TIP PROJECT: R-2320G

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2320G	EC-1	

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

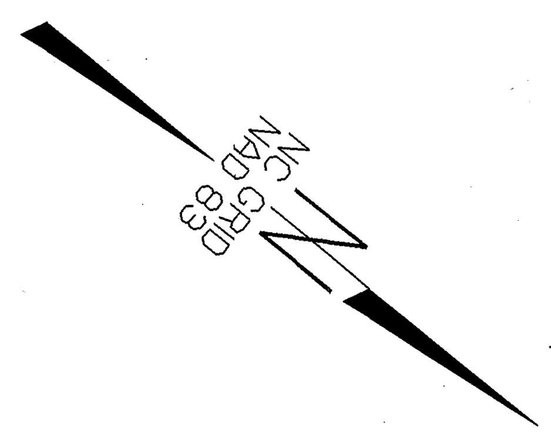
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

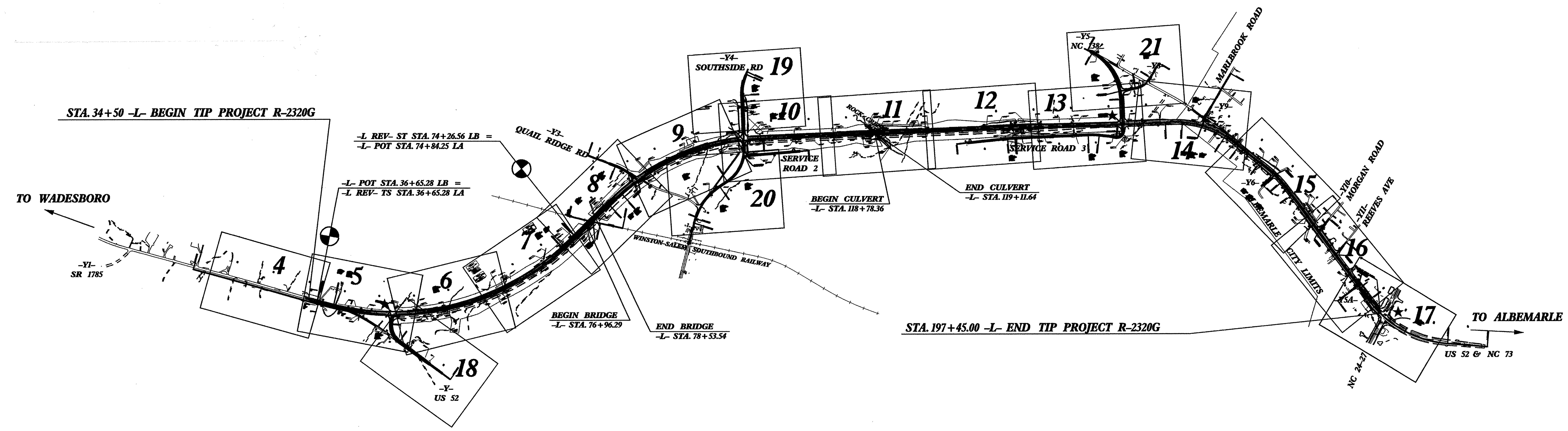
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

STANLY COUNTY

***LOCATION:** Albemarle – US 52 Extension from the Intersection of US 52, NC 73, NC 24-27 & NC 138 to Intersection of US 52 and SR 1785 (Johns Road)*

***TYPE OF WORK:** Grading, Drainage, Paving, Signals and Structures*





EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	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	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
	Wattle	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

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

2006 STANDARD SPECIFICATIONS

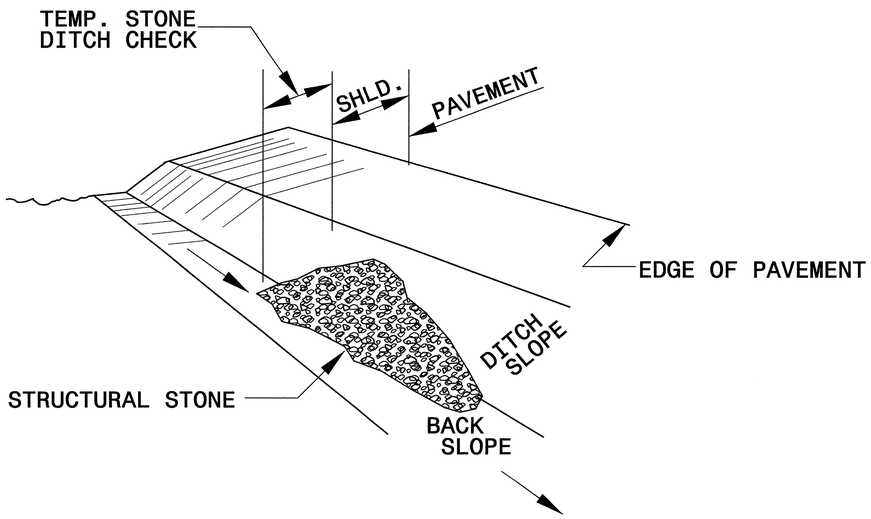
Roadway Standard Drawings

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

- 1605.01 Temporary Silt Fence
- 1606.01 Special Sediment Control Fence
- 1607.01 Gravel Construction Entrance
- 1622.01 Temporary Berms and Slope Drains
- 1630.02 Silt Basin Type B
- 1630.03 Temporary Silt Ditch
- 1630.04 Stilling Basin
- 1630.05 Temporary Diversion
- 1632.03 Rock Inlet Sediment Trap Type C
- 1633.01 Temporary Rock Silt Check Type A
- 1634.01 Temporary Rock Sediment Dam Type A
- 1634.02 Temporary Rock Sediment Dam Type B
- 1635.02 Rock Pipe Inlet Sediment Trap Type B

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

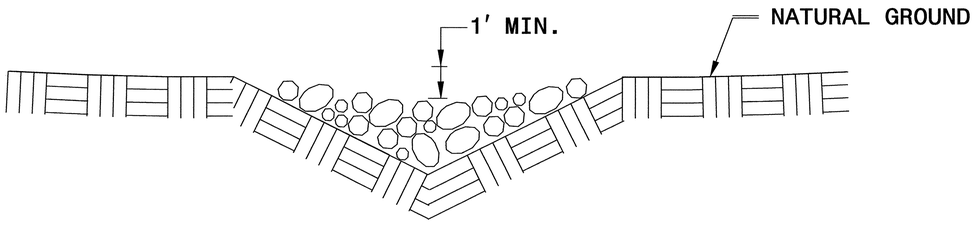


ISOMETRIC VIEW

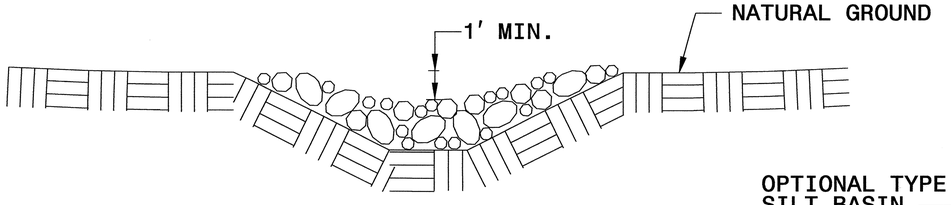
NOTES:

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

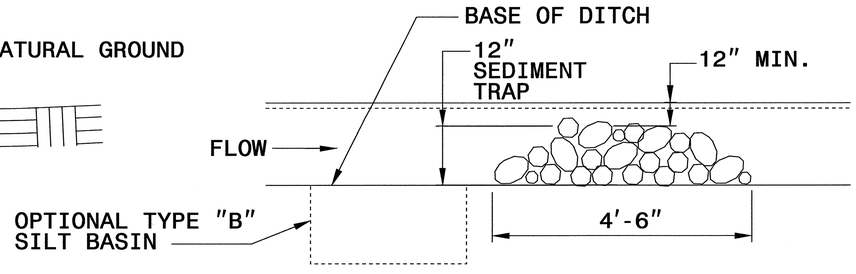
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



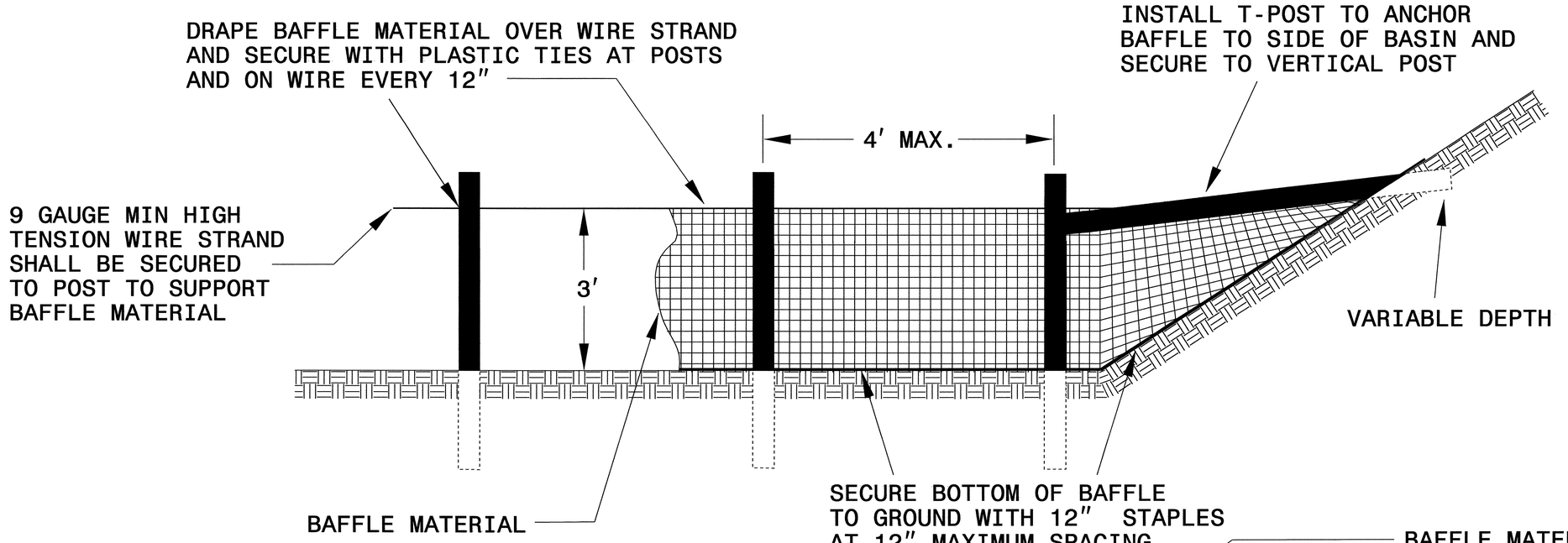
CROSS SECTION TRAPEZOIDAL DITCH

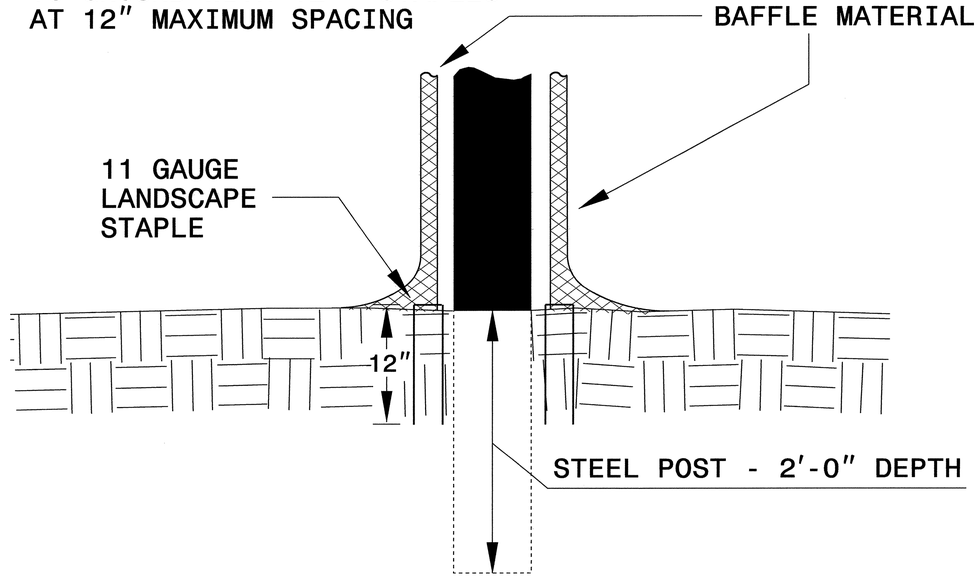


ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



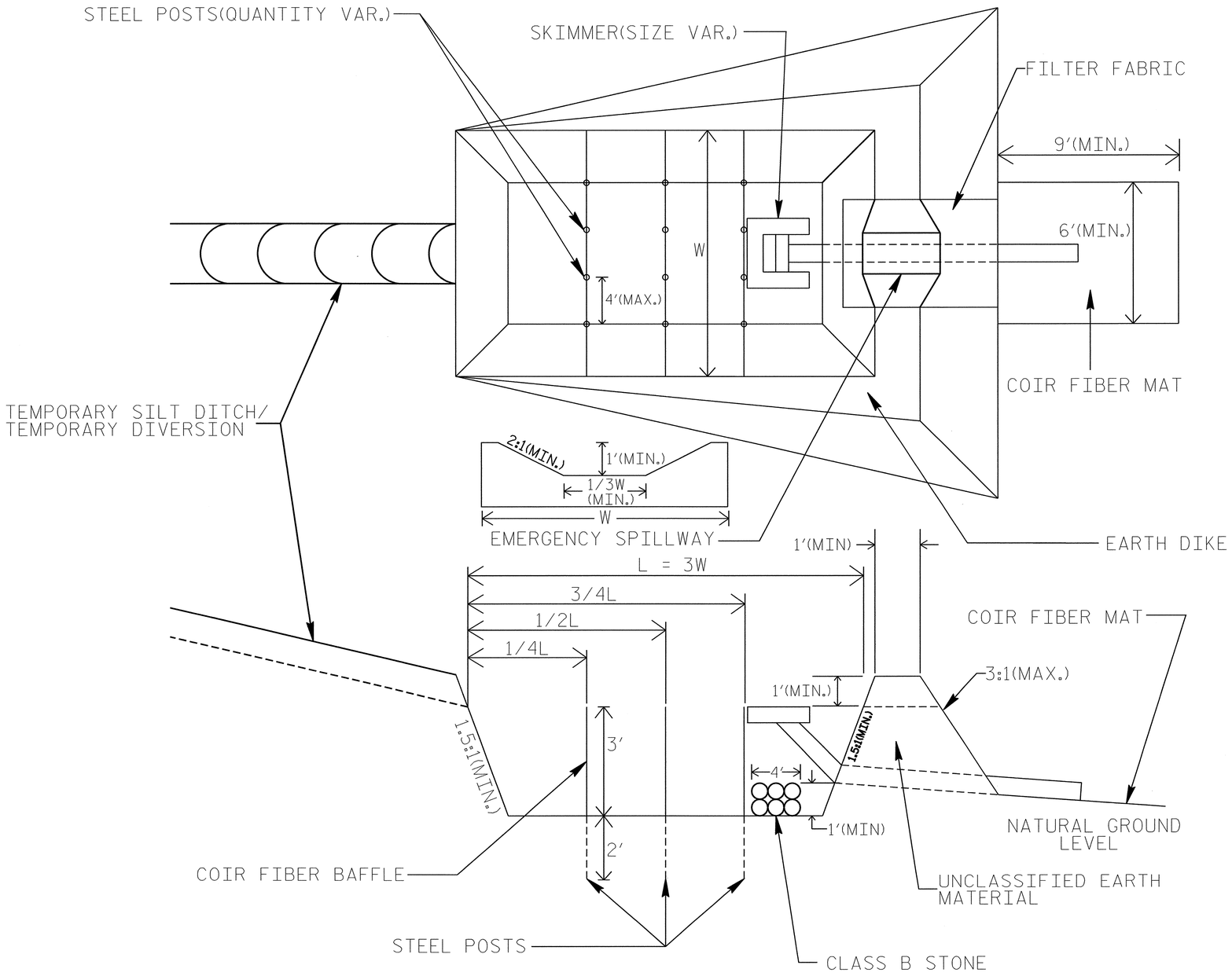


BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12″ LANDSCAPE STAPLES

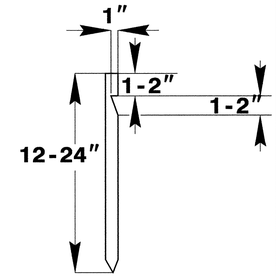
NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

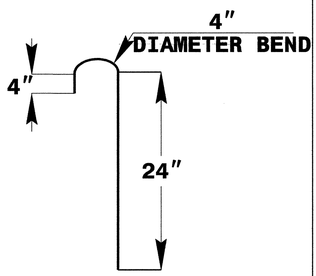
SKIMMER BASIN WITH BAFFLES DETAIL



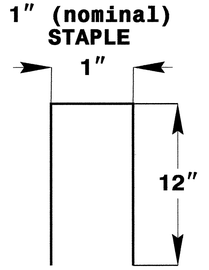
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE

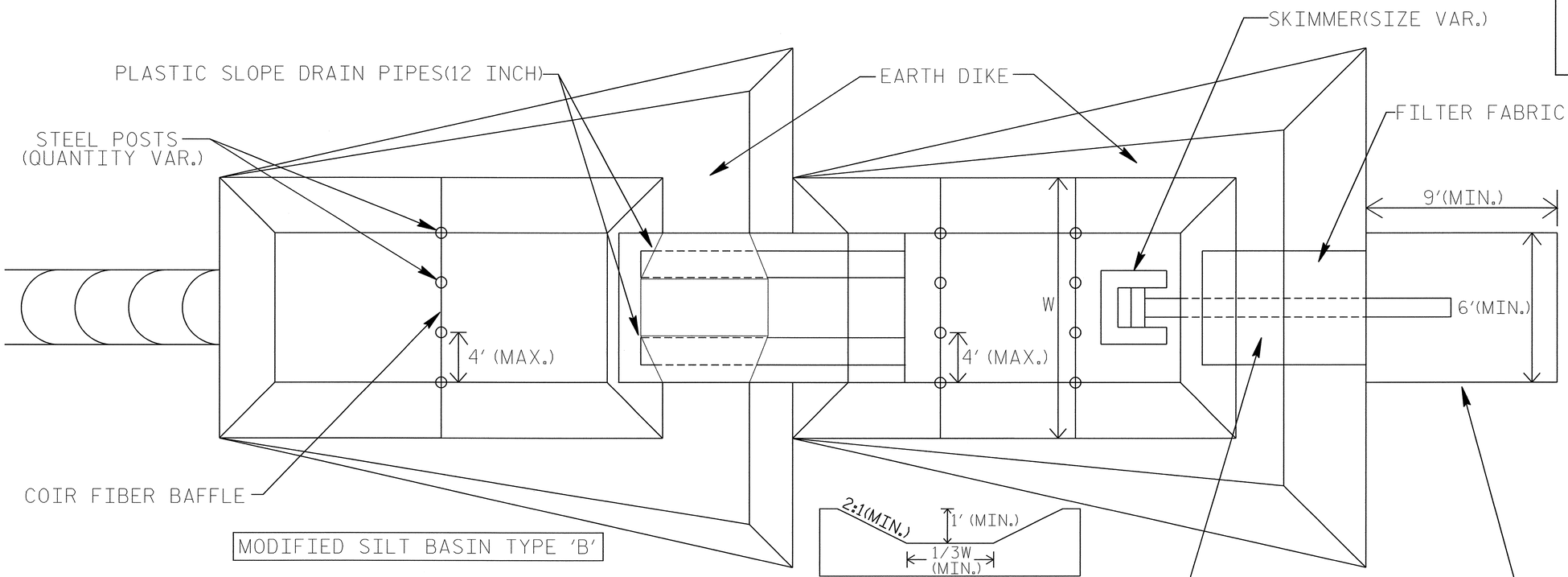


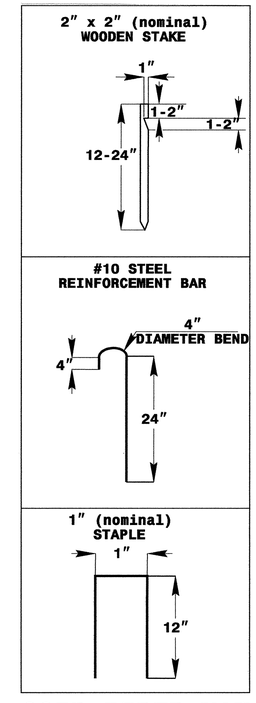
COIR FIBER MAT ANCHOR OPTIONS

NOTES:
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL





COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	L	54+50	57+00	RT	425
7	L	72+40	72+75	LT	35
10	SR2	10+65	14+15	RT	370
11	L	113+50	114+50	LT	170
13	L	143+00	144+50	LT	255
13	L	145+25	146+50	LT	215
18	Y	14+50	18+00	LT	380
21	Y8	14+90	16+00	LT	115
21	Y5	15+00	16+25	21	175
			SUBTOTAL		2140
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					14950
				TOTAL	17090
				SAY	17100

PERMANENT SOIL REINFORCEMENT MAT

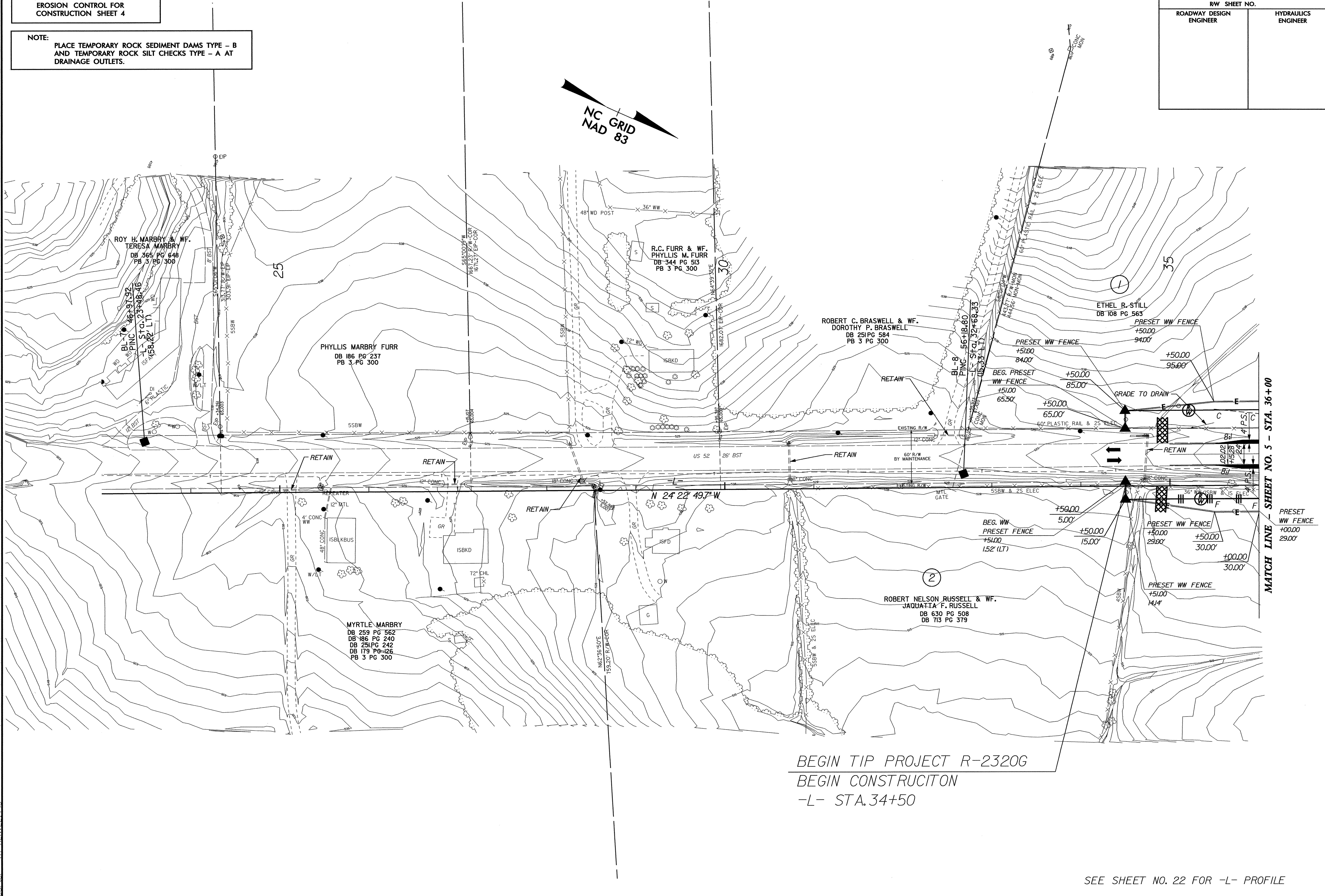
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
8	L	78+60	80+00	LT	135
10	L	98+50	99+25	LT	130
11	L	112+50	113+50	LT	170
13	L	145+25	146+50	RT	215
14	Y9	15+90	17+00	LT	115
			SUBTOTAL		765
		ADDITIONAL PSRM TO BE INSTALLED			4225
				TOTAL	4990
				SAY	5000

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

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.



NC GRID
NAD 83
ROY H. MARBRY & WF.
TERESA MARBRY
DB 365 PG 648
PB 3 PG 300
PHYLLIS MARBRY FURR
DB 186 PG 237
PB 3 PG 300
R.C. FURR & WF.
PHYLLIS M. FURR
DB 344 PG 513
PB 3 PG 300
ROBERT C. BRASWELL & WF.
DOROTHY P. BRASWELL
DB 251 PG 584
PB 3 PG 300
ETHEL R. STILL
DB 108 PG 563
MYRTLE MARBRY
DB 259 PG 562
DB 186 PG 240
DB 251 PG 242
DB 179 PG 126
PB 3 PG 300
ROBERT NELSON RUSSELL & WF.
JAQUATTA F. RUSSELL
DB 630 PG 508
DB 713 PG 379
RETAIN
US 52
N 24° 22' 49.7" W
PRESET WW FENCE
BEG. PRESET WW FENCE
BEG. WW PRESET FENCE
GRADE TO DRAIN
MATCH LINE - SHEET NO. 5 - STA. 36+00

BEGIN TIP PROJECT R-2320G
BEGIN CONSTRUCITON
-L- STA.34+50

SEE SHEET NO. 22 FOR -L- PROFILE

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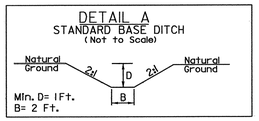
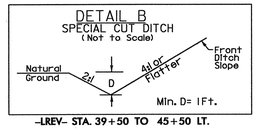
DETAIL A
STANDARD BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.

-LREV- STA. 42+50 RT.
90 LF @ 2.56%, DDE = 25 CY
-LREV- STA. 47+40 LT.
35 LF @ 0.00%, DDE = 5 CY
-LREV- STA.47+65 RT.
20 LF @ 2.50%, DDE = 3 CY

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 1Ft.

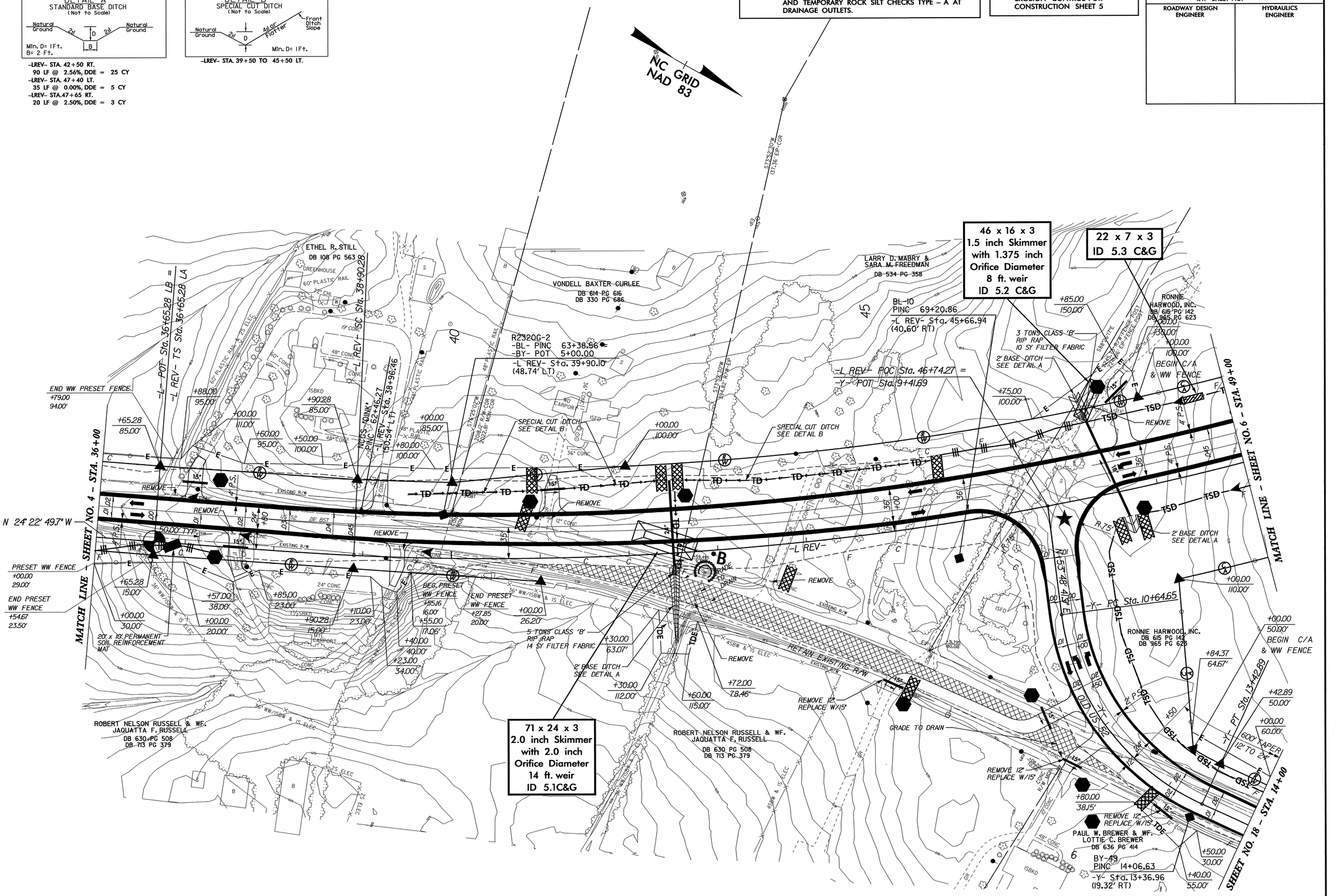
-LREV- STA. 39+50 TO 45+50 LT.

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 5

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID NAD 83



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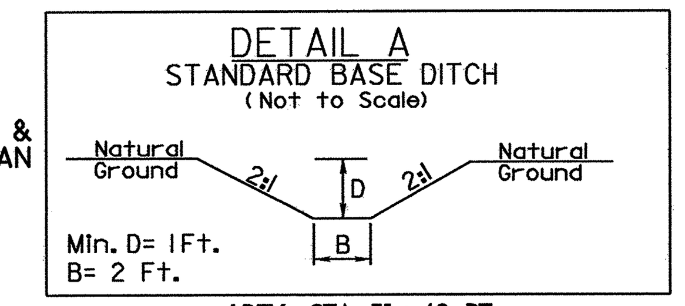
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

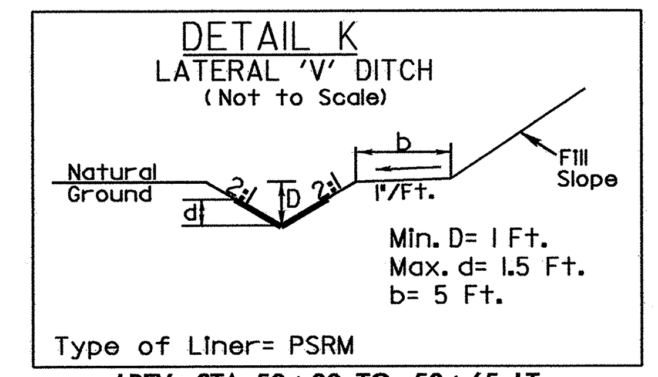
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

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

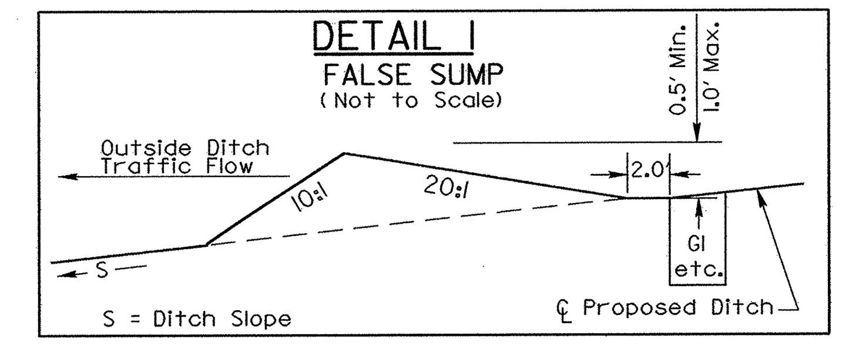
LARRY D. MABRY & SARA M. FREEDMAN
DB 534 PG 358



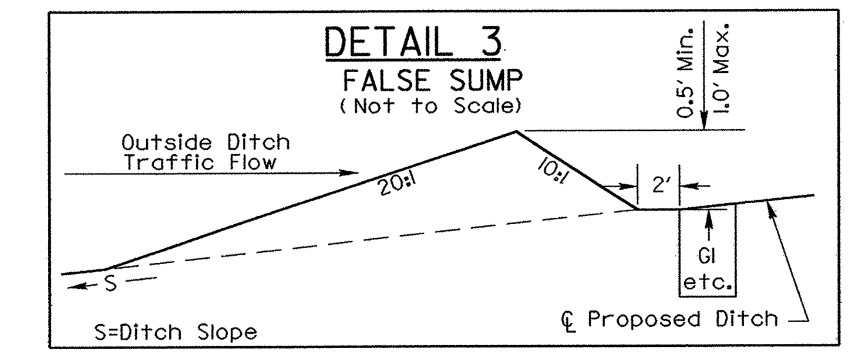
-LREV- STA. 51+40 RT.
36 LF @ 2.00%, DDE = 3 CY



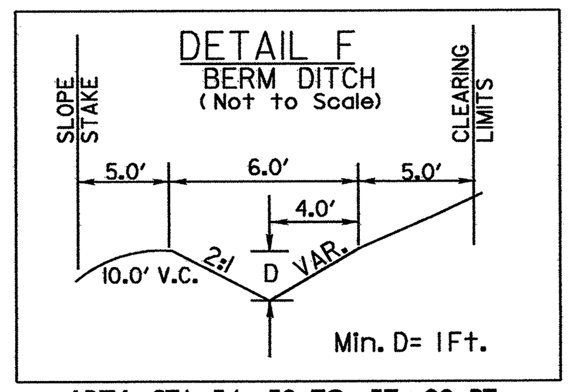
-LREV- STA. 50+00 TO 50+65 LT.
DDE = 9 CY



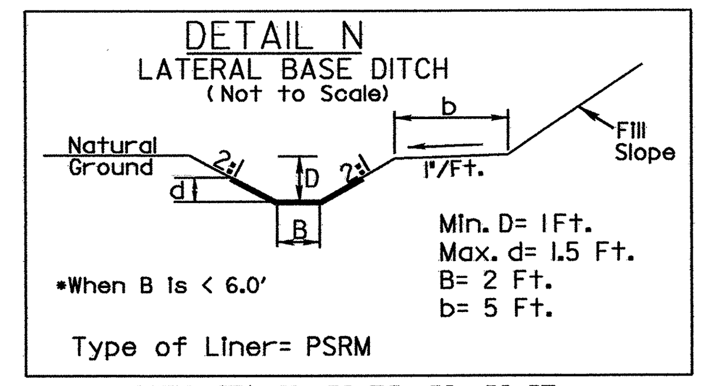
-LREV- STA. 54+00 LT.



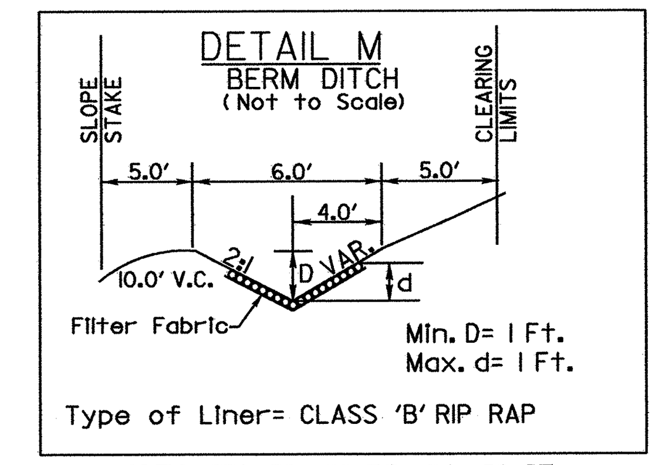
-LREV- STA. 54+00 RT.



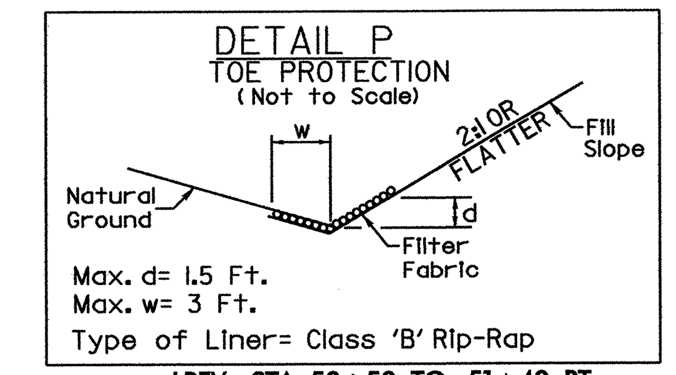
-LREV- STA. 54+50 TO 57+00 RT.



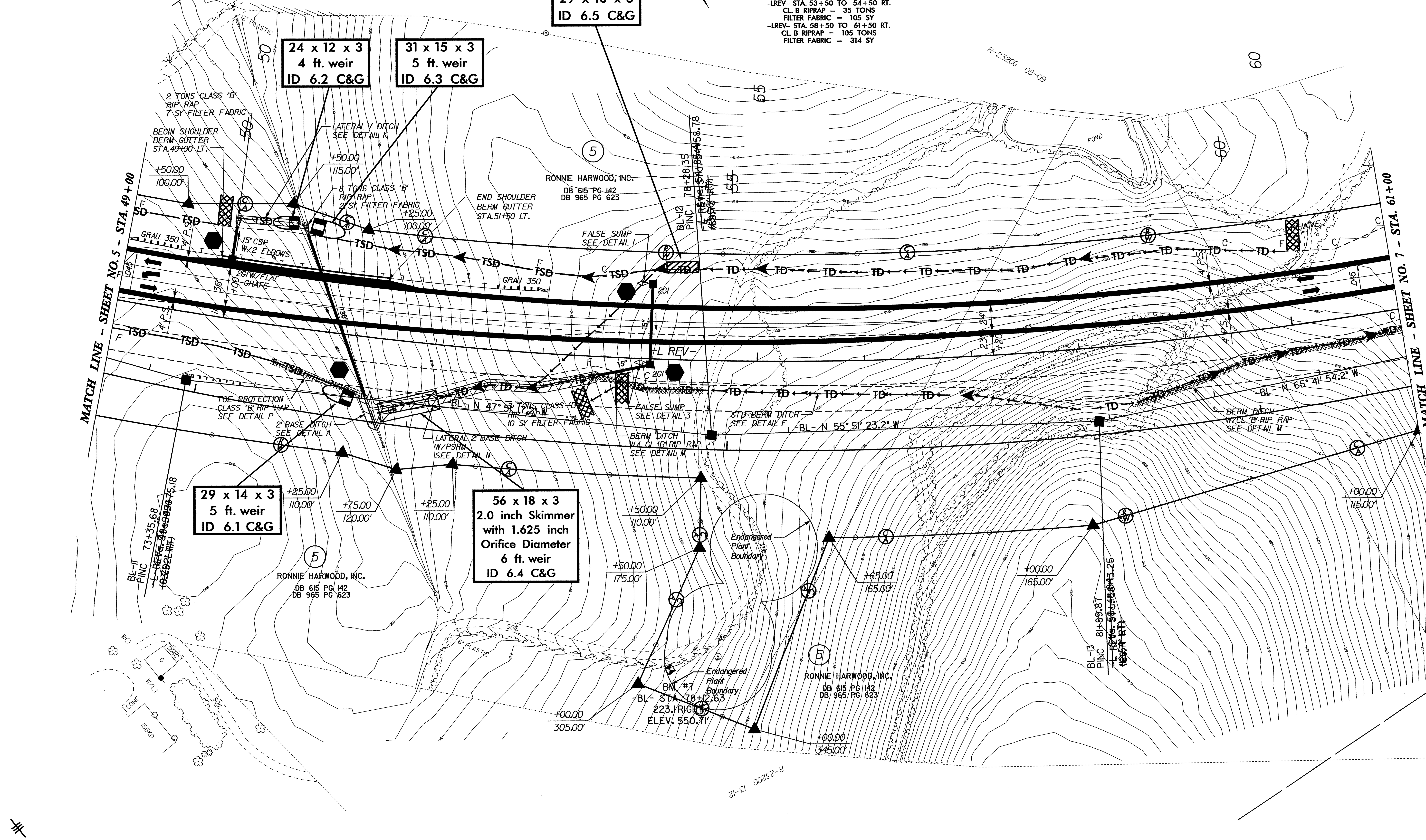
-LREV- STA. 51+50 TO 53+50 RT.
DDE = 135 CY



-LREV- STA. 53+50 TO 54+50 RT.
CL. B RIPRAP = 35 TONS
FILTER FABRIC = 105 SY
-LREV- STA. 58+50 TO 61+50 RT.
CL. B RIPRAP = 105 TONS
FILTER FABRIC = 314 SY



-LREV- STA. 50+50 TO 51+40 RT.
CL. B RIPRAP = 41 TONS
FILTER FABRIC = 117 SY



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PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-7/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

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

DETAIL A
STANDARD BASE DITCH (Not to Scale)

Natural Ground, 2:1, D, B, 2:1, Natural Ground

Min. D= 1Ft.
B= 2 Ft.

-LREV- STA. 61+95 RT.
30 LF @ 3.0%, DDE = 3 CY
-LREV- STA. 68+15 RT.
75 LF @ 3.7%, DDE = 10 CY
-LREV- STA. 69+00 LT.
160 LF @ 0.2%, DDE = 25 CY
-LREV- STA. 72+40 TO 72+75 LT.
35 LF @ 0.25%, DDE = 15 CY

DETAIL B
SPECIAL CUT DITCH (Not to Scale)

Natural Ground, 2:1, D, 4:1 or Flatter, Front Ditch Slope

Min. D= 1Ft.

-LREV- STA. 62+70 TO 66+50 LT.
-LREV- STA. 67+00 TO 68+00 RT.

DETAIL I
FALSE SUMP (Not to Scale)

Outside Ditch Traffic Flow, 10:1, 20:1, 2.0', 0.5' Min., 1.0' Max., GI etc., S = Ditch Slope, ℄ Proposed Ditch

-LREV- STA. 69+00 RT.
-LREV- STA. 69+50 LT.

DETAIL 3
FALSE SUMP (Not to Scale)

Outside Ditch Traffic Flow, 20:1, 10:1, 2', 0.5' Min., 1.0' Max., GI etc., S=Ditch Slope, ℄ Proposed Ditch

-LREV- STA. 72+20 LT.

DETAIL P
TOE PROTECTION (Not to Scale)

Natural Ground, w, 2:1 OR FLATTER, Fill Slope, d, Filter Fabric

Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap

-LREV- STA. 73+50 TO 76+00 RT.
CL. B RIPRAP = 115 TONS
FILTER FABRIC = 325 SY

DETAIL H
TOE PROTECTION (Not to Scale)

Natural Ground, w, w, 2:1 OR FLATTER, Fill Slope

w = 5'
Type of Liner= PSRM

-LREV- STA. 61+35 TO 62+35 LT.

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

Natural Ground, 2:1, d, D, 4:1 or Flatter, Fill Slope

Min. D= 1Ft.
Max. d= 1.5 Ft.

Type of Liner= PSRM

-LREV- STA. 61+00 TO 61+50 RT.

DETAIL M
BERM DITCH (Not to Scale)

SLOPE STAKE, CLEARING LIMITS, 5.0', 6.0', 5.0', 4.0', 10.0' V.C., 2:1, D VAR., d, Filter Fabric

Min. D= 1 Ft.
Max. d= 1 Ft.

Type of Liner= CLASS 'B' RIP RAP

-LREV- STA. 58+50 TO 61+50 RT.

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

Natural Ground, d, 2:1, D, 2:1, b, 1'/Ft., Fill Slope, Filter Fabric

Min. D= 1Ft.
Max. d= 1.5 Ft.
b= 5 Ft.

Type of Liner= Class 'B' Rip-Rap

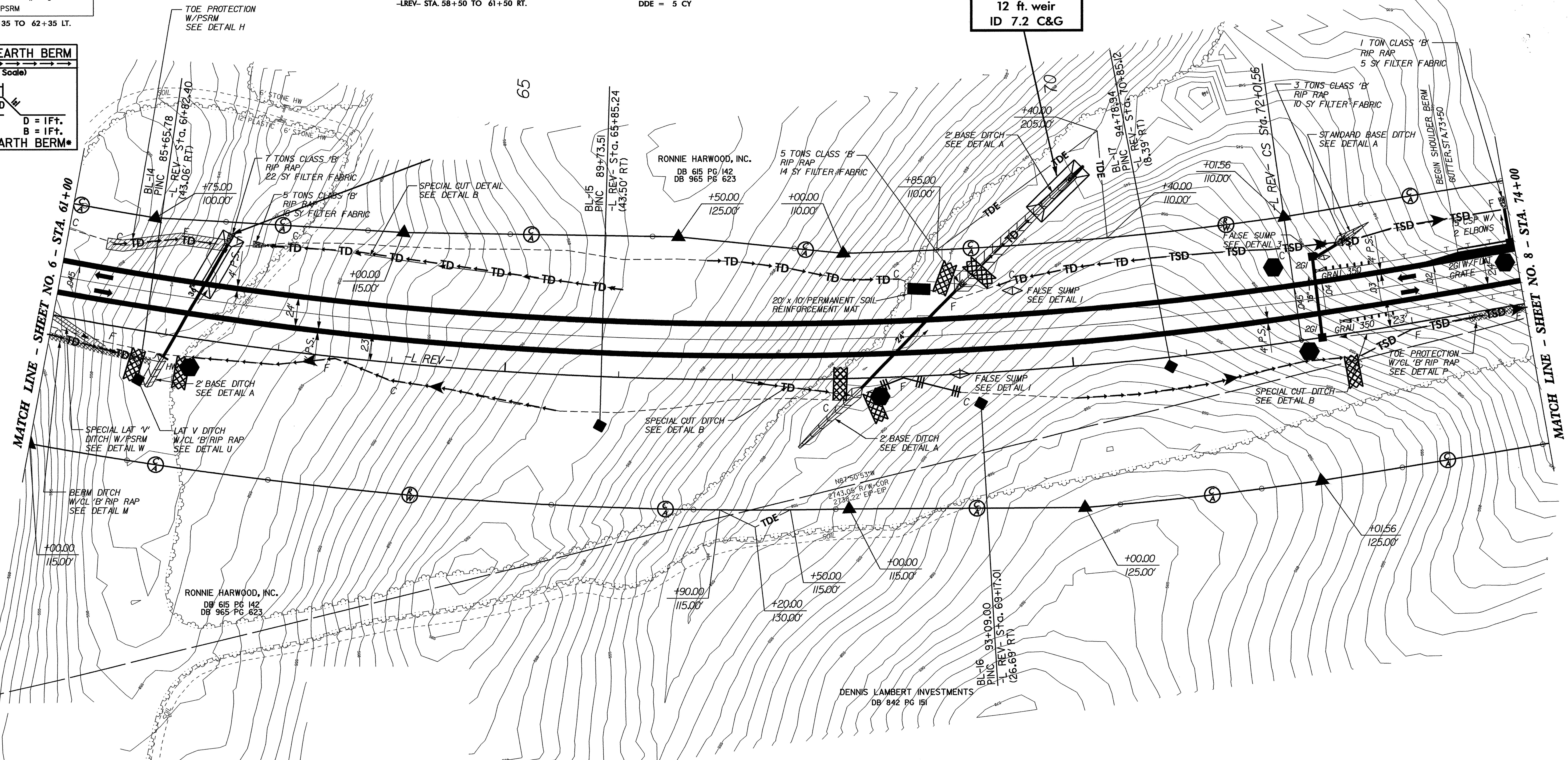
-LREV- STA. 61+50 TO 61+95 RT.
CL. B RIPRAP = 21 TONS
FILTER FABRIC = 58 SY
DDE = 5 CY

TEMPORARY EARTH BERM
(Not to Scale)

Natural Ground, B, D

D = 1Ft.
B = 1Ft.

•STABILIZE EARTH BERM•



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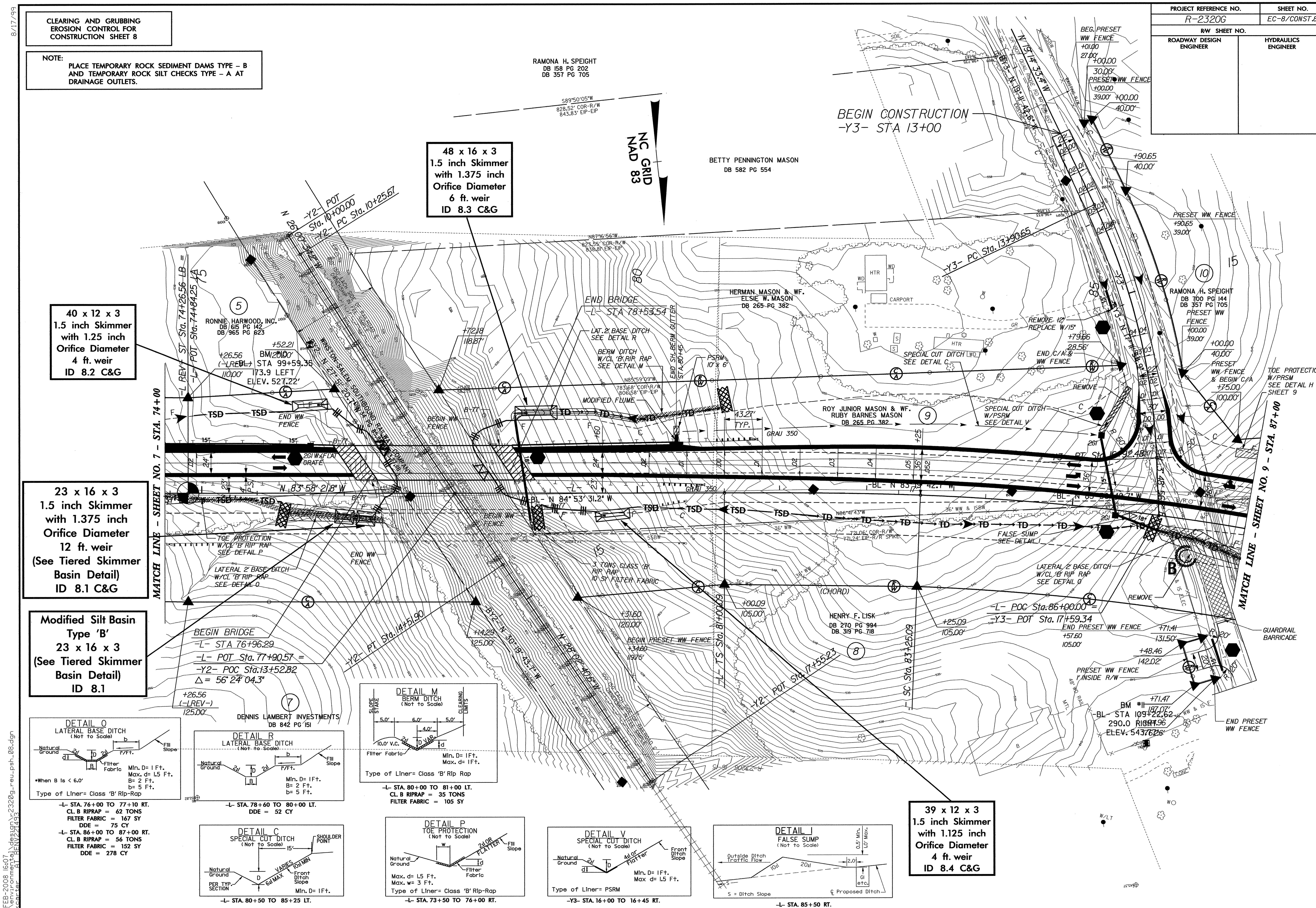


PROJECT REFERENCE NO.
R-2320G
SHEET NO.
EC-8/CONST.8
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.
8/17/99
RAMONA H. SPEIGHT
DB 158 PG 202
DB 357 PG 705
NC GRID NAD 83
BETTY PENNINGTON MASON
DB 582 PG 554
BEGIN CONSTRUCTION
-Y3- STA 13+00
48 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
6 ft. weir
ID 8.3 C&G
40 x 12 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
ID 8.2 C&G
23 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 8.1 C&G
Modified Silt Basin
Type 'B'
23 x 16 x 3
(See Tiered Skimmer Basin Detail)
ID 8.1
39 x 12 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
4 ft. weir
ID 8.4 C&G
RONNIE HARWOOD, INC.
DB 615 PG 142
DB 965 PG 623
HERMAN MASON & WF. ELSIE W. MASON
DB 265 PG 382
ROY JUNIOR MASON & WF. RUBY BARNES MASON
DB 265 PG 382
RAMONA H. SPEIGHT
DB 700 PG 144
DB 357 PG 705
HENRY F. LISK
DB 270 PG 994
DB 319 PG 718
DENNIS LAMBERT INVESTMENTS
DB 842 PG 151
WINSTON-SALEM SOUTHBOUND RAILWAY COMPANY
END BRIDGE
-L- STA 78+53.54
BEGIN BRIDGE
-L- STA 76+96.29
-L- POT Sta. 77+90.57 =
-Y2- POC Sta. 13+52.82
Δ = 56° 24' 04.3"
BM #10
-BL- STA 99+59.35
173.9 LEFT
ELEV. 527.22'
BM #11
-BL- STA 109+22.62
290.0 RIGHT
ELEV. 543.626'
-L- POC Sta. 86+00.00 =
-Y3- POT Sta. 17+59.34
-Y3- PC Sta. 13+90.65
-Y2- PT Sta. 14+51.90
-Y2- POT Sta. 17+55.23
-Y2- POT Sta. 10+00.00
-Y2- PC Sta. 10+25.67
-L- TS Sta. 81+00.09
-L- SC Sta. 83+25.09
MATCH LINE - SHEET NO. 7 - STA. 74+00
MATCH LINE - SHEET NO. 9 - STA. 87+00
-BL- N 83° 58' 21.8" W
-BL- N 84° 53' 31.2" W
LAT. 2' BASE DITCH SEE DETAIL R
BERM DITCH W/CL 'B' RIP RAP SEE DETAIL M
MODIFIED FLUME
SPECIAL CUT DITCH SEE DETAIL C
SPECIAL CUT DITCH W/PSRM SEE DETAIL V
TOE PROTECTION W/CL 'B' RIP RAP SEE DETAIL P
LATERAL 2' BASE DITCH W/CL 'B' RIP RAP SEE DETAIL O
3 TONS CLASS 'B' RIP RAP 10 SY FILTER FABRIC
FALSE SUMP SEE DETAIL I
TOE PROTECTION W/PRSM SEE DETAIL H SHEET 9
PRESET WW FENCE
BEGIN PRESET WW FENCE
END PRESET WW FENCE
PRESET WW FENCE 1' INSIDE R/W
GUARDRAIL BARRICADE
REMOVE 12" REPLACE W/15"
DETAIL O
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-L- STA. 76+00 TO 77+10 RT.
CL. B RIPRAP = 62 TONS
FILTER FABRIC = 167 SY
DDE = 75 CY
-L- STA. 86+00 TO 87+00 RT.
CL. B RIPRAP = 56 TONS
FILTER FABRIC = 152 SY
DDE = 278 CY
DETAIL R
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
B= 2 Ft.
b= 5 Ft.
-L- STA. 78+60 TO 80+00 LT.
DDE = 52 CY
DETAIL M
BERM DITCH
(Not to Scale)
Min. D= 1 Ft.
Max. d= 1 Ft.
Type of Liner= Class 'B' Rip Rap
-L- STA. 80+00 TO 81+00 LT.
CL. B RIPRAP = 35 TONS
FILTER FABRIC = 105 SY
DETAIL C
SPECIAL CUT DITCH
(Not to Scale)
Min. D= 1 Ft.
-L- STA. 80+50 TO 85+25 LT.
DETAIL P
TOE PROTECTION
(Not to Scale)
Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap
-L- STA. 73+50 TO 76+00 RT.
DETAIL V
SPECIAL CUT DITCH
(Not to Scale)
Min. D= 1 Ft.
Max d= 1.5 Ft.
Type of Liner= PSRM
-Y3- STA. 16+00 TO 16+45 RT.
DETAIL I
FALSE SUMP
(Not to Scale)
S = Ditch Slope
-L- STA. 85+50 RT.
11-FEB-2008 16:07

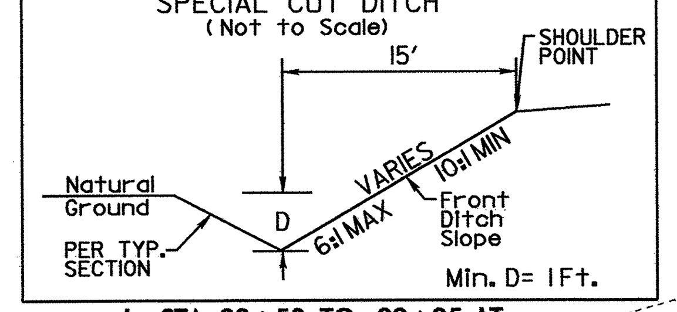
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-9/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9

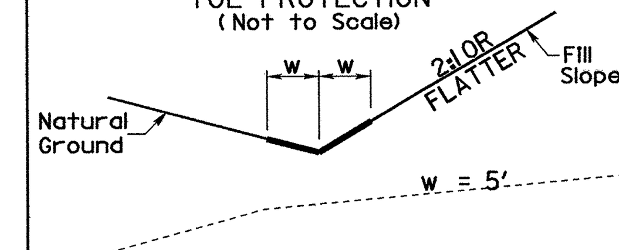
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)



-L- STA. 98+50 TO 99+25 LT.

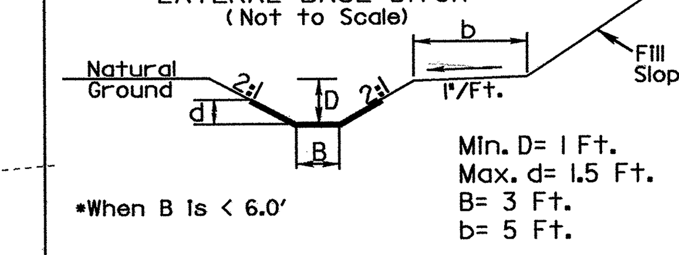
DETAIL H
TOE PROTECTION
(Not to Scale)



Type of Liner= PSRM

-L- STA. 86+75 TO 88+60 LT.
-L- STA. 92+75 TO 94+50 LT.
-L- STA. 92+50 TO 93+70 RT.

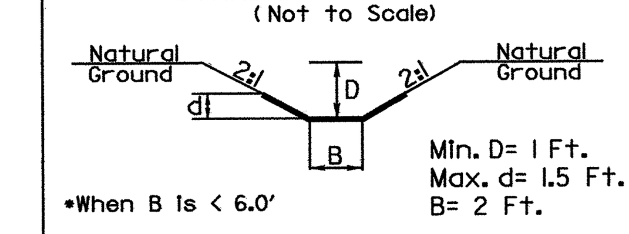
DETAIL N
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= PSRM

-L- STA. 87+00 TO 88+55 RT.
DDE = 111 CY

DETAIL D
STANDARD BASE DITCH
(Not to Scale)

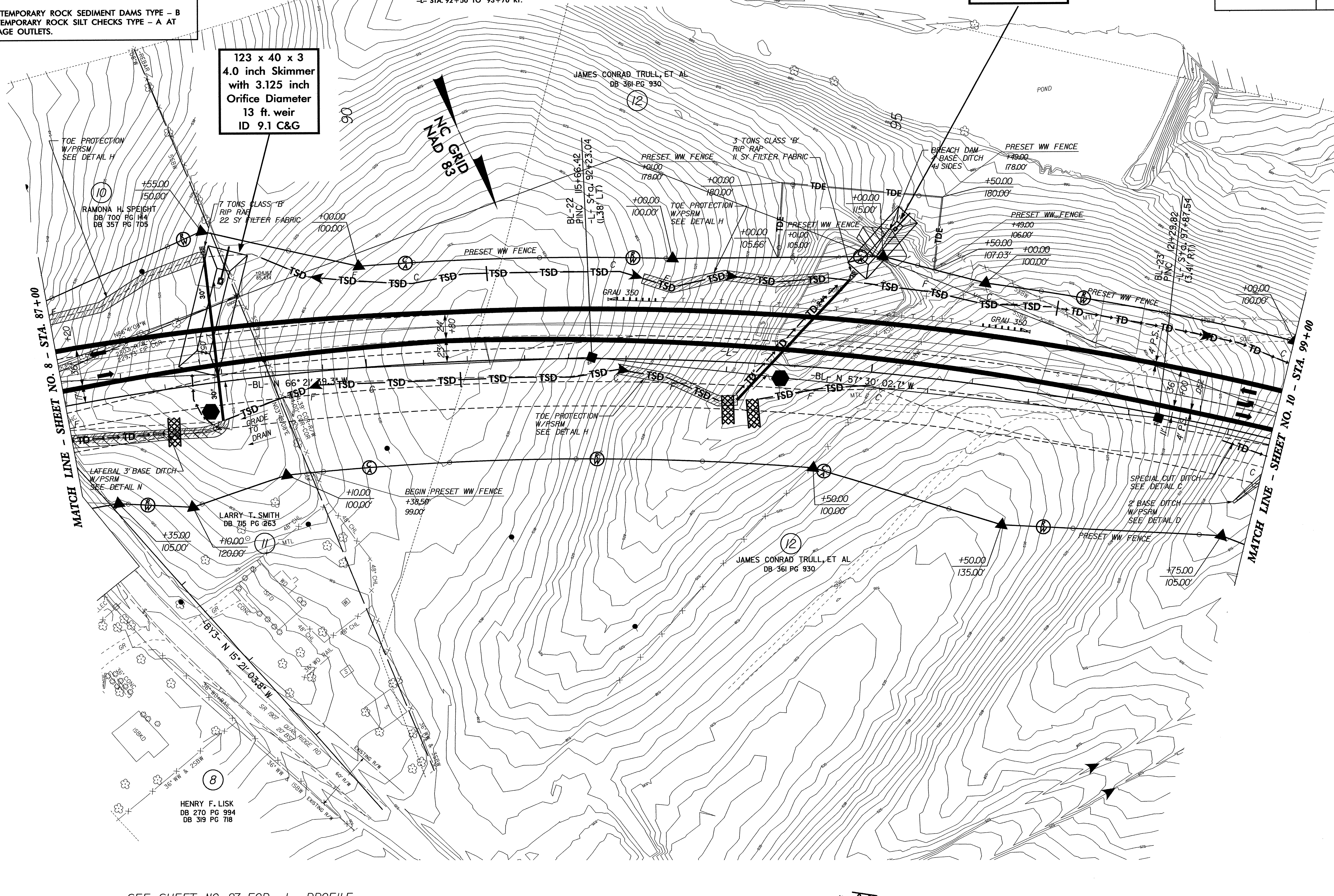


Type of Liner= PSRM

-L- STA. 99+25 RT.
65 LF @ 6.25%, DDE = 15 CY

123 x 40 x 3
4.0 inch Skimmer
with 3.125 inch
Orifice Diameter
13 ft. weir
ID 9.1 C&G

75 x 25 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
14 ft. weir
ID 9.2 C&G



SEE SHEET NO. 27 FOR -L- PROFILE

11-FEB-2008 16:10
r2320g_reu_psh_09.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-10/CONST.10
R/W 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.

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)

Natural Ground — Natural Ground — Min. D= 1 Ft.

-L- STA. 102+90 LT
78 LF @ 0.3%, DDE = 3 CY

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

Natural Ground — VARIES — Fill Slope
Min. D= 1 Ft.
Max. d= 1.5 Ft.
Type of Liner= PSRM

-L- STA. 99+50 TO 100+50 LT.
DDE = 14 CY

DETAIL O
LATERAL BASE DITCH
(Not to Scale)

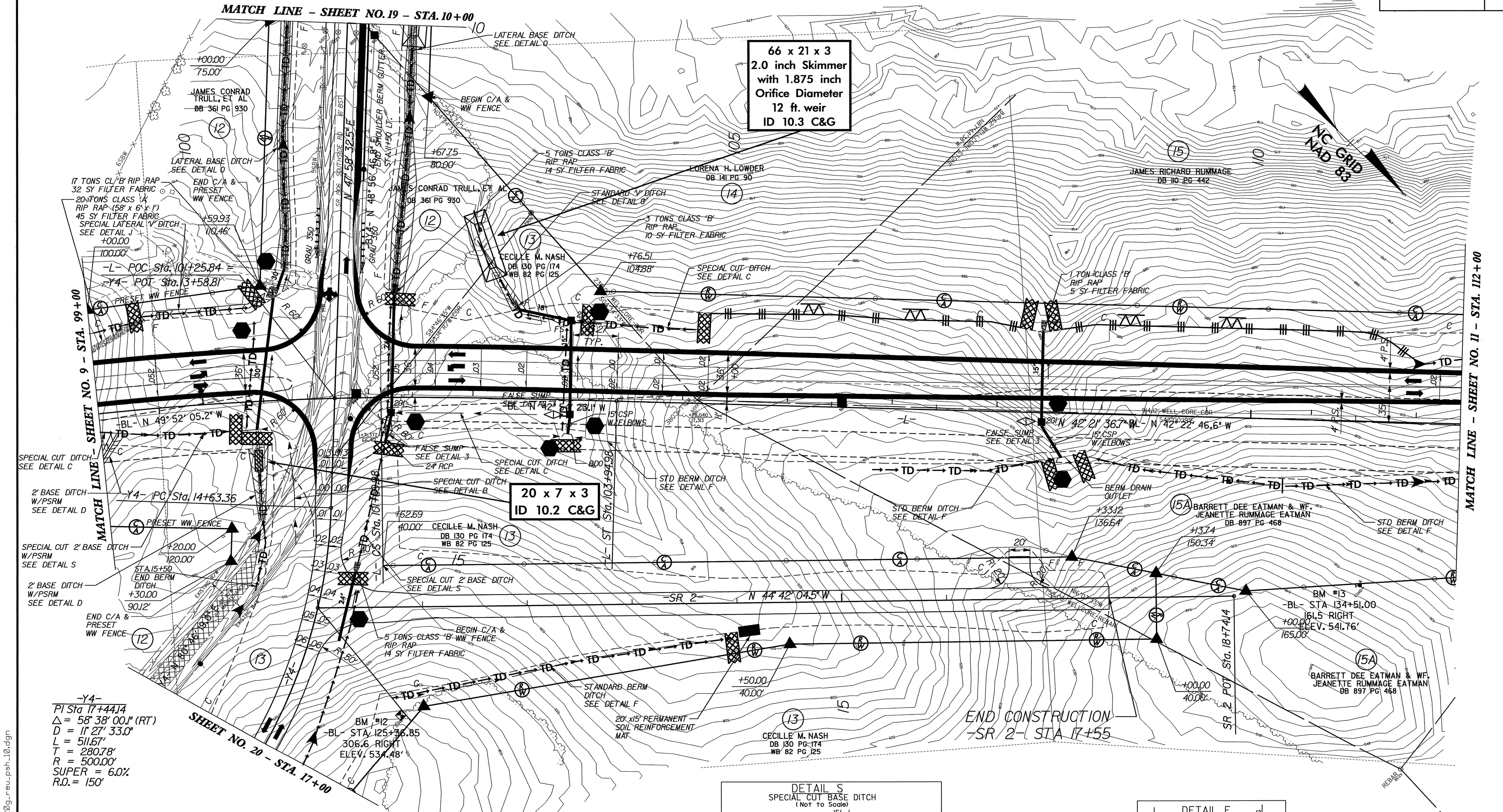
Natural Ground — Filter Fabric — Fill Slope
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip Rap

-Y4- STA. 9+05 TO 12+35 RT., CL. B RR = 185 TONS
FILTER FABRIC = 500 SY, DDE = 163 CY
-Y4- STA. 9+35 TO 12+55 LT., CL. B RR = 180 TONS
FILTER FABRIC = 485 SY, DDE = 306 CY

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)

15' — SHOULDER POINT — Natural Ground — VARIES — 10:1 MIN — 6:1 MAX — Front Ditch Slope — PER TYP. SECTION
Min. D= 1 Ft.

-L- STA. 98+50 TO 99+25 LT.
-L- STA. 103+50 TO 104+50 LT.



-Y4-
PI Sta 17+44.14
Δ = 58° 38' 00.1" (RT)
D = 11° 27' 33.0"
L = 511.67'
T = 280.78'
R = 500.00'
SUPER = 6.0%
R.O. = 150'

DETAIL 1
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow — 10:1 — 20:1 — 2.0' — 0.5' Min. 1.0' Max. — S — Gl etc. — ℄ Proposed Ditch
S = Ditch Slope

-L- STA. 103+45 LT.

DETAIL 3
FALSE SUMP
(Not to Scale)

Outside Ditch Traffic Flow — 20:1 — 10:1 — 2' — 0.5' Min. 1.0' Max. — Gl etc. — ℄ Proposed Ditch
S=Ditch Slope

-L- STA. 101+80 RT.
-L- STA. 108+00 RT.

DETAIL D
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — Natural Ground
*When B is < 6.0'
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
Type of Liner= PSRM

-L- STA. 99+25 RT.
65 LF @ 6.25%, DDE = 15 CY
-L- STA. 100+50 RT.
90 LF @ 10%, DDE = 36 CY

DETAIL S
SPECIAL CUT BASE DITCH
(Not to Scale)

15' -L- — 8' -Y4- — Natural Ground — VARIES — 4:1 or Flatter — Front Ditch Slope — SHOULDER POINT
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
Type of Liner= PSRM

-Y4- STA. 14+00 TO 15+20 LT.
-L- STA. 99+25 TO 100+50 RT.

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 4:1 or Flatter — Front Ditch Slope
Min. D= 1 Ft.

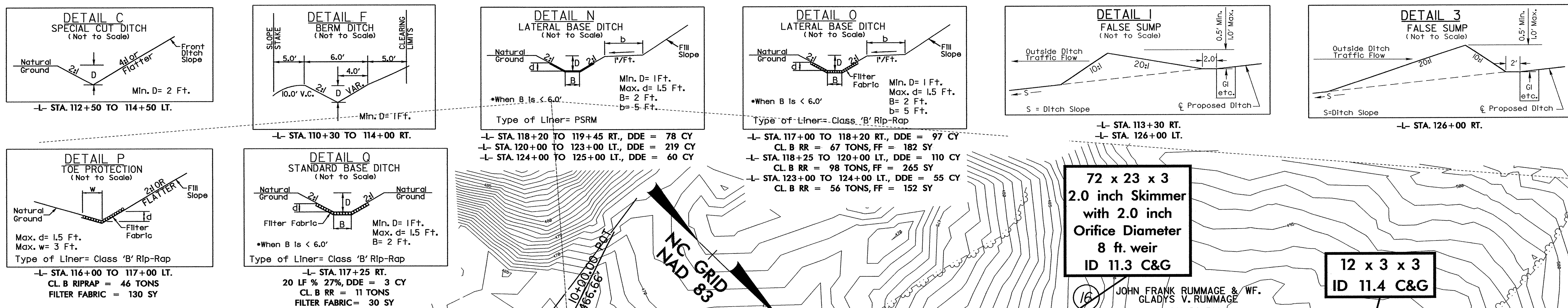
-Y4- STA. 14+00 TO 15+00 RT.

DETAIL F
BERM DITCH
(Not to Scale)

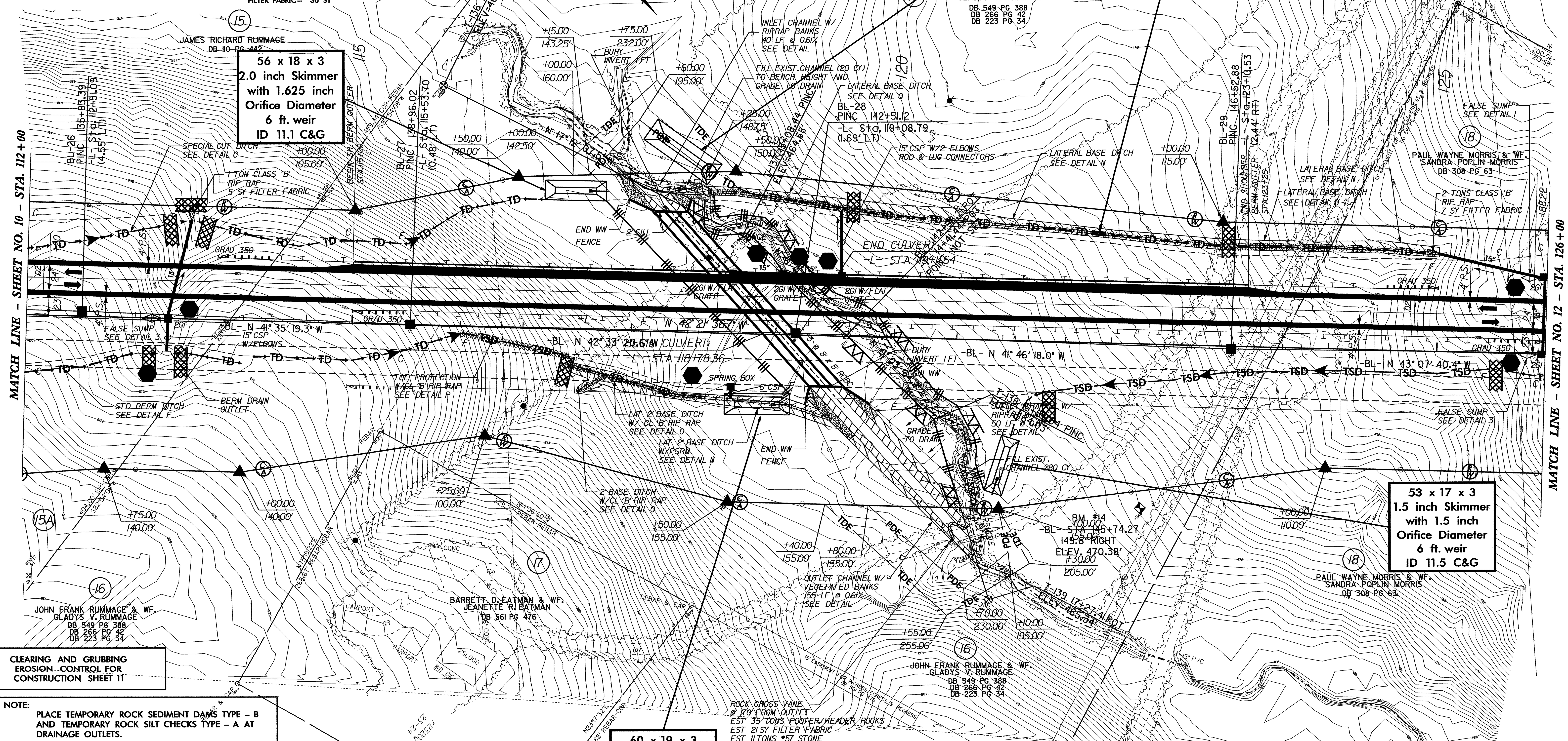
SLOPE STAKE — CLEARING LIMITS — 5.0' — 6.0' — 5.0' — 4.0' — 10.0' V.C. — VAR.
Min. D= 1 Ft.

-L- STA. 103+00 TO 104+00 RT.
-L- STA. 107+25 TO 110+30 RT.
-L- STA. 110+30 TO 114+00 RT.
-SR2- STA. 10+65 TO STA. 14+15 RT.

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-11/CONST11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



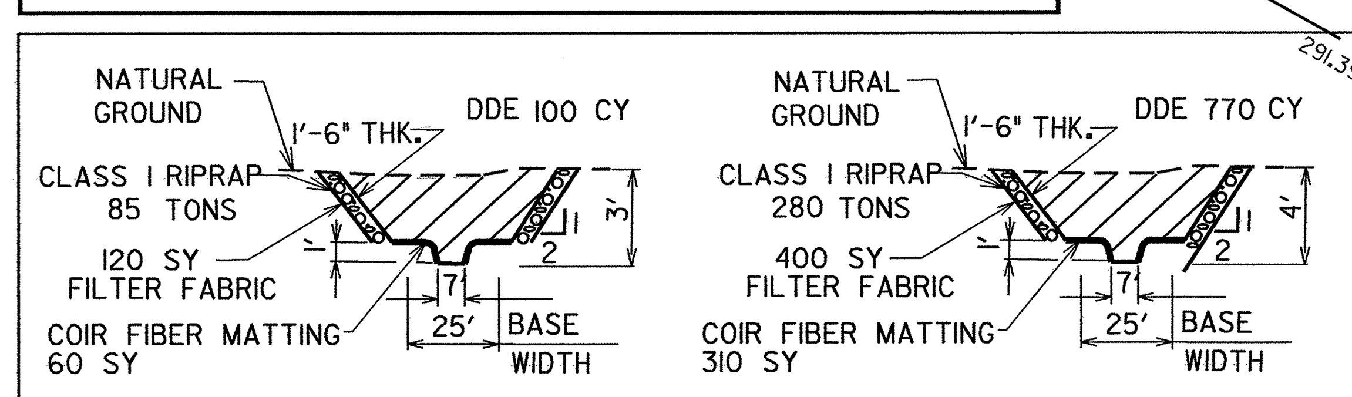
DETAIL C
SPECIAL CUT DITCH
(Not to Scale)
Min. D= 2 Ft.
-L- STA. 112+50 TO 114+50 LT.
DETAIL F
BERM DITCH
(Not to Scale)
Min. D= 1 Ft.
-L- STA. 110+30 TO 114+00 RT.
DETAIL N
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= PSRM
-L- STA. 118+20 TO 119+45 RT., DDE = 78 CY
-L- STA. 120+00 TO 123+00 LT., DDE = 219 CY
-L- STA. 124+00 TO 125+00 LT., DDE = 60 CY
DETAIL O
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-L- STA. 117+00 TO 118+20 RT., DDE = 97 CY
CL. B RR = 67 TONS, FF = 182 SY
-L- STA. 118+25 TO 120+00 LT., DDE = 110 CY
CL. B RR = 98 TONS, FF = 265 SY
-L- STA. 123+00 TO 124+00 LT., DDE = 55 CY
CL. B RR = 56 TONS, FF = 152 SY
DETAIL 1
FALSE SUMP
(Not to Scale)
S = Ditch Slope
-L- STA. 113+30 RT.
-L- STA. 126+00 LT.
DETAIL 3
FALSE SUMP
(Not to Scale)
S=Ditch Slope
-L- STA. 126+00 RT.
DETAIL P
TOE PROTECTION
(Not to Scale)
Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap
-L- STA. 116+00 TO 117+00 LT.
CL. B RIPRAP = 46 TONS
FILTER FABRIC = 130 SY
DETAIL Q
STANDARD BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-L- STA. 117+25 RT.
20 LF % 27%, DDE = 3 CY
CL. B RR = 11 TONS
FILTER FABRIC= 30 SY



NC GRID NAD 83
72 x 23 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
8 ft. weir
ID 11.3 C&G
12 x 3 x 3
ID 11.4 C&G
56 x 18 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
6 ft. weir
ID 11.1 C&G
53 x 17 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
6 ft. weir
ID 11.5 C&G
60 x 19 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
12 ft. weir
ID 11.2 C&G
MATCH LINE - SHEET NO. 10 - STA. 112+00
MATCH LINE - SHEET NO. 12 - STA. 126+00
JAMES RICHARD RUMMAGE
JOHN FRANK RUMMAGE & WF.
GLADYS V. RUMMAGE
DB 549 PG 388
DB 266 PG 42
DB 223 PG 34
PAUL WAYNE MORRIS & WF.
SANDRA POPLIN MORRIS
DB 308 PG 63
BARRETT D. EATMAN & WF.
JEANETTE R. EATMAN
DB 561 PG 476
END CULVERT
SPRING BOX
BM #14
-BL- STA 145+74.27
149.6' RIGHT
ELEV. 470.38'
ROCK CROSS VANE
EST 35 TONS FOOTER/HEADER ROCKS
EST 21 SY FILTER FABRIC
EST 11 TONS #57 STONE
EST 14 CY DDE
SEE DETAIL SHEET 2-K

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

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



CHANNEL INLET DETAIL

CHANNEL OUTLET DETAIL

SEE SHEET NO. 29 FOR -L- PROFILE

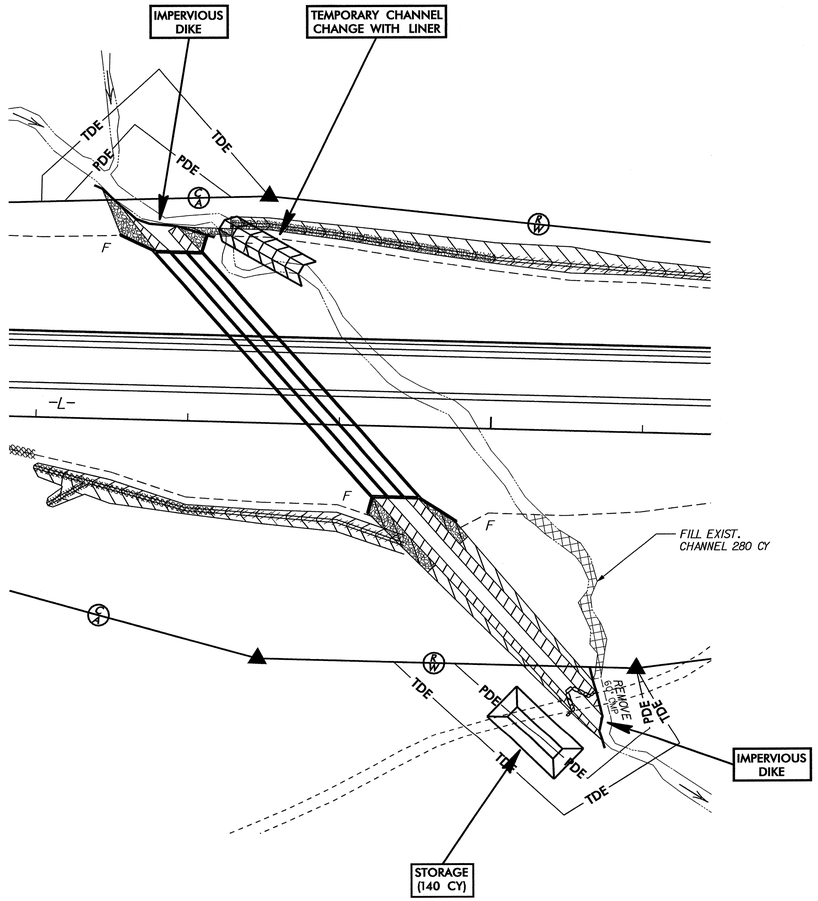
8/17/99

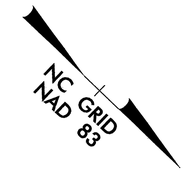
12-FEB-2008 12:58

CULVERT CONSTRUCTION SEQUENCE STA. 118+95 –L–

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-12/CONST.11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

1. CONSTRUCT STILLING BASIN (140 CY).
2. REMOVE 60 INCH CMP FROM GRAVEL DRIVE.
3. CONSTRUCT IMPERVIOUS DIKES.
4. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (7 FT. BASE, 3 FT. DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW.
5. CONSTRUCT PROPOSED CULVERT AND WINGWALLS.
6. CONSTRUCT PROPOSED UPSTREAM/DOWNSTREAM CHANNEL IMPROVEMENTS.
7. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE, DIVERTING FLOW THROUGH PROPOSED CULVERT.
8. REMOVE STILLING BASIN AND COMPLETE ROADWAY.





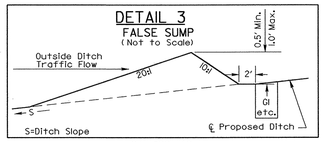
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-13/CONST J2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

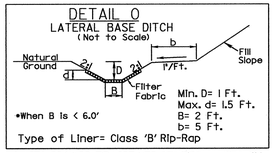
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

DETAIL 3
FALSE SUMP
(Not to Scale)



–L– STA. 133+60 LT.
–L– STA. 138+10 RT.

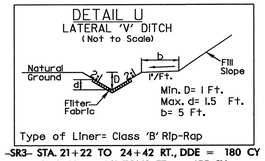
DETAIL O
LATERAL BASE DITCH
(Not to Scale)



*When B Is < 6.0'
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
Type of Liner= Class 'B' Rip-Rap

–L– STA. 134+00 TO 137+70 LT., DDE = 214 CY
CL. B RR = 207 TONS, FF = 561 SY
–L– STA. 137+80 TO 140+00 LT., DDE = 133 CY
CL. B RR = 123 TONS, FF = 334 SY

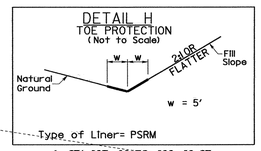
DETAIL U
LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1 Ft.
Max. d= 1.5 Ft.
b= 5 Ft.
Type of Liner= Class 'B' Rip-Rap

–SR3– STA. 21+22 TO 24+42 RT., DDE = 180 CY
CL. B RR = 161 TONS, FF = 455 SY

DETAIL H
TOE PROTECTION
(Not to Scale)



Type of Liner= PSRM

–L– STA. 137+00 TO 138±10 RT.
–SR3– STA. 25+00 TO 26+85 LT.
–SR3– STA. 26+22 TO 27+22 RT.

25 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
6 ft. weir
(See Tiered Skimmer
Basin Detail)
12.5 C&G 12.6 C&G

Modified Silt Basin
Type 'B'
25 x 16 x 3
(See Tiered Skimmer
Basin Detail)
ID 12.5 &12.6 C&G

65 x 21 x 3
2.0 inch Skimmer
with 1.835 inch
Orifice Diameter
10 ft. weir
ID 12.1 C&G

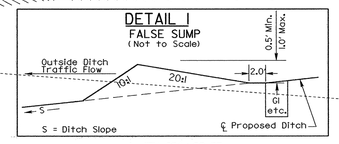
31 x 10 x 3
ID 12.2 C&G

21 x 13 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 12.3 C&G

Modified Silt Basin
Type 'B'
21 x 13 x 3
(See Tiered Skimmer
Basin Detail)
ID 12.3 C&G

36 x 12 x 3
1.5 inch Skimmer
with 1.175 inch
Orifice Diameter
4 ft. weir
ID 12.4 C&G

DETAIL I
FALSE SUMP
(Not to Scale)



–L– STA. 136+00 RT.

MATCH LINE – SHEET NO. 11 – STA. 126+00

MATCH LINE – SHEET NO. 13 – STA. 140+00

STATION 23+00

END CONSTRUCTION
–SR 3– STA 32+25

NC GRID NAD 83

PAUL WAYNE MORRIS & WF.
SANDRA POPLIN MORRIS
DB 308 PG 63

LILES MCSWAIN
DB 318 PG 353
DB 609 PG 941

WILLIE D. LAWHORN & WF.
MAZELLE R. LAWHORN
DB 223 PG 95
DB 194 PG 68

BM #15
–BL– STA 154+59.89
58.2 RIGHT
ELEV. 518.94'

BM #16
STA 162+02.54
149.6 LEFT
ELEV. 495.03'

CEMETERY

BL-30 PINC 149+91.95
–L– Sta. 126+49.56
(21.11' LT.)

BL-31 PINC 153+53.11
–L– Sta. 130+10.73
(2.30' LT.)

BL-32 PINC 159+61.00
–L– Sta. 136+18.60
(1.46' RT.)

SR 3 PT Sta. 33+16.84

SR 3 PC Sta. 25+64.83

SR 3 PT Sta. 26+84.70

BL- N 42° 23' 29.6" W

BL- N 42° 27' 36.4" W

BL- N 42° 00' 18.3" W

BL- N 41° 20' 35.2" W

S 45° 47' 39.5" E

–SR 3–

CLEAR PROPOSED R/W ON PARCEL 20

THIS 10+00.00 POT FENCE ELEV=485.81'

LATERAL BASE DITCH SEE DETAIL O

FALSE SUMP SEE DETAIL 3

TOE PROTECTION W/PSRM SEE DETAIL H

BEGIN SH. BERM GUTTER STA.135+00

END SH. BERM GUTTER STA.140+00

BEGIN WW FENCE

END WW FENCE

BEGIN SH. BERM GUTTER +50

END SH. BERM GUTTER +50

BURY INVERT 1 FT.

2 TONS CL. B RIP RAP
7 SY FILTER FABRIC

20 LF ALONG BANKS
26 TONS CLASS 'I' RIP RAP
50 SY FILTER FABRIC
NO RIP RAP IN BOTTOM OF CHANNEL

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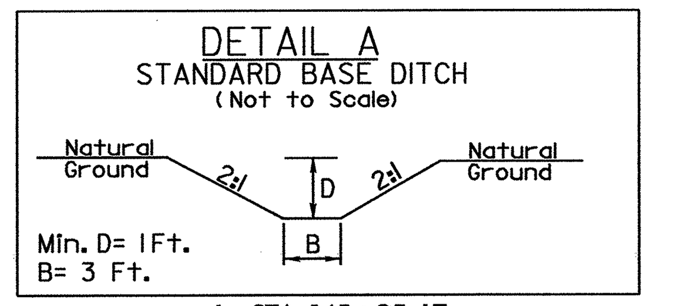
mkarter AT TRNSYS43

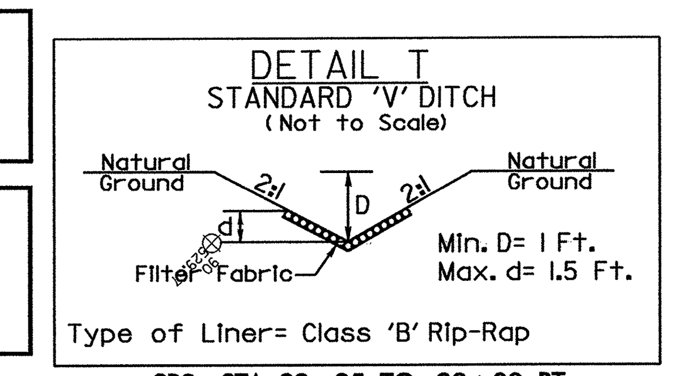
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-14/CONST13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER STA 140+00 TO STA 152+00

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

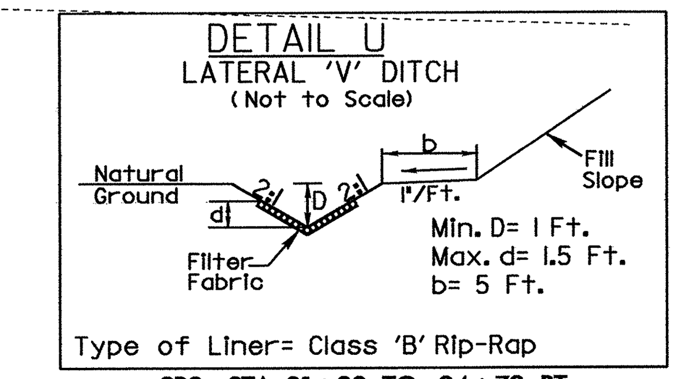
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



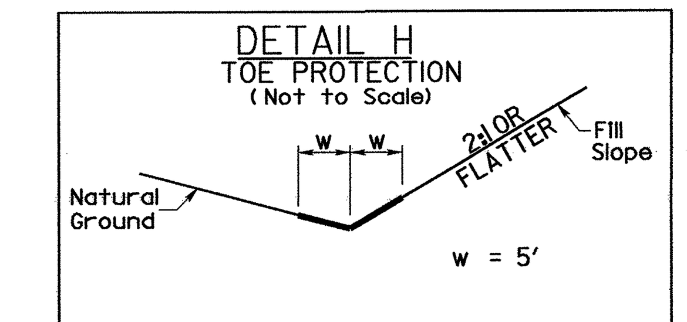
-L- STA. 145+25 LT.
80 LF @ 6.88%, DDE = 12 CY
-L- STA. 145+25 RT.
45 LF @ 0.7%, DDE = 10 CY



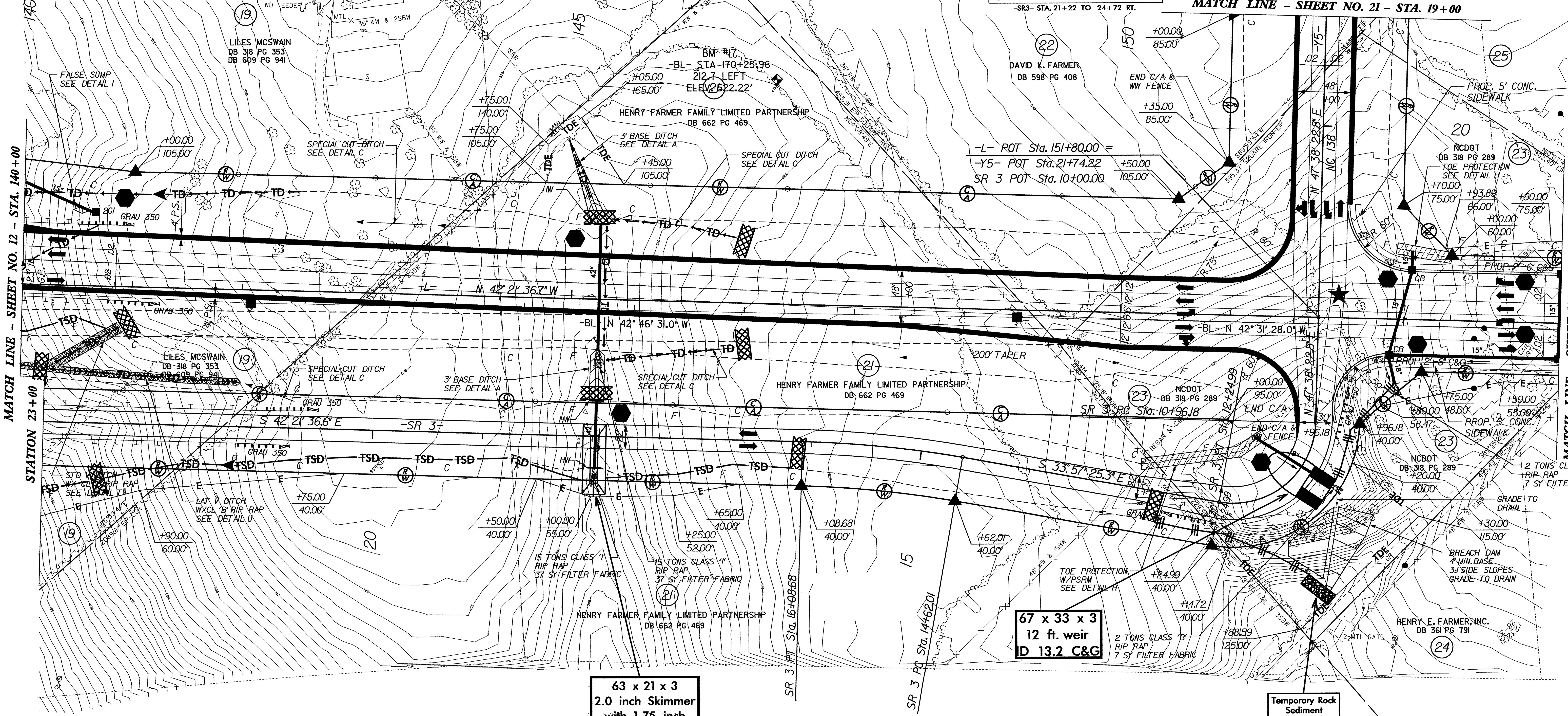
-SR3- STA. 22+25 TO 23+00 RT.
70 LF @ 10.27%,DDE = 5 CY
CL. B RR = 32 TONS, FF = 91 SY



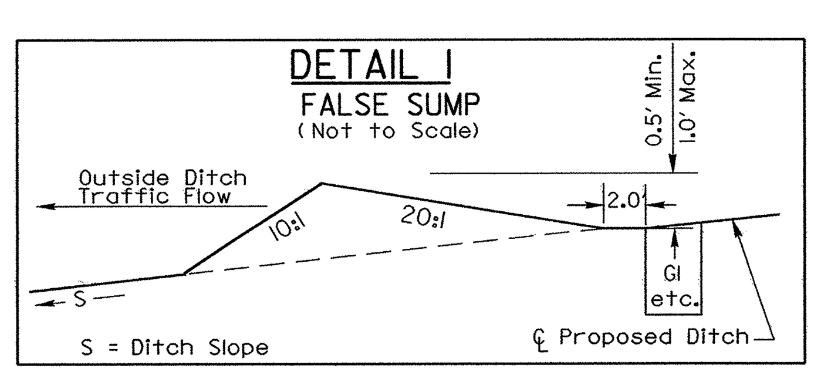
-SR3- STA. 21+22 TO 24+72 RT.



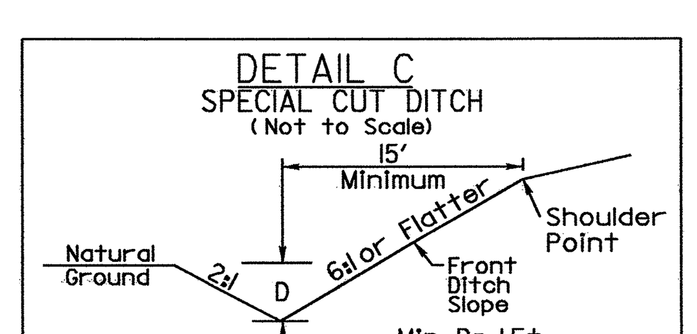
-L- STA. 152+50 TO 153+00 LT.
-SR3- STA. 11+00 TO 13+00 RT.



NC GRID NAD 83
MATCH LINE - SHEET NO. 21 - STA. 19+00
MATCH LINE - SHEET NO. 12 - STA. 140+00
STATION 23+00
MATCH LINE - SHEET NO. 14 - STA. 154+00
LILES MCSWAIN
DB 318 PG 353
DB 609 PG 941
BM #17
-BL- STA 170+25.96
212.7 LEFT
ELEV 2522.22'
HENRY FARMER FAMILY LIMITED PARTNERSHIP
DB 662 PG 469
DAVID K. FARMER
DB 598 PG 408
NCDOT
DB 318 PG 289
HENRY E. FARMER, INC.
DB 361 PG 791
-L- POT Sta. 151+80.00 =
-Y5- POT Sta.21+74.22
SR 3 POT Sta. 10+00.00
-L- N 42° 21' 36.7" W
-BL- N 42° 46' 31.0" W
-BL- N 42° 31' 28.0" W
S 42° 21' 36.6" E
-SR 3-
S 33° 57' 25.3" E
SR 3 PC Sta. 10+96.18
SR 3 PT Sta. 16+08.68
SR 3 PC Sta. 14+62.01
FALSE SUMP SEE DETAIL I
SPECIAL CUT DITCH SEE DETAIL C
3' BASE DITCH SEE DETAIL A
LAT V DITCH W/CL 'B' RIP RAP SEE DETAIL U
STD V DITCH W/CL 'B' RIP RAP SEE DETAIL T
TOE PROTECTION W/PSRM SEE DETAIL H
15 TONS CLASS 'I' RIP RAP 37 SY FILTER FABRIC
2 TONS CLASS 'B' RIP RAP 7 SY FILTER FABRIC
BREACH DAM 4' MIN. BASE 3:1 SIDE SLOPES GRADE TO DRAIN
GRADE TO DRAIN
END C/A & WW FENCE
PROP. 5' CONC. SIDEWALK
PROP. 2' 6" C&G
200' TAPER
63 x 21 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
7 ft. weir
ID 13.1 C&G
67 x 33 x 3
12 ft. weir
ID 13.2 C&G
Temporary Rock Sediment Dam Type A



-L- STA. 140+70 LT.



-L- STA. 143+00 TO 144+50 LT.
-L- STA. 145+25 TO 146+50 RT.
-L- STA. 145+25 TO 146+50 LT.

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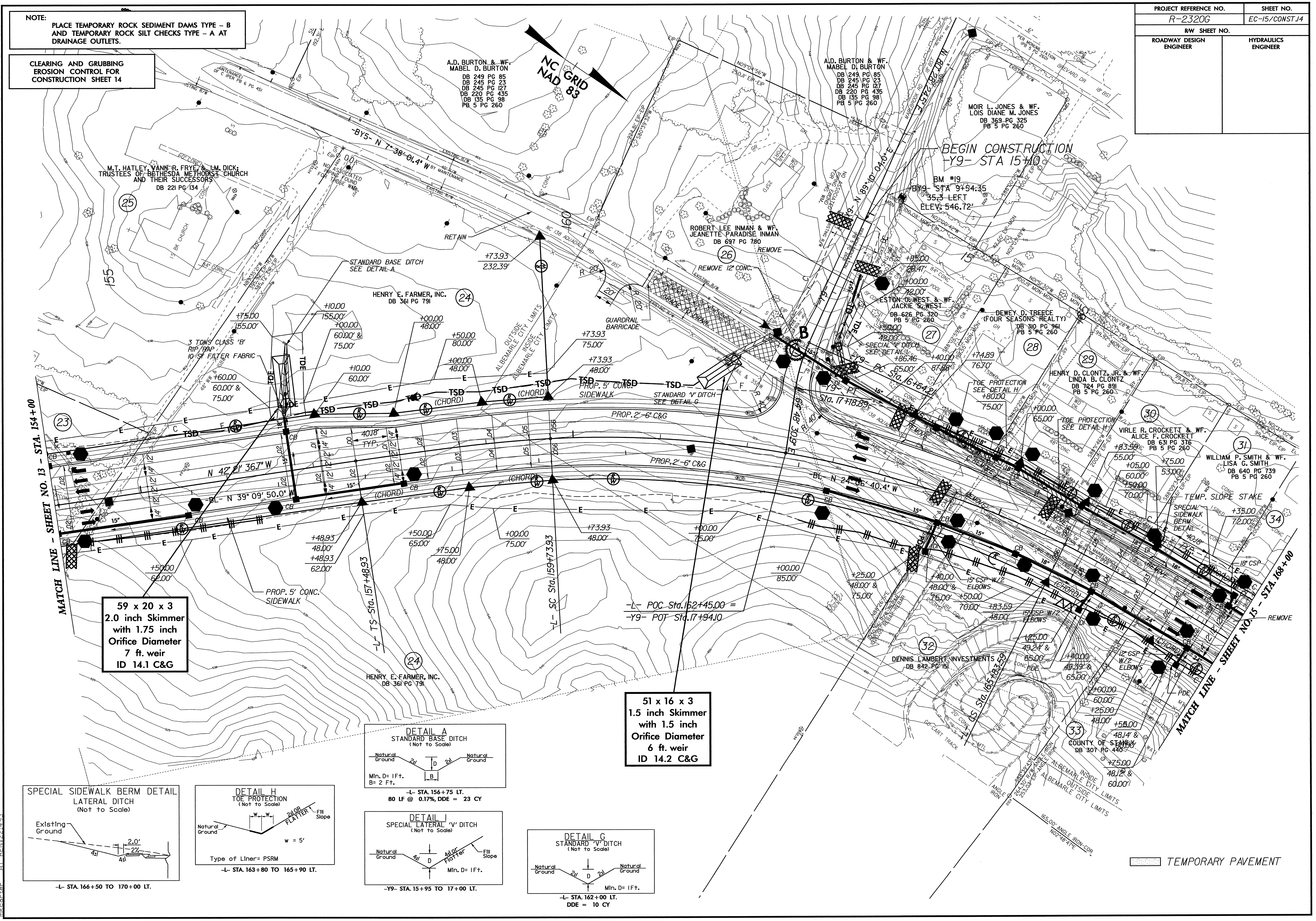
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-15/CONSTJ4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 14



NC GRID NAD 83
A.D. BURTON & WF. MABEL D. BURTON DB 249 PG 85 DB 245 PG 23 DB 245 PG 127 DB 220 PG 435 DB 135 PG 98 PB 5 PG 260
MOIR L. JONES & WF. LOIS DIANE M. JONES DB 369 PG 325 PB 5 PG 260
M.T. HATLEY, VANN R. FRYE & J.M. DICK; TRUSTEES OF BETHESDA METHODIST CHURCH AND THEIR SUCCESSORS DB 221 PG 134
BEGIN CONSTRUCTION -Y9- STA 15+10
BM #19 -BY9- STA 9+54.35 35.3 LEFT ELEV. 546.72'
ROBERT LEE INMAN & WF. JEANETTE PARADISE INMAN DB 697 PG 780
HENRY E. FARMER, INC. DB 361 PG 791
ESTON O. WEST & WF. JACKIE S. WEST DB 626 PG 320 PB 5 PG 260
DEWEY D. TREECE (FOUR SEASONS REALTY) DB 310 PG 961 PB 5 PG 260
HENRY D. CLONTZ, JR. & WF. LINDA B. CLONTZ DB 724 PG 891 PB 5 PG 260
VIRLE R. CROCKETT & WF. ALICE F. CROCKETT DB 631 PG 376 PB 5 PG 260
WILLIAM P. SMITH & WF. LISA G. SMITH DB 640 PG 739 PB 5 PG 260
DENNIS LAMBERT INVESTMENTS DB 842 PG 151
COUNTY OF STANLY DB 307 PG 440
MATCH LINE - SHEET NO. 13 - STA. 154+00
MATCH LINE - SHEET NO. 15 - STA. 168+00
-BL- N 39° 09' 50.0" W
-BL- N 24° 06' 40.4" W
-L- TS Sta. 157+48.93
-L- SC Sta. 159+73.93
-L- POC Sta. 162+45.00 = -Y9- POT Sta. 17+94.10
-Y9- PC Sta. 16+64.21
-Y9- PT Sta. 17+18.89
STANDARD BASE DITCH SEE DETAIL A
STANDARD 'V' DITCH SEE DETAIL G
SPECIAL 'V' DITCH SEE DETAIL I
TOE PROTECTION SEE DETAIL H
PROP. 5' CONC. SIDEWALK
PROP. 2'-6" C&G
3 TONS CLASS 'B' RIP RAP 10 SY FILTER FABRIC
GUARDRAIL BARRICADE
OUTSIDE ALBEMARLE CITY LIMITS
INSIDE ALBEMARLE CITY LIMITS
TEMP. SLOPE STAKE
SPECIAL SIDEWALK BERM DETAIL
REMOVE
RETAIN
59 x 20 x 3 2.0 inch Skimmer with 1.75 inch Orifice Diameter 7 ft. weir ID 14.1 C&G
51 x 16 x 3 1.5 inch Skimmer with 1.5 inch Orifice Diameter 6 ft. weir ID 14.2 C&G
DETAIL A STANDARD BASE DITCH (Not to Scale)
Natural Ground
Min. D= 1Ft. B= 2 Ft.
-L- STA. 156+75 LT. 80 LF @ 0.17%, DDE = 23 CY
SPECIAL SIDEWALK BERM DETAIL LATERAL DITCH (Not to Scale)
Existing Ground
-L- STA. 166+50 TO 170+00 LT.
DETAIL H TOE PROTECTION (Not to Scale)
w = 5'
Type of Liner= PSRM
-L- STA. 163+80 TO 165+90 LT.
DETAIL I SPECIAL LATERAL 'V' DITCH (Not to Scale)
Min. D= 1Ft.
-Y9- STA. 15+95 TO 17+00 LT.
DETAIL G STANDARD 'V' DITCH (Not to Scale)
Min. D= 1Ft.
-L- STA. 162+00 LT. DDE = 10 CY
TEMPORARY PAVEMENT

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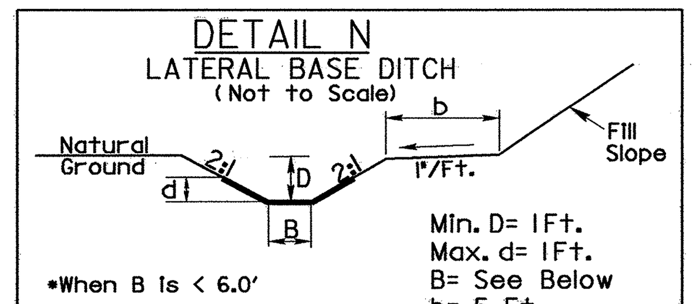
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-16/CONSTJ5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

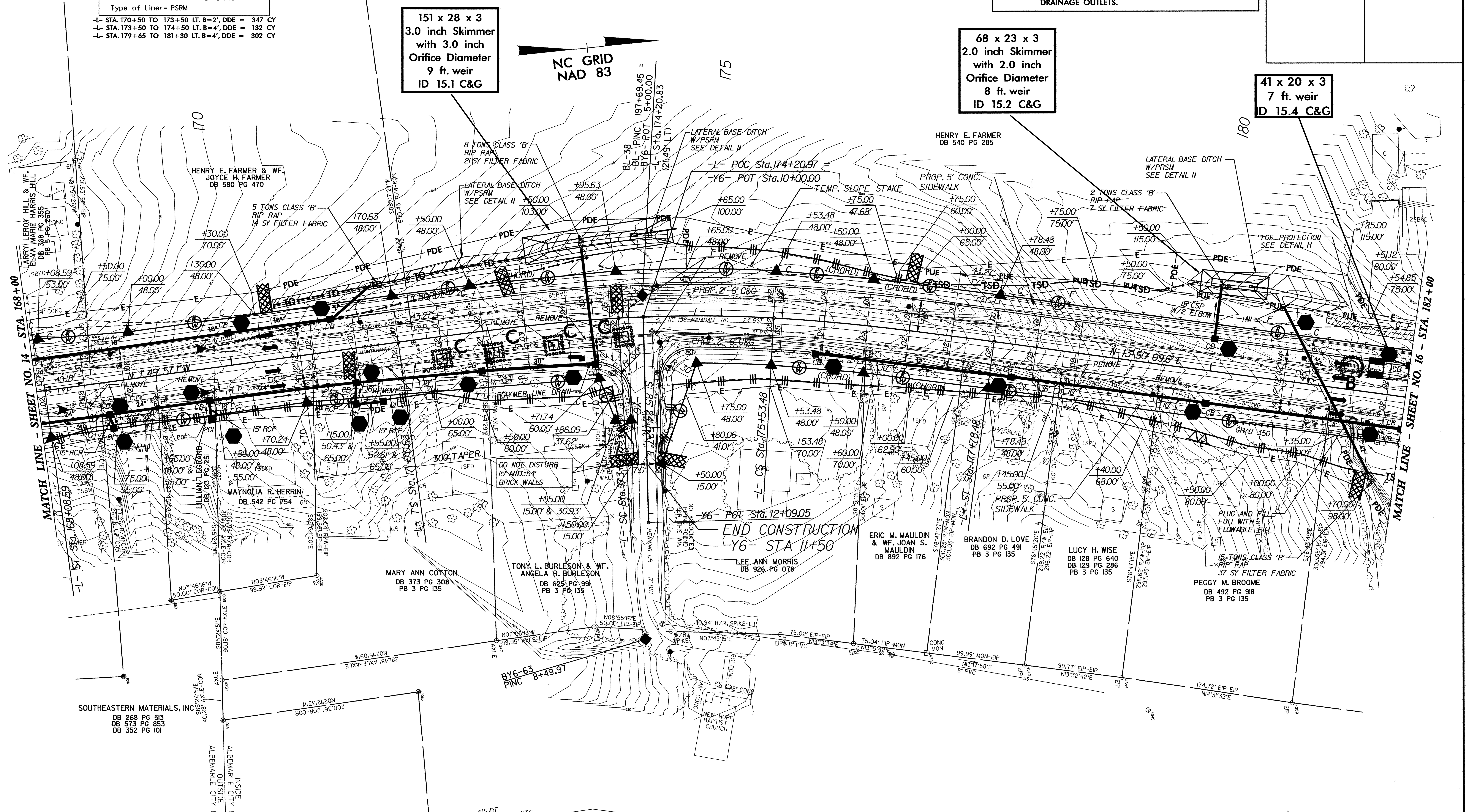
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

DETAIL N
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= PSRM

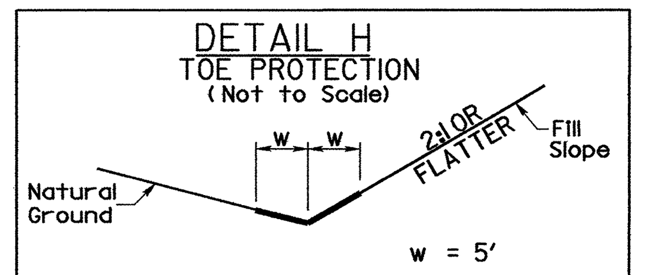
-L- STA. 170+50 TO 173+50 LT. B=2', DDE = 347 CY
-L- STA. 173+50 TO 174+50 LT. B=4', DDE = 132 CY
-L- STA. 179+65 TO 181+30 LT. B=4', DDE = 302 CY



151 x 28 x 3
3.0 inch Skimmer
with 3.0 inch
Orifice Diameter
9 ft. weir
ID 15.1 C&G
68 x 23 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
8 ft. weir
ID 15.2 C&G
41 x 20 x 3
7 ft. weir
ID 15.4 C&G
NC GRID
NAD 83
MATCH LINE - SHEET NO. 14 - STA. 168+00
MATCH LINE - SHEET NO. 16 - STA. 182+00
HENRY E. FARMER & WF.
JOYCE H. FARMER
DB 580 PG 470
HENRY E. FARMER
DB 540 PG 285
LARRY LEROY HILL & WF.
ELVA MARIE HARRIS HILL
DB 368 PG 355
PB 5 PG 260
8 TONS CLASS 'B'
RIP RAP
21 SY FILTER FABRIC
5 TONS CLASS 'B'
RIP RAP
14 SY FILTER FABRIC
2 TONS CLASS 'B'
RIP RAP
7 SY FILTER FABRIC
15 TONS CLASS 'B'
RIP RAP
37 SY FILTER FABRIC
LATERAL BASE DITCH
W/PSRM
SEE DETAIL N
TOE PROTECTION
SEE DETAIL H
-L- POC Sta.174+20.97 =
-Y6- POT Sta.10+00.00
TEMP. SLOPE STAKE
PROP. 5' CONC.
SIDEWALK
PROP. 2' 6" C&G
15" CSP
W/2 ELBOW
-L- ST Sta.168+08.59
-L- TS Sta.171+05.63
-L- SC Sta.173+85.57
-L- CS Sta.175+53.48
-L- ST Sta.177+78.48
-Y6- POT Sta.12+09.05
END CONSTRUCTION
-Y6- STA 11+50
DO NOT DISTURB
15" AND 54"
BRICK WALLS
300' TAPER
PLUG AND FILL
FULL WITH
FLOWABLE FILL
POLYMER LINE DRAIN
MAYNOLIA R. HERRIN
DB 542 PG 754
LILLIAN LEGRAND
DB 123 PG 251
MARY ANN COTTON
DB 373 PG 308
PB 3 PG 135
TONY L. BURLESON & WF.
ANGELA R. BURLESON
DB 625 PG 991
PB 3 PG 135
LEE ANN MORRIS
DB 926 PG 078
ERIC M. MAULDIN
& WF. JOAN S.
MAULDIN
DB 892 PG 176
BRANDON D. LOVE
DB 692 PG 491
PB 3 PG 135
LUCY H. WISE
DB 128 PG 640
DB 129 PG 286
PB 3 PG 135
PEGGY M. BROOME
DB 492 PG 918
PB 3 PG 135
SOUTHEASTERN MATERIALS, INC.
DB 268 PG 513
DB 573 PG 853
DB 352 PG 101
NEW HOPE
BAPTIST
CHURCH
BY6-63
PINC 8+49.97
INSIDE
ALBEMARLE CITY LIMITS
OUTSIDE
ALBEMARLE CITY LIMITS

TEMPORARY PAVEMENT

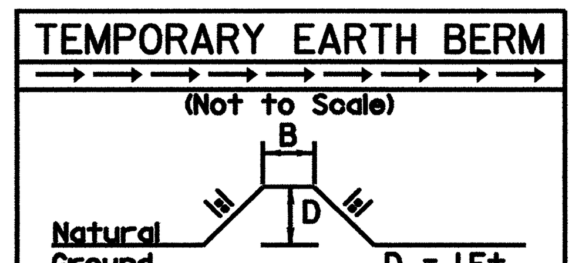
DETAIL H
TOE PROTECTION
(Not to Scale)



Type of Liner= PSRM

-L- STA. 181+10 TO 182+50 LT.

TEMPORARY EARTH BERM
(Not to Scale)



D = 1Ft.
B = 1Ft.
STABILIZE EARTH BERM

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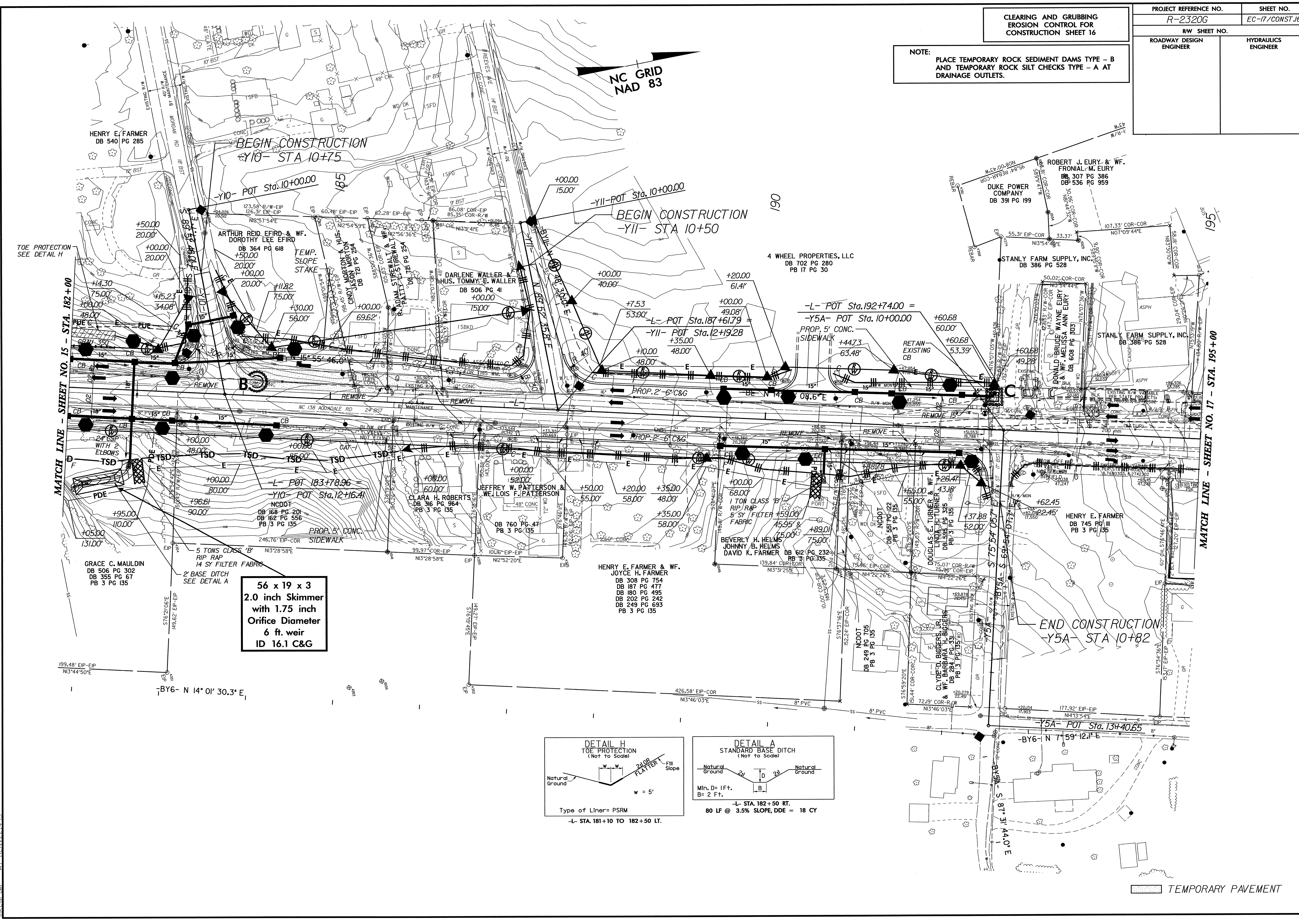
PROJECT REFERENCE NO.
R-2320G
SHEET NO.
EC-17/CONST.16
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.
NC GRID
NAD 83
BEGIN CONSTRUCTION
-Y10- STA 10+75
-Y10- POT Sta. 10+00.00
BEGIN CONSTRUCTION
-Y11- STA 10+50
-Y11- POT Sta. 10+00.00
-L- POT Sta. 187+61.79 =
-Y11- POT Sta. 12+19.28
-L- POT Sta. 192+74.00 =
-Y5A- POT Sta. 10+00.00
-L- POT 183+78.96 =
-Y10- POT Sta. 12+16.41
END CONSTRUCTION
-Y5A- STA 10+82
-Y5A- POT Sta. 13+40.65
MATCH LINE - SHEET NO. 15 - STA. 182+00
MATCH LINE - SHEET NO. 17 - STA. 195+00
HENRY E. FARMER
DB 540 PG 285
ARTHUR REID EFIRD & WF.
DOROTHY LEE EFIRD
DB 364 PG 618
DARLENE WALLER &
HUS. TOMMY E. WALLER
DB 506 PG 41
4 WHEEL PROPERTIES, LLC
DB 702 PG 280
PB 17 PG 30
ROBERT J. EURY & WF.
FRONIAL M. EURY
DB 307 PG 386
DB 536 PG 959
DUKE POWER
COMPANY
DB 391 PG 199
STANLY FARM SUPPLY, INC.
DB 386 PG 528
GRACE C. MAULDIN
DB 506 PG 302
DB 355 PG 67
PB 3 PG 135
NCDOT
DB 168 PG 201
DB 162 PG 556
PB 3 PG 135
CLARA H. ROBERTS
DB 316 PG 964
PB 3 PG 135
JEFFREY W. PATTERSON &
WF. LOIS F. PATTERSON
DB 760 PG 47
PB 3 PG 135
HENRY E. FARMER & WF.
JOYCE H. FARMER
DB 308 PG 754
DB 187 PG 477
DB 180 PG 495
DB 202 PG 242
DB 249 PG 693
PB 3 PG 135
BEVERLY H. HELMS
JOHNNY B. HELMS
DAVID K. FARMER DB 612 PG 232
PB 3 PG 135
HENRY E. FARMER
DB 745 PG 111
PB 3 PG 135
TOE PROTECTION
SEE DETAIL H
5 TONS CLASS 'B'
RIP RAP
14 SY FILTER FABRIC
2' BASE DITCH
SEE DETAIL A
56 x 19 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
6 ft. weir
ID 16.1 C&G
1 TON CLASS 'B'
RIP RAP
5 SY FILTER
FABRIC
PROP. 5' CONC. SIDEWALK
PROP. 2'-6" C&G
NC 138 AQUADALE RD
-BY6- N 14° 01' 30.3" E
-BY6- N 7° 59' 12.1" E
DETAIL H
TOE PROTECTION
(Not to Scale)
Natural Ground
2:1 OR FLATTER
Fill Slope
w = 5'
Type of Liner= PSRM
-L- STA. 181+10 TO 182+50 LT.
DETAIL A
STANDARD BASE DITCH
(Not to Scale)
Natural Ground
Min. D= 1 Ft.
B= 2 Ft.
-L- STA. 182+50 RT.
80 LF @ 3.5% SLOPE, DDE = 18 CY
TEMPORARY PAVEMENT
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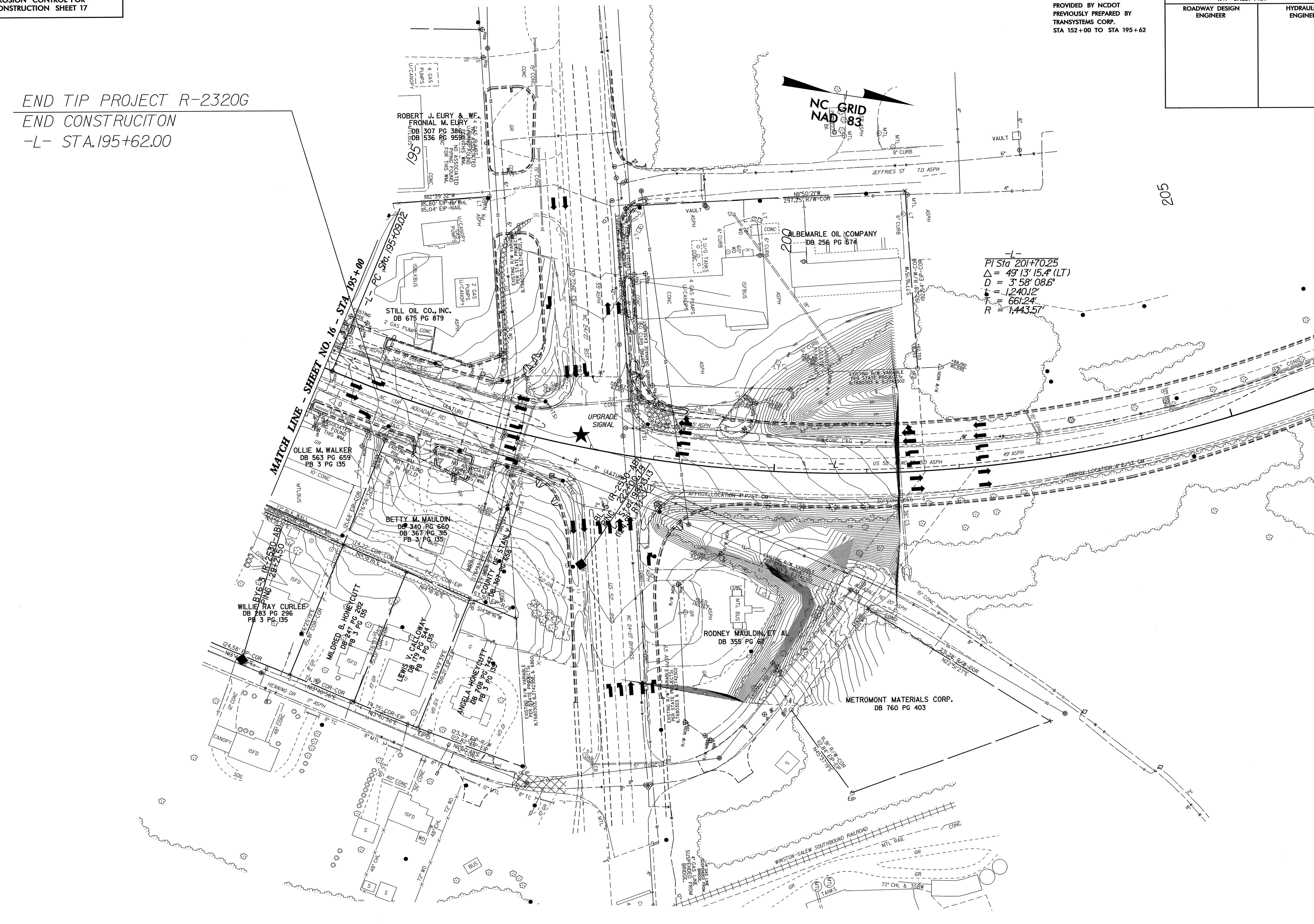
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17

HYDRAULIC DESIGN:
PROVIDED BY NCDOT
PREVIOUSLY PREPARED BY
TRANSYSTEMS CORP.
STA 152+00 TO STA 195+62

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-18/CONST.17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



END TIP PROJECT R-2320G
END CONSTRUCITON
-L- STA.195+62.00
MATCH LINE - SHEET NO. 16 - STA.195+00
-L- PC Sta. 195+09.02
NC GRID
NAD 83
ROBERT J. EURY & WF.
FRONIAL M. EURY
DB 307 PG 386
DB 536 PG 959
STILL OIL CO., INC.
DB 675 PG 879
ALBEMARLE OIL COMPANY
DB 256 PG 574
OLLIE M. WALKER
DB 563 PG 659
PB 3 PG 135
BETTY M. MAULDIN
DB 340 PG 660
DB 367 PG 315
PB 3 PG 135
WILLIE RAY CURLEE
DB 283 PG 296
PB 3 PG 135
MILDRED B. HONEYCUTT
DB 247 PG 202
PB 3 PG 135
LEWIS V. CALLOWAY
RODNEY MAULDIN, ET AL
DB 355 PG 61
METROMONT MATERIALS CORP.
DB 760 PG 403
UPGRADE
SIGNAL
-L-
PI Sta 201+70.25
Δ = 49° 13' 15.4" (LT)
D = 3° 58' 08.6"
L = 1,240.12'
T = 661.24'
R = 1,443.57'
JEFFRIES ST
WINSTON-SALEM SOUTHBOUND RAILROAD
HENNING DR
205
200
195

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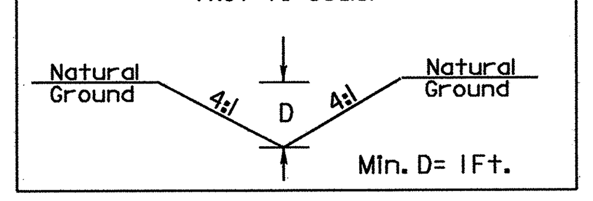
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-19/CONST18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 18

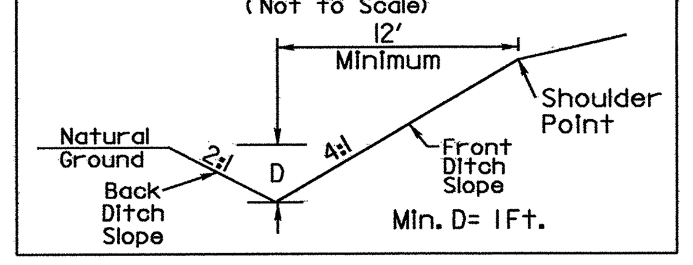
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)

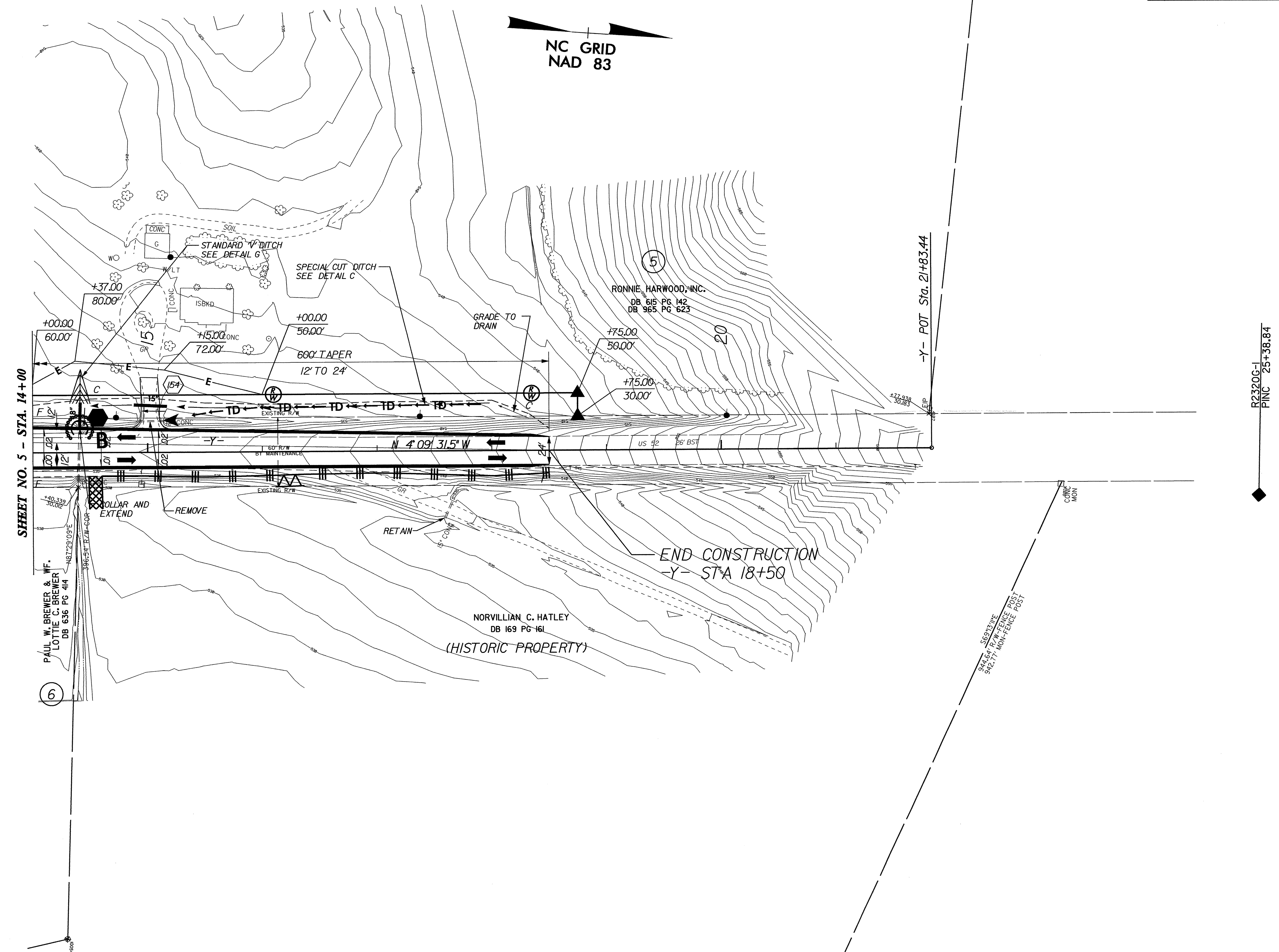


-Y- STA. 14+40 LT.
28 LF @ 10.0%
DDE = 23 CY

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)



-Y- STA. 14+42.7 TO 18+00 LT.



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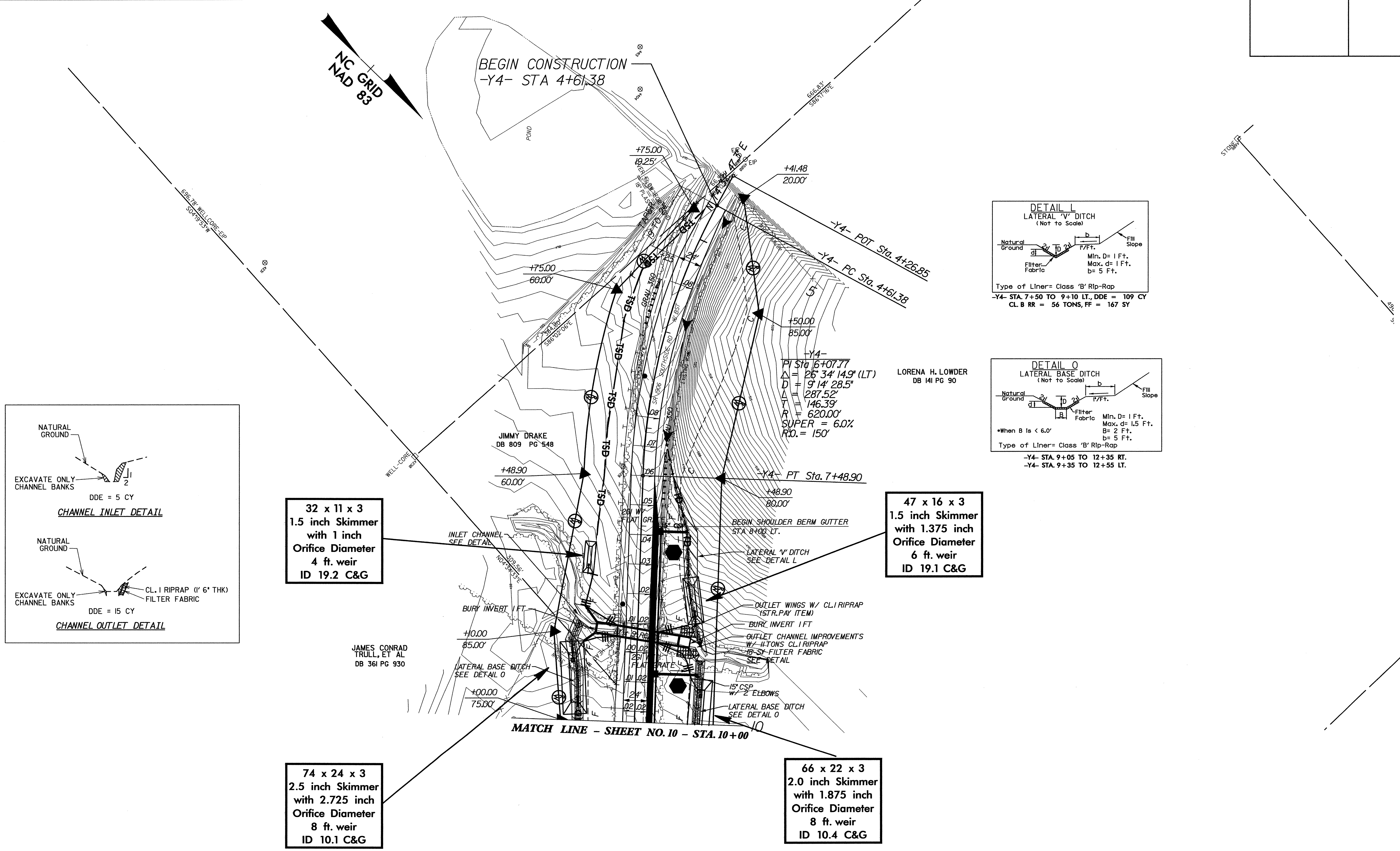
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-20/CONSTJ9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

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.



NC GRID
NAD 83
BEGIN CONSTRUCTION
-Y4- STA 4+61.38
POND
-Y4- POT Sta. 4+26.85
-Y4- PC Sta. 4+61.38
+41.48
20.00'
+75.00
19.25'
+75.00
60.00'
+50.00
85.00'
-Y4-
PI Sta 6+07.77
Δ = 26° 34' 14.9" (LT)
D = 9° 14' 28.5"
L = 287.52'
T = 146.39'
R = 620.00'
SUPER = 6.0%
R.O. = 150'
-Y4- PT Sta. 7+48.90
+48.90
80.00'
+48.90
60.00'
+10.00
85.00'
+00.00
75.00'
LORENA H. LOWDER
DB 141 PG 90
JIMMY DRAKE
DB 809 PG 548
JAMES CONRAD
TRULL, ET AL
DB 361 PG 930
INLET CHANNEL
SEE DETAIL
BURY INVERT 1 FT
LATERAL BASE DITCH
SEE DETAIL O
BEGIN SHOULDER BERM GUTTER
STA 8+00 LT.
LATERAL 'V' DITCH
SEE DETAIL L
OUTLET WINGS W/ CL.I RIPRAP
(STR. PAY ITEM)
BURY INVERT 1 FT
OUTLET CHANNEL IMPROVEMENTS
W/ 11 TONS CL.I RIPRAP
18 SY FILTER FABRIC
SEE DETAIL
15" CSP
W/ 2 ELBOWS
LATERAL BASE DITCH
SEE DETAIL O
MATCH LINE - SHEET NO. 10 - STA. 10+00
32 x 11 x 3
1.5 inch Skimmer
with 1 inch
Orifice Diameter
4 ft. weir
ID 19.2 C&G
47 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
6 ft. weir
ID 19.1 C&G
74 x 24 x 3
2.5 inch Skimmer
with 2.725 inch
Orifice Diameter
8 ft. weir
ID 10.1 C&G
66 x 22 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
8 ft. weir
ID 10.4 C&G
NATURAL GROUND
EXCAVATE ONLY CHANNEL BANKS
DDE = 5 CY
CHANNEL INLET DETAIL
NATURAL GROUND
EXCAVATE ONLY CHANNEL BANKS
CL. I RIPRAP (1' 6" THK)
FILTER FABRIC
DDE = 15 CY
CHANNEL OUTLET DETAIL
DETAIL L
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
Min. D= 1 Ft.
Max. d= 1 Ft.
b= 5 Ft.
Type of Liner= Class 'B' Rip-Rap
-Y4- STA. 7+50 TO 9+10 LT., DDE = 109 CY
CL. B RR = 56 TONS, FF = 167 SY
DETAIL O
LATERAL BASE DITCH
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-Y4- STA. 9+05 TO 12+35 RT.
-Y4- STA. 9+35 TO 12+55 LT.

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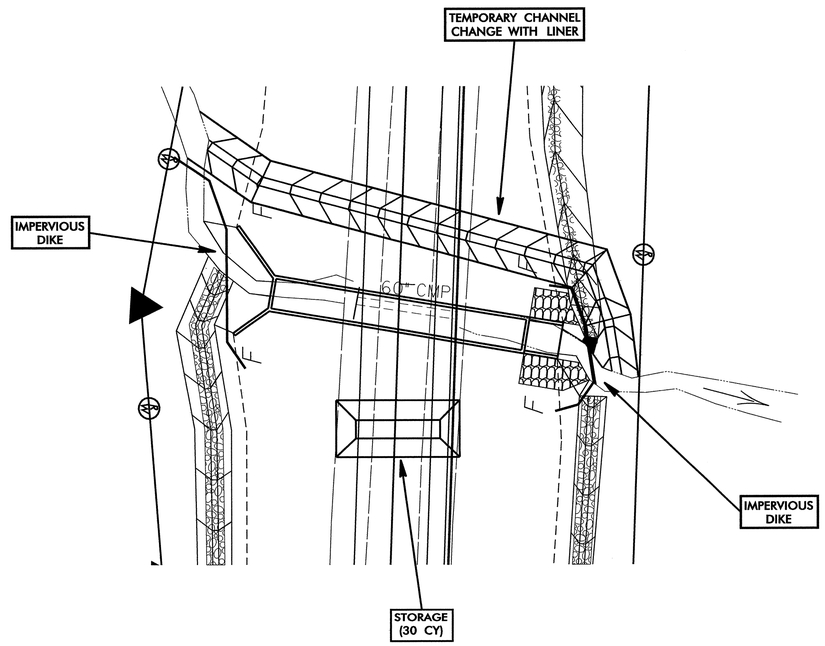
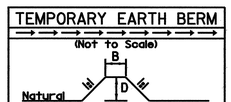
CULVERT CONSTRUCTION SEQUENCE STA. 9+10 –Y4–

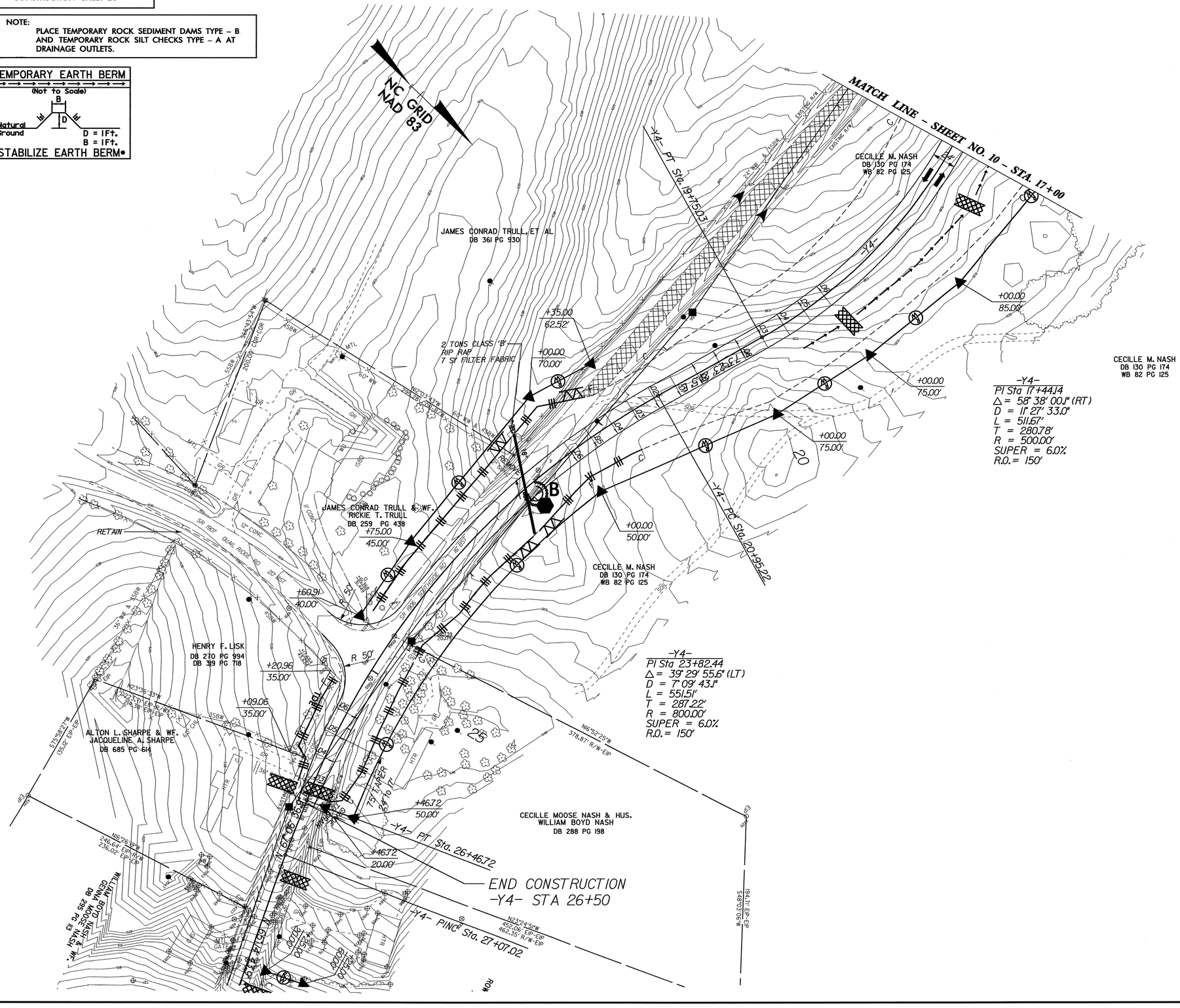
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-21/CONST 19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

1. CONSTRUCT STILLING BASIN (30 CY).
2. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (3 FT. BASE, 3 FT. DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW.
3. CONSTRUCT IMPERVIOUS DIKES.
4. REMOVE EXISTING 60 INCH CMP.
5. CONSTRUCT PROPOSED CULVERT AND WINGWALLS.
6. CONSTRUCT PROPOSED INLET/OUTLET CHANNEL IMPROVEMENTS.
7. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE, DIVERTING FLOW THROUGH PROPOSED CULVERT.
8. REMOVE STILLING BASIN AND COMPLETE ROADWAY.

NC GRID
NAD 83







PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-22/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20**

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

TEMPORARY EARTH BERM
→ → → → → → → → →
(Not to Scale)
B
D
Natural Ground
D = 1Ft.
B = 1Ft.
STABILIZE EARTH BERM

-Y4-
PI Sta 17+44.14
△ = 58° 38' 00.1" (RT)
D = 11° 27' 33.0"
L = 511.67'
T = 280.78'
R = 500.00'
SUPER = 6.0%
R.O. = 150'

-Y4-
PI Sta 23+82.44
△ = 39° 29' 55.6" (LT)
D = 7° 09' 43.1"
L = 551.51'
T = 287.22'
R = 800.00'
SUPER = 6.0%
R.O. = 150'

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mkcarter AT RENV22I493

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-23/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

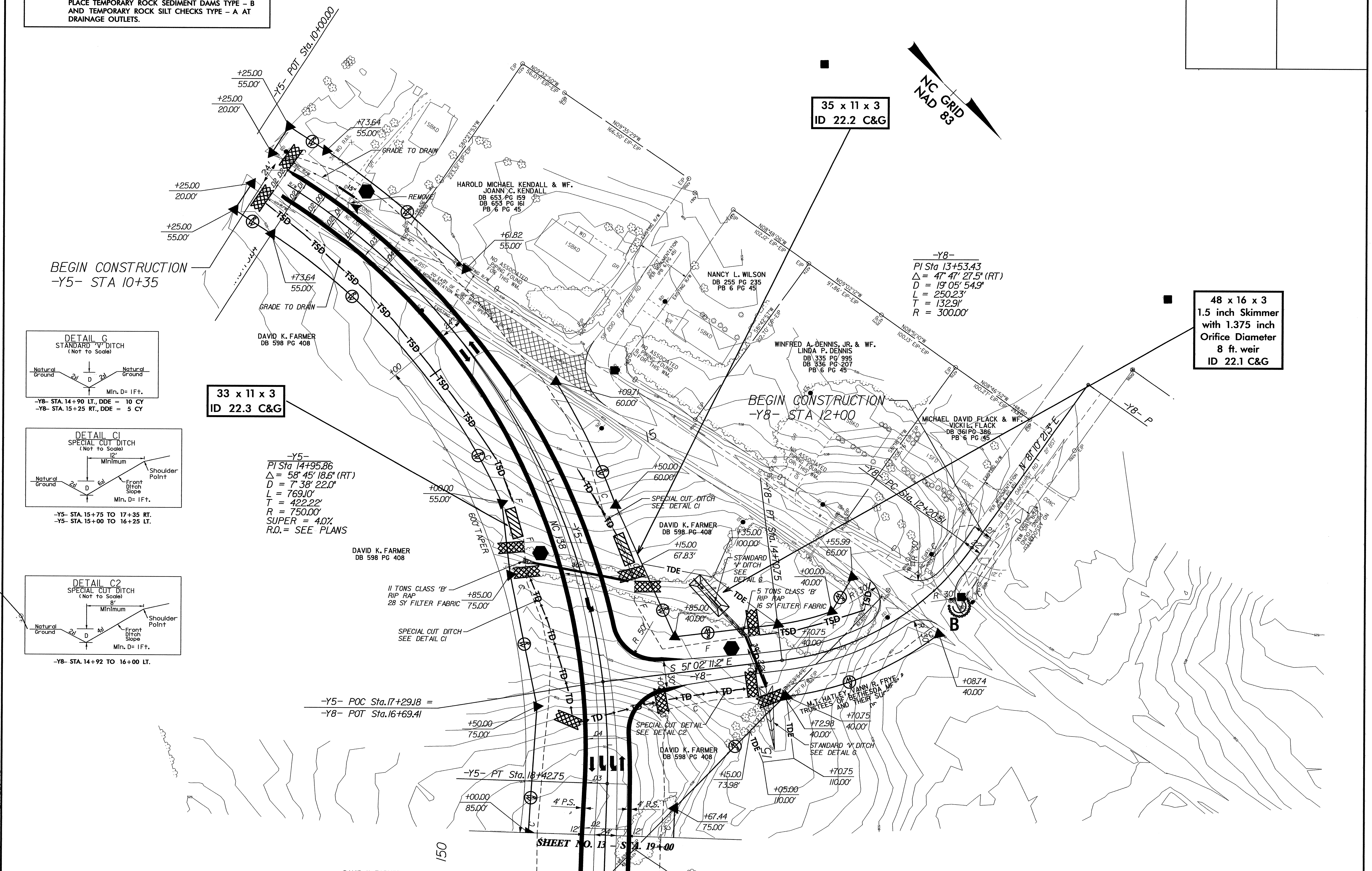
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

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

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)
Natural Ground, 2d, D, 2d, Natural Ground
Min. D= 1Ft.
-Y8- STA. 14+90 LT., DDE = 10 CY
-Y8- STA. 15+25 RT., DDE = 5 CY

DETAIL C1
SPECIAL CUT DITCH
(Not to Scale)
12' Minimum
Natural Ground, 2d, D, 6d, Front Ditch Slope, Shoulder Point
Min. D= 1Ft.
-Y5- STA. 15+75 TO 17+35 RT.
-Y5- STA. 15+00 TO 16+25 LT.

DETAIL C2
SPECIAL CUT DITCH
(Not to Scale)
8' Minimum
Natural Ground, 2d, D, 4d, Front Ditch Slope, Shoulder Point
Min. D= 1Ft.
-Y8- STA. 14+92 TO 16+00 LT.



NC GRID NAD 83
BEGIN CONSTRUCTION -Y5- STA 10+35
-Y5- POT Sta. 10+00.00
BEGIN CONSTRUCTION -Y8- STA 12+00
35 x 11 x 3
ID 22.2 C&G
33 x 11 x 3
ID 22.3 C&G
48 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 22.1 C&G
-Y5-
PI Sta 14+95.86
Δ = 58° 45' 18.6" (RT)
D = 7° 38' 22.0"
L = 769.10'
T = 422.22'
R = 750.00'
SUPER = 4.0%
R.O.= SEE PLANS
-Y8-
PI Sta 13+53.43
Δ = 47° 47' 27.5" (RT)
D = 19° 05' 54.9"
L = 250.23'
T = 132.91'
R = 300.00'
HAROLD MICHAEL KENDALL & WF. JOANN C. KENDALL
DB 653 PG 159
DB 653 PG 161
PB 6 PG 45
NANCY L. WILSON
DB 255 PG 235
PB 6 PG 45
WINFRED A. DENNIS, JR. & WF. LINDA P. DENNIS
DB 335 PG 995
DB 336 PG 207
PB 6 PG 45
MICHAEL DAVID FLACK & WF. VICKI L. FLACK
DB 361 PG 386
PB 6 PG 45
DAVID K. FARMER
DB 598 PG 408
M.T. HATLEY, VANN R. FRYE, AND THEIR SUCS. TRUSTEES OF BETHESDA M.E.
GRADE TO DRAIN
SPECIAL CUT DITCH SEE DETAIL C1
SPECIAL CUT DETAIL SEE DETAIL C2
STANDARD 'V' DITCH SEE DETAIL G
11 TONS CLASS 'B' RIP RAP
28 SY FILTER FABRIC
5 TONS CLASS 'B' RIP RAP
16 SY FILTER FABRIC
-Y5- POC Sta.17+29.18 = -Y8- POT Sta.16+69.41
-Y5- PT Sta. 18+42.75
-Y8- PC Sta. 12+20.51
-Y8- PT Sta. 14+70.75
S 51° 02' 11.2" E
N 81° 10' 21.5" E
600' TAPER
NC 138
SHEET NO. 13 - STA. 19+00

8/17/99

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mkcarter AT RENV22493

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-24/CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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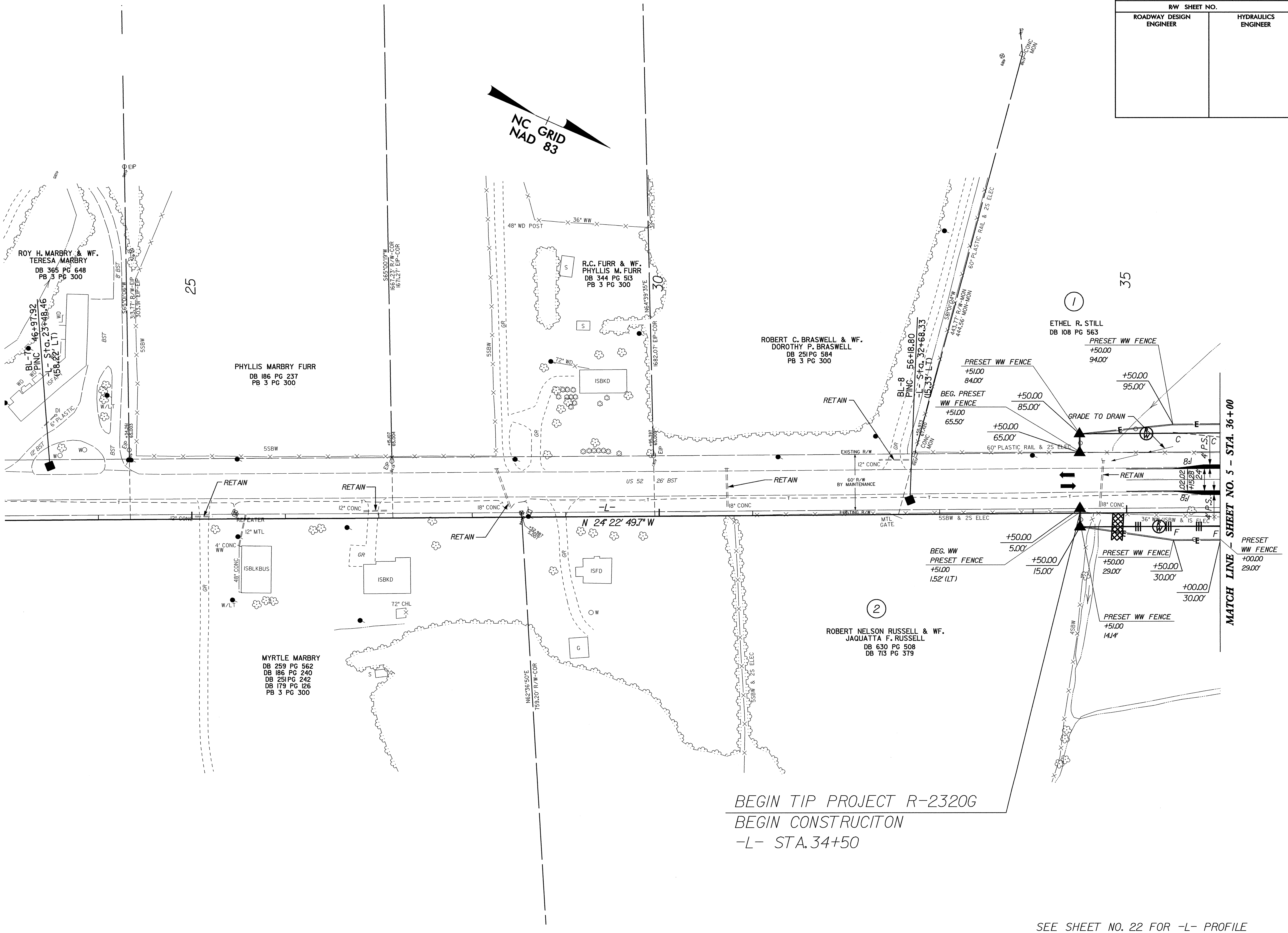
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-25/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NC GRID
NAD 83
ROY H. MARBRY & WF.
TERESA MARBRY
DB 365 PG 648
PB 3 PG 300
BL-7 46+97.92
PINC
-L- Sta. 23+48.46
(58.22' LT)
25
PHYLLIS MARBRY FURR
DB 186 PG 237
PB 3 PG 300
R.C. FURR & WF.
PHYLLIS M. FURR
DB 344 PG 513
PB 3 PG 300
30
48" WD POST
36" WW
ISBKD
ROBERT C. BRASWELL & WF.
DOROTHY P. BRASWELL
DB 251PG 584
PB 3 PG 300
BL-8
PINC 56+18.80
-L- Sta. 32+68.33
(15.33' LT)
60" PLASTIC RAIL & 2S ELEC
35
1
ETHEL R. STILL
DB 108 PG 563
PRESET WW FENCE
+50.00
94.00'
+50.00
95.00'
PRESET WW FENCE
+51.00
84.00'
BEG. PRESET
WW FENCE
+51.00
65.50'
+50.00
85.00'
+50.00
65.00'
GRADE TO DRAIN
RETAIN
5SBW
EXISTING R/W
12" CONC
60' R/W
BY MAINTENANCE
US 52
26' BST
RETAIN
RETAIN
RETAIN
RETAIN
12" CONC
18" CONC
-L-
N 24° 22' 49.7" W
REPEATER
12" MTL
4" CONC
WW
48" CONC
ISBLKBUS
W/LT
GR
ISBKD
72" CHL
ISFD
MTL GATE
5SBW & 2S ELEC
36" WW/5SBW & 1S ELEC
BEG. WW
PRESET FENCE
+51.00
1.52' (LT)
+50.00
5.00'
+50.00
15.00'
PRESET WW FENCE
+50.00
29.00'
+50.00
30.00'
+00.00
30.00'
PRESET
WW FENCE
+00.00
29.00'
PRESET WW FENCE
+51.00
14.14'
2
ROBERT NELSON RUSSELL & WF.
JAQUATTA F. RUSSELL
DB 630 PG 508
DB 713 PG 379
MYRTLE MARBRY
DB 259 PG 562
DB 186 PG 240
DB 251PG 242
DB 179 PG 126
PB 3 PG 300
N62°36'50"E
759.20' R/W-COR
MATCH LINE - SHEET NO. 5 - STA. 36+00
BEGIN TIP PROJECT R-2320G
BEGIN CONSTRUCITON
-L- STA.34+50

SEE SHEET NO. 22 FOR -L- PROFILE

8/17/99

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mkcarter AT RENV22T493

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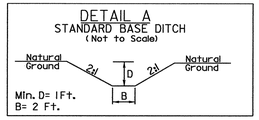
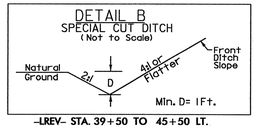
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-26/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL A
STANDARD BASE DITCH
(Not to Scale)



DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



-LREV- STA. 42+50 RT.
90 LF @ 2.56%, DDE = 25 CY
-LREV- STA. 47+40 LT.
35 LF @ 0.00%, DDE = 5 CY
-LREV- STA.47+65 RT.
20 LF @ 2.50%, DDE = 3 CY

-LREV- STA. 39+50 TO 45+50 LT.

NC GRID NAD 83

-L- POT Sta. 36+65.28 LB =
-L REV- TS Sta. 36+65.28 LA

-L REV- TSC Sta. 38+90.28

-L REV- Sta. 38+96.46

ETHEL R. STILL
DB 108 PG 563

VONDELL BAXTER CURLEE
DB 614 PG 616
DB 330 PG 686

LARRY D. MABRY &
SARA M. FREEDMAN
DB 534 PG 358

R2320G-2
-BL- PINC 63+38.56
-BY- POT 5+00.00
-L REV- Sta. 39+90.10
(48.74' LT)

BL-10
PINC 69+20.86
-L REV- Sta. 45+66.94
(40.60' RT)

-L REV- POC Sta. 46+74.27 =
-Y- POT Sta. 9+41.69

46 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 5.2 C&G

22 x 7 x 3
ID 5.3 C&G

71 x 24 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
14 ft. weir
ID 5.1C&G

RONNIE HARWOOD, INC.
DB 615 PG 142
DB 965 PG 623

ROBERT NELSON RUSSELL & WF.
JAQUATTA F. RUSSELL
DB 630 PG 508
DB 713 PG 379

PAUL W. BREWER & WF.
LOTTIE C. BREWER
DB 636 PG 414

MATCH LINE - SHEET NO. 4 - STA. 36+00

MATCH LINE - SHEET NO. 6 - STA. 49+00

SHEET NO. 18 - STA. 14+00

N 24° 22' 49.7" W

N 01° 53' 48.7" E

-Y- PC Sta. 10+64.65

-Y- PT Sta. 13+42.89

-Y- Sta. 13+36.96
(19.32' RT)

BY-49
PINC 14+06.63

END WW PRESET FENCE
+79.00
94.00'

PRESET WW FENCE
+00.00
29.00'

END PRESET
WW FENCE
+54.67
23.50'

BEG. PRESET
WW FENCE
+55.16
16.00'

END PRESET
WW FENCE
+27.85
20.00'

20' x 10' PERMANENT
SOIL REINFORCEMENT
MAT

5 TONS CLASS 'B'
RIP RAP
14 SY FILTER FABRIC

3 TONS CLASS 'B'
RIP RAP
10 SY FILTER FABRIC

2' BASE DITCH
SEE DETAIL A

SPECIAL CUT DITCH
SEE DETAIL B

GRADE TO DRAIN

RETAIN EXISTING R/W

REMOVE 12" REPLACE W/15"

REMOVE

EXISTING R/W

OLD US 52

ISBKD

ISFD

MTL CARPORT

WD CARPORT

36" WW/ISBW & IS ELEC

45BW & IS ELEC

25 ELEC

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mkarter AT REN22193

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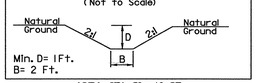
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-27/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

LARRY D. MABRY &
SARA M. FREEDMAN
DB 534 PG 358

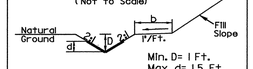
DETAIL A
STANDARD BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.

-LREV- STA. 51+40 RT.
36 LF @ 2.00%, DDE = 3 CY

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

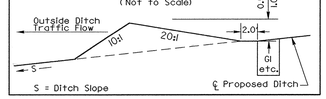


Min. D= 1 Ft.
Max. d= 1.5 Ft.
b= 5 Ft.

Type of Liner= PSRM

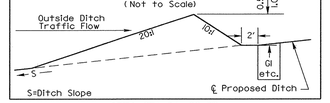
-LREV- STA. 50+00 TO 50+65 LT.
DDE = 9 CY

DETAIL I
FALSE SUMP
(Not to Scale)



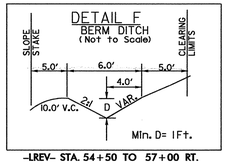
-LREV- STA. 54+00 LT.

DETAIL 3
FALSE SUMP
(Not to Scale)



-LREV- STA. 54+00 RT.

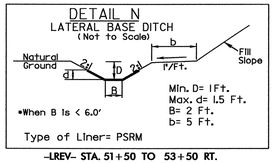
DETAIL F
BERM DITCH
(Not to Scale)



Min. D= 1Ft.

-LREV- STA. 54+50 TO 57+00 RT.

DETAIL N
LATERAL BASE DITCH
(Not to Scale)



*When B Is < 6.0'

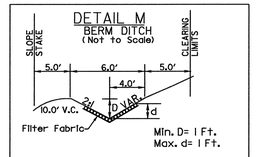
Min. D= 1Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.

Type of Liner= PSRM

-LREV- STA. 51+50 TO 53+50 RT.
DDE = 135 CY

NC GRID
NAD 83

DETAIL M
BERM DITCH
(Not to Scale)

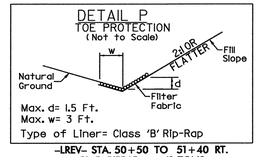


Min. D= 1 Ft.
Max. d= 1 Ft.

Type of Liner= CLASS 'B' RIP RAP

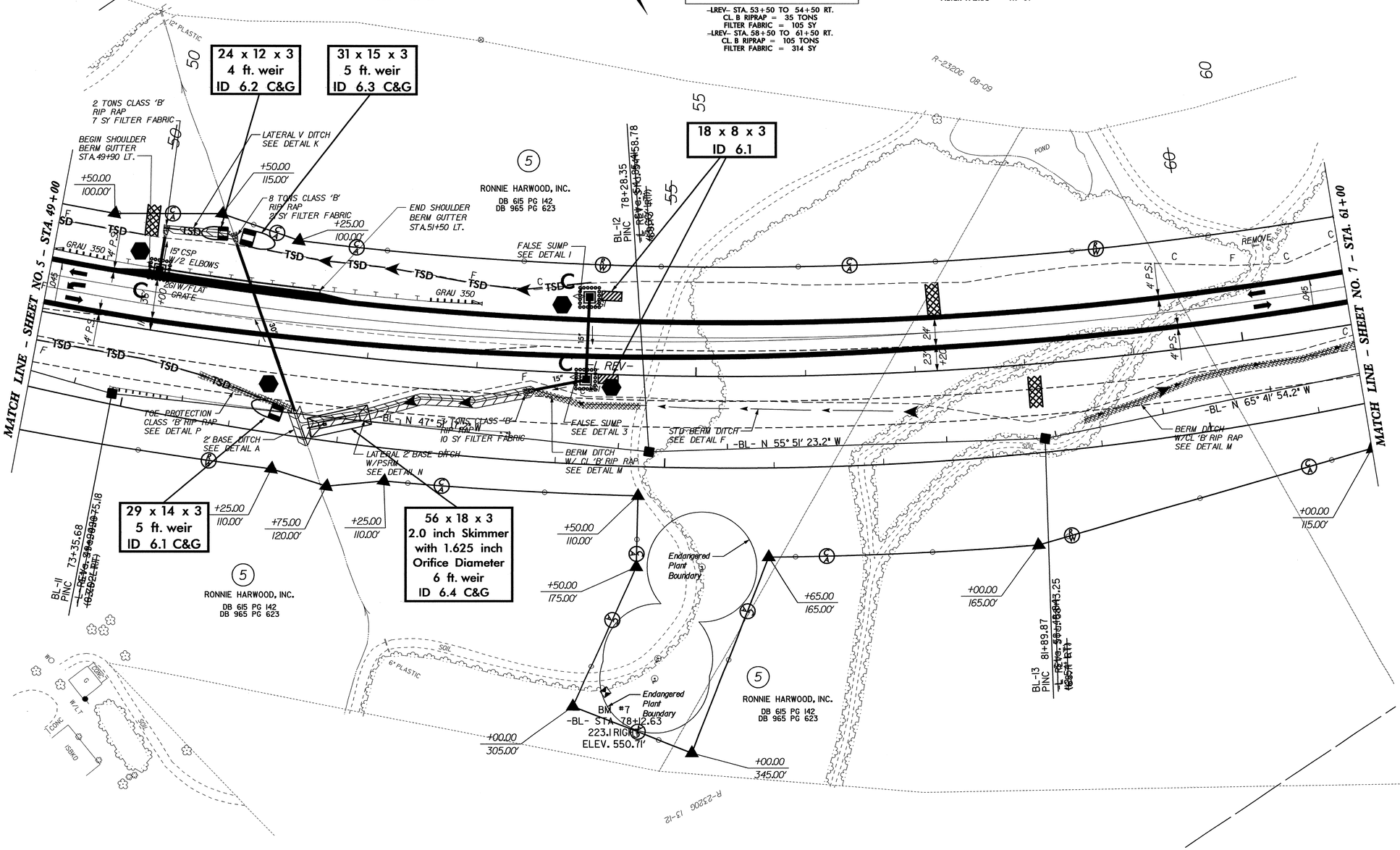
-LREV- STA. 53+50 TO 54+50 RT.
CL. B RIPRAP = 35 TONS
FILTER FABRIC = 105 SY
-LREV- STA. 58+50 TO 61+50 RT.
CL. B RIPRAP = 105 TONS
FILTER FABRIC = 314 SY

DETAIL P
TOE PROTECTION
(Not to Scale)



Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap

-LREV- STA. 50+50 TO 51+40 RT.
CL. B RIPRAP = 41 TONS
FILTER FABRIC = 117 SY



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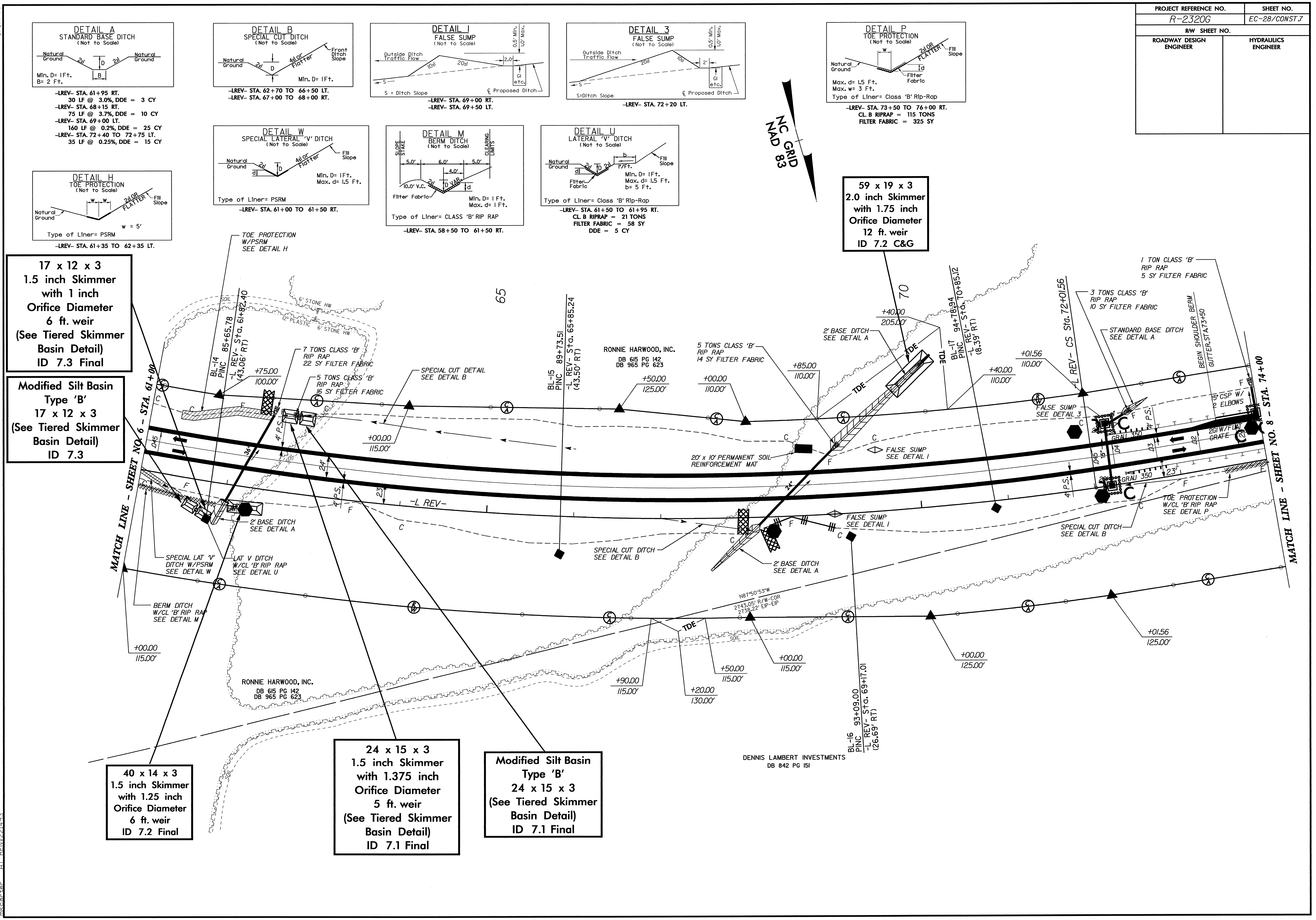
PROJECT REFERENCE NO. R-2320G
SHEET NO. EC-28/CONST.7
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
8/17/99
DETAIL A
STANDARD BASE DITCH
(Not to Scale)
Natural Ground
Min. D= 1 Ft.
B= 2 Ft.
-LREV- STA. 61+95 RT.
30 LF @ 3.0%, DDE = 3 CY
-LREV- STA. 68+15 RT.
75 LF @ 3.7%, DDE = 10 CY
-LREV- STA. 69+00 LT.
160 LF @ 0.2%, DDE = 25 CY
-LREV- STA. 72+40 TO 72+75 LT.
35 LF @ 0.25%, DDE = 15 CY
DETAIL B
SPECIAL CUT DITCH
(Not to Scale)
Front Ditch Slope
Min. D= 1 Ft.
-LREV- STA. 62+70 TO 66+50 LT.
-LREV- STA. 67+00 TO 68+00 RT.
DETAIL 1
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S = Ditch Slope
Proposed Ditch
-LREV- STA. 69+00 RT.
-LREV- STA. 69+50 LT.
DETAIL 3
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S=Ditch Slope
Proposed Ditch
-LREV- STA. 72+20 LT.
DETAIL P
TOE PROTECTION
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap
-LREV- STA. 73+50 TO 76+00 RT.
CL. B RIPRAP = 115 TONS
FILTER FABRIC = 325 SY
DETAIL W
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
Fill Slope
Min. D= 1 Ft.
Max. d= 1.5 Ft.
Type of Liner= PSRM
-LREV- STA. 61+00 TO 61+50 RT.
DETAIL M
BERM DITCH
(Not to Scale)
SLOPE STAKE
CLEARING LIMITS
10.0' V.C.
Filter Fabric
Min. D= 1 Ft.
Max. d= 1 Ft.
Type of Liner= CLASS 'B' RIP RAP
-LREV- STA. 58+50 TO 61+50 RT.
DETAIL U
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
Min. D= 1 Ft.
Max. d= 1.5 Ft.
b= 5 Ft.
Type of Liner= Class 'B' Rip-Rap
-LREV- STA. 61+50 TO 61+95 RT.
CL. B RIPRAP = 21 TONS
FILTER FABRIC = 58 SY
DDE = 5 CY
DETAIL H
TOE PROTECTION
(Not to Scale)
Natural Ground
Fill Slope
w = 5'
Type of Liner= PSRM
-LREV- STA. 61+35 TO 62+35 LT.
NC GRID NAD 83
59 x 19 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
12 ft. weir
ID 7.2 C&G
17 x 12 x 3
1.5 inch Skimmer
with 1 inch
Orifice Diameter
6 ft. weir
(See Tiered Skimmer Basin Detail)
ID 7.3 Final
Modified Silt Basin
Type 'B'
17 x 12 x 3
(See Tiered Skimmer Basin Detail)
ID 7.3
TOE PROTECTION W/PSRM SEE DETAIL H
7 TONS CLASS 'B' RIP RAP 22 SY FILTER FABRIC
5 TONS CLASS 'B' RIP RAP 16 SY FILTER FABRIC
SPECIAL CUT DETAIL SEE DETAIL B
RONNIE HARWOOD, INC.
DB 615 PG 142
DB 965 PG 623
5 TONS CLASS 'B' RIP RAP 14 SY FILTER FABRIC
2' BASE DITCH SEE DETAIL A
I TON CLASS 'B' RIP RAP 5 SY FILTER FABRIC
3 TONS CLASS 'B' RIP RAP 10 SY FILTER FABRIC
STANDARD BASE DITCH SEE DETAIL A
BEGIN SHOULDER BERM GUTTER,STA.73+50
15' CSP W/ 2 ELBOWS
FALSE SUMP SEE DETAIL 3
20' x 10' PERMANENT SOIL REINFORCEMENT MAT
FALSE SUMP SEE DETAIL 1
MATCH LINE - SHEET NO. 6 - STA. 61+00
MATCH LINE - SHEET NO. 8 - STA. 74+00
BL-14 PINC 85+65.78 -L REV- Sta. 61+82.40 (43.06' RT)
BL-15 PINC 89+73.51 -L REV- Sta. 65+85.24 (43.50' RT)
BL-17 PINC 94+78.94 -L REV- Sta. 70+85.12 (8.39' RT)
-L REV- CS Sta. 72+01.56
BL-16 PINC 93+09.00 -L REV- Sta. 69+17.01 (26.69' RT)
-L REV-
65
70
2' BASE DITCH SEE DETAIL A
SPECIAL LAT 'V' DITCH W/PSRM SEE DETAIL W
LAT V DITCH W/CL 'B' RIP RAP SEE DETAIL U
BERM DITCH W/CL 'B' RIP RAP SEE DETAIL M
SPECIAL CUT DITCH SEE DETAIL B
2' BASE DITCH SEE DETAIL A
FALSE SUMP SEE DETAIL 1
SPECIAL CUT DITCH SEE DETAIL B
TOE PROTECTION W/CL 'B' RIP RAP SEE DETAIL P
N87°50'53"W 2743.05' R/W-COR 2738.22' EIP-EIP
TDE
SOIL
6' STONE HW
12' PLASTIC
+75.00 100.00'
+00.00 115.00'
+50.00 125.00'
+00.00 110.00'
+85.00 110.00'
+40.00 205.00'
+40.00 110.00'
+01.56 110.00'
+00.00 115.00'
+90.00 115.00'
+20.00 130.00'
+50.00 115.00'
+00.00 115.00'
+00.00 125.00'
+01.56 125.00'
RONNIE HARWOOD, INC.
DB 615 PG 142
DB 965 PG 623
DENNIS LAMBERT INVESTMENTS
DB 842 PG 151
40 x 14 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
6 ft. weir
ID 7.2 Final
24 x 15 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
(See Tiered Skimmer Basin Detail)
ID 7.1 Final
Modified Silt Basin
Type 'B'
24 x 15 x 3
(See Tiered Skimmer Basin Detail)
ID 7.1 Final
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PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-29/CONST.8

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

48 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
6 ft. weir
ID 8.3 C&G

40 x 12 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
ID 8.2 C&G

23 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 8.1 C&G

Modified Silt Basin
Type 'B'
23 x 16 x 3
(See Tiered Skimmer Basin Detail)
ID 8.1

29 x 9 x 3
ID 8.2 Final

39 x 12 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
4 ft. weir
ID 8.4 C&G

DETAIL O
LATERAL BASE DITCH
(Not to Scale)
*When B is < 6.0'
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
Type of Liner= Class 'B' Rip-Rap

-L- STA. 76+00 TO 77+10 RT.
CL. B RIPRAP = 62 TONS
FILTER FABRIC = 167 SY
DDE = 75 CY
-L- STA. 86+00 TO 87+00 RT.
CL. B RIPRAP = 56 TONS
FILTER FABRIC = 152 SY
DDE = 278 CY

DETAIL R
LATERAL BASE DITCH
(Not to Scale)
Min. D= 1Ft.
B= 2 Ft.
b= 5 Ft.

-L- STA. 78+60 TO 80+00 LT.
DDE = 52 CY

DETAIL M
BERM DITCH
(Not to Scale)
Min. D= 1Ft.
Max. d= 1Ft.
Type of Liner= Class 'B' Rip Rap

-L- STA. 80+00 TO 81+00 LT.
CL. B RIPRAP = 35 TONS
FILTER FABRIC = 105 SY

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)
Min. D= 1Ft.

-L- STA. 80+50 TO 85+25 LT.

DETAIL P
TOE PROTECTION
(Not to Scale)
Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap

-L- STA. 73+50 TO 76+00 RT.

DETAIL V
SPECIAL CUT DITCH
(Not to Scale)
Min. D= 1Ft.
Max d= 1.5 Ft.
Type of Liner= PSRM

-Y3- STA. 16+00 TO 16+45 RT.

DETAIL I
FALSE SUMP
(Not to Scale)
S = Ditch Slope

-L- STA. 85+50 RT.

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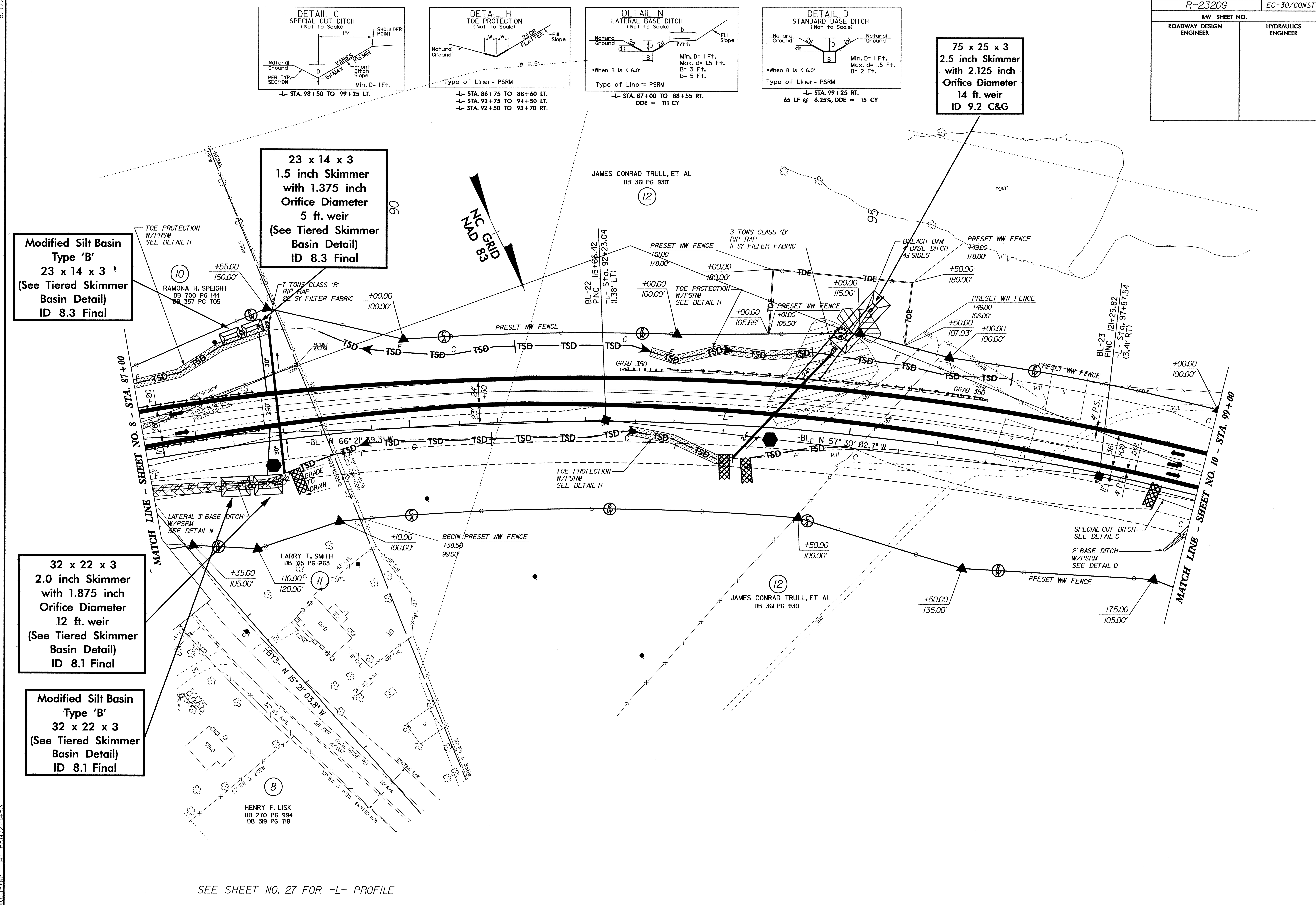
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-30/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DETAIL C
SPECIAL CUT DITCH
(Not to Scale)
-L- STA. 98+50 TO 99+25 LT.
DETAIL H
TOE PROTECTION
(Not to Scale)
Type of Liner= PSRM
-L- STA. 86+75 TO 88+60 LT.
-L- STA. 92+75 TO 94+50 LT.
-L- STA. 92+50 TO 93+70 RT.
DETAIL N
LATERAL BASE DITCH
(Not to Scale)
Type of Liner= PSRM
-L- STA. 87+00 TO 88+55 RT.
DDE = 111 CY
DETAIL D
STANDARD BASE DITCH
(Not to Scale)
Type of Liner= PSRM
-L- STA. 99+25 RT.
65 LF @ 6.25%, DDE = 15 CY
75 x 25 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
14 ft. weir
ID 9.2 C&G
23 x 14 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 8.3 Final
Modified Silt Basin
Type 'B'
23 x 14 x 3
(See Tiered Skimmer
Basin Detail)
ID 8.3 Final
32 x 22 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 8.1 Final
Modified Silt Basin
Type 'B'
32 x 22 x 3
(See Tiered Skimmer
Basin Detail)
ID 8.1 Final
NC GRID
NAD 83
JAMES CONRAD TRULL, ET AL
DB 361 PG 930
RAMONA H. SPEIGHT
DB 700 PG 144
DB 357 PG 705
LARRY T. SMITH
DB 715 PG 263
HENRY F. LISK
DB 270 PG 994
DB 319 PG 718
MATCH LINE - SHEET NO. 8 - STA. 87+00
MATCH LINE - SHEET NO. 10 - STA. 99+00
PRESET WW FENCE
BEGIN PRESET WW FENCE
TOE PROTECTION
W/PSRM
SEE DETAIL H
LATERAL 3' BASE DITCH
W/PSRM
SEE DETAIL N
SPECIAL CUT DITCH
SEE DETAIL C
2' BASE DITCH
W/PSRM
SEE DETAIL D
7 TONS CLASS 'B'
RIP RAP
22 SY FILTER FABRIC
3 TONS CLASS 'B'
RIP RAP
11 SY FILTER FABRIC
BREACH DAM
BASE DITCH
4:1 SIDES
BL-22
PINC 115+66.42
-L- Sta. 92+23.04
(1.38' LT)
BL-23
PINC 121+29.82
-L- Sta. 97+87.54
(3.41' RT)
-BL- N 66° 21' 39.3" W
-BL- N 57° 30' 02.7" W
-BY3- N 15° 21' 03.8" W
POND

SEE SHEET NO. 27 FOR -L- PROFILE

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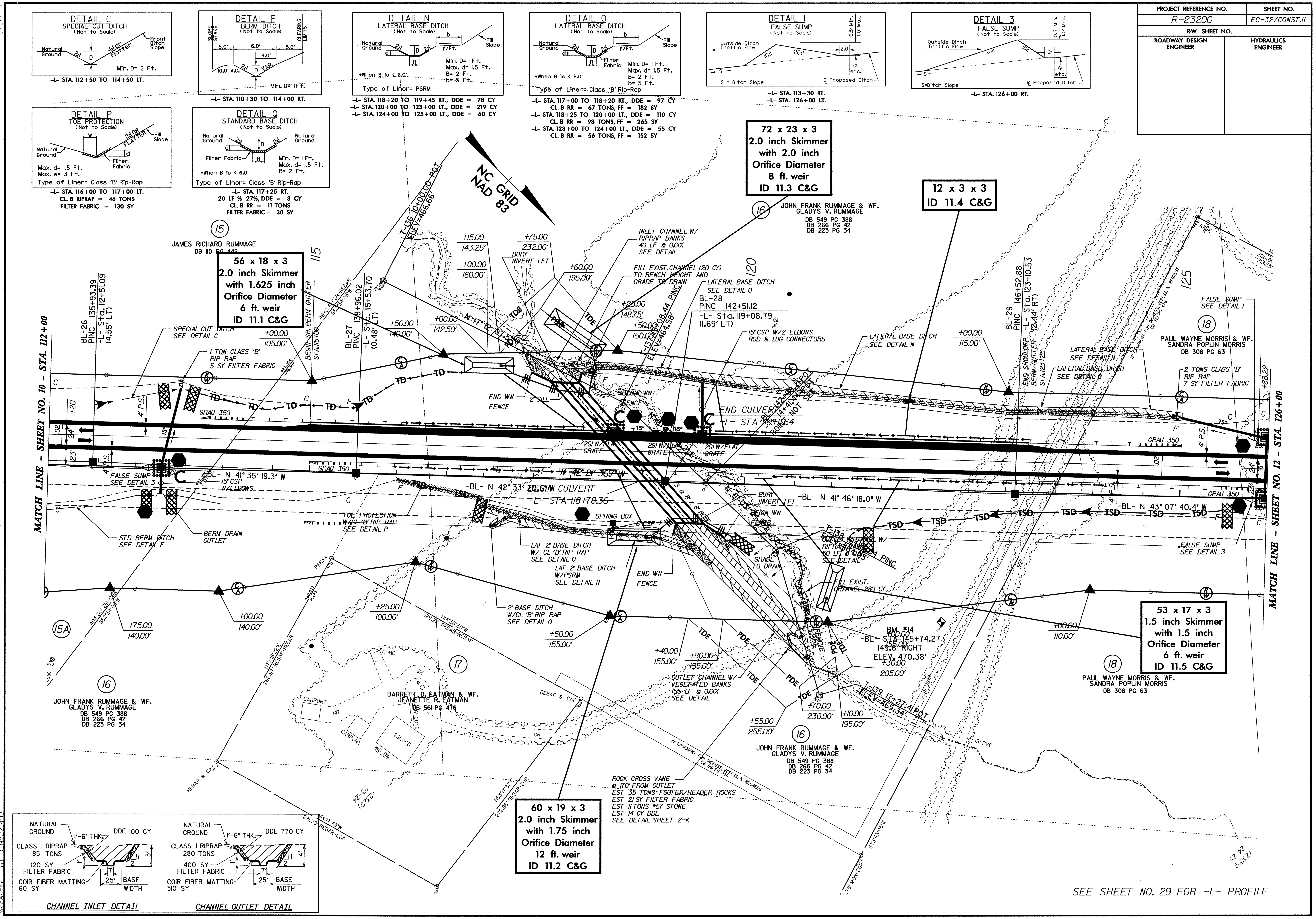
8/17/99

PROJECT REFERENCE NO. R-2320G
SHEET NO. EC-31/CONSTJO
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
DETAIL G STANDARD 'V' DITCH (Not to Scale)
-L- STA. 102+90 LT
78 LF @ 0.3%, DDE = 3 CY
DETAIL J SPECIAL LATERAL 'V' DITCH (Not to Scale)
Type of Liner= PSRM
-L- STA. 99+50 TO 100+50 LT.
DDE = 14 CY
DETAIL O LATERAL BASE DITCH (Not to Scale)
Type of Liner= Class 'B' Rip Rap
-Y4- STA. 9+05 TO 12+35 RT., CL. B RR = 185 TONS
FILTER FABRIC = 500 SY, DDE = 163 CY
-Y4- STA. 9+35 TO 12+55 LT., CL. B RR = 180 TONS
FILTER FABRIC = 485 SY, DDE = 306 CY
DETAIL C SPECIAL CUT DITCH (Not to Scale)
-L- STA. 98+50 TO 99+25 LT.
-L- STA. 103+50 TO 104+50 LT.
MATCH LINE - SHEET NO. 19 - STA. 10+00
66 x 21 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
12 ft. weir
ID 10.3 C&G
NC GRID NAD 83
JAMES CONRAD TRULL, ET AL DB 361 PG 930
LORENA H. LOWDER DB 141 PG 90
JAMES RICHARD RUMMAGE DB 110 PG 442
CECILLE M. NASH DB 130 PG 174 WB 82 PG 125
BARRETT DEE EATMAN & WF. JEANETTE RUMMAGE EATMAN DB 897 PG 468
20 x 7 x 3
ID 10.2 C&G
MATCH LINE - SHEET NO. 9 - STA. 99+00
MATCH LINE - SHEET NO. 11 - STA. 112+00
SHEET NO. 20 - STA. 17+00
END CONSTRUCTION
-SR 2- STA 17+55
BM #12 -BL- STA 125+36.85 306.6 RIGHT ELEV. 534.48'
BM #13 -BL- STA 134+51.00 161.5 RIGHT ELEV. 541.76'
-Y4-
PI Sta 17+44.14
Δ = 58° 38' 00.1" (RT)
D = 11° 27' 33.0"
L = 511.67'
T = 280.78'
R = 500.00'
SUPER = 6.0%
R.O.= 150'
DETAIL I FALSE SUMP (Not to Scale)
-L- STA. 103+45 LT.
DETAIL 3 FALSE SUMP (Not to Scale)
-L- STA. 101+80 RT.
-L- STA. 108+00 RT.
DETAIL D STANDARD BASE DITCH (Not to Scale)
Type of Liner= PSRM
-L- STA. 99+25 RT.
65 LF @ 6.25%, DDE = 15 CY
-L- STA. 100+50 RT.
90 LF @ 10%, DDE = 36 CY
DETAIL S SPECIAL CUT BASE DITCH (Not to Scale)
Type of Liner= PSRM
-Y4- STA. 14+00 TO 15+20 LT.
-L- STA. 99+25 TO 100+50 RT.
DETAIL B SPECIAL CUT DITCH (Not to Scale)
-Y4- STA. 14+00 TO 15+00 RT.
DETAIL F BERM DITCH (Not to Scale)
-L- STA. 103+00 TO 104+00 RT.
-L- STA. 107+25 TO 110+30 RT.
-L- STA. 110+30 TO 114+00 RT.
-SR2- STA. 10+65 TO STA. 14+15 RT.


PROJECT REFERENCE NO.
R-2320G
SHEET NO.
EC-32/CONSTJI
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
8/17/99
DETAIL C
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
Front Ditch Slope
Min. D= 2 Ft.
-L- STA. 112+50 TO 114+50 LT.
DETAIL F
BERM DITCH
(Not to Scale)
SLOPE STAKE
CLEARING LIMITS
Min. D= 1 Ft.
-L- STA. 110+30 TO 114+00 RT.
DETAIL N
LATERAL BASE DITCH
(Not to Scale)
Natural Ground
Fill Slope
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= PSRM
-L- STA. 118+20 TO 119+45 RT., DDE = 78 CY
-L- STA. 120+00 TO 123+00 LT., DDE = 219 CY
-L- STA. 124+00 TO 125+00 LT., DDE = 60 CY
DETAIL O
LATERAL BASE DITCH
(Not to Scale)
Natural Ground
Filter Fabric
Fill Slope
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-L- STA. 117+00 TO 118+20 RT., DDE = 97 CY
CL. B RR = 67 TONS, FF = 182 SY
-L- STA. 118+25 TO 120+00 LT., DDE = 110 CY
CL. B RR = 98 TONS, FF = 265 SY
-L- STA. 123+00 TO 124+00 LT., DDE = 55 CY
CL. B RR = 56 TONS, FF = 152 SY
DETAIL 1
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S = Ditch Slope
Proposed Ditch
-L- STA. 113+30 RT.
-L- STA. 126+00 LT.
DETAIL 3
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S=Ditch Slope
Proposed Ditch
-L- STA. 126+00 RT.
DETAIL P
TOE PROTECTION
(Not to Scale)
Natural Ground
Filter Fabric
Fill Slope
Max. d= 1.5 Ft.
Max. w= 3 Ft.
Type of Liner= Class 'B' Rip-Rap
-L- STA. 116+00 TO 117+00 LT.
CL. B RIPRAP = 46 TONS
FILTER FABRIC = 130 SY
DETAIL Q
STANDARD BASE DITCH
(Not to Scale)
Natural Ground
Filter Fabric
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-L- STA. 117+25 RT.
20 LF % 27%, DDE = 3 CY
CL. B RR = 11 TONS
FILTER FABRIC= 30 SY
NC GRID NAD 83
56 x 18 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
6 ft. weir
ID 11.1 C&G
72 x 23 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
8 ft. weir
ID 11.3 C&G
12 x 3 x 3
ID 11.4 C&G
53 x 17 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
6 ft. weir
ID 11.5 C&G
60 x 19 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
12 ft. weir
ID 11.2 C&G
JAMES RICHARD RUMMAGE
DB 110 PG 442
JOHN FRANK RUMMAGE & WF.
GLADYS V. RUMMAGE
DB 549 PG 388
DB 266 PG 42
DB 223 PG 34
PAUL WAYNE MORRIS & WF.
SANDRA POPLIN MORRIS
DB 308 PG 63
BARRETT D. EATMAN & WF.
JEANETTE R. EATMAN
DB 561 PG 476
MATCH LINE - SHEET NO. 10 - STA. 112+00
MATCH LINE - SHEET NO. 12 - STA. 126+00
BL-26
PINC 135+93.39
-L- Sta. 112+51.09
(4.55' LT)
BL-27
PINC 138+96.02
-L- Sta. 115+53.70
(0.48' LT)
BL-28
PINC 142+51.12
-L- Sta. 119+08.79
(1.69' LT)
BL-29
PINC 146+52.88
-L- Sta. 123+10.53
(2.44' RT)
-BL- N 41° 35' 19.3" W
-BL- N 42° 33' 26.6" W
-BL- N 41° 46' 18.0" W
-BL- N 43° 07' 40.4" W
-L- N 42° 21' 36.7" W
SPECIAL CUT DITCH
SEE DETAIL C
1 TON CLASS 'B'
RIP RAP
5 SY FILTER FABRIC
BEGIN SH. BERM GUTTER
FALSE SUMP
SEE DETAIL 3
15" CSP
W/ELBOWS
STD BERM DITCH
SEE DETAIL F
BERM DRAIN OUTLET
TOE PROTECTION
W/CL 'B' RIP RAP
SEE DETAIL P
END WW FENCE
INLET CHANNEL W/
RIPRAP BANKS
40 LF @ 0.61%
SEE DETAIL
FILL EXIST. CHANNEL (20 CY)
TO BENCH HEIGHT AND
GRADE TO DRAIN
LATERAL BASE DITCH
SEE DETAIL O
15" CSP W/2 ELBOWS
ROD & LUG CONNECTORS
END CULVERT
2GI W/FLAT GRATE
GRAU 350
4' P.S.
BURY INVERT 1 FT
BEGIN WW FENCE
SPRING BOX
LAT 2' BASE DITCH
W/ CL 'B' RIP RAP
SEE DETAIL O
LAT 2' BASE DITCH
W/PSRM
SEE DETAIL N
2' BASE DITCH
W/CL 'B' RIP RAP
SEE DETAIL Q
GRADE TO DRAIN
FILL EXIST. CHANNEL 280 CY
OUTLET CHANNEL W/
VEGETATED BANKS
155 LF @ 0.61%
SEE DETAIL
ROCK CROSS VANE
@ 170' FROM OUTLET
EST 35 TONS FOOTER/HEADER ROCKS
EST 21 SY FILTER FABRIC
EST 11 TONS #57 STONE
EST 14 CY DDE
SEE DETAIL SHEET 2-K
LATERAL BASE DITCH
SEE DETAIL N
END SHOULDER BERM GUTTER
STA. 123+25
2 TONS CLASS 'B'
RIP RAP
7 SY FILTER FABRIC
FALSE SUMP
SEE DETAIL 1
FALSE SUMP
SEE DETAIL 3
BM #14
-BL- STA 145+74.27
149.6' RIGHT
ELEV. 470.38'
T-136 10+00.00 POT
ELEV=466.66'
T-139 17+27.41 POT
ELEV=465.34'
15' EASEMENT FOR INGRESS, EGRESS & REGRESS
DB 561 PG 476
15" PVC
CARPORT
2SLOGD
WD DK
CONC
REBAR & CAP
NATURAL GROUND
1'-6" THK.
DDE 100 CY
CLASS I RIPRAP
85 TONS
120 SY
FILTER FABRIC
COIR FIBER MATTING
60 SY
25'
BASE WIDTH
CHANNEL INLET DETAIL
NATURAL GROUND
1'-6" THK.
DDE 770 CY
CLASS I RIPRAP
280 TONS
400 SY
FILTER FABRIC
COIR FIBER MATTING
310 SY
25'
BASE WIDTH
CHANNEL OUTLET DETAIL
SEE SHEET NO. 29 FOR -L- PROFILE
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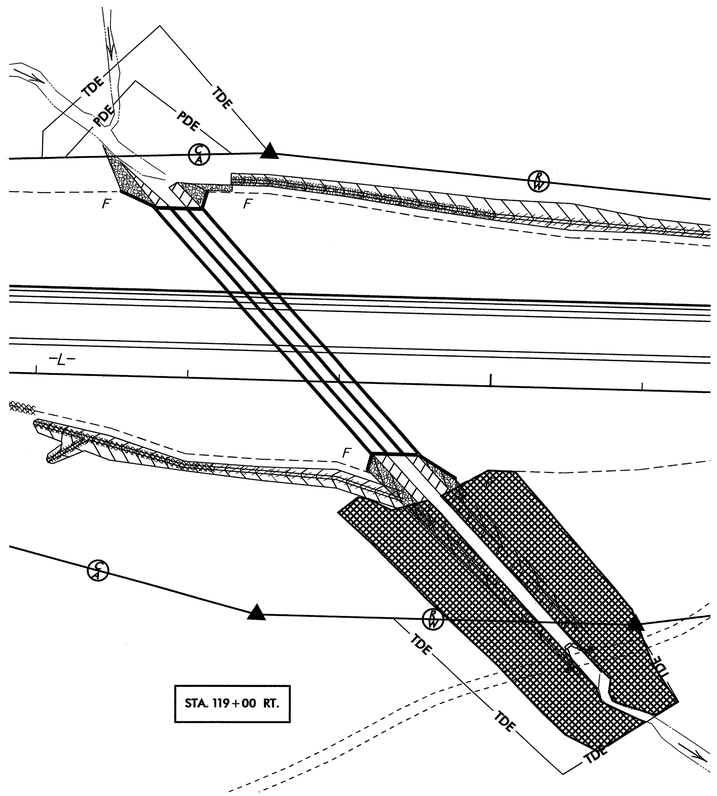
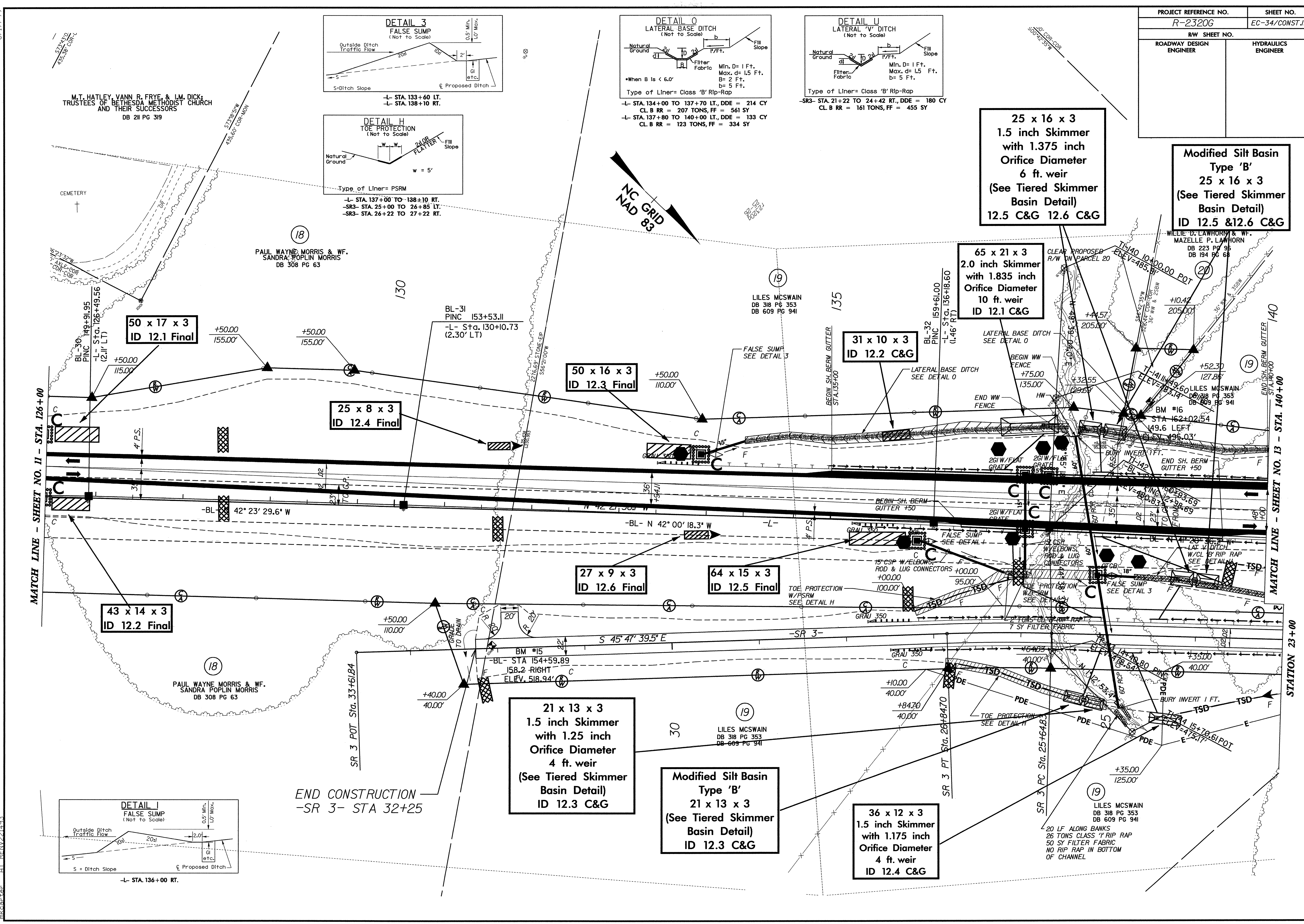
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-33/CONST.II
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

0.29 ACRE STREAMBANK REFORESTATION



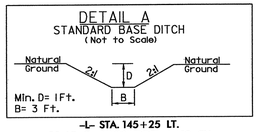
SEE RF–2, RF–3, AND PROJECT SPECIAL PROVISIONS


PROJECT REFERENCE NO.
R-2320G
SHEET NO.
EC-34/CONST J2
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
8/17/99
DETAIL 3
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S=Ditch Slope
Proposed Ditch
-L- STA. 133+60 LT.
-L- STA. 138+10 RT.
DETAIL H
TOE PROTECTION
(Not to Scale)
Natural Ground
Fill Slope
w = 5'
Type of Liner= PSRM
-L- STA. 137+00 TO 138±10 RT.
-SR3- STA. 25+00 TO 26+85 LT.
-SR3- STA. 26+22 TO 27+22 RT.
DETAIL O
LATERAL BASE DITCH
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B is < 6.0'
Type of Liner= Class 'B' Rip-Rap
-L- STA. 134+00 TO 137+70 LT., DDE = 214 CY
CL. B RR = 207 TONS, FF = 561 SY
-L- STA. 137+80 TO 140+00 LT., DDE = 133 CY
CL. B RR = 123 TONS, FF = 334 SY
DETAIL U
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
Min. D= 1 Ft.
Max. d= 1.5 Ft.
b= 5 Ft.
Type of Liner= Class 'B' Rip-Rap
-SR3- STA. 21+22 TO 24+42 RT., DDE = 180 CY
CL. B RR = 161 TONS, FF = 455 SY
M.T. HATLEY, VANN R. FRYE, & I.M. DICK; TRUSTEES OF BETHESDA METHODIST CHURCH AND THEIR SUCCESSORS
DB 211 PG 319
CEMETERY
NC GRID NAD 83
25 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
6 ft. weir
(See Tiered Skimmer Basin Detail)
12.5 C&G 12.6 C&G
Modified Silt Basin
Type 'B'
25 x 16 x 3
(See Tiered Skimmer Basin Detail)
ID 12.5 &12.6 C&G
18
PAUL WAYNE MORRIS & WF.
SANDRA POPLIN MORRIS
DB 308 PG 63
19
LILES MCSWAIN
DB 318 PG 353
DB 609 PG 941
65 x 21 x 3
2.0 inch Skimmer
with 1.835 inch
Orifice Diameter
10 ft. weir
ID 12.1 C&G
WILLIE D. LAWHORN & WF.
MAZELLE P. LAWHORN
DB 223 PG 95
DB 194 PG 65
CLEAR PROPOSED R/W ON PARCEL 20
20
130
135
140
BL-31
PINC 153+53.11
-L- Sta. 130+10.73
(2.30' LT)
BL-30
PINC 149+91.95
-L- Sta. 126+49.56
(2.11' LT)
BL-32
PINC 159+61.00
-L- Sta. 136+18.60
(1.46' RT)
50 x 17 x 3
ID 12.1 Final
25 x 8 x 3
ID 12.4 Final
50 x 16 x 3
ID 12.3 Final
31 x 10 x 3
ID 12.2 C&G
27 x 9 x 3
ID 12.6 Final
64 x 15 x 3
ID 12.5 Final
43 x 14 x 3
ID 12.2 Final
FALSE SUMP
SEE DETAIL 3
LATERAL BASE DITCH
SEE DETAIL O
BEGIN SH. BERM GUTTER
STA. 135+00
END WW FENCE
BEGIN WW FENCE
BM #16
STA 162+02.54
149.6 LEFT
ELEV. 495.03'
BURY INVERT 1 FT.
END SH. BERM GUTTER +50
END SH. BERM GUTTER STA. 140+00
BEGIN SH. BERM GUTTER +50
-BL- 42° 23' 29.6" W
-BL- N 42° 00' 18.3" W
-L-
15" CSP W/ELBOWS, ROD & LUG CONNECTORS
TOE PROTECTION W/PSRM SEE DETAIL H
FALSE SUMP SEE DETAIL 3
LAT. V DITCH W/CL B RIP RAP SEE DETAIL U
2 TONS CL. B RIP RAP
7 SY FILTER FABRIC
MATCH LINE - SHEET NO. 11 - STA. 126+00
MATCH LINE - SHEET NO. 13 - STA. 140+00
STATION 23+00
-SR 3-
S 45° 41' 39.5" E
BM #15
-BL- STA 154+59.89
158.2 RIGHT
ELEV. 518.94'
GRADE TO DRAIN
END CONSTRUCTION
-SR 3- STA 32+25
SR 3 POT Sta. 33+61.84
SR 3 PT Sta. 26+84.70
SR 3 PC Sta. 25+64.83
21 x 13 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
(See Tiered Skimmer Basin Detail)
ID 12.3 C&G
Modified Silt Basin
Type 'B'
21 x 13 x 3
(See Tiered Skimmer Basin Detail)
ID 12.3 C&G
36 x 12 x 3
1.5 inch Skimmer
with 1.175 inch
Orifice Diameter
4 ft. weir
ID 12.4 C&G
TOE PROTECTION SEE DETAIL H
20 LF ALONG BANKS
26 TONS CLASS 'I' RIP RAP
50 SY FILTER FABRIC
NO RIP RAP IN BOTTOM OF CHANNEL
DETAIL I
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S = Ditch Slope
Proposed Ditch
-L- STA. 136+00 RT.
12-FEB-2008 13:38

8/17/99

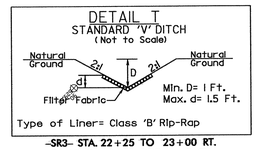
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-35/CONST J3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER STA 140+00 TO STA 152+00

DETAIL A
STANDARD BASE DITCH
(Not to Scale)



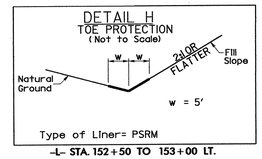
-L- STA. 145+25 LT.
80 LF @ 6.88%, DDE = 12 CY
-L- STA. 145+25 RT.
45 LF @ 0.7%, DDE = 10 CY

DETAIL T
STANDARD 'V' DITCH
(Not to Scale)



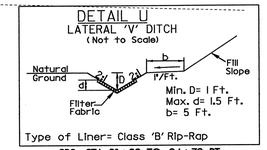
Type of Liner= Class 'B' Rip-Rap
-SR3- STA. 22+25 TO 23+00 RT.
70 LF @ 10.27%,DDE = 5 CY
CL. B RR = 32 TONS, FF = 91 SY

DETAIL H
TOE PROTECTION
(Not to Scale)



Type of Liner= PSRM
-L- STA. 152+50 TO 153+00 LT.
-SR3- STA. 11+00 TO 13+00 RT.

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



Type of Liner= Class 'B' Rip-Rap
-SR3- STA. 21+22 TO 24+72 RT.

NC GRID NAD 83

32 x 16 x 3
5 ft. weir
ID 13.6 Final

38 x 16 x 3
6 ft. weir
ID 13.5 Final

MATCH LINE – SHEET NO. 21 – STA. 19+00

MATCH LINE – SHEET NO. 12 – STA. 140+00

STATION 23+00

MATCH LINE – SHEET NO. 14 – STA. 154+00

19 x 10 x 3
4 ft. weir
ID 13.1 13.2

24 x 11 x 3
4 ft. weir
ID 13.3 13.4

26 x 13 x 3
4 ft. weir
ID 13.7 Final

-L- POT Sta. 151+80.00 =
-Y5- POT Sta. 21+74.22
SR 3 POT Sta. 10+00.00

SR 3 PT Sta. 16+08.68

SR 3 PC Sta. 14+62.01

SR 3 PC Sta. 10+96.18

-L- N 42° 21' 36.7" W

-BL- N 42° 46' 31.0" W

-BL- N 42° 31' 28.0" W

S 42° 21' 36.6" E

S 33° 57' 25.3" E

N 47° 38' 22.8" E

200' TAPER

BM #17
-BL- STA 170+25.96
212.7 LEFT
ELEV. 2822.22'

(19) LILES MCSWAIN
DB 318 PG 353
DB 609 PG 941

(20) NCDOT
DB 318 PG 289

(21) HENRY FARMER FAMILY LIMITED PARTNERSHIP
DB 662 PG 469

(22) DAVID K. FARMER
DB 598 PG 408

(23) NCDOT
DB 318 PG 289

(24) HENRY E. FARMER, INC.
DB 361 PG 791

(25)

FALSE SUMP
SEE DETAIL I

SPECIAL CUT DITCH
SEE DETAIL C

3' BASE DITCH
SEE DETAIL A

LAT V DITCH
W/CL 'B' RIP RAP
SEE DETAIL U

STD V DITCH
W/CL 'B' RIP RAP
SEE DETAIL T

TOE PROTECTION
W/PSRM
SEE DETAIL H

END C/A & WW FENCE

PROP. 5' CONC. SIDEWALK

PROP. 2' 6" C&G

PROP. 8' CONC. SIDEWALK

GRADE TO DRAIN

BREACH DAM
4' MIN. BASE
3:1 SIDE SLOPES
GRADE TO DRAIN

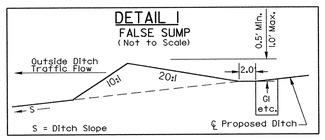
2 TONS CLASS 'B' RIP RAP
7 SY FILTER FABRIC

15 TONS CLASS 'I' RIP RAP
37 SY FILTER FABRIC

2-MTL GATE

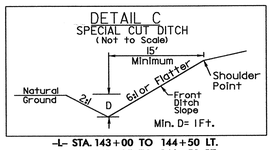
Temporary Rock Sediment Dam Type A

DETAIL I
FALSE SUMP
(Not to Scale)



-L- STA. 140+70 LT.

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)



-L- STA. 143+00 TO 144+50 LT.
-L- STA. 145+25 TO 146+50 RT.
-L- STA. 145+25 TO 146+50 LT.

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-36/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID NAD 83

MATCH LINE - SHEET NO. 13 - STA. 154+00

MATCH LINE - SHEET NO. 15 - STA. 168+00

-BY5- N 7° 38' 01.4" W BY MAINTENANCE

-BL- N 39° 09' 50.0" W

-BL- N 24° 05' 40.4" W

-Y9- N 89° 10' 04.0" E

BEGIN CONSTRUCTION
-Y9- STA 15+10

BM #19
-BY9- STA 9+54.35
35.3 LEFT
ELEV. 546.72'

-L- POC Sta.162+45.00 =
-Y9- POT Sta.17+94.10

-L- TS Sta.157+48.93

-L- SC Sta.159+73.93

-L- CS Sta.165+83.59

-L- ST Sta.17+18.89

-L- PC Sta.16+64.82

RETAIN

REMOVE

REMOVE 12" CONC.

STANDARD BASE DITCH SEE DETAIL A

GUARDRAIL BARRICADE

3 TONS CLASS 'B' RIP RAP
10 SY FILTER FABRIC

PROP. 5' CONC. SIDEWALK

PROP. 5' CONC SIDEWALK

STANDARD 'V' DITCH SEE DETAIL G

SPECIAL 'V' DITCH SEE DETAIL I

PROP. 2'-6" C&G

TOE PROTECTION SEE DETAIL H

SPECIAL SIDEWALK BERM DETAIL

TEMP. SLOPE STAKE

15" CSP W/2 ELBOWS

18" CSP

12" CSP W/2 ELBOWS

OUTSIDE ALBEMARLE CITY LIMITS

INSIDE ALBEMARLE CITY LIMITS

TEMPORARY PAVEMENT

59 x 20 x 3
2.0 inch Skimmer with 1.75 inch Orifice Diameter
7 ft. weir
ID 14.1 C&G

51 x 16 x 3
1.5 inch Skimmer with 1.5 inch Orifice Diameter
6 ft. weir
ID 14.2 C&G

M.T. HATLEY, VANN R. FRYE, & I.M. DICK, TRUSTEES OF BETHESDA METHODIST CHURCH AND THEIR SUCCESSORS
DB 221 PG 134
(25)

A.D. BURTON & WF.
MABEL D. BURTON
DB 249 PG 85
DB 245 PG 23
DB 245 PG 127
DB 220 PG 435
DB 135 PG 98
PB 5 PG 260

HENRY E. FARMER, INC.
DB 361 PG 791
(24)

ROBERT LEE INMAN & WF.
JEANETTE PARADISE INMAN
DB 697 PG 780
(26)

MOIR L. JONES & WF.
LOIS DIANE M. JONES
DB 369 PG 325
PB 5 PG 260

ESTON G. WEST & WF.
JACKIE S. WEST
DB 626 PG 320
PB 5 PG 260
(27)

DEWEY D. TREECE
(FOUR SEASONS REALTY)
DB 310 PG 961
PB 5 PG 260
(28)

HENRY D. CLONTZ, JR. & WF.
LINDA B. CLONTZ
DB 724 PG 891
PB 5 PG 260
(29)

VIRLE R. CROCKETT & WF.
ALICE F. CROCKETT
DB 631 PG 376
PB 5 PG 260
(30)

WILLIAM P. SMITH & WF.
LISA G. SMITH
DB 640 PG 739
PB 5 PG 260
(31)

DENNIS LAMBERT INVESTMENTS
DB 842 PG 151
(32)

COUNTY OF STANLY
DB 307 PG 440
(33)

(34)

SPECIAL SIDEWALK BERM DETAIL
LATERAL DITCH
(Not to Scale)

-L- STA. 166+50 TO 170+00 LT.

DETAIL H
TOE PROTECTION
(Not to Scale)

Type of Liner= PSRM

-L- STA. 163+80 TO 165+90 LT.

DETAIL A
STANDARD BASE DITCH
(Not to Scale)

Min. D= 1Ft.
B= 2 Ft.

-L- STA. 156+75 LT.
80 LF @ 0.17%, DDE = 23 CY

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

Min. D= 1Ft.

-Y9- STA. 15+95 TO 17+00 LT.

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)

Min. D= 1Ft.

-L- STA. 162+00 LT.
DDE = 10 CY

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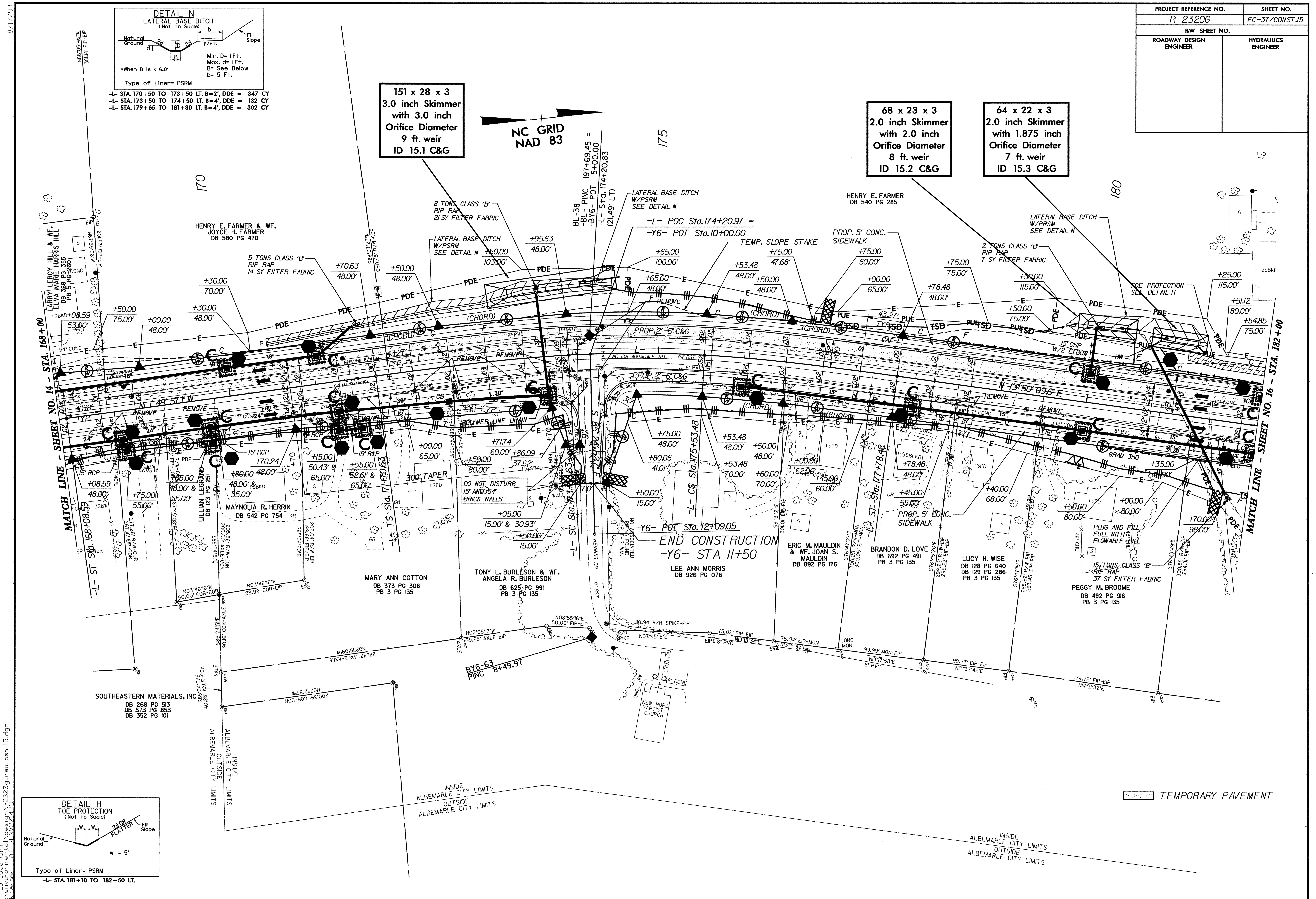
Microstation 8.1 (RENZ2.0)



PROJECT REFERENCE NO.
SHEET NO.
R-2320G
EC-37/CONSTJ5
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
DETAIL N
LATERAL BASE DITCH
(Not to Scale)
Natural Ground
Fill Slope
Min. D= 1 Ft.
Max. d= 1 Ft.
B= See Below
b= 5 Ft.
*When B is < 6.0'
Type of Liner= PSRM
-L- STA. 170+50 TO 173+50 LT. B=2', DDE = 347 CY
-L- STA. 173+50 TO 174+50 LT. B=4', DDE = 132 CY
-L- STA. 179+65 TO 181+30 LT. B=4', DDE = 302 CY
151 x 28 x 3
3.0 inch Skimmer
with 3.0 inch
Orifice Diameter
9 ft. weir
ID 15.1 C&G
NC GRID
NAD 83
68 x 23 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
8 ft. weir
ID 15.2 C&G
64 x 22 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
7 ft. weir
ID 15.3 C&G
170
175
180
HENRY E. FARMER & WF.
JOYCE H. FARMER
DB 580 PG 470
HENRY E. FARMER
DB 540 PG 285
LARRY LEROY HILL & WF.
ELVA MARIE HARRIS HILL
DB 368 PG 355
PB 5 PG 260
8 TONS CLASS 'B'
RIP RAP
21 SY FILTER FABRIC
5 TONS CLASS 'B'
RIP RAP
14 SY FILTER FABRIC
LATERAL BASE DITCH
W/PSRM
SEE DETAIL N
-L- POC Sta.174+20.97 =
-Y6- POT Sta.10+00.00
TEMP. SLOPE STAKE
PROP. 5' CONC.
SIDEWALK
2 TONS CLASS 'B'
RIP RAP
7 SY FILTER FABRIC
TOE PROTECTION
SEE DETAIL H
MATCH LINE - SHEET NO. 14 - STA. 168+00
MATCH LINE - SHEET NO. 16 - STA. 182+00
-L- ST Sta. 168+08.59
N 1°49'57.1"W
N 13°50'09.6"E
PROP. 2'-6" C&G
POLYMER LINE DRAIN
300' TAPER
DO NOT DISTURB
15" AND 54"
BRICK WALLS
-L- TS Sta. 171+70.63
-L- SC Sta. 173+63
-L- CS Sta. 175+53.48
-L- ST Sta. 177+78.48
-Y6- POT Sta. 12+09.05
END CONSTRUCTION
-Y6- STA 11+50
PLUG AND FILL
FULL WITH
FLOWABLE FILL
15 TONS CLASS 'B'
RIP RAP
37 SY FILTER FABRIC
15" CSP
W/2 ELBOW
LILLIAN LEGRAND
DB 123 PG 251
MAYNOLIA R. HERRIN
DB 542 PG 754
MARY ANN COTTON
DB 373 PG 308
PB 3 PG 135
TONY L. BURLESON & WF.
ANGELA R. BURLESON
DB 625 PG 991
PB 3 PG 135
LEE ANN MORRIS
DB 926 PG 078
ERIC M. MAULDIN
& WF. JOAN S.
MAULDIN
DB 892 PG 176
BRANDON D. LOVE
DB 692 PG 491
PB 3 PG 135
LUCY H. WISE
DB 128 PG 640
DB 129 PG 286
PB 3 PG 135
PEGGY M. BROOME
DB 492 PG 918
PB 3 PG 135
SOUTHEASTERN MATERIALS, INC
DB 268 PG 513
DB 573 PG 853
DB 352 PG 101
BY6-63
PINC 8+49.97
NEW HOPE
BAPTIST
CHURCH
INSIDE
ALBEMARLE CITY LIMITS
OUTSIDE
ALBEMARLE CITY LIMITS
TEMPORARY PAVEMENT
DETAIL H
TOE PROTECTION
(Not to Scale)
Natural Ground
2:1 OR FLATTER
Fill Slope
w = 5'
Type of Liner= PSRM
-L- STA. 181+10 TO 182+50 LT.
8/17/99
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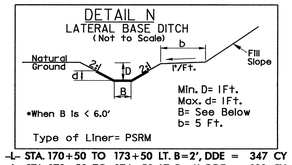
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-37A/CONST.15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL N
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= PSRM

-L- STA. 170+50 TO 173+50 LT. B=2', DDE = 347 CY
-L- STA. 173+50 TO 174+50 LT. B=4', DDE = 132 CY
-L- STA. 179+65 TO 181+30 LT. B=4', DDE = 302 CY

151 x 28 x 3
3.0 inch Skimmer
with 3.0 inch
Orifice Diameter
9 ft. weir
ID 15.1 C&G

68 x 23 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
8 ft. weir
ID 15.2 C&G

41 x 20 x 3
7 ft. weir
ID 15.4C&G

NC GRID
NAD 83

MATCH LINE - SHEET NO. 14 - STA. 168+00

MATCH LINE - SHEET NO. 16 - STA. 182+00

-L- ST Sta. 168+08.59

-L- TS Sta. 171+70.63

-L- SC Sta. 173+53.48

-L- CS Sta. 175+53.48

-L- ST Sta. 177+78.48

-L- POC Sta.174+20.97 =
-Y6- POT Sta.10+00.00

-Y6- POT Sta.12+09.05
END CONSTRUCTION
-Y6- STA 11+50

BL-38
-BL- PINC 197+69.45 =
-BY6- POT 5+00.00
-L- Sta. 174+20.83
(21.49' LT)

BY6-63
PINC 8+49.97

HENRY E. FARMER & WF.
JOYCE H. FARMER
DB 580 PG 470

LARRY LEROY HILL & WF.
ELVA MARIE HARRIS HILL
DB 368 PG 355
PB 5 PG 260

LILLIAN LEGRAND
DB 123 PG 251

MAYNOLIA R. HERRIN
DB 542 PG 754

MARY ANN COTTON
DB 373 PG 308
PB 3 PG 135

TONY L. BURLESON & WF.
ANGELA R. BURLESON
DB 625 PG 991
PB 3 PG 135

LEE ANN MORRIS
DB 926 PG 078

ERIC M. MAULDIN
& WF. JOAN S.
MAULDIN
DB 892 PG 176

HENRY E. FARMER
DB 540 PG 285

BRANDON D. LOVE
DB 692 PG 491
PB 3 PG 135

LUCY H. WISE
DB 128 PG 640
DB 129 PG 286
PB 3 PG 135

PEGGY M. BROOME
DB 492 PG 918
PB 3 PG 135

SOUTHEASTERN MATERIALS, INC
DB 268 PG 513
DB 573 PG 853
DB 352 PG 101

NEW HOPE
BAPTIST
CHURCH

8 TONS CLASS 'B'
RIP RAP
21 SY FILTER FABRIC

5 TONS CLASS 'B'
RIP RAP
14 SY FILTER FABRIC

2 TONS CLASS 'B'
RIP RAP
7 SY FILTER FABRIC

15 TONS CLASS 'B'
RIP RAP
37 SY FILTER FABRIC

LATERAL BASE DITCH
W/PSRM
SEE DETAIL N

TOE PROTECTION
SEE DETAIL H

TEMP. SLOPE STAKE

PROP. 5' CONC.
SIDEWALK

PLUG AND FILL
FULL WITH
FLOWABLE FILL

DO NOT DISTURB
15' AND 54'
BRICK WALLS

300' TAPER

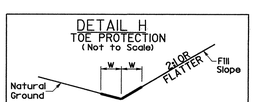
PROP. 2'-6" C&G

REMOVE

POLYMER LINE DRAIN

INSIDE
ALBEMARLE CITY LIMITS
OUTSIDE
ALBEMARLE CITY LIMITS

DETAIL H
TOE PROTECTION
(Not to Scale)



Type of Liner= PSRM

-L- STA. 181+10 TO 182+50 LT.

TEMPORARY PAVEMENT

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mkcorsey
ALBEMARLE

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-38/CONST.16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID NAD 83

HENRY E. FARMER
DB 540 PG 285

BEGIN CONSTRUCTION
-Y10- STA 10+75

-Y10- POT Sta. 10+00.00

185

ARTHUR REID EFIRD & WF.
DOROTHY LEE EFIRD
DB 364 PG 618

TEMP. SLOPE STAKE

HUS. CINDY MORTON & HUS. JASON MORTON
DB 5721 PG 254

HUS. ADAM STIREWALT & WF. PATTY STIREWALT
DB 5721 PG 254

DARLENE WALLER & HUS. TOMMY E. WALLER
DB 506 PG 41

TOE PROTECTION SEE DETAIL H

MATCH LINE - SHEET NO. 15 - STA. 182+00

-L- POT Sta.183+78.96 =
-Y10- POT Sta.12+16.41

NCDOT
DB 168 PG 201
DB 162 PG 556
PB 3 PG 135

PROP. 5' CONC. SIDEWALK

CLARA H. ROBERTS
DB 316 PG 964
PB 3 PG 135

JEFFREY W. PATTERSON & WF. LOIS F. PATTERSON
DB 760 PG 47
PB 3 PG 135

GRACE C. MAULDIN
DB 506 PG 302
DB 355 PG 67
PB 3 PG 135

5 TONS CLASS 'B' RIP RAP
14 SY FILTER FABRIC

2' BASE DITCH SEE DETAIL A

**56 x 19 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
6 ft. weir
ID 16.1 C&G**

BEGIN CONSTRUCTION
-Y11- STA 10+50

-Y11-POT Sta. 10+00.00

190

-L- POT Sta.187+61.79 =
-Y11- POT Sta.12+19.28

-L- POT Sta.192+74.00 =
-Y5A- POT Sta. 10+00.00

PROP. 5' CONC. SIDEWALK

4 WHEEL PROPERTIES, LLC
DB 702 PG 280
PB 17 PG 30

RETAIN EXISTING CB

PROP. 2'-6" C&G

1 TON CLASS 'B' RIP RAP
5 SY FILTER FABRIC

BEVERLY H. HELMS
JOHNNY B. HELMS
DAVID K. FARMER DB 612 PG 232
PB 3 PG 135

HENRY E. FARMER & WF.
JOYCE H. FARMER
DB 308 PG 754
DB 187 PG 477
DB 180 PG 495
DB 202 PG 242
DB 249 PG 693
PB 3 PG 135

NCDOT
DB 551 PG 122
PB 3 PG 135

DOUGLAS E. TURNER & WF. LINDA H. TURNER
DB 595 PG 325
PB 3 PG 135

NCDOT
DB 249 PG 705
PB 3 PG 135

CLYDE D. BIGGERS, JR. & WF. BARBARA H. BIGGERS
DB 284 PG 331
PB 3 PG 135

ROBERT J. EURY & WF. FRONIAL M. EURY
DB 307 PG 386
DB 536 PG 959

DUKE POWER COMPANY
DB 391 PG 199

STANLY FARM SUPPLY, INC.
DB 386 PG 528

RONALD BRUCE WAYNE EURY & WF. MELISSA ANN EURY
DB 608 PG 803

STANLY FARM SUPPLY, INC.
DB 386 PG 528

HENRY E. FARMER
DB 745 PG 111
PB 3 PG 135

MATCH LINE - SHEET NO. 17 - STA. 195+00

END CONSTRUCTION
-Y5A- STA 10+82

-Y5A- POT Sta. 13+40.65

TEMPORARY PAVEMENT

DETAIL H
TOE PROTECTION
(Not to Scale)

Natural Ground — 2d OR FLATTER — Fill Slope — w = 5'

Type of Liner= PSRM

-L- STA. 181+10 TO 182+50 LT.

DETAIL A
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 2d — D — 2d — Natural Ground — B

Min. D= 1Ft.
B= 2 Ft.

-L- STA. 182+50 RT.
80 LF @ 3.5% SLOPE, DDE = 18 CY

12-FEB-2008 15:22
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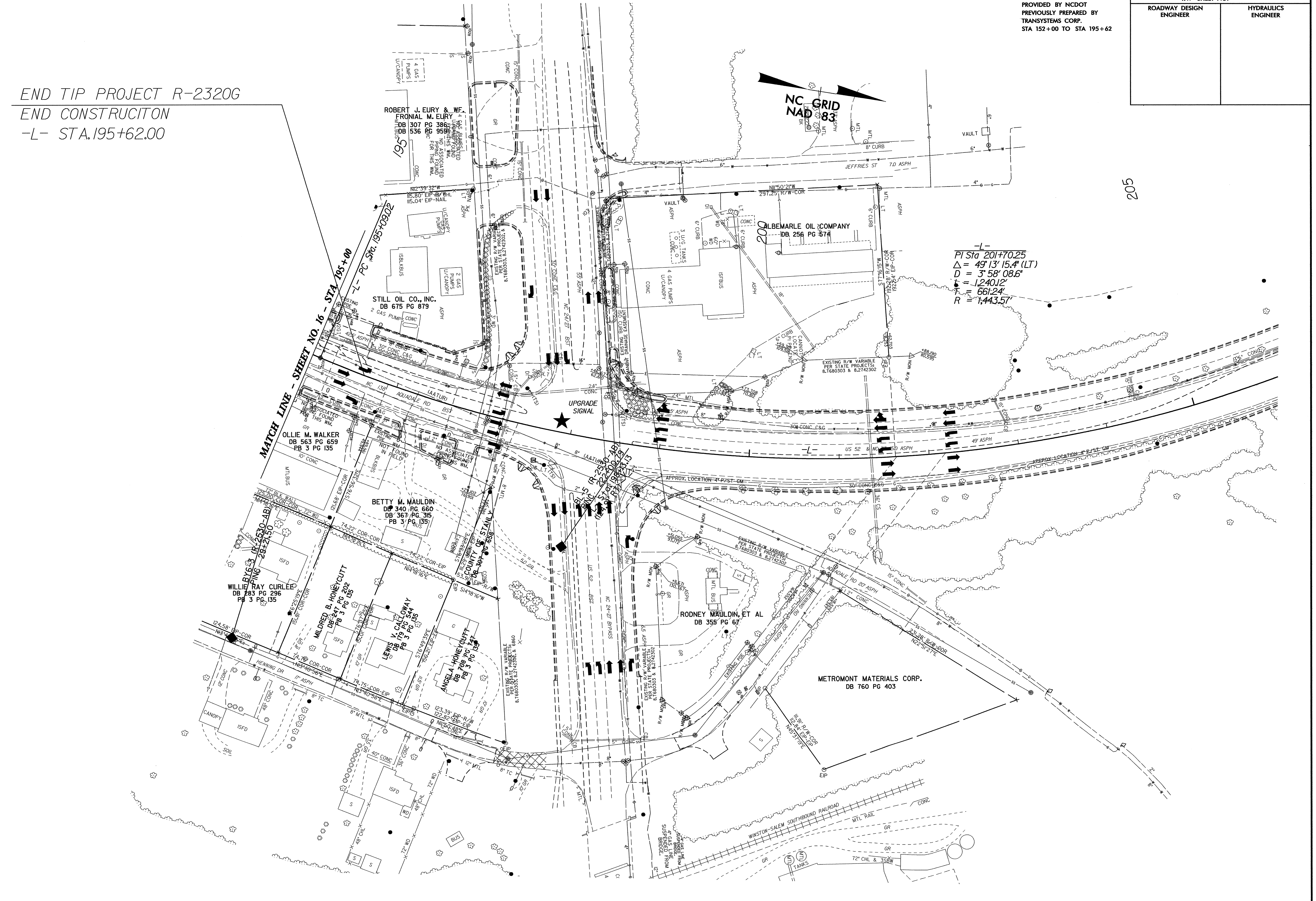
Microstation 8.1 REV 2243

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-39/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

HYDRAULIC DESIGN:
PROVIDED BY NCDOT
PREVIOUSLY PREPARED BY
TRANSYSTEMS CORP.
STA 152+00 TO STA 195+62



END TIP PROJECT R-2320G
END CONSTRUCITON
-L- STA.195+62.00
NC GRID
NAD 83
MATCH LINE - SHEET NO. 16 - STA.195+00
-L- PC Sta. 195+09.02
ROBERT J. EURY & WF.
FRONIAL M. EURY
DB 307 PG 386
DB 536 PG 959
STILL OIL CO., INC.
DB 675 PG 879
ALBEMARLE OIL COMPANY
DB 256 PG 574
JEFFRIES ST
-L-
PI Sta 201+70.25
Δ = 49° 13' 15.4" (LT)
D = 3° 58' 08.6"
L = 1,240.12'
T = 661.24'
R = 1,443.57'
UPGRADE SIGNAL
AQUADALE RD
US 52
OLLIE M. WALKER
DB 563 PG 659
PB 3 PG 135
BETTY M. MAULDIN
DB 340 PG 660
DB 367 PG 315
PB 3 PG 135
COUNTY OF STANLY
WILLIE RAY CURLEE
DB 283 PG 296
PB 3 PG 135
MILDRED B. HONEYCUTT
DB 247 PG 202
PB 3 PG 135
LEWIS V. CALLOWAY
DB 179 PG 544
PB 3 PG 135
ANGELA HONEYCUTT
DB 708 PG 147
PB 3 PG 135
RODNEY MAULDIN, ET AL
DB 355 PG 67
METROMONT MATERIALS CORP.
DB 760 PG 403
HENNING DR
WINSTON-SALEM SOUTHBOUND RAILROAD
EXISTING R/W VARIABLE PER STATE PROJECTS 8.T680303 & 8.2742302
200
205

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mkcarter AT RENY22493

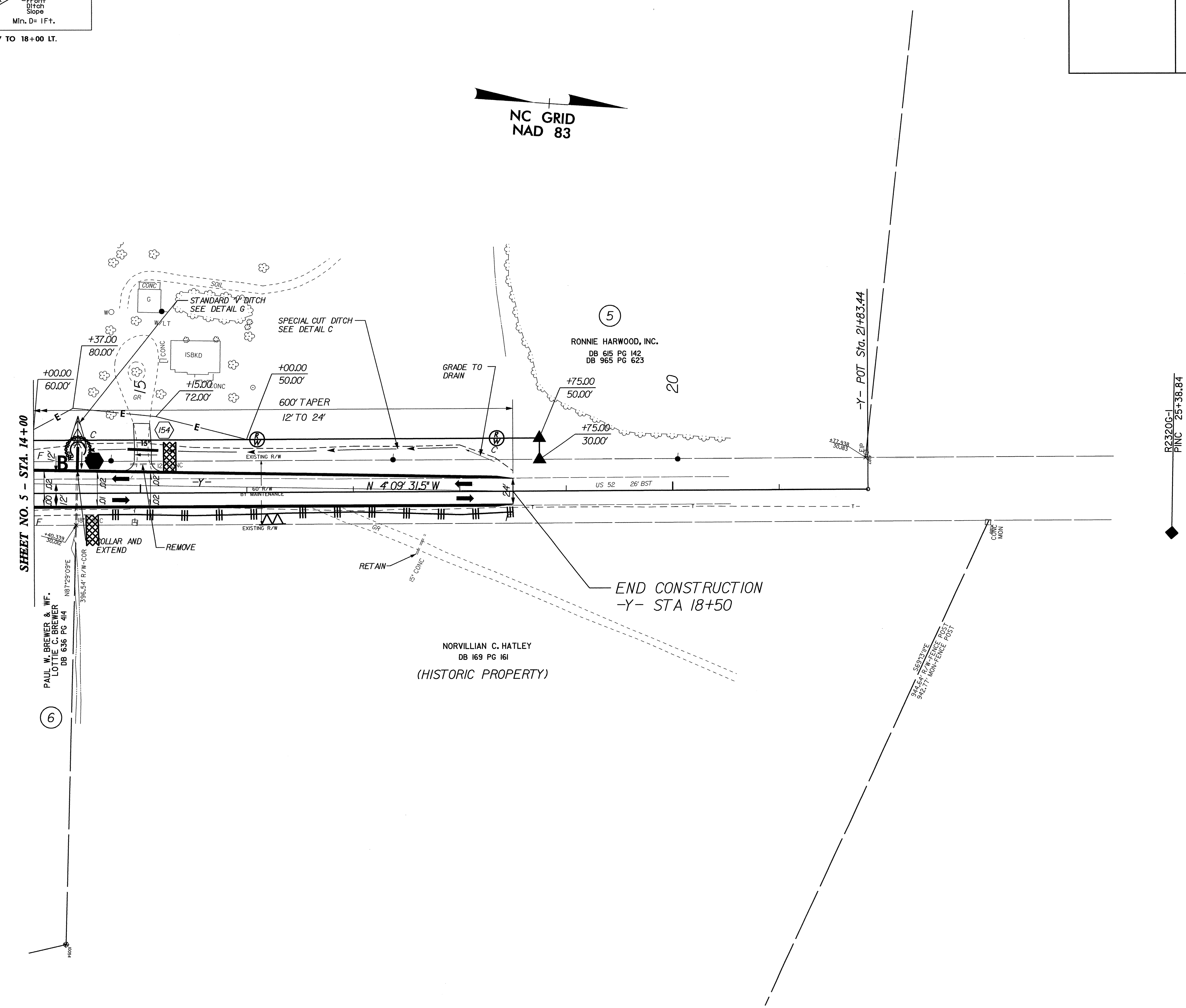
PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-40/CONST18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)

-Y- STA. 14+40 LT.
28 LF @ 10.0%
DDE = 23 CY

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)

-Y- STA. 14+42.7 TO 18+00 LT.



NC GRID
NAD 83
STANDARD 'V' DITCH
SEE DETAIL G
SPECIAL CUT DITCH
SEE DETAIL C
GRADE TO
DRAIN
RONNIE HARWOOD, INC.
DB 615 PG 142
DB 965 PG 623
600' TAPER
12' TO 24'
N 4°09' 31.5" W
US 52 26' BST
-Y- POT Sta. 21+83.44
R2320G-1
PINC 25+38.84
SHEET NO. 5 - STA. 14+00
COLLAR AND
EXTEND
REMOVE
RETAIN
END CONSTRUCTION
-Y- STA 18+50
NORVILLIAN C. HATLEY
DB 169 PG 161
(HISTORIC PROPERTY)
PAUL W. BREWER & WF.
LOTTIE C. BREWER
DB 636 PG 414
EXISTING R/W

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-41/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID
NAD 83

BEGIN CONSTRUCTION
-Y4- STA 4+61.38

POND

686.78' WELLCORE-EIP
SOUTH 53°W

686.85'
S86°17'16"E

+75.00
19.25'

+41.48
20.00'

-Y4- POT Sta. 4+26.85

-Y4- PC Sta. 4+61.38

+75.00
60.00'

+50.00
85.00'

441.39'
S86°52'06"E

-Y4-
PI Sta 6+07.77
Δ = 26° 34' 14.9" (LT)
D = 9° 14' 28.5"
L = 287.52'
T = 146.39'
R = 620.00'
SUPER = 6.0%
R.O. = 150'

LORENA H. LOWDER
DB 141 PG 90

JIMMY DRAKE
DB 809 PG 548

+48.90
60.00'

-Y4- PT Sta. 7+48.90

+48.90
80.00'

BEGIN SHOULDER BERM GUTTER
STA 8+00 LT.

LATERAL 'V' DITCH
SEE DETAIL L

INLET CHANNEL
SEE DETAIL

109.36'
NORTH 31°E

BURY INVERT 1 FT

OUTLET WINGS W/ CL.I RIPRAP
(STR.PAY ITEM)

BURY INVERT 1 FT

OUTLET CHANNEL IMPROVEMENTS
W/ 11 TONS CL.I RIPRAP
18 SY-FILTER FABRIC
SEE DETAIL

+10.00
85.00'

JAMES CONRAD
TRULL, ET AL
DB 361 PG 930

LATERAL BASE DITCH
SEE DETAIL O

+00.00
75.00'

15" CSP
w/ 2 ELBOWS

LATERAL BASE DITCH
SEE DETAIL O

MATCH LINE – SHEET NO. 10 – STA. 10+00

10

32 x 11 x 3
1.5 inch Skimmer
with 1 inch
Orifice Diameter
4 ft. weir
ID 19.2 C&G

47 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
6 ft. weir
ID 19.1 C&G

74 x 24 x 3
2.5 inch Skimmer
with 2.725 inch
Orifice Diameter
8 ft. weir
ID 10.1 C&G

66 x 22 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
8 ft. weir
ID 10.4 C&G

NATURAL GROUND
EXCAVATE ONLY CHANNEL BANKS
1
2
DDE = 5 CY

CHANNEL INLET DETAIL

NATURAL GROUND
EXCAVATE ONLY CHANNEL BANKS
CL. I RIPRAP (1' 6" THK)
FILTER FABRIC
DDE = 15 CY

CHANNEL OUTLET DETAIL

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

Natural Ground
2% TO 2%
d1
b
1'/Ft.
Fill Slope
Filter Fabric
Min. D= 1 Ft.
Max. d= 1 Ft.
b= 5 Ft.

Type of Liner= Class 'B' Rip-Rap

-Y4- STA. 7+50 TO 9+10 LT., DDE = 109 CY
CL. B RR = 56 TONS, FF = 167 SY

DETAIL O
LATERAL BASE DITCH
(Not to Scale)

Natural Ground
2%
d1
D
2%
b
1'/Ft.
Fill Slope
B
Filter Fabric
Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 5 Ft.
*When B Is < 6.0'

Type of Liner= Class 'B' Rip-Rap

-Y4- STA. 9+05 TO 12+35 RT.
-Y4- STA. 9+35 TO 12+55 LT.

STONE FF

49'

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mkeaster AT RENV21493

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PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-42/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID
NAD 83

MATCH LINE - SHEET NO. 10 - STA. 17+00

-Y4- PT Sta. 19+75.03

JAMES CONRAD TRULL, ET AL
DB 361 PG 930

BY4-56
PINC 14+54.30
-Y4- Sta. 20+23.14
(56.39' RT)

CECILLE M. NASH
DB 130 PG 174
WB 82 PG 125

+35.00
62.52'

+00.00
70.00'

2 TONS CLASS 'B' RIP RAP
7 SY FILTER FABRIC

+00.00
85.00'

+00.00
75.00'

+00.00
75.00'

-Y4-
PI Sta 17+44.14
Δ = 58° 38' 00.1" (RT)
D = 11° 27' 33.0"
L = 511.67'
T = 280.78'
R = 500.00'
SUPER = 6.0%
R.O. = 150'

CECILLE M. NASH
DB 130 PG 174
WB 82 PG 125

JAMES CONRAD TRULL & WF.
RICKIE T. TRULL
DB 259 PG 438

+75.00
45.00'

+00.00
50.00'

CECILLE M. NASH
DB 130 PG 174
WB 82 PG 125

-Y4- PC Sta. 20+95.22

RETAIN

SR 1907 QUAIL RIDGE RD 20' DST

+60.91
40.00'

SR 1906 SOUTHSIDE RD 18' DST

BY4-57
-BY4- PINC 18+90.69 =
-BY3- POT 21+59.18
-Y4- Sta. 24+52.62
(17.41' LT)

-Y4-
PI Sta 23+82.44
Δ = 39° 29' 55.6" (LT)
D = 7° 09' 43.1"
L = 551.51'
T = 287.22'
R = 800.00'
SUPER = 6.0%
R.O. = 150'

HENRY F. LISK
DB 270 PG 994
DB 319 PG 718

+20.96
35.00'

+09.06
35.00'

ALTON L. SHARPE & WF.
JACQUELINE A. SHARPE
DB 685 PG 614

BY4-58
PINC 20+98.64
-Y4- Sta. 26+59.34
(14.28' RT)

+46.72
50.00'

CECILLE MOOSE NASH & HUS.
WILLIAM BOYD NASH
DB 288 PG 198

-Y4- PT Sta. 26+46.72

+46.72
20.00'

END CONSTRUCTION
-Y4- STA 26+50

-Y4- PINC Sta. 27+07.02

WILLIAM BOYD NASH
GENNA MOOSE NASH & WF.
DB 295 PG 43

QUAIL RIDGE ROAD SR 1907 -Y3-	300/500
	-100/-100
100/200	
	-100/-100
	300/500
SOUTHSIDE ROAD SR 1906 -Y4-	2008 ADT / 2028 ADT

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Microstation Version 8.05

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PROJECT REFERENCE NO.	SHEET NO.
R-2320G	EC-43/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NC GRID NAD 83

35 x 11 x 3
ID 22.2 C&G

48 x 16 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 22.1 C&G

33 x 11 x 3
ID 22.3 C&G

-Y5- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y5- STA 10+35

BEGIN CONSTRUCTION
-Y8- STA 12+00

-Y8-
PI Sta 13+53.43
Δ = 41° 41' 27.5" (RT)
D = 19° 05' 54.9"
L = 250.23'
T = 132.91'
R = 300.00'

-Y5-
PI Sta 14+95.86
Δ = 58° 45' 18.6" (RT)
D = 7° 38' 22.0"
L = 769.10'
T = 422.22'
R = 750.00'
SUPER = 4.0%
R.O. = SEE PLANS

-Y5- POC Sta.17+29.18 =
-Y8- POT Sta.16+69.41

-Y5- PT Sta. 18+42.28

-Y8- PT Sta. 14+10.75

-Y8- POC Sta. 12+20.51

SHEET NO. 13 - STA. 19+00

HAROLD MICHAEL KENDALL & WF.
JOANN C. KENDALL
DB 653 PG 159
DB 653 PG 161
PB 6 PG 45

DAVID K. FARMER
DB 598 PG 408

NANCY L. WILSON
DB 255 PG 235
PB 6 PG 45

WINFRED A. DENNIS, JR. & WF.
LINDA P. DENNIS
DB 335 PG 995
DB 336 PG 207
PB 6 PG 45

MICHAEL DAVID FLACK & WF.
VICKI L. FLACK
DB 361PG 386
PB 6 PG 45

M.T. HATLEY, VANN R. FRYE, TRUSTEES OF BETHESDA AME CHURCH AND THEIR SUCCESSORS

DETAIL G
STANDARD "V" DITCH
(Not to Scale)
Natural Ground — 2H — D — 2H — Natural Ground
Min. D= 1Ft.
-Y8- STA. 14+90 LT., DDE = 10 CY
-Y8- STA. 15+25 RT., DDE = 5 CY

DETAIL C1
SPECIAL CUT DITCH
(Not to Scale)
12' Minimum
Natural Ground — 2H — D — 6H — Front Ditch Slope — Shoulder Point
Min. D= 1Ft.
-Y5- STA. 15+75 TO 17+35 RT.
-Y5- STA. 15+00 TO 16+25 LT.

DETAIL C2
SPECIAL CUT DITCH
(Not to Scale)
8' Minimum
Natural Ground — 2H — D — 4H — Front Ditch Slope — Shoulder Point
Min. D= 1Ft.
-Y8- STA. 14+92 TO 16+00 LT.

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