

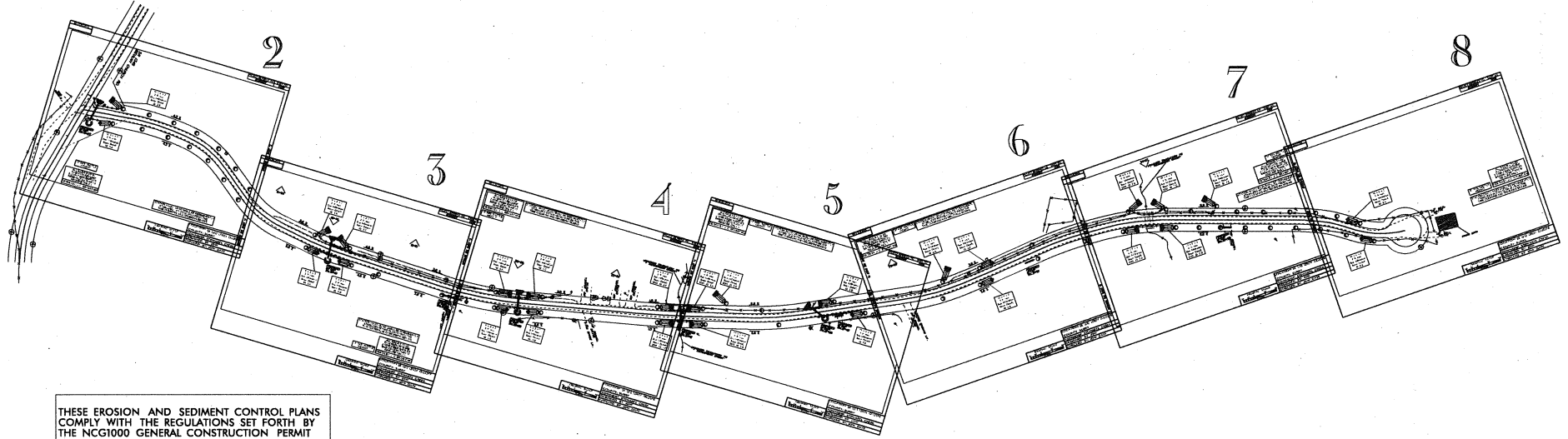
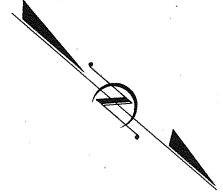
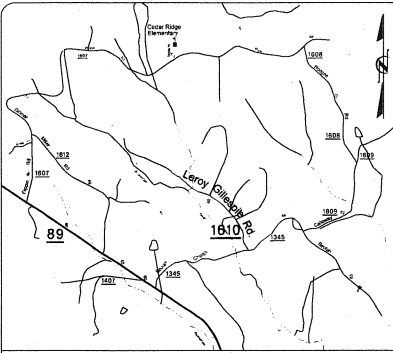
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SURRY COUNTY

**LOCATION: SR 1610 LEROY GILLESPIE RD FROM THE INTERSECTION
WITH SR 1345 STA. 10+00 TO END OF PROJECT
STA. 40+24.21**

TYPE OF WORK: GRADE, DRAIN, BASE, PAVE - 0.57 MILES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	11C.086024	1	8



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG1000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY

SITE DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER 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 20' IN LENGTH
ALL OTHER AREAS FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES

DISCLAIMER

THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THE PROPERTY SHOWN ON THIS MAP WAS LOCATED FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR HIGHWAY DESIGN PURPOSES. SOME ERROR MAY EXIST BETWEEN THE GRAPHICAL AND ACTUAL GROUND LOCATIONS OF PROPERTY LINES. THIS MAP IS TO BE USED AS A GRAPHICAL REPRESENTATION OF THE NCDOT'S INTENT TO ACQUIRE PROPERTY FOR RIGHT OF WAY PURPOSES, AND IN NO WAY REPRESENTS AN ACTUAL BOUNDARY SURVEY OF THIS PROPERTY.

GRAPHIC SCALES

DESIGN DATA

PROJECT LENGTH

0.57 MILES

Prepared In the Office of:

DIVISION OF HIGHWAYS
DIVISION 11, DISTRICT 1, ELKIN
P.O. BOX 558 ELKIN, NC 28621

DIVISION ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

RIGHT OF WAY DATE:
MARCH 23, 2010

M.A. PETTYJOHN, P.E.
DISTRICT ENGINEER

SIGNATURE: _____ P.E.
DISTRICT ENGINEER

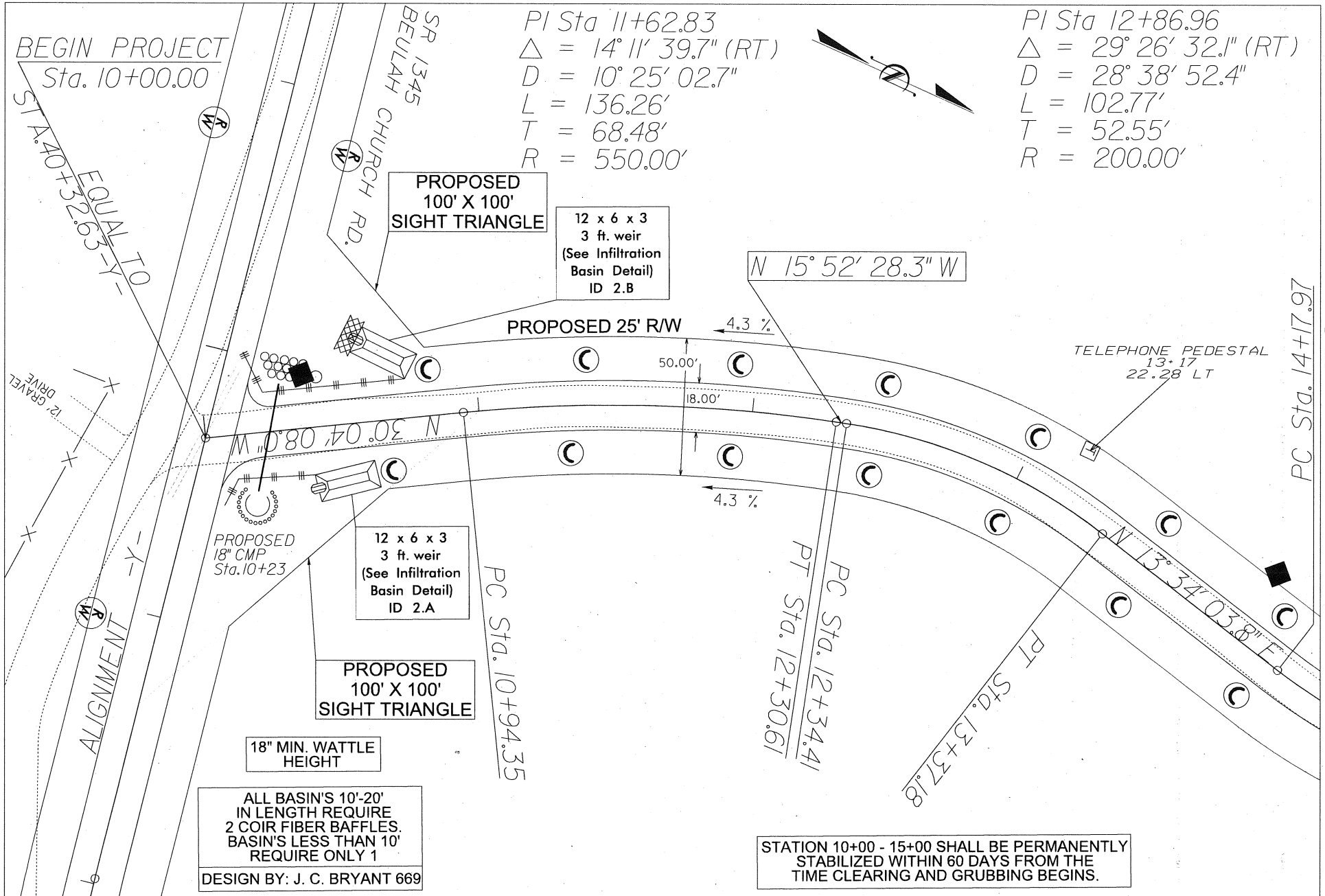
STATE DESIGN ENGINEER
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LETTING DATE:

B.W. WHITAKER, P.E.
DISTRICT ENGINEER

SIGNATURE: _____ P.E.

APPROVED
DIVISION ADMINISTRATOR DATE

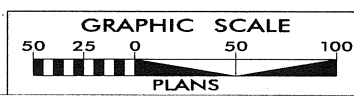


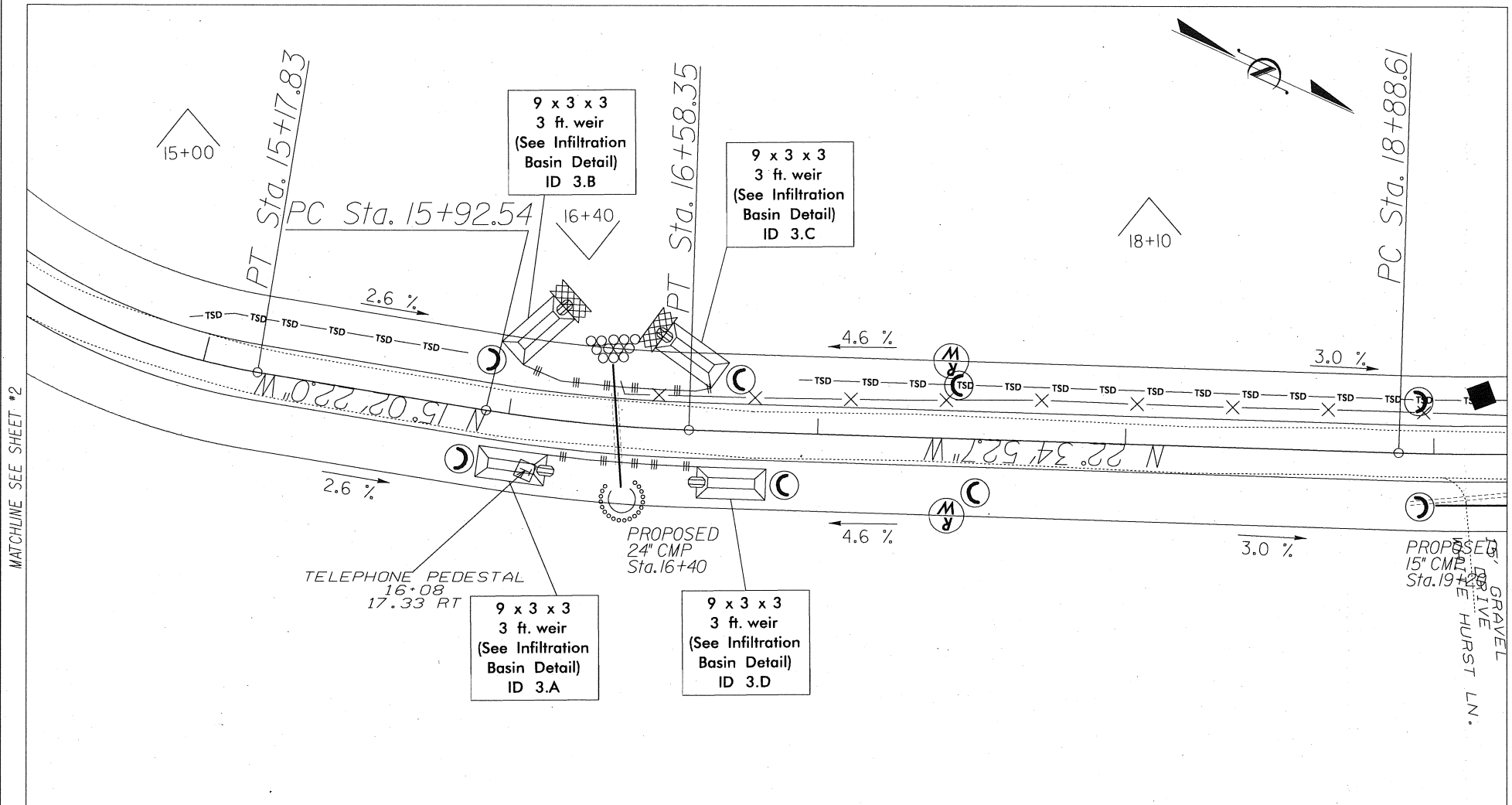
PC Sta. 14+17.97
MATCHLINE SEE SHEET #3

ALL BASIN'S 10'-20'
IN LENGTH REQUIRE
2 COIR FIBER BAFFLES.
BASIN'S LESS THAN 10'
REQUIRE ONLY 1
DESIGN BY: J. C. BRYANT 669

STATION 10+00 - 15+00 SHALL BE PERMANENTLY
STABILIZED WITHIN 60 DAYS FROM THE
TIME CLEARING AND GRUBBING BEGINS.

LOCATION: SR 1610 LEROY GILLESPIE
COUNTY: SURRY
TOWNSHIP: STEWARTS CREEK
DESIGNED BY: JDW
CHECKED BY: JDW DATE:





MATCHLINE SEE SHEET #2

MATCHLINE SEE SHEET #4

PI Sta 14+68.97	PI Sta 16+25.49
$\Delta = 28^\circ 36' 25.9" (LT)$	$\Delta = 7^\circ 32' 30.6" (LT)$
$D = 28^\circ 38' 52.4"$	$D = 11^\circ 27' 33.0"$
$L = 99.86'$	$L = 65.82'$
$T = 50.99'$	$T = 32.96'$
$R = 200.00'$	$R = 500.00'$

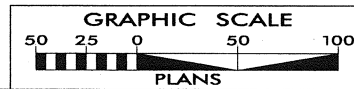
STATION 18+10 - 20+60 SHALL BE PERMANENTLY STABILIZED WITHIN 60 DAYS FROM THE TIME CLEARING AND GRUBBING BEGINS.

ALL BASIN'S 10'-20' IN LENGTH REQUIRE 2 COIR FIBER BAFFLES. BASIN'S LESS THAN 10' REQUIRE ONLY 1

18" MIN. WATTLE HEIGHT

DESIGN BY: J. C. BRYANT 669

LOCATION: SR 1610 LEROY GILLESPIE
 COUNTY: SURRY
 TOWNSHIP: STEWARTS CREEK
 DESIGNED BY: JDW
 CHECKED BY: JDW DATE:



ALL BASIN'S 10'-20'
IN LENGTH REQUIRE
2 COIR FIBER BAFFLES.
BASIN'S LESS THAN 10'
REQUIRE ONLY 1

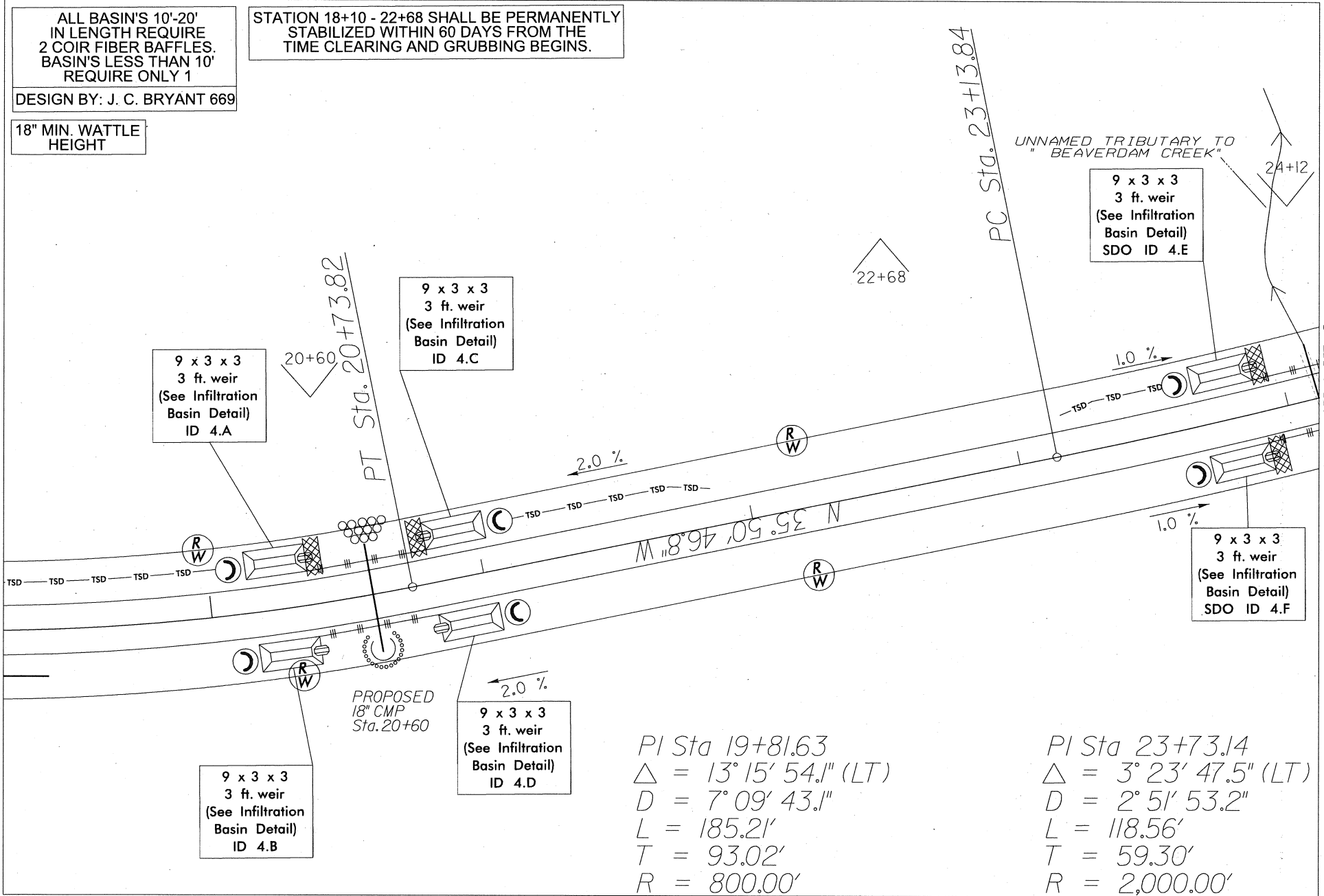
STATION 18+10 - 22+68 SHALL BE PERMANENTLY
STABILIZED WITHIN 60 DAYS FROM THE
TIME CLEARING AND GRUBBING BEGINS.

DESIGN BY: J. C. BRYANT 669

18" MIN. WATTLE
HEIGHT

MATCHLINE SEE SHEET #3

MATCHLINE SEE SHEET #5



9 x 3 x 3
3 ft. weir
(See Infiltration
Basin Detail)
ID 4.A

9 x 3 x 3
3 ft. weir
(See Infiltration
Basin Detail)
ID 4.C

9 x 3 x 3
3 ft. weir
(See Infiltration
Basin Detail)
SDO ID 4.E

9 x 3 x 3
3 ft. weir
(See Infiltration
Basin Detail)
SDO ID 4.F

9 x 3 x 3
3 ft. weir
(See Infiltration
Basin Detail)
ID 4.B

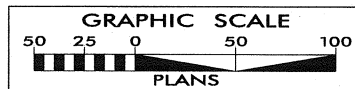
9 x 3 x 3
3 ft. weir
(See Infiltration
Basin Detail)
ID 4.D

PROPOSED
18" CMP
Sta. 20+60

PI Sta 19+81.63
 $\Delta = 13^{\circ} 15' 54.1''$ (LT)
 $D = 7^{\circ} 09' 43.1''$
 $L = 185.21'$
 $T = 93.02'$
 $R = 800.00'$

PI Sta 23+73.14
 $\Delta = 3^{\circ} 23' 47.5''$ (LT)
 $D = 2^{\circ} 51' 53.2''$
 $L = 118.56'$
 $T = 59.30'$
 $R = 2,000.00'$

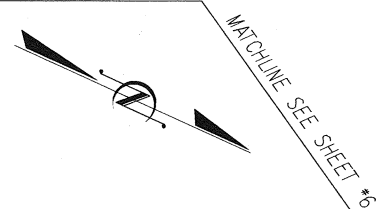
LOCATION: SR 1610 LEROY GILLESPIE
 COUNTY: SURRY
 TOWNSHIP: STEWARTS CREEK
 DESIGNED BY: JDW
 CHECKED BY: JDW DATE:



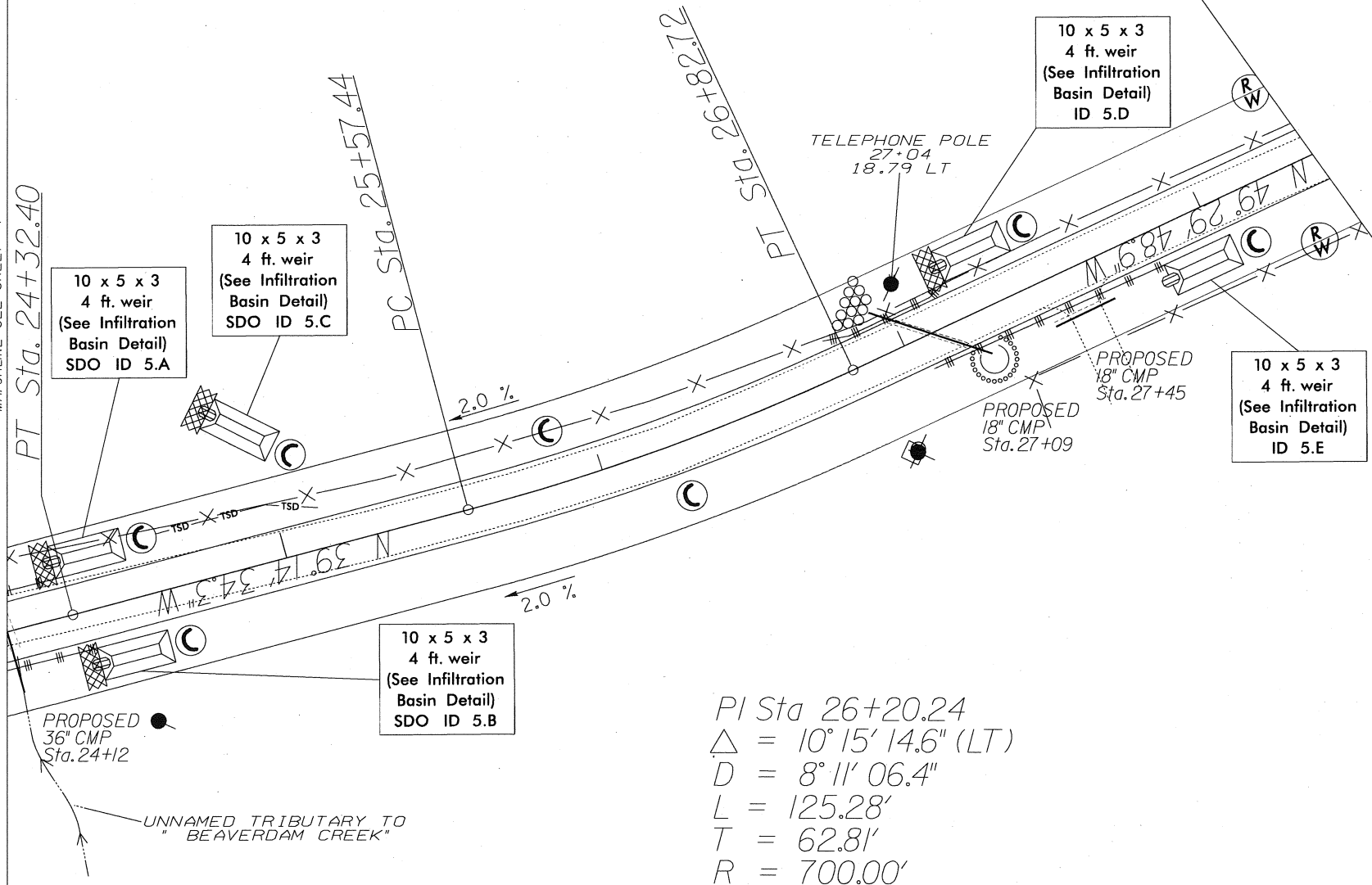
ALL BASIN'S 10'-20'
IN LENGTH REQUIRE
2 COIR FIBER BAFFLES.
BASIN'S LESS THAN 10'
REQUIRE ONLY 1
DESIGN BY: J. C. BRYANT 669

18" MIN. WATTLE
HEIGHT

STATION 24+12 - 29+00 SHALL BE PERMANENTLY
STABILIZED WITHIN 60 DAYS FROM THE
TIME CLEARING AND GRUBBING BEGINS.



MATCHLINE SEE SHEET #4



10 x 5 x 3
4 ft. weir
(See Infiltration
Basin Detail)
SDO ID 5.B

10 x 5 x 3
4 ft. weir
(See Infiltration
Basin Detail)
ID 5.D

10 x 5 x 3
4 ft. weir
(See Infiltration
Basin Detail)
ID 5.E

PI Sta 26+20.24
 $\Delta = 10^{\circ} 15' 14.6''$ (LT)
 $D = 8' 11' 06.4''$
 $L = 125.28'$
 $T = 62.81'$
 $R = 700.00'$

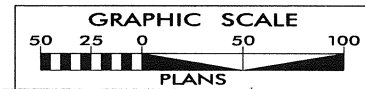
PROPOSED
36" CMP
Sta. 24+12

PROPOSED
18" CMP
Sta. 27+45

PROPOSED
18" CMP
Sta. 27+09

UNNAMED TRIBUTARY TO
" BEAVERDAM CREEK"

LOCATION: SR 1610 LEROY GILLESPIE
 COUNTY: SURRY
 TOWNSHIP: STEWARTS CREEK
 DESIGNED BY: JDW
 CHECKED BY: JDW DATE:



ALL BASIN'S 10'-20'
IN LENGTH REQUIRE
2 COIR FIBER BAFFLES.
BASIN'S LESS THAN 10'
REQUIRE ONLY 1

DESIGN BY: J. C. BRYANT 669

18" MIN. WATTLE
HEIGHT

STATION 29+00 - 34+67 SHALL BE PERMANENTLY
STABILIZED WITHIN 60 DAYS FROM THE
TIME CLEARING AND GRUBBING BEGINS.

POWER POLE
30+53
16.06 LT
TELEPHONE PEDESTAL
30+53
14.96 LT

10 x 5 x 3
4 ft. weir
(See Infiltration
Basin Detail)
ID 6.A

10 x 5 x 3
4 ft. weir
(See Infiltration
Basin Detail)
ID 6.C

10 x 5 x 3
4 ft. weir
(See Infiltration
Basin Detail)
ID 6.B



MATCHLINE SEE SHEET #5

MATCHLINE SEE SHEET #7

29+00
PC Sta. 29+10.29

PT Sta. 30+31.61
PC Sta. 30+31.92

PT Sta. 31+06.21

HIGHER GROUND LN.
20' GRAVEL
DRIVE

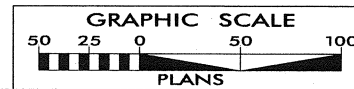
N 64° 52' 09.8" W
W 8.60

N 62° 32' 13.2" W

PROPOSED
15" CMP
Sta. 31+90

PC Sta. 32+09.57

PI Sta 29+71.25	PI Sta 30+69.07	PI Sta 32+80.20
$\Delta = 13^{\circ} 54' 06.8''$ (LT)	$\Delta = 2^{\circ} 19' 56.6''$ (LT)	$\Delta = 10^{\circ} 05' 27.8''$ (RT)
$D = 11^{\circ} 27' 33.0''$	$D = 3^{\circ} 08' 22.2''$	$D = 7^{\circ} 09' 43.1''$
$L = 121.32'$	$L = 74.29'$	$L = 140.90'$
$T = 60.96'$	$T = 37.15'$	$T = 70.63'$
$R = 500.00'$	$R = 1,825.00'$	$R = 800.00'$



LOCATION: SR 1610 LEROY GILLESPIE
COUNTY: SURRY
TOWNSHIP: STEWARTS CREEK
DESIGNED BY: JDW
CHECKED BY: JDW DATE:

PI Sta 37+99.70
 $\Delta = 4^\circ 48' 00.0''$ (RT)
 $D = 28^\circ 38' 52.4''$
 $L = 16.76'$
 $T = 8.38'$
 $R = 200.00'$



34+67
 UNNAMED TRIBUTARY TO
 "BEAVERDAM CREEK"

10 x 5 x 3
 4 ft. weir
 (See Infiltration
 Basin Detail)
 SDO ID 7.B

10 x 5 x 3
 4 ft. weir
 (See Infiltration
 Basin Detail)
 SDO ID 7.C

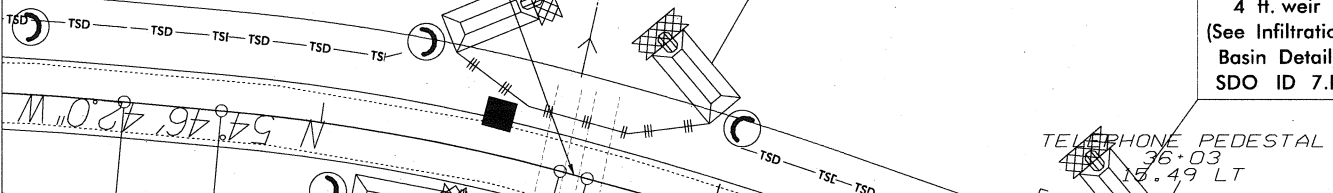
10 x 5 x 3
 4 ft. weir
 (See Infiltration
 Basin Detail)
 SDO ID 7.E

18" MIN. WATTLE
 HEIGHT

ALL BASIN'S 10'-20'
 IN LENGTH REQUIRE
 2 COIR FIBER BAFFLES.
 BASIN'S LESS THAN 10'
 REQUIRE ONLY 1
 DESIGN BY: J. C. BRYANT 669

STATION 34+67 - 40+24 SHALL BE PERMANENTLY
 STABILIZED WITHIN 60 DAYS FROM THE
 TIME CLEARING AND GRUBBING BEGINS.

N 44° 54' 54.8" W



M 54° 46' 42.0" W

TELEPHONE PEDESTAL
 36+03
 15.49 LT

POWER POLE
 37+82
 23.91 LT

10 x 5 x 3
 4 ft. weir
 (See Infiltration
 Basin Detail)
 SDO ID 7.A

10 x 5 x 3
 4 ft. weir
 (See Infiltration
 Basin Detail)
 SDO ID 7.D

PROPOSED
 18" CMP
 Sta. 36+38

15' GRAVEL
 DRIVE

PT Sta. 33+50.46
 PC Sta. 33+74.90

PT Sta. 34+67.94
 PC Sta. 34+67.94

PT Sta. 35+26.61

PI Sta 34+18.04
 $\Delta = 9^\circ 51' 47.2''$ (RT)
 $D = 11^\circ 27' 33.0''$
 $L = 86.07'$
 $T = 43.14'$
 $R = 500.00'$

PI Sta 34+97.29
 $\Delta = 4^\circ 12' 06.9''$ (RT)
 $D = 7^\circ 09' 43.1''$
 $L = 58.67'$
 $T = 29.35'$
 $R = 800.00'$

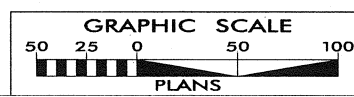
PC Sta. 37+91.32

PT Sta. 38+08.07

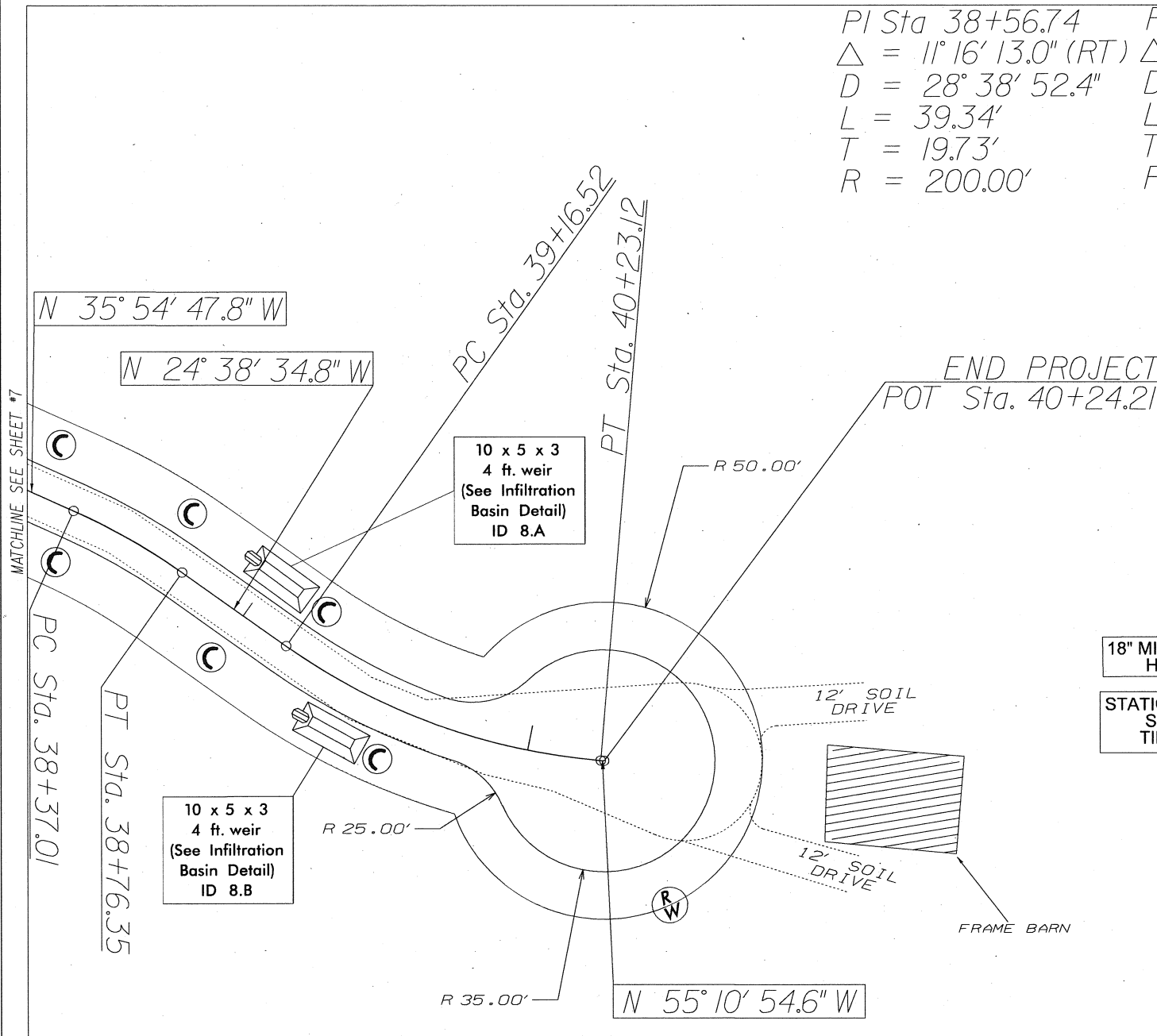
MATCHLINE SEE SHEET #6

MATCHLINE SEE SHEET #8

LOCATION: SR 1610 LEROY GILLESPIE
 COUNTY: SURRY
 TOWNSHIP: STEWARTS CREEK
 DESIGNED BY: JDW
 CHECKED BY: JDW DATE:



PI Sta 38+56.74	PI Sta 39+71.12
$\Delta = 11^{\circ} 16' 13.0''$ (RT)	$\Delta = 30^{\circ} 32' 19.8''$ (LT)
$D = 28^{\circ} 38' 52.4''$	$D = 28^{\circ} 38' 52.4''$
$L = 39.34'$	$L = 106.60'$
$T = 19.73'$	$T = 54.60'$
$R = 200.00'$	$R = 200.00'$



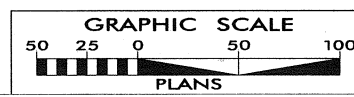
ALL BASIN'S 10'-20'
IN LENGTH REQUIRE
2 COIR FIBER BAFFLES.
BASIN'S LESS THAN 10'
REQUIRE ONLY 1

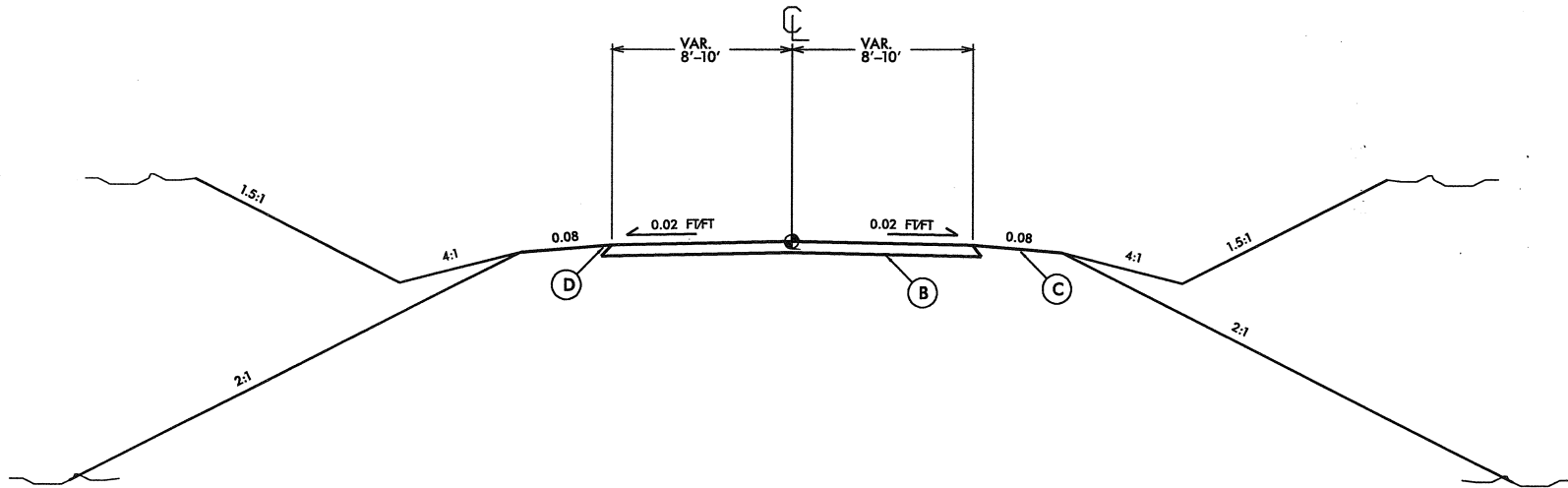
DESIGN BY: J. C. BRYANT 669

18" MIN. WATTLE
HEIGHT

STATION 34+67 - 40+24 SHALL BE PERMANENTLY
STABILIZED WITHIN 60 DAYS FROM THE
TIME CLEARING AND GRUBBING BEGINS.

LOCATION: SR 1610 LEROY GILLESPIE
COUNTY: SURRY
TOWNSHIP: STEWARTS CREEK
DESIGNED BY: JDW
CHECKED BY: JDW DATE:





B 8" (compacted) ABC

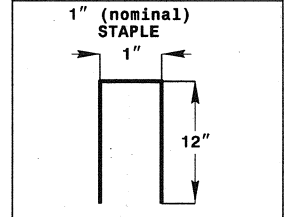
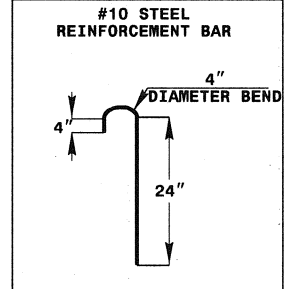
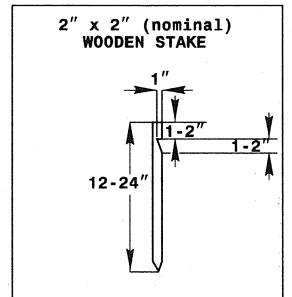
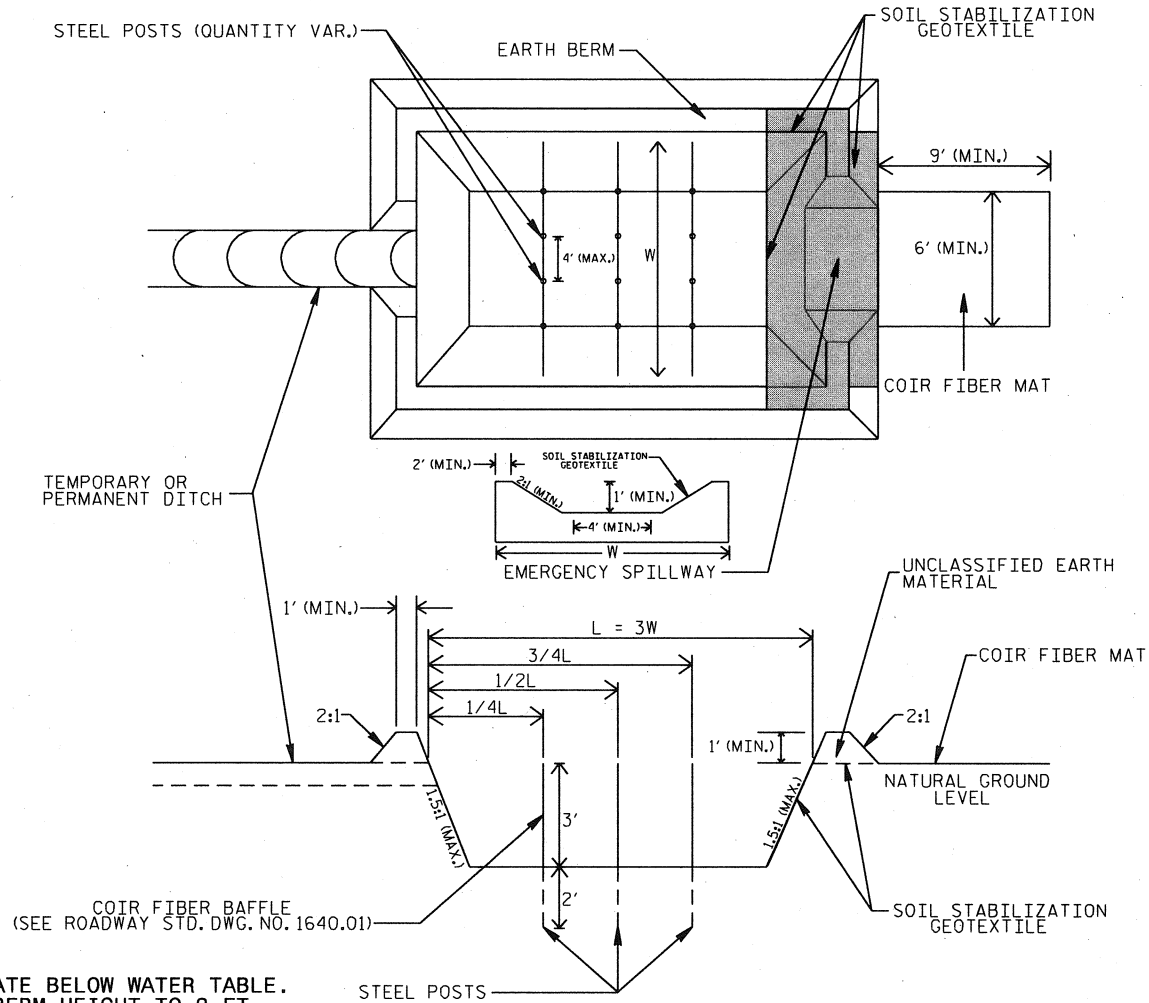
C Shoulder varies: Cut side = 4' shoulder on .08 ft/ft
 transition to a 4:1 slope for a distance of 4'
 to center of the ditch line
 Fill side = 6' to shoulder break

D Base should be 1' wider than
 overall proposed road width

Construction Sheet #	2*3	3	3	3*4	4	4	5*6	6*7	7*8
Construction Line (-L,-Y-,etc.)	L	L	L	L	L	L	L	L	L
Left or Right (LT.,RT.,Median)	LT/RT	LT/RT	LT/RT	LT/RT	LT/RT	LT/RT	LT/RT	LT/RT	LT/RT
Upper Station No.	1000	1500	1640	1810	2060	2268	2412	2900	3467
Upper Station Elevation (ft.)	958	979	976	983.85	976.33	980.8	979.46	988.2	970.8
Lower Station No.	1500	1640	1810	2060	2268	2412	2900	3467	4024
Lower Station Elevation (ft.)	979	976	983.85	976.33	980.8	979.46	988.2	970.8	998.95
Design Ditch Flow Depth (ft.)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Actual Ditch Depth (ft.)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Frontslope Grade (i.e. 2 for 2:1)	4	4	4	4	4	4	4	4	4
Backslope Grade (i.e. 2 for 2:1)	2	2	2	2	2	2	2	2	2
Base Width (ft., 0 for V-Ditches)	0	0	0	0	0	0	0	0	0
Measured Ditchline Length (ft.)	500	140	170	250	208	144	488	567	557
Ditch Grade (%)	4.2	2.14	4.62	3.01	2.15	0.93	1.79	3.07	5.05
Velocity (ft/s)	3.84	2.74	4.03	3.25	2.75	1.81	2.51	3.28	4.21
Shear Stress in Ditch (lb/ft ²)	0.86	0.44	0.95	0.62	0.44	0.19	0.37	0.63	1.04
Ditch Liner Requirement	PSRM	MATTING	PSRM	MATTING	MATTING	None	MATTING	MATTING	PSRM
Matting Quantity (yd ²)	0	180	0	315	265	0	615	715	0
PSRM Matting Quantity (yd ²)	630	0	215	0	0	0	0	0	705

INFILTRATION BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. B-4415	SHEET NO. EC-20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

NOT TO SCALE

NOTES

1. DO NOT EXCAVATE BELOW WATER TABLE.
2. LIMIT EARTH BERM HEIGHT TO 3 FT.
3. AVOID COMPACTING BOTTOM OF BASIN.
4. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
5. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.

FENCE LINE DATA SHEET

ROAD NAME :SR 1610 Leroy Gillespie Rd.

STATION	STATION	RT. / LT.	FUNC. / NONFUNC.	TYPE OF FENCE
16+30	21+80	LT	FUNC	5 STRAND BARBEDWIRE
20+48	22+00	RT	FUNC	1 STRAND ELEC.
23+78	40+23	LT	FUNC	2 STRAND ELEC.
26+29	28+85	RT	FUNC	3 RAIL VYNLE
37+80	40+23	RT	FUNC	2 STRAND ELEC.