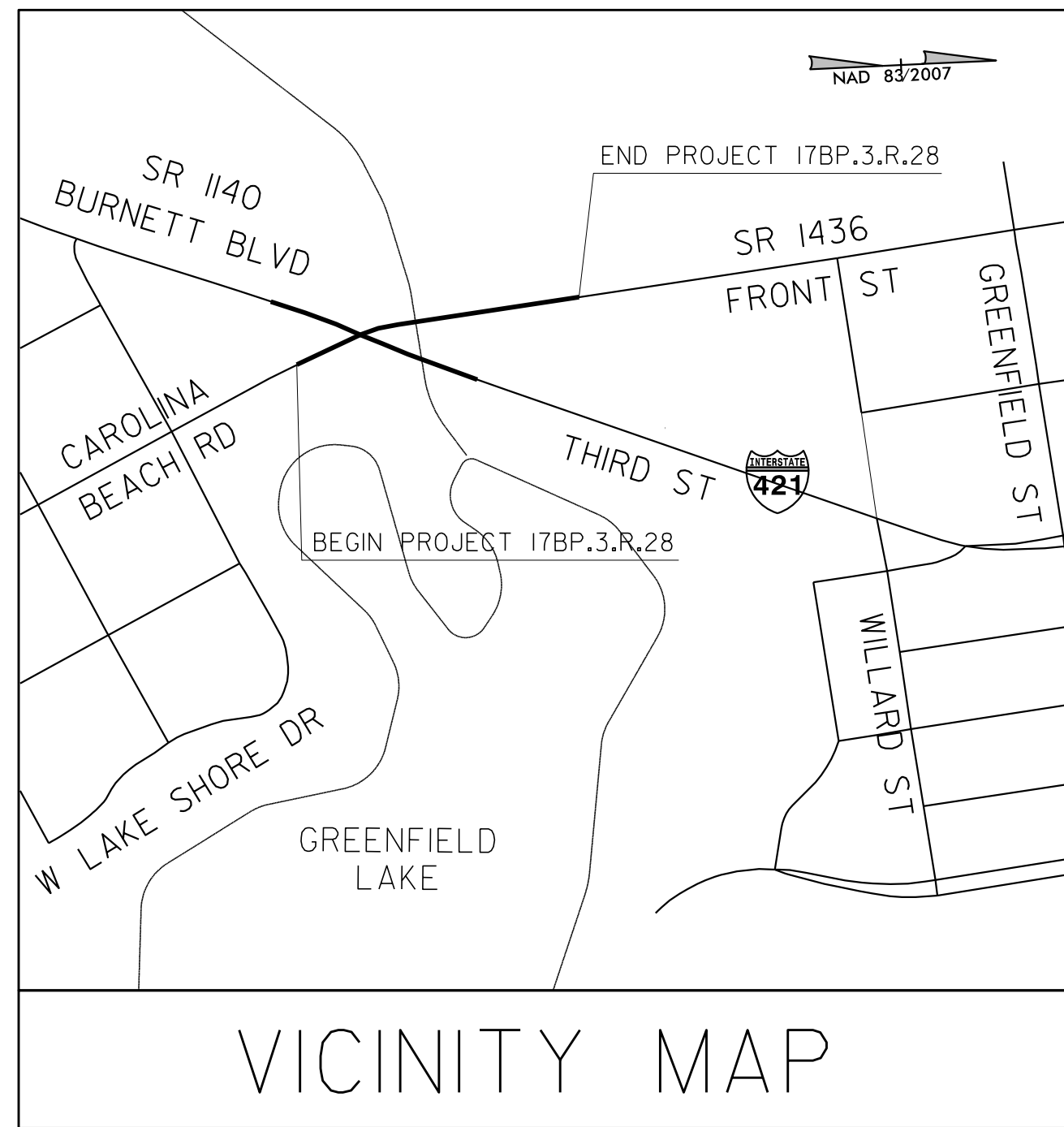


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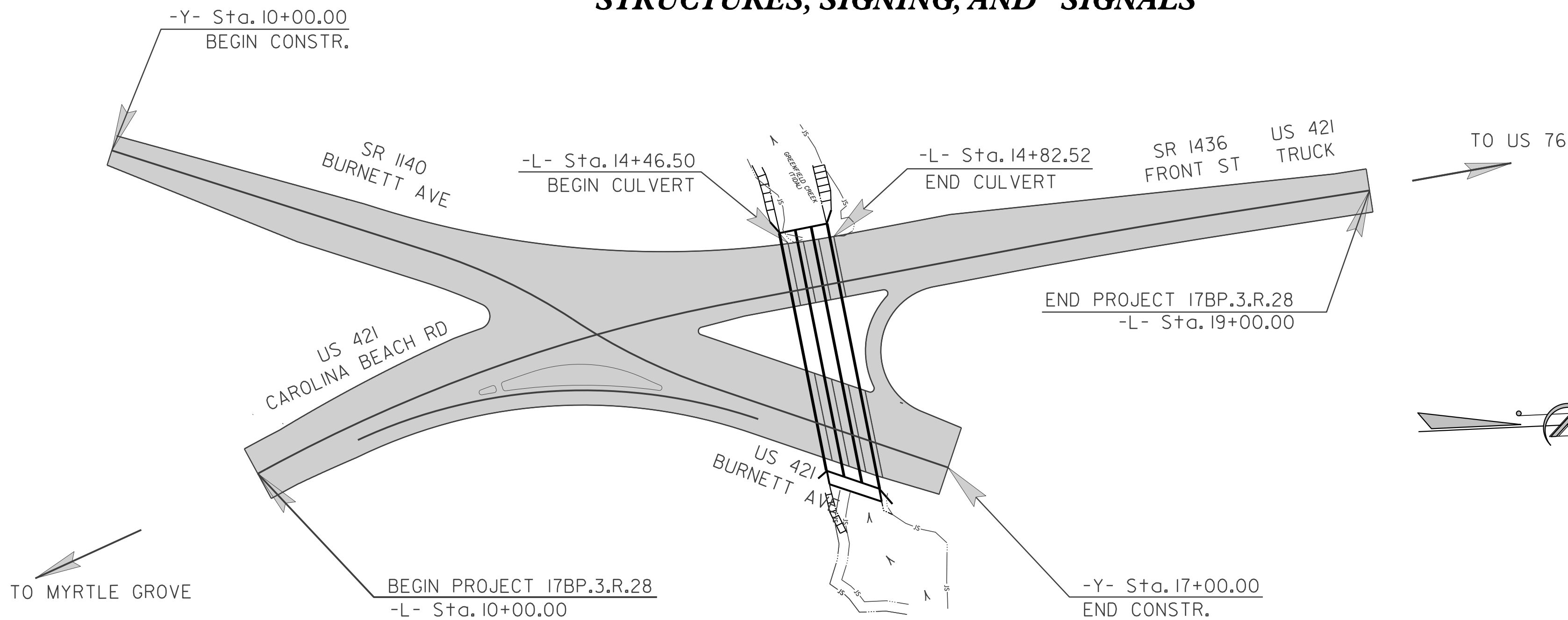
**PROJECT: 17BP.3.R.28**



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

**LOCATION: INTERSECTION OF SR 1436 /US 421 TRUCK  
 (FRONT STREET) AND SR 1140 (BURNETT BOULEVARD)  
 SOUTH OF WILLARD STREET**

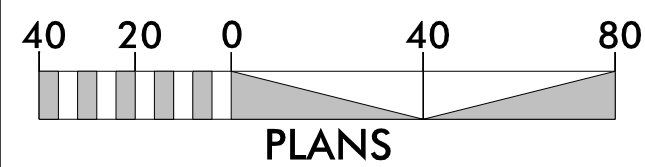
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, RESURFACING,  
 STRUCTURES, SIGNING, AND SIGNALS**



BRAD T. SMITH  
 LEVEL III NAME  
 3520  
 LEVEL III CERTIFICATION NO.

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

**GRAPHIC SCALE**



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY  
 WITH THE REGULATIONS SET FORTH BY THE  
 NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011  
 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND  
 NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

**SUNGATE DESIGN GROUP, P.A.**

915 JONES FRANKLIN ROAD  
 RALEIGH, NORTH CAROLINA 27606  
 TEL (919) 859-2243 FAX (919) 859-6258  
 ENG FIRM LICENSE NO. C-890

**2012 STANDARD SPECIFICATIONS**

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 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	▲▲▲
1622.01	Temporary Berms and Slope Drains	▲
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle/Coir Fiber Wattle	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	▭

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

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DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO. <i>17BP.3.R.28</i>	SHEET NO. <i>EC-2</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 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.



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

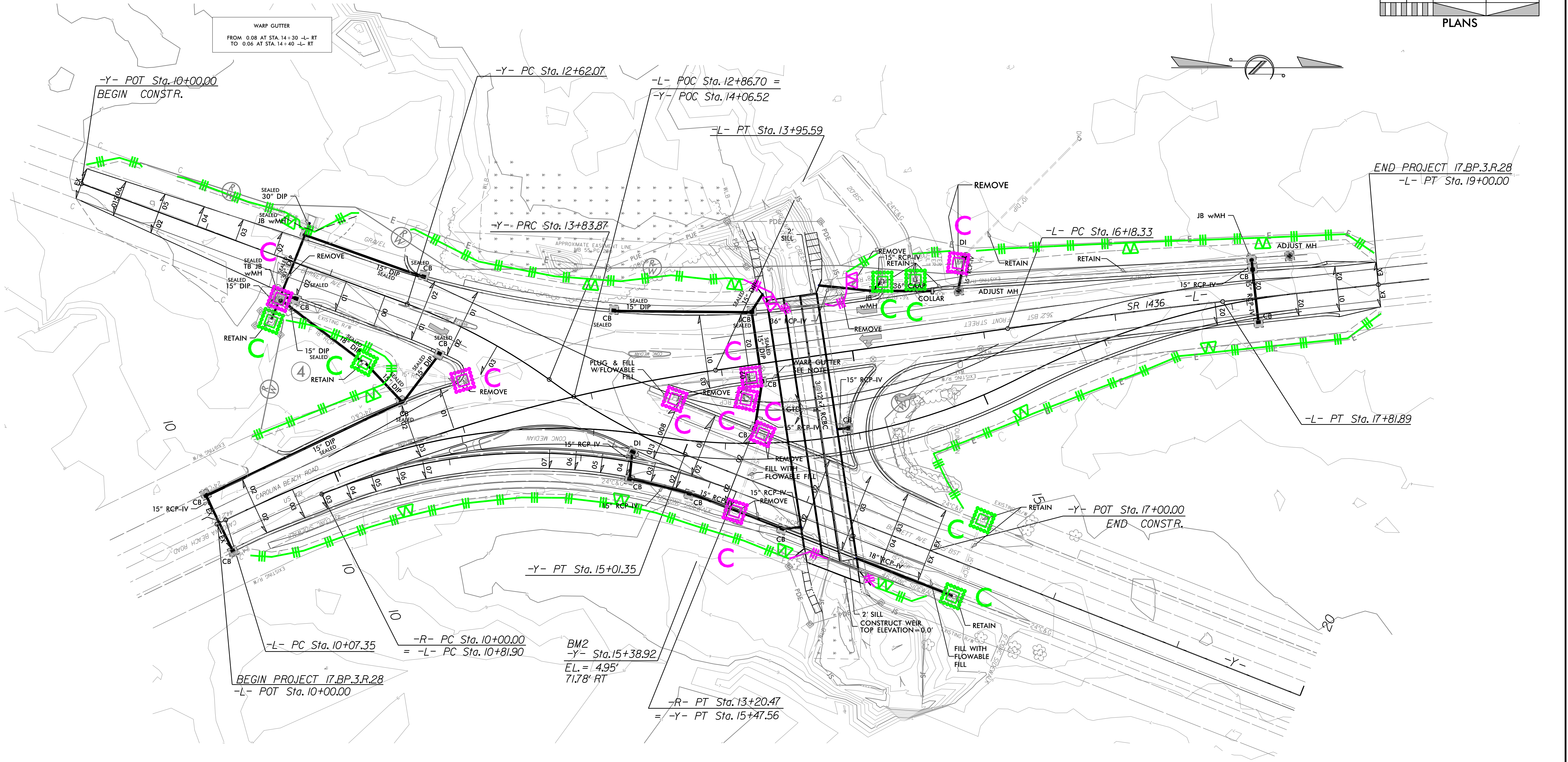
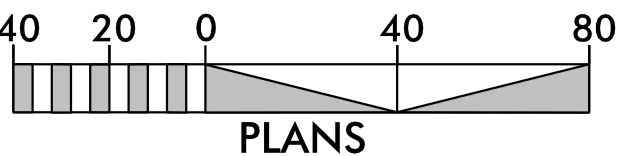
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

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

# EROSION CONTROL PLAN

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 04

PROJECT REFERENCE NO. 17BP.3.R.28	SHEET NO. EC-03/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



WARP GUTTER  
FROM 0.08 AT STA. 14+30 -L- RT  
TO 0.06 AT STA. 14+40 -L- RT

-Y- POT Sta. 10+00.00  
BEGIN CONSTR.

-Y- PC Sta. 12+62.07

-L- POC Sta. 12+86.70 =  
-Y- POC Sta. 14+06.52

-L- PT Sta. 13+95.59

-Y- PRC Sta. 13+83.87

-L- PC Sta. 16+18.33

END PROJECT 17.BP.3.R.28  
-L- PT Sta. 19+00.00

-L- PC Sta. 10+07.35

-R- PC Sta. 10+00.00  
-L- PC Sta. 10+81.90

BM2  
-Y- Sta. 15+38.92  
EL. = 4.95'  
71.78' RT

BEGIN PROJECT 17.BP.3.R.28  
-L- POT Sta. 10+00.00

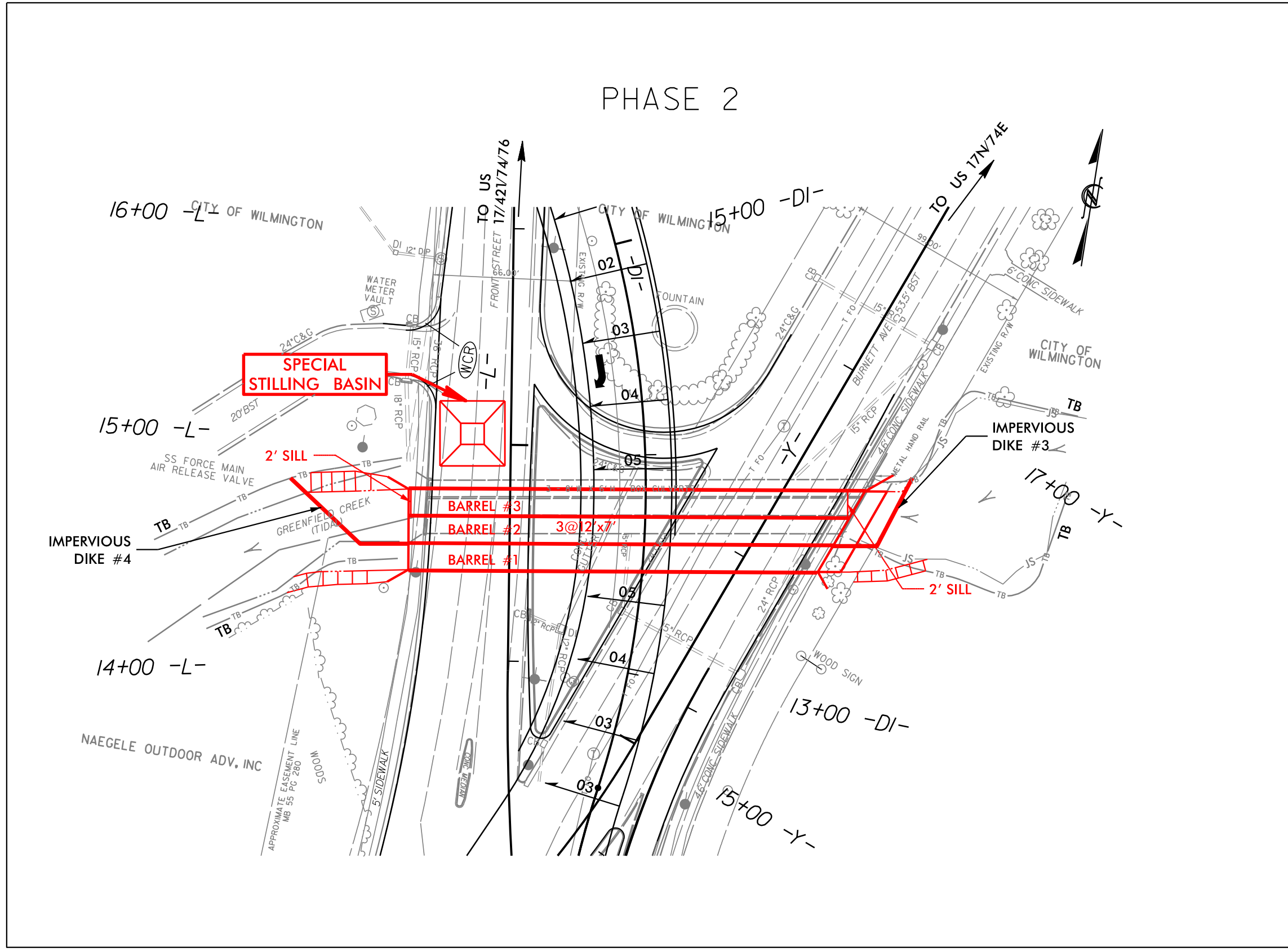
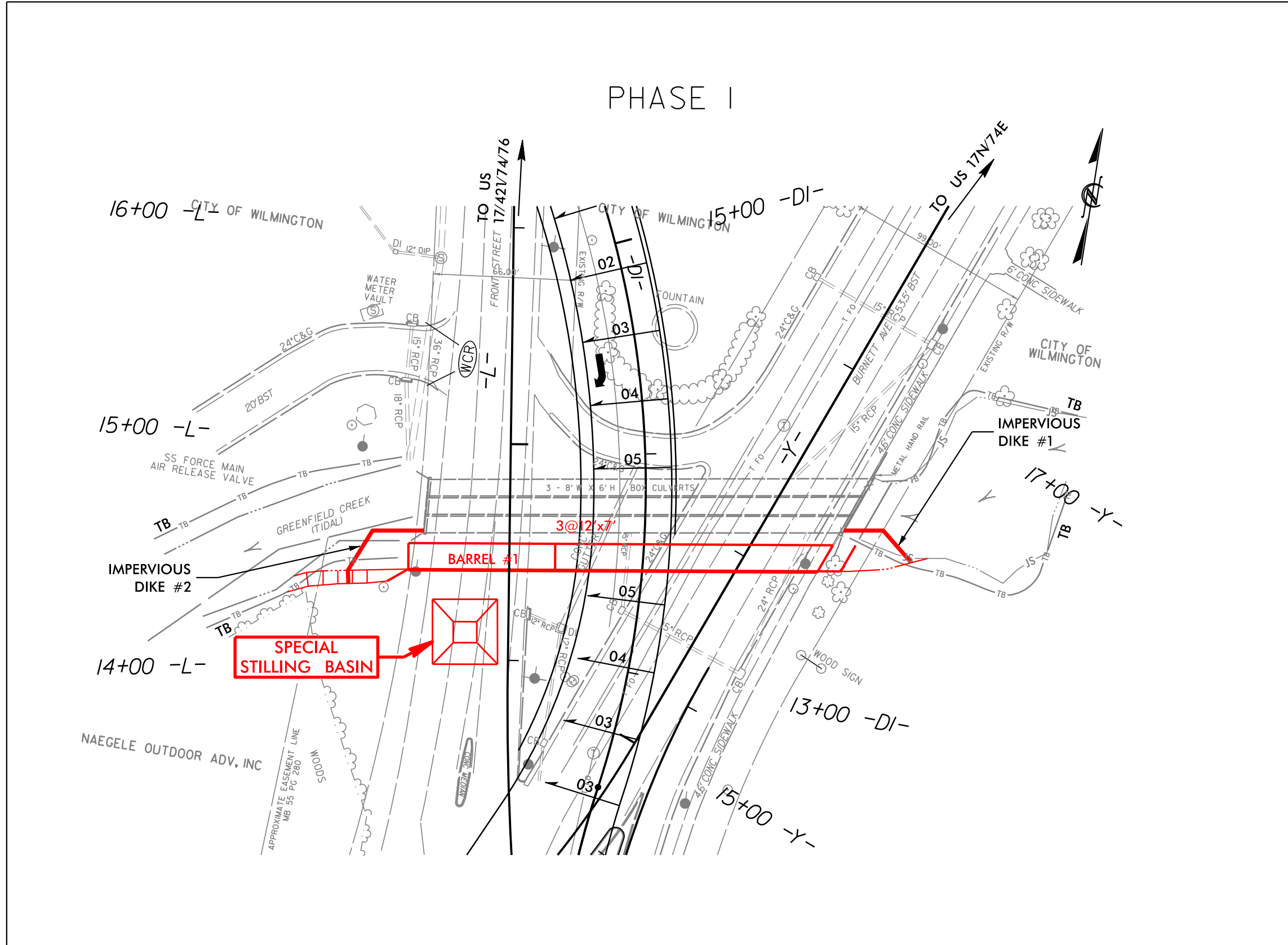
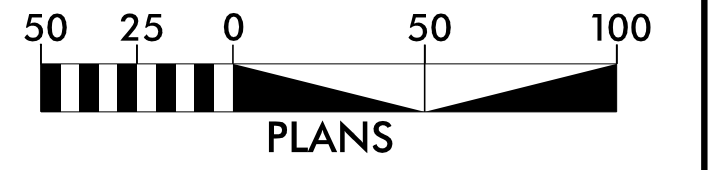
-Y- PT Sta. 15+01.35

-R- PT Sta. 13+20.47  
-Y- PT Sta. 15+47.56

-Y- POT Sta. 17+00.00  
END CONSTR.



PROJECT REFERENCE NO.	SHEET NO.
17BP.3.R.28	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SF-640028  
NEW HANOVER COUNTY

CONSTRUCTION SEQUENCE FOR 3 @ 12' X 7' RCBC  
14+60.6 -L-  
GREENFIELD CREEK

**PHASE 1**

1. INSTALL SPECIAL STILLING BASIN
2. CONSTRUCT IMPERVIOUS DIKE #1 AND #2
3. DEWATER CONSTRUCTION AREA, TREAT EFFLUENT WATER USING SPECIAL STILLING BASIN
4. CONSTRUCT INLET SECTION OF BARREL #1
5. CONSTRUCT TEMPORARY DETOUR
6. CONSTRUCT OUTLET SECTION OF BARREL #1
7. REMOVE IMPERVIOUS DIKE #1 AND #2
8. REMOVE SPECIAL STILLING BASIN

**PHASE 2**

1. CONSTRUCT IMPERVIOUS DIKE #3 AND #4 AND DIVERT FLOW INTO BARREL #1 OF PROPOSED CULVERT
2. INSTALL SPECIAL STILLING BASIN
3. DEWATER CONSTRUCTION AREA
4. REMOVE OUTLET SECTIONS OF EXISTING CULVERT TO TEMPORARY DETOUR
5. CONSTRUCT OUTLET SECTIONS OF BARRELS #2 AND #3 WITH SILLS
6. CONSTRUCT NEW ROADWAY SECTION OF -L- OVER OUTLET SECTIONS OF PROPOSED CULVERT
7. REMOVE TEMPORARY DETOUR
8. CONSTRUCT INLET SECTIONS OF BARRELS #2 AND #3 WITH SILLS
9. REMOVE IMPERVIOUS DIKES #3 AND #4
10. REMOVE SPECIAL STILLING BASIN
11. CONSTRUCT NEW ROADWAY SECTION OF -Y-

REVISIONS

8/17/99

6/7/2016  
640028\_Hyd\_rpt\_cul\_phasing.dgn  
640028



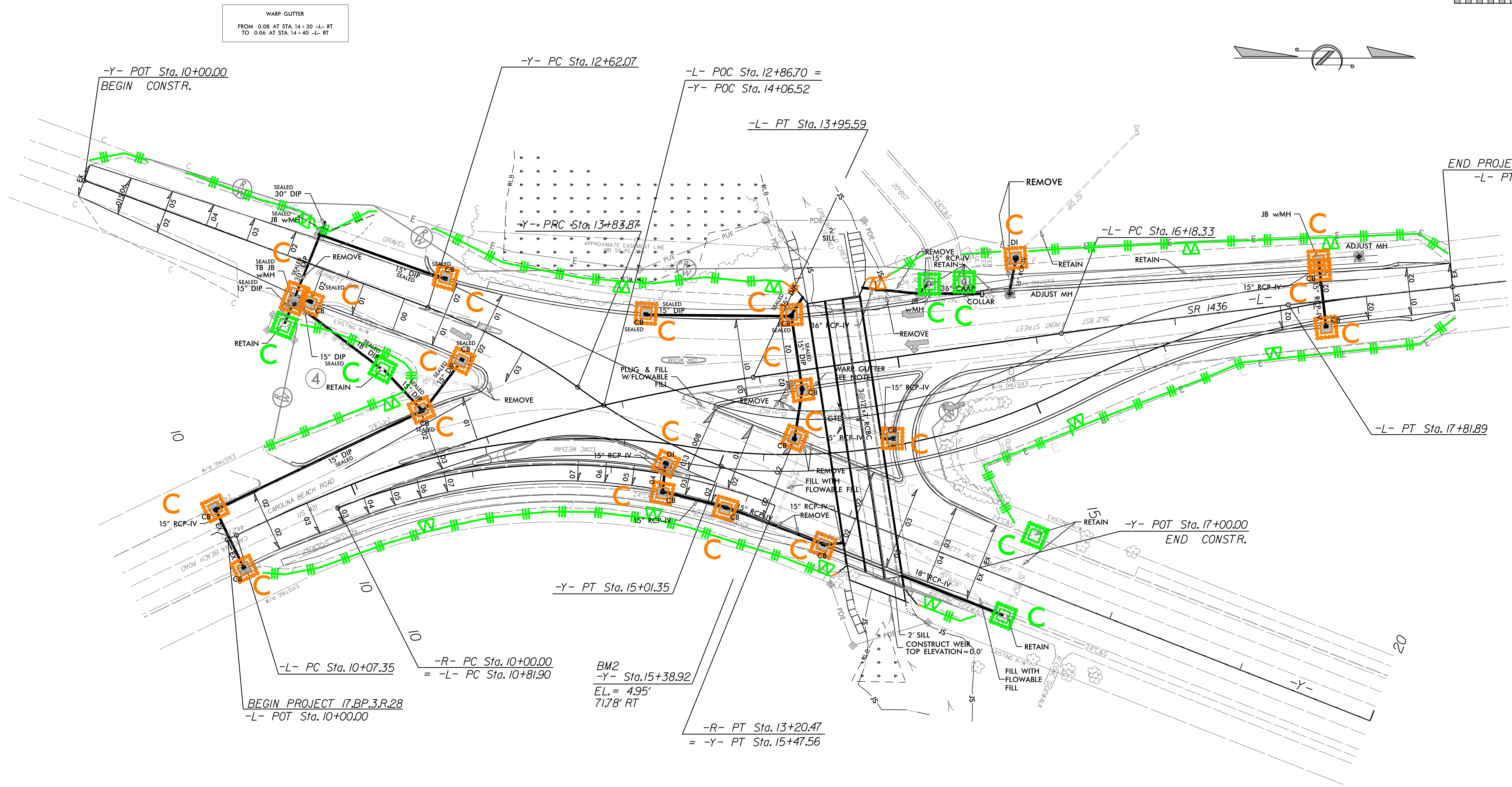
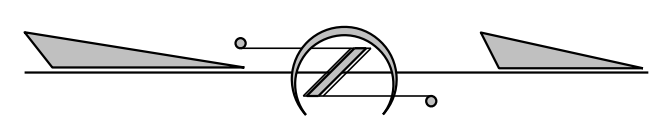
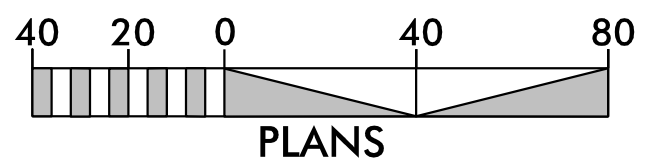
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

# EROSION CONTROL PLAN

FINAL GRADE  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 04

PROJECT REFERENCE NO. 17BP.3.R.28	SHEET NO. EC-05/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



WARP GUTTER  
FROM 0.08 AT STA. 14+30 -L- RT  
TO 0.06 AT STA. 14+40 -L- RT

-Y- POT Sta. 10+00.00  
BEGIN CONSTR.

-Y- PC Sta. 12+62.07

-L- POC Sta. 12+86.70 =  
-Y- POC Sta. 14+06.52

-L- PT Sta. 13+95.59

-Y- PRC Sta. 13+83.87

-L- PC Sta. 16+18.33

END PROJECT 17.BP.3.R.28  
-L- PT Sta. 19+00.00

15" RCP-IV

-L- PC Sta. 10+07.35

-R- PC Sta. 10+00.00  
= -L- PC Sta. 10+81.90

BEGIN PROJECT 17.BP.3.R.28  
-L- POT Sta. 10+00.00

BM2  
-Y- Sta. 15+38.92  
EL. = 4.95'  
71.78' RT

-Y- PT Sta. 15+01.35

-R- PT Sta. 13+20.47  
= -Y- PT Sta. 15+47.56

-Y- POT Sta. 17+00.00  
END CONSTR.

-L- PT Sta. 17+81.89