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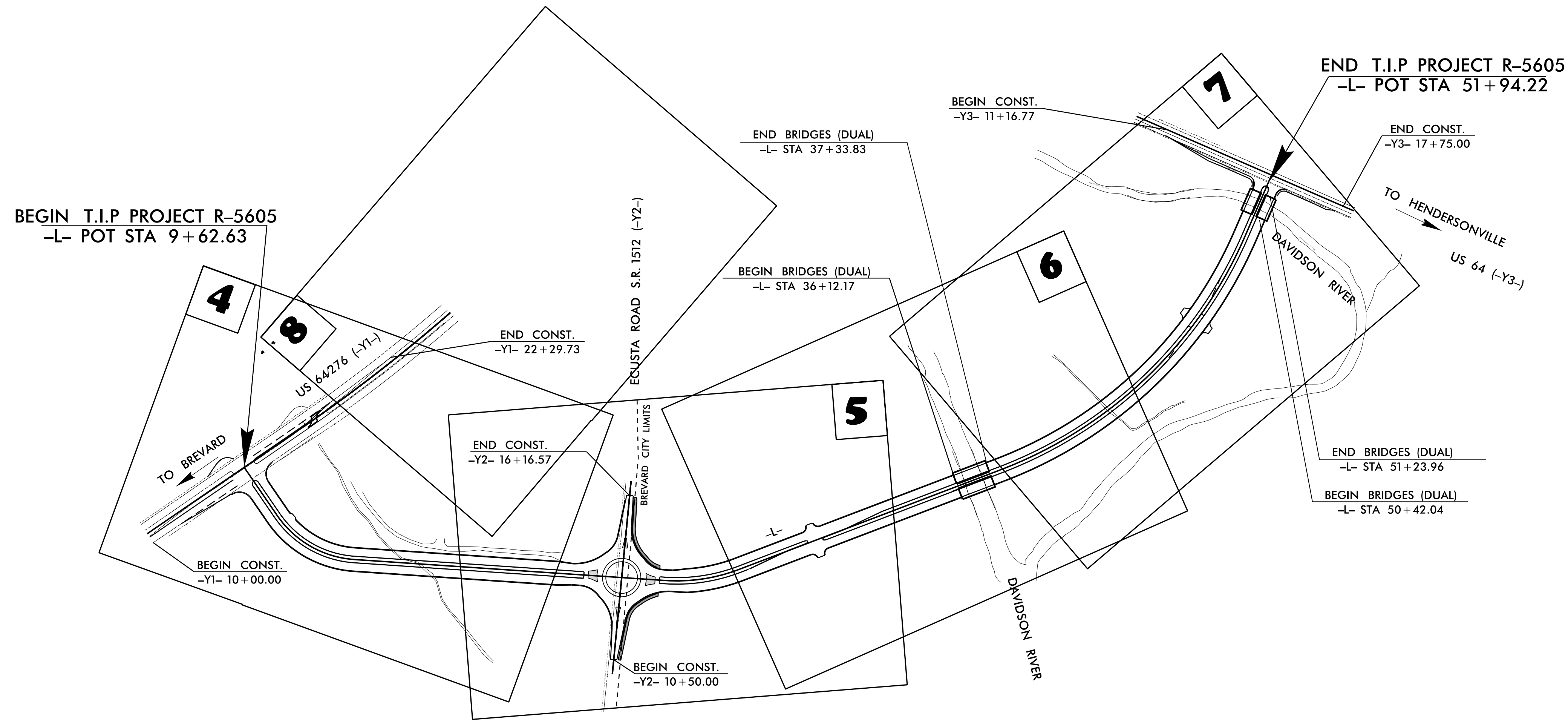
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**TIP PROJECT: R-5605**

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

**LOCATION: US 64/276 TO US 64, CITY OF BREVARD, TRANSYLVANIA COUNTY  
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES**



**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	---
1630.05	Temporary Diversion	---
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	---X---
1622.01	Temporary Berms and Slope Drains	---X---
1630.02	Silt Basin Type B	---X---
1633.01	Temporary Rock Silt Check Type-A	---X---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	---X---
1633.02	Temporary Rock Silt Check Type-B	---X---
	Wattle/Coir Fiber Wattle	---X---
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	---X---
1634.01	Temporary Rock Sediment Dam Type-A	---X---
1634.02	Temporary Rock Sediment Dam Type-B	---X---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	---X---
1635.02	Rock Pipe Inlet Sediment Trap Type-B	---X---
1630.04	Stilling Basin	---X---
1630.06	Special Stilling Basin	---X---
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	---X---
	Tiered Skimmer Basin	---X---
	Infiltration Basin	---X---

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

**THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.**

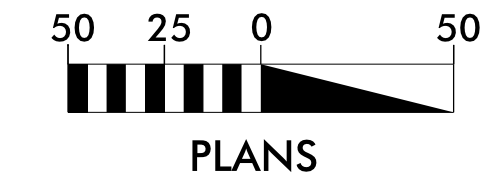
**ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT**

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



**CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II**

**GRAPHIC SCALE**



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

Prepared in the Office of:  
**WGLA Engineering, PLLC**  
214 N. King Street,  
Hendersonville NC 28792  
**2012 STANDARD SPECIFICATIONS**

Designed by:  
**DANA BOLDEN** 3171  
NAME LEVEL III CERTIFICATION NO.

Reviewed in the Office of:  
**ROADSIDE ENVIRONMENTAL UNIT**  
1 South Wilmington St.  
Raleigh, NC 27611  
**2012 STANDARD SPECIFICATIONS**

Reviewed by:  
**WESLEY CHANDLER**

Roadway Standard Drawings

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

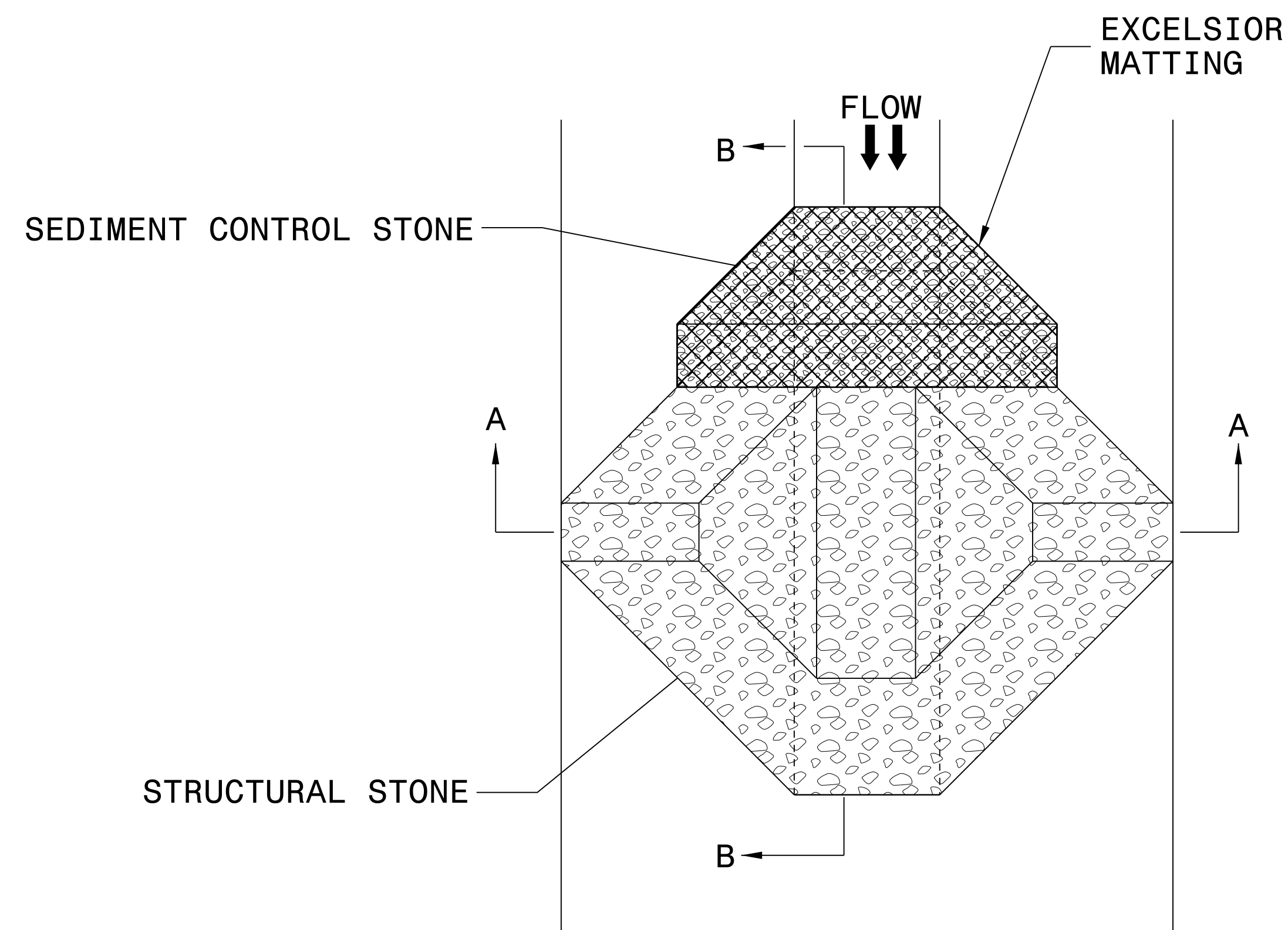
1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type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

10-DEC-2015 09:42:11 \\projects\2015\1506\150605\150605.dwg 2014 Roadway Erosion\150605\_Erosion.dgn



PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

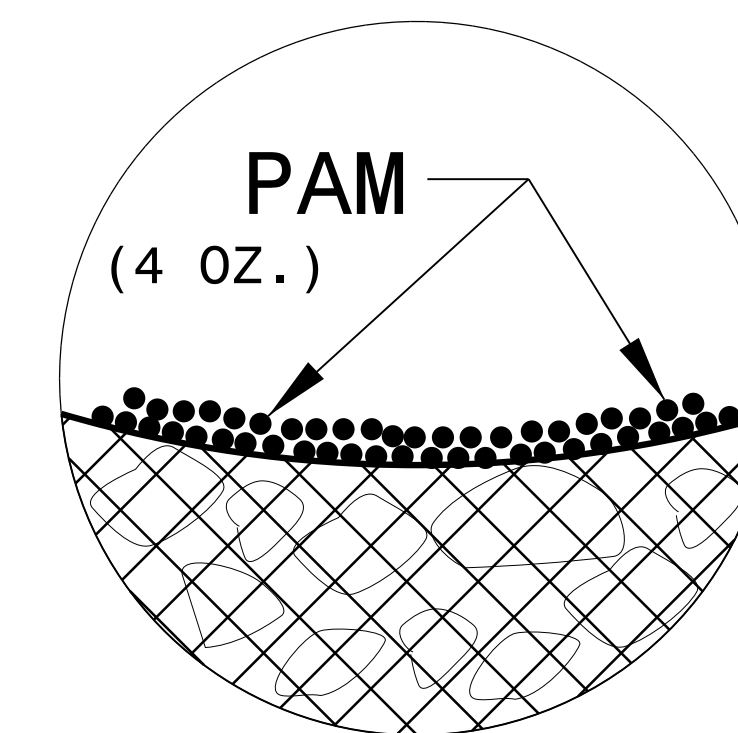
**NOTES:**

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

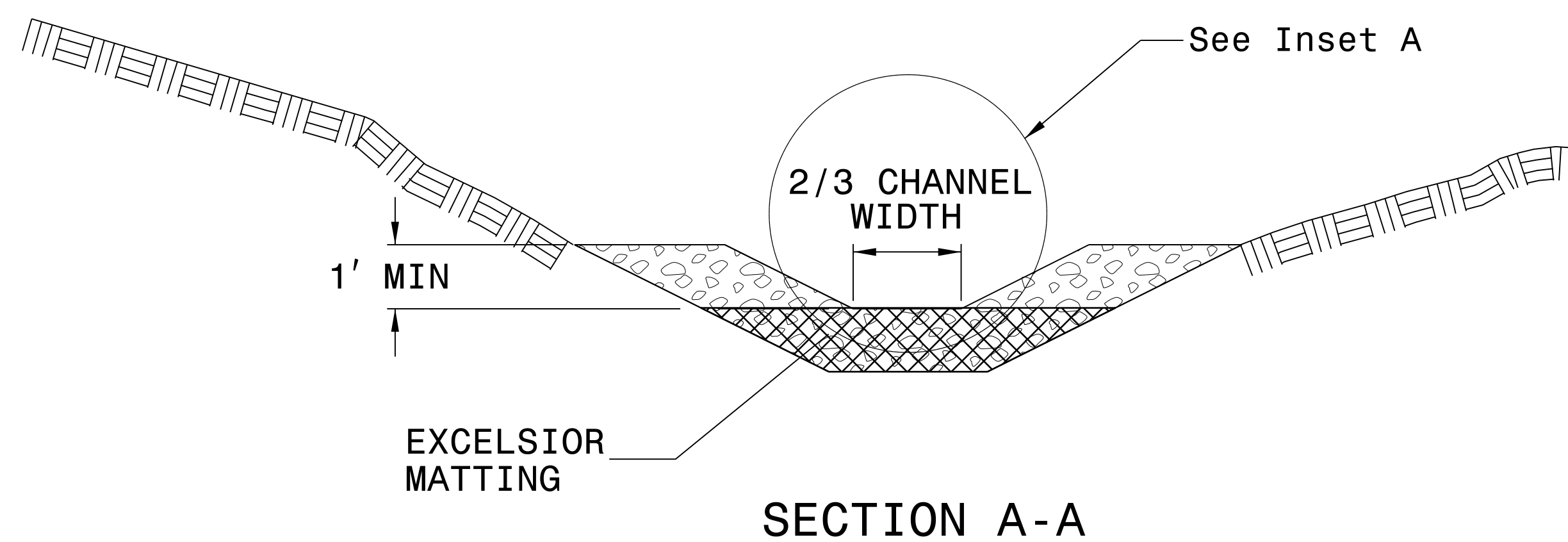
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

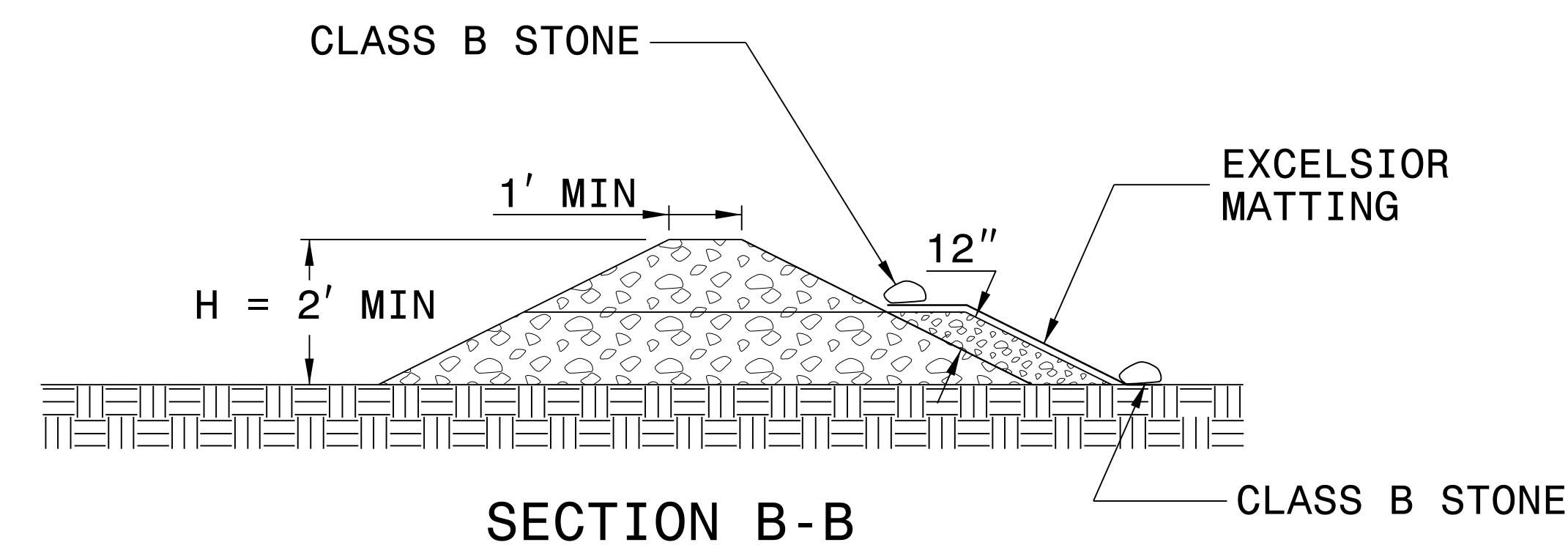
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE



DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

## SOIL STABILIZATION SUMMARY SHEET

### MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y1-	14+51	16+59	CL	190
4	-Y1-	17+00	22+30	CL	485
4	-L-	14+99	15+66	LT	80
5	-L-	22+00	23+66	RT	130
5	-L-	26+50	30+60	LT	480
6	-L-	31+18	36+39	LT	740
6	-L-	37+35	37+53	LT	15
7	-L-	50+92	51+47	RT	70
			SUBTOTAL		2,190
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				37,000
				TOTAL	39,190
				SAY	40,000

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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## ***SOIL STABILIZATION TIMEFRAMES***

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

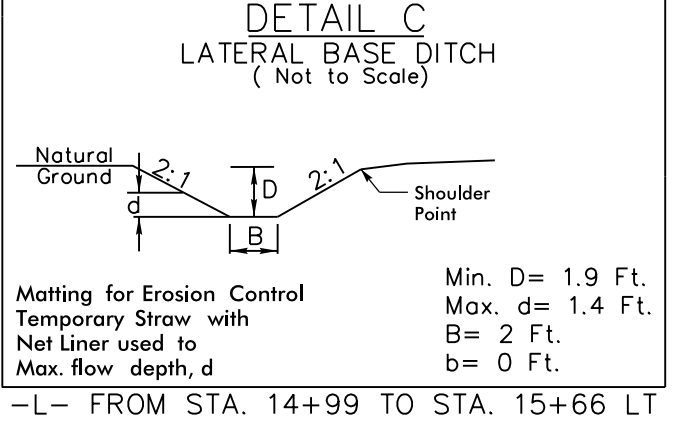
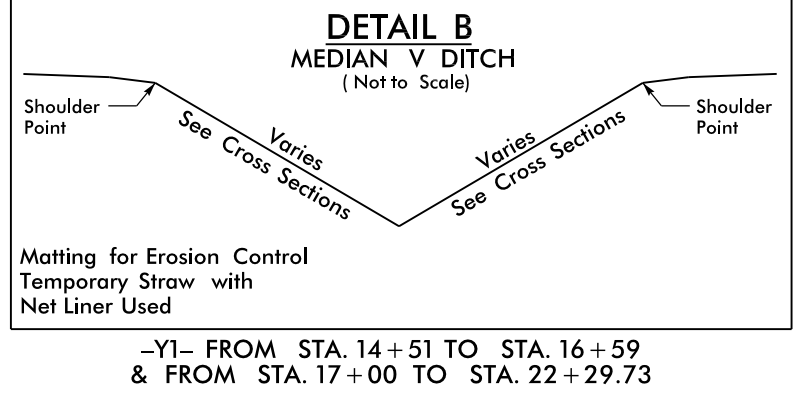
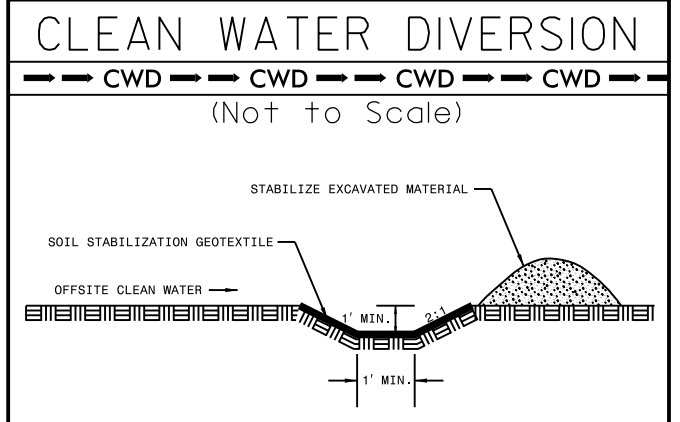
PROJECT REFERENCE NO. R-5605	SHEET NO. EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

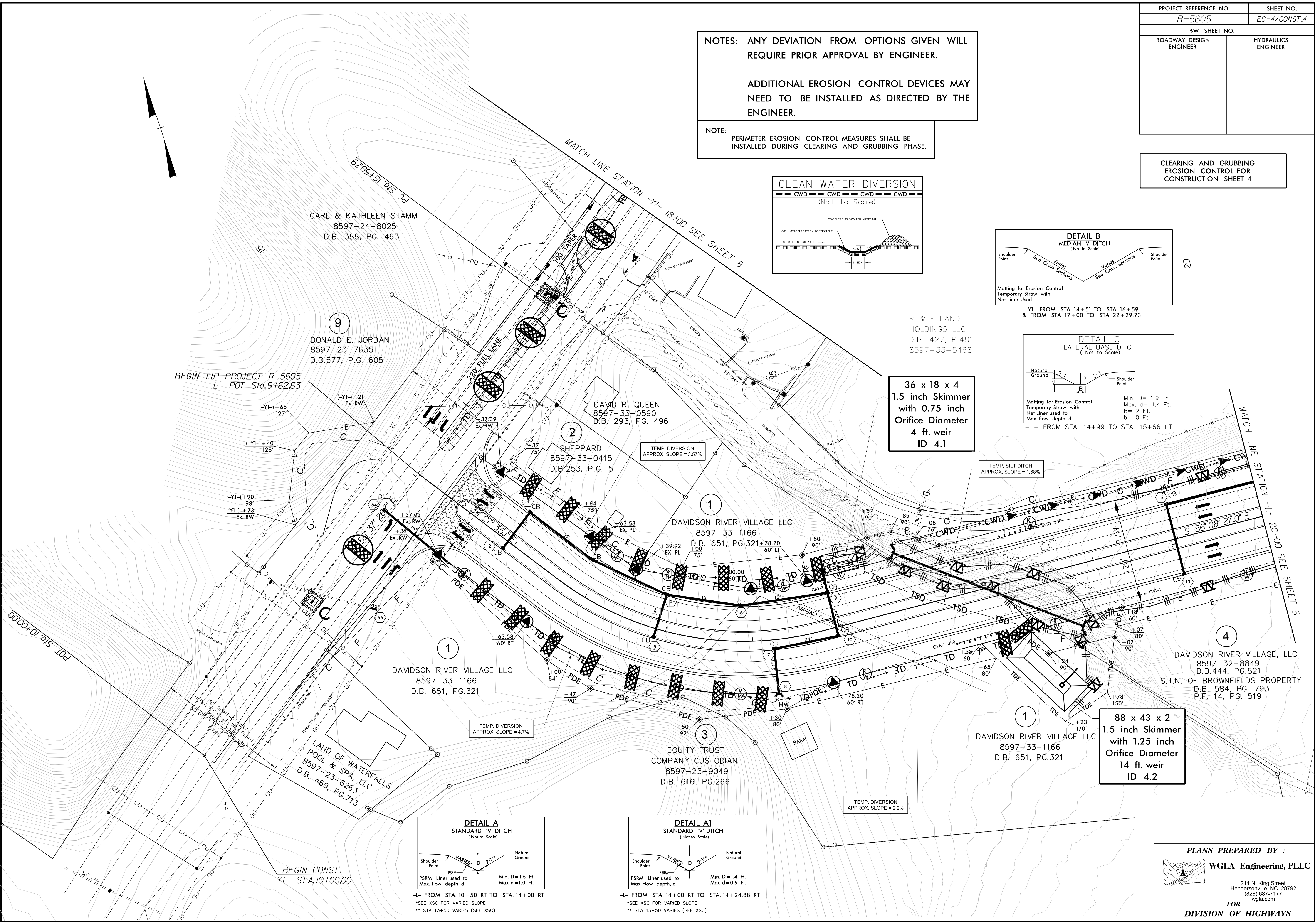
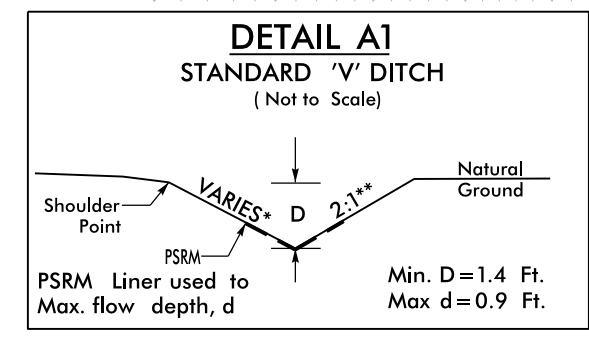
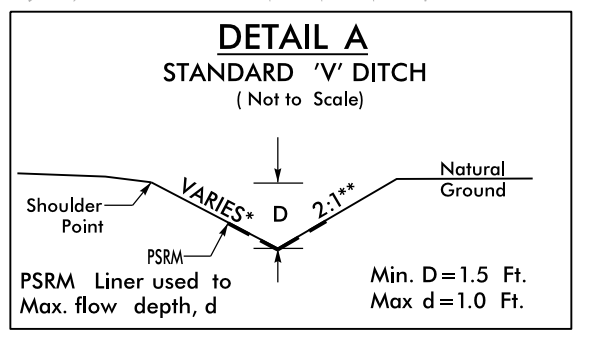
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4



36 x 18 x 4  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
4 ft. weir  
ID 4.1

88 x 43 x 2  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
14 ft. weir  
ID 4.2

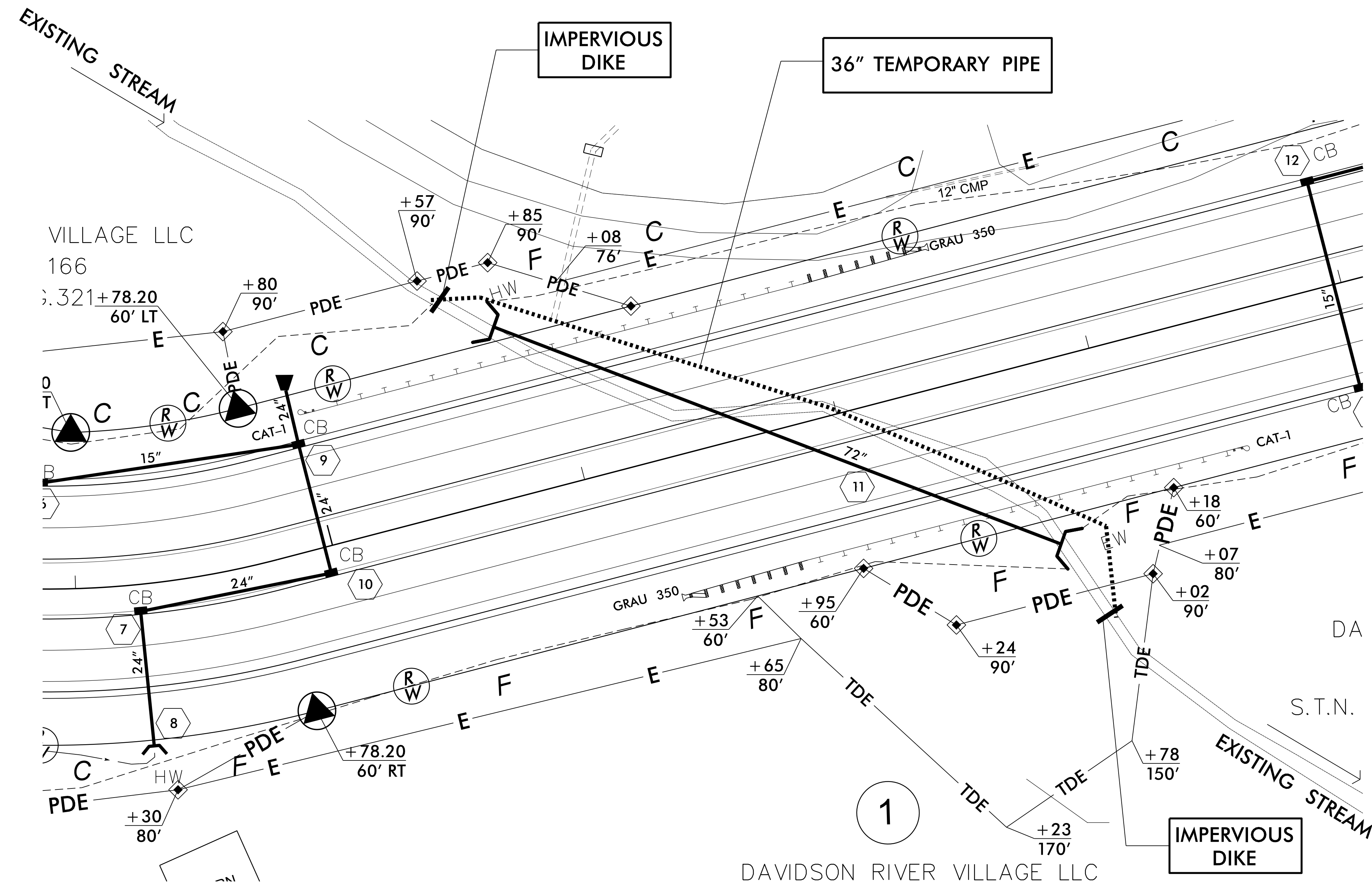


PLANS PREPARED BY:  
WGLA Engineering, PLLC  
214 N. King Street  
Hendersonville, NC 28792  
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wglac.com  
FOR  
DIVISION OF HIGHWAYS




# PIPE INSTALLATION SEQUENCE STA. -L- 44 + 05

PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-4A/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA:
1. UTILIZE SPECIAL STILLING BASIN(S) DURING PIPE INSTALLATION AS NEEDED.
  2. CONSTRUCT IMPERVIOUS DIKS AND INSTALL 36 INCH TEMPORARY PIPE, DIVERTING FLOW THROUGH THE PIPE.
  3. INSTALL 72" PIPE AND CONSTRUCT ANY NECESSARY CHANNEL IMPROVEMENTS.
  4. REMOVE IMPERVIOUS DIKS AND TEMPORARY PIPE AND DIVERT FLOW INTO 72" PIPE.
  5. COMPLETE ROADWAY.

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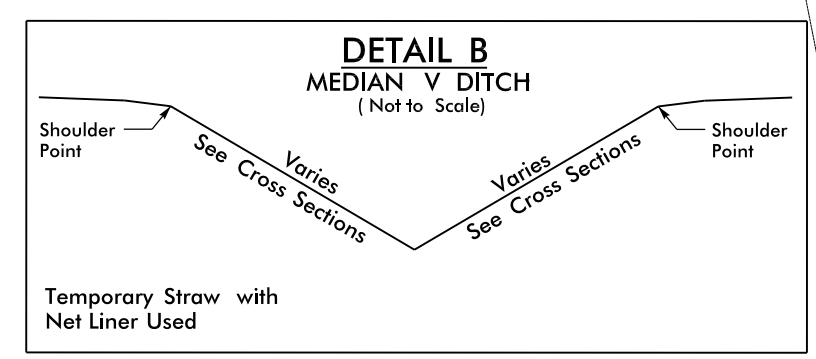




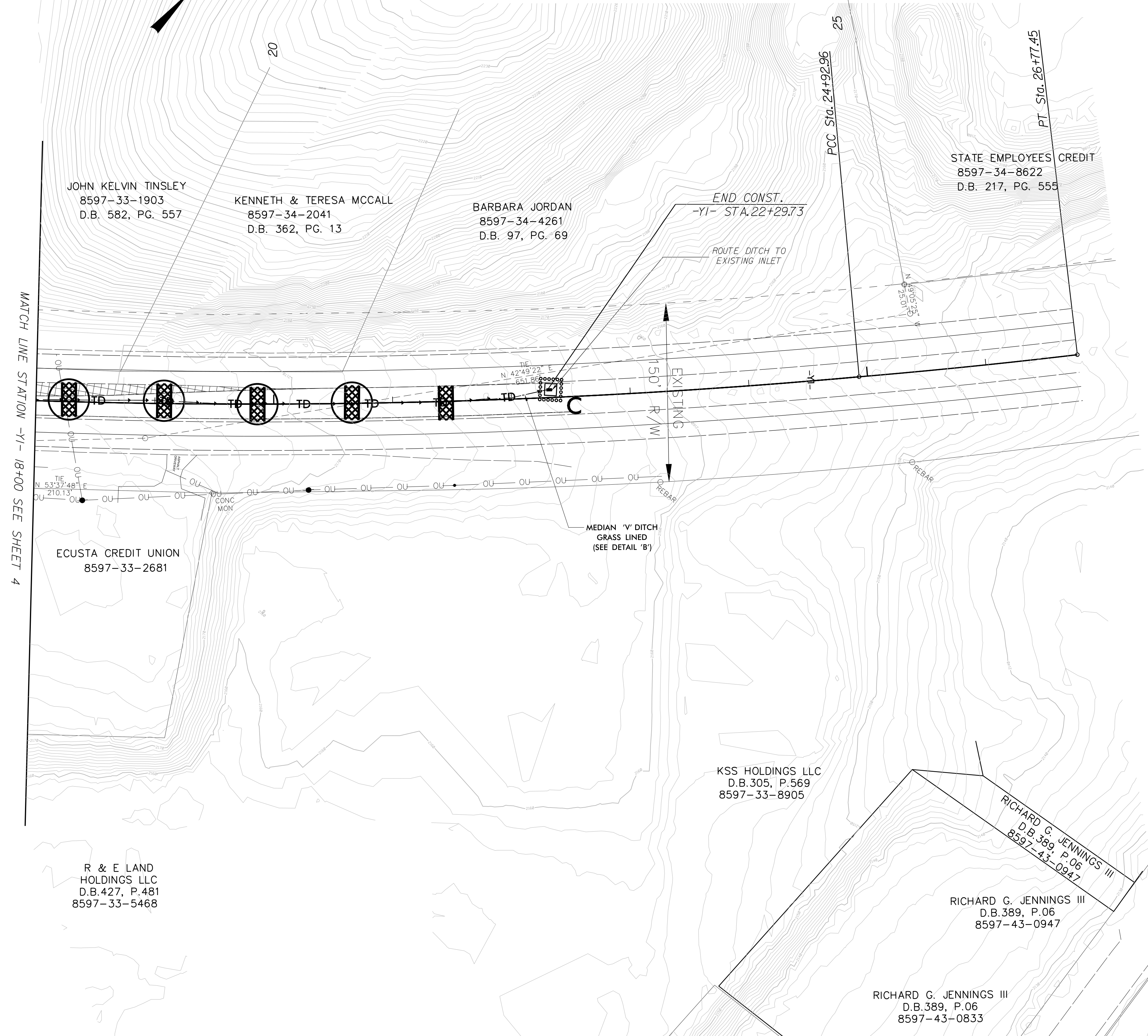




PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-8/CONST.8</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-YI- FROM STA. 14+51 TO STA. 16+59  
& FROM STA. 17+00 TO STA. 22+29.73




NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

MATCH LINE STATION -YI- 18+00 SEE SHEET 4

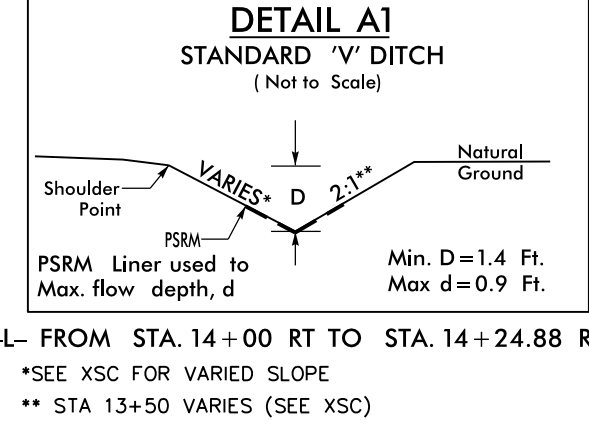
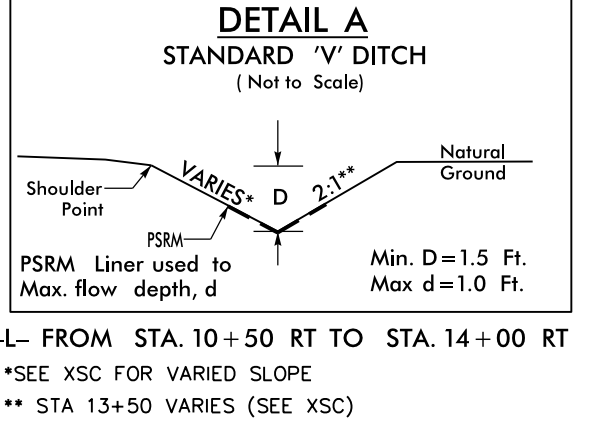
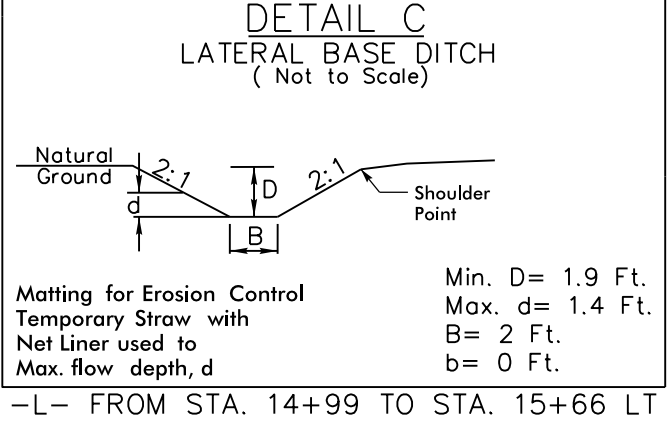
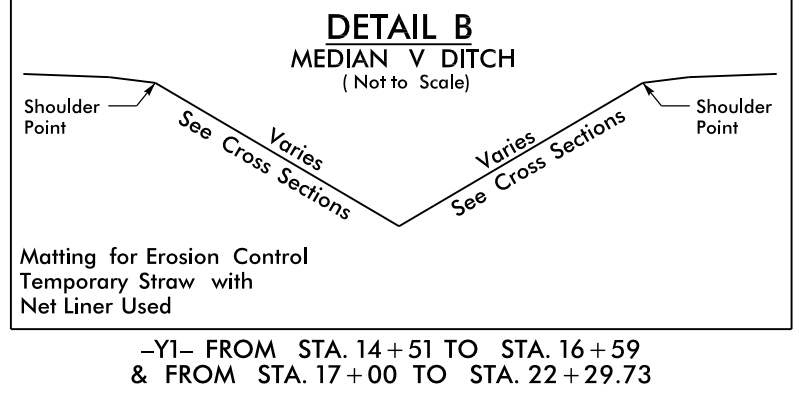
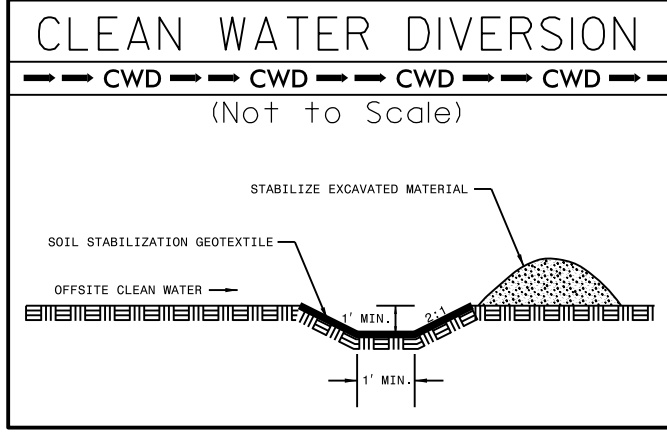
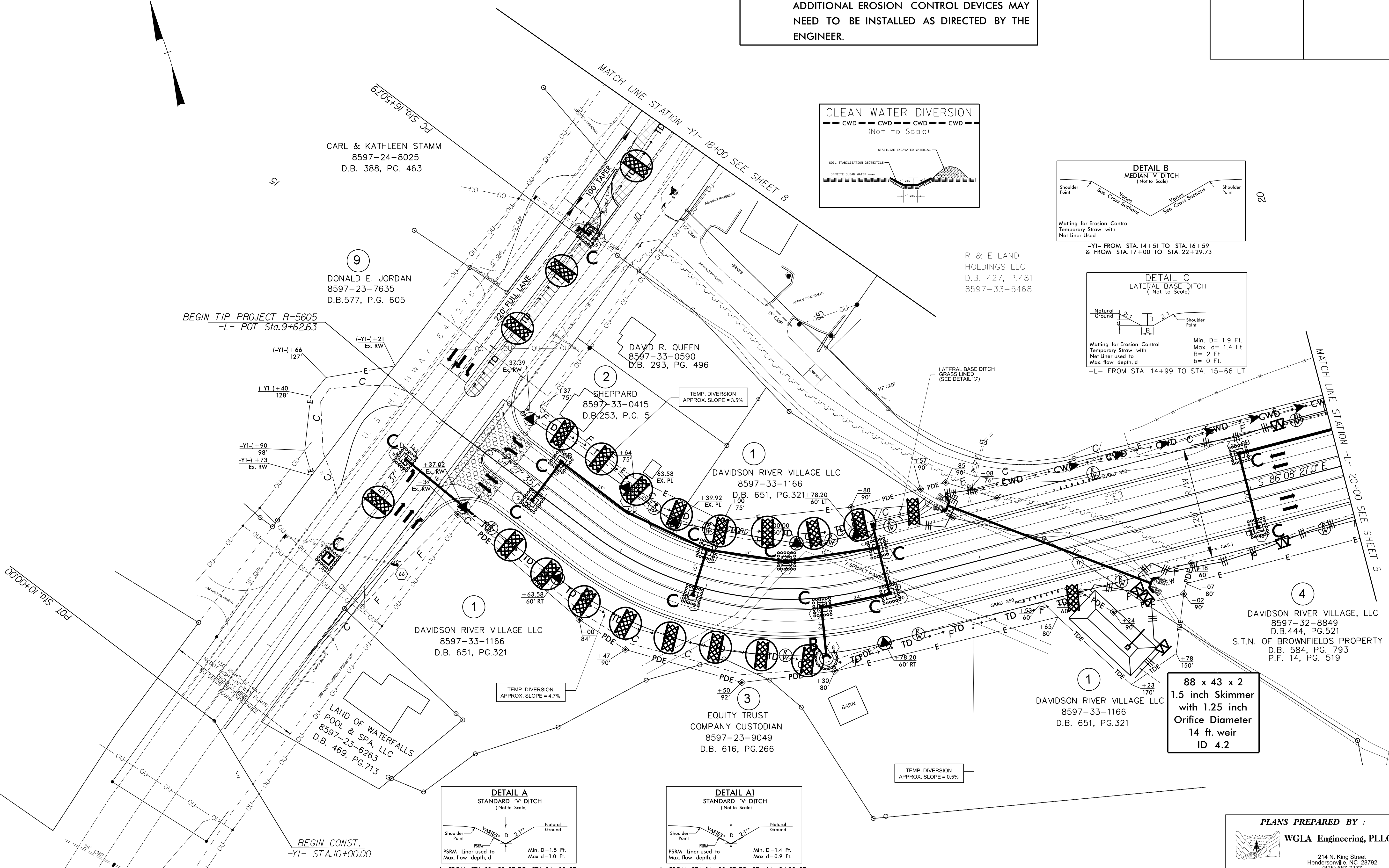
**PLANS PREPARED BY :**  
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 Hendersonville, NC 28792  
 (828) 687-7177  
 wglac.com  
**FOR**  
**DIVISION OF HIGHWAYS**



PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-9/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



88 x 43 x 2  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
14 ft. weir  
ID 4.2

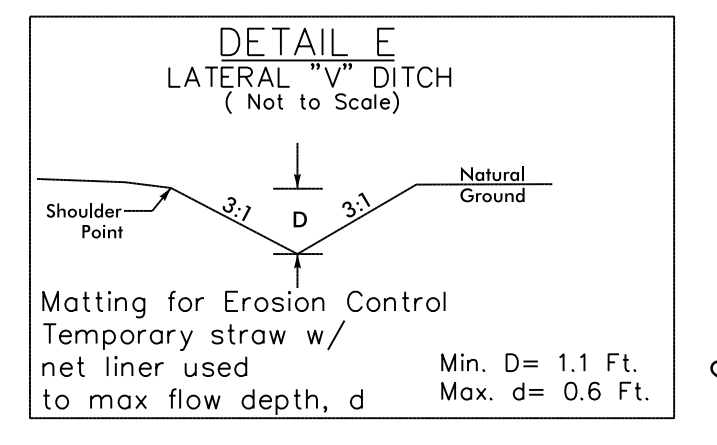
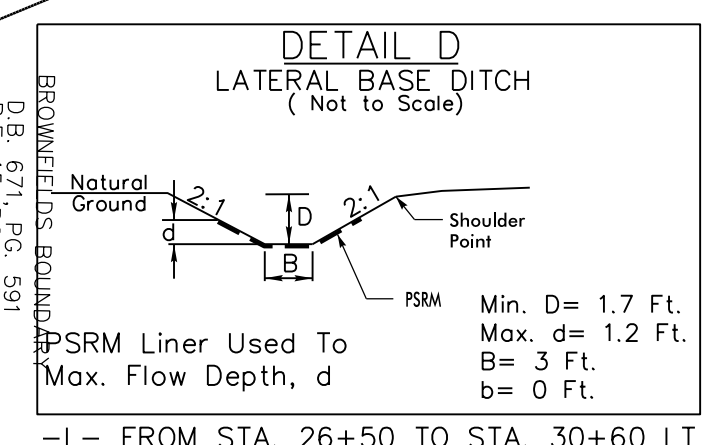
PLANS PREPARED BY :

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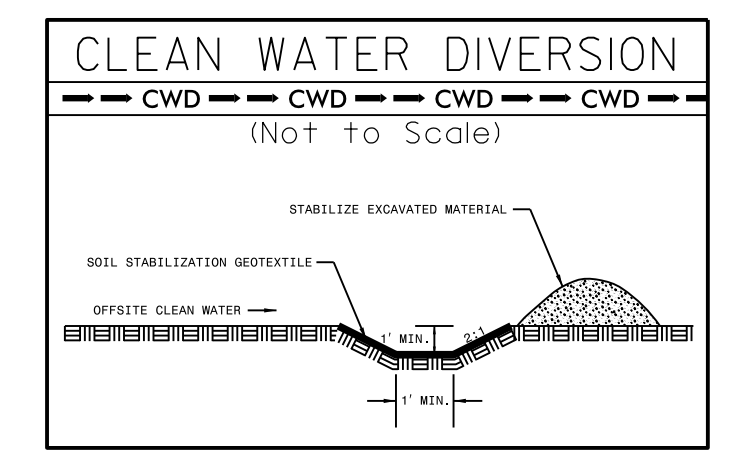
FOR  
**DIVISION OF HIGHWAYS**

PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-10/CONST.5</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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20

MATCH LINE STATION -L- 20+00 SEE SHEET 4

25

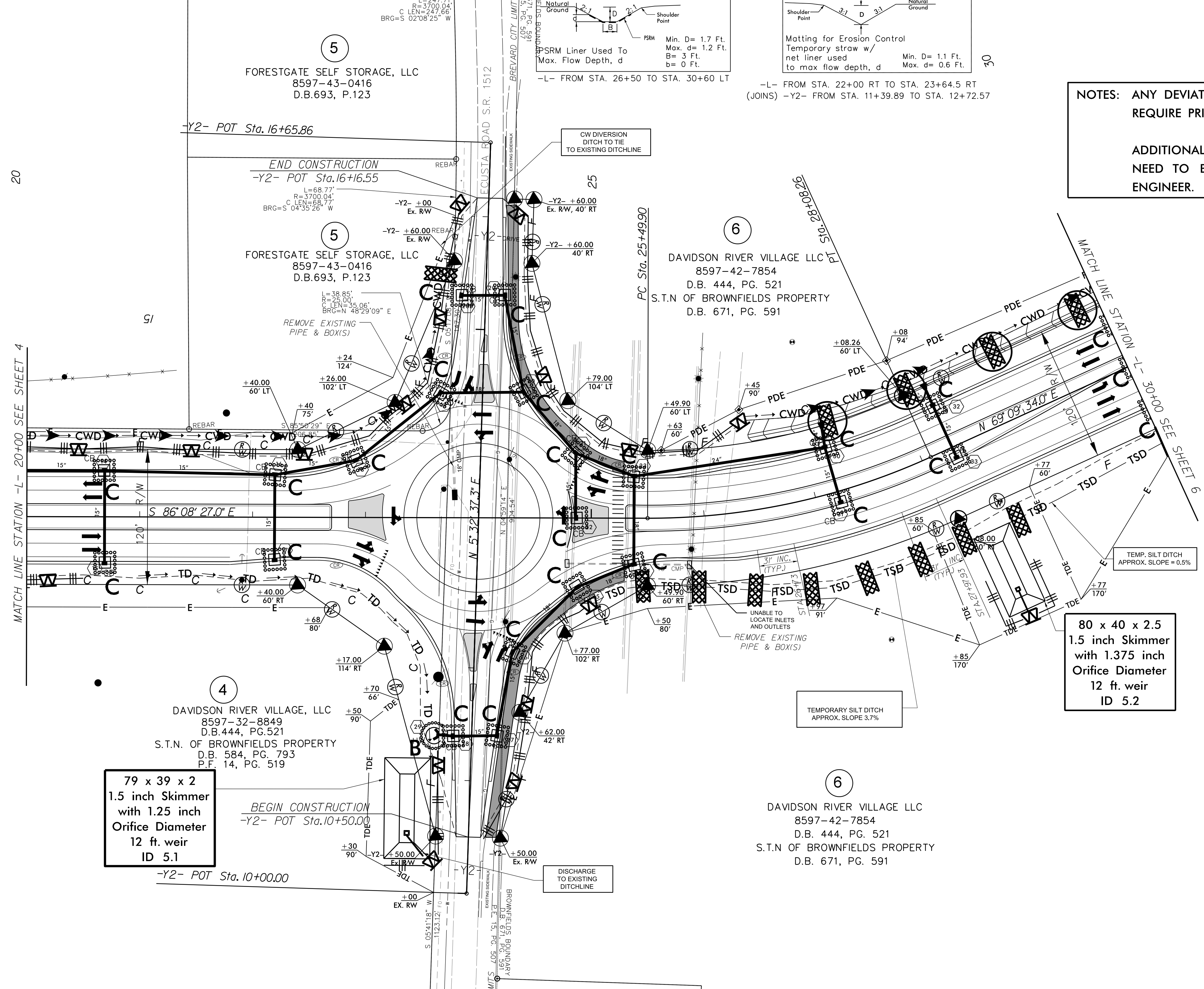
30

35

40

45

50



**79 x 39 x 2  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
12 ft. weir  
ID 5.1**

**80 x 40 x 2.5  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
12 ft. weir  
ID 5.2**

TEMPORARY SILT DITCH  
APPROX. SLOPE 3.7%

TEMP. SILT DITCH  
APPROX. SLOPE = 0.5%

**PLANS PREPARED BY :**

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**FOR**

**DIVISION OF HIGHWAYS**

DAVIDSON RIVER VILLAGE, LLC  
8597-42-2419  
D.B. 489, P. 3

DAVIDSON RIVER VILLAGE, LLC  
8597-32-8849  
D.B. 444, PG. 521  
S.T.N. OF BROWNFIELDS PROPERTY  
D.B. 584, PG. 793  
P.F. 14, PG. 519

FORESTGATE SELF STORAGE, LLC  
8597-43-0416  
D.B. 693, P. 123

FORESTGATE SELF STORAGE, LLC  
8597-43-0416  
D.B. 693, P. 123

DAVIDSON RIVER VILLAGE LLC  
8597-42-7854  
D.B. 444, PG. 521  
S.T.N. OF BROWNFIELDS PROPERTY  
D.B. 671, PG. 591

DAVIDSON RIVER VILLAGE LLC  
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S.T.N. OF BROWNFIELDS PROPERTY  
D.B. 671, PG. 591

L=247.71'  
R=3700.04'  
C LEN=247.64'  
BRG=S 02°08'25" W

END CONSTRUCTION  
-Y2- POT Sta. 16+65.55  
L=68.77'  
R=3700.04'  
C LEN=68.77'  
BRG=S 04°35'26" W

REMOVE EXISTING  
PIPE & BOX(S)

BEGIN CONSTRUCTION  
-Y2- POT Sta. 10+50.00

CW DIVERSION  
DITCH TO TIE  
TO EXISTING DITCHLINE

DISCHARGE  
TO EXISTING  
DITCHLINE

UNABLE TO  
LOCATE INLETS  
AND OUTLETS  
REMOVE EXISTING  
PIPE & BOX(S)

TEMPORARY SILT DITCH  
APPROX. SLOPE 3.7%

TEMP. SILT DITCH  
APPROX. SLOPE = 0.5%

20

MATCH LINE STATION -L- 20+00 SEE SHEET 4

25

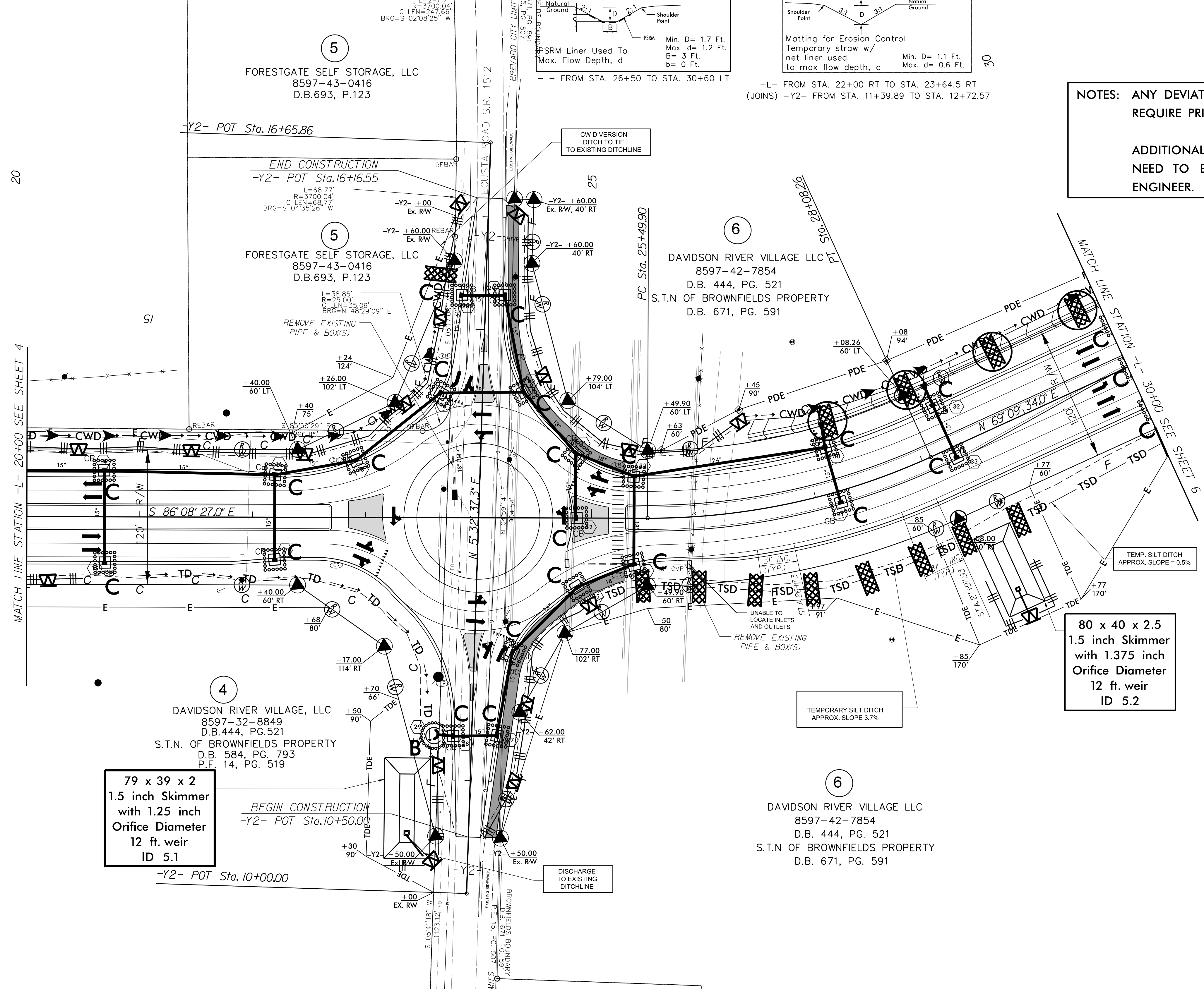
30

35

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**79 x 39 x 2  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
12 ft. weir  
ID 5.1**

**80 x 40 x 2.5  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
12 ft. weir  
ID 5.2**

TEMPORARY SILT DITCH  
APPROX. SLOPE 3.7%

TEMP. SILT DITCH  
APPROX. SLOPE = 0.5%

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D.B. 444, PG. 521  
S.T.N. OF BROWNFIELDS PROPERTY  
D.B. 671, PG. 591

L=247.71'  
R=3700.04'  
C LEN=247.64'  
BRG=S 02°08'25" W

END CONSTRUCTION  
-Y2- POT Sta. 16+65.55  
L=68.77'  
R=3700.04'  
C LEN=68.77'  
BRG=S 04°35'26" W

REMOVE EXISTING  
PIPE & BOX(S)

BEGIN CONSTRUCTION  
-Y2- POT Sta. 10+50.00

CW DIVERSION  
DITCH TO TIE  
TO EXISTING DITCHLINE

DISCHARGE  
TO EXISTING  
DITCHLINE

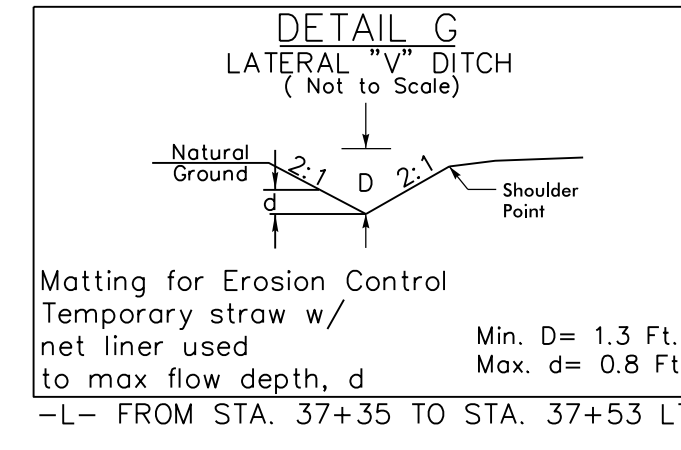
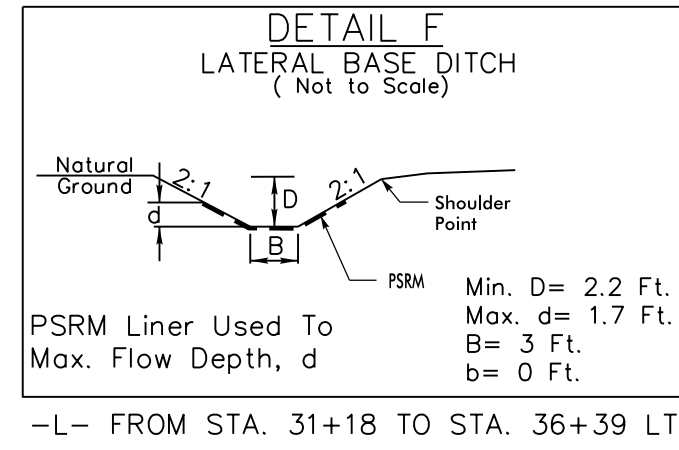
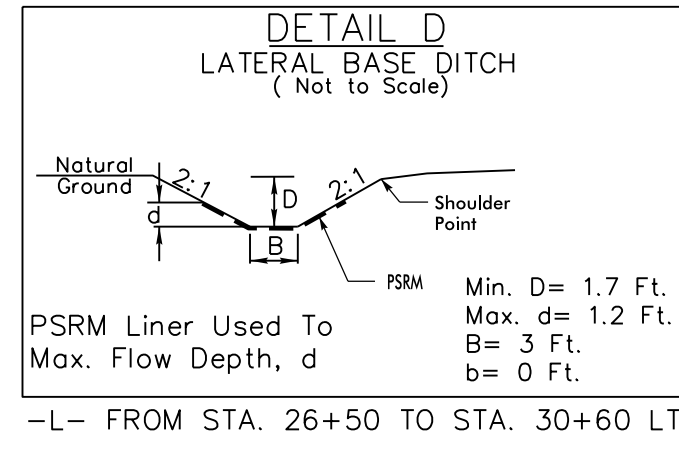
UNABLE TO  
LOCATE INLETS  
AND OUTLETS  
REMOVE EXISTING  
PIPE & BOX(S)

TEMPORARY SILT DITCH  
APPROX. SLOPE 3.7%

TEMP. SILT DITCH  
APPROX. SLOPE = 0.5%

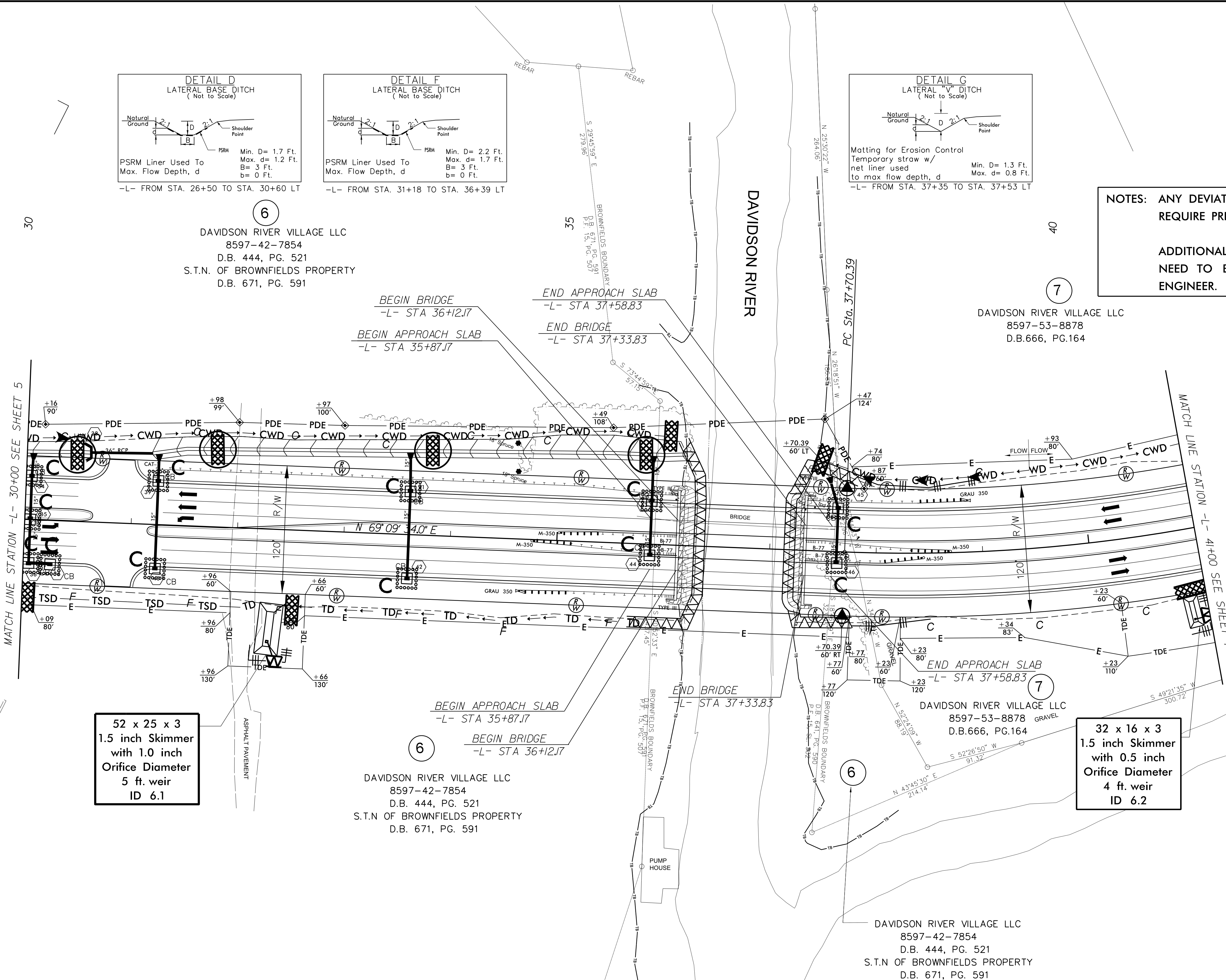


PROJECT REFERENCE NO. R-5605	SHEET NO. EC-II/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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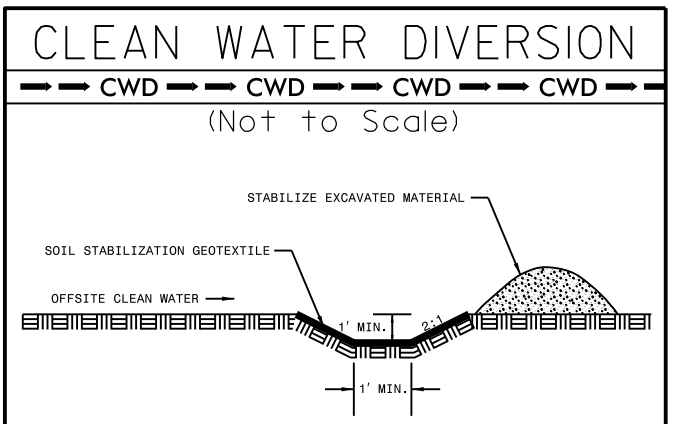


52 x 25 x 3  
1.5 inch Skimmer  
with 1.0 inch  
Orifice Diameter  
5 ft. weir  
ID 6.1

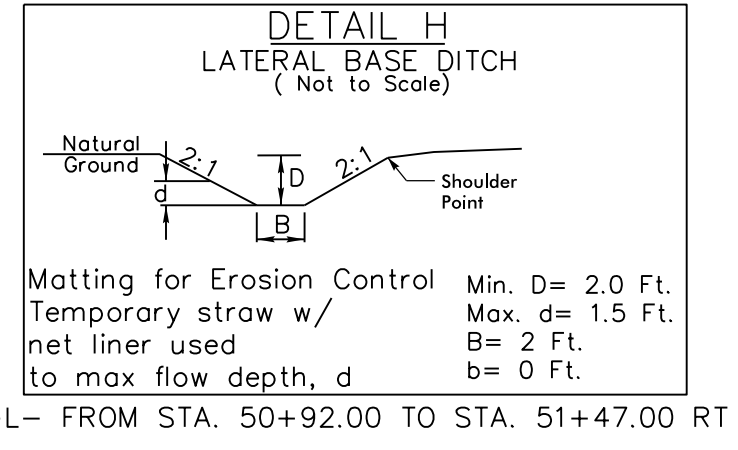
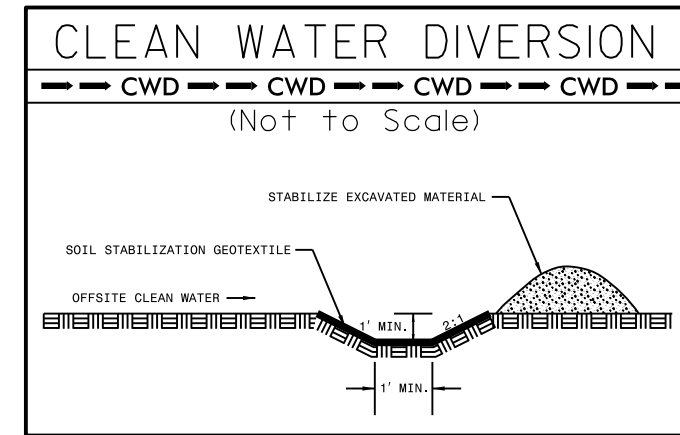
DAVIDSON RIVER VILLAGE LLC  
8597-42-7854  
D.B. 444, PG. 521  
S.T.N OF BROWNFIELDS PROPERTY  
D.B. 671, PG. 591

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8597-42-7854  
D.B. 444, PG. 521  
S.T.N OF BROWNFIELDS PROPERTY  
D.B. 671, PG. 591

32 x 16 x 3  
1.5 inch Skimmer  
with 0.5 inch  
Orifice Diameter  
4 ft. weir  
ID 6.2

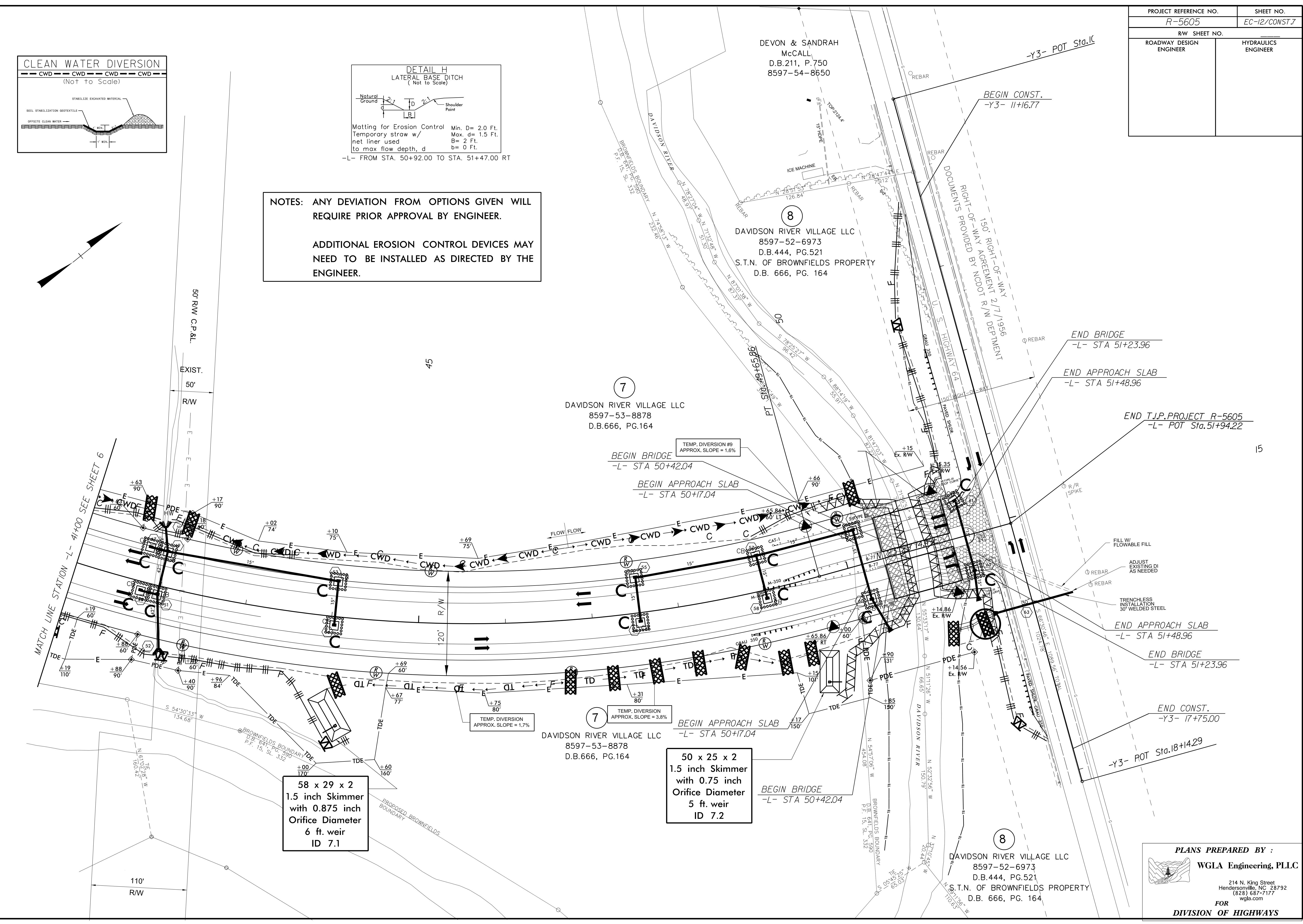
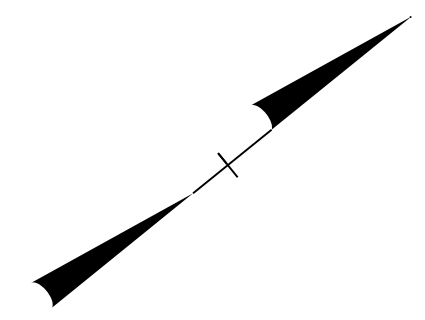


PROJECT REFERENCE NO. R-5605	SHEET NO. EC-12/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



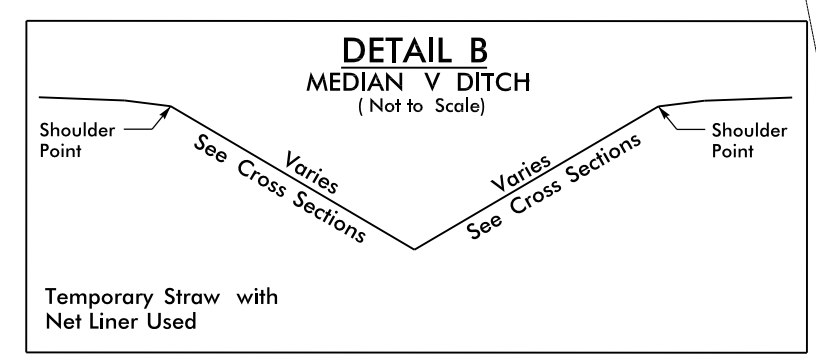
50 x 25 x 2  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
5 ft. weir  
ID 7.2

58 x 29 x 2  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
6 ft. weir  
ID 7.1

PLANS PREPARED BY :  
WGLA Engineering, PLLC  
214 N. King Street  
Hendersonville, NC 28792  
(828) 687-7177  
wglac.com  
FOR  
DIVISION OF HIGHWAYS



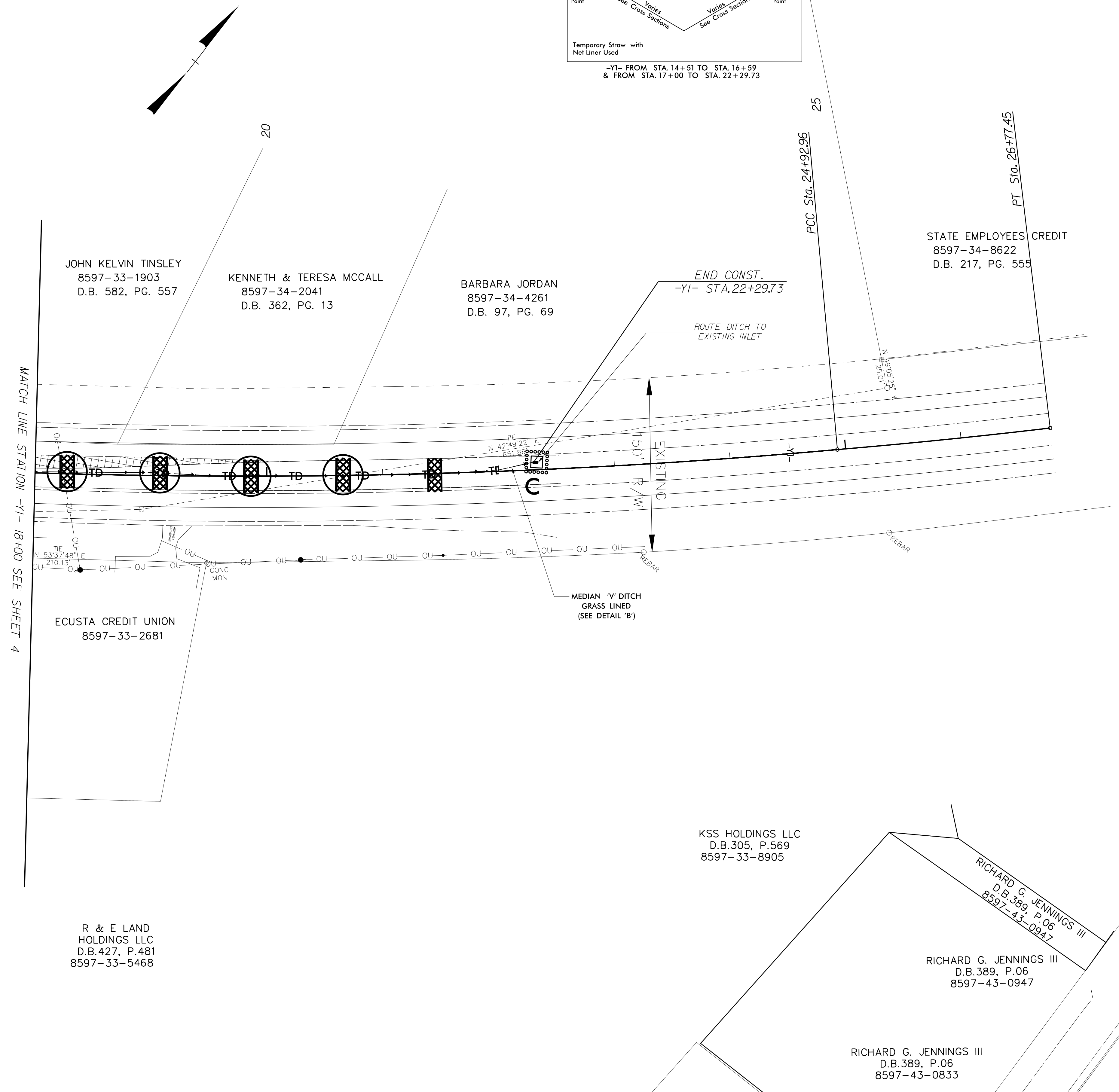
PROJECT REFERENCE NO. <i>R-5605</i>	SHEET NO. <i>EC-13/CONST.B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-YI- FROM STA. 14+51 TO STA. 16+59  
& FROM STA. 17+00 TO STA. 22+29.73

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



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