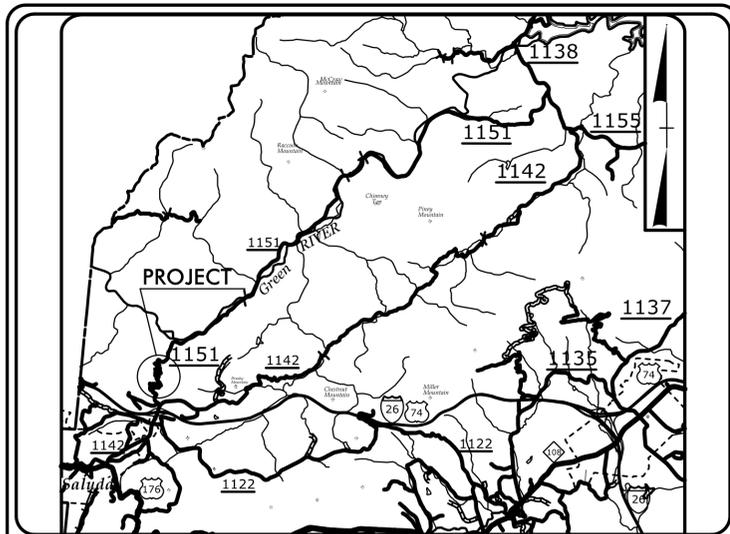


PROJECT: W03291



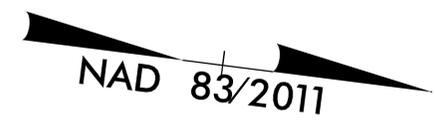
VICINITY MAP
NOT TO SCALE

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

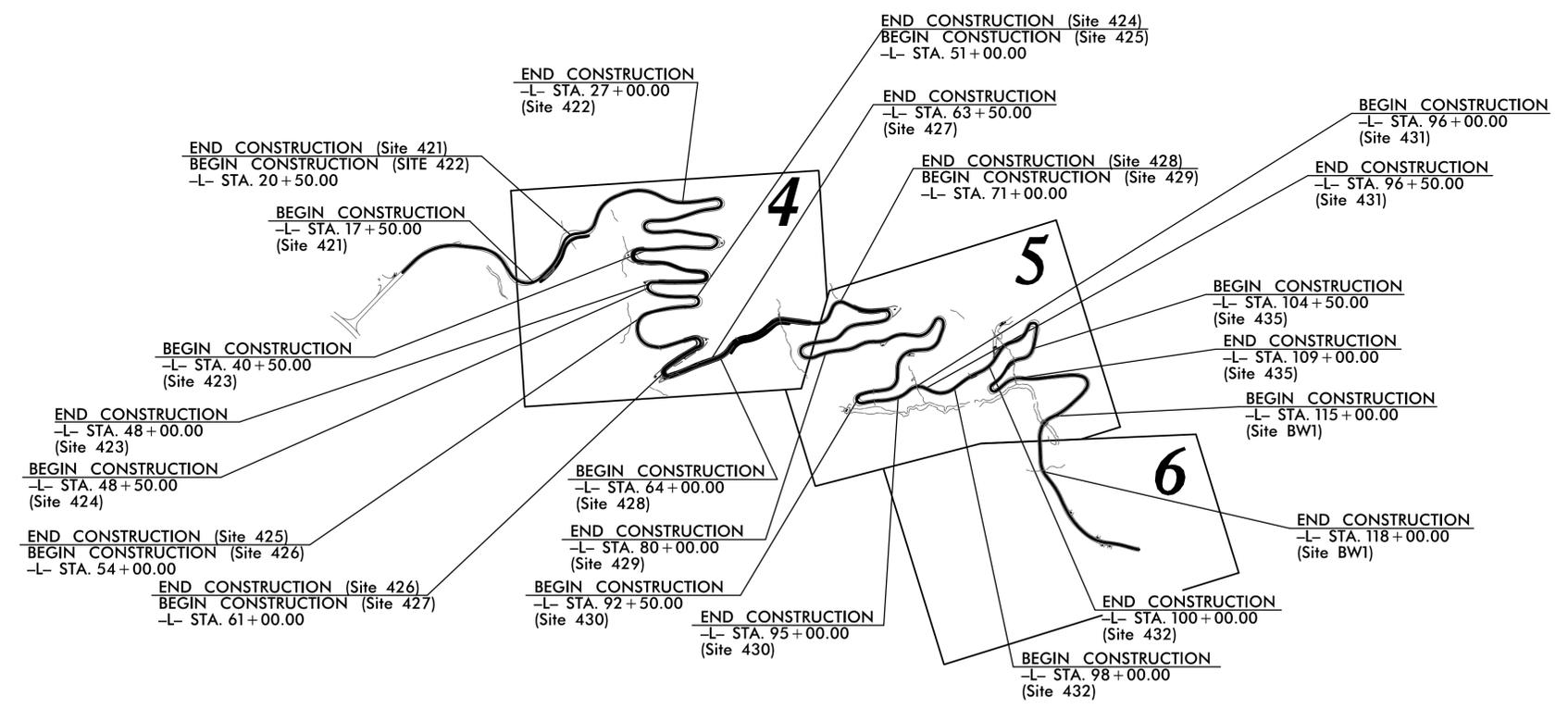
LOCATION: GREEN RIVER COVE RD

TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W03291	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
SEE	ROADWAY	PLANS	



PART I

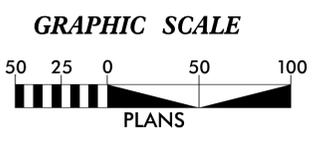


THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

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.

CONTRACT:



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG 010000 GENERAL STORMWATER CONSTRUCTION PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES.



Prepared In the Office of:
TGS ENGINEERS
201 W. MARION ST-SITE 200
SHELBY, NC 28150

Designed by:
Andrew H. Cochrane, PE 3015
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings
The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

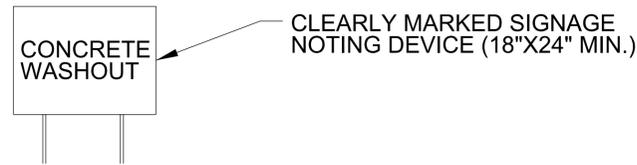
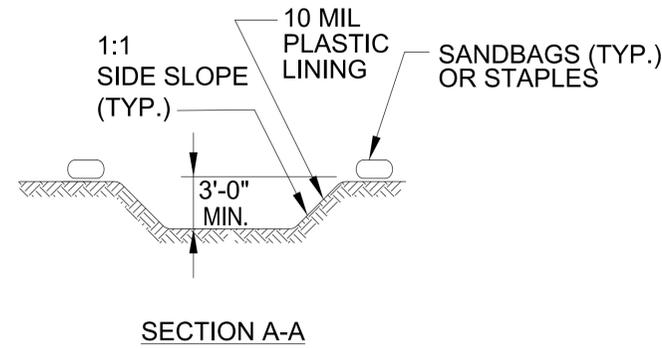
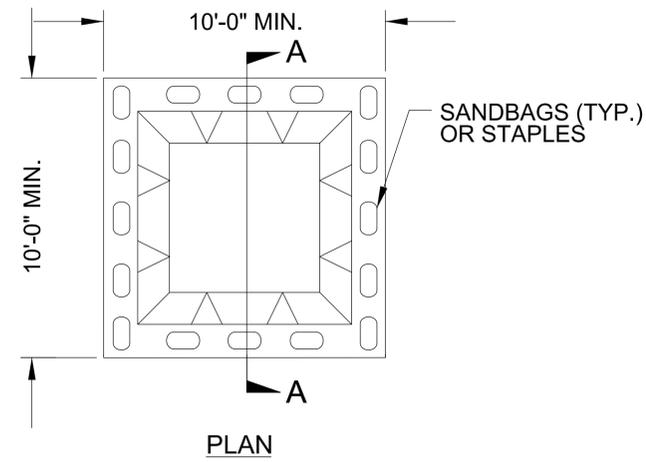
PROJECT REFERENCE NO. W03291	SHEET NO. EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

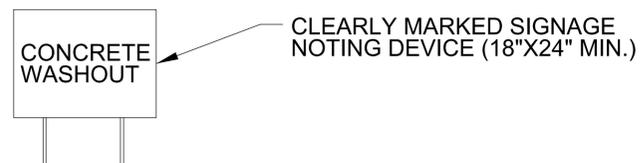
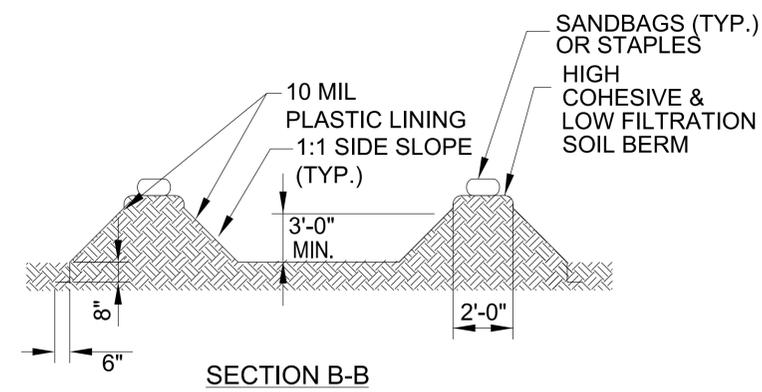
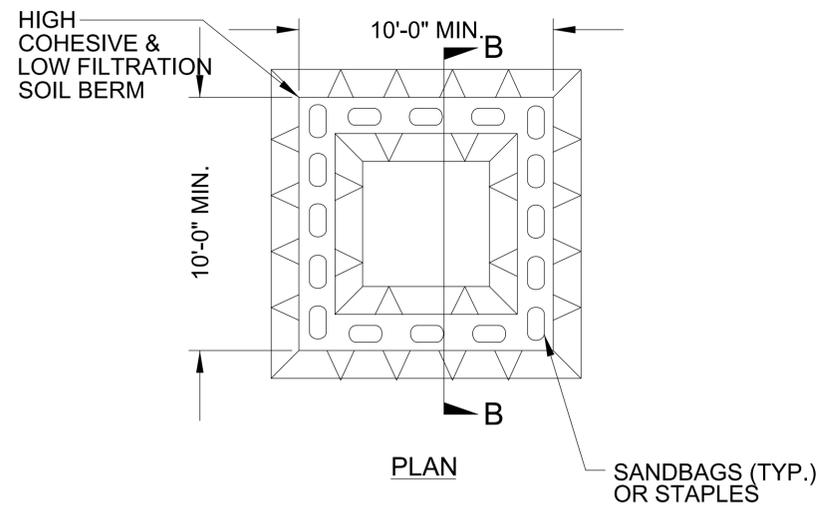
PROJECT REFERENCE NO. <i>W03291</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



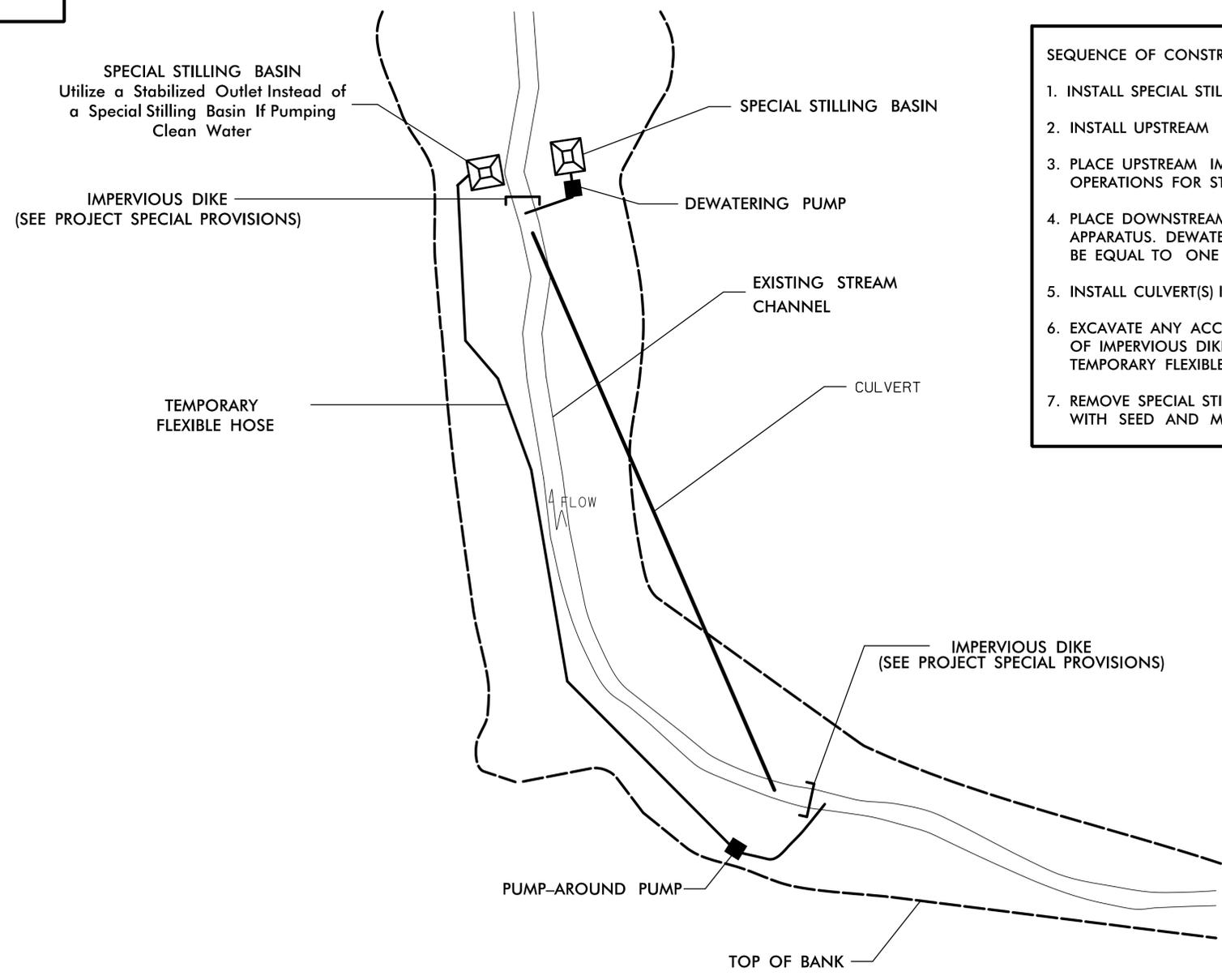
ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

PROJECT REFERENCE NO. <i>W0329I</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXAMPLE OF PUMP-AROUND OPERATION

- NOTES:
- 1) All excavation shall be performed in only dry or isolated areas of the work zone.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 - 4) Pumps and hoses shall be of sufficient size to dewater the work area.



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA
1. INSTALL SPECIAL STILLING BASIN(S).
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 5. INSTALL CULVERT(S) IN ACCORDANCE WITH THE PLANS.
 6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 7. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>W03291</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>SLOPE STRAW MATTING</i>					
4	L	22+00	27+00	RT	6,010
4	L	45+50	46+00	LT	81
4	L	61+50	62+00	RT	181
4	L	63+50	64+00	RT	251
4	L	68+50	72+00	RT	1,403
5	L	79+00	79+50	RT	63
5	L	98+50	99+50	RT	802
5	L	105+50	106+00	LT	150
<i>SLOPE STRAW MATTING SUBTOTAL</i>					8,941
<i>MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER</i>					16,059
<i>TOTAL</i>					<u>25,000</u>

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	PSRM TYPE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	L	2	65+50	68+50	LT	185
5	L	3	72+00	73+00	LT	65
5	L	4	92+50	93+00	RT	35
PSRM TYPE 1 TOTAL						0
PSRM TYPE 2 TOTAL						185
PSRM TYPE 3 TOTAL						65
PSRM TYPE 4 TOTAL						35
<i>ADDITIONAL PSRM TO BE INSTALLED</i>						0
<i>TOTAL</i>						<u>285</u>

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

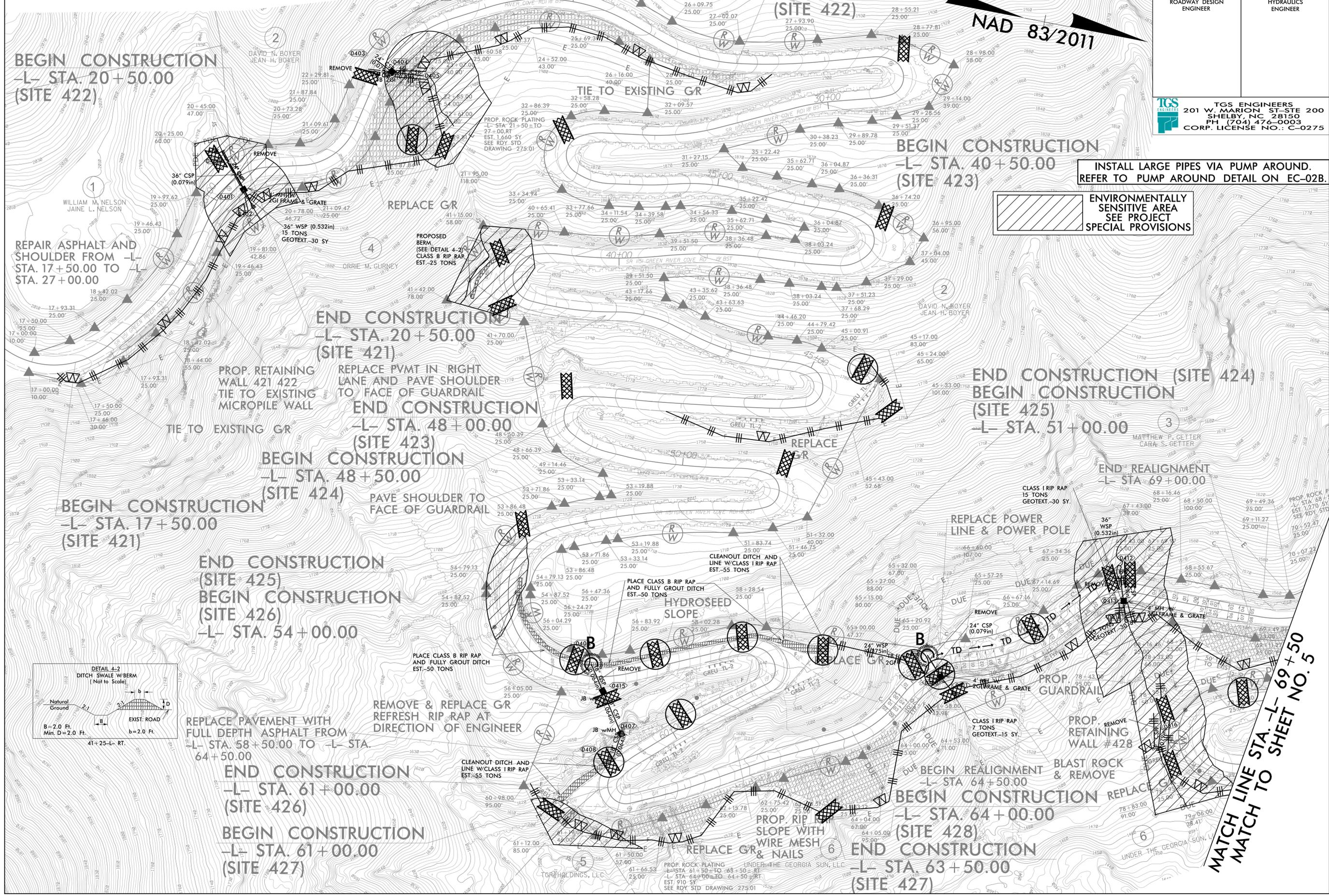
PROJECT REFERENCE NO. <i>W03291</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

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

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 4

PROJECT REFERENCE NO. W03291		SHEET NO. EC-04/CONST.4	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275			



BEGIN CONSTRUCTION
-L- STA. 20+50.00
(SITE 422)

END CONSTRUCTION
-L- STA. 27+00.00
(SITE 422)



BEGIN CONSTRUCTION
-L- STA. 40+50.00
(SITE 423)

INSTALL LARGE PIPES VIA PUMP AROUND.
REFER TO PUMP AROUND DETAIL ON EC-02B.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

REPAIR ASPHALT AND SHOULDER FROM
-L- STA. 17+50.00 TO -L- STA. 27+00.00

END CONSTRUCTION
-L- STA. 20+50.00
(SITE 421)

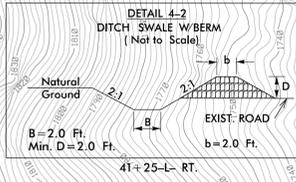
REPLACE PVMT IN RIGHT LANE AND PAVE SHOULDER TO FACE OF GUARDRAIL
END CONSTRUCTION
-L- STA. 48+00.00
(SITE 423)

END CONSTRUCTION (SITE 424)
BEGIN CONSTRUCTION (SITE 425)
-L- STA. 51+00.00

BEGIN CONSTRUCTION
-L- STA. 17+50.00
(SITE 421)

BEGIN CONSTRUCTION
-L- STA. 48+50.00
(SITE 424)

END CONSTRUCTION (SITE 425)
BEGIN CONSTRUCTION (SITE 426)
-L- STA. 54+00.00



REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM
-L- STA. 58+50.00 TO -L- STA. 64+50.00

END CONSTRUCTION
-L- STA. 61+00.00
(SITE 426)

BEGIN CONSTRUCTION
-L- STA. 61+00.00
(SITE 427)

BEGIN REALIGNMENT
-L- STA. 64+50.00
BEGIN CONSTRUCTION (SITE 428)

END CONSTRUCTION
-L- STA. 63+50.00
(SITE 427)

MATCH LINE STA. -L- 69+50
MATCH TO SHEET NO. 5

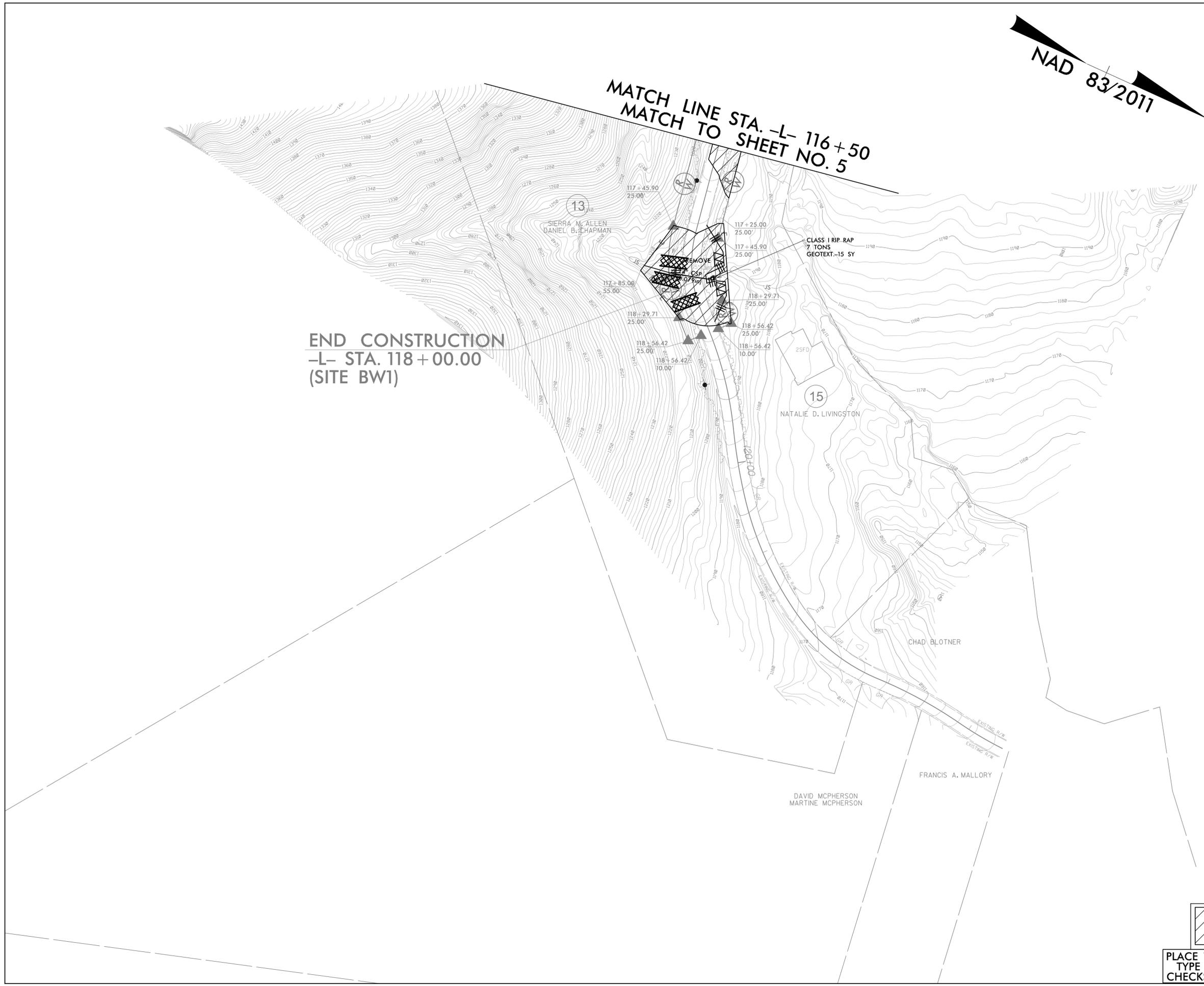
PROJECT REFERENCE NO.		SHEET NO.	
W03291		EC-06/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

TGS ENGINEERS
 201 W. MARION ST-STE 200
 SHELBY, NC 28150
 PH (704) 476-0003
 CORP. LICENSE NO.: C-0275

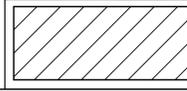


**MATCH LINE STA. -L- 116+50
 MATCH TO SHEET NO. 5**

**END CONSTRUCTION
 -L- STA. 118+00.00
 (SITE BW1)**



**CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 6**

 ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

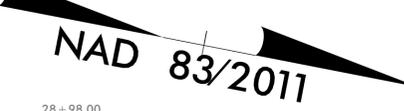
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
W03291	EC-07/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

BEGIN CONSTRUCTION
-L- STA. 20+50.00
(SITE 422)

END CONSTRUCTION
-L- STA. 27+00.00
(SITE 422)



REPAIR ASPHALT AND SHOULDER FROM -L- STA. 17+50.00 TO -L- STA. 27+00.00

BEGIN CONSTRUCTION
-L- STA. 40+50.00
(SITE 423)

INSTALL LARGE PIPES VIA PUMP AROUND. REFER TO PUMP AROUND DETAIL ON EC-02B.

INSTALL MATTING FOR EROSION CONTROL ON ALL GRADED DITCHES AND GRADED SLOPES THAT DO NOT ALREADY CALL FOR OTHER MEANS OF PERMANENT OR TEMPORARY STABILIZATION

BEGIN CONSTRUCTION
-L- STA. 17+50.00
(SITE 421)

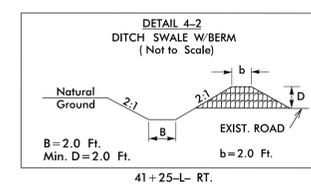
END CONSTRUCTION
-L- STA. 20+50.00
(SITE 421)

END CONSTRUCTION
-L- STA. 48+00.00
(SITE 423)

BEGIN CONSTRUCTION
-L- STA. 48+50.00
(SITE 424)

END CONSTRUCTION (SITE 424)
BEGIN CONSTRUCTION (SITE 425)
-L- STA. 51+00.00

END CONSTRUCTION (SITE 425)
BEGIN CONSTRUCTION (SITE 426)
-L- STA. 54+00.00



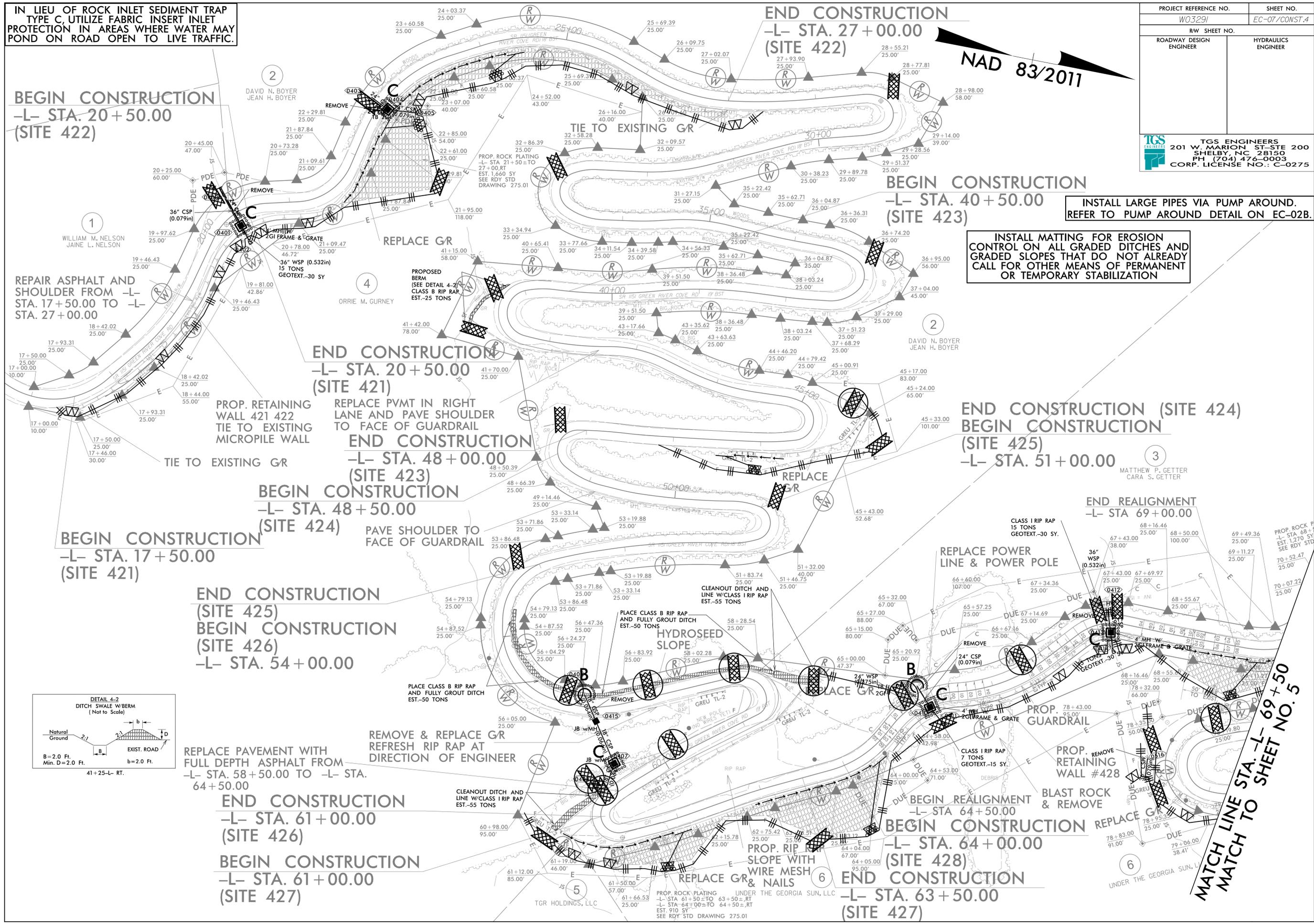
REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 58+50.00 TO -L- STA. 64+50.00

END CONSTRUCTION
-L- STA. 61+00.00
(SITE 426)

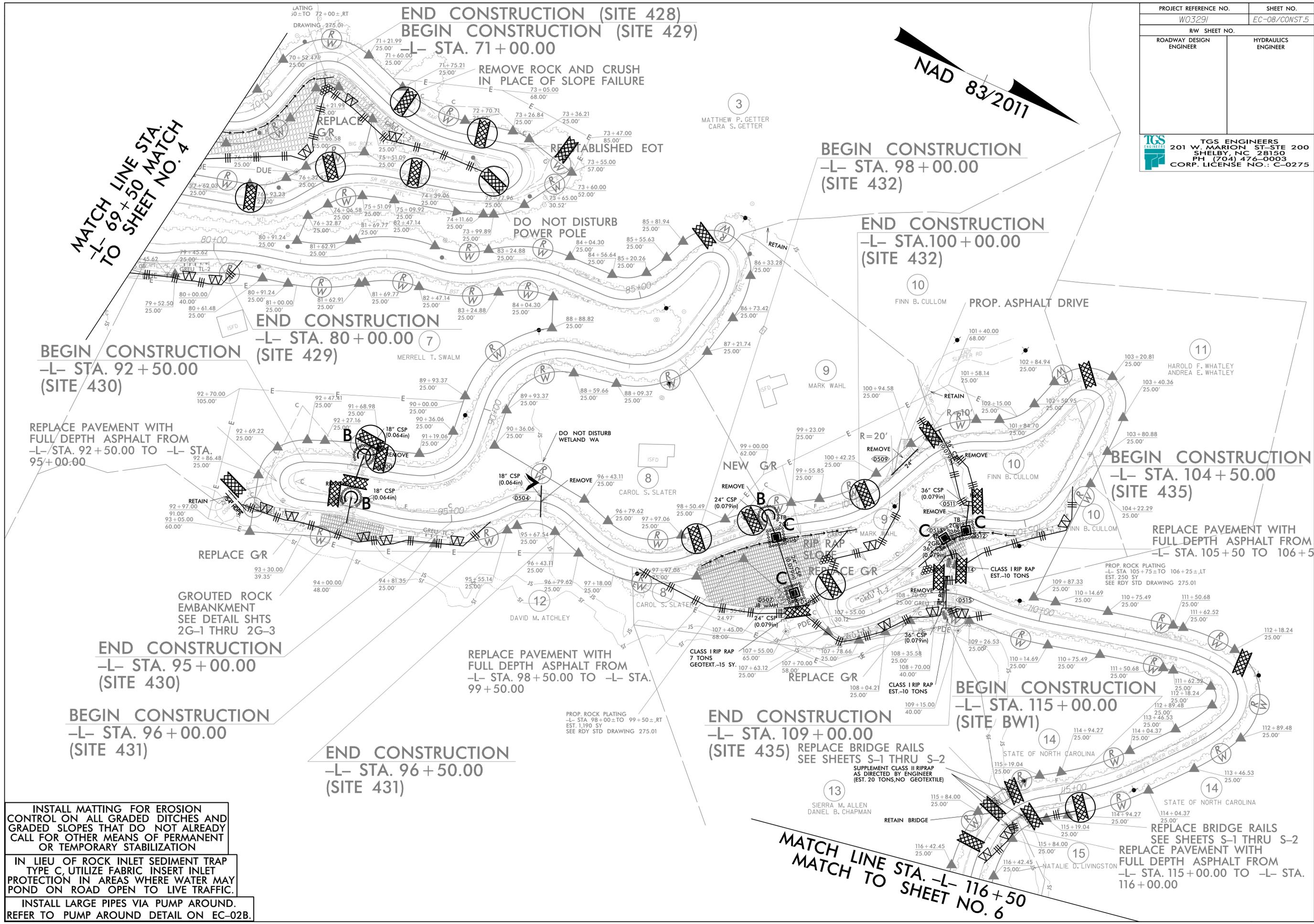
BEGIN CONSTRUCTION
-L- STA. 61+00.00
(SITE 427)

BEGIN REALIGNMENT
-L- STA. 64+50.00
BEGIN CONSTRUCTION (SITE 428)
-L- STA. 64+00.00
END CONSTRUCTION (SITE 427)
-L- STA. 63+50.00

MATCH LINE STA. -L- 69+50
MATCH TO SHEET NO. 5



PROJECT REFERENCE NO.		SHEET NO.	
W03291		EC-08/CONST.5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS		TGS ENGINEERS	
201 W. MARION ST. STE 200		201 W. MARION ST. STE 200	
SHELBY, NC 28150		SHELBY, NC 28150	
PH (704) 476-0003		PH (704) 476-0003	
CORP. LICENSE NO.: C-0275		CORP. LICENSE NO.: C-0275	



MATCH LINE STA. -L- 69+50 MATCH TO SHEET NO. 4

BEGIN CONSTRUCTION -L- STA. 98+00.00 (SITE 432)

END CONSTRUCTION -L- STA. 100+00.00 (SITE 432)

BEGIN CONSTRUCTION -L- STA. 92+50.00 (SITE 430)

REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 92+50.00 TO -L- STA. 95+00.00

END CONSTRUCTION -L- STA. 95+00.00 (SITE 430)

BEGIN CONSTRUCTION -L- STA. 96+00.00 (SITE 431)

END CONSTRUCTION -L- STA. 96+50.00 (SITE 431)

REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 98+50.00 TO -L- STA. 99+50.00

END CONSTRUCTION -L- STA. 109+00.00 (SITE 435)

BEGIN CONSTRUCTION -L- STA. 115+00.00 (SITE BW1)

BEGIN CONSTRUCTION -L- STA. 104+50.00 (SITE 435)

REPLACE PAVEMENT WITH FULL DEPTH ASPHALT FROM -L- STA. 105+50 TO 106+50

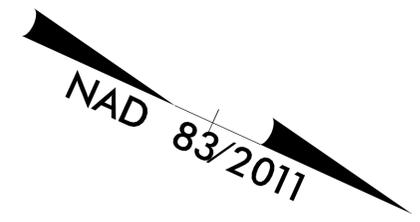
MATCH LINE STA. -L- 116+50 MATCH TO SHEET NO. 6

INSTALL MATTING FOR EROSION CONTROL ON ALL GRADED DITCHES AND GRADED SLOPES THAT DO NOT ALREADY CALL FOR OTHER MEANS OF PERMANENT OR TEMPORARY STABILIZATION

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

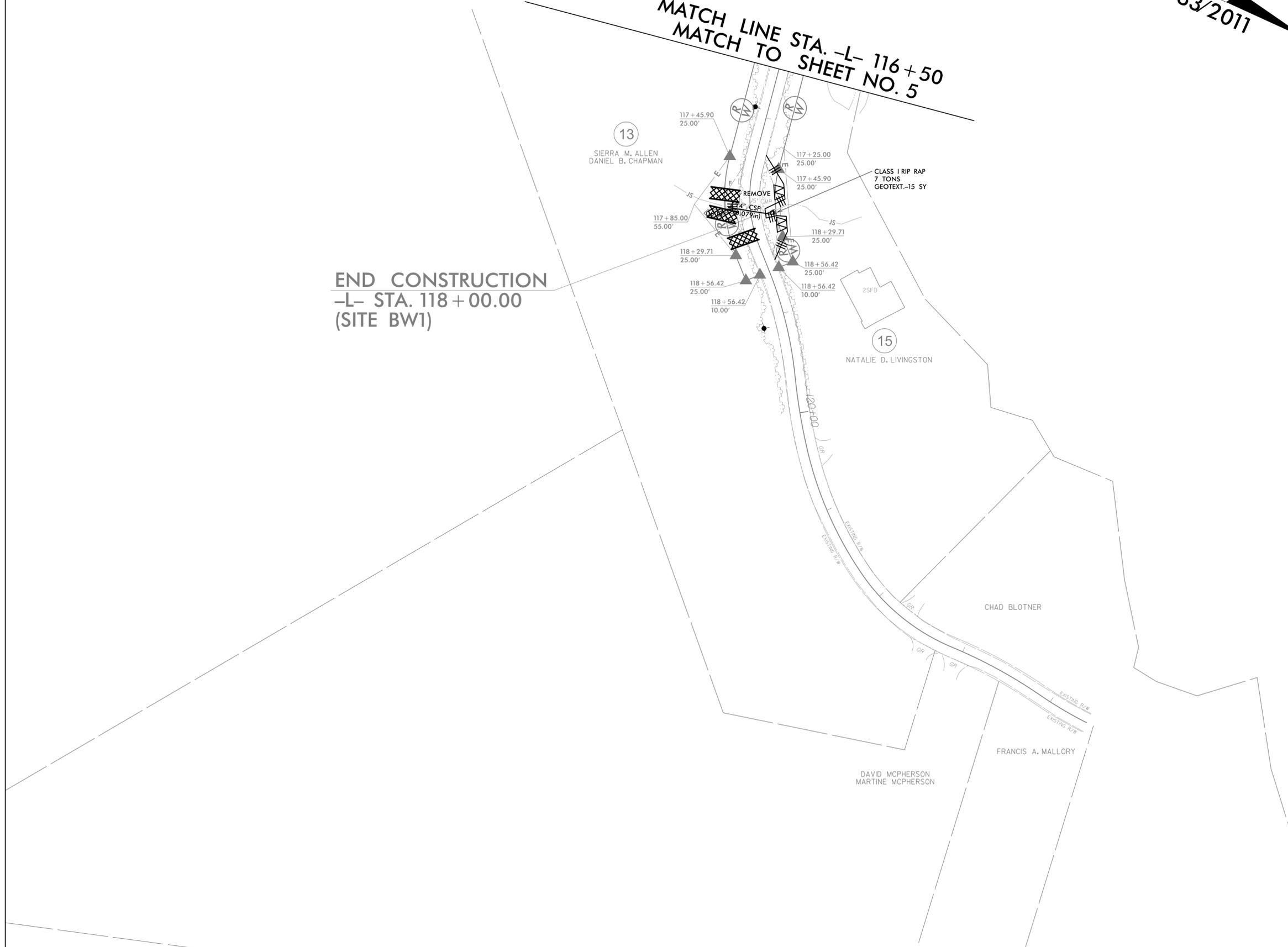
INSTALL LARGE PIPES VIA PUMP AROUND. REFER TO PUMP AROUND DETAIL ON EC-02B.

PROJECT REFERENCE NO.		SHEET NO.	
W03291		EC-09/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



**MATCH LINE STA. -L- 116+50
MATCH TO SHEET NO. 5**

**END CONSTRUCTION
-L- STA. 118+00.00
(SITE BW1)**



TGS ENGINEERS
201 W. MARION ST-STE 200
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275