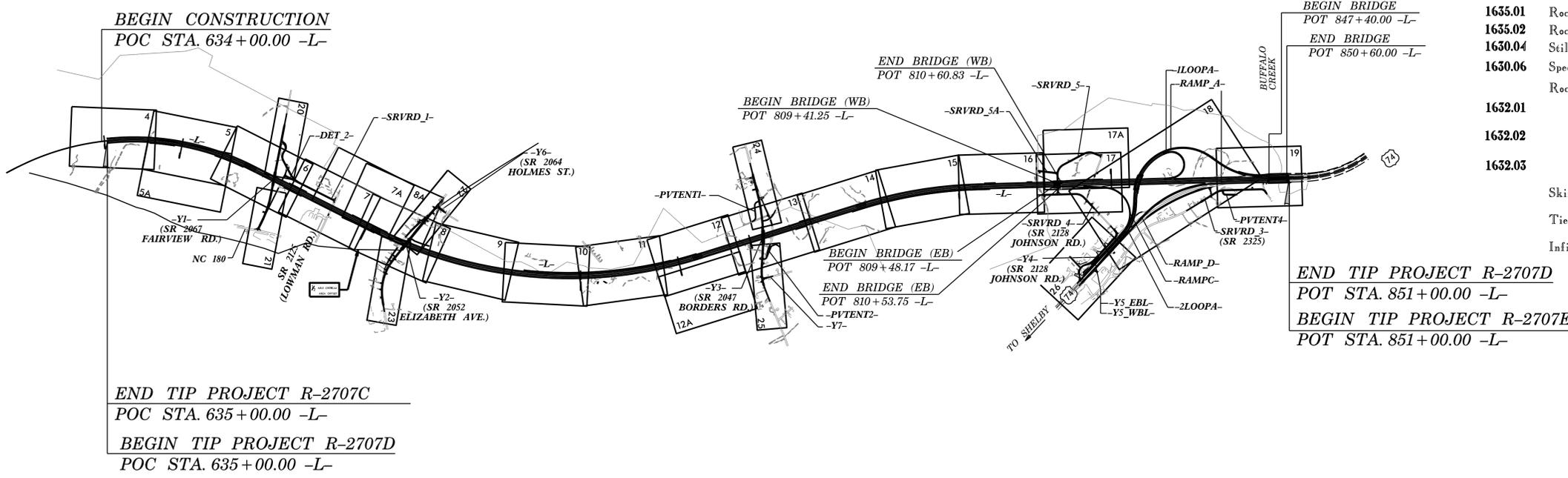
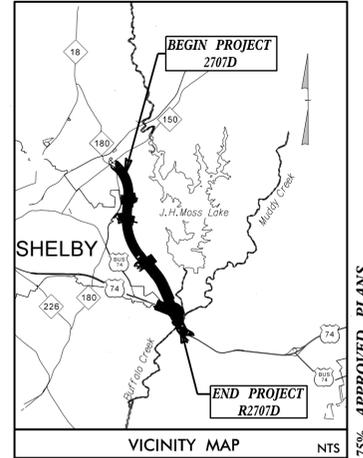


|                 |                             |             |              |
|-----------------|-----------------------------|-------------|--------------|
| STATE           | STATE PROJECT REFERENCE NO. | SHEET NO.   | TOTAL SHEETS |
| N.C.            | R-2707D                     | EC-1        |              |
| STATE PROJ. NO. | F.A. PROJ. NO.              | DESCRIPTION |              |
| 34497.1.FS6     | NHS-0074(164)               | P.E.        |              |
| 34497.2.13      | N/A                         | RW & UTIL.  |              |
| 34497.3.12      | N/A                         | CONST.      |              |

**TIP PROJECT: R-2707D**

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

**LOCATION: US 74, SHELBY BYPASS FROM EAST OF NC 150  
TO EXISTING US 74, WEST OF SR 2238  
(LONG BRANCH ROAD)  
TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURES**

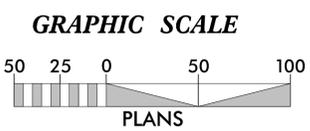


**EROSION AND SEDIMENT CONTROL MEASURES**

| Std. #  | Description  | Symbol              |
|---------|--|---------------------|
| 1630.03 | Temporary Silt Ditch   | no                  |
| 1630.05 | Temporary Diversion  | TD                  |
| 1605.01 | Temporary Silt Fence   | III III III         |
| 1606.01 | Special Sediment Control Fence   | ▲▲▲▲▲▲▲▲            |
| 1622.01 | Temporary Berms and Slope Drains                                       | —▲—▲—▲—▲—▲—▲—▲—▲—▲— |
| 1630.02 | Silt Basin Type B  | ▨                   |
| 1633.01 | Temporary Rock Silt Check Type-A                                       | ▨▨▨▨▨▨▨▨▨▨          |
|         | Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) | ▨▨▨▨▨▨▨▨▨▨          |
| 1633.02 | Temporary Rock Silt Check Type-B                                       | ▨▨▨▨▨▨▨▨▨▨          |
|         | Wattle / Coir Fiber Wattle   | —▲—▲—▲—▲—▲—▲—▲—▲—▲— |
|         | Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)                   | —▲—▲—▲—▲—▲—▲—▲—▲—▲— |
| 1634.01 | Temporary Rock Sediment Dam Type-A                                     | ▨▨▨▨▨▨▨▨▨▨          |
| 1634.02 | Temporary Rock Sediment Dam Type-B                                     | ▨▨▨▨▨▨▨▨▨▨          |
| 1635.01 | Rock Pipe Inlet Sediment Trap Type-A                                   | U                   |
| 1635.02 | Rock Pipe Inlet Sediment Trap Type-B                                   | U                   |
| 1630.04 | Stilling Basin   | ▭                   |
| 1630.06 | Special Stilling Basin   | ▭                   |
|         | Rock Inlet Sediment Trap:  |                     |
| 1632.01 | Type A   | A                   |
| 1632.02 | Type B   | B                   |
| 1632.03 | Type C   | C                   |
|         | Skimmer Basin  | ▭                   |
|         | Tiered Skimmer Basin   | ▭                   |
|         | Infiltration Basin   | ▭                   |

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

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 APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.**

Prepared in the Office of:  
**SUNGATE DESIGN GROUP, P.A.**  
905 JONES FRANKLIN ROAD  
RALEIGH, NORTH CAROLINA 27606  
TEL (919) 859-2243  
ENG FIRM LICENSE NO. C-890

Designed by:  
**BRIAN N. ELAM, PE** **3195**  
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

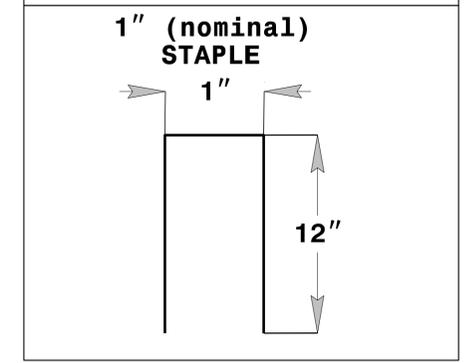
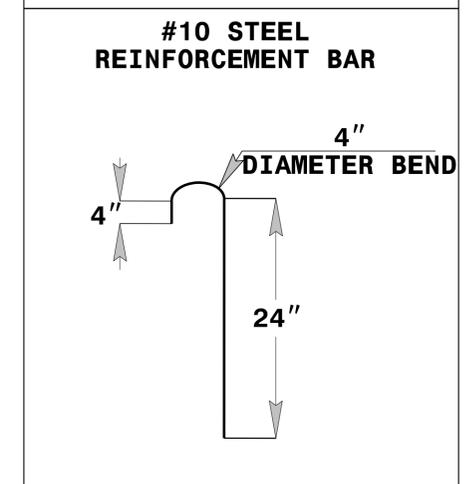
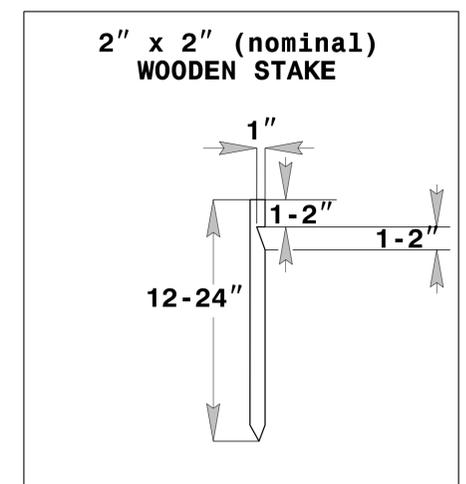
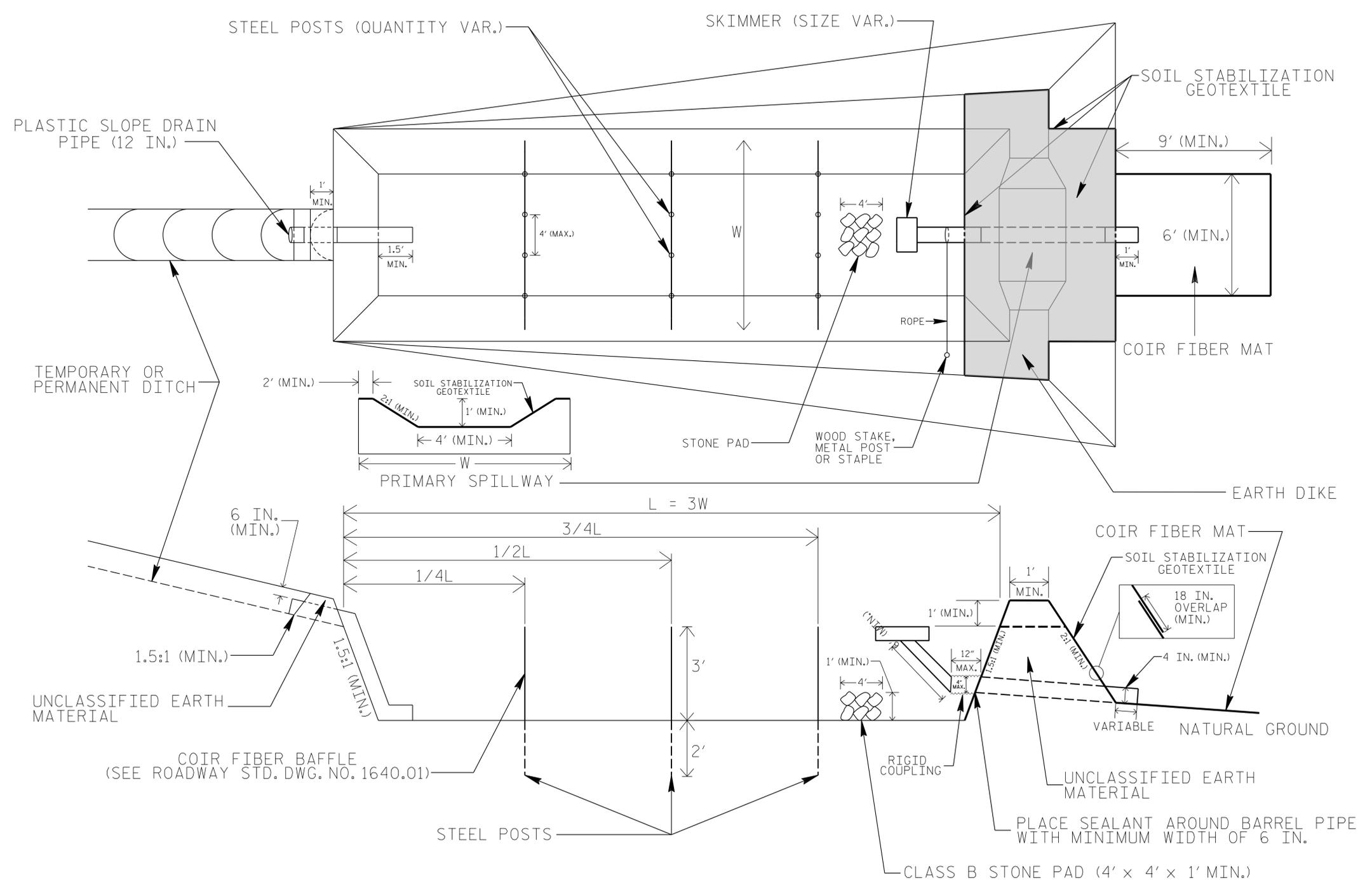
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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

1/4/2019 10:33:13 EC-dsm-psh\_01.dgn

|   |                          |
|---|--------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-2</i> |
| RW SHEET NO.                            |                          |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER      |

# SKIMMER BASIN WITH BAFFLES DETAIL



## COIR FIBER MAT ANCHOR OPTIONS

### NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING  $Q/0.8$ , WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

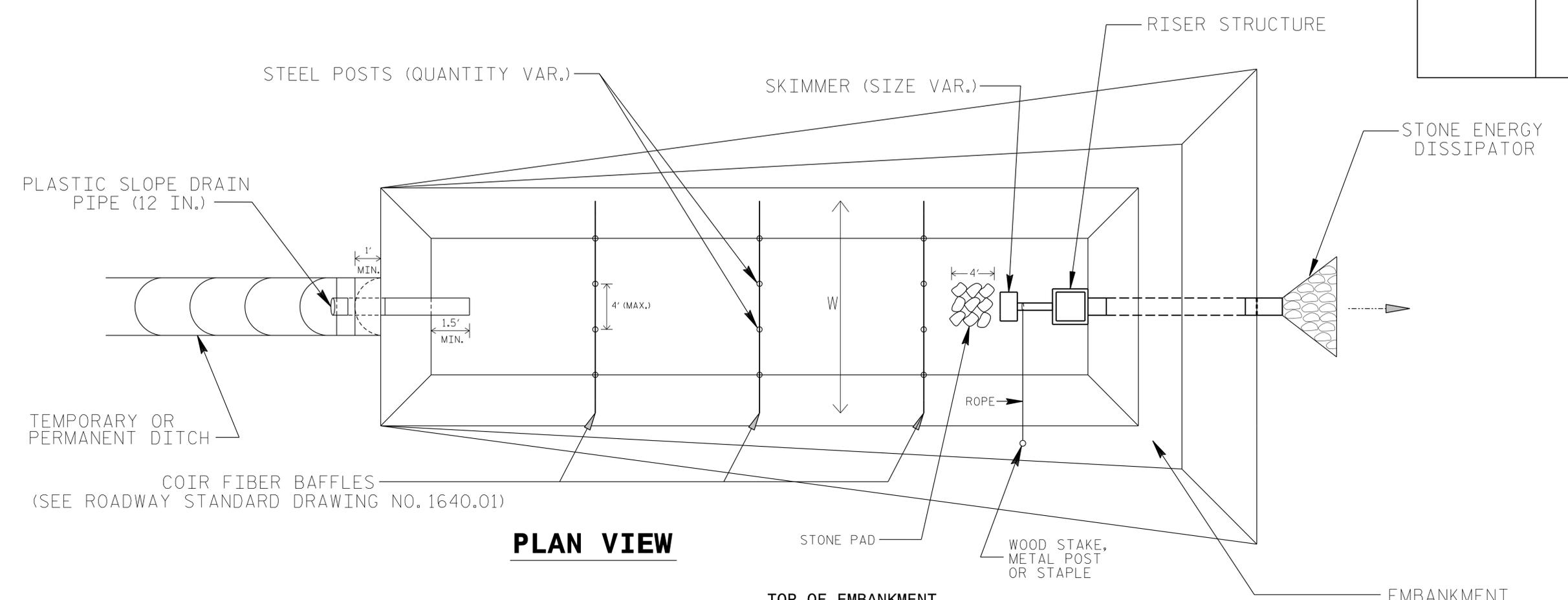
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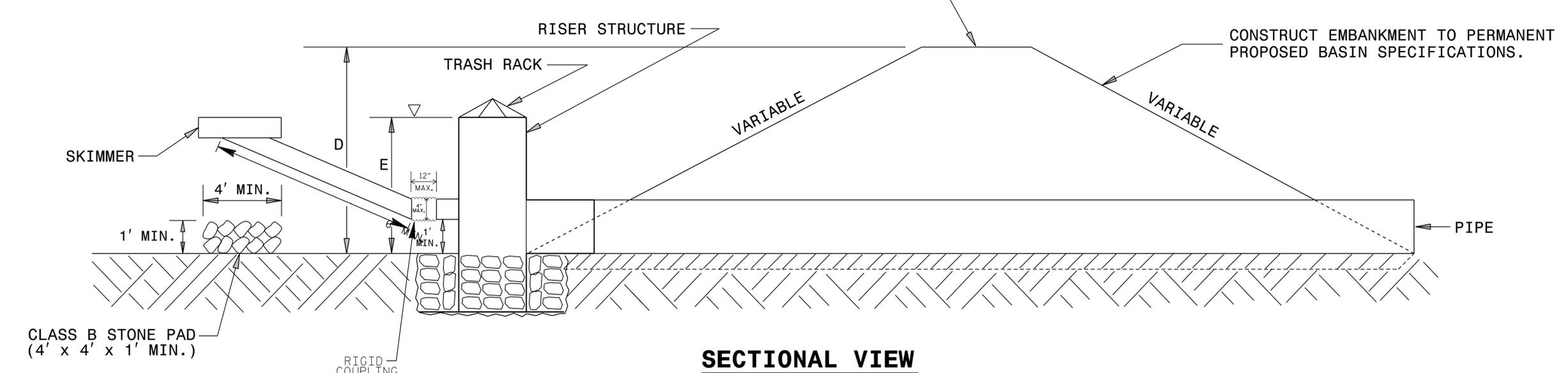


|   |                           |
|---|---------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-2C</i> |
| RW SHEET NO.                            |                           |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER       |

# 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.

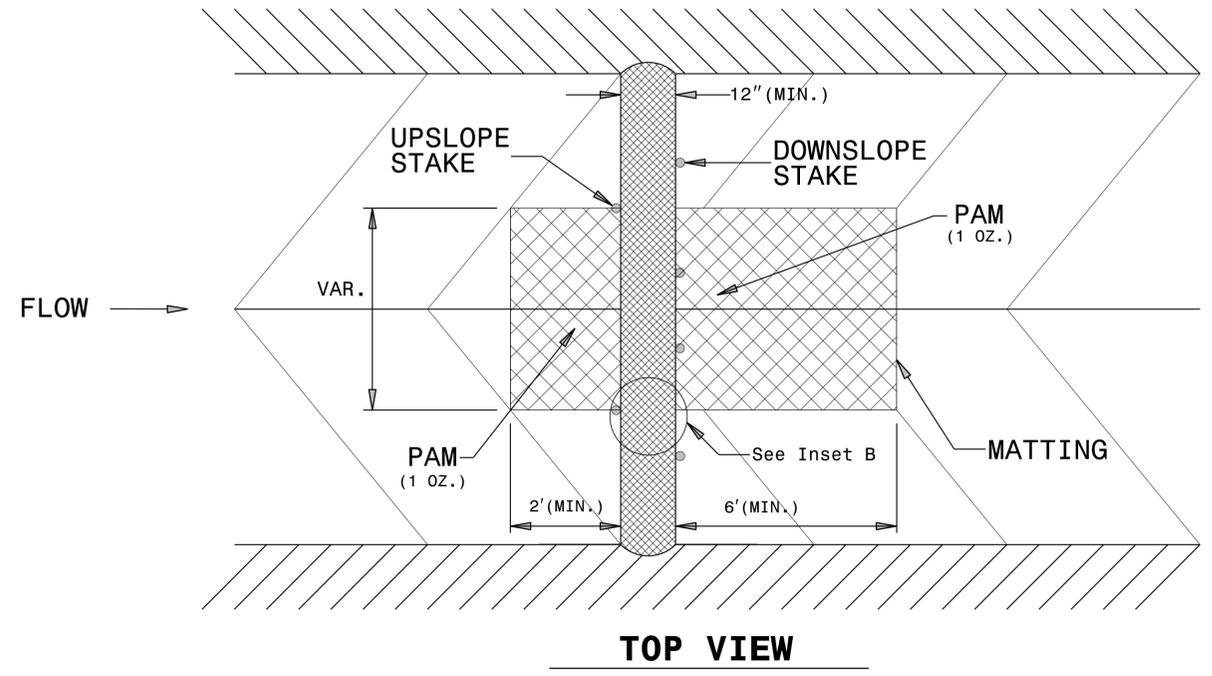
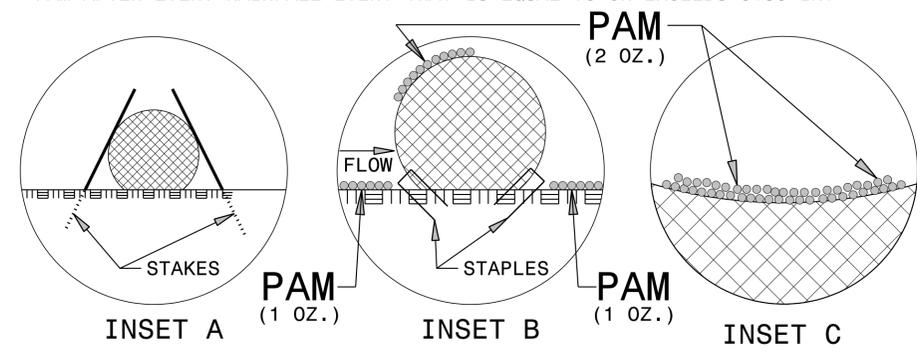
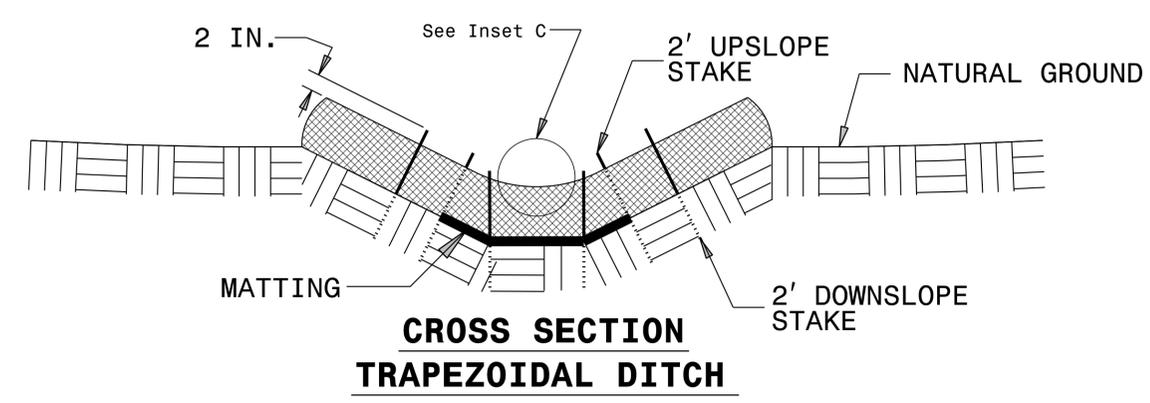
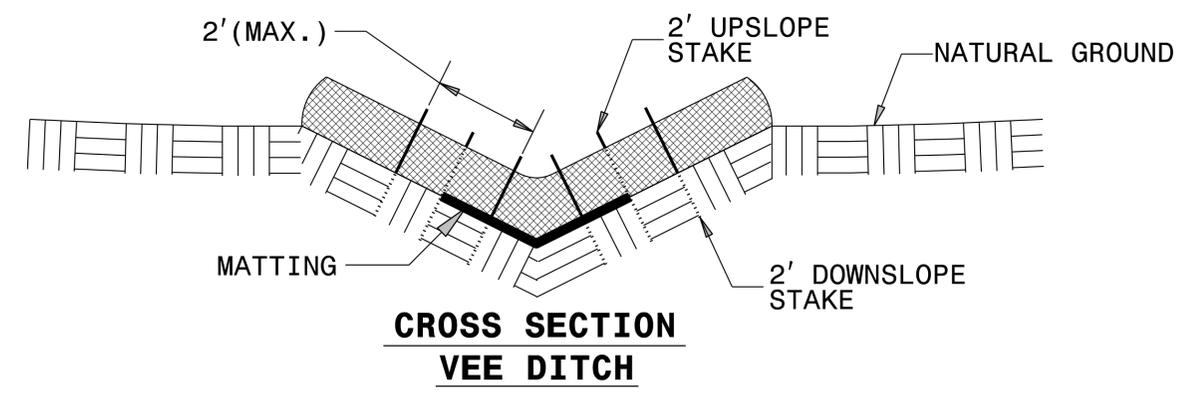
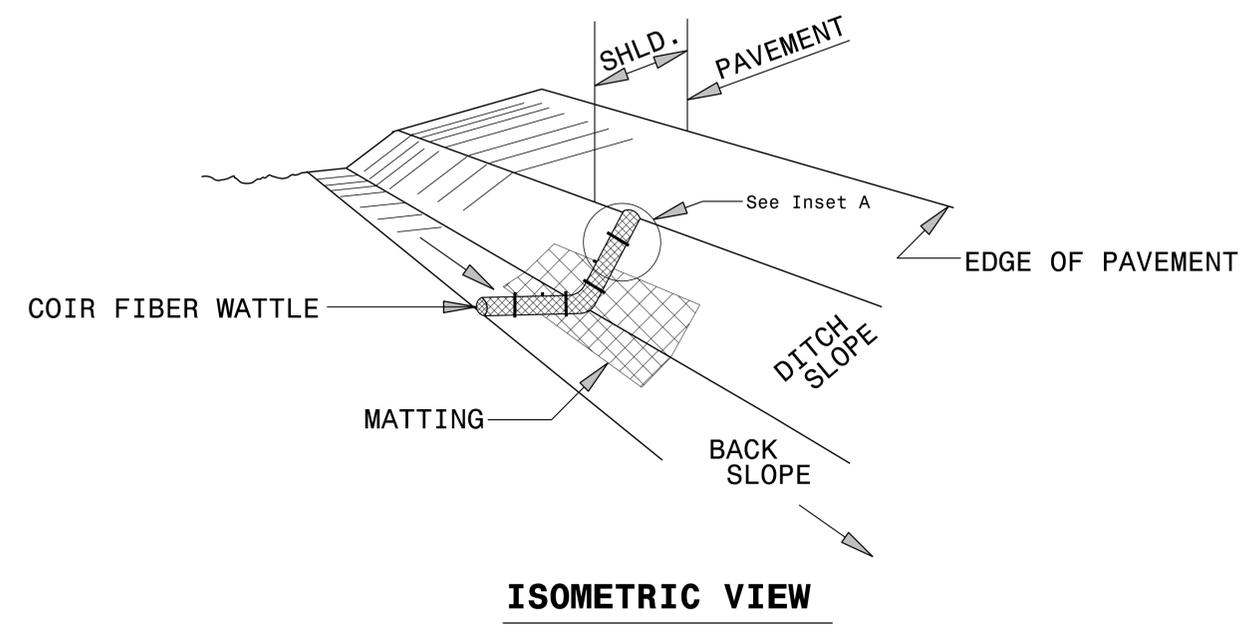
NOT TO SCALE

|   |                           |
|---|---------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-2D</i> |
| RW SHEET NO.                            |                           |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER       |

# COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

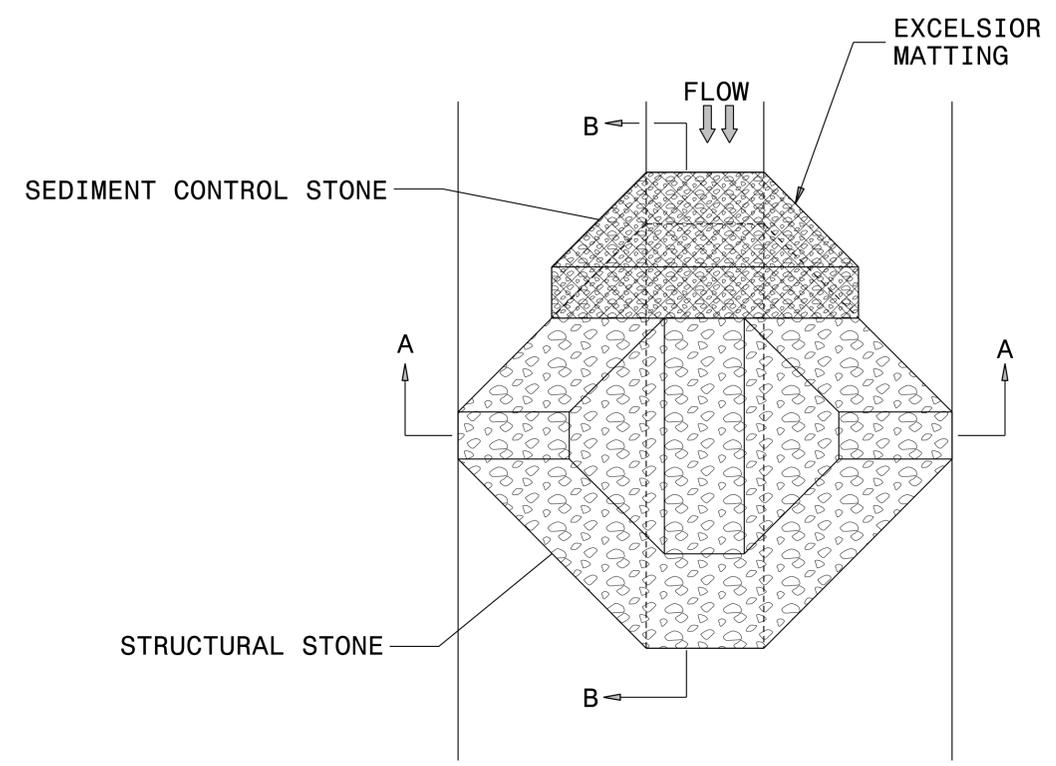
**NOTES:**

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



|                                  |                     |
|----------------------------------|---------------------|
| PROJECT REFERENCE NO.<br>R-2707D | SHEET NO.<br>EC-2E  |
| RW SHEET NO.                     |                     |
| ROADWAY DESIGN ENGINEER          | HYDRAULICS ENGINEER |

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



PLAN

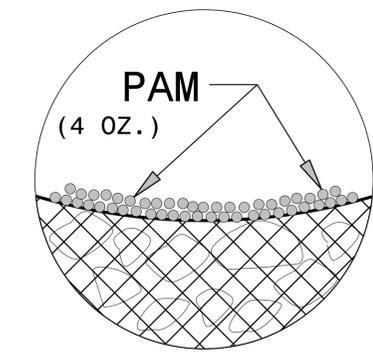
**NOTES:**

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

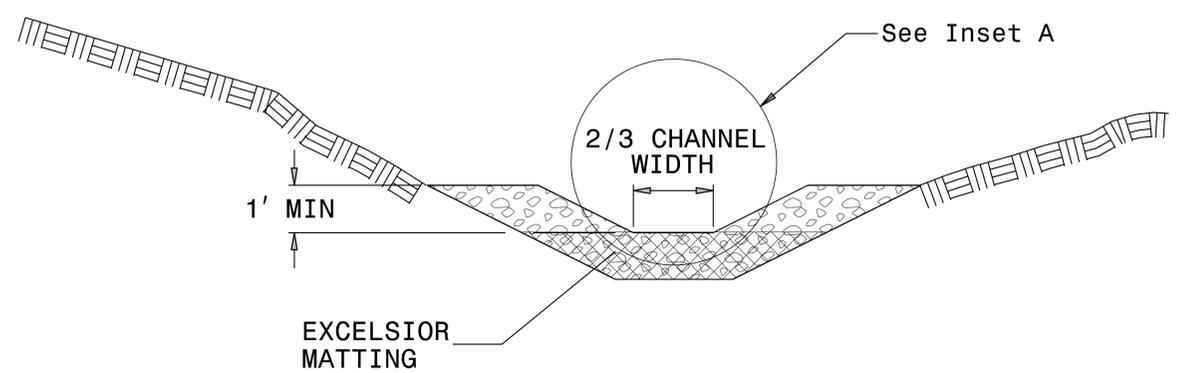
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

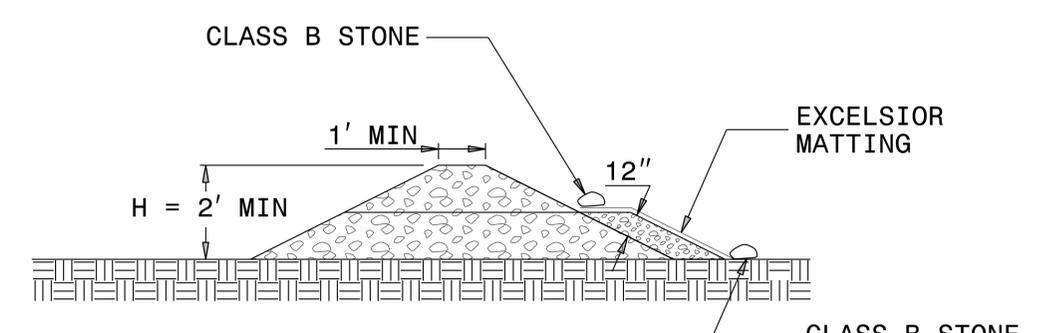
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

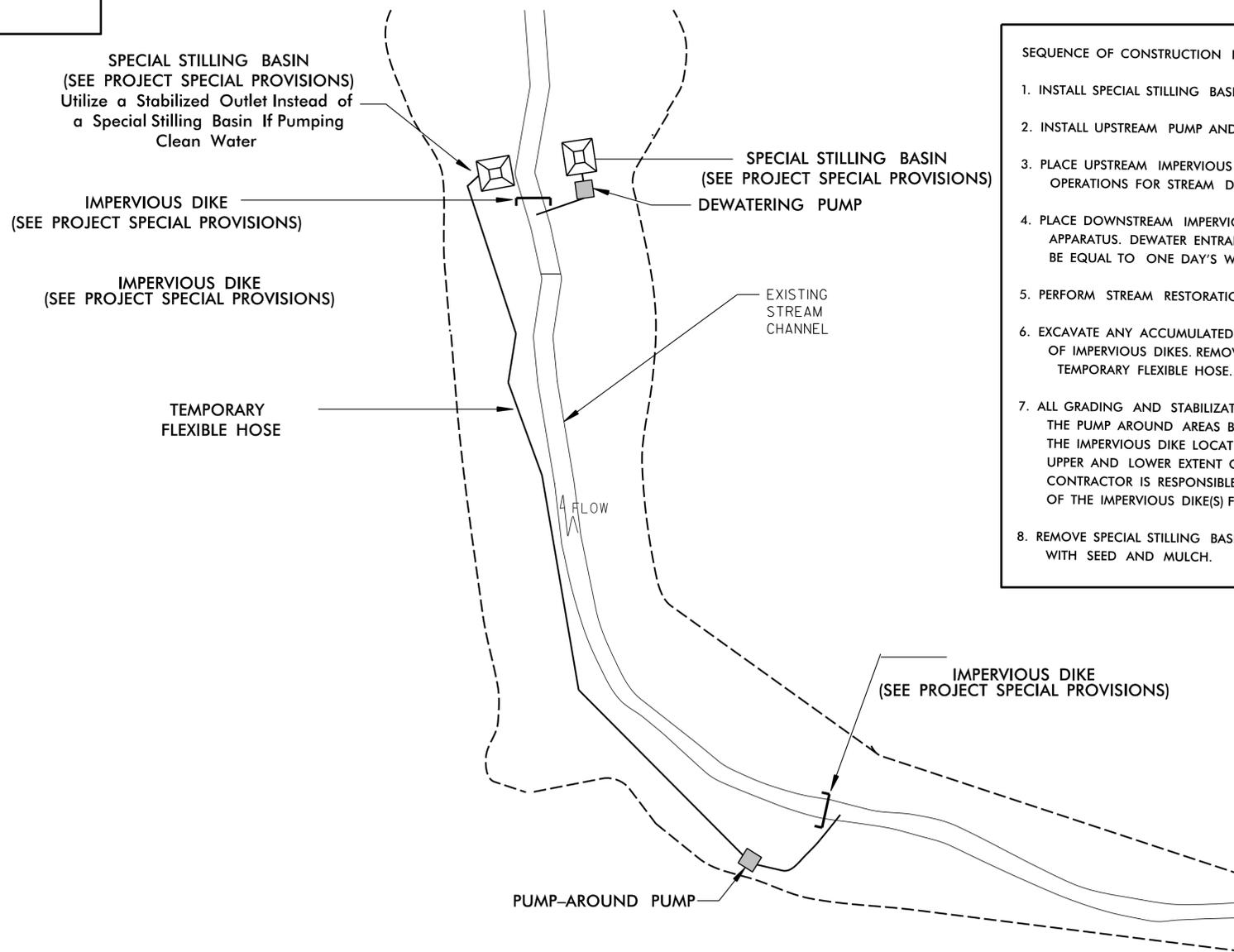
NOT TO SCALE

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-2F               |
| 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 sections of channel.
- 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
- 3) All graded areas shall be stabilized within 24 hours.
- 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
- 5) 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. PERFORM STREAM RESTORATION WORK 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. ALL GRADING AND STABILIZATION MUST BE COMPLETED IN ONE DAY WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

|   |                          |
|---|--------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-3</i> |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER      |

**SOIL STABILIZATION SUMMARY SHEET**

**MATTING FOR EROSION CONTROL**

**MATTING FOR EROSION CONTROL**

| CONST SHEET NO. | LINE     | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|----------|--------------|------------|------|---------------|
| 4               | -L-      | 635+50       | 641+50     | RT   | 1005          |
| 4               | -L-      | 637+50       | 638+50     | RT   | 75            |
| 4               | -L-      | 635+00       | 643+00     | MED  | 1495          |
| 5               | -L-      | 649+50       | 650+50     | LT   | 210           |
| 5               | -L-      | 648+00       | 651+50     | RT   | 585           |
| 5               | -L-      | 653+50       | 654+00     | RT   | 70            |
| 5               | -L-      | 656+00       | 656+50     | RT   | 65            |
| 5               | -L-      | 643+00       | 656+50     | MED  | 2520          |
| 6               | -L-      | 658+50       | 660+50     | LT   | 265           |
| 6               | -L-      | 660+50       | 665+50     | LT   | 1015          |
| 6               | -L-      | 666+50       | 667+00     | LT   | 85            |
| 6               | -L-      | 667+00       | 668+00     | LT   | 175           |
| 6               | -L-      | 656+50       | 660+50     | RT   | 500           |
| 6               | -L-      | 660+50       | 666+50     | RT   | 1015          |
| 6               | -L-      | 666+50       | 667+00     | RT   | 85            |
| 6               | -L-      | 667+00       | 668+00     | RT   | 175           |
| 6               | -L-      | 656+50       | 665+00     | MED  | 2010          |
| 6               | -L-      | 666+50       | 667+00     | MED  | 100           |
| 6               | -L-      | 667+00       | 670+00     | MED  | 580           |
| 6               | -L-      | 664+00       | 665+50     | RT   | 115           |
| 6               | -Y1-     | 21+10        | 23+00      | RT   | 145           |
| 6               | -Y1-     | 23+00        | 23+50      | RT   | 55            |
| 6               | -Y1-     | 23+50        | 24+00      | RT   | 55            |
| 6               | -SVRD 1- | 14+00        | 25+50      | RT   | 160           |
| 7               | -L-      | 673+00       | 679+50     | LT   | 1105          |
| 7               | -L-      | 670+00       | 671+00     | RT   | 75            |
| 7               | -L-      | 672+50       | 673+00     | RT   | 70            |
| 7               | -L-      | 674+00       | 675+50     | RT   | 115           |
| 7               | -L-      | 677+50       | 681+50     | RT   | 680           |
| 7               | -L-      | 670+00       | 683+50     | MED  | 2710          |

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|------|--------------|------------|------|---------------|
| 8               | -L-  | 688+50       | 692+00     | LT   | 585           |
| 8               | -L-  | 692+50       | 697+00     | LT   | 760           |
| 8               | -L-  | 686+50       | 687+50     | LT   | 145           |
| 8               | -L-  | 687+50       | 691+00     | RT   | 590           |
| 8               | -L-  | 692+00       | 697+00     | RT   | 845           |
| 8               | -L-  | 692+00       | 696+00     | RT   | 390           |
| 8               | -L-  | 683+50       | 684+00     | MED  | 100           |
| 8               | -L-  | 684+00       | 691+00     | MED  | 1350          |
| 8               | -L-  | 692+50       | 697+00     | MED  | 870           |
| 8               | -L-  | 690+00       | 691+00     | RT   | 75            |
| 8               | -L-  | 692+00       | 696+00     | RT   | 300           |
| 8               | -Y2- | 15+00        | 16+00      | LT   | 115           |
| 8               | -Y2- | 23+00        | 24+00      | LT   | 105           |
| 8               | -Y2- | 16+00        | 17+50      | RT   | 115           |
| 8               | -Y2- | 17+50        | 19+00      | RT   | 115           |
| 8               | -Y2- | 23+00        | 23+50      | RT   | 55            |
| 9               | -L-  | 697+00       | 710+50     | LT   | 2255          |
| 9               | -L-  | 697+00       | 709+50     | RT   | 2140          |
| 9               | -L-  | 697+00       | 710+50     | MED  | 2710          |
| 10              | -L-  | 710+50       | 713+00     | LT   | 420           |
| 10              | -L-  | 711+50       | 713+00     | RT   | 310           |
| 10              | -L-  | 718+50       | 721+50     | RT   | 525           |
| 10              | -L-  | 710+50       | 724+00     | MED  | 2600          |
| 11              | -L-  | 725+00       | 728+50     | RT   | 455           |
| 11              | -L-  | 730+00       | 737+50     | RT   | 1300          |
| 11              | -L-  | 724+00       | 737+50     | MED  | 2600          |
| 12              | -L-  | 745+00       | 751+00     | LT   | 1035          |
| 12              | -L-  | 737+50       | 739+00     | RT   | 260           |
| 12              | -L-  | 745+50       | 746+50     | RT   | 180           |
| 12              | -L-  | 746+50       | 751+00     | RT   | 785           |

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

|   |                           |
|---|---------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-3A</i> |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER       |

**SOIL STABILIZATION SUMMARY SHEET**

**MATTING FOR EROSION CONTROL**

**MATTING FOR EROSION CONTROL**

| CONST SHEET NO. | LINE      | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|-----------|--------------|------------|------|---------------|
| 12              | -L-       | 737+50       | 741+00     | MED  | 675           |
| 12              | -L-       | 741+00       | 751+00     | MED  | 2010          |
| 13              | -L-       | 751+00       | 754+50     | LT   | 615           |
| 13              | -L-       | 754+50       | 756+50     | LT   | 40            |
| 13              | -L-       | 759+50       | 762+50     | LT   | 510           |
| 13              | -L-       | 751+00       | 754+00     | RT   | 515           |
| 13              | -L-       | 757+50       | 759+50     | LT   | 30            |
| 13              | -L-       | 754+50       | 756+00     | RT   | 40            |
| 13              | -L-       | 761+50       | 762+00     | RT   | 85            |
| 13              | -L-       | 751+00       | 754+00     | MED  | 605           |
| 13              | -L-       | 754+50       | 756+00     | MED  | 305           |
| 13              | -L-       | 757+50       | 765+00     | MED  | 1510          |
| 13              | -L-       | 751+00       | 754+00     | RT   | 225           |
| 13              | -PVTENT1- | 5+65.72      | 6+00       | RT   | 20            |
| 13              | -PVTENT2- | 10+32.79     | 12+00      | LT   | 85            |
| 13              | -PVTENT2- | 12+00        | 13+00      | LT   | 50            |
| 13              | -PVTENT2- | 10+39        | 10+50      | RT   | 10            |
| 14              | -L-       | 765+00       | 772+50     | LT   | 1345          |
| 14              | -L-       | 765+00       | 779+00     | MED  | 2700          |
| 15              | -L-       | 785+50       | 787+50     | RT   | 190           |
| 15              | -L-       | 779+00       | 788+00     | MED  | 1735          |
| 15              | -L-       | 788+00       | 792+50     | MED  | 870           |
| 15              | -L-       | 792+50       | 793+00     | MED  | 100           |
| 16              | -L-       | 798+50       | 804+00     | LT   | 940           |
| 16              | -L-       | 806+00       | 807+00     | LT   | 185           |
| 16              | -L-       | 793+00       | 795+50     | RT   | 240           |
| 16              | -L-       | 798+50       | 807+00     | RT   | 1465          |
| 16              | -L-       | 793+00       | 807+00     | MED  | 2585          |
| 17              | -L-       | 807+00       | 809+00     | LT   | 340           |
| 17              | -L-       | 809+00       | 809+41     | LT   | 70            |

| CONST SHEET NO. | LINE     | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|----------|--------------|------------|------|---------------|
| 17              | -L-      | 818+00       | 820+50     | LT   | 435           |
| 17              | -L-      | 807+00       | 809+41     | RT   | 410           |
| 17              | -L-      | 810+61       | 811+50     | RT   | 95            |
| 17              | -L-      | 819+00       | 820+50     | RT   | 305           |
| 17              | -L-      | 807+00       | 809+41     | MED  | 450           |
| 17              | -L-      | 810+61       | 819+50     | MED  | 1785          |
| 17              | -L-      | 819+50       | 820+50     | MED  | 205           |
| 17              | -SVRD 4- | 13+50        | 15+00      | LT   | 160           |
| 17              | -SVRD 4- | 15+00        | 16+00      | LT   | 105           |
| 17              | -SVRD 4- | 15+00        | 16+50      | RT   | 160           |
| 17              | -SVRD 5- | 12+50        | 16+00      | LT   | 340           |
| 17              | -SVRD 5- | 16+00        | 16+50      | LT   | 55            |
| 17              | -SVRD 5- | 10+10        | 10+50      | RT   | 45            |
| 17              | -SVRD 5- | 12+50        | 16+00      | RT   | 370           |
| 17              | -SVRD 5- | 16+00        | 16+50      | RT   | 55            |
| 17              | -SVRD 5- | 14+50        | 16+00      | RT   | 75            |
| 17              | -SVRD 5- | 16+00        | 16+50      | RT   | 40            |
| 17              | -RAMPC-  | 13+50        | 14+00      | RT   | 85            |
| 17              | -RAMPC-  | 14+00        | 15+00      | RT   | 165           |
| 17A             | -SVRD 5- | 16+50        | 18+00      | LT   | 160           |
| 17A             | -SVRD 5- | 21+00        | 22+97      | LT   | 210           |
| 17A             | -SVRD 5- | 16+50        | 16+75      | RT   | 20            |
| 17A             | -SVRD 5- | 16+50        | 17+00      | RT   | 55            |
| 17A             | -SVRD 5- | 17+00        | 18+00      | RT   | 105           |
| 17A             | -SVRD 5- | 21+50        | 22+00      | RT   | 55            |
| 18              | -L-      | 820+50       | 824+00     | LT   | 605           |
| 18              | -L-      | 826+00       | 828+72     | LT   | 460           |
| 18              | -L-      | 831+50       | 839+50     | LT   | 1350          |
| 18              | -L-      | 820+50       | 834+50     | RT   | 2360          |
| 18              | -L-      | 820+50       | 823+00     | MED  | 505           |





DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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|   |                           |
|---|---------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-3D</i> |
| ROADWAY DESIGN<br>ENGINEER              | HYDRAULICS<br>ENGINEER    |

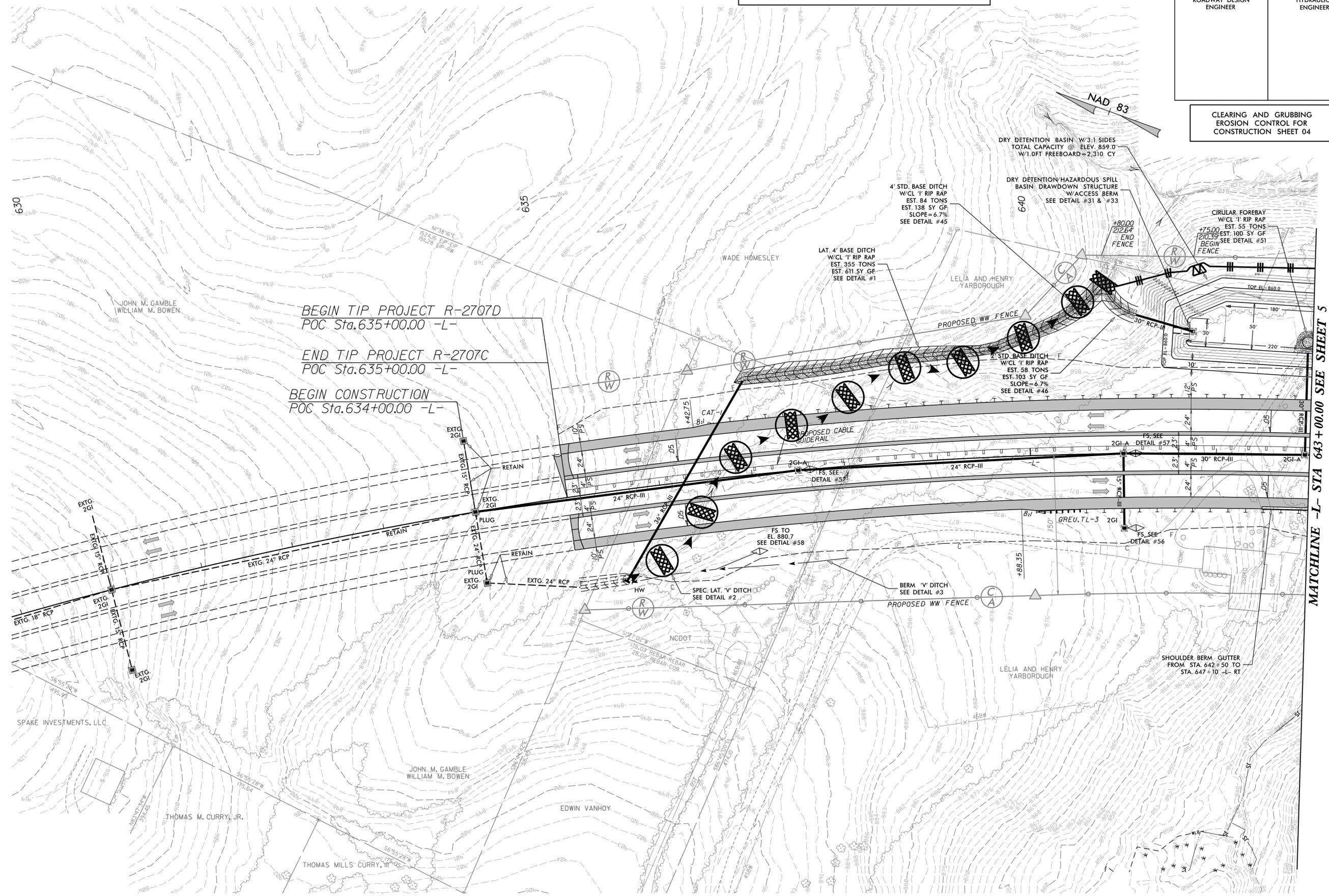
# ***SOIL STABILIZATION TIMEFRAMES***

| <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 OR FLATTER                        | 14 DAYS                   | 7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.  |
| ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 | 14 DAYS                   | NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.   |

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

|   |  |                                    |  |
|---|--|------------------------------------|--|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> |  | SHEET NO.<br><i>EC-04/CONST.04</i> |  |
| RW SHEET NO.                            |  |                                    |  |
| ROADWAY DESIGN ENGINEER                 |  | HYDRAULICS ENGINEER                |  |

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 04



7/27/99

|   |                                    |
|---|------------------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-05/CONST.05</i> |
| RW SHEET NO.                            |                                    |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER                |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 05

Modified Silt Basin  
Type 'B'  
49 x 24 x 3  
9 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 5.1

49 x 24 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
9 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 5.1

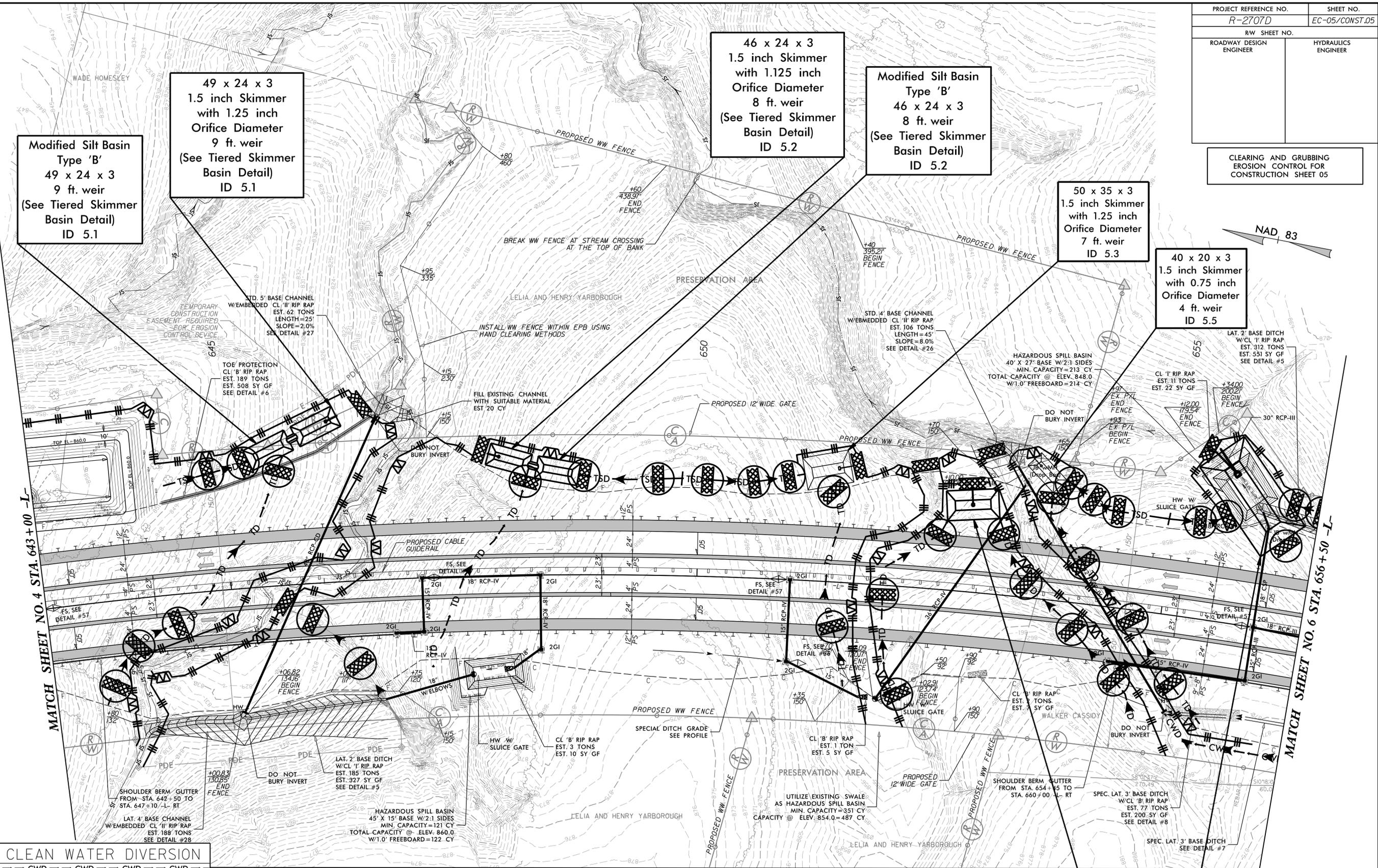
46 x 24 x 3  
1.5 inch Skimmer  
with 1.125 inch  
Orifice Diameter  
8 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 5.2

Modified Silt Basin  
Type 'B'  
46 x 24 x 3  
8 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 5.2

50 x 35 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
7 ft. weir  
ID 5.3

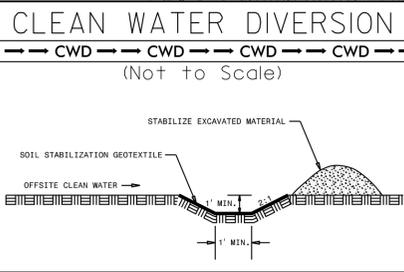
40 x 20 x 3  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
4 ft. weir  
ID 5.5

HAZARDOUS SPILL BASIN  
40' x 27' BASE W/2.1 SIDES  
MIN. CAPACITY=213 CY  
TOTAL CAPACITY @ ELEV. 848.0  
W/1.0' FREEBOARD=214 CY



MATCH SHEET NO. 4 STA. 643+00 -L-

MATCH SHEET NO. 6 STA. 656+50 -L-



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.

32 x 56 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
7 ft. weir  
ID 5.4

116 x 58 x 3  
2.5 inch Skimmer  
with 2.25 inch  
Orifice Diameter  
26 ft. weir  
ID 5.6

MATCH SHEET NO. 5A

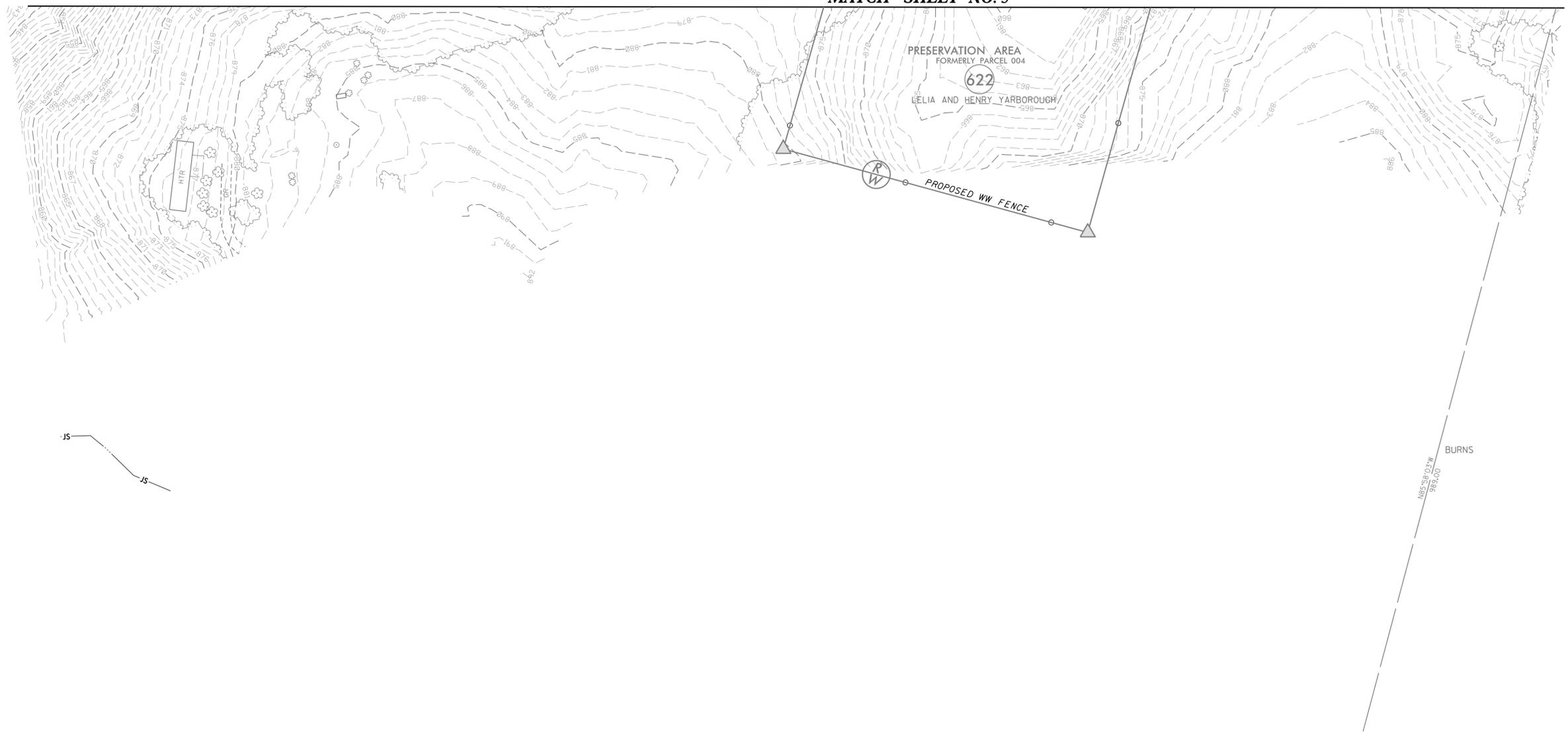
7/2/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-06/CONST.05A     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 05A



**MATCH SHEET NO. 5**

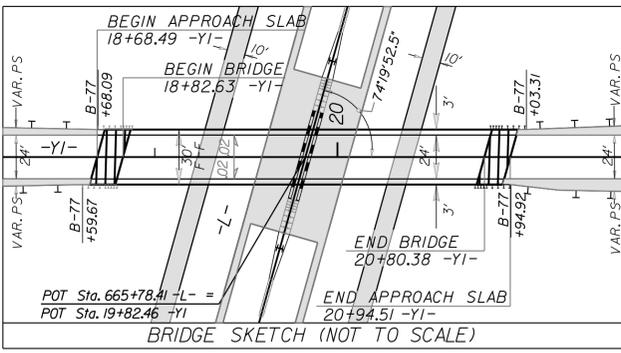
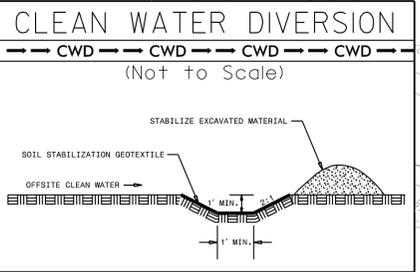


JS  
JS

7/2/99

|                                  |                             |
|----------------------------------|-----------------------------|
| PROJECT REFERENCE NO.<br>R-2707D | SHEET NO.<br>EC-07/CONST.06 |
| RW SHEET NO.                     |                             |
| ROADWAY DESIGN ENGINEER          | HYDRAULICS ENGINEER         |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 06

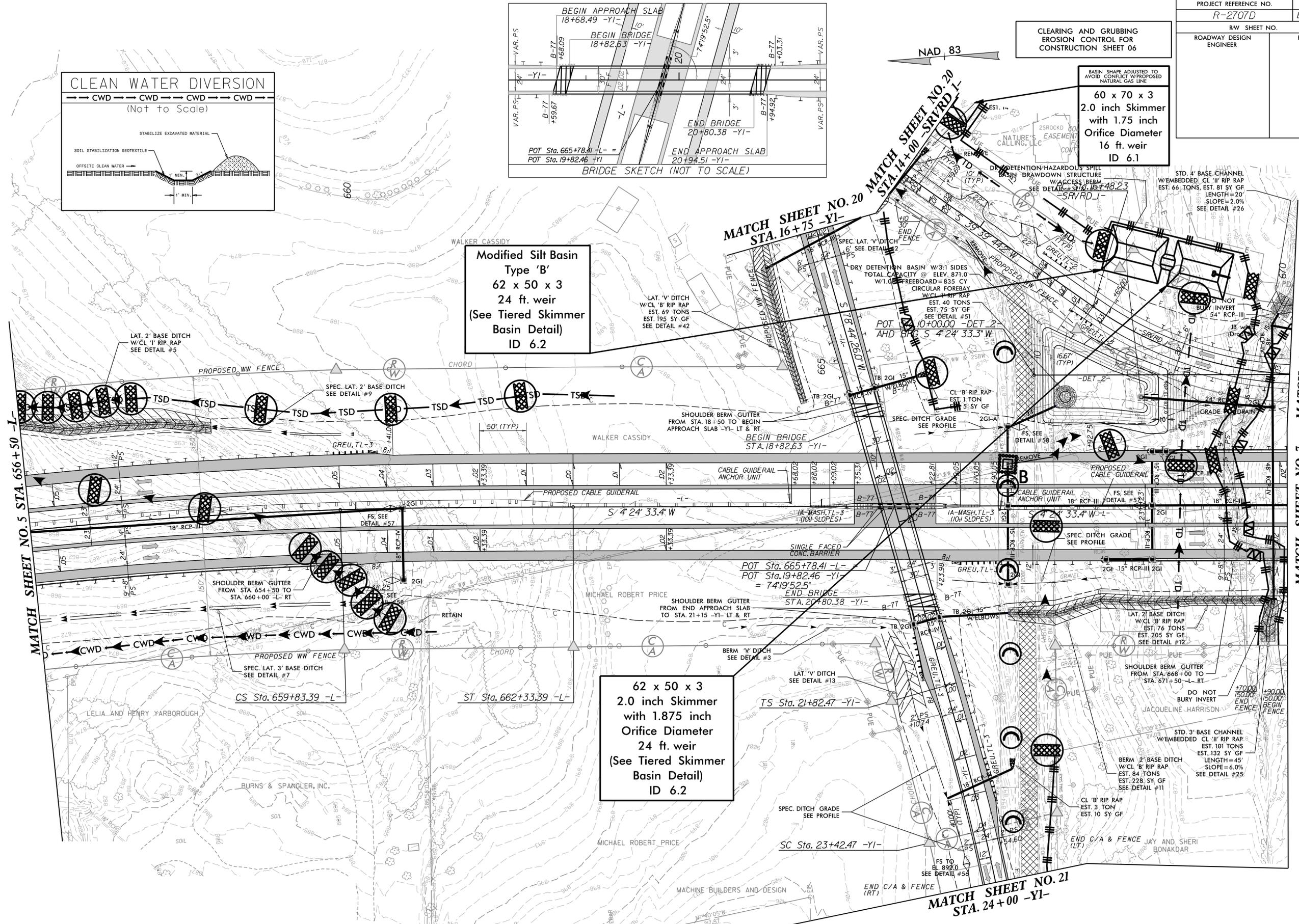


**Modified Silt Basin**  
Type 'B'  
62 x 50 x 3  
24 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 6.2

**62 x 50 x 3**  
2.0 inch Skimmer  
with 1.875 inch  
Orifice Diameter  
24 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 6.2

BASIN SHAPE ADJUSTED TO  
AVOID CONFLICT W/PROPOSED  
NATURAL GAS LINE

**60 x 70 x 3**  
2.0 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
16 ft. weir  
ID 6.1



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.

MATCH SHEET NO. 7  
STA. 18+71.37 -SRVRD 1-

MATCH SHEET NO. 5  
STA. 656+50 -L-

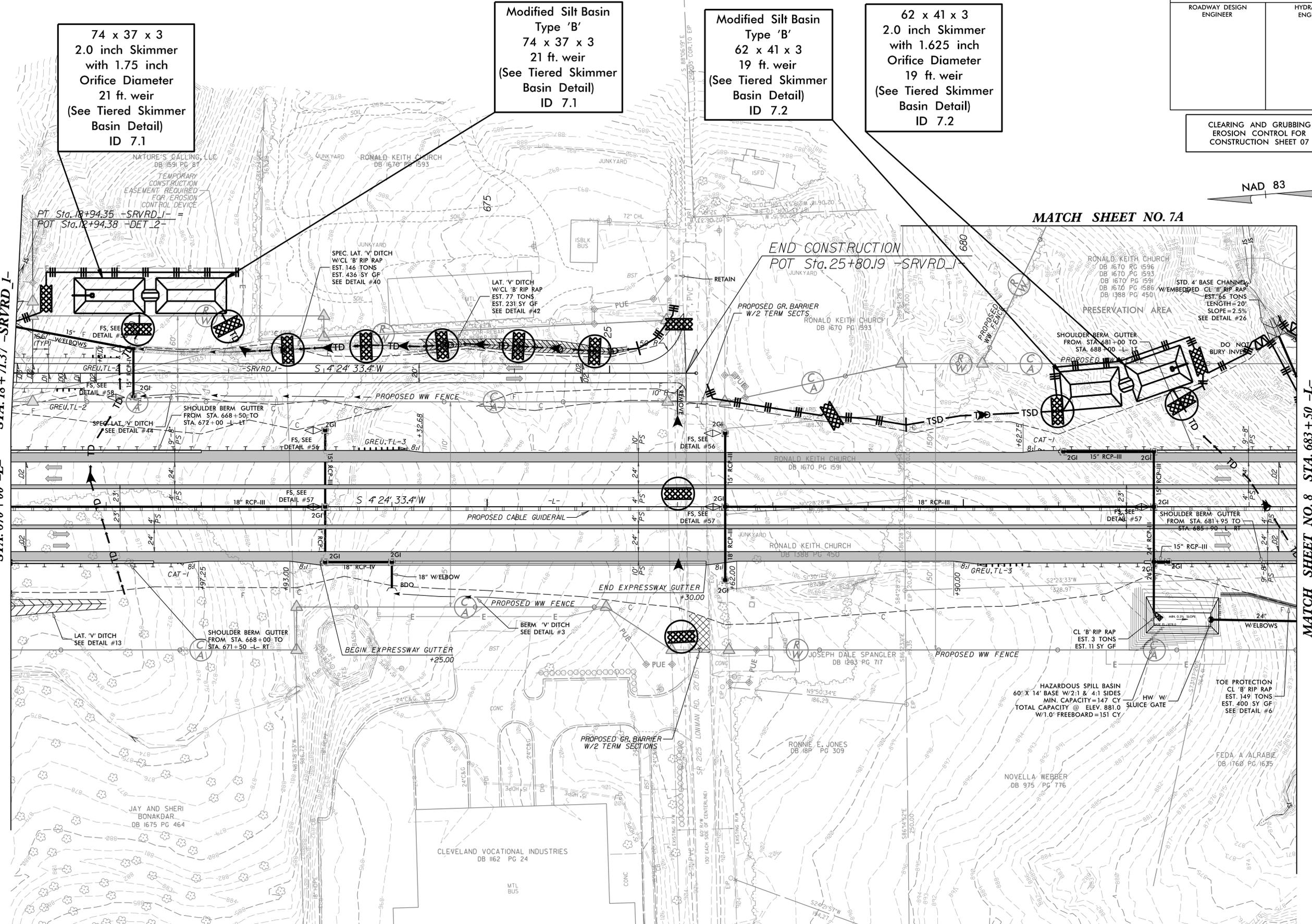
MATCH SHEET NO. 21  
STA. 24+00 -Y1-

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-08/CONST.07      |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 07

MATCH SHEET NO. 6  
STA. 18+00 -L-  
STA. 670+00 -L-

MATCH SHEET NO. 8  
STA. 683+50 -L-



MATCH SHEET NO. 7A

NAD 83

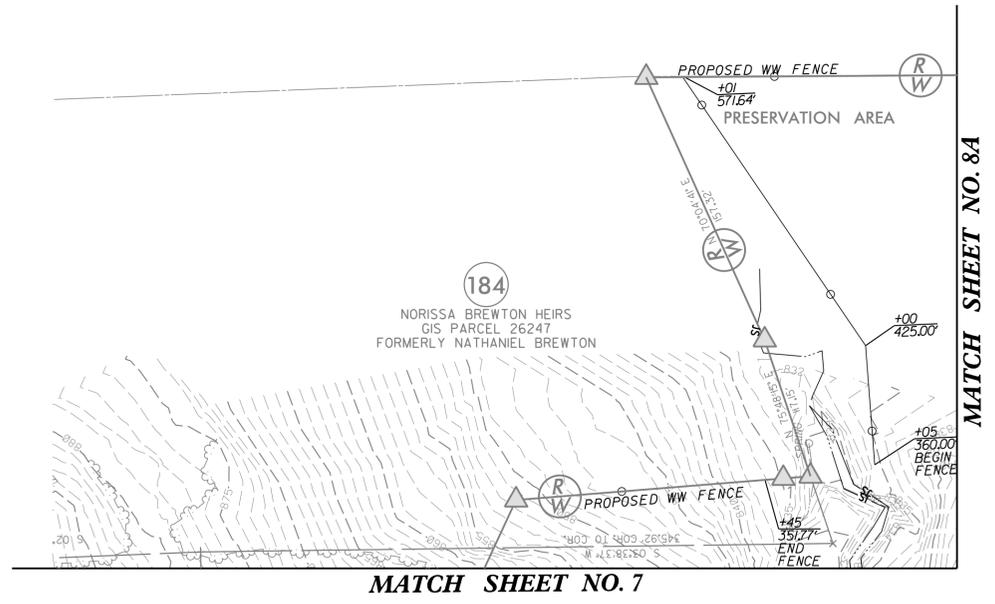
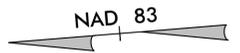
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.

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.

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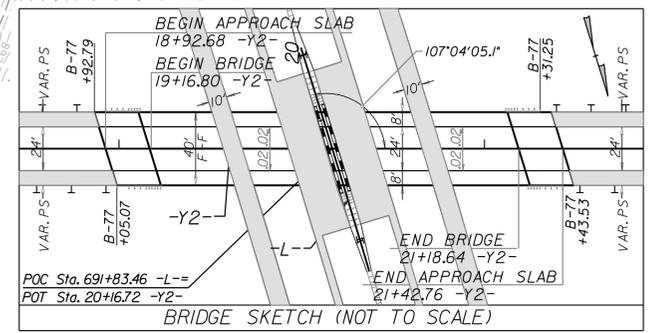
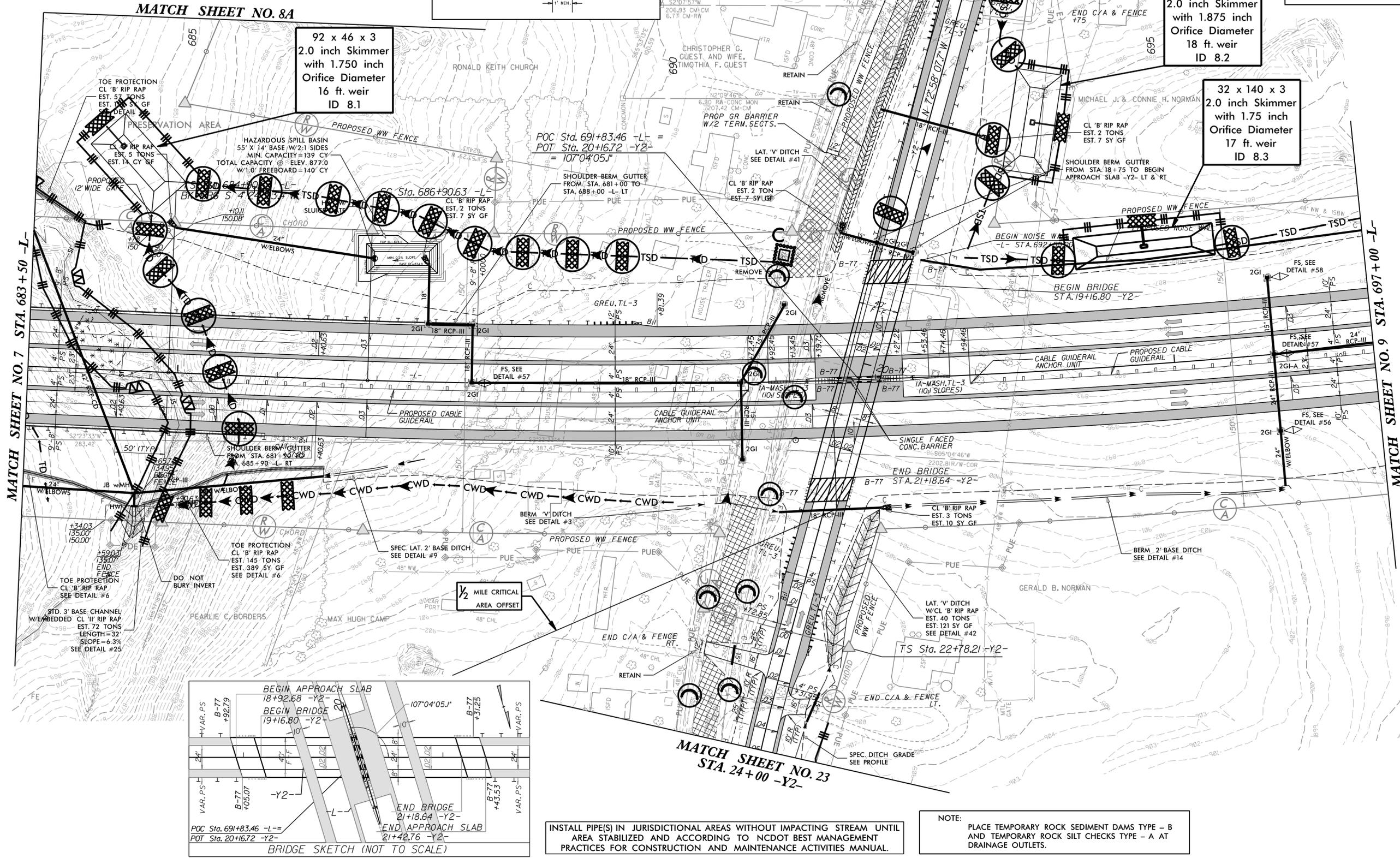
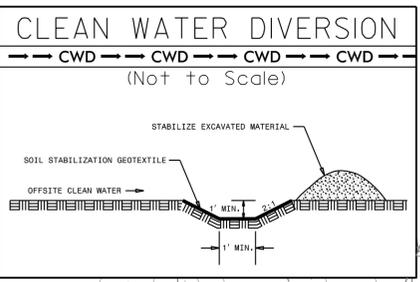
|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-09/CONST.07A     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 07A



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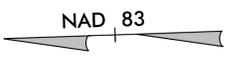
|                                  |                             |
|----------------------------------|-----------------------------|
| PROJECT REFERENCE NO.<br>R-2707D | SHEET NO.<br>EC-10/CONST.08 |
| RW SHEET NO.                     |                             |
| ROADWAY DESIGN ENGINEER          | HYDRAULICS ENGINEER         |



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.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 08



MATCH SHEET NO. 7 STA. 683+50 -L-

MATCH SHEET NO. 8A

MATCH SHEET NO. 22 STA. 15+00 -Y2-

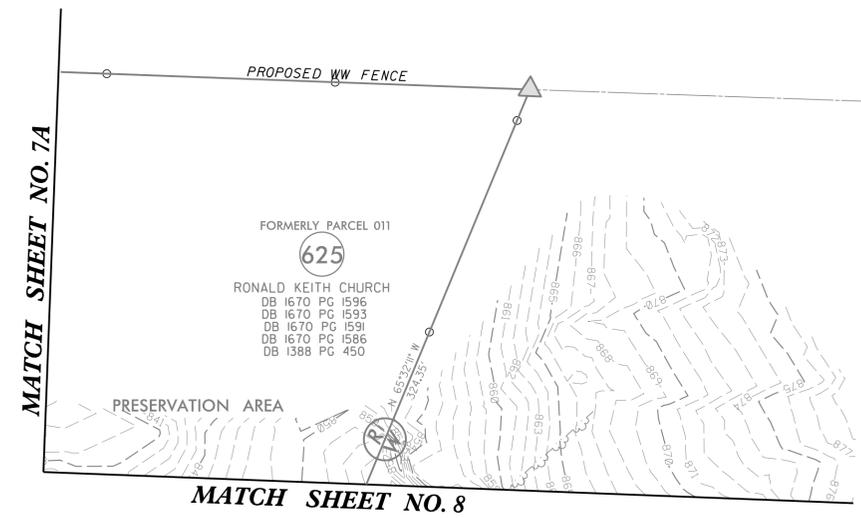
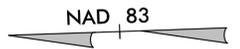
MATCH SHEET NO. 9 STA. 697+00 -L-

MATCH SHEET NO. 23 STA. 24+00 -Y2-

7/2/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-II/CONST.08A     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

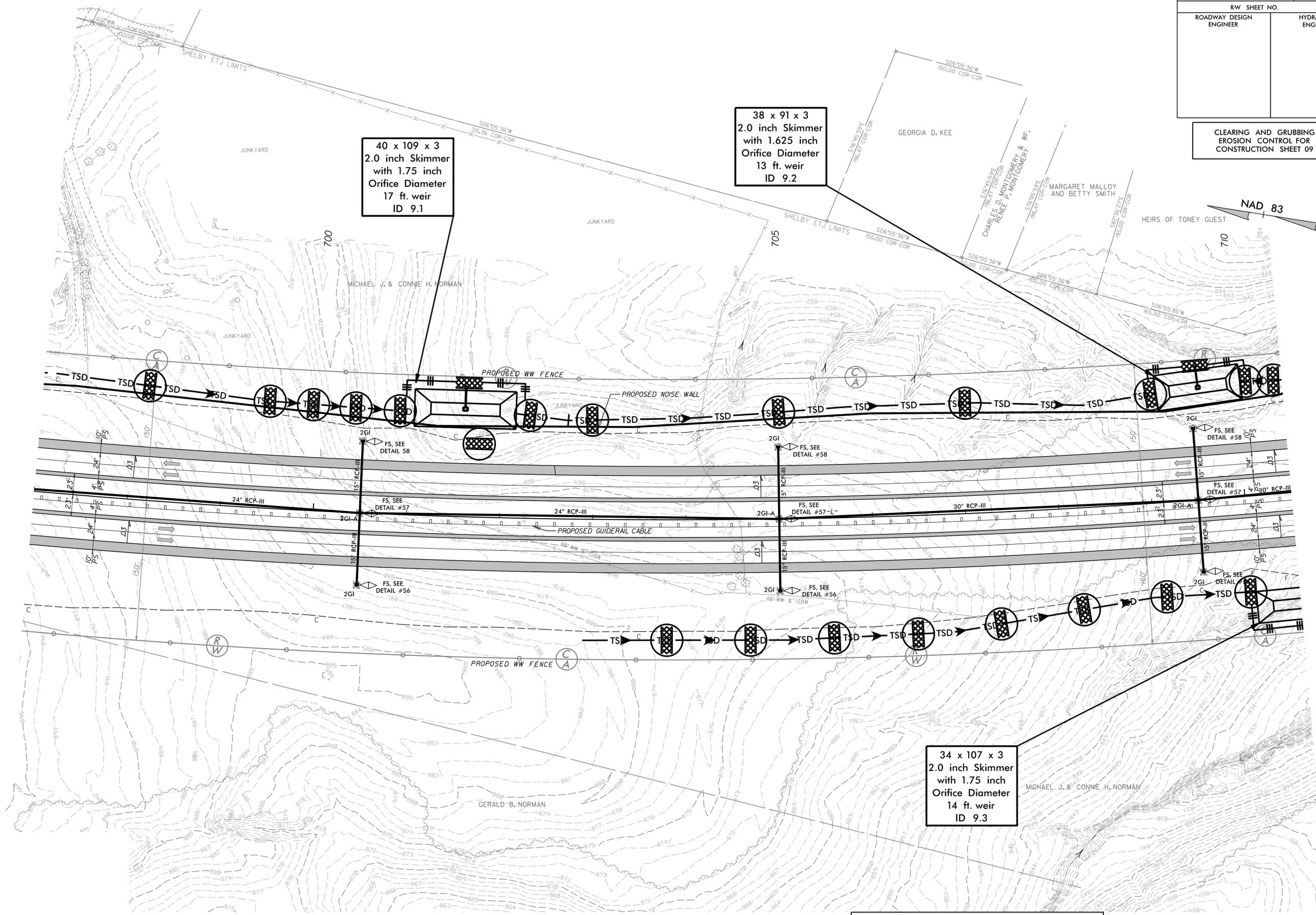
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 08A



7/2/99

|   |                                    |
|---|------------------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-12/CONST.09</i> |
| RW SHEET NO.                            |                                    |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER                |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 09



40 x 109 x 3  
2.0 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
17 ft. weir  
ID 9.1

38 x 91 x 3  
2.0 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
13 ft. weir  
ID 9.2

34 x 107 x 3  
2.0 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
14 ft. weir  
ID 9.3



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

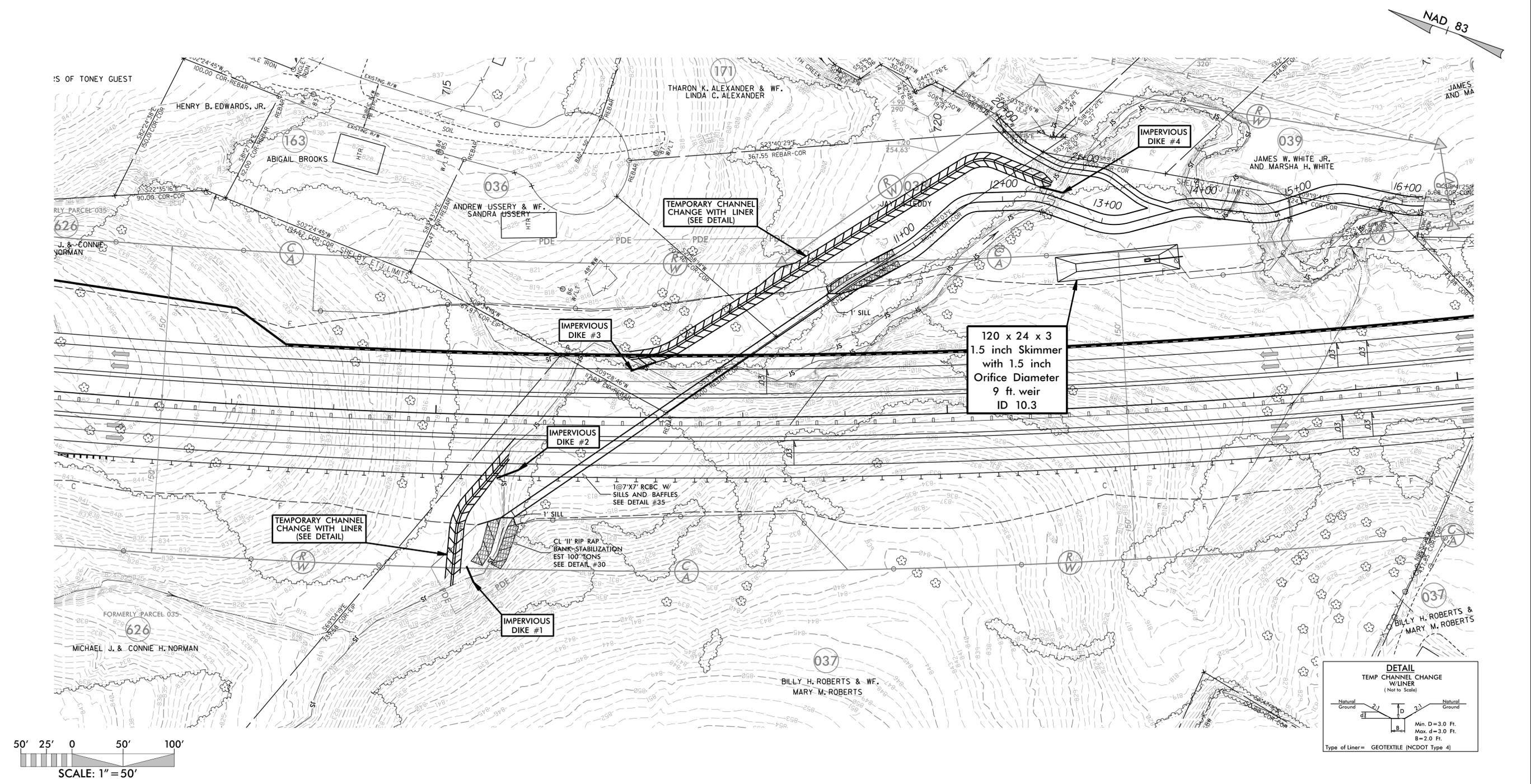


7/2/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-13A/CONST.10     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 1@7'X7' RCBC CONSTRUCTION SEQUENCE STA. 717+17 -L- RT UT TO BUFFALO CREEK

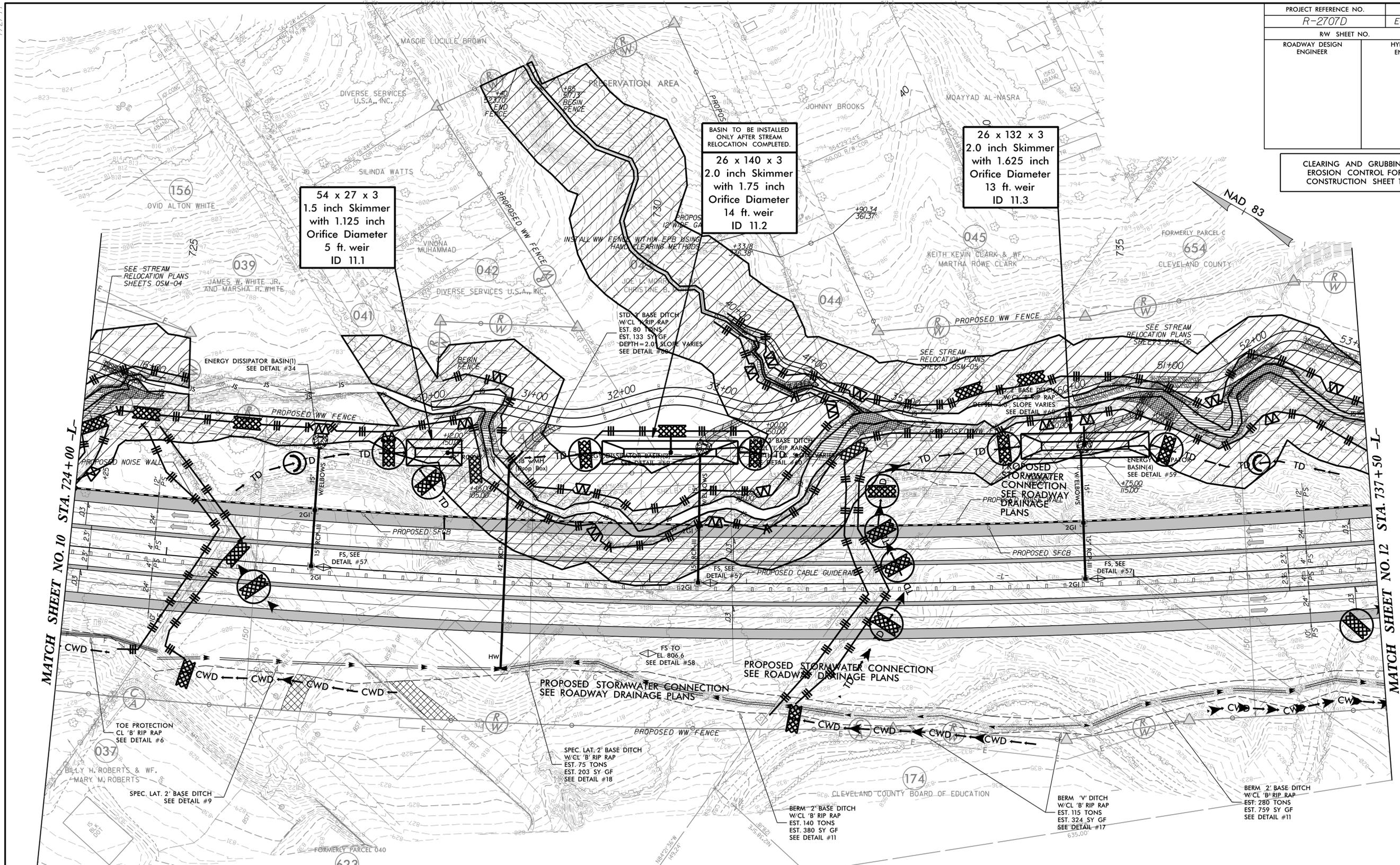
- 1.) CONSTRUCT SKIMMER BASIN 10.3, TO BE UTILIZED AS STILLING BASIN.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGES W/LINERS (SEE DETAIL), IMPERVIOUS DIKES #1 THROUGH #4, AND DIRECT FLOW INTO TEMPORARY CHANNEL CHANGES.
- 3.) DEWATER CONSTRUCTION AREA UTILIZING STILLING BASIN FOR PUMPED EFFLUENT.
- 4.) CONSTRUCT PROPOSED 1@7'X7' RCBC W/SILLS, UPSTREAM AND DOWNSTREAM CLASS 'II' RIP RAP BANK STABILIZATION IN ACCORDANCE WITH THE PLANS.
- 5.) CONSTRUCT DOWNSTREAM STREAM REALIGNMENT IN ACCORDANCE WITH THE ON-SITE MITIGATION PLANS (OSM-04) AND CONSTRUCTION SEQUENCE ON EC-60.
- 6.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE TEMPORARY CHANNEL CHANGES W/LINERS AND IMPERVIOUS DIKES #1 THROUGH #4.
- 8.) DIRECT FLOW THROUGH 2@7'X7' RCBC W/SILLS.
- 9.) COMPLETE ROADWAY.



7/27/99

|   |                                    |
|---|------------------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-14/CONST.11</i> |
| RW SHEET NO.                            |                                    |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER                |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 11



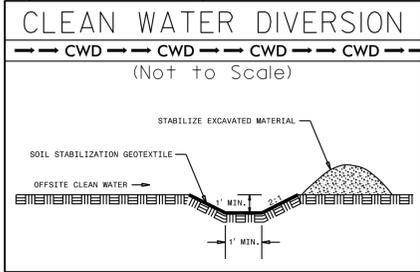
54 x 27 x 3  
1.5 inch Skimmer  
with 1.125 inch  
Orifice Diameter  
5 ft. weir  
ID 11.1

BASIN TO BE INSTALLED  
ONLY AFTER STREAM  
RELOCATION COMPLETED.  
26 x 140 x 3  
2.0 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
14 ft. weir  
ID 11.2

26 x 132 x 3  
2.0 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
13 ft. weir  
ID 11.3

MATCH SHEET NO. 10 STA. 724+00 -L-

MATCH SHEET NO. 12 STA. 737+50 -L-



NORTH CAROLINA STATE HIGHWAY AND  
PUBLIC WORKS COMMISSION

PROPOSED STORMWATER CONNECTION  
SEE ROADWAY DRAINAGE PLANS

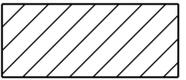
PROPOSED STORMWATER CONNECTION  
SEE ROADWAY DRAINAGE PLANS

SPEC. LAT. 2' BASE DITCH  
W/CL #1 RIP RAP  
EST. 203 SY GF  
SEE DETAIL #18

BERM 2' BASE DITCH  
W/CL #1 RIP RAP  
EST. 140 TONS  
EST. 380 SY GF  
SEE DETAIL #11

BERM 4' DITCH  
W/CL #1 RIP RAP  
EST. 115 TONS  
EST. 324 SY GF  
SEE DETAIL #17

BERM 2' BASE DITCH  
W/CL #1 RIP RAP  
EST. 280 TONS  
EST. 759 SY GF  
SEE DETAIL #11

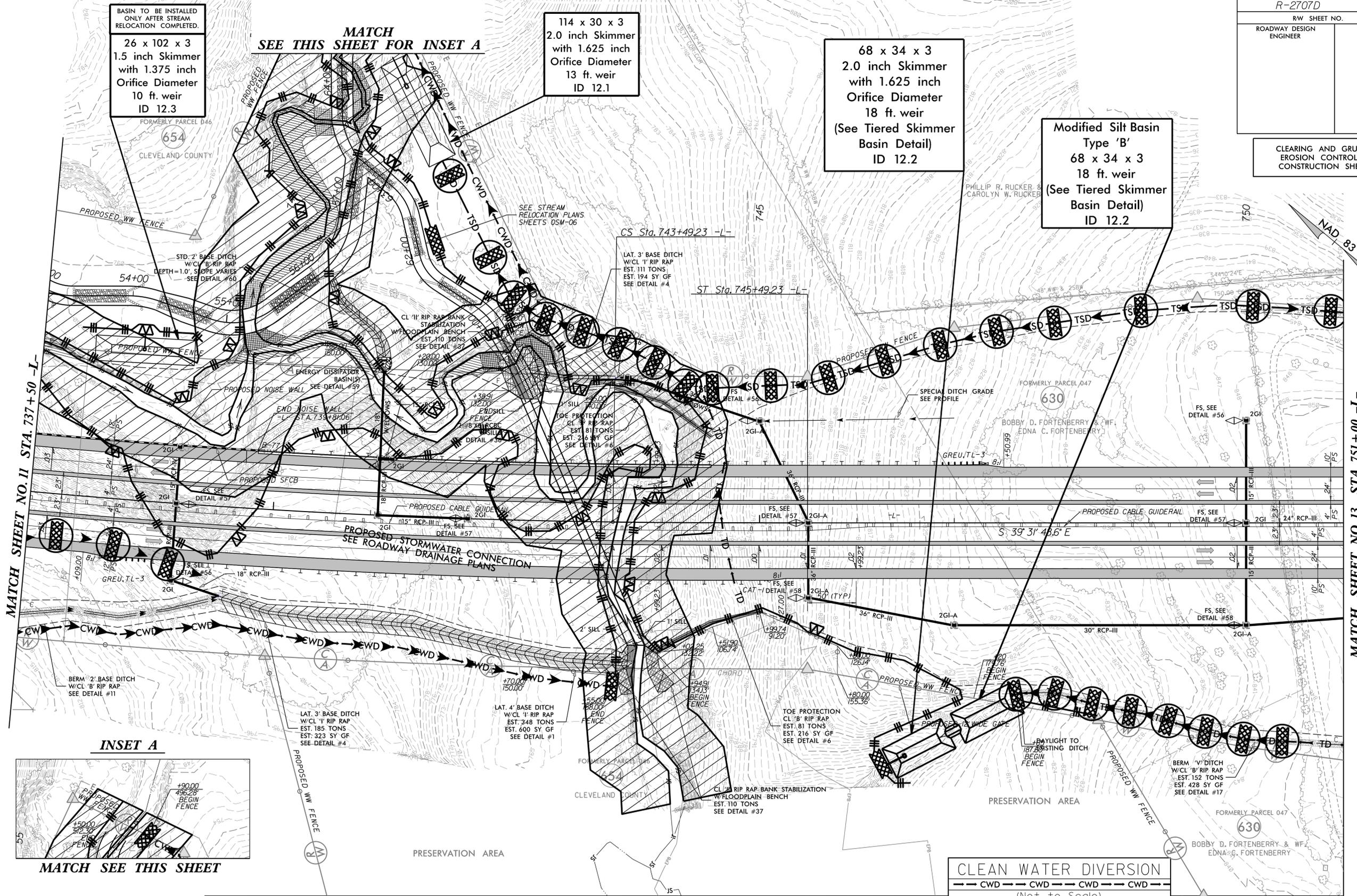
 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

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

7/27/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-15/CONSTJ2       |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 12



MATCH SHEET NO. 11 STA. 737+50 -L-

MATCH SHEET NO. 13 STA. 751+00 -L-

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

MATCH SHEET NO. 12A

7/2/99

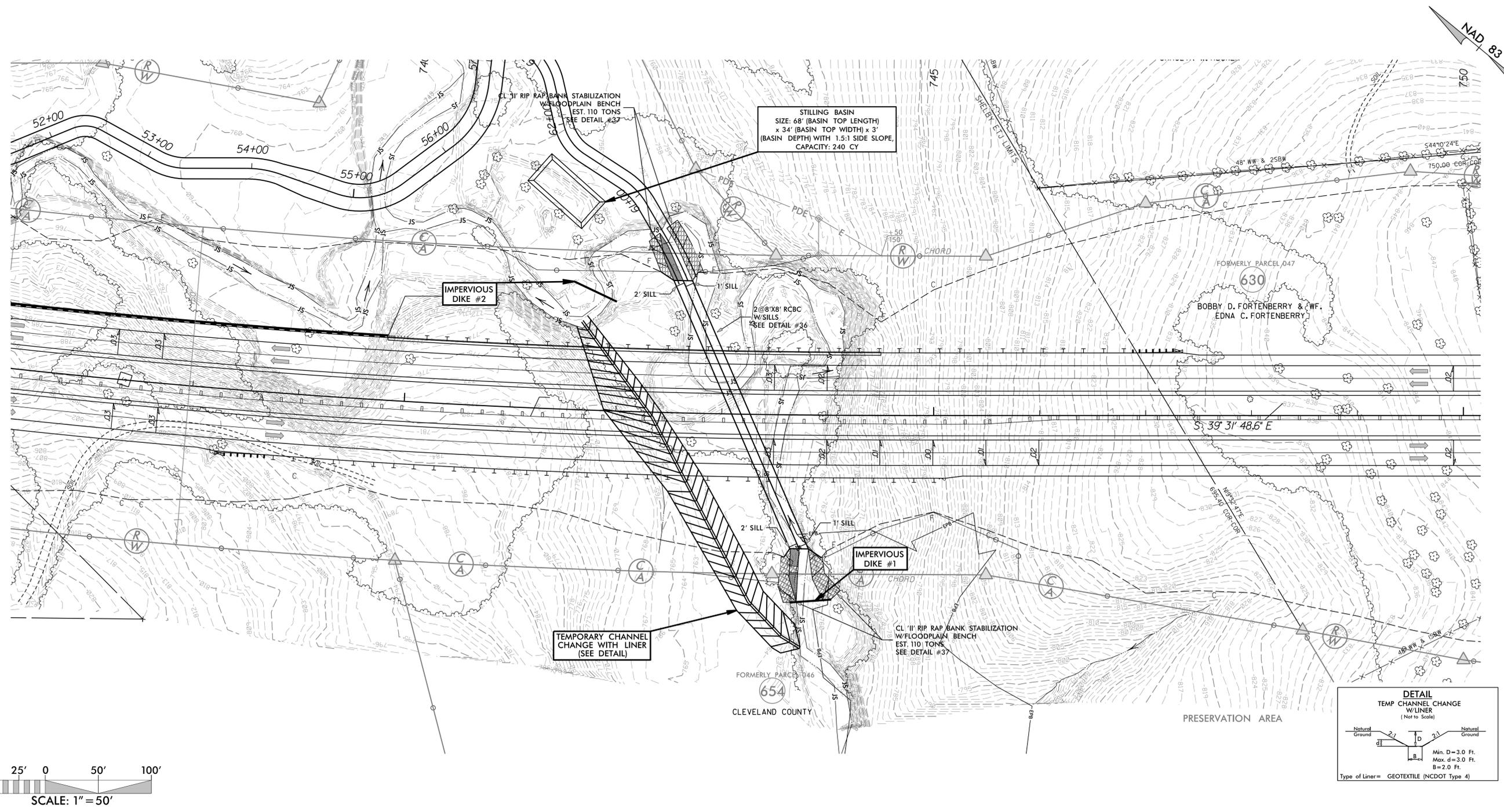
|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-15A/CONST.2      |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 2@8'X8' RCBC CONSTRUCTION SEQUENCE

## STA. 743+18 -L- RT UT TO BUFFALO CREEK

- 1.) CONSTRUCT STILLING BASIN.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE W/LINER (SEE DETAIL), IMPERVIOUS DIKES #1 AND #2, AND DIRECT FLOW INTO TEMPORARY CHANNEL CHANGE W/LINER.
- 3.) DEWATER CONSTRUCTION AREA UTILIZING STILLING BASIN FOR PUMPED EFFLUENT.
- 4.) CONSTRUCT PROPOSED 2@8'X8' RCBC W/SILLS, UPSTREAM AND DOWNSTREAM CLASS II RIP RAP BANK STABILIZATION W/FLOODPLAIN BENCH IN ACCORDANCE WITH THE PLANS.

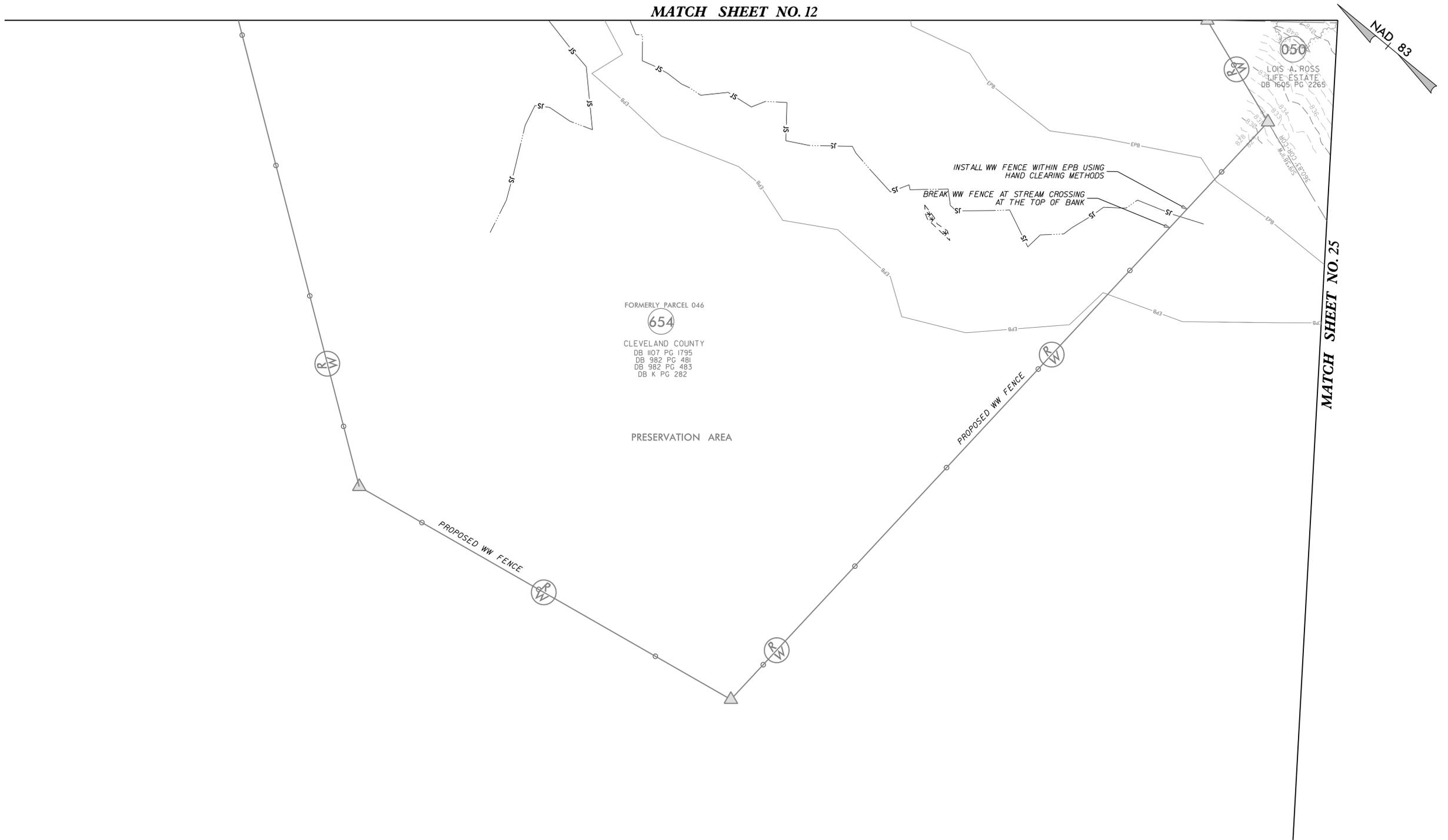
- 5.) CONSTRUCT DOWNSTREAM REALIGNMENT IN ACCORDANCE WITH THE PLANS.
- 6.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE TEMPORARY CHANNEL CHANGE W/LINER AND IMPERVIOUS DIKES #1 AND #2.
- 8.) DIRECT FLOW THROUGH 2@8'X8' RCBC W/SILLS.
- 9.) COMPLETE ROADWAY.



7/2/99

|   |                                     |
|---|-------------------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-16/CONST 12A</i> |
| RW SHEET NO.                            |                                     |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER                 |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 12A



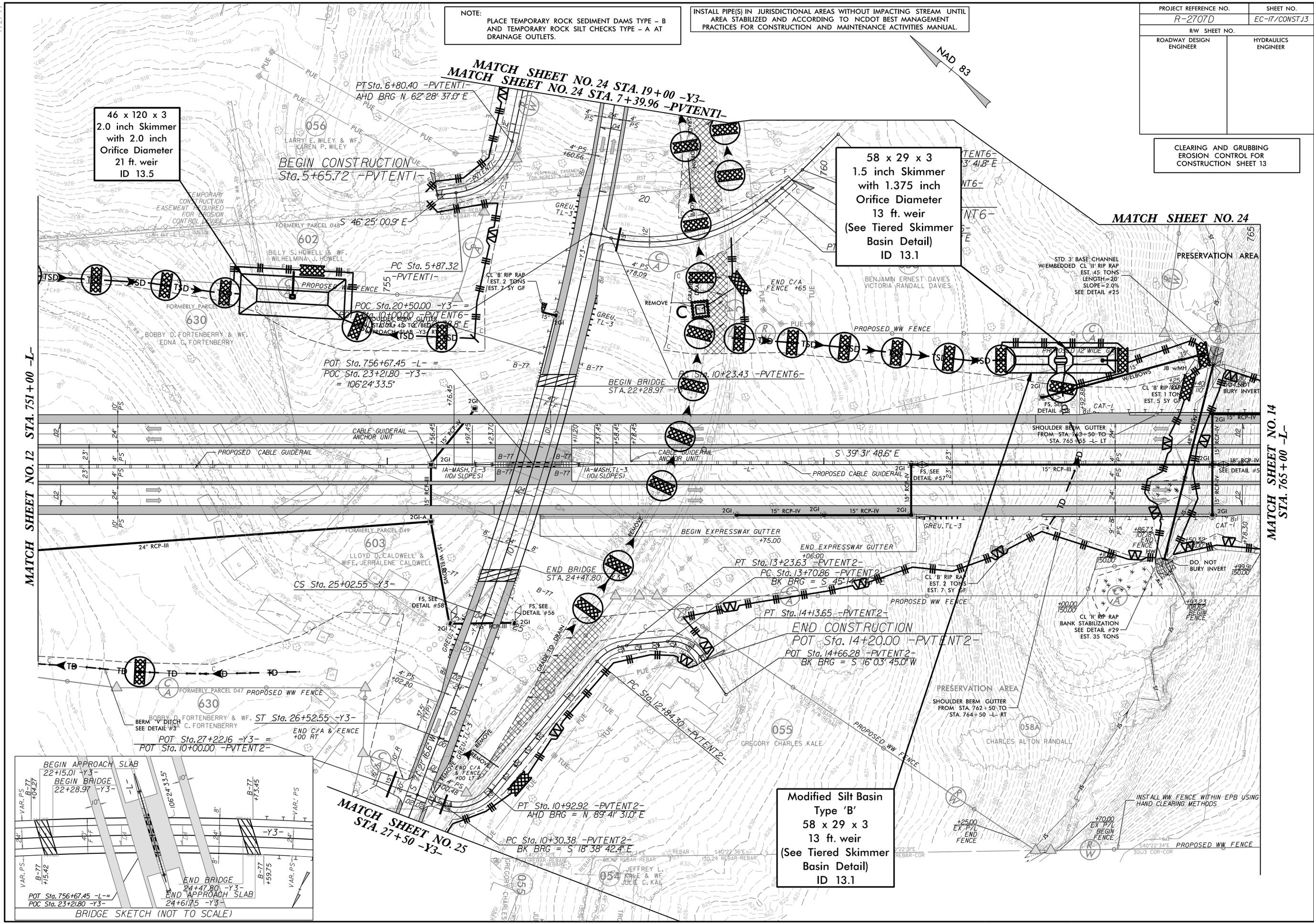
7/27/99

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.

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-17/CONST.13      |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13



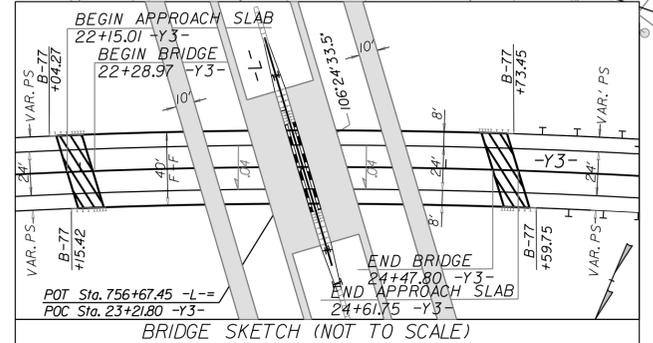
46 x 120 x 3  
2.0 inch Skimmer  
with 2.0 inch  
Orifice Diameter  
21 ft. weir  
ID 13.5

58 x 29 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
13 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 13.1

Modified Silt Basin  
Type 'B'  
58 x 29 x 3  
13 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 13.1

MATCH SHEET NO. 12 STA. 751+00 -L-

MATCH SHEET NO. 14 STA. 765+00 -L-



BRIDGE SKETCH (NOT TO SCALE)

7/27/99

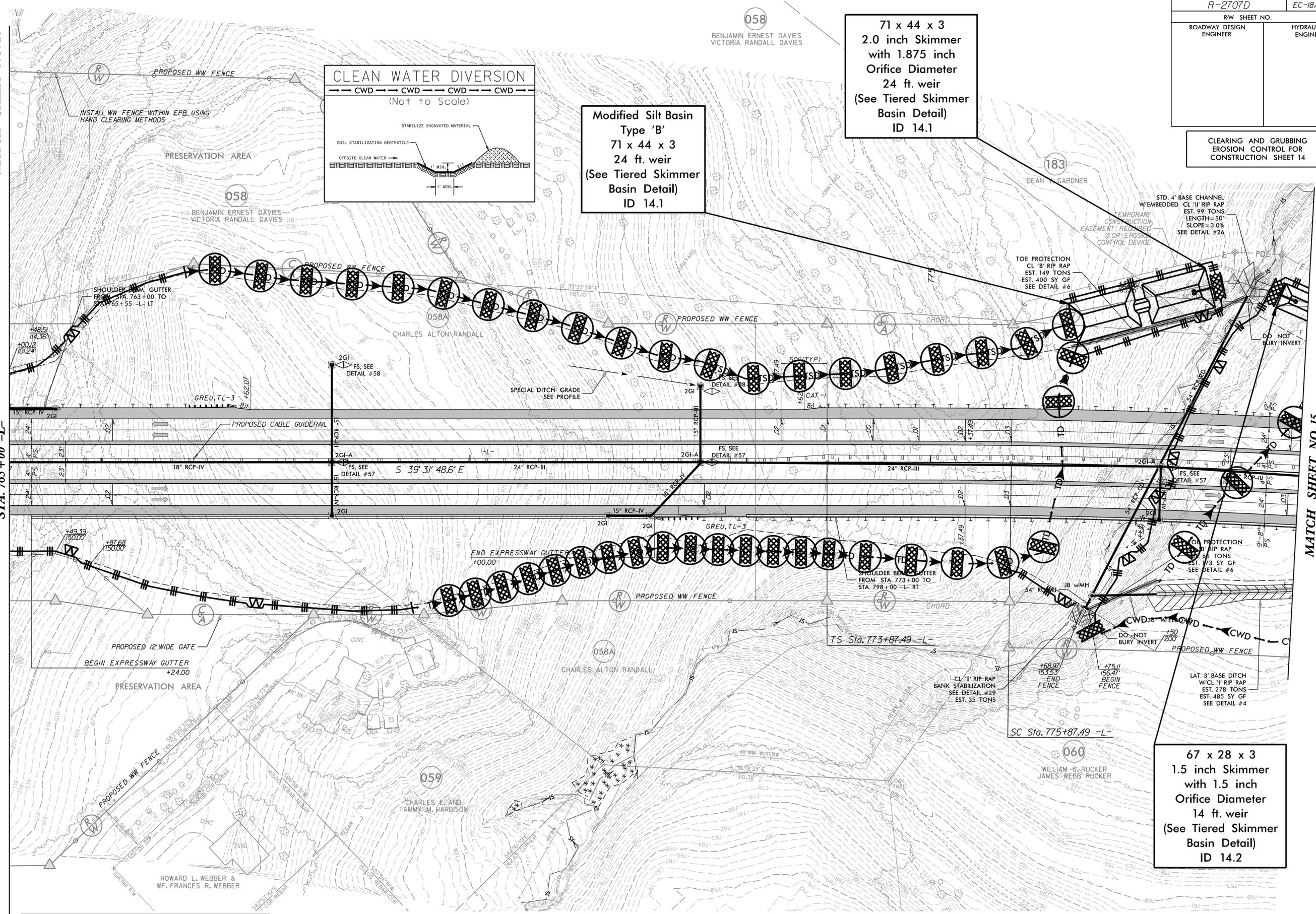
|   |                                    |
|---|------------------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-18/CONST.14</i> |
| RW SHEET NO.                            |                                    |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER                |

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

MATCH SHEET NO. 24

MATCH SHEET NO. 13  
STA. 765+00 -L-

MATCH SHEET NO. 15  
STA. 779+00 -L-



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.

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|                                  |                            |
|----------------------------------|----------------------------|
| PROJECT REFERENCE NO.<br>R-2707D | SHEET NO.<br>EC-19/CONST15 |
| RW SHEET NO.                     |                            |
| ROADWAY DESIGN ENGINEER          | HYDRAULICS ENGINEER        |

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.

67 x 28 x 3  
1.5 inch Skimmer  
with 1.5 inch  
Orifice Diameter  
14 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 14.2

29 x 123 x 3  
2.0 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
14 ft. weir  
ID 15.2

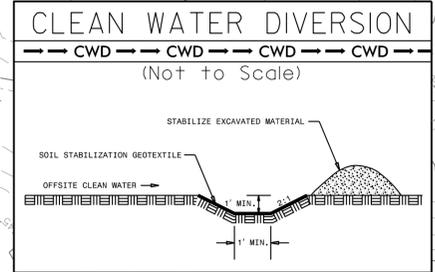
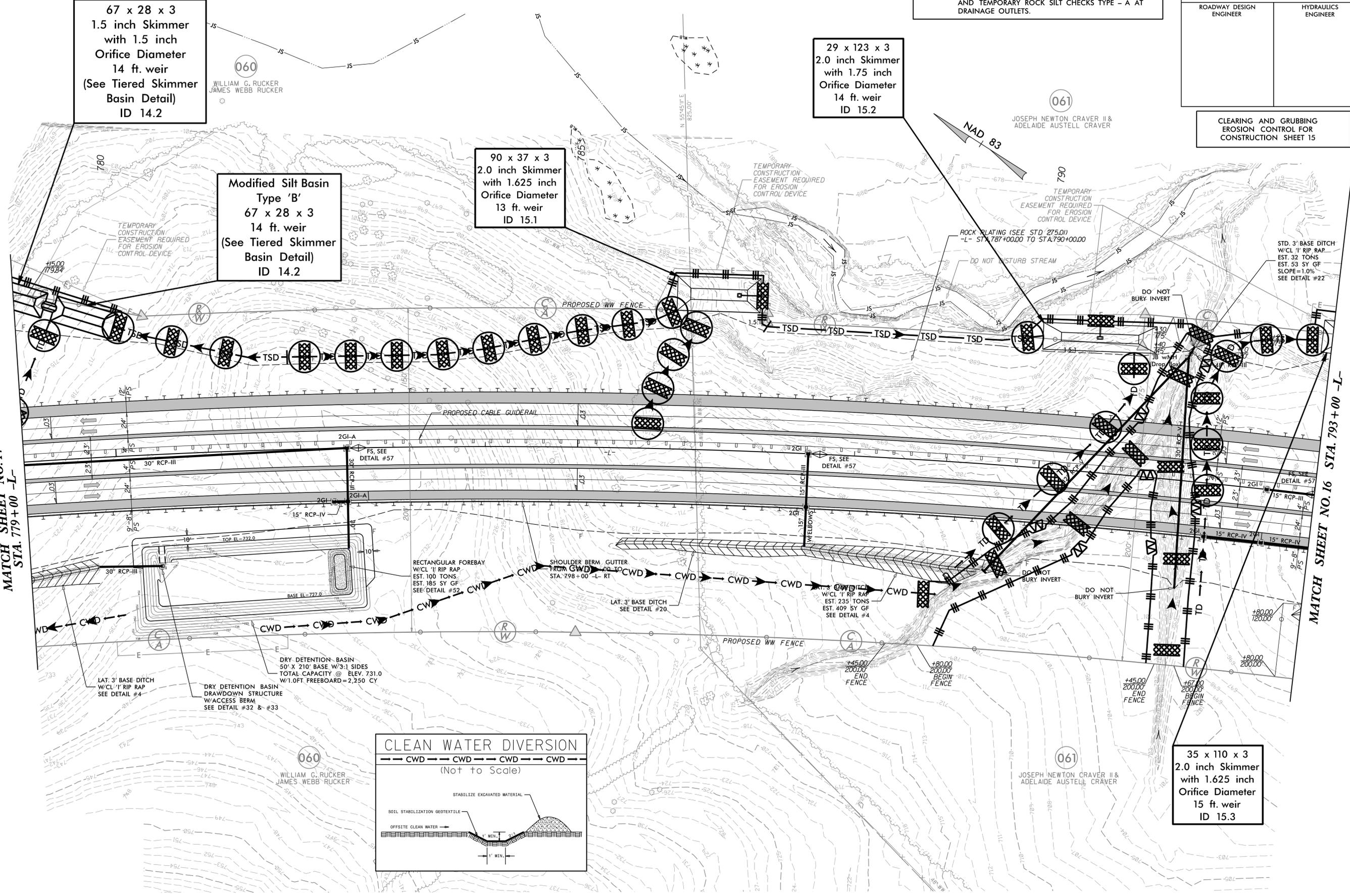
Modified Silt Basin  
Type 'B'  
67 x 28 x 3  
14 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 14.2

90 x 37 x 3  
2.0 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
13 ft. weir  
ID 15.1

35 x 110 x 3  
2.0 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
15 ft. weir  
ID 15.3

MATCH SHEET NO. 14  
STA. 779+00 -L-

MATCH SHEET NO. 16  
STA. 793+00 -L-



060  
WILLIAM G. RUCKER  
JAMES WEBB RUCKER

061  
JOSEPH NEWTON CRAVER II &  
ADELAIDE AUSTELL CRAVER

061  
JOSEPH NEWTON CRAVER II &  
ADELAIDE AUSTELL CRAVER

TEMPORARY CONSTRUCTION EASEMENT REQUIRED FOR EROSION CONTROL DEVICE

TEMPORARY CONSTRUCTION EASEMENT REQUIRED FOR EROSION CONTROL DEVICE

TEMPORARY CONSTRUCTION EASEMENT REQUIRED FOR EROSION CONTROL DEVICE

ROCK PLATING (SEE STD 275.01)  
-L- STA. 787+00.00 TO STA. 790+00.00

DO NOT DISTURB STREAM

DO NOT BURY INVERT

STD. 3' BASE DITCH  
W/CL 1' RIP RAP  
EST. 53 SY GF  
SLOPE=1.0%  
SEE DETAIL #22

RECTANGULAR FOREBAY  
W/CL 1' RIP RAP  
EST. 100 TONS  
EST. 185 SY GF  
SEE DETAIL #52

SHOULDER BERM, GUTTER  
FROM CWD TO RT  
STA. 798+00 -L- RT

W/CL 1' RIP RAP  
EST. 235 TONS  
EST. 409 SY GF  
SEE DETAIL #4

LAT. 3' BASE DITCH  
W/CL 1' RIP RAP  
SEE DETAIL #4

DRY DETENTION BASIN  
DRAWDOWN STRUCTURE  
W/ACCESS BERM  
SEE DETAIL #32 & #33

LAT. 3' BASE DITCH  
SEE DETAIL #20

+45.00  
200.00  
END FENCE

+80.00  
200.00  
BEGIN FENCE

+45.00  
200.00  
END FENCE

+67.00  
200.00  
BEGIN FENCE

+80.00  
200.00

+80.00  
200.00

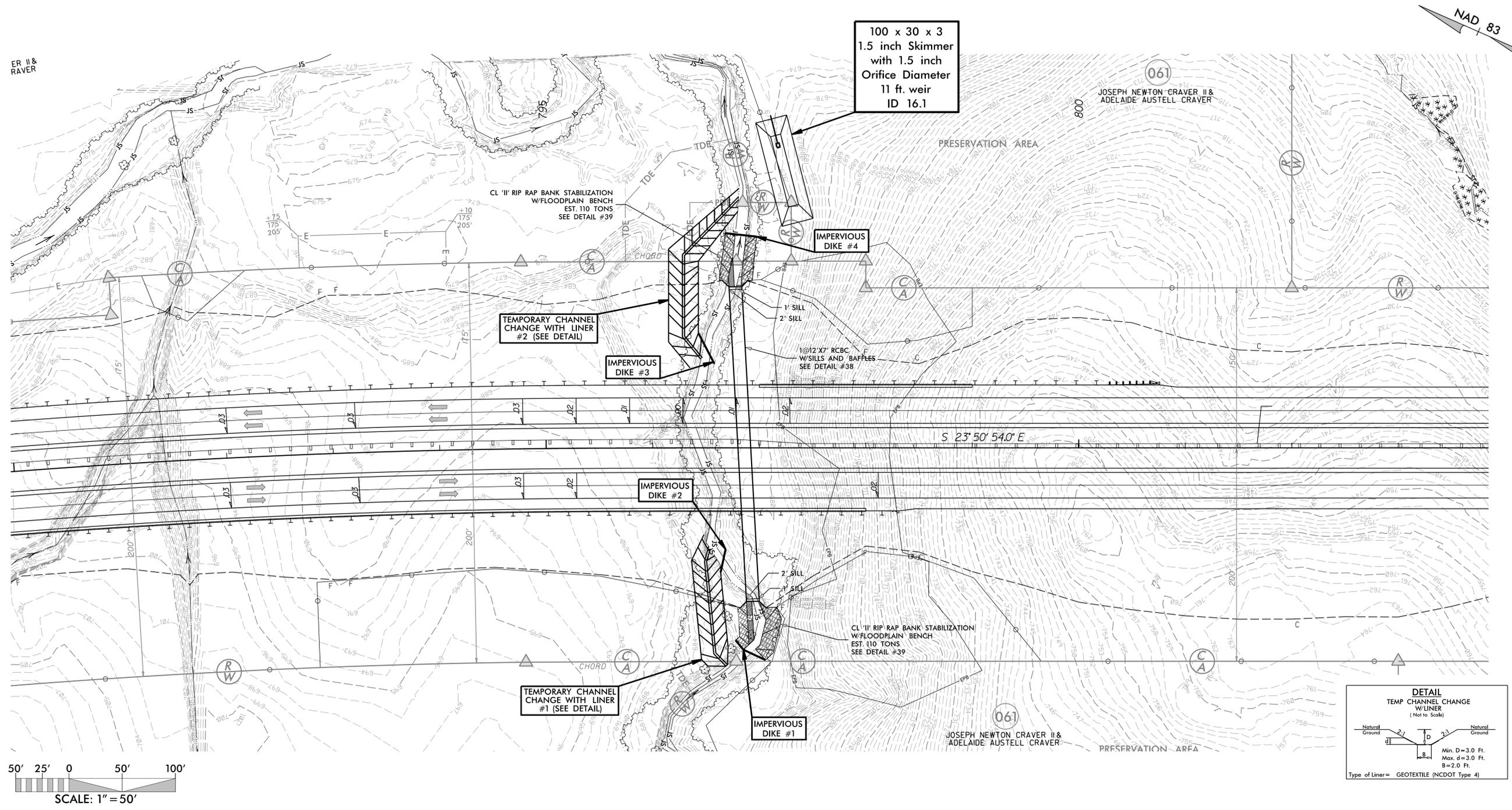


7/2/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-20A/CONST.16     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

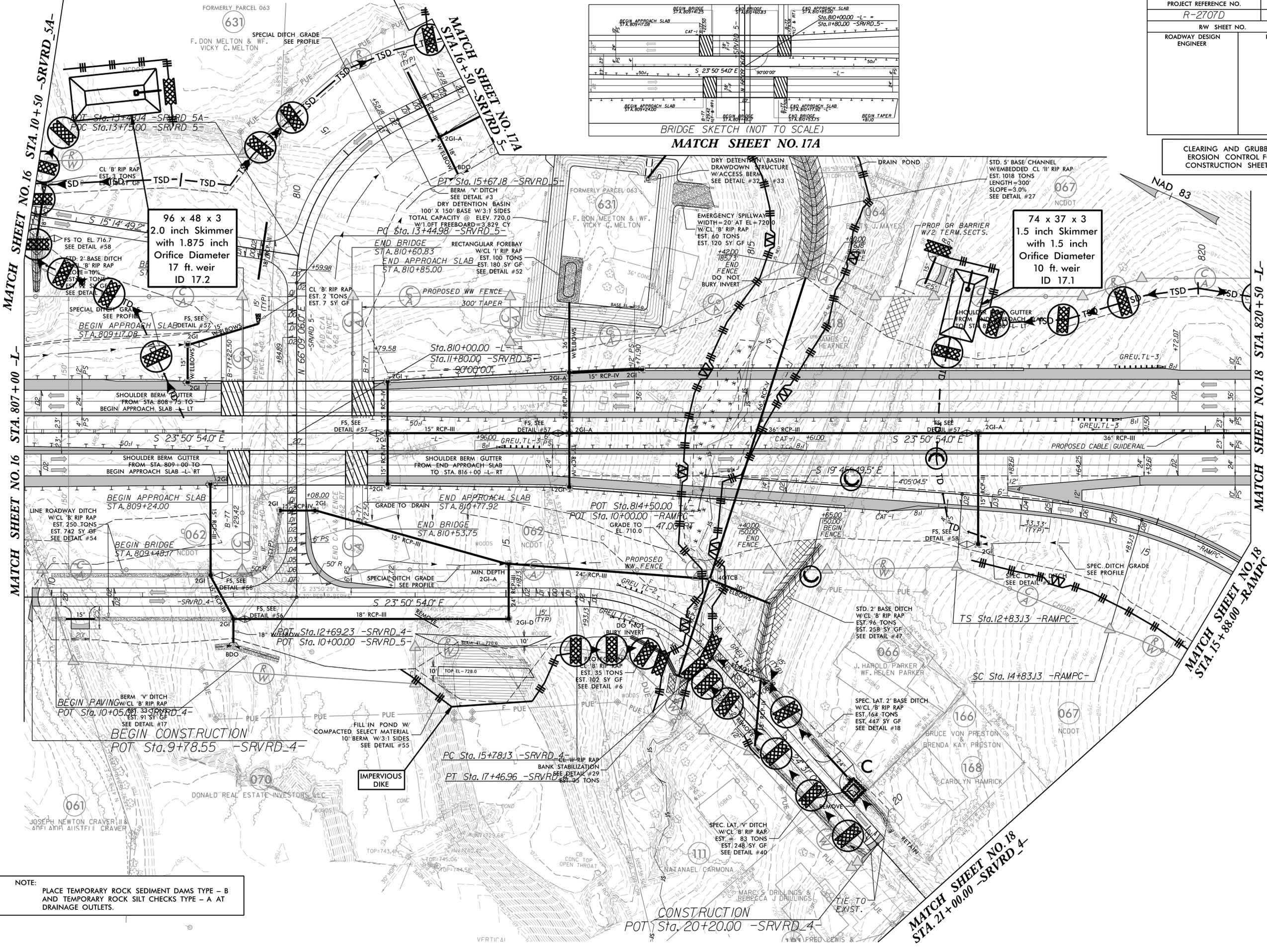
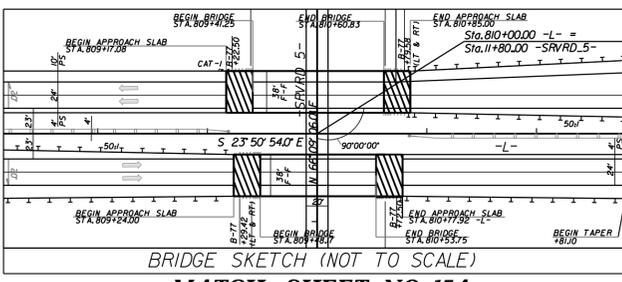
# 1@12'X7' RCBC CONSTRUCTION SEQUENCE STA. 796+86 -L- RT UT TO BUFFALO CREEK

- 1.) CONSTRUCT SKIMMER BASIN 16.1, TO BE UTILIZED AS STILLING BASIN.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE W/LINER #1 AND #2 (SEE DETAIL).
- 3.) CONSTRUCT IMPERVIOUS DIKES #1 THROUGH #4 AND DIRECT FLOW INTO TEMPORARY CHANNEL #1 AND #2.
- 4.) DEWATER CONSTRUCTION AREA UTILIZING SKIMMER BASIN FOR PUMPED EFFLUENT.
- 5.) CONSTRUCT PROPOSED 1@12'X7' RCBC W/SILLS AND BAFFLES IN ACCORDANCE WITH THE PLANS.
- 6.) CONSTRUCT UPSTREAM AND DOWNSTREAM CLASS II RIP RAP BANK STABILIZATION W/FLOODPLAIN BENCH IN ACCORDANCE WITH THE PLANS.
- 7.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 8.) REMOVE TEMPORARY CHANNEL CHANGE W/LINER #1 AND #2 AND IMPERVIOUS DIKES #1 THROUGH #4.
- 9.) DIRECT FLOW THROUGH 1@12'X7' RCBC W/SILLS.
- 10.) COMPLETE ROADWAY.



|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-21/CONST.17      |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17



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

CONSTRUCTION  
POT Sta. 20+20.00 -SRVRD\_4  
MATCH SHEET NO. 18  
STA. 21+00.00 -SRVRD\_4

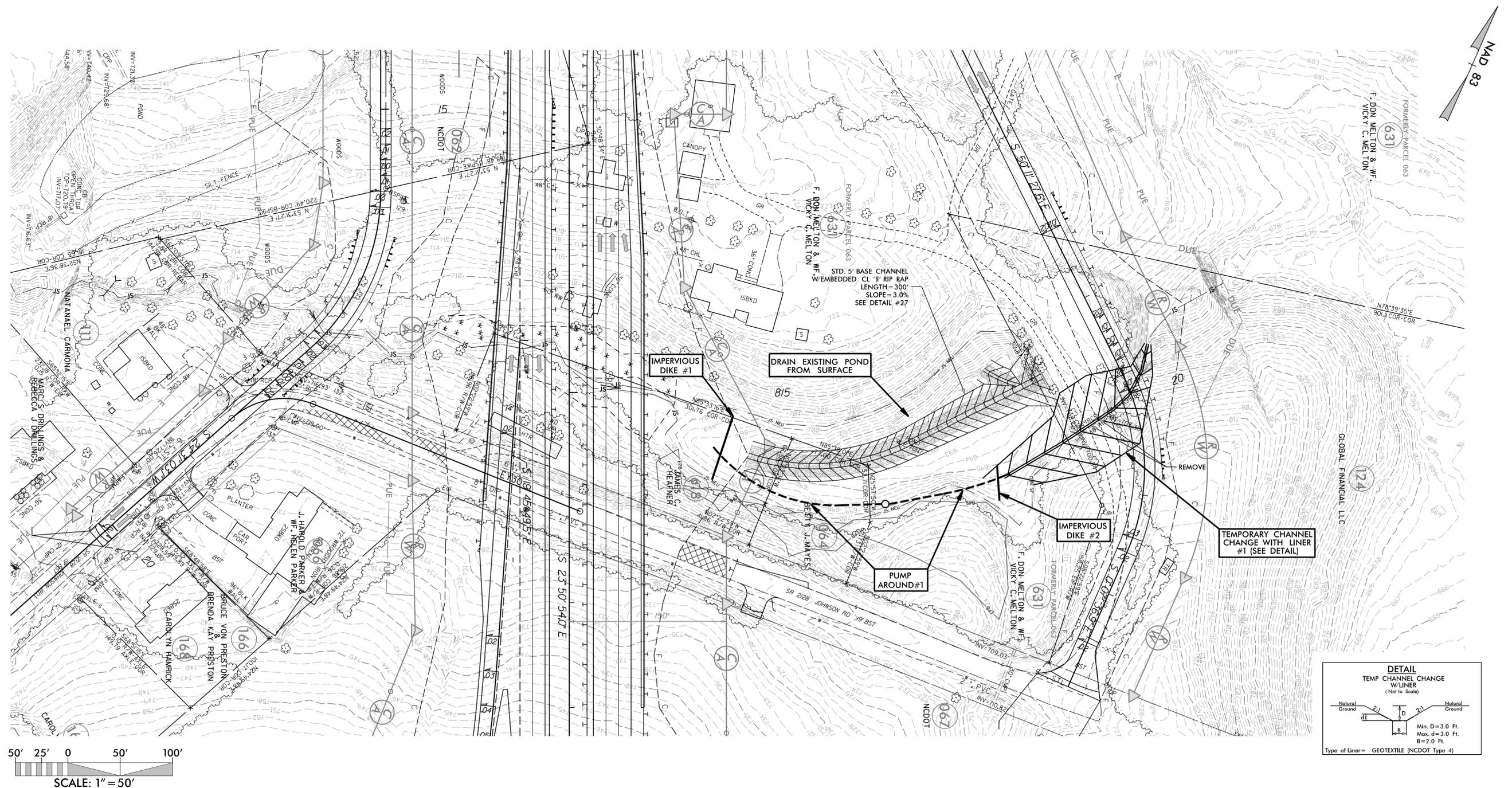
14/2023 EC.dsn\_psh\_21.cgdgn

# 66" RCP'S & 5 FT BASE CHANNEL CONSTRUCTION SEQUENCE STA. 815+06 -L- /STA. 19+50 -SVRD5- UT TO BUFFALO CREEK

|   |                                     |
|---|-------------------------------------|
| PROJECT REFERENCE NO.<br><i>R-2707D</i> | SHEET NO.<br><i>EC-21A/CONST.17</i> |
| RW SHEET NO.                            |                                     |
| ROADWAY DESIGN ENGINEER                 | HYDRAULICS ENGINEER                 |

## PHASE I

- 1.) DEWATER THE EXISTING POND FROM SURFACE, UTILIZING A FLOATING INTAKE CONFIGURATION.
- 2.) WHEN THE POND LEVEL IS AT OR BELOW ELEVATION 692, REMOVE EXISTING POND OUTLET PIPES AND CONSTRUCTION TEMPORARY CHANNEL CHANGE W/LINER #1.
- 3.) SET UP PUMP AROUND #1, INSTALL IMPERVIOUS DIKES #1 AND #2, AND BEGIN PUMP AROUND OPERATION.
- 4.) DEWATER REMAINDER OF POND, UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 5.) CONSTRUCT PROPOSED 5' BASE CHANNEL W/EMBEDDED RIP RAP IN ACCORDANCE WITH THE PLANS.



|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-21B/CONST.17     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 66" RCP'S & 5FT BASE CHANNEL CONSTRUCTION SEQUENCE

## STA. 815+06 -L- /STA. 19+50 -SVRD5- UT TO BUFFALO CREEK

### PHASE II

- 1.) SET UP PUMP AROUND #2.
- 2.) REMOVE IMPERVIOUS DIKES #1 AND #2, PUMP AROUND #1 AND ALLOW FLOW THROUGH 5' BASE CHANNEL.
- 3.) INSTALL IMPERVIOUS DIKES #3 AND #4 AND BEGIN PUMP AROUND #2 OPERATION.
- 4.) DEWATER CONSTRUCTION AREA, UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 5.) INSTALL HEADWALL 1734, 66" RCP AND DOWNSTREAM BASE CHANNEL W/EMBEDDED CLASS 'II' RIP RAP.
- 6.) EXCAVATE ANY ACCUMULATED SILT BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE IMPERVIOUS DIKES #3 AND #4 AND PUMP AROUND #2.

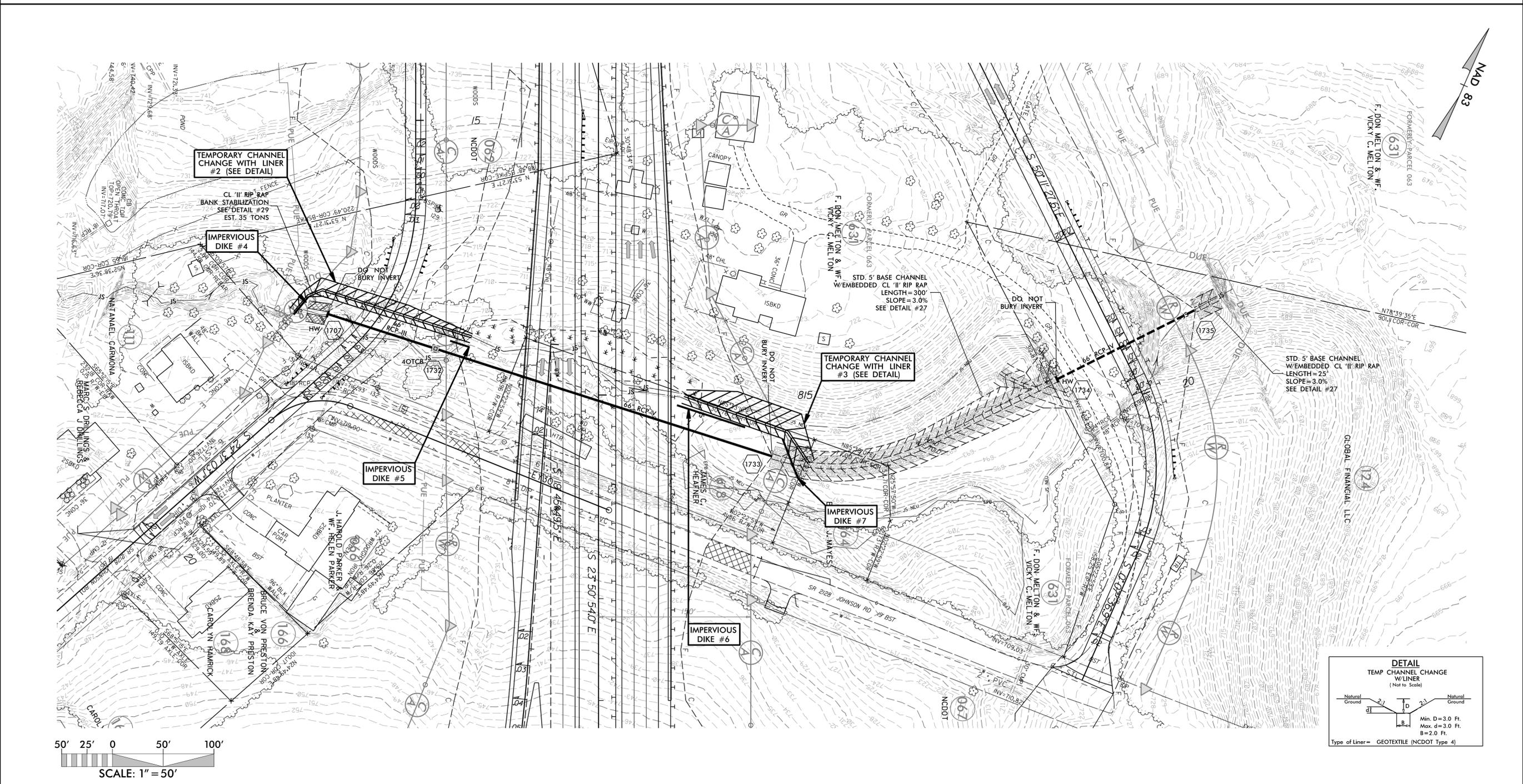


|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-2IC/CONST.17     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 66" RCP'S & 5FT BASE CHANNEL CONSTRUCTION SEQUENCE STA. 815+06 -L- /STA. 19+50 -SVRD5- UT TO BUFFALO CREEK

## PHASE III

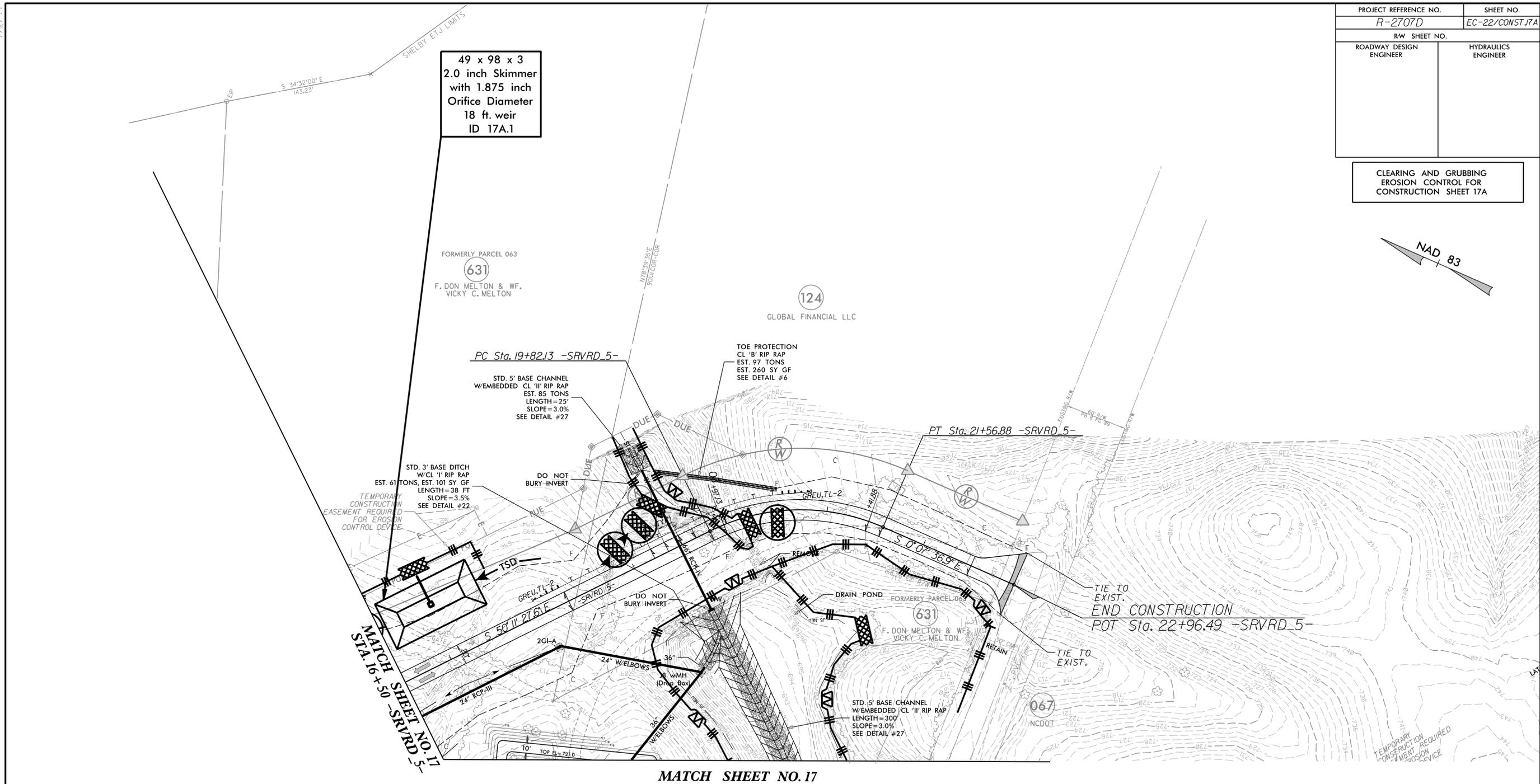
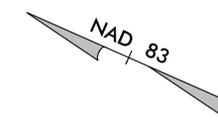
- 1.) CONSTRUCT TEMPORARY CHANNEL CHANGE #2 AND #3;
- 2.) INSTALL IMPERVIOUS DIKES #4, #5, #6, AND #7, DIVERTING FLOW THROUGH TEMPORARY CHANNEL CHANGES.
- 3.) DEWATER CONSTRUCTION AREA, UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 5.) INSTALL HEADWALL 1707, OTCB 1732 AND 66" RCP TO 5' BASE CHANNEL.
- 6.) EXCAVATE ANY ACCUMULATED SILT BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE IMPERVIOUS DIKES #4, #5, #6, AND #7 AND TEMPORARY CHANNEL CHANGES #2 AND #3.
- 8.) COMPLETE ROADWAY.



7/22/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| R-2707D                 | EC-22/CONST.17A     |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 17A



49 x 98 x 3  
2.0 inch Skimmer  
with 1.875 inch  
Orifice Diameter  
18 ft. weir  
ID 17A.1

FORMERLY PARCEL 063  
631  
F. DON MELTON & WF.  
VICKY C. MELTON

124  
GLOBAL FINANCIAL LLC

PC Sta. 19+82.13 -SRVRD\_5-

STD. 5' BASE CHANNEL  
W/EMBEDDED CL '1' RIP RAP  
EST. 85 TONS  
LENGTH=25'  
SLOPE=3.0%  
SEE DETAIL #27

TOE PROTECTION  
CL 'B' RIP RAP  
EST. 97 TONS  
EST. 260 SY GF  
SEE DETAIL #6

PT Sta. 21+56.88 -SRVRD\_5-

STD. 3' BASE DITCH  
W/CL '1' RIP RAP  
EST. 61 TONS, EST. 101 SY GF  
LENGTH=38 FT  
SLOPE=3.5%  
SEE DETAIL #22

TEMPORARY  
CONSTRUCTION  
EASEMENT REQUIRED  
FOR EROSION  
CONTROL DEVICE

DO NOT  
BURY INVERT

TIE TO  
EXIST.  
END CONSTRUCTION  
POT Sta. 22+96.49 -SRVRD\_5-

MATCH  
SHEET NO. 17  
STA. 16+50 -SRVRD\_5-

MATCH SHEET NO. 17

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