PROJECT: U-2507A

TIP #

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

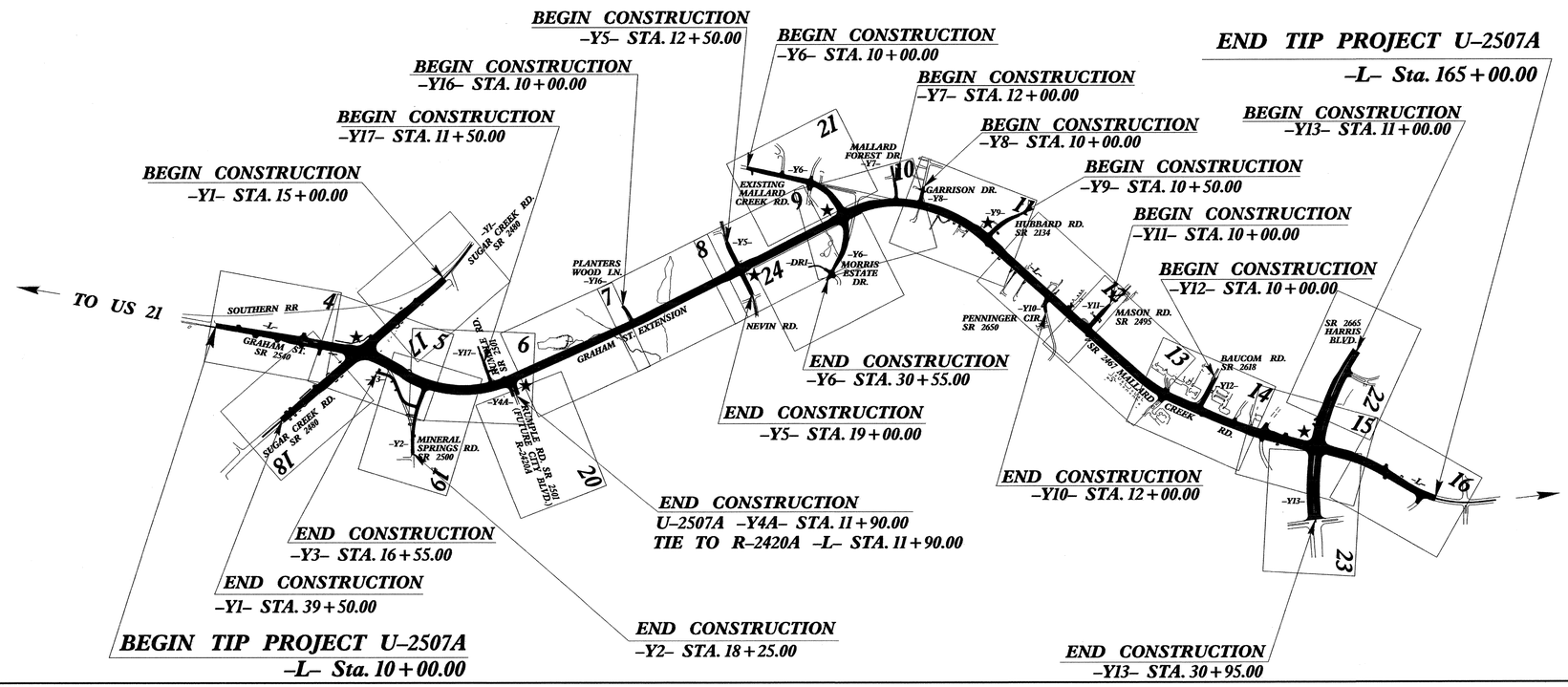
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

MECKLENBURG COUNTY

LOCATION: CHARLOTTE – SR 2467 (MALLARD CREEK ROAD)
FROM SR 2480 (SUGAR CREEK ROAD) TO
SR 2665 (HARRIS BOULEVARD)

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

NAD 83/95



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2507A	EC-1	

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

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	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	SW CFW
	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

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 revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

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

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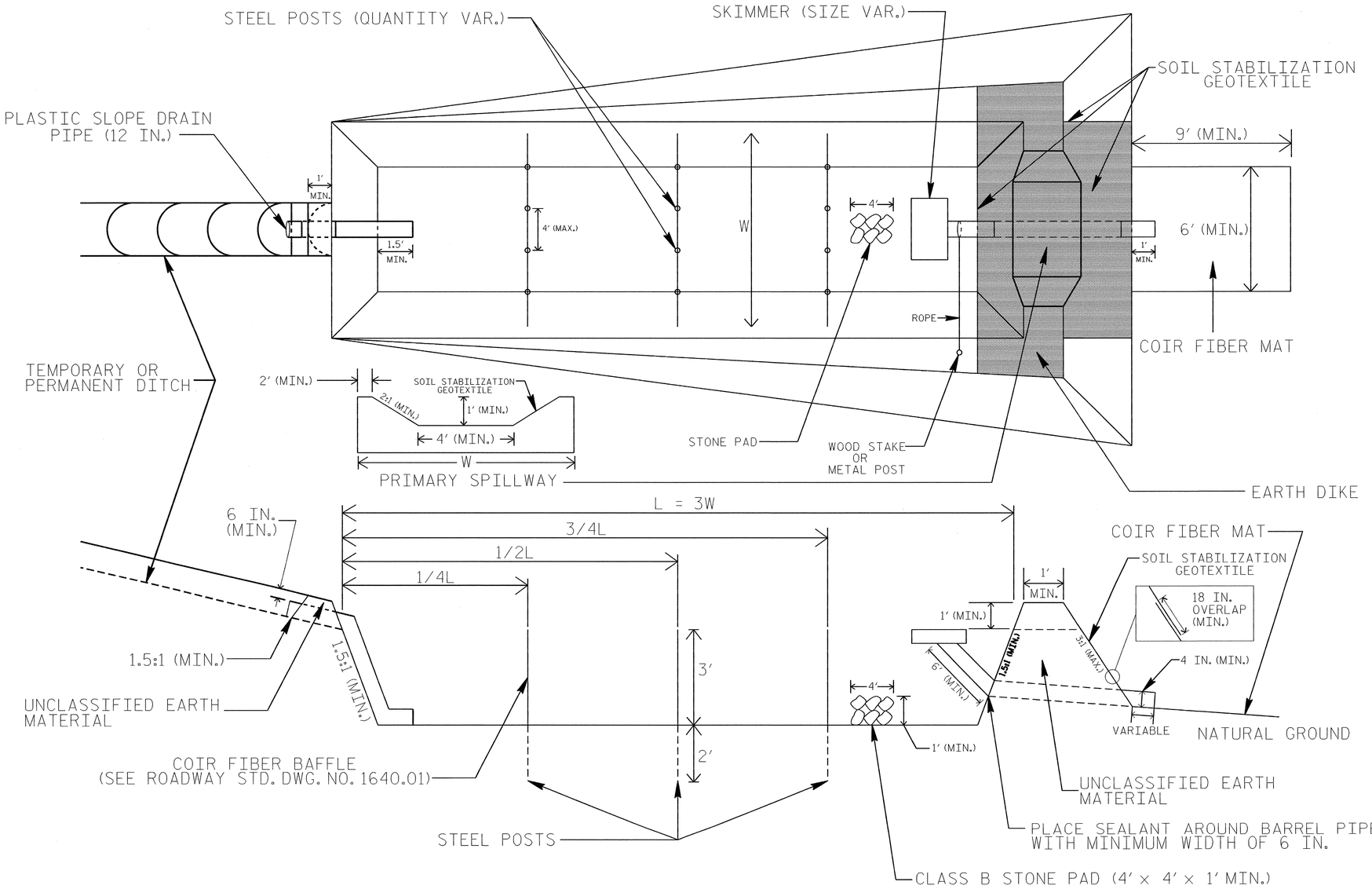
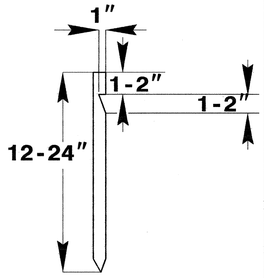
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

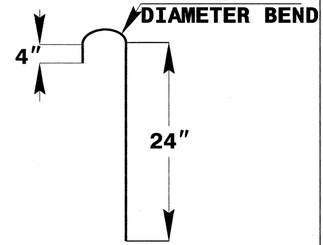
SKIMMER BASIN WITH BAFFLES DETAIL



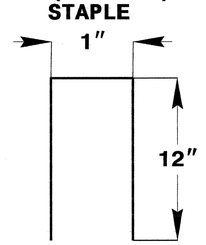
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

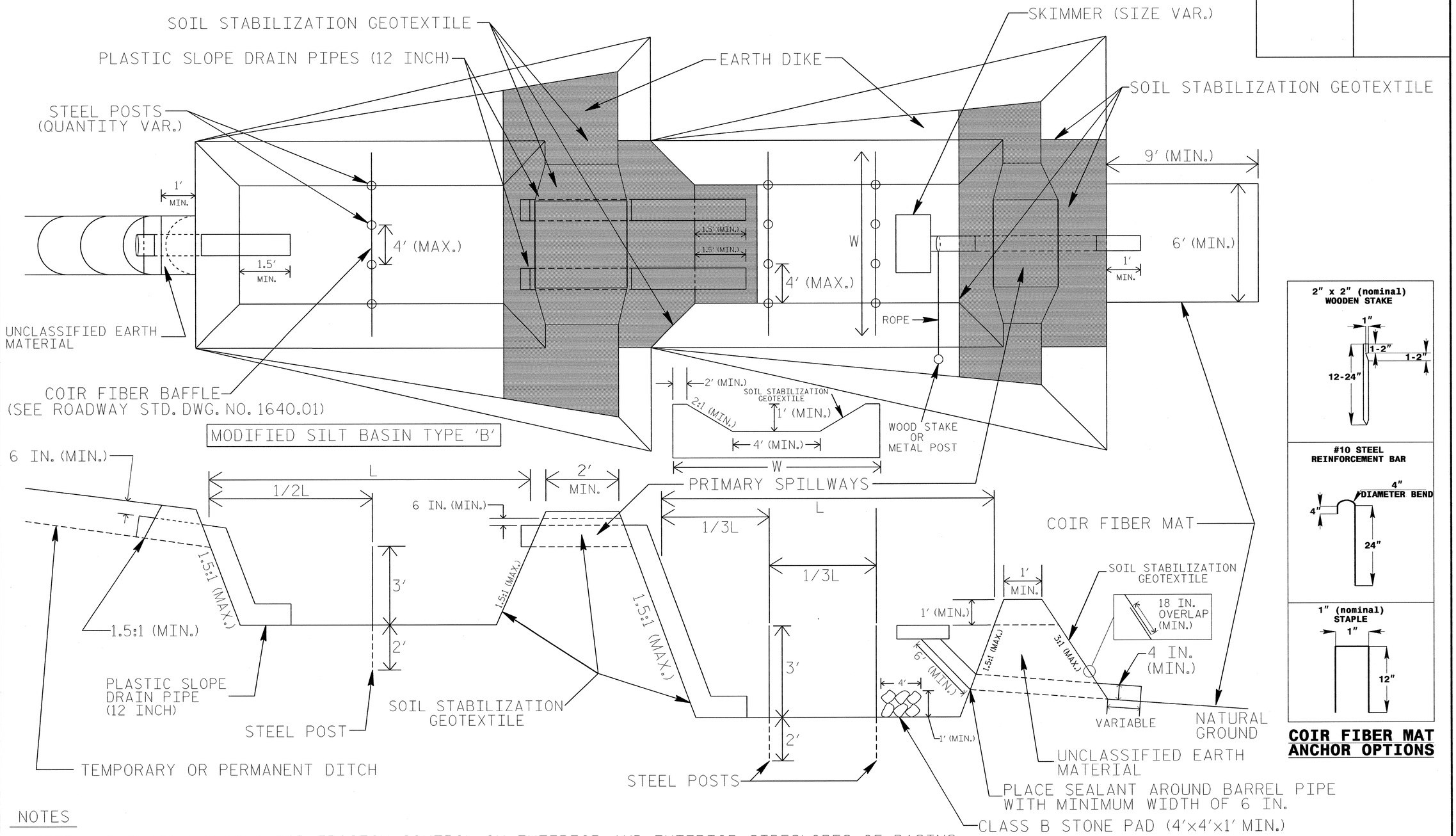
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON 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 PRIMARY SPILLWAY WEIR LENGTH (FT.) USING Q/0.4, 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 PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-2A
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 PRIMARY SPILLWAY LENGTHS (FT.) USING Q/0.4, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BORROW PIT DEWATERING BASIN DETAIL

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING V = 8.0203 * Q * T, WHERE V IS VOLUME (FT^3), 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.

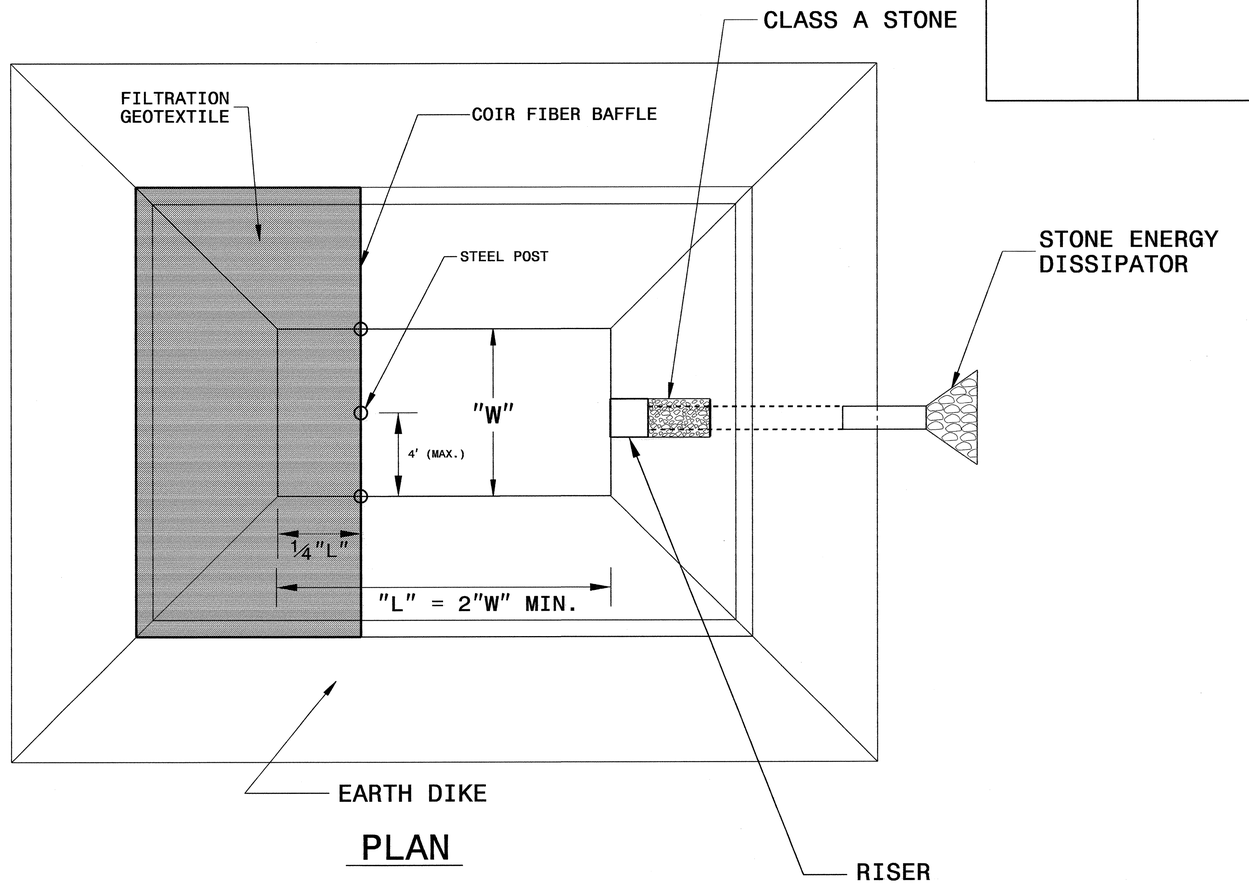
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

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

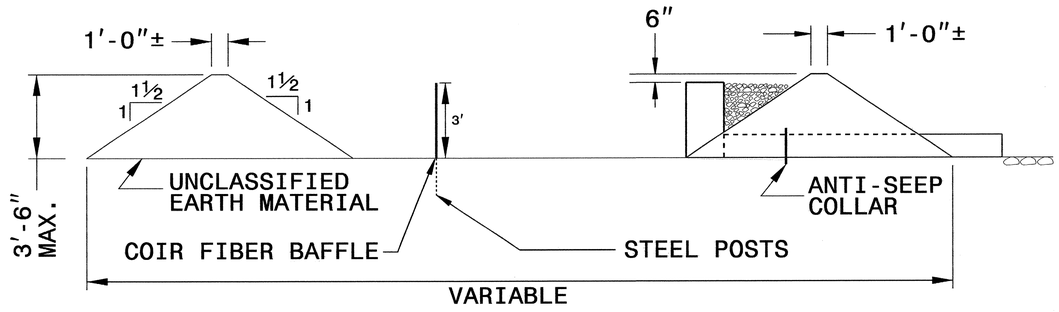
SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

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.



PLAN

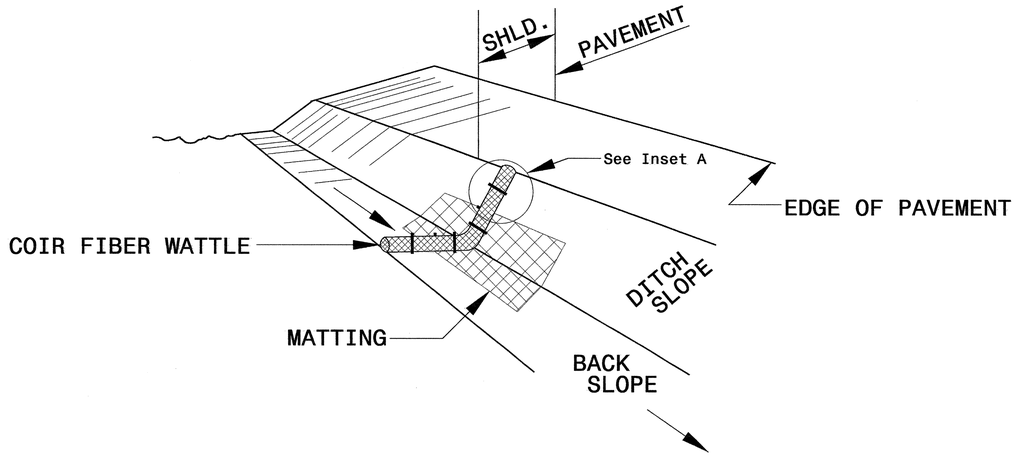


TYPICAL SECTION VIEW

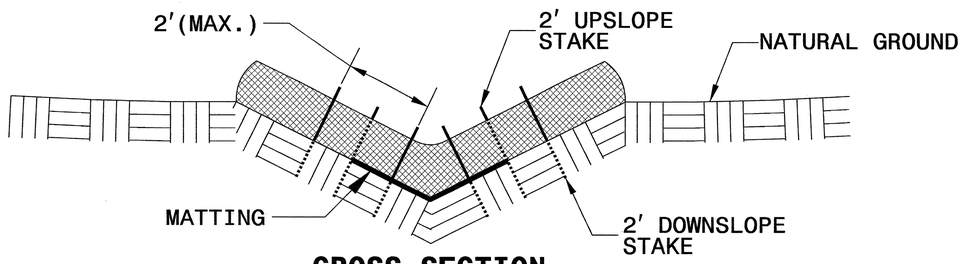
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

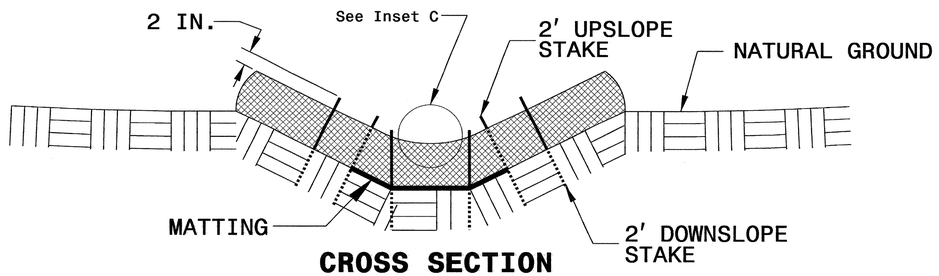
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



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.

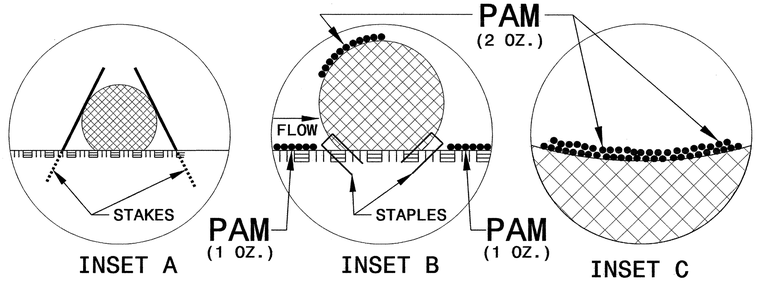
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

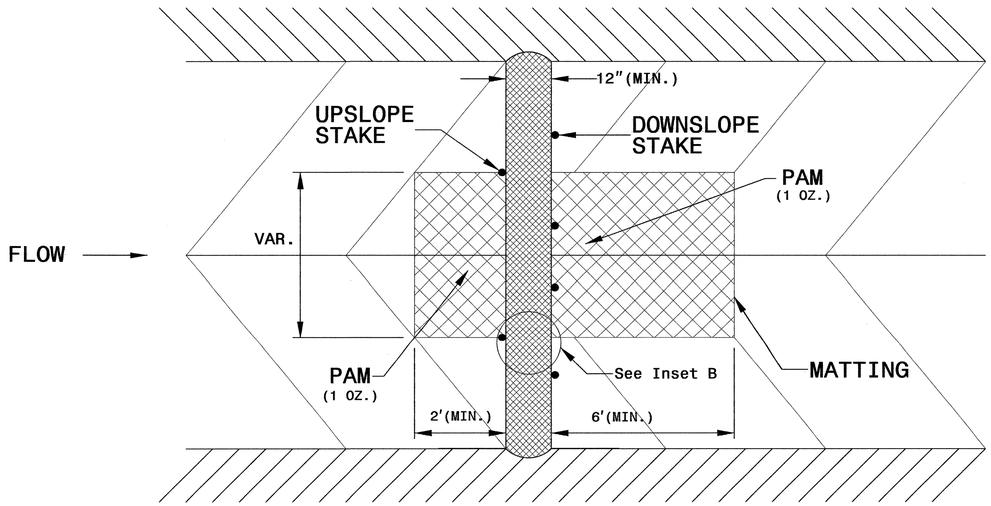
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.

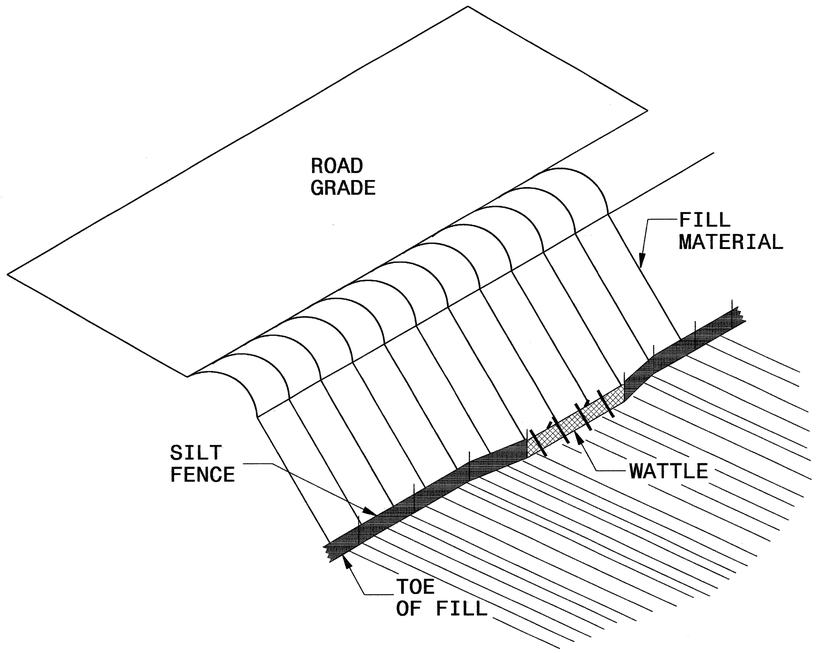




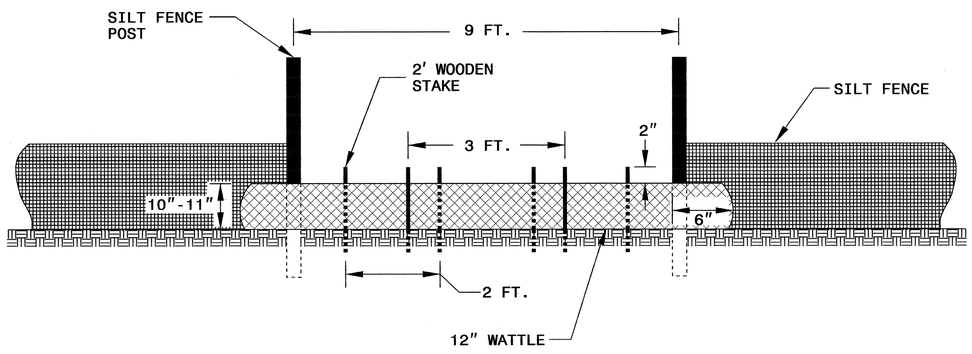
TOP VIEW

SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

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

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

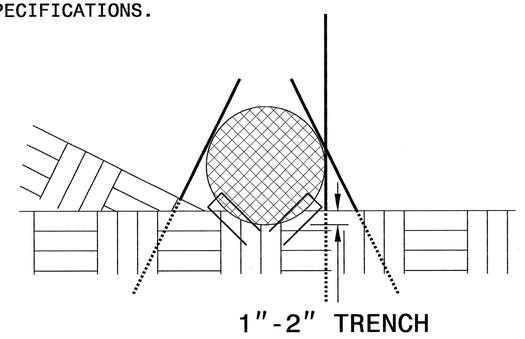
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

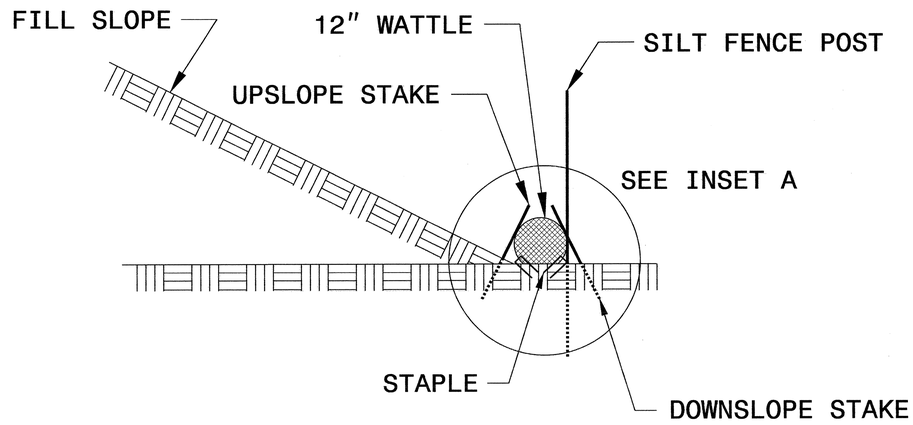
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A

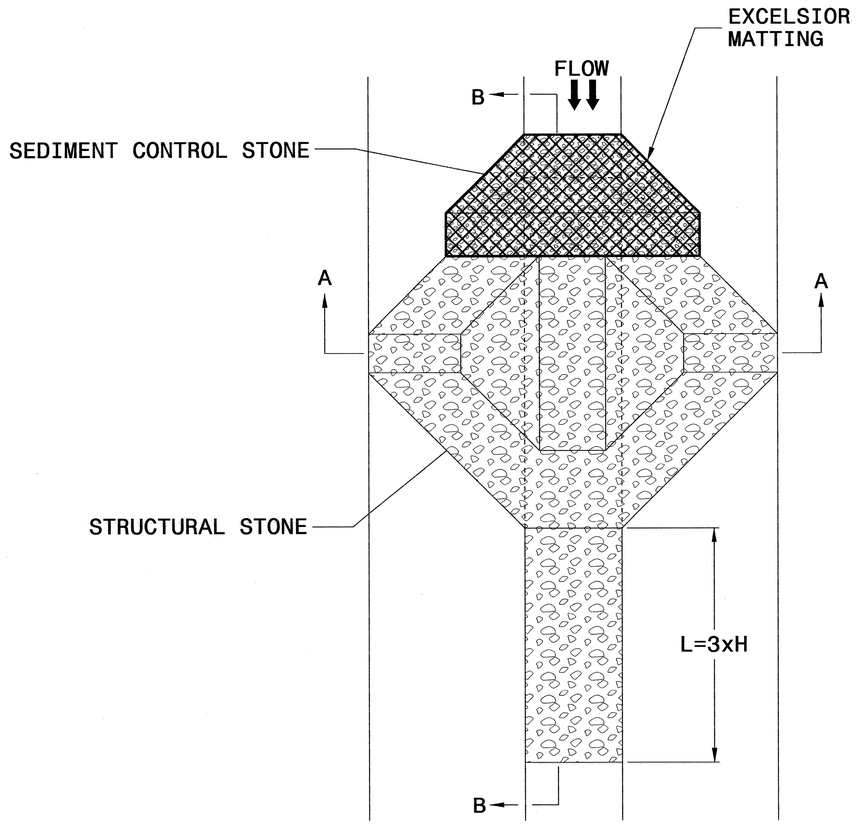




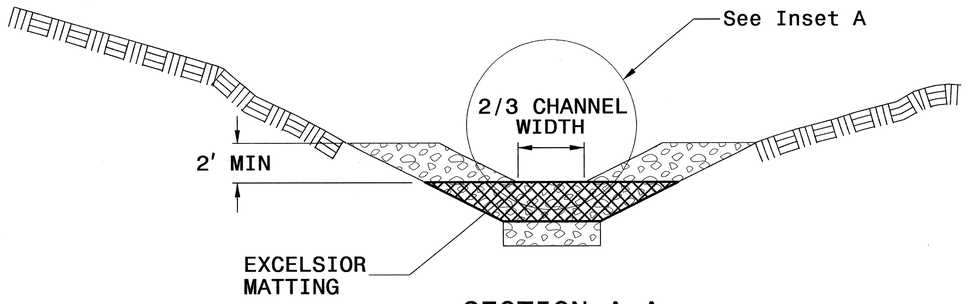
SIDE VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



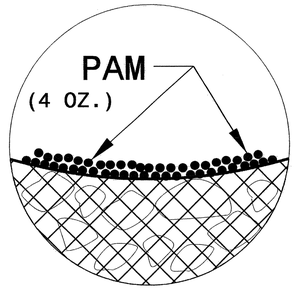
SECTION A-A

NOTES

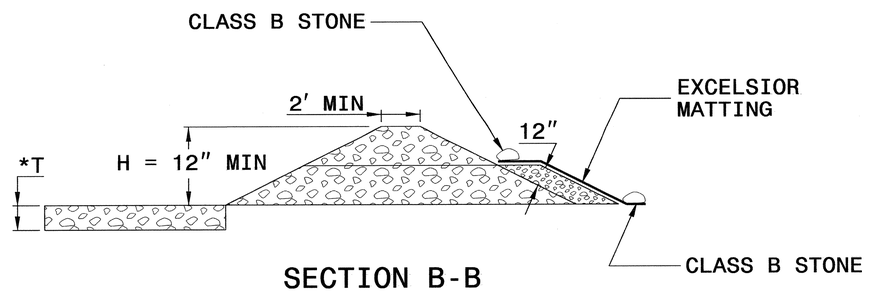
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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



INSET A



SECTION B-B

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

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	Y17	10+00	11+50	RT	420
9	L	81+50	84+00	RT	570
11	Y8	10+50	11+50	LT	120
11	Y8	10+50	11+50	RT	120
22	Y13	11+50	19+00	RT	2100
22	Y13	12+00	12+50	LT	155
23	Y13	28+00	30+50	RT	615
			SUBTOTAL		4100
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					39330
				TOTAL	43430
				SAY	45000

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
8	L	62+50	64+50	LT	245
			SUBTOTAL		245
		ADDITIONAL PSRM TO BE INSTALLED			1210
				TOTAL	1455
				SAY	1500

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

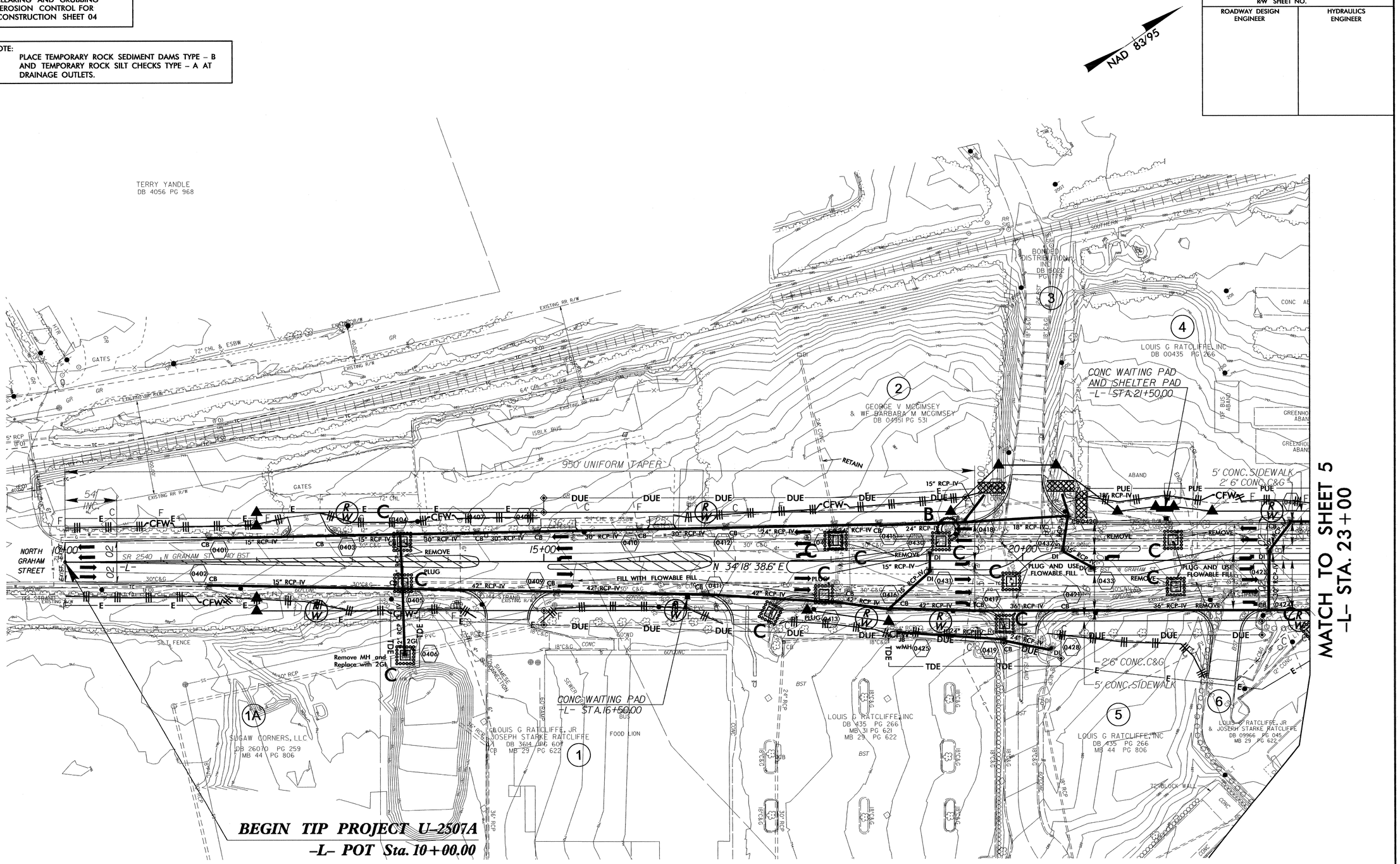
SOIL STABILIZATION TIMEFRAMES

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.
U-2507A	EC-04/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

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



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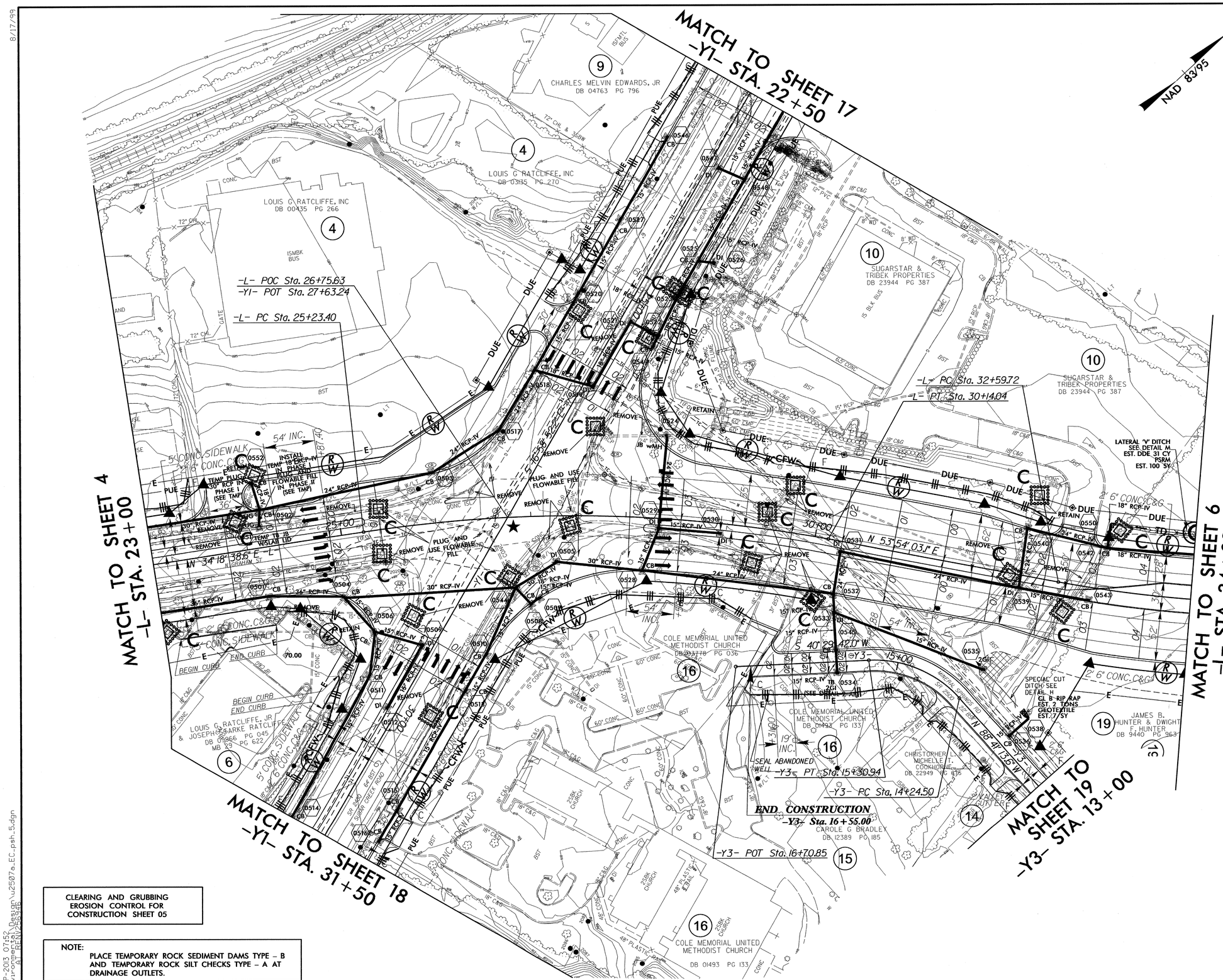
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-05/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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

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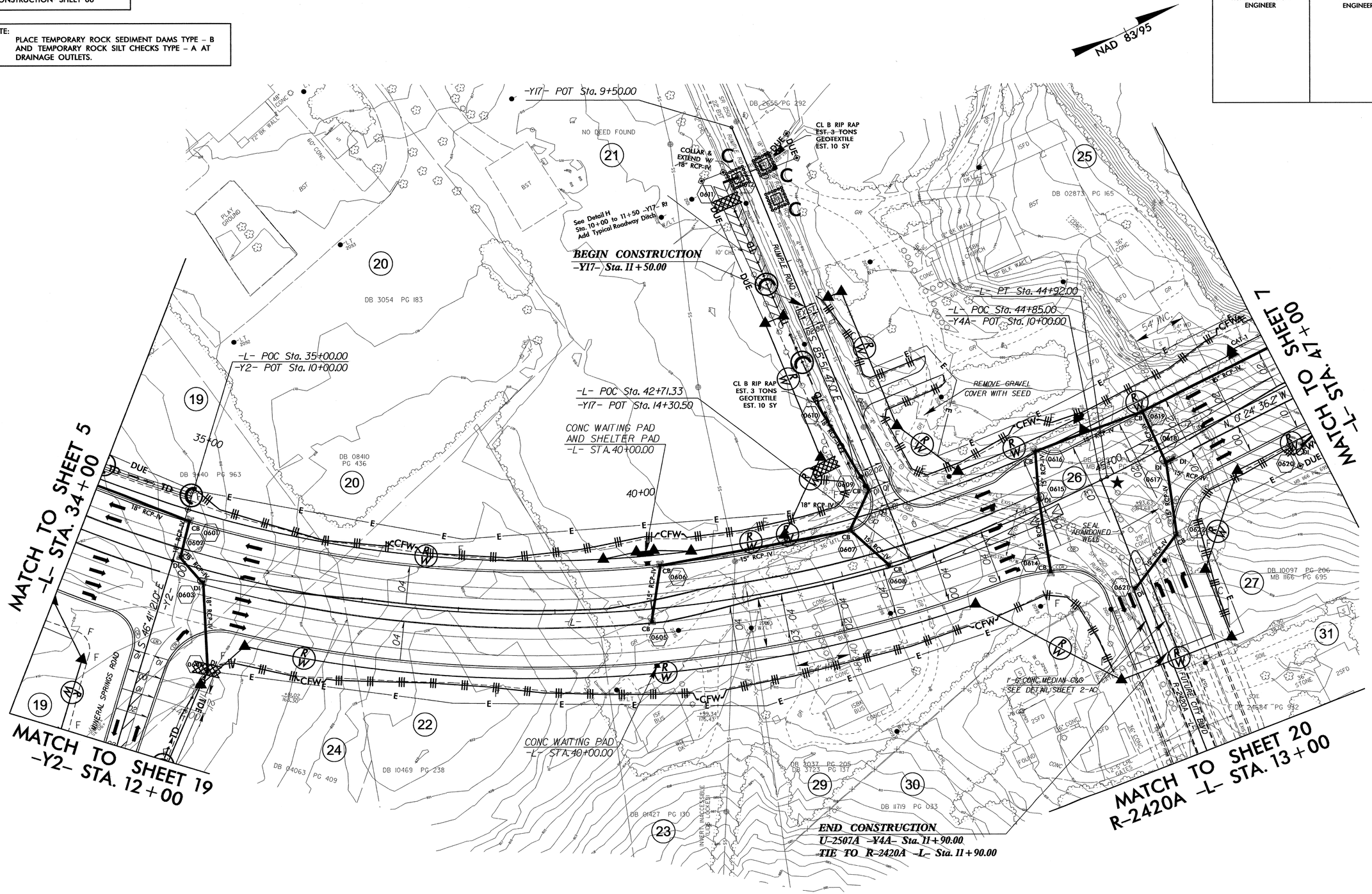
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-06/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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



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8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

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

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-07/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

MATCH TO SHEET 6
-L- STA. 47+00

MATCH TO SHEET 8
-L- STA. 59+50

DO NOT DISTURB POND

175' MEDIAN TAPER
TAPER MEDIAN FROM 30' TO 23'

BIBLE PRESBYTERIAN CHURCH OF CHARLOTTE INC DB 02873 PG 165

TOE PROTECTION SEE DETAIL E CL B RIP RAP EST. 26 TONS GEOTEXTILE EST. 72 SY

RITA L COBBLE DB 6870 PG 543

CL 1 Rip Rap Ranka Only EST. 11 TONS GEOTEXTILE EST. 22 SY

LATERAL BASE DITCH SEE DETAIL A EST. DDE 974 CY COIR MATTING EST. 525 SY

STANDARD BASE GRASSED SWALE SEE DETAIL B EST. DDE 10 CY

SEE DETAIL L FOR CHECK DAMS

CL B RIP RAP EST. 5 TONS GEOTEXTILE EST. 14 SY

FOREST POND HOMEOWNERS ASSOCIATION DB 2082 PG 378 MB 33 PG 417

SHIRLEY W COLEMAN DB 7641 PG 633

BENJAMIN R JONES & SPRIL D HODGES DB 10375 PG 315 MB 29 PG 616

MECKLENBURG COUNTY BOARD OF EDUCATION DB 1007 PG 151

MEREDITH R RAWDON DB 10097 PG 206 MB 1166 PG 695

LIKE WEN, KEVIN FU, & MING FAI FU DB 24684 PG 932

MONICA L PRICE DB 10335 PG 401 MB 29 PG 616

BM #4
-BL- STATION 34+92
67' RIGHT ELEVATION=810.45
-L- STA 47+66 (72' RT)

BM #5
-BL- STATION 43+74
167' LEFT ELEVATION=767.54
-L- STA. 55+62 (64' RT)

RAIN CREEK WAY

ANNIE KITTRELLZ DB 21748 PG 749

MELANIE SUE BERRY DB 10522 PG 206 MB 29 PG 616

MICHAEL BRENNINGTON DB 18815 PG 925

TIMOTHY MCKINNEY DB 17751 PG 486

CHIN PHATH & KEWSEH SEUNG DB 16594 PG 210 MB 29 PG 616

RAYMOND A PUGA DB 20661 PG 291

OLGA VENTURA DB 26452 PG 510

36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
10 ft. weir
ID 7.1C&G

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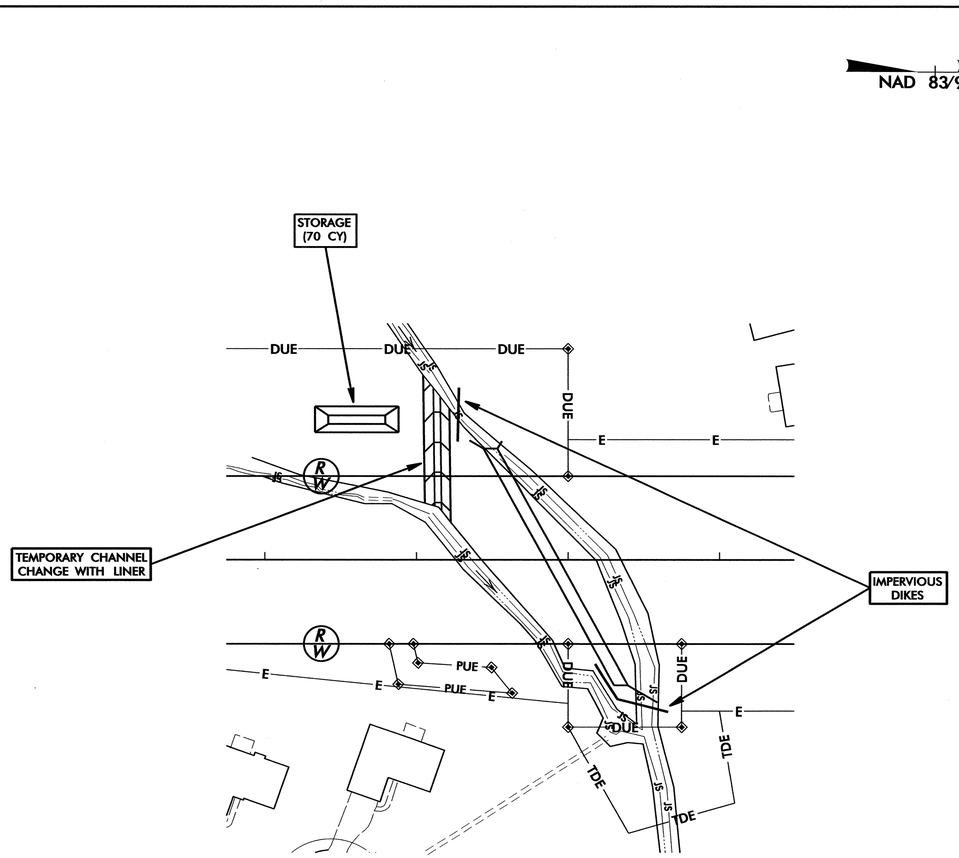
CULVERT CONSTRUCTION SEQUENCE STA. 57 + 89 –L–

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-08/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

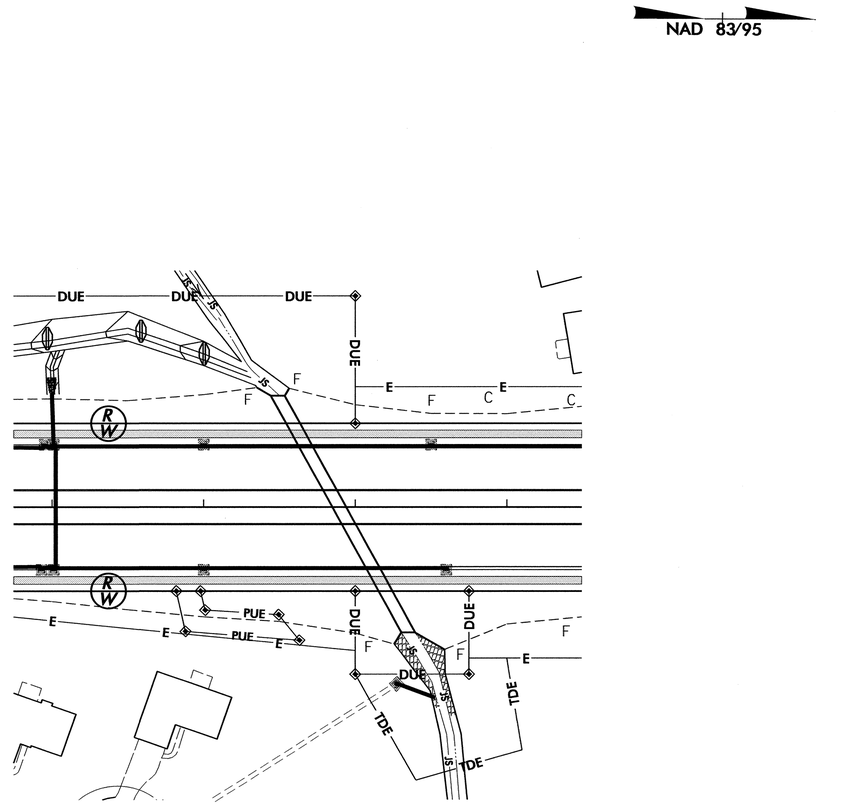
PHASE I

1. CONSTRUCT STILLING BASIN (70 CY).
2. CONSTRUCT IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE WITH LINER (5 FT. BASE, 3 FT. DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW.
3. CONSTRUCT PROPOSED CULVERT, EXCEPT FOR ONE WINGWALL.
4. REMOVE DOWNSTREAM IMPERVIOUS DIKE AND CONSTRUCT OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE UPSTREAM IMPERVIOUS DIKE AND TEMPORARY CHANNEL CHANGE, ALLOWING FLOW THROUGH CULVERT.



PHASE II

6. REMOVE STILLING BASIN.
7. CONSTRUCT LATERAL BASE DITCH, RELOCATING STREAM ALONG LEFT SIDE OF –L–.
8. CONSTRUCT FINAL WINGWALL, AND ANY REMAINING INLET/OUTLET CHANNEL IMPROVEMENTS.
9. COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-09/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

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

NAD 83/95

MATCH TO SHEET 7
-L- STA. 59+50

MATCH TO SHEET 9
-L- STA. 71+50

BEGIN CONSTRUCTION
-Y16- Sta. 10+00.00
-Y16- PC Sta. 10+20.85
-Y16- PT Sta. 11+89.67

+50.00-L-
515.00

+85.00-L-
390.00

+00.00-L-
475.00

94.48'
N27°04'46"E

472.86'
N45°00'00"E

111.59'
S16°37'50"E

Stabilize drainage ditch with Class "B" Rip Rap from outlet of pipe to pond or channel after pond is drained. Final Design to be determined by Engineer in the field.

1. Pond will be drained during construction.
2. Seed pond after draining.
3. Stabize Streams as they appear during dewatering

CONC WAITING PAD AND SHELTER PAD
-L- STA.62+00.00

TOE PROTECTION
SEE DETAIL E
CL B RIP RAP
EST. 46 TONS
GEOTEXTILE
EST. 130 SY

CL B RIP RAP
EST. 8 TONS
GEOTEXTILE
EST. 20 SY

LATERAL BASE DITCH
SEE DETAIL D
EST. DDE 208 CY

CL II RIP RAP
Place on Banks Only
EST. 38 TONS
GEOTEXTILE
EST. 78 SY

RIP RAP AT EMBANKMENT
SEE DETAIL O
CL I RIP RAP
EST. 12 TONS
GEOTEXTILE
EST. 17 SY

SPECIAL CUT DITCH
SEE DETAIL Q
SLOPE = 0.6%
BACKFILL TO APPROX. ELEV. = 764'
EST. FILL = 60 CU. YDS.
GRADE TO DRAIN

TOE PROTECTION
SEE DETAIL B
CL B RIP RAP EST. 28 TONS
GEOTEXTILE EST. 91 SY

-L- POC Sta. 60+32.00
-Y16- POT Sta. 12+30.02
-L- PC Sta. 60+26.93
-L- PT Sta. 62+87.64

CONC WAITING PAD
-L- STA.62+00.00

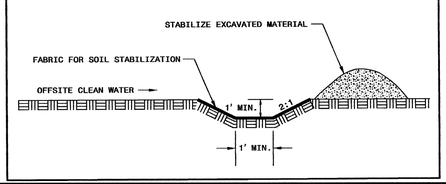
CONC WAITING PAD
-L- STA.71+00.00

BM #6
-BL- STATION 52+62
70' RIGHT ELEVATION=765.98'
-L- STA. 64+35.58 (84.6252' RT)

LILY PAD COURT
SPANISH MOSS ROAD

CLEAN WATER DIVERSION

(Not to Scale)



36 x 16 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
8 ft. weir
ID 8.1C&G

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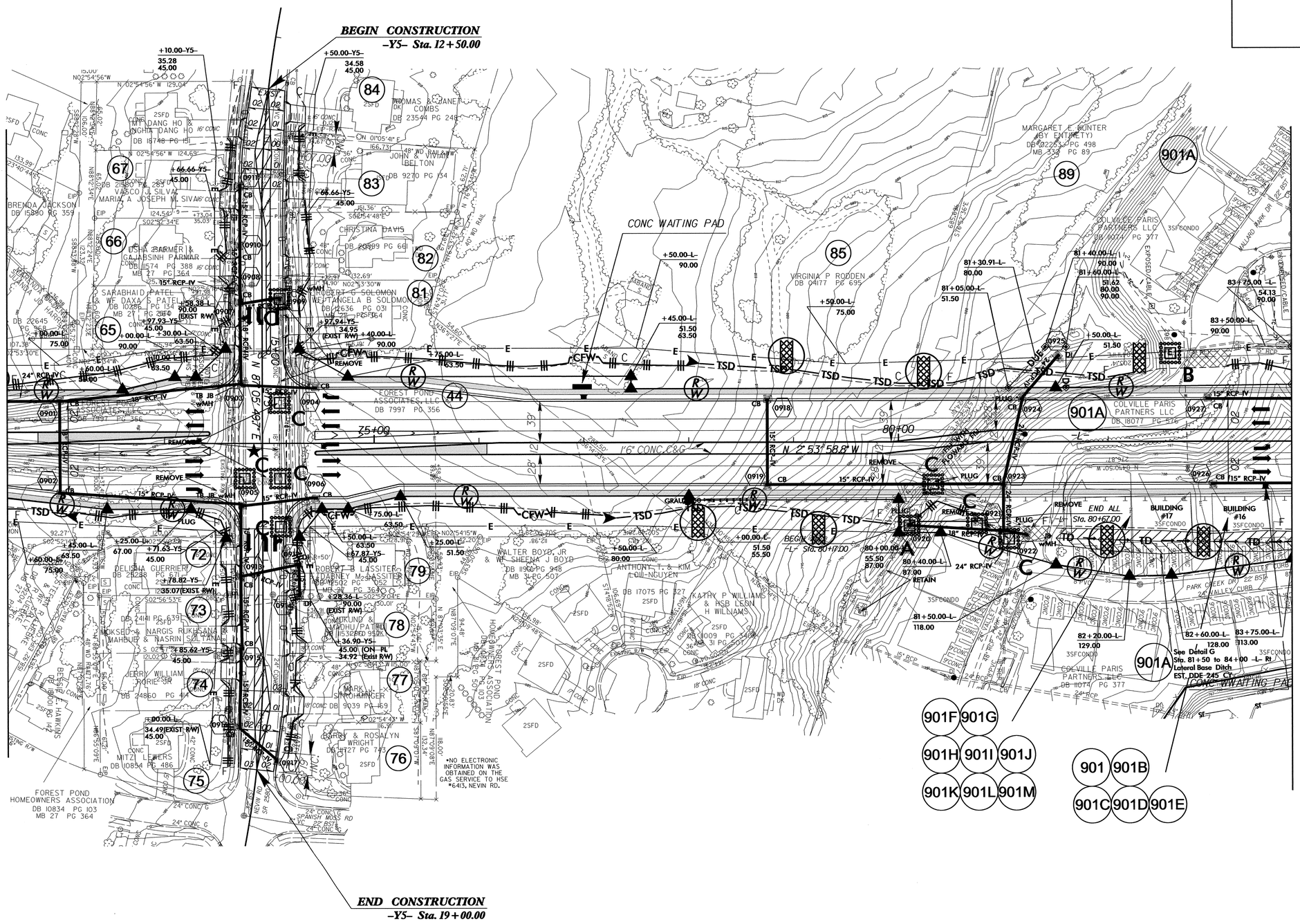
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-10/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 09

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

NAD 83/95



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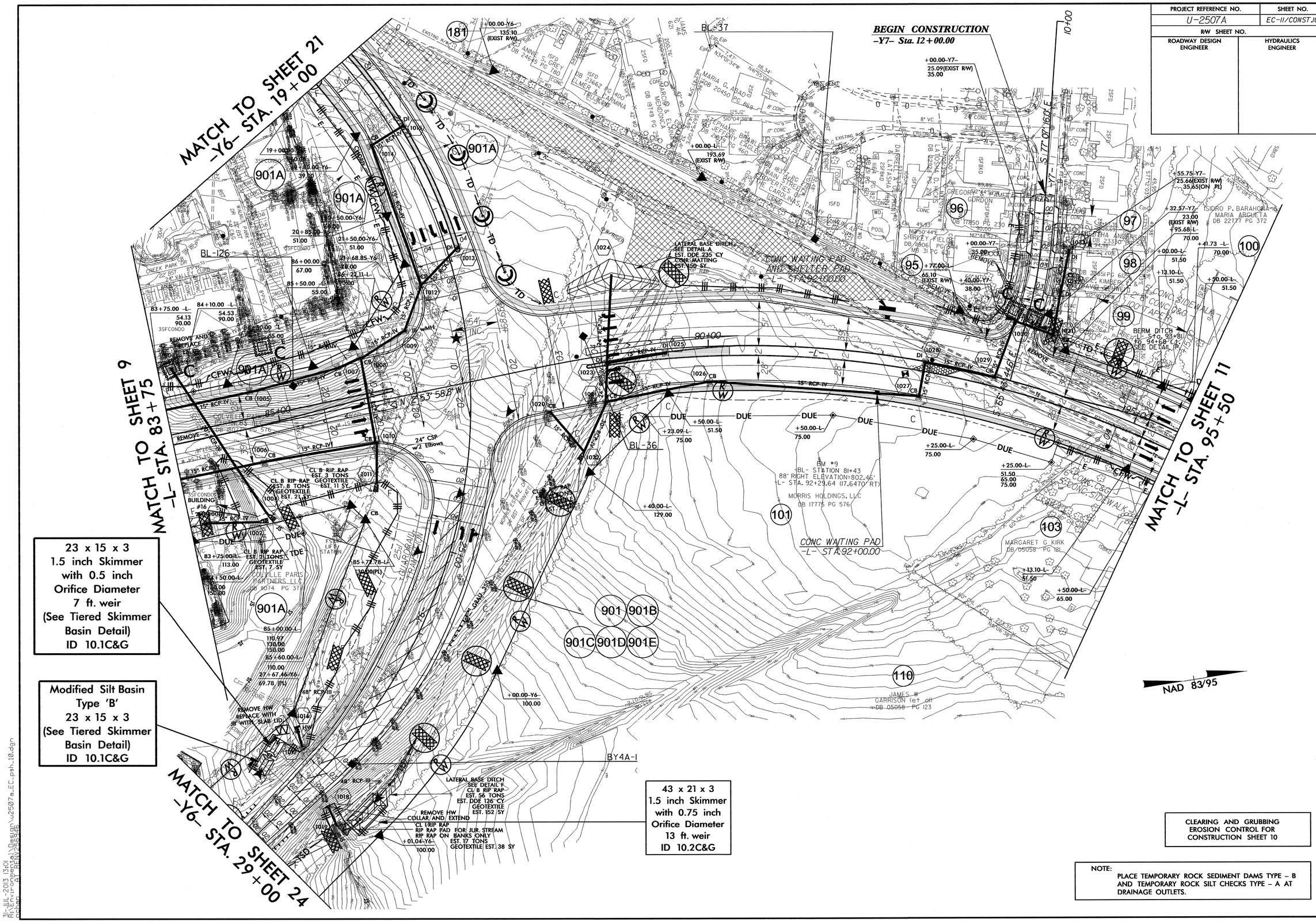
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-11/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



23 x 15 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
7 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 10.1C&G

Modified Silt Basin
Type 'B'
23 x 15 x 3
(See Tiered Skimmer
Basin Detail)
ID 10.1C&G

43 x 21 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
13 ft. weir
ID 10.2C&G

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.

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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-12/CONST.11
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.

NAD 83/95

175' MEDIAN TAPER
TAPER MEDIAN FROM 23' TO 30'

BY7-62

BL-38

BEGIN CONSTRUCTION
-Y8- Sta. 10+00.00

-Y9- PC Sta. 11+07.20

BY8-65

-Y9- PT Sta. 13+51.70

BL-39

BEGIN CONSTRUCTION
-Y9- Sta. 10+50.00

-Y9- POT Sta. 10+00.00

MATCH TO SHEET 10
-L- STA. 95+50

MATCH TO SHEET 12
-L- STA. 108+00

-L- POC Sta. 96+19.00
-Y8- POT Sta. 12+08.09

-L- PT Sta. 104+71.54

-L- POT Sta. 104+72.00 =
-Y9- POT Sta. 15+23.81

BY9-64

BM #10
-BL- STATION 95+78
106' LEFT ELEVATION=798.06'
-L- STA. 106+83 (36' LT)

100 YEAR FLOODPLAIN

ISIDRO P. PAEZ
MARIA I. PAEZ
DB 22717 PG 1

ROBERT L. ADAMS
DB 22519 PG 607

WILLIAM B. CALDER
DB 17718 PG 594

EDWARD T. CROSS
DB 24936 PG 794

KENNETH R CALDWELL & MARY F CALDWELL
DB 03914 PG 992
MB 07 PG 003

JAMES M LOVE & WF AGNES O LOVE
DB 03115 PG 179
MB 07 PG 003

PAUL L. THOMAS
DB 19327 PG 717

ATTISAK KONGRUENGKIT & CHEINGTON KONGKHAM
DB 21443 PG 110

SOTIRIOS TSILIMOS
DB 08495 PG 491

MARGARET DEKIRK
DB 05058

JAMES W GARRISON
DB 05058 PG 119

JAMES K ALEXANDER
DB 10844 PG 640

JOHN DEMPSEY & WF DEBBIE DEMPSEY
DB 11692 PG 161

BETTY DEWITT
DB 23785 PG 831

JAMES W GARRISON (et al)
DB 05058 PG 123

JENNIE TOWNSEND & WF THERESA M TOWNSEND
DB 08596 PG 652

CHRIST UNITY CHURCH OF CHARLOTTE
DB 08476 PG 117
MB 009 437

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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-13/CONST.12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

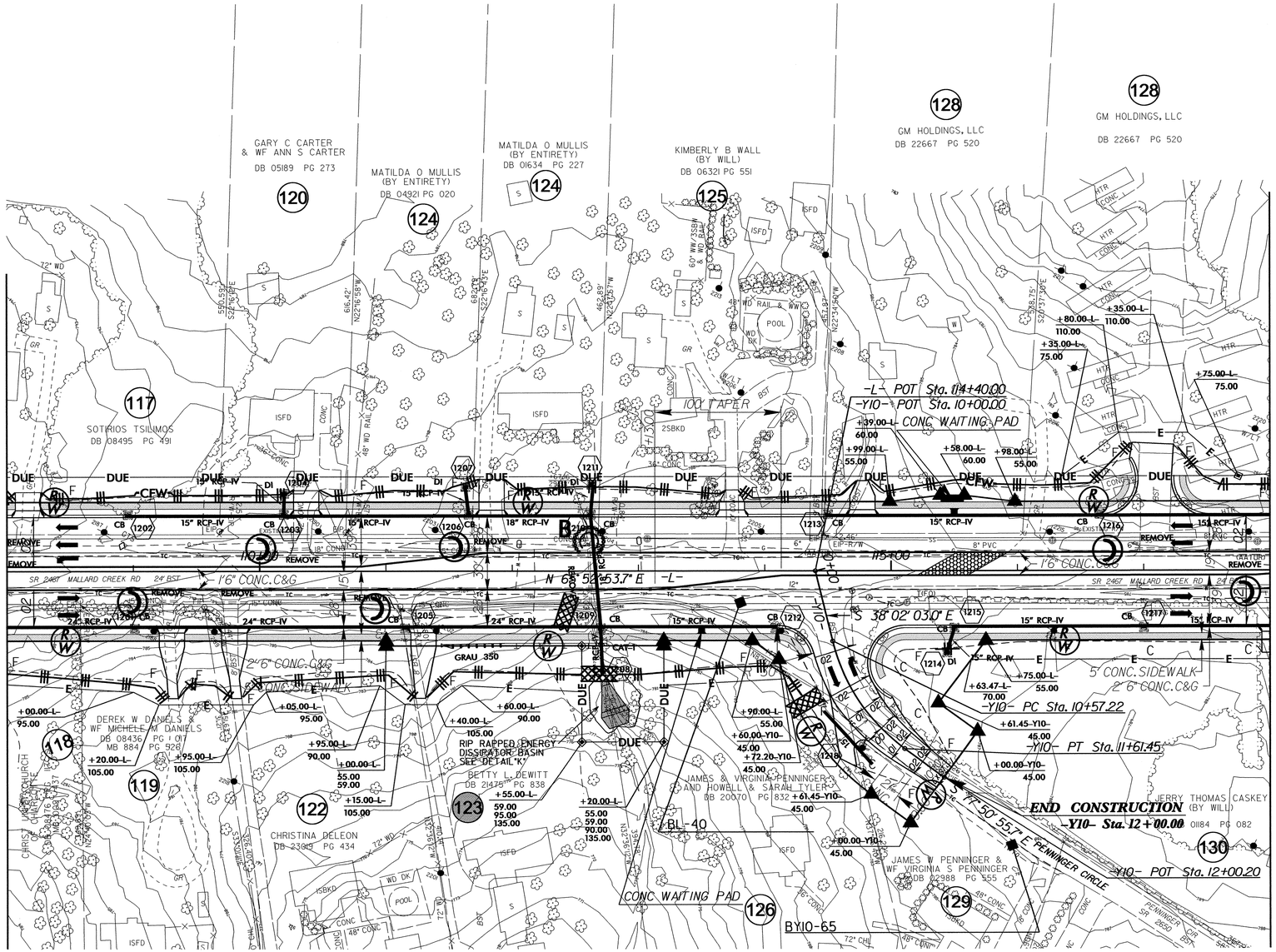
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

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

NAD 83/95

MATCH TO SHEET 11
–L– STA. 108+00

MATCH TO SHEET 13
–L– STA. 118+00



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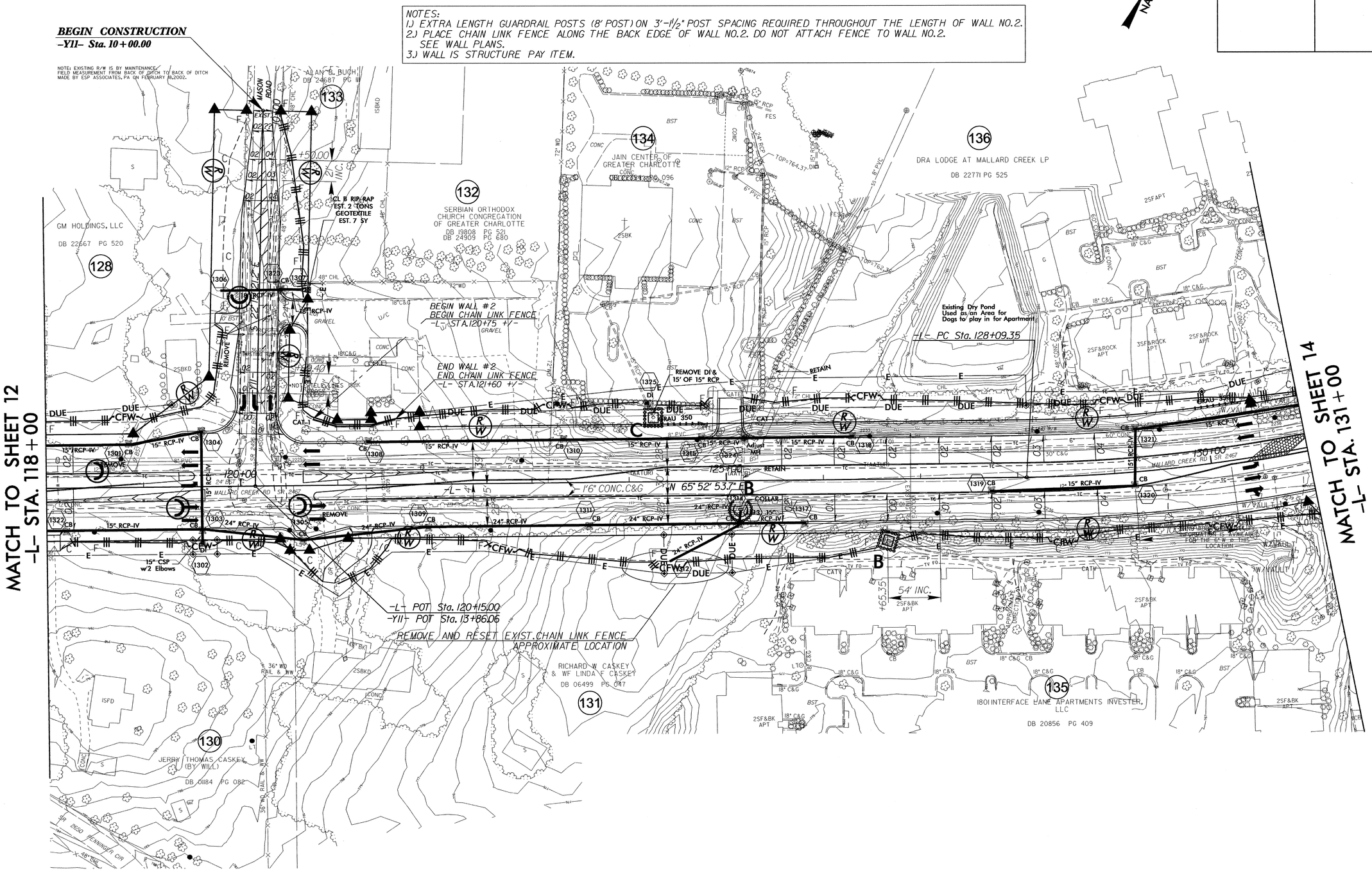
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-14/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

NOTES:
1.) EXTRA LENGTH GUARDRAIL POSTS (8' POST) ON 3'-1½" POST SPACING REQUIRED THROUGHOUT THE LENGTH OF WALL NO.2.
2.) PLACE CHAIN LINK FENCE ALONG THE BACK EDGE OF WALL NO.2. DO NOT ATTACH FENCE TO WALL NO.2. SEE WALL PLANS.
3.) WALL IS STRUCTURE PAY ITEM.



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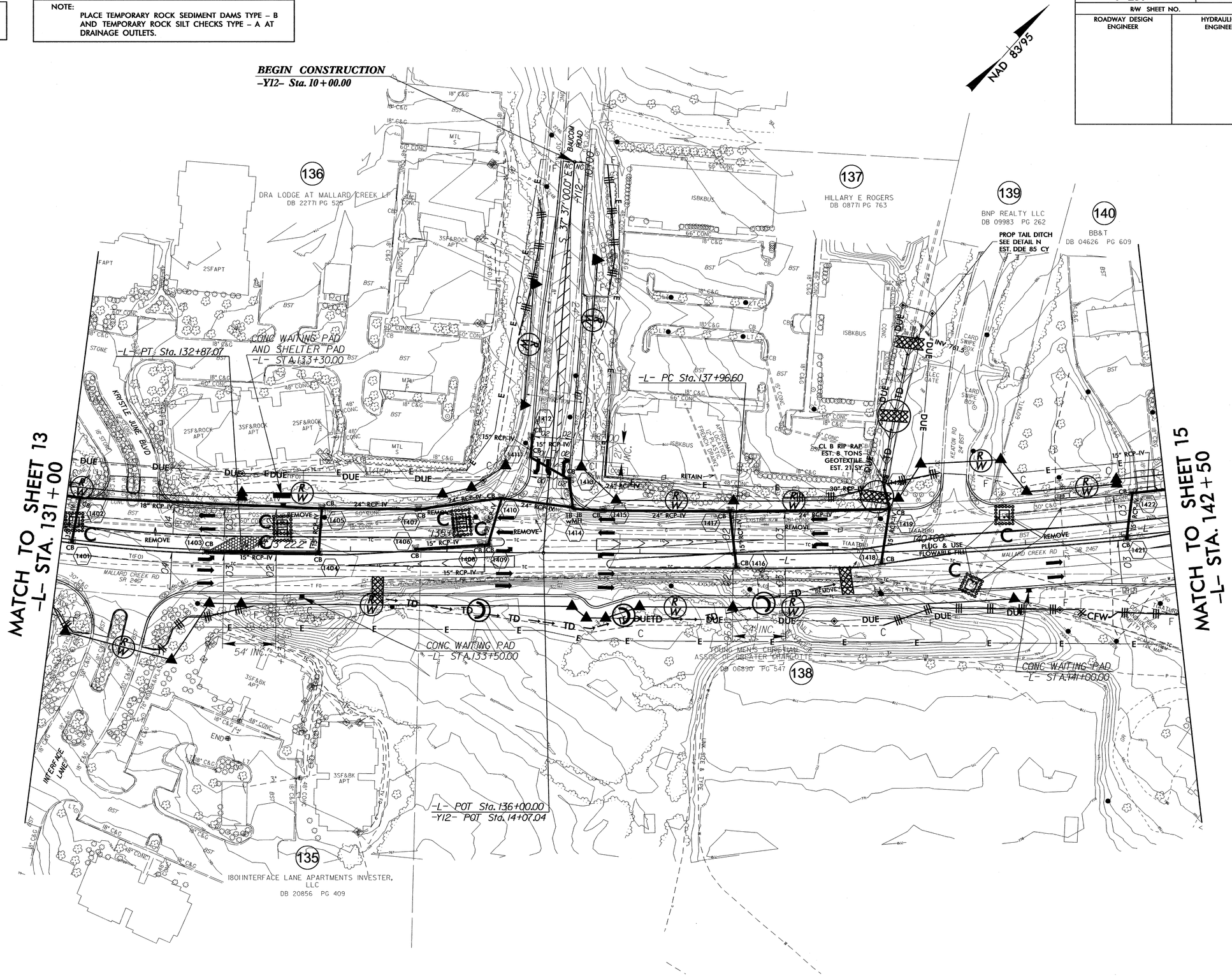
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-15/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.



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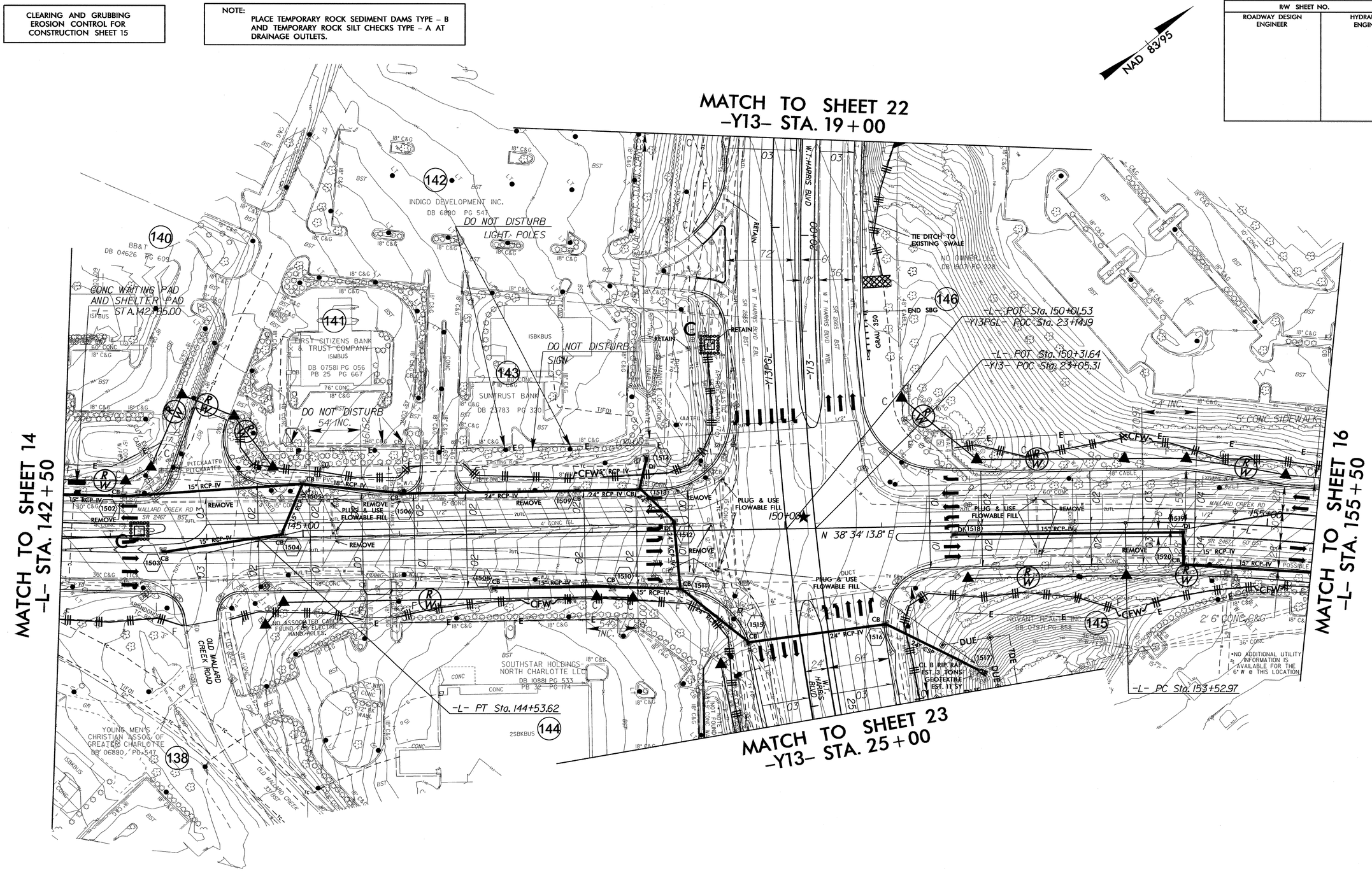
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-16/CONST.15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.



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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	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.

NAD 83/95

MATCH TO SHEET 15
-L- STA. 155+50

END TIP PROJECT U-2507A
-L- POC Sta. 165+00.00

146
NC OWNER, LLC
DB 19071 PG 228

149
EMPIRE BUILDING LLC
DB 10592 PG 541
PB 27 PG 245

150
AUTO-OWNERS LIFE INSURANCE COMPANY
DB 8870 PG 46
PB 27 PG 98

AUTO-OWNERS LIFE INSURANCE COMPANY
DB 7092 PG 691
PB 24 PG 822

145
NOVANT HEALTH INC
DB 07971 PG 858

152
CCE DEVELOPMENT CORPORATION
DB 23645 PG 181

FOXY ROXY LLC
DB 19771 PG 985
PB 37 PG 537

MEDICAL PLAZA DEVELOPMENT, LLC
DB 11249 PG 526
PB 28 PG 338

-L- PT Sta. 158+63.62

-L- PC Sta. 161+61.14

CONC WAITING PAD
-L- STA. 160+30.00

450' UNIFORM MEDIAN TAPER

N 55° 40' 50.3" E
160+00

0+00

SR 2467 MALLARD CREEK RD 60' BST

5' CONC. SIDEWALK

6" CONC. C&G

18" C&G

30" C&G

54" INC.

15" RCP-IV

24" RCP-IV

36" CONC

48" CONC

24" CONC

12" CONC

EXPOSED CONDUITS

JB wMH (1601)

CB (1603) (1604) (1605) (1607) (1608) (1609) (1611)

REMOVE

RETAIN

SPECIAL CB Detail 2-AD

CFW

RFW

TD

DUCT

EXISTING R/W

MEDICAL PLAZA DR

UNIT 100

UNIT 200

UNIT 300

UNIT 100/200

CONC PARKING CURB STOPS

ISB&BUS

35B&BLK&BUS

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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-18/CONST.17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

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

NAD 83/95

BEGIN CONSTRUCTION
-Y1- Sta. 15+00.00

-Y1- POT Sta. 10+00.00

CHARLOTTE MECKLENBURG BOARD OF EDUCATION NO DEED FOUND

CHARLOTTE MECKLENBURG BOARD OF EDUCATION NO DEED FOUND
ISBK SCHOOL
21

VIKING PROPERTIES DB 5127 PG 454

UPI OF CHARLOTTE, LLC DB 18377 PG 027

VINOD PATEL and NUTAN PATEL DB 18342 PG 237

MACK EARL ERWIN and APRIL D. ERWIN DB 4846 PG 937

SOTIRIOS TSILIMOS DB 6139 PG 321

PLAYERS SPORTING GOODS, INC. DB 5194 PG 436

SUGARSTAR & TRIBEK PROPERTIES DB 28944 PG 378

DERITA PRESBYTERIAN CHURCH DB 3064 PG 183
20

25BK CHURCH

CONC WAITING PAD
-Y1- STA.19+25.00

100' TAPER DUAL 550' FULL LEFT TURN LANES

5' CONC. SIDEWALK

2'-6" CONC C&G

W SUGAR CREEK ROAD

SR 2480 W SUGAR CREEK ROAD BST

10+00 ± S 28°27'42.6" E

-Y1- PC Sta. 11+94.82

-Y1- PT Sta. 16+95.76

400' UNIFORM TAPER LT. & RT.

36" WELDED STEEL TRENCHLESS INSTALLATION

FLOWABLE FILL

RIP RAPPED ENERGY DISSIPATOR BASIN SEE DETAIL K

20+00 ± S 16°58'52.2" E

156

WADE P. BEAM WF HELEN S BEAM DB 04614 PG 1697

ISBK BUS

WADE P. BEAM & WF HELEN S BEAM DB 06192 PG 191

DANIEL CUPER DB 26527 PG 135

DONALD L OEHLER (R/T) DB 07879 PG 099

159

CHARLES MELVIN EDWARDS, JR DB 04763 PG 796

9

CONC WAITING PAD AND SHELTER PAD
-Y1- STA.18+60.00

TRIVEN PROPERTIES, LLC. DB 0646 PG 342

DOROTHY ROBINSON DB 11667 PG 408 DB 31PG 571

STEPEHN H. YANG AND CHAO L. YANG DB 18692 PG 084

FAIRSTONE HOMEOWNERS ASSOCIATION% PRISM REAL ESTATE SERVICES, INC DB 12654 PG 185

FAIRSTONE AVE 20' BST

HUNTER AVE

EXISTING R/W

EXISTING RR R/W

MATCH TO SHEET 5
-Y1- STA. 22+50

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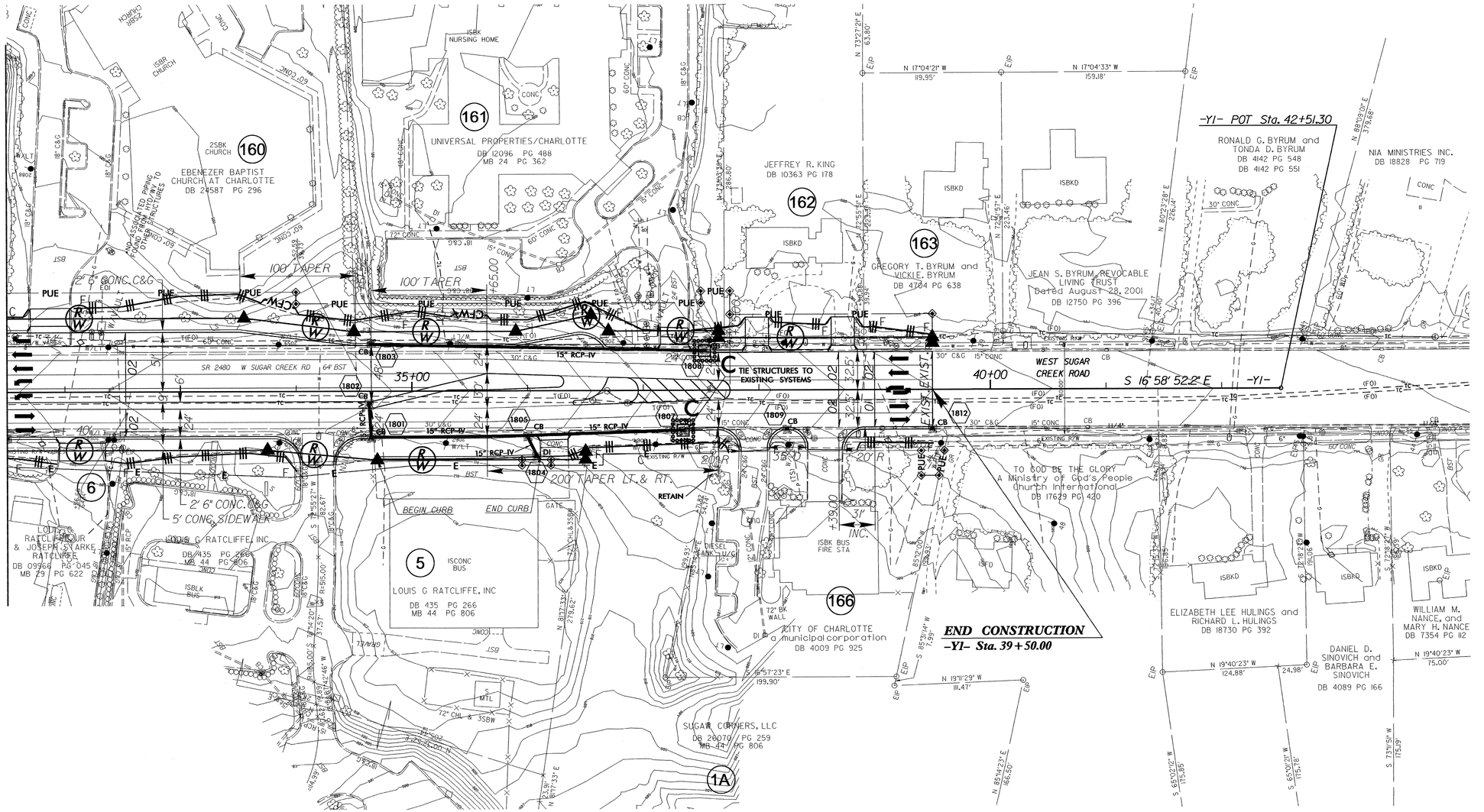
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-19/CONST.18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

NAD 83/95



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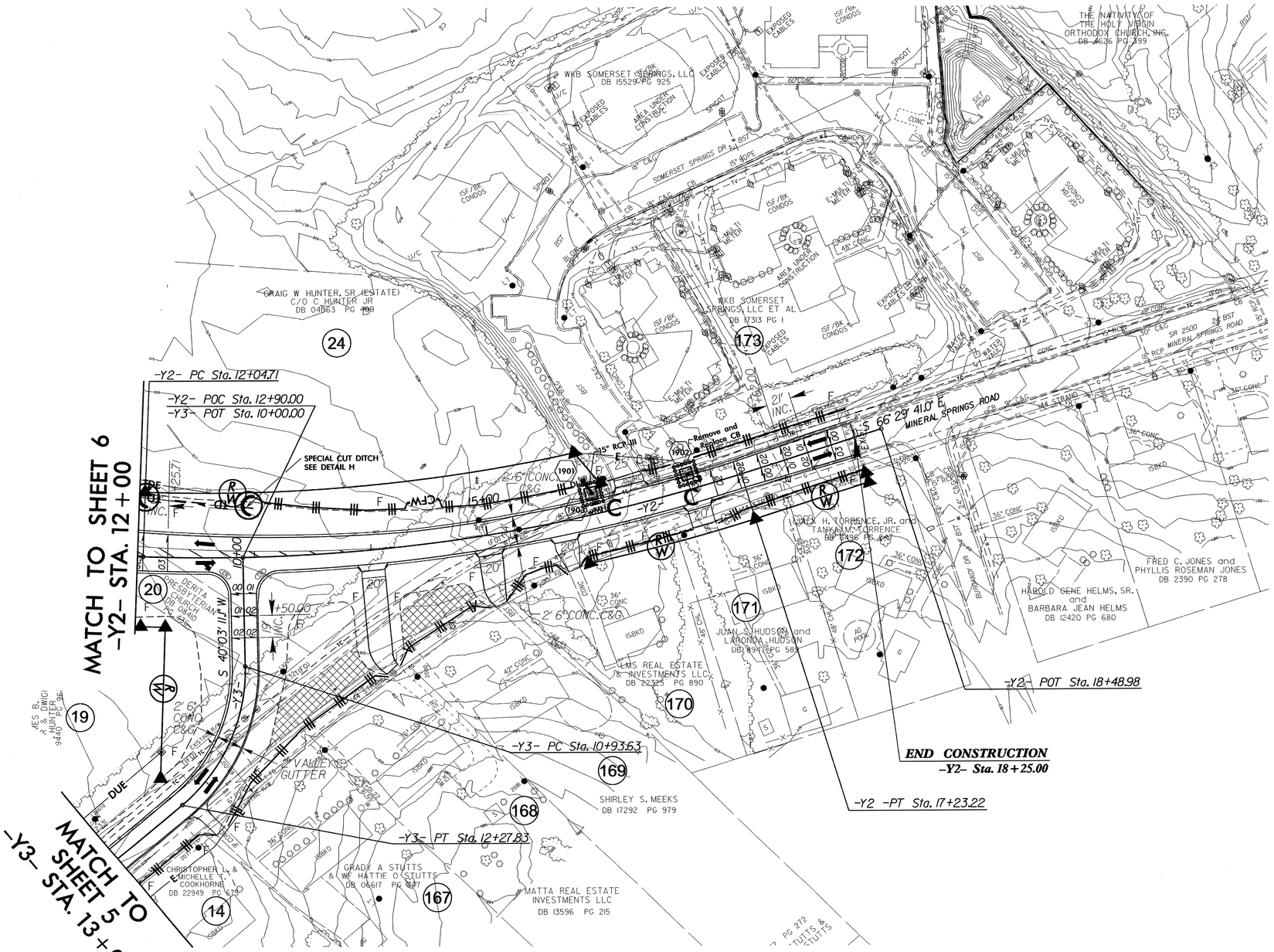
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-20/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

NAD 83/95



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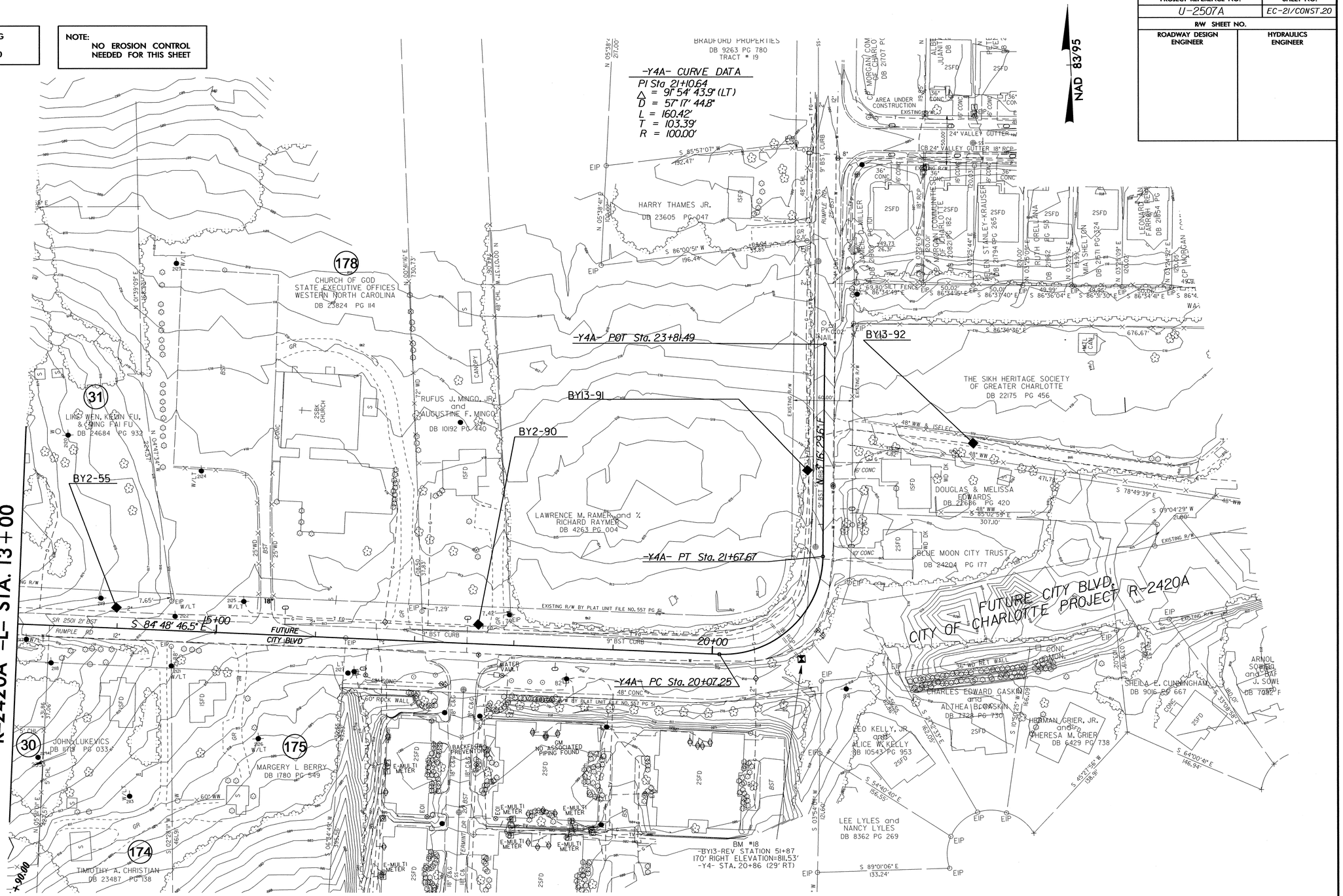
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-21/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 20

NOTE: NO EROSION CONTROL NEEDED FOR THIS SHEET



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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-22/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

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

NAD 83/95

BEGIN CONSTRUCTION
–Y6– Sta. 10+00.00

MATCH TO SHEET 10
–Y6– STA 19+00

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fabrim AT REN/24226

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-23/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.

NAD 83/95

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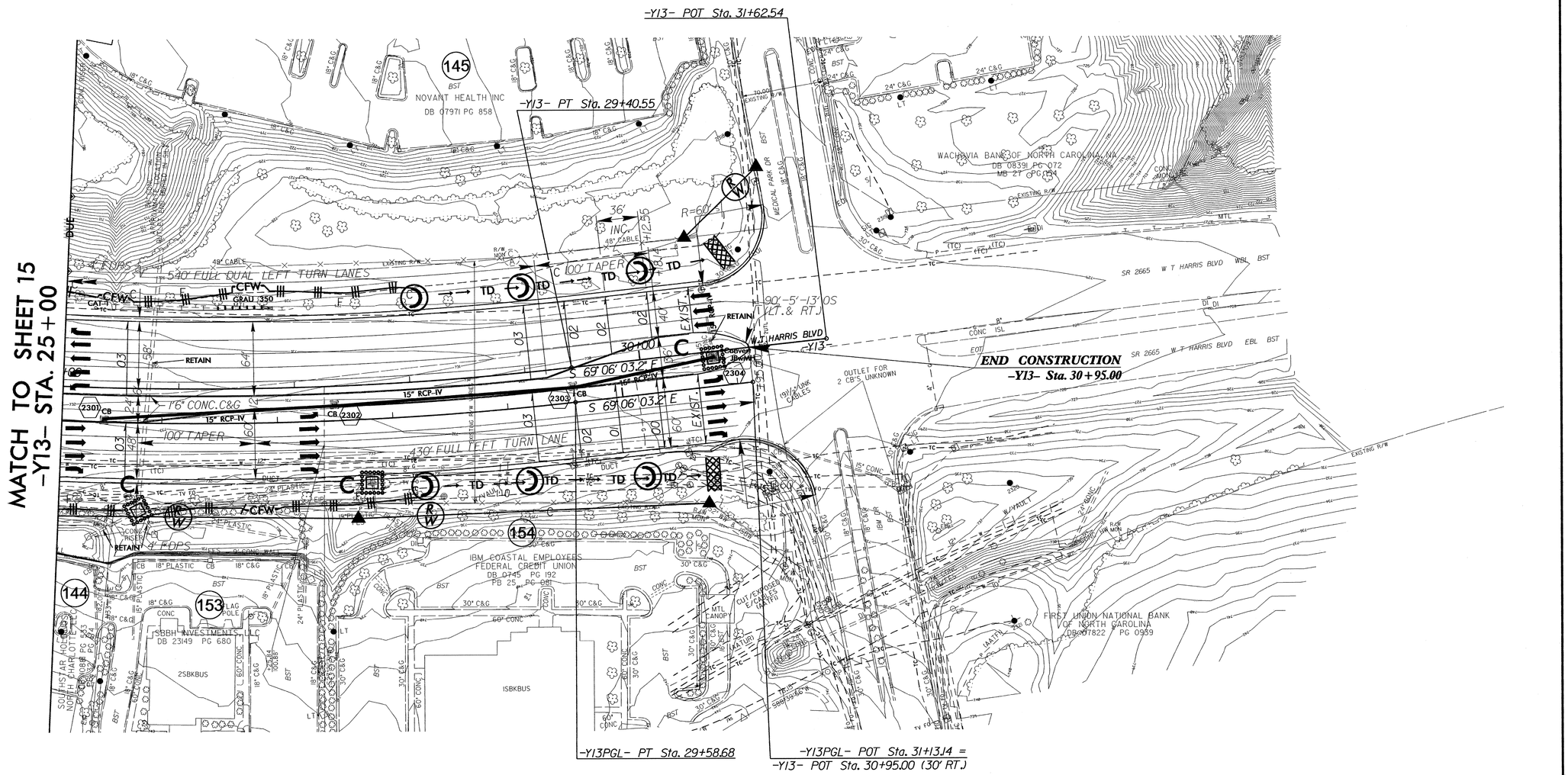
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-24/CONST.23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 23

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

NAD 83/95

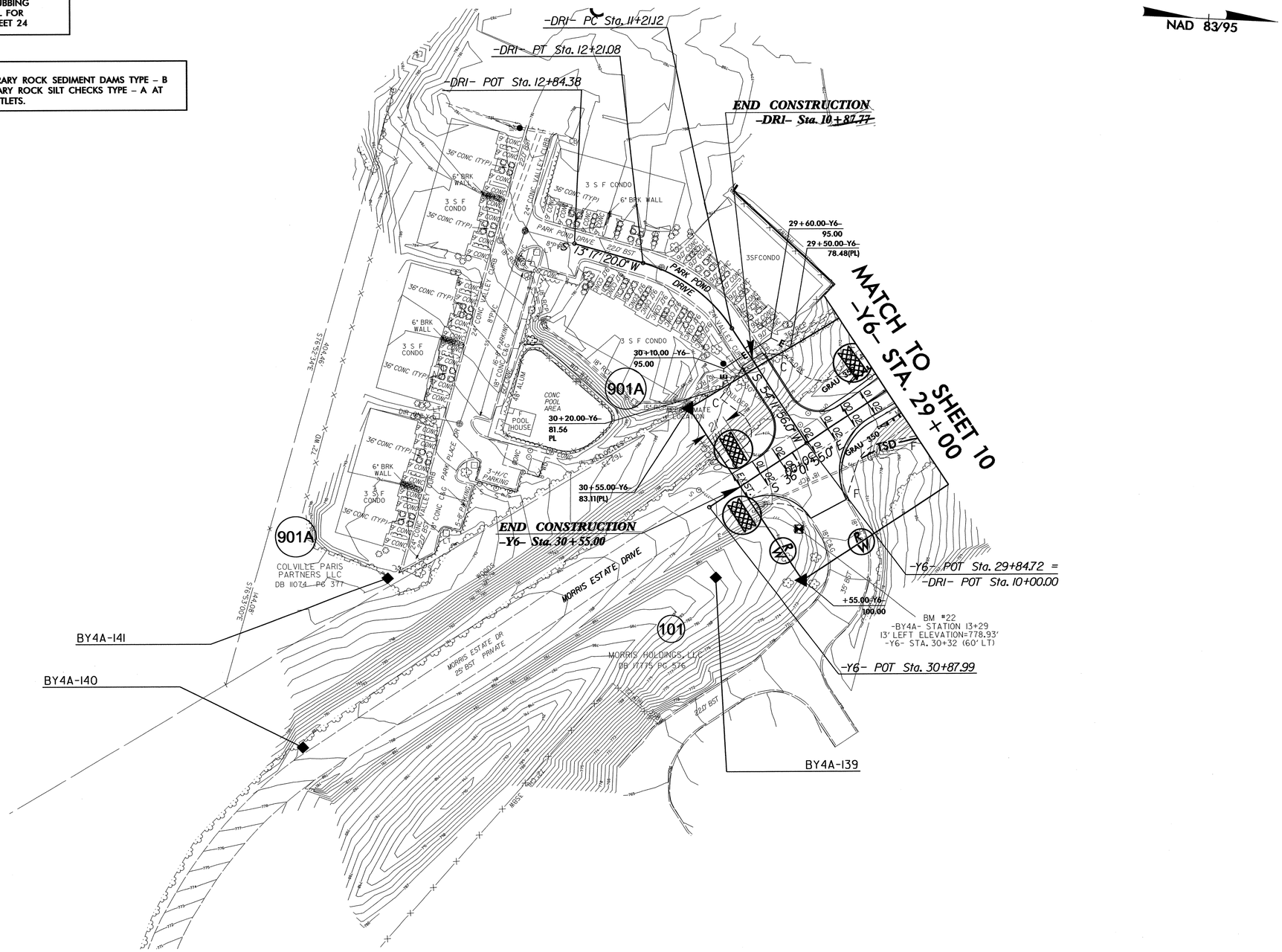


31-JUL-2013 14:16
R:\Environmental\Design\u2507a_EC_psh_23.dgn
mphan AT RENV256946

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-25/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 24

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



03-APR-2012 17:22
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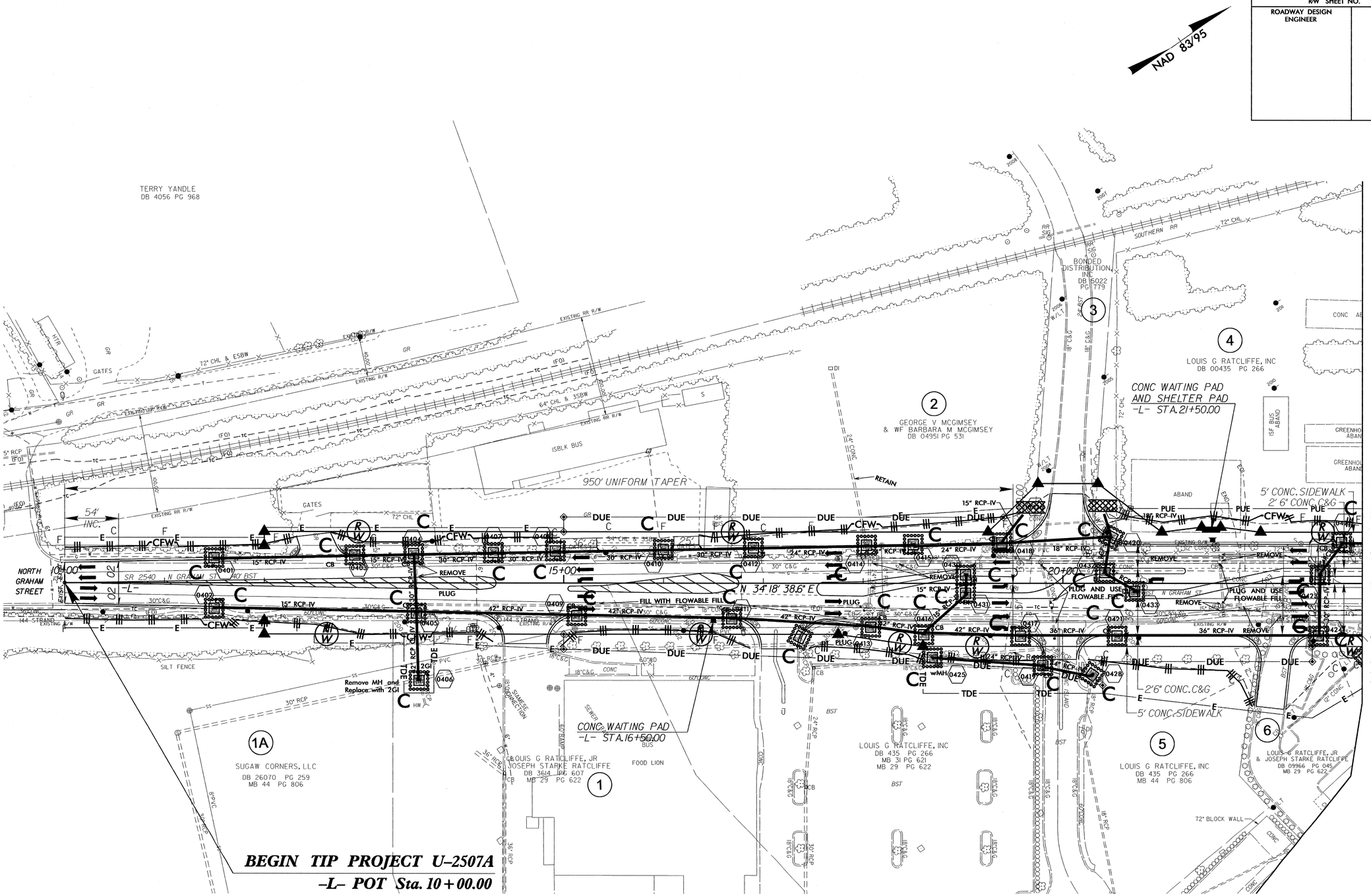
rebrum AT RENV242226

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-26/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BEGIN TIP PROJECT U-2507A
-L- POT Sta. 10+00.00

MATCH TO SHEET 5
-L- STA. 23+00

8/17/99

31-JUL-2013 12:33
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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-27/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH TO SHEET 17
-Y1- STA. 22+50

NAD 83/95

MATCH TO SHEET 4
-L- STA. 23+00

MATCH TO SHEET 18
-Y1- STA. 31+50

MATCH TO SHEET 6
-L- STA. 34+00

MATCH TO SHEET 19
-Y3- STA. 13+00

-L- POC Sta. 26+75.63
-Y1- POT Sta. 27+63.24

-L- PC Sta. 25+23.40

-L- PC Sta. 32+59.72
-L- PT Sta. 30+14.04

-Y3- PT Sta. 15+30.94

-Y3- PC Sta. 14+24.50

-Y3- Sta. 15+00

-Y3- POT Sta. 16+70.85

END CONSTRUCTION
-Y3- Sta. 16+55.00

LOUIS G RATCLIFFE, INC
DB 00435 PG 266

LOUIS G RATCLIFFE, INC
DB 03135 PG 270

CHARLES MELVIN EDWARDS, JR
DB 04763 PG 796

SUGARSTAR & TRIBEK PROPERTIES
DB 23944 PG 387

COLE MEMORIAL UNITED METHODIST CHURCH
DB 03178 PG 036

COLE MEMORIAL UNITED METHODIST CHURCH
DB 01493 PG 133

LOUIS G RATCLIFFE, JR & JOSEPH CLARKE RATCLIFFE
DB 05966 PG 045
MB 29 PG 622

CAROLE G BRADLEY
DB 12389 PG 185

CHRISTOPHER L. & MICHELLE T. COOKHORNE
DB 22949 PG 975

JAMES B. HUNTER & DWIGHT F. HUNTER
DB 9440 PG 963

LATERAL 'V' DITCH SEE DETAIL M
EST. DDE 31 CY
PSRM
EST. 100 SY

SPECIAL CUT DITCH SEE DETAIL H
GL B RIP RAP
EST. 2 TONS
GEOTEXTILE
7 SY

SEAL ABANDONED WELL

54' INC.

19' INC.

31.00'

70.00

25+00

30+00

15+00

N 34°18'38.6"E -L-

N 53°54'03.1"E

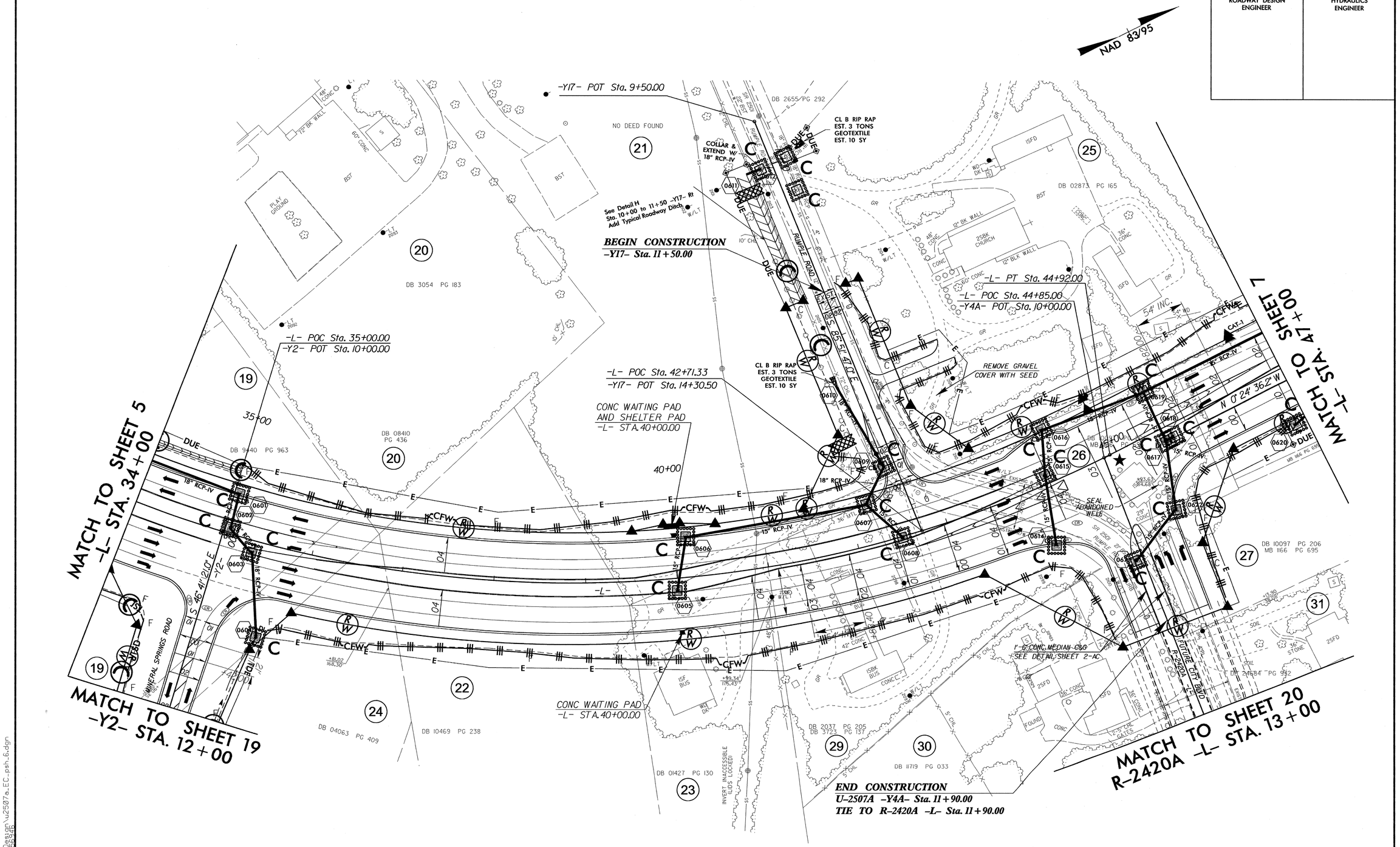
N 88°41'50"W -Y3-

S 88°41'50"E -Y3-

08-SEP-2013 07:53
R:\EC-Projects\U-2507A\Design\u2507a_EC_csh_5.dgn
pchan AT RENV256926

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-28/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

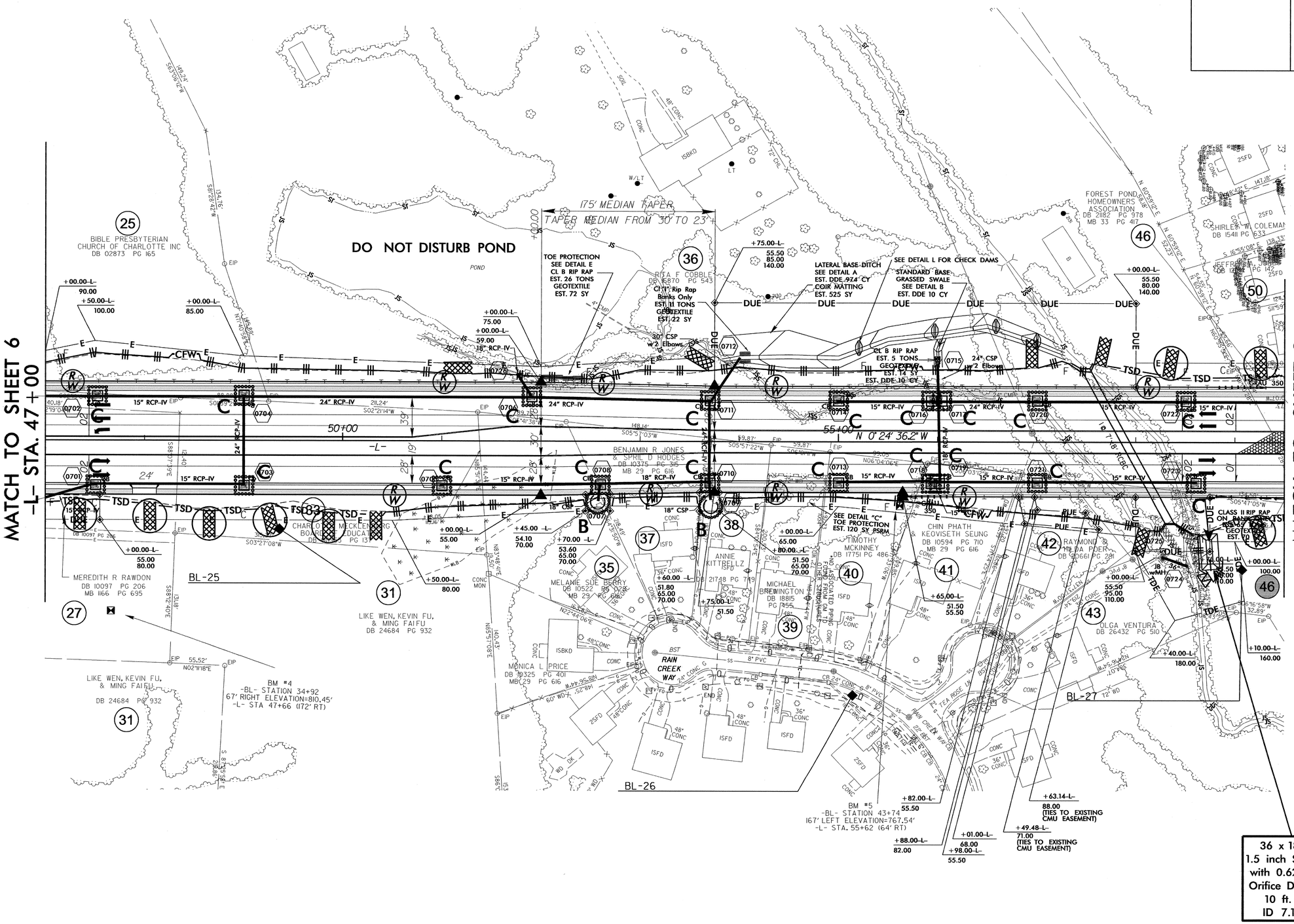


8/17/99

31-JUL-2013 12:47
R:\Environmental\Design\u2507a_EC_psh_6.dgn
pchan AT RENV256946

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-29/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

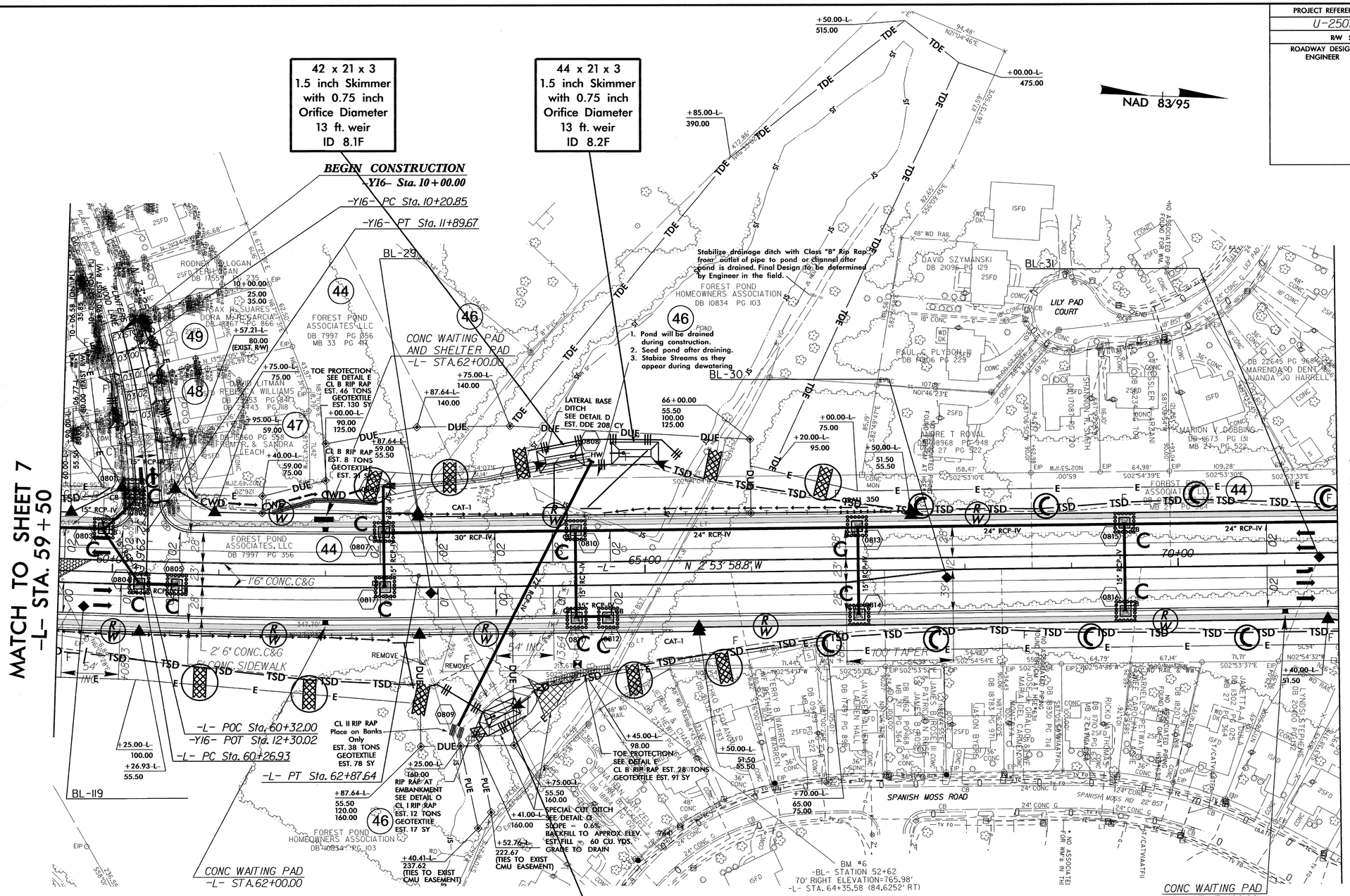


36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
10 ft. weir
ID 7.1C&G

8/17/99

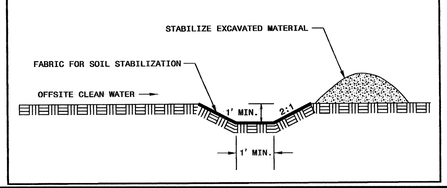
31-JUL-2013 12:50
R:\Environmental\Design\u2507a_EC_psh_7.dgn
pchan AT RENV256946

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-30/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEAN WATER DIVERSION

(Not to Scale)



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R:\Environmental\Design\u2507a_EC_psh_8.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-31/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

MATCH TO SHEET 8
-L- STA. 71+50

MATCH TO SHEET 10
-L- STA. 83+75

BEGIN CONSTRUCTION
-Y5- Sta. 12+50.00

END CONSTRUCTION
-Y5- Sta. 19+00.00

CONC WAITING PAD

CONC WWAITING PAD

BEGIN -L- Sta. 80+17.00

END -L- Sta. 80+67.00

See Detail G
Sta. 81+50 to 84+00 -L- Rt
Lateral Base Ditch
EST. DDE 245 CY

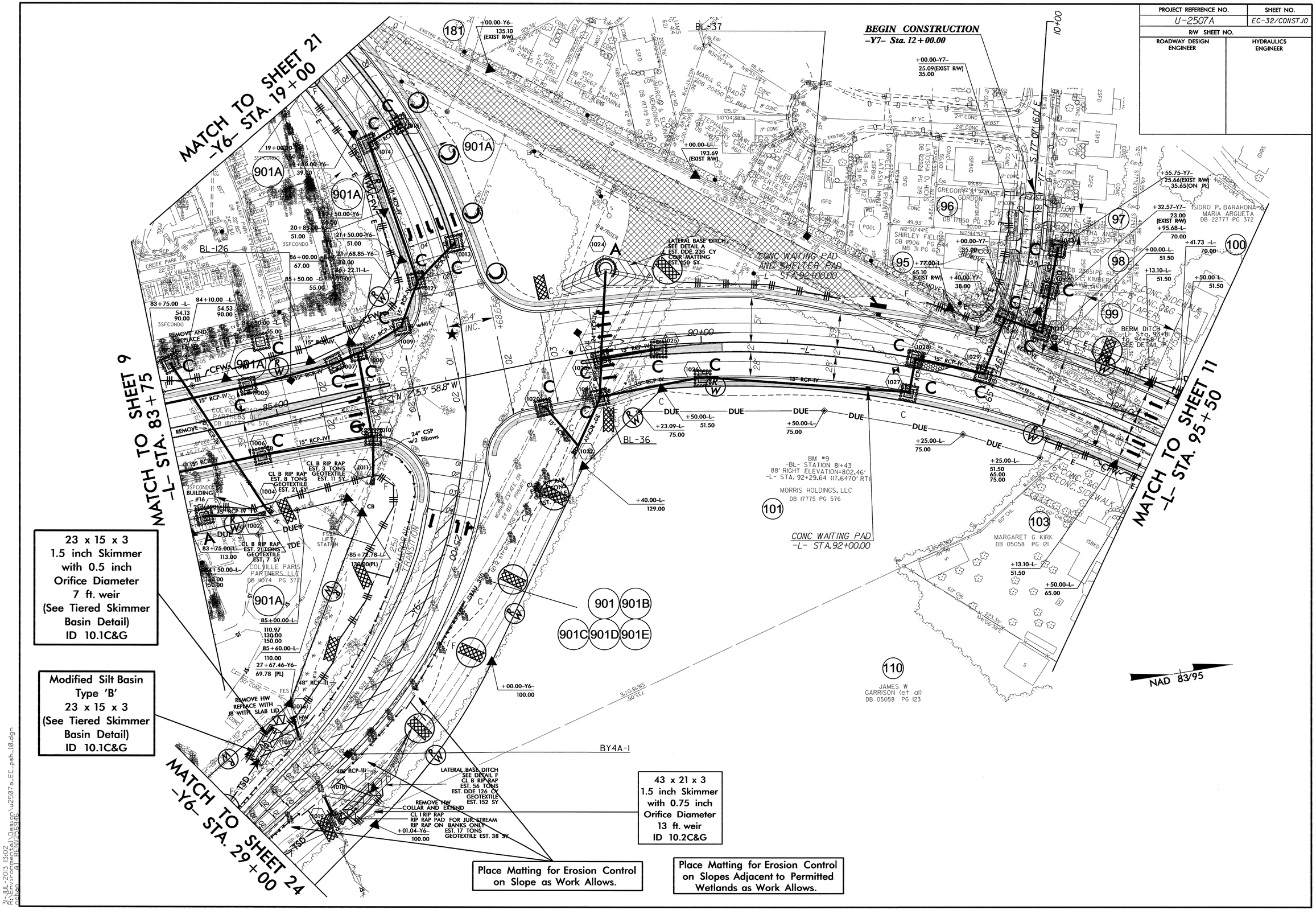
•NO ELECTRONIC INFORMATION WAS OBTAINED ON THE GAS SERVICE TO HSE •6413, NEVIN RD.

901F	901G				
901H	901I	901J			
901K	901L	901M			

901	901B		
901C	901D	901E	

03-APR-2012 14:15
R:\Environmental\Design\u2507a_EC_psh_9.dgn
eskrim AT RENO22226

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-32/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



23 x 15 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
7 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 10.1C&G

Modified Silt Basin
Type 'B'
23 x 15 x 3
(See Tiered Skimmer
Basin Detail)
ID 10.1C&G

43 x 21 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
13 ft. weir
ID 10.2C&G

Place Matting for Erosion Control
on Slope as Work Allows.

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

31-JUL-2013 13:02
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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-33/CONST.II
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

175' MEDIAN TAPER
TAPER MEDIAN FROM 23' TO 30'
+70.54

BY7-62

BL-38

BEGIN CONSTRUCTION
-Y8- Sta. 10+00.00

GARRISON DRIVE

SIDRO P BAEZ
MARIA R BAEZ
221 FT

ROBERT J. ADAMS
DB 22519 PG 607

EDWARD T. CROSS
DB 24936 PG 794

WILLIAM B. CALDER
DB 17718 PG 594

KENNETH R CALDWELL & MARY F CALDWELL
DB 03914 PG 992
MB 07 PG 003

JAMES M. LOVE & WF AGNES D LOVE
DB 03115 PG 179
MB 07 PG 003

PAUL L. THOMAS
DB 19327 PG 717

-Y9- PC Sta. 11+07.20

BY8-65

-Y9- PT Sta. 13+51.70

BL-39

BEGIN CONSTRUCTION
-Y9- Sta. 10+50.00

HUBBARD ROAD

-Y9- POT Sta. 10+00.00

ATTISAK KONGRUENGKIT &
CHEINGTON KONGKHAM
DB 1144 PG 110

SOTIRIOS TSILIMOS
DB 08495 PG 491

BM #10
-BL- STATION 95+78
106' LEFT ELEVATION=798.06'
-L- STA. 106+83 (136' LT)

MATCH TO SHEET 10
-L- STA. 95+50

MARGARET KIRK
DB 05058 PG 123

JAMES W GARRISON
DB 05058 PG 119

-L- POC Sta. 96+19.00
-Y8- POT Sta. 12+08.09

JAMES K ALEXANDER
DB 10844 PG 640

JAMES W GARRISON (et al)
DB 05058 PG 123

JOHN DEMPSEY & WF DEBBIE DEMPSEY
DB 11692 PG 461

BETTY DEWITT
DB 23785 PG 831

JENNIE TOWNSEND & WF THERESA MCTOWNSEND
DB 08596 PG 652

JAMES W GARRISON, et al
DB 05058 PG 123

CHRIST UNITY CHURCH OF CHARLOTTE
DB 08476 PG 117
MB 009 437

-L- PT Sta. 104+71.54

-L- POT Sta. 104+72.00 =
-Y9- POT Sta. 15+23.81

BY9-64

MATCH TO SHEET 12
-L- STA. 108+00

03-APR-2012 14:47
R:\Environmental\Design\u2507a_EC_psh_11.dgn
ebarrim
ATLANTIC DATA

03-APR-2012 14:50
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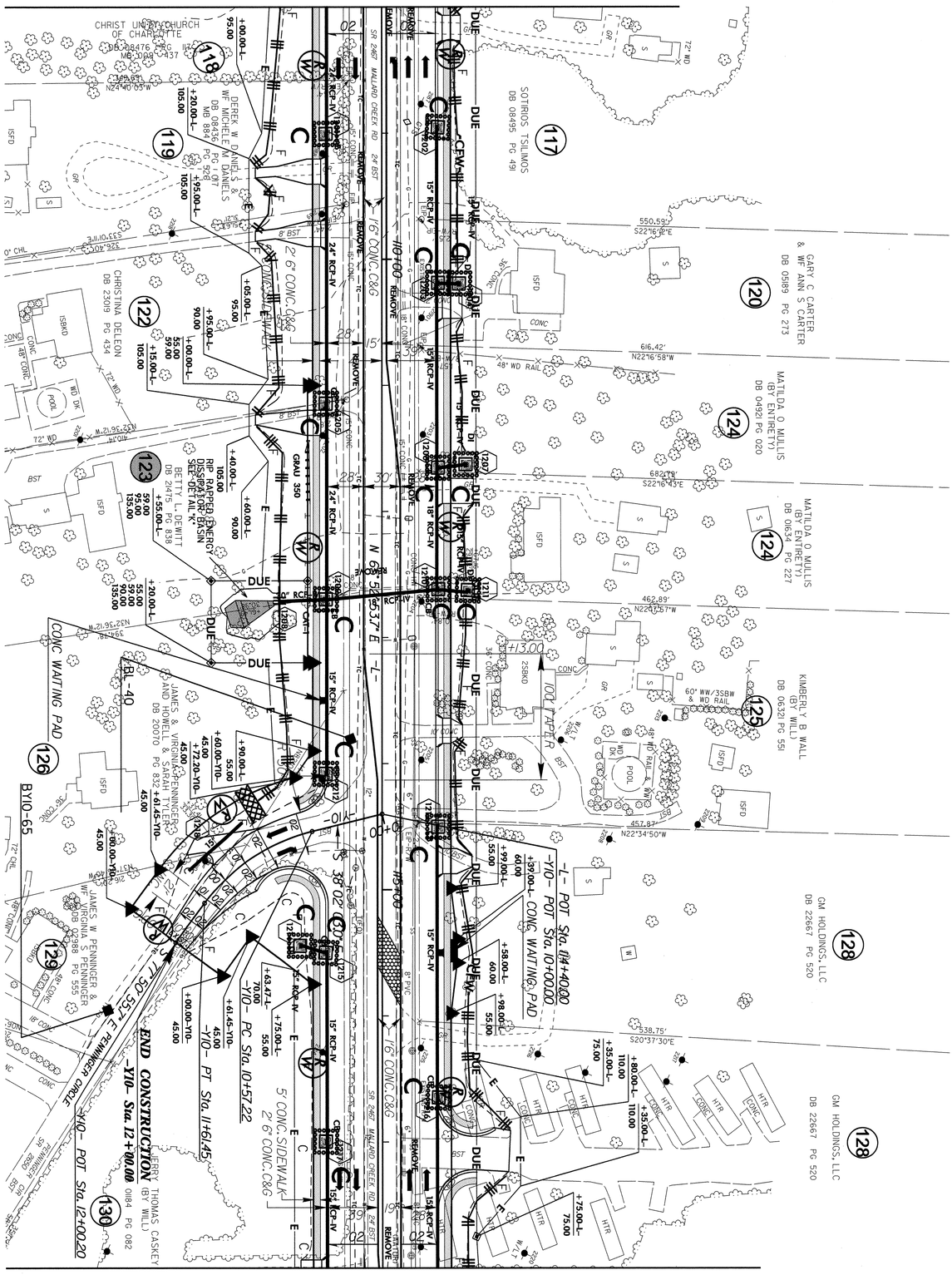
rebrim AT RENV242226

MATCH TO SHEET 11
-L- STA. 108+00



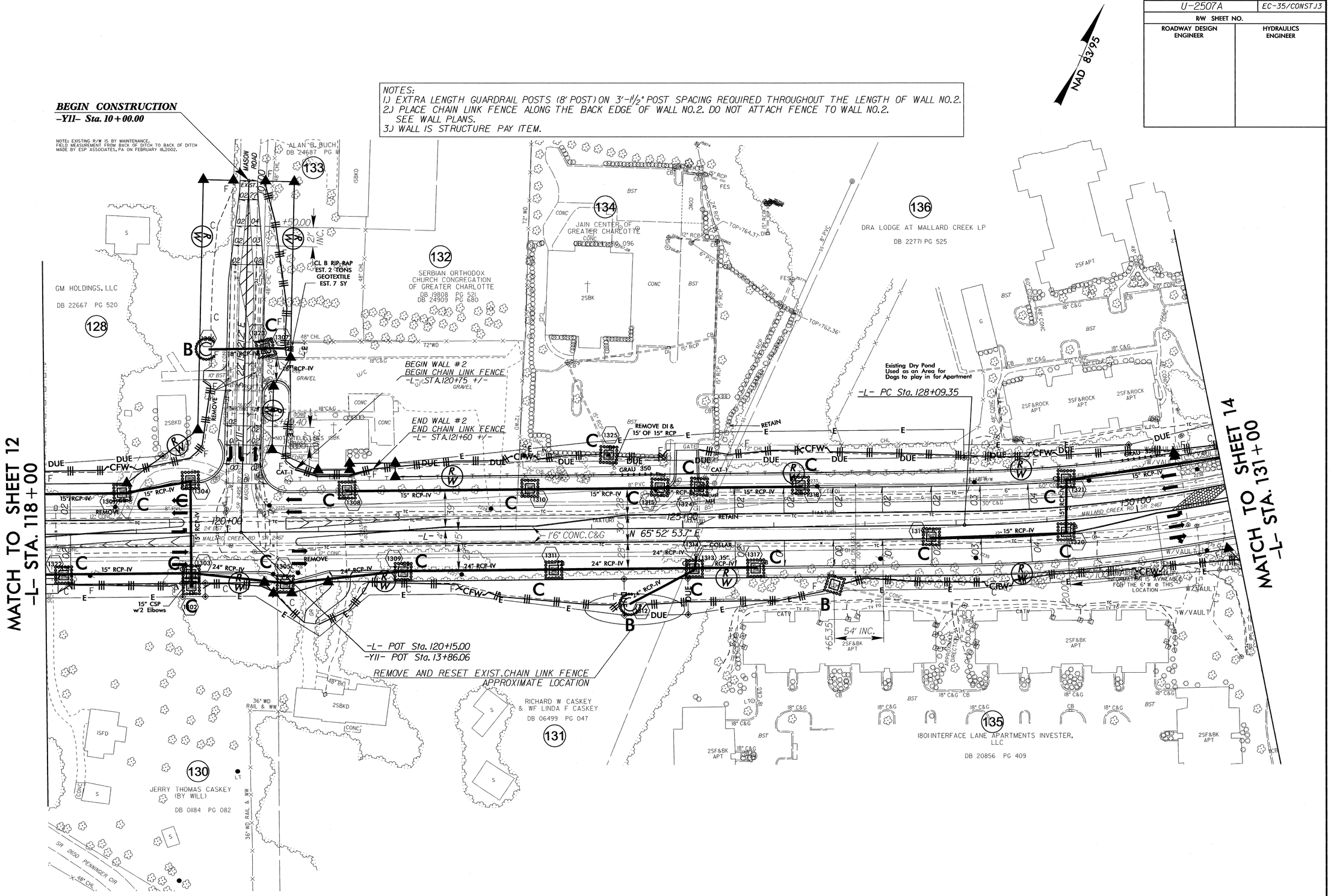
MATCH TO SHEET 13
-L- STA. 118+00

NAD 83/95

PROJECT REFERENCE NO.	U-2507A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	
HYDRAULICS ENGINEER	
SHEET NO.	EC-34/CONST.12

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-35/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES:
1.) EXTRA LENGTH GUARDRAIL POSTS (8' POST) ON 3'-1½" POST SPACING REQUIRED THROUGHOUT THE LENGTH OF WALL NO.2.
2.) PLACE CHAIN LINK FENCE ALONG THE BACK EDGE OF WALL NO.2. DO NOT ATTACH FENCE TO WALL NO.2. SEE WALL PLANS.
3.) WALL IS STRUCTURE PAY ITEM.



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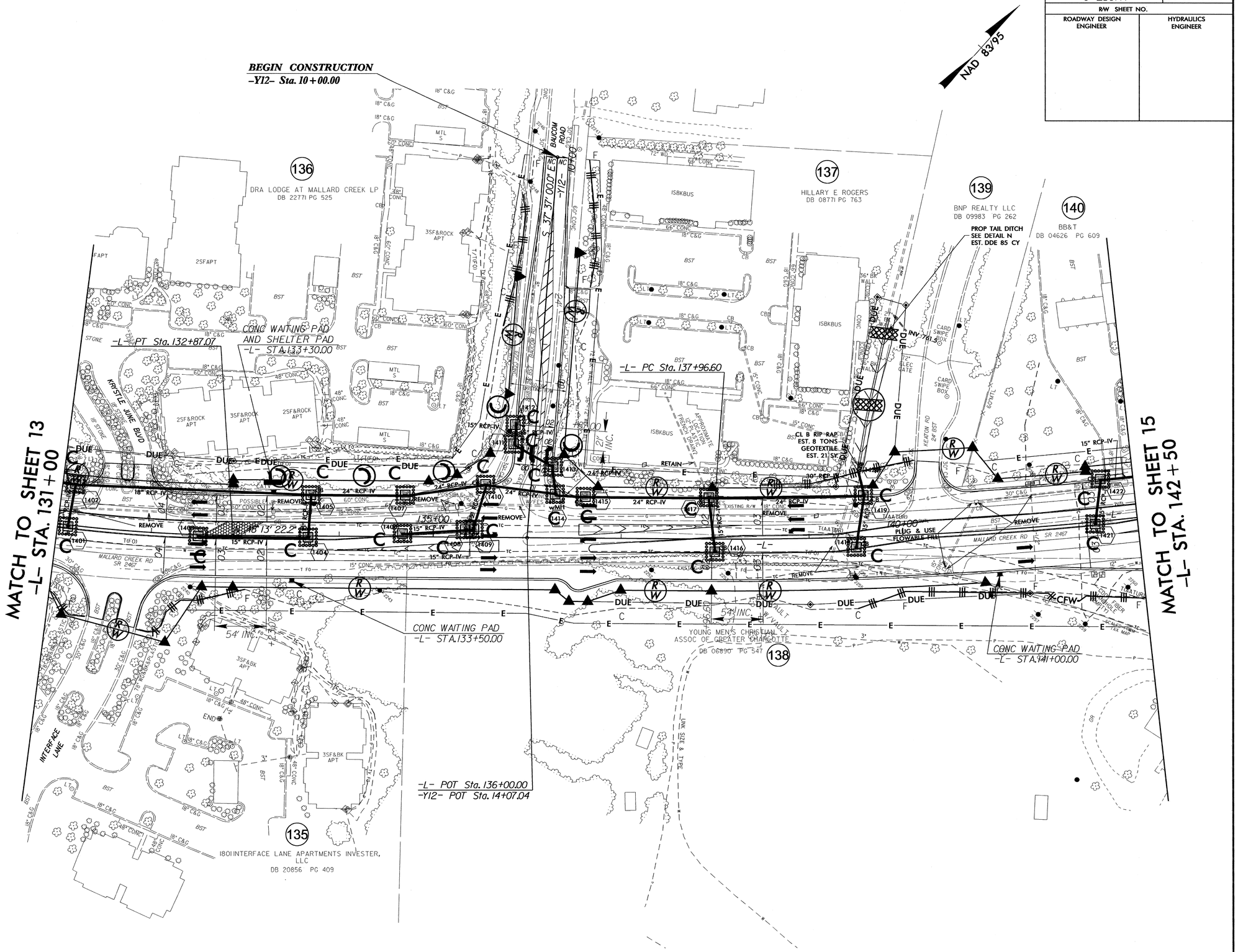
nchan AT REN\256946

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-36/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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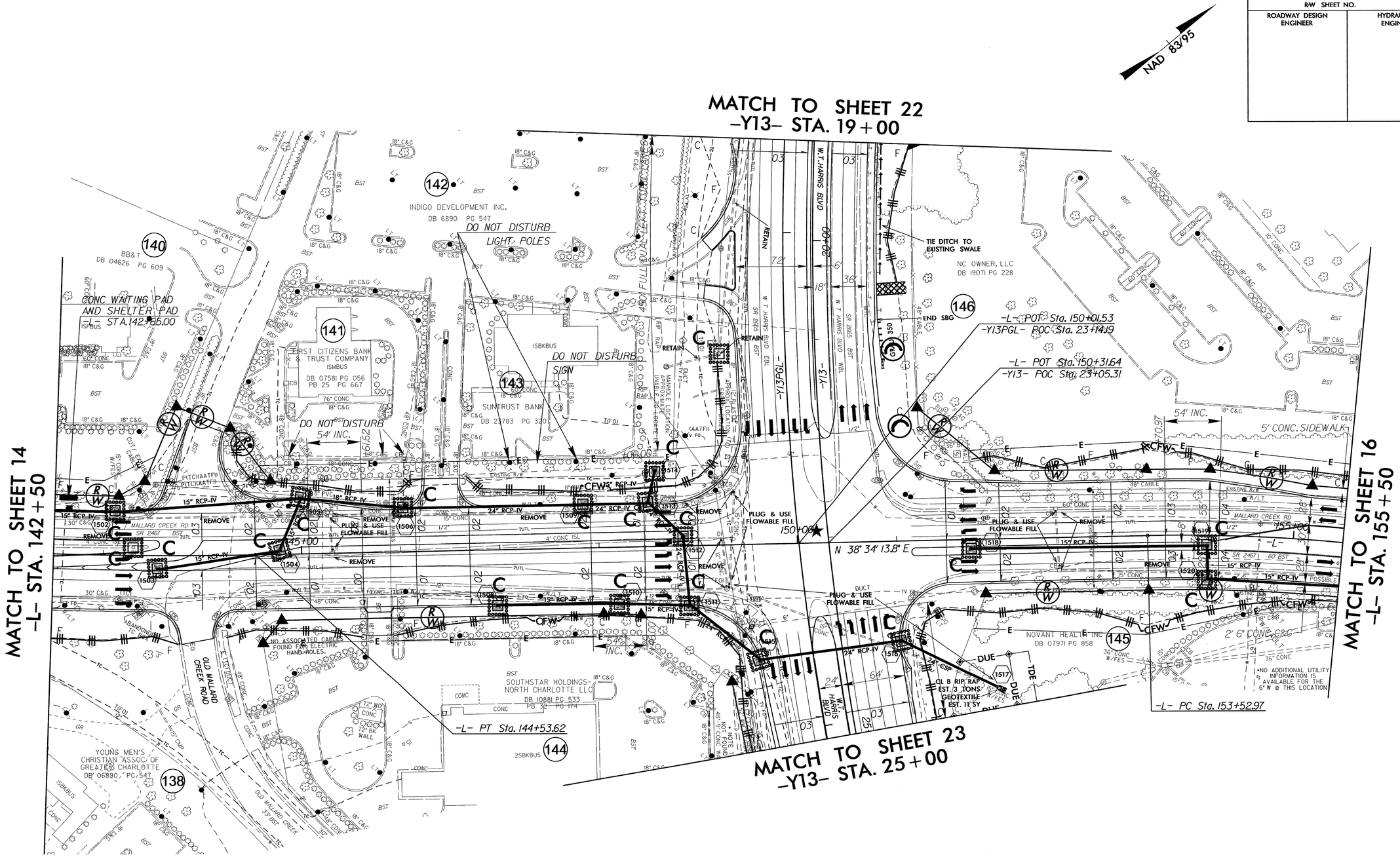
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-37/CONST.15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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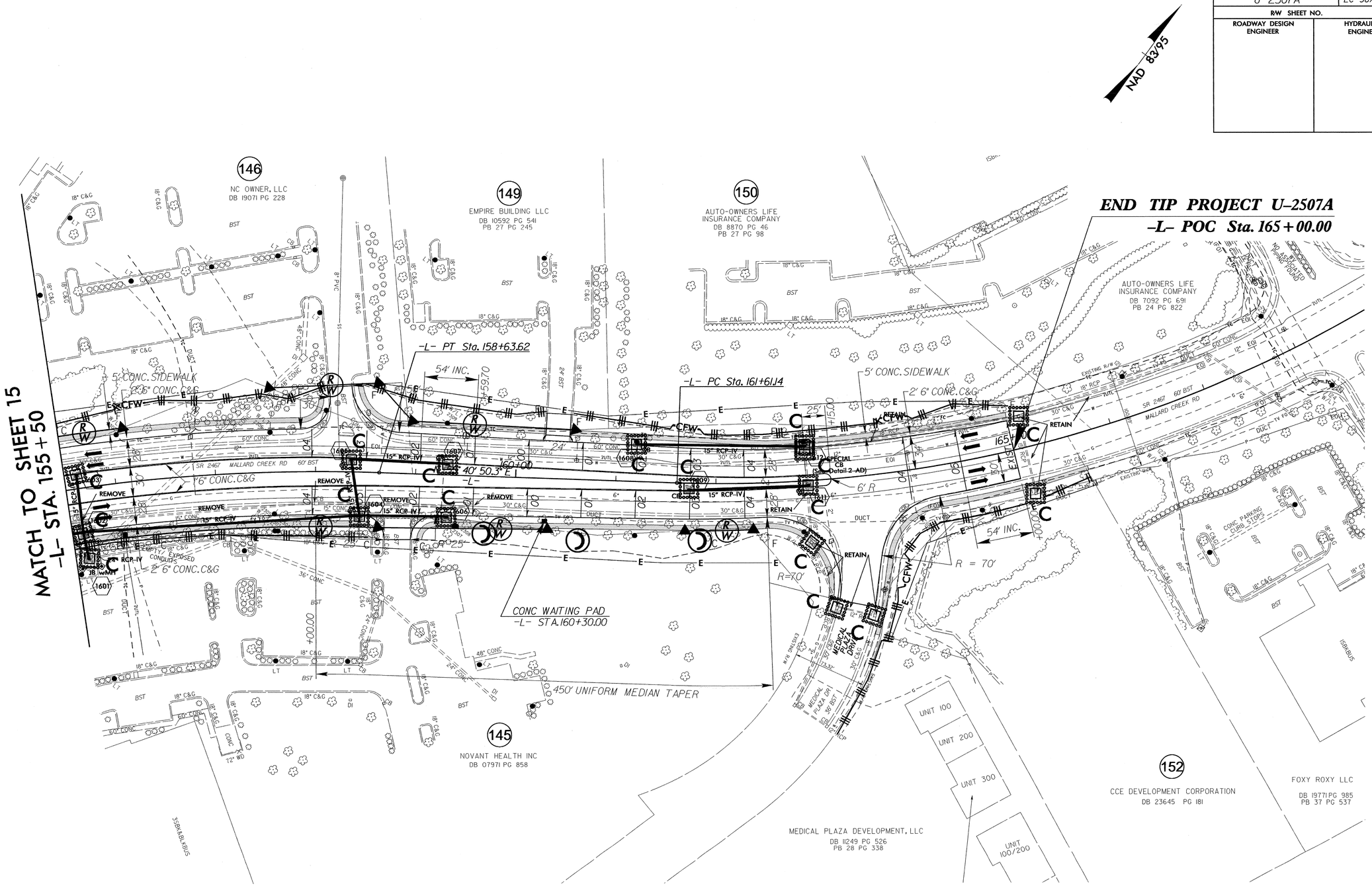
pchap AT RENV256946

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-38/CONST.16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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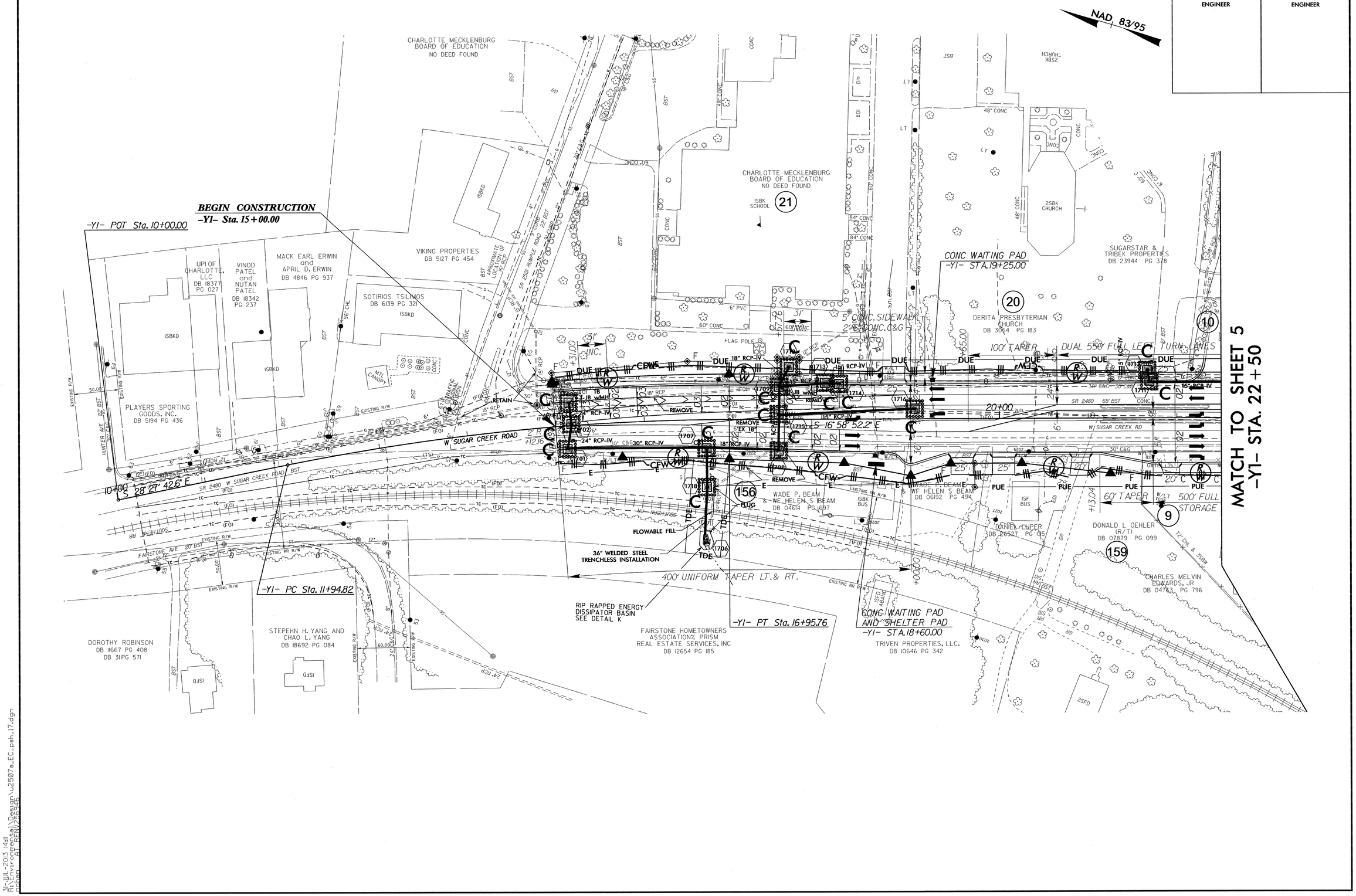
nchan AT REN\256946

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-39/CONST.17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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nchan AT REN\256946

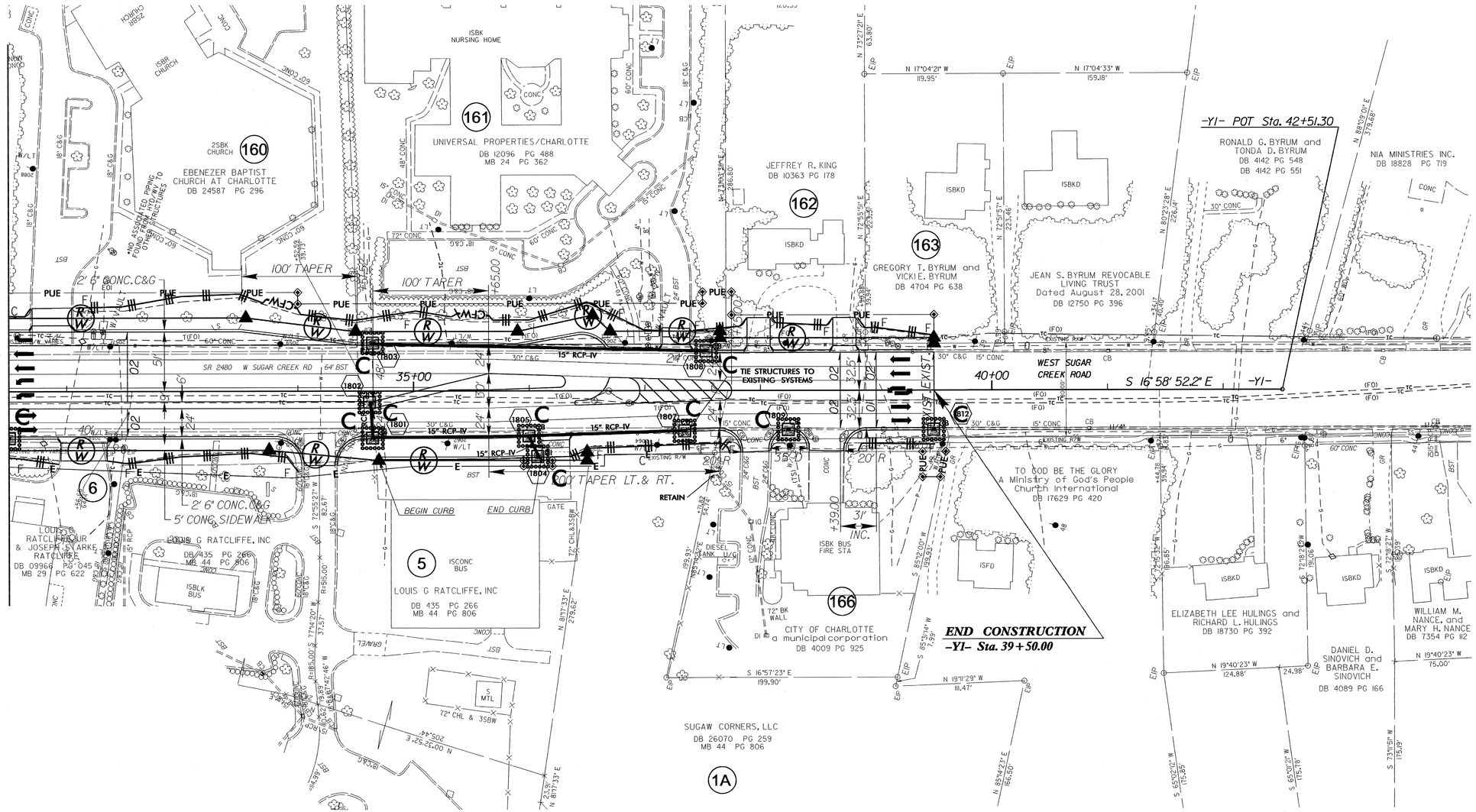
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-40/CONST18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

MATCH TO SHEET 5
-Y1- STA. 31+50

-Y1- POT Sta. 42+51.30

END CONSTRUCTION
-Y1- Sta. 39+50.00



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Active Project:
U-2507A
Active Design:
Default

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-41/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

MATCH TO SHEET 6
-Y2- STA. 12+00

MATCH TO SHEET 5
-Y3- STA. 13+00

-Y2- PC Sta. 12+04.71

-Y2- POC Sta. 12+90.00

-Y3- POT Sta. 10+00.00

SPECIAL CUT DITCH
SEE DETAIL H

-Y3- PC Sta. 10+93.63

-Y3- PT Sta. 12+27.83

-Y2- POT Sta. 18+48.98

END CONSTRUCTION
-Y2- Sta. 18+25.00

-Y2 -PT Sta. 17+23.22

CRAIG W HUNTER, SR (ESTATE)
C/O C HUNTER JR
DB 04063 PG 409

WKB SOMERSET SPRINGS, LLC
DB 15529 PG 925

WKB SOMERSET SPRINGS, LLC ET AL
DB 17313 PG 1

THE NATIVITY OF THE HOLY VIRGIN ORTHODOX CHURCH, INC.
DB 4626 PG 399

CHRISTOPHER L & MICHELLE T. COOKHORNE
DB 22949 PG 673

GRADY A STUTTS & WF HATTIE O STUTTS
DB 06617 PG 0247

MATTA REAL ESTATE INVESTMENTS LLC
DB 13596 PG 215

SHIRLEY S. MEEKS
DB 17292 PG 979

LMS REAL ESTATE & INVESTMENTS LLC
DB 22325 PG 890

JUAN S. HUDSON and LARONDA HUDSON
DB 8941 PG 585

JACK H. TORRENCE, JR. and TANYA M. TORRENCE
DB 8496 PG 647

HAROLD GENE HELMS, SR. and BARBARA JEAN HELMS
DB 12420 PG 680

FRED C. JONES and PHYLLIS ROSEMAN JONES
DB 2390 PG 278

JAMES B. & WIFE KAY H. HUNTER
DB 9440 PG 96

PRESBYTERIA CHURCH OF GREATER GUILFORD
DB 02440

SR 2500 MINERAL SPRINGS ROAD

SOMERSET SPRINGS DR

MINERAL SPRINGS ROAD

S 66° 29' 41.0" E

S 40° 03' 11.1" W

Remove and Replace CB (1902)

Remove and Replace CB (1903)

Remove and Replace CB (1904)

Remove and Replace CB (1905)

Remove and Replace CB (1906)

Remove and Replace CB (1907)

Remove and Replace CB (1908)

Remove and Replace CB (1909)

Remove and Replace CB

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-42/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
NO EROSION CONTROL NEEDED FOR THIS SHEET

NAD 83/95

MATCH TO SHEET 6
R-2420A -L- STA. 13+00

-Y4A- CURVE DATA
PI Sta 21+10.64
Δ = 91° 54' 43.9" (LT)
D = 57° 17' 44.8"
L = 160.42'
T = 103.39'
R = 100.00'

-Y4A- POT Sta. 23+81.49
-Y4A- PT Sta. 21+67.67
-Y4A- PC Sta. 20+07.25

BY2-55
BY2-90
BY13-91
BY13-92

178 CHURCH OF GOD STATE EXECUTIVE OFFICES WESTERN NORTH CAROLINA DB 23824 PG 114

31 LIKE WEN, KEVIN FU, & QING FAI FU DB 24684 PG 932

RUFUS J. MINGO, JR. and AUGUSTINE F. MINGO DB 10192 PG 440

LAWRENCE M. RAMER and % RICHARD RAYMER DB 4263 PG 004

BRADFORD PROPERTIES DB 9263 PG 780 TRACT # 19

HARRY THAMES JR. DB 23605 PG 047

CP MORGAN COMMUNITIES DB 21707 PG

AREA UNDER CONSTRUCTION

JAMEIL D. MILLER DB 21980 PG 101

MORGAN COMMUNITIES OF CHARLOTTE DB 20682 PG 182

HELEN STANLEY-KRAUSER DB 21794 PG 265

RUTH ORELLANA DB 21962 PG 513

MIA SHELTON DB 21571 PG 324

LEONARD IAN FARRELL REVE DB 21854 PG

CP MORGAN COM

THE SIKH HERITAGE SOCIETY OF GREATER CHARLOTTE DB 22175 PG 456

DOUGLAS & MELISSA EDWARDS DB 22686 PG 420

BLUE MOON CITY TRUST DB 24204 PG 177

JOHN S LUKEVICS DB 11719 PG 033

MARGERY L BERRY DB 1780 PG 549

TIMOTHY A. CHRISTIAN DB 23487 PG 138

174 175 30

FUTURE CITY BLVD
CITY OF CHARLOTTE PROJECT R-2420A

CHARLES EDWARD GASKIN and ALTHEA L. GASKIN DB 7728 PG 730

LEO KELLY, JR. and ALICE W. KELLY DB 10543 PG 953

HERMAN GRIER, JR. and THERESA M. GRIER DB 6429 PG 738

SHEILA E. CUNNINGHAM DB 9016 PG 667

ARNOL SOWELL and BAF J. SOWE DB 708

LEE LYLES and NANCY LYLES DB 8362 PG 269

CONC. MON.

BM #18
-BY13-REV STATION 51+87
170' RIGHT ELEVATION=811.53'
-Y4- STA. 20+86 (29' RT)

S 84° 48' 46.5" E

03-APR-2012 10:23
R:\EPM-cmp\Projects\Design\U2507a_EC_psh_20.dgn
cmp
AT REN\242226

PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-43/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

BEGIN CONSTRUCTION
-Y6- Sta. 10+00.00

SR 2402 30' RSH
MALLARD CREEK RD
SR 2402 30' RSH
+00.00-Y6-
26.92(EXIST R/W)
32.00
55.00
+50.00-Y6-
32.00
55.00
+45.00-Y6-
32.00
60.00
+80.00-Y6-
32.00
55.00
60.00
+00.00-Y6-
33.08(EXIST R/W)
65.00
5' CL B RIP RAP
EST 1 TON
FILTER FABRIC
EST 25 SY
210' CMP
210' CMP
4' FDPS
75' TAPER
100' FULL WIDTH TURN LANE
+30.00-Y6-
39.00
60.00
65.00
U2507A-3
+55.97-Y6-
50.00
+40.00-Y6-
32.00
+73.71-Y6-
70.00
(EXIST R/W)
+24.03-Y6-
70.00
(EXIST R/W)
+47.24-Y6-
50.00
+60.00-Y6-
39.00
+40.00-Y6-
50.00
+50.00-Y6-
45.00
+00.00-Y6-
45.00
+74.47-Y6-
39.00
+09.31-Y6-
70.00
(EXIST R/W)
+53.73-Y6
75.00
(EXIST R/W)
+68.92-Y6-
60.00
+90.00-Y6-
40.91(EXIST R/W)
+42.25-Y6-
39.00
60.00
16+74.47-Y6-
39.00
16+74.47-Y6-
60.00
16+90.00-Y6-
100.00
17+10.00-Y6-
78.00
18+05.00-Y6-
90.00
18+00.00-Y6-
65.00
18+25.00-Y6-
60.00
18+25.00-Y6-
39.00
+65.00-Y6-
62.34(EXIST R/W)
85.00
-Y6- PC Sta. 16+74.47
MATCH TO SHEET 10
-Y6- STA 19+00
BY5-59
BY6-60
BY6-61
CONC WAITING PAD
CONC WAITING PAD
RETAIN
REMOVE
179 NORTH CAROLINA INDEPENDENT LIVING OF DEAF PERSONS, INC. DB 08833 PG 231 MB 332
180 MARGARET E HUNTER (BY ENTIRETY) DB 02253 PG 498 MB 332 PG 89
181 BARBARA WHITESIDE (BY ENTIRETY) DB 01262 PG 305
182 PATRICIA CONER DB 11753 PG MB 27 PG
183 TAM LEIN BUI & NGOC ANH THI TRAN DB 11790 PG 401 PG 958
184 WAYNE D MOSS DB 24339 PG 967
185 MARTY HUA & ZU LING TIAN DB 24486 PG 56
186 JOSE B REYES DB 24346 PG 985
85 VIRGINIA P RODDEN DB 04177 PG 695
89 JEFFERY S NEAL & WF TONIL NEAL, et al DB 11249 PG 256 MB 332 PG 89
901A COLVILLE PARIS PARTNERS, LLC DB 11074 PG 377
TOMMY MARTIN & WF JACUELINE MARTIN DB 03967 PG 153 MB 332 PG 089
BONITA F. CALDWELL DB 20084 PG 898
MARK & TERESA FINCHER DB 18312 PG 315
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PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-44/CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

Place Matting for Erosion Control on Slope as Work Allows.

-Y13- POT Sta. 10+00.00

-Y13- PC Sta. 11+30.30

10+00 S 32° 45' 31.6" E
W.T. HARRIS BLVD

-Y13-

BEGIN CONSTRUCTION
-Y13- Sta. 11+00.00

-Y13PGL- PC Sta. 11+00.00 =
-Y13- POT Sta. 11+00.00 (18' RT.)

146 NC OWNER, LLC
DB 19071 PG 228

139 BNP REALTY LLC
DB 09983 PG 262

142 -Y13PGL- PCC Sta. 16+54.57

INDIGO DEVELOPMENT INC.
DB 6890 PG 547

SR 2665 W T HARRIS BLVD WBL BST

SR 2665 W T HARRIS BLVD EBL BST

-Y13PGL-

100' TAPER

450' DUAL LEFT TURN LANES

BEGIN SBG

CL B RIP RAP BANKS ONLY EST. 5 TONS
GEOTEXTILE EST. 18 SY

Remove 24" Pipe & MH

24" CSP w/2 Elbows

Convert to HwyMH

60' RR TIES WALL

MATCH TO SHEET 15
-Y13- STA. 19+00

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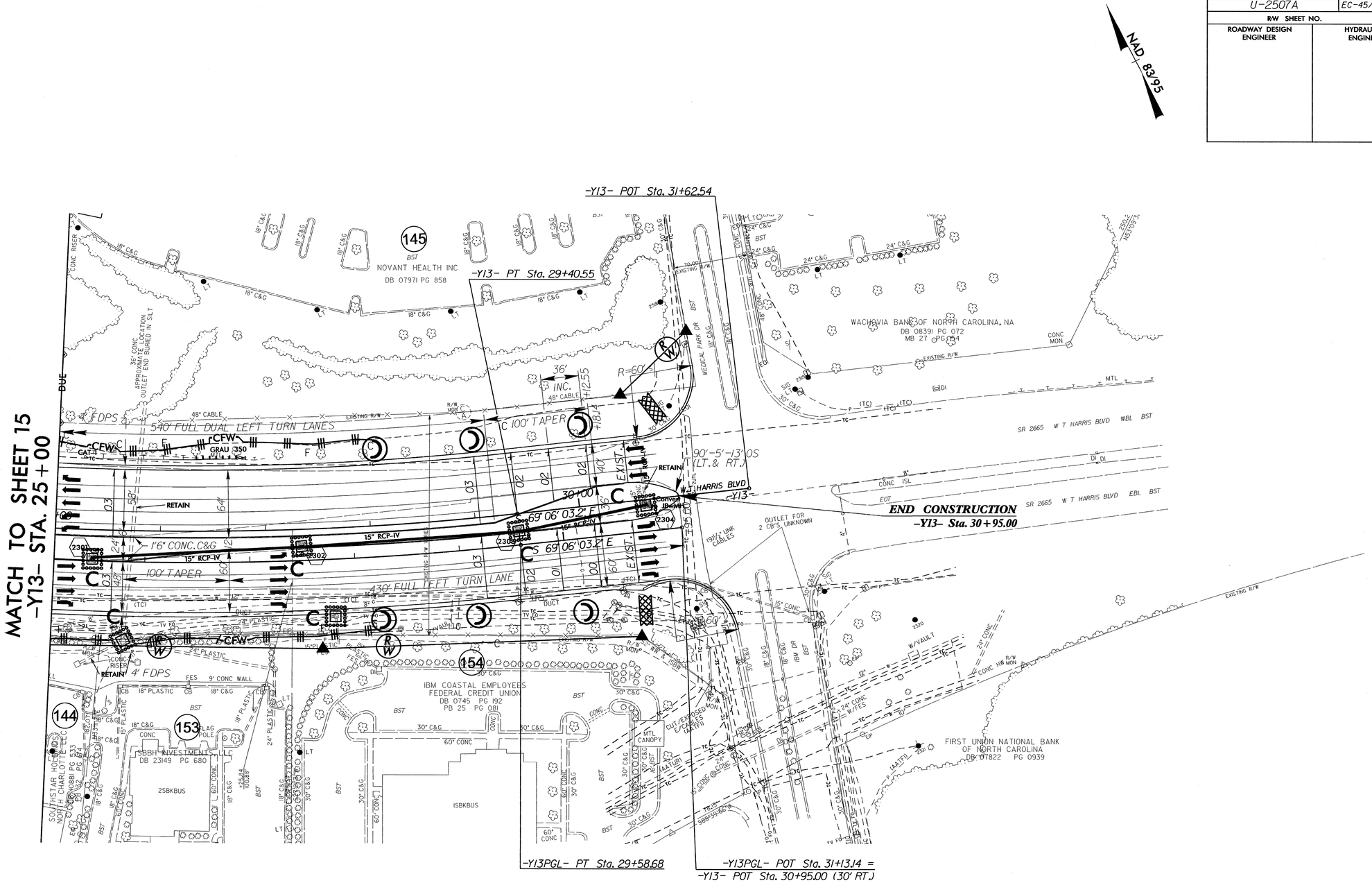
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-45/CONST.23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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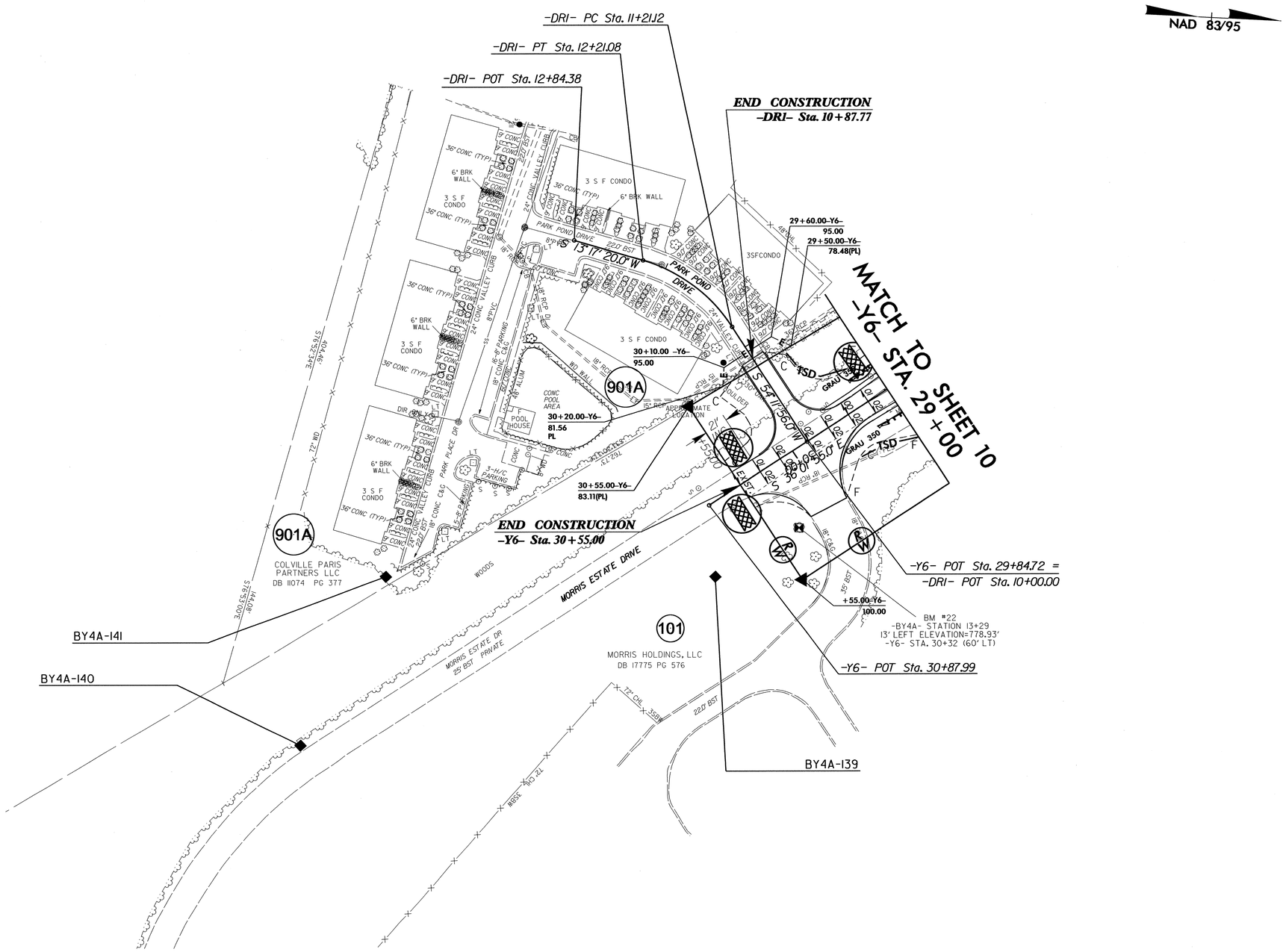
PROJECT REFERENCE NO.	SHEET NO.
U-2507A	EC-46/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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