STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2309AB	EC-1	

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

TIP PROJECT: R-2309AB

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

GUILFORD COUNTY

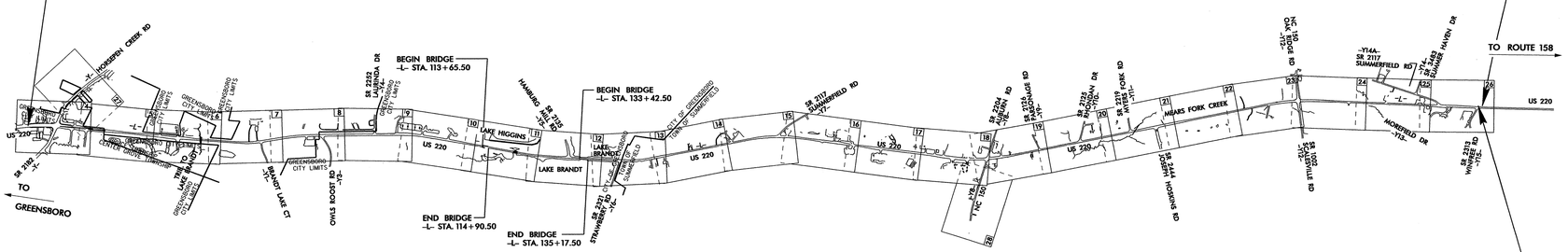
LOCATION: US 220 FROM SR 2182 (HORSEPEN CREEK RD.) TO 0.2 MILES NORTH OF SR 2313 (WINFREE RD.) IN GREENSBORO

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

NAD 83

BEGIN TIP PROJECT R-2309AB
-L- STA. 21+50.00

END CONSTRUCTION
-L- PT STA. 317+51.85
(TIE TO TIP PROJECT R-2413C)



END TIP PROJECT R-2309AB
-L- STA. 316+76.67 =
R-2413C -LREV1- STA. 13+50.051

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

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

2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

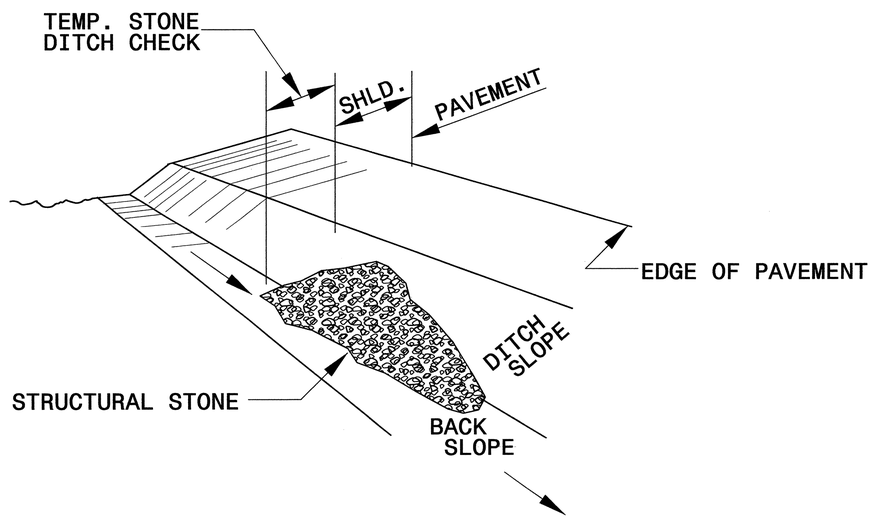
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1630.06	Special Stilling Basin
1605.01	Temporary Silt Fence	1632.01	Rock Inlet Sediment Trap Type A
1606.01	Special Sediment Control Fence	1632.02	Rock Inlet Sediment Trap Type B
1607.01	Gravel Construction Entrance	1632.03	Rock Inlet Sediment Trap Type C
1622.01	Temporary Berms and Slope Drains	1633.01	Temporary Rock Silt Check Type A
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.03	Temporary Silt Ditch	1634.02	Temporary Rock Sediment Dam Type B
1630.04	Stilling Basin	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.05	Temporary Diversion	1635.02	Rock Pipe Inlet Sediment Trap Type B

29-DEC-2011 16:57
R:\Structures\Plans\R2309ab_EC_tsh.dgn
jennifer.strickland@ncdot.gov

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

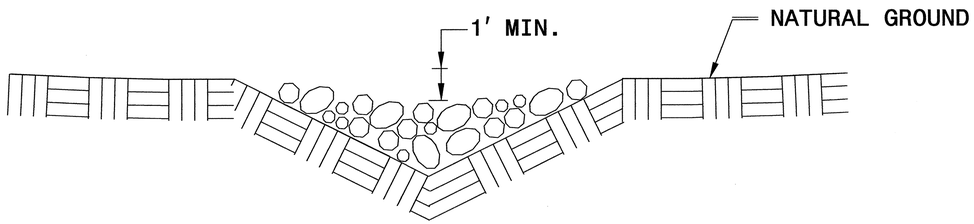


ISOMETRIC VIEW

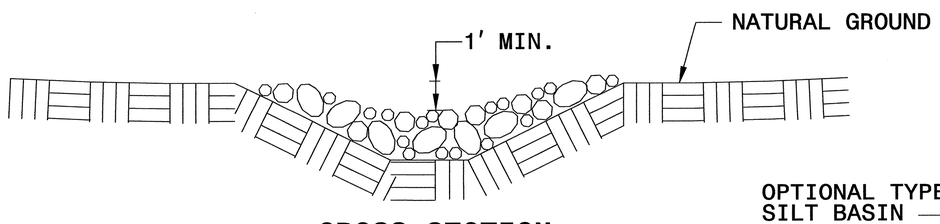
NOTES:

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

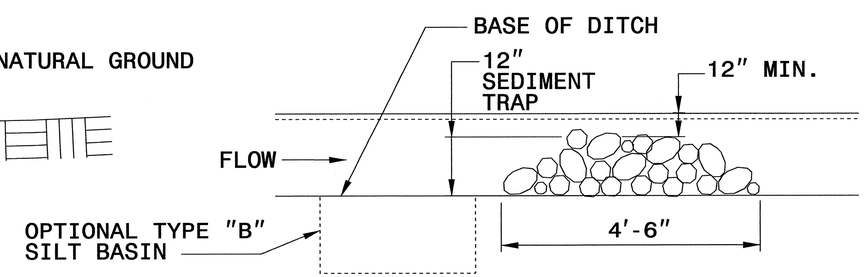
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION
VEE DITCH



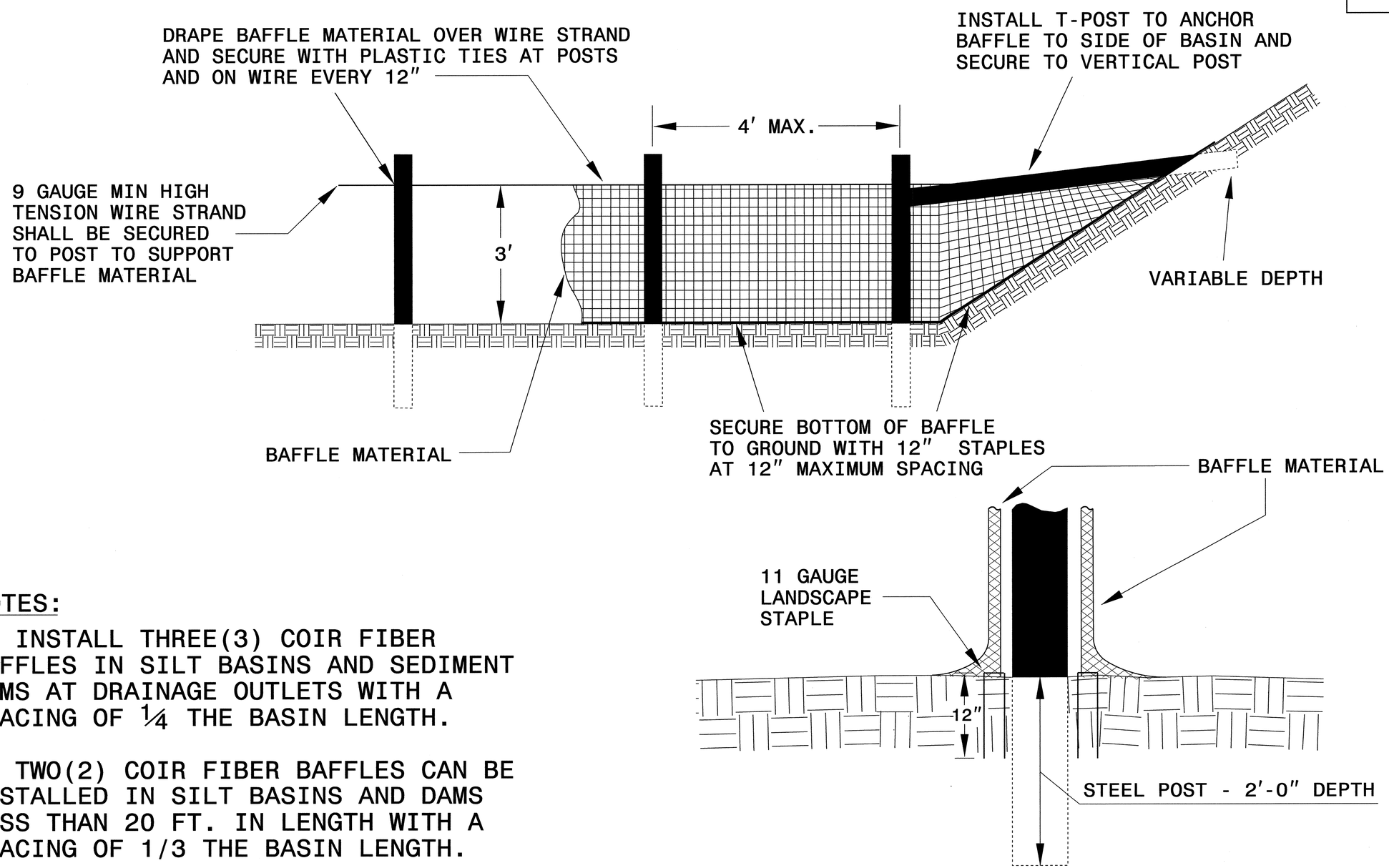
CROSS SECTION
TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



NOTES:

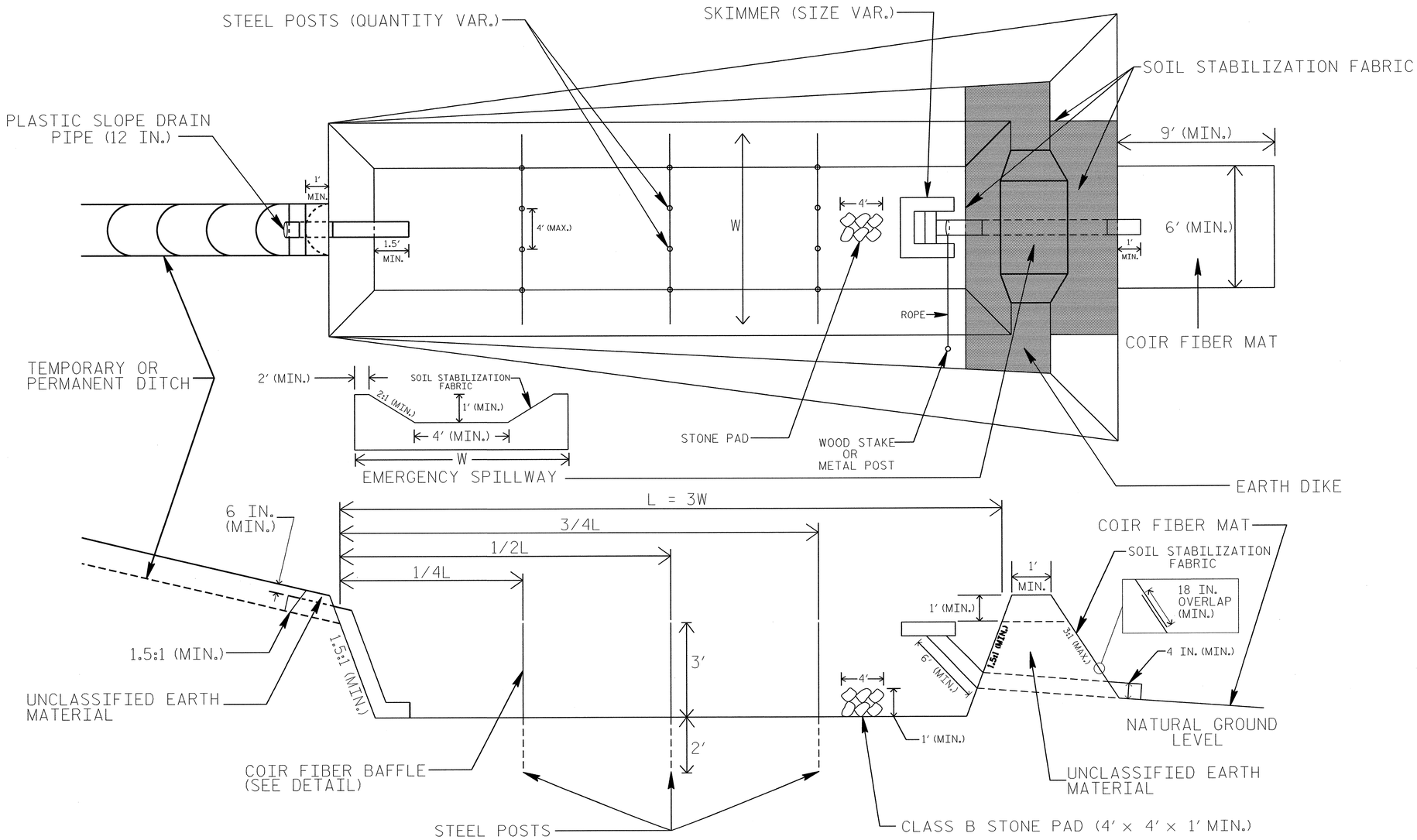
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

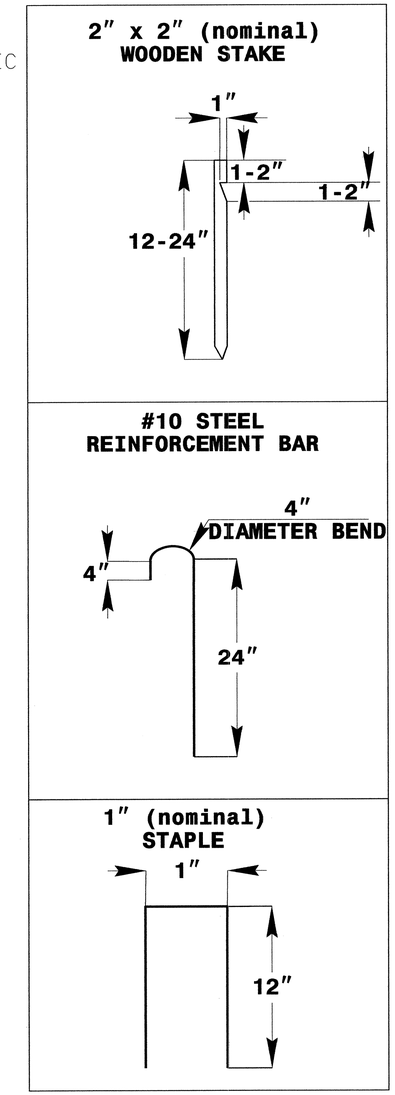
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

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

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL





COIR FIBER MAT ANCHOR OPTIONS

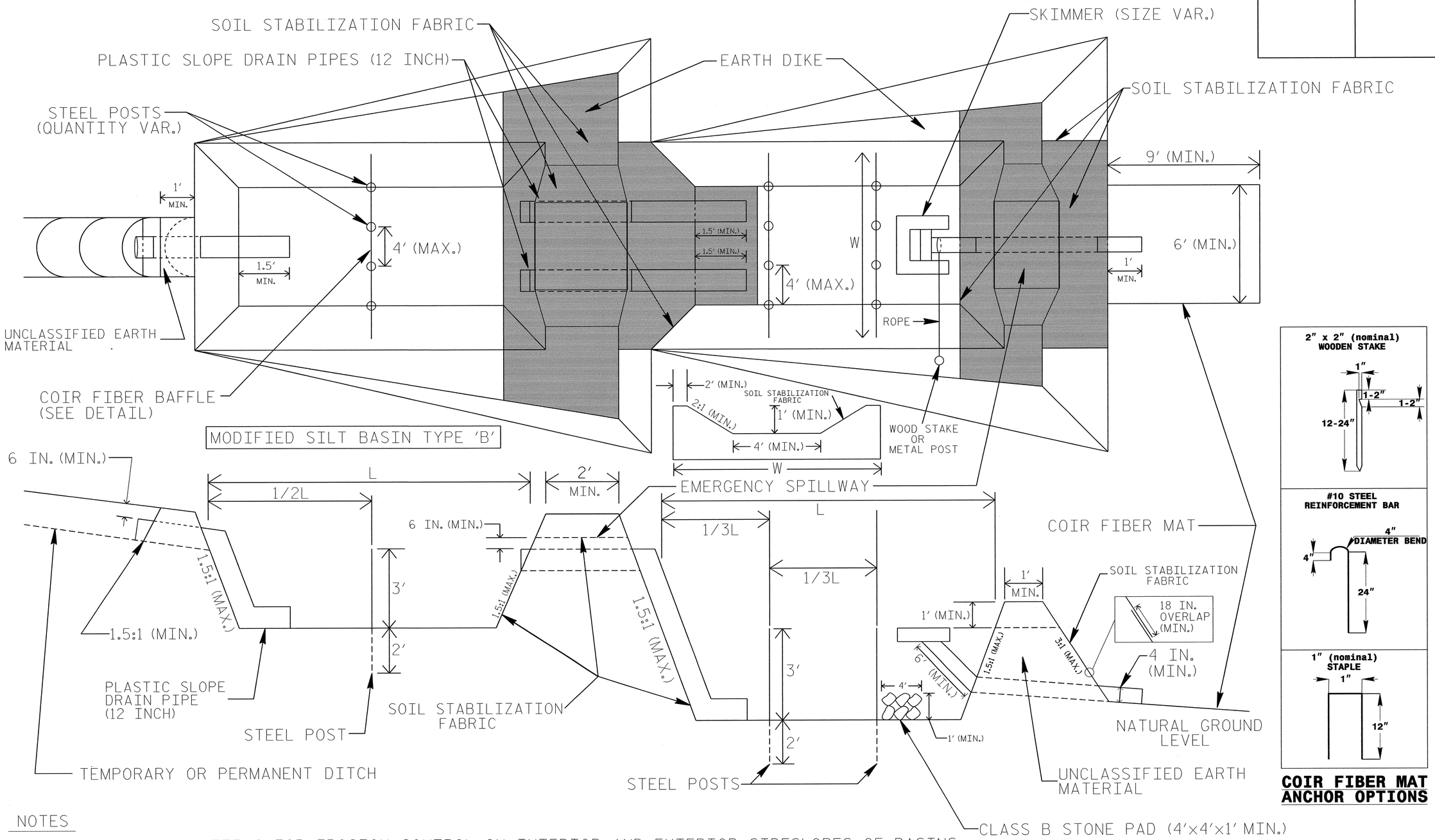
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTER FABRIC AS DIRECTED.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL



COIR FIBER MAT ANCHOR OPTIONS

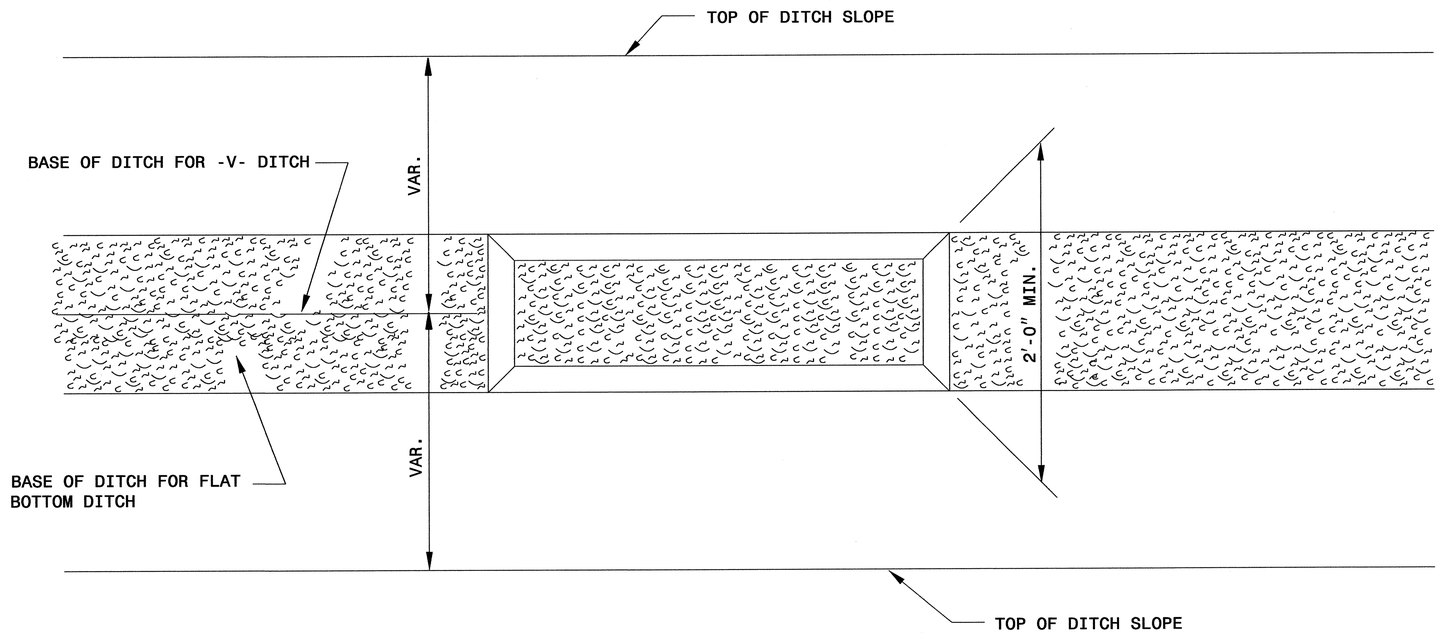
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE EMERGENCY SPILLWAY LENGTHS (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

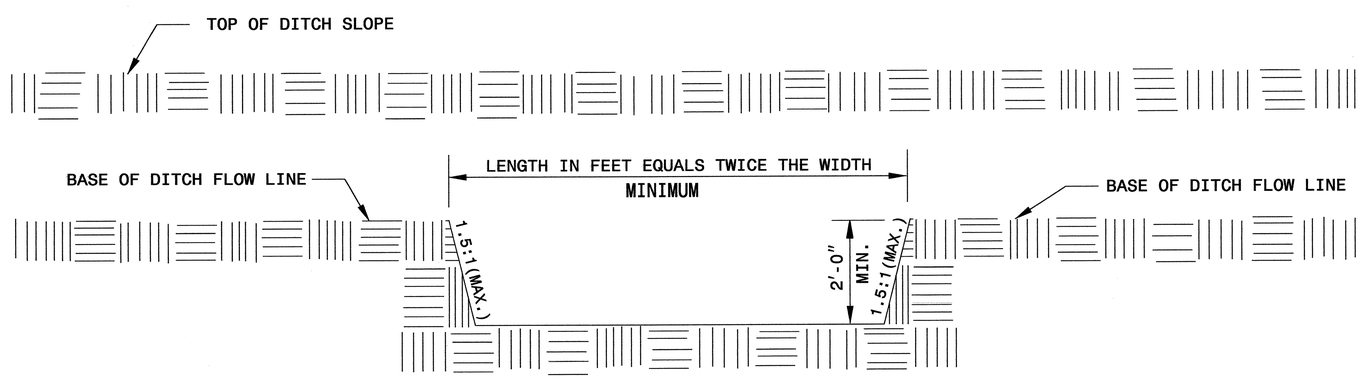
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



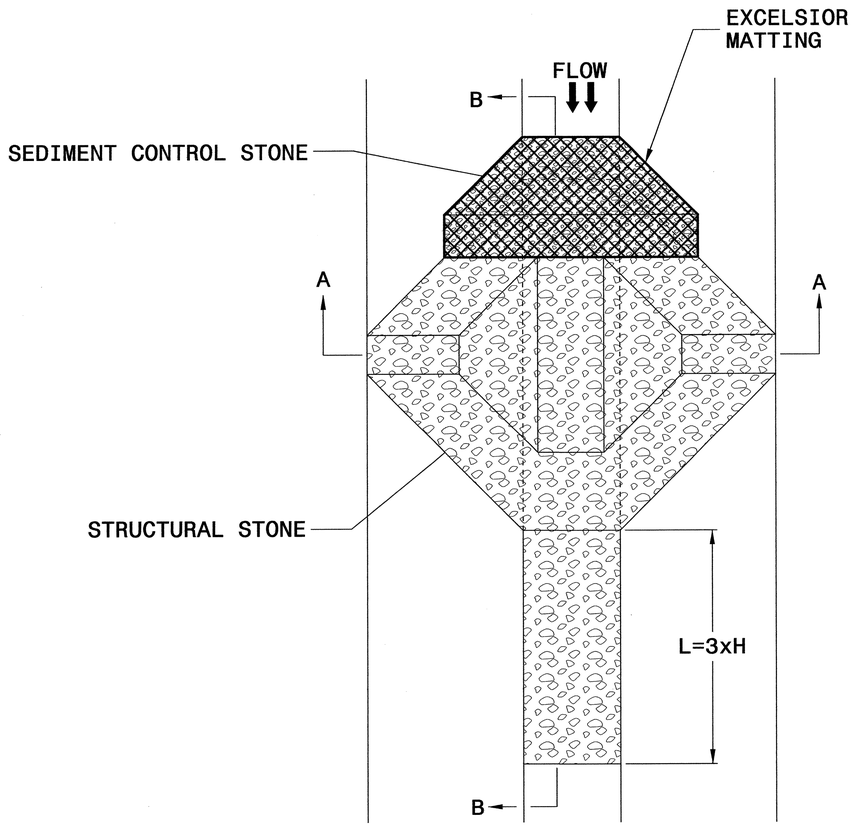
PLAN



ELEVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



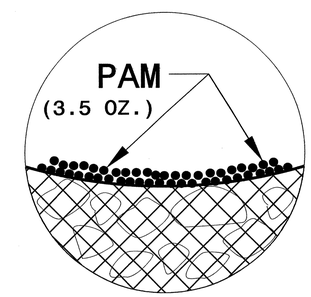
PLAN

NOTES

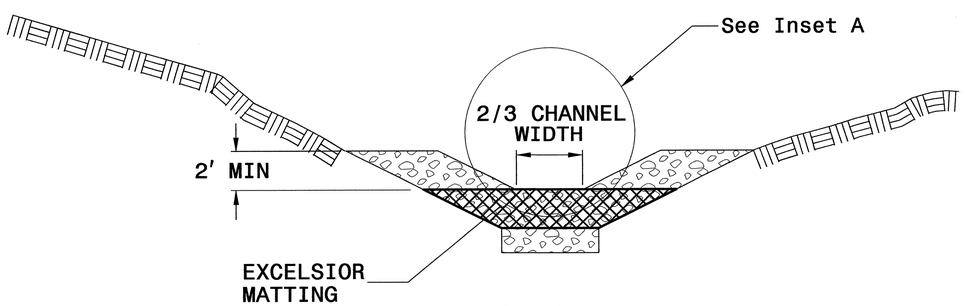
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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

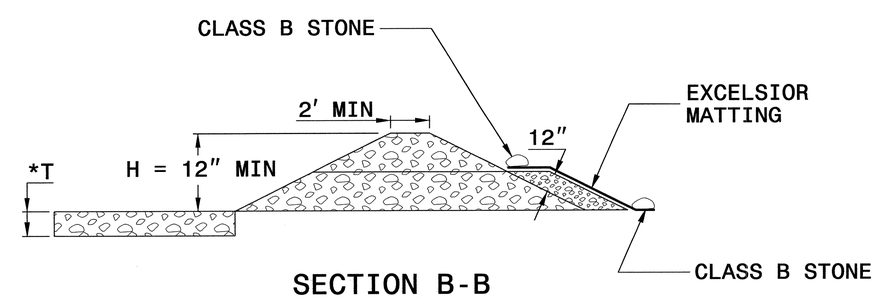
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



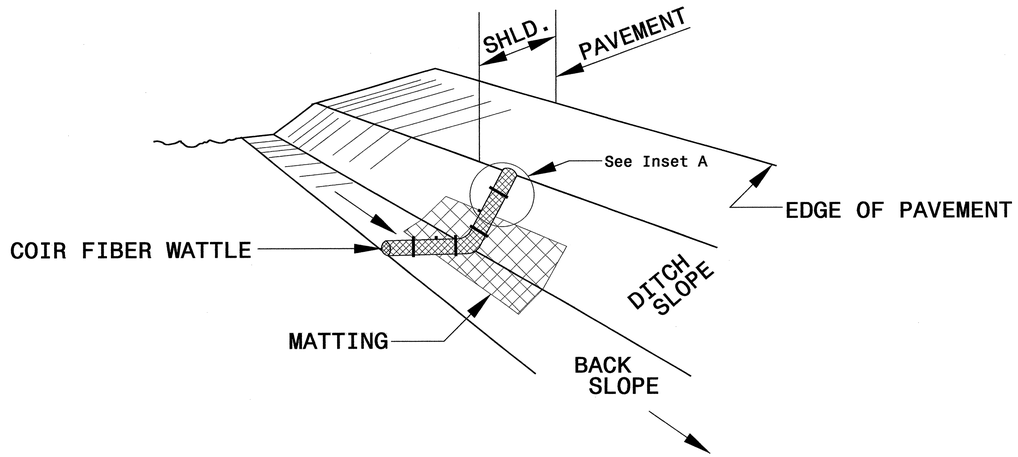
SECTION B-B

*T = 12" MIN., 18" MAX.

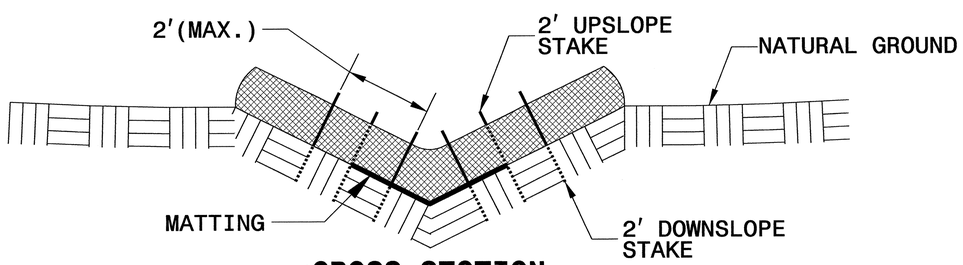
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2F
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

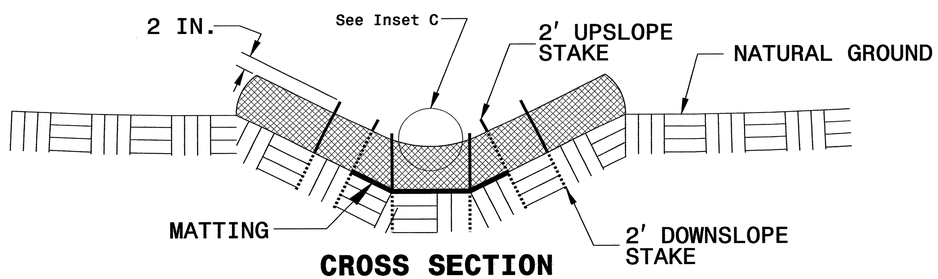
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

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

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

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

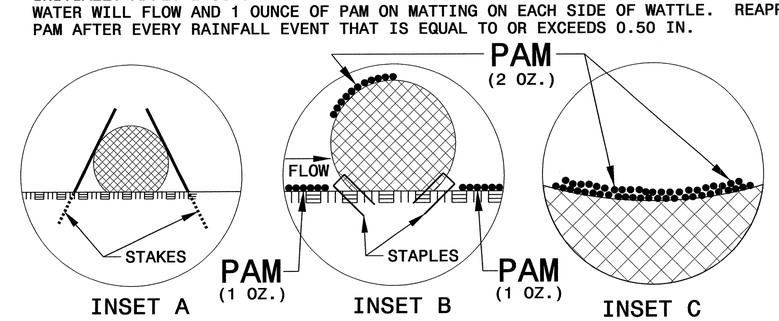
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

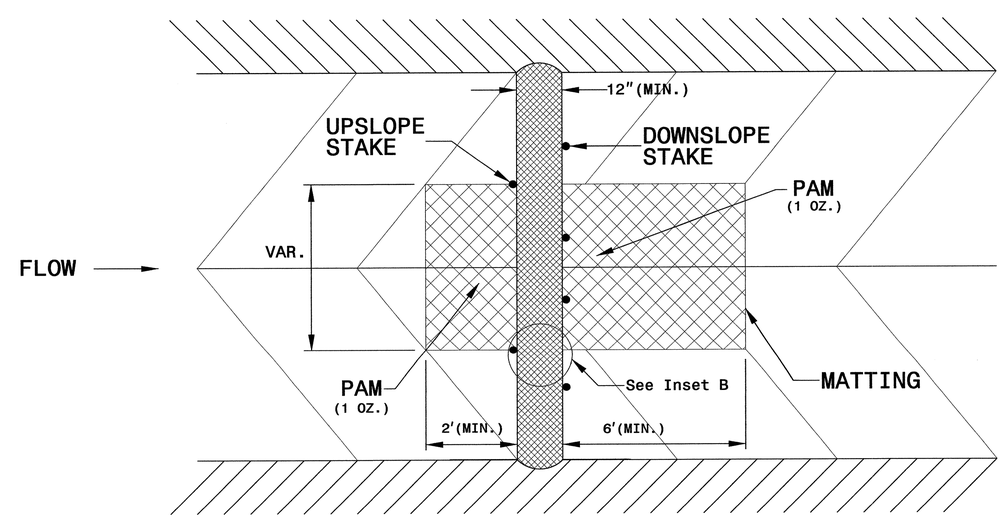
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

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

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

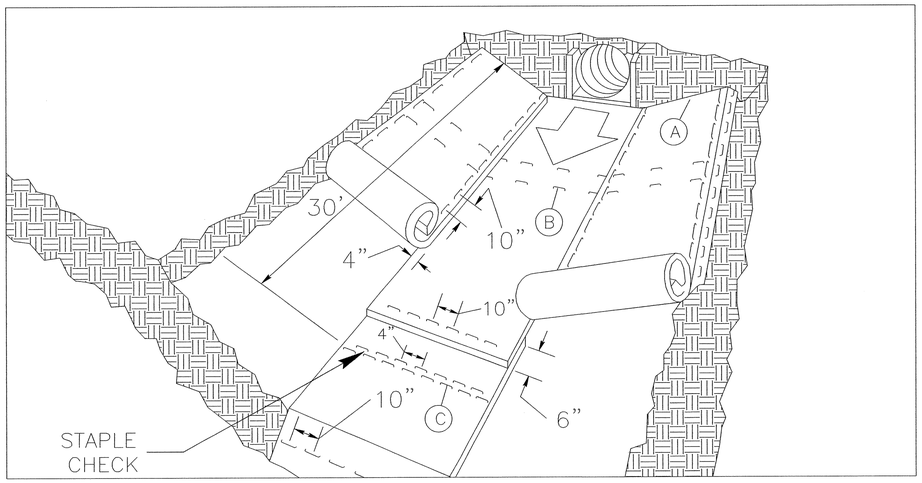




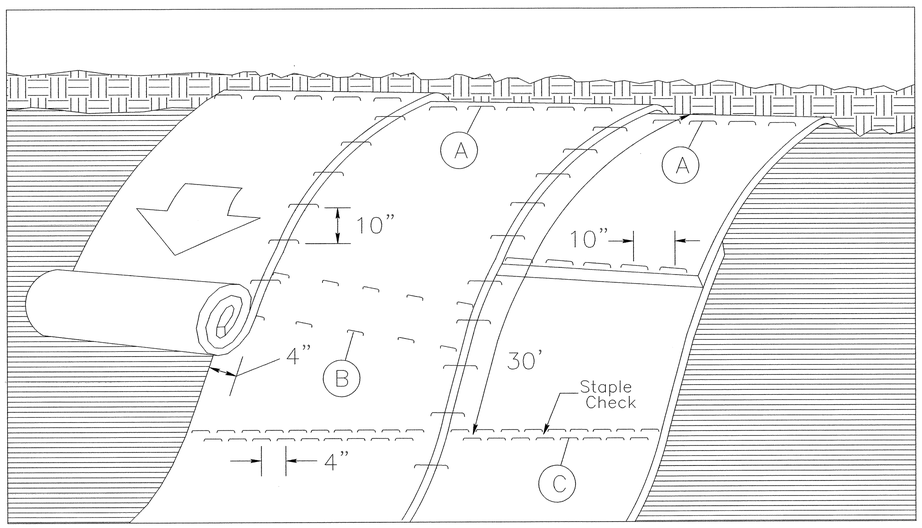
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-2G
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES



MATTING ON SLOPES

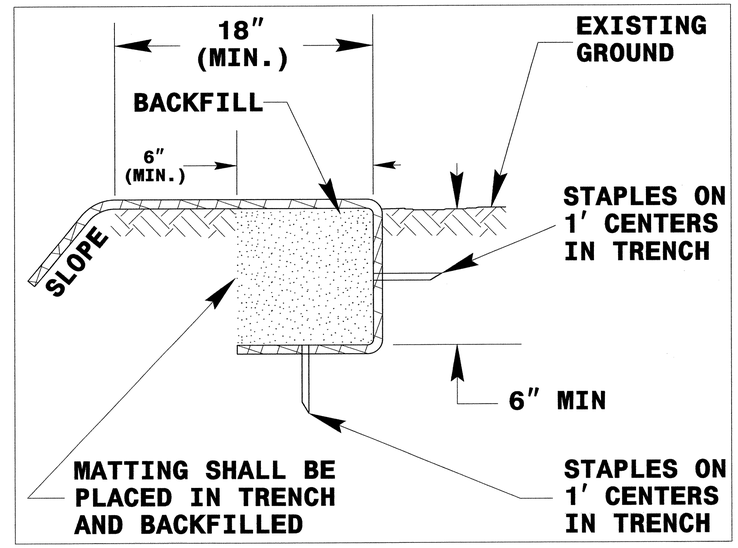


DIAGRAM (A)

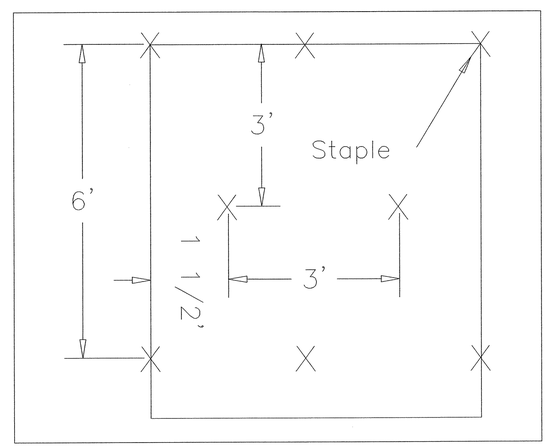


DIAGRAM (B)

Staple Check Pattern

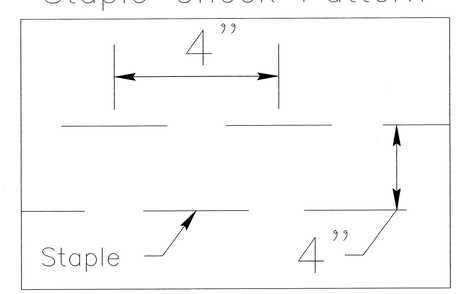


DIAGRAM (C)

NOTES:

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

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

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	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)
5	L	38+00	39+00	LT	60
7	L	59+50	64+50	RT	680
8	L	83+00	83+50	LT	70
8	Y3	14+00	14+50	RT	35
8	Y3	12+00	14+50	LT	175
9	L	91+00	93+00	RT	270
9	L	94+00	96+00	RT	270
9	L	97+00	100+50	RT	470
12	Y5	11+00	12+50	RT	105
12	Y5	11+00	11+50	LT	35
13	L	142+00	150+00	RT	1075
14	L	151+00	158+50	RT	925
14	L	161+50	164+50	LT	310
15	L	163+50	165+00	RT	205
15	L	170+00	174+50	LT	605
15	L	175+50	177+00	LT	205
15	L	171+00	174+50	RT	470
16	L	186+50	200+00	LT	1810
17	L	190+50	195+50	RT	565
17	L	197+50	199+50	RT	270
18	L	206+00	206+50	LT	70
18	L	211+00	213+50	RT	335
19	L	220+00	229+00	LT	1205
19	L	219+50	231+00	RT	1540
19	Y8	5+50	9+00	RT	470
19	Y9	10+50	11+50	RT	70
20	L	231+00	231+50	LT	55
21	L	245+50	246+50	LT	270
21	L	250+00	256+50	RT	870
21	L	253+50	259+00	LT	740

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
23	L	268+50	269+00	RT	70
23	L	272+50	276+50	LT	540
23	L	278+50	282+50	LT	540
24	L	280+00	293+50	RT	1610
24	L	288+50	292+00	LT	470
24	Y12	11+00	13+50	LT	175
24	Y12	12+50	13+50	RT	70
25	Y13	11+00	11+50	RT	35
25	Y14	11+00	13+00	RT	140
25	Y14A	10+50	12+00	RT	105
25	Y14A	10+50	14+50	LT	280
26	L	307+00	313+50	LT	535
26	L	310+00	310+50	RT	50
26	L	314+00	315+50	RT	140
28	Y8	13+50	14+50	LT	105
				SUBTOTAL	19100
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					93585
				TOTAL	112685
				SAY	113000

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
7	Y1	11+00	12+50	RT	105
8	Y3	11+50	12+00	LT	35
19	Y8	11+00	11+50	LT	35
21	Y11	10+50	11+50	RT	70
21	Y11	10+50	11+50	LT	70
22	L	260+50	261+00	RT	60
			SUBTOTAL		375
		ADDITIONAL PSRM TO BE INSTALLED			6180
				TOTAL	6555
				SAY	6600

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

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

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

8/17/99

-Y- CURVE DATA

PI Sta 5+28.21
△ = 24° 41' 09.4" (LT)
D = 11° 27' 33.0"
L = 215.43'
T = 109.41'
R = 500.00'

PIs Sta 13+06.90
θs = 5° 37' 02.0"
Ls = 100.00'
LT = 66.70'
ST = 33.36'

PI Sta 13+85.17
△ = 10° 04' 43.5" (RT)
D = 11° 14' 04.1"
L = 89.71'
T = 44.97'
R = 510.00'

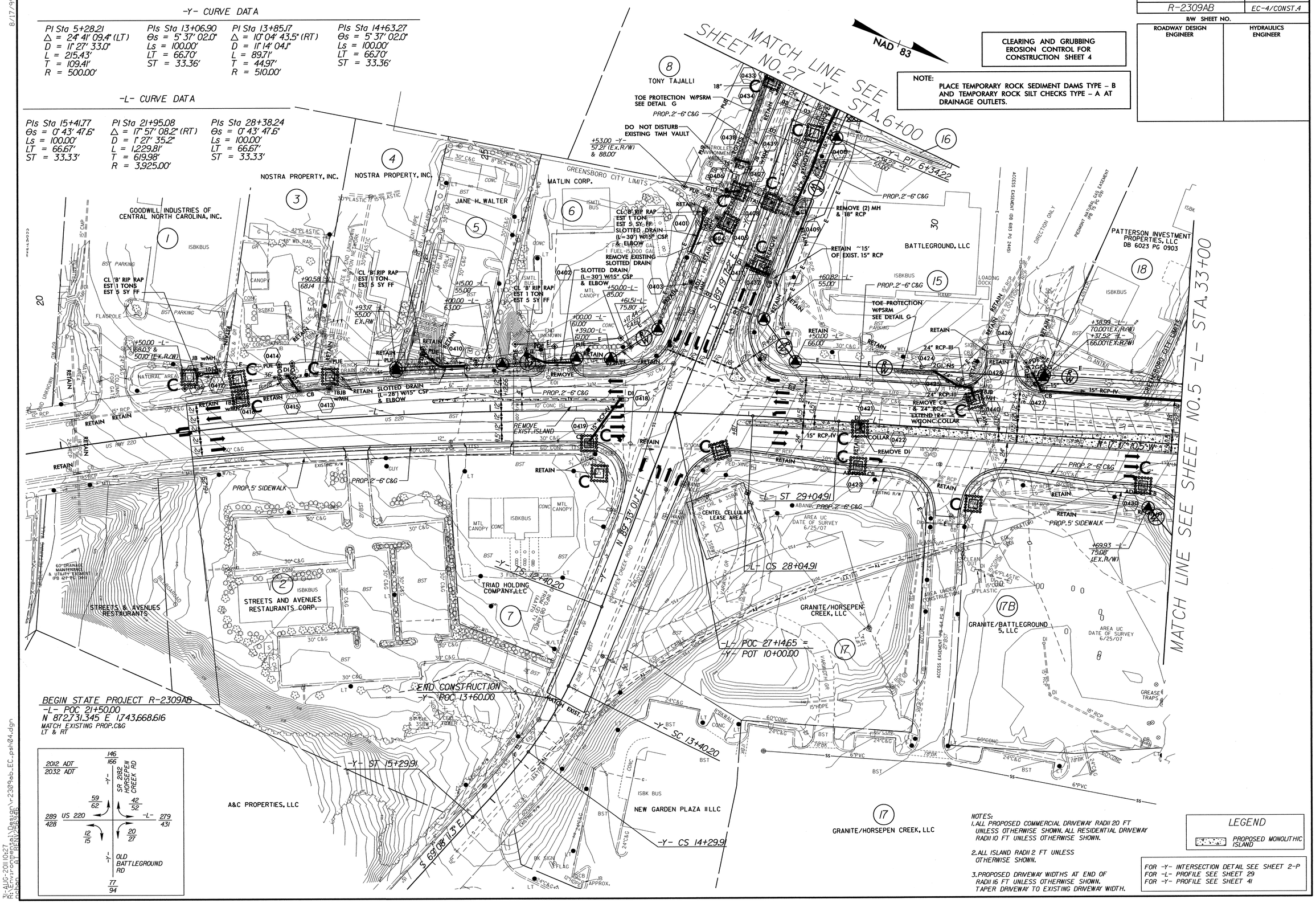
PIs Sta 14+63.27
θs = 5° 37' 02.0"
Ls = 100.00'
LT = 66.70'
ST = 33.36'

-L- CURVE DATA

PIs Sta 15+41.77
θs = 0° 43' 47.6"
Ls = 100.00'
LT = 66.67'
ST = 33.33'

PI Sta 21+95.08
△ = 17° 57' 08.2" (RT)
D = 1° 27' 35.2"
L = 1,229.81'
T = 619.98'
R = 3,925.00'

PIs Sta 28+38.24
θs = 0° 43' 47.6"
Ls = 100.00'
LT = 66.67'
ST = 33.33'



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PROPOSED MONOLITHIC ISLAND

FOR -Y- INTERSECTION DETAIL SEE SHEET 2-P
FOR -L- PROFILE SEE SHEET 29
FOR -Y- PROFILE SEE SHEET 41

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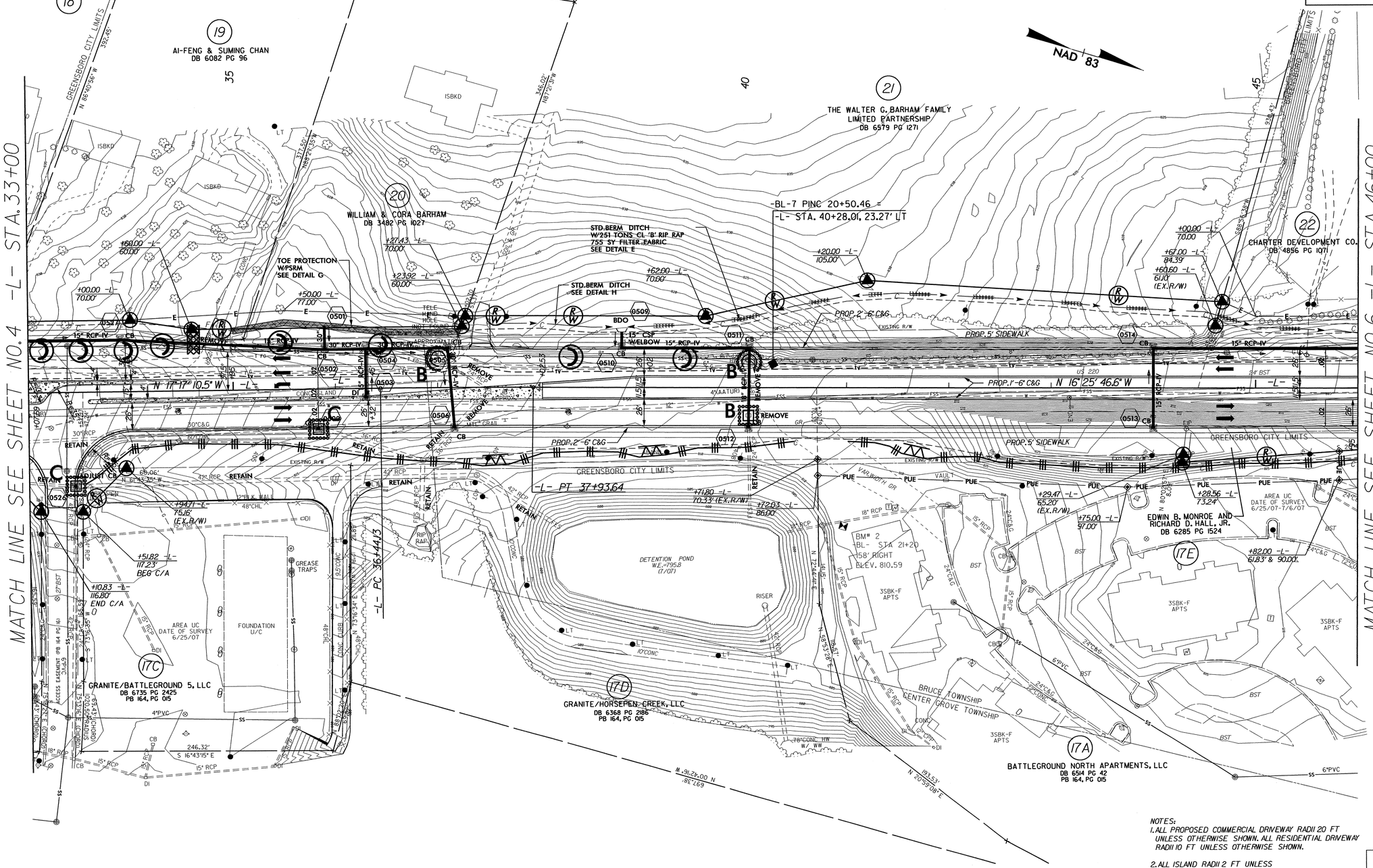
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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

-L- CURVE DATA

PI Sta 37+18.88
Δ = 0° 51' 23.9" (RT)
D = 0° 34' 22.6"
L = 149.51'
T = 74.76'
R = 10,000.00'
SE = NORMAL CROWN
V = 50 MPH



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 29

8/17/99

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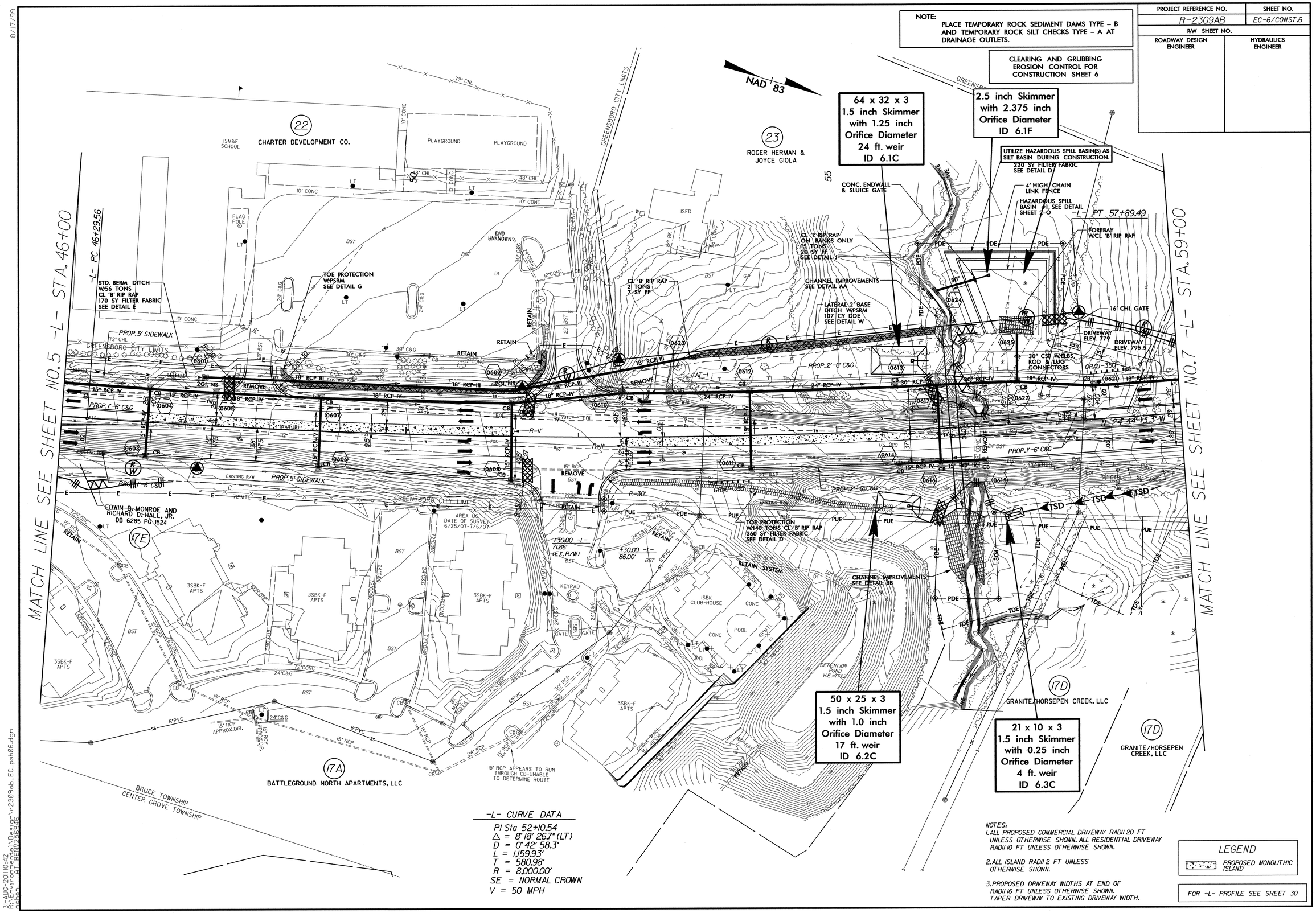
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 6



-L- CURVE DATA

PI Sta 52+10.54
Δ = 8° 18' 26.7" (LT)
D = 0° 42' 58.3"
L = 1,159.93'
T = 580.98'
R = 8,000.00'
SE = NORMAL CROWN
V = 50 MPH

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 30

8/17/99

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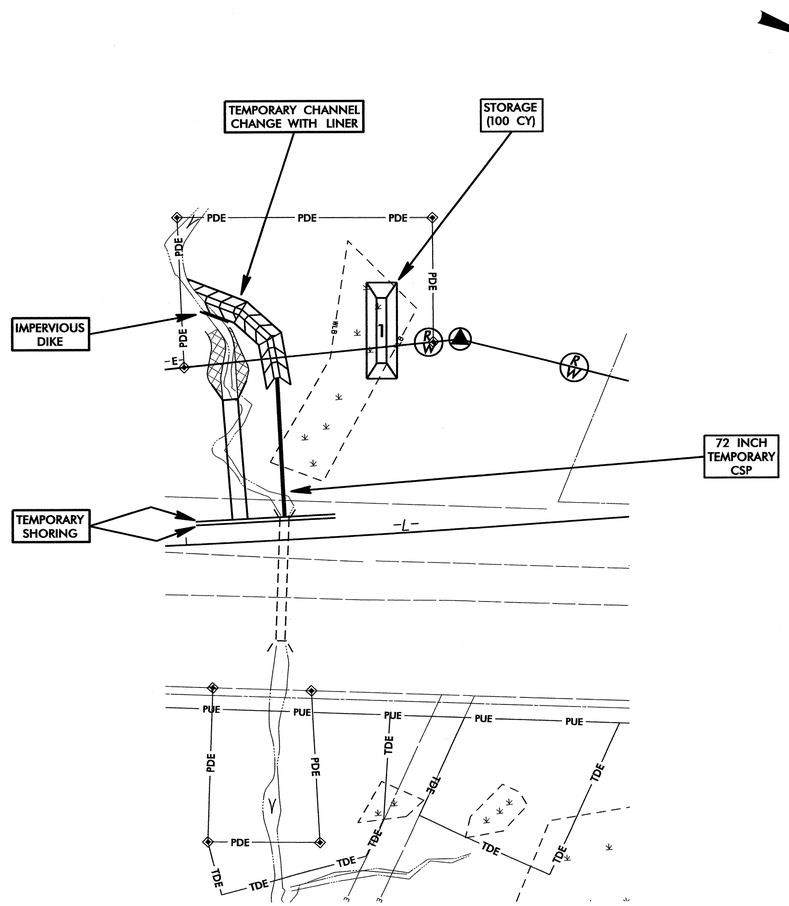
pcpan AT RENV25646

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-7/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 56 + 36 –L–

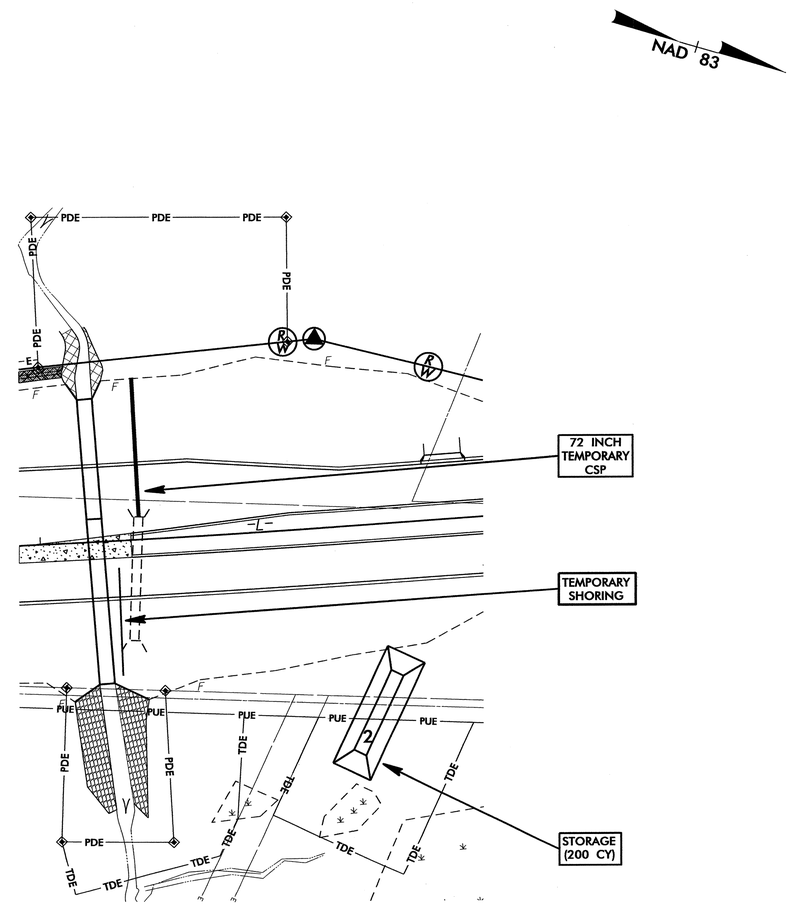
PHASE I

1. CONSTRUCT STILLING BASIN 1 (100 CY).
2. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (4 FT. BASE, 3 FT. DEEP 2:1 SIDE SLOPES).
3. CONSTRUCT IMPERVIOUS DIKE AND INSTALL 72 INCH TEMPORARY CSP, DIVERTING FLOW THROUGH TEMPORARY CHANNEL CHANGE.
4. INSTALL DOUBLE ROW OF TEMPORARY SHORING FOR PHASE I.
5. CONSTRUCT UPSTREAM PORTION OF PROPOSED CULVERT AND INLET CHANNEL IMPROVEMENTS.
6. CONSTRUCT ROADWAY OVER COMPLETED PORTION OF PROPOSED CULVERT AND SHIFT TRAFFIC.



PHASE II

7. REMOVE STILLING BASIN 1 AND CONSTRUCT STILLING BASIN 2 (200 CY).
8. EXCAVATE AND INSTALL TEMPORARY SHORING FOR PHASE II, MAINTAINING FLOW THROUGH EXISTING CULVERT.
9. CONSTRUCT REMAINDER OF PROPOSED CULVERT AND OUTLET CHANNEL IMPROVEMENTS.
10. DIVERT FLOW THROUGH PROPOSED CULVERT, REMOVING THE EXISTING CULVERT, AND REMOVING TEMPORARY CHANNEL CHANGE AND IMPERVIOUS DIKE FROM PHASE I.
11. PLUG THE 72 INCH TEMPORARY CSP AND FILL WITH FLOWABLE FILL.
12. REMOVE STILLING BASIN 2, AND COMPLETE ROADWAY.



8/17/99

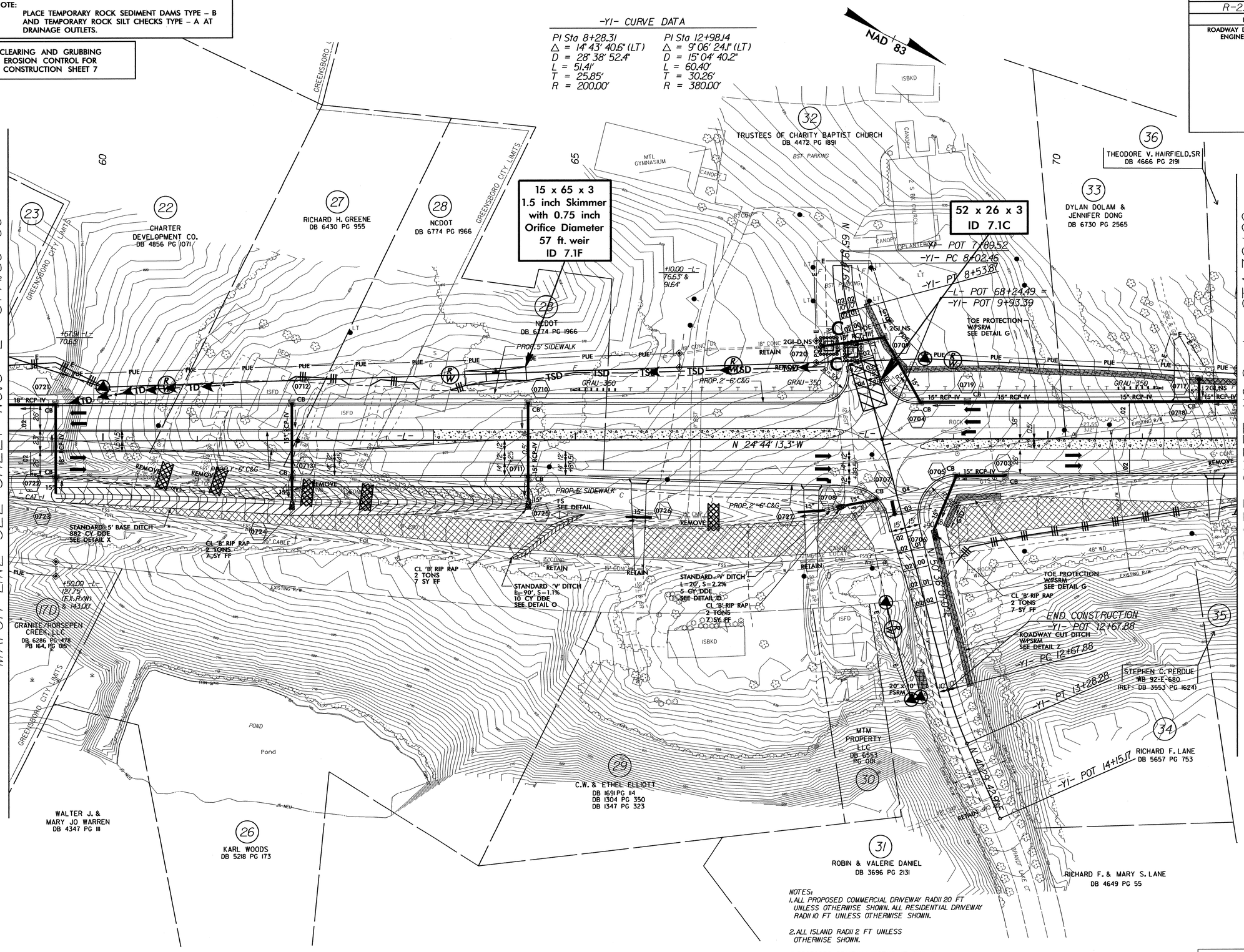
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-8/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 7

-Y1- CURVE DATA

PI Sta 8+28.31	PI Sta 12+98.14
Δ = 14° 43' 40.6" (LT)	Δ = 9° 06' 24.1" (LT)
D = 28° 38' 52.4"	D = 15° 04' 40.2"
L = 51.41'	L = 60.40'
T = 25.85'	T = 30.26'
R = 200.00'	R = 380.00'



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVEMENT REMOVAL
PROPOSED MONOLITHIC ISLAND

FOR -Y1- INTERSECTION DETAIL SEE SHEET 2-0
FOR -L- PROFILE SEE SHEET 30
FOR -Y1- PROFILE SEE SHEET 41

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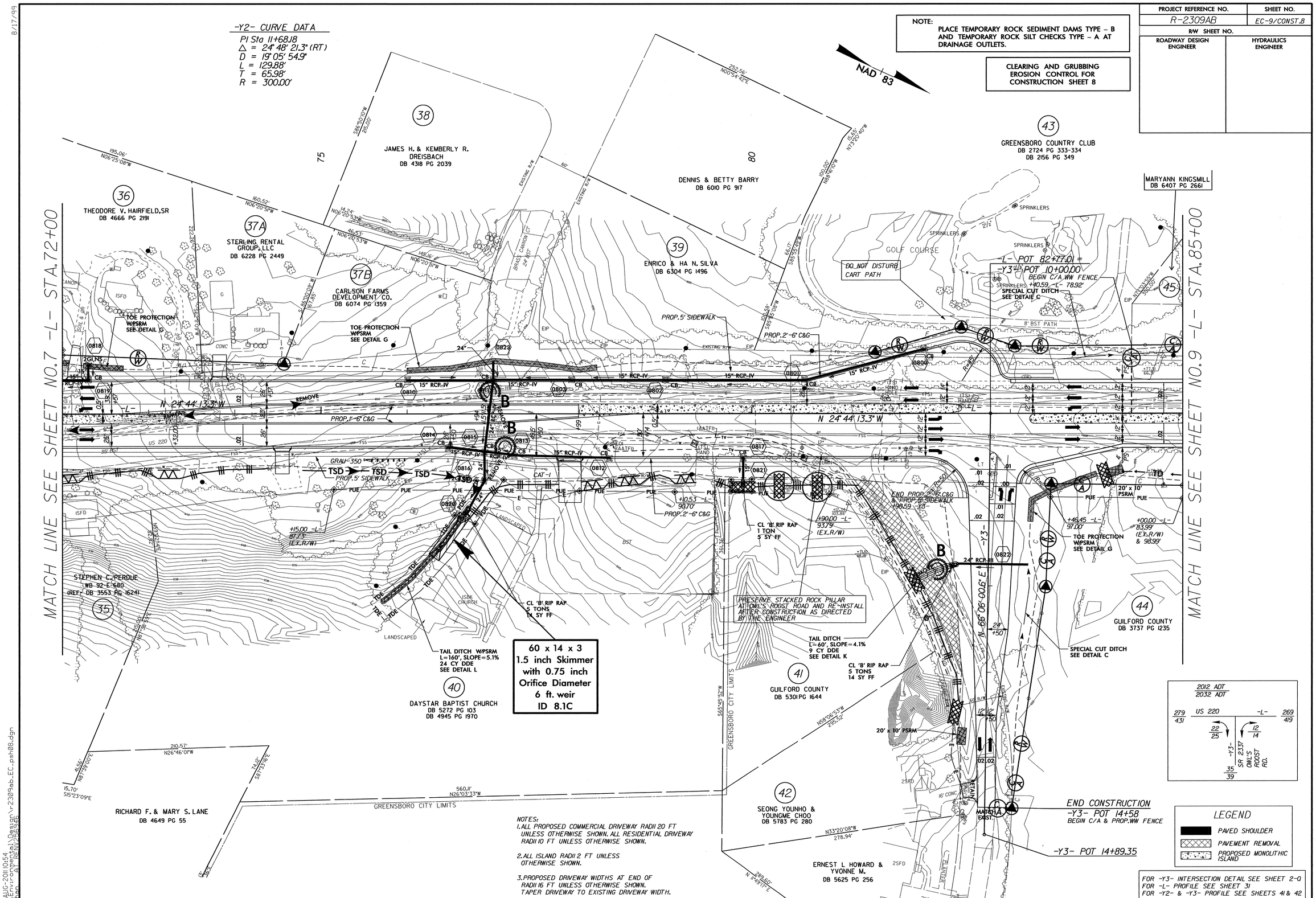
pchan AT GENV256246

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-9/CONST.8
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 8



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

8/17/99

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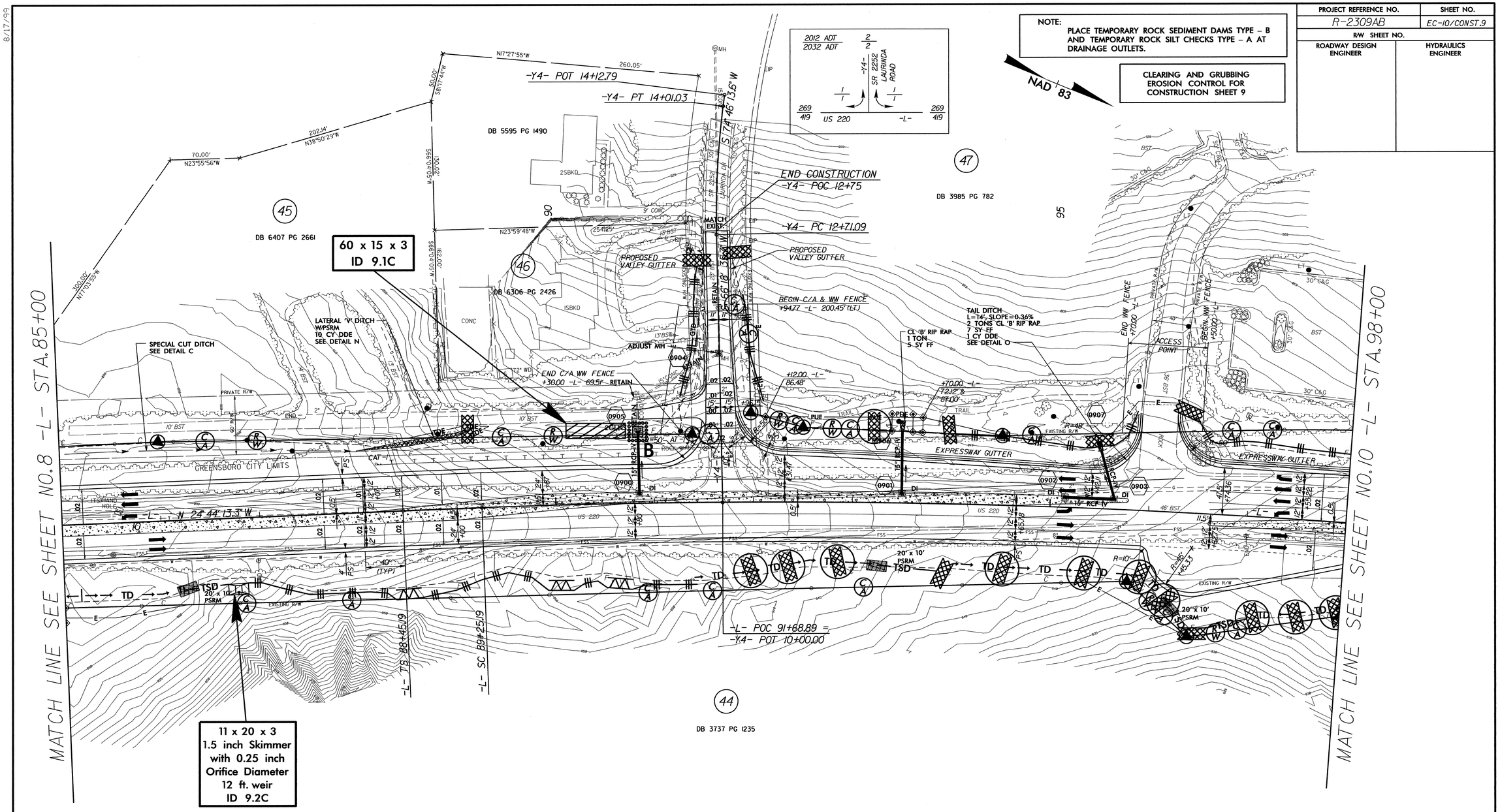
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-10/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 9



-L- CURVE DATA

PIs Sta 88+98.52	PI Sta 97+15.72	PIs Sta 105+27.81
Θs = 0°17' 11.3"	Δ = 11°17' 13.0" (RT)	Θs = 0°17' 11.3"
Ls = 80.00'	D = 0°42' 58.3"	Ls = 80.00'
LT = 53.33'	L = 1,575.96'	LT = 53.33'
ST = 26.67'	T = 790.54'	ST = 26.67'
	R = 8,000.00'	
	SE = 0.02	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

-Y4- CURVE DATA

PI Sta 13+36.18
Δ = 8°27' 37.9" (RT)
D = 6°30' 39.2"
L = 129.94'
T = 65.09'
R = 880.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 31
FOR -Y4- PROFILE SEE SHEET 42

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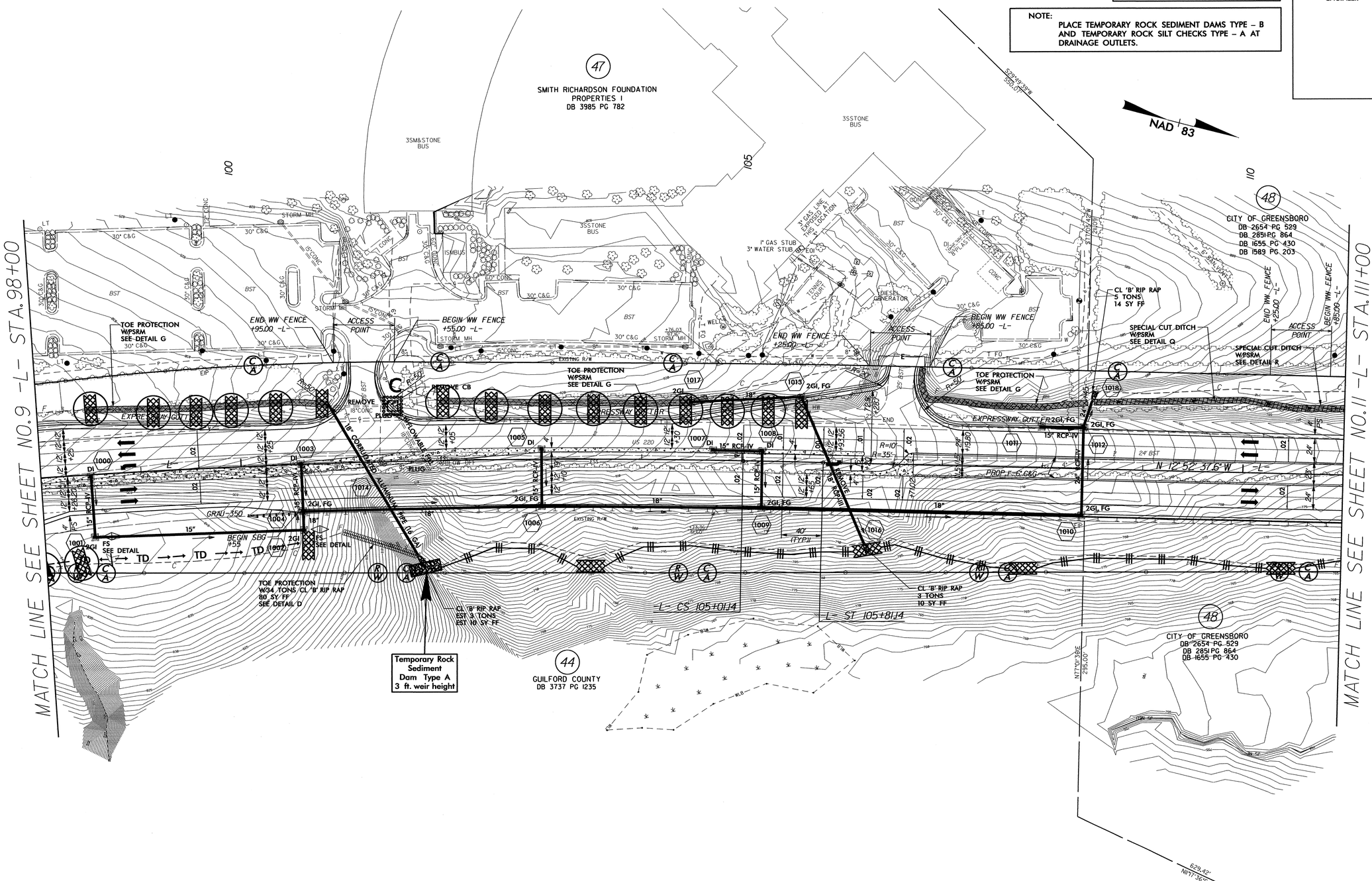
ROADWAY ENGINEERING

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-11/CONSTJO
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.



-L- CURVE DATA

PIs Sta 88+98.52	PI Sta 97+15.72	PIs Sta 105+27.81
Θs = 0° 17' 11.3"	Δ = 11° 17' 13.0" (RT)	Θs = 0° 17' 11.3"
Ls = 80.00'	D = 0° 42' 58.3"	Ls = 80.00'
LT = 53.33'	L = 1,575.96'	LT = 53.33'
ST = 26.67'	T = 790.54'	ST = 26.67'
	R = 8,000.00'	
	SE = 0.02	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 32

8/17/99

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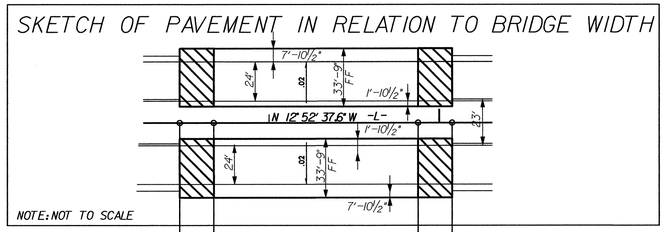
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-12/CONST.J1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

NOTE:
UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

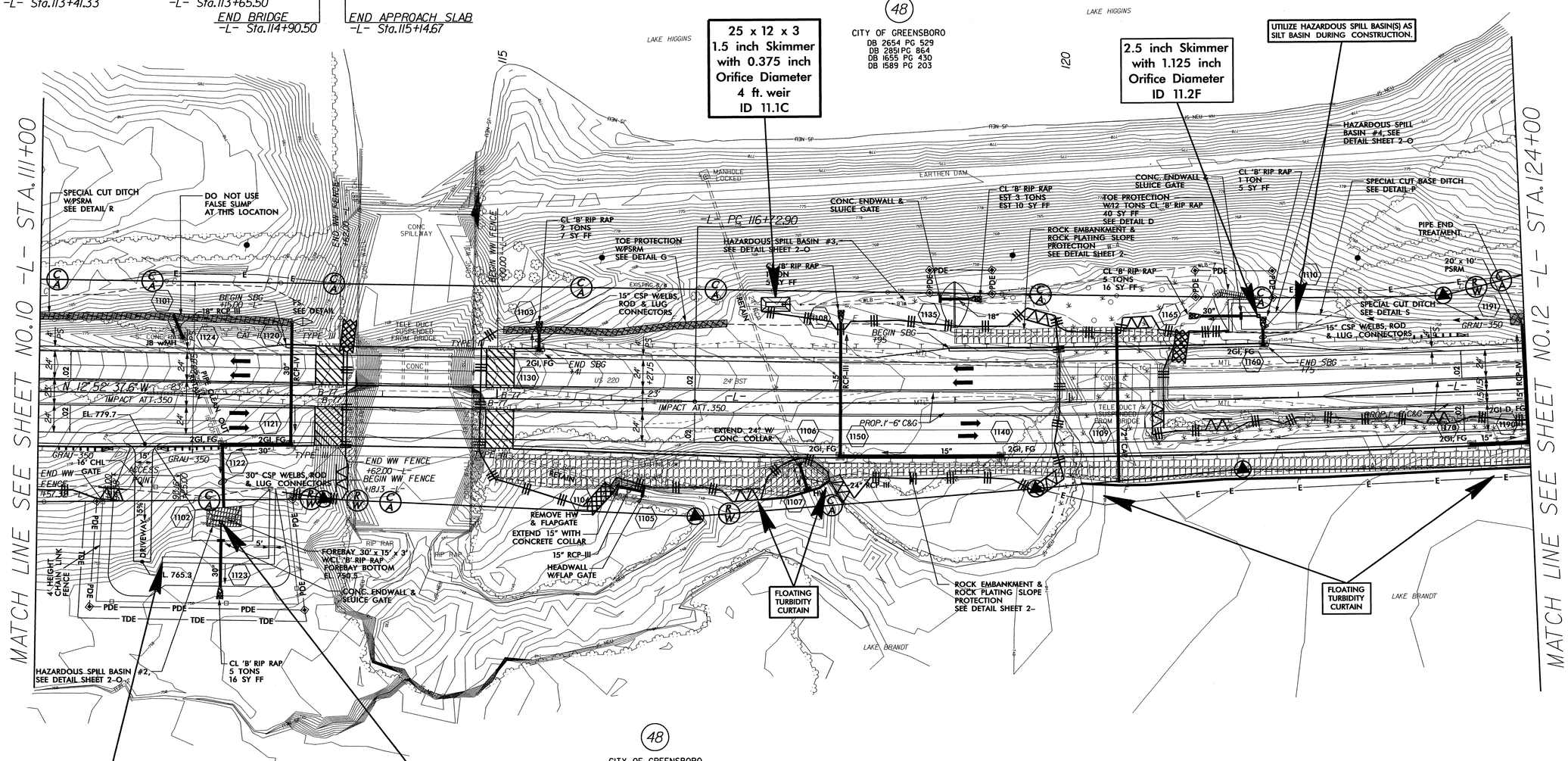


BEGIN APPROACH SLAB
-L- Sta.113+41.33

BEGIN BRIDGE
-L- Sta.113+65.50

END BRIDGE
-L- Sta.114+90.50

END APPROACH SLAB
-L- Sta.115+14.67



-L- CURVE DATA

PI Sta 124+10.48
△ = 7° 02' 04.3" (LT)
D = 0° 28' 38.9"
L = 1,473.31'
T = 737.58'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- APPROACH SLAB
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 32

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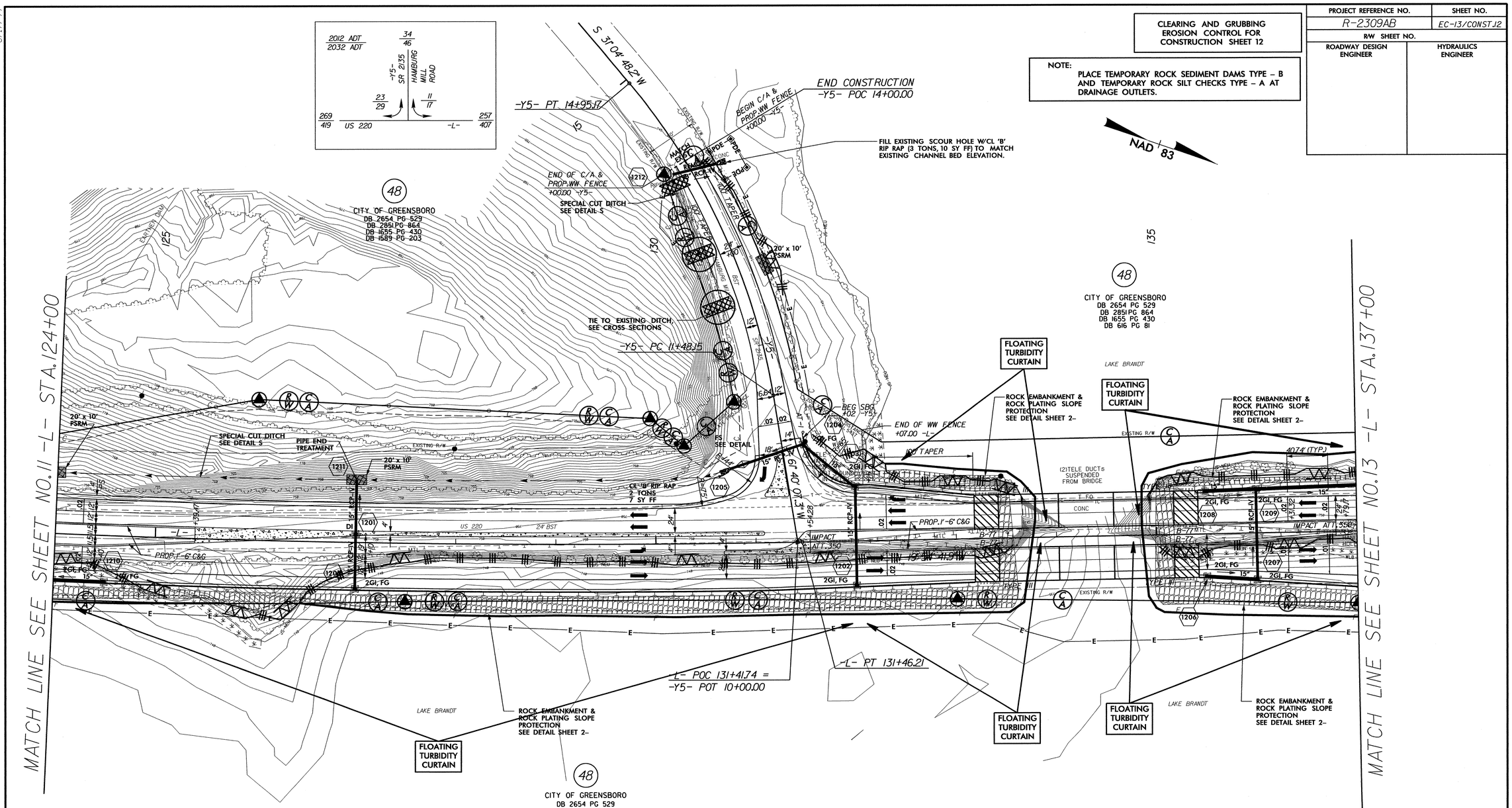
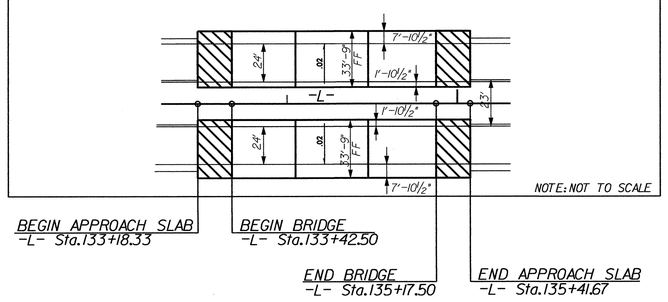
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-13/CONST J2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.



SKETCH OF PAVEMENT IN RELATION TO BRIDGE WIDTH



-L- CURVE DATA

PI Sta 124+10.48
Δ = 7° 02' 04.3" (LT)
D = 0° 28' 38.9"
L = 1,473.31'
T = 737.58'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

-Y5- CURVE DATA

PI Sta 13+25.90
Δ = 30° 35' 19.1" (LT)
D = 8° 48' 53.0"
L = 347.02'
T = 177.75'
R = 650.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- APPROACH SLAB
- PROPOSED MONOLITHIC ISLAND

FOR -Y5- INTERSECTION DETAIL SEE SHEET 2-R
FOR -L- PROFILE SEE SHEET 33
FOR -Y5- PROFILE SEE SHEET 42

8/17/99

31-AUG-2011 11:09
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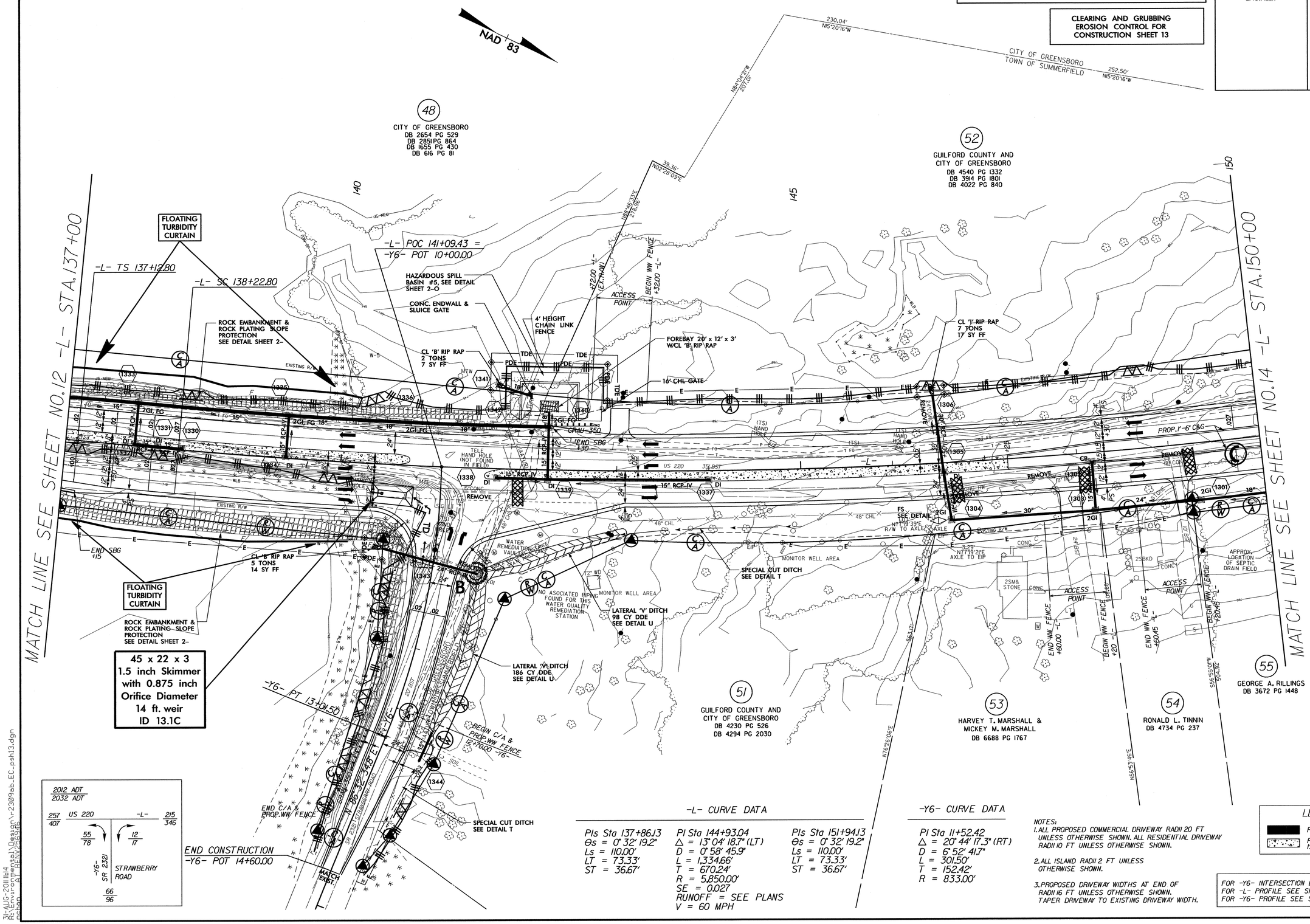
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-14/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 13



45 x 22 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
14 ft. weir
ID 13.1C

-L- CURVE DATA

PIs Sta 137+86.13
Θs = 0° 32' 19.2"
Ls = 110.00'
LT = 73.33'
ST = 36.67'

PI Sta 144+93.04
Δ = 13° 04' 18.7" (LT)
D = 0° 58' 45.9"
L = 1,334.66'
T = 670.24'
R = 5,850.00'
SE = 0.027
RUNOFF = SEE PLANS
V = 60 MPH

PIs Sta 151+94.13
Θs = 0° 32' 19.2"
Ls = 110.00'
LT = 73.33'
ST = 36.67'

-Y6- CURVE DATA

PI Sta 11+52.42
Δ = 20° 44' 17.3" (RT)
D = 6° 52' 41.7"
L = 301.50'
T = 152.42'
R = 833.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y6- INTERSECTION DETAIL SEE SHEET 2-R
FOR -L- PROFILE SEE SHEET 33
FOR -Y6- PROFILE SEE SHEET 42

8/17/99

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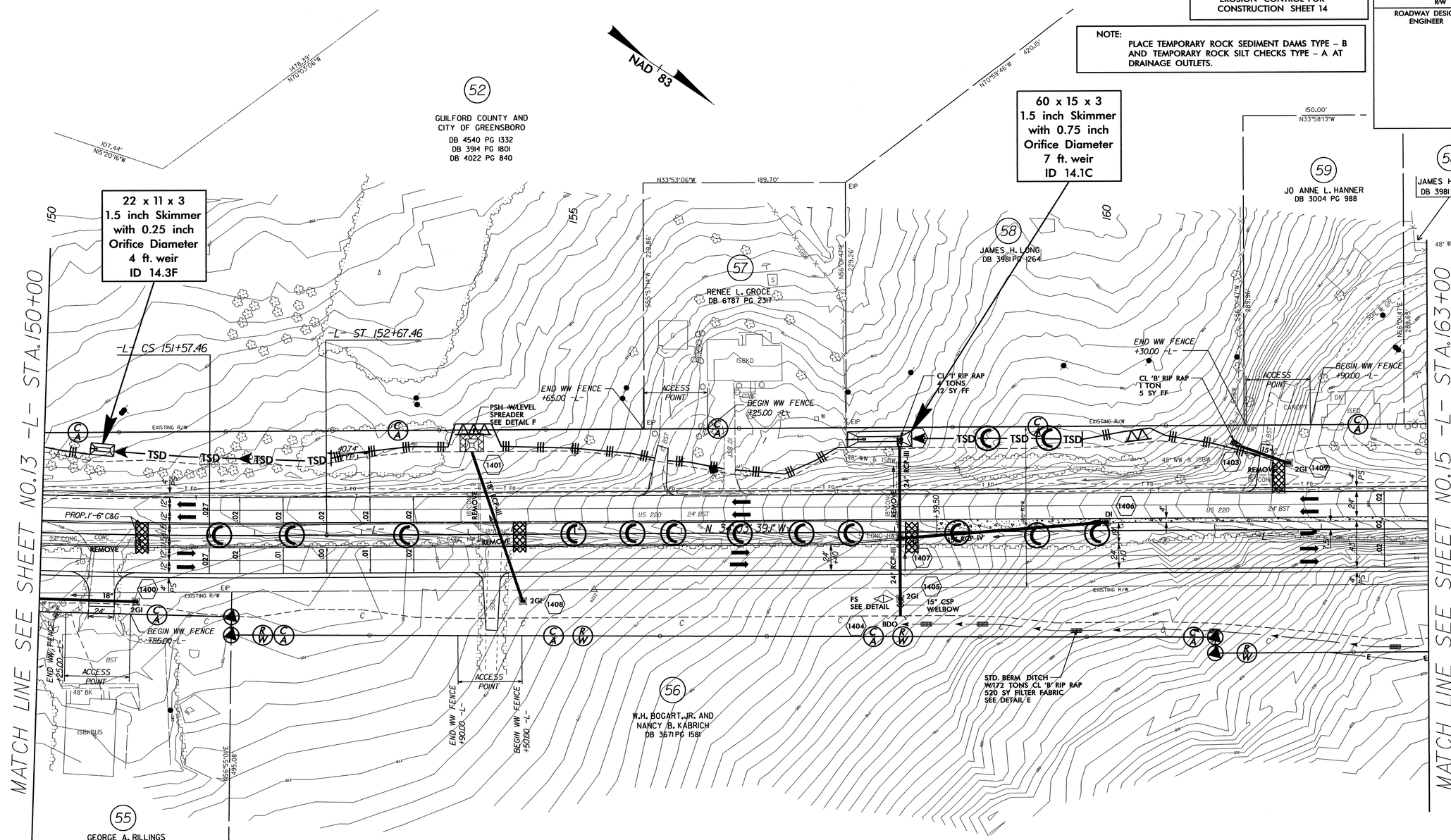
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-15/CONSTJ4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

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



-L- CURVE DATA

PIs Sta 137+86.13	PI Sta 144+93.04	PIs Sta 151+94.13
Θs = 0° 32' 19.2"	Δ = 13° 04' 18.7" (LT)	Θs = 0° 32' 19.2"
Ls = 110.00'	D = 0° 58' 45.9"	Ls = 110.00'
LT = 73.33'	L = 1,334.66'	LT = 73.33'
ST = 36.67'	T = 670.24'	ST = 36.67'
	R = 5,800.00'	
	SE = 0.027	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 34

8/17/99

31-AUG-2011 11:27
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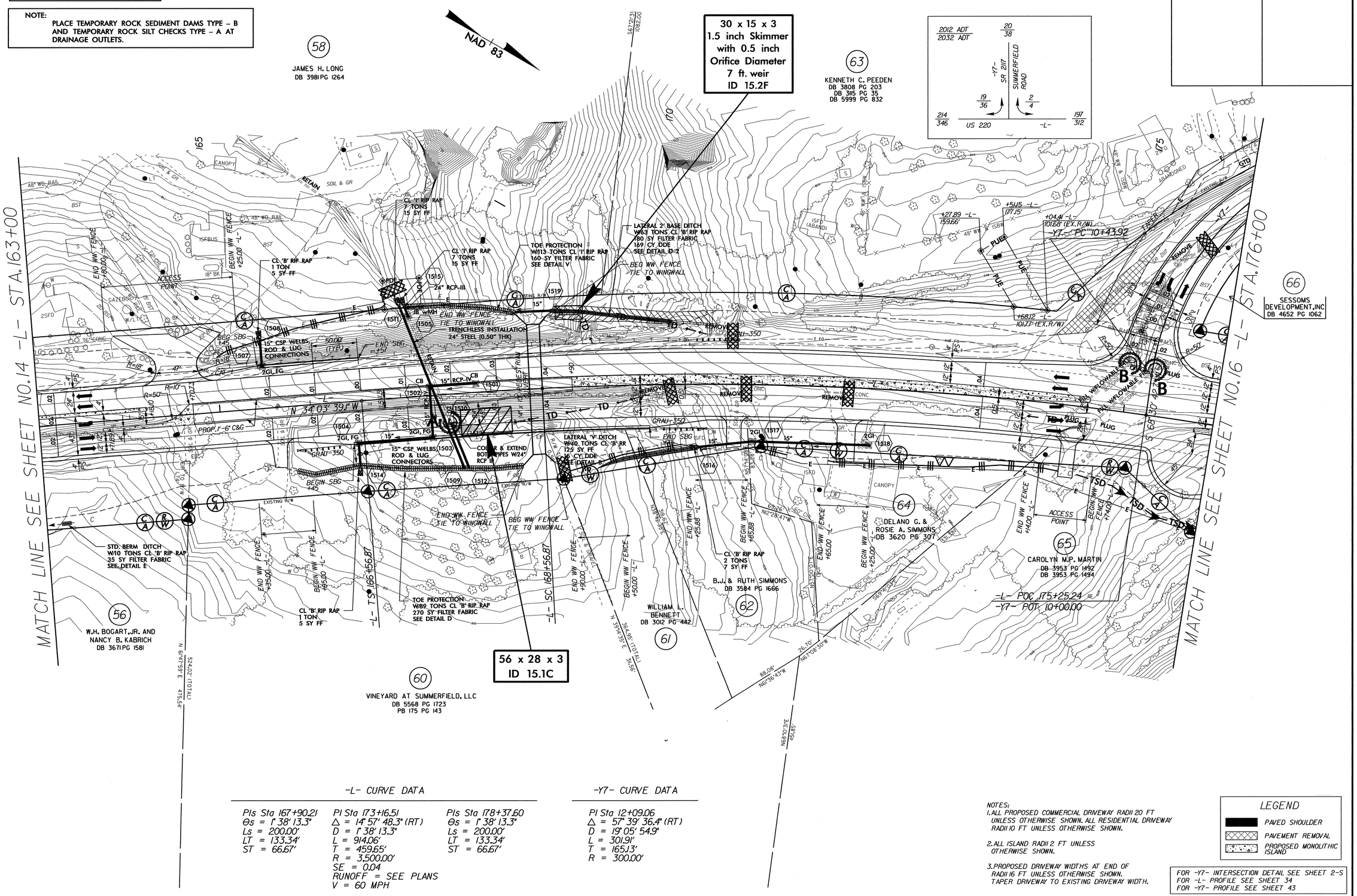
pcopeg

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-16/CONST J5
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.



-L- CURVE DATA

PIs Sta 167+90.21	PI Sta 173+16.51	PIs Sta 178+37.60
Θs = 1° 38' 13.3"	Δ = 14° 57' 48.3" (RT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 914.06'	LT = 133.34'
ST = 66.67'	T = 459.65'	ST = 66.67'
	R = 3,500.00'	
	SE = 0.04	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

-Y7- CURVE DATA

PI Sta 12+09.06
Δ = 57° 39' 36.4" (RT)
D = 19° 05' 54.9"
L = 301.91'
T = 165.13'
R = 300.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PAVEMENT REMOVAL
PROPOSED MONOLITHIC ISLAND

FOR -Y7- INTERSECTION DETAIL SEE SHEET 2-S
FOR -L- PROFILE SEE SHEET 34
FOR -Y7- PROFILE SEE SHEET 43

8/17/99

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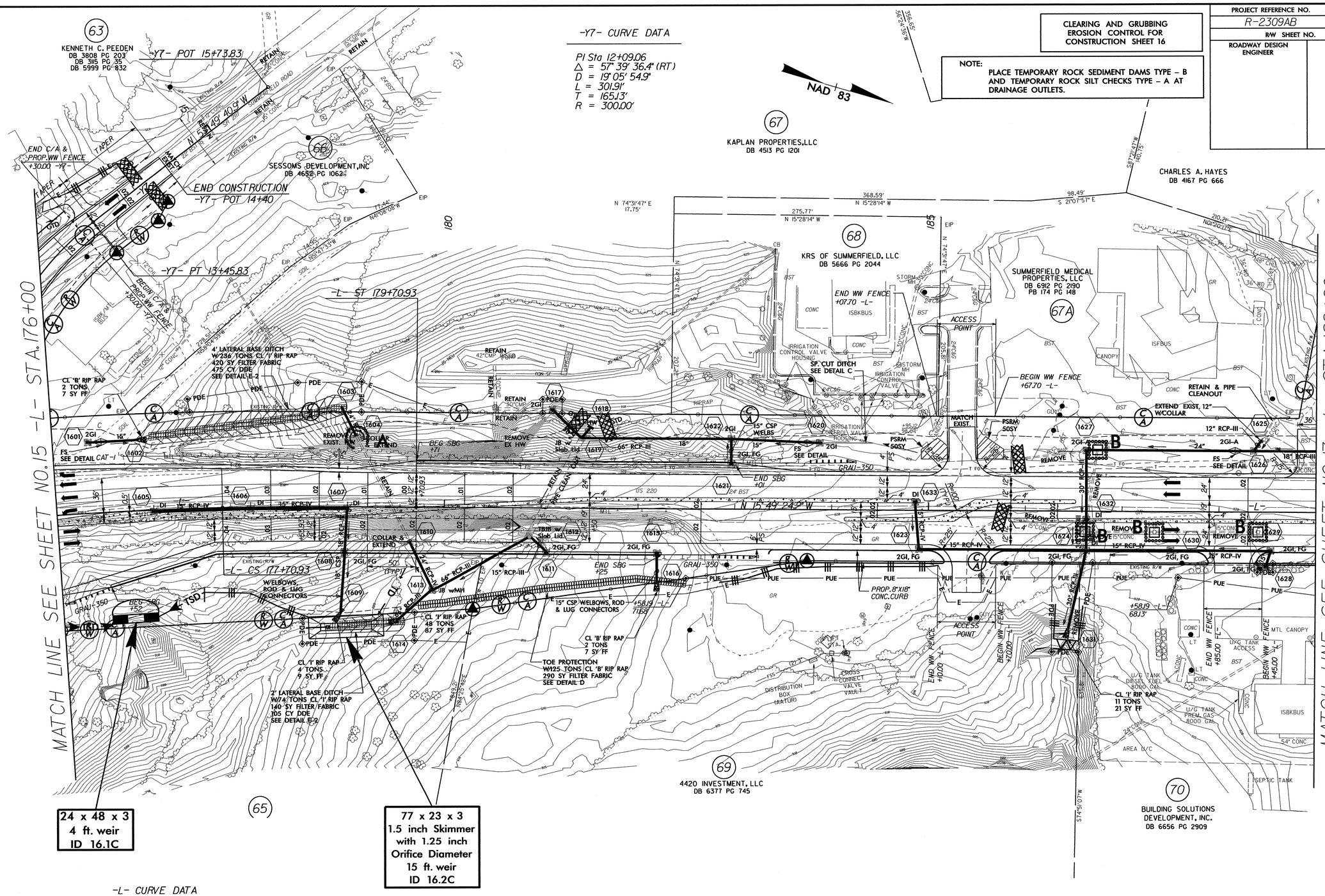
pmoon pw:ENV206:pw06

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-17/CONST.16
R/W 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.



-Y7- CURVE DATA

PI Sta 12+09.06
Δ = 57° 39' 36.4" (RT)
D = 19° 05' 54.9"
L = 301.91'
T = 165.13'
R = 300.00'

-L- CURVE DATA

PIs Sta 167+90.21	PIs Sta 173+16.51	PIs Sta 178+37.60
Θs = 1° 38' 13.3"	Δ = 14° 57' 48.3" (RT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 914.06'	LT = 133.34'
ST = 66.67'	T = 459.65'	ST = 66.67'
	R = 3,500.00'	
	SE = 0.04	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y7- INTERSECTION DETAIL SEE SHEET 2-S
FOR -L- PROFILE SEE SHEET 35
FOR -Y7- PROFILE SEE SHEET 43

8/17/99

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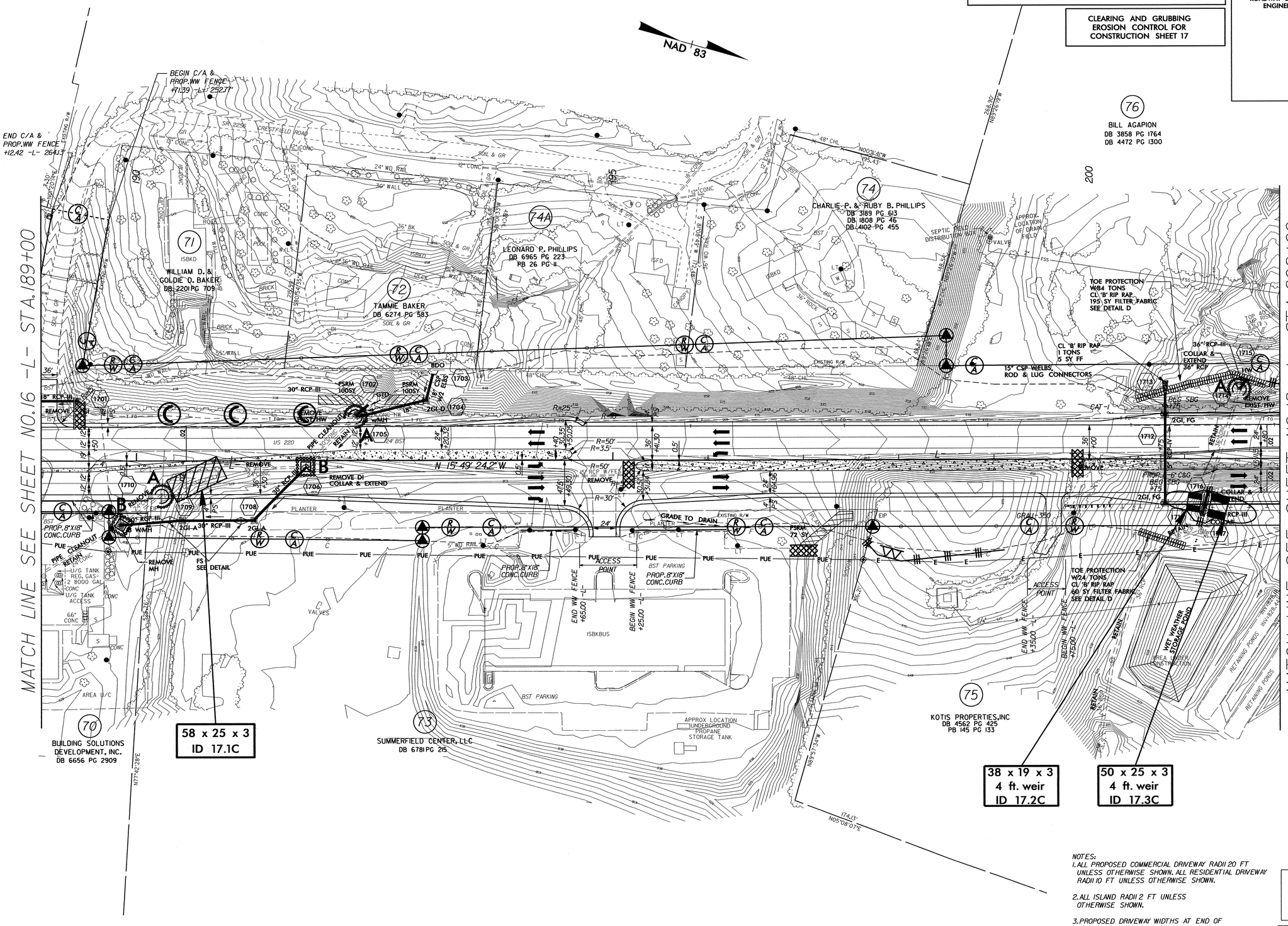
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-18/CONST.17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 17



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 18 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 35

8/17/99

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pchan

8/17/99

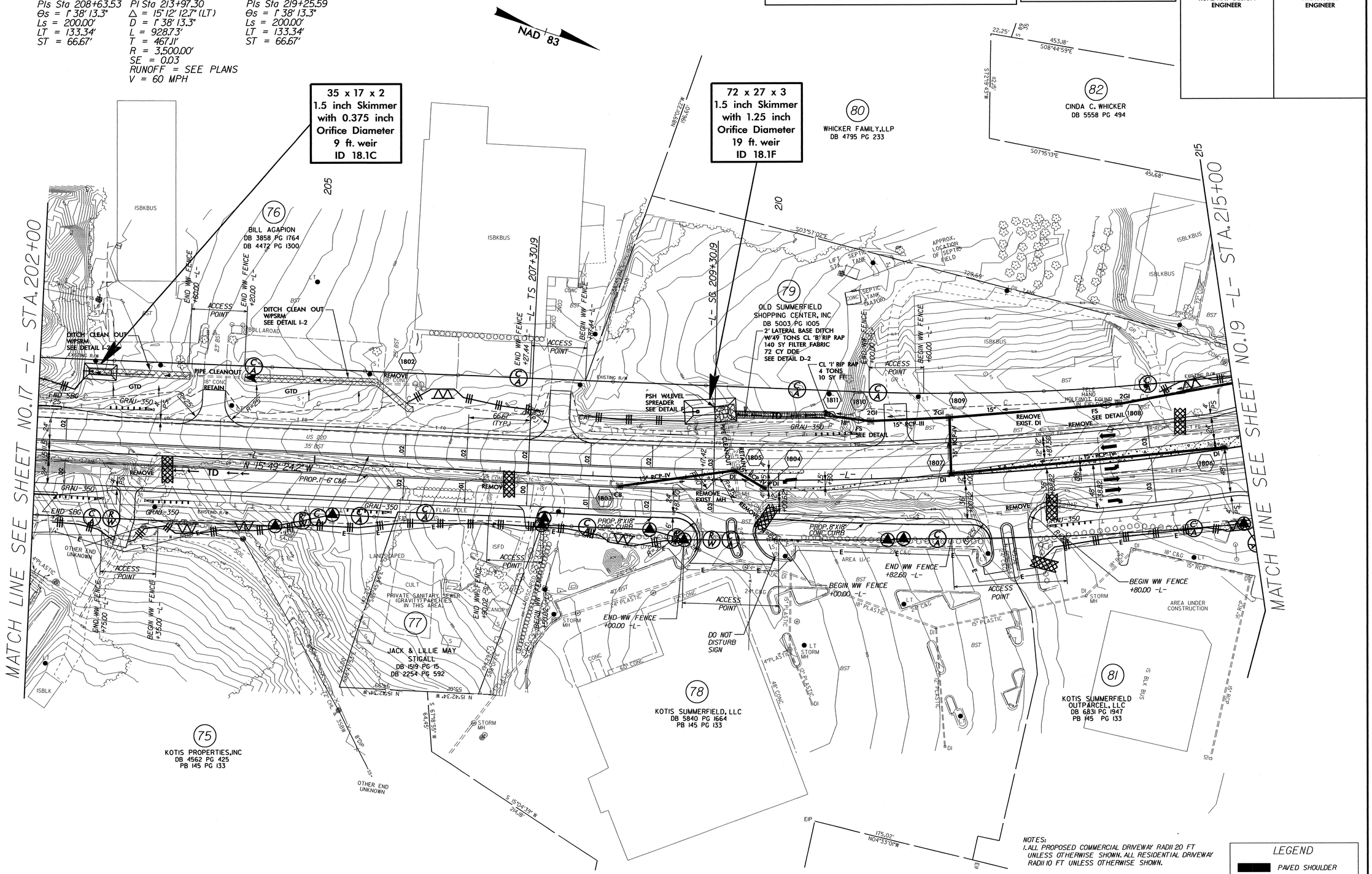
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-19/CONST.18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

-L- CURVE DATA

PIs Sta 208+63.53	PI Sta 213+97.30	PIs Sta 219+25.59
Θs = 1° 38' 13.3"	Δ = 15° 12' 12.7" (LT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 928.73'	LT = 133.34'
ST = 66.67'	T = 467.11'	ST = 66.67'
	R = 3,500.00'	
	SE = 0.03	
	RUNOFF = SEE PLANS	
	V = 60 MPH	



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 36

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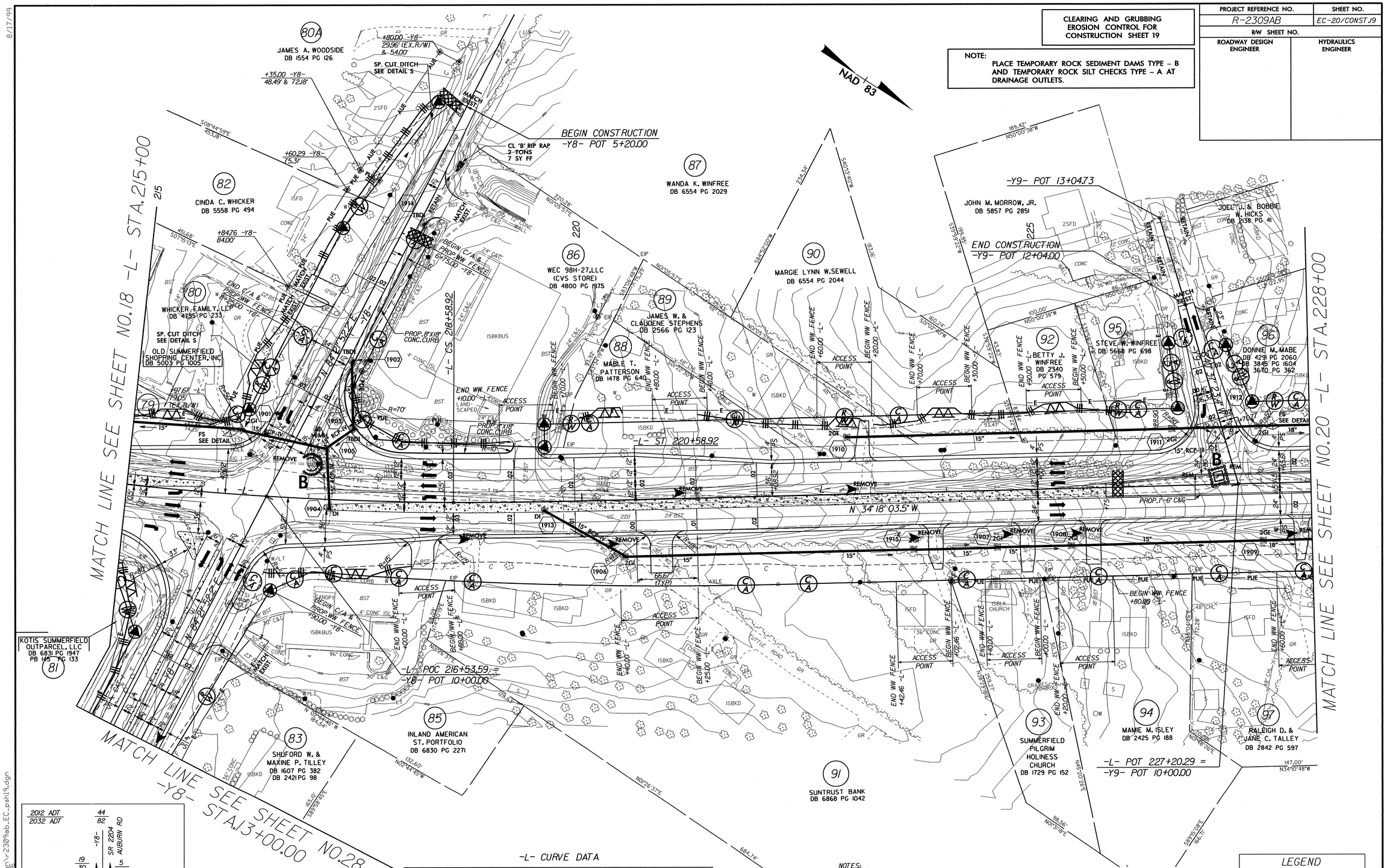
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-20/CONST19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

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



-L- CURVE DATA

PIs Sta 208+63.53	PI Sta 213+97.30	PIs Sta 219+25.59
Θs = 1° 38' 13.3"	Δ = 15° 12' 12.7" (LT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 928.73'	LT = 133.34'
ST = 66.67'	T = 467.11'	ST = 66.67'
	R = 3,5000.00'	
	SE = 0.03	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- PROPOSED MONOLITHIC ISLAND

FOR -Y8- INTERSECTION DETAIL SEE SHEET 2-S
FOR -L- PROFILE SEE SHEET 36
FOR -Y8- PROFILE SEE SHEET 43
FOR -Y9- PROFILE SEE SHEET 44

8/17/99

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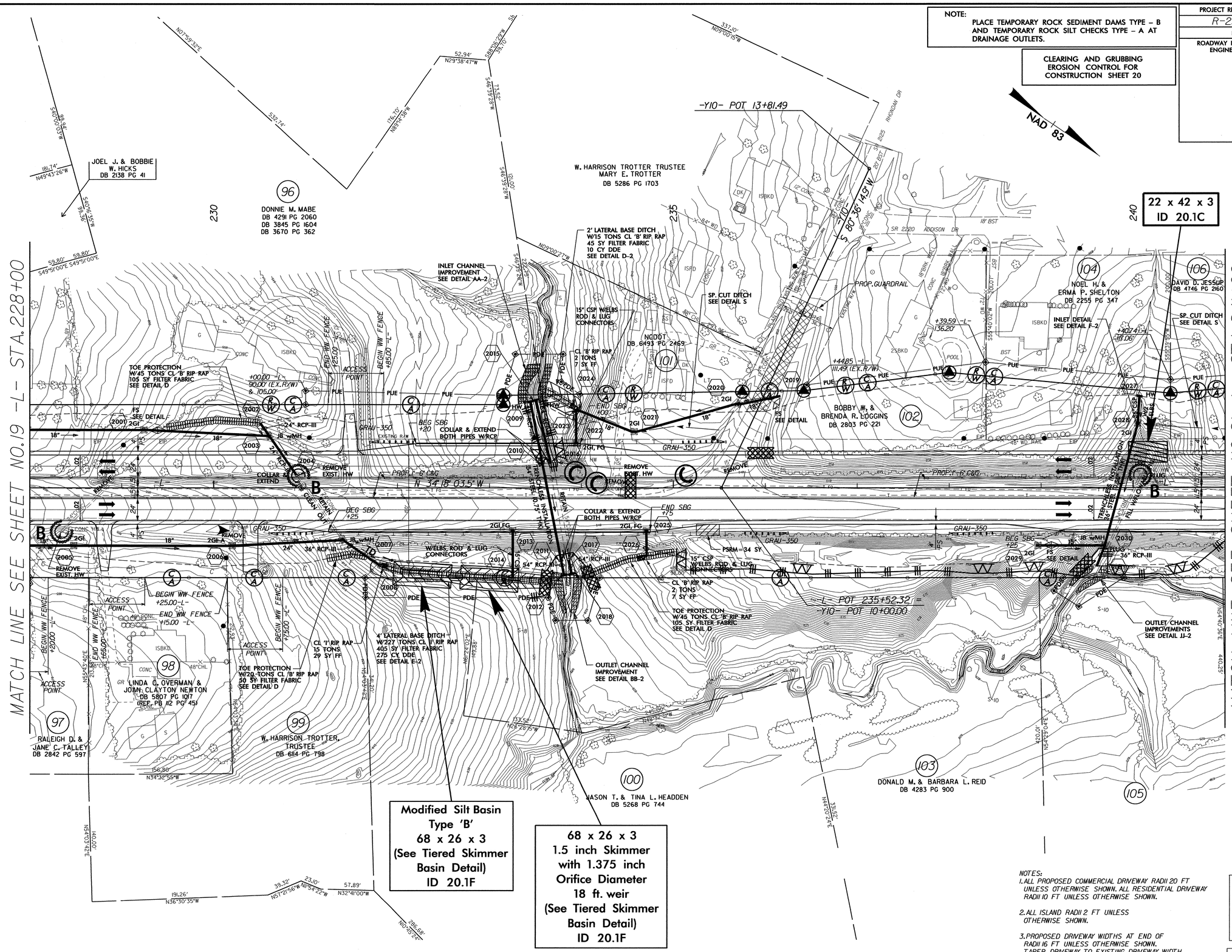
pbbo

8/17/99

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 20

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-21/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- PAVEMENT REMOVAL
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 37

31-AUG-2011 13:33
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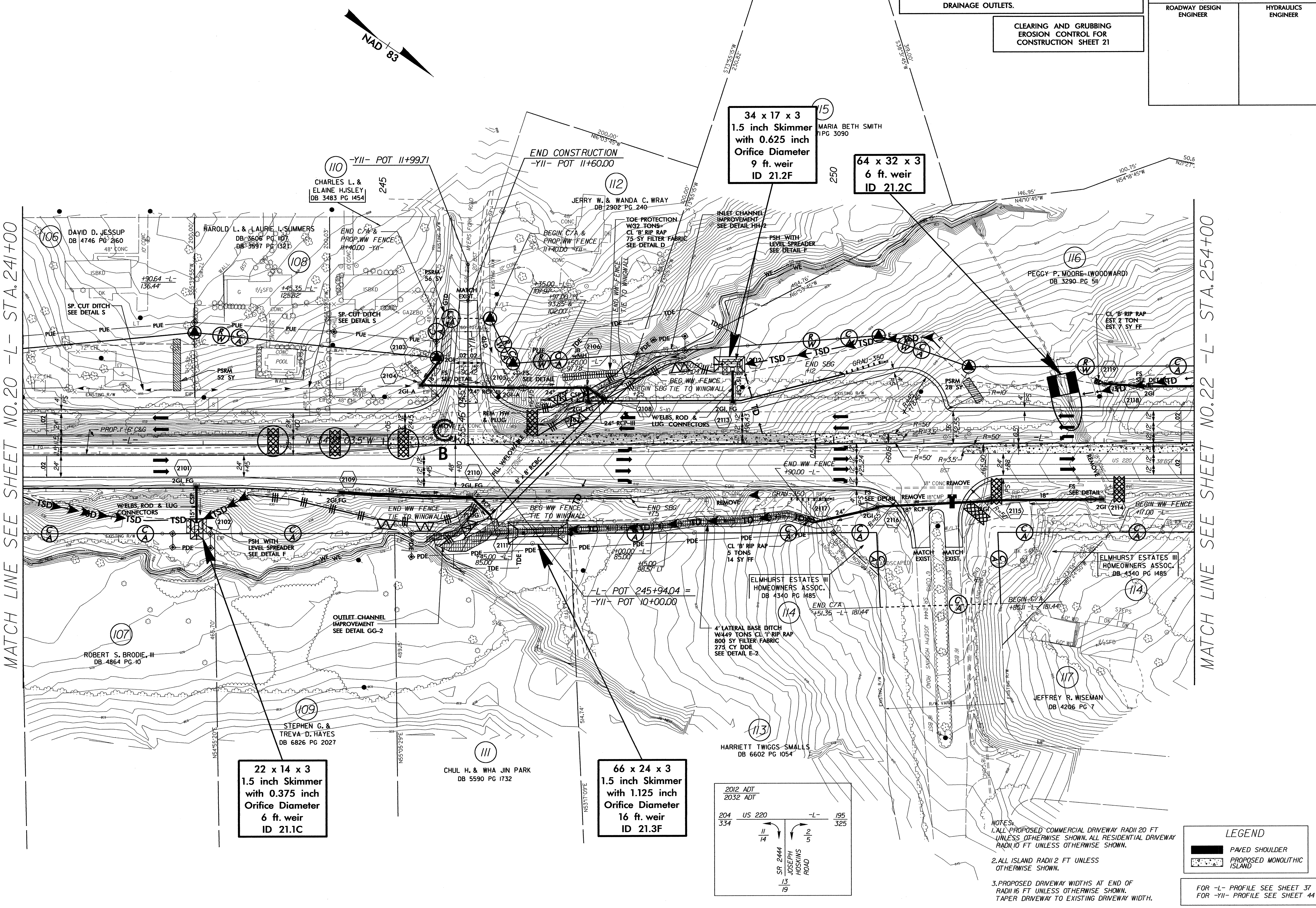
rev 25.06.06

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-22/CONST.21
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 21



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 37
FOR -YII- PROFILE SEE SHEET 44

8/17/99

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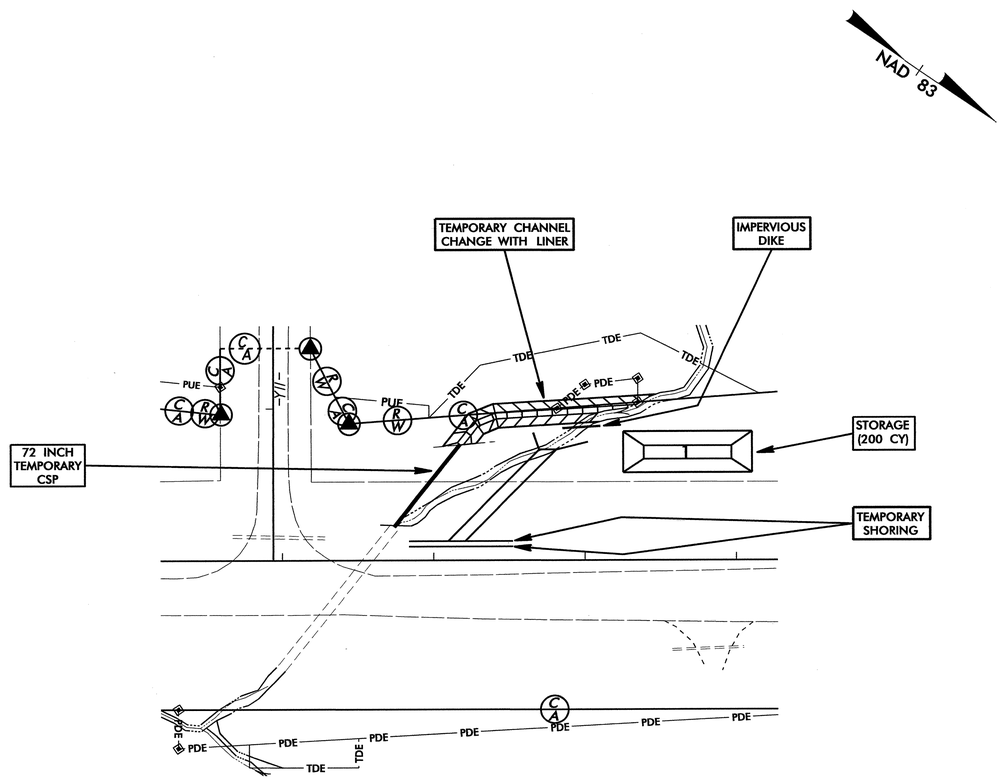
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-23/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 247 + 02 –L–

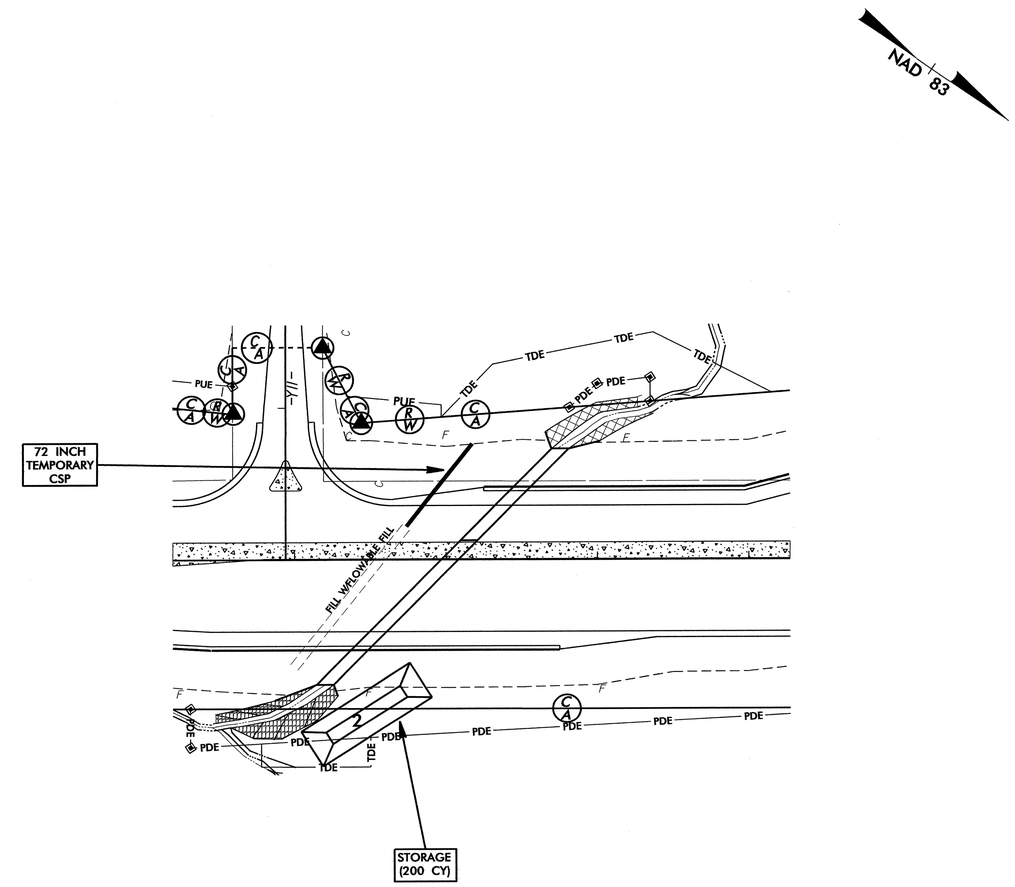
PHASE I

1. CONSTRUCT STILLING BASIN 1 (200 CY).
2. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (4 FT. BASE, 3 FT. DEEP, 2:1 SIDE SLOPES).
3. CONSTRUCT IMPERVIOUS DIKE AND INSTALL 72 INCH TEMPORARY CSP, DIVERTING FLOW THROUGH TEMPORARY CHANNEL CHANGE.
4. INSTALL DOUBLE ROW OF TEMPORARY SHORING.
5. CONSTRUCT UPSTREAM PORTION OF PROPOSED CULVERT.
6. CONSTRUCT ROADWAY OVER COMPLETED PORTION OF PROPOSED CULVERT AND SHIFT TRAFFIC.



PHASE II

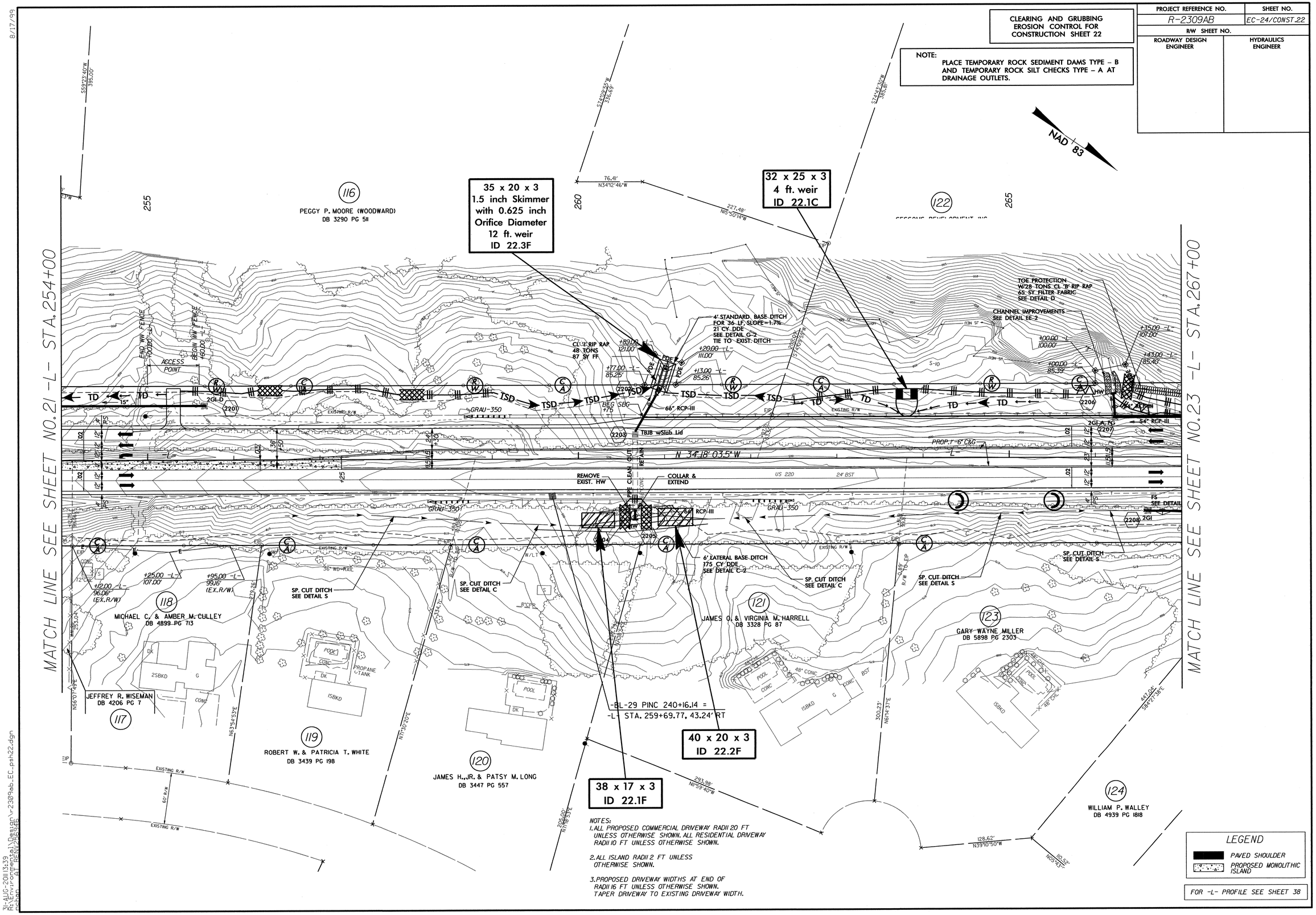
7. REMOVE STILLING BASIN 1 AND CONSTRUCT STILLING BASIN 2 (200 CY).
8. CONSTRUCT REMAINDER OF PROPOSED CULVERT AND OUTLET CHANNEL IMPROVEMENTS.
9. DIVERT FLOW THROUGH PROPOSED CULVERT, REMOVING AS MUCH AS POSSIBLE OF THE EXISTING CULVERT, AND REMOVING TEMPORARY CHANNEL CHANGE AND IMPERVIOUS DIKE FROM PHASE 1.
10. CONSTRUCT INLET CHANNEL IMPROVEMENTS.
11. PLUG THE REMAINDER OF THE EXISTING CULVERT AND 72 INCH TEMPORARY CSP AND FILL WITH FLOWABLE FILL.
12. REMOVE STILLING BASIN 2, AND COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-24/CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 22

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



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

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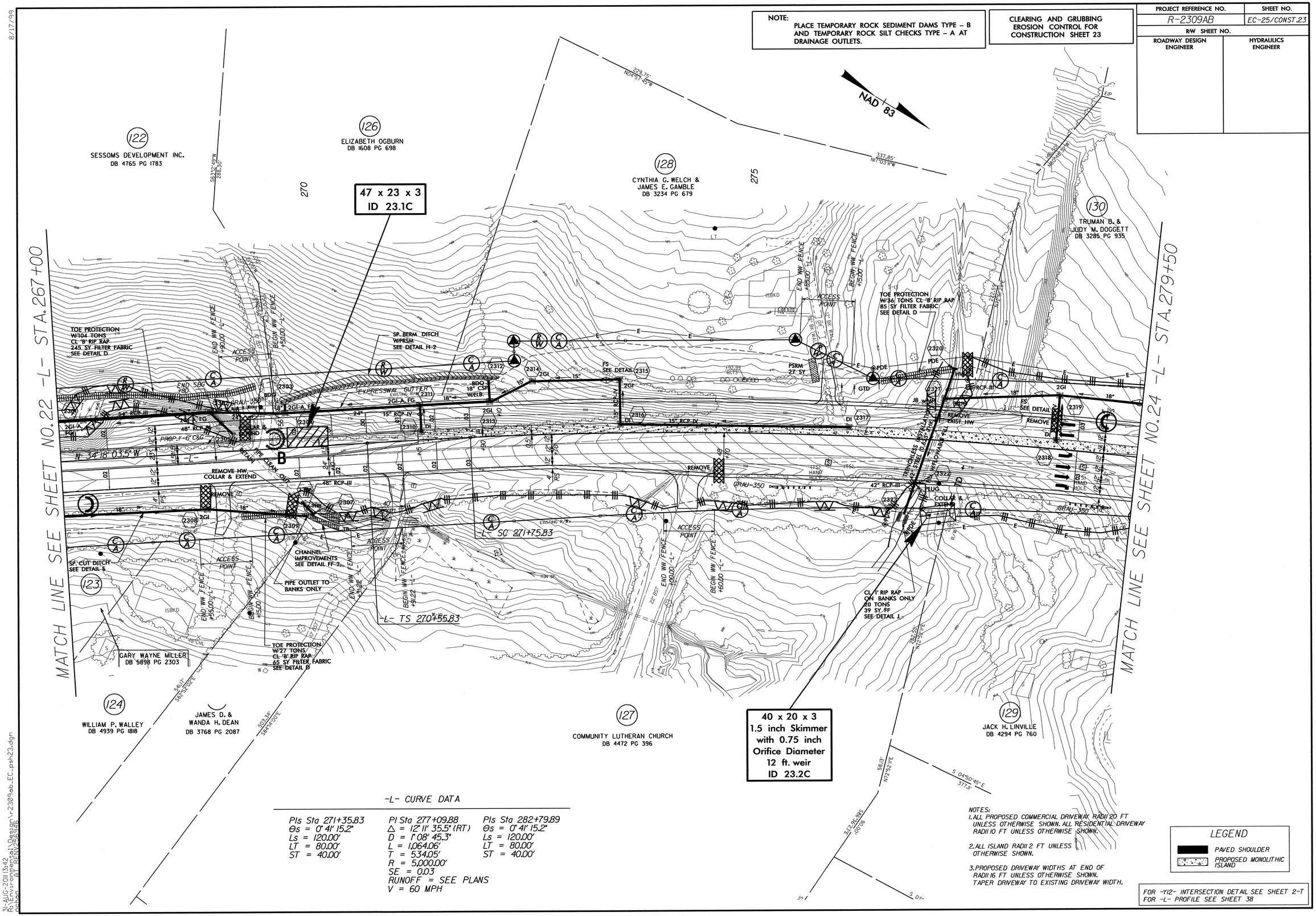
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-25/CONST.23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 23



-L- CURVE DATA

PIs Sta 271+35.83	PI Sta 277+09.88	PIs Sta 282+79.89
Θs = 0° 41' 15.2"	Δ = 12° 11' 35.5" (RT)	Θs = 0° 41' 15.2"
Ls = 120.00'	D = 1° 08' 45.3"	Ls = 120.00'
LT = 80.00'	L = 1,064.06'	LT = 80.00'
ST = 40.00'	T = 534.05'	ST = 40.00'
	R = 5,000.00'	
	SE = 0.03	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND

PAVED SHOULDER

PROPOSED MONOLITHIC ISLAND

FOR -Y12- INTERSECTION DETAIL SEE SHEET 2-T
FOR -L- PROFILE SEE SHEET 38

31-AUG-2011 3:42
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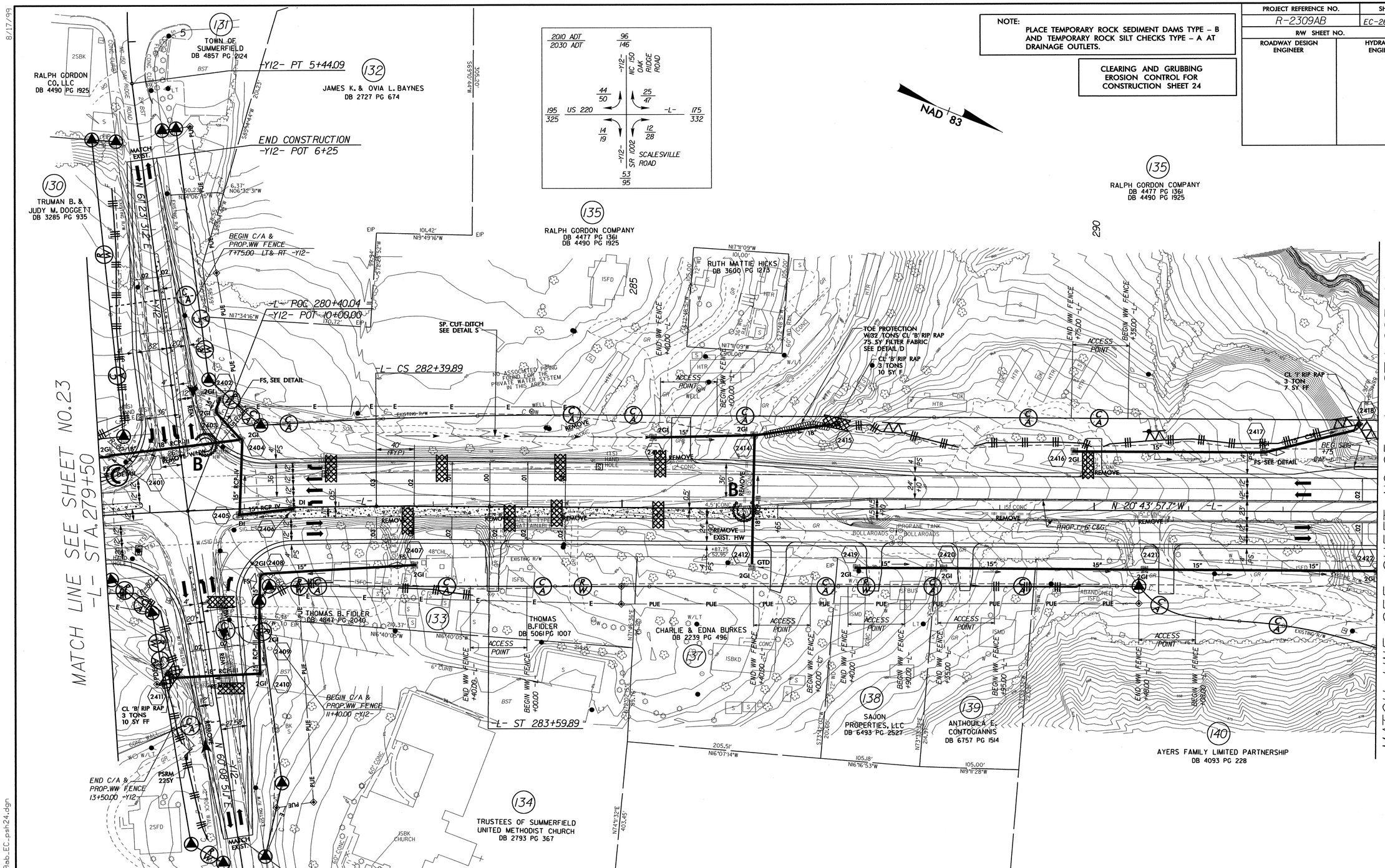
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-26/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 24



-Y12- CURVE DATA

PI Sta 4+73.37
Δ = 13° 34' 13.6" (LT)
D = 9° 32' 57.5"
L = 142.11'
T = 71.39'
R = 600.00'

-L- CURVE DATA

PIs Sta 271+35.83
Θs = 0° 41' 15.2"
Ls = 120.00'
LT = 80.00'
ST = 40.00'

PI Sta 277+09.88
Δ = 12° 11' 35.5" (RT)
D = 1° 08' 45.3"
L = 1064.06'
T = 534.05'
R = 5,000.00'
SE = 0.03
RUNOFF = SEE PLANS
V = 60 MPH

PIs Sta 282+79.89
Θs = 0° 41' 15.2"
Ls = 120.00'
LT = 80.00'
ST = 40.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

FOR -Y12- INTERSECTION DETAIL SEE SHEET 2-T
FOR -L- PROFILE SEE SHEET 39
FOR -Y12- PROFILE SEE SHEET 44

31-AUG-2011 13:50
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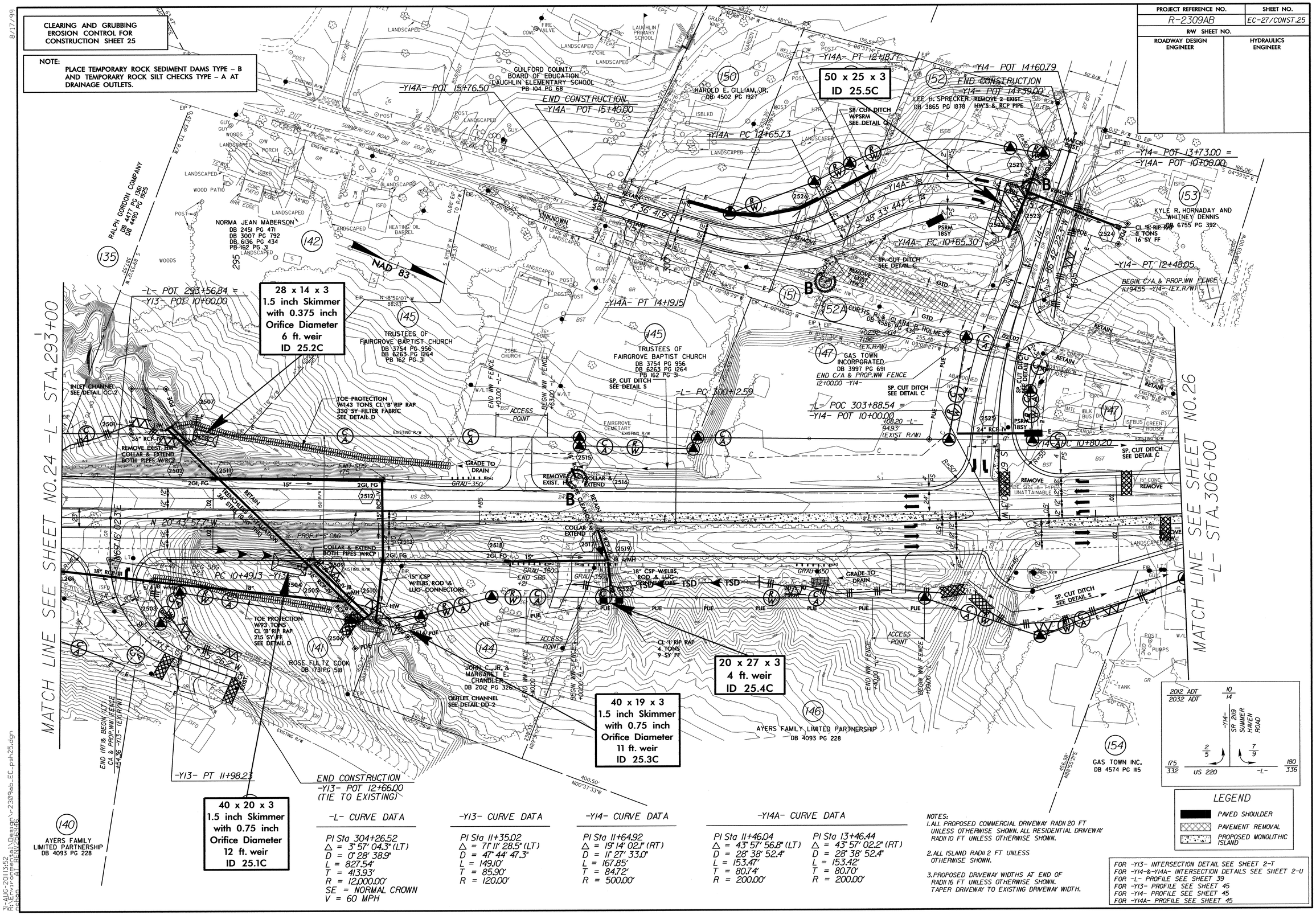
pchan
AT REV 25846

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-27/CONST.25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 25

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



-L- CURVE DATA

PI Sta 304+26.52
△ = 3° 57' 04.3" (LT)
D = 0° 28' 38.9"
L = 827.54'
T = 413.93'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

-Y13- CURVE DATA

PI Sta 11+35.02
△ = 71° 11' 28.5" (LT)
D = 47° 44' 47.3"
L = 149.10'
T = 85.90'
R = 120.00'

-Y14- CURVE DATA

PI Sta 11+64.92
△ = 19° 14' 02.1" (RT)
D = 11° 27' 33.0"
L = 167.85'
T = 84.72'
R = 500.00'

-Y14A- CURVE DATA

PI Sta 11+46.04
△ = 43° 57' 56.8" (LT)
D = 28° 38' 52.4"
L = 153.47'
T = 80.74'
R = 200.00'

PI Sta 13+46.44
△ = 43° 57' 02.2" (RT)
D = 28° 38' 52.4"
L = 153.42'
T = 80.70'
R = 200.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

FOR -Y13- INTERSECTION DETAIL SEE SHEET 2-T
FOR -Y14-&-Y14A- INTERSECTION DETAILS SEE SHEET 2-U
FOR -L- PROFILE SEE SHEET 39
FOR -Y13- PROFILE SEE SHEET 45
FOR -Y14- PROFILE SEE SHEET 45
FOR -Y14A- PROFILE SEE SHEET 45

31-AUG-2011 13:52
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PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-28/CONST.26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

-L- CURVE DATA

PI Sta 312+58.57
△ = 3° 59' 39.1" (RT)
D = 0° 28' 38.9"
L = 836.54'
T = 418.44'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

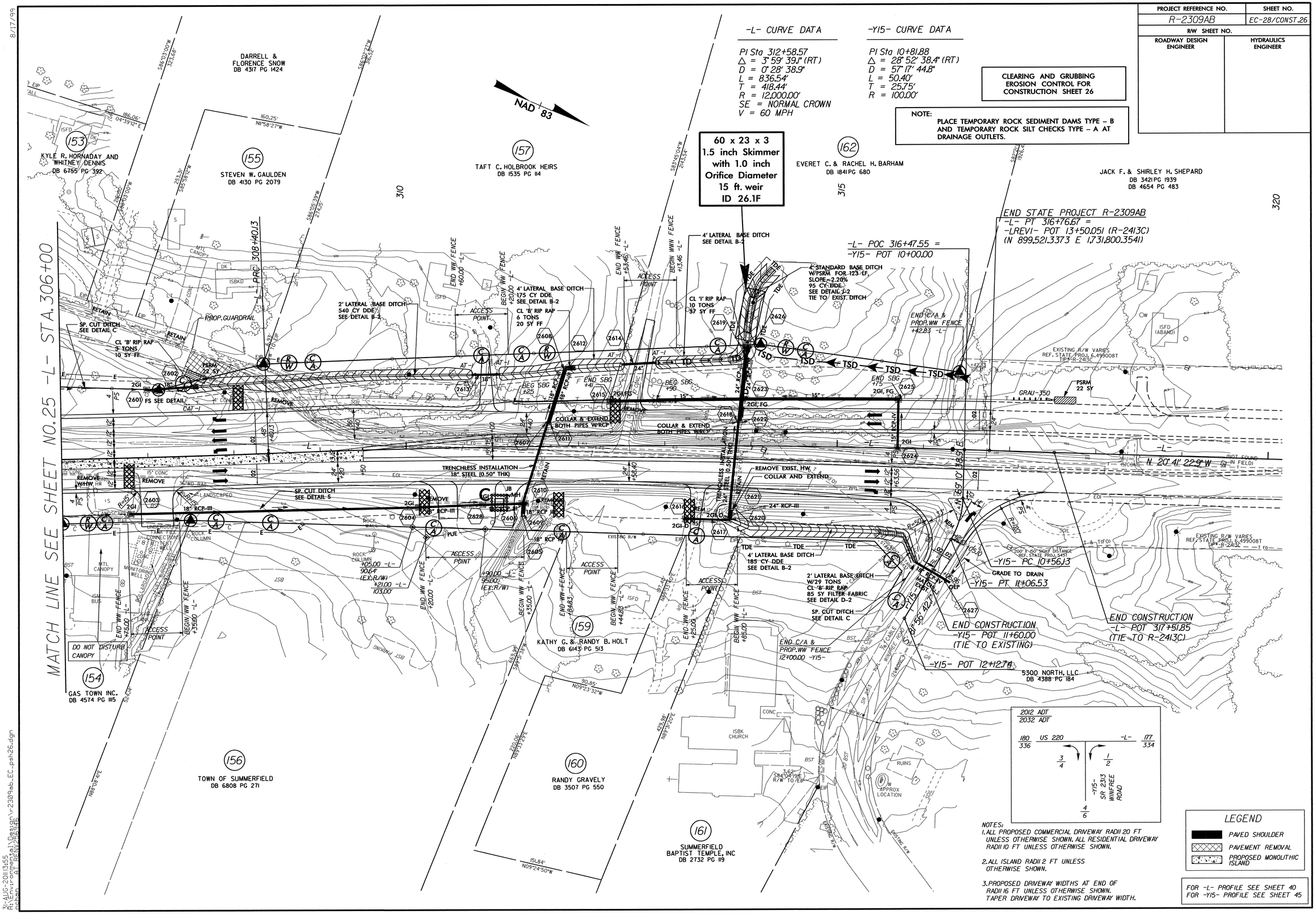
-Y15- CURVE DATA

PI Sta 10+81.88
△ = 28° 52' 38.4" (RT)
D = 57° 17' 44.8"
L = 50.40'
T = 25.75'
R = 100.00'

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 26

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

60 x 23 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
15 ft. weir
ID 26.1F



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- PAVEMENT REMOVAL
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 40
FOR -Y15- PROFILE SEE SHEET 45

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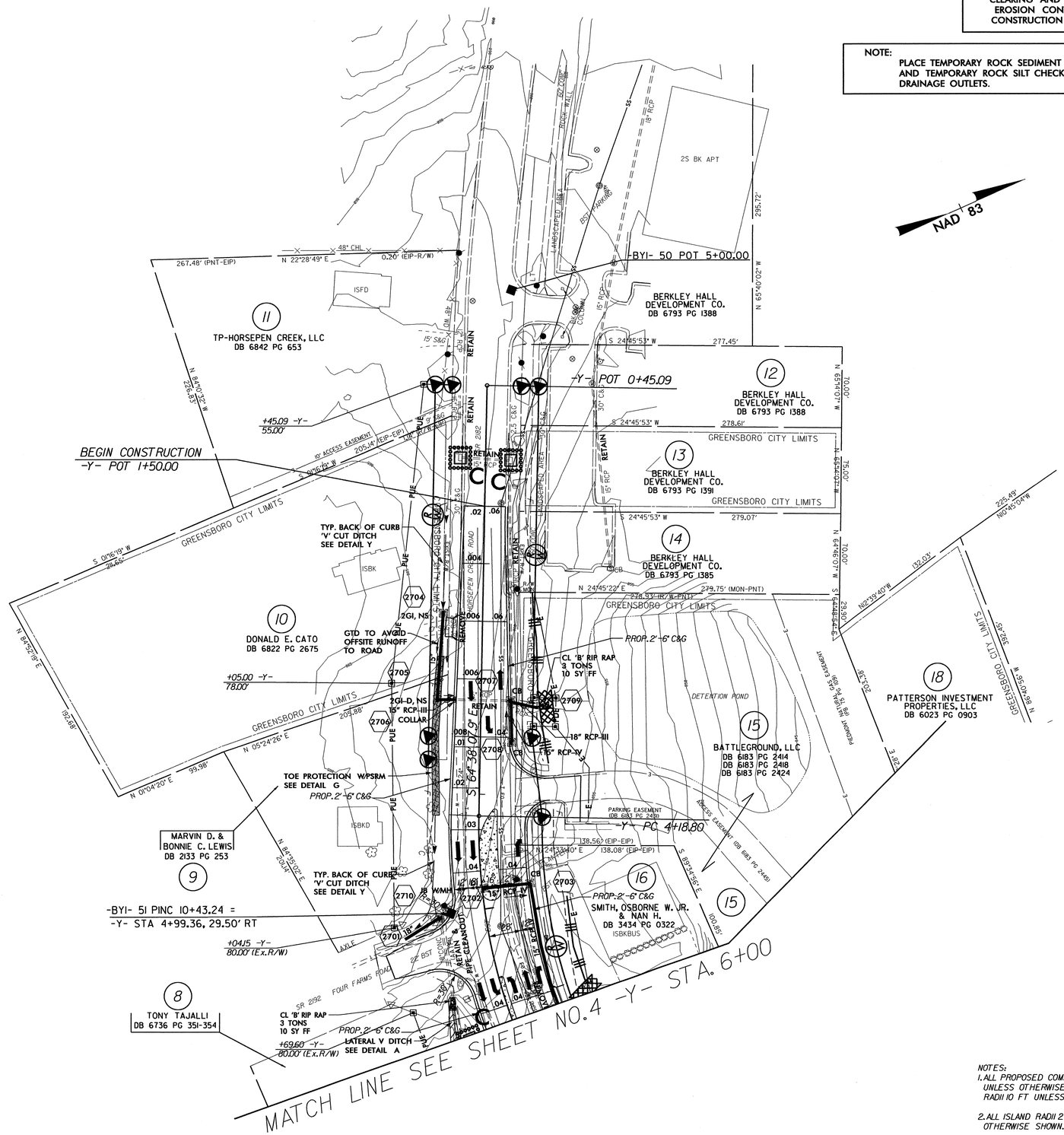
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-29/CONST.27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 27

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

-Y- CURVE DATA

PI Sta 5+28.21
△ = 24° 41' 09.4" (LT)
D = 11° 27' 33.0"
L = 215.43'
T = 109.41'
R = 500.00'



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND

PROPOSED MONOLITHIC ISLAND

FOR -Y- PROFILE SEE SHEET 41

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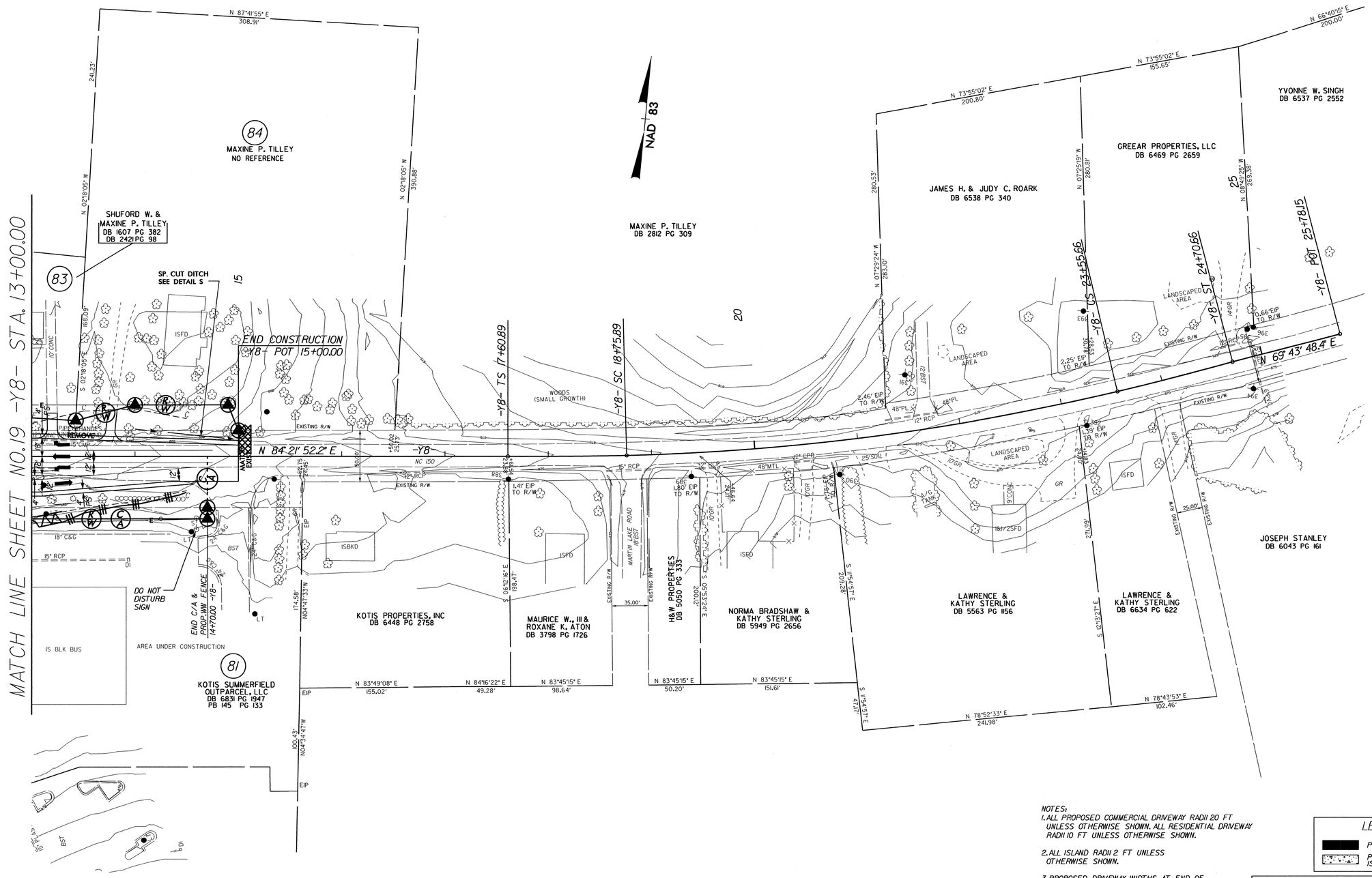
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-30/CONST.28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 28

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

-Y8- CURVE DATA

PIs Sta 18+37.56	PI Sta 21+16.65	PIs Sta 23+94.00
Θs = 1° 25' 56.6"	△ = 11° 57' 06.1" (LT)	Θs = 1° 25' 56.6"
Ls = 115.00'	D = 2° 29' 28.0"	Ls = 115.00'
LT = 76.67'	L = 479.77'	LT = 76.67'
ST = 38.34'	T = 240.76'	ST = 38.34'
	R = 2,300.00'	



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y8- INTERSECTION DETAIL SEE SHEET 2-S
FOR -Y8- PROFILE SEE SHEET 43

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-31/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

-Y- CURVE DATA

PI Sta 5+28.21
△ = 24° 41' 09.4" (LT)
D = 11° 27' 33.0"
L = 215.43'
T = 109.41'
R = 500.00'

PIs Sta 13+06.90
Θs = 5° 37' 02.0"
Ls = 100.00'
LT = 66.70'
ST = 33.36'

PI Sta 13+85.17
△ = 10° 04' 43.5" (RT)
D = 11° 14' 04.1"
L = 89.71'
T = 44.97'
R = 510.00'

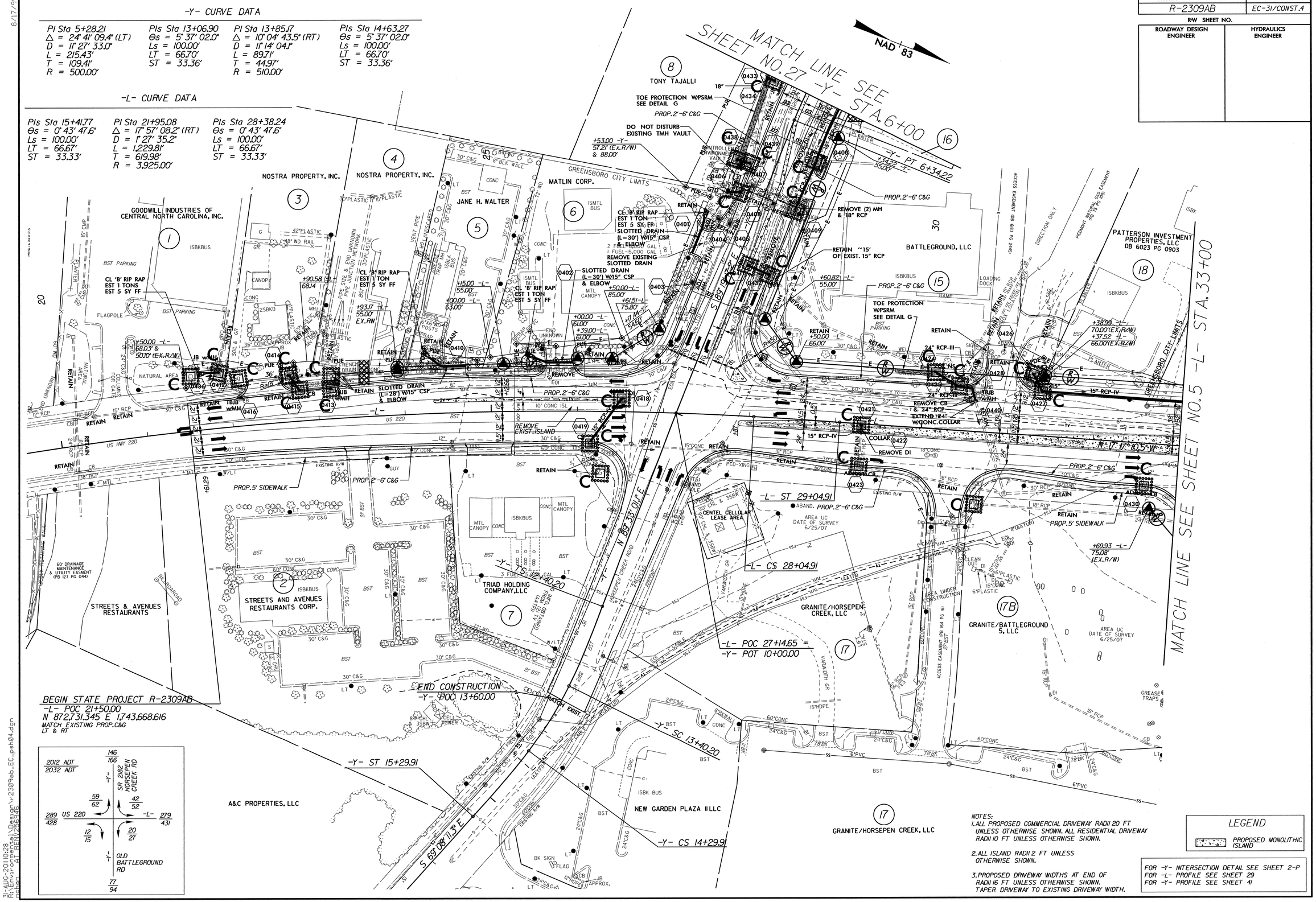
PIs Sta 14+63.27
Θs = 5° 37' 02.0"
Ls = 100.00'
LT = 66.70'
ST = 33.36'

-L- CURVE DATA

PIs Sta 15+41.77
Θs = 0° 43' 47.6"
Ls = 100.00'
LT = 66.67'
ST = 33.33'

PI Sta 21+95.08
△ = 11° 57' 08.2" (RT)
D = 1° 27' 35.2"
L = 1,229.81'
T = 619.98'
R = 3,925.00'

PIs Sta 28+38.24
Θs = 0° 43' 47.6"
Ls = 100.00'
LT = 66.67'
ST = 33.33'



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PROPOSED MONOLITHIC ISLAND

FOR -Y- INTERSECTION DETAIL SEE SHEET 2-P
FOR -L- PROFILE SEE SHEET 29
FOR -Y- PROFILE SEE SHEET 41

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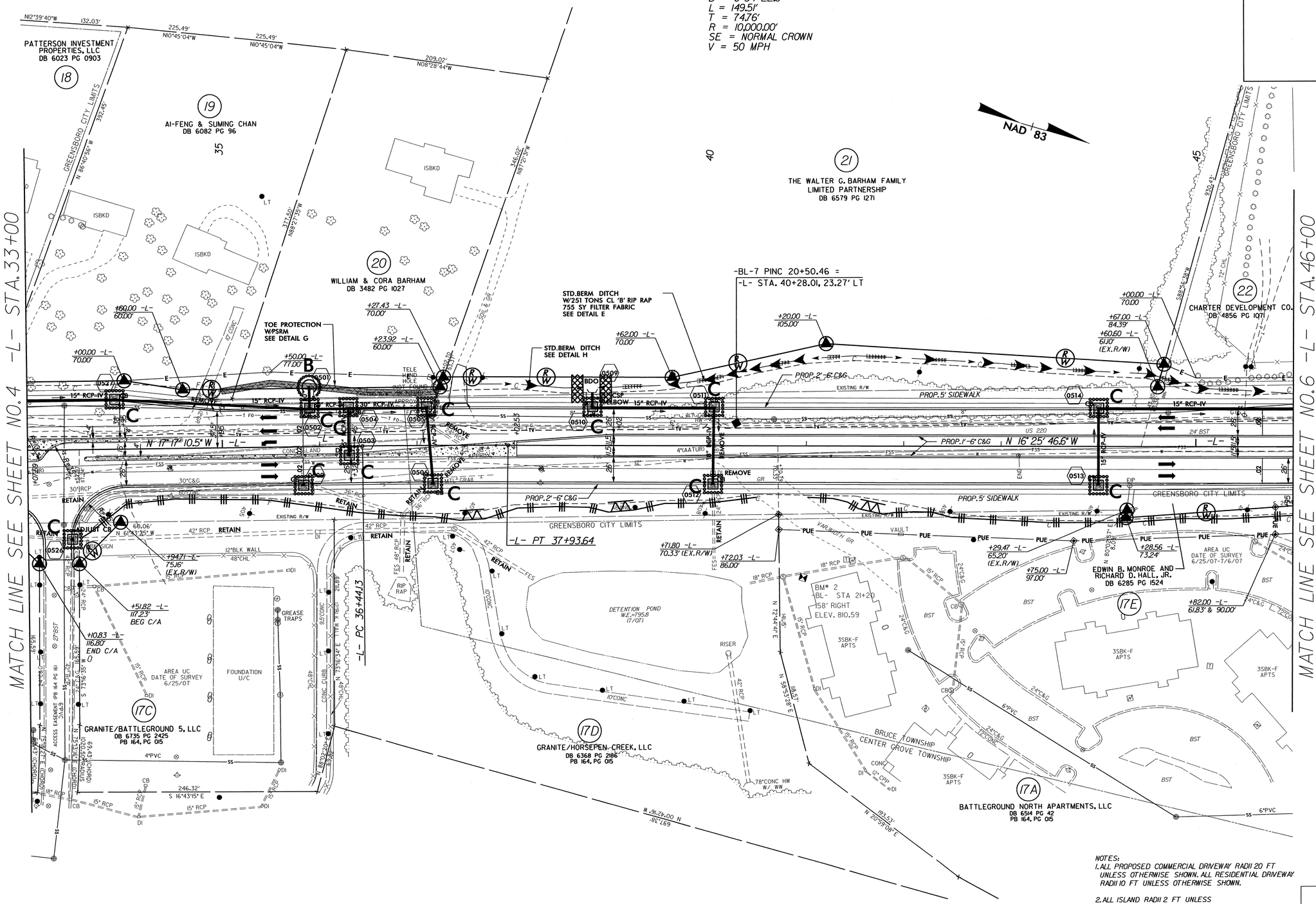
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-32/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L- CURVE DATA

PI Sta 37+18.88
△ = 0° 51' 23.9" (RT)
D = 0° 34' 22.6"
L = 149.51'
T = 74.76'
R = 10,000.00'
SE = NORMAL CROWN
V = 50 MPH



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 29

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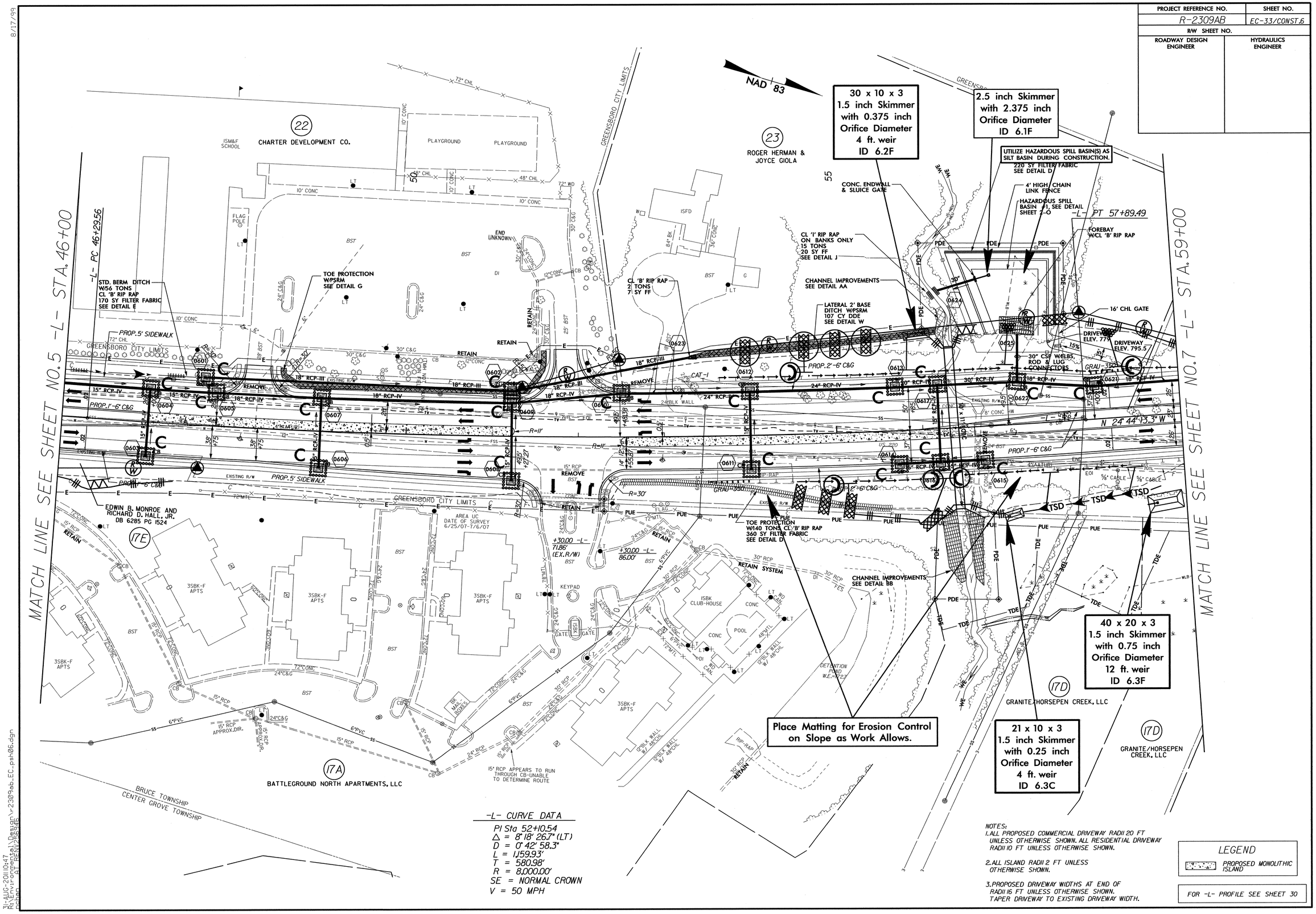
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-33/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PI Sta 52+10.54
Δ = 8° 18' 26.7" (LT)
D = 0° 42' 58.3"
L = 1,159.93'
T = 580.98'
R = 8,000.00'
SE = NORMAL CROWN
V = 50 MPH

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 30

8/17/99

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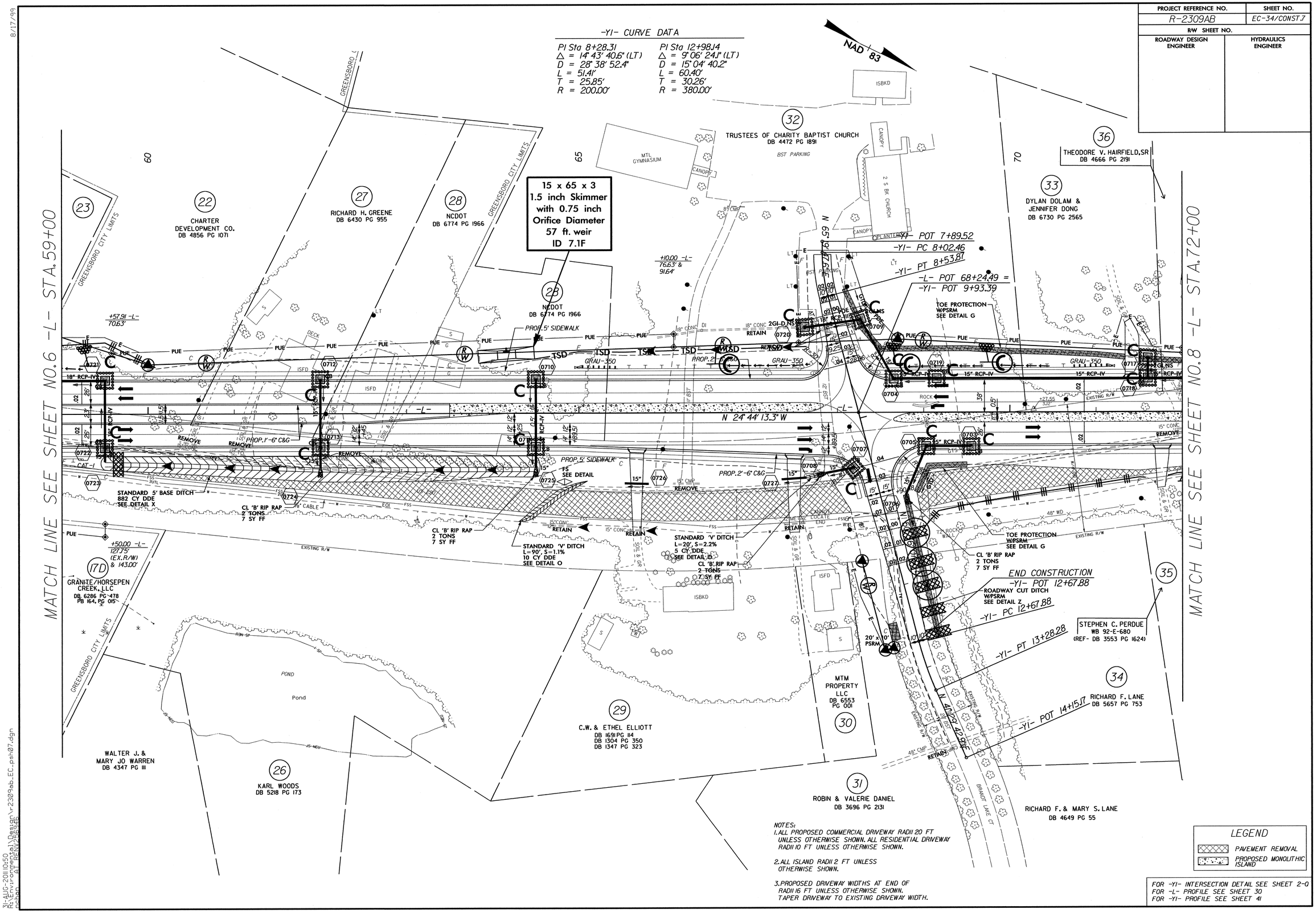
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-34/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

FOR -Y1- INTERSECTION DETAIL SEE SHEET 2-Q
FOR -L- PROFILE SEE SHEET 30
FOR -Y1- PROFILE SEE SHEET 41

8/17/99

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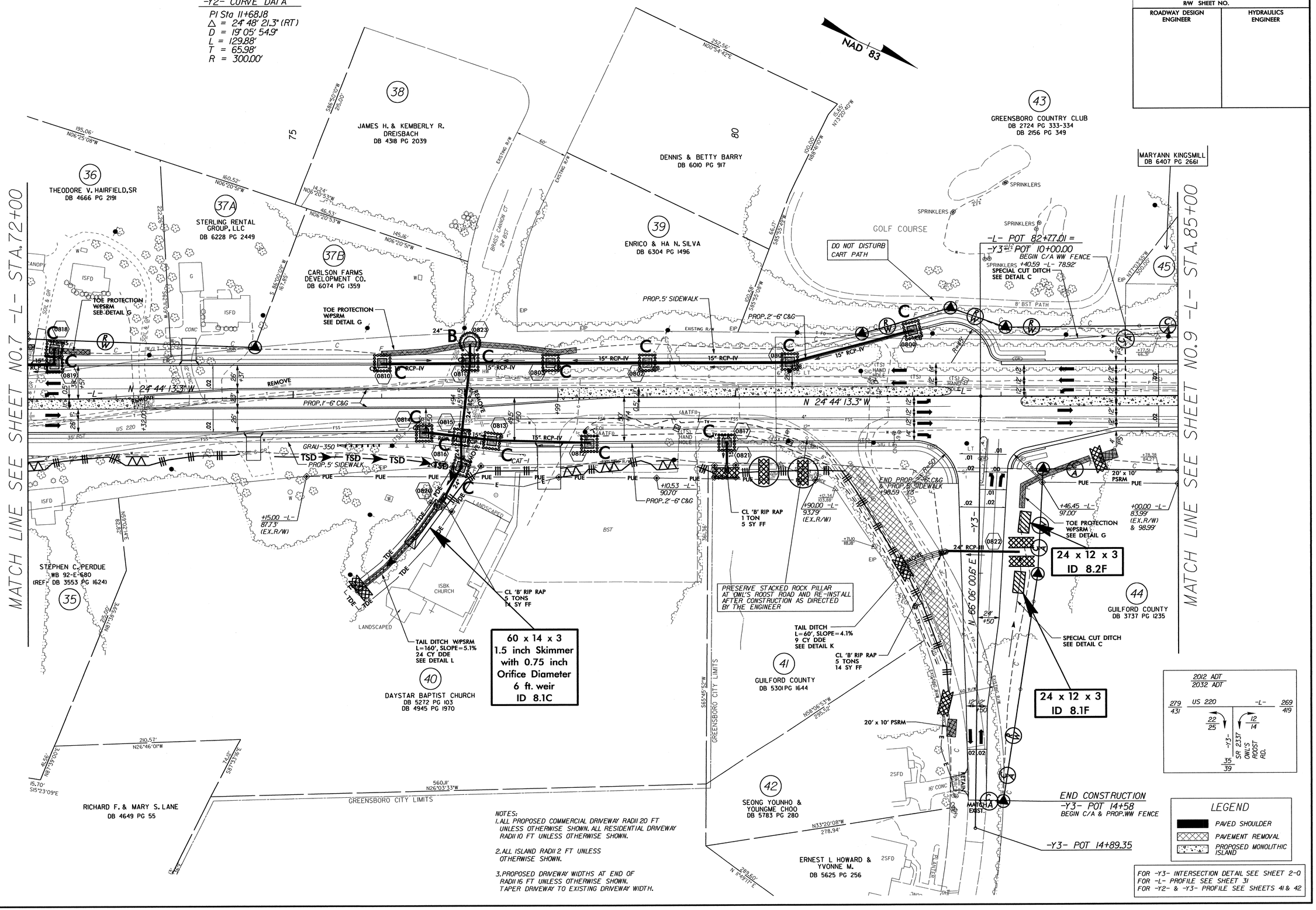
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-35/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y2- CURVE DATA
PI Sta 11+68.18
Δ = 24° 48' 21.3" (RT)
D = 19° 05' 54.9"
L = 129.88'
T = 65.98'
R = 300.00'



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

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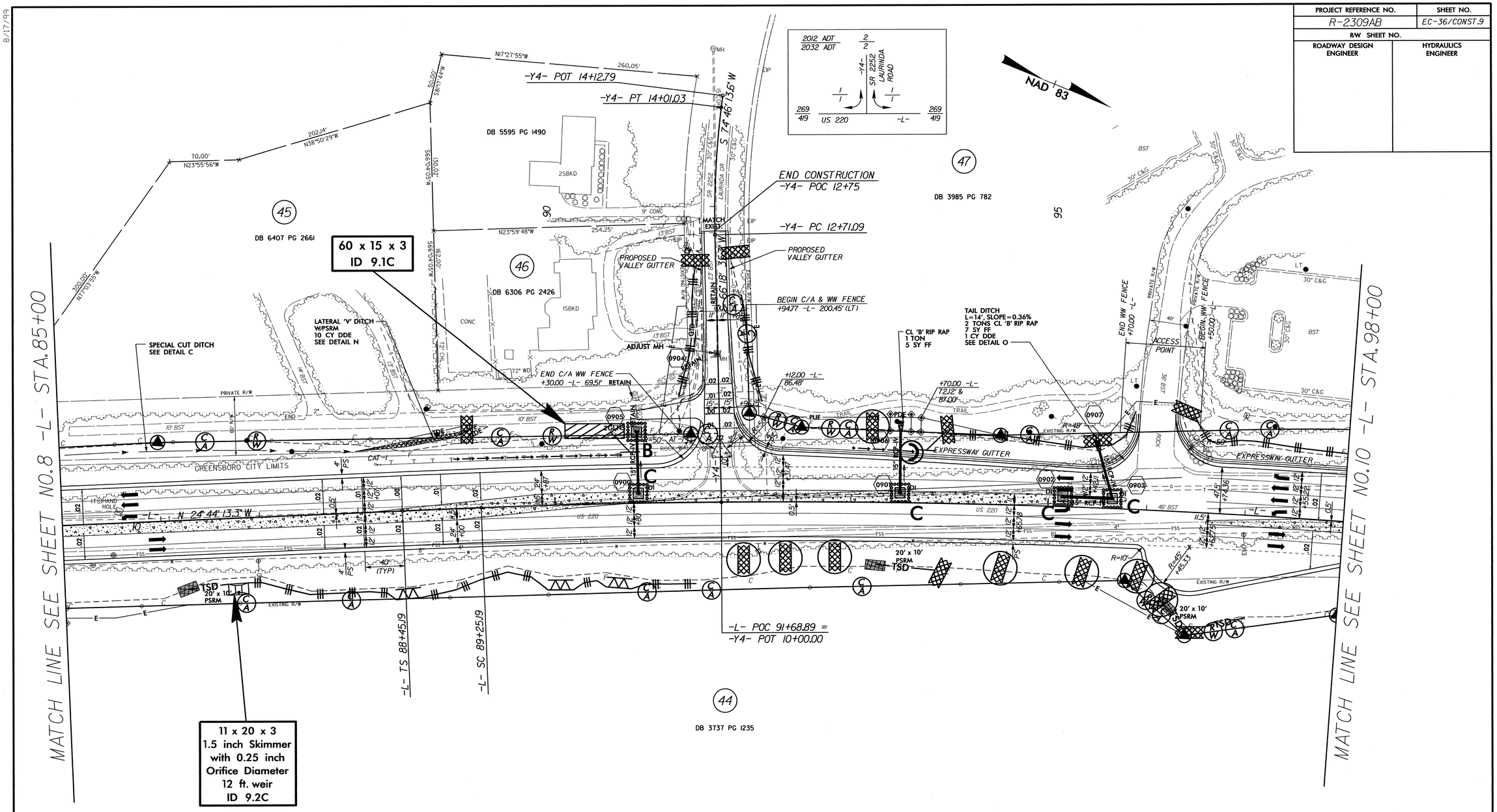
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-36/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PIs Sta 88+98.52	PI Sta 97+15.72	PIs Sta 105+27.81
Θs = 0°17' 11.3"	Δ = 11°17' 13.0" (RT)	Θs = 0°17' 11.3"
Ls = 80.00'	D = 0°42' 58.3"	Ls = 80.00'
LT = 53.33'	L = 1,575.96'	LT = 53.33'
ST = 26.67'	T = 790.54'	ST = 26.67'
	R = 8,000.00'	
	SE = 0.02	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

-Y4- CURVE DATA

PI Sta 13+36.18
Δ = 8°27' 37.9" (RT)
D = 6°30' 39.2"
L = 129.94'
T = 65.09'
R = 880.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 31
FOR -Y4- PROFILE SEE SHEET 42

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
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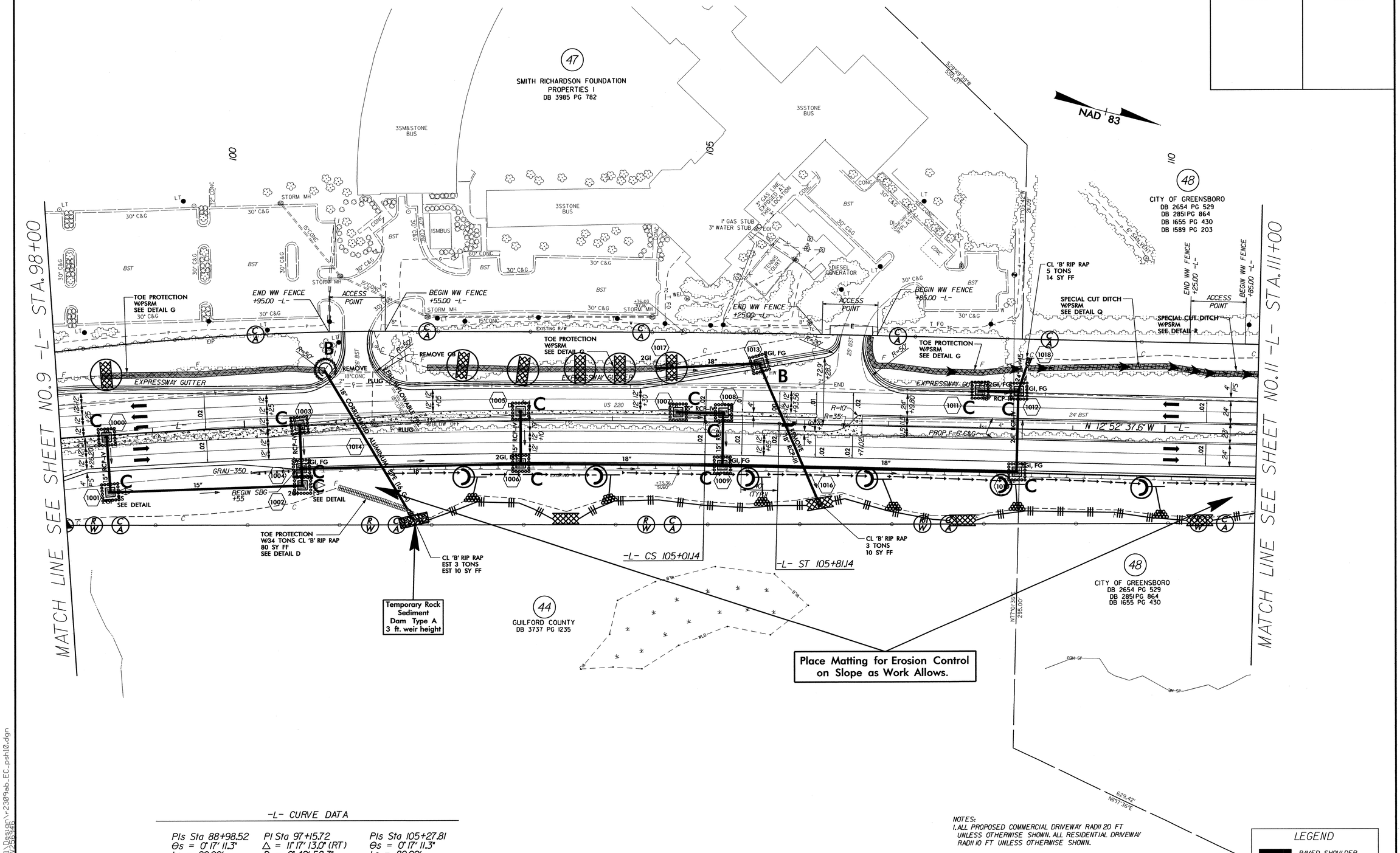
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PIs Sta 88+98.52	PI Sta 97+15.72	PIs Sta 105+27.81
Θs = 0° 17' 11.3"	Δ = 11° 17' 13.0" (RT)	Θs = 0° 17' 11.3"
Ls = 80.00'	D = 0° 42' 58.3"	Ls = 80.00'
LT = 53.33'	L = 1,575.96'	LT = 53.33'
ST = 26.67'	T = 790.54'	ST = 26.67'
	R = 8,000.00'	
	SE = 0.02	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

8/17/99

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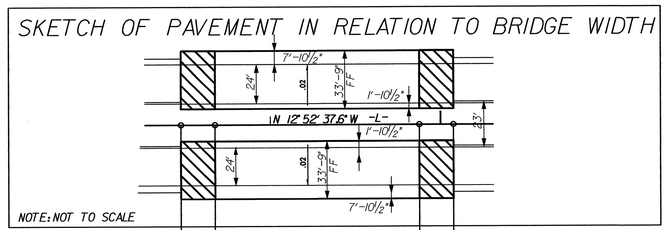
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-38/CONST.11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BEGIN APPROACH SLAB -L- Sta.113+41.33

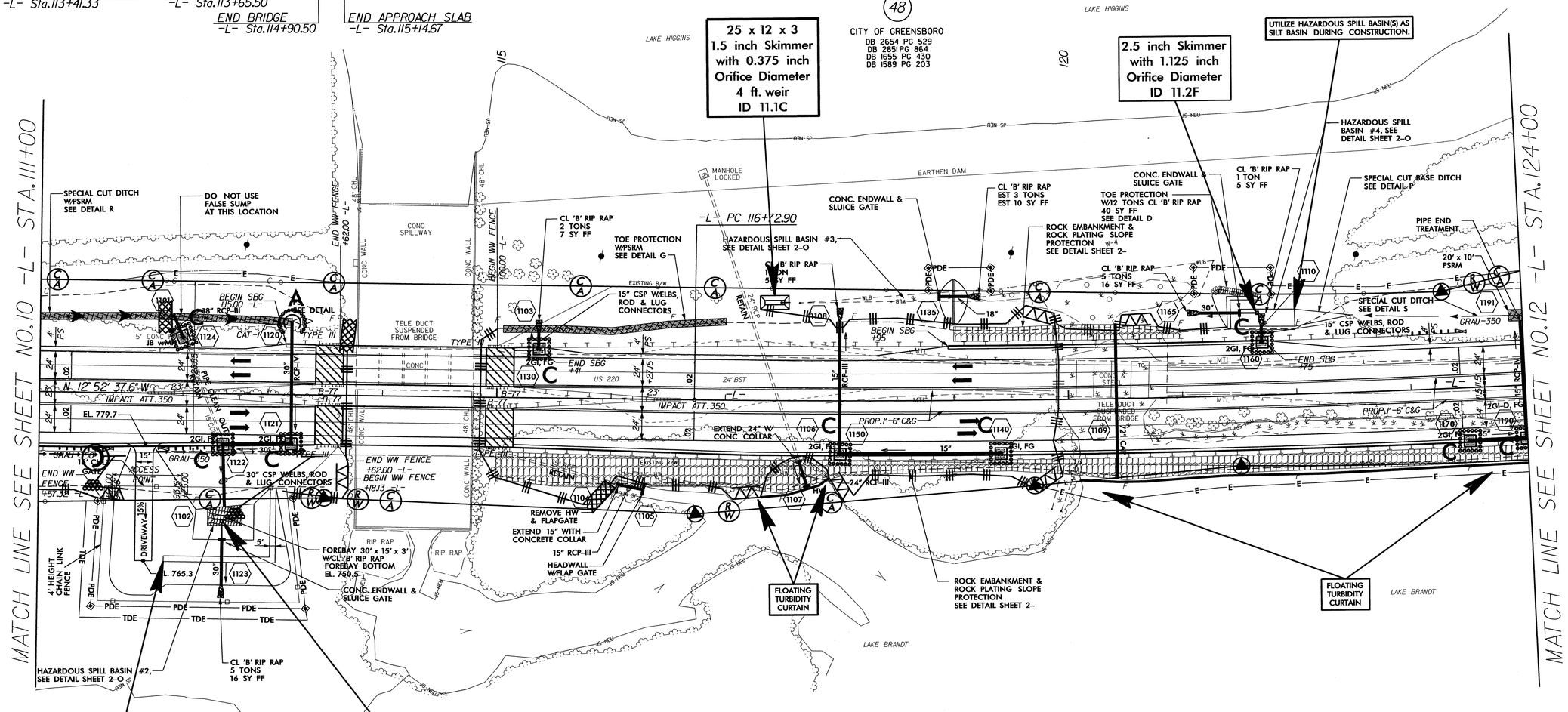
BEGIN BRIDGE -L- Sta.113+65.50

END BRIDGE -L- Sta.114+90.50

END APPROACH SLAB -L- Sta.115+14.67

NAD 83

NOTE:
UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.



-L- CURVE DATA

PI Sta 124+10.48
Δ = 7° 02' 04.3" (LT)
D = 0° 28' 38.9"
L = 1,473.31'
T = 737.58'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- APPROACH SLAB
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 32

8/17/99

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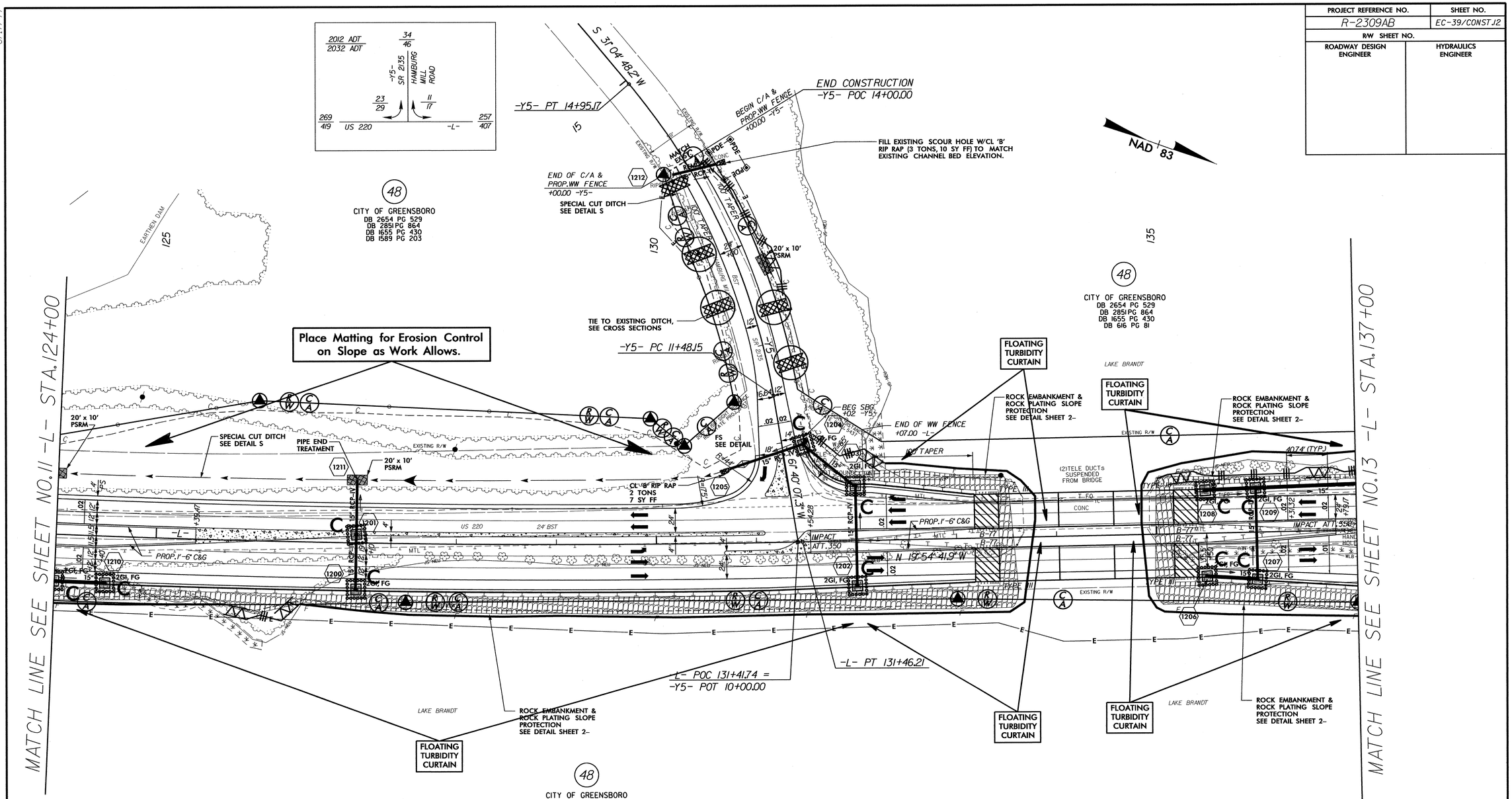
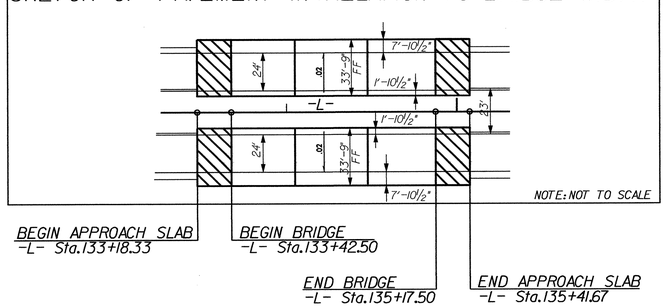
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-39/CONST.12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SKETCH OF PAVEMENT IN RELATION TO BRIDGE WIDTH



-L- CURVE DATA

PI Sta 124+10.48
Δ = 7° 02' 04.3" (LT)
D = 0° 28' 38.9"
L = 1,473.31'
T = 737.58'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

-Y5- CURVE DATA

PI Sta 13+25.90
Δ = 30° 35' 19.1" (LT)
D = 8° 48' 53.0"
L = 347.02'
T = 177.75'
R = 650.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- APPROACH SLAB
- PROPOSED MONOLITHIC ISLAND

FOR -Y5- INTERSECTION DETAIL SEE SHEET 2-R
FOR -L- PROFILE SEE SHEET 33
FOR -Y5- PROFILE SEE SHEET 42

8/17/93

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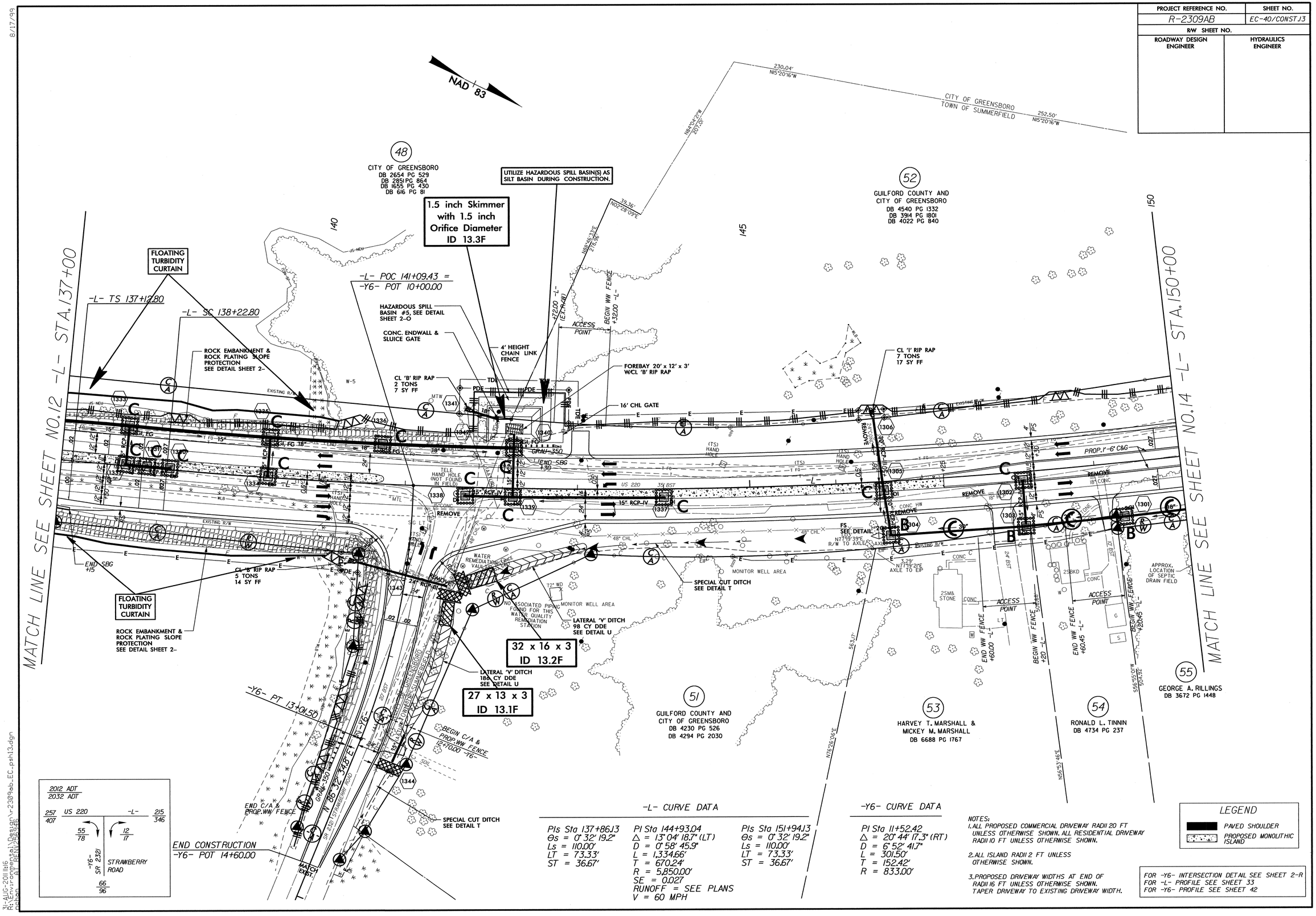
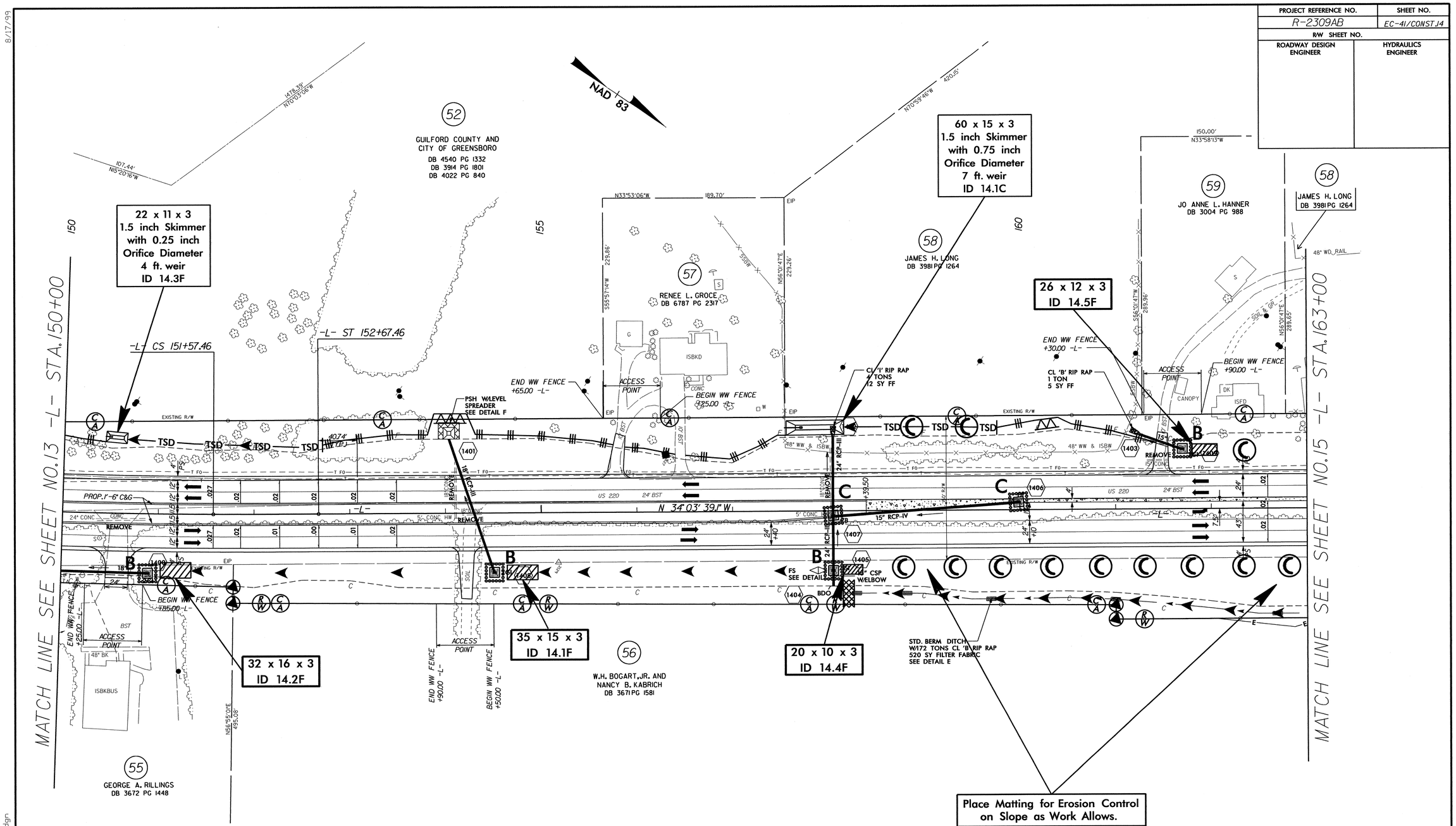
bpowell@dot.state.nc.us

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-40/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-41/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PIs Sta 137+86.13	PI Sta 144+93.04	PIs Sta 151+94.13
Θs = 0° 32' 19.2"	Δ = 13° 04' 18.7" (LT)	Θs = 0° 32' 19.2"
Ls = 110.00'	D = 0° 58' 45.9"	Ls = 110.00'
LT = 73.33'	L = 1,334.66'	LT = 73.33'
ST = 36.67'	T = 670.24'	ST = 36.67'
	R = 5,800.00'	
	SE = 0.027	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 34

8/17/99

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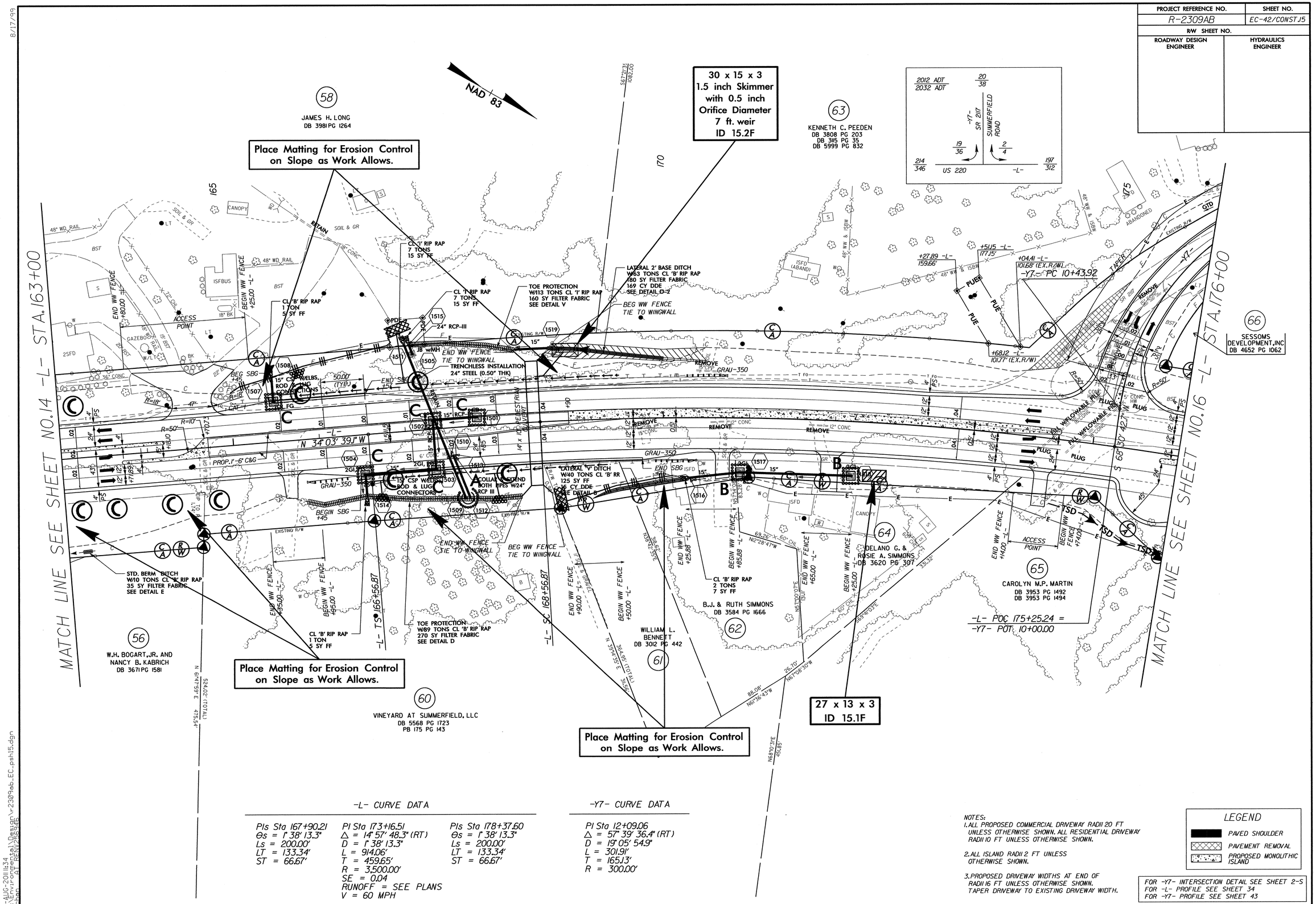
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-42/CONST.15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PIs Sta 167+90.21
Θs = 1° 38' 13.3"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 173+16.51
Δ = 14° 57' 48.3" (RT)
D = 1° 38' 13.3"
L = 914.06'
T = 459.65'
R = 3,500.00'
SE = 0.04
RUNOFF = SEE PLANS
V = 60 MPH

PIs Sta 178+37.60
Θs = 1° 38' 13.3"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-Y7- CURVE DATA

PI Sta 12+09.06
Δ = 57° 39' 36.4" (RT)
D = 19° 05' 54.9"
L = 301.91'
T = 165.13'
R = 300.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
- PAVED SHOULDER
- PAVEMENT REMOVAL
- PROPOSED MONOLITHIC ISLAND

FOR -Y7- INTERSECTION DETAIL SEE SHEET 2-S
FOR -L- PROFILE SEE SHEET 34
FOR -Y7- PROFILE SEE SHEET 43

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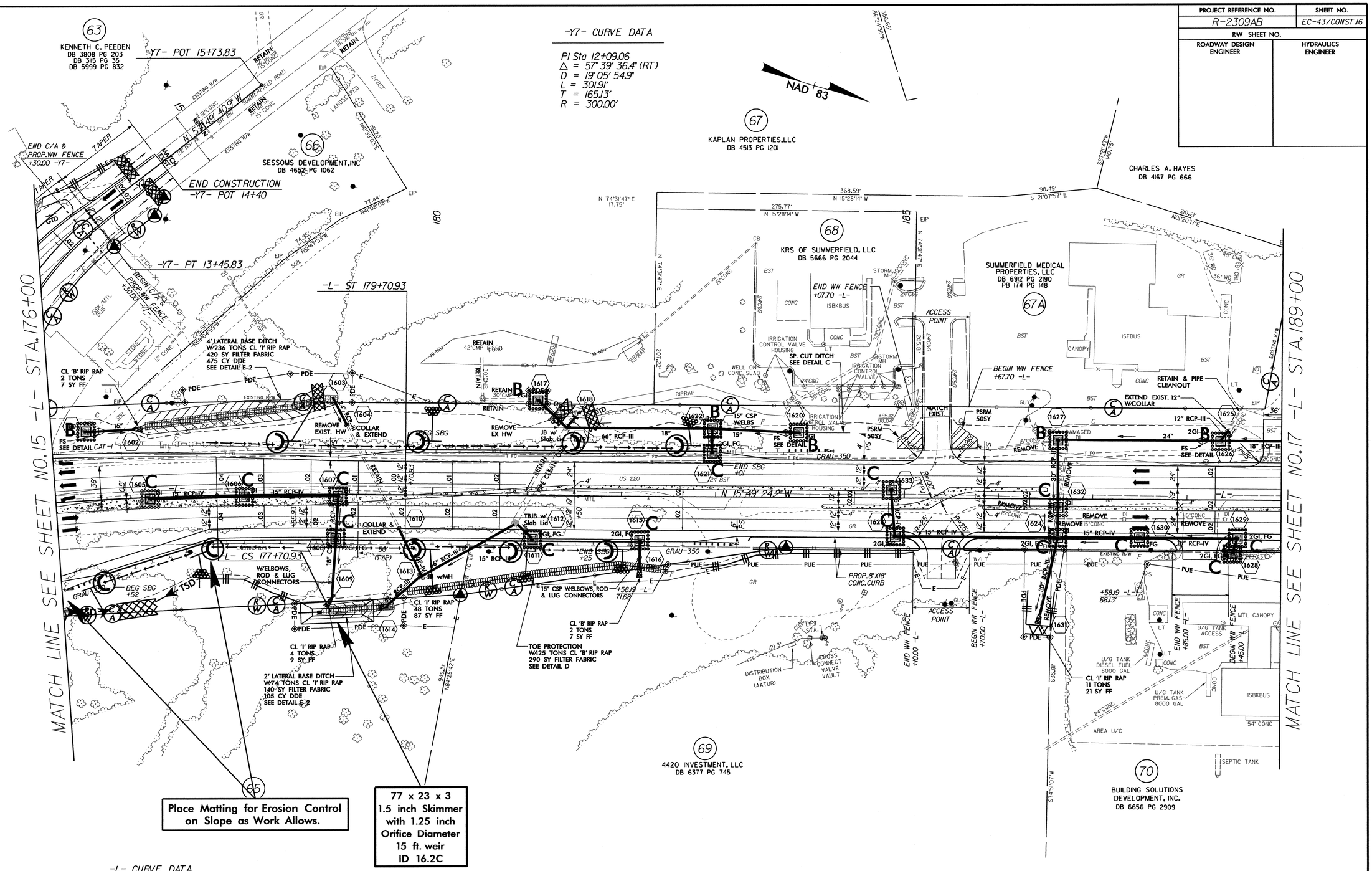
AT REV 25.5.45

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-43/CONST.J6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PIs Sta 167+90.21	PIs Sta 173+16.51	PIs Sta 178+37.60
Θs = 1° 38' 13.3"	Δ = 14° 57' 48.3" (RT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 914.06'	LT = 133.34'
ST = 66.67'	T = 459.65'	ST = 66.67'
	R = 3,500.00'	
	SE = 0.04	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

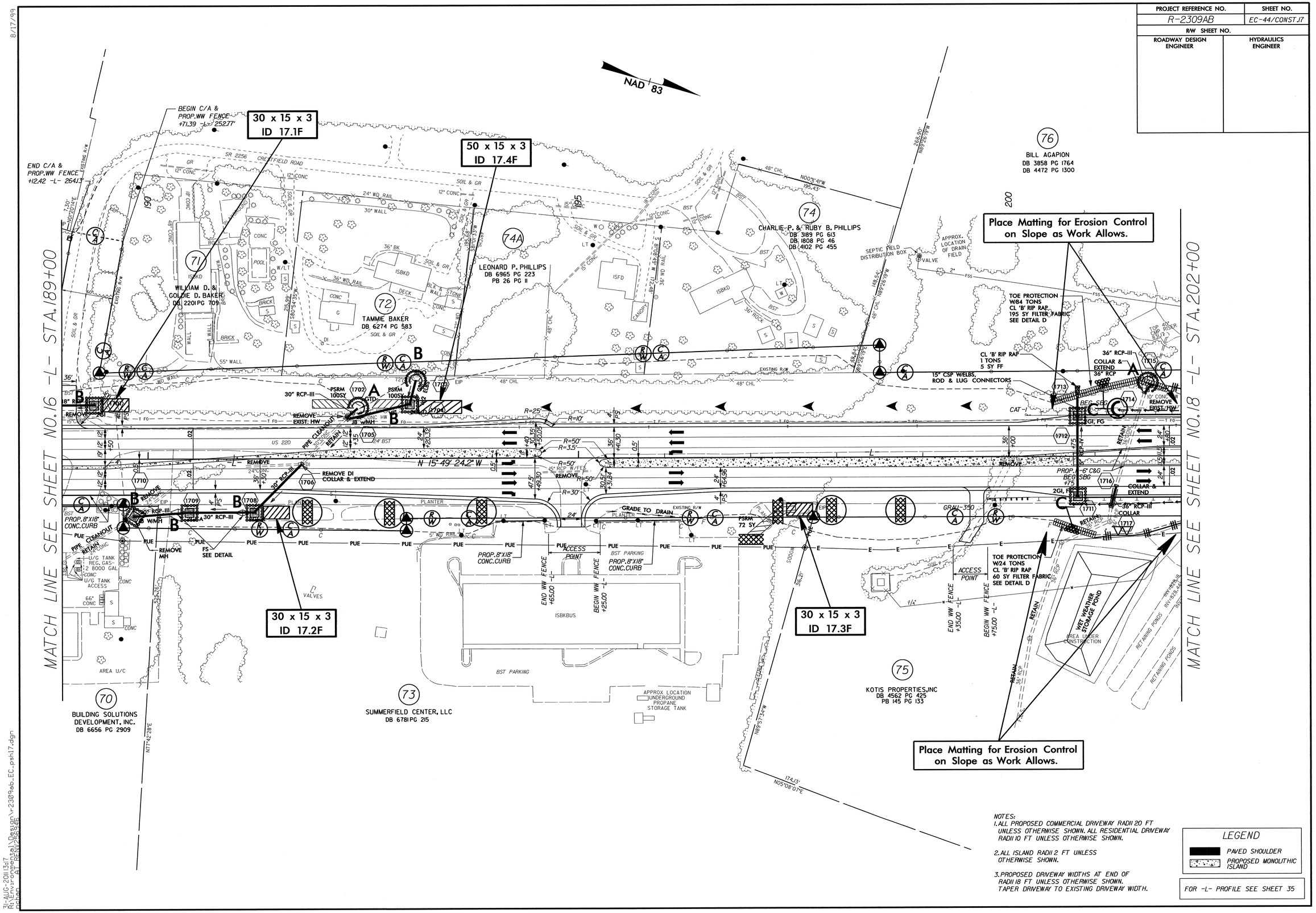
LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y7- INTERSECTION DETAIL SEE SHEET 2-S
FOR -L- PROFILE SEE SHEET 35
FOR -Y7- PROFILE SEE SHEET 43

8/17/99

31-AUG-2011 13:13
R:\Roadway\Proj\2309ab_EC_psh16.dgn
$$$$USER$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-44/CONST.J7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 18 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 35

8/17/99

31-AUG-2011 13:17
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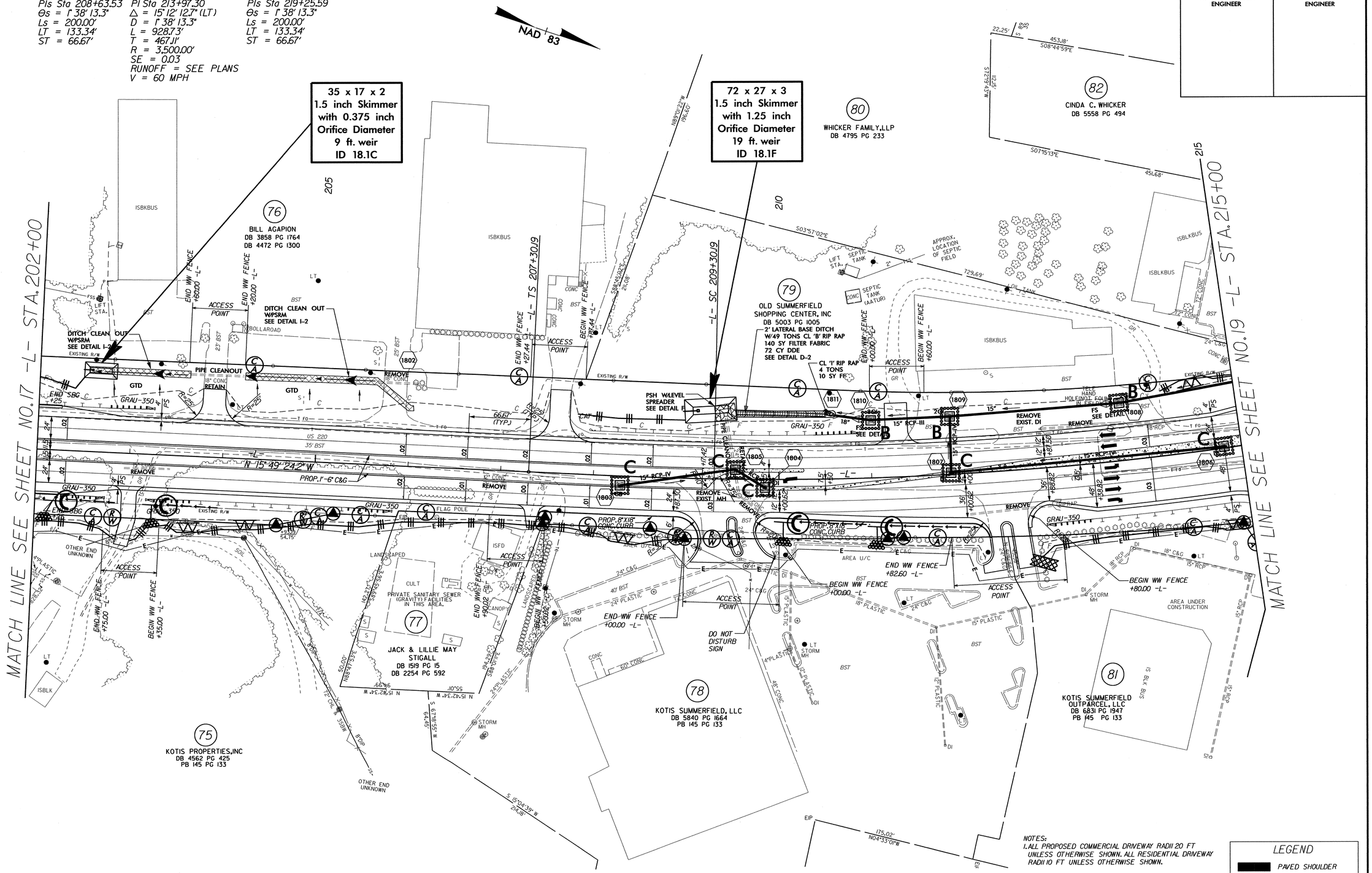
dchan
AT REN\256926

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-45/CONST.18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L- CURVE DATA

PIs Sta 208+63.53	PI Sta 213+97.30	PIs Sta 219+25.59
Θs = 1° 38' 13.3"	Δ = 15° 12' 12.7" (LT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 928.73'	LT = 133.34'
ST = 66.67'	T = 467.11'	ST = 66.67'
	R = 3,500.00'	
	SE = 0.03	
	RUNOFF = SEE PLANS	
	V = 60 MPH	



NOTES:

1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND

PAVED SHOULDER

PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 36

8/17/99

31-AUG-2011 13:25
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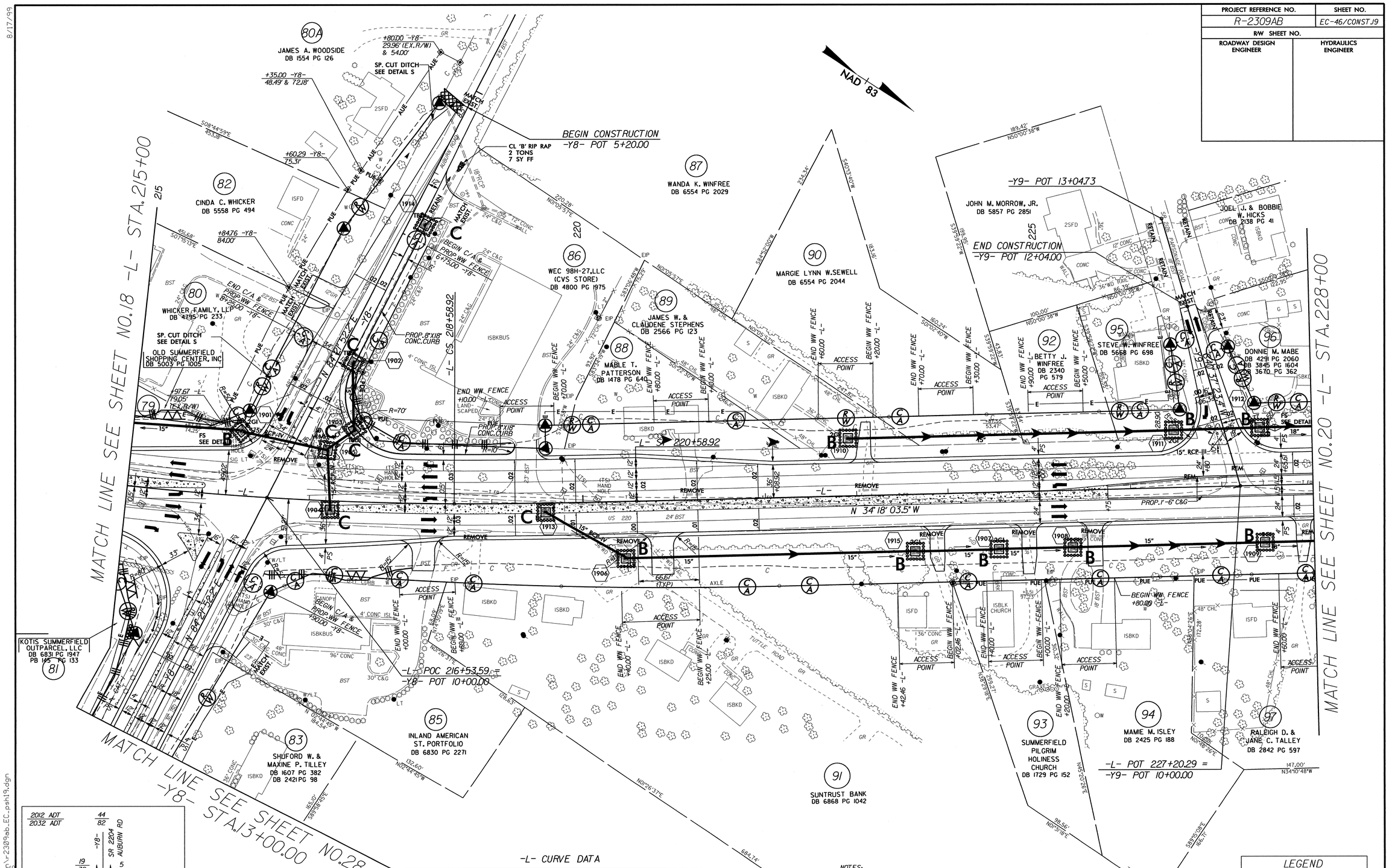
pchan
AT RFNV\26846

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-46/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



2012 ADT / 2032 ADT	
SR 2204 AUBURN RD -Y8-	44 / 82
US 220 -L-	19 / 30
	5 / 11
	197 / 312
	204 / 334
NC 150 -Y8-	18 / 32
	39 / 73
	77 / 146

-L- CURVE DATA

PIs Sta 208+63.53	PI Sta 213+97.30	PIs Sta 219+25.59
Θs = 1° 38' 13.3"	Δ = 15° 12' 12.7" (LT)	Θs = 1° 38' 13.3"
Ls = 200.00'	D = 1° 38' 13.3"	Ls = 200.00'
LT = 133.34'	L = 928.73'	LT = 133.34'
ST = 66.67'	T = 467.11'	ST = 66.67'
	R = 3,5000.00'	
	SE = 0.03	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

FOR -Y8- INTERSECTION DETAIL SEE SHEET 2-S
FOR -L- PROFILE SEE SHEET 36
FOR -Y8- PROFILE SEE SHEET 43
FOR -Y9- PROFILE SEE SHEET 44

8/17/99

31-AUG-2011 14:20
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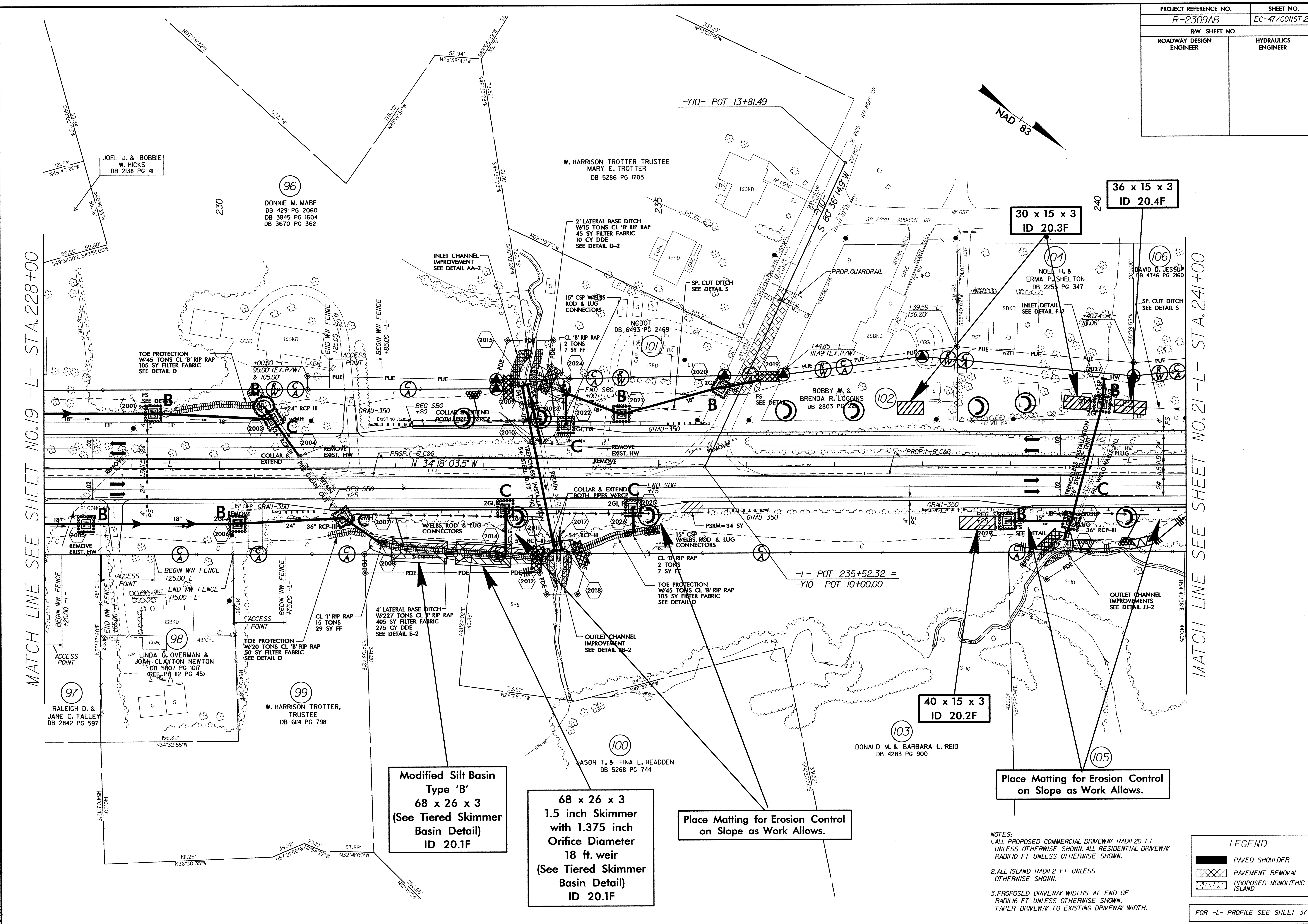
Design (R-2309AB)

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-47/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:

1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

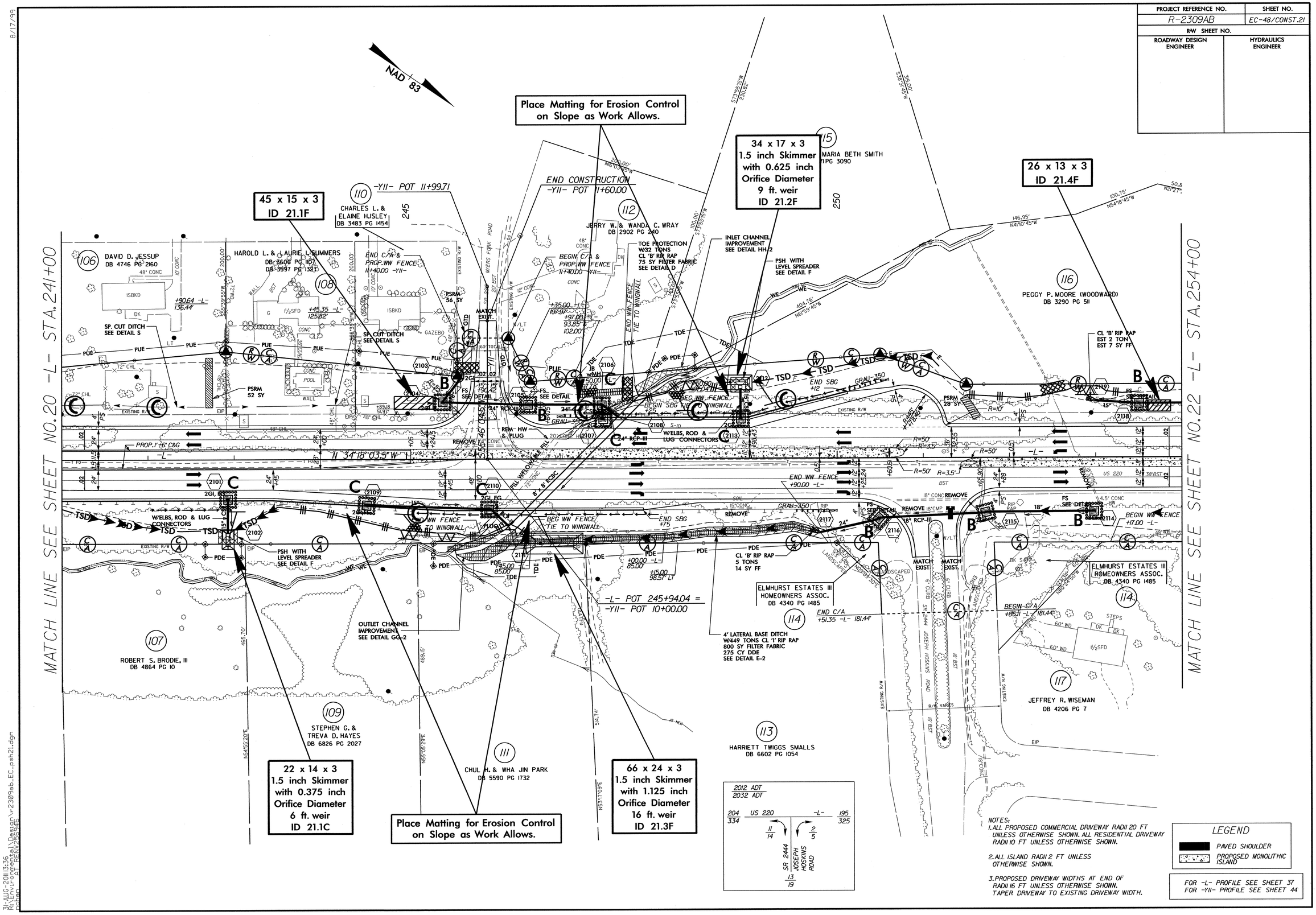
LEGEND

- PAVED SHOULDER
- PAVEMENT REMOVAL
- PROPOSED MONOLITHIC ISLAND

FOR -L- PROFILE SEE SHEET 37

31-AUG-2011 13:34
R:\Environmental\Design\r2309ab_EC_psh20.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-48/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



8/17/99

31-AUG-2011 13:36
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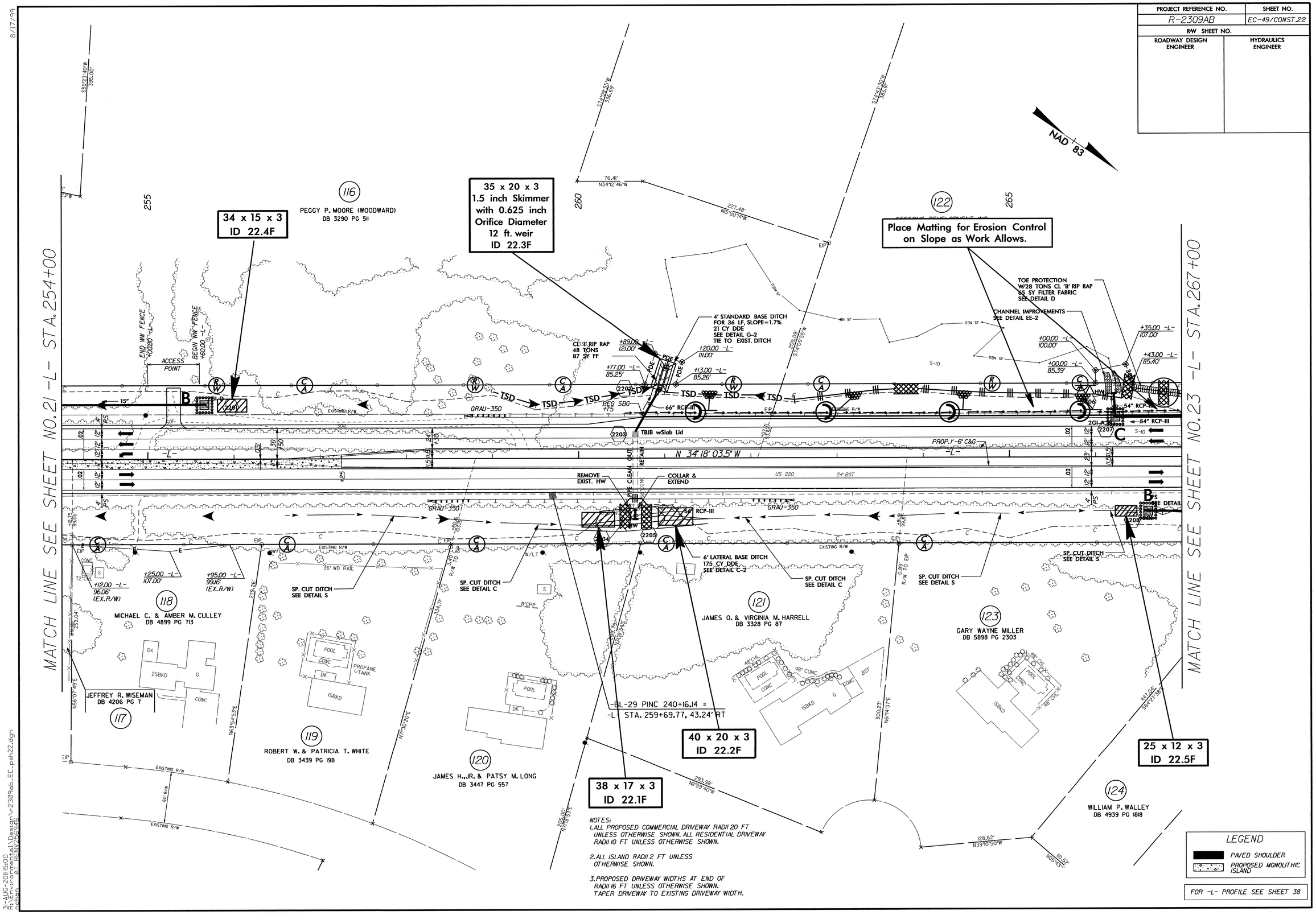
pdown

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-49/CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

8/17/99

31-AUG-2011 15:00
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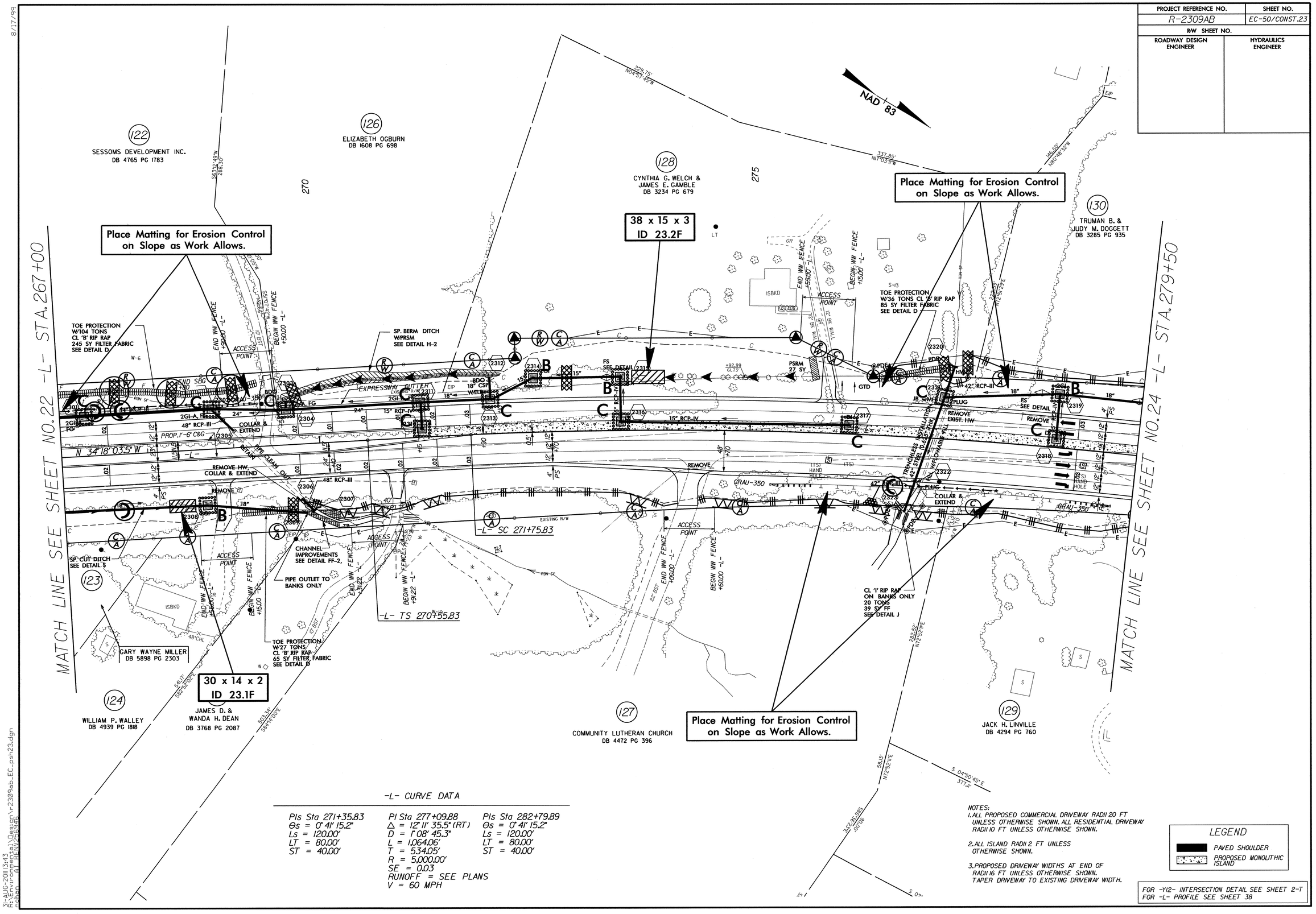
dgnsetup: RT_REVIS_36.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-50/CONST.23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PIs Sta 271+35.83	PI Sta 277+09.88	PIs Sta 282+79.89
Θs = 0° 41' 15.2"	Δ = 12° 11' 35.5" (RT)	Θs = 0° 41' 15.2"
Ls = 120.00'	D = 1° 08' 45.3"	Ls = 120.00'
LT = 80.00'	L = 1,064.06'	LT = 80.00'
ST = 40.00'	T = 534.05'	ST = 40.00'
	R = 5,000.00'	
	SE = 0.03	
	RUNOFF = SEE PLANS	
	V = 60 MPH	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y12- INTERSECTION DETAIL SEE SHEET 2-T
FOR -L- PROFILE SEE SHEET 38

8/17/99

31-AUG-2011 13:43
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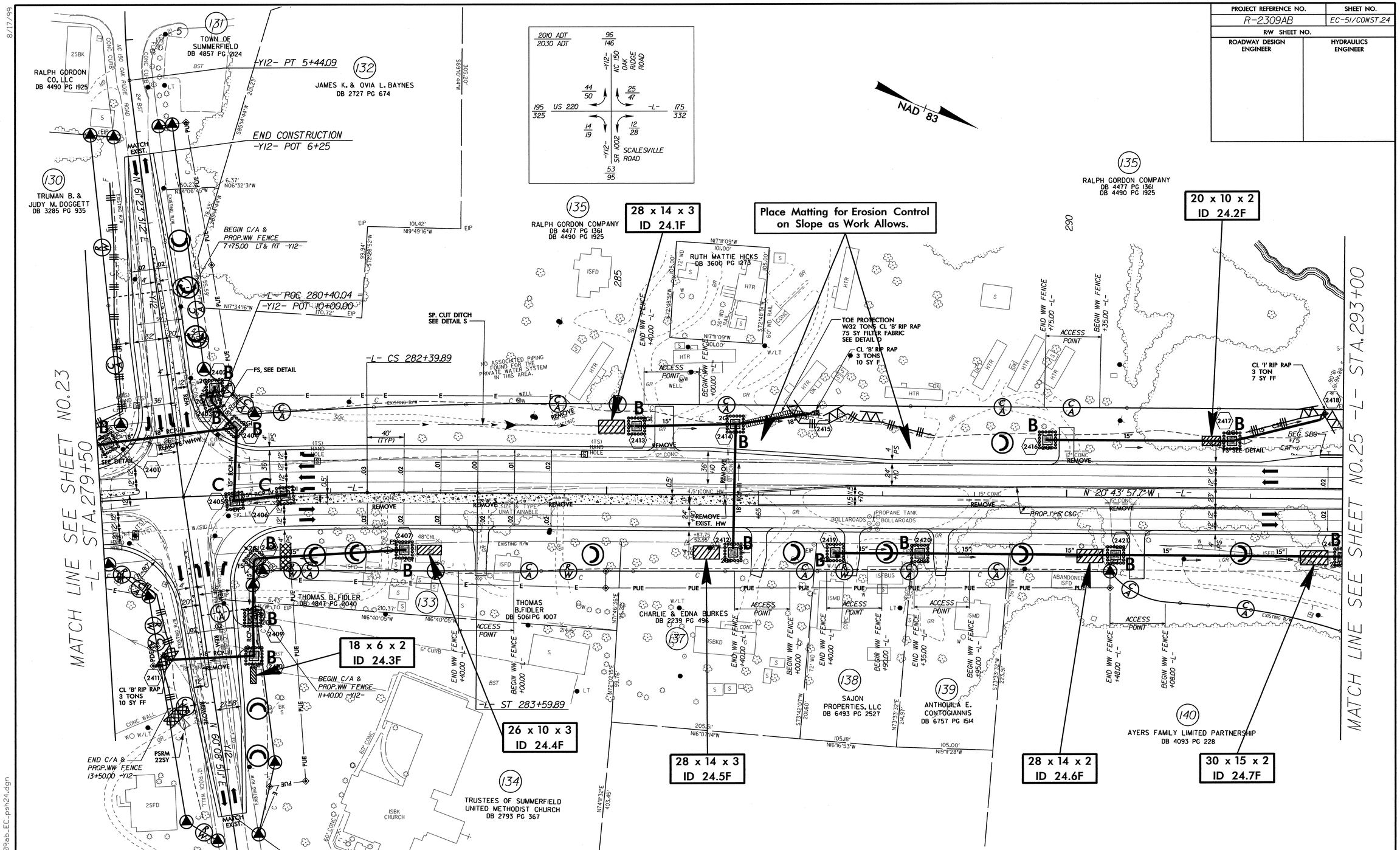
pmcnamara

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-51/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-Y12- CURVE DATA

PI Sta 4+73.37
Δ = 13° 34' 13.6" (LT)
D = 9° 32' 57.5"
L = 142.11'
T = 71.39'
R = 600.00'

-L- CURVE DATA

PIs Sta 271+35.83
Θs = 0° 41' 15.2"
Ls = 120.00'
LT = 80.00'
ST = 40.00'

PI Sta 277+09.88
Δ = 12° 11' 35.5" (RT)
D = 1° 08' 45.3"
L = 1064.06'
T = 534.05'
R = 5,000.00'
SE = 0.03
RUNOFF = SEE PLANS
V = 60 MPH

PIs Sta 282+79.89
Θs = 0° 41' 15.2"
Ls = 120.00'
LT = 80.00'
ST = 40.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y12- INTERSECTION DETAIL SEE SHEET 2-T
FOR -L- PROFILE SEE SHEET 39
FOR -Y12- PROFILE SEE SHEET 44

8/17/99

31-AUG-2011 13:51
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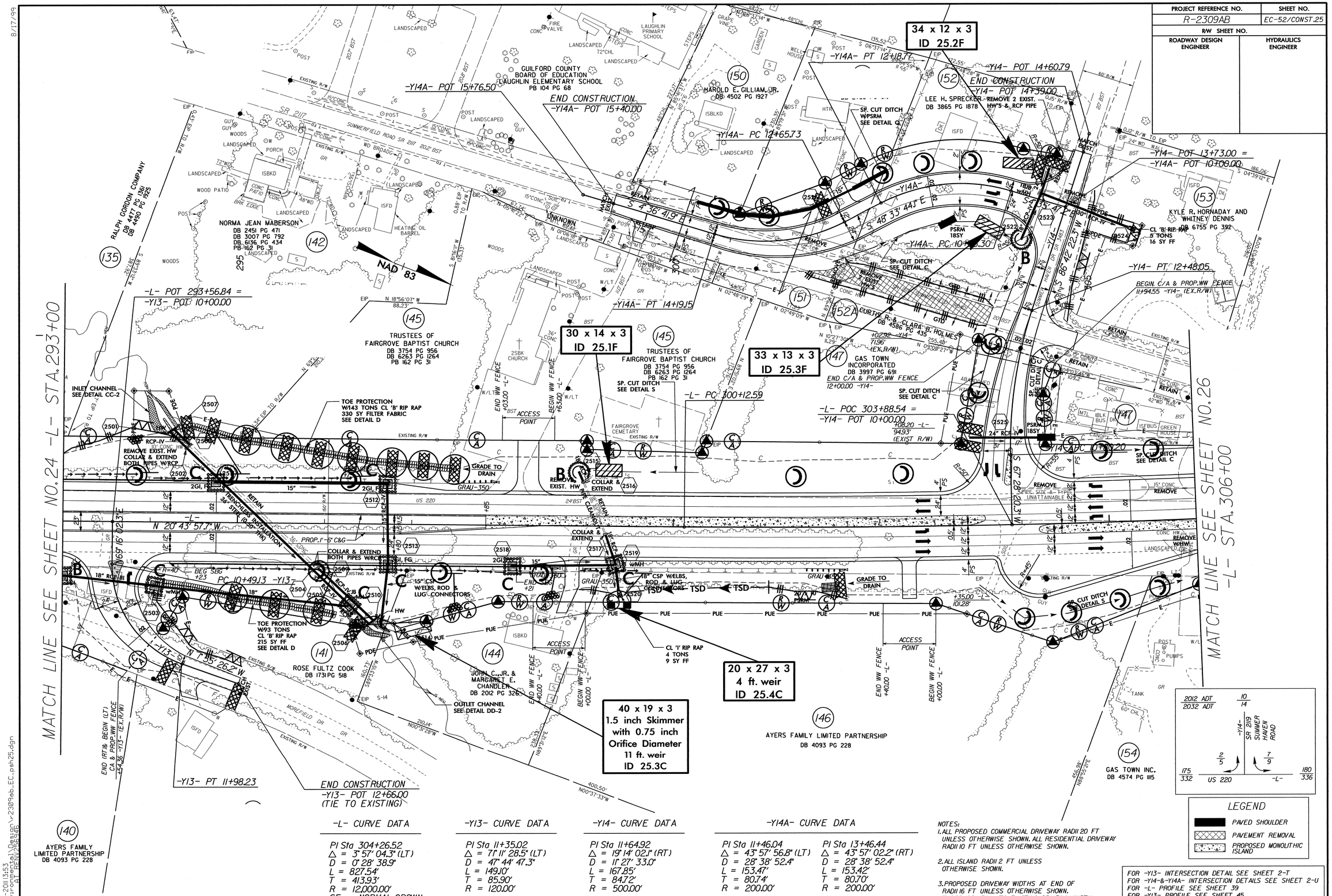
PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-52/CONST.25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- CURVE DATA

PI Sta 304+26.52
△ = 3° 57' 04.3" (LT)
D = 0° 28' 38.9"
L = 827.54'
T = 413.93'
R = 12,000.00'
SE = NORMAL CROWN
V = 60 MPH

-Y13- CURVE DATA

PI Sta 11+35.02
△ = 71° 11' 28.5" (LT)
D = 47° 44' 47.3"
L = 149.10'
T = 85.90'
R = 120.00'

-Y14- CURVE DATA

PI Sta 11+64.92
△ = 19° 14' 02.1" (RT)
D = 11° 27' 33.0"
L = 167.85'
T = 84.72'
R = 500.00'

-Y14A- CURVE DATA

PI Sta 11+46.04
△ = 43° 57' 56.8" (LT)
D = 28° 38' 52.4"
L = 153.47'
T = 80.74'
R = 200.00'

PI Sta 13+46.44
△ = 43° 57' 02.2" (RT)
D = 28° 38' 52.4"
L = 153.42'
T = 80.70'
R = 200.00'

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

FOR -Y13- INTERSECTION DETAIL SEE SHEET 2-T
FOR -Y14-&-Y14A- INTERSECTION DETAILS SEE SHEET 2-U
FOR -L- PROFILE SEE SHEET 39
FOR -Y13- PROFILE SEE SHEET 45
FOR -Y14- PROFILE SEE SHEET 45
FOR -Y14A- PROFILE SEE SHEET 45

8/17/99
31-AUG-2011 13:53
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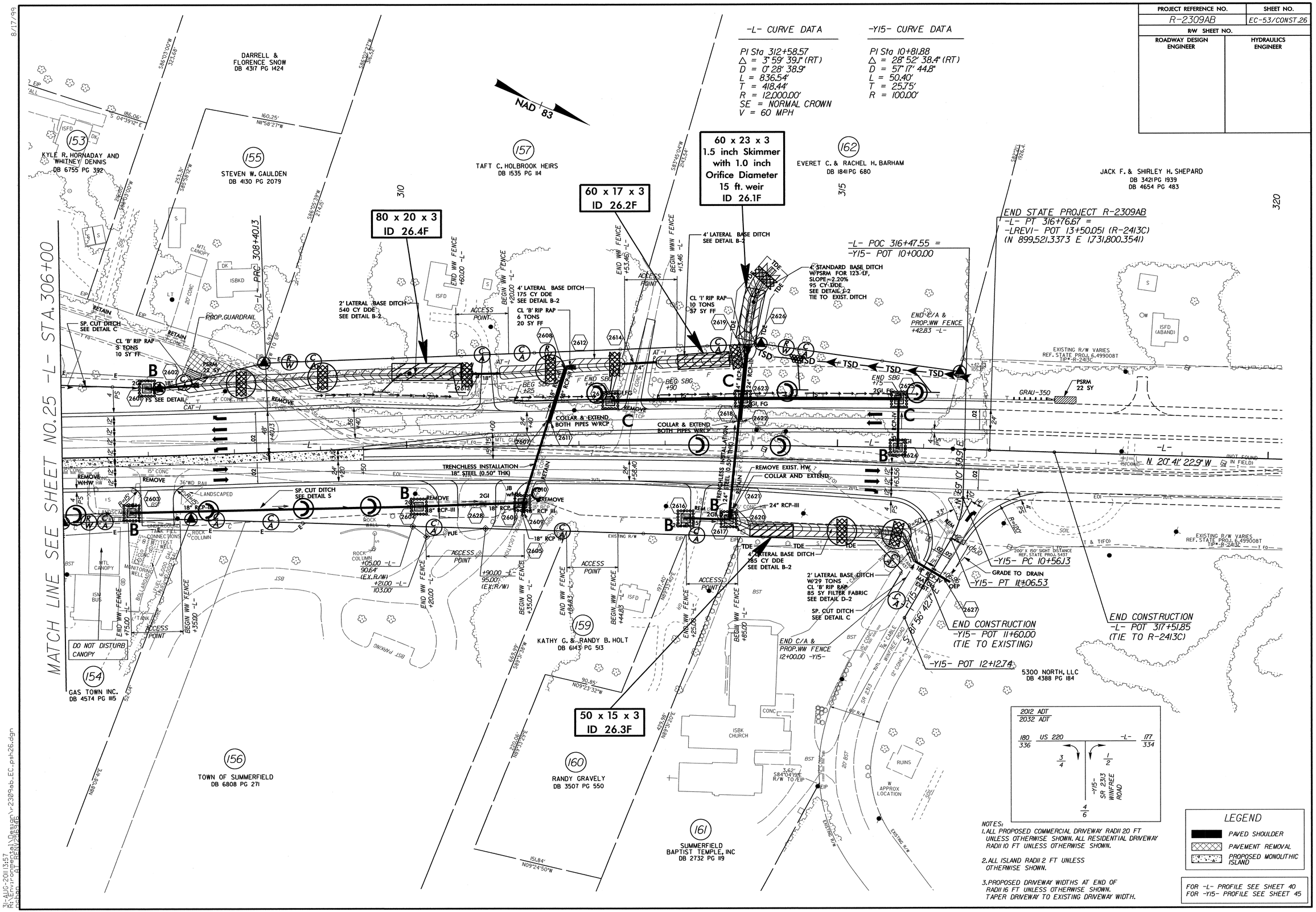
pchan AT REN\2309ab

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-53/CONST.26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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31-AUG-2011 13:57
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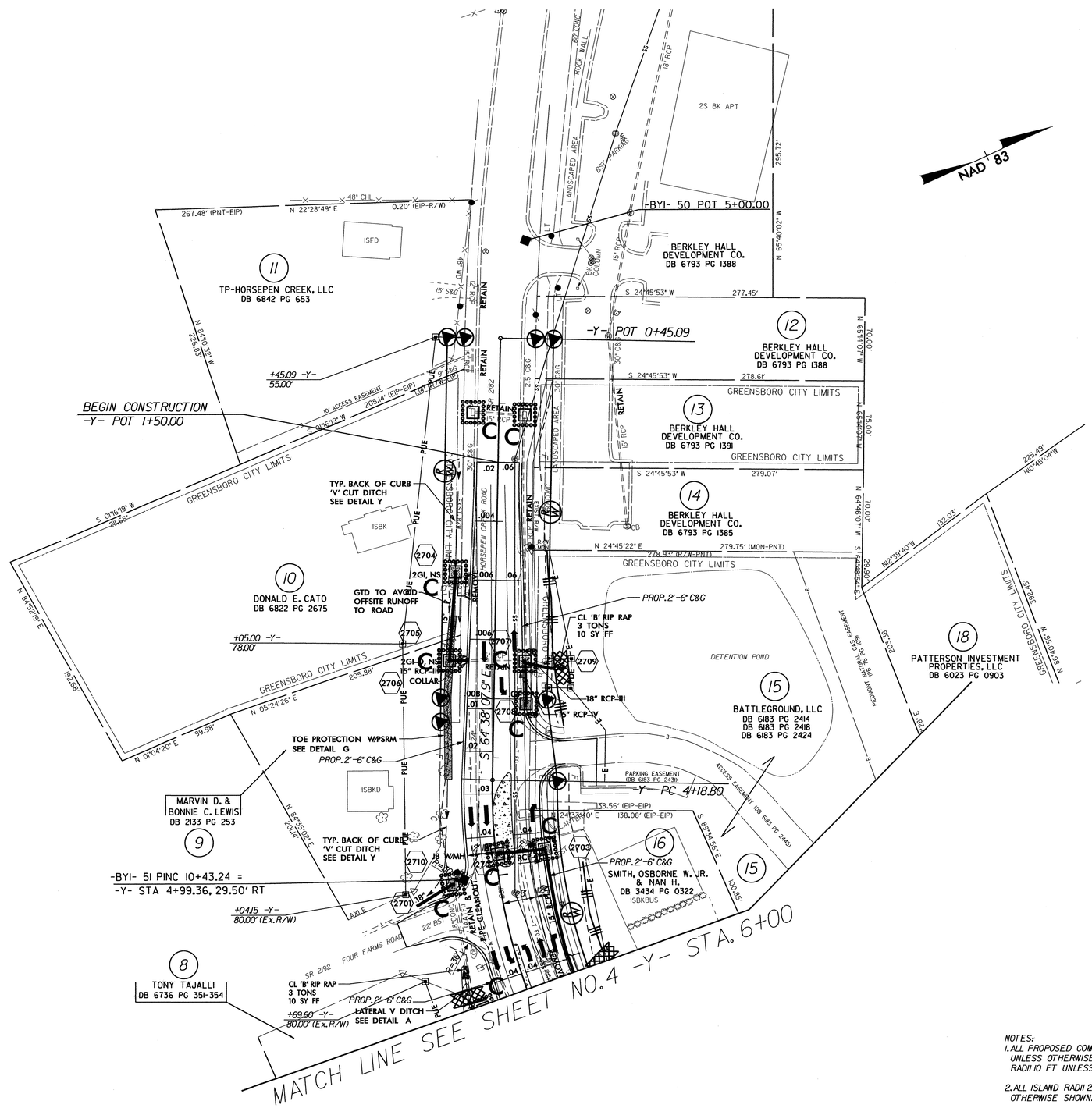
bowen

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-54/CONST.27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y- CURVE DATA

PI Sta 5+28.21
△ = 24° 41' 09.4" (LT)
D = 11° 27' 33.0"
L = 215.43'
T = 109.41'
R = 500.00'



NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.

2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.

3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND

PROPOSED MONOLITHIC ISLAND

FOR -Y- PROFILE SEE SHEET 41

8/17/99

31-AUG-2011 14:06
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DGN: ST_RENV.26.6.6

PROJECT REFERENCE NO.	SHEET NO.
R-2309AB	EC-55/CONST.28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y8- CURVE DATA

PIs Sta 18+37.56	PI Sta 21+16.65	PIs Sta 23+94.00
Θs = 1° 25' 56.6"	△ = 11° 57' 06.1" (LT)	Θs = 1° 25' 56.6"
Ls = 115.00'	D = 2° 29' 28.0"	Ls = 115.00'
LT = 76.67'	L = 479.77'	LT = 76.67'
ST = 38.34'	T = 240.76'	ST = 38.34'
	R = 2,300.00'	

NOTES:
1. ALL PROPOSED COMMERCIAL DRIVEWAY RADII 20 FT UNLESS OTHERWISE SHOWN. ALL RESIDENTIAL DRIVEWAY RADII 10 FT UNLESS OTHERWISE SHOWN.
2. ALL ISLAND RADII 2 FT UNLESS OTHERWISE SHOWN.
3. PROPOSED DRIVEWAY WIDTHS AT END OF RADII 16 FT UNLESS OTHERWISE SHOWN. TAPER DRIVEWAY TO EXISTING DRIVEWAY WIDTH.

LEGEND
PAVED SHOULDER
PROPOSED MONOLITHIC ISLAND

FOR -Y8- INTERSECTION DETAIL SEE SHEET 2-S
FOR -Y8- PROFILE SEE SHEET 43

8/17/99

R:\AUG-2011\4:37 Environmental\Design\r2309ab_EC_psh28.dgn
chanrr at RENV\2556346