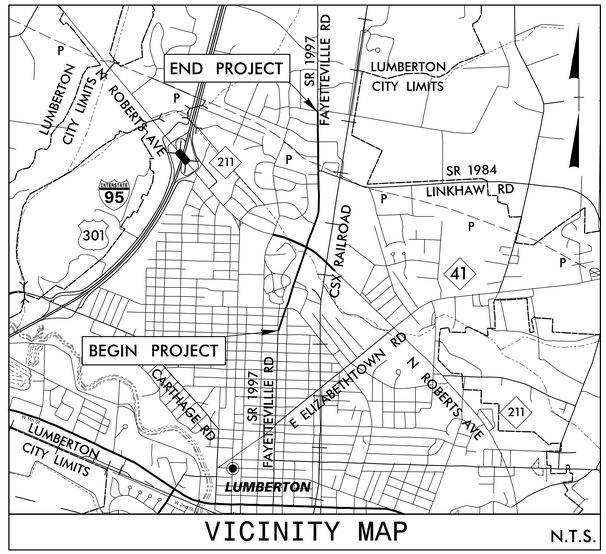
PROJECT: U-5797

TIP #



VICINITY MAP N.T.S.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

ROBESON COUNTY

LOCATION: FAYETTEVILLE ROAD (SR 1997) FROM EAST OF 22nd STREET TO FARRINGDOM STREET
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND CULVERTS

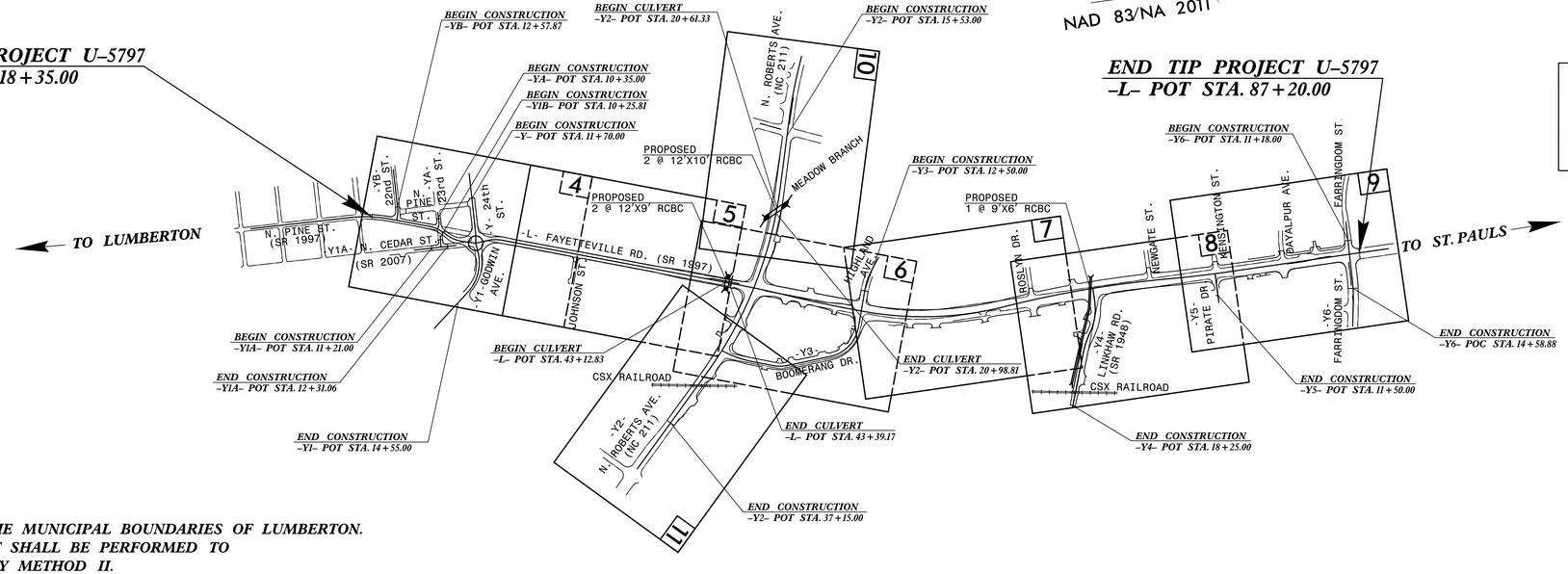
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5797	EC-1	30

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
44367.1.1		PE
44367.2.1		R.O.W.
44367.2.2		UTIL
44367.3.1		CONSTRUCTION

NAD 83/NA 2011

BEGIN TIP PROJECT U-5797
-L- POC STA. 18+35.00

END TIP PROJECT U-5797
-L- POT STA. 87+20.00



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF LUMBERTON. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

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

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE 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.

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NC License Number F-0991

Prepared In the Office of:

STV ENGINEERS, INC.
900 WEST TRADE STREET, SUITE 715
CHARLOTTE, NC 28202

Designed by:

HALEY SMITH, EIT ***4688***
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.

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-1A

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
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	A
1632.02	Type B	B
1632.03	Type C	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	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	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	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	EW EW EW
1636.03	Coir Fiber Wattle Barrier	CFW CFW CFW

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-2

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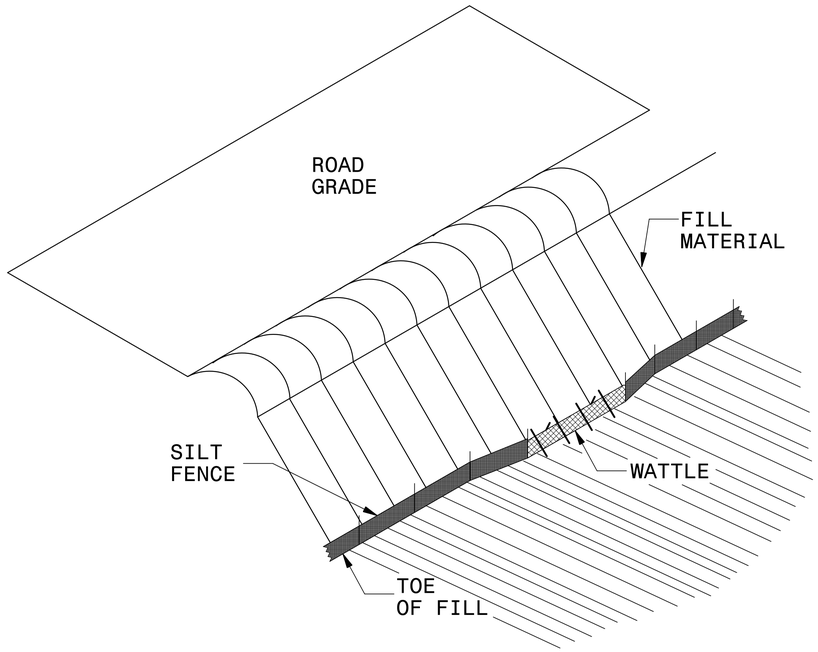
SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

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.

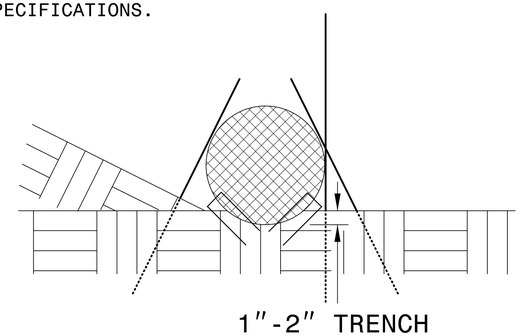
PROVIDE STAPLES MADE OF 11 GUAGE STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 6″ IN LENGTH.

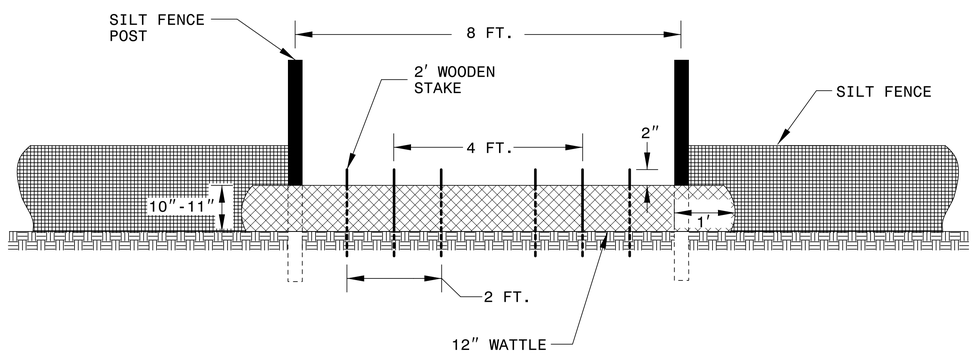
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

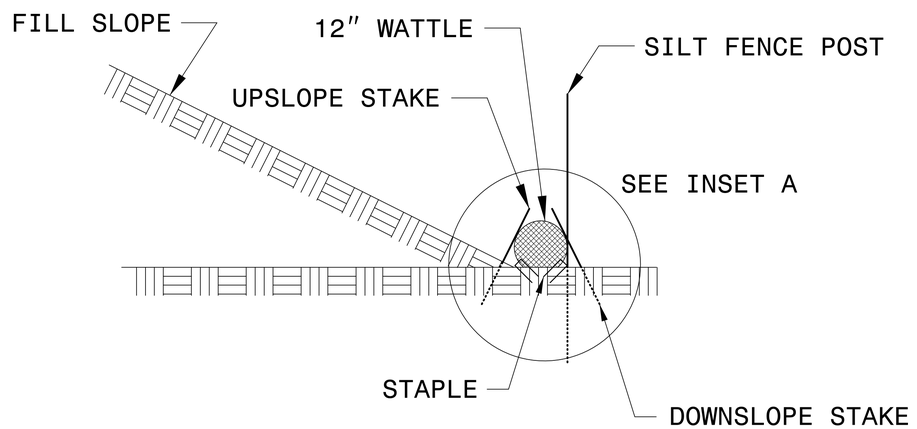
INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A





VIEW FROM SLOPE



SIDE VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-2A

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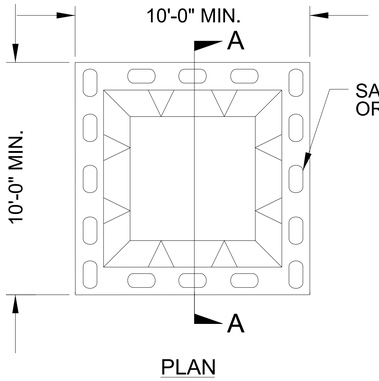
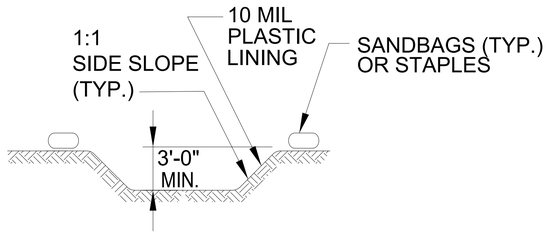
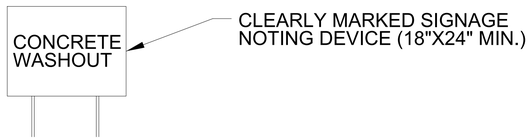
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A



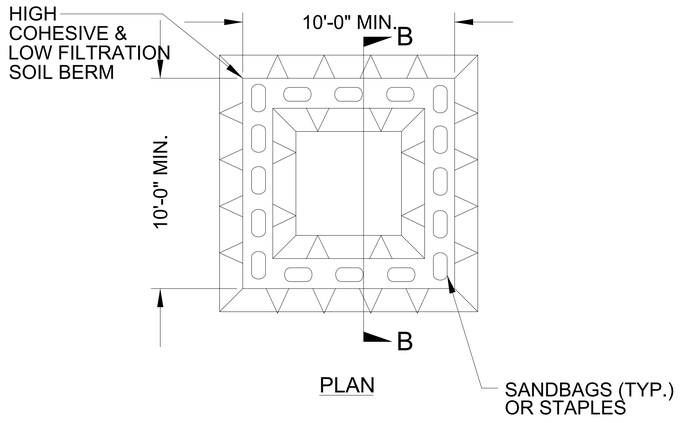
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

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.

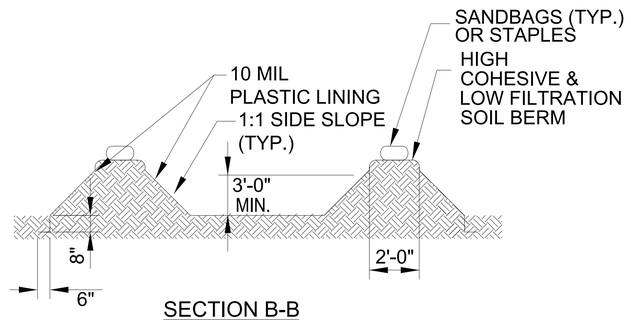
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



PLAN



SECTION B-B

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 CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-2B

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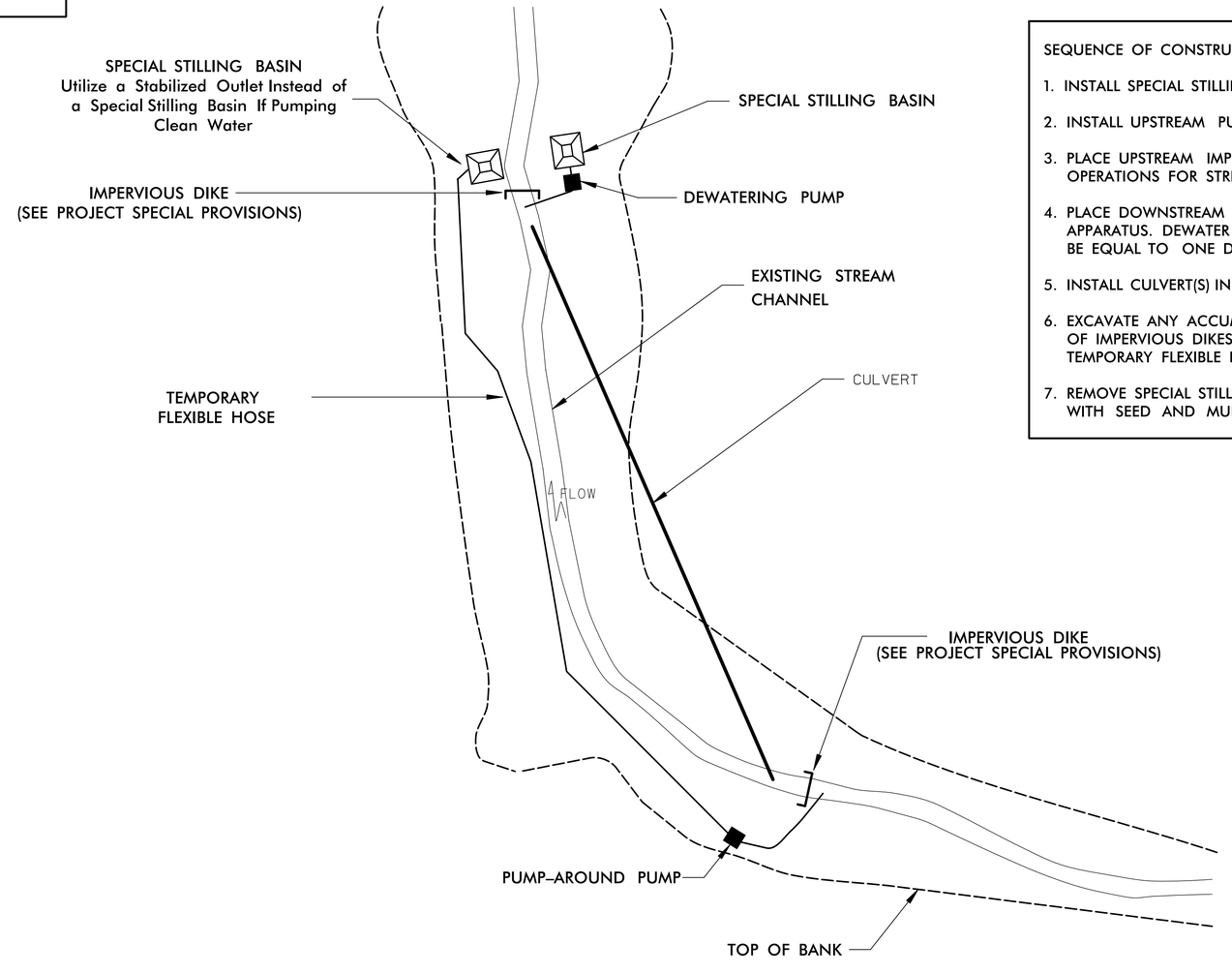
EXAMPLE OF PUMP–AROUND OPERATION

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

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-3

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
	STRAW MATTING FOR SLOPES				
6	-L-	42+00	44+00	LT	730
6	-L-	43+00	22+30	RT	303
6	-Y2-	23+00	24+50	LT	463
7	-L-	54+00	55+85	RT	550
8	-L-	67+95	70+50	LT	826
8	-Y4-	14+50	16+75	RT	635
10	-Y2-	18+45	22+05	LT	1256
10	-Y2-	18+45	22+20	RT	1170
	STRAW MATTING FOR DITCHES				
11	-Y2-	36+40	35+05	RT	235
		SUBTOTAL SLOPE MATTING			5933
		SUBTOTAL DITCH MATTING			235
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					7800
				TOTAL	13968
				SAY	14000

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-3A

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-4/CONST 4

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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NAD 83/2011

-Y- POT Sta. 10+00.00

-YB- POT Sta. 10+00.00

-L- PT Sta. 19+64.63

-YB- PC Sta. 12+73.01

-YB- PT Sta. 13+17.69

-L- PT Sta. 24+92.64

-YA- POT Sta. 10+00.00

-YA- PC Sta. 10+71.57

-L- STA 21+77.44
CREST POINT

-Y- PC Sta. 13+60.23

-L- PI NC Sta. 25+77.05

-Y- PT Sta. 14+79.97 =
-Y1- POT Sta. 10+00.00

-L- STA 21+27.48
CREST POINT

-Y1- PT Sta. 27+62.42

PT Sta. 10+98.68

PRC Sta. 23+56.13

-YB- POT Sta. 13+50.25 =
-L- POT Sta. 20+05.30

-YA- POT Sta. 11+17.53 =
-L- POC Sta. 22+91.20
-YIB- POT Sta. 10+00.00

-YIA- POT Sta. 10+00.00

-L- STA 24+37.60
SAG POINT

-YIB- POT STA.10+78.12 =
-YIA- POT STA.11+84.12

-YIA- POT Sta. 12+90.00

-L- POT Sta. 25+27.05 =
-RAB- PC Sta. 0+00.00 =
-RAB- PT Sta. 3+14.15

-Y1- PC Sta. 10+61.02

-L- PC Sta. 26+60.27

-Y1- PT Sta. 13+60.90

SEE SHEET EC-5

MATCHLINE -L- STA 30+00

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

8/17/99

10/29/2024
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PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-5/CONST 5

STV Engineers, Inc.
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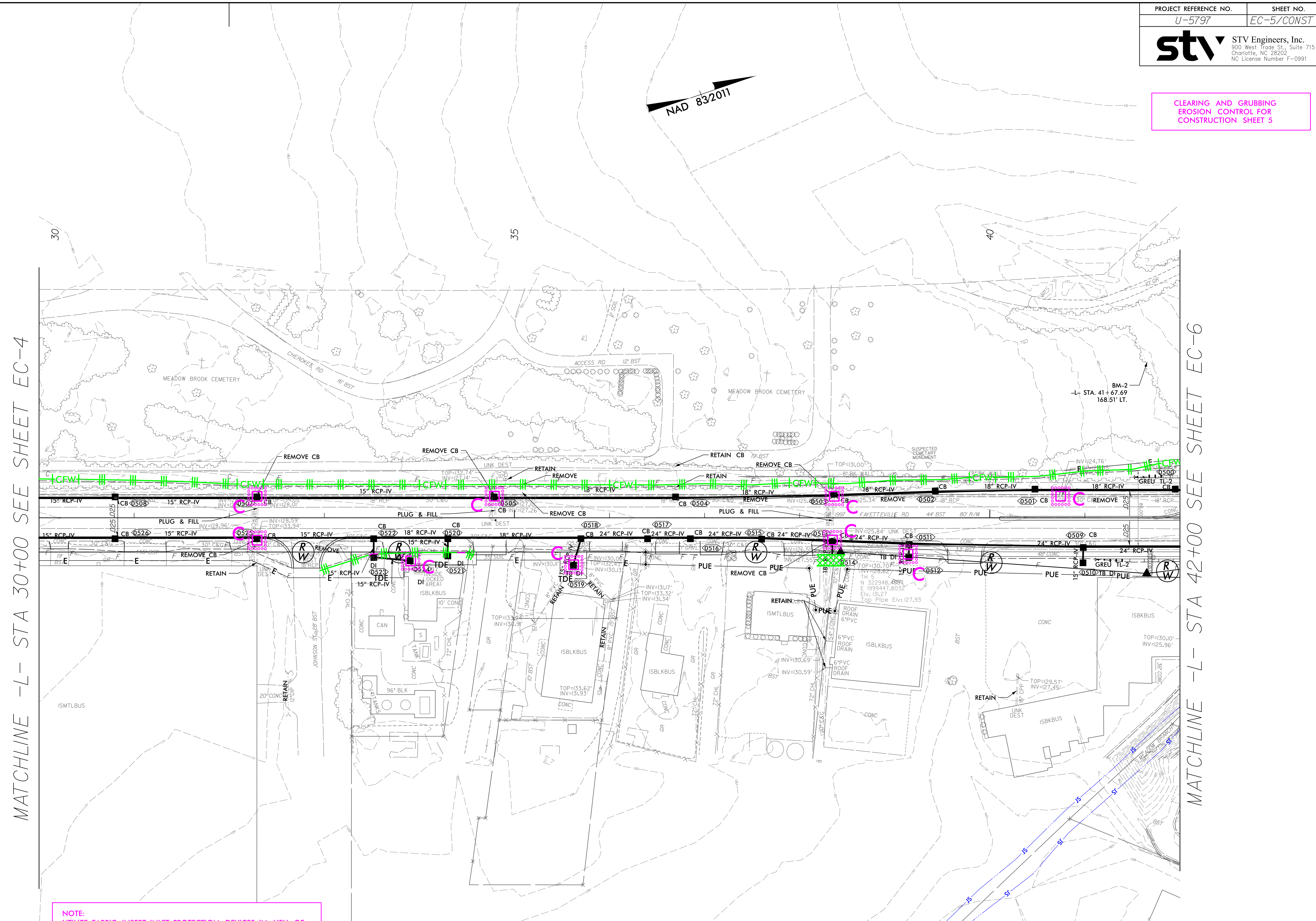
Charlotte, NC 28202
NC License Number F-0991

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

8/17/99
10/29/2024
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PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-6/CONST 6

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NC License Number F-0991

8/17/99

MATCHLINE -Y2- STA 23+00 SEE SHEET EC-10

MATCHLINE -L- STA 42+00 SEE SHEET EC-5

MATCHLINE -L- STA 54+00 SEE SHEET EC-7

MATCHLINE -Y2- STA 32+00 SEE SHEET EC-11

NAD 83/2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

-L- POC STA. 45+15.98 =
-Y2- POC STA. 26+24.89

-L- PT Sta. 51+49.26

-Y3- POT Sta. 10+00.00

-Y3- PC Sta. 11+00.00

-Y3- PT Sta. 12+44.28

-L- PC Sta. 52+67.93

-L- POC STA. 52+69.24 =
-Y3- POT STA. 13+90.22

-L- PRC Sta. 47+74.00

-Y3- PT Sta. 25+24.33

-Y2- PC STA. 31+07.62 =
-Y3- POT STA. 25+65.36

-Y3- PC Sta. 23+44.77

-Y3- PC Sta. 20+96.57

-Y3- PT Sta. 21+98.43

-Y3- PT Sta. 18+00.31

-Y3- PC Sta. 15+01.86

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

10/29/2024
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Smith

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-6A/CONST 6

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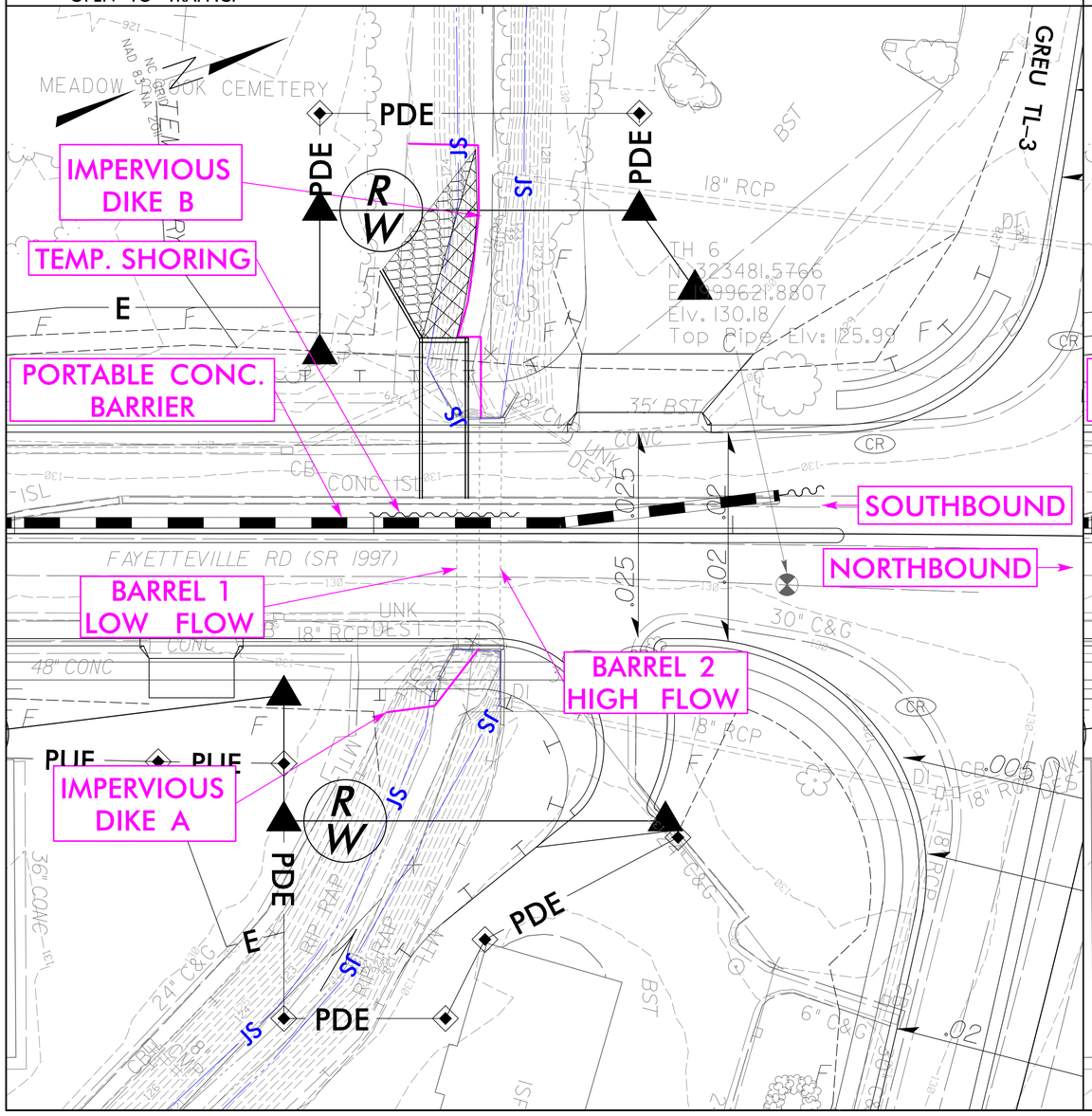
CULVERT CONSTRUCTION SEQUENCE STA. 43+26 –L–

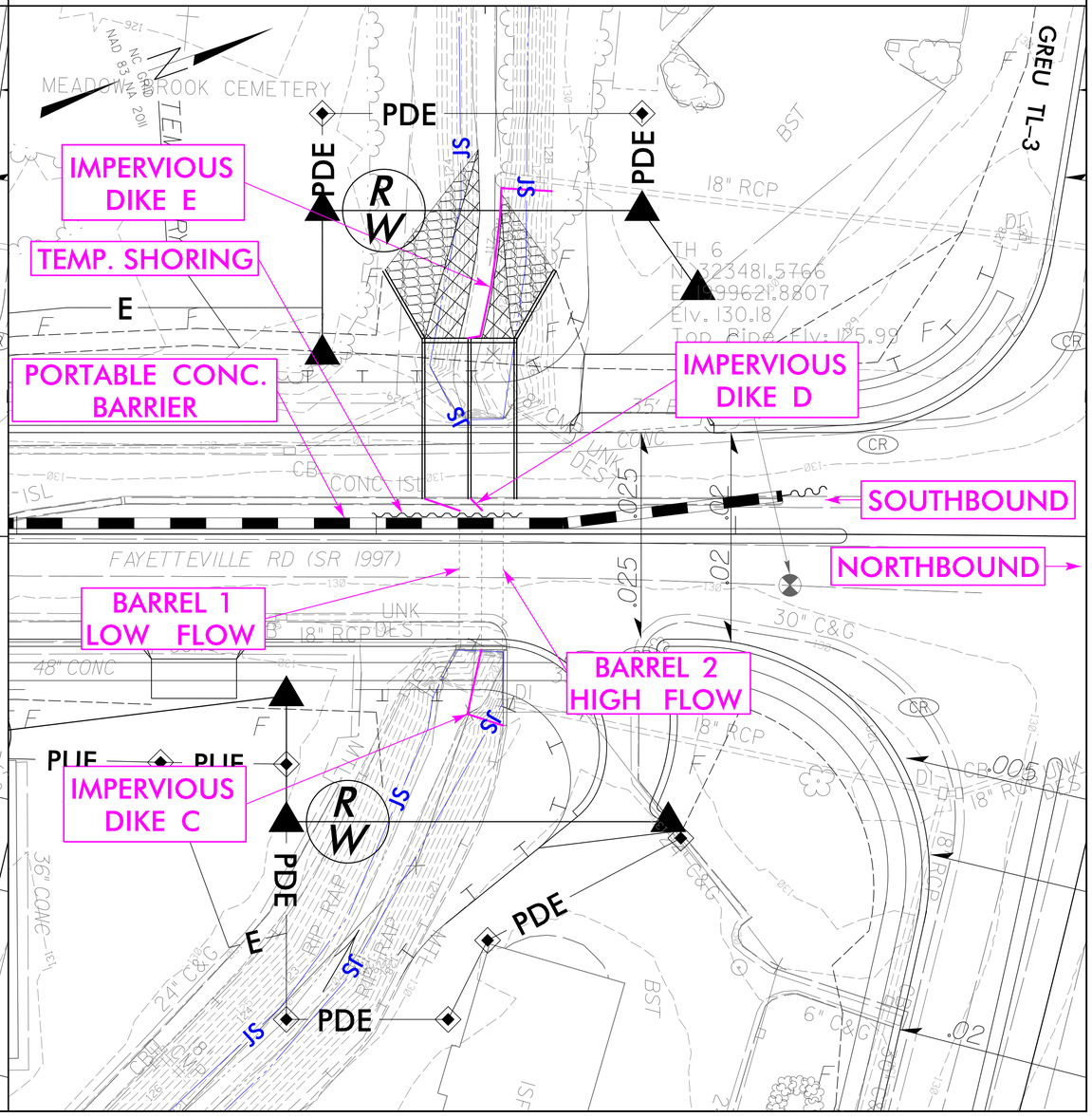
STAGE 1 (TMP PHASE V STEP 1)

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. INSTALL IMPERVIOUS DIKES A & B TO DIVERT WATER THROUGH BARREL 2 OF THE EXISTING CULVERT.
3. INSTALL PORTABLE CONCRETE BARRIER AND SHIFT TRAFFIC TO NORTH BOUND LANES.
4. INSTALL TEMPORARY SHORING AND REMOVE A PORTION OF BARREL 1 OF THE EXISTING CULVERT UNDERNEATH THE SOUTH BOUND LANES.
5. DEWATER PROPOSED CULVERT CONSTRUCTION AREA.
6. CONSTRUCT A PORTION OF PROPOSED LOW FLOW BARREL CULVERT, LEAVING THE NORTH BOUND LANES OPEN TO TRAFFIC.



STAGE 2 (TMP PHASE V STEP 1)

7. REMOVE IMPERVIOUS DIKES A AND B AND INSTALL IMPERVIOUS DIKES C, D, AND E. DIVERT FLOW TO EXISTING CULVERT BARREL 1 AND CONSTRUCTED PROPOSED LOW FLOW CULVERT BARREL.
8. REMOVE A PORTION OF EXISTING CULVERT BARREL 2 UNDER SOUTHBOUND LANES.
9. EXCAVATE ANY ACCUMULATED SILT AND DEWATER PROPOSED CULVERT CONSTRUCTION AREA.
10. CONSTRUCT A PORTION OF PROPOSED HIGH FLOW CULVERT BARREL, LEAVING THE NORTH BOUND LANES OPEN TO TRAFFIC.



PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-6B/CONST 6

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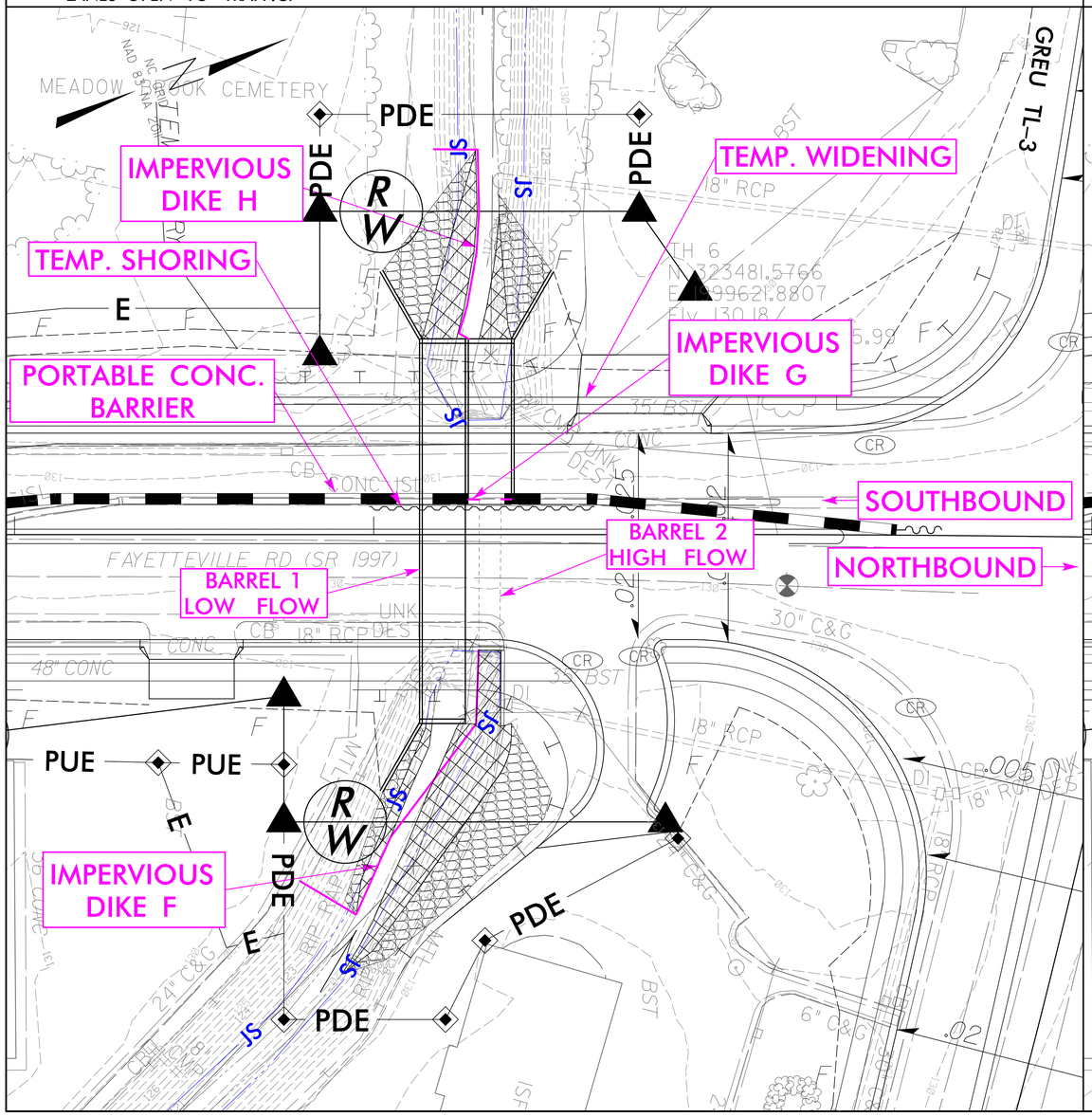
CULVERT CONSTRUCTION SEQUENCE STA. 43+26 –L–

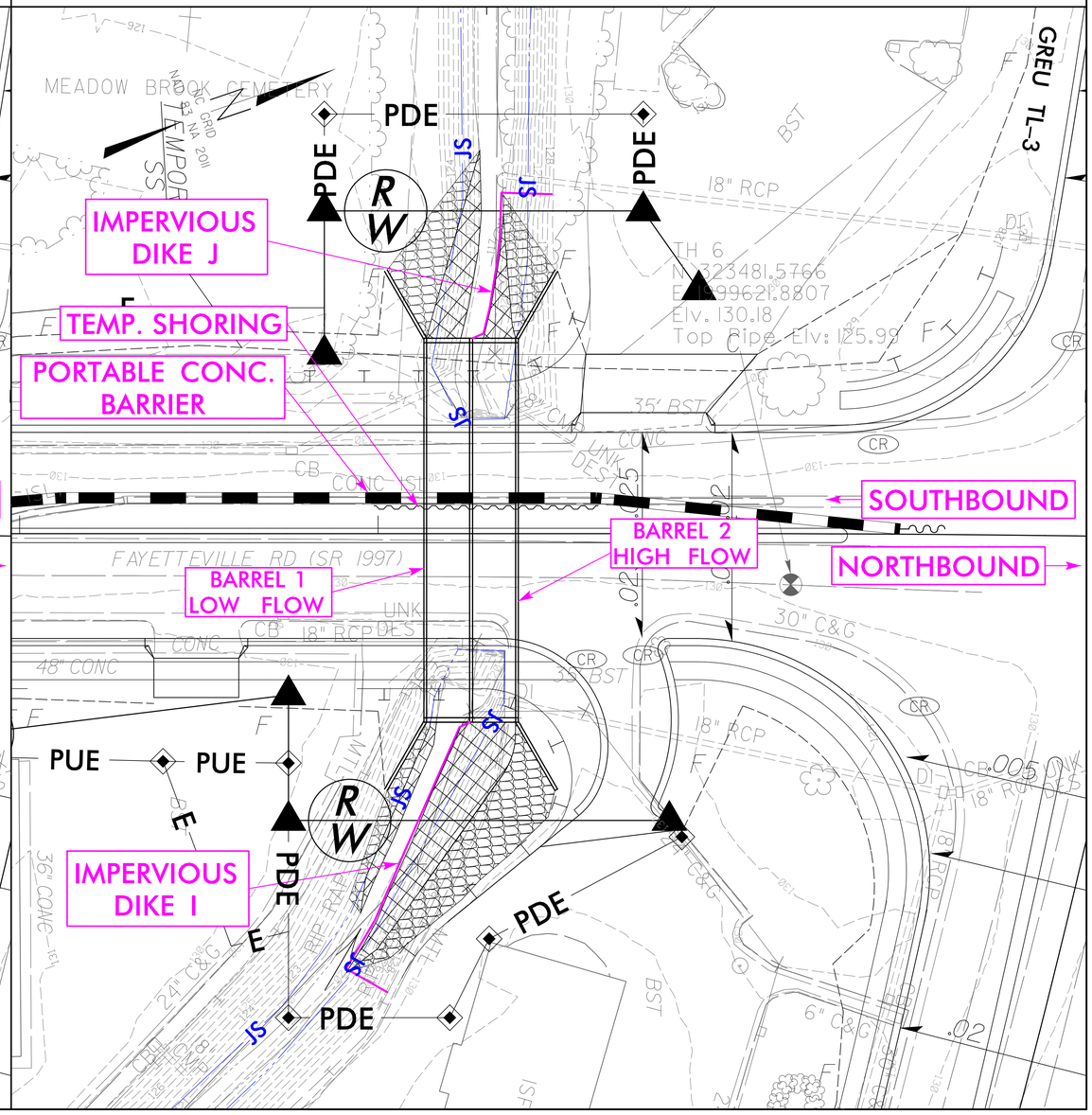
STAGE 3 (TMP PHASE VI STEP 4)

11. REMOVE IMPERVIOUS DIKES C, D, AND E. INSTALL IMPERVIOUS DIKES F, G, AND H TO DIVERT FLOW TO EXISTING CULVERT BARREL 2 AND PARTIALLY INSTALLED HIGH FLOW BARREL OF PROPSOED CULVERT.
12. INSTALL PORTABLE CONCRETE BARRIER, SHORING, TEMPORARY PAVEMENT AND SHIFT TRAFFIC TO SOUTH BOUND LANES.
13. EXCAVATE ANY ACCUMULATED SILT AND REMOVE REMAINING PORTION OF EXISTING CULVERT BARREL 1.
14. DEWATER PROPOSED CULVERT CONSTRUCTION AREA.
15. CONSTRUCT REMAINING PORTION OF PROPOSED LOW FLOW CULVERT BARREL LEAVING THE SOUTH BOUND LANES OPEN TO TRAFFIC.



STAGE 4 (TMP PHASE VI STEP 4)

16. REMOVE IMPERVIOUS DIKES F, G, AND H AND INSTALL IMPERVIOUS DIKES I AND J. DIVERT FLOW TO COMPLETED PROPOSED CULVERT LOW FLOW BARREL.
17. EXCAVATE ANY ACCUMULATED SILT AND DEWATER PROPOSED CULVERT CONSTRUCTION AREA.
18. CONSTRUCT REMAINING PORTION OF PROPOSED HIGH FLOW BARREL TO COMPLETE CULVERT.



PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-6C/CONST 6

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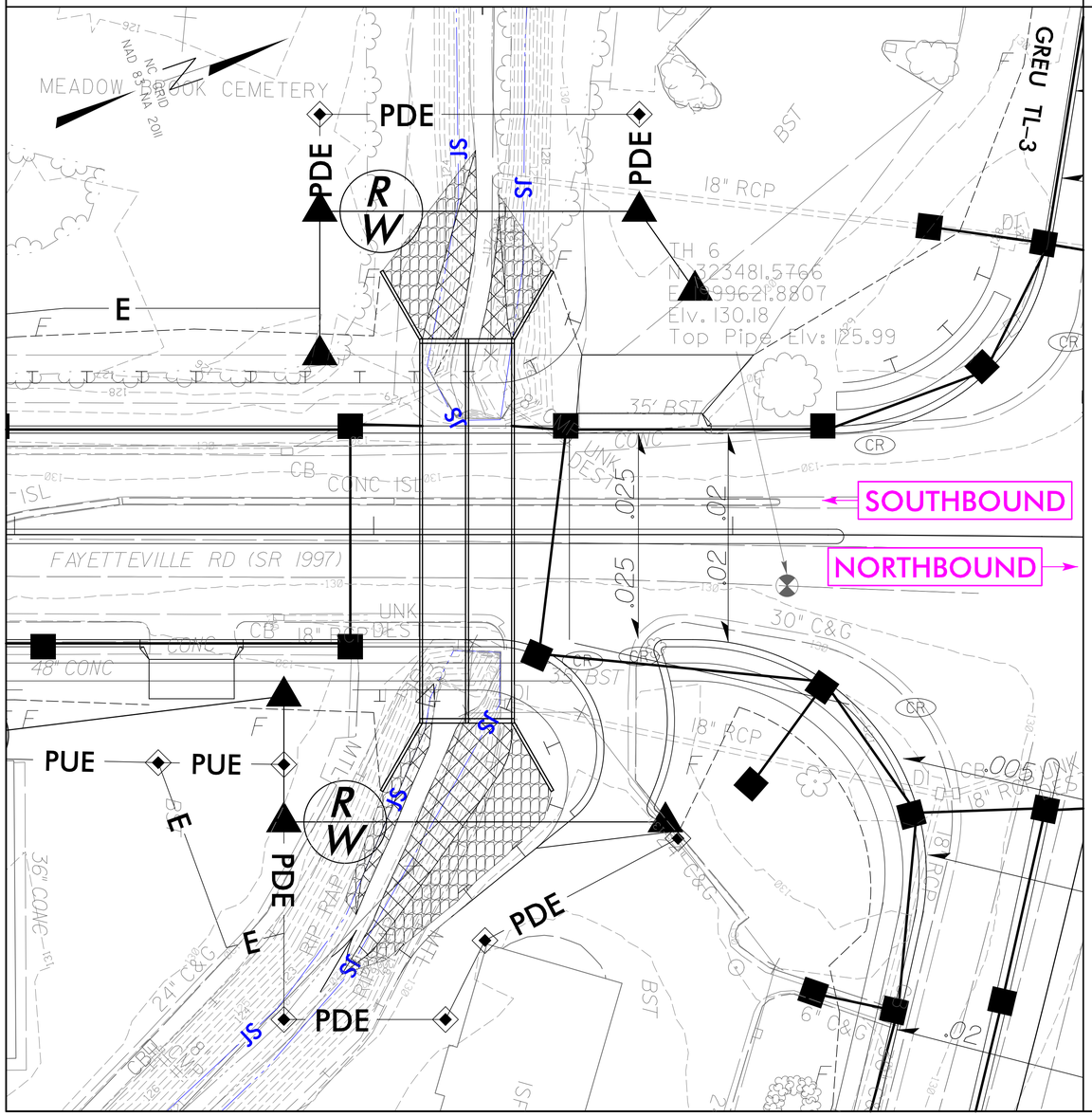
CULVERT CONSTRUCTION SEQUENCE STA. 43+26 –L–

STAGE 5 (TMP PHASE VI STEP 4)

19. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
20. REMOVE IMPERVIOUS DIKES I AND J, ALLOWING NORMAL FLOW THROUGH THE PROPOSED CULVERT.
21. REMOVE TEMPORARY PAVEMENT, ANY REMAINING SPECIAL STILLING BASINS, STABILIZE DISTURBED AREA, AND COMPLETE ROADWAY.



8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-7/CONST 7

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83/2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

MATCHLINE -L- STA 54+00 SEE SHEET EC-6

MATCHLINE -L- STA 65+00 SEE SHEET EC-8

L PRC Sta. 62+61.78

SR 1997 FAYETTEVILLE RD 60' BST

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

10/29/2024
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jmills

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-8/CONST 8

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83/2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

MATCHLINE -L- STA 65+00 SEE SHEET EC-7

MATCHLINE -L- STA 76+00 SEE SHEET EC-9

-L- POC Sta. 68+77.00
-Y4- POT Sta. 10+00.00

-Y4- PC Sta. 10+92.45

-L- PRC Sta. 74+04.74

-Y4- PRC Sta. 13+13.63

-Y4- PT Sta. 14+50.36

-RR2- POT Sta. 12+33.74

-Y4- STA 14+80.92
SAG POINT

STA 67+81.71
SAG POINT

CREST POINT STA 75+77.35

EST. 50 TON CL I RIPRAP
EST. 75 SY GEOTEXTILE

EST. 13 TON CL I RIPRAP
EST. 22 SY GEOTEXTILE

EST. 10 TON CL I RIPRAP
EST. 16 SY GEOTEXTILE

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

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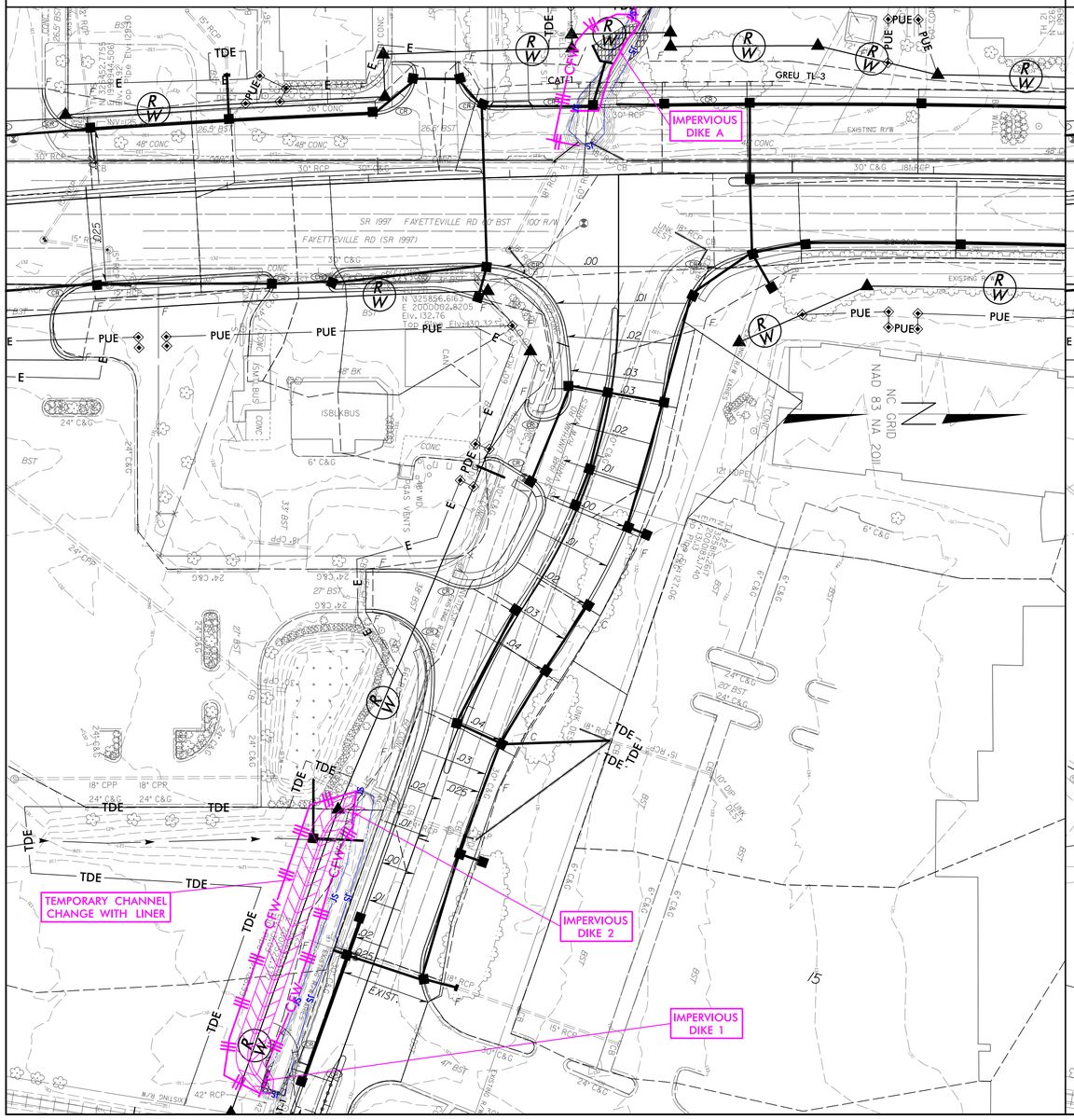
PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-8A/CONST 8

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CULVERT CONSTRUCTION SEQUENCE STA. 68+62 –L–

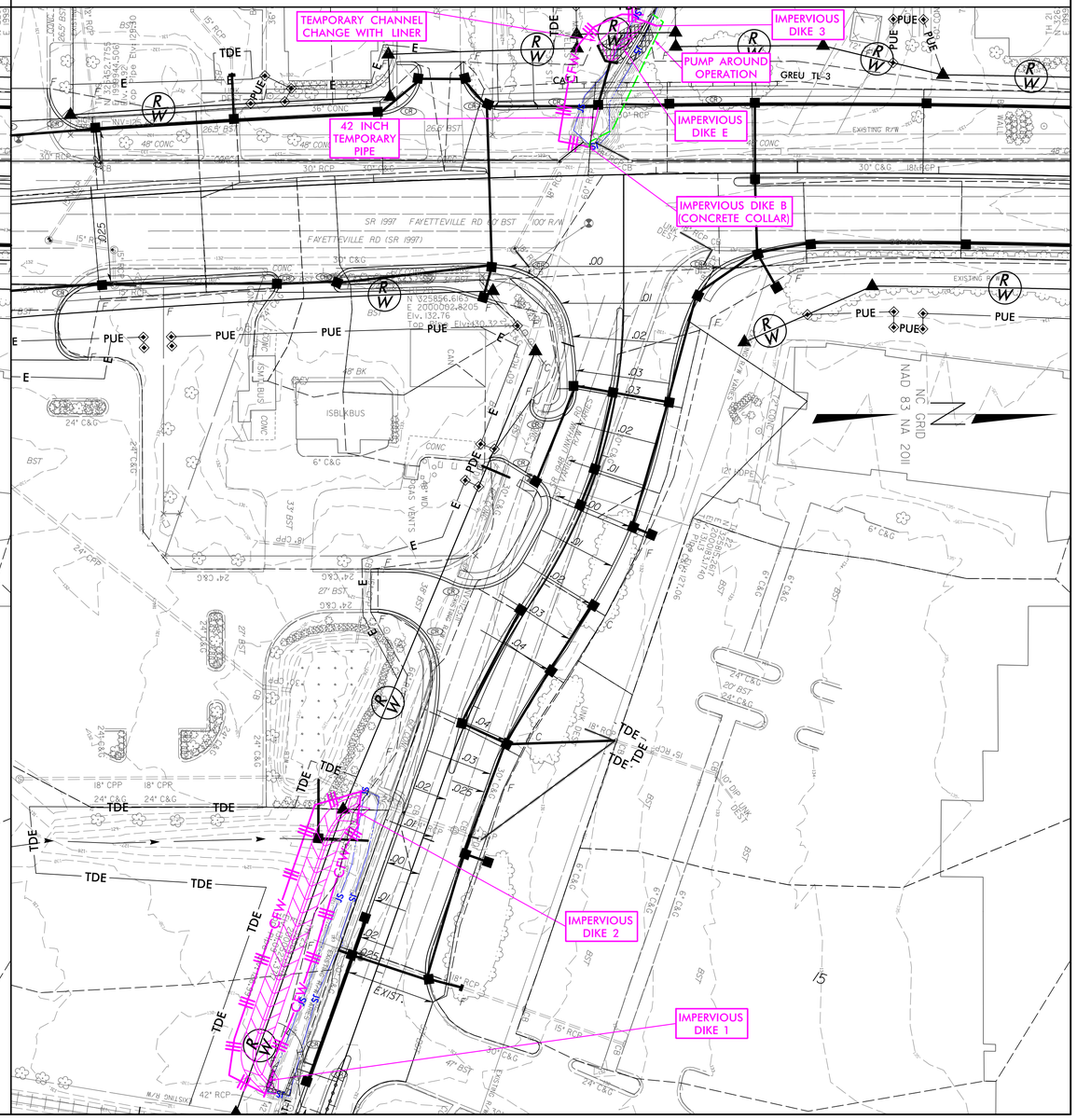
STAGE 1 (TMP PHASE IV STEP 1)

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. INSTALL IMPERVIOUS DIKE A AND DEWATER LEFT WINGWALL/HEADWALL AND BOX 0801 CONSTRUCTION AREA.
3. CONSTRUCT DOWNSTREAM LEFT WINGWALL AND HEADWALL. INSTALL BOX 0801.
4. CONSTRUCT DOWNSTREAM TEMPORARY CHANNEL CHANGE WITH LINER.
5. INSTALL IMPERVIOUS DIKES 1 AND 2. CONSTRUCT UPSTREAM TEMPORARY CHANNEL CHANGE WITH LINER.



STAGE 2 (TMP PHASE IV STEP 1)

1. INSTALL IMPERVIOUS DIKE B AND 3 AND PUMP AROUND OPERATION TO DEWATER WORK AREA.
2. REMOVE IMPERVIOUS DIKE A. INSTALL 42 INCH TEMPORARY PIPE TO BOX 0801 WITH CONCRETE COLLAR. ANCHOR PIPE.



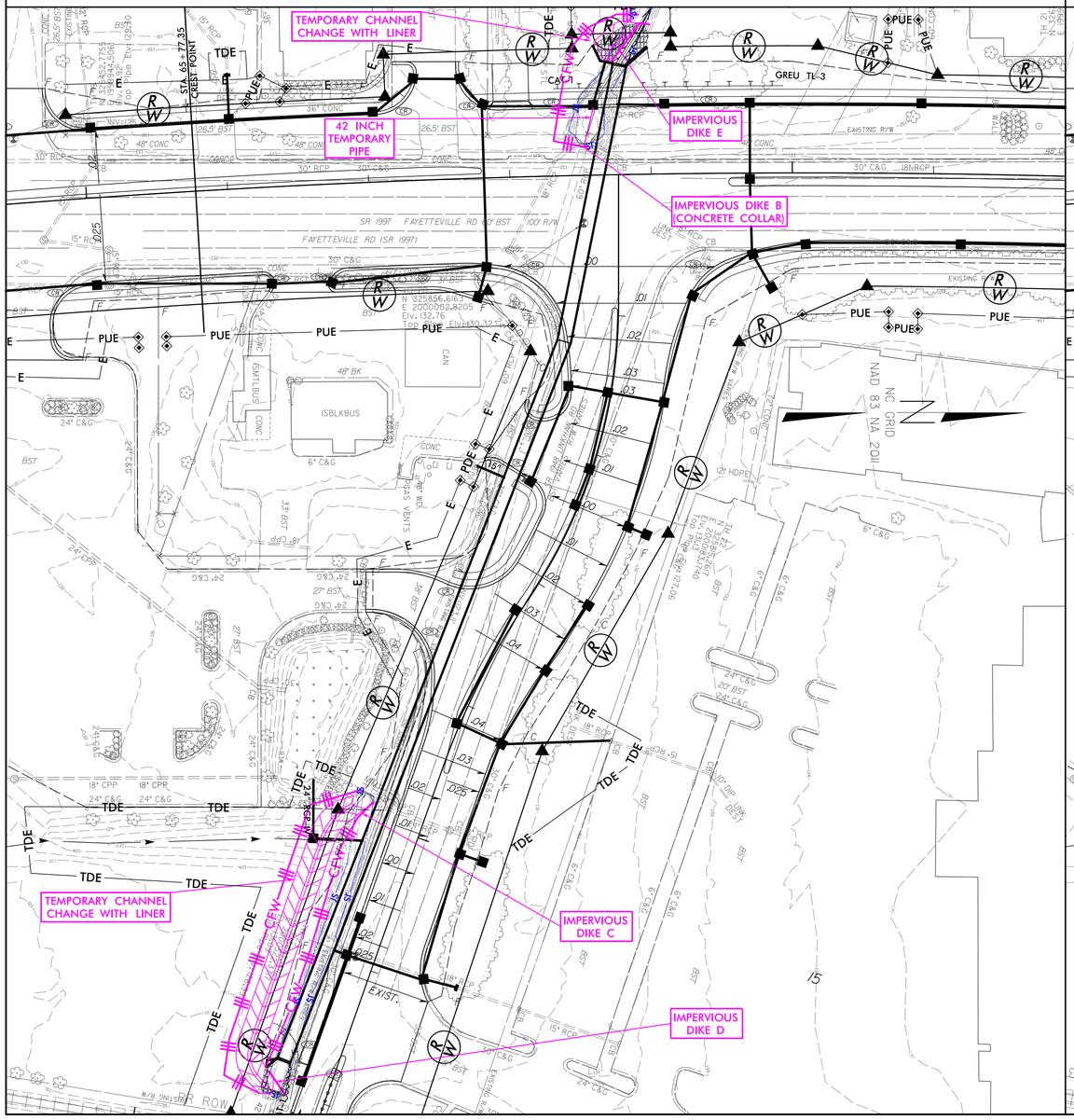
PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-8B/CONST 8

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CULVERT CONSTRUCTION SEQUENCE STA. 68+62 –L–

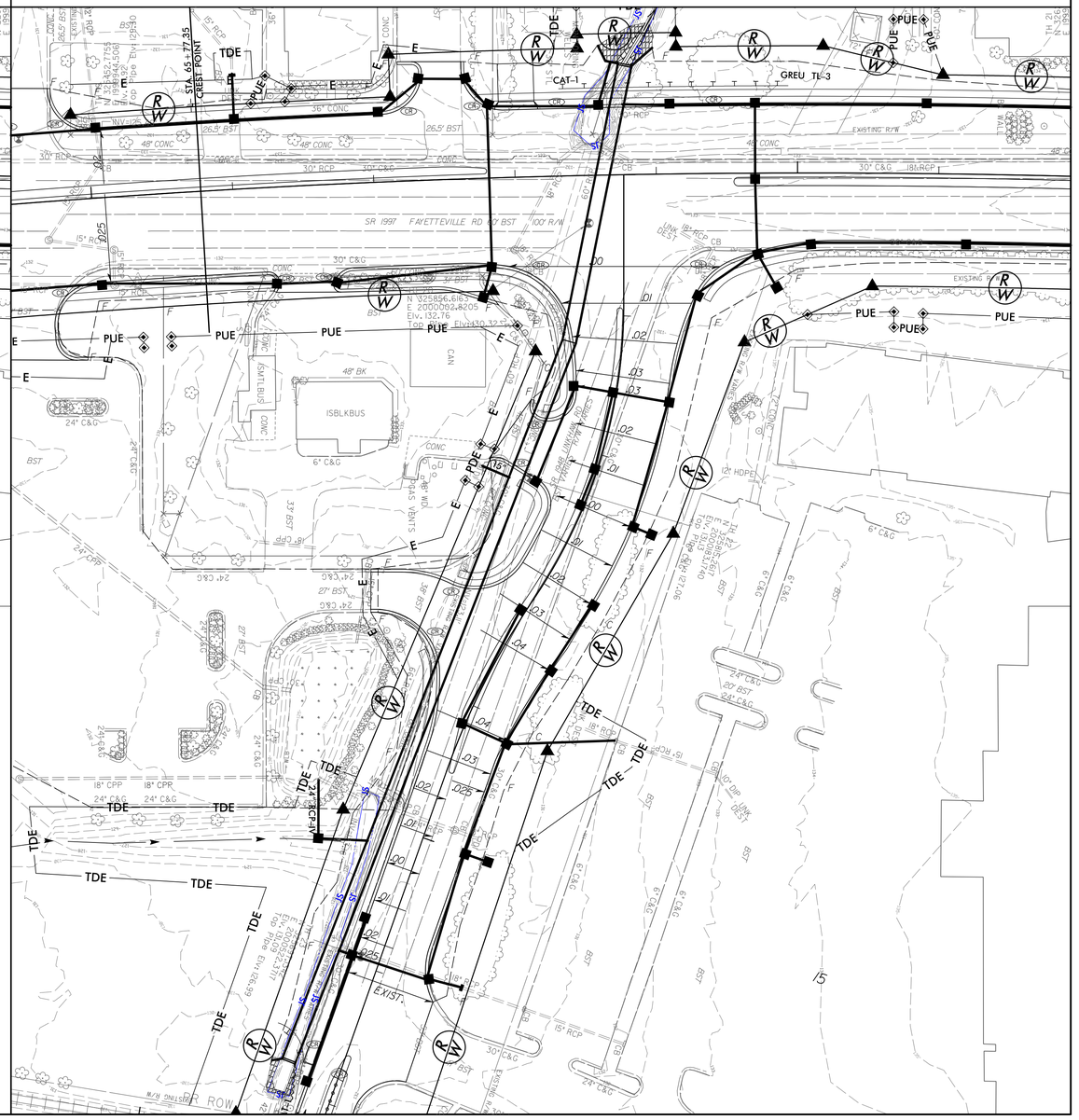
STAGE 3 (TMP PHASE IV STEP 1)

1. REMOVE DIKES 1,2, AND 3.
2. INSTALL IMPERVIOUS DIKES C, D, AND E DIVERTING FLOW AROUND CULVERT WORK AREA, INTO TEMPORARY CHANNEL CHANGES AND TEMPORARY 42 INCH RCP.
3. REMOVE PUMP AROUND OPERATION.
4. DEWATER CULVERT CONSTRUCTION AREA.
5. SEE TRAFFIC CONTROL PLAN FOR DETAILED PHASING.



STAGE 4 (TMP PHASE IV STEP 2)

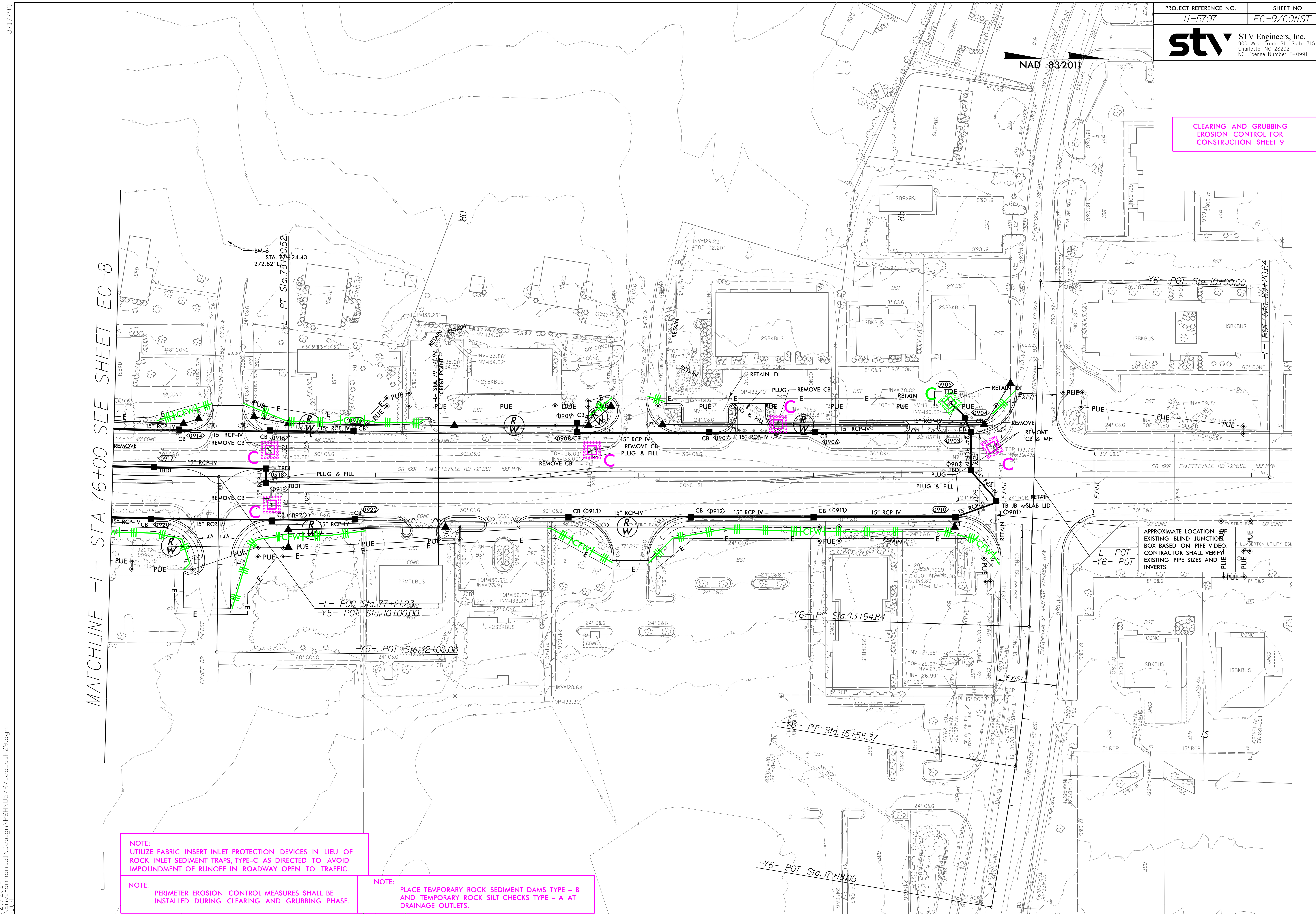
1. CONSTRUCT PROPOSED CULVERT AND INLET CHANNEL IMPROVEMENTS.
2. REMOVE/PLUG AND FILL EXISTING PIPE CULVERTS AND TEMPORARY 42" RCP.
3. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNELS, DIVERTING FLOW THROUGH PROPOSE CULVERT.
4. CONSTRUCT OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), STABILIZE DISTURBED AREAS, AND COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-9/CONST 9

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

8/17/99

10/29/2024
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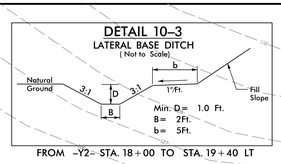
Smith

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-10/CONST 10

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

DETAIL 10-3
LATERAL BASE DITCH
(Not to Scale)



Min. D = 1.0 Ft.
B = 2Ft.
b = 5Ft.

FROM -Y2- STA. 18+00 TO STA. 19+40 LT

NAD 83/2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

-Y2- POT Sta. 10+00.00

-Y2- PC Sta. 10+99.99

-Y2- PT Sta. 14+12.75

BM-3
-y2- STA. 14+98.72
326.96' LT.

-Y2- PC Sta. 19+10.87

MATCHLINE -Y2- STA 23+00 SEE SHEET EC-6

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

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

10/29/2024
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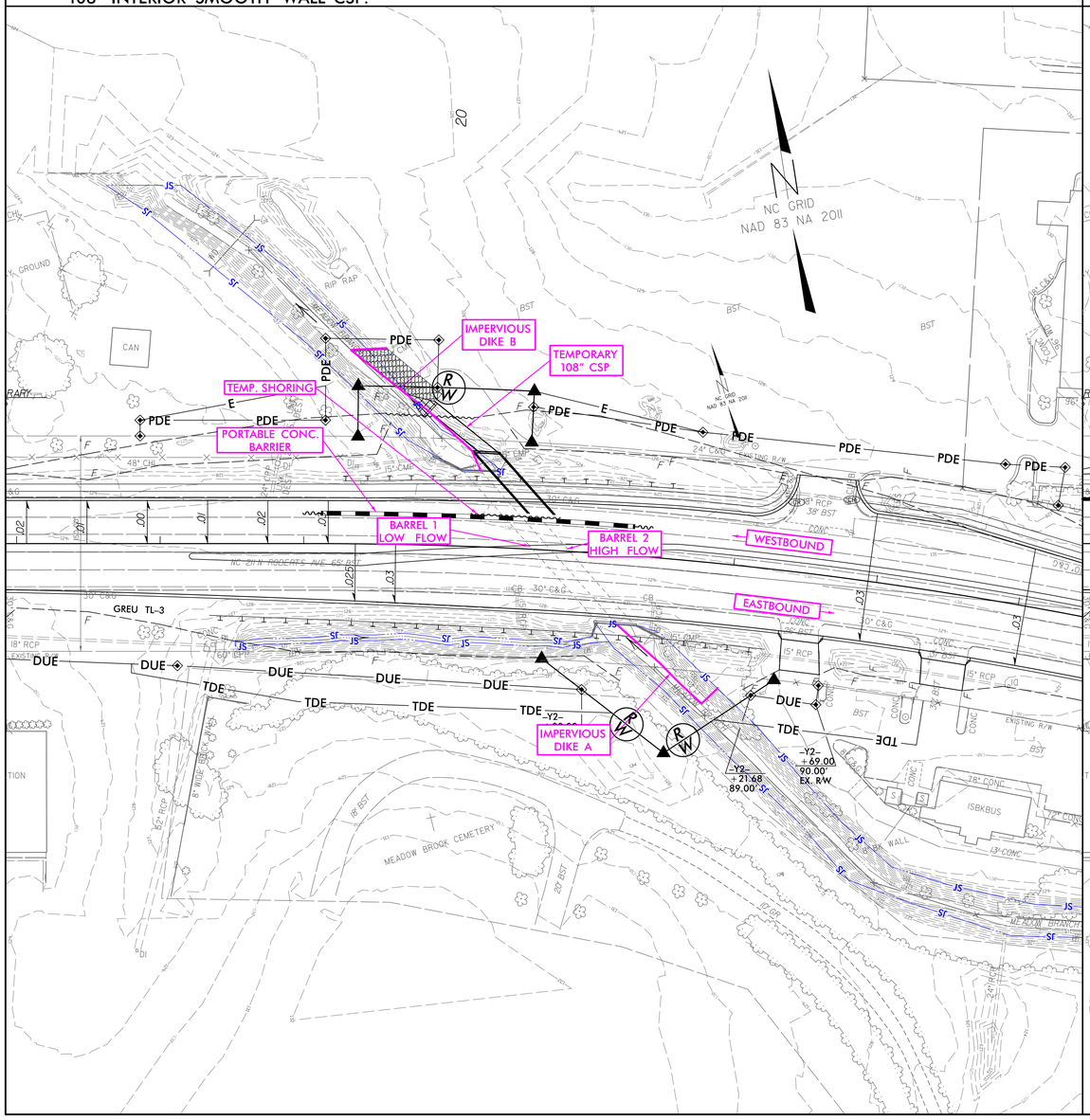
PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-10A/CONST 10

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CULVERT CONSTRUCTION SEQUENCE STA. 20+80 –Y2–

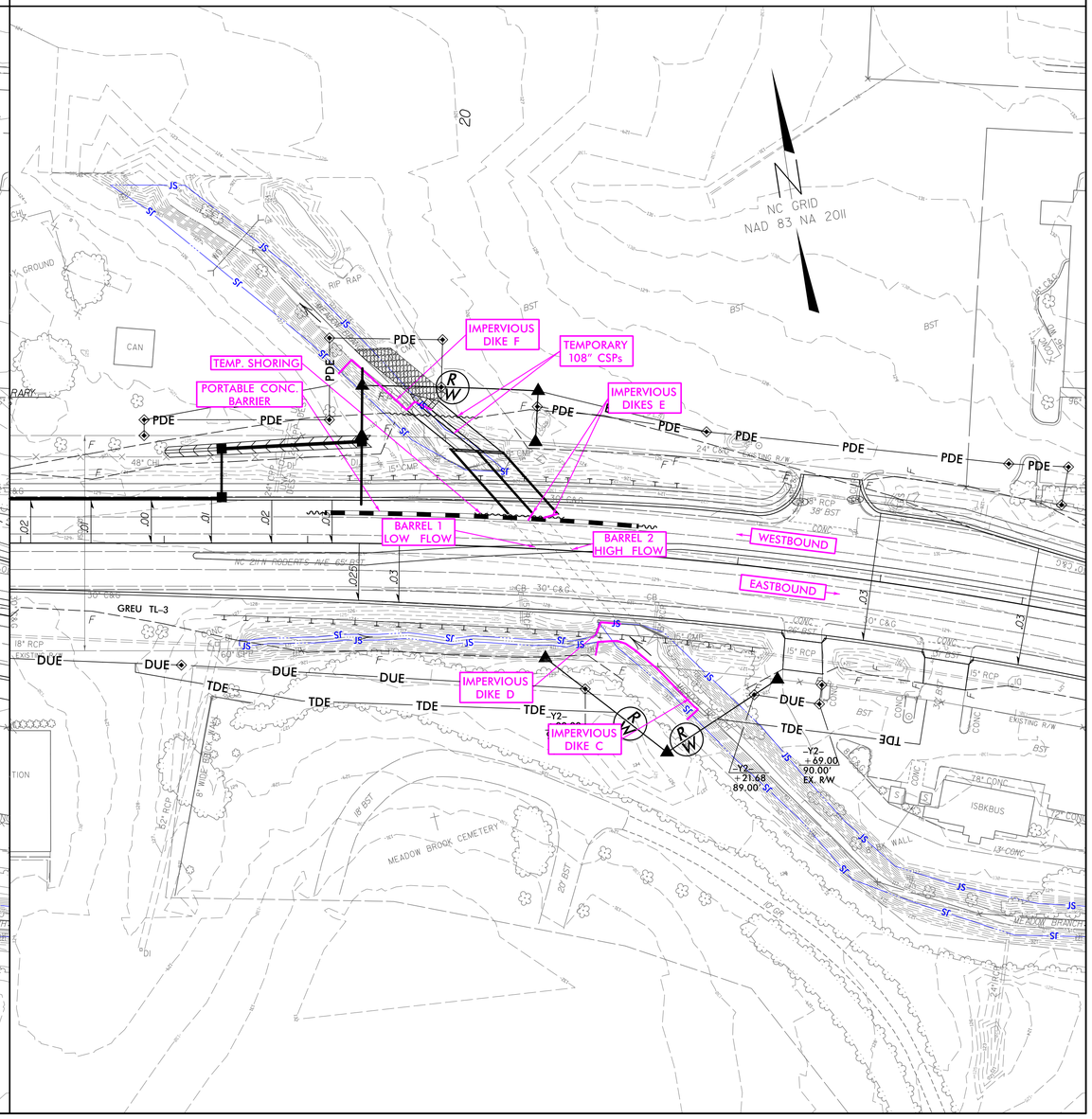
STAGE 1 (TMP PHASE IV STEP 4)

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. INSTALL PORTABLE CONCRETE BARRIER, TEMPORARY SHORING, AND SHIFT TRAFFIC TOWARDS EAST BOUND SIDE OF THE ROAD.
3. INSTALL IMPERVIOUS DIKES A & B TO DIVERT WATER THROUGH EXISTING CULVERT BARREL 1, DEWATER CULVERT CONSTRUCTION AREA.
4. REMOVE A PORTION OF BARREL 2 OF EXISTING CULVERT.
5. CONSTRUCT A PORTION OF THE HIGH FLOW BARREL OF THE PROPOSED CULVERT AND TEMPORARY 108" INTERIOR SMOOTH WALL CSP.



STAGE 2 (TMP PHASE IV STEP 4)

6. REMOVE IMPERVIOUS DIKES A & B AND INSTALL IMPERVIOUS DIKES C, D, E, & F TO DIVERT WATER THROUGH EXISTING CULVERT BARREL 2 AND THE CONSTRUCTED PORTION OF THE HIGH FLOW BARREL OF THE PROPOSED CULVERT.
7. EXCAVATE ANY ACCUMULATED SILT AND DEWATER CULVERT CONSTRUCTION AREA.
8. CONSTRUCT A PORTION OF THE LOW FLOW BARREL OF THE PROPOSED CULVERT AND TEMPORARY 108" INTERIOR SMOOTH WALL CSP.
9. CONSTRUCT DOWNSTREAM PORTION OF 72" RCP SYSTEM.



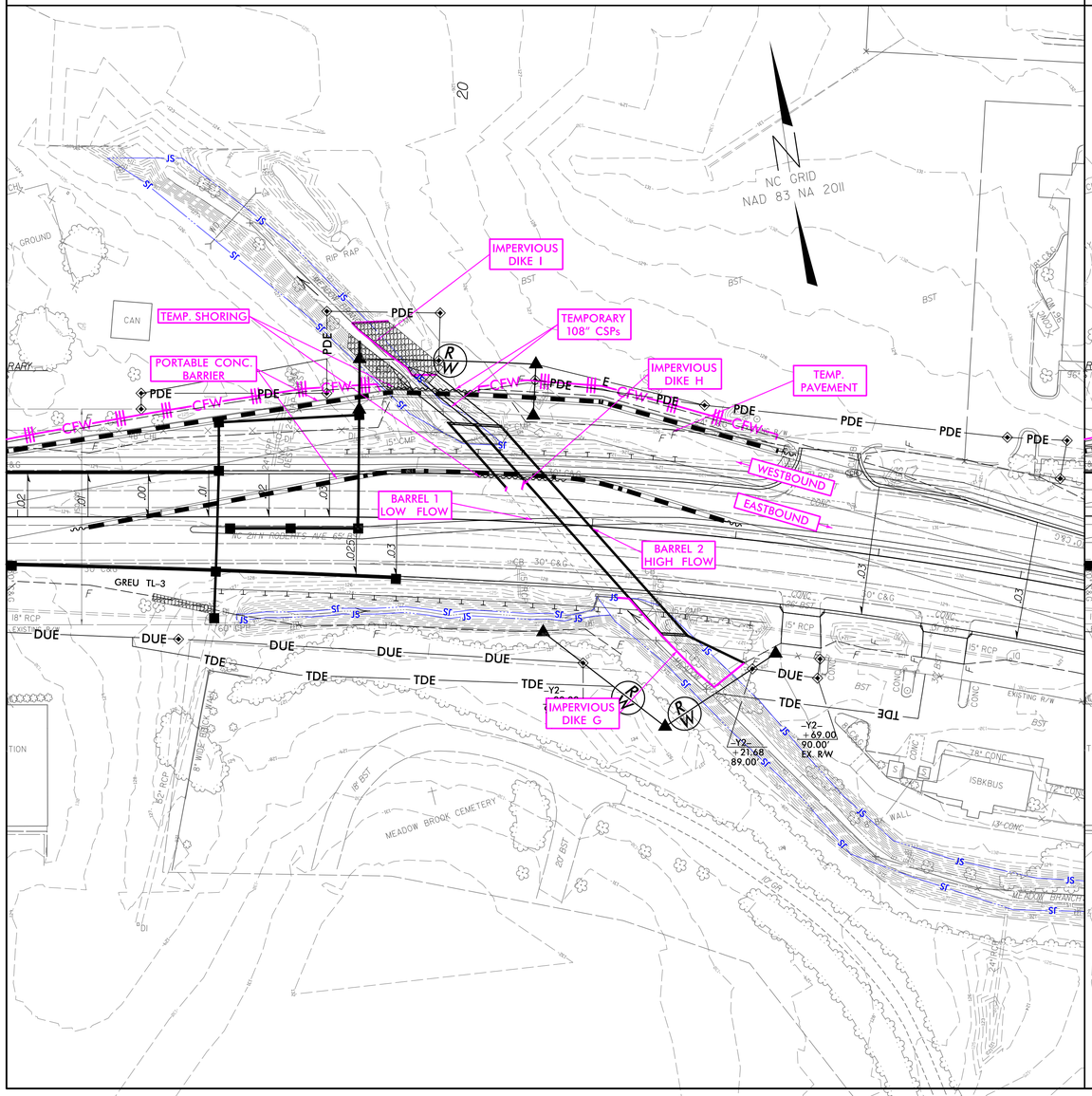
PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-10B/CONST 10

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CULVERT CONSTRUCTION SEQUENCE STA. 20+80 –Y2–

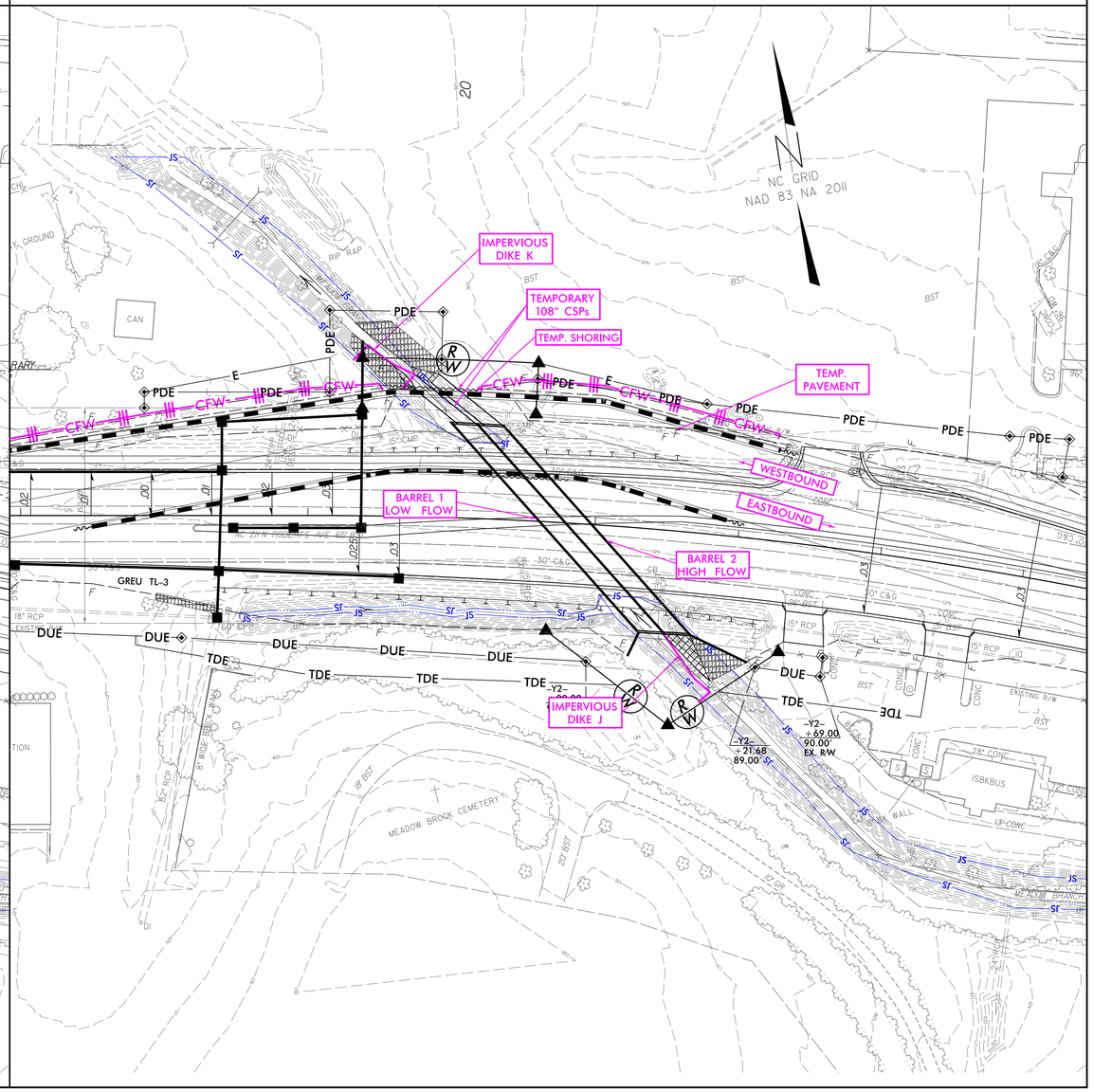
STAGE 3 (TMP PHASE V STEP 1)

10. SHIFT TRAFFIC TO TEMPORARY PAVEMENT (SEE TRAFFIC CONTROL PLANS FOR DETAILS).
11. REMOVE IMPERVIOUS DIKES C, D, E, AND F AND INSTALL IMPERVIOUS DIKES G, H, AND I TO MAINTAIN FLOW THROUGH EXISTING CULVERT BARREL 1 AND CONSTRUCTED PORTION OF THE LOW FLOW BARREL OF THE PROPOSED CULVERT.
12. REMOVE REMAINING PORTION OF EXISTING CULVERT BARREL 2.
13. REMOVE ANY ACCUMULATED SILT AND DEWATER CULVERT CONSTRUCTION AREA.
14. CONSTRUCT THE REST OF THE HIGH FLOW BARREL OF THE PROPOSED CULVERT.
15. INSTALL THE UPSTREAM PORTION OF THE 72" RCP SYSTEM. FILL IN CHANNEL ON SOUTH SIDE OF THE ROAD TO TIE INTO PROPOSED UPSTREAM WINGWALLS OF 72" RCP SYSTEM AS DIRECTED BY FILL LINES.



STAGE 4 (TMP PHASE V STEP 1)

16. REMOVE IMPERVIOUS DIKES G, H, AND I AND INSTALL IMPERVIOUS DIKES J AND K TO DIVERT FLOW TO THE CONSTRUCTED HIGH FLOW BARREL OF THE PROPOSED CULVERT.
17. REMOVE THE REMAINING PORTION OF EXISTING CULVERT BARREL 1.
18. REMOVE ANY ACCUMULATED SILT AND DEWATER CULVERT CONSTRUCTION AREA.
19. CONSTRUCT THE REST OF THE LOW FLOW BARREL OF THE PROPOSED CULVERT.



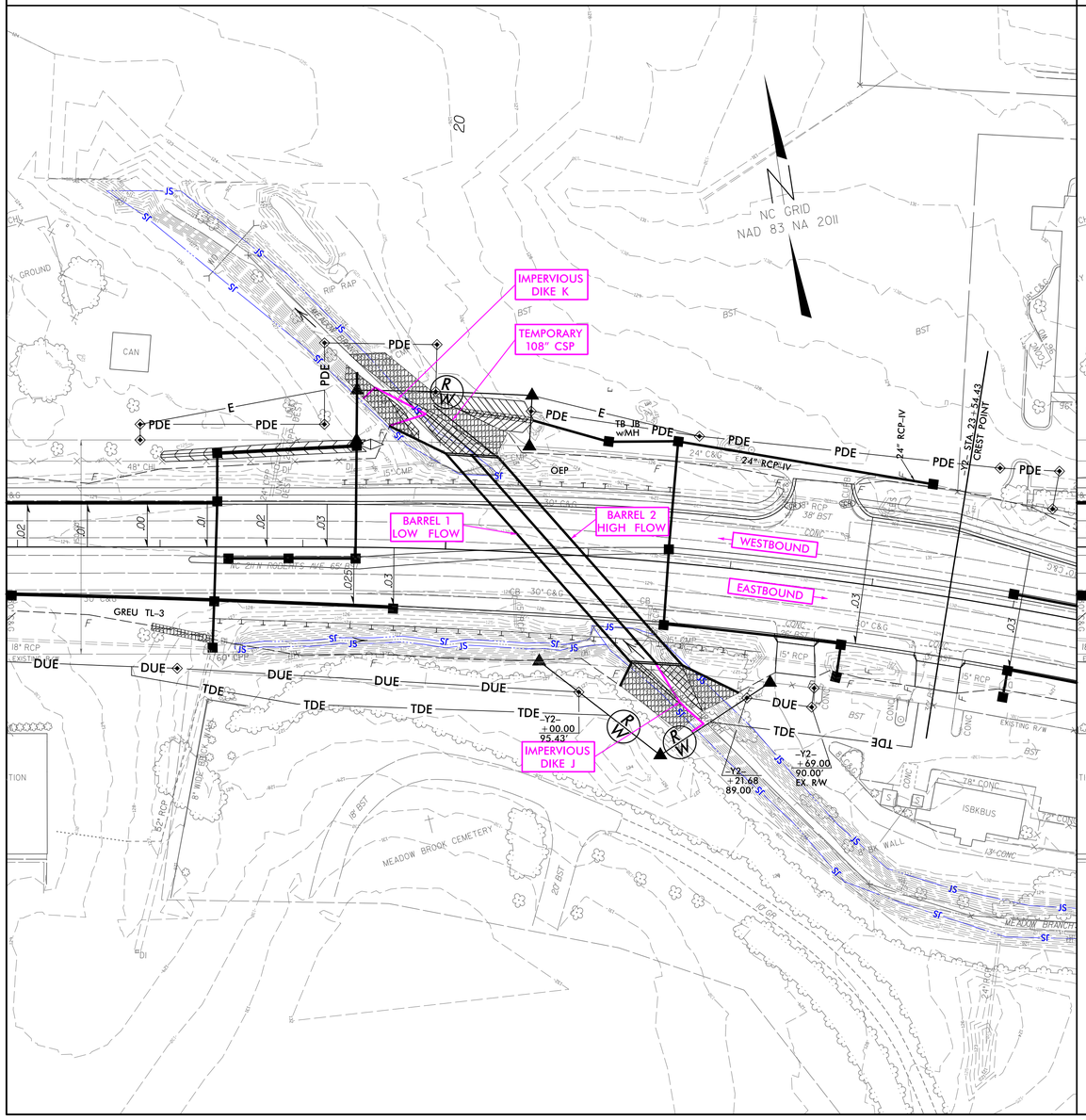
PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-10C/CONST 10

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CULVERT CONSTRUCTION SEQUENCE STA. 20+80 –Y2–

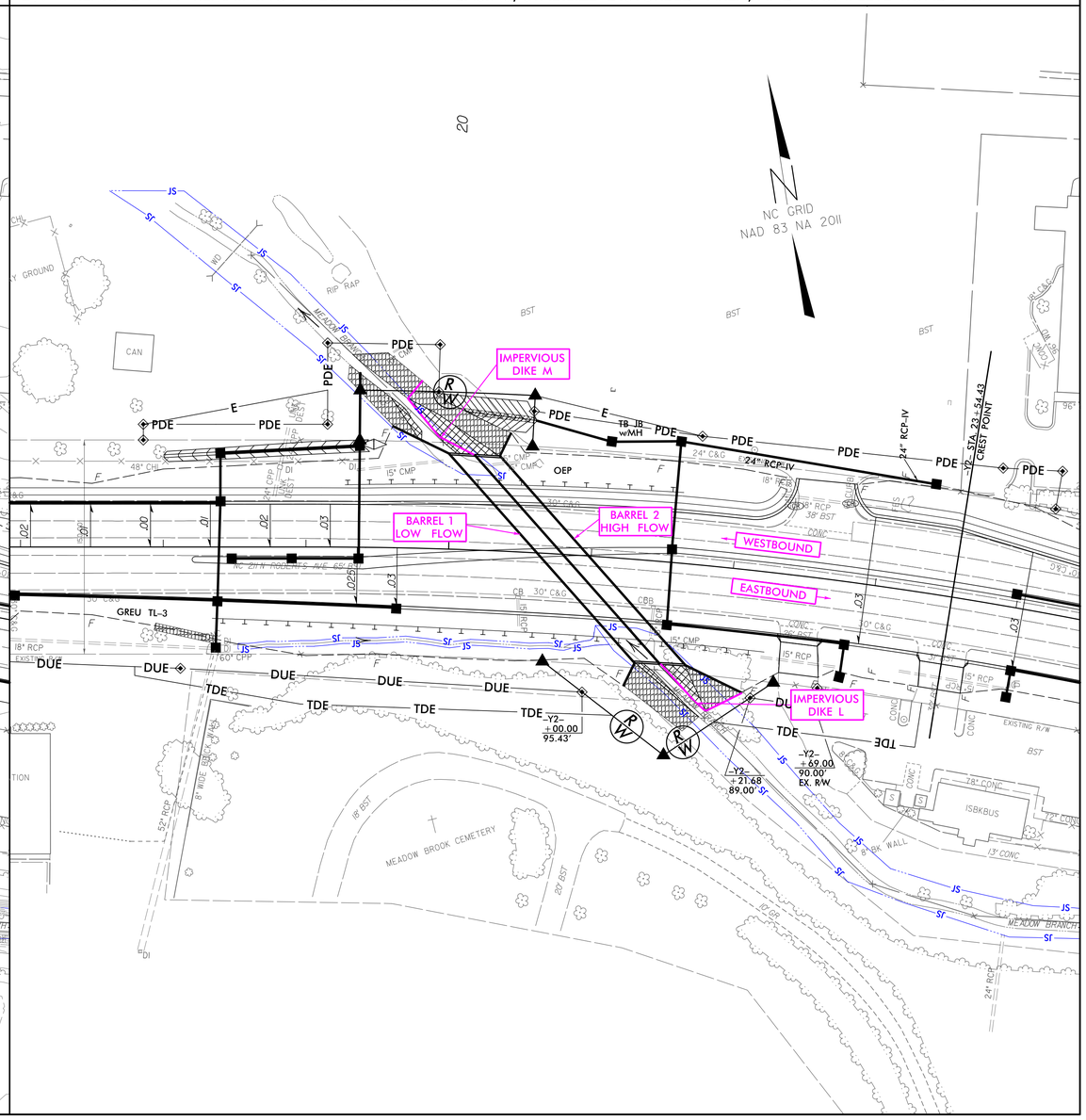
STAGE 5 (TMP PHASE VI STEP 1)

20. SHIFT TRAFFIC TO CONSTRUCTED LANES, REMOVE TEMPORARY PAVEMENT, AND REMOVE TEMP. 108" CSP AT BARREL 1.
21. COMPLETE WINGWALL ON UPSTREAM END OF PROPOSED CULVERT BARREL 1.
22. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
23. REMOVE IMPERVIOUS DIKES J AND K, ALLOWING NORMAL FLOW THROUGH THE PROPOSED BARREL 1.



STAGE 6 (TMP PHASE VI STEP 1)

24. INSTALL IMPERVIOUS DIKES L AND M TO MAINTAIN FLOW THROUGH PROPOSED CULVERT BARREL 1.
25. COMPLETE WINGWALLS ON UPSTREAM END OF PROPOSED CULVERT BARREL 2.
26. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
27. REMOVE IMPERVIOUS DIKES L AND M ALLOWING NORMAL FLOW THROUGH PROPOSED BARRELS 1 AND 2.
28. COMPLETE CHANNEL IMPROVEMENTS AND RIP RAP EMBANKMENTS ON UPSTREAM AND DOWNSTREAM ENDS OF CULVERT.
29. REMOVE ANY REMAINING SPECIAL STILLING BASINS, STABILIZE DISTURBED AREA, AND COMPLETE ROADWAY.

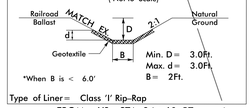


8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-11/CONST 11

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

DETAIL 11-1
DITCH CLEANOUT
(Not to Scale)



Type of Liner = Class 'I' Rip-Rap
FROM -Y2- STA. 34+60 RT

NAD 83\2011

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

MATCHLINE -Y2- STA 32400 SEE SHEET EC-6

-Y2- PT Sta. 33+02.94

-Y2- POT Sta. 41+02.94

-RR1- POT Sta. 11+41.40

-RR1- POT Sta. 10+00.00

RETAIN

SPECIAL PIPE

CSX RAIL SAG POINT

REMOVE CB

REMOVE

ADJUST CB

PLUG & FILL

REMOVE DI

25' EASEMENT
CLEAN OUT EXISTING DITCH
(SEE DETAIL 11-1)
50 FT CLEANOUT, 25 FT TAPER TO EXISTING
EST. 30 C.Y. UNCLASSIFIED EXCAVATION
EST. 16 TONS CL-I RIPRAP
EST. 24 S.Y. GEOTEXTILE

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

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 TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

10/29/2024
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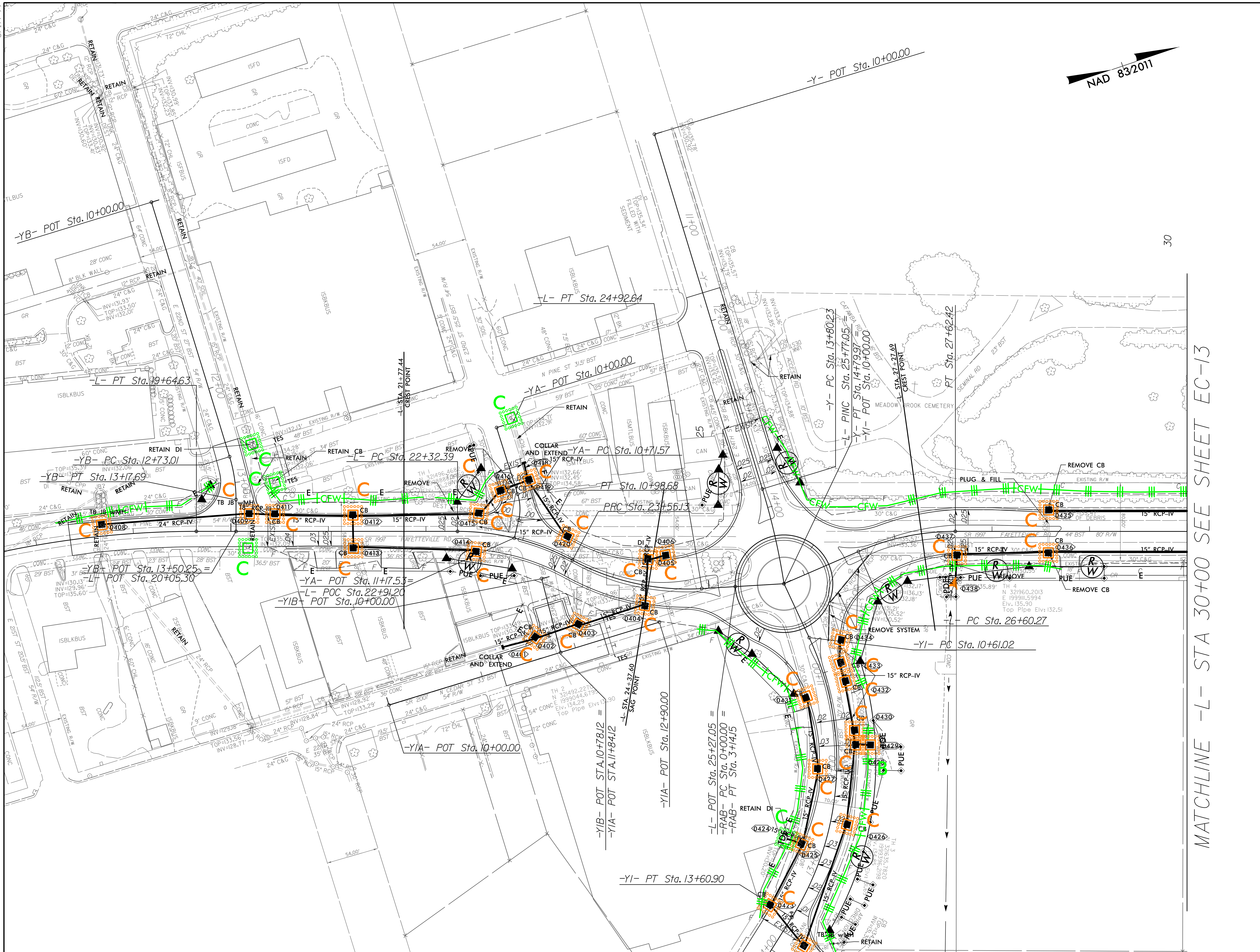
smith

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-12/CONST 4

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

NOTE:
USE MATTING ON FILL SLOPES WHERE USE OF SILT FENCE IS NOT POSSIBLE DUE TO SITE CONDITIONS.

8/17/99
10/29/2024
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Smith

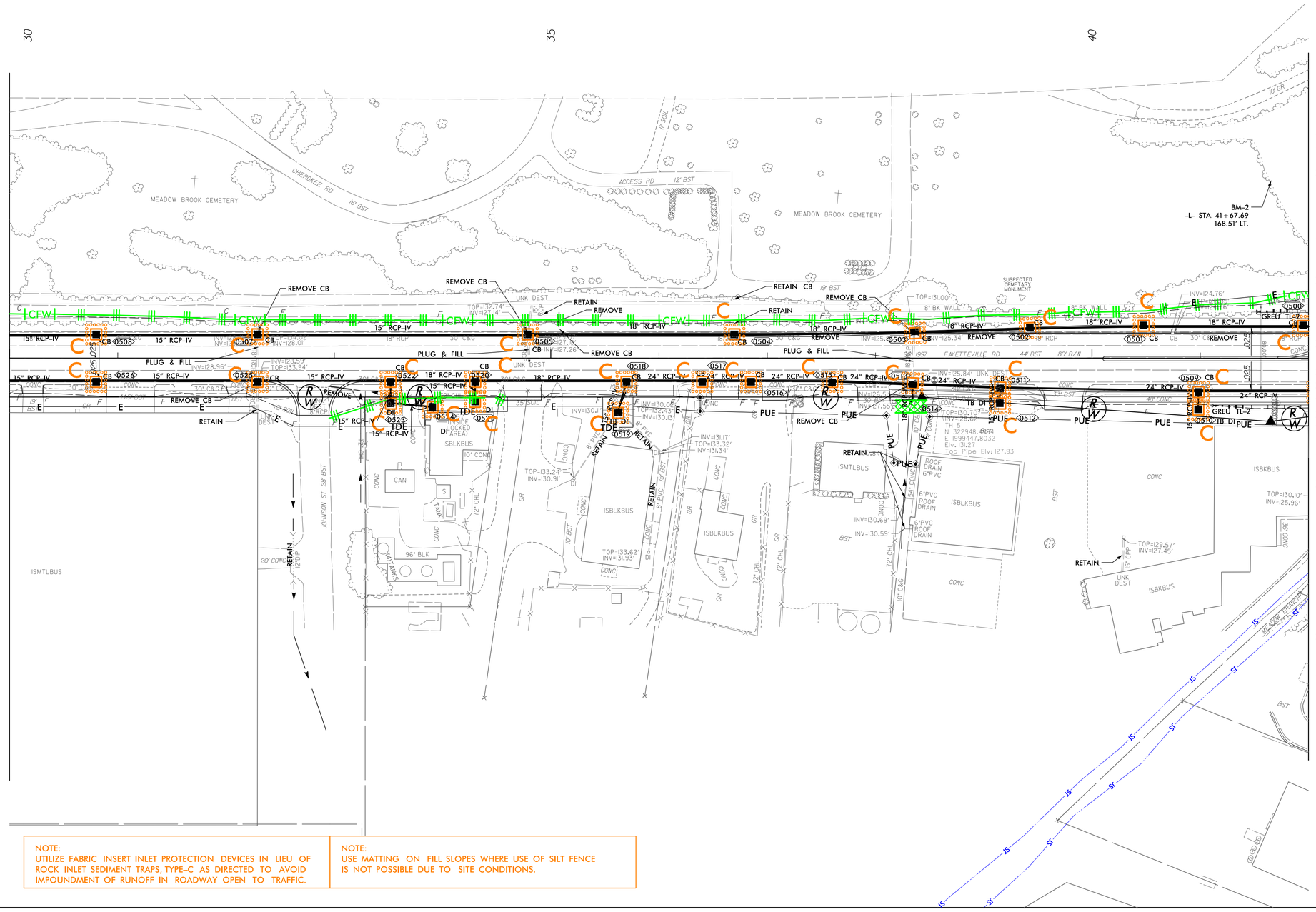
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-13/CONST 5

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83/2011

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

NOTE:
USE MATTING ON FILL SLOPES WHERE USE OF SILT FENCE IS NOT POSSIBLE DUE TO SITE CONDITIONS.

10/29/2024
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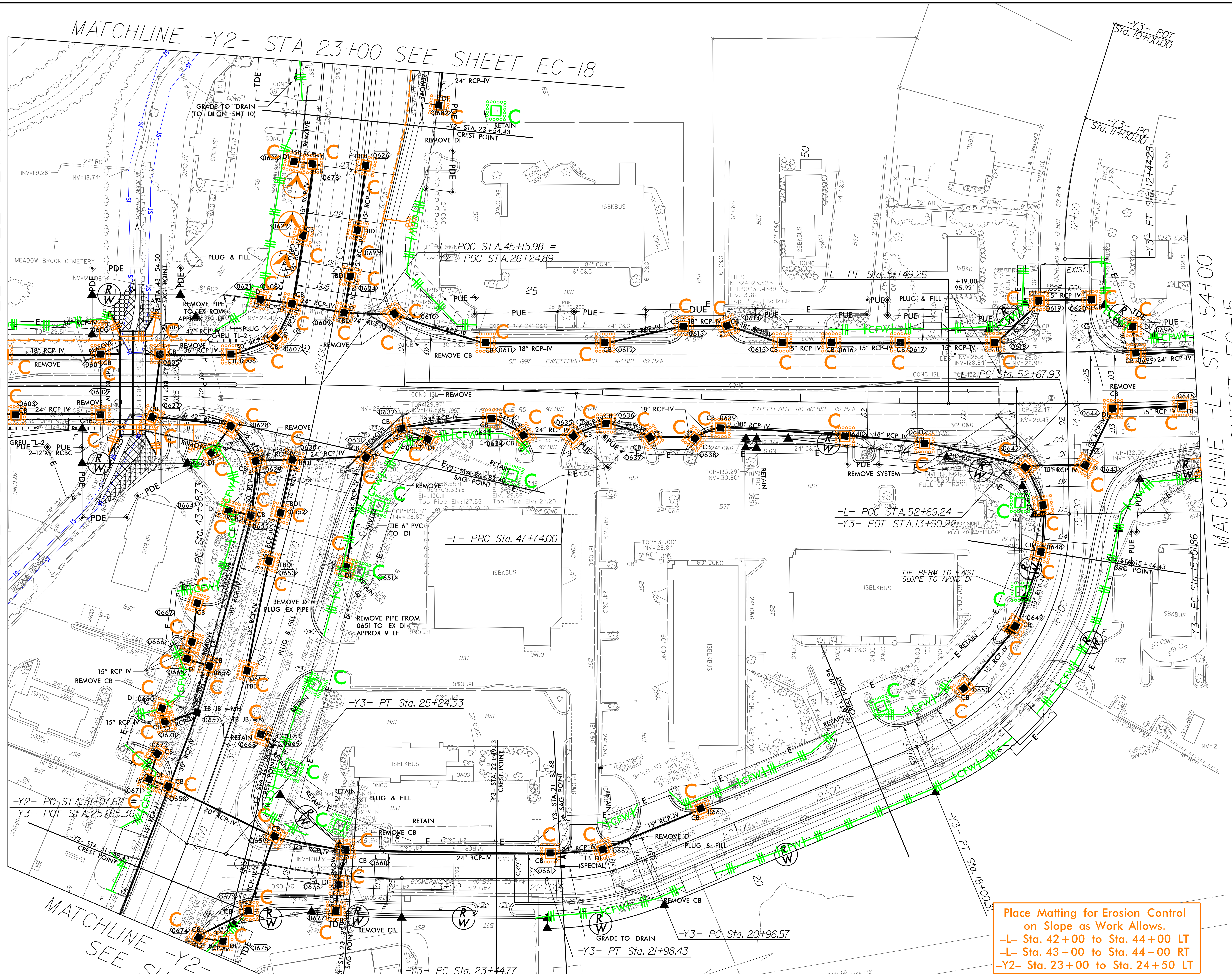
jmash

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-14/CONST 6

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 42+00 to Sta. 44+00 LT
-L- Sta. 43+00 to Sta. 44+00 RT
-Y2- Sta. 23+00 to Sta. 24+50 LT

NOTE:
USE MATTING ON FILL SLOPES WHERE USE OF SILT FENCE IS NOT POSSIBLE DUE TO SITE CONDITIONS.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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10/29/2024
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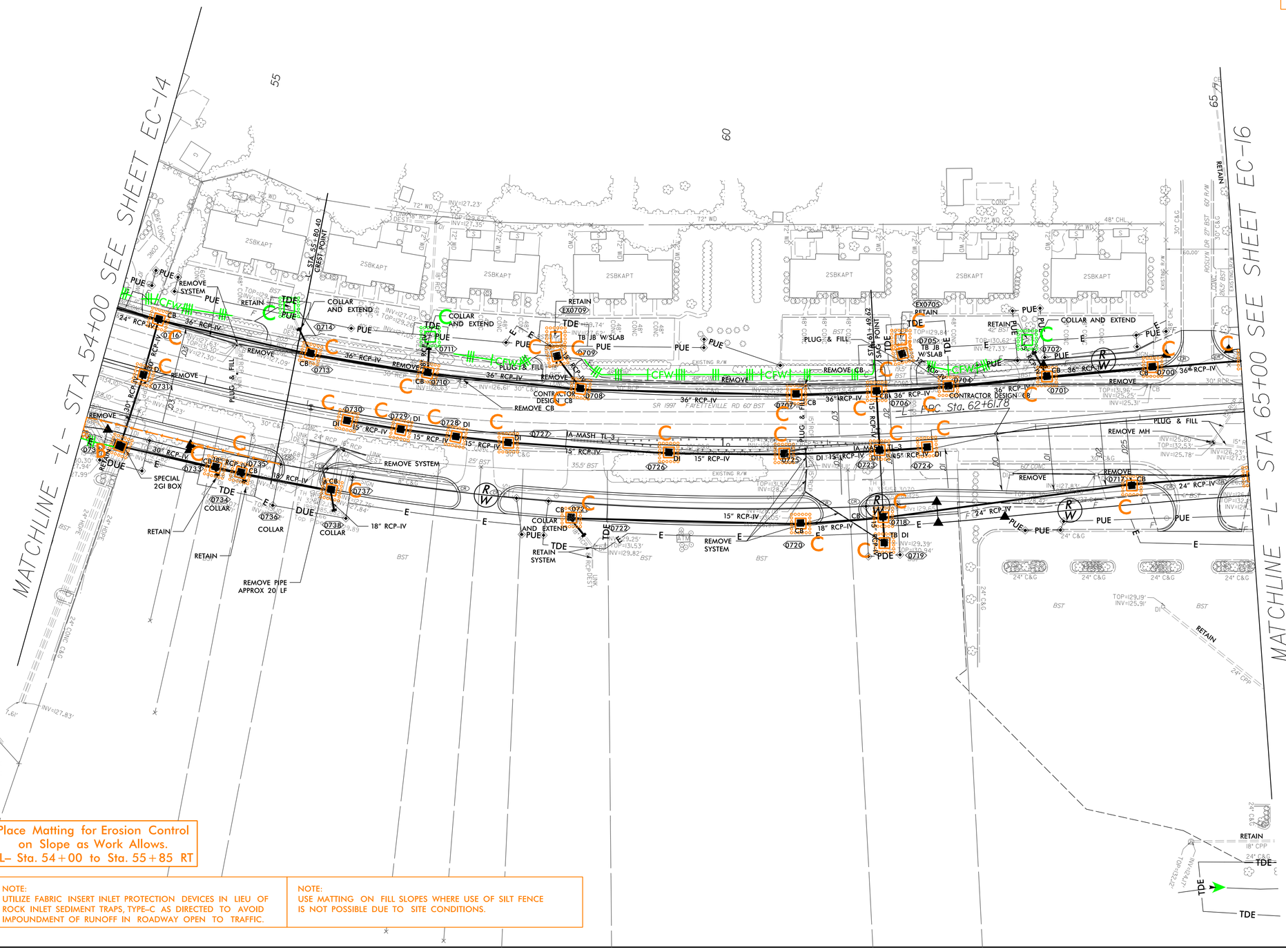
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-15/CONST 7

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83/2011

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7



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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-16/CONST 8

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83/2011

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

MATCHLINE -L- STA 65+00 SEE SHEET EC-15

MATCHLINE -L- STA 76+00 SEE SHEET EC-17

-L- POC Sta. 68+77.00
-Y4- POT Sta. 10+00.00

-Y4- PC Sta. 10+92.45

-L- PRC Sta. 74+04.72

-Y4- PRC Sta. 13+13.63

-Y4- PT Sta. 14+50.36

-RR2- POT Sta. 12+33.74

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 67+95 to Sta. 70+50 LT
-Y4- Sta. 14+50 to Sta. 16+75 RT

NOTE:
USE MATTING ON FILL SLOPES WHERE USE OF SILT FENCE IS NOT POSSIBLE DUE TO SITE CONDITIONS.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

10/29/2024
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smith

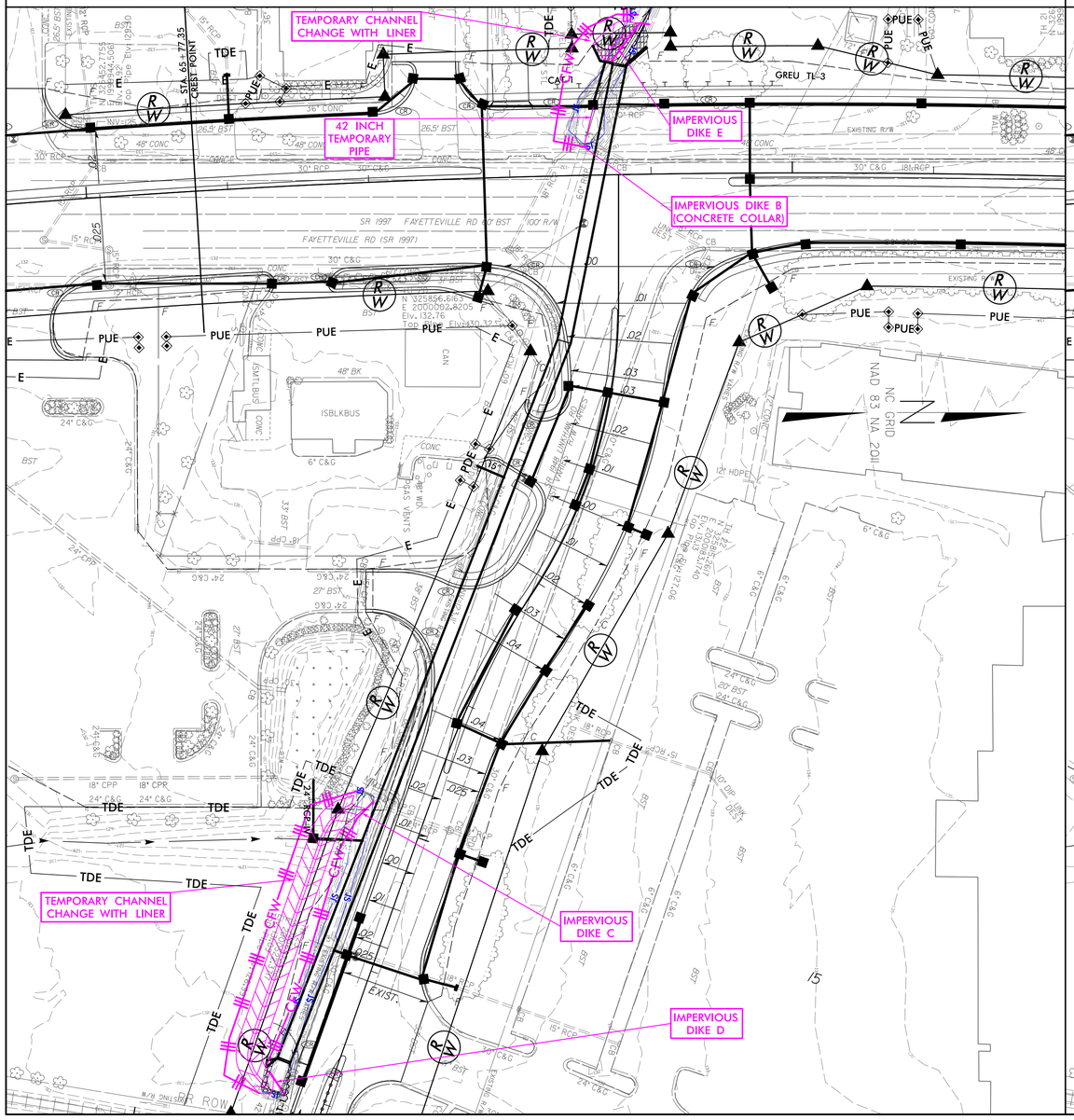
PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-8B/CONST 8

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CULVERT CONSTRUCTION SEQUENCE STA. 68+62 –L–

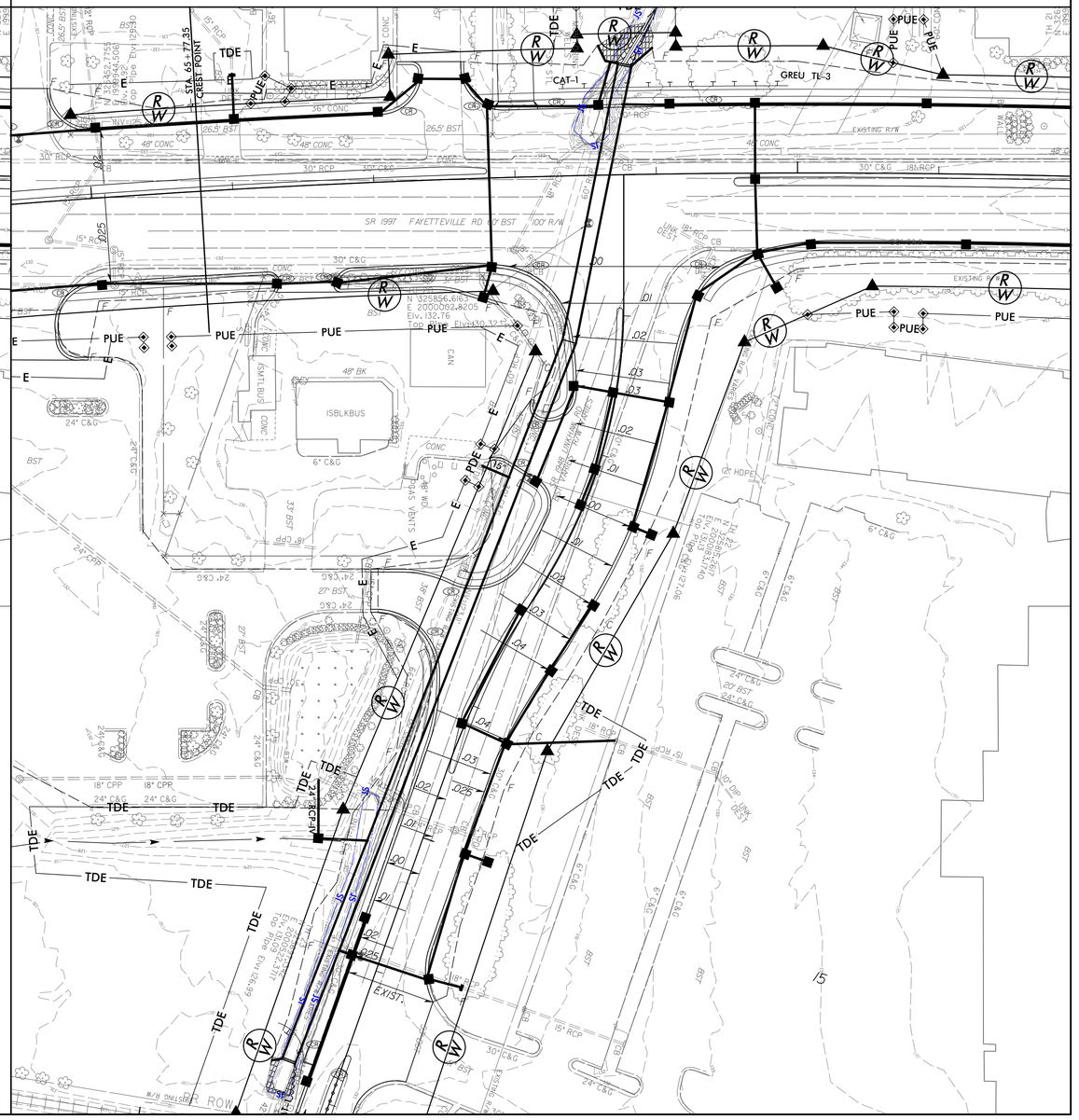
STAGE 3 (TMP PHASE IV STEP 1)

1. REMOVE DIKES 1,2, AND 3.
2. INSTALL IMPERVIOUS DIKES C, D, AND E DIVERTING FLOW AROUND CULVERT WORK AREA, INTO TEMPORARY CHANNEL CHANGES AND TEMPORARY 42 INCH RCP.
3. REMOVE PUMP AROUND OPERATION.
4. DEWATER CULVERT CONSTRUCTION AREA.
5. SEE TRAFFIC CONTROL PLAN FOR DETAILED PHASING.



STAGE 4 (TMP PHASE IV STEP 2)

1. CONSTRUCT PROPOSED CULVERT AND INLET CHANNEL IMPROVEMENTS.
2. REMOVE/PLUG AND FILL EXISTING PIPE CULVERTS AND TEMPORARY 42" RCP.
3. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNELS, DIVERTING FLOW THROUGH PROPOSE CULVERT.
4. CONSTRUCT OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), STABILIZE DISTURBED AREAS, AND COMPLETE ROADWAY.



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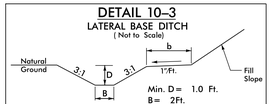
NAD 83/2011

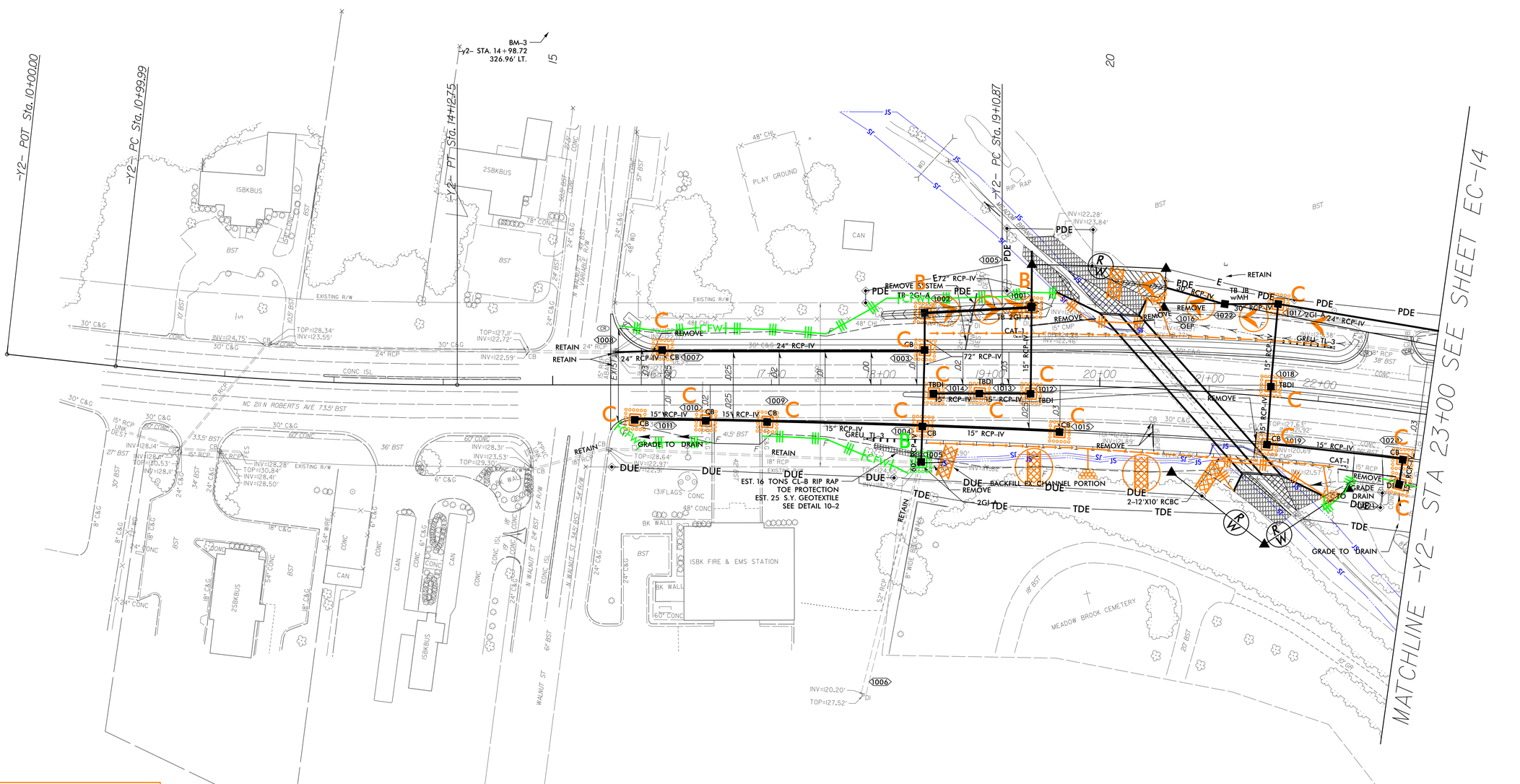
FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

DETAIL 10-3
LATERAL BASE DITCH
(Not to Scale)



Min. D = 1.0 Ft.
B = 2Ft.
b = 5Ft.

FROM -Y2- STA. 18+00 TO STA. 19+40 LT



Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 18+45 to Sta. 22+05 LT
Sta. 18+45 to Sta. 22+20 RT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

NOTE:
USE MATTING ON FILL SLOPES WHERE USE OF SILT FENCE IS NOT POSSIBLE DUE TO SITE CONDITIONS.

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Smith

PROJECT REFERENCE NO.	SHEET NO.
U-5797	EC-19/CONST 11

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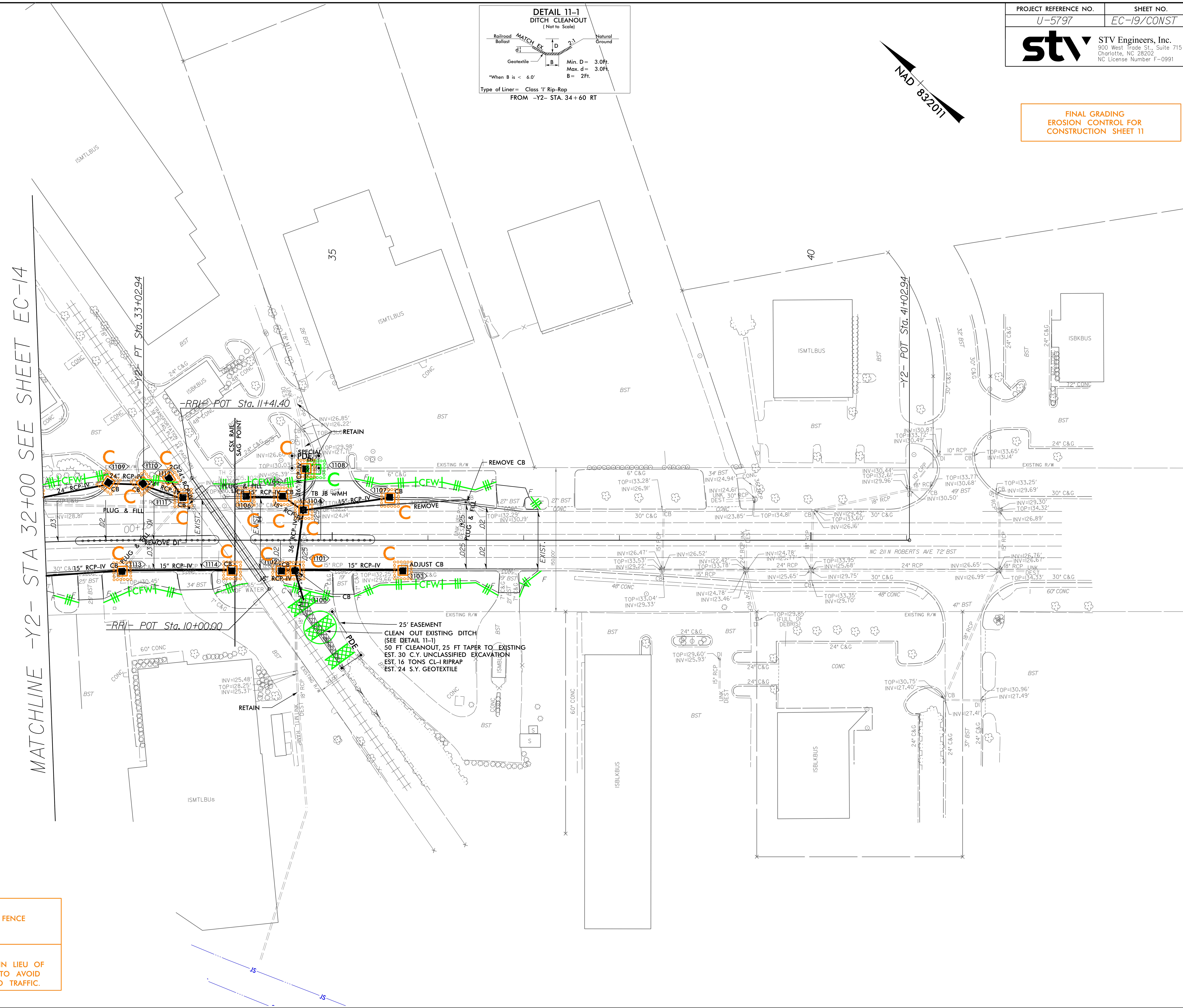
FINAL GRADING EROSION CONTROL FOR CONSTRUCTION SHEET 11



NOTE:
USE MATTING ON FILL SLOPES WHERE USE OF SILT FENCE IS NOT POSSIBLE DUE TO SITE CONDITIONS.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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