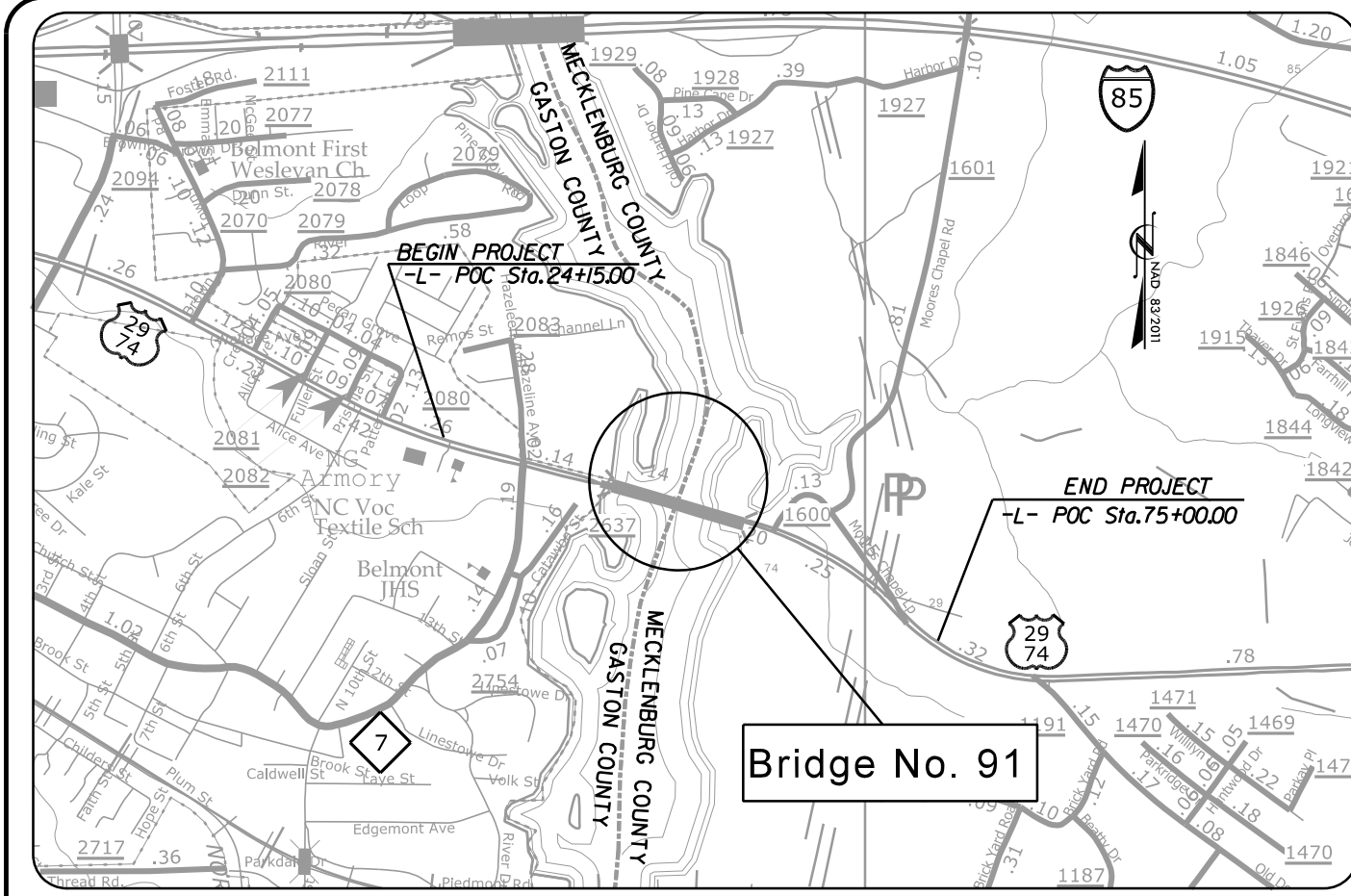


CONTRACT NO: C204773 **TIP PROJECT: B-6051 / U-6143**

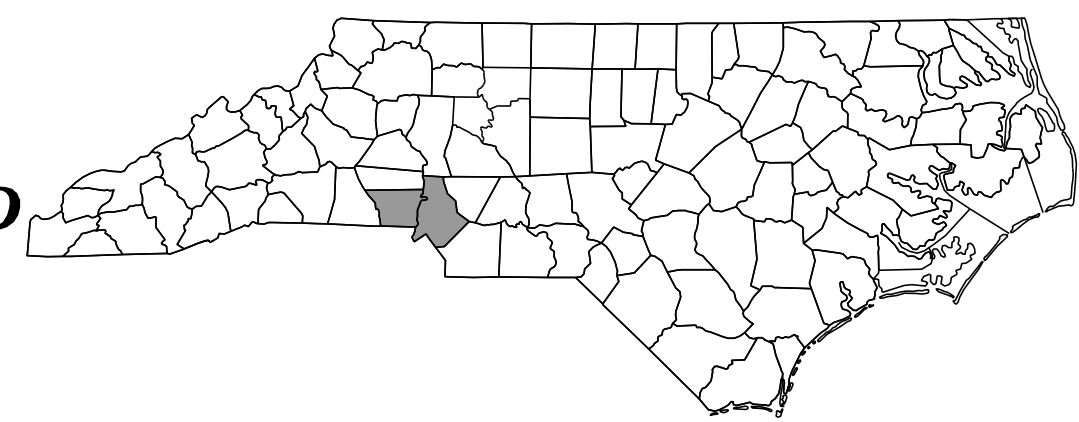


VICINITY MAP
(NOT TO SCALE)
See Sheet 1A For Index of Sheets
See Sheet 1B For Plan Sheet Symbols

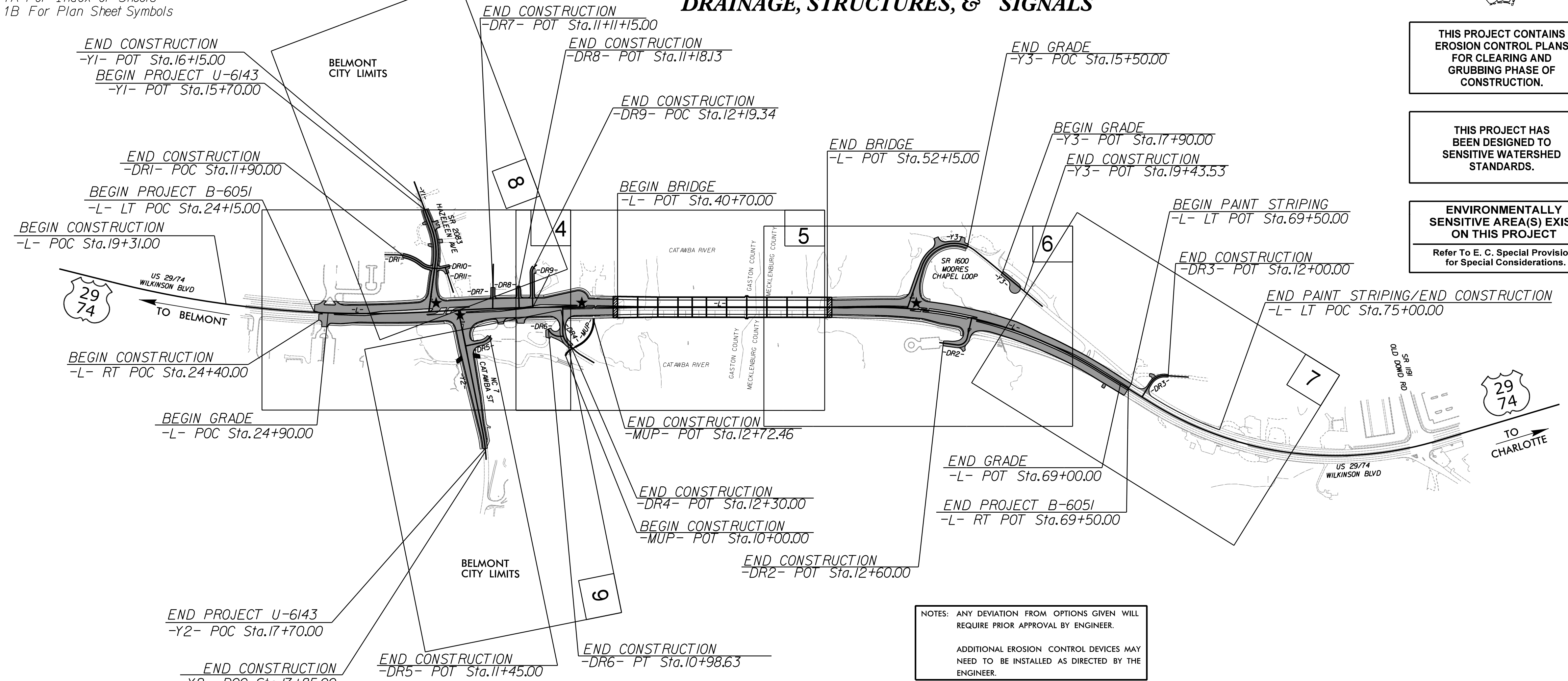
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
GASTON / MECKLENBURG COUNTIES

LOCATION: US 29/US 74 REPLACE BRIDGE 350091 OVER CATAWBA RIVER & NC 7 (EAST CATAWBA STREET) AT US 74 (WILKINSON BOULEVARD) INTERSECTION. CONSTRUCT NORTHBOUND RIGHT-TURN LANE ON NC 7 (EAST CATAWBA STREET) AND EXTEND EXISTING WESTBOUND LEFT-TURN LANE ON US 74 (WILKINSON BOULEVARD)

TYPE OF WORK: GRADING, PAVING, RESURFACING, DRAINAGE, STRUCTURES, & SIGNALS



- THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.**
- THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.**
- ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT**
Refer To E. C. Special Provisions for Special Considerations.

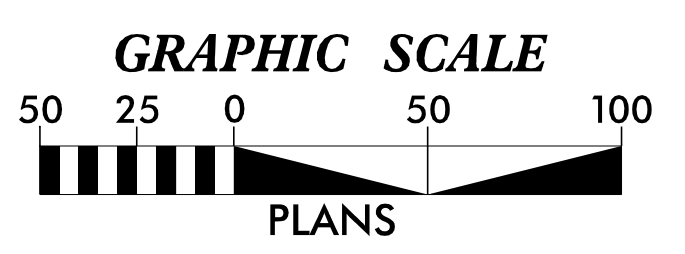


NOTES:
1. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE TURNAROUNDS.

★ **TRAFFIC SIGNAL**

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



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, MATERIAL, AND LAND RESOURCES.



Prepared in the Office of:
RUMMEL, KLEPPER & KAHL, LLP
 8601 SIX FORKS ROAD, FORUM 1 SUITE 700
 RALEIGH, NORTH CAROLINA 27615-3960
 NC LICENSE NO. F-0112
 1-888-521-4455 OR 919-878-9560

Designed by:
SETH JONES, EI **4183**
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

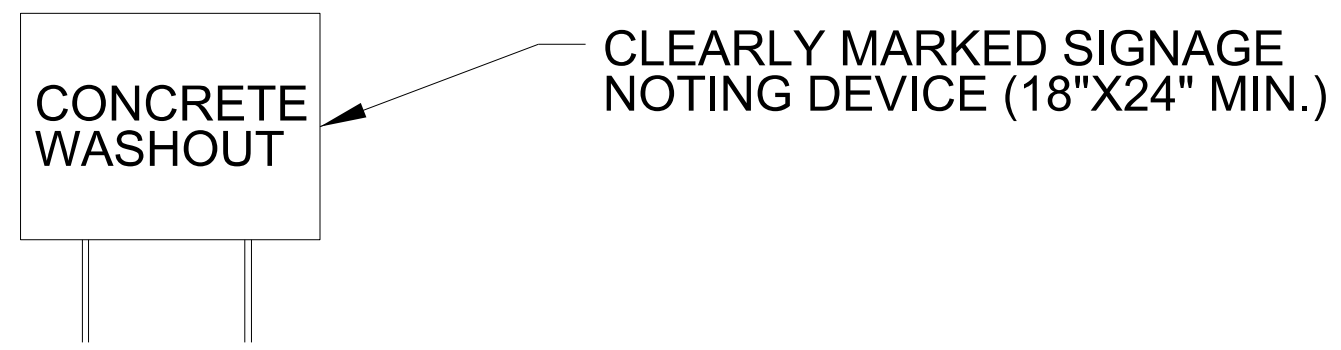
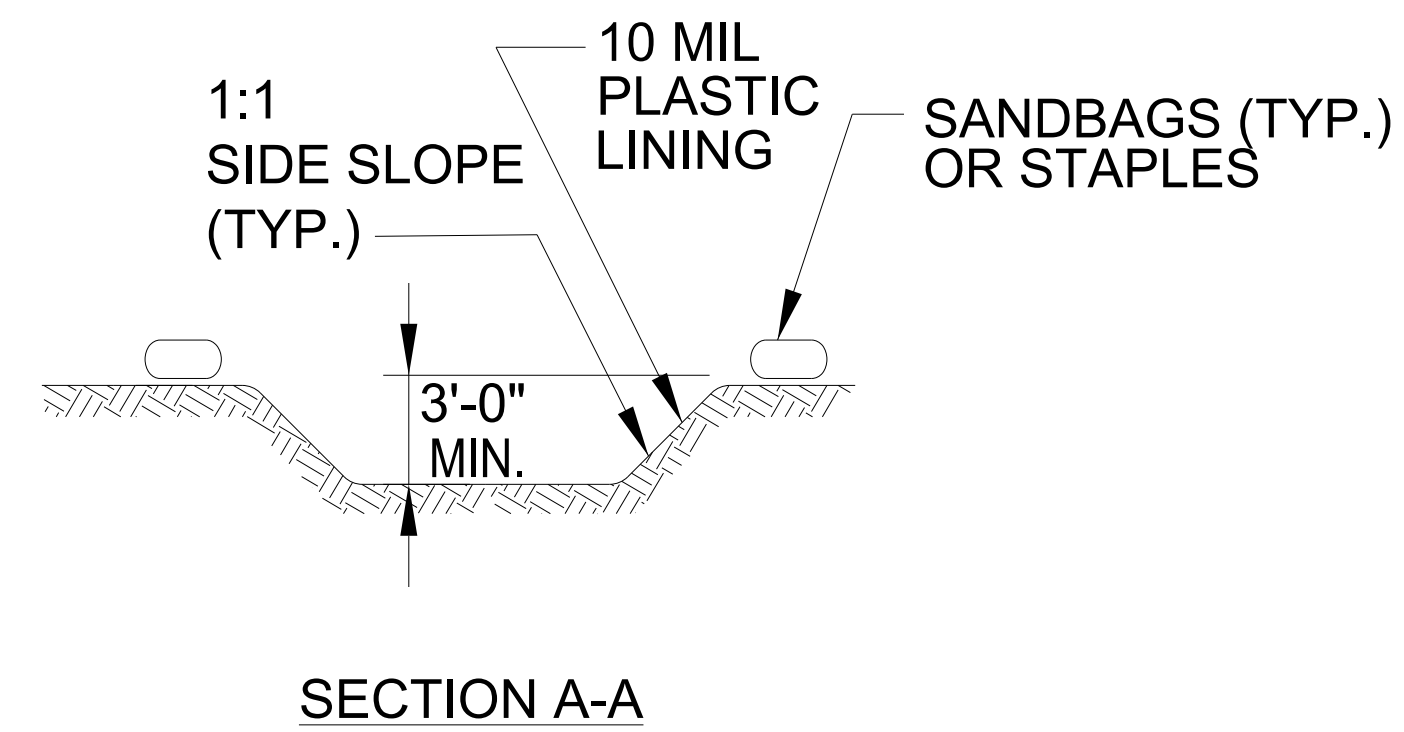
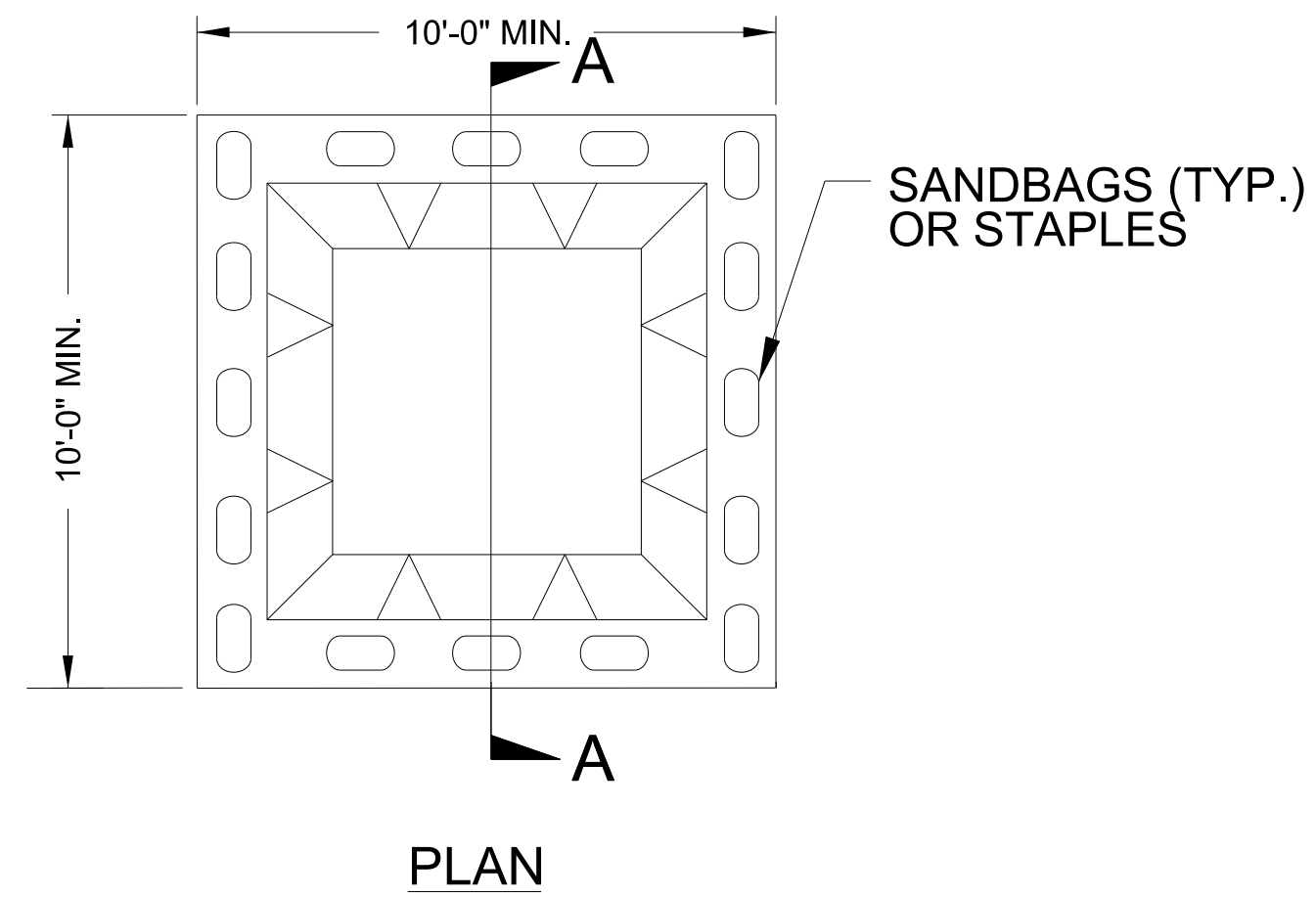
PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-01A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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				

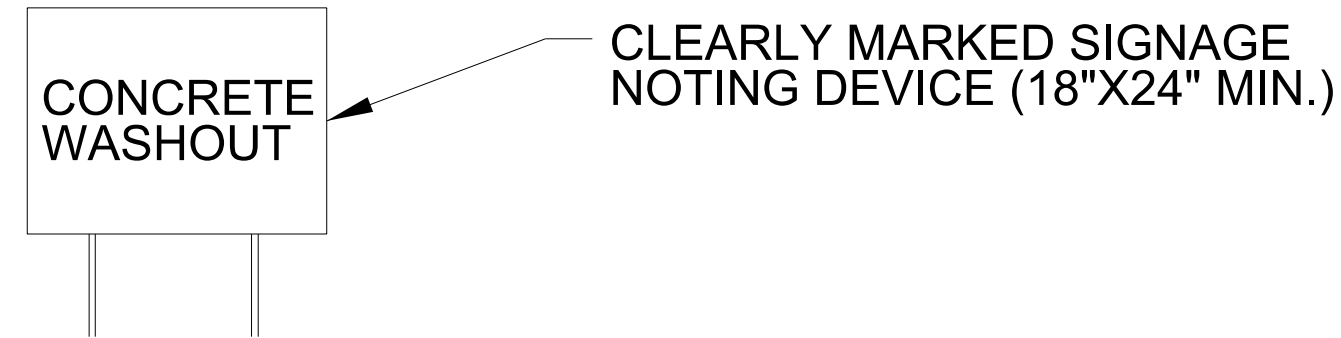
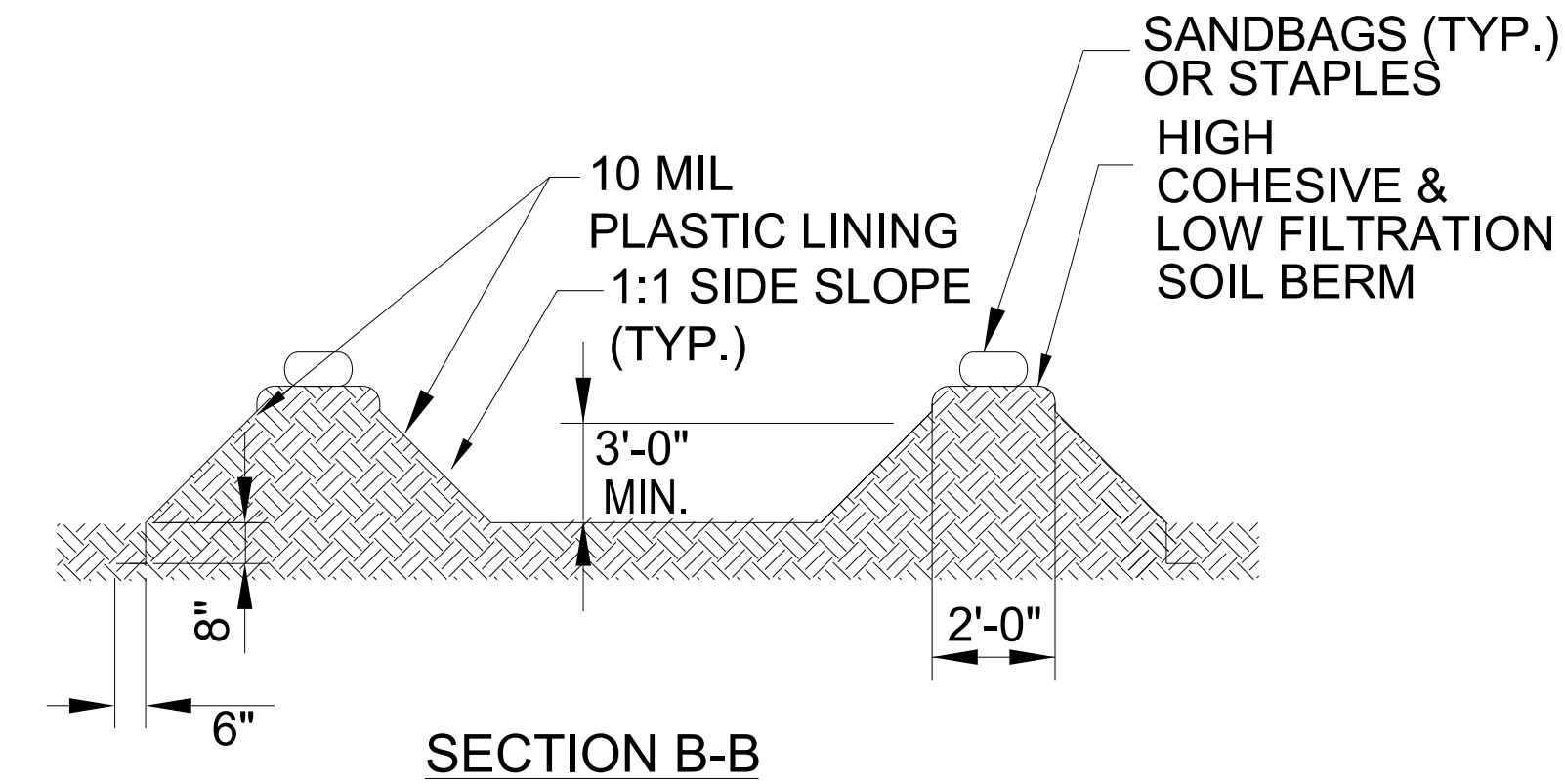
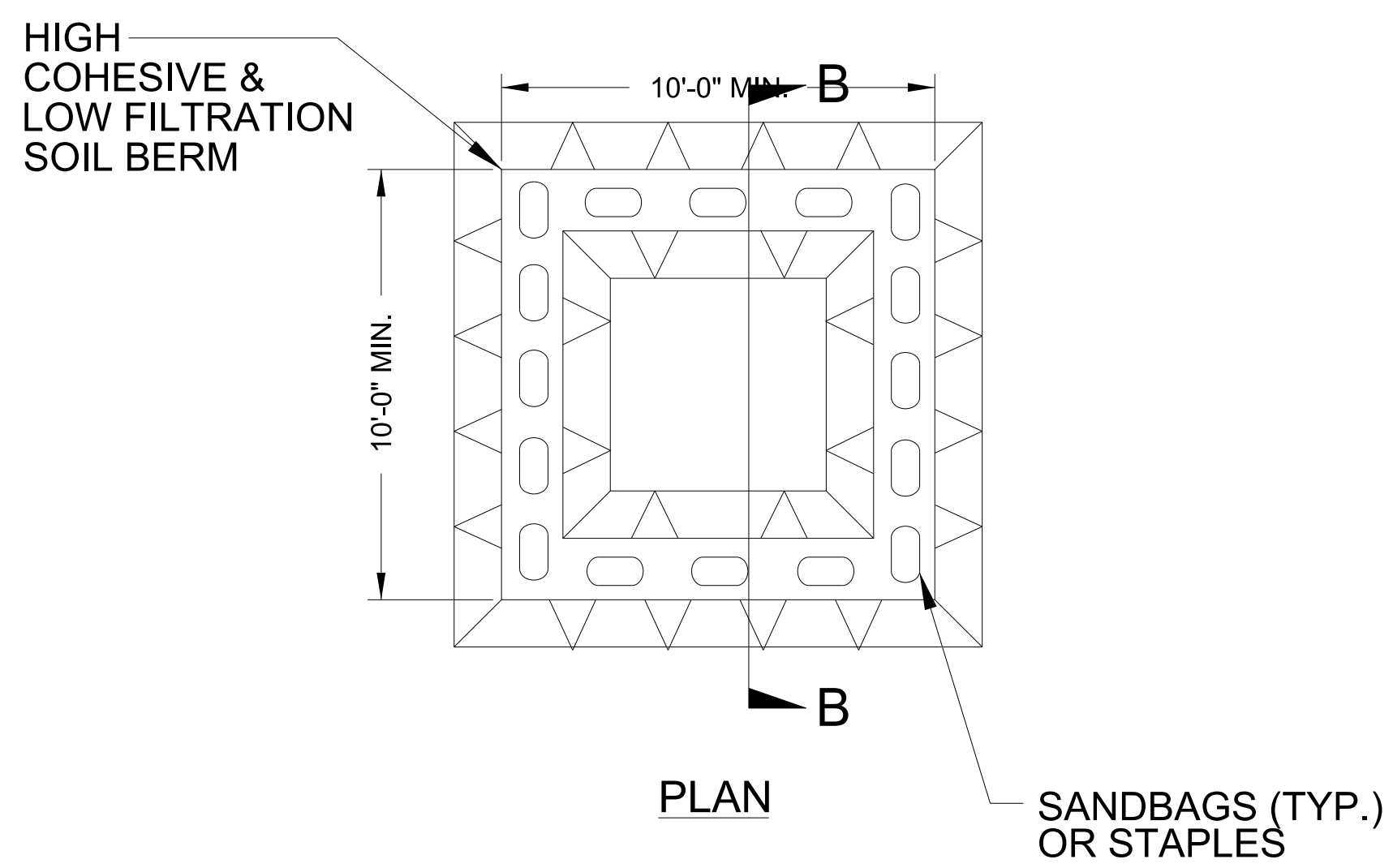
PROJECT REFERENCE NO. <i>B-6051/U-6143</i>	SHEET NO. <i>EC-02</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

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



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-6051/U-6143</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

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

PIPE INSTALLATION SEQUENCE

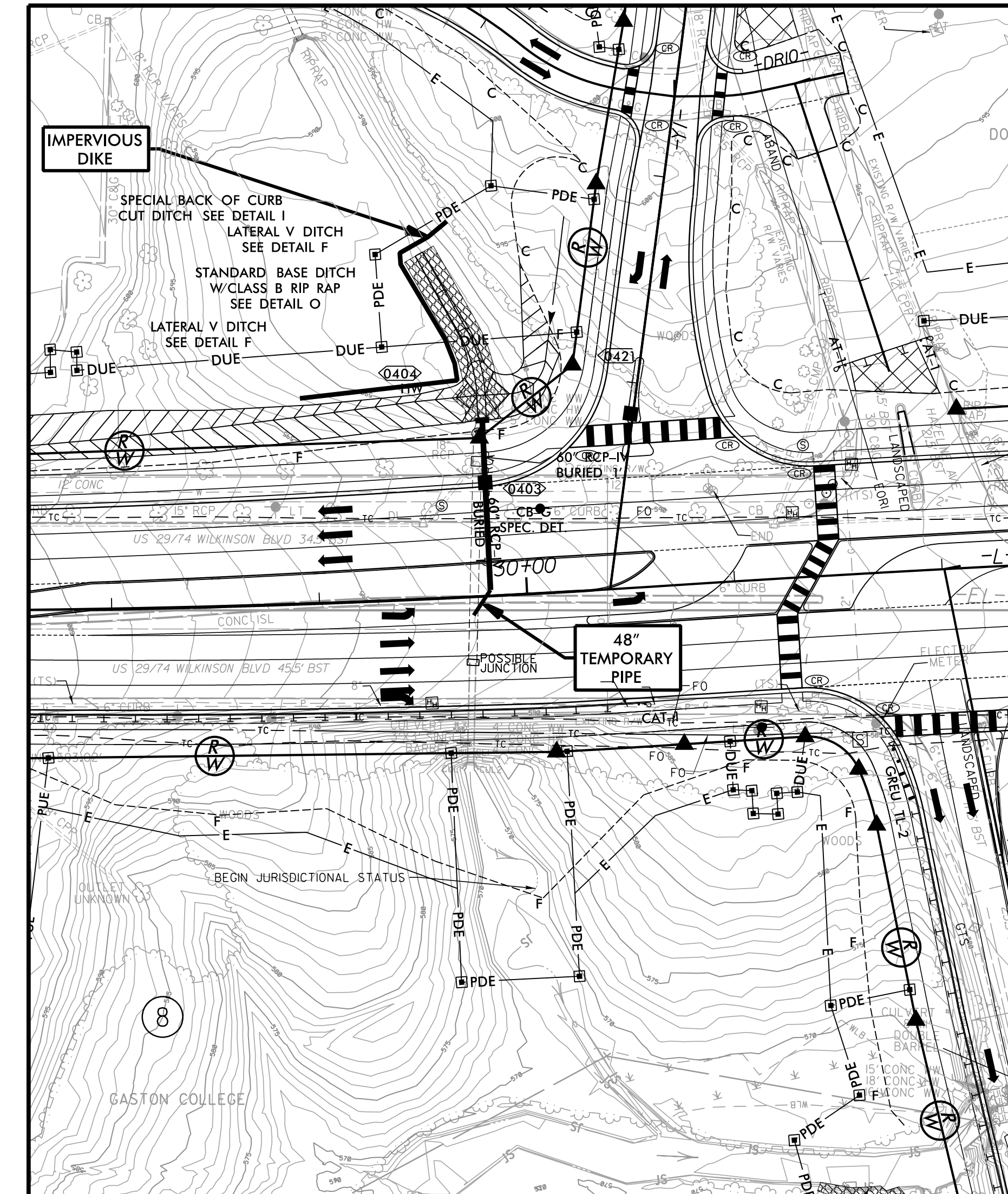
STA. 29 + 82.50 -L-



PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-04A/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

1. UTILIZE SPECIAL STILLING BASINS (50 CY) AND PUMPS TO DEWATER WORK AREAS AS NEEDED THROUGHOUT THE PIPE INSTALLATION.
2. MAINTAIN ANY LIVE FLOW THROUGH EXISTING 48" RCP /3'X3' RCBC.
3. SHIFT WESTBOUND TRAFFIC TO MAINTAIN BI-DIRECTIONAL TRAFFIC IN EXISTING EASTBOUND LANES.
4. INSTALL PIPE 0403 (60" RCP-IV).
5. IN A DRY PERIOD, INSTALL 48" TEMPORARY PIPE BETWEEN PIPE 0403 AND EXISTING 48" RCP.
6. IF NECESSARY TO HANDLE LIVE FLOW, UTILIZE IMPERVIOUS DIKE AND PUMP AROUND TO PIPE 0403.
7. REMOVE EXISTING HEADWALL, JUNCTION BOXES, AND APPROXIMATELY 96' OF EXISTING 48" RCP.
8. PERFORM DITCH WORK ON STANDARD BASE DITCH, SPECIAL BACK OF CURB CUT DITCH, AND LATERAL V DITCHES.
9. INSTALL HEADWALL, PIPE 0404 (60" RCP-IV), BOX 0403 (CB-G SPEC DET), AND SYSTEM TYING TO BOX 0403.
10. IF USED, REMOVE IMPERVIOUS DIKE TO ALLOW ANY LIVE FLOW THROUGH 60" RCP-IV.
11. COMPLETE ROADWAY WORK ON WESTBOUND LANES.
12. BEGIN PHASE II.



PIPE INSTALLATION SEQUENCE

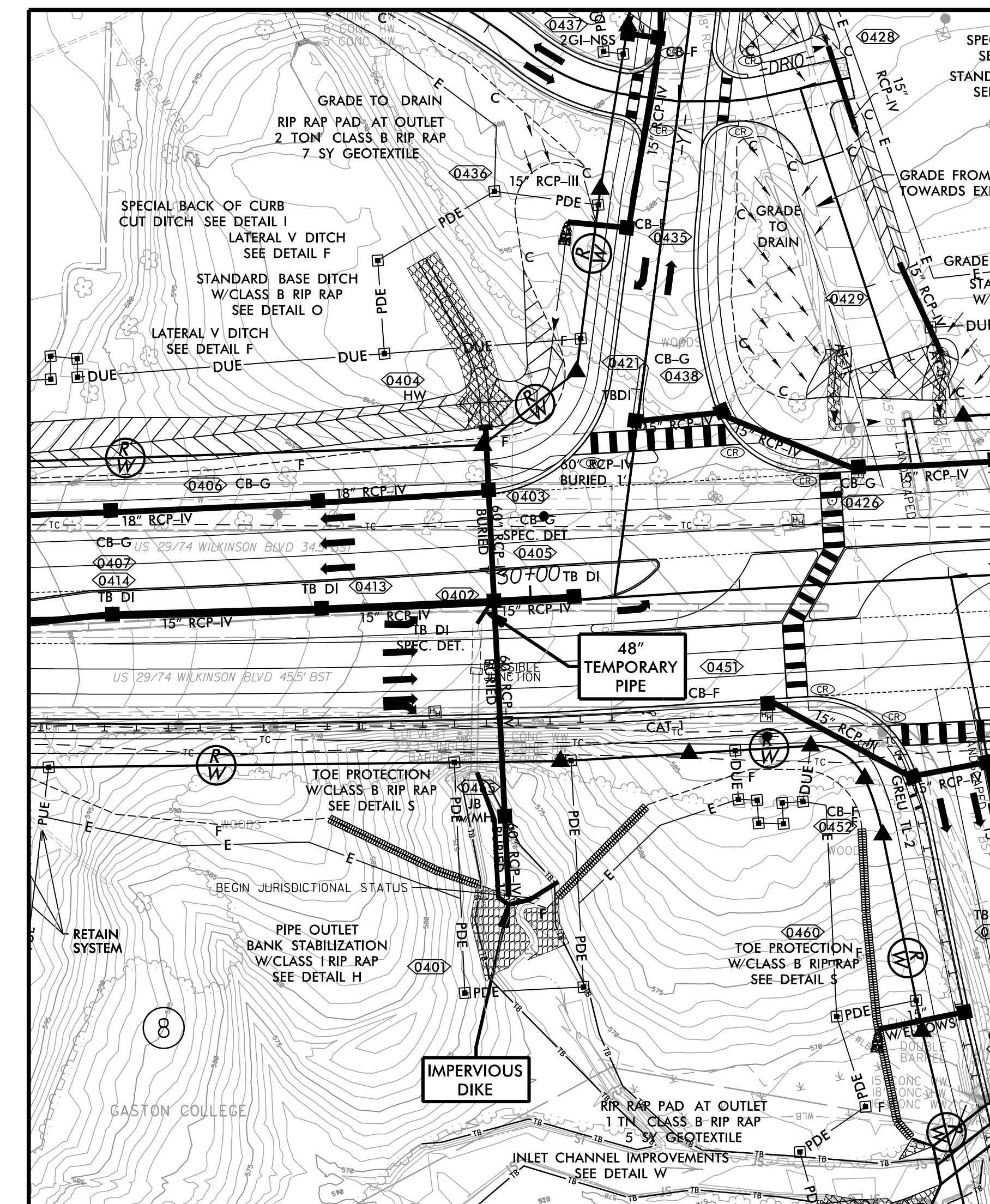
STA. 29 + 82.50 -L-



PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-04B/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE II

1. SHIFT ALL TRAFFIC TO MAINTAIN BI-DIRECTIONAL FLOW IN WESTBOUND LANES.
2. INSTALL IMPERVIOUS DIKES NEAR OUTLET TO ISOLATE WORK AREAS.
3. INSTALL PIPE 0402 (60" RCP-IV), BOX 0465 (JB W/MH), AND PIPE 0465 (60" RCP-IV).
PERFORM BANK STABILIZATION AT OUTFALL.
4. IN A DRY PERIOD, REMOVE TEMPORARY 48" PIPE AND INSTALL BOX 0402 (TB DI SPEC DET) AND SYSTEMS TYING TO BOX 0402.
5. REMOVE IMPERVIOUS DIKES AND ALLOW ANY LIVE FLOW THROUGH THE 60" RCP-IV.
6. REMOVE EXISTING 48" RCP, 3'X3' RCBC, AND JUNCTION BOX.
7. COMPLETE ROADWAY WORK ON EASTBOUND LANES.
8. RETURN TRAFFIC TO NORMAL PATTERN.



PROJECT REFERENCE NO.		SHEET NO.	
B-6051/U-6143		EC-4C/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

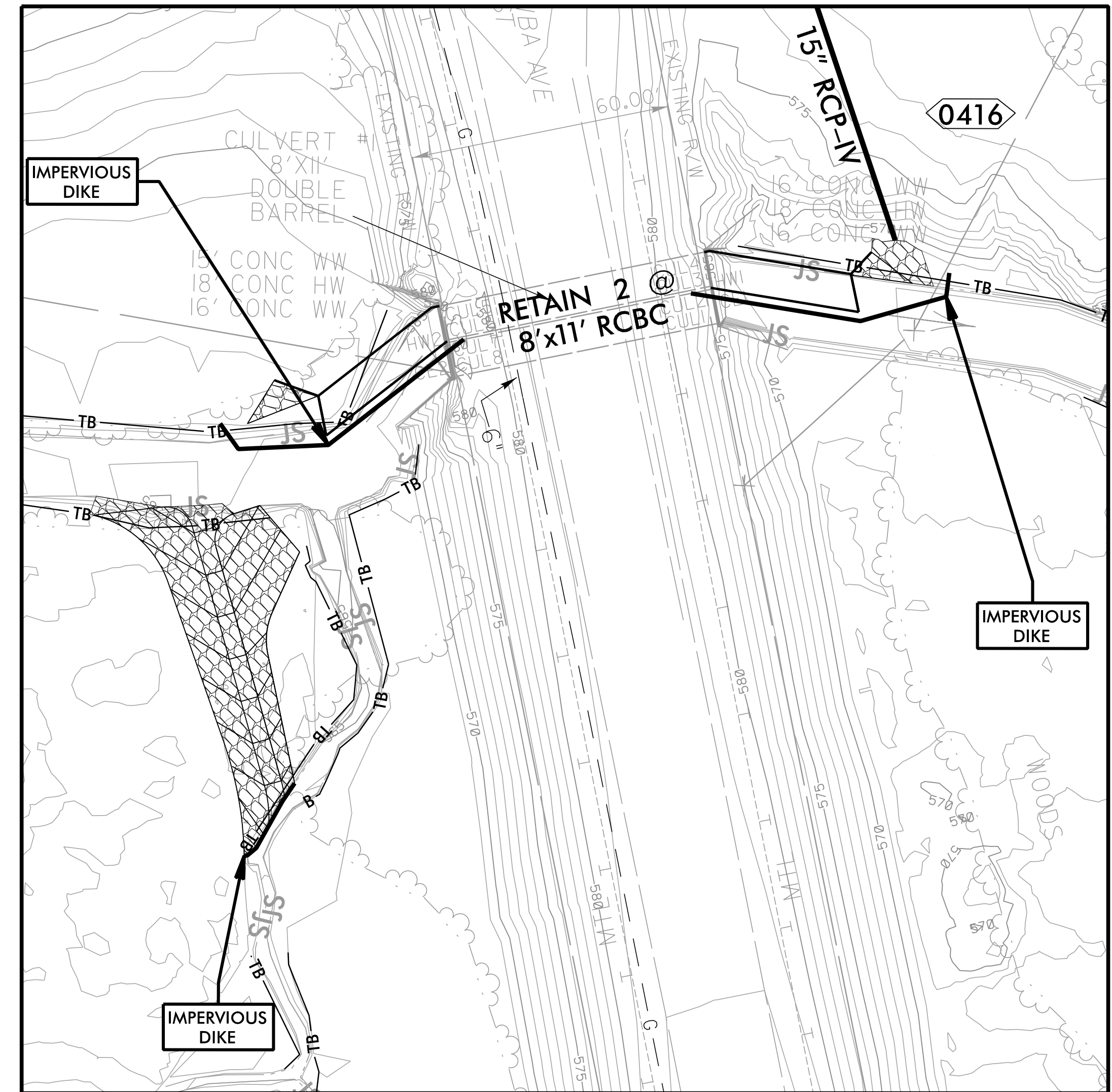
CULVERT PHASING

STA. 14 + 40 -Y2-



PHASE I

1. UTILIZE SPECIAL STILLING BASINS (225 CY) AND PUMPS TO DEWATER WORK AREAS AS NEEDED THROUGHOUT THE CULVERT EXTENSION.
2. INSTALL IMPERVIOUS DIKES AS SHOWN TO ISOLATE WORK AREAS. ROUTE FLOW THROUGH RIGHT BARREL OF EXISTING RCBC.
3. COMPLETE EXTENSIONS OF LEFT BARREL, INCLUDING EXCAVATION AND STABILIZATION AT INLET AND OUTLET OF EXTENDED BARREL. RECOMMEND INSTALLATION OF SYSTEM 0416 AT THIS TIME. CONSTRUCT CHANNEL CHANGE AND SET RIP RAP.
4. REMOVE IMPERVIOUS DIKES ISOLATING CHANNEL CHANGE TO SHIFT FLOW FROM EXISTING CHANNEL. SYSTEM 0454 (SEE PHASE II) CAN BE INSTALLED UPON COMPLETION OF ANY REMAINING STABILIZATION.
5. BEGIN PHASE II



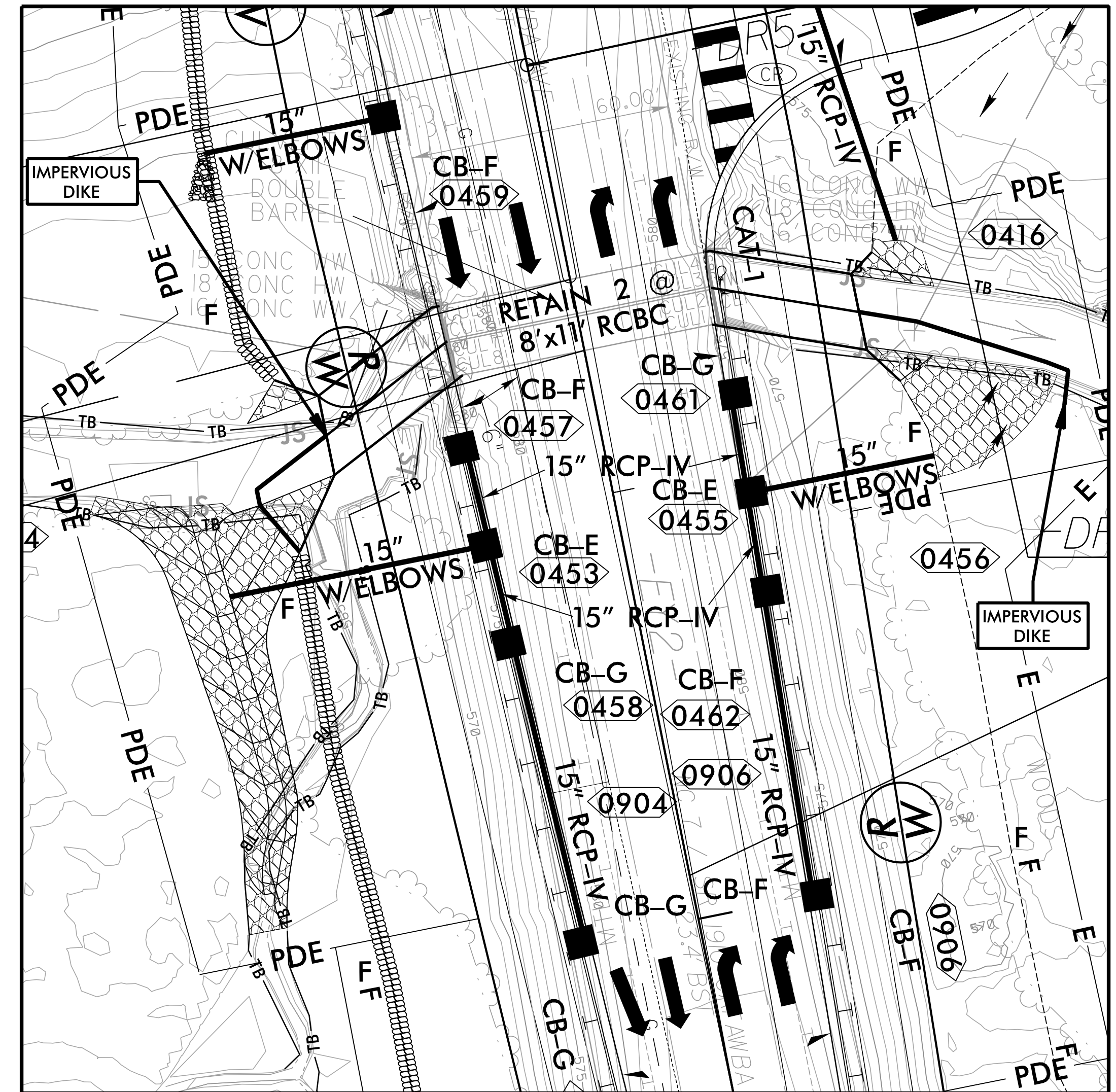
PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-4D/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT PHASING STA. 14+40 -Y2-

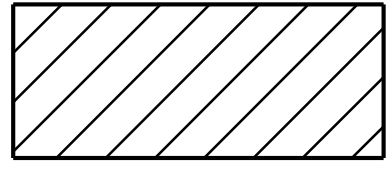


PHASE II

1. ADJUST IMPERVIOUS DIKES AS SHOWN TO ROUTE FLOW THROUGH EXTENDED LEFT BARREL, ISOLATING RIGHT BARREL.
2. COMPLETE EXTENSIONS OF RIGHT BARREL, INCLUDING EXCAVATION AND STABILIZATION AT INLET AND OUTLET OF EXTENDED BARREL. RECOMMEND INSTALLING SYSTEM 0456 AT THIS TIME.
3. REMOVE IMPERVIOUS DIKES TO ALLOW FLOW THROUGH BOTH BARRELS OF EXTENDED CULVERT.
4. COMPLETE ROADWAY WORK AND ANY REMAINING DRAINAGE.



PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-06/CONST.06
RW SHEET NO. 6A	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

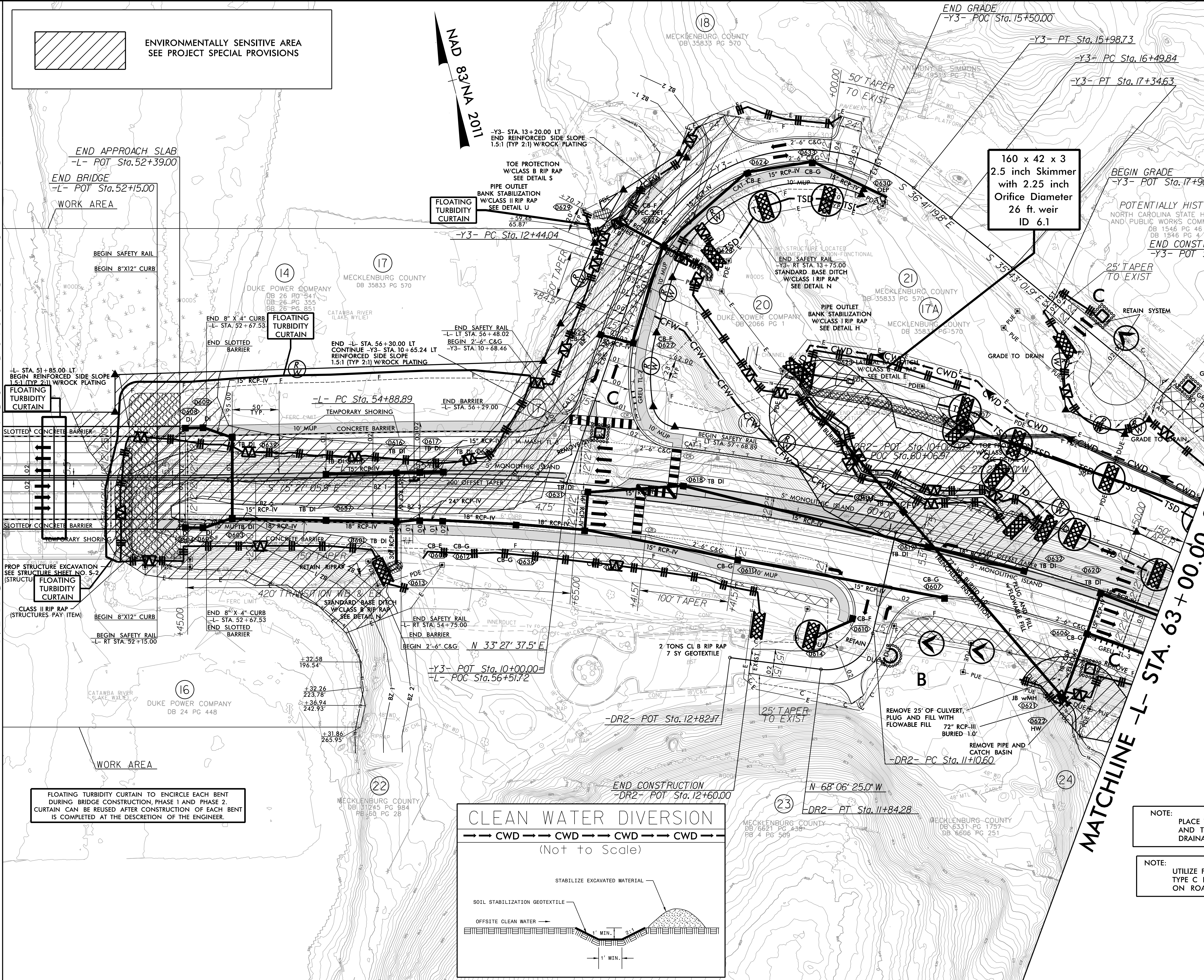


ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

MAD 8/31/2011

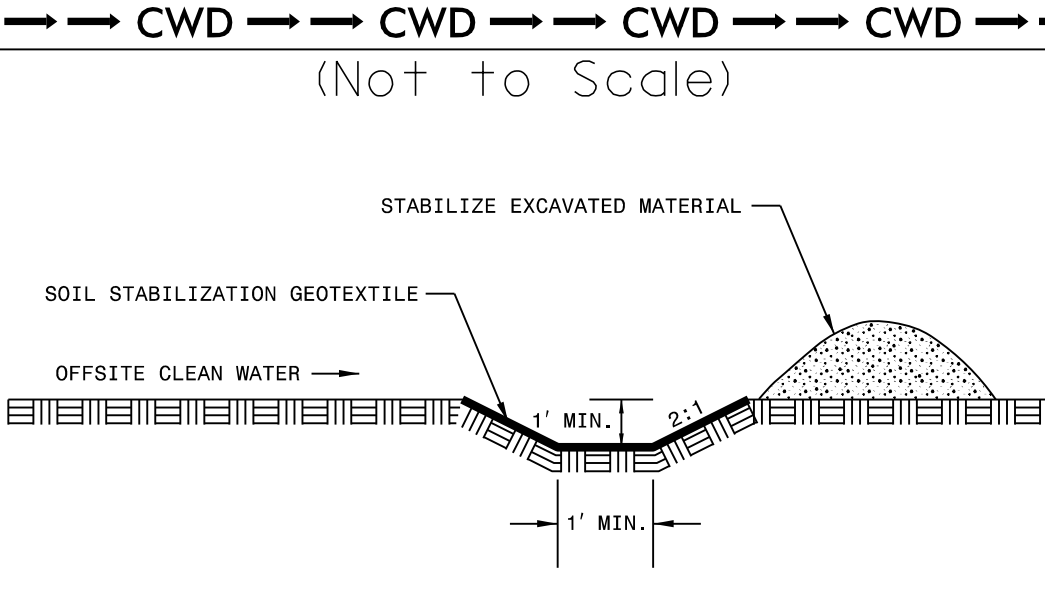
MATCHLINE -L- STA. 50 + 50.00 SEE SHEET 5

MATCHLINE -L- STA. 63 + 00.00 SEE SHEET 7



160 x 42 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
26 ft. weir
ID 6.1

CLEAN WATER DIVERSION



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 IN LIEU OF
TYPE C INLET PROTECTION WHERE WATER MIGHT POND
ON ROADWAY USED BY PUBLIC TRAFFIC.

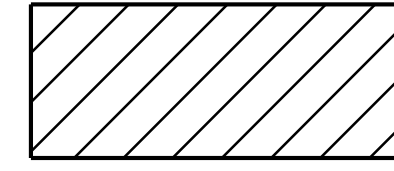
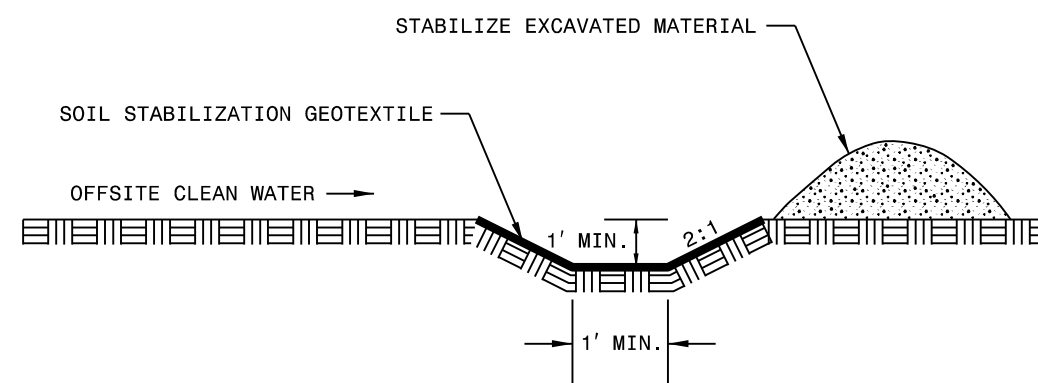
FLOATING TURBIDITY CURTAIN TO ENCIRCLE EACH BENT
DURING BRIDGE CONSTRUCTION, PHASE 1 AND PHASE 2.
CURTAIN CAN BE REUSED AFTER CONSTRUCTION OF EACH BENT
IS COMPLETED AT THE DESCRETION OF THE ENGINEER.

8/17/09
2/9/2026
R:\Highways\CADD\PSH\EC-IB-6051\EC_psh06.dgn
er193s

RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1, Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

CLEAN WATER DIVERSION

→ CWD → CWD → CWD → CWD →
(Not to Scale)



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

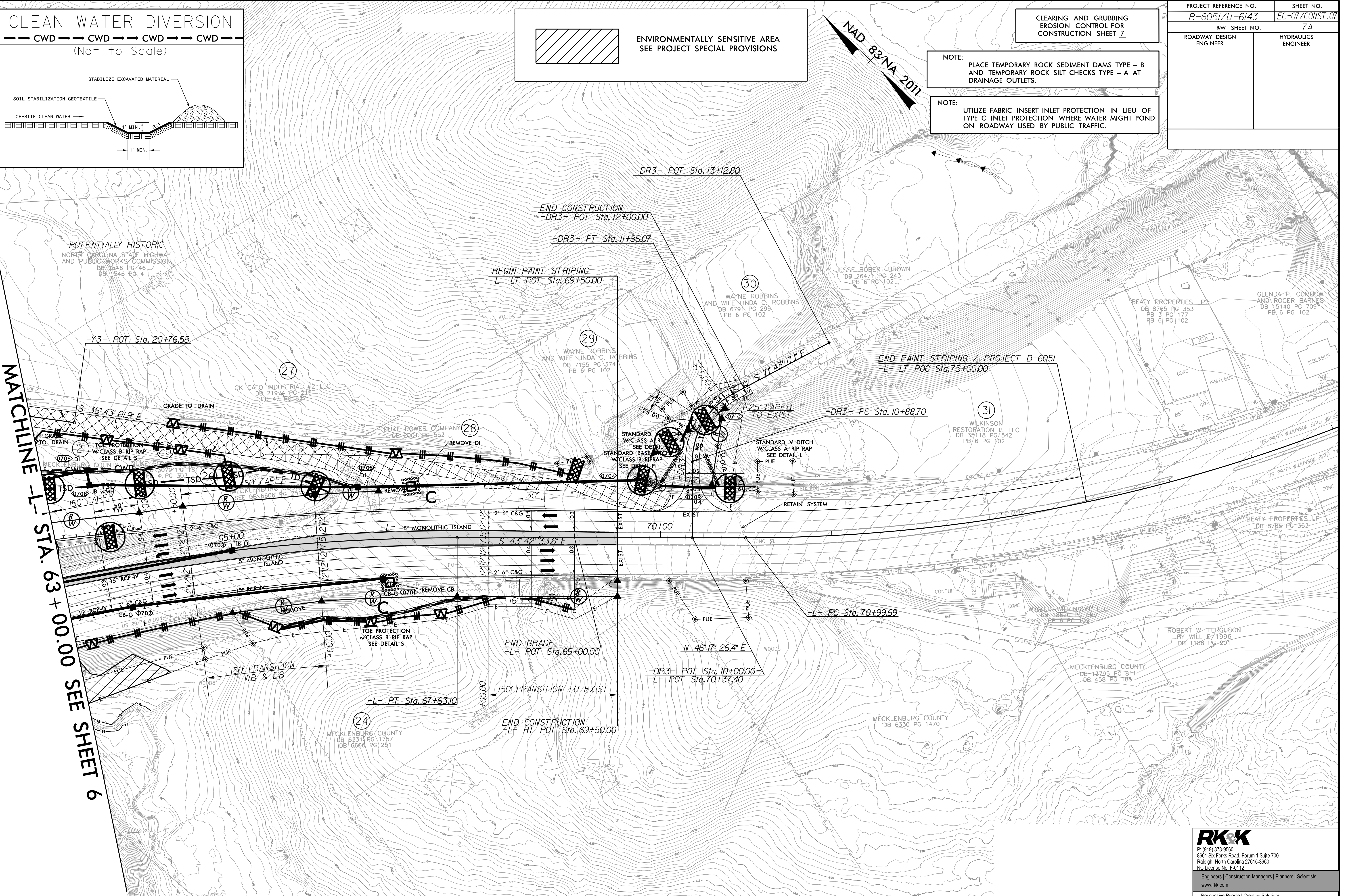
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
TYPE C INLET PROTECTION WHERE WATER MIGHT POND
ON ROADWAY USED BY PUBLIC TRAFFIC.

PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-07/CONST.07
RW SHEET NO. 7A	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

MATCHLINE -L- STA. 63+00.00 SEE SHEET 6

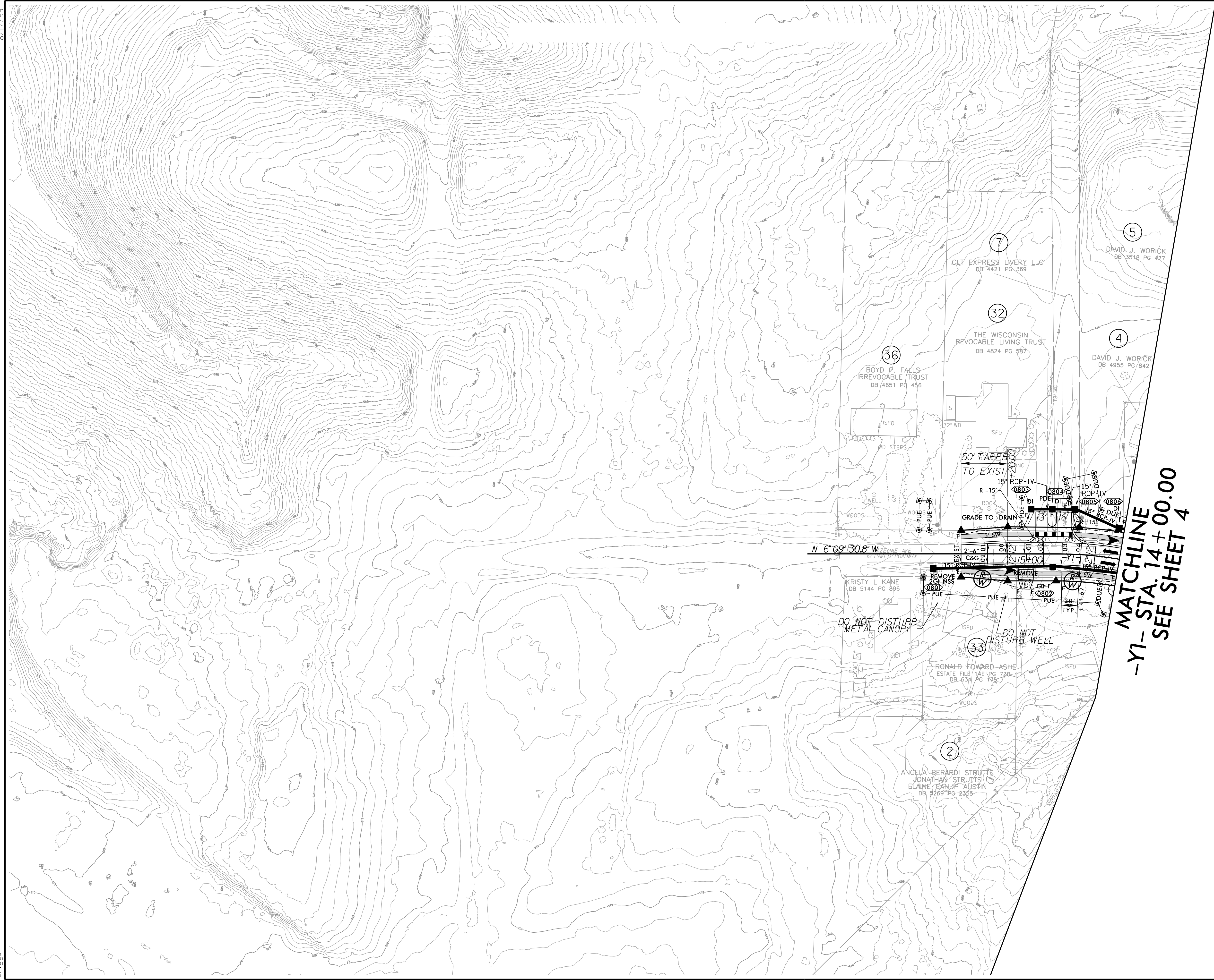


2/9/2026 R:\Highways\CADD\PSH\EC-IB-6051\EC_psh07.dgn er:lg3s

RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1 Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112

Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

2/9/2026 R:\Highways\CADD\PSH\EC-IB-6051\EC_psh08.dgn



PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-08/CONST.08
RW SHEET NO. 8A	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE
-Y1- STA. 14 + 00.00
SEE SHEET 4

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.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
TYPE C INLET PROTECTION WHERE WATER MIGHT POND
ON ROADWAY USED BY PUBLIC TRAFFIC.

RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1 Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112

Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

8/17/99

2/9/2026 R:\Highways\CADD\PSH\EC-IB-6051\EC-ps09.dgn er193s


CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9

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

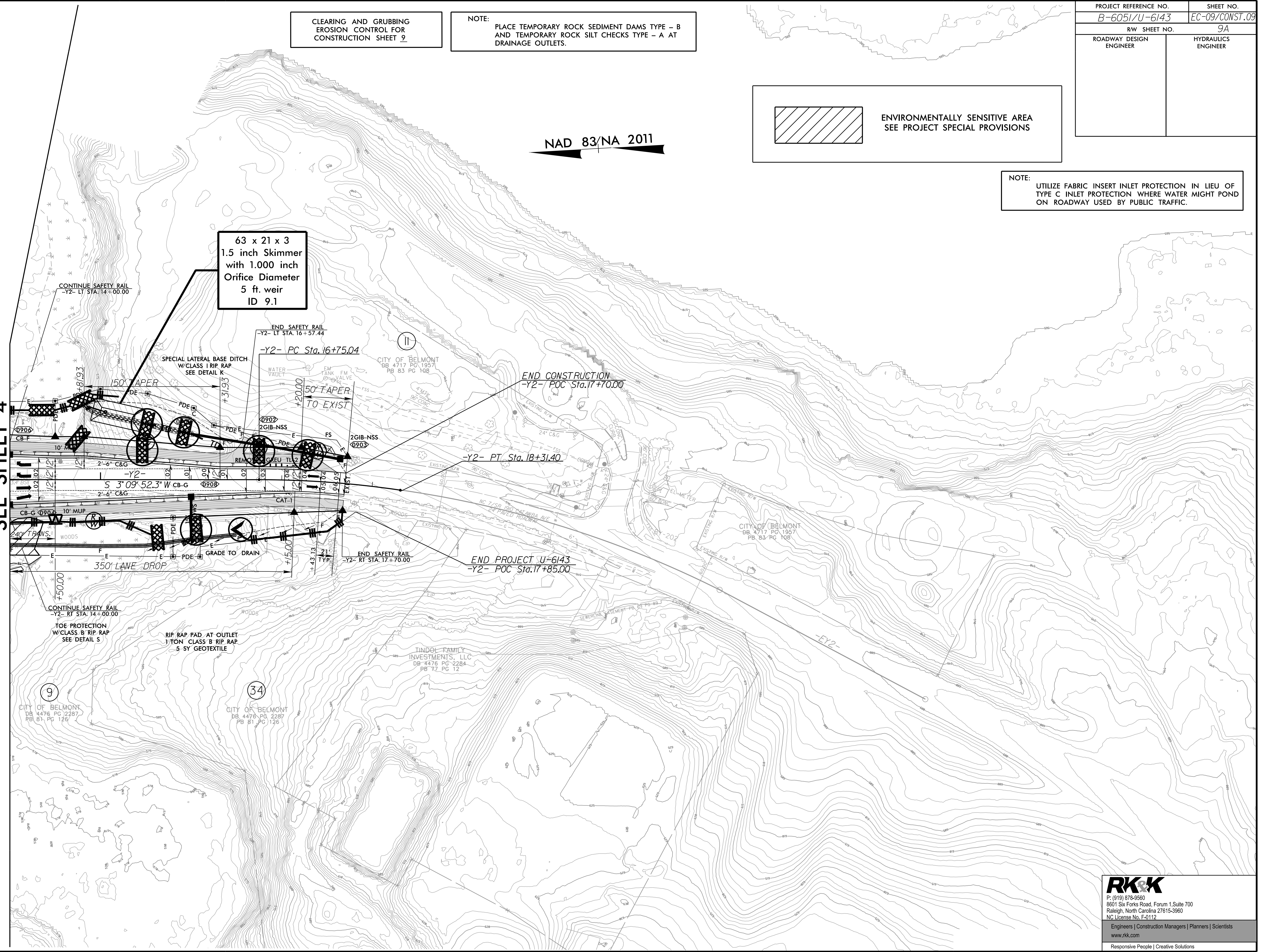
PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-09/CONST.09
RW SHEET NO. 9A	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

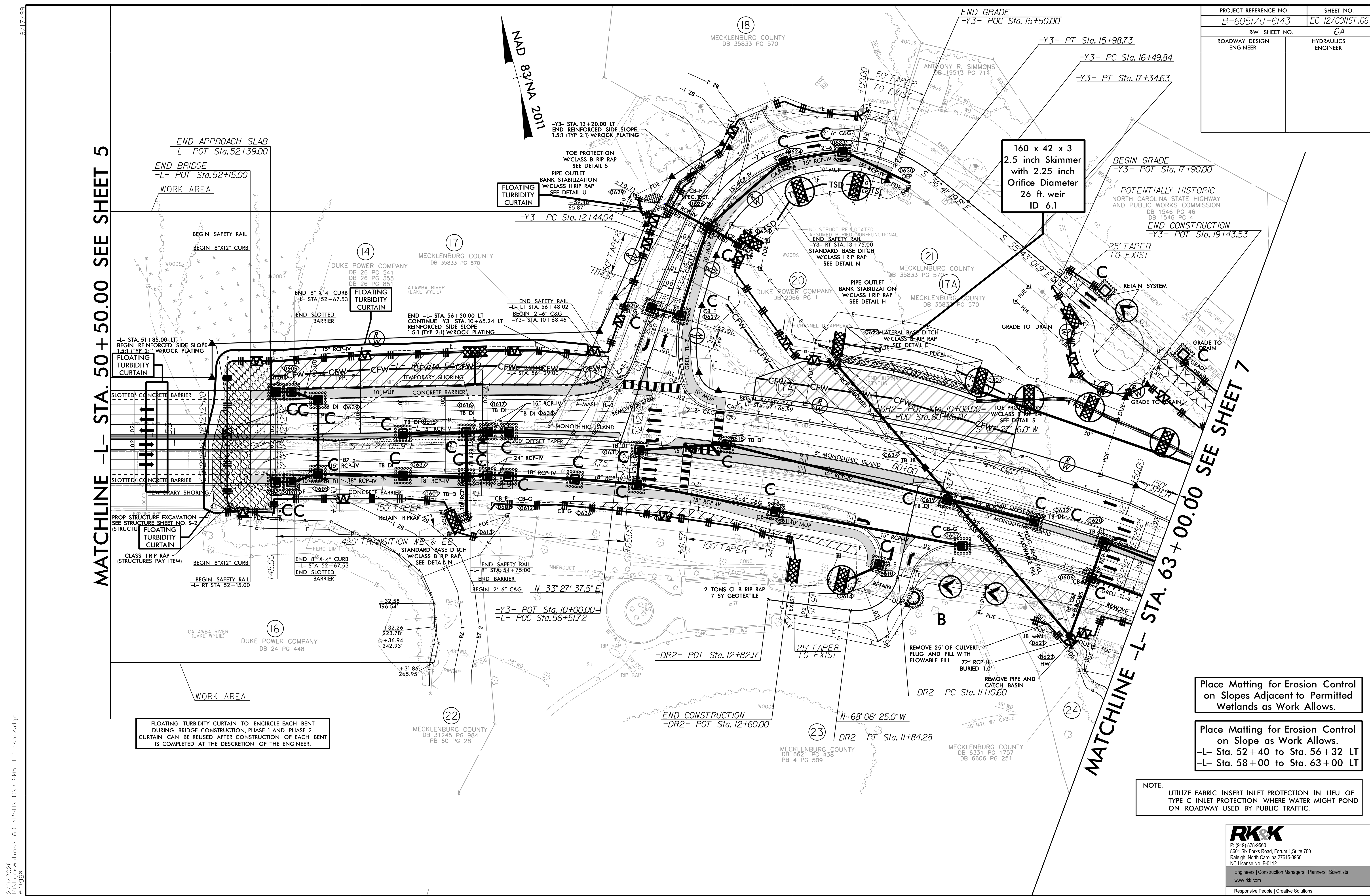
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF TYPE C INLET PROTECTION WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC.

NAD 83/NA 2011


MATCHLINE
-Y2- STA. 14+00.00
SEE SHEET 4



PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-12/CONST.06
RW SHEET NO. 6A	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- STA. 50 + 50.00 SEE SHEET 5

MATCHLINE -L- STA. 63 + 00.00 SEE SHEET 7

FLOATING TURBIDITY CURTAIN TO ENCIRCLE EACH BENT DURING BRIDGE CONSTRUCTION, PHASE 1 AND PHASE 2. CURTAIN CAN BE REUSED AFTER CONSTRUCTION OF EACH BENT IS COMPLETED AT THE DESCRETION OF THE ENGINEER.

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 52 + 40 to Sta. 56 + 32 LT
-L- Sta. 58 + 00 to Sta. 63 + 00 LT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF TYPE C INLET PROTECTION WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC.

RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1, Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

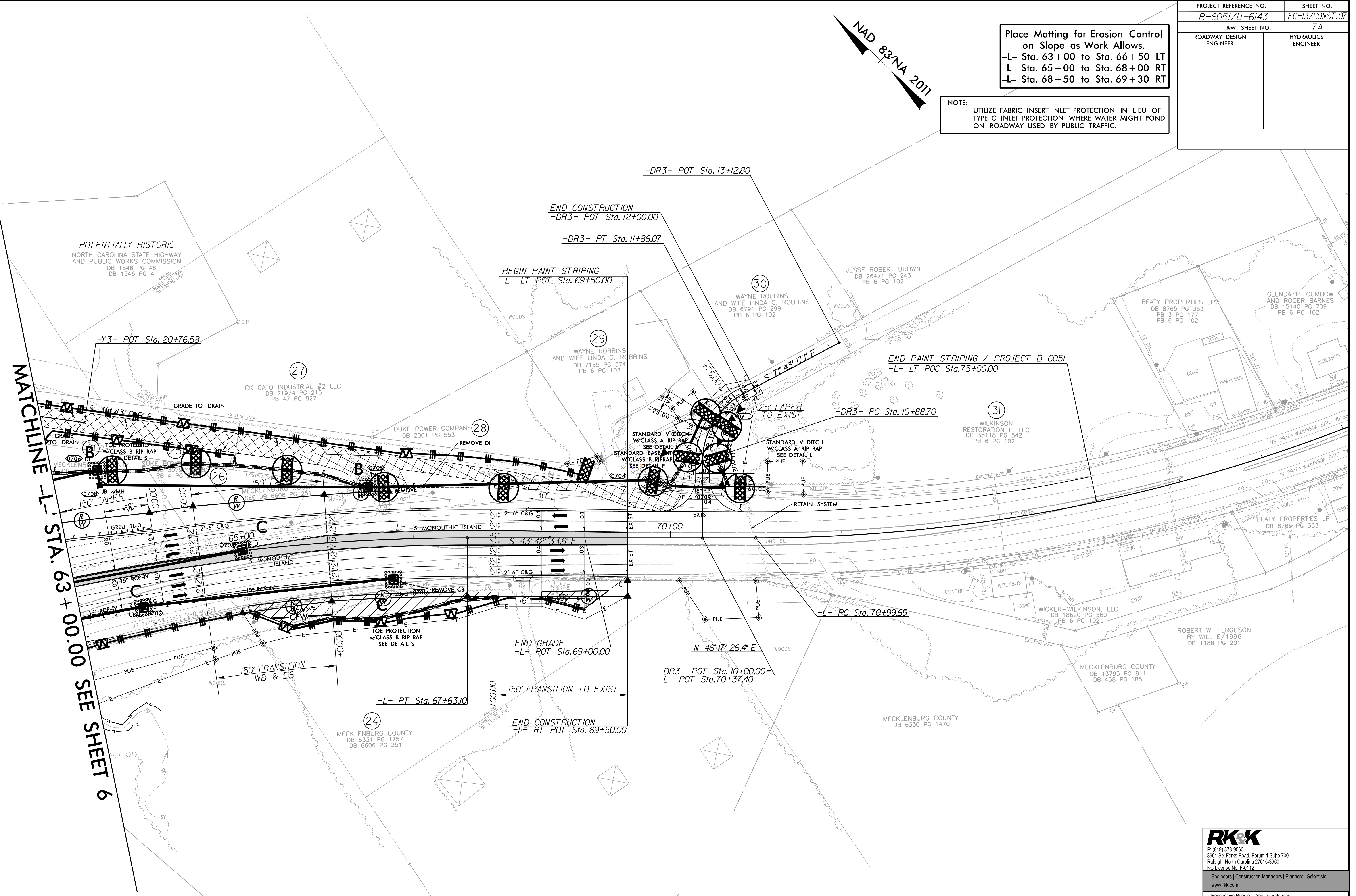
2/9/2026 R:\Hydro\Projects\CADD\PSH\EC-12-6051\EC_psh12.dgn er193s

PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-13/CONST.07
R/W SHEET NO. 7A	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

Place Matting for Erosion Control on Slope as Work Allows.
 -L- Sta. 63+00 to Sta. 66+50 LT
 -L- Sta. 65+00 to Sta. 68+00 RT
 -L- Sta. 68+50 to Sta. 69+30 RT

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF TYPE C INLET PROTECTION WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC.

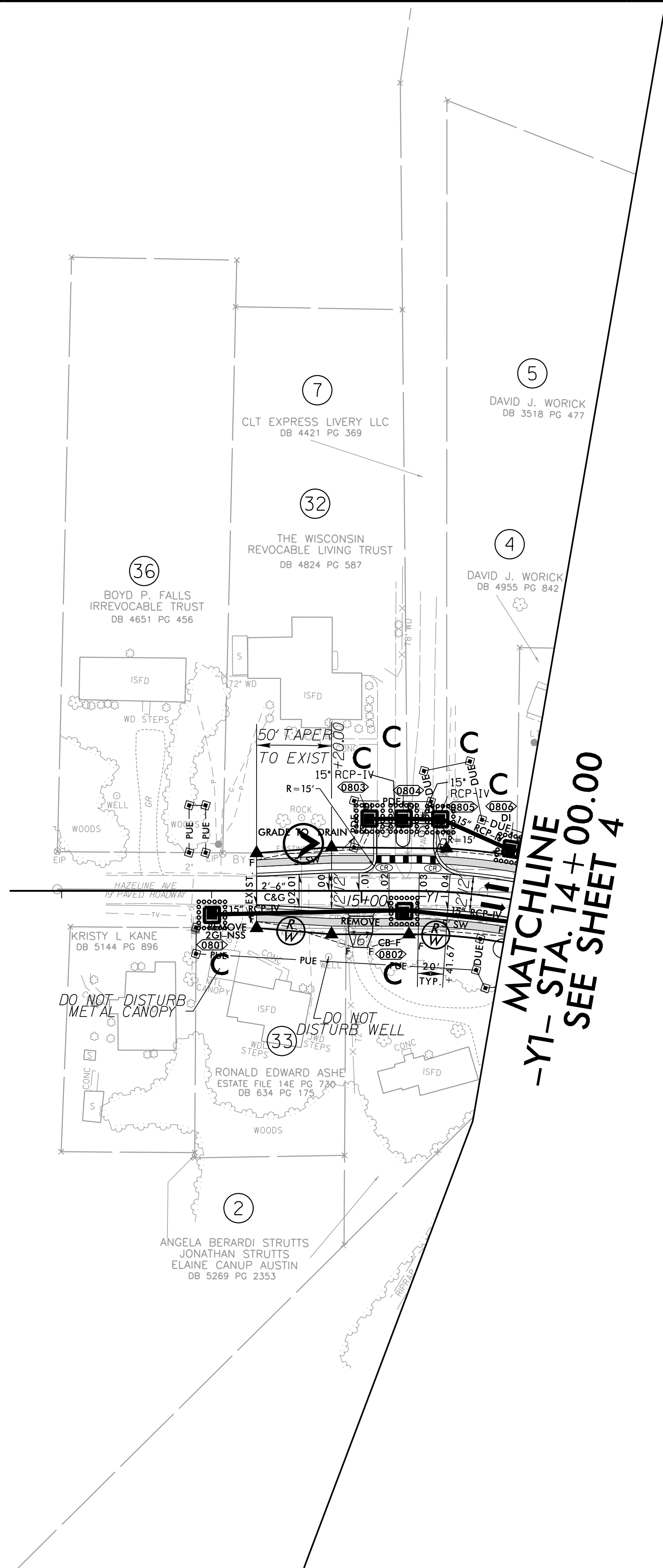
NAD 83/NA 2011



2/9/2026 R:\Highways\CADD\PSH\EC-13-6051\EC-ps13.dgn er:lg3s

2/9/2026 R:\Highways\NCADD\PSH\EC-IB-6051\EC_psh14.dgn er1935 8/17/99

PROJECT REFERENCE NO.	SHEET NO.
B-6051/U-6143	EC-14/CONST.08
RW SHEET NO.	8A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE
-Y1- STA. 14 + 00.00
SEE SHEET 4

NOTE:
 UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF TYPE C INLET PROTECTION WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC.

RK&K
 P: (919) 878-9560
 8601 Six Forks Road, Forum 1, Suite 700
 Raleigh, North Carolina 27615-3960
 NC License No. F-0112
 Engineers | Construction Managers | Planners | Scientists
 www.rkk.com
 Responsive People | Creative Solutions

8/17/99

2/9/2026
R:\Hydro\Projects\CADD\PSH\EC-IB-6051\EC_psh15.dgn
er1935

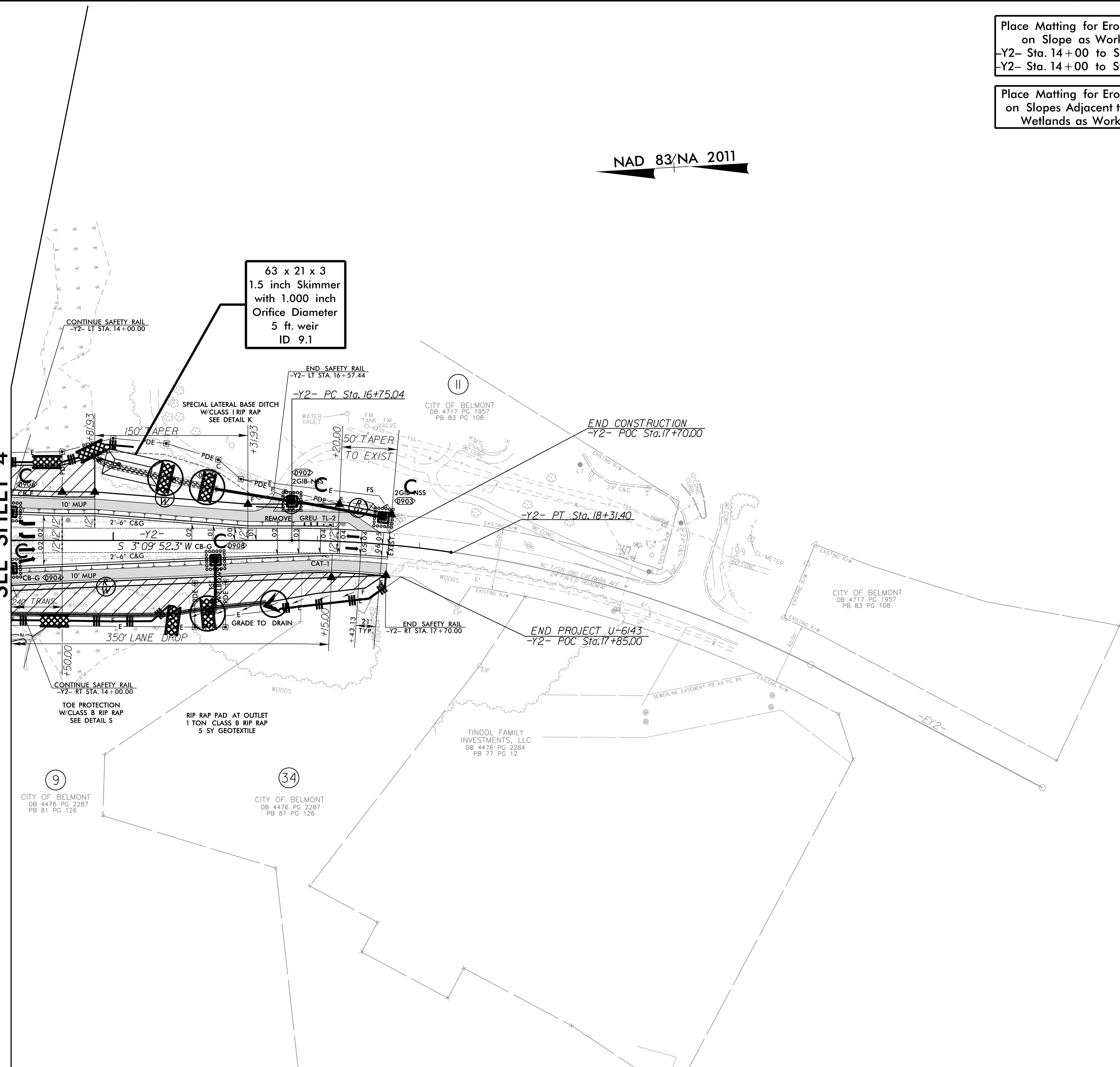
PROJECT REFERENCE NO. B-6051/U-6143	SHEET NO. EC-15/CONST.09
R/W SHEET NO. 9A	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control
on Slope as Work Allows.
-Y2- Sta. 14+00 to Sta. 14+80 LT
-Y2- Sta. 14+00 to Sta. 17+70 RT

Place Matting for Erosion Control
on Slopes Adjacent to Permitted
Wetlands as Work Allows.

NAD 83/NA 2011

MATCHLINE
-Y2- STA. 14+00.00
SEE SHEET 4



63 x 21 x 3
1.5 inch Skimmer
with 1.000 inch
Orifice Diameter
5 ft. weir
ID 9.1

9
CITY OF BELMONT
DB 4476 PG 2287
PB 81 PG 126

34
CITY OF BELMONT
DB 4476 PG 2287
PB 81 PG 126

TINDOL FAMILY
INVESTMENTS, LLC
DB 4476 PG 2284
PB 77 PG 12

CITY OF BELMONT
DB 4717 PG 1957
PB 83 PG 108