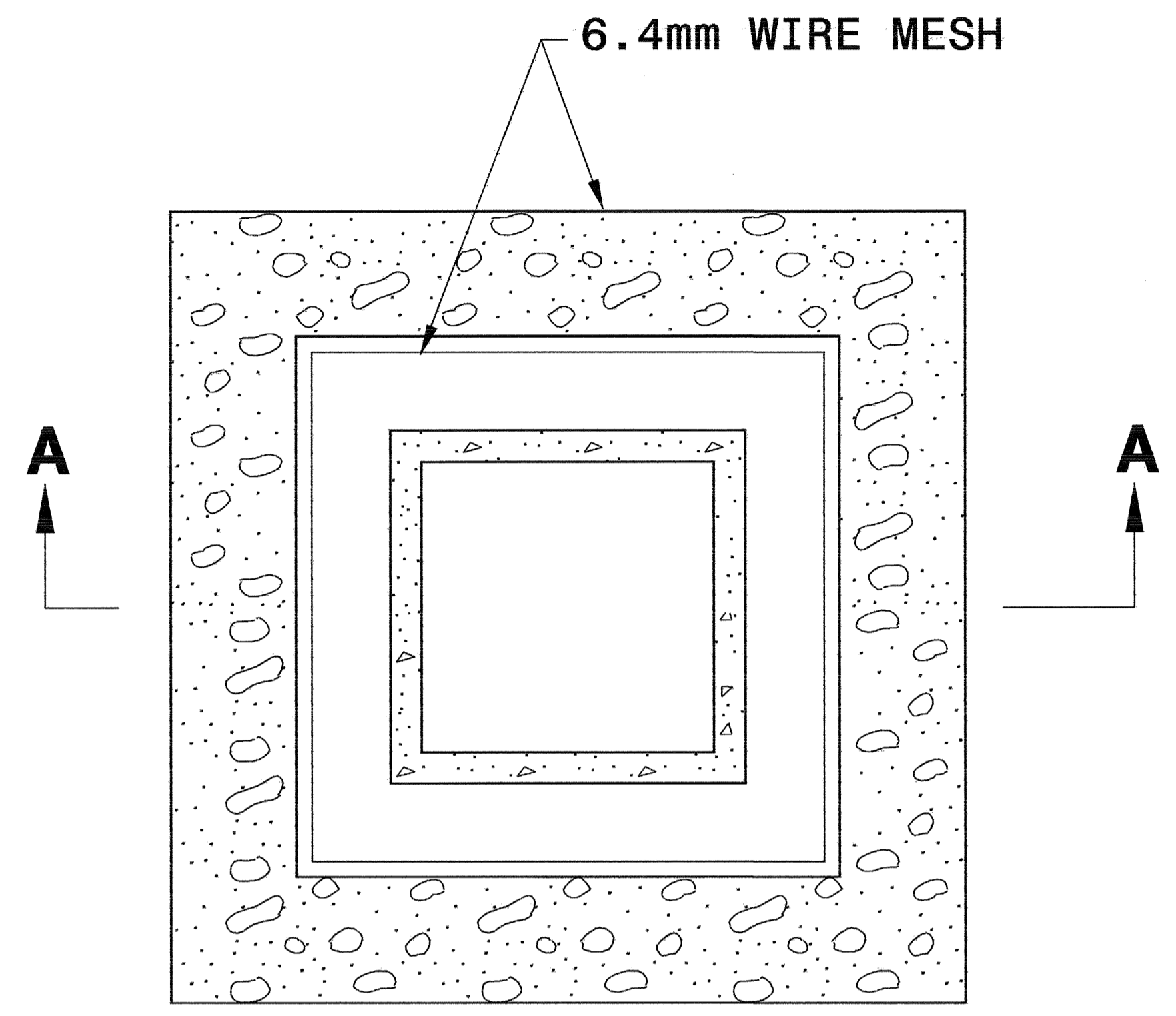


ELEVATION



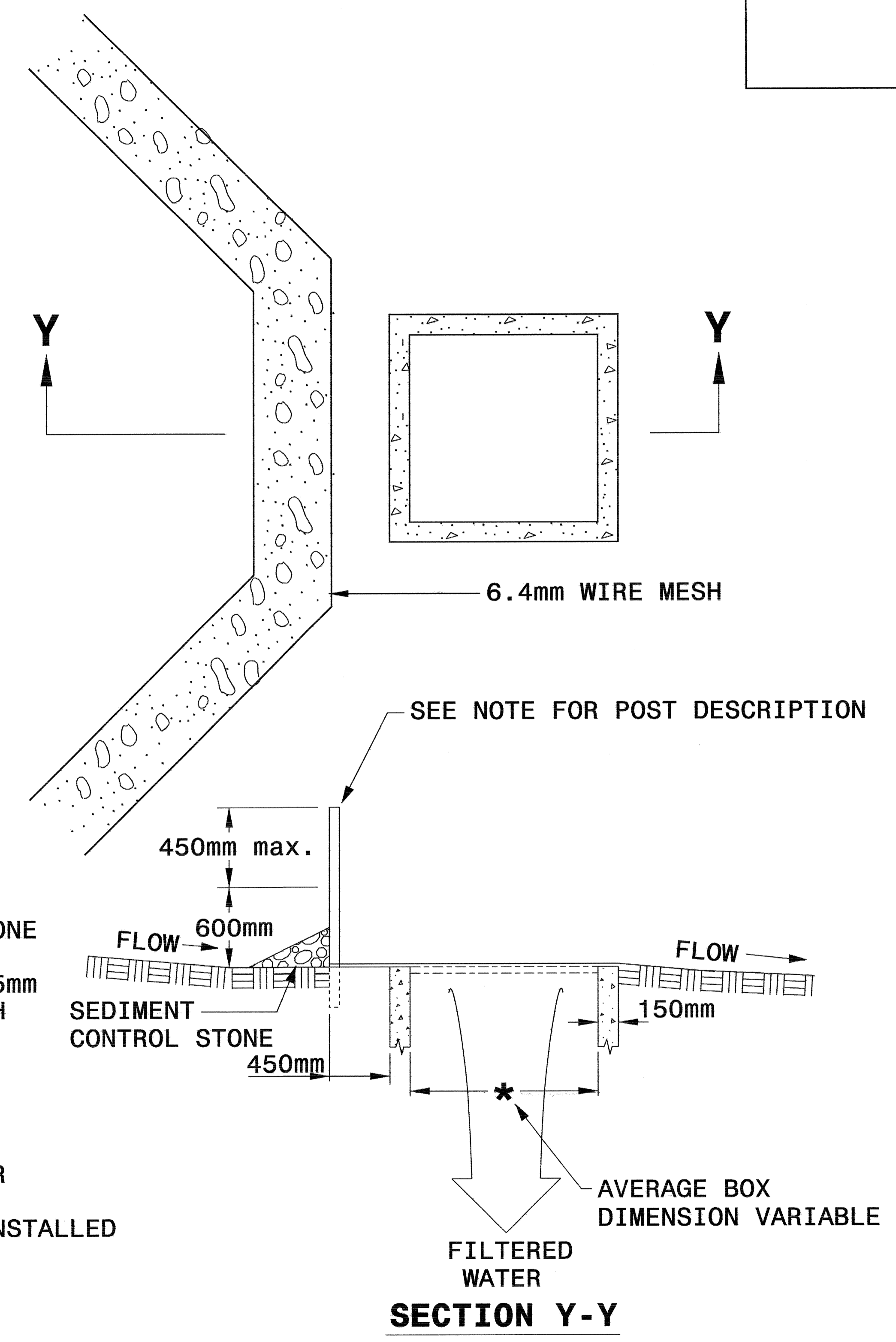
PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL



MULTI-DIRECTIONAL FLOW

NOTE
 USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.
 USE HARDWARE CLOTH 0.65mm WIRE MESH WITH 6.4mm MESH OPENINGS.
 PLACE TOP OF WIRE MESH A MINIMUM OF 300mm BELOW THE SHOULDER OR ANY DIVERSION POINT.
 INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
 USE 1.5m STEEL POST, INSTALLED 450mm DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
 SPACE POST A MAXIMUM OF 1.2m.



SINGLE-DIRECTIONAL FLOW

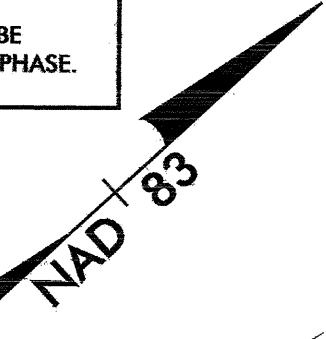
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

5 0 10

CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-4/CONST.4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

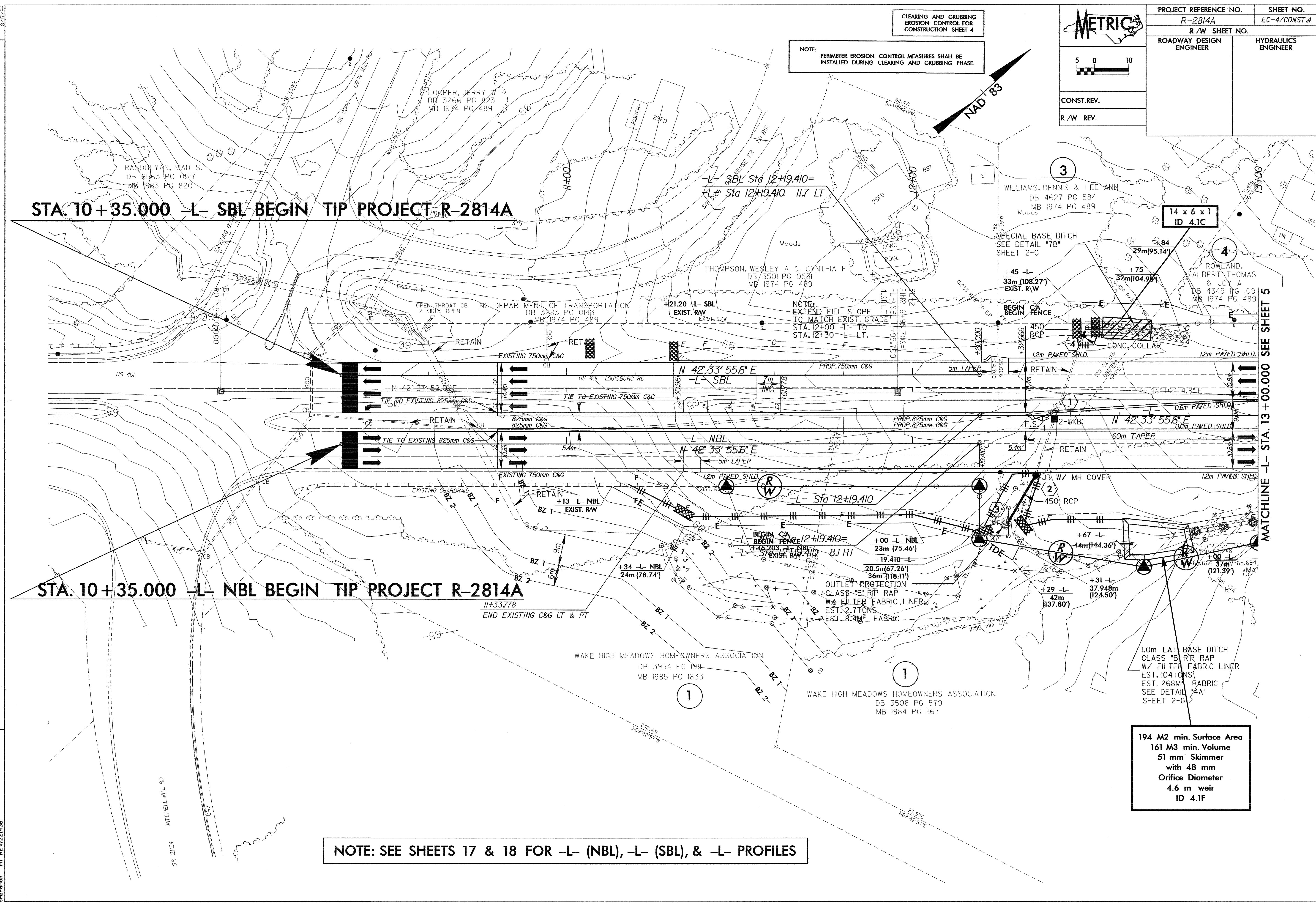
NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.



STA. 10+35.000 -L- SBL BEGIN TIP PROJECT R-2814A

STA. 10+35.000 -L- NBL BEGIN TIP PROJECT R-2814A

MATCHLINE -L- STA. 13+00.000 SEE SHEET 5



194 M2 min. Surface Area
161 M3 min. Volume
51 mm Skimmer
with 48 mm
Orifice Diameter
4.6 m weir
ID 4.1F

NOTE: SEE SHEETS 17 & 18 FOR -L- (NBL), -L- (SBL), & -L- PROFILES

REVISIONS
 R/W REVISION - 05/09/08 - MRH
 R/W REVISION - 05/21/09 - PER SUBMITTAL OF APRIL 17, 2009 - ADJUSTED C/A & FENCE TO BEGIN ON PARCEL 3.

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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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

METRIC

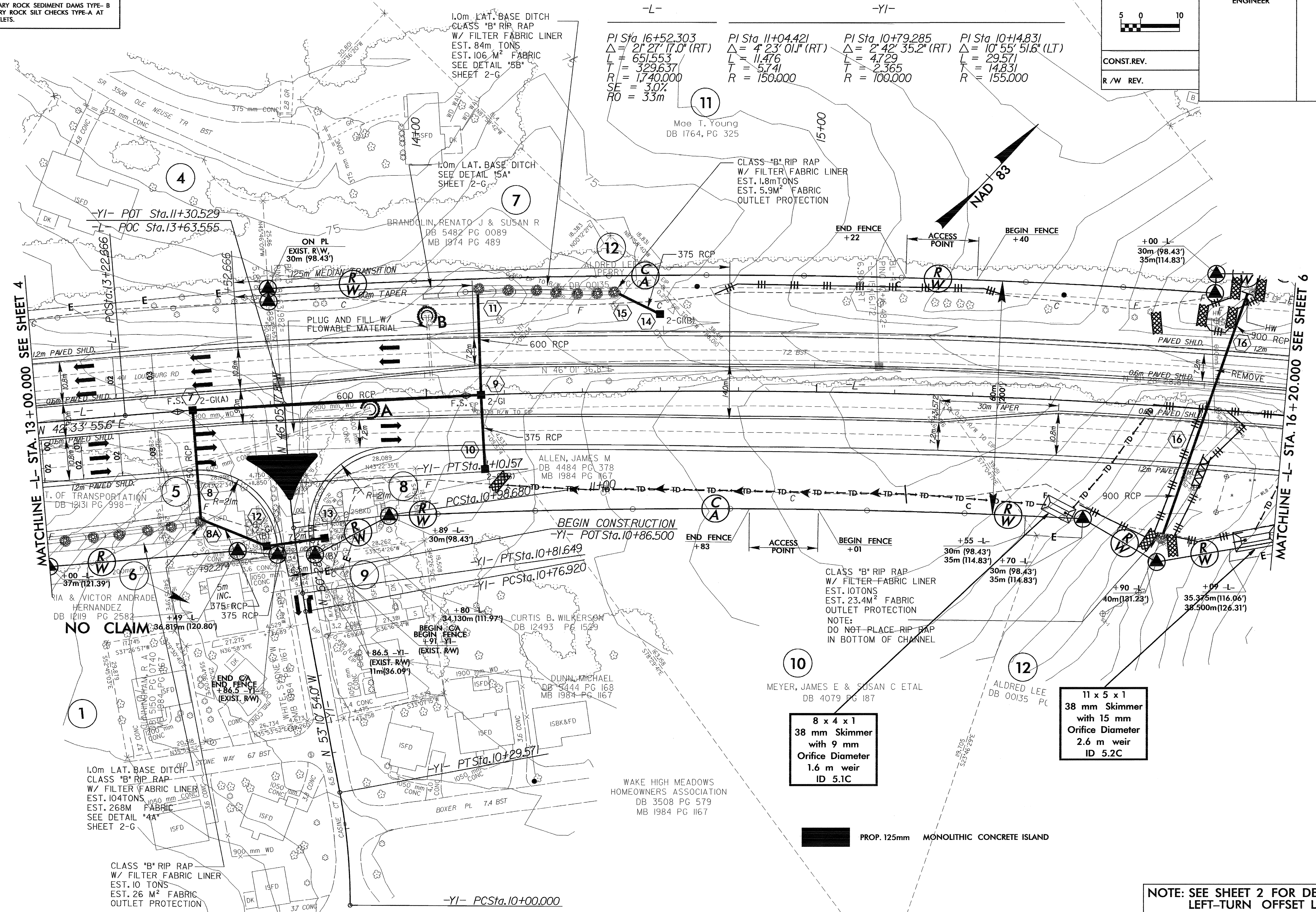
5 0 10

CONST. REV.

R/W REV.

PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

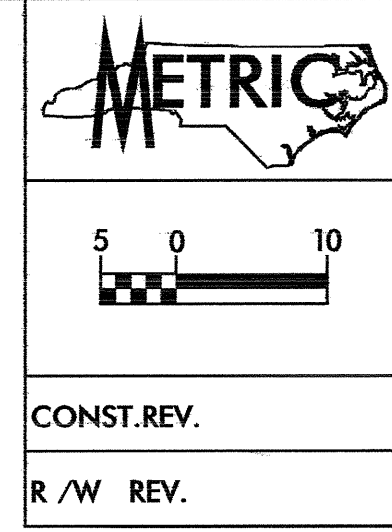
R/W REVISION - 05/09/08 - MRH
 R/W REVISION - 05/12/09 - PER SUBMITTAL OF APRIL 17, 2009 - REDUCED TEMPORARY CONSTRUCTION EASEMENT ON PARCEL 9.
 CHANGED PROPERTY OWNER NAME IN PARCEL 9.



NOTE: SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE

NOTE: SEE SHEET 18 FOR -L- PROFILE
SEE SHEET 24 FOR -YI- PROFILE

3-AUG-2009 14:01
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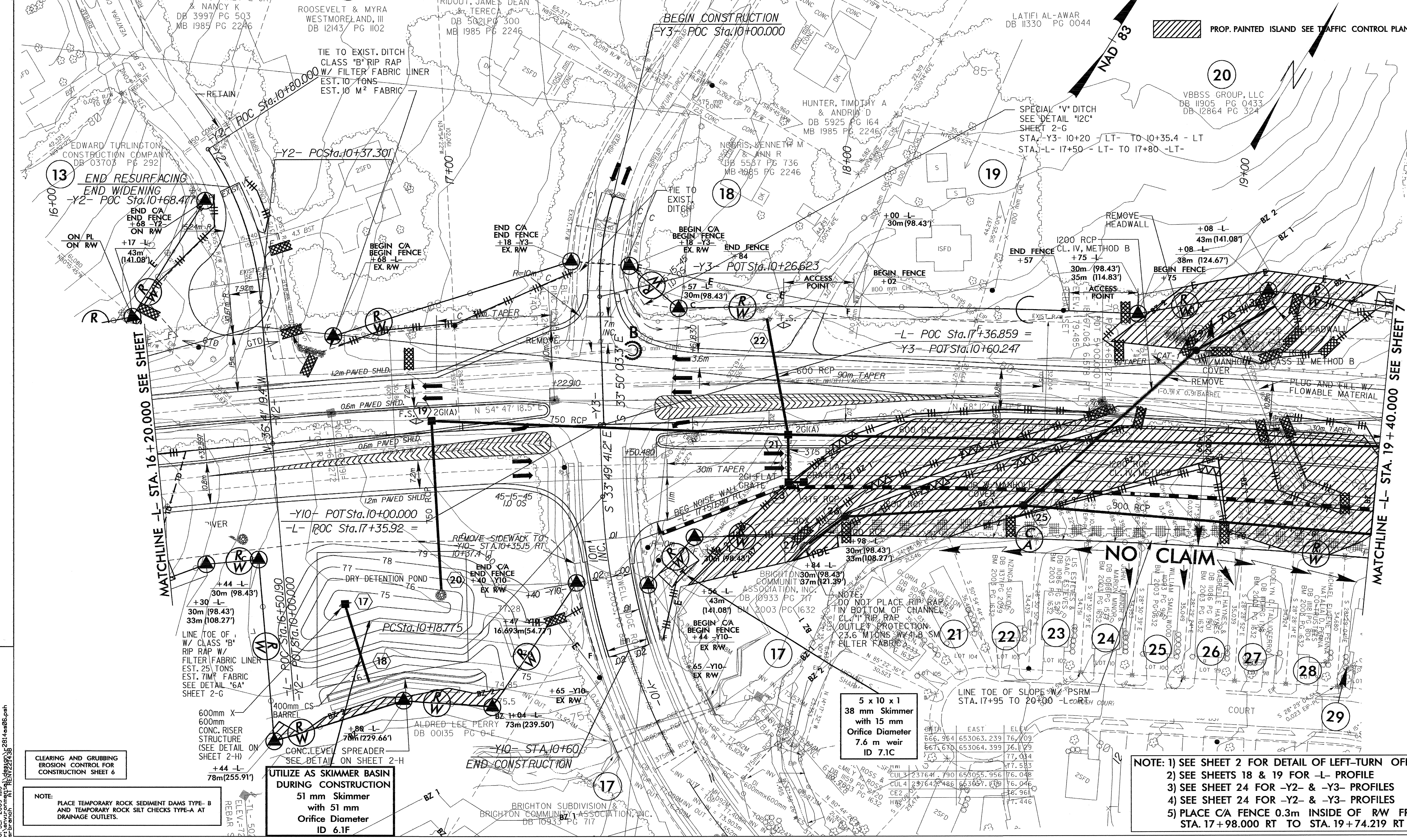


PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	
R/W REV.	

-L-	-Y2-	-Y3-
PI Sta 16+52.303	PI Sta 10+64.019	PI Sta 10+13.436
$\Delta = 21' 27" 17.0" (RT)$	$\Delta = 34' 50" 28.7" (LT)$	$\Delta = 19' 04" 01.6" (LT)$
L = 651.553	L = 51.779	L = 26.623
T = 329.637	T = 26.718	T = 13.436
R = 1,740.000	R = 85.150	R = 80.000
SE = 3.0%		
RO = 33m		
		-Y10-
		PI Sta 11+09.797
		$\Delta = 61' 49" 44.9" (LT)$
		L = 164.027
		T = 91.023
		R = 152.000

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROP. PAINTED ISLAND SEE TRAFFIC CONTROL PLANS



REVISIONS
 R/W REVISION-09/13/07-
 R/W REVISION - 05/09/08
 DESIGN REVISION - 06/22/09- ADDED NOISE WALL AND CONCRETE BARRIER RIGHT OF -L- STA.17+60+/- TO 21+00+/-

MATCHLINE -L- STA. 16+20.000 SEE SHEET 12

MATCHLINE -L- STA. 19+40.000 SEE SHEET 7

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.

**UTILIZE AS SKIMMER BASIN
DURING CONSTRUCTION**
51 mm Skimmer
with 15 mm
Orifice Diameter
ID 6.1F

5 x 10 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
7.6 m weir
ID 7.1C

- NOTE: 1) SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE
 2) SEE SHEETS 18 & 19 FOR -L- PROFILE
 3) SEE SHEET 24 FOR -Y2- & -Y3- PROFILES
 4) SEE SHEET 24 FOR -Y2- & -Y3- PROFILES
 5) PLACE C/A FENCE 0.3m INSIDE OF R/W FROM
 STA. 17+98.000 RT TO STA. 19+74.219 RT

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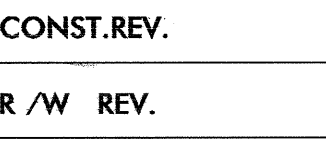
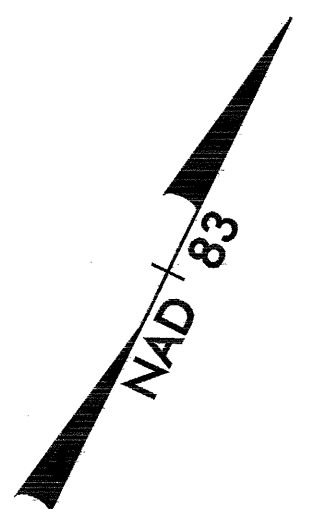
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	R/W SHEET NO.			
ROADWAY DESIGN ENGINEER			HYDRAULICS ENGINEER	
CONST. REV.				
R/W REV.				

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

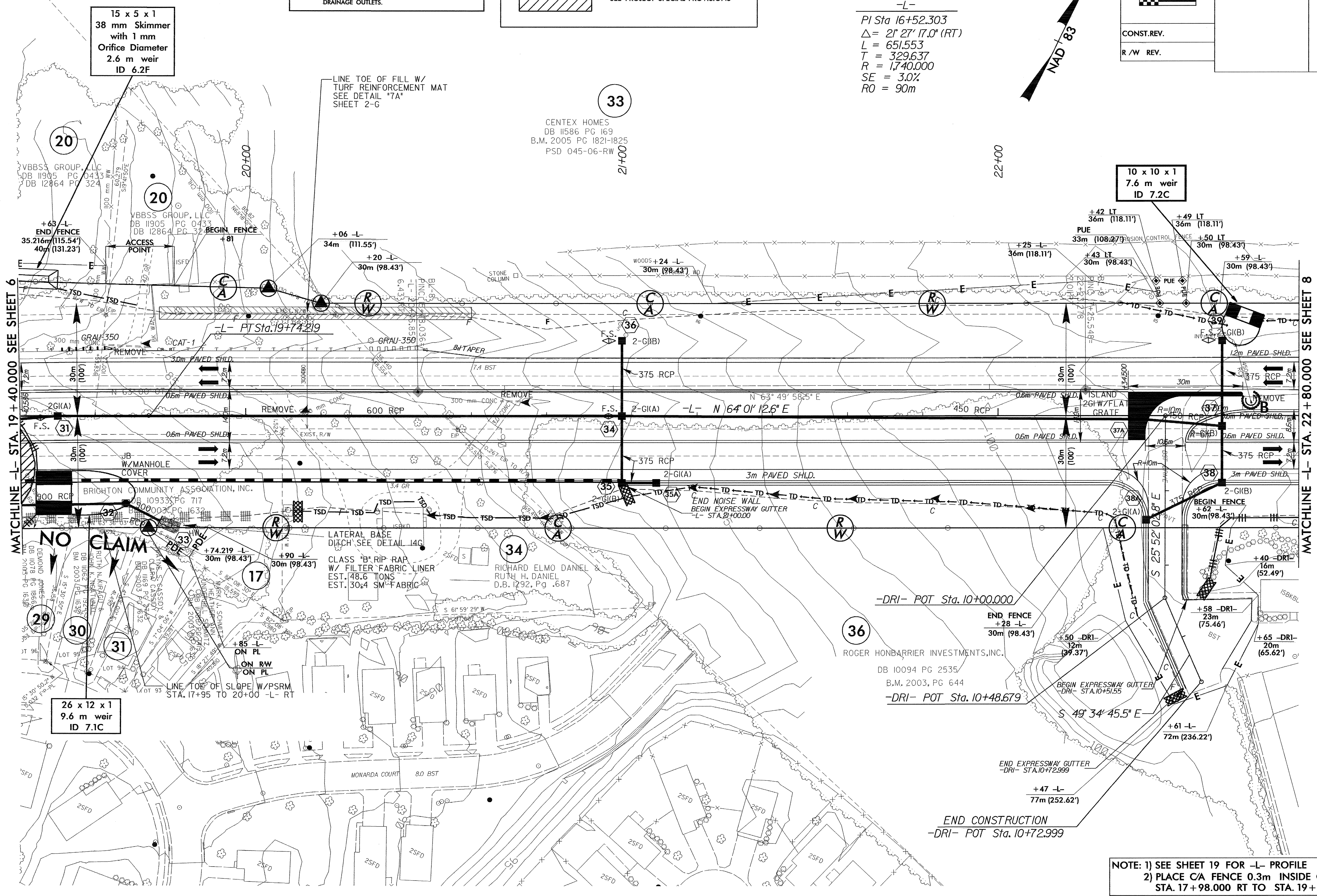
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE-B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

-L-
 PI Sta 16+52.303
 $\Delta = 2^\circ 27' 17.0''$ (RT)
 L = 651.553
 T = 329.637
 R = 1,740.000
 SE = 3.0%
 RO = 90m



REVISIONS
 R/W REVISION-09/13/07
 R/W REVISION - 05/09/08 - PER SUBMITTAL OF APRIL 9, 2008
 DESIGN REVISION - 06/22/09 - ADDED NOISE WALL AND CONCRETE BARRIER RIGHT OF -L- STA.17+60+/- TO 21+00+/-



NOTE: 1) SEE SHEET 19 FOR -L- PROFILE
 2) PLACE C/A FENCE 0.3m INSIDE OF RW FROM STA. 17+98.000 RT TO STA. 19+74.219 RT

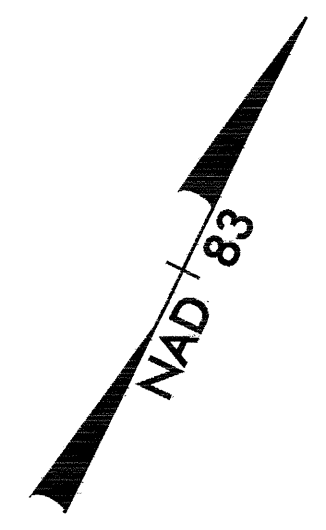
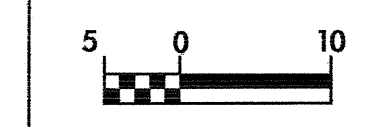
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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

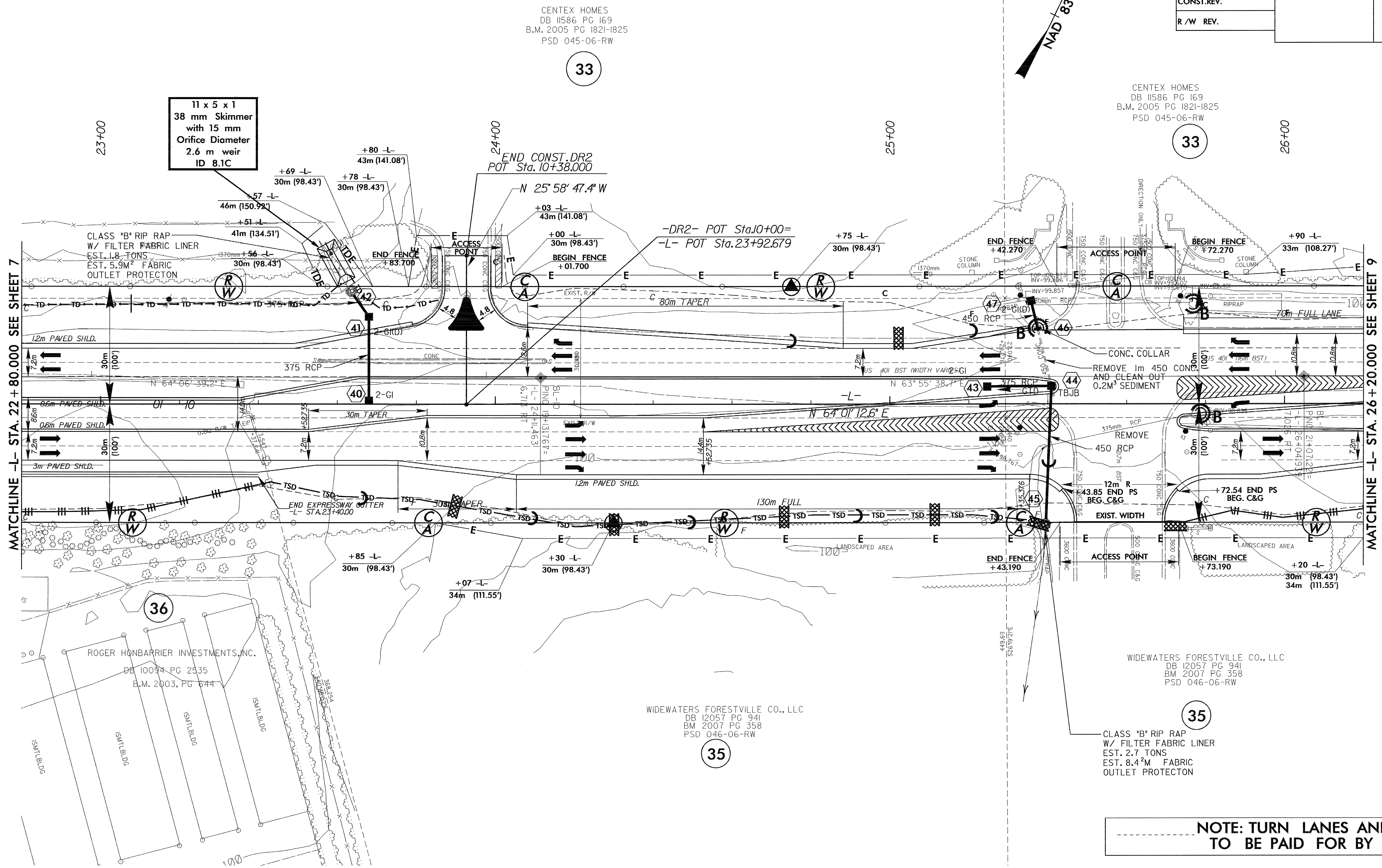


PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-8/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	



CENTEX HOMES
DB 11586 PG 169
B.M. 2005 PG 1821-1825
PSD 045-06-RW

CENTEX HOMES
DB 11586 PG 169
B.M. 2005 PG 1821-1825
PSD 045-06-RW



REVISIONS
 RAW REVISION-05/12/06-
 DESIGN REVISION-06/22/09-DRIVEWAYS AND TURN LANES HAVE BEEN CONSTRUCTED LEFT AND RIGHT OF -L-
 STA. 23+60 TO 28+200/

MATCHLINE -L- STA. 22 + 80.000 SEE SHEET 7

MATCHLINE -L- STA. 26 + 20.000 SEE SHEET 9

ROGER HONBARRIER INVESTMENTS, INC.
DB 10094 PG 2535
B.M. 2003, PG 644

WIDEWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

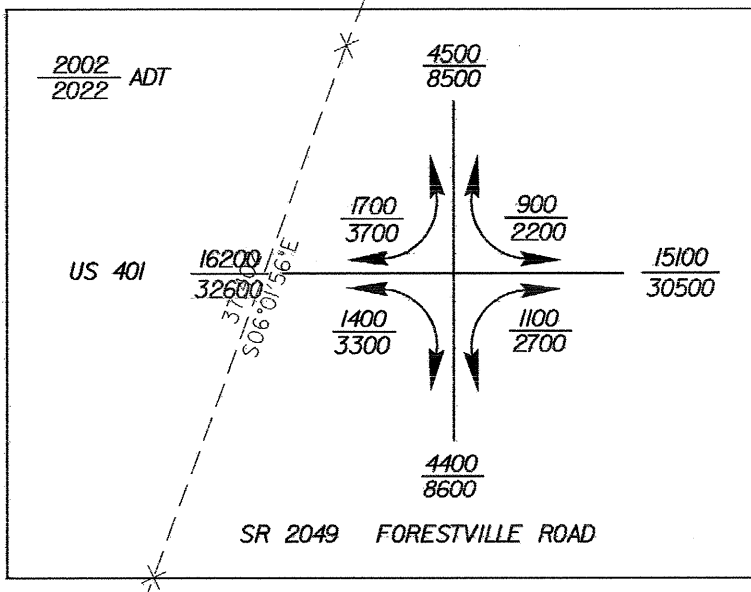
WIDEWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 2.7 TONS
EST. 8.4³M FABRIC
OUTLET PROTECTON

NOTE: TURN LANES AND DRIVES
TO BE PAID FOR BY OTHERS

NOTE: SEE SHEET 19 FOR -L- PROFILE

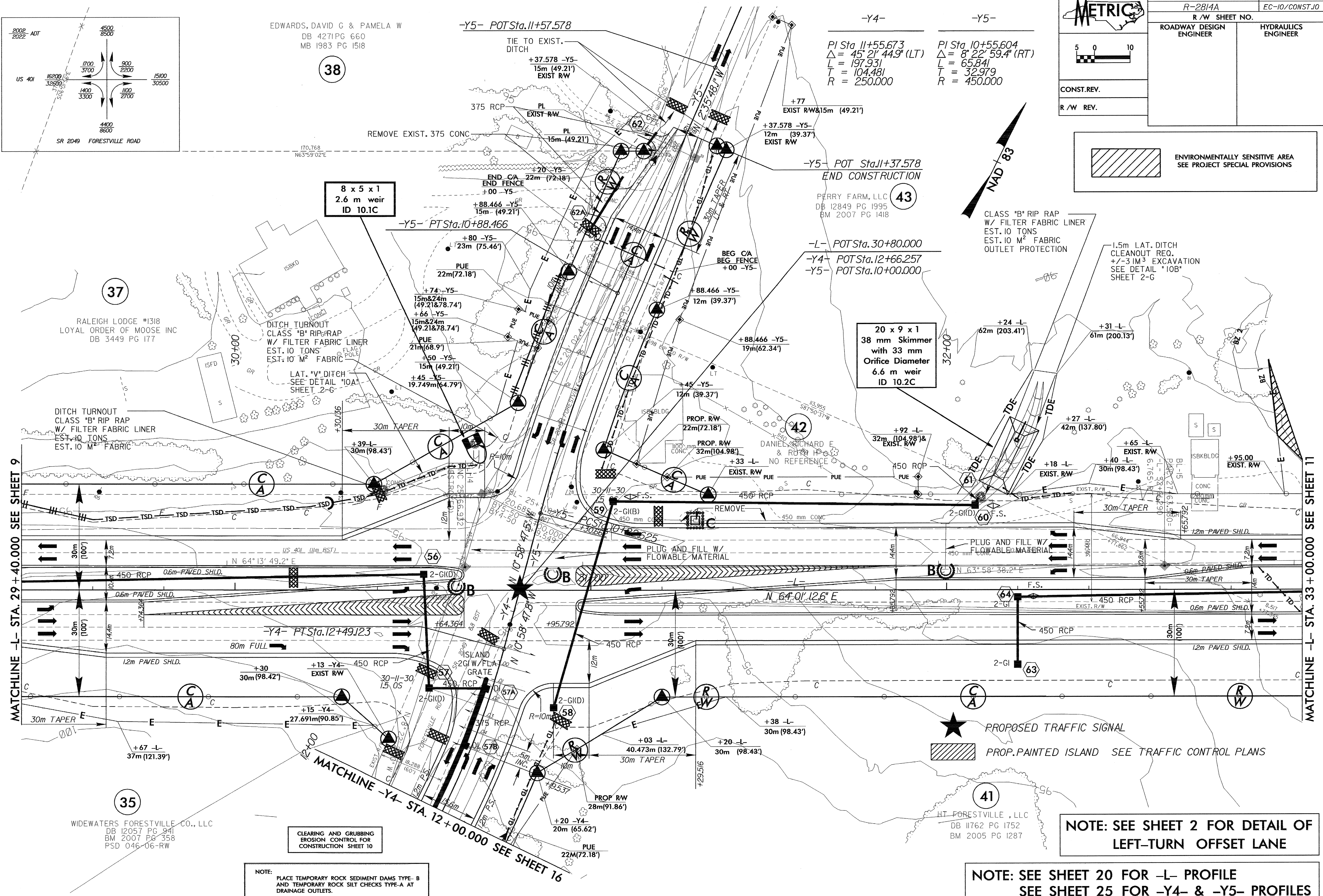
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EDWARDS, DAVID G & PAMELA W
DB 4271 PG 660
MB 1983 PG 1518

PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-10/CONST.10
R/W SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



REVISIONS

R/W REVISION - 05/12/06
R/W REVISION - FEBRUARY 14, 2008
R/W REVISION - 05/09/08 - PER SUBMITTAL OF JANUARY 28, 2008
DESIGN REVISION - 06/22/09 - WIDENED -Y4-, FORESTVILLE ROAD AND EXTENDED ISLAND

31-AUG-2009 14:08
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R:\2814\2814.dwg

35
WIDWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

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

NOTE: SEE SHEET 20 FOR -L- PROFILE
SEE SHEET 25 FOR -Y4- & -Y5- PROFILES

NOTE: SEE SHEET 2 FOR DETAIL OF
LEFT-TURN OFFSET LANE

PROPOSED TRAFFIC SIGNAL
 PROP. PAINTED ISLAND SEE TRAFFIC CONTROL PLANS

37
RALEIGH LODGE #1318
LOYAL ORDER OF MOOSE INC
DB 3449 PG 177

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

PERRY FARM, LLC
DB 12849 PG 1995
BM 2007 PG 1418

DANIEL RICHARD E.
& RUTH H.

HT FORESTVILLE, LLC
DB 11762 PG 1752
BM 2005 PG 1287

CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC
OUTLET PROTECTION

1.5m LAT. DITCH
CLEANOUT REQ.
+/-3 M³ EXCAVATION
SEE DETAIL "10B"
SHEET 2-G

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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

CHART 12A

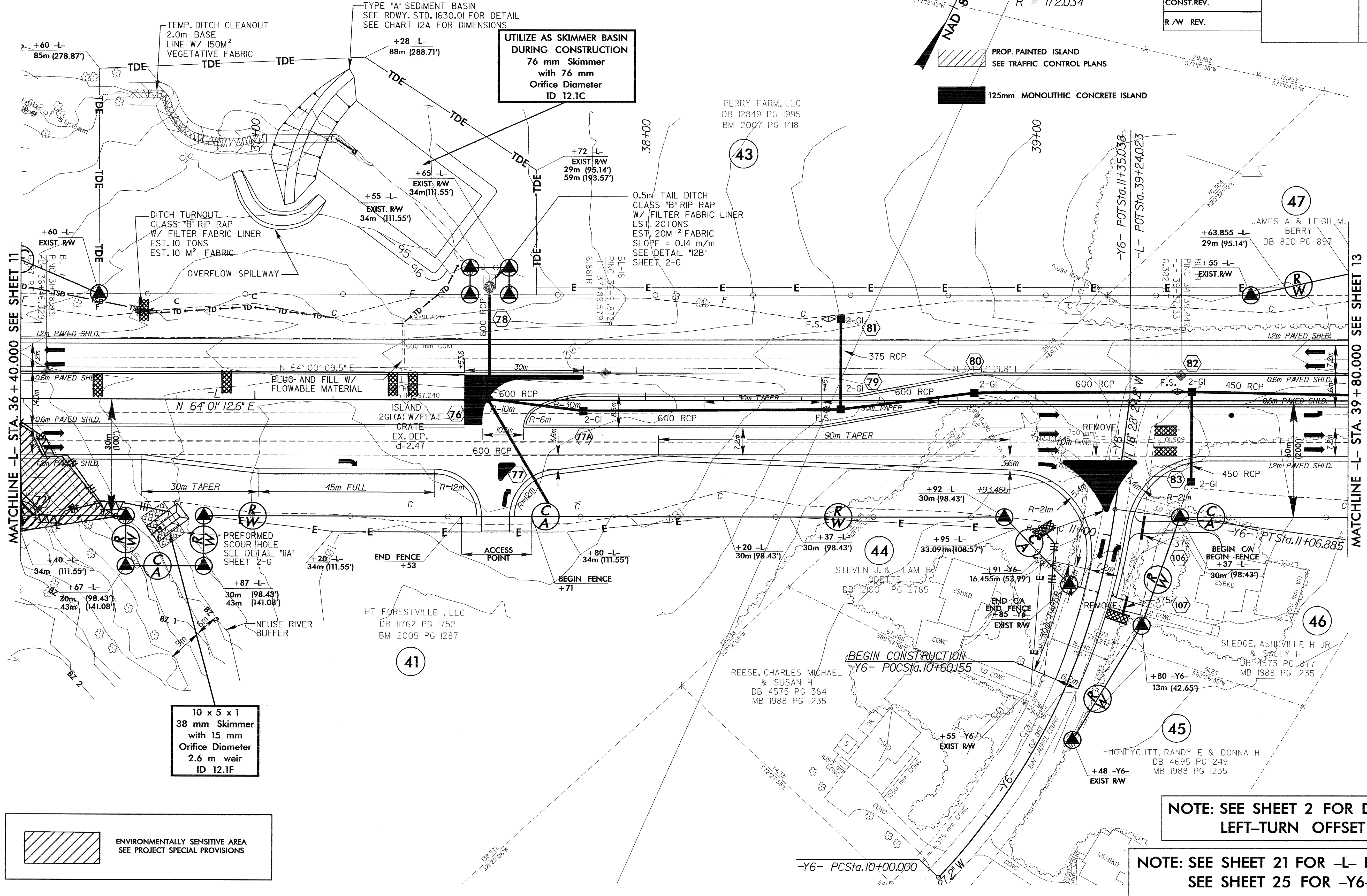
BASIN #	APPROX. STA.	P	H	T	D	E	F	B	X	Y	XI	YI	SURFACE AREA (m ²)	STORAGE VOLUME (m ³)
1	37+00 LT.	900	0.3	2.0	2.7	2.0	.46	2.4	2.1	0.6	1.8	0.6	880	482

5 0 10

CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-12/CONST.12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS
 DESIGN REVISION - 06/22/2009 - ADD DRIVEWAY CONNECTION AND RIGHT TURN LANE RIGHT OF -L- STA. 36+60+/- AND ADDED MEDIAN ACCESS POINT
 -L- STA. 37+60



8/17/09
 31-AUG-2009 14:05
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 31-AUG-2009 14:05
 31-AUG-2009 14:05

METRIC

CONST. REV.

R/W REV.

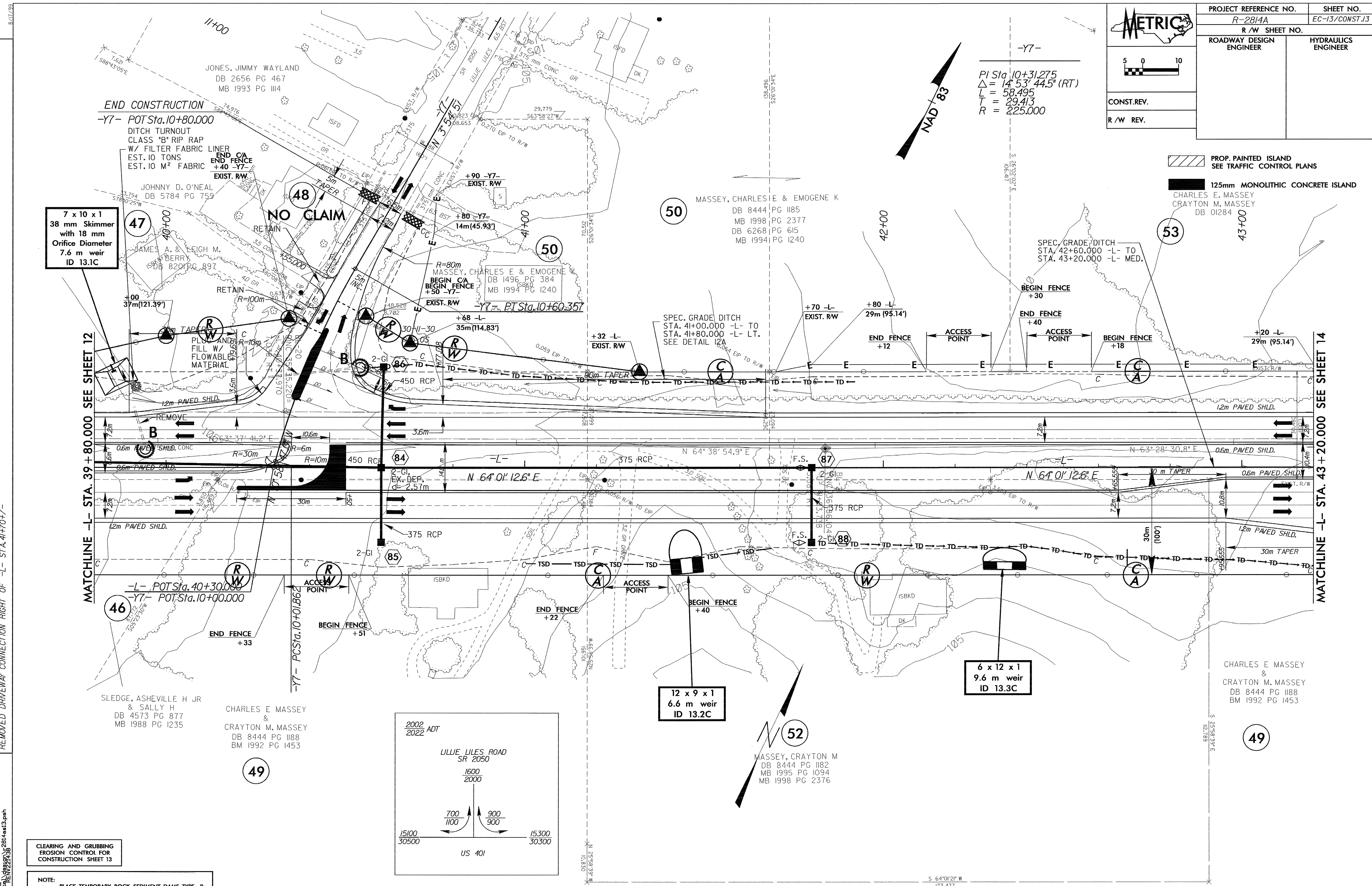
PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-13/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PI Sta. 10+31.275
 $\Delta = 14^\circ 53' 44.5''$ (RT)
 $L = 58.495$
 $T = 29.413$
 $R = 225.000$

PROP. PAINTED ISLAND
 SEE TRAFFIC CONTROL PLANS

125mm MONOLITHIC CONCRETE ISLAND
 CHARLES E. MASSEY
 CRAYTON M. MASSEY
 DB 01284

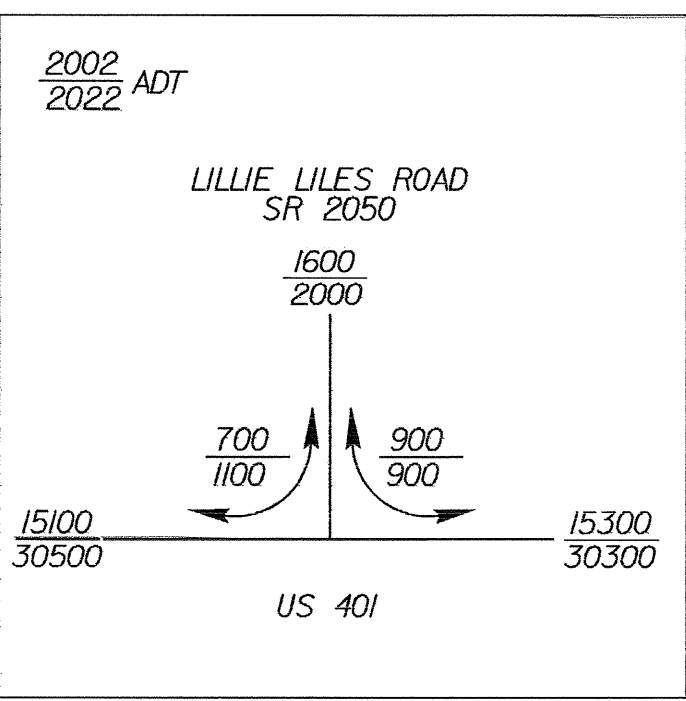
REVISIONS
 RIGHT OF WAY REVISION - FEBRUARY 14, 2008 BCF
 RIGHT OF WAY REVISION - MAY 30, 2007 MRH
 RIGHT OF WAY REVISIONS - FEBRUARY 26, 2008 - BCF
 DESIGN REVISIONS - 06/22/2009 - REVISED INTERSECTION OF -L- STA. 41+70+/-
 REMOVED DRIVEWAY CONNECTION RIGHT OF -L- STA. 41+70+/-



7 x 10 x 1
 38 mm Skimmer
 with 18 mm
 Orifice Diameter
 7.6 m weir
 ID 13.1C

12 x 9 x 1
 6.6 m weir
 ID 13.2C

6 x 12 x 1
 9.6 m weir
 ID 13.3C



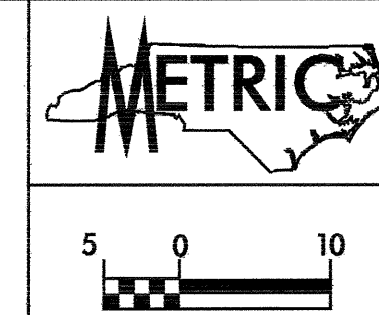
CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 13

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

NOTE: SEE SHEET 2 FOR DETAIL OF
 LEFT-TURN OFFSET LANE

NOTE: SEE SHEETS 21 & 22 FOR -L- PROFILE
 SEE SHEET 26 FOR -Y7- PROFILE

21-AUG-2009 14:02
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 2814ec13.plt
 2814ec13.pph



PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-14/CONST.14
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14

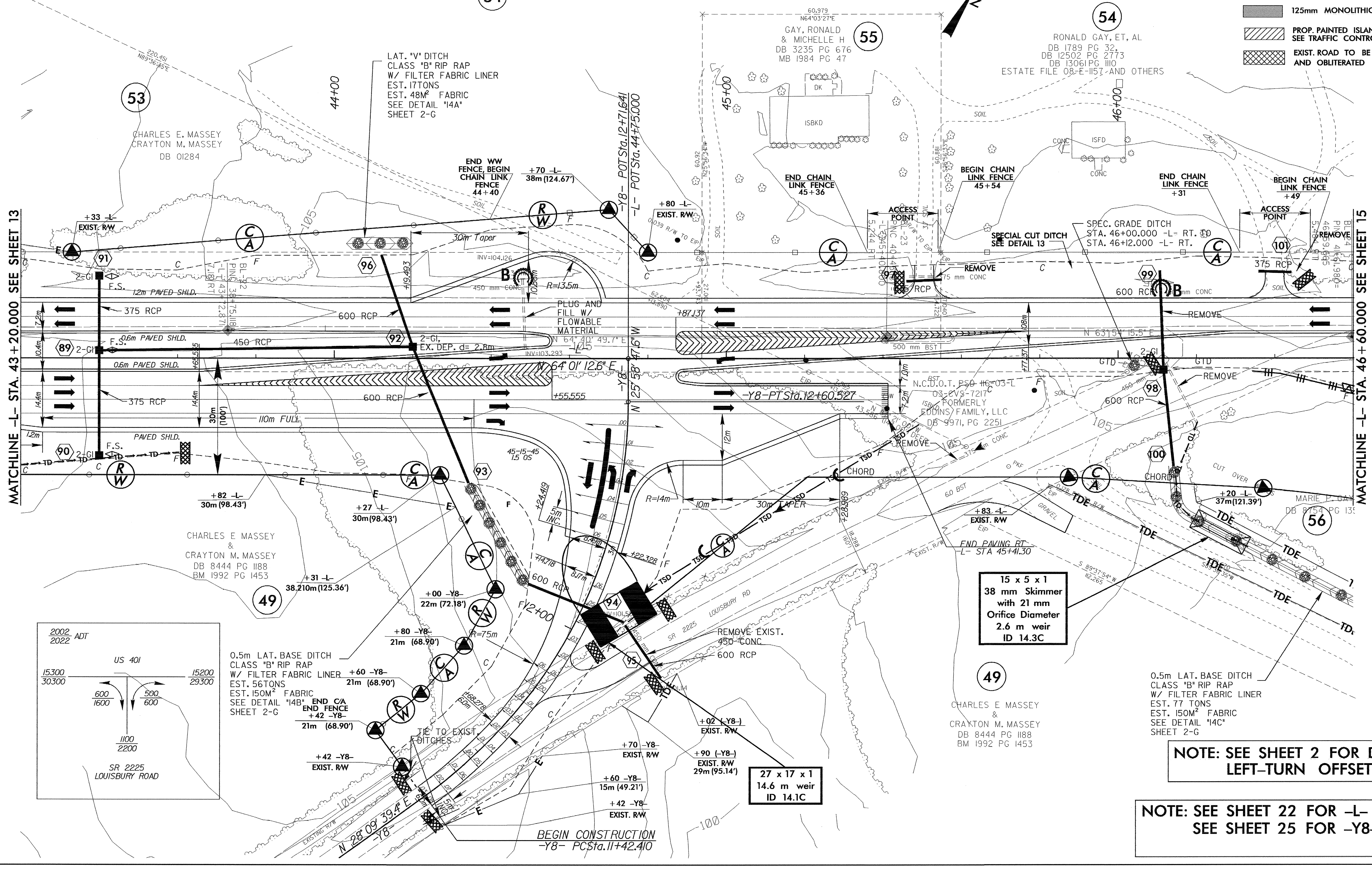
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE-B
AND TEMPORARY ROCK SILT CHECKS TYPE-A AT
DRAINAGE OUTLETS.

RONALD GAY, ET. AL
DB 1789 PG 32,
DB 12502 PG 2773
DB 13061 PG 110
ESTATE FILE 08-E-1157 AND OTHERS

-Y8-
PI Sta 12+06.294
 $\Delta = 54^{\circ}08'27.0''$ (LT)
L = 118.17
T = 63.884
R = 125.000

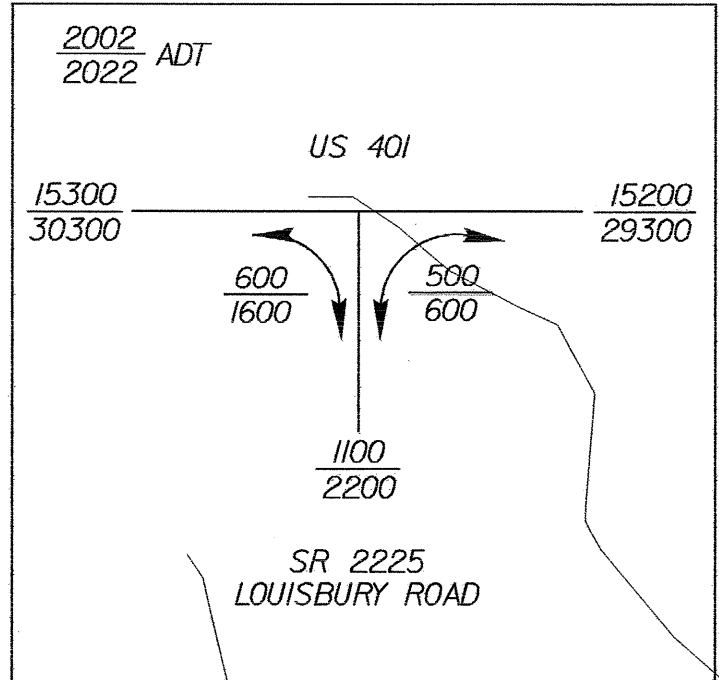
5 0 10
CONST.REV.
R/W REV.

- 125mm MONOLITHIC CONCRETE ISLAND
- PROP. PAINTED ISLAND
SEE TRAFFIC CONTROL PLANS
- EXIST. ROAD TO BE REMOVED
AND OBLITERATED



MATCHLINE -L- STA. 43+20.000 SEE SHEET 13

MATCHLINE -L- STA. 46+60.000 SEE SHEET 15



0.5m LAT. BASE DITCH
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 56 TONS
EST. 150M² FABRIC
SEE DETAIL "14B"
SHEET 2-G

15 x 5 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
2.6 m weir
ID 14.3C

27 x 17 x 1
14.6 m weir
ID 14.1C

NOTE: SEE SHEET 2 FOR DETAIL OF
LEFT-TURN OFFSET LANE


NOTE: SEE SHEET 22 FOR -L- PROFILE
SEE SHEET 25 FOR -Y8- PROFILE

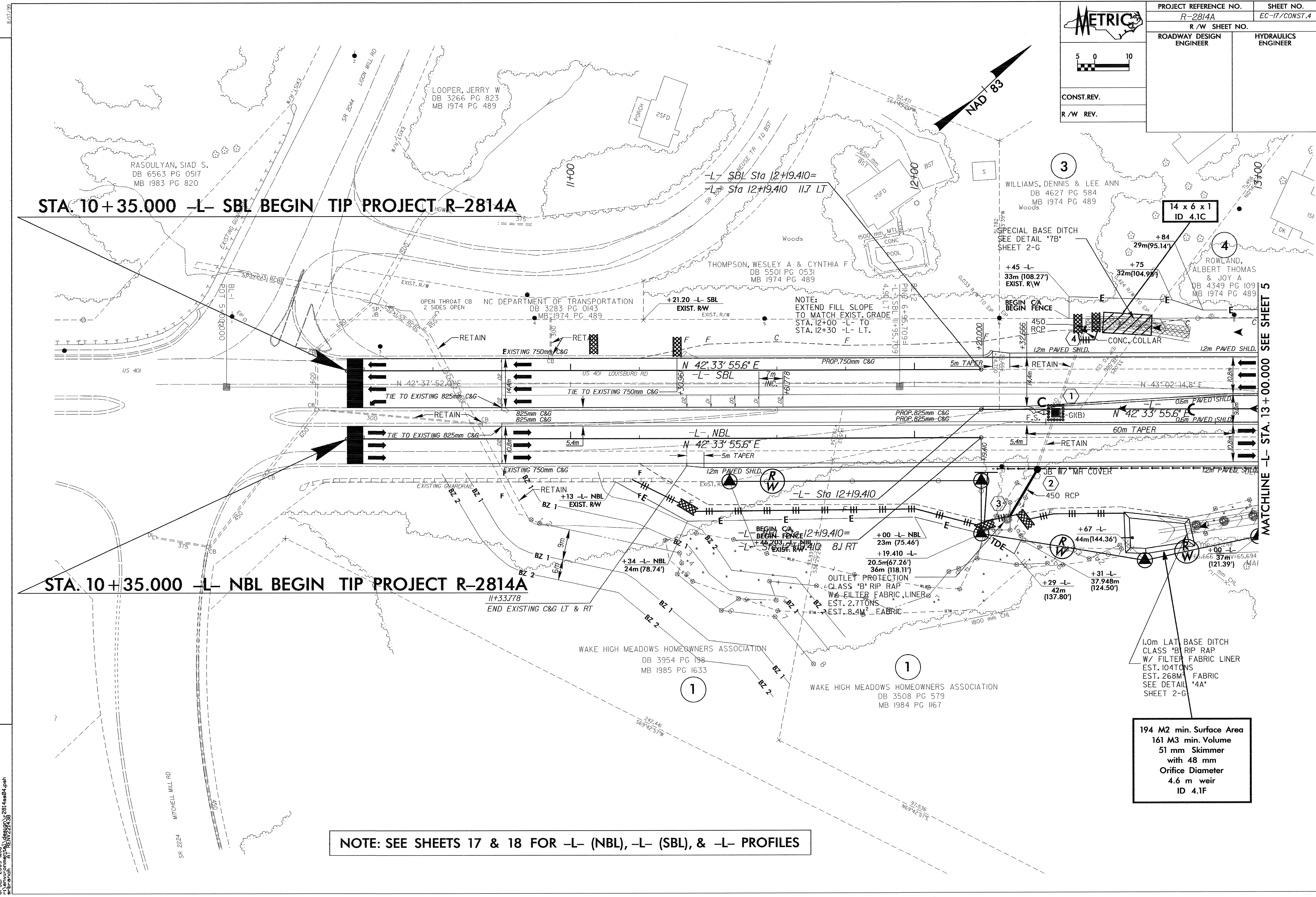
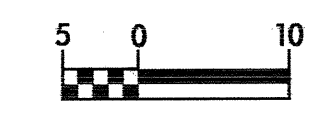
BEGIN CONSTRUCTION
-Y8- PC Sta. 11+42.410

REVISIONS

OCTOBER 3, 2007 - RIGHT OF WAY REVISION-

3-AUG-2009 14H
3-AUG-2009 14H
3-AUG-2009 14H

	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	EC-17/CONST.4
	R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
CONST.REV.		
R/W REV.		



REVISIONS
 R/W REVISION - 05/09/08 - MRH
 R/W REVISION - 05/21/09 - PER SUBMITTAL OF APRIL 17, 2009 - ADJUSTED C/A & FENCE TO BEGIN ON PARCEL 3.

01-SEP-2009 11:08
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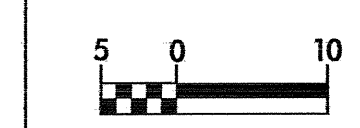
NOTE: SEE SHEETS 17 & 18 FOR -L- (NBL), -L- (SBL), & -L- PROFILES

194 M2 min. Surface Area
 161 M3 min. Volume
 51 mm Skimmer
 with 48 mm
 Orifice Diameter
 4.6 m weir
 ID 4.1F

MATCHLINE -L- STA. 13 + 00.000 SEE SHEET 5



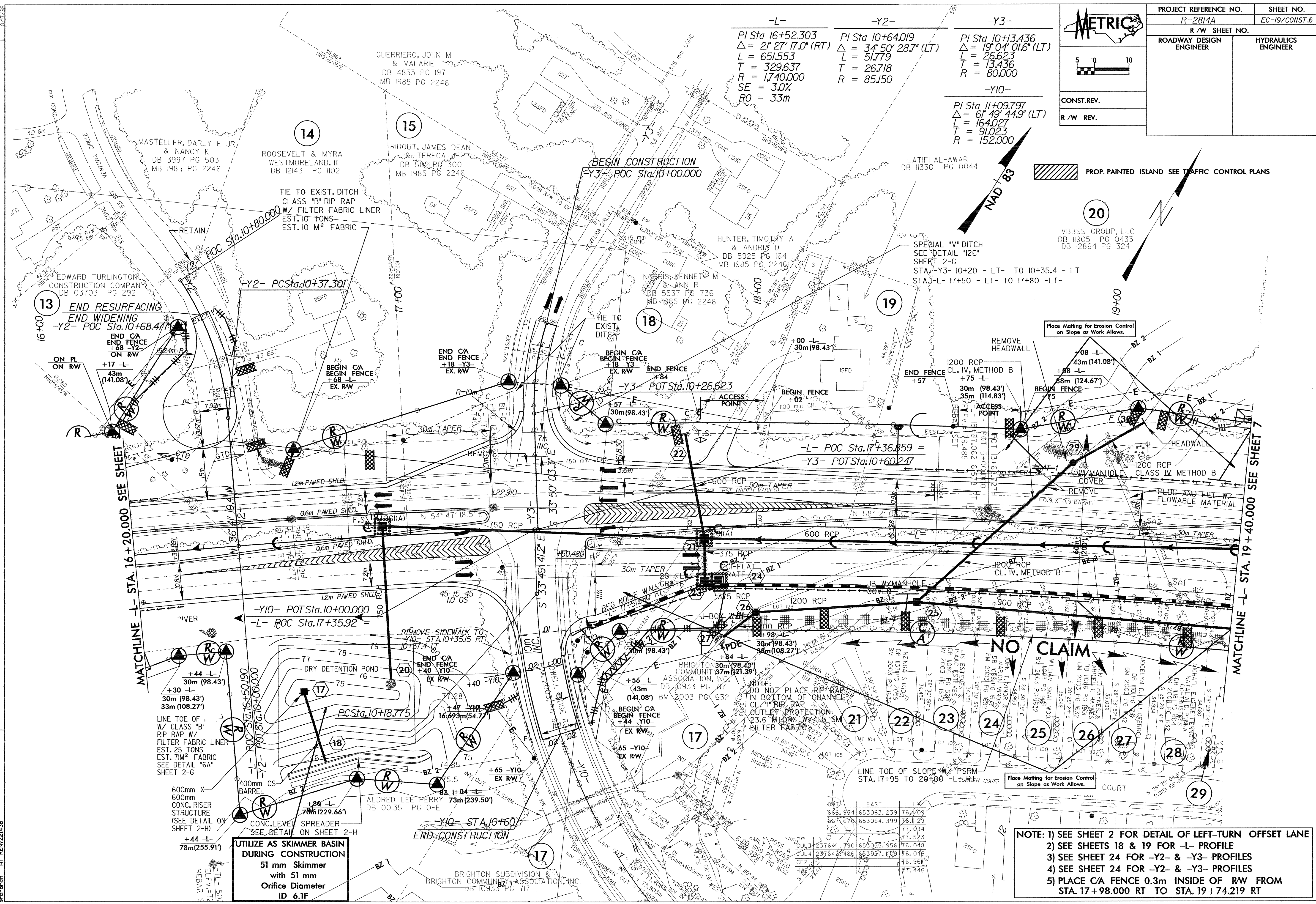
PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-19/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CONST. REV.
R/W REV.

-L-	-Y2-	-Y3-
PI Sta 16+52.303 $\Delta = 21' 27" 17.0" (RT)$ L = 651.553 T = 329.637 R = 1,740.000 SE = 3.0% RO = 33m	PI Sta 10+64.019 $\Delta = 34' 50" 28.7" (LT)$ L = 51.779 T = 26.718 R = 85.150	PI Sta 10+13.436 $\Delta = 19' 04" 01.6" (LT)$ L = 26.623 T = 13.436 R = 80.000
		-Y10-
		PI Sta 11+09.797 $\Delta = 61' 49" 44.9" (LT)$ L = 164.027 T = 91.023 R = 152.000

REVISIONS
 R/W REVISION-09/13/07-
 R/W REVISION - 05/09/08
 DESIGN REVISION - 06/22/09- ADDED NOISE WALL AND CONCRETE BARRIER RIGHT OF -L- STA.17+60+/- TO 21+00+/-




MATCHLINE -L- STA. 16+20.000 SEE SHEET

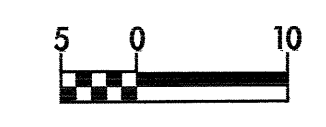
MATCHLINE -L- STA. 19+40.000 SEE SHEET 7

LINE TOE OF W/ CLASS 'B' RIP RAP W/ FILTER FABRIC LINER EST. 25 TONS EST. 7M² FABRIC SEE DETAIL '6A' SHEET 2-G

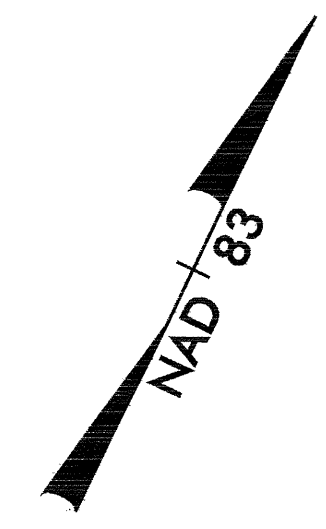
UTILIZE AS SKIMMER BASIN DURING CONSTRUCTION
 51 mm Skimmer with 51 mm Orifice Diameter ID 6.1F

NOTE: 1) SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE
 2) SEE SHEETS 18 & 19 FOR -L- PROFILE
 3) SEE SHEET 24 FOR -Y2- & -Y3- PROFILES
 4) SEE SHEET 24 FOR -Y2- & -Y3- PROFILES
 5) PLACE C/A FENCE 0.3m INSIDE OF RW FROM STA. 17+98.000 RT TO STA. 19+74.219 RT

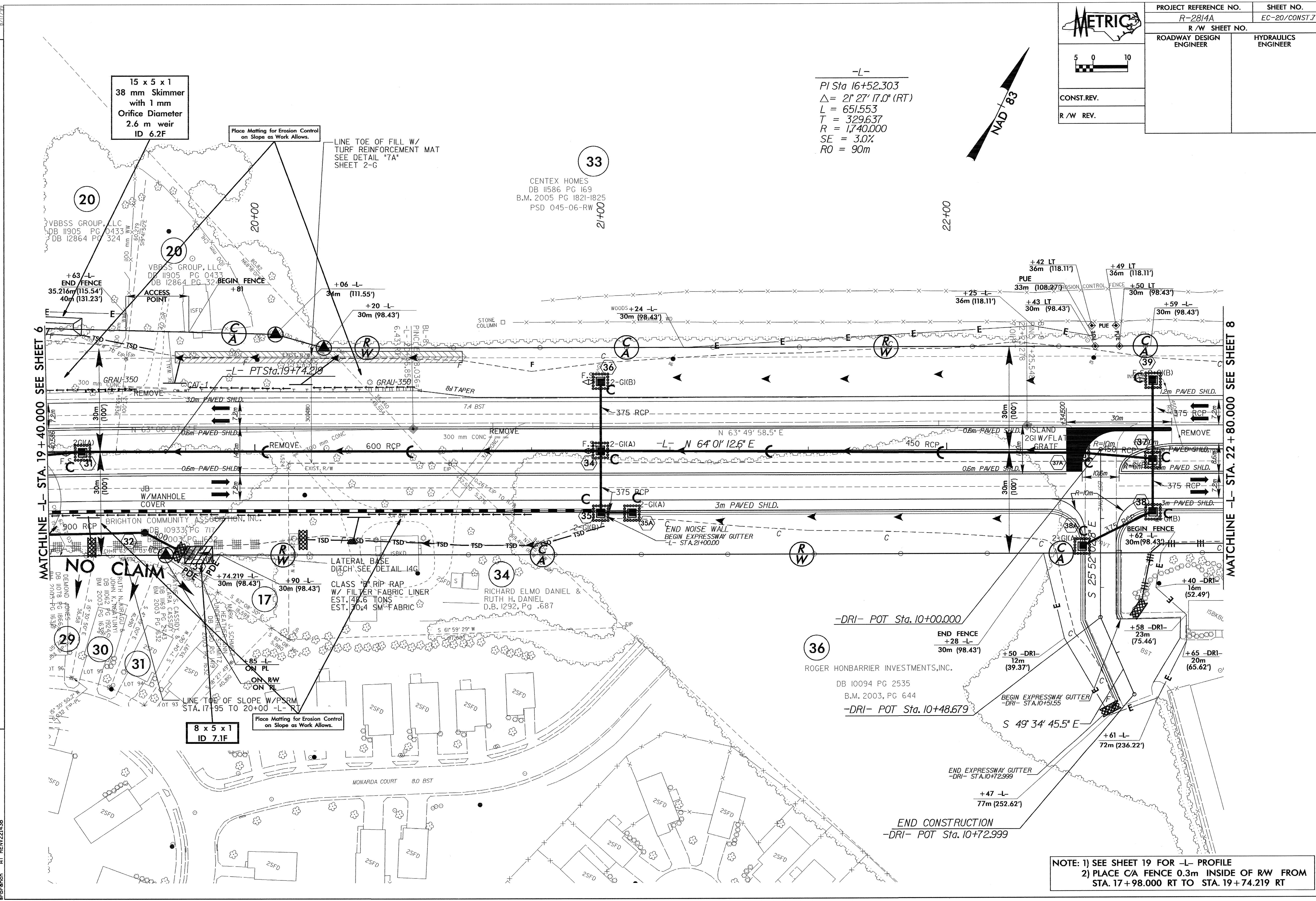
	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	EC-20/CONST.7
	R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
CONST.REV.		
R/W REV.		



-L-
 PI Sta 16+52.303
 $\Delta = 2^\circ 27' 17.0''$ (RT)
 L = 651.553
 T = 329.637
 R = 1,740.000
 SE = 3.0%
 RO = 90m



REVISIONS
 R/W REVISION - 09/13/07
 R/W REVISION - 05/09/08 - PER SUBMITTAL OF APRIL 9, 2008
 DESIGN REVISION - 06/22/09 - ADDED NOISE WALL AND CONCRETE BARRIER RIGHT OF -L- STA. 17+60 +/- TO 21+00 +/-



15 x 5 x 1
 38 mm Skimmer
 with 1 mm
 Orifice Diameter
 2.6 m weir
 ID 6.2F

Place Matting for Erosion Control
 on Slope as Work Allows.

LINE TOE OF FILL W/
 TURF REINFORCEMENT MAT
 SEE DETAIL '7A'
 SHEET 2-G

33

CENTEX HOMES
 DB 11586 PG 169
 B.M. 2005 PG 1821-1825
 PSD 045-06-RW

MATCHLINE -L- STA. 19 + 40.000 SEE SHEET 6

MATCHLINE -L- STA. 22 + 80.000 SEE SHEET 8

NO CLAIM

8 x 5 x 1
 ID 7.1F


Place Matting for Erosion Control
 on Slope as Work Allows.

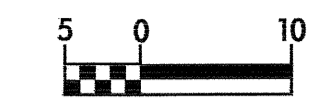
36
 ROGER HONBARRIER INVESTMENTS, INC.
 DB 10094 PG 2535
 B.M. 2003, PG 644
 -DRI- POT Sta. 10+48.679

END CONSTRUCTION
 -DRI- POT Sta. 10+72.999

NOTE: 1) SEE SHEET 19 FOR -L- PROFILE
 2) PLACE C/A FENCE 0.3m INSIDE OF RW FROM
 STA. 17+98.000 RT TO STA. 19+74.219 RT

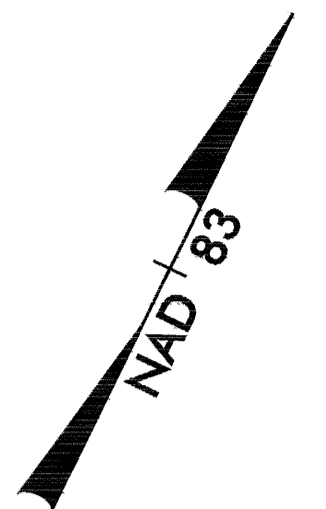
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	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	EC-22/CONST.9
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
CONST. REV.		
R/W REV.		

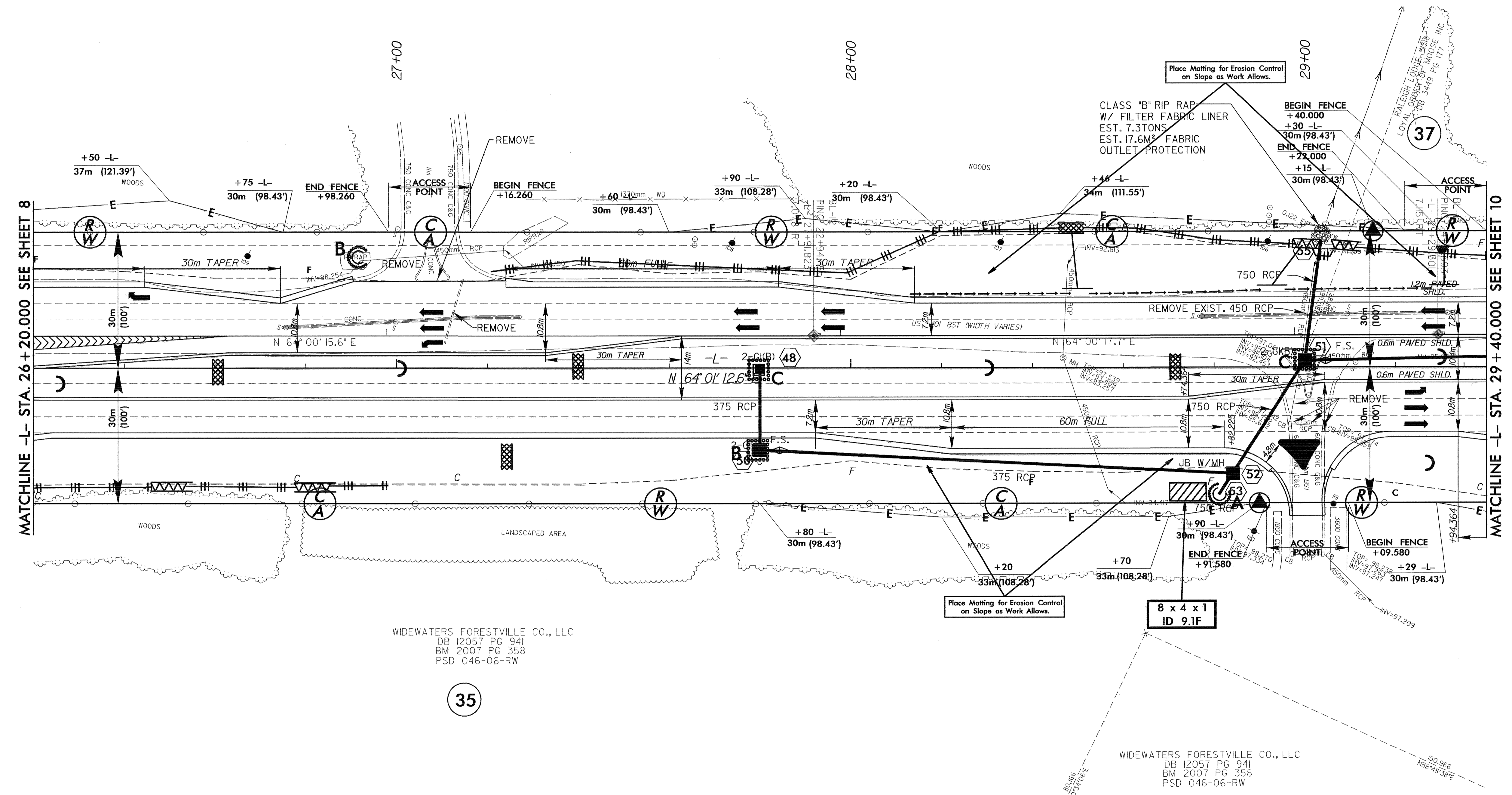


33

CENTEX HOMES
DB 11586 PG 169
B.M. 2005 PG 1821-1825
PSD 045-06-RW



REVISIONS
 R/W REVISION - 05/12/06
 R/W REVISION - 05/09/08 - PER SUBMITTAL OF JANUARY 28, 2008
 DESIGN REVISION - 06/22/09 - DRIVEWAYS AND TURN LANES HAVE BEEN CONSTRUCTED LEFT AND RIGHT OF -L-
 STA. 26+00 TO STA. 29+00



35

WIDEWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

WIDEWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

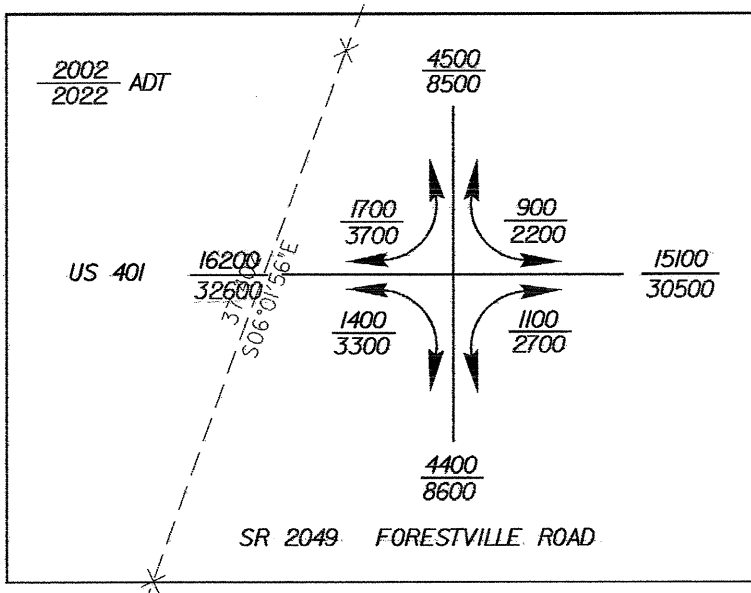
8 x 4 x 1
ID 9.1F

NOTE: TURN LANES AND DRIVES TO BE PAID FOR BY OTHERS

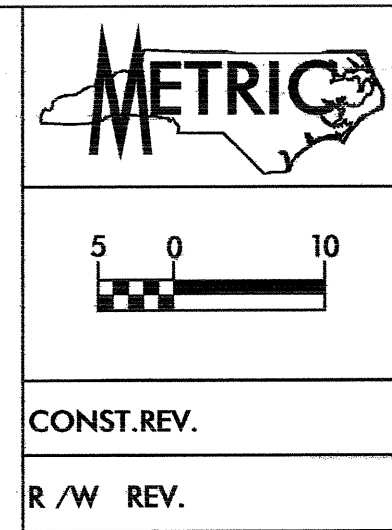
NOTE: SEE SHEETS 19 & 20 FOR -L- PROFILE

NOTE: SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE

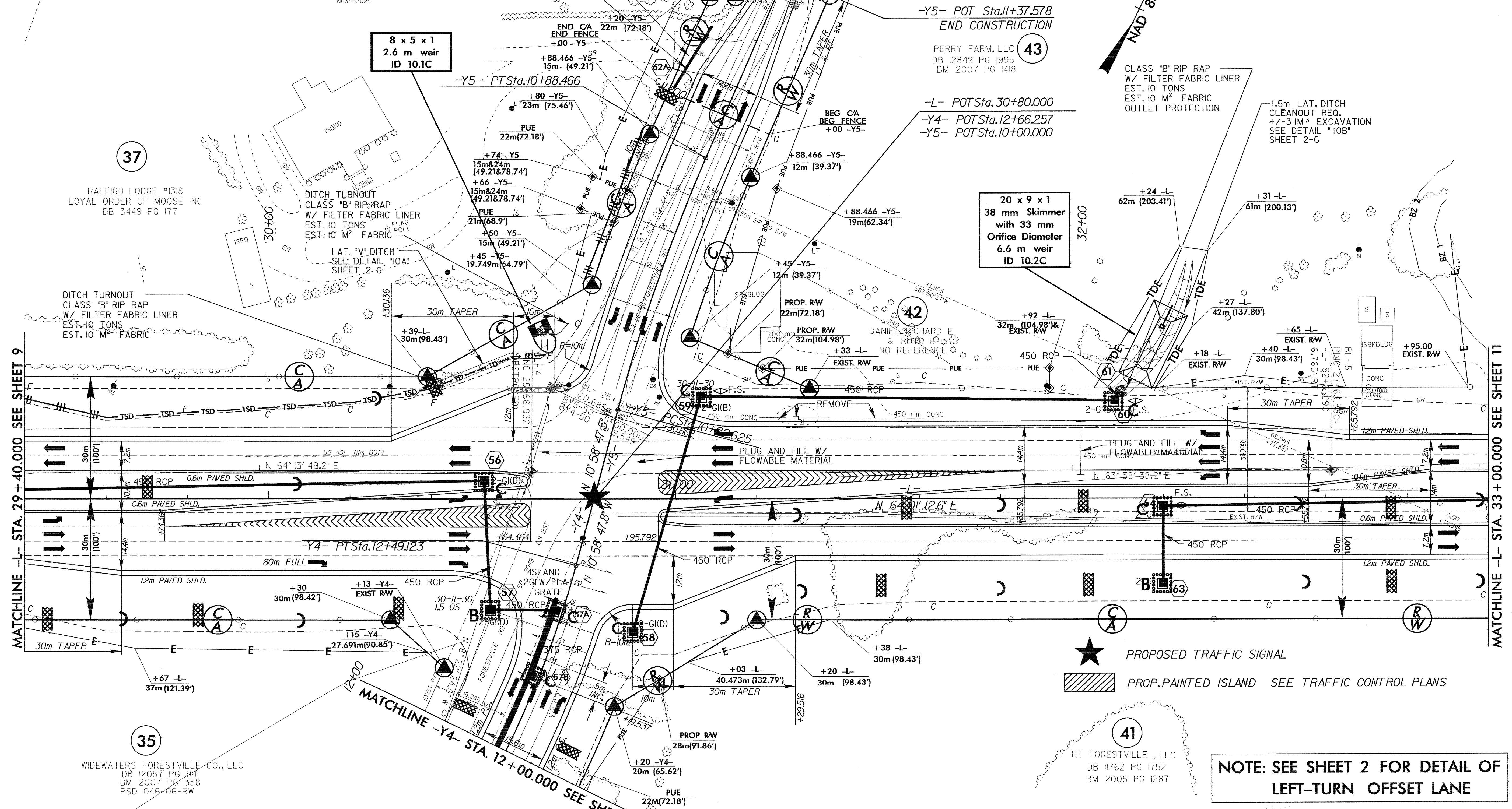
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EDWARDS, DAVID G & PAMELA W
DB 4271 PG 660
MB 1983 PG 1518



PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-23/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	R/W REV.

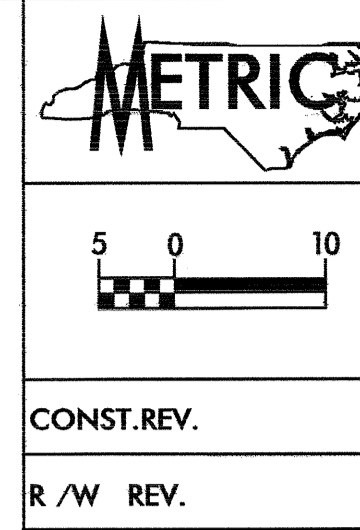


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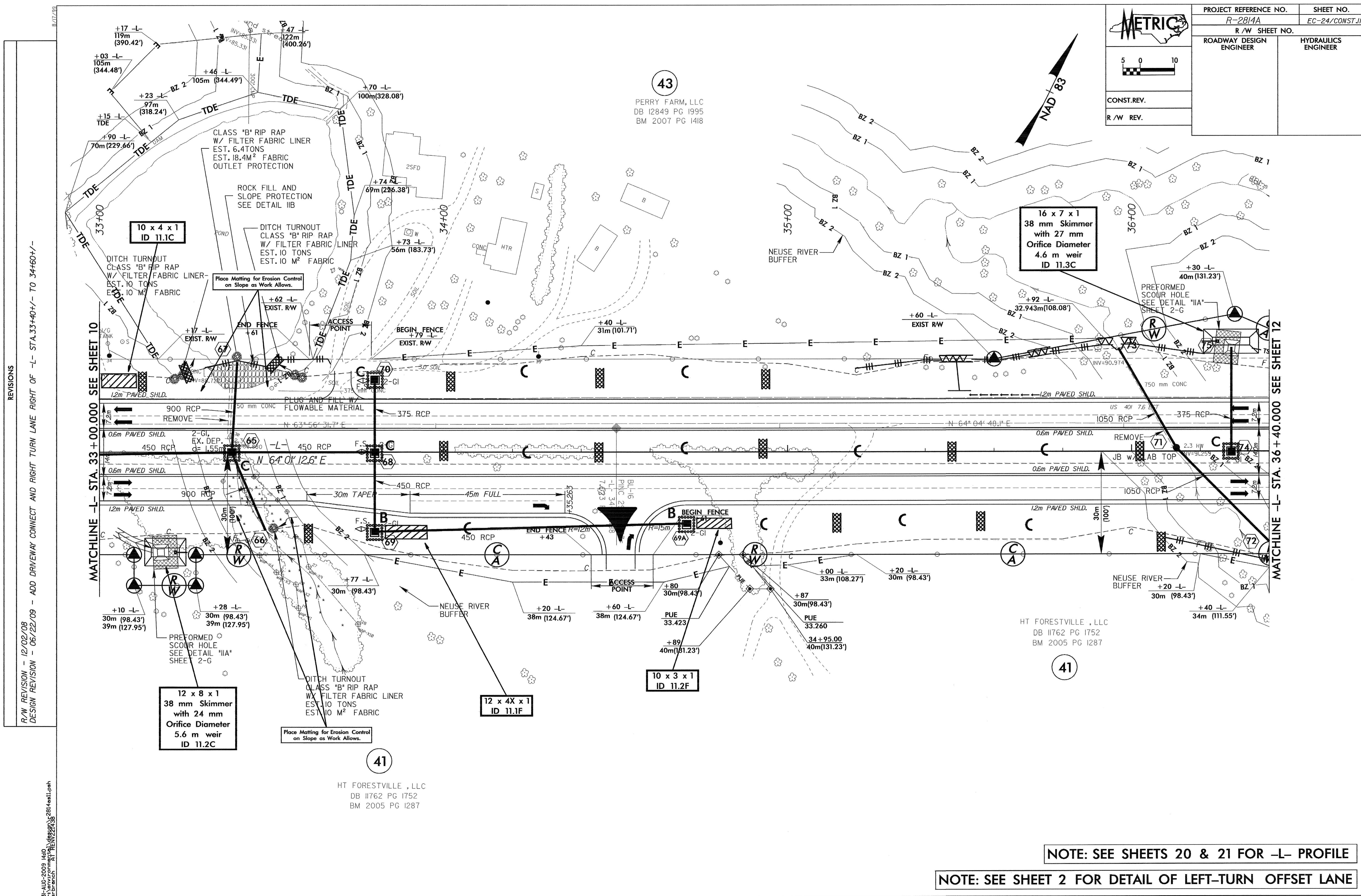
★ PROPOSED TRAFFIC SIGNAL
 ▨ PROP. PAINTED ISLAND SEE TRAFFIC CONTROL PLANS

NOTE: SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE

NOTE: SEE SHEET 20 FOR -L- PROFILE
SEE SHEET 25 FOR -Y4- & -Y5- PROFILES



PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-24/CONST.II
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
CONST. REV.	
R/W REV.	



REVISIONS
 R/W REVISION - 12/02/08
 DESIGN REVISION - 06/22/09 - ADD DRIVEWAY CONNECT AND RIGHT TURN LANE RIGHT OF -L- STA. 33+40+/- TO 34+60+/-

MATCHLINE -L- STA. 33+00.000 SEE SHEET 10

MATCHLINE -L- STA. 36+40.000 SEE SHEET 12

12 x 8 x 1
 38 mm Skimmer
 with 24 mm
 Orifice Diameter
 5.6 m weir
 ID 11.2C

12 x 4X x 1
 ID 11.1F

10 x 3 x 1
 ID 11.2F

16 x 7 x 1
 38 mm Skimmer
 with 27 mm
 Orifice Diameter
 4.6 m weir
 ID 11.3C

HT FORESTVILLE, LLC
 DB 11762 PG 1752
 BM 2005 PG 1287

43
 PERRY FARM, LLC
 DB 12849 PG 1995
 BM 2007 PG 1418

HT FORESTVILLE, LLC
 DB 11762 PG 1752
 BM 2005 PG 1287

NOTE: SEE SHEETS 20 & 21 FOR -L- PROFILE

NOTE: SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE

31-AUG-2009 14:40
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 2814+const.iib

METRIC

5 0 10

CONST. REV.

R/W REV.

PROJECT REFERENCE NO. R-2814A	SHEET NO. EC-26/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PI Sta. 10+31.275
 $\Delta = 14^\circ 53' 44.5''$ (RT)
 $L = 58.495$
 $T = 29.413$
 $R = 225.000$

PROP. PAINTED ISLAND
 SEE TRAFFIC CONTROL PLANS

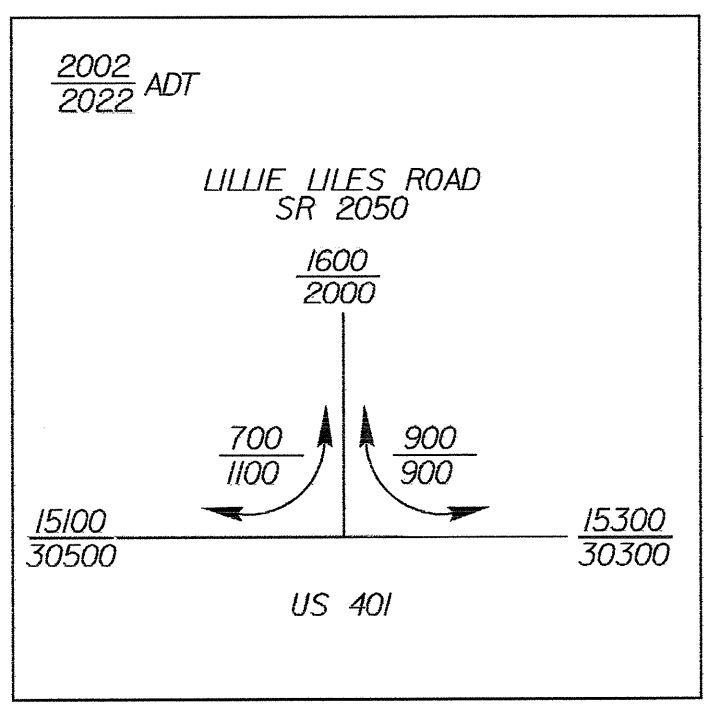
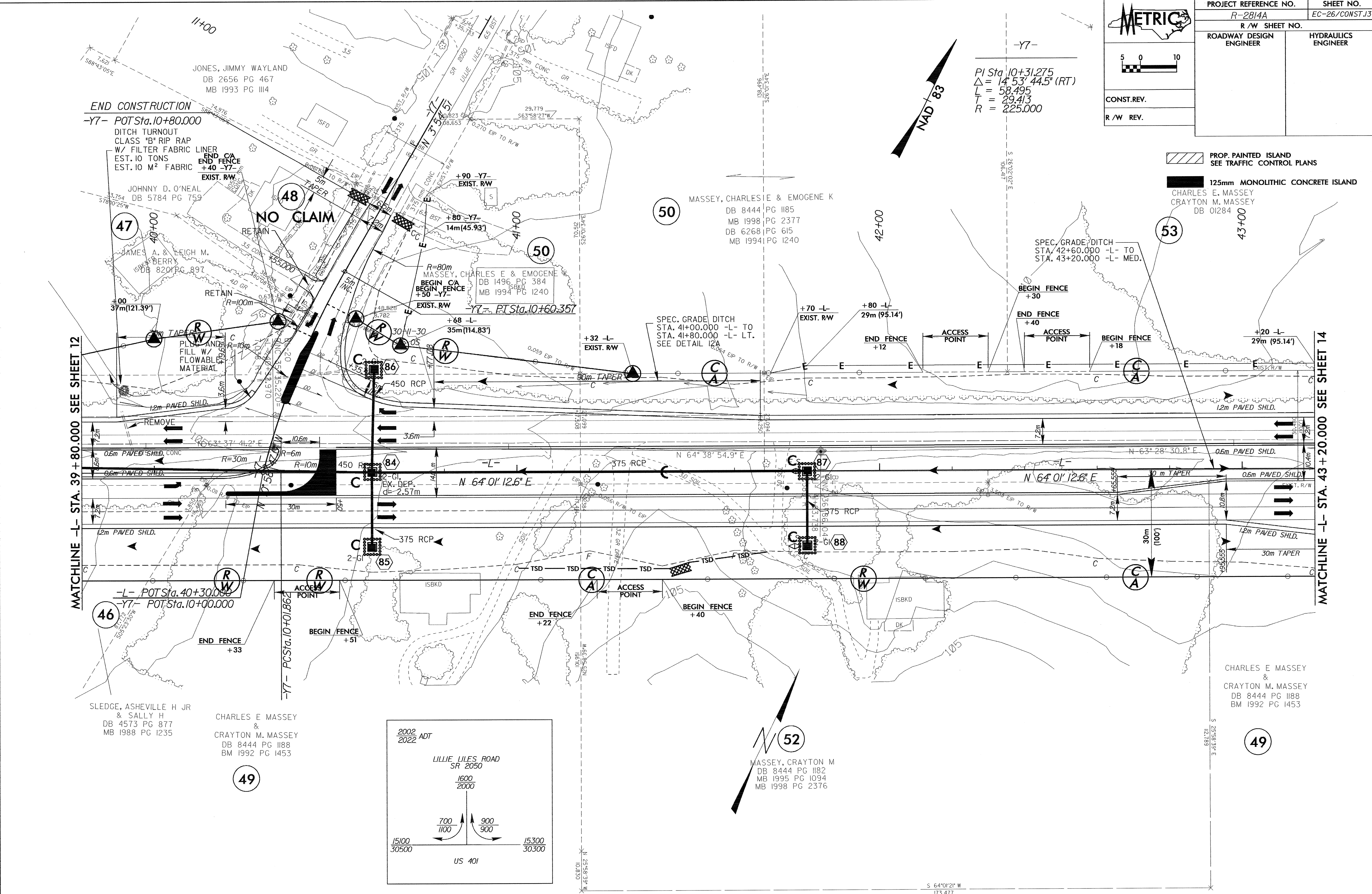
125mm MONOLITHIC CONCRETE ISLAND
 CHARLES E. MASSEY
 CRAYTON M. MASSEY
 DB 01284

REVISIONS

RIGHT OF WAY REVISION - MAY 30, 2007 MRH
 RIGHT OF WAY REVISION - FEBRUARY 14, 2008 BCF

RIGHT OF WAY REVISIONS - FEBRUARY 26, 2008 - BCF
 DESIGN REVISIONS - 06/22/2009 - REVISED INTERSECTION OF -L- AND -Y7- REMOVED TURN-AROUND RIGHT OF -L- AT INTERSECTION.
 REMOVED DRIVEWAY CONNECTION RIGHT OF -L- STA. 41+70.71 -

3-AUG-2009 1442
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NOTE: SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE

NOTE: SEE SHEETS 21 & 22 FOR -L- PROFILE
 SEE SHEET 26 FOR -Y7- PROFILE

METRIC

5 0 10

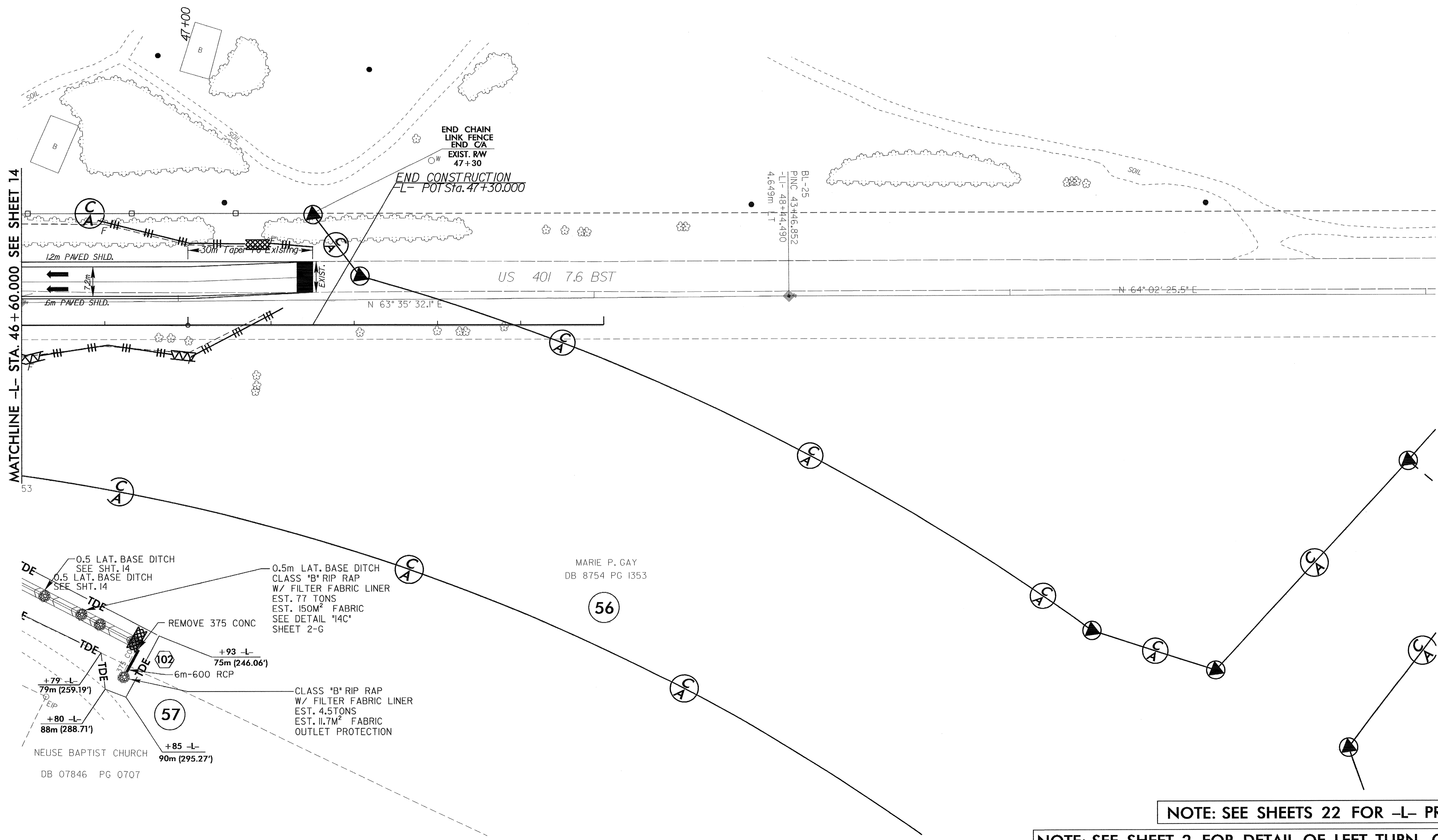
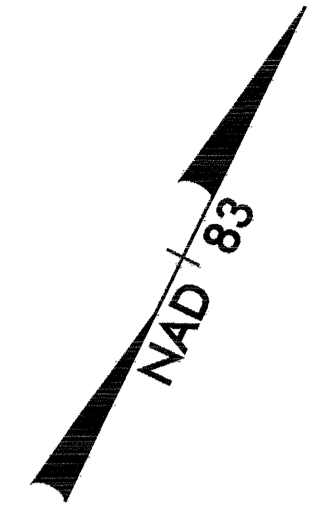
CONST. REV.

R/W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2814A	EC-28/CONST.15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

54

RONALD GAY, ET, AL
 DB 1789 PG 32
 DB 12502 PG 2773
 DB 13061 PG 1110
 ESTATE FILE 08-E-1157 AND OTHERS

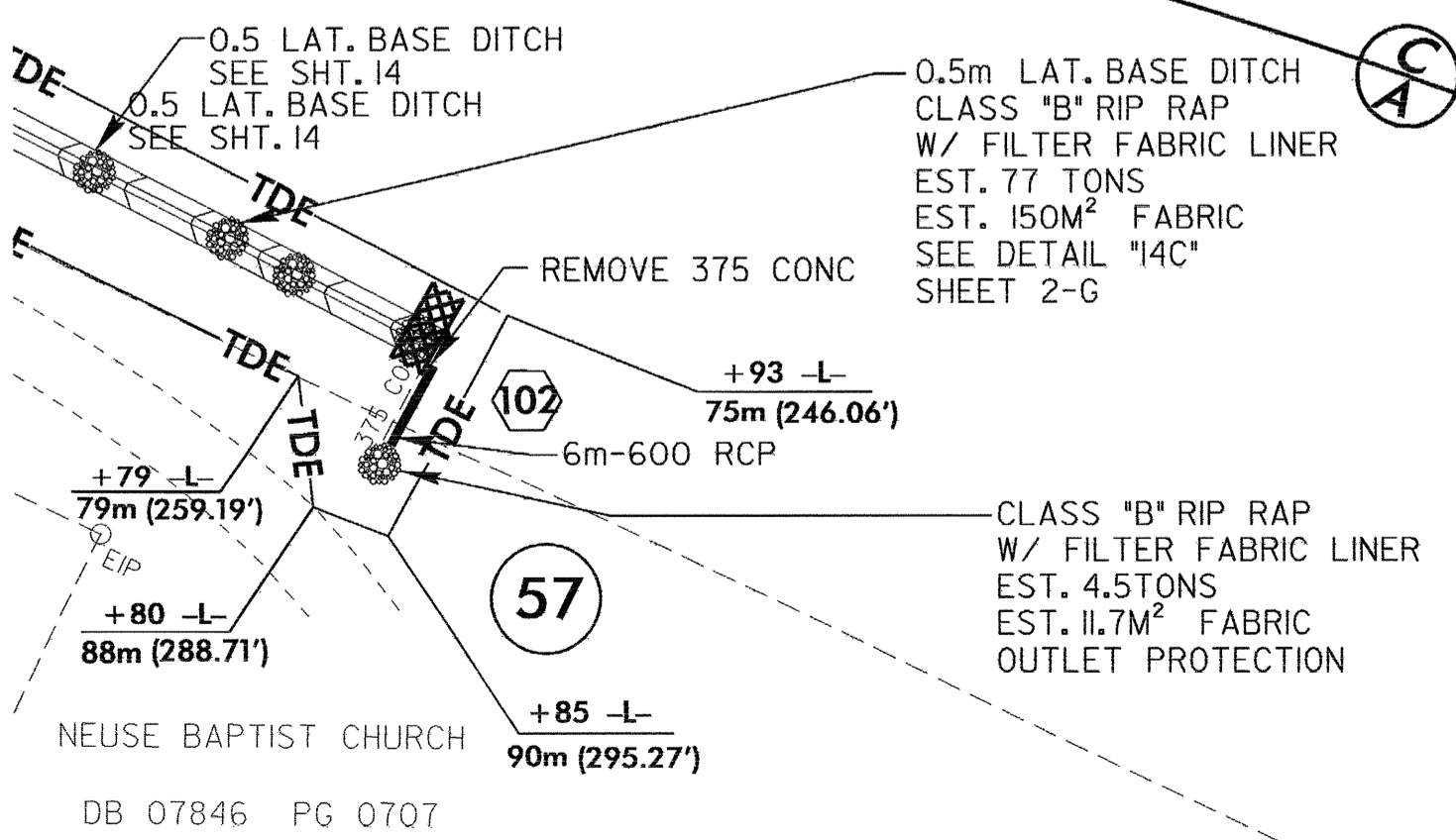


MATCHLINE -L- STA. 46 + 60.000 SEE SHEET 14

53

MARIE P. GAY
 DB 8754 PG 1353

56



57

NEUSE BAPTIST CHURCH
 DB 07846 PG 0707

NOTE: SEE SHEETS 22 FOR -L- PROFILE

NOTE: SEE SHEET 2 FOR DETAIL OF LEFT-TURN OFFSET LANE

REVISIONS

OCTOBER 3, 2007 - RIGHT OF WAY REVISION -

31-AUG-2009 14:15
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