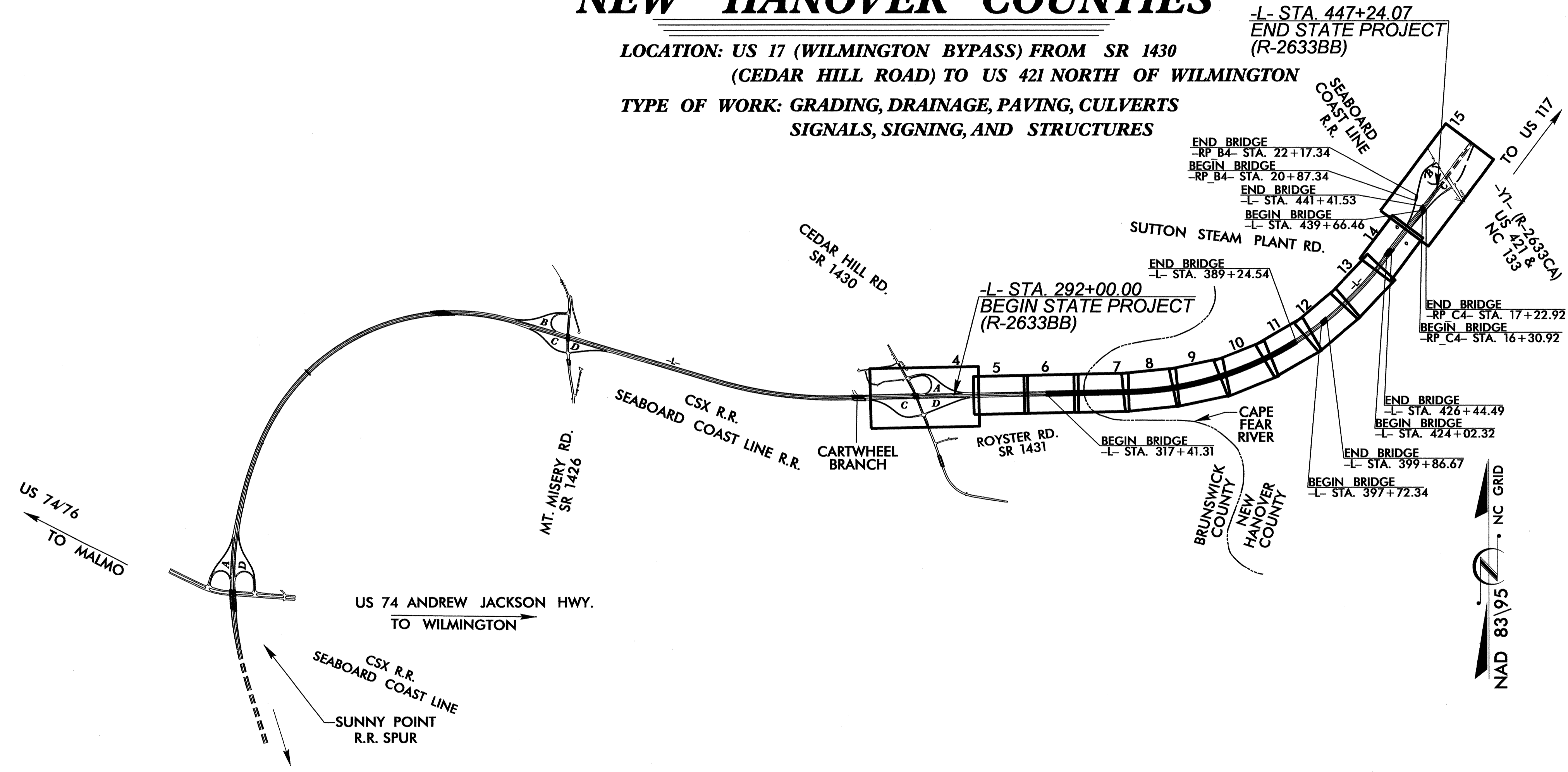


TIP PROJECT: R-2633BB

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

NEW HANOVER COUNTIES

LOCATION: US 17 (WILMINGTON BYPASS) FROM SR 1430
(CEDAR HILL ROAD) TO US 421 NORTH OF WILMINGTON
TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERTS
SIGNALS, SIGNING, AND STRUCTURES



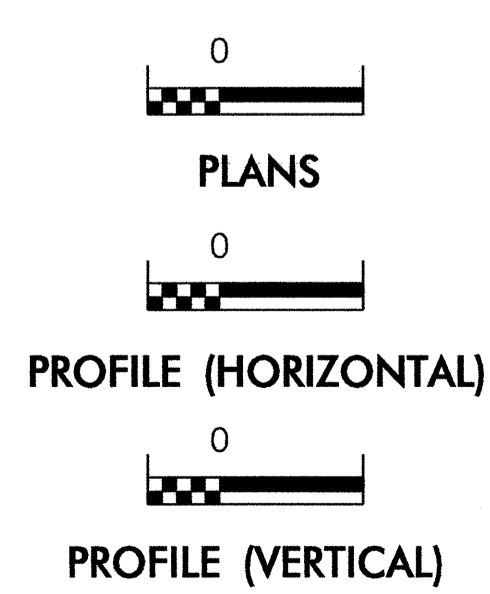
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2633BB	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	TSB
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SSCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA/PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle/Coir Fiber Wattle	W/CFF
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	W/CFF/PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	RIA
1632.02	Type B	RIAB
1632.03	Type C	RIAC
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

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

GRAPHIC SCALE



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
2012 STANDARD SPECIFICATIONS

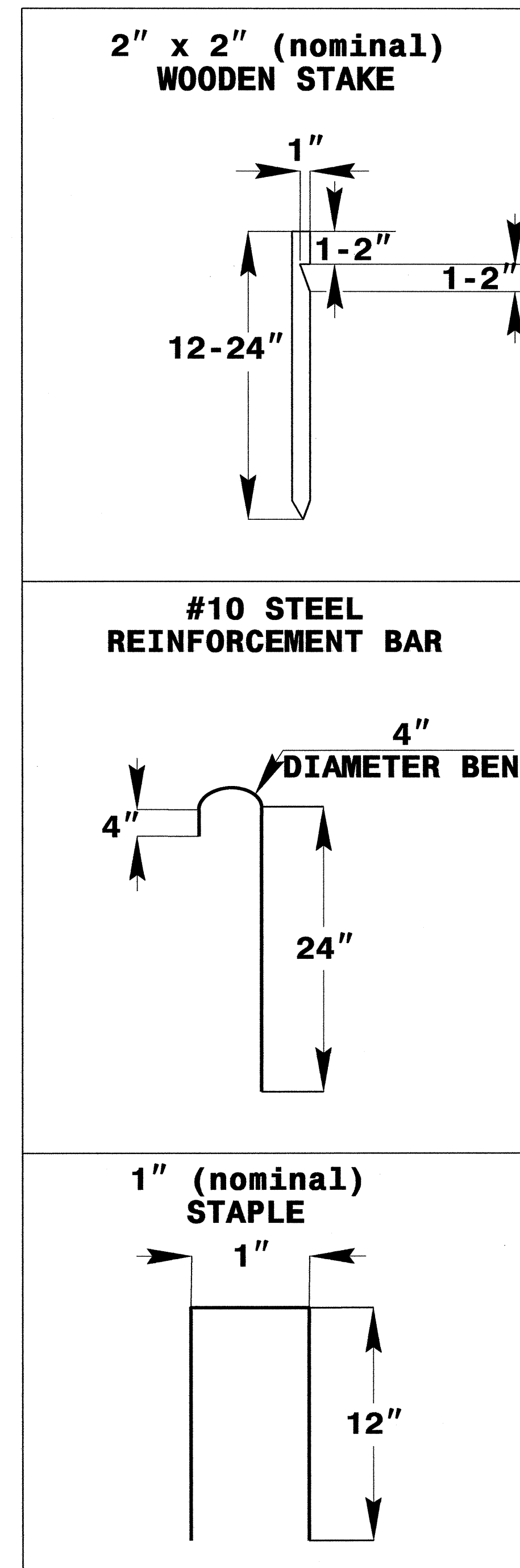
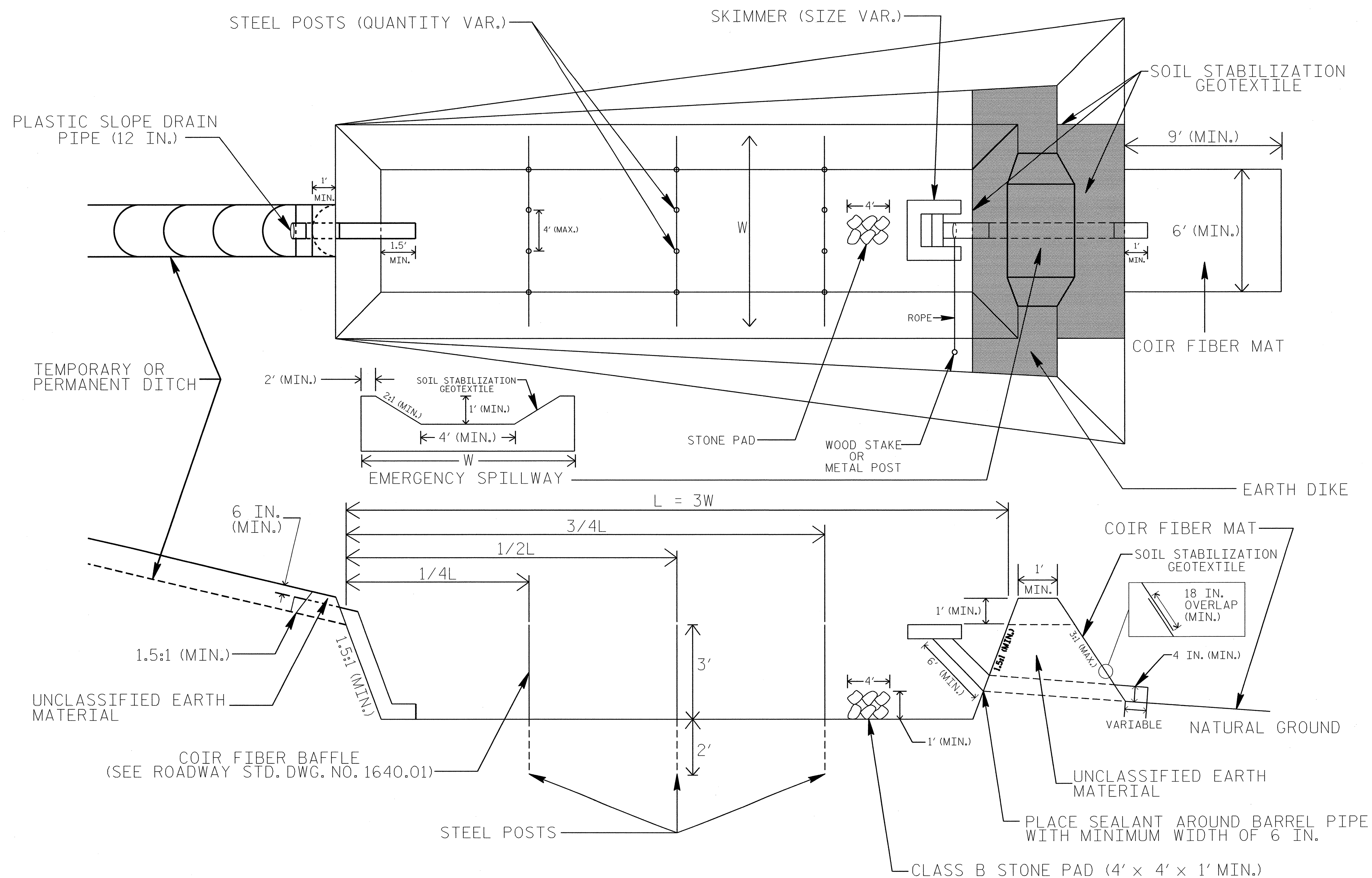
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

PROJECT REFERENCE NO. R-2633BB	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



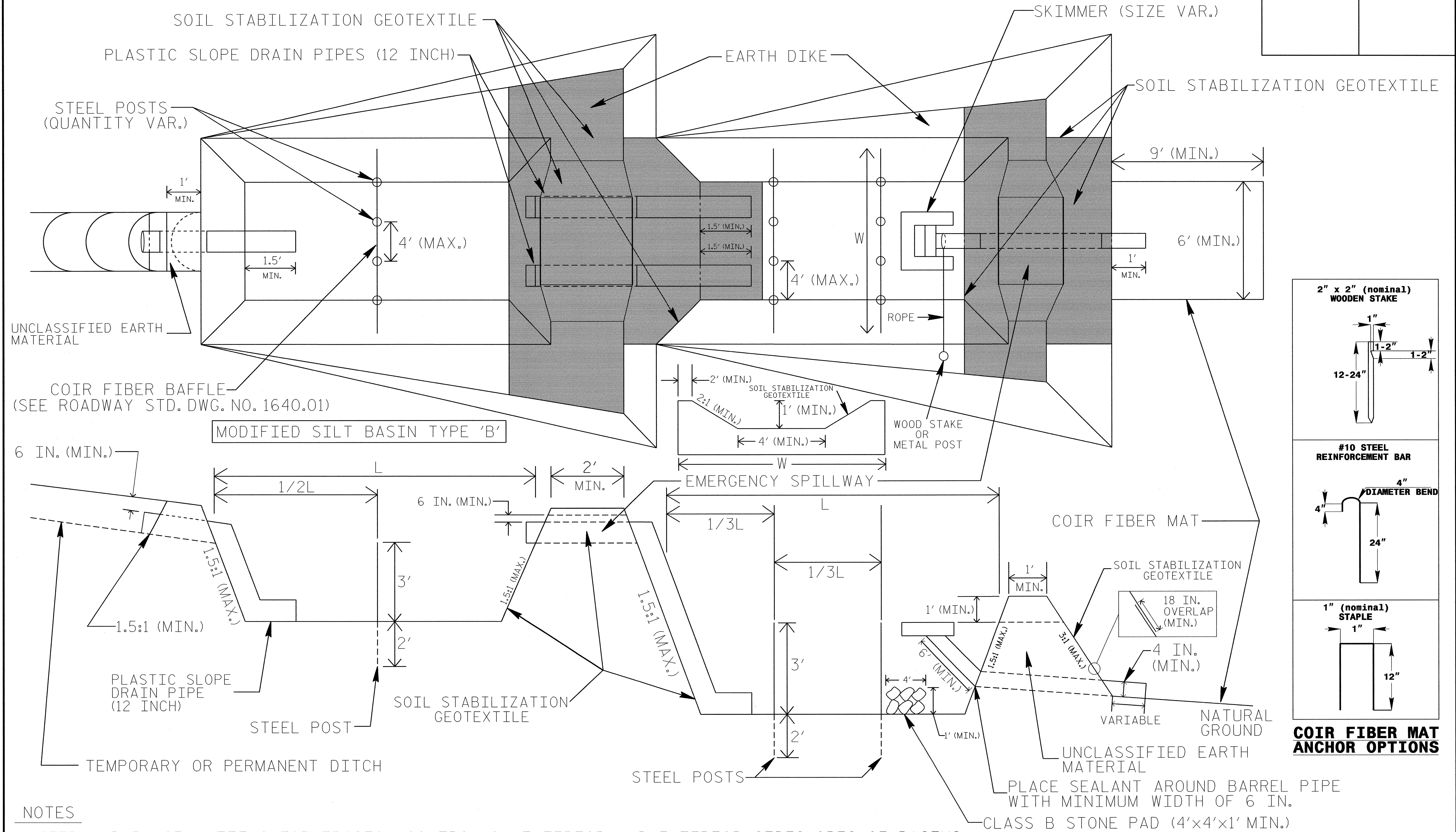
NOTES

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 WEIR 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 FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

TIERED SKIMMER BASIN DETAIL

PROJECT REFERENCE NO. R-2633BB	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



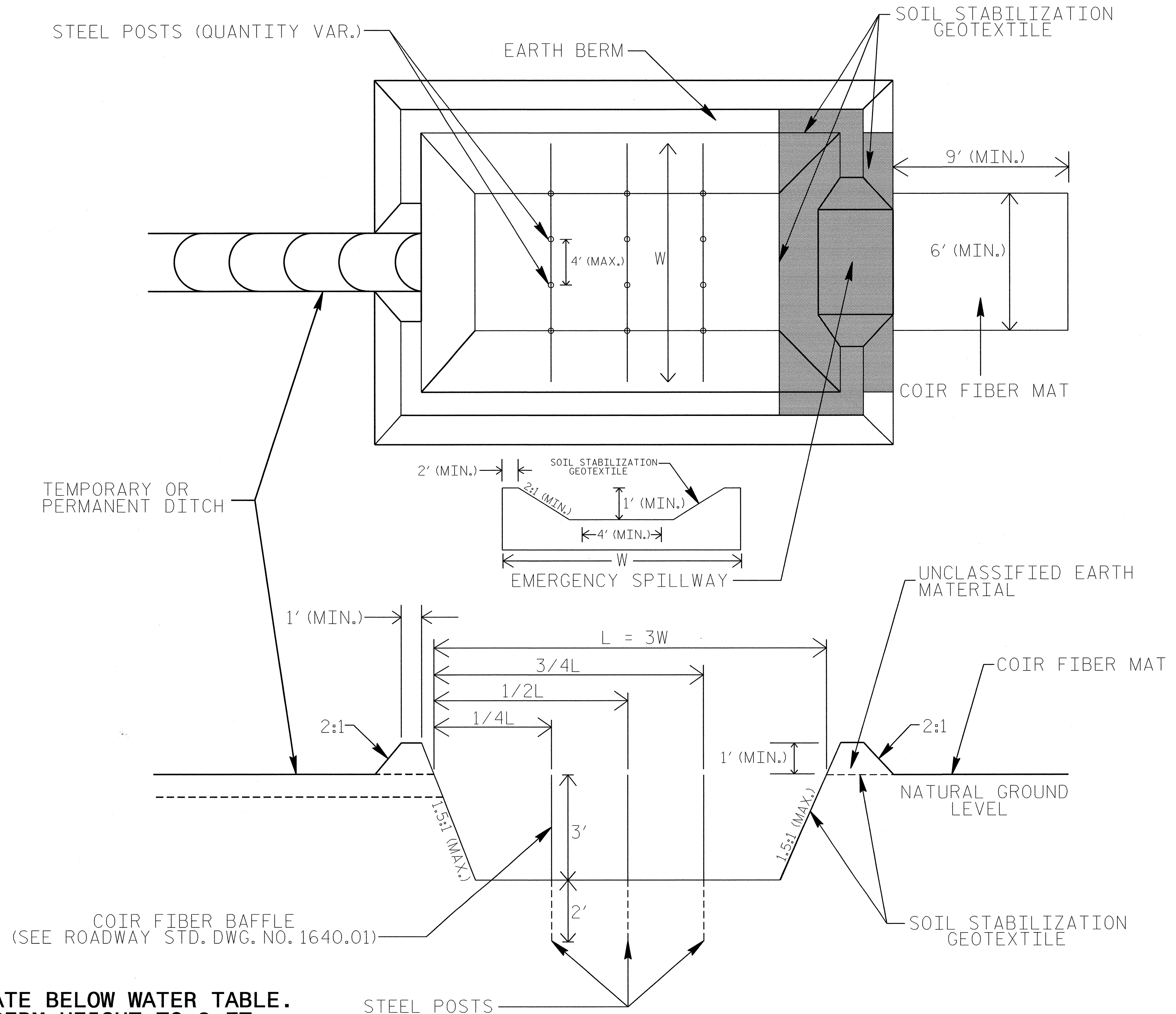
NOTES

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 GEOTEXTILE FOR EMERGENCY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

INFILTRATION BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. R-2633BB	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES

1. DO NOT EXCAVATE BELOW WATER TABLE.
2. LIMIT EARTH BERM HEIGHT TO 3 FT.
3. AVOID COMPACTING BOTTOM OF BASIN.
4. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
5. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.

COIR FIBER MAT ANCHOR OPTIONS

NOT TO SCALE

BORROW PIT DEWATERING BASIN DETAIL

PROJECT REFERENCE NO. R-2633BB	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING $V = 8.0203 * Q * T$, WHERE V IS VOLUME (FT³), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

RISER SHALL BE A NON-PERFORATED, SMOOTH OR CORRUGATED MATERIAL WITH A FLASHBOARD OPTION.

CONSTRUCT THE COIR FIBER BAFFLE IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1640.01 AND WITH MATERIAL THAT MEETS THE SPECIFICATIONS OF ROADWAY STANDARD 1060-14.

PROVIDE 5' STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 3' OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE BASIN WITH 12" STAPLES.

INSTALL TYPE 2 GEOTEXTILE ON SIDESLOPES AND BOTTOM OF BASIN AT INLET AS SHOWN IN THE DETAIL.

USE THE TYPICAL SECTION SHOWN FOR THE BORROW PIT DEWATERING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A NON-PERFORATED RISER.

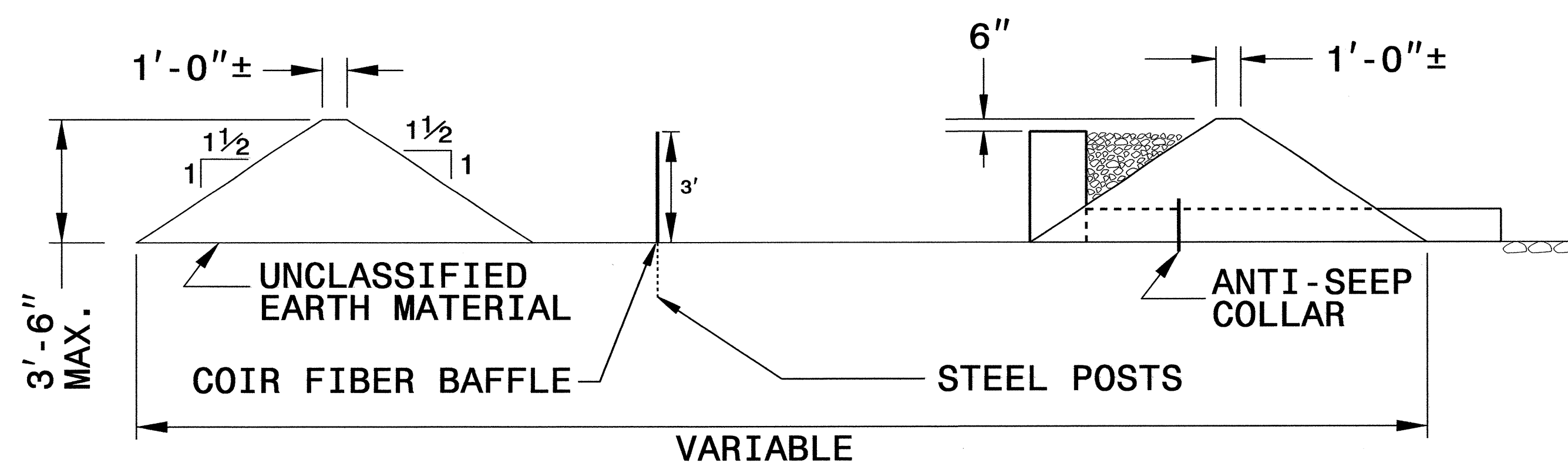
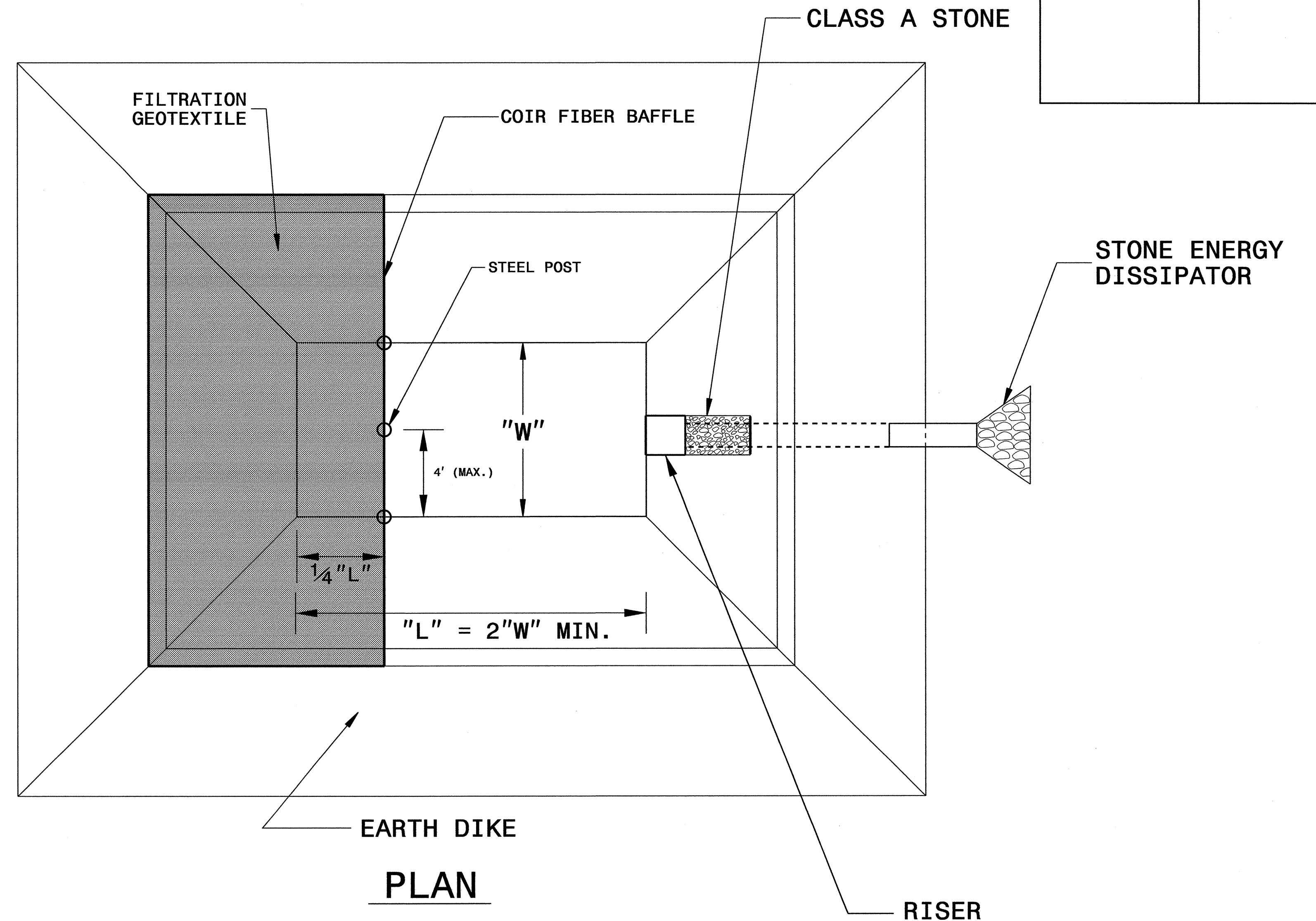
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

THE BORROW PIT DEWATERING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE BORROW PIT DEWATERING BASIN TO A MAXIMUM DEPTH OF 6 IN. BELOW TOP OF EARTH DIKE.

PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.

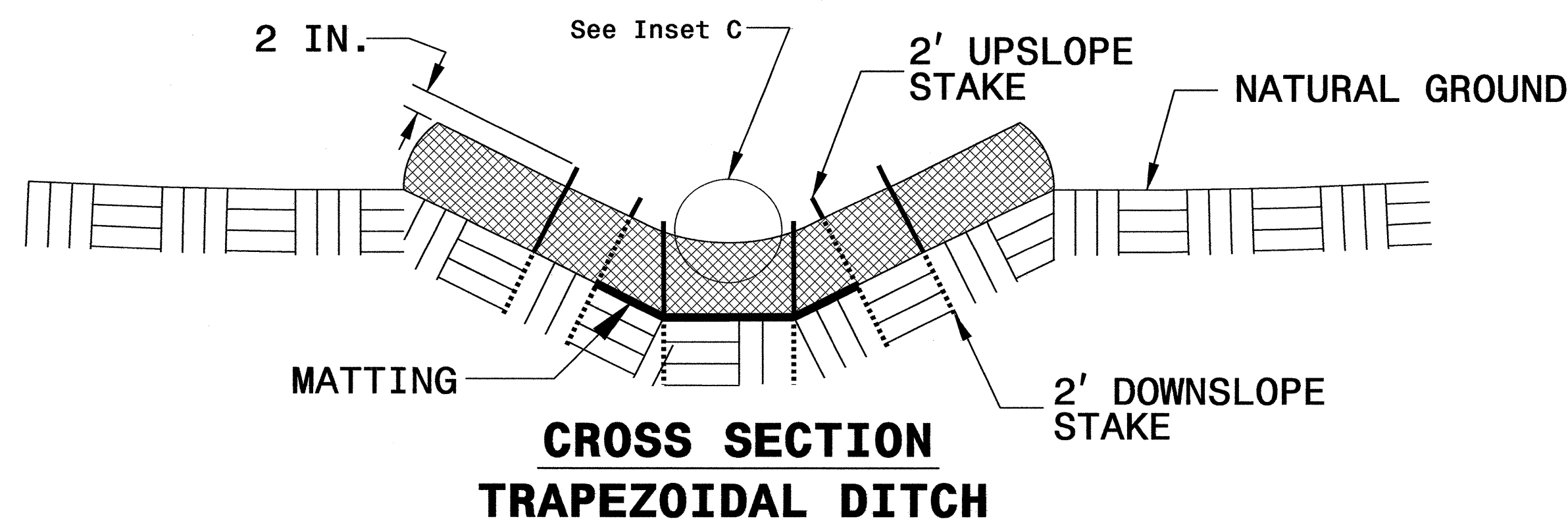
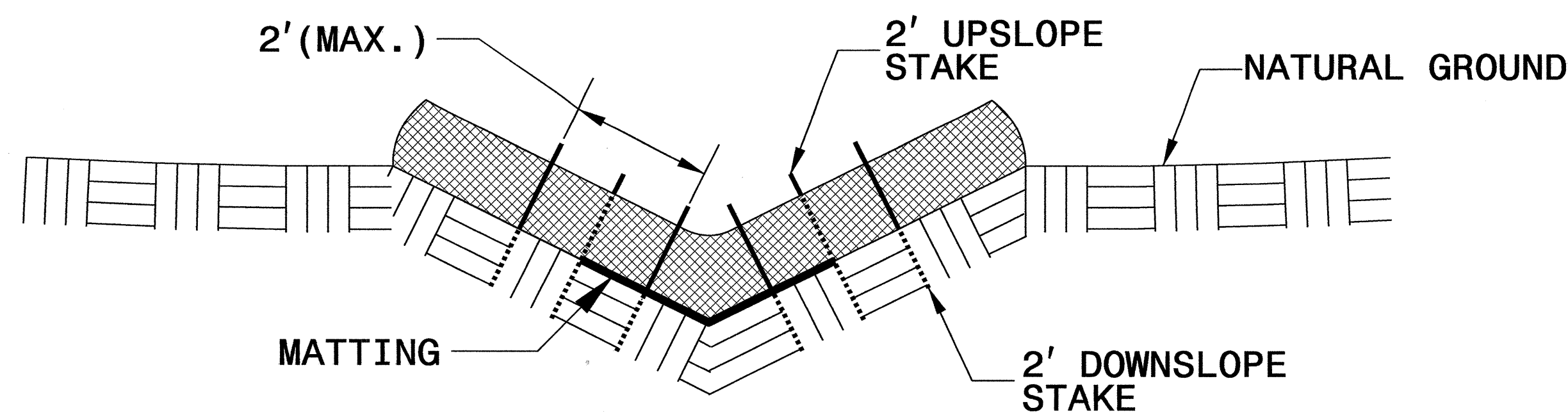
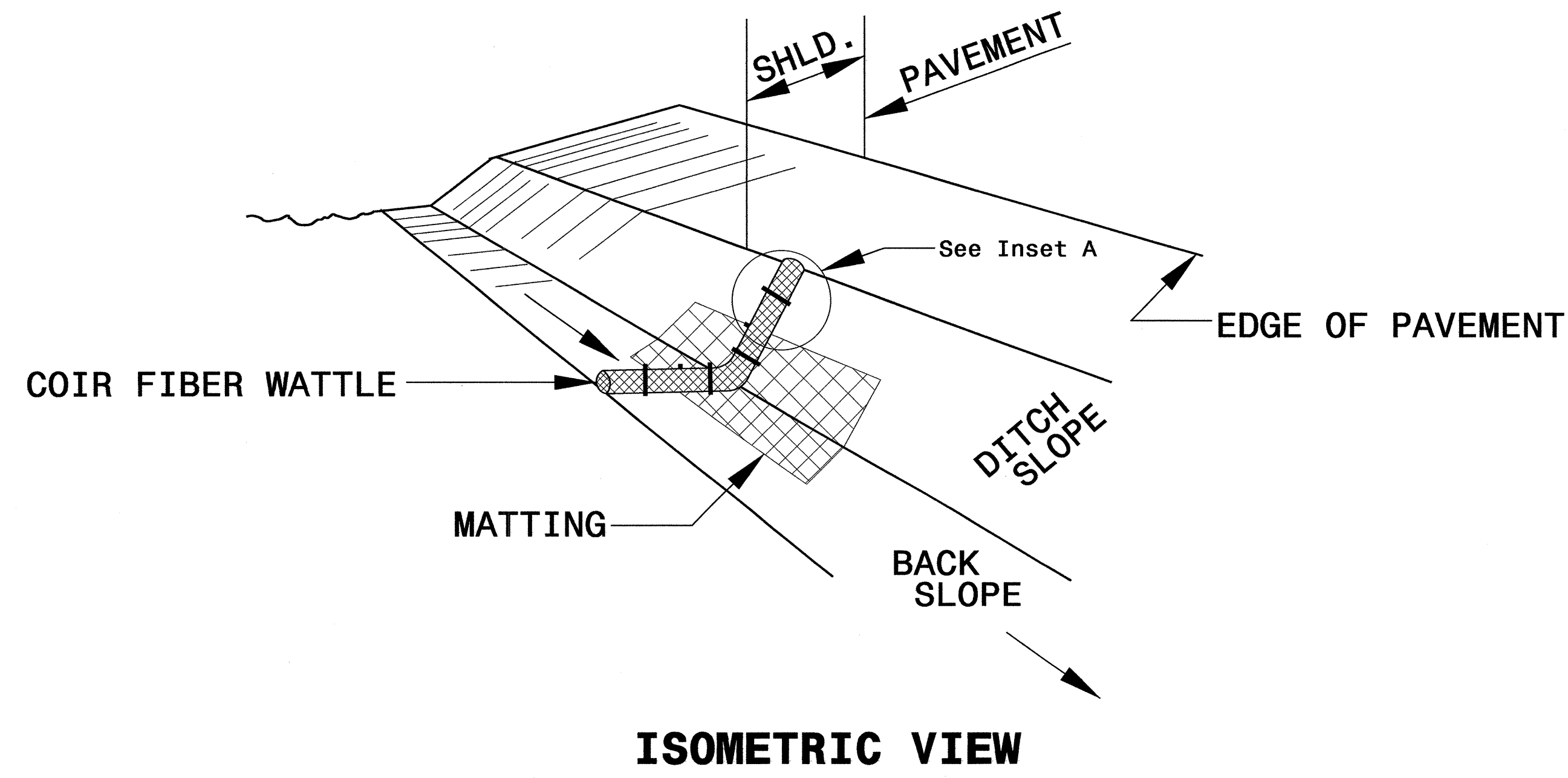


TYPICAL SECTION VIEW

NOT TO SCALE

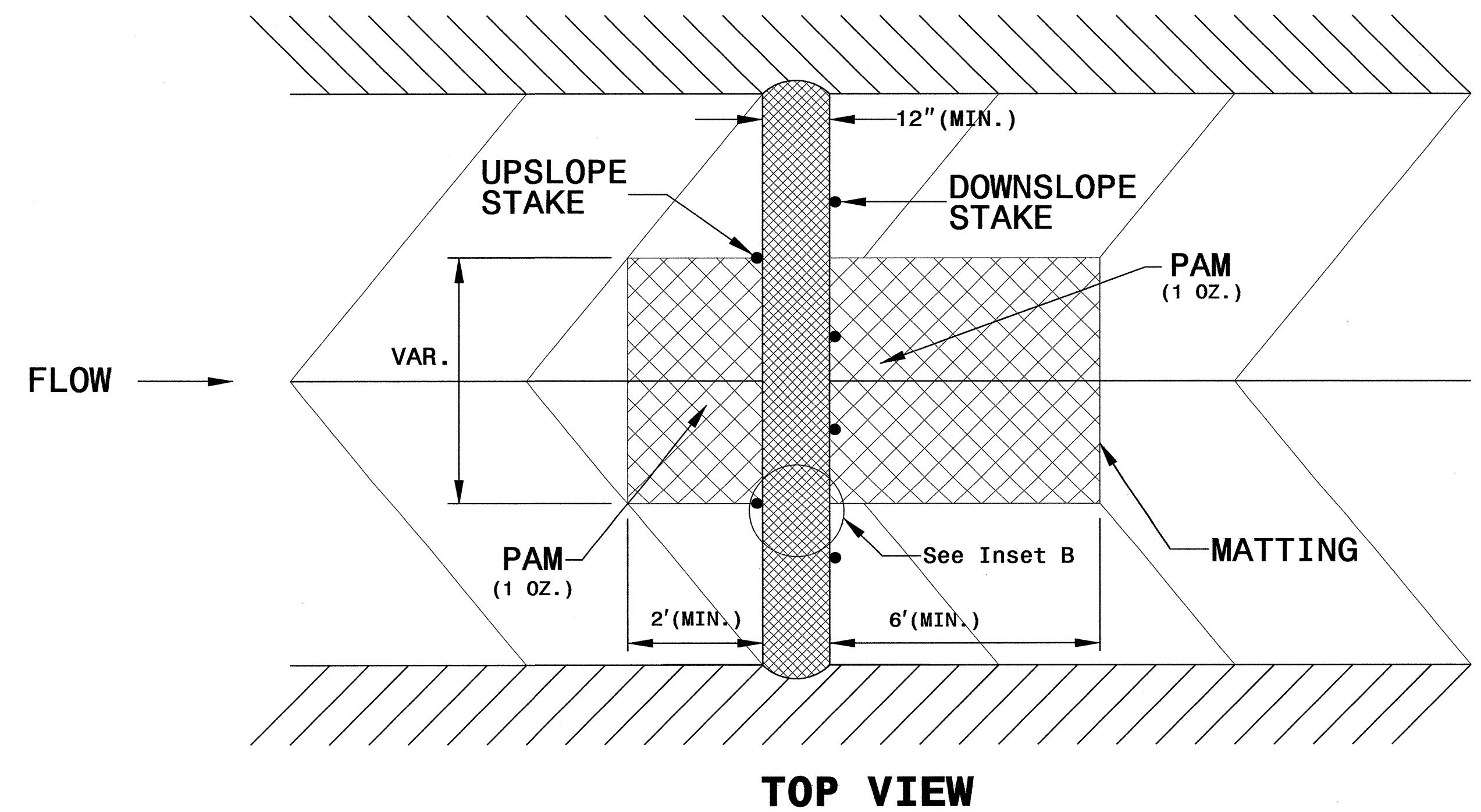
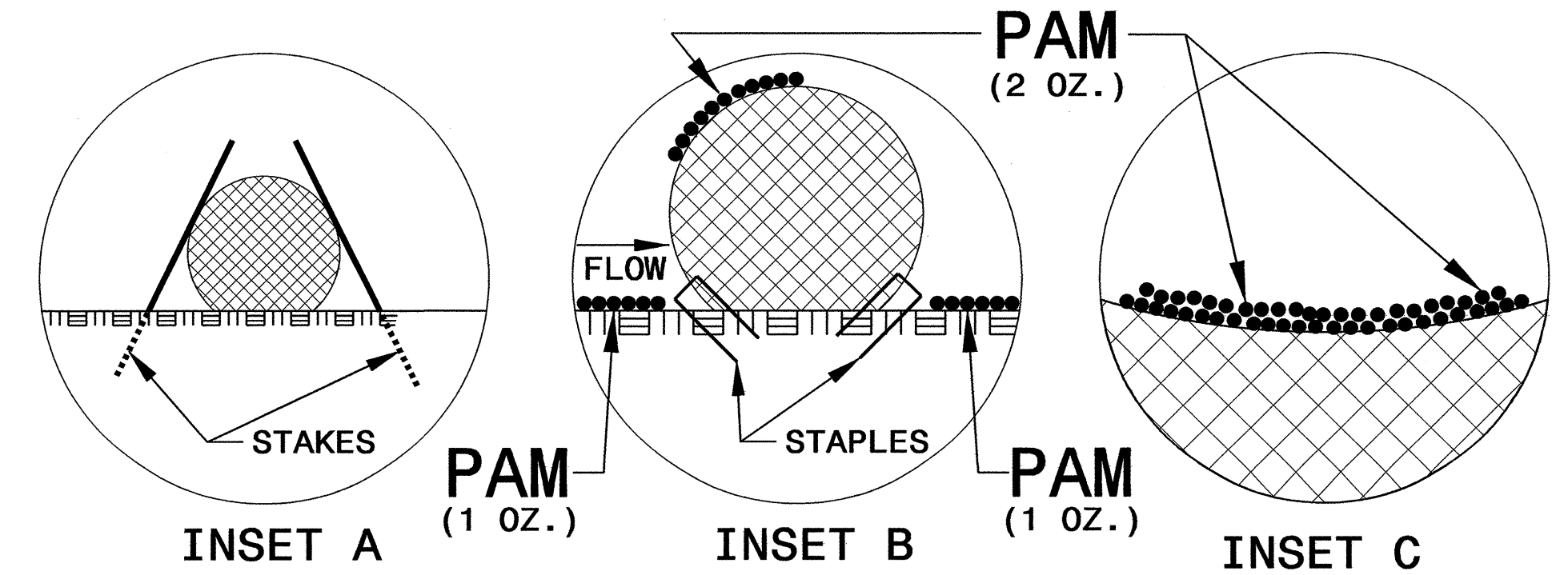
PROJECT REFERENCE NO. R-2633BB		SHEET NO. EC-2D	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-2633BB</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

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

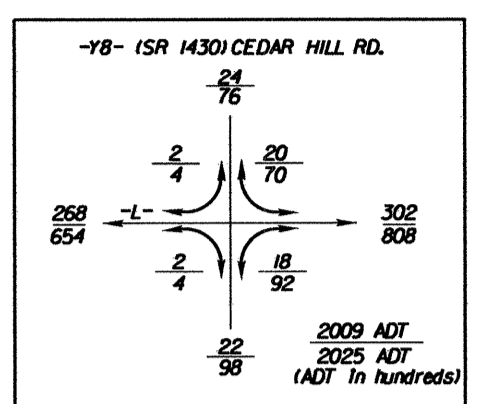
REVISIONS

1. Revision: September 17, 2008, Revised r/w label from -RP_C3 to -L-C3.

2. Revision: September 17, 2008, Revised r/w label of -RP_C3 - Sta. 29+03.84 to Sta. 29+04.29.

3. Revision: September 17, 2008, Revised r/w limits & labels of -Y8B - due to new drainage ditches.

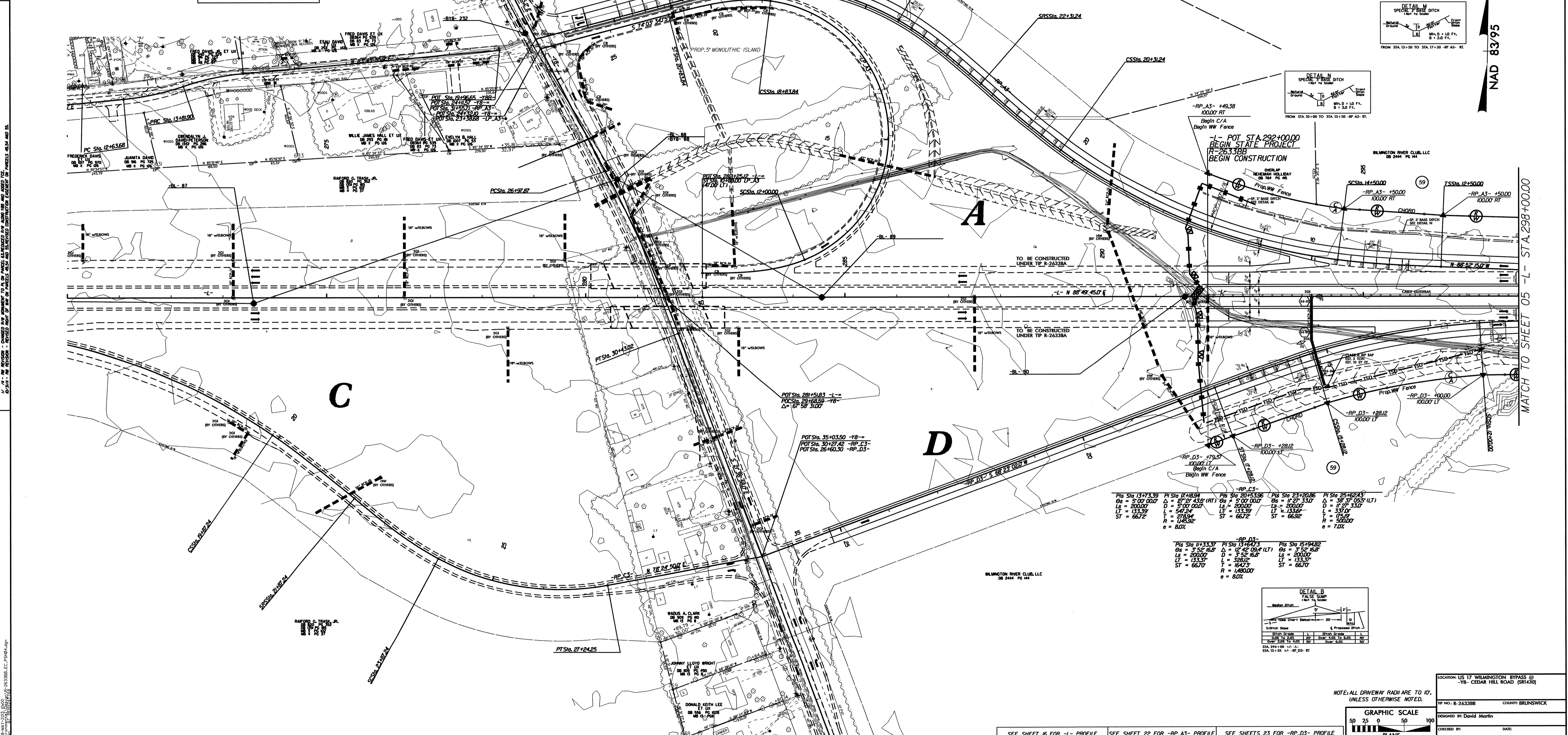
4. Revision: October 28, 2008, Added permanent utility limits & labels of -Y8 - Sta. 36+107.99 to Sta. 43+19.00.



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

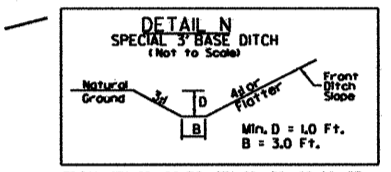
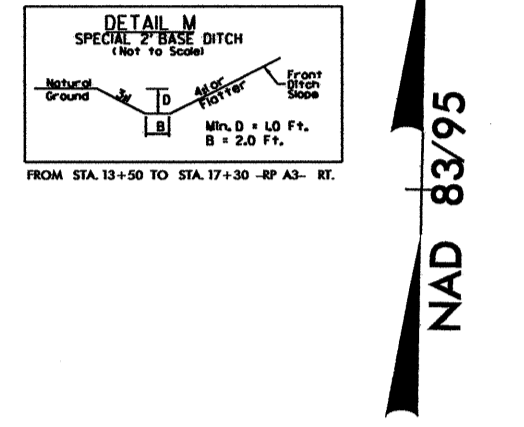
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
R-2633BB	EC-04/CONST/04
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER



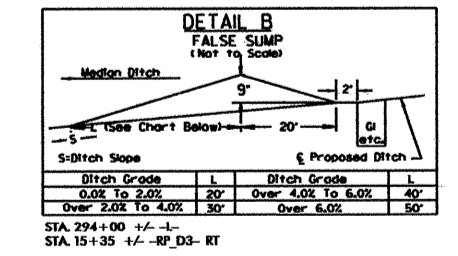
-RP_A3-	-RP_A3-	-RP_A3-	-RP_A3-	-RP_A3-	-RP_A3-
PI Sta 24+70.68	PI Sta 13+83.39	PI Sta 11+41.01	PI Sta 20+19.95	PI Sta 23+64.25	PI Sta 26+36.67
Es = 7.19 27.2 (RT)	Es = 5.00 0.00	Es = 29.03 42.3 (RT)	Es = 5.00 0.00	Es = 11.27 33.0	Es = 44.47 19.8 (LT)
D = 27.00 134	D = 5.00 0.00	D = 5.00 0.00	D = 5.00 0.00	D = 11.27 33.0	D = 22.00 12.5
L = 345.24	L = 50.24	L = 50.24	L = 33.39	L = 309.84	L = 309.84
T = 172.81	T = 257.24	T = 133.39	T = 66.72	T = 66.72	T = 66.72
R = 2700.00	R = 145.92	R = 145.92	R = 60X	R = 500.00	R = 500.00
e = 6.0X	e = 8.0X	e = 8.0X	e = 8.0X	e = 7.0X	e = 7.0X

-RP_A3-	-RP_A3-	-RP_A3-
PI Sta 11+34.38	PI Sta 21+54.46	PI Sta 19+54.46
Es = 22.02 12.5	Es = 15.0 4.5 (LT)	Es = 22.02 12.5
D = 22.00 12.5	D = 22.00 12.5	D = 22.00 12.5
L = 134.38	L = 63.84	L = 134.38
T = 67.62	T = 67.62	T = 67.62
R = 260.00	R = 260.00	R = 260.00
e = 7.0X	e = 8.0X	e = 7.0X

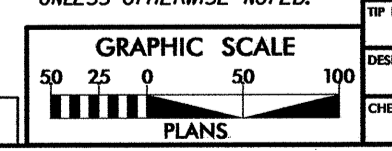


-RP_C3-	-RP_C3-	-RP_C3-	-RP_C3-	-RP_C3-	-RP_C3-
PI Sta 13+73.39	PI Sta 17+89.4	PI Sta 20+53.96	PI Sta 23+64.25	PI Sta 26+36.67	PI Sta 28+52.14
Es = 5.00 0.00	Es = 27.27 43.9 (RT)	Es = 5.00 0.00	Es = 11.27 33.0	Es = 44.47 19.8 (LT)	Es = 38.57 25.5 (LT)
D = 5.00 0.00	D = 5.00 0.00	D = 5.00 0.00	D = 5.00 0.00	D = 11.27 33.0	D = 11.27 33.0
L = 133.39	L = 347.84	L = 133.39	L = 133.39	L = 33.39	L = 33.39
T = 66.72	T = 278.94	T = 66.72	T = 66.72	T = 66.72	T = 66.72
R = 145.92	R = 145.92	R = 145.92	R = 60X	R = 500.00	R = 500.00
e = 8.0X	e = 8.0X	e = 8.0X	e = 8.0X	e = 7.0X	e = 7.0X

-RP_D3-	-RP_D3-	-RP_D3-	-RP_D3-
PI Sta 11+33.37	PI Sta 13+14.73	PI Sta 15+19.82	PI Sta 17+14.73
Es = 3.29 16.5	Es = 12.46 0.94 (LT)	Es = 3.29 16.5	Es = 3.29 16.5
D = 3.29 16.5	D = 3.29 16.5	D = 3.29 16.5	D = 3.29 16.5
L = 133.37	L = 154.73	L = 133.37	L = 133.37
T = 66.70	T = 66.70	T = 66.70	T = 66.70
R = 1480.00	R = 1480.00	R = 1480.00	R = 1480.00
e = 8.0X	e = 8.0X	e = 8.0X	e = 8.0X



NOTE: ALL DRAWING RADII ARE TO 1/8" UNLESS OTHERWISE NOTED.



LOCATION: US 17 WILMINGTON BYPASS @ CEDAR HILL ROAD (S14+90)
PROJECT NO.: R-2633BB COUNTY: BRUNSWICK
DESIGNED BY: David Martin
CHECKED BY: DATE:

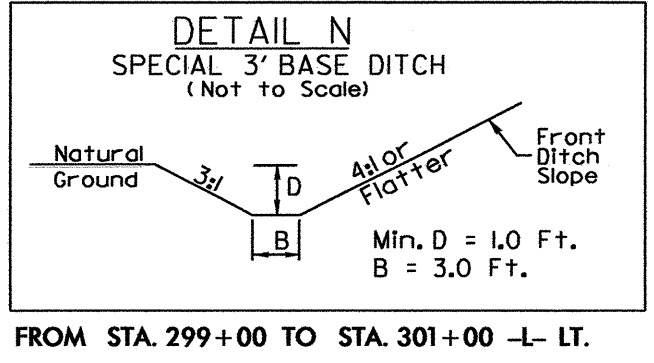
SEE SHEET 16 FOR -L- PROFILE SEE SHEET 22 FOR -RP_A3- PROFILE SEE SHEETS 23 FOR -RP_D3- PROFILE

08-MAY-2009 10:00 AM
 BRUNSWICK COUNTY, NC
 WILMINGTON RIVER CLUB, LLC
 2444 PG 04

PROJECT REFERENCE NO.	SHEET NO.
R-2633BB	EC-05/CONST.05
RW SHEET NO.	23
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.

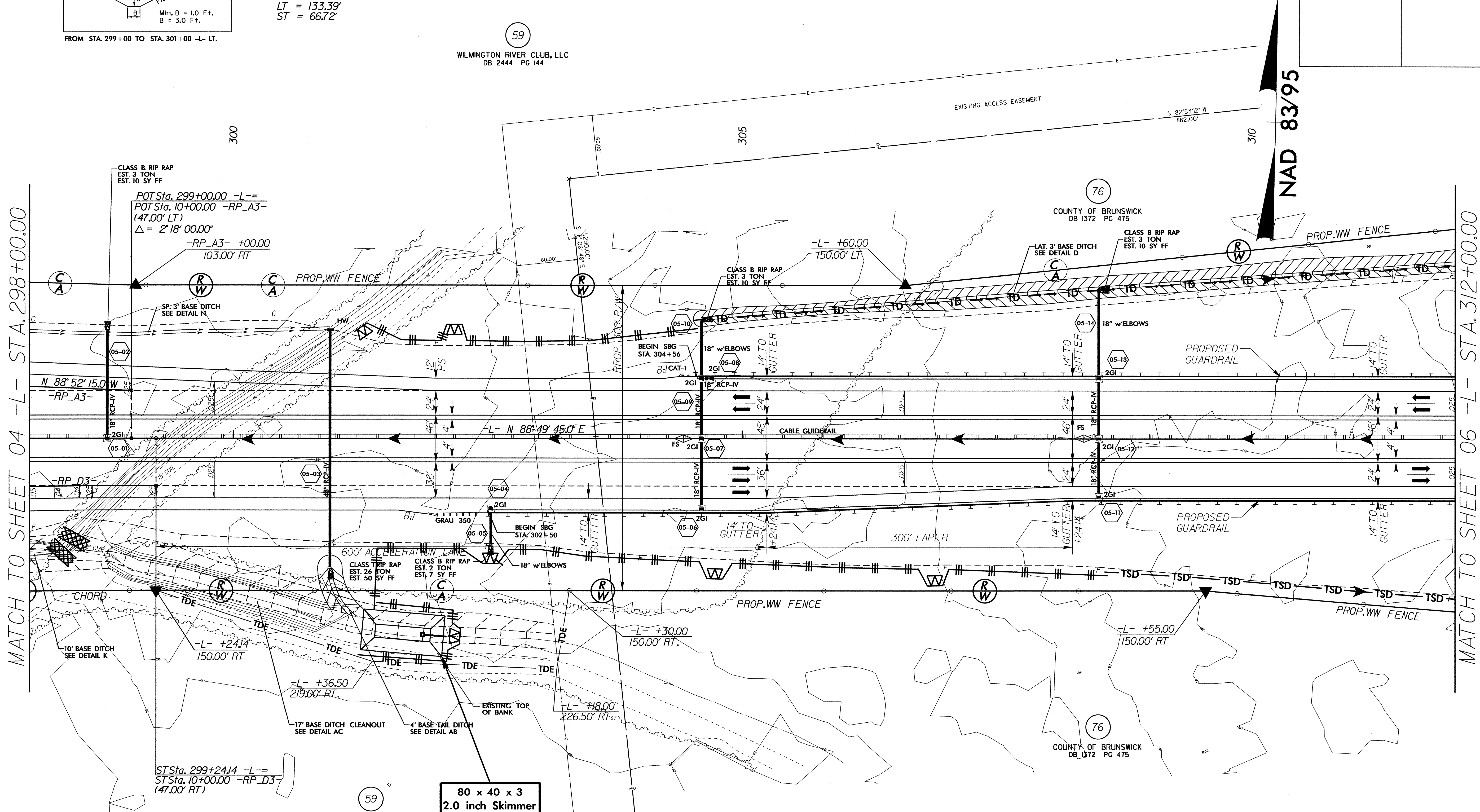


-RP_A3-
 Pts Sta 13+83.39
 Os = 5' 00" 00.0"
 Ls = 200.00'
 LT = 133.39'
 ST = 66.72'

59
 WILMINGTON RIVER CLUB, LLC
 DB 2444 PG 144

MATCH TO SHEET 04 -L- STA. 298+00.00

MATCH TO SHEET 06 -L- STA. 312+00.00



CLASS B RIP RAP
 EST. 3 TON
 EST. 10 SY FF
 POT Sta. 299+00.00 -L-
 POT Sta. 10+00.00 -RP_A3-
 (47.00' LT)
 Δ = 2' 18" 00.00"
 -RP_A3- +00.00
 103.00' RT

CLASS B RIP RAP
 EST. 3 TON
 EST. 10 SY FF
 -L- +60.00
 150.00' LT

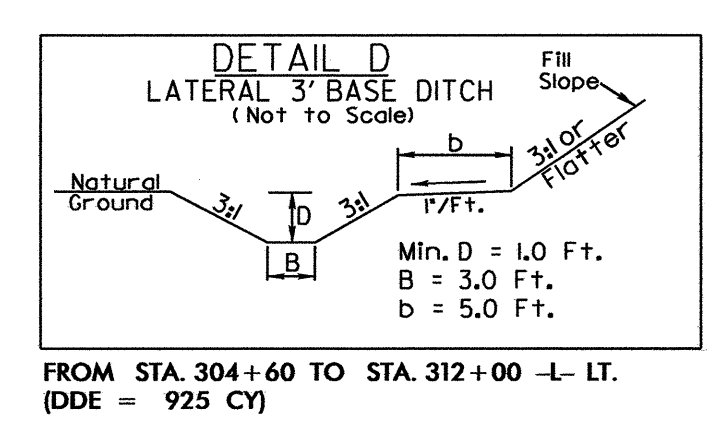
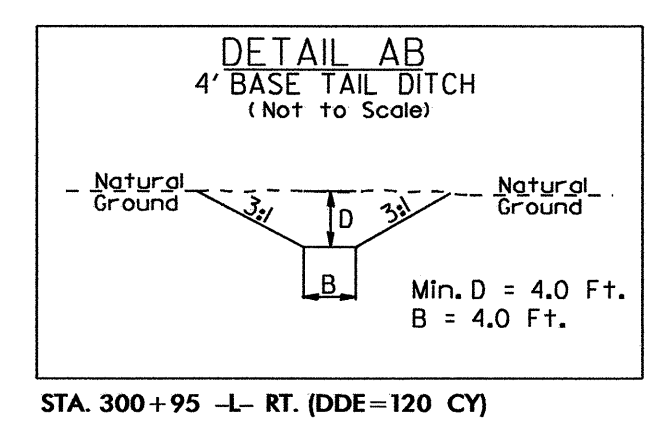
CLASS B RIP RAP
 EST. 3 TON
 EST. 10 SY FF
 -L- +55.00
 150.00' RT

ST Sta. 299+24.14 -L-
 ST Sta. 10+00.00 -RP_D3-
 (47.00' RT)

80 x 40 x 3
 2.0 inch Skimmer
 with 1.625 inch
 Orifice Diameter
 32 ft. weir
 ID 5.1F

-RP_D3-
 Pts Sta 11+33.37
 Os = 3' 52" 16.8"
 Ls = 200.00'
 LT = 133.37'
 ST = 66.70'

59
 WILMINGTON RIVER CLUB, LLC
 DB 2444 PG 144



DETAIL B
 FALSE SUMP
 (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM STA. 304+60 TO STA. 312+00 -L- LT.
 (DDE = 925 CY)

REVISIONS
 10/ /09 - NAME AND DEED CHANGE ON PARCEL 59, ADDED NEW PARCEL 59A AND ADDED EASEMENT.
 1/ /11 - RW REVISION - ADDED EXISTING ACCESS EASEMENT AND PL SYMBOLS ON PARCEL 59.

08-MAY-2013 10:45
 R:\Environmentals\2633BB_EC_PSH05.dgn
 adobellen AT RENW247288

SEE SHEET 22 FOR -RP_A3- PROFILE SEE SHEET 23 FOR -RP_D3- PROFILE SEE SHEET 16 FOR -L- PROFILE

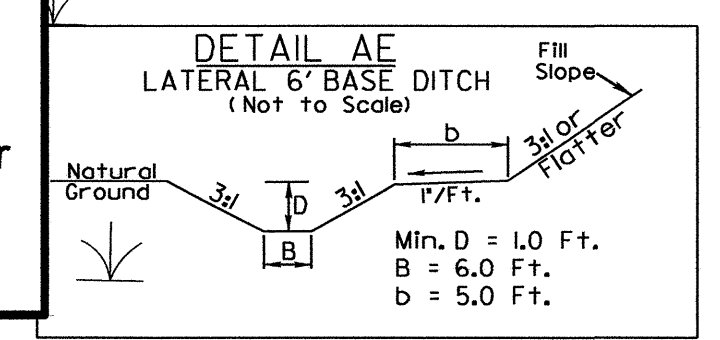
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

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

Modified Silt Basin
Type 'B'
80 x 30 x 3
22 ft. weir
(See Tiered Skimmer Basin Detail)
ID 6.2F

80 x 30 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
22 ft. weir
(See Tiered Skimmer Basin Detail)
ID 6.2F

NOTE: UTILIZE TEMPORARY SKIMMER BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

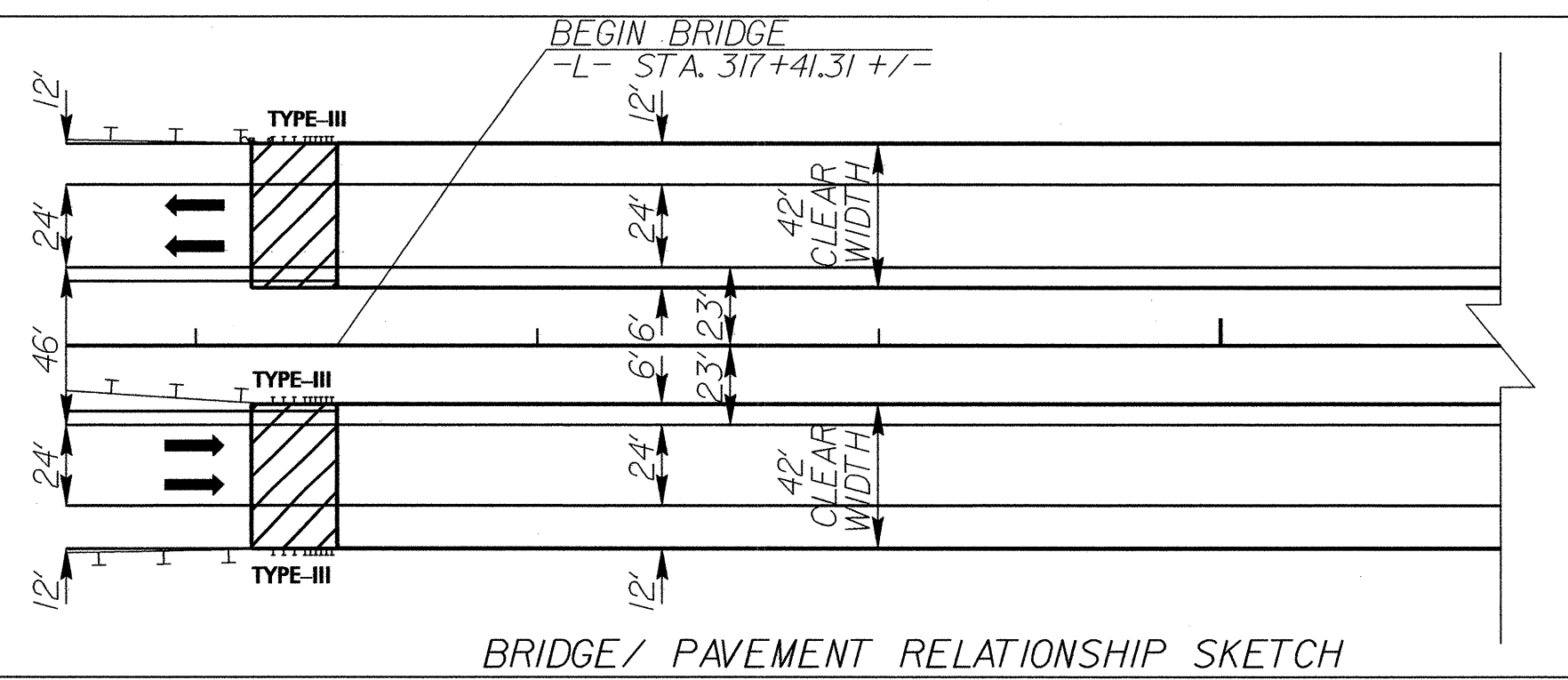


40 x 20 x 3
ID 6.2F

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
22 ft. weir
ID 6.1F

77
HIGH RISE SERVICE
CO., INC
DB 547 PG 800

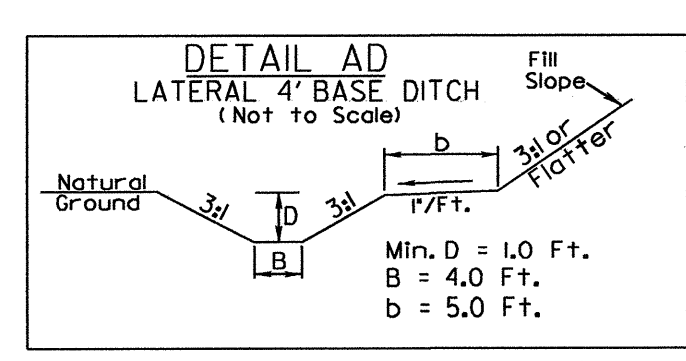
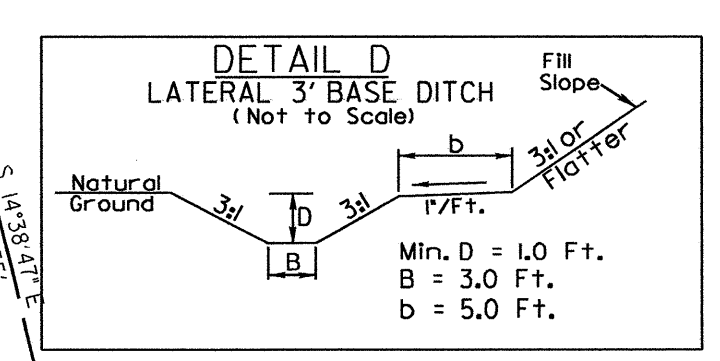
NOTE: CONSTRUCTION SHEETS 7-10 NOT INCLUDED DUE TO NO EROSION CONTROL MEASURES TO SHOW.



DETAIL B FALSE SUMP (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 316+50 +/-



SEE SHEET 17 FOR -L- PROFILE

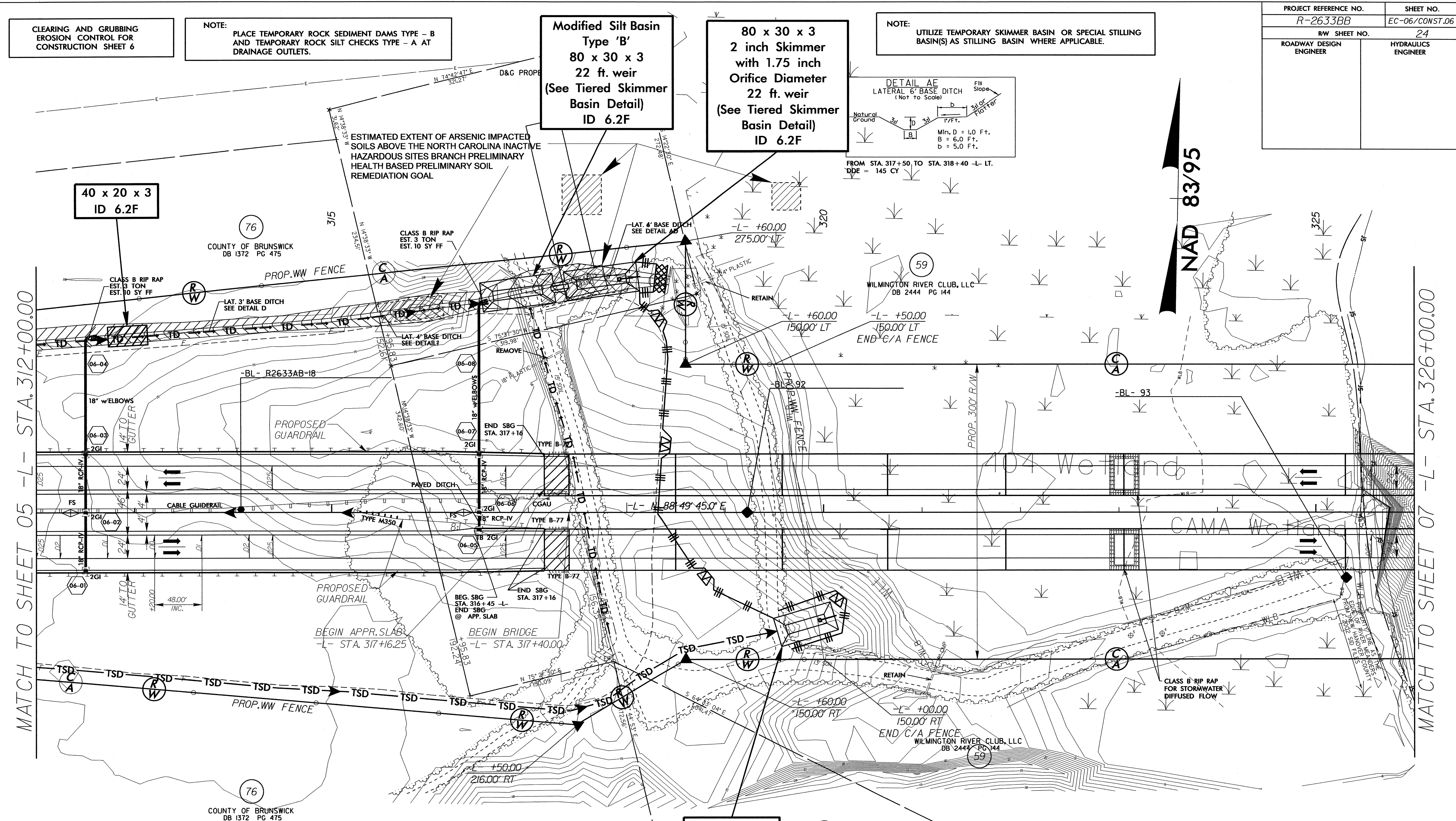
REVISIONS
10/ /09 - NAME AND DEED CHANGE ON PARCEL 59, ADDED PARCEL 59A AND EASEMENT.
10/ /09 - RW REVISION - MOVED CA SYMBOLS AND CHANGED FENCE LOCATION.

98-MAY-2013 10:49 AM D:\projects\2633BB_EC.PSH06.dgn
PLT:V:\aromg\11-19-08\2633BB_EC.PSH06.dgn
SUBMITTED: BL:REN217268

MATCH TO SHEET 05 -L- STA. 312+00.00

MATCH TO SHEET 07 -L- STA. 326+00.00

NAD 83/95



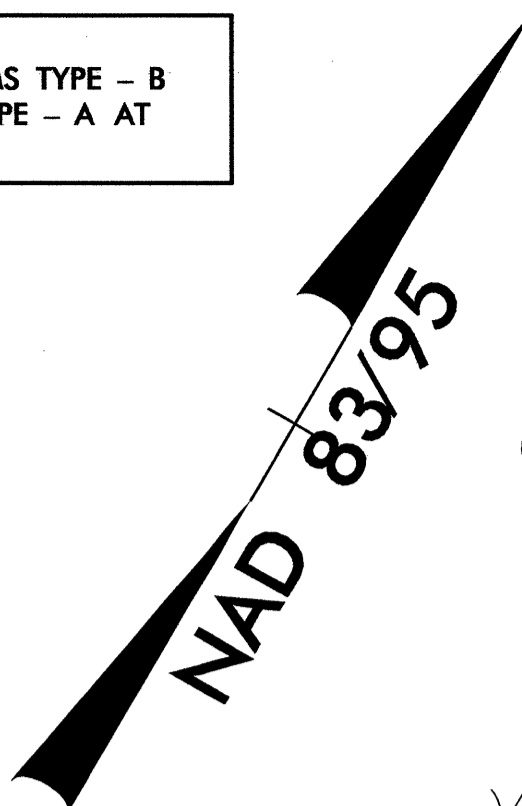
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

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

NOTE: UTILIZE TEMPORARY SKIMMER BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

NOTE: CONSTRUCTION SHEETS 7-10 NOT INCLUDED DUE TO NO EROSION CONTROL MEASURES TO SHOW.

-L-
 P/ Sta 383+94.77
 $\Delta = 51' 49" 22.8" (LT)$
 $D = 0' 38" 11.8"$
 $L = 8,140.34'$
 $T = 4,372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
 RUNOFF = 113'

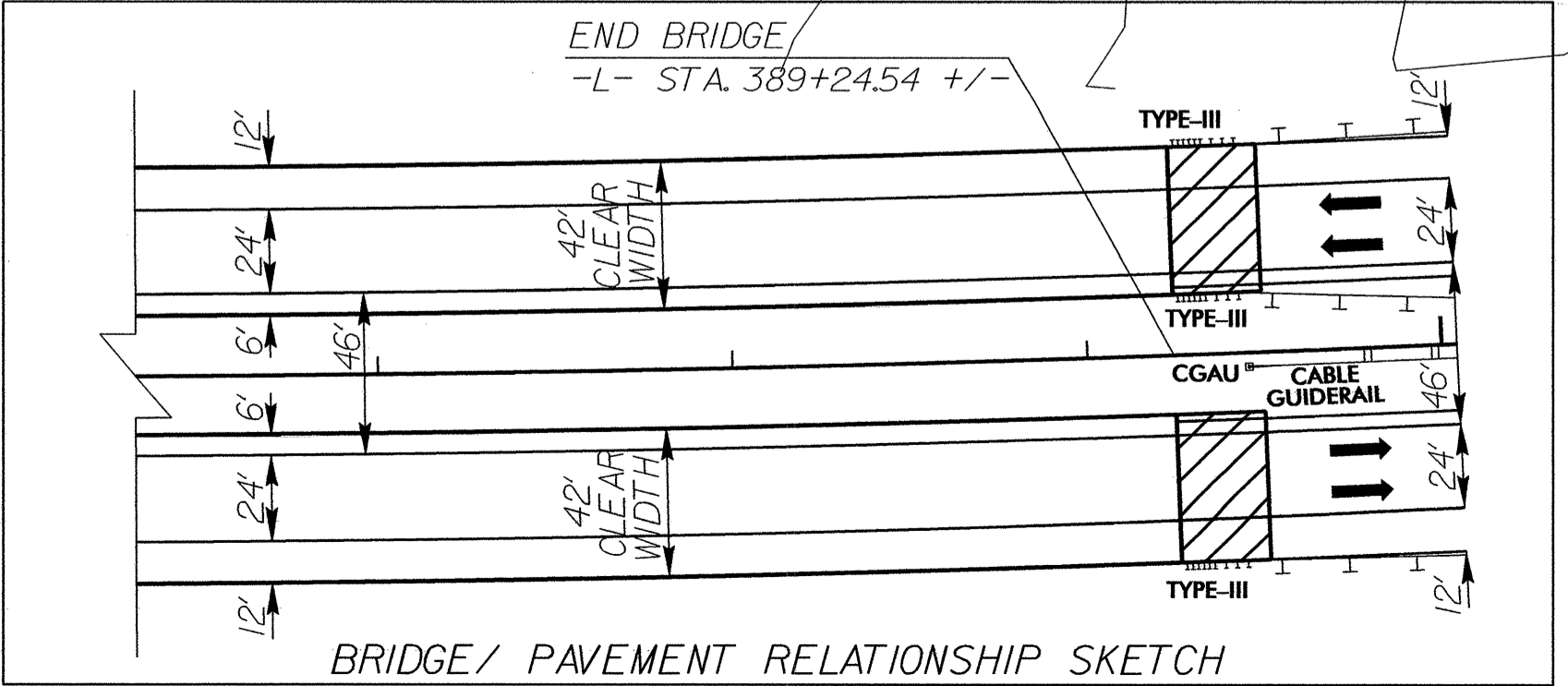
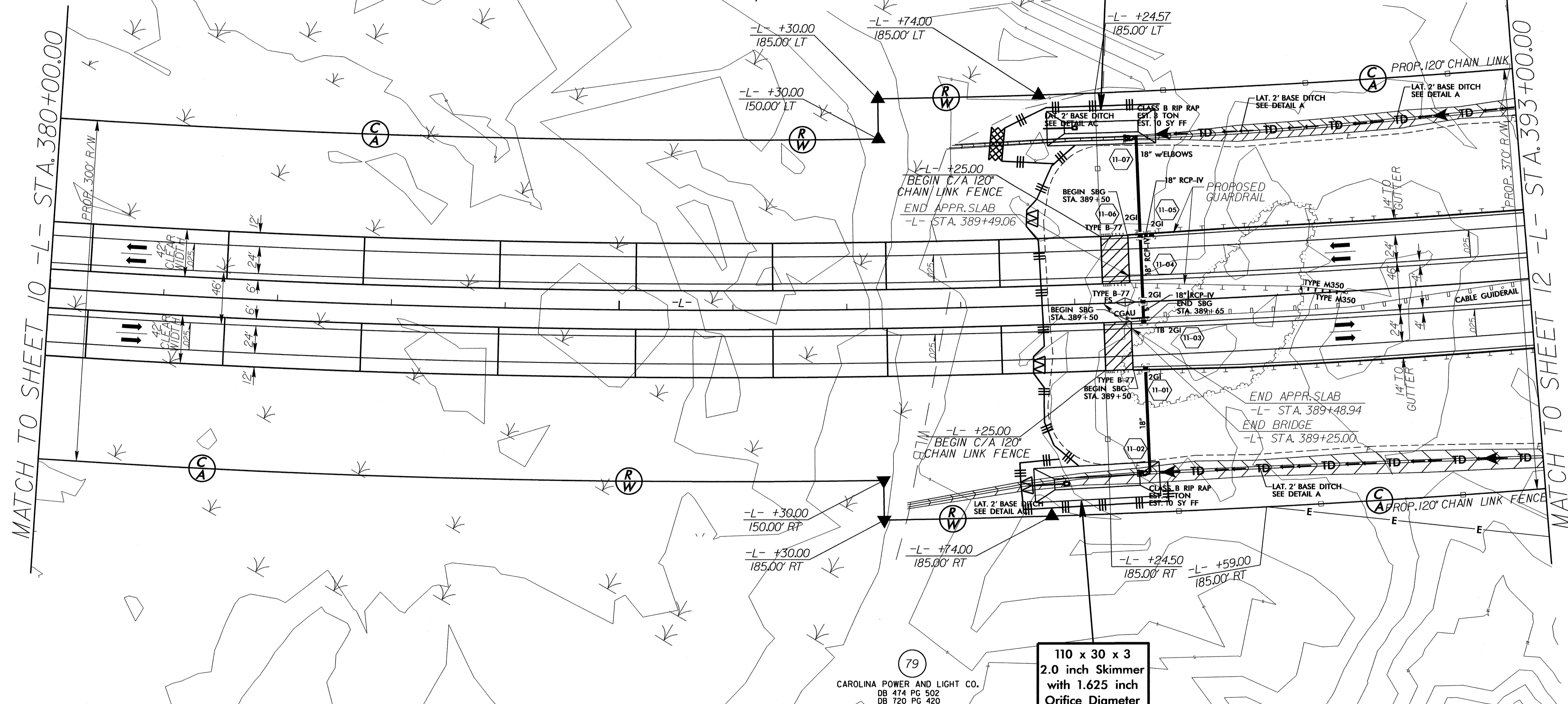


95 x 30 x 3
 1.5 inch Skimmer
 with 1.5 inch
 Orifice Diameter
 22 ft. weir
 ID 11.1F

110 x 30 x 3
 2.0 inch Skimmer
 with 1.625 inch
 Orifice Diameter
 22 ft. weir
 ID 11.1C

79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 434 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210

79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 434 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210



DETAIL B
 FALSE SUMP
 (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 389+50 +/-

DETAIL AC
 LATERAL 2' BASE DITCH
 (Not to Scale)

Min. D = 0.0 Ft.
 B = 2.0 Ft.
 b = 5.0 Ft.

FROM STA. 388+25 TO STA. 390+50 -L- LT.
 DDE = 101
 FROM STA. 387+60 TO STA. 389+00 -L- RT.
 DDE = 44

DETAIL A
 LATERAL 2' BASE DITCH
 (Not to Scale)

Min. D = 1.0 Ft.
 B = 2.0 Ft.
 b = 5.0 Ft.

FROM STA. 390+50 TO STA. 393+00 -L- LT.
 DDE = 202 CY
 FROM STA. 389+00 TO STA. 393+00 -L- RT.
 DDE = 416 CY

SEE SHEET 19 FOR -L- PROFILE

REVISIONS
 1/ 11 - RW REVISION - ADDED CA SYMBOLS. REMOVED TCE ON PARCEL 79.

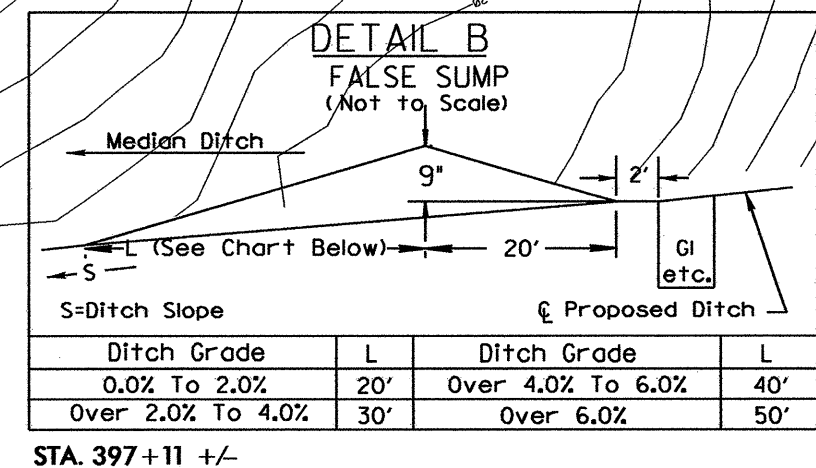
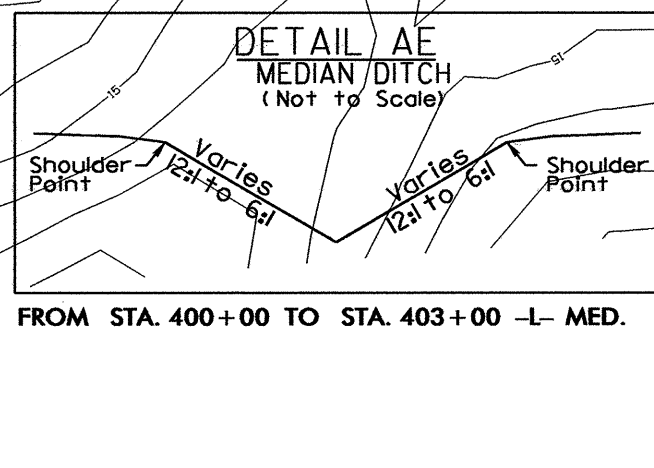
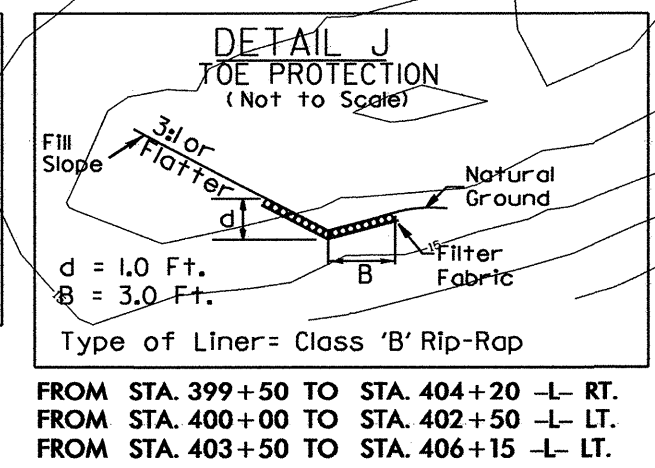
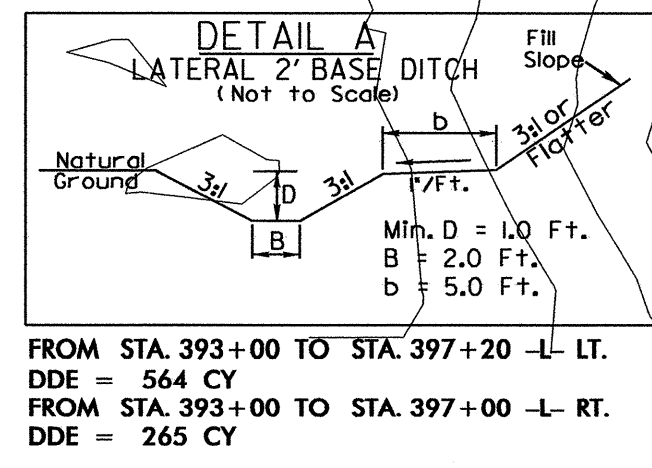
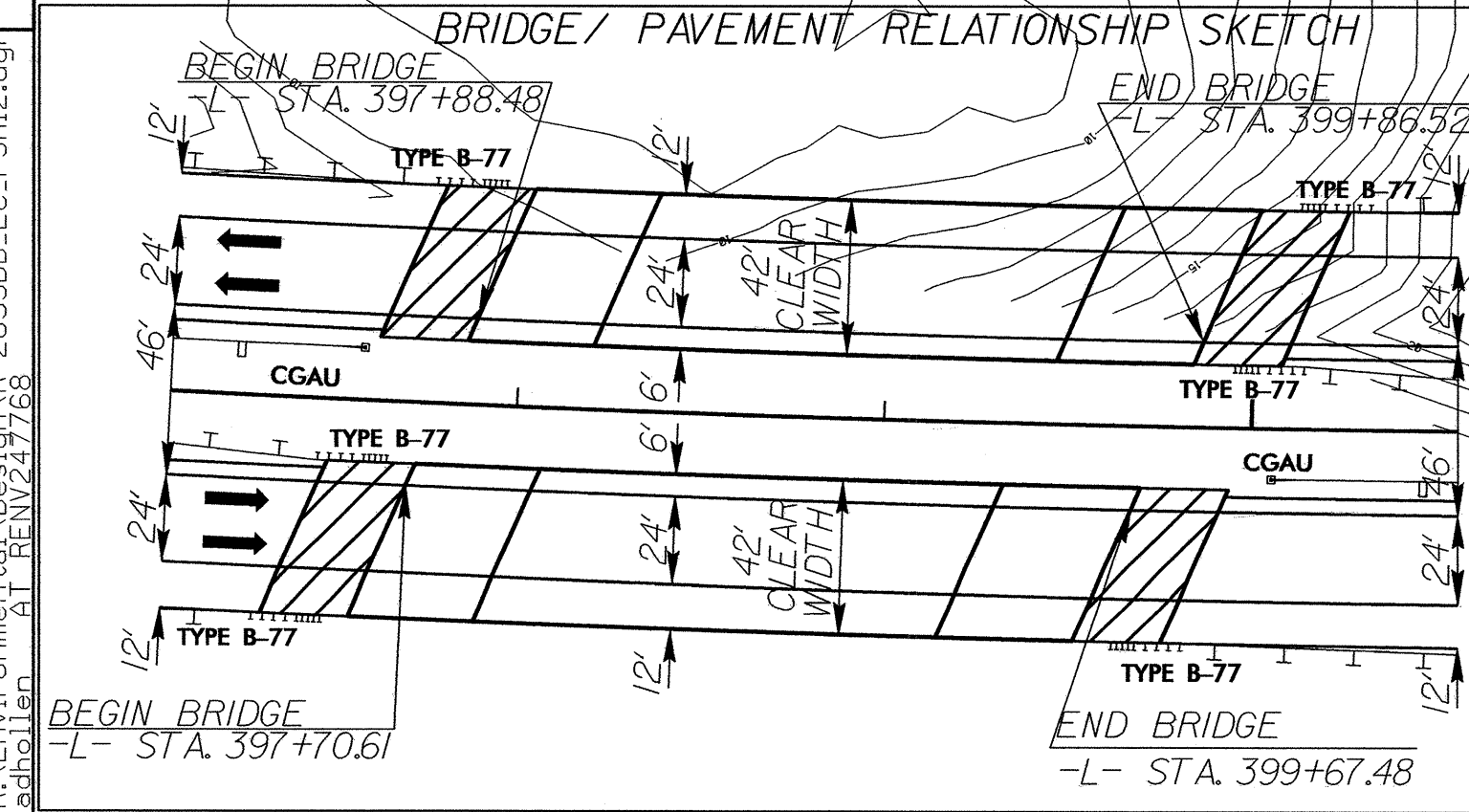
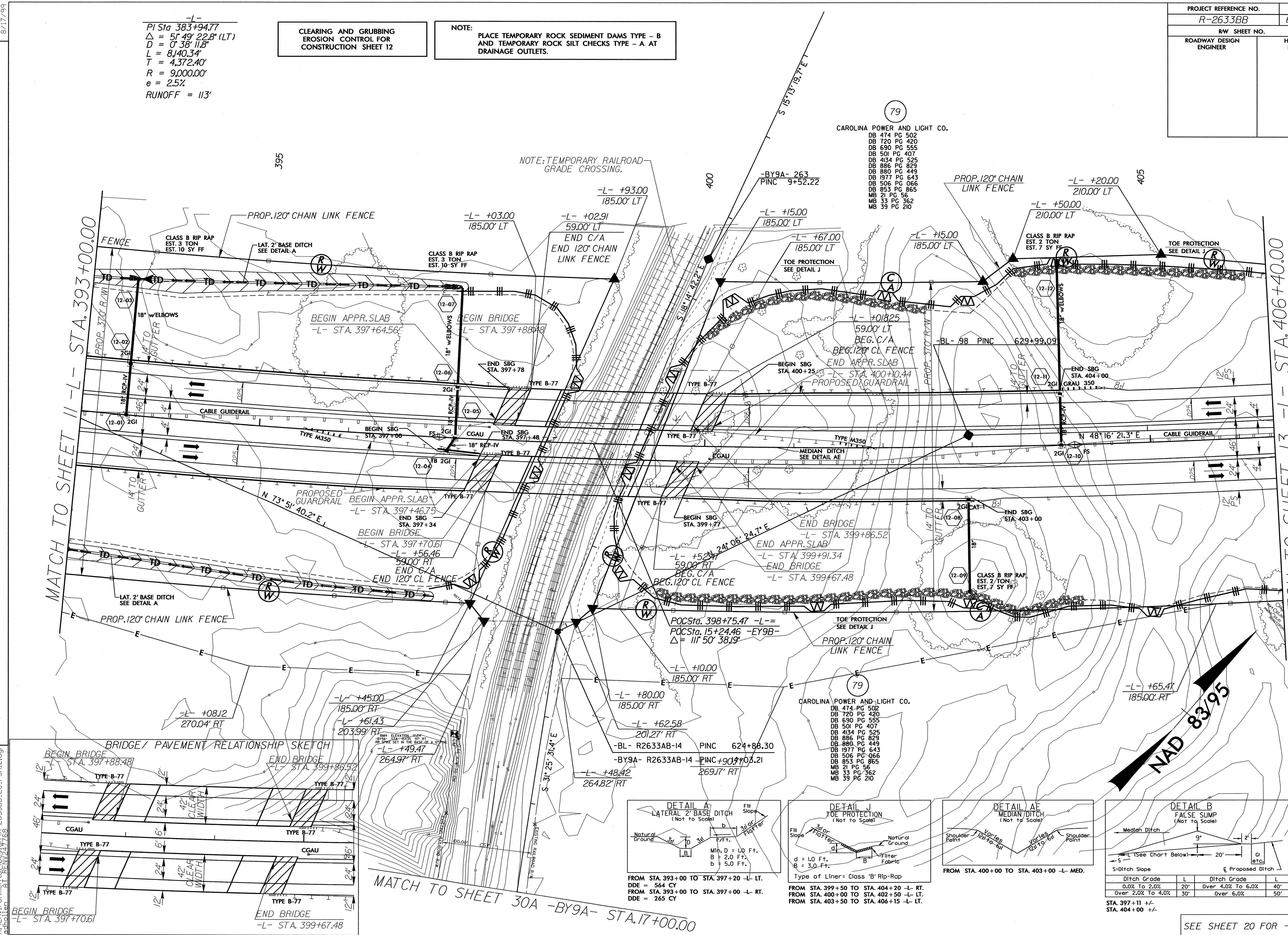
08-MAY-2013 10:23
 R:\Environment\Projects\2633BB_EC_PSH11.dgn
 Author: R. NEWBY/27768

$P/ Sta 383+94.77$
 $\Delta = 51^{\circ} 49' 22.8" (LT)$
 $D = 0' 38" 11.8"$
 $L = 8,140.34'$
 $T = 4,372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
 $RUNOFF = 113'$

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.

REVISIONS
 RW Revision: September 17, 2008, Revised w/ Label -L- Sta. 397+15 from 205' RT to 195' RT.
 V / I RW REVISION - ELIMINATED EXISTING TCE AND ADDED TCE AT RAILROAD, ADDED MONUMENTS AT SS 397+61.43203.99' AND 398+62.58201.27'.



79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 4134 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210

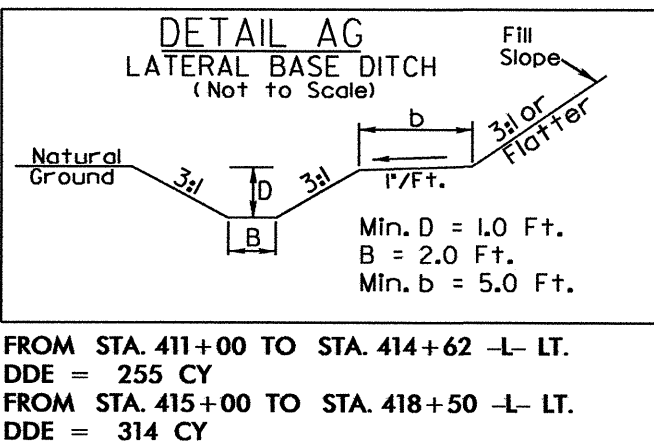
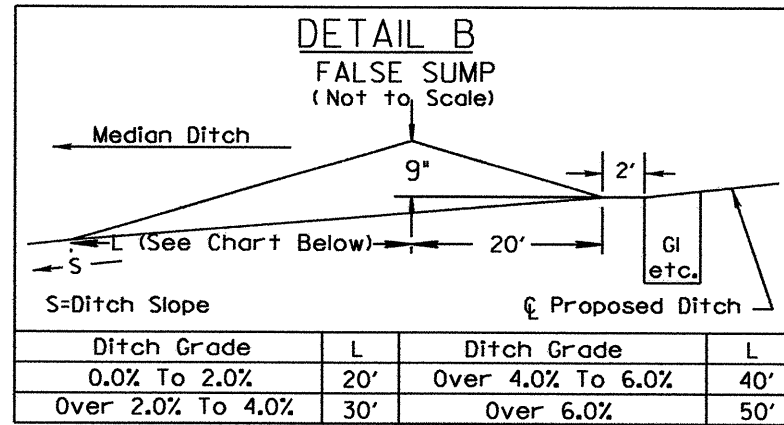
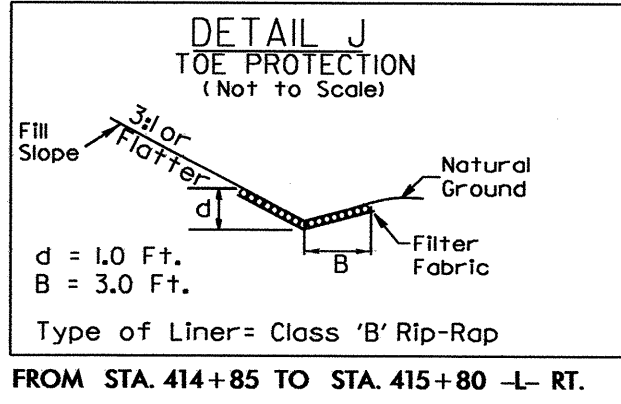
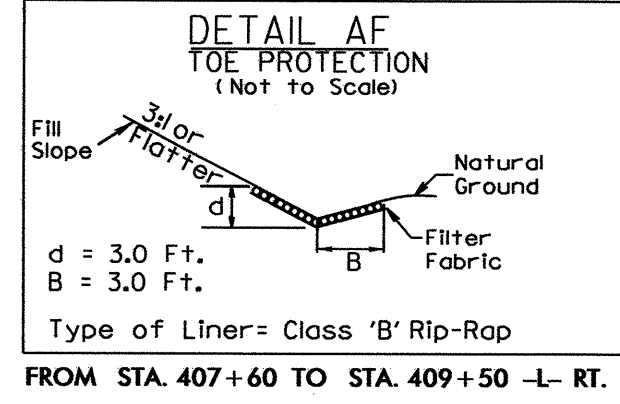
79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 4134 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210

MATCH TO SHEET 30A -BY9A- STA. 17+00.00

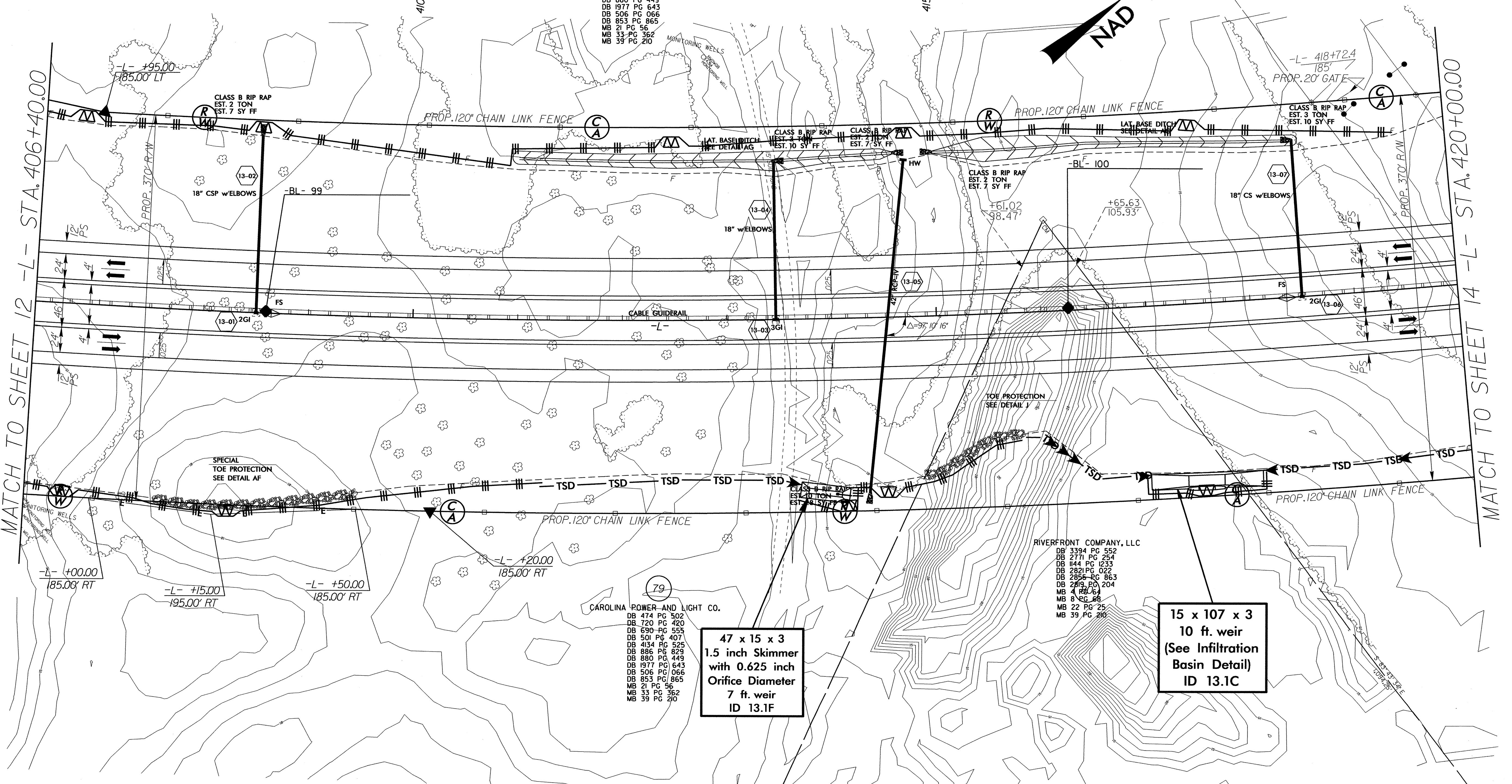
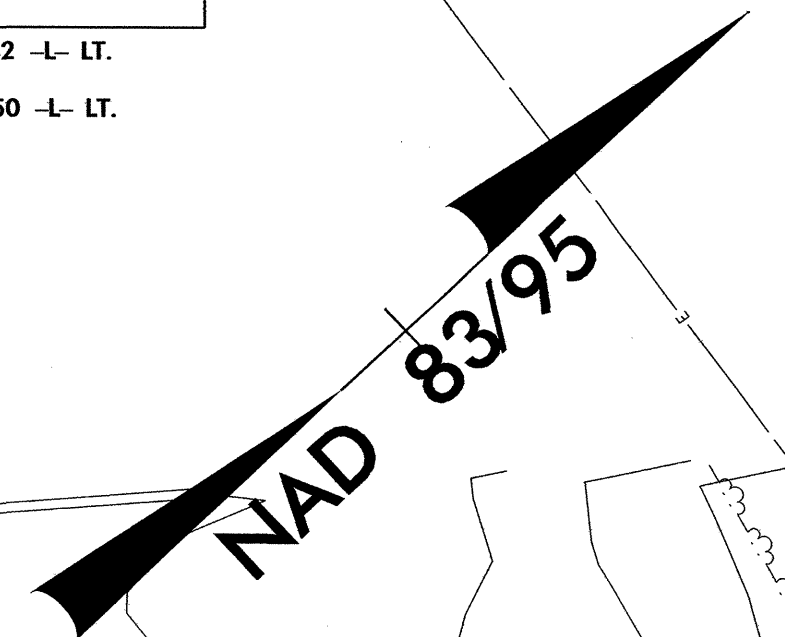
SEE SHEET 20 FOR -L- PROFILE

PROJECT REFERENCE NO. R-2633BB	SHEET NO. EC-9/CONST.13
RW SHEET NO. 3/	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
 PI Sta 383+94.77
 $\Delta = 51' 49" 22.8" (LT)$
 $D = 0' 38" 11.8"$
 $L = 8,140.34'$
 $T = 4,372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
 RUNOFF = 113'



- 79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 4134 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1917 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210



MATCH TO SHEET 12 -L- STA. 406+40.00

MATCH TO SHEET 14 -L- STA. 420+00.00

REVISIONS

10/ /09 - ADDED DB-PG AND MB TO PARCEL 80.
 1/ /11 - REMOVED TCE ON PARCEL 79.

09-MAY-2013 10:33
 R:\Environment\Projects\2633BB_EC_PSH13.dgn
 J:\land\ec\13\REV\2633BB_EC_PSH13.dgn

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.

47 x 15 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 7 ft. weir
 ID 13.1F

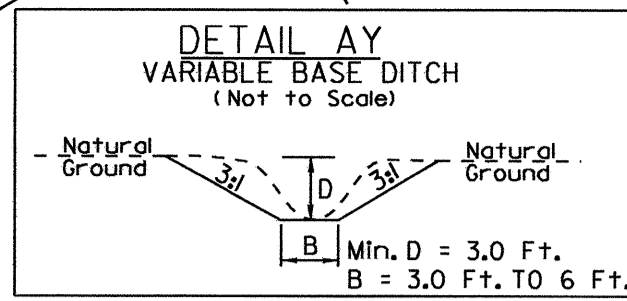
15 x 107 x 3
 10 ft. weir
 (See Infiltration
 Basin Detail)
 ID 13.1C

- RIVERFRONT COMPANY, LLC
 DB 3394 PG 552
 DB 2711 PG 254
 DB 144 PG 1233
 DB 2821 PG 022
 DB 2855 PG 863
 DB 2669 PG 204
 MB 4 PG 63
 MB 8 PG 68
 MB 22 PG 25
 MB 39 PG 210

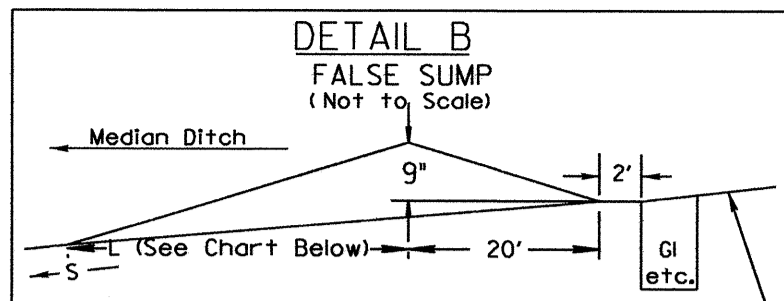
SEE SHEET 20 FOR -L- PROFILE

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.

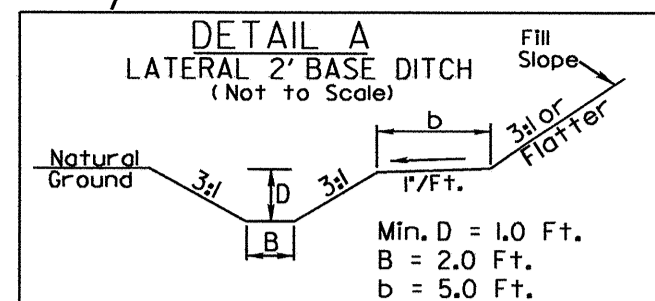


STA. 432+09 -L- LT. (DDE=40 CY)
DDE = 40 CY

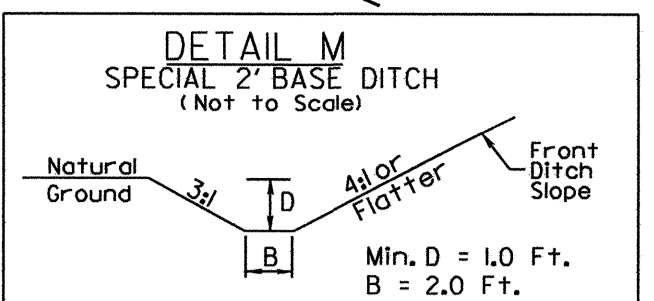


Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 427+10 +/-
STA. 430+25 +/-
STA. 433+25 +/-



FROM STA. 421+50 TO STA. 423+30 -L- LT.
DDE = 150 CY



FROM STA. 420+00 TO STA. 421+50 -L- LT.

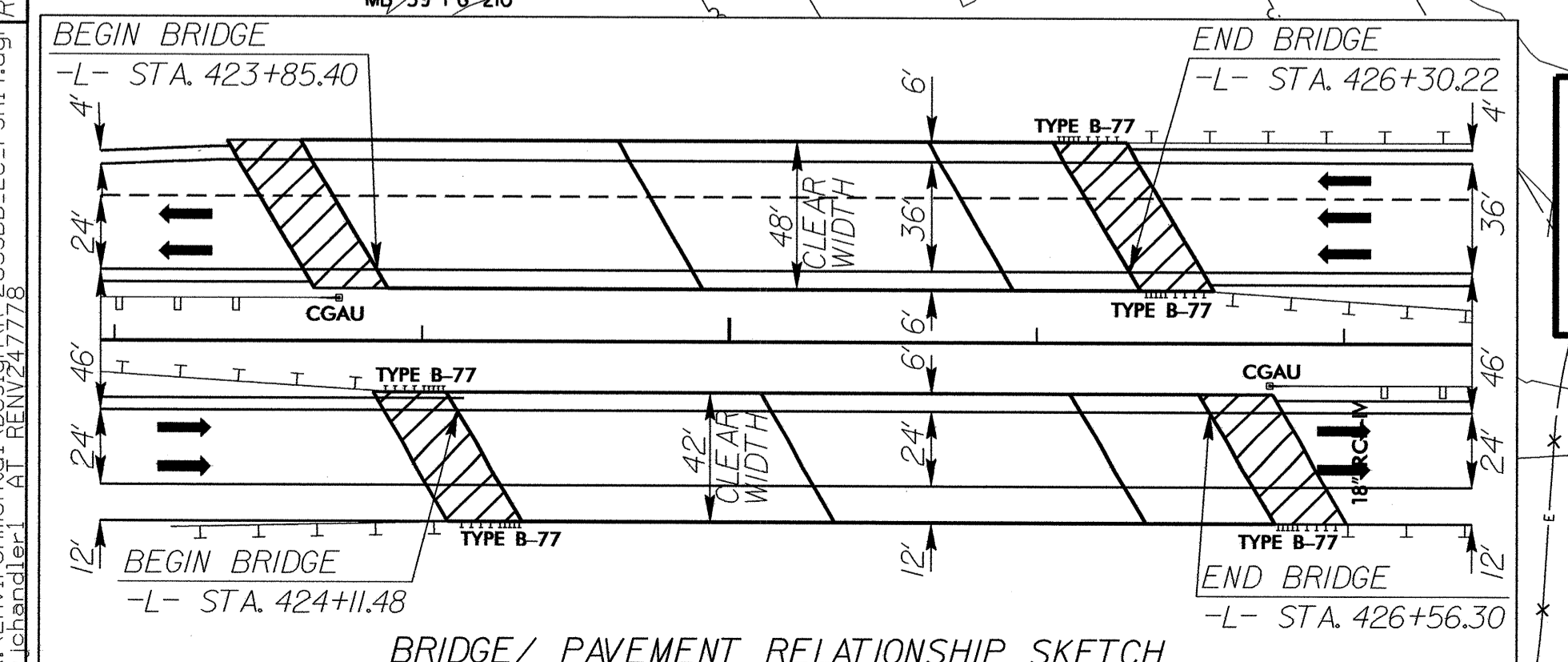
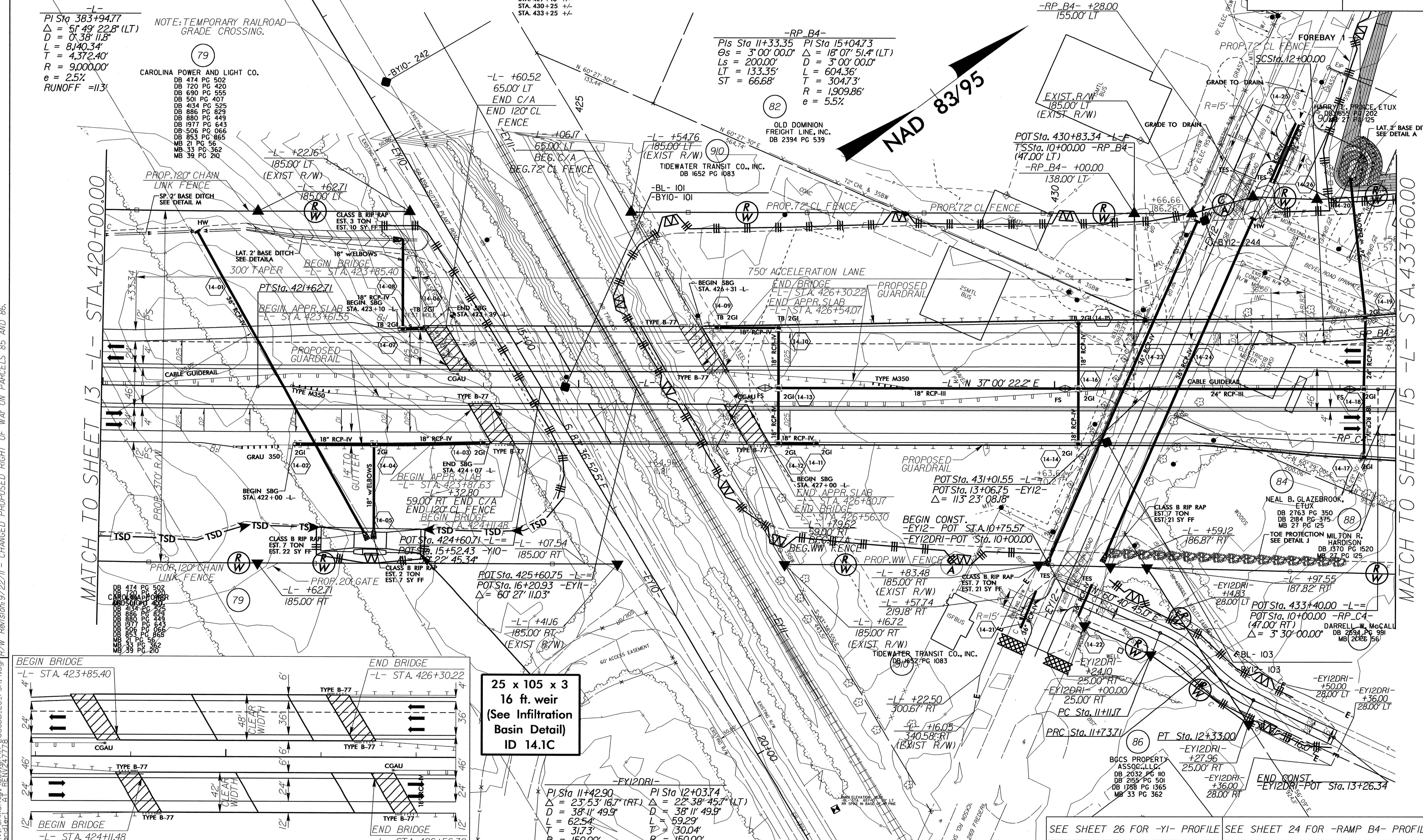
-L-
PI Sta 383+94.77
 $\Delta = 5' 49'' 22.8''$ (LT)
 $D = 0' 38'' 11.8''$
 $L = 8140.34'$
 $T = 4372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
RUNOFF = 113'

NOTE: TEMPORARY RAILROAD GRADE CROSSING.

- CAROLINA POWER AND LIGHT CO.
- DB 474 PG 502
 - DB 720 PG 420
 - DB 690 PG 555
 - DB 501 PG 407
 - DB 4134 PG 525
 - DB 886 PG 829
 - DB 880 PG 449
 - DB 1977 PG 643
 - DB 506 PG 066
 - DB 853 PG 865
 - MB 21 PG 56
 - MB 33 PG 362
 - MB 39 PG 210

-RP B4-
PI Sta 11+33.35
 $\Delta = 3' 00'' 00.0''$
 $Ls = 200.00'$
 $LT = 133.35'$
 $ST = 66.68'$

PI Sta 15+04.73
 $\Delta = 18' 07'' 51.4''$ (LT)
 $D = 3' 00'' 00.0''$
 $L = 604.36'$
 $T = 304.73'$
 $R = 1,909.86'$
 $e = 5.5\%$



**25 x 105 x 3
16 ft. weir
(See Infiltration
Basin Detail)
ID 14.1C**

-EY12DRI-
PI Sta 11+42.90
 $\Delta = 23' 53'' 16.7''$ (RT)
 $D = 38' 11'' 49.9''$
 $L = 62.54'$
 $T = 31.73'$
 $R = 150.00'$
 $e = NC$

PI Sta 12+03.74
 $\Delta = 22' 38'' 45.7''$ (LT)
 $D = 38' 11'' 49.9''$
 $L = 59.29'$
 $T = 30.04'$
 $R = 150.00'$
 $e = NC$

SEE SHEET 26 FOR -YI- PROFILE SEE SHEET 24 FOR -RAMP B4- PROFILE
SEE SHEET 22 FOR -L- PROFILE SEE SHEET 25 FOR -RAMP C4- PROFILE

REVISIONS
 R/W Revision: September 17, 2008 Revised r/w label -L- Sta 431+10 from 205 RT to 195 RT.
 R/W Revision: 10/1/09 - ADDED BUILDING TOPO TO PARCEL 82 ADDED TOPO TO PARCEL 85 CHANGED PARCEL 81 TO 910.
 R/W Revision: 1/11 - ELIMINATED TCE ON PARCEL 79 ELIMINATED CUL DE SAC ON PARCEL 82 AND EXTENDED C/A AND FENCE ACROSS FREDRICKSON ROAD AND ALONG DITCH.
 R/W Revision: 1/11 - ELIMINATED CUL DE SAC ON PARCEL 85 AND 86 ADDED TURN AROUND ON PARCEL 910 ADDED PARCEL 902 AND TURN IN.
 R/W Revision: 9/22/11 - CHANGED PROPOSED RIGHT OF WAY ON PARCELS 85 AND 86.
 83-MAY-2013 10:25 d:\projects\1177777777\2633BB_EC_PSH14.dgn
 8/17/99

MATCH TO SHEET 13 -L- STA. 420+00.00

MATCH TO SHEET 15 -L- STA. 433+60.00

PROJECT REFERENCE NO.	R-2633BA	SHEET NO.	33
CONTRACT NO.	EC-11/CONST	DATE	11/11/09
ROADWAY DESIGN ENGINEER		HYDRAULIC ENGINEER	

REVISIONS

75 x 50 x 3
28 ft. weir
(See Infiltration Basin Detail)
ID 15.1C

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET IS

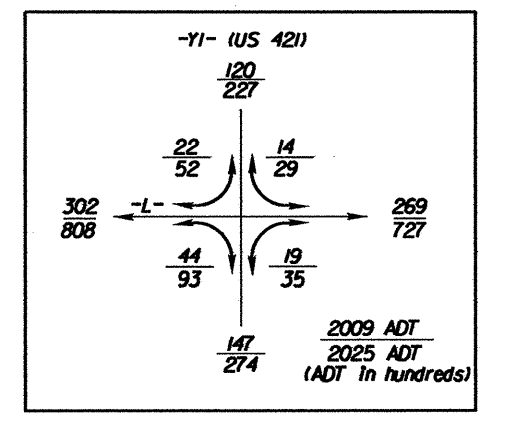
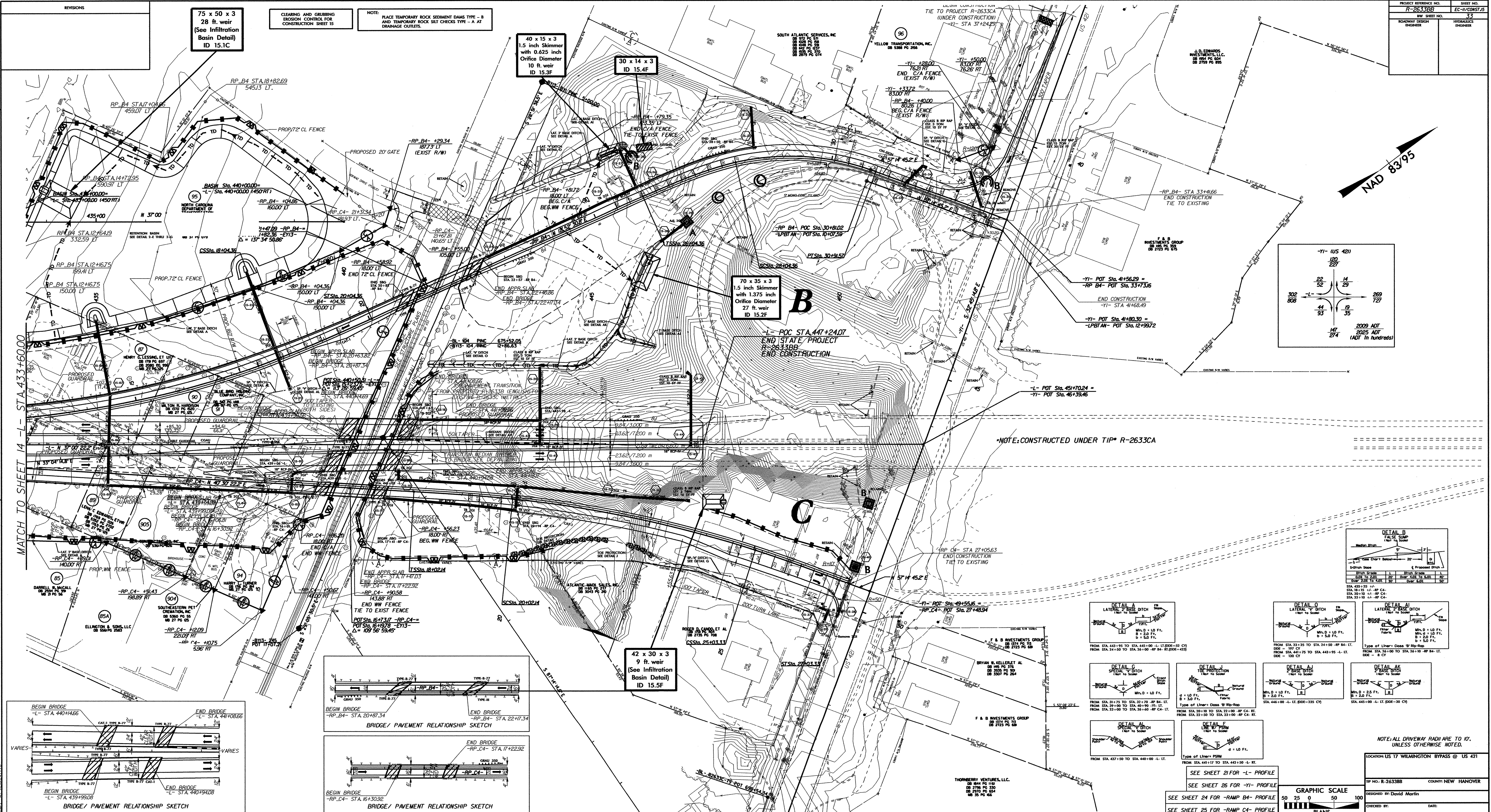
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

40 x 15 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
10 ft. weir
ID 15.3F

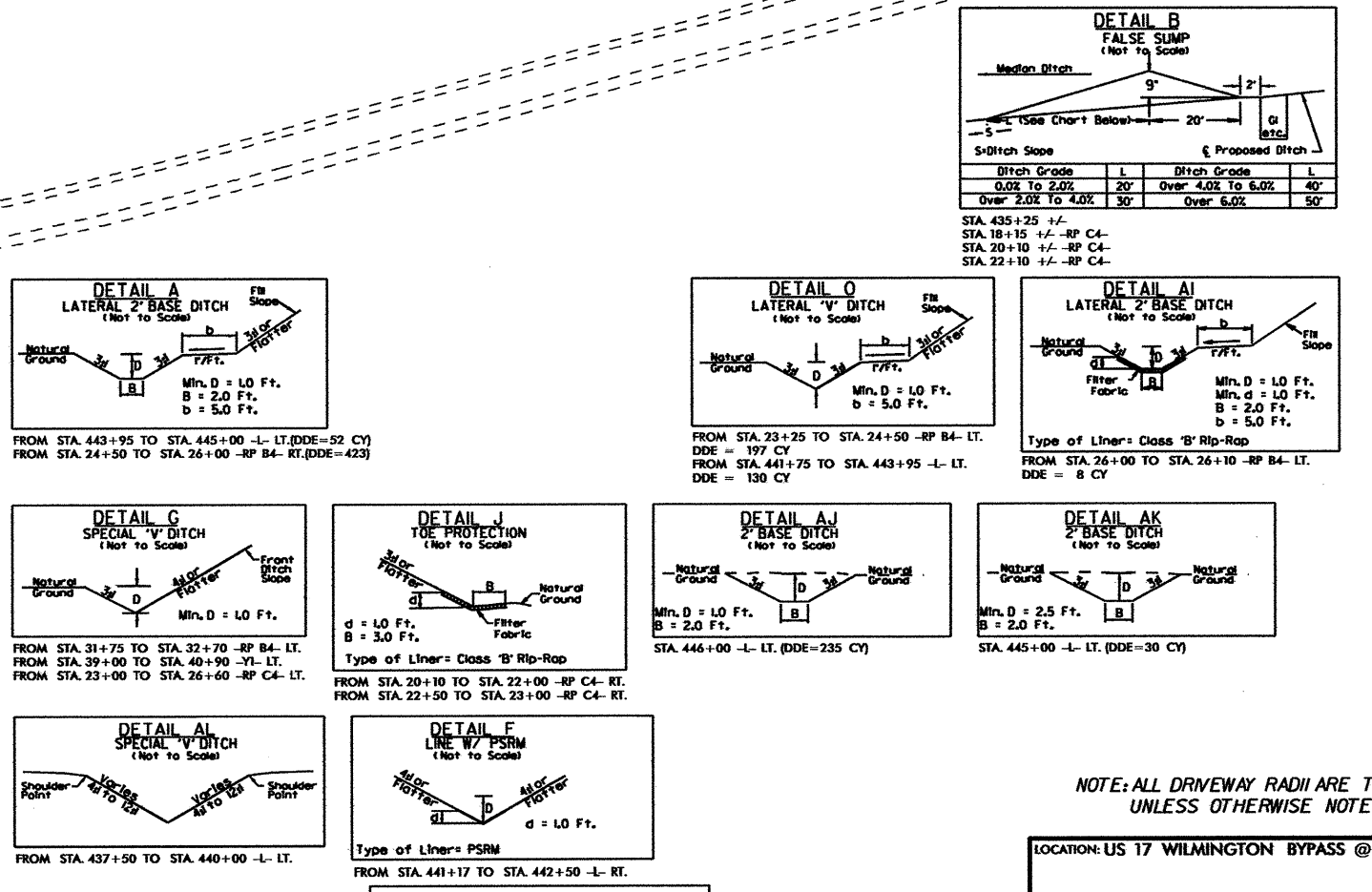
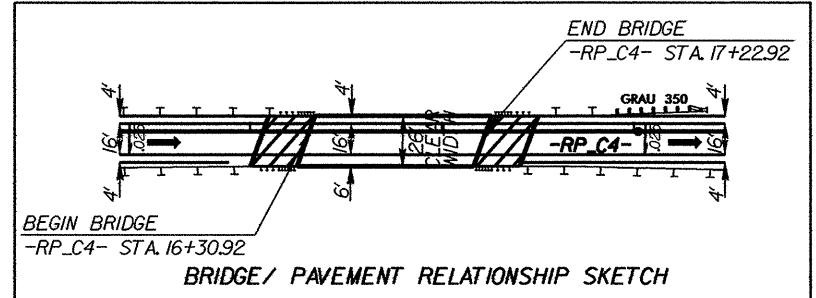
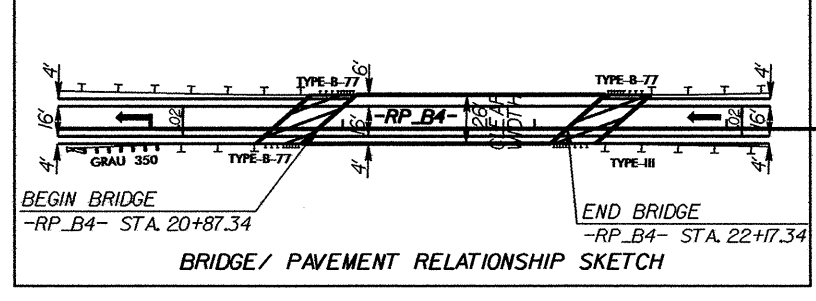
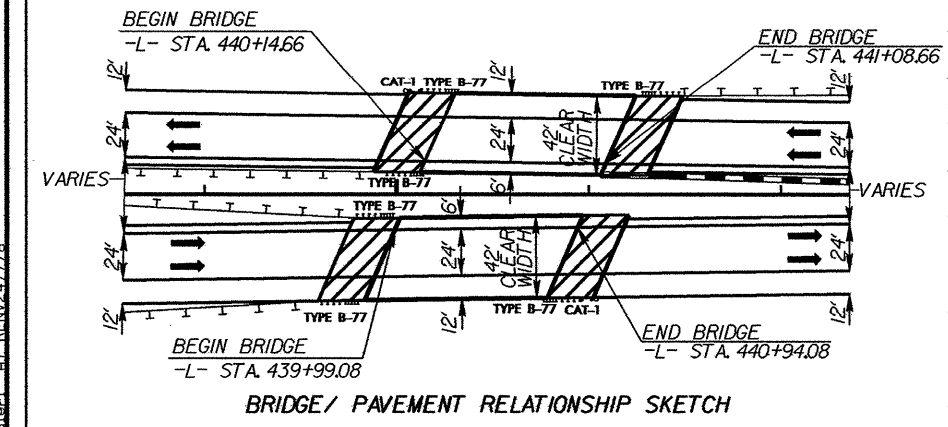
30 x 14 x 3
ID 15.4F

70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
27 ft. weir
ID 15.2F

42 x 30 x 3
9 ft. weir
(See Infiltration Basin Detail)
ID 15.3F



MATCH TO SHEET 14 - L - STA 433+60.00



NOTE: ALL DRIVEWAY RADII ARE TO 10', UNLESS OTHERWISE NOTED.

LOCATION US 17 WILMINGTON BYPASS @ US 421

PROJECT NO. R-2633BA COUNTY NEW HANOVER

DESIGNED BY David Martin

CHECKED BY: DATE:

SEE SHEET 21 FOR -L- PROFILE

SEE SHEET 26 FOR -YI- PROFILE

SEE SHEET 24 FOR -RAMP B4- PROFILE

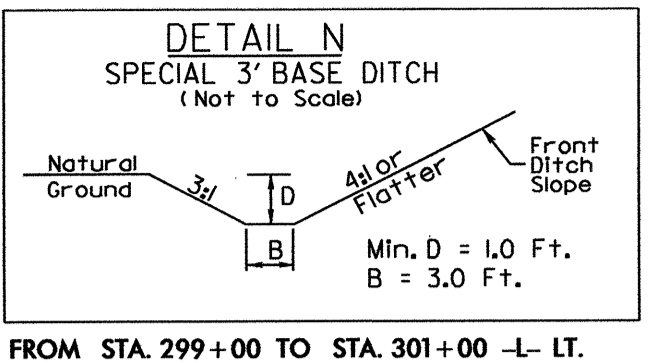
SEE SHEET 25 FOR -RAMP C4- PROFILE

GRAPHIC SCALE

50 25 0 50 100

PLANS

NOTATIONS: 1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN FEET AND INCHES. 2. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED. 3. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 4. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 5. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 6. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 7. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 8. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 9. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED. 10. ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE SPECIFIED.



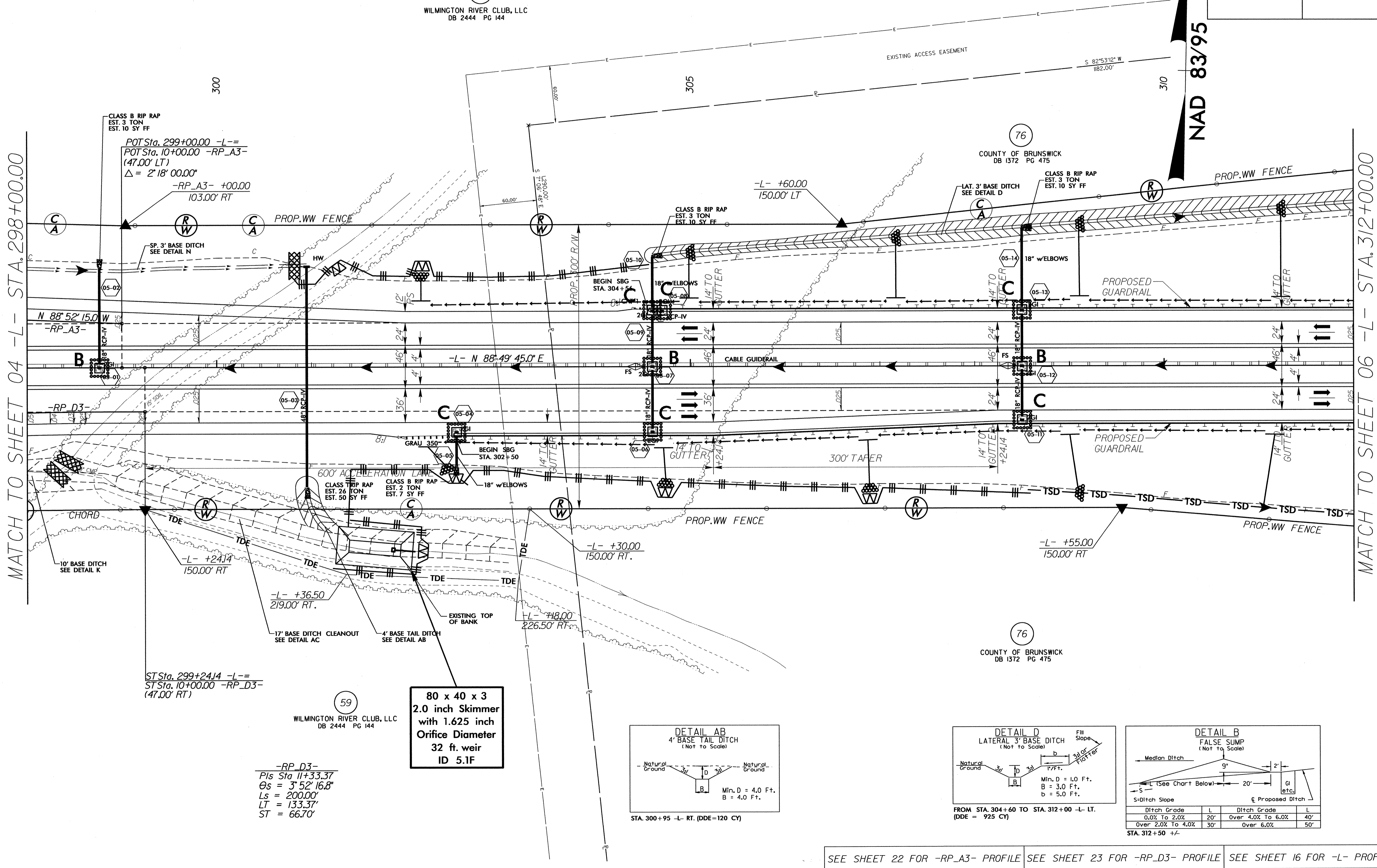
-RP_A3-
 PIs Sta 13+83.39
 $\theta_s = 5'00''00.0''$
 Ls = 200.00'
 LT = 133.39'
 ST = 66.72'

FROM STA. 299+00 TO STA. 301+00 -L- LT.

59
 WILMINGTON RIVER CLUB, LLC
 DB 2444 PG 144

MATCH TO SHEET 04 -L- STA. 298+00.00

MATCH TO SHEET 06 -L- STA. 312+00.00



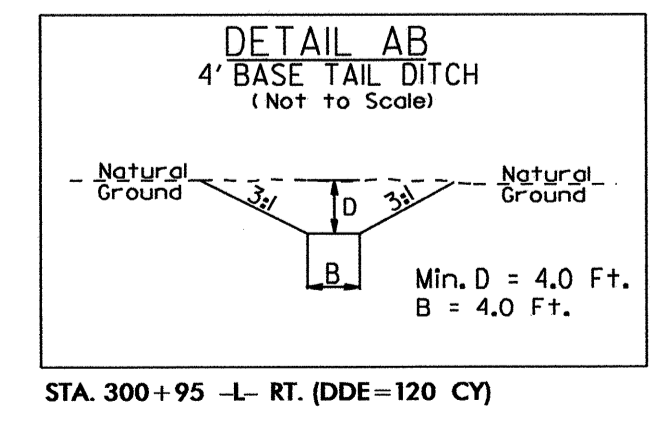
REVISIONS
 10/ /09 - NAME AND DEED CHANGE ON PARCEL 59. ADDED NEW PARCEL 59A AND ADDED EASEMENT.
 1/ /11 - RW REVISION - ADDED EXISTING ACCESS EASEMENT AND PL SYMBOLS ON PARCEL 59.

08-MAY-2013 10:43
 R:\Environmental\Design\2633BB_EC_PSH05.dgn
 Author: R1 RENY 2/7/13

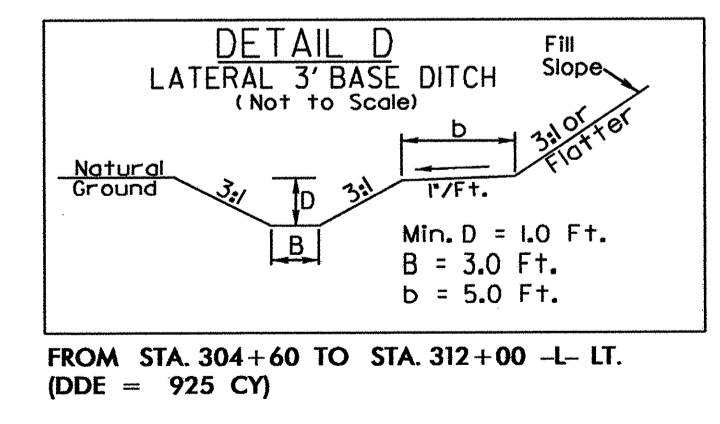
ST Sta. 299+24.14 -L- =
 ST Sta. 10+00.00 -RP_D3-
 (47.00' RT)

-RP_D3-
 PIs Sta 11+33.37
 $\theta_s = 3'52''16.8''$
 Ls = 200.00'
 LT = 133.37'
 ST = 66.70'

80 x 40 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
32 ft. weir
ID 5.1F



STA. 300+95 -L- RT. (DDE=120 CY)



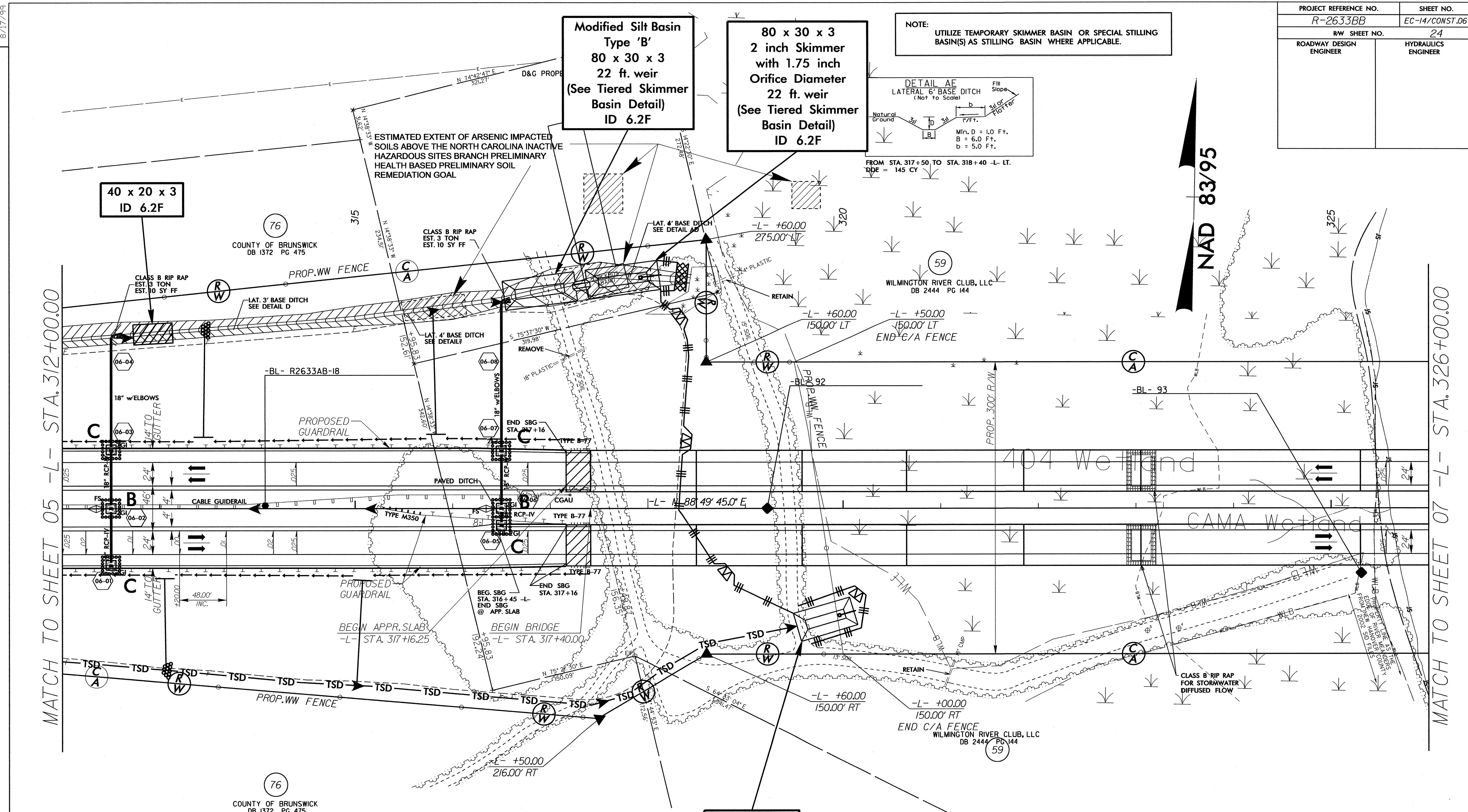
FROM STA. 304+60 TO STA. 312+00 -L- LT.
 (DDE = 925 CY)

DETAIL B: FALSE SUMP (Not to Scale)

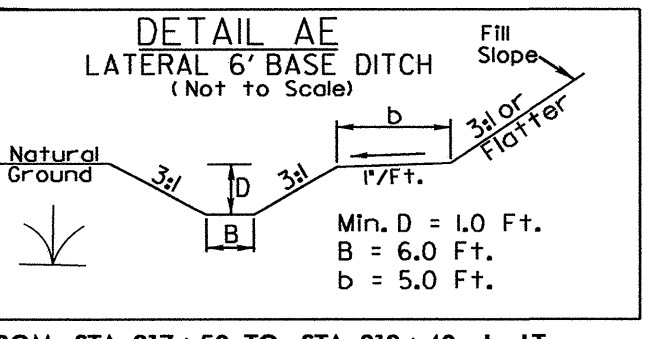
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 312+50 +/-

REVISIONS
 10/ /09 - NAME AND DEED CHANGE ON PARCEL 59, ADDED PARCEL 59A AND EASEMENT.
 10/ /09 - RW REVISION - MOVED CA SYMBOLS AND CHANGED FENCE LOCATION.



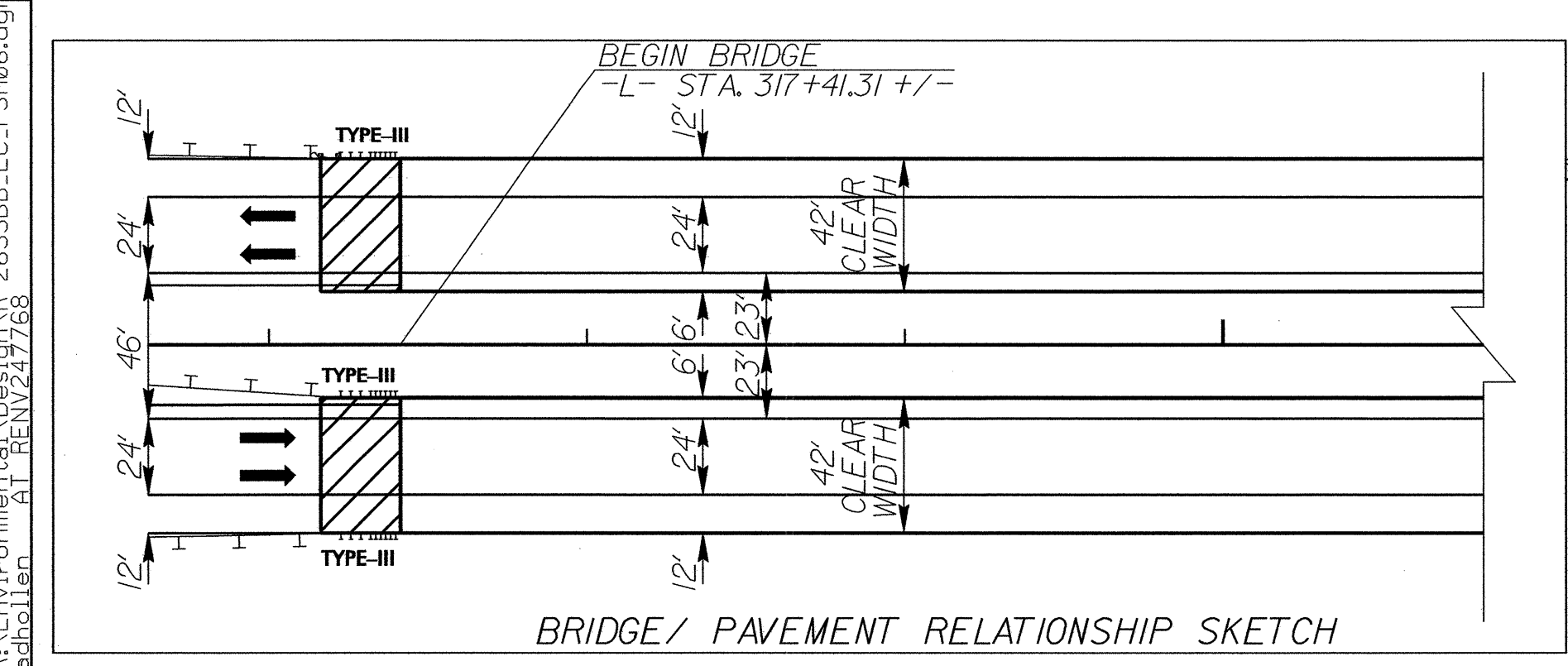
NOTE: UTILIZE TEMPORARY SKIMMER BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.



NAD 83/95

MATCH TO SHEET 05 -L- STA. 312+00.00

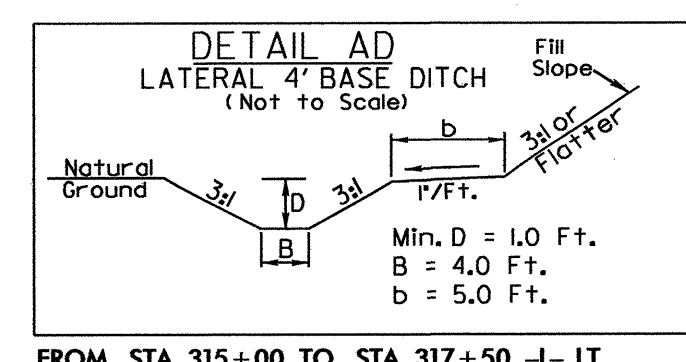
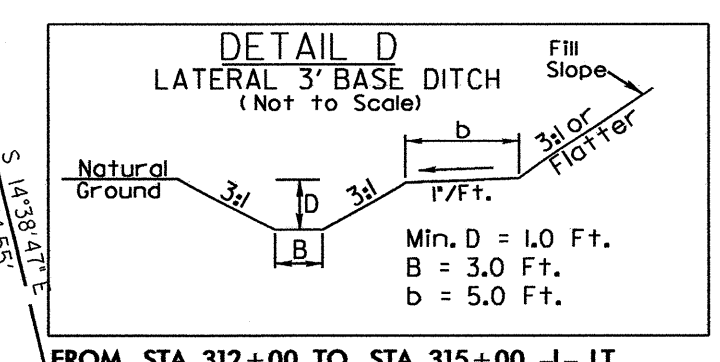
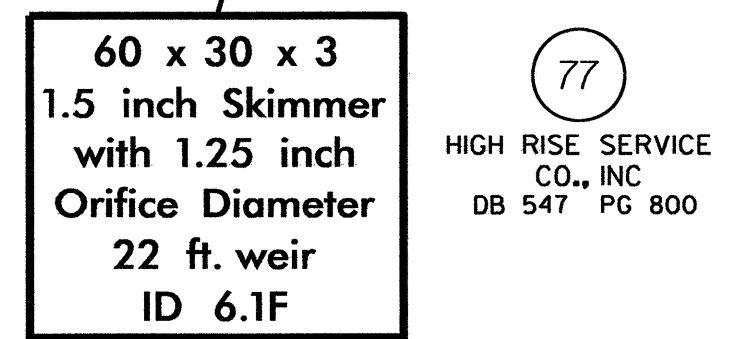
MATCH TO SHEET 07 -L- STA. 326+00.00



DETAIL B FALSE SUMP (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 316+50 +/-



NOTE: CONSTRUCTION SHEETS 7-10 NOT INCLUDED DUE TO NO EROSION CONTROL MEASURES TO SHOW.

SEE SHEET 17 FOR -L- PROFILE

8/17/99

08-MAY-2013 10:19
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 Author: HJ_RNNV247768

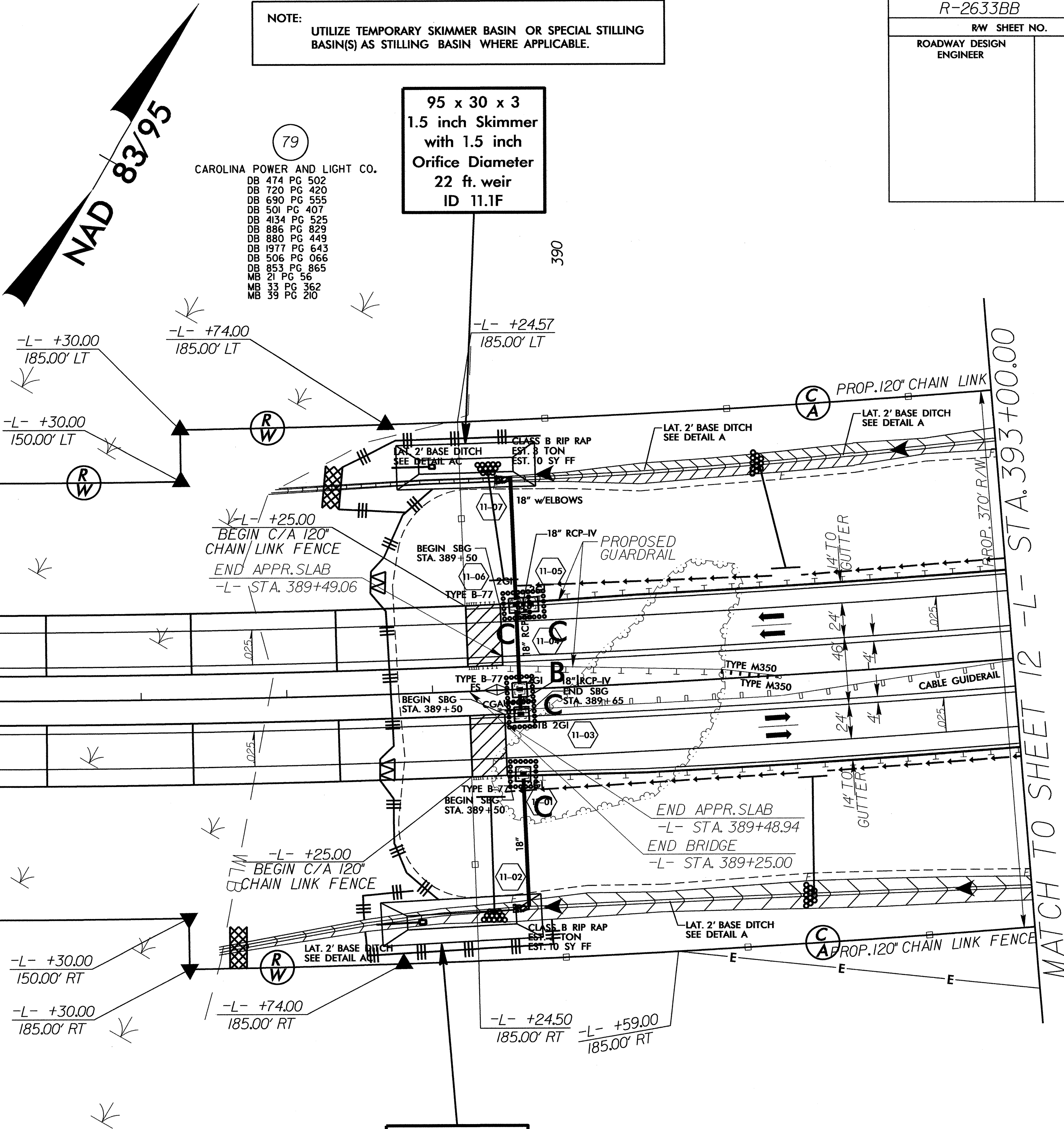
NOTE:
UTILIZE TEMPORARY SKIMMER BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

95 x 30 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
22 ft. weir
ID 11.1F

79
CAROLINA POWER AND LIGHT CO.
DB 474 PG 502
DB 720 PG 420
DB 690 PG 555
DB 501 PG 407
DB 4134 PG 525
DB 886 PG 829
DB 880 PG 449
DB 1977 PG 643
DB 506 PG 066
DB 853 PG 865
MB 21 PG 56
MB 33 PG 362
MB 39 PG 210

NOTE:
CONSTRUCTION SHEETS 7-10 NOT INCLUDED DUE TO NO EROSION CONTROL MEASURES TO SHOW.

-L-
PI Sta 383+94.77
Δ = 51' 49" 22.8" (LT)
D = 0' 38" 11.8"
L = 8,140.34'
T = 4,372.40'
R = 9,000.00'
e = 2.5%
RUNOFF = 113'



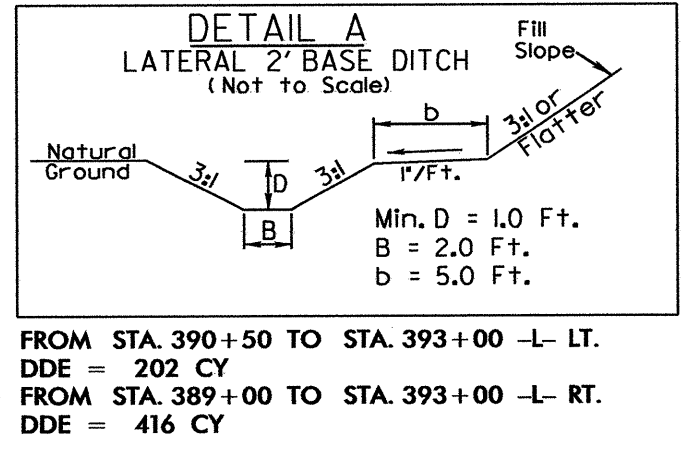
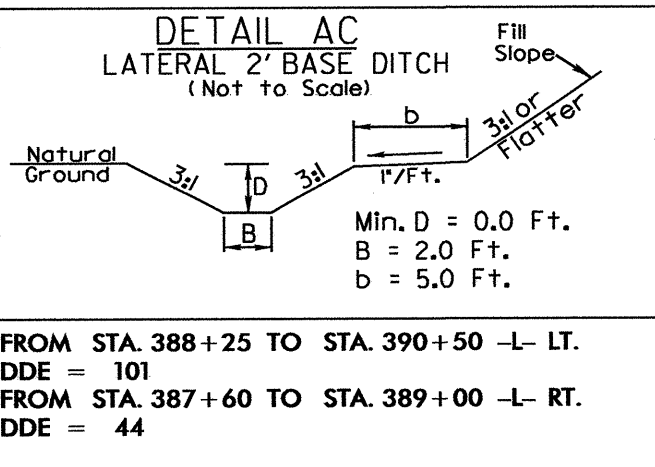
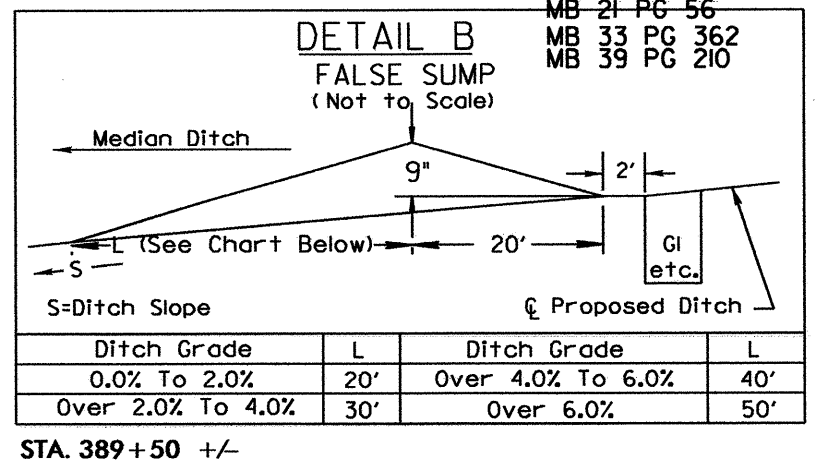
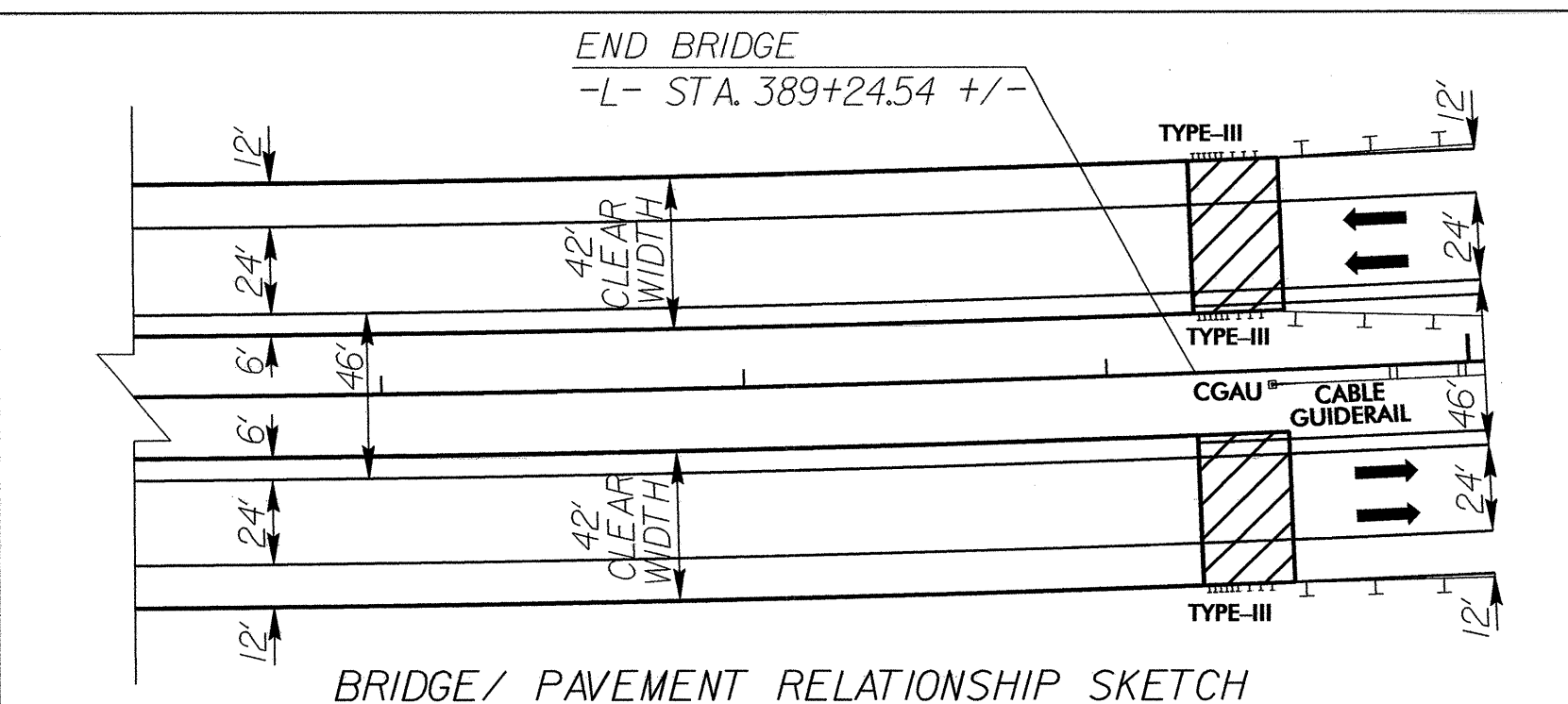
MATCH TO SHEET 10 -L- STA. 380+00.00

MATCH TO SHEET 12 -L- STA. 393+00.00

REVISIONS
1/ 11 - RW REVISION - ADDED CA SYMBOLS, REMOVED TCE ON PARCEL 79.

110 x 30 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
22 ft. weir
ID 11.1C

79
CAROLINA POWER AND LIGHT CO.
DB 474 PG 502
DB 720 PG 420
DB 690 PG 555
DB 501 PG 407
DB 4134 PG 525
DB 886 PG 829
DB 880 PG 449
DB 1977 PG 643
DB 506 PG 066
DB 853 PG 865
MB 21 PG 56
MB 33 PG 362
MB 39 PG 210



SEE SHEET 19 FOR -L- PROFILE

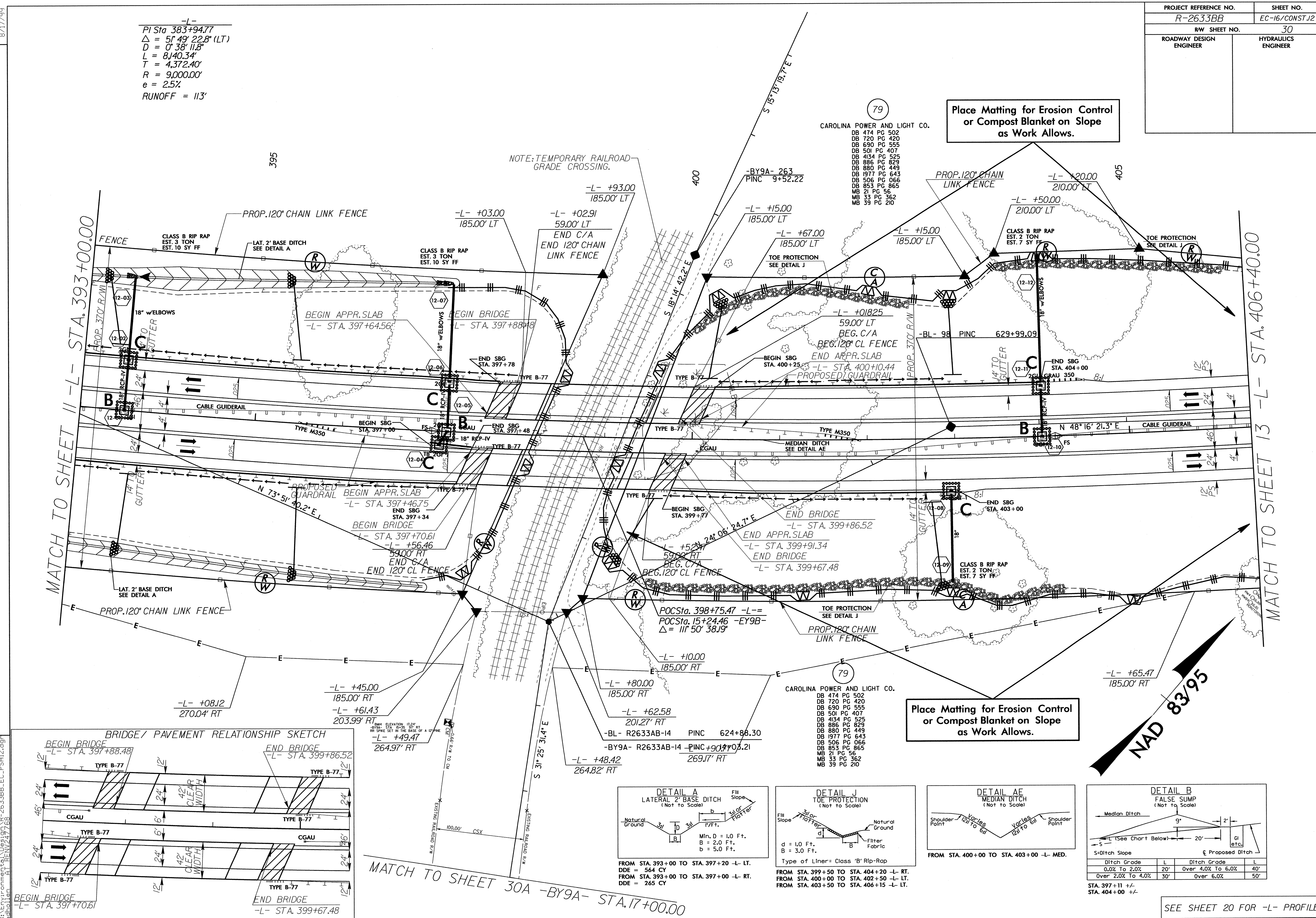
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adillon AT RENV247768

$\Delta = 51^\circ 49' 22.8" (LT)$
 $D = 0' 38' 11.8"$
 $L = 8,140.34'$
 $T = 4,372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
 $RUNOFF = 113'$

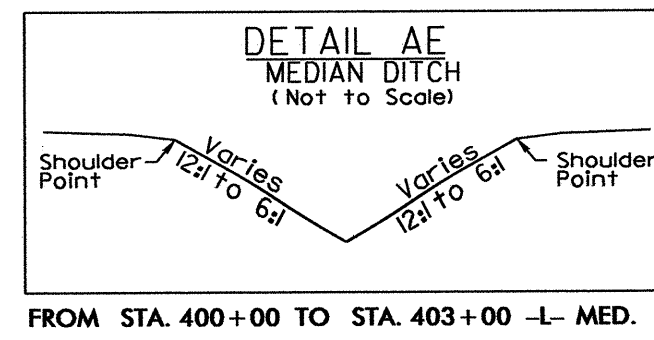
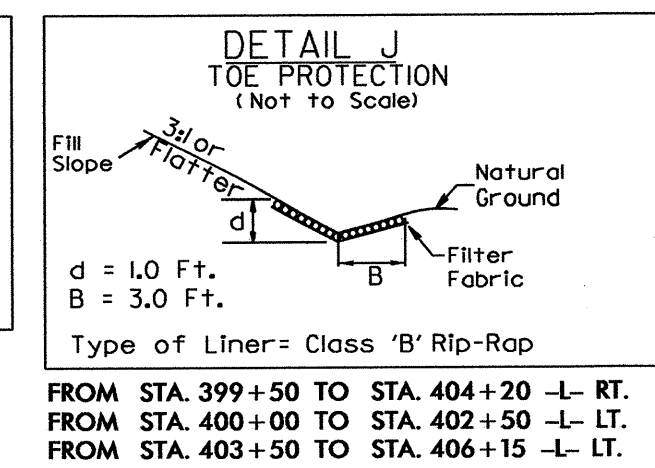
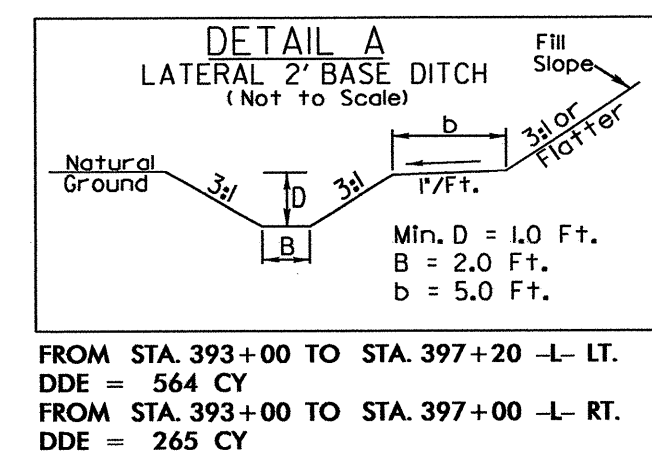
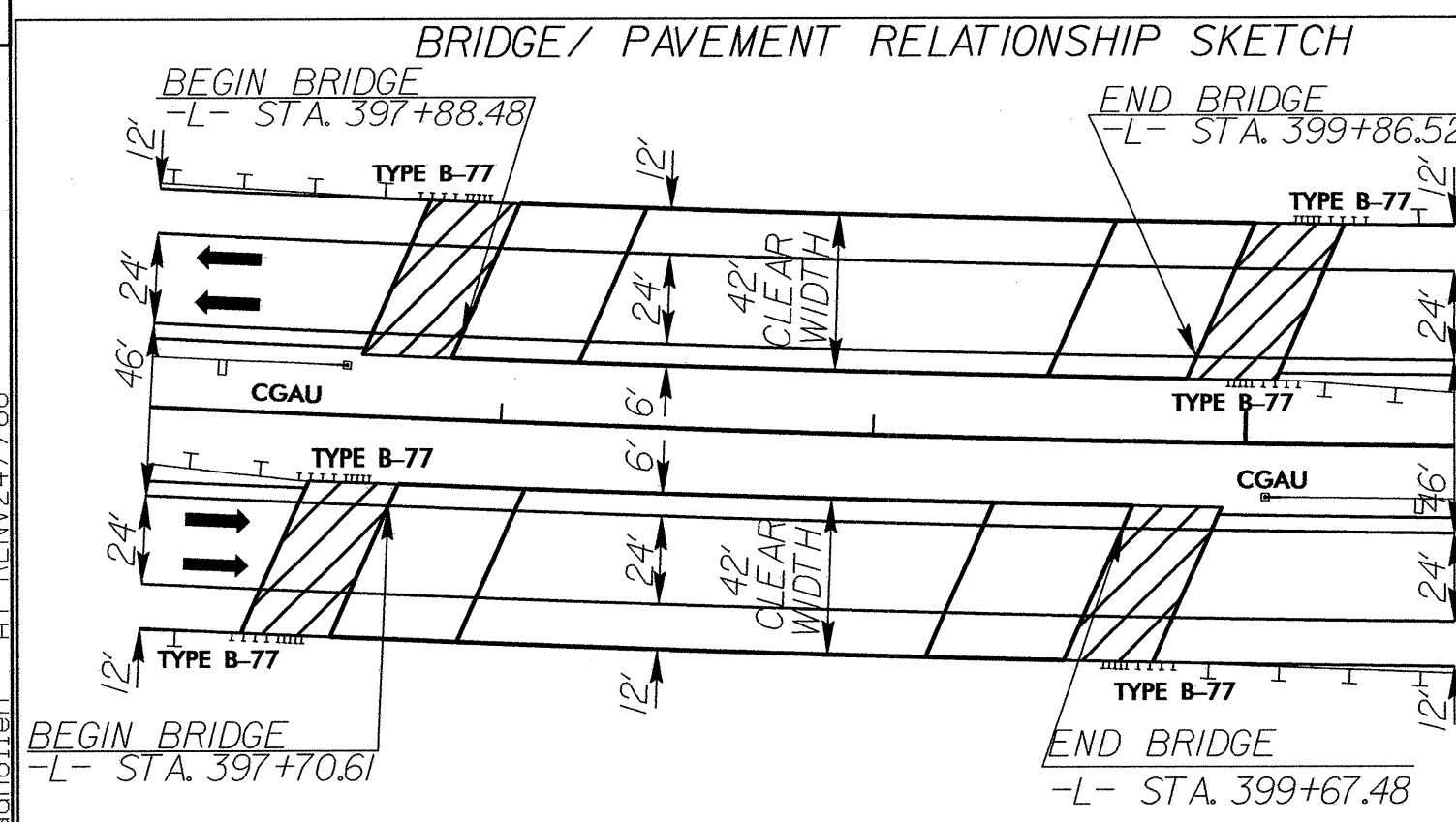
Place Matting for Erosion Control or Compost Blanket on Slope as Work Allows.

Place Matting for Erosion Control or Compost Blanket as Work Allows.

NAD 83/95



REVISIONS
 RW Revision: September 17, 2008, Revised w/ label -L- Sta. 397+15 from 205 RT to 195 RT.
 V 7/11 RW REVISION - ELIMINATED EXISTING TCE AND ADDED TCE AT RAILROAD, ADDED MONUMENTS AT SS 397+61.43, 203.99 AND 398+62.58, 201.27.



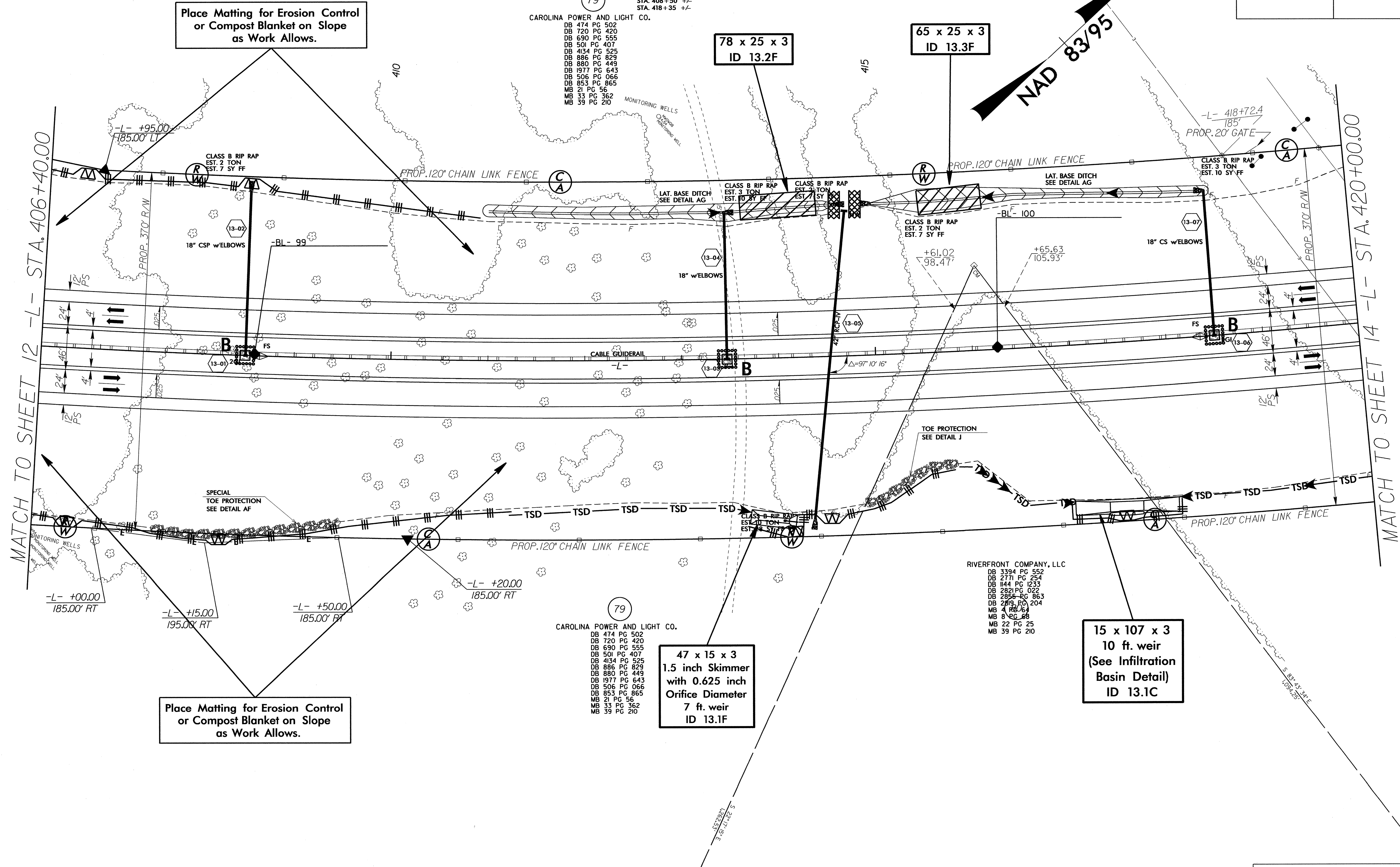
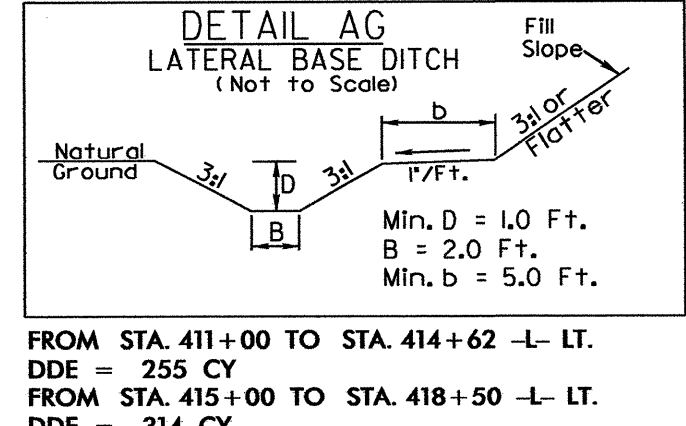
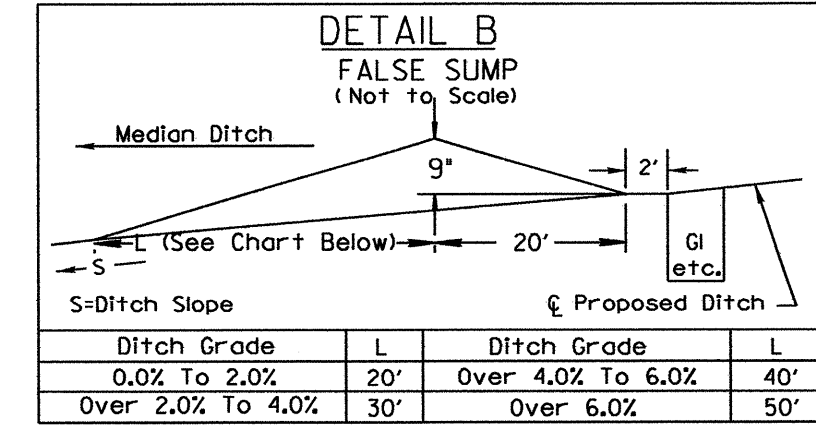
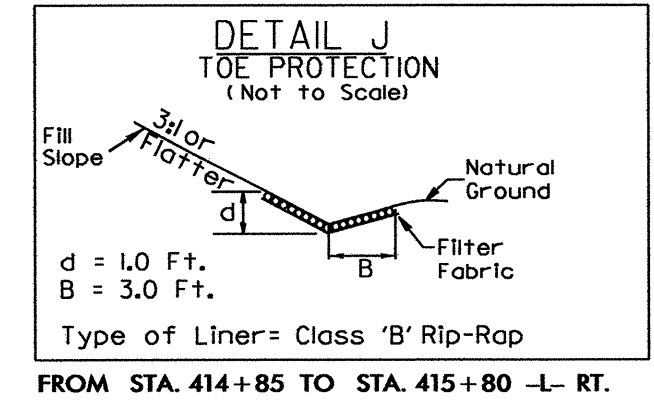
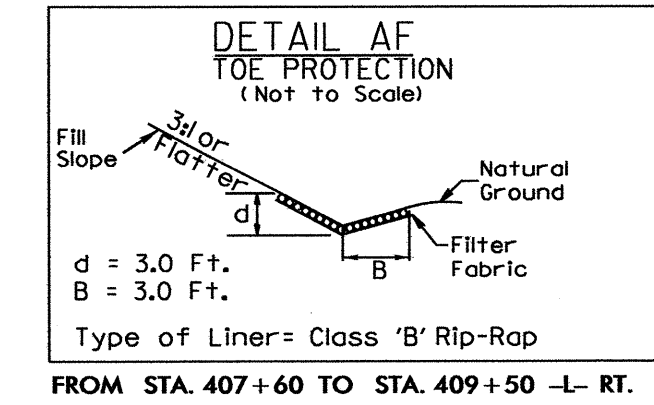
Ditch Slope	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 397+11 +/-
 STA. 404+00 +/-

SEE SHEET 20 FOR -L- PROFILE

PROJECT REFERENCE NO. R-2633BB	SHEET NO. EC-17/CONSTJ3
RW SHEET NO. 31	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
 PI Sta 383+94.77
 $\Delta = 51' 49" 22.8" (LT)$
 $D = 0' 38" 11.5"$
 $L = 8,440.34'$
 $T = 4,372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
 RUNOFF = 113'



Place Matting for Erosion Control
 or Compost Blanket on Slope
 as Work Allows.

Place Matting for Erosion Control
 or Compost Blanket on Slope
 as Work Allows.

- 79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 4134 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210

- 79
 CAROLINA POWER AND LIGHT CO.
 DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 4134 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210

- RIVERFRONT COMPANY, LLC
 DB 3394 PG 552
 DB 2771 PG 254
 DB 1144 PG 1233
 DB 2821 PG 022
 DB 2856 PG 863
 DB 2119 PG 204
 MB 4 PG 06
 MB 8 PG 68
 MB 22 PG 25
 MB 39 PG 210

47 x 15 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 7 ft. weir
 ID 13.1F

15 x 107 x 3
 10 ft. weir
 (See Infiltration
 Basin Detail)
 ID 13.1C

65 x 25 x 3
 ID 13.3F

78 x 25 x 3
 ID 13.2F

REVISIONS

10/ /09 - ADDED DB, PG, AND MB TO PARCEL 80.
 1/ /11 - REMOVED TCE ON PARCEL 79.

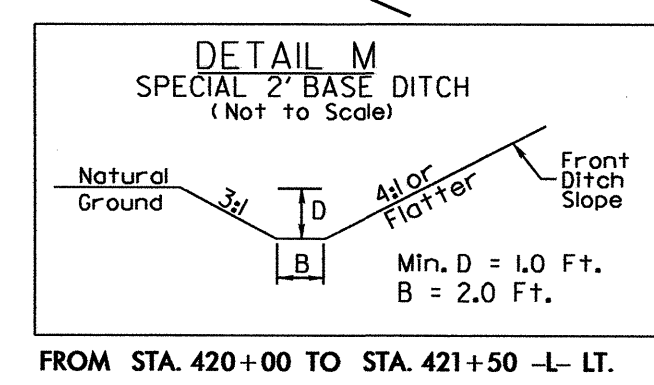
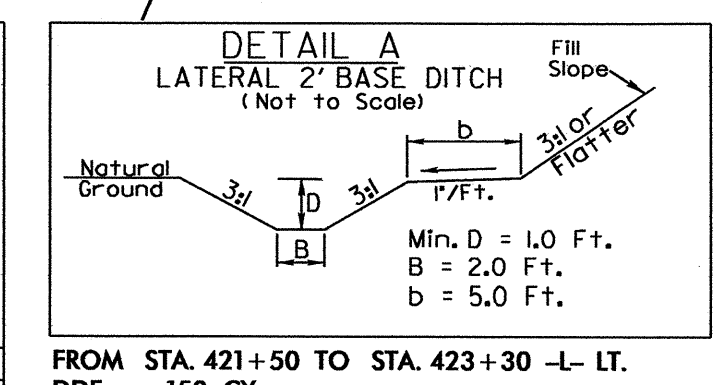
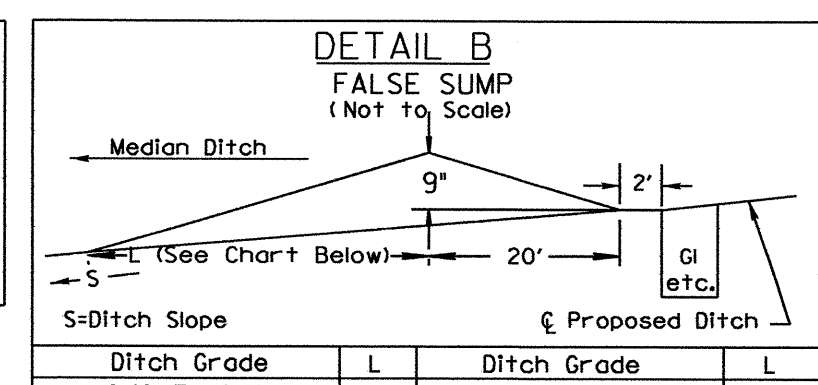
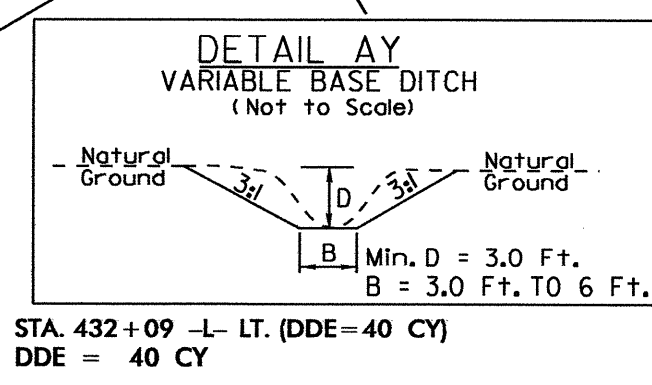
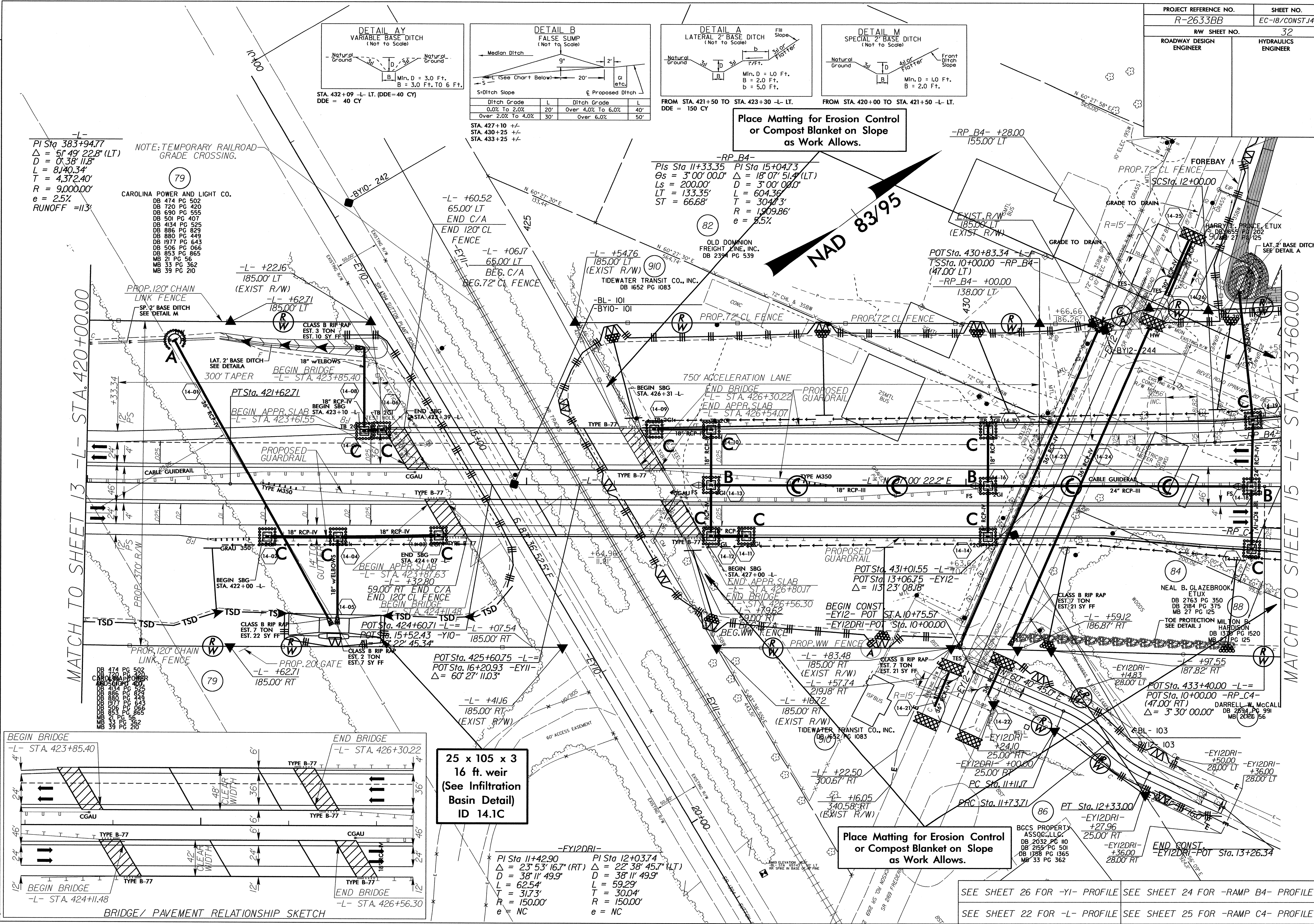
09-MAY-2013 10:31
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SEE SHEET 20 FOR -L- PROFILE

REVISIONS

03-MAY-2013 10:26
 RA: Environmental
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 09-SEP-2013 10:26
 RA: Environmental
 D:_design\17176333BB-EC.PSH.14.dgn
 03-MAY-2013 10:26
 RA: Environmental
 D:_design\17176333BB-EC.PSH.14.dgn

R/W Revisions: September 17, 2008 Revised R/W label -L- Sta. 431+10 from 205' RT to 195' RT.
 R/W Revisions: 10/1/09 - ADDED BUILDING TOPO TO PARCEL 82, ADDED TOPO TO PARCEL 86, CHANGED PARCEL 81 TO 910.
 R/W Revisions: 1/11 - ELIMINATED TCE ON PARCEL 79, ELIMINATED CUL DE SAC ON PARCEL 82 AND EXTENDED C/A AND FENCE ACROSS FREDRICKSON ROAD AND ALONG DITCH.
 R/W Revisions: 1/11 - ELIMINATED TCE ON PARCEL 79, ELIMINATED CUL DE SAC ON PARCEL 85 AND 86, ADDED TURN AROUND ON PARCEL 910, ADDED TURN AROUND ON PARCELS 85 AND 86.
 R/W Revisions: 9/22/11 - CHANGED PROPOSED RIGHT OF WAY ON PARCELS 85 AND 86.



Place Matting for Erosion Control or Compost Blanket on Slope as Work Allows.

NAD 83/95

-L-
 PI Sta 383+94.77
 $\Delta = 51^\circ 49' 22.8''$ (LT)
 $D = 0' 38'' 11.8''$
 $L = 8140.34'$
 $T = 4372.40'$
 $R = 9,000.00'$
 $e = 2.5\%$
 $RUNOFF = 113'$

NOTE: TEMPORARY RAILROAD GRADE CROSSING.

79

CAROLINA POWER AND LIGHT CO.

DB 474 PG 502
 DB 720 PG 420
 DB 690 PG 555
 DB 501 PG 407
 DB 4134 PG 525
 DB 886 PG 829
 DB 880 PG 449
 DB 1977 PG 643
 DB 506 PG 066
 DB 853 PG 865
 MB 21 PG 56
 MB 33 PG 362
 MB 39 PG 210

-L- +60.52
 65.00' LT
 END C/A
 END 120' CL FENCE

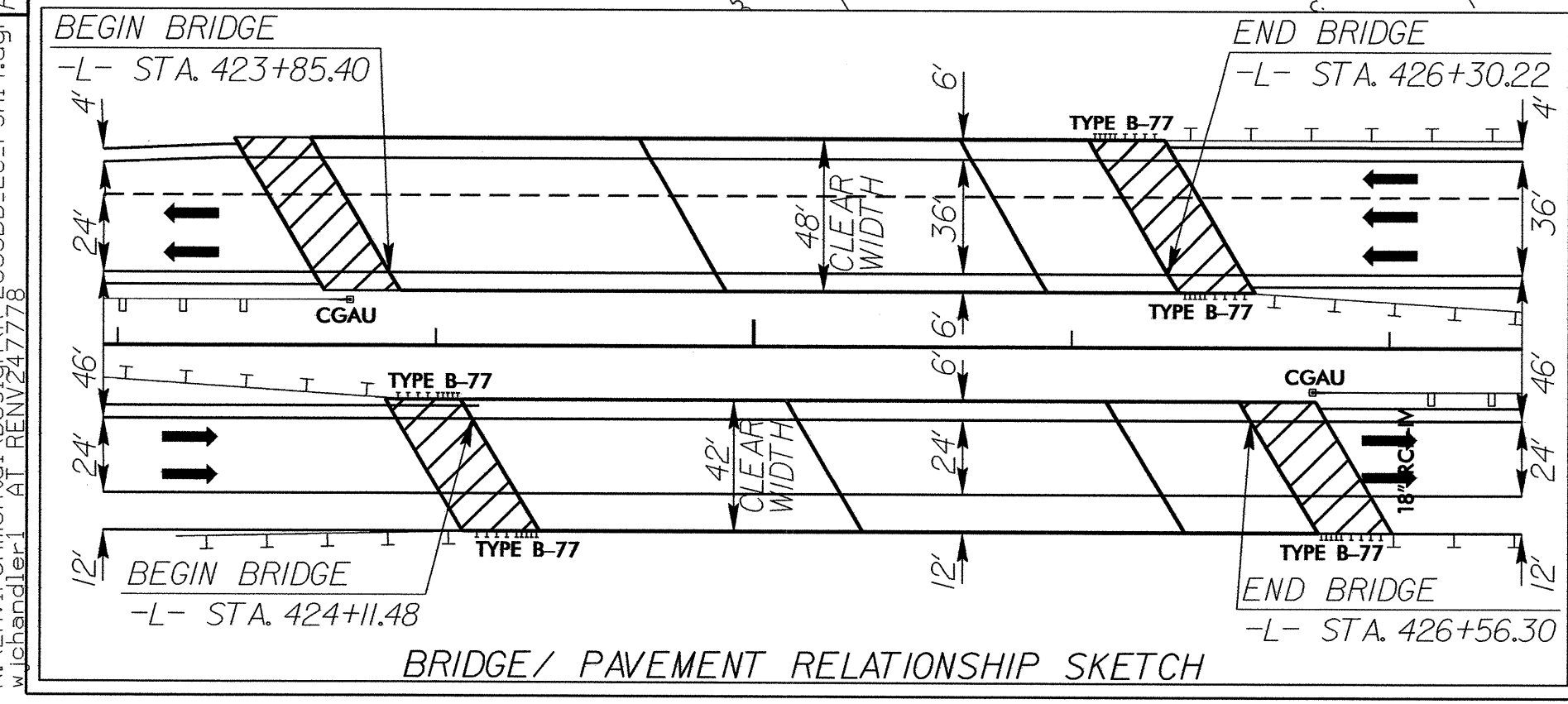
-L- +06.17
 65.00' LT
 BEG. C/A
 BEG. 72' CL FENCE

-RP B4-
 PI Sta 11+33.35
 $\Delta = 3^\circ 00' 00.0''$
 $L_s = 200.00'$
 $LT = 133.35'$
 $ST = 66.68'$

PI Sta 15+04.73
 $\Delta = 18^\circ 07' 51.4''$ (LT)
 $D = 3^\circ 00' 00.0''$
 $L = 604.36'$
 $T = 3047.3'$
 $R = 1,909.86'$
 $e = 5.5\%$

-RP B4- +28.00
 155.00' LT

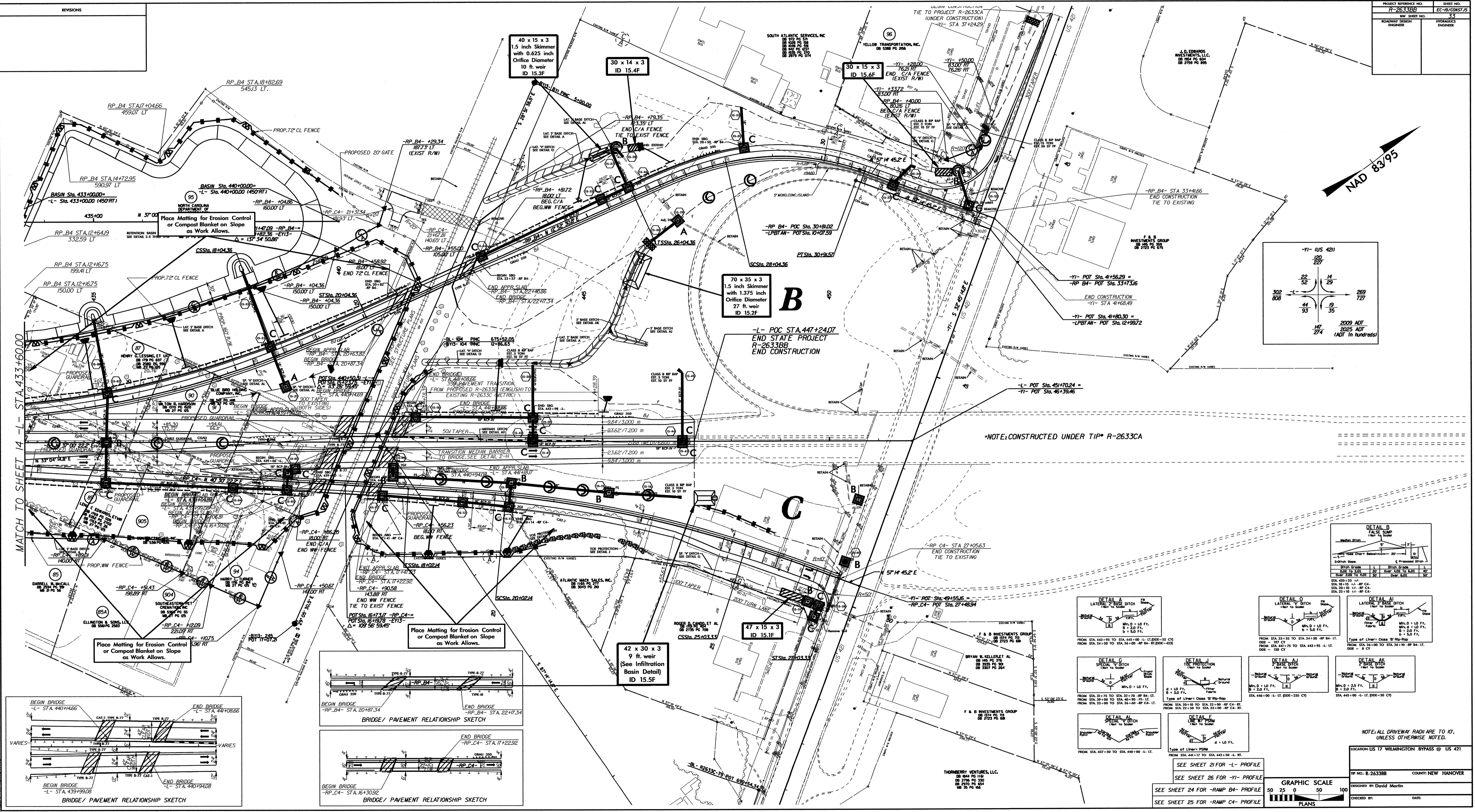
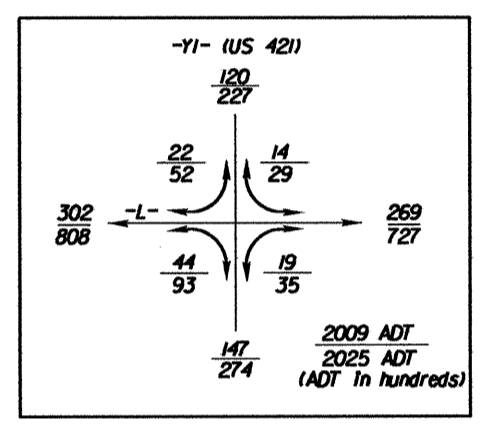
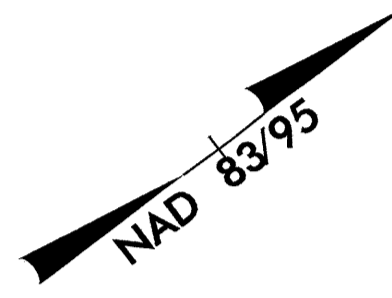
POT Sta. 430+83.34 -L- F
 TSS Sta. 10+00.00 -RP B4-
 (47.00' LT)
 -RP B4- +00.00
 138.00' LT



Place Matting for Erosion Control or Compost Blanket on Slope as Work Allows.

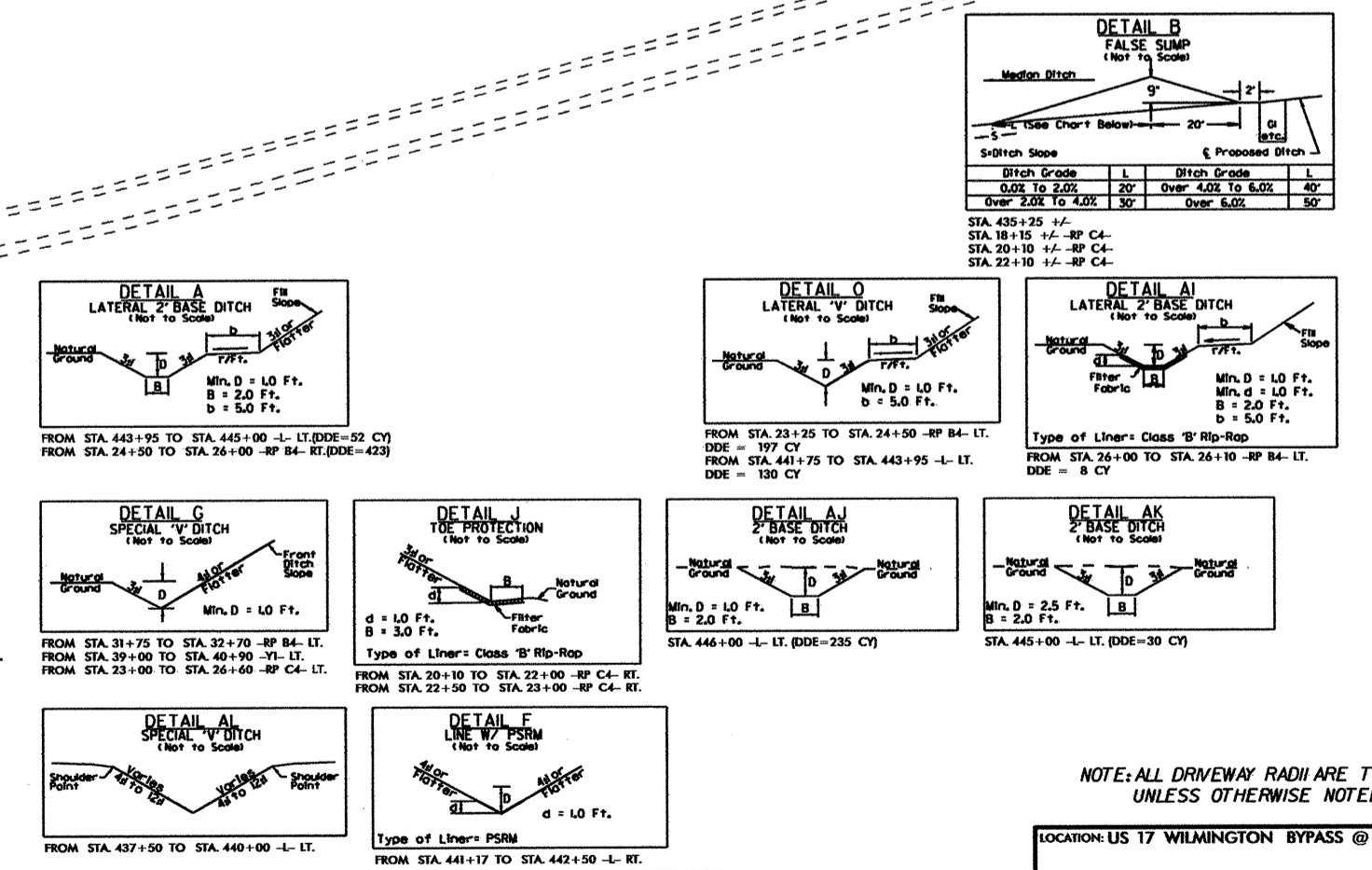
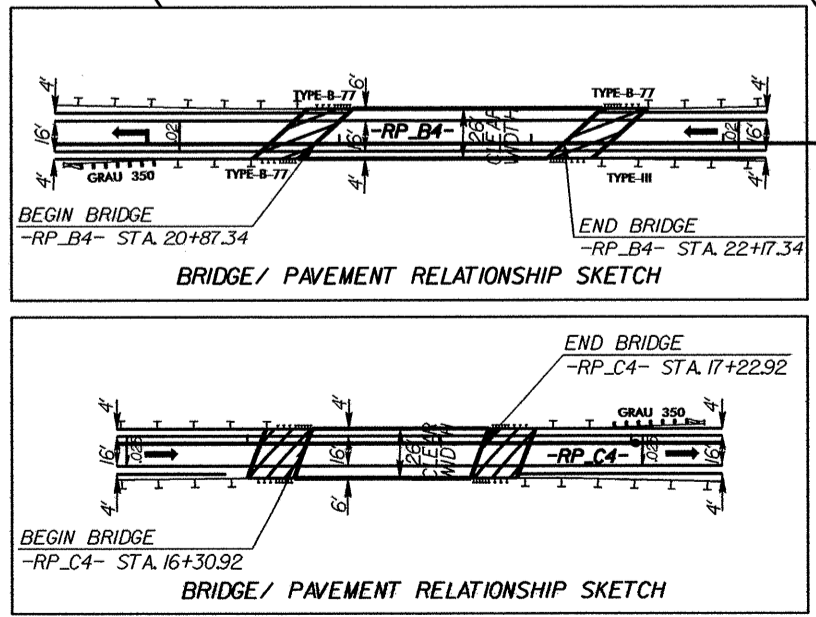
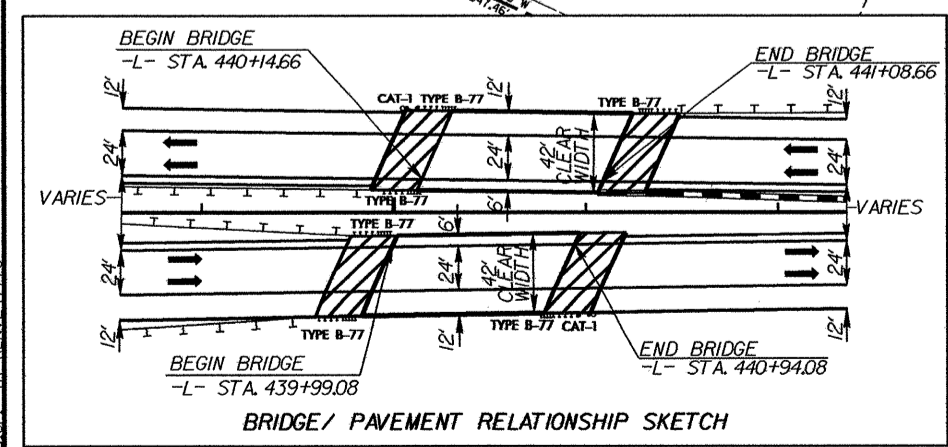
SEE SHEET 26 FOR -YI- PROFILE
 SEE SHEET 24 FOR -RAMP B4- PROFILE
 SEE SHEET 22 FOR -L- PROFILE
 SEE SHEET 25 FOR -RAMP C4- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2633BB	EC-19/CONSTR
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

MATCH TO SHEET 14 - STA 433+60.00



SEE SHEET 21 FOR -Y1- PROFILE	GRAPHIC SCALE
SEE SHEET 24 FOR -RAMP B4- PROFILE	50 25 0 50 100
SEE SHEET 25 FOR -RAMP C4- PROFILE	PLANS

NOTE: ALL DRIVEWAY RADII ARE TO 10', UNLESS OTHERWISE NOTED.

LOCATION: US 17 WILMINGTON BYPASS @ US 421

TP NO: R-2633BB COUNTY: NEW HANOVER

DESIGNED BY: David Martin

CHECKED BY: DATE: