

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5739	EC-1	
STATE PROJ.NO.	F.A.PROJ.NO.	DESCRIPTION	

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PLAN FOR PROPOSED

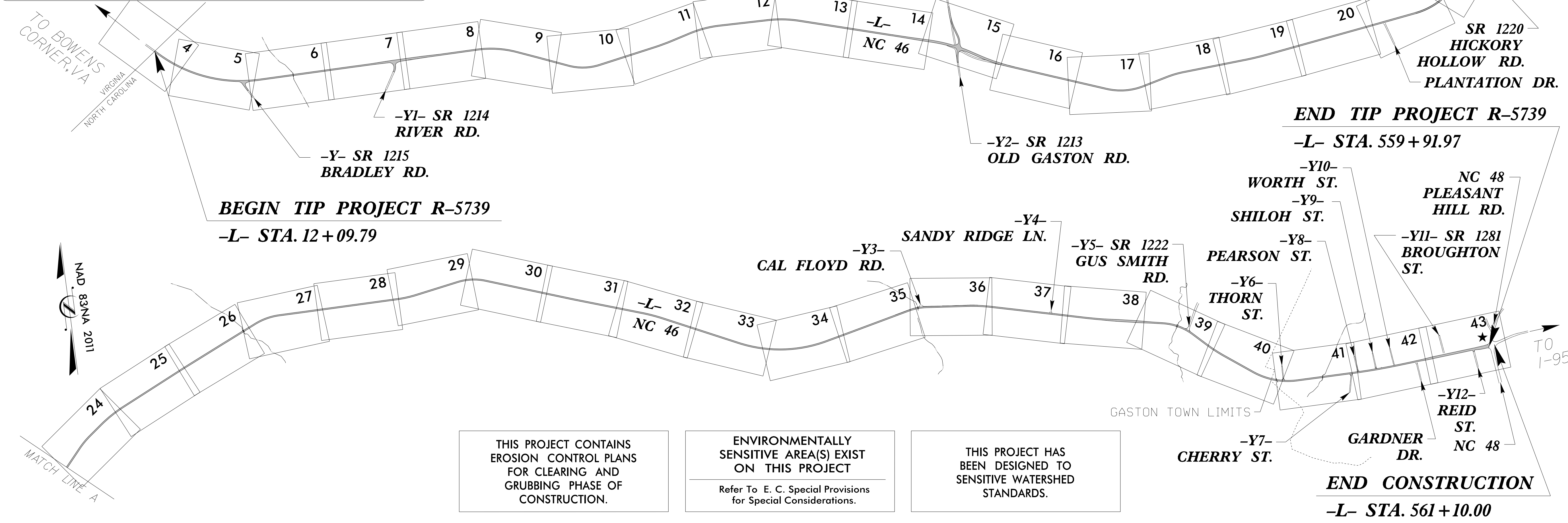
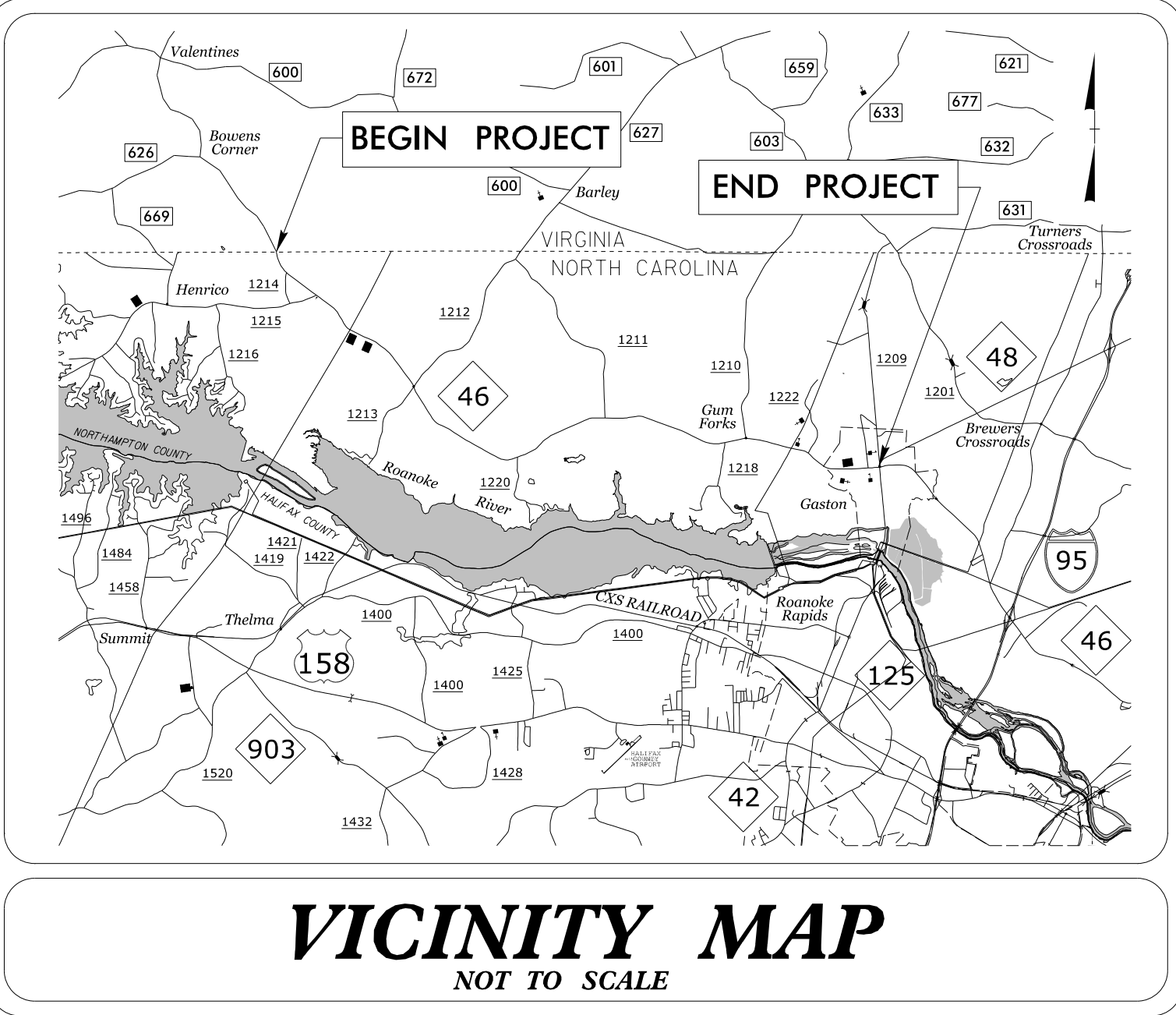
HIGHWAY EROSION CONTROL

NORTHAMPTON COUNTY

LOCATION: NC 46 FROM THE VIRGINIA STATE LINE
TO NC 48 IN GASTON

UPGRADE AND WIDEN EXISTING FACILITY

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

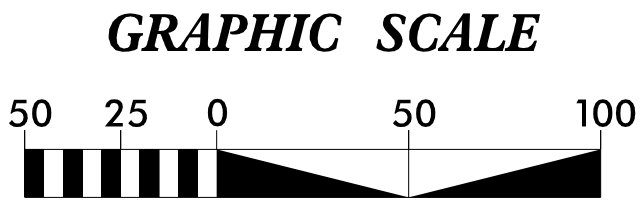


THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.

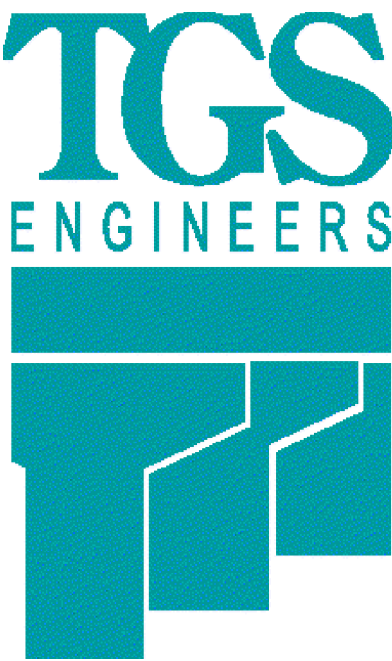
ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT

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

THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH
THE APPLICABLE REGULATIONS SET FORTH BY THE NCG 010000
GENERAL STORMWATER CONSTRUCTION PERMIT ISSUED BY THE
NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES.



Prepared in the Office of:
TGS ENGINEERS
706 HILLSBOROUGH ST. - SUITE 200
RALEIGH, NC 27603

Designed by:
Ben Henegar, PE 3564
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C.
Department of Transportation - Raleigh, N. C., dated January 2024
and the latest revision thereto are applicable to this project and by
reference hereby are considered a part of these plans.

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

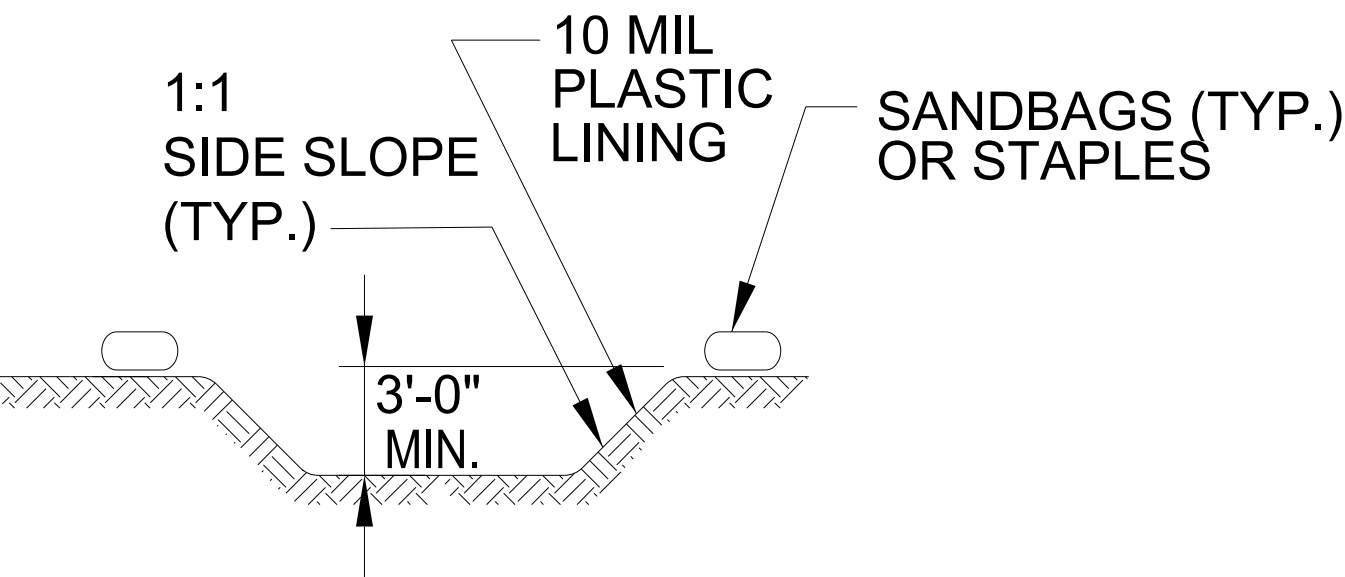
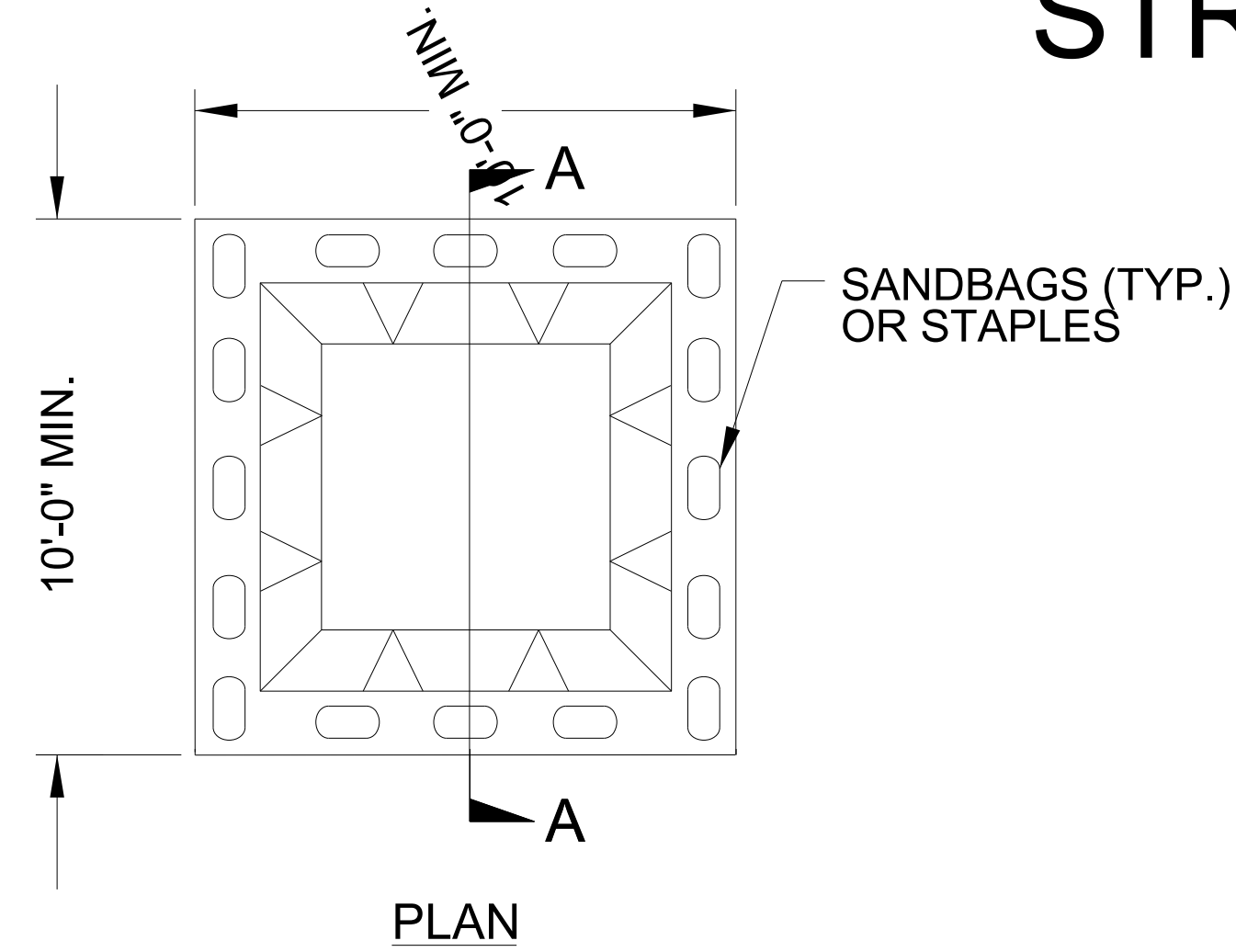
PROJECT REFERENCE NO.	SHEET NO.
R-5739	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

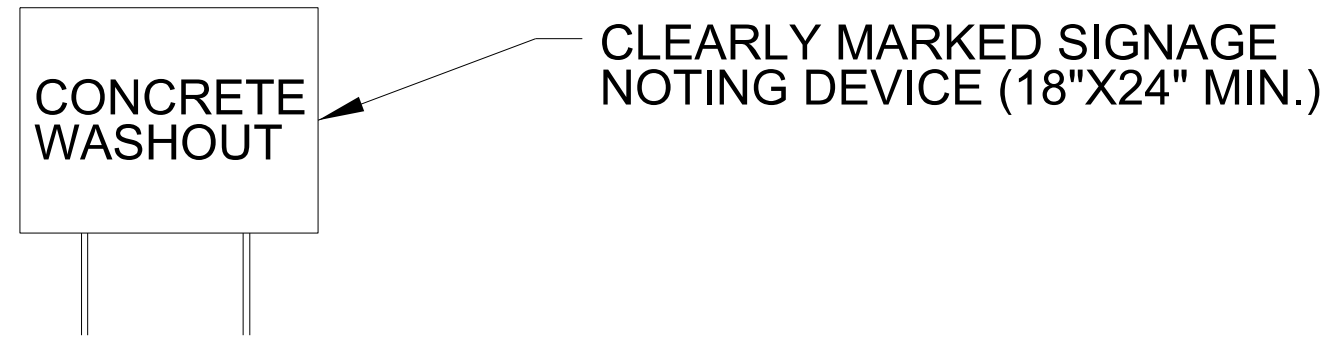
Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO.	SHEET NO.
<i>R-5739</i>	<i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

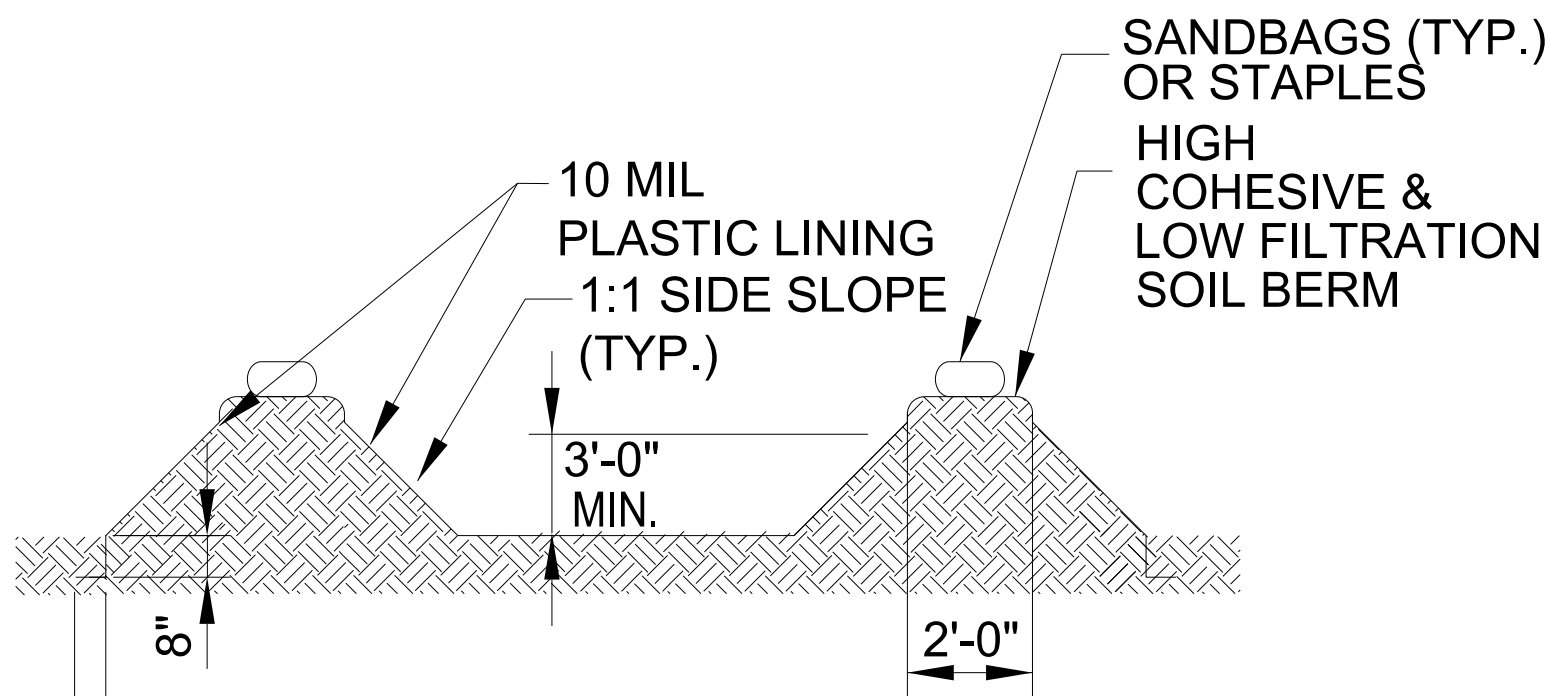
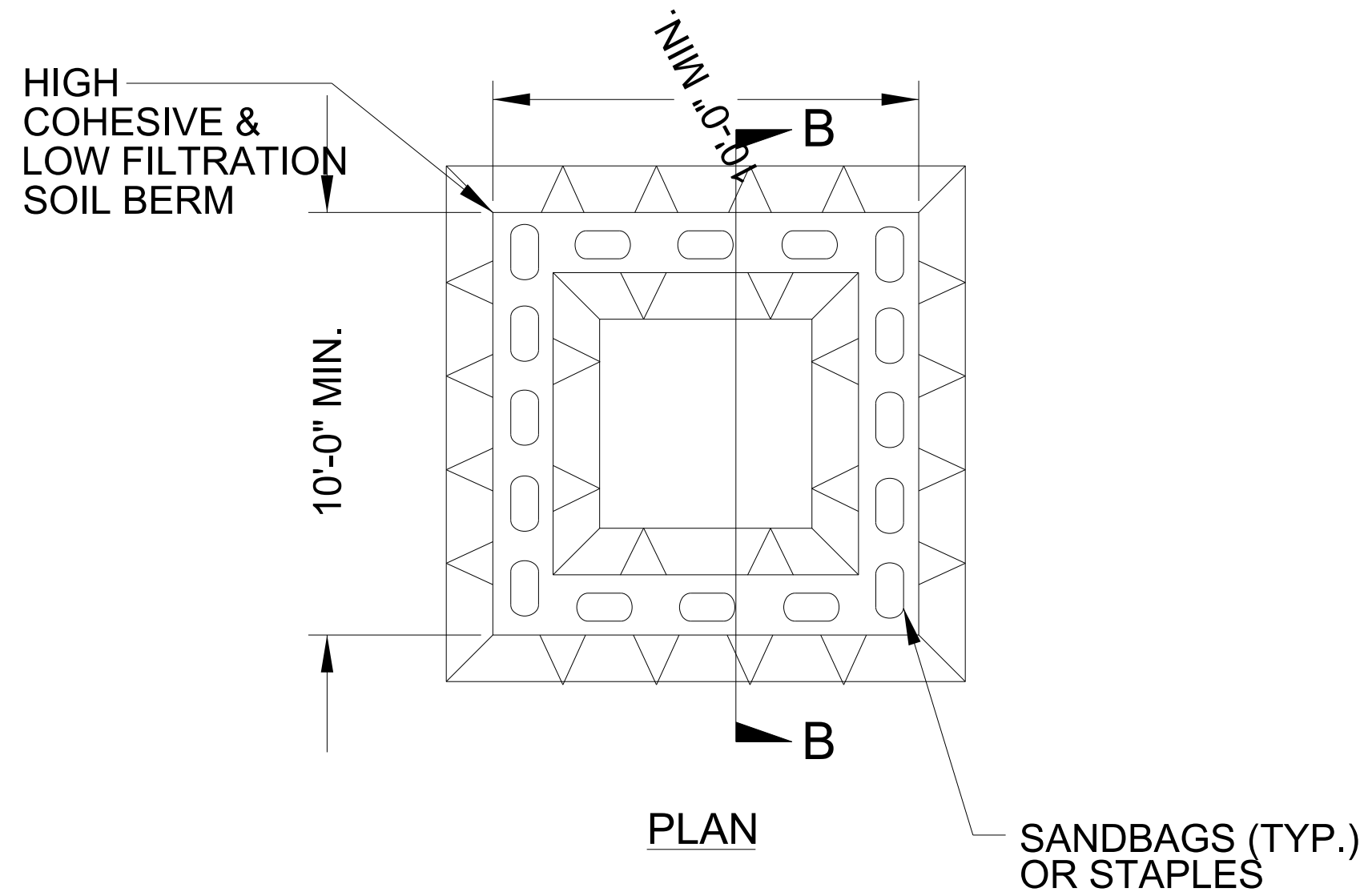


SECTION A-A

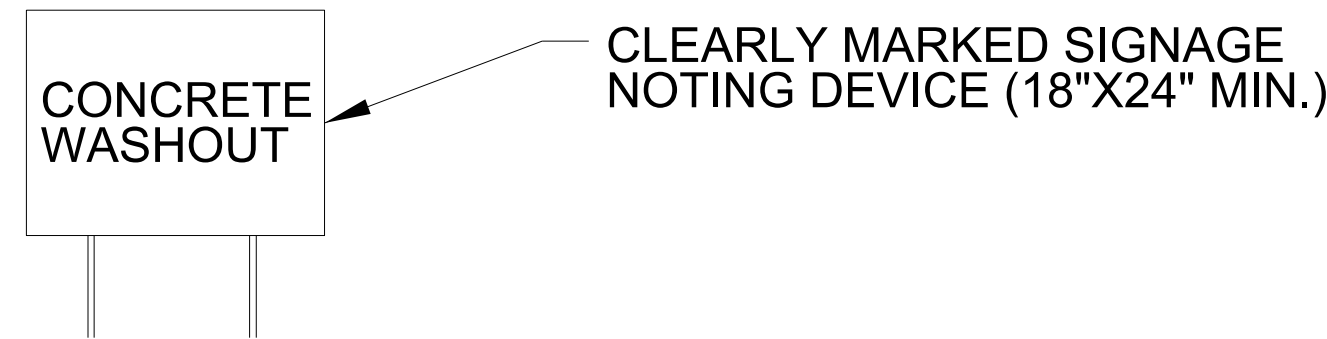


BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 - 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.



SECTION B-B



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 - 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50’ IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HQW ZONES.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HQW ZONES.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5739</i>		SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

DITCHLINE STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	12+10	13+50	LT	170
4	-L-	24+13	-	RT	35
5	-L-	18+00	23+50	LT	705
5	-L-	18+50	20+93	RT	285
6	-L-	29+00	32+00	LT	350
6	-L-	39+50	41+00	RT	175
6	-L-	35+07	35+49	RT	55
7	-L-	48+50	50+00	RT	175
7	-L-	51+67	58+00	LT	745
7	-L-	55+00	56+50	RT	180
7	-Y1-	12+00	12+50	LT	45
8	-L-	59+00	60+50	LT	180
8	-L-	64+00	65+00	LT	120
8	-L-	70+00	71+50	LT	235
8	-L-	60+00	61+00	RT	120
8	-L-	64+00	66+00	RT	165
8	-L-	67+00	72+00	RT	555
8	-L-	63+11	-	RT	55
9	-L-	73+00	75+00	RT	240
9	-L-	78+00	79+00	RT	120
9	-L-	75+50	77+00	LT	130
9	-L-	79+50	81+50	RT	235
9	-L-	84+00	86+00	LT	220
9	-L-	85+50	86+50	RT	120
10	-L-	90+50	91+00	LT	60
10	-L-	97+50	98+00	LT	60
11	-L-	102+50	103+00	RT	60
SUBTOTAL					5,595

DITCHLINE STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
11	-L-	107+50	108+50	RT	120
11	-L-	105+00	106+50	LT	175
11	-L-	108+00	112+00	LT	465
11	-L-	113+50	114+50	LT	120
12	-L-	115+50	116+00	RT	60
12	-L-	115+00	122+00	LT	770
12	-L-	127+00	128+50	LT	180
13	-L-	129+50	132+50	LT	345
13	-L-	133+00	135+00	LT	235
13	-L-	129+00	135+50	RT	695
14	-L-	153+50	156+50	RT	350
14	-L-	153+50	157+00	LT	405
15	-Y2-	19+00	19+50	RT	60
15	-Y2-	12+35	18+69	LT	735
15	-Y2-	20+60	22+71	RT	270
15	-L-	161+60	162+55	RT	110
15	-Y2-	21+00	22+91	LT	225
15	-L-	165+00	166+00	LT	85
15	-L-	172+00	173+50	LT	175
15	-L-	175+00	177+00	LT	235
15	-L-	176+00	176+50	RT	45
16	-L-	180+00	185+50	RT	535
16	-L-	175+00	-	RT	100
17	-L-	186+50	188+00	RT	175
17	-L-	186+50	-	RT	70
17	-L-	188+00	190+50	LT	295
17	-L-	192+00	193+00	LT	120
SUBTOTAL					7,155

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5739</i>		SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

DITCHLINE STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
17	-L-	195 + 00	196 + 00	LT	120
18	-L-	199 + 00	203 + 00	LT	470
18	-L-	200 + 00	-	RT	55
18	-L-	204 + 00	204 + 50	LT	40
18	-L-	205 + 50	207 + 00	RT	180
18	-L-	207 + 00	207 + 50	LT	45
18	-L-	209 + 00	211 + 50	LT	250
18	-L-	207 + 50	212 + 00	RT	580
19	-L-	212 + 00	217 + 00	RT	580
19	-L-	217 + 00	218 + 48	RT	155
20	-L-	231 + 00	234 + 00	RT	240
20	-L-	232 + 00	237 + 69	LT	665
20	-L-	237 + 80	-	RT	60
20	-L-	239 + 00	241 + 00	LT	235
20	-L-	239 + 00	241 + 00	RT	235
21	-L-	243 + 19	246 + 00	LT	330
21	-L-	241 + 00	241 + 50	RT	60
21	-L-	249 + 00	255 + 00	LT	700
21	-L-	245 + 00	249 + 50	RT	525
21	-L-	254 + 50	255 + 00	RT	60
22	-L-	255 + 00	259 + 00	LT	465
22	-L-	255 + 00	257 + 00	RT	235
22	-L-	259 + 00	261 + 50	LT	295
22	-L-	261 + 50	263 + 50	RT	165
22	-L-	267 + 00	269 + 50	RT	280
23	-L-	269 + 50	270 + 50	LT	120
23	-L-	269 + 50	271 + 00	RT	180
SUBTOTAL					7,325

DITCHLINE STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
23	-L-	271 + 00	276 + 00	LT	580
23	-L-	275 + 00	279 + 00	RT	325
23	-L-	281 + 50	282 + 50	LT	120
24	-L-	283 + 50	285 + 00	RT	175
24	-L-	286 + 50	288 + 00	LT	175
24	-L-	288 + 00	292 + 50	LT	525
24	-L-	291 + 00	292 + 50	RT	175
25	-L-	298 + 00	302 + 00	LT	465
25	-L-	298 + 50	302 + 00	RT	405
25	-L-	303 + 00	308 + 00	LT	580
25	-L-	303 + 00	305 + 00	RT	235
26	-L-	311 + 50	317 + 00	LT	635
26	-L-	311 + 50	314 + 50	RT	350
27	-L-	335 + 00	338 + 50	LT	405
28	-L-	346 + 50	354 + 50	LT	930
28	-L-	351 + 00	353 + 00	RT	235
29	-L-	355 + 00	359 + 50	LT	505
29	-L-	353 + 00	359 + 50	RT	700
29	-L-	361 + 00	366 + 00	LT	580
29	-L-	359 + 50	367 + 50	RT	925
30	-L-	375 + 35	-	RT	70
30	-L-	374 + 00	375 + 00	LT	120
30	-L-	375 + 50	377 + 70	RT	180
30	-L-	377 + 70	-	RT	50
30	-L-	380 + 00	381 + 00	LT	120
31	-L-	384 + 00	385 + 50	LT	180
31	-L-	382 + 87	-	RT	50
SUBTOTAL					9,795

--	--

DITCHLINE STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
31	-L-	387+00	395+00	LT	925
31	-L-	387+00	395+00	RT	925
32	-L-	395+00	401+50	LT	685
32	-L-	395+00	400+00	RT	410
32	-L-	401+50	404+00	LT	290
32	-L-	401+50	404+00	RT	290
32	-L-	405+00	409+00	LT	465
32	-L-	405+00	409+00	RT	465
33	-L-	409+00	411+50	LT	290
33	-L-	409+00	414+50	RT	635
33	-L-	418+50	423+00	RT	475
34	-L-	425+50	428+50	LT	300
34	-L-	433+00	433+50	RT	60
34	-L-	429+00	429+50	RT	60
34	-L-	434+00	437+00	LT	350
35	-L-	437+00	450+00	LT	1,340
35	-L-	439+50	444+37	RT	565
35	-L-	445+00	448+60	RT	425
36	-L-	453+00	460+50	RT	760
36	-L-	460+50	465+00	RT	470
37	-L-	469+50	472+00	LT	290
37	-L-	472+50	476+00	LT	405
37	-L-	474+00	476+00	RT	235
38	-L-	482+00	485+50	RT	410
38	-L-	486+00	489+50	LT	405
38	-L-	490+00	493+00	LT	350
38	-L-	485+50	492+50	RT	810
SUBTOTAL					13,090

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
38	-L-	483 + 78	-	LT	35
39	-L-	500 + 84	501 + 90	RT	125
40	-L-	507 + 00	509 + 50	LT	295
40	-L-	510 + 50	514 + 50	LT	465
40	-L-	517 + 50	519 + 50	LT	165
40	-L-	507 + 00	509 + 00	RT	235
40	-L-	510 + 50	517 + 50	RT	815
40	-L-	520 + 50	521 + 00	LT	45
41	-L-	523 + 00	528 + 00	LT	580
41	-L-	523 + 00	523 + 50	RT	60
41	-L-	529 + 45	530 + 00	LT	55
41	-L-	530 + 50	533 + 00	LT	210
41	-L-	533 + 50	535 + 00	LT	120
42	-L-	535 + 00	536 + 50	LT	175
42	-L-	537 + 09	539 + 50	LT	280
42	-L-	540 + 96	542 + 00	LT	85
42	-L-	543 + 50	544 + 00	RT	60
43	-YII-	10 + 00	11 + 50	RT	125
SUBTOTAL					4,230

[illegible]

--	--	--	--	--	--

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-L-	25 + 50	28 + 00	LT	320
6	-L-	43 + 00	44 + 50	LT	175
8	-L-	60 + 50	62 + 00	LT	175
10	-L-	88 + 30	90 + 50	LT	260
12	-L-	125 + 50	125 + 90	RT	45
13	-L-	132 + 50	133 + 00	LT	175
13	-L-	135 + 00	135 + 50	LT	60
15	-L-	157 + 00	162 + 00	LT	440
15	-Y2-	19 + 00	19 + 50	LT	60
15	-L-	164 + 00	165 + 00	LT	110
19	-L-	223 + 00	223 + 50	LT	60
21	-L-	253 + 50	254 + 50	RT	120
22	-L-	261 + 50	262 + 36	LT	105
23	-L-	270 + 50	271 + 00	LT	60
23	-L-	271 + 00	271 + 50	RT	60
23	-L-	276 + 00	278 + 00	LT	235
24	-L-	282 + 50	285 + 00	LT	295
24	-L-	283 + 00	283 + 50	RT	60
24	-L-	285 + 00	285 + 50	RT	60
24	-L-	285 + 95	286 + 50	LT	65
24	-L-	293 + 50	294 + 00	LT	60
24	-L-	295 + 25	298 + 50	RT	345
26	-L-	320 + 00	321 + 00	LT	120
26	-L-	316 + 50	322 + 00	RT	635
27	-L-	325 + 50	330 + 50	LT	580
27	-L-	326 + 00	329 + 50	RT	405
27	-L-	333 + 00	337 + 50	RT	520
SUBTOTAL					5,605

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
29	-L-	354 + 50	355 + 00	LT	60
36	-Y3-	10 + 57	11 + 55	LT	110
36	-L-	455 + 50	460 + 00	LT	380
38	-L-	489 + 50	490 + 00	LT	60
39	-L-	493 + 00	495 + 00	LT	235
39	-L-	502 + 50	507 + 00	LT	520
39	-L-	501 + 90	507 + 00	RT	590
40	-L-	514 + 50	517 + 50	LT	355
40	-L-	517 + 50	518 + 00	RT	60
41	-L-	521 + 00	521 + 50	LT	60
41	-L-	522 + 00	523 + 00	RT	120
41	-L-	530 + 00	530 + 50	LT	45
41	-L-	533 + 00	533 + 50	LT	60
42	-L-	542 + 00	543 + 50	LT	180
SUBTOTAL					2,835

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
R-5739	EC-3E
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

SLOPE MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-L-	23+00	25+50	RT	830
6	-L-	38+00	39+50	LT	245
6	-L-	38+00	39+50	RT	215
8	-L-	62+50	63+50	LT	225
8	-L-	62+50	63+50	RT	365
15	-L-	164+00	168+00	LT	1,055
15	-L-	164+00	166+50	RT	1,320
23	-L-	280+00	282+00	LT	435
23	-L-	280+00	282+00	RT	475
25	-L-	308+50	310+00	RT	240
26	-L-	323+00	325+50	LT	375
26	-L-	323+00	325+50	RT	425
27	-L-	330+00	332+00	LT	420
27	-L-	330+25	332+00	RT	720
36	-L-	449+50	452+35	LT	730
36	-L-	451+50	452+50	RT	185
39	-L-	494+00	495+50	LT	435
39	-L-	498+50	501+00	LT	475
39	-L-	498+00	501+00	RT	540
39	-L-	502+50	505+50	RT	425
40	-L-	514+50	517+00	RT	410
40	-L-	520+00	521+00	LT	235
40	-L-	520+00	522+00	RT	455
41	-L-	528+50	530+50	LT	420
41	-L-	528+50	530+50	RT	370
SUBTOTAL					12,025

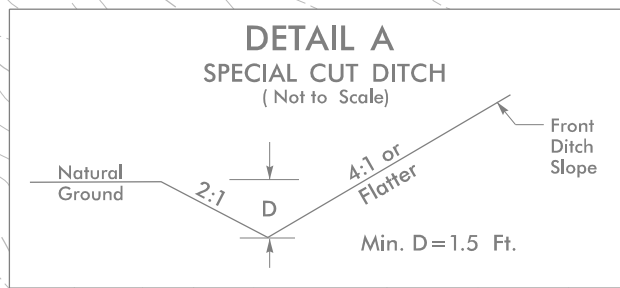
MATTING FOR EROSION CONTROL TOTALS

	ESTIMATE (SY)
DITCHLINE STRAW MATTING SUBTOTAL	47,190
DITCHLINE EXCELSIOR MATTING SUBTOTAL	8,440
SLOPE MATTING SUBTOTAL	12,025
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER	18,240
TOTAL	85,895
SAY	86,000

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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

-L-
PI Sta 23+30.62
 $\Delta = 43^{\circ}56'36.9"$ (LT)
 $D = 2^{\circ}15'52.8"$
 $L = 1,940.41'$
 $T = 1,020.74'$
 $R = 2,530.00'$
 $SE = .05$
 $V = 55 \text{ mph}$



FROM STA.12+10-L- TO STA.17+00-L- LT-
FROM STA.12+50-L- TO STA.17+00-L- RT-

2
WILLIE MOSES
DB 334 PG 623

1
MILDRED D. MOSES
DB 381 PG 138

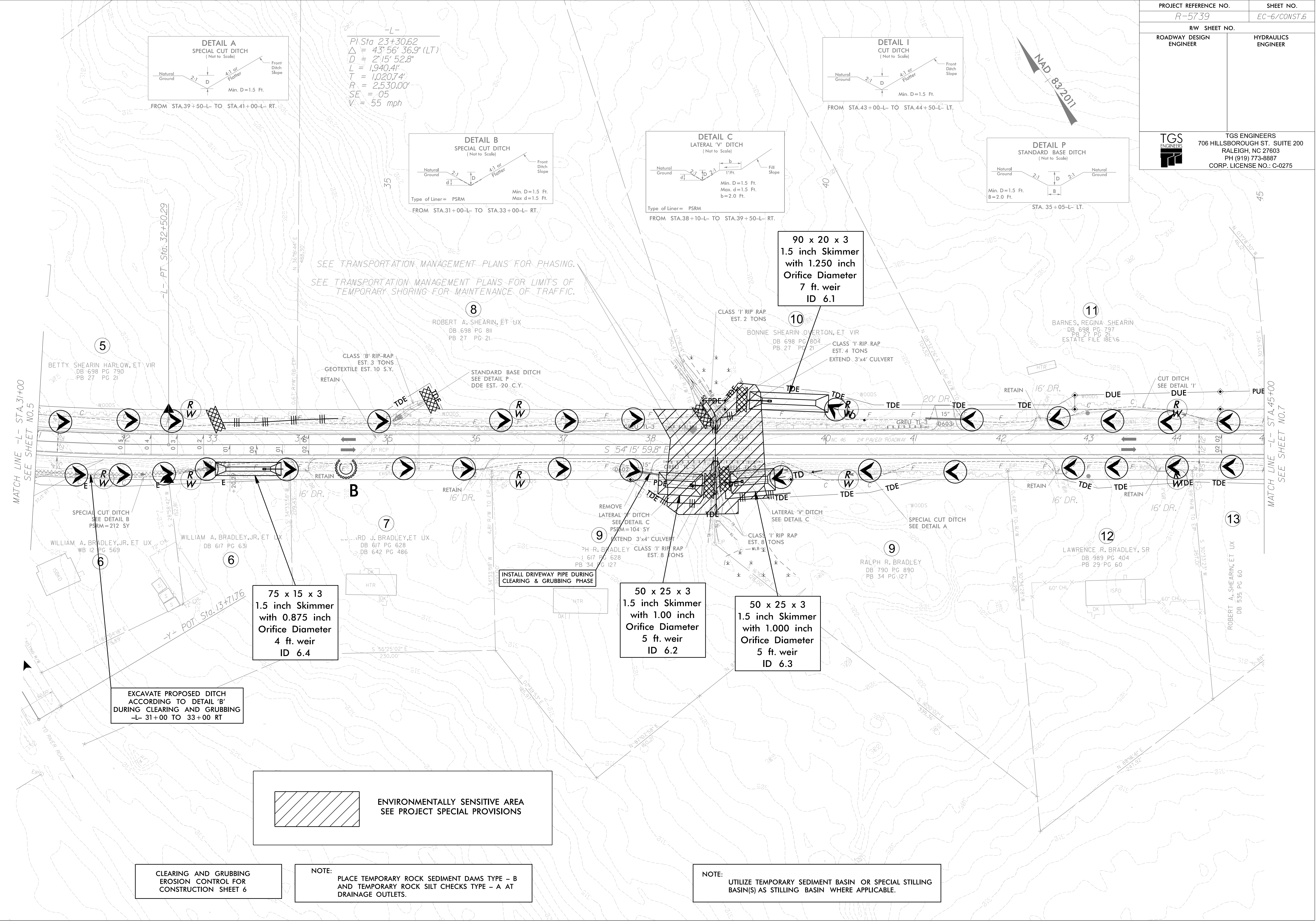
BEGIN T.I.P. PROJECT R-5739
-L- STA.12+09.79

MATCH LINE -L- STA.17+00
SEE SHEET NO.5

PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-4/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

[illegible]

PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-6/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



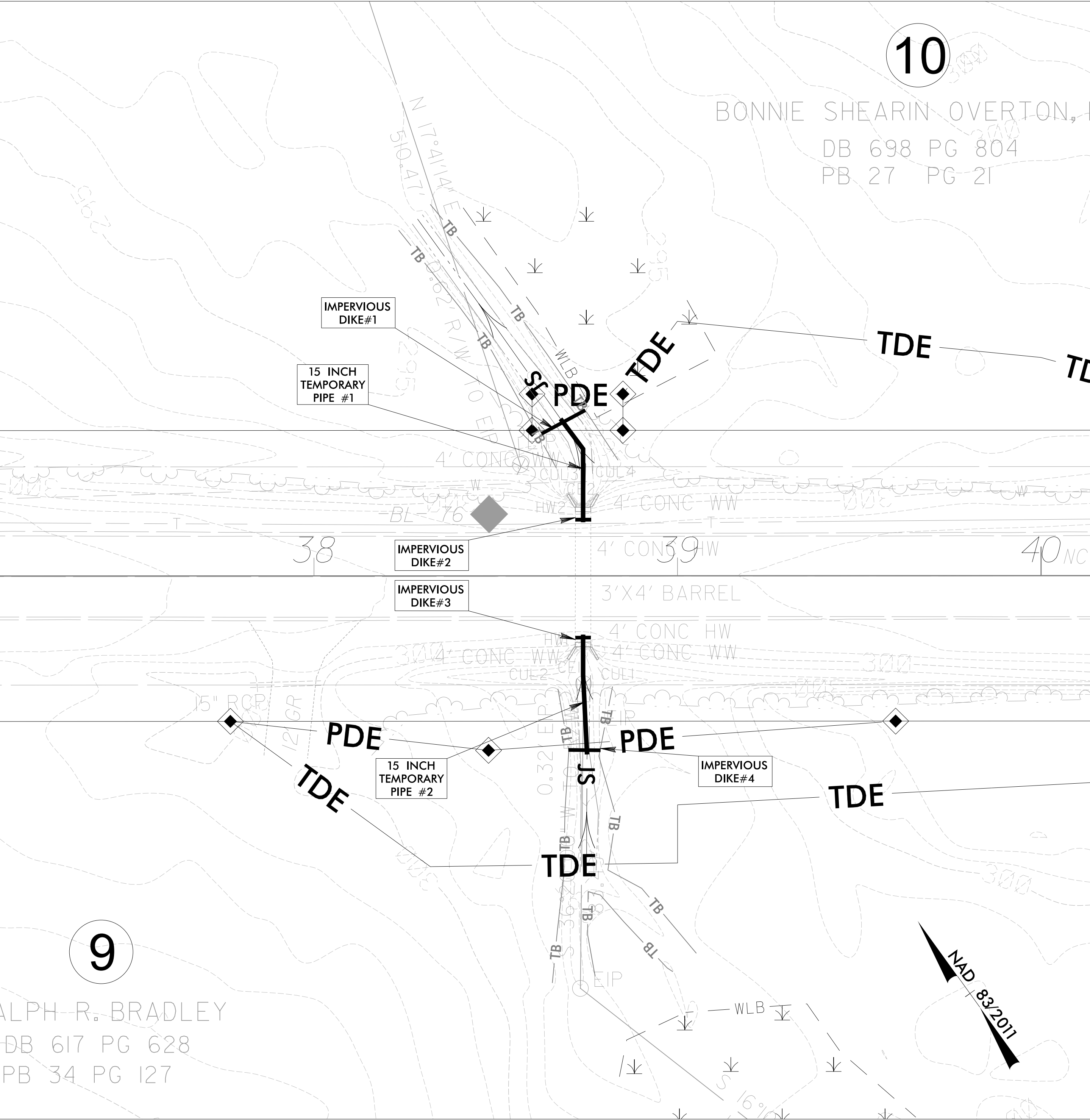
CULVERT CONSTRUCTION SEQUENCE STA. 38+74 -L-

1"=20'

PROJECT REFERENCE NO.		SHEET NO.
R-5739		EC-6A/CONST.6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

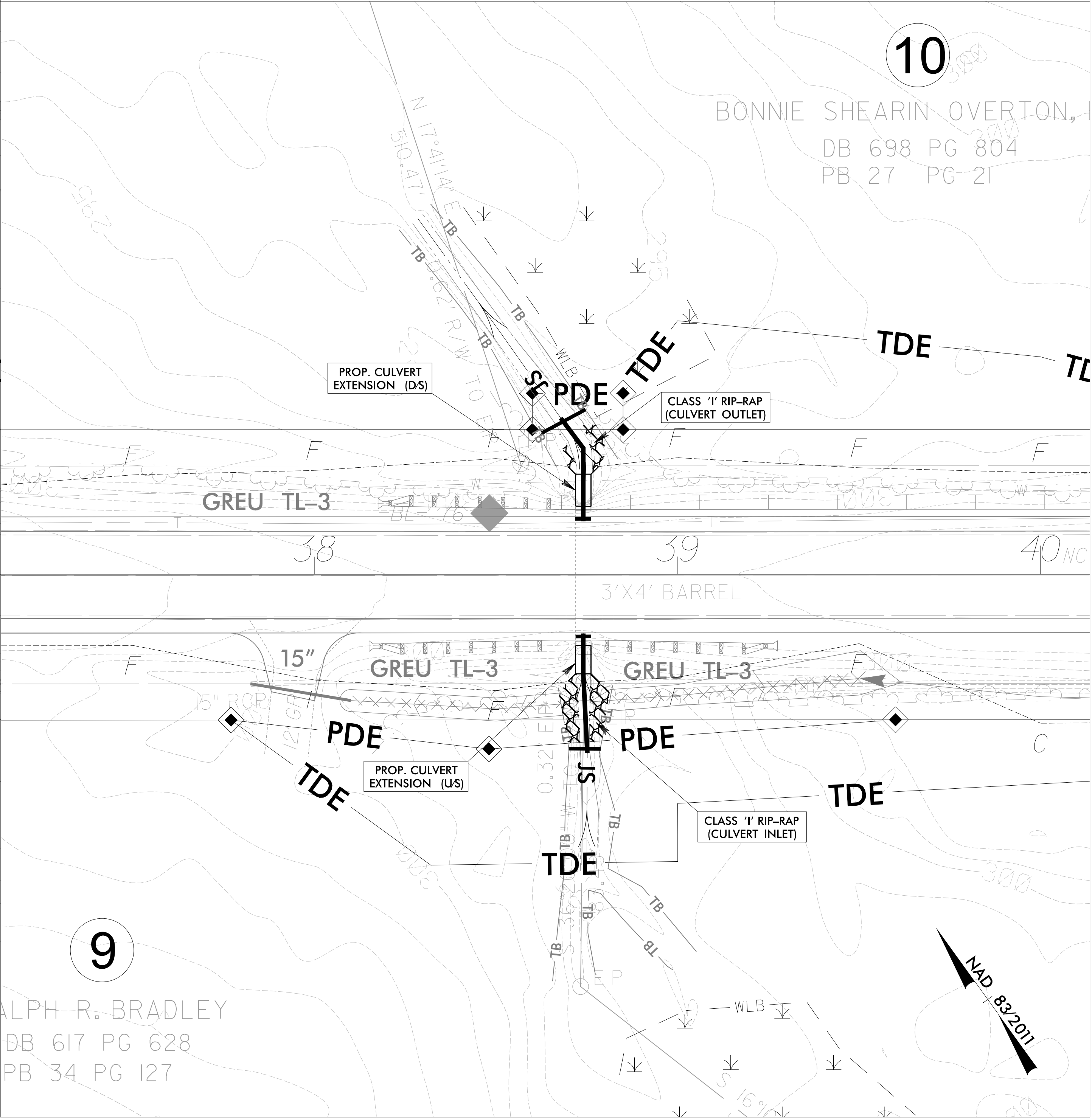
PHASE I

1. INSTALL IMPERVIOUS DIKES #1, #2, #3, & #4 AND 15 INCH TEMPORARY PIPES #1 & #2.
2. DEWATER CONSTRUCTION AREA INTO SKIMMER BASINS #6.1, #6.2, #6.3, AND SPECIAL STILLING BASIN(S) AS REQUIRED.
3. REMOVE EXISTING HEADWALLS AND WINGWALLS.



PHASE II

1. CONSTRUCT PROPOSED CULVERT EXTENSIONS, HEADWALLS, AND WINGWALLS.
2. INSTALL PROPOSED CLASS 'I' RIP-RAP AT CULVERT INLET AND OUTLET.
3. REMOVE IMPERVIOUS DIKES #1, #2, #3, & #4 AND 15 INCH TEMPORARY PIPES #1 & #2.



DETAIL I
CUT DITCH
(Not to Scale)

Natural Ground 2:1 D 41 or Orifice Front Ditch Slope
Min. D=1.5 Ft.

FROM STA. 51+67-L TO STA. 53+00-L LT.
FROM STA. 55+50-L TO STA. 56+50-L LT.
FROM STA. 55+00-L TO STA. 56+00-L RT.

PI Sta 50+28.95
Δ = 0° 08' 13.2" (RT)
D = 0° 22' 55.1"
L = 35.87'
T = 17.93'
R = 15,000.00'
SE = NC
V = 45 mph

PI Sta 53+27.56
Δ = 0° 21' 23.7" (LT)
D = 0° 42' 58.3"
L = 49.79'
T = 24.89'
R = 8,000.00'
SE = NC
V = 45 mph

PI Sta 54+94.61
Δ = 0° 14' 27.4" (RT)
D = 0° 42' 58.3"
L = 33.64'
T = 16.82'
R = 8,000.00'
SE = NC
V = 45 mph

85 x 15 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
5 ft. weir
ID 7.1

90 x 15 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
6 ft. weir
ID 7.2

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground 2:1 D 41 or Orifice Front Ditch Slope
Min. D=1.5 Ft.

FROM STA. 48+50-L TO STA. 50+00-L RT.
FROM STA. 53+00-L TO STA. 55+50-L LT.
FROM STA. 56+50-L TO STA. 58+00-L LT.
FROM STA. 55+50-L TO STA. 57+00-L RT.
FROM STA. 58+50-L TO STA. 59+00-L RT.

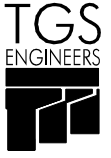
DETAIL D
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground 2:1 D 2:1 b 1/2 ft. Fill Slope
Min. D=1.5 Ft.
b=2.0 Ft.

FROM STA. 11+52-YI TO STA. 12+50-YI LT.

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 7

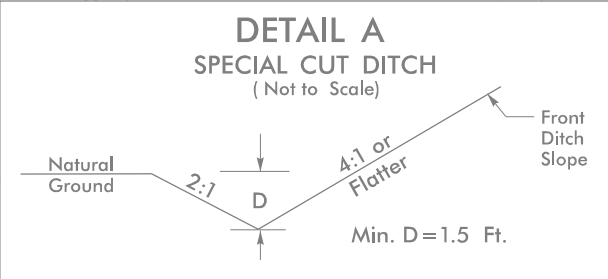
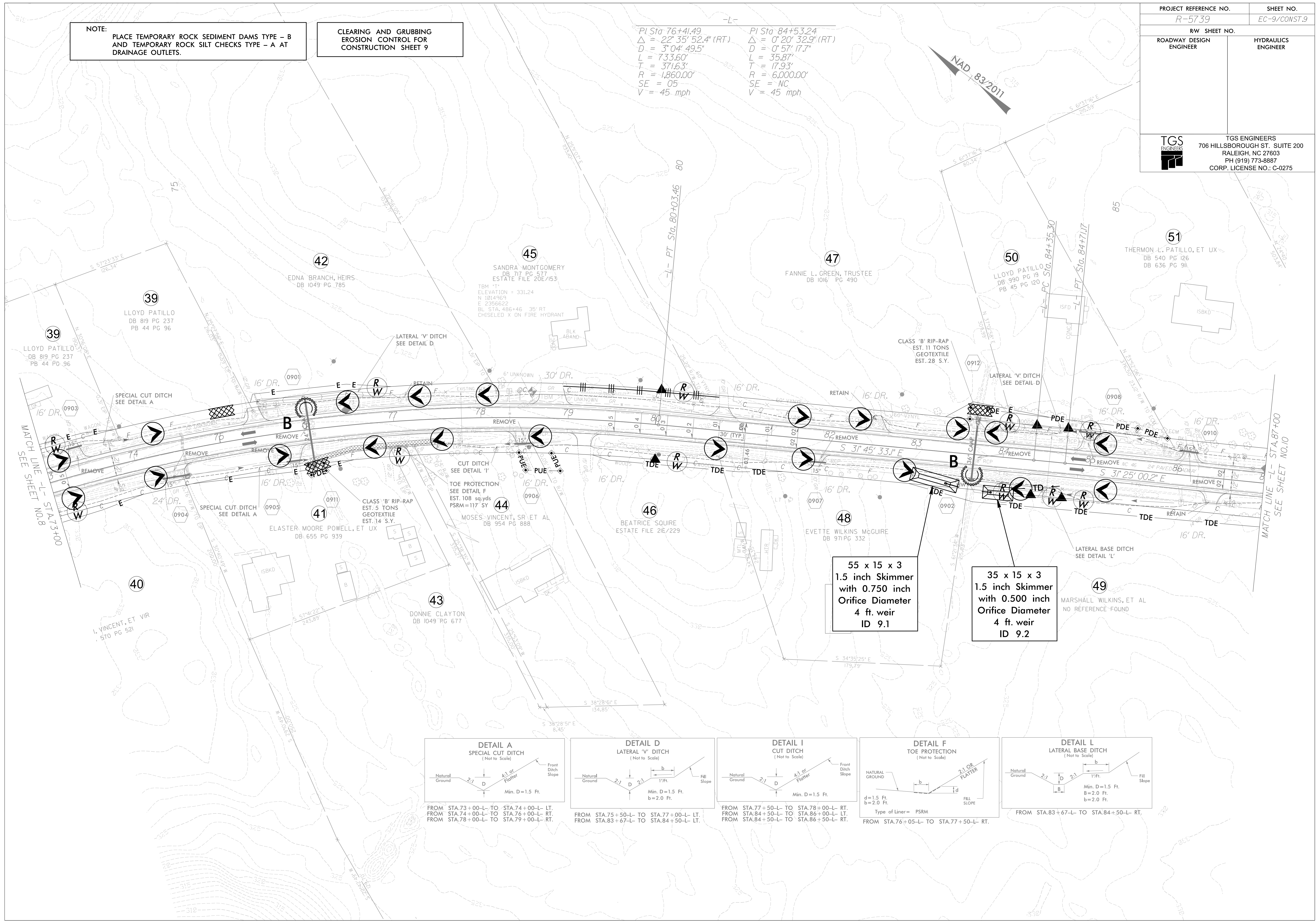
PROJECT REFERENCE NO.		SHEET NO.
R-5739		EC-9/CONST.9
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275

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

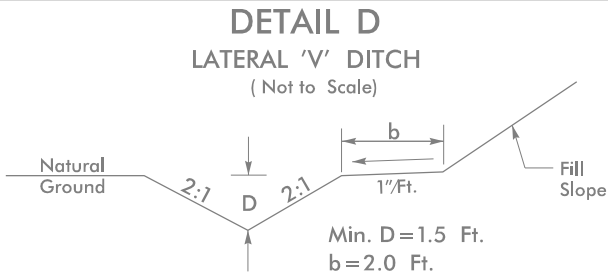
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

PI Sta 76+41.49
 $\Delta = 22^\circ 35' 52.4''$ (RT)
 $D = 3^\circ 04' 49.5''$
 $L = 733.60'$
 $T = 371.63'$
 $R = 1,860.00'$
 $SE = 05$
 $V = 45$ mph

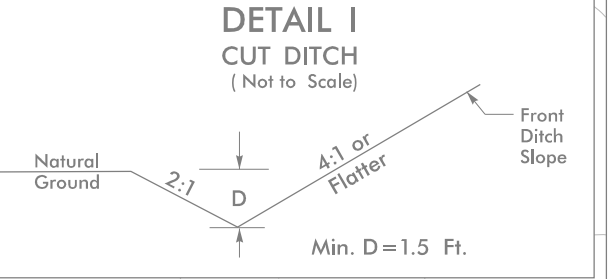
PI Sta 84+53.24
 $\Delta = 0^\circ 20' 32.9''$ (RT)
 $D = 0^\circ 57' 17.7''$
 $L = 35.87'$
 $T = 17.93'$
 $R = 6,000.00'$
 $SE = NC$
 $V = 45$ mph



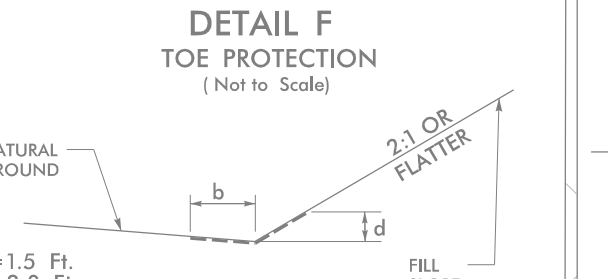
FROM STA.73+00-L- TO STA.74+00-L- LT.
FROM STA.74+00-L- TO STA.76+00-L- RT.
FROM STA.78+00-L- TO STA.79+00-L- RT.



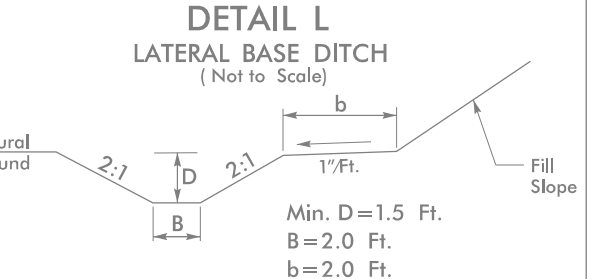
FROM STA.75+50-L- TO STA.77+00-L- LT.
FROM STA.83+67-L- TO STA.84+50-L- LT.



FROM STA.77+50-L- TO STA.78+00-L- RT.
FROM STA.84+50-L- TO STA.86+00-L- LT.
FROM STA.84+50-L- TO STA.86+50-L- RT.

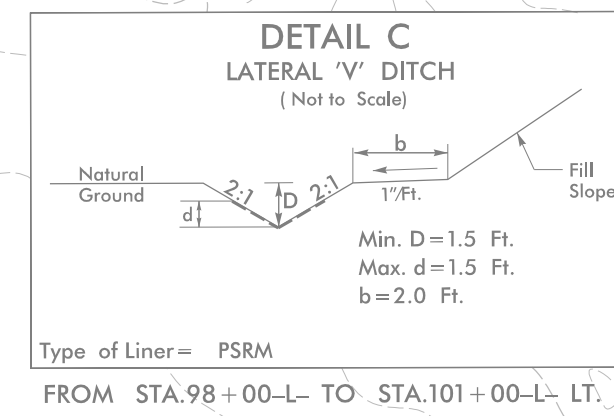
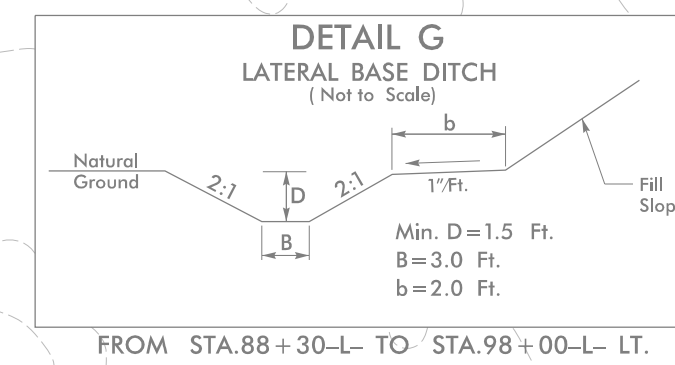


FROM STA.76+05-L- TO STA.77+50-L- RT.
Type of Liner= PSRM



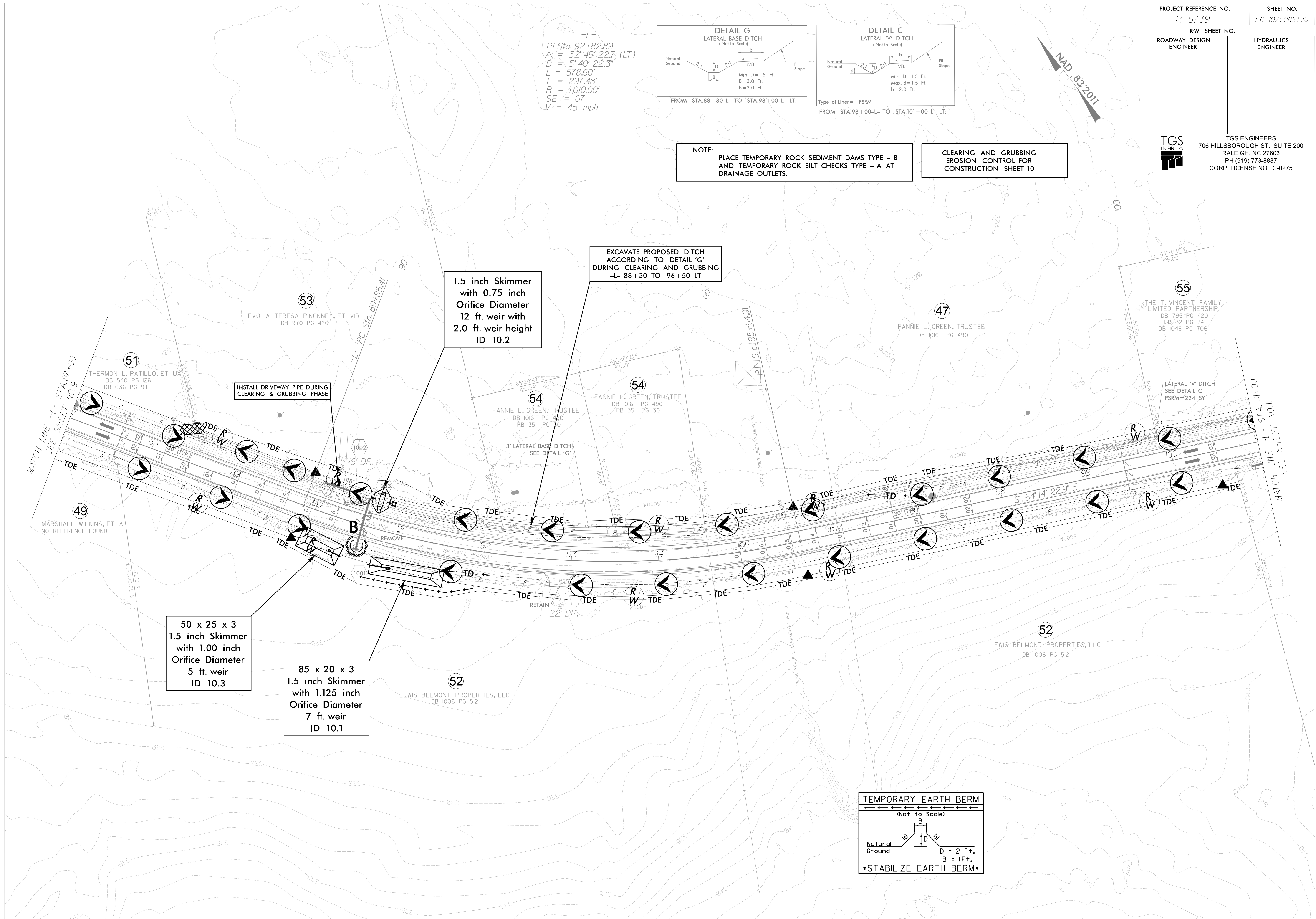
FROM STA.83+67-L- TO STA.84+50-L- RT.
Min. D=1.5 Ft.
B=2.0 Ft.
b=2.0 Ft.

PROJECT REFERENCE NO.	SHEET NO.
R-5739	EC-10/CONST.JO
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

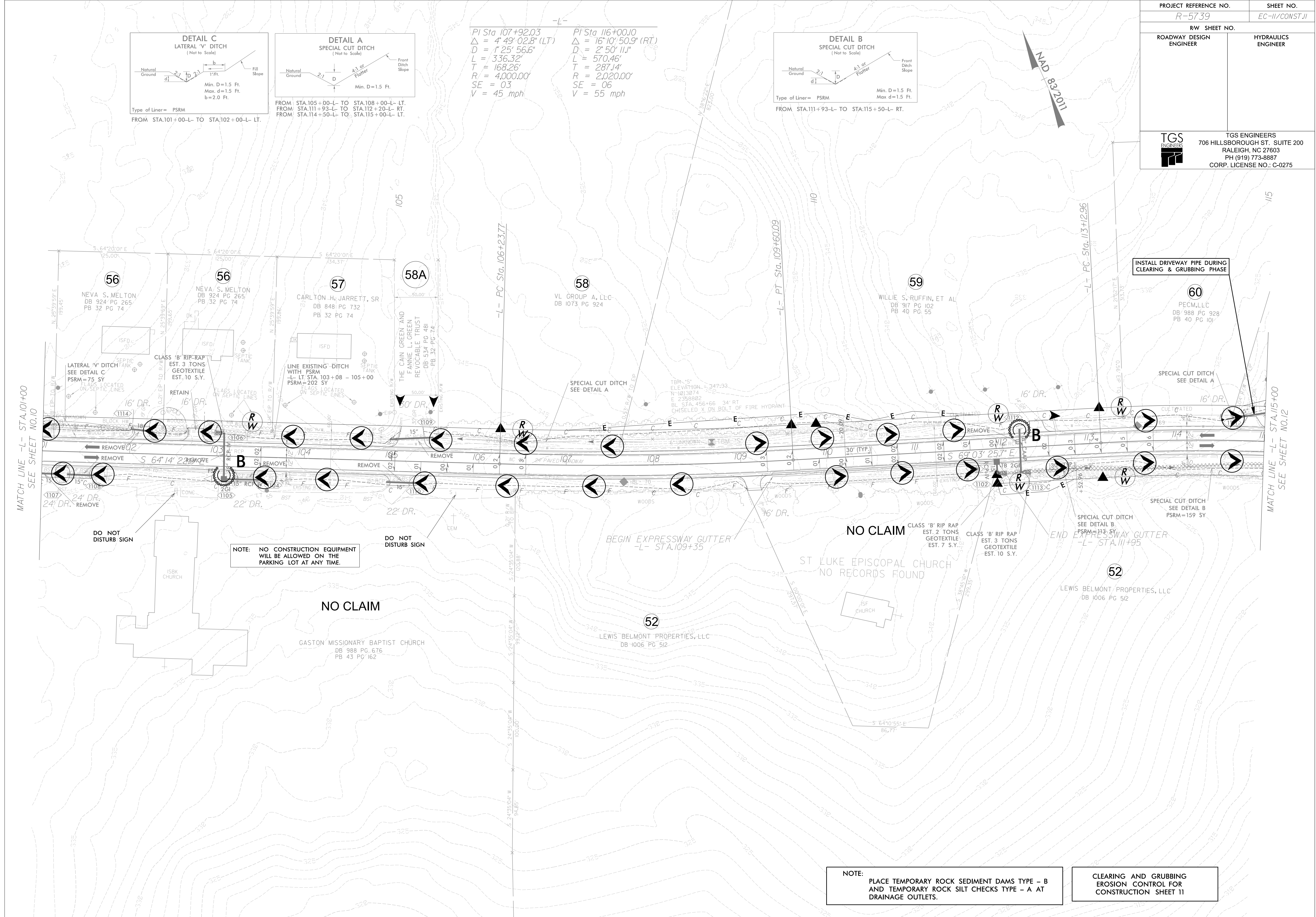


NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10



PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-II/CONST.II	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



DETAIL B
SPECIAL CUT DITCH
(Not to Scale)
Type of Liner = PSRM
FROM STA.115+00-L TO STA.115+50-L RT.

DETAIL L
LATERAL BASE DITCH
(Not to Scale)
FROM STA.125+50-L TO STA.129+00-L RT.
FROM STA.116+50-L TO STA.122+43-L LT.

DETAIL H
LATERAL BASE DITCH
(Not to Scale)
Type of Liner = PSRM
FROM STA.116+00-L TO STA.122+00-L RT.

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)
FROM STA.115+00-L TO STA.116+50-L LT.
FROM STA.125+50-L TO STA.127+00-L LT.

DETAIL I
CUT DITCH
(Not to Scale)
FROM STA.127+00-L TO STA.129+00-L LT.

70 x 20 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
5 ft. weir
ID 12.1

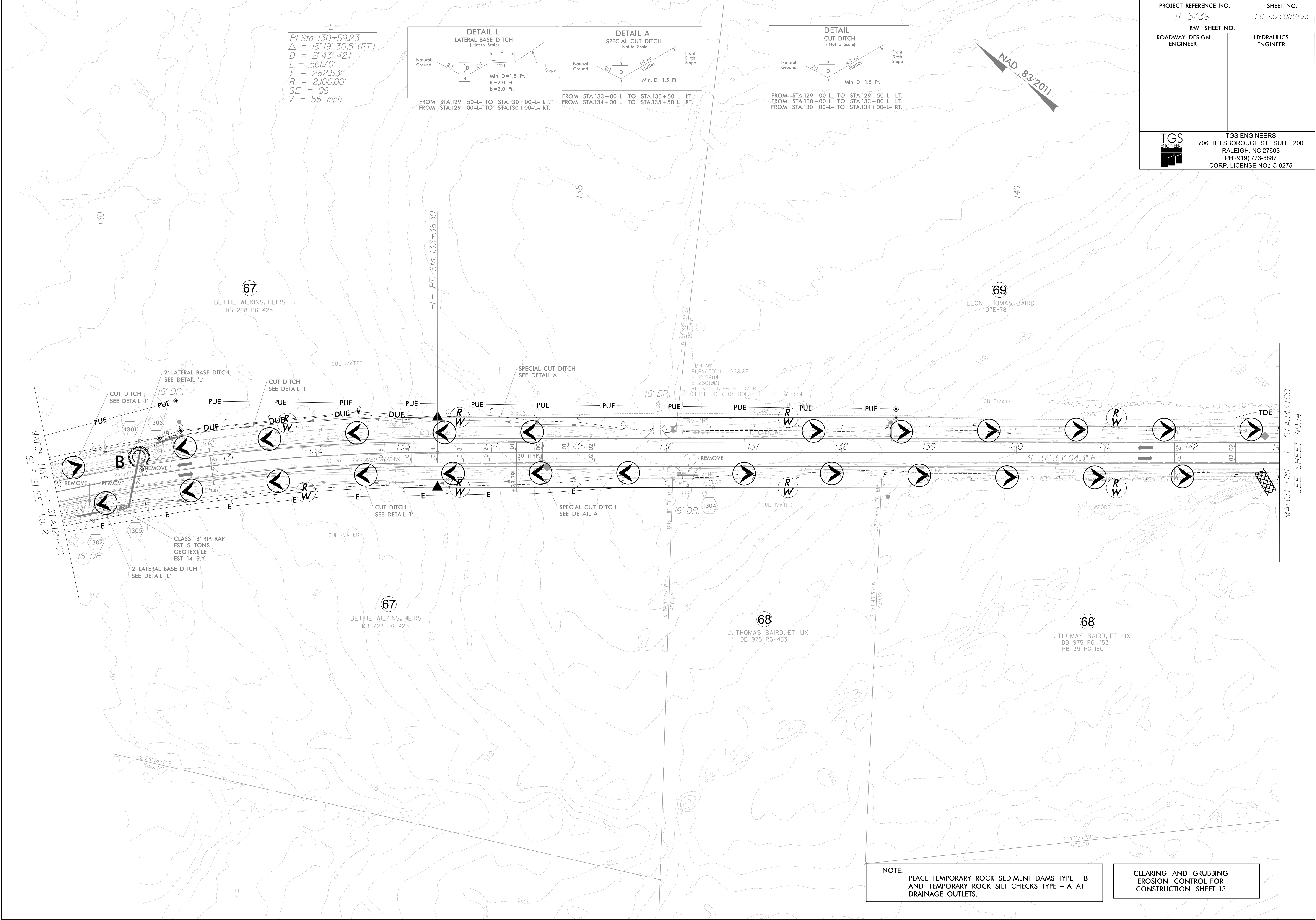
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

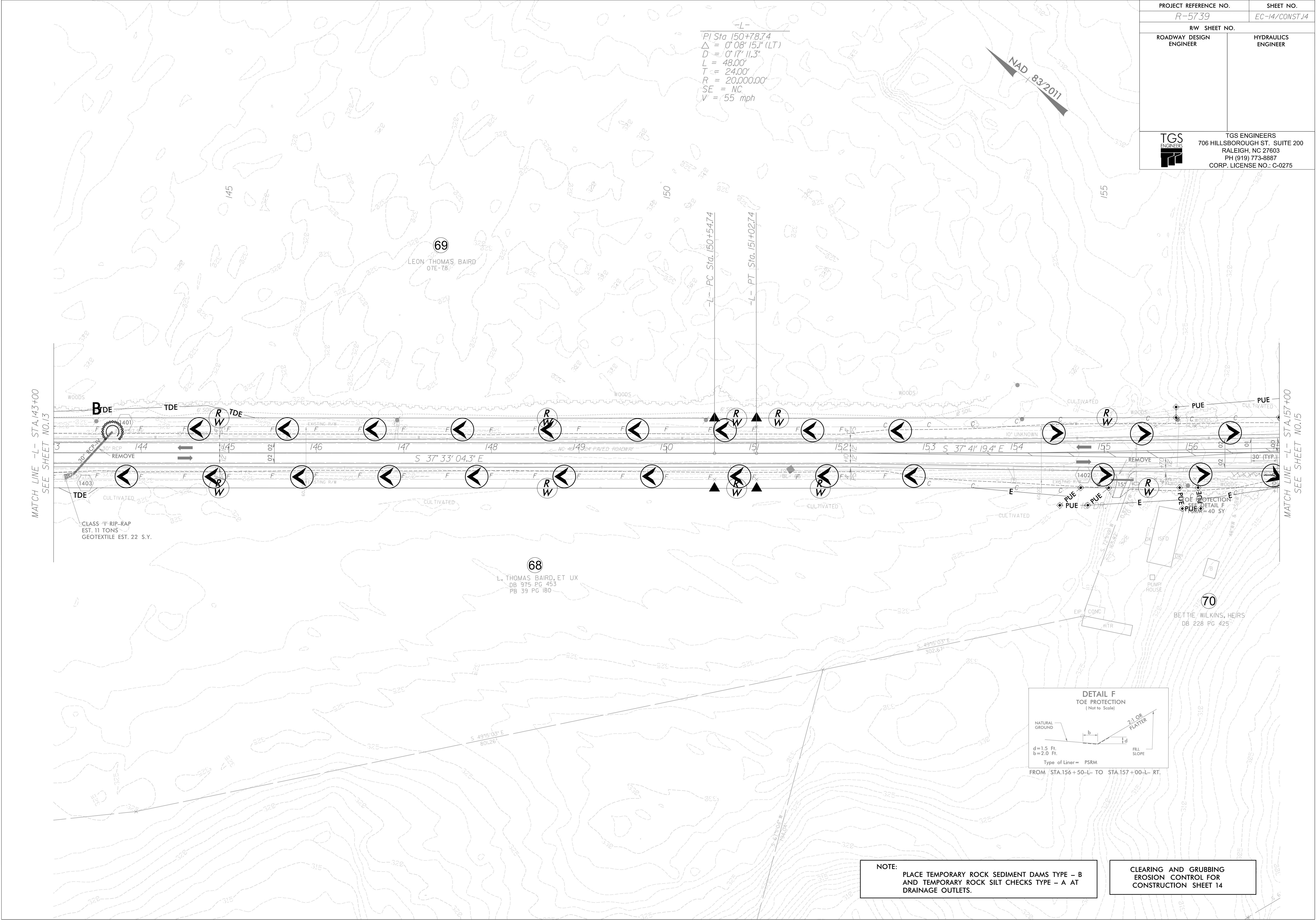
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

EXCAVATE P
ACCORDING TO
DURING CLEARING
-L- 125+50

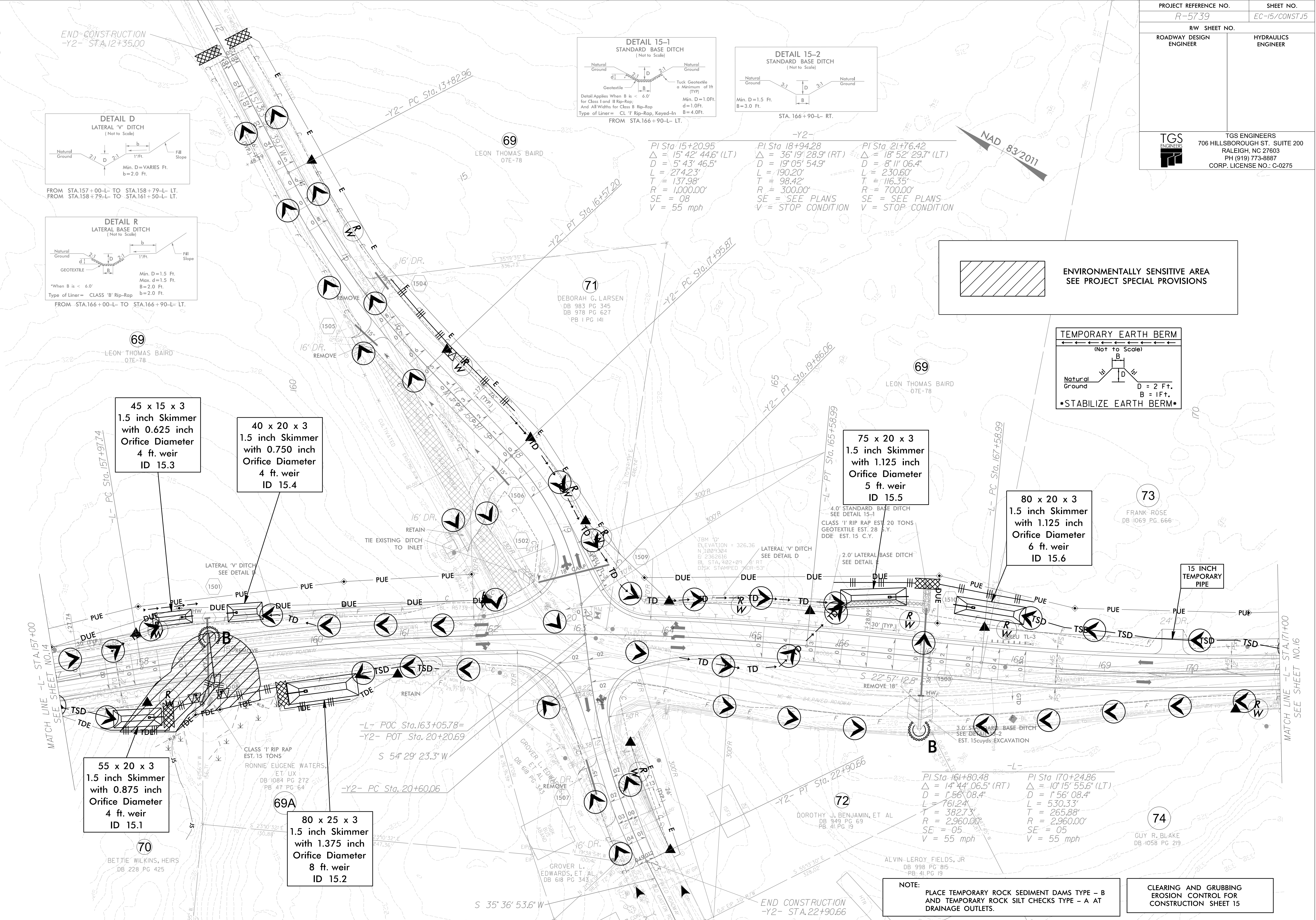
PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-13/CONST.13	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



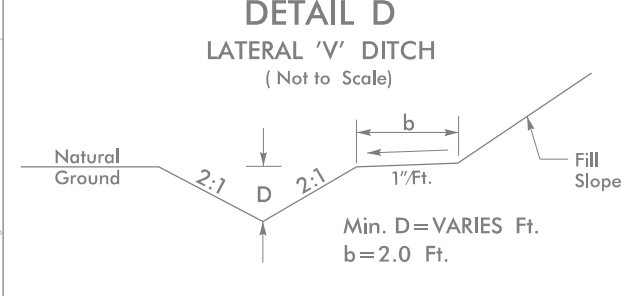
PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-14/CONST.14	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



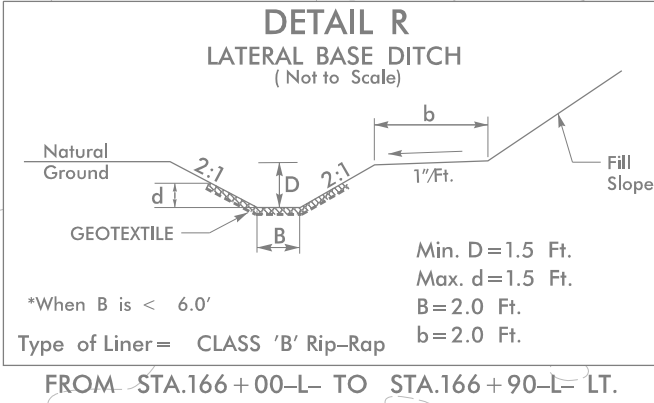
PROJECT REFERENCE NO.		SHEET NO.
R-5739		EC-15/CONST/5
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		
TGS ENGINEERS		TGS ENGINEERS
706 HILLSBOROUGH ST., SUITE 200		706 HILLSBOROUGH ST., SUITE 200
RALEIGH, NC 27603		RALEIGH, NC 27603
PH (919) 773-8887		PH (919) 773-8887
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275



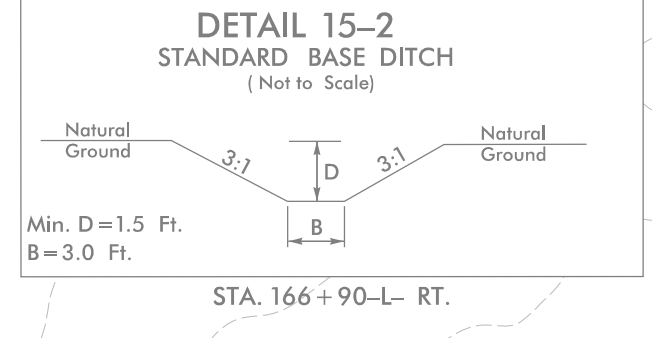
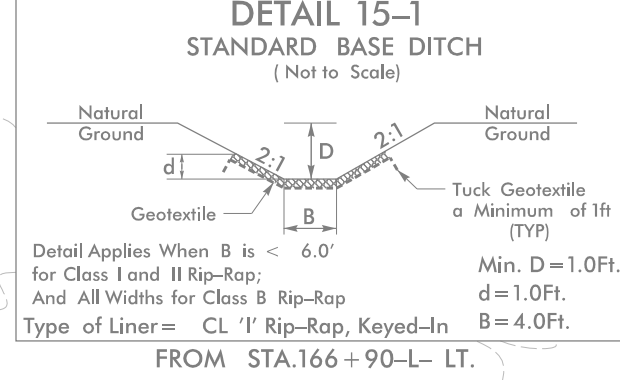
END CONSTRUCTION
-Y2- STA. 12+35.00



FROM STA. 157+00-L- TO STA. 158+79-L- LT.
FROM STA. 158+79-L- TO STA. 161+50-L- LT.



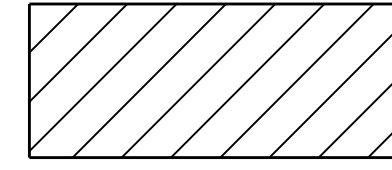
FROM STA. 166+00-L- TO STA. 166+90-L- LT.



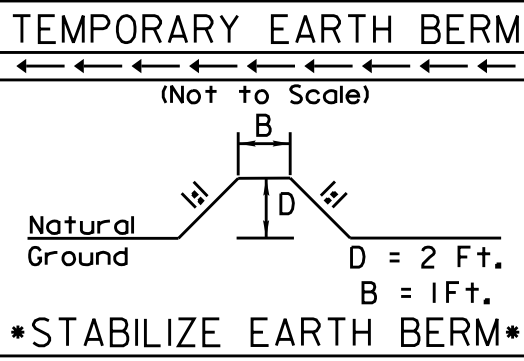
PI Sta. 15+20.95
 $\Delta = 15' 42' 44.6''$ (LT)
 $D = 5' 43' 46.5''$
 $L = 274.23'$
 $T = 137.98'$
 $R = 1,000.00'$
 $SE = 08$
 $V = 55$ mph

PI Sta. 18+94.28
 $\Delta = 36' 19' 28.9''$ (RT)
 $D = 19' 05' 54.9''$
 $L = 190.20'$
 $T = 98.42'$
 $R = 300.00'$
 $SE = SEE PLANS$
 $V = STOP CONDITION$

PI Sta. 21+76.42
 $\Delta = 18' 52' 29.7''$ (LT)
 $D = 8' 11' 06.4''$
 $L = 230.60'$
 $T = 116.35'$
 $R = 700.00'$
 $SE = SEE PLANS$
 $V = STOP CONDITION$



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



•STABILIZE EARTH BERM•

45 x 15 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 15.3

40 x 20 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 15.4

75 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
5 ft. weir
ID 15.5

80 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 15.6

55 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 15.1

80 x 25 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 15.2

PI Sta. 161+80.48
 $\Delta = 14' 44' 06.5''$ (RT)
 $D = 1' 56' 08.4''$
 $L = 161.24'$
 $T = 382.73'$
 $R = 2,960.00'$
 $SE = 05$
 $V = 55$ mph

PI Sta. 170+24.86
 $\Delta = 10' 15' 55.6''$ (LT)
 $D = 1' 56' 08.4''$
 $L = 530.33'$
 $T = 265.88'$
 $R = 2,960.00'$
 $SE = 05$
 $V = 55$ mph

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

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

DETAIL I
CUT DITCH
(Not to Scale)

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

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

DETAIL P
STANDARD BASE DITCH
(Not to Scale)

FROM STA.172+00-L- TO STA.174+00-L- LT
FROM STA.175+00-L- TO STA.177+00-L- LT
FROM STA.180+00-L- TO STA.182+00-L- RT

FROM STA.174+00-L- TO STA.175+00-L- LT

FROM STA.175+00-L- TO STA.176+50-L- RT

FROM STA.182+00-L- TO STA.185+00-L- RT

STA. 175+00-L- RT.

73

FRANK ROSE
DB 1069 PG 666

76

DEBORAH G. LARSEN, ET AL
DB 983 PG 345
DB 978 PG 627

74

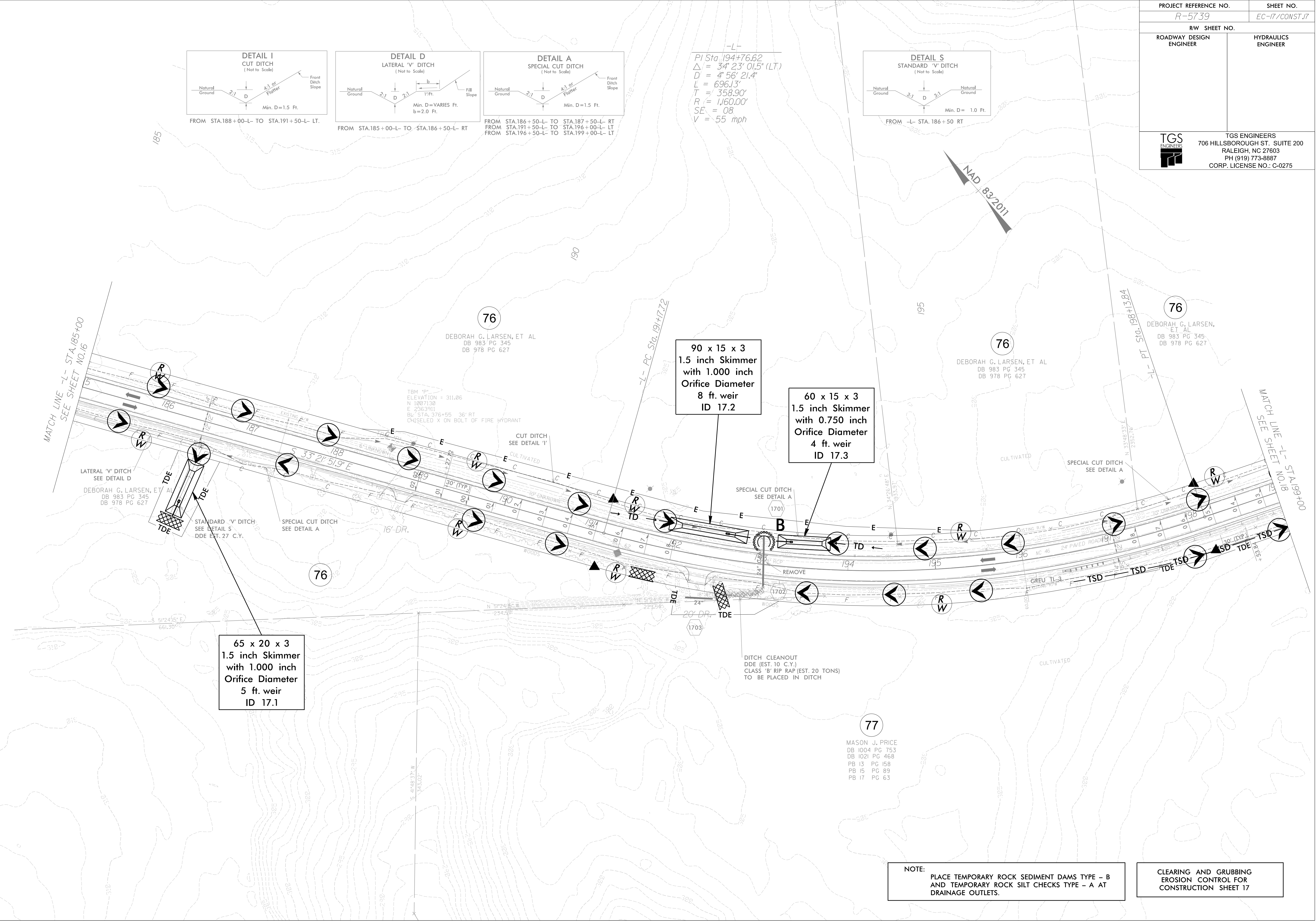
75

WILLIAM LEE BELFIELD
DB 930 PG 476
PB 41 PG 2

80 x 25 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
7 ft. weir
ID 16.1

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

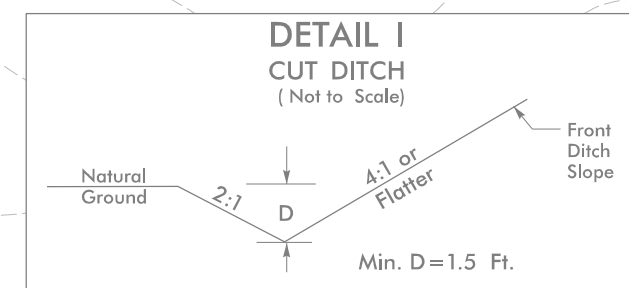
PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-17/CONST.17	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



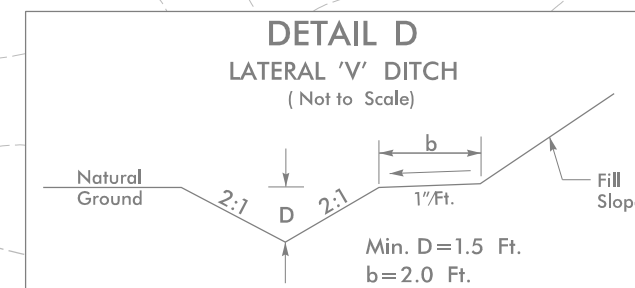
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17

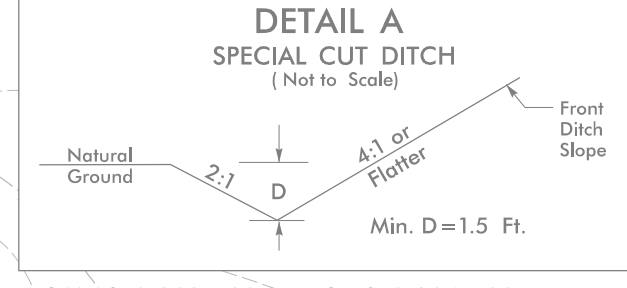
PROJECT REFERENCE NO.	SHEET NO.
R-5739	EC-18/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



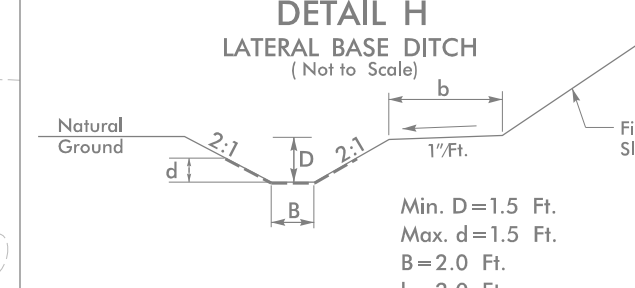
FROM STA.199+00-L- TO STA.200+12-L- LT.
FROM STA.201+50-L- TO STA.202+00-L- RT.



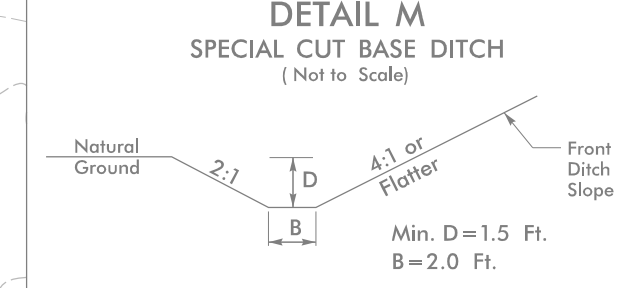
FROM STA.207+00-L- TO STA.208+50-L- LT.



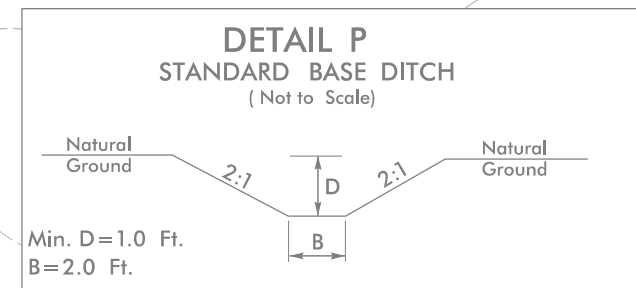
FROM STA.202+00-L- TO STA.204+00-L- RT.
FROM STA.204+00-L- TO STA.204+50-L- LT.
FROM STA.205+50-L- TO STA.207+00-L- RT.
FROM STA.207+00-L- TO STA.209+50-L- RT.



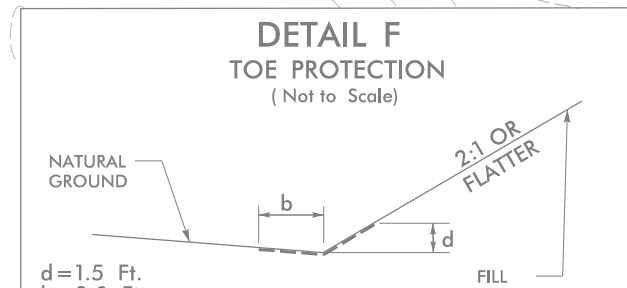
Type of Liner= PSRM



FROM STA.209+50-L- TO STA.211+54-L- RT.



STA. 200+12-L- RT.

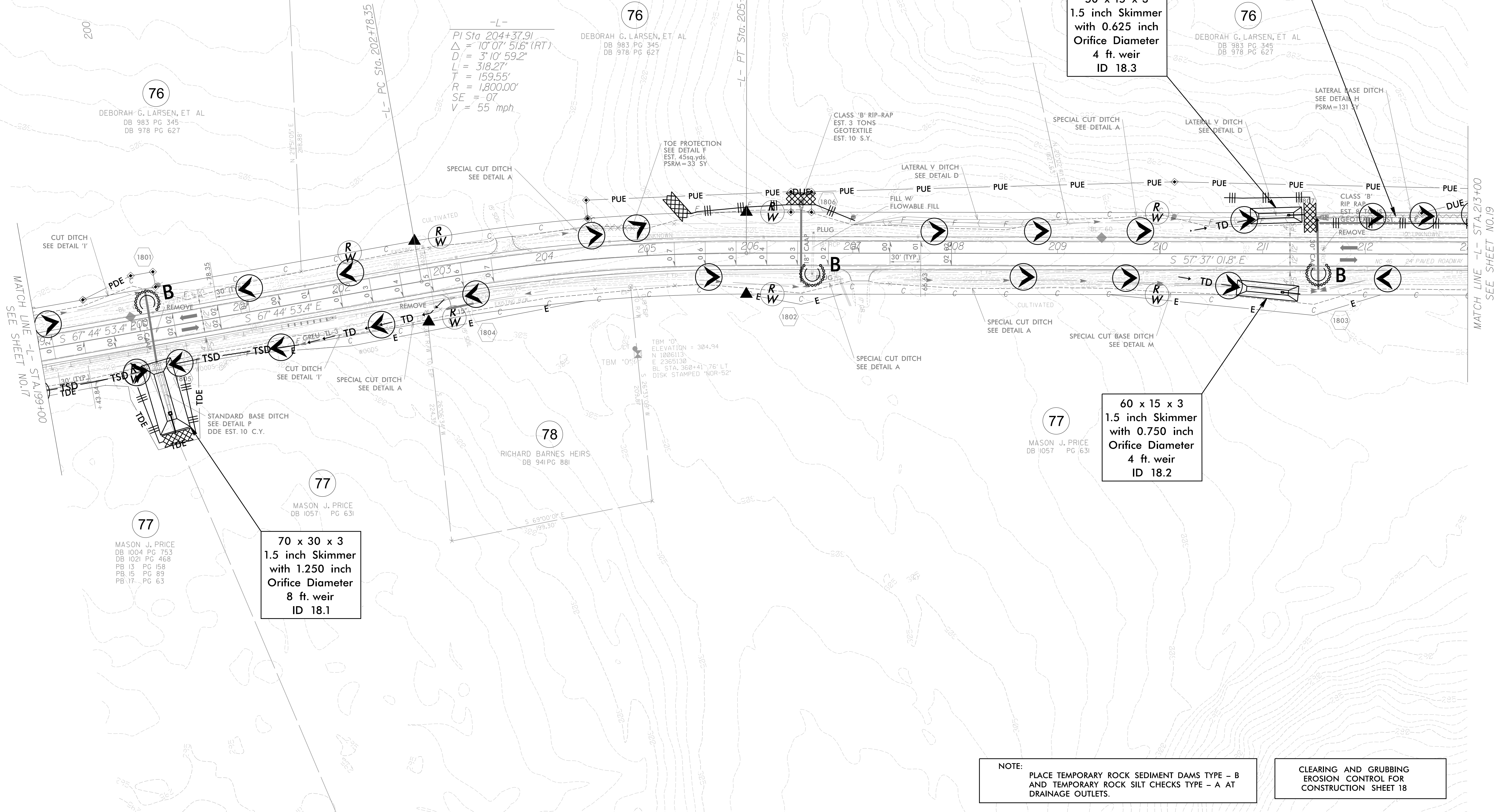


b=2.0 Ft. SLOPE

Type of Liner = PSRM

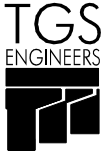
-L-

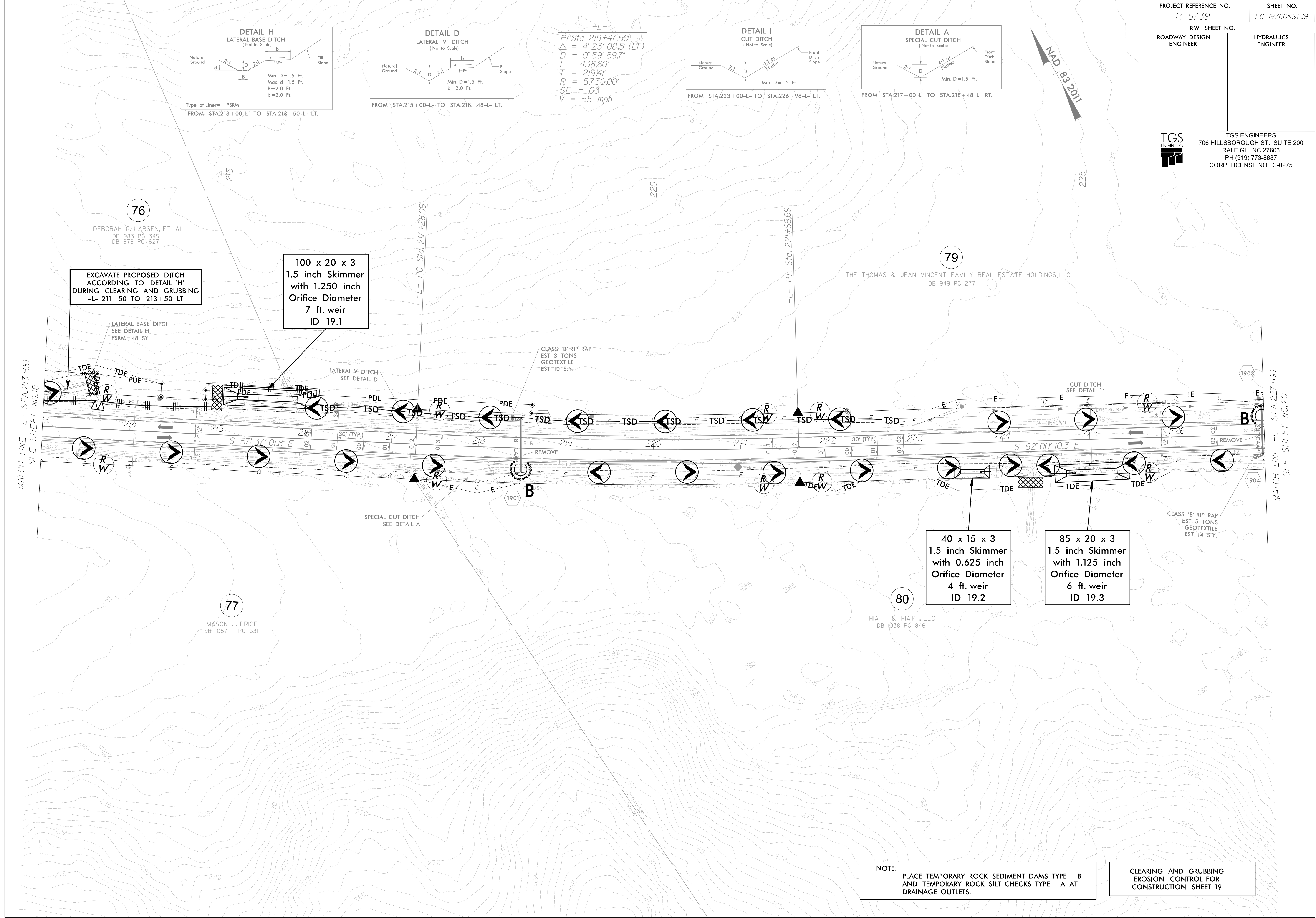
PI Sta	204+37.91
Δ	$= 10^{\circ} 07' 51.6" (RT)$
D	$= 3^{\circ} 10' 59.2"$
L	$= 318.27'$
T	$= 159.55'$
R	$= 1,800.00'$
SE	$= 07$
V	$= 55 \text{ mph}$



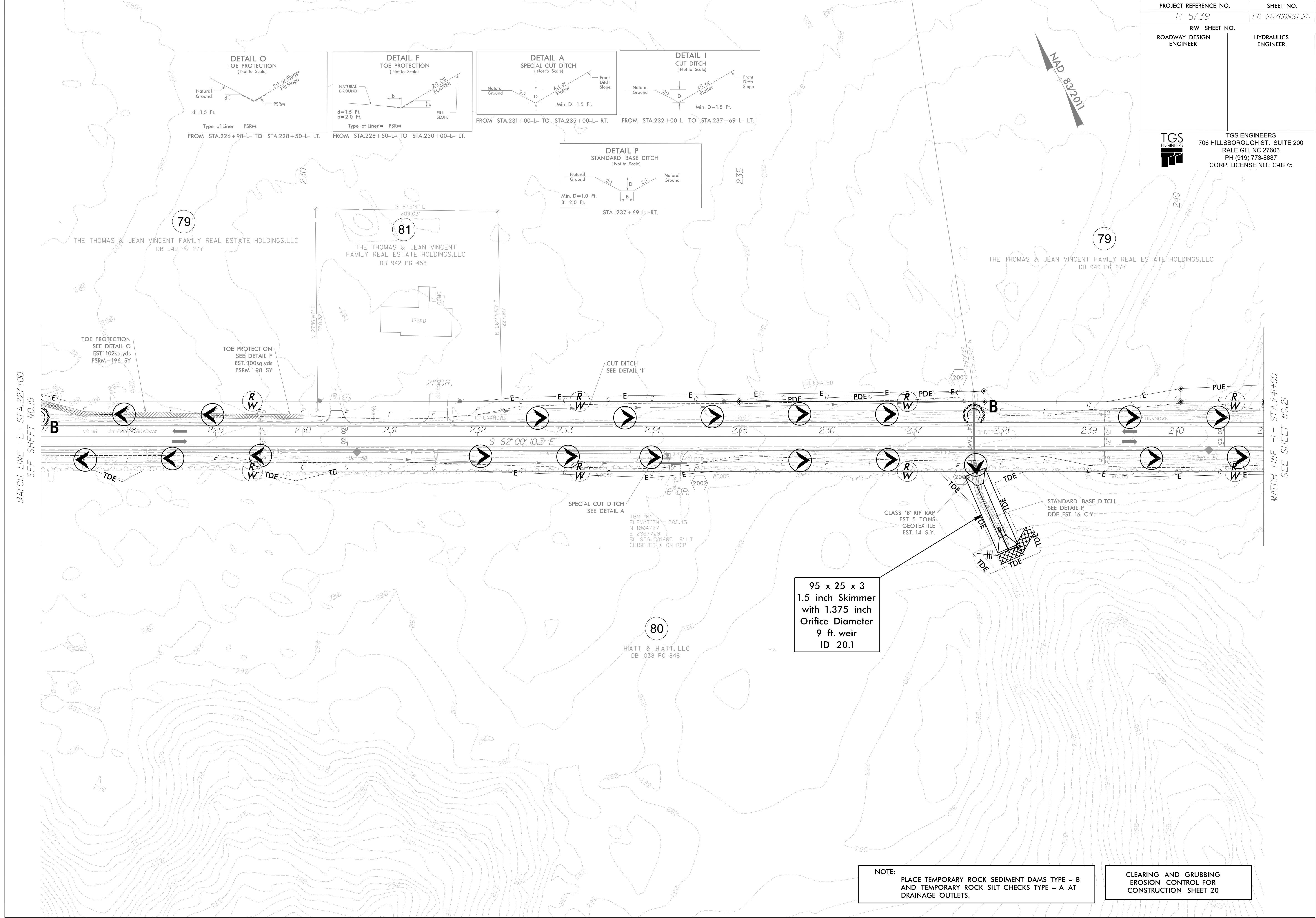
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18

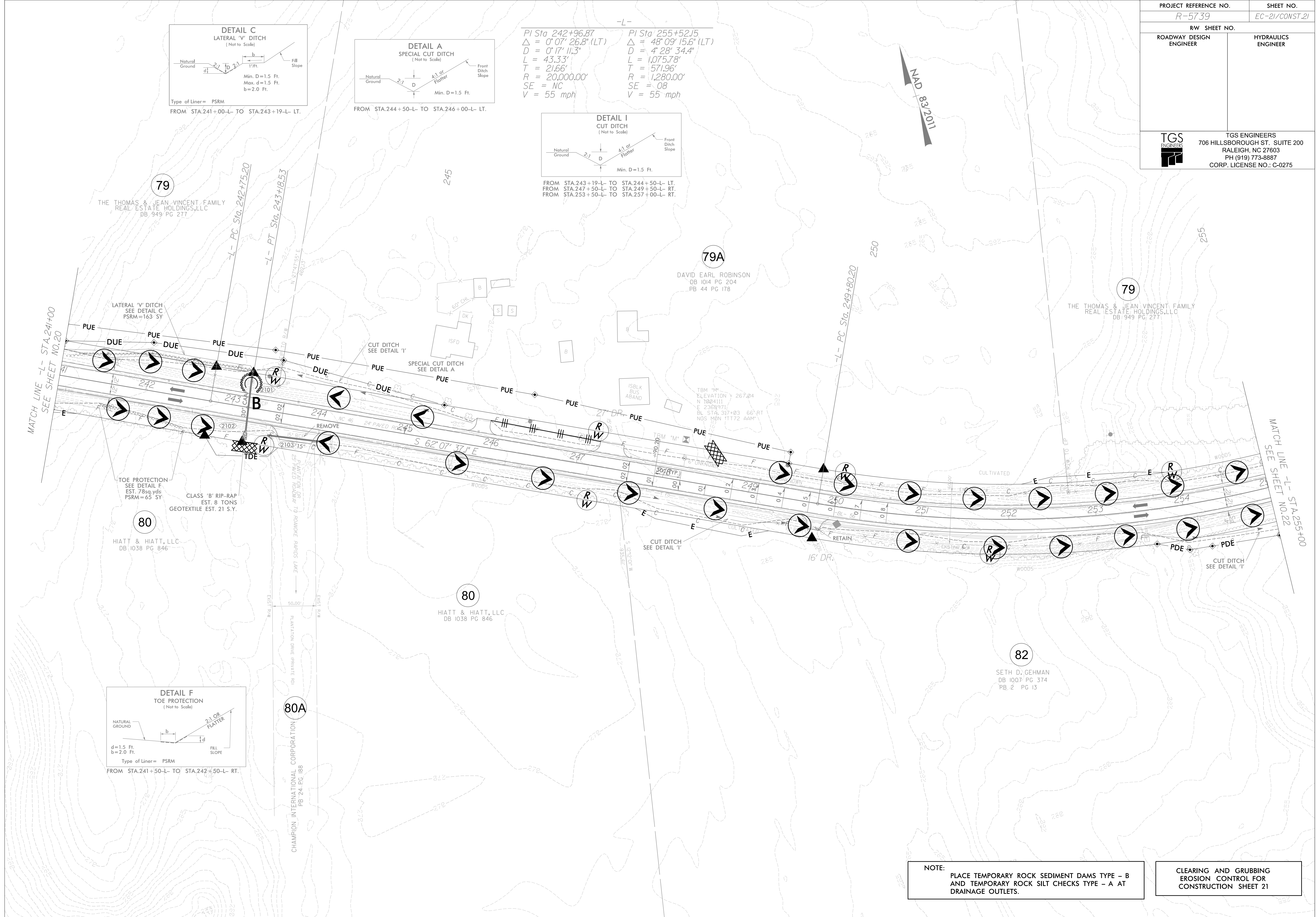
PROJECT REFERENCE NO.		SHEET NO.
R-5739		EC-19/CONSTJ9
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275



PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-20/CONST.20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



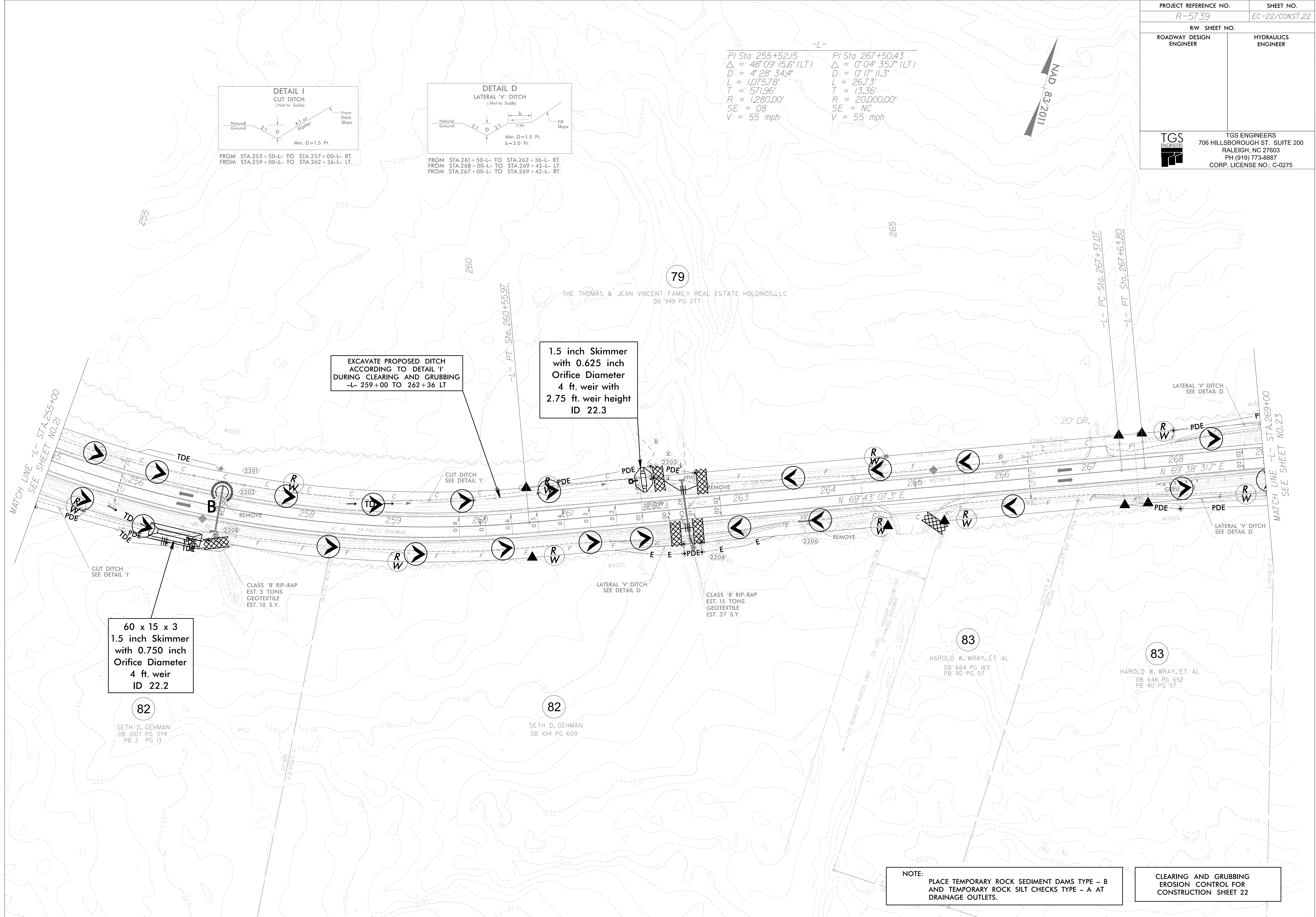
PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-21/CONST.21	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



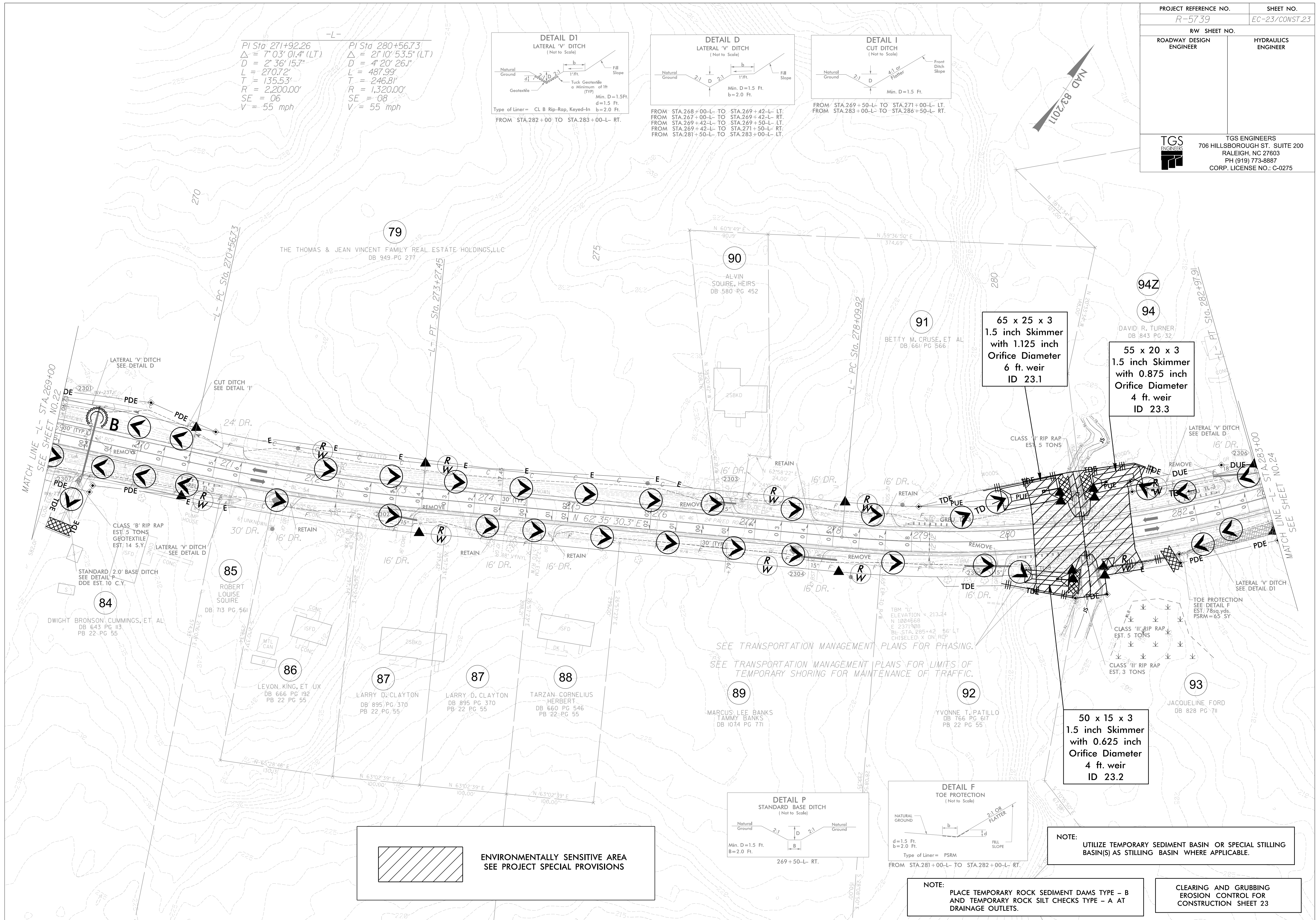
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-22/CONST.22	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
706 HILLSBOROUGH ST. SUITE 200		706 HILLSBOROUGH ST. SUITE 200	
RALEIGH, NC 27603		RALEIGH, NC 27603	
PH (919) 773-8887		PH (919) 773-8887	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



PROJECT REFERENCE NO.	SHEET NO.
R-5739	EC-23/CONST.23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



CULVERT CONSTRUCTION SEQUENCE STA. 280+87 -L-

1"=20'

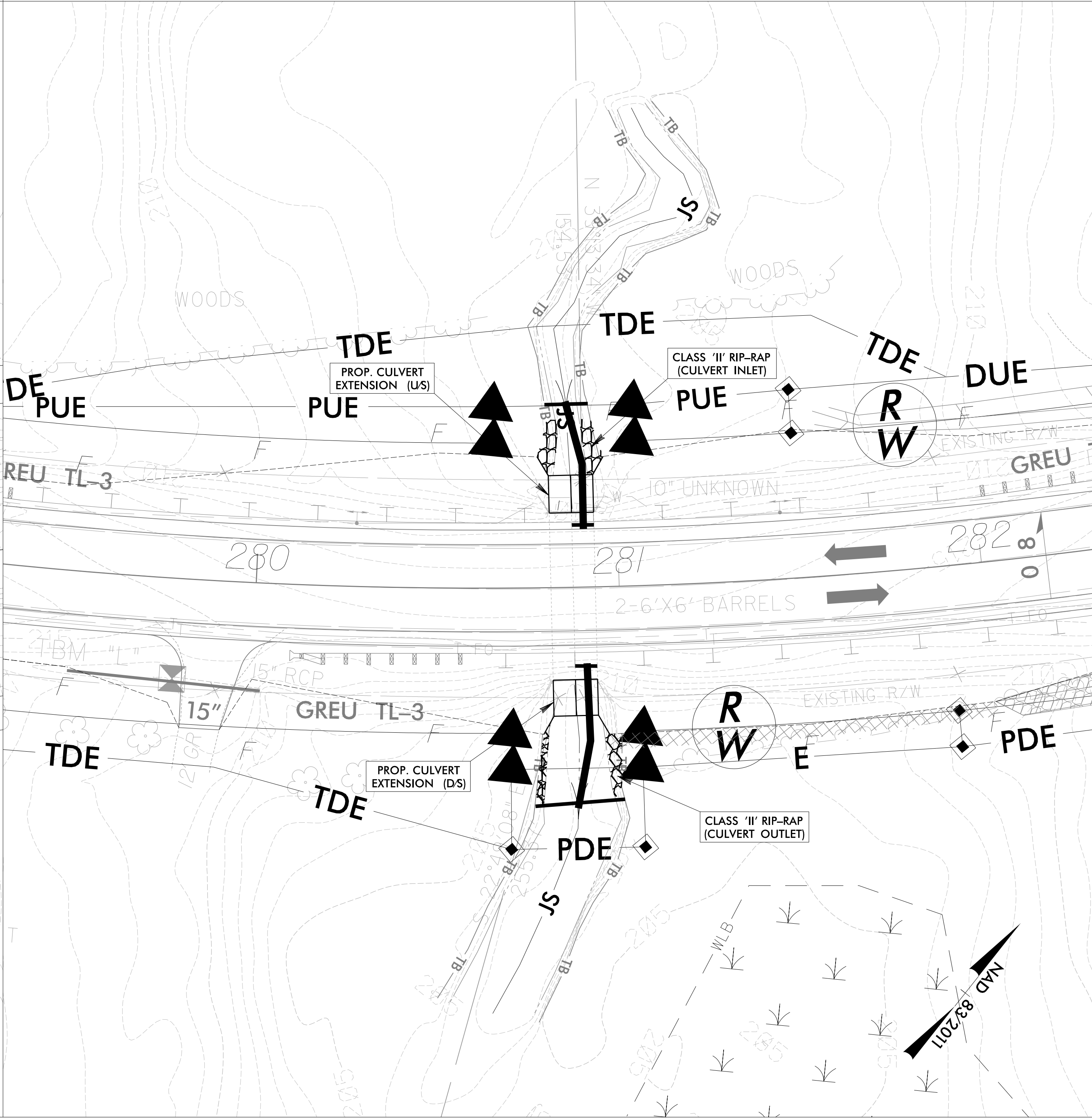
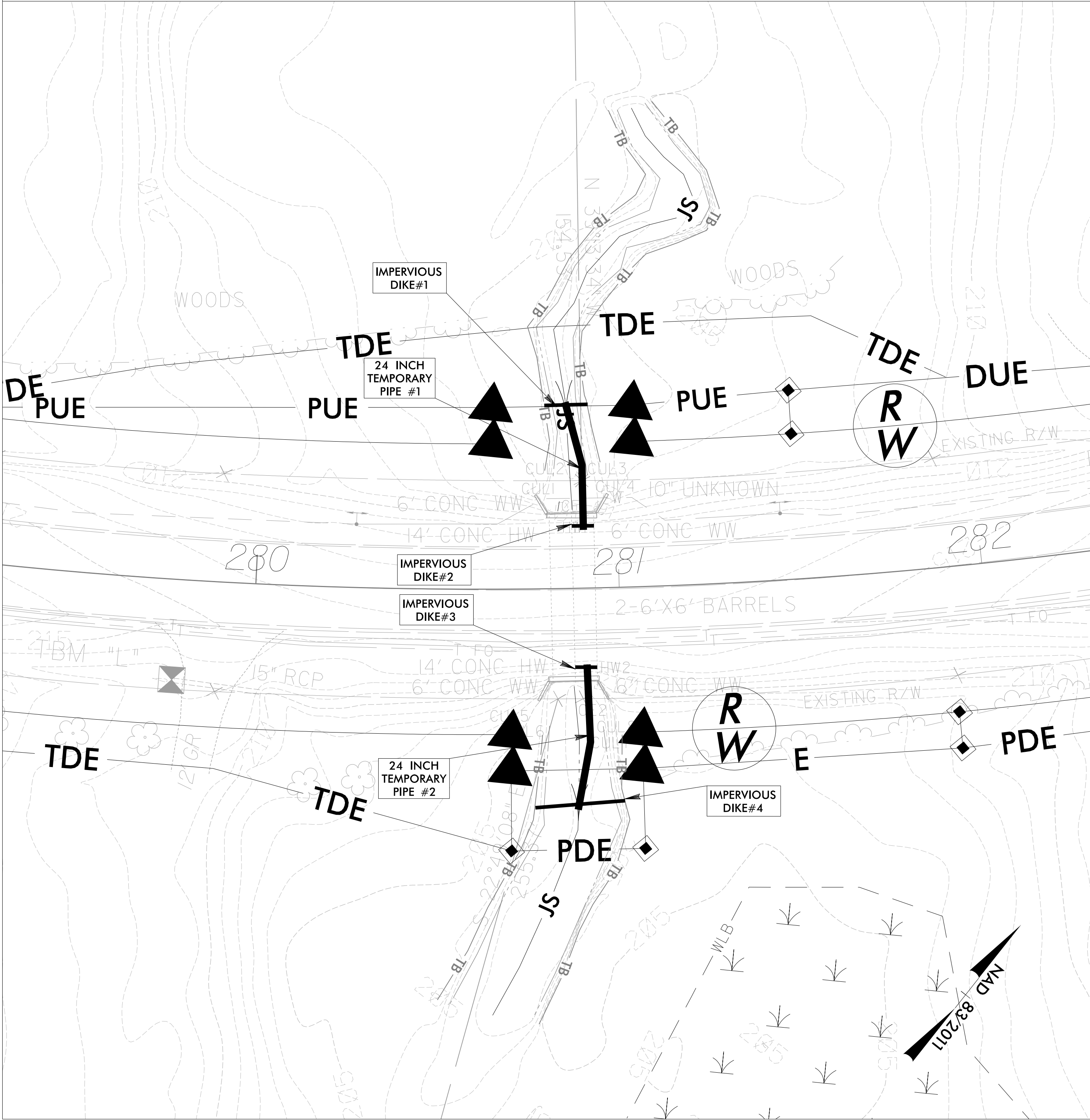
PROJECT REFERENCE NO.	SHEET NO.
R-5739	EC-23A/CONST.23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

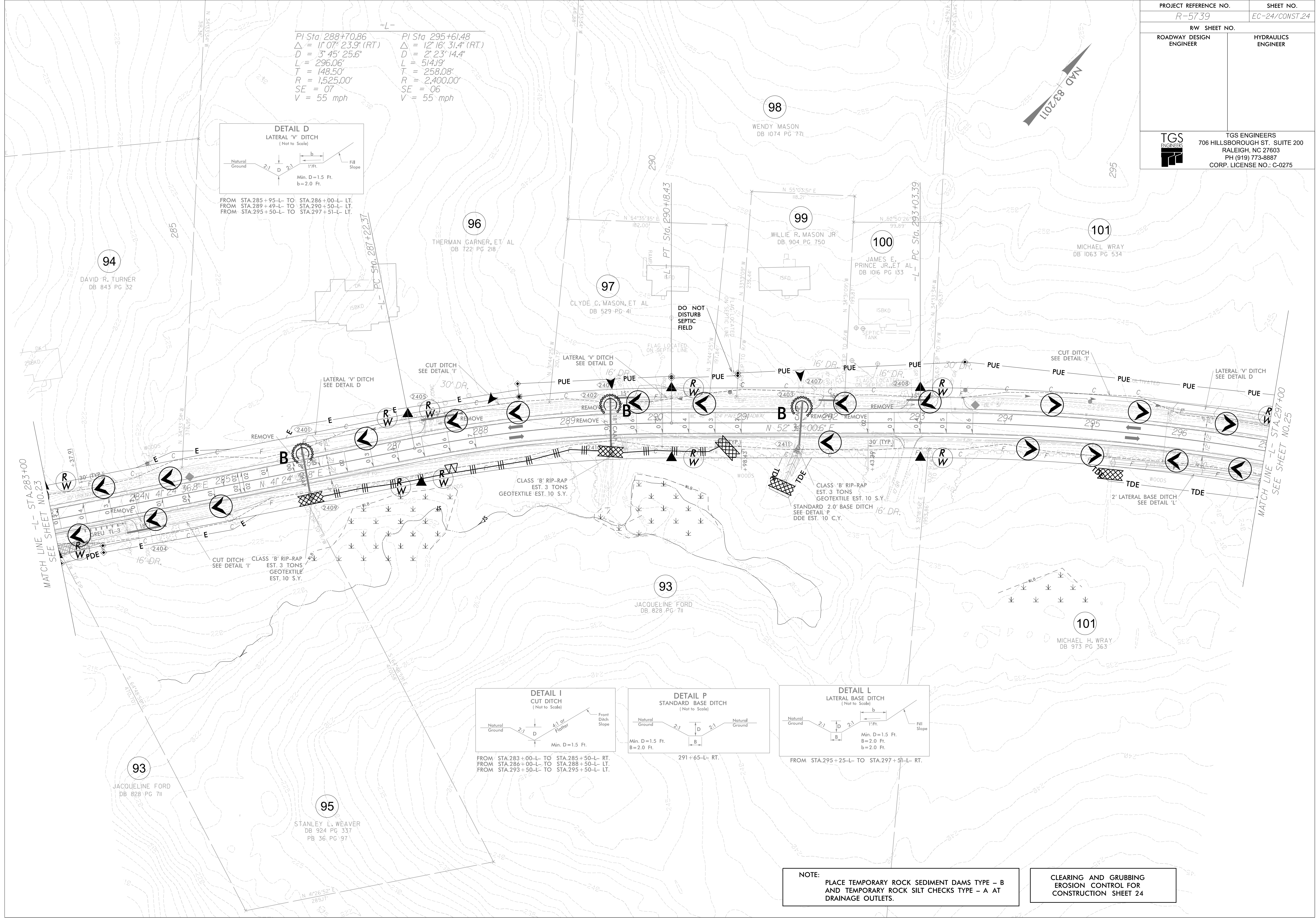
1. INSTALL IMPERVIOUS DIKES #1, #2, #3, & #4 AND 24 INCH TEMPORARY PIPES #1 & #2.
2. DEWATER CONSTRUCTION AREA INTO SKIMMER BASINS #23.1, #23.2, #23.3, AND SPECIAL STILLING BASIN(S) AS REQUIRED.
3. REMOVE EXISTING HEADWALLS AND WINGWALLS.

PHASE II

1. CONSTRUCT PROPOSED CULVERT EXTENSIONS, HEADWALLS, AND WINGWALLS.
2. INSTALL PROPOSED CLASS 'II' RIP-RAP AT CULVERT INLET AND OUTLET.
3. REMOVE IMPERVIOUS DIKES #1, #2, #3, & #4 AND 24 INCH TEMPORARY PIPES #1 & #2.



PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-24/CONST.24	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
		TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

FROM STA.298+00-L- TO STA.301+00-L- LT.
FROM STA.299+50-L- TO STA.300+50-L- RT.

PI Sta 295+61.48
 $\Delta = 12' 16' 31.4"$ (RT)
 $D = 2' 23' 14.4"$
 $L = 514.19'$
 $T = 258.08'$
 $R = 2,400.00'$
 $SE = 06$
 $V = 55 \text{ mph}$

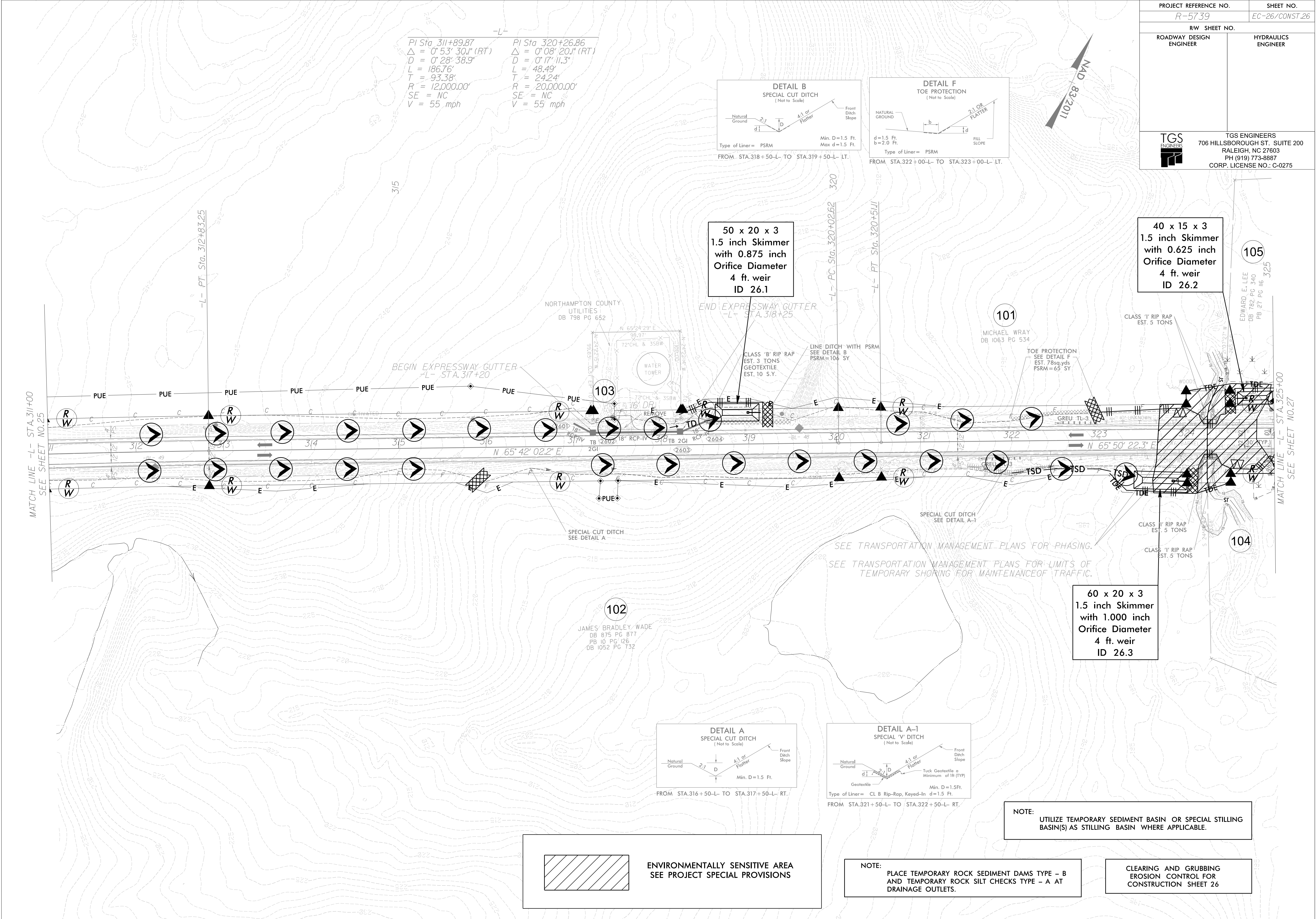
PI Sta 311+89.87
 $\Delta = 0' 53' 30.1"$ (RT)
 $D = 0' 28' 38.9"$
 $L = 186.76'$
 $T = 93.38'$
 $R = 12,000.00'$
 $SE = NC$
 $V = 55 \text{ mph}$

55 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 25.1

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

CLEARING
EROSION
CONSTRUCTION

PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-26/CONST.26	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



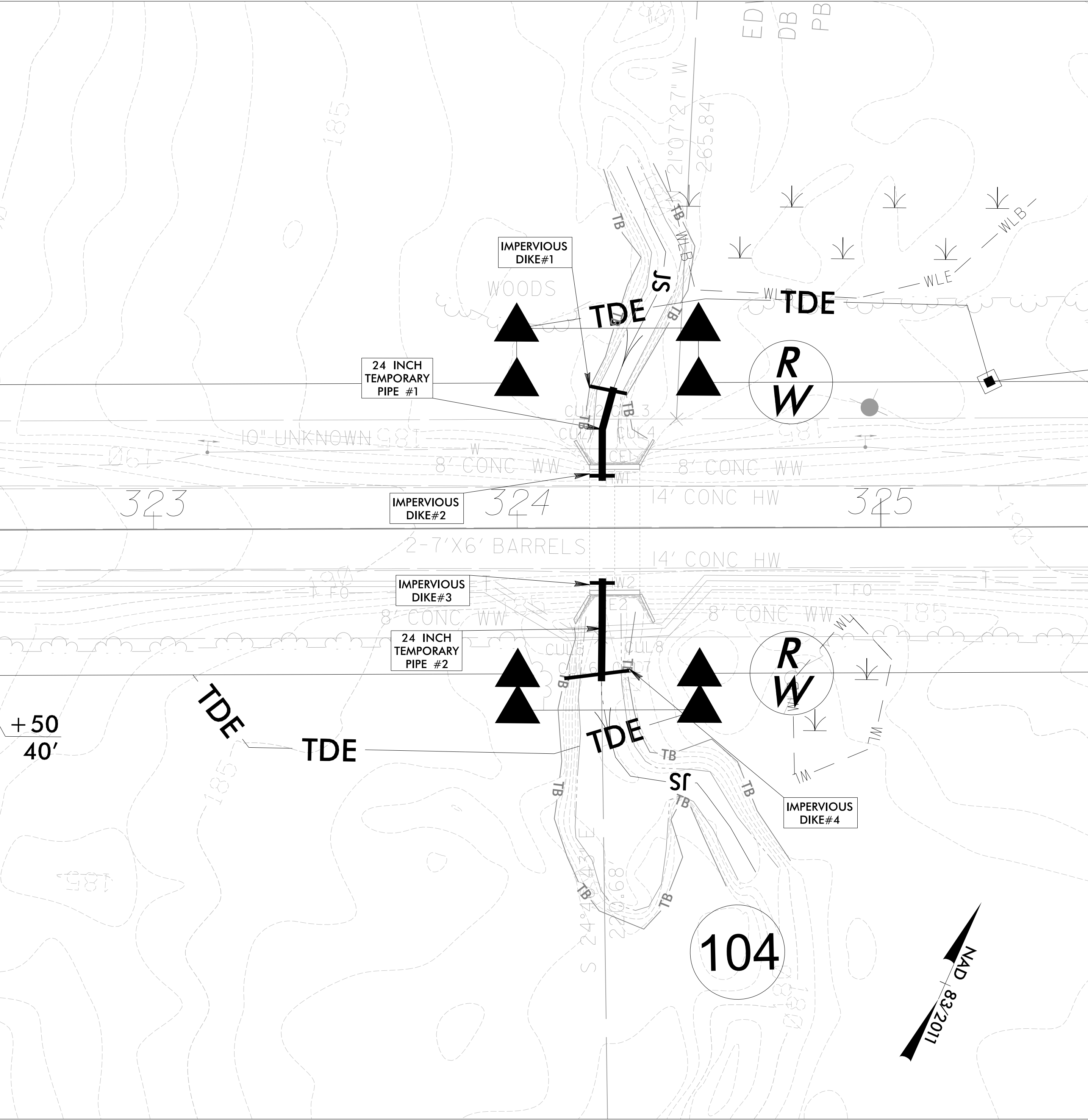
CULVERT CONSTRUCTION SEQUENCE STA. 324+27 -L-

1"=20'

PROJECT REFERENCE NO.		SHEET NO.
R-5739		EC-26A/CONST.26
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

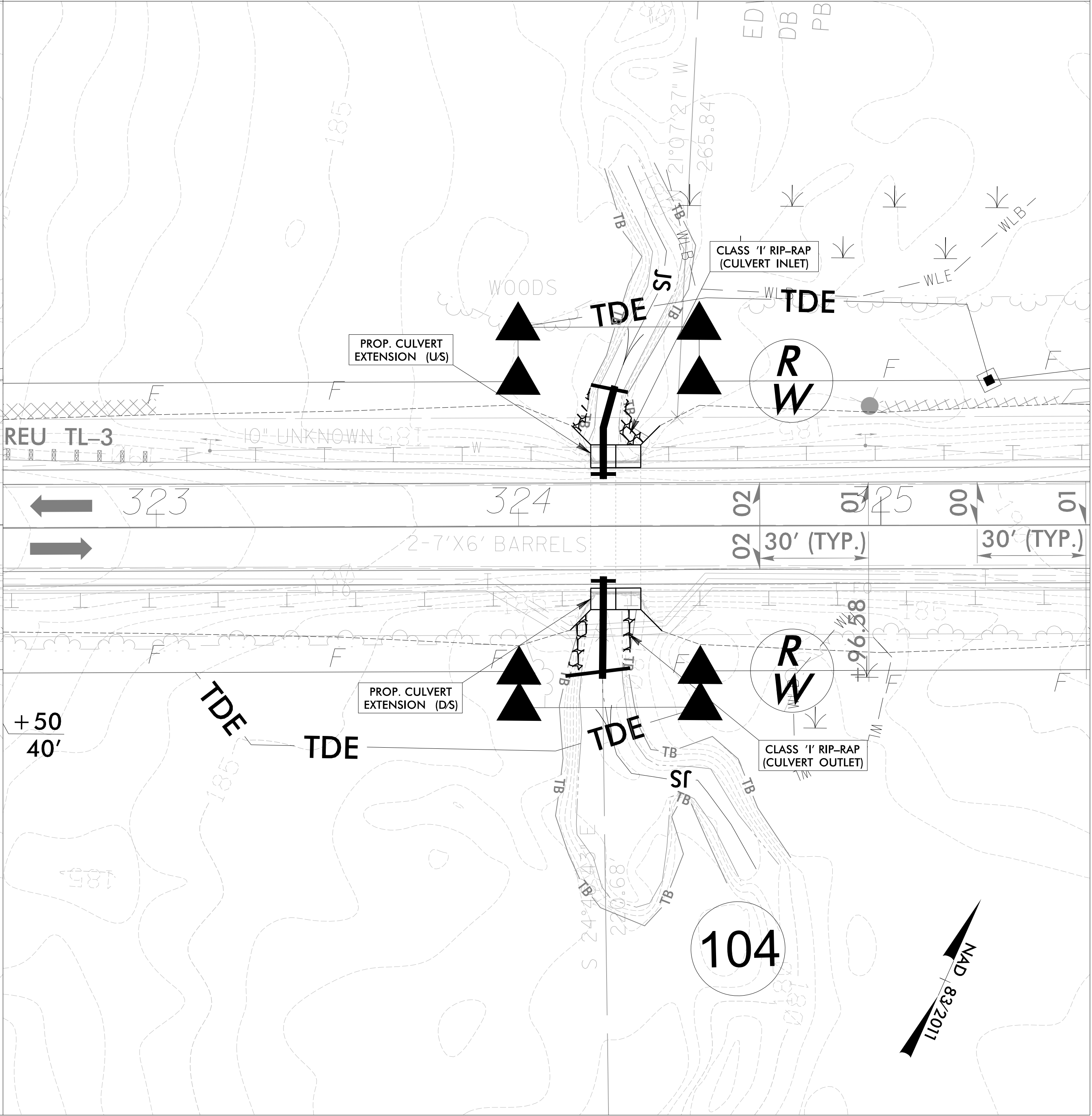
PHASE I

1. INSTALL IMPERVIOUS DIKES #1, #2, #3, & #4 AND 24 INCH TEMPORARY PIPES #1 & #2.
2. DEWATER CONSTRUCTION AREA INTO SKIMMER BASINS #26.2, #26.3, AND SPECIAL STILLING BASIN(S) AS REQUIRED.
3. REMOVE EXISTING HEADWALLS AND WINGWALLS.

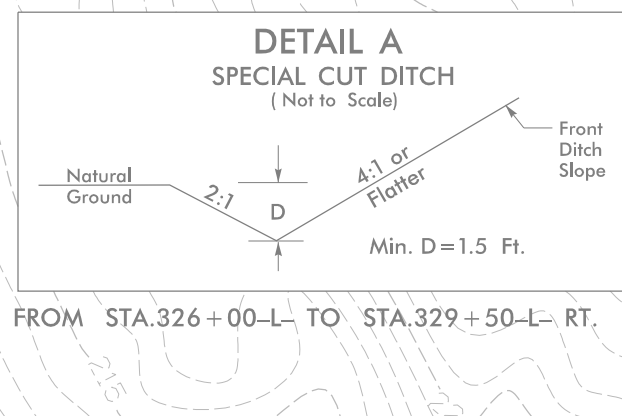
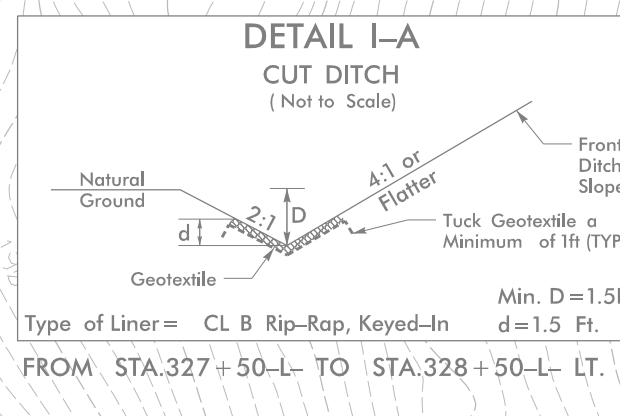
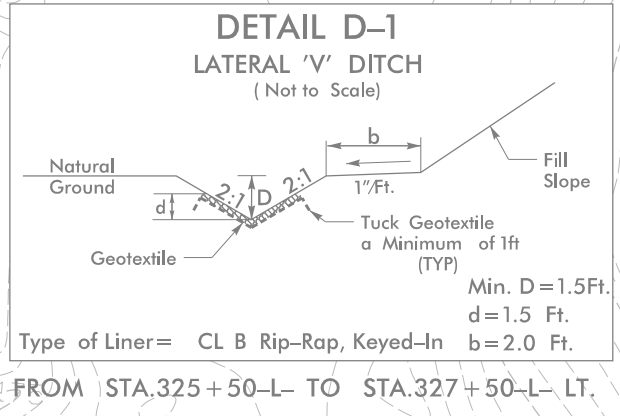
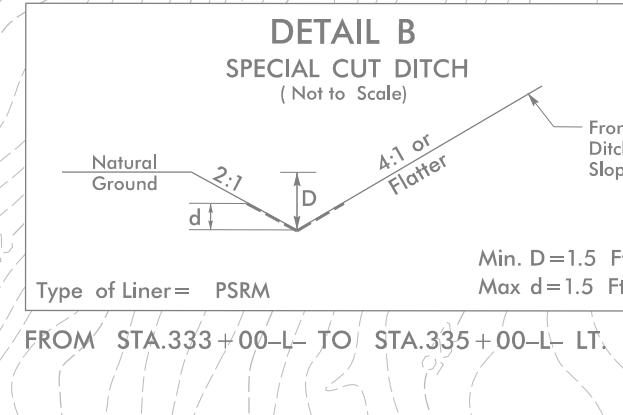
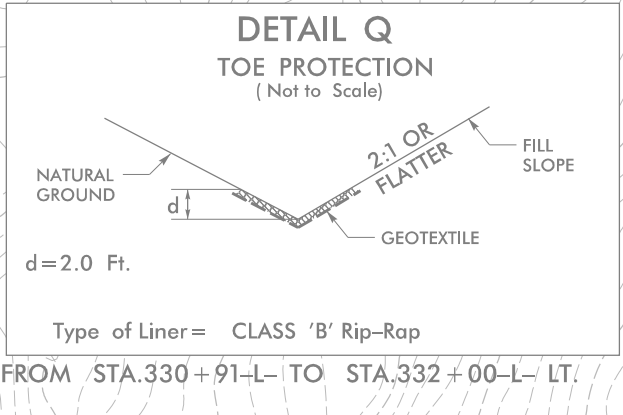
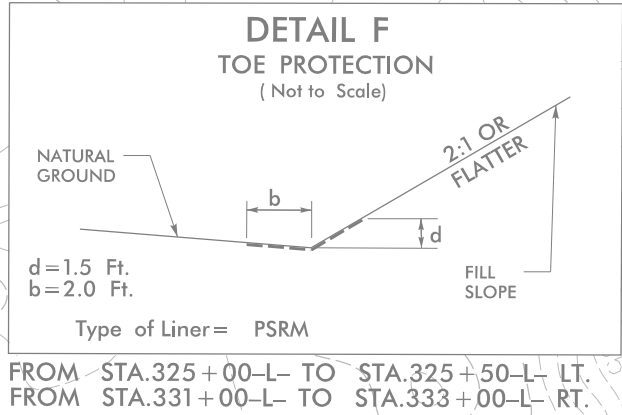
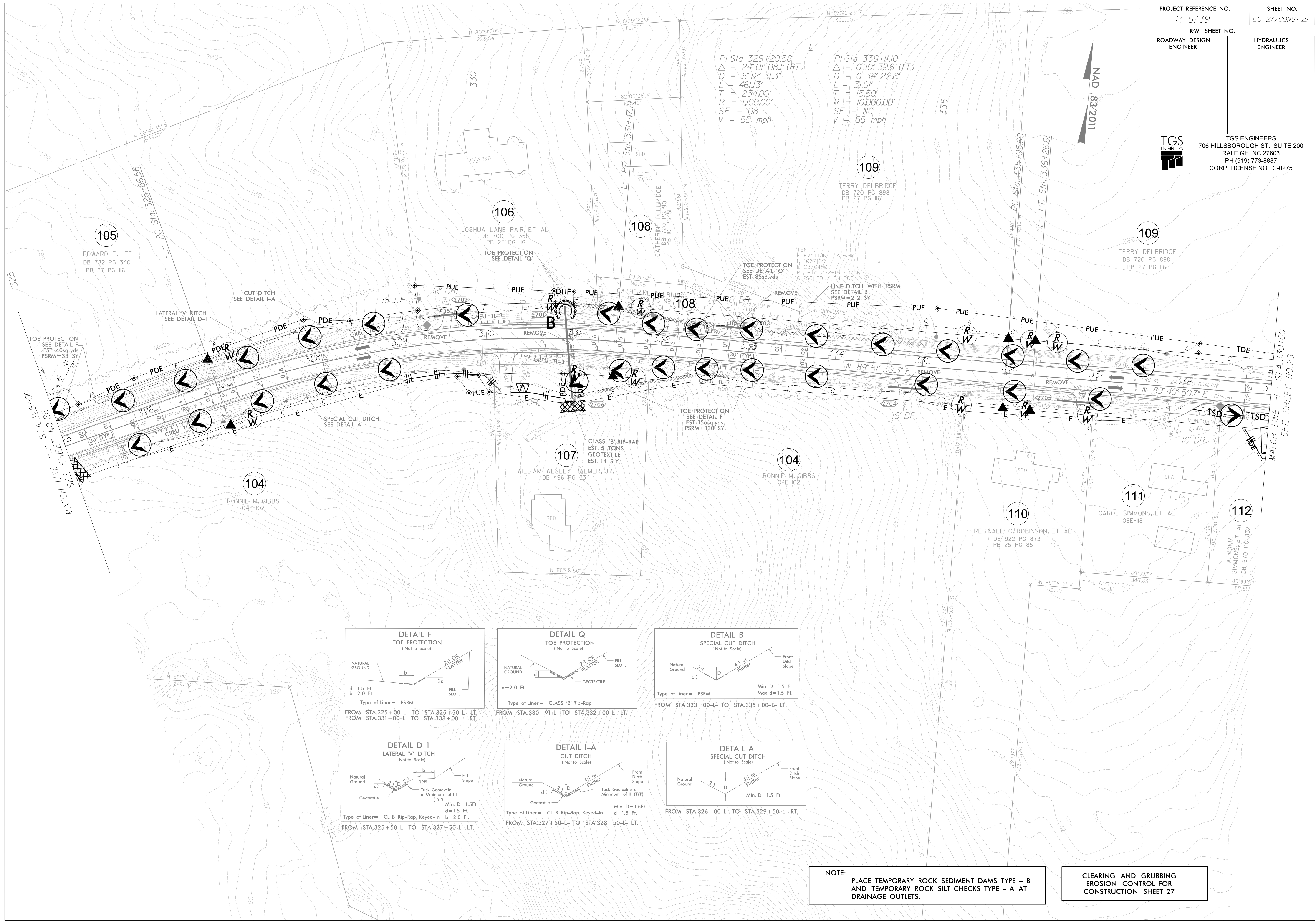


PHASE II

1. CONSTRUCT PROPOSED CULVERT EXTENSIONS, HEADWALLS, AND WINGWALLS.
2. INSTALL PROPOSED CLASS 'I' RIP-RAP AT CULVERT INLET AND OUTLET.
3. REMOVE IMPERVIOUS DIKES #1, #2, #3, & #4 AND 24 INCH TEMPORARY PIPES #1 & #2.



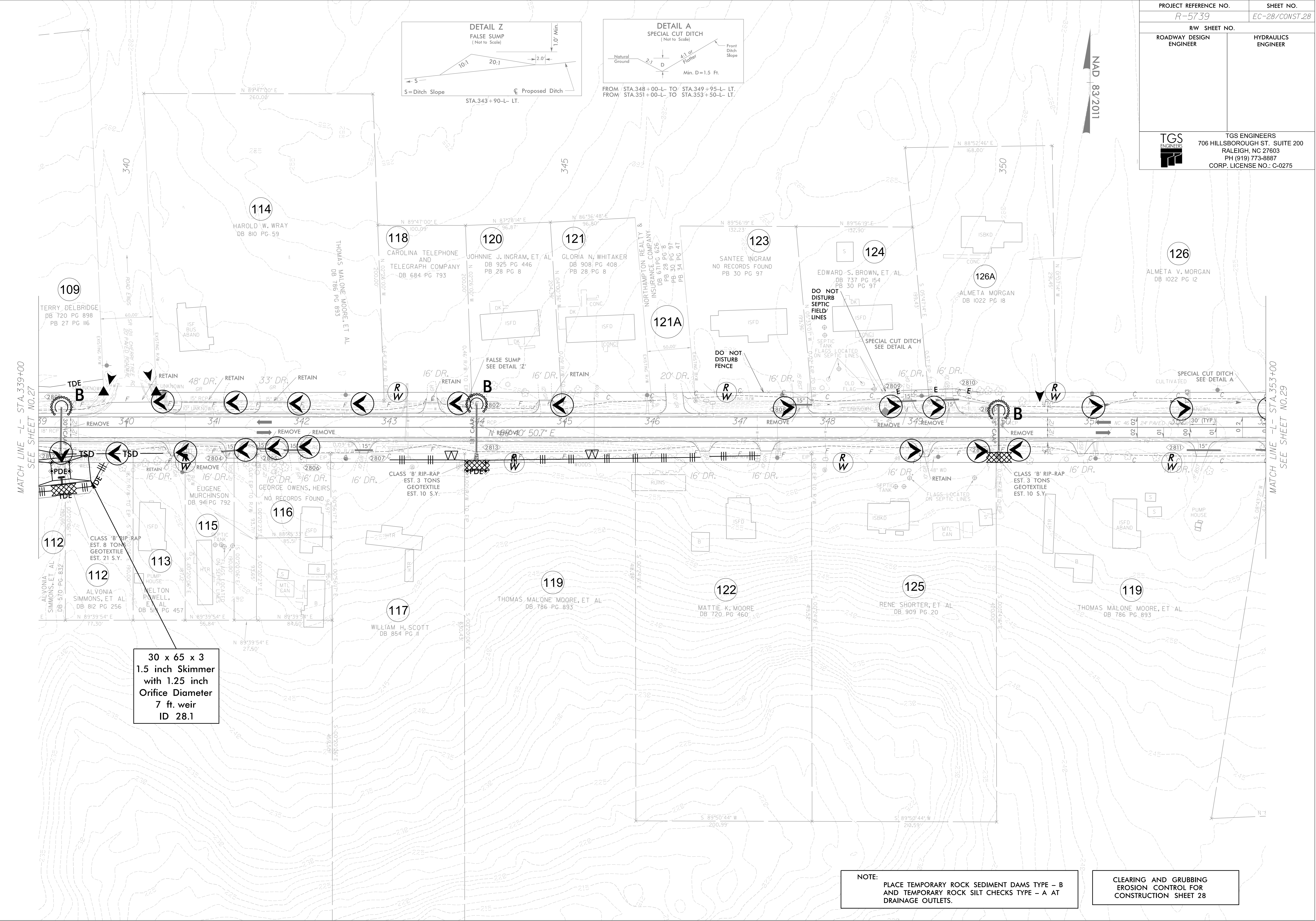
PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-27/CONST.27	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

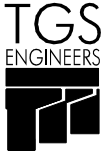


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 27

PROJECT REFERENCE NO.		SHEET NO.	
R-5739		EC-28/CONST.28	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



PROJECT REFERENCE NO.		SHEET NO.
R-5739		EC-29/CONST.29
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275

