STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3110B	EC-1	

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

TIP PROJECT: U-3110B

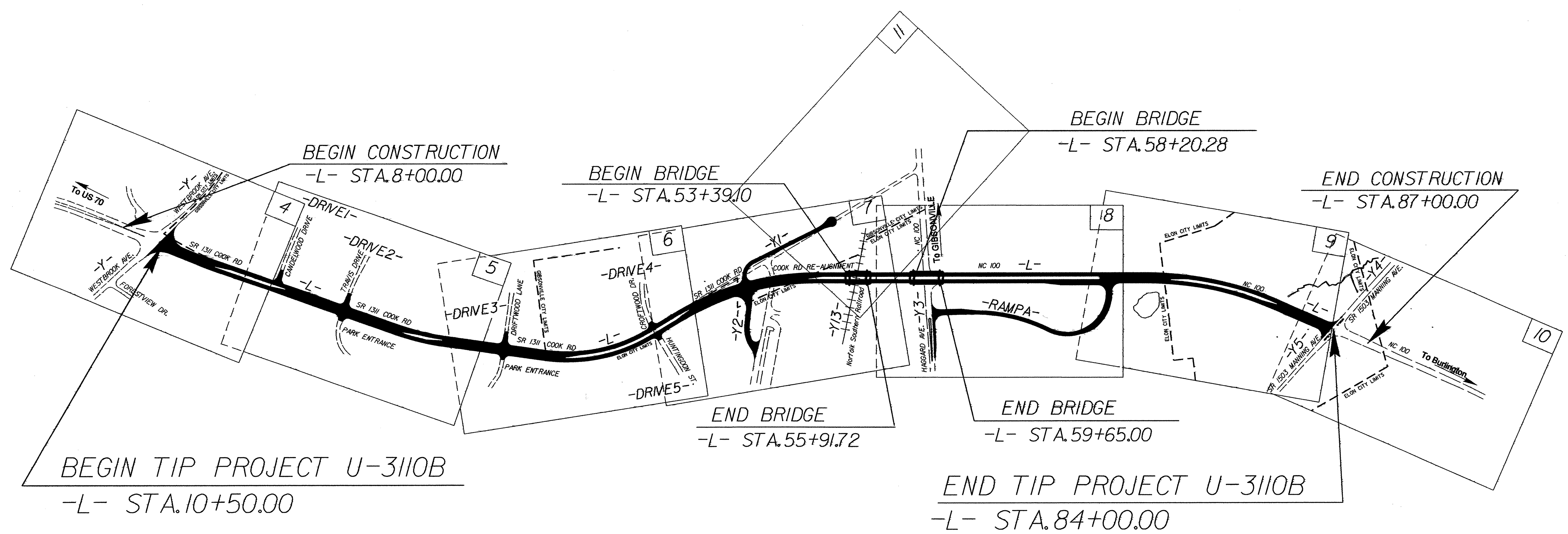
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

ALAMANCE COUNTY

LOCATION: SR 1311 (COOK RD.) WIDENING AND EXTENSION FROM SR 1909 (WESTBROOK AVE.) TO NC 100
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURES

NAD 83



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	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

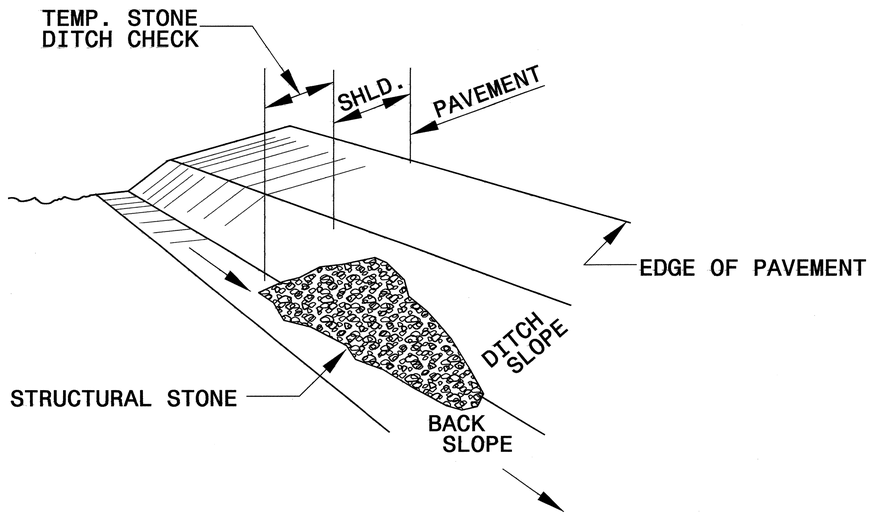
The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated July 18, 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drains
1630.03	Temporary Silt Ditch
1630.05	Temporary Diversion
1630.06	Special Stilling Basin
1632.02	Rock Inlet Sediment Trap Type B
1632.03	Rock Inlet Sediment Trap Type C
1633.01	Temporary Rock Silt Check Type A
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

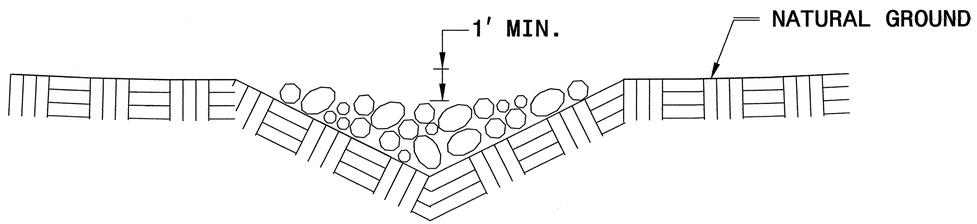
20-MAY-2010 10:35
R:\Environmental\Design\U3110B_EC_tsh.dgn
jenniferparish AT RENV242003

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

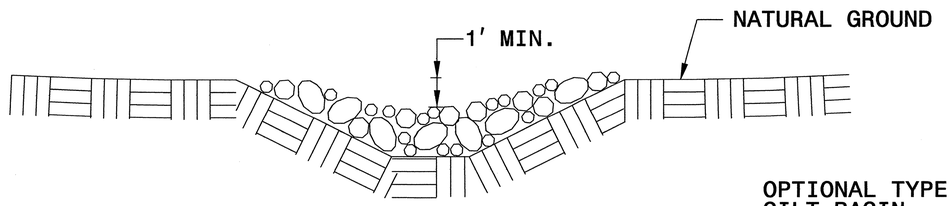
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH

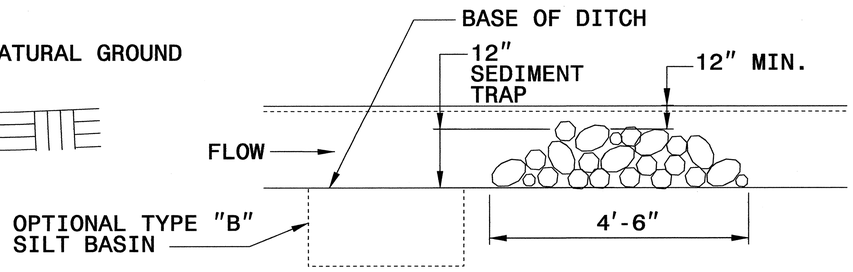


CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

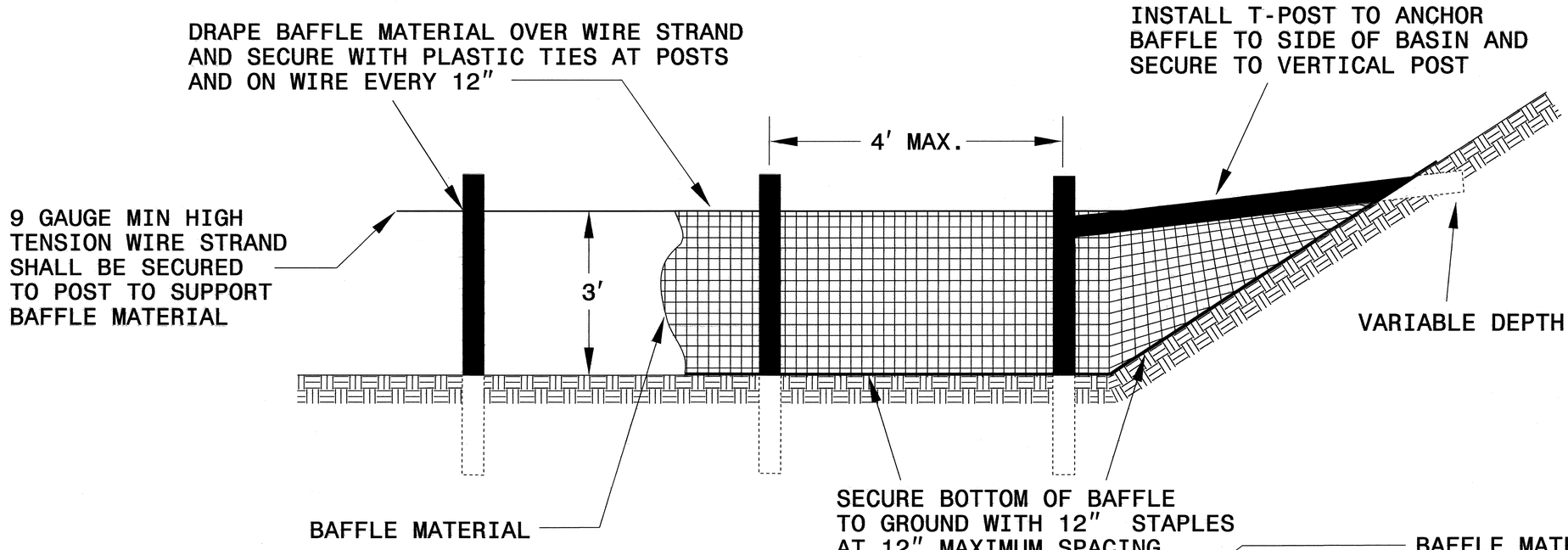
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

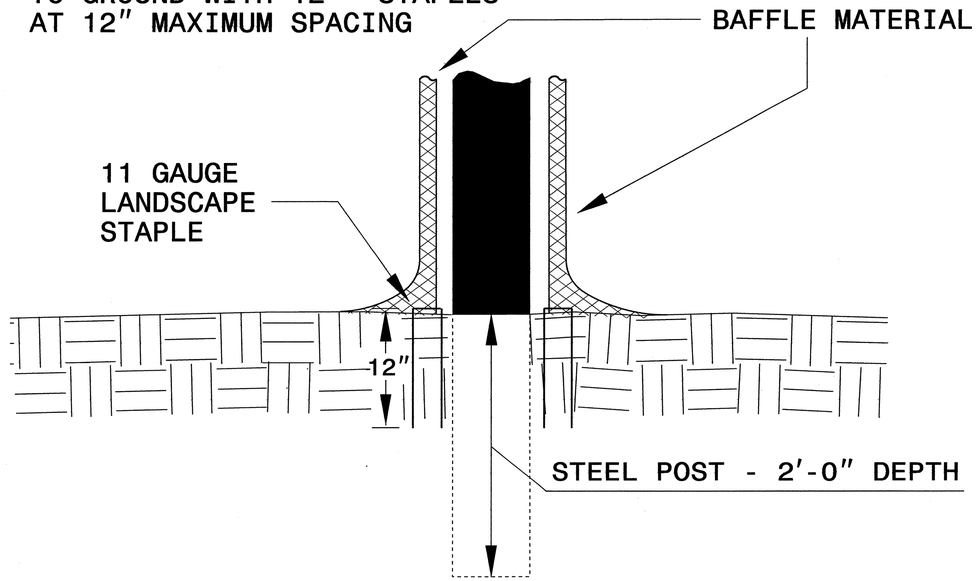


NOTES:

1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

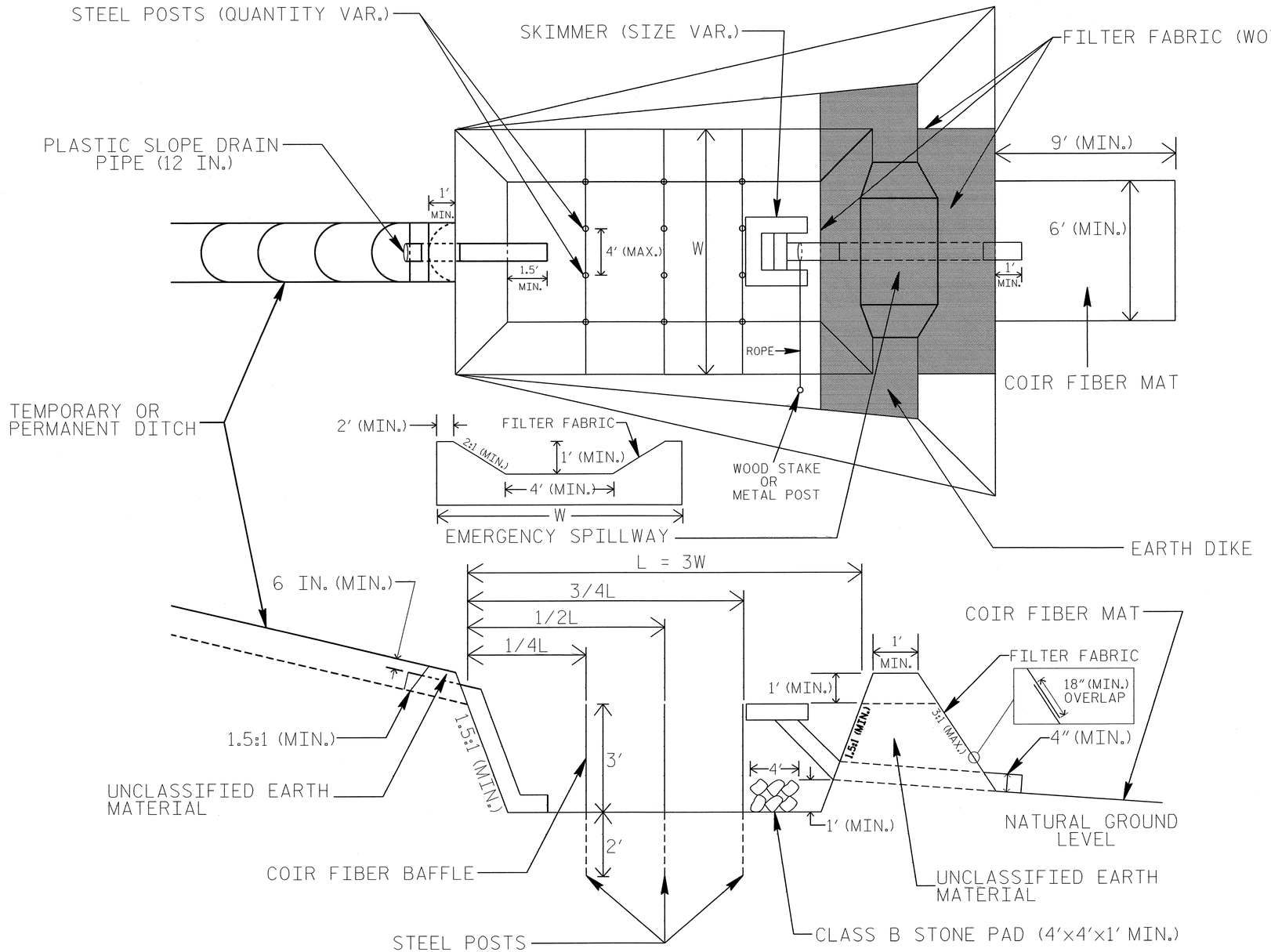
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.



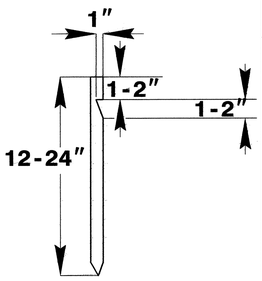
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12″ LANDSCAPE STAPLES

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

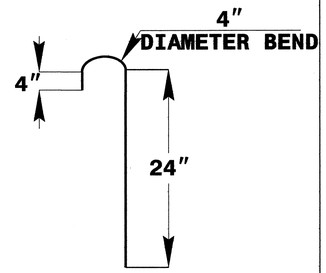
SKIMMER BASIN WITH BAFFLES DETAIL



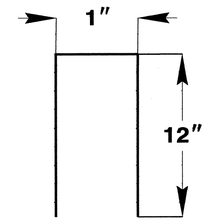
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

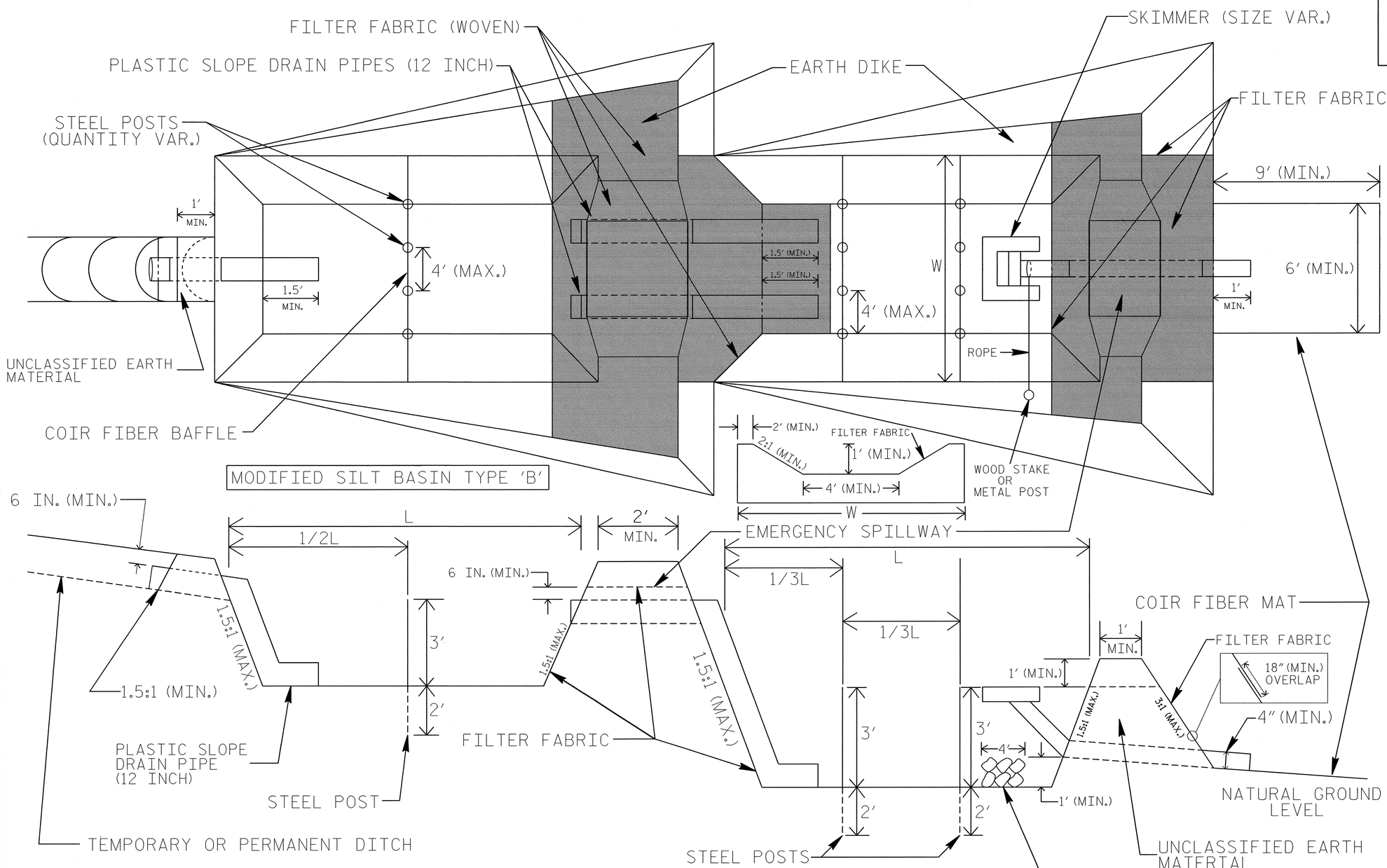
NOTES

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 EMERGENCY SPILLWAY 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 FILTER FABRIC AS DIRECTED.
6. FILTER FABRIC (WOVEN) FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18" AS SHOWN.

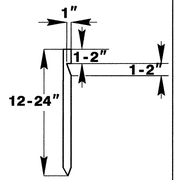
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

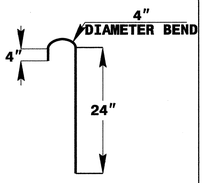
TIERED SKIMMER BASIN DETAIL



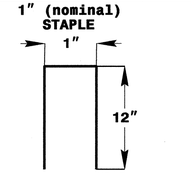
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

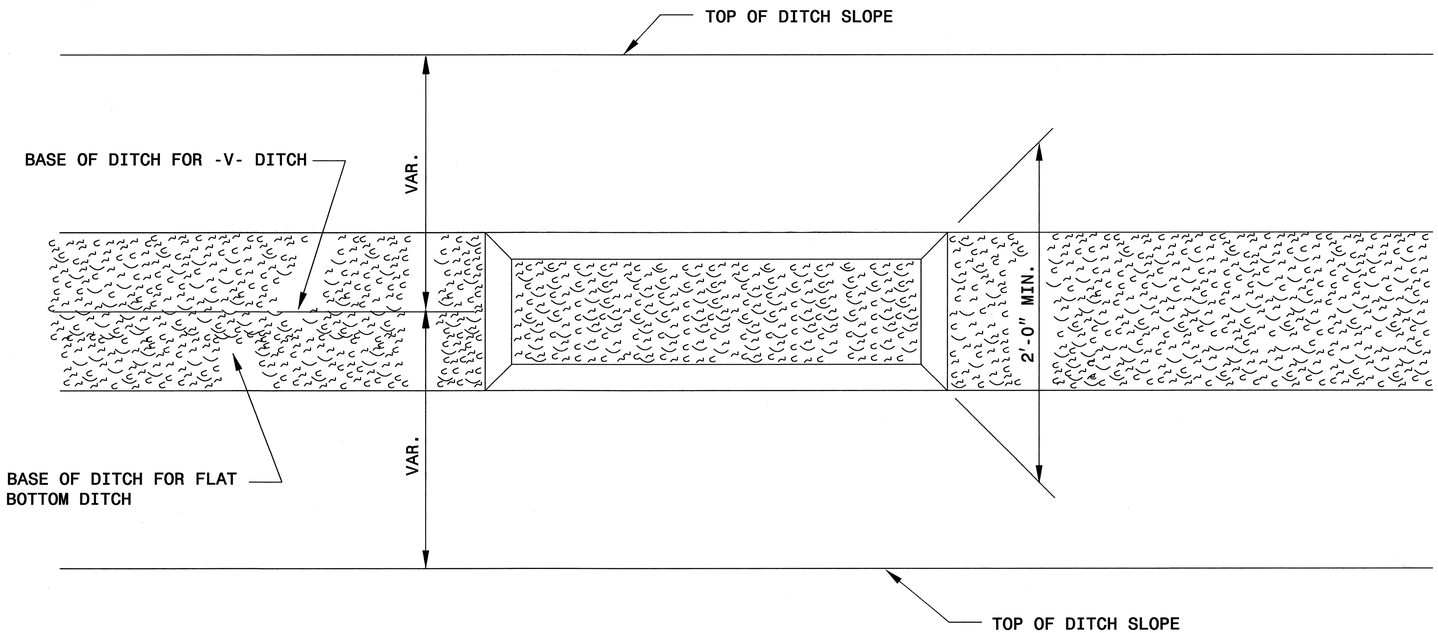
NOTES

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 EMERGENCY SPILLWAY LENGTHS (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. FILTER FABRIC (WOVEN) FOR EMERGENCY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18" (MIN.) AS SHOWN.

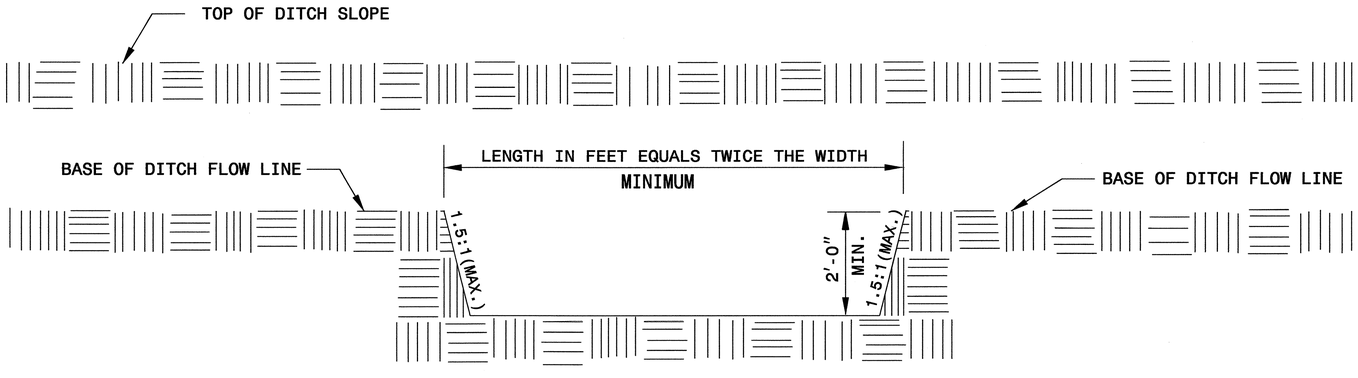
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



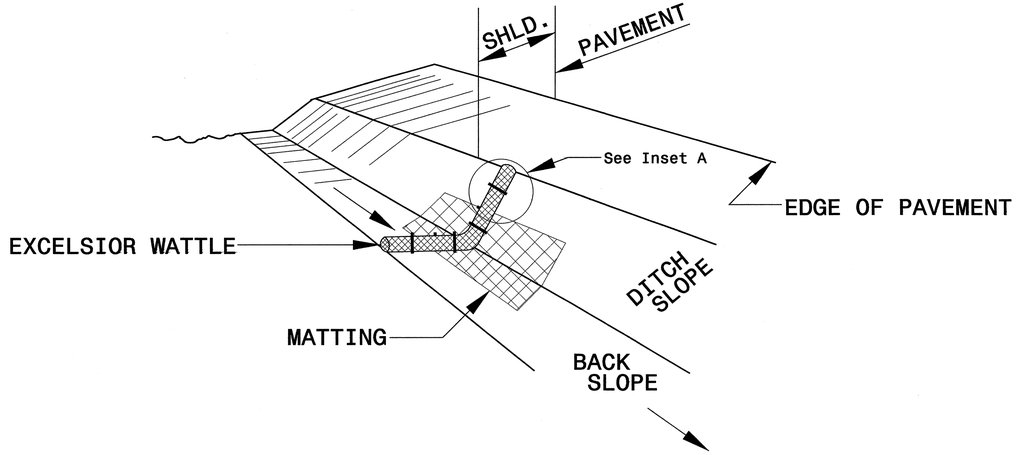
PLAN



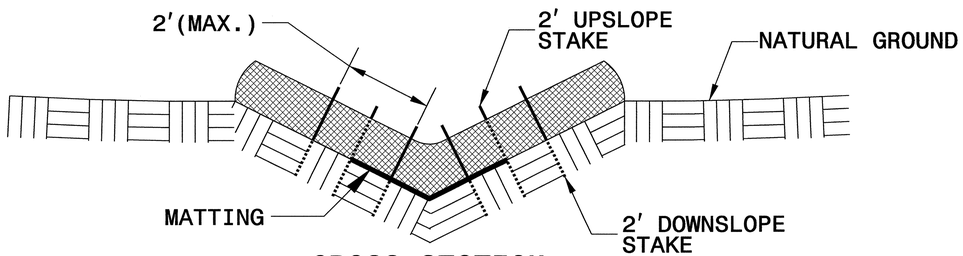
ELEVATION

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

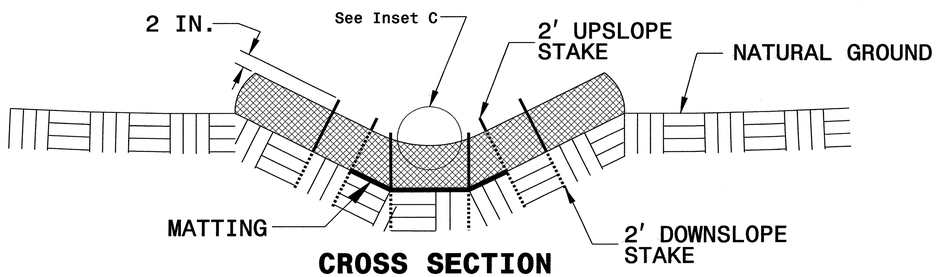
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

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

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

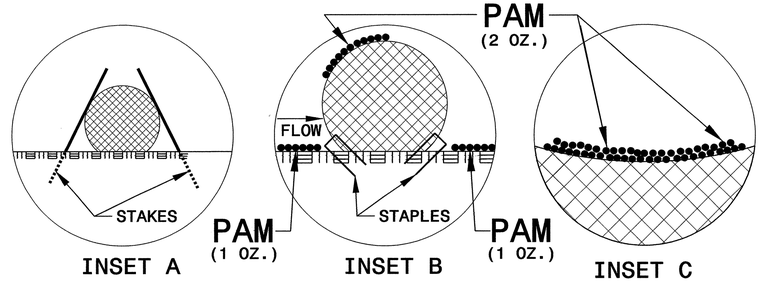
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

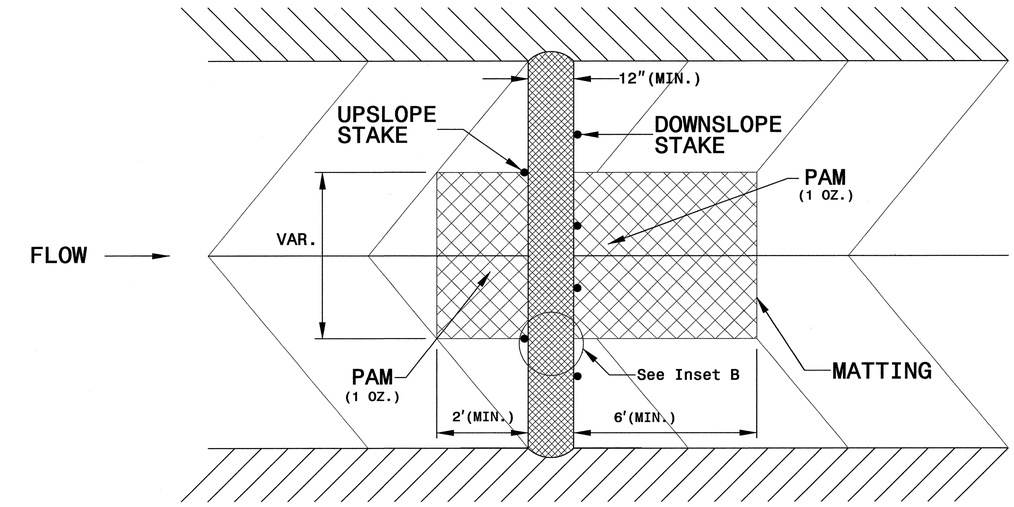
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

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

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

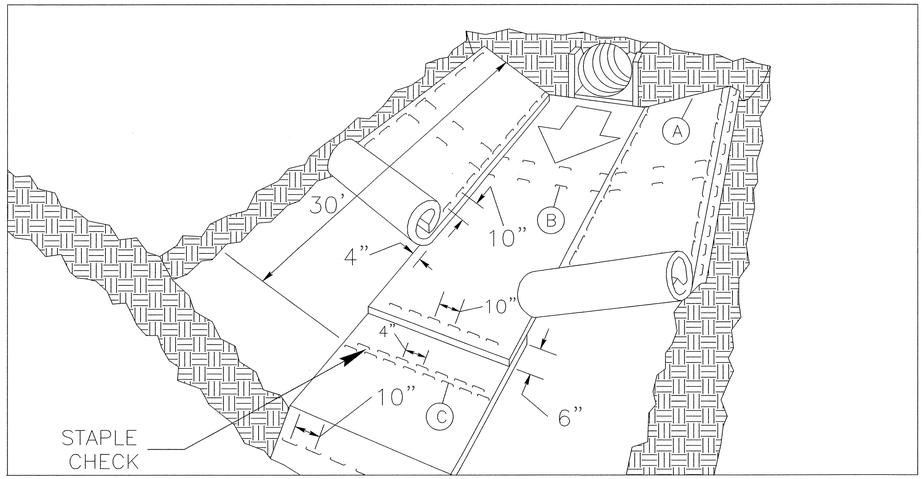




TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-2F
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

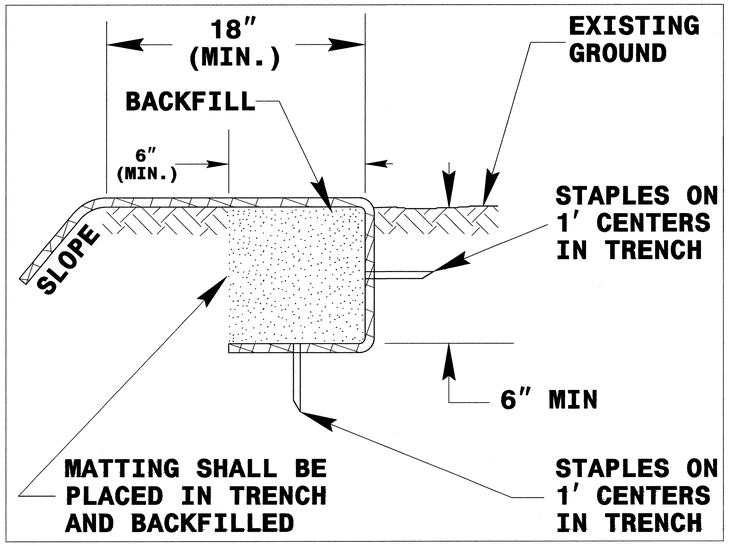
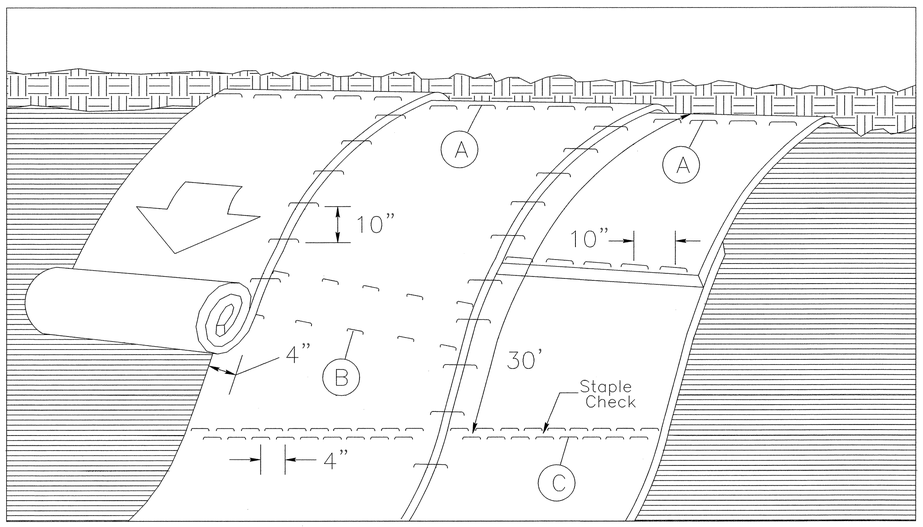


DIAGRAM (A)



MATTING ON SLOPES

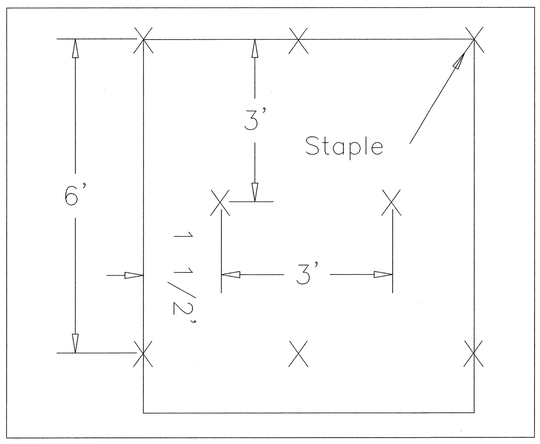


DIAGRAM (B)

Staple Check Pattern

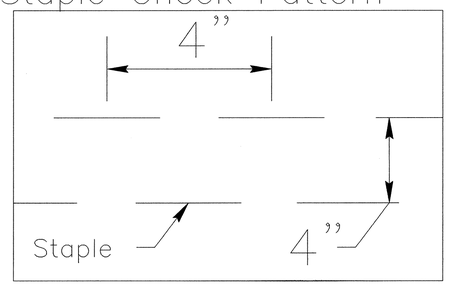


DIAGRAM (C)

NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

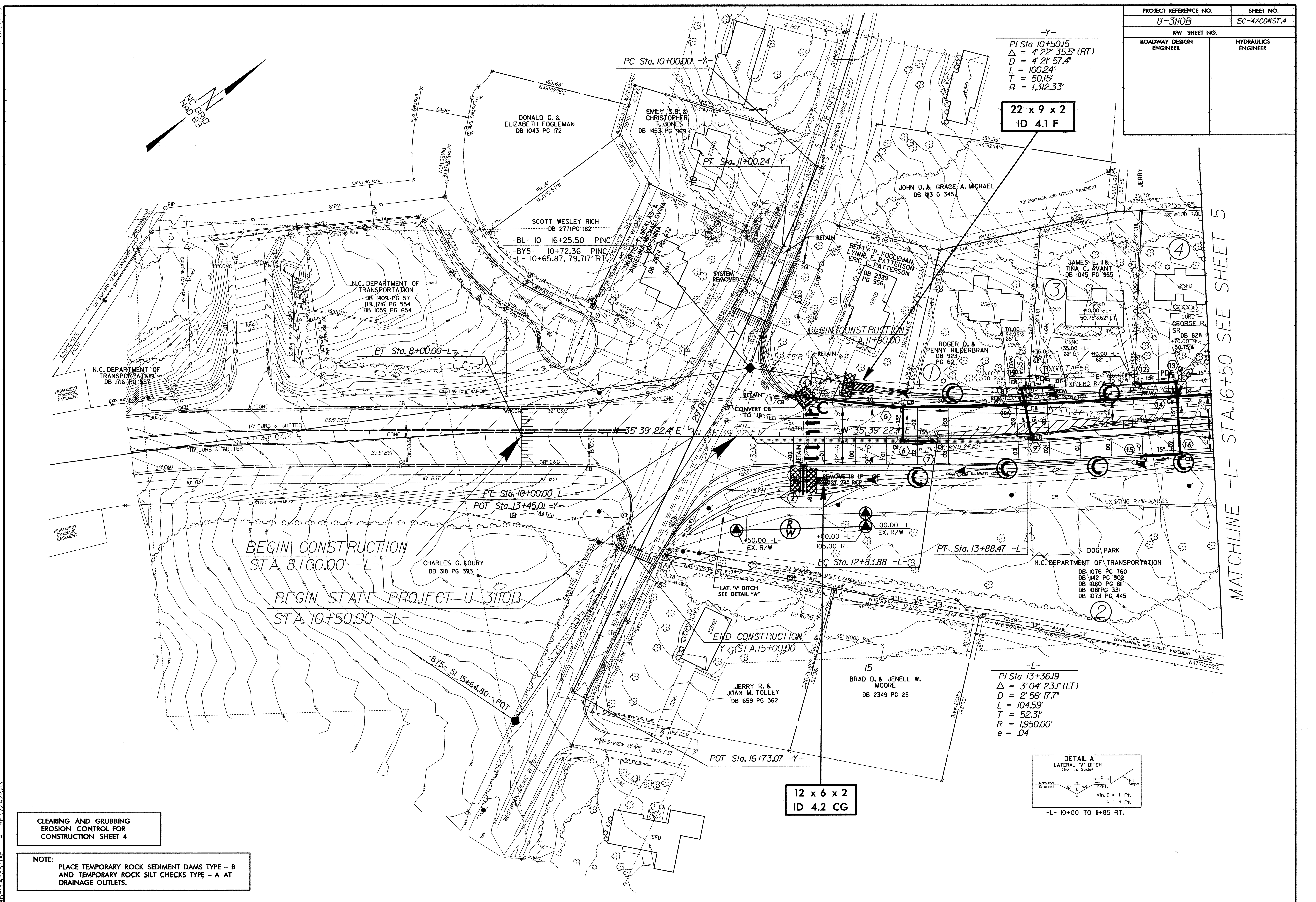
MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	11+50	15+50	RT	220
5	-L-	26+50	29+50	RT	450
7	-L-	47+00	48+50	RT	65
7	-L-	49+00	49+50	RT	100
8	-L-	60+50	63+50	RT	160
8	-L-	63+50	66+00	RT	155
8-9	-L-	66+00	69+50	RT	515
9	-L-	75+00	78+00	RT	360
4-5	-L-	12+50	17+50	LT	440
5	-L-	18+00	22+00	LT	385
5-6	-L-	22+50	30+50	LT	620
6-7	-L-	42+00	44+00	LT	105
7	-L-	44+50	47+50	LT	455
9	-L-	70+00	71+00	LT	95
9	-L-	71+00	74+50	LT	275
7-11	-Y1-	16+00	16+50	RT	40
11	-Y1-	16+50	18+00	RT	190
11	-Y1-	16+50	18+00	LT	235
7	-Y2-	11+00	11+50	RT	45
7	-Y2-	12+00	14+00	RT	580
8	-Y3-	22+00	23+50	RT	215
8	-Y3-	22+00	23+50	LT	250
8	-RAMP A-	13+50	15+00	LT	145
8	-RAMP A-	15+00	16+00	LT	235
9	-RAMP A-	16+00	22+50	LT	1295
9	-RAMP A-	12+00	12+50	LT	80
8	-RAMP A-	15+00	22+50	RT	895
8	-RAMP A-	14+00	15+00	RT	70
8	-RAMP A-	13+00	14+00	RT	80
				SUBTOTAL	8755
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					21755
				TOTAL	30510
				SAY	31000

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
7	-L-	46+50	47+00	RT	40
9	-L-	78+50	79+00	LT	45
9	-L-	80+00	80+50	LT	35
7	-Y1-	13+00	13+50	RT	55
7	-Y1-	13+50	15+00	RT	325
7	-Y1-	15+00	16+00	RT	150
8	-RAMP A-	13+00	13+50	LT	125
9	-RAMP A-	12+50	13+00	LT	65
				SUBTOTAL	840
		ADDITIONAL	PSRM TO BE INSTALLED		50
				TOTAL	890
				SAY	900

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



N
NC GRID NAD 83
-Y-
PI Sta 10+50.15
△ = 4° 22' 35.5" (RT)
D = 4° 21' 57.4"
L = 100.24'
T = 50.15'
R = 1,312.33'
22 x 9 x 2
ID 4.1 F
PC Sta. 10+00.00 -Y-
PT Sta. 11+00.24 -Y-
DONALD G. & ELIZABETH FOGLEMAN
DB 1043 PG 172
EMILY S.B. & CHRISTOPHER T. JONES
DB 1453 PG 969
SCOTT WESLEY RICH
DB 2771 PG 182
-BL- 10 16+25.50 PINC
-BY5- 10+72.36 PINC
-L- 10+65.87, 79.717' RT
JOHN D. & GRACE A. MICHAEL
DB 413 G 345
BETTY P. FOGLEMAN, LYNNE F. PATTERSON ERIC C. PATTERSON
DB 2329 PG 956
JAMES E. II & TINA C. AVANT
DB 1045 PG 985
N.C. DEPARTMENT OF TRANSPORTATION
DB 1409 PG 57
DB 1716 PG 554
DB 1059 PG 654
N.C. DEPARTMENT OF TRANSPORTATION
DB 1716 PG 557
PERMANENT DRAINAGE EASEMENT
SYSTEM REMOVED
RETAIN
BEGIN CONSTRUCTION -Y- STA 11+90.00
ROGER D. & PENNY HILDERBRAN
DB 923 PG 62
GEORGE R. SR
DB 828
PT Sta. 8+00.00 -L-
CONVERT CB TO JB
N 35° 39' 22.4" E
N 27° 48' 04.2" E
REMOVE 18 LF EXIST 24" RCP
PT Sta. 10+00.00 -L-
POT Sta. 13+45.01 -Y-
BEGIN CONSTRUCTION
STA. 8+00.00 -L-
BEGIN STATE PROJECT U-3110B
STA. 10+50.00 -L-
CHARLES G. KOURY
DB 318 PG 393
+50.00 -L- EX. R/W
+00.00 -L- 105.00 RT
+00.00 -L- EX. R/W
PT Sta. 13+88.47 -L-
EC Sta. 12+83.88 -L-
DOG PARK
N.C. DEPARTMENT OF TRANSPORTATION
DB 1076 PG 760
DB 1142 PG 302
DB 1080 PG 811
DB 1081 PG 331
DB 1073 PG 445
LAT. 'V' DITCH SEE DETAIL "A"
END CONSTRUCTION -Y- STA 15+00.00
MATCHLINE -L- STA. 16+50 SEE SHEET 5
-BY5- 51 15+64.80 POT
JERRY R. & JOAN M. TOLLEY
DB 659 PG 362
BRAD D. & JENELL W. MOORE
DB 2349 PG 25
-L-
PI Sta 13+36.19
△ = 3° 04' 23.1" (LT)
D = 2° 56' 17.7"
L = 104.59'
T = 52.31'
R = 1,950.00'
e = .04
POT Sta. 16+73.07 -Y-
12 x 6 x 2
ID 4.2 CG
DETAIL A
LATERAL 'V' DITCH
(Not to Scale)
-L- 10+00 TO 11+85 RT.
WESTBROOK AVENUE
FORESTVIEW DRIVE

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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

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PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-BY6- 52 5+00.00 POT

-DRIVE1-
PI Sta 12+03.08
Δ = 6° 34' 00.7" (LT)
D = 3° 16' 26.6"
L = 200.57'
T = 100.40'
R = 1,750.00'

-Drive2-
PI Sta 11+70.40
Δ = 7° 57' 26.0" (LT)
D = 9° 32' 57.5"
L = 83.33'
T = 41.73'
R = 600.00'

-BY7- 53 5+00.00 POT

NC GRID NAD 83

POT Sta. 10+00.00 -DRIVE1-

POT Sta. 10+00.00 -Drive2-

-BL- 13 32+74.51 PINC
-L- 27+00.87, 3.164' LT.

-L- PT Sta. 28+64.47

MATCHLINE -L- STA. 16+50 SEE SHEET 4

MATCHLINE -L- STA. 30+00.00 SEE SHEET 6

POC Sta. 12+50 -DRIVE1-
Begin Construction

PC Sta. 11+02.69 -DRIVE1-

POC Sta. 12+00 -DRIVE2-
Begin Construction

PC Sta. 11+28.67 -DRIVE2-

PT Sta. 12+12.00 -DRIVE2-

PT Sta. 13+03.26 -DRIVE1-

POT Sta. 14+12.54 -DRIVE1- =
Sta. 17+86.07 -L-

POT Sta. 13+36.74 -DRIVE2- =
POT Sta. 22+19.83 -L-

PC Sta. 25+61.87 -L-

PI Sta 27+13.67
Δ = 11° 24' 22.2" (LT)
D = 3° 46' 10.1"
L = 302.59'
T = 151.80'
R = 1,520.00'
e = 04

PARTICK M. SLADE
DB 1990 PG 109

NANCY G. BELL
DB 980 PG 840

LENTZ
PG 989

JERRY D. JR & LORI H. ALLRED
DB 1088 PG 489

CLIFFORD F. & BETTY L. GRUENWALD
DB 511 PG 457

LEONARD & VERONICA REVELS
DB 746 PG 835

LEONARD M. & CARNELLA D. WILLIAMS
DB 495 PG 377

JOHN E. & TERESA C. KERR
DB 2028 PG 838

RICHARD P. & DORA A. DENAULT
DB 1937 PG 189

JAMES D. LOCKLEY & WIFE MARY M. LOCKLEY
DB 2272 PG 454

ALVA B. & BEATRICE A. SELLERS
DB 513 PG 625

LESTER L. FOSTER, JR. & MARIA B. FOSTER
DB 1608 PG 951

YVONNE A. MAIZLAND REVOCABLE LIVING TRUST
DB 2466 PG 355

W. WORTH & SARAH R. ZIMMERMAN
DB 482 PG 490

BETH SCHMIDT PARK
TOWN OF ELON COLLEGE
DB 1374 PG 532
7

DOG PARK

GIBSONVILLE CITY LIMITS
ELON CITY LIMITS

SR 1311 COOK ROAD 22' BST

PROPOSED 10' MULTI-USE PATH

EXISTING R/W VARIES

EXISTING R/W

20' DRAINAGE AND UTILITY EASEMENT

-BL- 12 27+60.97 PINC
-BY7- 9+43.43 POT
-L- 21+86.98, 2.048 LT.

-BL- 11 23+51.40 PINC
-L- 17+80.88, 5.238 LT.
10+54.29 POT

27 x 9 x 3
ID 5.1 CG

50 x 22 x 3
ID 5.2 CG

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.

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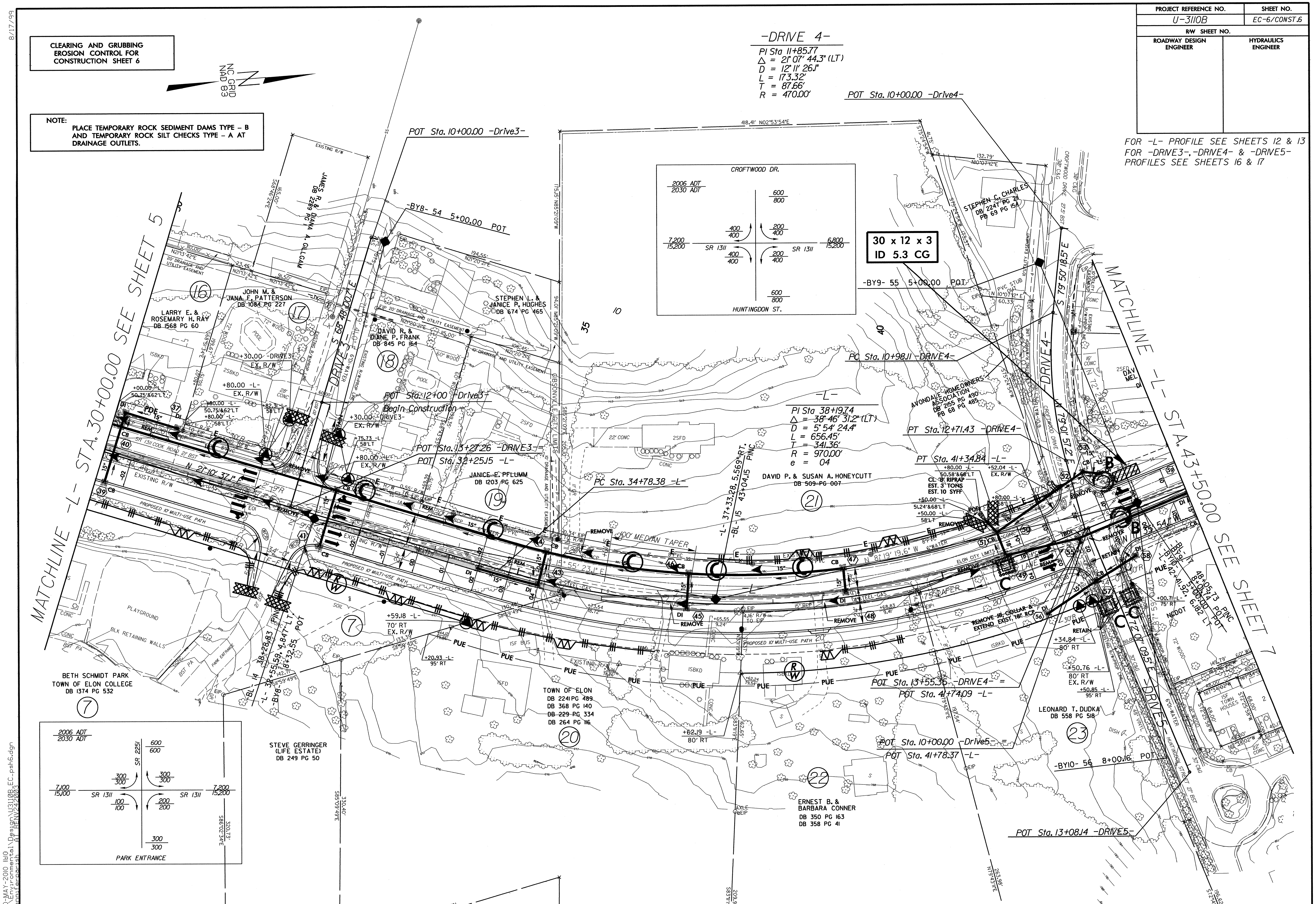

PROJECT REFERENCE NO. U-3110B
SHEET NO. EC-6/CONST.6
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6
NC GRID NAD 83
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.
-DRIVE 4-
PI Sta 11+85.77
Δ = 21° 07' 44.3" (LT)
D = 12° 11' 26.1"
L = 173.32'
T = 87.66'
R = 470.00'
POT Sta. 10+00.00 -Drive4-
FOR -L- PROFILE SEE SHEETS 12 & 13
FOR -DRIVE3-, -DRIVE4- & -DRIVE5- PROFILES SEE SHEETS 16 & 17
POT Sta. 10+00.00 -Drive3-
-BY8- 54 5+00.00 POT
30 x 12 x 3 ID 5.3 CG
-BY9- 55 5+00.00 POT
MATCHLINE -L- STA. 30+00.00 SEE SHEET 5
MATCHLINE -L- STA. 43+50.00 SEE SHEET 7
CROFTWOOD DR.
HUNTINGDON ST.
2006 ADT
2030 ADT
SR 1311
LARRY E. & ROSEMARY H. RAY DB 1568 PG 60
JOHN M. & JANA F. PATTERSON DB 1084 PG 227
JAMES R. & DIANA A. GILLGAM
DAVID R. & DIANE P. FRANK DB 845 PG 164
STEPHEN L. & JANICE P. HUGHES DB 674 PG 465
STEPHEN C. CHARLES DB 2247 PG 211 PB 69 PG 154
AVONDALE HOMEOWNERS' ASSOCIATION DB 2155 PG 490 PB 68 PG 485
JANICE E. PFLUMM DB 1203 PG 625
DAVID P. & SUSAN A. HONEYCUTT DB 509 PG 007
-L-
PI Sta 38+19.74
Δ = 38° 46' 31.2" (LT)
D = 5° 54' 24.4"
L = 656.45'
T = 341.36'
R = 970.00'
e = .04
POT Sta. 12+00 -Drive3- Begin Construction
POT Sta. 13+27.26 -DRIVE3-
POT Sta. 32+25.15 -L-
PC Sta. 34+78.38 -L-
PC Sta. 10+98.11 -DRIVE4-
PT Sta. 12+71.43 -DRIVE4-
PT Sta. 41+34.84 -L-
100' MEDIAN TAPER
PROPOSED 10' MULTI-USE PATH
SR 1311 COOK ROAD
ELON CITY LIMITS
BETH SCHMIDT PARK TOWN OF ELON COLLEGE DB 1374 PG 532
PLAYGROUND
BLK RETAINING WALLS
TOWN OF ELON DB 2241 PG 489 DB 368 PG 140 DB 229 PG 334 DB 264 PG 116
STEVE GERRINGER (LIFE ESTATE) DB 249 PG 50
ERNEST B. & BARBARA CONNER DB 350 PG 163 DB 358 PG 41
LEONARD T. DUDKA DB 558 PG 518
POT Sta. 13+55.36 -DRIVE4- = POT Sta. 41+74.09 -L-
POT Sta. 10+00.00 -Drive5- = POT Sta. 41+78.37 -L-
-BY10- 56 8+00.16 POT
POT Sta. 13+08.14 -DRIVE5-
PARK ENTRANCE
SR 2251
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PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

FOR -L- PROFILE SEE SHEET 13
FOR -Y1- & -Y2- PROFILES
SEE SHEET 15

NC GRID NAD 83

MATCHLINE -L- STA. 43+50.00 SEE SHEET 6

MATCHLINE -L- STA. 56+50.00 SEE SHEET 8

SEE SHEET MATCHLINE

24 x 10 x 3
ID 7.4 F

30 x 16 x 3
ID 7.3 F

35 x 23 x 3
ID 7.2 F

20 x 10 x 2
ID 7.1 F

Temporary Rock Sediment Dam Type A
1.5 ft. weir height

-Y1-
PI Sta 11+26.77
Δ = 79° 23' 38.5" (RT)
D = 57° 17' 44.8"
L = 138.57'
T = 83.01'
R = 100.00'

PI Sta 10+69.64
Δ = 21° 40' 24.2" (RT)
D = 22° 55' 05.9"
L = 94.57'
T = 47.86'
R = 250.00'

PI Sta 13+35.20
Δ = 55° 53' 44.4" (LT)
D = 28° 38' 52.4"
L = 195.11'
T = 106.11'
R = 200.00'

PI Sta 12+29.09-Y2-
Δ = 30° 48' 02.0" (RT)
D = 3° 28' 20.9"
L = 886.99'
T = 454.49'
R = 1,650.00'

PI Sta 48+99.51
Δ = 30° 48' 02.0" (RT)
D = 3° 28' 20.9"
L = 886.99'
T = 454.49'
R = 1,650.00'

POT Sta. 10+00.00-Y1-
POT Sta. 10+00.00-Y2-
POT Sta. 47+99.85-L-
PC Sta. 10+43.76-Y1-
POT Sta. 11+62.33 -Y1-
-L- PC Sta. 43+55.01
PT Sta. 11+16.35-Y2-
PC Sta. 10+21.79-Y2-
PC Sta. 12+29.09-Y2-
PT Sta. 14+24.20-Y2-
POT Sta. 14+33.83-Y2-
PC Sta. 15+35.57 -Y1-
-L- PT Sta. 52+42.0
POT Sta. 10+00.00-L1 & L2-
POT STA. 54+69.91 -L-
-Y13- POT 17+53.72
-L- STA. 53+42.72-
BEGIN BRIDGE
-L- STA. 53+18.74-
BEGIN APPROACH SLAB
END SBG STA. 53+18.74
BEGIN SBG STA. 52+88.00
BEGIN SBG STA. 52+85.93
-L- STA. 53+15.13-
BEGIN APPROACH SLAB
-L- STA. 53+39.10
BEGIN BRIDGE
-L- STA. 54+69.91-
-Y13- STA. 17+53.72
END SBG STA. 56+
-L- STA. 56+15.69
END APPROACH SLAB
BEGIN SBG STA. 56+15.69
-L- STA. 55+91.72
END BRIDGE
TYPE III
-L- STA. 55+88.10 TYPE III
END BRIDGE
-L- STA. 56+12.08
END APPROACH SLAB
BEGIN SBG STA. 56+12.08
END SBG STA. 56+42.86
-BL- 20 60+54.53 PNC
-BYII- 12+21.86 PNC
-L- 54+51.05, LT
TYPE III ST Sta. 17+80.40
-BYII- 3 15+04.28 POT

LT = 280.09'
RT = 140.08'

+35.26 -Y1-
55' LT
40' LT

+16.51 -Y1-
85' LT
70' LT

+15.11 -Y1-
70' LT

+15.30 -Y1-
79.97' LT
EX. R/W

+80.00 -L-
150' LT
4' LAT. BASE DITCH
SEE DETAIL D

+42.01 -L-
150' LT
SONOCO PRODUCTS COMPANY
DB 387 PG 599

+98.20 -L-
150' LT
EX. R/W

+98.67 -L-
EX. R/W

+80.00 -L-
140' LT

+15.00 -L-
65' RT

+50.00 -L-
60' RT

+07.32 -L-
60' RT

+02.84 -L-
75' RT

+65.12 -L-
60' RT

+66.31 -L-
75' RT

+50.00 -Y2-
76.69' RT

+80.00 -L-
120' RT

+50.00 -Y2-
50' RT

+29.09 -Y2-
64.16' RT

+29.09 -Y2-
50' LT

+43.44 -Y2-
107.73' LT

+33.83 -Y2-
82.36' RT

+49.48 -L-
EX. R/W

CL. 'I' RIPRAP
EST. 20 TONS
EST. 39 SYFF

CL. 'B' RIP RAP
EST. 2 TONS
EST. 7 SYFF

CL. 'I' RIPRAP
EST. 4 TONS
EST. 10 SYFF

CL. 'B' RIPRAP
EST. 2 TONS
EST. 7 SYFF

CL. 'B' RIPRAP
EST. 3 TONS
EST. 10 SYFF

LAT. 'V' DITCH
SEE DETAIL B

LAT. 'V' DITCH
SEE DETAIL C

SPEC. CUT DITCH
SEE DETAIL E

4' LAT. BASE DITCH
SEE DETAIL D

JOHN J. & RACQUEL RUSKO

ERIK B. SMITH & WIFE
AMY M. SMITH

DAVID H. & JANET L. TESSMAN
DB 2493 PG 224
PB 69 PG 154

DAWN L. [illegible]
DB 2493 PG
PB 69 PG 154

JEFFREY B. HAGOOD
DB 2589 PG 154
PB 69 PG 154

ROBERT D. THURMAN, JR. & ASHLEY C. THURMAN
DB 2543 PG 224
PB 69 PG 154

ARCHIE B. JEFFERIES & GRACE B. JEFFERIES
DB 2347 PG 876
PB 69 PG 154

BRENDA K. FOUST
DB 2312 PG 876
PB 68 PG 485

D. W. STEWART & SSA M. STEWART
258I PG 868
B 68 PG 485

N.C. DEPARTMENT OF TRANSPORTATION
(formerly - MARK A. COOK ET AL)
DB 1703 PG 499)
(formerly - DAVID C. & DIANE J. DAY)
DB 1079 PG 88)

PIERCE HOMES OF CAROLINA, INC.
DB 1403 PG 234

SONOCO PRODUCTS COMPANY
DB 387 PG 599

HOPE REAL ESTATE, LLC
DB 1531 PG 816

FBD, LLC
DB 2666 PG 376

1-GEORGE E. & SYLVIA A. STOCKWELL
DB 1579 PG 378

2-HAROLD D. & INEZ C. VERNON
DB 1899 PG 313

3-BLAKE & WANDA JONES
DB 1905 PG 342

4-LORRAINE W. MATKINS
DB 1575 PG 905

5-PHUONG CAM TRINH
DB 2656 PG 68

6-JAMES L. & DEBBIE C. WILSON
DB 1883 PG 256

7-KELLY N. MONTGOMERY
DB 1576 PG 341

2006 ADT
2030 ADT
SR 1311
6,800
15,200
7,000
15,400
100
100
200
300
400
500
600
800
PLANT ENTRANCE
(SERVICE RD.)

DETAIL B
LATERAL 'V' DITCH
(Not To Scale)
Min. D = 1 Ft.
b = 5 Ft.
-L- 44+50 TO 47+50 LT.
-Y1- 14+88 TO 16+00 RT.
-Y1- 13+00 TO 13+25 RT.

DETAIL C
LATERAL 'V' DITCH
(Not To Scale)
Min. D = 1.3 Ft.
b = 5 Ft.
-L- 49+55 TO 53+00 RT.

DETAIL D
LATERAL BASE DITCH
(Not To Scale)
Min. D = 2.5 Ft.
B = 5 Ft.
b = 4 Ft.
-L- 49+00 TO 49+55 RT.
-Y1- 13+25 TO 14+88 RT.

DETAIL E
SPECIAL CUT DITCH
(Not To Scale)
Min. D = 1 Ft.
-Y1- 16+00 TO 16+50 RT.

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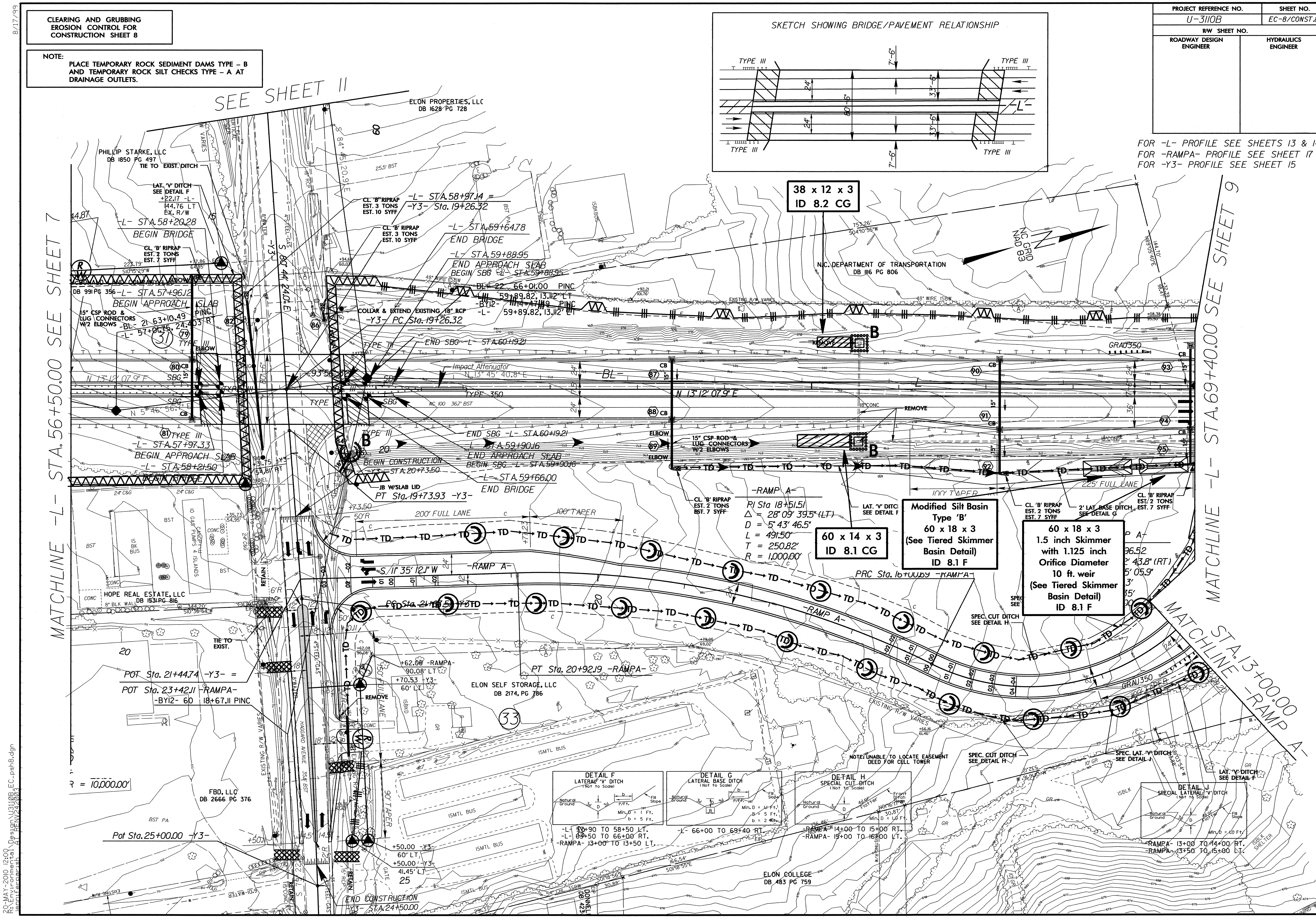
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-8/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR -L- PROFILE SEE SHEETS 13 & 14
FOR -RAMPA- PROFILE SEE SHEET 17
FOR -Y3- PROFILE SEE SHEET 15



SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP
TYPE III
-L-
SEE SHEET 11
MATCHLINE -L- STA.56+50.00 SEE SHEET 7
MATCHLINE -L- STA.69+40.00 SEE SHEET 9
MATCHLINE STA.13+00.00 -RAMP A-
ELON PROPERTIES, LLC
DB 1628 PG 728
PHILLIP STARKE, LLC
DB 1850 PG 497
N.C. DEPARTMENT OF TRANSPORTATION
DB 1116 PG 806
NC GRID NAD 83
38 x 12 x 3
ID 8.2 CG
60 x 14 x 3
ID 8.1 CG
Modified Silt Basin
Type 'B'
60 x 18 x 3
(See Tiered Skimmer Basin Detail)
ID 8.1 F
60 x 18 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
10 ft. weir
(See Tiered Skimmer Basin Detail)
ID 8.1 F
-L- STA.58+20.28
BEGIN BRIDGE
-L- STA.57+96.12
BEGIN APPROACH SLAB
-L- STA.57+97.33
BEGIN APPROACH SLAB
-L- STA.58+21.50
BEGIN BRIDGE
-L- STA.58+97.14 =
-Y3- Sta.19+26.32
-L- STA.59+64.78
END BRIDGE
-L- STA.59+88.95
END APPROACH SLAB
BEGIN SBG -L- STA.59+88.95
-L- STA.59+90.16
END APPROACH SLAB
BEGIN SBG -L- STA.59+90.16
-L- STA.59+66.00
END BRIDGE
END SBG -L- STA.60+19.21
-Y3- PC Sta.19+26.32
COLLAR & EXTEND EXISTING 18" RCP
BEGIN CONSTRUCTION
-Y3- STA.20+73.50
PT Sta.19+73.93 -Y3-
-RAMP A-
PI Sta 18+51.51
Δ = 28°09' 39.5" (LT)
D = 5°43' 46.5"
L = 491.50'
T = 250.82'
R = 1,000.00'
PRC Sta.16+00.89 -RAMPA-
PT Sta.20+92.19 -RAMPA-
POT Sta.21+44.74 -Y3- =
POT Sta.23+42.11 -RAMPA-
Pot Sta.25+00.00 -Y3-
END CONSTRUCTION
-Y3- STA.24+50.00
200' FULL LANE
100' TAPER
225' FULL LANE
HOPE REAL ESTATE, LLC
DB 1531 PG 868
ELON SELF STORAGE, LLC
DB 2174, PG 786
FBD, LLC
DB 2666 PG 376
ELON COLLEGE
DB 483 PG 759
NOTE: UNABLE TO LOCATE EASEMENT DEED FOR CELL TOWER
DETAIL F
LATERAL 'V' DITCH
(Not to Scale)
-L- 50+90 TO 58+50 LT.
-L- 63+50 TO 66+00 RT.
-RAMPA- 13+00 TO 13+50 LT.
DETAIL G
LATERAL BASE DITCH
(Not to Scale)
-L- 66+00 TO 69+40 RT.
DETAIL H
SPECIAL CUT DITCH
(Not to Scale)
-RAMPA- 14+00 TO 15+00 RT.
-RAMPA- 15+00 TO 16+00 LT.
DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
-RAMPA- 13+00 TO 14+00 RT.
-RAMPA- 13+50 TO 15+00 LT.

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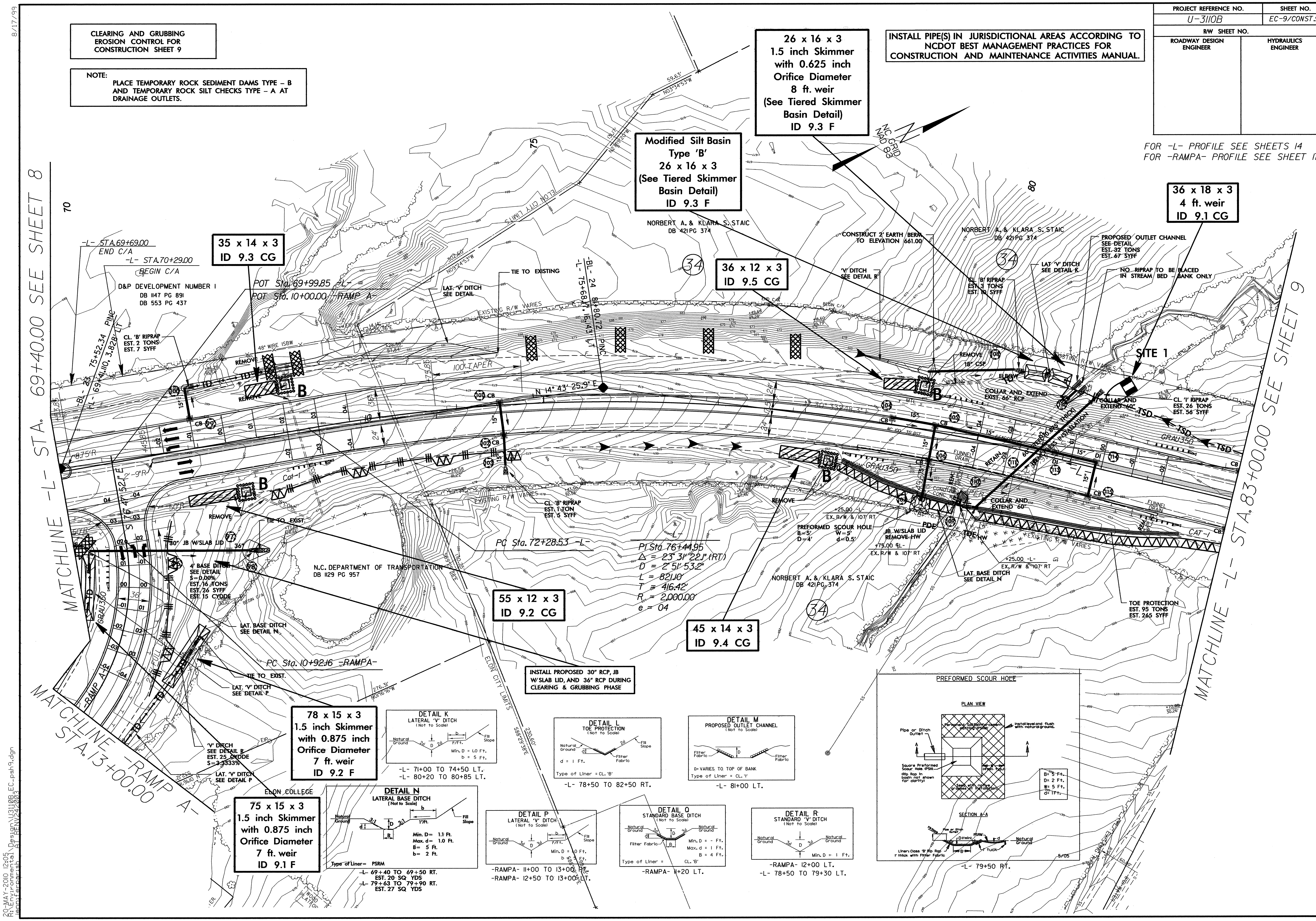
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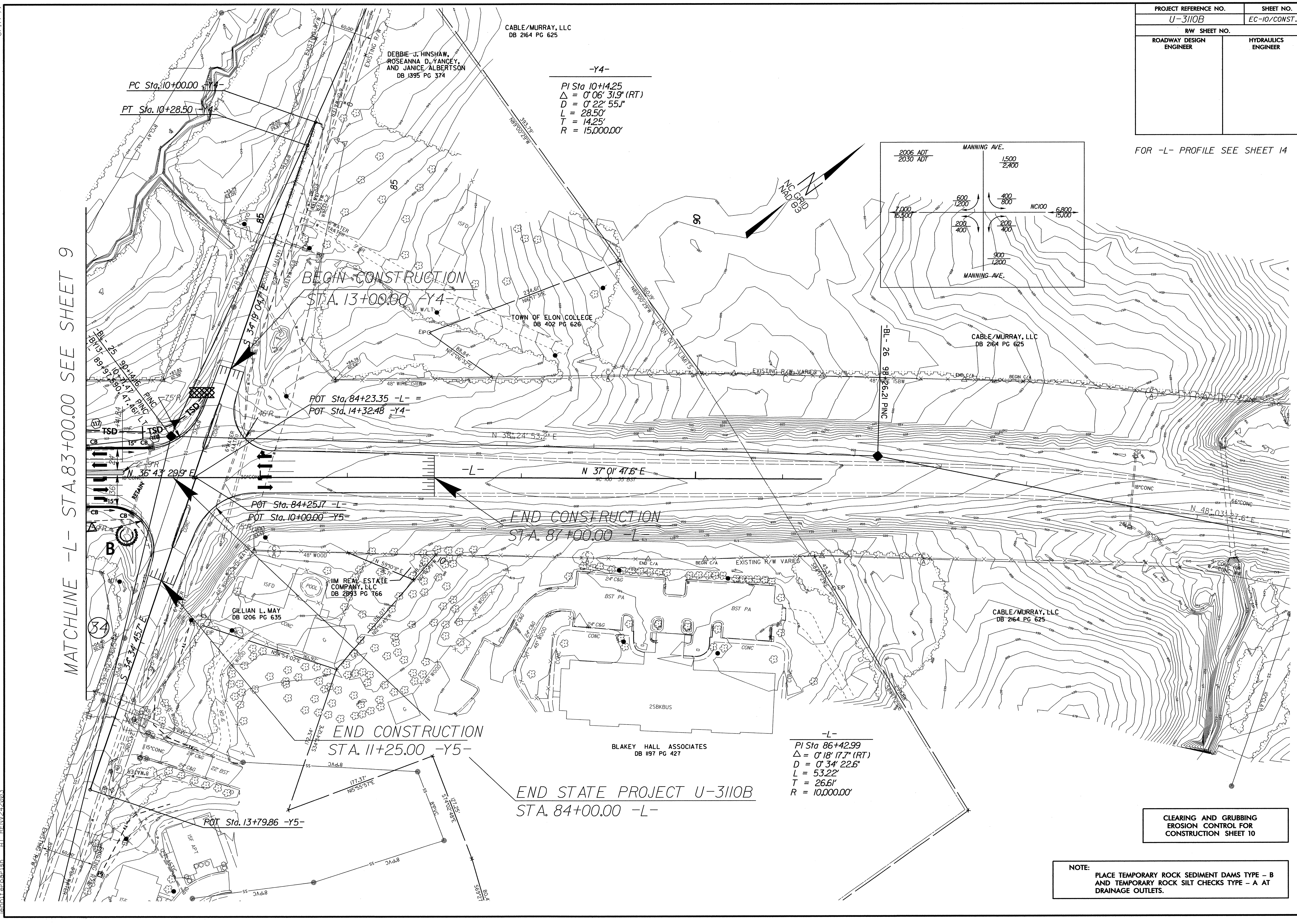
PROJECT REFERENCE NO.
U-3110B
SHEET NO.
EC-9/CONST.9
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.
INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.
26 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer Basin Detail)
ID 9.3 F
Modified Silt Basin
Type 'B'
26 x 16 x 3
(See Tiered Skimmer Basin Detail)
ID 9.3 F
FOR -L- PROFILE SEE SHEETS 14
FOR -RAMPA- PROFILE SEE SHEET 17
NC GRID NAD 83
36 x 18 x 3
4 ft. weir
ID 9.1 CG
35 x 14 x 3
ID 9.3 CG
36 x 12 x 3
ID 9.5 CG
55 x 12 x 3
ID 9.2 CG
45 x 14 x 3
ID 9.4 CG
78 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 9.2 F
75 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 9.1 F
MATCHLINE -L- STA. 69+40.00 SEE SHEET 8
MATCHLINE -L- STA. 83+00.00 SEE SHEET 9
MATCHLINE -RAMP A- STA. 13+00.00
-L- STA. 69+69.00
END C/A
-L- STA. 70+29.00
BEGIN C/A
D&P DEVELOPMENT NUMBER 1
DB 1147 PG 891
DB 553 PG 437
POT Sta. 69+99.85 -L- =
POT Sta. 10+00.00 -RAMP A-
NORBERT A. & KLARA S. STAIC
DB 421 PG 374
CONSTRUCT 2' EARTH BERM TO ELEVATION 661.00
'V' DITCH SEE DETAIL R
PROPOSED OUTLET CHANNEL SEE DETAIL
EST. 32 TONS
EST. 67 SYFF
NO RIPRAP TO BE PLACED IN STREAM BED – BANK ONLY
LAT. 'V' DITCH SEE DETAIL K
CL. 'B' RIPRAP
EST. 3 TONS
EST. 10 SYFF
SITE 1
CL. 'I' RIPRAP
EST. 26 TONS
EST. 56 SYFF
COLLAR AND EXTEND 60"
COLLAR AND EXTEND
EST. 66" RCP
LAT. 'V' DITCH SEE DETAIL
TIE TO EXISTING
EXISTING R/W VARIES
ELON CITY LIMITS
CL. 'B' RIPRAP
EST. 2 TONS
EST. 7 SYFF
N 14° 43' 25.9" E
CL. 'B' RIPRAP
EST. 1 TON
EST. 5 SYFF
PC Sta. 72+28.53 -L-
PI Sta 76+44.95
Δ = 23° 31' 22.1" (RT)
D = 2° 51' 53.2"
L = 821.10
T = 416.42'
R = 2,000.00'
e = 04
N.C. DEPARTMENT OF TRANSPORTATION
DB 1129 PG 957
4' BASE DITCH SEE DETAIL
S=0.00%
EST. 16 TONS
EST. 26 SYFF
EST. 15 CYDDE
30" JB W/SLAB LID
TIE TO EXIST.
REMOVE
PREFORMED SCOUR HOLE
B=5'
D=4'
W=5'
d=0.5'
JB W/SLAB LID
REMOVE HW
LAT. BASE DITCH SEE DETAIL N
TOE PROTECTION
EST. 95 TONS
EST. 265 SYFF
LAT. BASE DITCH SEE DETAIL N
PC Sta. 10+92.16 -RAMPA-
TIE TO EXIST.
LAT. 'V' DITCH SEE DETAIL P
INSTALL PROPOSED 30" RCP, JB W/SLAB LID, AND 36" RCP DURING CLEARING & GRUBBING PHASE
'V' DITCH SEE DETAIL R
EST. 25 CYDDE
S=3.3333%
LAT. 'V' DITCH SEE DETAIL P
ELON COLLEGE
DETAIL K
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.0 Ft.
b = 5 Ft.
-L- 71+00 TO 74+50 LT.
-L- 80+20 TO 80+85 LT.
DETAIL L
TOE PROTECTION
(Not to Scale)
d = 1 Ft.
Type of Liner = CL. 'B'
-L- 78+50 TO 82+50 RT.
DETAIL M
PROPOSED OUTLET CHANNEL
(Not to Scale)
D= VARIES TO TOP OF BANK
Type of Liner = CL. 'I'
-L- 81+00 LT.
DETAIL N
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1.1 Ft.
Max. d= 1.0 Ft.
B= 5 Ft.
b= 2 Ft.
Type of Liner= PSRM
-L- 69+40 TO 69+50 RT.
EST. 20 SQ YDS
-L- 79+63 TO 79+90 RT.
EST. 27 SQ YDS
DETAIL P
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.0 Ft.
-RAMPA- 11+00 TO 13+00 RT.
-RAMPA- 12+50 TO 13+00 LT.
DETAIL O
STANDARD BASE DITCH
(Not to Scale)
Max. d = 1 Ft.
B = 4 Ft.
Type of Liner = CL. 'B'
-RAMPA- 11+20 LT.
DETAIL R
STANDARD 'V' DITCH
(Not to Scale)
Min. D = 1 Ft.
-RAMPA- 12+00 LT.
-L- 78+50 TO 79+30 LT.
PREFORMED SCOUR HOLE
PLAN VIEW
SECTION A-A
B= 5 Ft.
D= 2 Ft.
W= 5 Ft.
d= 1 Ft.
-L- 79+50 RT.
20-MAY-2010 12:05
R:\Environmental Design\U3110B_EC-psh9.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-10/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR -L- PROFILE SEE SHEET 14



MATCHLINE -L- STA. 83+00.00 SEE SHEET 9
CABLE/MURRAY, LLC
DB 2164 PG 625
DEBBIE J. HINSHAW, ROSEANNA D. YANCEY, AND JANICE ALBERTSON
DB 1395 PG 374
-Y4-
PI Sta 10+14.25
Δ = 0° 06' 31.9" (RT)
D = 0° 22' 55.1"
L = 28.50'
T = 14.25'
R = 15,000.00'
PC Sta. 10+00.00 -Y4-
PT Sta. 10+28.50 -Y4-
NC GRID NAD 83
MANNING AVE.
2006 ADT
2030 ADT
NC100
BEGIN CONSTRUCTION
STA. 13+00.00 -Y4-
TOWN OF ELON COLLEGE
DB 402 PG 626
CABLE/MURRAY, LLC
DB 2164 PG 625
EXISTING R/W VARIES
POT Sta. 84+23.35 -L- =
POT Sta. 14+32.48 -Y4-
N 36° 43' 29.9" E
-L-
N 37° 01' 47.6" E
POT Sta. 84+25.17 -L- =
POT Sta. 10+00.00 -Y5-
END CONSTRUCTION
STA. 87+00.00 -L-
IIM REAL ESTATE COMPANY, LLC
DB 2893 PG 766
GILLIAN L. MAY
DB 1206 PG 635
CABLE/MURRAY, LLC
DB 2164 PG 625
END CONSTRUCTION
STA. 11+25.00 -Y5-
BLAKEY HALL ASSOCIATES
DB 1197 PG 427
END STATE PROJECT U-3110B
STA. 84+00.00 -L-
POT Sta. 13+79.86 -Y5-
-L-
PI Sta 86+42.99
Δ = 0° 18' 17.7" (RT)
D = 0° 34' 22.6"
L = 53.22'
T = 26.61'
R = 10,000.00'

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 10

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

8/17/99

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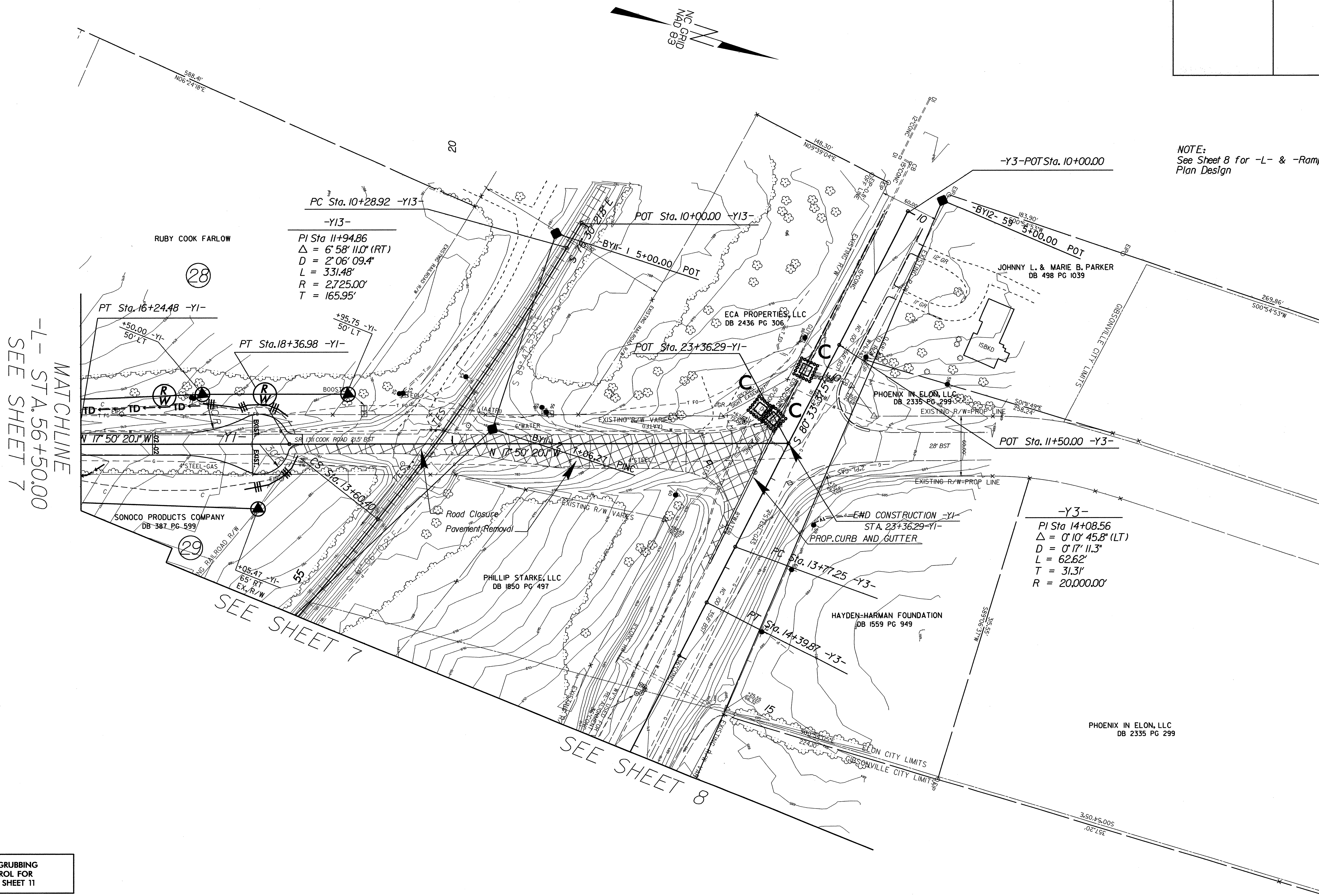

NC GRID NAD 83
NOTE:
See Sheet 8 for -L- & -RampA- Plan Design
-Y3-POT Sta. 10+00.00
PC Sta. 10+28.92 -Y13-
-Y13-
PI Sta 11+94.86
Δ = 6° 58' 11.0" (RT)
D = 2° 06' 09.4"
L = 331.48'
R = 2,725.00'
T = 165.95'
POT Sta. 10+00.00 -Y13-
-BY11- 15+00.00 POT
-BY12- 5+00.00 POT
RUBY COOK FARLOW
28
PT Sta. 16+24.48 -Y1-
PT Sta. 18+36.98 -Y1-
ECA PROPERTIES, LLC
DB 2436 PG 306
JOHNNY L. & MARIE B. PARKER
DB 498 PG 1039
POT Sta. 23+36.29 -Y1-
PHOENIX IN ELON, LLC
DB 2335 PG 299
POT Sta. 11+50.00 -Y3-
MATCHLINE
-L- STA. 56+50.00
SEE SHEET 7
SR 1311 COOK ROAD
N 17° 50' 20.1" W
CS Sta. 13+60.40
Road Closure
Pavement Removal
END CONSTRUCTION -Y1-
STA. 23+36.29 -Y1-
PROP. CURB AND GUTTER
-Y3-
PI Sta 14+08.56
Δ = 0° 10' 45.8" (LT)
D = 0° 17' 11.3"
L = 62.62'
T = 31.31'
R = 20,000.00'
SONOCO PRODUCTS COMPANY
DB 387 PG 599
29
PHILLIP STARKE, LLC
DB 1850 PG 497
PC Sta. 13+77.25 -Y3-
PT Sta. 14+39.87 -Y3-
HAYDEN-HARMAN FOUNDATION
DB 1559 PG 949
SEE SHEET 7
SEE SHEET 8
ELON CITY LIMITS
GIBSONVILLE CITY LIMITS
PHOENIX IN ELON, LLC
DB 2335 PG 299

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

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

8/17/99

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jenniferparish AT RENV24200

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-12/CONST.A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

NC GRID NAD 83

PC Sta. 10+00.00 -Y-

PT Sta. 11+00.24 -Y-

-Y-
PI Sta 10+50.15
Δ = 4° 22' 35.5" (RT)
D = 4° 21' 57.4"
L = 100.24'
T = 50.15'
R = 1,312.33'

22 x 9 x 2
ID 4.1 F

DONALD C. & ELIZABETH FOGLEMAN
DB 1043 PG 172

EMILY S.B. & CHRISTOPHER T. JONES
DB 1453 PG 969

SCOTT WESLEY RICH
DB 2771 PG 182

-BL- 10 16+25.50 PINC
-BY5- 10+72.36 PINC
-L- 10+65.87, 79.717' RT

KURTIS T. NICKLAS & ANGELINA PALOMINA
DB 3914 PG 172

SYSTEM REMOVED

JOHN D. & GRACE A. MICHAEL
DB 413 G 345

BETTY P. FOGLEMAN
LYNNE F. PATTERSON
ERIC C. PATTERSON
DB 2329 PG 956

JAMES E. II & TINA C. AVANT
DB 1045 PG 985

ROGER D. & PENNY HILDERBRAN
DB 923 PG 62

N.C. DEPARTMENT OF TRANSPORTATION
DB 1409 PG 57
DB 1716 PG 554
DB 1059 PG 654

N.C. DEPARTMENT OF TRANSPORTATION
DB 1716 PG 557

PT Sta. 8+00.00-L- =

PT Sta. 10+00.00-L- =
POT Sta. 13+45.01 -Y-

BEGIN CONSTRUCTION
STA. 8+00.00 -L-

CHARLES G. KOURY
DB 318 PG 393

BEGIN STATE PROJECT U-3110B
STA. 10+50.00 -L-

BEGIN CONSTRUCTION
-Y- STA 11+00.00

-BY5- 5| 15+64.80 POT

END CONSTRUCTION
-Y- STA. 15+00.00

JERRY R. & JOAN M. TOLLEY
DB 659 PG 362

15
BRAD D. & JENELL W. MOORE
DB 2349 PG 25

POT Sta. 16+73.07 -Y-

PT Sta. 13+88.47 -L-

PC Sta. 12+83.88 -L-

DOG PARK
N.C. DEPARTMENT OF TRANSPORTATION
DB 1076 PG 760
DB 1142 PG 302
DB 1080 PG 811
DB 1081 PG 331
DB 1073 PG 445

-L-
PI Sta 13+36.19
Δ = 3° 04' 23.1" (LT)
D = 2° 56' 17.7"
L = 104.59'
T = 52.31'
R = 1,950.00'
e = .04

27 x 12 x 3
ID 4.2 F

DETAIL A
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
3:1
D
2:1
b
Fill Slope
F/Ft.
Min. D = 1 Ft.
b = 5 Ft.

-L- 10+00 TO 11+85 RT.

MATCHLINE -L- STA. 16+50 SEE SHEET 5

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jeanne.fenner@dot.nc.gov AT RENW2242003

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-13/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

-BY6- 52 5+00.00 POT

-DRIVE1-
PI Sta 12+03.08
Δ = 6° 34' 00.7" (LT)
D = 3° 16' 26.6"
L = 200.57'
T = 100.40'
R = 1,750.00'

-Drive2-
PI Sta 11+70.40
Δ = 7° 57' 26.0" (LT)
D = 9° 32' 57.5"
L = 83.33'
T = 41.73'
R = 600.00'

-BY7- 53 5+00.00 POT

POT Sta. 10+00.00 -DRIVE1-

POT Sta. 10+00.00 -Drive2-

NC GRID NAD 83

242.24' N31°34'15"E

227.09' N35°05'16"E

S 52° 23' 06.9" E

S 50° 07' 36.9" E

POC Sta. 12+50 -DRIVE1- Begin Construction

PC Sta. 11+02.69 -DRIVE1-

POC Sta. 12+00 -DRIVE2- Begin Construction

PC Sta. 11+28.67 -DRIVE2-

PT Sta. 12+12.00 -DRIVE2-

PT Sta. 13+03.26 -DRIVE1-

POT Sta. 14+12.54 -DRIVE1- = Sta. 17+86.07 -L-

POT Sta. 13+36.77 -DRIVE2- = POT Sta. 22+19.83 -L-

-BL- 13 32+74.51 PINC
-L- 27+00.87, 3.164' LT.

-L- PT Sta. 28+64.47

-L- STA. 16+50 SEE SHEET 4

MATCHLINE -L- STA. 30+00.00 SEE SHEET 6

JERRY D. JR & LORI H. ALLRED DB 1088 PG 489

CLIFFORD F. & BETTY L. GRUENWALD DB 511 PG 457

JOHN E. & TERESA C. KERR DB 2028 PG 838

NANCY G. BELL DB 980 PG 840

PARTICK M. SLADE DB 1990 PG 109

LEONARD & VERONICA REVELS DB 746 PG 835

LEONARD M. & CARNELLA D. WILLIAMS DB 495 PG 377

RICHARD P. & DORA A. DENAULT DB 1937 PG 189

JAMES D. LOCKLEY & WIFE MARY M. LOCKLEY DB 2272 PG 454

ALVA B. & BEATRICE A. SELLERS DB 513 PG 625

LESTER L. FOSTER, JR. & MARIA B. FOSTER DB 1608 PG 951

W. WORTH & SARAH R. ZIMMERMAN DB 482 PG 490

YVONNE A. MAIZLAND REVOCABLE LIVING TRUST DB 2469 PG 355

GIBSONVILLE CITY LIMITS

ELON CITY LIMITS

SR 1311 COOK ROAD 21' BST

PROPOSED SIDEWALK 24'

PROPOSED 5' SIDEWALK 24'

PROPOSED 10' MULTI-USE PATH

EXISTING R/W

EXISTING R/W VARIES

20' DRAINAGE AND UTILITY EASEMENT

-BL- 11 23+51.40 PINC
-L- 17+80.88, 55.238' LT.
-BY6- 10+54.29 POT

-BL- 12 27+60.97 PINC
-BY7- 9+43.43 POT
-L- 21+86.98, 2.048 LT.

DOG PARK

GAZEBO

RESTROOMS

BETH SCHMIDT PARK
TOWN OF ELON COLLEGE
DB 1374 PG 532
(7)

27 x 9 x 3
ID 5.1 CG

21 x 9 x 3
ID 5.1 F

PI Sta 27+13.67
Δ = 11° 24' 22.2" (LT)
D = 3° 46' 10.1"
L = 302.59'
T = 151.80'
R = 1,520.00'
e = 04

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ann.ferguson AT PENV242003

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PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-14/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR -L- PROFILE SEE SHEETS 12 & 13
FOR -DRIVE3-, -DRIVE4- & -DRIVE5- PROFILES SEE SHEETS 16 & 17

NC GRID NAD 83

-DRIVE 4-
PI Sta 11+85.77
Δ = 21° 07' 44.3" (LT)
D = 12° 11' 26.1"
L = 173.32'
T = 87.66'
R = 470.00'

POT Sta. 10+00.00 -Drive4-

POT Sta. 10+00.00 -Drive3-

-BY8- 54 5+00.00 POT

-BY9- 55 5+00.00 POT

-BY10- 56 8+00.16 POT

POT Sta. 12+00 -Drive3-
Begin Construction

POT Sta. 13+27.26 -DRIVE3-

POT Sta. 32+25.15 -L-

PC Sta. 34+78.38 -L-

PC Sta. 10+98.11 -DRIVE4-

PT Sta. 12+71.43 -DRIVE4-

PT Sta. 41+34.84 -L-

POT Sta. 13+55.36 -DRIVE4-

POT Sta. 41+74.09 -L-

POT Sta. 10+00.00 -Drive5-

POT Sta. 41+78.37 -L-

POT Sta. 13+08.14 -DRIVE5-

-L-
PI Sta 38+19.74
Δ = 38° 46' 31.2" (LT)
D = 5° 54' 24.4"
L = 656.45'
T = 341.36'
R = 970.00'
e = 04

-DRIVE3-
S 68° 48' 00" E

MATCHLINE -L- STA. 30+00.00 SEE SHEET 5

MATCHLINE -L- STA. 43+50.00 SEE SHEET 7

-L- 38+28.83 PINC
-BL- 14 8+33.55 POT
-L- 38+55.59 4.84' LT.
-BY8- 142.71' N15°59'49"E

-L- 37+33.28, 5.569' RT.
-BL- 15 43+04.15 PINC

-L- 48+05.73 PINC
-BL- 17 42+41.92 POT
-BY11- 6.82' LT

CROFTWOOD DR.
2006 ADT
2030 ADT
600 / 800
400 / 400
200 / 400
7,200 / 15,200
SR 1311
HUNTINGDON ST.

30 x 12 x 3
ID 5.3 F

18 x 9 x 3
ID 5.2 F

2006 ADT
2030 ADT
SR 2251
SR 1311
600 / 600
300 / 300
100 / 100
200 / 200
7,100 / 15,100
7,200 / 15,200
PARK ENTRANCE

JAMES R. & DIANA A. GILLOAM
DB 2289 PG 14
(16)

JOHN M. & JANA F. PATTERSON
DB 1084 PG 227
(17)

LARRY E. & ROSEMARY H. RAY
DB 1568 PG 60

STEPHEN L. & JANICE P. HUGHES
DB 674 PG 465

DAVID R. & DIANE P. FRANK
DB 845 PG 164
(18)

JANICE E. PFLUMM
DB 1203 PG 625
(19)

TOWN OF ELON
DB 2241PG 489
DB 368 PG 140
DB 229 PG 334
DB 264 PG 116
(20)

STEVE GERRINGER
(LIFE ESTATE)
DB 249 PG 50

BETH SCHMIDT PARK
TOWN OF ELON COLLEGE
DB 1374 PG 532
(7)

DAVID P. & SUSAN A. HONEYCUTT
DB 509 PG 007
(21)

ERNEST B. & BARBARA CONNER
DB 350 PG 163
DB 358 PG 41
(22)

LEONARD T. DUDKA
DB 558 PG 518
(23)

STEPHEN C. CHARLES
DB 2247 PG 21
PB 69 PG 154

AVONDALE HOMEOWNERS ASSOCIATION
DB 255 PG 490
PB 68 PG 485

TOWN OF ELON
DB 2241PG 489
DB 368 PG 140
DB 229 PG 334
DB 264 PG 116

NCDOT

CL 'B' RIPRAP
EST. 3 TONS
EST. 10 SYFF

REMOVE 18" COLLAR & EXTEND EXIST. 18" RCP

RETAIN

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jenniferparish AT RENV242003

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PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-15/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR -L- PROFILE SEE SHEET 13
FOR -YI- & -Y2- PROFILES SEE SHEET 15

NC GRID NAD 83

MATCHLINE -L- STA. 43+50.00 SEE SHEET 6

MATCHLINE -L- STA. 56+50.00 SEE SHEET 8

MATCHLINE -L- SEE SHEET 11

24 x 10 x 3
ID 7.4 F

30 x 16 x 3
ID 7.3 F

35 x 23 x 3
ID 7.2 F

20 x 10 x 2
ID 7.1 F

Place Matting for Erosion Control on Slope as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.

Temporary Rock Sediment Dam Type A 1.5 ft. weir height

-L- PC Sta. 43+55.01

POT Sta. 10+00.00-YI-

POT Sta. 10+00.00-Y2-

POT Sta. 47+99.85-YI-

PC Sta. 10+43.76-YI-

PT Sta. 11+82.33 -YI-

PC Sta. 10+21.79-Y2-

PT Sta. 11+16.35-Y2-

PI Sta 10+69.64
Δ = 21° 40' 24.2" (RT)
D = 22° 56' 05.9"
L = 94.57'
T = 47.86'
R = 250.00'

PC Sta. 12+29.09-Y2-

PI Sta 48+09.51
Δ = 30° 48' 02.0" (RT)
D = 3° 26' 20.9"
L = 886.99'
T = 454.49'
R = 1,650.00'

PT Sta. 14+24.20-Y2-

POT Sta. 14+33.83-Y2-

PI Sta 13+35.20
Δ = 55° 53' 44.4" (LT)
D = 28° 38' 52.4"
L = 195.11'
T = 106.11'
R = 200.00'

-L- PT Sta. 52+42.01
POT Sta. 10+00.00-L1-&-L2-

-L- STA.53+42.72-
BEGIN BRIDGE
-L- STA.53+18.74-
BEGIN APPROACH SLAB
END SBG STA.53+18.74

BEGIN SBG STA.52+88.00
BEGIN SBG STA.52+85.93

-L- STA.53+15.13-
BEGIN APPROACH SLAB
-L- STA.53+39.10
BEGIN BRIDGE

-L- STA.54+69.91=
-YI3- STA.17+53.72

POT STA.54+69.91 -L-
-YI3- POT 17+53.72

TYPE III ST Sta. 17+80.40

-L- STA.55+15.69
END APPROACH SLAB
BEGIN SBG STA.56+15.69
-L- STA.55+91.72
END BRIDGE
TYPE III

-L- STA.55+88.10
END BRIDGE
-L- STA.56+12.08
END APPROACH SLAB
BEGIN SBG STA.56+12.08

END SBG STA.56+42.86

-L- STA.56+69.91
END SBG STA.56+

-BL- 20 60+54.53 PINC
-BYII- 12+21.86 PINC
-L- 54+51.05, LT

-BYII- 3 15+04.76 POT

LT = 280.09'
ST = 140.08'

DAWN L. [illegible]
DB 2453 PG [illegible]
PB 69 PG 154

DAVID H. & JANET L. TESSMAN
DB 2493 PG 224
PB 69 PG 154

ERIK B. SMITH & WIFE
AMY M. SMITH

JOHN J. & RACQUEL BUSKO

BRENDA K. FOUST
DB 2312 PG 876
PB 68 PG 485

D. W. STEWART & SSA M. STEWART
2581 PG 868
B 68 PG 485

ARCHIE B. JEFFRIES & GRACE B. JEFFRIES
DB 2347 PG 998
PB 69 PG 154

JEFFREY B. HAGOOD
DB 2589 PG 415
PB 69 PG 154

ROBERT D. THURMAN, JR. & ASHLEY C. THURMAN
DB 2543 PG 224
PB 69 PG 154

PIERCE HOMES OF CAROLINA, INC
DB 1403 PG 234

SONOCO PRODUCTS COMPANY
DB 387 PG 599

SUNOCO PRODUCTS COMPANY
DB 387 PG 599

HOPE REAL ESTATE, LLC
DB 1531PG 816

FBD, LLC
DB 2666 PG 376

N.C. DEPARTMENT OF TRANSPORTATION
(formerly - MARIE A. COOK ET AL)
(DB 1703 PG 499)
(formerly - DAWD & DIANE J. DAY)
(DB 1079 PG 88)

1-GEORGE E. & SYLVIA A. STOCKWELL
DB 1579 PG 378

2-HAROLD D. & INEZ C. VERNON
DB 1899 PG 313

3-BLAKE & WANDA JONES
DB 1905 PG 342

4-LORRAINE W. MATKINS
DB 1575 PG 905

5-PHUONG CAM TRINH
DB 2656 PG 68

6-JAMES L. & DEBBIE C. WILSON
DB 1883 PG 256

7-KELLY N. MONTGOMERY
DB 1576 PG 341

2006 ADT
2030 ADT
6,800
15,200
7,000
15,400
SR 1311
100
100
200
300
400
500
600
800
PLANT ENTRANCE (SERVICE RD)

DETAIL B
LATERAL 'V' DITCH
(Not to Scale)
-L- 44+50 TO 47+50 LT.
-YI- 14+88 TO 16+00 RT.
-YI- 13+00 TO 13+25 RT.

DETAIL C
LATERAL 'V' DITCH
(Not to Scale)
-L- 49+55 TO 53+00 RT.

DETAIL D
LATERAL BASE DITCH
(Not to Scale)
-L- 49+00 TO 49+55 RT.
-YI- 13+25 TO 14+88 RT.

DETAIL E
SPECIAL CUT DITCH
(Not to Scale)
-YI- 16+00 TO 16+50 RT.

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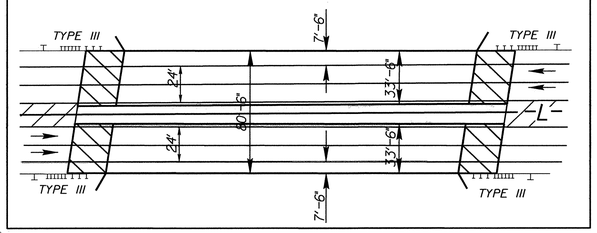
ppeterson
AT RENV2020.3

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-16/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP



FOR -L- PROFILE SEE SHEETS 13 & 14
FOR -RAMPA- PROFILE SEE SHEET 17
FOR -Y3- PROFILE SEE SHEET 15

SEE SHEET 11

MATCHLINE -L- STA. 56+50.00 SEE SHEET 7

MATCHLINE -L- STA. 69+40.00 SEE SHEET 9

MATCHLINE -L- STA. 13+00.00 -RAMP A-

Place Matting for Erosion Control on Slope as Work Allows.

ELON PROPERTIES, LLC
DB 1628 PG 728

PHILLIP STARKE, LLC
DB 1850 PG 497
TIE TO EXIST. DITCH

LAT. 'V' DITCH SEE DETAIL F

-L- STA.58+20.28
BEGIN BRIDGE

CL 'B' RIPRAP EST. 2 TONS EST. 7 SYFF

-L- STA.58+97.14 = -Y3- Sta. 19+26.32

CL 'B' RIPRAP EST. 3 TONS EST. 10 SYFF

-L- STA.59+64.78
END BRIDGE

-L- STA.59+88.95
END APPROACH SLAB
BEGIN SBG -L- STA.59+88.95

DB 991PG 356 -L- STA.57+96.12
BEGIN APPROACH SLAB

15" CSP ROD & LUG CONNECTORS W/2 ELBOWS

-BL- 21 63+10.49 24.403' R
-L- 57+01.16

END SBG -L- STA.60+19.21

Impact Attenuator

-L- STA.57+97.33
BEGIN APPROACH SLAB
-L- STA.58+21.50
BEGIN BRIDGE

COLLAR & EXTEND EXISTING 18" RCP
-Y3- PC Sta. 19+26.32

BEGIN CONSTRUCTION STA. 20+73.50

JB W/SLAB LID
PT Sta. 19+73.93 -Y3-

END SBG -L- STA.60+19.21
-L- STA.59+90.16
END APPROACH SLAB
BEGIN SBG -L- STA.59+90.16

-L- STA.59+66.00
END BRIDGE

HOPE REAL ESTATE, LLC
DB 1531PG 816

TIE TO EXIST.

POT Sta. 21+44.74 -Y3- =
POT Sta. 23+42.11 -RAMPA-
-BY12- 60 18+67.11 PINC

PC Sta. 21+60.51 -Y3-

PT Sta. 20+92.09 -RAMPA-

+62.08 -RAMPA- 90.08' LT
+70.53 -Y3- 60' LT

ELON SELF STORAGE, LLC
DB 2174, PG 786

Place Matting for Erosion Control on Slope as Work Allows.

FBD, LLC
DB 2666 PG 376

Pot Sta.25+00.00 -Y3-

+50.00 -Y3- 60' LT
+50.00 -Y3- 41.45' LT

END CONSTRUCTION -Y3- STA.24+50.00

N.C. DEPARTMENT OF TRANSPORTATION
DB 1116 PG 806

753.26'
S04°10'55"W

144.70'
N89°50'40"E

NAD 83 GRID

-RAMP A-
PI Sta 18+51.51
Δ = 28°09' 39.5" (LT)
D = 5°43' 46.5"
L = 491.50'
T = 250.82'
R = 1,000.00'

PRC Sta. 16+00.69 -RAMP A-

REMOVE

15" CSP ROD & LUG CONNECTORS W/2 ELBOWS

CL 'B' RIPRAP EST. 2 TONS EST. 7 SYFF

LAT. 'V' DITCH SEE DETAIL F

Modified Silt Basin Type 'B' 60 x 18 x 3 (See Tiered Skimmer Basin Detail) ID 8.1 F

60 x 18 x 3 1.5 inch Skimmer with 1.125 inch Orifice Diameter 10 ft. weir (See Tiered Skimmer Basin Detail) ID 8.1 F

2' LAT. BASE DITCH SEE DETAIL G

SPEC. CUT DITCH SEE DETAIL H

GRAU350

100' TAPER

225' FULL LANE

200' FULL LANE

90' TAPER

150' FULL LANE

EXISTING R/W VARIES

NOTE: UNABLE TO LOCATE EASEMENT DEED FOR CELL TOWER

SPEC. LAT. 'V' DITCH SEE DETAIL J

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

-L- 40+90 TO 58+50 LT.
-L- 59+50 TO 66+00 RT.
-RAMPA- 13+00 TO 13+50 LT.

DETAIL G
LATERAL BASE DITCH
(Not to Scale)

-L- 66+00 TO 69+40 RT.

DETAIL H
SPECIAL CUT DITCH
(Not to Scale)

-RAMPA- 14+00 TO 15+00 RT.
-RAMPA- 15+00 TO 16+00 LT.

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

-RAMPA- 13+00 TO 14+00 RT.
-RAMPA- 13+50 TO 15+00 LT.

ELON COLLEGE
DB 483 PG 759

DONNELL RD
DB 4231 PG 0

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PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-17/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR -L- PROFILE SEE SHEETS 14
FOR -RAMPA- PROFILE SEE SHEET 17

26 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 9.3 F

Modified Silt Basin
Type 'B'
26 x 16 x 3
(See Tiered Skimmer
Basin Detail)
ID 9.3 F

36 x 18 x 3
4 ft. weir
ID 9.1 CG

36 x 12 x 3
ID 9.4 F

24 x 10 x 3
ID 9.5 F

78 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 9.2 F

75 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 9.1 F

Place Matting for Erosion Control on Slope as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.

N.C. GRID NAD 83

MATCHLINE -L- STA. 69+40.00 SEE SHEET 8

MATCHLINE -L- STA. 83+00.00 SEE SHEET 9

MATCHLINE -RAMP A- STA. 13+00.00

-L- STA. 69+69.00
END C/A

-L- STA. 70+29.00
BEGIN C/A

D&P DEVELOPMENT NUMBER 1
DB 1147 PG 891
DB 553 PG 437

POT Sta. 69+99.85 -L- =
POT Sta. 10+00.00 -RAMP A-

PC Sta. 72+28.53 -L-

PC Sta. 10+92.16 -RAMP A-

-L-
PI Sta 76+44.95
Δ = 23° 31' 22.1" (RT)
D = 2° 51' 53.2"
L = 821.10'
T = 416.42'
R = 2,000.00'
e = 04

ELON CITY LIMITS

N.C. DEPARTMENT OF TRANSPORTATION
DB 1129 PG 957

NORBERT A. & KLARA S. STAIC
DB 421 PG 374

ELON COLLEGE

CONSTRUCT 2' EARTH BERM TO ELEVATION 661.00

PROPOSED OUTLET CHANNEL
SEE DETAIL
EST. 32 TONS
EST. 67 SYFF

NO RIPRAP TO BE PLACED IN STREAM BED - BANK ONLY

SITE 1

CL 'B' RIPRAP
EST. 2 TONS
EST. 7 SYFF

CL 'B' RIPRAP
EST. 3 TONS
EST. 10 SYFF

CL 'I' RIPRAP
EST. 26 TONS
EST. 56 SYFF

CL. 'B' RIPRAP
EST. 1 TON
EST. 5 SYFF

REMOVE 18" CSP

ELBOW

COLLAR AND EXTEND EXIST. 66" RCP

COLLAR AND EXTEND 60"

REMOVE

TIE TO EXIST.

TIE TO EXISTING

LAT. 'V' DITCH
SEE DETAIL

'V' DITCH
SEE DETAIL R

LAT 'V' DITCH
SEE DETAIL K

4' BASE DITCH
SEE DETAIL
S=0.00%
EST. 16 TONS
EST. 26 SYFF
EST. 15 CYDDE

LAT. BASE DITCH
SEE DETAIL N

'V' DITCH
SEE DETAIL R
S=3.3333%

LAT. 'V' DITCH
SEE DETAIL P

PREFORMED SCOUR HOLE
B=5'
D=4'

JB W/SLAB LID
REMOVE HW

PDE

TOE PROTECTION
EST. 95 TONS
EST. 265 SYFF

LAT. BASE DITCH
SEE DETAIL N

30" JB W/SLAB LID

RETAIN 30

FUNNEL DRAIN

CAT-I

GRAU350

TSD

DETAIL K
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.0 Ft.
b = 5 Ft.
-L- 71+00 TO 74+50 LT.
-L- 80+20 TO 80+85 LT.

DETAIL L
TOE PROTECTION
(Not to Scale)
d = 1 Ft.
Type of Liner = CL. 'B'
-L- 78+50 TO 82+50 RT.

DETAIL M
PROPOSED OUTLET CHANNEL
(Not to Scale)
D= VARIES TO TOP OF BANK
Type of Liner = CL. 'I'
-L- 81+00 LT.

DETAIL N
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1.1 Ft.
Max. d= 1.0 Ft.
B= 5 Ft.
b= 2 Ft.
Type of Liner= PSRM
-L- 69+40 TO 69+50 RT.
EST. 20 SQ YDS
-L- 79+63 TO 79+90 RT.
EST. 27 SQ YDS

DETAIL P
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.0 Ft.
-RAMPA- 11+00 TO 13+00 RT.
-RAMPA- 12+50 TO 13+00 LT.

DETAIL O
STANDARD BASE DITCH
(Not to Scale)
Min. D = - Ft.
Max. d = 1 Ft.
B = 4 Ft.
Type of Liner = CL. 'B'
-RAMPA- 11+20 LT.

DETAIL R
STANDARD 'V' DITCH
(Not to Scale)
Min. D = 1 Ft.
-RAMPA- 12+00 LT.
-L- 78+50 TO 79+30 LT.

PREFORMED SCOUR HOLE
PLAN VIEW
SECTION A-A
B= 5 Ft.
D= 2 Ft.
W= 5 Ft.
d= 1Ft.
5/05
-L- 79+50 RT.

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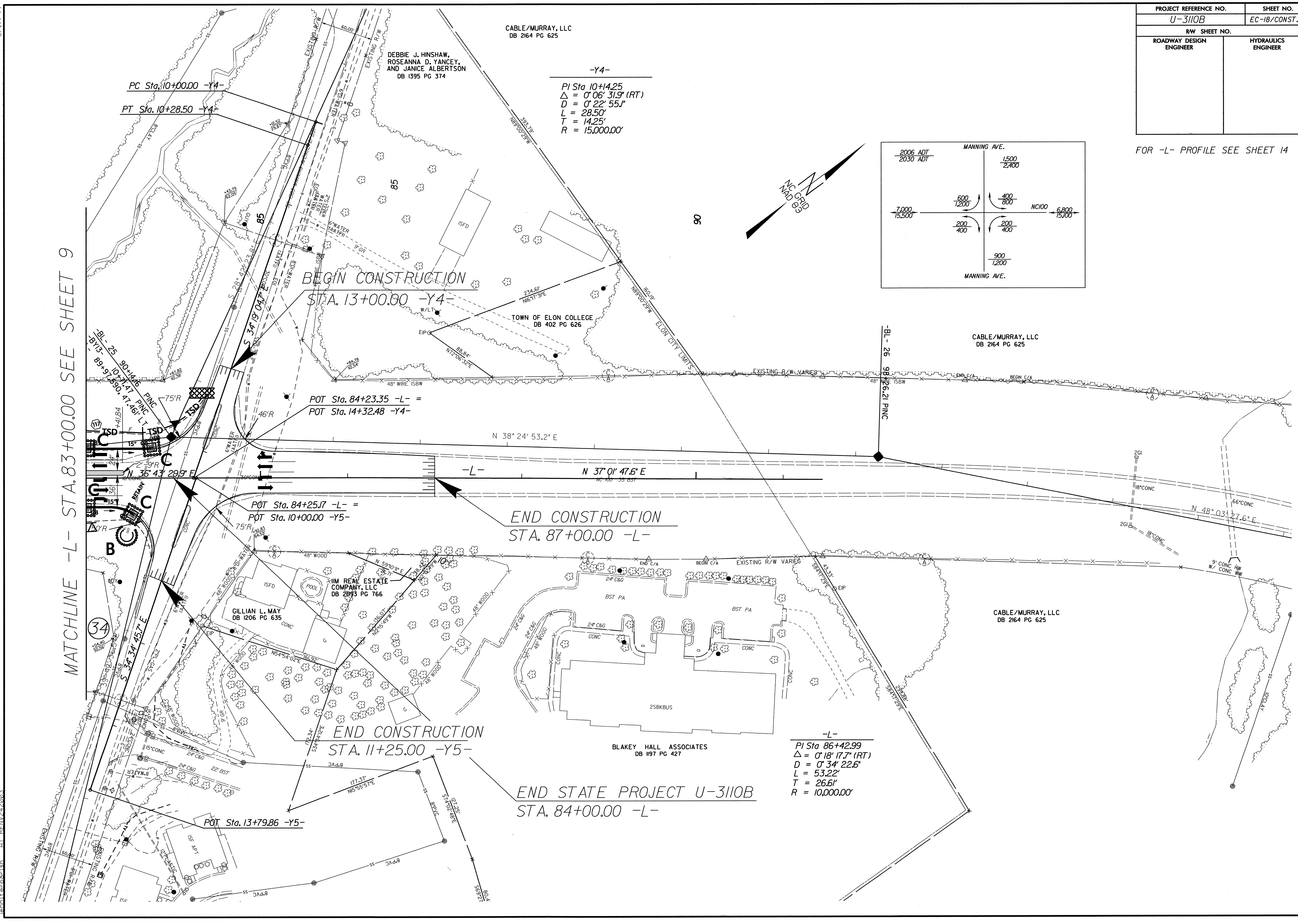
PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-18/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



FOR -L- PROFILE SEE SHEET 14
CABLE/MURRAY, LLC
DB 2164 PG 625
DEBBIE J. HINSHAW, ROSEANNA D. YANCEY, AND JANICE ALBERTSON
DB 1395 PG 374
-Y4-
PI Sta 10+14.25
△ = 0° 06' 31.9" (RT)
D = 0° 22' 55.1"
L = 28.50'
T = 14.25'
R = 15,000.00'
PC Sta. 10+00.00 -Y4-
PT Sta. 10+28.50 -Y4-
NC GRID NAD 83
MANNING AVE.
2006 ADT
2030 ADT
1,500
2,400
600
1,200
400
800
7,000
15,500
NC100
6,800
15,500
200
400
200
400
900
1,200
MANNING AVE.
BEGIN CONSTRUCTION
STA. 13+00.00 -Y4-
TOWN OF ELON COLLEGE
DB 402 PG 626
ELON CITY LIMITS
CABLE/MURRAY, LLC
DB 2164 PG 625
EXISTING R/W VARIES
POT Sta. 84+23.35 -L- =
POT Sta. 14+32.48 -Y4-
N 38° 24' 53.2" E
-L-
N 37° 01' 47.6" E
N 36° 43' 29.9" E
END CONSTRUCTION
STA. 87+00.00 -L-
POT Sta. 84+25.17 -L- =
POT Sta. 10+00.00 -Y5-
N 48° 03' 27.6" E
IIM REAL ESTATE COMPANY, LLC
DB 2893 PG 766
GILLIAN L. MAY
DB 1206 PG 635
EXISTING R/W VARIES
CABLE/MURRAY, LLC
DB 2164 PG 625
MATCHLINE -L- STA. 83+00.00 SEE SHEET 9
END CONSTRUCTION
STA. 11+25.00 -Y5-
BLAKEY HALL ASSOCIATES
DB 1197 PG 427
-L-
PI Sta 86+42.99
△ = 0° 18' 17.7" (RT)
D = 0° 34' 22.6"
L = 53.22'
T = 26.61'
R = 10,000.00'
END STATE PROJECT U-3110B
STA. 84+00.00 -L-
POT Sta. 13+79.86 -Y5-
S 34° 19' 04.7" E
S 34° 34' 45.7" E

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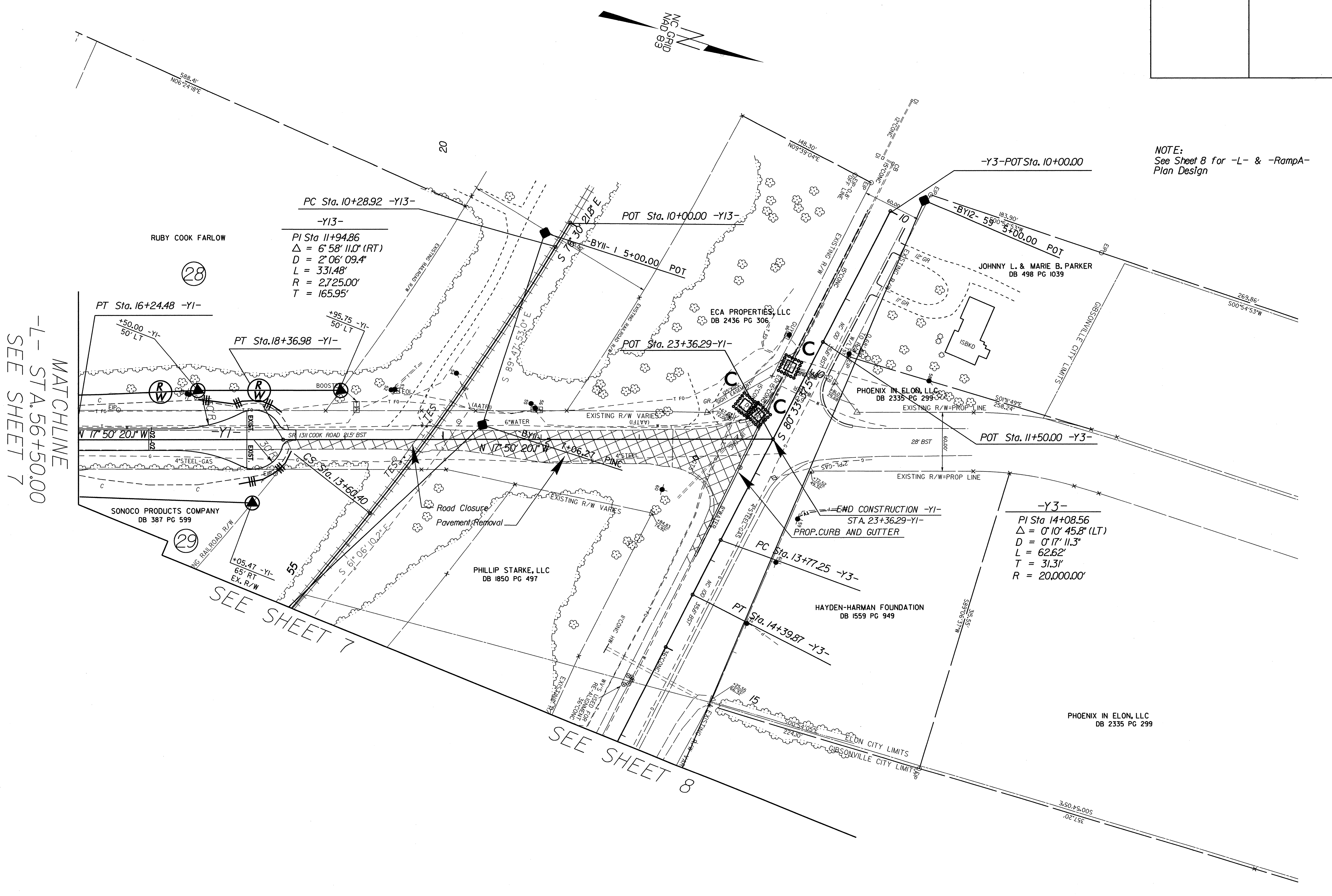
PROJECT REFERENCE NO.	SHEET NO.
U-3110B	EC-19/CONST.11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
See Sheet 8 for -L- & -RampA- Plan Design



NC GRID NAD 83
RUBY COOK FARLOW
28
PC Sta. 10+28.92 -Y13-
-Y13-
PI Sta 11+94.86
Δ = 6° 58' 11.0" (RT)
D = 2° 06' 09.4"
L = 331.48'
R = 2,725.00'
T = 165.95'
POT Sta. 10+00.00 -Y13-
-BY11- 1 5+00.00 POT
PT Sta. 16+24.48 -Y1-
+50.00 -Y1- 50' LT
PT Sta. 18+36.98 -Y1-
+95.75 -Y1- 50' LT
ECA PROPERTIES, LLC
DB 2436 PG 306
POT Sta. 23+36.29 -Y1-
-Y3- POT Sta. 10+00.00
-BY12- 5 5+00.00 POT
JOHNNY L. & MARIE B. PARKER
DB 498 PG 1039
PHOENIX IN ELON, LLC
DB 2335 PG 299
EXISTING R/W=PROP LINE
POT Sta. 11+50.00 -Y3-
EXISTING R/W VARIES
SR 1311 COOK ROAD 21.5' BST
MATCHLINE -L- STA. 56+50.00 SEE SHEET 7
SONOCO PRODUCTS COMPANY
DB 387 PG 599
29
NC RAILROAD R/W
+05.47 -Y1- 65' RT EX. R/W
CS Sta. 13+60.40
Road Closure
Pavement Removal
END CONSTRUCTION -Y1-
STA. 23+36.29 -Y1-
PROP. CURB AND GUTTER
-Y3-
PI Sta 14+08.56
Δ = 0° 10' 45.8" (LT)
D = 0° 17' 11.3"
L = 62.62'
T = 31.31'
R = 20,000.00'
PC Sta. 13+77.25 -Y3-
PT Sta. 14+39.87 -Y3-
PHILLIP STARKE, LLC
DB 1850 PG 497
HAYDEN-HARMAN FOUNDATION
DB 1559 PG 949
PHOENIX IN ELON, LLC
DB 2335 PG 299
SEE SHEET 7
SEE SHEET 8
ELON CITY LIMITS
GIBSONVILLE CITY LIMITS

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