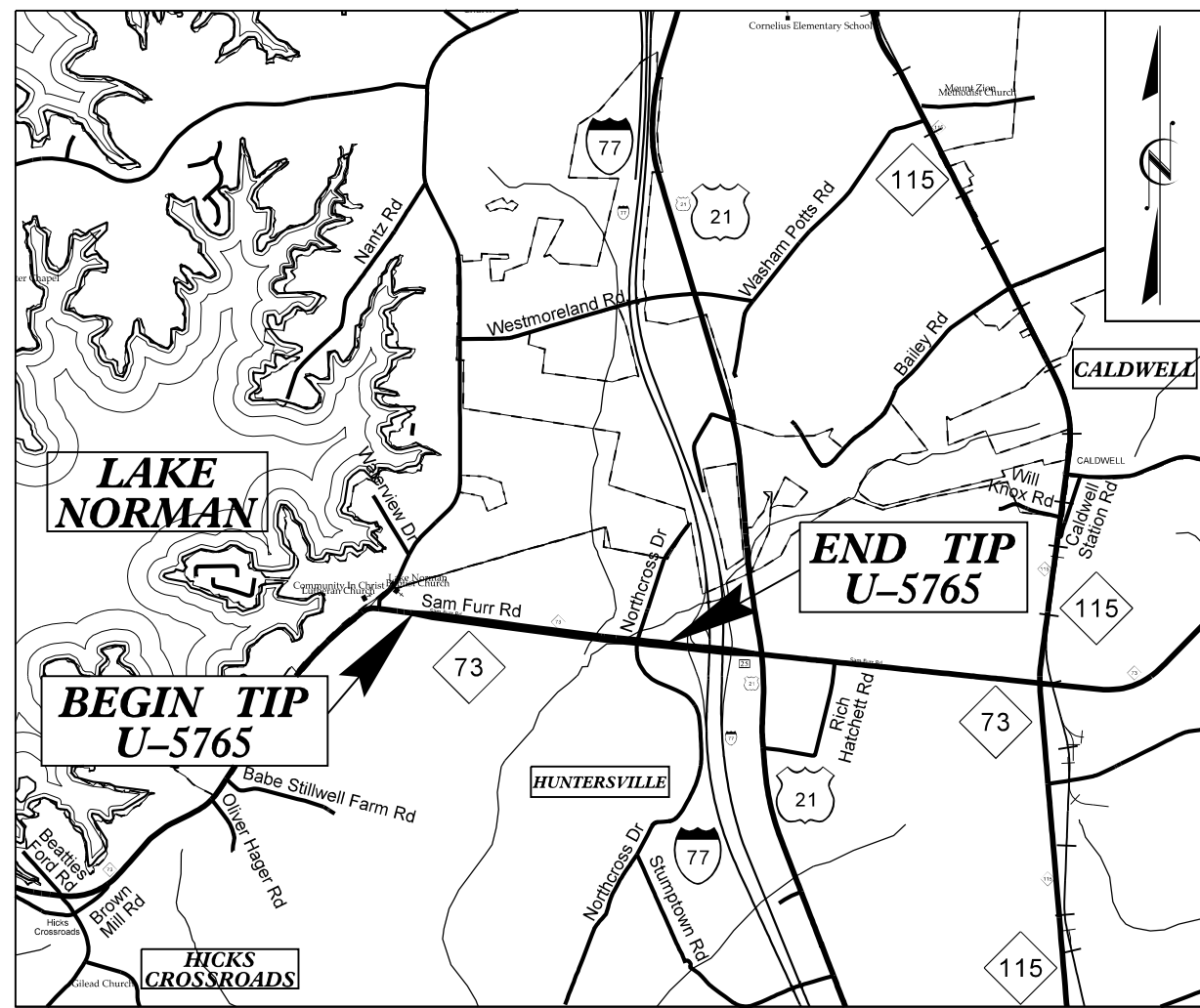


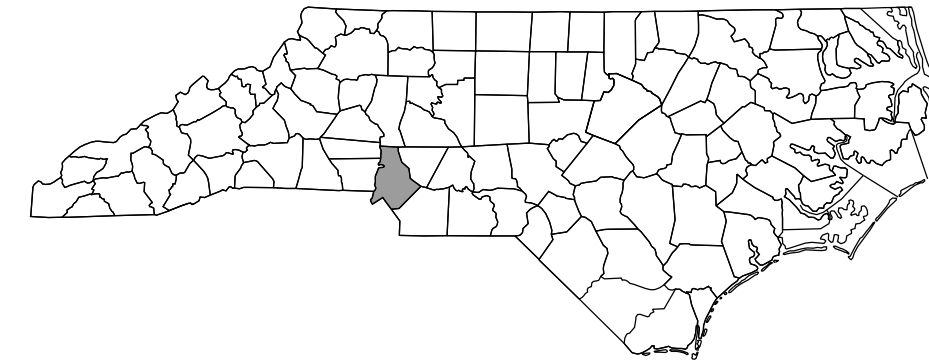
TIP PROJECT: U-5765/BL-0119



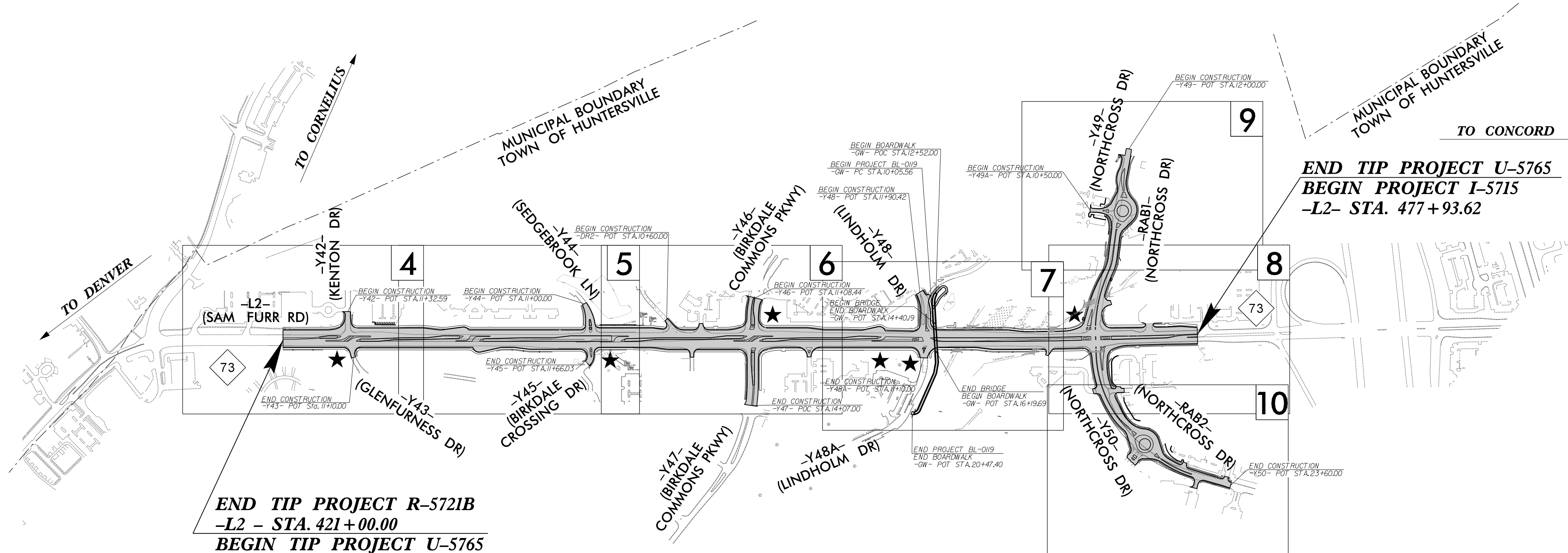
VICINITY MAP
NOT TO SCALE

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

LOCATION: NC 73 – SR 5544 (WEST CATAWBA AVENUE) TO
SR 2316 (NORTHCROSS DRIVE)
TYPE OF WORK: WIDENING, GRADING, DRAINAGE, PAVING, RETAINING WALLS,
SIGNALS, AND SIGNING



NAD 83/2011



NOTES:
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF HUNTERSVILLE.
CLEARING ON THIS PROJECT SHOULD BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
THIS PROJECT IS NOT A CONTROL OF ACCESS PROJECT BUT FULL CONTROL OF ACCESS WILL BE LIMITED TO POINTS AS SHOWN ON THE PLANS.

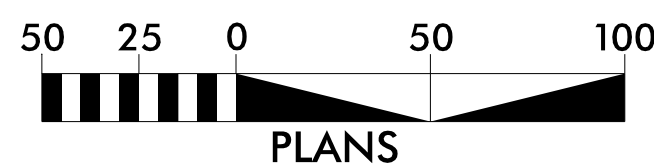
THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.

ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT

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

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

GRAPHIC SCALE



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



Prepared in the Office of:
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900
Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116
2024 STANDARD SPECIFICATIONS

Designed by:
David R. Wagner II, PE 4286
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
U-5765/BL-0119	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

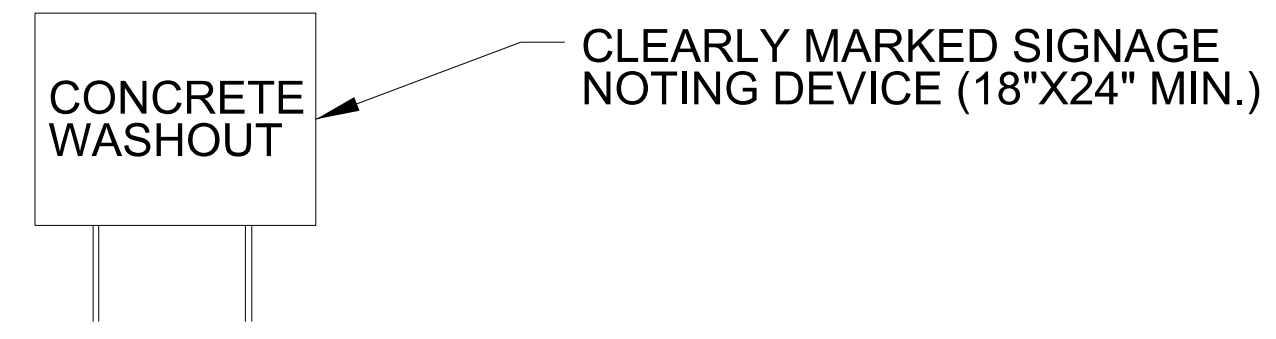
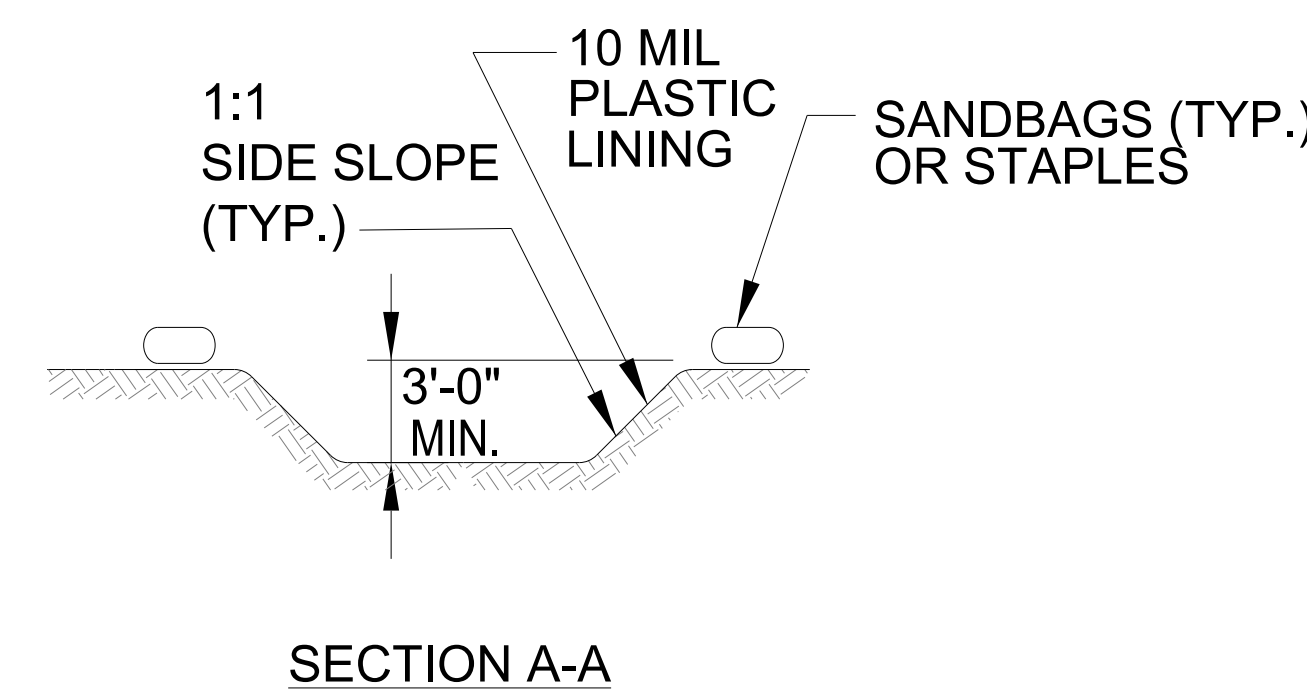
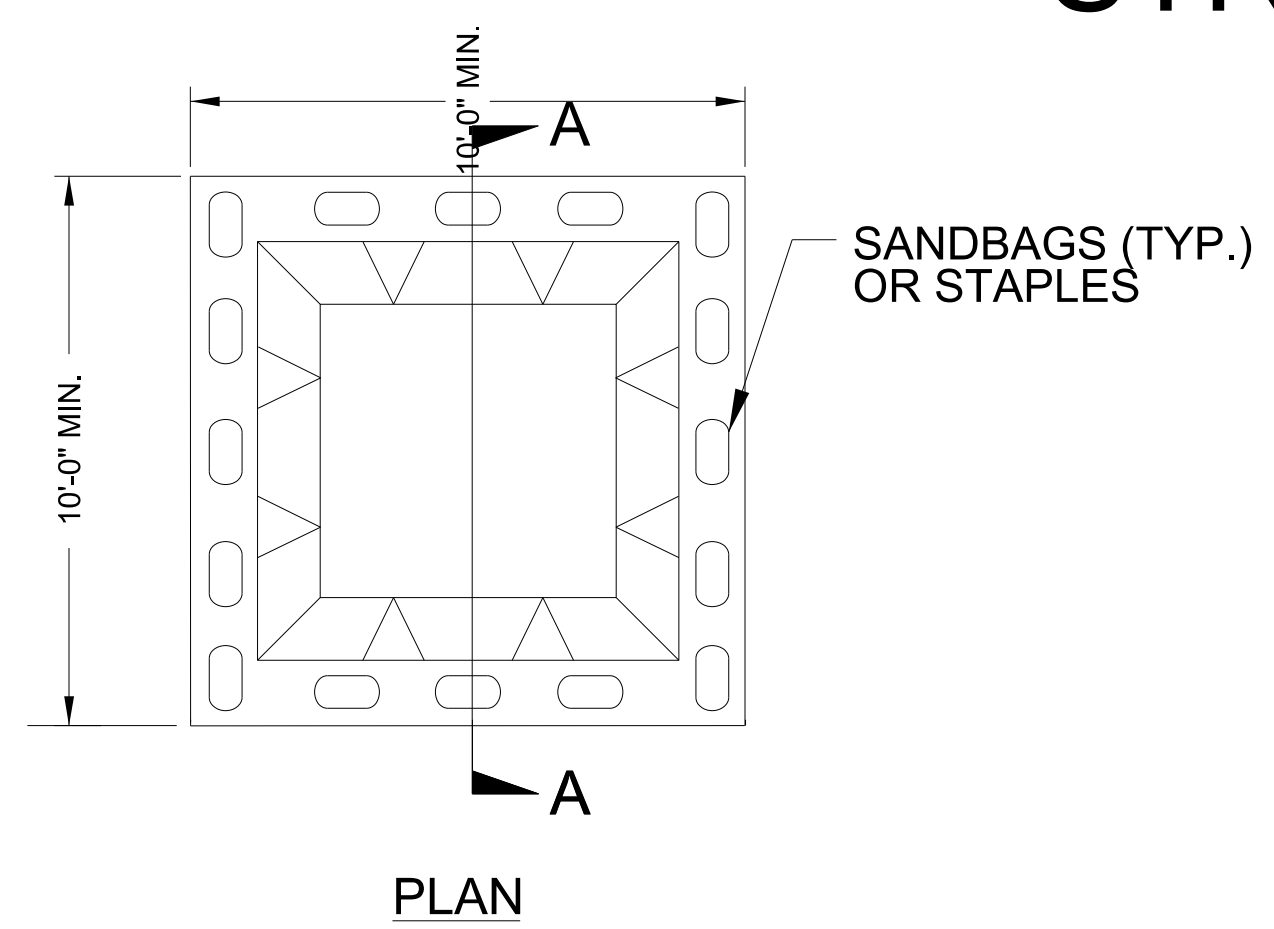
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	
1630.04	Stilling Basin	
1630.05	Temporary Diversion	
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	

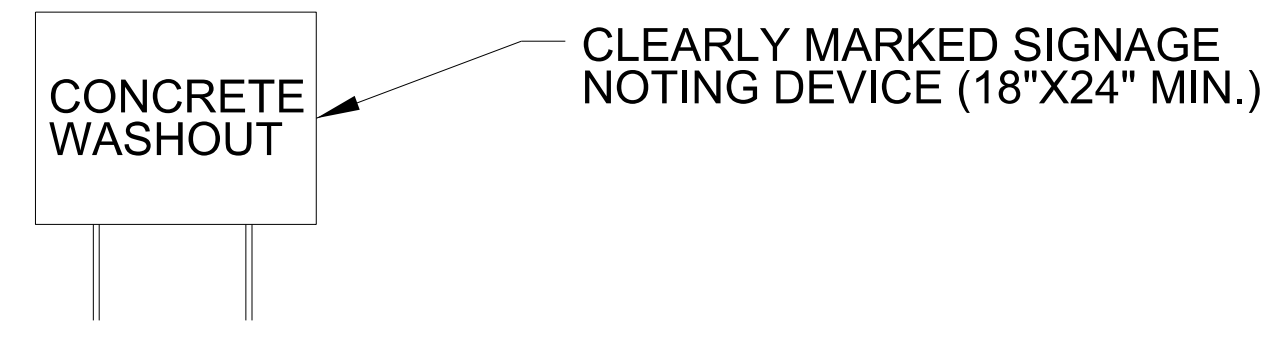
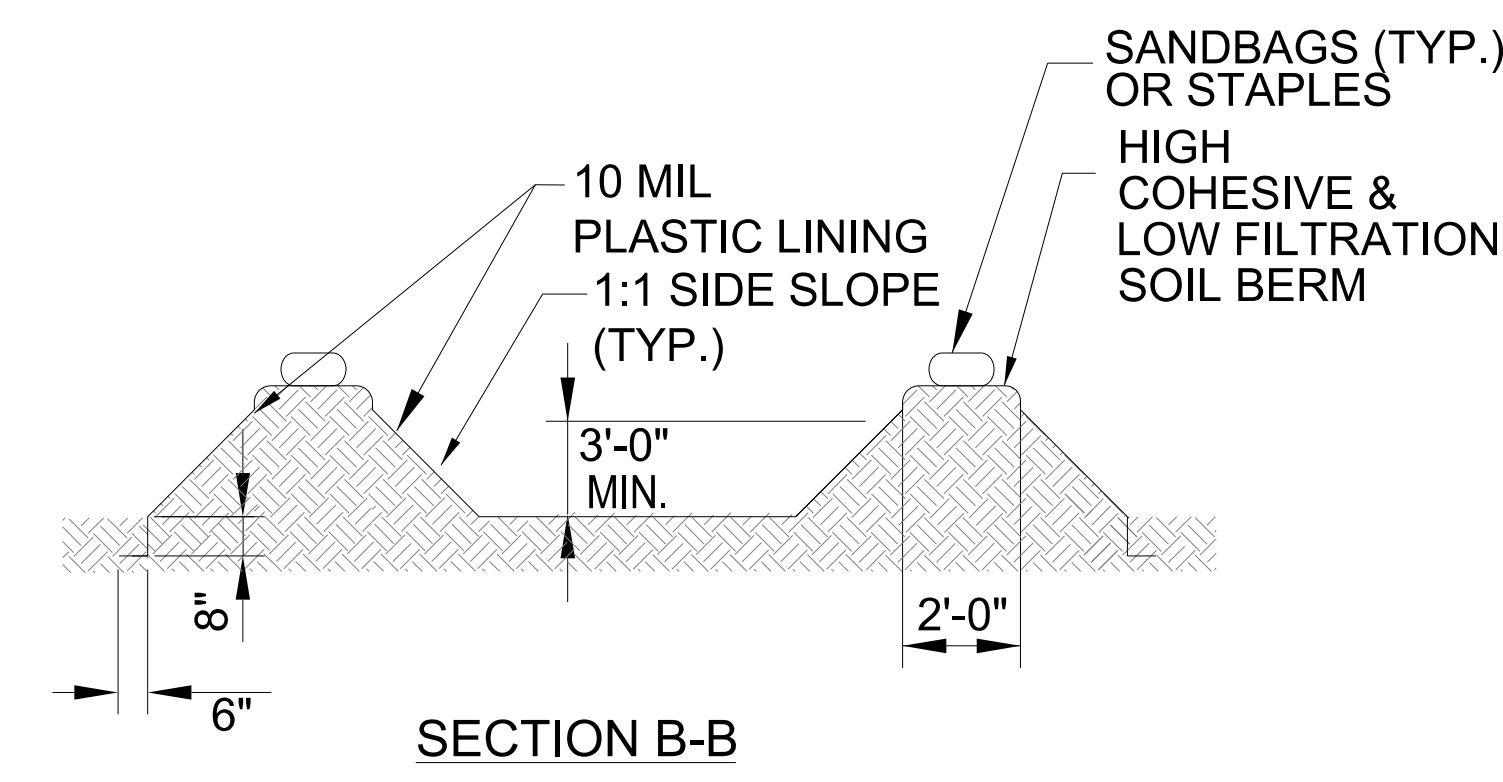
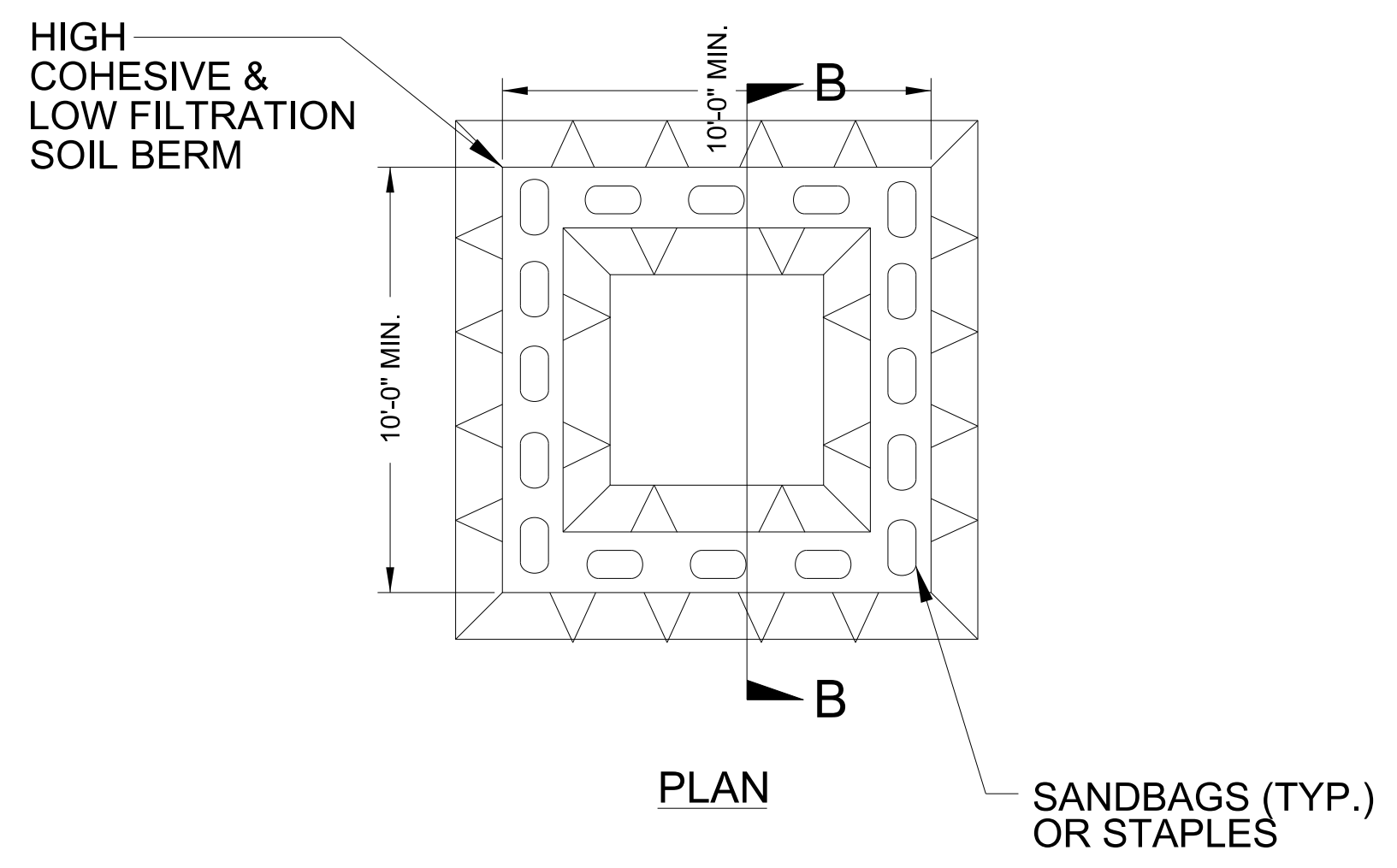
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	
1635.02	Rock Pipe Inlet Sediment Trap Type B	
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	
	Silt Fence Coir Fiber Wattle Break	
1636.03	Excelsior Wattle Barrier	
1636.03	Coir Fiber Wattle Barrier	

PROJECT REFERENCE NO.	SHEET NO.
U-5765/BL-0119	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE



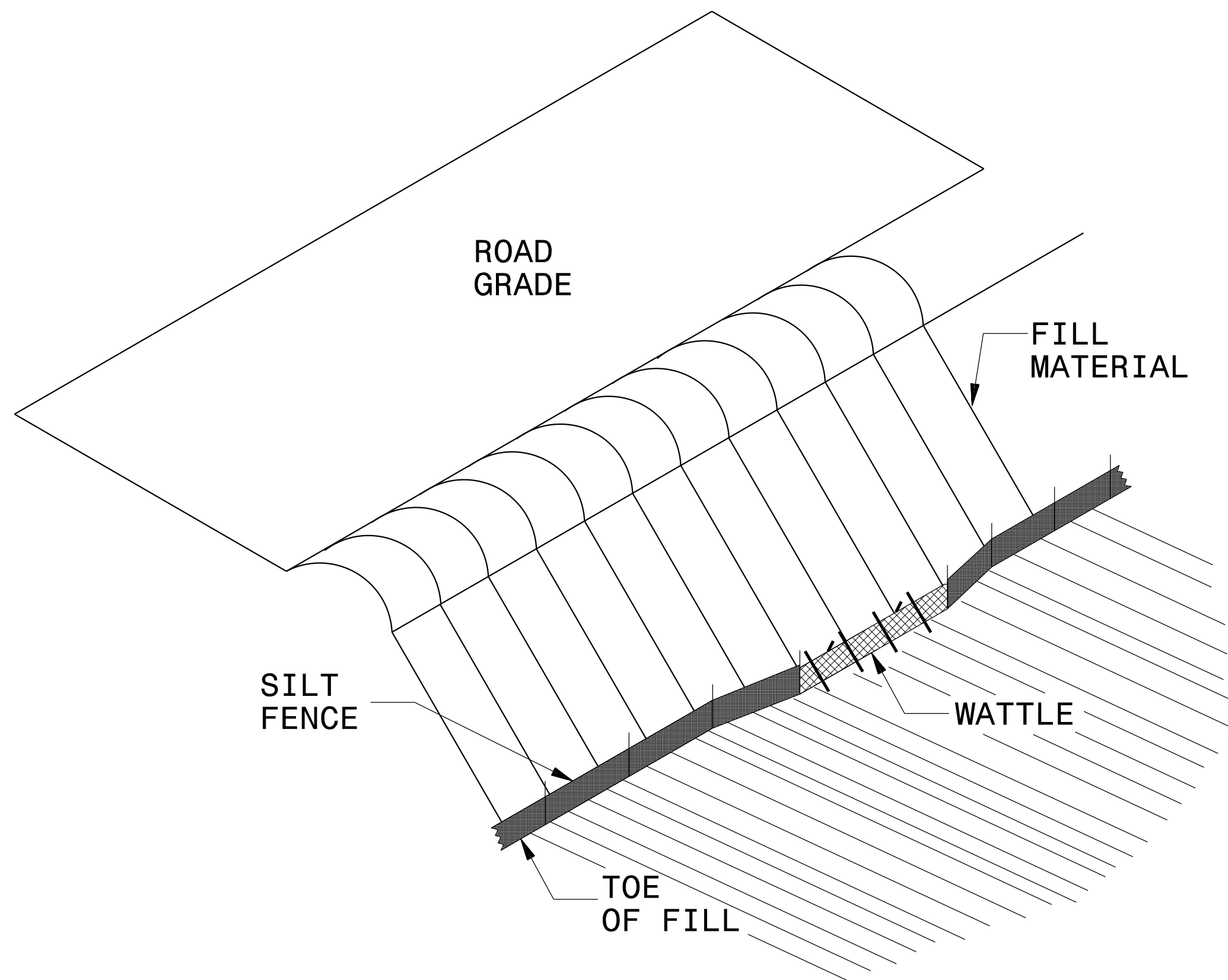
ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- 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.

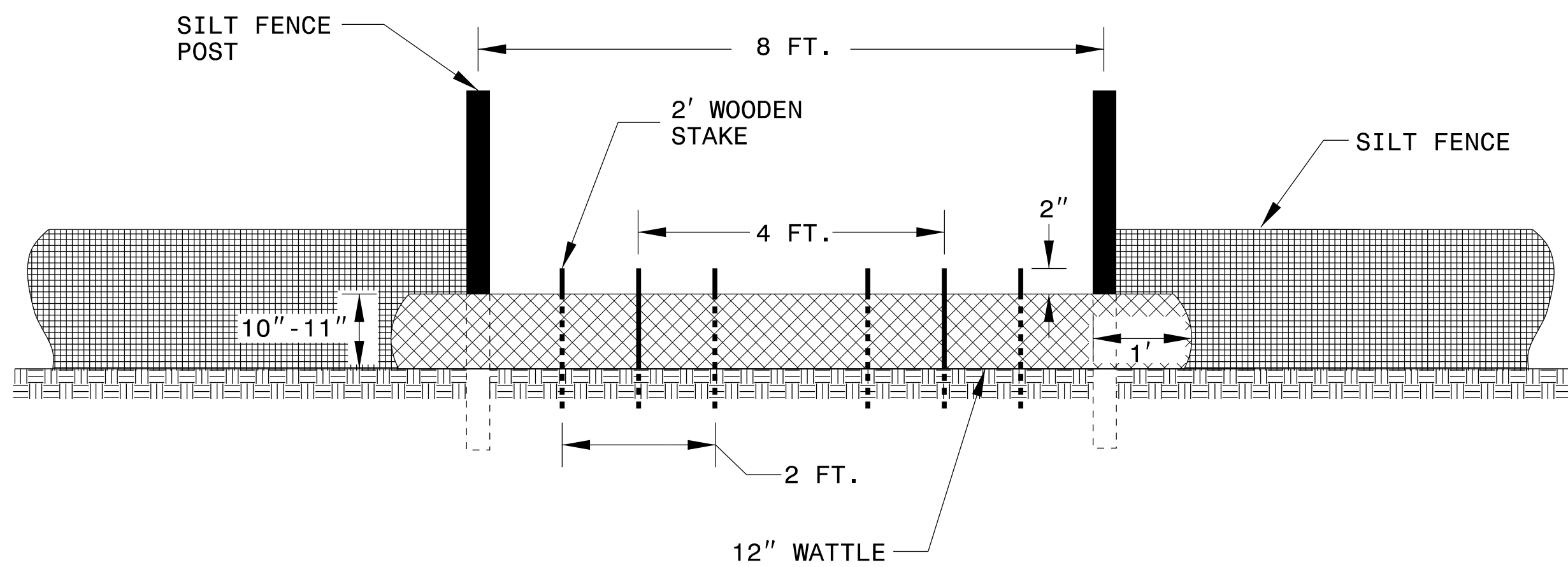
- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED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

SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO. <i>U-5765/BL-0119</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

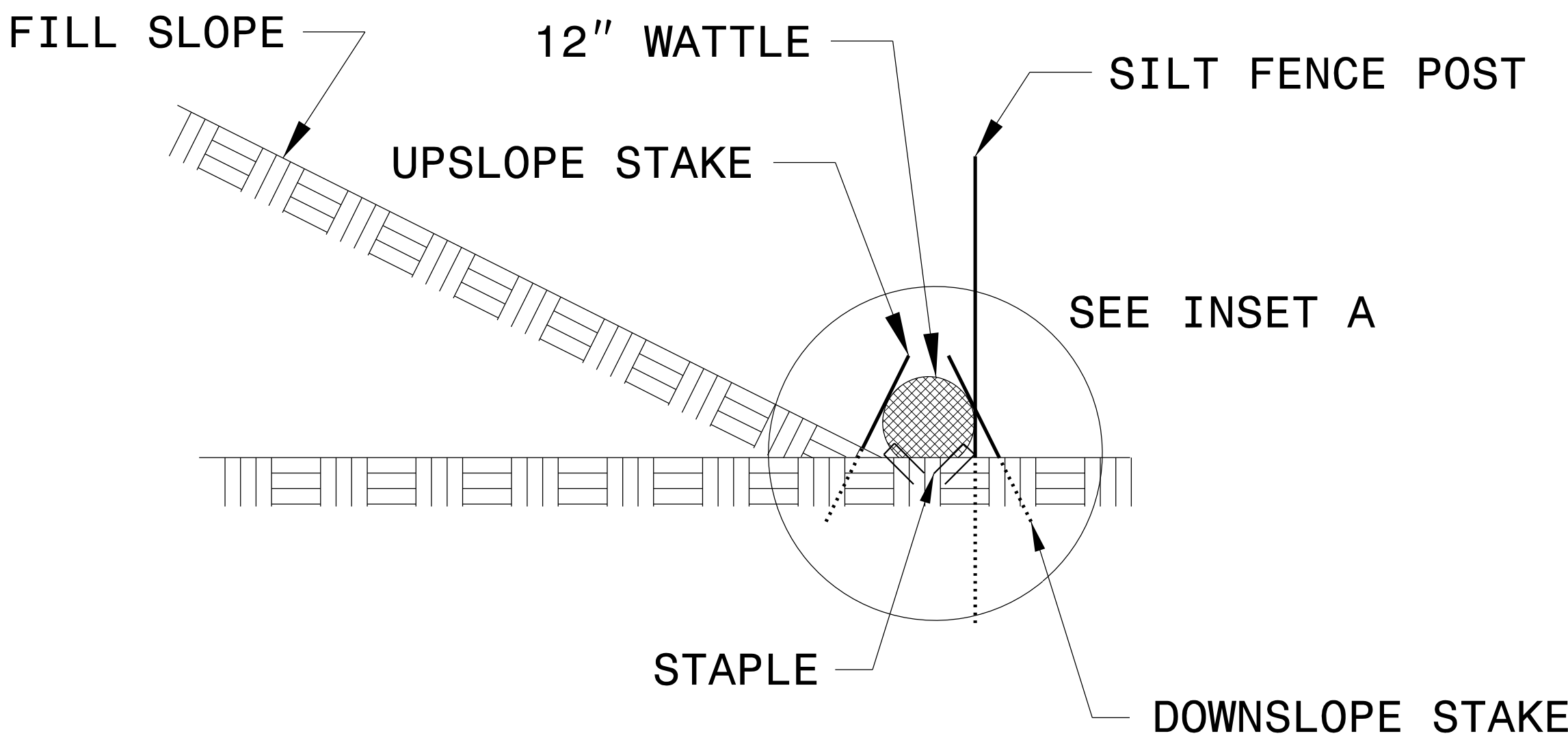
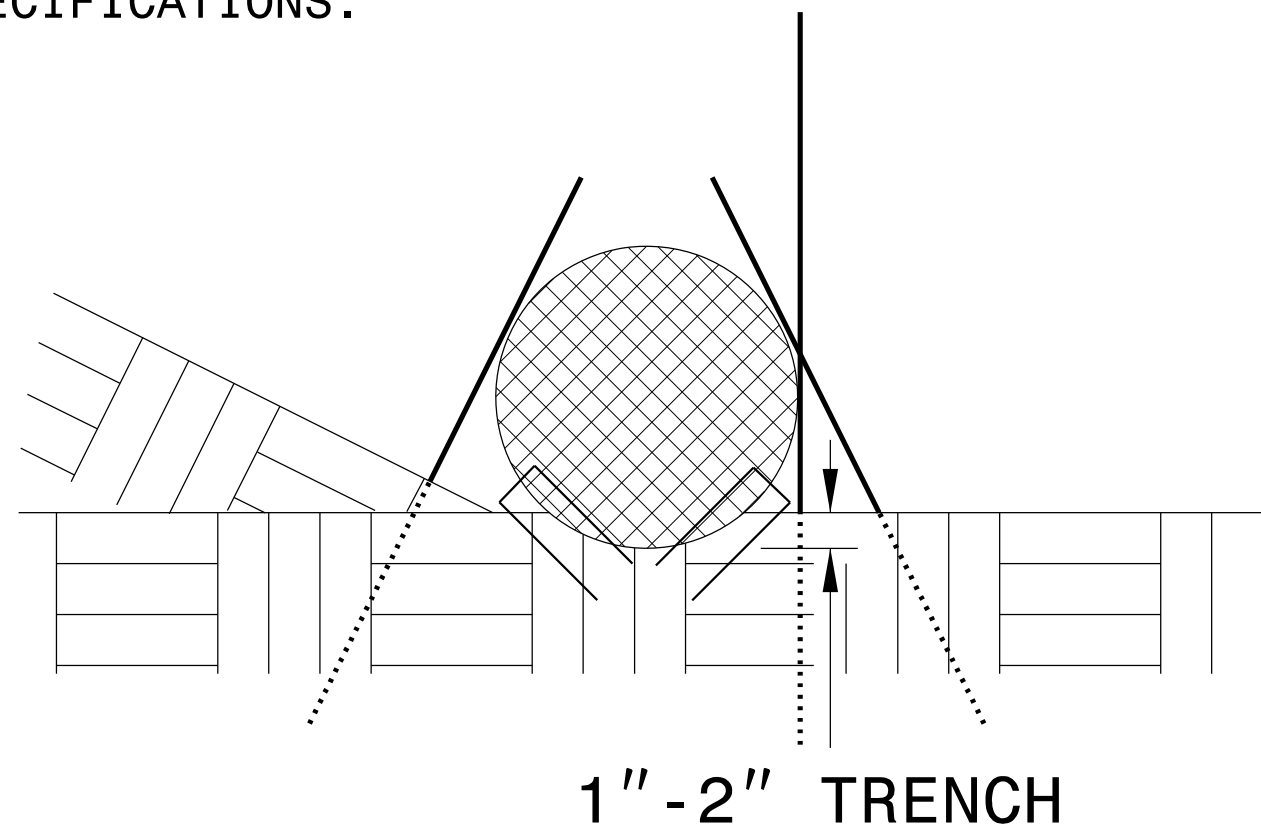
PROVIDE STAPLES MADE OF 11 GAUGE STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 6" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A



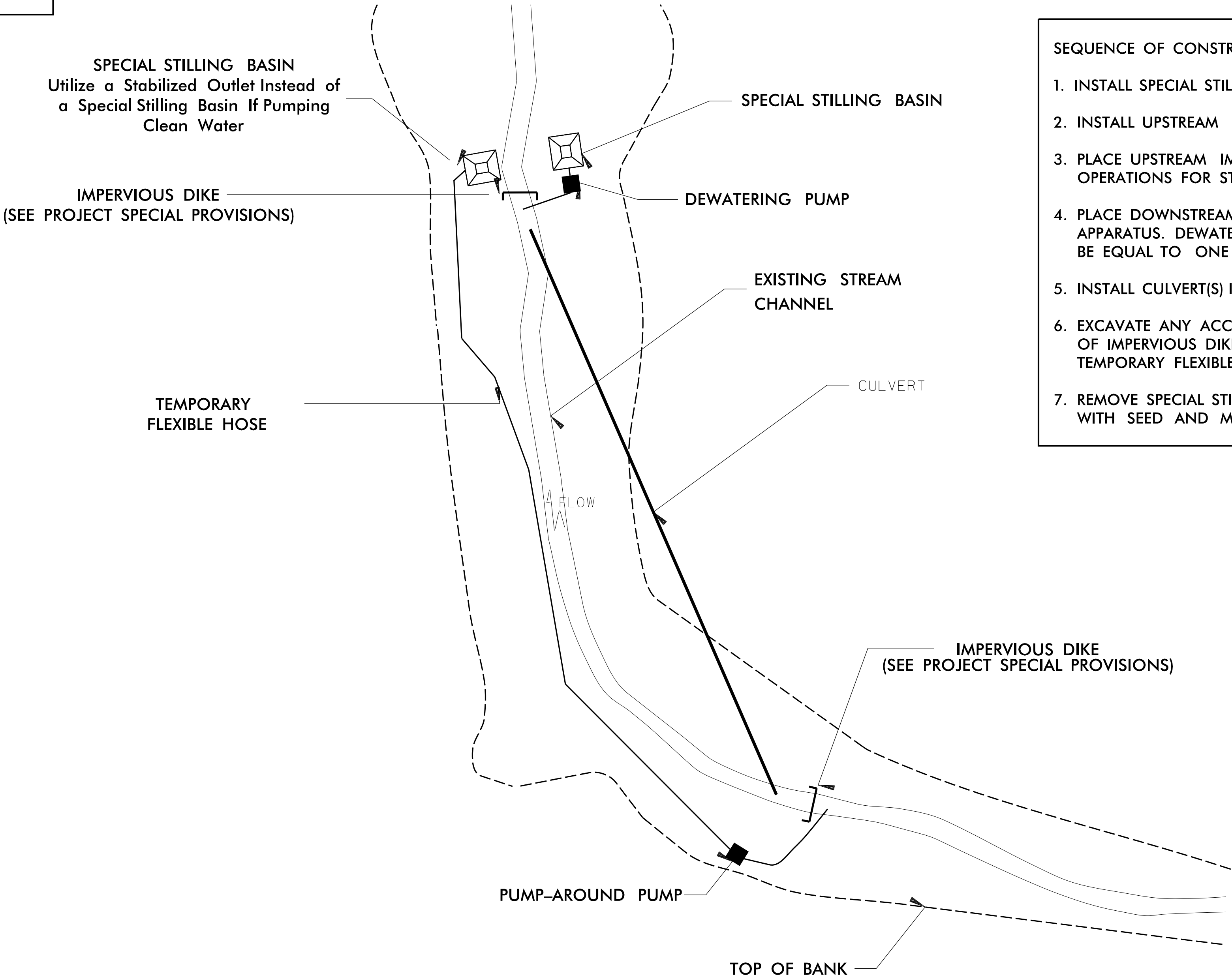
SIDE VIEW

EXAMPLE OF PUMP-AROUND OPERATION

PROJECT REFERENCE NO.	SHEET NO.
U-5765/BL-0119	EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

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 and quantity to dewater the work area and maintain stream bypass flow.



SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA

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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
<i>U-5765/BL-0119</i>	<i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING ON SLOPES

[illegible][illegible]

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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

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.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN
LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS
DIRECTED BY ENGINEER.

Designer Note: Proposed drainage ties into redlines under TIP R-5721B.
Represented on plans as shaded and grey.

SREE LAKE NORMAN TWO, LLC
DB 11962 PG 9

NAD 83/2011

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

END TIP PROJECT R-5721B
BEGIN TIP PROJECT U-5765
-L2- POT STA. 421+00.00 (R-5721B) =
-L2- POT STA. 421+00.00 (U-5765)

-Y42- POT Sta. 10+00.00

-L2- POT Sta. 425+04.00 =
-Y42- POT Sta. 13+10.06

-L2- POT Sta. 425+16.62 =
-Y43- POT Sta. 10+00.00

-Y43- PC Sta. 10+74.46

-Y43- PT Sta. 12+71.84

-L2 LT- PT Sta. 414+91.25 39' LT=
-L2 RT- PT Sta. 414+60.23 20' RT=
-L2- POT Sta. 414+91.25

2 @ 50 x 16 x 3
1.5 inch Skimmer
with 1 inch
Orifice Diameter
6 ft. weir
ID 4.1

FOR -L- PROFILE, SEE PROFILE SHEET 11
FOR -Y42- PROFILE, SEE PROFILE SHEET 14
FOR -Y43- PROFILE, SEE PROFILE 14

MATCHLINE -L2- STA. 429 + 40, SEE SHEET 5

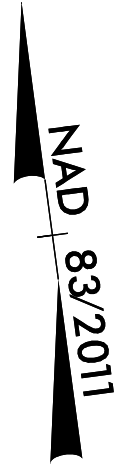
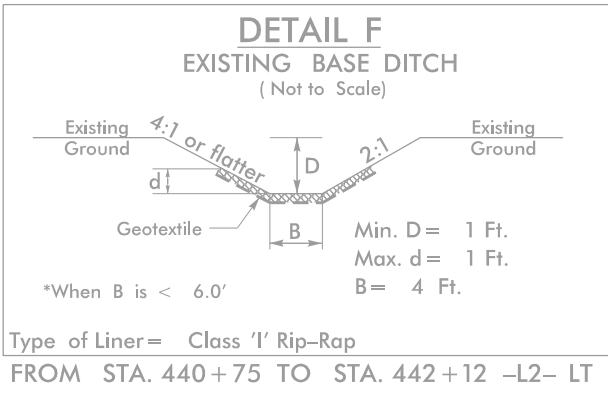
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USER: DWAGNER
DATE: 5/20/2026
FILE: \

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.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN
LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS
DIRECTED BY ENGINEER.



PROJECT REFERENCE NO.	SHEET NO.
U-5765/BL-0119	EC-05/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

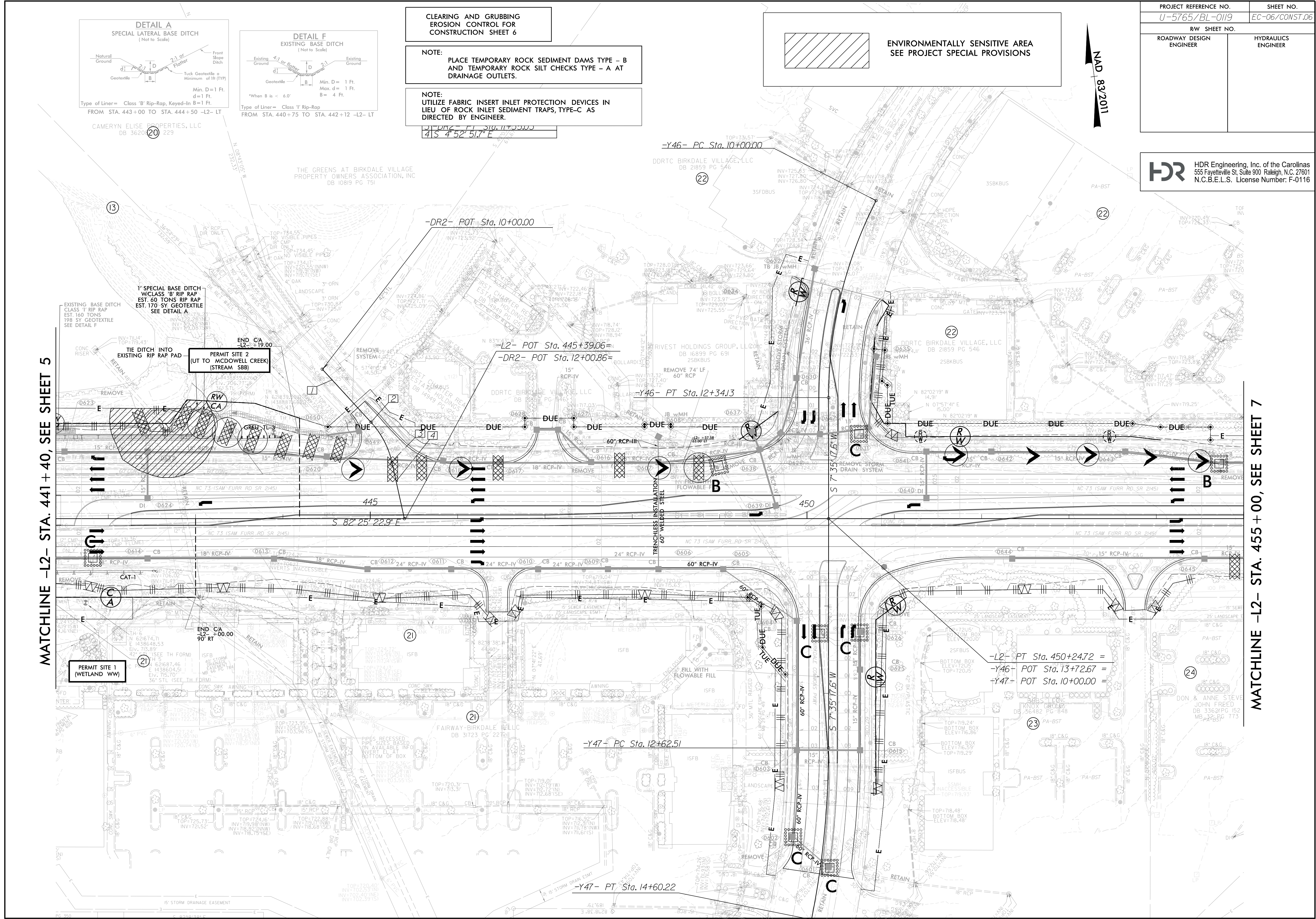
2 @ 68 x 17 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
9 ft. weir
ID 5.2

2 @ 41 x 18 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
6 ft. weir
ID 5.1

MATCHLINE -L2- STA. 429 + 40, SEE SHEET 4

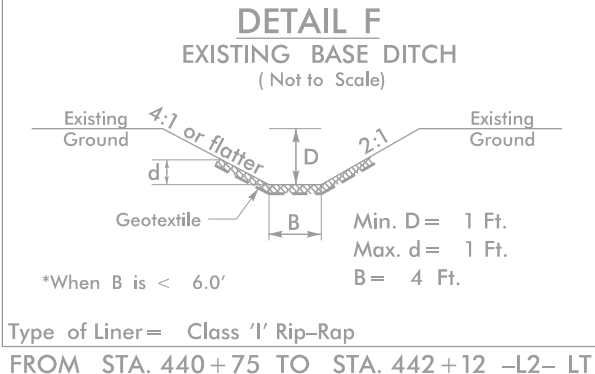
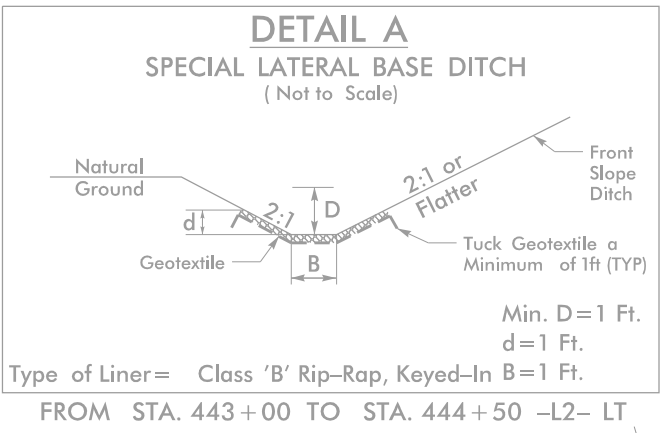
MATCHLINE -L2- STA. 441 + 40, SEE SHEET 6

FOR -L- PROFILE, SEE PROFILE SHEET 11
FOR -Y42- PROFILE, SEE PROFILE SHEET 14
FOR -Y43- PROFILE, SEE PROFILE 14



MATCHLINE -L2- STA. 441+40, SEE SHEET 5

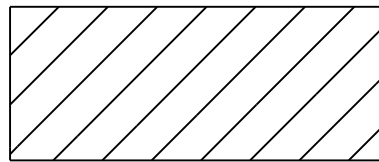
MATCHLINE -L2- STA. 455+00, SEE SHEET 7



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.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN
LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS
DIRECTED BY ENGINEER.



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NAD 83/2011

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

-L2- PT Sta. 450+247.2 =
-Y46- POT Sta. 13+72.67 =
-Y47- POT Sta. 10+00.00 =

-Y47- PC Sta. 12+62.51

-Y47- PT Sta. 14+60.22

MATCHLINE -L2- STA. 455+00, SEE SHEET 6

MATCHLINE -L- STA. 469+25, SEE SHEET 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.

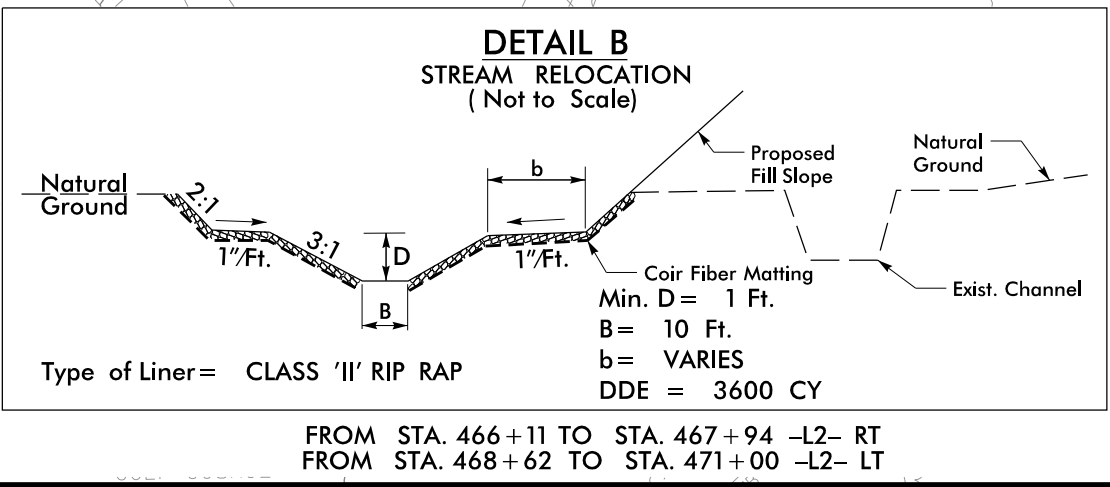
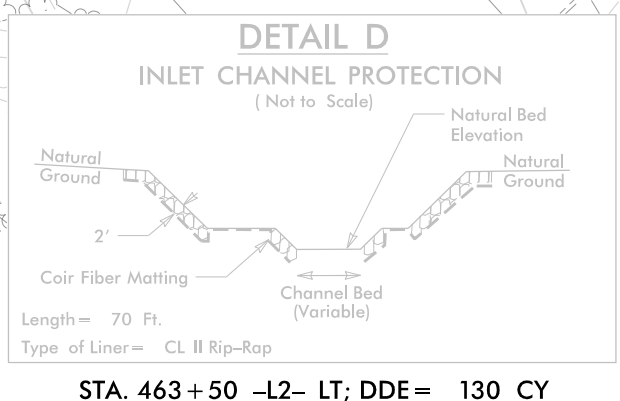
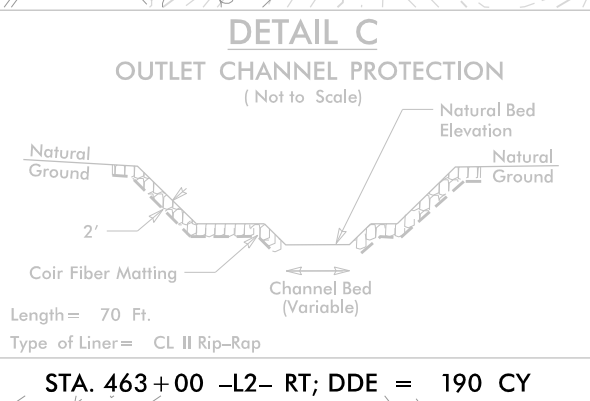
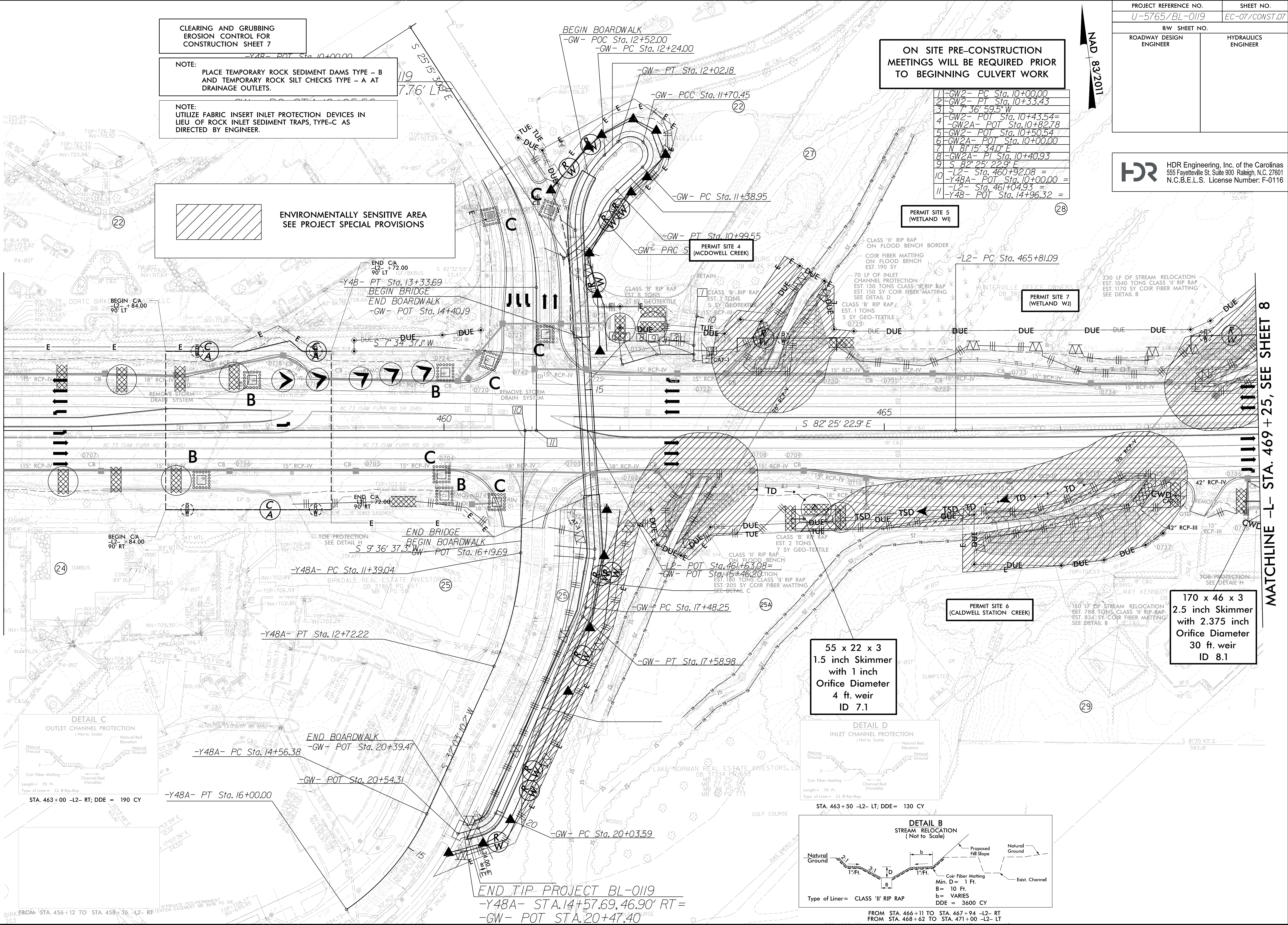
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN
LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS
DIRECTED BY ENGINEER.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

ON SITE PRE-CONSTRUCTION
MEETINGS WILL BE REQUIRED PRIOR
TO BEGINNING CULVERT WORK

1	-GW2- PC Sta. 10+00.00
2	-GW2- PT Sta. 10+33.43
3	S 36° 59' 5" W
4	-GW2- POT Sta. 10+43.54
5	-GW2A- POT Sta. 10+82.78
6	-GW2A- POT Sta. 10+50.54
7	N 81° 15' 34.0" E
8	-GW2A- PT Sta. 10+40.93
9	S 82° 25' 22.9" E
10	-L2- Sta. 460+92.08 =
-Y48A- POT Sta. 10+00.00 =	
-L2- Sta. 461+04.93 =	
-Y48- POT Sta. 14+96.32 =	

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

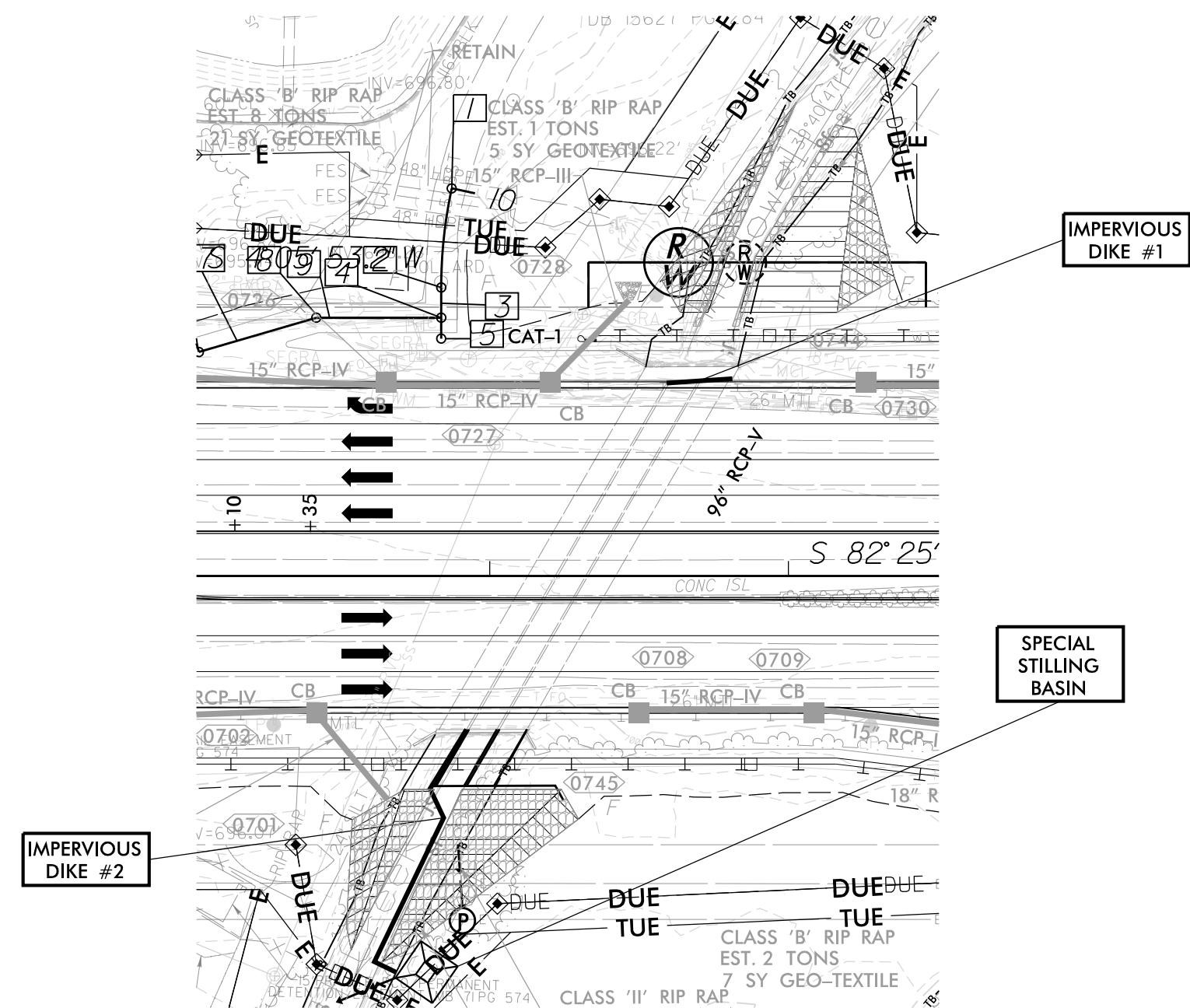


END TIP PROJECT BL-0119
-Y48A- STA. 14+57.69, 46.90' RT =
-GW- POT STA. 20+47.40

3 @ 8' X 9' RCBC CULVERT CONSTRUCTION SEQUENCE STA. 463+27 -L-

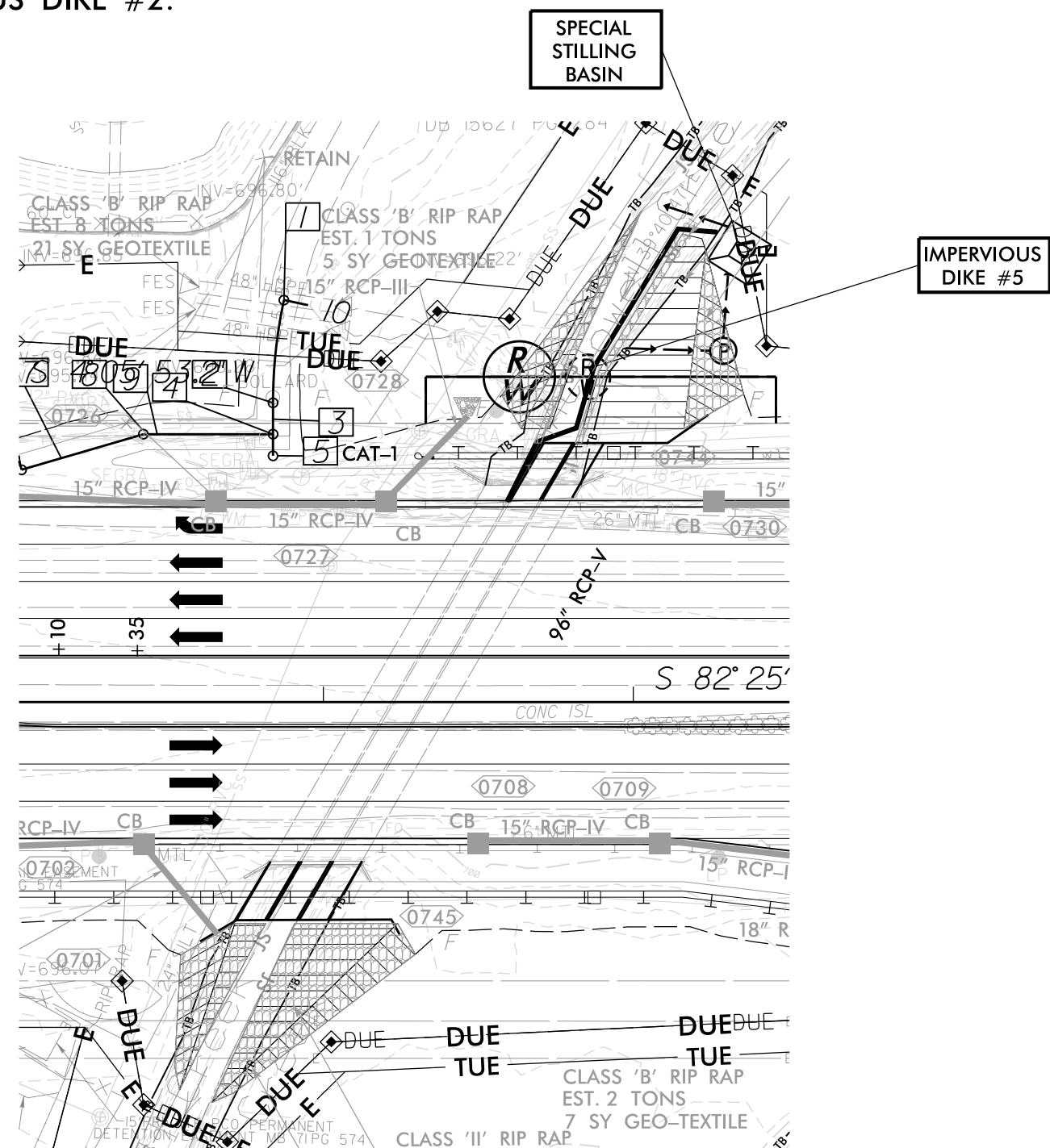
PROJECT REFERENCE NO.	SHEET NO.
U-5765/BL-0119	EC-7A/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOT TO SCALE



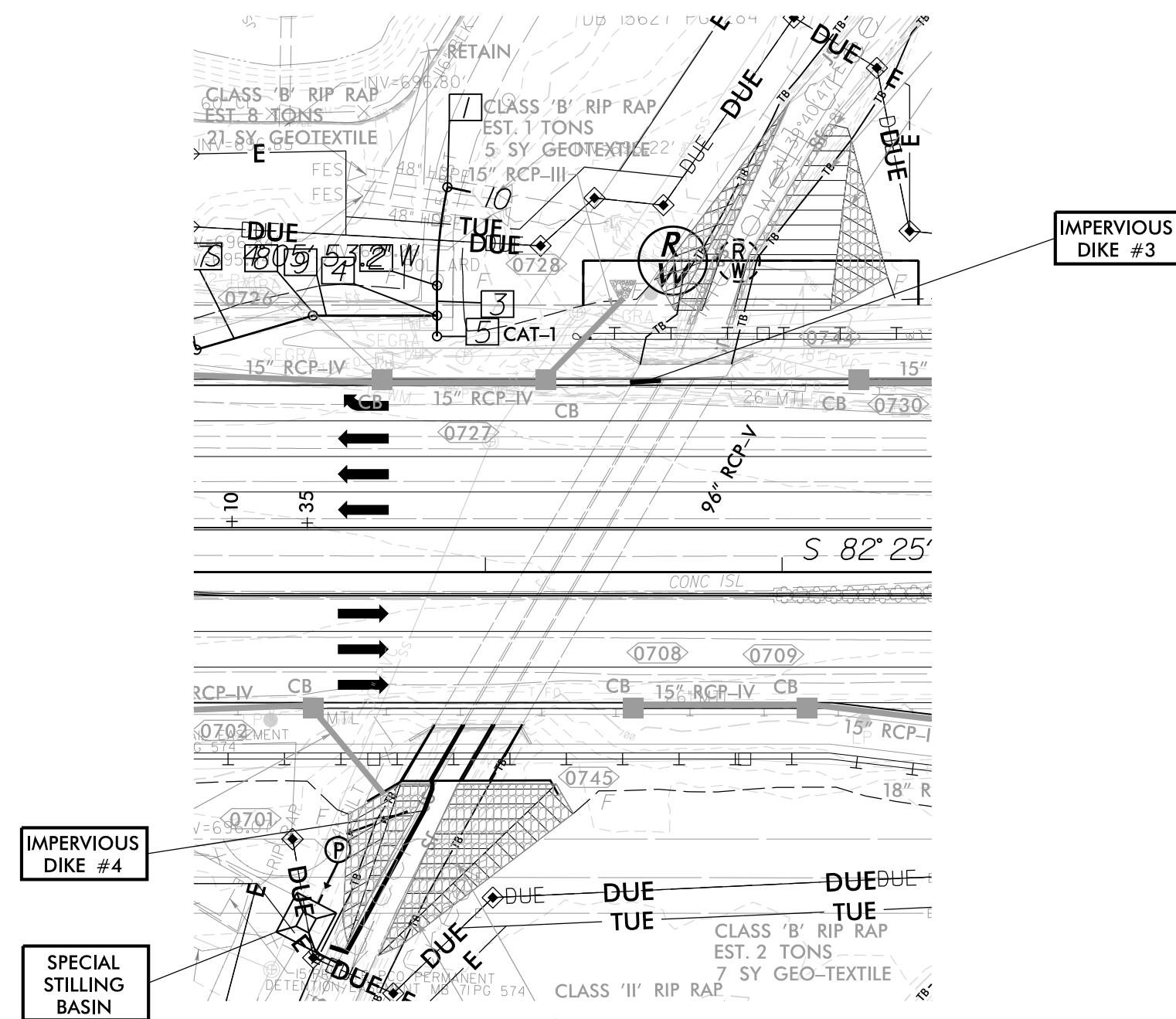
PHASE I

1. INSTALL IMPERVIOUS DIKE #1 AND #2 AND DIVERT FLOW THROUGH WESTERN BARREL. CLEAN OUT BARREL AS NEEDED TO ALLOW CAPACITY FOR FLOW.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 8'X9' RCBC AS SHOWN.
4. COMPLETE PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #2.



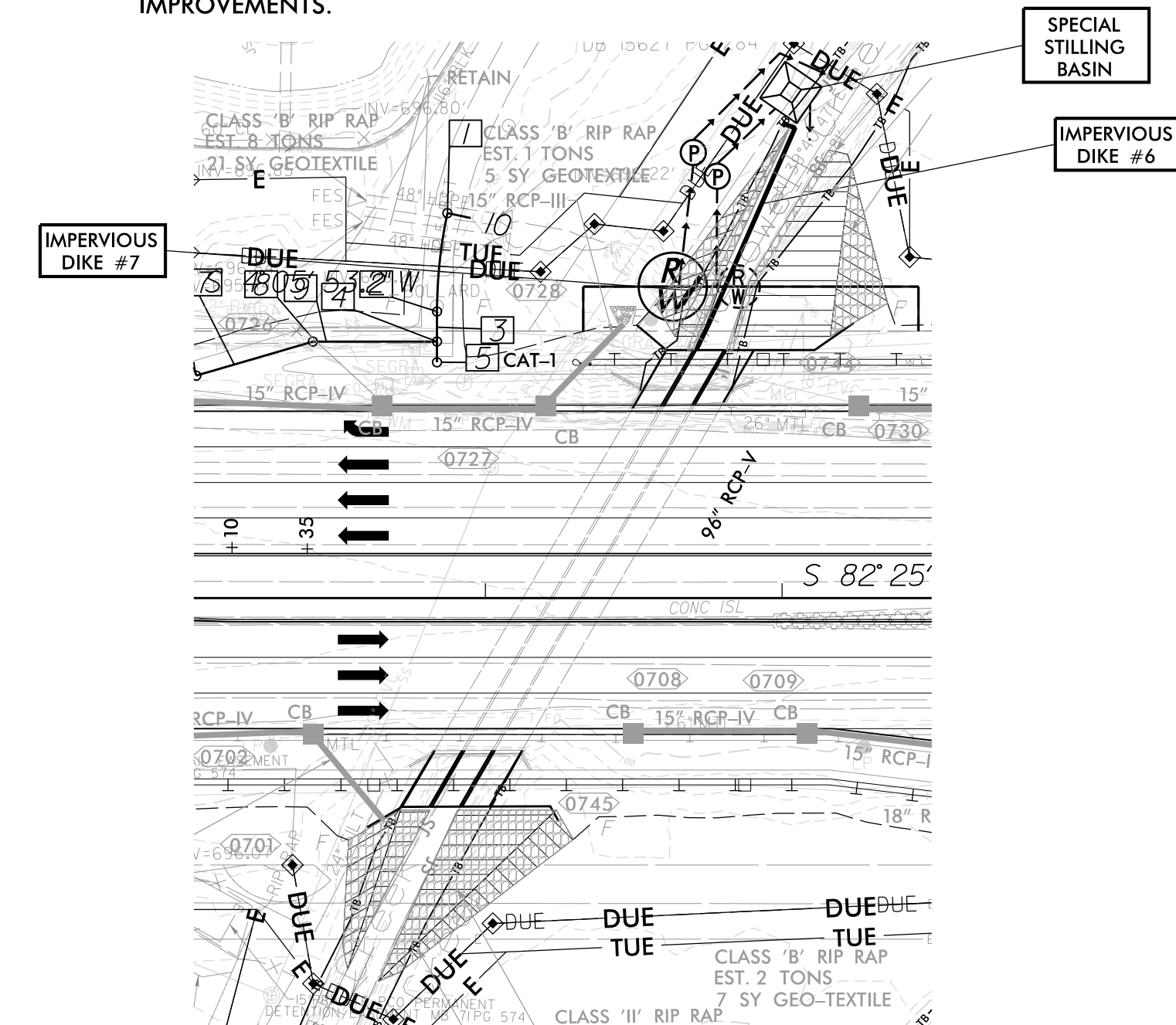
PHASE III

1. INSTALL IMPERVIOUS DIKE #5 AND DIVERT FLOW THROUGH WESTERN BARREL. CLEAN OUT BARREL AS NEEDED TO ALLOW CAPACITY FOR FLOW.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 8'X9' RCBC AS SHOWN.
4. COMPLETE PORTION OF UPSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #5.



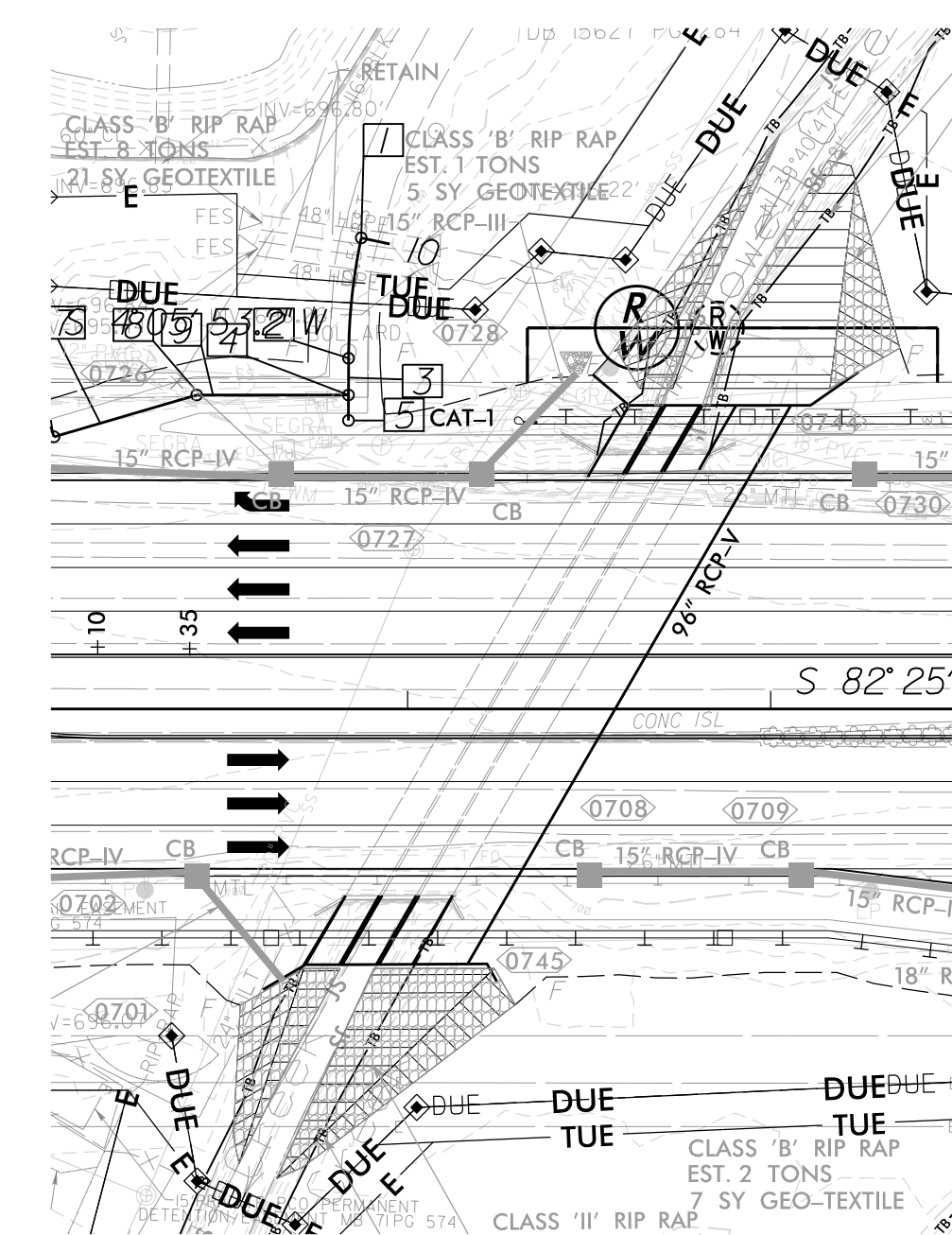
PHASE II

1. REMOVE IMPERVIOUS DIKES #1 AND #2 AND INSTALL IMPERVIOUS DIKES #3 AND #4 TO DIVERT FLOW THROUGH EXISTING CENTER BARREL ON UPSTREAM SIDE AND EXTENDED BARREL ON DOWNSTREAM SIDE.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 8'X9' RCBC AS SHOWN.
4. COMPLETE PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #4.
5. USE PUMP-AROUND OPERATION AND TEMPORARY IMPERVIOUS DIKES TO COMPLETE REMAINING PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS.



PHASE IV

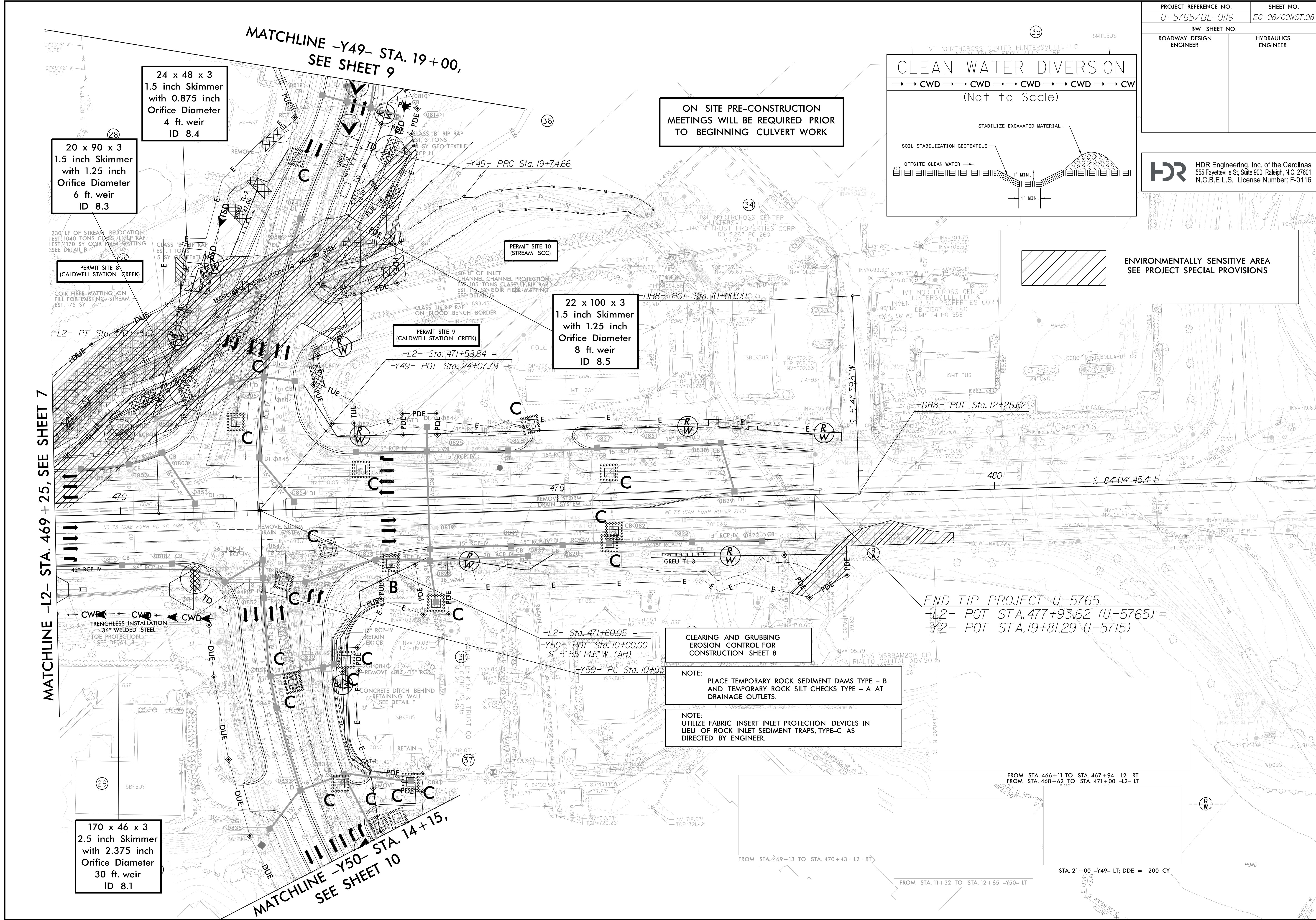
1. INSTALL IMPERVIOUS DIKE #6 AND #7 AND DIVERT FLOW THROUGH NEWLY FINISHED CENTRAL AND EASTERN BARRELS. CLEAN OUT BARRELS AS NEEDED TO ALLOW CAPACITY FOR FLOW.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 8'X9' RCBC AS SHOWN.
4. COMPLETE PORTION OF UPSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #6.
5. USE PUMP-AROUND OPERATION AND TEMPORARY IMPERVIOUS DIKES TO COMPLETE REMAINING PORTION OF UPSTREAM CHANNEL IMPROVEMENTS.



96" RCP-IV INSTALLATION PHASE

1. INSTALLATION OF 96" PIPE TO FOLLOW UPSTREAM AND DOWNSTREAM CULVERT EXTENSION WORK IN ACCORDANCE WITH TMP.
2. STREAM FLOW WILL BE MAINTAINED IN COMPLETED CULVERT EXTENSION DURING INSTALLATION OF 96" RCP-IV.
3. UTILIZE IMPERVIOUS DIKES OR OTHER MEANS AS NEEDED TO ISOLATE WORK AREAS FROM CHANNEL FLOW.
4. COMPLETE REMAINING HEADWALL CONSTRUCTION AND FINALIZE CHANNEL IMPROVEMENTS.

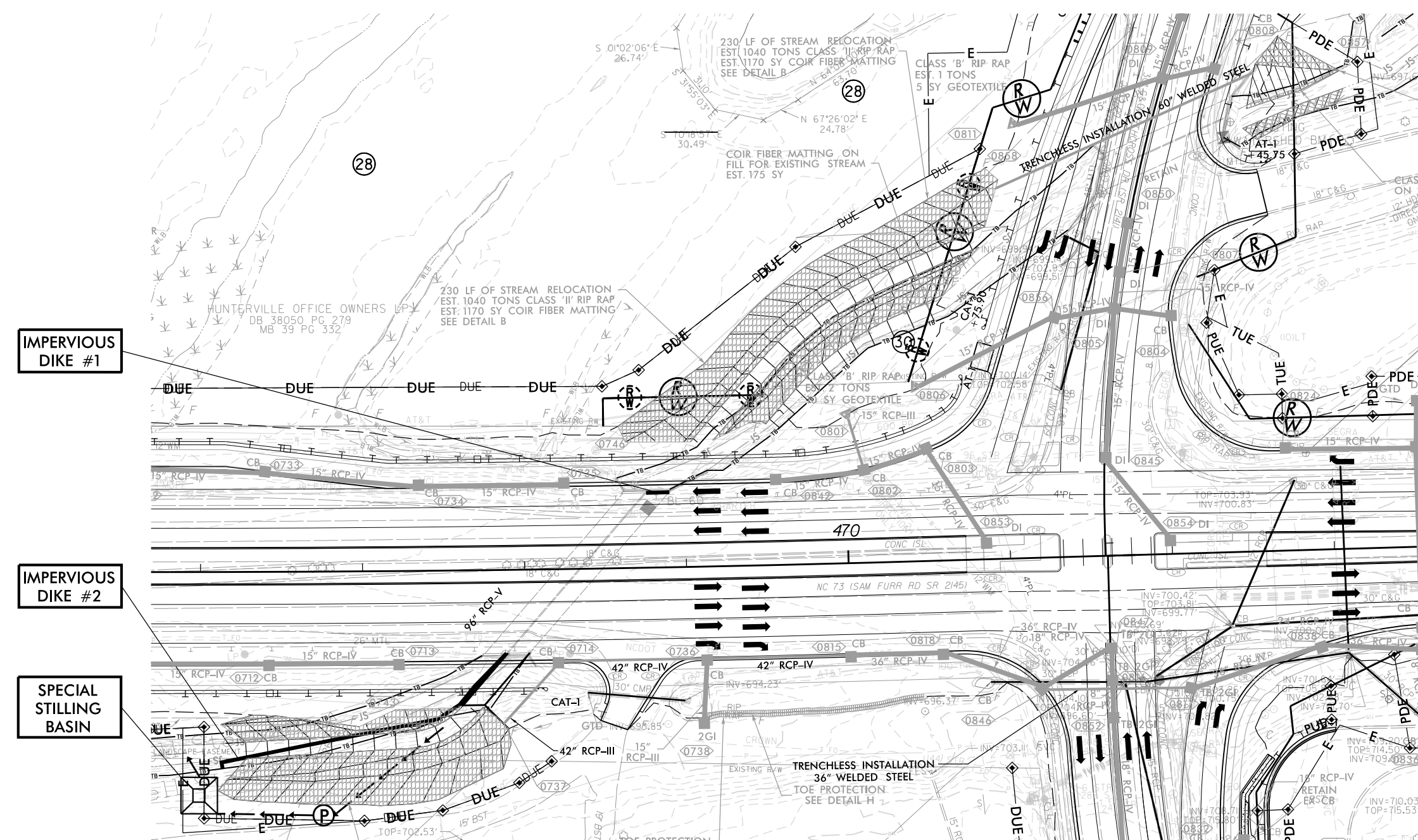
PHASING OF CULVERT CONSTRUCTION TO BE IN COMPLIANCE WITH TRANSPORTATION MANAGEMENT PLAN (TMP).



PROJECT REFERENCE NO. <i>U-5765/BL-0119</i>		SHEET NO. <i>EC-08/CONST.08</i>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
		HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

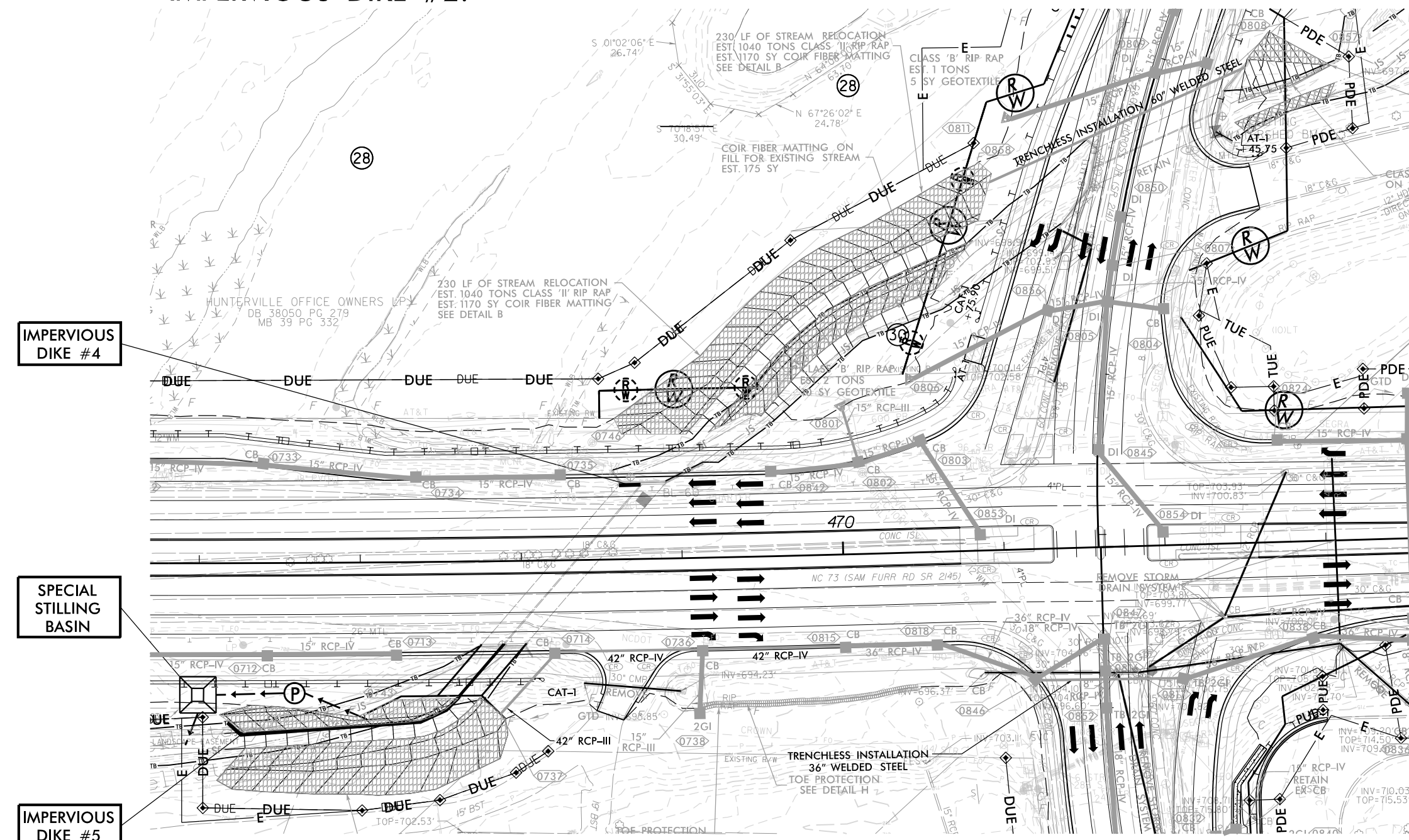
2 @ 10' X 9' RCBC AND 2 @ 10' X 8' RCBC CULVERT CONSTRUCTION SEQUENCE -L- @ -Y49-

PROJECT REFERENCE NO.	SHEET NO.
U-5765/BL-0119	EC-8A/CONST.B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



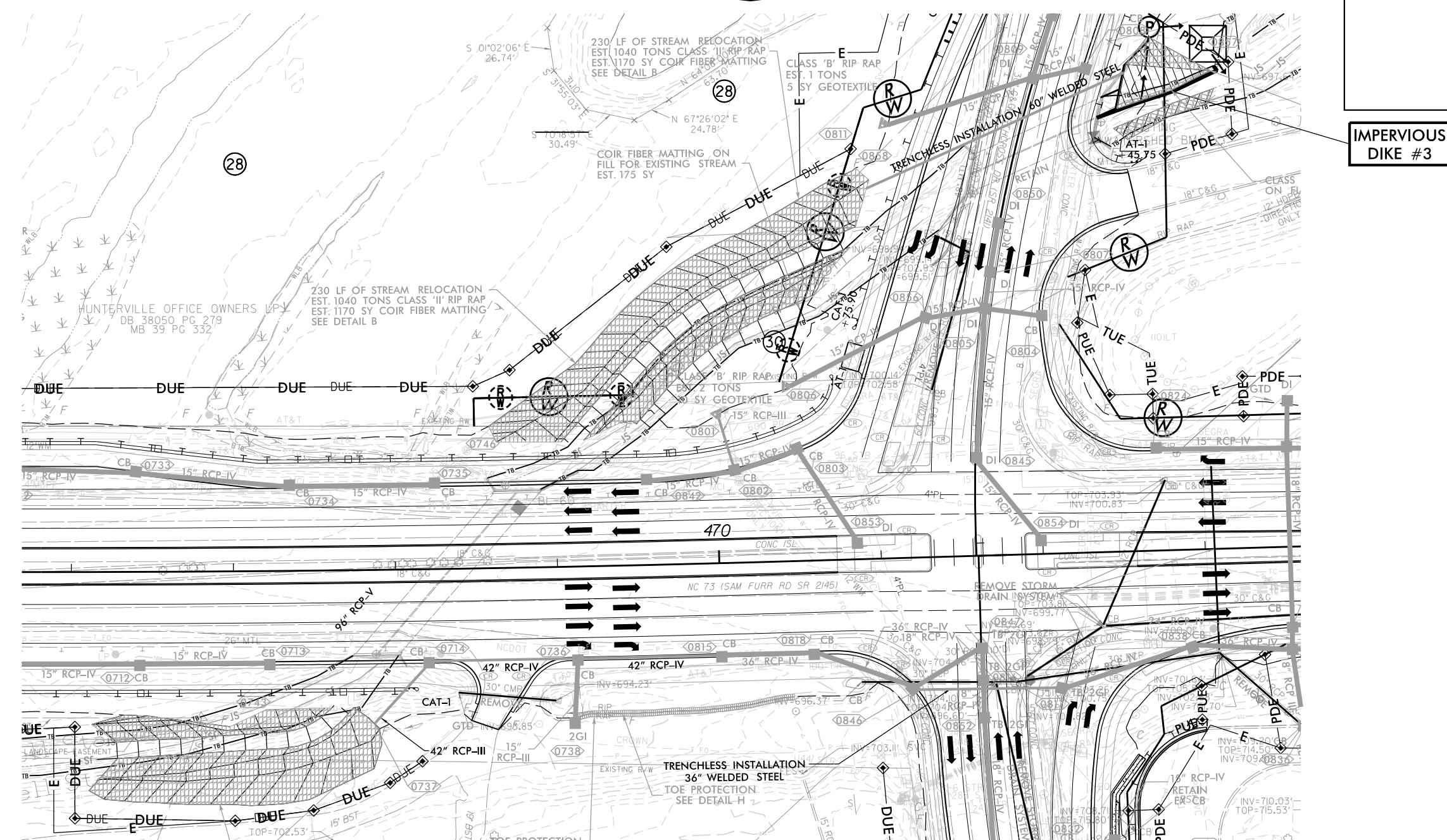
PHASE I

1. INSTALL IMPERVIOUS DIKE #1 AND #2 TO DIVERT FLOW THROUGH WESTERN BARREL.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 10'X9' RCBC AS SHOWN WHILE KEEPING STREAM FLOW IN EXISTING CHANNEL.
4. COMPLETE PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #2.



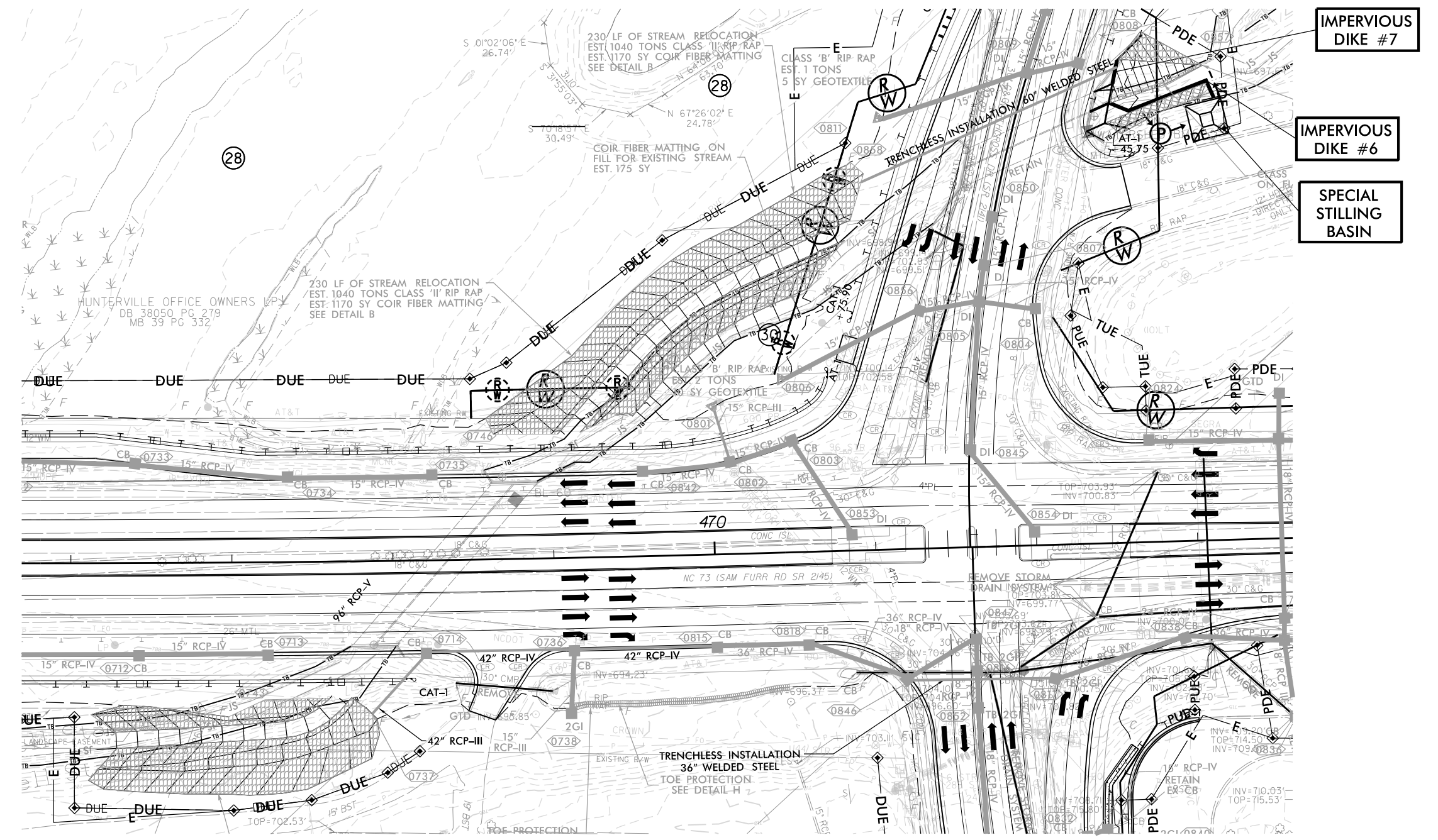
PHASE III

1. REMOVE IMPERVIOUS DIKE #1 AND #2 AND INSTALL IMPERVIOUS DIKES #4 AND #5 TO DIVERT FLOW THROUGH EASTERN BARREL.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 10'X9' RCBC AS SHOWN.
4. COMPLETE PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #5.
5. USE PUMP-AROUND OPERATION AND TEMPORARY IMPERVIOUS DIKES TO COMPLETE REMAINING PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS.



PHASE II

1. INSTALL IMPERVIOUS DIKE #3 TO DIVERT FLOW THROUGH SOUTH BARREL.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 10'X8' RCBC AS SHOWN.
4. COMPLETE PORTION OF UPSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #3.



PHASE IV

1. REMOVE IMPERVIOUS DIKE #3, #4, AND #5, AND INSTALL IMPERVIOUS DIKE #6 AND #7 TO DIVERT FLOW THROUGH CENTRAL AND NORTH BARREL.
2. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING OF THE WORK ZONE.
3. INSTALL PORTION OF 10'X8' RCBC AS SHOWN.
4. COMPLETE PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS BEHIND IMPERVIOUS DIKE #6.
5. USE PUMP-AROUND OPERATION AND TEMPORARY IMPERVIOUS DIKES TO COMPLETE REMAINING PORTION OF UPSTREAM CHANNEL IMPROVEMENTS.

PHASING OF CULVERT CONSTRUCTION TO BE IN COMPLIANCE WITH TRANSPORTATION MANAGEMENT PLAN (TMP).