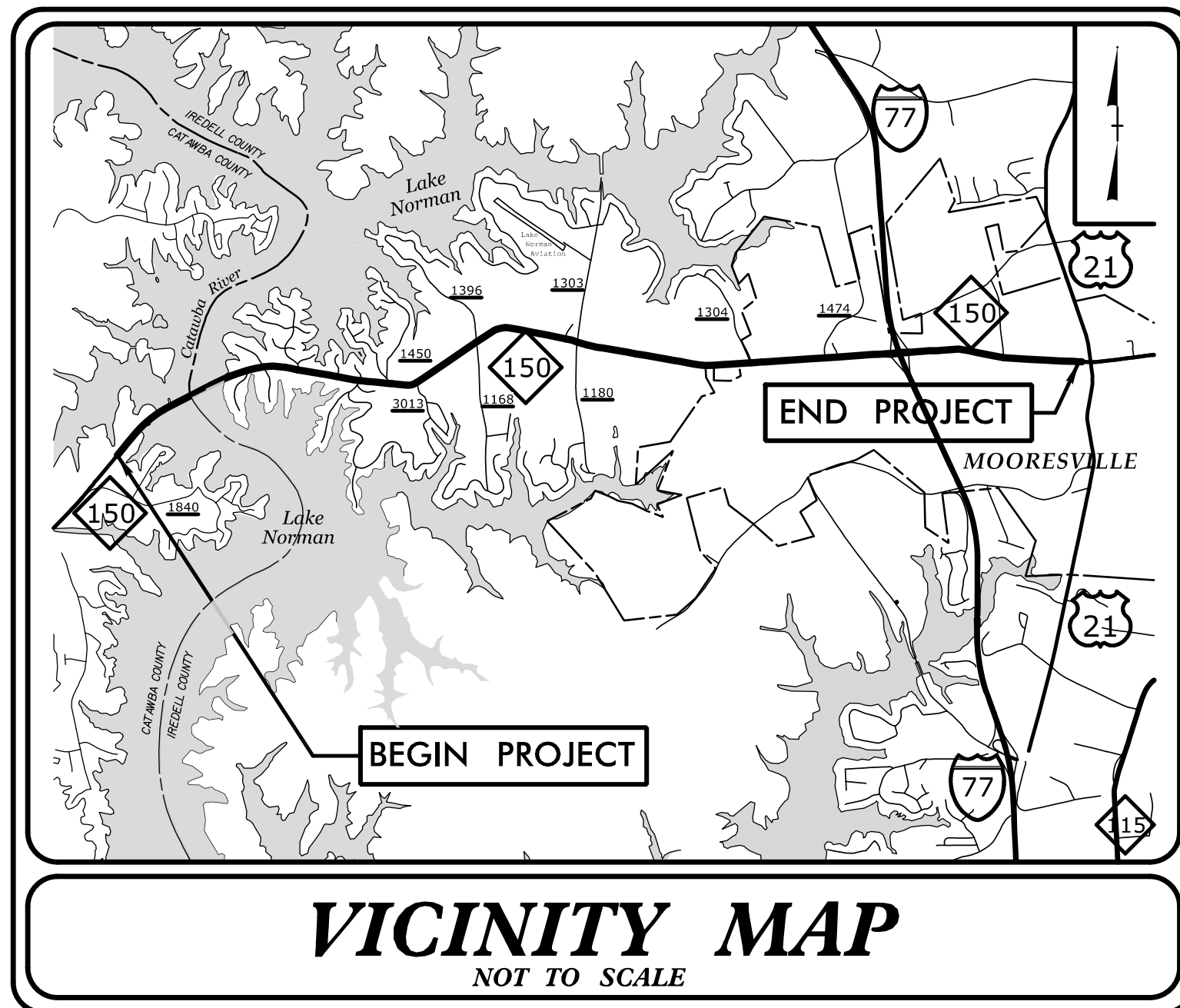


TIP PROJECT: R-2307B & I-5717

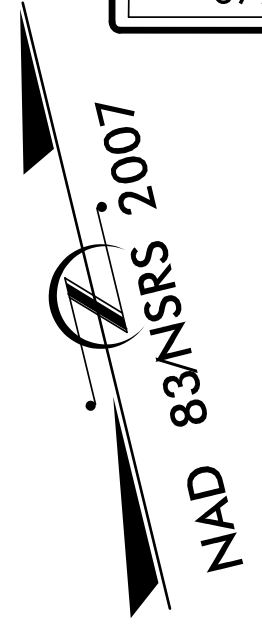
CONTRACT: C204348



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
 CATAWABA & IREDELL COUNTIES
 LOCATION: NC 150 FROM SR 1840 (GREENWOOD RD) IN CATAWBA
 COUNTY TO US 21 IN IREDELL COUNTY

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

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|--------------------|--------------|
| N.C. | R-2307B, I-5717 | EC-1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 37944.1.FR5 | STP-0150(36) | PE (R-2307B) | |
| 50134.1.FS1 | NHPP-077-1(221)37 | PE (I-5717) | |
| 37944.2.4 | STP-0150(036) | RW (R-2307B) | |
| 37944.2.5 | STP-0150(036) | UTIL. (R-2307B) | |
| 50134.2.1 | NHPP-077-1(221)37 | RW, UTIL. (I-5717) | |
| 37944.3.4 | STP-0150(036) | CONST. | |



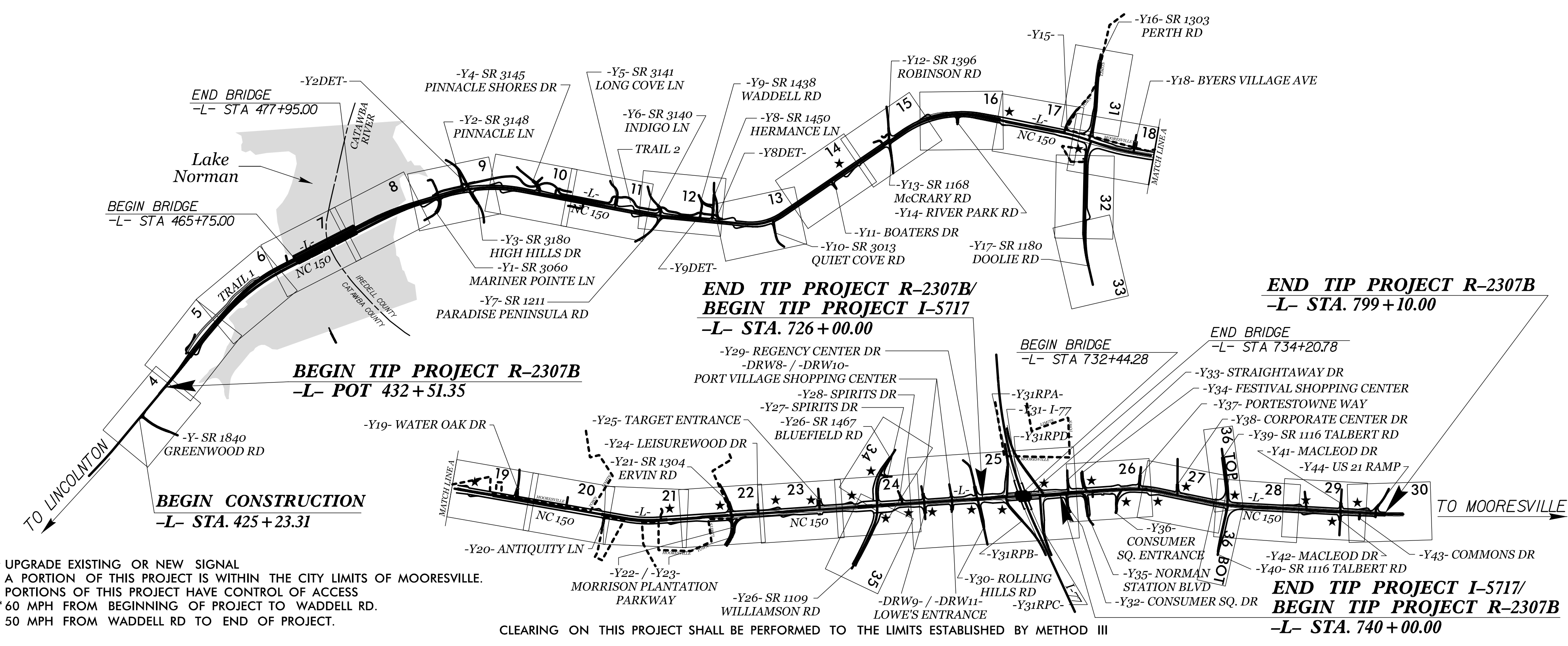
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT
 High Quality Water Zone(s) Exist From Sta. Begin to Sta. End Refer To E. C. Special Provisions for Special Considerations.

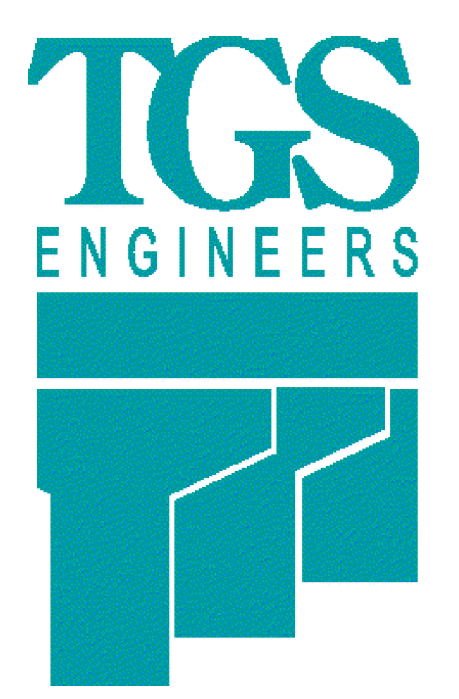
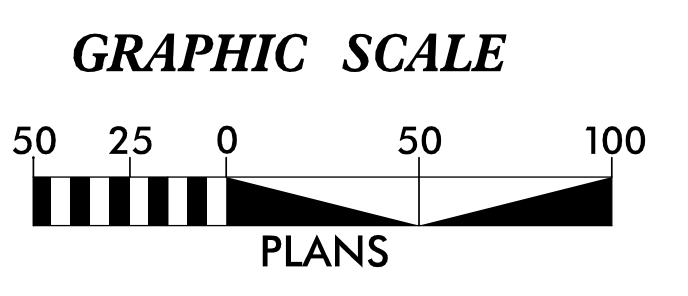
303(d) IMPAIRED WATER(S) EXIST ON THIS PROJECT
 303(d) Impaired Water Zone(s) Exist From Sta. Begin to Sta. End Refer To E. C. Special Provisions for Special Considerations.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
 Refer To E. C. Special Provisions for Special Considerations.



★ UPGRADE EXISTING OR NEW SIGNAL
 A PORTION OF THIS PROJECT IS WITHIN THE CITY LIMITS OF MOOREVILLE.
 PORTIONS OF THIS PROJECT HAVE CONTROL OF ACCESS
 ** 60 MPH FROM BEGINNING OF PROJECT TO WADDELL RD.
 50 MPH FROM WADDELL RD TO END OF PROJECT.

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



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.

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.

F:\06\252\2\erosion_Contract\N-2307B_EC.dwg, TSH.dgn

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

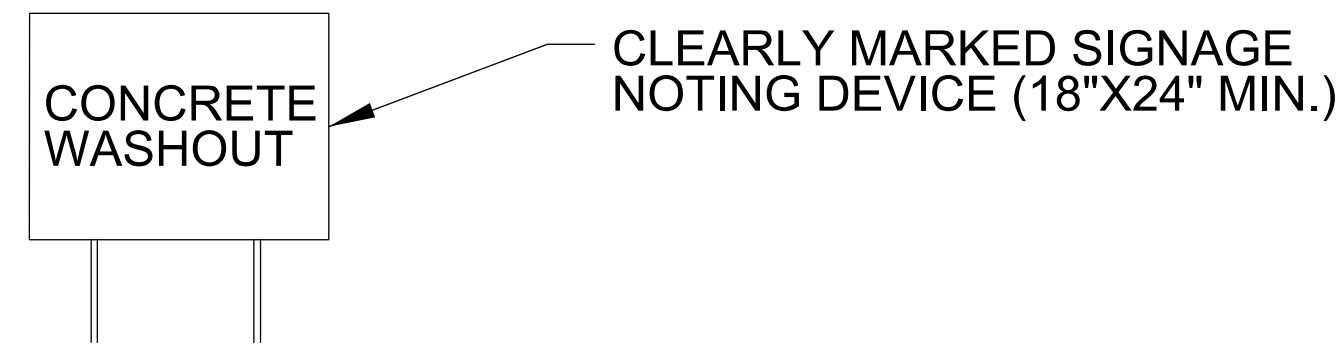
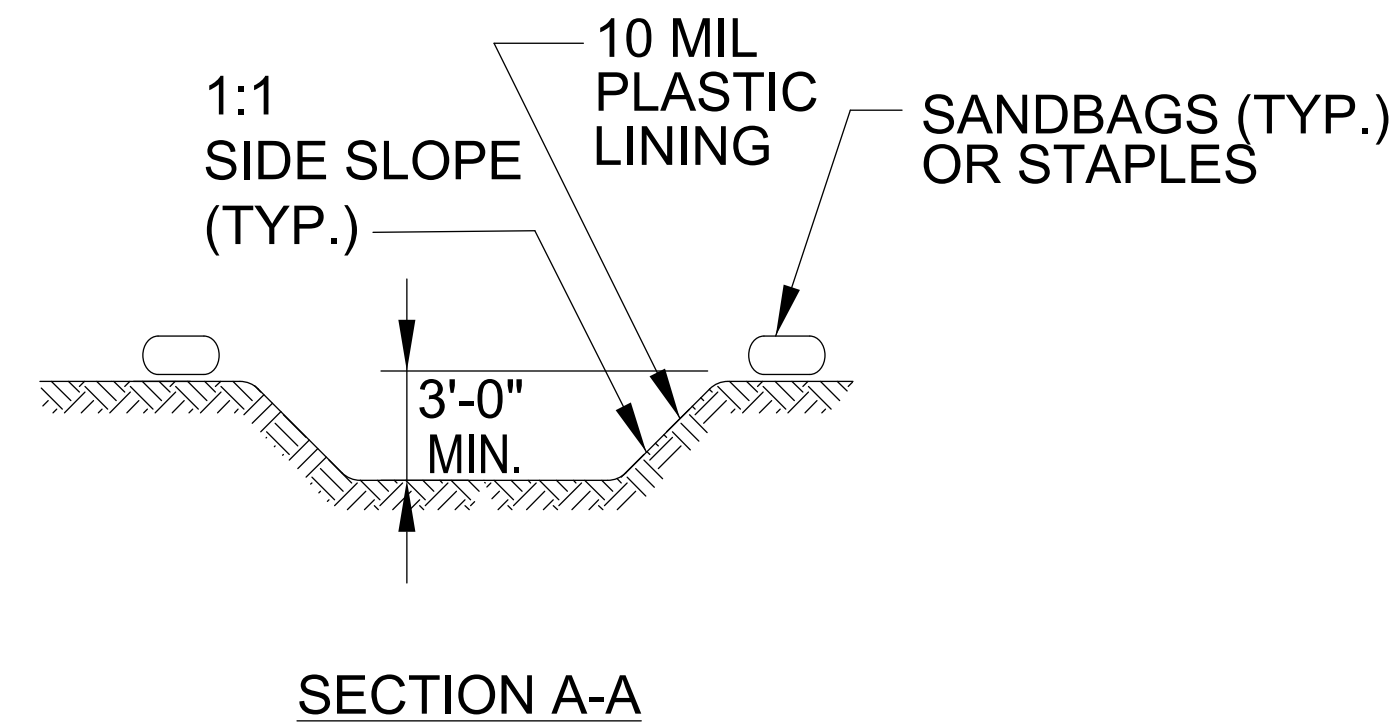
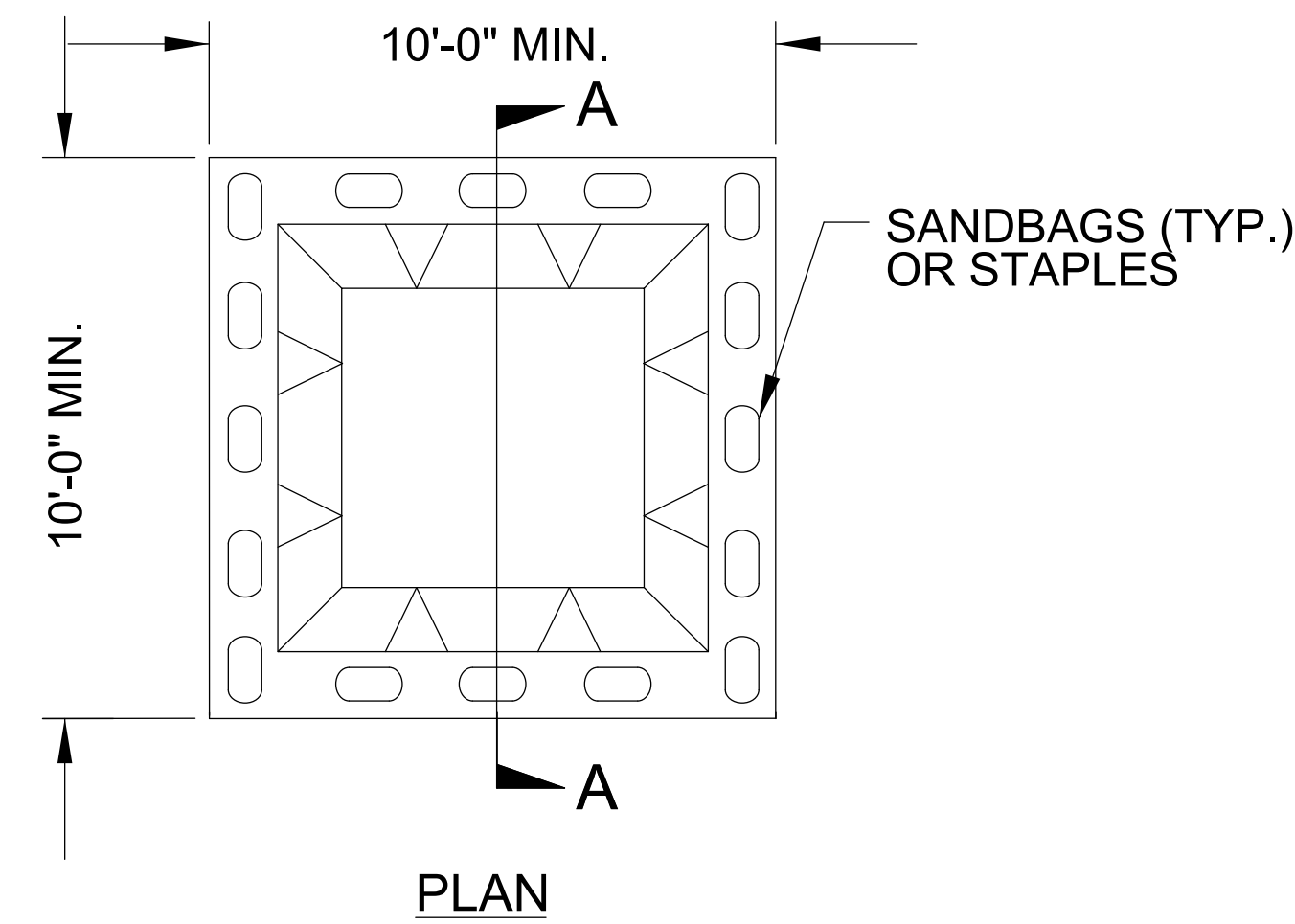
| | |
|--|---------------------------|
| PROJECT REFERENCE NO. R-2307B / I-5717 | SHEET NO. EC-02 |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

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 | | | | |

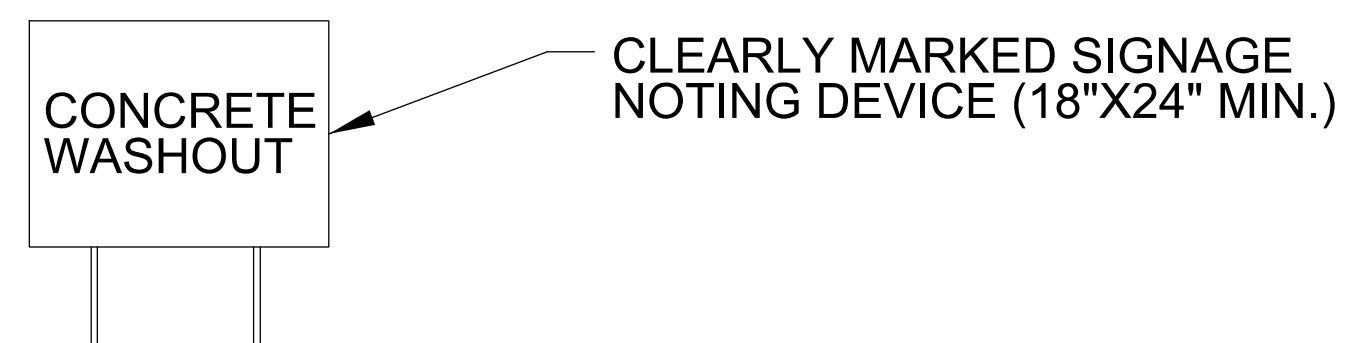
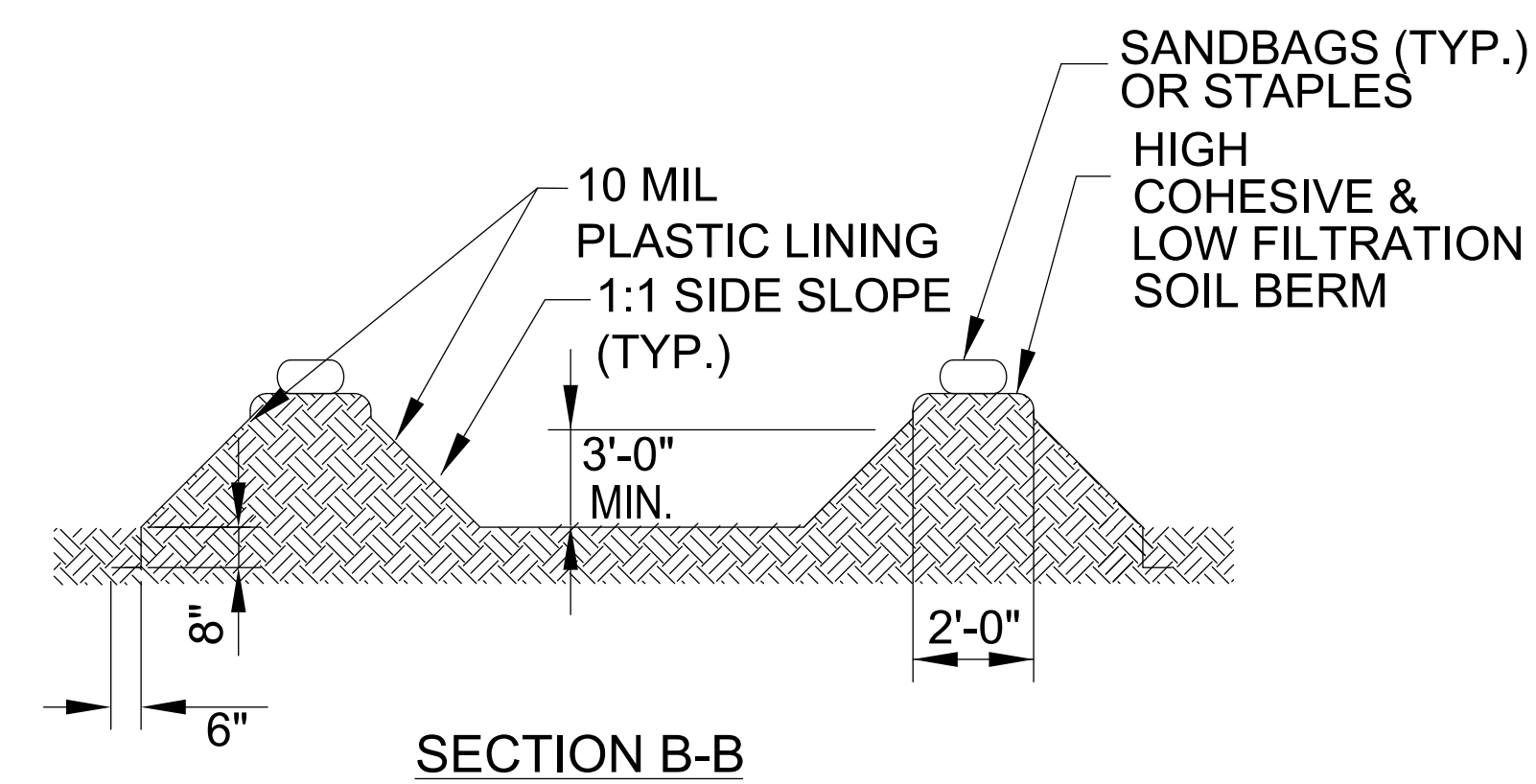
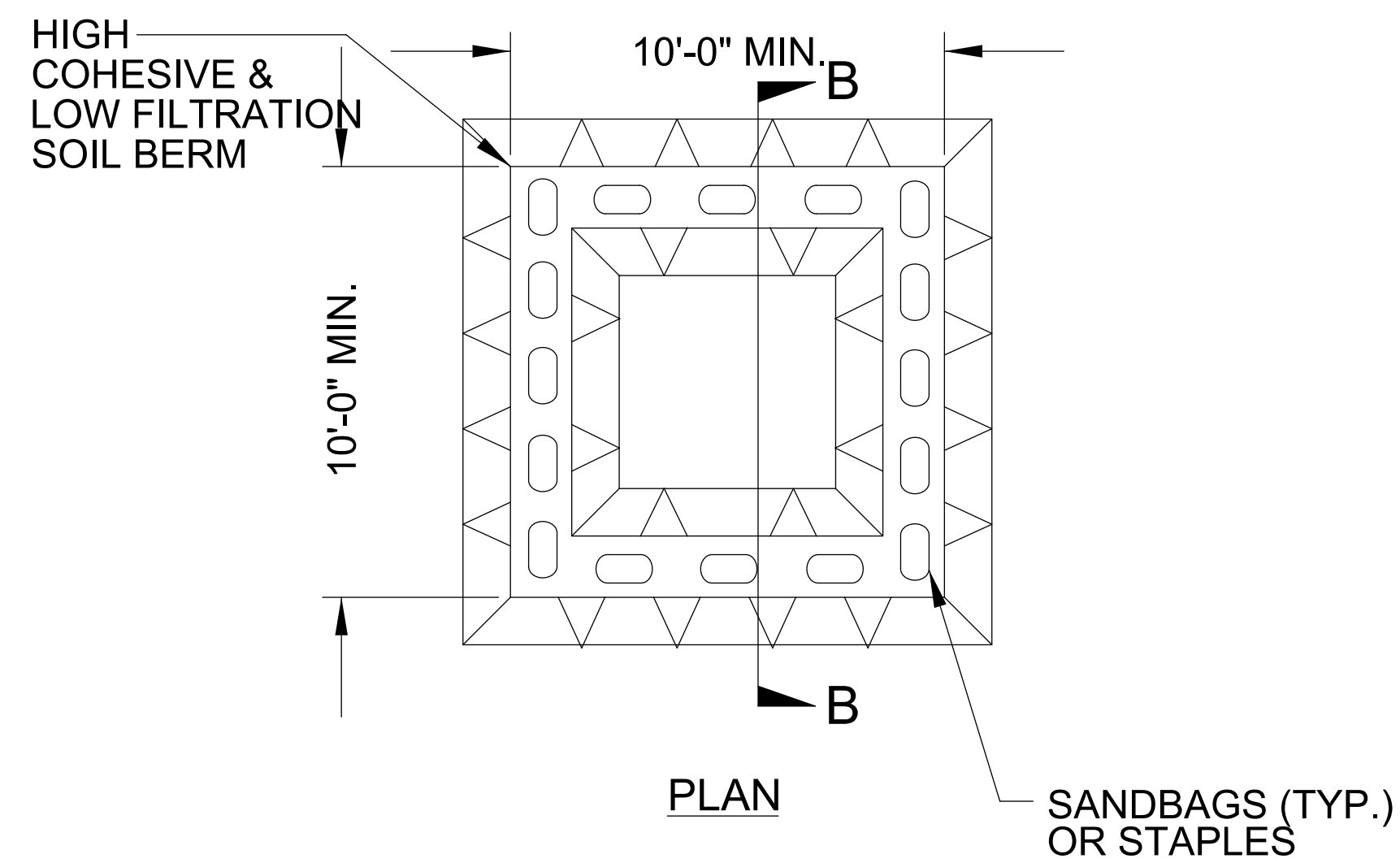
| | |
|--|---------------------------|
| PROJECT REFERENCE NO. <i>R-2307B/1-5717</i> | SHEET NO. <i>EC-2A</i> |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

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.

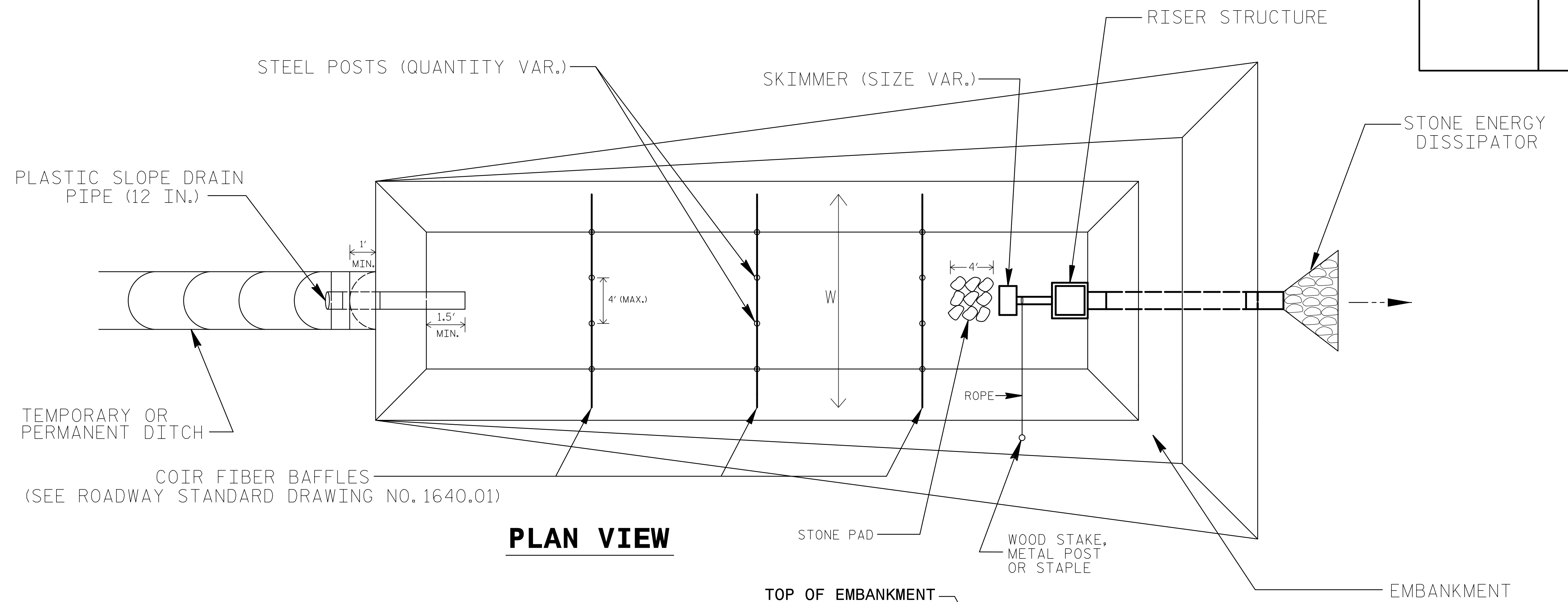


ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

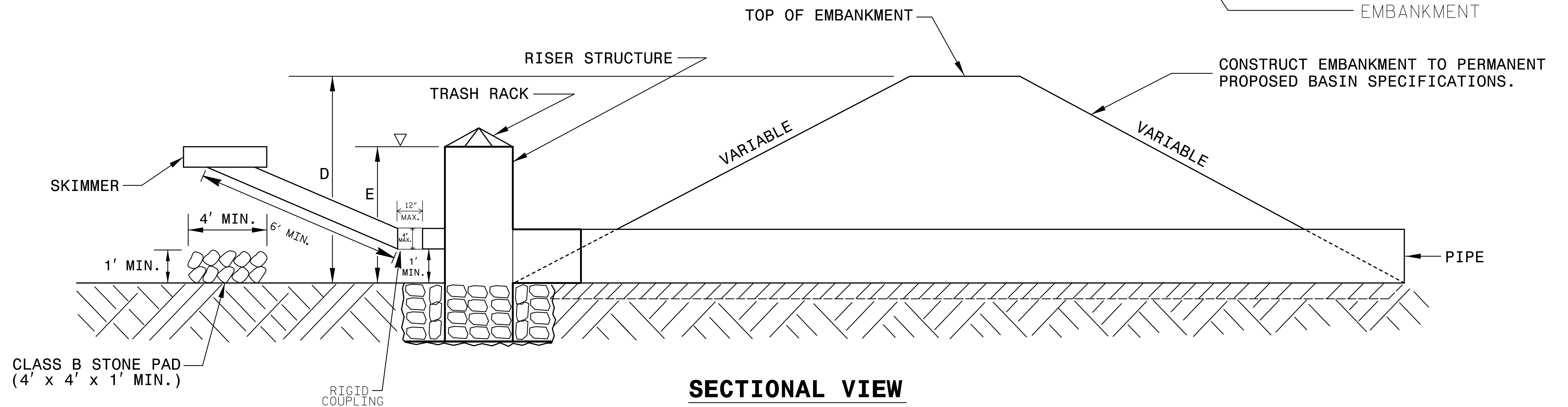
- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED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

| | |
|--|---------------------------|
| PROJECT REFERENCE NO. <i>R-2307B/1-5717</i> | SHEET NO. <i>EC-2B</i> |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

STORMWATER BASIN WITH SKIMMER



PLAN VIEW



SECTIONAL VIEW

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH ROADWAY STD. DRAWING 1640.01.
3. INSTALL SKIMMER AND COUPLING TO RISER STRUCTURE OR DIRECTLY INTO EMBANKMENT 1 FT. FROM BOTTOM OF BASIN.
4. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT. BETWEEN THE SKIMMER AND COUPLING.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. THE DIFFERENCE BETWEEN LENGTHS "D" AND "E" REPRESENT THE FREEBOARD AND SHOULD BE 1 FT. MINIMUM.

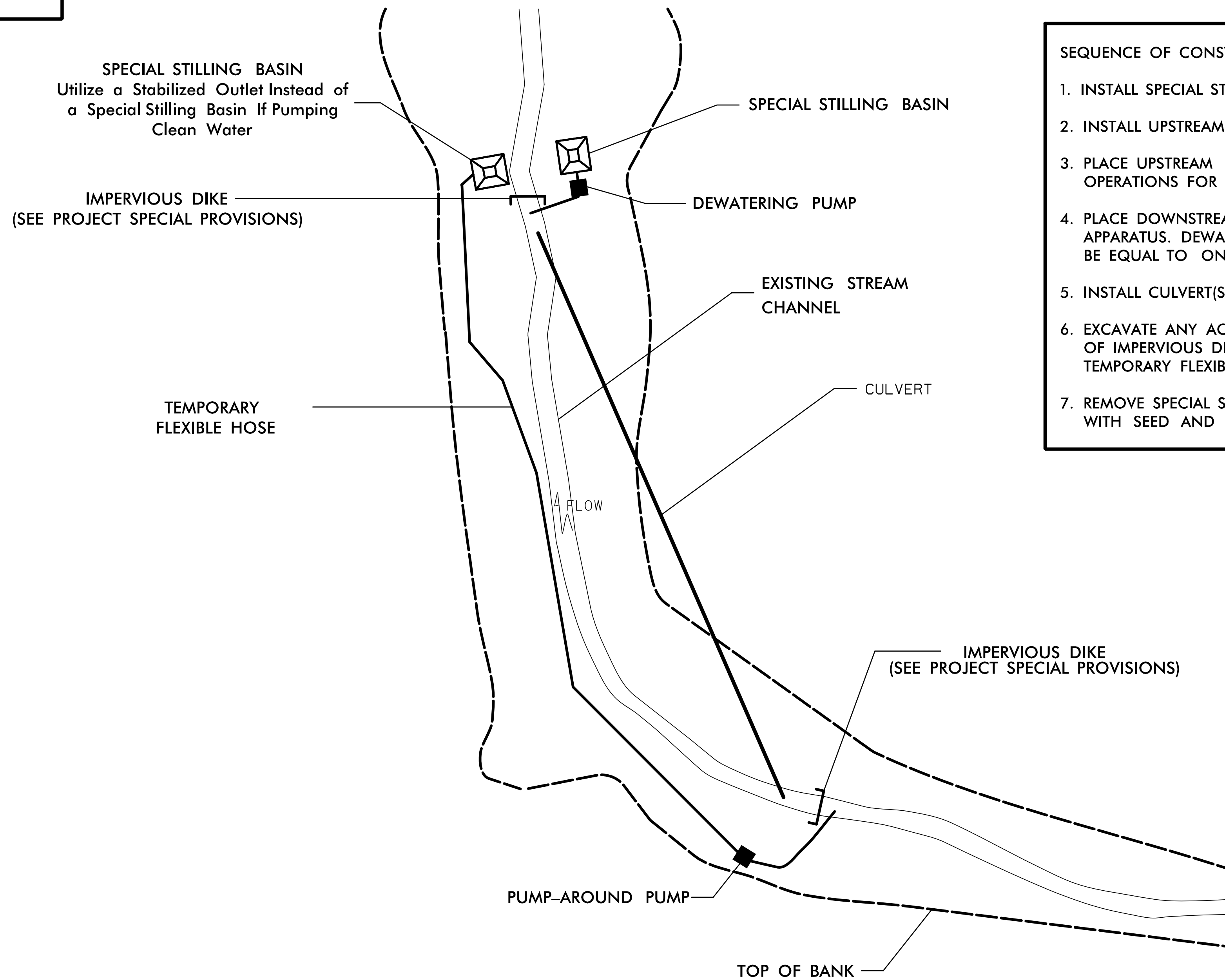
NOT TO SCALE

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|--|---------------------------|
| PROJECT REFERENCE NO. <i>R-2307B/1-5717</i> | SHEET NO. <i>EC-2C</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

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| PROJECT REFERENCE NO. <i>R-2307B/1-5717</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) |
|-----------------|----------------------|--------------|------------|------|---------------|
| | SLOPE MATTING | | | | |
| 4/5 | -L- | 432+00 | 435+00 | RT | 1100 |
| 5 | -L- | 435+00 | 438+00 | LT | 1193 |
| 5 | -DRW7- | 10+75 | 11+75 | RT | 1090 |
| 5 | -DRW7- | 10+75 | 11+75 | LT | 497 |
| 6 | -L- | 450+50 | 454+50 | LT | 1687 |
| 6/7 | -L- | 457+50 | 465+50 | LT | 3181 |
| 8 | -L- | 478+00 | 488+50 | LT | 4174 |
| 8/9 | -L- | 489+50 | 490+50 | RT | 174 |
| 9 | -L- | 495+00 | 496+00 | LT | 338 |
| 9 | -L- | 495+00 | 496+50 | RT | 560 |
| 9 | -L- | 496+50 | 499+00 | LT | 528 |
| 9 | -TRAIL2- | 75+98 | 77+06 | LT | 135 |
| 9 | -TRAIL2- | 75+98 | 77+06 | RT | 108 |
| 9 | -L- | 500+50 | 503+00 | LT | 845 |
| 9 | -TRAIL2- | 79+14 | 80+20 | LT | 373 |
| 9 | -Y1- | 11+00 | 12+50 | LT | 560 |
| 9 | -Y2- | 14+00 | 16+25 | RT | 554 |
| 10 | -TRAIL2- | 86+84 | 87+50 | RT | 116 |
| 10 | -L- | 509+50 | 511+00 | RT | 609 |
| 10 | -L- | 516+00 | 516+50 | LT | 50 |
| 10/11 | -L- | 516+00 | 520+50 | RT | 1237 |
| 11 | -TRAIL2- | 101+34 | 104+45 | LT | 928 |
| 11 | -TRAIL2- | 107+17 | 110+06 | LY | 2031 |
| 11 | -TRAIL2- | 107+69 | 109+29 | RT | 619 |
| 11 | -L- | 529+50 | 531+50 | RT | 492 |
| 11 | -L- | 530+00 | 533+50 | LT | 984 |
| 11 | -DRW2- | 10+50 | 1225 | RT | 261 |
| 11 | -DRW2- | 11+00 | 12+25 | LT | 249 |
| 12 | -TRAIL2- | 117+88 | 121+25 | LT | 1675 |

STRAW MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|----------------------|--------------|------------|------|---------------|
| | SLOPE MATTING | | | | |
| 12 | -L- | 538+00 | 539+00 | LT | 125 |
| 12 | -L- | 540+00 | 540+50 | MED | 1112 |
| 12 | -Y9DET- | 11+50 | 12+00 | RT | 71 |
| 13 | -L- | 553+00 | 555+25 | LT | 1028 |
| 13 | -L- | 553+00 | 555+25 | RT | 800 |
| 13 | -L- | 554+00 | 554+50 | MED | 1112 |
| 13 | -Y10- | 10+75 | 11+25 | LT | 141 |
| 14 | -L- | 560+50 | 565+25 | RT | 1669 |
| 14 | -L- | 566+00 | 567+00 | RT | 230 |
| 15 | -L- | 575+00 | 580+50 | LT | 967 |
| 15/16 | -L- | 583+00 | 589+25 | LT | 1318 |
| 16 | -L- | 588+50 | 593+50 | RT | 1055 |
| 16 | -L- | 588+50 | 589+00 | LT | 106 |
| 16 | -L- | 593+00 | 596+00 | LT | 825 |
| 16 | -L- | 597+00 | 602+00 | MED | 11114 |
| 16 | -L- | 589+50 | 590+50 | MED | 2223 |
| 16/17 | -L- | 597+00 | 611+50 | LT | 9300 |
| 17 | -L- | 602+50 | 603+75 | RT | 220 |
| 17 | -L- | 603+50 | 611+50 | MED | 17782 |
| 18 | -L- | 619+25 | 623+50 | LT | 1792 |
| 18 | -L- | 621+00 | 622+00 | RT | 230 |
| 18 | -Y16- | 23+75 | 25+25 | LT | 580 |
| 18 | -Y18- | 12+00 | 12+50 | LT | 138 |
| 18/19 | -L- | 627+50 | 637+25 | LT | 2399 |
| 19 | -L- | 632+50 | 636+25 | RT | 1031 |
| 19 | -L- | 642+00 | 643+50 | LT | 275 |
| 20 | -L- | 646+50 | 652+50 | LT | 1687 |
| 20 | -L- | 651+00 | 654+25 | RT | 745 |
| 20 | -L- | 655+00 | 657+00 | LT | 199 |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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|--|---------------------------|
| PROJECT REFERENCE NO. <i>R-2307B/1-5717</i> | SHEET NO. <i>EC-3A</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</i> | <i>MATTING</i> | | | | |
| 20 | -Y46- | 11+15 | 11+65 | LT | 75 |
| 21 | -L- | 660+00 | 665+50 | RT | 1764 |
| 21/22 | -L- | 668+50 | 674+50 | RT | 1375 |
| 22 | -L- | 675+50 | 678+25 | RT | 580 |
| 23 | -L- | 688+50 | 690+25 | LT | 401 |
| 23 | -L- | 691+00 | 691+50 | LT | 71 |
| 24 | -L- | 704+00 | 706+25 | LT | 413 |
| 24 | -L- | 704+00 | 705+50 | MED | 3334 |
| 24 | -Y26- | 19+00 | 20+25 | RT | 230 |
| 24 | -Y26A- | 11+50 | 13+00 | LT | 413 |
| 24/25 | -L- | 712+00 | 714+25 | RT | 475 |
| 25 | -L- | 716+00 | 717+75 | RT | 261 |
| 25 | -L- | 726+00 | 733+00 | RT | 3479 |
| 25 | -L- | 727+00 | 729+25 | LT | 783 |
| 25 | -L- | 731+00 | 733+00 | LT | 994 |
| 25 | -L- | 734+50 | 735+75 | LT | 703 |
| 25 | -L- | 734+50 | 736+50 | RT | 1757 |
| 25 | -Y31RPA- | 17+00 | 18+50 | RT | 413 |
| 26 | -Y31- | 12+75 | 13+25 | LT | 112 |
| 26/27 | -L- | 752+25 | 756+75 | RT | 2684 |
| 26/27 | -L- | 754+75 | 756+25 | LT | 1119 |
| 27 | -L- | 757+50 | 757+95 | LT | 83 |
| 27/28 | -L- | 768+00 | 770+50 | RT | 440 |
| 29 | -L- | 783+25 | 786+25 | RT | 1268 |
| 29/30 | -L- | 791+25 | 794+25 | RT | 1268 |
| 29/30 | -L- | 792+75 | 794+75 | LT | 1195 |
| 30 | -Y43- | 10+75 | 11+25 | RT | 100 |
| 31 | -Y16- | 18+50 | 20+25 | LT | 369 |
| 31 | -Y16- | 21+25 | 21+75 | LT | 63 |

STRAW MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|--------------------------------|----------------|--------------|------------|------|---------------|
| <i>SLOPE</i> | <i>MATTING</i> | | | | |
| 32 | -Y17- | 14+00 | 18+75 | RT | 1741 |
| 32 | -Y17- | 21+50 | 24+25 | LT | 1008 |
| 32 | -Y17- | 20+00 | 23+25 | RT | 1043 |
| 34 | -Y26- | 13+00 | 15+00 | RT | 398 |
| <i>SLOPE MATTING SUBTOTAL</i> | | | | | 117,034 |
| | | | | | |
| <i>DITCHLINE STRAW MATTING</i> | | | | | |
| 4 | -L- | 432+31 | 433+03 | RT | 45 |
| 4 | -L- | 433+00 | 435+00 | LT | 295 |
| 4 | -Y- | 10+50 | 11+00 | RT | 40 |
| 4 | -Y- | 12+50 | 15+00 | LT | 690 |
| 5 | -L- | 436+50 | 443+13 | RT | 2340 |
| 5 | -L- | 440+50 | 442+61 | LT | 1060 |
| 5 | -L- | 442+61 | 445+63 | LT | 1095 |
| 5 | -L- | 445+63 | 450+13 | LT | 2270 |
| 5 | -L- | 443+13 | 446+00 | RT | 1330 |
| 6 | -TRAIL1- | 23+50 | 27+10 | LT | 490 |
| 9 | -L- | 491+00 | 493+00 | RT | 760 |
| 9 | -TRAIL2- | 71+12 | 71+62 | LT | 135 |
| 9 | -L- | 497+00 | 499+00 | RT | 760 |
| 9 | -Y2- | 13+00 | 14+40 | LT | 145 |
| 9 | Y2- | 13+70 | 14+40 | RT | 95 |
| 9 | -TRAIL2- | 71+62 | 73+50 | LT | 105 |
| 10 | -TRAIL2- | 80+73.7 | 85+62.9 | LT | 735 |
| 10 | -TRAIL2- | 80+73.7 | 84+54.2 | RT | 520 |
| 10 | -L- | 503+50 | 511+50 | LT | 2820 |
| 10 | -L- | 513+00 | 514+50 | RT | 760 |
| 10 | -L- | 527+50 | 529+50 | LT | 745 |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

| | |
|---|---------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-3B |
| 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) |
|----------------------------------|----------|--------------|------------|------|---------------|
| DITCHLINE STRAW MATTING | | | | | |
| 10 | -L- | 516+00 | 517+50 | RT | 235 |
| 11 | -L- | 526+50 | 528+00 | RT | 190 |
| 11 | -L- | 528+00 | 529+50 | RT | 150 |
| 11 | -L- | 522+50 | 526+50 | RT | 1795 |
| 12 | -L- | 532+50 | 534+00 | RT | 195 |
| 12 | -L- | 536+00 | 539+00 | RT | 1300 |
| 12 | -L- | 539+00 | 539+50 | RT | 70 |
| 12 | -L- | 539+50 | 541+00 | RT | 195 |
| 12 | -L- | 542+50 | 547+50 | RT | 1765 |
| 12 | -Y8- | 12+50 | 14+00 | RT | 675 |
| 12 | -Y8- | 12+50 | 13+50 | LT | 285 |
| 13 | -L- | 548+50 | 550+28 | LT | 200 |
| 13 | -L- | 551+40 | 552+64 | LT | 135 |
| 15 | -Y13- | 11+00 | 12+50 | LT | 420 |
| 17 | -L- | 611+65 | 613+70 | LT | 165 |
| 17 | -L- | 613+70 | 617+36 | LT | 305 |
| 18 | -L- | 625+50 | 627+83 | RT | 195 |
| 19 | -L- | 638+00 | 647+50 | RT | 3280 |
| 25 | -Y31RPC- | 14+00 | 15+00 | RT | 125 |
| 30 | -L- | 795+00 | 795+50 | RT | 30 |
| 30 | -L- | 795+50 | 796+50 | RT | 55 |
| 31 | -Y16- | 20+50 | 24+50 | LT | 1355 |
| 33 | -Y17- | 27+00 | 34+50 | LT | 765 |
| 36 | -Y39- | 13+50 | 14+26 | RT | 125 |
| DITCHLINE STRAW MATTING SUBTOTAL | | | | | 31,245 |

EXCELSIOR MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|---|----------|--------------|------------|------|----------------|
| DITCHLINE EXCELSIOR MATTING | | | | | |
| 5 | -TRAIL1- | 14+89 | 21+00 | LT | 805 |
| 10 | -TRAIL2- | 84+54.2 | 85+62.9 | RT | 155 |
| 12 | -Y8- | 10+50 | 12+50 | LT | 540 |
| 12 | -Y8DET- | 12+69 | 13+76 | LT | 75 |
| 12 | -Y8DET- | 12+69 | 15+29 | RT | 190 |
| 12 | -Y8DET- | 15+29 | 16+33 | LT | 75 |
| 13 | -TRAIL2- | 125+60 | 126+20 | LT | 85 |
| 28 | -L- | 774+50 | 782+50 | RT | 1380 |
| DITCHLINE EXCELSIOR MATTING SUBTOTAL | | | | | 3,305 |
| SLOPE MATTING SUBTOTAL | | | | | 117,034 |
| DITCHLINE STRAW MATTING SUBTOTAL | | | | | 31,245 |
| DITCHLINE EXCELSIOR MATTING SUBTOTAL | | | | | 3,305 |
| MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER | | | | | 224,761 |
| TOTAL | | | | | 376,345 |
| SAY | | | | | 376,345 |

PSRM MATTING FOR EROSION CONTROL - TYPE 2

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|---------------------------------|------|--------------|------------|------|---------------|
| DITCHLINE PSRM MATTING - TYPE 2 | | | | | |
| 9 | -Y2- | 14+40 | 14+70 | LT | 35 |
| 18 | -L- | 620+38 | 620+54 | RT | 20 |
| PSRM TYPE 2 SUBTOTAL | | | | | 55 |
| ADDITIONAL PSRM TO BE INSTALLED | | | | | 0 |
| TOTAL | | | | | 55 |
| SAY | | | | | 55 |

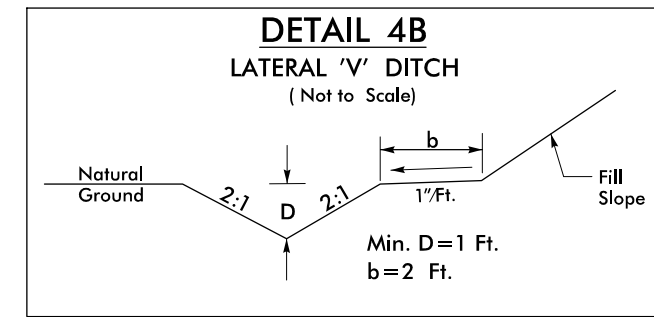
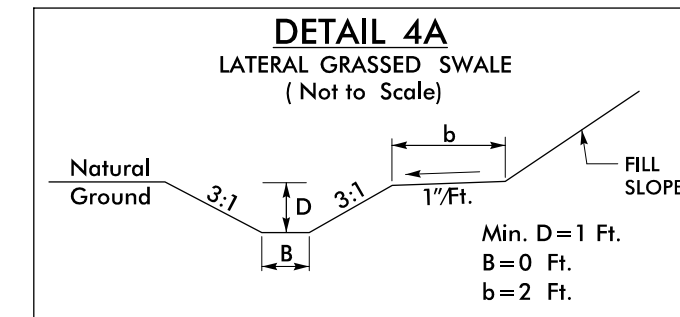
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

| | |
|--|---------------------------|
| PROJECT REFERENCE NO. <i>R-2307B/1-5717</i> | SHEET NO. <i>EC-3C</i> |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

SOIL STABILIZATION TIMEFRAMES

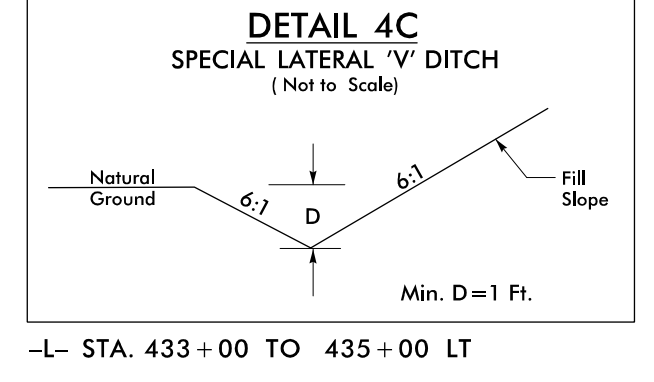
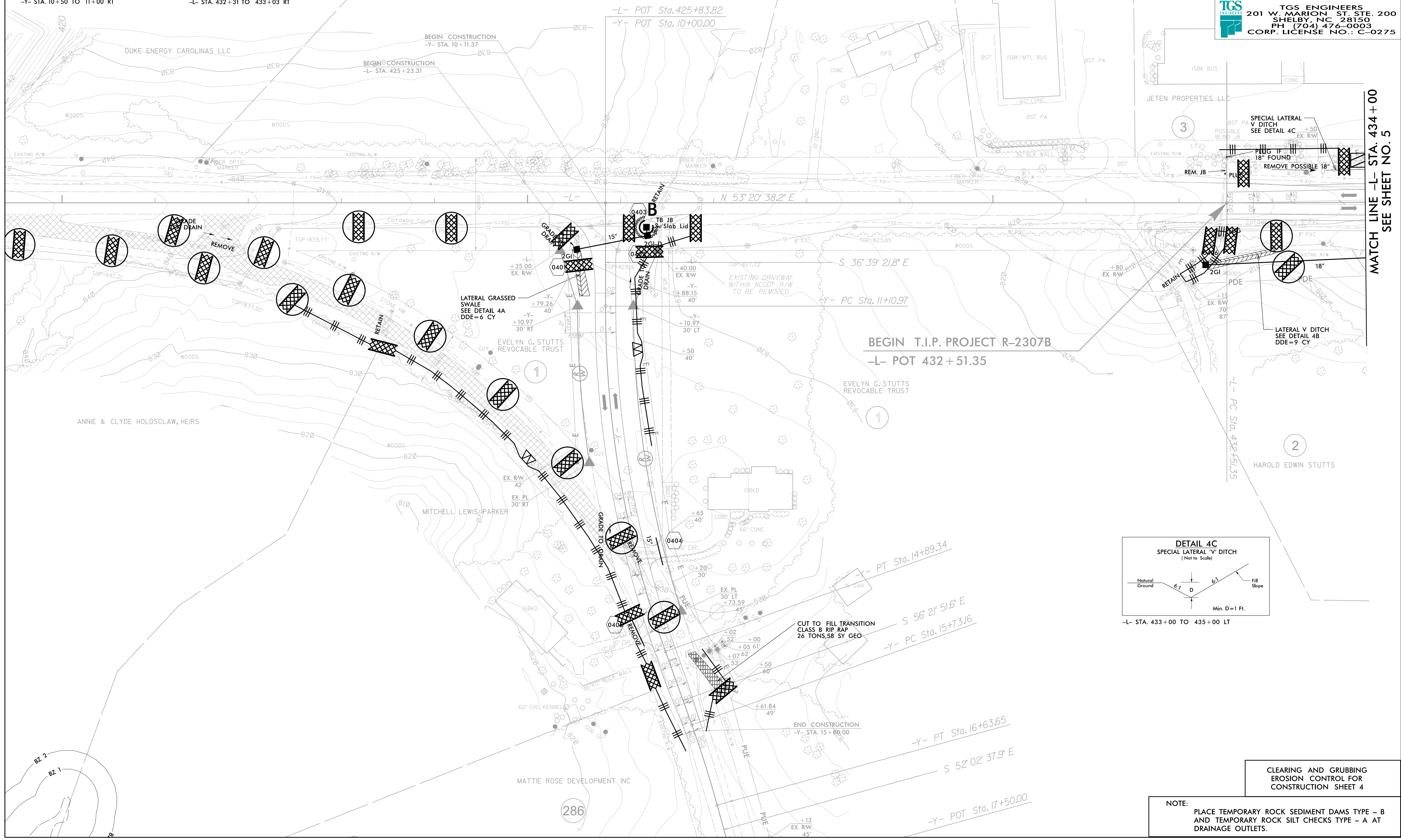
| <i>SITE DESCRIPTION</i> | <i>STABILIZATION TIME</i> | <i>TIMEFRAME EXCEPTIONS</i> |
|--|---------------------------|---|
| PERIMETER DIKES, SWALES, DITCHES AND SLOPES | 7 DAYS | NONE |
| HIGH QUALITY WATER (HQW) ZONES | 7 DAYS | NONE |
| SLOPES STEEPER THAN 3:1 | 7 DAYS | IF SLOPES ARE 10' OR LESS 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 |

NAD 83/NSRS 2007



-Y- STA. 10+50 TO 11+00 RT

-L- STA. 432+31 TO 433+03 RT




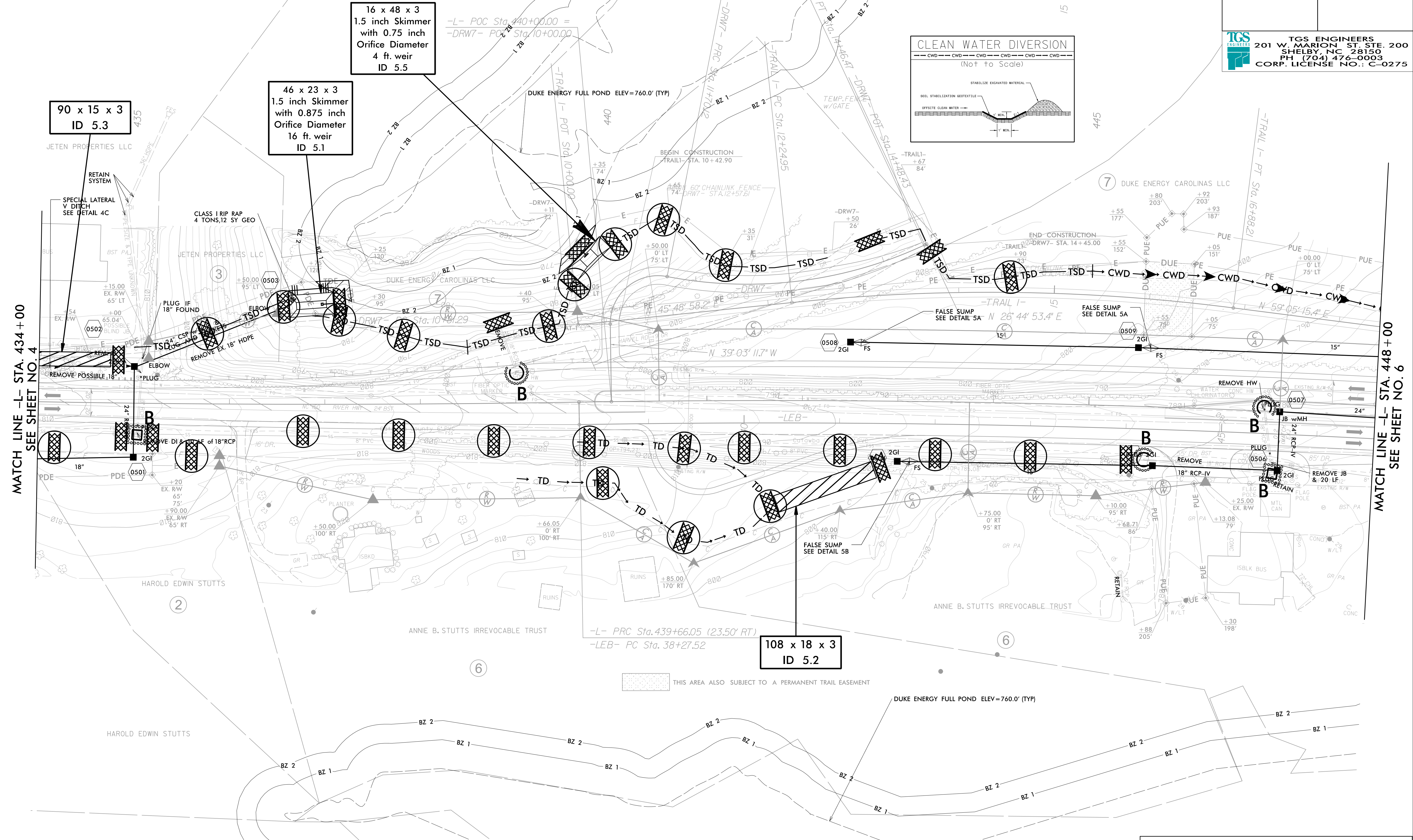
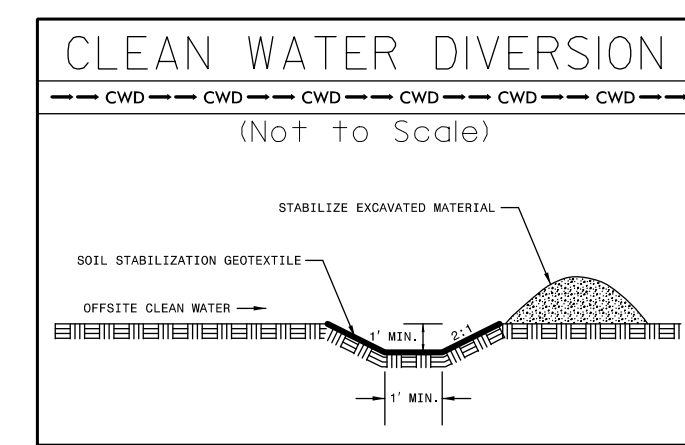
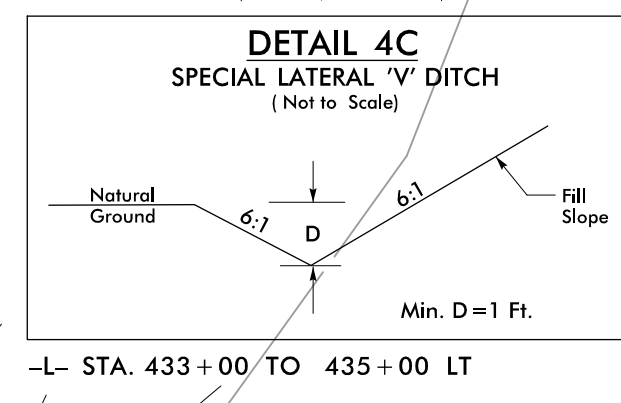
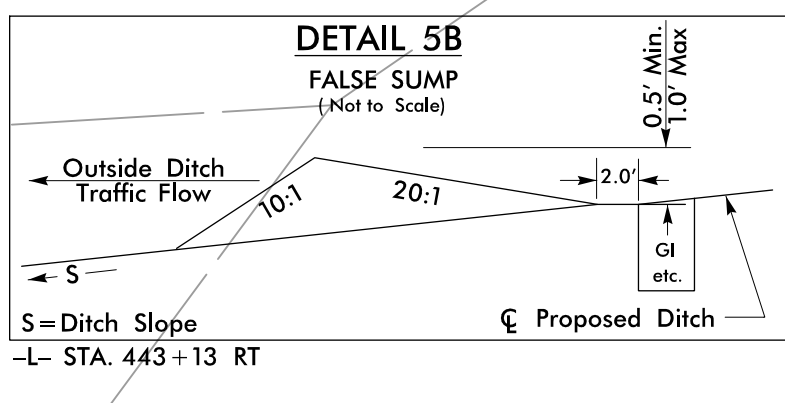
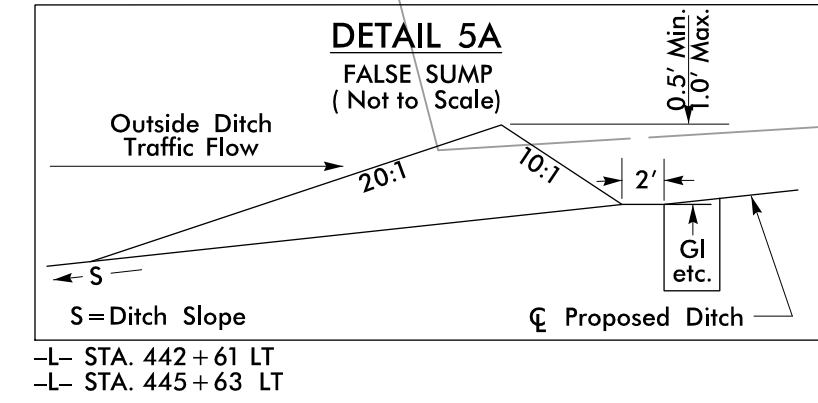
-L- STA. 433+00 TO 435+00 LT

MATCH LINE -L- STA. 434+00
SEE SHEET NO. 5

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.

| | |
|--|----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-05/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 | |



MATCH LINE -L- STA. 434+00
SEE SHEET NO. 4

MATCH LINE -L- STA. 448+00
SEE SHEET NO. 6

90 x 15 x 3
ID 5.3

46 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
16 ft. weir
ID 5.1

16 x 48 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 5.5

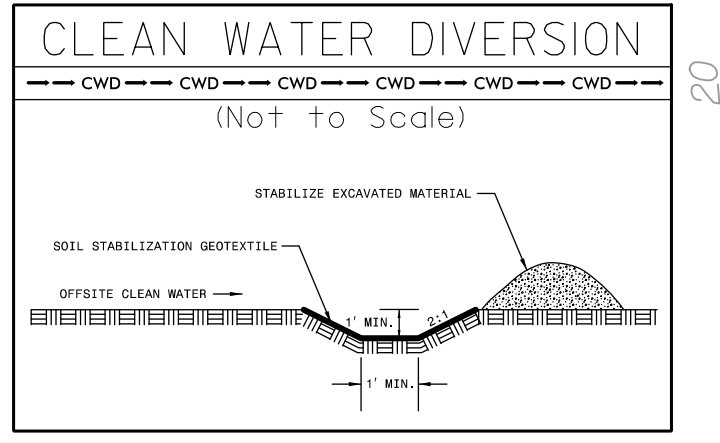
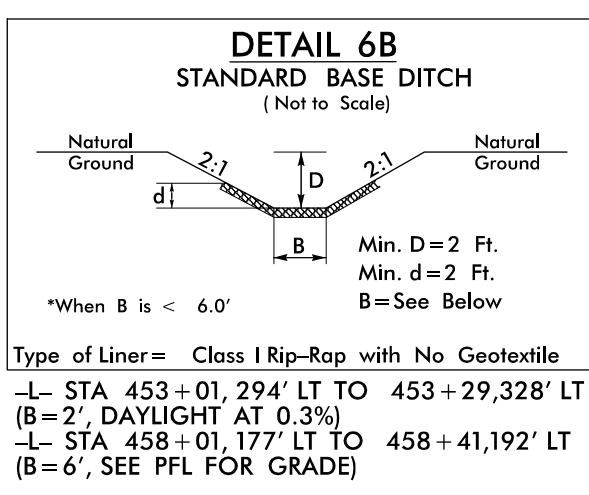
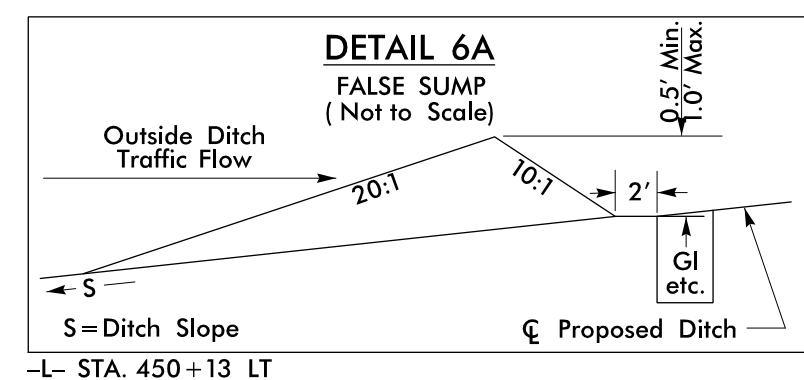
108 x 18 x 3
ID 5.2

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

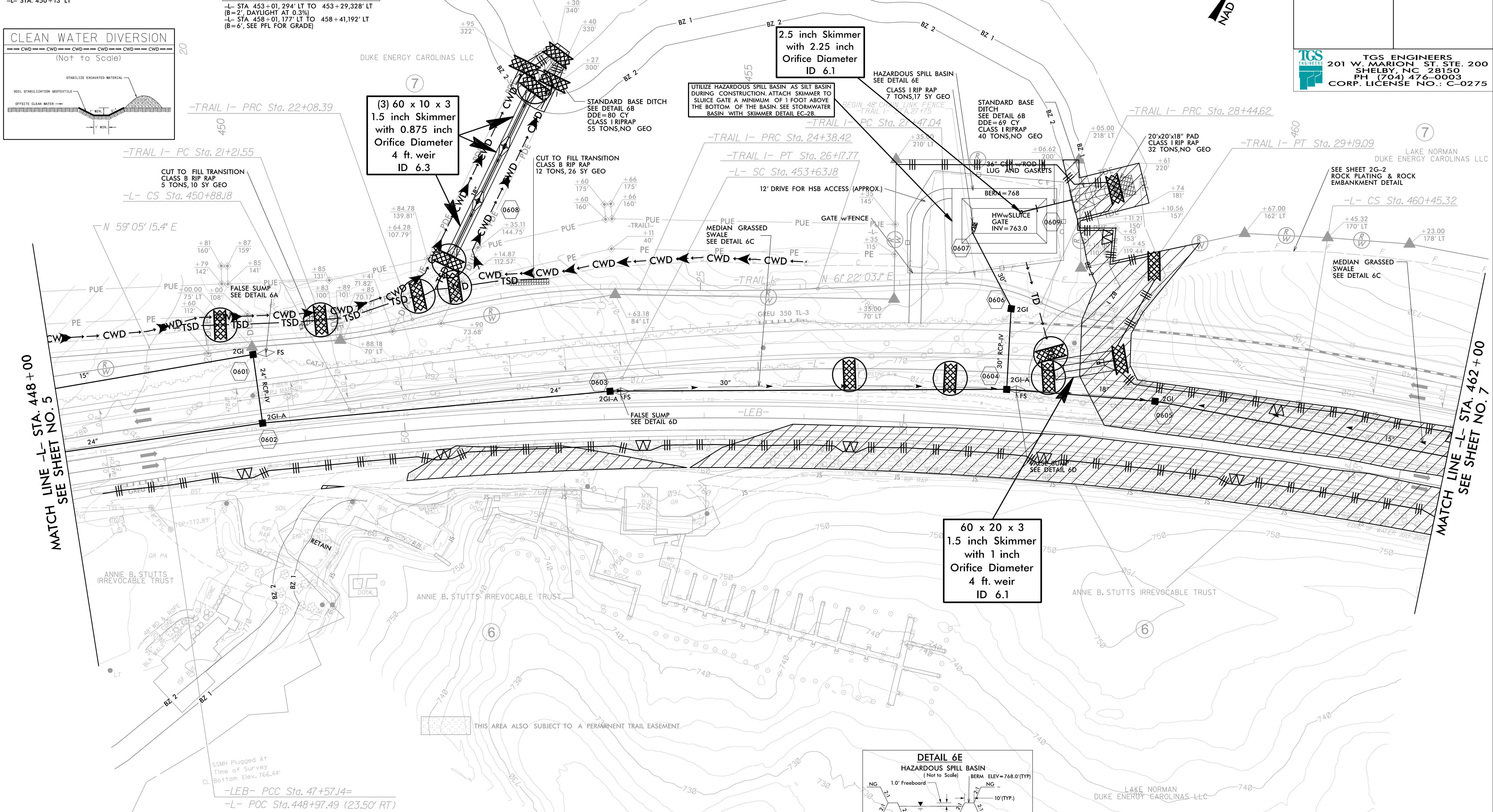
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NAD 83/NSRS 2007

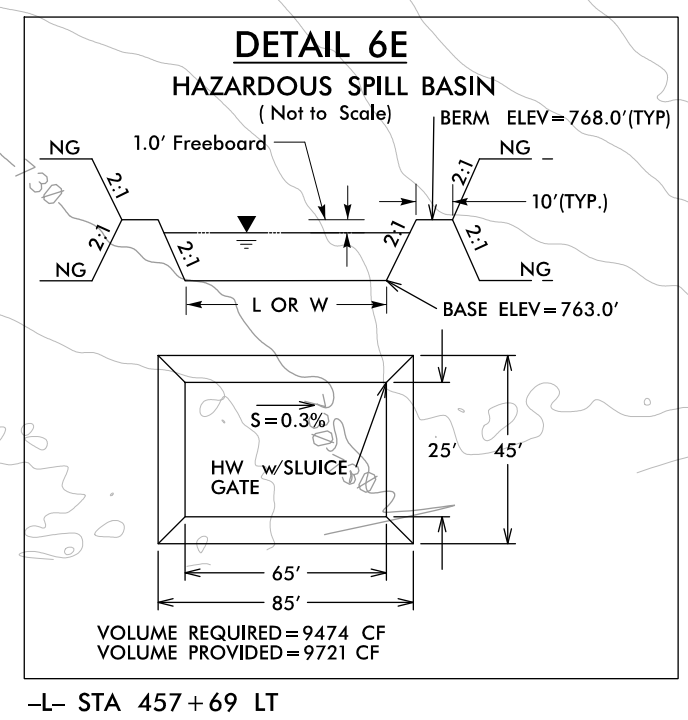
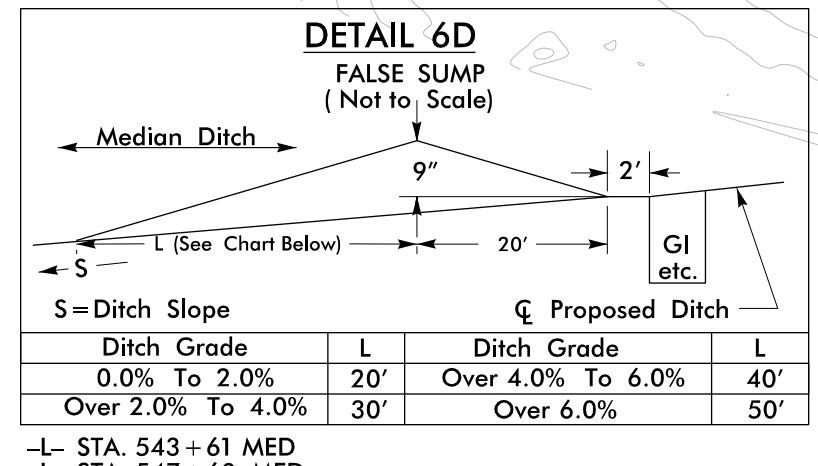
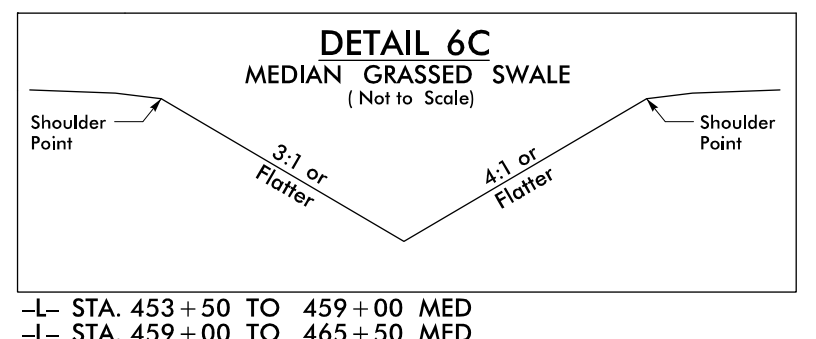


 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



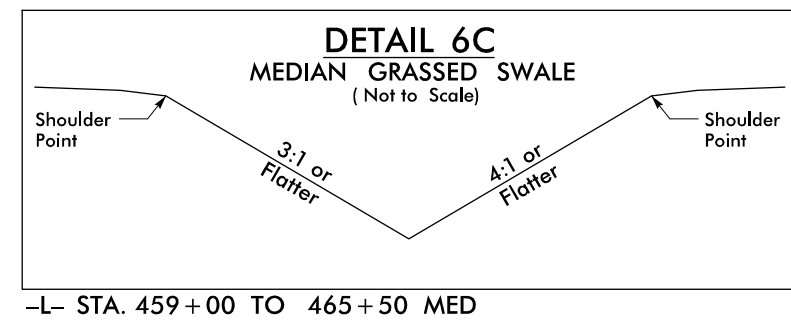
MATCH LINE -L- STA. 448+00
SEE SHEET NO. 5

MATCH LINE -L- STA. 462+00
SEE 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.



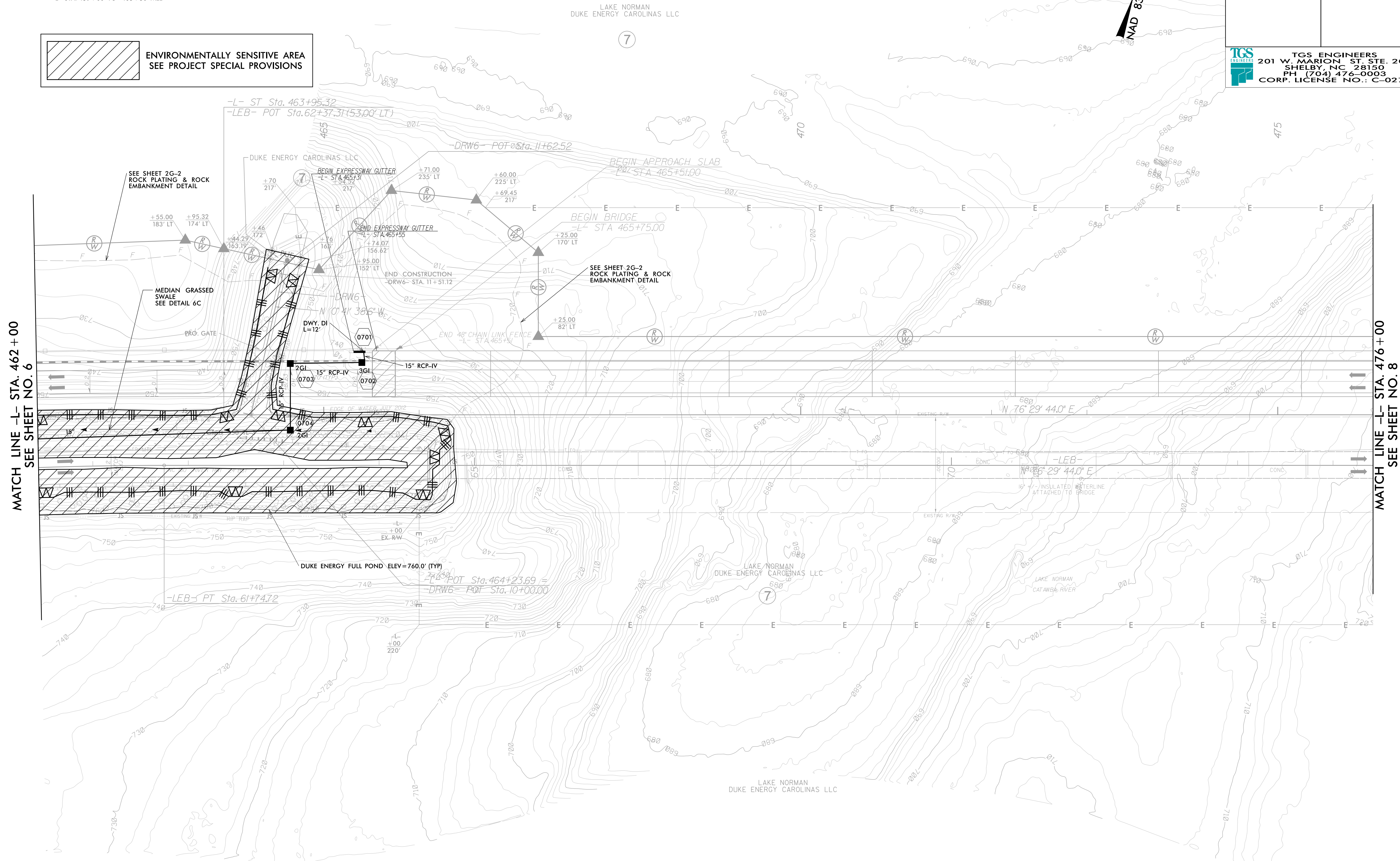
-L- STA. 459+00 TO 465+50 MED



| | |
|---|----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-07/CONST.7 |
| 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

NAD 83 NSRS 2007

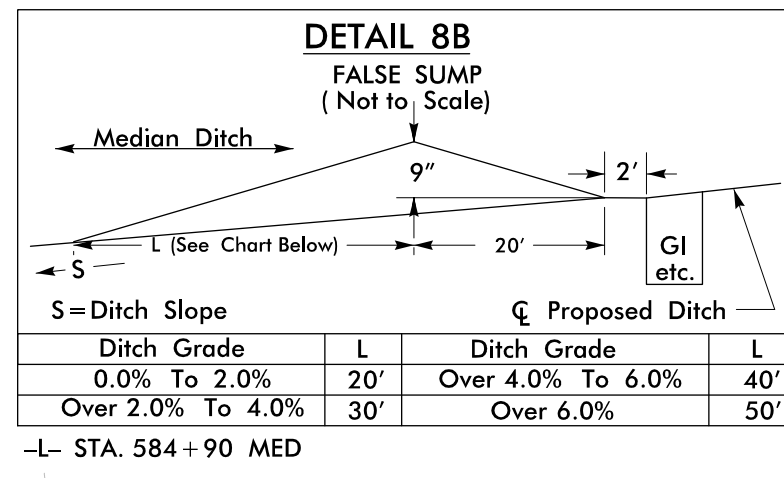
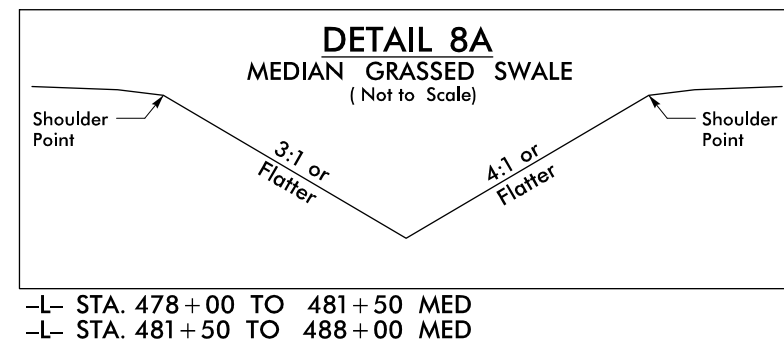
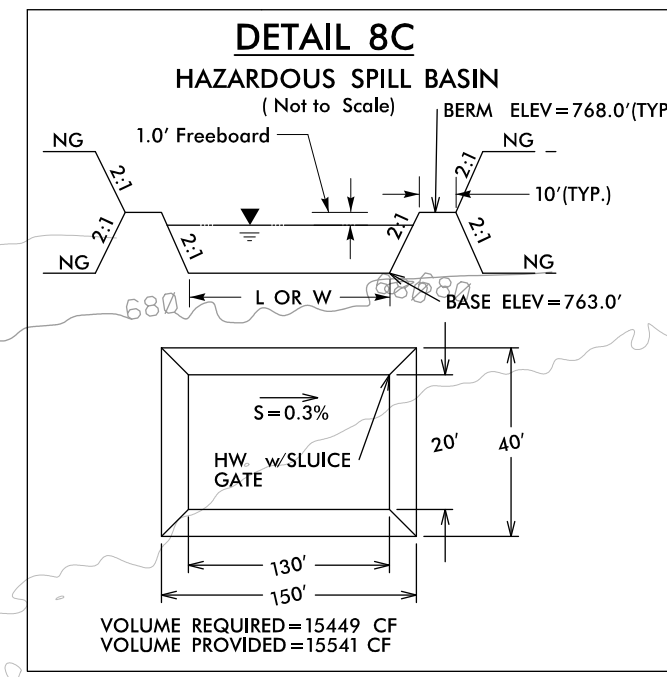


MATCH LINE -L- STA. 462+00
SEE SHEET NO. 6

MATCH LINE -L- STA. 476+00
SEE SHEET NO. 8

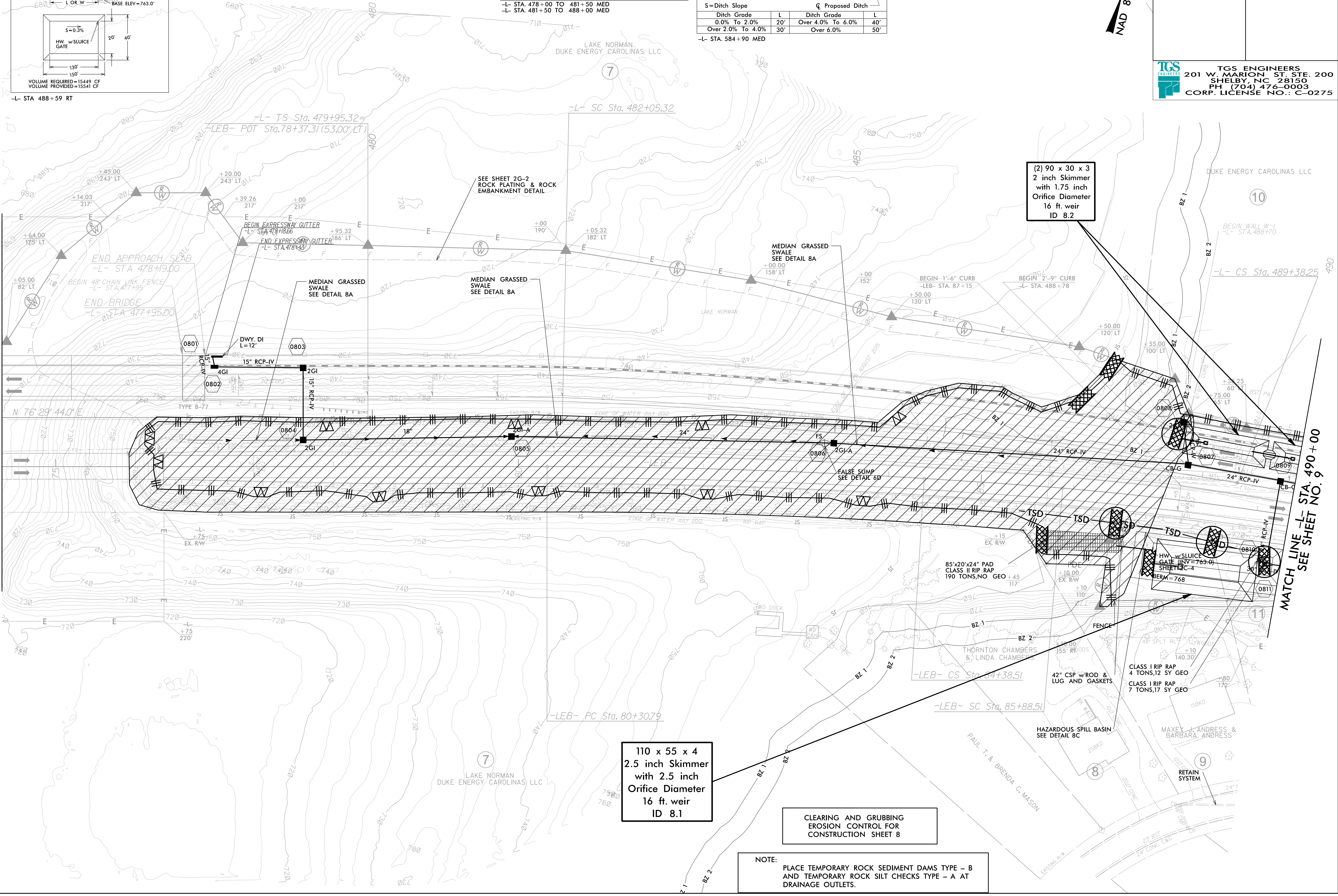
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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



NAD 83/NSRS 2007

MATCH LINE -L- STA. 476+00
SEE SHEET NO. 7



(2) 90 x 30 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 8.2

110 x 55 x 4
2.5 inch Skimmer
with 2.5 inch
Orifice Diameter
16 ft. weir
ID 8.1

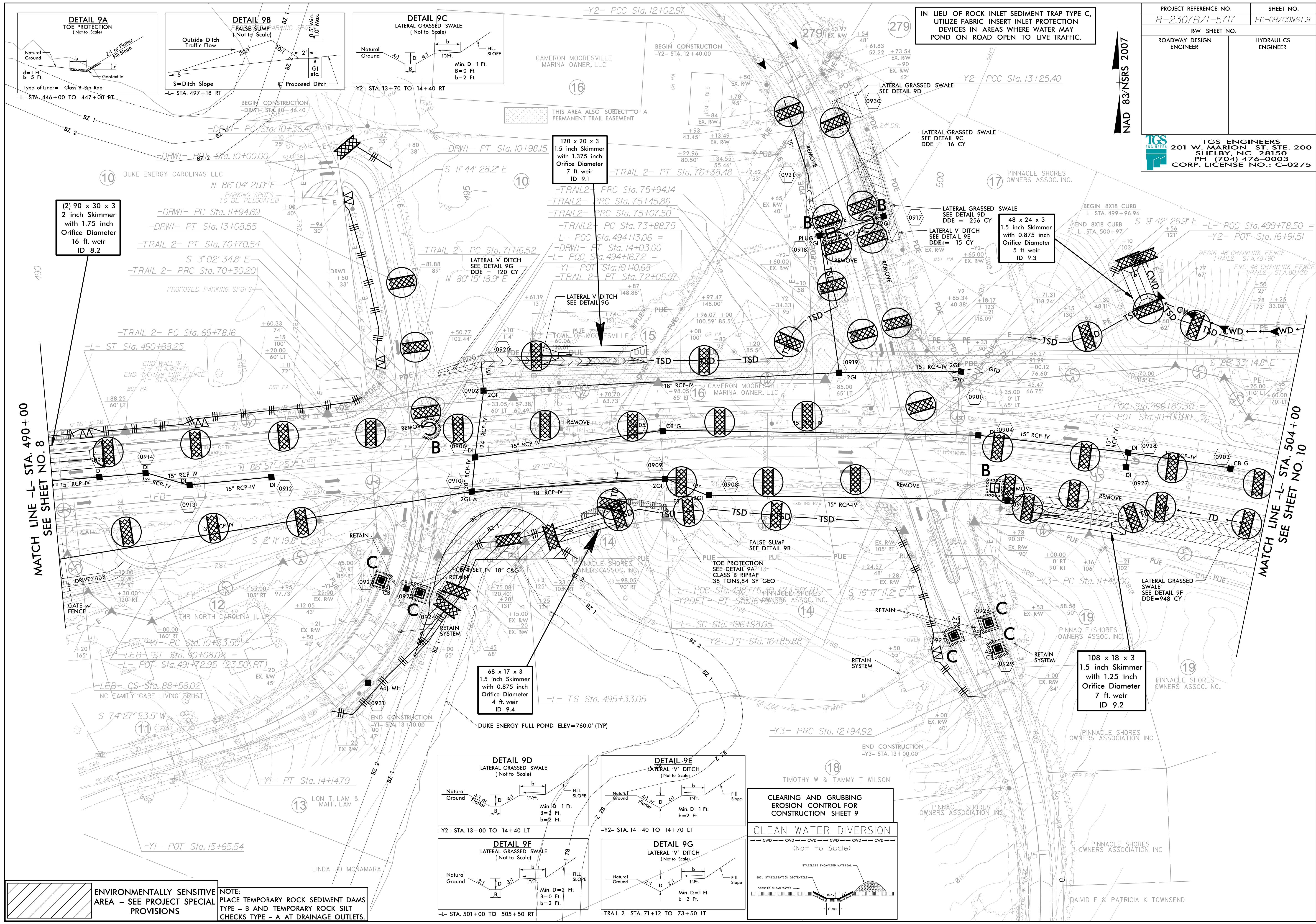
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

MATCH LINE -L- STA. 490+00
SEE SHEET NO. 9

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

NAD 83/NSRS 2007



(2) 90 x 30 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 8.2

120 x 20 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
7 ft. weir
ID 9.1

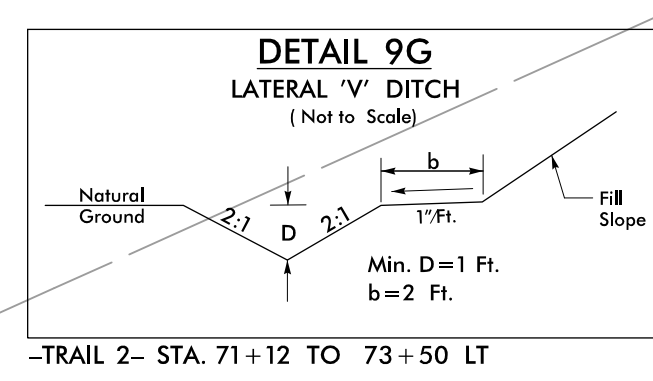
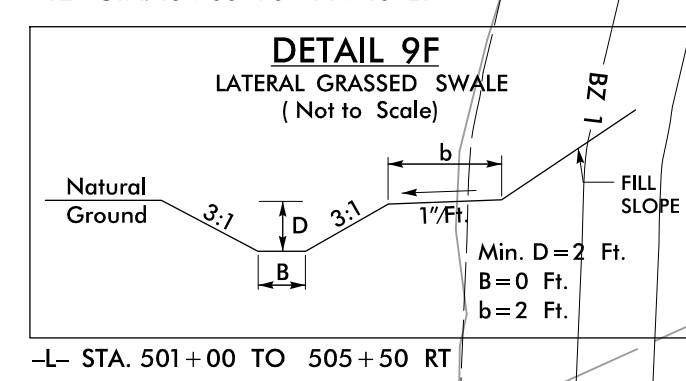
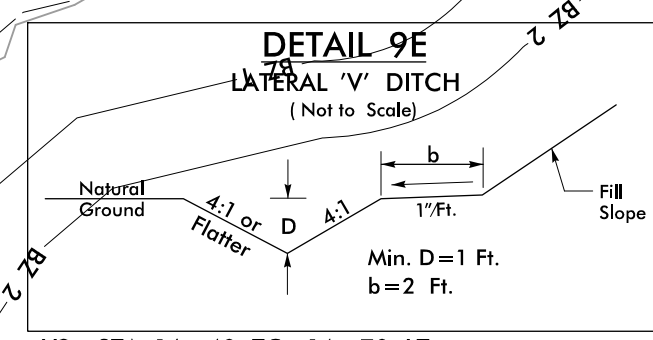
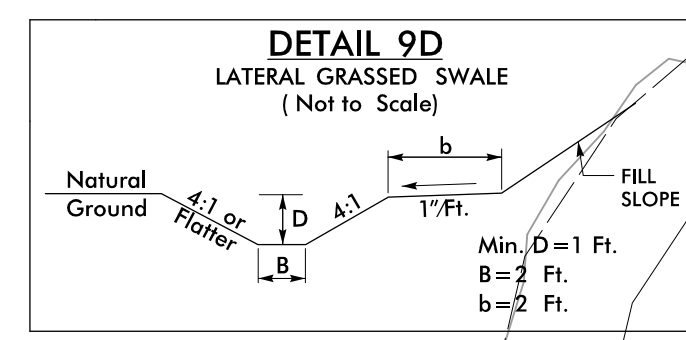
48 x 24 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
5 ft. weir
ID 9.3

68 x 17 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 9.4

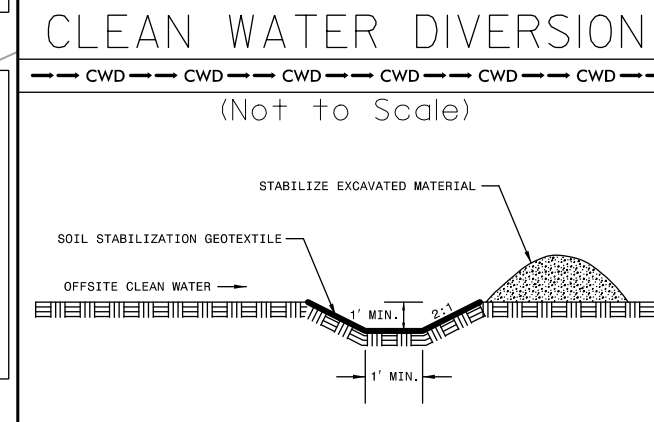
108 x 18 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 9.2

 ENVIRONMENTALLY SENSITIVE AREA - SEE PROJECT SPECIAL PROVISIONS

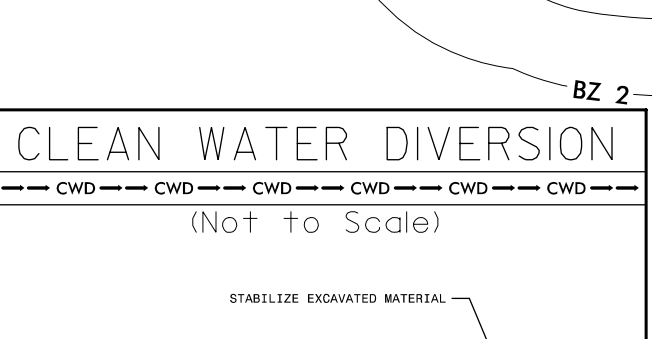
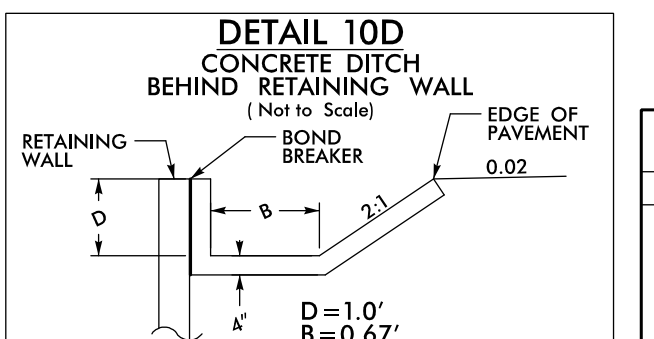
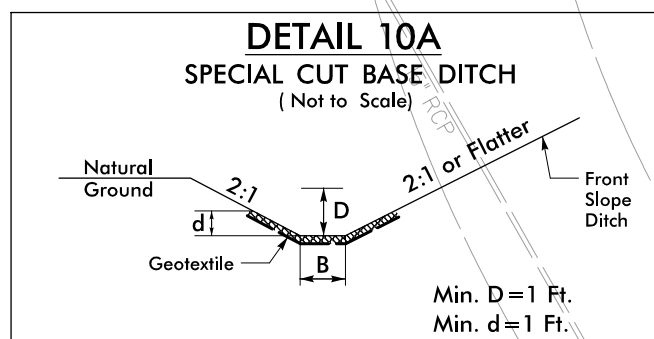
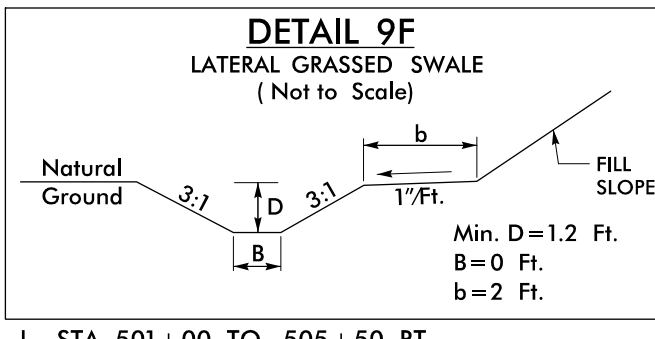
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.



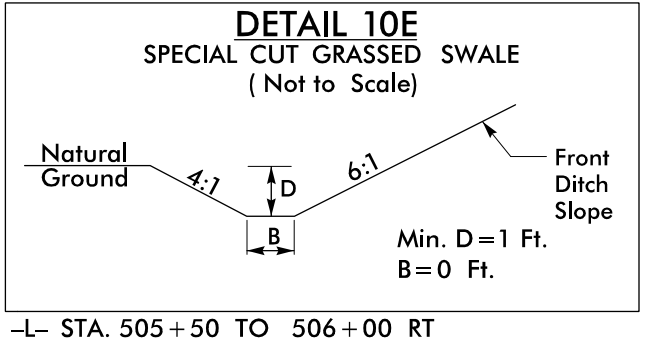
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9



DAVID E & PATRICIA K TOWNSEND



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



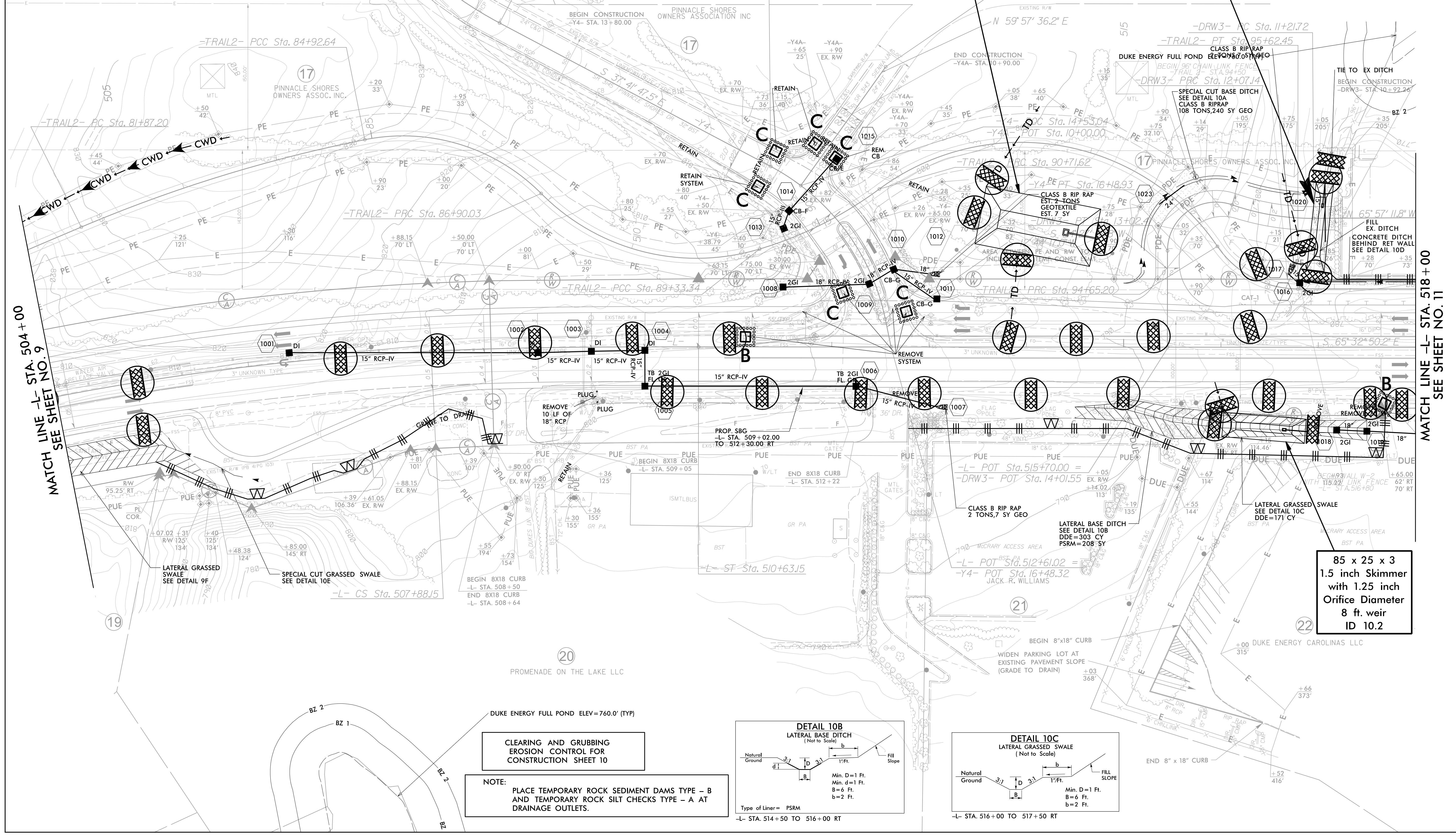
Type of Liner = Class B Rip-Rap
-DRW3- STA. 11+03 TO 13+25 RT (SEE XSC FOR GRADE)

-TRAIL2- STA. 95+65 TO 100+88 LT (SEE XSC FOR GRADE)

120 x 60 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
25 ft. weir
ID 10.1

90 x 18 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 10.3

85 x 25 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 10.2

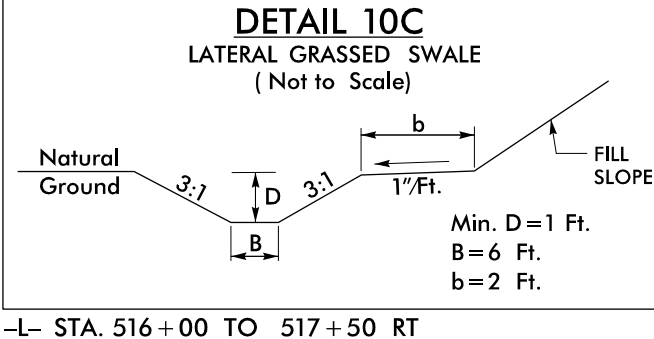
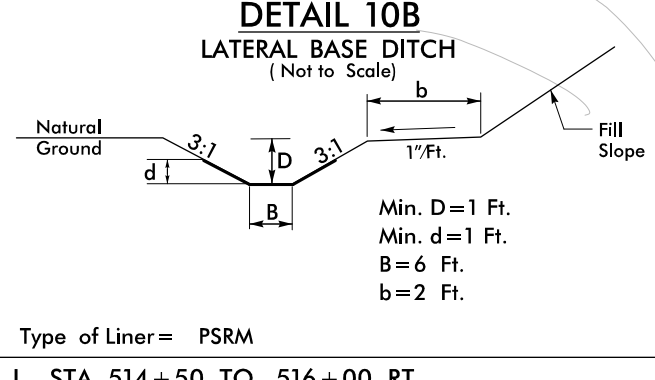


MATCH LINE -L- STA. 504+00
SEE SHEET NO. 9

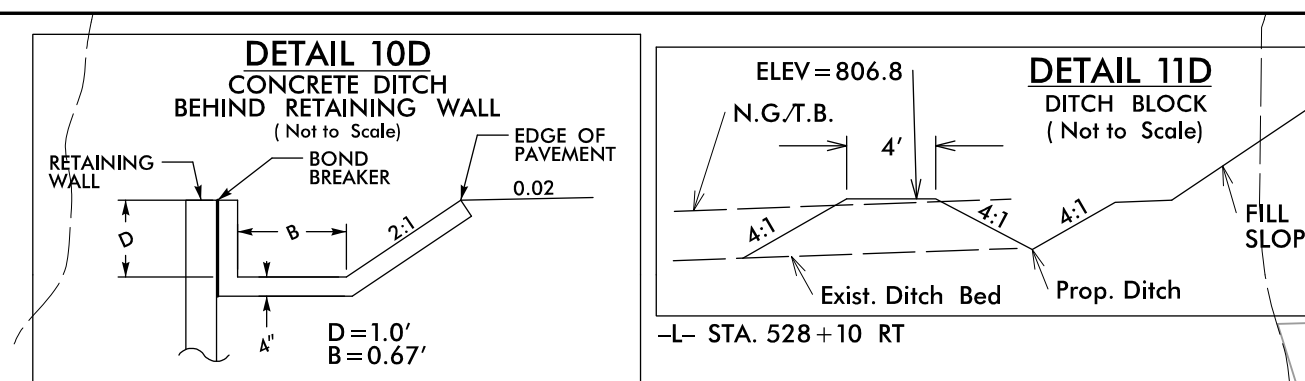
MATCH LINE -L- STA. 518+00
SEE SHEET NO. 11

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

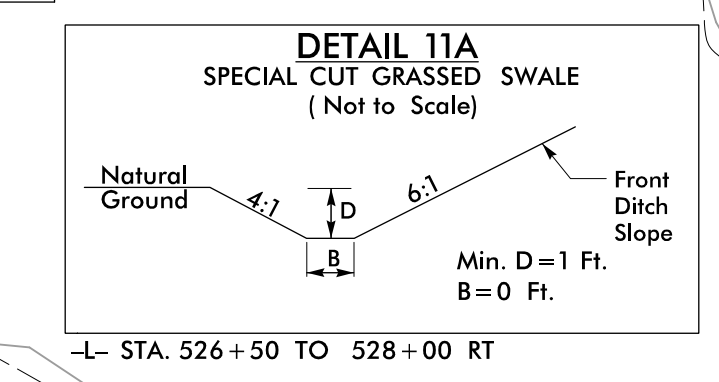
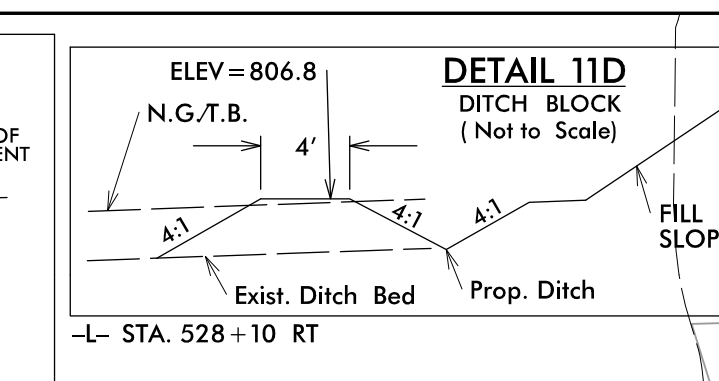
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



NAD 83/NSRS 2011



-TRAIL2- STA. 95+65 TO 100+88 LT
(SEE XSC FOR GRADE)



-L- STA. 526+50 TO 528+00 RT

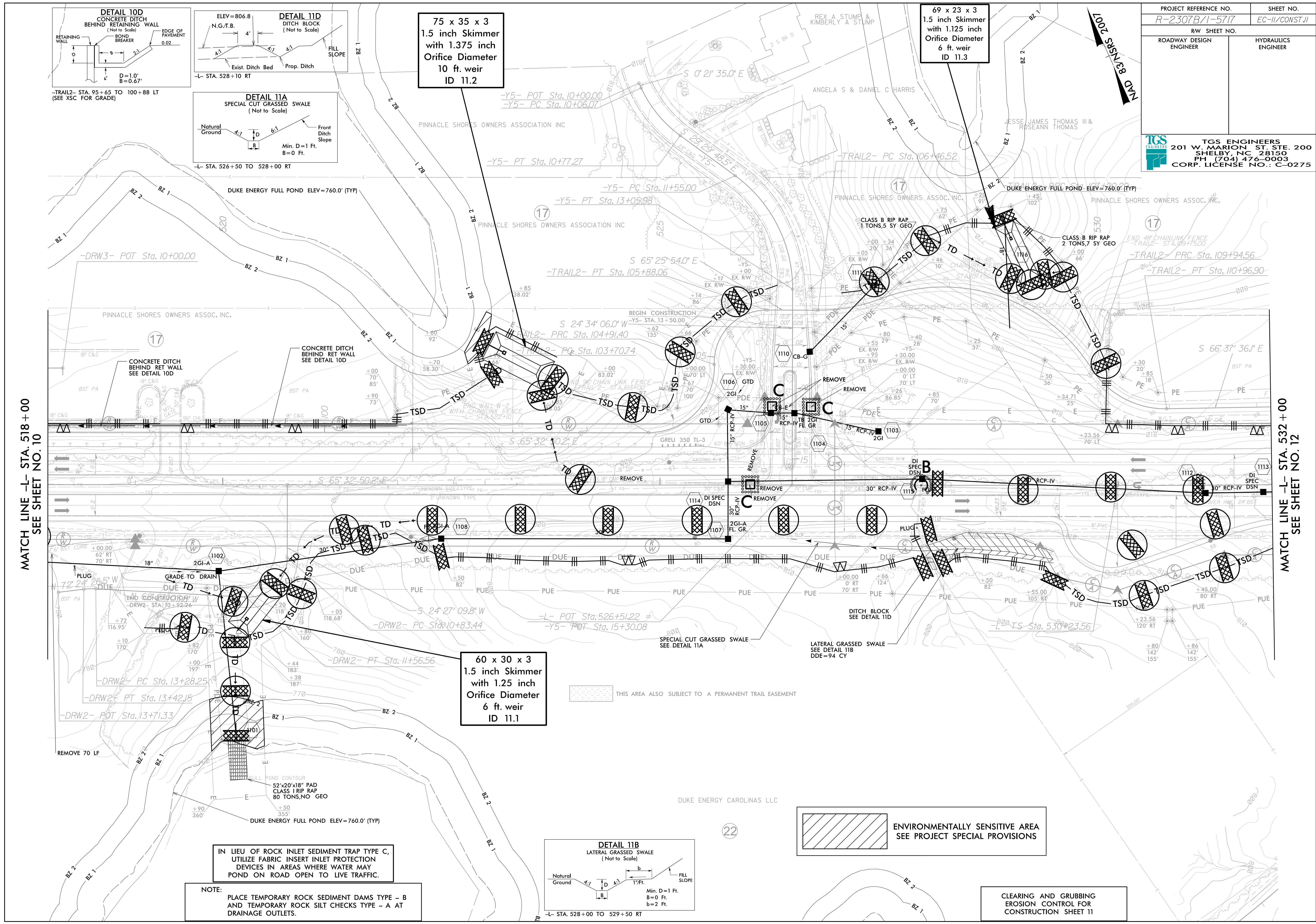
**75 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 11.2**

**69 x 23 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 11.3**

| | |
|--|------------------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-11/CONST.11 |
| RW SHEET NO. | HYDRAULICS ENGINEER |
| ROADWAY DESIGN ENGINEER | |
| TGS ENGINEERS 201 W. MARION ST. STE. 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275 | |

MATCH LINE -L- STA. 518 + 00
SEE SHEET NO. 10

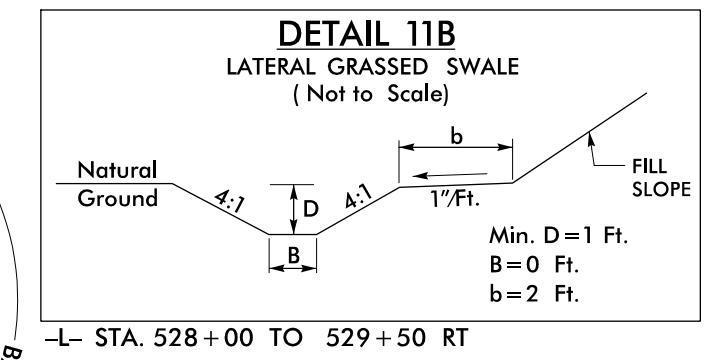
MATCH LINE -L- STA. 532 + 00
SEE SHEET NO. 12



**60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
6 ft. weir
ID 11.1**

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES 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.



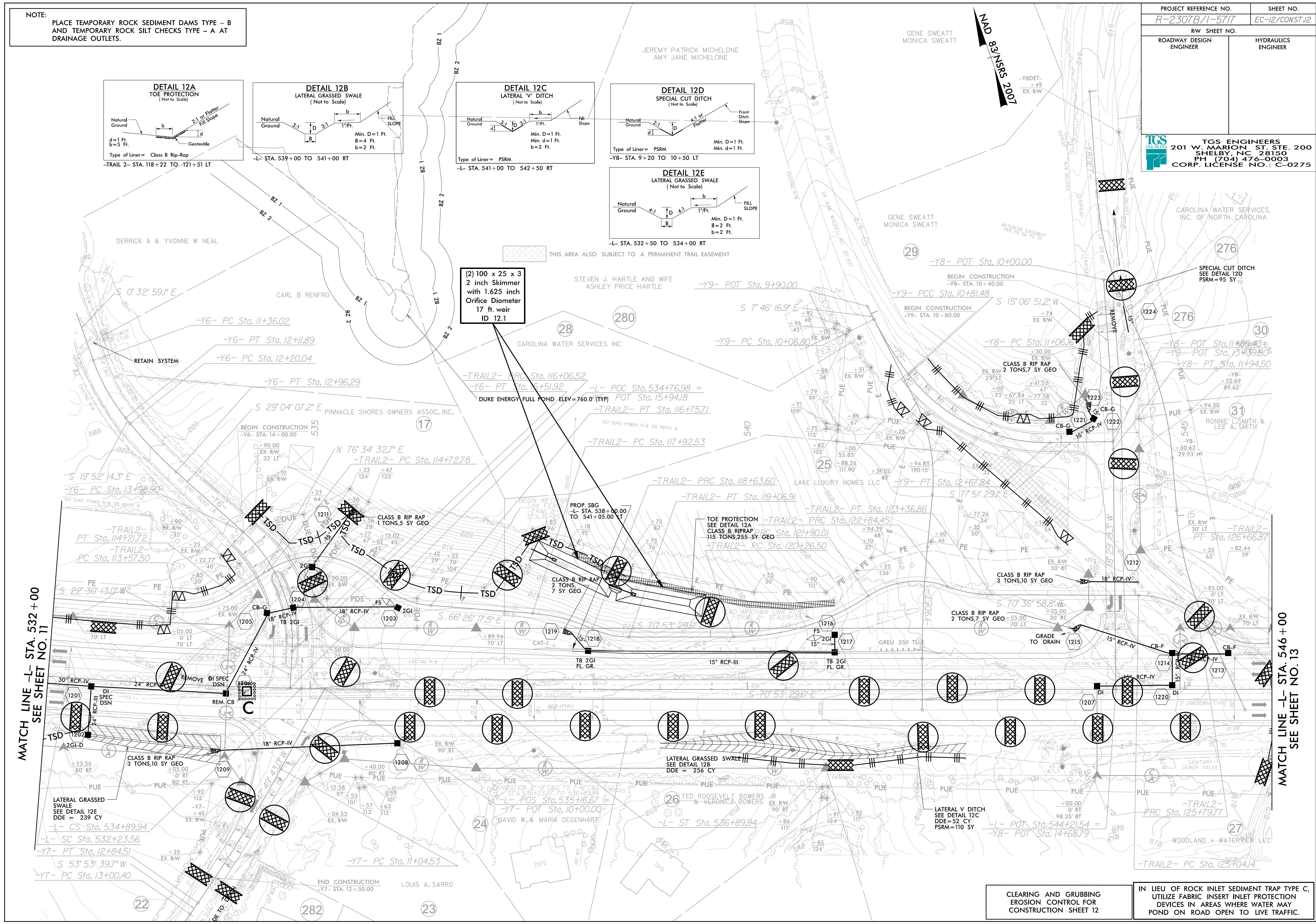
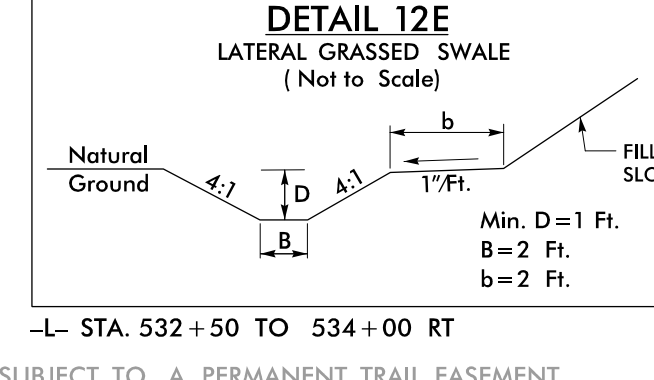
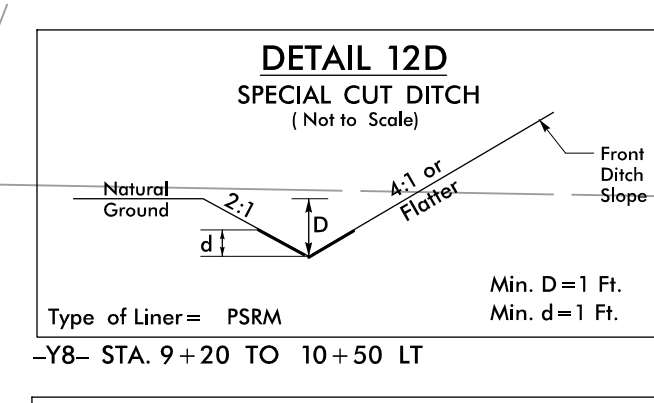
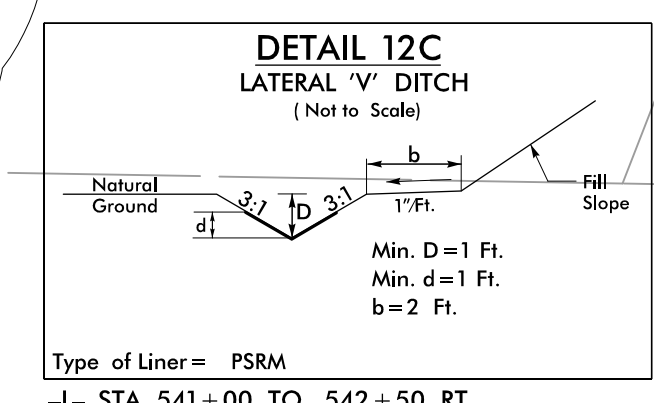
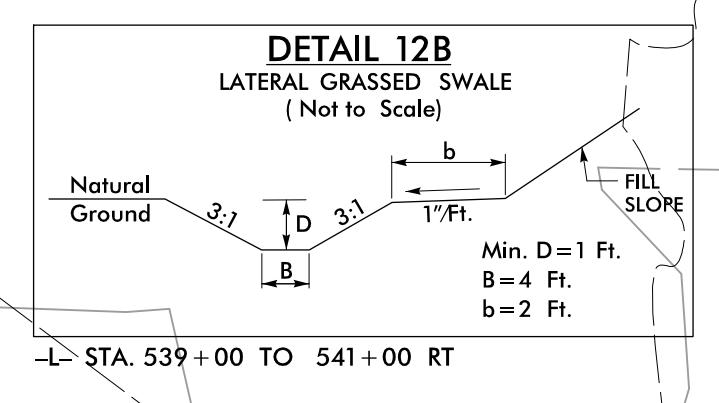
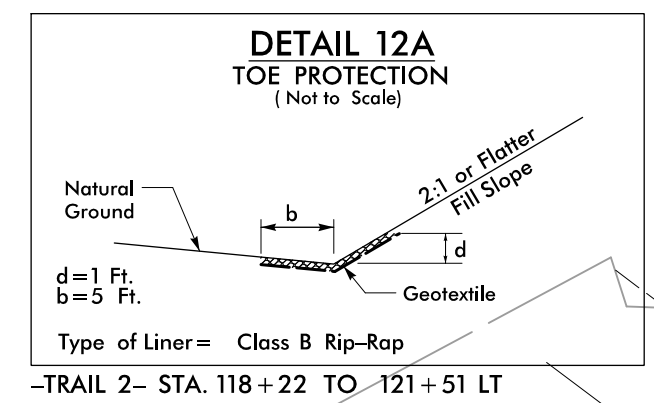
-L- STA. 528+00 TO 529+50 RT

**ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS**

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.

| | |
|--|-----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-12/CONST.12 |
| 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 | |



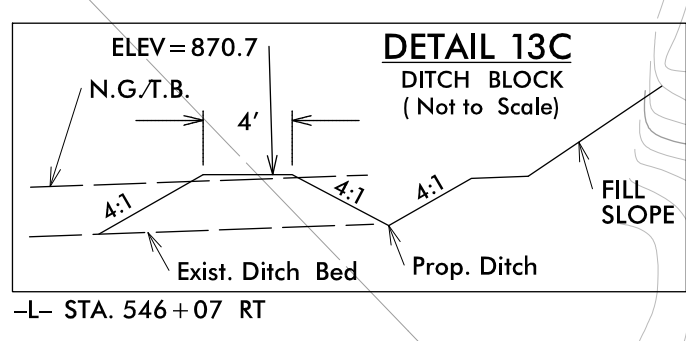
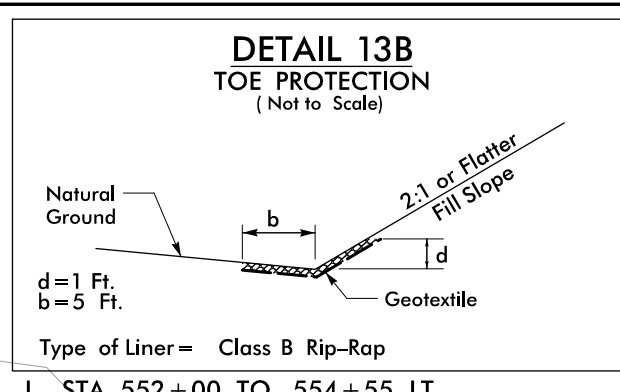
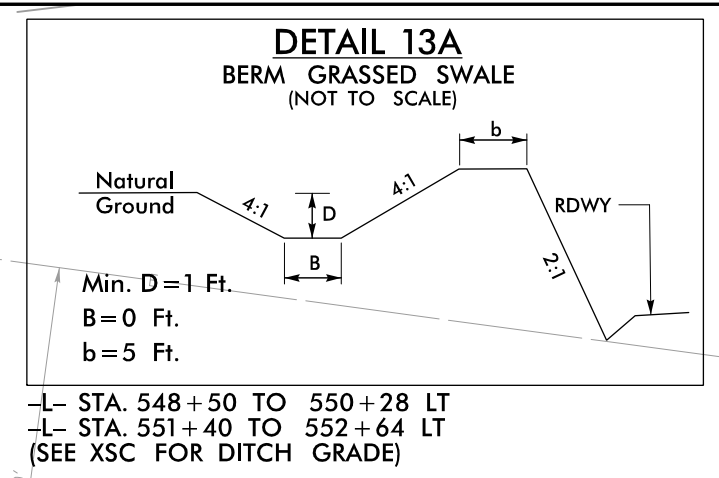
(2) 100 x 25 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
17 ft. weir
ID 12.1

MATCH LINE -L- STA. 532+00
SEE SHEET NO. 11

MATCH LINE -L- STA. 546+00
SEE SHEET NO. 13

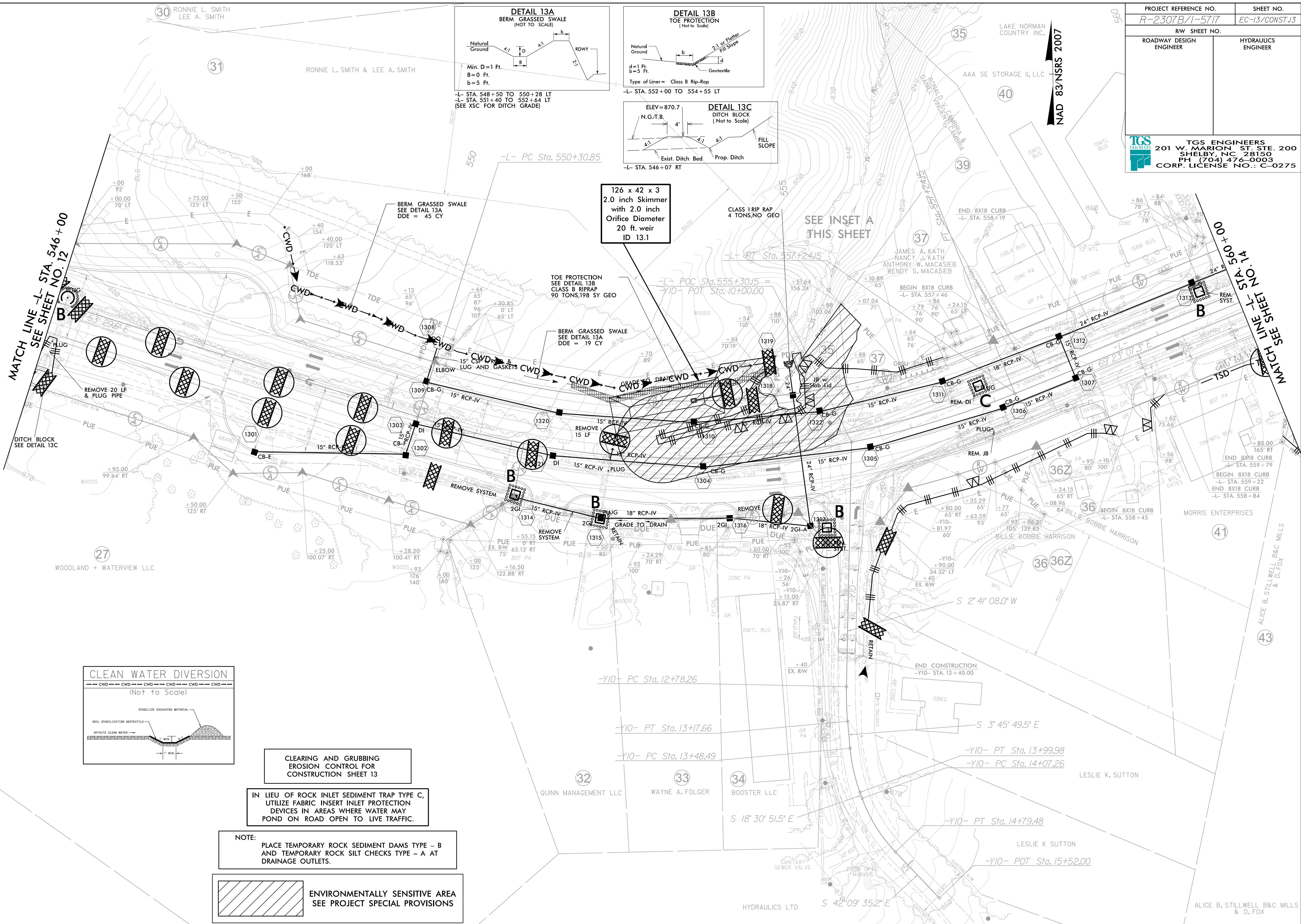
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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



| | |
|---|-----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-13/CONST.13 |
| 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 | |

LAKE NORMAN COUNTRY, INC.
AAA SE STORAGE II, LLC
NAD 83/NSRS 2007

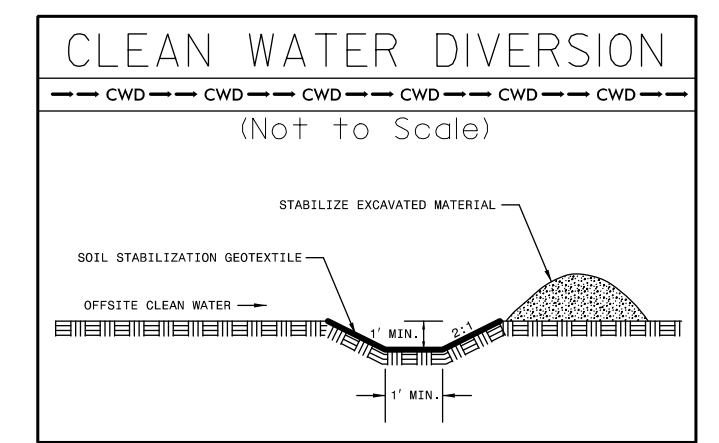


MATCH LINE -L- STA. 546+00
SEE SHEET NO. 12

MATCH LINE -L- STA. 549+00
SEE SHEET NO. 13

126 x 42 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
20 ft. weir
ID 13.1

SEE INSET A
THIS SHEET




CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

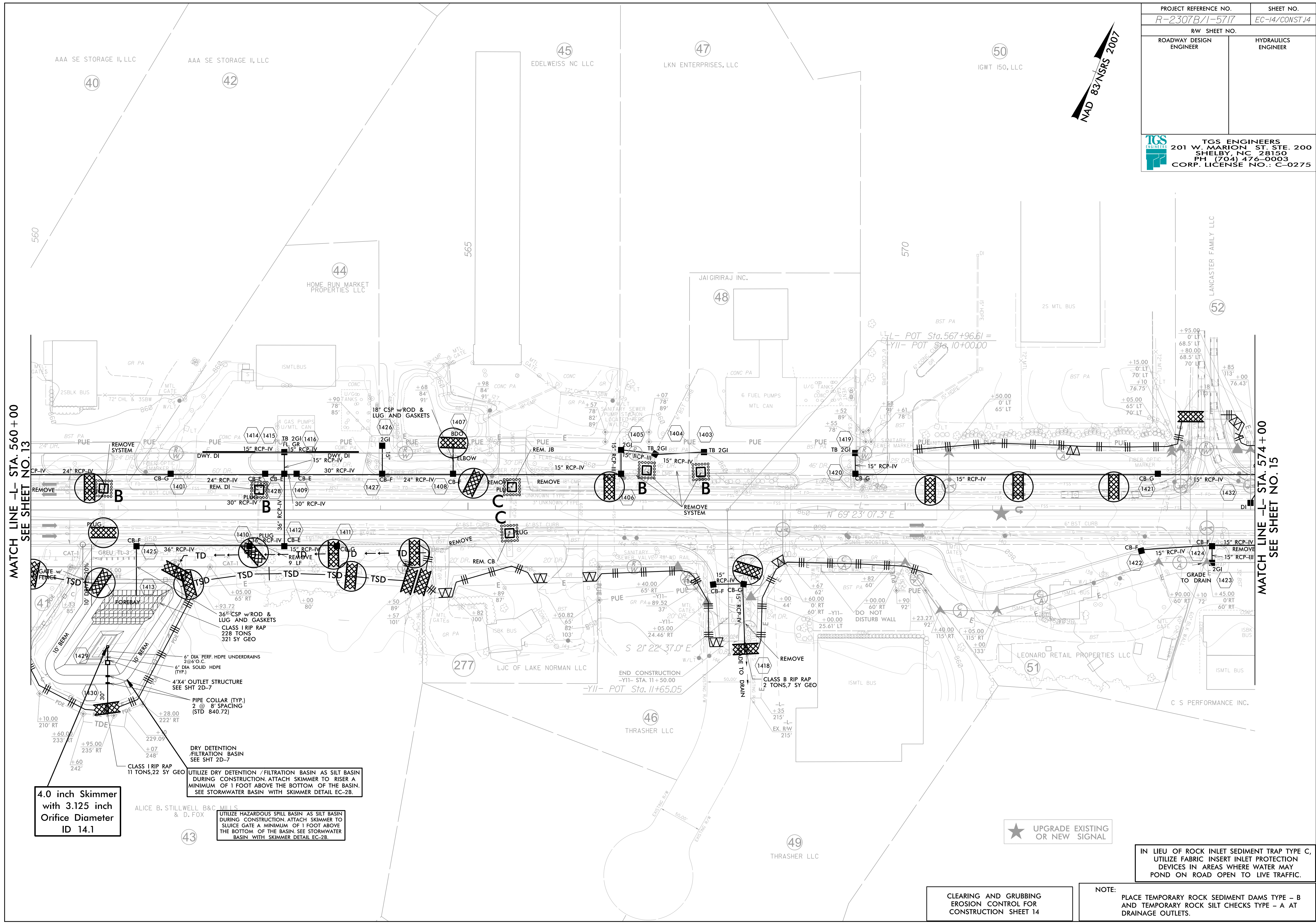
IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES IN AREAS WHERE WATER MAY
POND ON ROAD OPEN TO LIVE TRAFFIC.

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

| | |
|--|-----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-14/CONST.14 |
| 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 | |

NAD 83 NSRS 2007



MATCH LINE -L- STA. 560 + 00
SEE SHEET NO. 13

MATCH LINE -L- STA. 574 + 00
SEE SHEET NO. 15

4.0 inch Skimmer
with 3.125 inch
Orifice Diameter
ID 14.1

UTILIZE DRY DETENTION / FILTRATION BASIN AS SILT BASIN
DURING CONSTRUCTION. ATTACH SKIMMER TO RISER A
MINIMUM OF 1 FOOT ABOVE THE BOTTOM OF THE BASIN.
SEE STORMWATER BASIN WITH SKIMMER DETAIL EC-28.

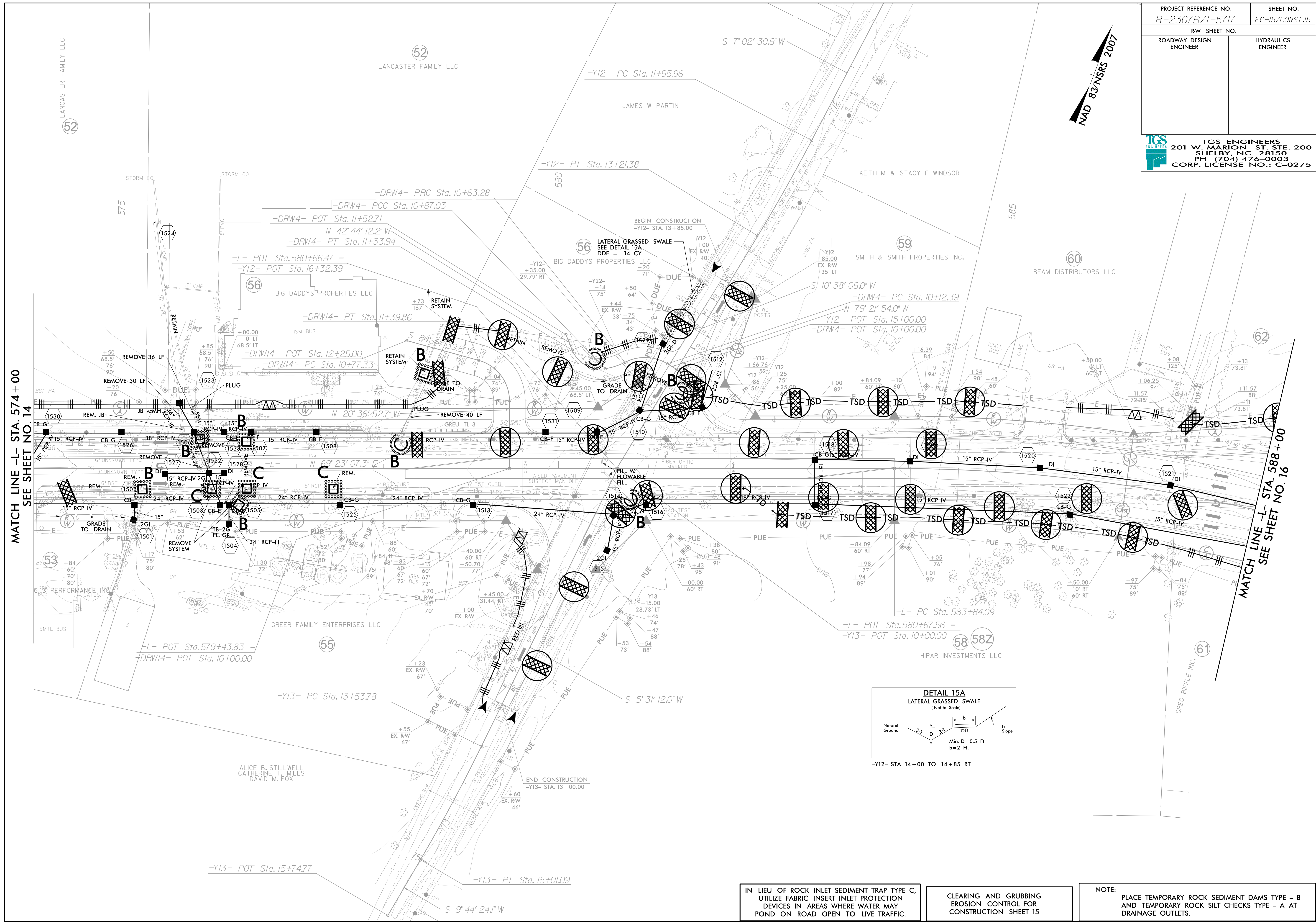
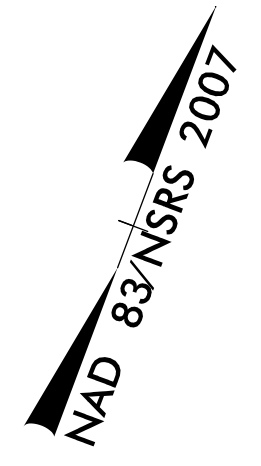
UTILIZE HAZARDOUS SPILL BASIN AS SILT BASIN
DURING CONSTRUCTION. ATTACH SKIMMER TO
SLUICE GATE A MINIMUM OF 1 FOOT ABOVE
THE BOTTOM OF THE BASIN. SEE STORMWATER
BASIN WITH SKIMMER DETAIL EC-28.

★ UPGRADE EXISTING
OR NEW SIGNAL

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

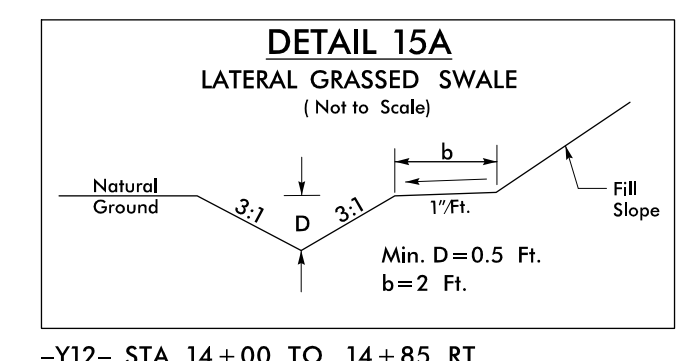
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14

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



MATCH LINE -L- STA. 574+00
SEE SHEET NO. 14

MATCH LINE -L- STA. 588+00
SEE SHEET NO. 16



-Y12- STA. 14+00 TO 14+85 RT

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15

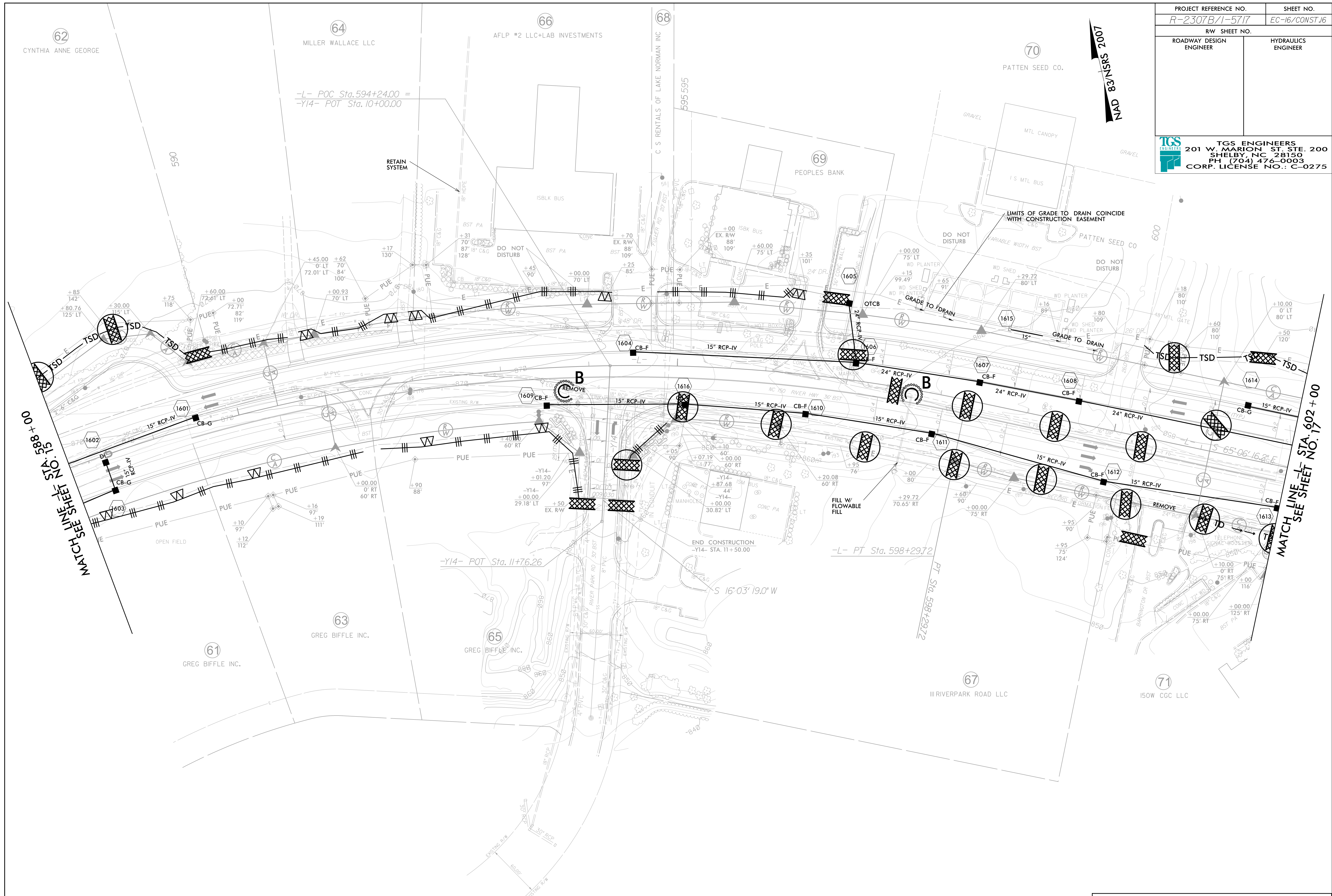
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

ALICE B. STILLWELL
CATHERINE T. MILLS
DAVID M. FOX

| | |
|---|-----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. 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

NAD 83/NSRS 2007



MATCH SHEET NO. 15 STA. 588+00

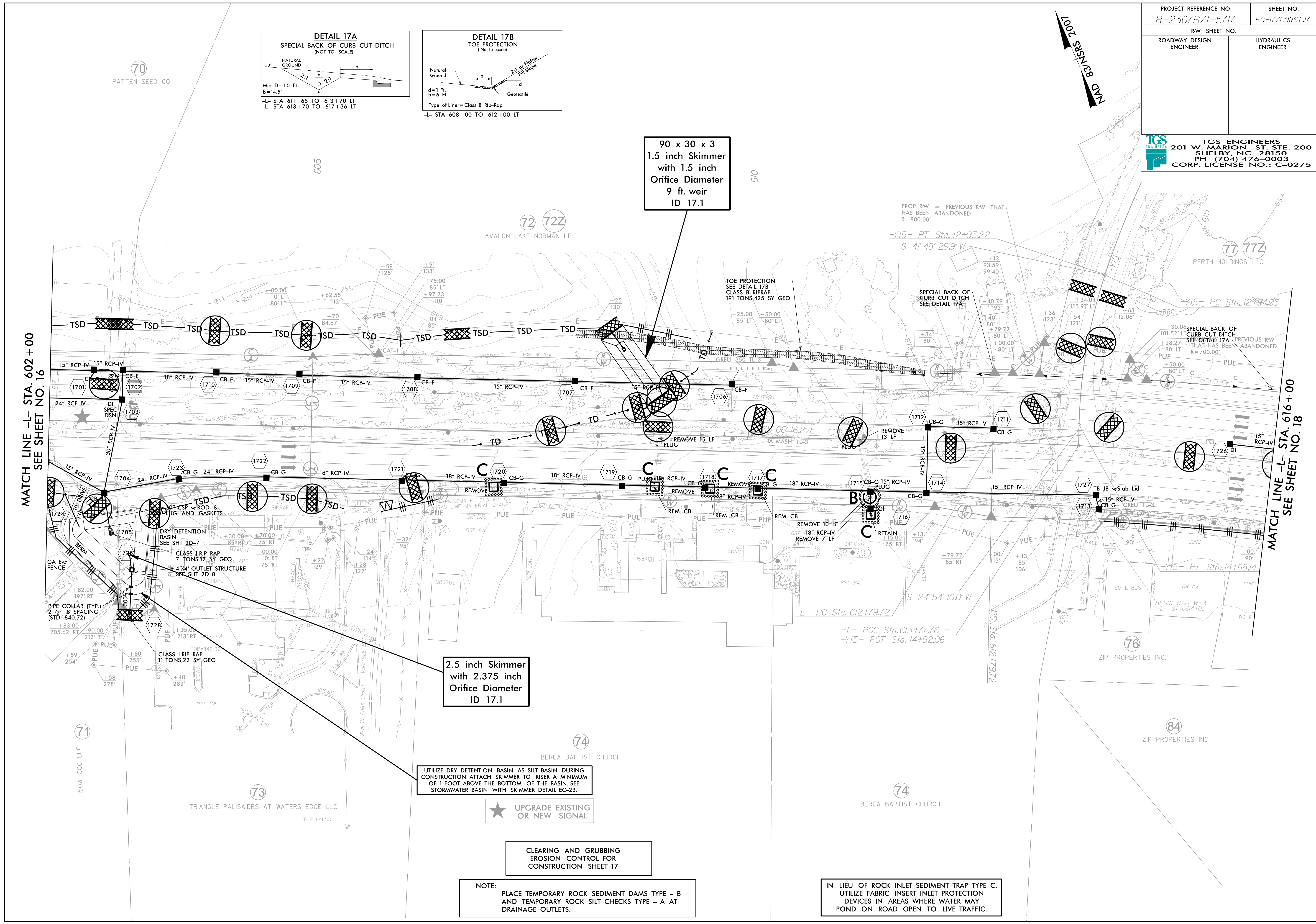
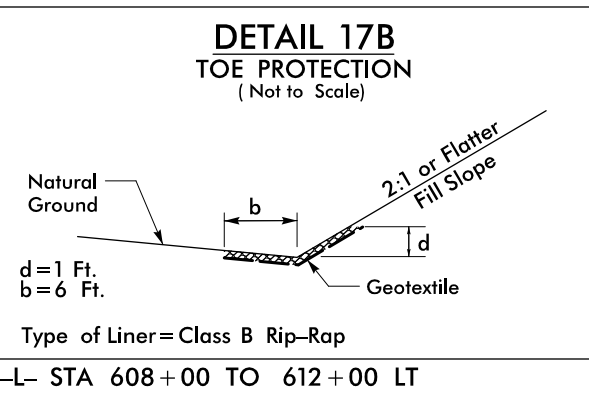
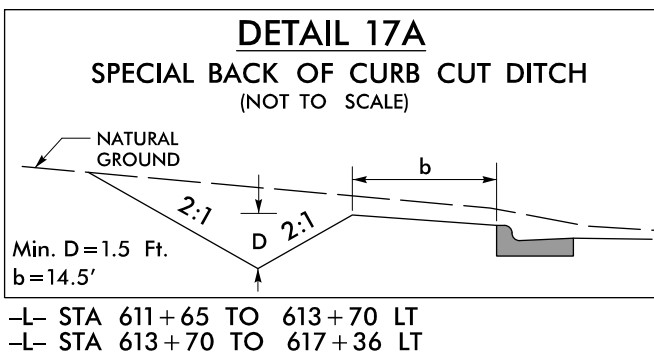
MATCH LINE - STA. 602+00
SEE SHEET NO. 17

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.

| | |
|---|-----------------------------|
| PROJECT REFERENCE NO. R-2307B/1-5717 | SHEET NO. EC-17/CONST.17 |
| 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



90 x 30 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
9 ft. weir
ID 17.1

2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
ID 17.1

UTILIZE DRY DETENTION BASIN AS SILT BASIN DURING CONSTRUCTION. ATTACH SKIMMER TO RISER A MINIMUM OF 1 FOOT ABOVE THE BOTTOM OF THE BASIN. SEE STORMWATER BASIN WITH SKIMMER DETAIL EC-2B.

★ UPGRADE EXISTING OR NEW SIGNAL

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.

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

NAD 83 NTS 2011

MATCH LINE -L- STA. 602 + 00
SEE SHEET NO. 16

MATCH LINE -L- STA. 616 + 00
SEE SHEET NO. 18