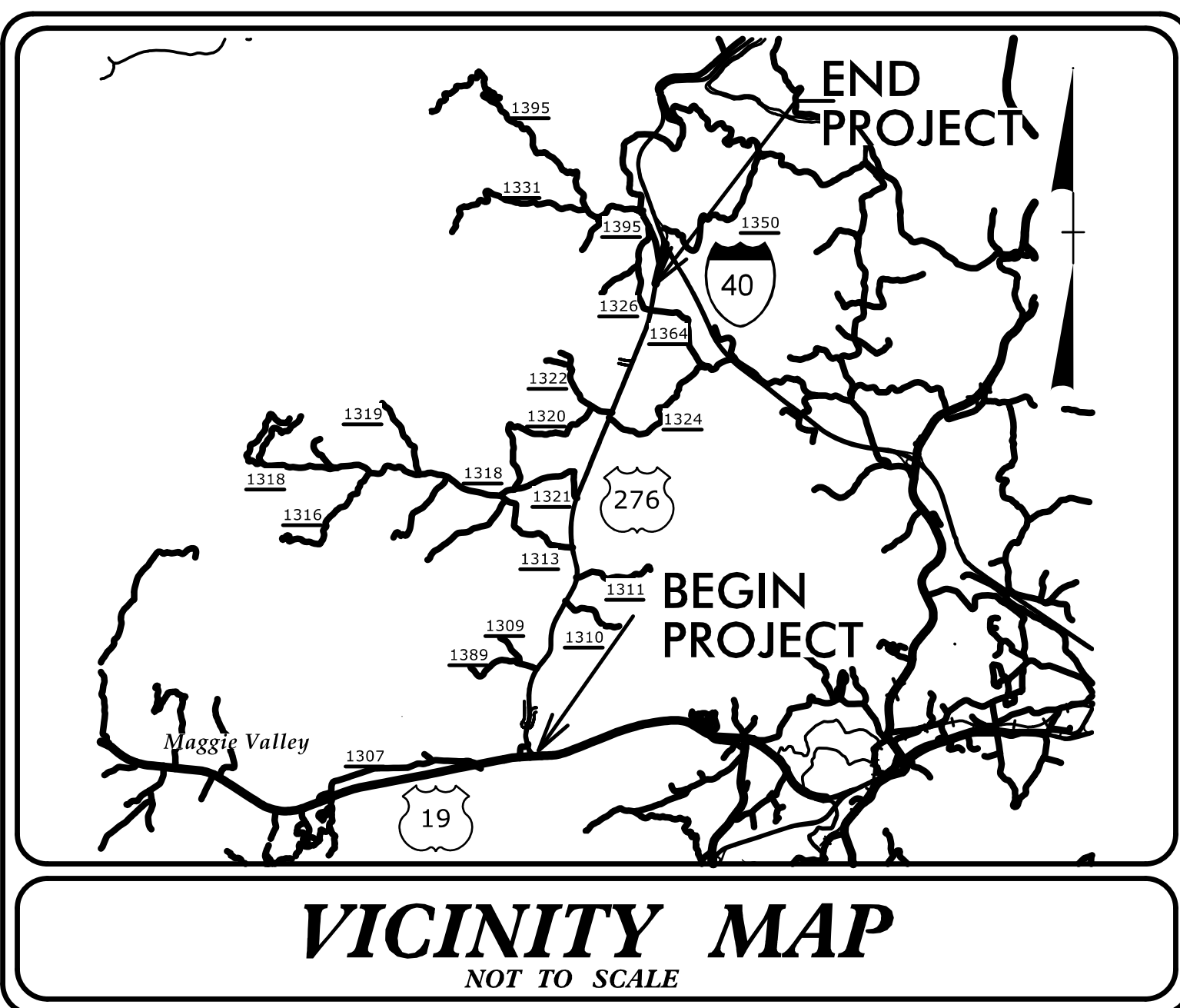
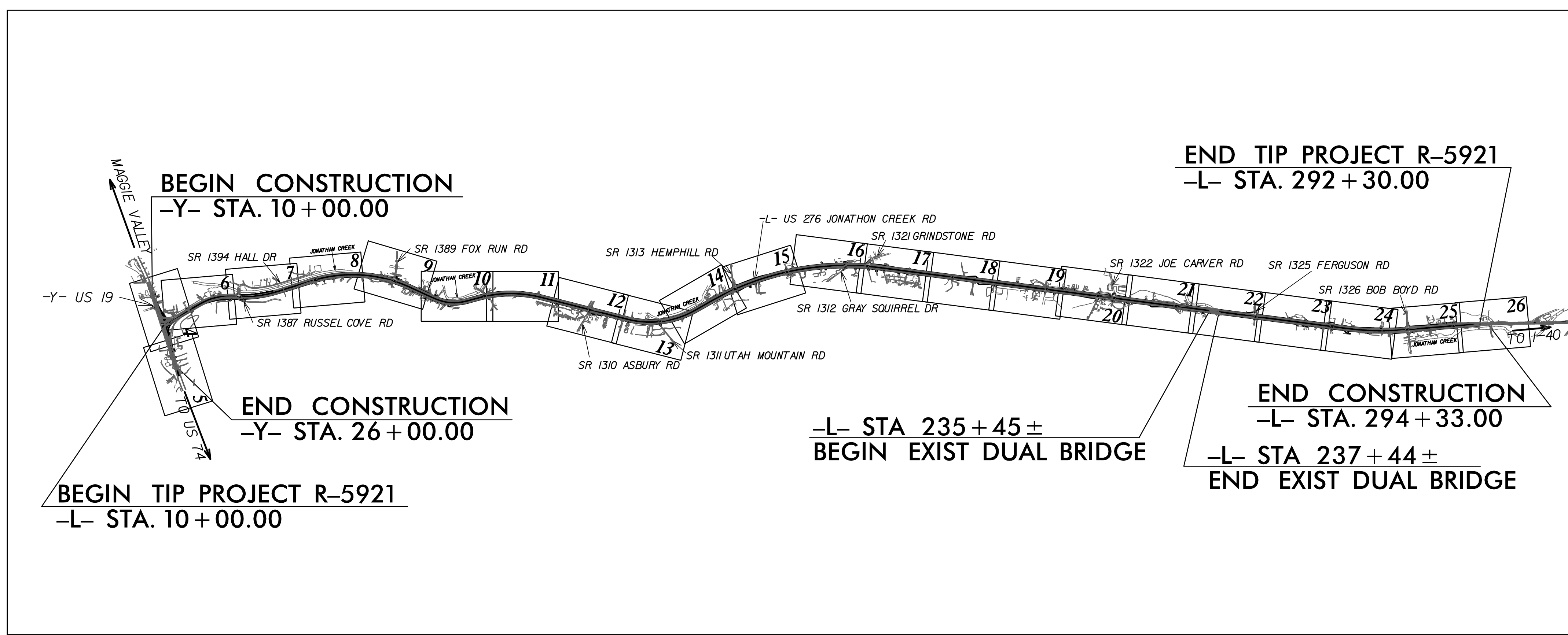


TIP PROJECT: R-5921
CONTRACT: C204943



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
 HAYWOOD COUNTY
 LOCATION: MODERNIZE US 276 (JONATHAN CREEK ROAD)
 FROM US 19 TO 0.5 MILES SOUTH OF I-40
 TYPE OF WORK: GRADING, PAVING, AND DRAINAGE

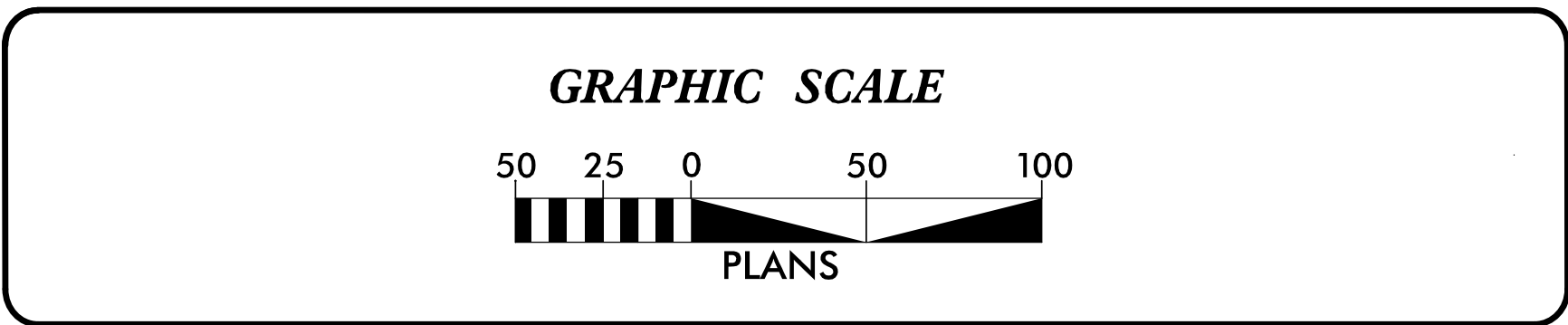
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5921	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48470.1.1	0276019	PE	
48470.2.1	0276019	R/W & UTIL	
48470.3.1	0276019	CONST.	



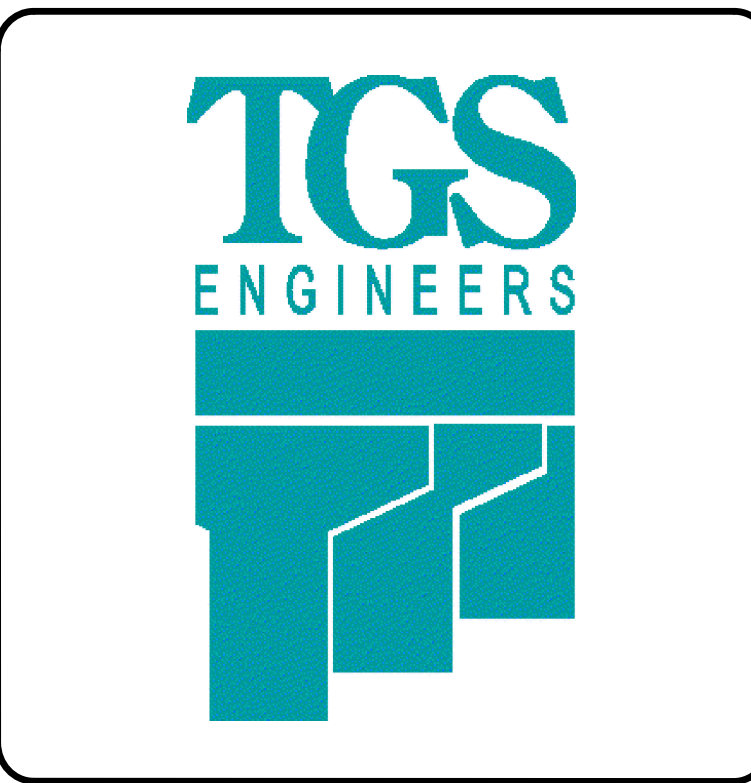
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

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.



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-STE 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. R-5921	SHEET NO. EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

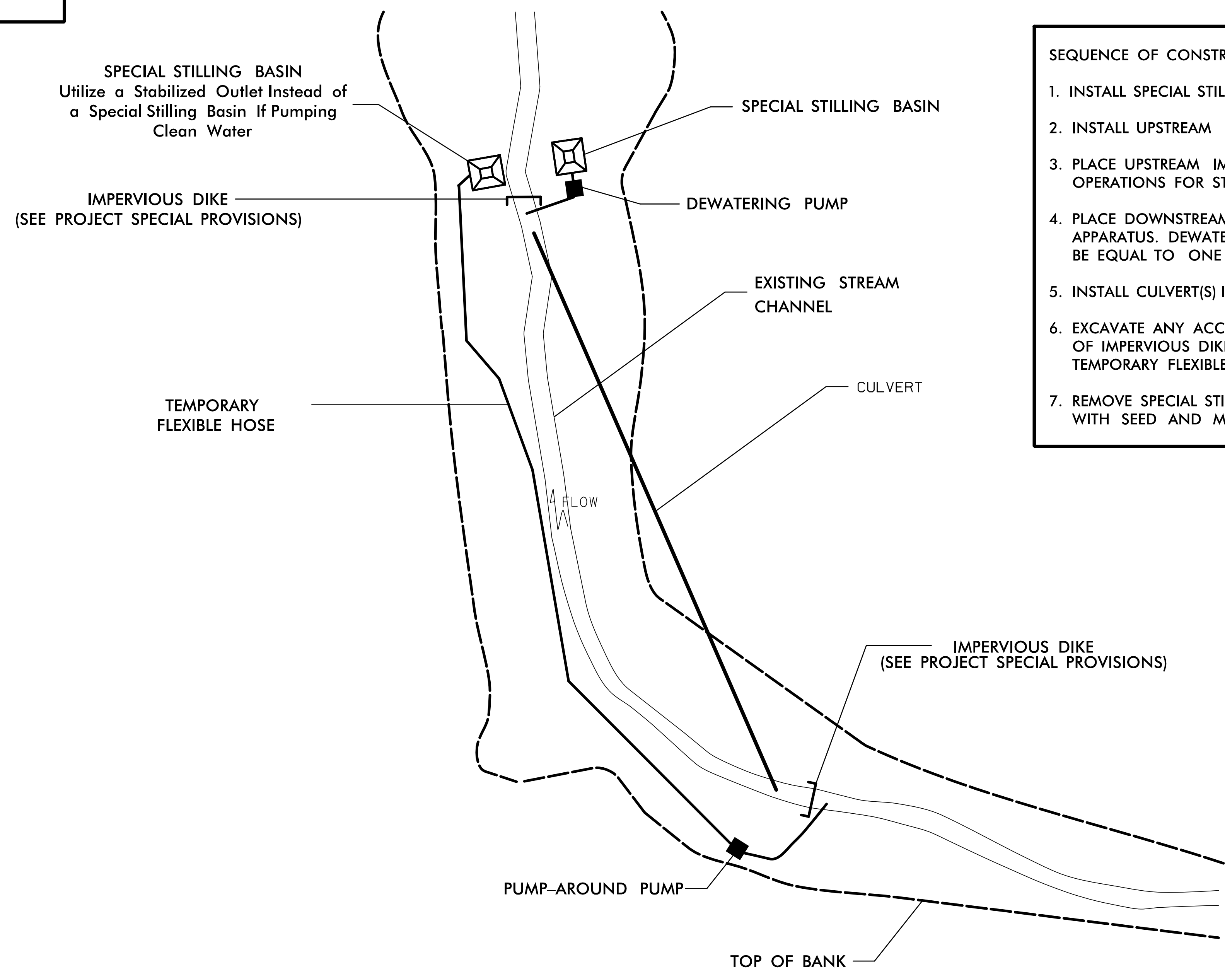
EROSION & SEDIMENT CONTROL LEGEND

<u>Std. #</u>	<u>Description</u>	<u>Symbol</u>	<u>Std. #</u>	<u>Description</u>	<u>Symbol</u>
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>R-5921</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXAMPLE OF PUMP-AROUND OPERATION

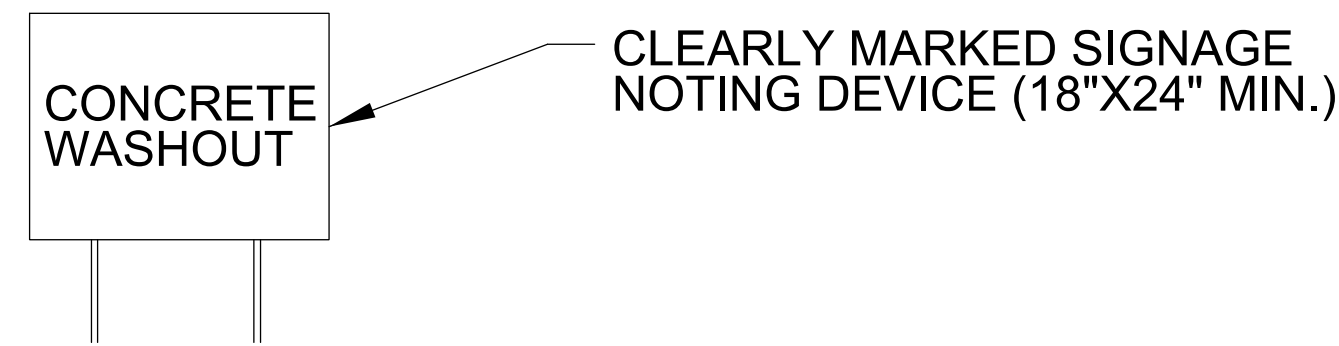
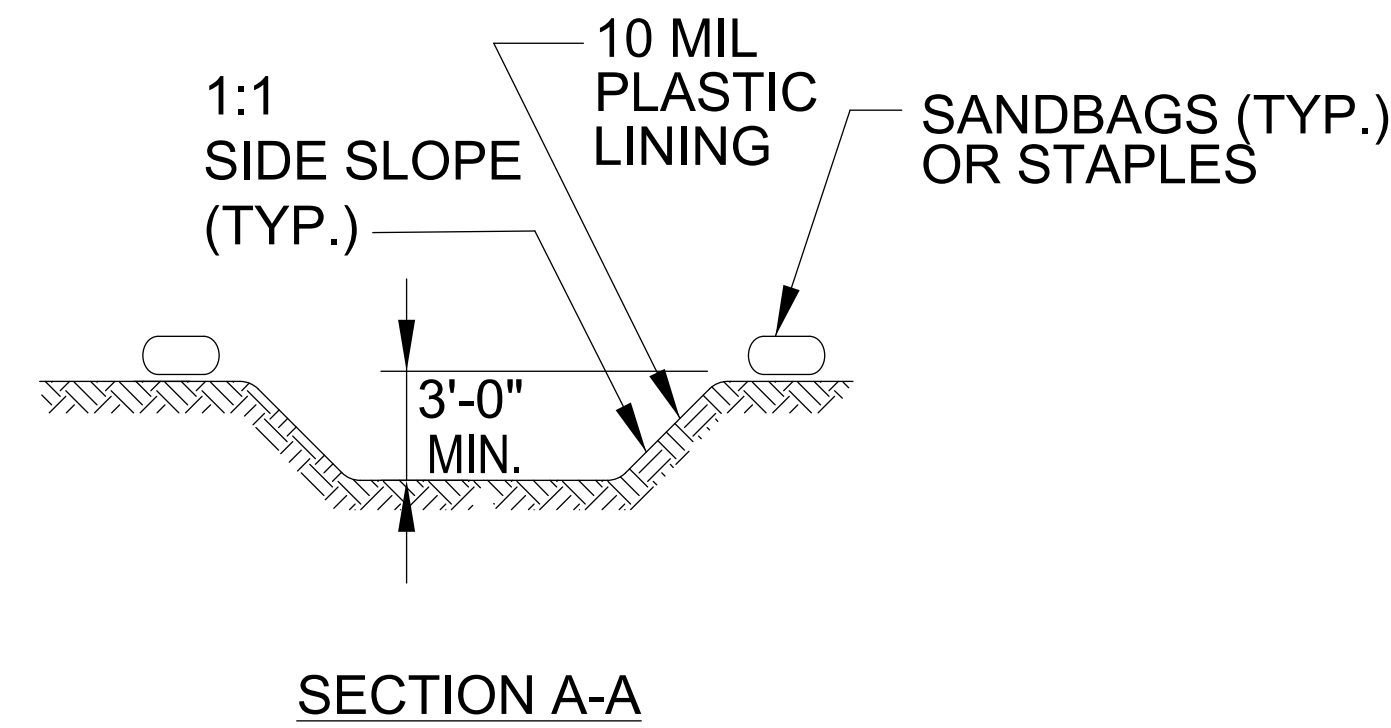
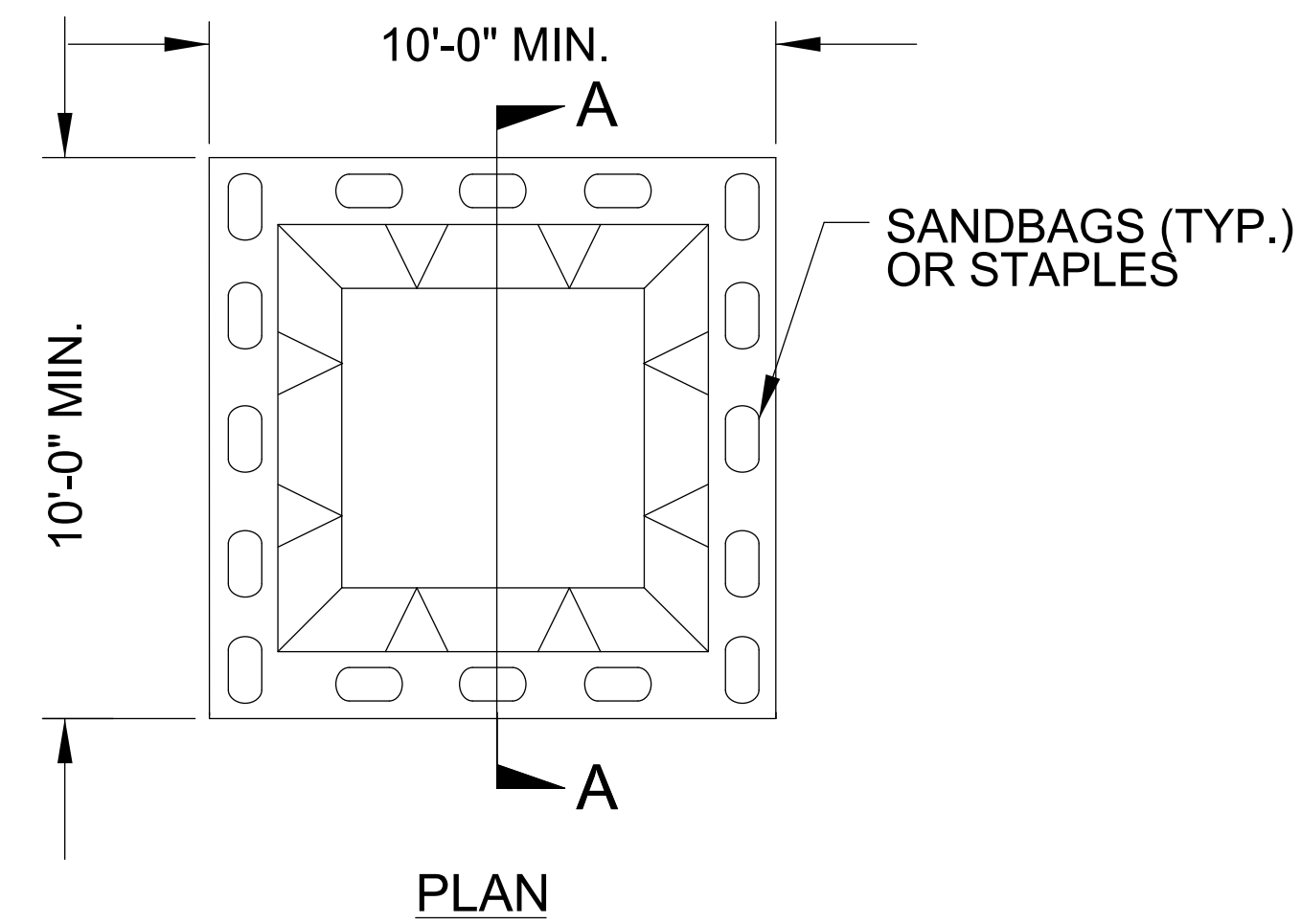
- NOTES:
- 1) All excavation shall be performed in only dry or isolated areas of the work zone.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion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

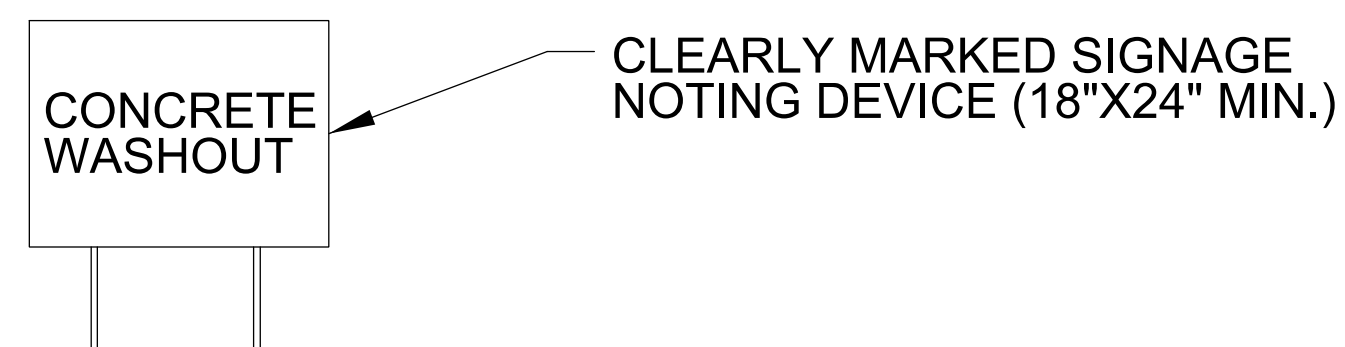
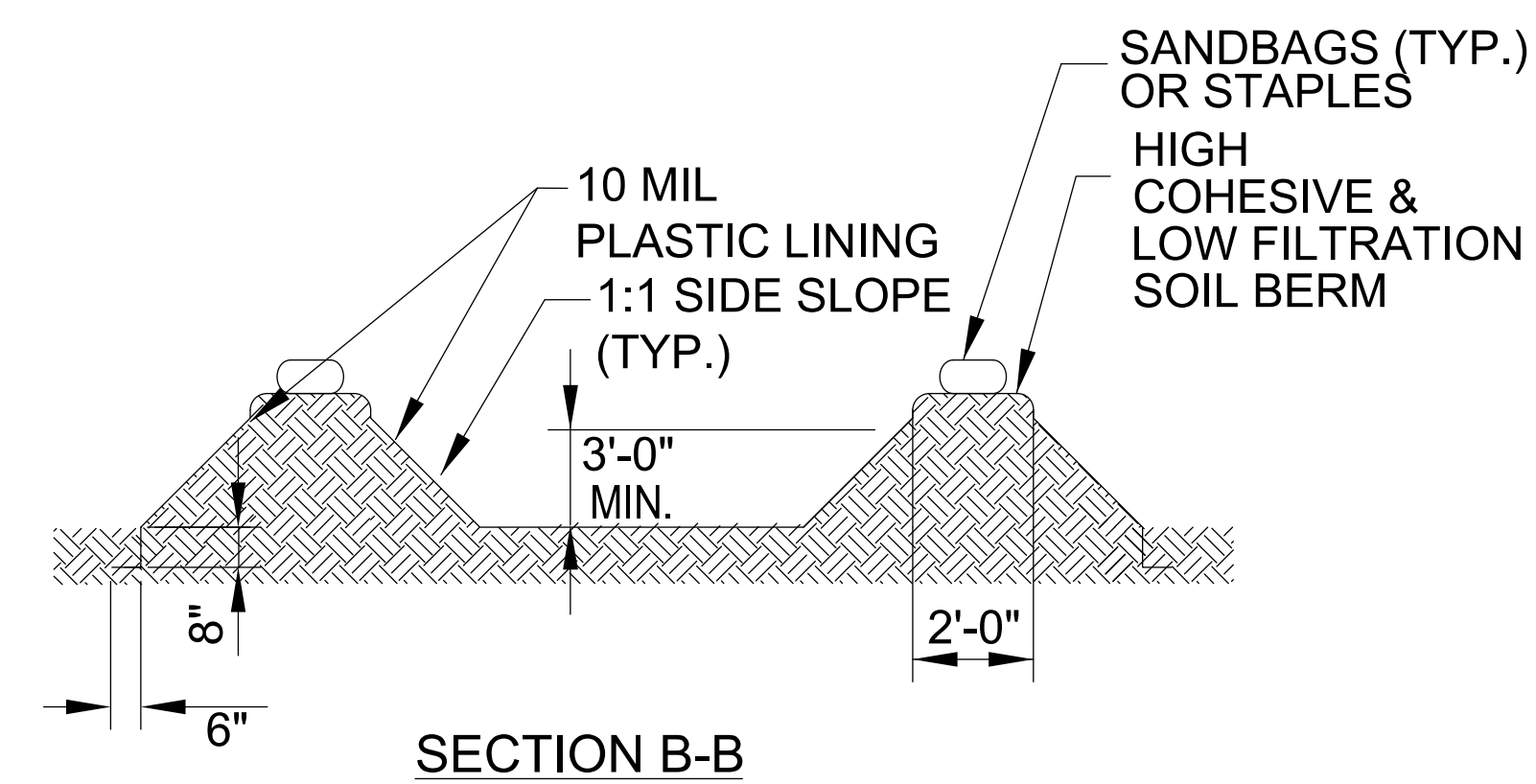
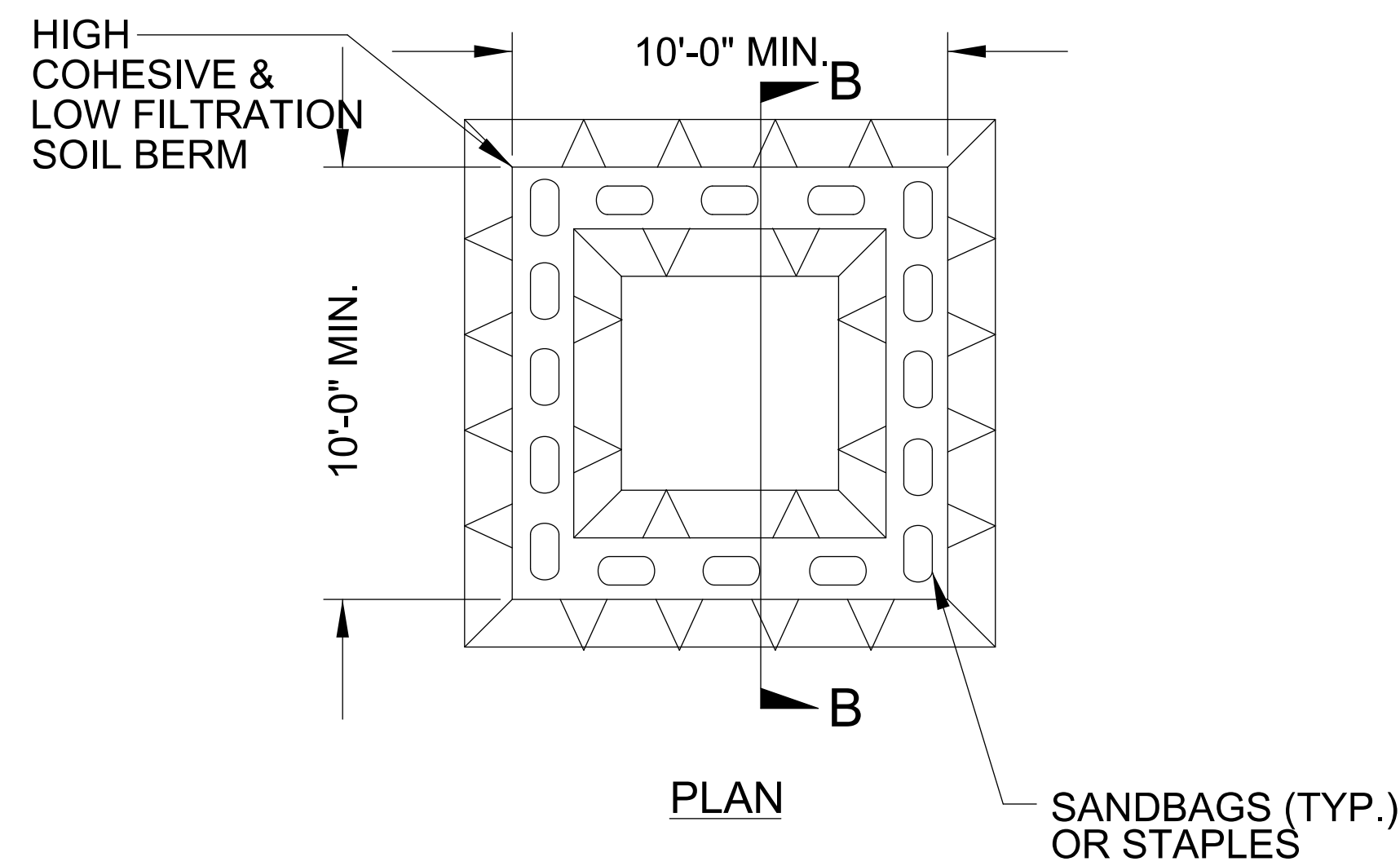
PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. R-592I		SHEET NO. EC-3	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

SOIL STABILIZATION SUMMARY SHEET

DITCHLINE MATTING FOR EROSION CONTROL

SLOPE MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
DITCHLINE STRAW MATTING					
4	L	13+50	15+50	RT	740
5	Y	25+00	25+10	RT	10
6	L	16+50	18+50	RT	650
7	L	35+50	42+00	MED	1,915
9	L	60+00	60+50	RT	70
12	L	96+50	101+50	MED	1,475
12	L	103+00	108+00	MED	1,475
13	L	118+00	123+50	MED	490
14	L	127+50	134+00	MED	1,440
15	L	134+50	137+50	RT	265
15	L	135+50	145+50	MED	2,945
17	L	164+00	169+50	MED	1,055
18	L	186+00	188+00	RT	300
18	L	188+00	188+50	RT	75
18	L	187+50	200+35	MED	3,785
19	L	201+50	206+15	MED	1,235
20	L	208+70	211+50	RT	825
20	L	216+00	221+00	MED	1,475
21	L	225+00	229+00	MED	885
22	L	245+50	253+50	MED	2,360
24	L	262+00	267+50	MED	1,620
24	L	271+00	276+50	MED	1,620
25	L	278+00	286+00	MED	2,120
			SUBTOTAL		28,830
DITCHLINE EXCELSIOR MATTING					
5	Y	22+54	23+47	RT	55
5	Y	24+20	25+00	RT	65
			SUBTOTAL		120

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
SLOPE STRAW MATTING					
4	Y	13+50	15+50	LT	550
6	L	18+00	18+50	LT	262
7	L	28+50	32+00	RT	615
7	L	36+00	36+50	RT	46
10	L	70+50	73+00	LT	125
10	L	75+00	77+50	RT	560
12	L	102+15	102+60	LT	21
12	L	101+50	102+30	RT	19
12	L	108+50	109+50	LT	176
15	L	139+10	141+50	LT	506
16	L	157+00	157+88	RT	41
16	L	158+75	160+70	LT	49
18	L	184+50	185+50	LT	141
20	L	217+00	218+50	LT	150
21	L	222+00	228+00	RT	1,265
21	L	229+00	230+58	LT	59
21	L	229+50	233+00	RT	522
22	L	243+50	244+88	LT	275
22	L	245+50	246+00	RT	112
23	L	251+50	252+30	LT	55
24	L	262+50	263+00	RT	50
24	L	271+70	272+50	LT	55
CONTINUED ON NEXT SHEET					

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION SUMMARY SHEET

DITCHLINE MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
SLOPE STRAW MATTING					
24	L	271+50	272+50	RT	50
25	L	274+00	276+00	RT	422
25	L	281+00	281+63	LT	58
25	L	281+18	281+96	RT	72
25	L	283+50	288+00	RT	560
26	L	288+00	294+00	RT	150
			SUBTOTAL		6,966
SLOPE STRAW MATTING SUBTOTAL					6,966
DITCHLINE STRAW MATTING SUBTOTAL					28,830
DITCHLINE EXCELSIOR MATTING SUBTOTAL					120
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					67,914
					TOTAL
					SAY
					103,830
					103,830

SLOPE COIR FIBER MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
13	L	116+00	128+50	LT	879
			MISCELLANEOUS COIR FIBER MATTING		1,096
			COIR FIBER MATTING TOTAL		1,975

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-592I</i>	SHEET NO. <i>EC-3B</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

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.


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

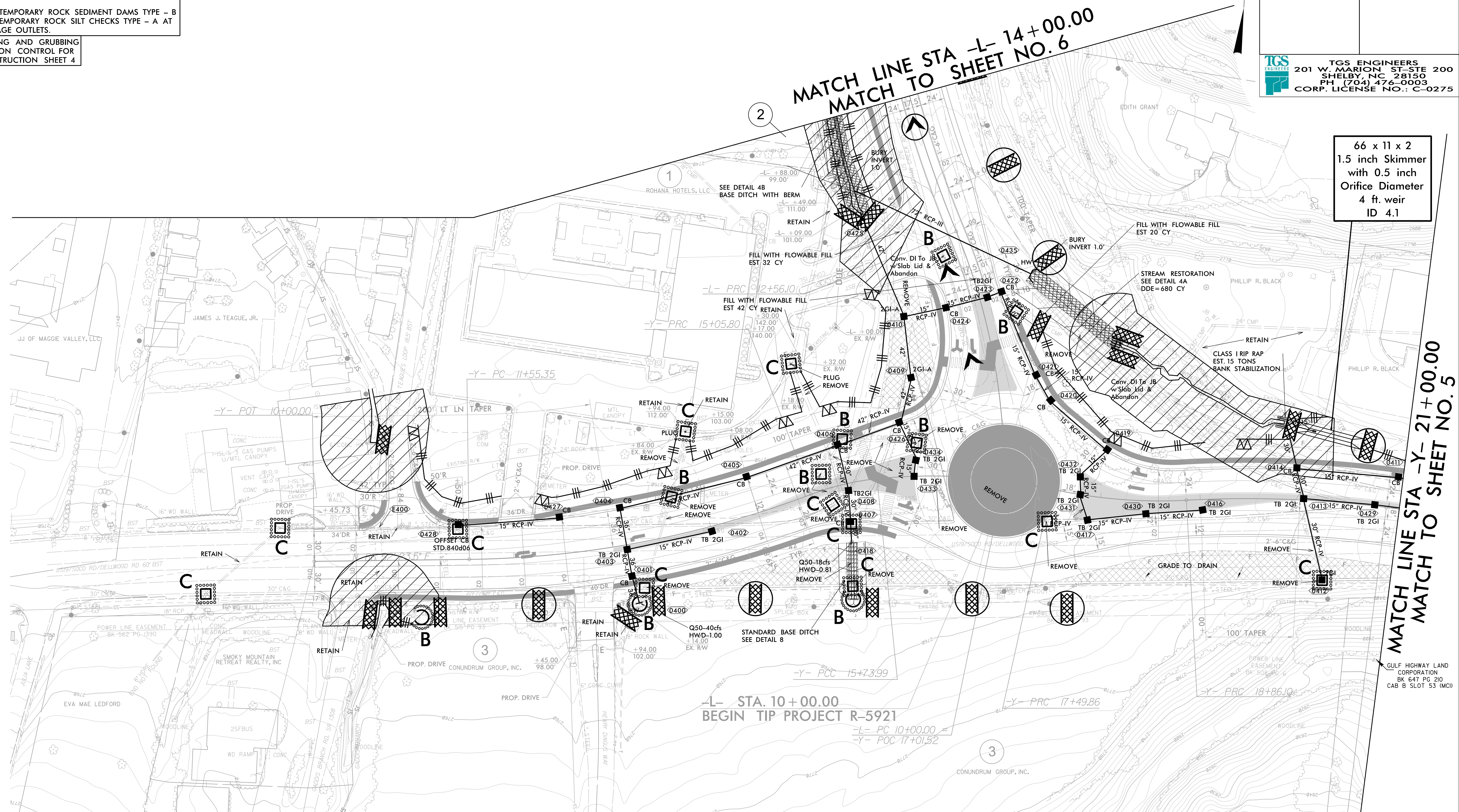
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

INSTALL LARGE PIPE(S) IN JURISDICTIONAL AREAS VIA PUMP AROUND AS NECESSARY. REFER TO EC-2C FOR PUMP AROUND DETAIL.

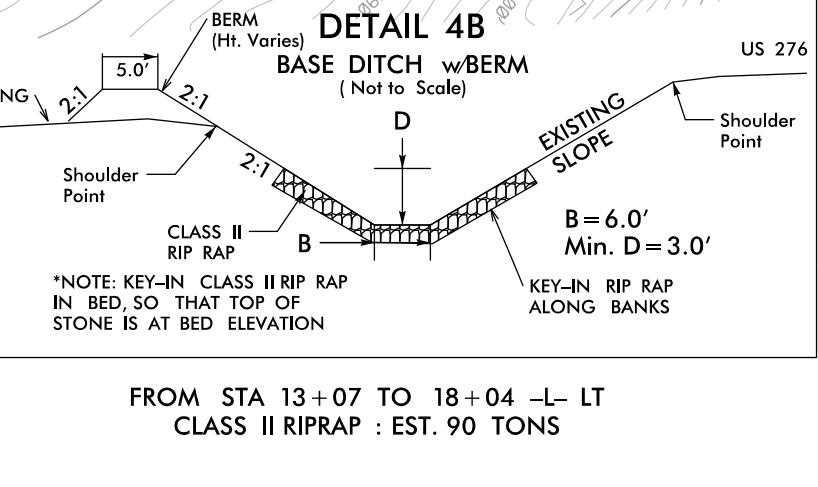
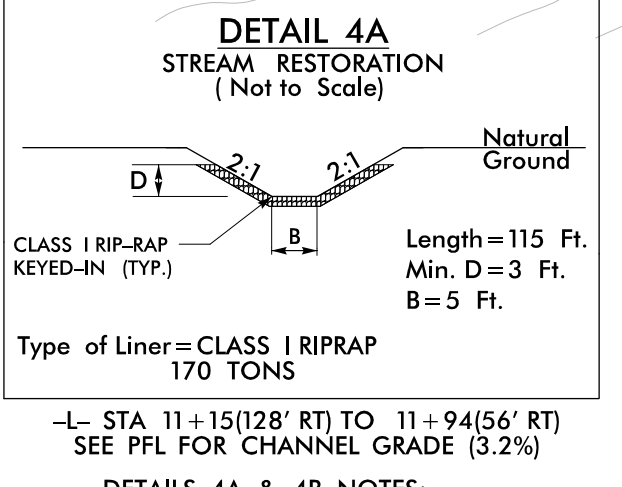
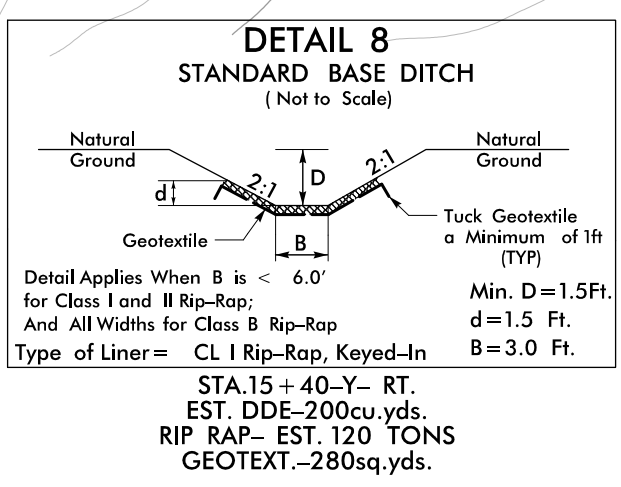
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

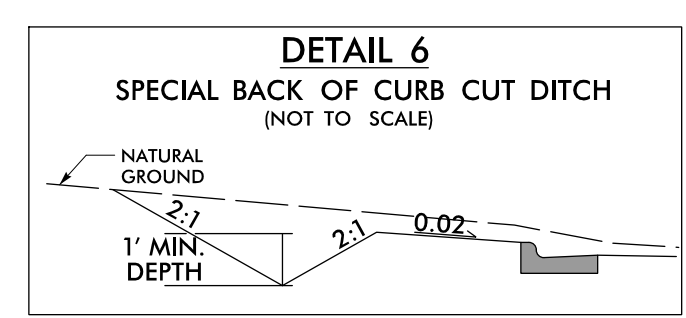
PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-04/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



66 x 11 x 2
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 4.1



PROJECT REFERENCE NO.	SHEET NO.
R-5921	EC-05/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



FROM STA. 22+54 TO STA. 23+47-Y- RT.
FROM STA. 24+20 TO STA. 25+00-Y- RT.



MATCH LINE STA -Y- 21+00.00
MATCH TO SHEET NO. 4

-Y- STA. 26+00.00
END CONSTRUCTION

CONTRACTOR IS TO CONNECT EXISTING FRENCH DRAIN ON PARCEL 08 TO NEAREST PROPOSED DRAINAGE STRUCTURE. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR THIS WORK.


ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

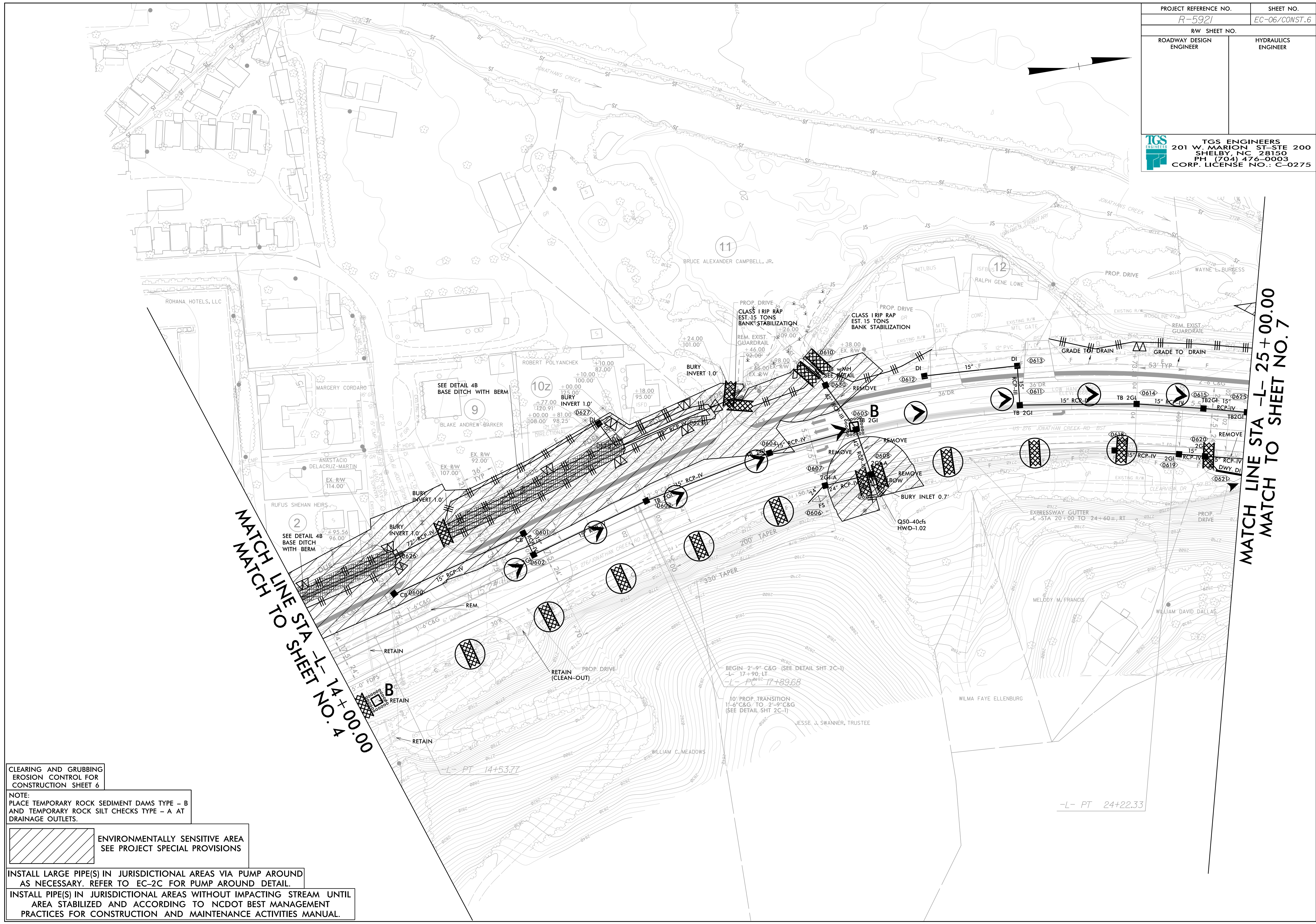
IN LIEU OF ROCK INLET SEDIMENT TRAP, UTILIZE FABRIC INSERT INLET PROTECTION OR OTHER APPROVED DEVICE IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

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 5

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

PROJECT REFERENCE NO. <i>R-5921</i>		SHEET NO. <i>EC-06/CONST.6</i>	
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- 14+00.00
MATCH TO SHEET NO. 4

MATCH LINE STA -L- 25+00.00
MATCH TO SHEET NO. 7

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.

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

INSTALL LARGE PIPE(S) IN JURISDICTIONAL AREAS VIA PUMP AROUND
AS NECESSARY. REFER TO EC-2C FOR PUMP AROUND DETAIL.

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.

BEGIN 2'-9" C&G (SEE DETAIL SHT 2C-1)
-L- 17+90.11
-L- PC 17+89.68

10' PROP. TRANSITION
1'-6" C&G TO 2'-9" C&G
(SEE DETAIL SHT 2C-1)

-L- PT 24+22.33


INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

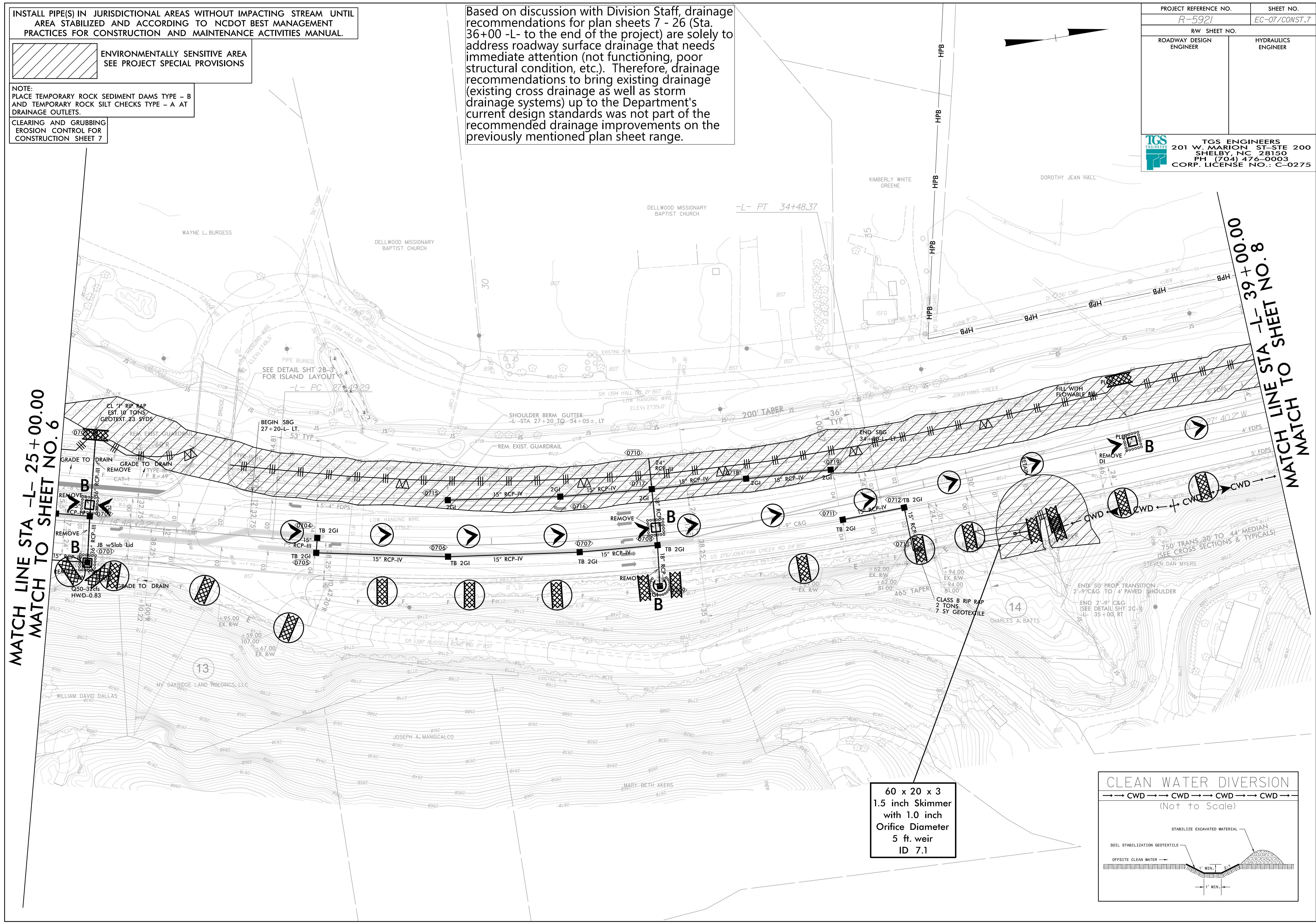
 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 7

Based on discussion with Division Staff, drainage recommendations for plan sheets 7 - 26 (Sta. 36+00 -L- to the end of the project) are solely to address roadway surface drainage that needs immediate attention (not functioning, poor structural condition, etc.). Therefore, drainage recommendations to bring existing drainage (existing cross drainage as well as storm drainage systems) up to the Department's current design standards was not part of the recommended drainage improvements on the previously mentioned plan sheet range.

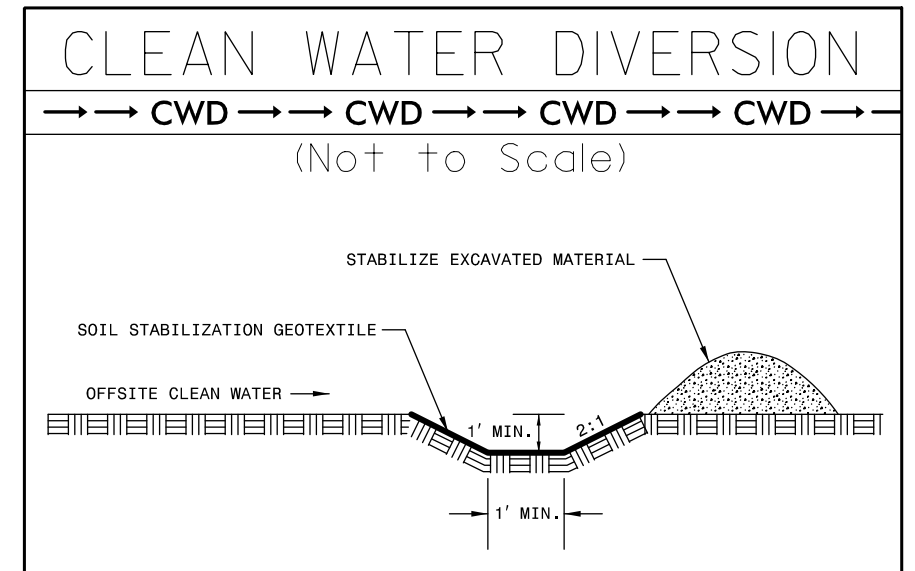
PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-07/CONST.7</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W. MARION ST-STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

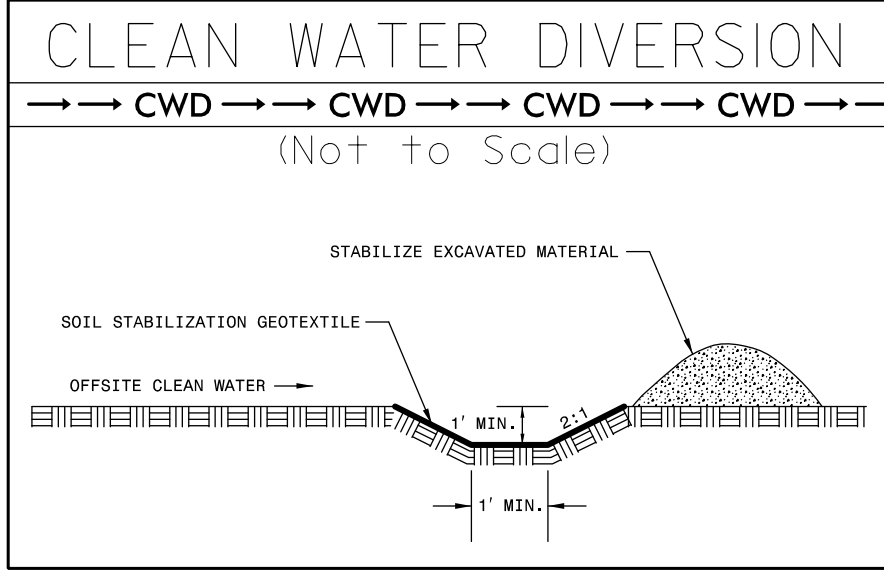


MATCH LINE STA -L- 25+00.00
MATCH TO SHEET NO. 6

MATCH LINE STA -L- 39+00.00
MATCH TO SHEET NO. 8

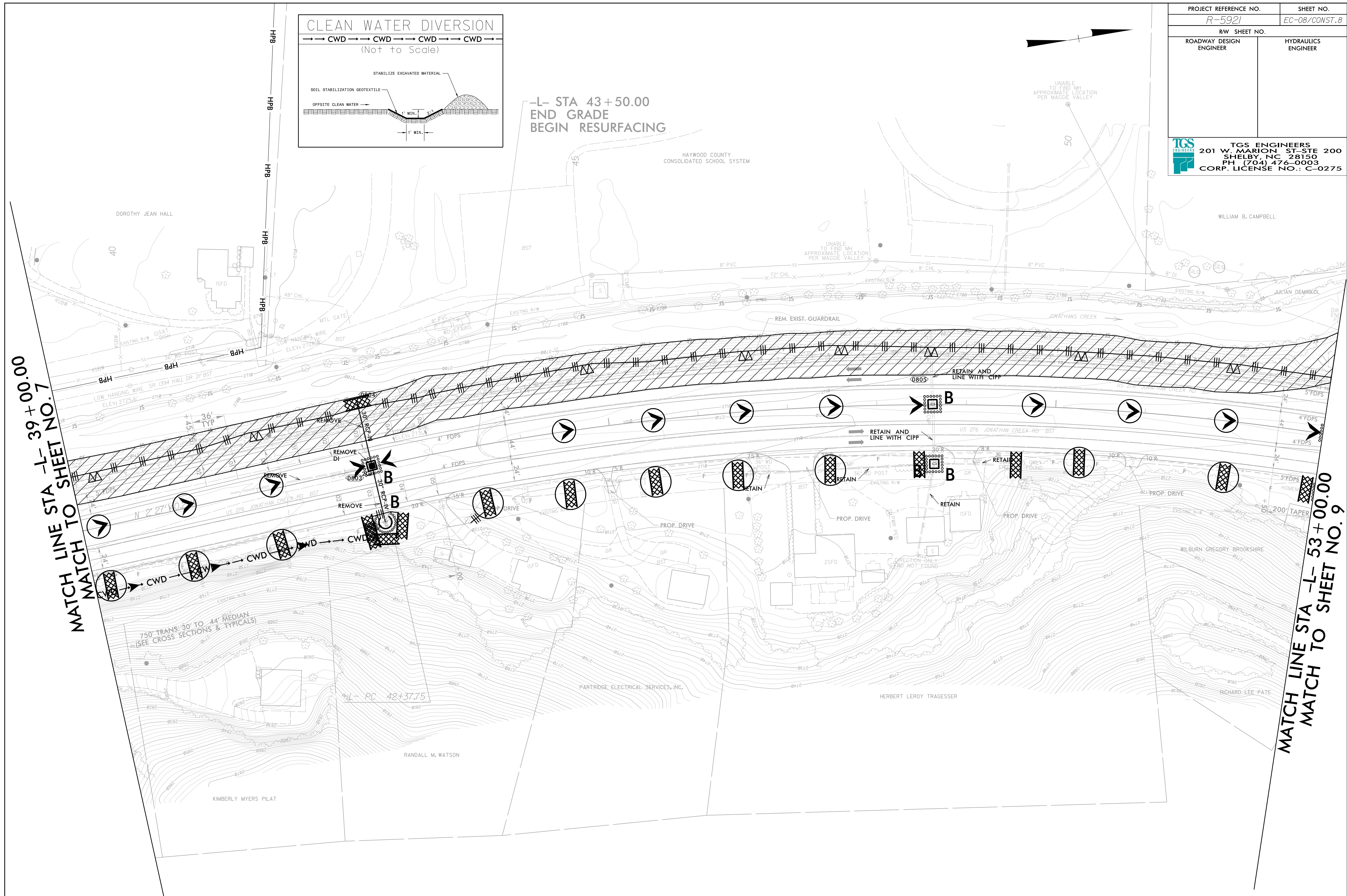
60 x 20 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 7.1





-L- STA 43+50.00
END GRADE
BEGIN RESURFACING

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-08/CONST.8</i>
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	



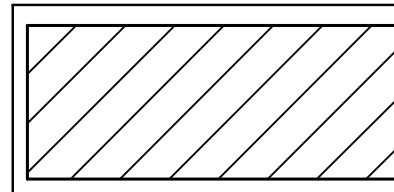
MATCH LINE STA -L- 39+00.00
MATCH TO SHEET NO. 7

MATCH LINE STA -L- 53+00.00
MATCH TO SHEET NO. 9

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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.

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




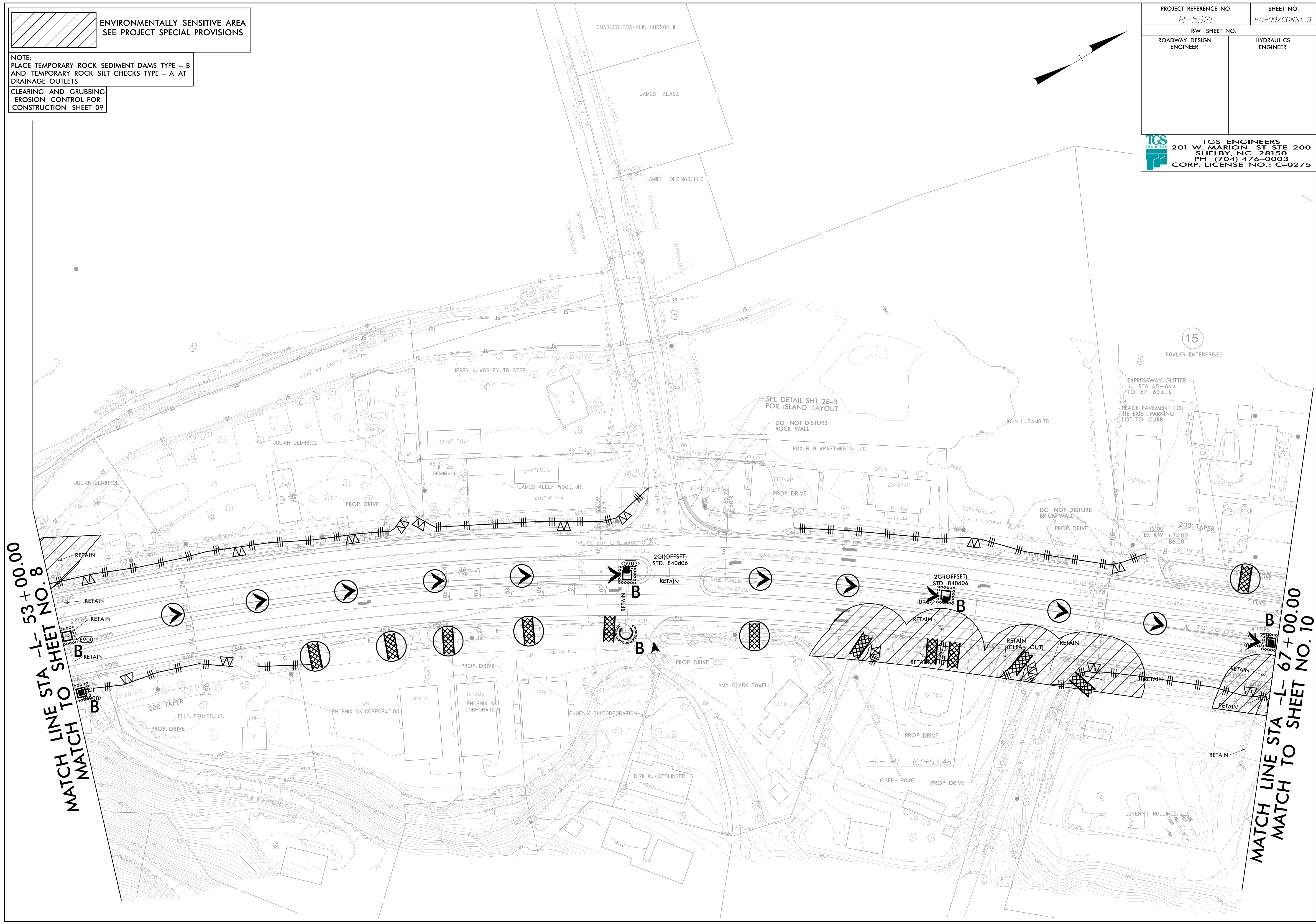
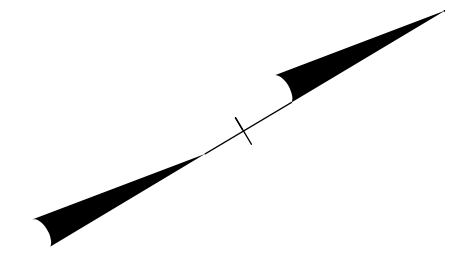
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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 09

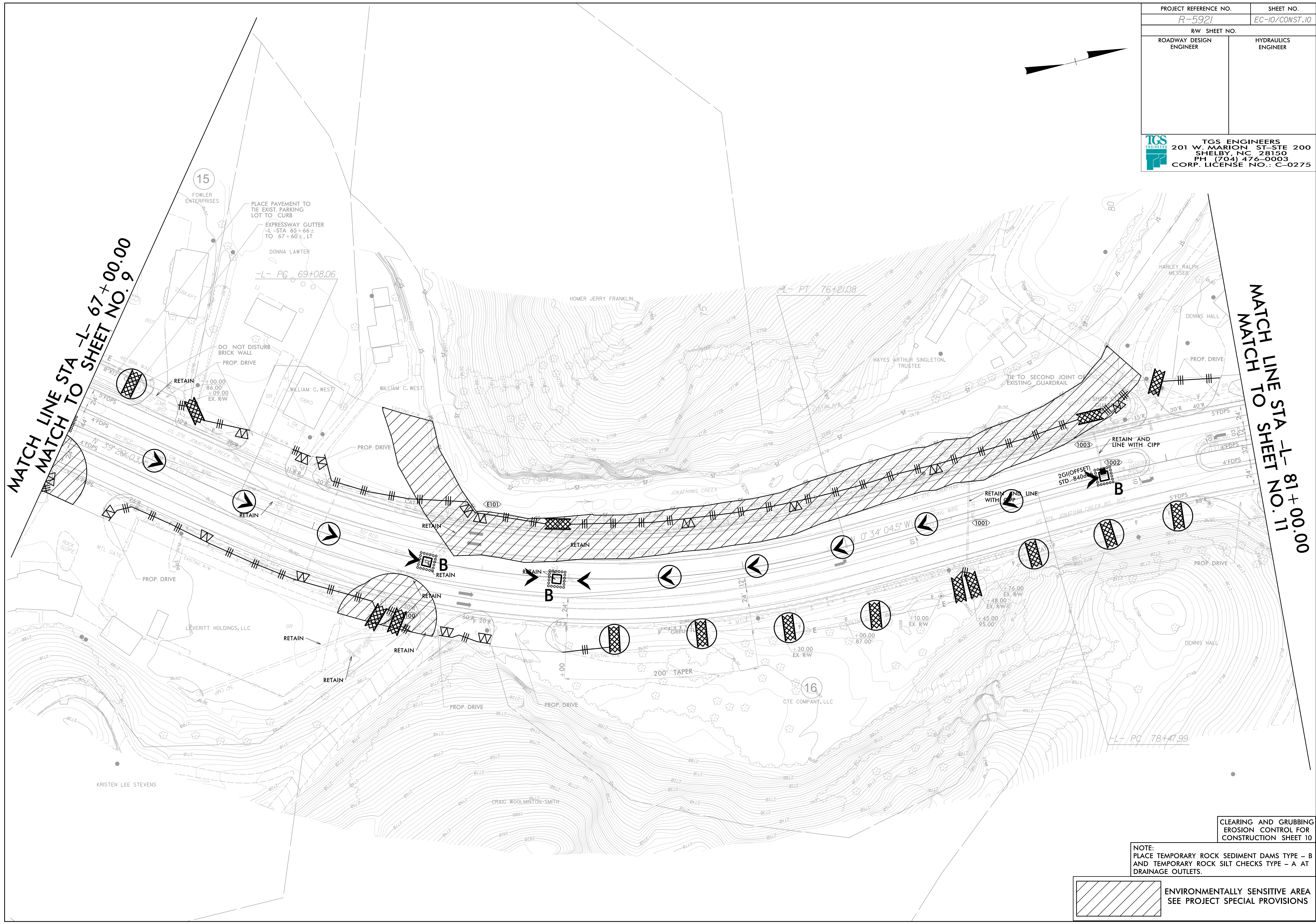
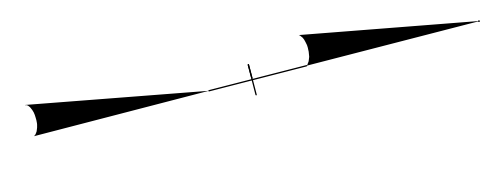
PROJECT REFERENCE NO. <i>R-5921</i>		SHEET NO. <i>EC-09/CONST.9</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 TGS ENGINEERS 201 W. MARION ST-STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275			



MATCH LINE STA -L- 53+00.00
MATCH TO SHEET NO. 8

MATCH LINE STA -L- 67+00.00
MATCH TO SHEET NO. 10

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-10/CONST.10</i>
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	

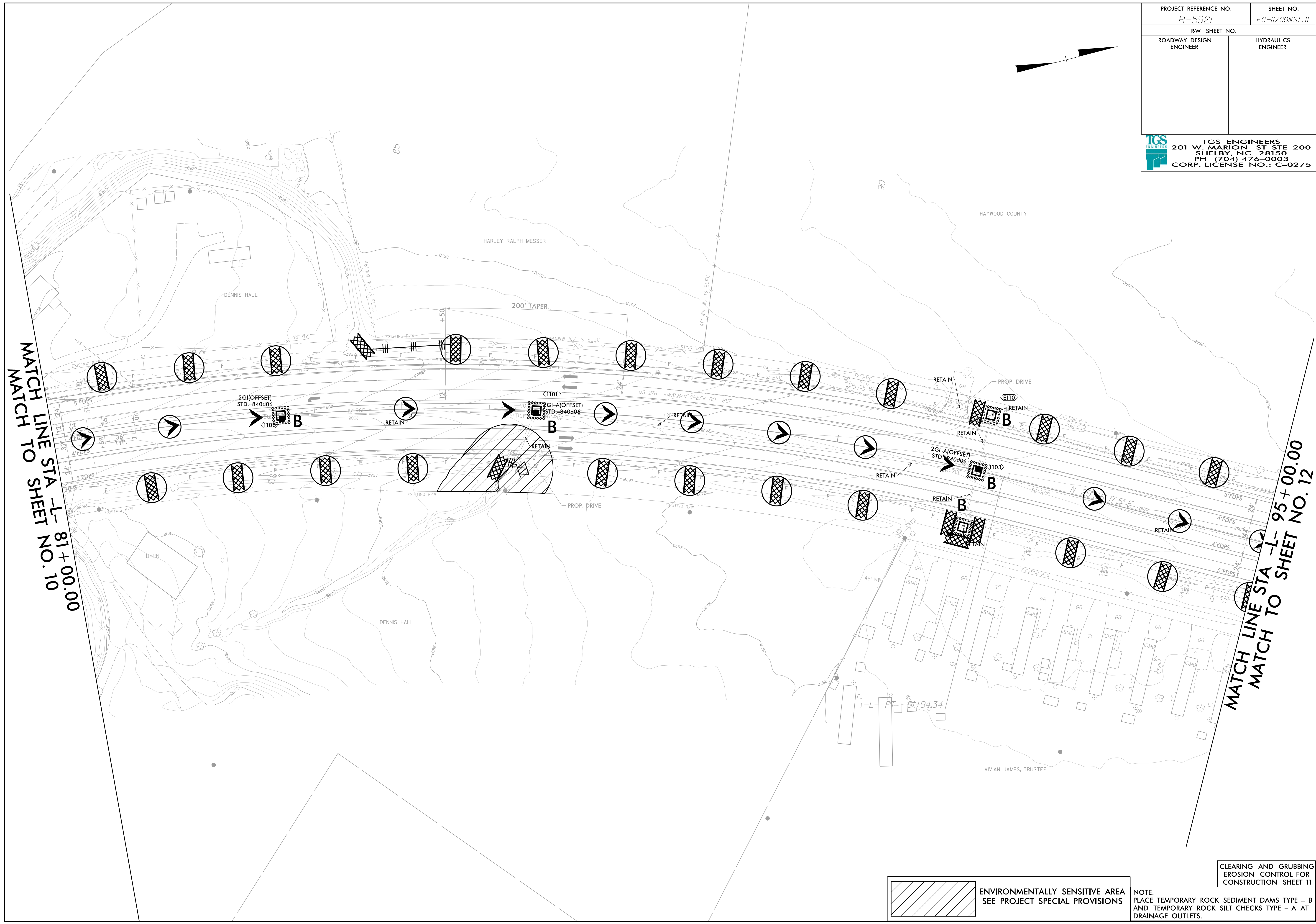
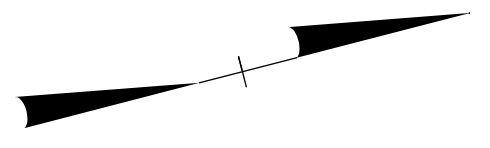


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-11/CONST.11</i>
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- 81+00.00
MATCH TO SHEET NO. 10

MATCH LINE STA -L- 95+00.00
MATCH TO SHEET NO. 11

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

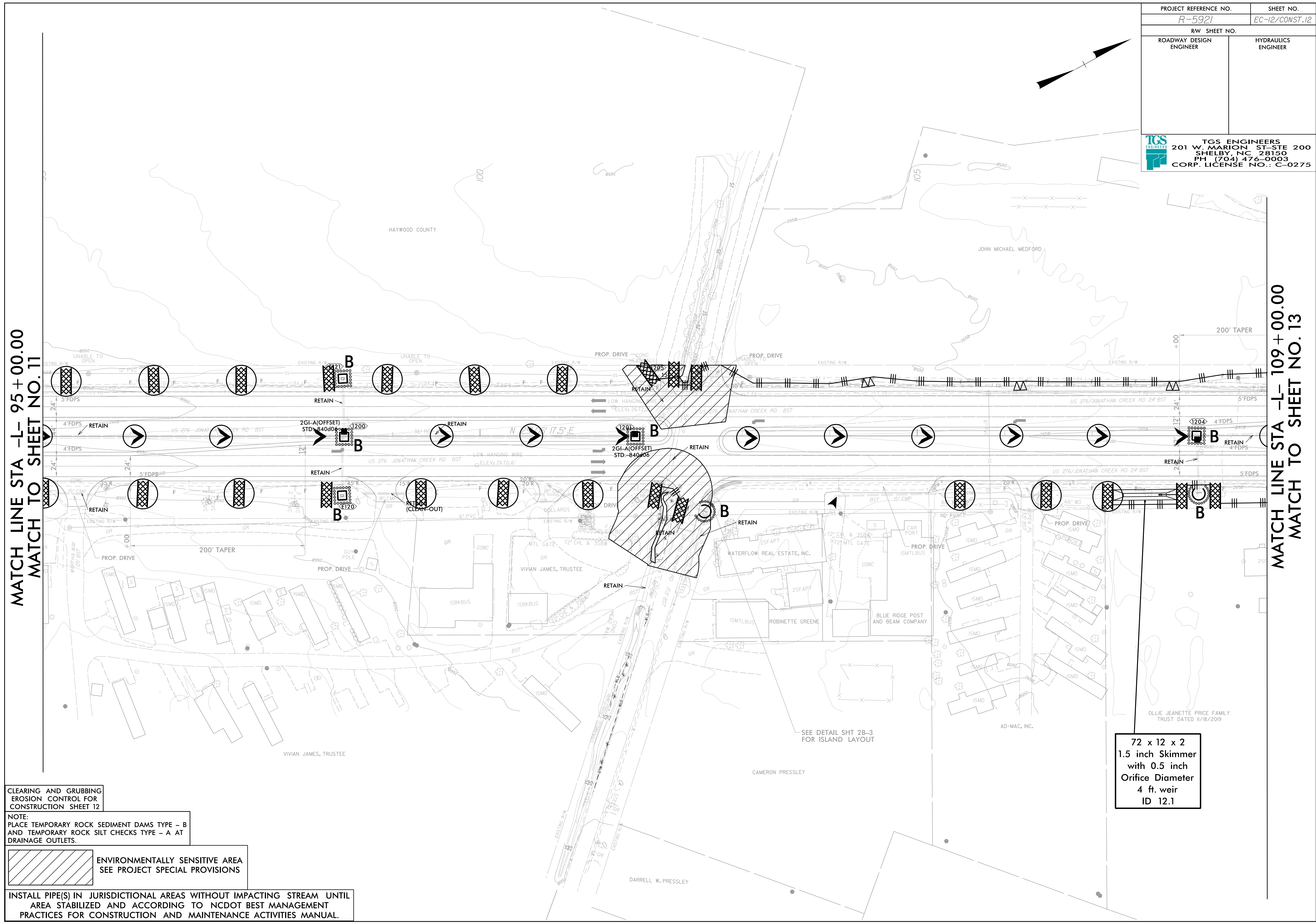
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-12/CONST.12</i>
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- 95 + 00.00
MATCH TO SHEET NO. 11

MATCH LINE STA -L- 109 + 00.00
MATCH TO SHEET NO. 13



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.

ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

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.

72 x 12 x 2
 1.5 inch Skimmer
 with 0.5 inch
 Orifice Diameter
 4 ft. weir
 ID 12.1

SEE DETAIL SHT 2B-3
 FOR ISLAND LAYOUT

OLLIE JEANNETTE PRICE FAMILY
 TRUST DATED 11/18/2019

AD-MAC, INC.

CAMERON PRESSLEY

DARRELL W. PRESSLEY

VIVIAN JAMES, TRUSTEE

WATERFLOW REAL ESTATE, INC.

ROBINETTE GREENE

BLUE RIDGE POST
 AND BEAM COMPANY

ISBKBUS

ISBKBUS

ISBKBUS

ISBKBUS

ISBKBUS

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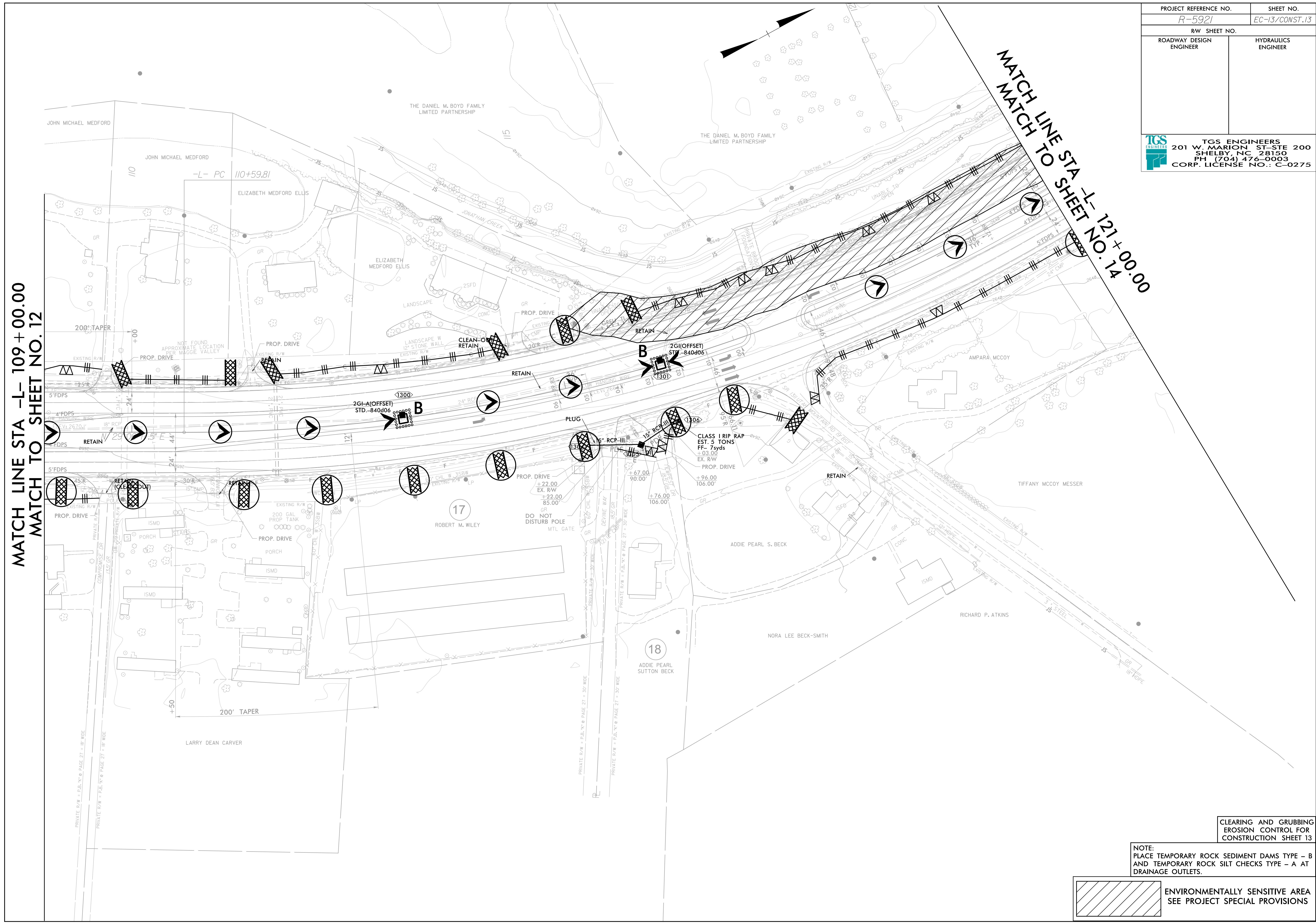
ISBKBUS

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-13/CONST.13</i>
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- 109+00.00
MATCH TO SHEET NO. 12


MATCH LINE STA -L- 121+00.00
MATCH TO SHEET NO. 14

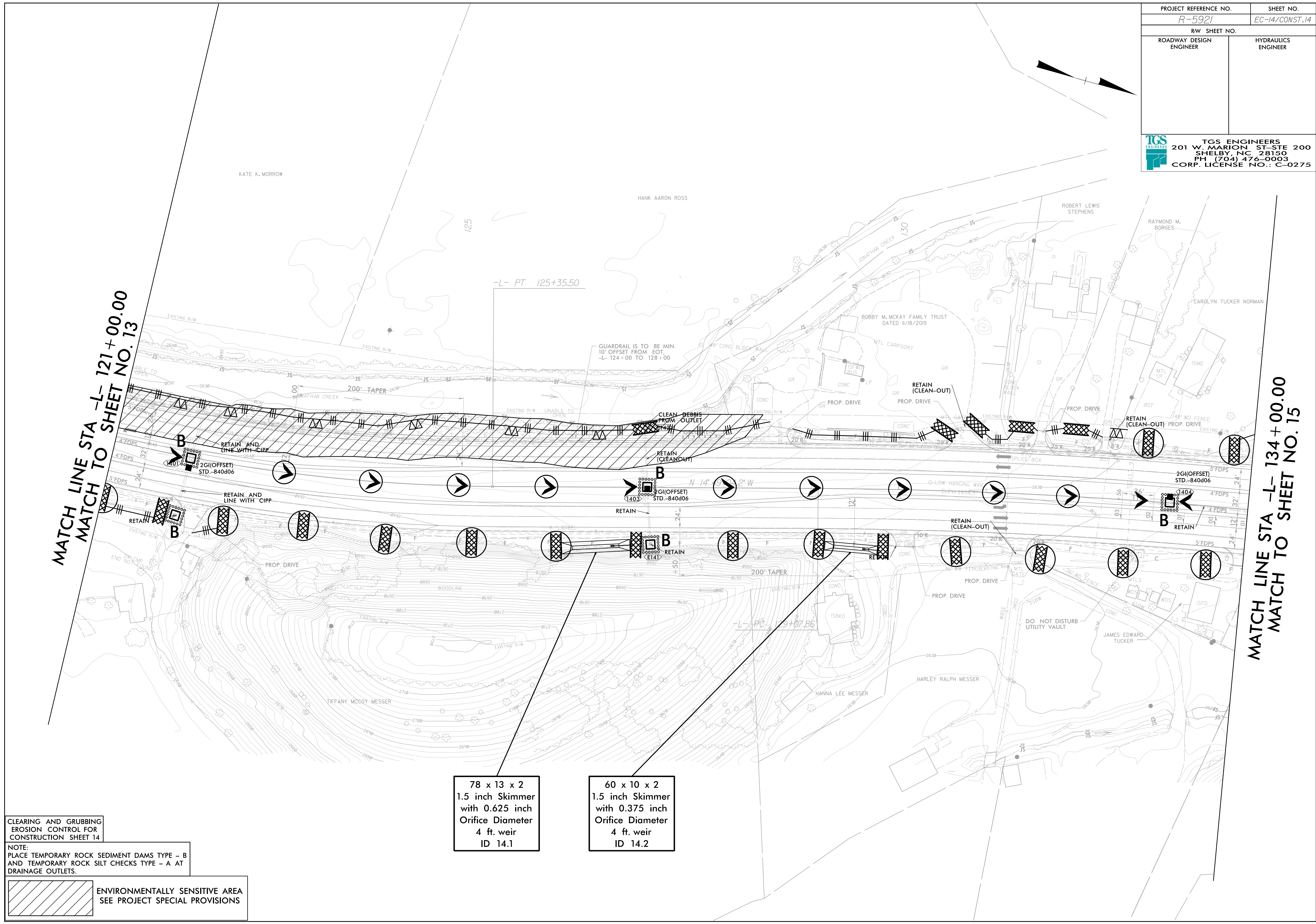


CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

PROJECT REFERENCE NO. <i>R-5921</i>		SHEET NO. <i>EC-14/CONST.14</i>	
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- 121+00.00
 MATCH TO SHEET NO. 13

MATCH LINE STA -L- 134+00.00
 MATCH TO SHEET NO. 15

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.

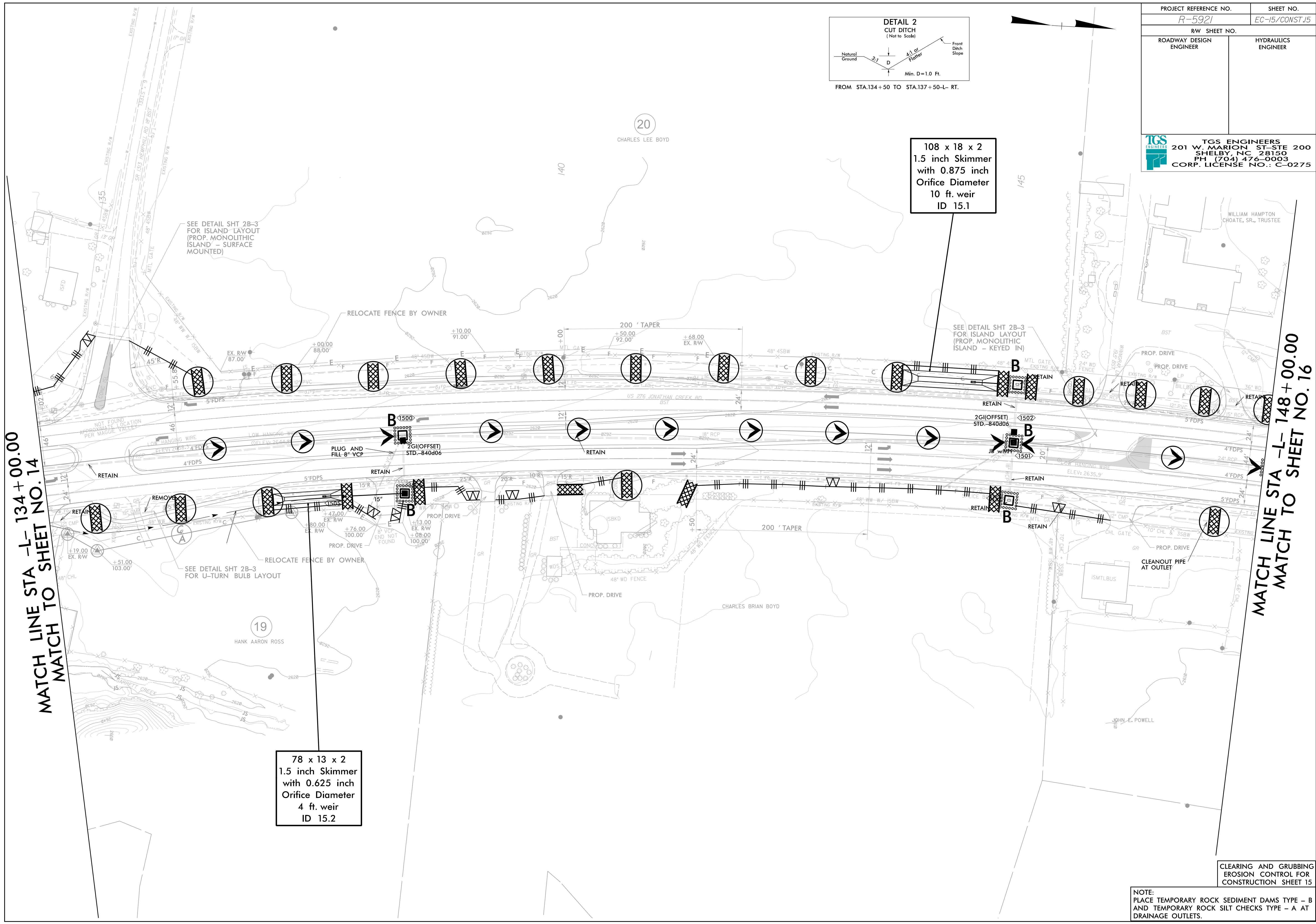
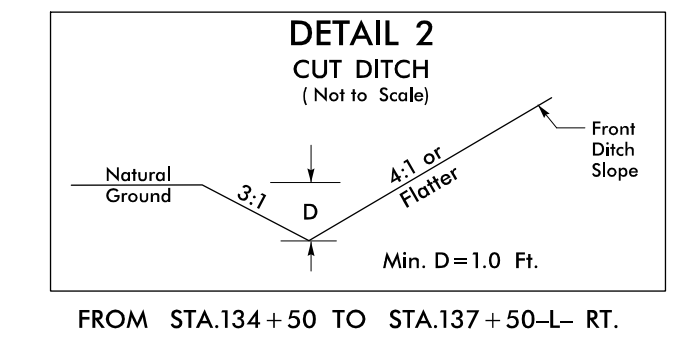
 ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

78 x 13 x 2
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 4 ft. weir
 ID 14.1

60 x 10 x 2
 1.5 inch Skimmer
 with 0.375 inch
 Orifice Diameter
 4 ft. weir
 ID 14.2

PROJECT REFERENCE NO. <i>R-5921</i>		SHEET NO. <i>EC-15/CONST15</i>	
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



108 x 18 x 2
 1.5 inch Skimmer
 with 0.875 inch
 Orifice Diameter
 10 ft. weir
 ID 15.1

78 x 13 x 2
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 4 ft. weir
 ID 15.2

MATCH LINE STA -L- 134+00.00
 MATCH TO SHEET NO. 14

MATCH LINE STA -L- 148+00.00
 MATCH TO SHEET NO. 16

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

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 16


PROJECT REFERENCE NO.	SHEET NO.
R-5921	EC-16/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

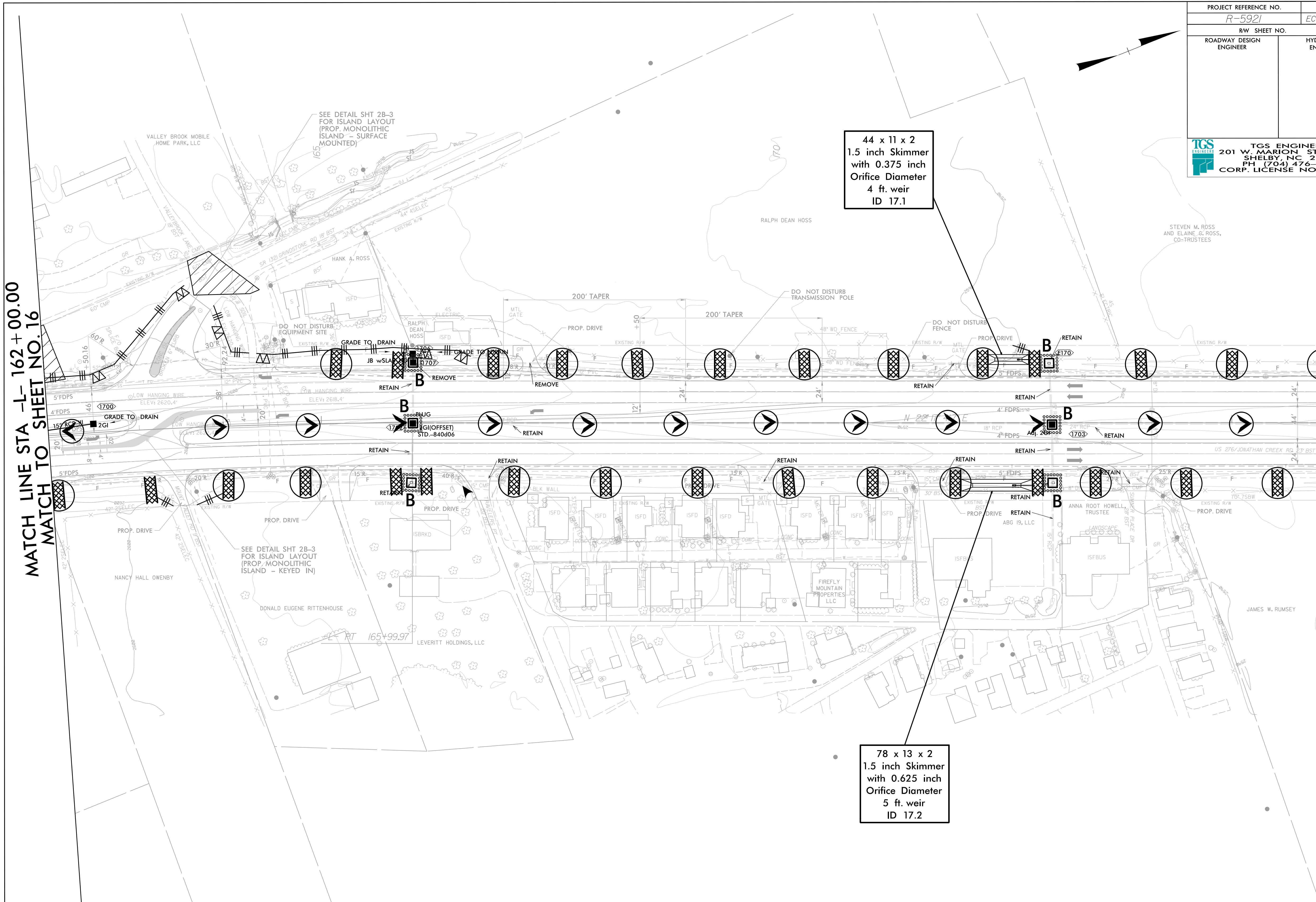
 **TGS ENGINEERS**
201 W. MARION ST-STE 200
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275



MATCH LINE STA -L- 148+00.00
MATCH TO SHEET NO. 15

MATCH LINE STA -L- 162+00.00
MATCH TO SHEET NO. 17

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-17/CONST.17</i>
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	

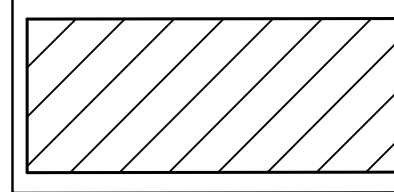


MATCH LINE STA -L- 162 + 00.00
MATCH TO SHEET NO. 16


MATCH LINE STA -L- 176 + 00.00
MATCH TO SHEET NO. 18

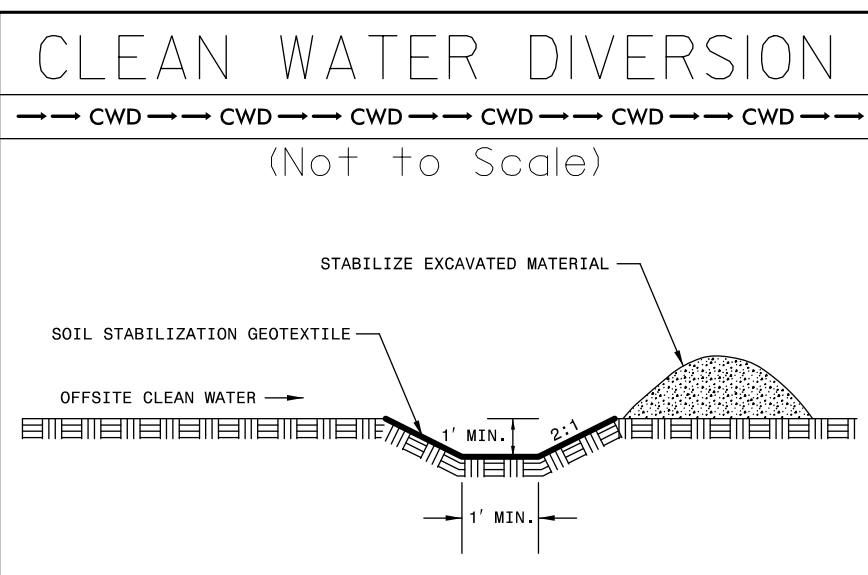
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

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



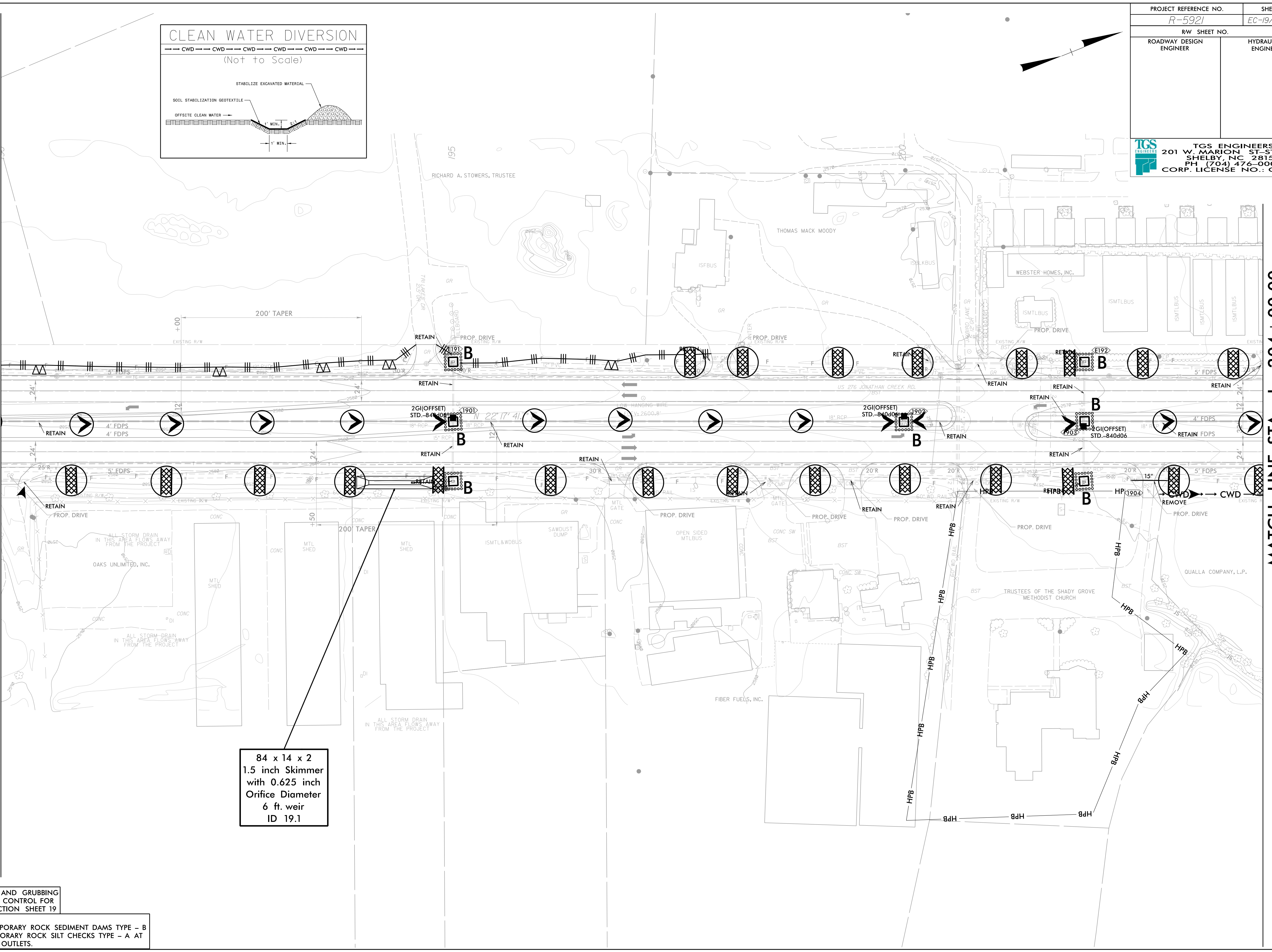
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO. R-5921	SHEET NO. EC-19/CONST.19
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- 190+00.00
MATCH TO SHEET NO. 18

MATCH LINE STA -L- 204+00.00
MATCH TO SHEET NO. 20



84 x 14 x 2
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
6 ft. weir
ID 19.1

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.


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.

INSTALL LARGE PIPE(S) IN JURISDICTIONAL AREAS VIA PUMP AROUND AS NECESSARY. REFER TO EC-2C FOR PUMP AROUND DETAIL.

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

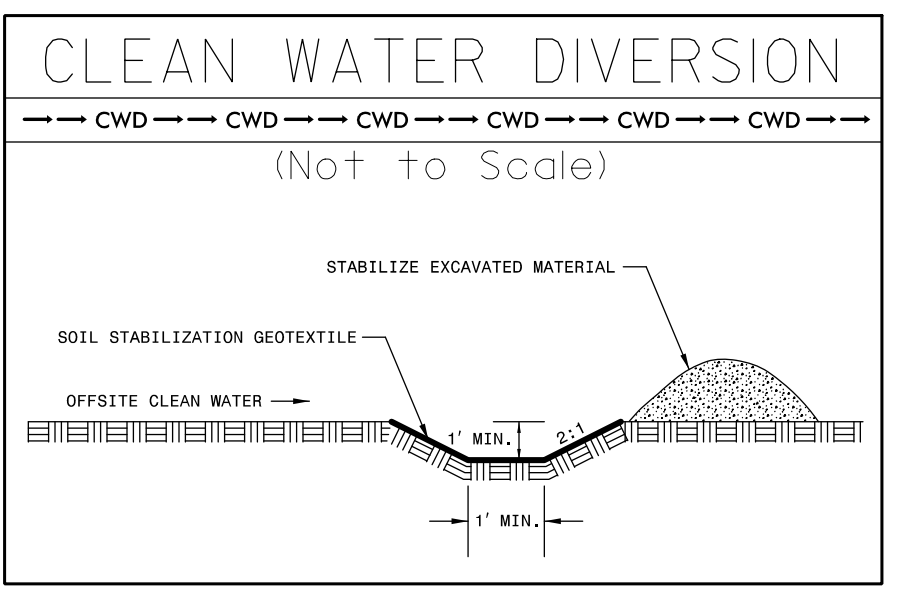
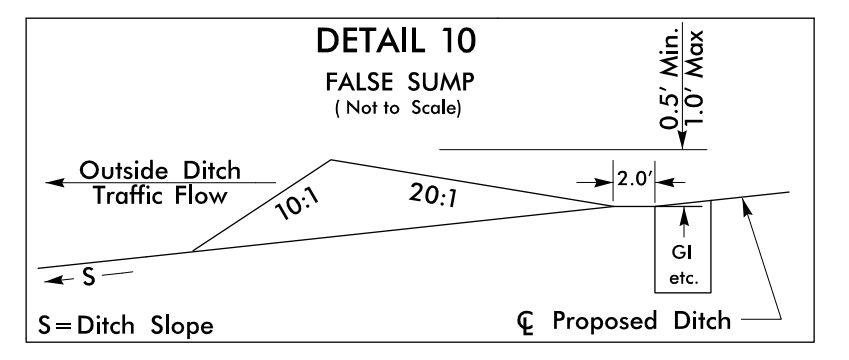
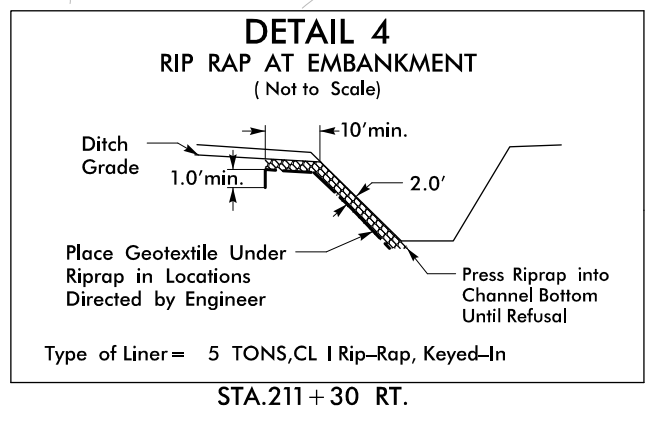
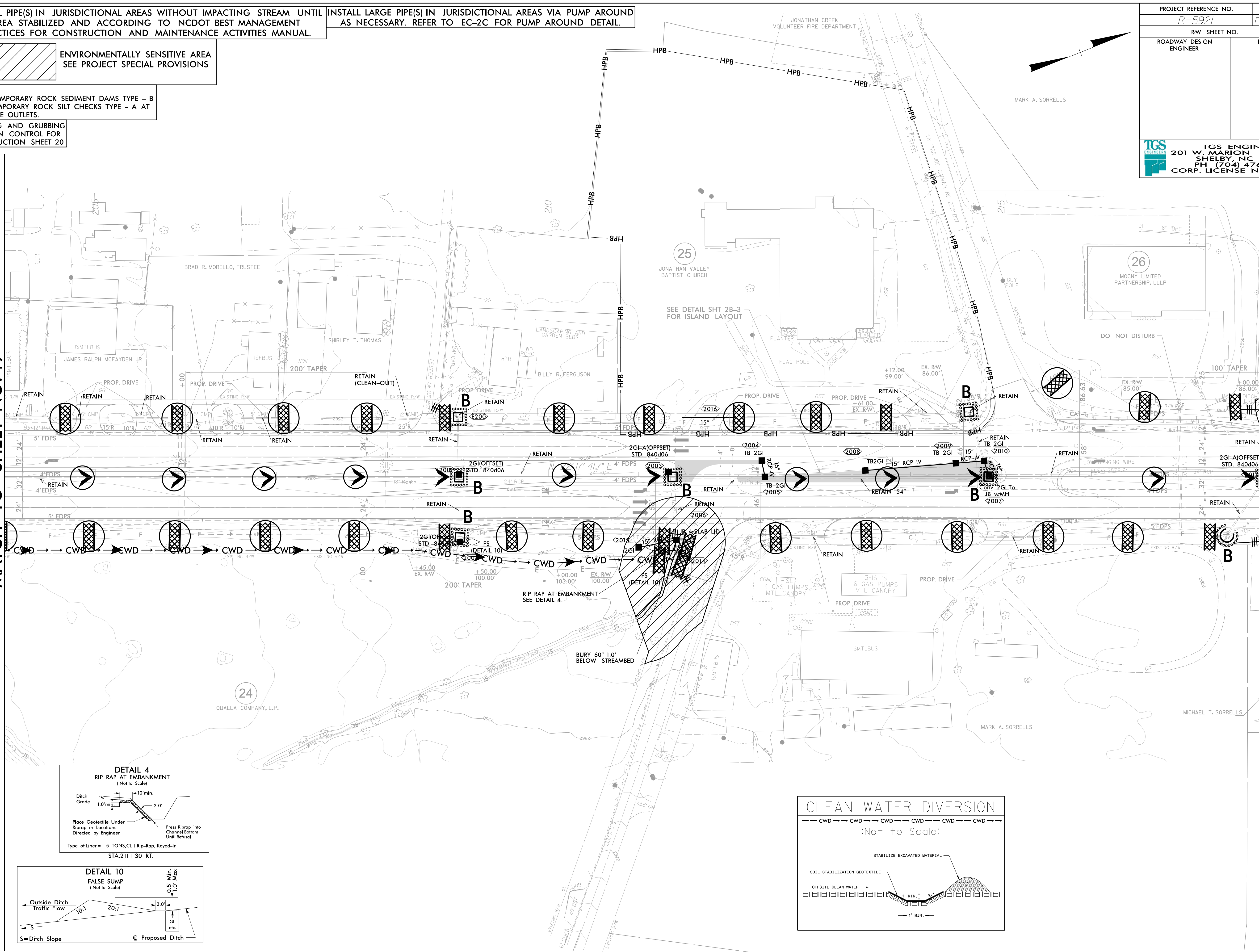
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-20/CONST.20</i>
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	

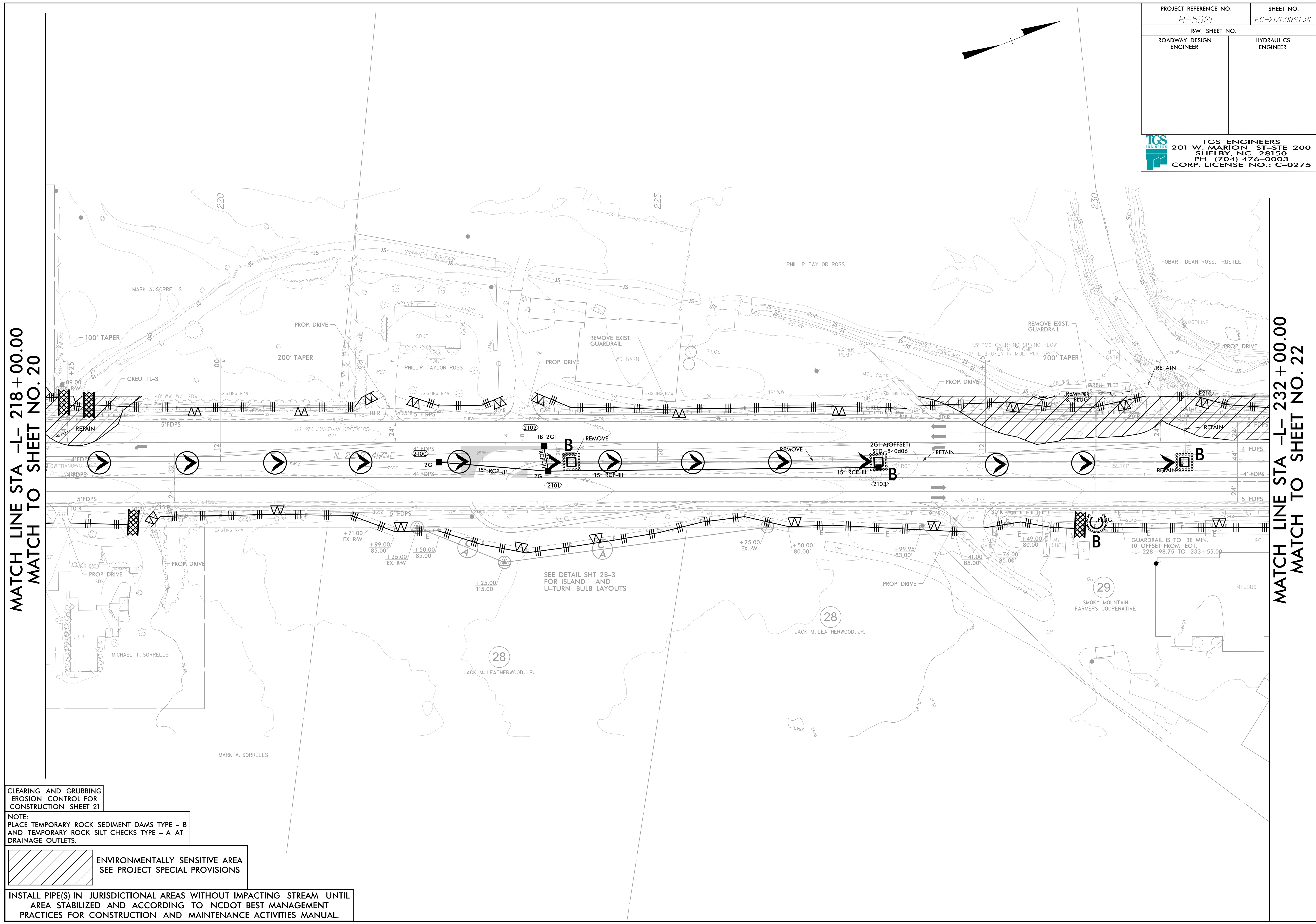
MATCH LINE STA -L- 204+00.00
MATCH TO SHEET NO. 19

MATCH LINE STA -L- 218+00.00
MATCH TO SHEET NO. 21



PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-21/CONST.21</i>
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- 218+00.00
MATCH TO SHEET NO. 20

MATCH LINE STA -L- 232+00.00
MATCH TO SHEET NO. 22

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.

ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

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.

SEE DETAIL SHT 2B-3
 FOR ISLAND AND
 U-TURN BULB LAYOUTS

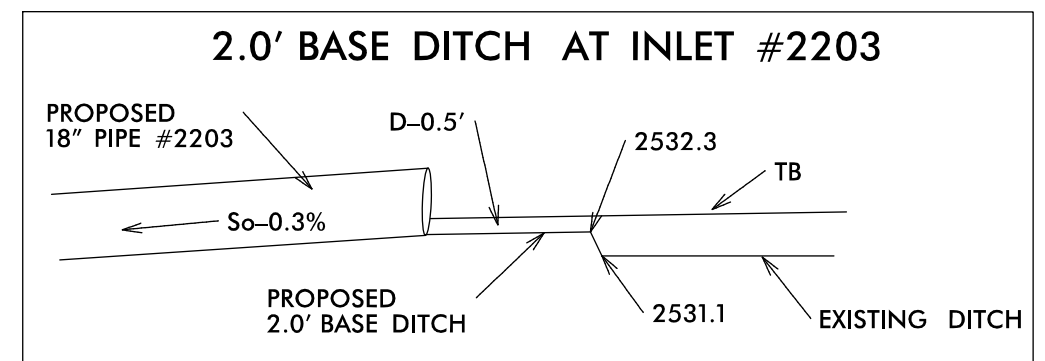
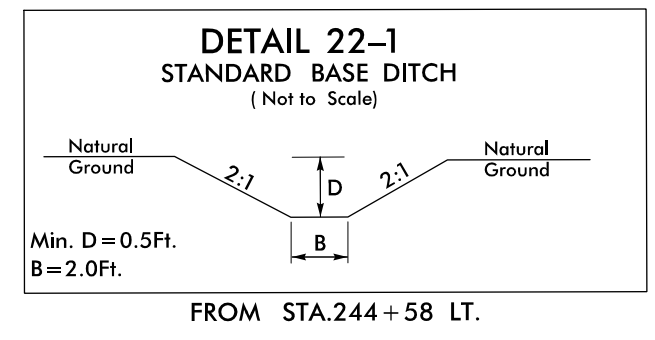
GUARDRAIL IS TO BE MIN.
 10' OFFSET FROM EOT.
 -L- 228+98.75 TO 233+55.00


 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

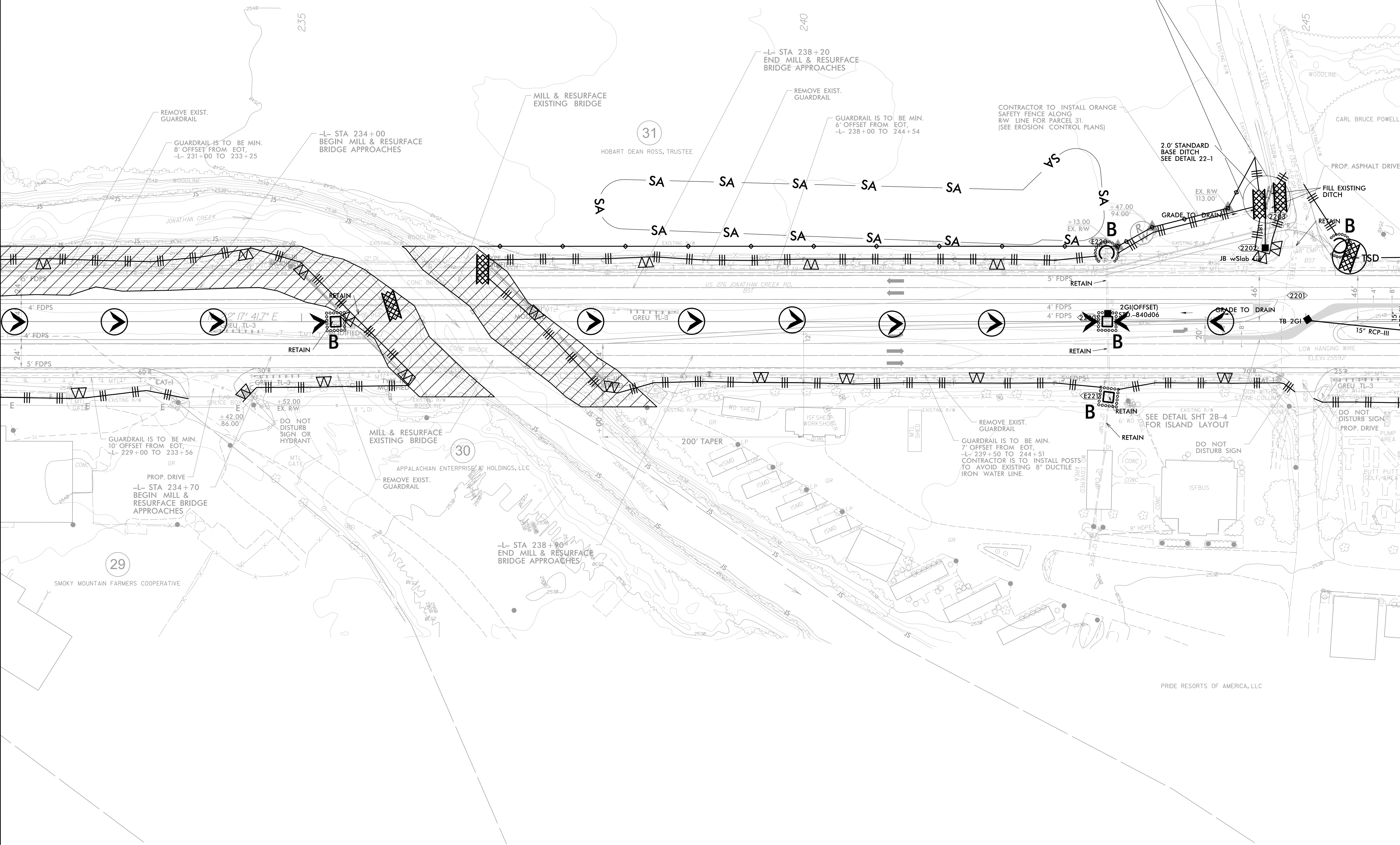
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 22

 SAFETY FENCE




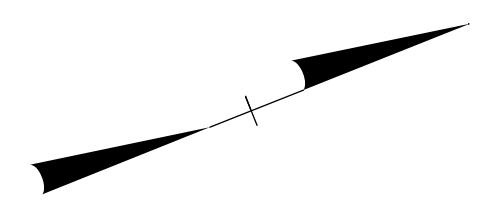
PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-22/CONST.22</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W. MARION ST-STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

MATCH LINE STA -L- 232+00.00
MATCH TO SHEET NO. 21



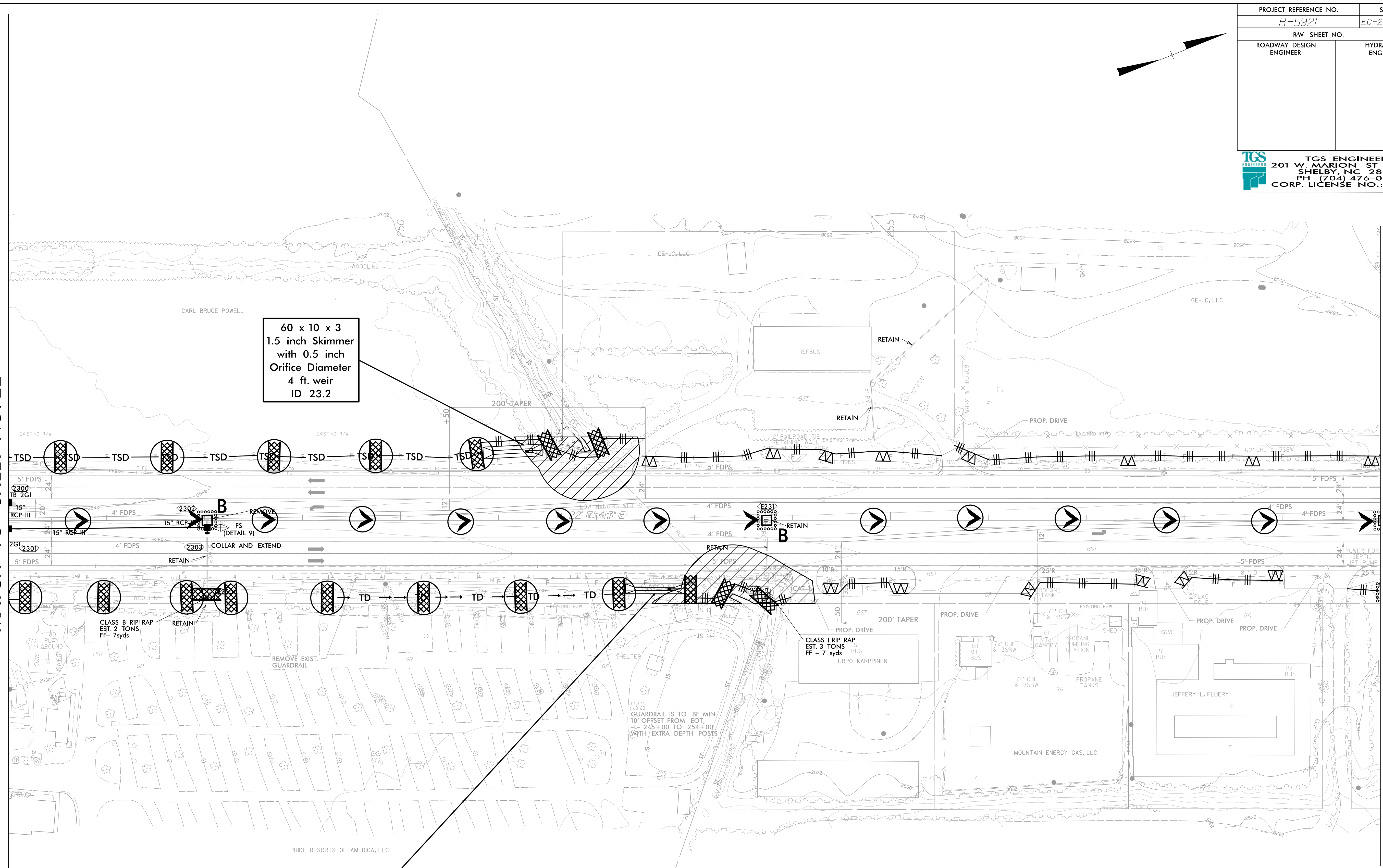
MATCH LINE STA -L- 246+00.00
MATCH TO SHEET NO. 23

PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-23/CONST.23</i>
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- 246+00.00
MATCH TO SHEET NO. 22

MATCH LINE STA -L- 260+00.00
MATCH TO SHEET NO. 24




60 x 10 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 23.2

60 x 10 x 2
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
5 ft. weir
ID 23.1

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 23

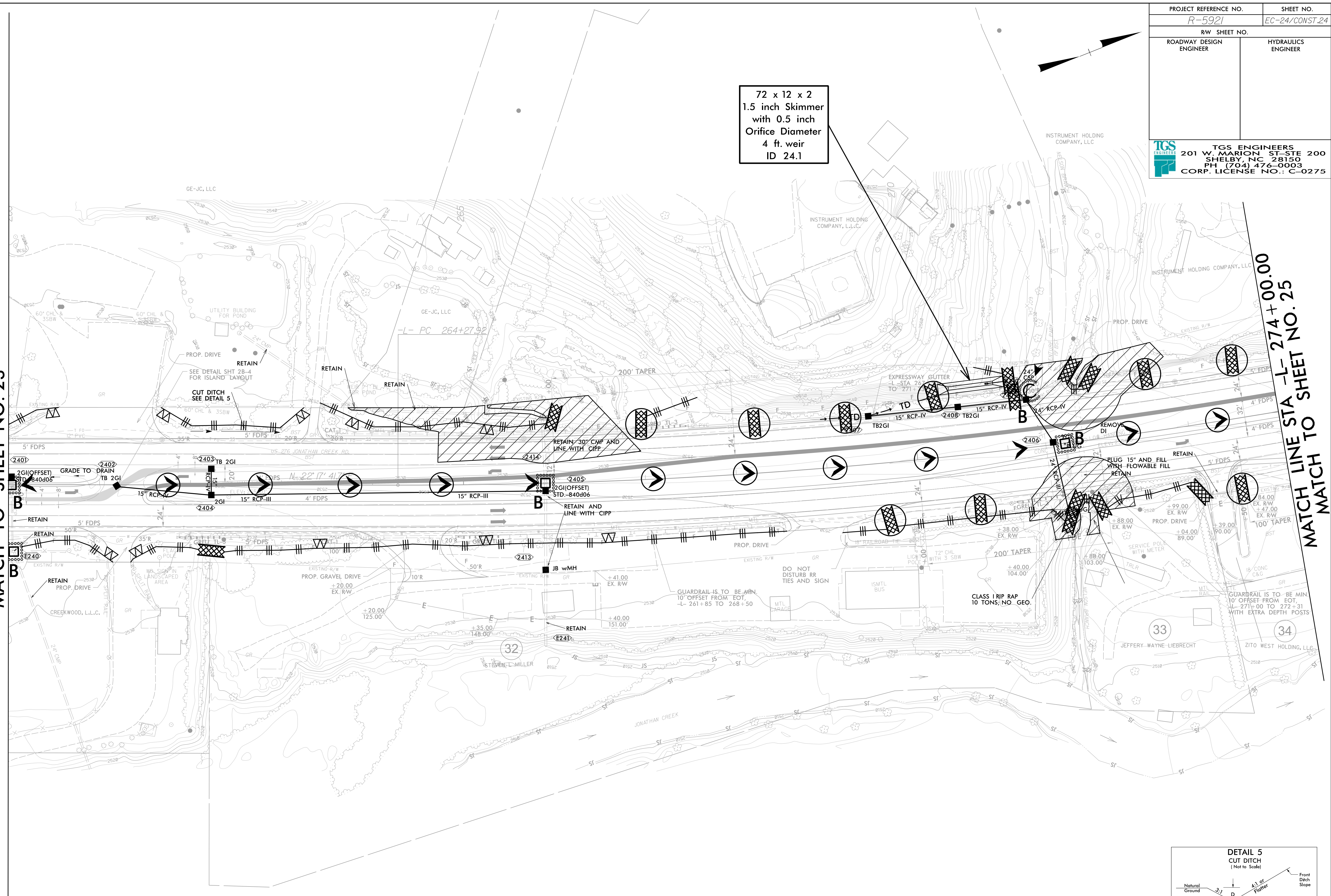
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO. R-5921	SHEET NO. EC-24/CONST.24
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- 260+00.00
MATCH TO SHEET NO. 23

MATCH LINE STA -L- 274+00.00
MATCH TO SHEET NO. 25



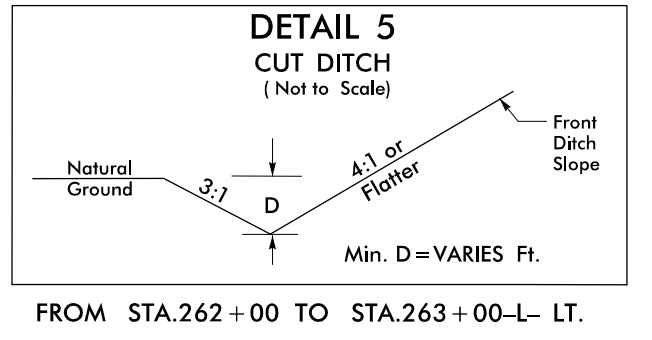
72 x 12 x 2
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 24.1


 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 24



PROJECT REFERENCE NO.	SHEET NO.
R-5921	EC-25/CONST.25
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- 274+00.00
MATCH TO SHEET NO. 24

MATCH LINE STA -L- 288+00.00
MATCH TO SHEET NO. 26

84 x 14 x 2
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 25.2

72 x 12 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 25.1

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 25

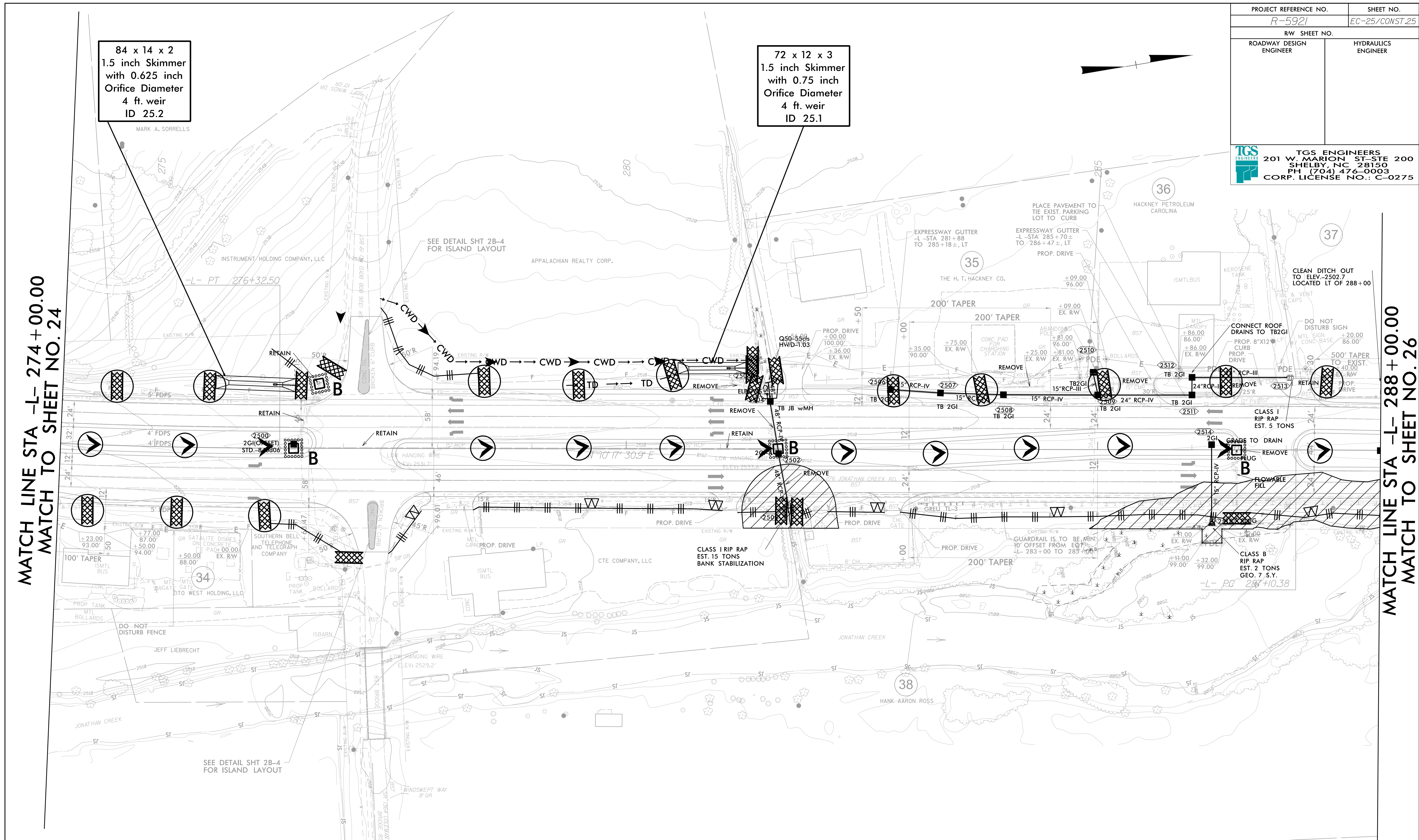
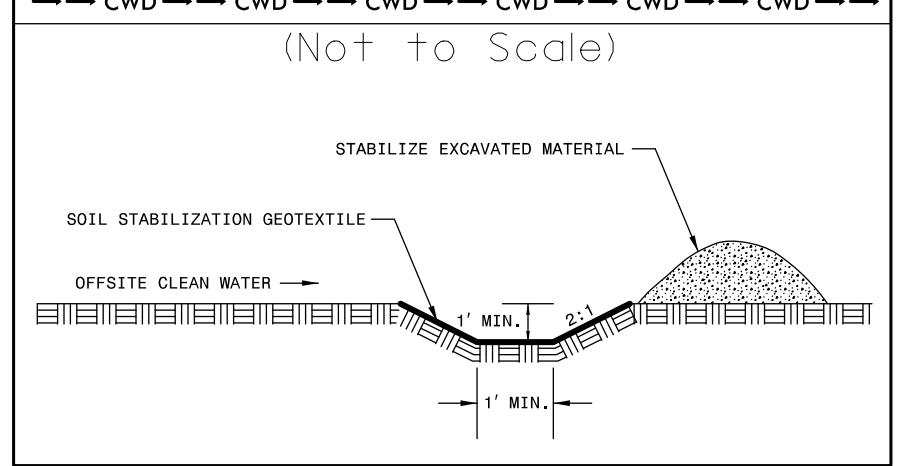
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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.

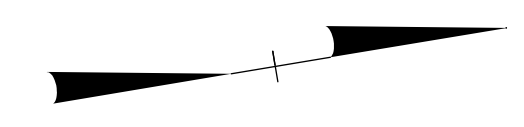
INSTALL LARGE PIPE(S) IN JURISDICTIONAL AREAS VIA PUMP AROUND
AS NECESSARY. REFER TO EC-2C FOR PUMP AROUND DETAIL.

CLEAN WATER DIVERSION

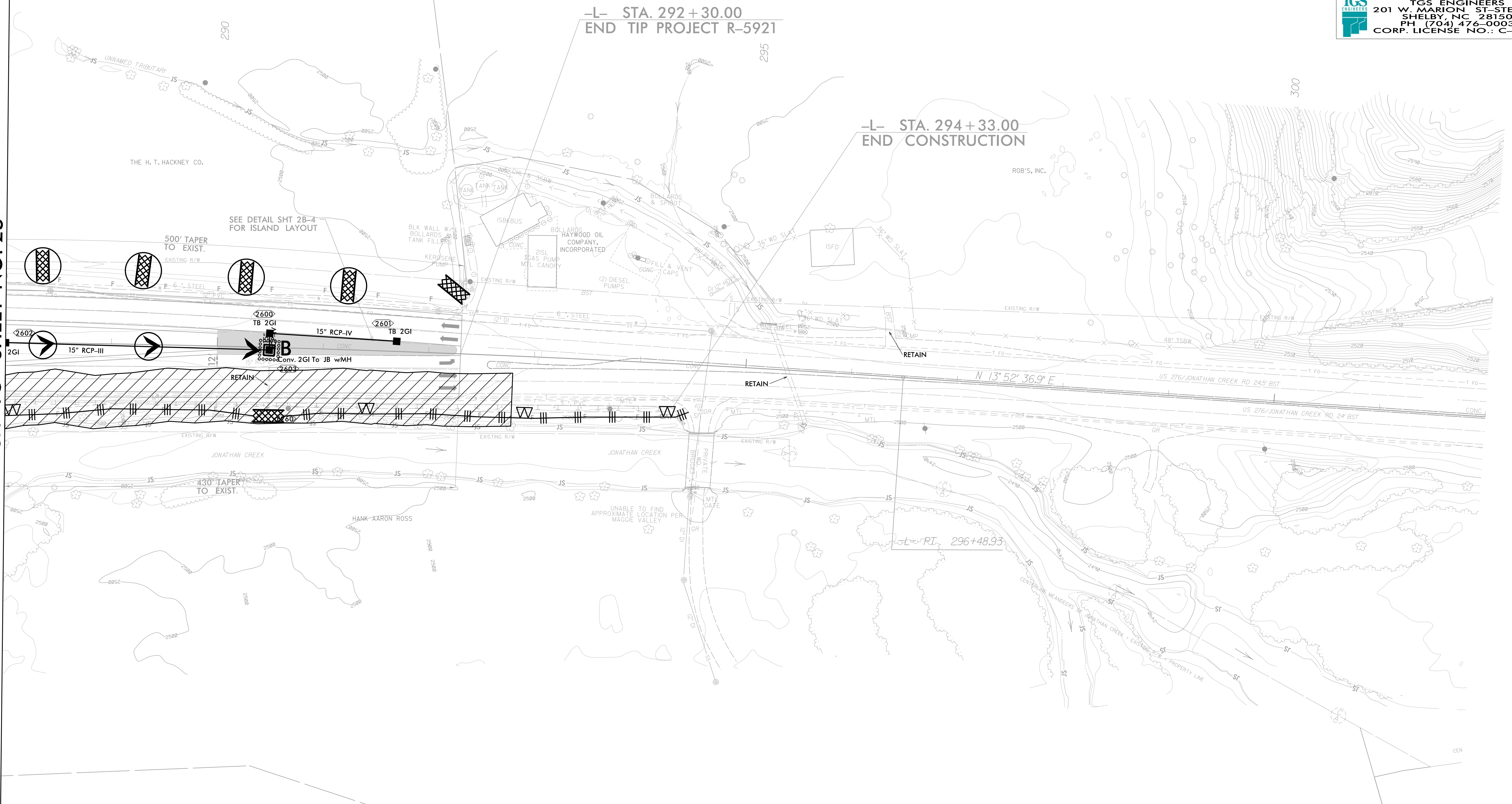


PROJECT REFERENCE NO. <i>R-5921</i>	SHEET NO. <i>EC-26/CONST.26</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



MATCH LINE STA -L- 288+00.00
MATCH TO SHEET NO. 25




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.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

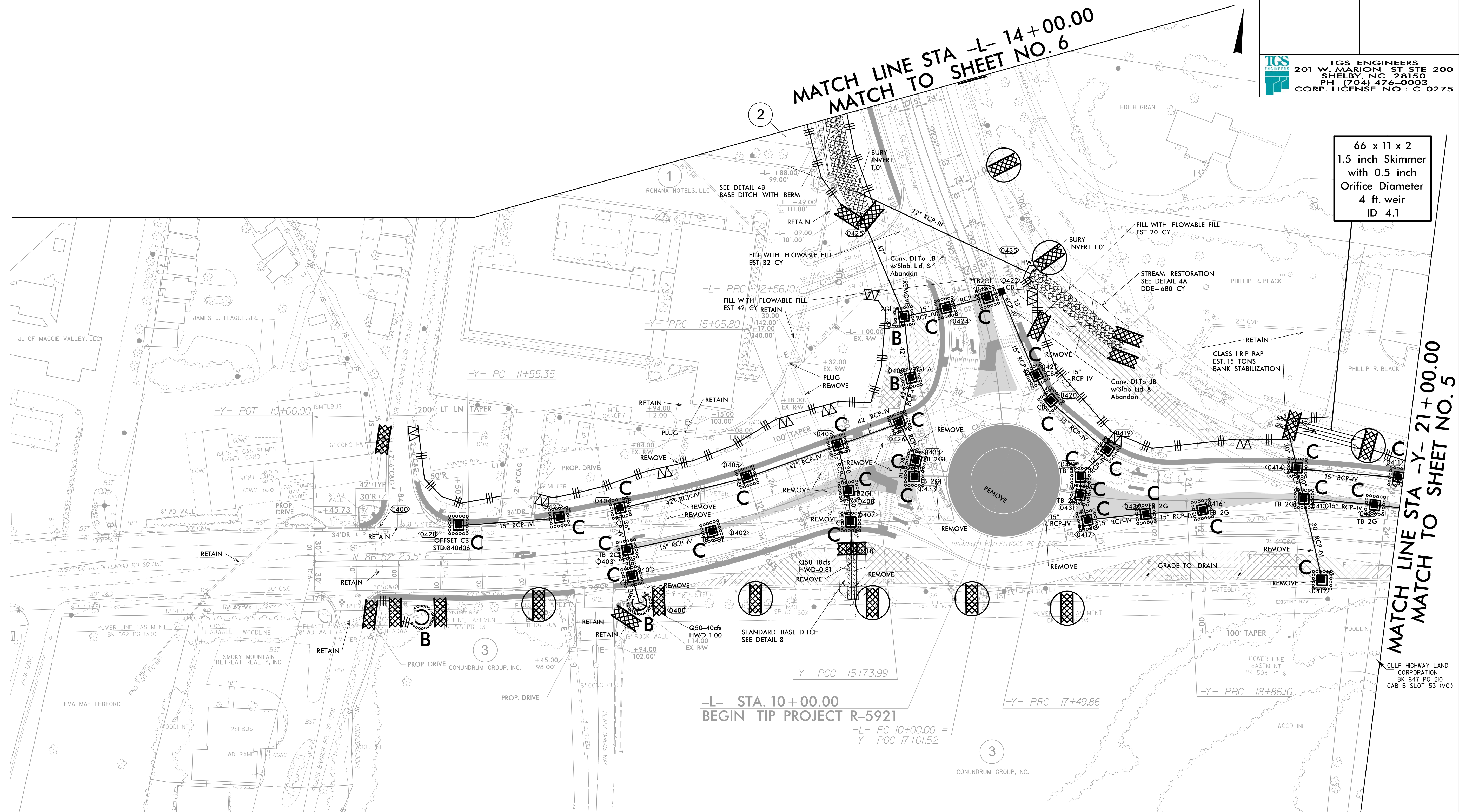
REFER TO EC-50 FOR STREAMBANK REFORESTATION AREAS.
-L- STA 11+16 TO 11+94
-L- STA 13+07 TO 14+00

PROJECT REFERENCE NO. <i>R-5921</i>		SHEET NO. <i>EC-27/CONST.4</i>	
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- 14+00.00
MATCH TO SHEET NO. 6

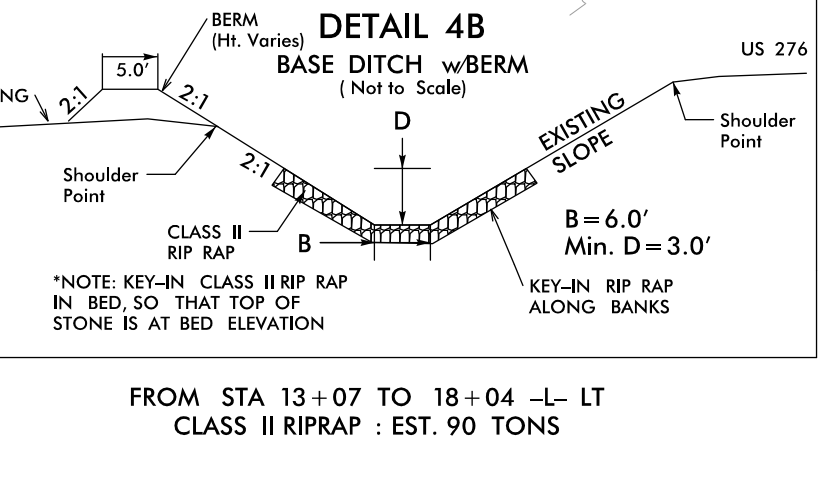
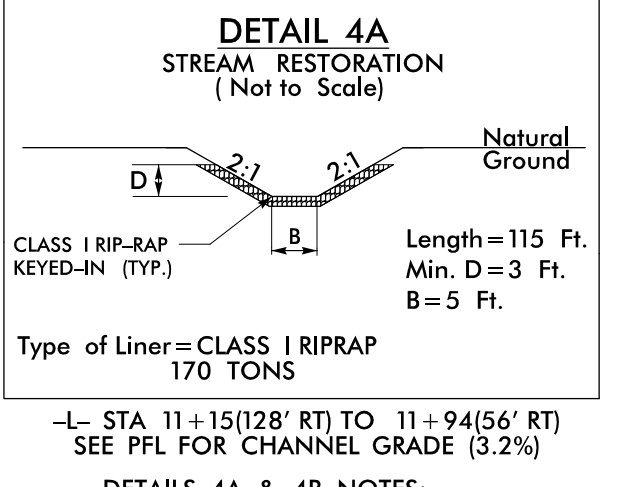
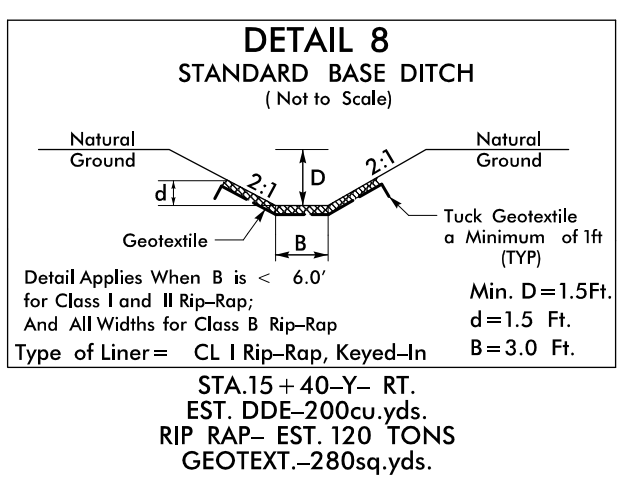
66 x 11 x 2
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 4.1


MATCH LINE STA -Y- 21+00.00
MATCH TO SHEET NO. 5

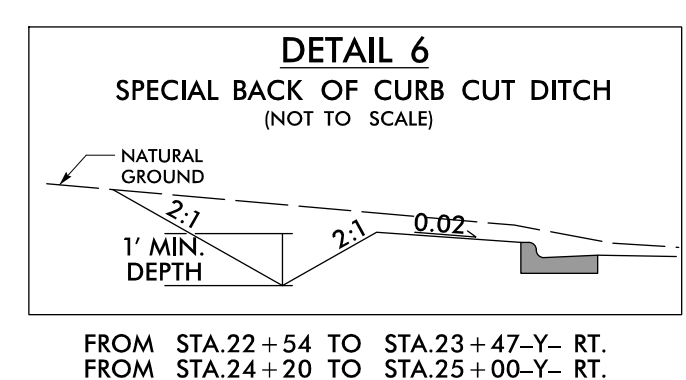


-Y- STA. 10+00.00
BEGIN CONSTRUCTION

-L- STA. 10+00.00
BEGIN TIP PROJECT R-5921



PROJECT REFERENCE NO.	SHEET NO.
R-5921	EC-28/CONST.5
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	



CONTRACTOR IS TO CONNECT EXISTING FRENCH DRAIN ON PARCEL 08 TO NEAREST PROPOSED DRAINAGE STRUCTURE. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR THIS WORK.

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