

TIP PROJECT: U-2714

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.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

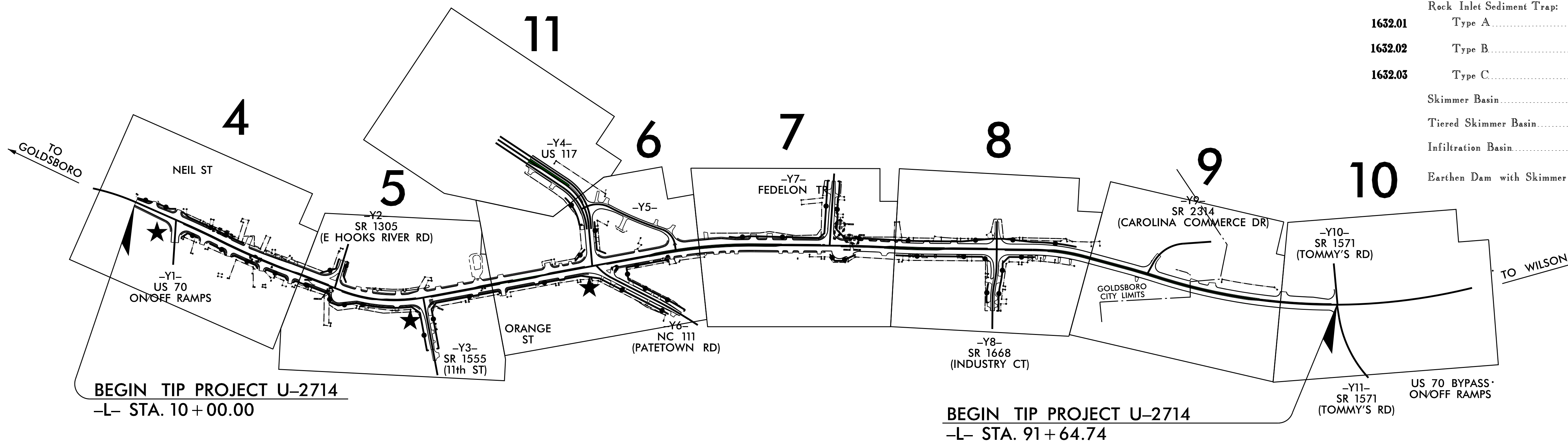


PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WAYNE COUNTY

LOCATION: US 117A (N. WILLIAMS ST) FROM NORTH OF US 70 TO SR 1571 (TOMMY'S RD)

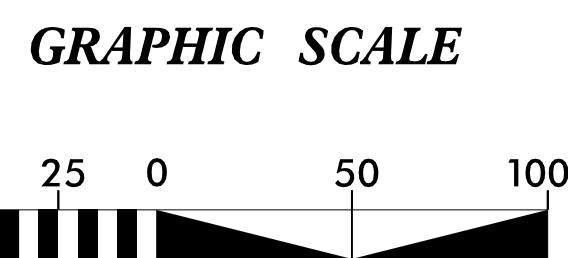
TYPE OF WORK: GRADING, PAVING, DRAINAGE, CULVERT AND SIGNALS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2714	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38979.1.2	N/A	PE	
38979.2.1	N/A	ROW & UTIL.	
38979.3.1	N/A	PE	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	TD
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	— T —
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	— W —
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	— W —
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	▨
	Earthen Dam with Skimmer	▨



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared in the Office of:

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

Designed by:

Wyatt D. Yelverton, PE, CPESC 3609
NAME LEVEL III CERTIFICATION NO.

Reviewed in the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2018 STANDARD SPECIFICATIONS

Reviewed by:


Wes Chandler, PE

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 Wattle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

PROJECT REFERENCE NO. U-2714	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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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.

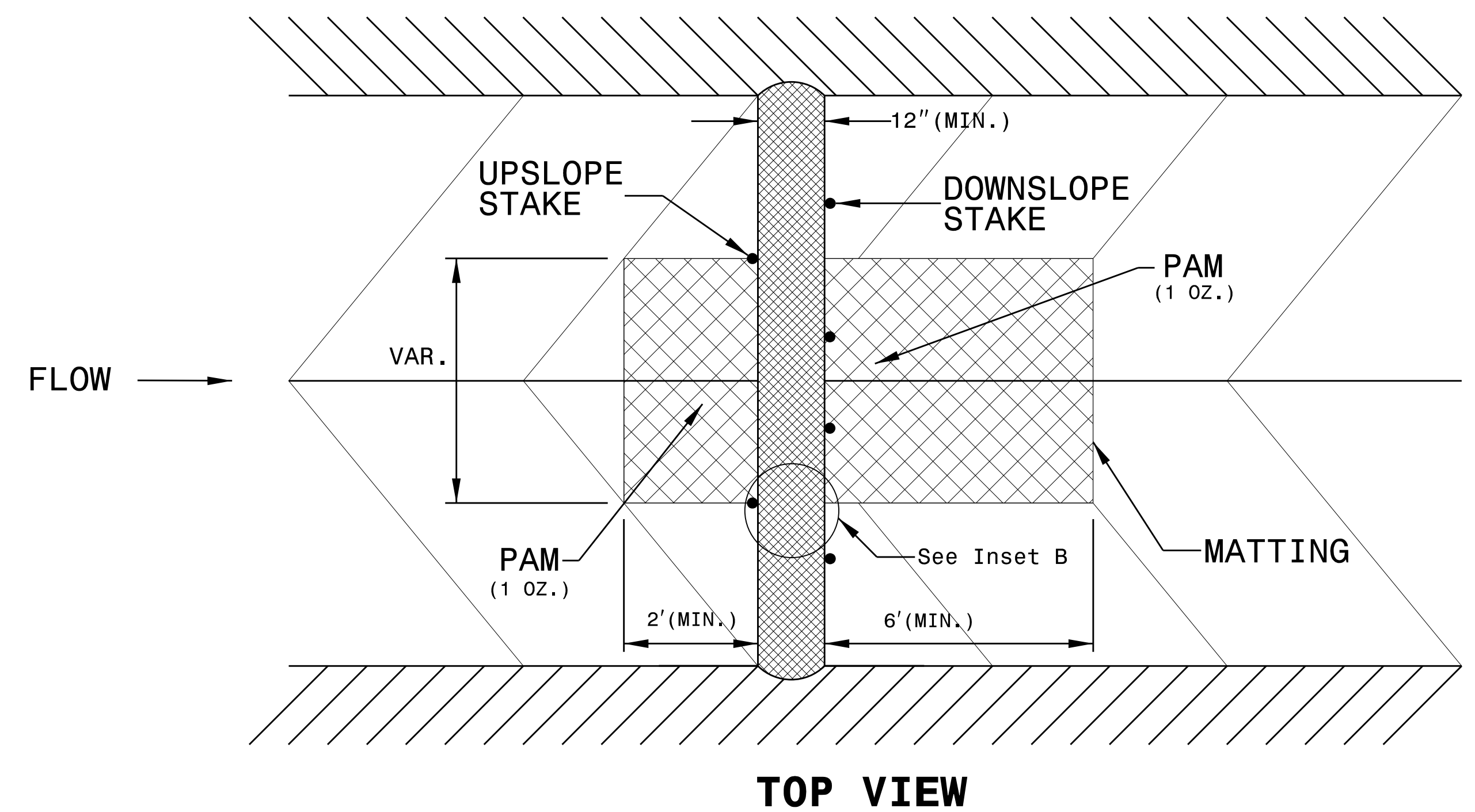
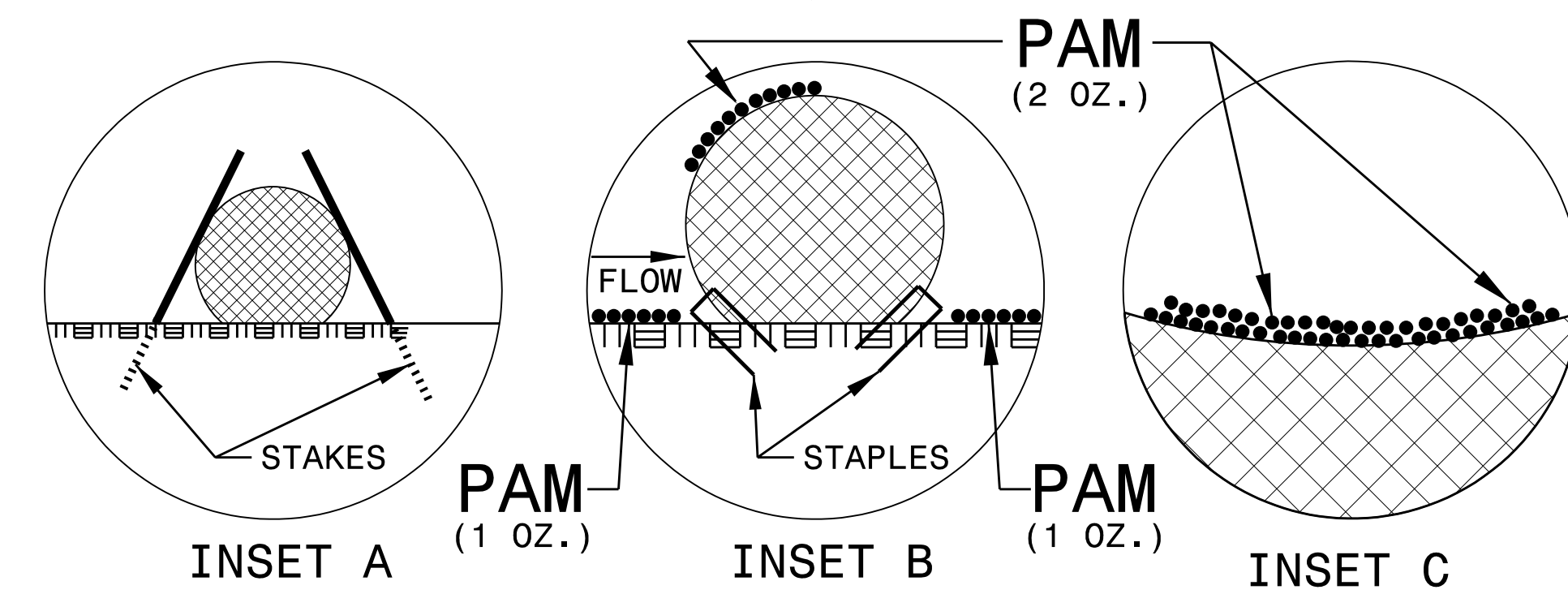
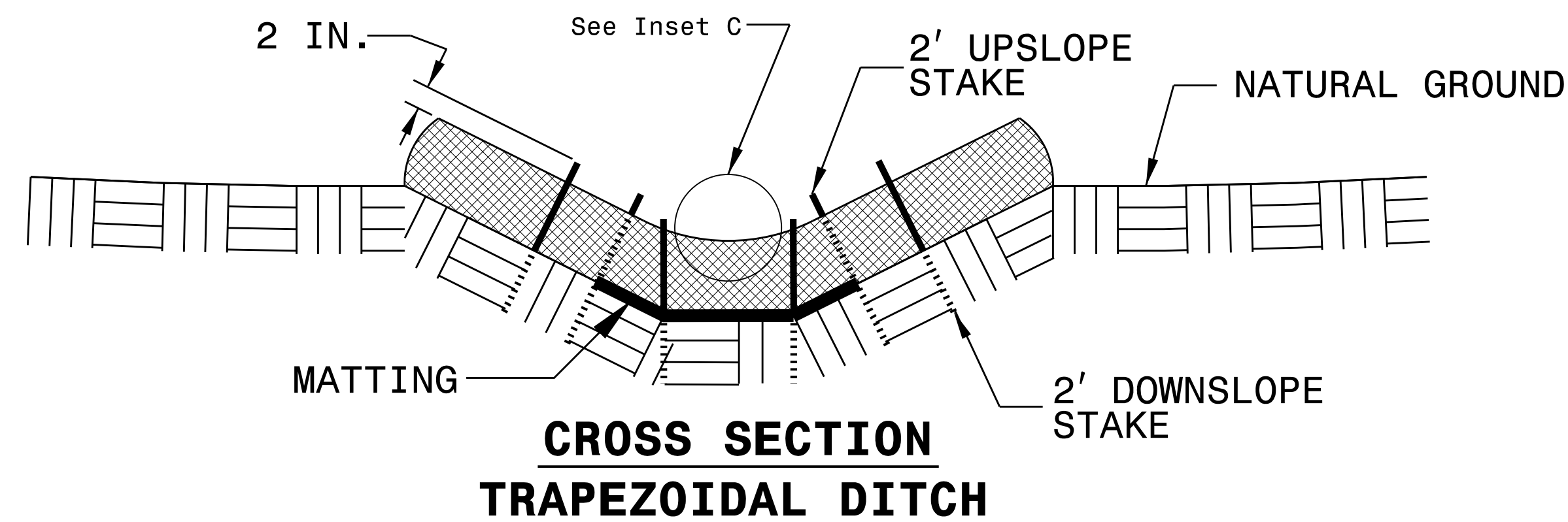
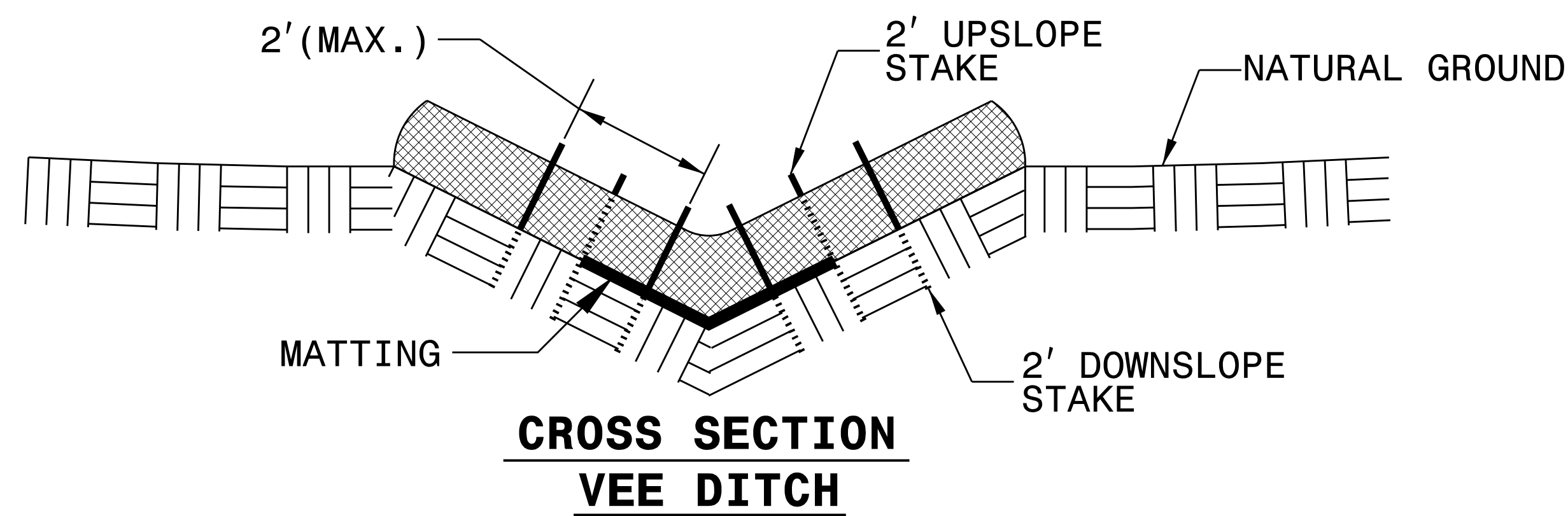
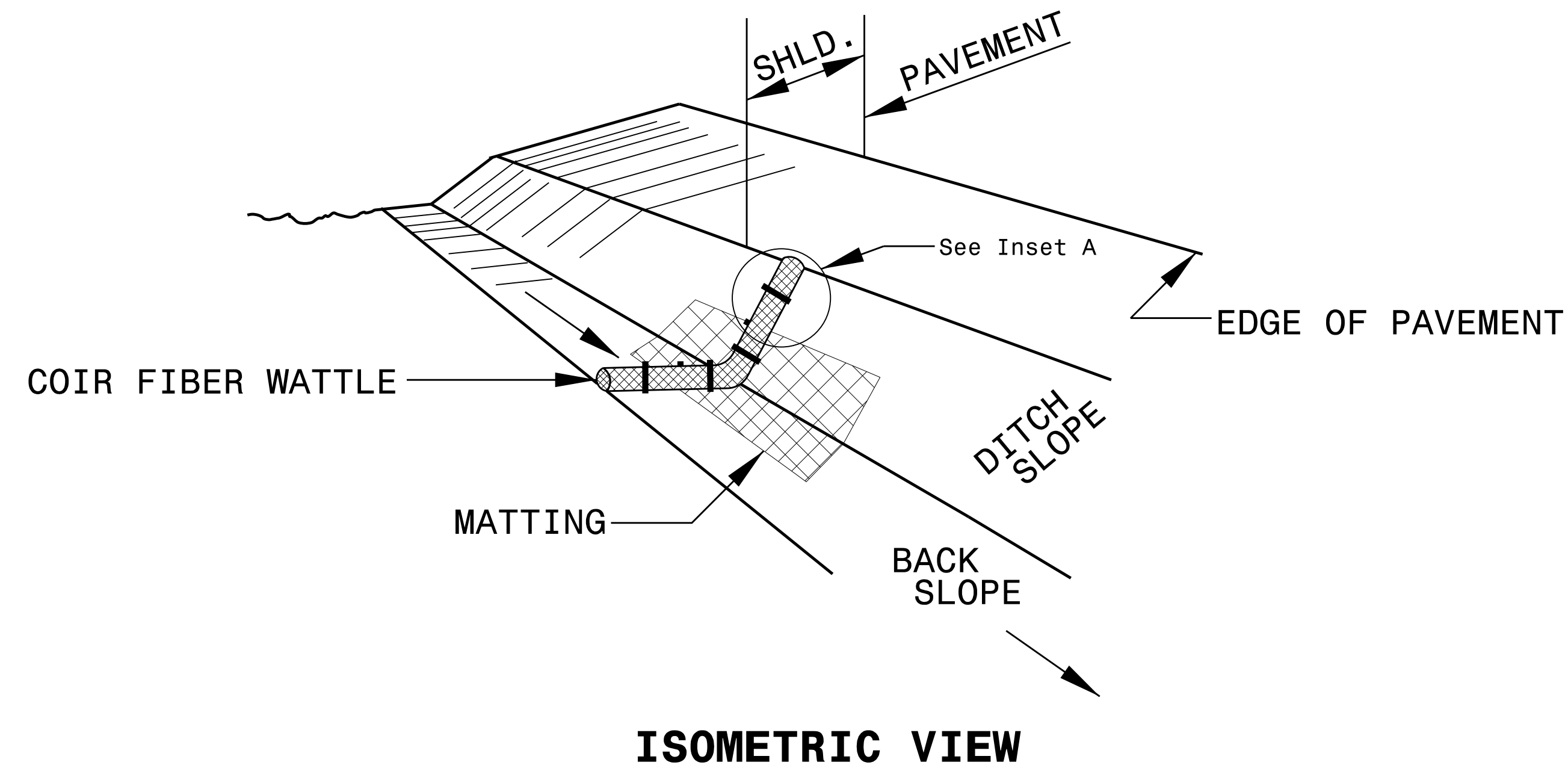
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.


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.

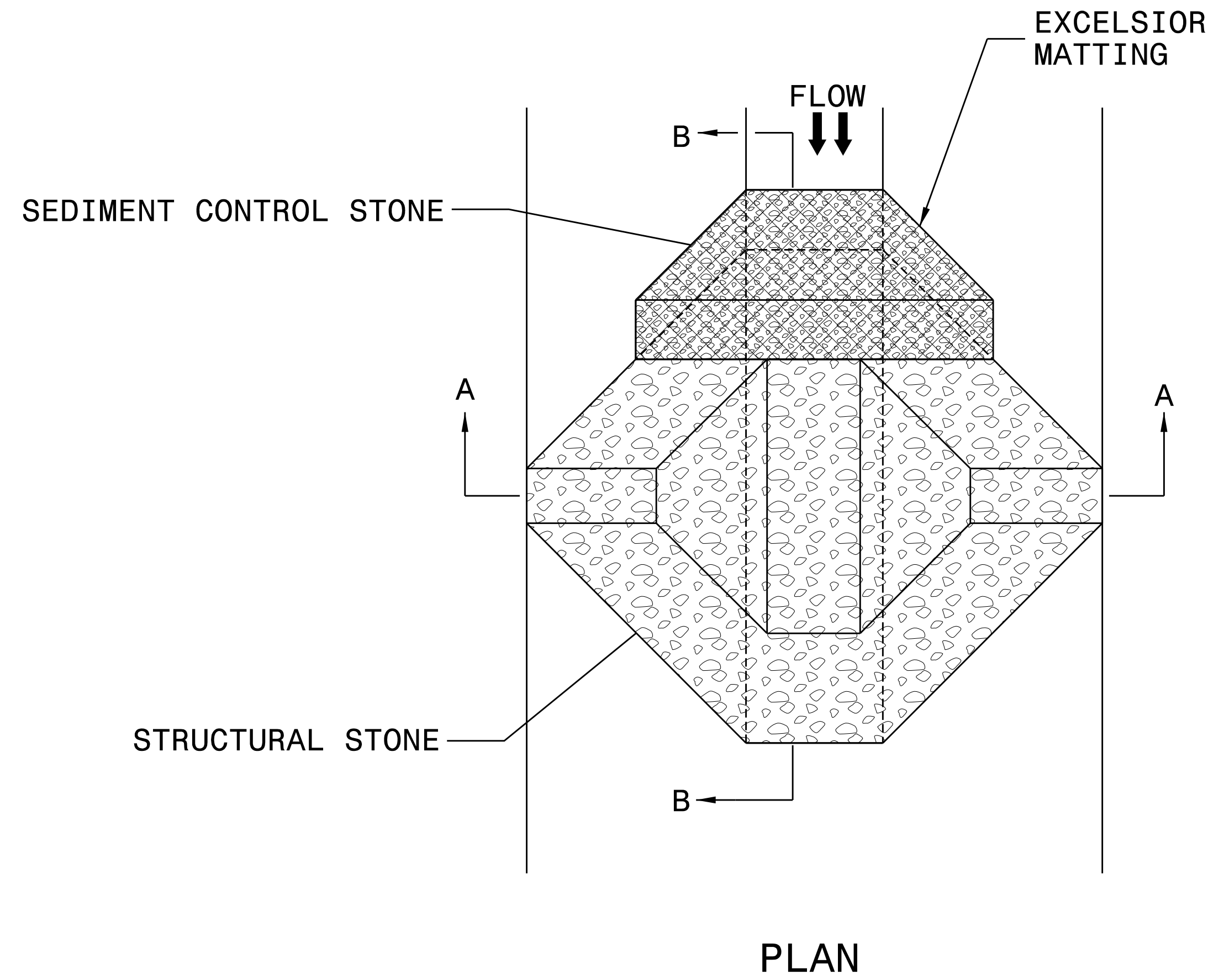
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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. U-2714	SHEET NO. EC-2A
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	

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



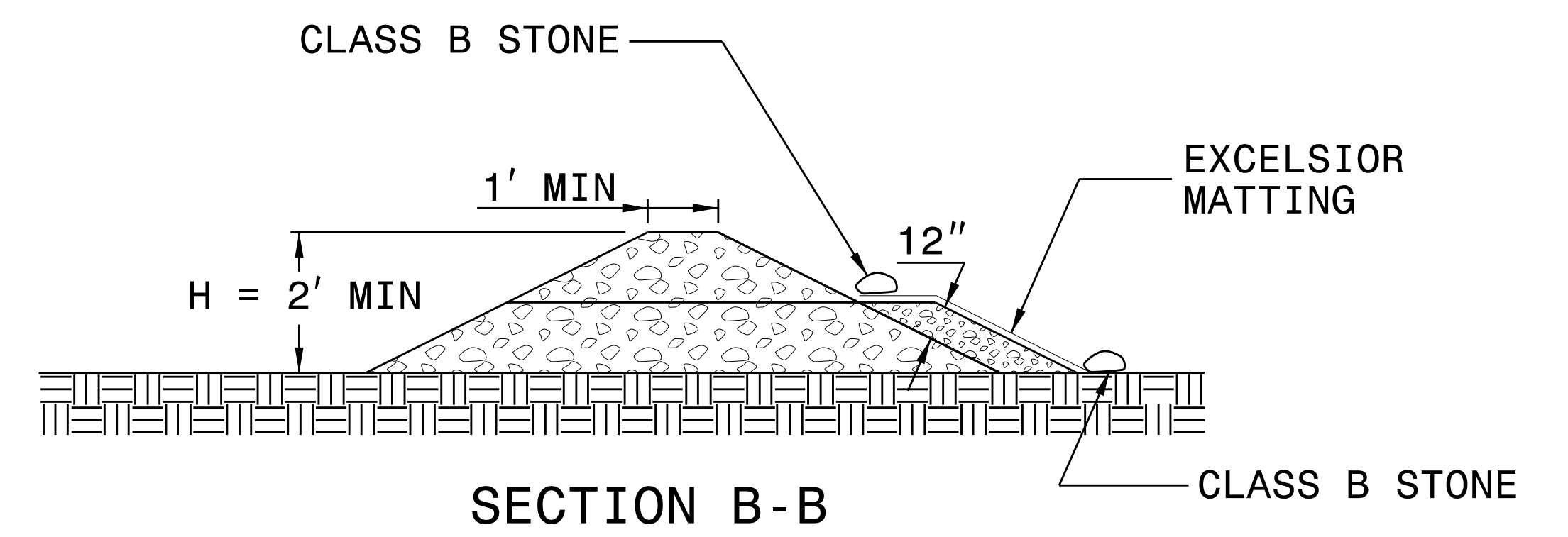
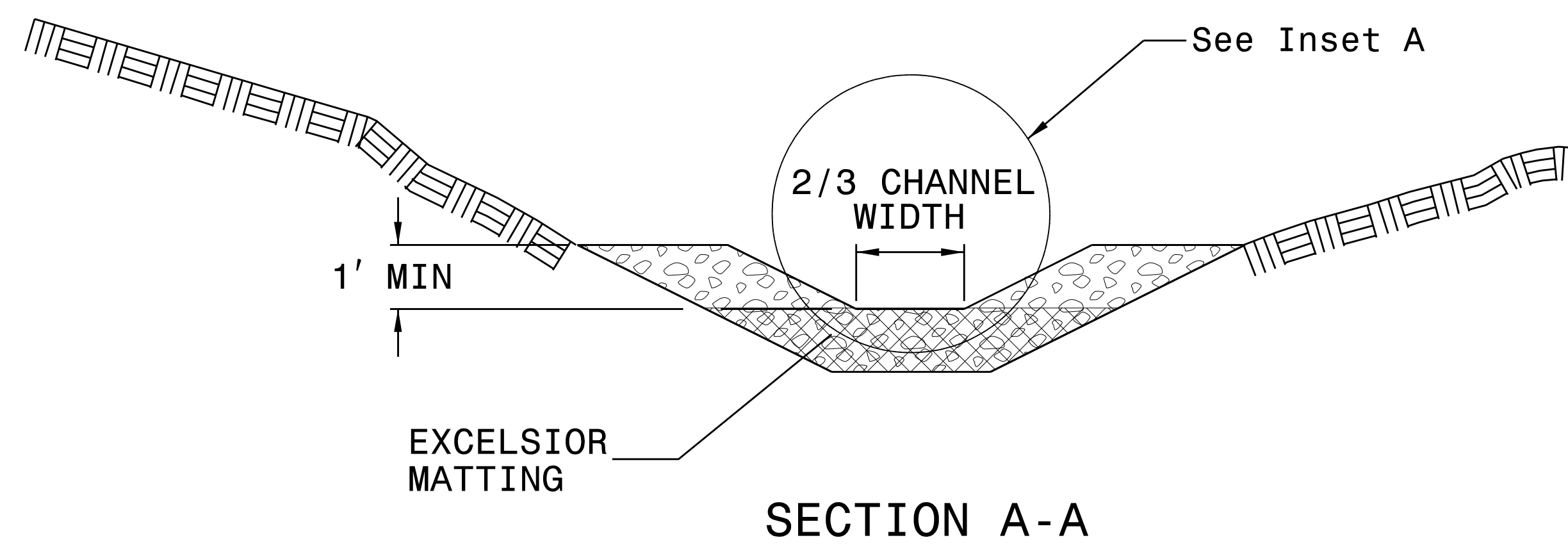
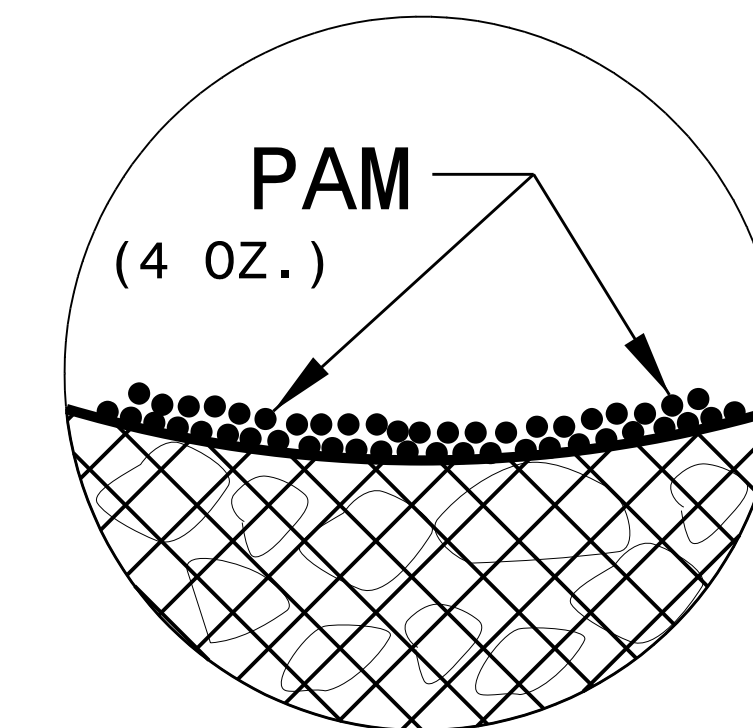
NOTES:

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.



NOT TO SCALE

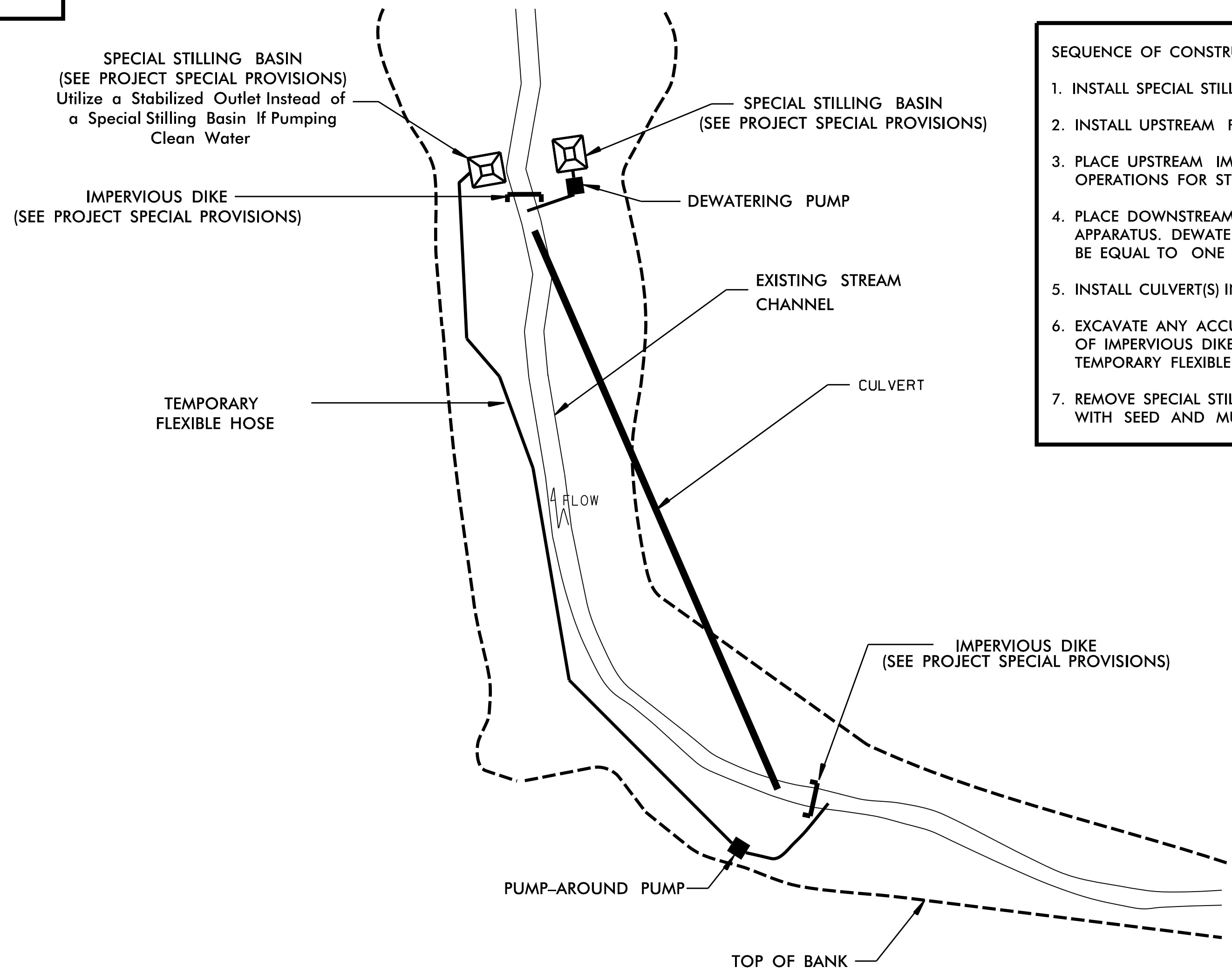
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PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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PUMP-AROUND OPERATION

NOTES:

- 1) All excavation shall be performed in only dry or isolated areas of the work zone.
- 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
- 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
- 4) Pumps and hoses shall be of sufficient size to dewater the work area.




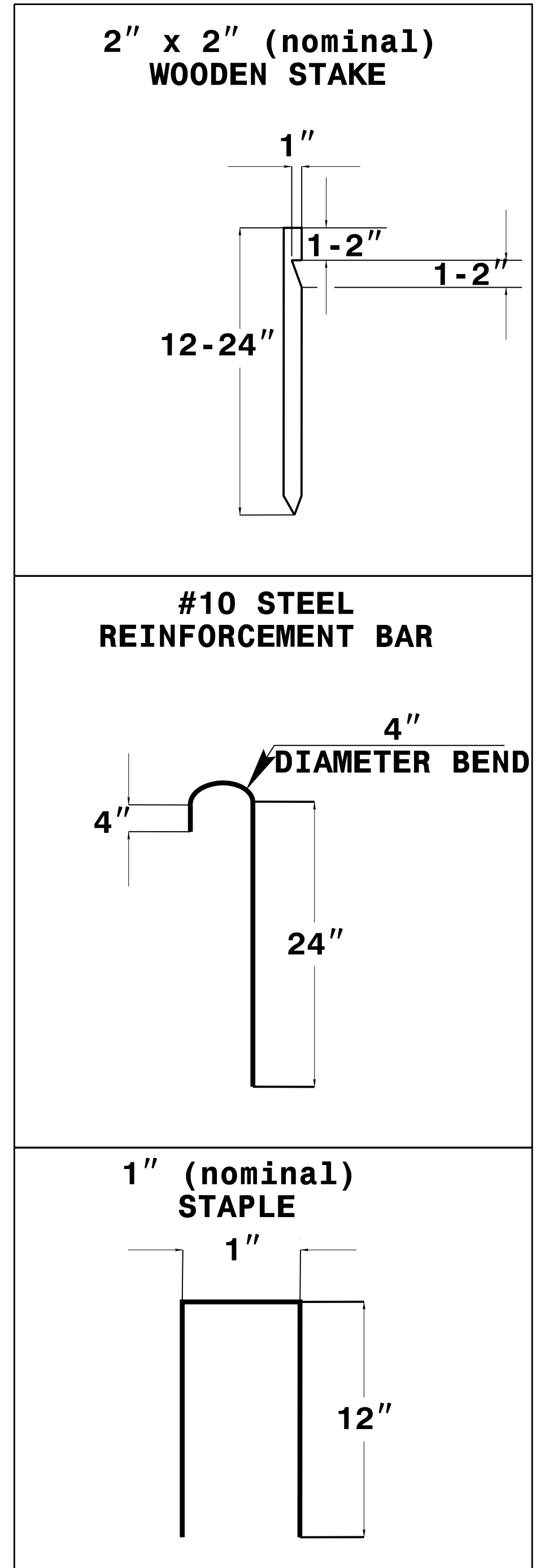
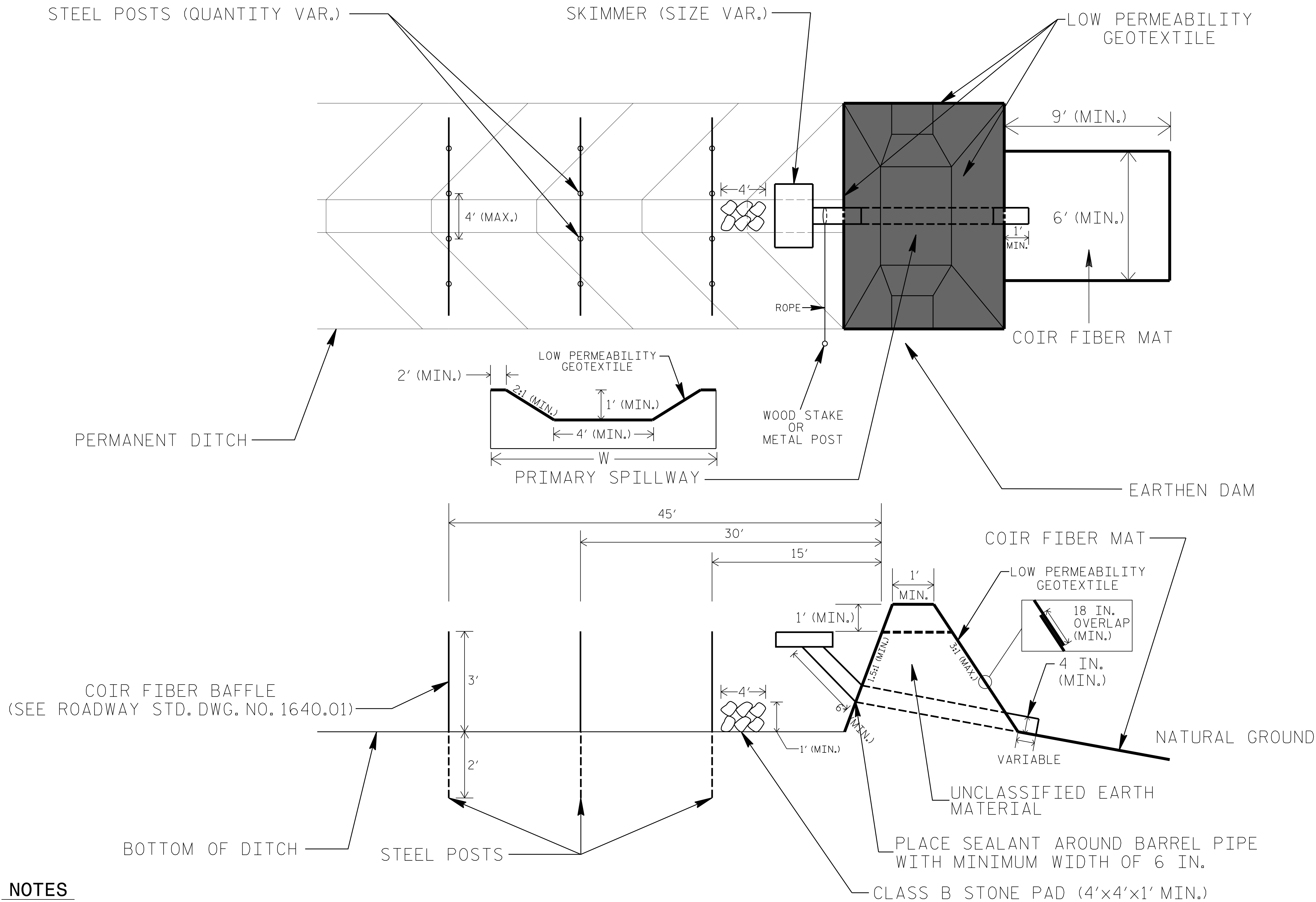
SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA

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

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EARTHEN DAM WITH SKIMMER DETAIL (EAST)

PROJECT REFERENCE NO. U-2714	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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COIR FIBER MAT ANCHOR OPTIONS

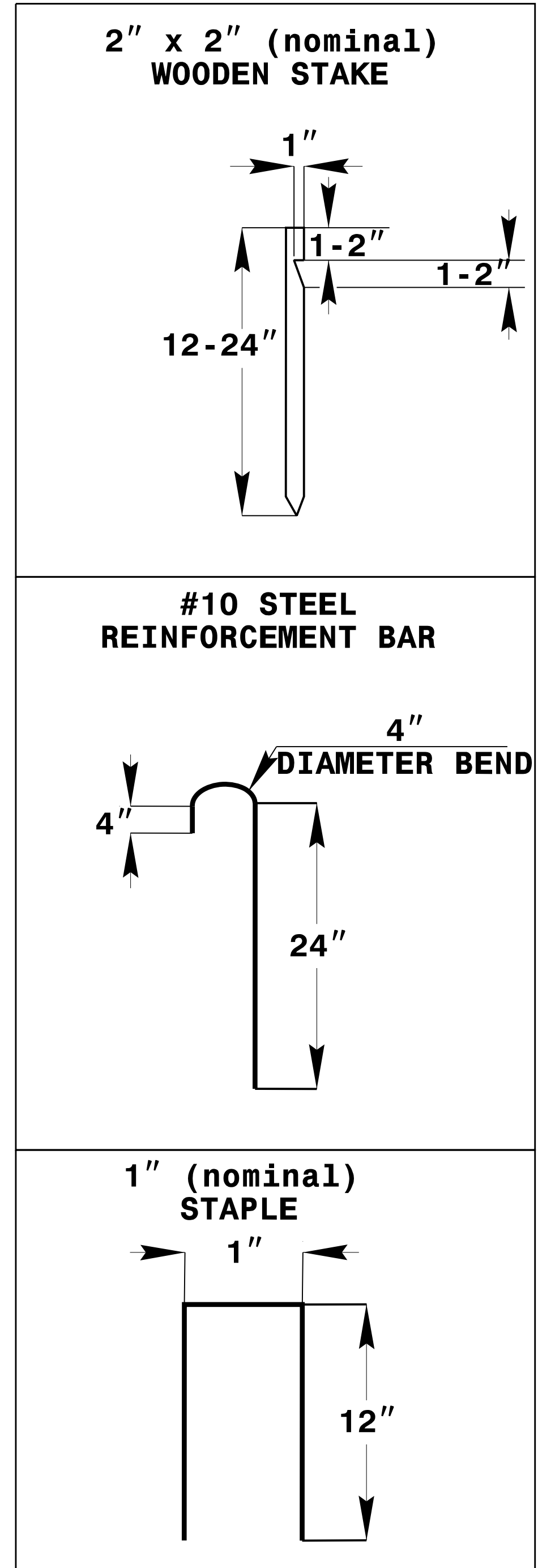
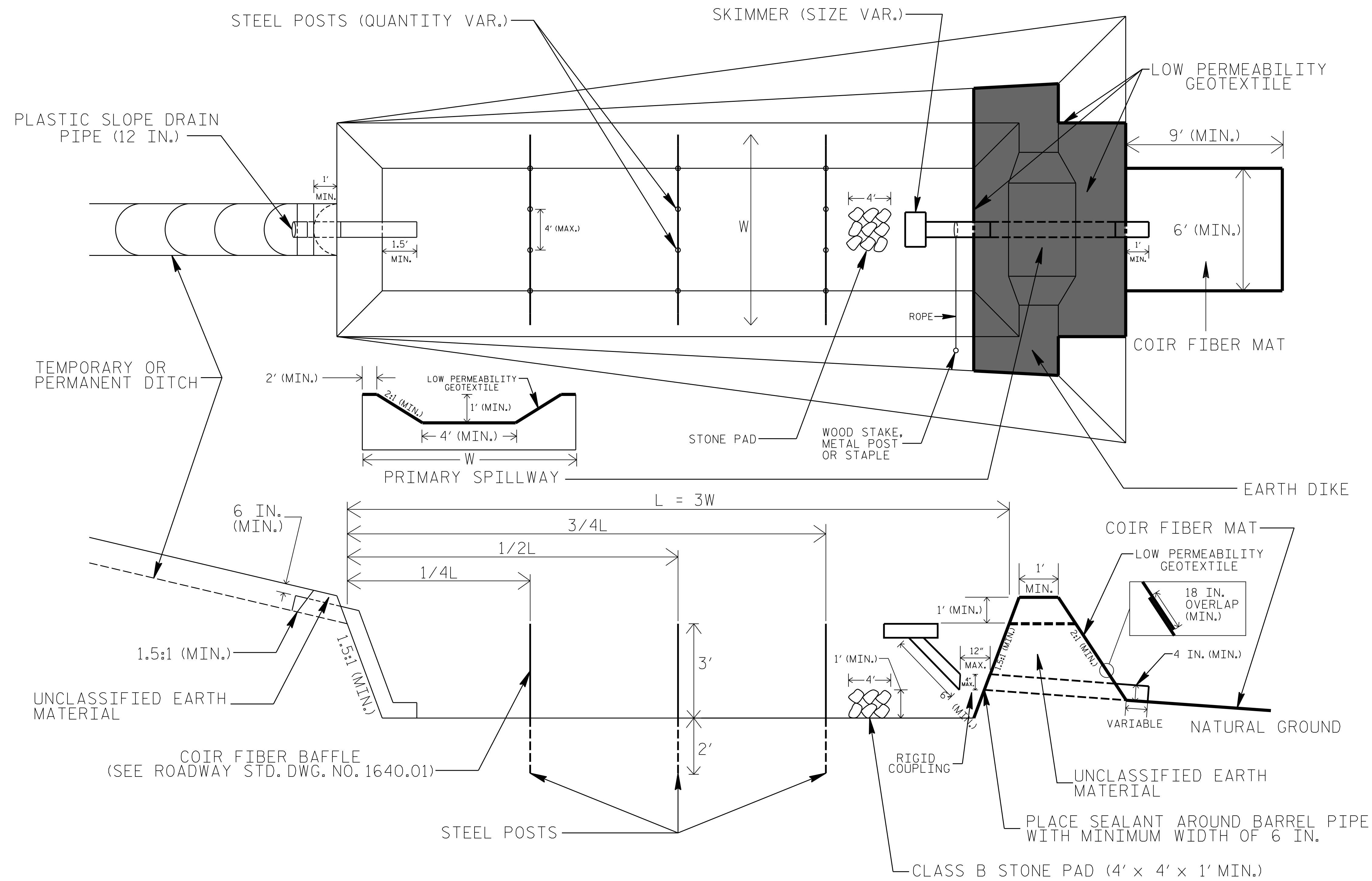
NOTES

1. LIMIT EARTHEN DAM HEIGHT TO 5 FT.
2. DETERMINE PRIMARY SPILLWAY LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
3. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO. U-2714	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



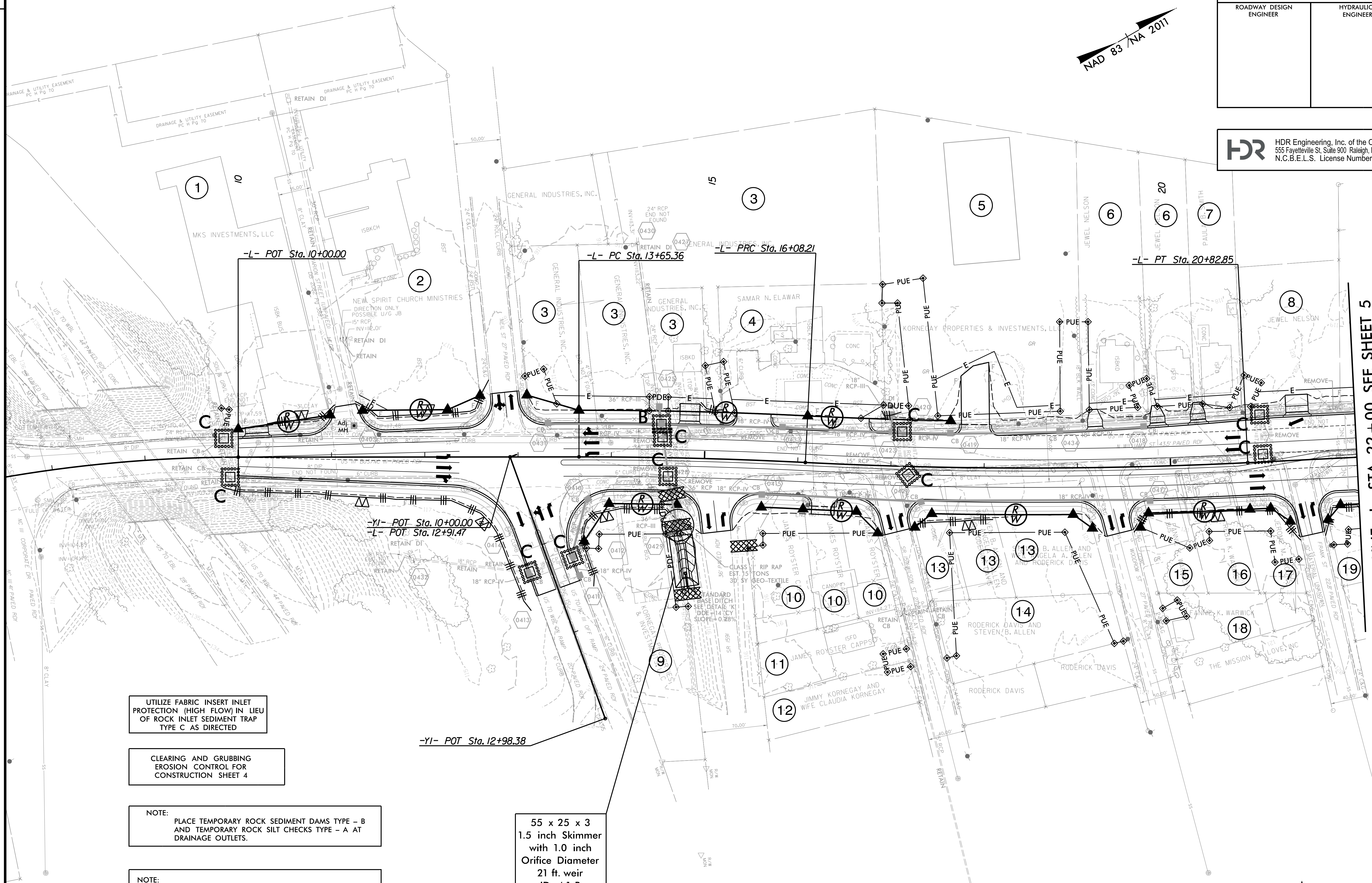
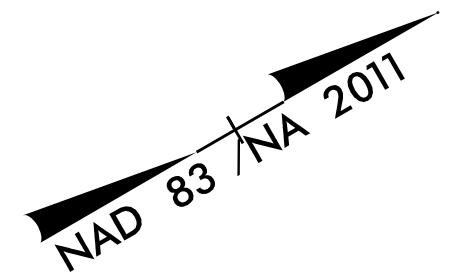
NOTES

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. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-4CONST.4
RW SHEET NO.	RW-4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

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:
 PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

55 x 25 x 3
 1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 21 ft. weir
 ID 4.1 B

★ PROPOSED SIGNAL
 SEE SHEET 12 FOR -L- PROFILE
 SEE SHEET 16 FOR -Y1- PROFILE
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

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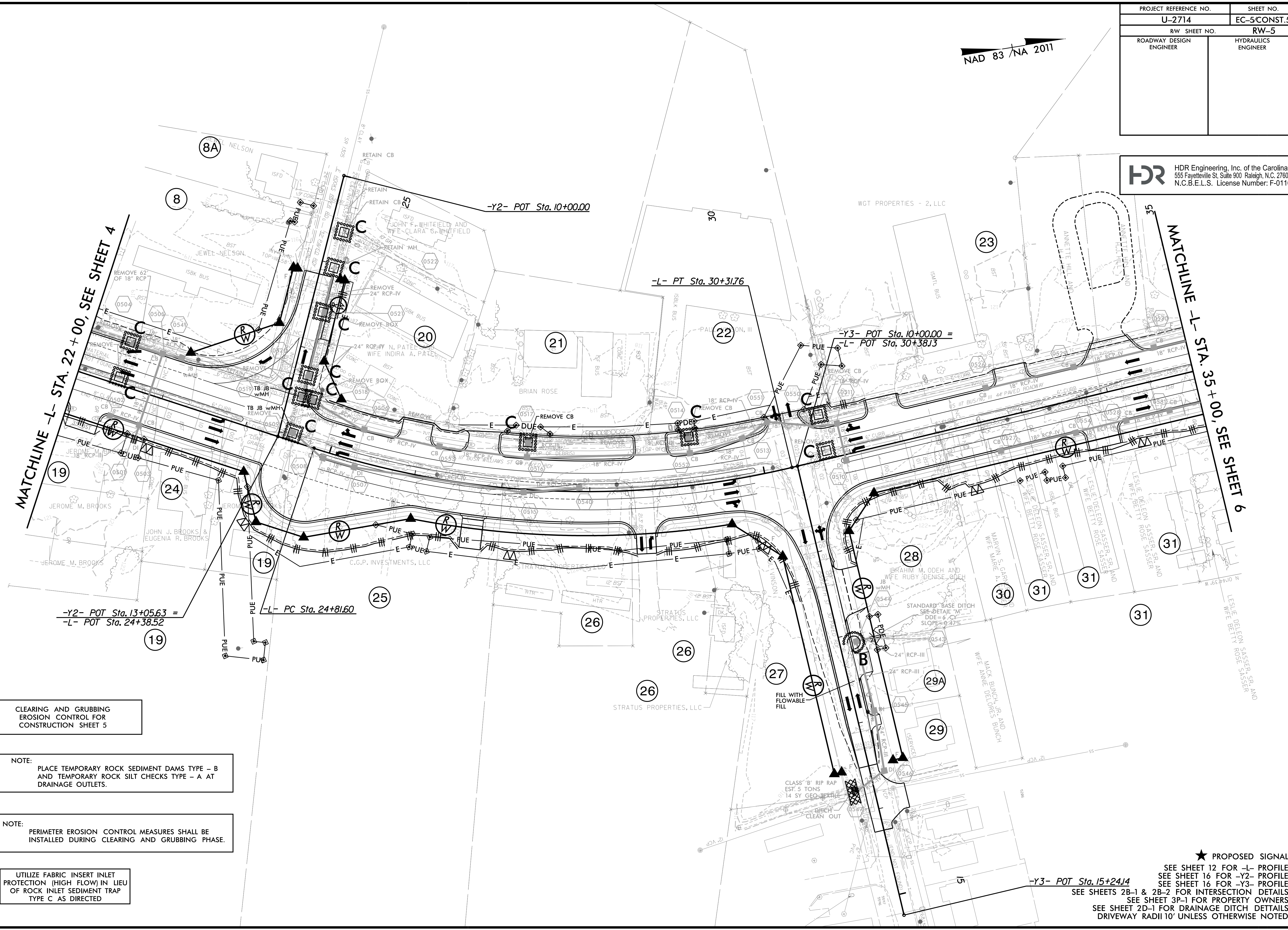
REVISIONS

MATCHLINE -L- STA. 22 + 00, SEE SHEET 5

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-5/CONST.5
RW SHEET NO.	RW-5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 N.C.B.E.L.S. License Number: F-0116

NAD 83 / NA 2011



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:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

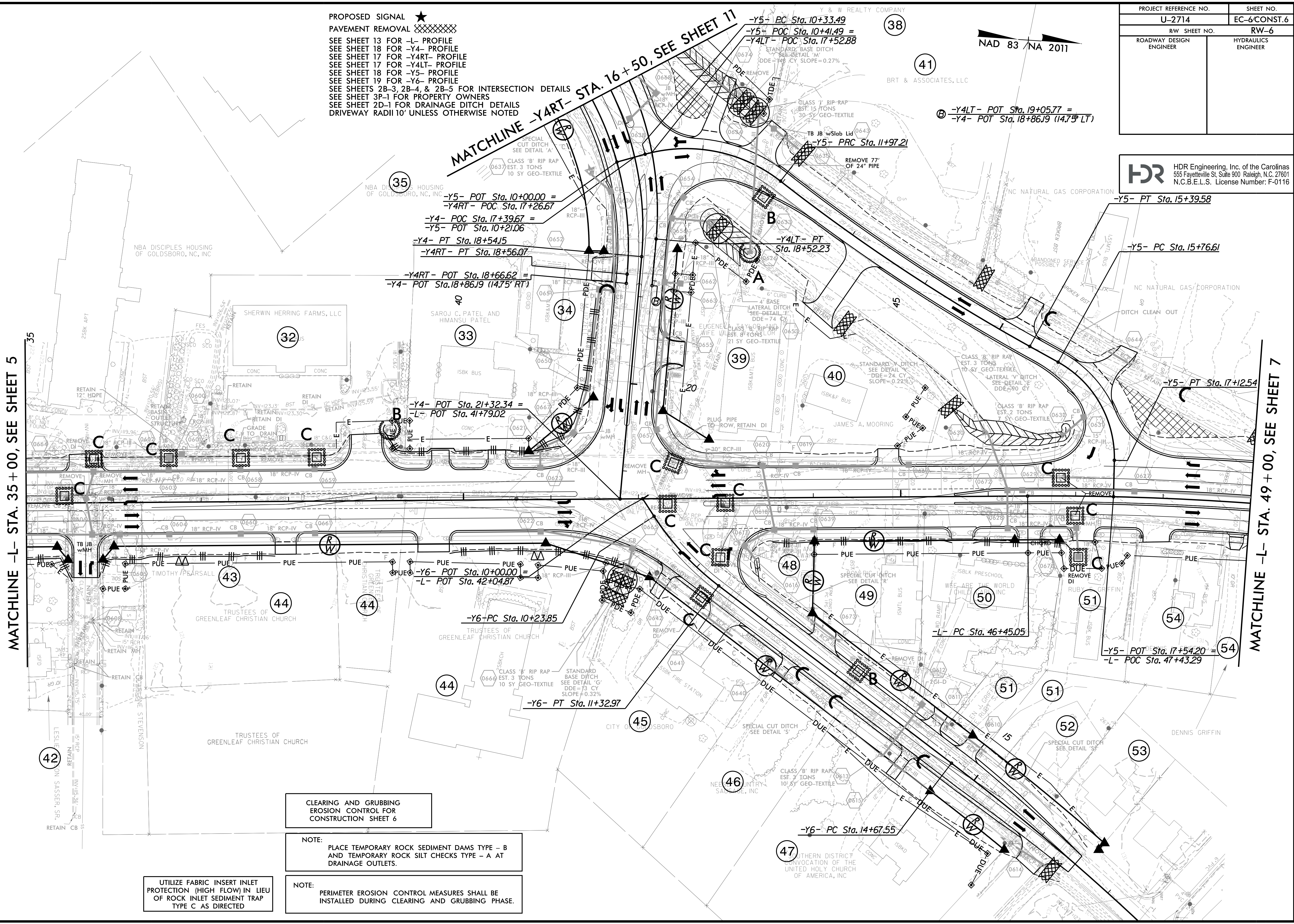
★ PROPOSED SIGNAL
 SEE SHEET 12 FOR -L- PROFILE
 SEE SHEET 16 FOR -Y2- PROFILE
 SEE SHEET 16 FOR -Y3- PROFILE
 SEE SHEETS 2B-1 & 2B-2 FOR INTERSECTION DETAILS
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

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 REVISIONS

PROPOSED SIGNAL ★
 PAVEMENT REMOVAL XXXXXXXX
 SEE SHEET 13 FOR -L- PROFILE
 SEE SHEET 18 FOR -Y4- PROFILE
 SEE SHEET 17 FOR -Y4RT- PROFILE
 SEE SHEET 17 FOR -Y4LT- PROFILE
 SEE SHEET 18 FOR -Y5- PROFILE
 SEE SHEET 19 FOR -Y6- PROFILE
 SEE SHEETS 2B-3, 2B-4, & 2B-5 FOR INTERSECTION DETAILS
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-6CONST.6
RW SHEET NO.	RW-6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 N.C.B.E.L.S. License Number: F-0116



MATCHLINE -L- STA. 35+00, SEE SHEET 5

MATCHLINE -L- STA. 49+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.

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

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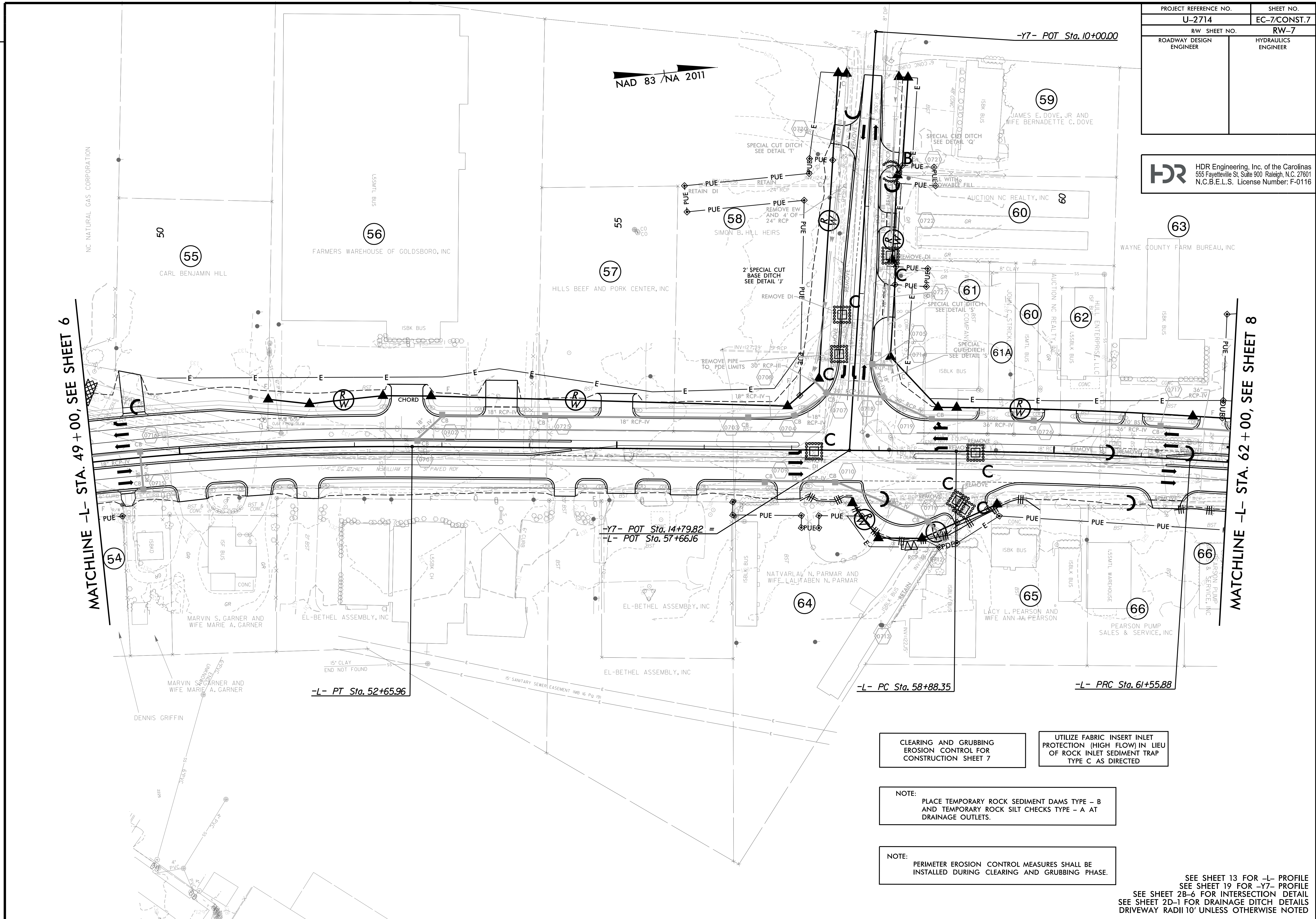
REVISIONS

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REVISIONS

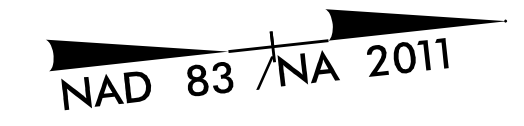
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U-2714	EC-7/CONST.7
RW SHEET NO.	RW-7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 N.C.B.E.L.S. License Number: F-0116



MATCHLINE -L- STA. 49 + 00, SEE SHEET 6

MATCHLINE -L- STA. 62 + 00, SEE SHEET 8



-Y7- POT Sta. 14+79.82 =
 -L- POT Sta. 57+66.16

-L- PT Sta. 52+65.96

-L- PC Sta. 58+88.35

-L- PRC Sta. 61+55.88

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 7

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

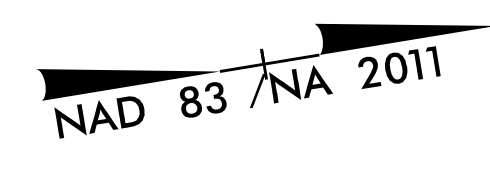
NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEET 13 FOR -L- PROFILE
 SEE SHEET 19 FOR -Y7- PROFILE
 SEE SHEET 2B-6 FOR INTERSECTION DETAIL
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-8/CONST.8
R/W SHEET NO.	RW-8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

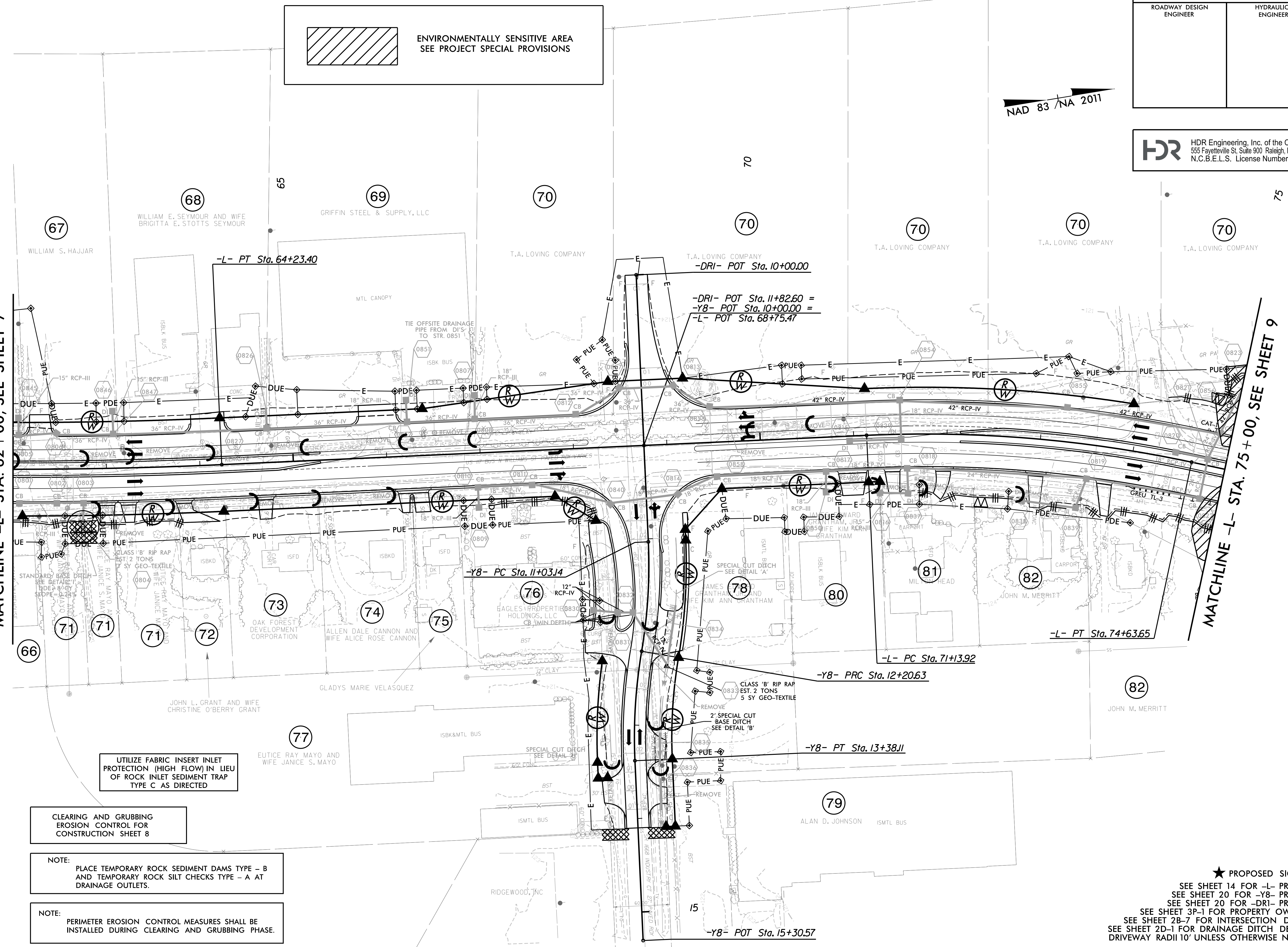
HDR HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116



 ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

MATCHLINE -L- STA. 62+00, SEE SHEET 7

MATCHLINE -L- STA. 75+00, SEE SHEET 9



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:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

-DRI- POT Sta. 11+82.60 =
 -Y8- POT Sta. 10+00.00 =
 -L- POT Sta. 68+75.47

-Y8- PC Sta. 11+03.14

-L- PC Sta. 71+13.92

-Y8- PRC Sta. 12+20.63

-Y8- PT Sta. 13+38.11

-L- PT Sta. 74+63.65

-Y8- POT Sta. 15+30.57

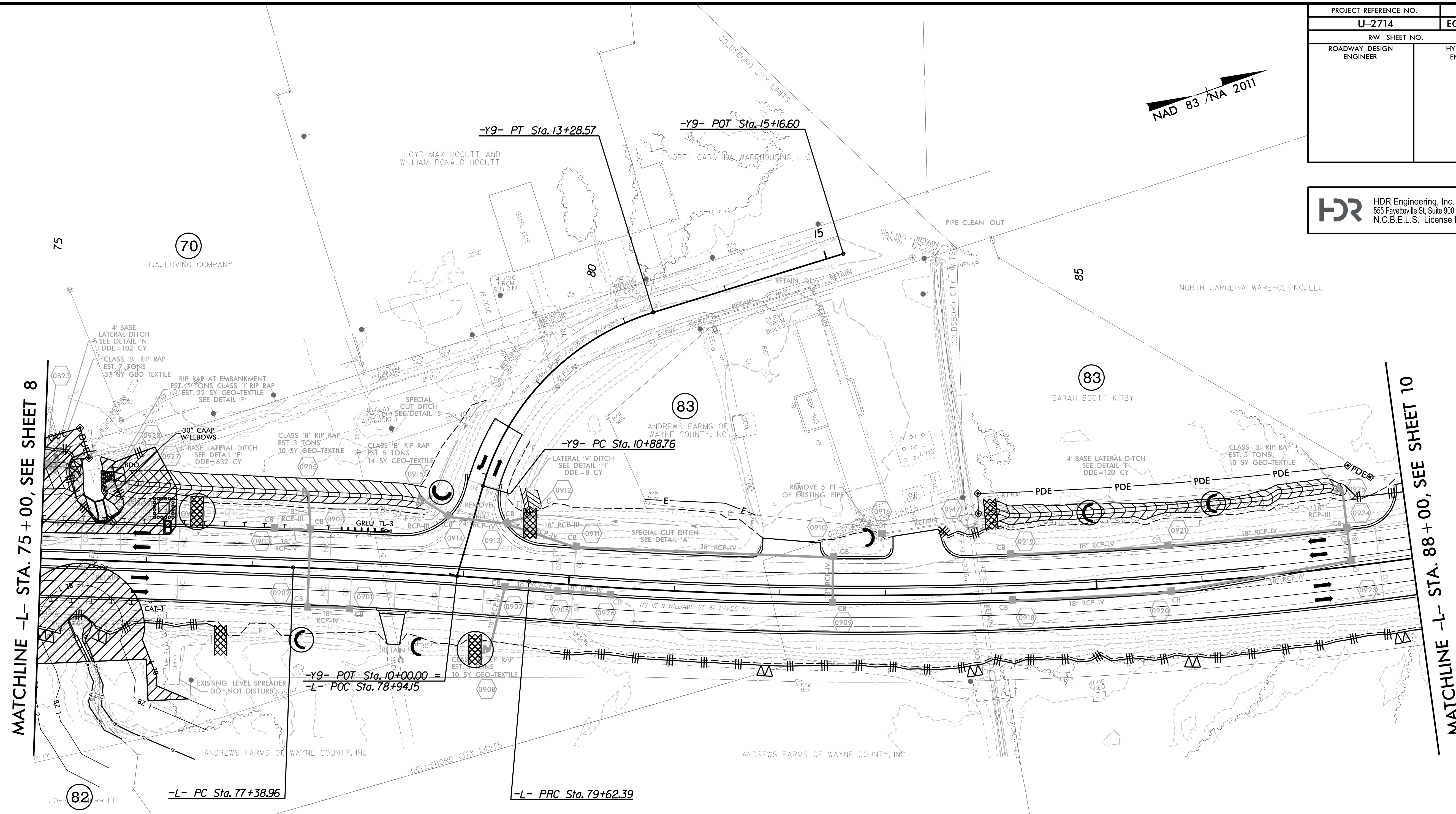
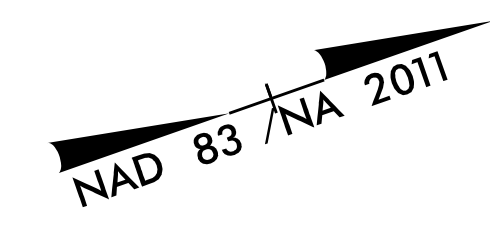
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REVISIONS

★ PROPOSED SIGNAL
 SEE SHEET 14 FOR -L- PROFILE
 SEE SHEET 20 FOR -Y8- PROFILE
 SEE SHEET 20 FOR -DRI- PROFILE
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2B-7 FOR INTERSECTION DETAIL
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-9/CONST.9
RW SHEET NO.	RW-9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



MATCHLINE -L- STA. 75 + 00, SEE SHEET 8

MATCHLINE -L- STA. 88 + 00, SEE SHEET 10

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

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.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEET 14 FOR -L- PROFILE
 SEE SHEET 20 FOR -Y9- PROFILE
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

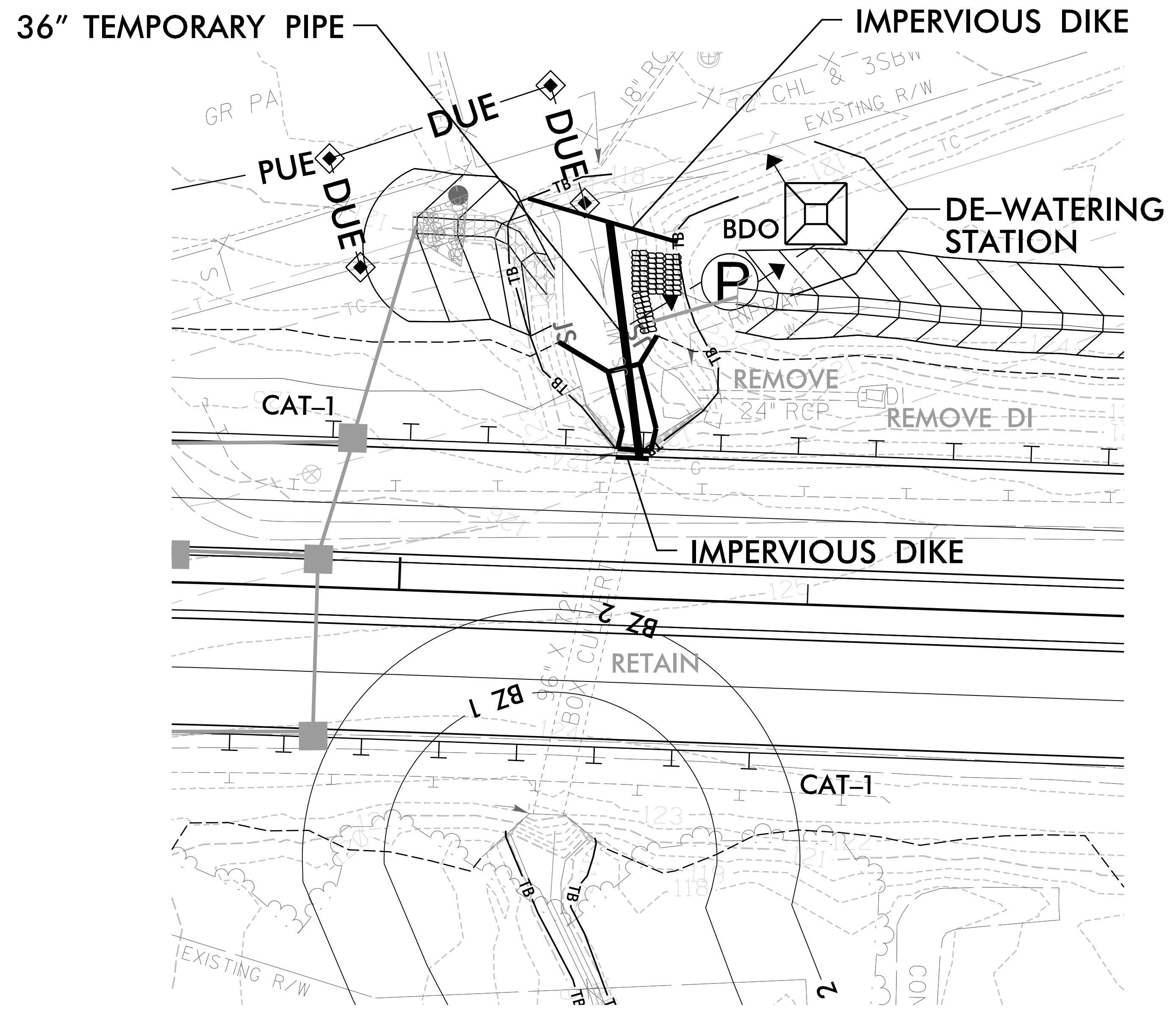
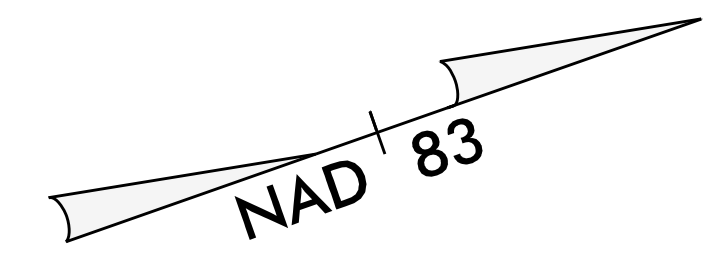
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REVISIONS

PROJECT REFERENCE NO. U-2714	SHEET NO. EC-9A/CONST.9
R/W 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	

8' X 6' RCBC CULVERT EXTENSION CONSTRUCTION SEQUENCE STA. 75+50 -L-

1. PLACE IMPERVIOUS DIKES UPSTREAM OF THE WORK AREA AND INSIDE EXISTING CULVERT INLET.
2. PROVIDE PUMP AROUND OPERATION AND SPECIAL STILLING BASIN FOR DEWATERING THE WORK ZONE.
3. EXCAVATE THE WORK ZONE.
4. CONSTRUCT CULVERT BOTTOM.
5. INSTALL 36" PIPE TO CARRY CLEAN WATER THROUGH THE WORK ZONE AND ALLOW THE CULVERT TO BE CONSTRUCTED.
6. CONSTRUCT CULVERT SIDES.
7. FILL CULVERT BOTTOM WITH NATIVE MATERIAL TO THE NATURAL CHANNEL BED ELEVATION.
8. CONSTRUCT CULVERT TOP AND WINGWALLS.
9. REMOVE IMPERVIOUS DIKES AND TEMPORARY 36" PIPE AND ALLOW FLOW INTO CULVERT.
10. COMPLETE ROADWAY.

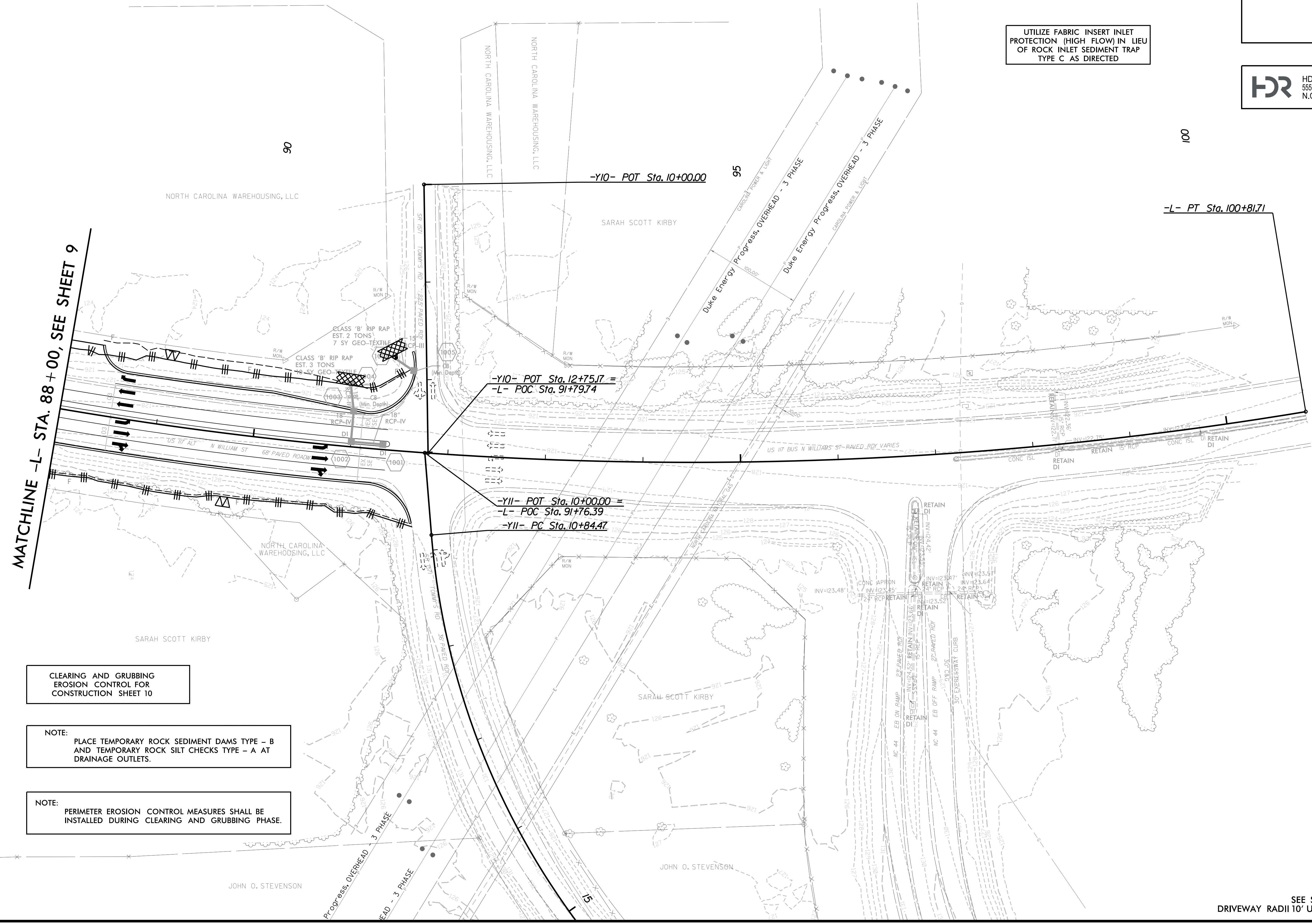


PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-10/CONST.10
R/W SHEET NO.	RW-10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-01116



UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED



MATCHLINE -L- STA. 88+00, SEE SHEET 9

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 10

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

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

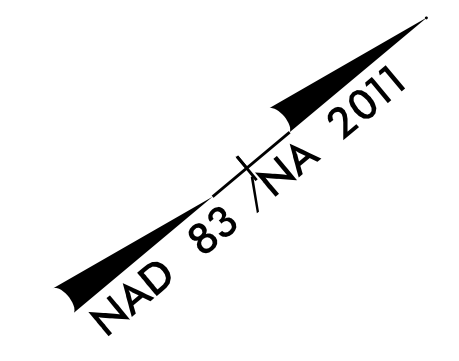
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REVISIONS

SEE SHEET 15 FOR -L- PROFILE
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

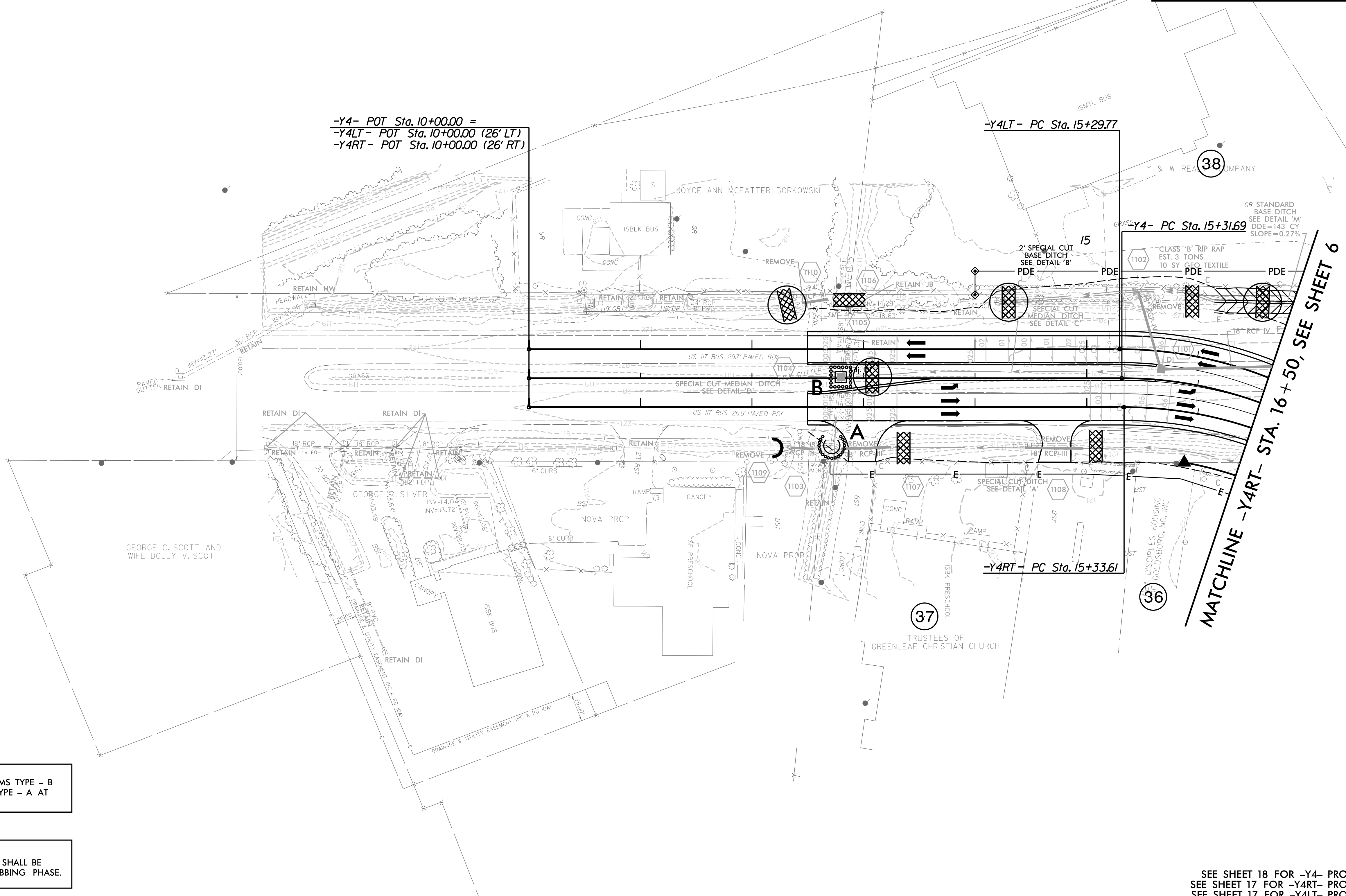
PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-11/CONST.11
RW SHEET NO.	RW-11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLOT DRIVER: NCDOT...color_eng_50.plt
 USER: MDIEHL
 DATE: 12/10/2019
 TIME: 5:05:43 PM
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REVISIONS



-Y4- POT Sta. 10+00.00 =
 -Y4LT- POT Sta. 10+00.00 (26' LT)
 -Y4RT- POT Sta. 10+00.00 (26' RT)

-Y4LT- PC Sta. 15+29.77

-Y4- PC Sta. 15+31.69

-Y4RT- PC Sta. 15+33.61

MATCHLINE -Y4RT- STA. 16 + 50, SEE SHEET 6

UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

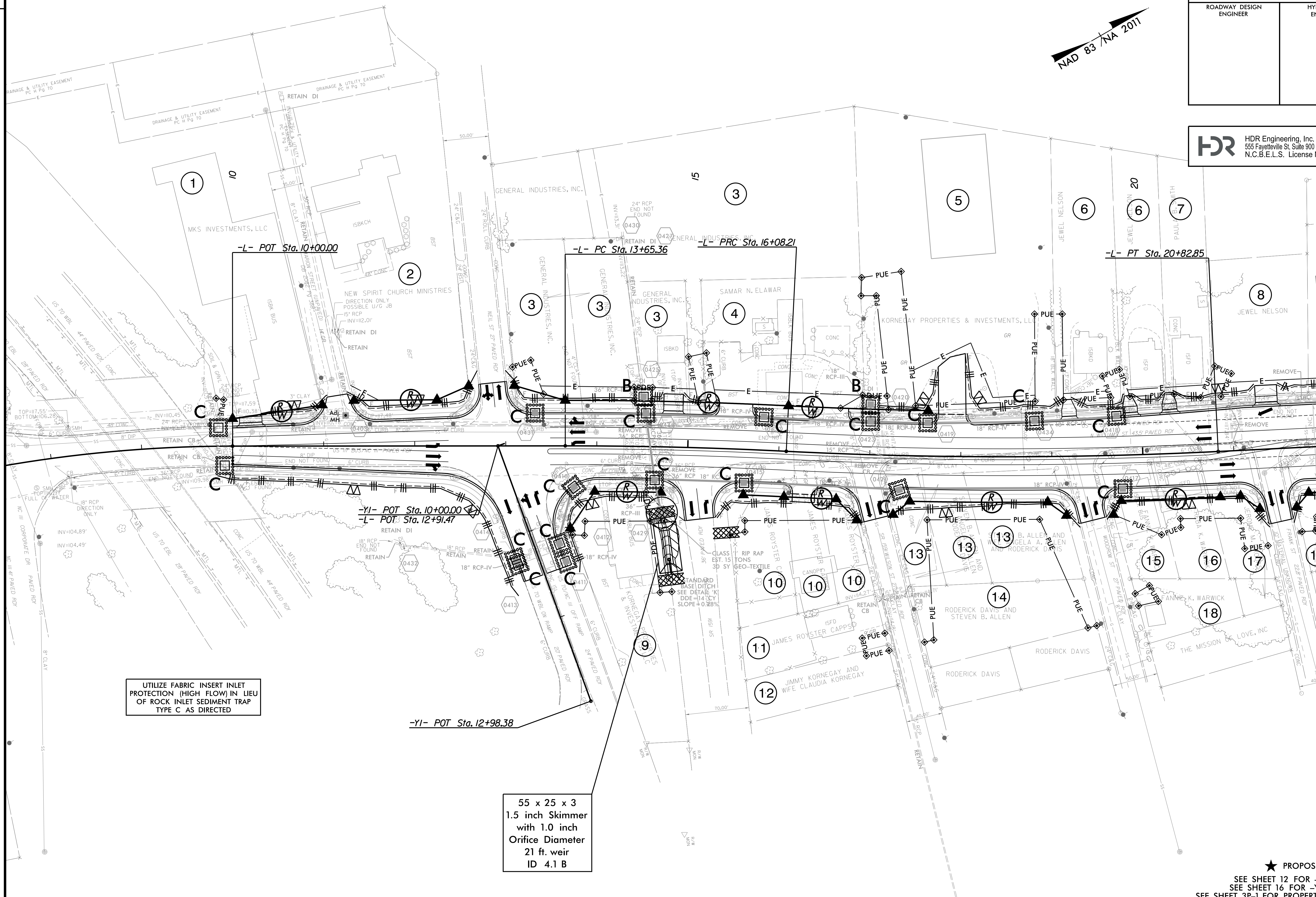
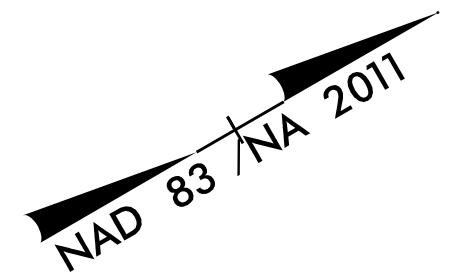
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEET 18 FOR -Y4- PROFILE
 SEE SHEET 17 FOR -Y4RT- PROFILE
 SEE SHEET 17 FOR -Y4LT- PROFILE
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-12/CONST.4
RW SHEET NO.	RW-4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

55 x 25 x 3
 1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 21 ft. weir
 ID 4.1 B

★ PROPOSED SIGNAL
 SEE SHEET 12 FOR -L- PROFILE
 SEE SHEET 16 FOR -Y1- PROFILE
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

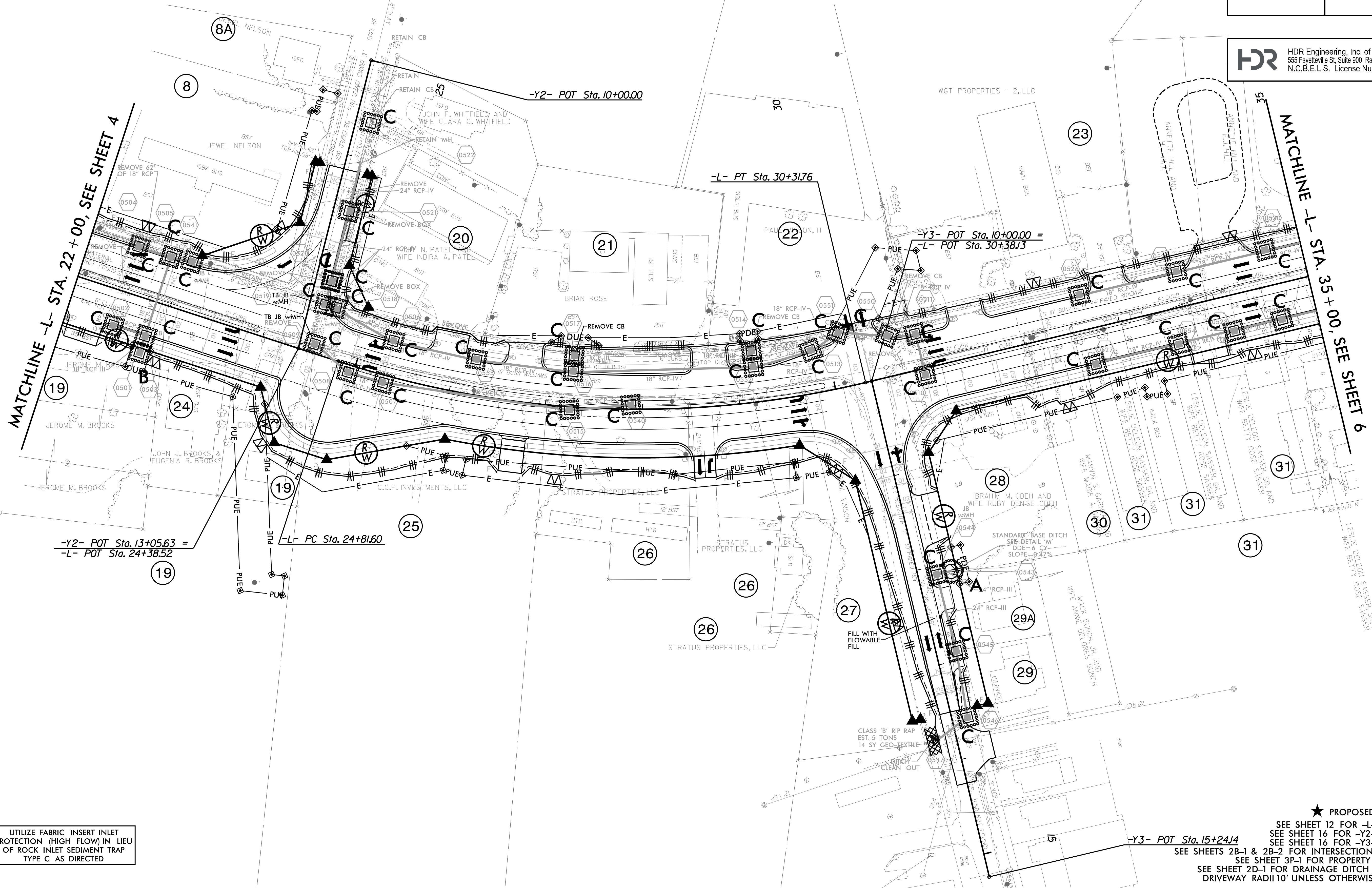
MATCHLINE -L- STA. 22 + 00, SEE SHEET 5

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 REVISIONS:

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-13/CONST.5
RW SHEET NO.	RW-5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

NAD 83 / NA 2011



MATCHLINE -L- STA. 22+00, SEE SHEET 4

MATCHLINE -L- STA. 35+00, SEE SHEET 6

-Y2- POT Sta. 13+05.63 =
 -L- POT Sta. 24+38.52

-L- PC Sta. 24+81.60

-Y3- POT Sta. 10+00.00 =
 -L- POT Sta. 30+38.13

-Y3- POT Sta. 15+24.14

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

★ PROPOSED SIGNAL
 SEE SHEET 12 FOR -L- PROFILE
 SEE SHEET 16 FOR -Y2- PROFILE
 SEE SHEET 16 FOR -Y3- PROFILE
 SEE SHEETS 2B-1 & 2B-2 FOR INTERSECTION DETAILS
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PLOT DRIVER: NCDOT_color_eng_50.plt
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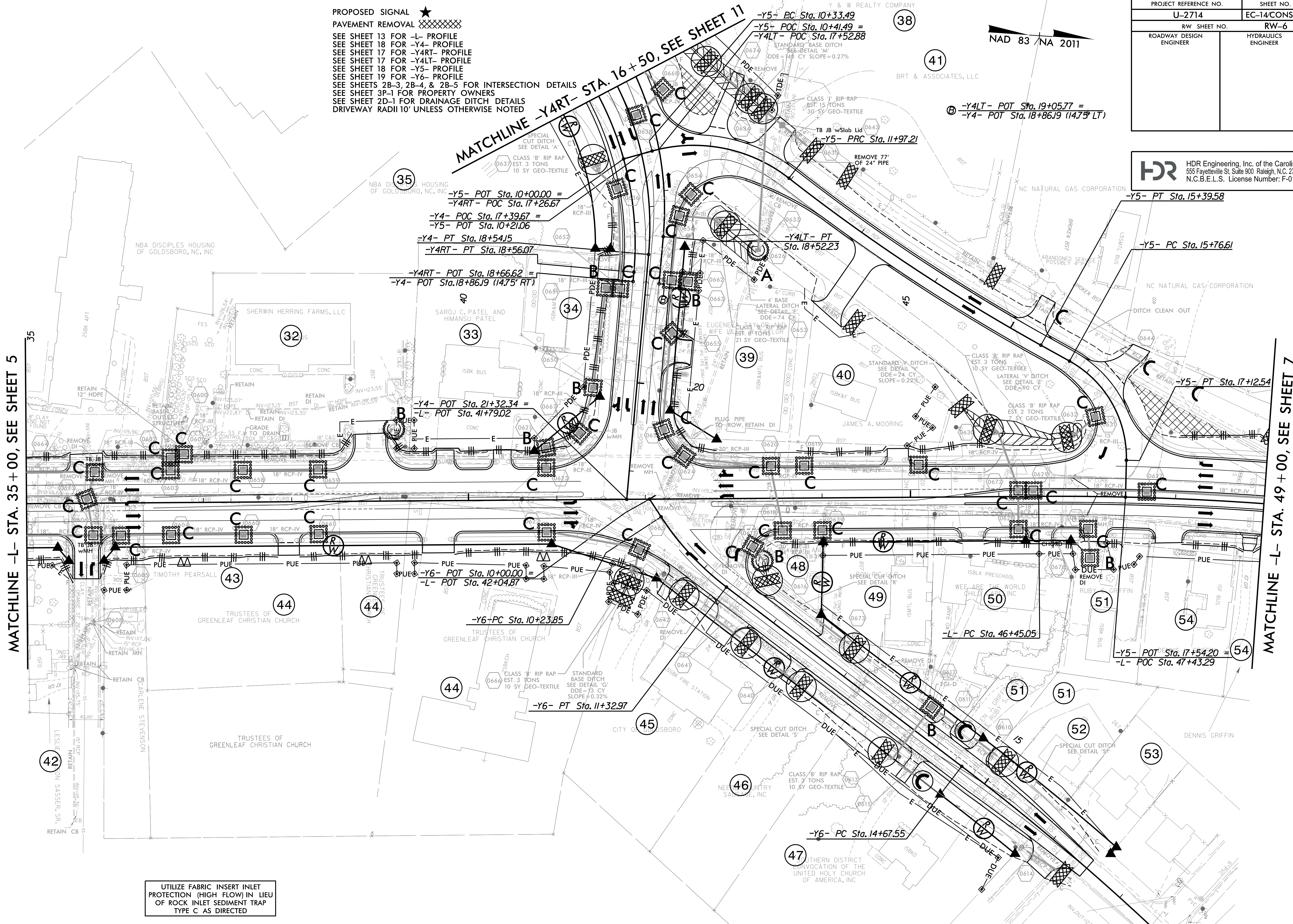
REVISIONS

PROPOSED SIGNAL ★
 PAVEMENT REMOVAL XXXXXXXX
 SEE SHEET 13 FOR -L- PROFILE
 SEE SHEET 18 FOR -Y4- PROFILE
 SEE SHEET 17 FOR -Y4RT- PROFILE
 SEE SHEET 17 FOR -Y4LT- PROFILE
 SEE SHEET 18 FOR -Y5- PROFILE
 SEE SHEET 19 FOR -Y6- PROFILE
 SEE SHEETS 2B-3, 2B-4, & 2B-5 FOR INTERSECTION DETAILS
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-14/CONST.6
RW SHEET NO.	RW-6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

NAD 83 / NA 2011



MATCHLINE -L- STA. 35+00, SEE SHEET 5

MATCHLINE -L- STA. 49+00, SEE SHEET 7

UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

PLOT DRIVER: NCDOT_color_eng_50.plt
 USER: MDIEHL
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 DATE: 12/10/2019
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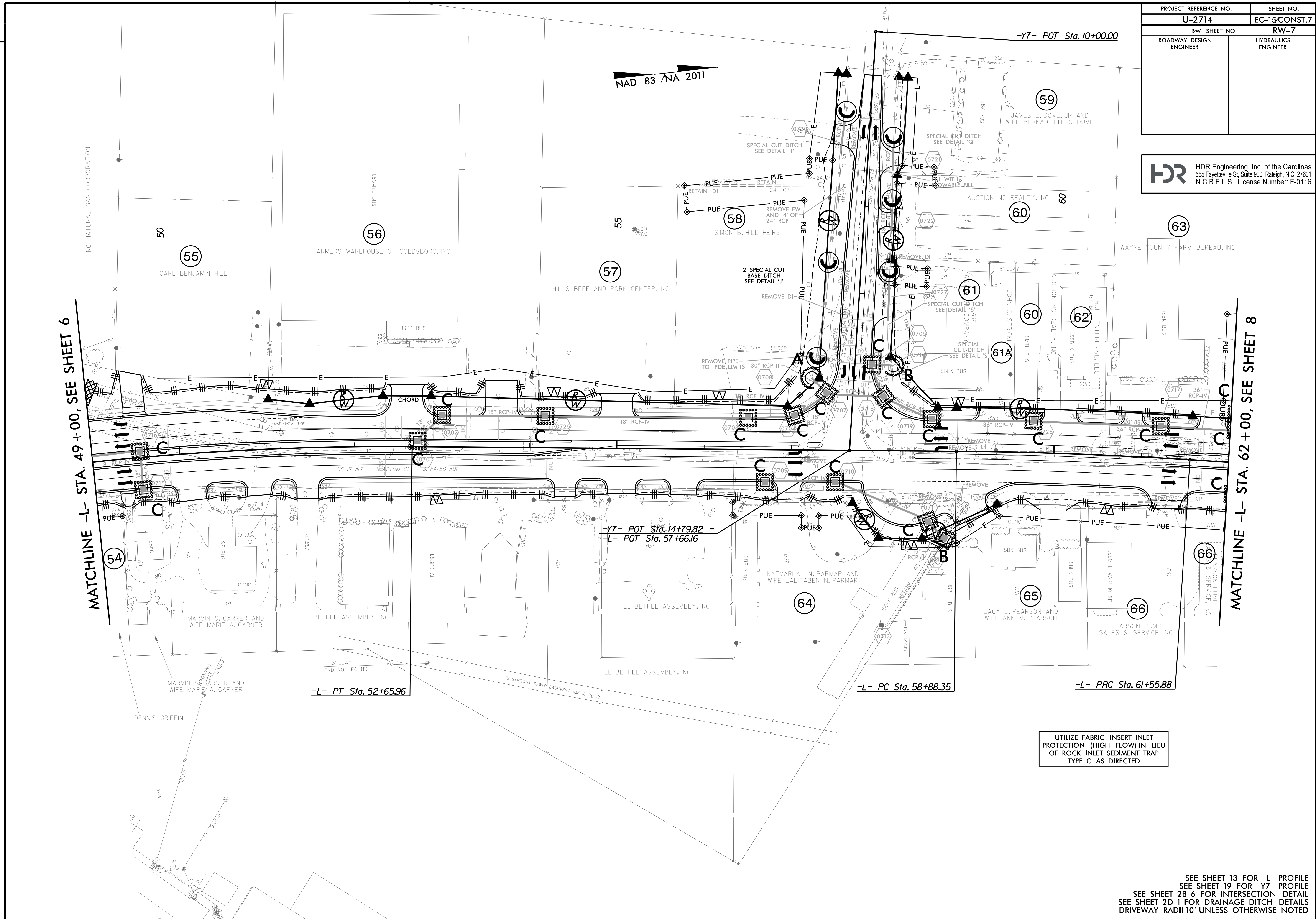
REVISIONS

PLOT DRIVER: NCDOT_color_eng_50.plt
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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-15/CONST.7
RW SHEET NO.	RW-7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



MATCHLINE -L- STA. 49 + 00, SEE SHEET 6

MATCHLINE -L- STA. 62 + 00, SEE SHEET 8

NAD 83 / NA 2011

-Y7- POT Sta. 10+00.00

-Y7- POT Sta. 14+79.82 =
 -L- POT Sta. 57+66.16

-L- PT Sta. 52+65.96

-L- PC Sta. 58+88.35

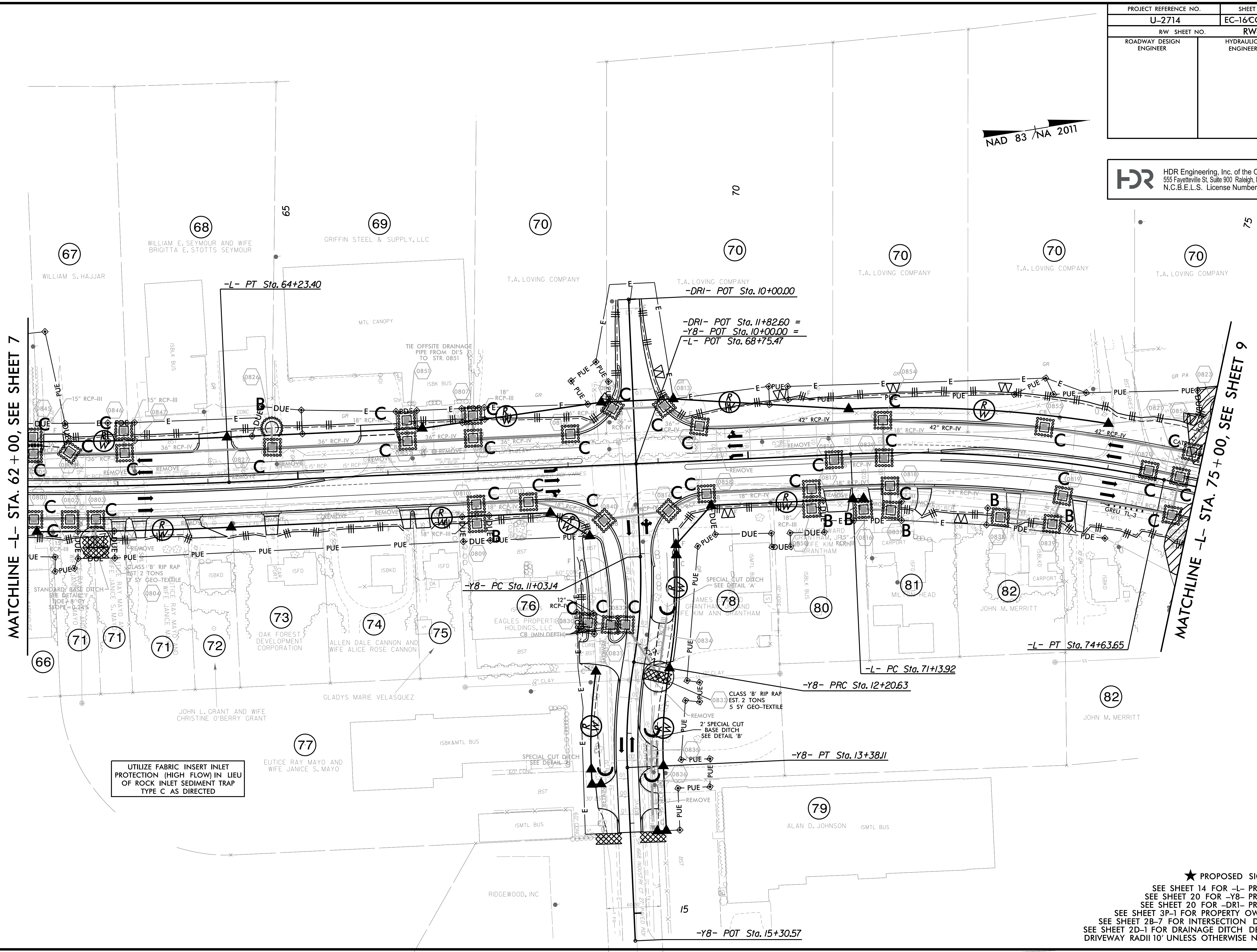
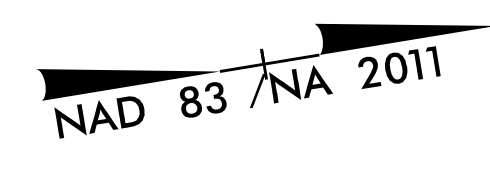
-L- PRC Sta. 61+55.88

UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

SEE SHEET 13 FOR -L- PROFILE
 SEE SHEET 19 FOR -Y7- PROFILE
 SEE SHEET 2B-6 FOR INTERSECTION DETAIL
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-16/CONST.8
R/W SHEET NO.	RW-8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



MATCHLINE -L- STA. 62 + 00, SEE SHEET 7

MATCHLINE -L- STA. 75 + 00, SEE SHEET 9

UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

-DRI- POT Sta. 11+82.60 =
 -Y8- POT Sta. 10+00.00 =
 -L- POT Sta. 68+75.47

-Y8- PC Sta. 11+03.14

-L- PC Sta. 71+13.92

-Y8- PRC Sta. 12+20.63

-Y8- PT Sta. 13+38.11

-L- PT Sta. 74+63.65

-Y8- POT Sta. 15+30.57

★ PROPOSED SIGNAL
 SEE SHEET 14 FOR -L- PROFILE
 SEE SHEET 20 FOR -Y8- PROFILE
 SEE SHEET 20 FOR -DRI- PROFILE
 SEE SHEET 3P-1 FOR PROPERTY OWNERS
 SEE SHEET 2B-7 FOR INTERSECTION DETAIL
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

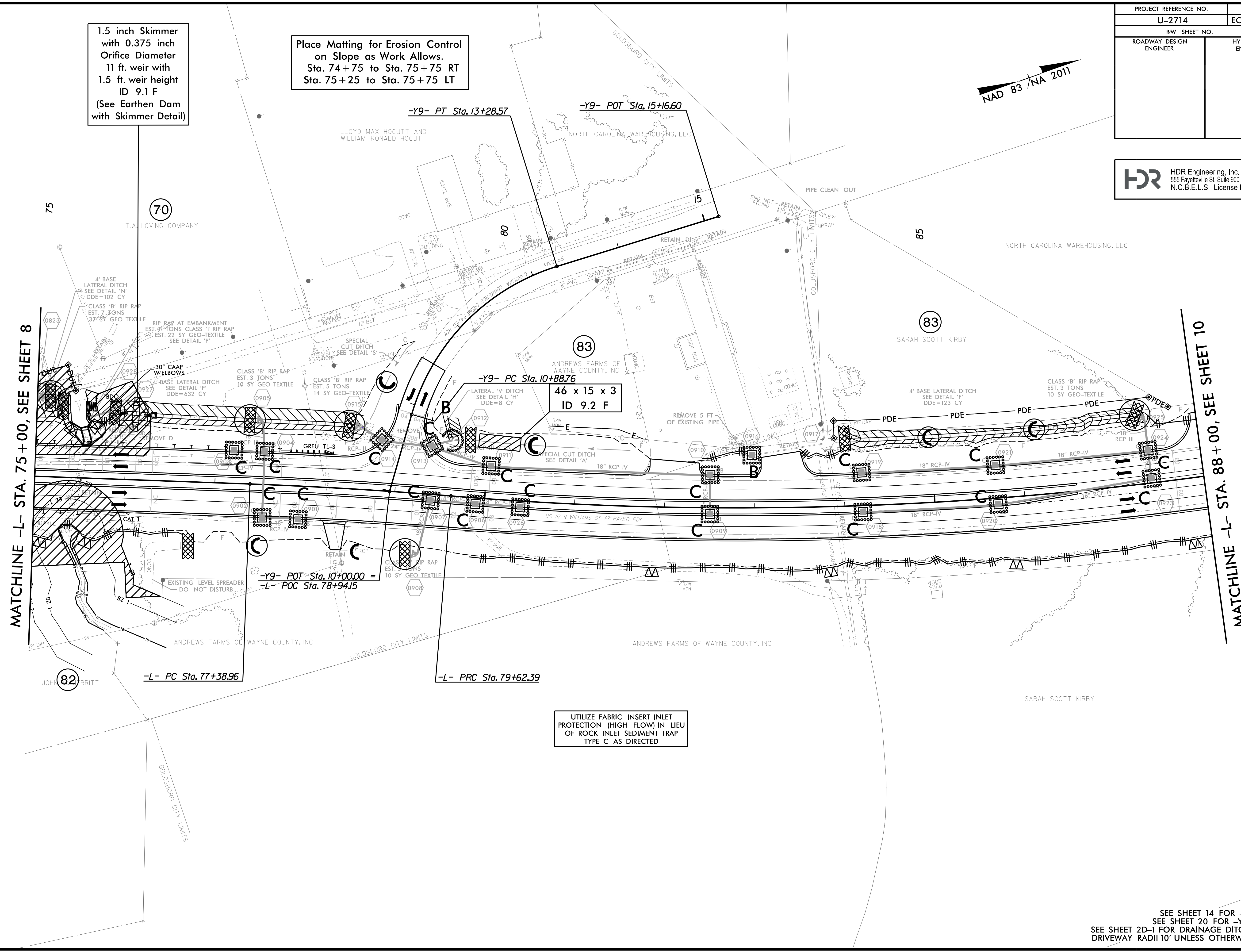
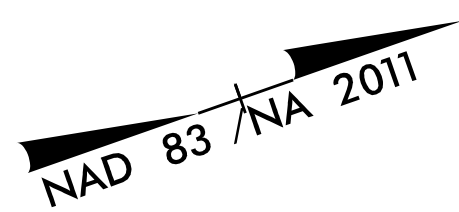
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REVISIONS

PLOT DRIVER: NCDOT_color_eng_50.plt
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 DATE: 12/10/2019
 REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-17/CONST.9
RW SHEET NO.	RW-9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



1.5 inch Skimmer
 with 0.375 inch
 Orifice Diameter
 11 ft. weir with
 1.5 ft. weir height
 ID 9.1 F
 (See Earthen Dam
 with Skimmer Detail)

Place Matting for Erosion Control
 on Slope as Work Allows.
 Sta. 74+75 to Sta. 75+75 RT
 Sta. 75+25 to Sta. 75+75 LT

46 x 15 x 3
 ID 9.2 F

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

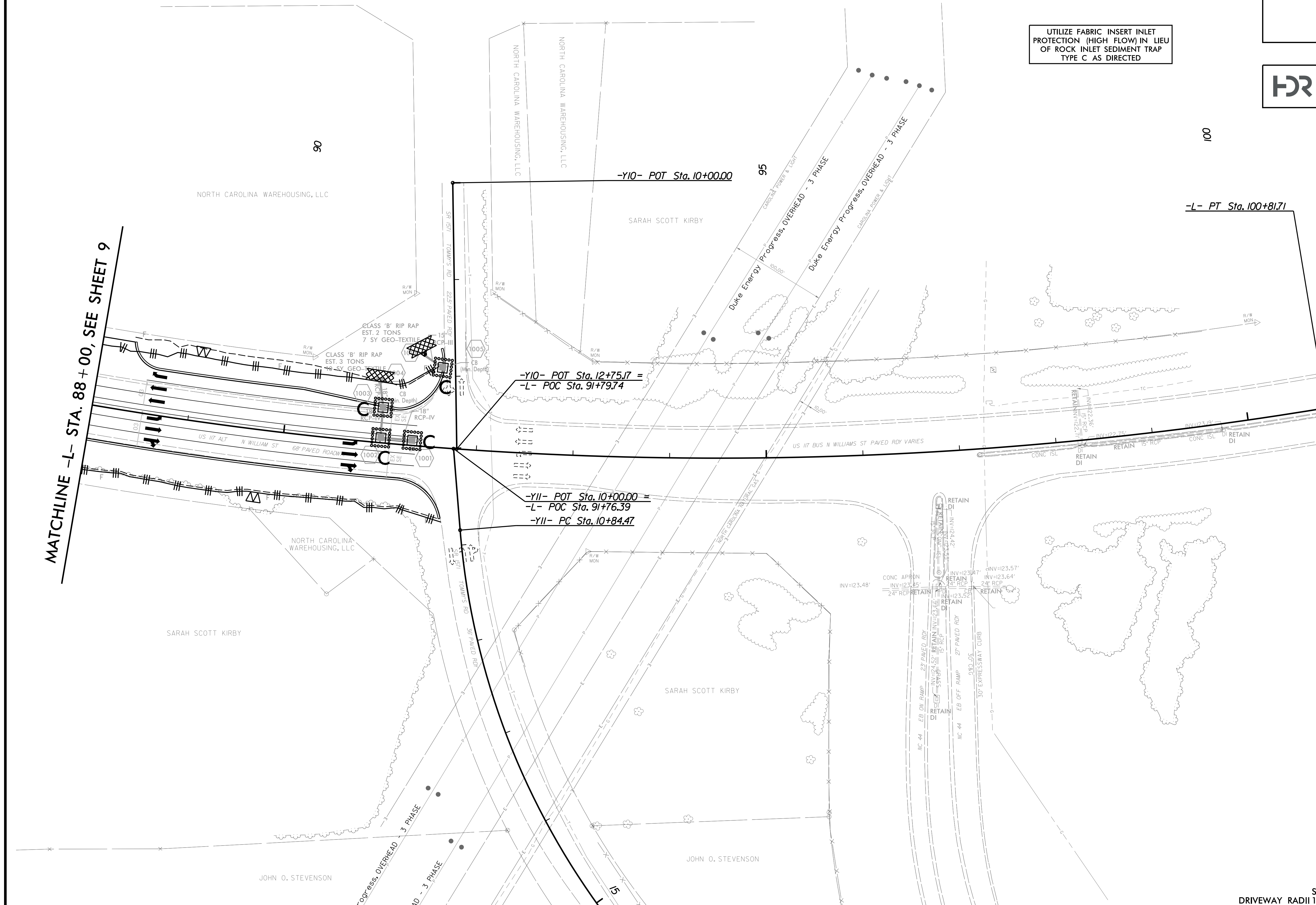
MATCHLINE -L- STA. 75+00, SEE SHEET 8

MATCHLINE -L- STA. 88+00, SEE SHEET 10

SEE SHEET 14 FOR -L- PROFILE
 SEE SHEET 20 FOR -Y9- PROFILE
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PLOT DRIVER: NCDOT_color_eng_50.plt
 USER: MDIEHL
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REVISIONS



NAD 83 / NA 2011

UTILIZE FABRIC INSERT INLET PROTECTION (HIGH FLOW) IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED

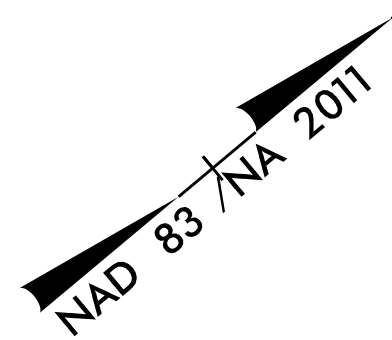
PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-18/CONST.10
RW SHEET NO.	RW-10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

SEE SHEET 15 FOR -L- PROFILE DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	SHEET NO.
U-2714	EC-19/CONST.11
RW SHEET NO.	RW-11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



2.0 inch Skimmer
 with 1.625 inch
 Orifice Diameter
 14 ft. weir with
 3.0 ft. weir height
 ID 11.2 F
 (See Earthen Dam
 with Skimmer Detail)

1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 10 ft. weir with
 2.25 ft. weir height
 ID 11.1 F
 (See Earthen Dam
 with Skimmer Detail)

UTILIZE FABRIC INSERT INLET
 PROTECTION (HIGH FLOW) IN LIEU
 OF ROCK INLET SEDIMENT TRAP
 TYPE C AS DIRECTED

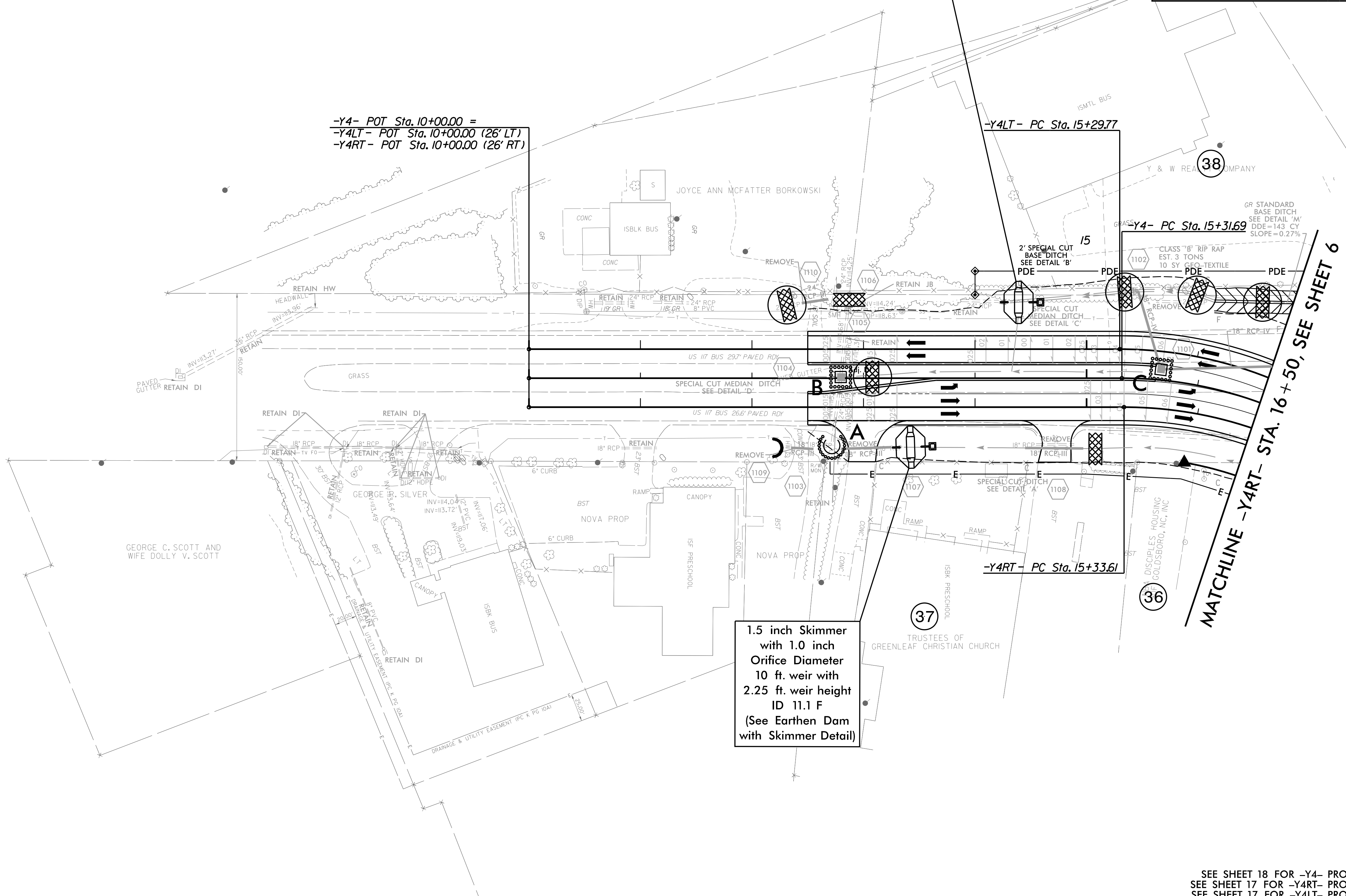
-Y4- POT Sta. 10+00.00 =
 -Y4LT- POT Sta. 10+00.00 (26' LT)
 -Y4RT- POT Sta. 10+00.00 (26' RT)

-Y4LT- PC Sta. 15+29.77

-Y4- PC Sta. 15+31.69

-Y4RT- PC Sta. 15+33.61

MATCHLINE -Y4RT- STA. 16+50, SEE SHEET 6



PLOT DRIVER: NCDOT_color_eng_50.plt
 USER: MDIEHL
 FILE: North_Carolina_Dept_of_Transportation\NCDOT\Western_Div\Or-Coll\M_NCDOT-U2714_US117.cad\BIM\6.2_Work_In_Progress\U-2714_NCDOT_File_Structure\Erosion_Control\U2714_EC_PSH.dgn
 PENTABLE: NCDOT_EC_FINAL_BW.tbl
 TIME: 5:08:35 PM
 DATE: 12/10/2019

REVISIONS

SEE SHEET 18 FOR -Y4- PROFILE
 SEE SHEET 17 FOR -Y4RT- PROFILE
 SEE SHEET 17 FOR -Y4LT- PROFILE
 SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS
 DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED