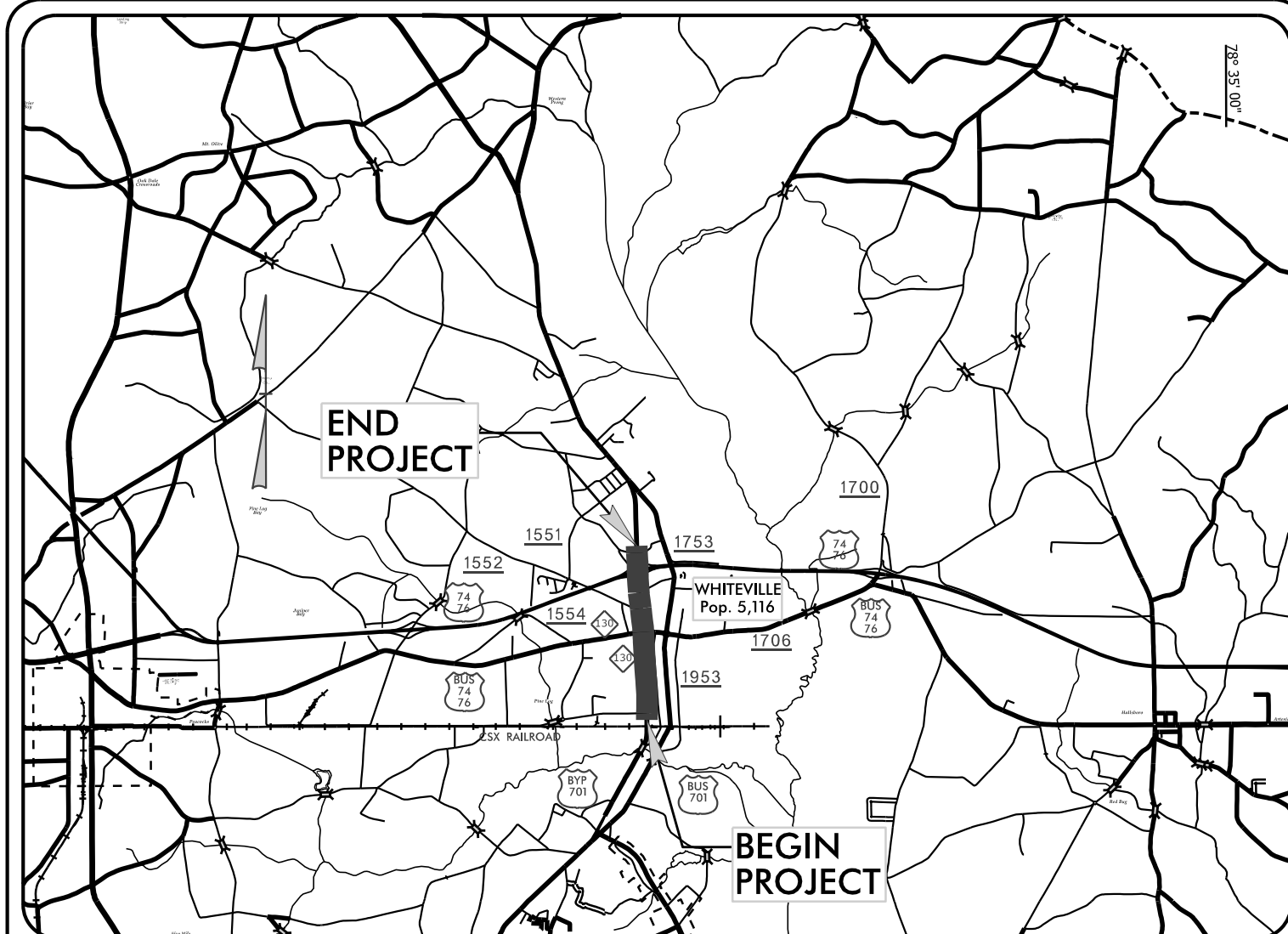


TIP PROJECT: R-5020B



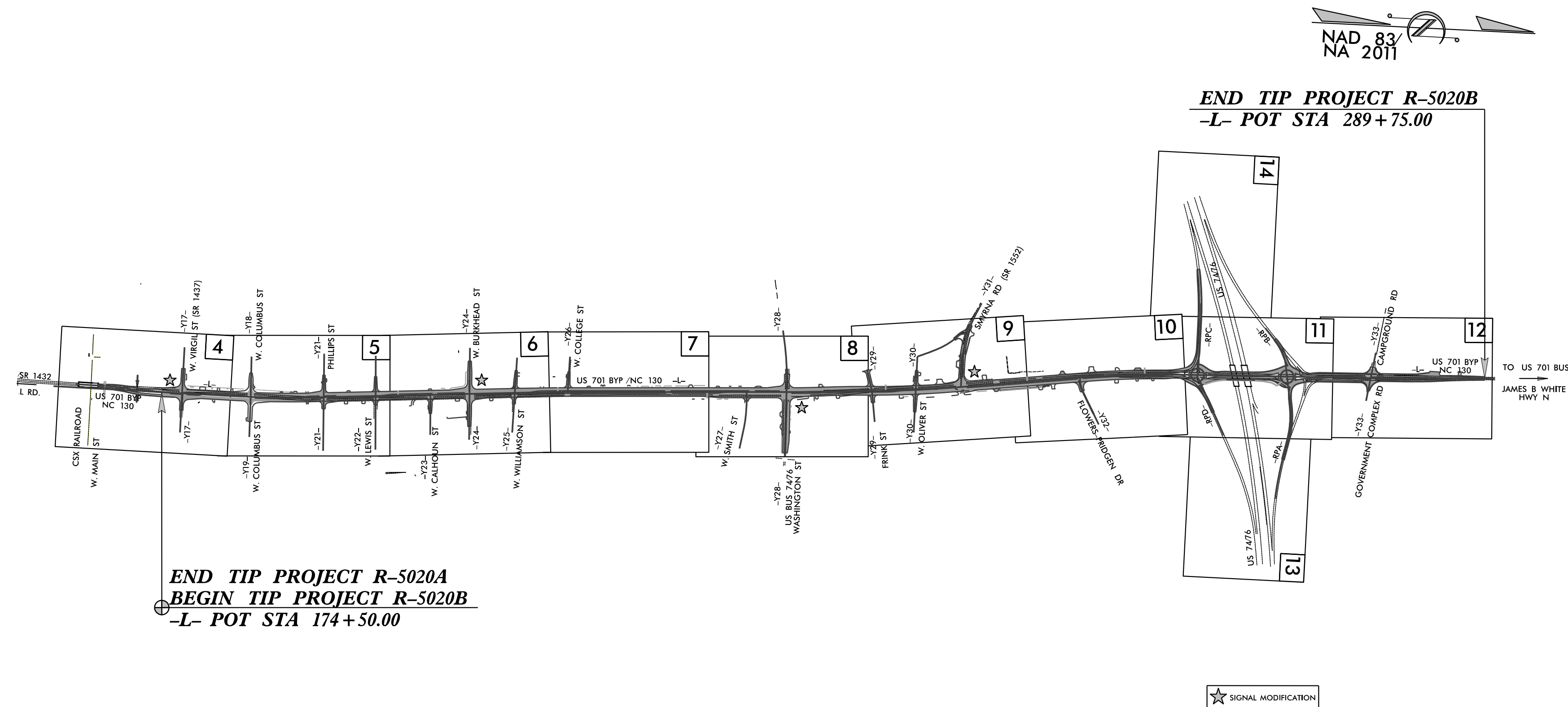
VICINITY MAP
NOT TO SCALE

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

COLUMBUS COUNTY

LOCATION: US 701 BYPASS (MADISON STREET - JK POWELL BOULEVARD)
FROM SR 1437 (VIRGIL AVENUE) TO US 7476

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND SIGNALS



END TIP PROJECT R-5020A
BEGIN TIP PROJECT R-5020B
-L- POT STA 174 + 50.00

END TIP PROJECT R-5020B
-L- POT STA 289 + 75.00

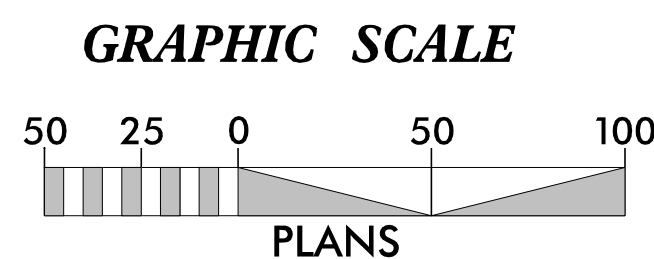
★ SIGNAL MODIFICATION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5020B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
41499.1.3		P.E.	
41499.2.3		R/W	
41499.2.5		UTIL.	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	no
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
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	—C—
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	—C—
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊓
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊓
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

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



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

Prepared in the Office of:
SUNGATE DESIGN GROUP, P.A.

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



Designed by:

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

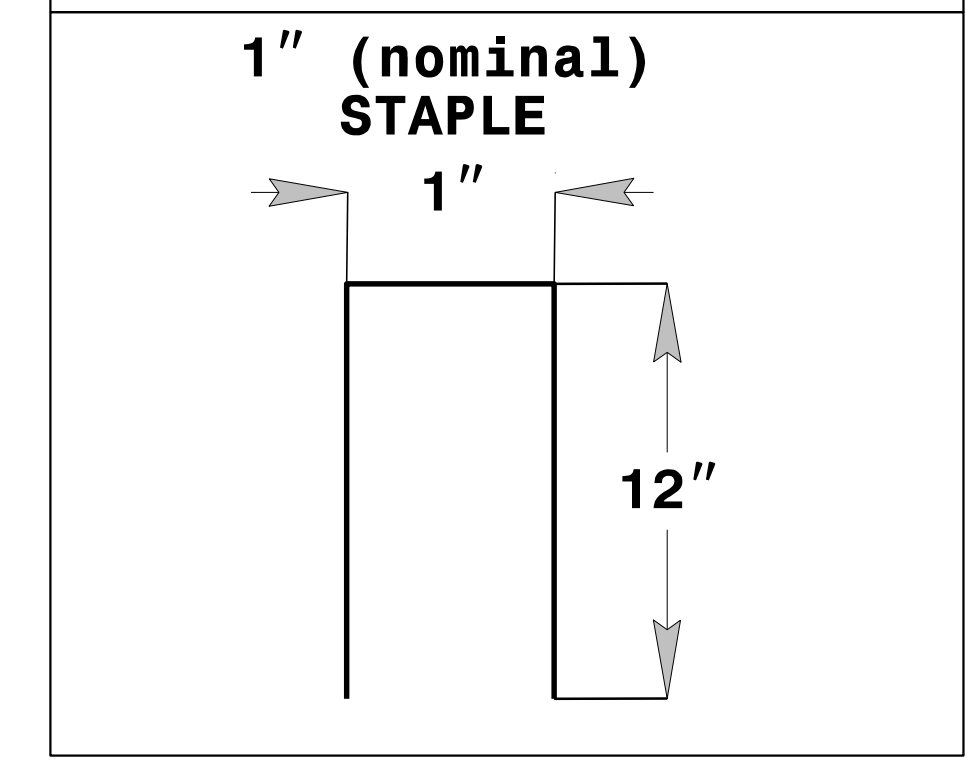
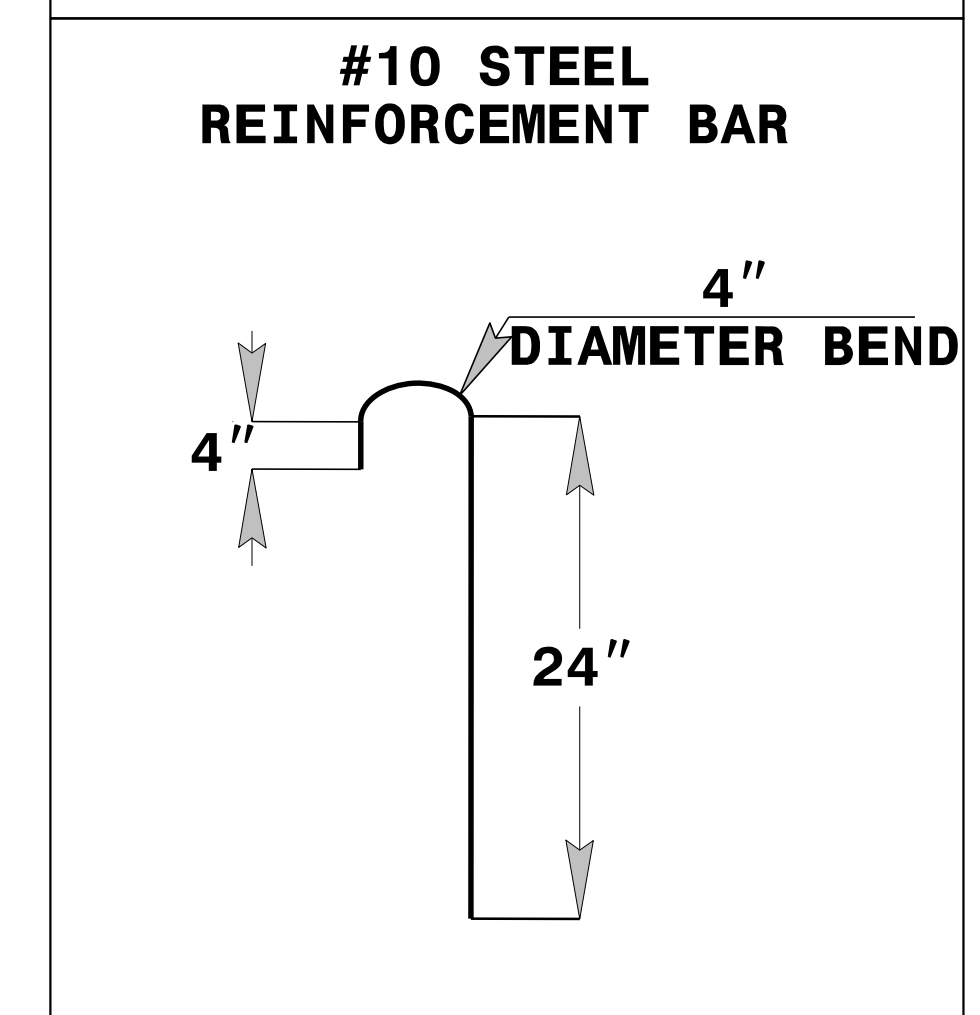
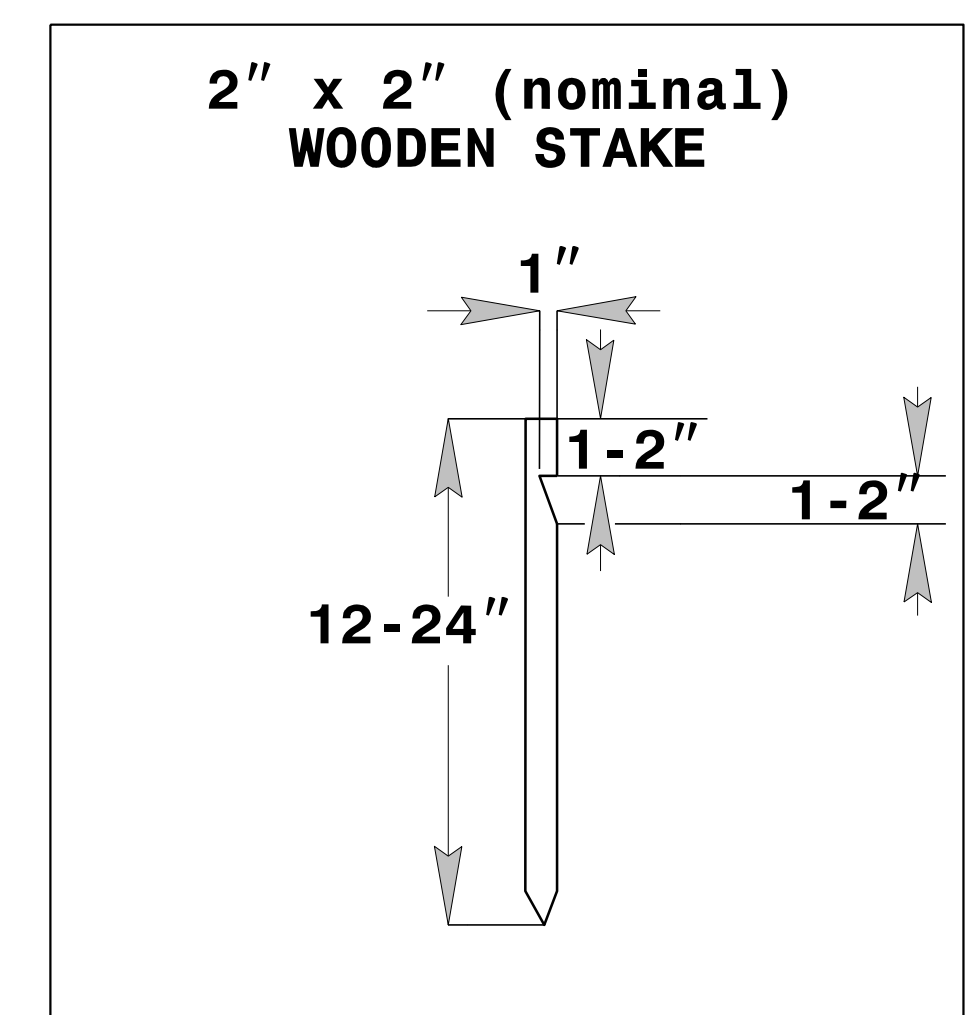
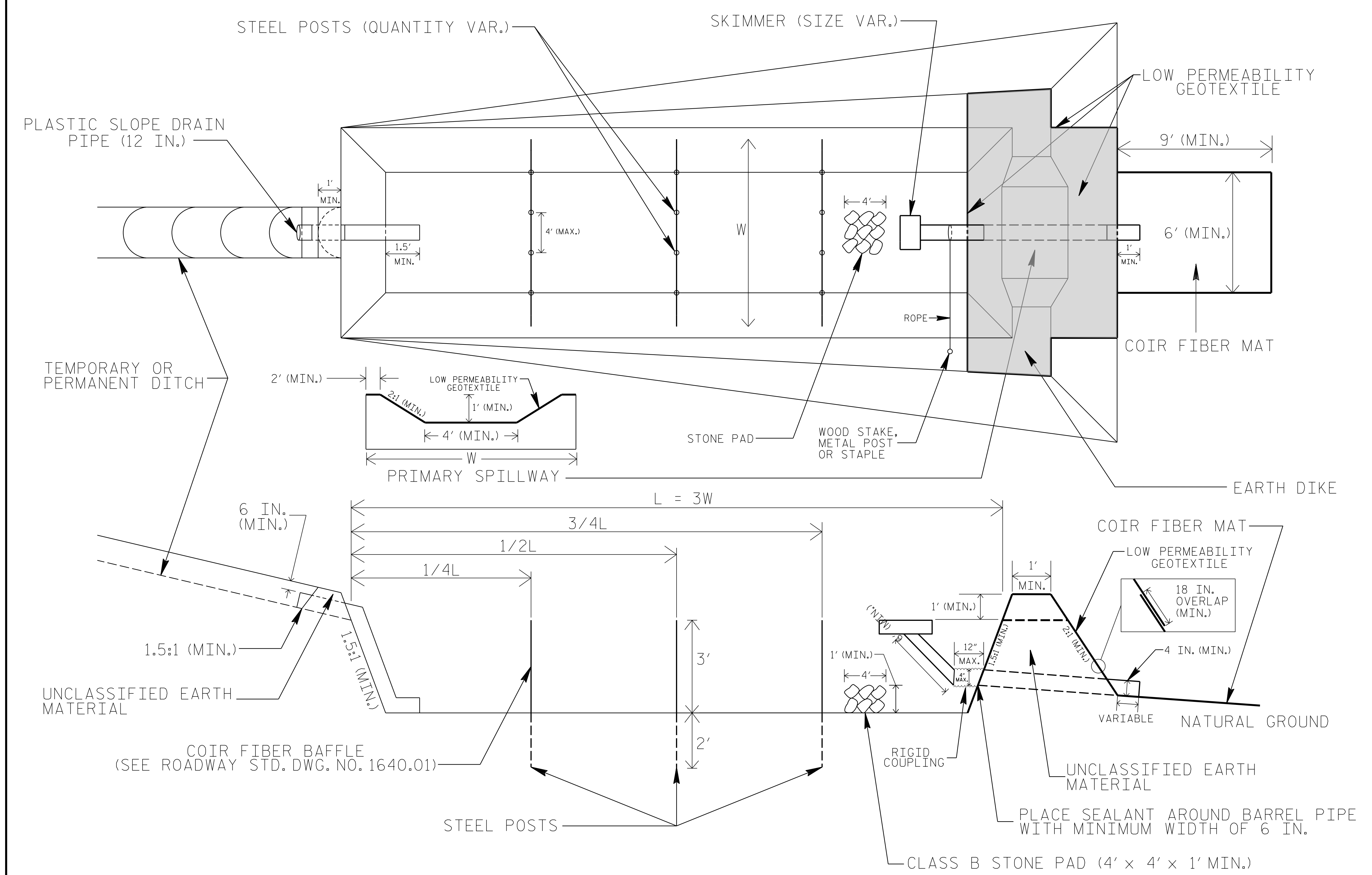
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision 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	

PROJECT REFERENCE NO. R-5020B	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



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. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

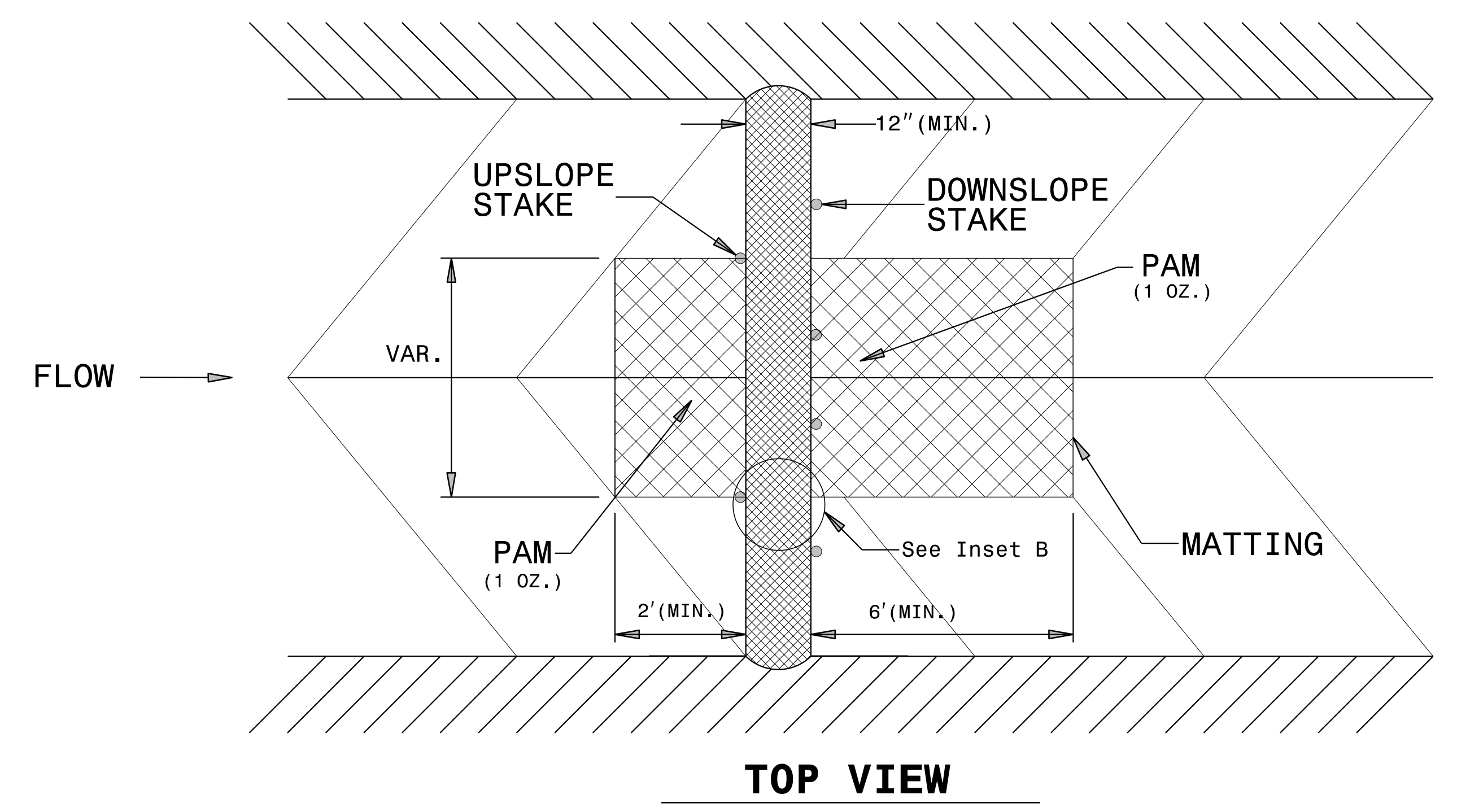
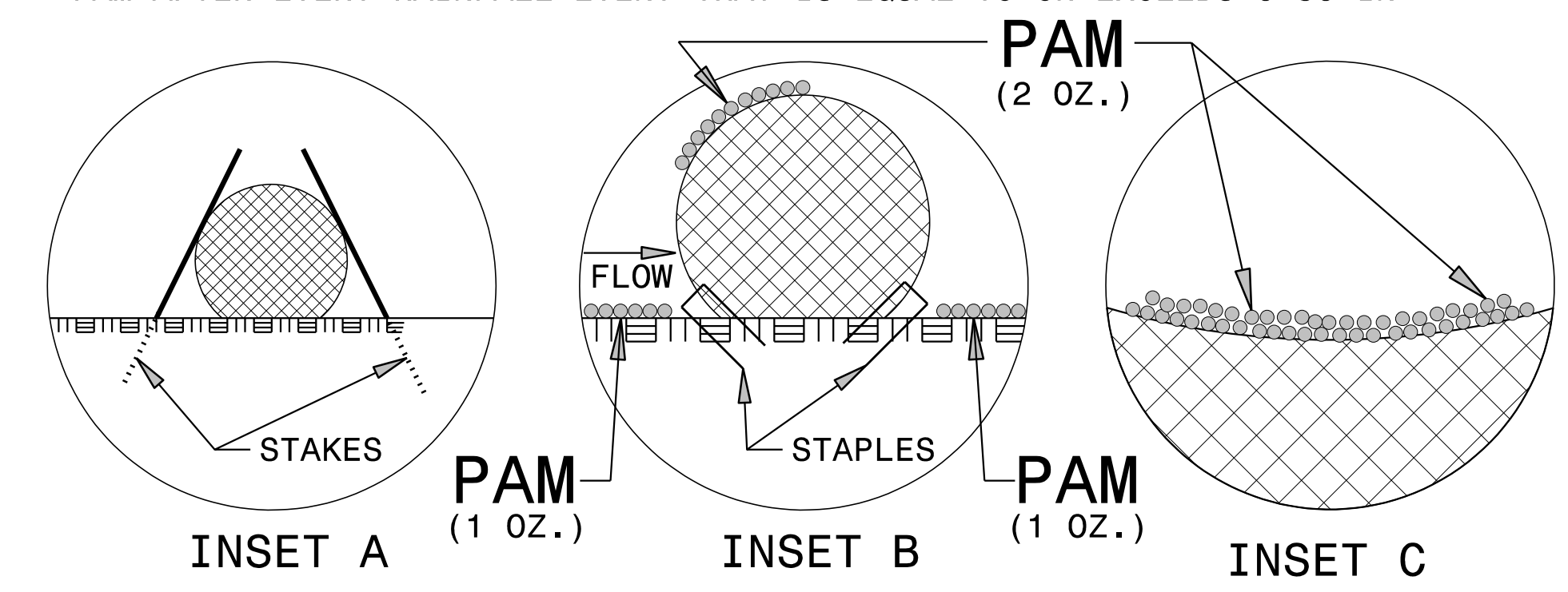
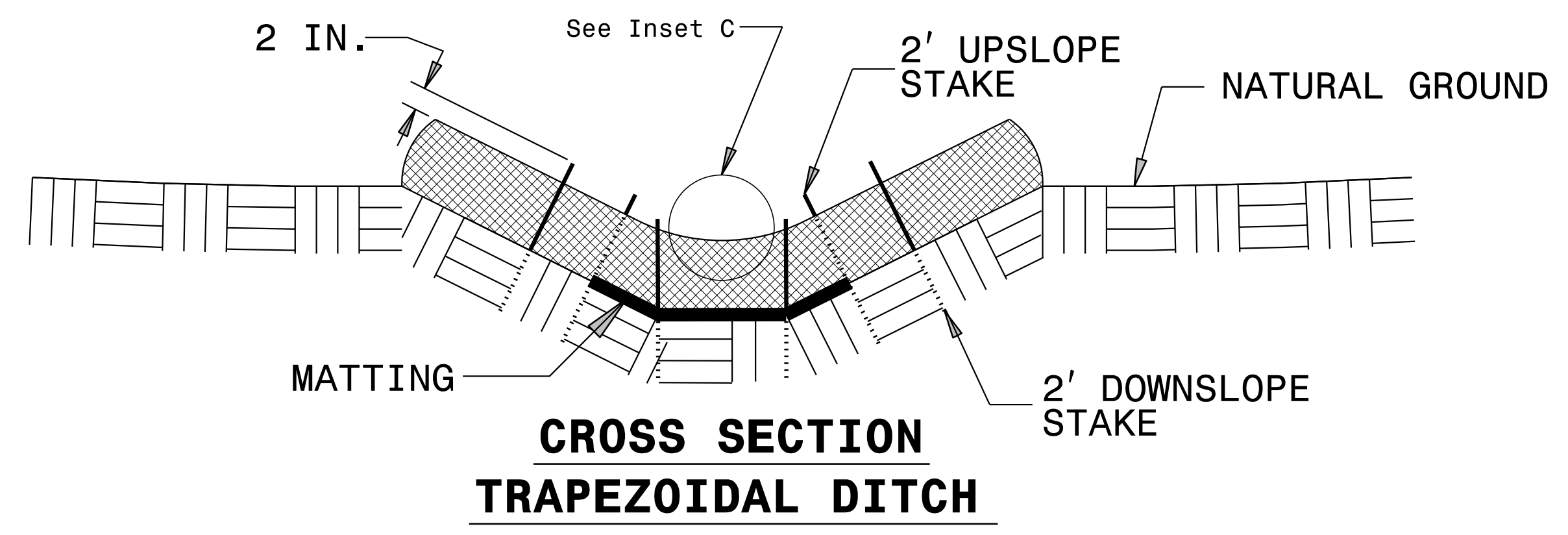
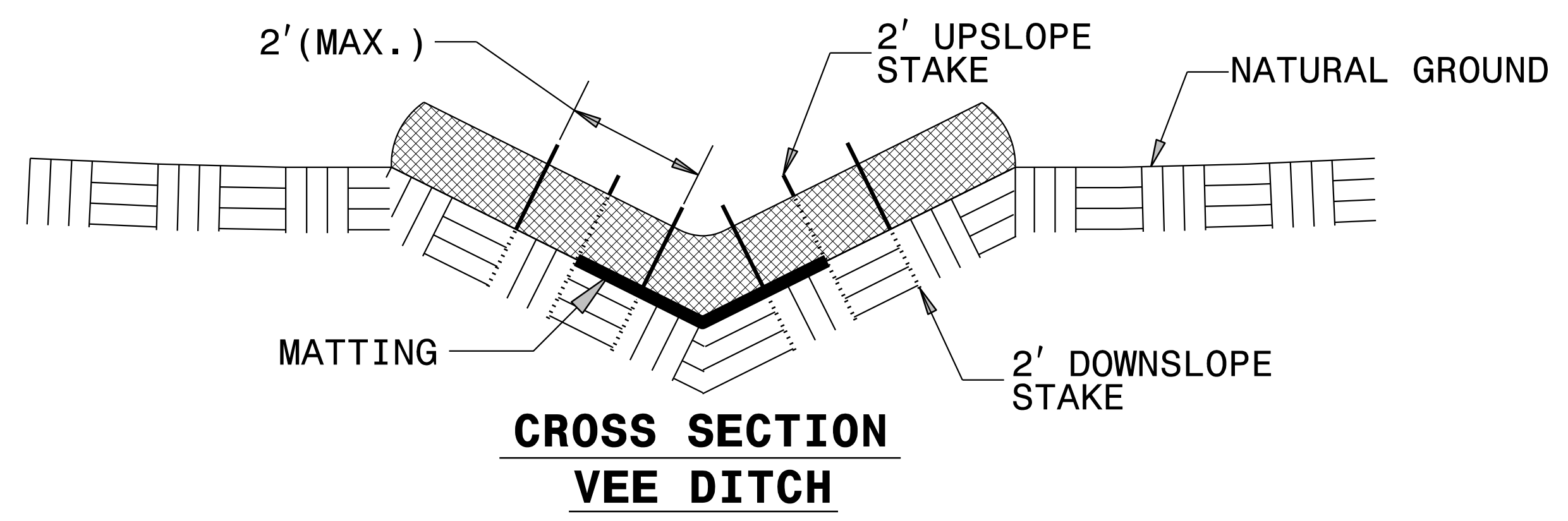
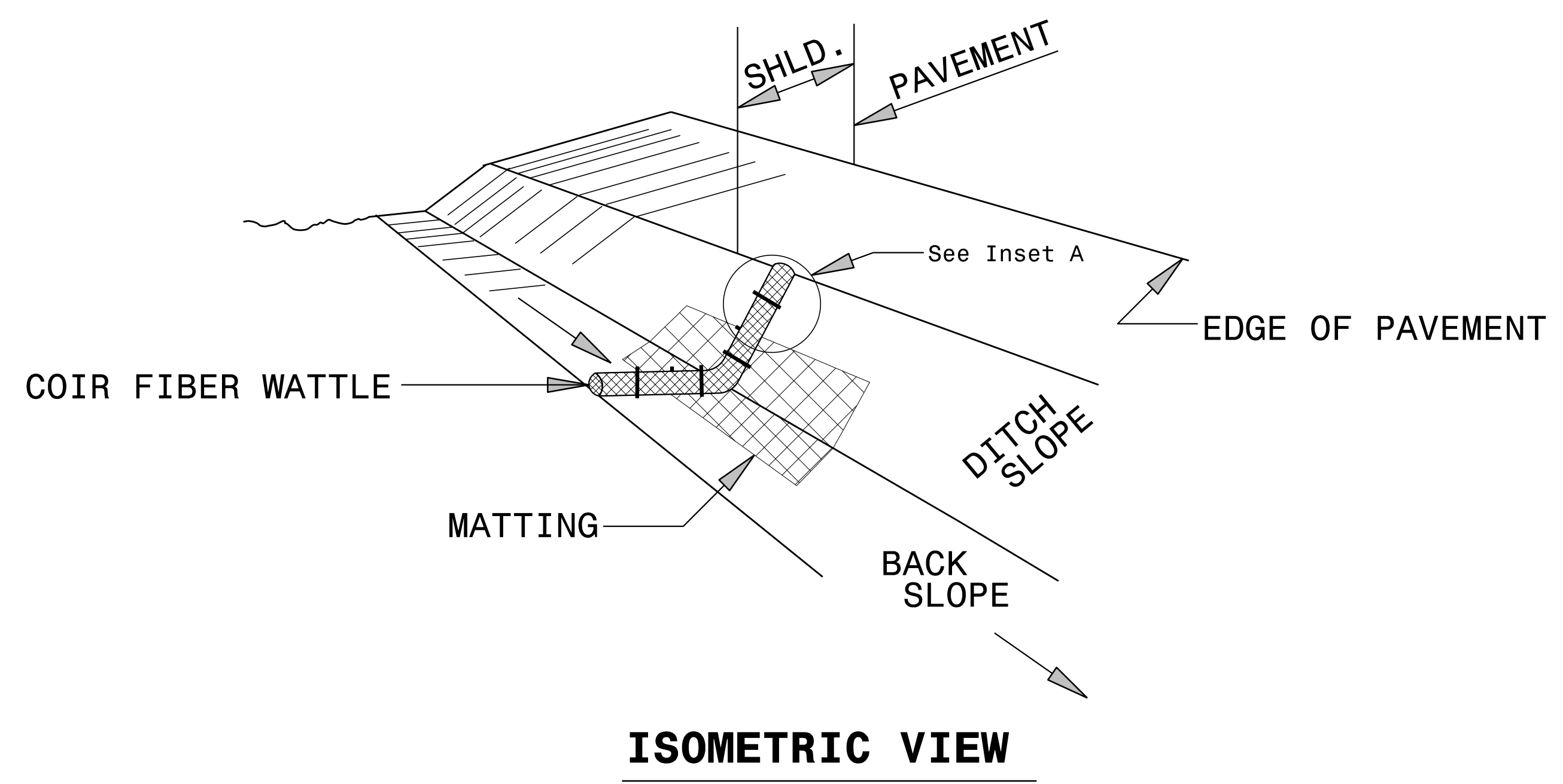
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

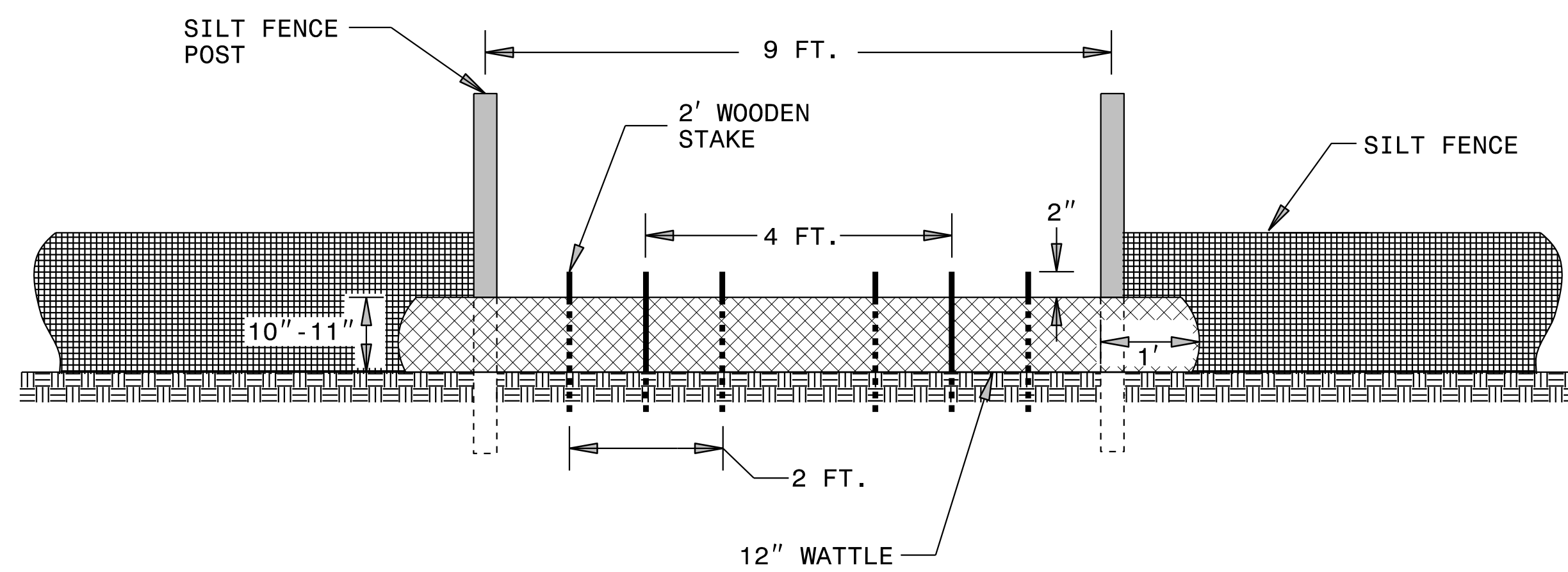
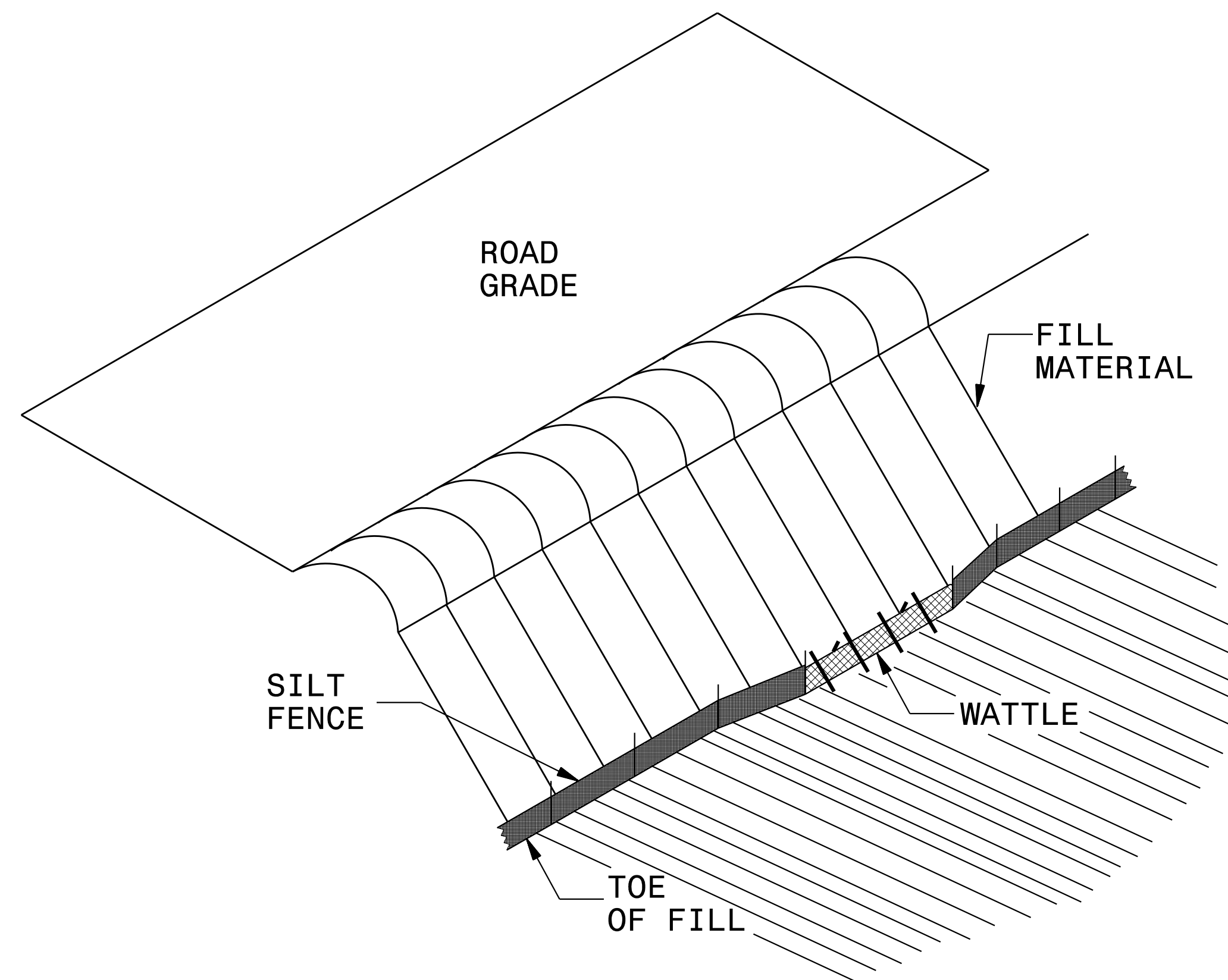
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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



SILT FENCE COIR FIBER WATTLE BREAK DETAIL

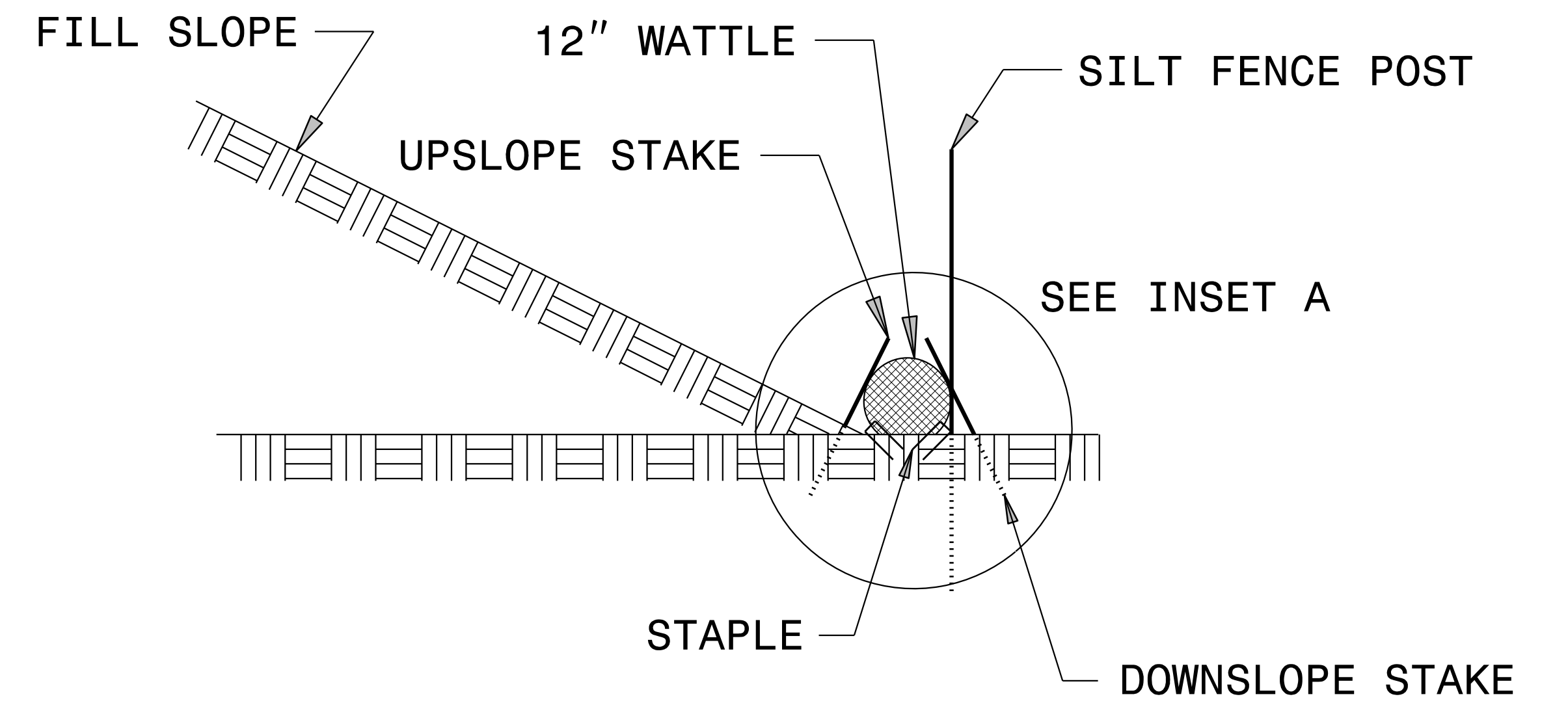
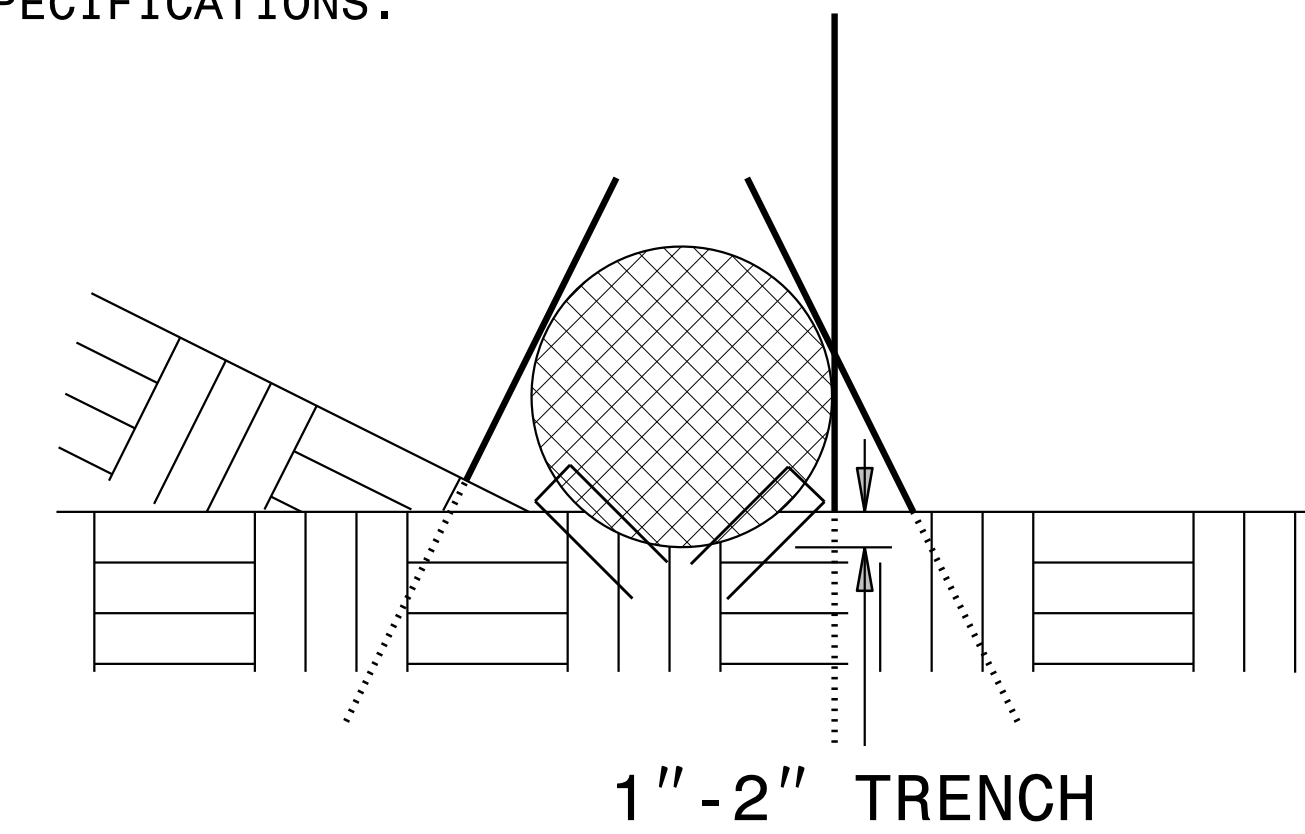
PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:

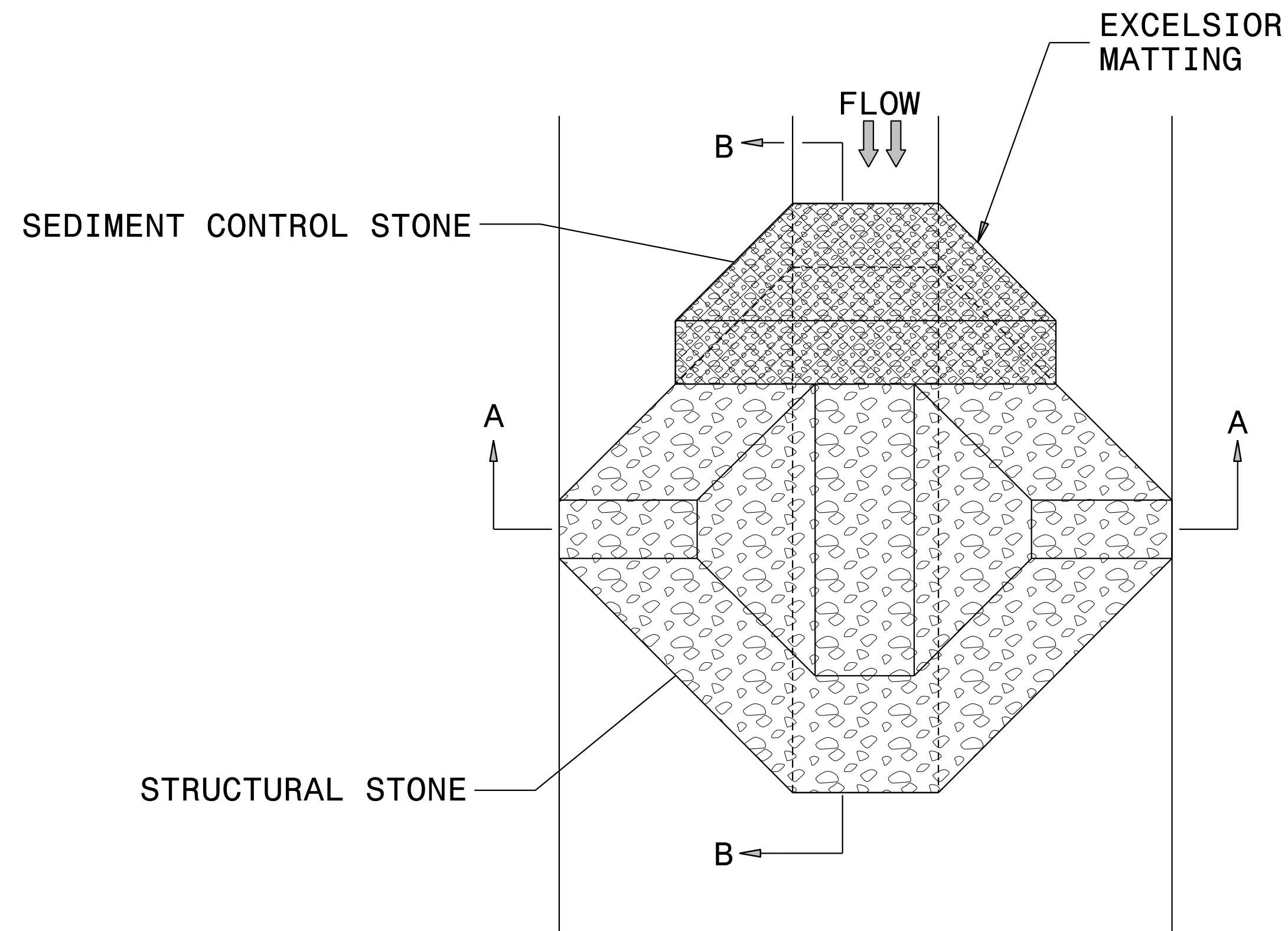
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A

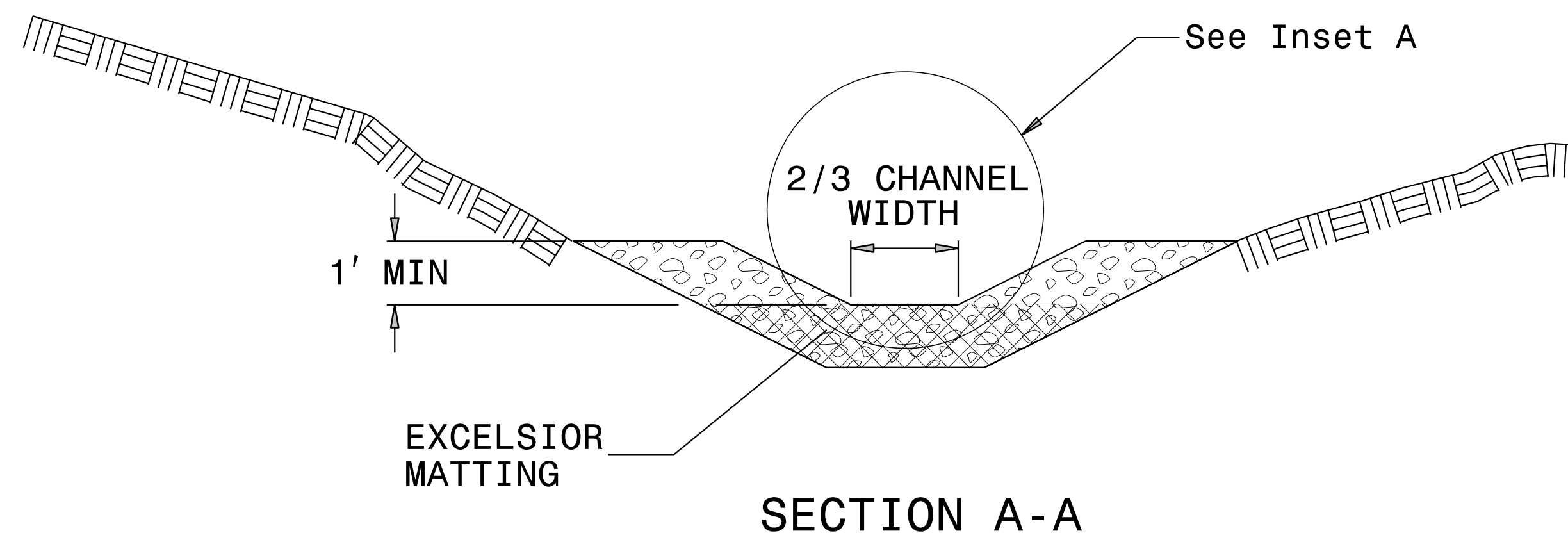


PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



SECTION A-A

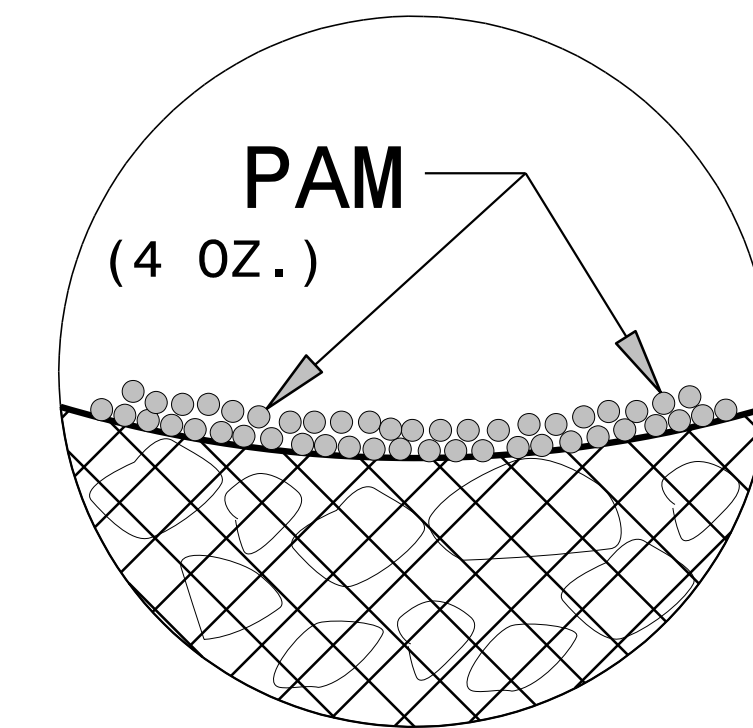
NOTES:

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

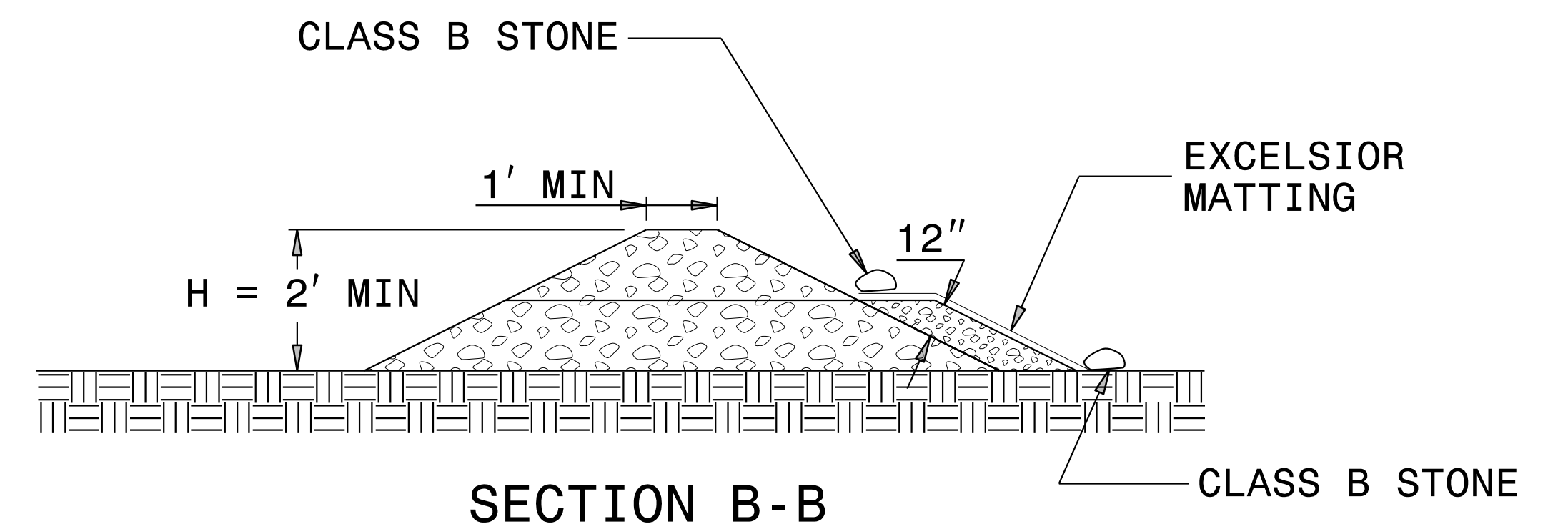
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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

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



INSET A



SECTION B-B

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

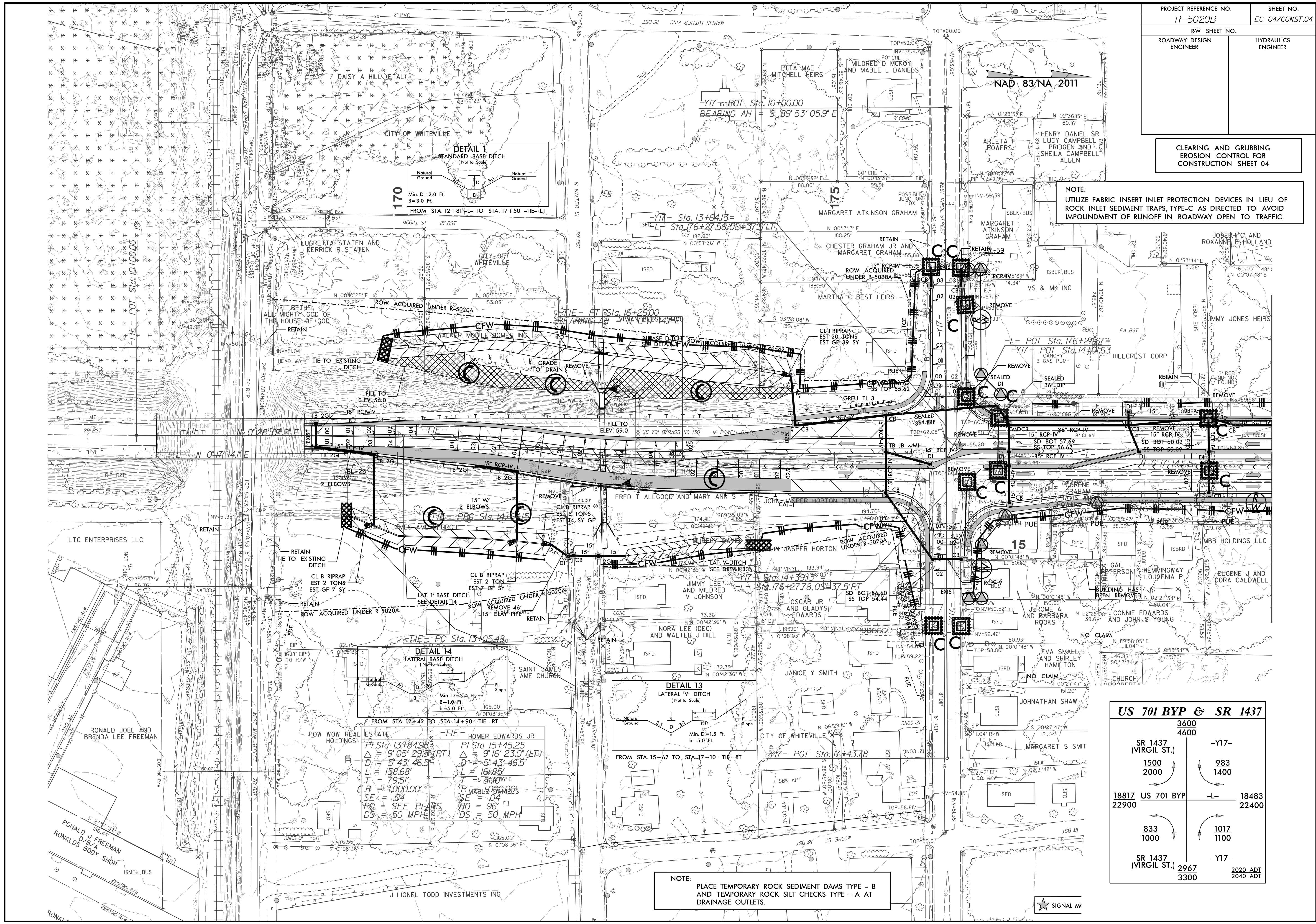
PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

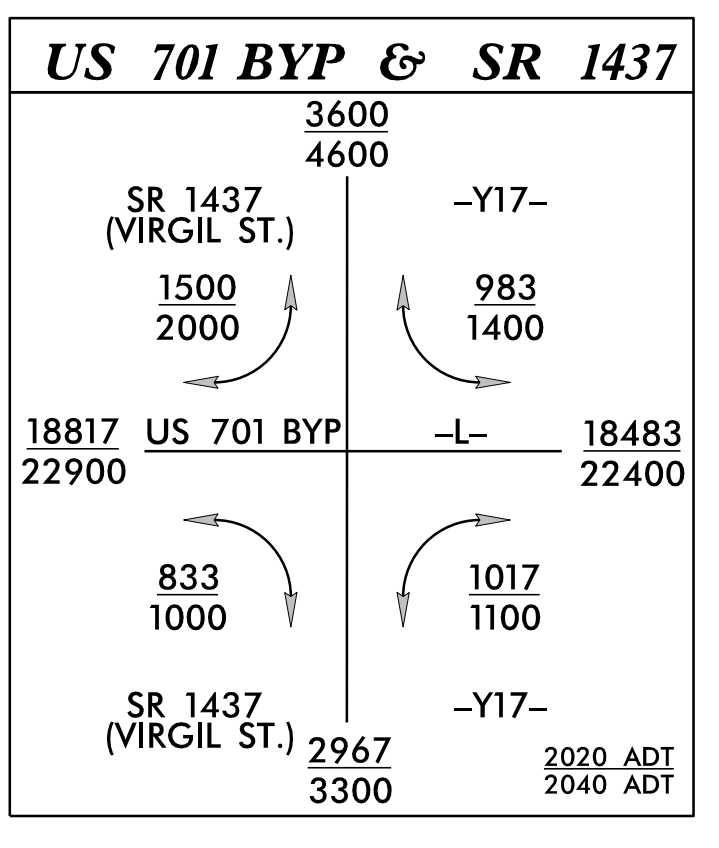
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 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.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

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



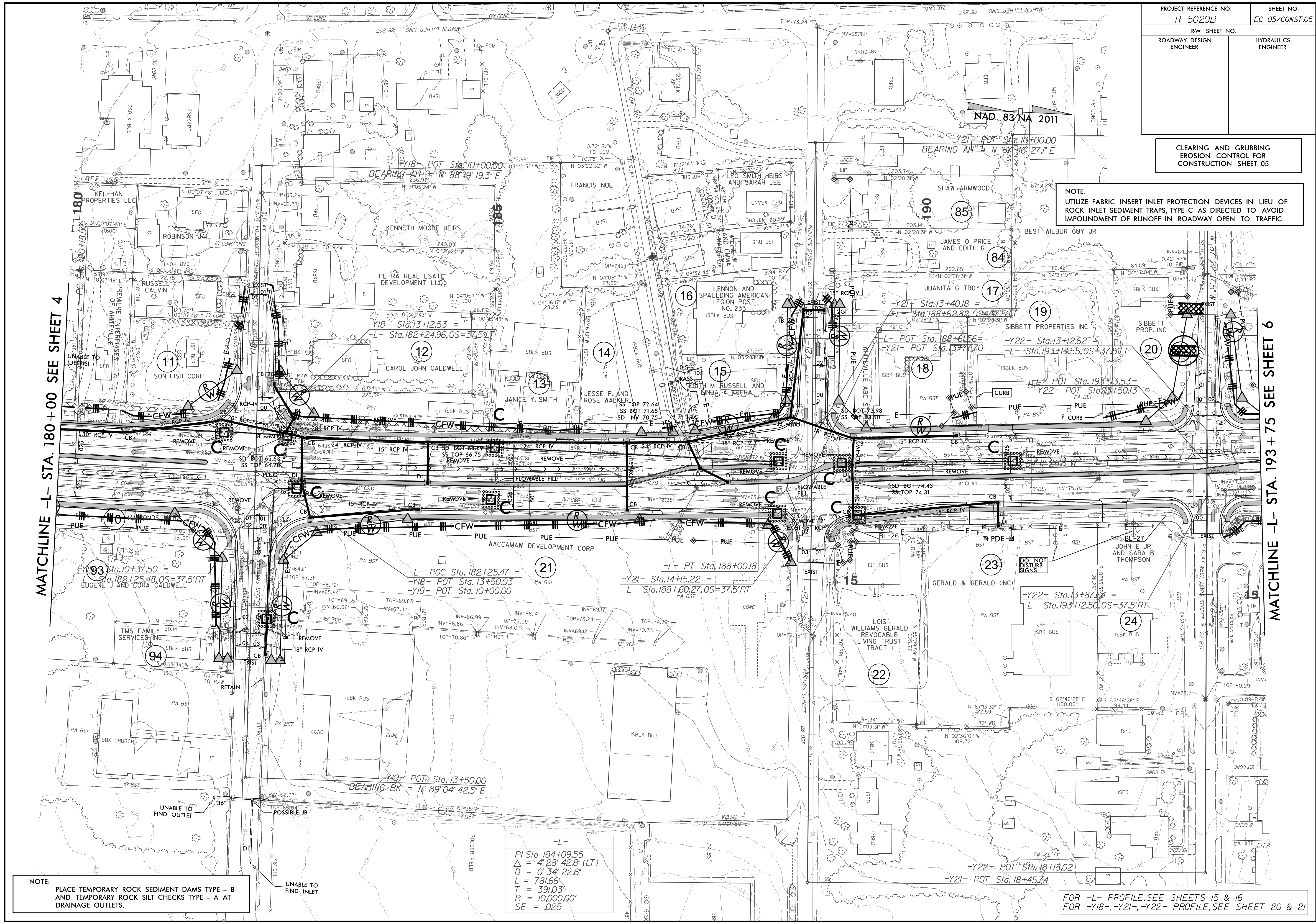
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-05/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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



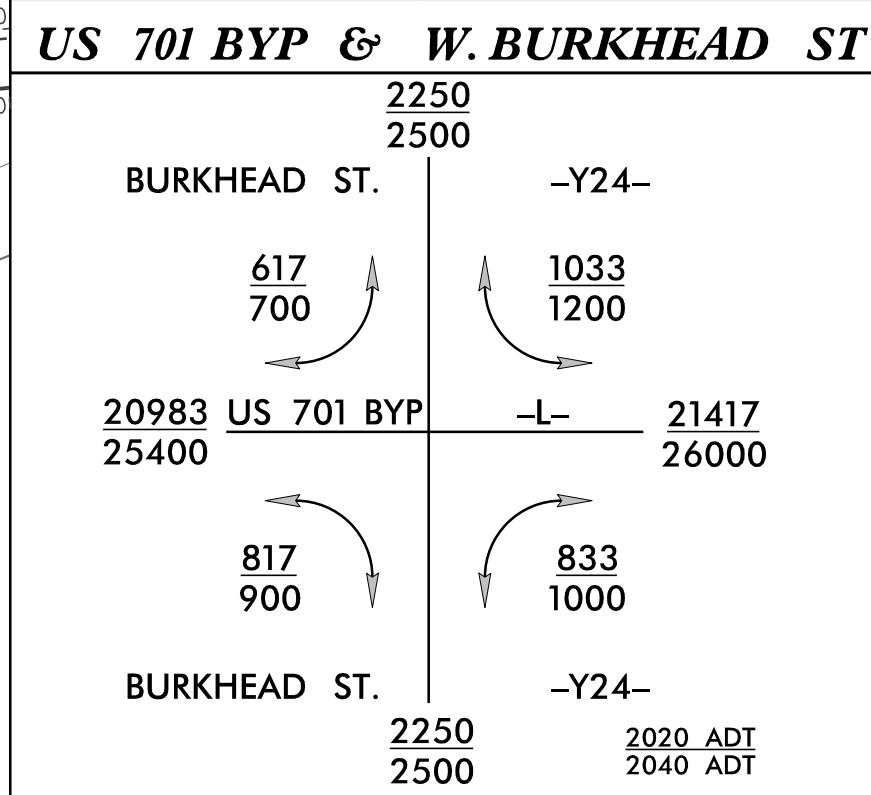
MATCHLINE -L- STA. 180+00 SEE SHEET 4

MATCHLINE -L- STA. 193+75 SEE SHEET 6

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

-L-
PI Sta 184+09.55
Δ = 4' 28" 42.8" (LT)
D = 0' 34" 22.6"
L = 781.66'
T = 391.03'
R = 10,000.00'
SE = .025

FOR -L- PROFILE, SEE SHEETS 15 & 16
FOR -Y18-, -Y21-, -Y22- PROFILE, SEE SHEET 20 & 21



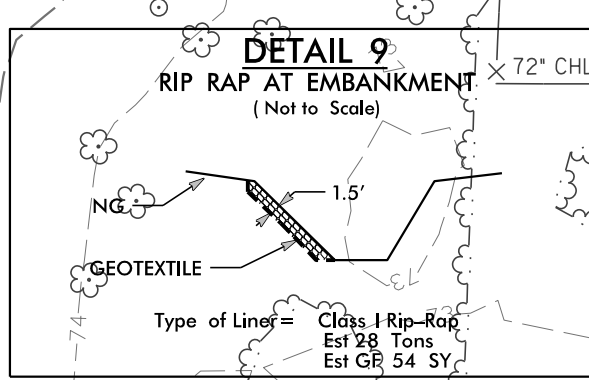
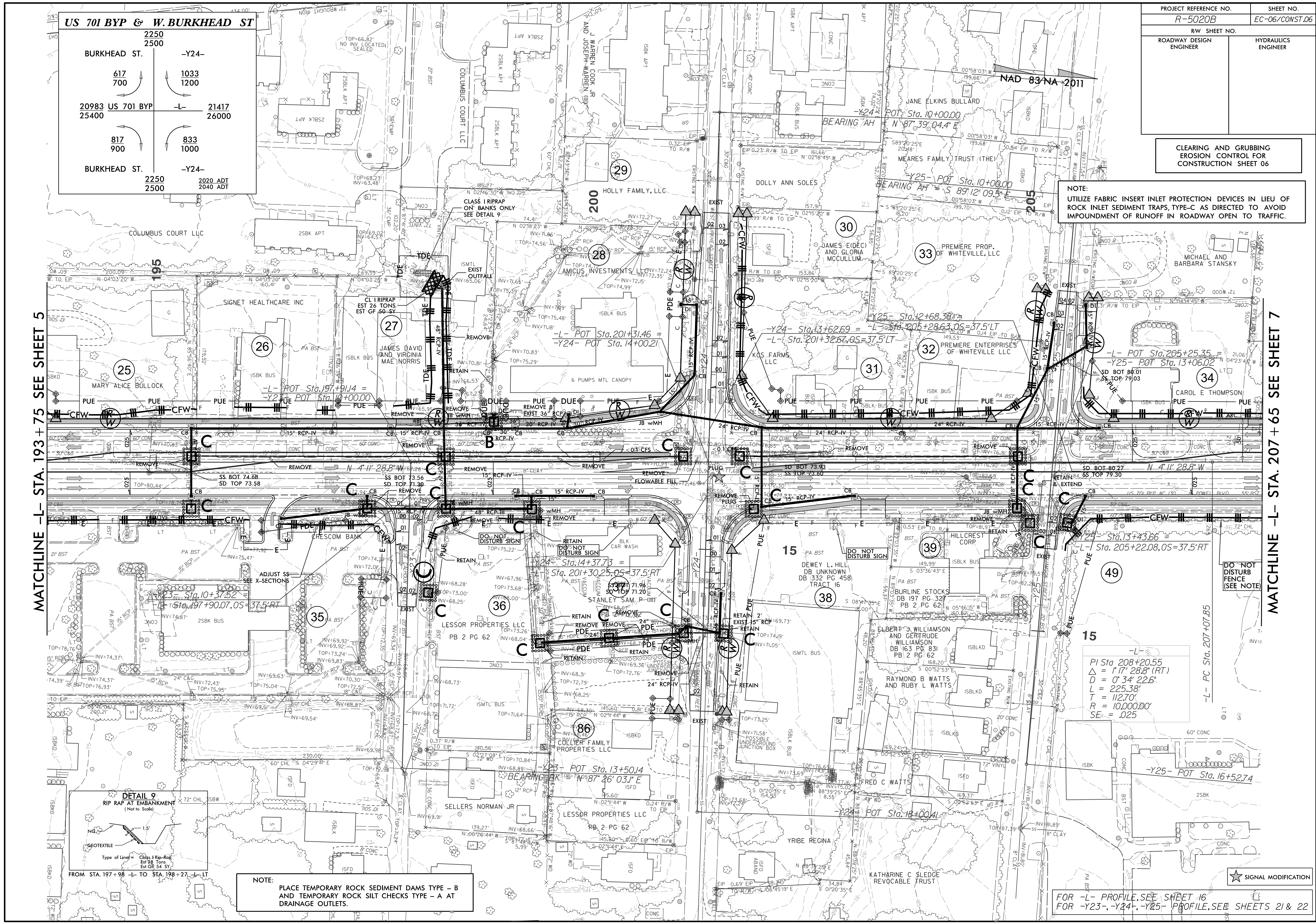
PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-06/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 06

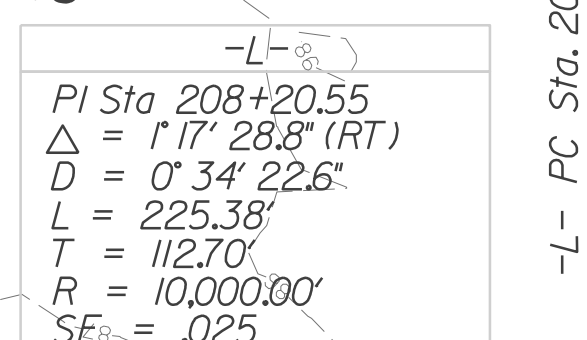
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

MATCHLINE -L- STA. 193 + 75 SEE SHEET 5

MATCHLINE -L- STA. 207 + 65 SEE SHEET 7



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



FOR -L- PROFILE, SEE SHEET 16
FOR -Y23-, -Y24-, -Y25- PROFILE, SEE SHEETS 21 & 22

★ SIGNAL MODIFICATION

PROJECT REFERENCE NO. R-5020B	SHEET NO. EC-07/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

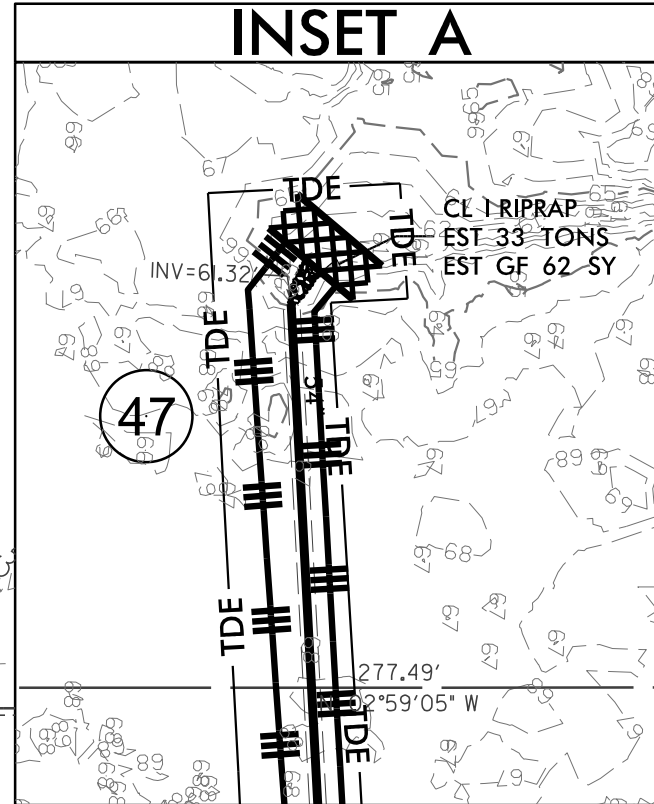
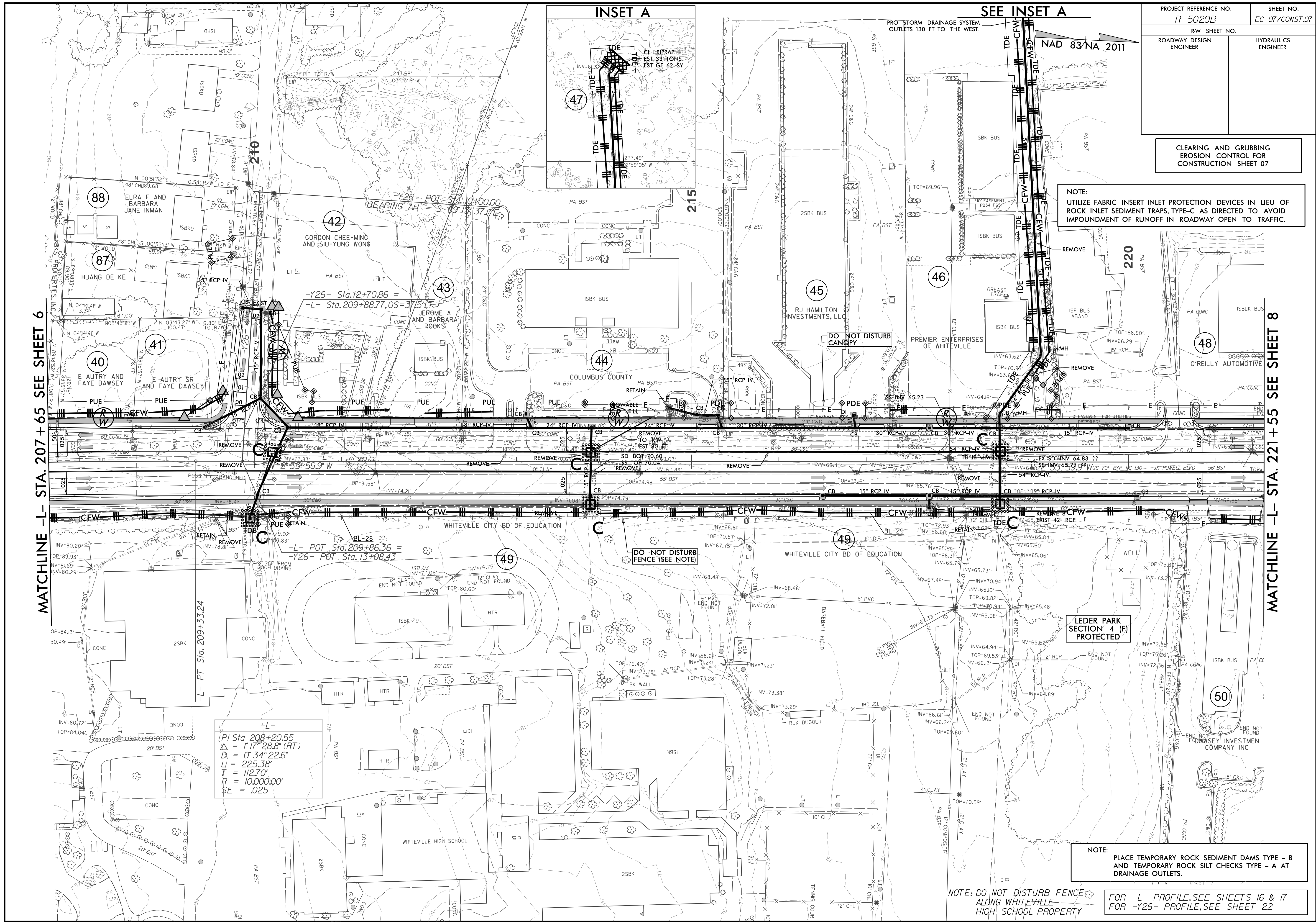
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

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

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

NOTE: DO NOT DISTURB FENCE
ALONG WHITEVILLE
HIGH SCHOOL PROPERTY

FOR -L- PROFILE, SEE SHEETS 16 & 17
FOR -Y26- PROFILE, SEE SHEET 22



SEE INSET A

PRO STORM DRAINAGE SYSTEM
OUTLETS 130 FT TO THE WEST.

NAD 83/NA 2011

MATCHLINE -L- STA. 207 + 65 SEE SHEET 6

MATCHLINE -L- STA. 221 + 55 SEE SHEET 8

-L-
PI Sta. 208+20.55
Δ = 117° 28.8' (RT)
D = 0° 34' 22.6"
L = 225.38'
T = 112.70'
R = 10,000.00'
SE = .025

-Y26- POT Sta. 10+00.00
BEARING AH = S 89° 18' 37.17" W

-Y26- Sta. 12+70.86 =
-L- Sta. 209+88.77.05 = 37.5' LT

-L- POT Sta. 209+86.36 =
-Y26- POT Sta. 13+08.43

DO NOT DISTURB
CANOPY

DO NOT DISTURB
FENCE (SEE NOTE)

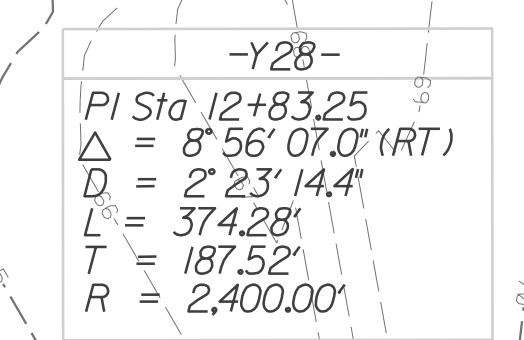
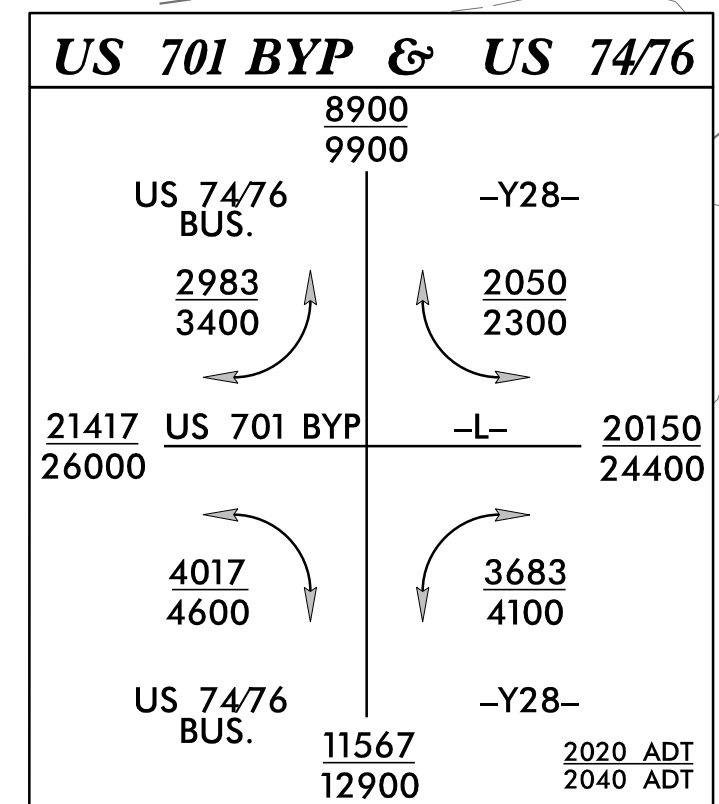
LEDER PARK
SECTION 4 (F)
PROTECTED

NOTE: DO NOT DISTURB FENCE
ALONG WHITEVILLE
HIGH SCHOOL PROPERTY

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-08/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 08

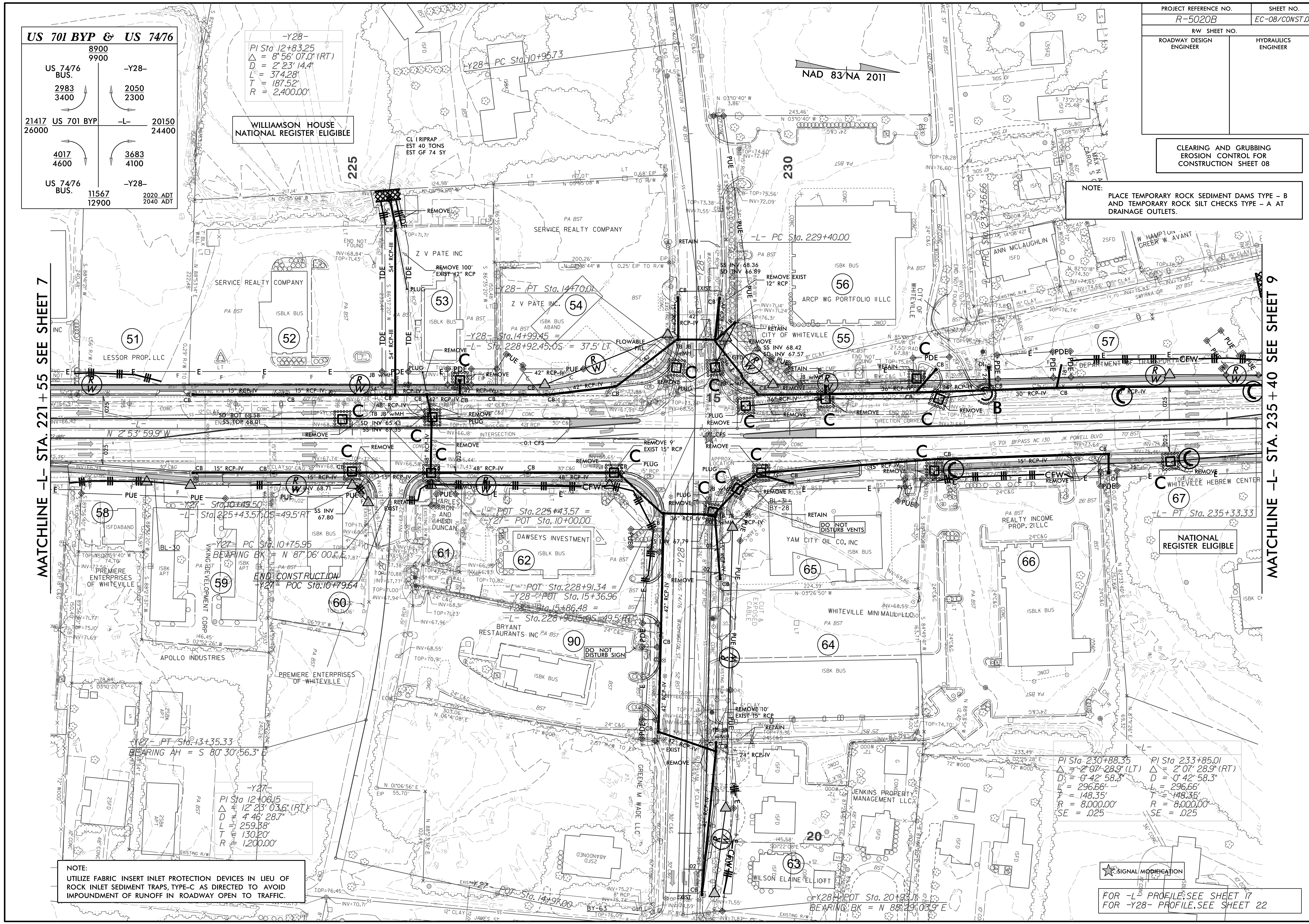
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.



WILLIAMSON HOUSE NATIONAL REGISTER ELIGIBLE

MATCHLINE -L- STA. 221+55 SEE SHEET 7

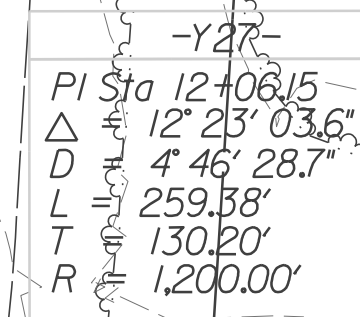
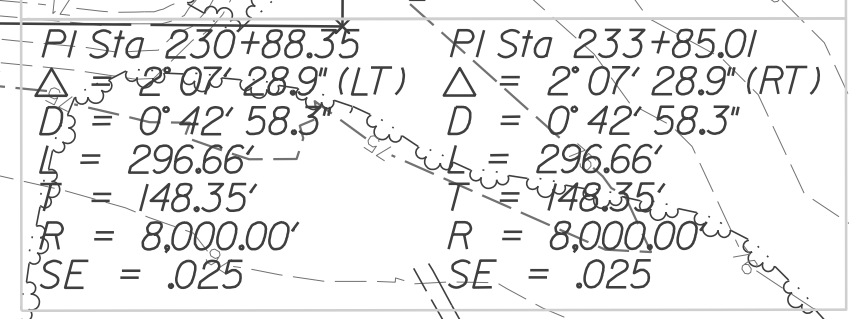
MATCHLINE -L- STA. 235+40 SEE SHEET 9



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

★ SIGNAL MODIFICATION

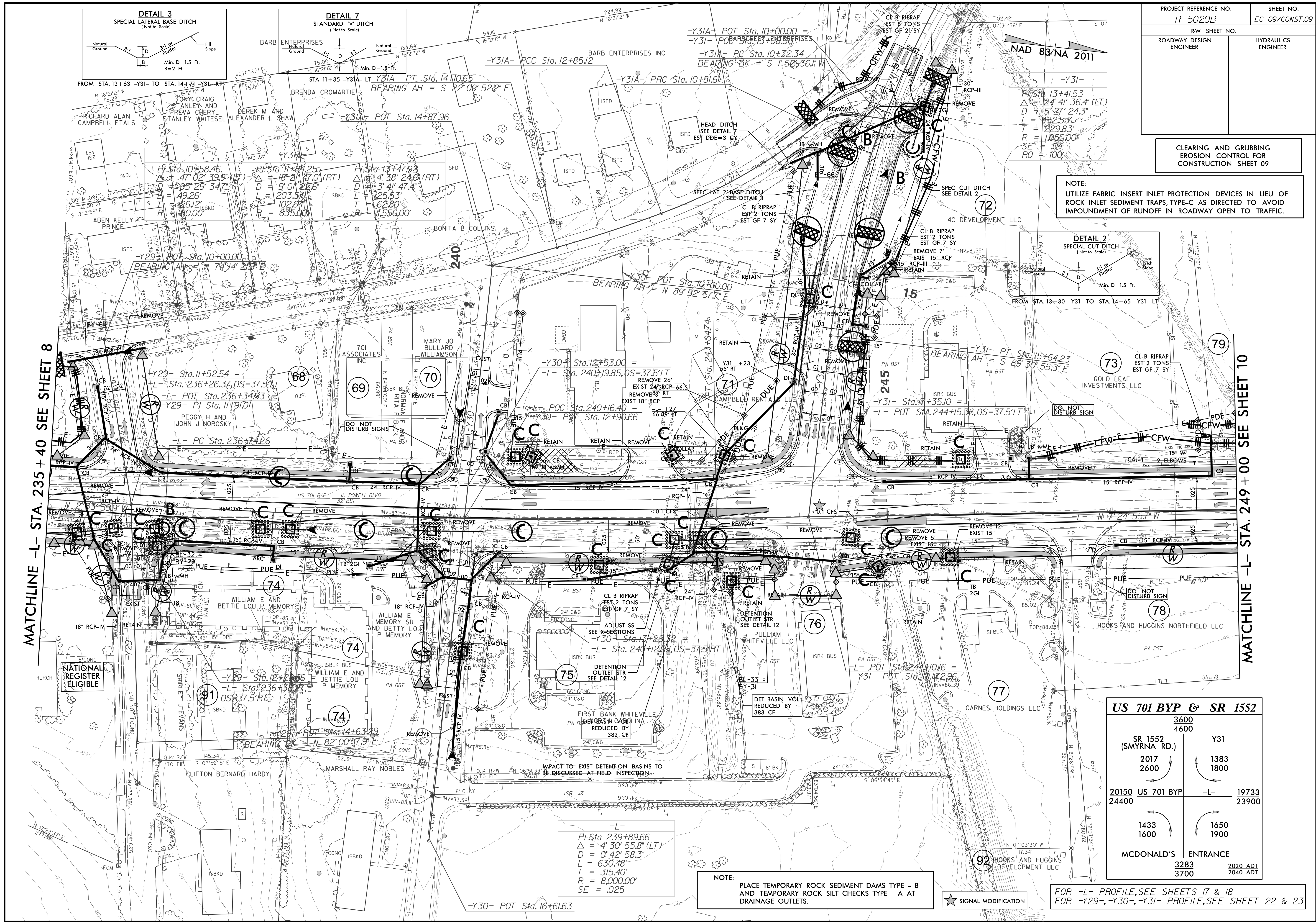
FOR -L- PROFILE SEE SHEET 17
FOR -Y28- PROFILE SEE SHEET 22



PROJECT REFERENCE NO. R-5020B	SHEET NO. EC-09/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

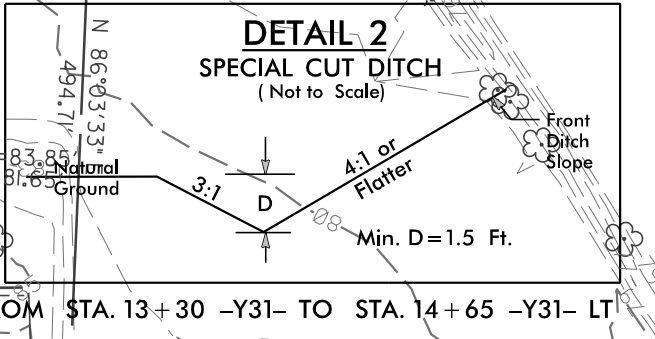
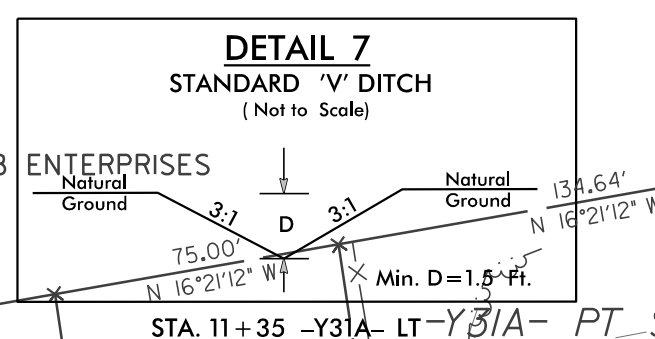
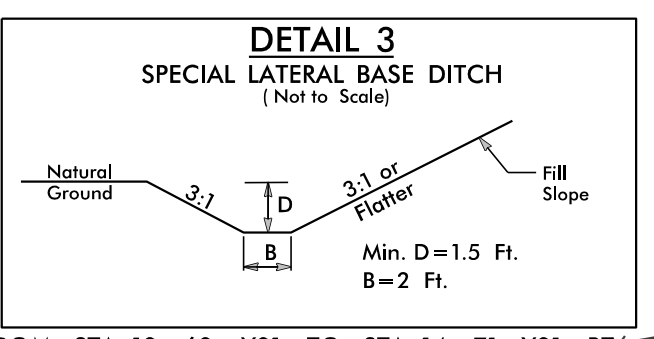
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

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



MATCHLINE -L- STA. 235 + 40 SEE SHEET 8

MATCHLINE -L- STA. 249 + 00 SEE SHEET 10



US 701 BYP & SR 1552

3600	4600	-Y31-
SR 1552 (SMYRNA RD.)		
2017	1383	
2600	1800	
20150 US 701 BYP	-L-	19733
24400		23900
1433	1650	
1600	1900	
MCDONALD'S ENTRANCE		
3283	2020 ADT	
3700	2040 ADT	

FOR -L- PROFILE, SEE SHEETS 17 & 18
FOR -Y29-, -Y30-, -Y31- PROFILE, SEE SHEET 22 & 23

-Y31A- POT Sta. 10+00.00 =
-Y31- PC Sta. 10+32.34
BEARING BK = S 1° 52' 36.1" W

-Y31A- PCC Sta. 12+85.12
-Y31A- PRC Sta. 10+81.61

PI Sta. 10+58.46
Δ = 4° 02' 39.9" (LT)
D = 95.29' 34.7"
L = 49.26'
R = 635.00'

-Y29- Sta. 11+52.54 =
-L- Sta. 236+26.37, OS=37.5' LT
-L- POT Sta. 236+34.93
-Y29- PI Sta. 11+91.01
-L- PC Sta. 236+14.26

-Y30- Sta. 12+53.00 =
-L- Sta. 240+19.85, OS=37.5' LT
EXIST 24" RCP 66.3'
EXIST 18" RCP 27.7'

-Y31- PT Sta. 15+64.23
BEARING AH = S 89° 30' 55.3" E
-Y31- Sta. 17+35.10 =
-L- POT Sta. 244+15.36, OS=37.5' LT

-L-
PI Sta. 239+89.66
Δ = 4° 30' 55.8" (LT)
D = 0° 42' 58.3"
L = 630.48'
T = 315.40'
R = 8,000.00'
SE = .025

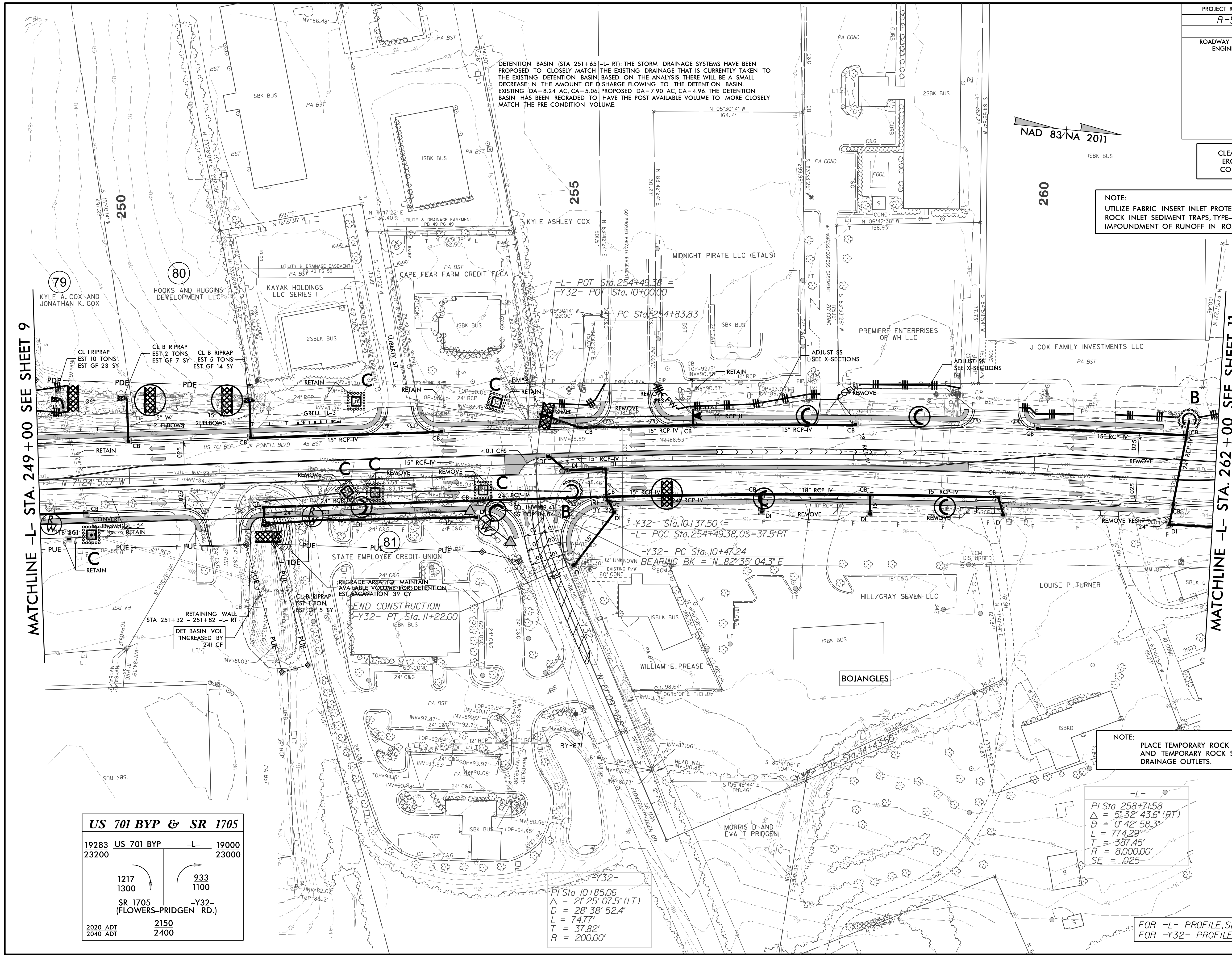
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

★ SIGNAL MODIFICATION

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-10/CONST-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

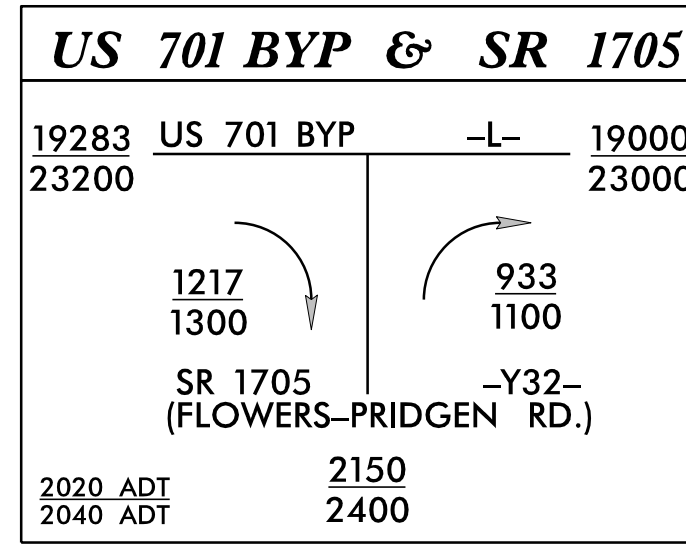
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



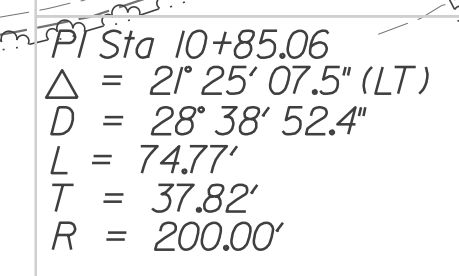
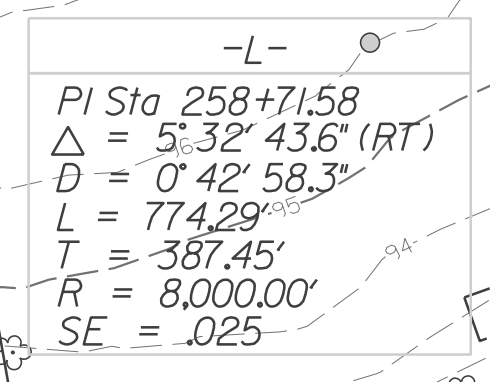
MATCHLINE -L- STA. 249+00 SEE SHEET 9

MATCHLINE -L- STA. 262+00 SEE SHEET 11

DETENTION BASIN (STA 251+65 -L- RT): THE STORM DRAINAGE SYSTEMS HAVE BEEN PROPOSED TO CLOSELY MATCH THE EXISTING DRAINAGE THAT IS CURRENTLY TAKEN TO THE EXISTING DETENTION BASIN. BASED ON THE ANALYSIS, THERE WILL BE A SMALL DECREASE IN THE AMOUNT OF DISCHARGE FLOWING TO THE DETENTION BASIN. EXISTING DA=8.24 AC, CA=5.06 PROPOSED DA=7.90 AC, CA=4.98. THE DETENTION BASIN HAS BEEN REGRADED TO HAVE THE POST AVAILABLE VOLUME TO MORE CLOSELY MATCH THE PRE CONDITION VOLUME.



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

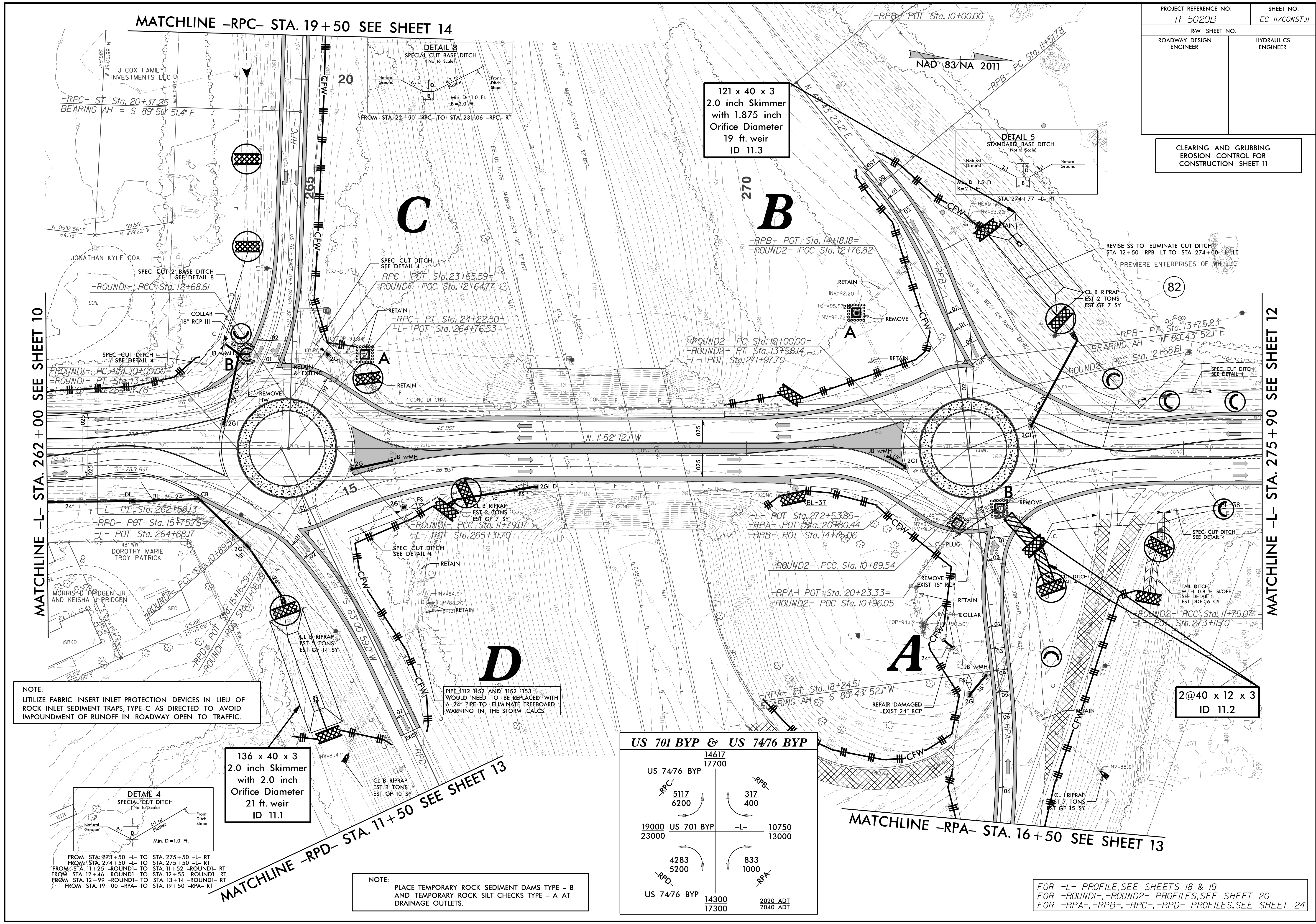


FOR -L- PROFILE, SEE SHEET 18
FOR -Y32- PROFILE, SEE SHEET 23

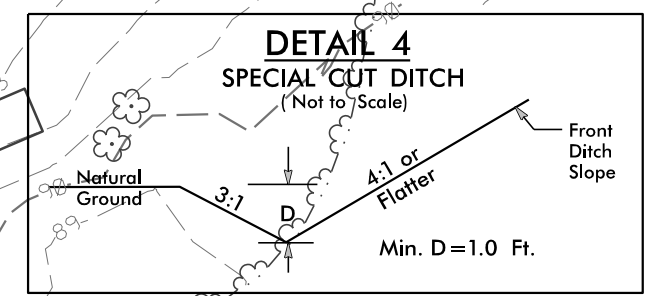
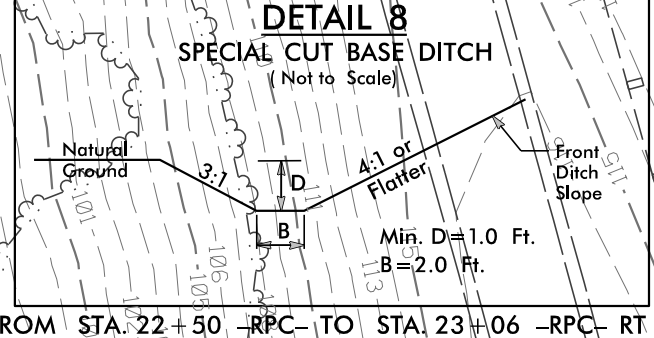
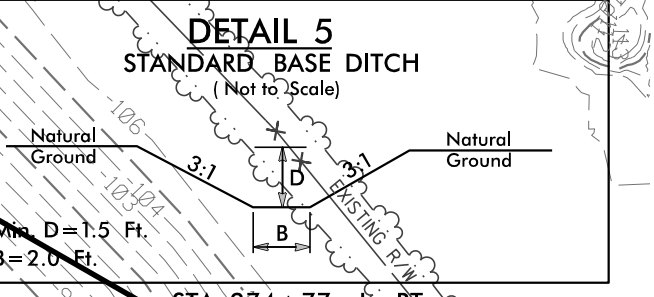
MATCHLINE -RPC- STA. 19+50 SEE SHEET 14

PROJECT REFERENCE NO. R-5020B	SHEET NO. EC-II/CONST/II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11



121 x 40 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
19 ft. weir
ID 11.3

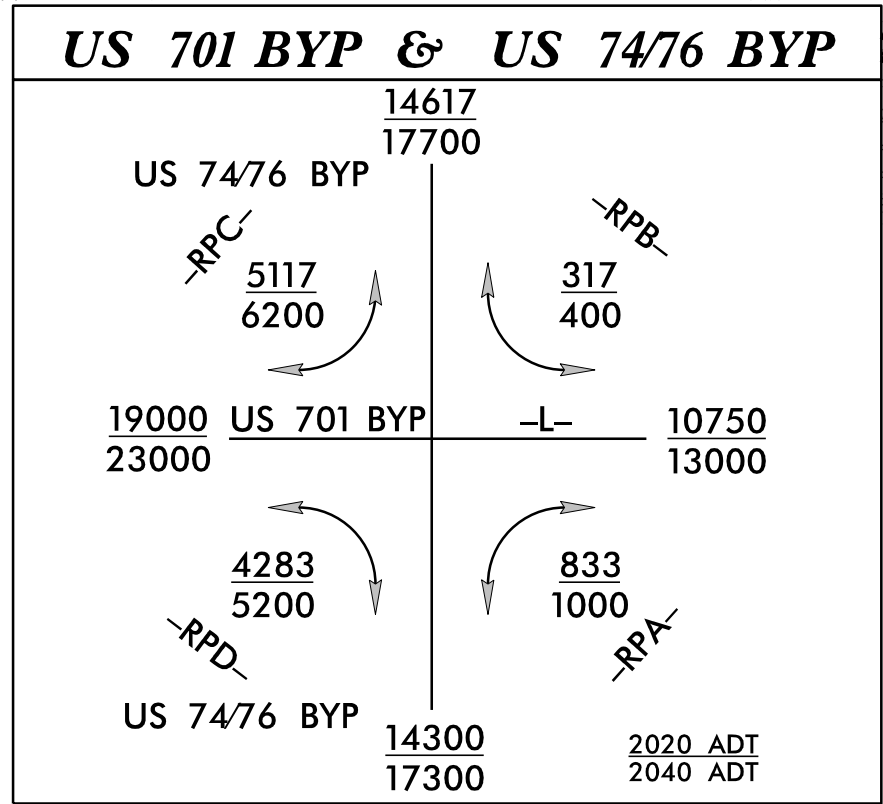


NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

136 x 40 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
21 ft. weir
ID 11.1

2@40 x 12 x 3
ID 11.2

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



FOR -L- PROFILE, SEE SHEETS 18 & 19
FOR -ROUND1-, -ROUND2- PROFILES, SEE SHEET 20
FOR -RPA-, -RPB-, -RPC-, -RPD- PROFILES, SEE SHEET 24

MATCHLINE -L- STA. 262+00 SEE SHEET 10

MATCHLINE -L- STA. 275+90 SEE SHEET 12

MATCHLINE -RPD- STA. 11+50 SEE SHEET 13

MATCHLINE -RPA- STA. 16+50 SEE SHEET 13

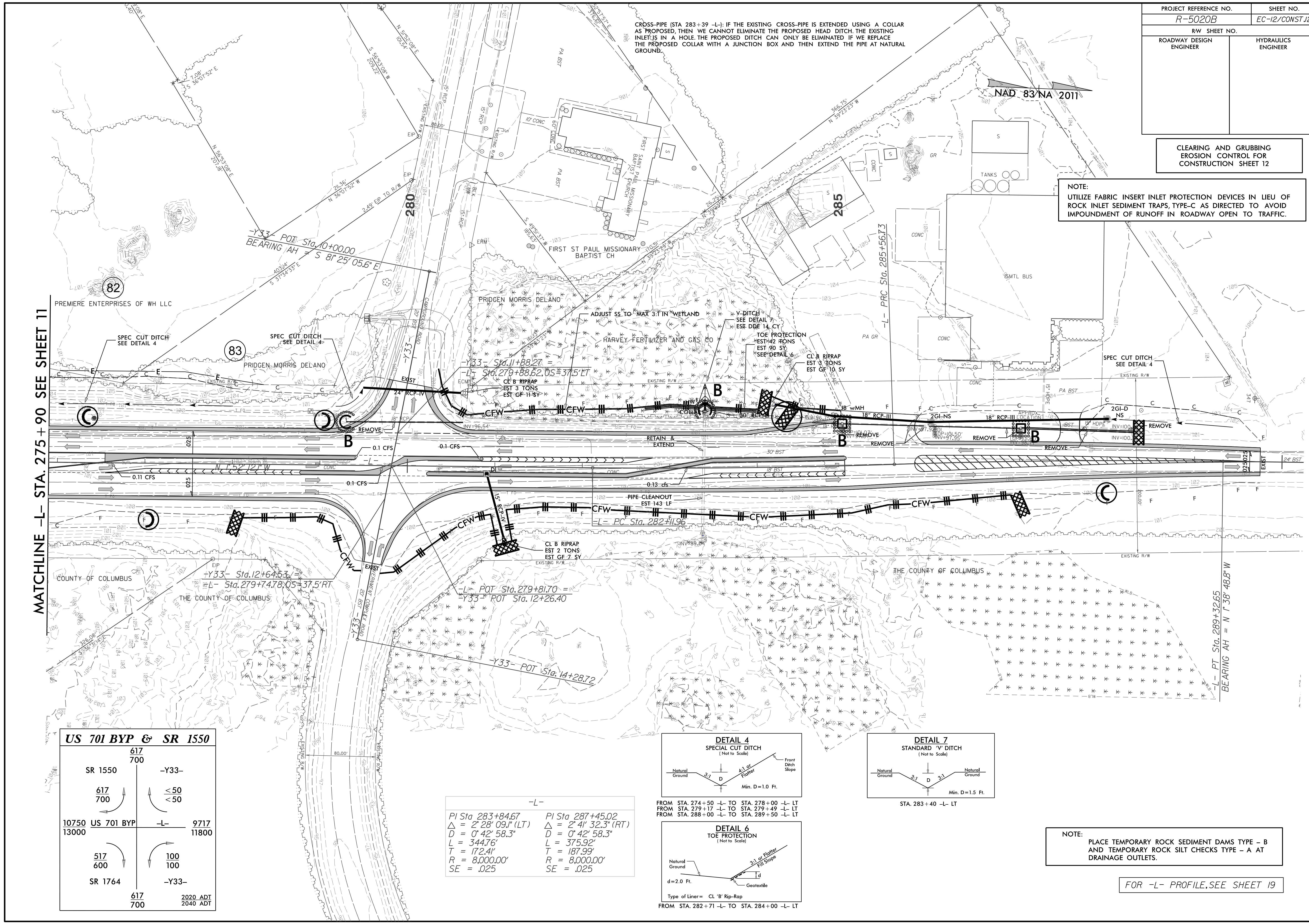
FROM STA. 273+50 -L- TO STA. 275+50 -L- RT
FROM STA. 274+50 -L- TO STA. 275+50 -L- RT
FROM STA. 11+25 -ROUND1- TO STA. 11+52 -ROUND1- RT
FROM STA. 12+46 -ROUND1- TO STA. 12+55 -ROUND1- RT
FROM STA. 12+99 -ROUND1- TO STA. 13+14 -ROUND1- RT
FROM STA. 19+00 -RPA- TO STA. 19+50 -RPA- RT

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-12/CONST J2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

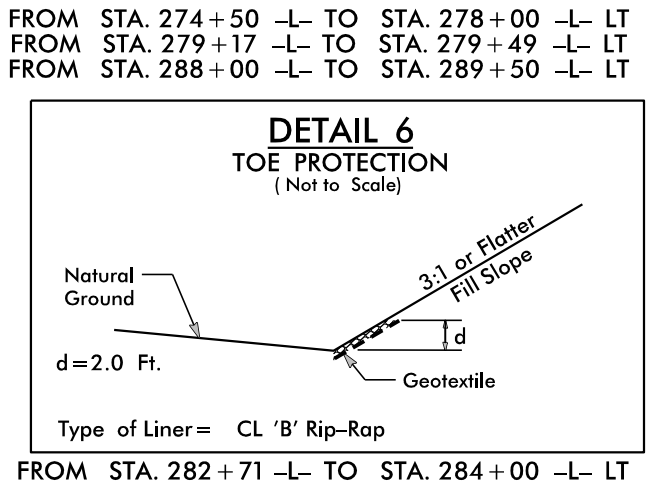
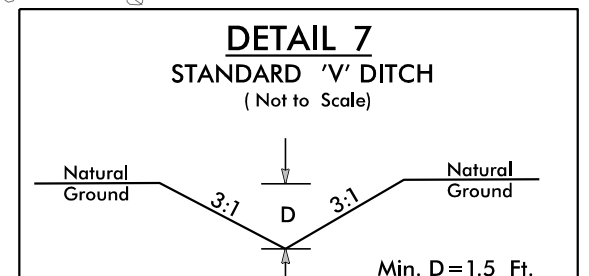
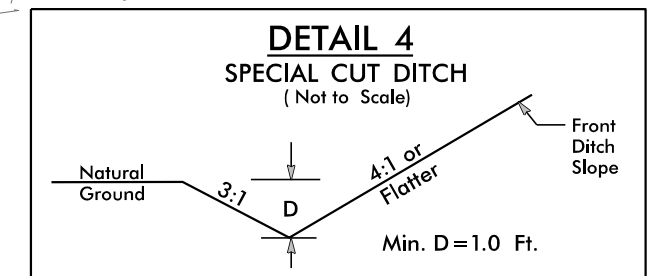
CROSS-PIPE (STA 283+39 -L-): IF THE EXISTING CROSS-PIPE IS EXTENDED USING A COLLAR AS PROPOSED, THEN WE CANNOT ELIMINATE THE PROPOSED HEAD DITCH. THE EXISTING INLET IS IN A HOLE. THE PROPOSED DITCH CAN ONLY BE ELIMINATED IF WE REPLACE THE PROPOSED COLLAR WITH A JUNCTION BOX AND THEN EXTEND THE PIPE AT NATURAL GROUND.



MATCHLINE -L- STA. 275 + 90 SEE SHEET 11

US 701 BYP & SR 1550			
SR 1550	617 700	-Y33-	
	617 700	<50	<50
10750 13000	US 701 BYP	-L-	9717 11800
517 600		100	100
SR 1764		-Y33-	
	617 700		2020 ADT 2040 ADT

-L-	
PI Sta. 283+84.67	PI Sta. 287+45.02
$\Delta = 2' 28' 09.1''$ (LT)	$\Delta = 2' 41' 32.3''$ (RT)
$D = 0' 42' 58.3''$	$D = 0' 42' 58.3''$
$L = 344.76'$	$L = 375.92'$
$T = 172.41'$	$T = 187.99'$
$R = 8,000.00'$	$R = 8,000.00'$
$SE = .025$	$SE = .025$



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

FOR -L- PROFILE, SEE SHEET 19

PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-13/CONST.13</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13



-RPA-	
PI Sta 11+73.86	PIs Sta 13+80.60
$\Delta = 7^{\circ} 06' 21.9"$ (RT)	$\Theta_s = 1^{\circ} 01' 23.3"$
$D = 2^{\circ} 02' 46.6"$	$L_s = 100.00'$
$L = 347.27'$	$LT = 66.67'$
$T = 173.86'$	$ST = 33.33'$
$R = 2,800.00'$	
$SE = .04$	
PIs Sta 15+47.31	PI Sta 17+11.66
$\Theta_s = 5^{\circ} 22' 17.3"$	$\Delta = 16^{\circ} 16' 29.3"$ (LT)
$L_s = 150.00'$	$D = 7^{\circ} 09' 43.1"$
$LT = 100.05'$	$L = 227.24'$
$ST = 50.04'$	$T = 114.39'$
	$R = 800.00'$
	$SE = .06$

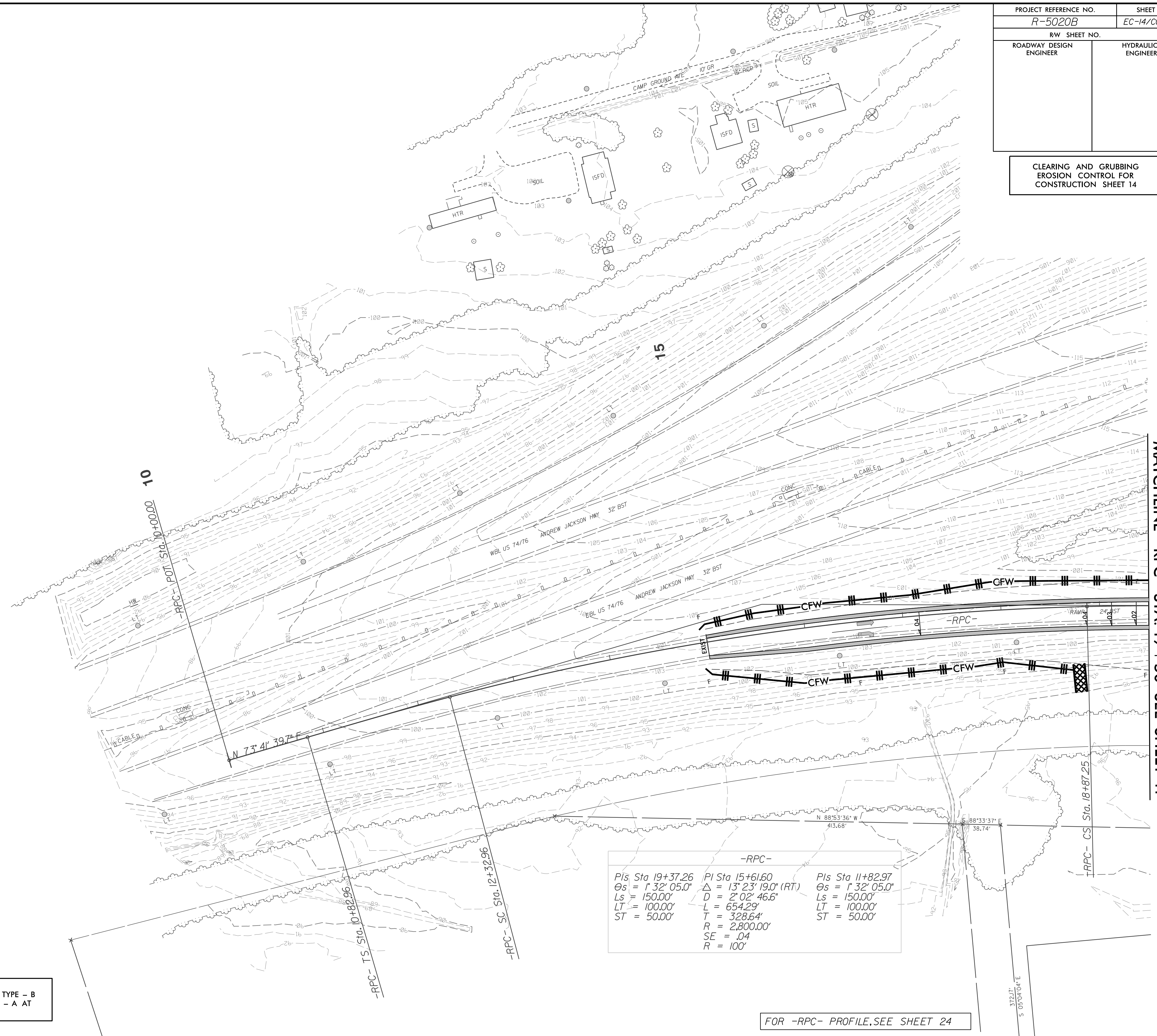
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

FOR -RPA- PROFILE, SEE SHEET 24

NAD 83/NA 2011

PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-14/CONST.14</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14



<i>Pls Sta 19+37.26</i> $\theta_s = 1^{\circ} 32' 05.0''$ $L_s = 150.00'$ $LT = 100.00'$ $ST = 50.00'$	<i>PI Sta 15+61.60</i> $\Delta = 13^{\circ} 23' 19.0'' (RT)$ $D = 2^{\circ} 02' 46.6''$ $L = 654.29'$ $T = 328.64'$ $R = 2,800.00'$ $SE = .04$ $R = 100'$	<i>Pls Sta 11+82.97</i> $\theta_s = 1^{\circ} 32' 05.0''$ $L_s = 150.00'$ $LT = 100.00'$ $ST = 50.00'$
--	--	--

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

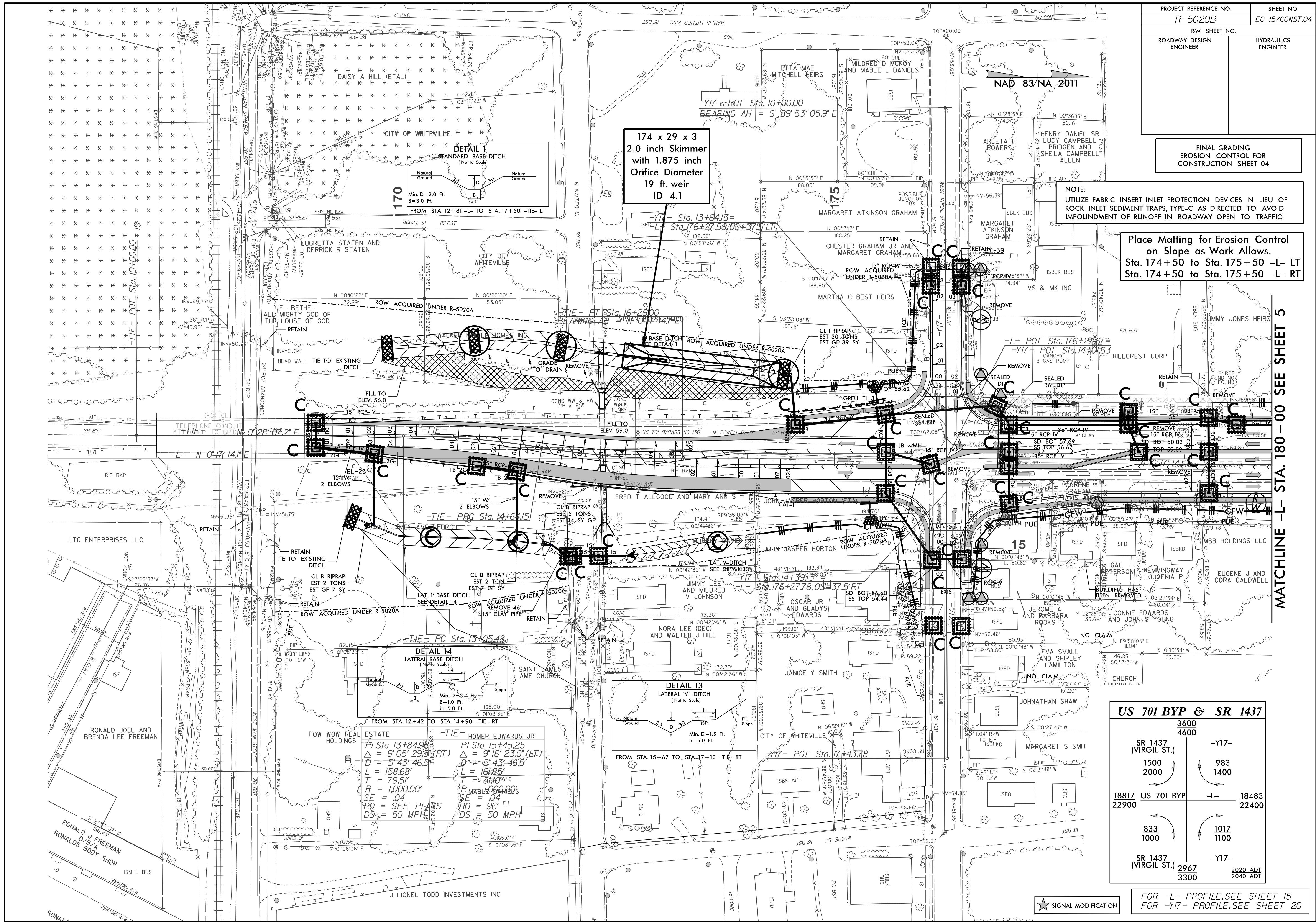
FOR -RPC- PROFILE, SEE SHEET 24

MATCHLINE -RPC- STA. 19 + 50 SEE SHEET 11

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

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

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 174+50 to Sta. 175+50 -L- LT
Sta. 174+50 to Sta. 175+50 -L- RT



174 x 29 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
19 ft. weir
ID 4.1

DETAIL 1
STANDARD BASE DITCH
(Not to Scale)

170
Min. D=2.0 Ft.
B=3.0 Ft.
FROM STA. 12+81 -L- TO STA. 17+50 -TIE- LT

DETAIL 14
LATERAL BASE DITCH
(Not to Scale)

FROM STA. 12+42 TO STA. 14+90 -TIE- RT

DETAIL 13
LATERAL 'V' DITCH
(Not to Scale)

FROM STA. 15+67 TO STA. 17+10 -TIE- RT

POW WOW REAL ESTATE
PI Sta 13+84.98
 $\Delta = 9' 05" 29.8'$ (RT)
 $D = 5' 43" 46.5'$
 $L = 158.68'$
 $T = 79.51'$
 $R = 1,000.00'$
 $SE = .04$
 $RO = \text{SEE PLANS}$
 $DS = 50 \text{ MPH}$

-TIE- HOMER EDWARDS JR
PI Sta 15+45.25
 $\Delta = 9' 16" 23.0'$ (LT)
 $D = 5' 43" 46.5'$
 $L = 161.85'$
 $T = 81.07'$
 $R = 1,000.00'$
 $SE = .04$
 $RO = 96'$
 $DS = 50 \text{ MPH}$

US 701 BYP & SR 1437			
3600	4600		
SR 1437 (VIRGIL ST.)	-Y17-		
1500	983		
2000	1400		
18817	US 701 BYP	-L-	18483
22900			22400
833			1017
1000			1100
SR 1437 (VIRGIL ST.)	2967	-Y17-	
	3300		2020 ADT
			2040 ADT

FOR -L- PROFILE, SEE SHEET 15
FOR -Y17- PROFILE, SEE SHEET 20

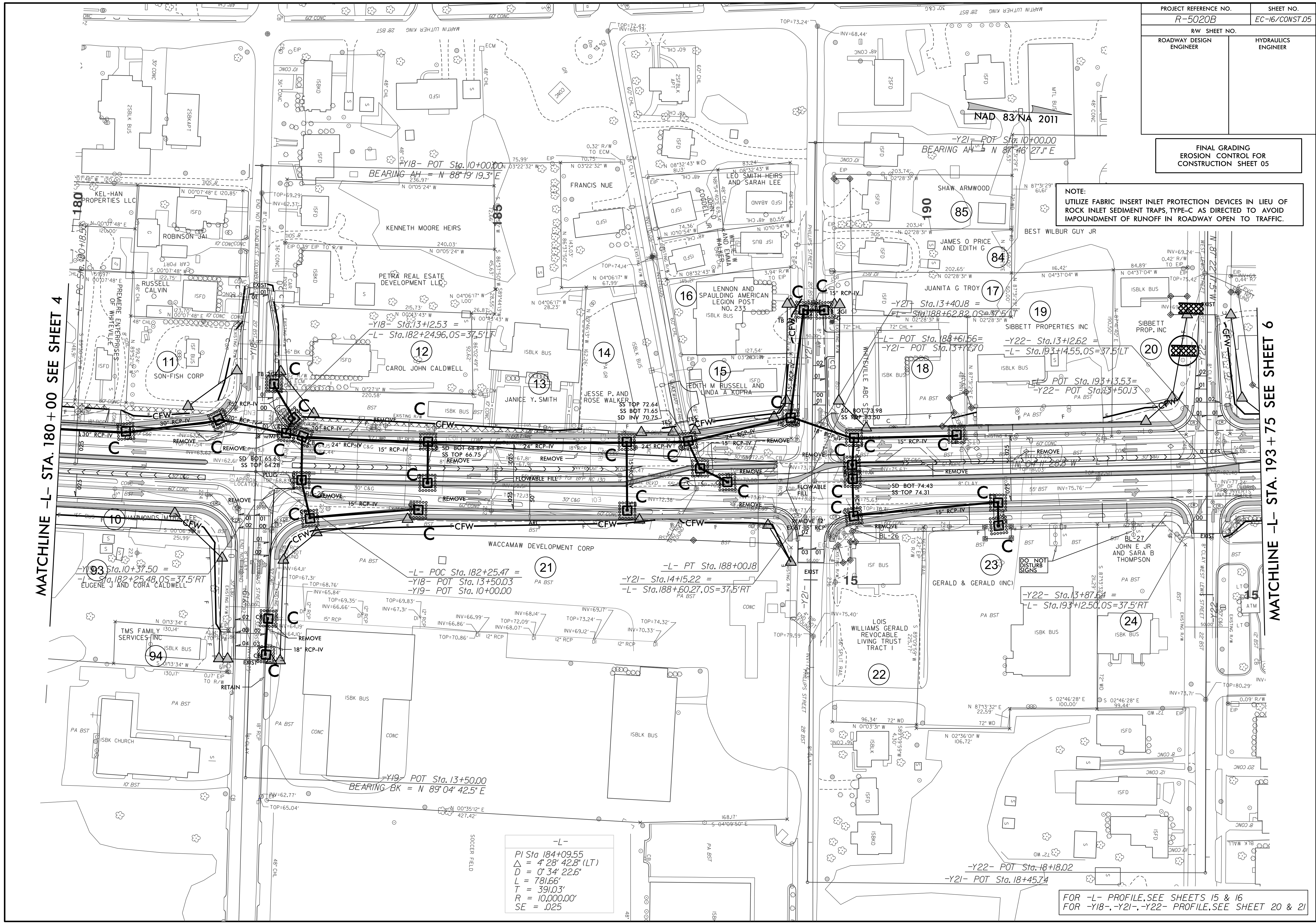
MATCHLINE -L- STA. 180+00 SEE SHEET 5

SIGNAL MODIFICATION

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-16/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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



MATCHLINE -L- STA. 180+00 SEE SHEET 4

MATCHLINE -L- STA. 193+75 SEE SHEET 6

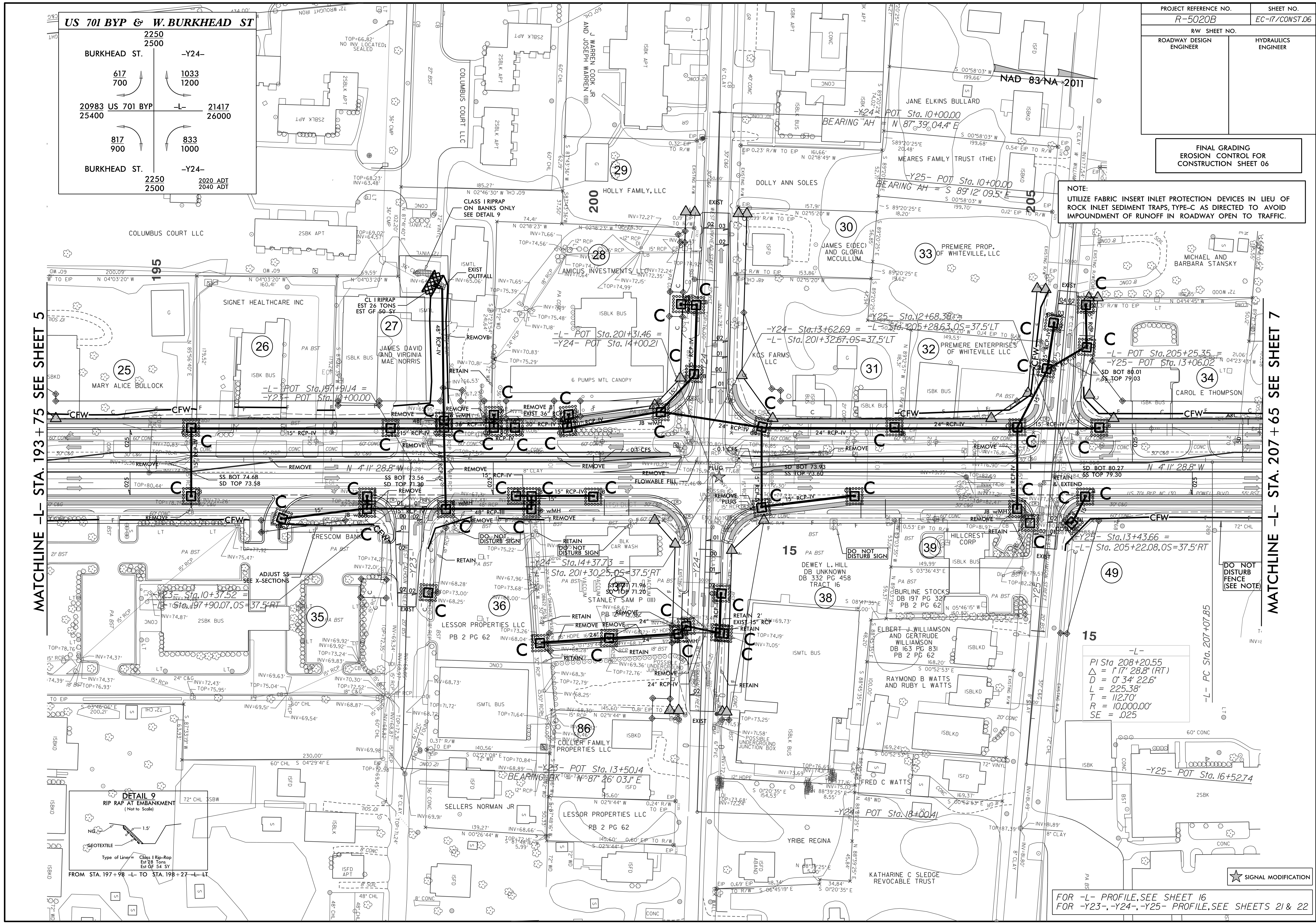
-L-
PI Sta 184+09.55
Δ = 4' 28" 42.8" (LT)
D = 0' 34" 22.6"
L = 781.66'
T = 391.03'
R = 10,000.00'
SE = .025

FOR -L- PROFILE, SEE SHEETS 15 & 16
FOR -Y18-, -Y21-, -Y22- PROFILE, SEE SHEET 20 & 21

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-17/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

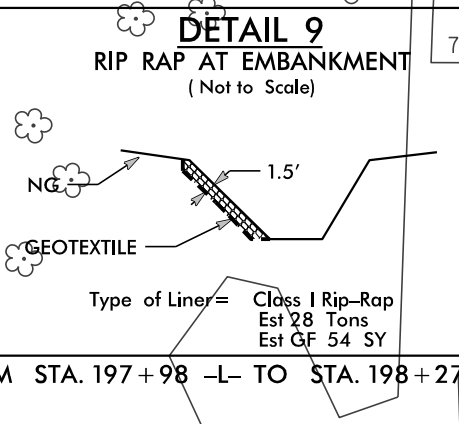
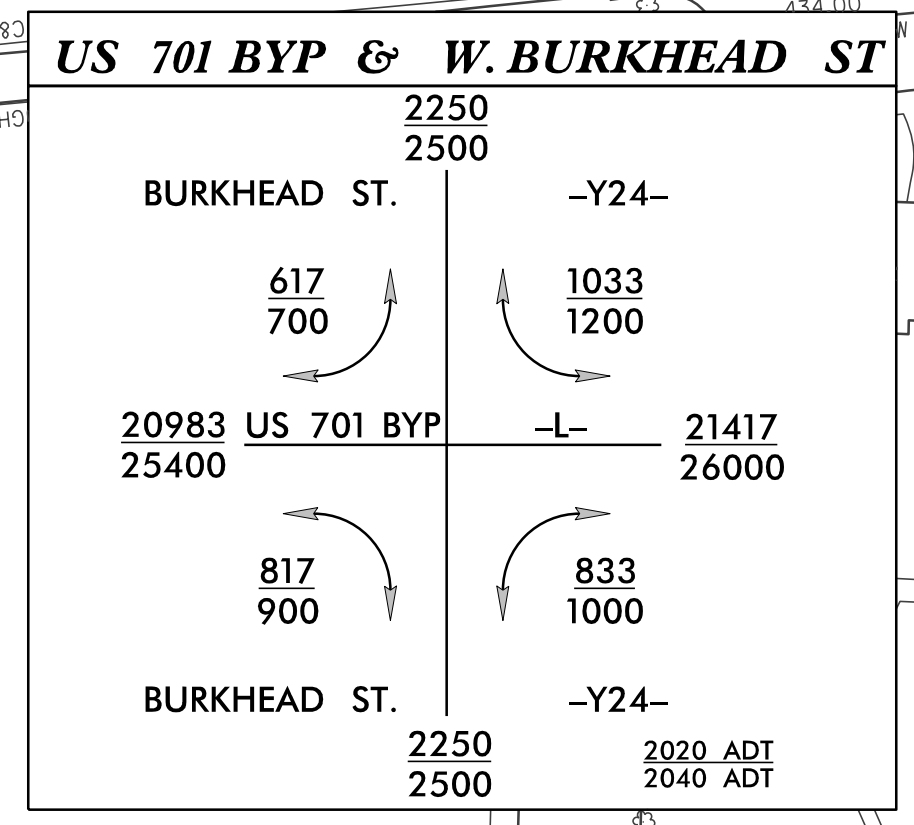
FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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



MATCHLINE -L- STA. 193 + 75 SEE SHEET 5

MATCHLINE -L- STA. 207 + 65 SEE SHEET 7



-L-
 Pi Sta. 208+20.55
 $\Delta = 117' 28.8" (RT)$
 $D = 0' 34' 22.6"$
 $L = 225.38'$
 $T = 112.70'$
 $R = 10,000.00'$
 $SE = .025$

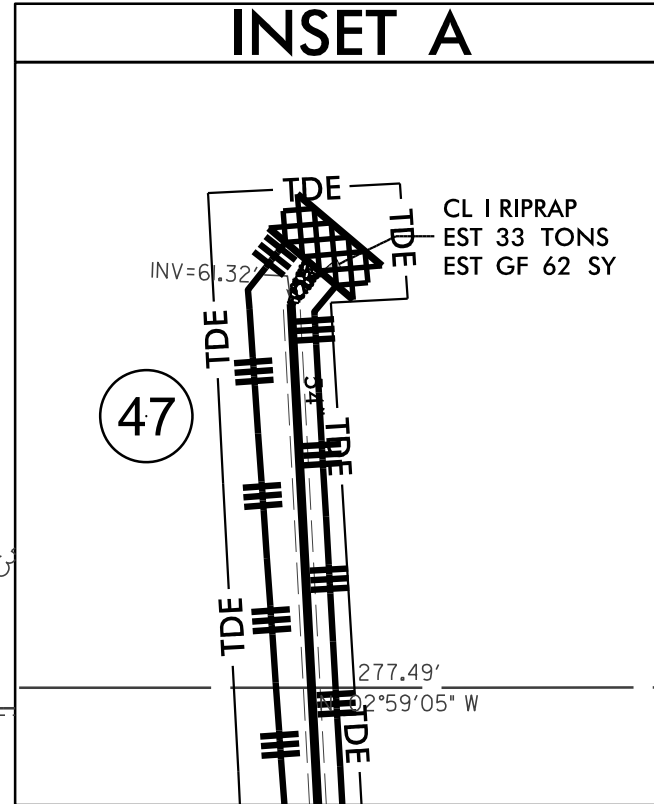
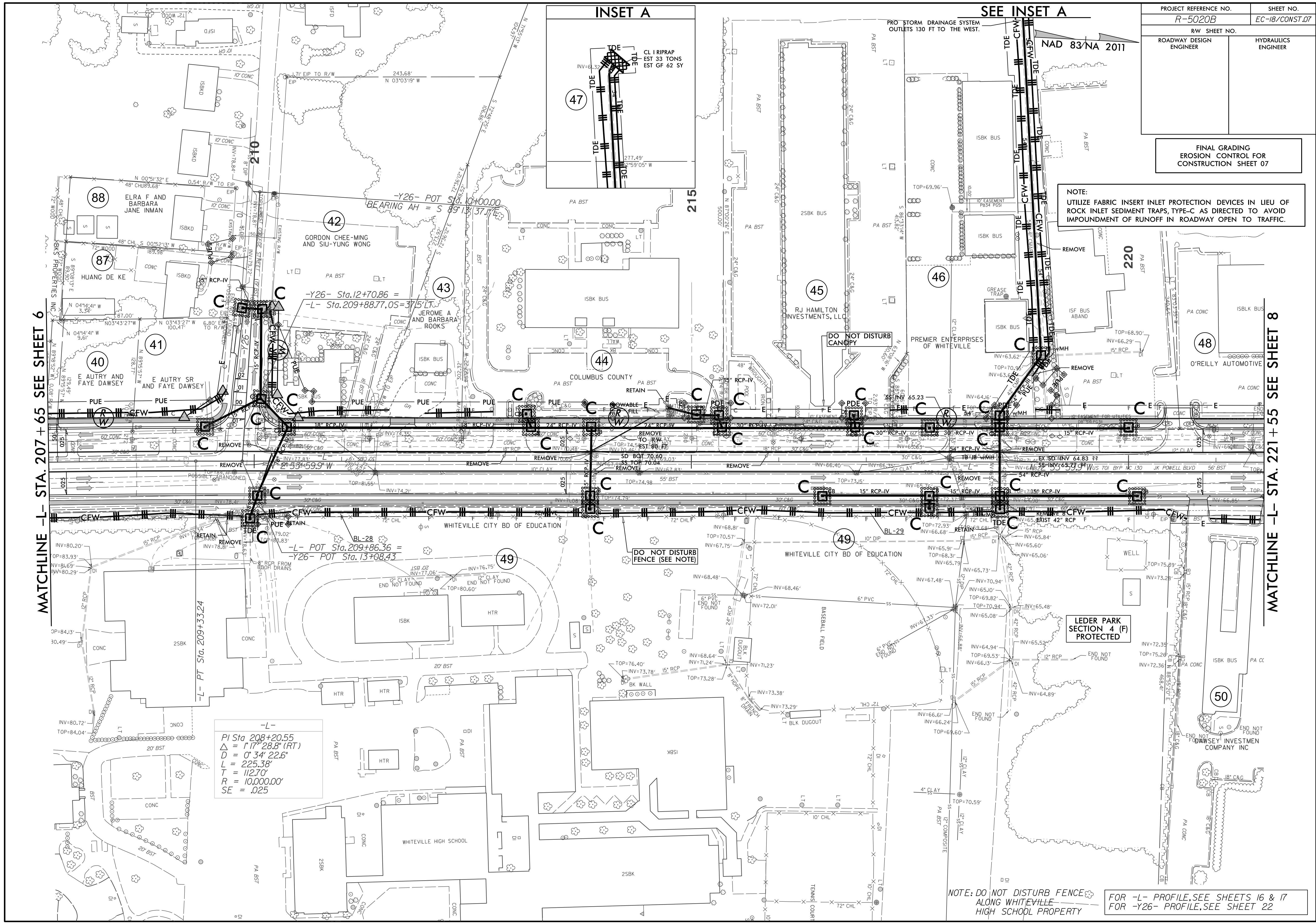
FOR -L- PROFILE, SEE SHEET 16
 FOR -Y23-, -Y24-, -Y25- PROFILE, SEE SHEETS 21 & 22

★ SIGNAL MODIFICATION

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-18/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

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



-L-
PI Sta. 208+20.55
Δ = 117° 28.8' (RT)
D = 0' 34' 22.6"
L = 225.38'
T = 112.70'
R = 10,000.00'
SE = .025

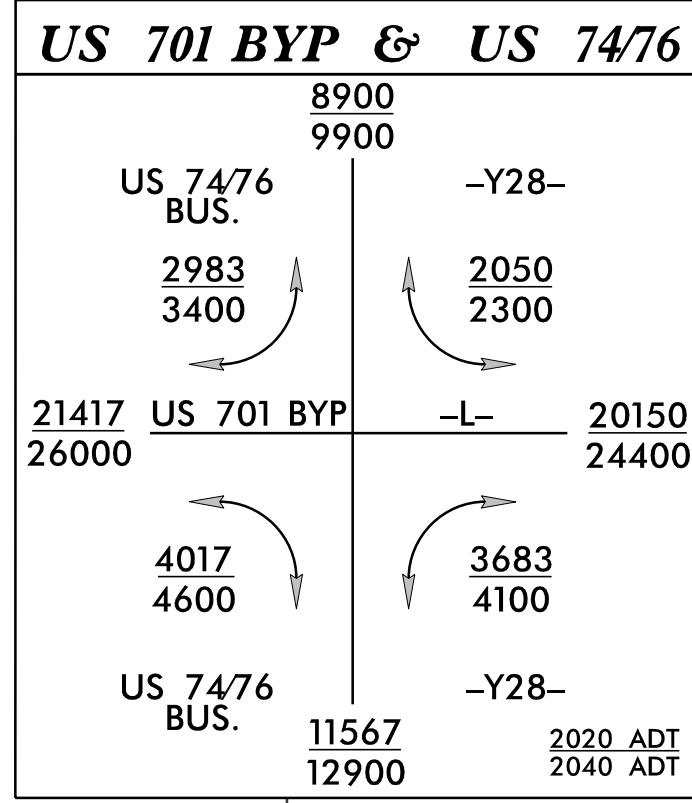
NOTE: DO NOT DISTURB FENCE
ALONG WHITEVILLE
HIGH SCHOOL PROPERTY

FOR -L- PROFILE, SEE SHEETS 16 & 17
FOR -Y26- PROFILE, SEE SHEET 22

MATCHLINE -L- STA. 207 + 65 SEE SHEET 6

MATCHLINE -L- STA. 221 + 55 SEE SHEET 8

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-19/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



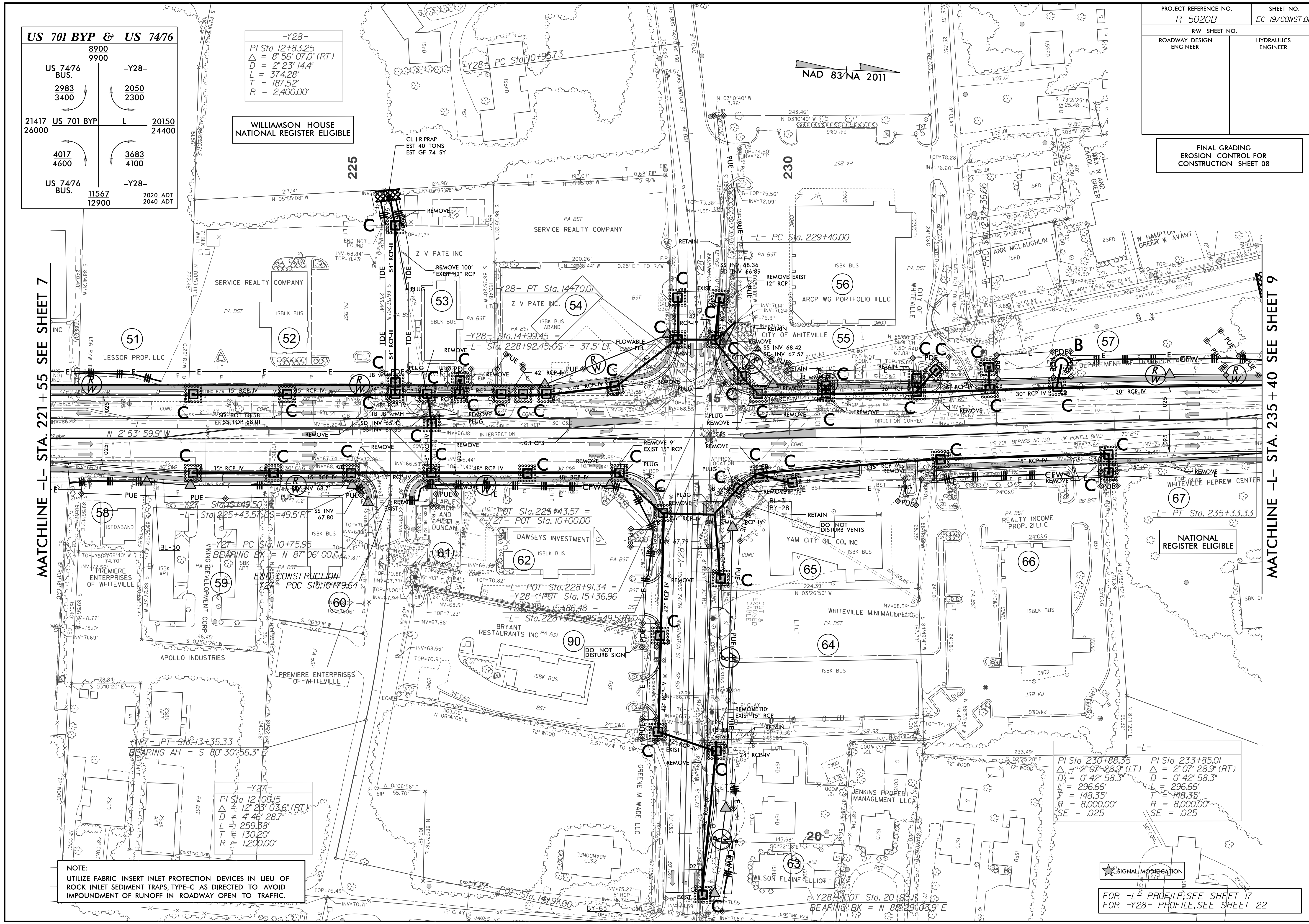
-Y28-
 PI Sta 12+83.25
 $\Delta = 8^{\circ}56'07.0''$ (RT)
 $D = 2^{\circ}23'14.4''$
 $L = 374.28'$
 $T = 187.52'$
 $R = 2,400.00'$

WILLIAMSON HOUSE
 NATIONAL REGISTER ELIGIBLE

FINAL GRADING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 08

MATCHLINE -L- STA. 221+55 SEE SHEET 7

MATCHLINE -L- STA. 235+40 SEE SHEET 9



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

-Y27-
 PI Sta 12+06.15
 $\Delta = 12^{\circ}23'03.6''$ (RT)
 $D = 4^{\circ}46'28.7''$
 $L = 259.38'$
 $T = 130.20'$
 $R = 1,200.00'$

-L-
 PI Sta 230+88.35
 $\Delta = 2^{\circ}07'28.9''$ (LT)
 $D = 0^{\circ}42'58.3''$
 $L = 296.66'$
 $T = 148.35'$
 $R = 8,000.00'$
 $SE = .025$

PI Sta 233+85.01
 $\Delta = 2^{\circ}07'28.9''$ (RT)
 $D = 0^{\circ}42'58.3''$
 $L = 296.66'$
 $T = 148.35'$
 $R = 8,000.00'$
 $SE = .025$

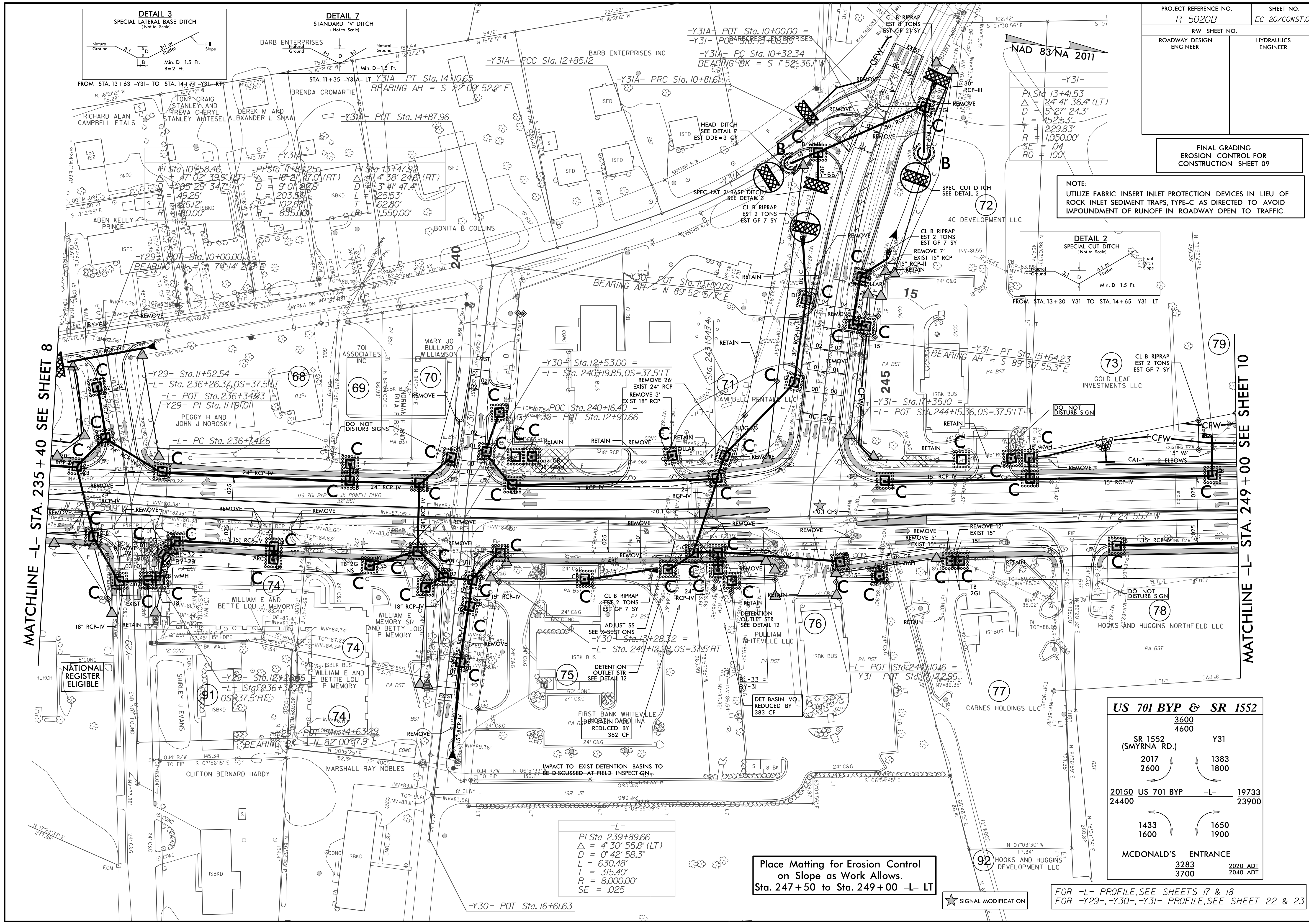
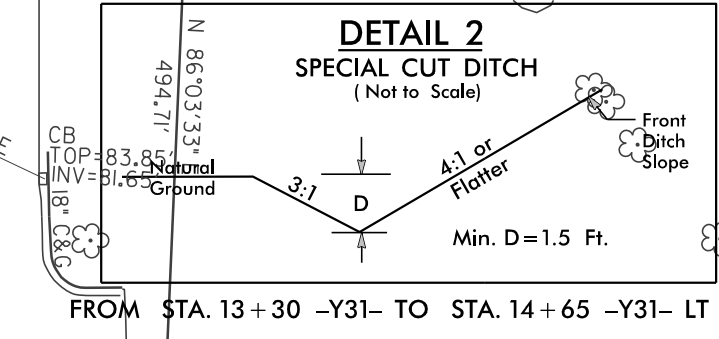
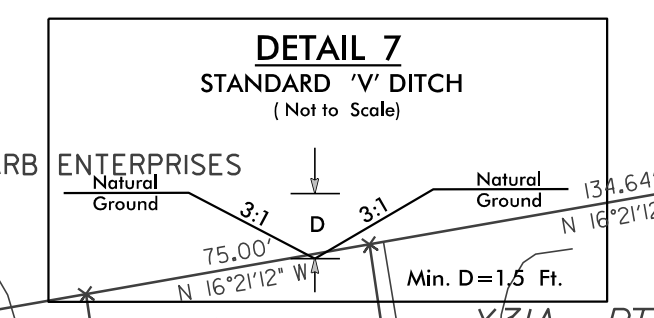
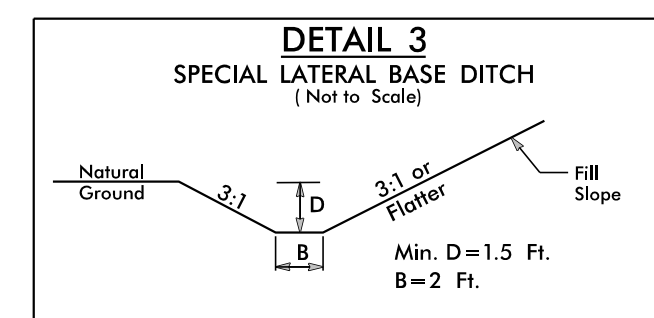
★ SIGNAL MODIFICATION

FOR -L- PROFILE SEE SHEET 17
 FOR -Y28- PROFILE SEE SHEET 22

PROJECT REFERENCE NO. R-5020B	SHEET NO. EC-20/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

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



MATCHLINE -L- STA. 235 + 40 SEE SHEET 8

MATCHLINE -L- STA. 249 + 00 SEE SHEET 10

US 701 BYP & SR 1552

3600	4600	-Y31-
SR 1552 (SMYRNA RD.)		
2017	1383	
2600	1800	
20150 US 701 BYP	-L-	19733
24400		23900
1433	1650	
1600	1900	
MCDONALD'S ENTRANCE		
3283	2020 ADT	
3700	2040 ADT	

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 247 + 50 to Sta. 249 + 00 -L- LT

★ SIGNAL MODIFICATION

FOR -L- PROFILE, SEE SHEETS 17 & 18
FOR -Y29-, -Y30-, -Y31- PROFILE, SEE SHEET 22 & 23

-L-
PI Sta 239+89.66
Δ = 4° 30' 55.8" (LT)
D = 0° 42' 58.3"
L = 630.48'
T = 315.40'
R = 8,000.00'
SE = .025

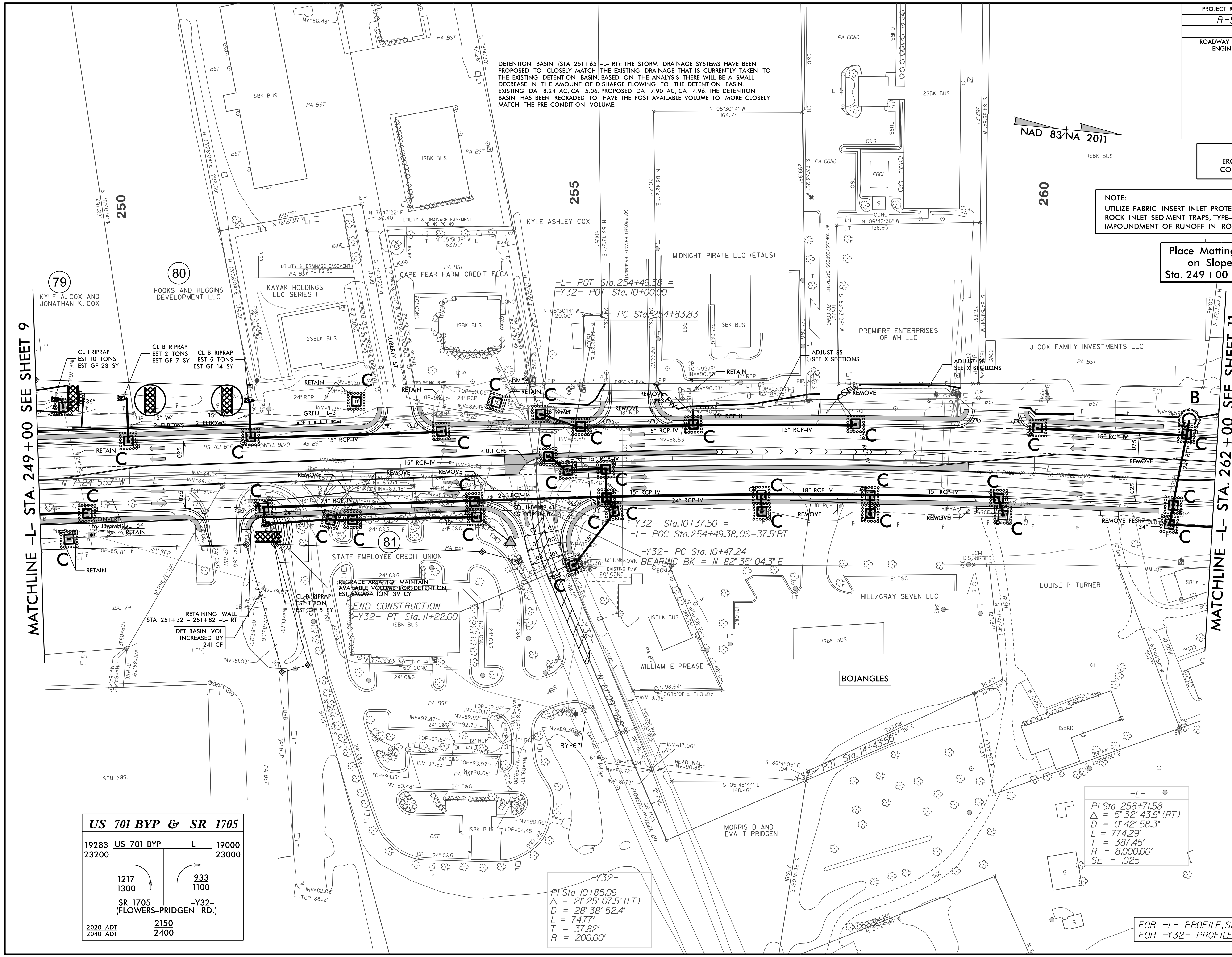
PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-21/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

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

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 249+00 to Sta. 251+50 -L- LT

DETENTION BASIN (STA 251+65 -L- RT): THE STORM DRAINAGE SYSTEMS HAVE BEEN PROPOSED TO CLOSELY MATCH THE EXISTING DRAINAGE THAT IS CURRENTLY TAKEN TO THE EXISTING DETENTION BASIN. BASED ON THE ANALYSIS, THERE WILL BE A SMALL DECREASE IN THE AMOUNT OF DISCHARGE FLOWING TO THE DETENTION BASIN. EXISTING DA=8.24 AC, CA=5.06 PROPOSED DA=7.90 AC, CA=4.98. THE DETENTION BASIN HAS BEEN REGRADED TO HAVE THE POST AVAILABLE VOLUME TO MORE CLOSELY MATCH THE PRE CONDITION VOLUME.



MATCHLINE -L- STA. 249+00 SEE SHEET 9

MATCHLINE -L- STA. 262+00 SEE SHEET 11

US 701 BYP & SR 1705			
19283	US 701 BYP	-L-	19000
23200			23000
1217		933	
1300		1100	
SR 1705		-Y32-	
(FLOWERS-PRIDGEN RD.)			
2020 ADT	2150		
2040 ADT	2400		

-Y32-
PI Sta 10+85.06
 $\Delta = 21' 25' 07.5" (LT)$
 $D = 28' 38' 52.4"$
 $L = 74.77'$
 $T = 37.82'$
 $R = 200.00'$

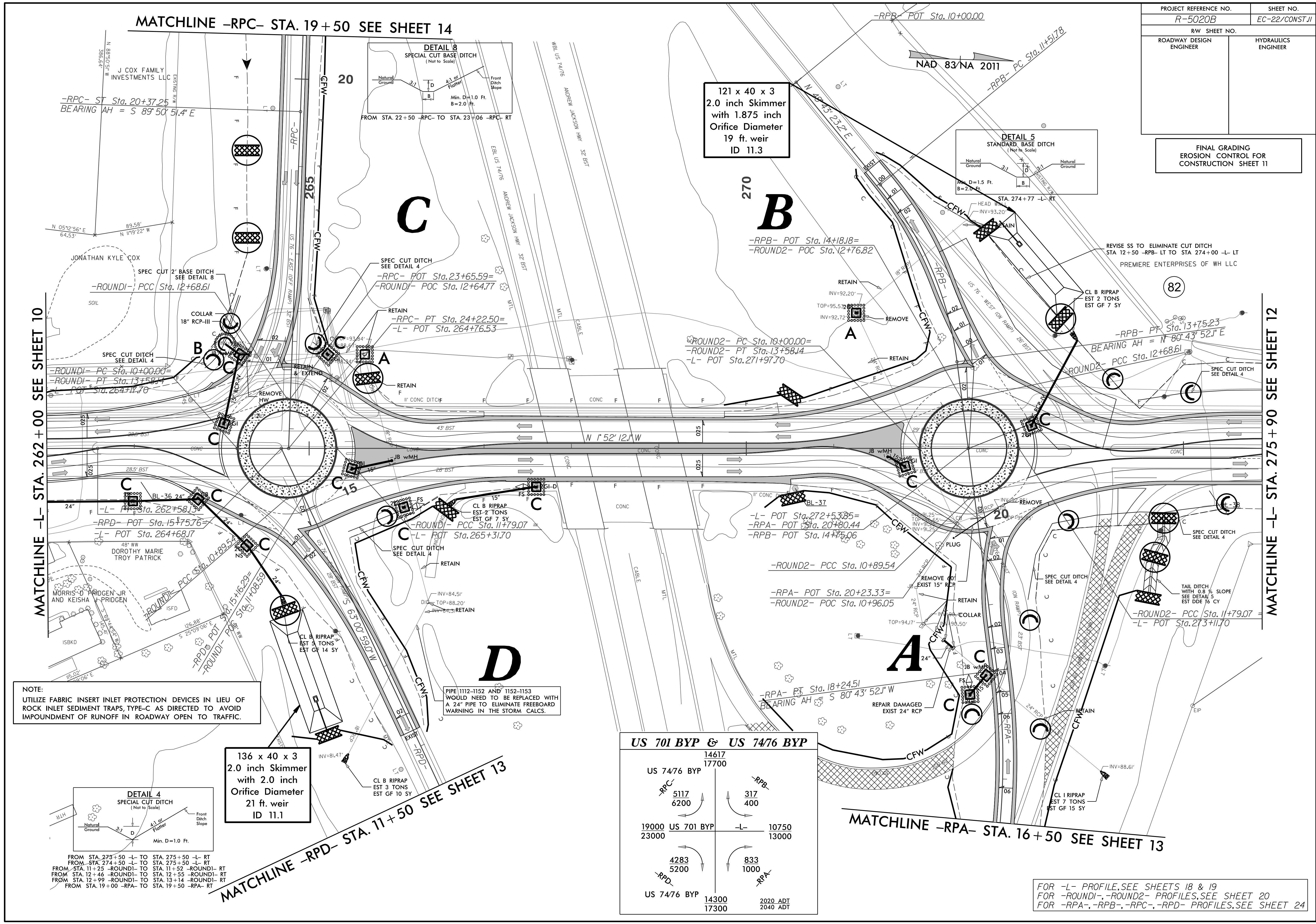
-L-
PI Sta 258+71.58
 $\Delta = 5' 32' 43.6" (RT)$
 $D = 0' 42' 58.3"$
 $L = 774.29'$
 $T = 387.45'$
 $R = 8,000.00'$
 $SE = .025$

FOR -L- PROFILE, SEE SHEET 18
FOR -Y32- PROFILE, SEE SHEET 23

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-22/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

MATCHLINE -RPC- STA. 19+50 SEE SHEET 14



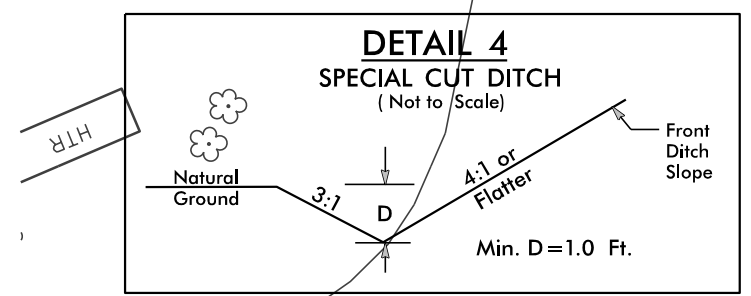
121 x 40 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
19 ft. weir
ID 11.3

136 x 40 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
21 ft. weir
ID 11.1

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

PIPE 1112-1152 AND 1152-1153
WOULD NEED TO BE REPLACED WITH
A 24" PIPE TO ELIMINATE FREEBOARD
WARNING IN THE STORM CALCS.

US 701 BYP & US 7476 BYP			
	14617		
	17700		
US 7476 BYP			
-RPC-	5117		-RPB-
	6200		317
			400
19000	US 701 BYP	-L-	10750
23000			13000
	4283		833
	5200		1000
-RPD-			-RPA-
US 7476 BYP	14300		
	17300		
		2020 ADT	
		2040 ADT	



FROM STA. 273+50 -L- TO STA. 275+50 -L- RT
FROM STA. 274+50 -L- TO STA. 275+50 -L- RT
FROM STA. 11+25 -ROUND1- TO STA. 11+52 -ROUND1- RT
FROM STA. 12+46 -ROUND1- TO STA. 12+55 -ROUND1- RT
FROM STA. 12+99 -ROUND1- TO STA. 13+14 -ROUND1- RT
FROM STA. 19+00 -RPA- TO STA. 19+50 -RPA- RT

FOR -L- PROFILE, SEE SHEETS 18 & 19
FOR -ROUND1-, -ROUND2- PROFILES, SEE SHEET 20
FOR -RPA-, -RPB-, -RPC-, -RPD- PROFILES, SEE SHEET 24

MATCHLINE -L- STA. 262+00 SEE SHEET 10

MATCHLINE -L- STA. 275+90 SEE SHEET 12

MATCHLINE -RPA- STA. 16+50 SEE SHEET 13

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-23/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

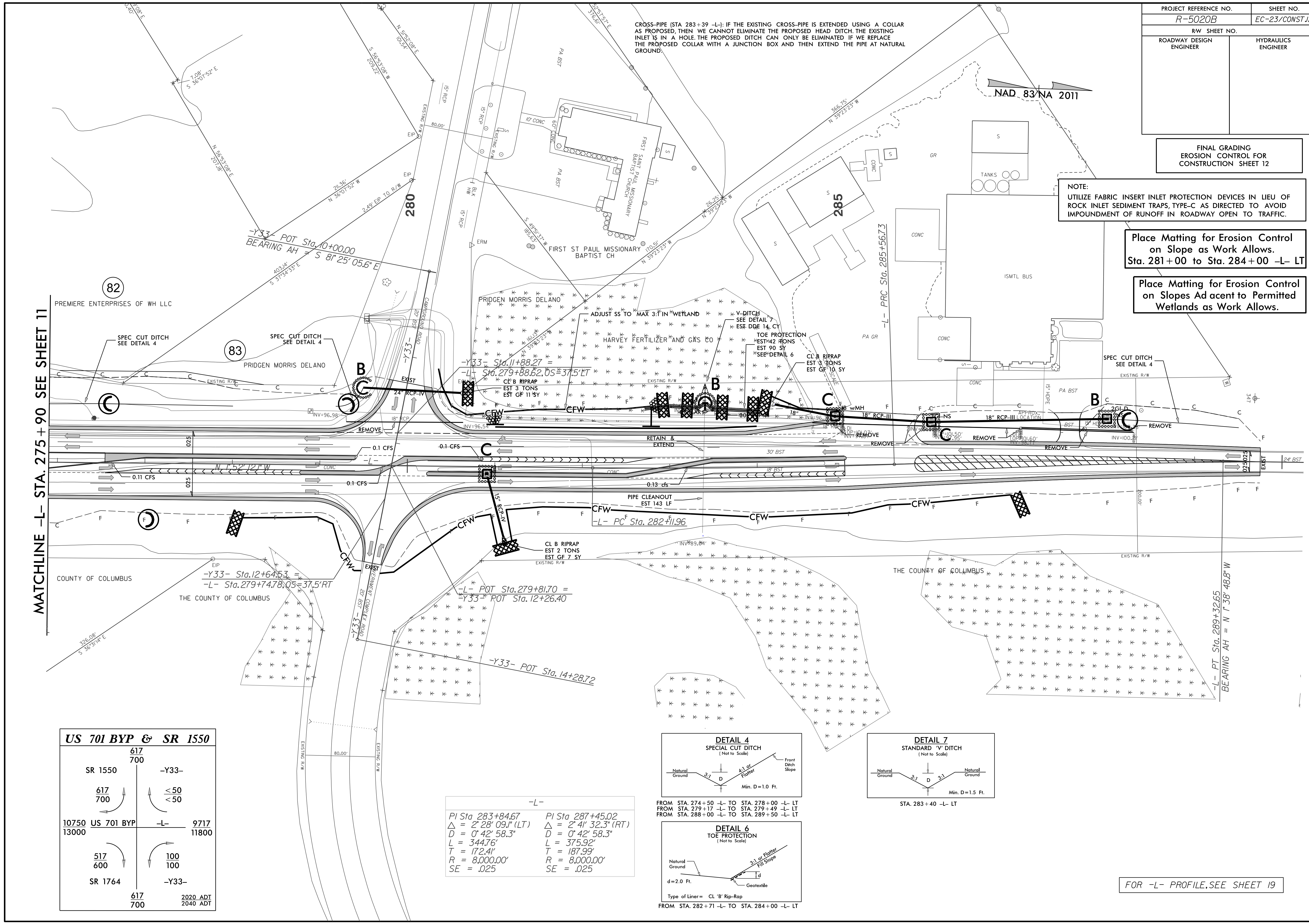
FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 281+00 to Sta. 284+00 -L- LT

Place Matting for Erosion Control
on Slopes Adacent to Permitted
Wetlands as Work Allows.

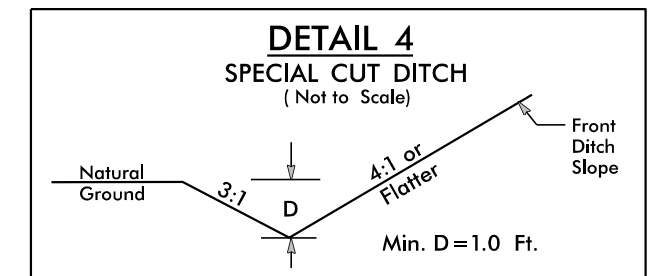
CROSS-PIPE (STA 283+39 -L-): IF THE EXISTING CROSS-PIPE IS EXTENDED USING A COLLAR AS PROPOSED, THEN WE CANNOT ELIMINATE THE PROPOSED HEAD DITCH. THE EXISTING INLET IS IN A HOLE. THE PROPOSED DITCH CAN ONLY BE ELIMINATED IF WE REPLACE THE PROPOSED COLLAR WITH A JUNCTION BOX AND THEN EXTEND THE PIPE AT NATURAL GROUND.



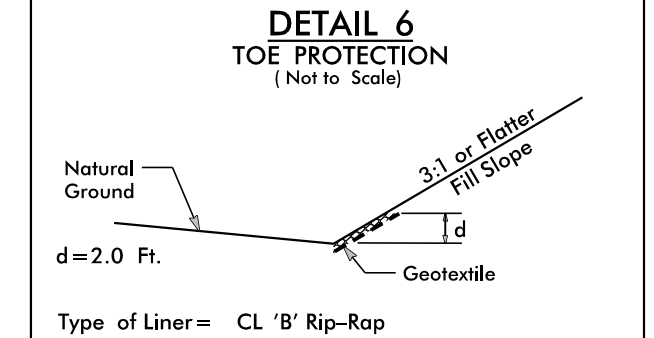
MATCHLINE -L- STA. 275 + 90 SEE SHEET 11

US 701 BYP & SR 1550			
SR 1550	617 700	-Y33-	
	617 700	< .50	< .50
10750 13000	US 701 BYP	-L-	9717 11800
517 600		100 100	
SR 1764		-Y33-	
	617 700		2020 ADT 2040 ADT

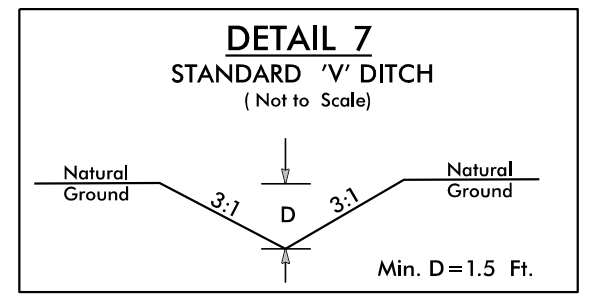
-L-	
PI Sta 283+84.67	PI Sta 287+45.02
$\Delta = 2' 28' 09.1''$ (LT)	$\Delta = 2' 41' 32.3''$ (RT)
$D = 0' 42' 58.3''$	$D = 0' 42' 58.3''$
$L = 344.76'$	$L = 375.92'$
$T = 172.41'$	$T = 187.99'$
$R = 8,000.00'$	$R = 8,000.00'$
$SE = .025$	$SE = .025$



FROM STA. 274+50 -L- TO STA. 278+00 -L- LT
FROM STA. 279+17 -L- TO STA. 279+49 -L- LT
FROM STA. 288+00 -L- TO STA. 289+50 -L- LT



FROM STA. 282+71 -L- TO STA. 284+00 -L- LT

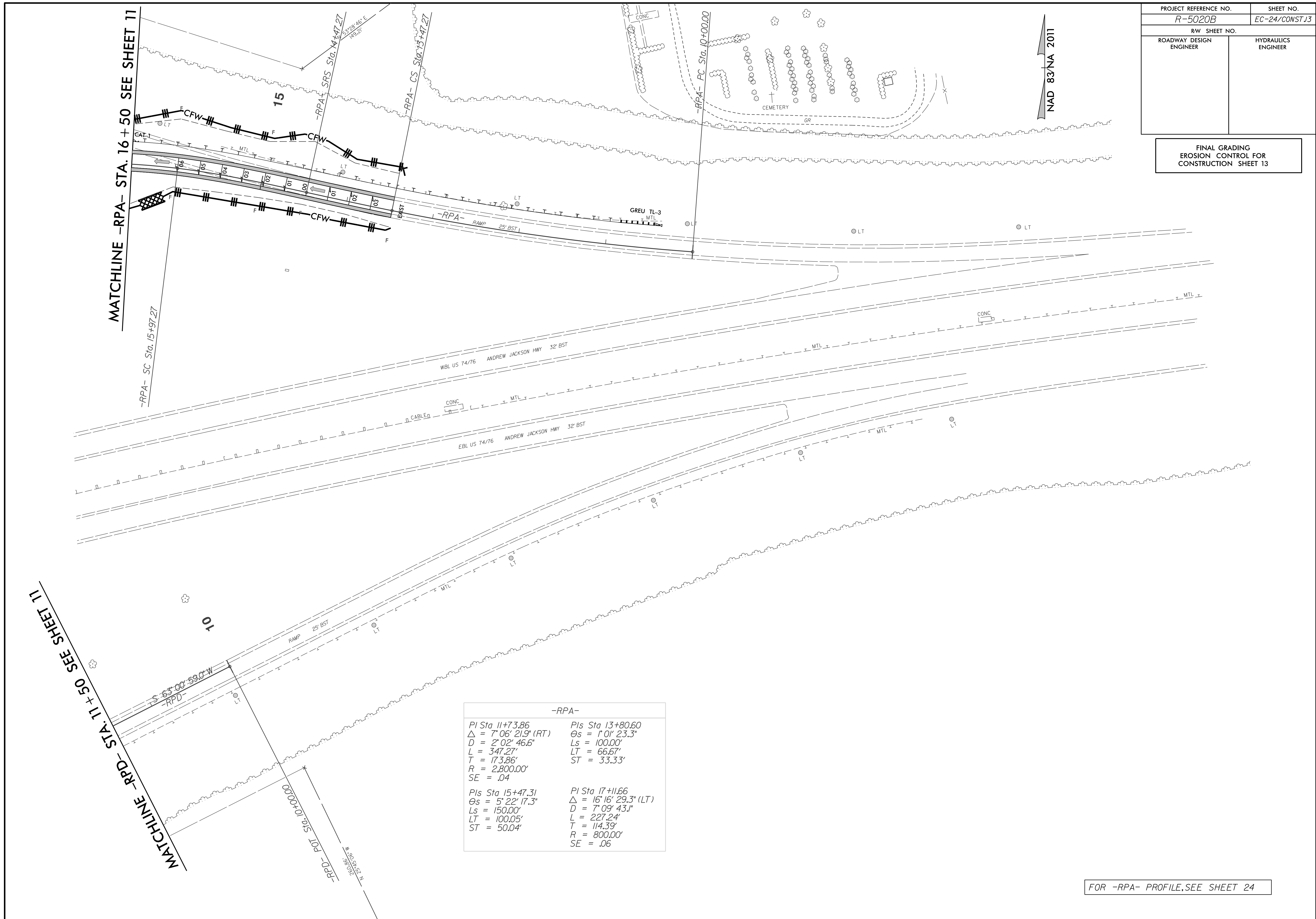


STA. 283+40 -L- LT

FOR -L- PROFILE, SEE SHEET 19

PROJECT REFERENCE NO.	SHEET NO.
R-5020B	EC-24/CONST.13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13



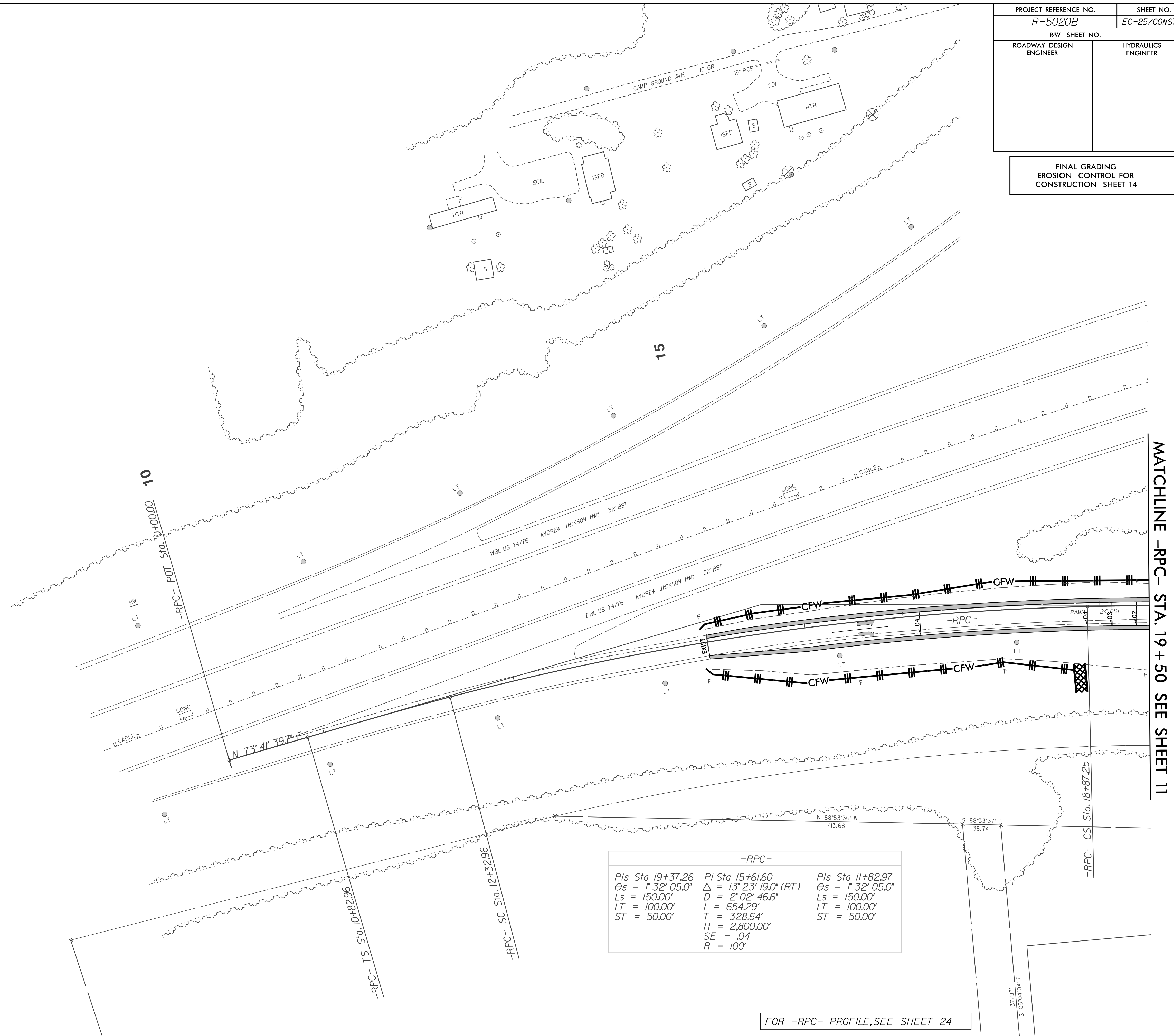
-RPA-	
PI Sta 11+73.86	PIs Sta 13+80.60
$\Delta = 7^{\circ}06'21.9"$ (RT)	$\Theta_s = 1^{\circ}01'23.3"$
$D = 2^{\circ}02'46.6"$	$L_s = 100.00'$
$L = 347.27'$	$LT = 66.67'$
$T = 173.86'$	$ST = 33.33'$
$R = 2,800.00'$	
$SE = .04$	
PIs Sta 15+47.31	PI Sta 17+11.66
$\Theta_s = 5^{\circ}22'17.3"$	$\Delta = 16^{\circ}16'29.3"$ (LT)
$L_s = 150.00'$	$D = 7^{\circ}09'43.1"$
$LT = 100.05'$	$L = 227.24'$
$ST = 50.04'$	$T = 114.39'$
	$R = 800.00'$
	$SE = .06$

FOR -RPA- PROFILE, SEE SHEET 24

NAD 83/NA 2011

PROJECT REFERENCE NO. <i>R-5020B</i>	SHEET NO. <i>EC-25/CONST.14</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14



MATCHLINE -RPC- STA. 19+50 SEE SHEET 11

-RPC-		
PIs Sta 19+37.26	PI Sta 15+61.60	PIs Sta 11+82.97
$\Theta_s = 1^{\circ} 32' 05.0''$	$\Delta = 13^{\circ} 23' 19.0''$ (RT)	$\Theta_s = 1^{\circ} 32' 05.0''$
$L_s = 150.00'$	$D = 2^{\circ} 02' 46.6''$	$L_s = 150.00'$
$LT = 100.00'$	$T = 654.29'$	$LT = 100.00'$
$ST = 50.00'$	$R = 328.64'$	$ST = 50.00'$
	$R = 2,800.00'$	
	$SE = .04$	
	$R = 100'$	

FOR -RPC- PROFILE, SEE SHEET 24