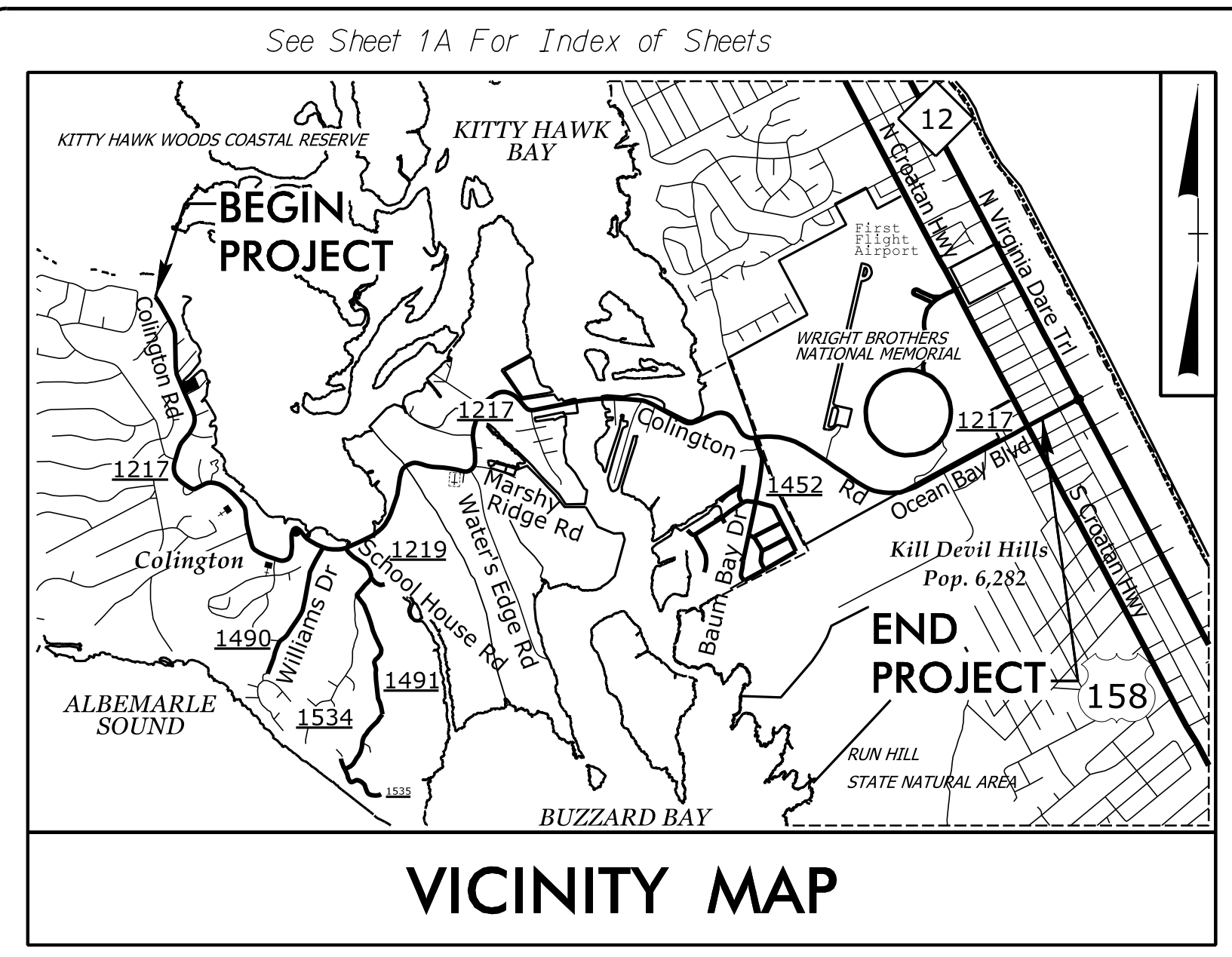


09.08/2018

TIP PROJECT: R-5014



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

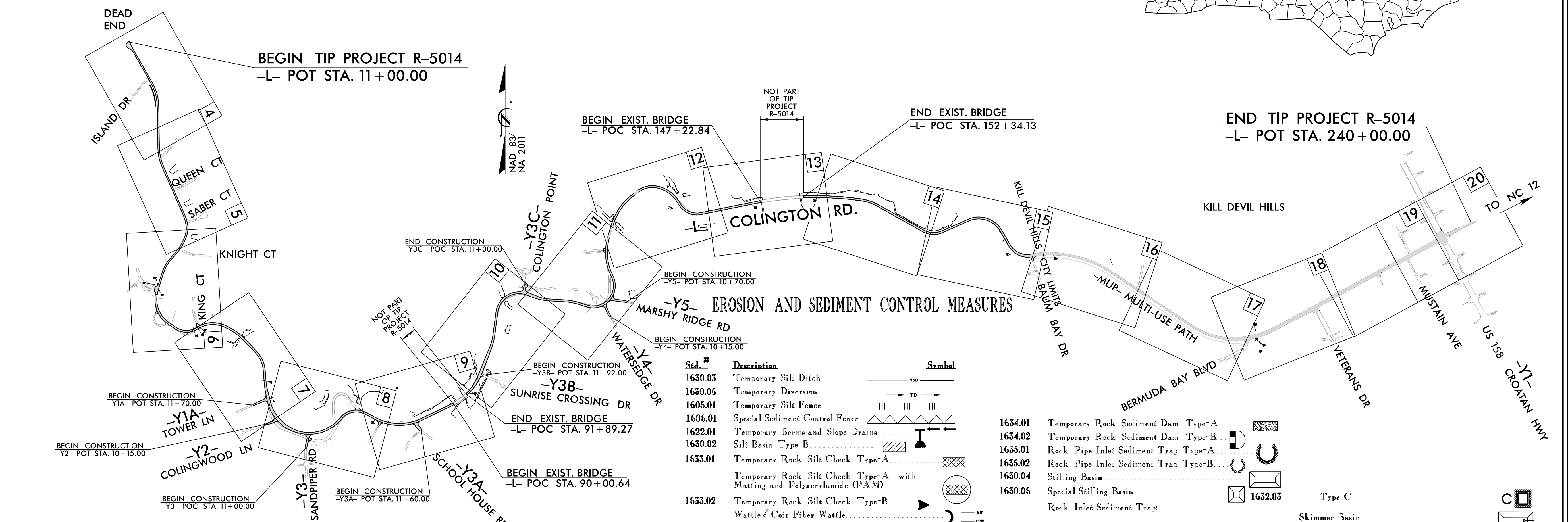
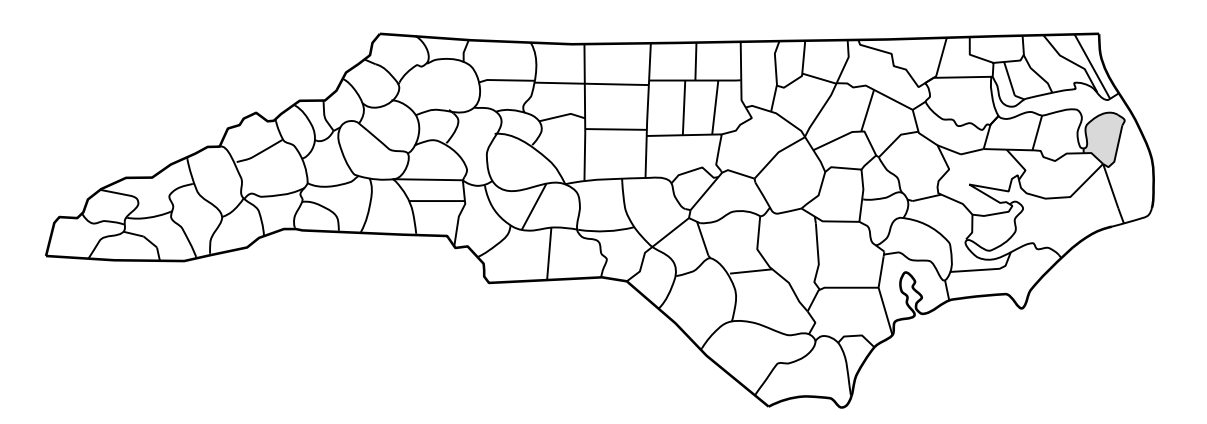
DARE COUNTY

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5014	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
41162.1.1	STP-1217(6)	PE	

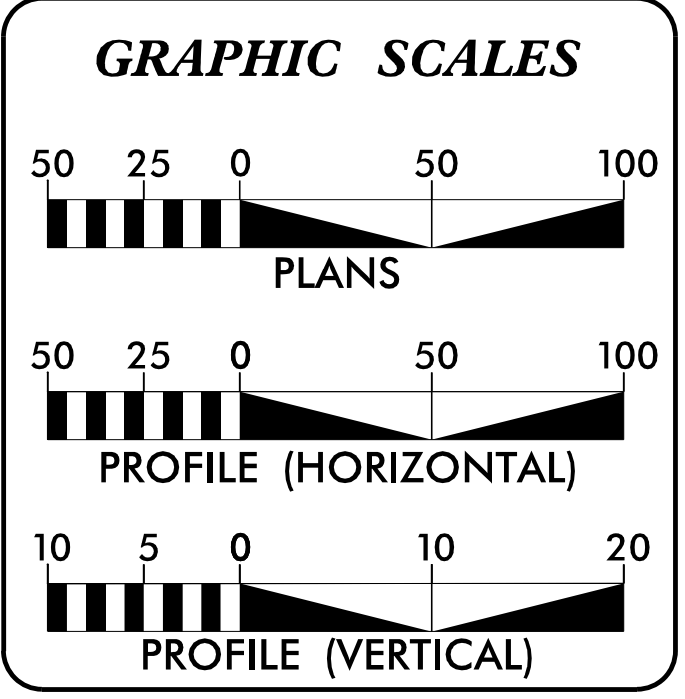
LOCATION: SR 1217 (COLINGTON RD.) FROM DEAD END TO US 158
CROATAN HIGHWAY IN KILL DEVIL HILLS

TYPE OF WORK: GRADING, DRAINAGE, & PAVING



THERE IS A DESIGN EXCEPTION FOR HORIZONTAL CURVE RADIUS AND ASSOCIATED HORIZONTAL STOPPING SIGHT DISTANCE.
THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF KILL DEVIL HILLS.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD

CONTRACT:



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 1, 2016 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

CALYX
ENGINEERS & CONSULTANTS
Formerly Midway Engineers & Consultants
7500 EAST INDEPENDENCE BOULEVARD, SUITE 100
CHARLOTTE, NC 28227
PHONE: 704.537.7300
CALYXengineers.com
NC License # F-1333

Designed by:

JAMES R. HOPSON, JR., PE 3736
NAME LEVEL III CERTIFICATION NO.

Reviewed in the Office of:

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

2018 STANDARD SPECIFICATIONS

Reviewed by:

WES CHANDLER, PE

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	

11/5/2018
R:\Environment\Design\R5014_hyd_EC_TSH_01.dgn
jhopson

PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-02
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.

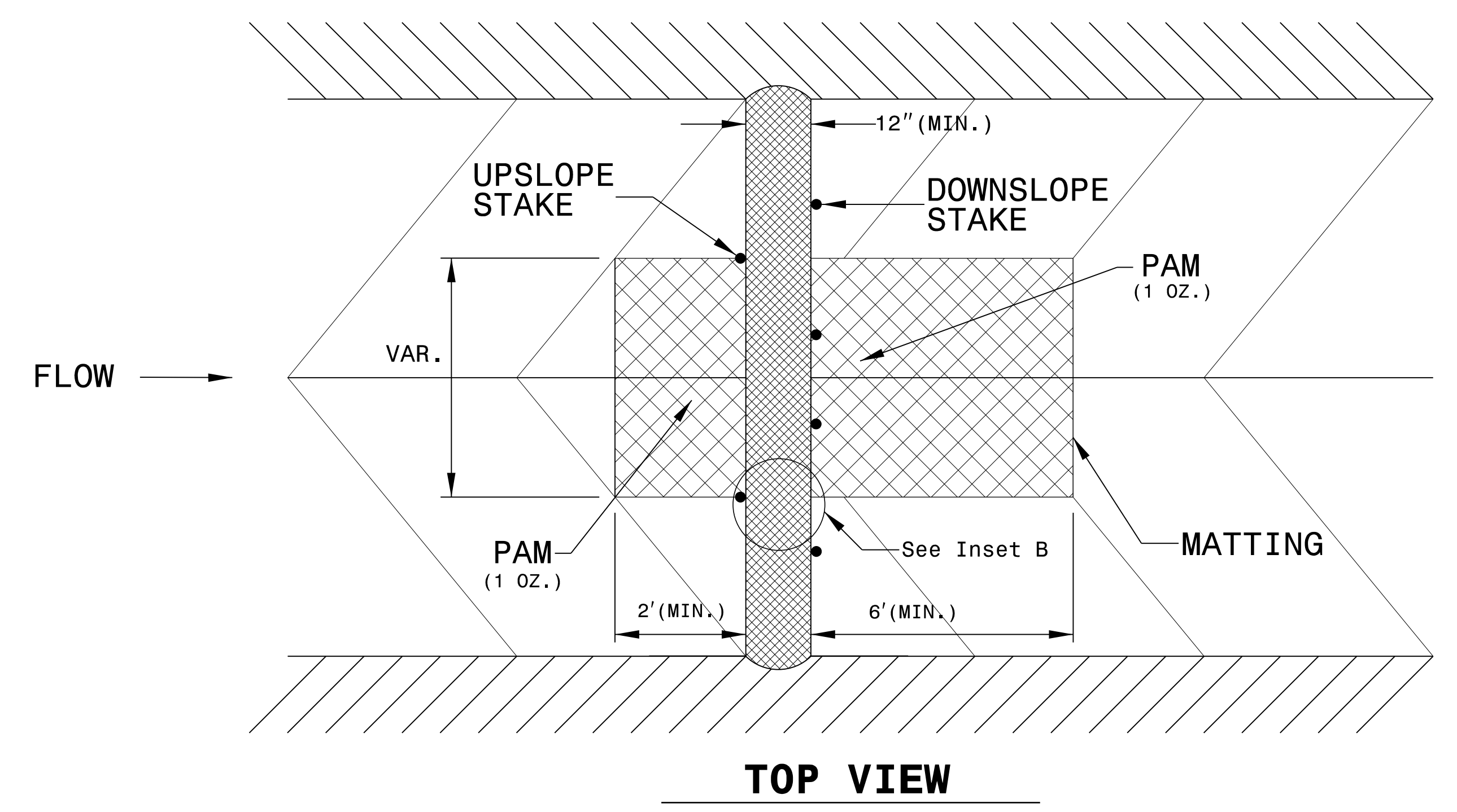
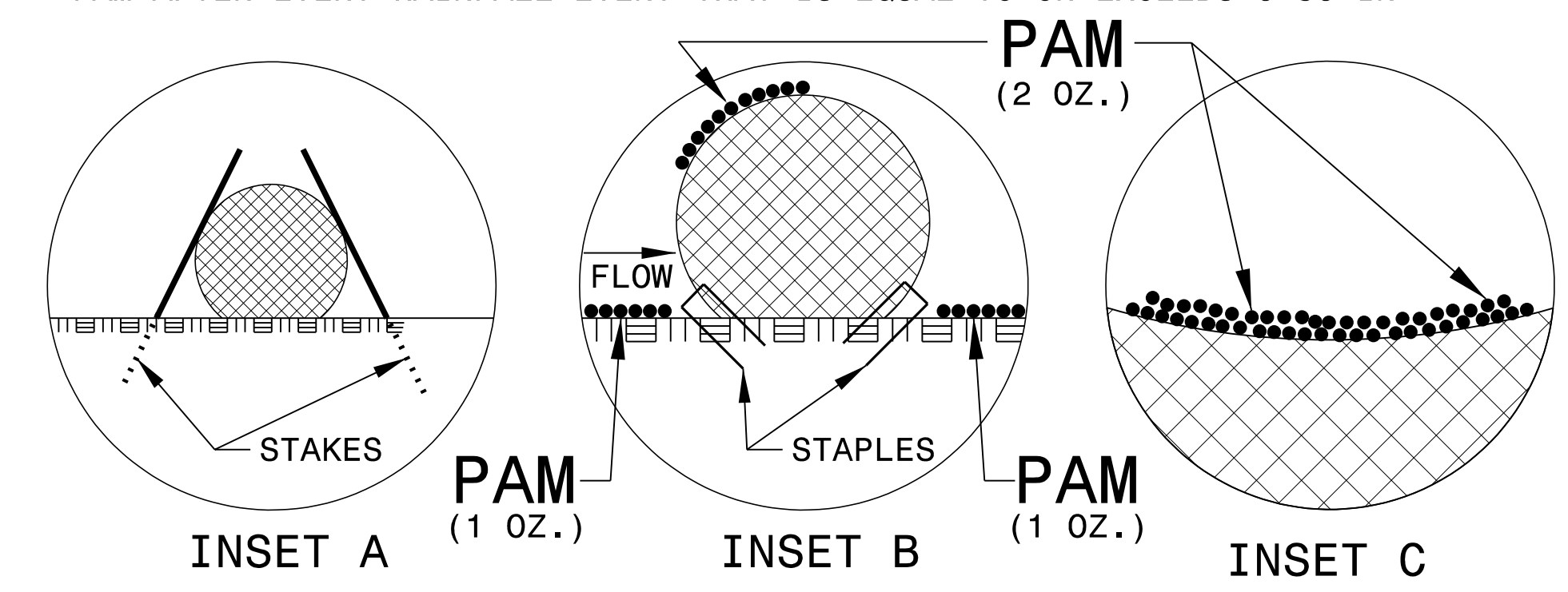
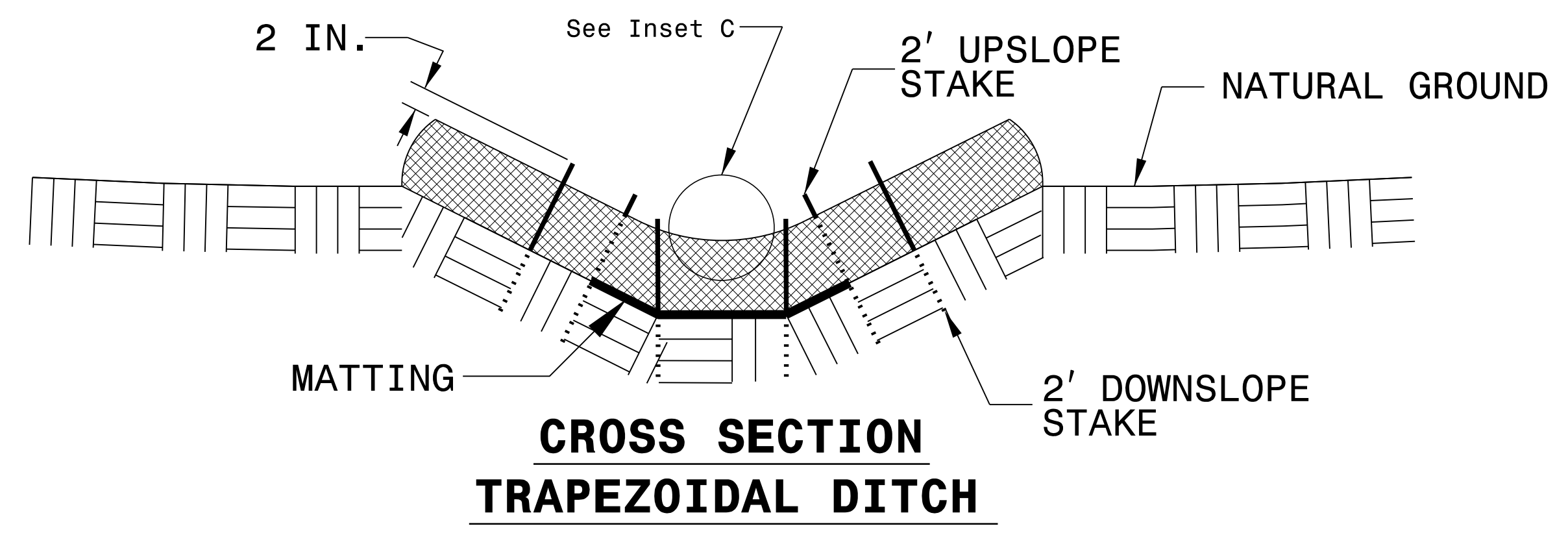
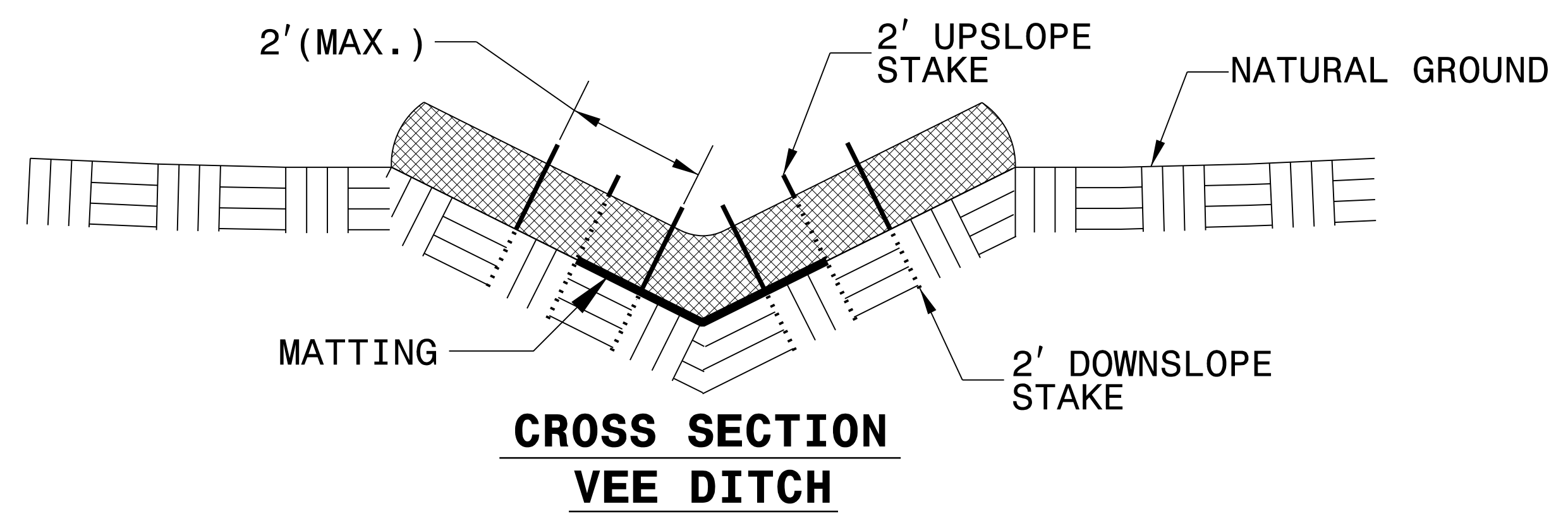
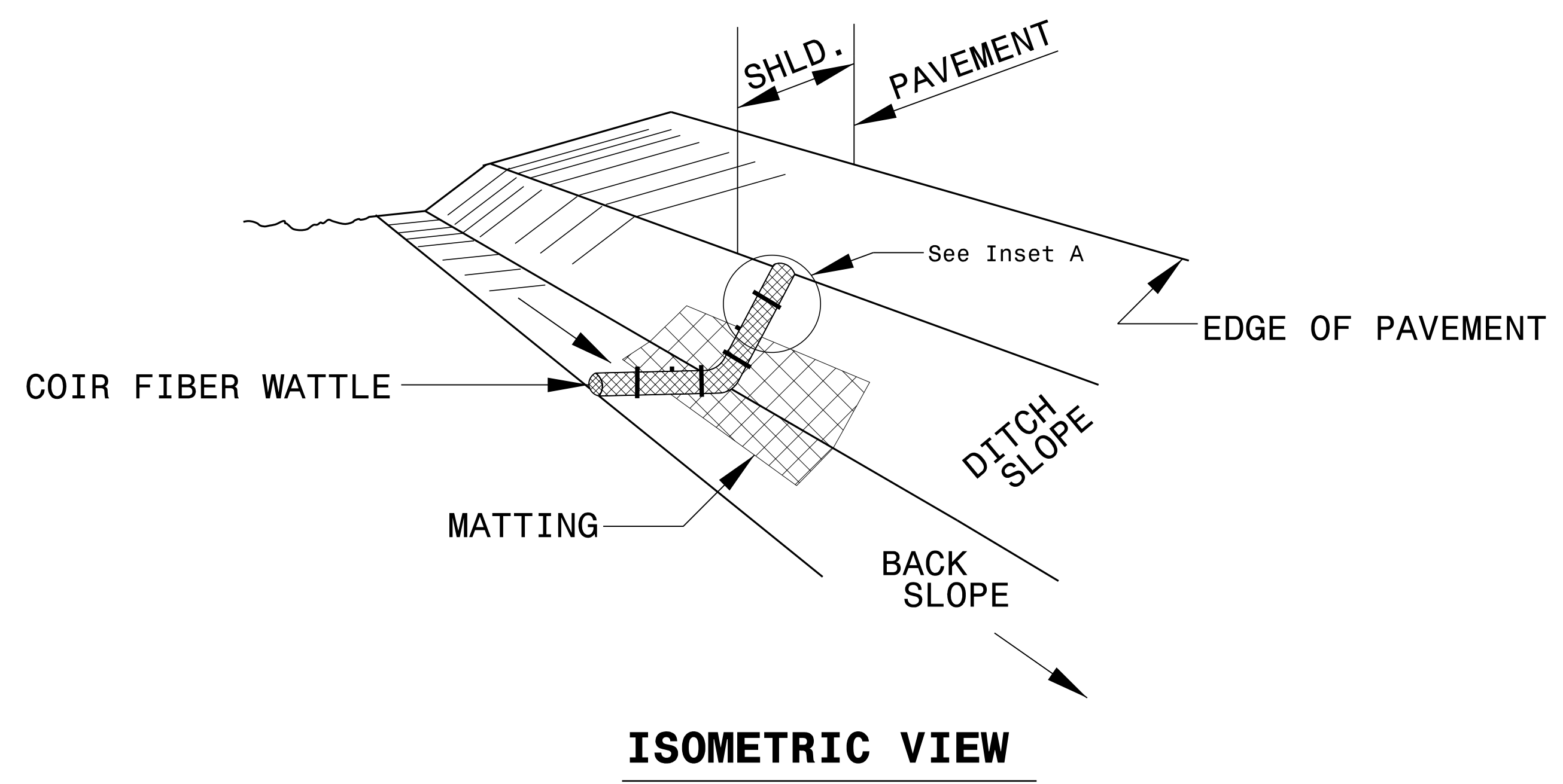
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

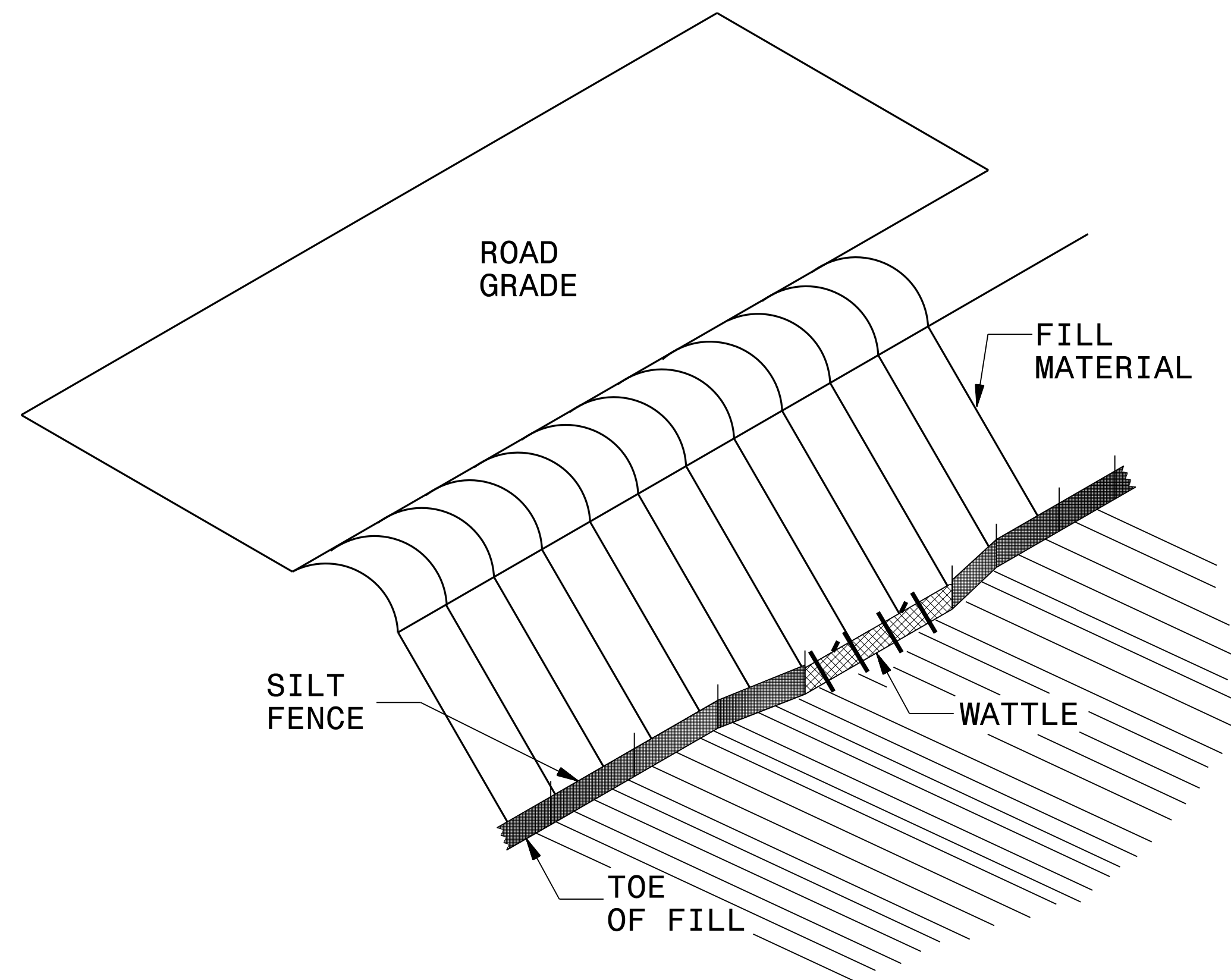
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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

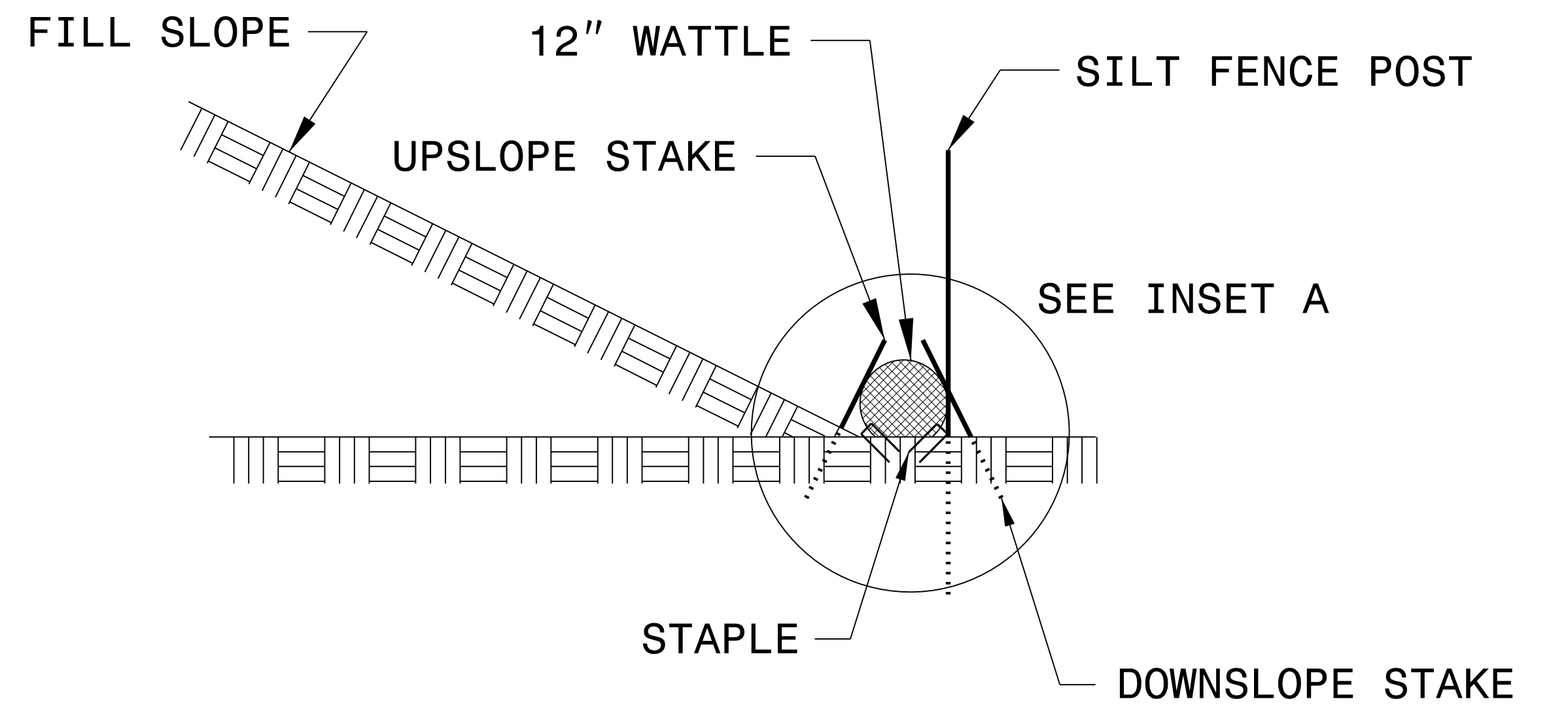
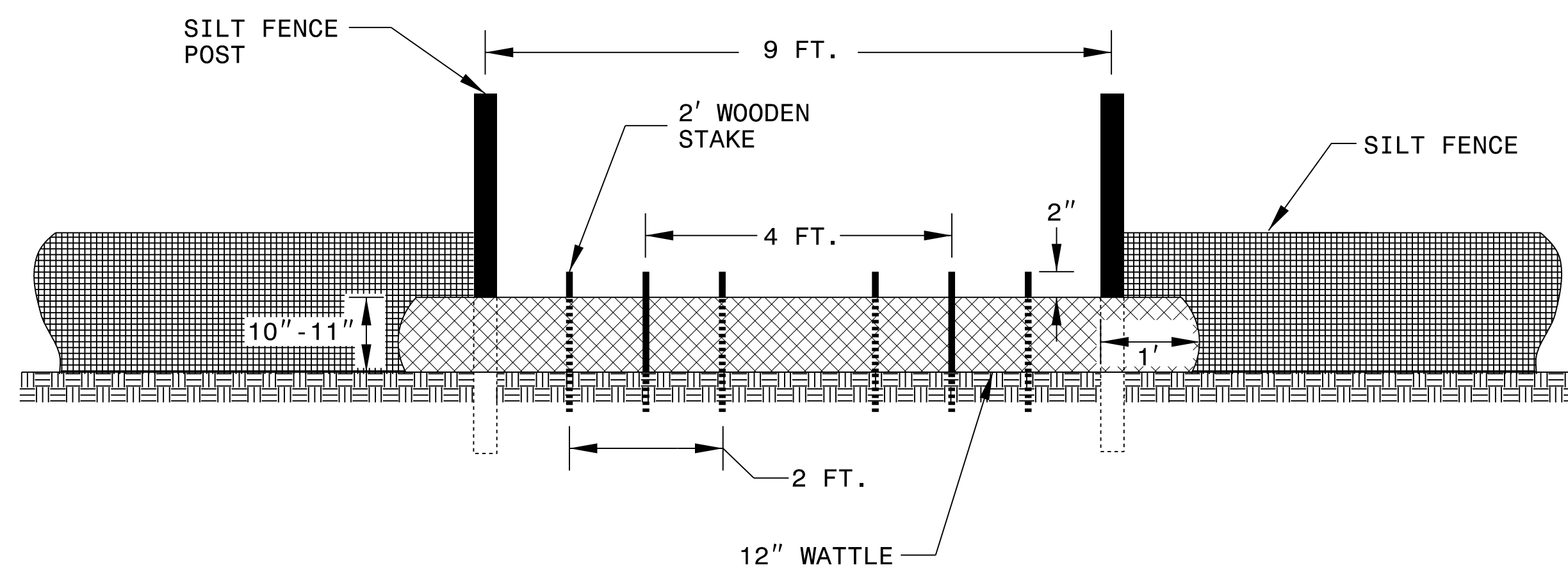
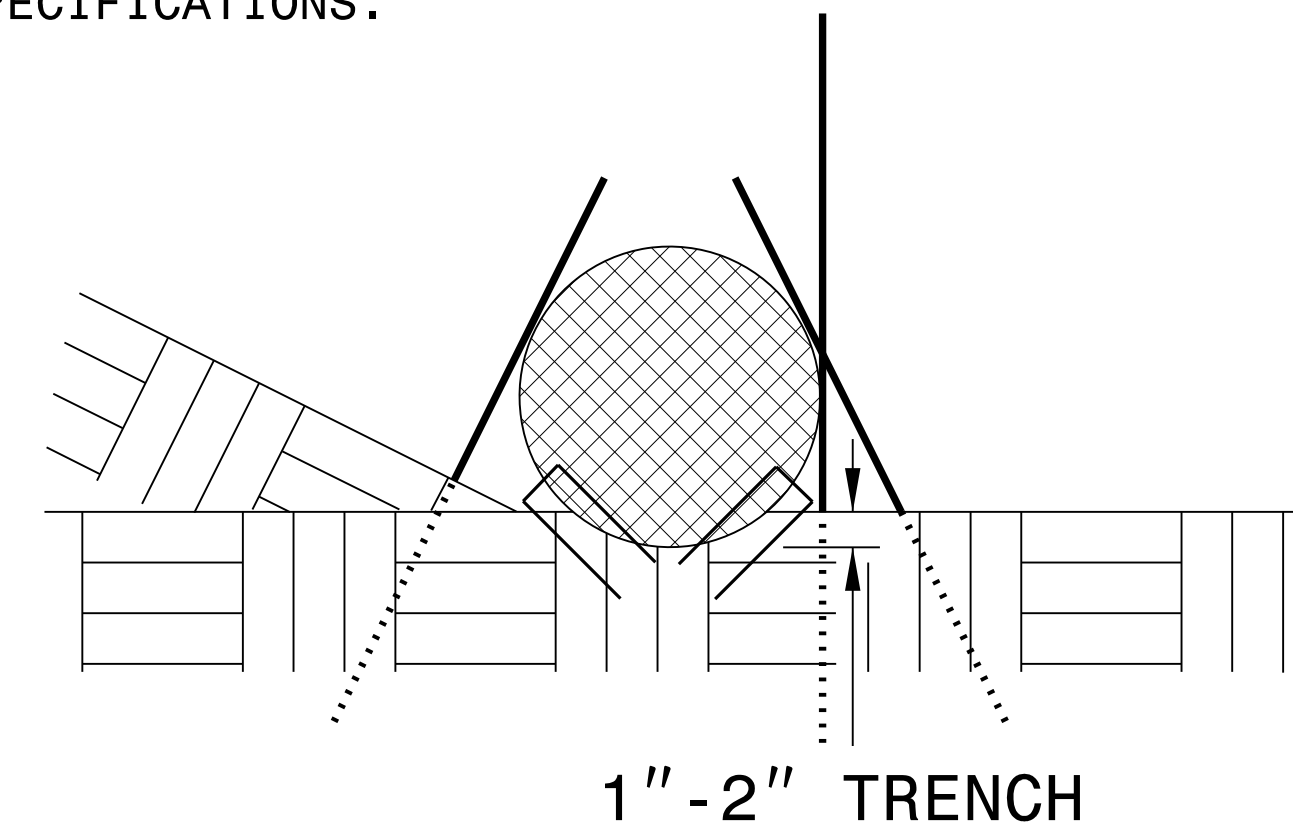
PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-02A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-03</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-L-	42+50	47+27	LT	500
6	-L-	43+00	47+36	RT	610
6	-L-	47+27	50+70	LT	360
6	-L-	47+36	47+80	RT	50
6	-L-	49+55	52+00	RT	430
6	-L-	51+17	52+00	LT	30
7	-L-	52+00	53+93	LT	205
7	-L-	52+00	56+28	RT	428
7	-L-	56+00	57+00	LT	300
7	-L-	56+54	59+90	RT	470
7	-L-	61+00	62+00	RT	390
7	-L-	62+00	63+00	LT	360
7/8	-L-	66+00	69+50	LT	1250
8	-L-	71+50	74+00	RT	1250
8	-L-	71+50	74+50	LT	1070
8	-L-	75+00	77+50	RT	1340
8	-L-	76+00	77+50	LT	640
8	-L-	76+73	80+50	RT	525
9	-L-	76+73	80+50	RT	395
9	-L-	81+25	84+76	RT	370
9	-L-	81+50	85+00	RT	1370
9	-L-	85+50	87+00	RT	540
9/10	-L-	92+50	95+50	LT	1270
10	-L-	95+75	97+25	RT	160
10	-L-	96+20	99+76.92	LT	500
10	-L-	97+50	98+10	RT	45
10	-L-	98+10	99+76.92	RT	235
10	-L-	99+76.99	103+85	RT	430
10	-L-	99+76.92	104+10	LT	455
10	-L-	104+00	105+00	LT	430

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
10	-L-	108+00	108+97	RT	105
11	-L-	108+25	111+00	LT	290
11	-L-	109+87	112+00	RT	150
11	-L-	112+60	116+00	LT	240
11	-L-	117+00	118+50	RT	540
11	-L-	117+97	120+00	LT	285
11	-L-	122+50	126+25	RT	525
11	-L-	124+11	126+72	LT	455
12	-L-	126+50	127+50	LT	360
15	-L-	172+00	174+00	RT	850
15	-L-	175+50	177+00	LT	540
15	-L-	176+75	178+80	RT	165
15	-L-	179+00	180+00	RT	470
19	-L-	229+00	231+00	LT	325
19	-L-	231+00	234+60	LT	505
			SUBTOTAL		22213
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				7587
			TOTAL		29800
			SAY		29800
PERMANENT SOIL REINFORCEMENT MAT					
7	-Y1A-	12+00	13+15	RT	85
			SUBTOTAL		85
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				15
			TOTAL		100
			SAY		100

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-03A
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.

8/17/99

REVISIONS

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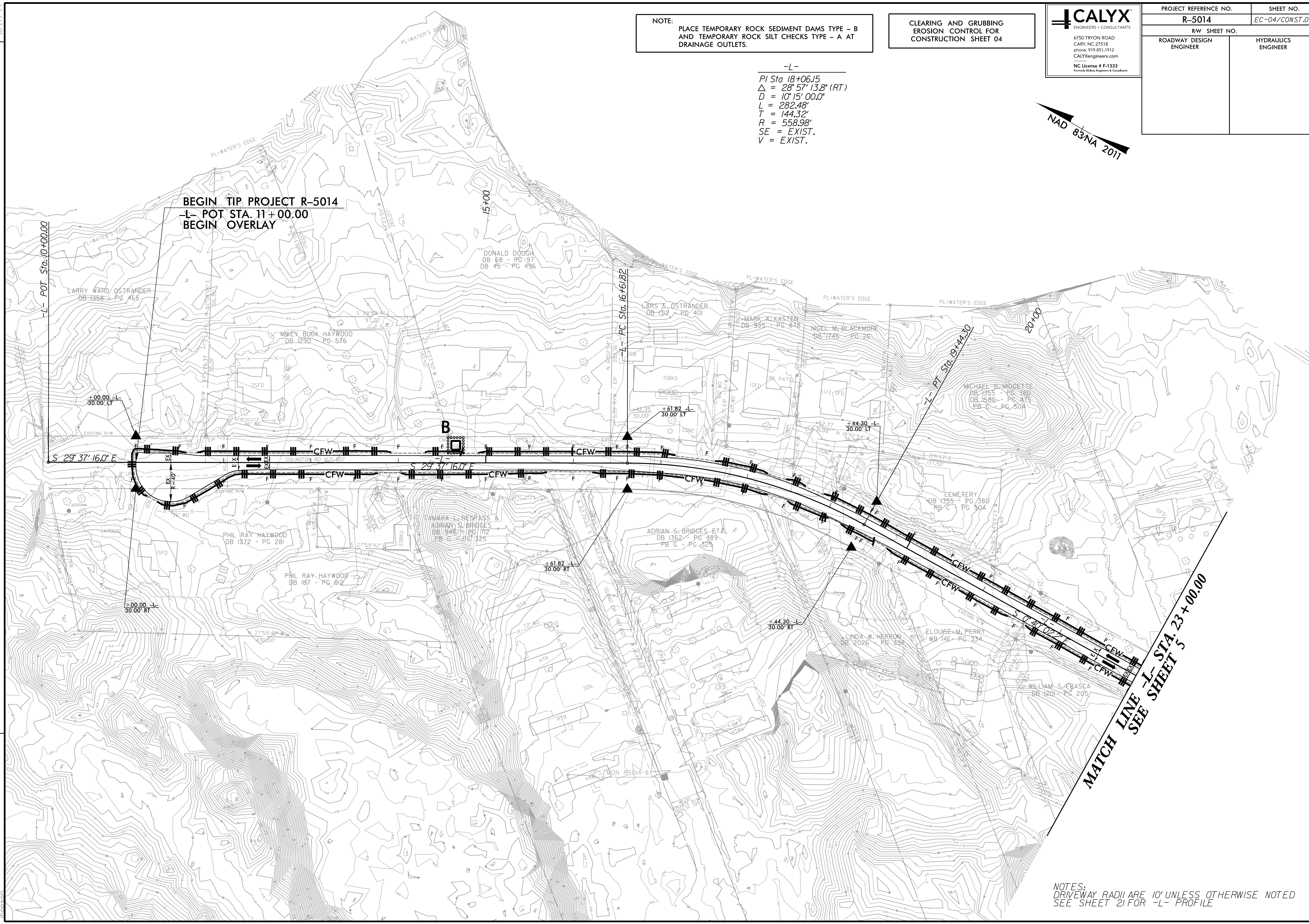
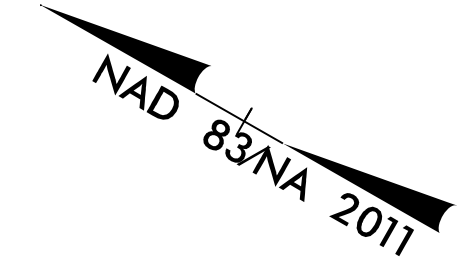
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly Hulse Engineers & Consultants

PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-04/CONST.04</i>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

-L-
PI Sta 18+06.15
 $\Delta = 28' 57" 13.8" (RT)$
 $D = 10' 15" 00.0"$
 $L = 282.48'$
 $T = 144.32'$
 $R = 558.98'$
SE = EXIST.
V = EXIST.



BEGIN TIP PROJECT R-5014
-L- POT STA. 11+00.00
BEGIN OVERLAY

MATCH LINE -L- STA. 23+00.00
SEE SHEET 5

NOTES:
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 21 FOR -L- PROFILE

8/17/99

REVISIONS

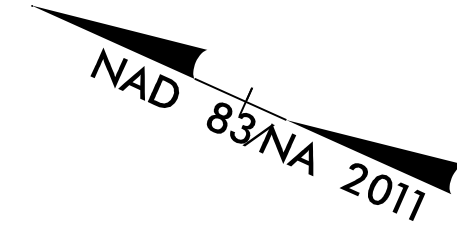
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NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly H&C Engineers & Consultants

PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-05/CONST.05
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



-L-

PI Sta 25+43.98 Δ = 23° 04' 34.3" (LT) D = 9' 00' 00.0" L = 256.40' T = 129.96' R = 636.62' SE = EXIST. V = EXIST.	PI Sta 34+44.90 Δ = 48° 32' 06.7" (RT) D = 17' 30' 00.0" L = 277.34' T = 147.61' R = 327.40' SE = EXIST. V = EXIST.
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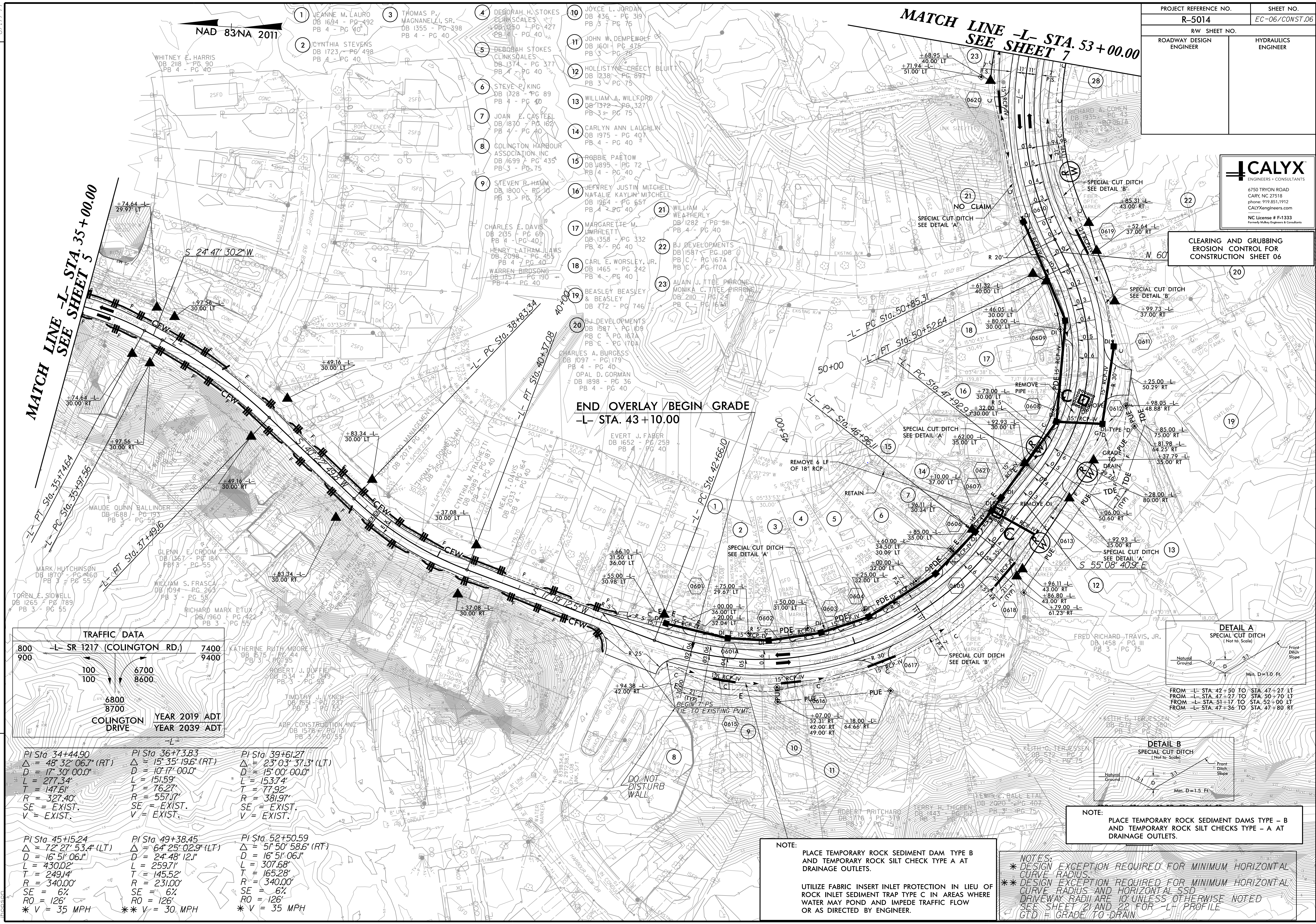
NOTES:
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 21 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-06/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06**

**MATCH LINE -L- STA. 53+00.00
SEE SHEET 7**



TRAFFIC DATA	
800	7400
900	9400
100	6700
100	8600
6800	
8700	
COLINGTON DRIVE	YEAR 2019 ADT
	YEAR 2039 ADT

PI Sta 34+44.90 Δ = 48° 32' 06.7" (RT) D = 17° 30' 00.0" L = 277.34' T = 147.61' R = 327.40' SE = EXIST. V = EXIST.	PI Sta 36+73.83 Δ = 15° 35' 19.6" (RT) D = 10° 17' 00.0" L = 151.59' T = 76.27' R = 557.17' SE = EXIST. V = EXIST.	PI Sta 39+61.27 Δ = 23° 03' 37.3" (LT) D = 15° 00' 00.0" L = 153.74' T = 77.92' R = 381.97' SE = EXIST. V = EXIST.
PI Sta 45+15.24 Δ = 72° 27' 53.4" (LT) D = 16° 51' 06.1" L = 430.02' T = 249.14' R = 340.00' SE = 6% RO = 126' * V = 35 MPH	PI Sta 49+38.45 Δ = 64° 25' 02.9" (LT) D = 24° 48' 12.1" L = 259.71' T = 145.52' R = 231.00' SE = 6% RO = 126' * V = 30 MPH	PI Sta 52+50.59 Δ = 51° 50' 58.6" (RT) D = 16° 51' 06.1" L = 307.68' T = 165.28' R = 340.00' SE = 6% RO = 126' * V = 35 MPH

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAM TYPE B AND TEMPORARY ROCK SILT CHECK TYPE A AT DRAINAGE OUTLETS.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C IN AREAS WHERE WATER MAY POND AND IMPEDE TRAFFIC FLOW OR AS DIRECTED BY ENGINEER.

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS AND HORIZONTAL SSD DRIVEWAY RADIUS 10' UNLESS OTHERWISE NOTED SEE SHEET 21 AND 22 FOR -L- PROFILE
GTD = GRADE TO DRAIN

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

RIGHT OF WAY REVISION - 2/28/2018 - ADDED PERMANENT UTILITY EASEMENT TO PARCELS 10,11,12, AND 13.

REVISIONS

8.17.799

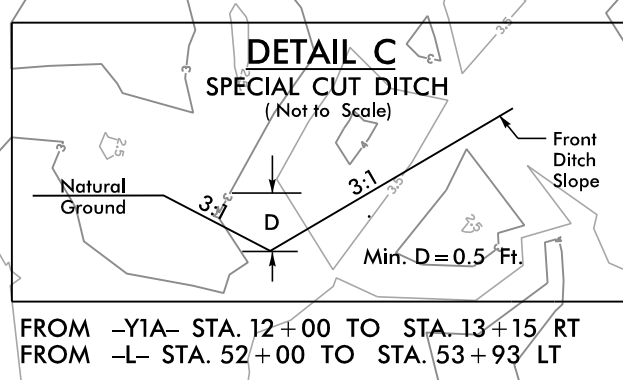
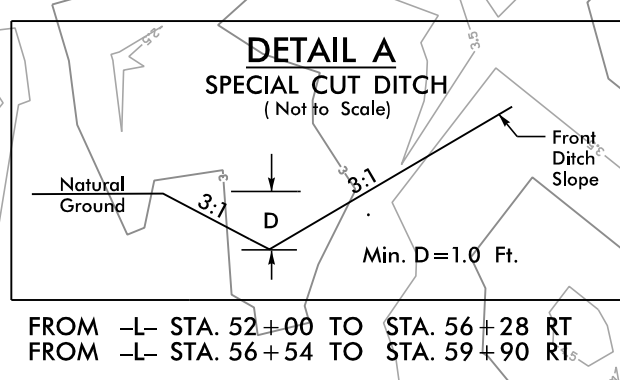
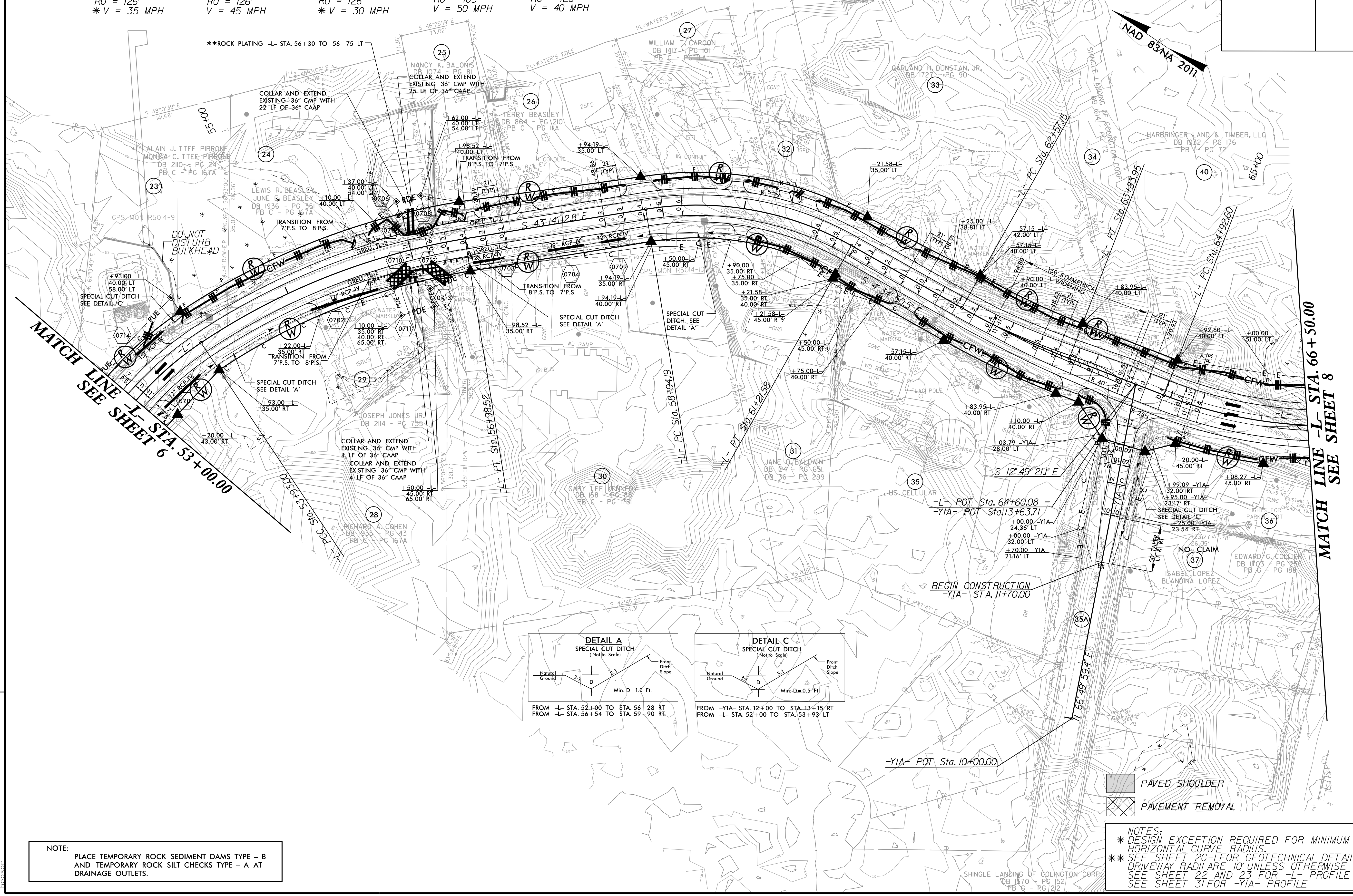
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PROJECT REFERENCE NO. R-5014	SHEET NO. EC-07/CONST.07
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07**

<p>PI Sta 52+50.59 Δ = 51°50' 58.6" (RT) D = 16' 51" 06.1" L = 307.68' T = 165.28' R = 340.00' SE = 6% RO = 126' * V = 35 MPH</p>	<p>PI Sta 55+48.13 Δ = 24° 28' 32.5" (RT) D = 8' 00' 39.4" L = 305.53' T = 155.13' R = 715.22' SE = 6% RO = 126' V = 45 MPH</p>	<p>PI Sta 60+12.41 Δ = 38° 39' 22.3" (RT) D = 17' 00' 00.0" L = 227.39' T = 118.21' R = 337.03' SE = 6% RO = 126' * V = 30 MPH</p>	<p>PI Sta 63+20.66 Δ = 8° 14' 30.6" (LT) D = 6' 30' 00.0" L = 126.80' T = 63.51' R = 881.47' SE = 5% RO = 105' V = 50 MPH</p>	<p>PI Sta 74+83.10 Δ = 127° 49' 20.5" (LT) D = 1' 48' 48.8" L = 1082.00' T = 990.50' R = 485.00' SE = 6% RO = 126' V = 40 MPH</p>
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**ROCK PLATING -L- STA. 56+30 TO 56+75 LT



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

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
** SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS. DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED. SEE SHEET 22 AND 23 FOR -L- PROFILE. SEE SHEET 31 FOR -YIA- PROFILE.

RIGHT OF WAY REVISION - 9/28/2017 - ADJUSTED RIGHT OF WAY AND TEMPORARY CONSTRUCTION EASEMENT ON PARCEL 30 AND 33.

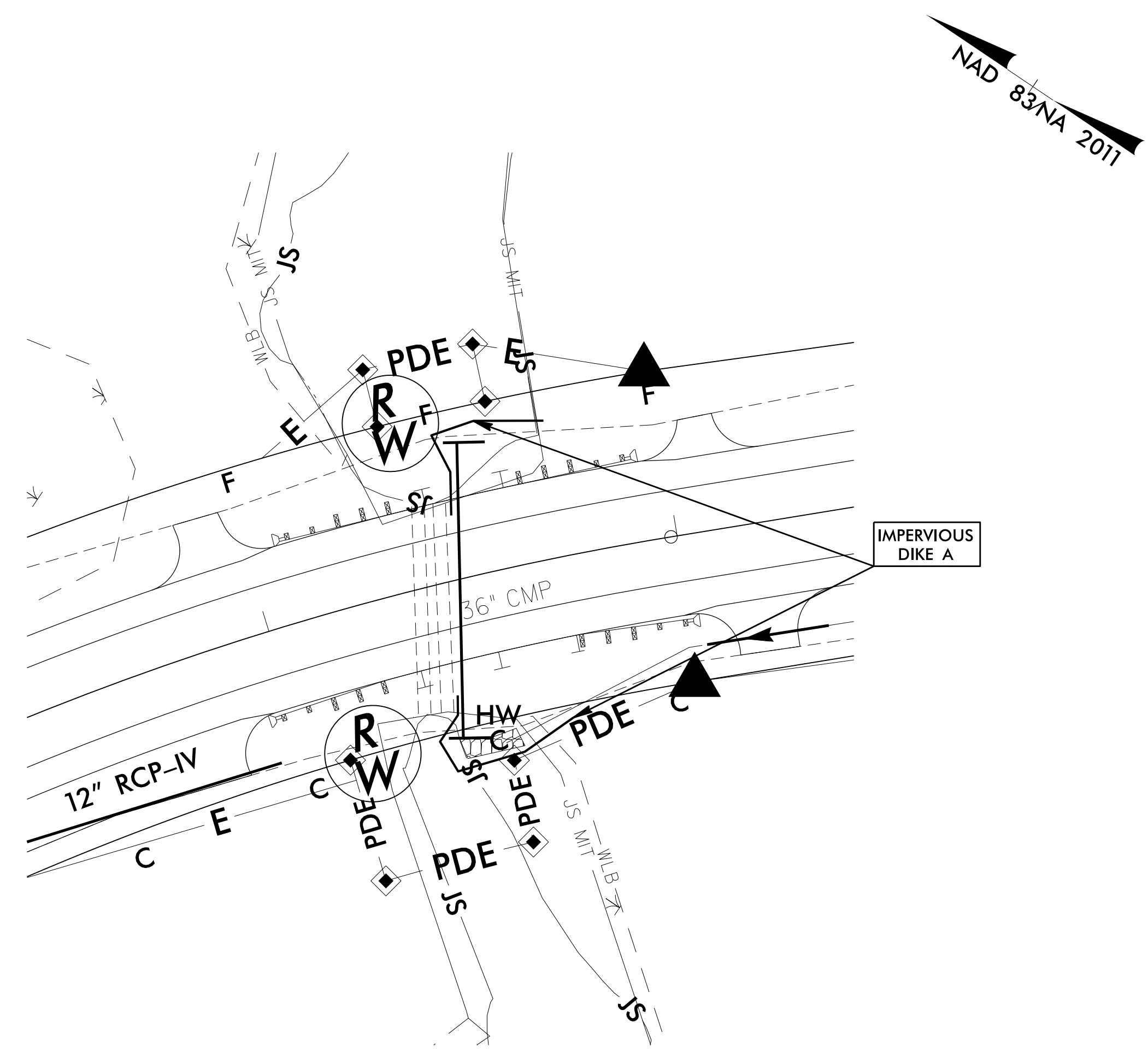
REVISIONS

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CULVERT CONSTRUCTION SEQUENCE STA. 56 + 40 -L-

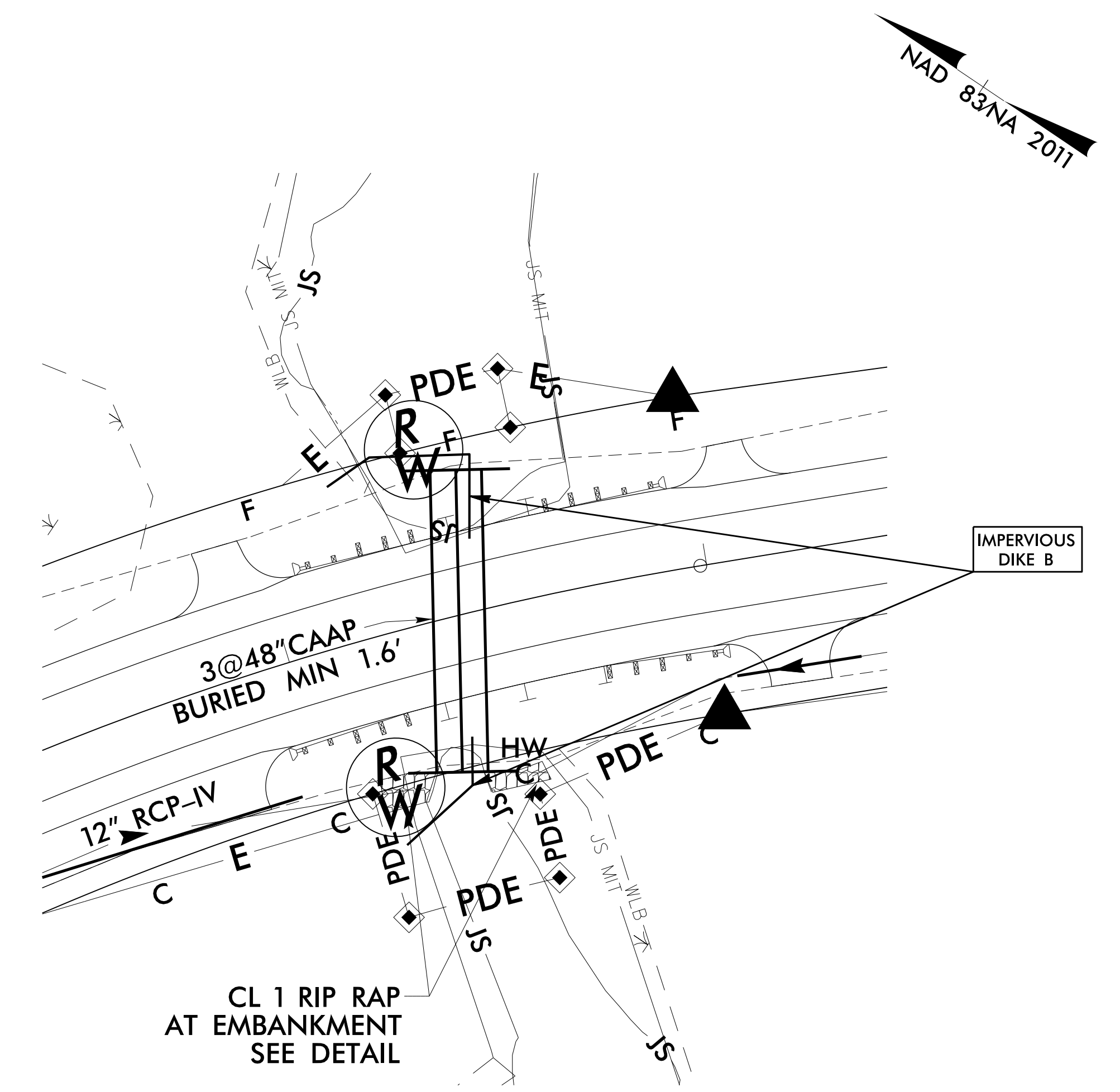
PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN AS NEEDED THROUGHOUT THE SEQUENCING.
2. INSTALL IMPERVIOUS DIKE A UPSTREAM AND DOWNSTREAM MAINTAINING FLOW INTO THE EXISTING BARRELS.
3. INSTALL ONE 48" CAAP, PORTION OF HEADWALL, AND PROPOSED BANK STABILIZATION.



PHASE II

4. REMOVE IMPERVIOUS DIKE A AND INSTALL IMPERVIOUS DIKE B UPSTREAM AND DOWNSTREAM DIVERTING FLOW INTO THE NEWLY INSTALLED 48" CAAP.
5. REMOVE THE EXISTING PIPES AND INSTALL THE REMAINING TWO 48" CAAP, HEADWALL, AND PROPOSED BANK STABILIZATION.
6. REMOVE IMPERVIOUS DIKE B AND COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-08/CONST.08
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

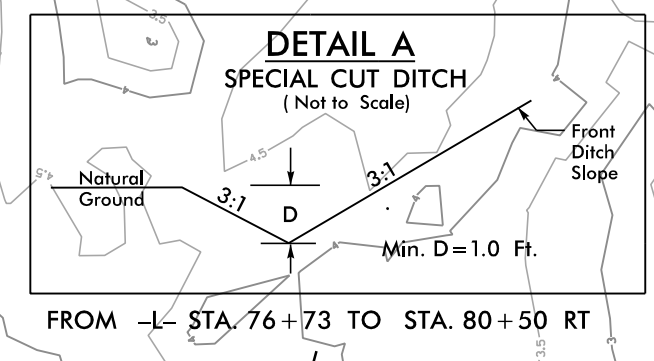
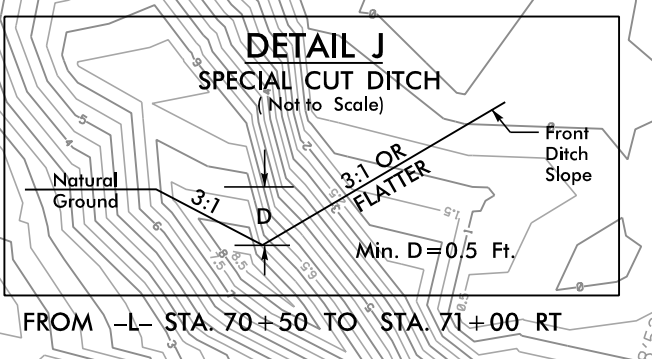
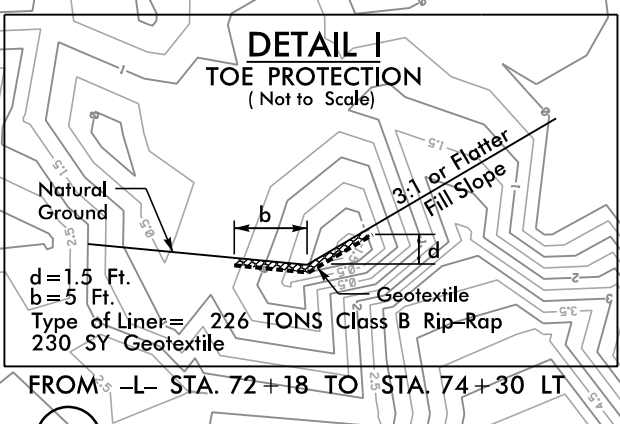
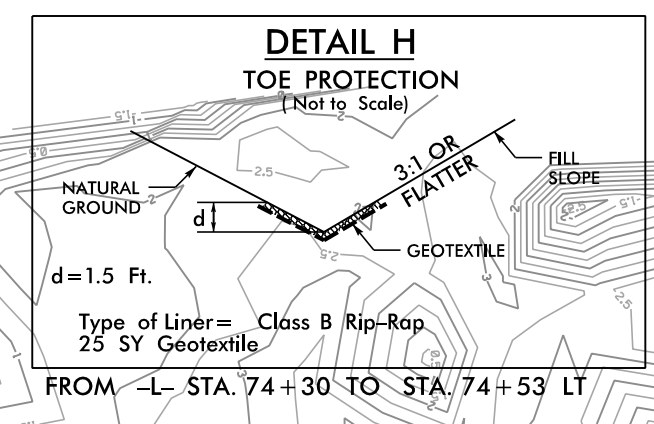
CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly Haldar Engineers & Consultants

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08**

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAM TYPE B AND TEMPORARY ROCK SILT CHECK TYPE A AT DRAINAGE OUTLETS.

UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C IN AREAS WHERE WATER MAY POND AND IMPEDE TRAFFIC FLOW OR AS DIRECTED BY ENGINEER.

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



PAVED SHOULDER

PAVEMENT REMOVAL

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 30 FOR -Y2- AND -Y3- PROFILE
GTD = GRADE TO DRAIN

	-Y2-	-Y3-
PI Sta 74+83.0	PI Sta 10+98.07	PI Sta 10+71.99
$\Delta = 127^{\circ} 49' 20.5" (LT)$	$\Delta = 22^{\circ} 24' 42.8" (LT)$	$\Delta = 14^{\circ} 10' 47.4" (RT)$
$D = 11^{\circ} 48' 48.8"$	$D = 11^{\circ} 35' 29.6"$	$D = 19^{\circ} 05' 54.9"$
$L = 1,082.00'$	$L = 19.56'$	$L = 74.25'$
$T = 990.50'$	$T = 9.91'$	$T = 37.31'$
$R = 485.00'$	$R = 50.00'$	$R = 300.00'$
$SE = 6\%$	$SE = EXIST.$	$SE = EXIST.$
$RO = 126'$		
$V = 40 MPH$		
PI Sta 77+64.46		
$\Delta = 78^{\circ} 50' 05.0" (RT)$		
$D = 24^{\circ} 48' 12.1"$		
$L = 317.84'$		
$T = 189.86'$		
$R = 231.00'$		
$SE = -6\%$		
$RO = 126'$		
$* V = 30 MPH$		

MATCH LINE -L- STA. 66+50.00
SEE SHEET 7

MATCH LINE -L- STA. 80+00.00
SEE SHEET 9

REVISIONS

8.17.99
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 1/5/2018

8/17/99

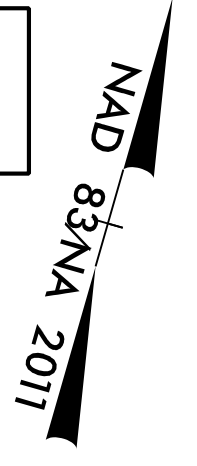
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

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CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
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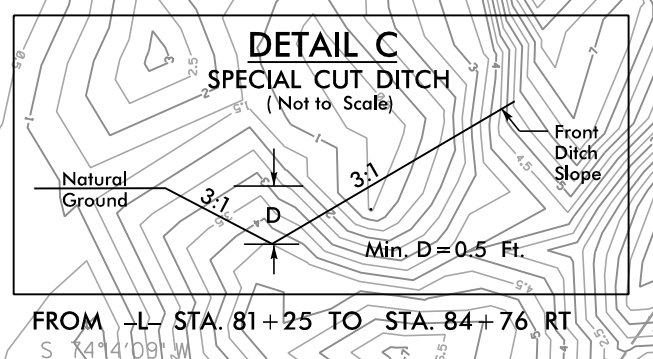
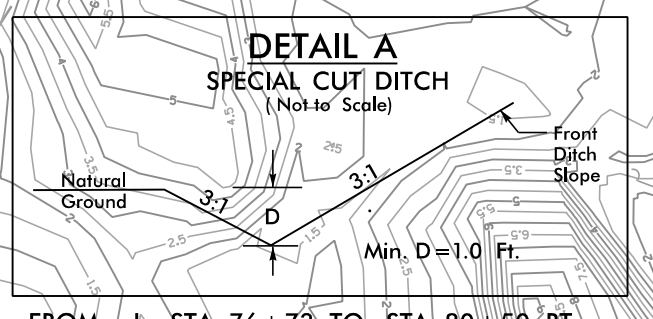
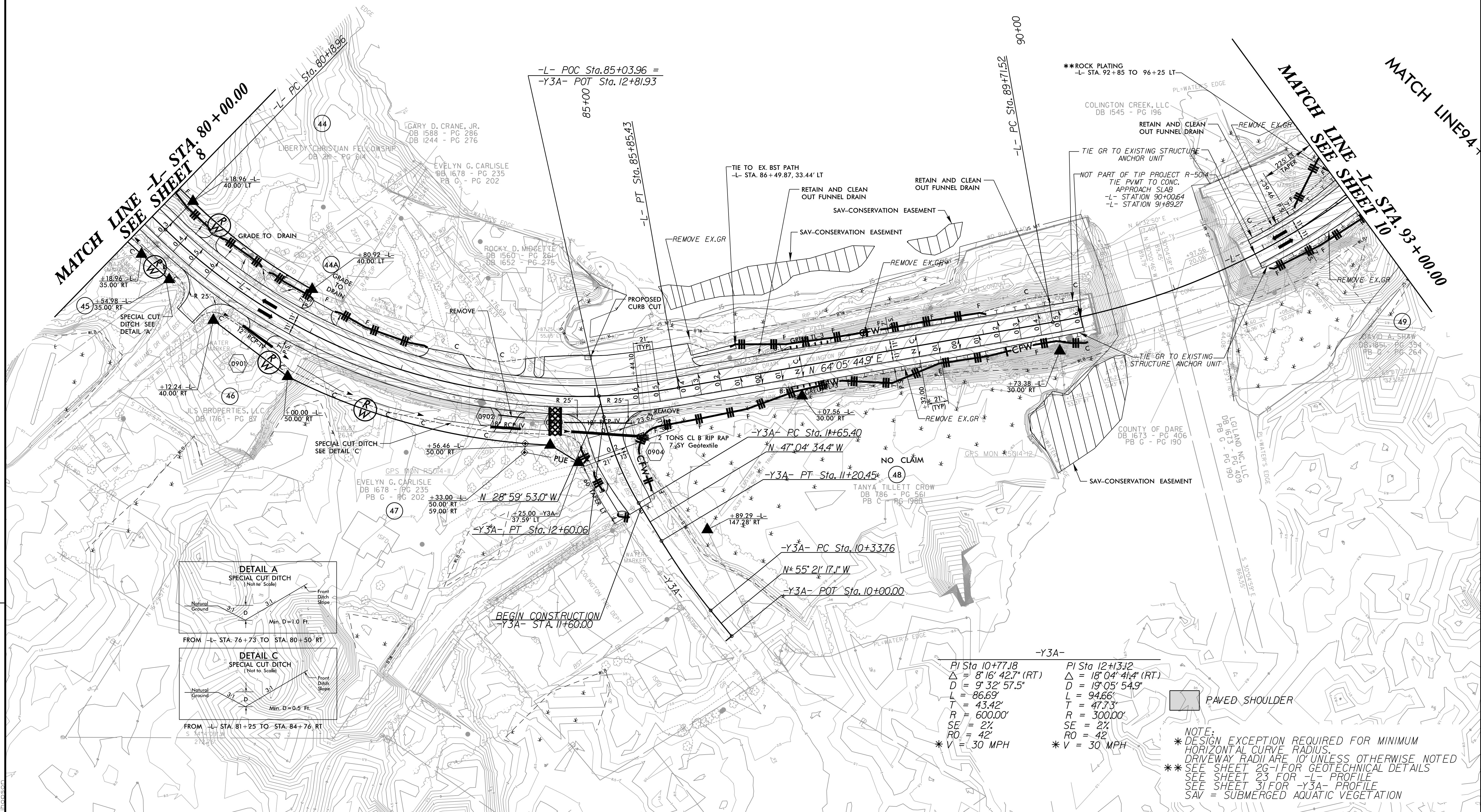
PROJECT REFERENCE NO. R-5014	SHEET NO. EC-09/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-	
PI Sta 83+25.29 Δ = 54°05' 38.6" (LT) D = 9°32' 57.5" L = 566.47' T = 306.34' R = 600.00' SE = 6% RO = 126' V = 40 MPH	PI Sta 92+55.51 Δ = 43°15' 31.2" (LT) D = 8°00' 00.0" L = 540.73' T = 283.99' R = 716.20' SE = 6% RO = 126' V = 45 MPH

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



45 LIBERTY CHRISTIAN FELLOWSHIP
DB 2111 - PG 614



-Y3A-	
PI Sta 10+77.18 Δ = 8°16' 42.7" (RT) D = 9°32' 57.5" L = 86.69' T = 43.42' R = 600.00' SE = 2% RO = 42' * V = 30 MPH	PI Sta 12+13.12 Δ = 18°04' 41.4" (RT) D = 19°05' 54.9" L = 94.66' T = 47.73' R = 300.00' SE = 2% RO = 42' * V = 30 MPH

PAVED SHOULDER

NOTE:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
* DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
* SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS
* SEE SHEET 23 FOR -L- PROFILE
* SEE SHEET 31 FOR -Y3A- PROFILE
* SAV = SUBMERGED AQUATIC VEGETATION

REVISIONS

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 2/14/2018 10:54:11 AM

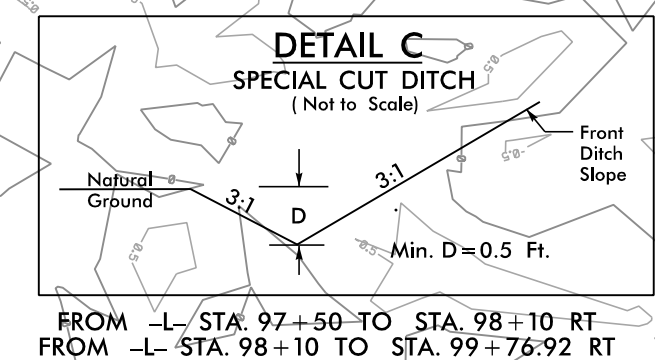
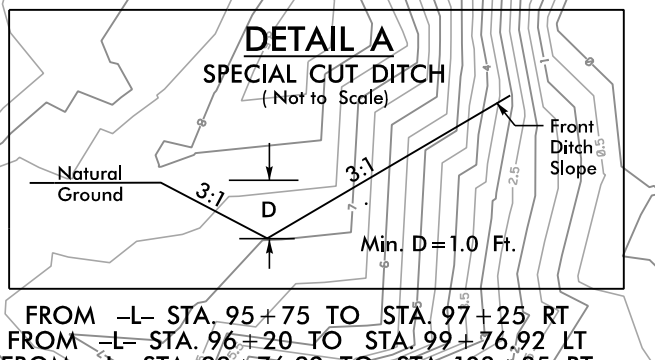
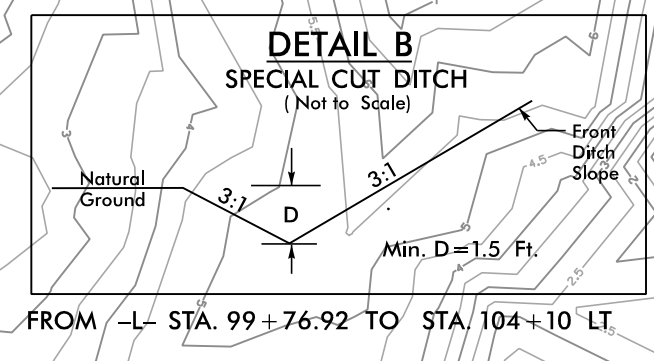
PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-10/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

-L-

PI Sta 92+55.51 Δ = 43°15'31.2" (LT) D = 8°00'00.0" L = 540.73' T = 283.99' R = 716.20' SE = 6% RO = 126' V = 45 MPH	PI Sta 98+84.89 Δ = 13°24'22.6" (LT) D = 7°15'00.0" L = 184.91' T = 92.88' R = 265.00' SE = 5% RO = 105' V = 45 MPH	PI Sta 105+78.55 Δ = 104°22'34.7" (RT) D = 2°37'15.8" L = 482.75' T = 341.49' R = 265.00' SE = 6% RO = 126' * V = 30 MPH
--	---	--



MATCH LINE -L- STA. 93 + 00.00
SEE SHEET 9

MATCH LINE -L- STA. 107 + 50.00
SEE SHEET 11

MATCH LINE -L- STA. 93 + 00.00
SEE SHEET 9

-Y3C-

PI Sta 10+44.77 Δ = 9°09'11.6" (RT) D = 57°17'44.8" L = 15.98' T = 8.00' R = 100.00' SE = EXIST.	PI Sta 11+17.82 Δ = 30°21'56.6" (LT) D = 38°11'49.9" L = 79.50' T = 40.71' R = 150.00' SE = EXIST.
--	--

PAVED SHOULDER

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
** SEE SHEET 26-F FOR GEOTECHNICAL DETAILS DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 23 AND 24 FOR -L- PROFILE
SEE SHEET 31 FOR -Y3B- AND -Y3C- PROFILE

REVISIONS
8.17.799
1/5/2018
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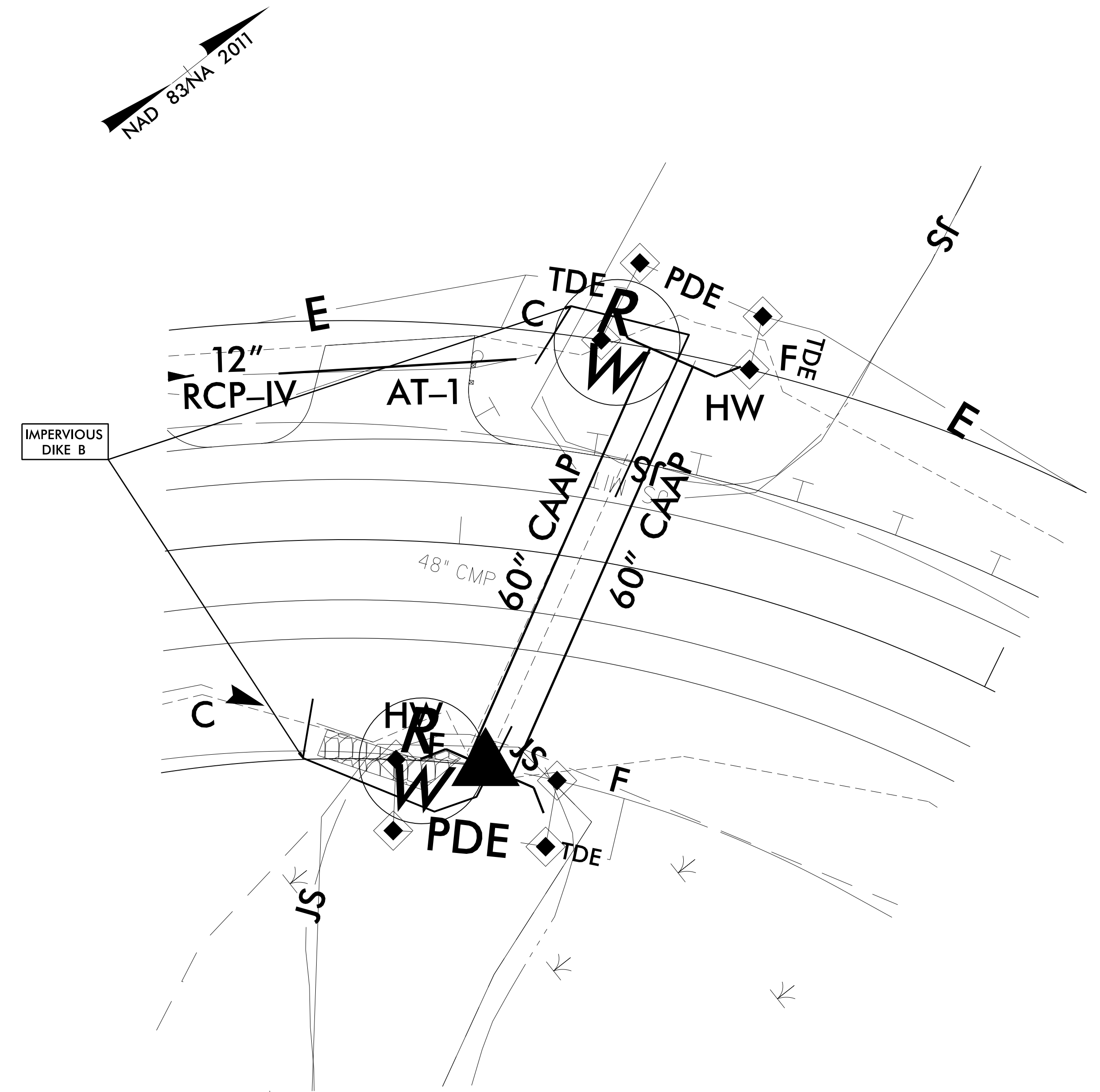
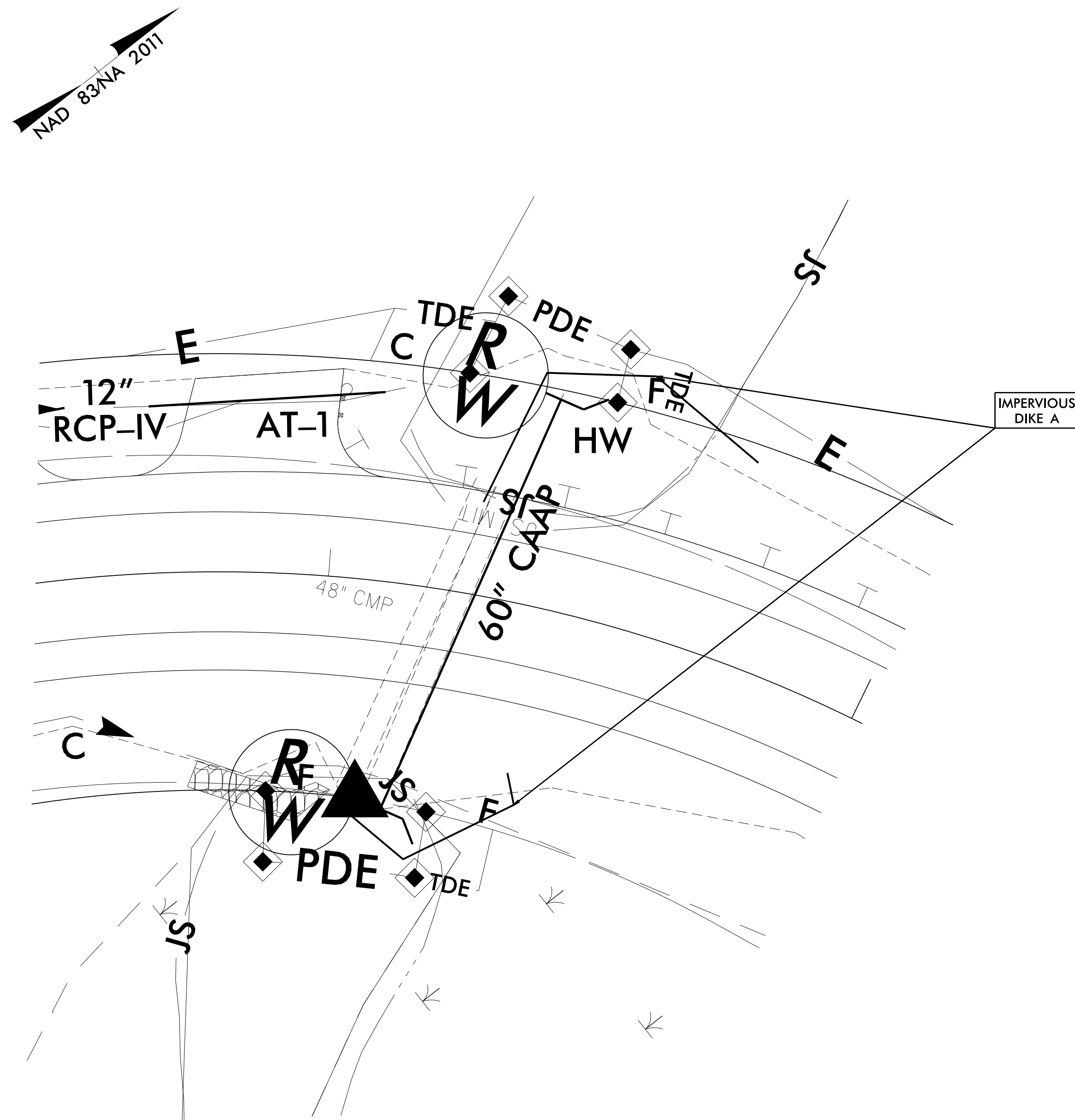
CULVERT CONSTRUCTION SEQUENCE STA. 104+22 -L-

PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN AS NEEDED THROUGHOUT THE SEQUENCING.
2. INSTALL IMPERVIOUS DIKE A UPSTREAM AND DOWNSTREAM MAINTAINING FLOW INTO THE SOUTHERN 48" CMP BARREL.
3. REMOVE ONE 48" CMP AND INSTALL ONE 60" CAAP AND A PORTION OF THE HEADWALLS.

PHASE II

4. REMOVE IMPERVIOUS DIKE A AND INSTALL IMPERVIOUS DIKE B TO DIVERT FLOW INTO THE NEWLY INSTALLED 60" CAAP.
5. REMOVE THE REMAINING 48" CMP BARREL AND INSTALL THE 60" CAAP, COMPLETE HEADWALL, AND BANK STABILIZATION.
6. REMOVE IMPERVIOUS DIKE B AND COMPLETE ROADWAY.



8.17.799

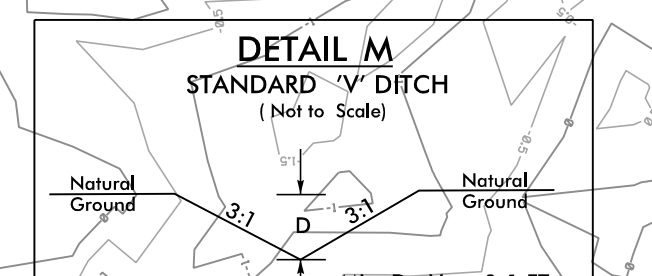
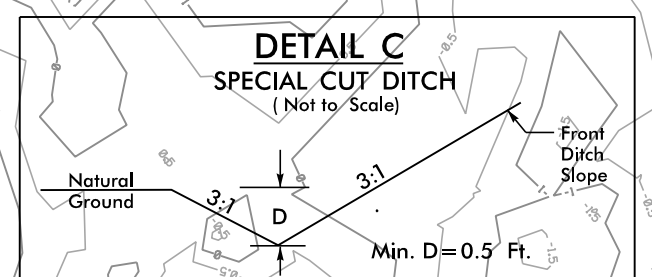
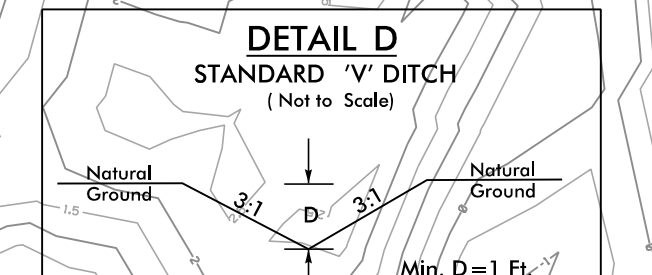
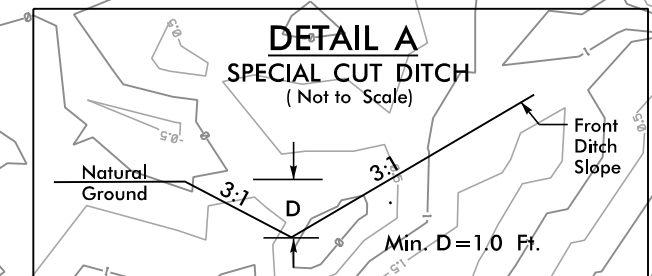
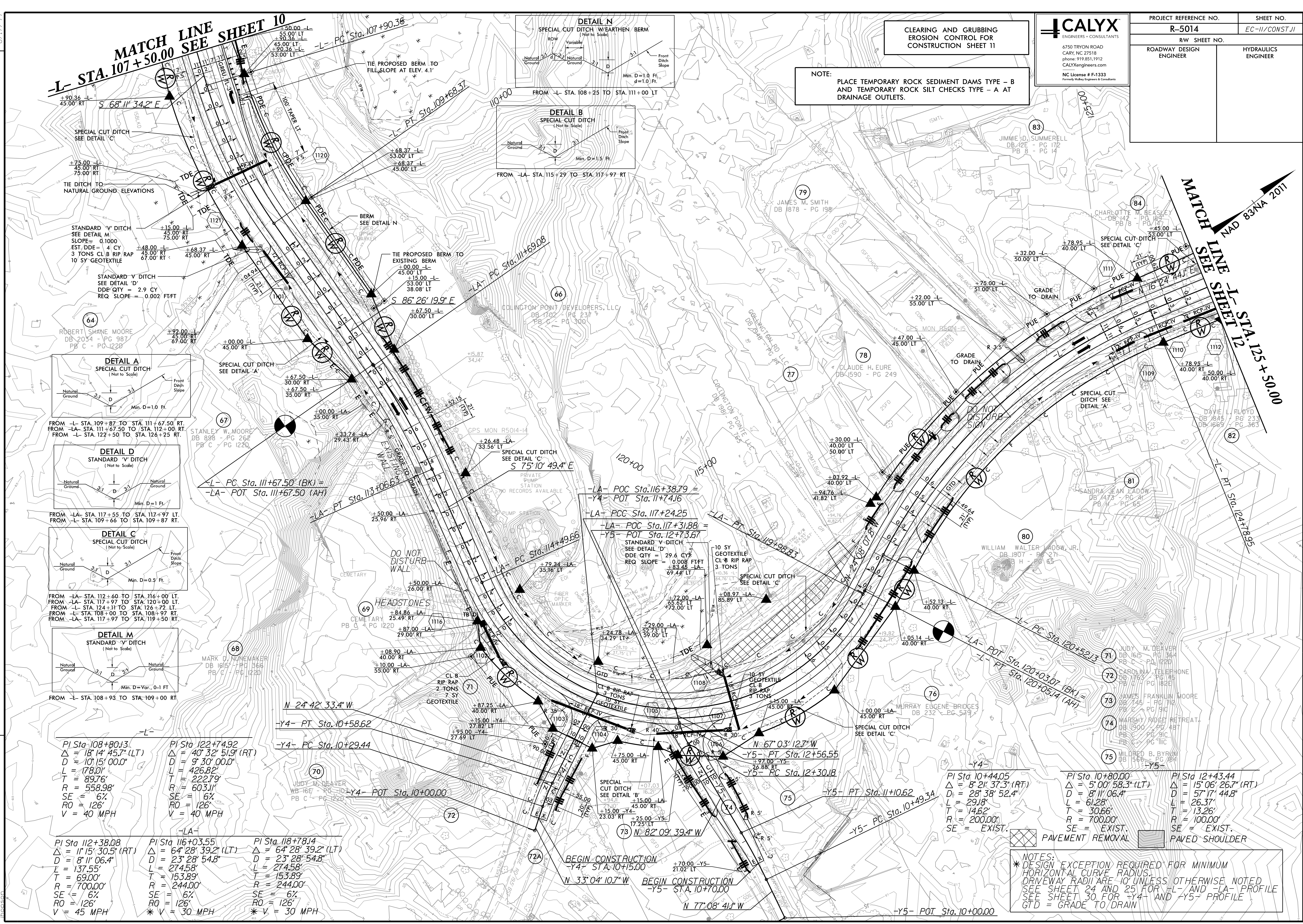
MATCH LINE SEE SHEET 10
-L- STA. 107 + 50.00

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly: Huber Engineers & Consultants

PROJECT REFERENCE NO. R-5014	SHEET NO. EC-11/CONST.11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



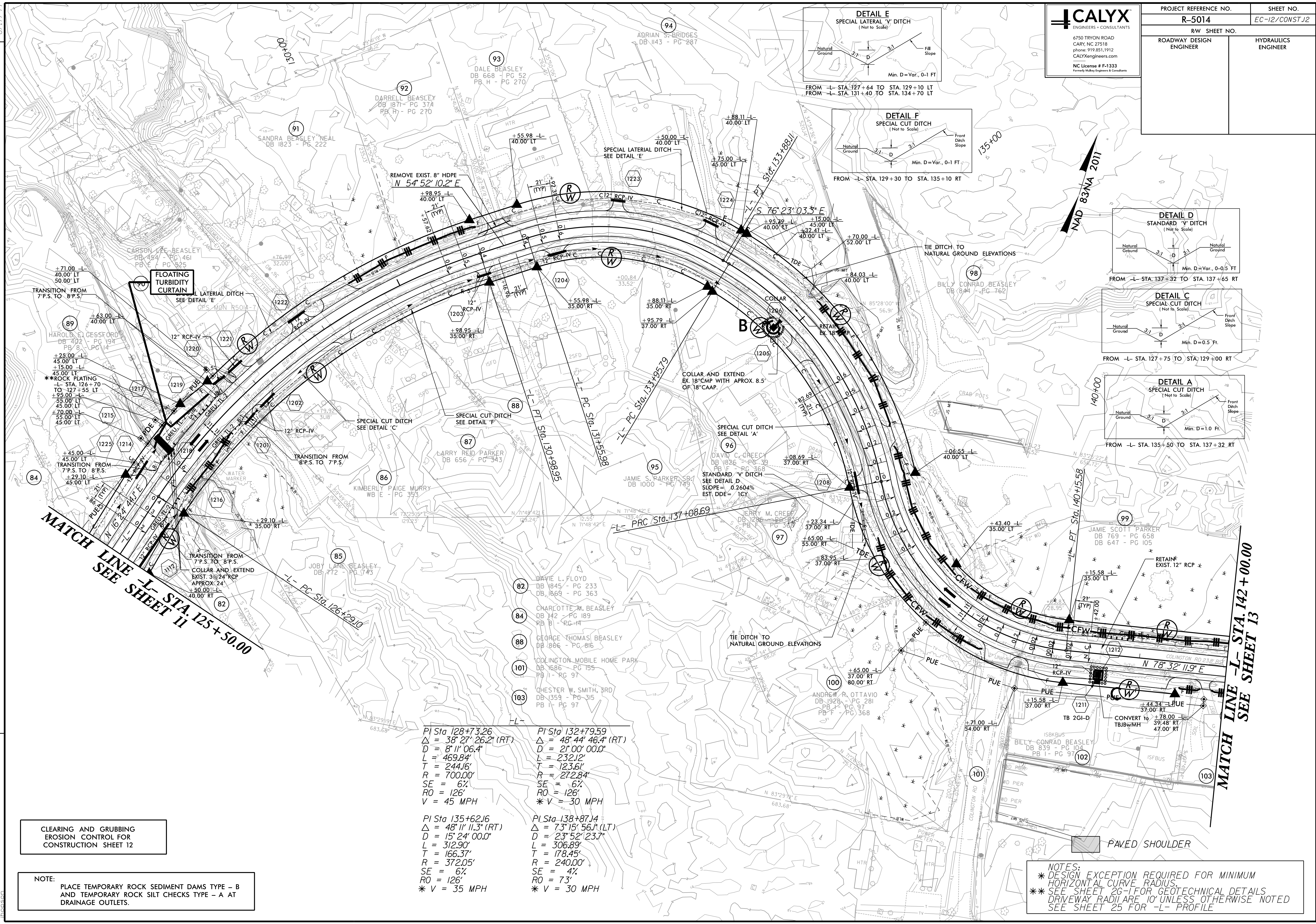
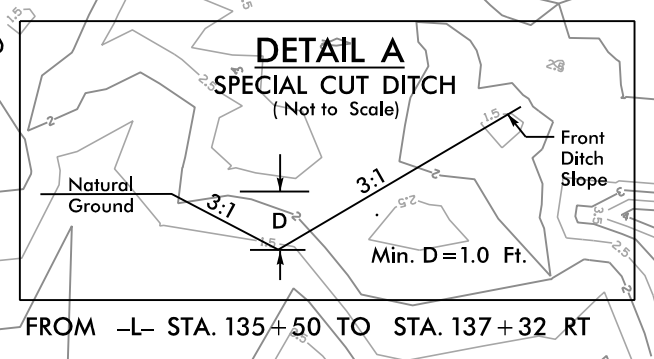
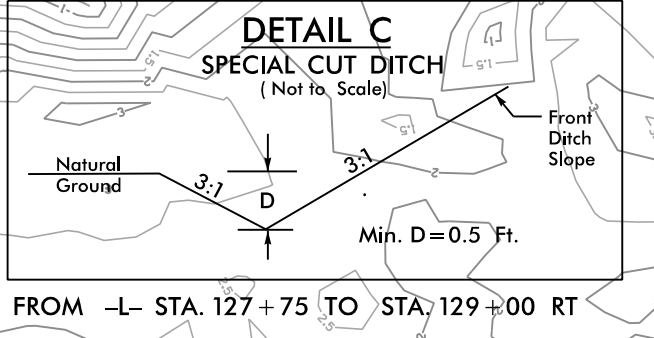
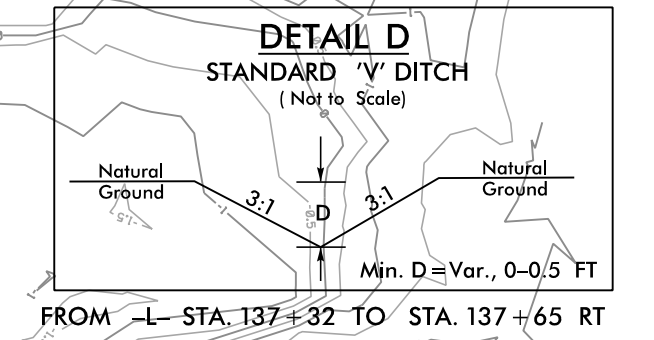
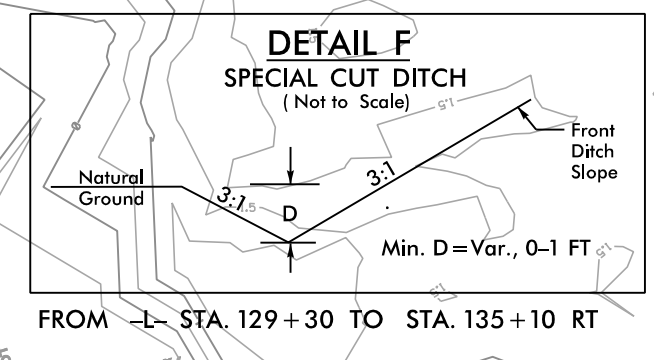
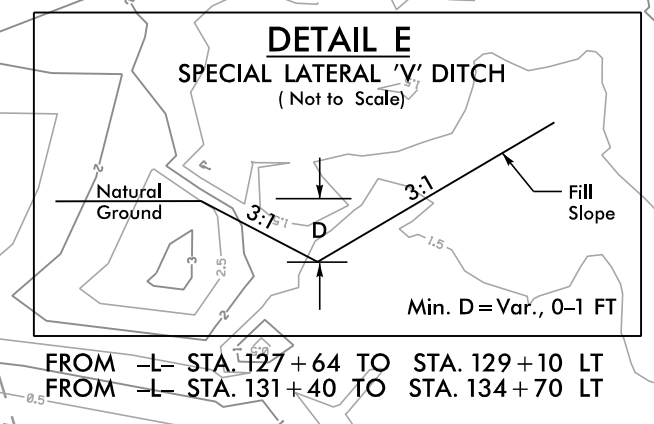
<p>PI Sta. 108+80.13 Δ = 18° 14' 45.7" (LT) D = 10' 15" 00.0" L = 178.01' T = 89.76' R = 558.98' SE = 6% RO = 126' V = 40 MPH</p>	<p>PI Sta. 122+74.92 Δ = 40° 32' 51.9" (RT) D = 9' 30" 00.0" L = 426.82' T = 222.79' R = 603.11' SE = 6% RO = 126' V = 40 MPH</p>
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<p>PI Sta. 112+38.08 Δ = 11° 15' 30.5" (RT) D = 8' 11" 06.4" L = 137.55' T = 69.00' R = 700.00' SE = 6% RO = 126' V = 45 MPH</p>	<p>PI Sta. 116+03.55 Δ = 64° 28' 39.2" (LT) D = 23' 28" 54.8" L = 274.58' T = 153.89' R = 244.00' SE = 6% RO = 126' * V = 30 MPH</p>	<p>PI Sta. 118+78.14 Δ = 64° 28' 39.2" (LT) D = 23' 28" 54.8" L = 274.58' T = 153.89' R = 244.00' SE = 6% RO = 126' * V = 30 MPH</p>
--	--	--

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
DRIVEWAY RADI ARE 10 UNLESS OTHERWISE NOTED
SEE SHEET 24 AND 25 FOR -L- AND -LA- PROFILE
SEE SHEET 30 FOR -Y4- AND -Y5- PROFILE
GTD = GRADE TO DRAIN

REVISIONS

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11/15/2018



REVISIONS

MATCH LINE -L- STA. 125+50.00
SEE SHEET 11

MATCH LINE -L- STA. 142+00.00
SEE SHEET 13

<p>PI Sta 128+73.26 $\Delta = 38^\circ 27' 26.2''$ (RT) $D = 8' 11'' 06.4''$ $L = 469.84'$ $T = 244.16'$ $SE = 700.00'$ $SE = 6\%$ $RO = 126'$ $V = 45$ MPH</p>	<p>PI Sta 132+79.59 $\Delta = 48^\circ 44' 46.4''$ (RT) $D = 21' 00'' 00.0''$ $L = 232.12'$ $T = 123.61'$ $SE = 272.84'$ $SE = 6\%$ $RO = 126'$ $* V = 30$ MPH</p>
<p>PI Sta 135+62.16 $\Delta = 48^\circ 11' 11.3''$ (RT) $D = 15' 24'' 00.0''$ $L = 312.90'$ $T = 166.37'$ $R = 372.05'$ $SE = 6\%$ $RO = 126'$ $* V = 35$ MPH</p>	<p>PI Sta 138+87.14 $\Delta = 73^\circ 15' 56.1''$ (LT) $D = 23' 52'' 23.7''$ $L = 306.89'$ $T = 178.45'$ $R = 240.00'$ $SE = 4\%$ $RO = 73'$ $* V = 30$ MPH</p>

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM
HORIZONTAL CURVE RADII.
** SEE SHEET 26-F FOR GEOTECHNICAL DETAILS
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 25 FOR -L- PROFILE

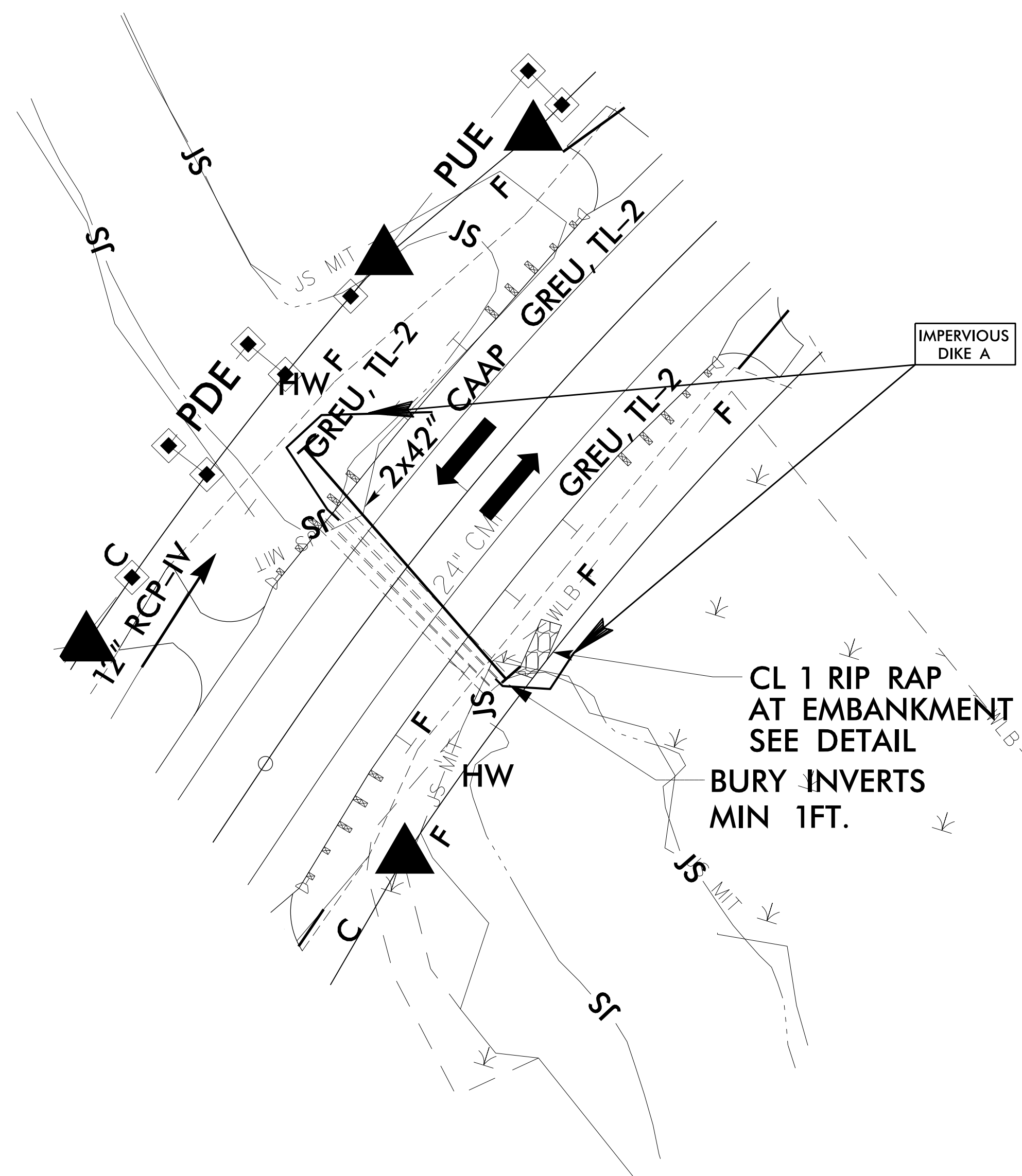
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PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-12A/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 126+75 -L-

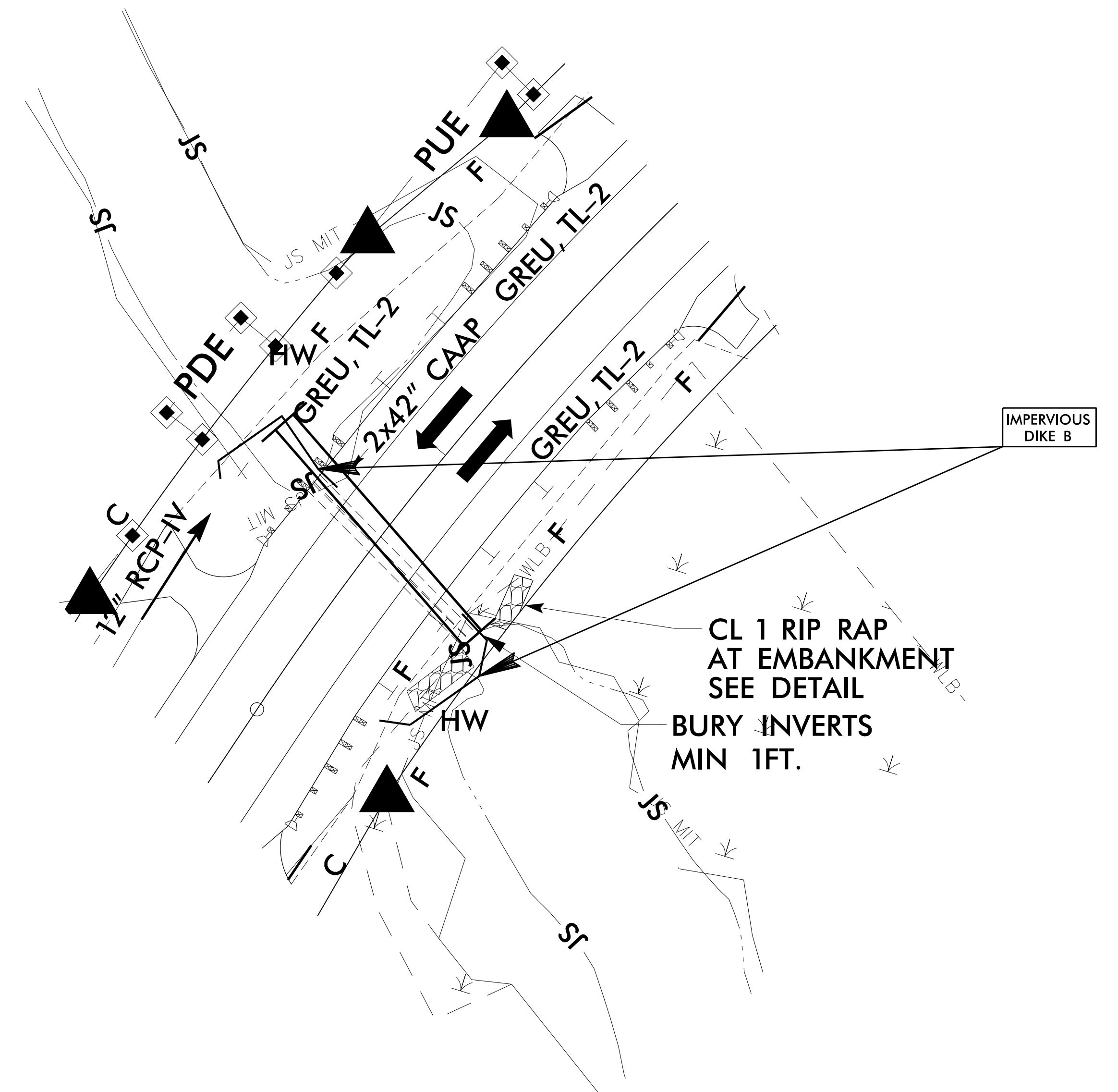
PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN AS NEEDED THROUGHOUT THE SEQUENCING.
2. INSTALL IMPERVIOUS DIKE A UPSTREAM AND DOWNSTREAM MAINTAINING FLOW INTO THE TWO SOUTHERN 24" CMP BARRELS.
3. REMOVE ONE 24" CMP AND INSTALL ONE 42" CAAP, A PORTION OF THE HEADWALLS, AND STREAMBANK STABILIZATION.



PHASE II

4. REMOVE IMPERVIOUS DIKE A AND INSTALL IMPERVIOUS DIKE B TO DIVERT FLOW INTO THE NEWLY INSTALLED 42" CAAP.
5. REMOVE THE REMAINING TWO 24" CMP BARRELS AND INSTALL THE 42" CAAP, COMPLETE HEADWALL, AND BANK STABILIZATION.
6. REMOVE IMPERVIOUS DIKE B AND COMPLETE ROADWAY.



8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly Haldar Engineers & Consultants

PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-13/CONST.13</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
PI Sta 151+21.7
 $\Delta = 14' 36'' 20.0'' (RT)$
 $D = 1' 37'' 00.0''$
 $L = 903.44'$
 $T = 454.18'$
 $R = 3,544.07'$
 $SE = 2\%$
 $RO = 42'$
 $V = 80 MPH$

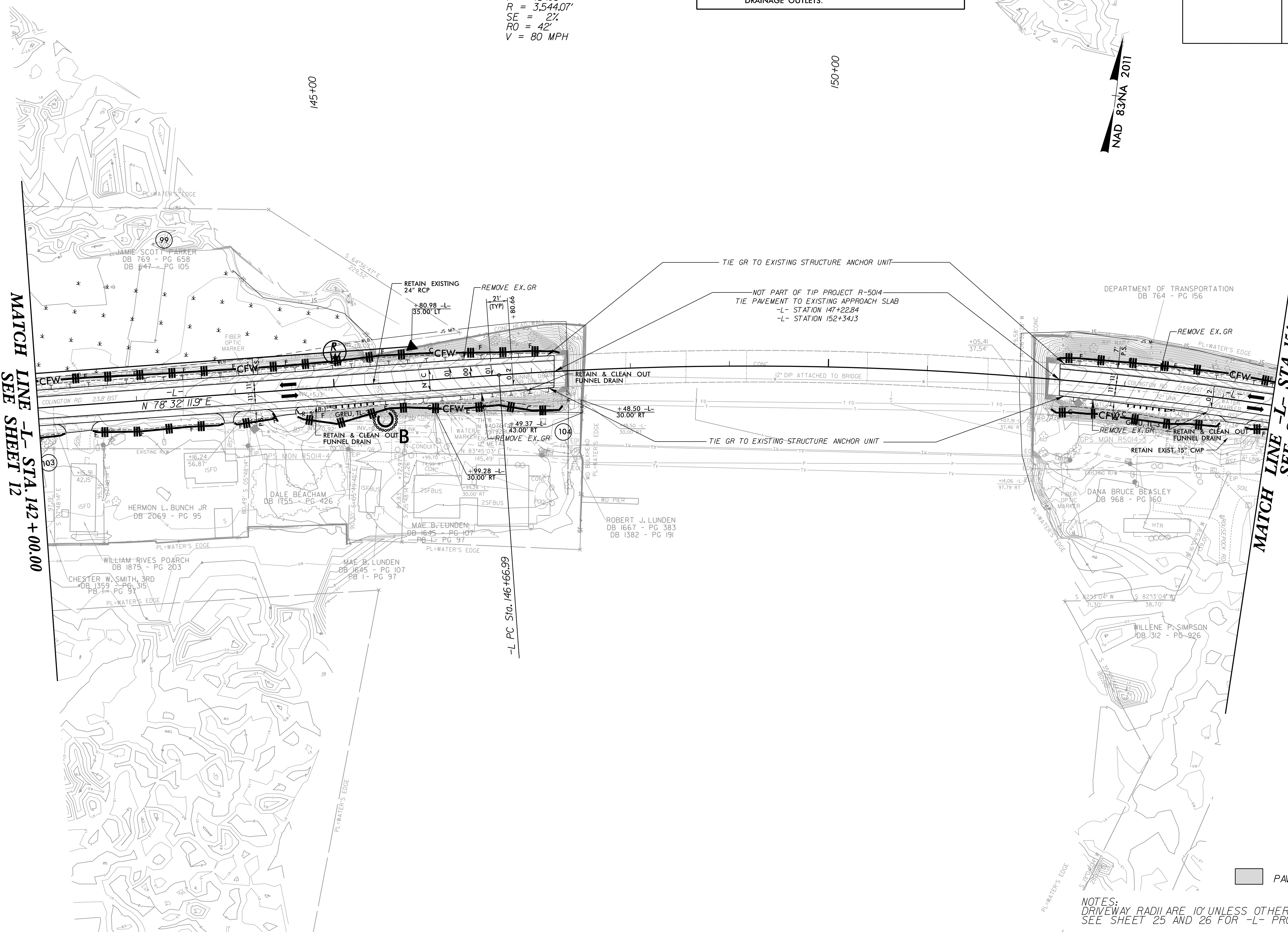
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

NAD 83 NA 2011

REVISIONS

MATCH LINE -L- STA. 142 + 00.00
SEE SHEET 12

MATCH LINE -L- STA. 154 + 50.00
SEE SHEET 14



PAVED SHOULDER

NOTES:
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 25 AND 26 FOR -L- PROFILE

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 REVISIONS
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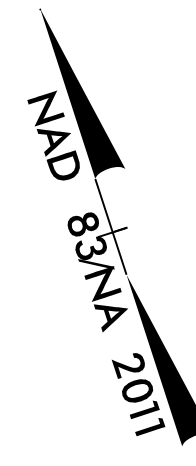
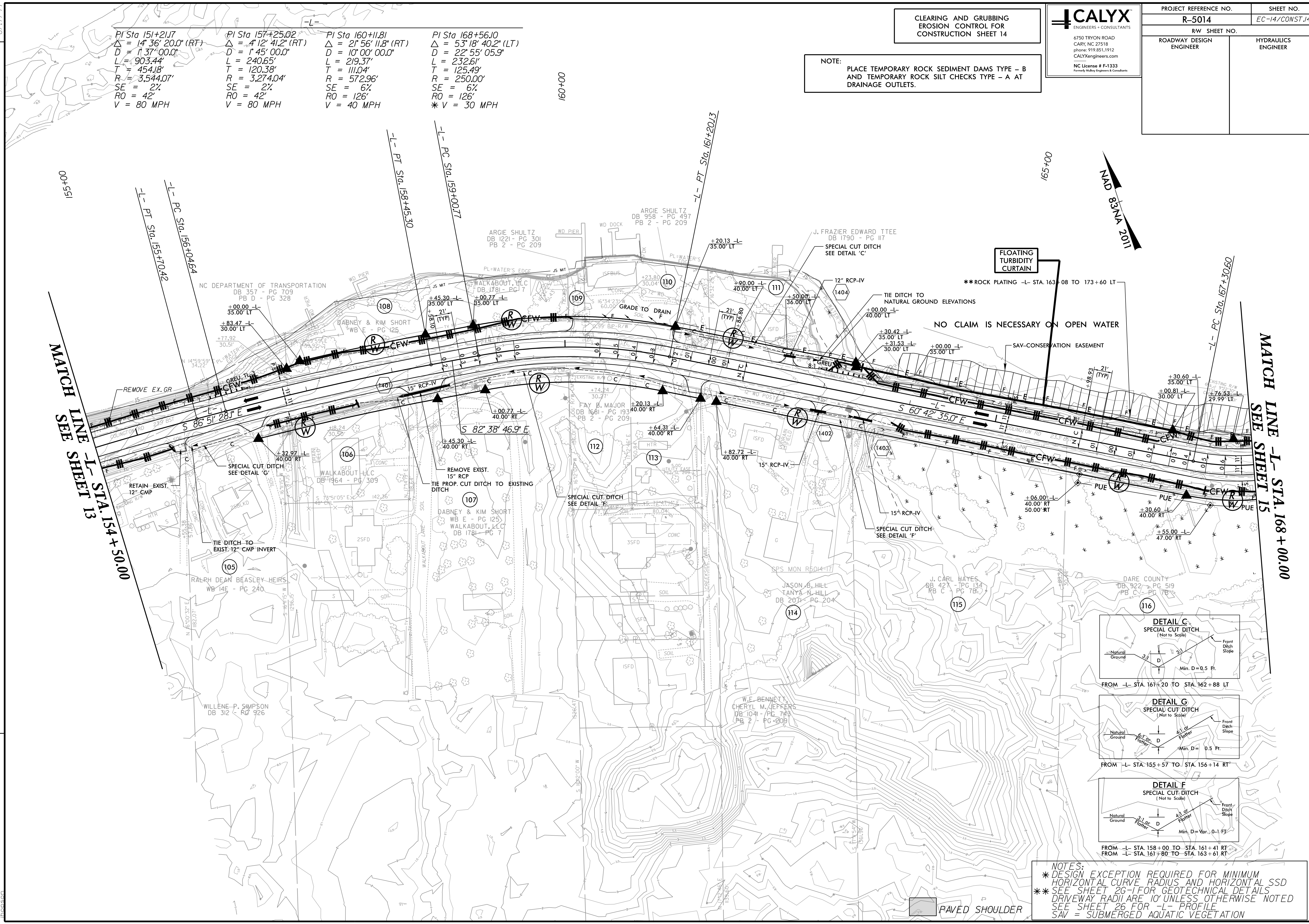
**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14**

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly: Haldix Engineers & Consultants

PROJECT REFERENCE NO. R-5014	SHEET NO. EC-14/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

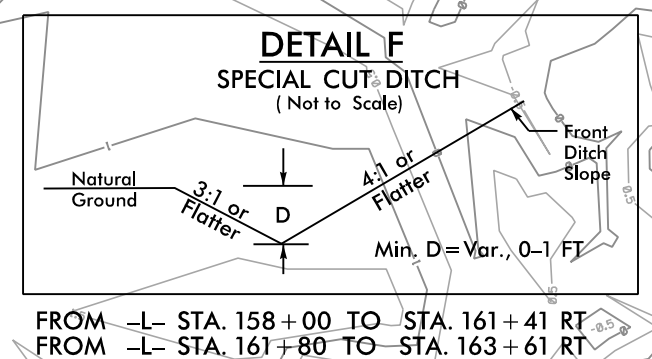
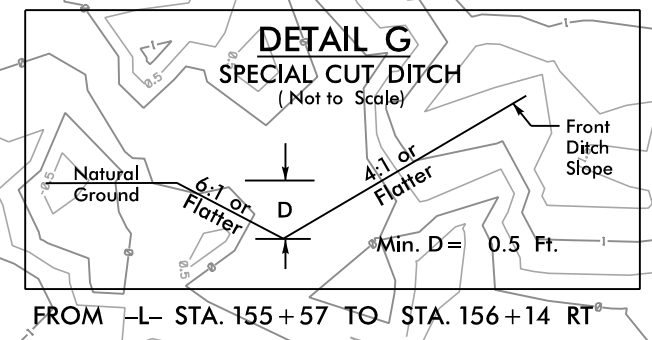
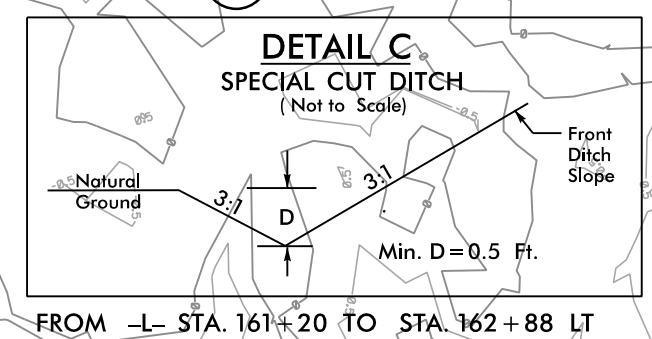
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

<p>PI Sta 151+21.7 Δ = 14° 36' 20.0" (RT) D = 1' 37" 00.0" L = 903.44' T = 454.18' R = 3,544.07' SE = 2% RO = 42' V = 80 MPH</p>	<p>PI Sta 157+25.02 Δ = 4° 12' 41.2" (RT) D = 1' 45" 00.0" L = 240.65' T = 120.38' R = 3,274.04' SE = 2% RO = 42' V = 80 MPH</p>	<p>PI Sta 160+11.81 Δ = 21° 56' 11.8" (RT) D = 10' 00" 00.0" L = 219.37' T = 111.04' R = 572.96' SE = 6% RO = 126' V = 40 MPH</p>	<p>PI Sta 168+56.10 Δ = 53° 18' 40.2" (LT) D = 22' 55" 05.9" L = 232.61' T = 125.49' R = 250.00' SE = 6% RO = 126' * V = 30 MPH</p>
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MATCH LINE -L- STA. 154+50.00
SEE SHEET 13

MATCH LINE -L- STA. 168+00.00
SEE SHEET 15



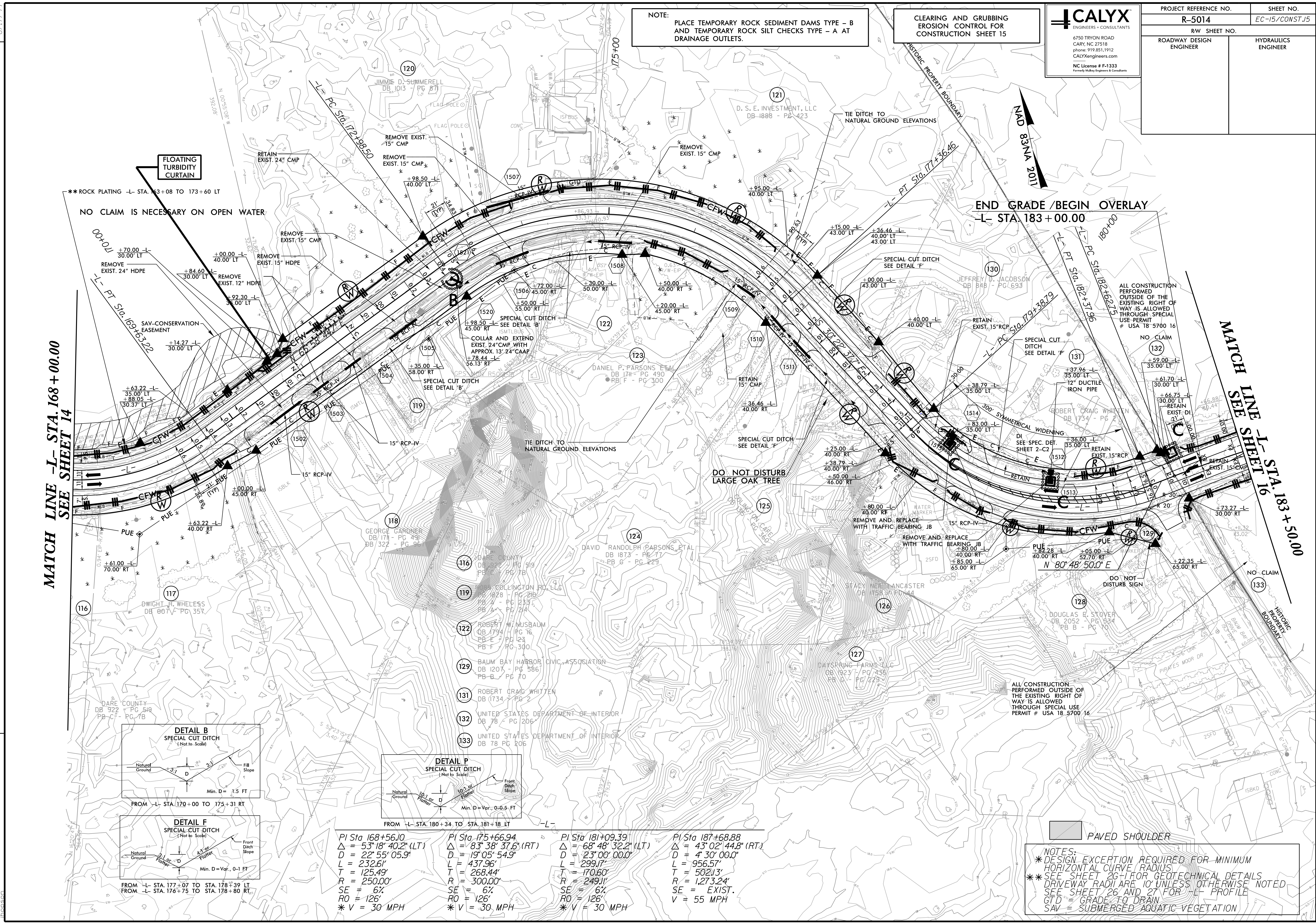
NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS AND HORIZONTAL SSD
** SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS
*** DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 26 FOR -L- PROFILE
SAV = SUBMERGED AQUATIC VEGETATION

REVISIONS

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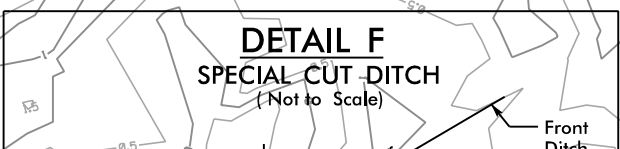
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15



MATCH LINE -L- STA. 168 + 00.00
SEE SHEET 14

MATCH LINE -L- STA. 183 + 50.00
SEE SHEET 16



<p>PI Sta 168+56.10 Δ = 53° 18' 40.2" (LT) D = 22° 55' 05.9" L = 232.61' T = 125.49' R = 250.00' SE = 6% RO = 126' * V = 30 MPH</p>	<p>PI Sta 175+66.94 Δ = 83° 38' 37.6" (RT) D = 19° 05' 54.9" L = 437.96' T = 268.44' R = 300.00' SE = 6% RO = 126' * V = 30 MPH</p>	<p>PI Sta 181+09.39 Δ = 68° 48' 32.2" (LT) D = 23° 00' 00.0" L = 299.17' T = 170.60' R = 249.11' SE = 6% RO = 126' * V = 30 MPH</p>	<p>PI Sta 187+68.88 Δ = 43° 02' 44.8" (RT) D = 4° 30' 00.0" L = 956.57' T = 502.13' R = 1,273.24' SE = EXIST. V = 55 MPH</p>
---	---	---	--

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADII
* SEE SHEET 26-F FOR GEOTECHNICAL DETAILS
* DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
* SEE SHEET 26 AND 27 FOR "L" PROFILE
GTD = GRADE TO DRAIN
SAV = SUBMERGED AQUATIC VEGETATION

REVISIONS
RIGHT OF WAY REVISION - 02/05/2018 - PLACED NOTE AND NOT DISTURB SIGN ON PARCEL 129.
RIGHT OF WAY REVISION - 06/06/2018 - ADJUSTED CONSTRUCTION EASEMENT ON PARCEL 153.

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PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-16/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

-L-
 PI Sta 187+68.88
 $\Delta = 43^{\circ}02'44.8"$ (RT)
 $D = 4^{\circ}30'00.0"$
 $L = 956.57'$
 $T = 502.13'$
 $R = 1273.24'$
 $SE = \text{EXIST.}$
 $V = 55 \text{ MPH}$

ALL CONSTRUCTION PERFORMED OUTSIDE OF THE EXISTING RIGHT OF WAY IS ALLOWED THROUGH SPECIAL USE PERMIT # USA 18 5700 16

NO CLAIM

132
 UNITED STATES DEPARTMENT OF INTERIOR
 DB 78 - PG 206



MATCH LINE SEE SHEET 15
 STA 185+00.00 TO STA 187+38.15

MATCH LINE -L- STA. 196 + 50.00
 SEE SHEET 17

TIE TO EXISTING MULTI-USE PATH
 -L- STA. 195 + 48.22

+23.32
 30.00' RT

+23.32
 30.00' LT

-L- PT Sta. 192+23.32

ALL CONSTRUCTION PERFORMED OUTSIDE OF THE EXISTING RIGHT OF WAY IS ALLOWED THROUGH SPECIAL USE PERMIT # USA 18 5700 16

NO CLAIM

133
 UNITED STATES DEPARTMENT OF INTERIOR
 DB 78 - PG 206

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 16

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

PAVED SHOULDER

NOTES:
 DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
 SEE SHEET 27 FOR -L- PROFILE

REVISIONS

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PROJECT REFERENCE NO. R-5014	SHEET NO. EC-17/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 17

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

-L-
 PI Sta 209+11.27
 $\Delta = 62^{\circ}13'20.7''$ (LT)
 $D = 6'05''.000'$
 $L = 1,022.83'$
 $T = 568.41'$
 $R = 941.85'$
 $SE = EXIST.$
 $V = 50$ MPH

ALL CONSTRUCTION
 PERFORMED OUTSIDE OF
 THE EXISTING RIGHT OF
 WAY IS ALLOWED
 THROUGH SPECIAL USE
 PERMIT # USA 18 5700 16

NO CLAIM
 132
 UNITED STATES DEPARTMENT OF INTERIOR
 DB 78 - PG 206

NO CLAIM
 133
 UNITED STATES DEPARTMENT OF INTERIOR
 DB 78 - PG 206

ALL CONSTRUCTION
 PERFORMED OUTSIDE OF
 THE EXISTING RIGHT OF
 WAY IS ALLOWED
 THROUGH SPECIAL USE
 PERMIT # USA 18 5700 16

MATCH LINE -L- STA. 196 + 50.00
 SEE SHEET 16

MATCH LINE -L- STA. 209 + 50.00
 SEE SHEET 18

PAVED SHOULDER

NOTES:
 DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
 SEE SHEET 27 AND 28 FOR -L- PROFILE

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

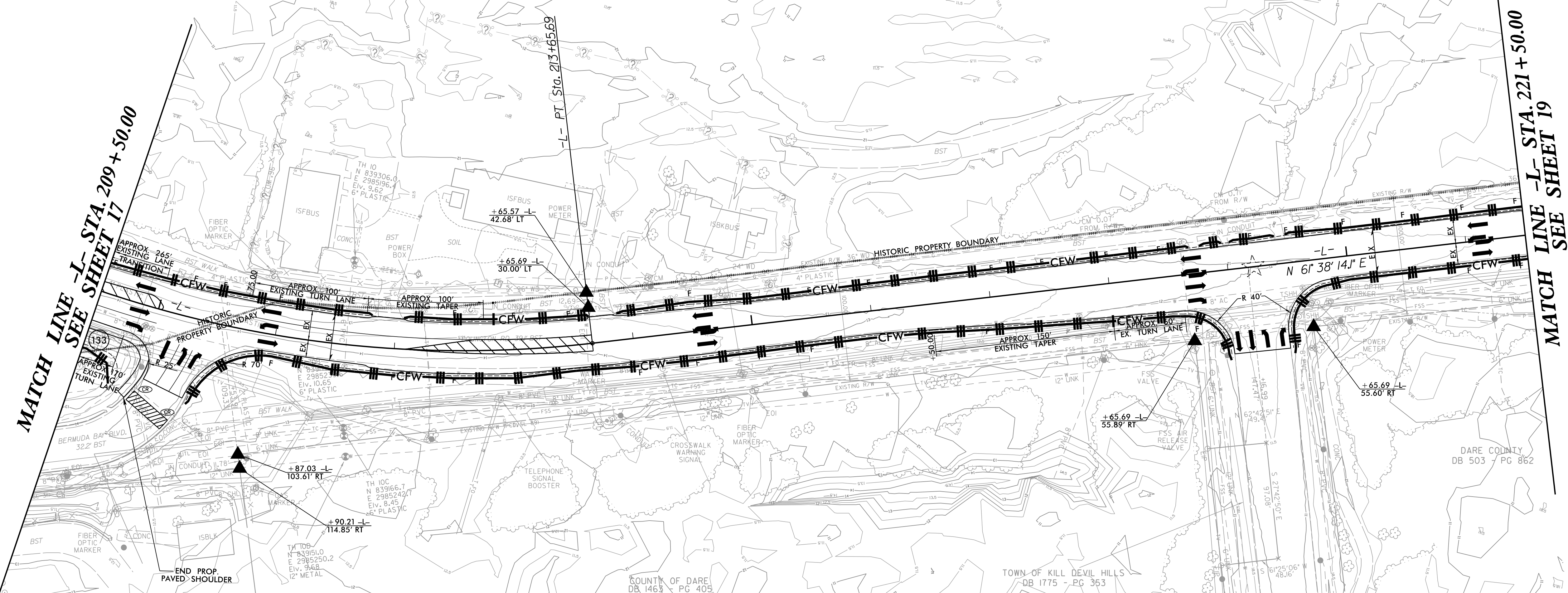
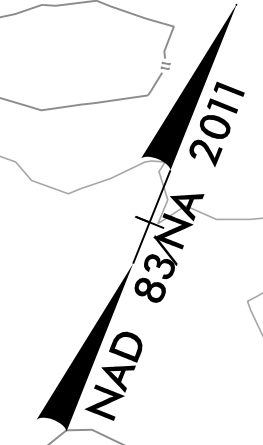
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 18

-L-
PI Sta 209+11.27
 $\Delta = 62^{\circ}13'20.7''$ (LT)
 $D = 6^{\circ}05'00.0''$
 $L = 1,022.83'$
 $T = 568.41'$
 $R = 941.85'$
SE = EXIST.
V = 50 MPH

ALL CONSTRUCTION PERFORMED OUTSIDE OF THE EXISTING RIGHT OF WAY IS ALLOWED THROUGH SPECIAL USE PERMIT # USA 18 5700 16

NO CLAIM

UNITED STATES DEPARTMENT OF INTERIOR
DB 78 - PG 206



MATCH LINE -L- STA. 209 + 50.00
SEE SHEET 17

MATCH LINE -L- STA. 221 + 50.00
SEE SHEET 19

TRAFFIC DATA			
12300	-L- SR 1217 (COLINGTON RD.)	13300	
16900		18300	
	200	1200	
	300	1700	
	1400		
	2000		
	YEAR 2019 ADT		
	YEAR 2039 ADT		

TRAFFIC DATA			
13300	-L- SR 1217 (COLINGTON RD.)	14200	
18300		19600	
	1600	2600	
	2200	3500	
	4200		
	5700		
	YEAR 2018 ADT		
	YEAR 2038 ADT		

NOTES: DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 28 FOR -L- PROFILE

RIGHT OF WAY REVISION - 06/06/2018 - ADJUSTED CONSTRUCTION EASEMENT ON PARCEL 133.

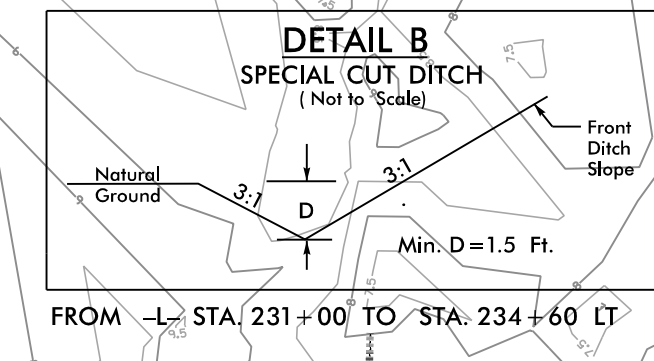
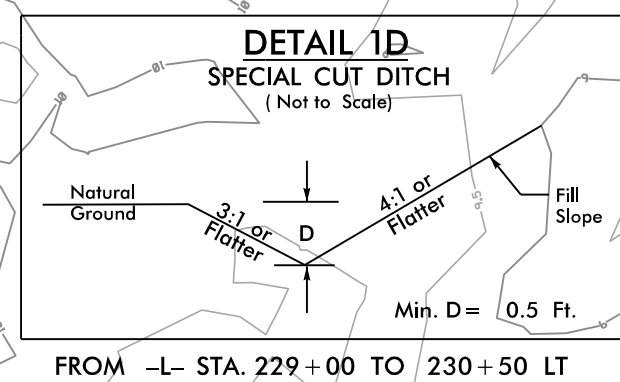
REVISIONS

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PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-19/CONST.19</i>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 19

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



- (134) LOINGOC-TRAN
DB 1599 - PG 54
PB A - PG 372
- (135) JOSEPH ANDREW LIVERMAN
DB 282 - PG 364
PB A - PG 372
- (136) MICHAEL A. MCVAUGH
DB 1744 - PG 420
PB A - PG 372

ALL CONSTRUCTION
 PERFORMED OUTSIDE OF
 THE EXISTING RIGHT OF
 WAY IS ALLOWED
 THROUGH SPECIAL USE
 PERMIT # USA 18.5700 16

END OVERLAY - BEGIN GRADE
 -L- STA. 229+00.00

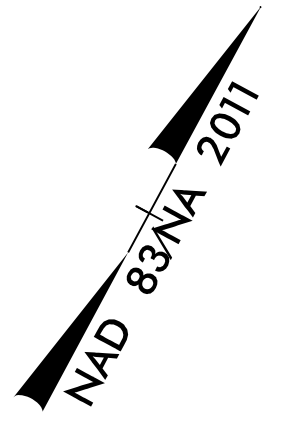
NO CLAIM
 (132)

UNITED STATES DEPARTMENT OF INTERIOR
 DB 78 - PG 206

MATCH LINE -L- STA. 221+50.00
 SEE SHEET 18

MATCH LINE -L- STA. 233+50.00
 SEE SHEET 20

RIGHT OF WAY REVISION - 06/06/2018 - ADJUSTED ROW ON PARCEL 134,135 & 140. ADJUSTED CONSTRUCTION EASEMENT ON PARCEL 134,135 & 136



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DARE COUNTY DB 503 - PG 862
 ACCORDING TO GIS RECORDS DARE COUNTY & THE TOWN OF KILL DEVIL HILLS HAVE JOINT POSSESSION OF THIS PROPERTY
 TOWN OF KILL DEVIL HILLS DB 776 - PG 237
 PB C - PG 192
 PB C - PG 193H

- PAVED SHOULDER
- SIDEWALK / CONCRETE ISLAND
- GTD = GRADE TO DRAIN

NOTES:
 DRIVEWAY RADII ARE 5' UNLESS OTHERWISE NOTED
 SEE SHEET 28 FOR -L- PROFILE
 SEE SHEET 2B-1 FOR INTERSECTION DETAIL

PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-20/CONST.20</i>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

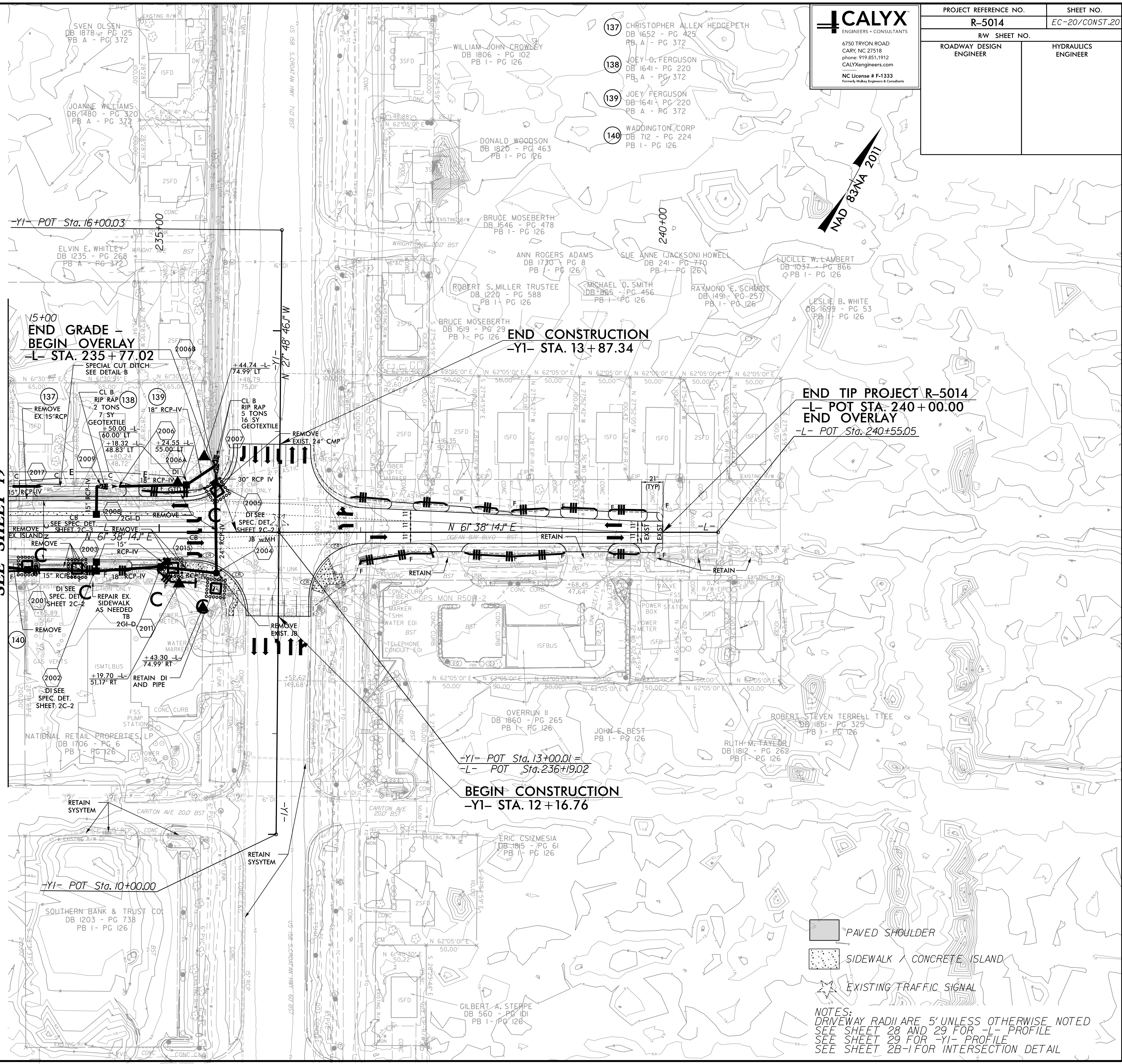
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

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

RIGHT OF WAY REVISION - 06/06/2018 - ADJUSTED ROW ON PARCEL 140. ADJUSTED CONSTRUCTION EASEMENT ON PARCELS 137,138,139

TRAFFIC DATA	
US 158 S. CROATAN HWY -YI-	
33400 45000	
-L- SR 1217 COLINGTON RD.	6700 9300
	635 715
-L- SR 1217 OCEAN BAY BLVD.	2800 3300
	4500 6400
635 715	
31300 42100	
-YI- US 158 S. CROATAN HWY	
YEAR 2019 ADT YEAR 2039 ADT	

MATCH LINE -L- STA. 233 + 50.00
SEE SHEET 19

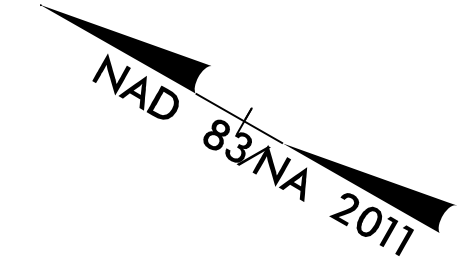


- PAVED SHOULDER
- SIDEWALK / CONCRETE ISLAND
- EXISTING TRAFFIC SIGNAL

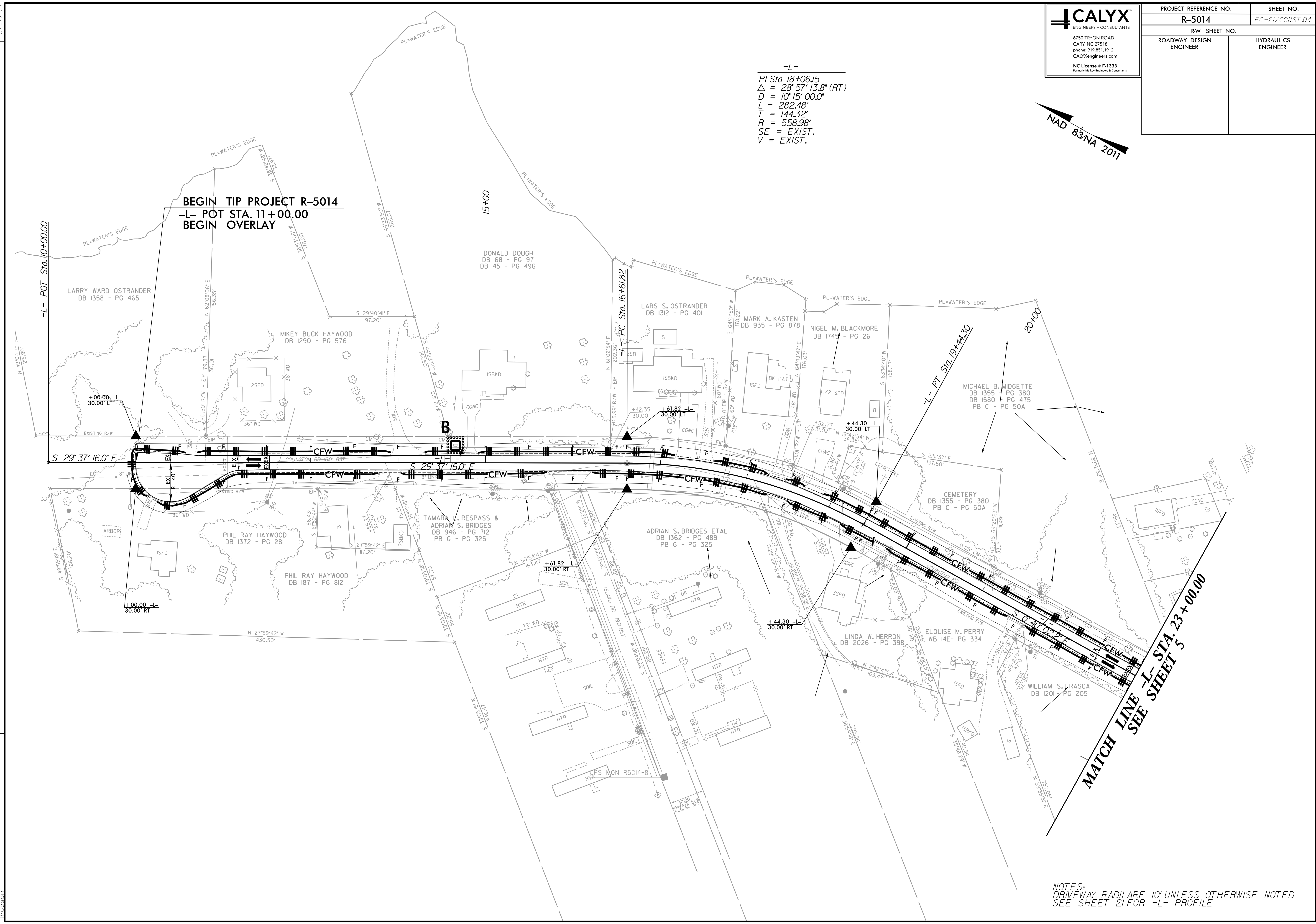
NOTES:
DRIVEWAY RADII ARE 5' UNLESS OTHERWISE NOTED
SEE SHEET 28 AND 29 FOR -L- PROFILE
SEE SHEET 29 FOR -YI- PROFILE
SEE SHEET 2B-1 FOR INTERSECTION DETAIL

PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-21/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
PI Sta 18+06.15
 $\Delta = 28' 57" 13.8" (RT)$
 $D = 10' 15" 00.0"$
 $L = 282.48'$
 $T = 144.32'$
 $R = 558.98'$
SE = EXIST.
V = EXIST.



REVISIONS



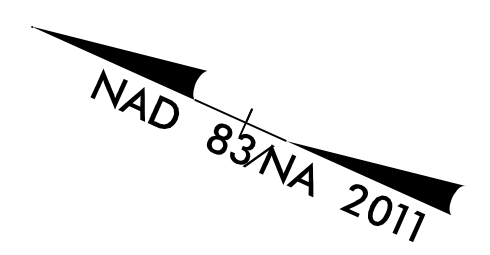
NOTES:
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 21 FOR -L- PROFILE

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10/20/08

8/17/99

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly Hubbs Engineers & Consultants

PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-22/CONST.05</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



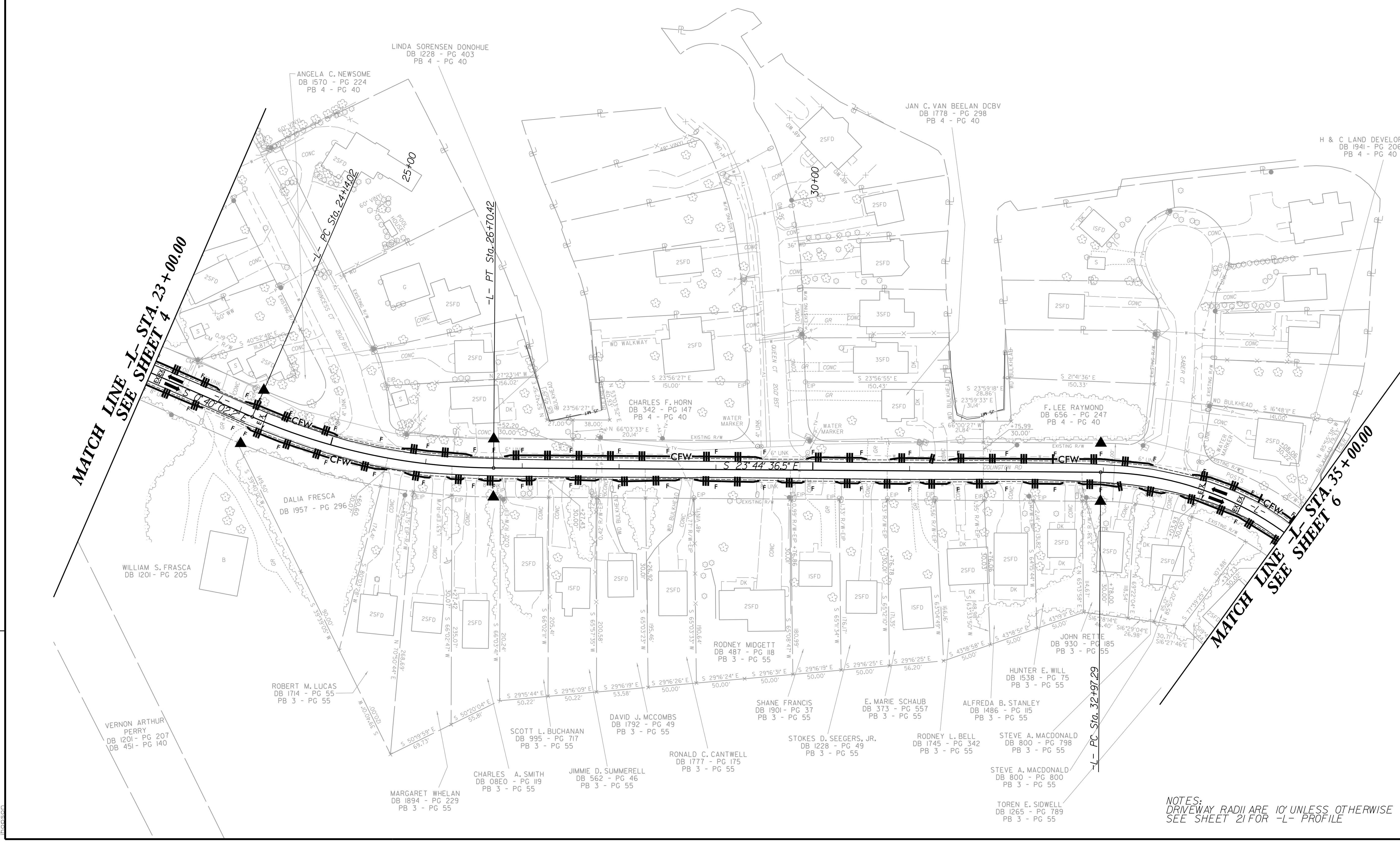
-L-

PI Sta 25+43.98 $\Delta = 23^{\circ}04'34.3"$ (LT) $D = 9^{\circ}00'00.0"$ $L = 256.40'$ $T = 129.96'$ $R = 636.62'$ $SE = EXIST.$ $V = EXIST.$	PI Sta 34+44.90 $\Delta = 48^{\circ}32'06.7"$ (RT) $D = 17^{\circ}30'00.0"$ $L = 277.34'$ $T = 147.61'$ $R = 327.40'$ $SE = EXIST.$ $V = EXIST.$
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REVISIONS

MATCH LINE -L- STA. 23+00.00
SEE SHEET 4

MATCH LINE -L- STA. 35+00.00
SEE SHEET 6



NOTES:
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 21 FOR -L- PROFILE

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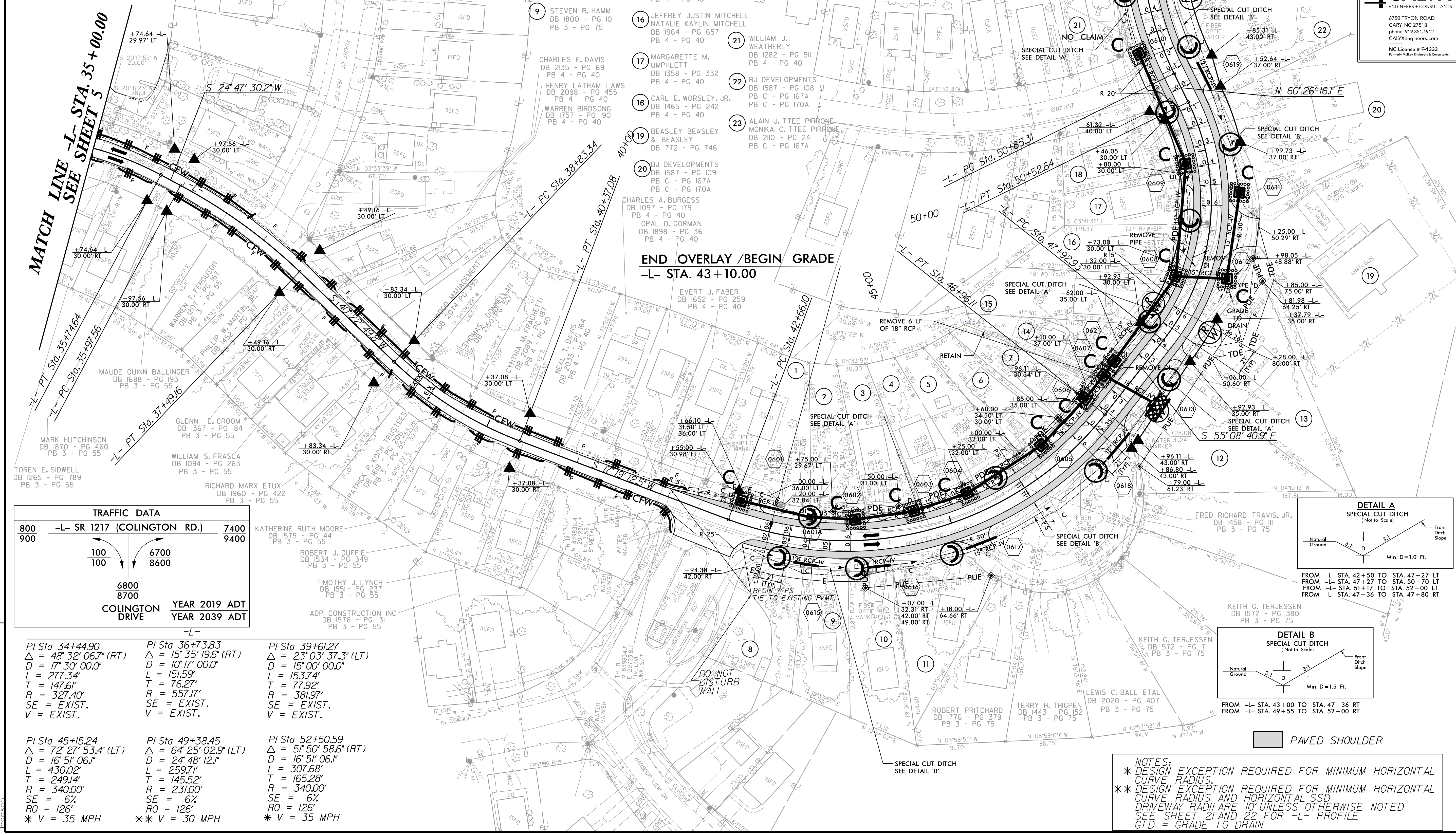
PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-23/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE -L- STA. 53+00.00
SEE SHEET 7

NAD 83NA 2011

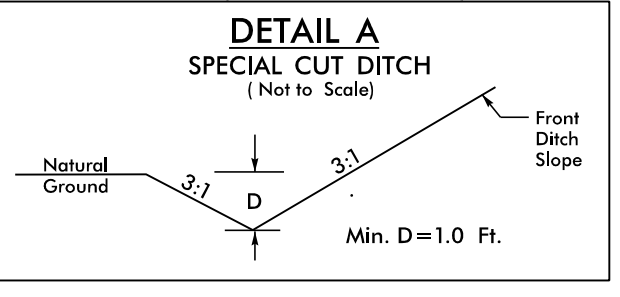
- 1 JEANNE M. LAURO
DB 1694 - PG 492
PB 4 - PG 40
- 2 CYNTHIA STEVENS
DB 1723 - PG 498
PB 4 - PG 40
- 3 THOMAS P. MAGNANELLI, SR.
DB 1355 - PG 398
PB 4 - PG 40
- 4 DEBORAH H. STOKES
CLINKSCALES
DB 1250 - PG 427
PB 4 - PG 40
- 5 DEBORAH STOKES
CLINKSCALES
DB 1374 - PG 377
PB 4 - PG 40
- 6 STEVE P. KING
DB 1728 - PG 89
PB 4 - PG 40
- 7 JOAN E. CASTEEL
DB 1870 - PG 162
PB 4 - PG 40
- 8 COLINGTON HARBOUR
ASSOCIATION INC
DB 1699 - PG 435
PB 3 - PG 75
- 9 STEVEN R. HAMM
DB 1800 - PG 10
PB 3 - PG 75
- 10 JOYCE L. JORDAN
DB 436 - PG 319
PB 3 - PG 75
- 11 JOHN W. DEMPWOLF
DB 1601 - PG 475
PB 3 - PG 75
- 12 HOLLISTYNE CREECY BLUITT
DB 1238 - PG 897
PB 3 - PG 75
- 13 WILLIAM A. WILLFORD
DB 1372 - PG 327
PB 3 - PG 75
- 14 CARLYN ANN LAUGHLIN
DB 1975 - PG 407
PB 4 - PG 40
- 15 ROBBIE PAETOW
DB 1895 - PG 72
PB 4 - PG 40
- 16 JEFFREY JUSTIN MITCHELL
NATALIE KAYLIN MITCHELL
DB 1964 - PG 657
PB 4 - PG 40
- 17 MARGARETTE M. UMPHLETT
DB 1358 - PG 332
PB 4 - PG 40
- 18 CARL E. WORSLEY, JR.
DB 1465 - PG 242
PB 4 - PG 40
- 19 BEASLEY BEASLEY & BEASLEY
DB 772 - PG 746
- 20 BJ DEVELOPMENTS
DB 1587 - PG 109
PB C - PG 167A
PB C - PG 170A
- 21 WILLIAM J. WEATHERLY
DB 1282 - PG 511
PB 4 - PG 40
- 22 BJ DEVELOPMENTS
DB 1587 - PG 108
PB C - PG 167A
PB C - PG 170A
- 23 ALAIN J. TTEE PIRRONE
MONIKA C. TTEE PIRRONE
DB 2110 - PG 24
PB C - PG 167A



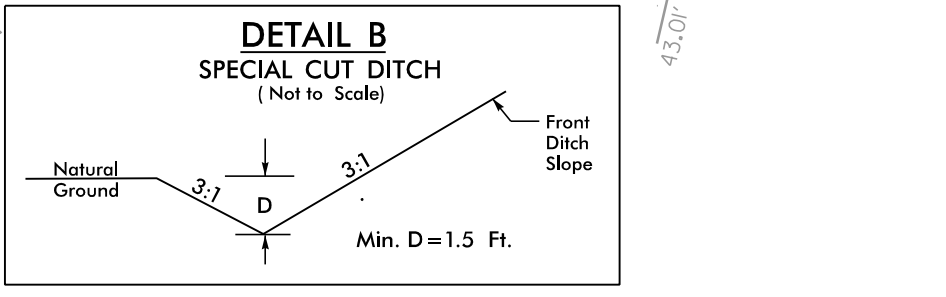
END OVERLAY / BEGIN GRADE
-L- STA. 43+10.00

TRAFFIC DATA		
800	-L- SR 1217 (COLINGTON RD.)	7400
900		9400
100		6700
100		8600
		6800
		8700
COLINGTON DRIVE YEAR 2019 ADT		
YEAR 2039 ADT		

PI Sta 34+44.90 Δ = 48° 32' 06.7" (RT) D = 17° 30' 00.0" L = 277.34' T = 147.61' R = 327.40' SE = EXIST. V = EXIST.	PI Sta 36+73.83 Δ = 15° 35' 19.6" (RT) D = 10° 17' 00.0" L = 151.59' T = 76.27' R = 557.17' SE = EXIST. V = EXIST.	PI Sta 39+61.27 Δ = 23° 03' 37.3" (LT) D = 15° 00' 00.0" L = 153.74' T = 77.92' R = 381.97' SE = EXIST. V = EXIST.
PI Sta 45+15.24 Δ = 72° 27' 53.4" (LT) D = 16° 51' 06.1" L = 430.02' T = 249.14' R = 340.00' SE = 6% RO = 126' * V = 35 MPH	PI Sta 49+38.45 Δ = 64° 25' 02.9" (LT) D = 24° 48' 12.1" L = 259.71' T = 145.52' R = 231.00' SE = 6% RO = 126' * V = 30 MPH	PI Sta 52+50.59 Δ = 51° 50' 58.6" (RT) D = 16° 51' 06.1" L = 307.68' T = 165.28' R = 340.00' SE = 6% RO = 126' * V = 35 MPH



FROM -L- STA. 42+50 TO STA. 47+27 LT
FROM -L- STA. 47+27 TO STA. 50+70 LT
FROM -L- STA. 51+17 TO STA. 52+00 LT
FROM -L- STA. 47+36 TO STA. 47+80 RT



FROM -L- STA. 43+00 TO STA. 47+36 RT
FROM -L- STA. 49+55 TO STA. 52+00 RT

PAVED SHOULDER

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
** DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS AND HORIZONTAL SSD.
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.
SEE SHEET 21 AND 22 FOR -L- PROFILE.
GTD = GRADE TO DRAIN.

RIGHT OF WAY REVISION - 2/28/2018 - ADDED PERMANENT UTILITY EASEMENT TO PARCELS 10,11,12, AND 13.

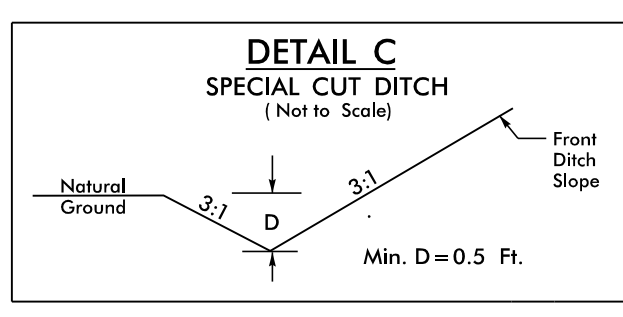
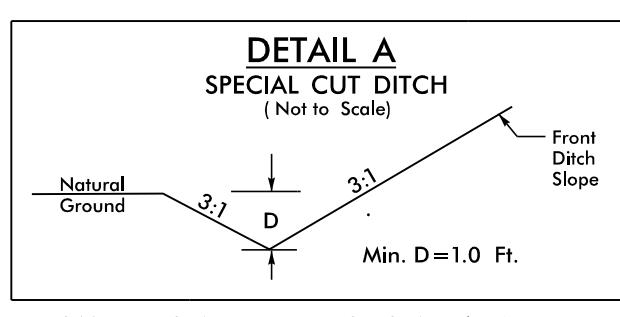
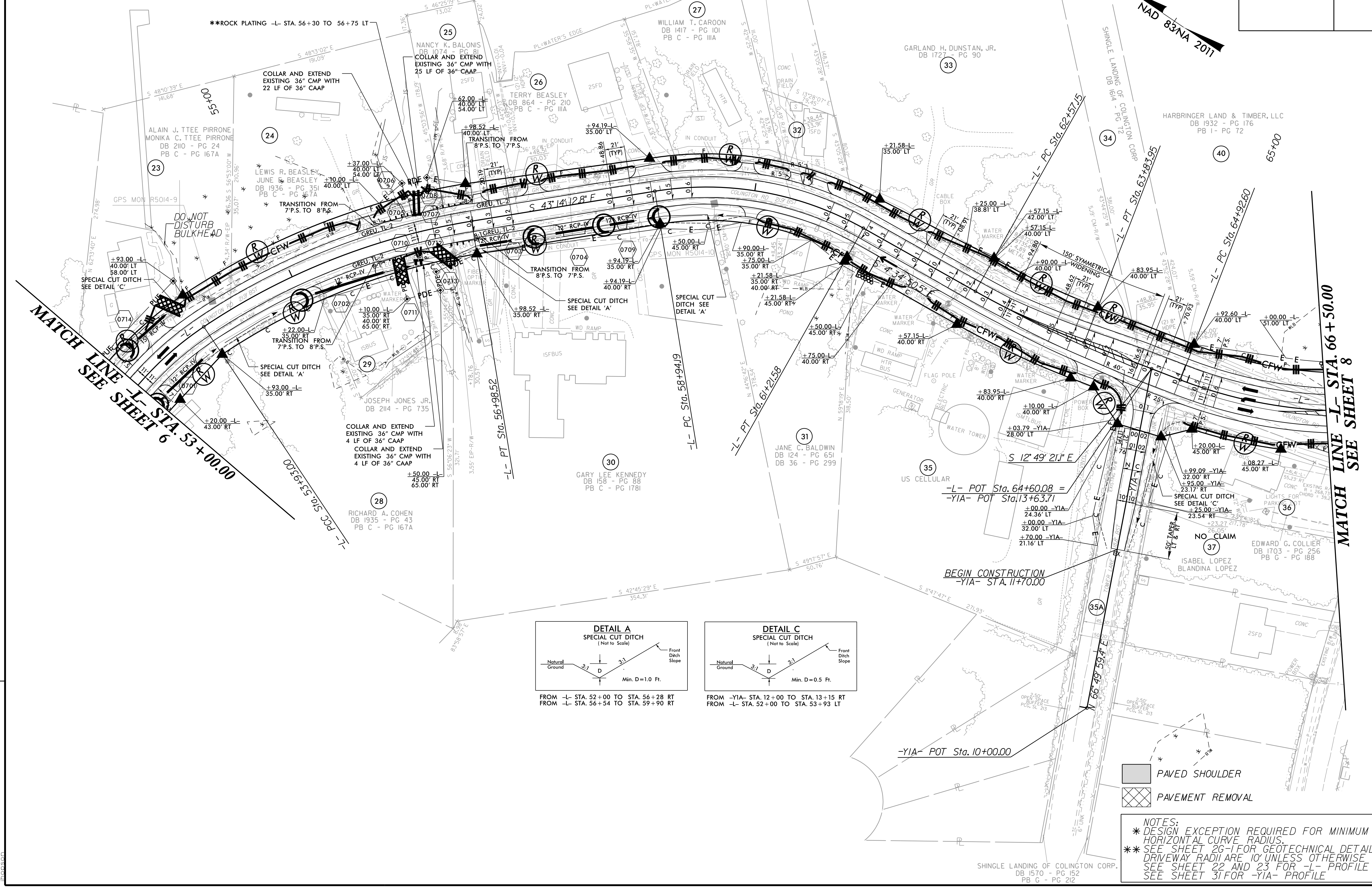
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REVISIONS

1/5/2018
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PROJECT REFERENCE NO. R-5014	SHEET NO. EC-24/CONST.07
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

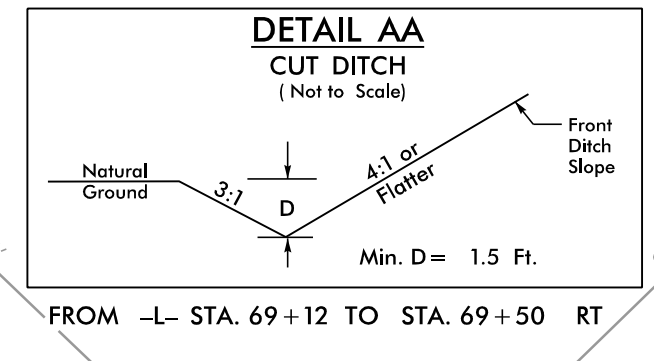
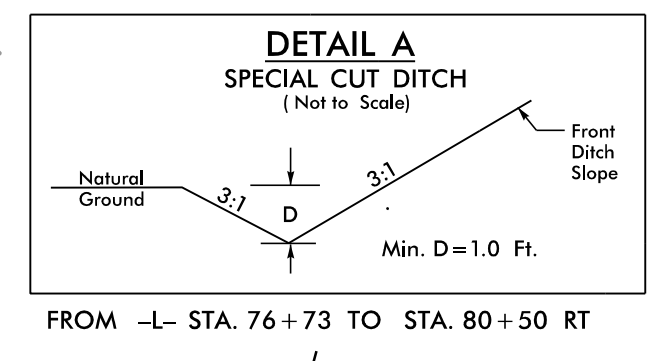
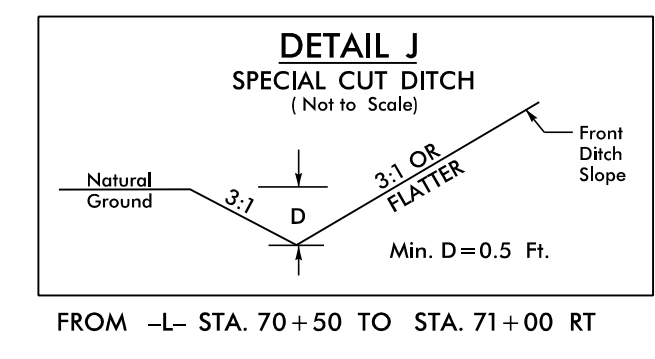
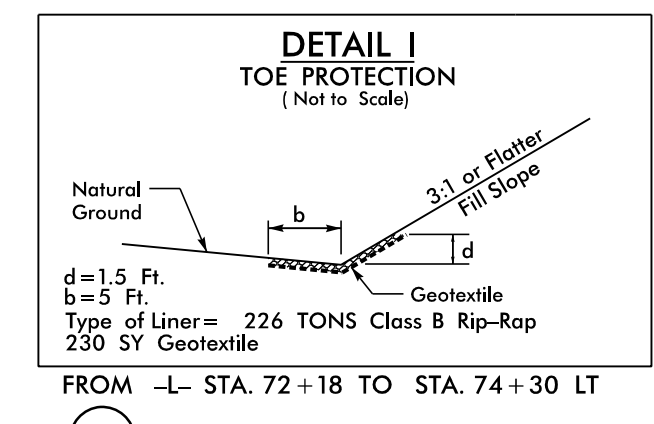
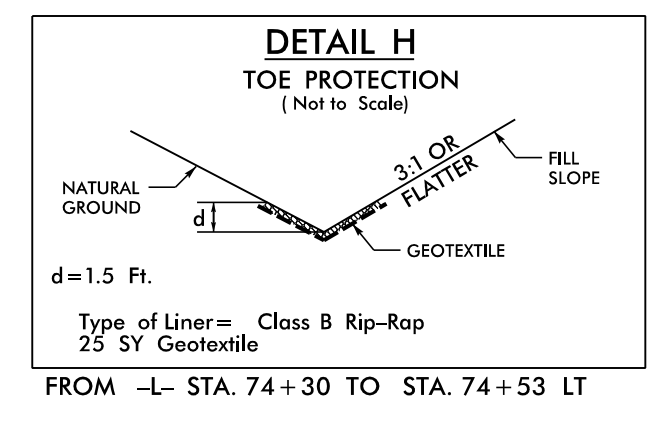
PI Sta 52+50.59 $\Delta = 51^{\circ}50'58.6"$ (RT) $D = 16'51.06"$ $L = 307.68'$ $T = 165.28'$ $R = 340.00'$ $SE = 6\%$ $RO = 126'$ $*V = 35$ MPH	PI Sta 55+48.13 $\Delta = 24^{\circ}28'32.5"$ (RT) $D = 8'00.394"$ $L = 305.53'$ $T = 155.13'$ $R = 715.22'$ $SE = 6\%$ $RO = 126'$ $V = 45$ MPH	PI Sta 60+12.41 $\Delta = 38^{\circ}39'22.3"$ (RT) $D = 17'00.000"$ $L = 227.39'$ $T = 118.21'$ $R = 337.03'$ $SE = 6\%$ $RO = 126'$ $*V = 30$ MPH	PI Sta 63+20.66 $\Delta = 8'14'30.6"$ (LT) $D = 6'30.000"$ $L = 126.80'$ $T = 63.51'$ $R = 881.47'$ $SE = 5\%$ $RO = 105'$ $V = 50$ MPH	PI Sta 74+83.10 $\Delta = 127^{\circ}49'20.5"$ (LT) $D = 1'48'48.8"$ $L = 1082.00'$ $T = 990.50'$ $R = 485.00'$ $SE = 6\%$ $RO = 126'$ $V = 40$ MPH
--	---	---	--	--



- PAVED SHOULDER
- PAVEMENT REMOVAL

NOTES:
 * DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
 ** SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS.
 DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.
 SEE SHEET 22 AND 23 FOR -L- PROFILE.
 SEE SHEET 31 FOR -YIA- PROFILE.

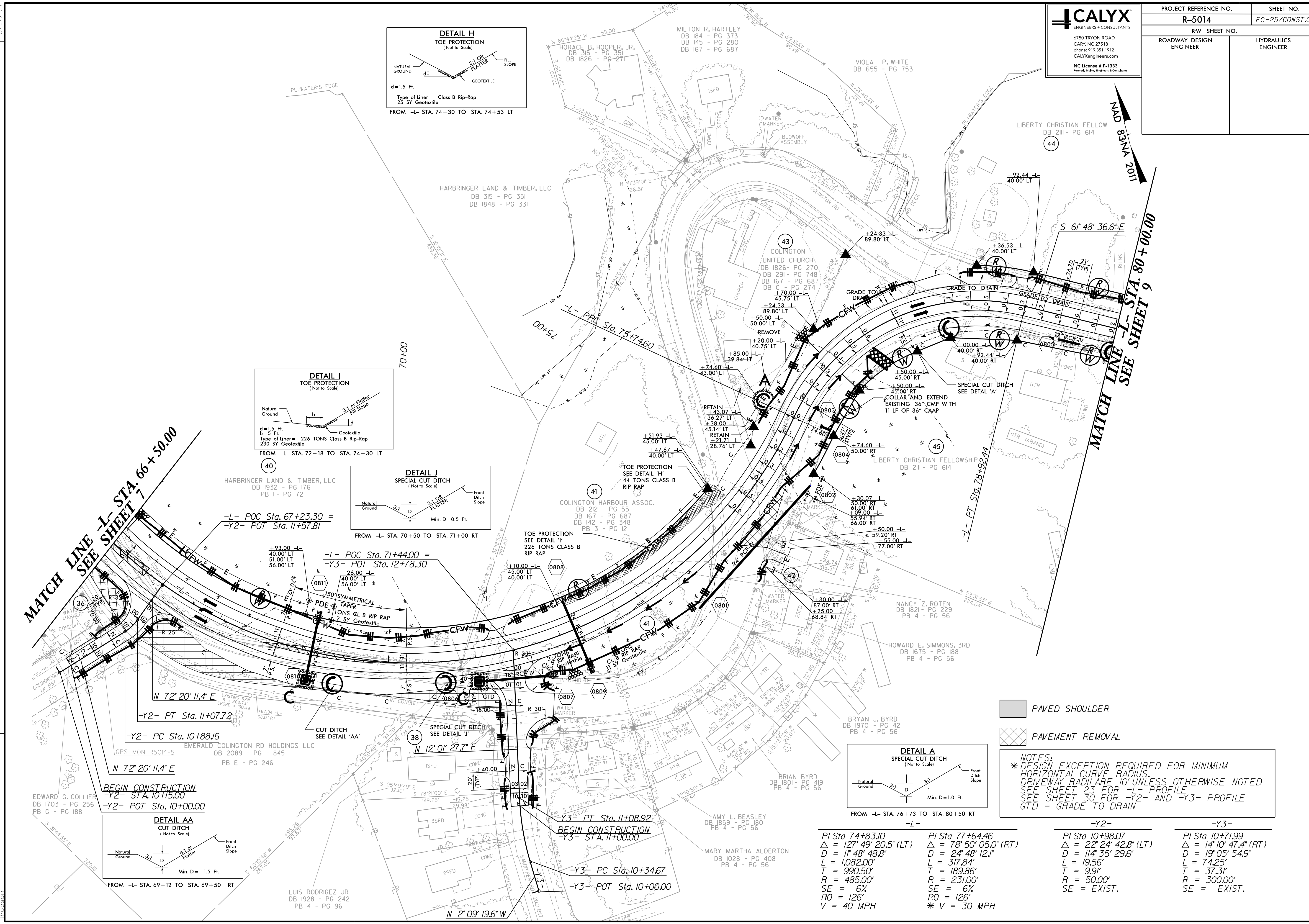
REVISIONS
 RIGHT OF WAY REVISION - 9/28/2017 - ADJUSTED RIGHT OF WAY AND TEMPORARY CONSTRUCTION EASEMENT ON PARCEL 30 AND 33.
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 8/17/99



PAVED SHOULDER
PAVEMENT REMOVAL

NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS. DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED. SEE SHEET 23 FOR -L- PROFILE. SEE SHEET 30 FOR -Y2- AND -Y3- PROFILE. GTD = GRADE TO DRAIN

-L-	-Y2-	-Y3-
PI Sta 74+83.10	PI Sta 10+98.07	PI Sta 10+71.99
$\Delta = 127^{\circ} 49' 20.5" (LT)$	$\Delta = 22^{\circ} 24' 42.8" (LT)$	$\Delta = 14^{\circ} 10' 47.4" (RT)$
$D = 11^{\circ} 48' 48.8"$	$D = 11^{\circ} 35' 29.6"$	$D = 19^{\circ} 05' 54.9"$
$L = 1,082.00'$	$L = 317.84'$	$L = 74.25'$
$T = 990.50'$	$T = 189.86'$	$T = 37.31'$
$R = 485.00'$	$R = 231.00'$	$R = 300.00'$
$SE = 6\%$	$SE = 6\%$	$SE = EXIST.$
$RO = 126'$	$RO = 126'$	$RO = 126'$
$V = 40 MPH$	$* V = 30 MPH$	$* V = 30 MPH$

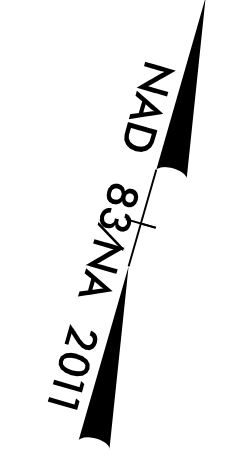


REVISIONS

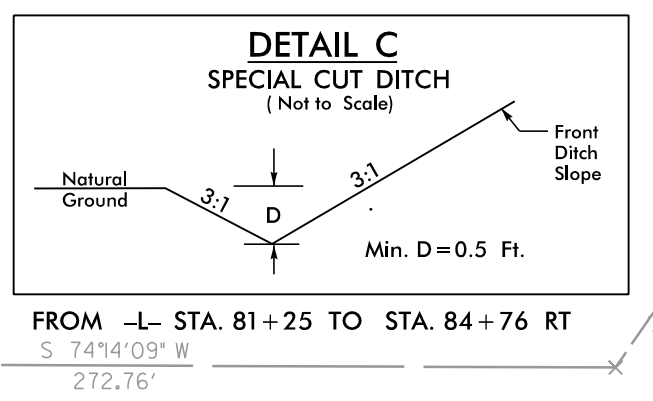
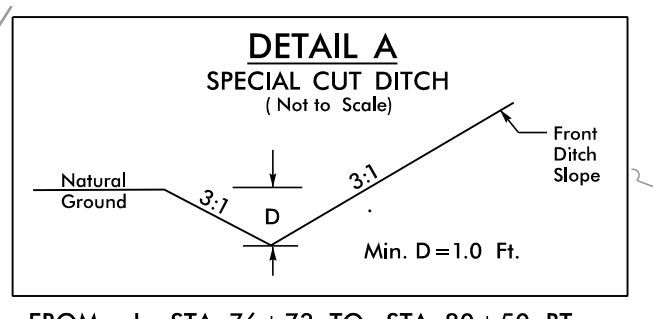
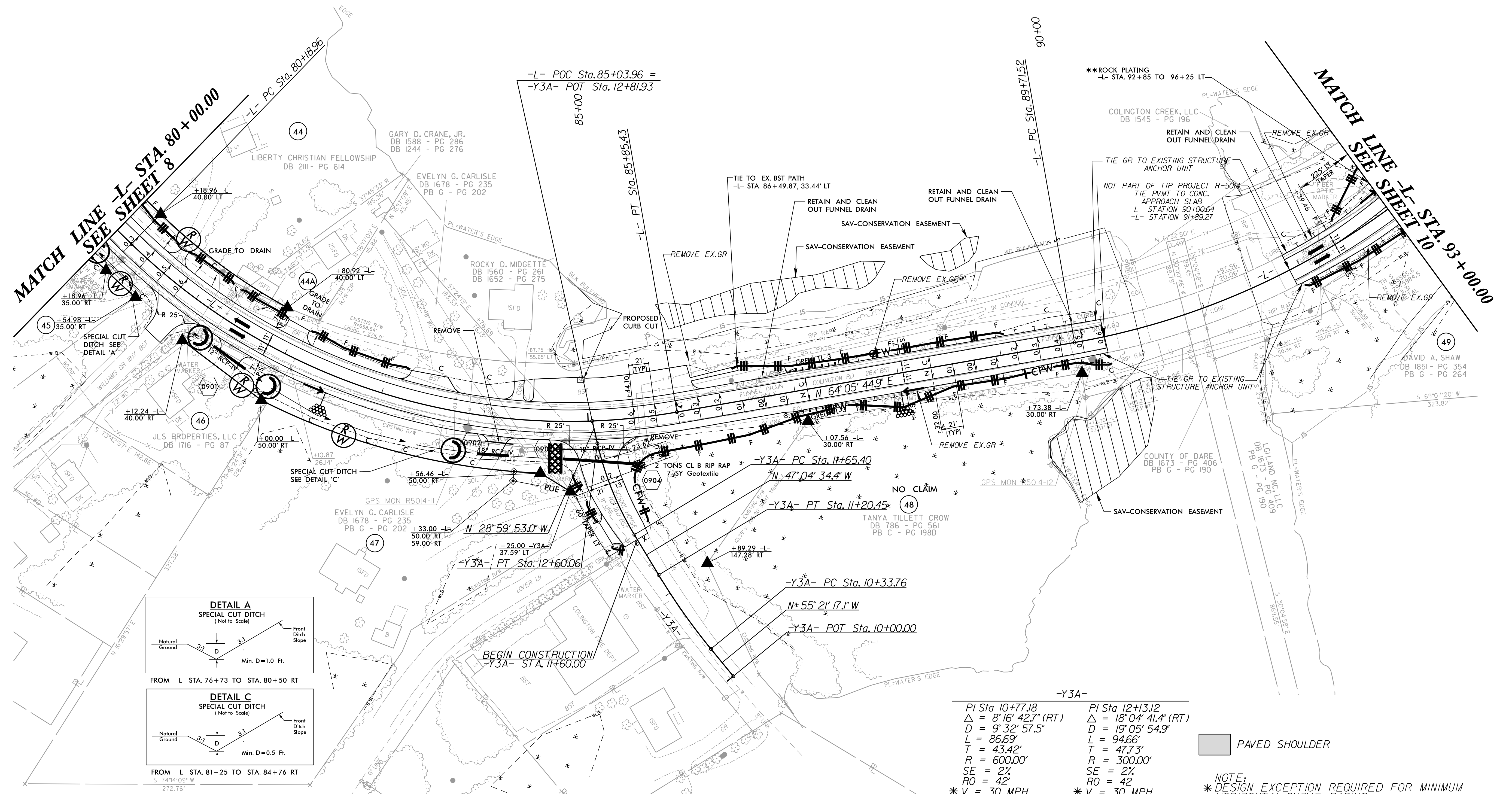
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 1/5/2018

-L-

PI Sta 83+25.29	PI Sta 92+55.51
$\Delta = 54^{\circ}05'38.6"$ (LT)	$\Delta = 43^{\circ}15'31.2"$ (LT)
$D = 9^{\circ}32'57.5"$	$D = 8^{\circ}00'00.0"$
$L = 566.47'$	$L = 540.73'$
$T = 306.34'$	$T = 283.99'$
$R = 600.00'$	$R = 716.20'$
$SE = 6\%$	$SE = 6\%$
$RO = 126'$	$RO = 126'$
$V = 40$ MPH	$V = 45$ MPH



45 LIBERTY CHRISTIAN FELLOWSHIP
DB 2III - PG 614



-Y3A-

PI Sta 10+77.18	PI Sta 12+13.12
$\Delta = 8^{\circ}16'42.7"$ (RT)	$\Delta = 18^{\circ}04'41.4"$ (RT)
$D = 9^{\circ}32'57.5"$	$D = 19^{\circ}05'54.9"$
$L = 86.69'$	$L = 94.66'$
$T = 43.42'$	$T = 47.73'$
$R = 600.00'$	$R = 300.00'$
$SE = 2\%$	$SE = 2\%$
$RO = 42'$	$RO = 42'$
$V = 30$ MPH	$V = 30$ MPH

PAVED SHOULDER

NOTE:
 * DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
 * DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
 * SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS
 * SEE SHEET 23 FOR -L- PROFILE
 * SEE SHEET 31 FOR -Y3A- PROFILE
 * SAV = SUBMERGED AQUATIC VEGETATION

REVISIONS

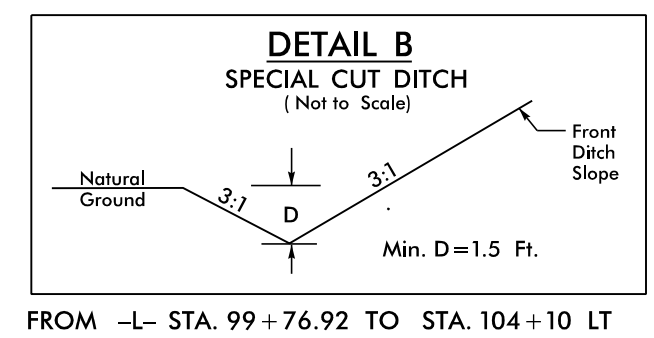
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 11/5/2018

8.17.99

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Professional Engineers & Consultants

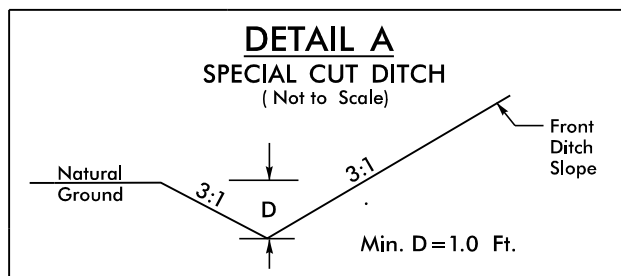
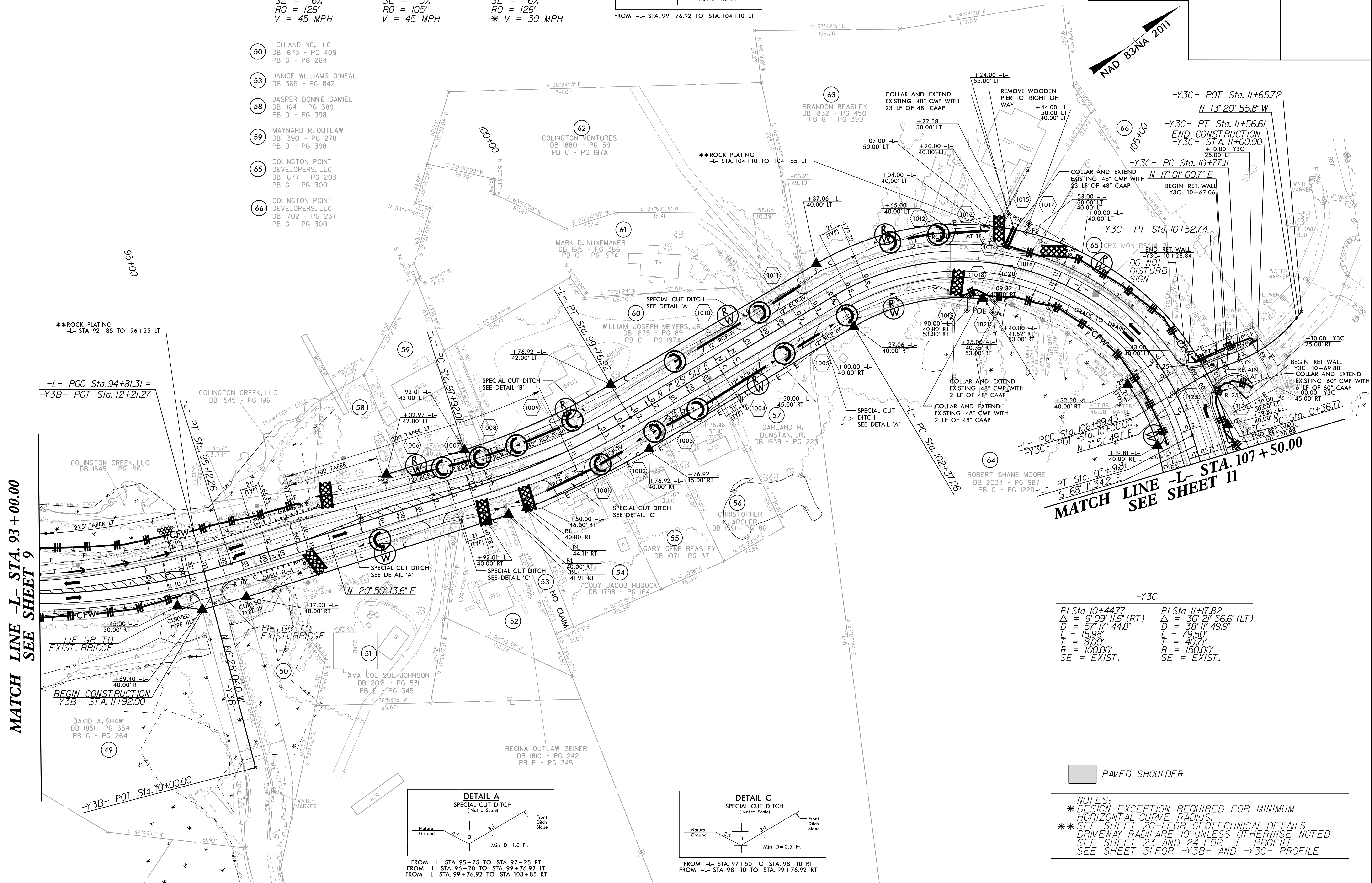
PROJECT REFERENCE NO.	SHEET NO.
R-5014	EC-27/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-		
PI Sta 92+55.51 Δ = 43°15'31.2" (LT) D = 8°00'00.0" L = 540.73' T = 283.99' R = 716.20' SE = 6% RO = 126' V = 45 MPH	PI Sta 98+84.89 Δ = 13°24'22.6" (LT) D = 7°15'00.0" L = 184.91' T = 92.88' R = 790.29' SE = 5% RO = 105' V = 45 MPH	PI Sta 105+78.55 Δ = 104°22'34.7" (RT) D = 2°37'15.8" L = 482.75' T = 341.49' R = 265.00' SE = 6% RO = 126' * V = 30 MPH

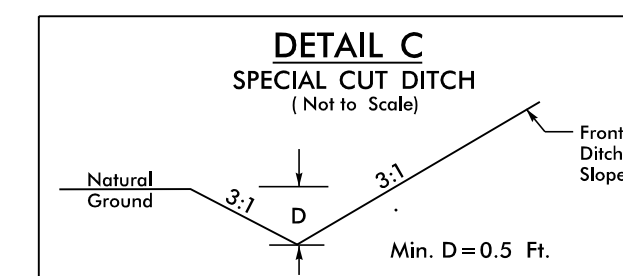


FROM -L- STA. 99+76.92 TO STA. 104+10 LT

- 50 LGLAND NC, LLC
DB 1673 - PG 409
PB G - PG 264
- 53 JANICE WILLIAMS O'NEAL
DB 365 - PG 842
- 58 JASPER DONNIE GAMIEL
DB 1164 - PG 389
PB D - PG 398
- 59 MAYNARD R. OUTLAW
DB 1390 - PG 278
PB D - PG 398
- 65 COLINGTON POINT DEVELOPERS, LLC
DB 1677 - PG 203
PB G - PG 300
- 66 COLINGTON POINT DEVELOPERS, LLC
DB 1702 - PG 237
PB G - PG 300



FROM -L- STA. 95+75 TO STA. 97+25 RT
FROM -L- STA. 96+20 TO STA. 99+76.92 LT
FROM -L- STA. 99+76.92 TO STA. 103+85 RT



FROM -L- STA. 97+50 TO STA. 98+10 RT
FROM -L- STA. 98+10 TO STA. 99+76.92 RT

-Y3C-	
PI Sta 10+44.77 Δ = 9°09'11.6" (RT) D = 57°17'44.8" L = 15.98' T = 8.00' R = 100.00' SE = EXIST.	PI Sta 11+17.82 Δ = 30°21'56.6" (LT) D = 38°11'49.9" L = 79.50' T = 40.71' R = 150.00' SE = EXIST.

PAVED SHOULDER

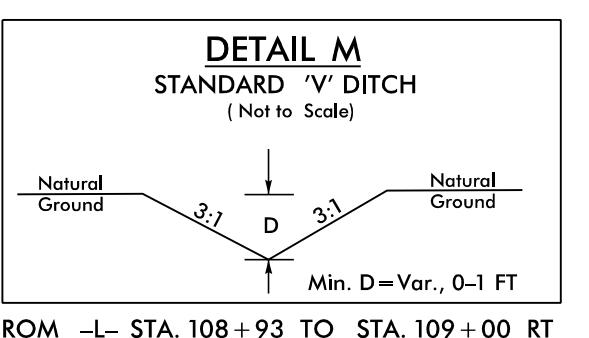
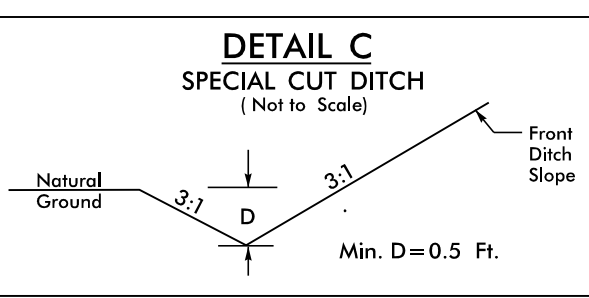
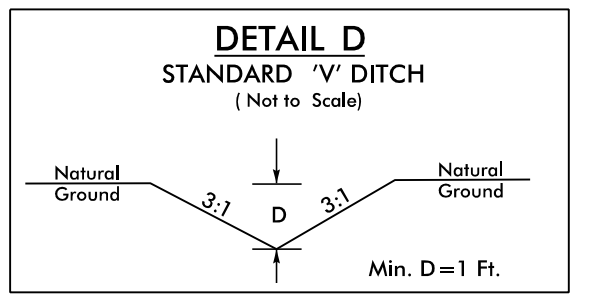
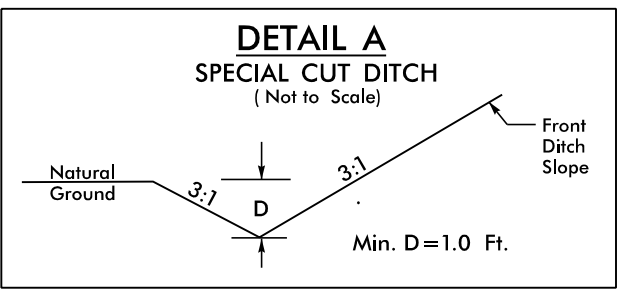
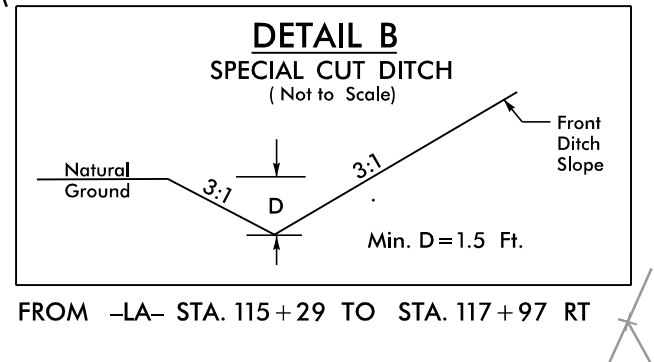
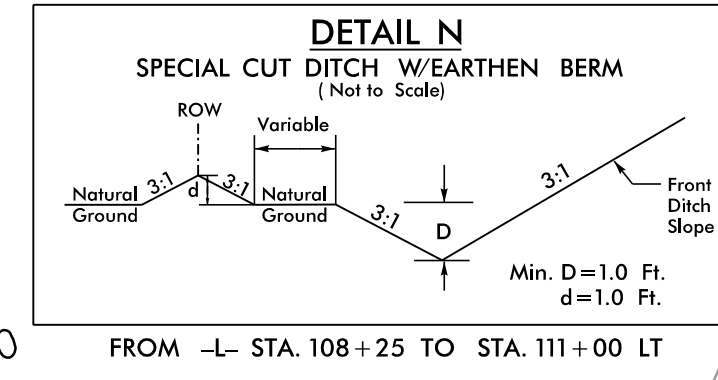
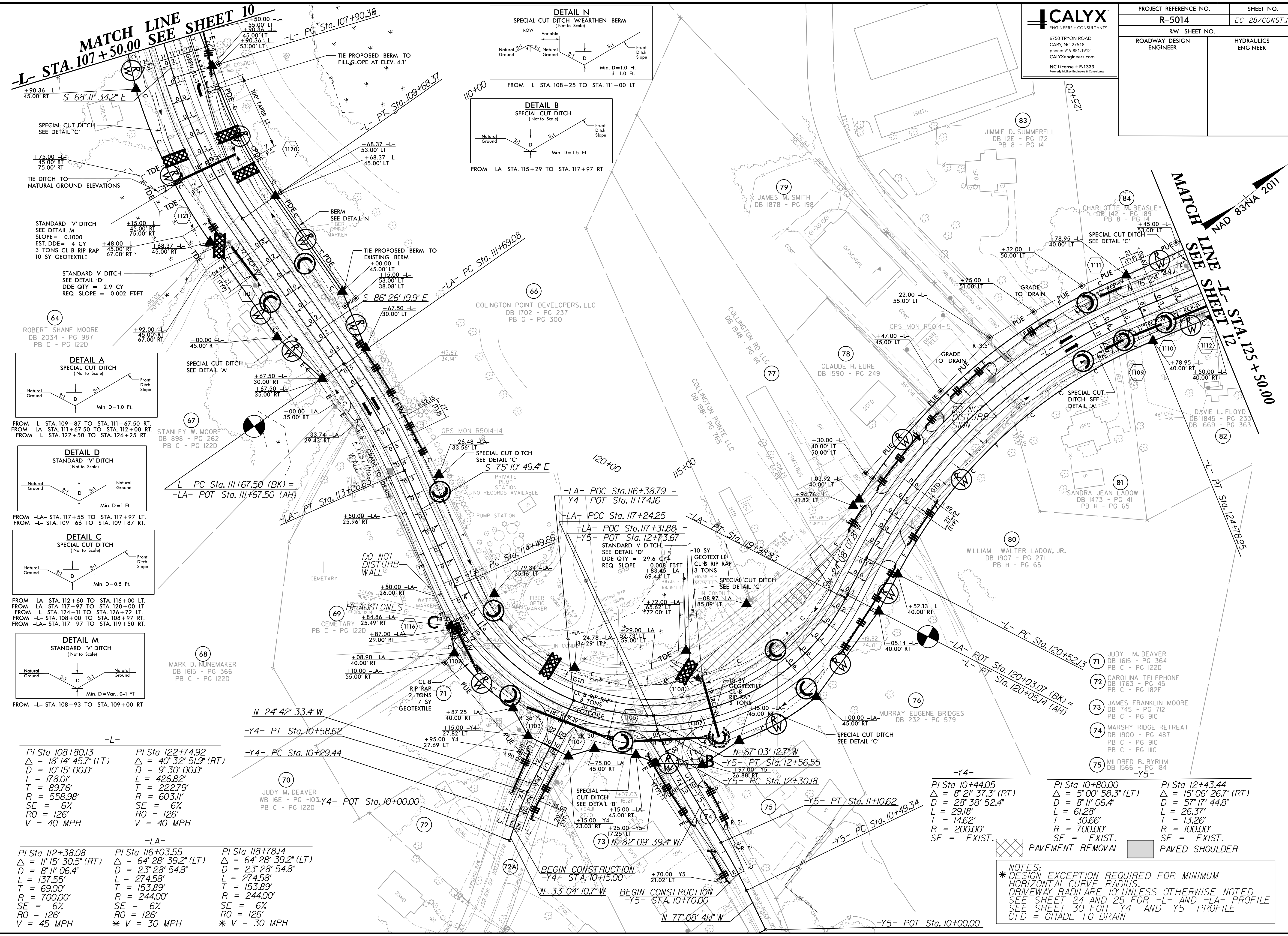
NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
** SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 23 AND 24 FOR -L- PROFILE
SEE SHEET 31 FOR -Y3B- AND -Y3C- PROFILE

REVISIONS

MATCH LINE -L- STA. 93 + 00.00
SEE SHEET 9

MATCH LINE -L- STA. 107 + 50.00
SEE SHEET 11

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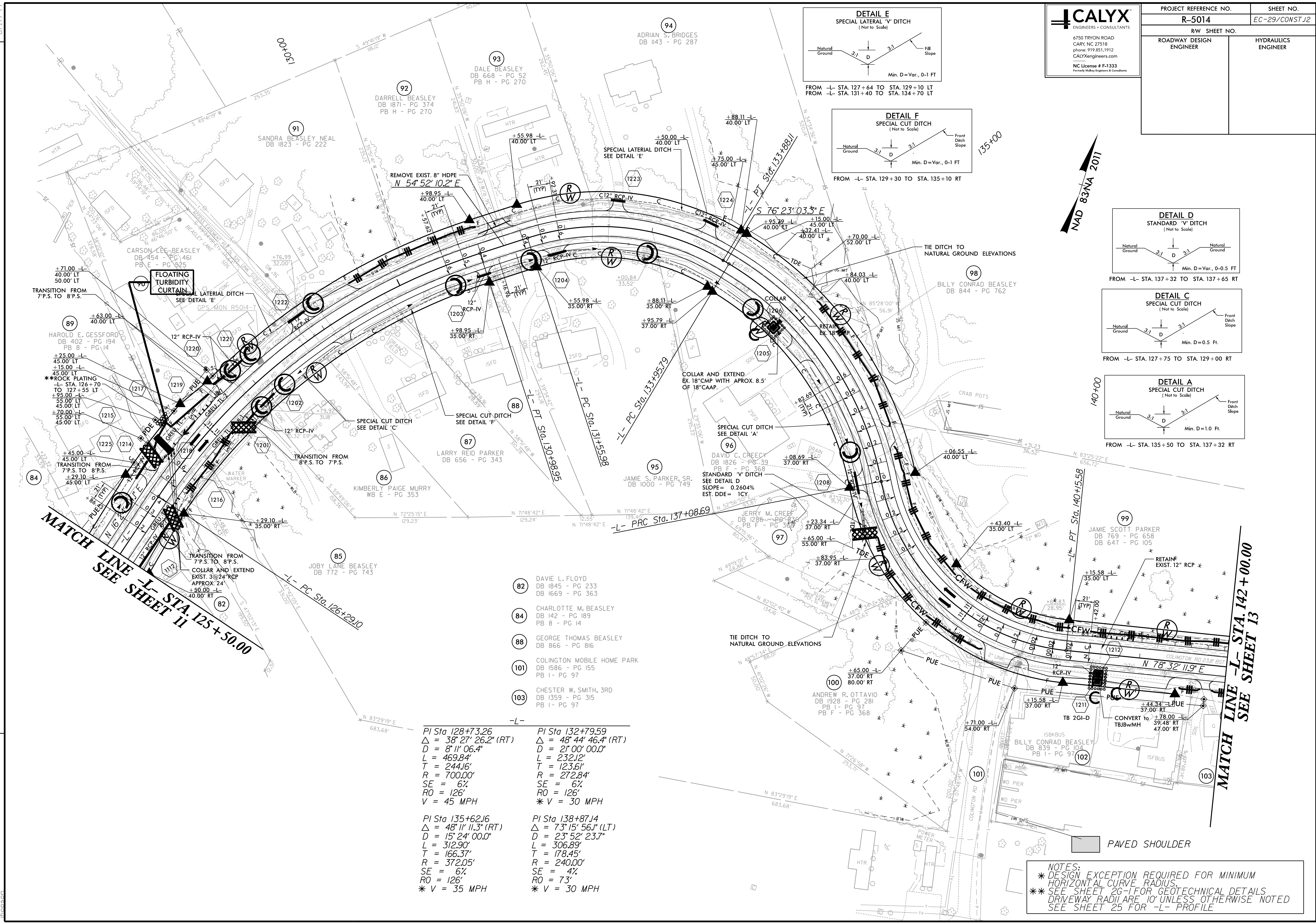
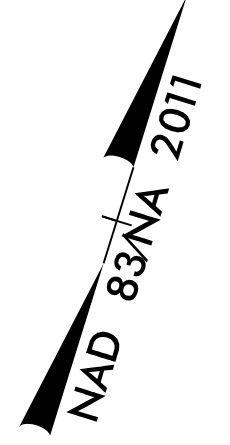
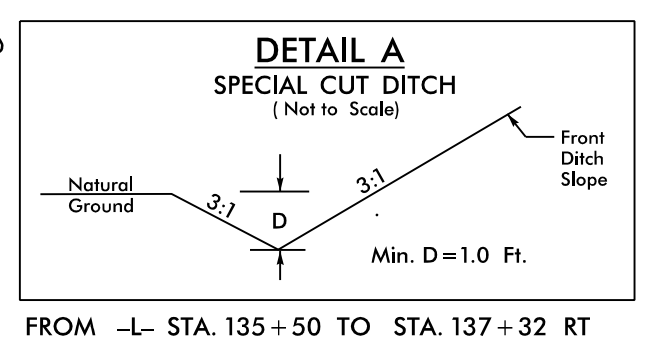
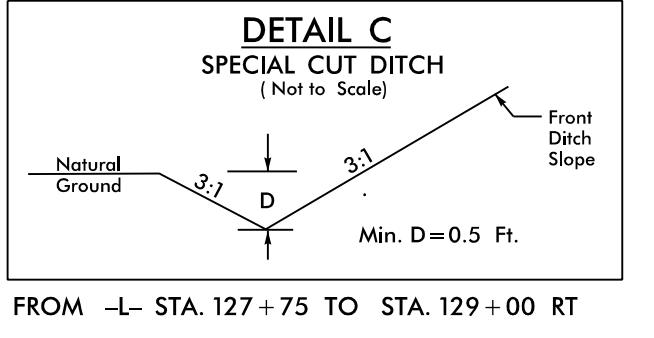
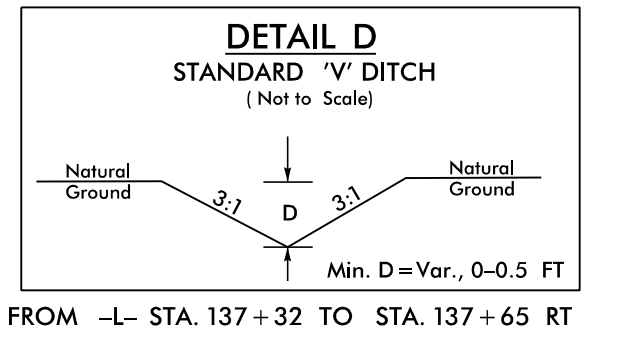
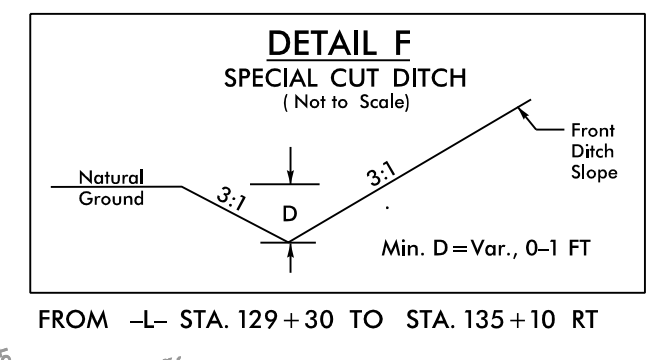
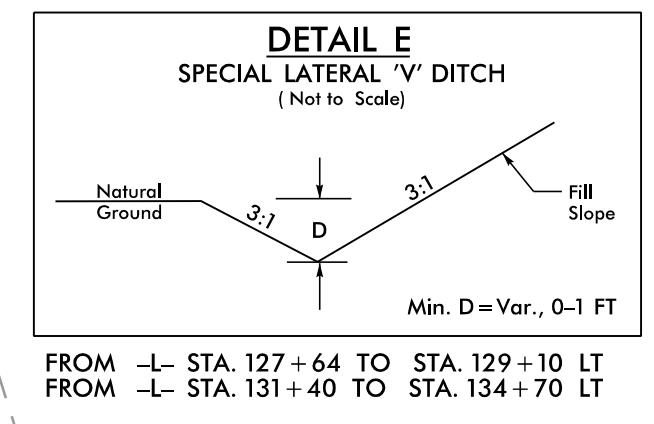
<p>PI Sta 108+80.13 Δ = 18° 14' 45.7" (LT) D = 10' 15" 00.0" L = 178.01' T = 89.76' R = 558.98' SE = 6% RO = 126' V = 40 MPH</p>	<p>PI Sta 122+74.92 Δ = 40° 32' 51.9" (RT) D = 9' 30" 00.0" L = 426.82' T = 222.79' R = 603.11' SE = 6% RO = 126' V = 40 MPH</p>
--	--

<p>PI Sta 112+38.08 Δ = 11° 15' 30.5" (RT) D = 8' 11" 06.4" L = 137.55' T = 69.00' R = 700.00' SE = 6% RO = 126' V = 45 MPH</p>	<p>PI Sta 116+03.55 Δ = 64° 28' 39.2" (LT) D = 23' 28" 54.8" L = 274.58' T = 153.89' R = 244.00' SE = 6% RO = 126' * V = 30 MPH</p>	<p>PI Sta 118+78.14 Δ = 64° 28' 39.2" (LT) D = 23' 28" 54.8" L = 274.58' T = 153.89' R = 244.00' SE = 6% RO = 126' * V = 30 MPH</p>
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NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.
SEE SHEET 24 AND 25 FOR -L- AND -LA- PROFILE.
SEE SHEET 30 FOR -Y4- AND -Y5- PROFILE.
GTD = GRADE TO DRAIN

REVISIONS

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TRANSITION FROM 7 P.S. TO 8 P.S.
GPS MON R5014-7
GPS MON R5014-7
GPS MON R5014-7

TRANSITION FROM 7 P.S. TO 8 P.S.
GPS MON R5014-7
GPS MON R5014-7
GPS MON R5014-7

TRANSITION FROM 7 P.S. TO 8 P.S.
GPS MON R5014-7
GPS MON R5014-7
GPS MON R5014-7

TRANSITION FROM 7 P.S. TO 8 P.S.
GPS MON R5014-7
GPS MON R5014-7
GPS MON R5014-7

- 82 DAVE L. FLOYD
DB 1845 - PG 233
DB 1669 - PG 363
- 84 CHARLOTTE M. BEASLEY
DB 142 - PG 189
PB 8 - PG 14
- 88 GEORGE THOMAS BEASLEY
DB 866 - PG 816
- 101 COLINGTON MOBILE HOME PARK
DB 1586 - PG 155
PB 1 - PG 97
- 103 CHESTER W. SMITH, 3RD
DB 1359 - PG 315
PB 1 - PG 97

PI Sta 128+73.26 Δ = 38° 27' 26.2" (RT) D = 8' 11" 06.4" L = 469.84' T = 244.16' R = 700.00' SE = 6% RO = 126' * V = 45 MPH	PI Sta 132+79.59 Δ = 48° 44' 46.4" (RT) D = 21' 00" 00.0" L = 232.12' T = 123.61' R = 272.84' SE = 6% RO = 126' * V = 30 MPH
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PI Sta 135+62.16 Δ = 48° 11' 11.3" (RT) D = 15' 24" 00.0" L = 312.90' T = 166.37' R = 372.05' SE = 6% RO = 126' * V = 35 MPH	PI Sta 138+87.14 Δ = 73° 15' 56.1" (LT) D = 23' 52" 23.7" L = 306.89' T = 178.45' R = 240.00' SE = 4% RO = 73' * V = 30 MPH
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NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
** SEE SHEET 26-F FOR GEOTECHNICAL DETAILS
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 25 FOR -L- PROFILE

REVISIONS

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MATCH LINE -L- STA. 125+50.00
SEE SHEET 11

MATCH LINE -L- STA. 142+00.00
SEE SHEET 13

PAVED SHOULDER

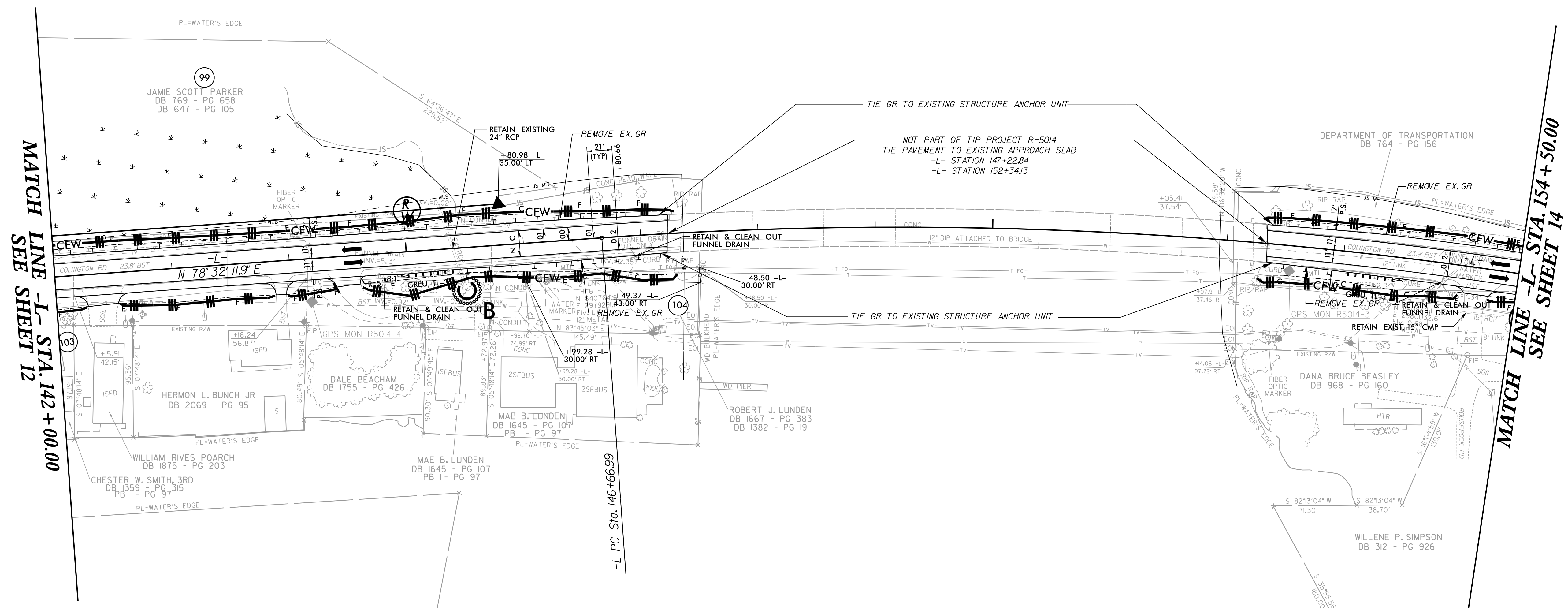
PROJECT REFERENCE NO. R-5014	SHEET NO. <i>EC-30/CONST.13</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
PI Sta 151+21.7
 $\Delta = 14' 36'' 20.0''$ (RT)
 $D = 1' 37'' 00.0''$
 $L = 903.44'$
 $T = 454.18'$
 $R = 3,544.07'$
 $SE = 2\%$
 $RO = 42'$
 $V = 80$ MPH

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REVISIONS

8/17/99



MATCH LINE -L- STA. 142 + 00.00
SEE SHEET 12

MATCH LINE -L- STA. 154 + 50.00
SEE SHEET 14

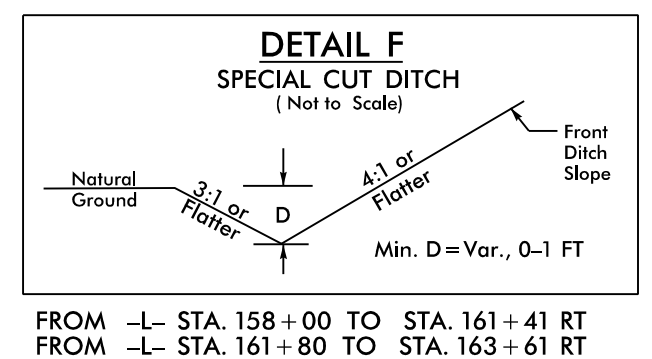
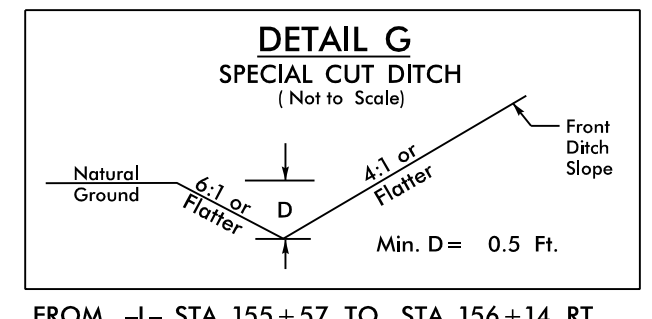
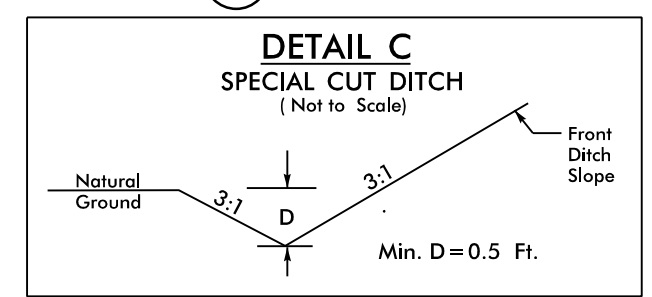
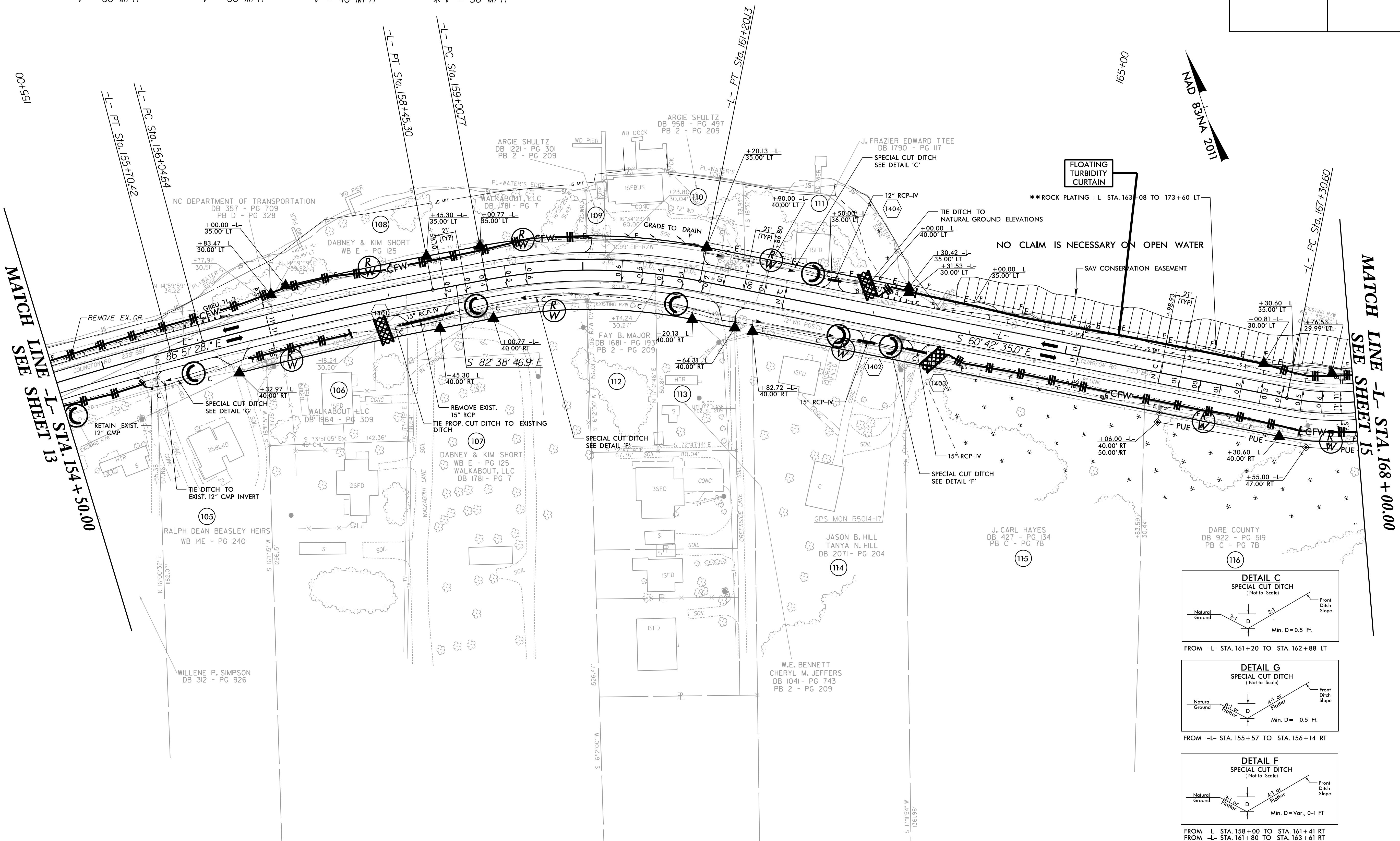
PAVED SHOULDER

NOTES:
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 25 AND 26 FOR -L- PROFILE

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 11/5/2018
 W. Simpson

PROJECT REFERENCE NO. R-5014	SHEET NO. EC-31/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PI Sta 151+21.7 Δ = 14° 36' 20.0" (RT) D = 1° 37' 00.0" L = 903.44' T = 454.18' R = 3,544.07' SE = 2% RO = 42' V = 80 MPH	PI Sta 157+25.02 Δ = 4° 12' 41.2" (RT) D = 1° 45' 00.0" L = 240.65' T = 120.38' R = 3,274.04' SE = 2% RO = 42' V = 80 MPH	PI Sta 160+11.81 Δ = 21° 56' 11.8" (RT) D = 10° 00' 00.0" L = 219.37' T = 111.04' R = 572.96' SE = 6% RO = 126' V = 40 MPH	PI Sta 168+56.10 Δ = 53° 18' 40.2" (LT) D = 22° 55' 05.9" L = 232.61' T = 125.49' R = 250.00' SE = 6% RO = 126' * V = 30 MPH
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NOTES:
* DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS AND HORIZONTAL SSD
** SEE SHEET 26-1 FOR GEOTECHNICAL DETAILS
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 26 FOR -L- PROFILE
SAV = SUBMERGED AQUATIC VEGETATION

PAVED SHOULDER

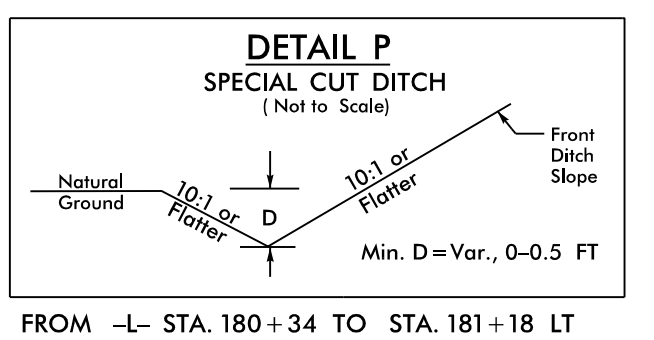
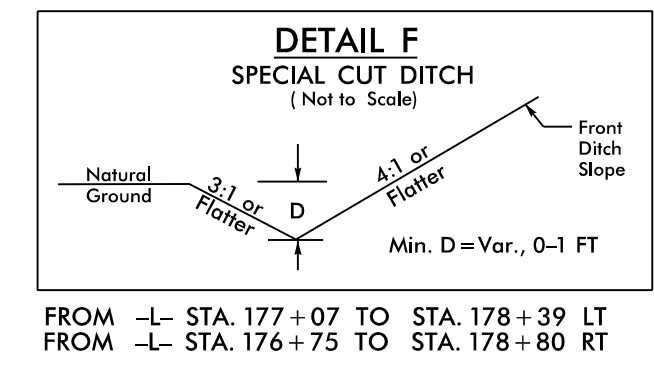
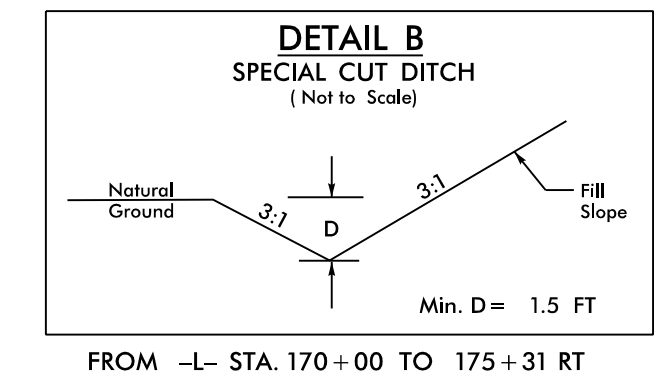
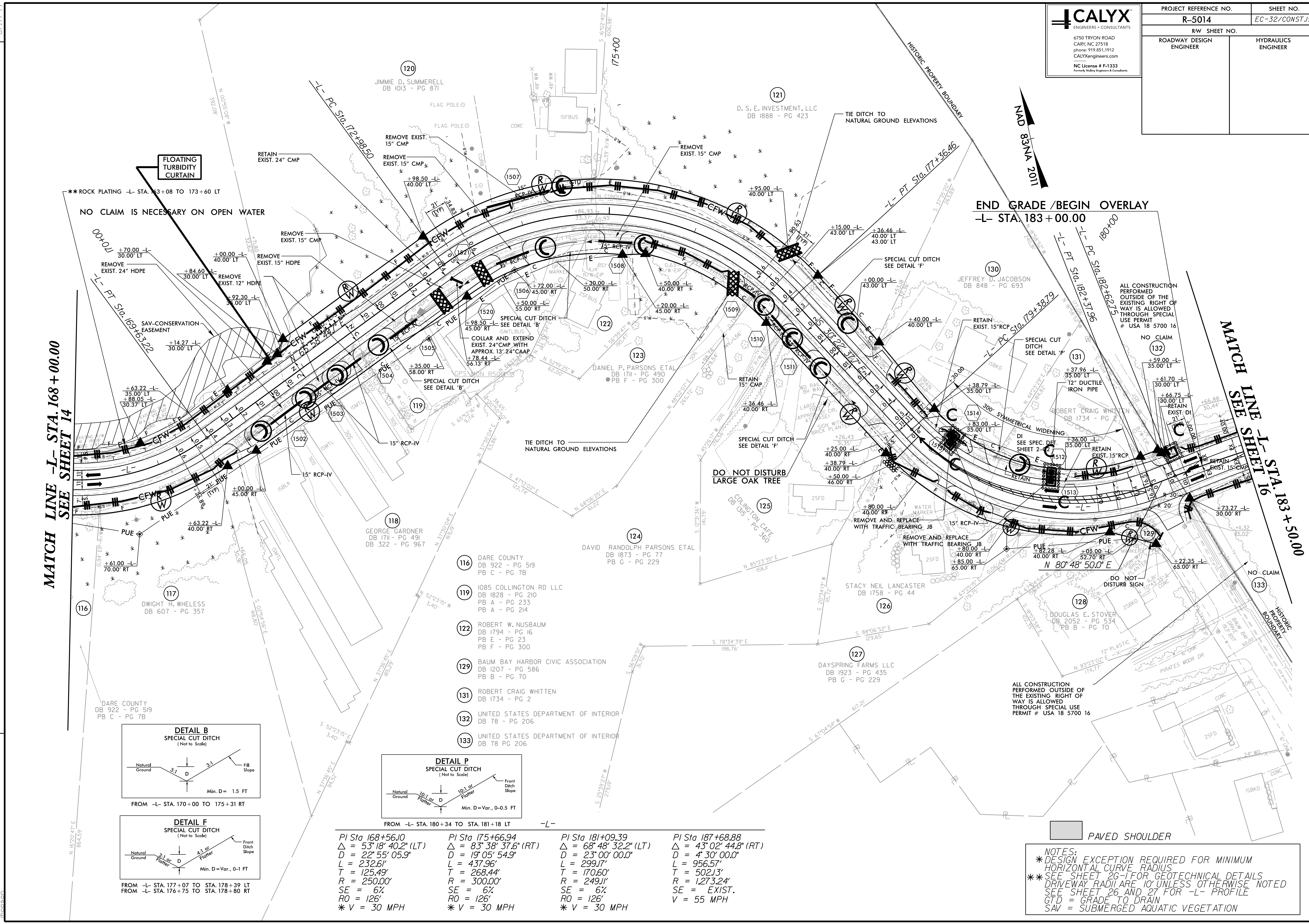
REVISIONS

8/17/99
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10/20/08

REVISIONS
 RIGHT OF WAY REVISION - 02/05/2018 - PLACED NOTE AND NOT DISTURB SIGN ON PARCEL 129.
 RIGHT OF WAY REVISION - 06/06/2018 - ADJUSTED CONSTRUCTION EASEMENT ON PARCEL 153.
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 8/17/99

MATCH LINE -L- STA. 168 + 00.00
 SEE SHEET 14

MATCH LINE -L- STA. 183 + 50.00
 SEE SHEET 16



PI Sta 168+56.10 $\Delta = 53' 18" 40.2" (LT)$ $D = 22' 55" 05.9"$ $L = 232.61'$ $T = 125.49'$ $R = 250.00'$ $SE = 6\%$ $RO = 126'$ $* V = 30 MPH$	PI Sta 175+66.94 $\Delta = 83' 38" 37.6" (RT)$ $D = 19' 05" 54.9"$ $L = 437.96'$ $T = 268.44'$ $R = 300.00'$ $SE = 6\%$ $RO = 126'$ $* V = 30 MPH$	PI Sta 181+09.39 $\Delta = 68' 48" 32.2" (LT)$ $D = 23' 00" 00.0"$ $L = 299.17'$ $T = 170.60'$ $R = 249.11'$ $SE = 6\%$ $RO = 126'$ $* V = 30 MPH$	PI Sta 187+68.88 $\Delta = 43' 02" 44.8" (RT)$ $D = 4' 30" 00.0"$ $L = 956.57'$ $T = 502.13'$ $R = 1,273.24'$ $V = EXIST.$ $V = 55 MPH$
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NOTES:
 * DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADII
 ** SEE SHEET 26-F FOR GEOTECHNICAL DETAILS
 DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
 SEE SHEET 26 AND 27 FOR -L- PROFILE
 GTD = GRADE TO DRAIN
 SAV = SUBMERGED AQUATIC VEGETATION

PAVED SHOULDER