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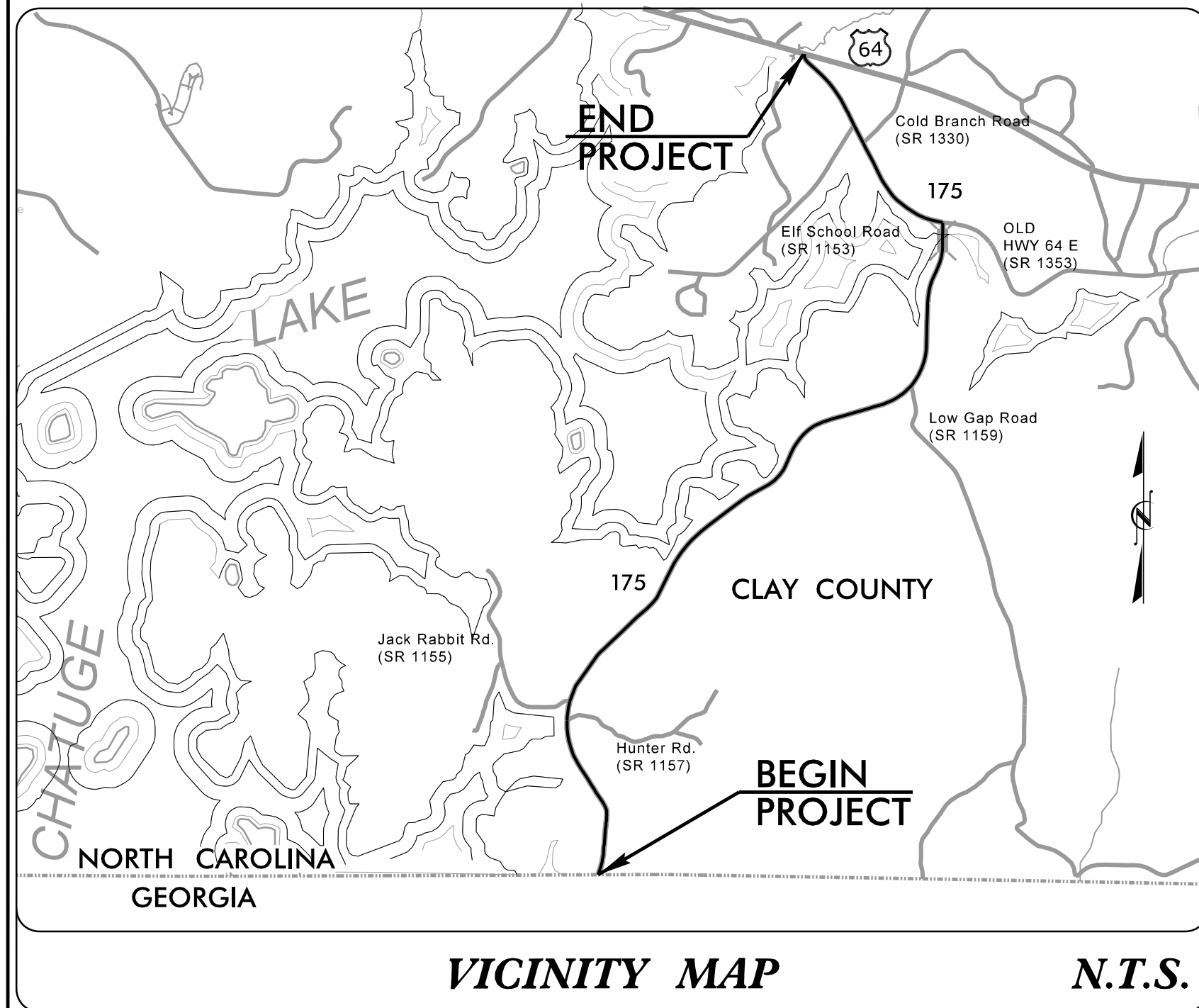
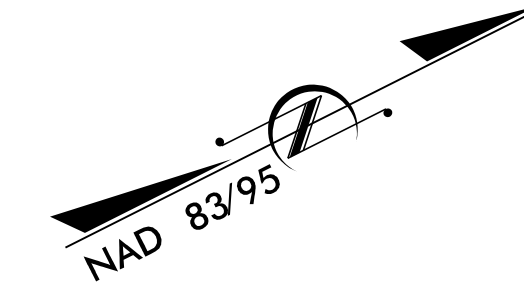
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TIP PROJECT: R-5742

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5742	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46325.1.D.1		PE	
46325.2.1		RW	
46325.3.1		CONST.	

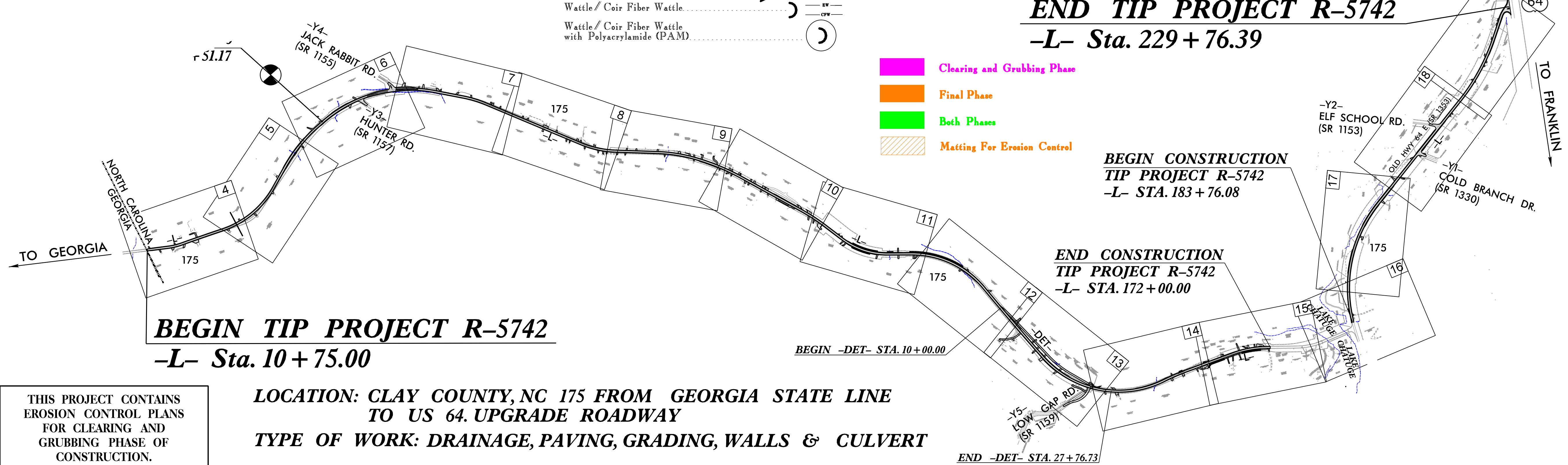
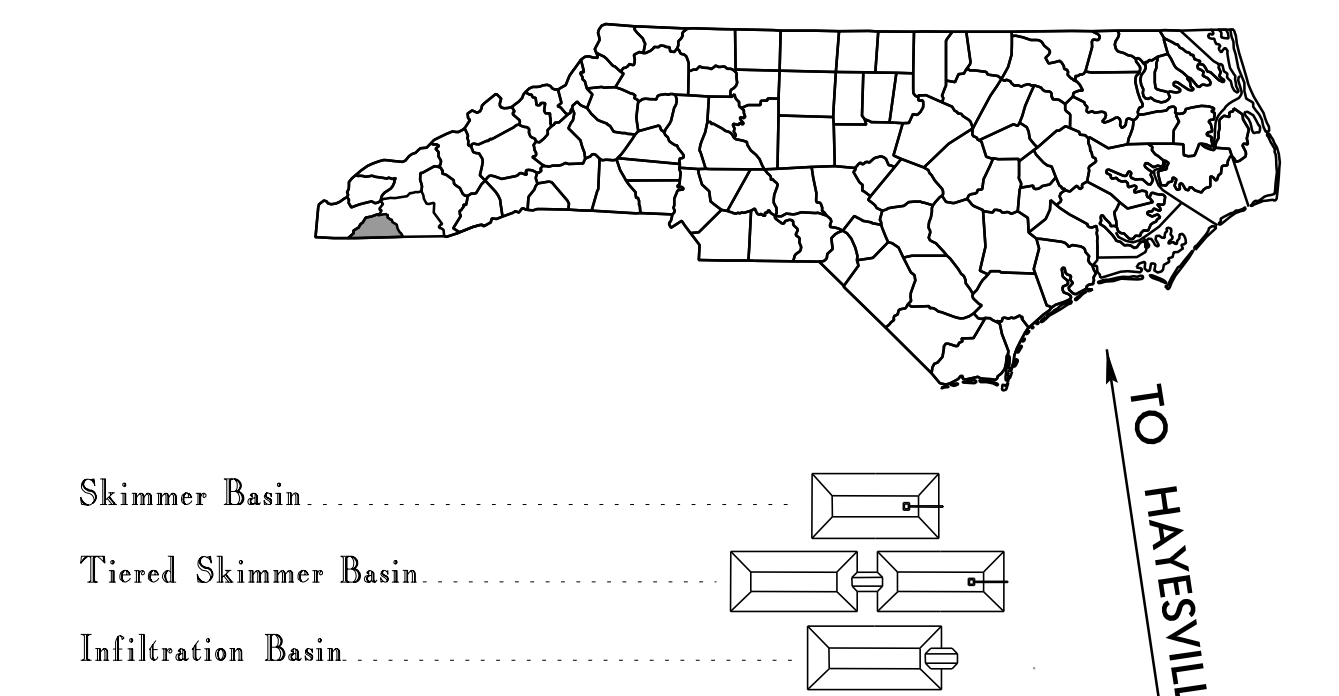
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
**PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL**



EROSION AND SEDIMENT CONTROL MEASURES

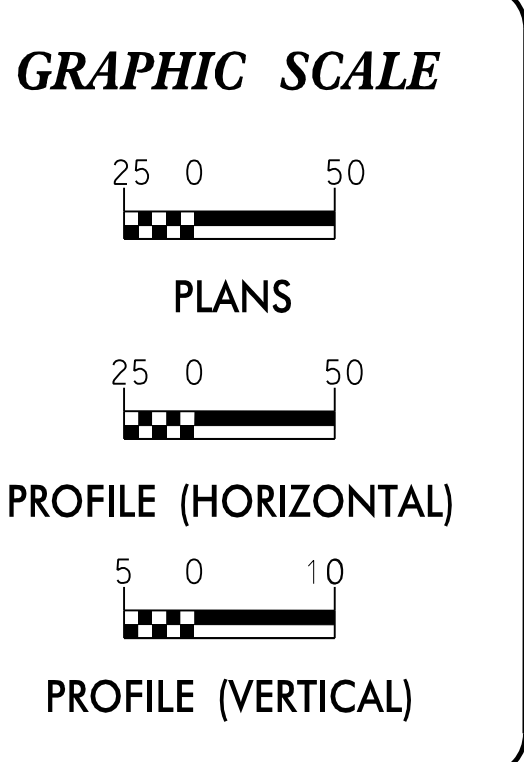
Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle/Coir Fiber Wattle	
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	

1654.01	Temporary Rock Sediment Dam Type-A	
1654.02	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	
1632.02	Type B	
1632.05	Type C	



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

LOCATION: CLAY COUNTY, NC 175 FROM GEORGIA STATE LINE TO US 64. UPGRADE ROADWAY
TYPE OF WORK: DRAINAGE, PAVING, GRADING, WALLS & CULVERT



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

Prepared in the Office of:
RK&K
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NC 27609

Designed by:
BRADLEY BOGGS, PE **3005**
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:
JENNIFER PARISH

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.

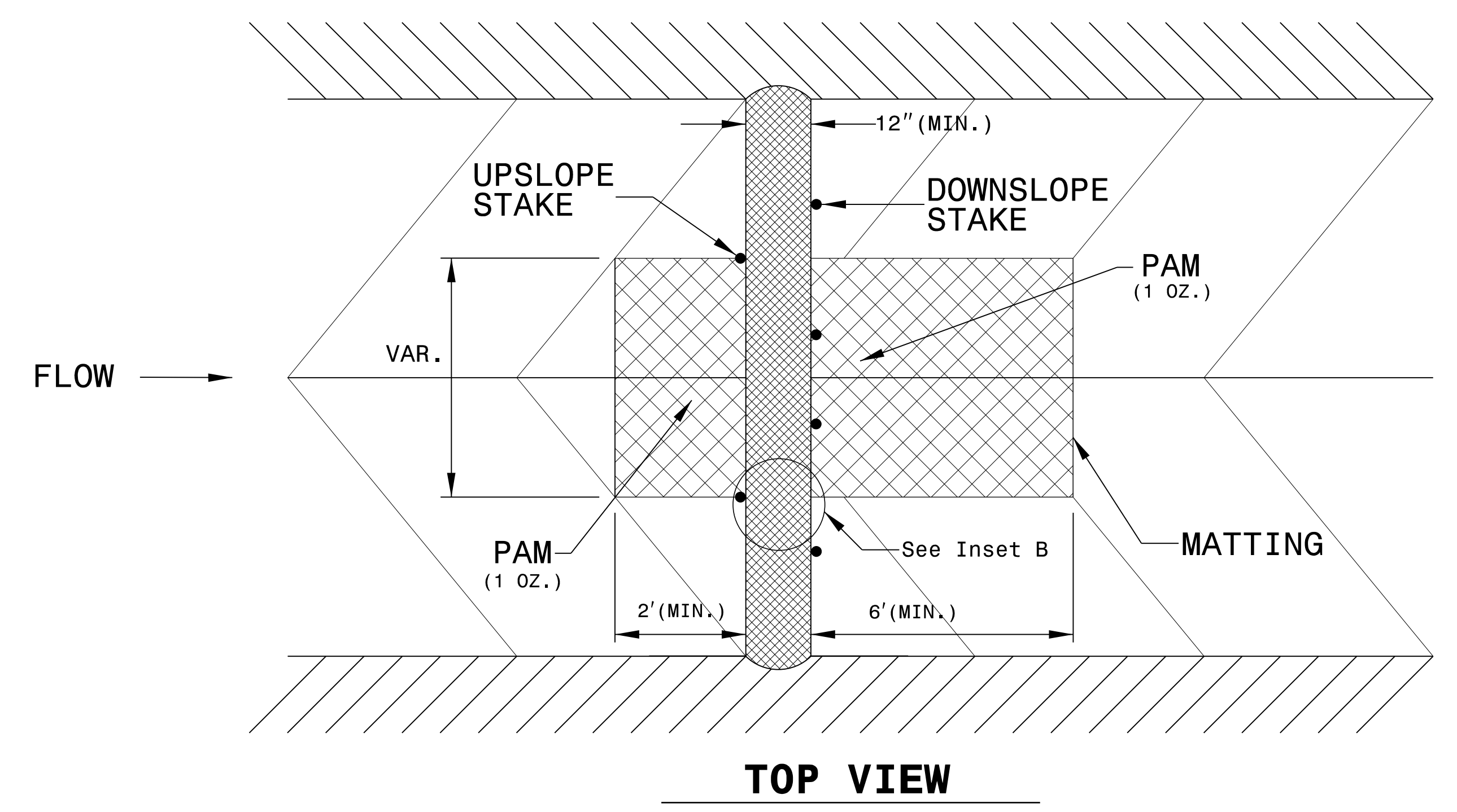
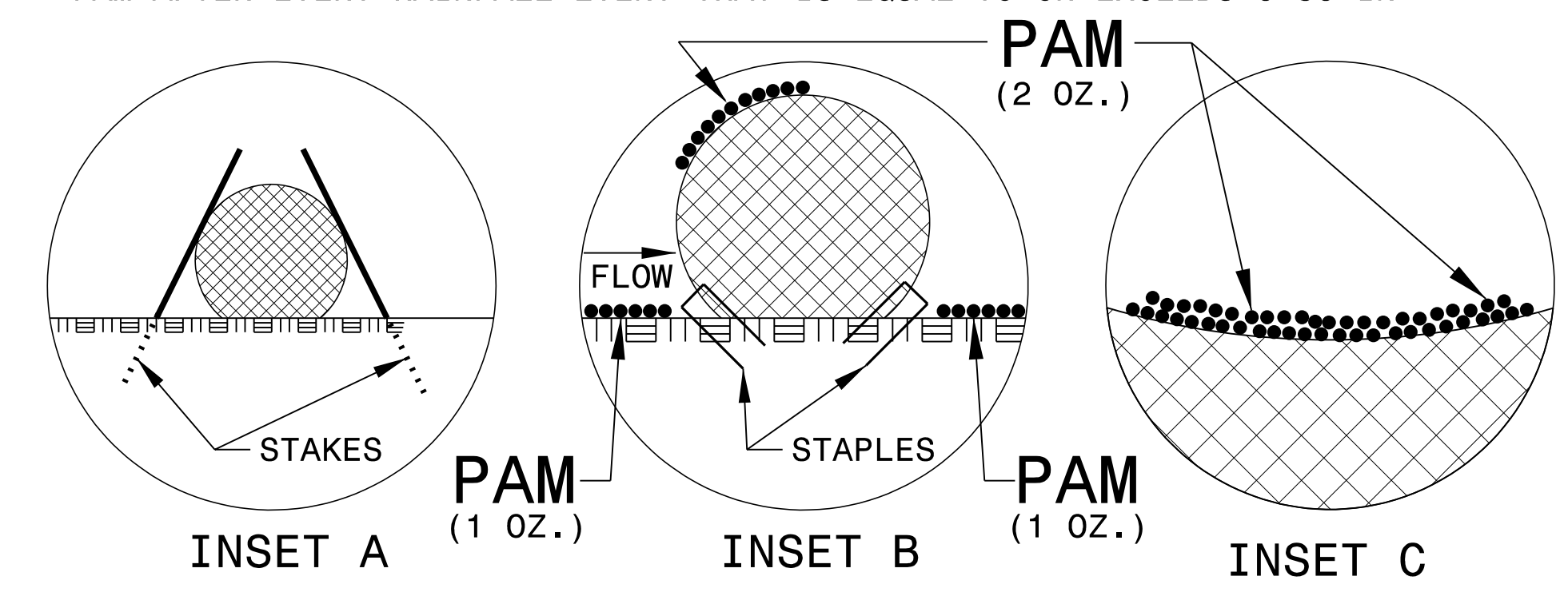
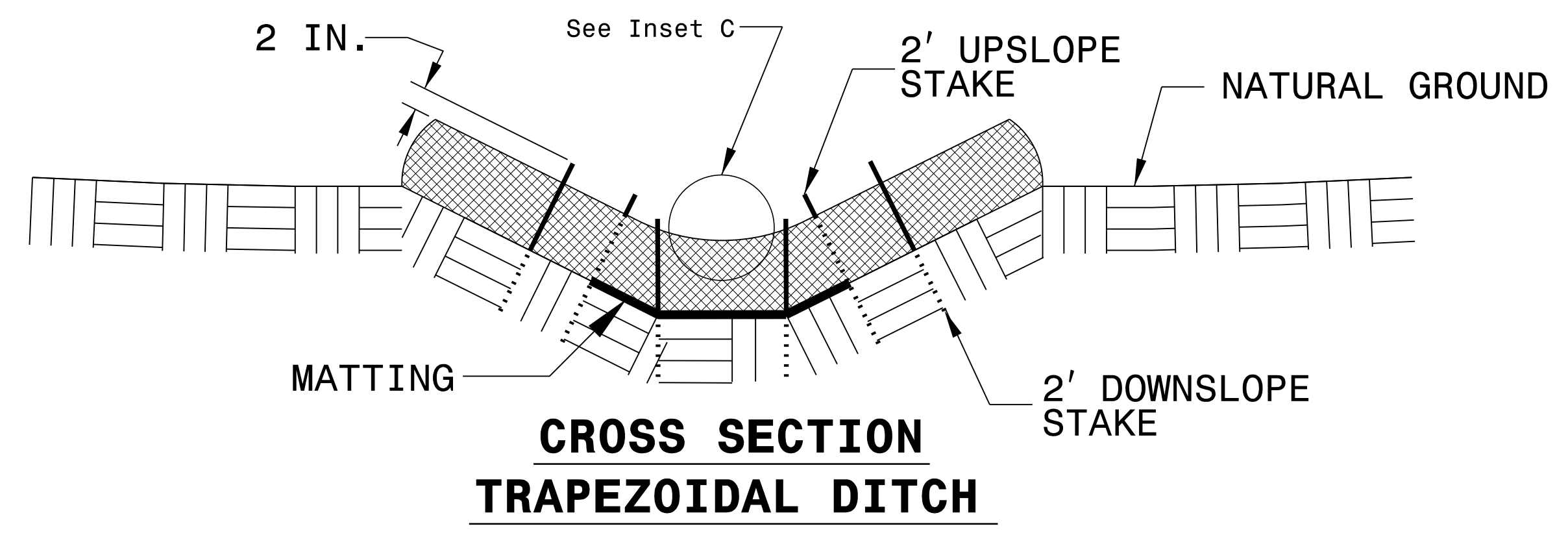
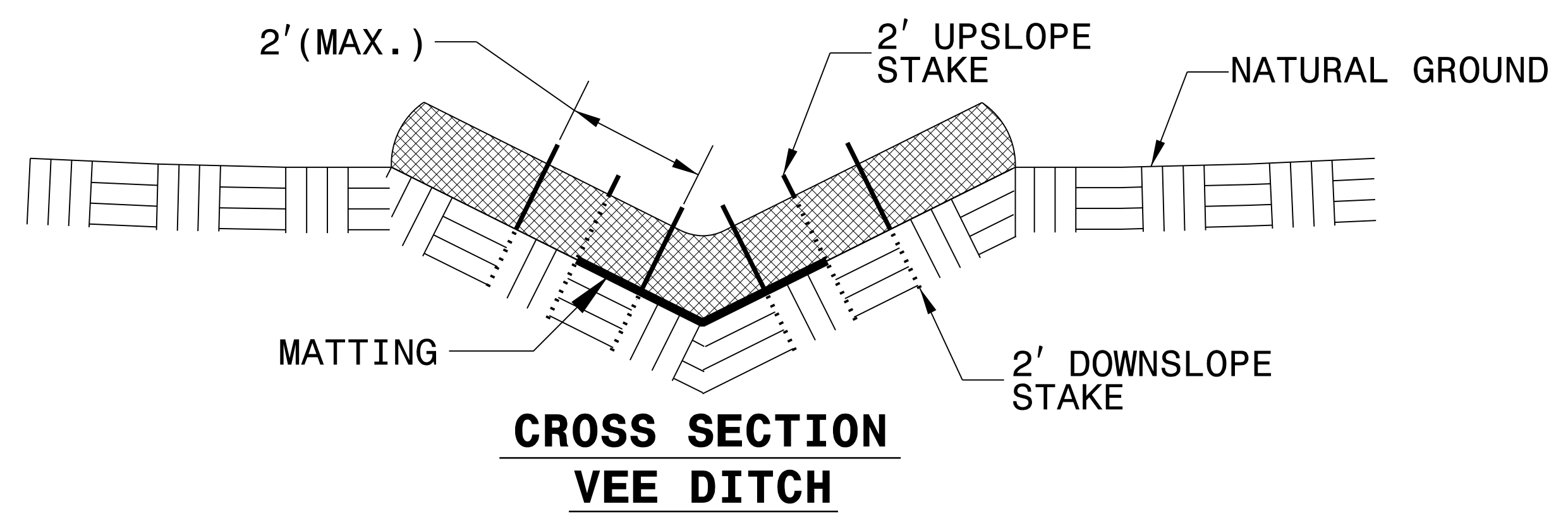
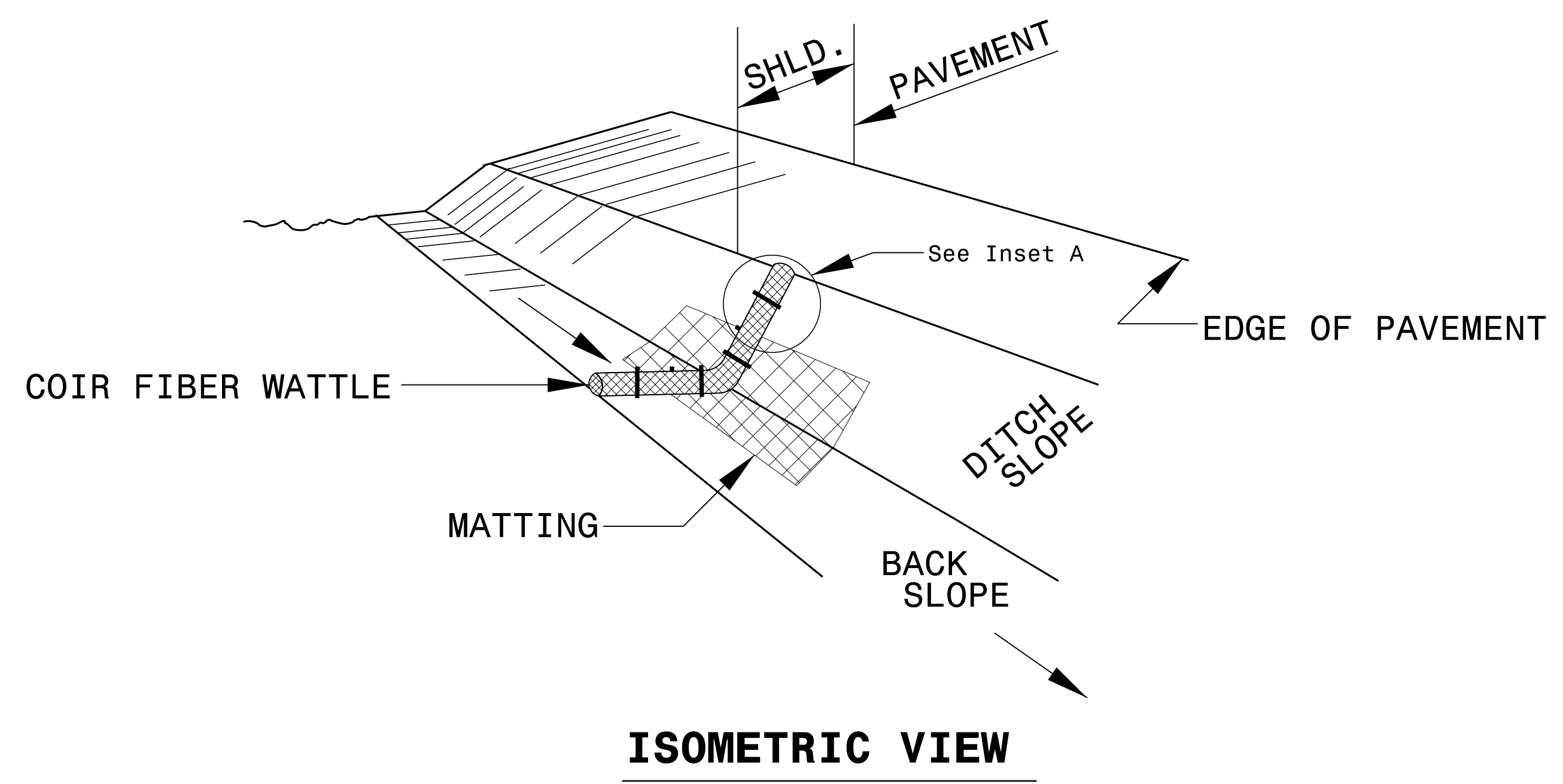
1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type 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	

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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

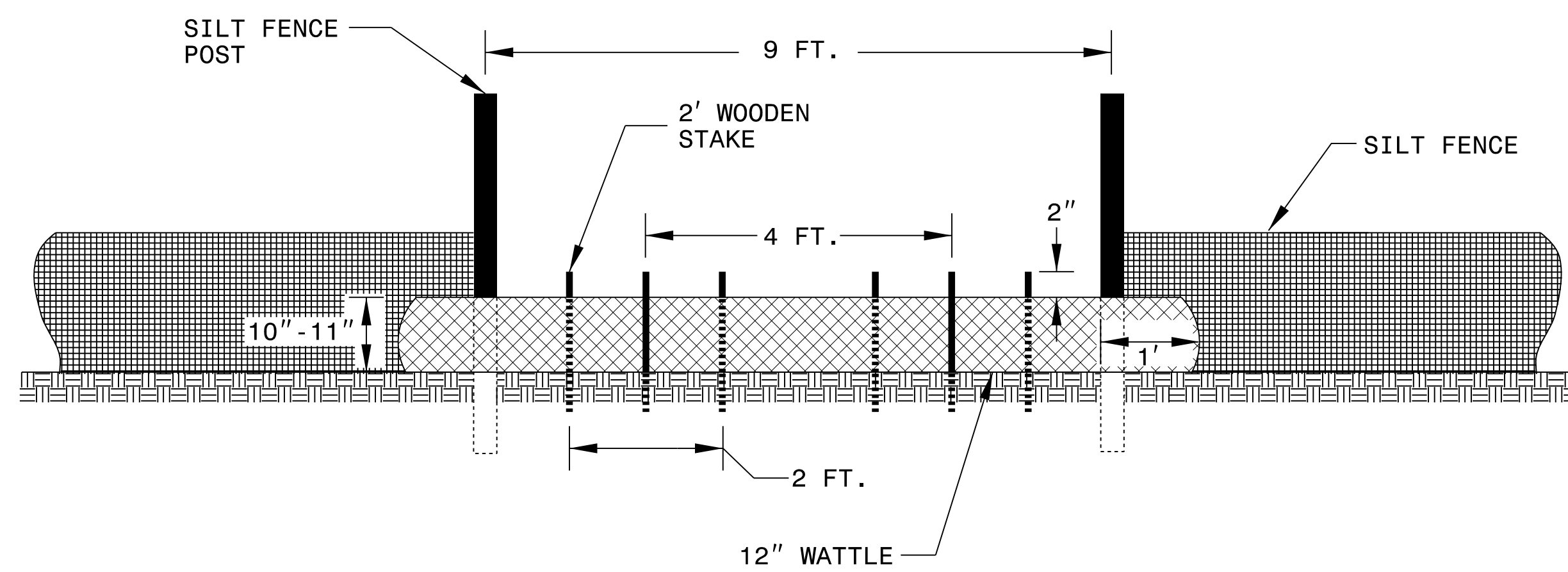
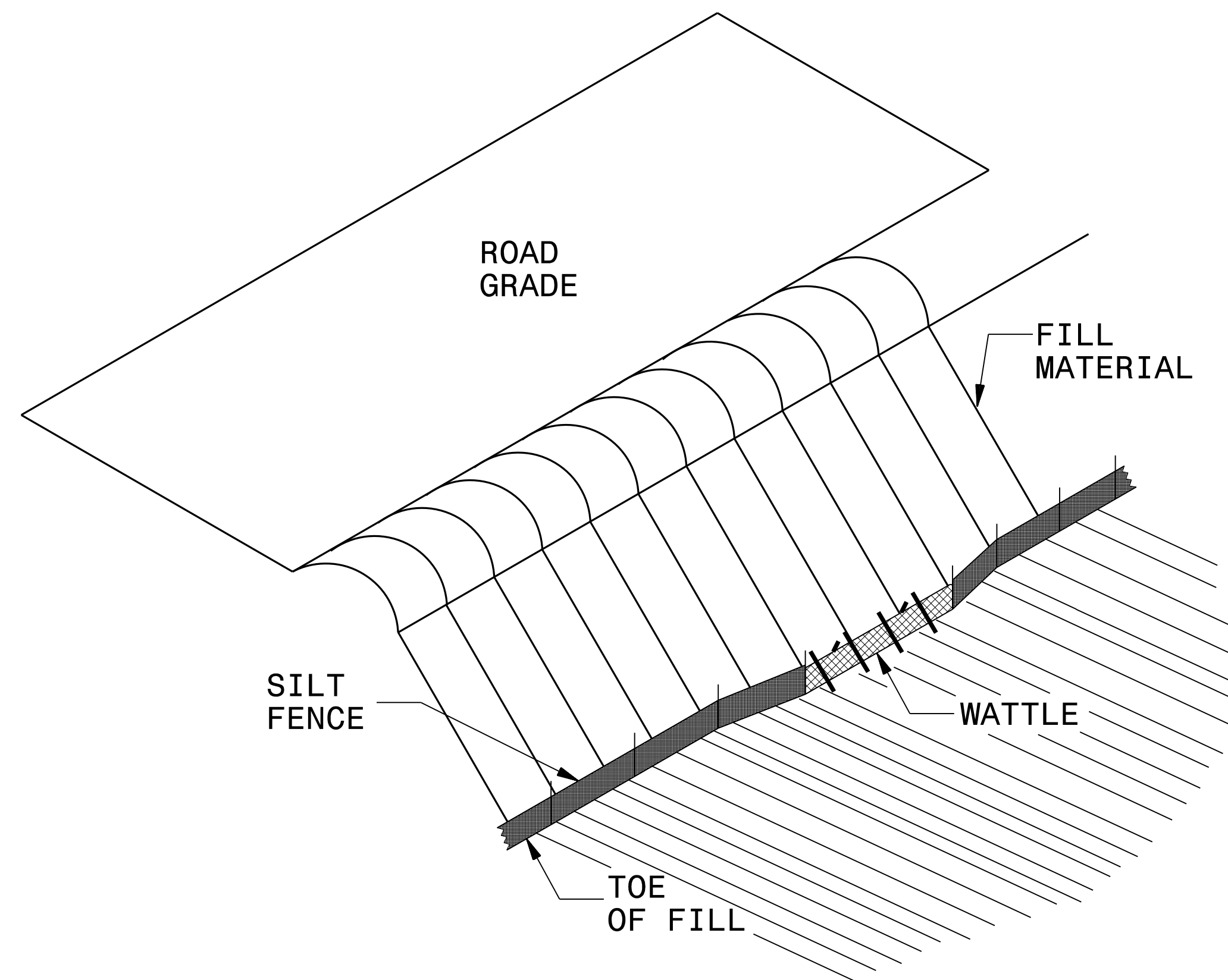
- NOTES:
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE 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.



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SILT FENCE COIR FIBER WATTLE BREAK DETAIL

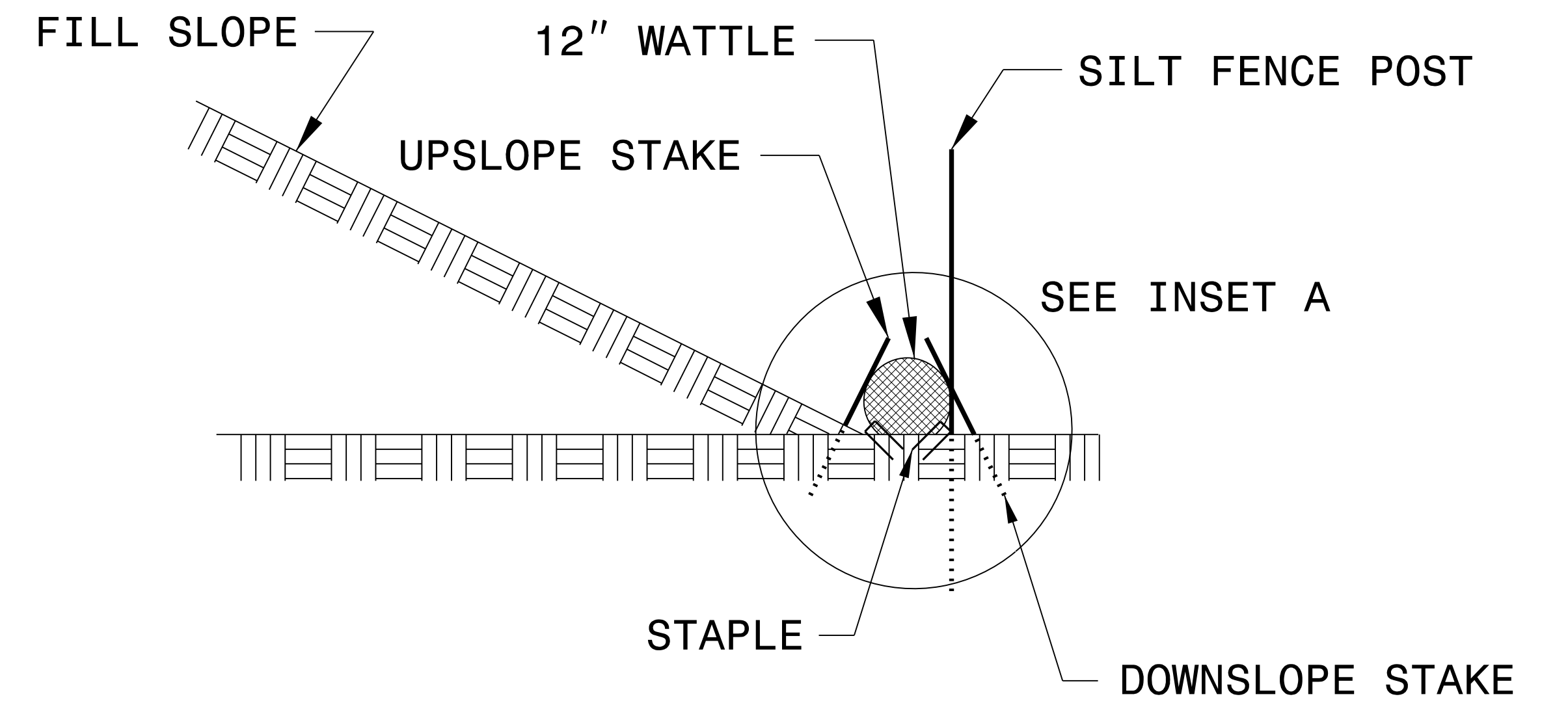
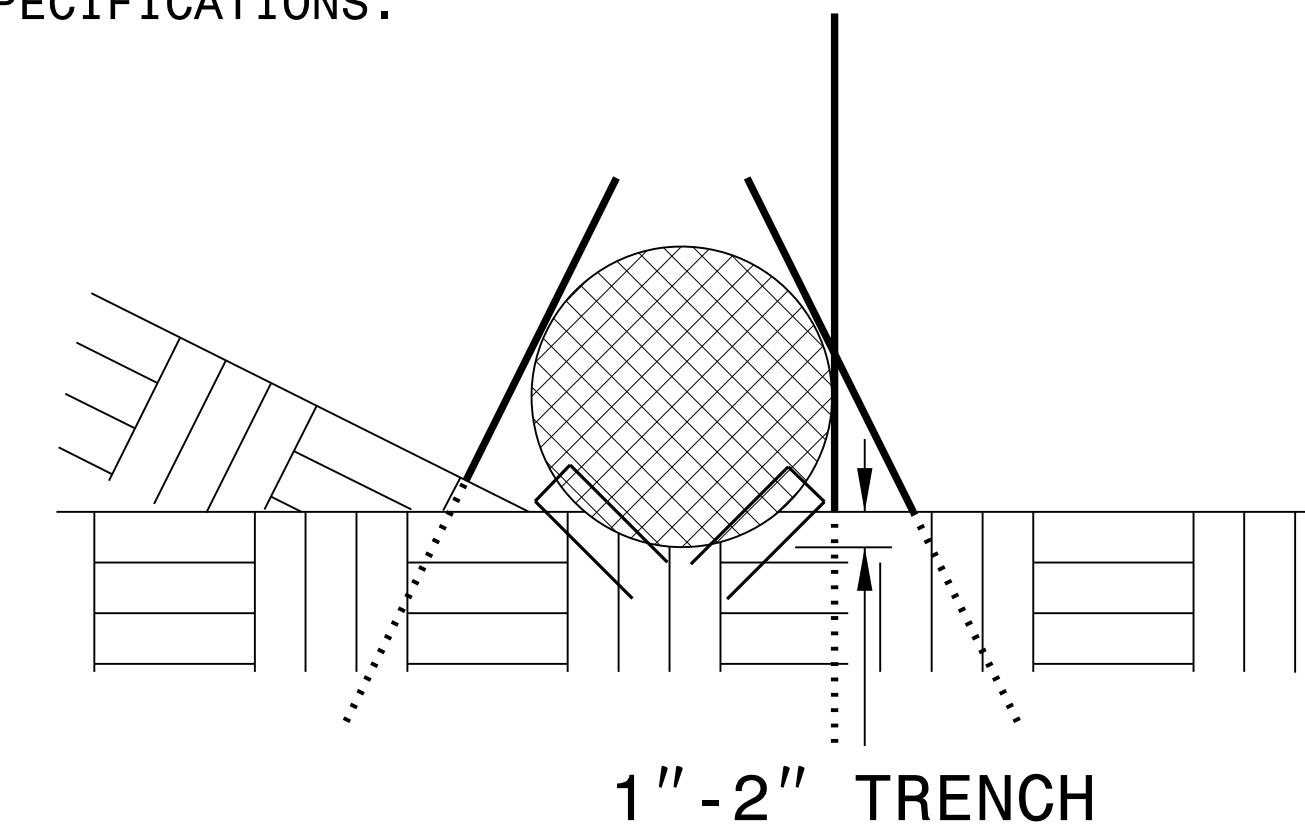
PROJECT REFERENCE NO. <i>R-5742</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:

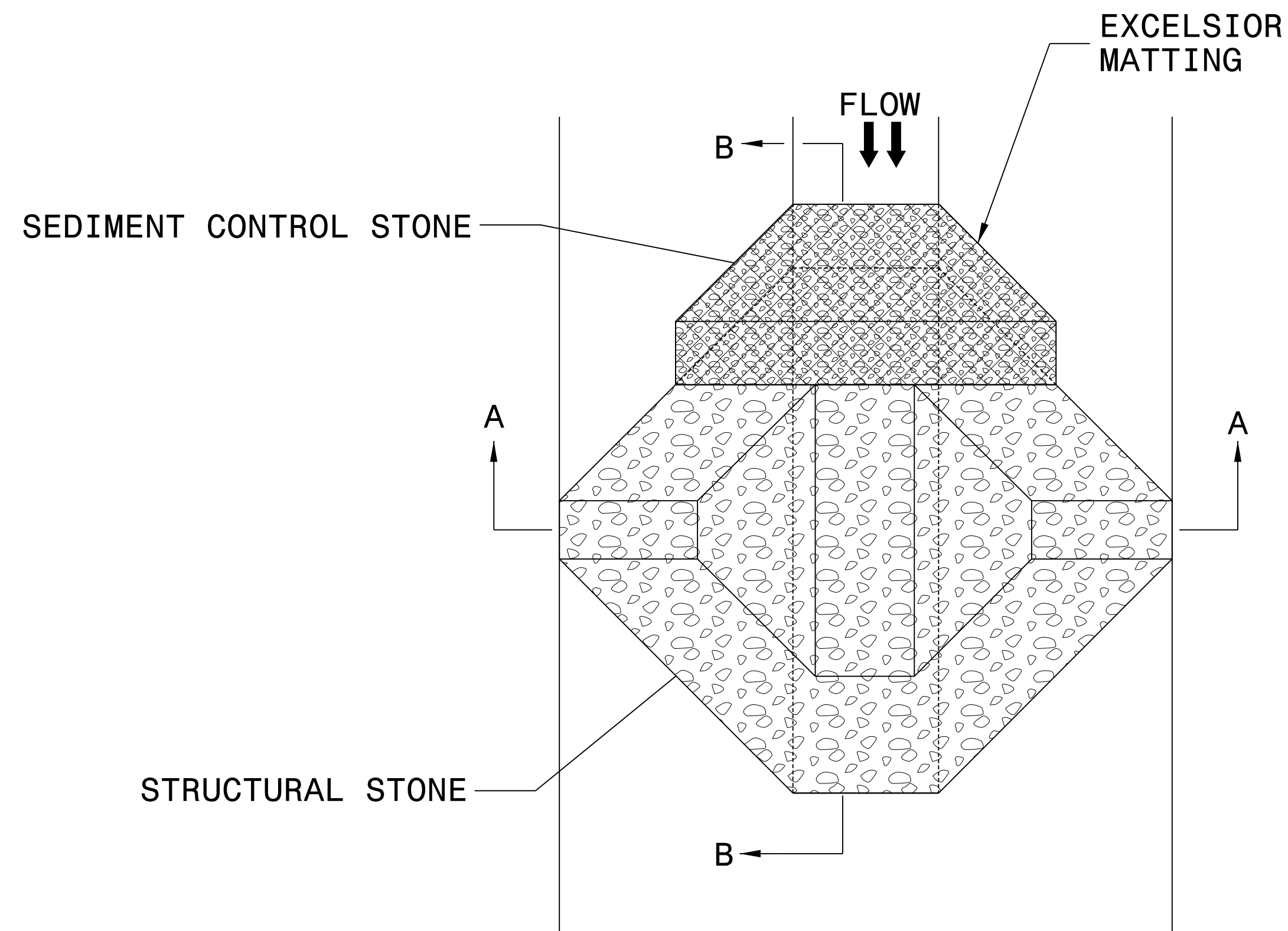
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE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

INSET A



PROJECT REFERENCE NO. R-5742	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

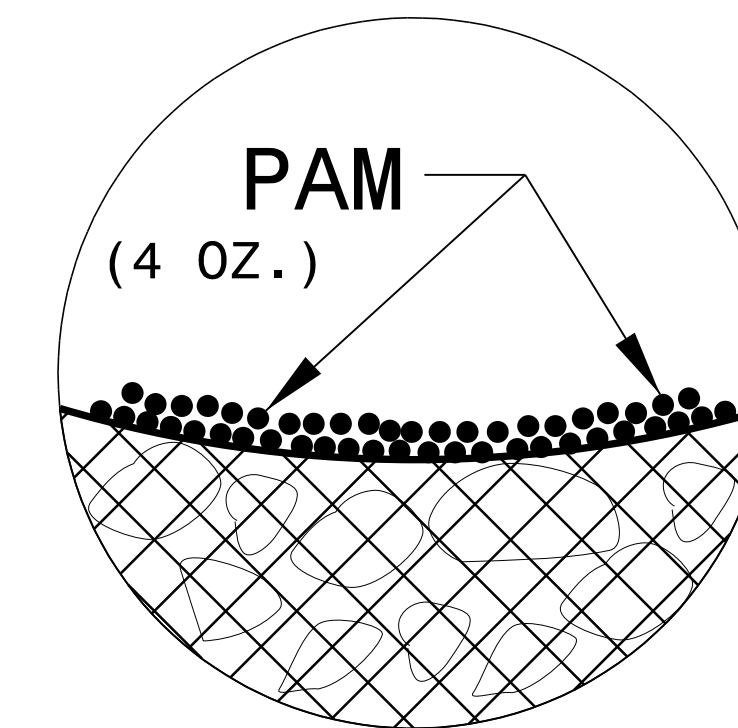
NOTES:

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

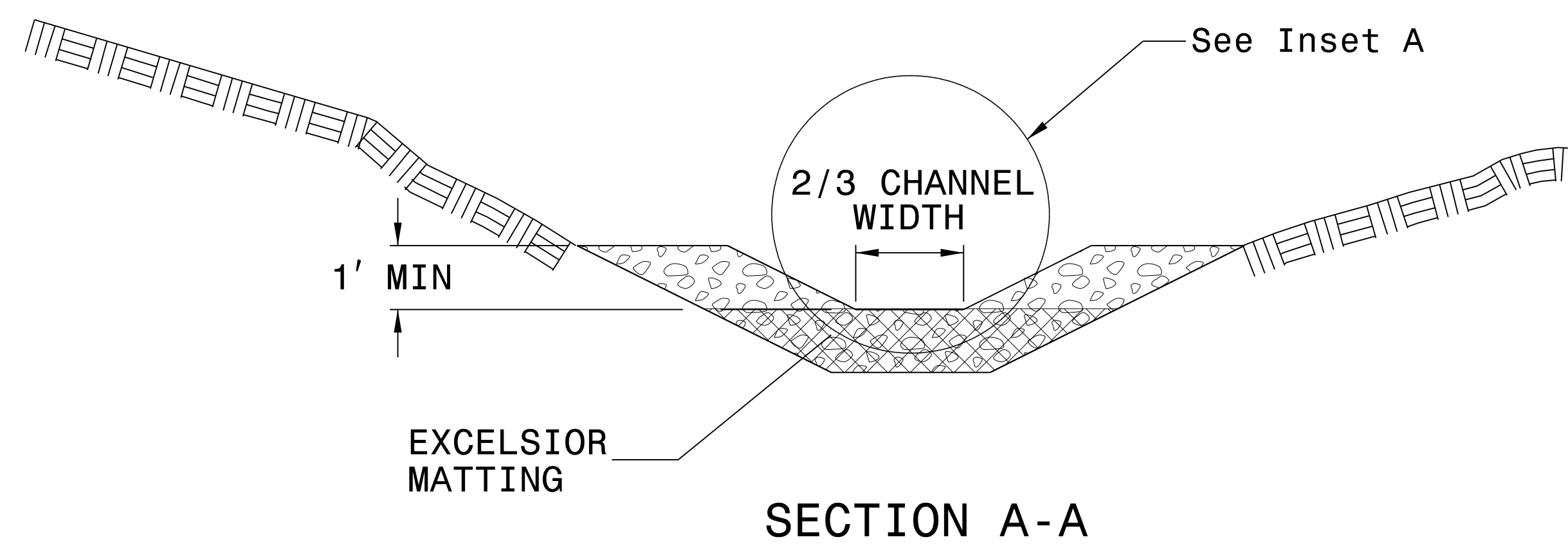
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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

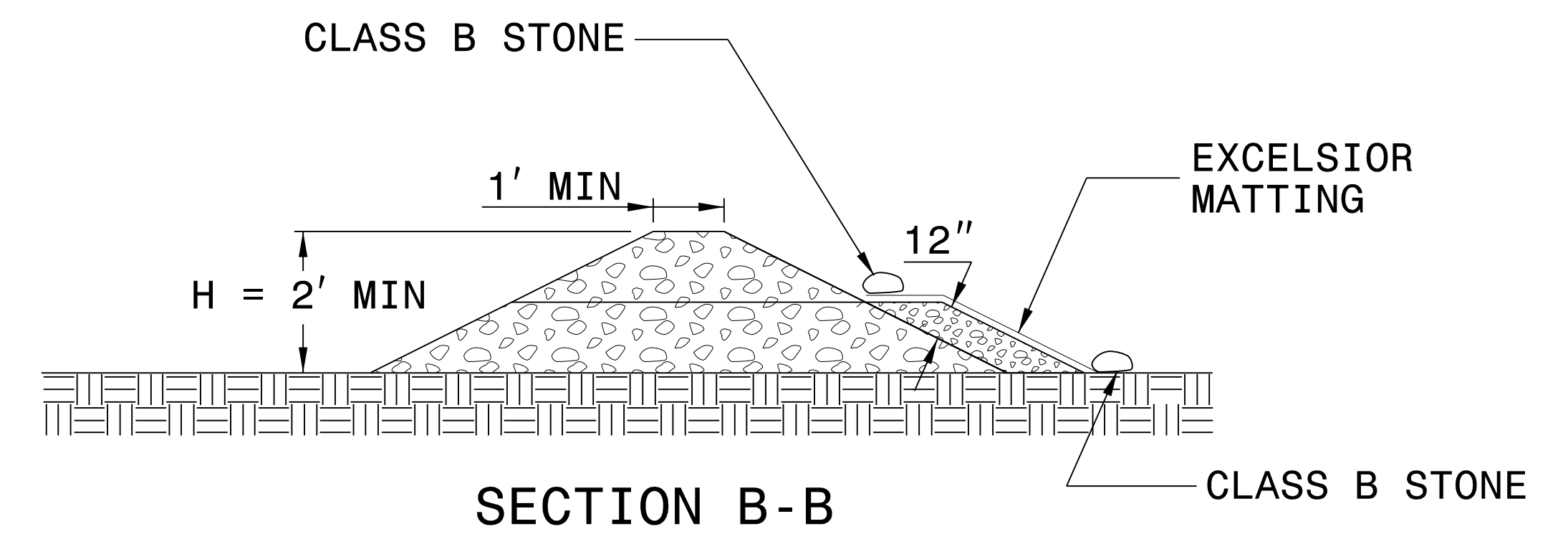
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

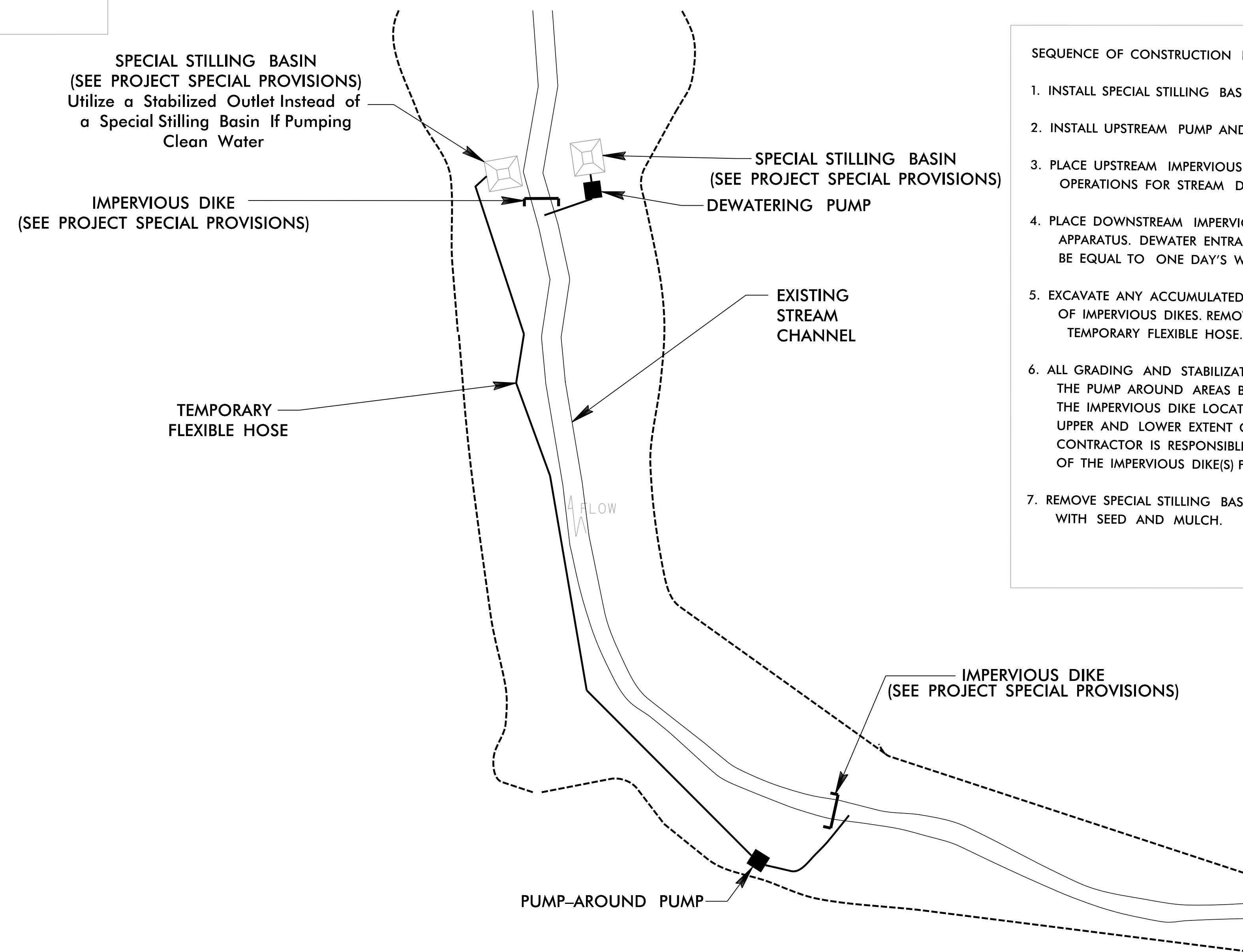
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXAMPLE OF PUMP-AROUND OPERATION

NOTES:

- 1) All excavation shall be performed in only dry or isolated sections of channel.
- 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
- 3) All graded areas shall be stabilized within 24 hours.
- 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
- 5) Pumps and hoses shall be of sufficient size to dewater the work area.



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA
1. INSTALL SPECIAL STILLING BASIN(S).
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 5. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 6. ALL GRADING AND STABILIZATION MUST BE COMPLETED IN ONE DAY WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
 7. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5742</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

EROSION CONTROL MATTING IN DITCHES

EROSION CONTROL MATTING IN DITCHES

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	L	12+60	14+40	LT	130
4	L	14+20	15+00	RT	85
4	L	17+36	18+00	RT	35
4	L	18+00	19+00	RT	70
4.5	L	22+50	25+00	LT	175
4	L	19+00	25+00	RT	630
5	L	25+00	30+50	LT	385
5	L	32+50	34+23	RT	125
6	L	37+00	39+15	LT	155
6	L	45+52	47+50	RT	140
6	L	46+66	48+38	LT	375
6	L	47+50	49+33	RT	220
6.7	L	49+71	52+00	LT	215
7	L	52+00	52+50	LT	50
7	L	52+50	55+00	LT	265
7	L	54+00	55+38	RT	265
7	L	59+50	63+35	LT	270
7	L	62+00	63+50	RT	315
8	L	66+00	69+54	RT	250
8	L	65+50	69+54	LT	285
8	L	69+54	73+00	RT	245
8	L	71+50	73+94	LT	185
8	L	73+94	73+94	LT	45
8	L	76+26	78+50	LT	90
9	L	80+23	84+00	RT	265
9	L	86+50	88+40	RT	135
9	L	85+42	87+50	LT	105
10	L	92+50	93+30	RT	60
10	L	96+58	97+50	RT	65
SUBTOTAL					5635

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
10	L	99+30	100+25	RT	100
10	L	100+75	102+00	RT	135
10	L	104+50	105+00	RT	35
10	L	105+00	105+47	RT	45
10	L	105+47	106+00	RT	50
11	L	107+00	109+50	RT	175
11	L	118+50	119+50	RT	70
12	L	121+00	126+00	RT	350
12	L	134+00	134+60	LT	45
13	L	142+00	142+55	RT	55
14	L	157+50	159+00	RT	105
14,15	L	160+12	162+10	RT	145
14	L	160+50	162+25	RT	185
14,15	L	162+25	166+60	RT	305
15	L	167+50	170+12	RT	185
15	L	170+12	171+75	RT	115
16	L	184+90	187+22	RT	165
16	L	185+52	186+00	LT	25
16	L	186+00	187+22	LT	90
16	L	188+50	189+00	LT	25
17	L	189+70	191+00	RT	95
17	L	191+00	194+00	RT	210
18	L	202+00	207+40	RT	380
18	L	203+60	206+85	LT	230
18	L	212+50	213+50	LT	70
18	L	213+50	215+25	LT	115
18	L	214+50	216+92	RT	170
SUBTOTAL					3675

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5742</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMENT MAT IN DITCHES

PERMANENT SOIL REINFORCEMENT MAT IN DITCHES

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>2B-1</i>	<i>DET</i>	<i>10+50</i>	<i>12+52</i>	<i>LT</i>	<i>145</i>
<i>2B-1</i>	<i>DET</i>	<i>13+52</i>	<i>15+78</i>	<i>RT</i>	<i>160</i>
<i>2B-1</i>	<i>DET</i>	<i>14+00</i>	<i>15+78</i>	<i>LT</i>	<i>125</i>
<i>2B-1</i>	<i>DET</i>	<i>15+78</i>	<i>16+90</i>	<i>LT</i>	<i>80</i>
<i>2B-1</i>	<i>DET</i>	<i>15+78</i>	<i>17+50</i>	<i>RT</i>	<i>125</i>
<i>2B-1</i>	<i>DET</i>	<i>23+00</i>	<i>25+55</i>	<i>RT</i>	<i>180</i>
<i>2B-1</i>	<i>DET</i>	<i>24+00</i>	<i>25+55</i>	<i>LT</i>	<i>110</i>
<i>2B-3</i>	<i>-DET- TSD</i>	<i>21+60</i>	<i>23+85</i>	<i>LT</i>	<i>115</i>
<i>9</i>	<i>L</i>	<i>80+50</i>	<i>80+50</i>	<i>LT</i>	<i>85</i>
<i>4</i>	<i>L</i>	<i>10+50</i>	<i>12+00</i>	<i>RT</i>	<i>210</i>
<i>4</i>	<i>L</i>	<i>12+00</i>	<i>14+20</i>	<i>RT</i>	<i>235</i>
<i>4</i>	<i>L</i>	<i>15+00</i>	<i>16+00</i>	<i>RT</i>	<i>140</i>
<i>4</i>	<i>L</i>	<i>15+50</i>	<i>16+91</i>	<i>LT</i>	<i>65</i>
<i>5</i>	<i>L</i>	<i>25+50</i>	<i>27+00</i>	<i>RT</i>	<i>160</i>
<i>5</i>	<i>L</i>	<i>28+80</i>	<i>34+15</i>	<i>RT</i>	<i>750</i>
<i>5</i>	<i>L</i>	<i>30+50</i>	<i>31+50</i>	<i>LT</i>	<i>70</i>
<i>5</i>	<i>L</i>	<i>31+50</i>	<i>34+19</i>	<i>LT</i>	<i>190</i>
<i>5</i>	<i>L</i>	<i>34+24</i>	<i>35+50</i>	<i>LT</i>	<i>65</i>
<i>5</i>	<i>L</i>	<i>35+50</i>	<i>36+50</i>	<i>LT</i>	<i>50</i>
<i>6</i>	<i>L</i>	<i>36+50</i>	<i>37+00</i>	<i>LT</i>	<i>35</i>
<i>6</i>	<i>L</i>	<i>44+50</i>	<i>44+91</i>	<i>RT</i>	<i>30</i>
<i>7</i>	<i>L</i>	<i>53+50</i>	<i>54+00</i>	<i>RT</i>	<i>110</i>
<i>7</i>	<i>L</i>	<i>57+50</i>	<i>60+00</i>	<i>LT</i>	<i>265</i>
<i>7</i>	<i>L</i>	<i>63+35</i>	<i>64+00</i>	<i>LT</i>	<i>70</i>
<i>8</i>	<i>L</i>	<i>70+21</i>	<i>71+50</i>	<i>LT</i>	<i>65</i>
<i>8</i>	<i>L</i>	<i>73+00</i>	<i>74+50</i>	<i>RT</i>	<i>160</i>
<i>8</i>	<i>L</i>	<i>74+50</i>	<i>74+82</i>	<i>LT</i>	<i>25</i>
<i>8</i>	<i>L</i>	<i>77+90</i>	<i>78+80</i>	<i>RT</i>	<i>65</i>
<i>9</i>	<i>L</i>	<i>78+50</i>	<i>79+00</i>	<i>LT</i>	<i>25</i>
<i>9</i>	<i>L</i>	<i>79+00</i>	<i>80+50</i>	<i>LT</i>	<i>75</i>
SUB TOTAL					3,885

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>9</i>	<i>L</i>	<i>79+00</i>	<i>79+90</i>	<i>RT</i>	<i>65</i>
<i>9</i>	<i>L</i>	<i>83+50</i>	<i>84+00</i>	<i>LT</i>	<i>25</i>
<i>9</i>	<i>L</i>	<i>84+00</i>	<i>85+40</i>	<i>LT</i>	<i>70</i>
<i>4</i>	<i>L</i>	<i>84+00</i>	<i>85+00</i>	<i>RT</i>	<i>105</i>
<i>9</i>	<i>L</i>	<i>85+43</i>	<i>86+00</i>	<i>RT</i>	<i>55</i>
<i>9</i>	<i>L</i>	<i>86+00</i>	<i>86+50</i>	<i>RT</i>	<i>55</i>
<i>10</i>	<i>L</i>	<i>97+50</i>	<i>98+82</i>	<i>RT</i>	<i>140</i>
<i>11</i>	<i>L</i>	<i>109+50</i>	<i>111+64</i>	<i>RT</i>	<i>110</i>
<i>11</i>	<i>L</i>	<i>116+51</i>	<i>117+00</i>	<i>RT</i>	<i>50</i>
<i>11</i>	<i>L</i>	<i>117+00</i>	<i>118+00</i>	<i>RT</i>	<i>95</i>
<i>11</i>	<i>L</i>	<i>118+00</i>	<i>118+50</i>	<i>RT</i>	<i>35</i>
<i>11</i>	<i>L</i>	<i>119+80</i>	<i>121+00</i>	<i>RT</i>	<i>85</i>
<i>12</i>	<i>L</i>	<i>122+50</i>	<i>126+59</i>	<i>RT</i>	<i>305</i>
<i>12</i>	<i>L</i>	<i>133+65</i>	<i>134+00</i>	<i>RT</i>	<i>35</i>
<i>12</i>	<i>L</i>	<i>134+00</i>	<i>134+25</i>	<i>RT</i>	<i>30</i>
<i>12</i>	<i>L</i>	<i>134+25</i>	<i>135+00</i>	<i>RT</i>	<i>90</i>
<i>12,13</i>	<i>L</i>	<i>134+60</i>	<i>136+00</i>	<i>LT</i>	<i>100</i>
<i>13</i>	<i>L</i>	<i>138+37</i>	<i>139+50</i>	<i>RT</i>	<i>80</i>
<i>13</i>	<i>L</i>	<i>140+00</i>	<i>141+00</i>	<i>RT</i>	<i>70</i>
<i>13</i>	<i>L</i>	<i>143+90</i>	<i>147+00</i>	<i>RT</i>	<i>220</i>
<i>13</i>	<i>L</i>	<i>146+00</i>	<i>147+90</i>	<i>LT</i>	<i>135</i>
<i>14</i>	<i>L</i>	<i>149+50</i>	<i>154+50</i>	<i>LT</i>	<i>350</i>
<i>15</i>	<i>L</i>	<i>166+60</i>	<i>167+50</i>	<i>RT</i>	<i>65</i>
<i>17</i>	<i>L</i>	<i>194+00</i>	<i>194+63</i>	<i>RT</i>	<i>45</i>
<i>19</i>	<i>L</i>	<i>218+50</i>	<i>219+00</i>	<i>LT</i>	<i>35</i>
<i>19</i>	<i>L</i>	<i>221+05</i>	<i>224+00</i>	<i>LT</i>	<i>310</i>
<i>12</i>	<i>-L- TSD</i>	<i>128+00</i>	<i>130+40</i>	<i>RT</i>	<i>120</i>
SUBTOTAL					6,865
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1,373
TOTAL					8,238

SUB TOTAL 3,885

SAY 8,300

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5742</i>	SHEET NO. <i>EC-3C</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

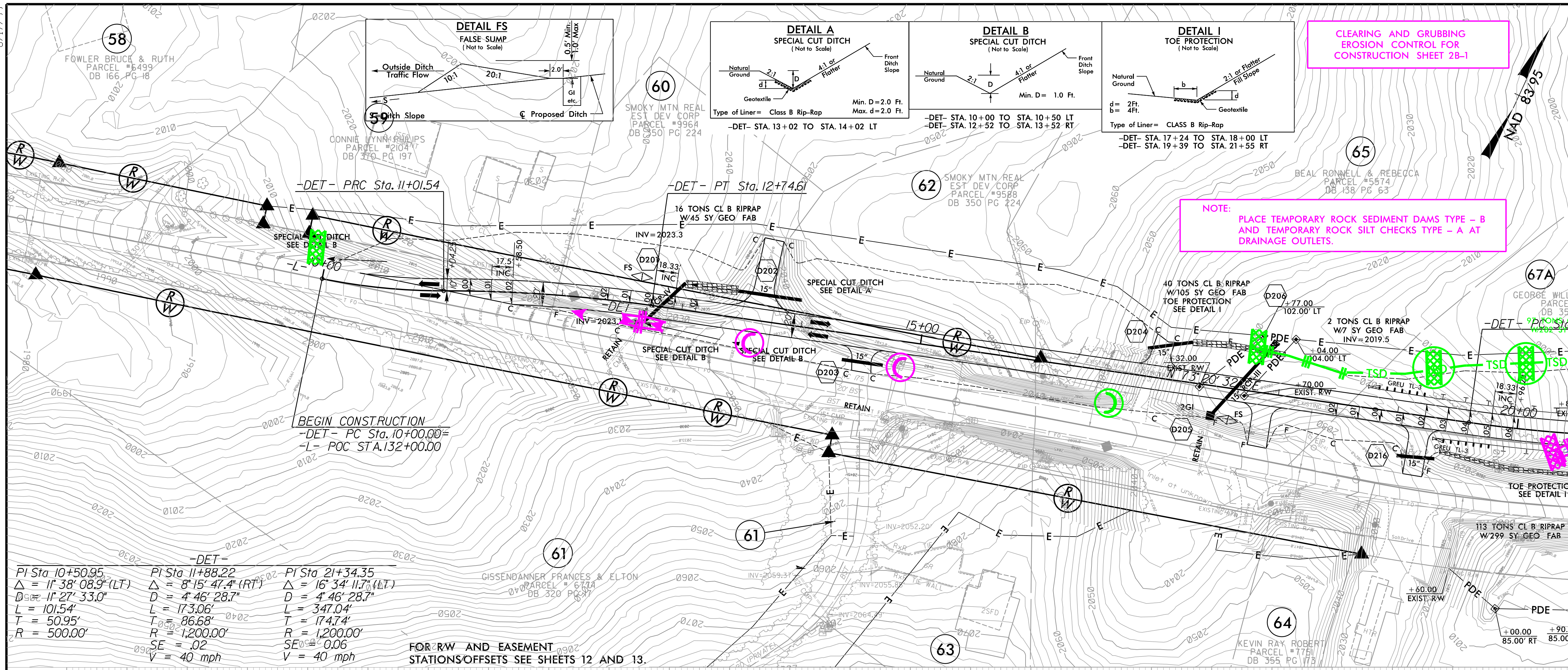
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO. R-5742	SHEET NO. EC-4/CON-2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: ALL DRIVES ARE 16' WIDE WITH 10' RADIUS UNLESS OTHERWISE NOTED.

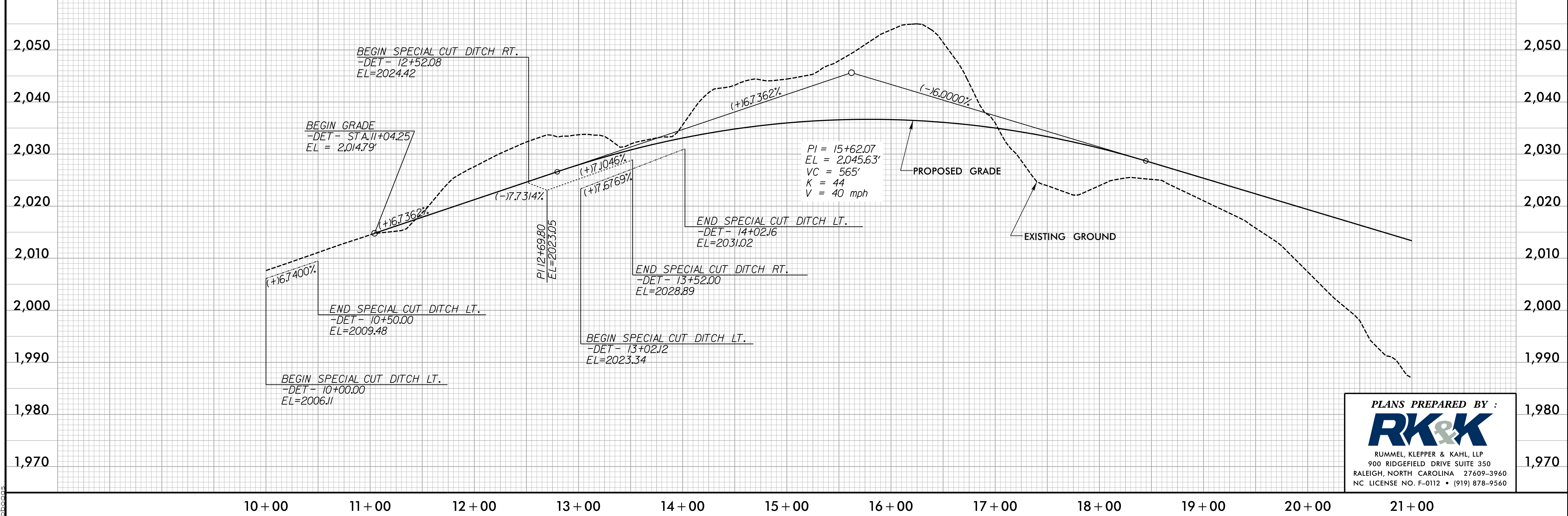
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 2B-1

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



FOR RW AND EASEMENT STATIONS/OFFSETS SEE SHEETS 12 AND 13.

Station	Delta	D	L	T	R	SE	V
PI Sta 10+50.95	$\Delta = 11' 38'' 08.9''$ (LT)	$D = 11' 27'' 33.0''$	$L = 101.54'$	$T = 50.95'$	$R = 500.00'$	$SE = .02$	$V = 40$ mph
PI Sta 11+88.22	$\Delta = 8' 15'' 47.4''$ (RT)	$D = 4' 46'' 28.7''$	$L = 173.06'$	$T = 86.68'$	$R = 1,200.00'$	$SE = .02$	$V = 40$ mph
PI Sta 21+34.35	$\Delta = 16' 34'' 11.7''$ (LT)	$D = 4' 46'' 28.7''$	$L = 347.04'$	$T = 174.74'$	$R = 1,200.00'$	$SE = .02$	$V = 40$ mph



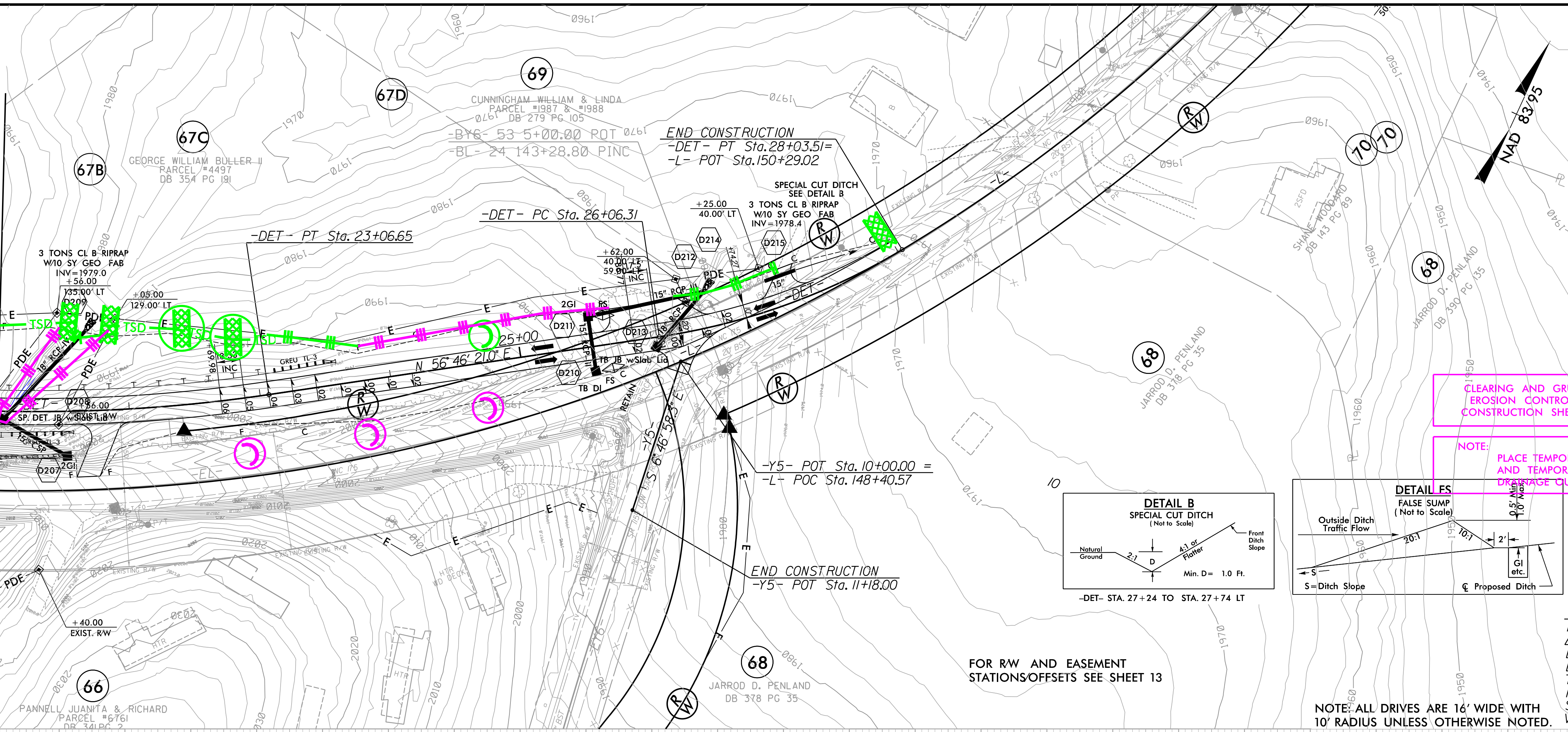
PLANS PREPARED BY:
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
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8/17/99

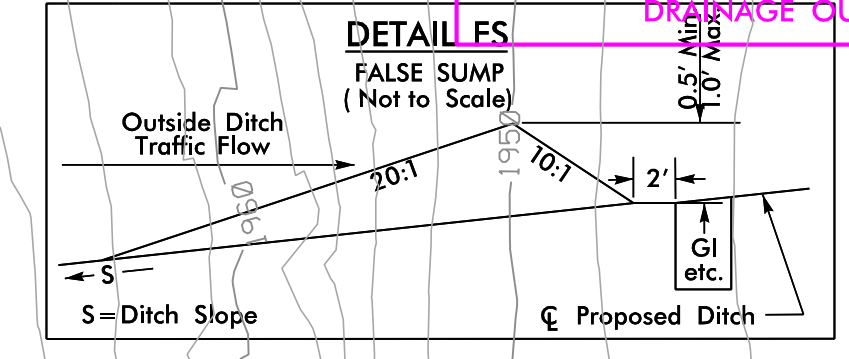
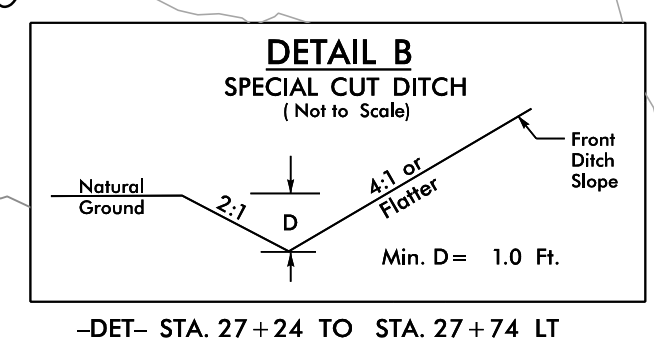
PROJECT REFERENCE NO. R-5742	SHEET NO. EC-5/CON.-2B-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -DET- STA. 21+00 SEE SHEET 2B-1



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 2B-2

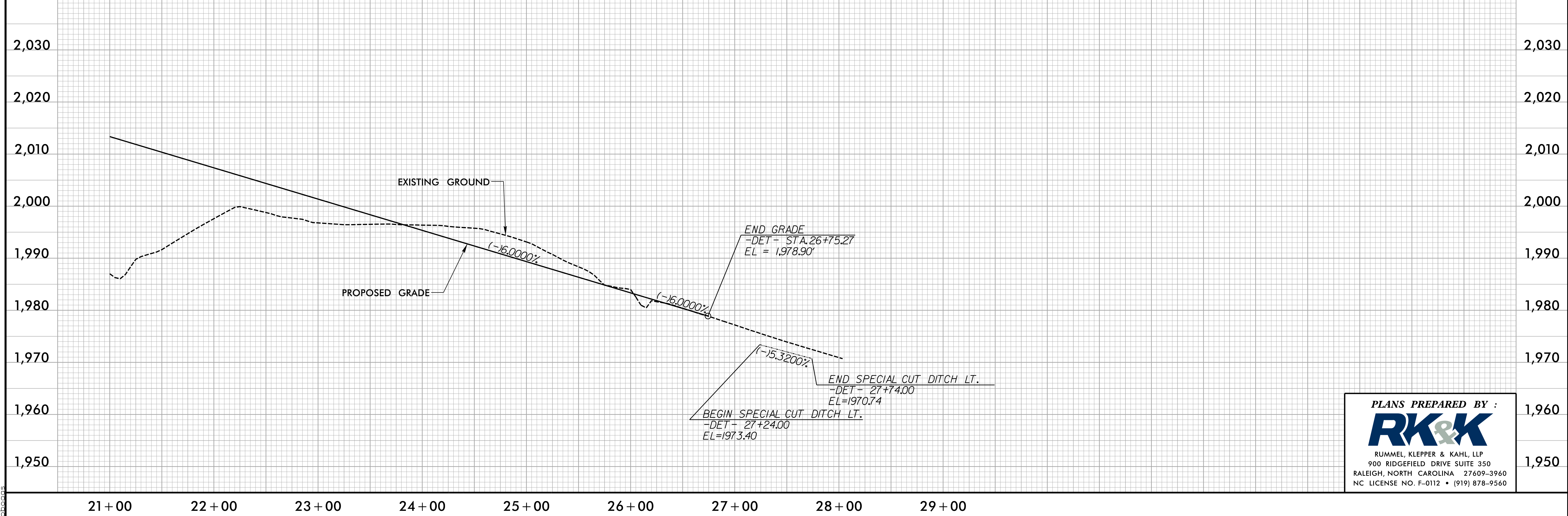
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.



FOR RW AND EASEMENT STATIONS/OFFSETS SEE SHEET 13

NOTE: ALL DRIVES ARE 16' WIDE WITH 10' RADIUS UNLESS OTHERWISE NOTED.

-DET-	
PI Sta 21+34.35	PI Sta 27+06.21
$\Delta = 16' 34" 11.7" (LT)$	$\Delta = 22' 35" 51.5" (LT)$
$D = 4' 46" 28.7"$	$D = 11' 27" 33.0"$
$L = 347.04'$	$L = 197.20'$
$T = 174.74'$	$T = 99.90'$
$R = 1,200.00'$	$R = 500.00'$
$SE = 0.06$	
$V = 40 \text{ mph}$	



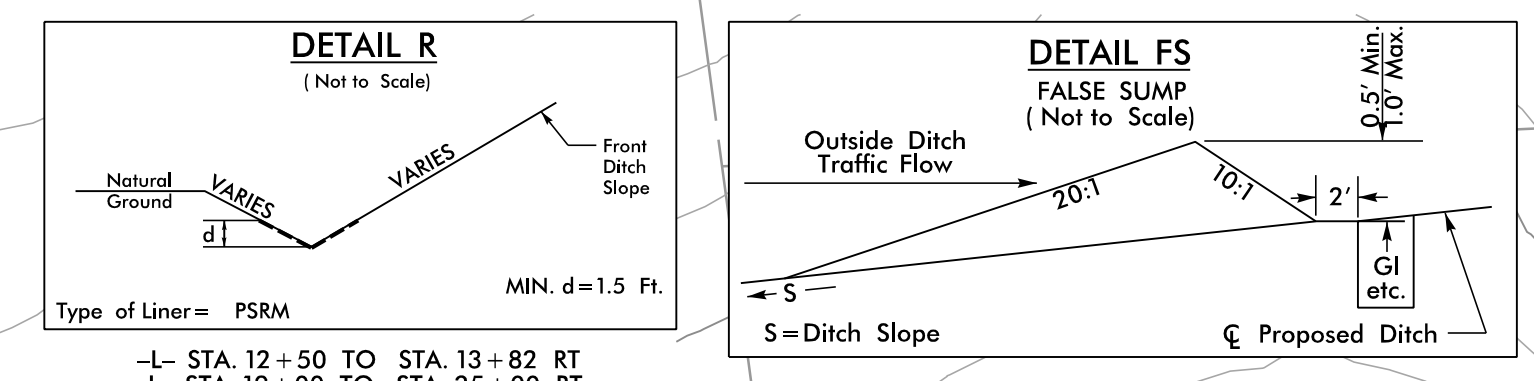
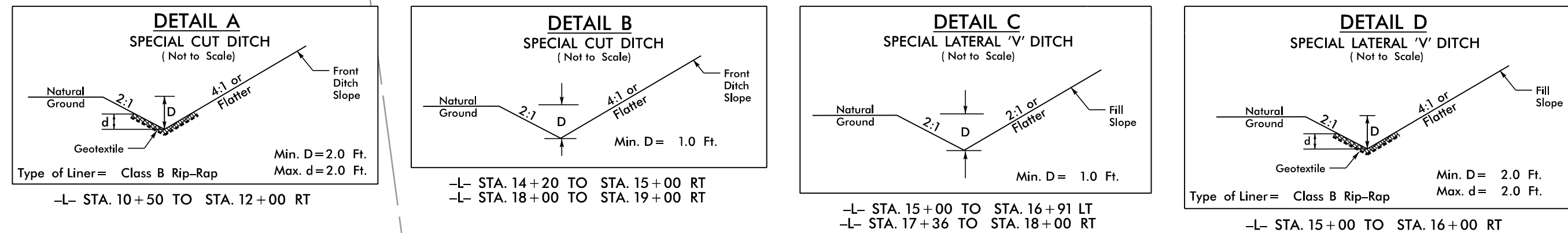
PLANS PREPARED BY :

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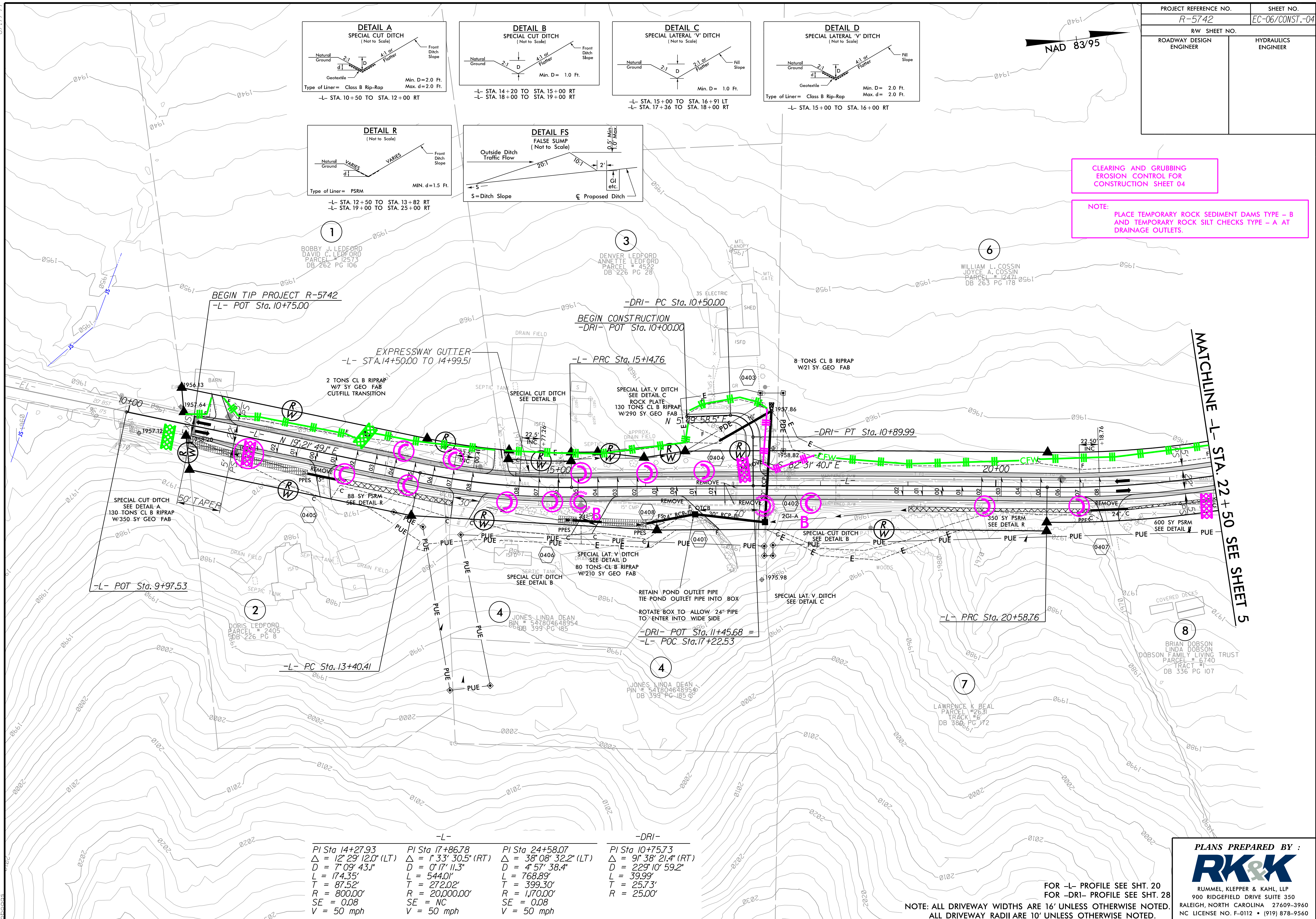
PROJECT REFERENCE NO. R-5742	SHEET NO. EC-06/CONST.-04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 04

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



-L-		-DRI-	
PI Sta 14+27.93	PI Sta 17+86.78	PI Sta 24+58.07	PI Sta 10+75.73
Δ = 12° 29' 12.0" (LT)	Δ = 1° 33' 30.5" (RT)	Δ = 38° 08' 32.2" (LT)	Δ = 9° 38' 21.4" (RT)
D = 7° 09' 43.1"	D = 0° 17' 11.3"	D = 4° 57' 38.4"	D = 229° 10' 59.2"
L = 174.35'	L = 544.01'	L = 768.89'	L = 39.99'
T = 87.52'	T = 272.02'	T = 399.30'	T = 25.73'
R = 800.00'	R = 20,000.00'	R = 1,170.00'	R = 25.00'
SE = 0.08	SE = NC	SE = 0.08	
V = 50 mph	V = 50 mph	V = 50 mph	

FOR -L- PROFILE SEE SHT. 20
FOR -DRI- PROFILE SEE SHT. 28
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

PLANS PREPARED BY :

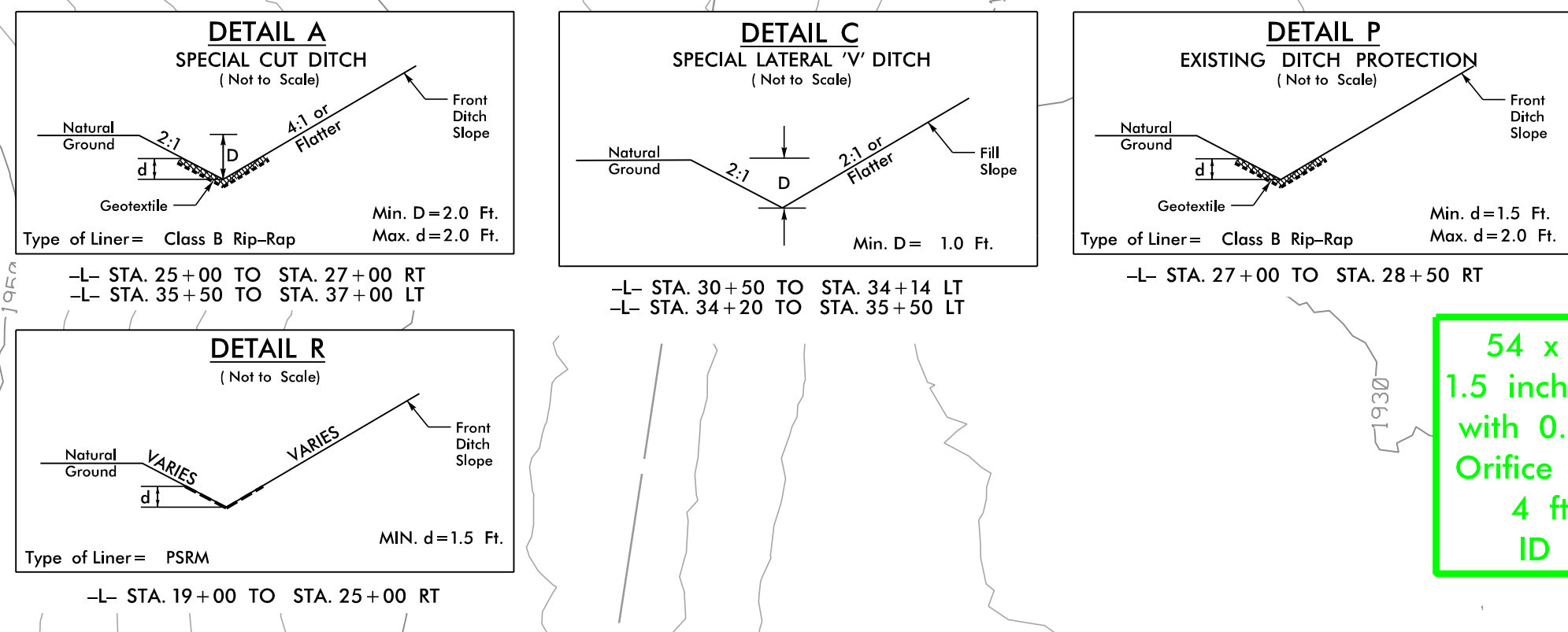
RUMMEL, KLEPPER & KAHL, LLP
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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-07/CONST.-05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



54 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 5-02

103 x 18 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 5-01

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

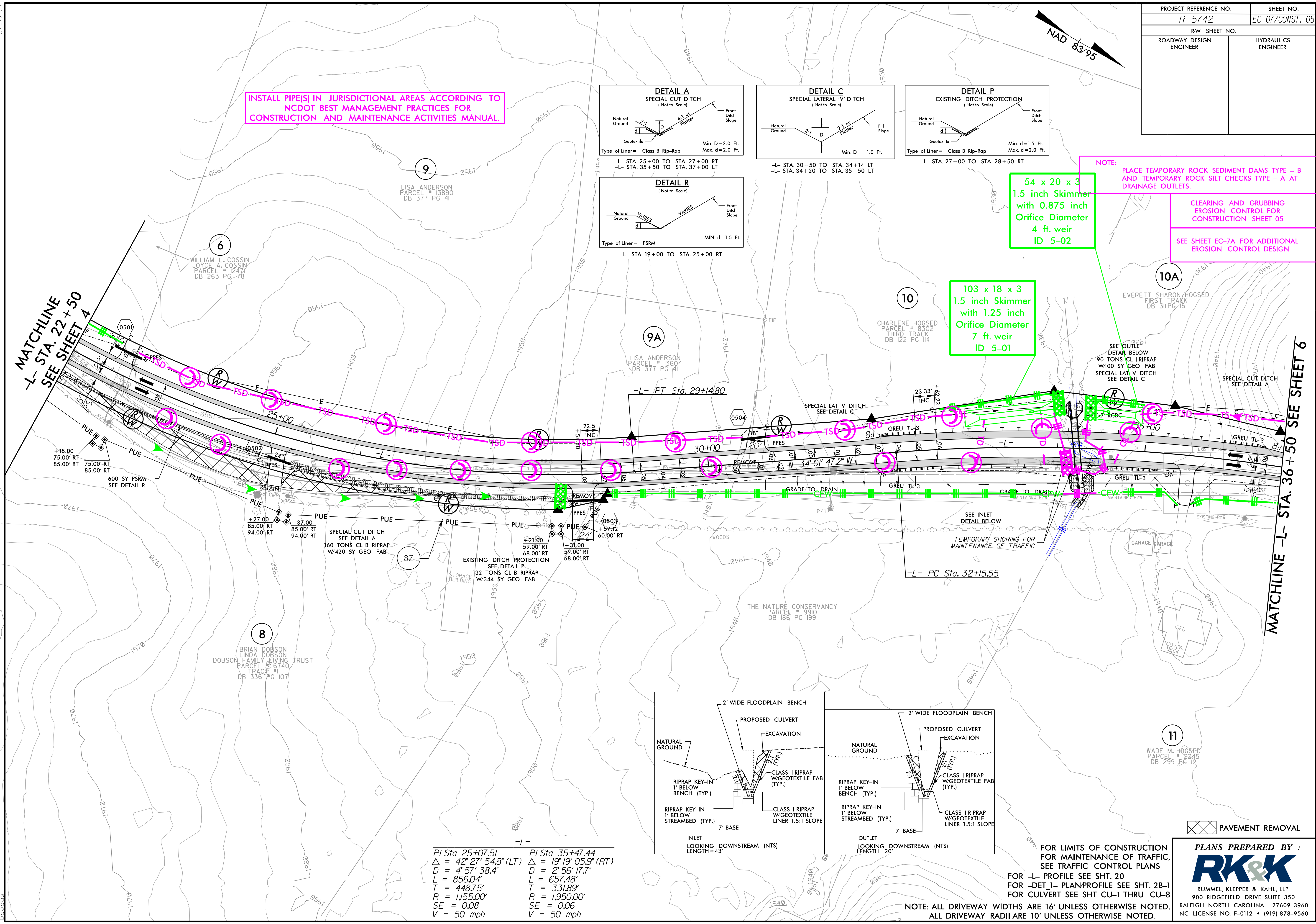
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05

SEE SHEET EC-7A FOR ADDITIONAL EROSION CONTROL DESIGN

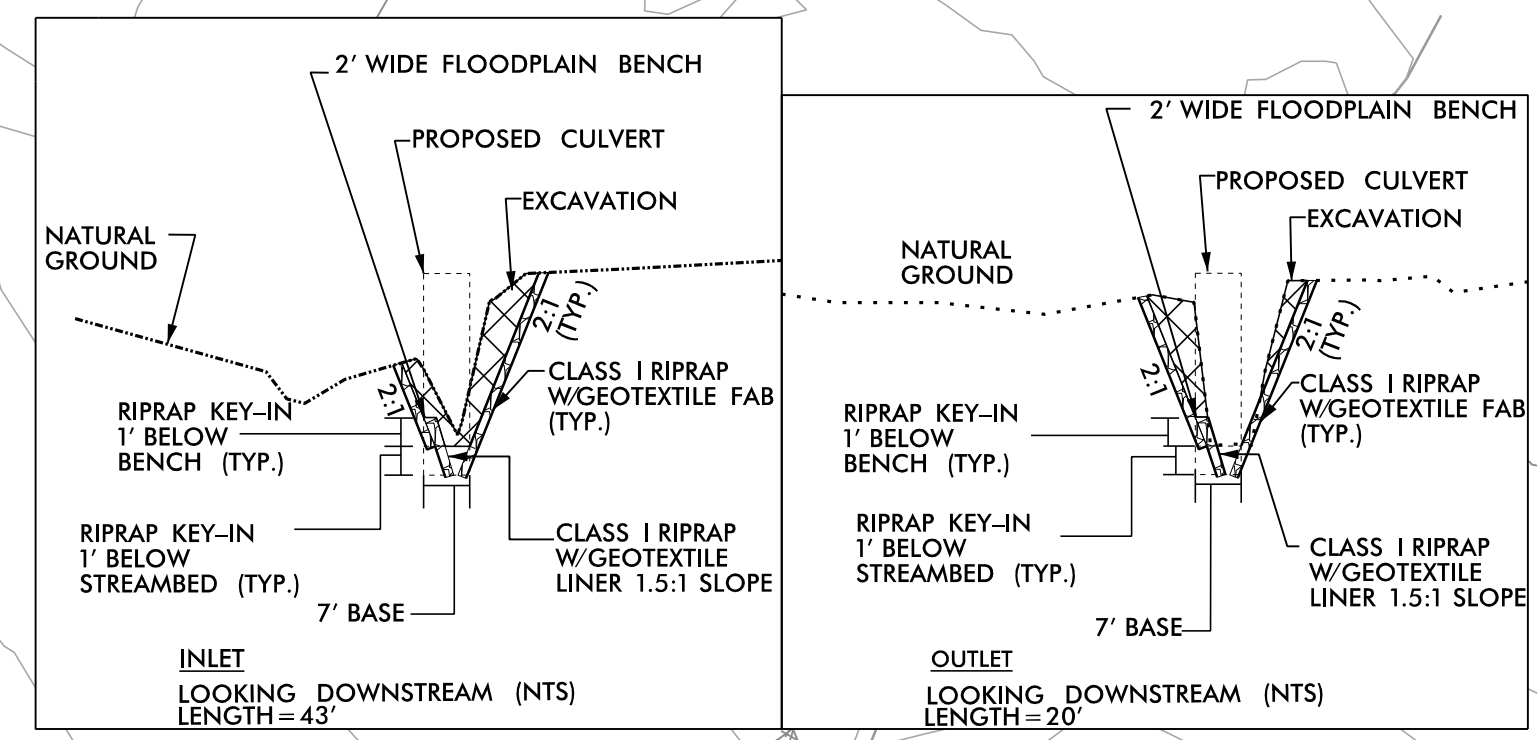
MATCHLINE
-L- STA. 22+50
SEE SHEET 4

MATCHLINE -L- STA. 36+50
SEE SHEET 6

8.17.99
12/21/2018
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PI Sta 25+07.51	PI Sta 35+47.44
$\Delta = 42^{\circ} 27' 54.8''$ (LT)	$\Delta = 19^{\circ} 19' 05.9''$ (RT)
D = 4' 57' 38.4"	D = 2' 56' 17.7"
L = 856.04'	L = 657.48'
T = 448.75'	T = 331.89'
R = 1,155.00'	R = 1,950.00'
SE = 0.08	SE = 0.06
V = 50 mph	V = 50 mph



FOR LIMITS OF CONSTRUCTION FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS
FOR -L- PROFILE SEE SHT. 20
FOR -DET 1- PLAN/PROFILE SEE SHT. 2B-1
FOR CULVERT SEE SHT CU-1 THRU CU-8

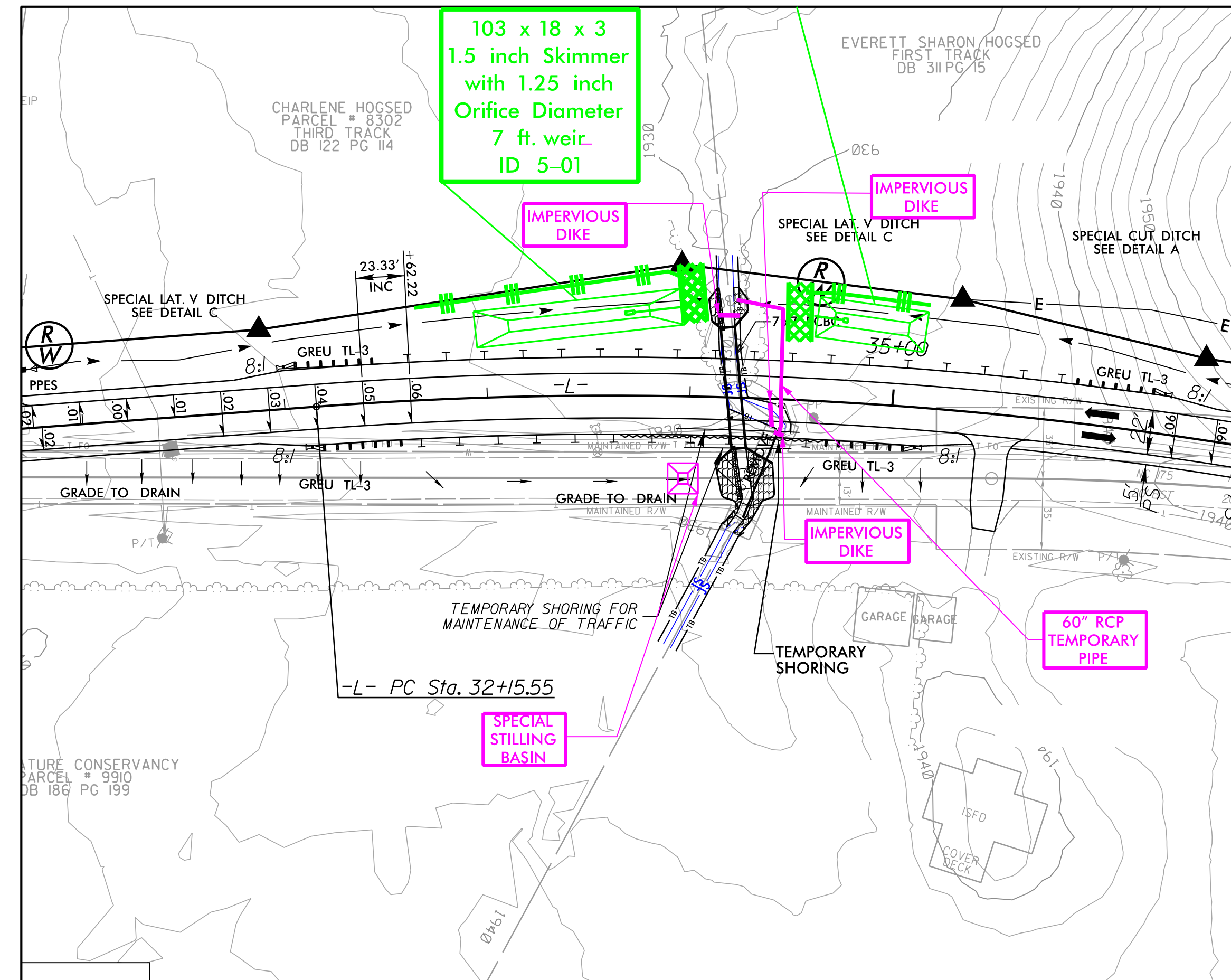
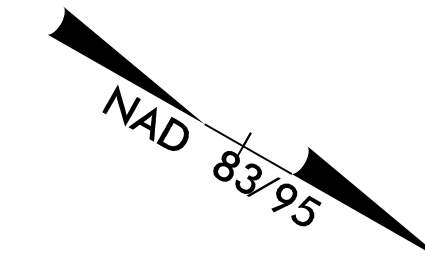
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

PAVEMENT REMOVAL

PLANS PREPARED BY :

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-07A/CONST.-05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CULVERT CONSTRUCTION SEQUENCE STA. 34+20 -L-

PHASE I

1. INSTALL STILLING BASIN WITH A MINIMUM CAPACITY OF 94 C.Y.
2. INSTALL 60" TEMPORARY RCP AND IMPERVIOUS DIKES.
3. DIVERT STREAM THROUGH TEMPORARY PIPE.
4. MAINTAIN TRAFFIC ON EXISTING NC 175 AS SHOWN ON TRAFFIC CONTROL PLANS.
5. CONSTRUCT 56' OF 7'x7' RCBC, HEADWALLS, AND OUTLET WINGWALLS AND CHANNEL IMPROVEMENTS.
6. INSTALL SHORING AS SHOWN ON TRAFFIC CONTROL PLANS.
7. REMOVE IMPERVIOUS DIKE AT OUTLET OF EXISTING 60" CMP PRIOR TO CONSTRUCTING PROPOSED ROADWAY.
8. CONSTRUCT PROPOSED ROADWAY AND ASSOCIATED ROADWAY FILL. SWITCH TRAFFIC TO NEWLY CONSTRUCTED ROADWAY.

PHASE II

9. UTILIZE SPECIAL STILLING BASIN, AT INLET END FOR CONSTRUCTION OF WINGWALLS.
10. UTILIZING PUMP AROUND OPERATIONS, AS DESCRIBED ON SHT. 2D, PUMP STREAM THROUGH NEWLY CONSTRUCTED RCBC.
11. REMOVE EXISTING 60" PIPE, PLUG & FILL 60" TEMPORARY PIPE AND REMOVE IMPERVIOUS DIKES.
12. CONSTRUCT REMAINING 4' OF 7'x7' RCBC AND INLET WINGWALLS AND CHANNEL IMPROVEMENTS.
13. DIVERT STREAM THROUGH NEW CHANNEL AND CULVERT.

NOTE:

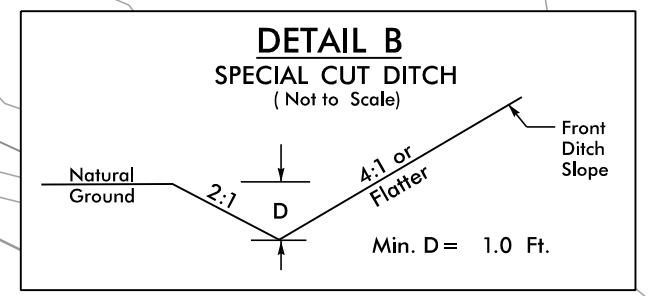
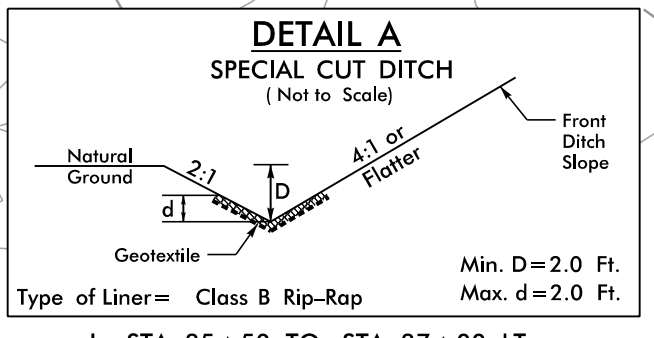
IF RAIN IS EMINENT DURING THE CONSTRUCTION OF THE INLET RCBC, WINGWALLS AND CHANNEL, ALLOW STREAM TO USE NEWLY CONSTRUCTED RCBC INSTEAD OF PUMP AROUND OPERATIONS.

PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-08/CONST.-06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

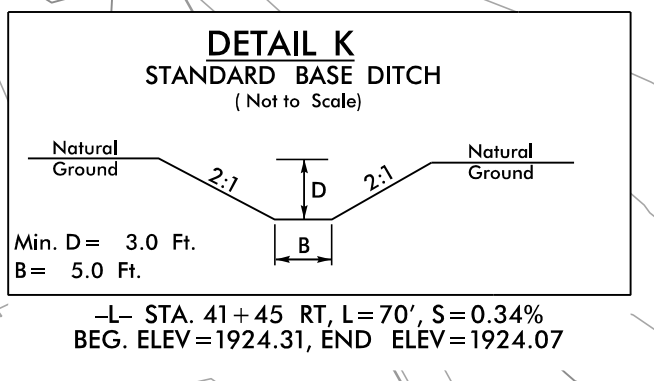
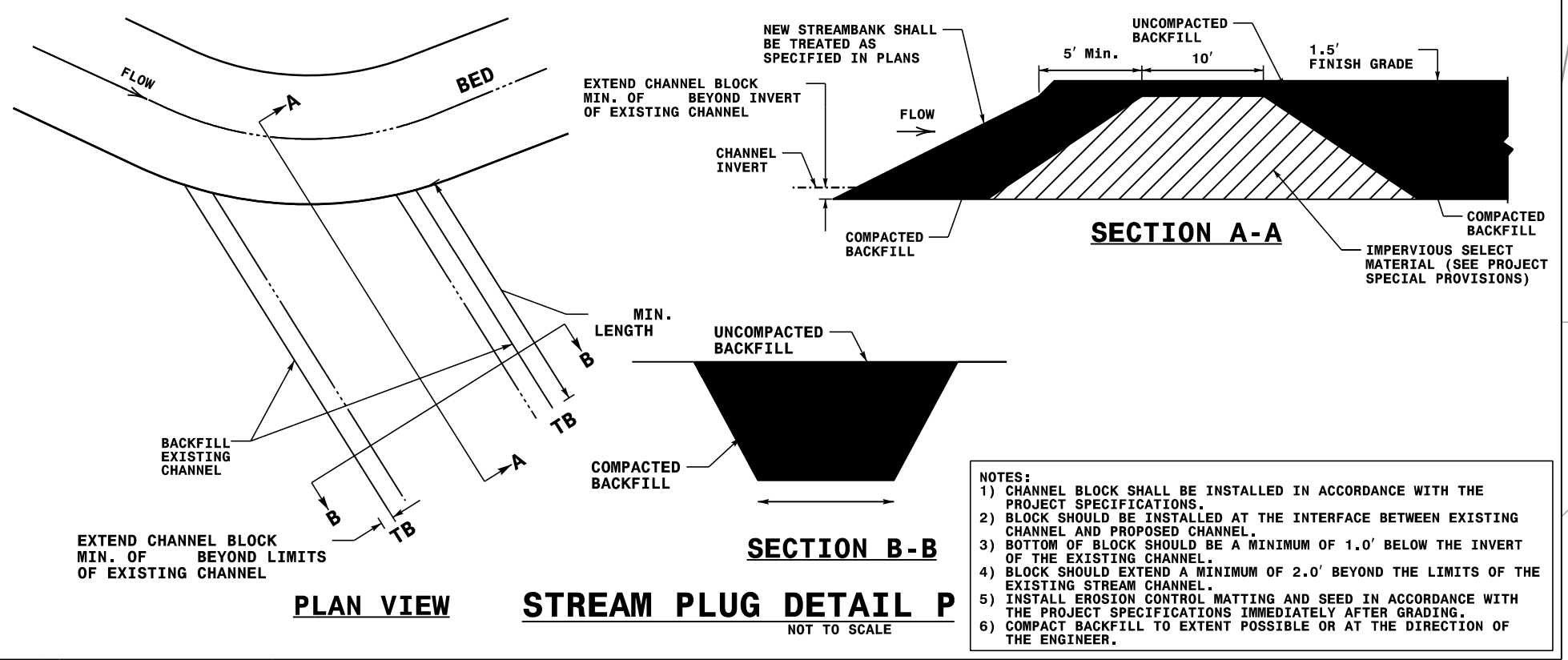
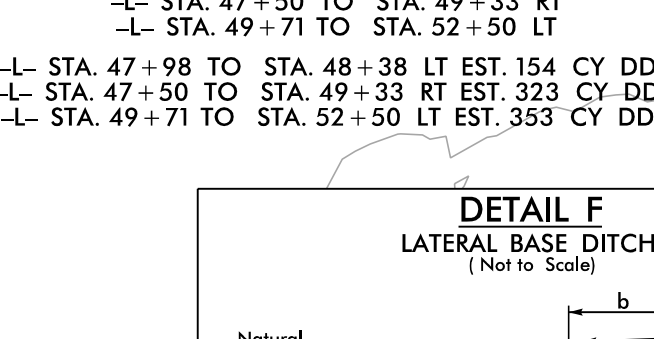
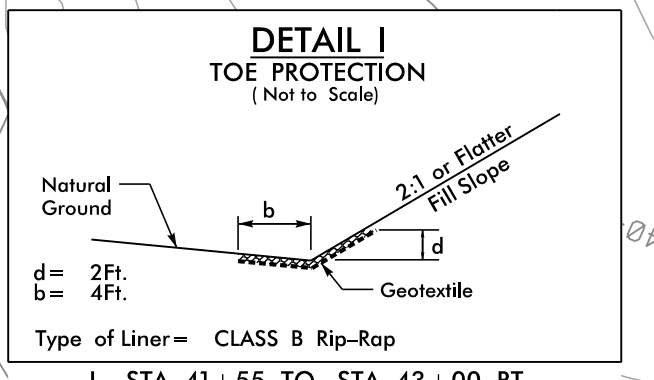
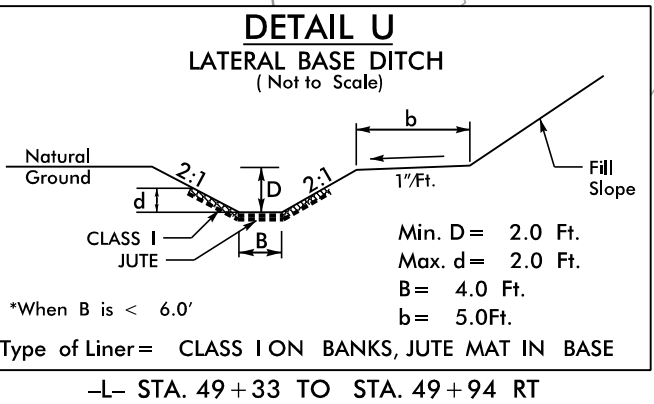
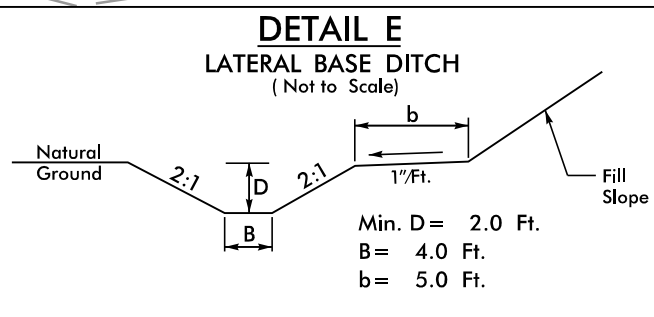
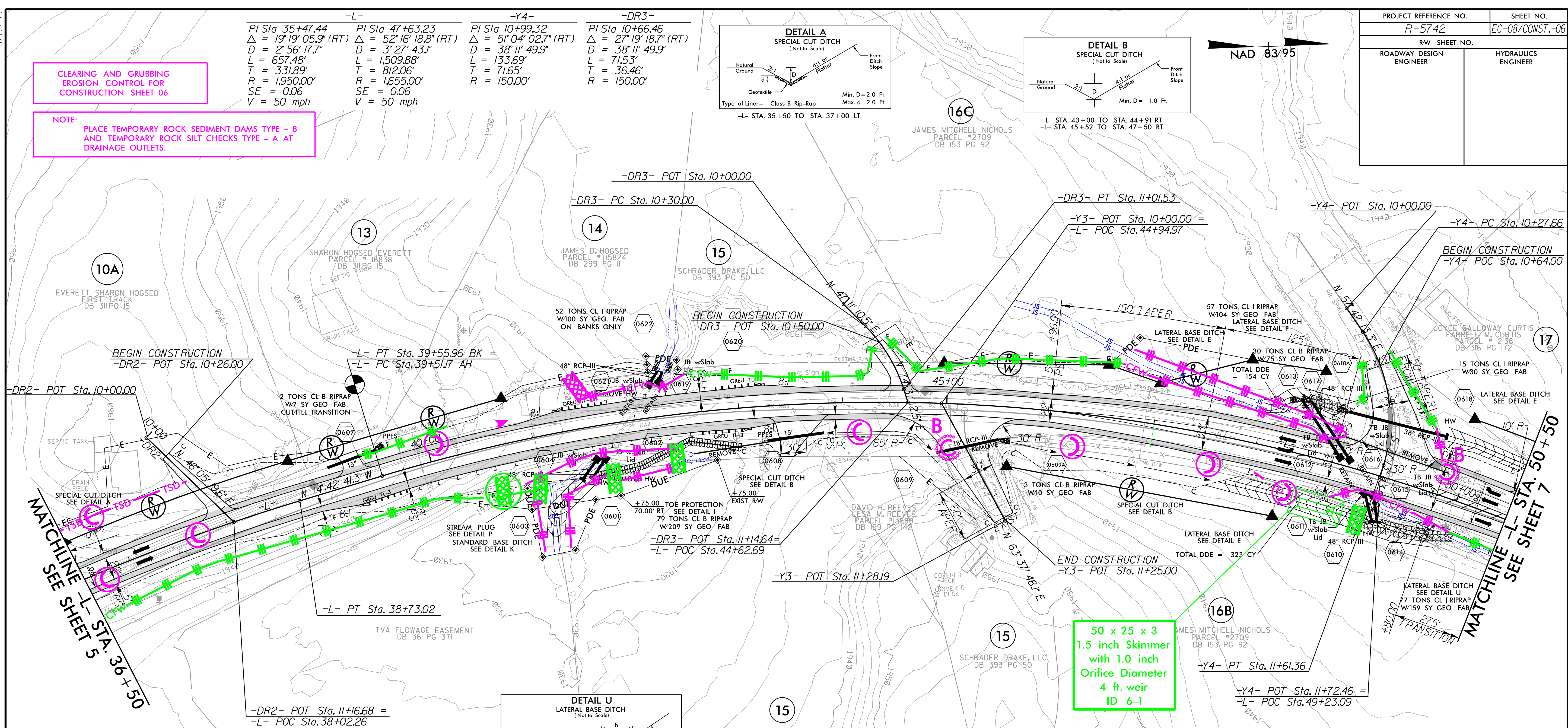
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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

-L-	-Y4-	-DR3-
PI Sta 35+47.44 Δ = 19'19" 05.9" (RT) D = 2'56" 17.7" L = 657.48' T = 331.89' R = 1,950.00' SE = 0.06 V = 50 mph	PI Sta 47+63.23 Δ = 52'16" 18.8" (RT) D = 3'27" 43.1" L = 1,509.88' T = 812.06' R = 1,655.00' SE = 0.06 V = 50 mph	PI Sta 10+99.32 Δ = 51'04" 02.7" (RT) D = 38'11" 49.9" L = 133.69' T = 71.65' R = 150.00'



NAD 83/95



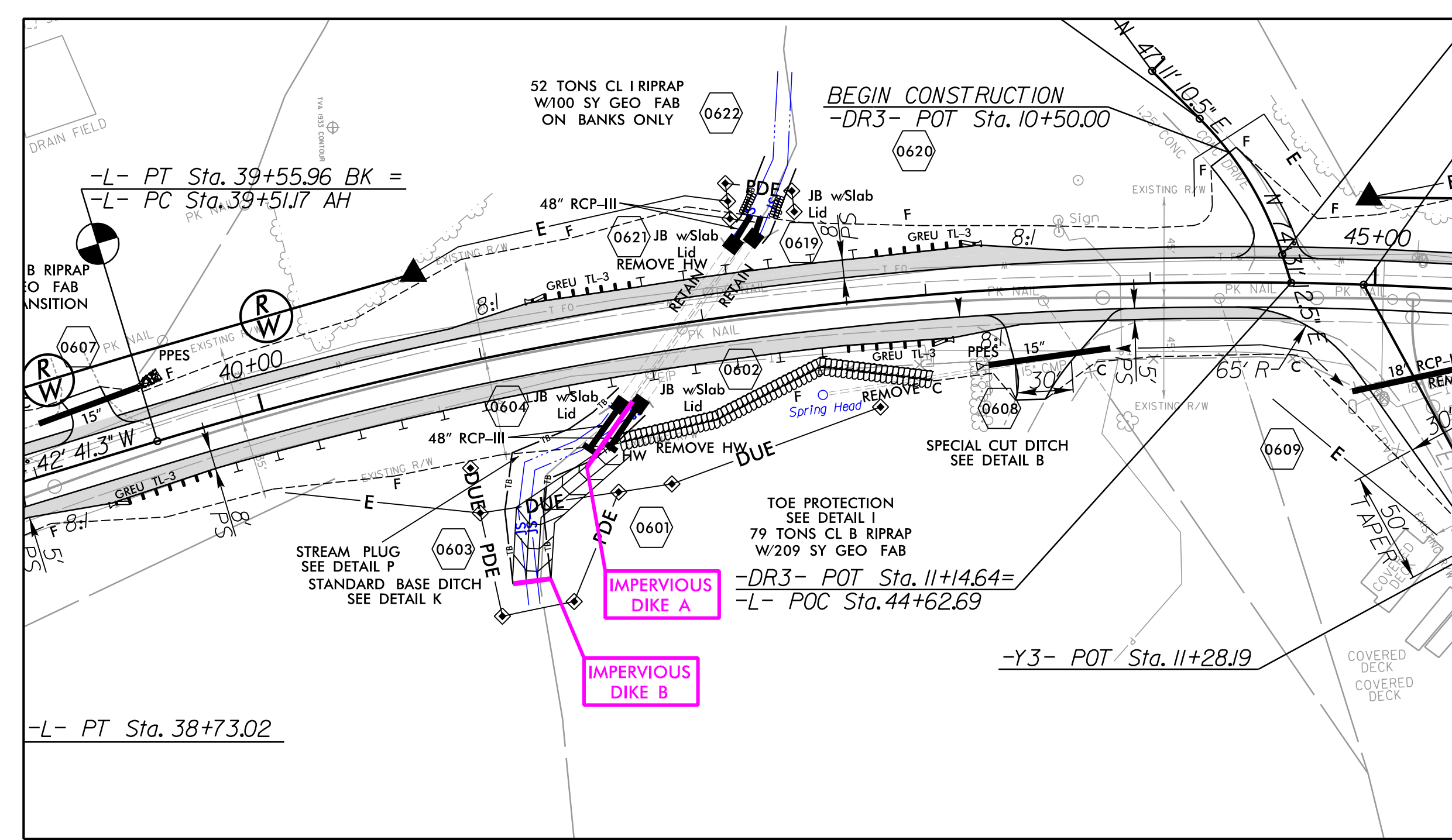
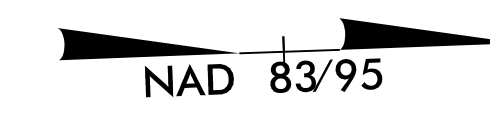
PAVEMENT REMOVAL

PLANS PREPARED BY:
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR -L- PROFILE SEE SHTS. 20 & 21
FOR -Y3- & -Y4- PROFILES SEE SHT. 30
FOR -DR2- & -DR3- PROFILES SEE SHT. 28
FOR -DET_1- PLANPROFILE SEE SHT. 2B-1
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

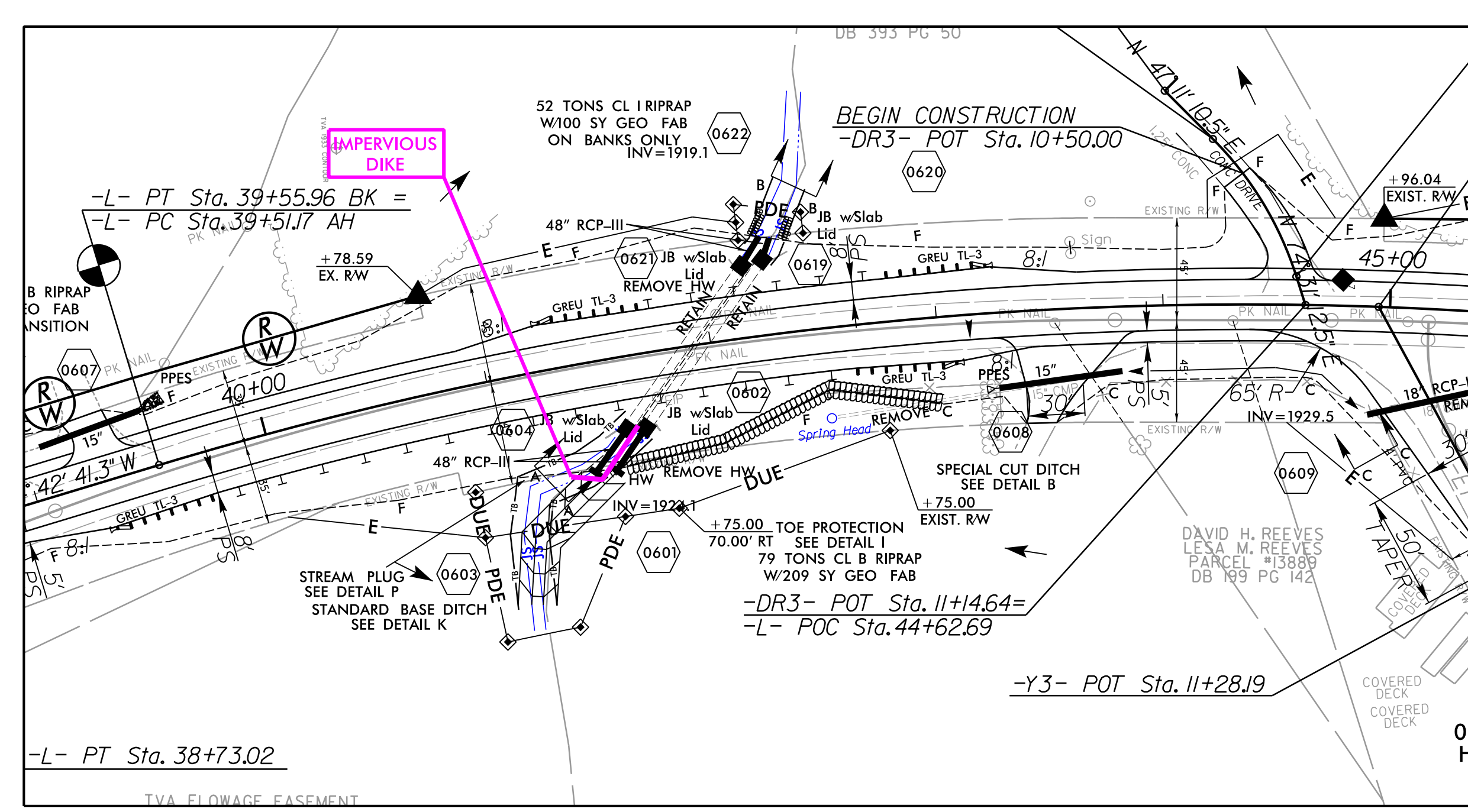
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12/21/2018
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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-08A/CONST.-06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CULVERT CONSTRUCTION SEQUENCE STA. 41+92 -L- PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NECESSARY
2. INSTALL IMPERVIOUS DIKE A AS SHOWN
3. DIVERT FLOW TO THE EXISTING SOUTHERN 48" RCP
4. INSTALL STRUCTURES 601, 602, 619, AND 620
5. REMOVE IMPERVIOUS DIKE A
6. INSTALL IMPERVIOUS DIKE B UPSTREAM OF TIE IN AS SHOWN
7. UTILIZING PUMP AROUND OPERATIONS, CONSTRUCT STANDARD BASE DITCH, AS PER DETAIL K.
8. REMOVE IMPERVIOUS DIKE B AND PUMP AROUND, DIVERT FLOW TO 601



CULVERT CONSTRUCTION SEQUENCE STA. 41+92 -L- PHASE II

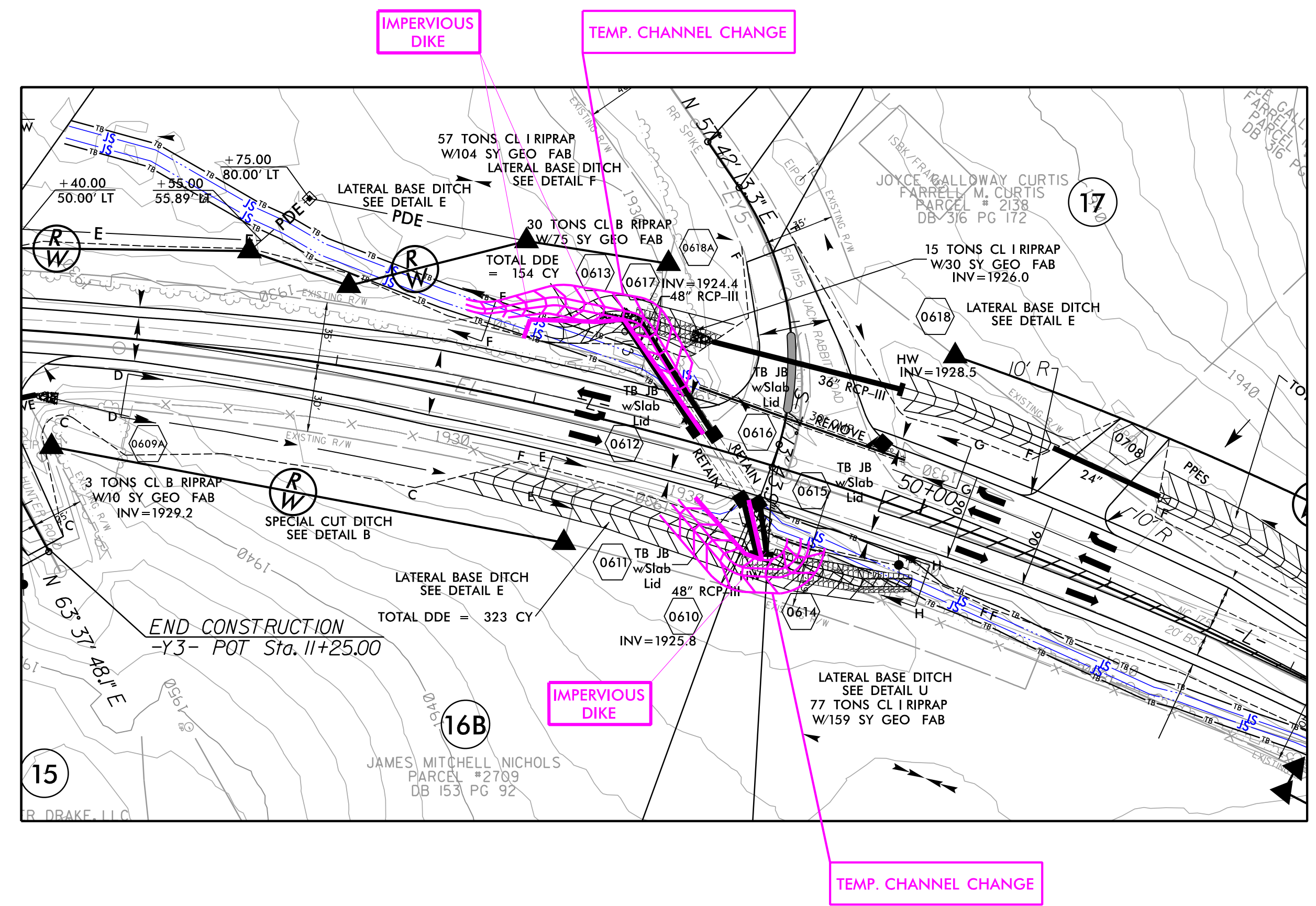
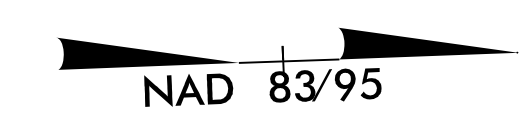
1. INSTALL IMPERVIOUS DIKE AS SHOWN
2. INSTALL STRUCTURES 603, 604, 621, AND 622
3. REMOVE IMPERVIOUS DIKE AND PUMP AROUND
4. CONSTRUCT STANDARD BASE DITCH TO FLOW INTO 601 AND 603
5. COMPLETE ROADWAY

PLANS PREPARED BY :

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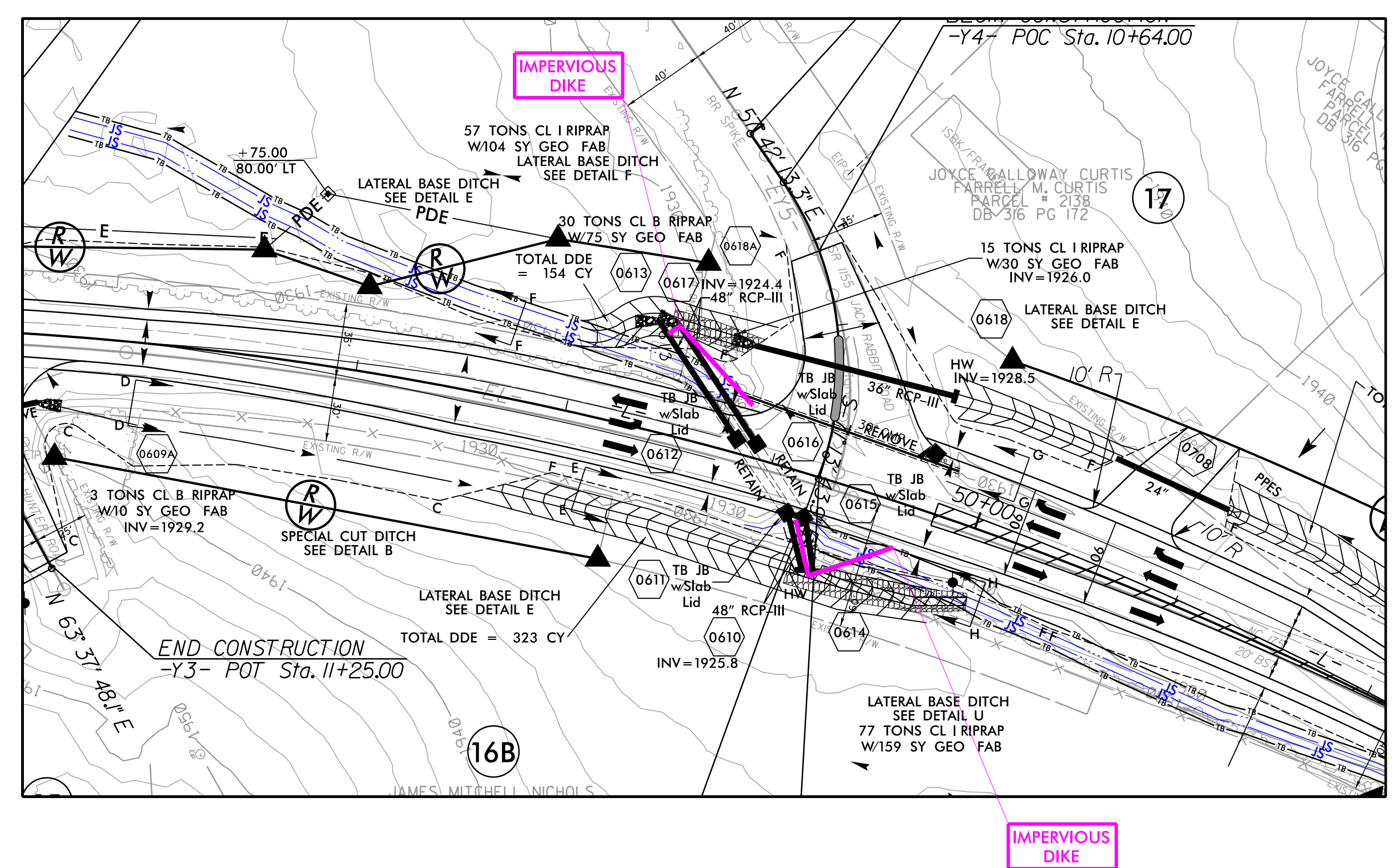
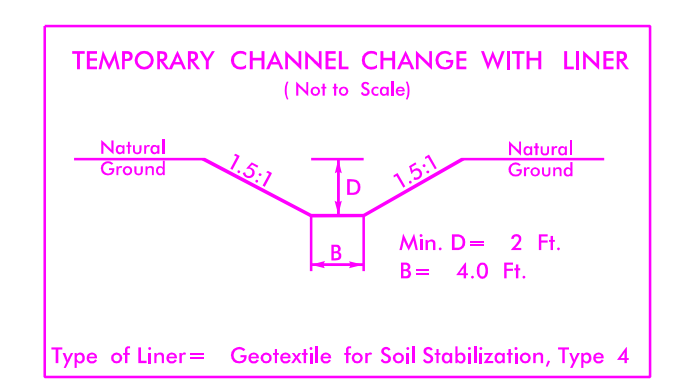
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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-08B/CONST.-06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CULVERT CONSTRUCTION SEQUENCE STA. 48+93 -I- PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NECESSARY
2. INSTALL TEMPORARY CHANNEL CHANGES AS SHOWN
3. INSTALL IMPERVIOUS DIKES AS SHOWN
4. INSTALL PERMANENT DRAINAGE STRUCTURES 0618, 0610, 0611, 0612, AND 0613
5. REMOVE IMPERVIOUS DIKES
6. INSTALL PERMANENT DRAINAGE DITCHES DIRECTING FLOW TO 0618 AND 0610
7. REMOVE TEMPORARY CHANNEL CHANGES



CULVERT CONSTRUCTION SEQUENCE STA. 48+93 -I- PHASE II

1. INSTALL IMPERVIOUS DIKES AS SHOWN
2. INSTALL STRUCTURES 0614, 0615, 0616, AND 0617
3. REMOVE IMPERVIOUS DIKES
4. CONSTRUCT LATERAL BASE DITCH TO FLOW INTO 0614
5. COMPLETE ROADWAY

PLANS PREPARED BY :

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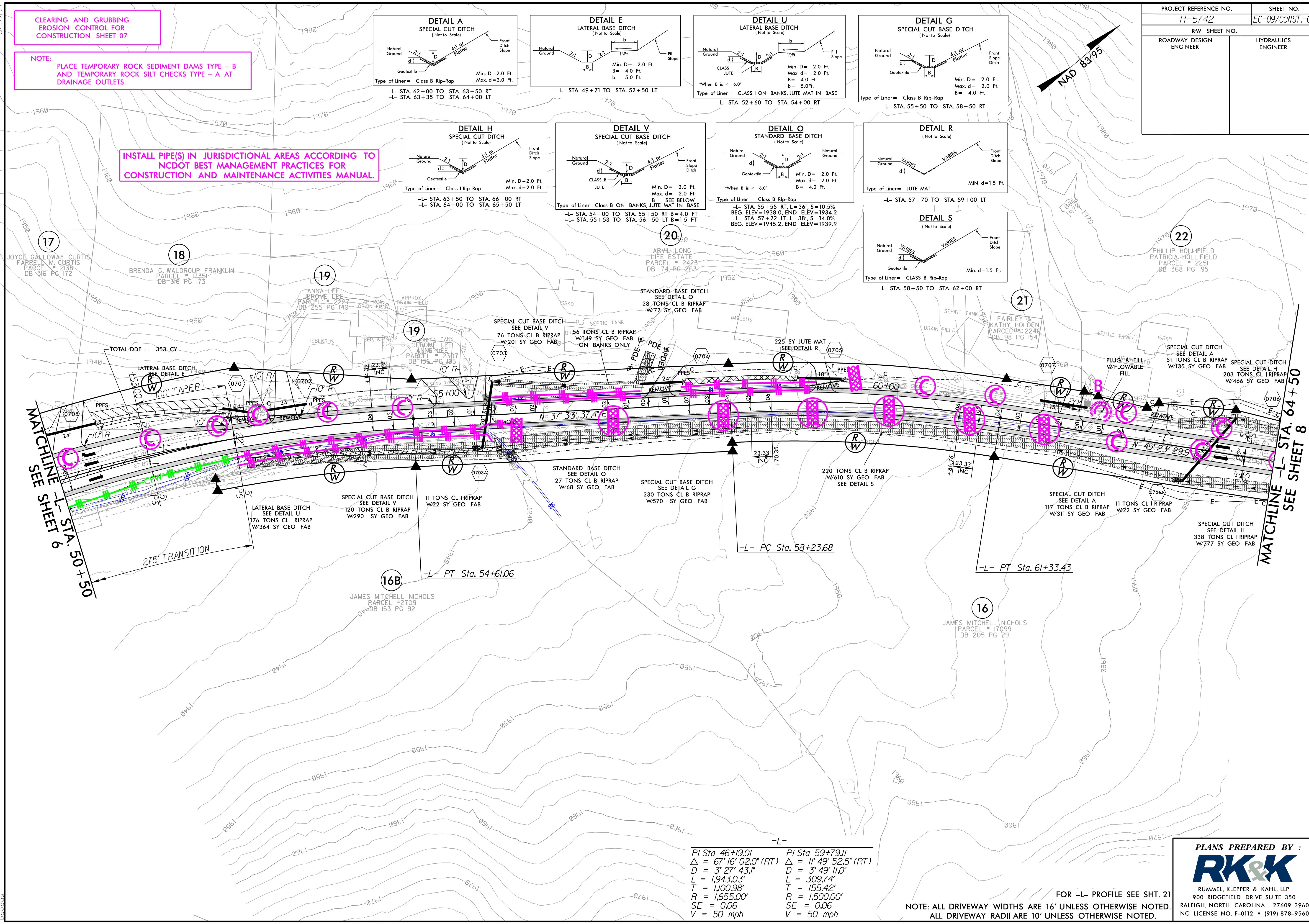
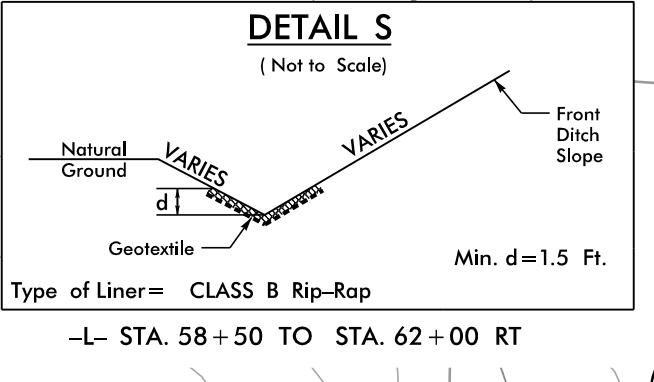
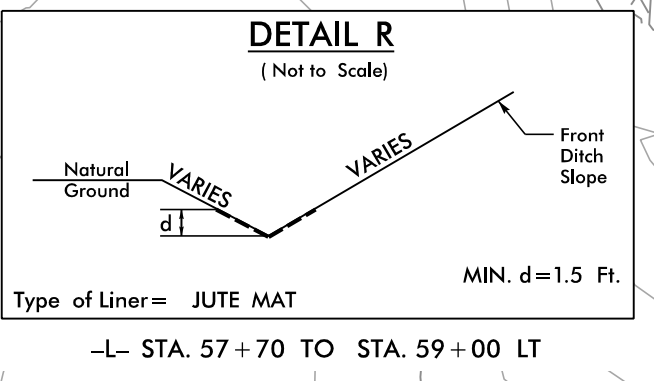
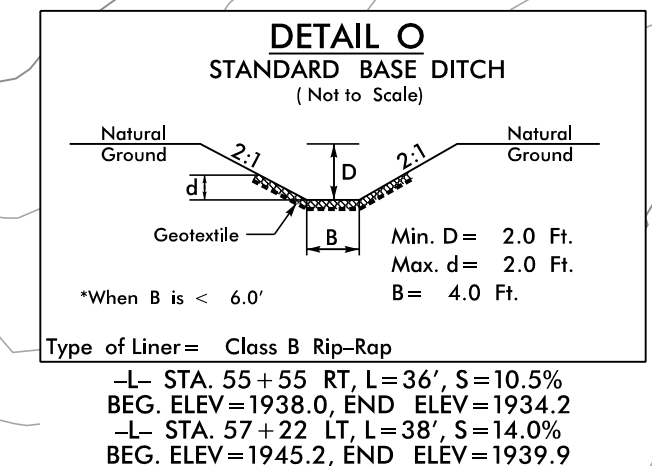
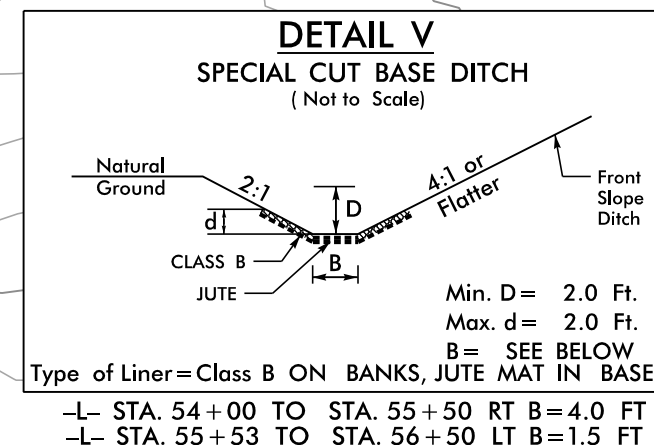
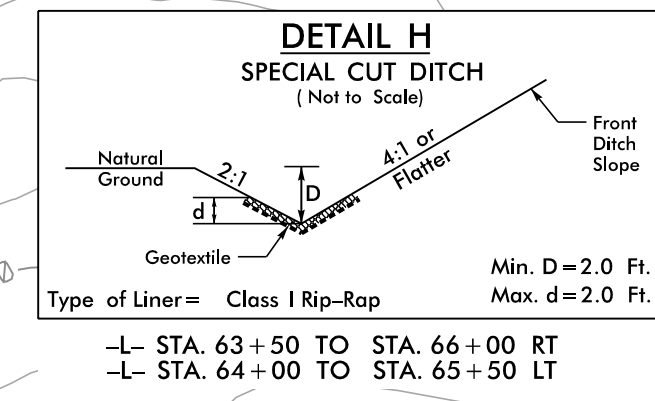
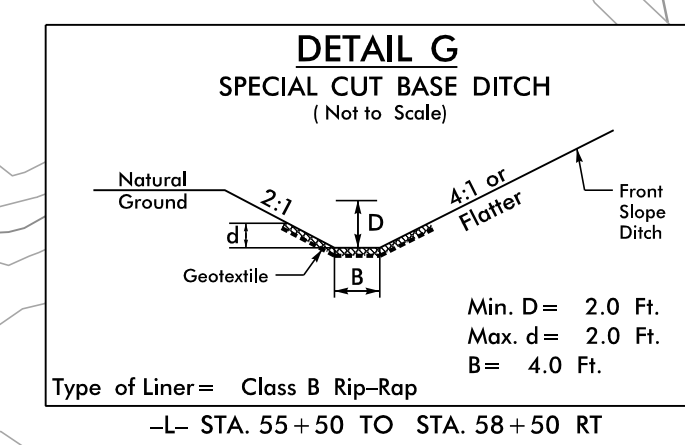
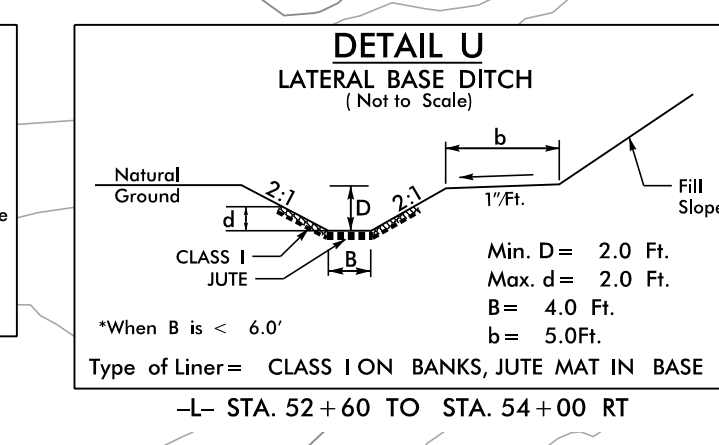
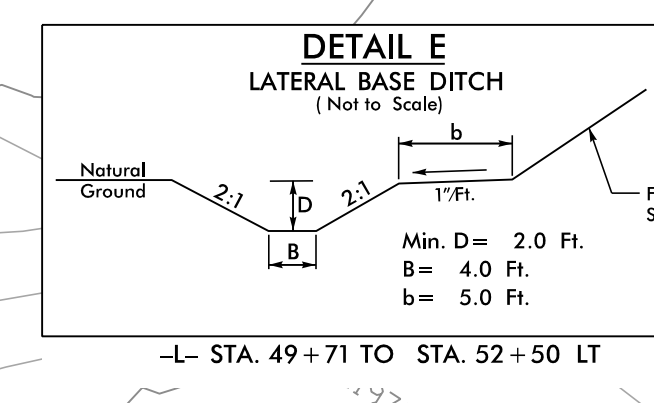
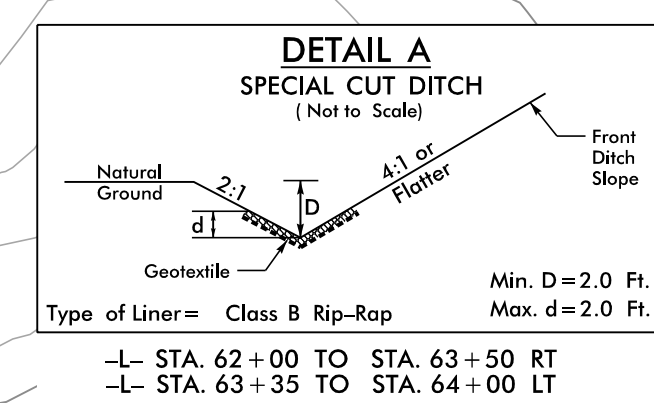
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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-09/CONST.-07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

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.



PI Sta 46+19.01 Δ = 67°16'02.0" (RT) D = 3'27'43.1" L = 1,943.03' T = 1,100.98' R = 1,655.00' SE = 0.06 V = 50 mph	PI Sta 59+79.11 Δ = 11°49'52.5" (RT) D = 3'49'11.0" L = 309.74' T = 155.42' R = 1,500.00' SE = 0.06 V = 50 mph
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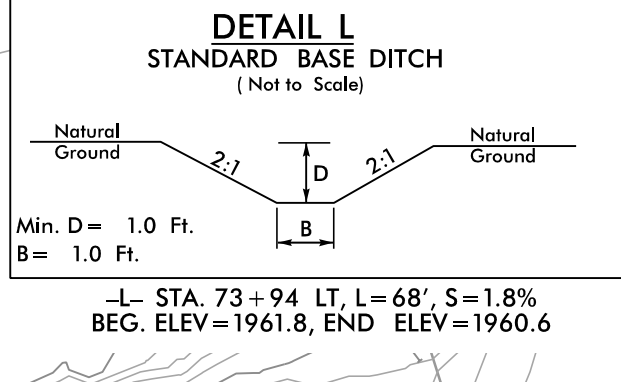
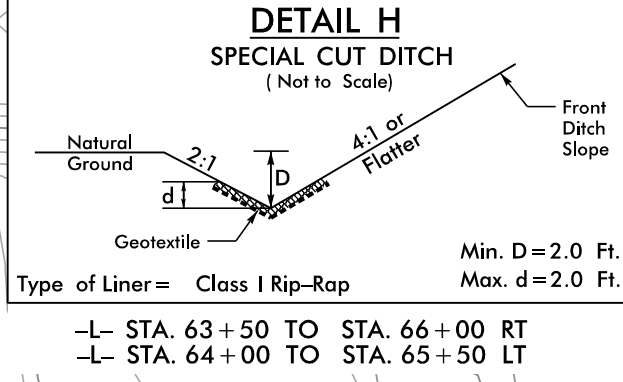
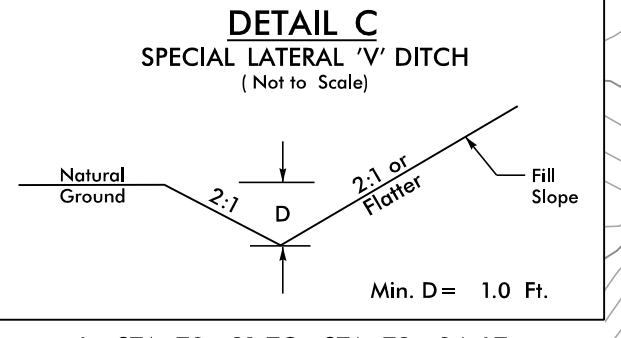
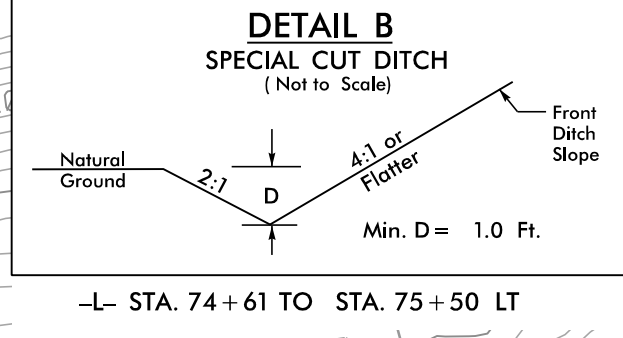
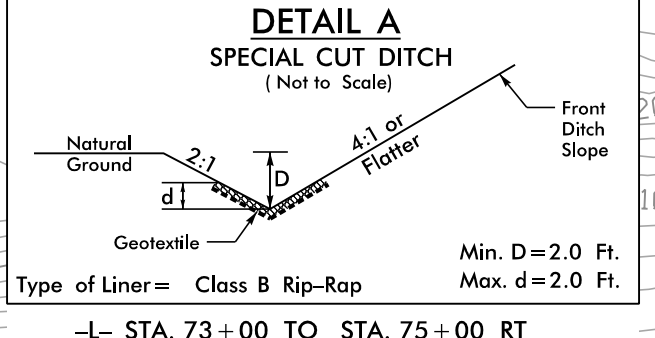
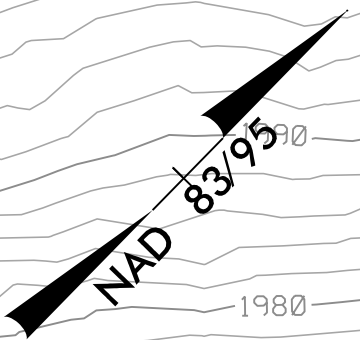
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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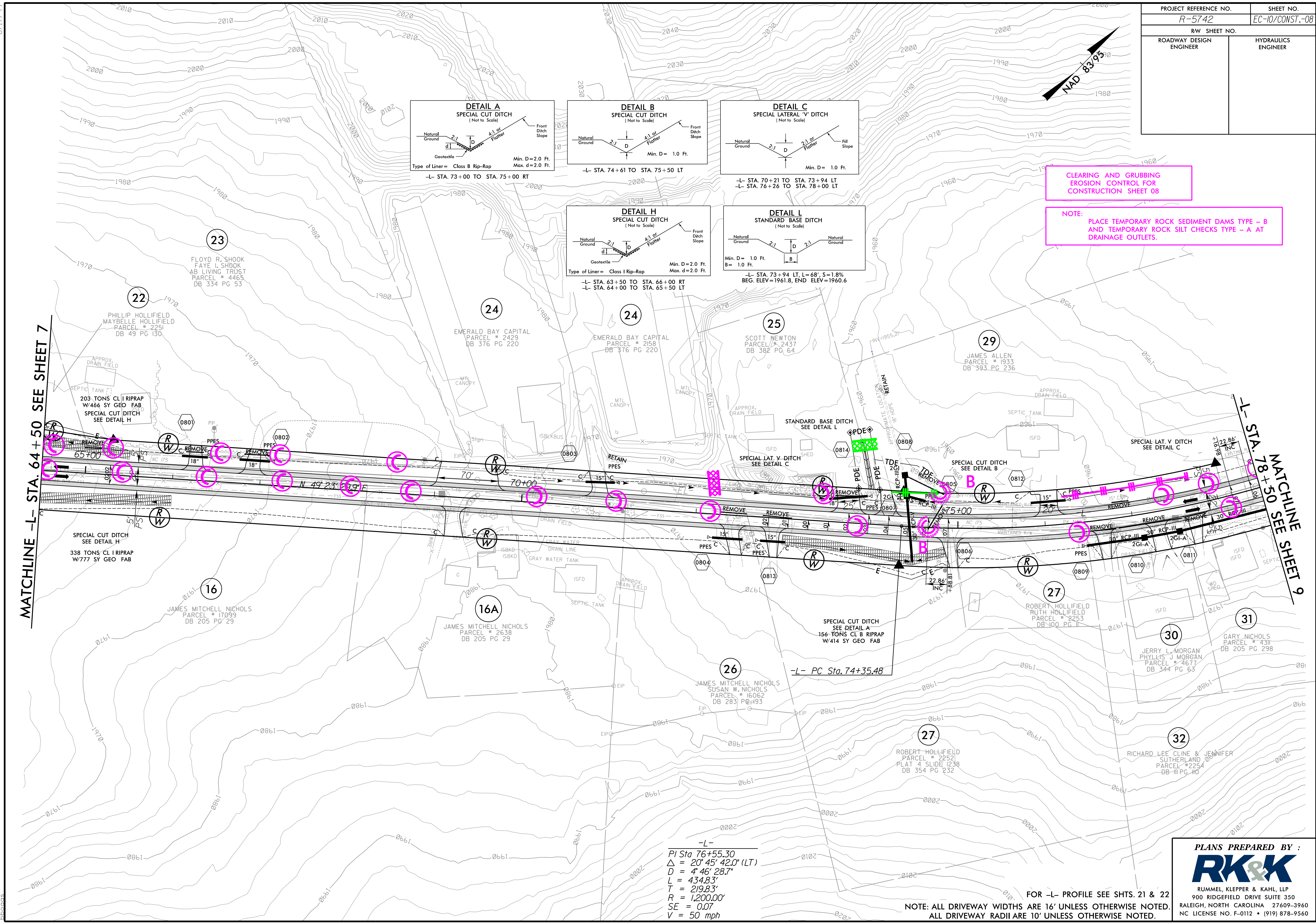
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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-10/CONST.-08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

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



MATCHLINE -L- STA. 64+50 SEE SHEET 7

MATCHLINE -L- STA. 78+50 SEE SHEET 9

-L-
PI Sta 76+55.30
 $\Delta = 20^\circ 45' 42.0''$ (LT)
D = 4' 46" 28.7"
L = 434.83'
T = 219.83'
R = 1,200.00'
SE = 0.07
V = 50 mph

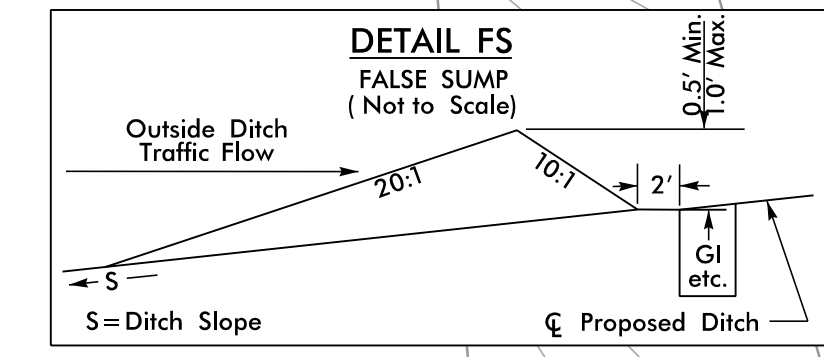
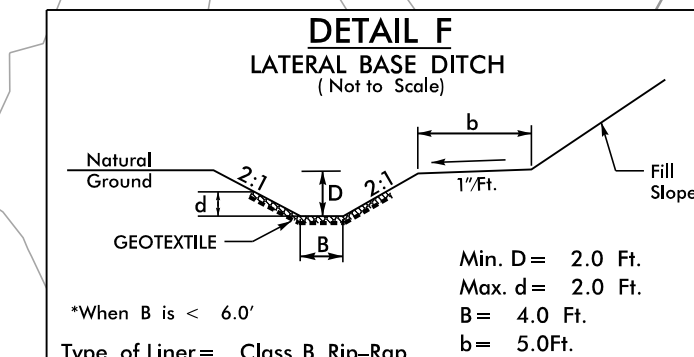
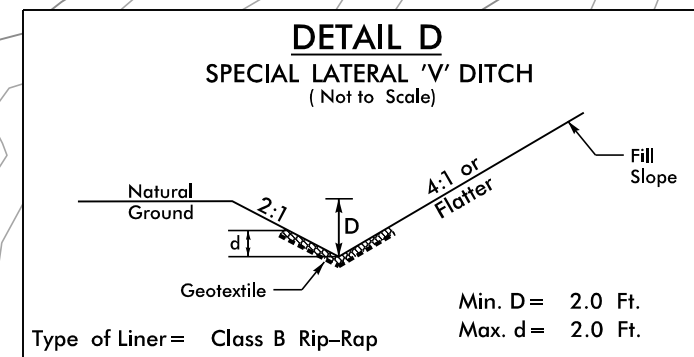
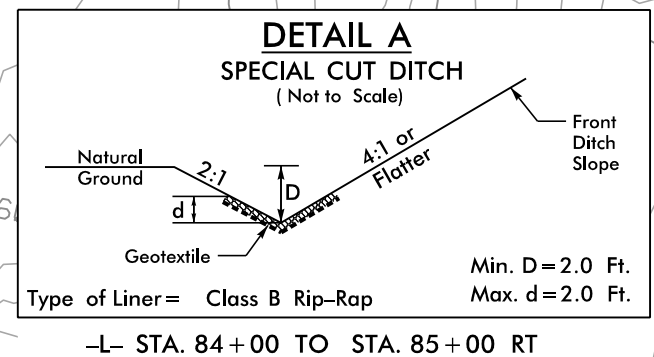
FOR -L- PROFILE SEE SHTS. 21 & 22
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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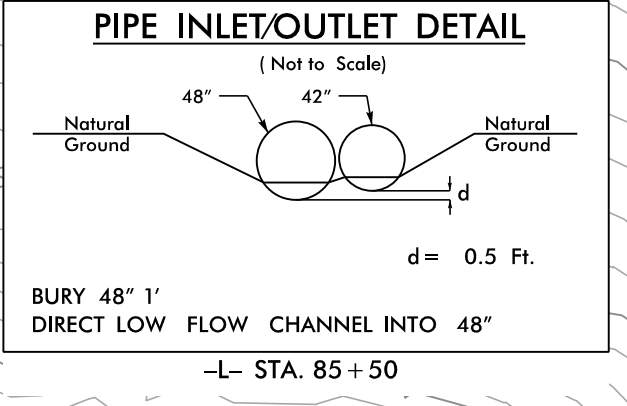
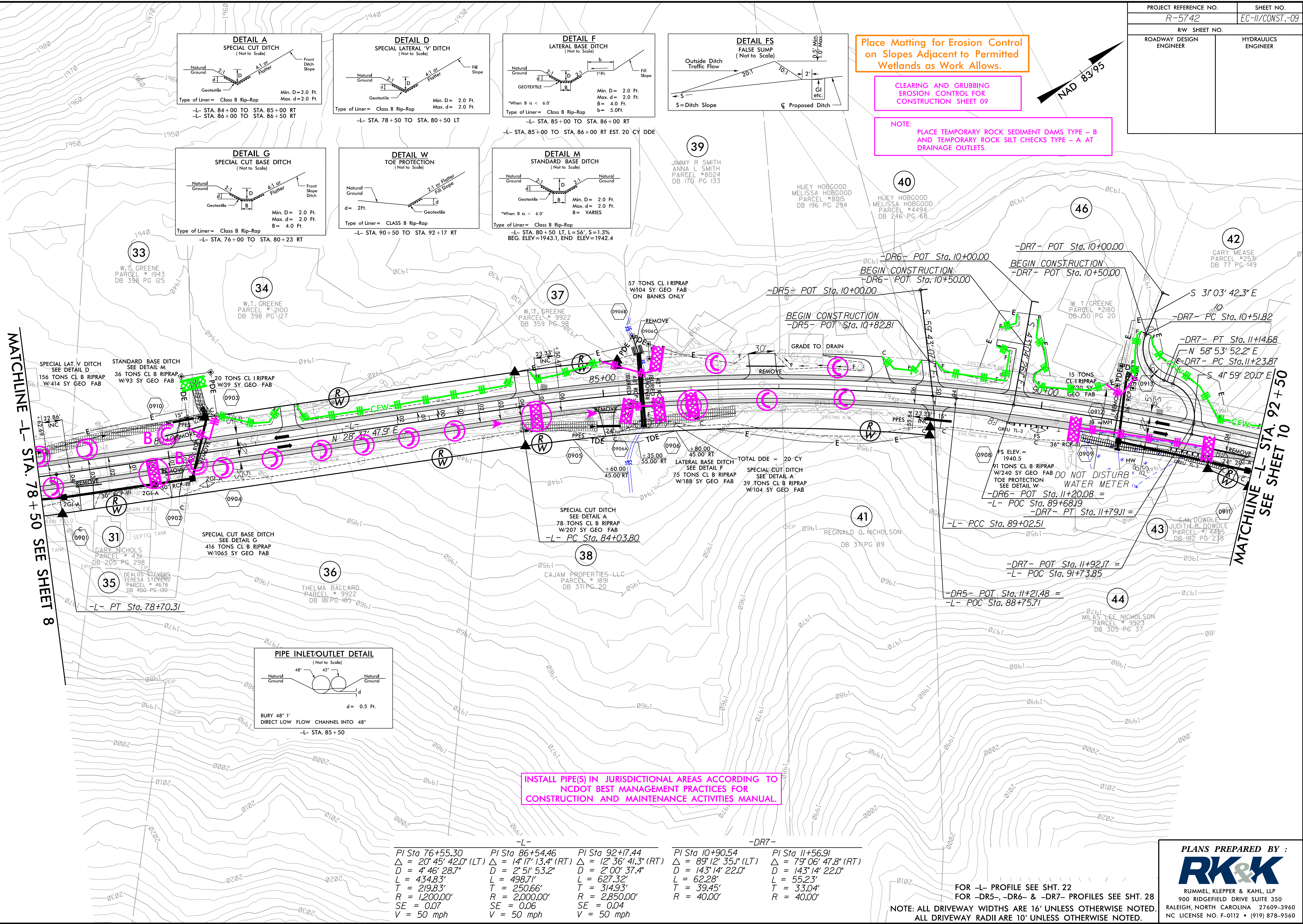
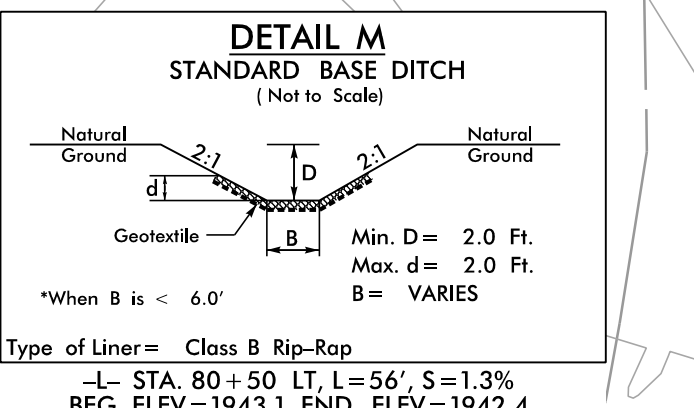
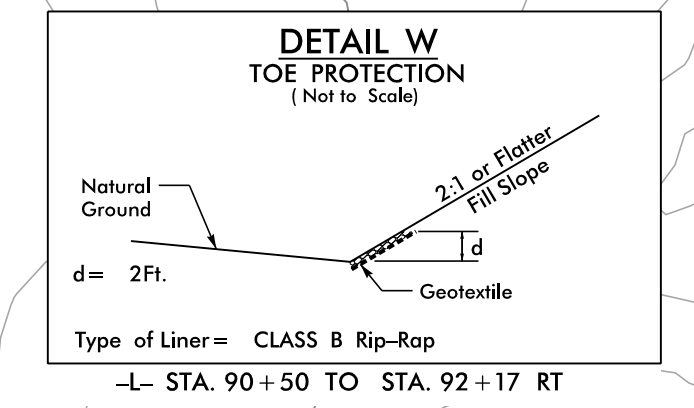
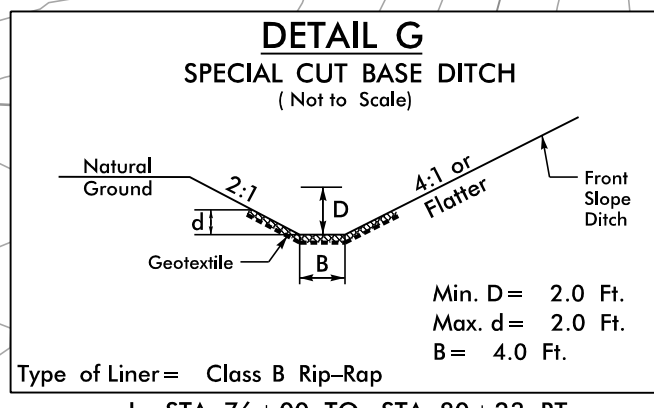
PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-II/CONST.-09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 09

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.

PI Sta 76+55.30 Δ = 20° 45' 42.0" (LT) D = 4' 46" 28.7" L = 434.83' T = 219.83' R = 1,200.00' SE = 0.07 V = 50 mph	PI Sta 86+54.46 Δ = 14° 17' 13.4" (RT) D = 2' 51" 53.2" L = 498.71' T = 250.66' R = 2,850.00' SE = 0.06 V = 50 mph	PI Sta 92+7.44 Δ = 12° 36' 41.3" (RT) D = 2' 00" 37.4" L = 627.32' T = 314.93' R = 2,850.00' SE = 0.04 V = 50 mph	PI Sta 10+90.54 Δ = 89° 12' 35.1" (LT) D = 143' 14" 22.0" L = 62.28' T = 39.45' R = 40.00'	PI Sta 11+56.91 Δ = 79° 06' 47.8" (RT) D = 143' 14" 22.0" L = 55.23' T = 33.04' R = 40.00'
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FOR -L- PROFILE SEE SHT. 22
FOR -DR5-, -DR6- & -DR7- PROFILES SEE SHT. 28
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

PLANS PREPARED BY :

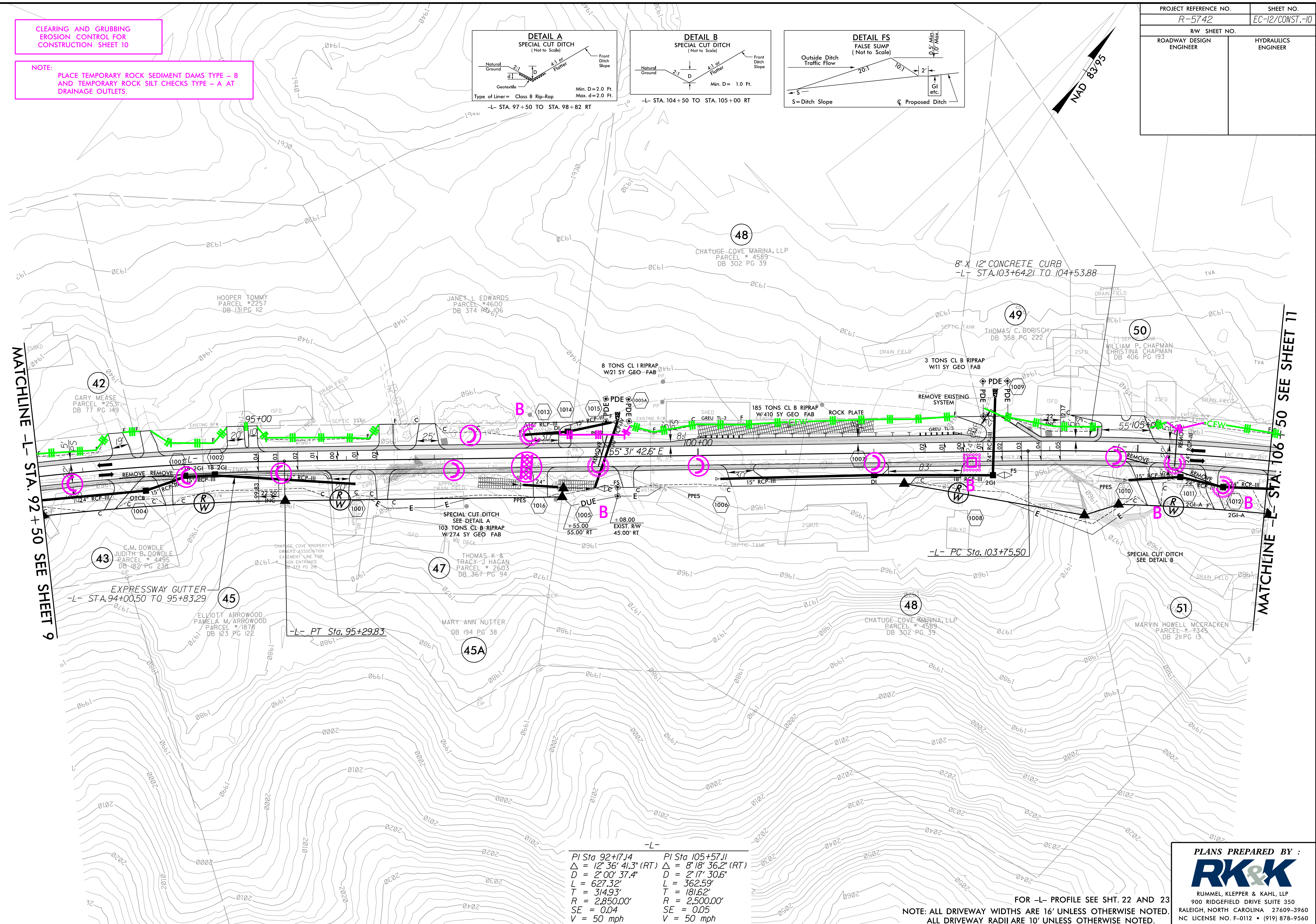
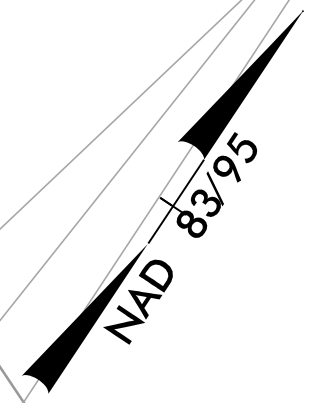
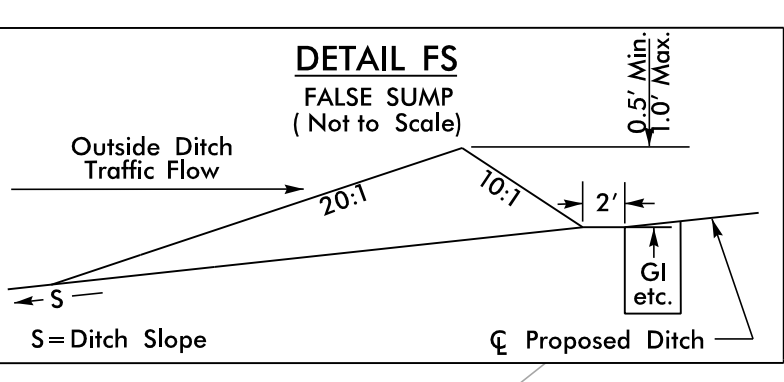
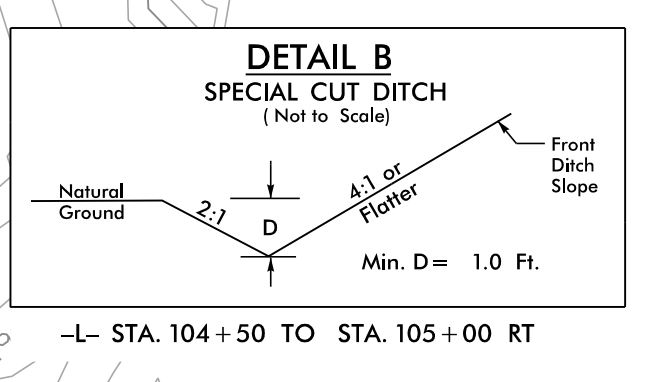
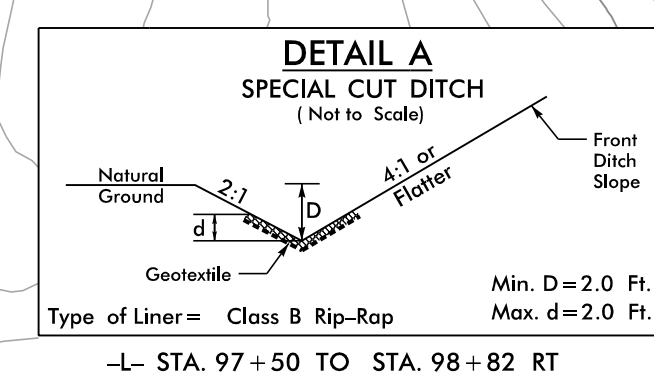
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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-12/CONST.-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.



MATCHLINE -L- STA. 92+50 SEE SHEET 9

MATCHLINE -L- STA. 106+50 SEE SHEET 11

-L-	-L-
PI Sta 92+17.14	PI Sta 105+57.11
$\Delta = 12' 36" 41.3" (RT)$	$\Delta = 8' 18" 36.2" (RT)$
$D = 2' 00" 37.4"$	$D = 2' 17" 30.6"$
$L = 627.32'$	$L = 362.59'$
$T = 314.93'$	$T = 181.62'$
$R = 2,850.00'$	$R = 2,500.00'$
$SE = 0.04$	$SE = 0.05$
$V = 50 \text{ mph}$	$V = 50 \text{ mph}$

FOR -L- PROFILE SEE SHT. 22 AND 23
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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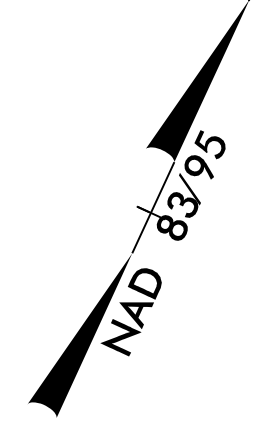
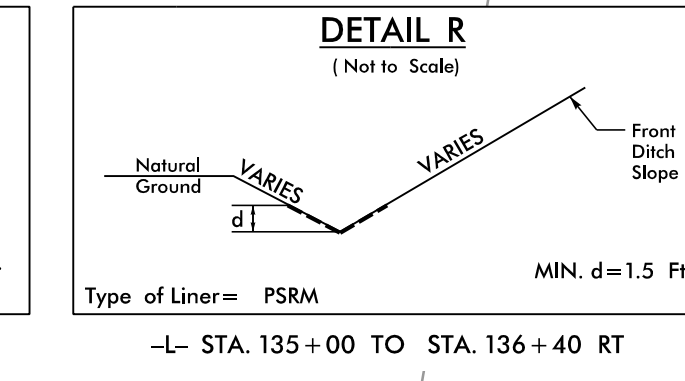
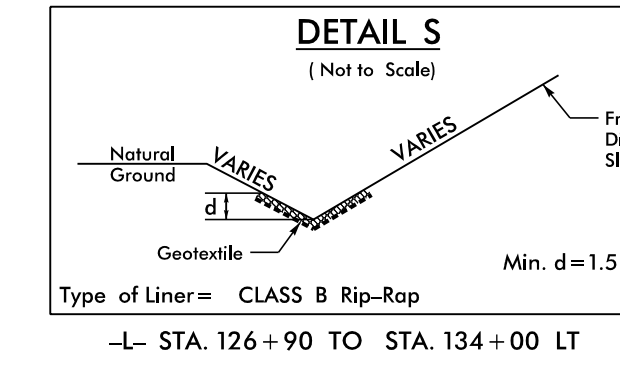
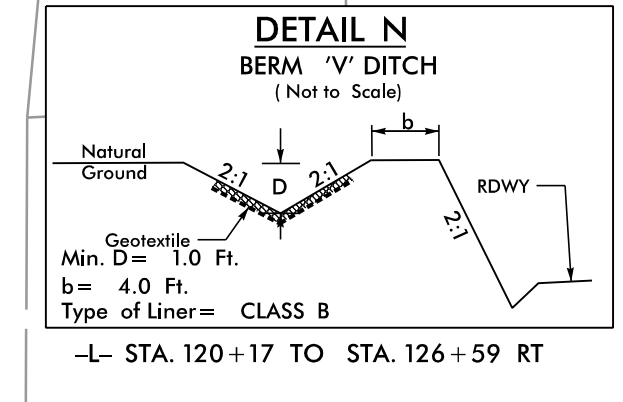
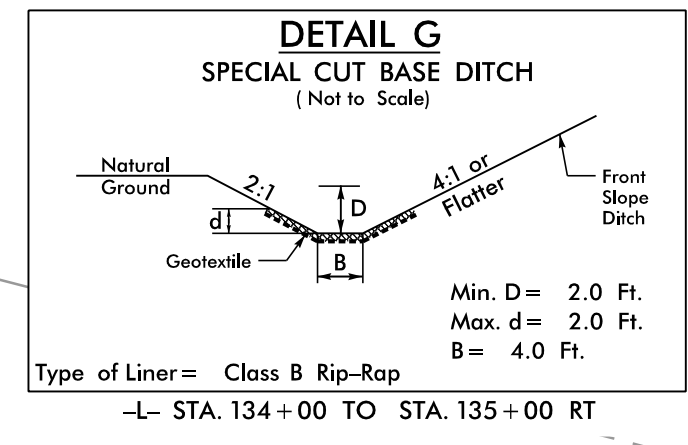
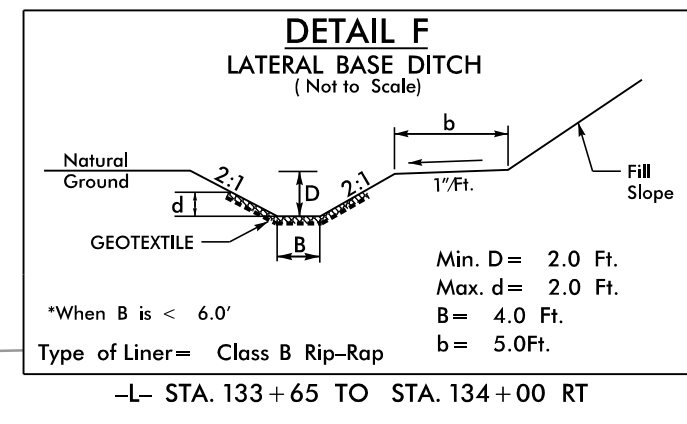
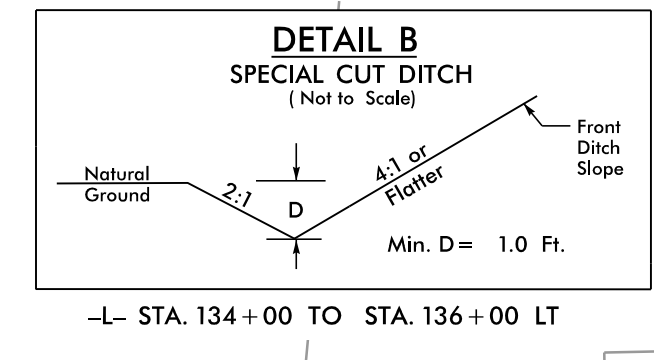
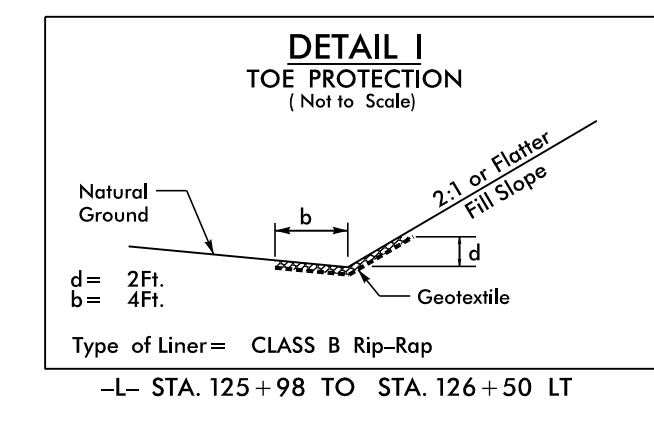
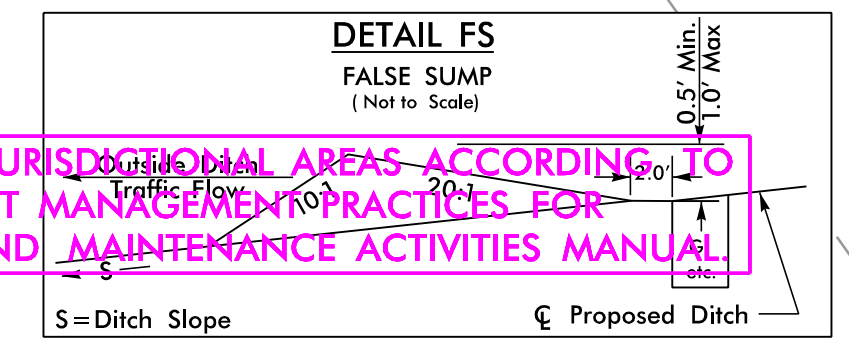
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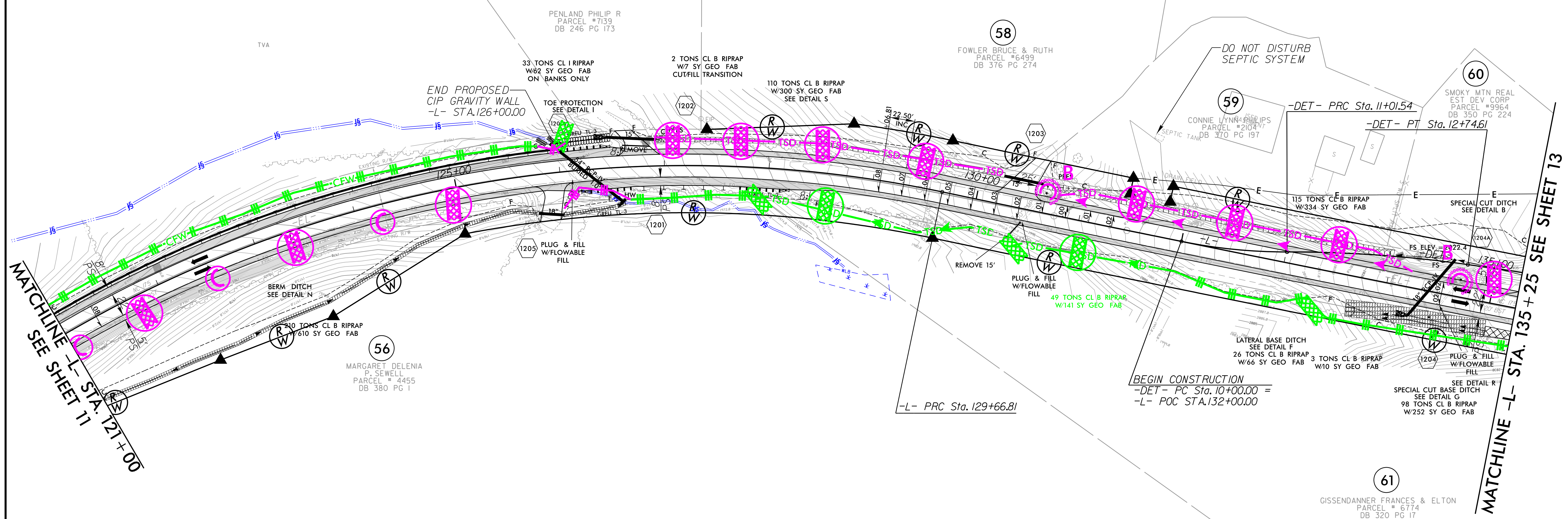
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO
NCDOT BEST MANAGEMENT PRACTICES FOR
CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL



PROJECT REFERENCE NO. R-5742	SHEET NO. EC-14/CONST.-12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- STA. 121+00
SEE SHEET 11

MATCHLINE -L- STA. 135+25
SEE SHEET 13

-L-	
PI Sta 124+82.88	PI Sta 135+37.30
$\Delta = 50^{\circ} 33' 06.6''$ (RT)	$\Delta = 1^{\circ} 38' 03.2''$ (LT)
D = 4' 51' 20.1"	D = 0' 08' 35.7"
L = 1,041.11'	L = 1,140.90'
T = 557.18'	T = 570.49'
R = 1,180.00'	R = 40,000.00'
SE = 0.08	SE = NC
V = 50 mph	V = 50 mph

FOR -L- PROFILE SEE SHTS. 23 & 24
FOR -DET- PLAN/PROFILE SEE SHT. 2B-2
FOR WALL 2 PROFILE SEE SHT. W-2

NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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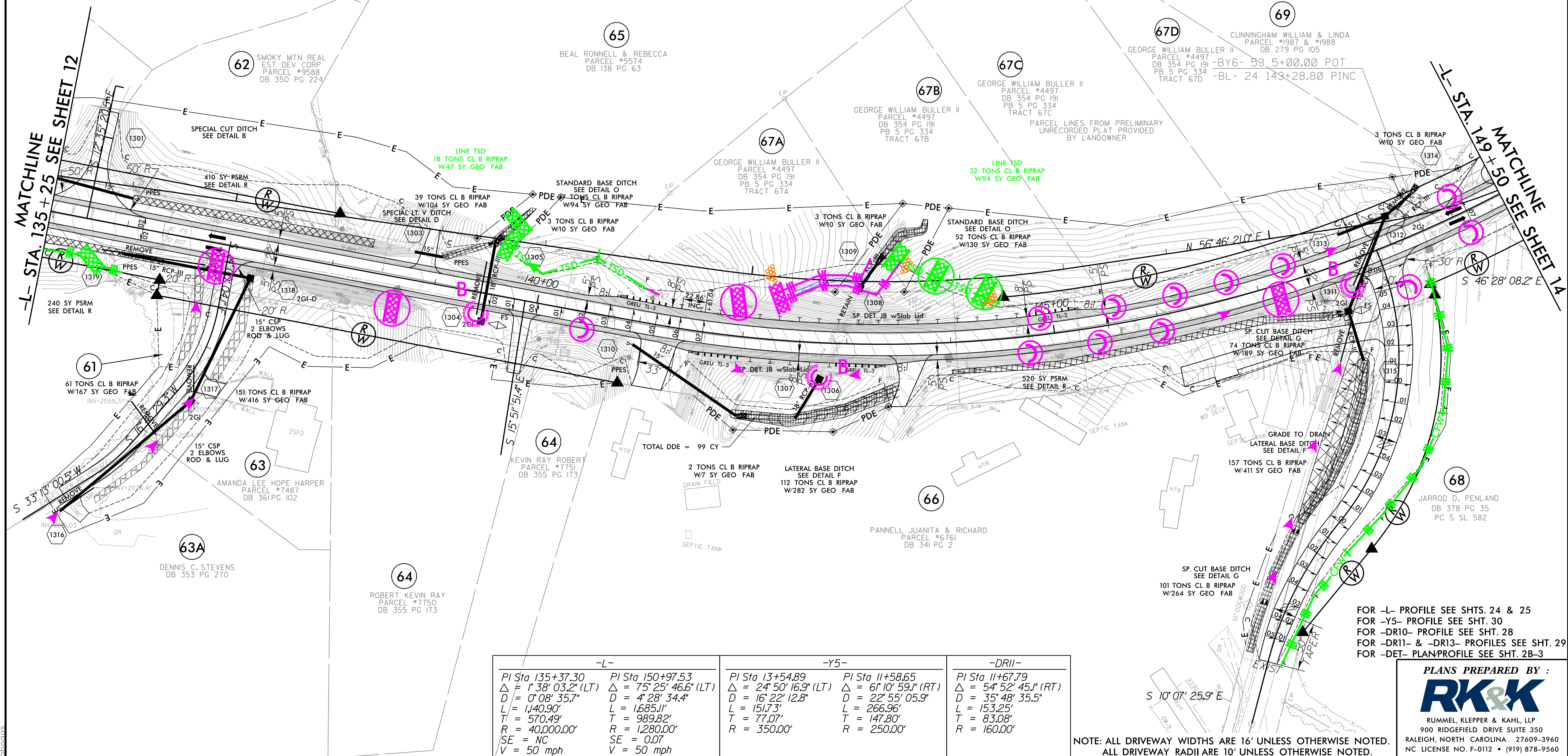
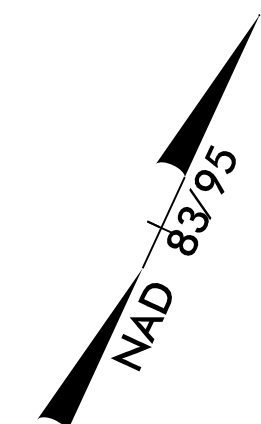
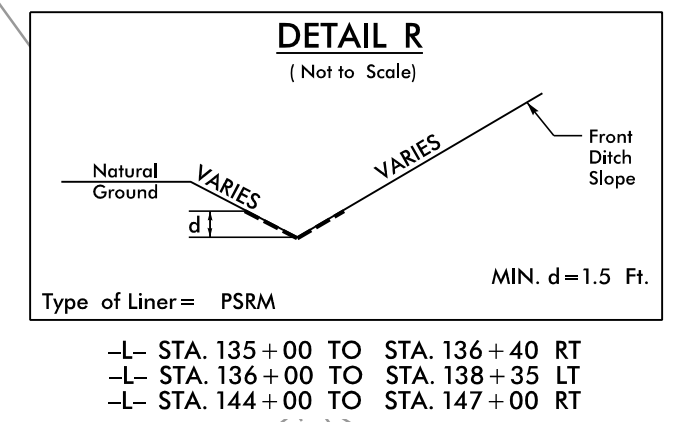
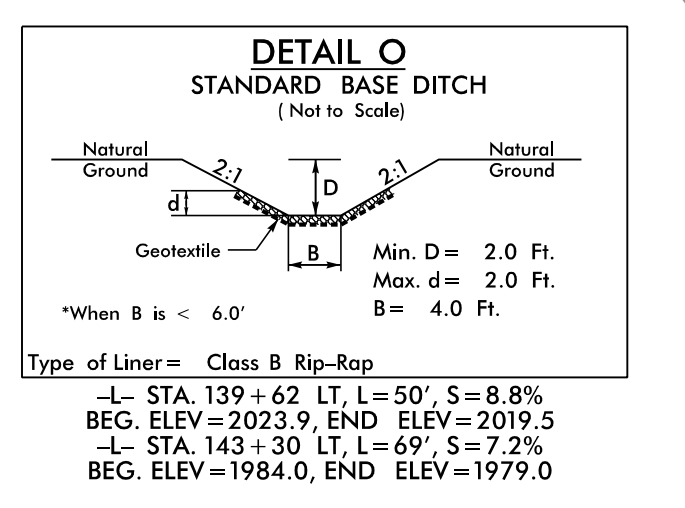
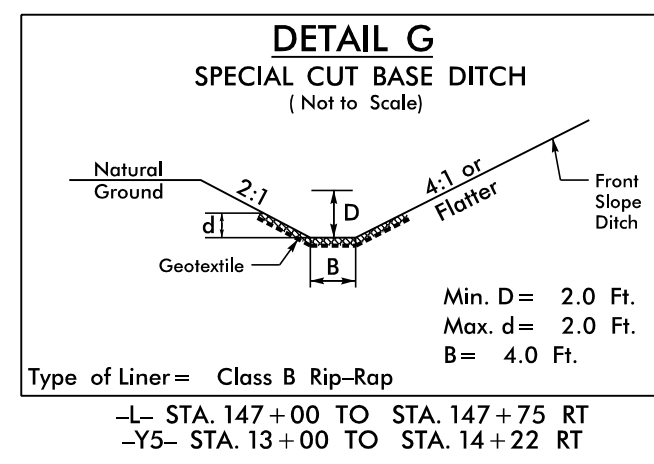
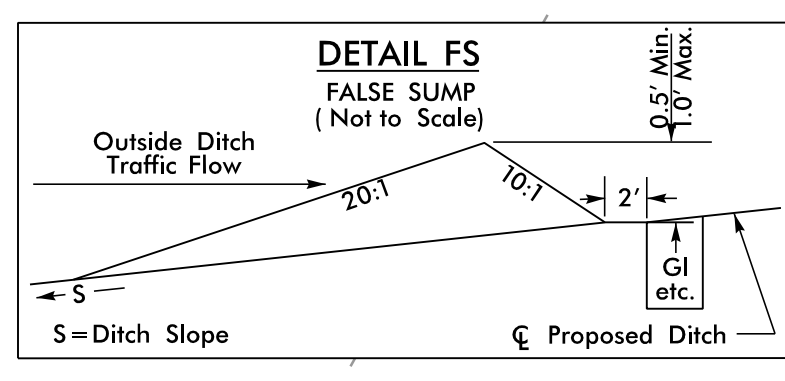
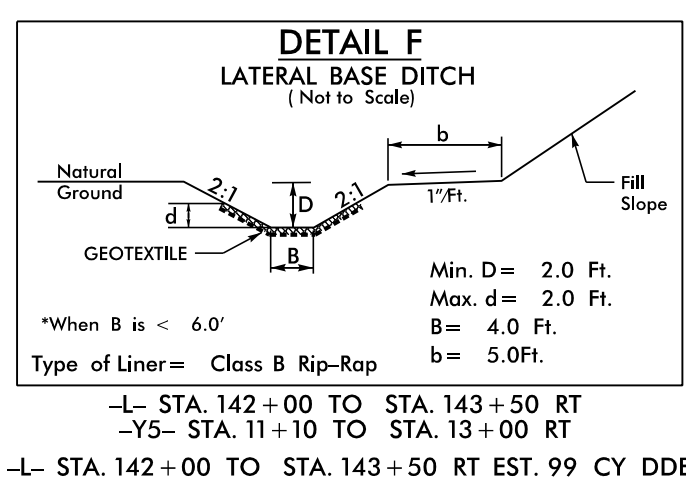
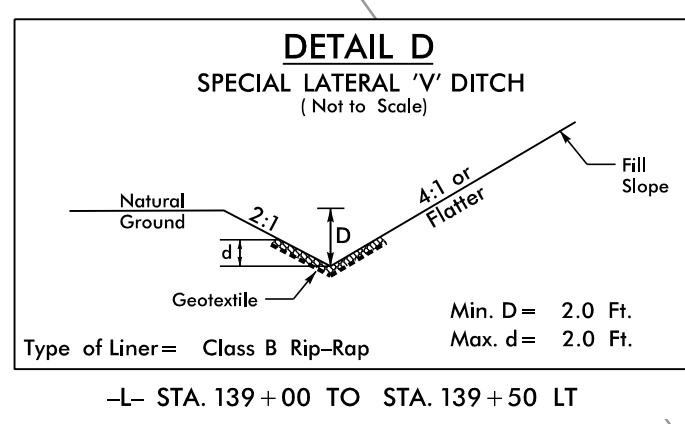
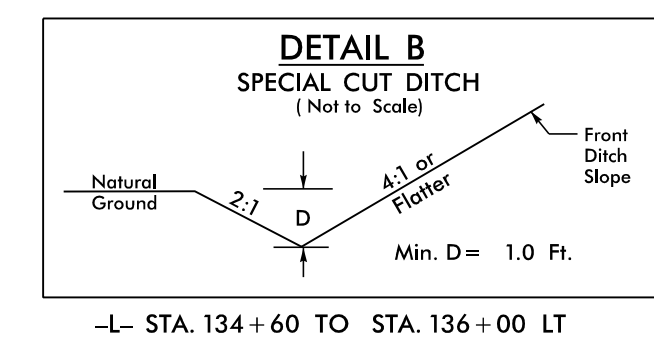
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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-15/CONST.-13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



-L-		-Y5-		-DR11-	
PI Sta 135+37.30	PI Sta 150+97.53	PI Sta 13+54.89	PI Sta 11+58.65	PI Sta 11+67.79	
$\Delta = 1' 38'' 03.2''$ (LT)	$\Delta = 75' 25'' 46.6''$ (LT)	$\Delta = 24' 50'' 16.9''$ (LT)	$\Delta = 61' 10'' 59.1''$ (RT)	$\Delta = 54' 52'' 45.1''$ (RT)	
$D = 0' 08'' 35.7''$	$D = 4' 28'' 34.4''$	$D = 16' 22'' 12.8''$	$D = 22' 55'' 05.9''$	$D = 35' 48'' 35.5''$	
$L = 1,140.90'$	$L = 1,685.11'$	$L = 151.73'$	$L = 266.96'$	$L = 153.25'$	
$T = 570.49'$	$T = 989.82'$	$T = 77.07'$	$T = 147.80'$	$T = 83.08'$	
$R = 40,000.00'$	$R = 1,280.00'$	$R = 350.00'$	$R = 250.00'$	$R = 160.00'$	
SE = NC	SE = 0.07				
V = 50 mph	V = 50 mph				

FOR -L- PROFILE SEE SHTS. 24 & 25
 FOR -Y5- PROFILE SEE SHT. 30
 FOR -DR10- PROFILE SEE SHT. 28
 FOR -DR11- & -DR13- PROFILES SEE SHT. 29
 FOR -DET- PLANPROFILE SEE SHT. 2B-3

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NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
 ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-16/CONST.-14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

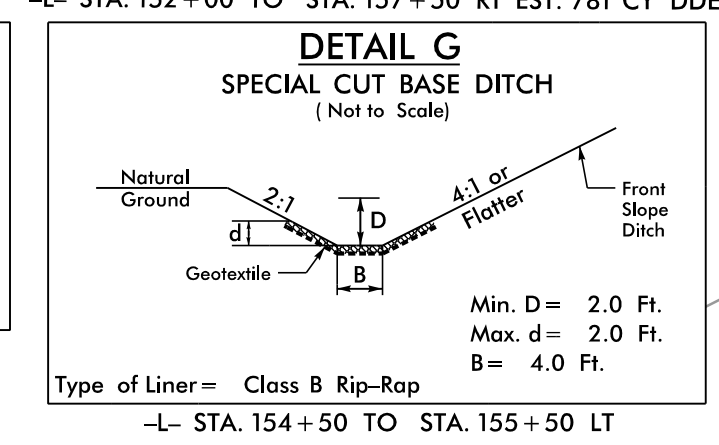
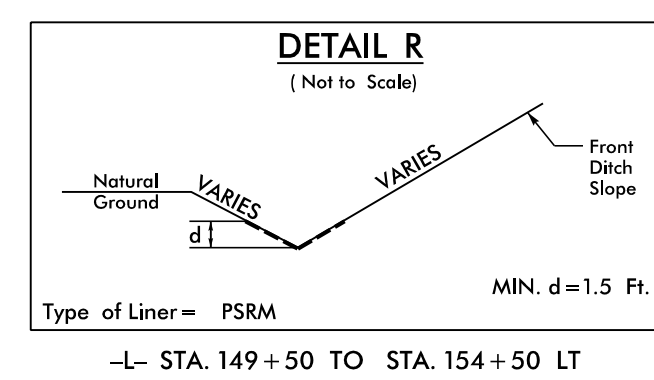
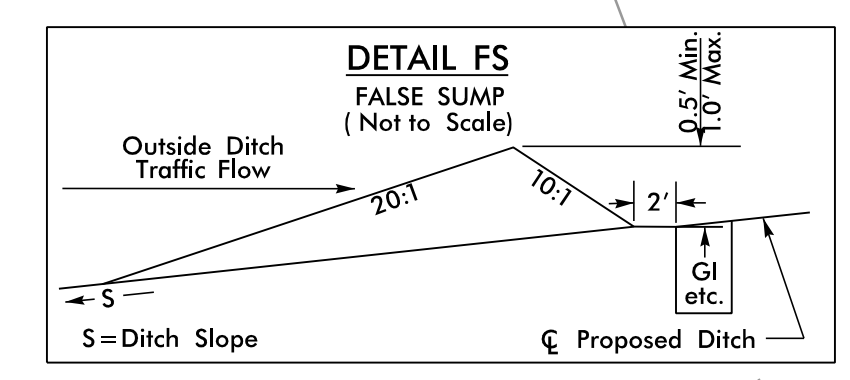
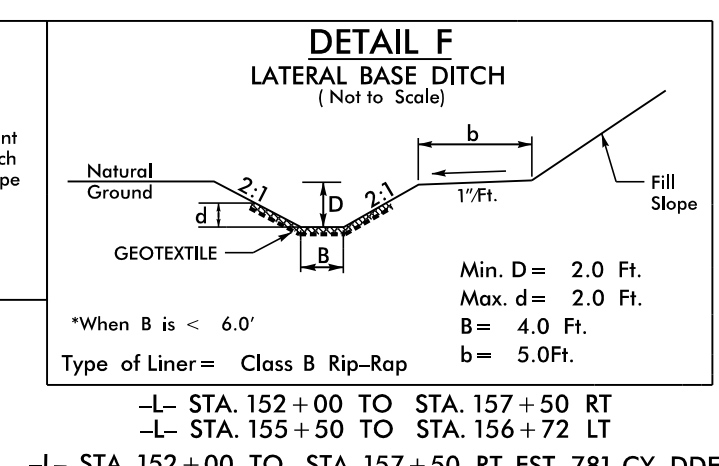
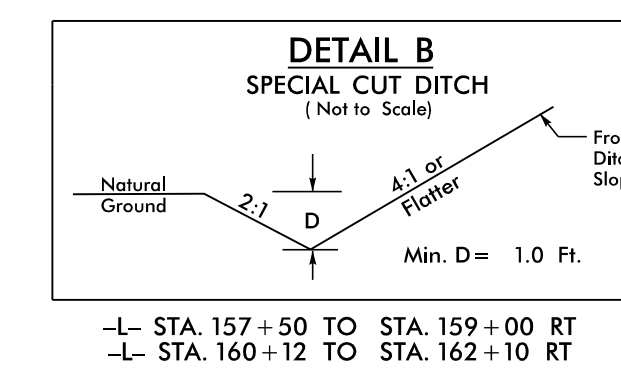
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

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

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

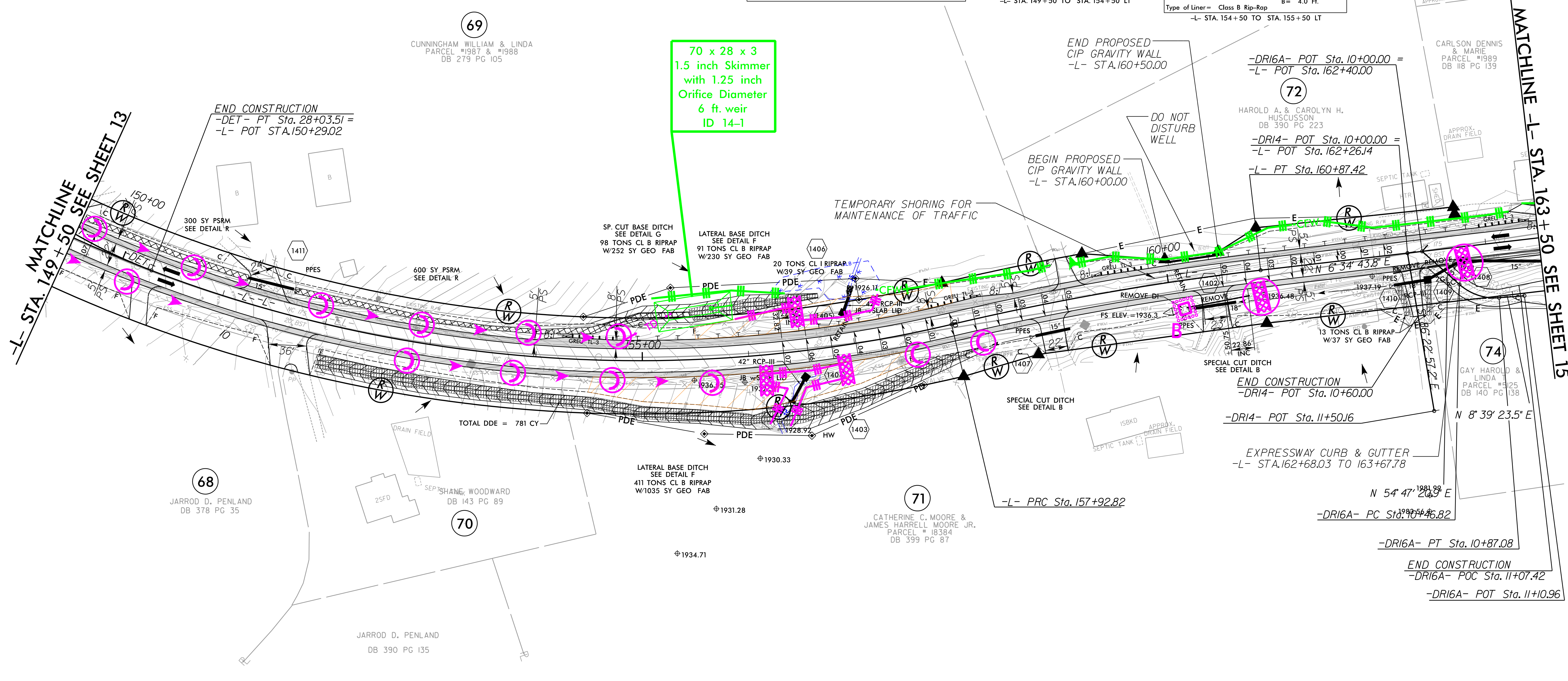
Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

NAD 83/95



-L- STA. 149+50 SEE SHEET 13

MATCHLINE -L- STA. 163+50 SEE SHEET 15



-DR16A-	
PI Sta 10+68.11	$\Delta = 46' 07" 57.4" (LT)$
D = 114' 35" 29.6"	L = 40.26'
T = 21.29'	R = 50.00'

-L-	
PI Sta 150+97.53	$\Delta = 75' 25" 46.6" (LT)$
D = 4' 28" 34.4"	L = 1,685.11'
T = 989.82'	R = 1,280.00'
SE = 0.07	V = 50 mph

-L-	
PI Sta 159+40.29	$\Delta = 6' 35" 36.5" (RT)$
D = 2' 14" 17.2"	L = 294.60'
T = 147.46'	R = 2,560.00'
SE = 0.05	V = 50 mph

FOR LIMITS OF TEMPORARY SHORING, SEE TRAFFIC CONTROL PLANS.
 FOR -L- PROFILE SEE SHT. 25
 FOR -DR14- PROFILE SEE SHT. 29
 FOR -DET- PLAN PROFILE SEE SHT. 2B-3
 FOR WALL 3 PROFILE SEE SHT. W-2

NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
 ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

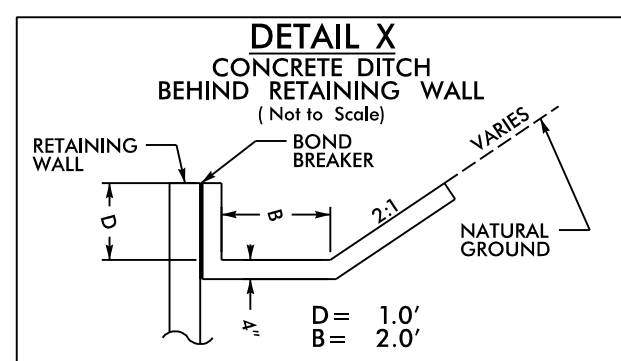
PLANS PREPARED BY :

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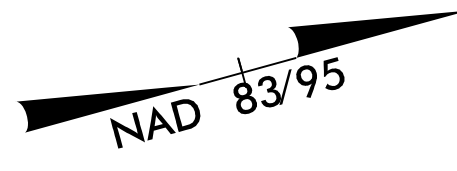
PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-17/CONST.-15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

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



-L- STA. 164+00 TO STA. 165+90 RT
-L- STA. 168+30 TO STA. 170+80 RT



-L-		-DR16-	
PI Sta 169+39.08	PI Sta 177+07.00	PI Sta 10+69.94	
$\Delta = 19' 17" 00.6" (RT)$	$\Delta = 22' 12" 59.2" (LT)$	$\Delta = 54' 49" 26.8" (LT)$	
$D = 4' 35" 01.2"$	$D = 6' 44" 26.4"$	$D = 143' 14" 22.0"$	
$L = 420.70'$	$L = 329.59'$	$L = 38.27'$	
$T = 212.36'$	$T = 166.89'$	$T = 20.74'$	
$R = 1,250.00'$	$R = 850.00'$	$R = 40.00'$	
$SE = 0.07$			
$V = 50 \text{ mph}$			

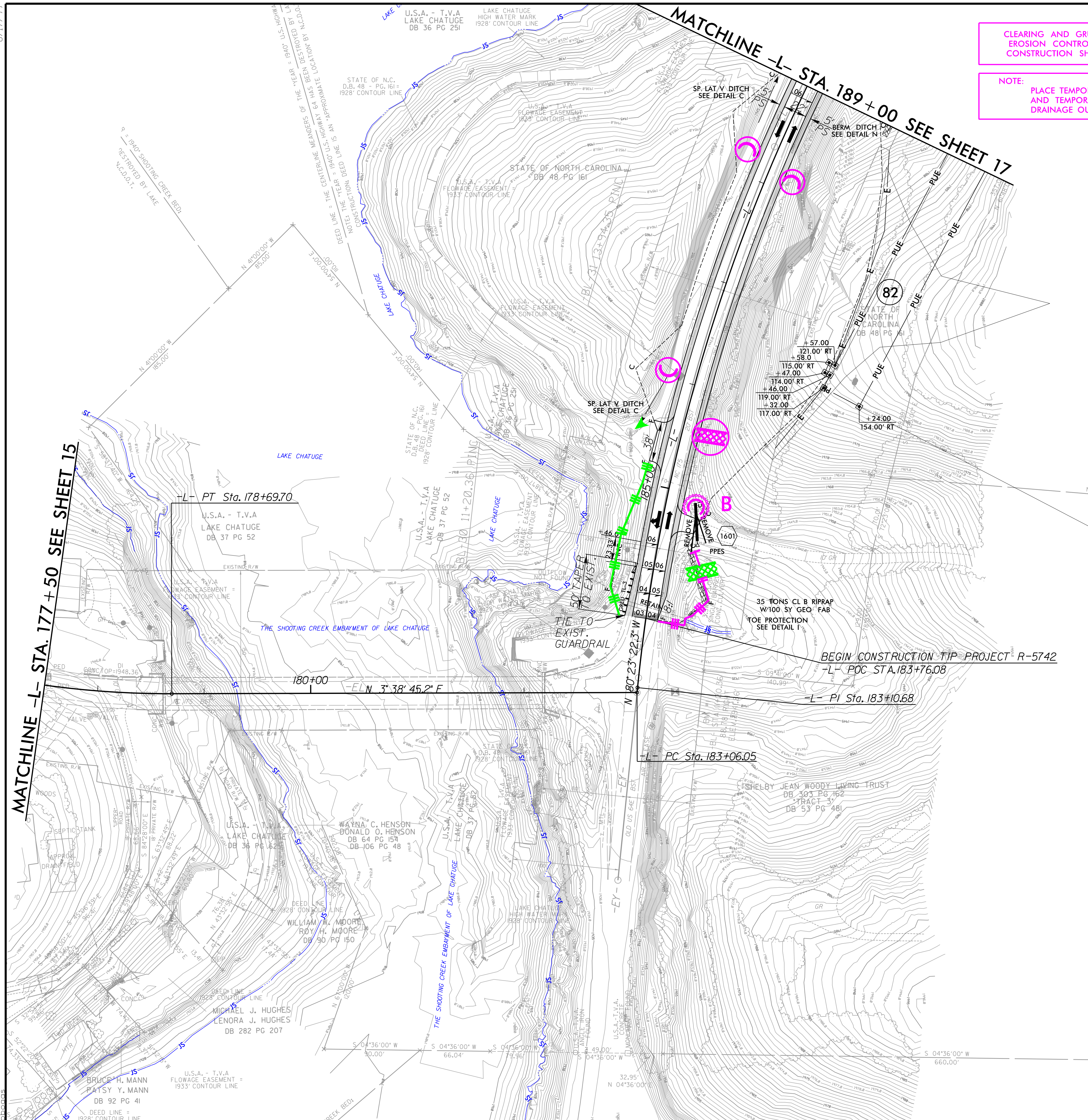
FOR -L- PROFILE SEE SHTS. 25 & 26
FOR -DR16- & -DR20- PROFILES SEE SHT. 29
FOR WALLS 4&5 PROFILES SEE SHT. W-3
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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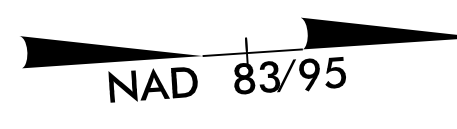
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8/17/99
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12/21/2018



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

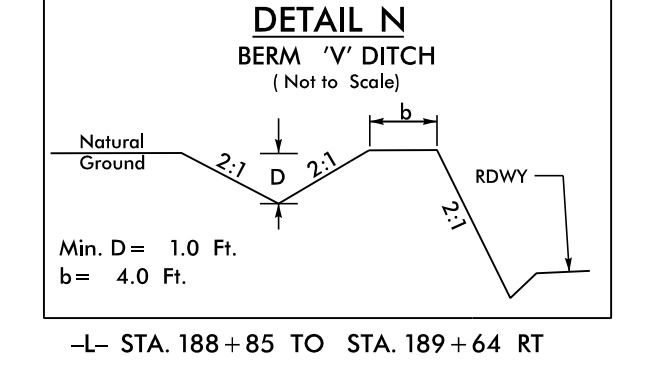
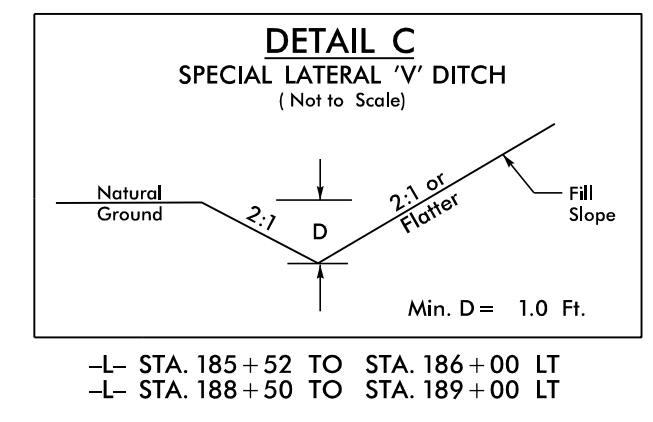
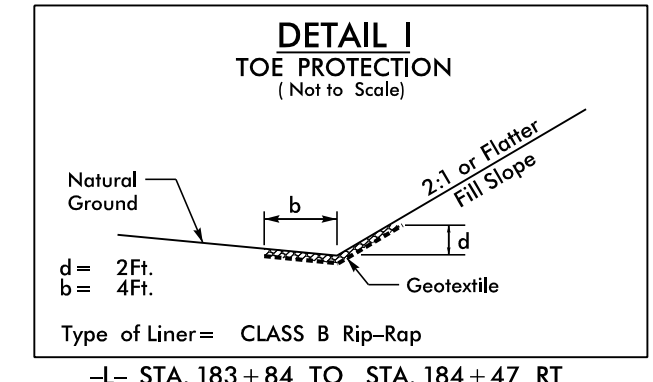
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



PROJECT REFERENCE NO. <i>R-5742</i>	SHEET NO. <i>EC-18/CONST.-16</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -L- STA. 177 + 50 SEE SHEET 15

MATCHLINE -L- STA. 189 + 00 SEE SHEET 17



-L-

PI Sta 177+07.00 $\Delta = 22' 12'' 59.2''$ (LT) $D = 6' 4'' 26.4''$ $L = 329.59'$ $T = 166.89'$ $R = 850.00'$ $SE = 0.08$ $V = 50$ mph	PI Sta 192+07.18 $\Delta = 55' 36'' 35.8''$ (RT) $D = 3' 22'' 13.2''$ $L = 1,649.98'$ $T = 896.50'$ $R = 1,700.00'$ $SE = 0.06$ $V = 50$ mph
--	---

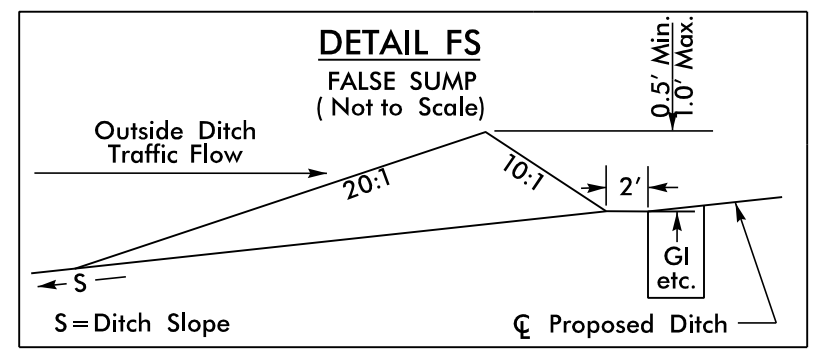
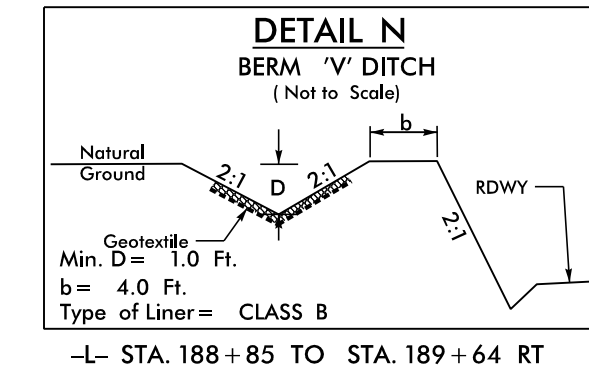
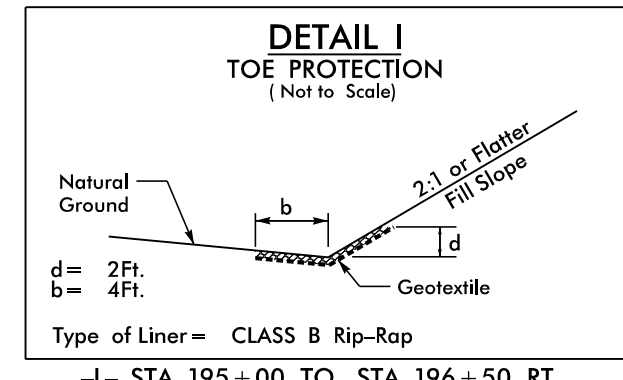
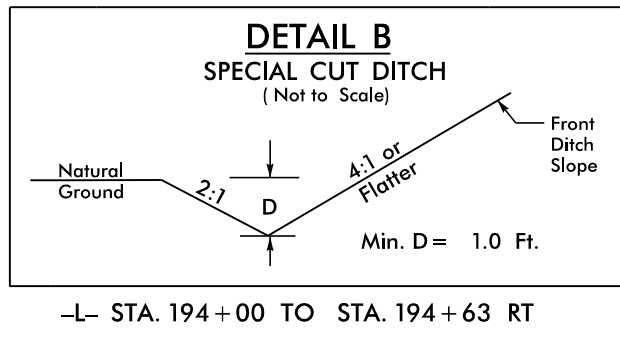
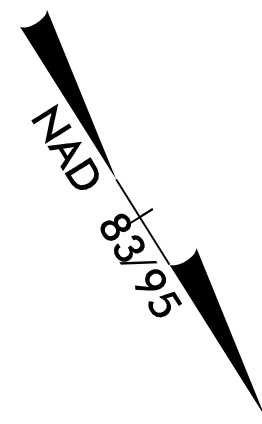
FOR -L- PROFILE SEE SHTS. 25 & 26
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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RK&K

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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-19/CONST.-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



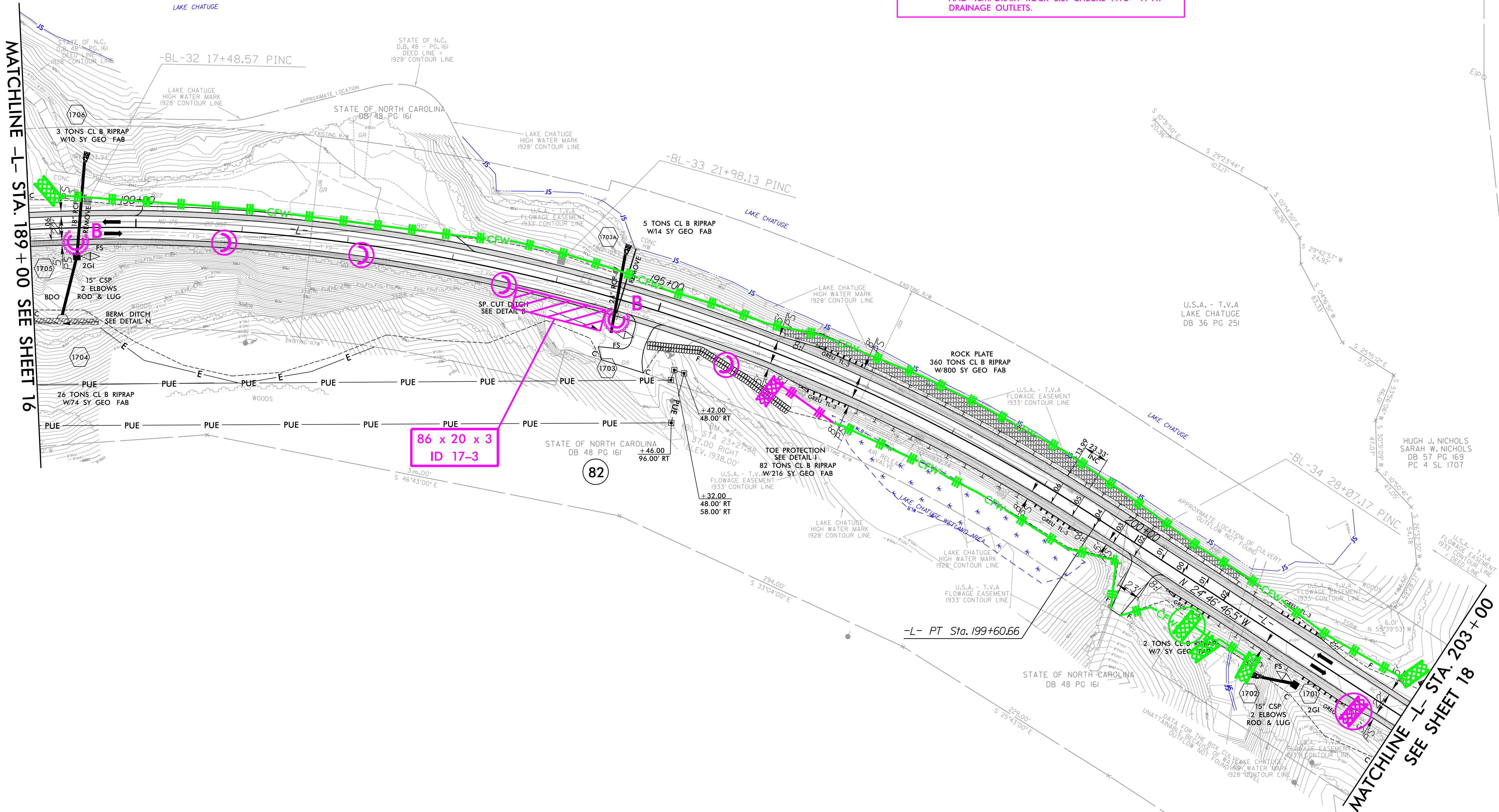
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17

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

TELEPHONE
FRONTIER COMMUNICATIONS
765 CHURCH STREET
MURPHY, N.C. 28906
828-837-5800

SEWER
CLAY COUNTY WATER & SEWER
33 MAIN ST.
HAYESVILLE, N.C.
828-389-1361

U.S.A. - T.V.A
LAKE CHATUGE
DB 36 PG 251



MATCHLINE -L- STA. 189+00 SEE SHEET 16

MATCHLINE -L- STA. 203+00
SEE SHEET 18

-L-

PI Sta 192+07.18
$\Delta = 55^{\circ} 36' 35.8''$ (RT)
$D = 3^{\circ} 22' 13.2''$
$L = 1,649.98'$
$T = 896.50'$
$R = 1,700.00'$
$SE = 0.06$
$V = 50$ mph

FOR -L- PROFILE SEE SHT. 26
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

PLANS PREPARED BY :

RK&K

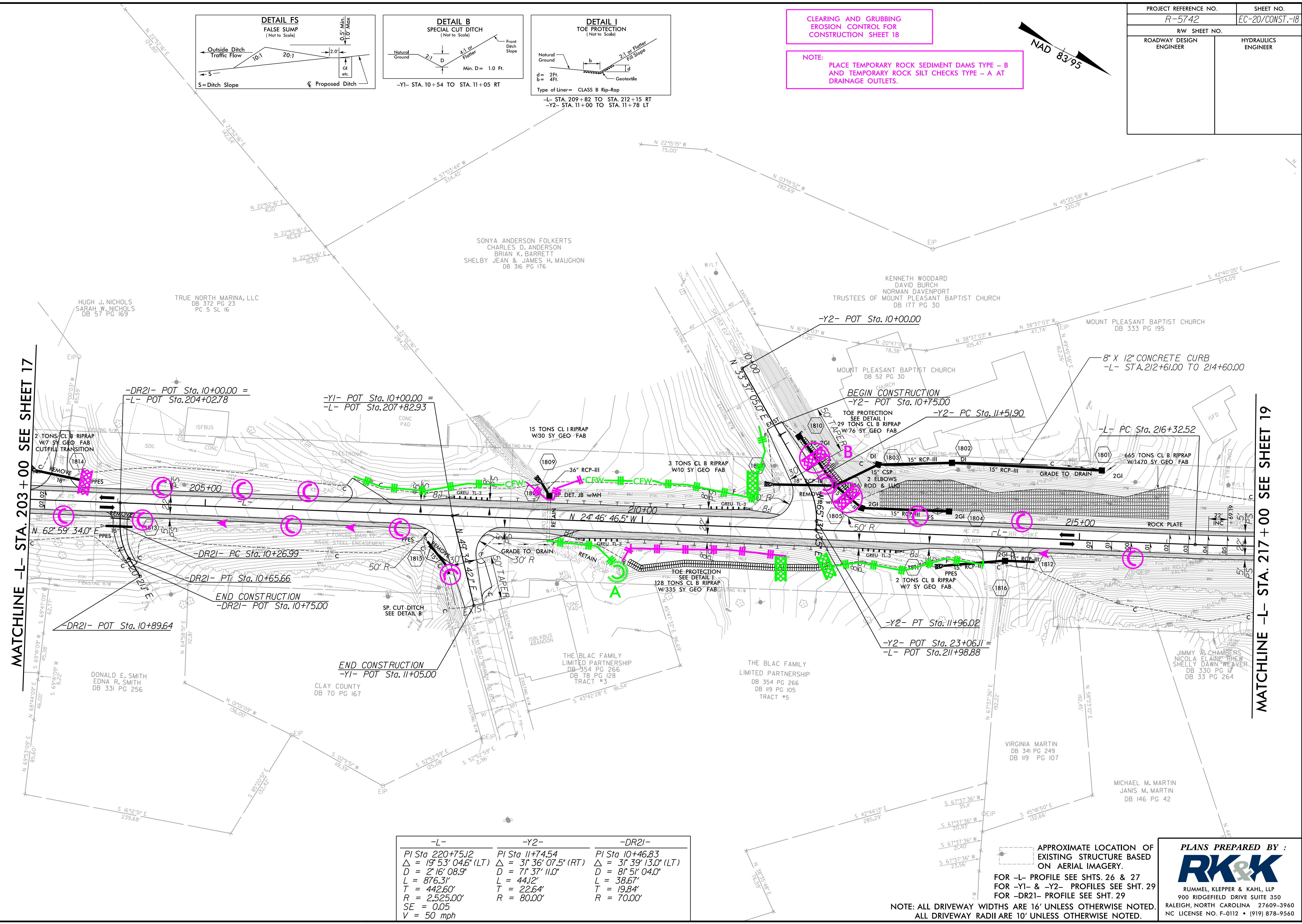
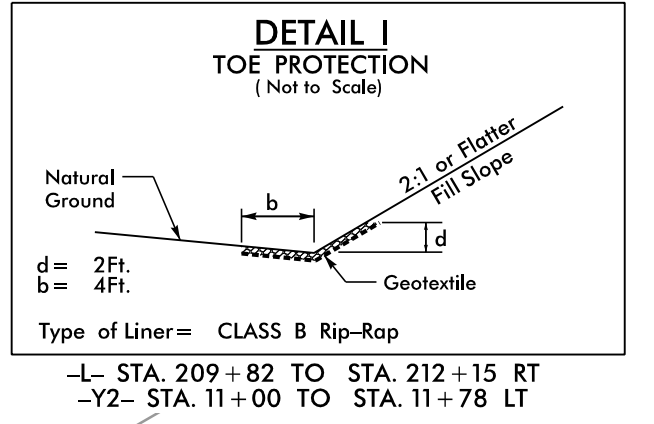
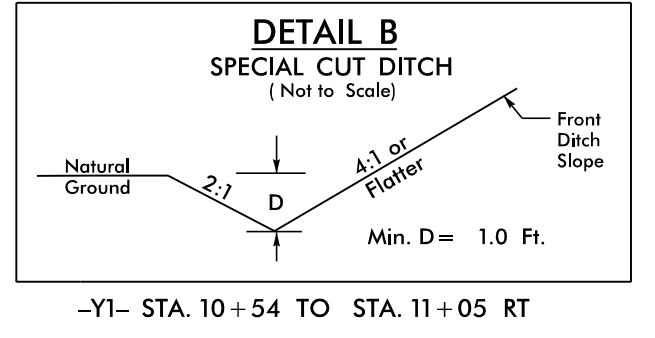
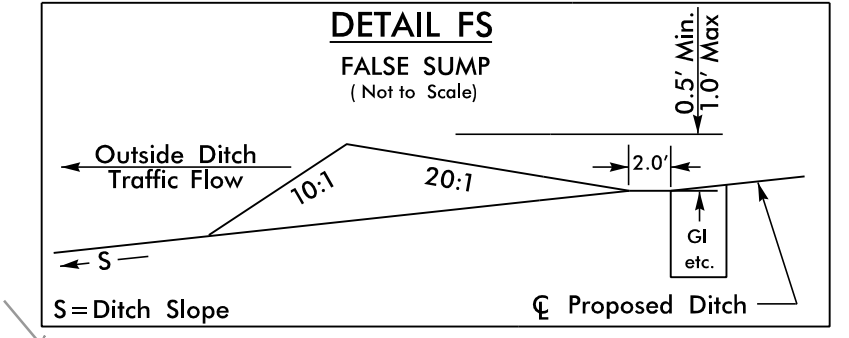
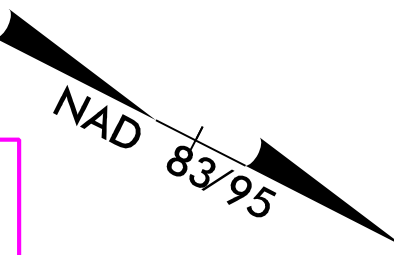
RUMMEL, KLEPPER & KAHL, LLP
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RALEIGH, NORTH CAROLINA 27609-3960
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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-20/CONST.-18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18

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



MATCHLINE -L- STA. 203 + 00 SEE SHEET 17

MATCHLINE -L- STA. 217 + 00 SEE SHEET 19

-L-	-Y2-	-DR21-
PI Sta 220+75.12	PI Sta 11+74.54	PI Sta 10+46.83
$\Delta = 19^{\circ} 53' 04.6''$ (LT)	$\Delta = 31^{\circ} 36' 07.5''$ (RT)	$\Delta = 31^{\circ} 39' 13.0''$ (LT)
D = 2' 16' 08.9"	D = 7' 37' 11.0"	D = 8' 51' 04.0"
L = 876.31'	L = 44.2'	L = 38.67'
T = 442.60'	T = 22.64'	T = 19.84'
R = 2,525.00'	R = 80.00'	R = 70.00'
SE = 0.05		
V = 50 mph		

APPROXIMATE LOCATION OF
EXISTING STRUCTURE BASED
ON AERIAL IMAGERY.

FOR -L- PROFILE SEE SHTS. 26 & 27
FOR -Y1- & -Y2- PROFILES SEE SHT. 29
FOR -DR21- PROFILE SEE SHT. 29

NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

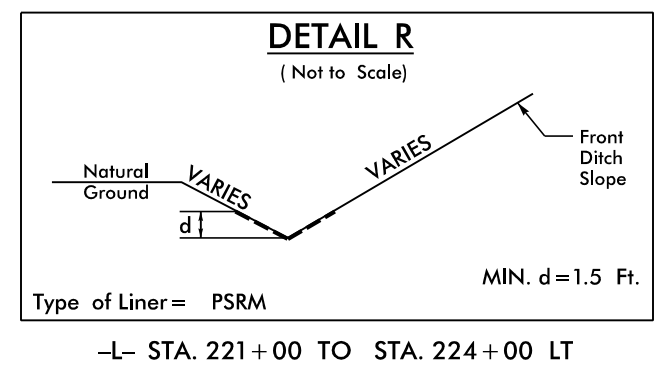
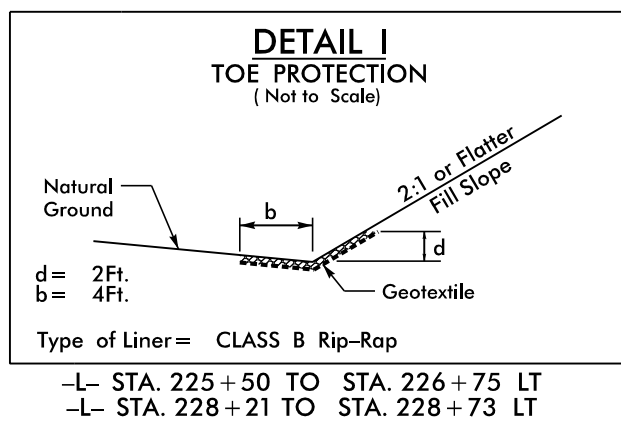
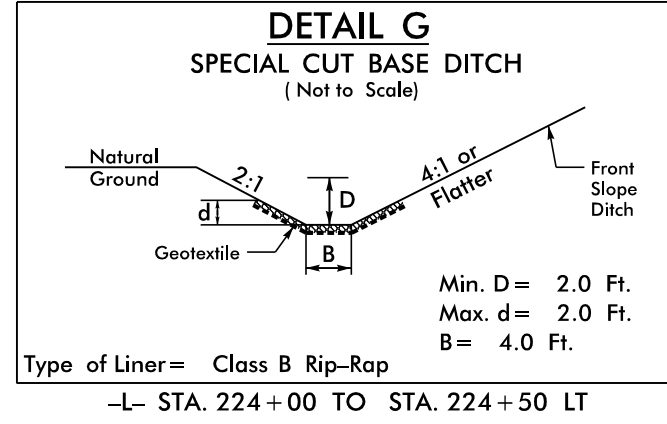
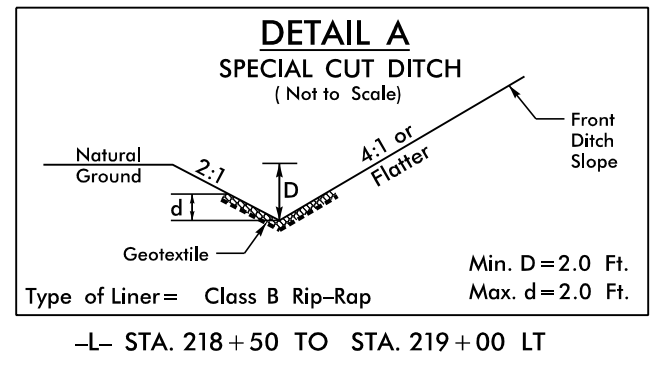
PLANS PREPARED BY :

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12/21/2018

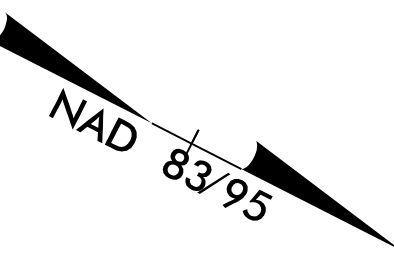
8/17/99
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12/21/2018

MATCHLINE -L- STA. 217+00 SEE SHEET 18

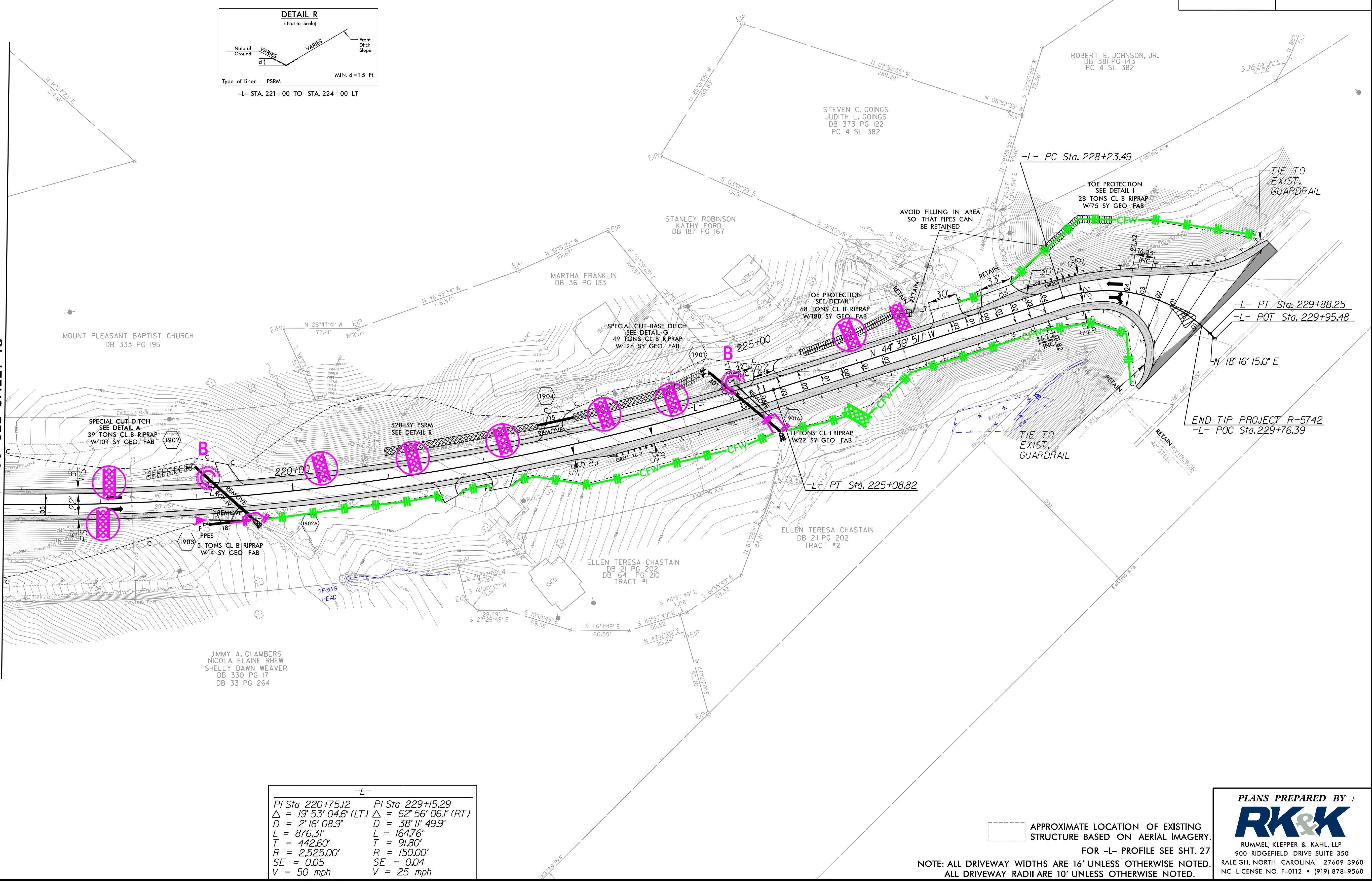


CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19

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



PROJECT REFERENCE NO. R-5742	SHEET NO. EC-21/CONST.-19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-	
PI Sta 220+75.12	PI Sta 229+15.29
$\Delta = 19^{\circ} 53' 04.6''$ (LT)	$\Delta = 62^{\circ} 56' 06.1''$ (RT)
$D = 2' 16' 08.9''$	$D = 38' 11' 49.9''$
$L = 876.31'$	$L = 164.76'$
$T = 442.60'$	$T = 91.80'$
$R = 2525.00'$	$R = 150.00'$
$SE = 0.05$	$SE = 0.04$
$V = 50$ mph	$V = 25$ mph

APPROXIMATE LOCATION OF EXISTING
STRUCTURE BASED ON AERIAL IMAGERY.
FOR -L- PROFILE SEE SHT. 27

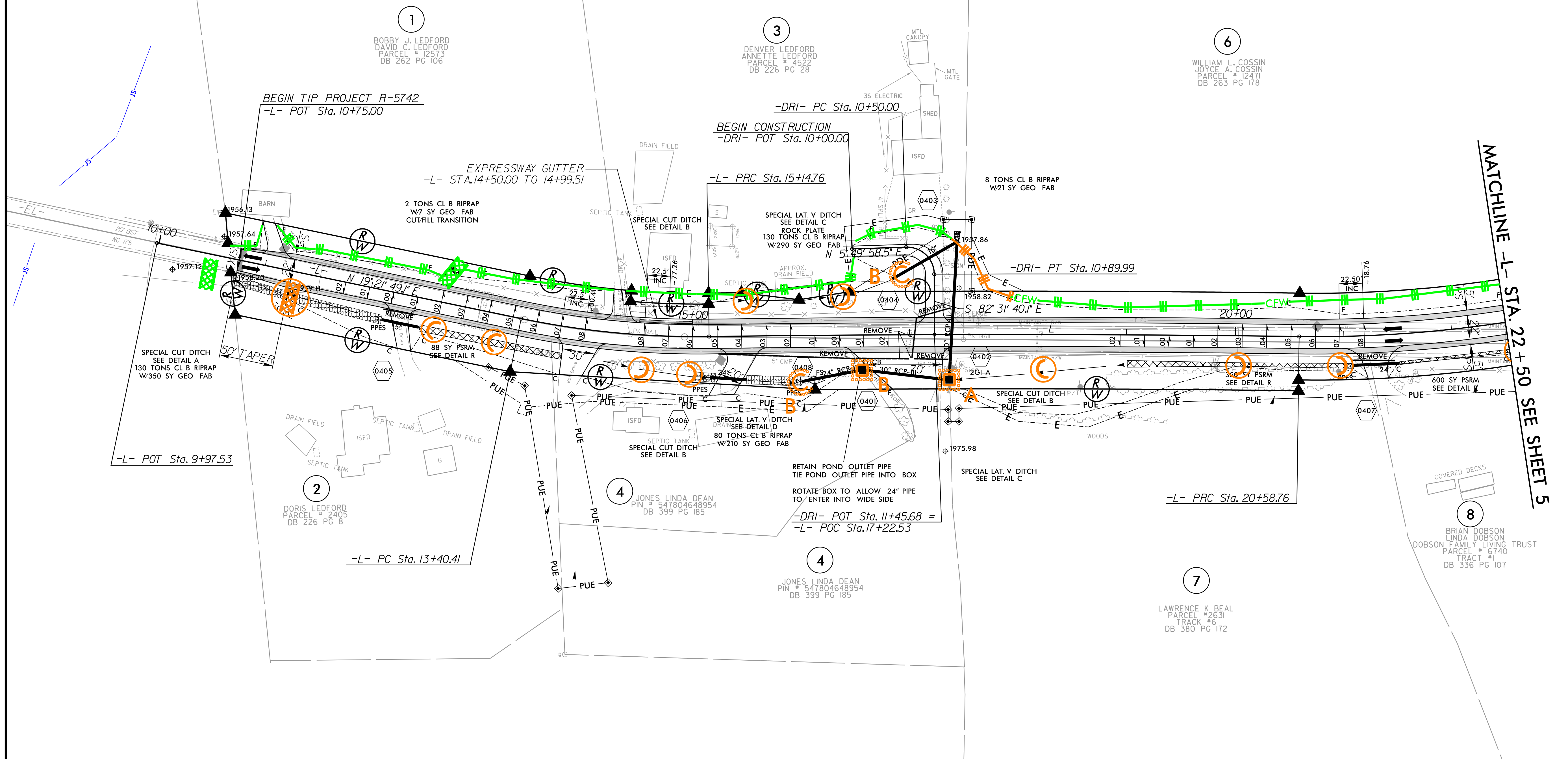
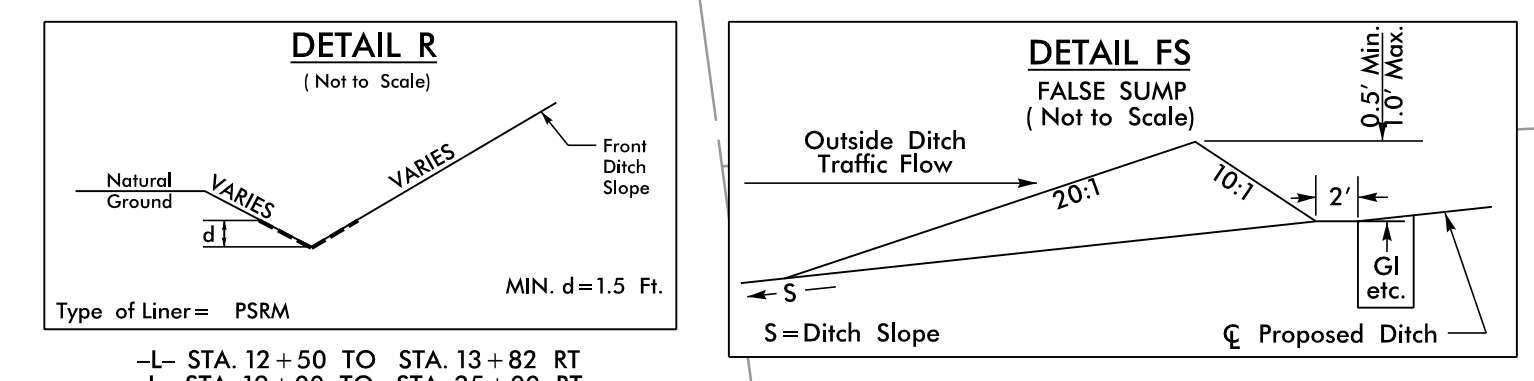
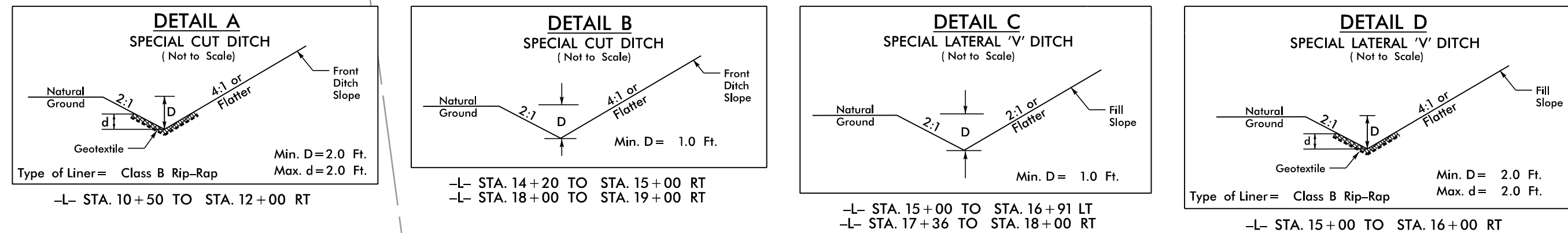
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-24/CONST.-04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95



-L-			-DRI-		
PI Sta 14+27.93	PI Sta 17+86.78	PI Sta 24+58.07	PI Sta 10+75.73		
$\Delta = 12^{\circ} 29' 12.0''$ (LT)	$\Delta = 1^{\circ} 33' 30.5''$ (RT)	$\Delta = 38^{\circ} 08' 32.2''$ (LT)	$\Delta = 9^{\circ} 38' 21.4''$ (RT)		
D = 7' 09" 43.1"	D = 0' 17" 11.3"	D = 4' 57" 38.4"	D = 229' 10" 59.2"		
L = 174.35'	L = 544.01'	L = 768.89'	L = 39.99'		
T = 87.52'	T = 272.02'	T = 399.30'	T = 25.73'		
R = 800.00'	R = 20,000.00'	R = 1,170.00'	R = 25.00'		
SE = 0.08	SE = NC	SE = 0.08			
V = 50 mph	V = 50 mph	V = 50 mph			

FOR -L- PROFILE SEE SHT. 20
FOR -DRI- PROFILE SEE SHT. 28
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

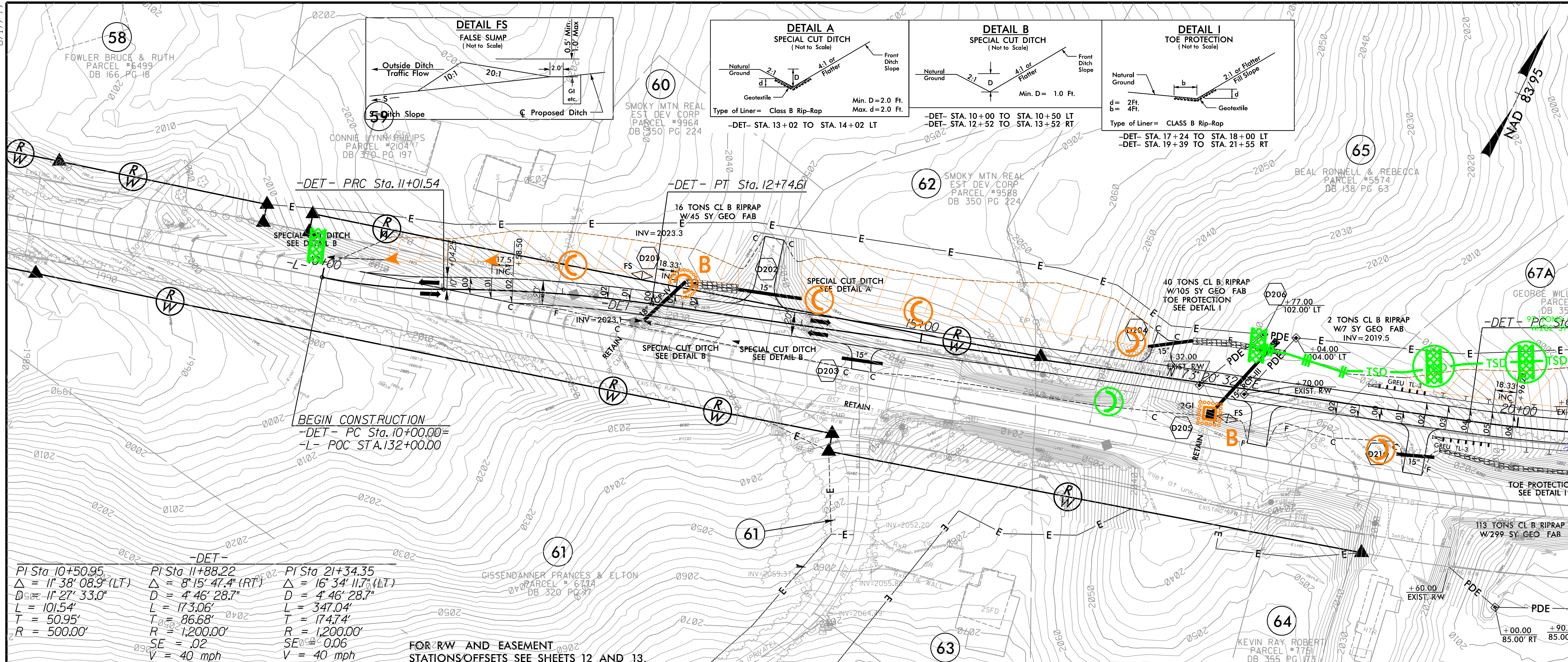
PLANS PREPARED BY :

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12/21/2018

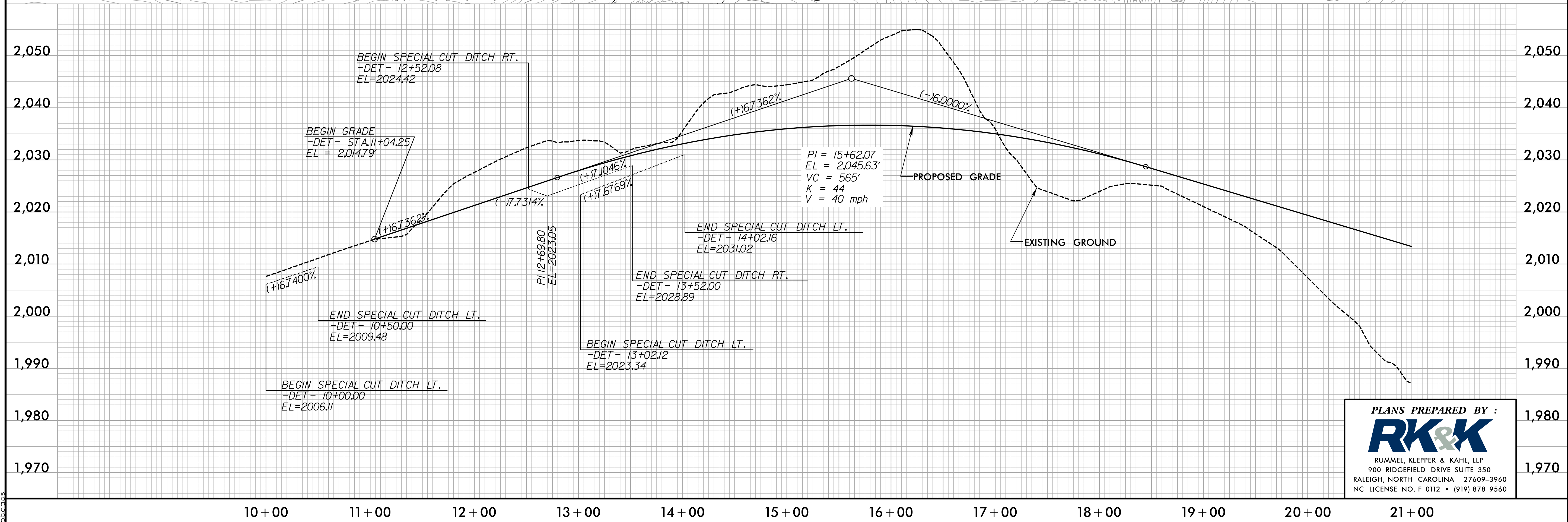
PROJECT REFERENCE NO. R-5742	SHEET NO. EC-22/CON.-2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: ALL DRIVES ARE 16' WIDE WITH 10' RADIUS UNLESS OTHERWISE NOTED.



FOR RW AND EASEMENT STATIONS/OFFSETS SEE SHEETS 12 AND 13.

Station	Delta	D	L	T	R	SE	V
PI Sta 10+50.95	$\Delta = 11' 38'' 08.9''$ (LT)	$D = 11' 27'' 33.0''$	$L = 101.54'$	$T = 50.95'$	$R = 500.00'$	$SE = .02$	$V = 40$ mph
PI Sta 11+88.22	$\Delta = 8' 15'' 47.4''$ (RT)	$D = 4' 46'' 28.7''$	$L = 173.06'$	$T = 86.68'$	$R = 1,200.00'$	$SE = .02$	$V = 40$ mph
PI Sta 21+34.35	$\Delta = 16' 34'' 11.7''$ (LT)	$D = 4' 46'' 28.7''$	$L = 347.04'$	$T = 174.74'$	$R = 1,200.00'$	$SE = .006$	$V = 40$ mph

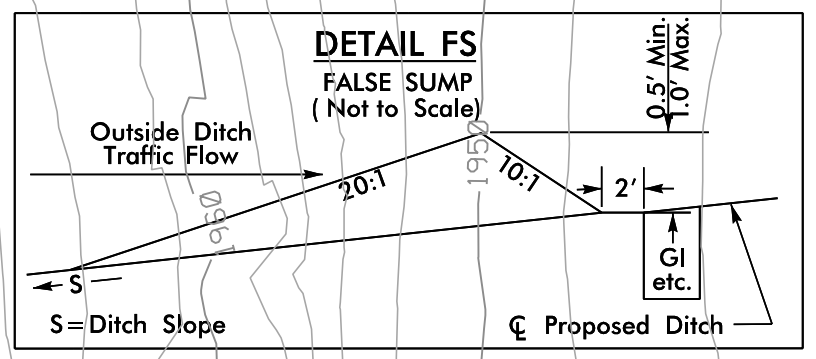
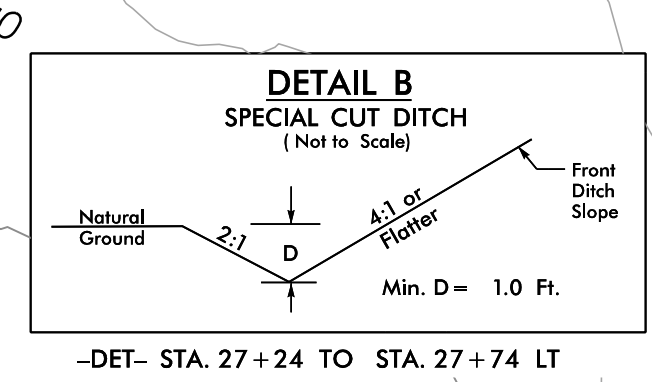
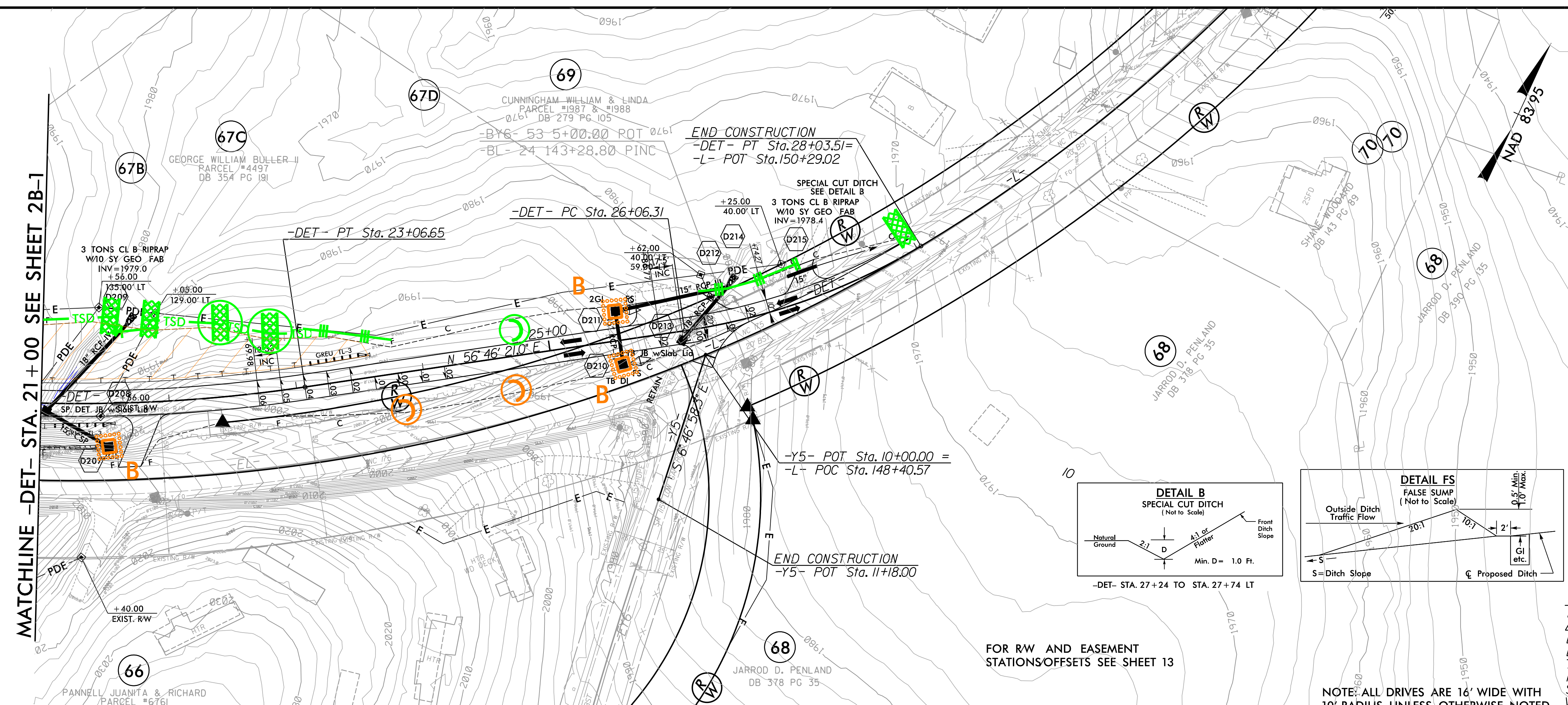


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 12/21/2018

PROJECT REFERENCE NO. R-5742	SHEET NO. EC-23/CON.-2B-2
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

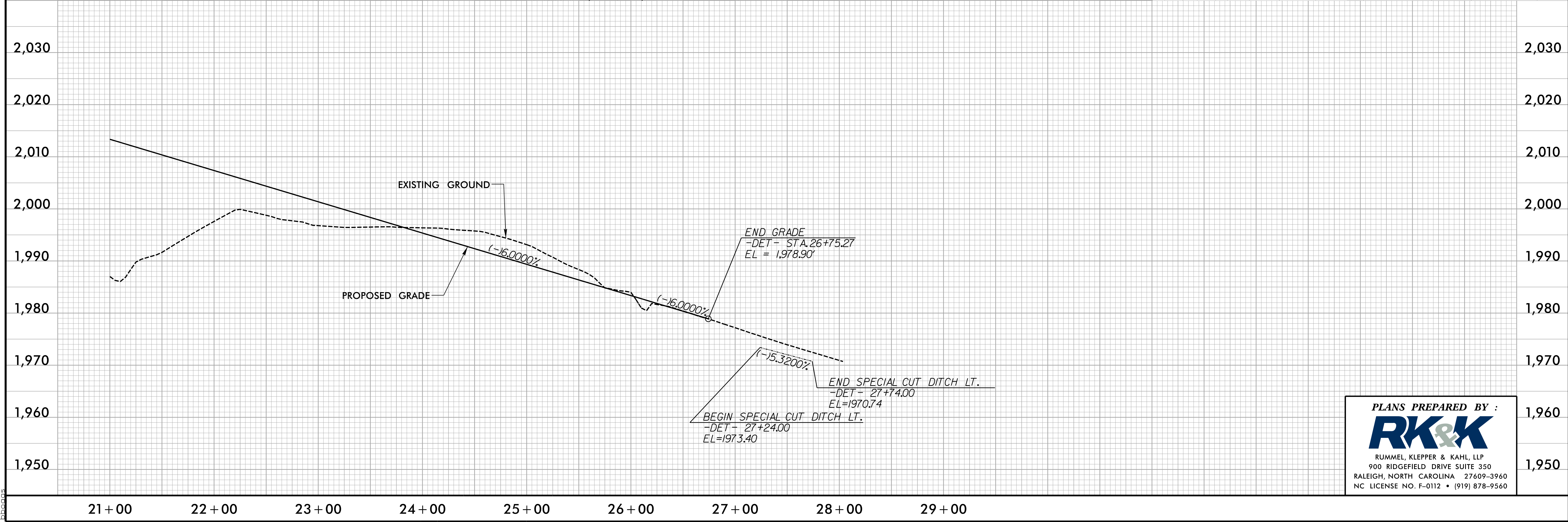


-DET-

PI Sta 21+34.35	PI Sta 27+06.21
$\Delta = 16' 34' 11.7''$ (LT)	$\Delta = 22' 35' 51.5''$ (LT)
$D = 4' 46' 28.7''$	$D = 11' 27' 33.0''$
$L = 347.04'$	$L = 197.20'$
$T = 174.74'$	$T = 99.90'$
$R = 1,200.00'$	$R = 500.00'$
$SE = 0.06$	
$V = 40$ mph	

FOR RW AND EASEMENT STATIONS/OFFSETS SEE SHEET 13

NOTE: ALL DRIVES ARE 16' WIDE WITH 10' RADIUS UNLESS OTHERWISE NOTED.

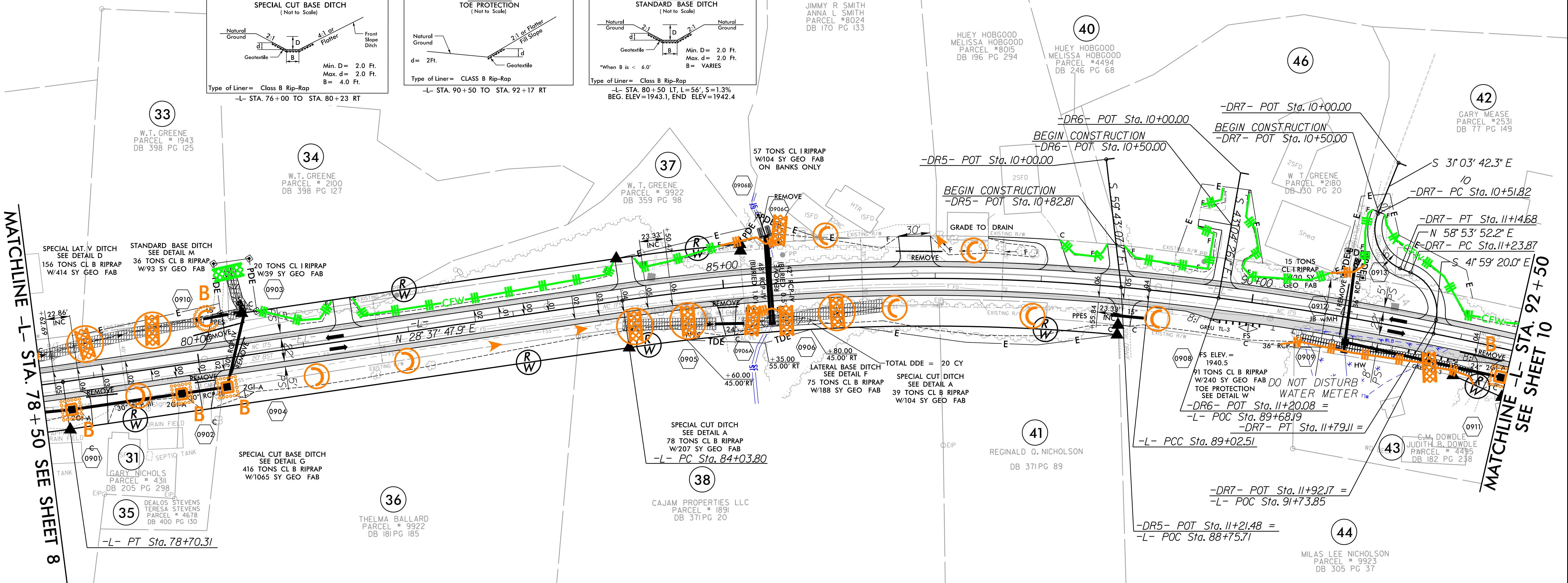
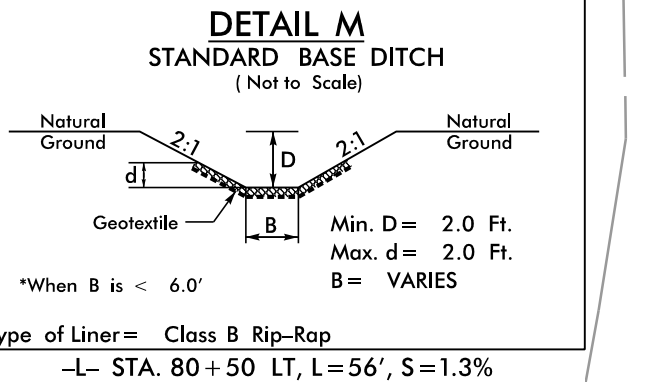
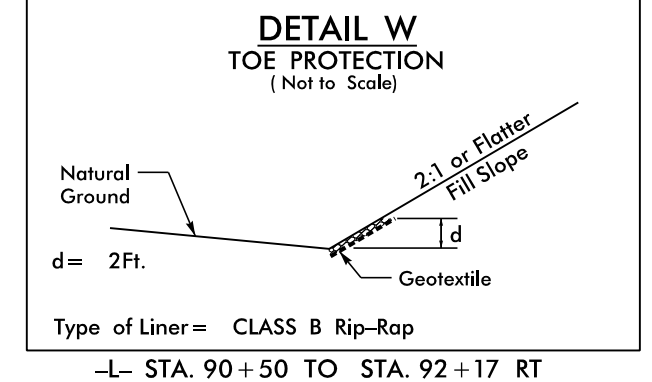
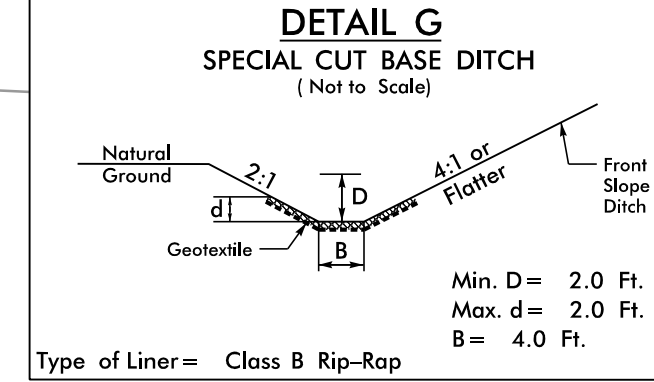
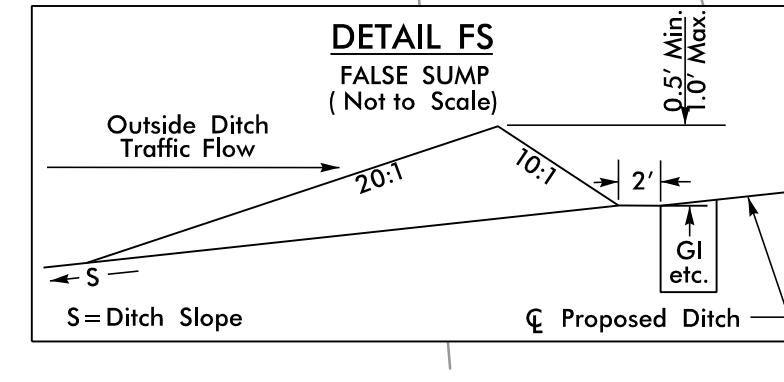
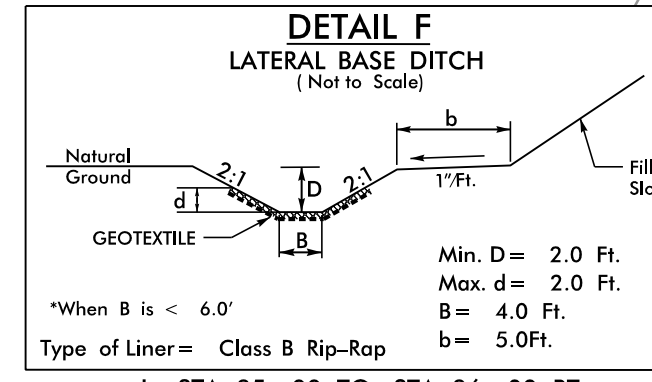
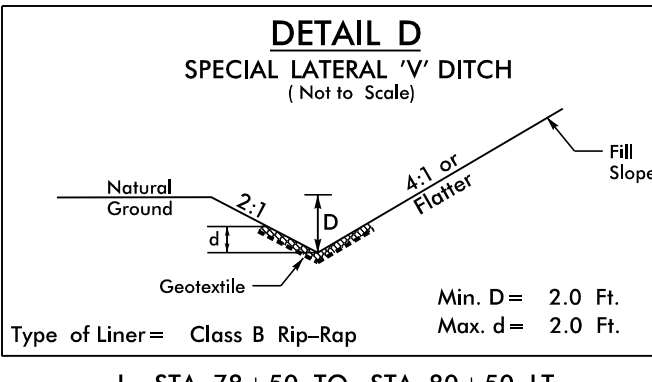
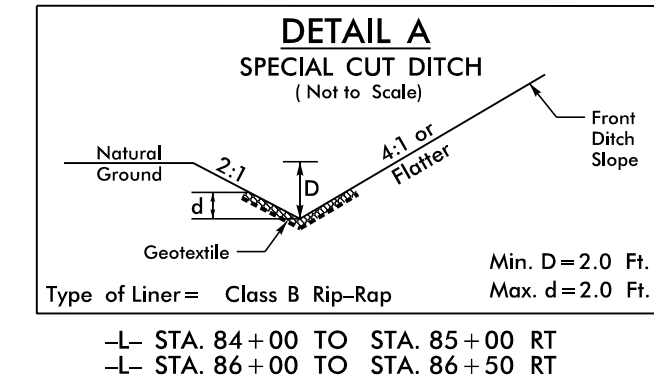
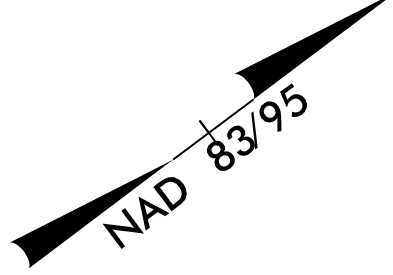


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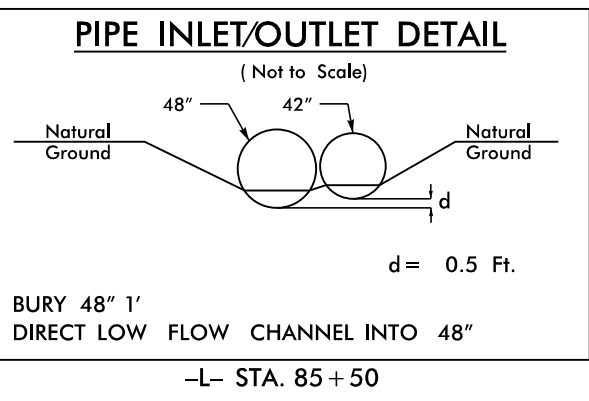
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Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.



MATCHLINE -L- STA. 78+50 SEE SHEET 8

MATCHLINE -L- STA. 92+50 SEE SHEET 10



-L-			-DR7-		
PI Sta 76+55.30	PI Sta 86+54.46	PI Sta 92+7.44	PI Sta 10+90.54	PI Sta 11+56.91	
$\Delta = 20' 45" 42.0" (LT)$	$\Delta = 14' 17" 13.4" (RT)$	$\Delta = 12' 36" 41.3" (RT)$	$\Delta = 89' 12" 35.1" (LT)$	$\Delta = 79' 06" 47.8" (RT)$	
$D = 4' 46" 28.7"$	$D = 2' 51" 53.2"$	$D = 2' 00" 37.4"$	$D = 143' 14" 22.0"$	$D = 143' 14" 22.0"$	
$L = 434.83'$	$L = 498.71'$	$L = 627.32'$	$L = 62.28'$	$L = 55.23'$	
$T = 219.83'$	$T = 250.66'$	$T = 314.93'$	$T = 39.45'$	$T = 33.04'$	
$R = 1,200.00'$	$R = 2,850.00'$	$R = 2,850.00'$	$R = 40.00'$	$R = 40.00'$	
$SE = 0.07$	$SE = 0.06$	$SE = 0.04$			
$V = 50 \text{ mph}$	$V = 50 \text{ mph}$	$V = 50 \text{ mph}$			

FOR -L- PROFILE SEE SHT. 22
 FOR -DR5-, -DR6- & -DR7- PROFILES SEE SHT. 28
 NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
 ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

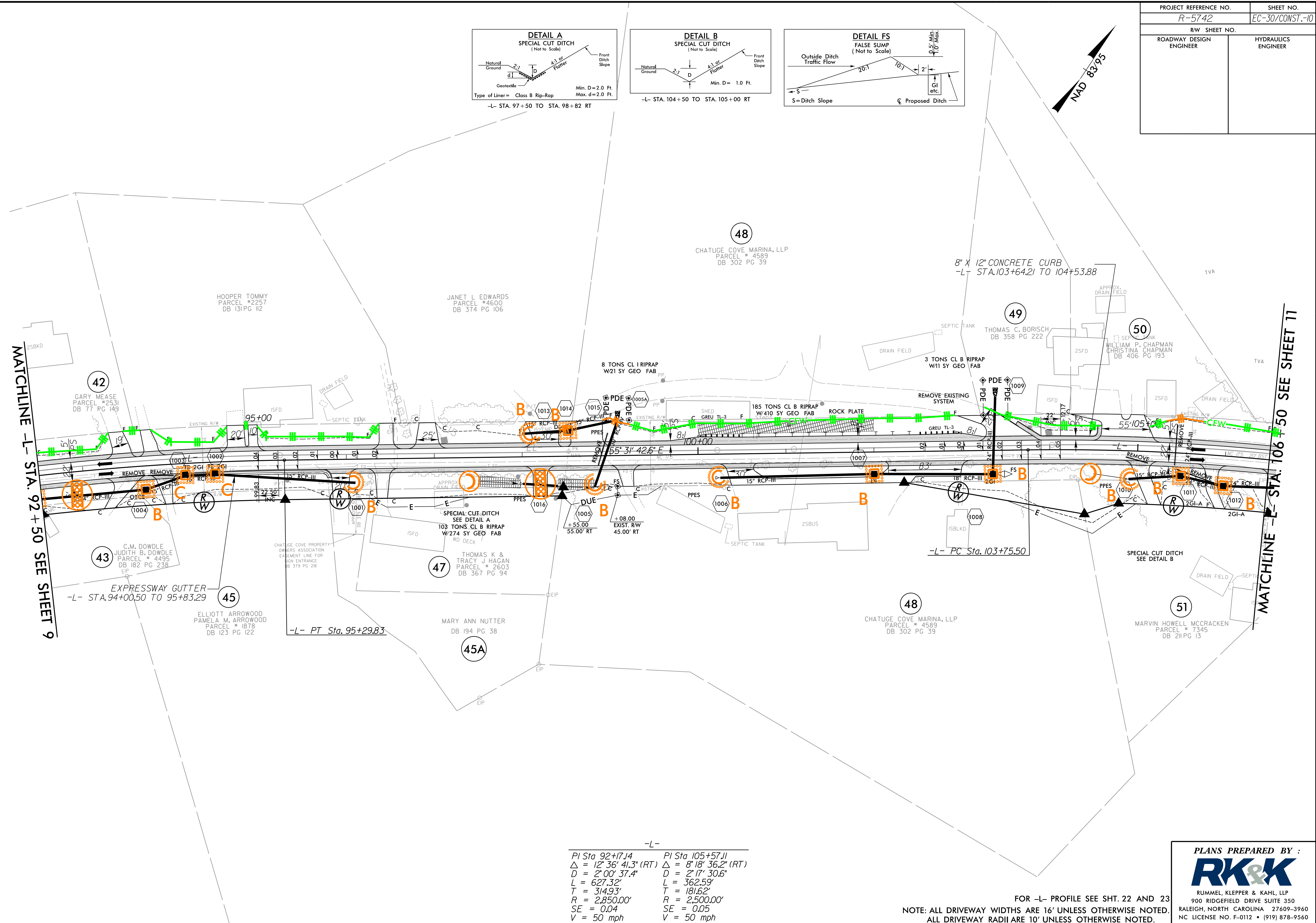
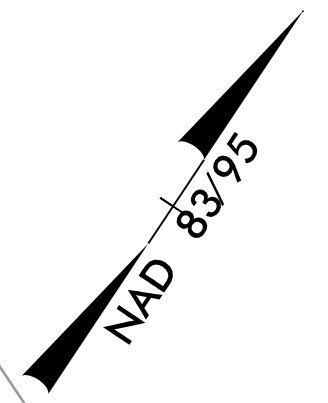
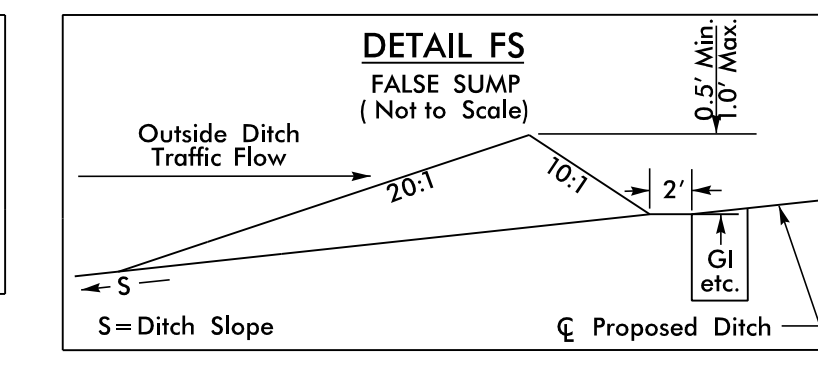
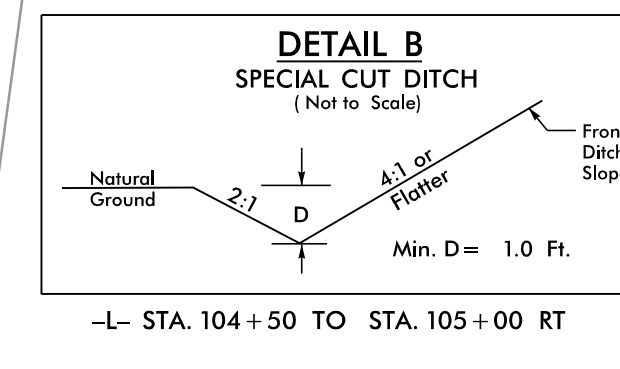
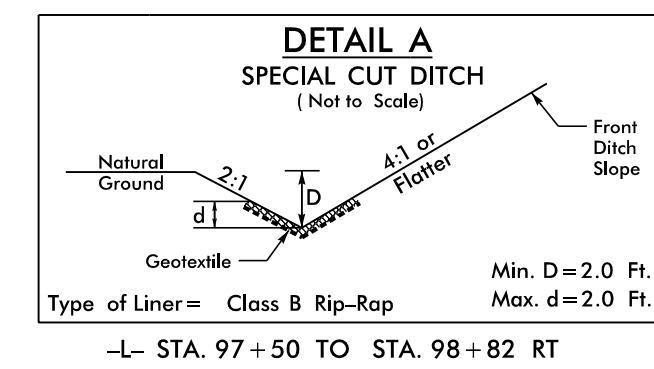
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8/17/09
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 8/17/09

8.17.09

PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-30/CONST.-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-

PI Sta 92+17.14	PI Sta 105+57.11
$\Delta = 12' 36" 41.3" (RT)$	$\Delta = 8' 18" 36.2" (RT)$
$D = 2' 00" 37.4"$	$D = 2' 17" 30.6"$
$L = 627.32'$	$L = 362.59'$
$T = 314.93'$	$T = 181.62'$
$R = 2,850.00'$	$R = 2,500.00'$
$SE = 0.04$	$SE = 0.05$
$V = 50 \text{ mph}$	$V = 50 \text{ mph}$

FOR -L- PROFILE SEE SHT. 22 AND 23
 NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
 ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

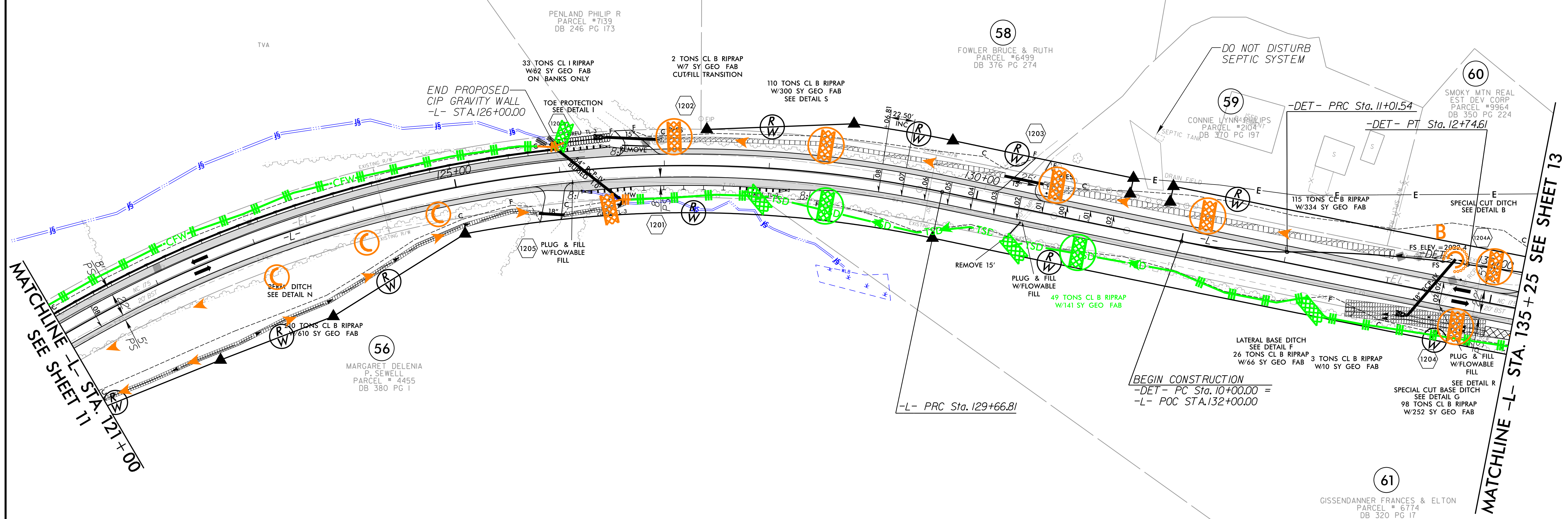
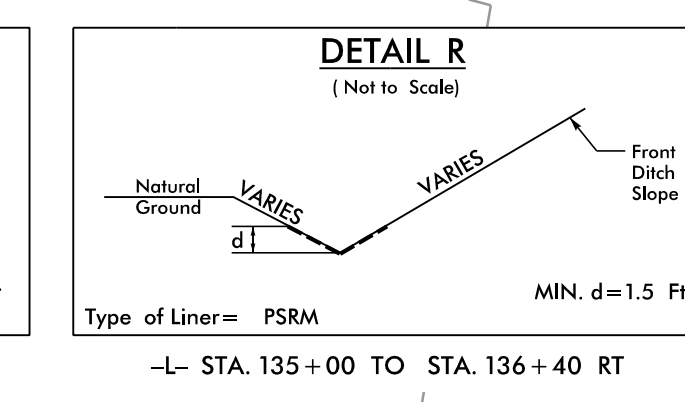
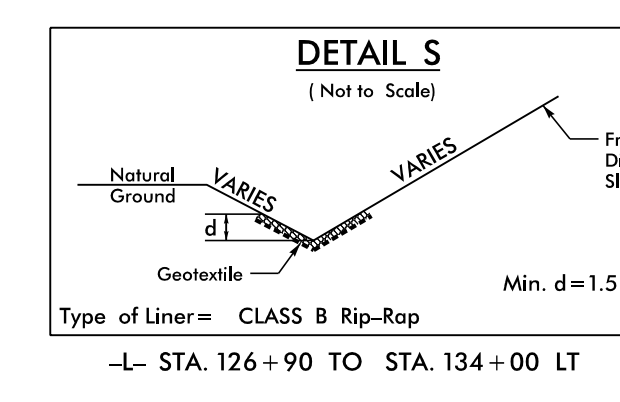
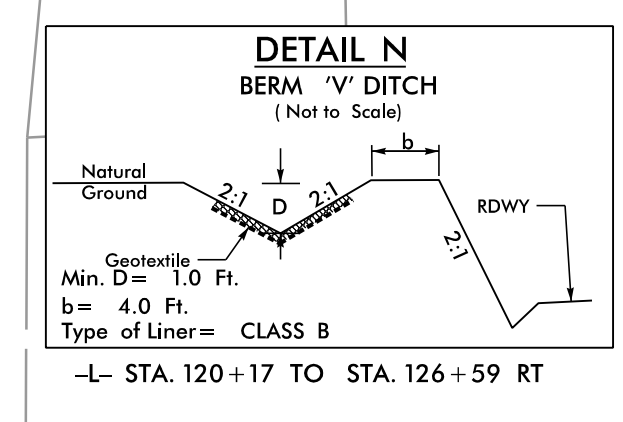
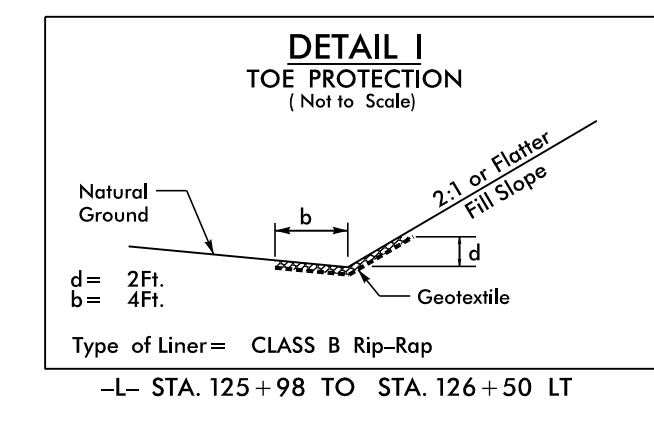
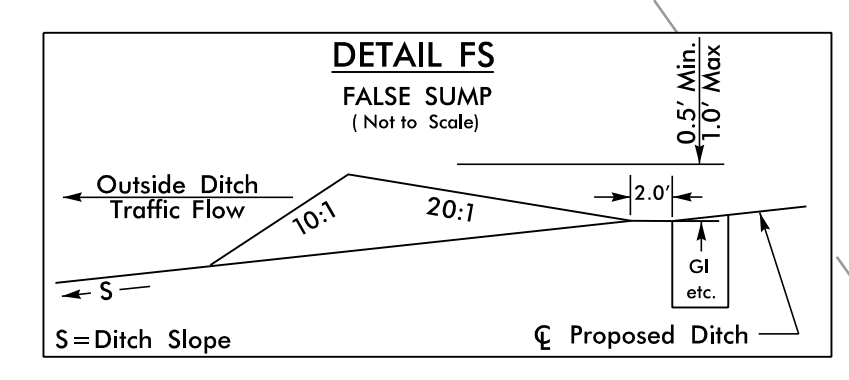
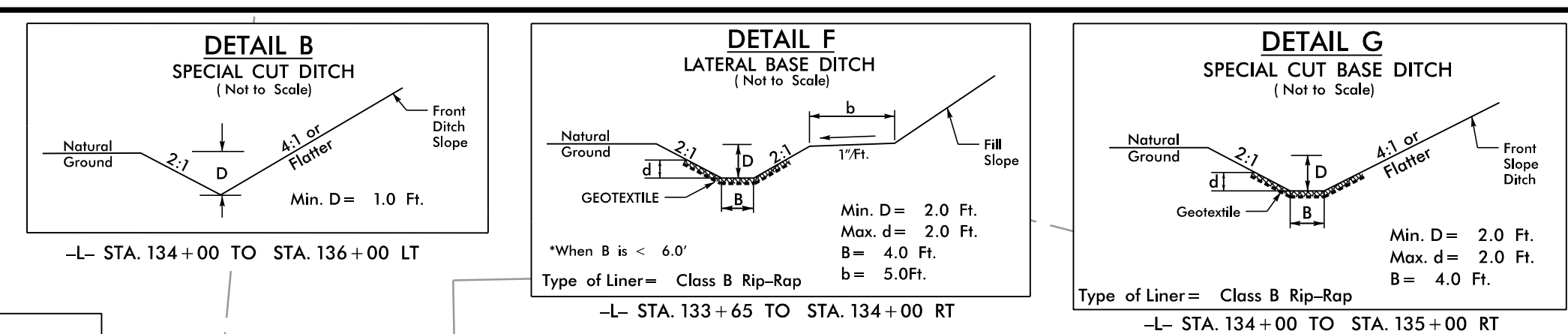
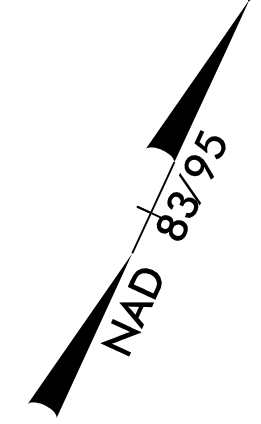
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12/21/2018

PROJECT REFERENCE NO. R-5742	SHEET NO. EC-32/CONST.-12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



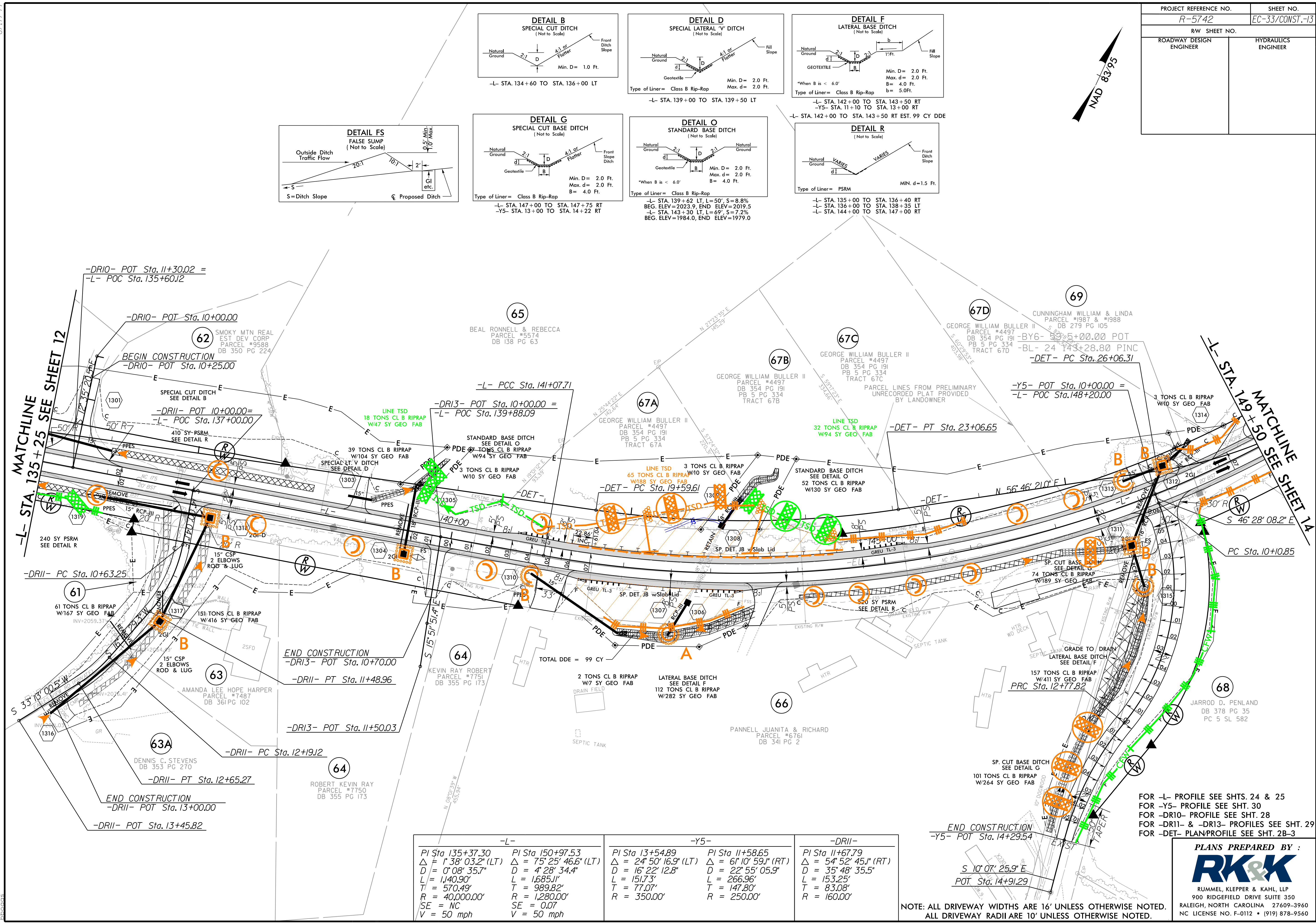
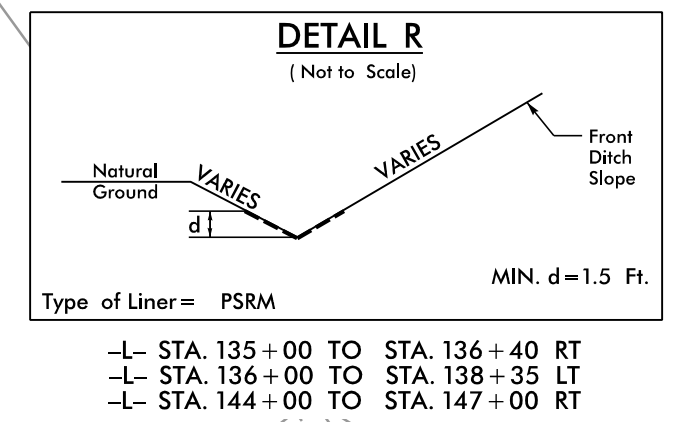
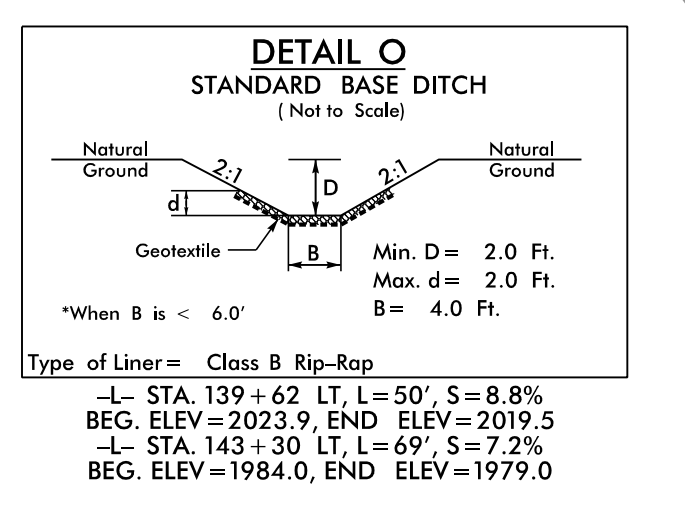
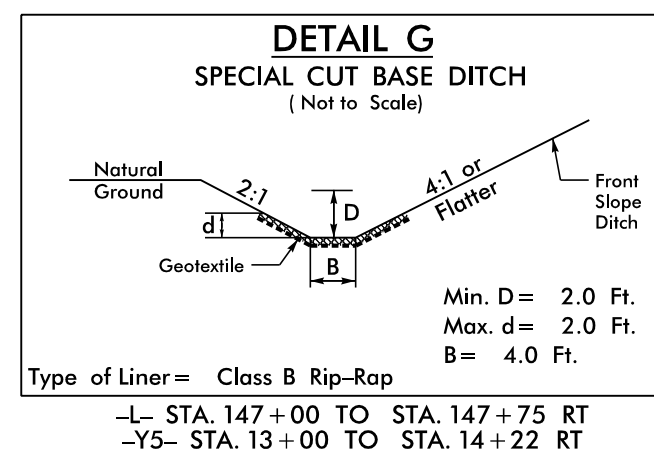
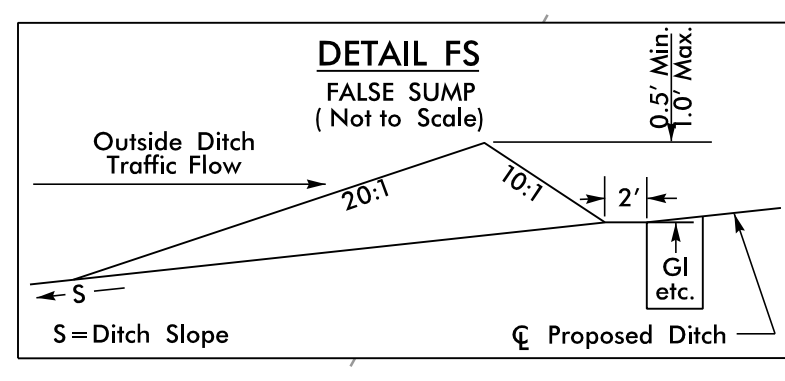
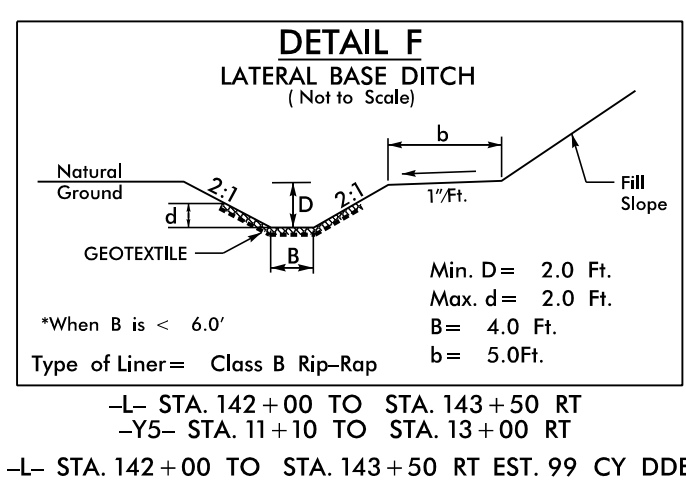
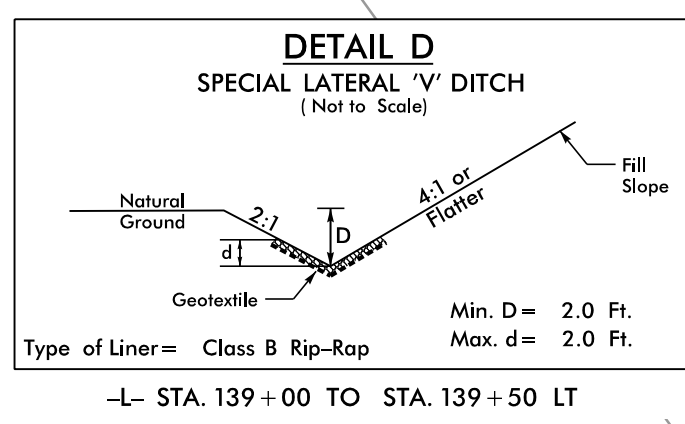
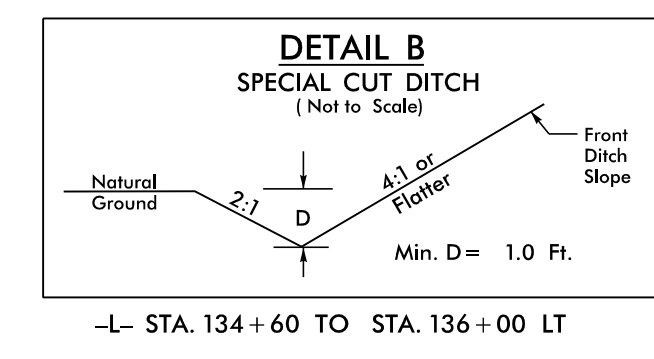
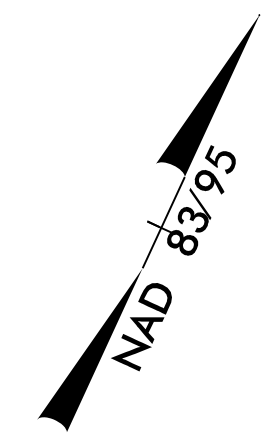
-L-	
PI Sta 124+82.88	PI Sta 135+37.30
$\Delta = 50^{\circ} 33' 06.6''$ (RT)	$\Delta = 1^{\circ} 38' 03.2''$ (LT)
D = 4' 51' 20.1"	D = 0' 08' 35.7"
L = 1,041.11'	L = 1,140.90'
T = 557.18'	T = 570.49'
R = 1,180.00'	R = 40,000.00'
SE = 0.08	SE = NC
V = 50 mph	V = 50 mph

FOR -L- PROFILE SEE SHTS. 23 & 24
FOR -DET- PLAN/PROFILE SEE SHT. 2B-2
FOR WALL 2 PROFILE SEE SHT. W-2
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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PROJECT REFERENCE NO. R-5742	SHEET NO. EC-33/CONST.-13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-		-Y5-		-DR11-	
PI Sta 135+37.30	PI Sta 150+97.53	PI Sta 13+54.89	PI Sta 11+58.65	PI Sta 11+67.79	
$\Delta = 1' 38'' 03.2''$ (LT)	$\Delta = 75' 25'' 46.6''$ (LT)	$\Delta = 24' 50'' 16.9''$ (LT)	$\Delta = 61' 10'' 59.1''$ (RT)	$\Delta = 54' 52'' 45.1''$ (RT)	
D = 0' 08' 35.7"	D = 4' 28' 34.4"	D = 16' 22' 12.8"	D = 22' 55' 05.9"	D = 35' 48' 35.5"	
L = 1,140.90'	L = 1,685.11'	L = 151.73'	L = 266.96'	L = 153.25'	
T = 570.49'	T = 989.82'	T = 77.07'	T = 147.80'	T = 83.08'	
R = 40,000.00'	R = 1,280.00'	R = 350.00'	R = 250.00'	R = 160.00'	
SE = NC	SE = 0.07				
V = 50 mph	V = 50 mph				

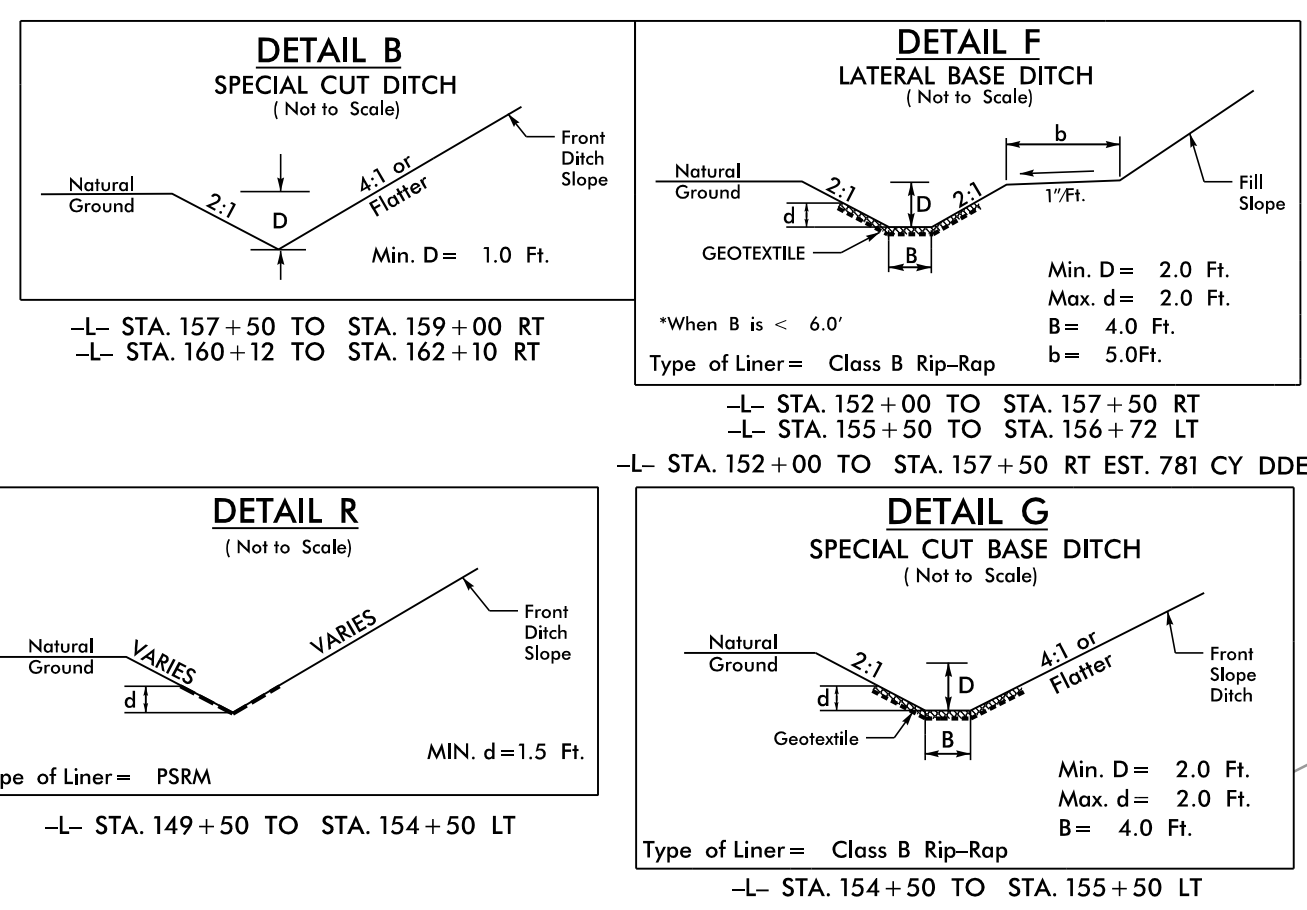
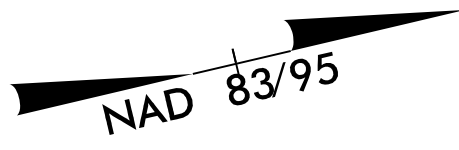
FOR -L- PROFILE SEE SHTS. 24 & 25
FOR -Y5- PROFILE SEE SHT. 30
FOR -DR10- PROFILE SEE SHT. 28
FOR -DR11- & -DR13- PROFILES SEE SHT. 29
FOR -DET- PLAN/PROFILE SEE SHT. 2B-3

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NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

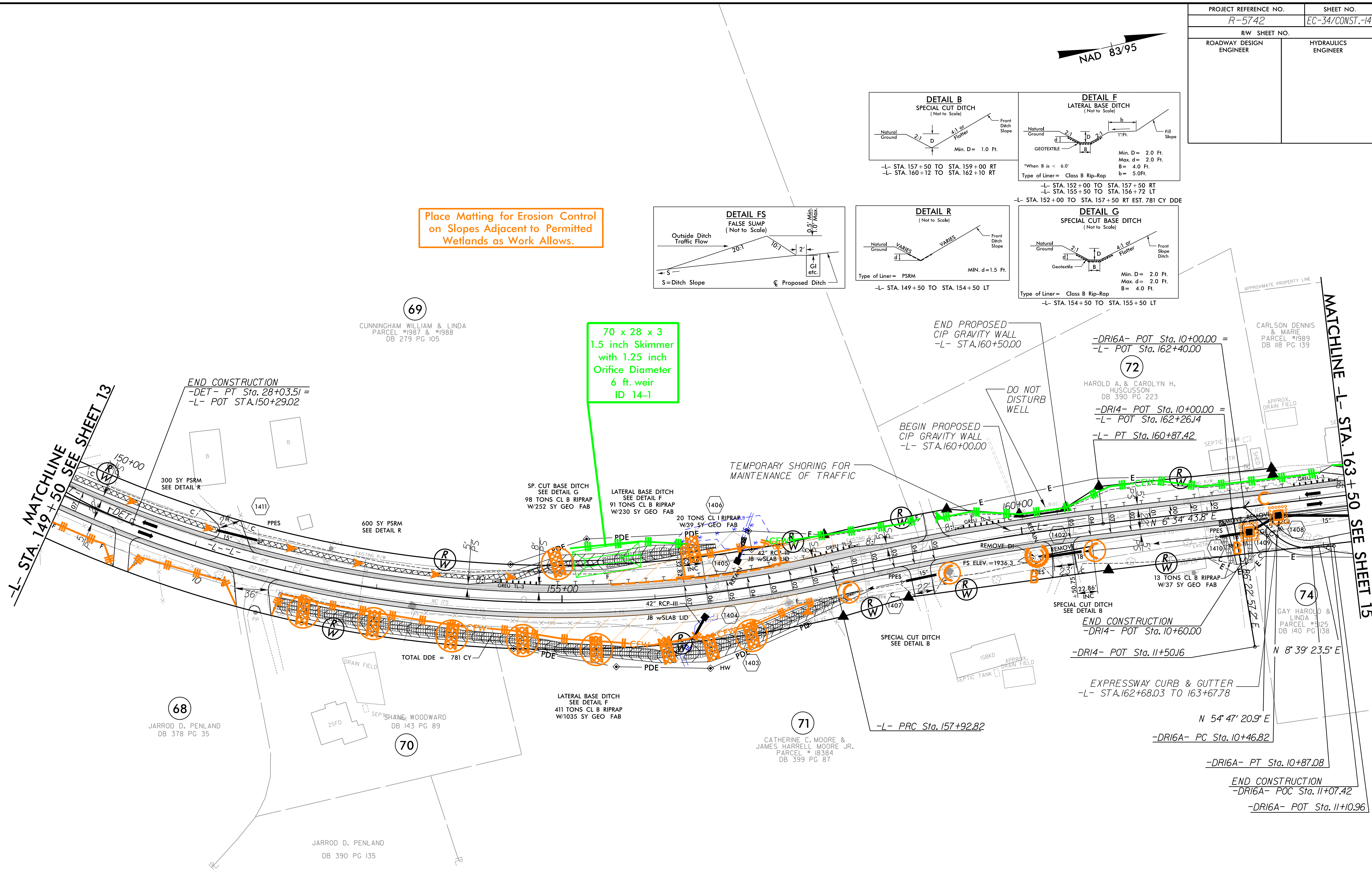
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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-34/CONST.-14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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

70 x 28 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
6 ft. weir
ID 14-1



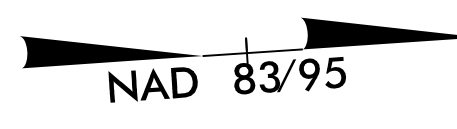
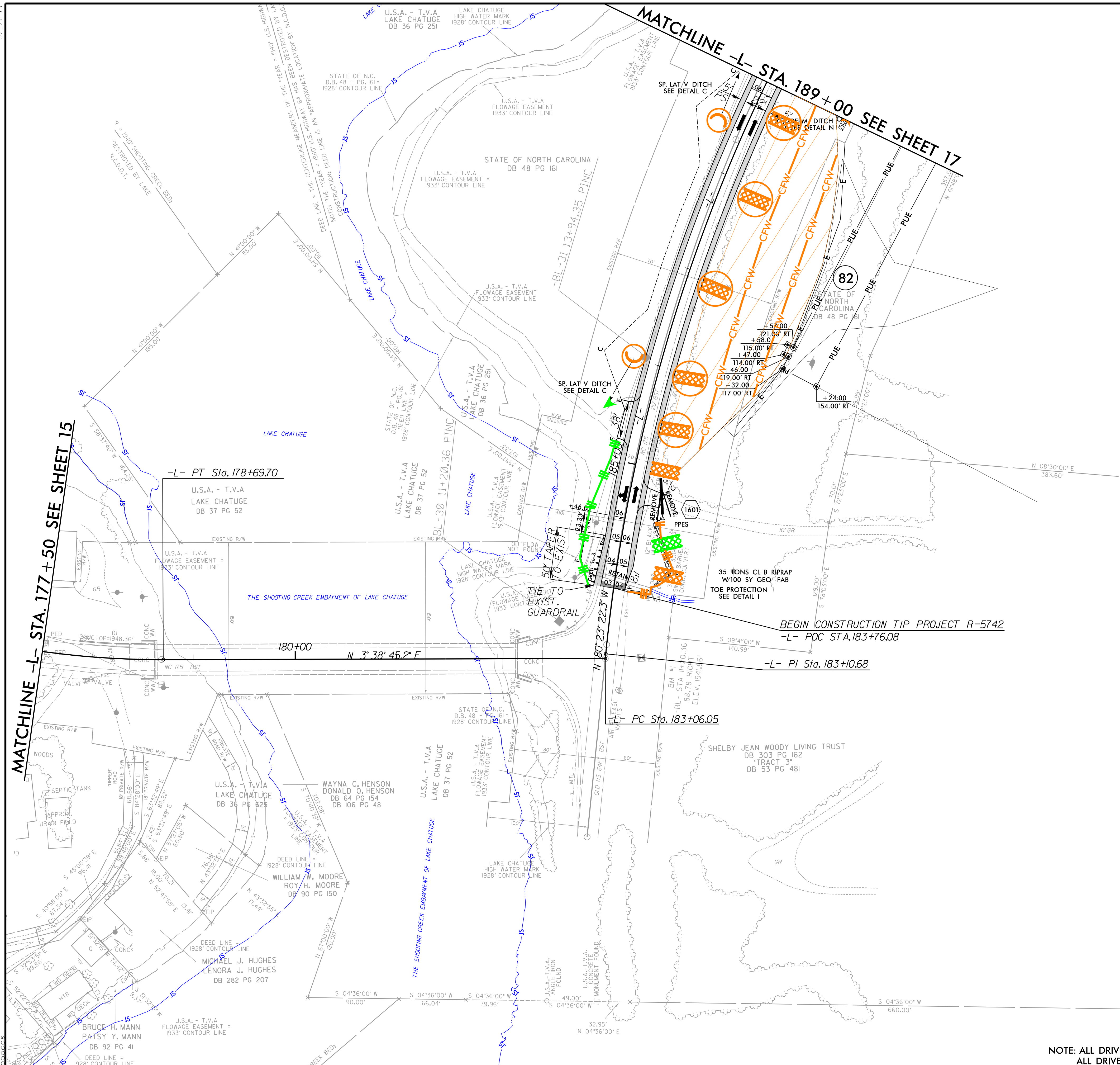
-DR16A-		-L-	
PI Sta 10+68.11	PI Sta 150+97.53	PI Sta 159+40.29	
Δ = 46° 07' 57.4" (LT)	Δ = 75° 25' 46.6" (LT)	Δ = 6° 35' 36.5" (RT)	
D = 114° 35' 29.6"	D = 4° 28' 34.4"	D = 2° 14' 17.2"	
L = 40.26'	L = 1,685.11'	L = 294.60'	
T = 21.29'	T = 989.82'	T = 147.46'	
R = 50.00'	R = 1,280.00'	R = 2,560.00'	
	SE = 0.07	SE = 0.05	
	V = 50 mph	V = 50 mph	

FOR LIMITS OF TEMPORARY SHORING, SEE TRAFFIC CONTROL PLANS.
 FOR -L- PROFILE SEE SHT. 25
 FOR -DR14- PROFILE SEE SHT. 29
 FOR -DET- PLAN/PROFILE SEE SHT. 2B-3
 FOR WALL 3 PROFILE SEE SHT. W-2

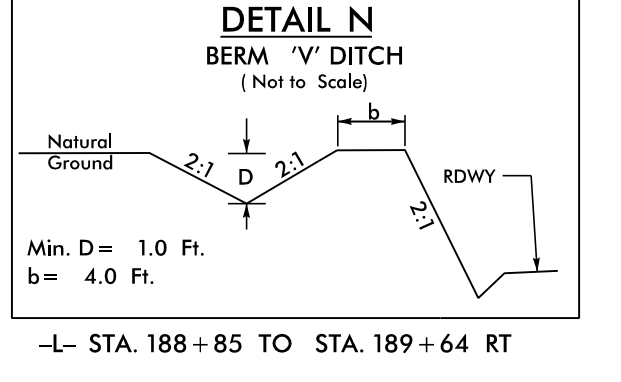
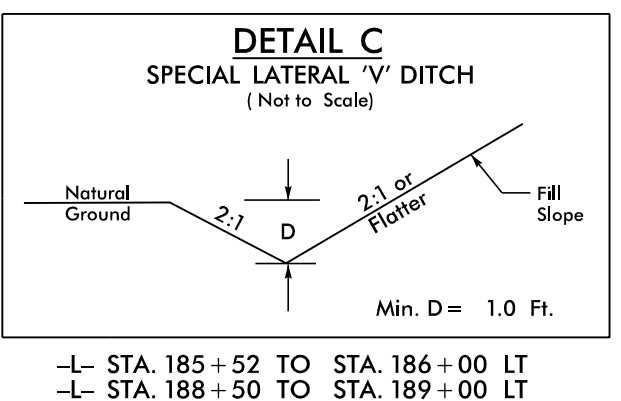
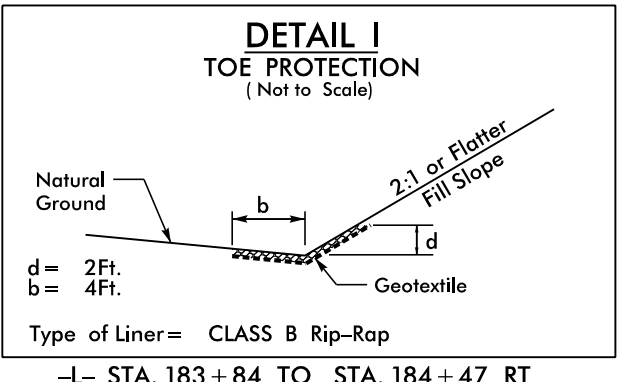
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
 ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

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PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-36/CONST.-16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-

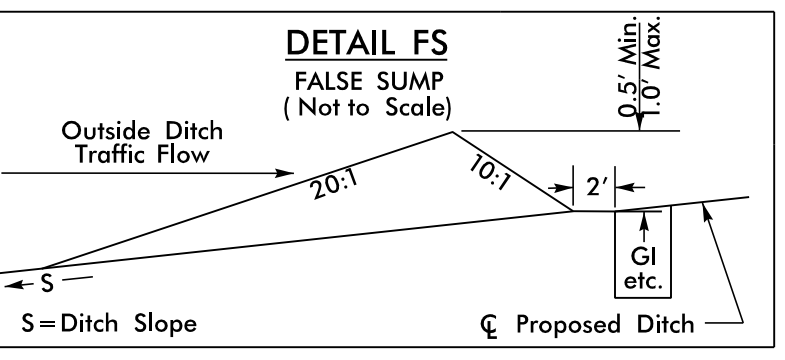
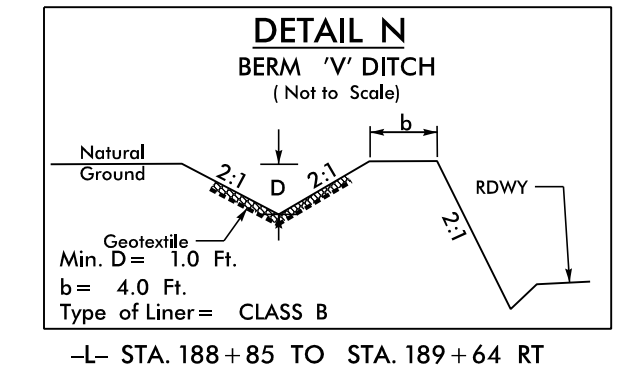
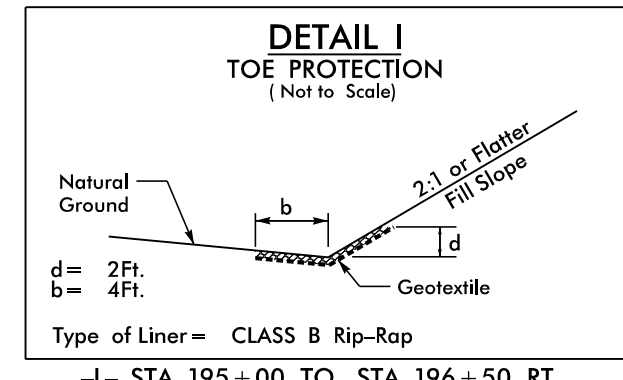
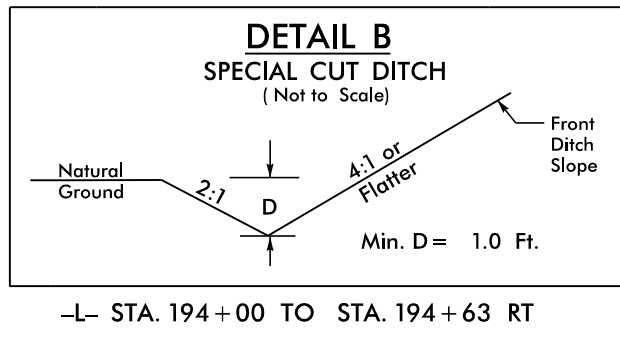
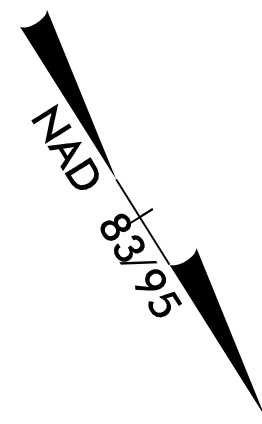
PI Sta 177+07.00 $\Delta = 22' 12'' 59.2''$ (LT) $D = 6' 4'' 26.4''$ $L = 329.59'$ $T = 166.89'$ $R = 850.00'$ $SE = 0.08$ $V = 50$ mph	PI Sta 192+07.18 $\Delta = 55' 36'' 35.8''$ (RT) $D = 3' 22'' 13.2''$ $L = 1,649.98'$ $T = 896.50'$ $R = 1,700.00'$ $SE = 0.06$ $V = 50$ mph
--	---

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FOR -L- PROFILE SEE SHTS. 25 & 26
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED.

PROJECT REFERENCE NO.	SHEET NO.
R-5742	EC-37/CONST.-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

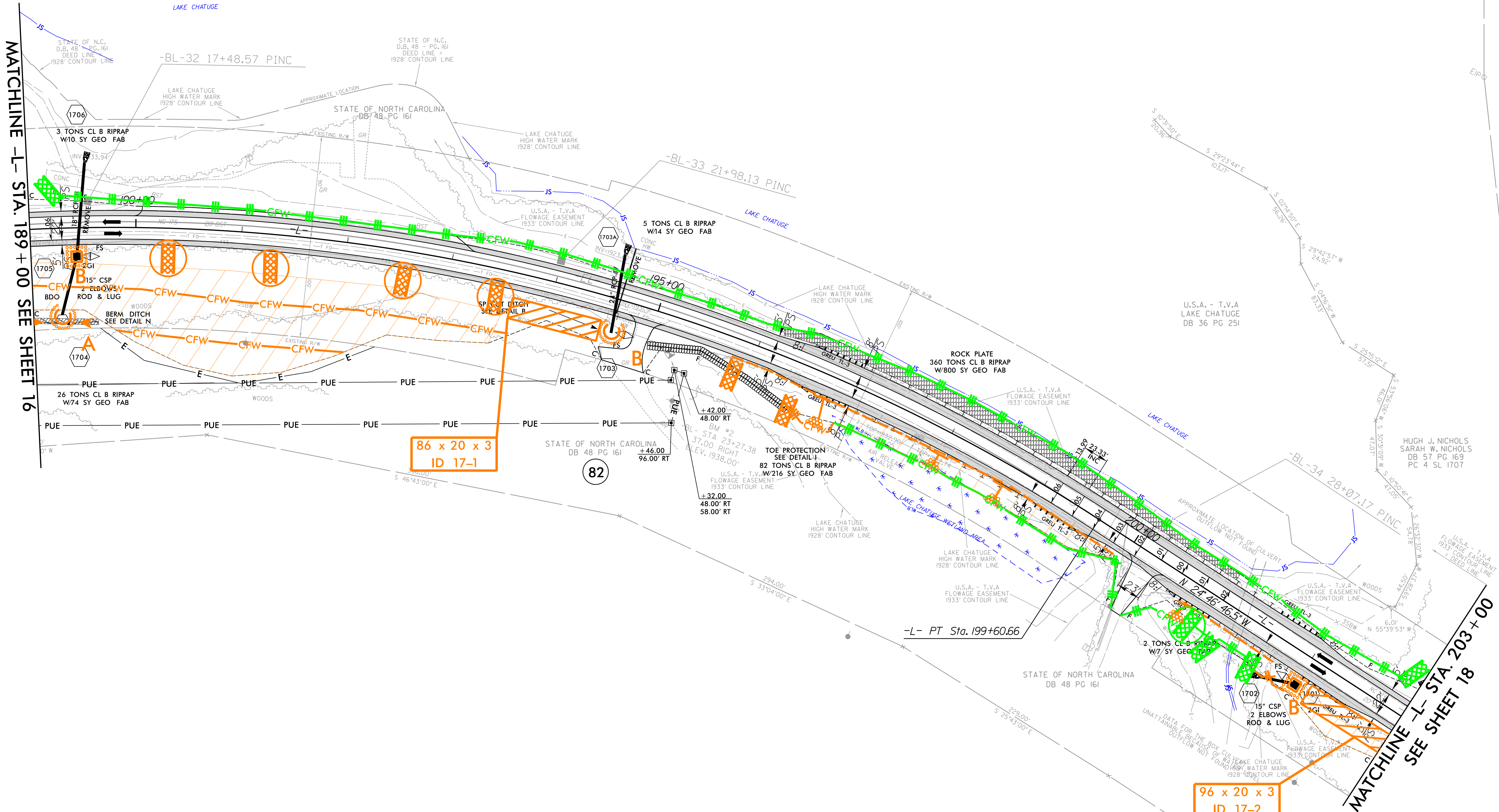


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828-837-5800

SEWER
CLAY COUNTY WATER & SEWER
33 MAIN ST.
HAYESVILLE, N.C.
828-389-1361

U.S.A. - T.V.A
LAKE CHATUGE
DB 36 PG 251

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



86 x 20 x 3
ID 17-1

96 x 20 x 3
ID 17-2

-L-
PI Sta 192+07.18
 $\Delta = 55^{\circ} 36' 35.8''$ (RT)
D = 3' 22' 13.2"
L = 1,649.98'
T = 896.50'
R = 1,700.00'
SE = 0.06
V = 50 mph

FOR -L- PROFILE SEE SHT. 26
NOTE: ALL DRIVEWAY WIDTHS ARE 16' UNLESS OTHERWISE NOTED.
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