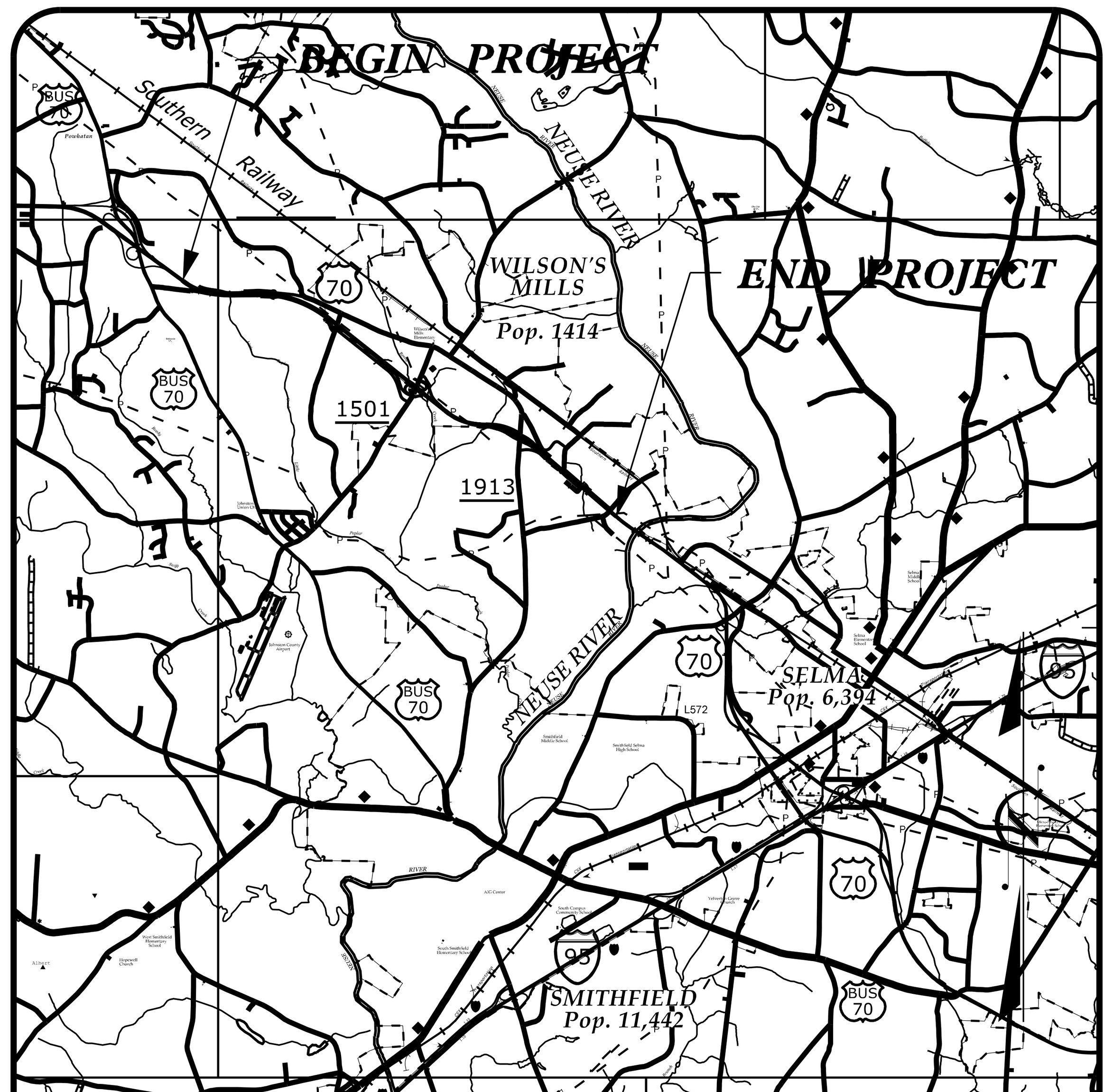
TIP PROJECT: W-5600

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5600	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
50056.1.1	HISP-0070(163)	PE
50056.2.1	HISP-0070(163)	ROW
50056.2.2	HISP-0070(163)	UTIL.



VICINITY MAP

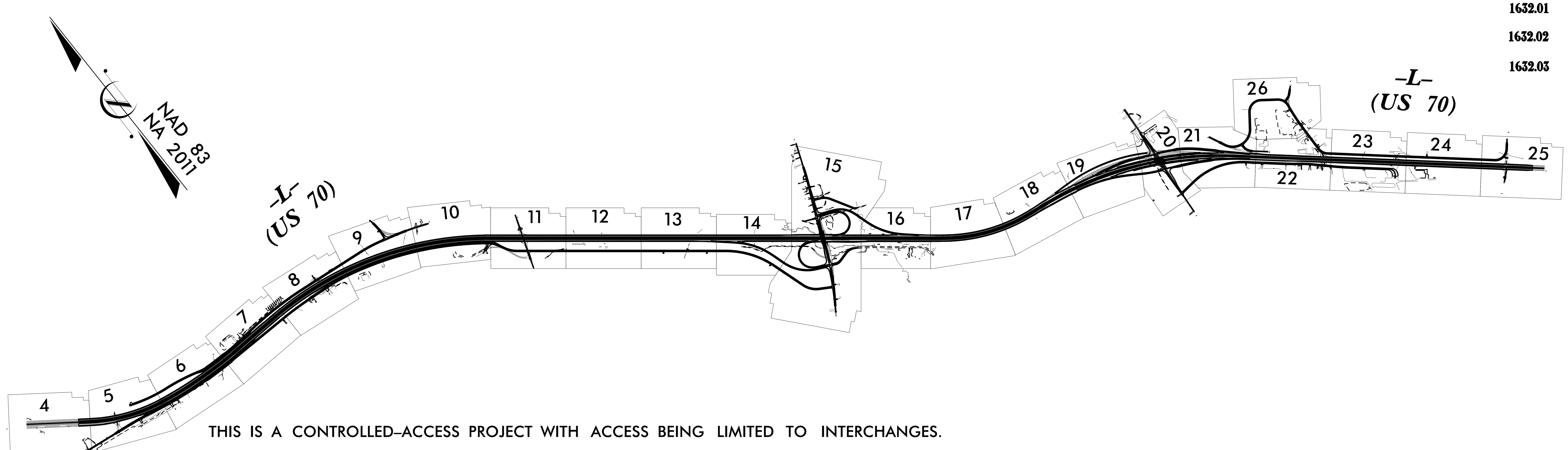
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

JOHNSTON COUNTY

LOCATION: US 70 FROM EAST OF US 70 BUSINESS TO WEST OF NEUSE RIVER.

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, RETAINING WALLS, & CULVERTS.



THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF WILSON'S MILLS.

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	BW / 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.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

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

GRAPHIC SCALE

0 50
PLANS

0 50
PROFILE (HORIZONTAL)

0 10
PROFILE (VERTICAL)

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared In the Office of:

WETHERILL ENGINEERING INC.
1223 JONES FRANKLIN ROAD
RALEIGH, NC

Designed by:

JIM DAVIS, PE *3554*
NAME *LEVEL III CERTIFICATION NO.*

Reviewed In the Office of:

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

2018 STANDARD SPECIFICATIONS

Reviewed by:

WES CHANDLER, PE

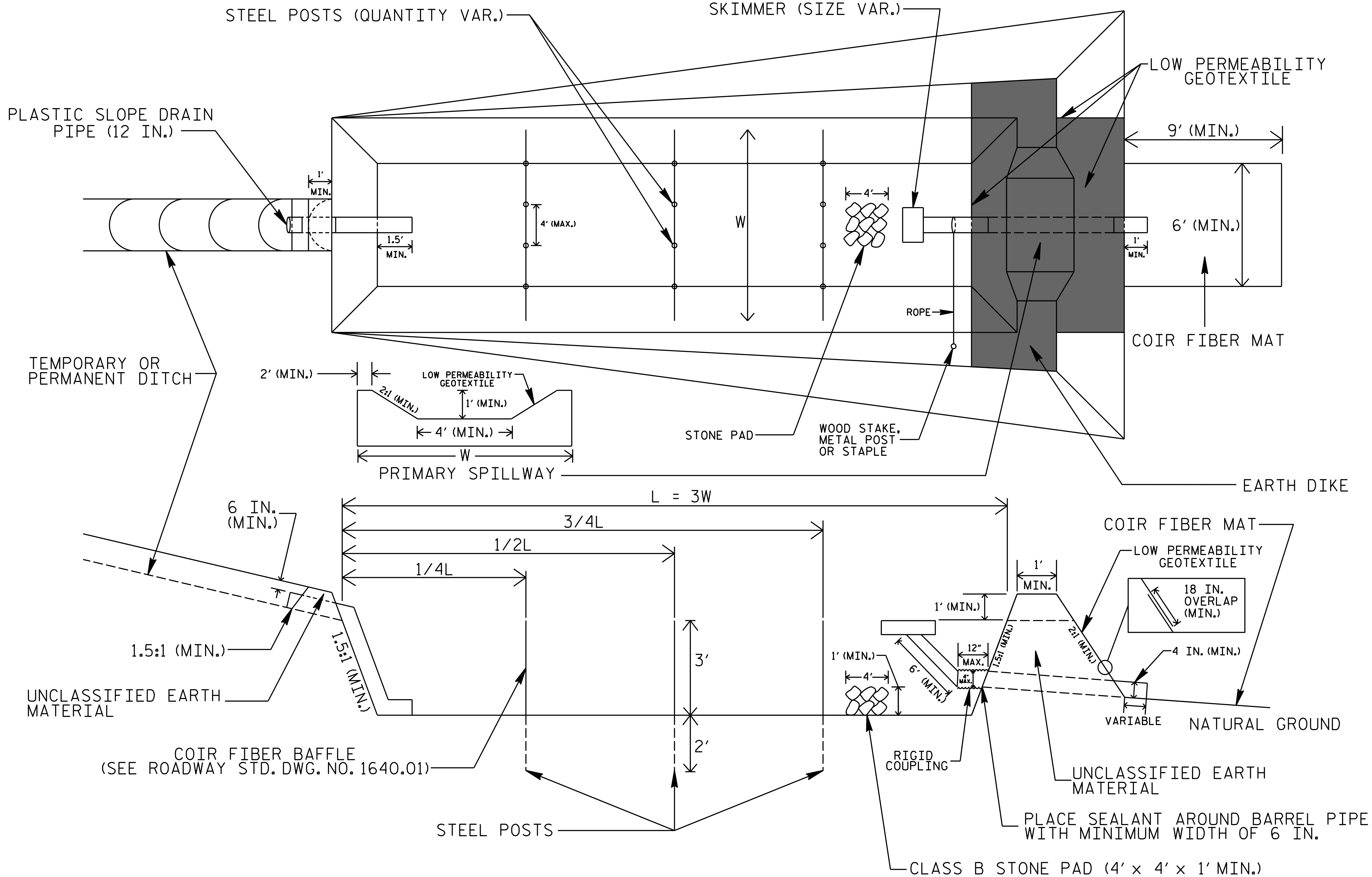
Roadway Standard Drawings

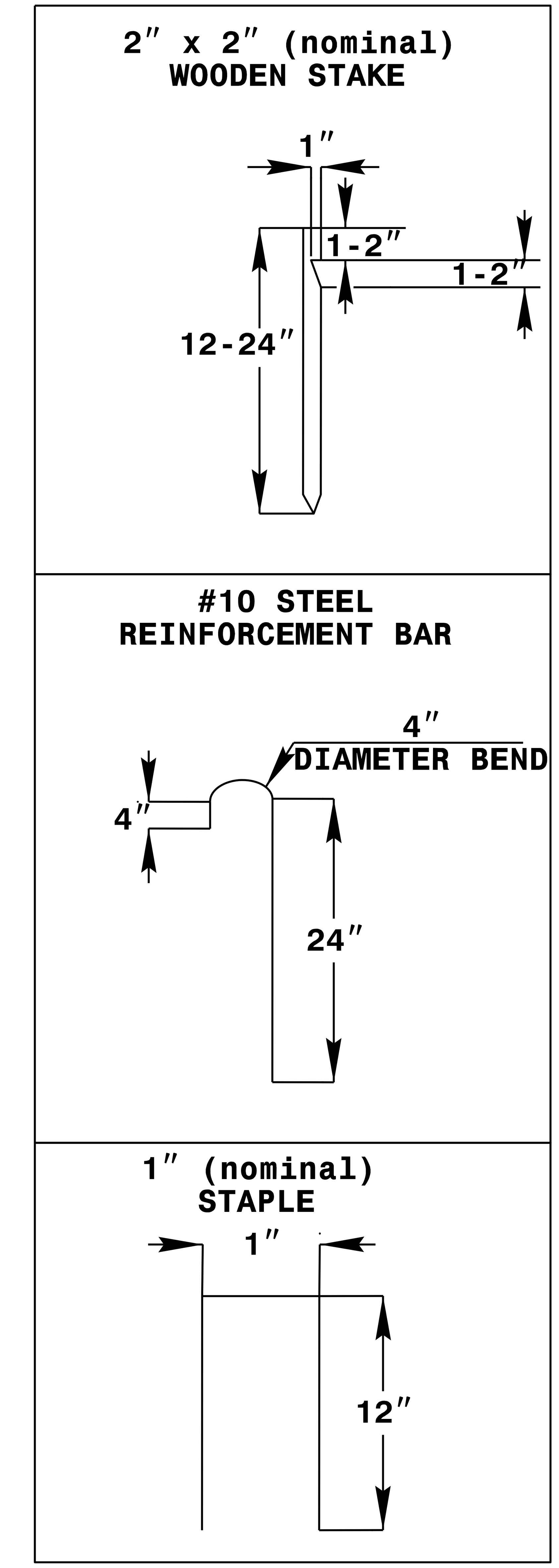
The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

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

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)





COIR FIBER MAT ANCHOR OPTIONS

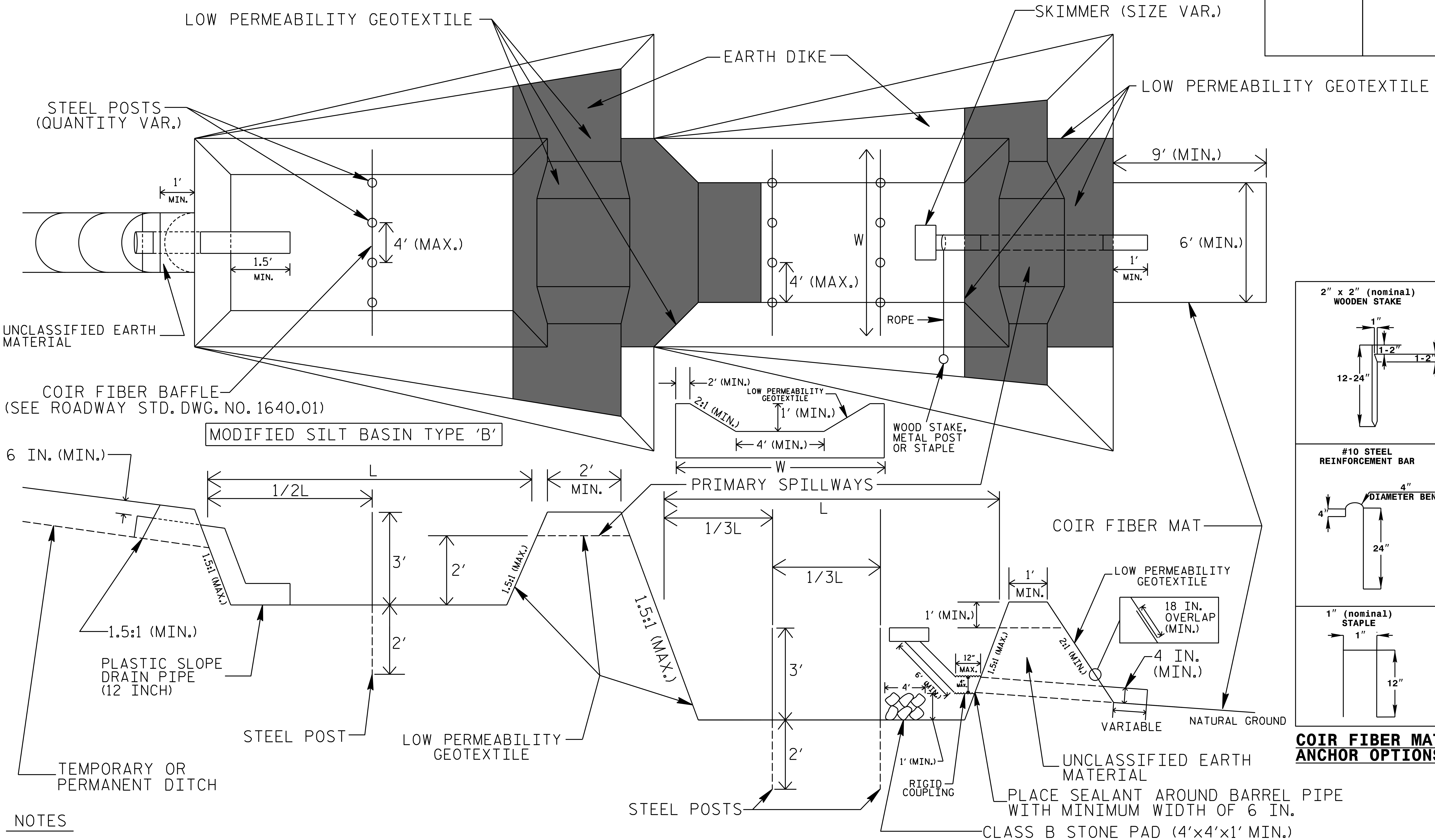
NOTES

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/0.8, 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. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

TIERED SKIMMER BASIN DETAIL (EAST)

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



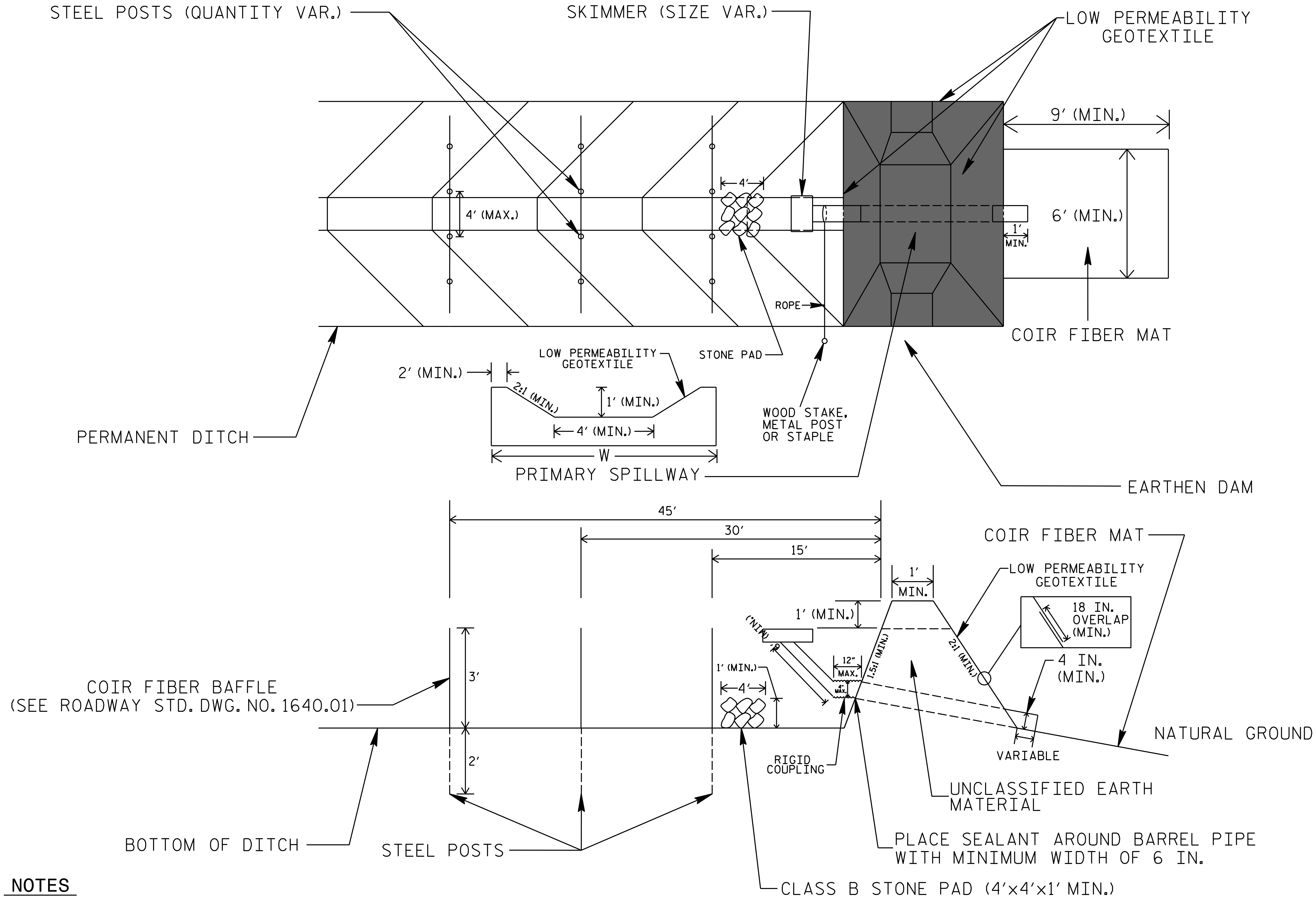
NOTES

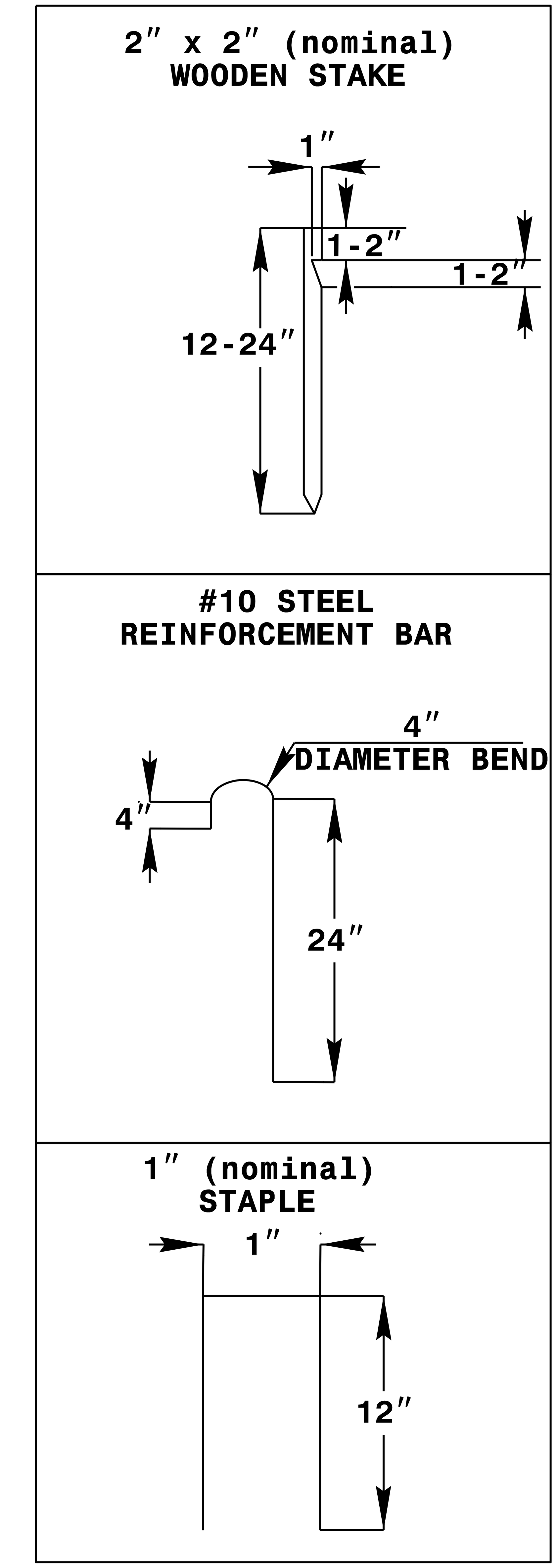
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY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

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EARTHEN DAM WITH SKIMMER DETAIL (EAST)





COIR FIBER MAT ANCHOR OPTIONS

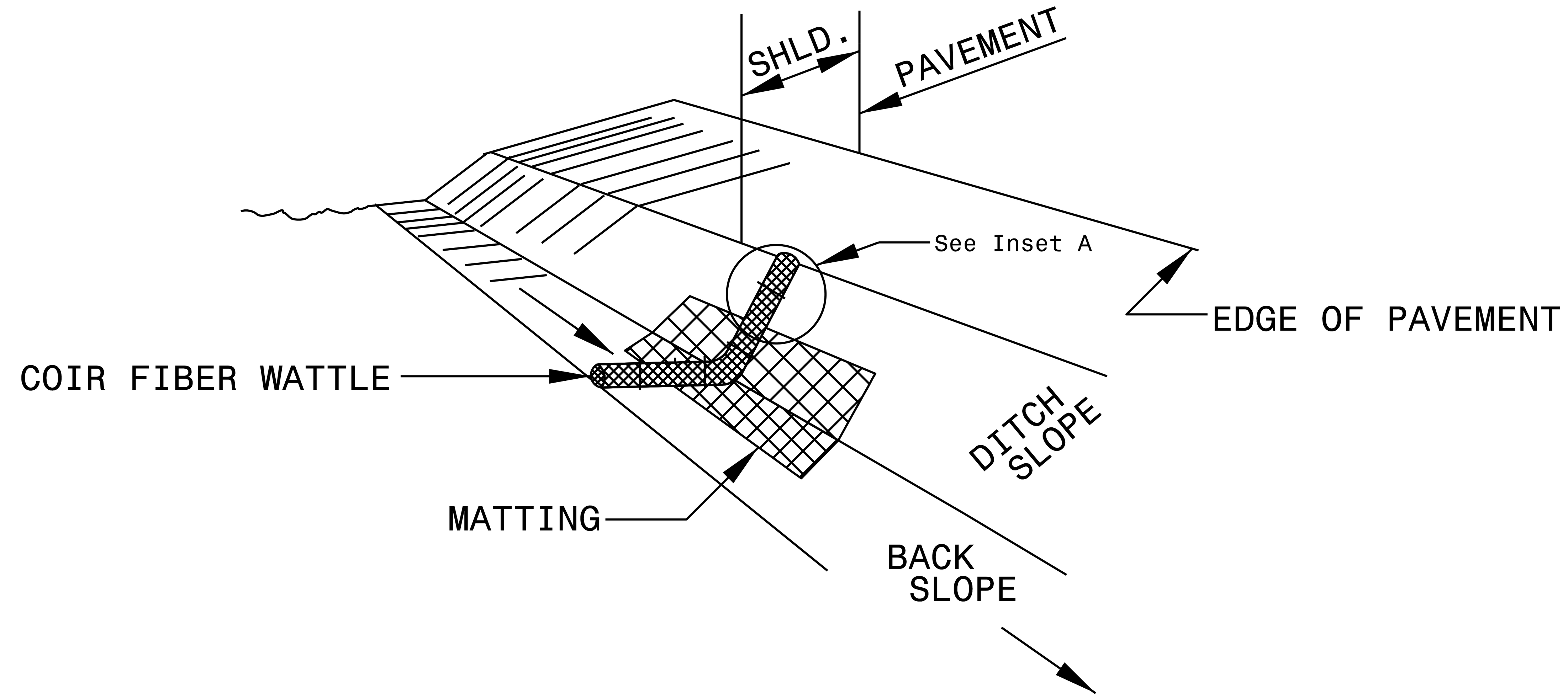
NOTES

1. LIMIT EARTHEN DAM HEIGHT TO 5 FT.
2. DETERMINE PRIMARY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
3. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

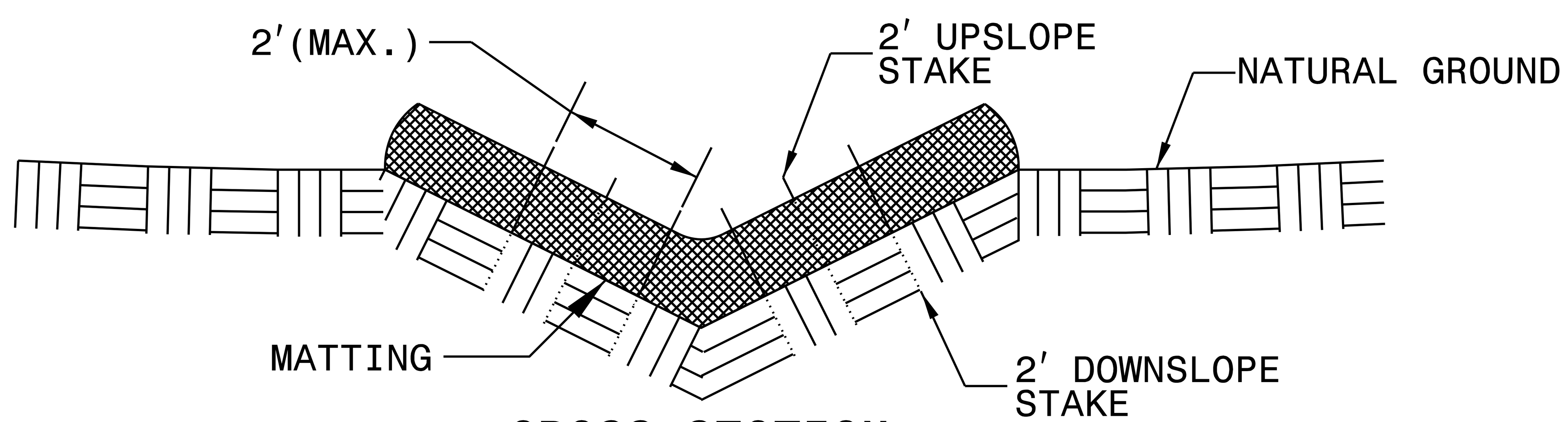
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

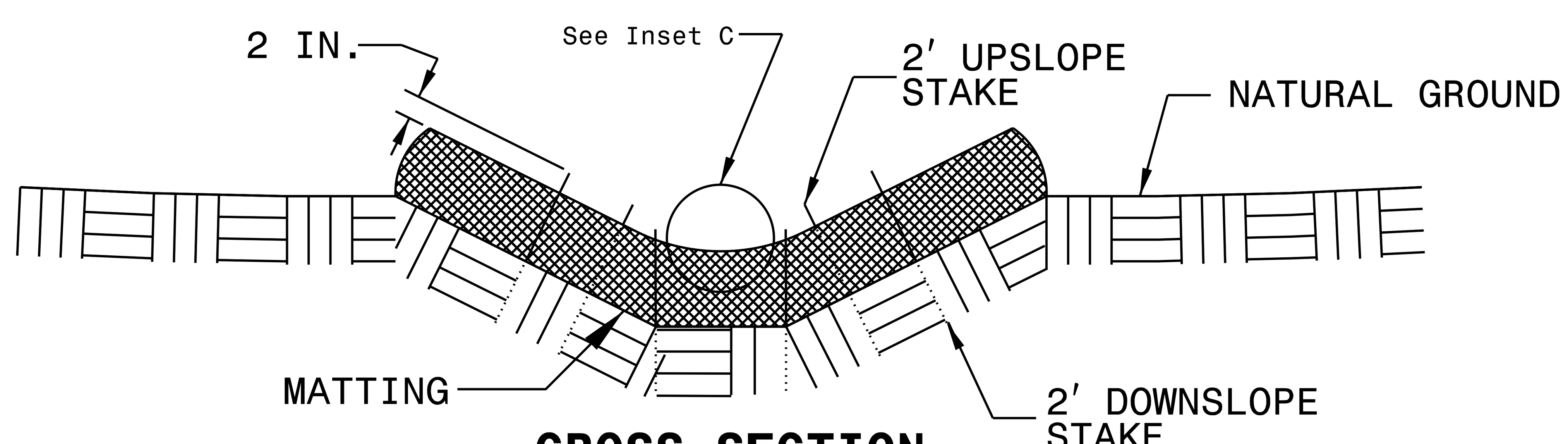
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



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.

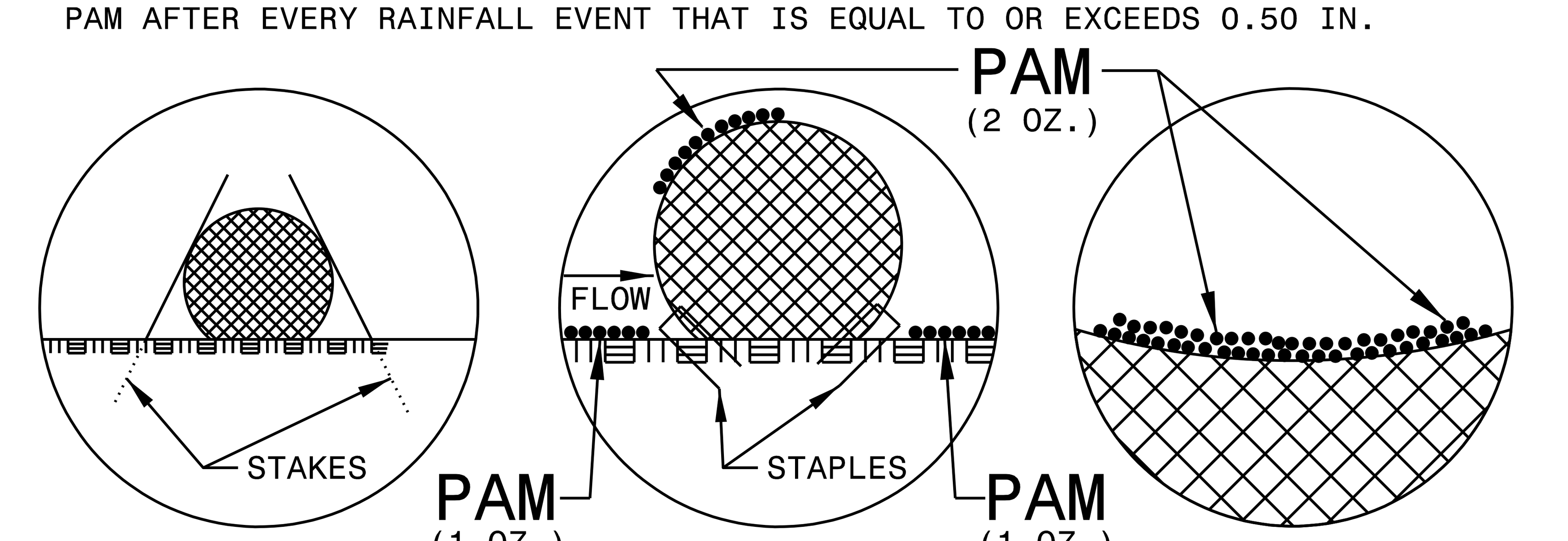
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

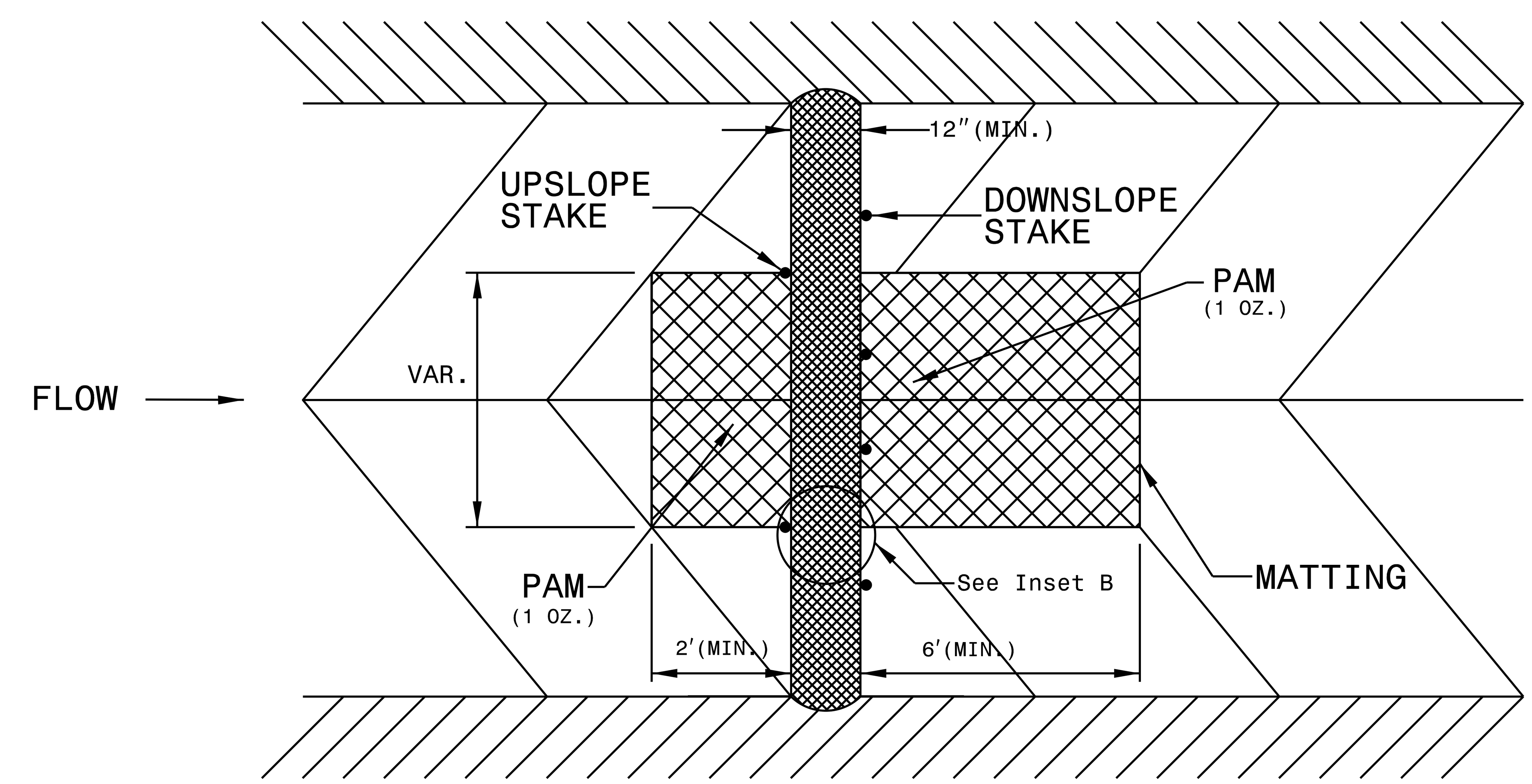
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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.



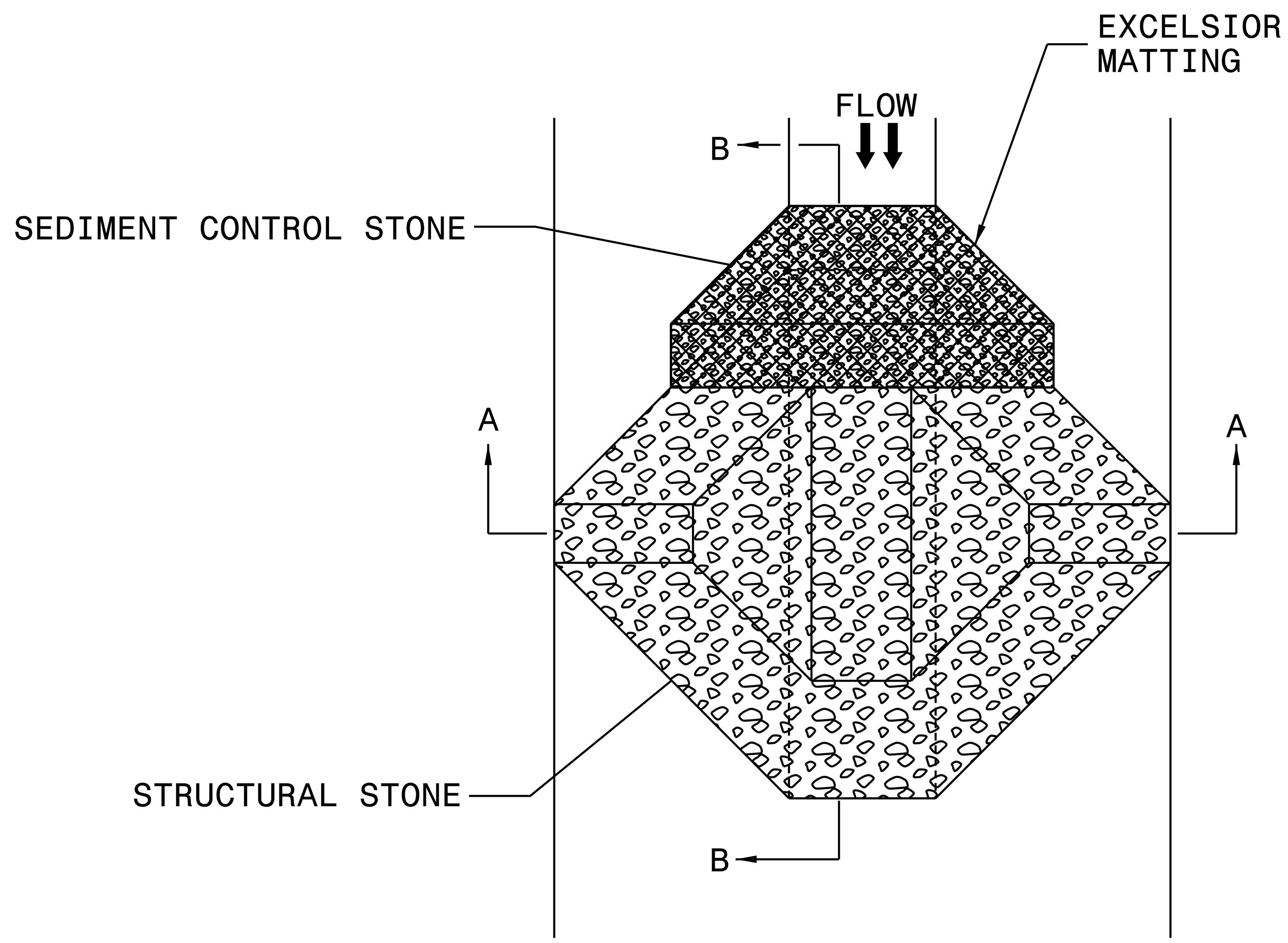
INSET A INSET B INSET C



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-2D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

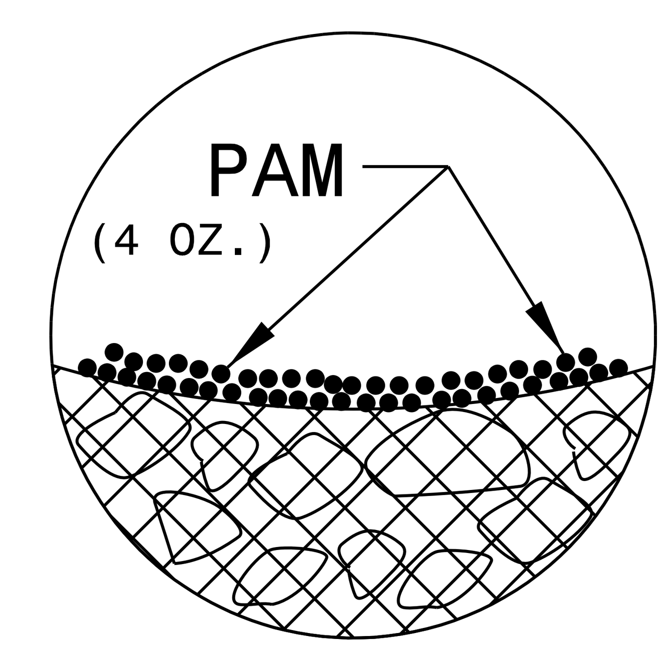
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

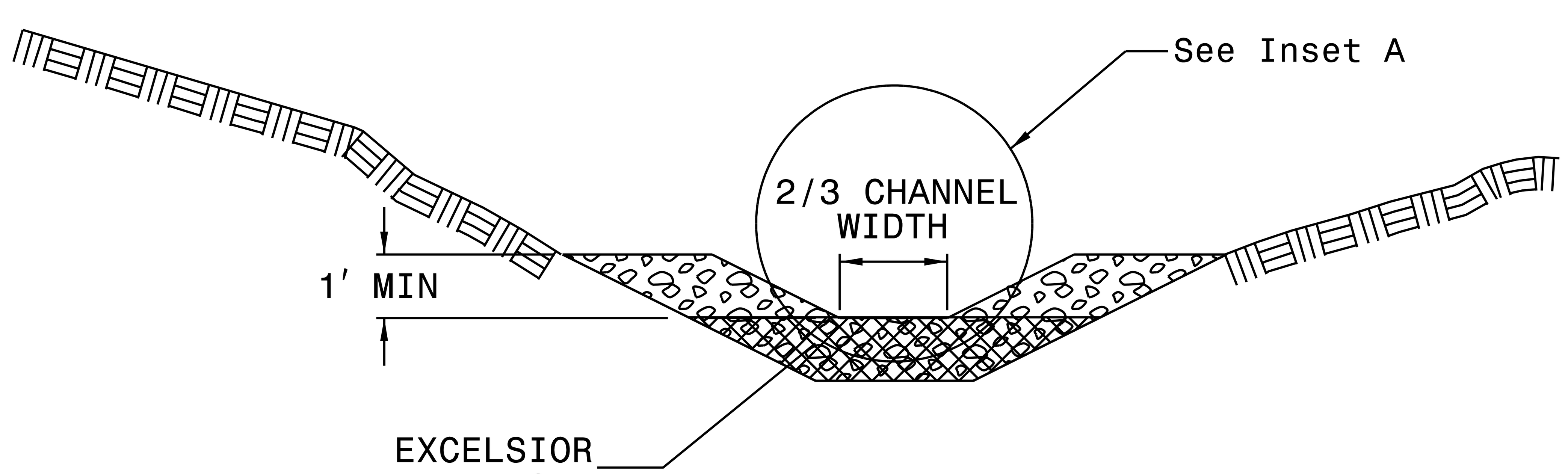
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

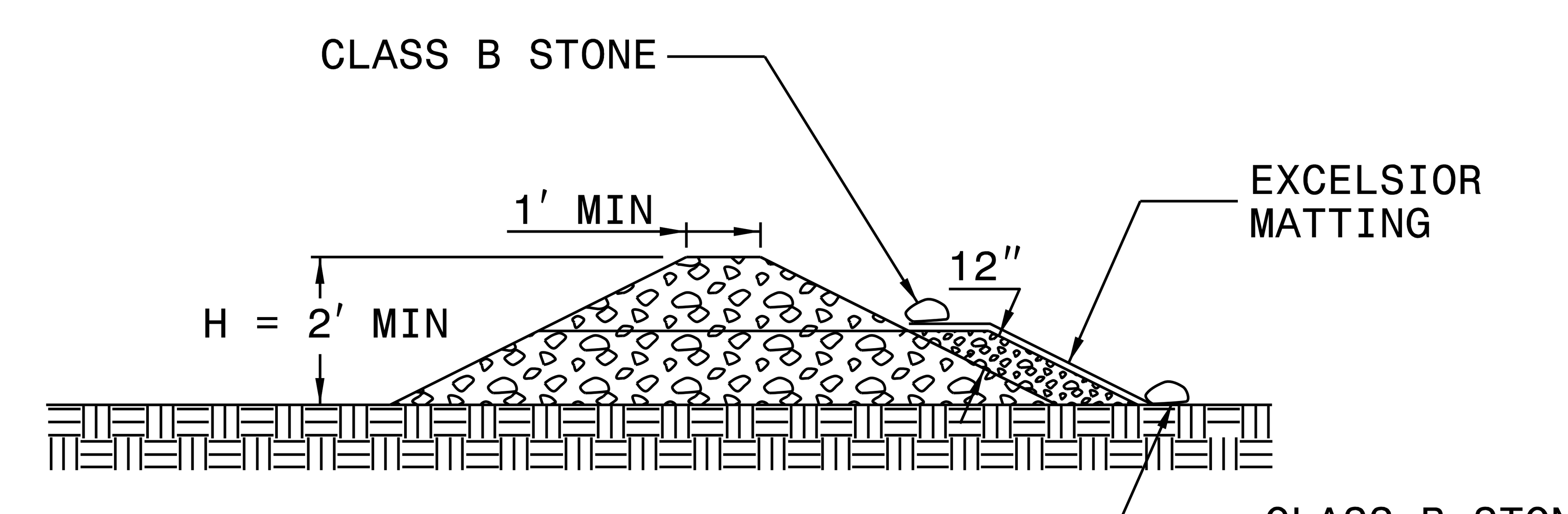
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5600	EC-2E
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 1640-14.

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.

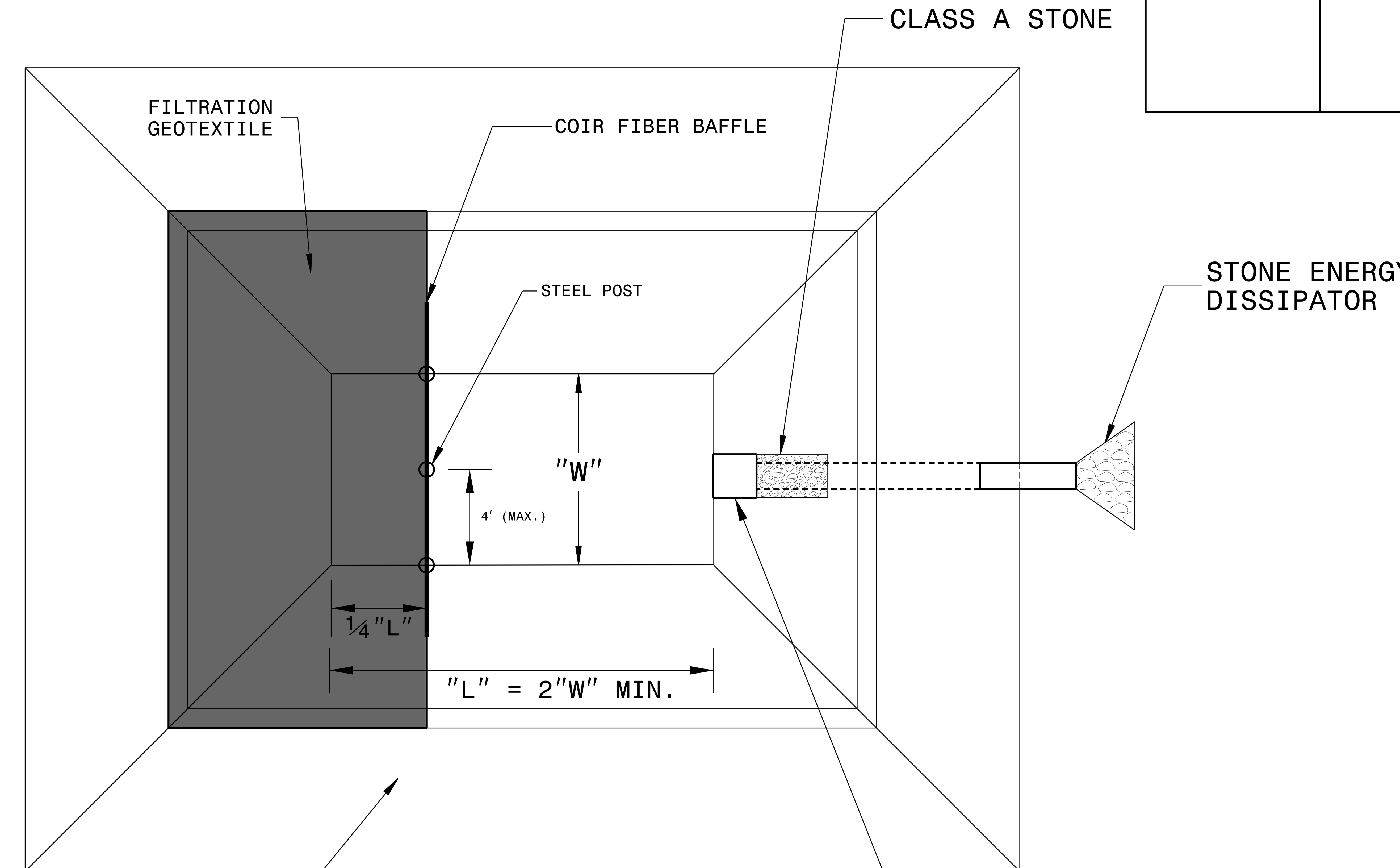
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

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

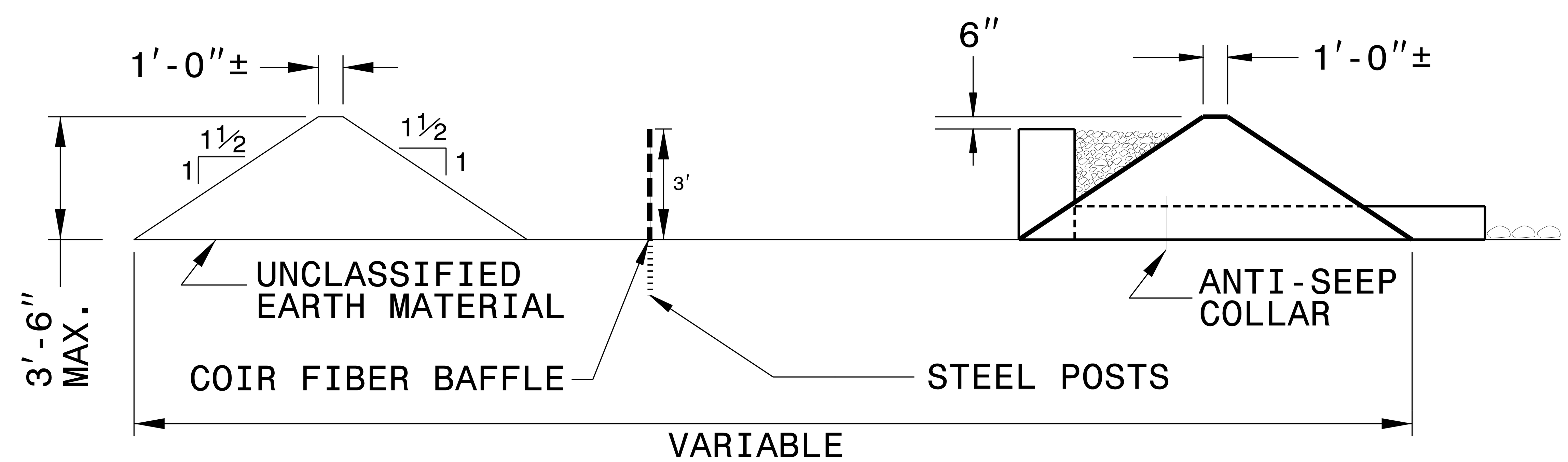
SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

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.
W-5600	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	L	22+50	23+50	RT	85
5	L	26+00	29+00	RT	250
5	L	30+90	32+40	LT	305
6	L	36+50	42+00	LT	915
6	L	36+50	41+50	RT	405
6	L	44+50	52+50	MED	2150
8	L	67+50	75+60	MED	1025
8	L	67+50	71+50	RT	325
13/14	L	136+00	141+30	RT	600
13/14	L	138+00	141+50	LT	470
13/14	L	134+40	152+30	MED	2400
14	L	144+50	153+00	RT	1140
16	L	164+50	165+50	LT	250
16	L	168+86	170+00	RT	280
16	L	173+00	174+50	RT	365
17	L	179+50	181+50	LT	275
18	L	188+00	189+00	LT	140
18	L	191+00	191+50	LT	115
18	L	193+27	193+53	LT	45
19	L	205+80	214+50	MED	1165
19	L	208+50	215+00	LT	730
22	L	235+50	239+50	RT	565
22	L	242+00	244+50	RT	360
23	L	250+35	252+00	RT	365
23	L	252+00	254+00	LT	350
23	L	256+00	259+45	RT	880
24	L	260+50	261+50	LT	110
24	L	262+00	262+50	RT	85
24	L	264+00	265+00	RT	165
25	L	278+10	279+96	LT	360

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
25	L	279+55	281+50	RT	315
9	Y4	10+75	11+50	RT	160
15	Y7	14+20	17+50	LT	445
15	Y7	14+20	18+50	RT	345
15	Y7	19+00	19+72	RT	60
15	Y7	20+00	22+50	RT	210
15	Y7	33+00	34+00	LT	85
15	Y7	36+00	38+50	LT	335
15	Y7	36+10	38+50	RT	200
16	Y7RPA	13+00.2	14+98.4	RT	245
16	Y7RPA	17+50	19+50	RT	310
15	Y7RPA	24+65	25+61.7	RT	90
15	Y7LPA	10+00	10+51.41	LT	90
15	Y7LPA	13+20	14+00	RT	110
15	Y7LPC	13+29.4	18+00	RT	630
14	Y7RPC	10+00	19+37	RT	1055
14	Y7RPC	17+92	19+37	LT	165
14	Y7RPC	22+70	23+20	LT	60
11	Y5	12+35	12+50	RT	35
11	Y5	17+15	17+50	LT	40
7	SR1	28+91	30+09.9	LT	125
8	SR1	41+65	42+15.9	LT	45
8	SR1	48+76.4	49+27.1	LT	45
8	SR1	48+76.4	51+30.3	RT	235
9	SR1	56+50	58+98	LT	505
6	SR2	27+54.3	34+11.7	RT	530
7	SR2	40+69	47+20.7	RT	530
7	SR2	50+70.4	55+18	RT	360
7	SR2	51+19.9	55+12.7	LT	445
8	SR2	56+50	57+50	RT	85

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-3A
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)
8	SR2	59+05.6	65+45	RT	520
9	SR2	68+30	70+05	RT	305
10	SR2	87+13	88+60.8	RT	300
11	SR2	92+98.6	93+50	LT	55
11	SR3	10+02	10+40	LT	40
11	SR3	11+00	12+50	RT	125
11	SR3	15+00	16+00	RT	85
12/13	SR3	29+00	32+00	LT	315
13	SR3	39+50	45+50	RT	485
13	SR3	40+00	44+81.2	LT	390
15	SR3	56+50	63+85	RT	1485
15	SR3	56+60	60+50	LT	315
15	SR4	10+50	11+00	LT	35
15	SR5	11+00	13+00	RT	140
22	SR6	31+00	35+00	RT	330
23	SR6	39+22.9	40+14	RT	75
23	SR6	40+98.6	43+40	RT	275
23	SR6	43+48.6	46+48.6	LT	340
23	SR6	44+20	49+00	RT	775
21	SR7	13+25	17+50	RT	350
21	SR7	14+13	29+26	LT	1230
21	SR7	17+50	23+00	RT	750
26	SR7	29+00	31+00	RT	410
26	SR7	31+50	35+50	RT	805
26	SR7	34+78	35+50	LT	255
22	SR7	37+00	38+00	RT	130
22	SR7	38+85	40+25	LT	115
22	SR7	40+00	41+11.6	RT	180
23	SR7	42+56.7	55+56.7	RT	1650
23	SR7	47+56.7	47+78	LT	25

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
23	SR7	52+56.7	54+06.7	LT	160
24	SR7	56+06.7	57+56.6	LT	160
25	SR7	70+96	72+39.8	RT	235
25	SR7	72+47.8	73+50	RT	165
21	SR8	10+60	11+12	RT	45
26	SR9	11+25	12+55	RT	210
26	SR9	10+50	12+55	LT	360
20	Y9	26+00	27+00	RT	210
21	Y9RPA	11+50	14+01.3	RT	340
21	Y9RPA	16+01.9	17+02.5	LT	120
21	Y9RPA	18+53.1	22+70.1	LT	535
20	Y9RPA	24+81.3	25+50	LT	115
20	Y9RPA	23+80	25+50	RT	260
19	Y9RPB	10+00	13+50	LT	370
19	Y9RPB	16+05	16+55.2	RT	60
19	Y9RPB	18+07.3	23+20	RT	580
20	Y9RPB	23+70	24+25	RT	100
19	Y9RPC	17+40.9	24+37.4	LT	1670
19	Y9RPC	13+96.5	19+33.8	RT	605
19	Y9RPC	19+82.4	25+20	RT	610
21	Y9RPD	10+00	11+00	LT	115
21	Y9RPD	19+40.7	23+30.4	RT	475
20	Y9RPD	23+79.6	24+00	RT	35
				SUBTOTAL	44,390
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					55,000
				TOTAL	99,390
				SAY	100,000

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMNT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
14	L	143+00	144+50	RT	205
16	L	165+50	166+00	LT	50
16/17	L	174+50	174+86	RT	90
18	L	191+50	192+00	LT	115
18	L	193+00	193+27	LT	45
23	L	257+22.4	257+50	RT	80
15	Y7	19+72	20+00	RT	25
15	Y7	22+50	23+00	RT	45
15	Y7	24+00	24+50	RT	35
15	Y7	29+32	31+16	LT	420
15	Y7	32+47	33+00	LT	45
15	Y7	34+00	36+00	LT	170
15	Y7	33+00	34+00	RT	195
19	Y9RPB	20+15	20+50	LT	30
20	Y9RPD	23+30.1	24+00	LT	95
6/7	SR1	27+62.8	28+91	LT	250
11	SR2	92+50	93+50	RT	110
15	SR3	60+80	63+00	LT	445
15	SR4	15+00	15+80	LT	60
15	SR4	15+00	17+32.5	RT	165
15	SR5	13+00	15+75	RT	225
23	SR7	51+06.7	25+56.7	LT	160
10	DR1	10+55	11+40	RT	70
15	Y7LPA	12+02	12+42.8	RT	55
15	Y7LPA	15+00	17+00	RT	255
			SUBTOTAL		3440
	ADDITIONAL PSRM TO BE INSTALLED				0
				TOTAL	3440
				SAY	3500

PERMANENT SOIL REINFORCEMENT MAT

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

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-3C
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.
W-5600	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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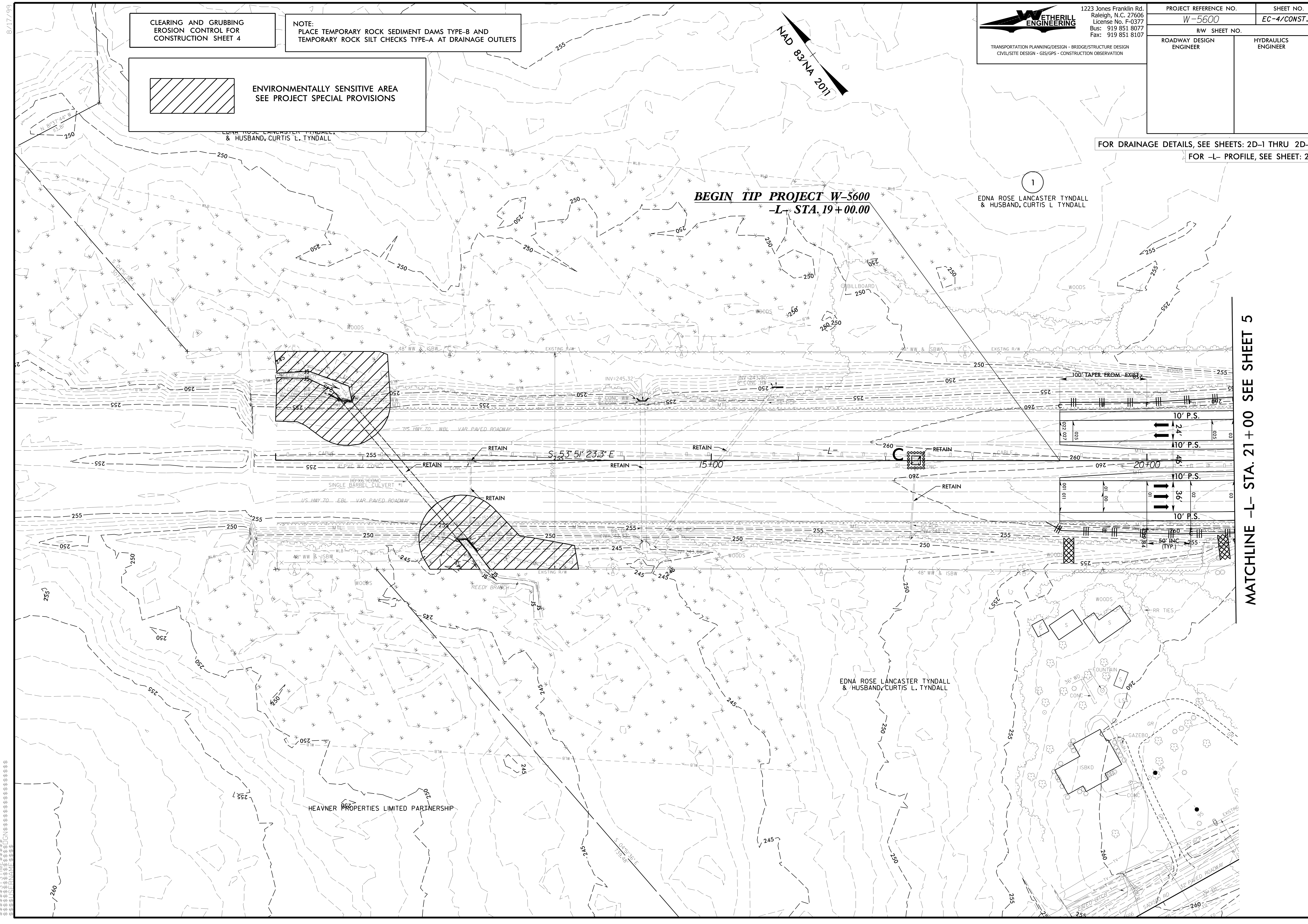
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

FOR DRAINAGE DETAILS, SEE SHEETS: 2D-1 THRU 2D-3
FOR -L- PROFILE, SEE SHEET: 27



8/17/99

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.

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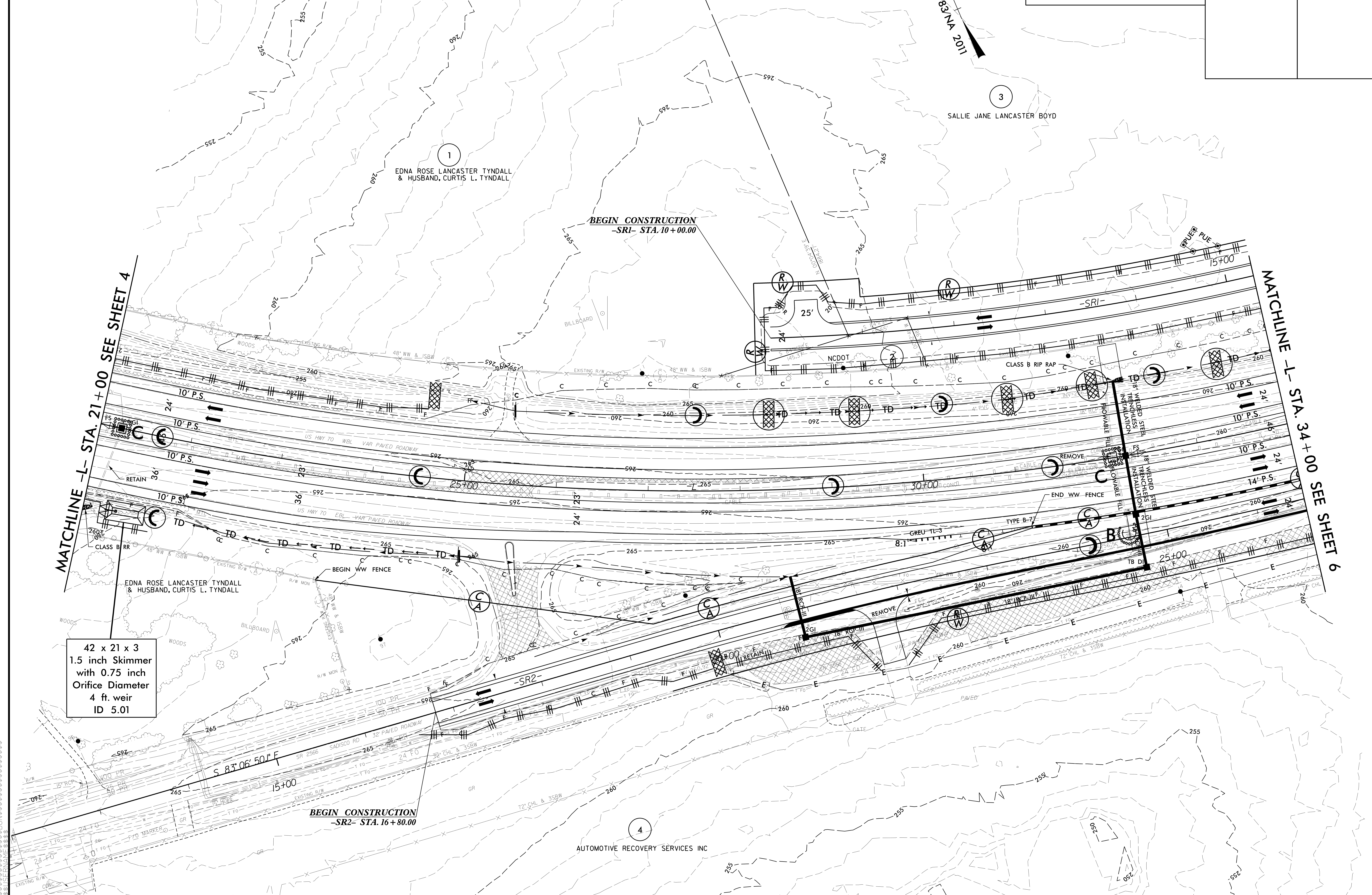
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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

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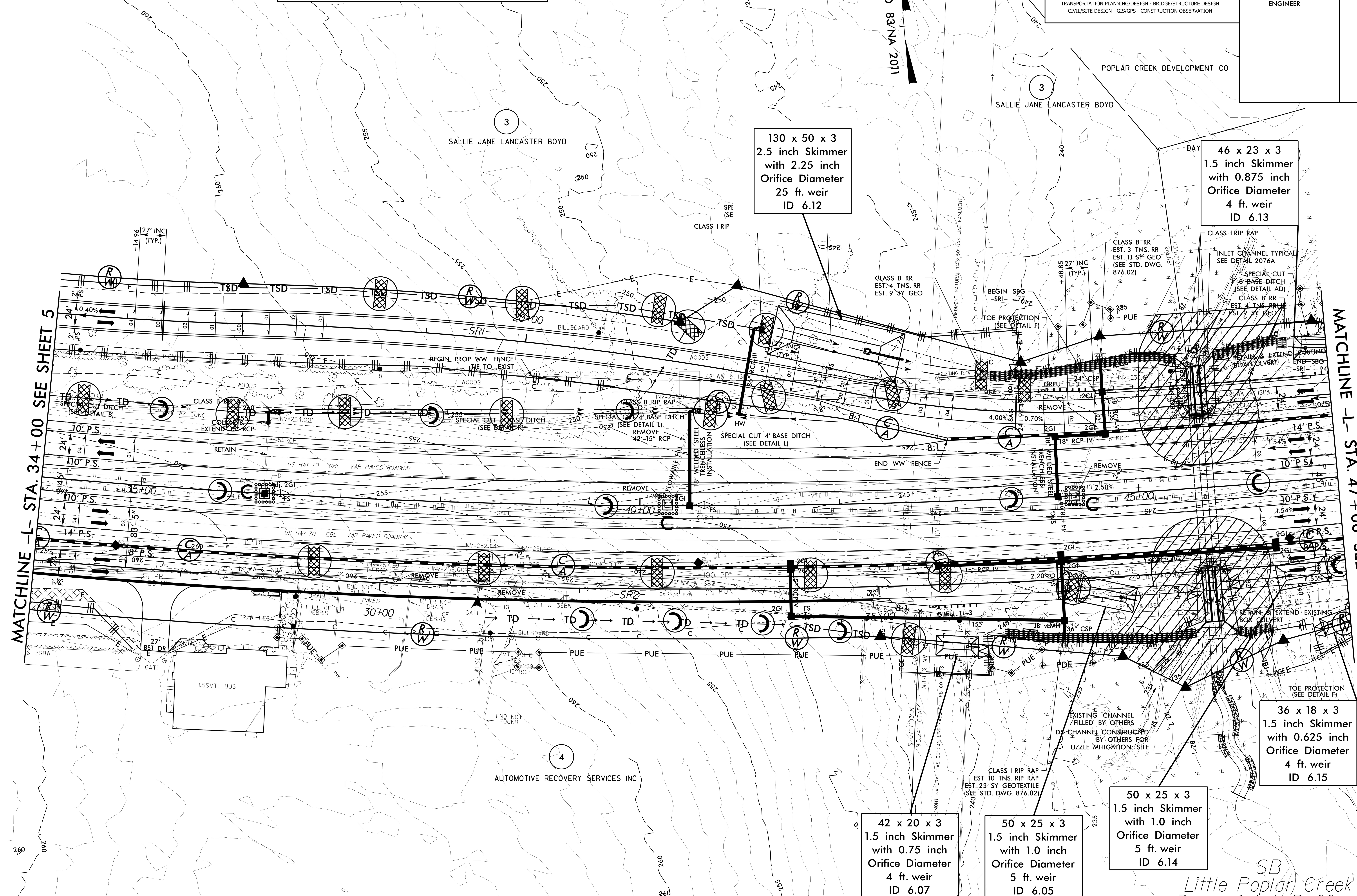
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



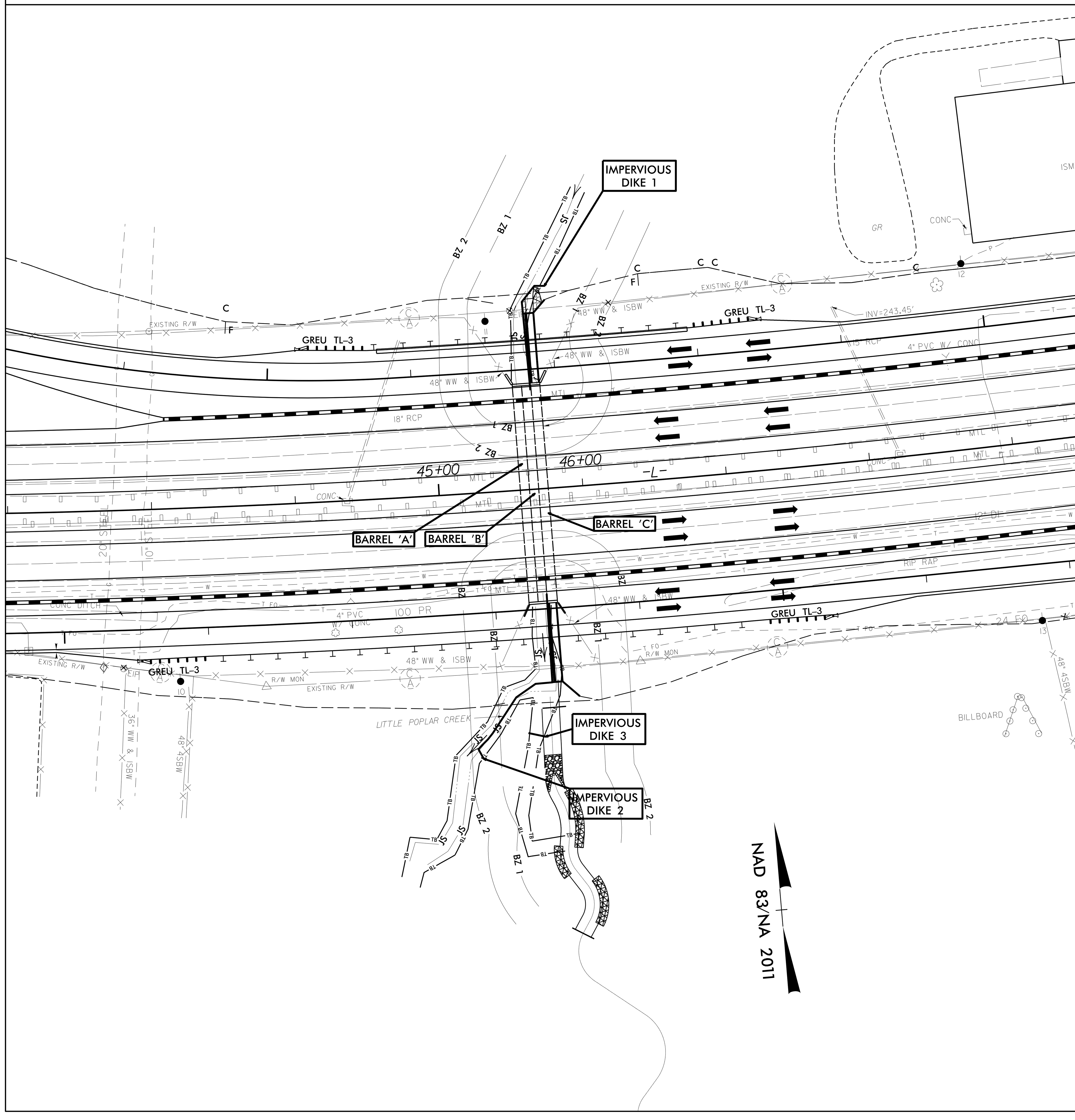
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-6A/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 45+66 –L–

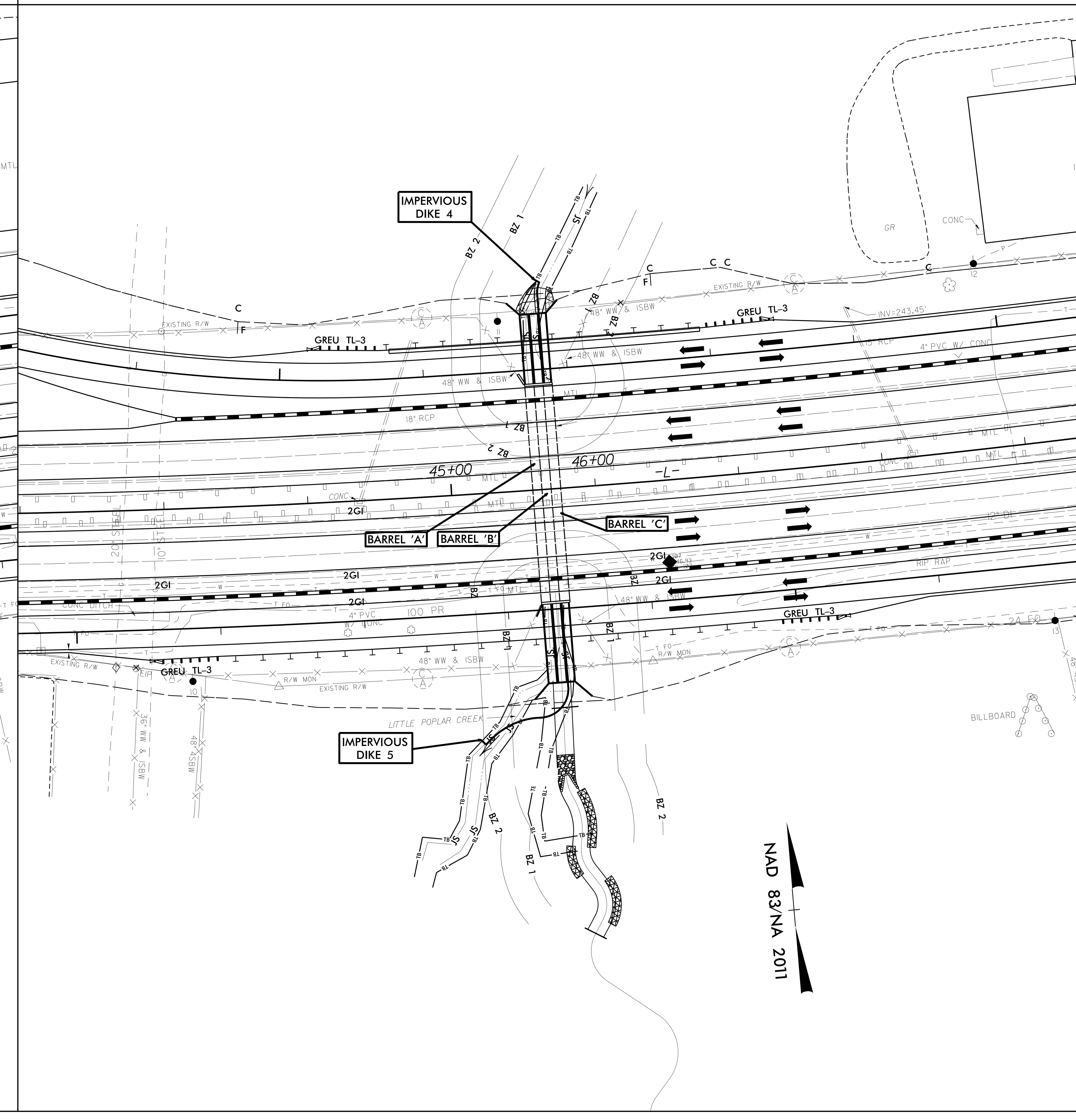
PHASE I

1: INSTALL SPECIAL STILLING BASINS AND IMPERVIOUS DIKES 1, 2 & 3. DIVERT FLOW INTO BARREL 'A' AND BARREL 'B'.
2: REMOVE EXISTING WINGWALL FROM THE INLET AND OUTLET OF BARREL 'C'.
3: EXTEND BARREL 'C'. CONSTRUCT PORTION OF BARREL 'C' HEADWALL AND WINGWALL. CONSTRUCT LOW FLOW CHANNEL IMPROVEMENTS.
4: REMOVE IMPERVIOUS DIKES 1, 2 & 3.



PHASE II

1: INSTALL IMPERVIOUS DIKES 4 & 5 AND DIVERT FLOW INTO BARREL 'C'.
2: REMOVE EXISTING WINGWALL FROM THE INLET OF BARREL 'A'.
3: EXTEND BARREL 'A' AND BARREL 'B'. CONSTRUCT PORTIONS OF HEADWALLS AND WINGWALLS. CONSTRUCT HIGH FLOW CHANNEL IMPROVEMENTS.
4: FINALIZE CONSTRUCTION OF –L–, –SR1– AND –SR2– ALIGNMENTS. REMOVE IMPERVIOUS DIKES 4 & 5. REMOVE SPECIAL STILLING BASINS.
5: COMPLETE ROADWAY



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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

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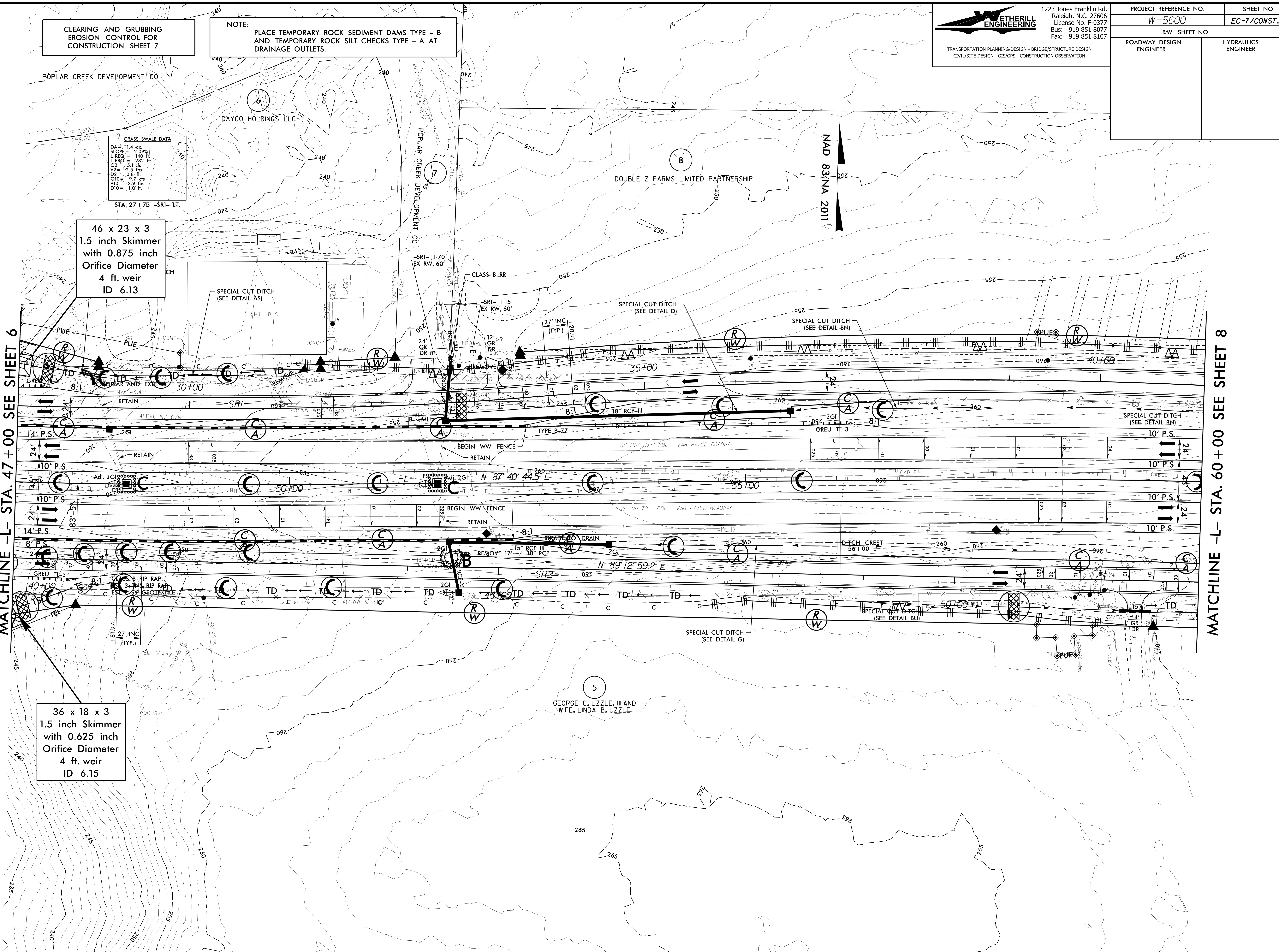
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

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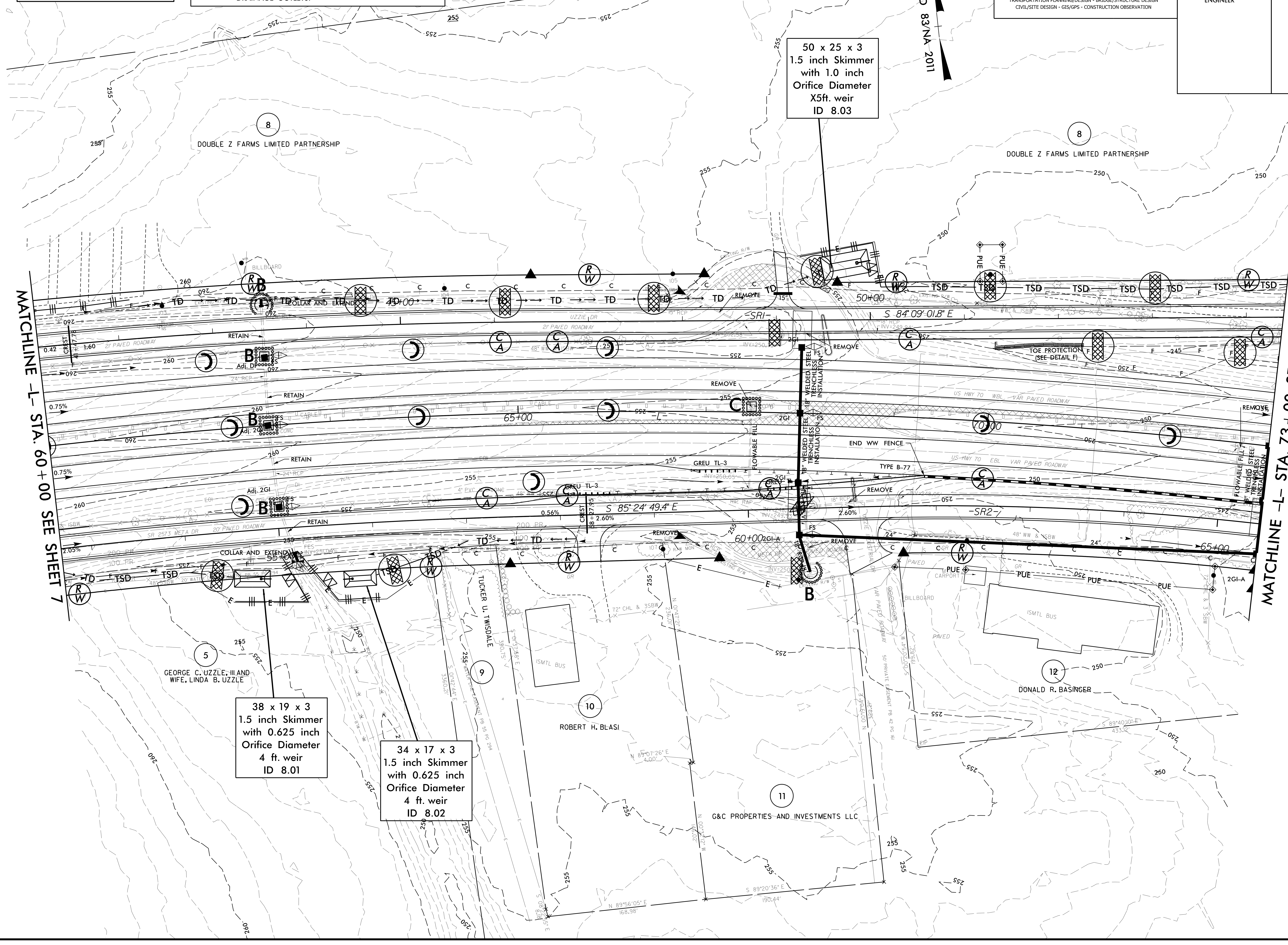
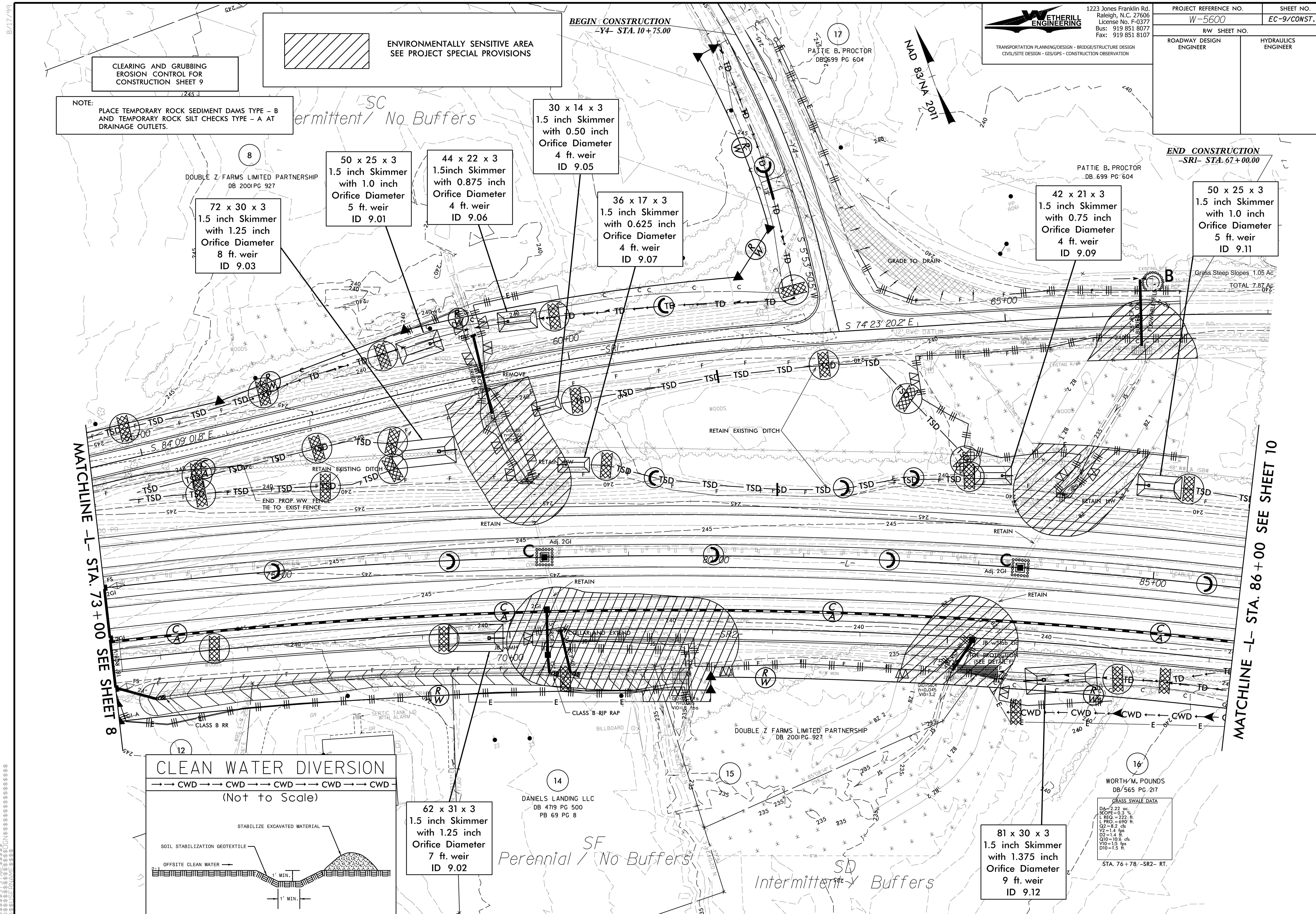
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-8/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





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Fax: 919 851 8107
WETHERILL ENGINEERING
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-9/CONST.9
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.
SC
Intermittent/ No Buffers
BEGIN CONSTRUCTION
-Y4- STA. 10+75.00
END CONSTRUCTION
-SR1- STA. 67+00.00
NAD 83/NA 2011
PATTIE B. PROCTOR
DB 699 PG 604
DOUBLE Z FARMS LIMITED PARTNERSHIP
DB 2001 PG 927
72 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 9.03
50 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 9.01
44 x 22 x 3
1.5inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 9.06
30 x 14 x 3
1.5 inch Skimmer
with 0.50 inch
Orifice Diameter
4 ft. weir
ID 9.05
36 x 17 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 9.07
42 x 21 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 9.09
50 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 9.11
Grass Steep Slopes 1.05 Ac
TOTAL 7.87 Ac
S 74° 23' 20.2" E
S 84° 09' 01.8" E
S 55° 53' 50.5" W
GRADE TO DRAIN
RETAIN EXISTING DITCH
REMOVE
RETAIN
RETAIN HW
END PROP. WW FENCE
TIE TO EXIST FENCE
Adj. 2GI
COLLAR AND EXTEND
JB w/Slab Lid
CLASS B RIP RAP
CLASS B RR
BILLBOARD
SEPTIC TANK LID WITH ALARM
MATCHLINE -L- STA. 73+00 SEE SHEET 8
MATCHLINE -L- STA. 86+00 SEE SHEET 10
-L-
-SR1-
-SR2-
-Y4-
60+00
65+00
70+00
80+00
85+00
CLEAN WATER DIVERSION
→→ CWD →→ CWD →→ CWD →→ CWD →→ CWD
(Not to Scale)
STABILIZE EXCAVATED MATERIAL
SOIL STABILIZATION GEOTEXTILE
OFFSITE CLEAN WATER
1' MIN.
62 x 31 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 9.02
DANIELS LANDING LLC
DB 4719 PG 500
PB 69 PG 8
SF
Perennial / No Buffers
SD
Intermittent / Buffers
81 x 30 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
9 ft. weir
ID 9.12
WORTH M. POUNDS
DB 565 PG 217
GRASS SWALE DATA
DA=2.22 ac.
SLOPE=0.3 %
L REQ.=222 ft.
L PRO.=690 ft.
Q2=8.2 cfs
V2=1.4 fps
D2=1.4 ft.
Q10=10.6 cfs
V10=1.5 fps
D10=1.5 ft.
STA. 76+78 -SR2- RT.

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.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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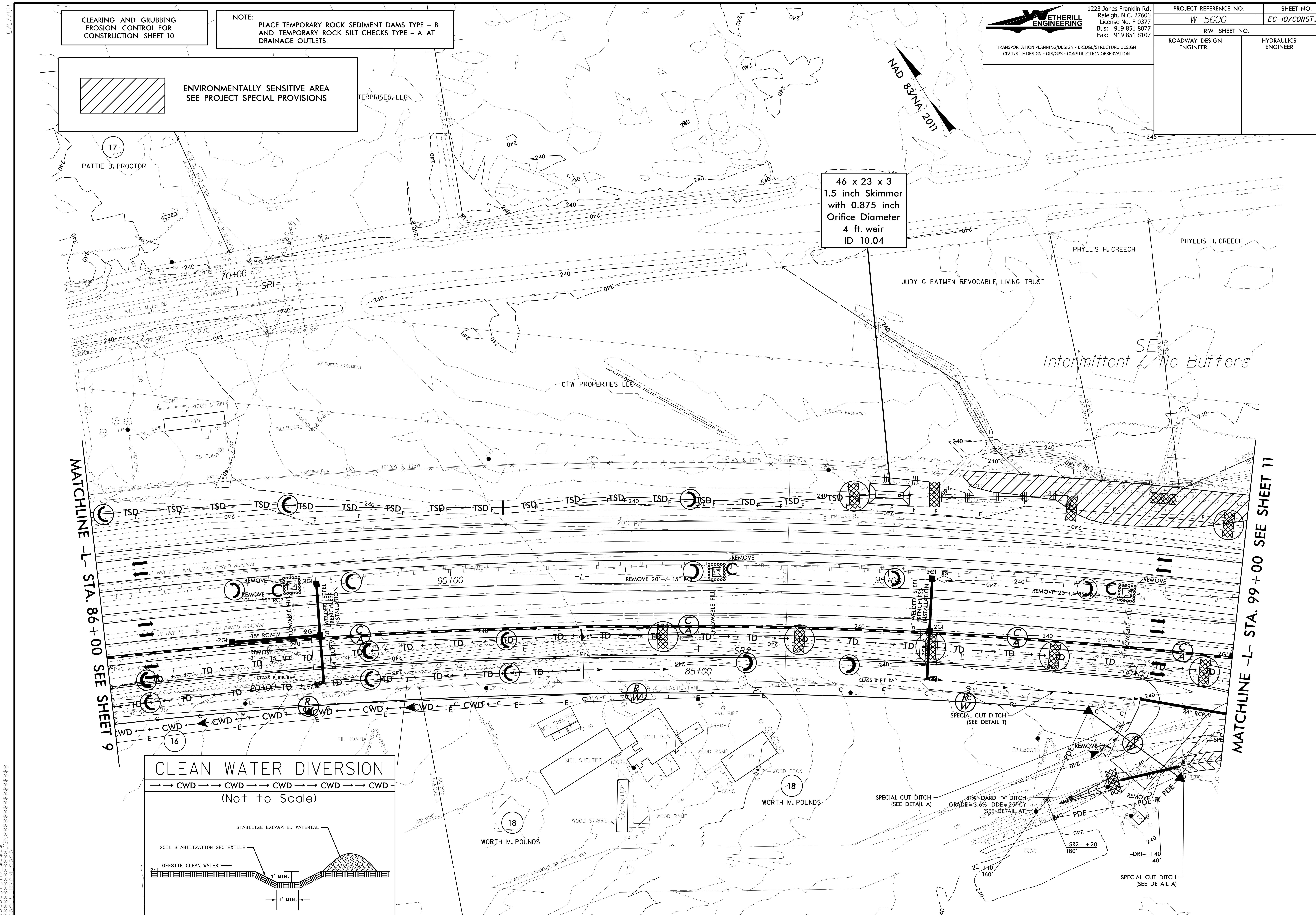
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-10/CONST.10
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.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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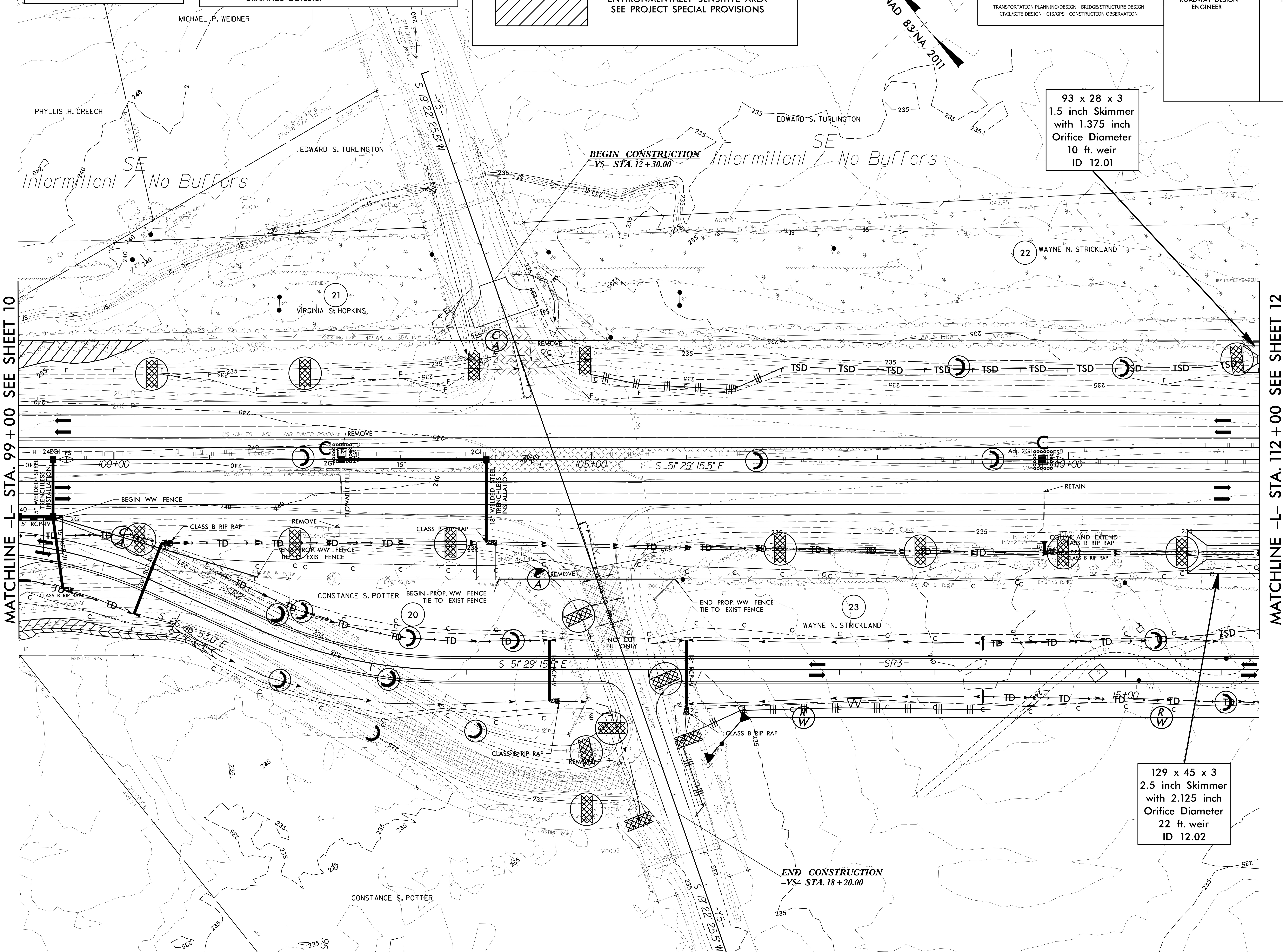
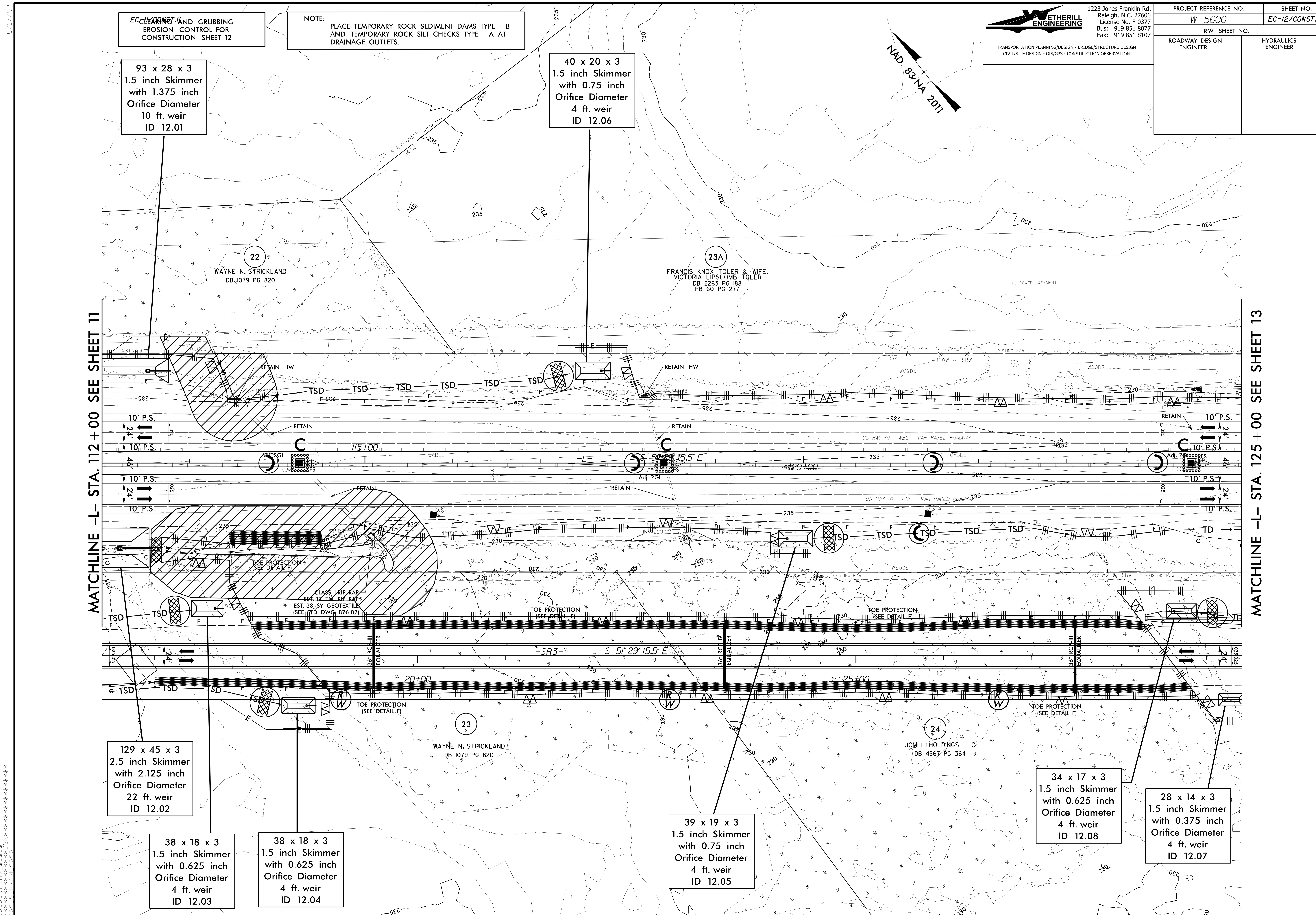
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-11/CONST.11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





8/17/99
EC 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.
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-12/CONST.12
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83/NA 2011
93 x 28 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 12.01
40 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 12.06
22
WAYNE N. STRICKLAND
DB 1079 PG 820
23A
FRANCIS KNOX TOLER & WIFE,
VICTORIA LIPSCOMB TOLER
DB 2263 PG 188
PB 60 PG 277
10' POWER EASEMENT
MATCHLINE -L- STA. 112+00 SEE SHEET 11
MATCHLINE -L- STA. 125+00 SEE SHEET 13
RETAIN HW
EXISTING R/W
48" WW & ISBW
WOODS
10' P.S.
24'
45'
RETAIN
US HWY 70 WBL VAR PAVED ROADWAY
US HWY 70 EBL VAR PAVED ROADWAY
115+00
120+00
-L-
S 51° 29' 15.5" E
Adj. 2GI
TSD
TD
TOE PROTECTION (SEE DETAIL F)
CLASS I RIP RAP
EST. 17 TN RIP RAP
EST. 38 SY GEOTEXTILE
(SEE STD. DWG. 876.02)
36" RCP-III
EQUALIZER
-SR3-
S 51° 29' 15.5" E
20+00
25+00
23
WAYNE N. STRICKLAND
DB 1079 PG 820
24
JCMLL HOLDINGS LLC
DB 4567 PG 364
129 x 45 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
22 ft. weir
ID 12.02
38 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 12.03
38 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 12.04
39 x 19 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 12.05
34 x 17 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 12.08
28 x 14 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 12.07

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.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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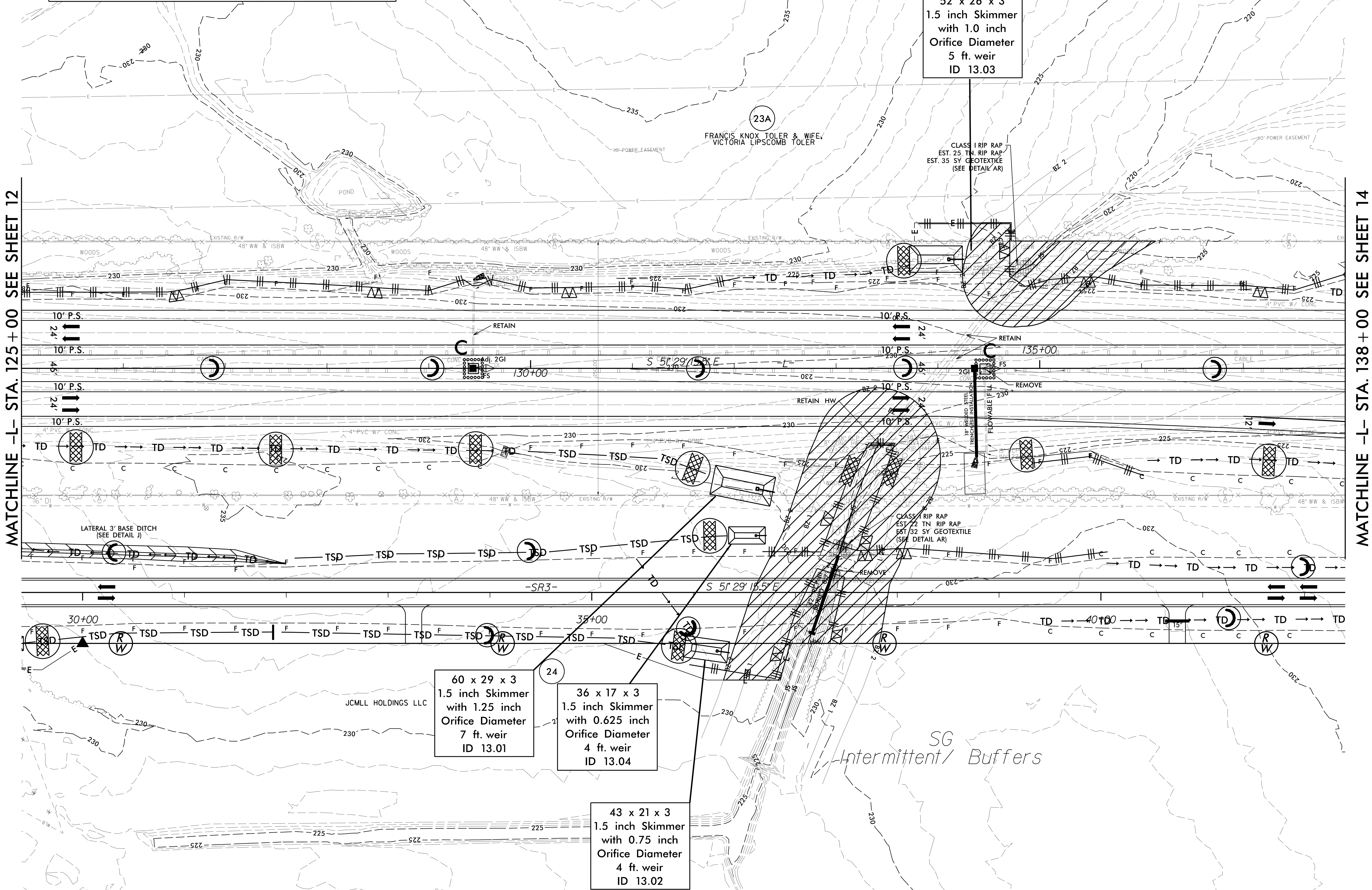
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-13/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011



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.

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-14/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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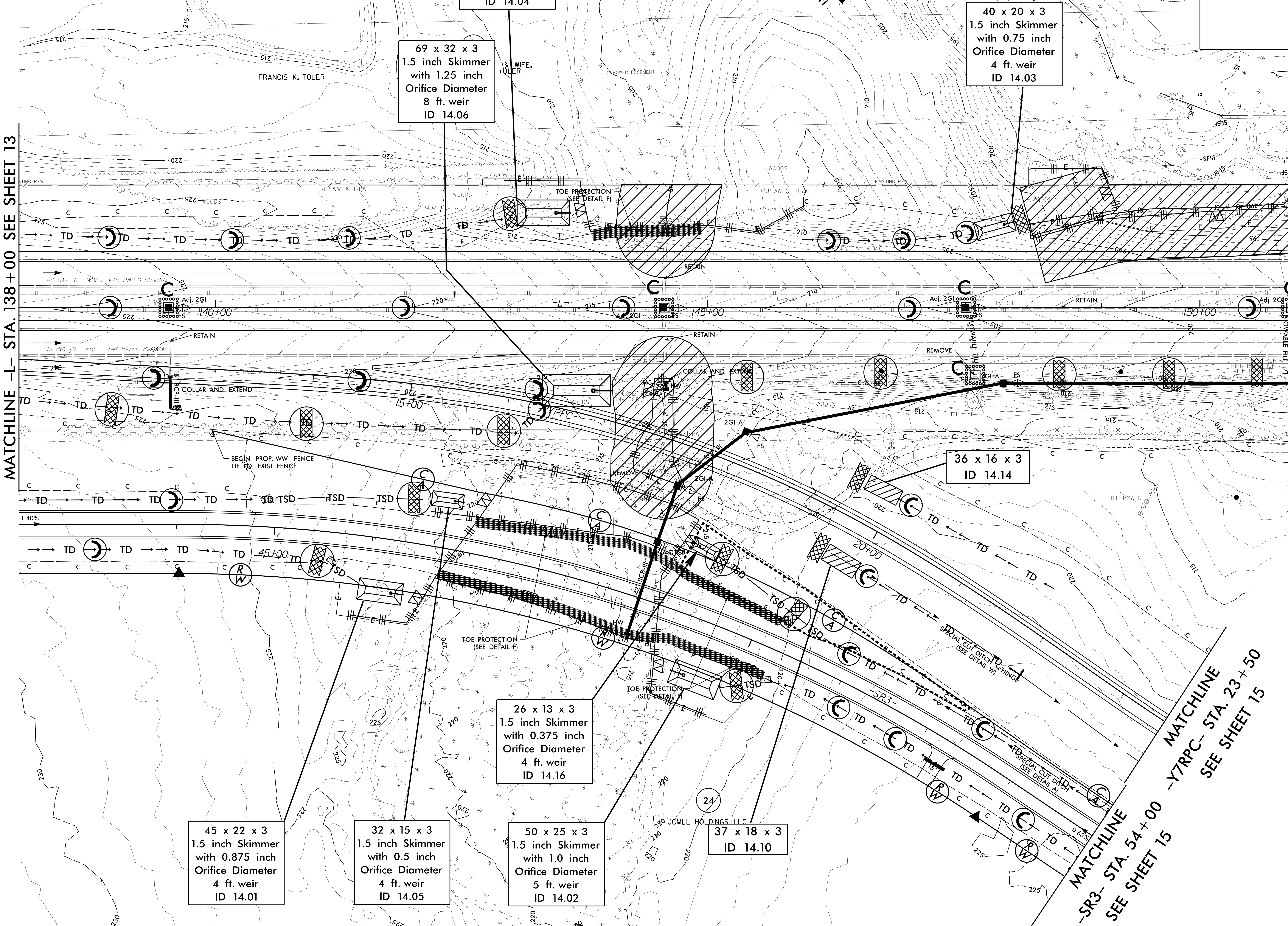
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



WETHERILL ENGINEERING
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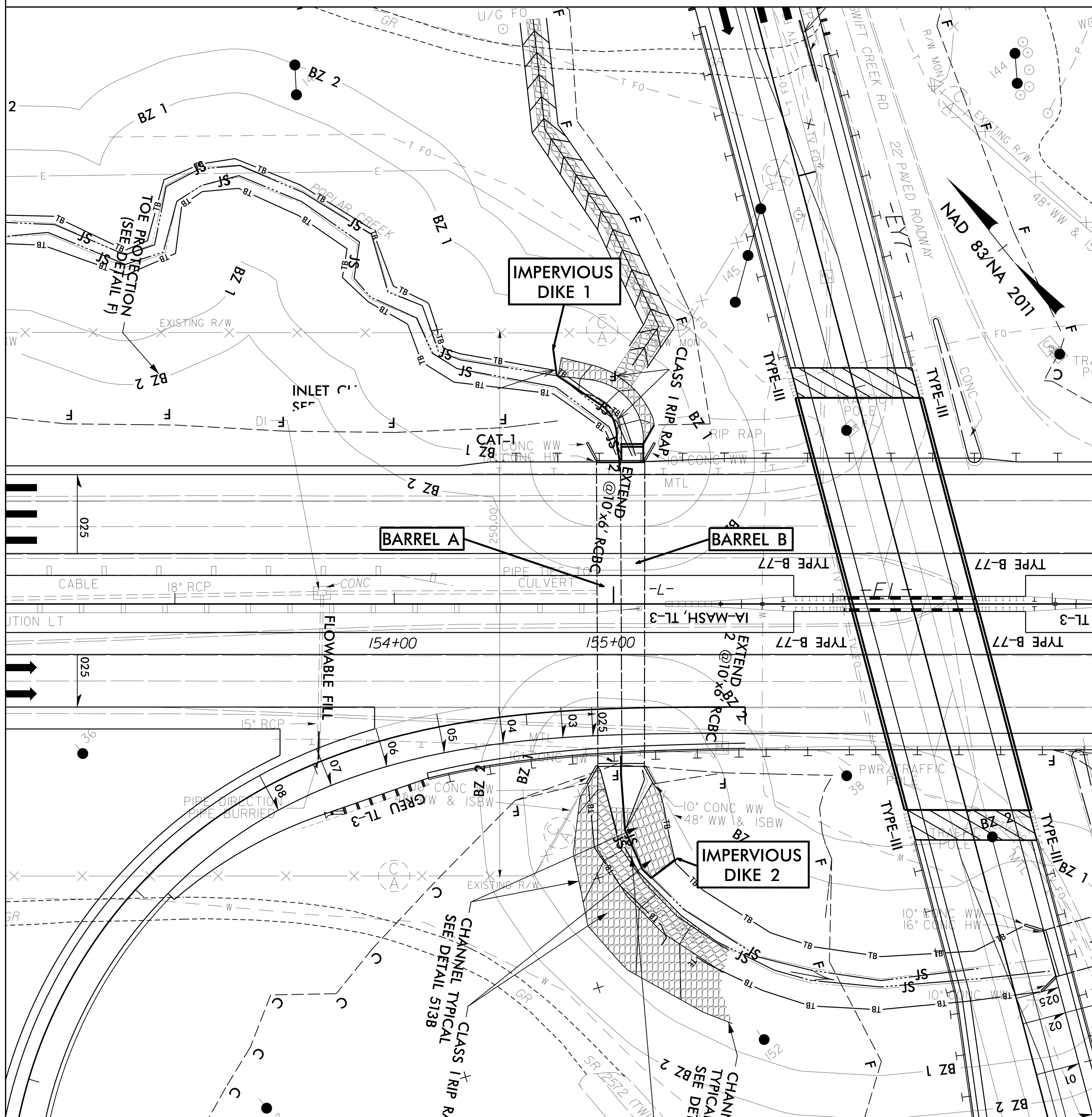
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-15/CONST.15
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83/NA 2011
CLEARING 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.
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
MATCHLINE -L- STA. 163+00 SEE SHEET 16
MATCHLINE -L- STA. 151+00 SEE SHEET 14
MATCHLINE -Y7RPC- STA. 23+50 SEE SHEET 14
MATCHLINE -SR3- STA. 54+00 SEE SHEET 14
END CONSTRUCTION -SR4- STA. 18+00.00
END CONSTRUCTION -SR5- STA. 15+75.00
END CONSTRUCTION -Y7- STA. 39+00.00
BEGIN CONSTRUCTION -Y7- STA. 14+20.00
70 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 15.20
134 x 45 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
23 ft. weir
ID 15.04
SM Intermittent / Buffers
SI Perennial / Buffers
KENNETH R. JONES
WILSONS MILLS BAPTIST CHURCH
WILSON'S MILLS CHRISTIAN CHURCH
COLE CREEK ASSOCIATES LLC
JCMILL HOLDINGS LLC
ROBERTS & WELLONS INC.
JAMES T. NARRON
ROGER E. GOWER
JERRY B BAKER
SHEILA JONES
CLARENCE R. RAYNOR
JAMES A. RAINES
ROGER G. PRITT
BEATRICE WATSON
JERRY L. MARSHALL JR.
JOSE H. MONTERO-AGUILAR
JOSEPH BRILES
WILLIAM C. MARSH
DETAIL SHOWING PAVEMENT-BRIDGE RELATIONSHIP
-Y7- OVER -L-
GRAPHIC SCALE
50 25 0 50 100
PLANS
LOCATION:
TIP NO.:
COUNTY:
DESIGNED BY:
CHECKED BY:
DATE:

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-15A/CONSTJ5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 155+03 –L–

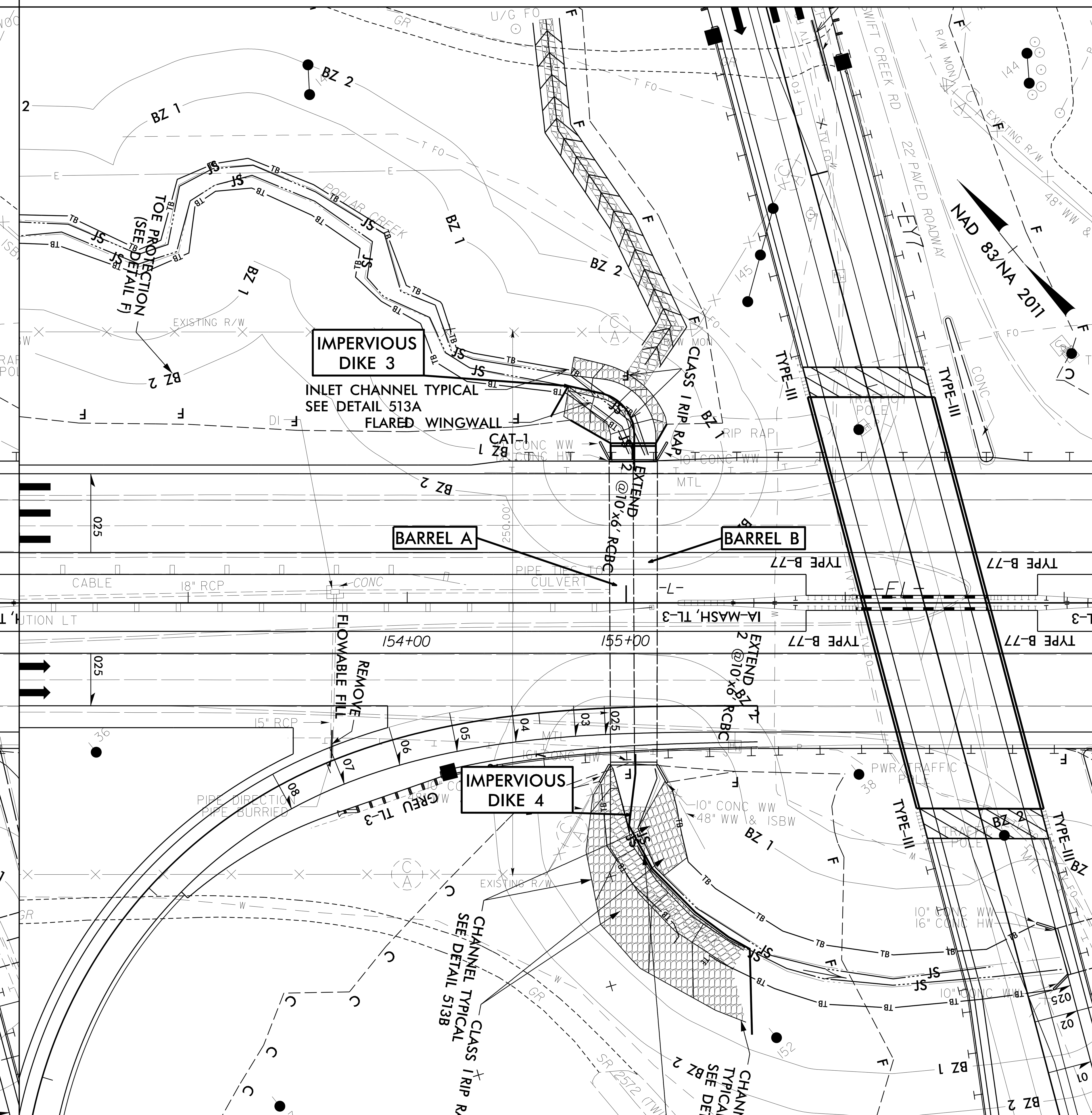
PHASE I

1: INSTALL SPECIAL STILLING BASINS AND IMPERVIOUS DIKES 1 & 2. DIVERT FLOW INTO BARREL A.
2: REMOVE EXISTING WINGWALL FROM INLET OF BARREL B.
3: EXTEND BARREL B. CONSTRUCT A PORTION OF THE HEADWALL AND WINGWALL. CONSTRUCT LOW FLOW CHANNEL IMPROVEMENTS.



PHASE II

4: REMOVE IMPERVIOUS DIKES 1 & 2. INSTALL IMPERVIOUS DIKES 3 & 4 AND DIVERT FLOW INTO BARREL B.
5: REMOVE EXISTING WINGWALL FROM INLET OF BARREL A.
6: EXTEND THE BARREL A. CONSTRUCT A PORTION OF THE HEADWALL AND WINGWALL.
7: CONSTRUCT HIGH FLOW CHANNEL IMPROVEMENTS.
8: FINALIZE CONSTRUCTION OF –L– ALIGNMENT.
9: REMOVE IMPERVIOUS DIKES 3 & 4 AND SPECIAL STILLING BASIN.

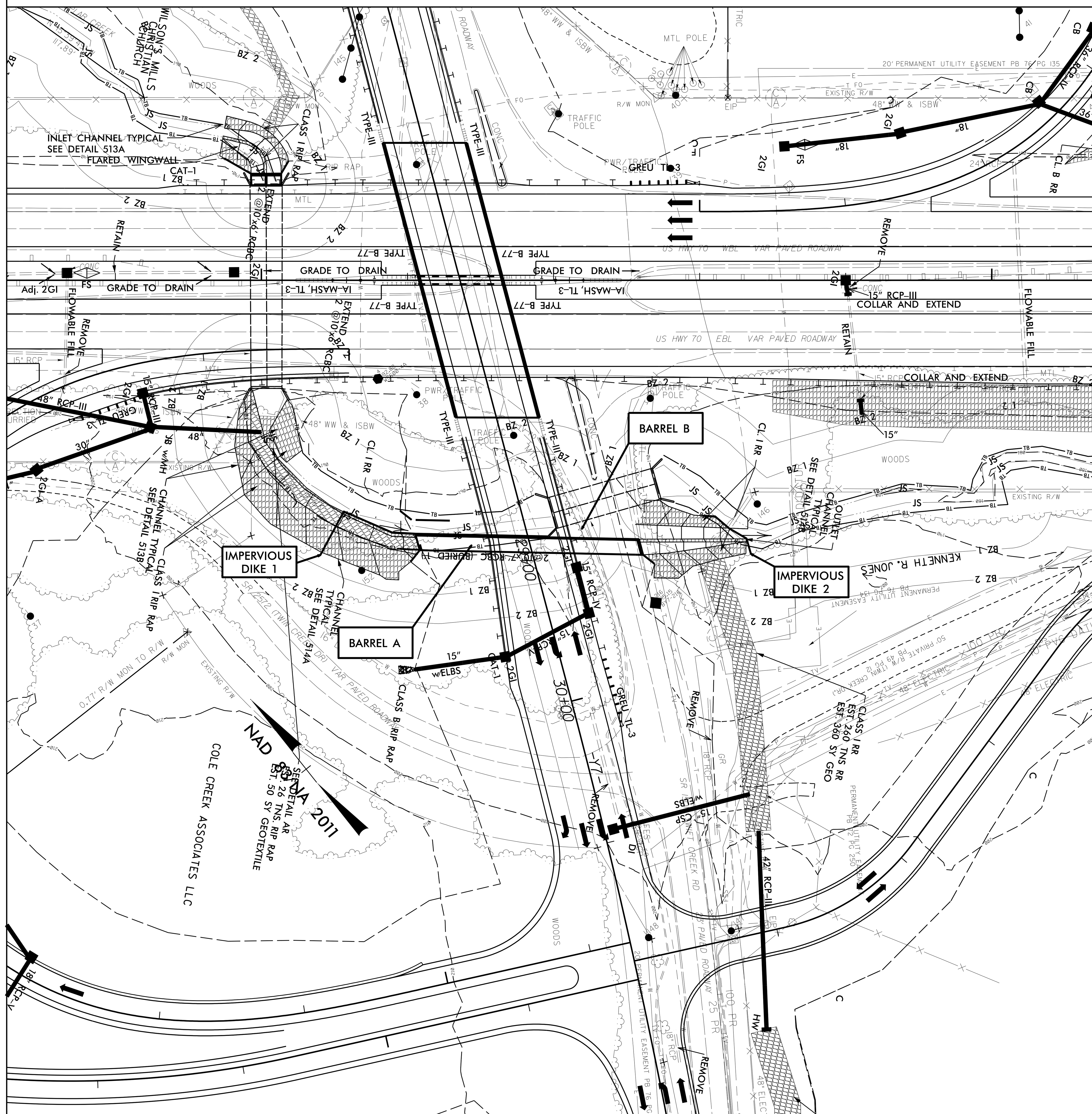


PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-15B/CONSTJ5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 28+84 –Y7–

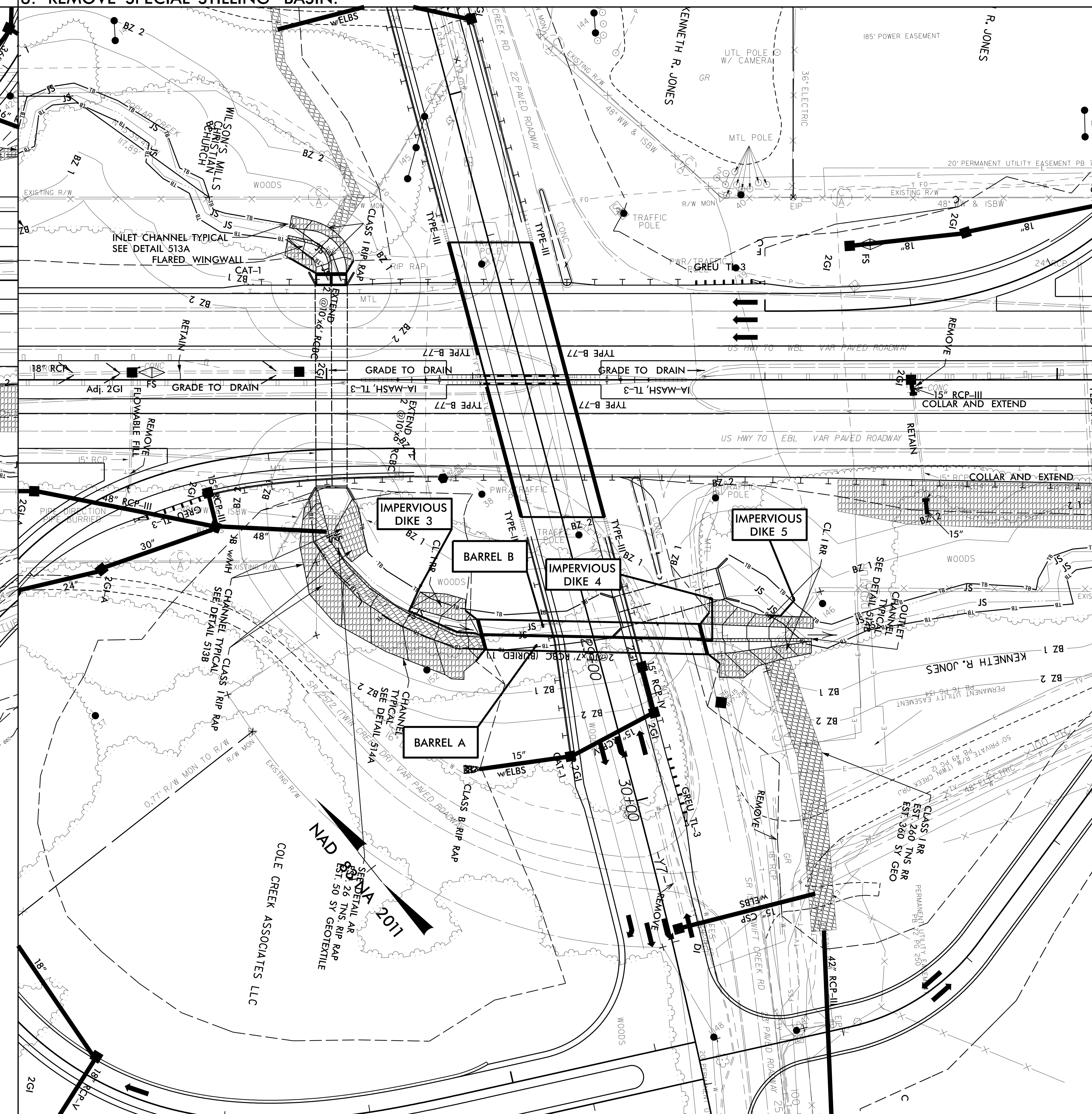
PHASE I

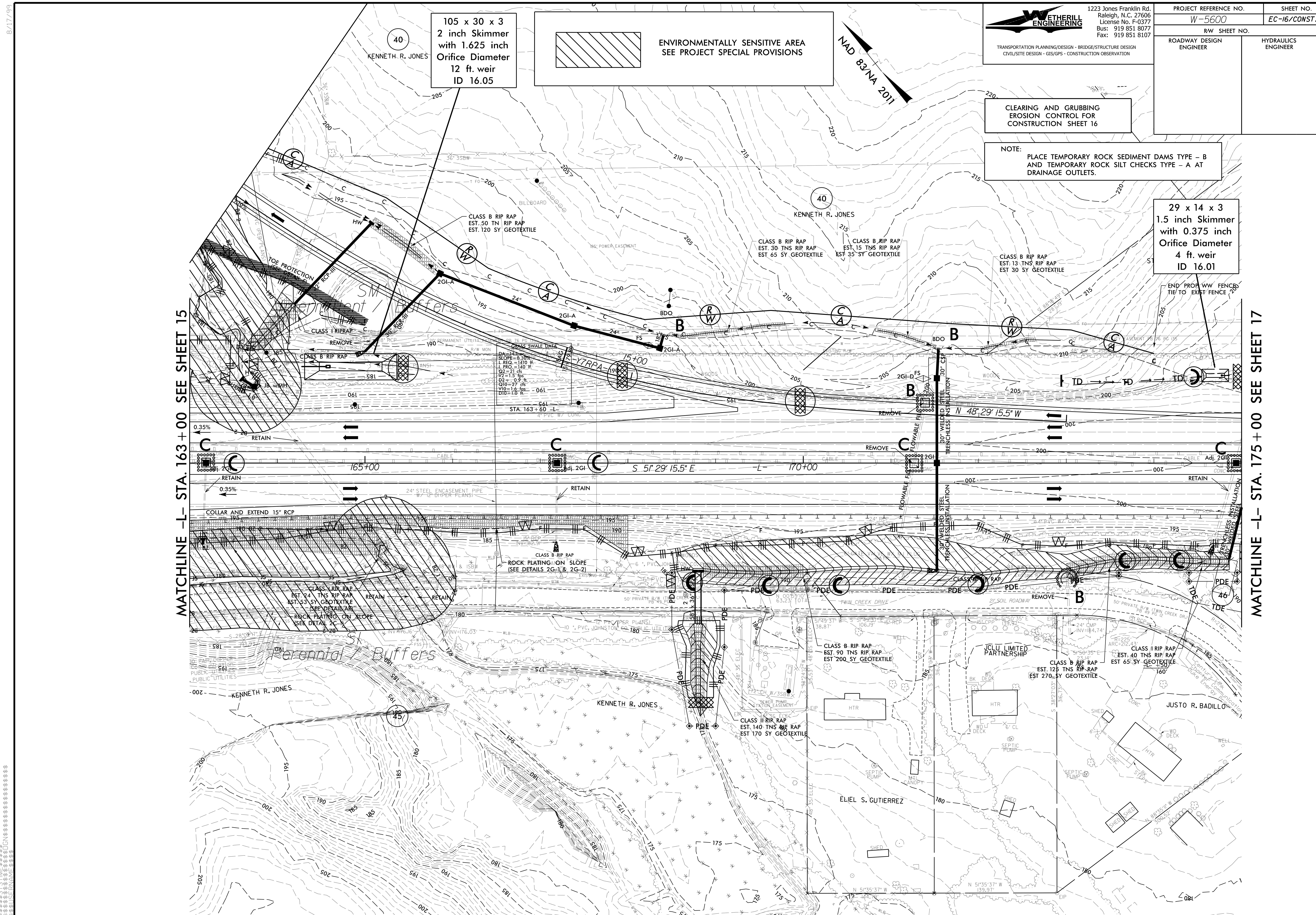
1: INSTALL SPECIAL STILLING BASINS AND IMPERVIOUS DIKES 1 & 2. MAINTAIN FLOW THROUGH EXISTING RCBC.
2: EXCAVATE FOR AND CONSTRUCT THE PROPOSED RCBC RIGHTMOST BARREL.
3: CONSTRUCT THE HEADWALLS AND WINGWALLS FOR THE PROPOSED RCBC BARREL A.
4: CONSTRUCT THE UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS FOR THE PROPOSED RCBC.



PHASE II

1: REMOVE IMPERVIOUS DIKES 1 & 2 AND INSTALL IMPERVIOUS DIKES 3, 4, & 5. DIVERT FLOW INTO THE BARREL A OF THE PROPOSED RCBC.
2: REMOVE THE EXISTING RCBC BENEATH SR 1501 SWIFT CREEK ROAD.
3: EXCAVATE FOR AND CONSTRUCT THE PROPOSED RCBC BARREL B.
4: CONSTRUCT THE HEADWALLS AND WINGWALLS FOR THE PROPOSED RCBC BARREL B.
5: CONSTRUCT LOW FLOW CHANNEL IMPROVEMENTS UPSTREAM OF THE PROPOSED RCBC.
6: FINALIZE CONSTRUCTION OF –Y7– ALIGNMENT.
7: REMOVE IMPERVIOUS DIKES 3, 4, & 5 AND ESTABLISH FLOW IN THE LOW FLOW CHANNEL.
8: REMOVE SPECIAL STILLING BASIN.





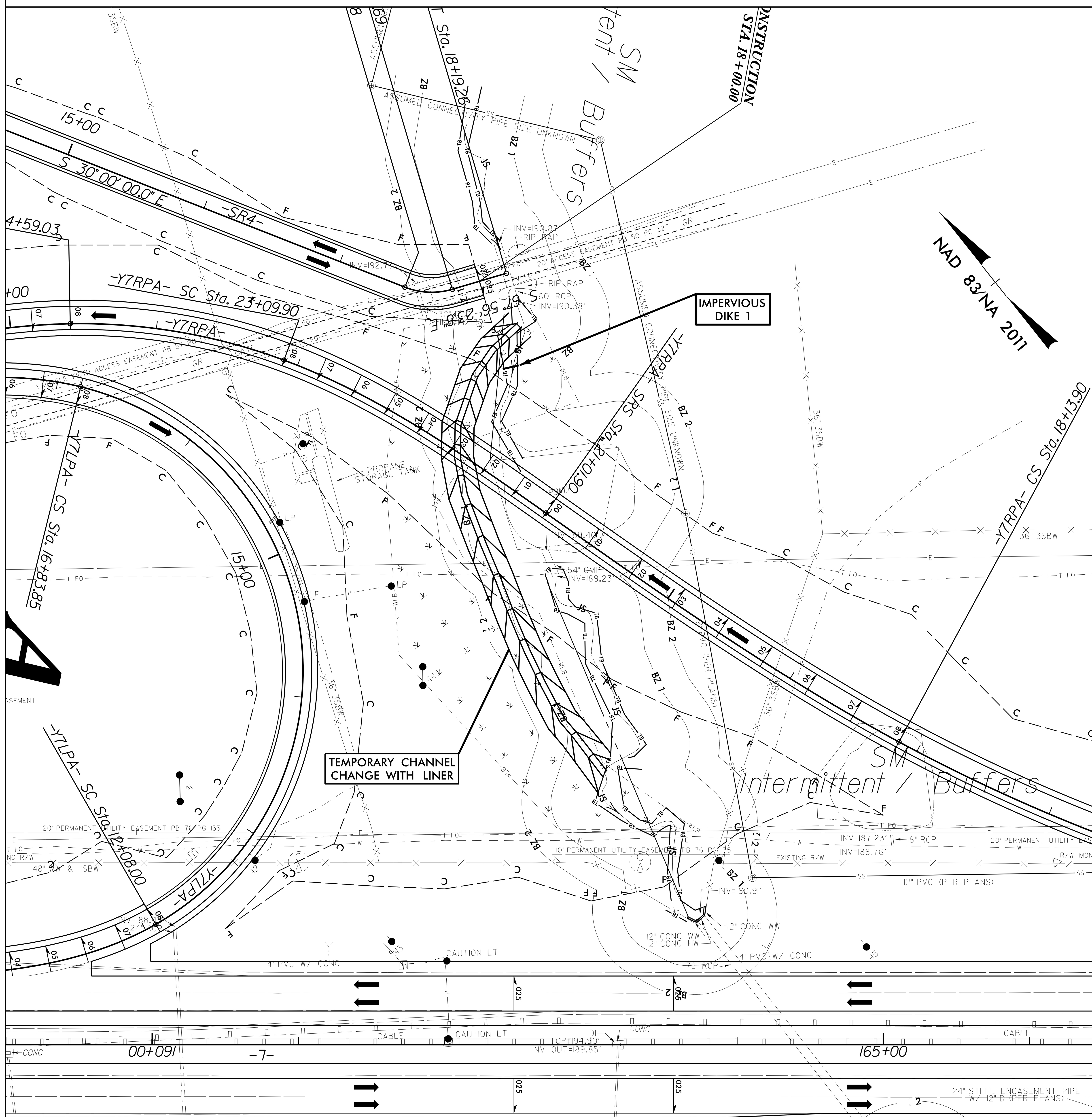
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-16/CONST.16
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
105 x 30 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
12 ft. weir
ID 16.05
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
NAD 83/NA 2011
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.
29 x 14 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 16.01
MATCHLINE -L- STA. 163+00 SEE SHEET 15
MATCHLINE -L- STA. 175+00 SEE SHEET 17
KENNETH R. JONES
CLASS B RIP RAP
EST. 50 TN RIP RAP
EST. 120 SY GEOTEXTILE
CLASS B RIP RAP
EST. 30 TNS RIP RAP
EST 65 SY GEOTEXTILE
CLASS B RIP RAP
EST. 15 TNS RIP RAP
EST 35 SY GEOTEXTILE
CLASS B RIP RAP
EST. 13 TNS RIP RAP
EST 30 SY GEOTEXTILE
END PROP WW FENCE
TIE TO EXIST FENCE
S 51° 29' 15.5" E
N 48° 29' 15.5" W
165+00
170+00
30" WELDED STEEL TRENCHLESS INSTALLATION
FLOWABLE FILL
COLLAR AND EXTEND 15" RCP
ROCK PLATING ON SLOPE
(SEE DETAILS 2G-1 & 2G-2)
CLASS I RIP RAP
EST. 24 TNS RIP RAP
EST. 53 SY GEOTEXTILE
(SEE DETAIL AB)
ROCK PLATING ON SLOPE
(SEE DETAIL 2C-1)
CLASS B RIP RAP
EST. 90 TNS RIP RAP
EST 200 SY GEOTEXTILE
CLASS II RIP RAP
EST. 140 TNS RIP RAP
EST 170 SY GEOTEXTILE
CLASS B RIP RAP
EST. 125 TNS RIP RAP
EST 270 SY GEOTEXTILE
CLASS I RIP RAP
EST. 40 TNS RIP RAP
EST. 65 SY GEOTEXTILE
JCLU LIMITED PARTNERSHIP
ELIEL S. GUTIERREZ
JUSTO R. BADILLO
TWIN CREEK DRIVE
Perennial / Buffers

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-16A/CONSTJ6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PIPE INSTALLATION SEQUENCE
STA. 20+96 –Y7RPA–

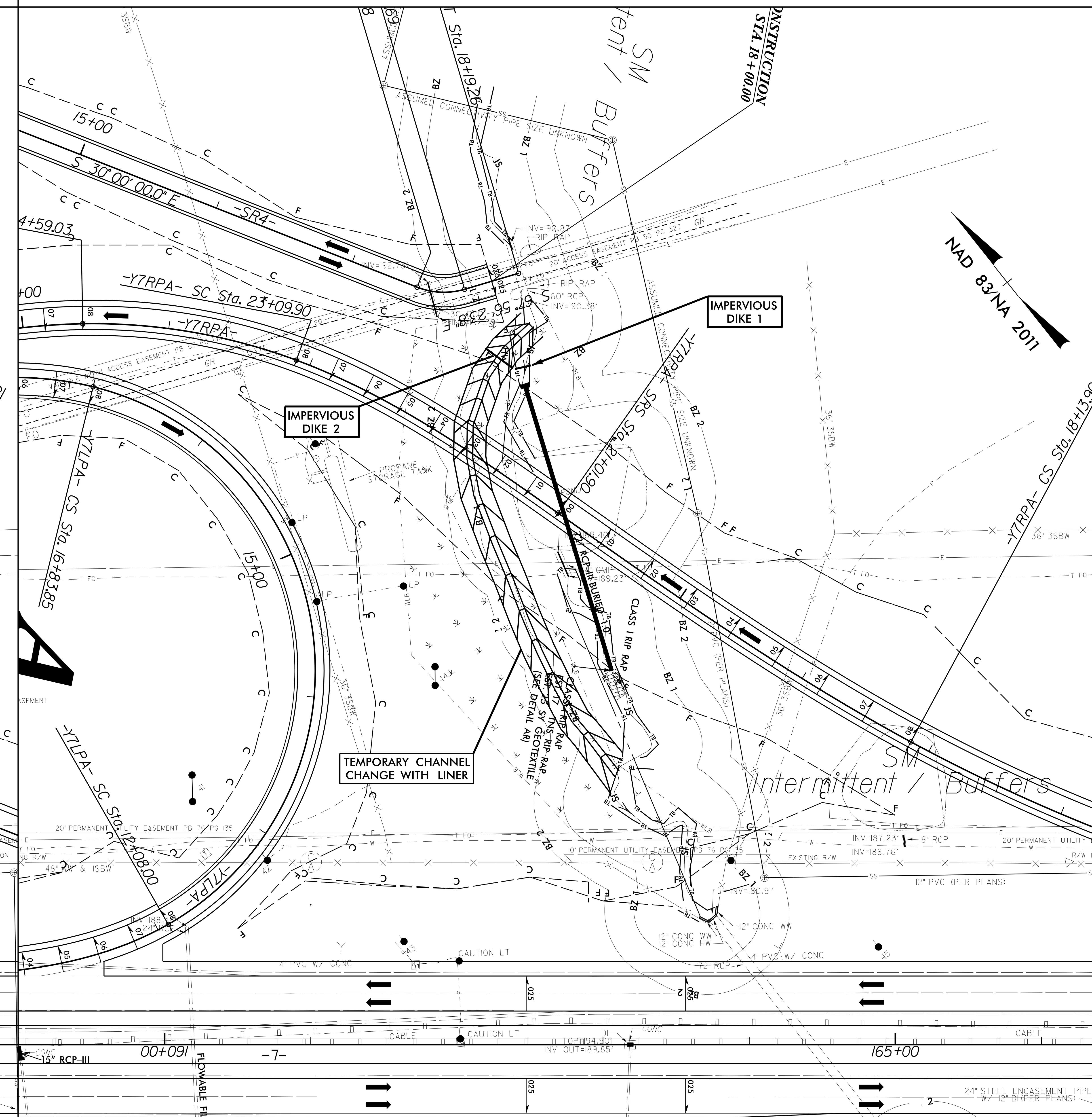
PHASE I (Looking in downstream direction)

1: INSTALL SPECIAL STILLING BASIN(S)
2: DRAIN THE POND
3: CONSTRUCT THE TEMPORARY CHANNEL CHANGE w/LINER IN THE DRY
4: CONSTRUCT TIES OF TEMPORARY CHANNEL TO EXISTING CHANNEL AND INSTALL IMPERVIOUS DIKE 1



PHASE II (Looking in downstream direction)

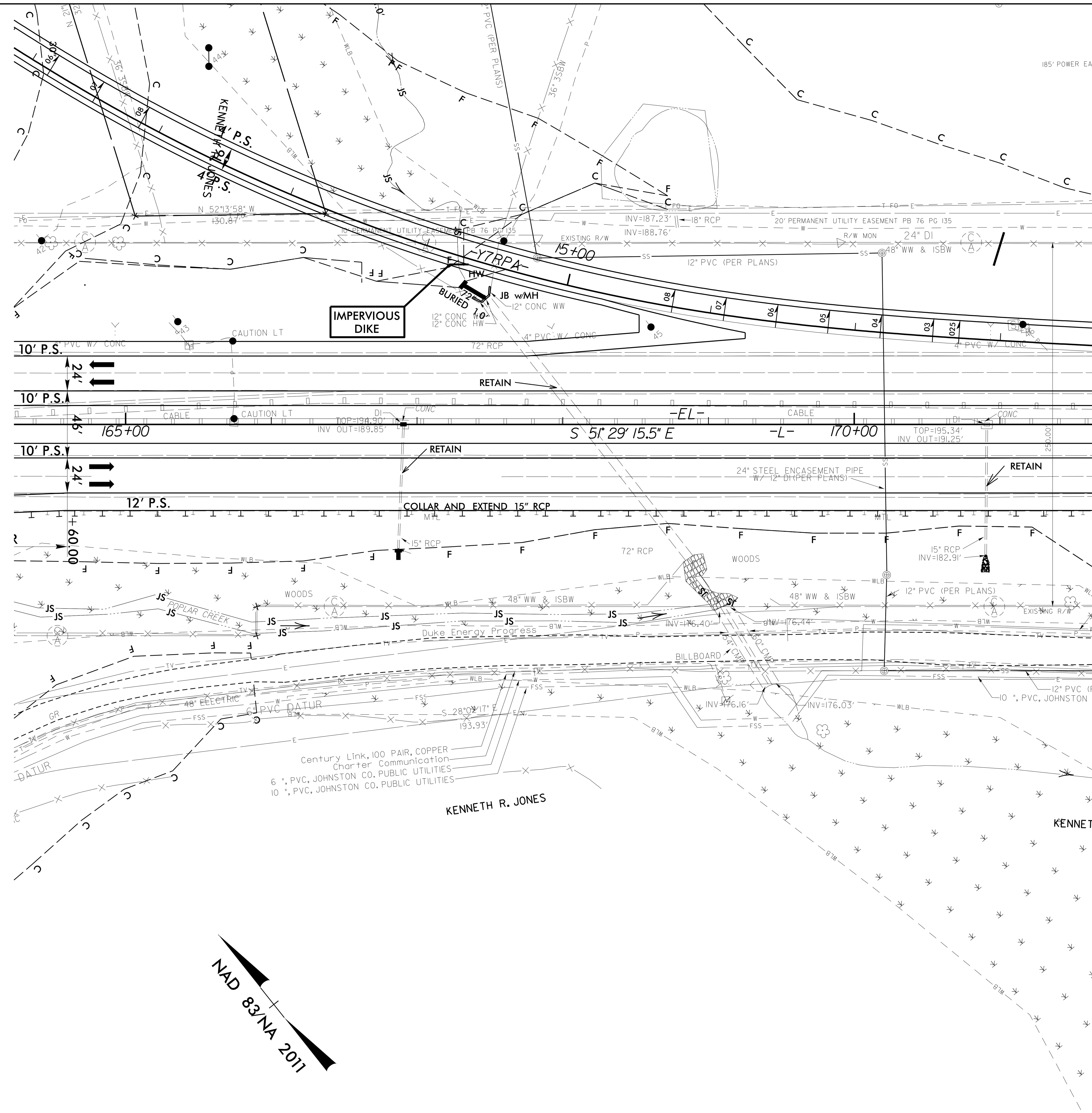
5: INSTALL THE PROPOSED 72" RCP
6: INSTALL IMPERVIOUS DIKE 2. REMOVE IMPERVIOUS DIKE 1 AND DIVERT WATER INTO THE 72" RCP
7: BACKFILL THE TEMPORARY CHANNEL CHANGE AND REMOVE IMPERVIOUS DIKE 2
8: REMOVE SPECIAL STILLING BASIN(S)

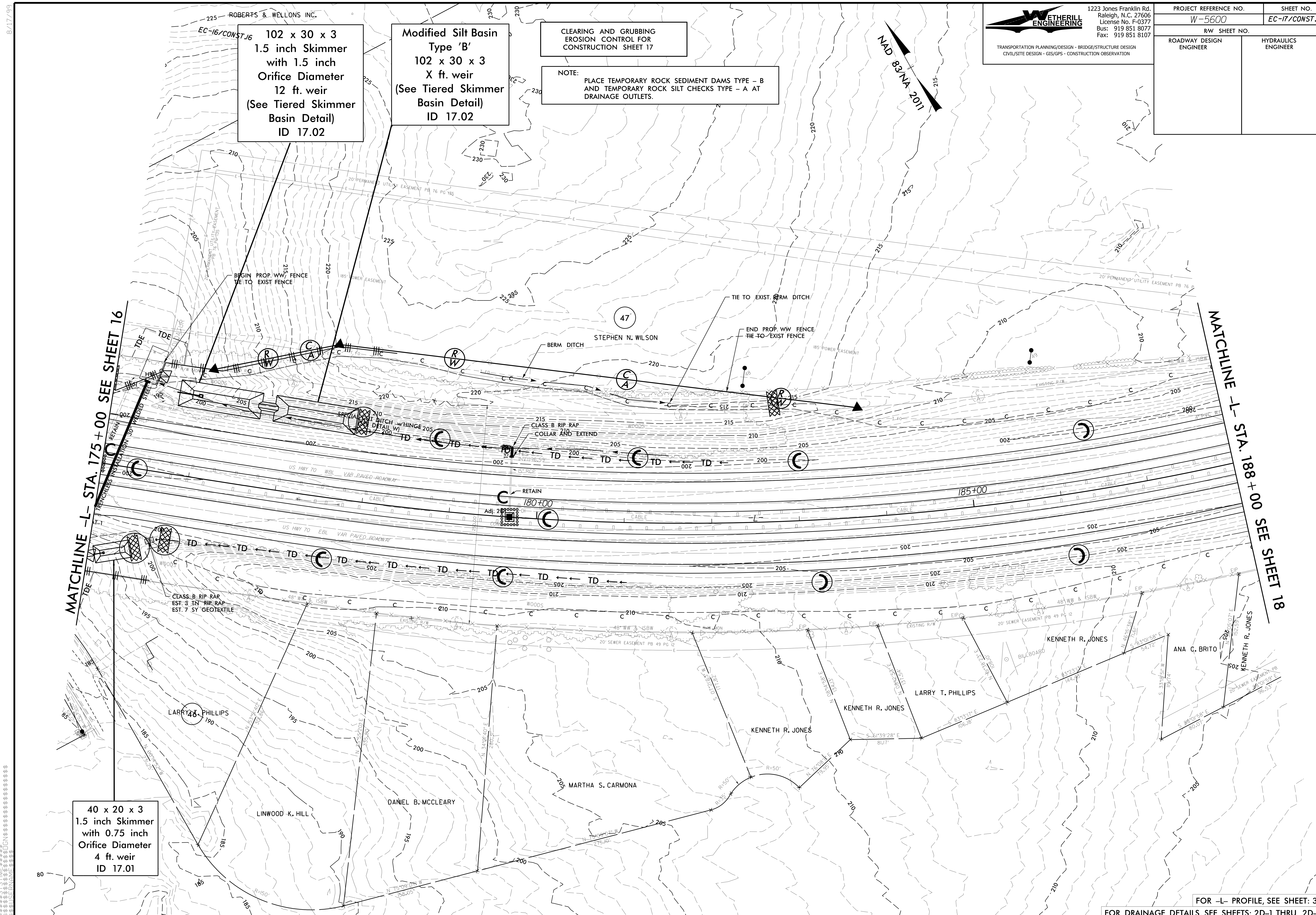


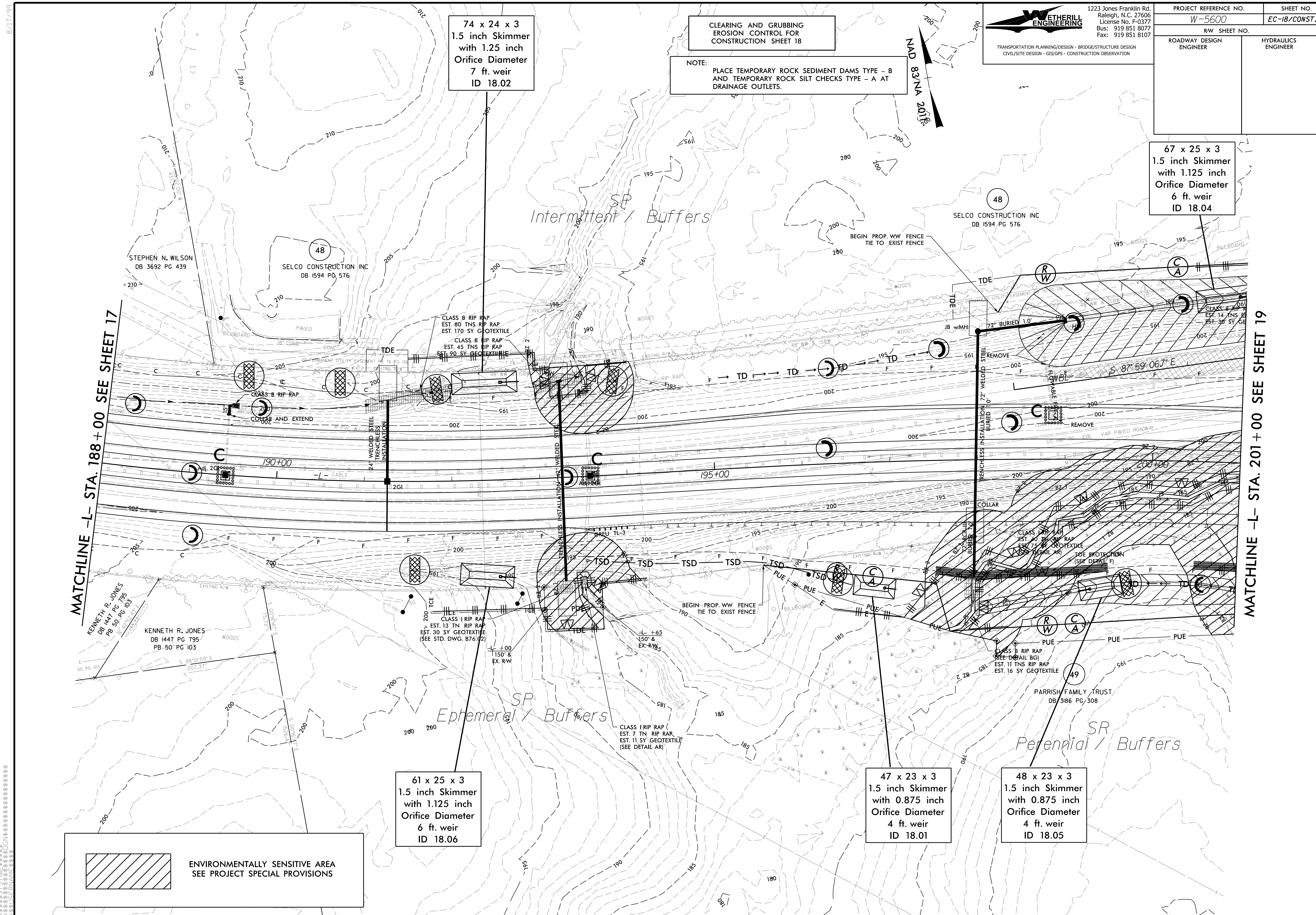
PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-16B/CONST J6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PIPE INSTALLATION SEQUENCE STA. 164+43 –L–

1: INSTALL IMPERVIOUS DIKE AND SPECIAL STILLING BASIN(S).
2: REMOVE HEADWALL AND WINGWALLS FROM INLET END OF EXISTING 72" RCP
3: DEWATER CONSTRUCTION AREA. CONSTRUCT JUNCTION BOX AND EXTEND 72" RCP.
4: REMOVE IMPERVIOUS DIKE AND SPECIAL STILLING BASIN(S).




WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-17/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/NA 2011
102 x 30 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 17.02
Modified Silt Basin
Type 'B'
102 x 30 x 3
X ft. weir
(See Tiered Skimmer Basin Detail)
ID 17.02
40 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 17.01
ROBERTS & WELLONS INC.
EC-16/CONST.16
BEGIN PROP. WW FENCE TIE TO EXIST FENCE
TIE TO EXIST. BERM DITCH
END PROP. WW FENCE TIE TO EXIST FENCE
BERM DITCH
STEPHEN N. WILSON
CLASS B RIP RAP COLLAR AND EXTEND
RETAIN
180+00
185+00
US HWY 70 WBL VAR PAVED ROADWAY
US HWY 70 EBL VAR PAVED ROADWAY
CLASS B RIP RAP
EST. 3 TN RIP RAP
EST. 7 SY GEOTEXTILE
MATCHLINE -L- STA. 175+00 SEE SHEET 16
MATCHLINE -L- STA. 188+00 SEE SHEET 18
LARRY T. PHILLIPS
LINWOOD K. HILL
DANIEL B. MCCLEARY
MARTHA S. CARMONA
KENNETH R. JONES
ANA C. BRITO
20' SEWER EASEMENT PB 49 PG 12
20' PERMANENT UTILITY EASEMENT PB 76
FOR -L- PROFILE, SEE SHEET: 33
FOR DRAINAGE DETAILS, SEE SHEETS: 2D-1 THRU 2D-3



WETHERILL ENGINEERING
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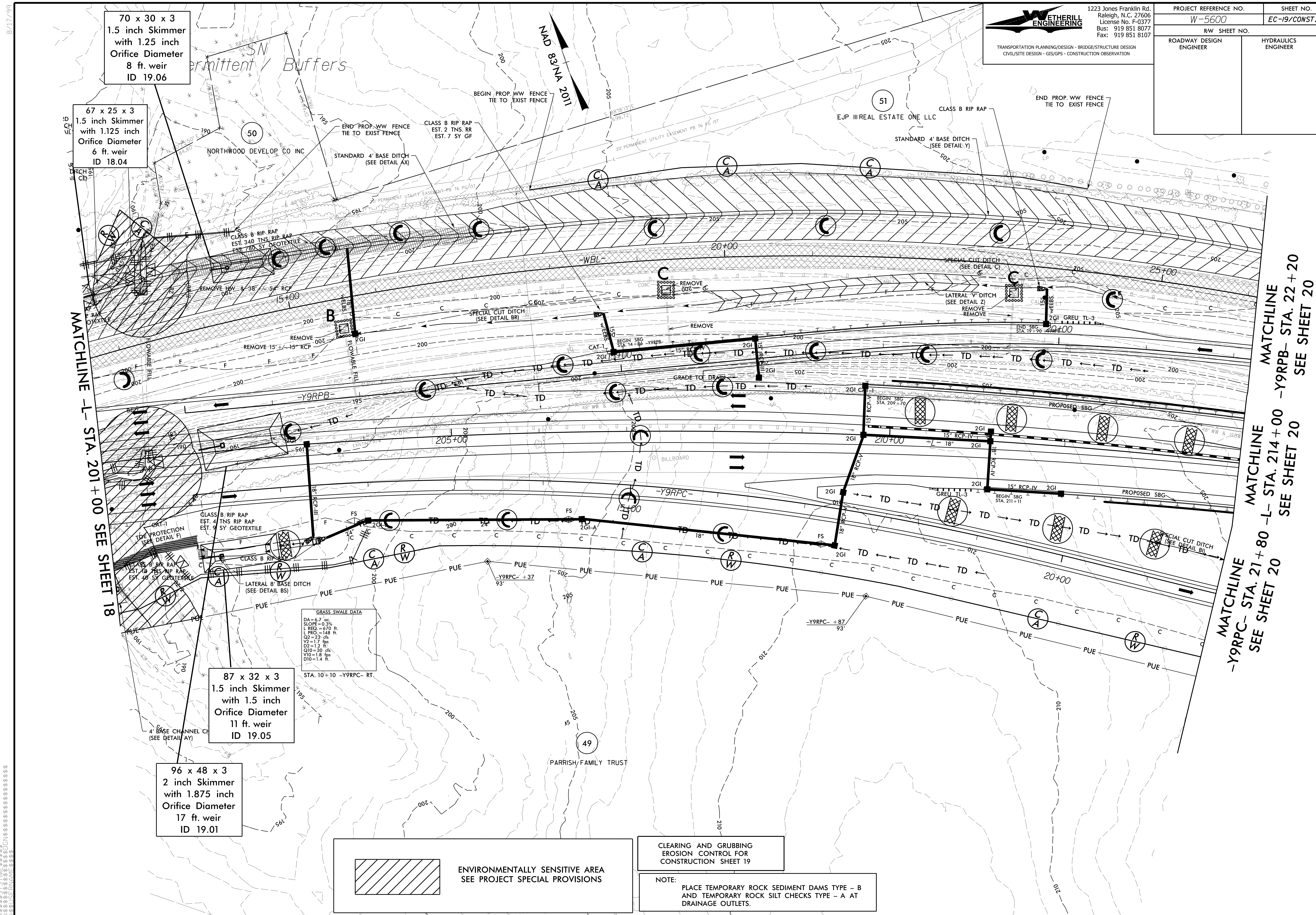
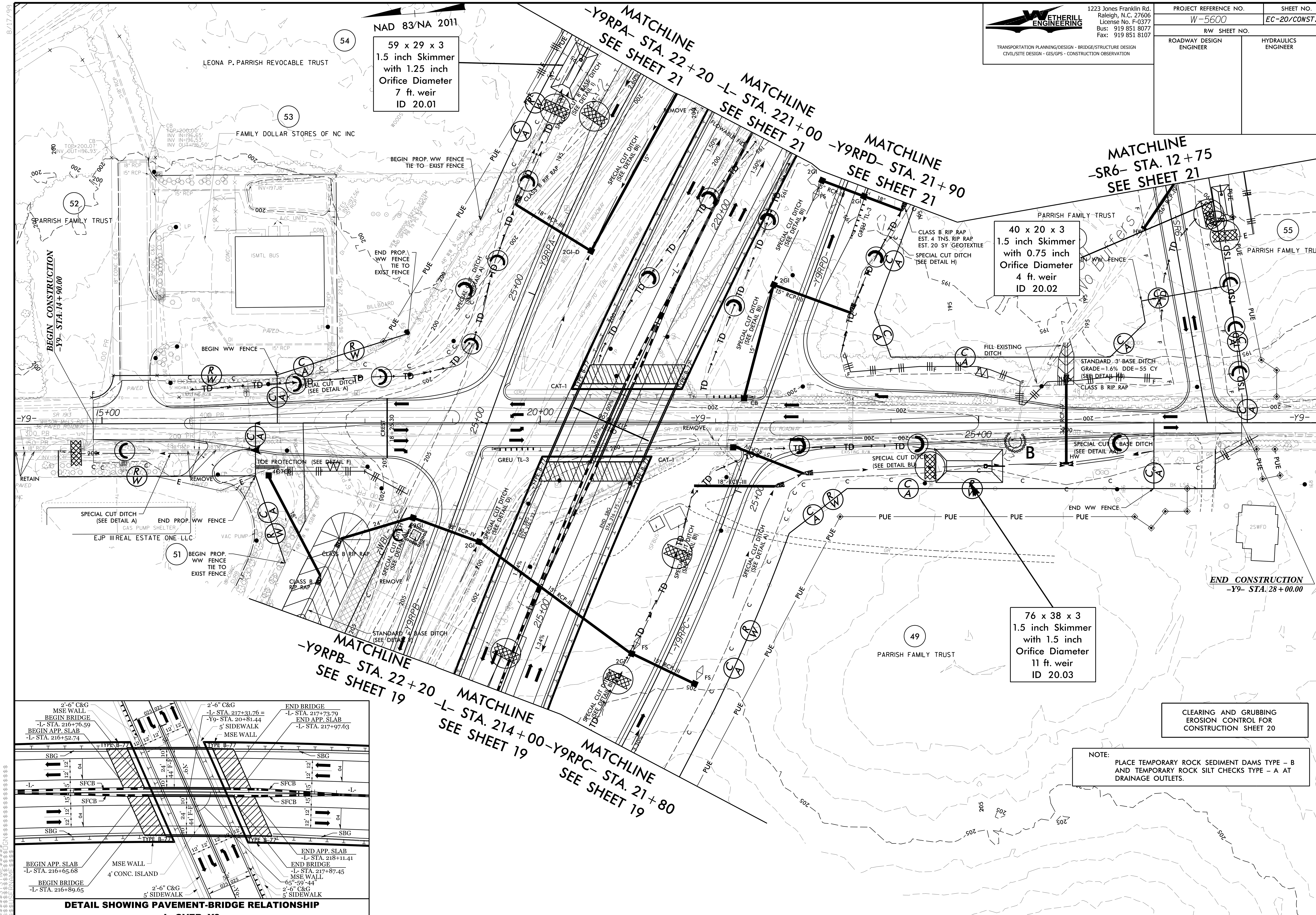
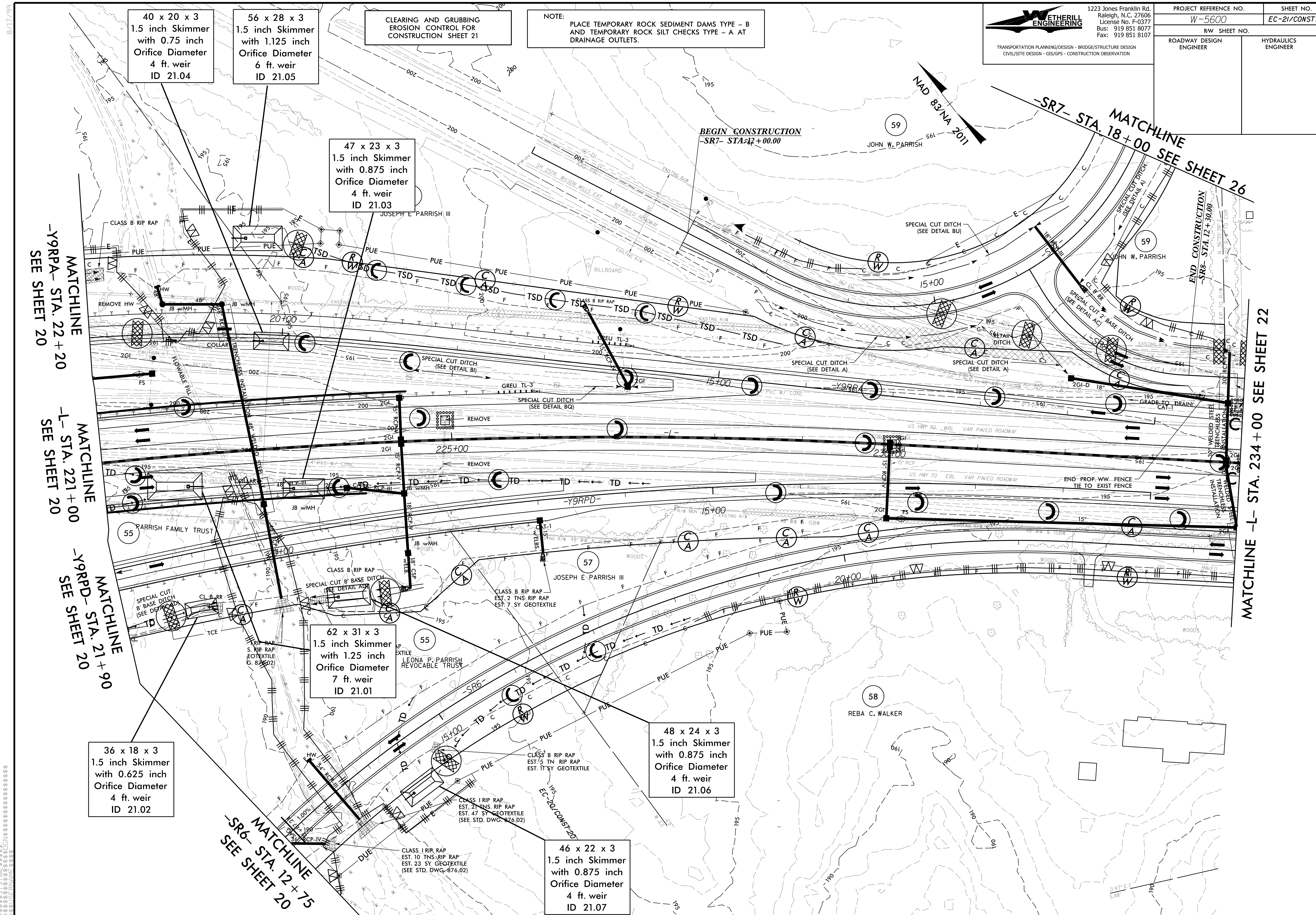
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
SHEET NO.
W-5600
EC-18/CONST.18
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CLEARING 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/NA 2011
74 x 24 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 18.02
67 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 18.04
61 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 18.06
47 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 18.01
48 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 18.05
MATCHLINE -L- STA. 188+00 SEE SHEET 17
MATCHLINE -L- STA. 201+00 SEE SHEET 19
SP Intermittent / Buffers
SP Ephemeral / Buffers
SR Perennial / Buffers
48
SELCO CONSTRUCTION INC
DB 1594 PG 576
STEPHEN N. WILSON
DB 3692 PG 439
KENNETH R. JONES
DB 1447 PG 795
PB 50 PG 103
49
PARRISH FAMILY TRUST
DB 3186 PG 308
BEGIN PROP. WW FENCE
TIE TO EXIST FENCE
CLASS B RIP RAP
EST. 80 TNS RIP RAP
EST. 170 SY GEOTEXTILE
CLASS B RIP RAP
EST. 45 TNS RIP RAP
EST. 90 SY GEOTEXTILE
CLASS B RIP RAP
COLLAR AND EXTEND
24" WELDED STEEL TRENCHLESS INSTALLATION
72" WELDED STEEL TRENCHLESS INSTALLATION
72" BURIED 1.0'
JB w/MH
REMOVE
COLLAR
CLASS I RIP RAP
EST. 13 TN RIP RAP
EST. 30 SY GEOTEXTILE
(SEE STD. DWG. 876.02)
CLASS I RIP RAP
EST. 7 TN RIP RAP
EST. 11 SY GEOTEXTILE
(SEE DETAIL AR)
CLASS B RIP RAP
(SEE DETAIL BG)
EST. 11 TNS RIP RAP
EST. 16 SY GEOTEXTILE
CLASS B RIP RAP
EST. 14 TNS RIP RAP
EST. 30 SY GEOTEXTILE
TOE PROTECTION
(SEE DETAIL F)
S 87°59'06.7" E
S 88°01'59" E
207.37'
190+00
195+00
200+00
-L-
TDE
PDE
PUE
TSD
TD
TCE
2GI
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

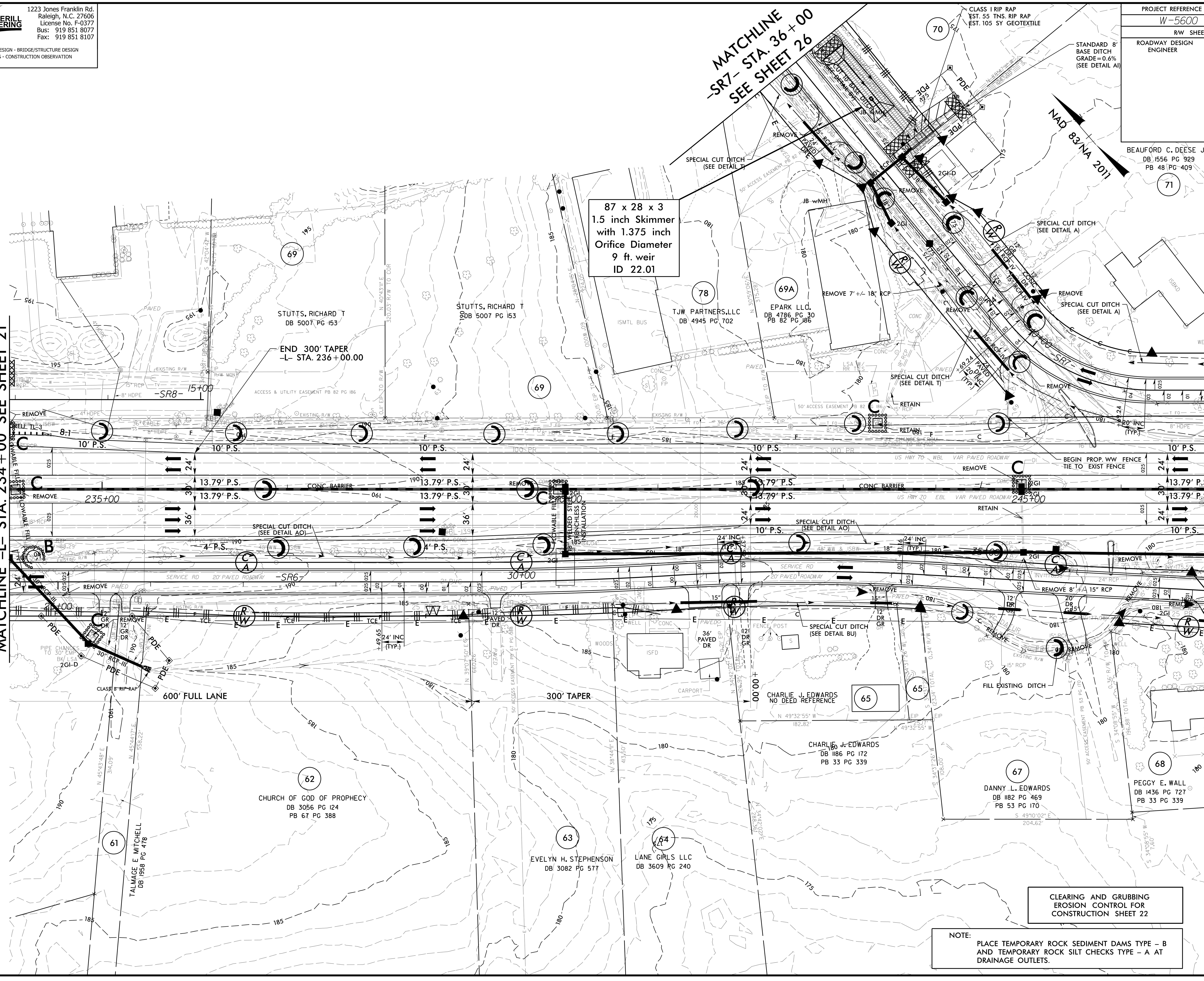

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-19/CONST.19
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83/NA 2011
70 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 19.06
67 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 18.04
87 x 32 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 19.05
96 x 48 x 3
2 inch Skimmer
with 1.875 inch
Orifice Diameter
17 ft. weir
ID 19.01
50
NORTHWOOD DEVELOP CO INC
51
EJP III REAL ESTATE ONE LLC
49
PARRISH FAMILY TRUST
BEGIN PROP. WW FENCE
TIE TO EXIST FENCE
END PROP. WW FENCE
TIE TO EXIST FENCE
CLASS B RIP RAP
EST. 2 TNS. RR
EST. 7 SY GF
STANDARD 4' BASE DITCH
(SEE DETAIL AX)
STANDARD 4' BASE DITCH
(SEE DETAIL Y)
CLASS B RIP RAP
SPECIAL CUT DITCH
(SEE DETAIL C)
LATERAL 'V' DITCH
(SEE DETAIL Z)
SPECIAL CUT DITCH
(SEE DETAIL BR)
SPECIAL CUT DITCH
(SEE DETAIL BI)
LATERAL 8' BASE DITCH
(SEE DETAIL BS)
4' BASE CHANNEL CH
(SEE DETAIL AY)
CLASS B RIP RAP
EST. 4 TNS RIP RAP
EST. 9 SY GEOTEXTILE
TOE PROTECTION
(SEE DETAIL F)
GRASS SWALE DATA
DA=6.7 ac.
SLOPE=0.3%
L REQ.=670 ft.
L PRO.=148 ft.
Q2=23 cfs
V2=1.7 fps
D2=1.2 ft.
Q10=30 cfs
V10=1.8 fps
D10=1.4 ft.
STA. 10+10 -Y9RPC- RT.
MATCHLINE -L- STA. 201+00 SEE SHEET 18
MATCHLINE -Y9RPB- STA. 22+20 SEE SHEET 20
MATCHLINE -L- STA. 214+00 SEE SHEET 20
MATCHLINE -Y9RPC- STA. 21+80 SEE SHEET 20
-WBL-
-Y9RPB-
-Y9RPC-
-L-
PROPOSED SBG
GRADE TO DRAIN
BILLBOARD
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
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.


WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-20/CONST.20
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83/NA 2011
59 x 29 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 20.01
40 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 20.02
76 x 38 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 20.03
MATCHLINE -Y9RPA- STA. 22+20 SEE SHEET 21
MATCHLINE -L- STA. 221+00 SEE SHEET 21
MATCHLINE -Y9RPD- STA. 21+90 SEE SHEET 21
MATCHLINE -SR6- STA. 12+75 SEE SHEET 21
MATCHLINE -Y9RPB- STA. 22+20 SEE SHEET 19
MATCHLINE -L- STA. 214+00 SEE SHEET 19
MATCHLINE -Y9RPC- STA. 21+80 SEE SHEET 19
LEONA P. PARRISH REVOCABLE TRUST
FAMILY DOLLAR STORES OF NC INC
PARRISH FAMILY TRUST
EJP III REAL ESTATE ONE LLC
BEGIN CONSTRUCTION -Y9- STA. 14+90.00
END CONSTRUCTION -Y9- STA. 28+00.00
BEGIN PROP. WW FENCE TIE TO EXIST FENCE
END PROP. WW FENCE TIE TO EXIST FENCE
BEGIN WW FENCE
END PROP. WW FENCE
END WW FENCE
SPECIAL CUT DITCH (SEE DETAIL A)
SPECIAL CUT DITCH (SEE DETAIL B)
SPECIAL CUT DITCH (SEE DETAIL H)
CLASS B RIP RAP
CLASS B RIP RAP EST. 4 TNS. RIP RAP EST. 20 SY GEOTEXTILE
FILL EXISTING DITCH
STANDARD 3' BASE DITCH GRADE=1.6% DDE=55 CY (SEE DETAIL H)
STANDARD 3' BASE DITCH (SEE DETAIL H)
SPECIAL CUT DITCH (SEE DETAIL A) BASE DITCH
TOE PROTECTION (SEE DETAIL F)
REMOVE
CAT-1
GREU TL-3
FLOWABLE FILL
GAS PUMP SHELTER
ISMTL BUS
BILLBOARD
-Y9-
-Y9RPA-
-Y9RPB-
-Y9RPC-
-Y9RPD-
-L-
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.
2'-6" C&G
MSE WALL
BEGIN BRIDGE -L- STA. 216+76.59
BEGIN APP. SLAB -L- STA. 216+52.74
2'-6" C&G
-L- STA. 217+31.76 = -Y9- STA. 20+81.44
5' SIDEWALK
MSE WALL
END BRIDGE -L- STA. 217+73.79
END APP. SLAB -L- STA. 217+97.63
SBG
SFCB
TYPE B-77
BEGIN APP. SLAB -L- STA. 216+65.68
BEGIN BRIDGE -L- STA. 216+89.65
MSE WALL
4' CONC. ISLAND
2'-6" C&G
5' SIDEWALK
END APP. SLAB -L- STA. 218+11.41
END BRIDGE -L- STA. 217+87.45
MSE WALL
65°-59'-44"
2'-6" C&G
5' SIDEWALK
DETAIL SHOWING PAVEMENT-BRIDGE RELATIONSHIP
-L- OVER -Y9-


1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
WETHERILL ENGINEERING
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-21/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.
40 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 21.04
56 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 21.05
47 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 21.03
62 x 31 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 21.01
36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 21.02
48 x 24 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 21.06
46 x 22 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 21.07
NAD 83/NA 2011
BEGIN CONSTRUCTION
-SR7- STA. 12+00.00
END CONSTRUCTION
-SR8- STA. 12+30.00
MATCHLINE -SR7- STA. 18+00 SEE SHEET 26
MATCHLINE -L- STA. 234+00 SEE SHEET 22
MATCHLINE -Y9RPA- STA. 22+20 SEE SHEET 20
MATCHLINE -L- STA. 221+00 SEE SHEET 20
MATCHLINE -Y9RPD- STA. 21+90 SEE SHEET 20
MATCHLINE -SR6- STA. 12+75 SEE SHEET 20
JOHN W. PARRISH
JOSEPH E PARRISH III
PARRISH FAMILY TRUST
LEONA P. PARRISH REVOCABLE TRUST
REBA C. WALKER
SPECIAL CUT DITCH (SEE DETAIL BU)
SPECIAL CUT DITCH (SEE DETAIL A)
SPECIAL CUT DITCH (SEE DETAIL BI)
SPECIAL CUT DITCH (SEE DETAIL BQ)
SPECIAL CUT 8' BASE DITCH (SEE DETAIL AD)
SPECIAL CUT 2' BASE DITCH (SEE DETAIL AC)
CLASS B RIP RAP
EST. 2 TNS RIP RAP
EST. 7 SY GEOTEXTILE
CLASS B RIP RAP
EST. 5 TN RIP RAP
EST. 11 SY GEOTEXTILE
CLASS I RIP RAP
EST. 21 TNS. RIP RAP
EST. 47 SY GEOTEXTILE
(SEE STD. DWG. 876.02)
CLASS I RIP RAP
EST. 10 TNS. RIP RAP
EST. 23 SY GEOTEXTILE
(SEE STD. DWG. 876.02)
REMOVE HW
REMOVE
GREU TL-3
GRADE TO DRAIN
END PROP. WW FENCE
TIE TO EXIST FENCE
30" WELDED STEEL TRENCHLESS INSTALLATION
48" WELDED STEEL TRENCHLESS INSTALLATION
FLOWABLE FILL
BILLBOARD
US HWY 70 WBL VAR PAVED ROADWAY
US HWY 70 EBL VAR PAVED ROADWAY
SR 2578 WILSON MILLS EXT.
EC-20/CONST.20

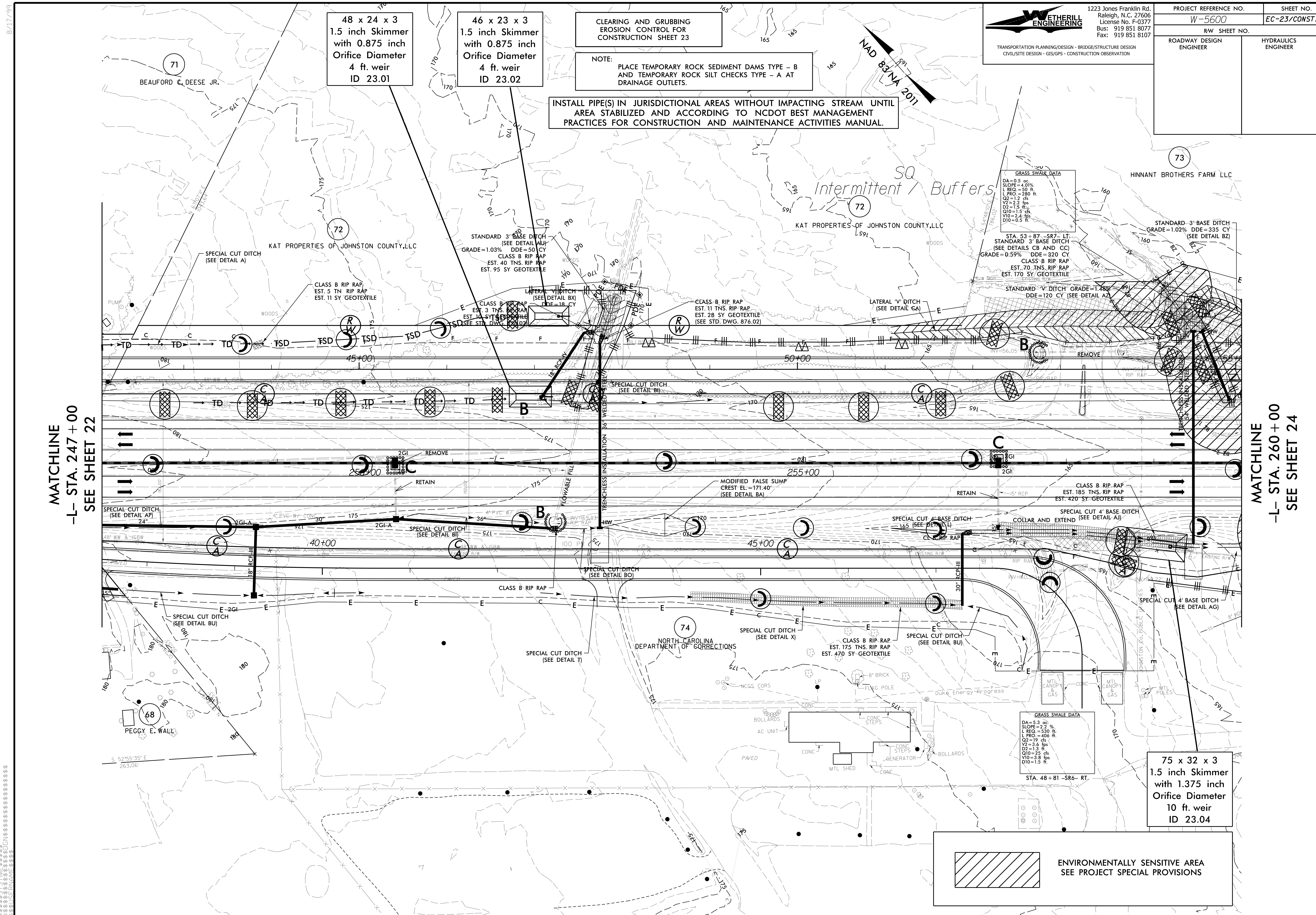
PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-22/CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



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.



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
W-5600
SHEET NO.
EC-23/CONST.23
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
48 x 24 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 23.01
46 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 23.02
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.
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL
AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT
PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.
NAD 83/NA 2011
BEAUFORD C. DEESE JR.
KAT PROPERTIES OF JOHNSTON COUNTY,LLC
HINNANT BROTHERS FARM LLC
SQ
Intermittent / Buffers
NORTH CAROLINA
DEPARTMENT OF CORRECTIONS
PEGGY E. WALL
MATCHLINE
-L- STA. 247+00
SEE SHEET 22
MATCHLINE
-L- STA. 260+00
SEE SHEET 24
GRASS SWALE DATA
DA=0.5 ac.
SLOPE=4.01%
L REQ.=50 ft.
L PRO.=280 ft.
Q2=1.2 cfs
V2=2.2 fps
D2=1.5 ft.
Q10=1.5 cfs
V10=2.4 fps
D10=0.5 ft.
STA. 53+87 -SR7- LT.
GRASS SWALE DATA
DA=5.3 ac.
SLOPE=2.2 %
L REQ.=530 ft.
L PRO.=406 ft.
Q2=19 cfs
V2=3.6 fps
D2=1.3 ft.
Q10=25 cfs
V10=3.8 fps
D10=1.5 ft.
STA. 48+81 -SR6- RT.
75 x 32 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 23.04
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS
STANDARD 3' BASE DITCH (SEE DETAIL AU) GRADE=1.03% DDE=50 CY CLASS B RIP RAP EST. 40 TNS. RIP RAP EST. 95 SY GEOTEXTILE
SPECIAL CUT DITCH (SEE DETAIL A)
CLASS B RIP RAP EST. 5 TN RIP RAP EST. 11 SY GEOTEXTILE
LATERAL 'V' DITCH (SEE DETAIL BX) DDE=18 CY
CLASS B RIP RAP EST. 11 TNS. RIP RAP EST. 28 SY GEOTEXTILE (SEE STD. DWG. 876.02)
LATERAL 'V' DITCH (SEE DETAIL GA)
STANDARD 3' BASE DITCH (SEE DETAILS CB AND CC) GRADE=0.59% DDE=320 CY CLASS B RIP RAP EST. 70 TNS. RIP RAP EST. 170 SY GEOTEXTILE
STANDARD 'V' DITCH GRADE=1.48%
STANDARD 3' BASE DITCH GRADE=1.02% DDE=335 CY (SEE DETAIL BZ)
SPECIAL CUT DITCH (SEE DETAIL BI)
TRENCHLESS INSTALLATION 36" WELDED STEEL
FLOWABLE FILL
MODIFIED FALSE SUMP CREST EL.=171.40' (SEE DETAIL BA)
CLASS B RIP RAP EST. 185 TNS. RIP RAP EST. 420 SY GEOTEXTILE
SPECIAL CUT 4' BASE DITCH (SEE DETAIL AJ)
SPECIAL CUT 4' BASE DITCH (SEE DETAIL L)
COLLAR AND EXTEND
SPECIAL CUT DITCH (SEE DETAIL AP)
SPECIAL CUT DITCH (SEE DETAIL BO)
CLASS B RIP RAP
SPECIAL CUT DITCH (SEE DETAIL BU)
SPECIAL CUT DITCH (SEE DETAIL T)
SPECIAL CUT DITCH (SEE DETAIL X)
CLASS B RIP RAP EST. 175 TNS. RIP RAP EST. 470 SY GEOTEXTILE
SPECIAL CUT DITCH (SEE DETAIL BU)
SPECIAL CUT 4' BASE DITCH (SEE DETAIL AG)
45+00
50+00
250+00
255+00
40+00
45+00
REMOVE
RETAIN

WETHERILL ENGINEERING
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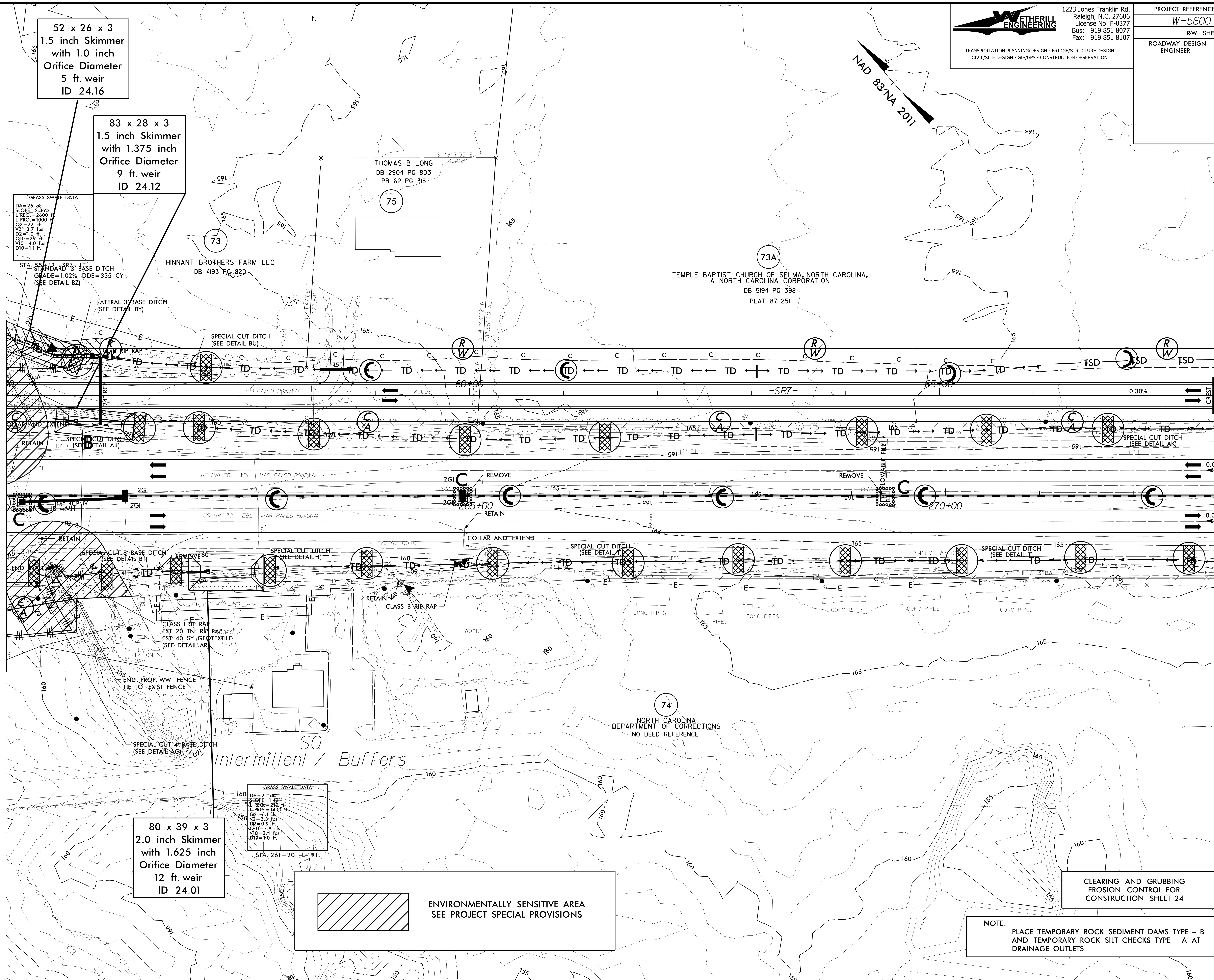
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-24/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -L- STA. 260+00 SEE SHEET 23



MATCHLINE -L- STA. 273+00 SEE SHEET 25

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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.

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-25/CONST.25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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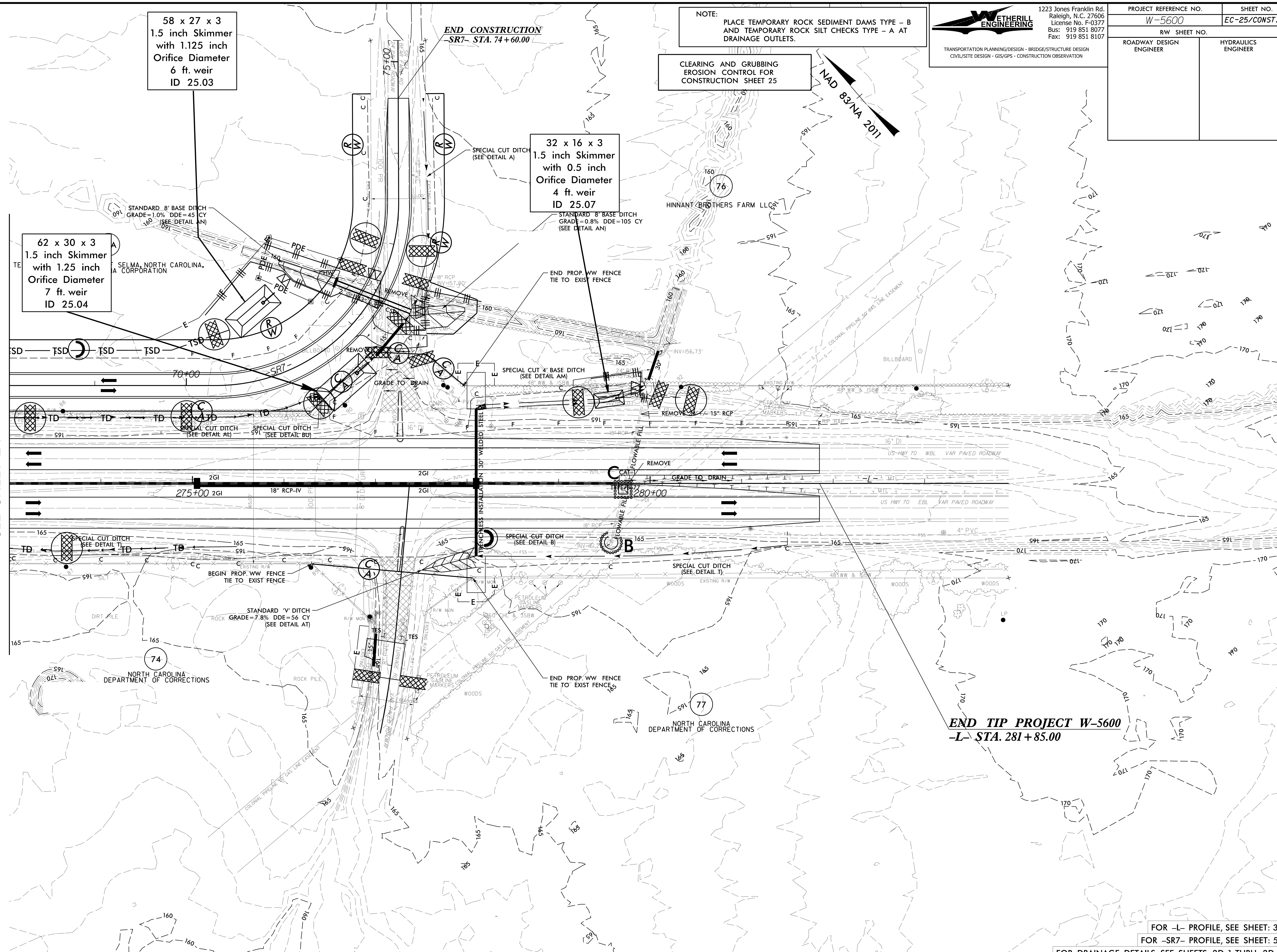
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 25



FOR -L- PROFILE, SEE SHEET: 37
FOR -SR7- PROFILE, SEE SHEET: 58
FOR DRAINAGE DETAILS, SEE SHEETS: 2D-1 THRU 2D-3

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
W-5600	EC-26/CONST.26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 26

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