

TIP PROJECT: U-3601

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
BUNCOMBE COUNTY

LOCATION: ASHEVILLE - NC 191 (BREVARD ROAD) FROM I-26 TO I-40

TYPE OF WORK: GRADING, WIDENING, DRAINAGE, PAVING, CURB & GUTTER, AND SIGNALS

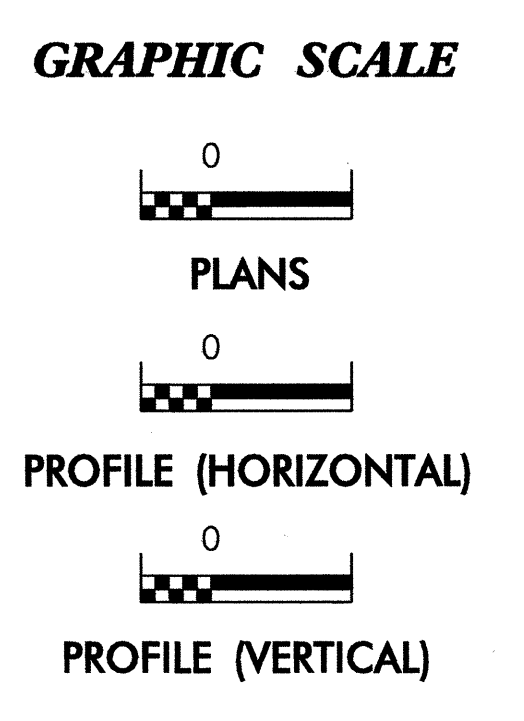
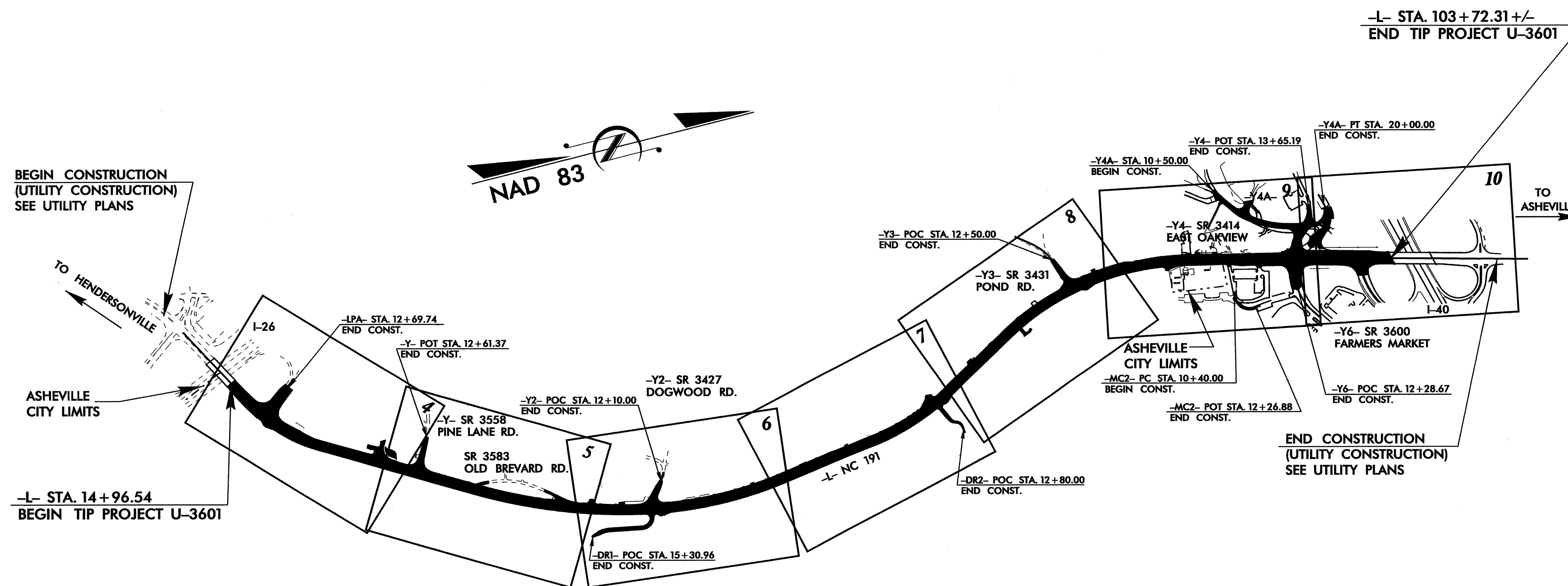
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3601	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
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	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	
	Tiered Skimmer Basin	

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.



ROADSIDE ENVIRONMENTAL UNIT
 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611
2006 STANDARD SPECIFICATIONS

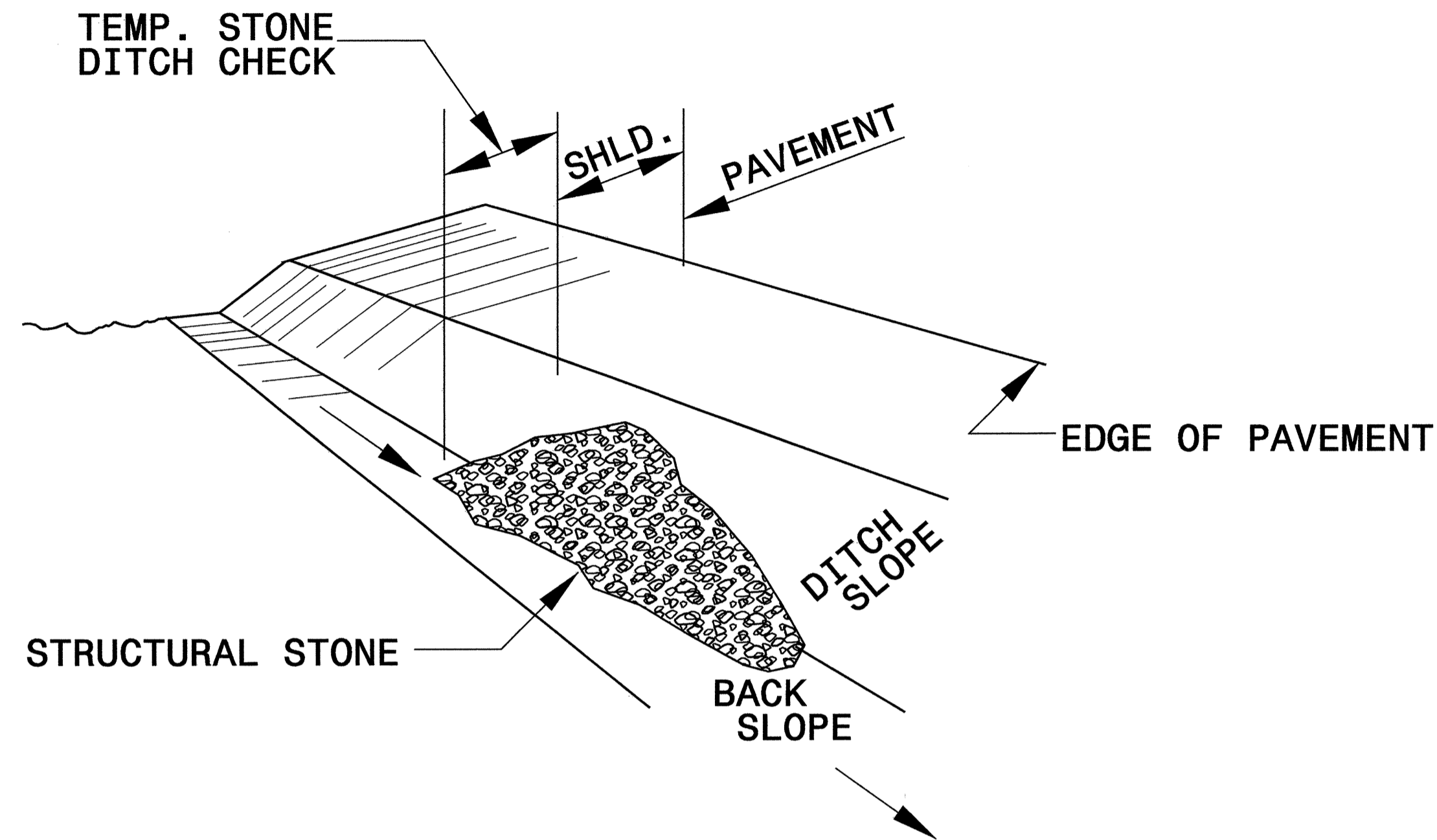
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	1634.02 Temporary Rock Sediment Dam Type B
1630.02 Silt Basin Type B	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	

PROJECT REFERENCE NO. <i>U-3601</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

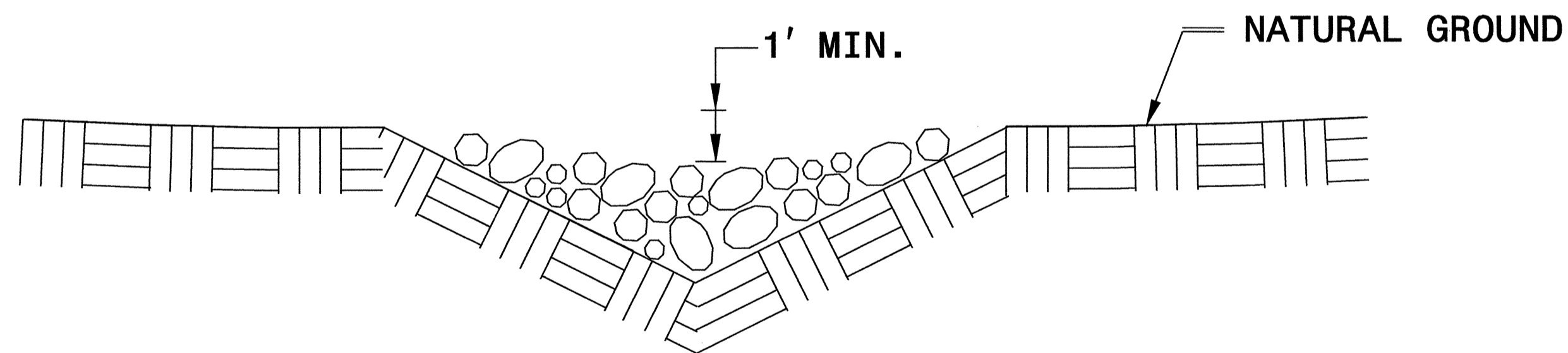


ISOMETRIC VIEW

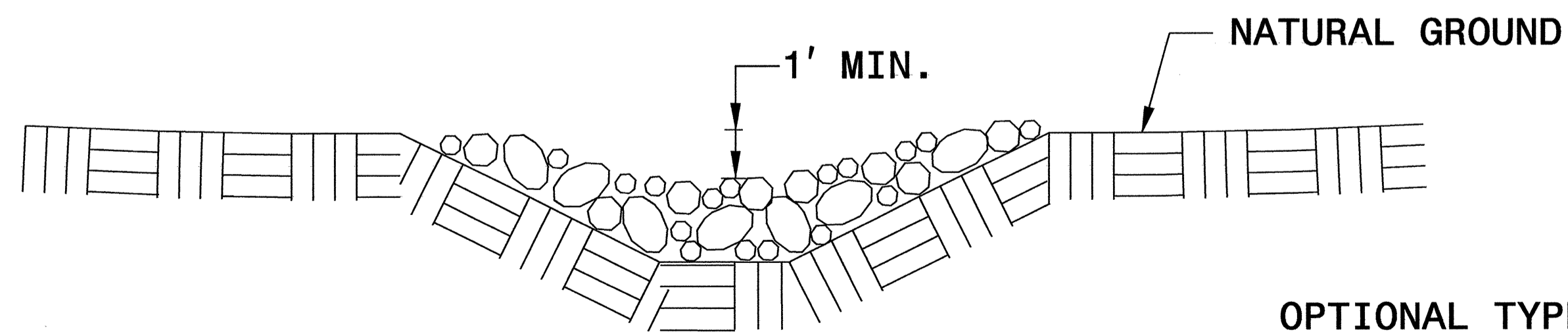
NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

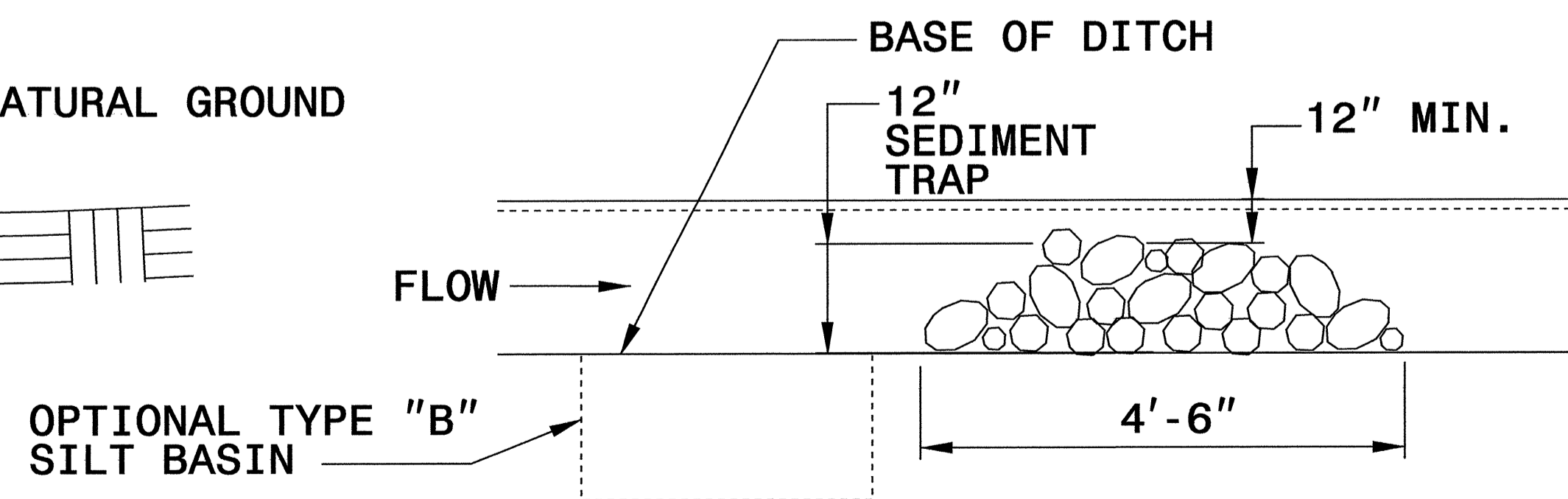
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION
VEE DITCH**



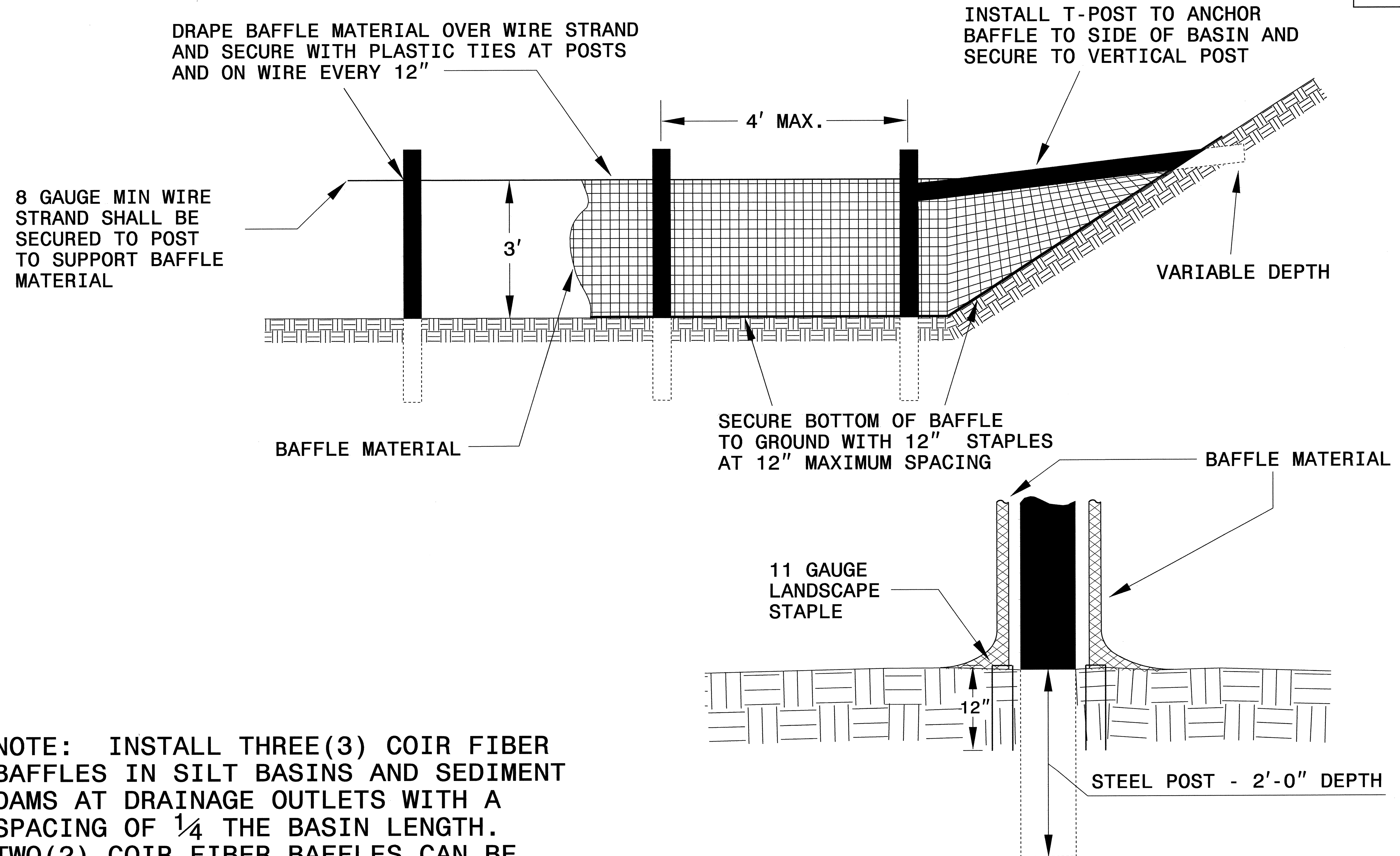
**CROSS SECTION
TRAPEZOIDAL DITCH**



ELEVATION VIEW

PROJECT REFERENCE NO. U-3601	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

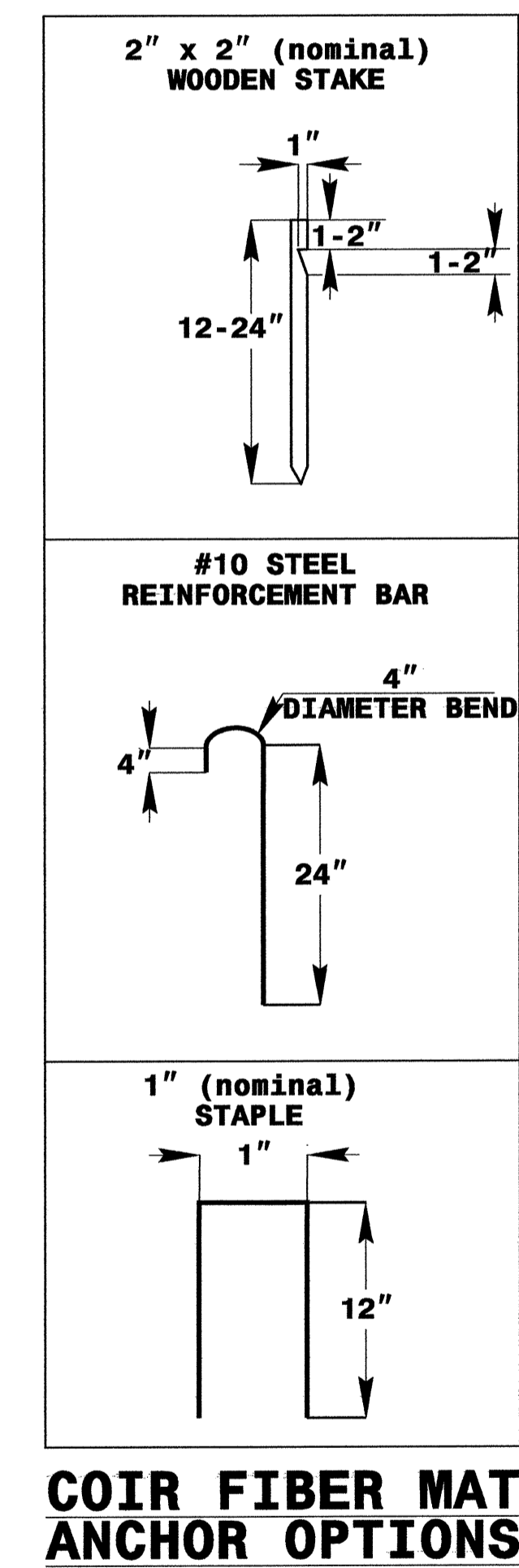
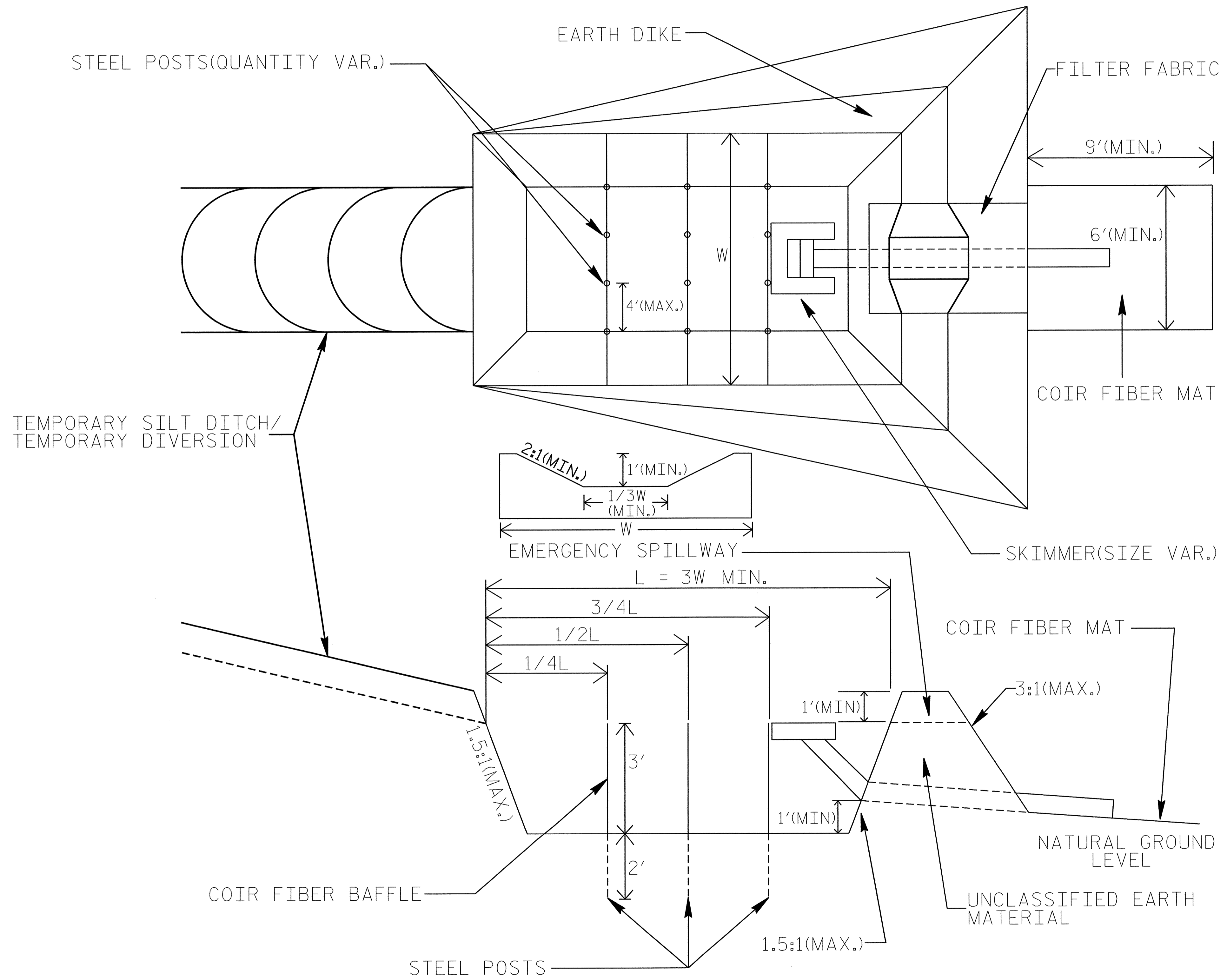


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

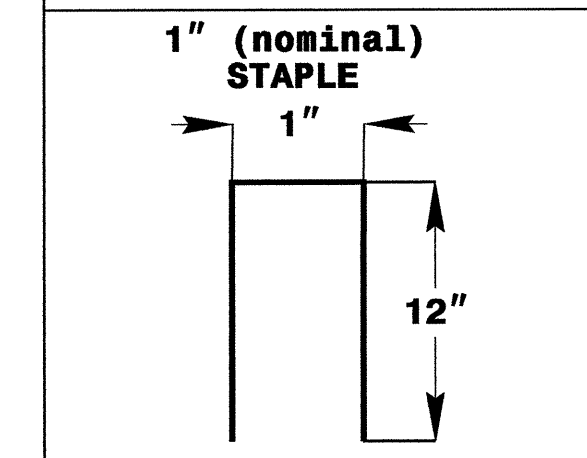
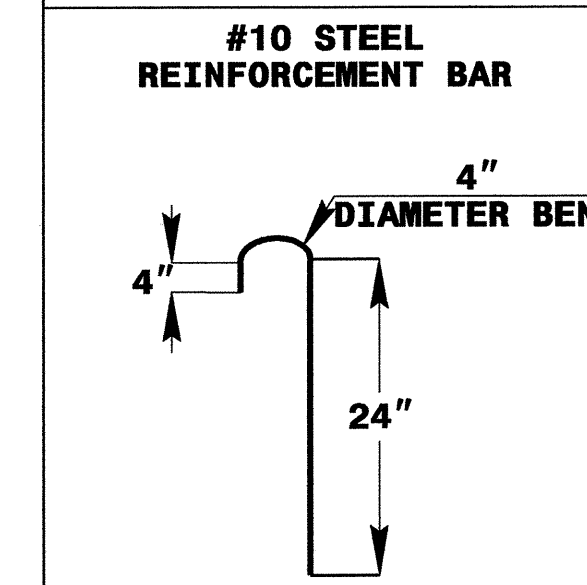
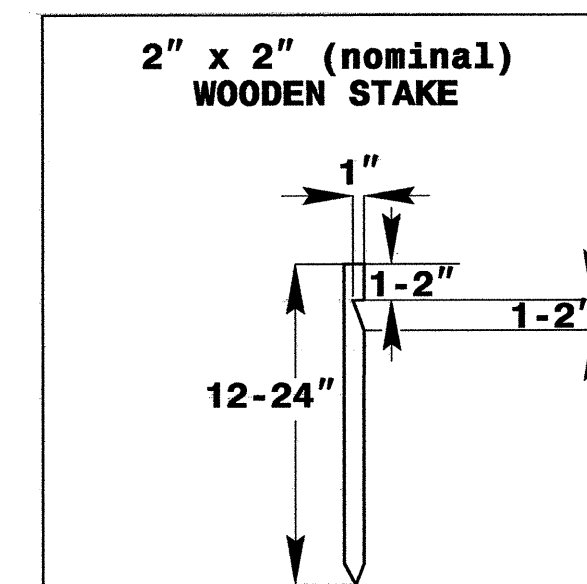
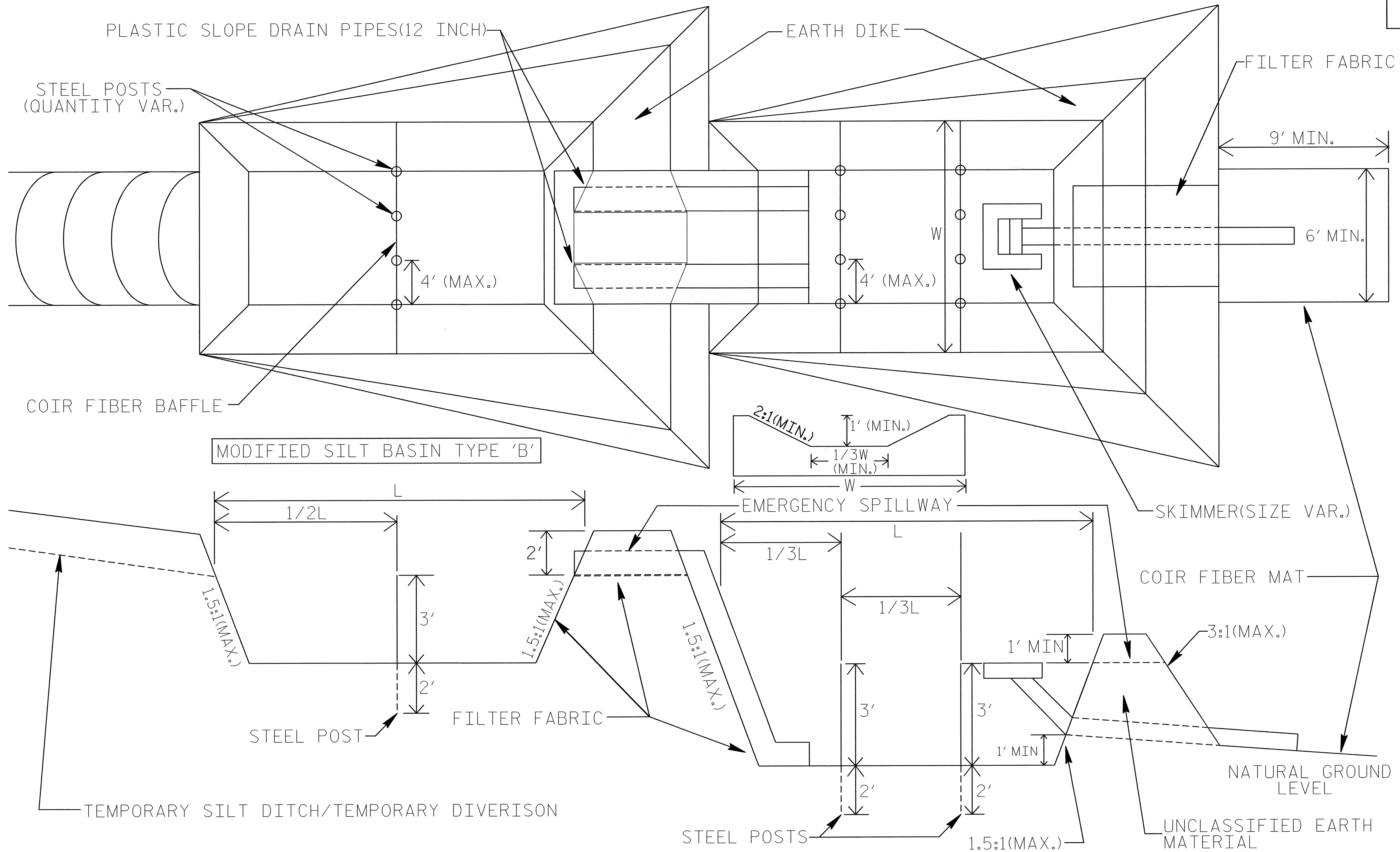
SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. U-3601	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



TIERED SKIMMER BASIN DETAIL

PROJECT REFERENCE NO. U-3601	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

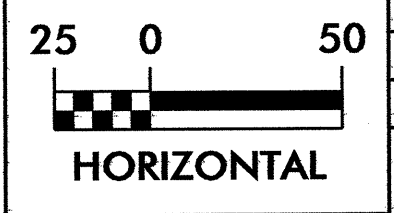


COIR FIBER MAT ANCHOR OPTIONS

NOTE

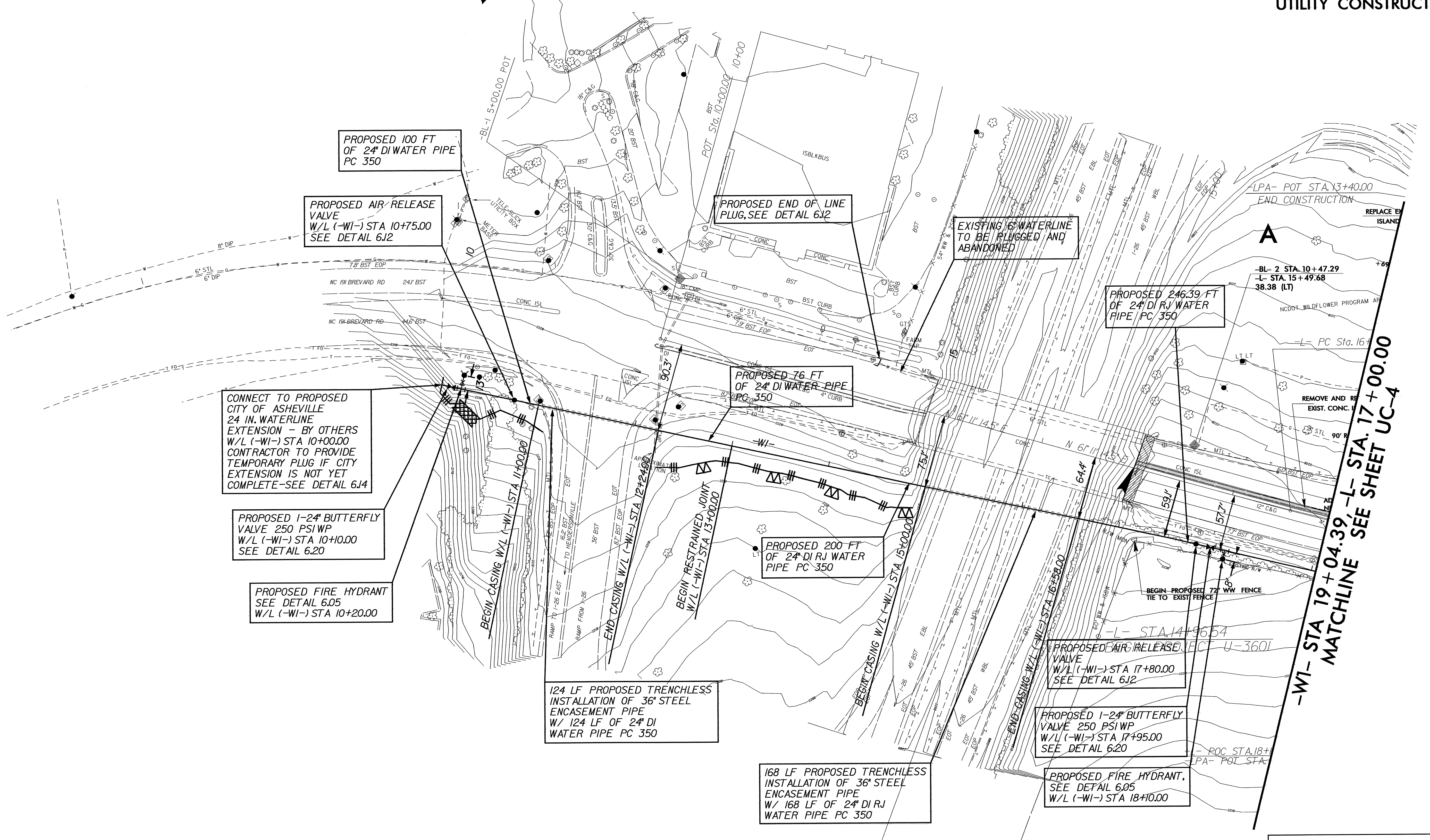
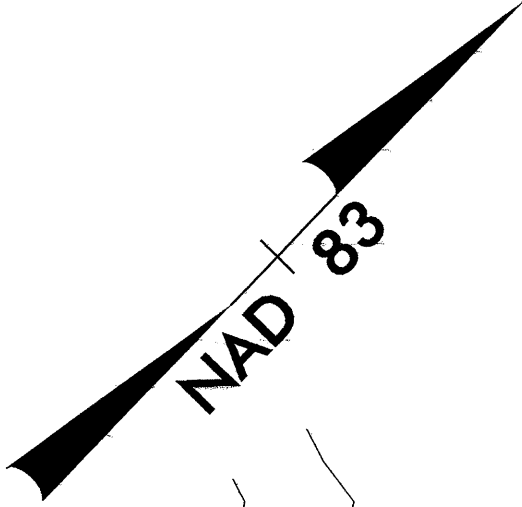
ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-2D/UC-3
RW SHEET NO.	



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

**EROSION CONTROL FOR
UTILITY CONSTRUCTION**



PROPOSED 100 FT
OF 24" DI WATER PIPE
PC 350

PROPOSED AIR/RELEASE
VALVE
W/L (-WI-) STA 10+75.00
SEE DETAIL 6J2

PROPOSED END OF LINE
PLUG, SEE DETAIL 6J2

EXISTING 6" WATERLINE
TO BE PLUGGED AND
ABANDONED

PROPOSED 246.39 FT
OF 24" DI RJ WATER
PIPE PC 350

PROPOSED 76 FT
OF 24" DI WATER PIPE
PC 350

CONNECT TO PROPOSED
CITY OF ASHEVILLE
24 IN. WATERLINE
EXTENSION - BY OTHERS
W/L (-WI-) STA 10+00.00
CONTRACTOR TO PROVIDE
TEMPORARY PLUG IF CITY
EXTENSION IS NOT YET
COMPLETE-SEE DETAIL 6J4

PROPOSED 1-24" BUTTERFLY
VALVE 250 PSI WP
W/L (-WI-) STA 10+10.00
SEE DETAIL 6.20

PROPOSED FIRE HYDRANT
SEE DETAIL 6.05
W/L (-WI-) STA 10+20.00

PROPOSED 200 FT
OF 24" DI RJ WATER
PIPE PC 350

124 LF PROPOSED TRENCHLESS
INSTALLATION OF 36" STEEL
ENCASEMENT PIPE
W/ 124 LF OF 24" DI
WATER PIPE PC 350

168 LF PROPOSED TRENCHLESS
INSTALLATION OF 36" STEEL
ENCASEMENT PIPE
W/ 168 LF OF 24" DI RJ
WATER PIPE PC 350

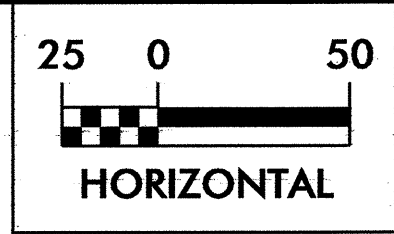
PROPOSED AIR/RELEASE
VALVE
W/L (-WI-) STA 17+80.00
SEE DETAIL 6J2

PROPOSED 1-24" BUTTERFLY
VALVE 250 PSI WP
W/L (-WI-) STA 17+95.00
SEE DETAIL 6.20

PROPOSED FIRE HYDRANT,
SEE DETAIL 6.05
W/L (-WI-) STA 18+10.00

-WI- STA 19+04.39, -L- STA. 17+00.00
MATCHLINE SEE SHEET UC-4

SEE SHEET UC-11 FOR -WI- PROFILE

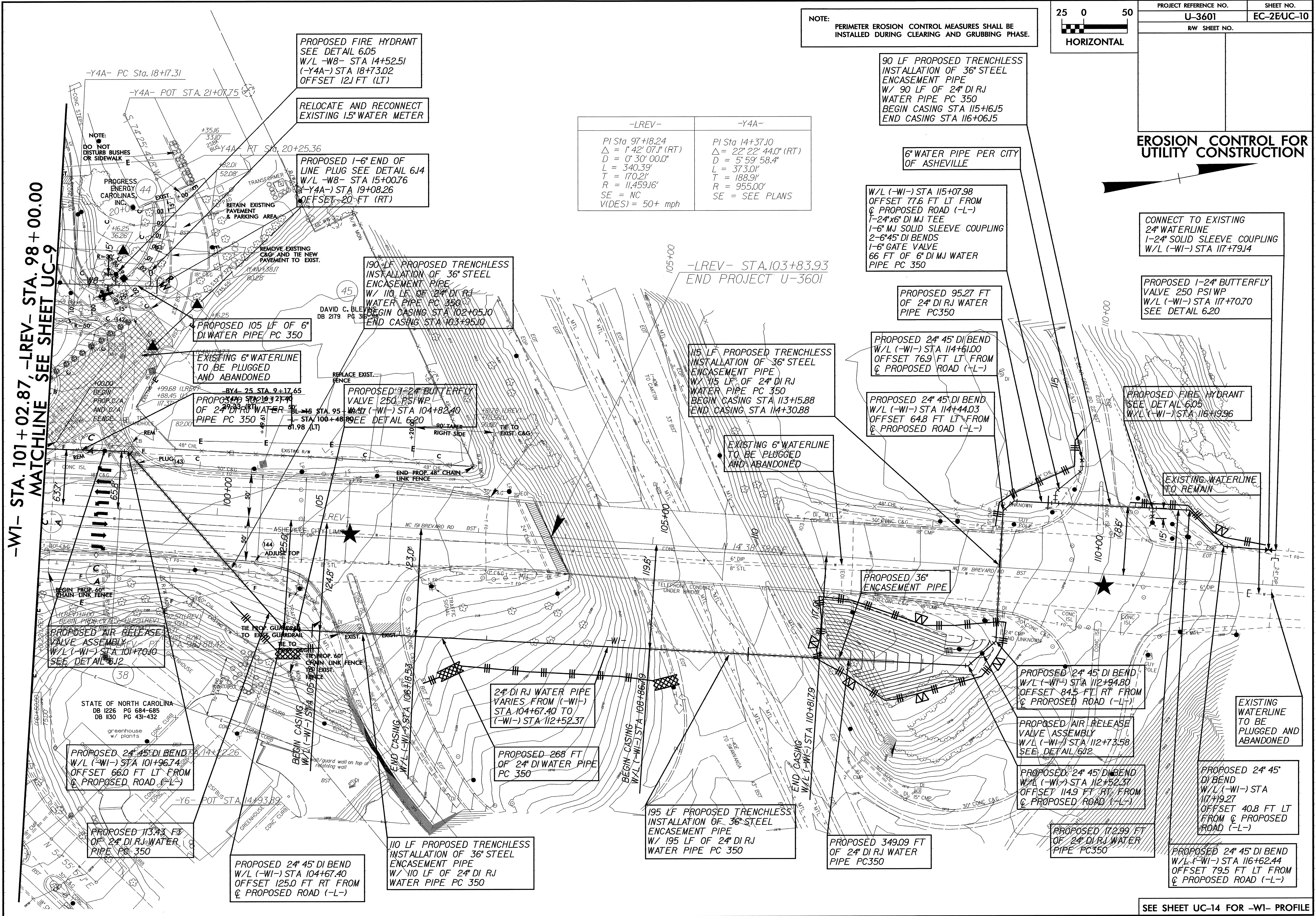


NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

**EROSION CONTROL FOR
UTILITY CONSTRUCTION**

-LREV-	-Y4A-
PI Sta 97+18.24	PI Sta 14+37.10
$\Delta = 1' 42'' 07.1''$ (RT)	$\Delta = 22' 22'' 44.0''$ (RT)
D = 0' 30'' 00.0''	D = 5' 59'' 58.4''
L = 340.39'	L = 373.01'
T = 170.21'	T = 188.91'
R = 11,459.16'	R = 955.00'
SE = NC	SE = SEE PLANS
V(DES) = 50+ mph	

-WI- STA. 101+02.87, -LREV- STA. 98+00.00
MATCHLINE SEE SHEET UC-9



PROPOSED FIRE HYDRANT
SEE DETAIL 6.05
W/L -W8- STA 14+52.51
(-Y4A-) STA 18+73.02
OFFSET 12.1 FT (LT)

RELOCATE AND RECONNECT
EXISTING 1.5" WATER METER

PROPOSED 1-6" END OF
LINE PLUG SEE DETAIL 6.14
W/L -W8- STA 15+00.76
(-Y4A-) STA 19+08.26
OFFSET 20-FT (RT)

190 LF PROPOSED TRENCHLESS
INSTALLATION OF 36" STEEL
ENCASEMENT PIPE
W/ 110 LF OF 24" DI RJ
WATER PIPE PC 350
BEGIN CASING STA 102+05.10
END CASING STA 103+95.10

PROPOSED 105 LF OF 6"
DI WATER PIPE PC 350

EXISTING 6" WATERLINE
TO BE PLUGGED
AND ABANDONED

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 102+37.40
PIPE PC 350

PROPOSED 24" BUTTERFLY
VALVE 250 PSI WP
W/L (-WI-) STA 104+82.40
SEE DETAIL 6.20

-LREV- STA. 103+83.93
END PROJECT U-3601

115 LF PROPOSED TRENCHLESS
INSTALLATION OF 36" STEEL
ENCASEMENT PIPE
W/ 115 LF OF 24" DI RJ
WATER PIPE PC 350
BEGIN CASING STA 113+15.88
END CASING STA 114+30.88

PROPOSED 95.27 FT
OF 24" DI RJ WATER
PIPE PC350

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 114+61.00
OFFSET 76.9 FT LT FROM
C PROPOSED ROAD (-L-)

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 114+44.03
OFFSET 64.8 FT LT FROM
C PROPOSED ROAD (-L-)

EXISTING 6" WATERLINE
TO BE PLUGGED
AND ABANDONED

CONNECT TO EXISTING
24" WATERLINE
1-24" SOLID SLEEVE COUPLING
W/L (-WI-) STA 117+79.14

PROPOSED 1-24" BUTTERFLY
VALVE 250 PSI WP
W/L (-WI-) STA 117+70.70
SEE DETAIL 6.20

PROPOSED FIRE HYDRANT
SEE DETAIL 6.05
W/L (-WI-) STA 116+99.96

EXISTING WATERLINE
TO REMAIN

PROPOSED 36"
ENCASEMENT PIPE

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 112+94.80
OFFSET 84.5 FT RT FROM
C PROPOSED ROAD (-L-)

PROPOSED AIR RELEASE
VALVE ASSEMBLY
W/L (-WI-) STA 112+73.58
SEE DETAIL 6.12

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 112+52.37
OFFSET 114.9 FT RT FROM
C PROPOSED ROAD (-L-)

PROPOSED 172.99 FT
OF 24" DI RJ WATER
PIPE PC350

EXISTING WATERLINE
TO BE
PLUGGED AND
ABANDONED

PROPOSED 24" 45"
DI BEND
W/L (-WI-) STA
117+19.27
OFFSET 40.8 FT LT
FROM C PROPOSED
ROAD (-L-)

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 116+62.44
OFFSET 79.5 FT LT FROM
C PROPOSED ROAD (-L-)

STATE OF NORTH CAROLINA
DB 1226 PG 684-685
DB 1130 PG 431-432

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 101+96.74
OFFSET 66.0 FT LT FROM
C PROPOSED ROAD (-L-)

PROPOSED 113.93 FT
OF 24" DI RJ WATER
PIPE PC 350

PROPOSED 24" 45" DI BEND
W/L (-WI-) STA 104+67.40
OFFSET 125.0 FT RT FROM
C PROPOSED ROAD (-L-)

110 LF PROPOSED TRENCHLESS
INSTALLATION OF 36" STEEL
ENCASEMENT PIPE
W/ 110 LF OF 24" DI RJ
WATER PIPE PC 350

24" DI RJ WATER PIPE
VARIES FROM (-WI-) STA 104+67.40 TO
(-WI-) STA 112+52.37

PROPOSED 268 FT
OF 24" DI WATER PIPE
PC 350

195 LF PROPOSED TRENCHLESS
INSTALLATION OF 36" STEEL
ENCASEMENT PIPE
W/ 195 LF OF 24" DI RJ
WATER PIPE PC 350

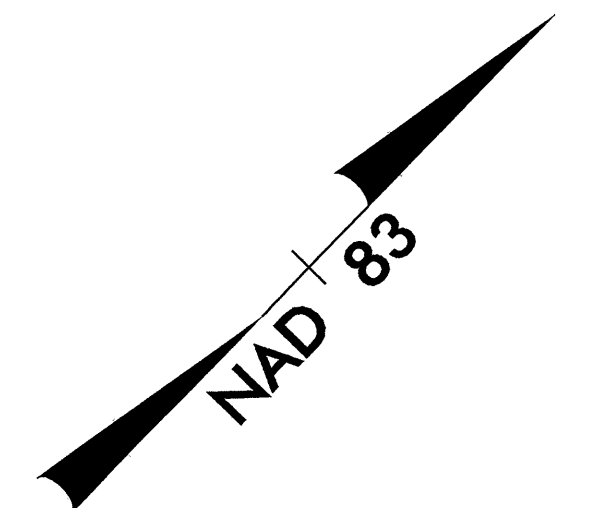
PROPOSED 349.09 FT
OF 24" DI RJ WATER
PIPE PC350

SEE SHEET UC-14 FOR -WI- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



106.85'
N 80°42'17" W
199.91'

56 x 28 x 3
9' weir
ID 4.7C

70 x 23 x 3
ID 4.9C

38 x 13 x 3
ID 4.12C

29 x 9 x 3
2 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 4.1C

67 x 14 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
5 ft. weir
ID 4.2C

48 x 12 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
5 ft. weir
ID 4.3

33 x 11 x 3
2 inch Skimmer
with 1 inch
Orifice Diameter
4 ft. weir
ID 4.4C

42 x 14 x 3
2 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
ID 4.5C

20 x 10 x 3
2 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 4.6C

24 x 9 x 3
2 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 5.2C

-BL- 2 STA. 10+47.29
-L- STA. 15+49.68
38.38 (LT)

-BL- 3 STA. 14+97.13
-L- STA. 20+17.62
60.56 (LT)

MATCHLINE
-L- STA. 28+00.00
SEE SHEET 5

NOTE: ADJUST LOCATION
OF PIPE SYSTEM AS NEEDED
WITHIN EASEMENT
TO AVOID TREES

SEE DETAIL A-2 SHEET 2-F
CLASS '1' RIP RAP EST = 56 TONS

WEST RANGE, LLC
(BILTMORE-ESTATE)
DB 2163 PG 847-848

WEST RANGE, LLC
(BILTMORE-ESTATE)
DB 2163 PG 847-8

REVISIONS

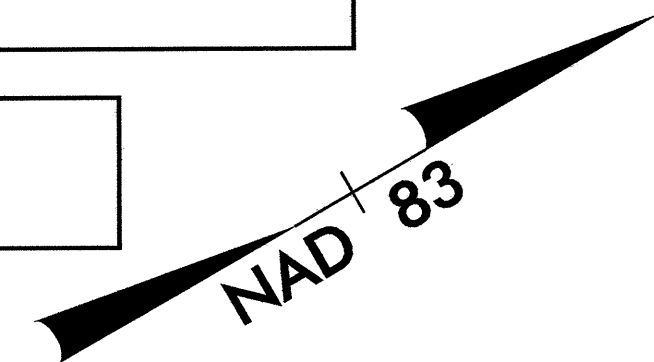
5/14/09

12-FEB-2008 11:25
r:\envp\documents\design\3601s4.ec-pah
jdw

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5



38 x 12 x 3
ID 5.3C

32 x 10 x 3
ID 5.4C

42 x 21 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
7 ft. weir
ID 5.5C

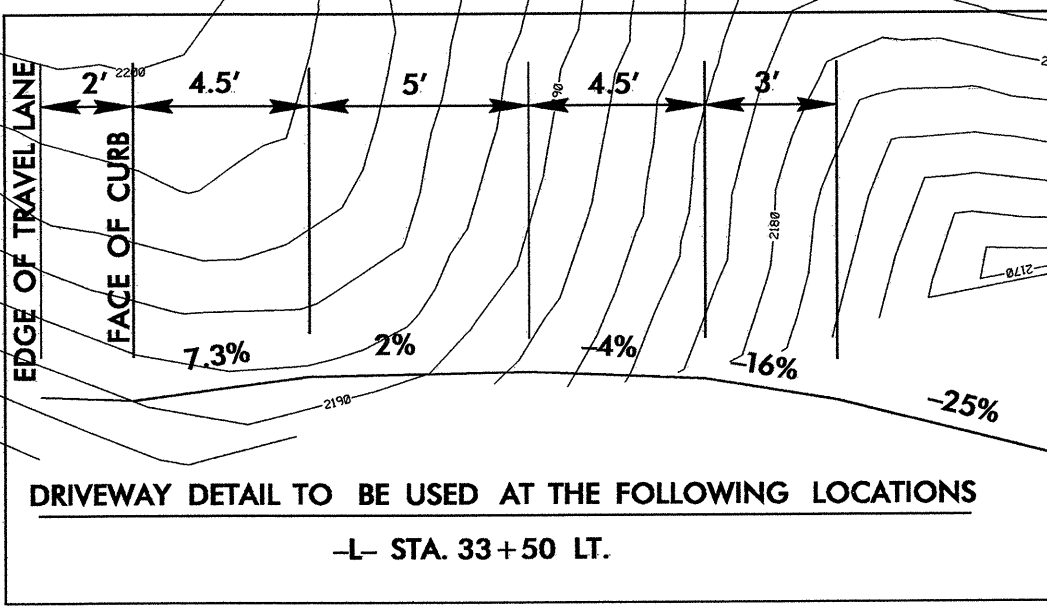
36 x 11 x 3
ID 5.7C

20 x 7 x 3
2 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 5.6C

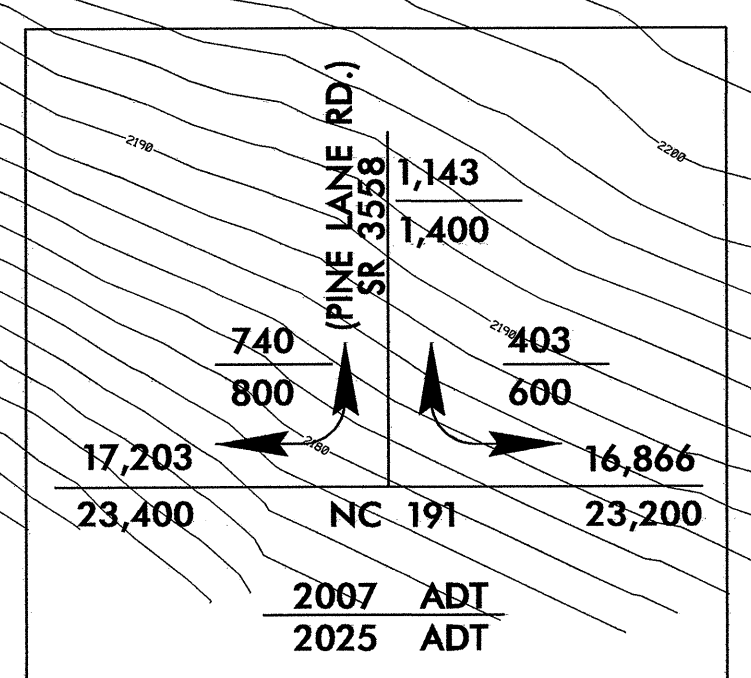
41 x 14 x 3
2 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
ID 5.9C

34 x 12 x 3
2 inch Skimmer
with 1.125 inch
Orifice Diameter
4 ft. weir
ID 5.10C

52 x 17 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
6 ft. weir
ID 5.1C



-L-
PI Sta. 39+95.96
Δ = 17' 16" 59.0' (LT)
D = 1' 30" 00.0'
L = 1452.20'
T = 580.51'
R = 3,819.72'
SE = .03
RO = 108'
V(DES) = 50+ mph



-L- STA. 28+00.00
MATCHLINE SEE SHEET 4

MATCHLINE
-L- STA. 42+00.00
SEE SHEET 6

REVISIONS

5/14/99
12-FEB-2008 11:25
r:\en\ut\p\com\125\design\3601\5-ec.psh
jdw\station

2A

BILTMORE DAIRY FARMS
DB 1222 PG 645

3

BUNCOMBE COUNTY FARM BUREAU
DB 1725 PG 706-707

4

RBR AFFILIATES, LLC
DB 3553 PG 483-485

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

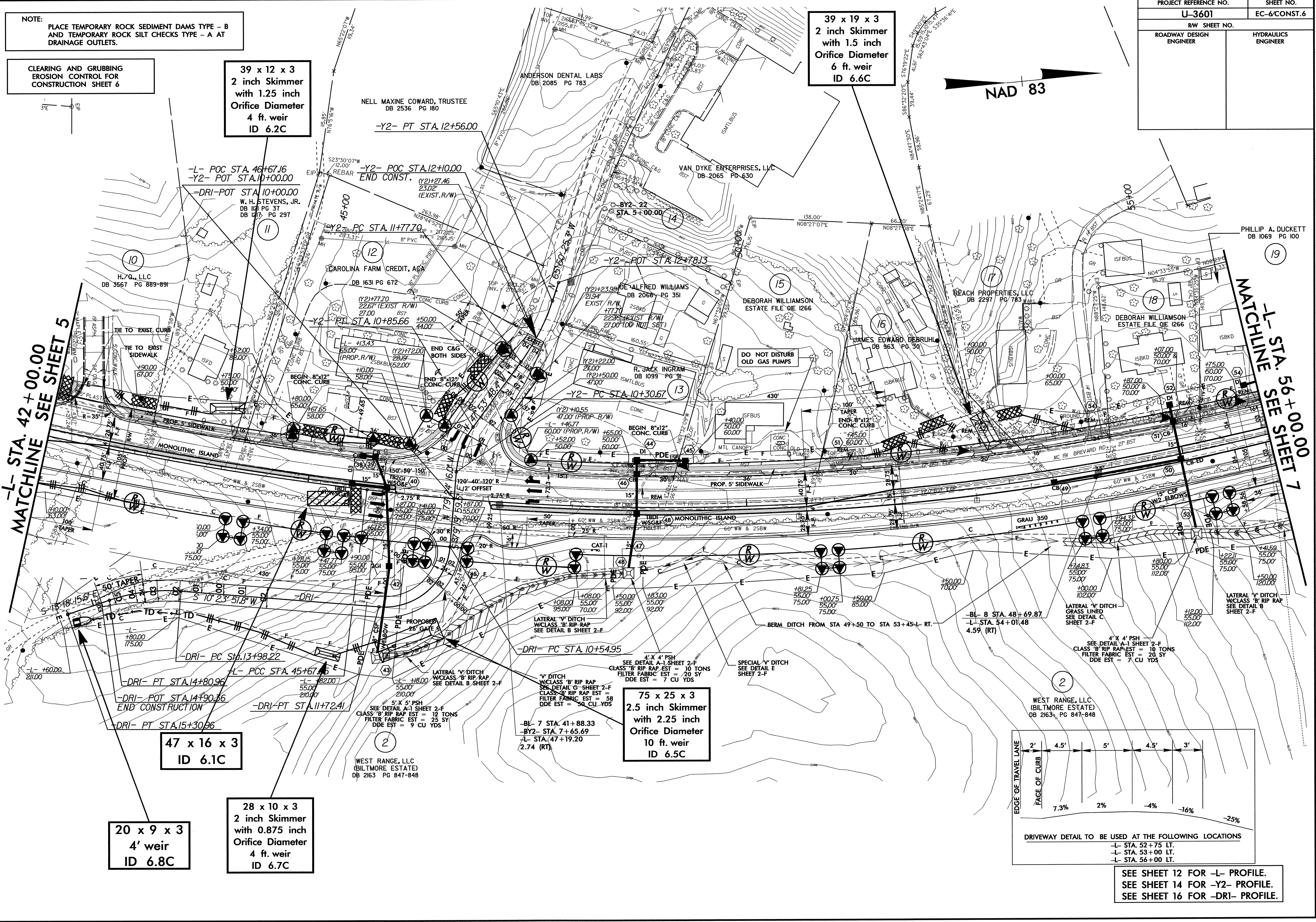
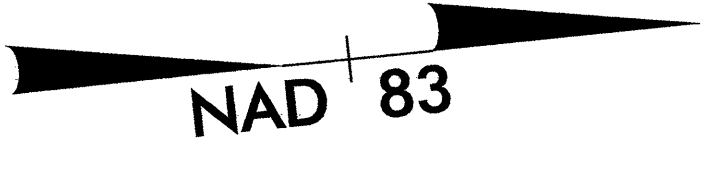
PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-6/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

39 x 12 x 3
2 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
ID 6.2C

39 x 19 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
6 ft. weir
ID 6.6C



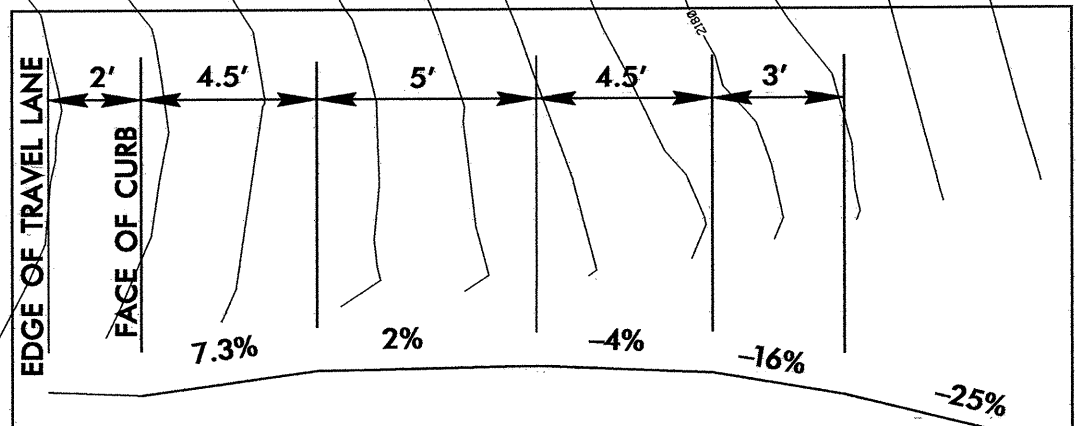
MATCHLINE -L- STA. 42+00.00
SEE SHEET 5

MATCHLINE -L- STA. 56+00.00
SEE SHEET 7

20 x 9 x 3
4' weir
ID 6.8C

28 x 10 x 3
2 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 6.7C

75 x 25 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
10 ft. weir
ID 6.5C



DRIVEWAY DETAIL TO BE USED AT THE FOLLOWING LOCATIONS
-L- STA. 52+75 LT.
-L- STA. 53+00 LT.
-L- STA. 56+00 LT.

SEE SHEET 12 FOR -L- PROFILE.
SEE SHEET 14 FOR -Y2- PROFILE.
SEE SHEET 16 FOR -DRI- PROFILE.

REVISIONS

5/14/99
12-FEB-2008 11:29
f:\enr\comp\ec\design\3601\ec.ec.psh
jdw\alston

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-7/CONST.7
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

30 x 9 x 3
2 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 7.3C

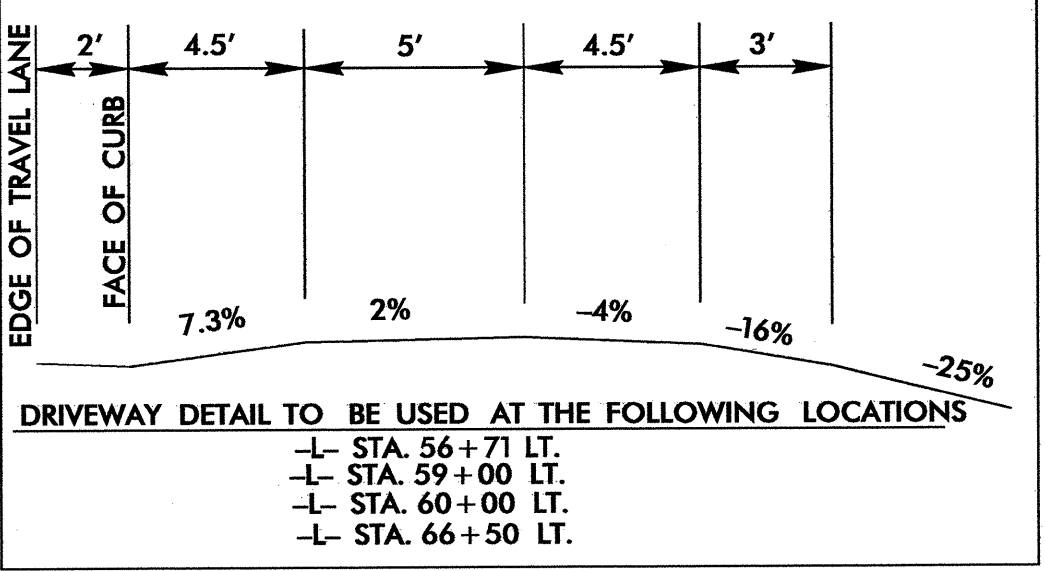
18 x 8 x 3
4' weir
ID 7.9C

44 x 16 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
5 ft. weir
ID 7.2C

67 x 23 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
10 ft. weir
ID 7.1C

17 x 8 x 3
2 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 7.10C

SEE SHEET 12 FOR -L- PROFILE.
SEE SHEET 16 FOR -DR2- PROFILE.

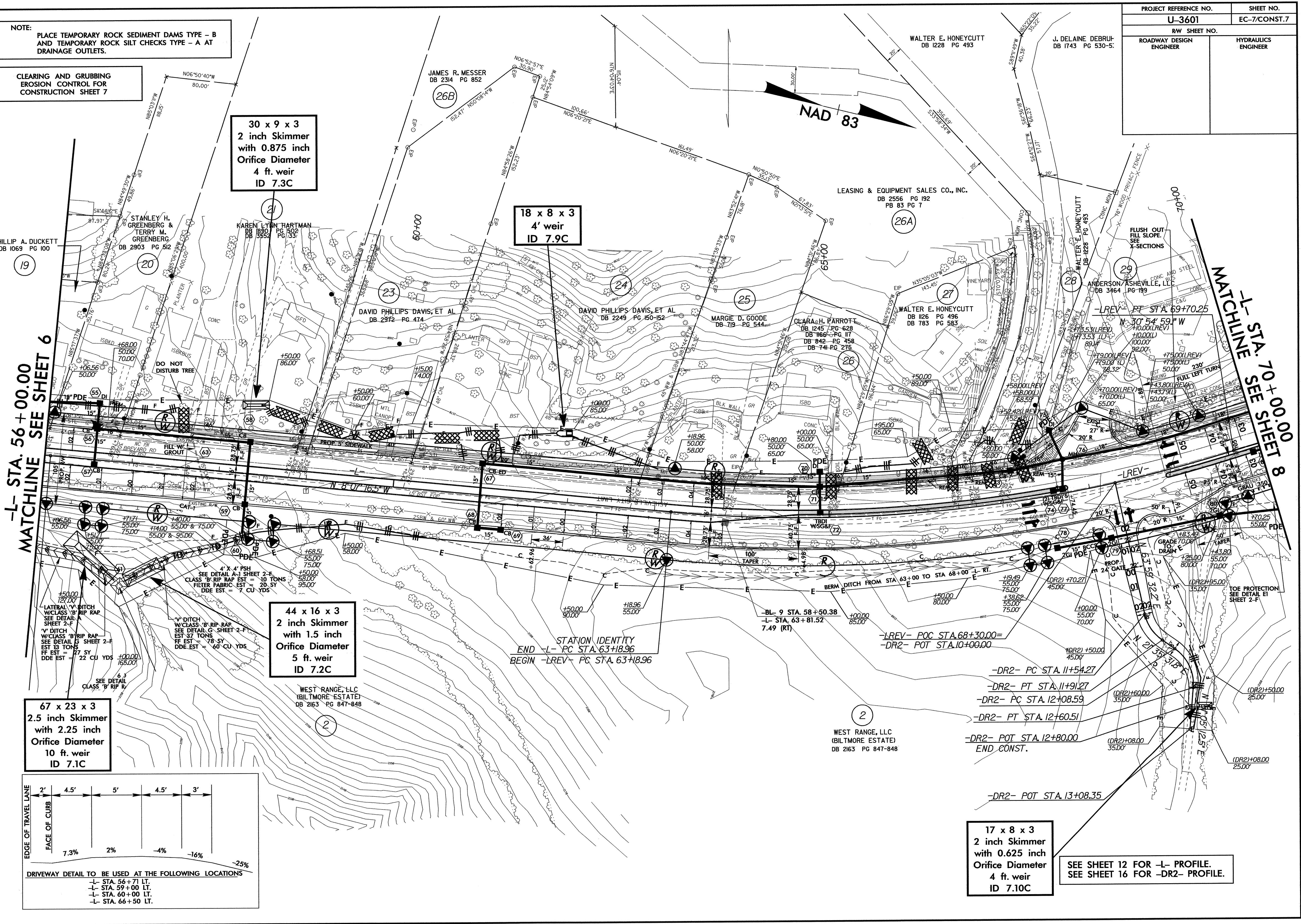


-L- STA. 56+00.00
MATCHLINE SEE SHEET 6

MATCHLINE
-L- STA. 70+00.00
SEE SHEET 8

REVISIONS

5/14/99
12-FEB-2008 11:30
r:\v\cur\design\3601s7.ecp.psh
jd\skiston



5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-8/CONST.8
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

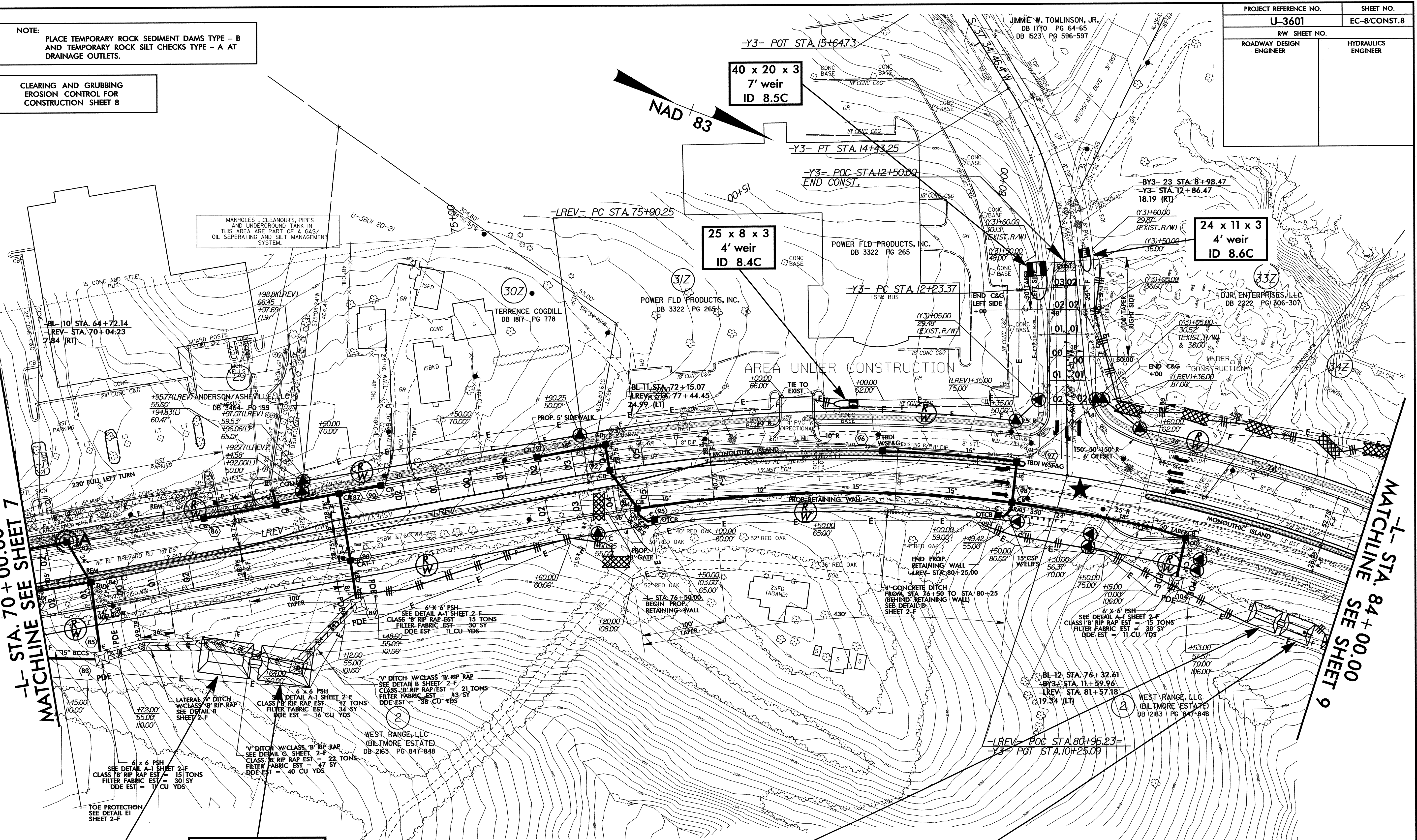
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

MANHOLES, CLEANOUTS, PIPES AND UNDERGROUND TANK IN THIS AREA ARE PART OF A GAS/OIL SEPARATING AND SILT MANAGEMENT SYSTEM.

REVISIONS

-L- STA. 70+00.00 MATCHLINE SEE SHEET 7

-L- STA. 84+00.00 MATCHLINE SEE SHEET 9



Modified Silt Basin Type 'B'
54 x 37 x 3
(See Tiered Skimmer Basin Detail)
ID 8.1C

54 x 37 x 3
4 inch Skimmer with 3.125 inch Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 8.1C

Modified Silt Basin Type 'B'
34 x 24 x 3
(See Tiered Skimmer Basin Detail)
ID 8.3C

34 x 24 x 3
3 inch Skimmer with 2.85 inch Orifice Diameter
11 ft. weir
(See Tiered Skimmer Basin Detail)
ID 8.3C

★ UPGRADE TRAFFIC SIGNAL
SEE SHEET 13 FOR -L- PROFILE.
SEE SHEET 15 FOR -Y3- PROFILE.

12-FEB-2008 11:37
r:\con\11\1137\design\3601\ec.psh
jdw\station

8/17/99

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9

NAD 83

44 x 22 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
7 ft. weir
ID 9.10C

NOTES: 1) TIE PROPOSED SIDEWALK INTO EXISTING SIDEWALK AT POST OFFICE.
2) SEE SHEET 8 FOR -LREV- STA. 93+62 LT. DRIVEWAY PROFILE.

34 x 17 x 3
6' weir
ID 9.5C

15 x 7 x 3
4' weir
ID 9.2C

UNITED STATES POSTAL SERVICE
DB 1156 PG 715-716
DB 1169 PG 195-196

-BL-13 STA. 83+76.66
-LREV- STA. 88+97.07
23.52 (LT)

+40.00 (LREV)
150.00
72.00
+43.67 (LREV)
+32.45 (L)
50.00
(DO NOT SET MONUMENT)

SEE INSET "1-B" SHEET 2-A
BEG. PROP. GRAVITY WALL
-LREV- LT. STA. 87+35

SEE INSET "1-B" SHEET 2-A
END PROP. GRAVITY WALL
-LREV- LT. STA. 89+03.96

+06.23 (LREV)
+95.00 (L)
58.00

PROP. 5' SIDEWALK

PROP. 8" X 12" CHANNELIZATION

PROP. 8" X 12" CHANNELIZATION

CONNECT UNDERDRAIN
SEE INSET 2-B SHEET 2-B

END 8" X 12" CONC. CURB

100' TAPER

NOTE: See Inset 2-B
Sta. 89+26.40 - Sta. 91+00 RT.
for Underdrain Detail
Sheet 2-B

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

REMOVE EXIST. WOVEN WIRE FENCE TO EXIST. RW LINE

Modified Silt Basin
Type 'B'
25 x 16 x 3
(See Tiered Skimmer
Basin Detail)
ID 9.1C

25 x 25 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 9.6C

25 x 16 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
5 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 9.1C

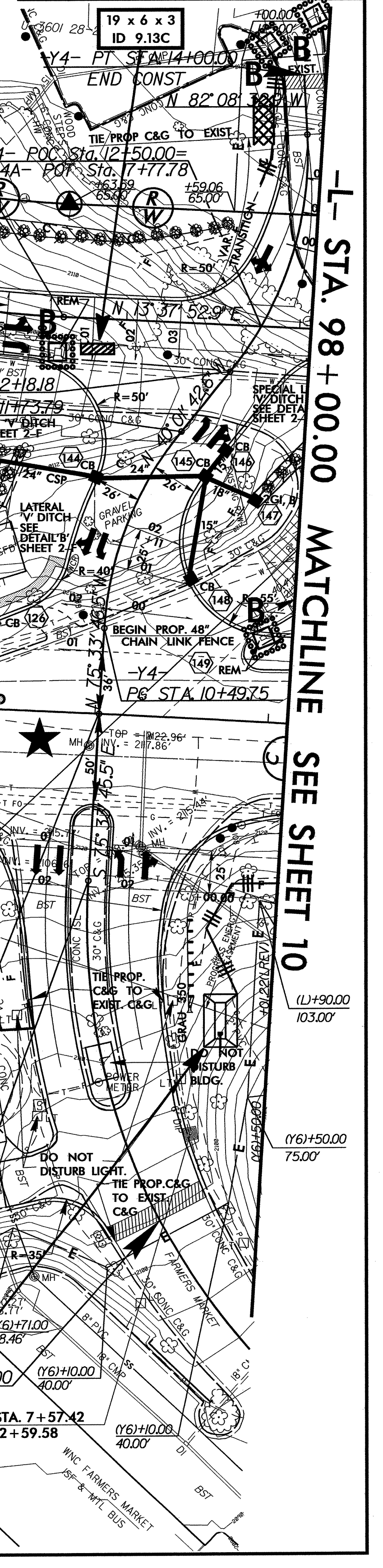
★ UPGRADE TRAFFIC SIGNAL
SEE SHEET 13 FOR -L- PROFILE.
SEE SHEET 15 FOR -Y4-, -Y6-, -MC2- PROFILES.
SEE SHEET 16 FOR -Y4A- PROFILE.

21 x 7 x 3
2 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 9.8C

22 x 8 x 3
2 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 9.7C

42 x 14 x 3
2 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
ID 9.9C

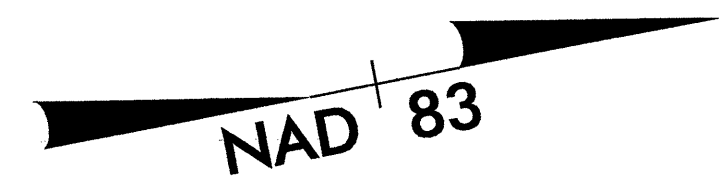
PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-9/CONST.9
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



REVISIONS

12-FEB-2008 11:35
P:\environmental\design\U3601s9_ec.psh
P:\environmental\REV\21451

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-10/CONST.10
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



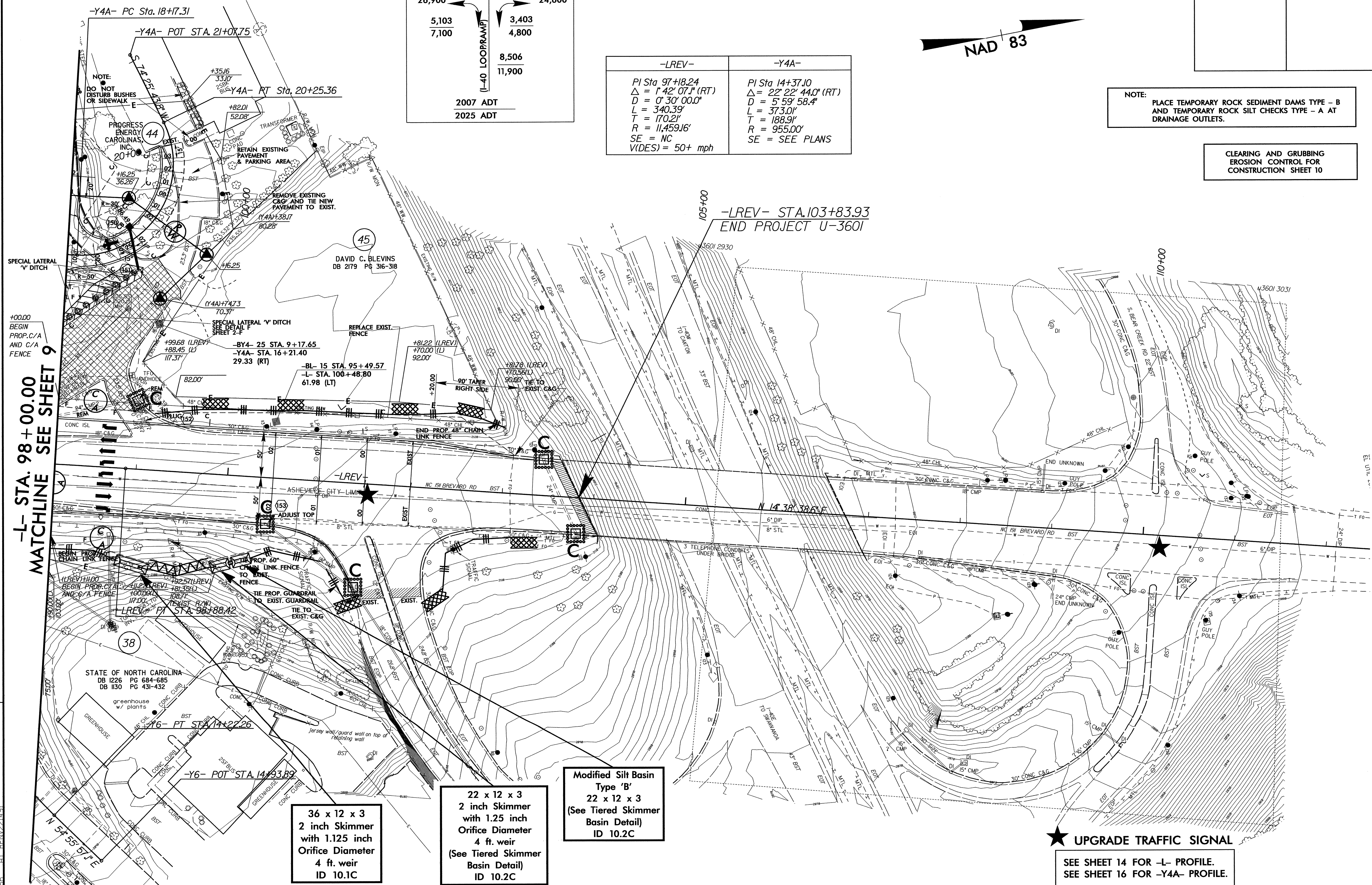
19,374	NC 191	17,674
26,900		24,600
5,103		3,403
7,100		4,800
	(-40 LOOP/RAMP)	
		8,506
		11,900
	2007 ADT	
	2025 ADT	

-LREV-	-Y4A-
PI Sta 97+18.24	PI Sta 14+37.10
$\Delta = 1^{\circ} 42' 07.1''$ (RT)	$\Delta = 22^{\circ} 22' 44.0''$ (RT)
$D = 0^{\circ} 30' 00.0''$	$D = 5^{\circ} 59' 58.4''$
$L = 340.39'$	$L = 373.0'$
$T = 170.21'$	$T = 188.9'$
$R = 11,459.16'$	$R = 955.00'$
SE = NC	SE = SEE PLANS
V(DES) = 50+ mph	

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

5/14/99
 REVISIONS
 12-FEB-2008 11:39
 C:\enviro\p00\design\3601\10.ec-pah
 Jdw



36 x 12 x 3
2 inch Skimmer
with 1.125 inch
Orifice Diameter
4 ft. weir
ID 10.1C

22 x 12 x 3
2 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 10.2C

Modified Silt Basin
Type 'B'
22 x 12 x 3
(See Tiered Skimmer
Basin Detail)
ID 10.2C

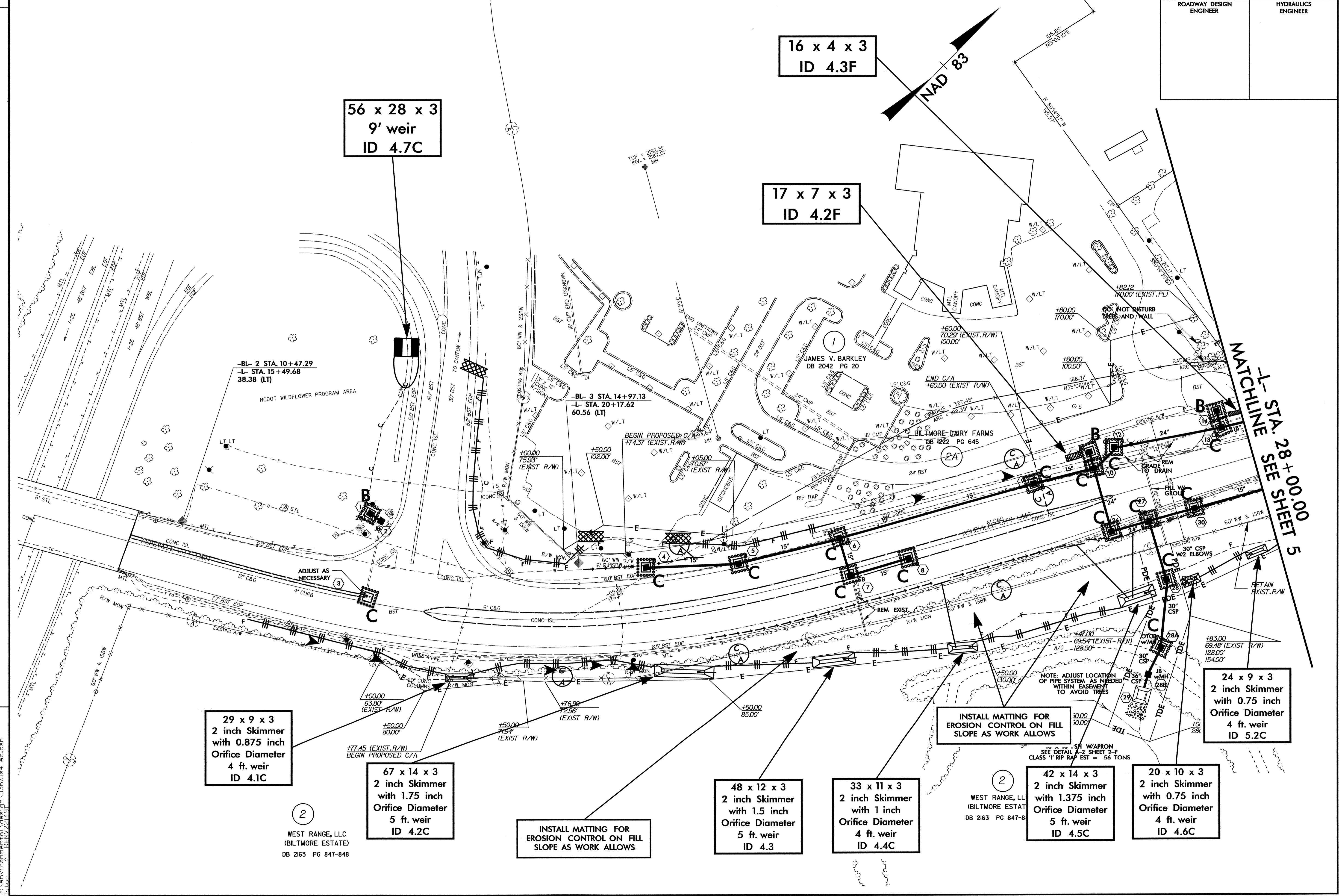
★ UPGRADE TRAFFIC SIGNAL

SEE SHEET 14 FOR -L- PROFILE.
SEE SHEET 16 FOR -Y4A- PROFILE.

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-11/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

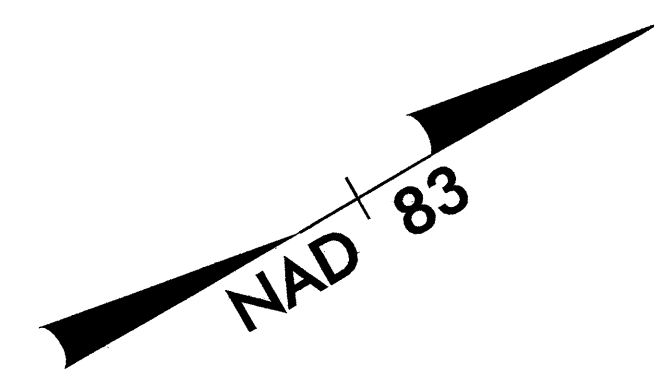
REVISIONS

5/14/09

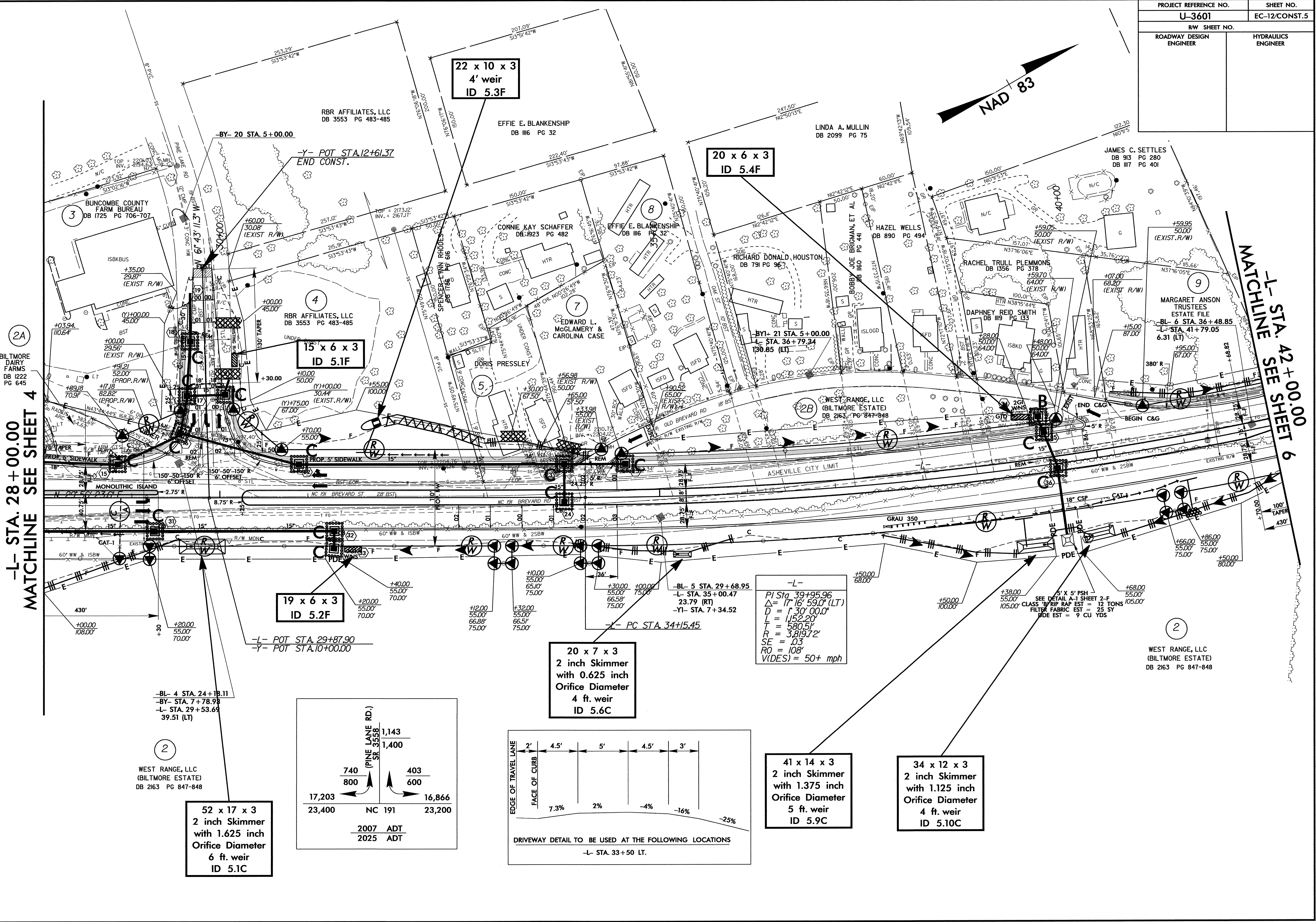


2
WEST RANGE, LLC
(BILTMORE ESTATE)
DB 2163 PG 847-848

12-FEB-2008 11:25
r:\enviro\pmg\design\3601s4.ec.psh
jdw\station AT RENOV2143



5/14/99



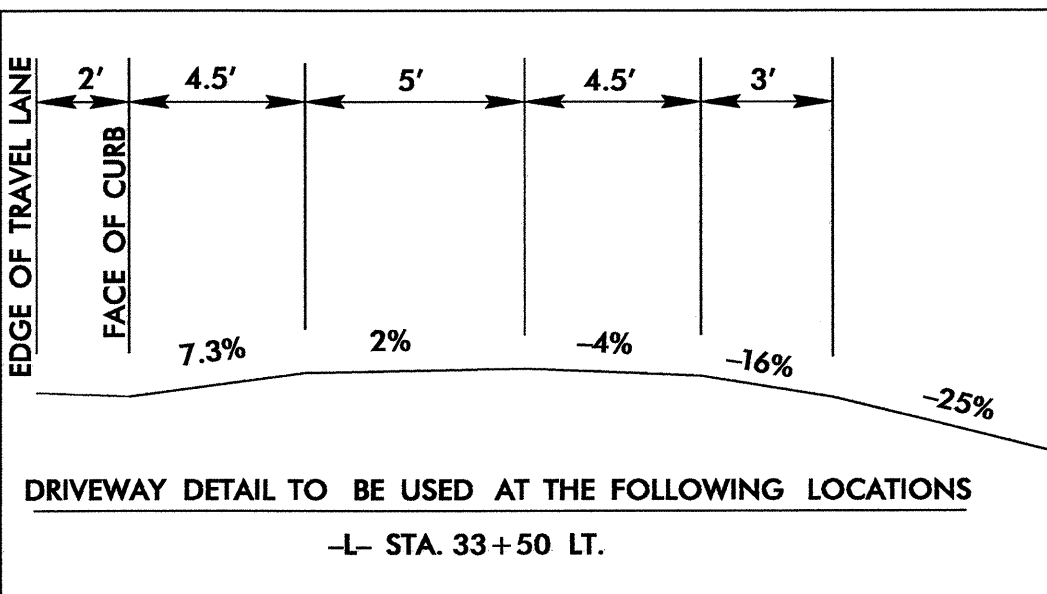
-L- STA. 28+00.00
 MATCHLINE SEE SHEET 4

MATCHLINE
 -L- STA. 42+00.00
 SEE SHEET 6

REVISIONS

-L-
 PI Sta 39+95.96
 $\Delta = 17' 16" 59.0" (LT)$
 $D = 1' 30" 00.0"$
 $L = 1152.20'$
 $T = 580.51'$
 $R = 3,819.72'$
 $SE = .03$
 $RO = 108'$
 $V(DES) = 50+ mph$

1,143	1,400
740	403
800	600
17,203	16,866
23,400	23,200
NC 191	
2007 ADT	
2025 ADT	



52 x 17 x 3
 2 inch Skimmer
 with 1.625 inch
 Orifice Diameter
 6 ft. weir
 ID 5.1C

20 x 7 x 3
 2 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 4 ft. weir
 ID 5.6C

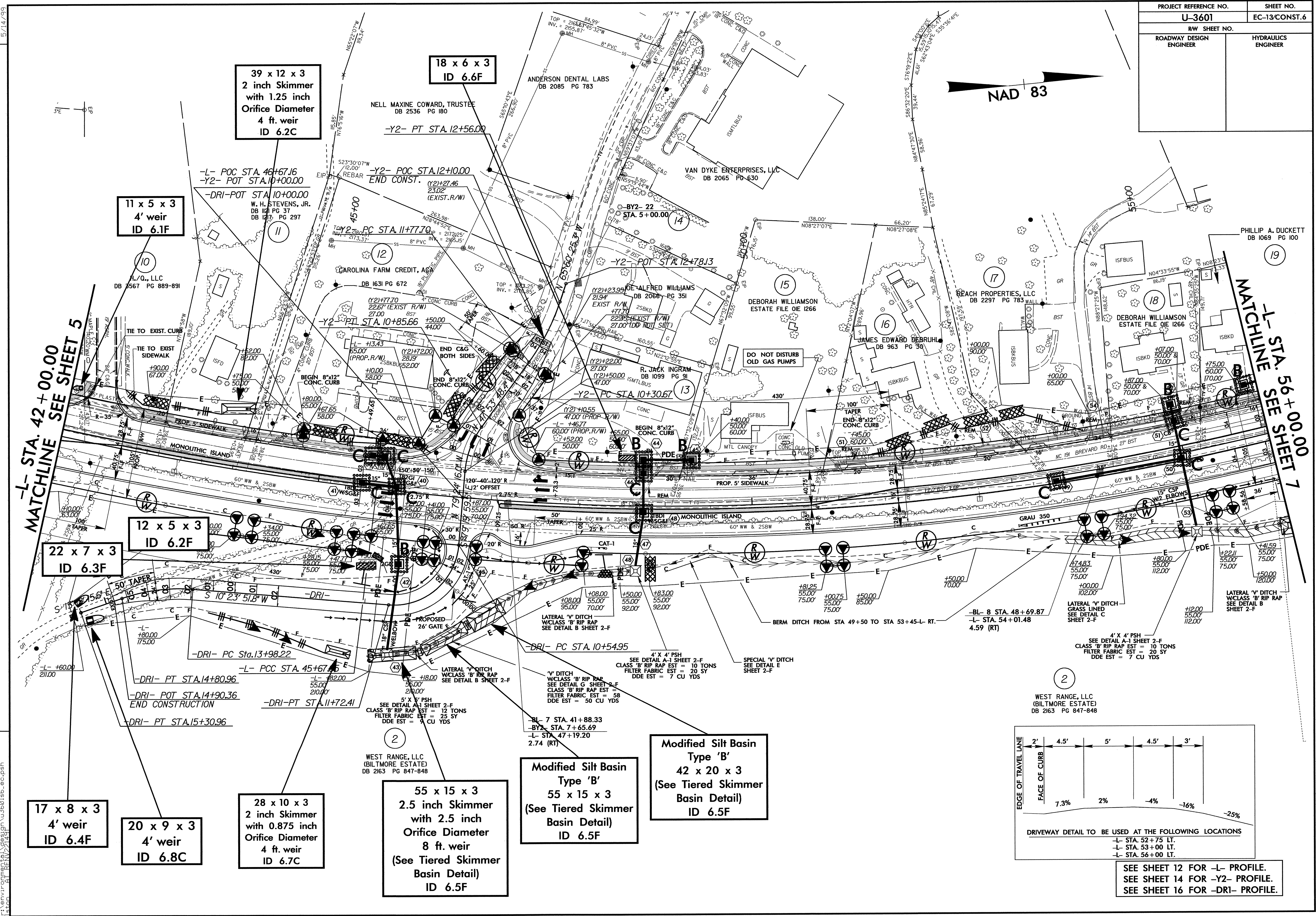
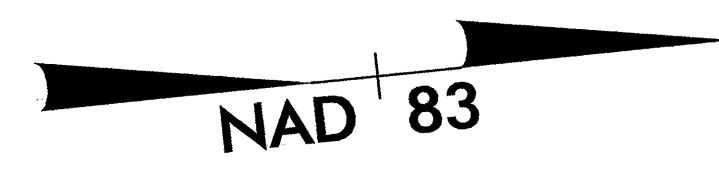
41 x 14 x 3
 2 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 5 ft. weir
 ID 5.9C

34 x 12 x 3
 2 inch Skimmer
 with 1.125 inch
 Orifice Diameter
 4 ft. weir
 ID 5.10C

2
 WEST RANGE, LLC
 (BILTMORE ESTATE)
 DB 2163 PG 847-848

12-FEB-2008 11:26
 r:\enviro\comgr\3601\design\3601s5_ec.psh
 jdw\alston

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-13/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



39 x 12 x 3
2 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
ID 6.2C

18 x 6 x 3
ID 6.6F

11 x 5 x 3
4' weir
ID 6.1F

12 x 5 x 3
ID 6.2F

22 x 7 x 3
ID 6.3F

17 x 8 x 3
4' weir
ID 6.4F

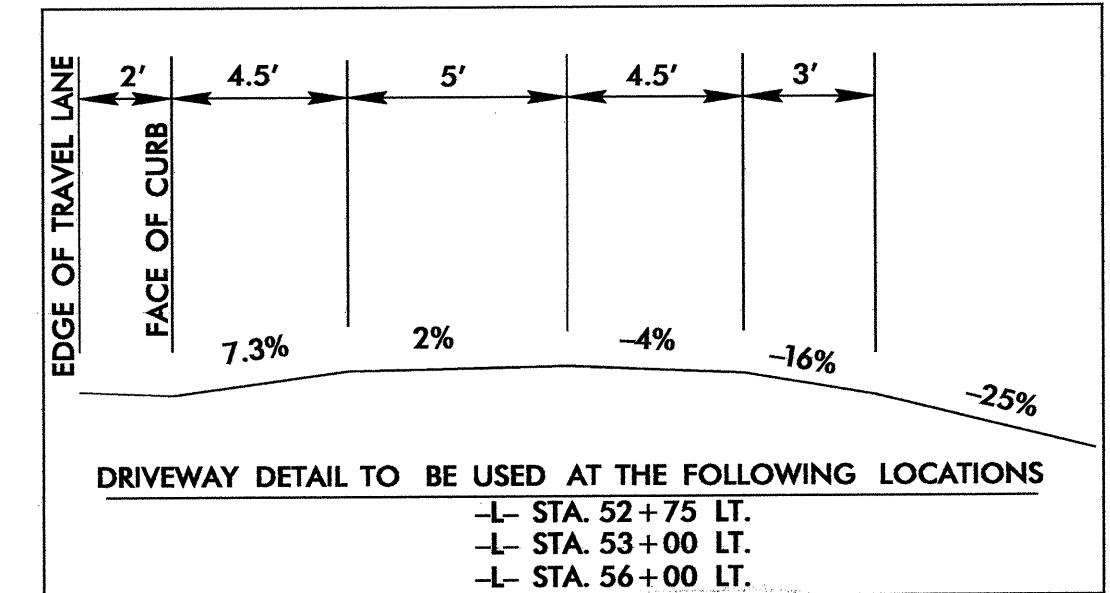
20 x 9 x 3
4' weir
ID 6.8C

28 x 10 x 3
2 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 6.7C

55 x 15 x 3
2.5 inch Skimmer
with 2.5 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 6.5F

**Modified Silt Basin
Type 'B'**
55 x 15 x 3
(See Tiered Skimmer
Basin Detail)
ID 6.5F

**Modified Silt Basin
Type 'B'**
42 x 20 x 3
(See Tiered Skimmer
Basin Detail)
ID 6.5F



DRIVEWAY DETAIL TO BE USED AT THE FOLLOWING LOCATIONS
-L- STA. 52+75 LT.
-L- STA. 53+00 LT.
-L- STA. 56+00 LT.

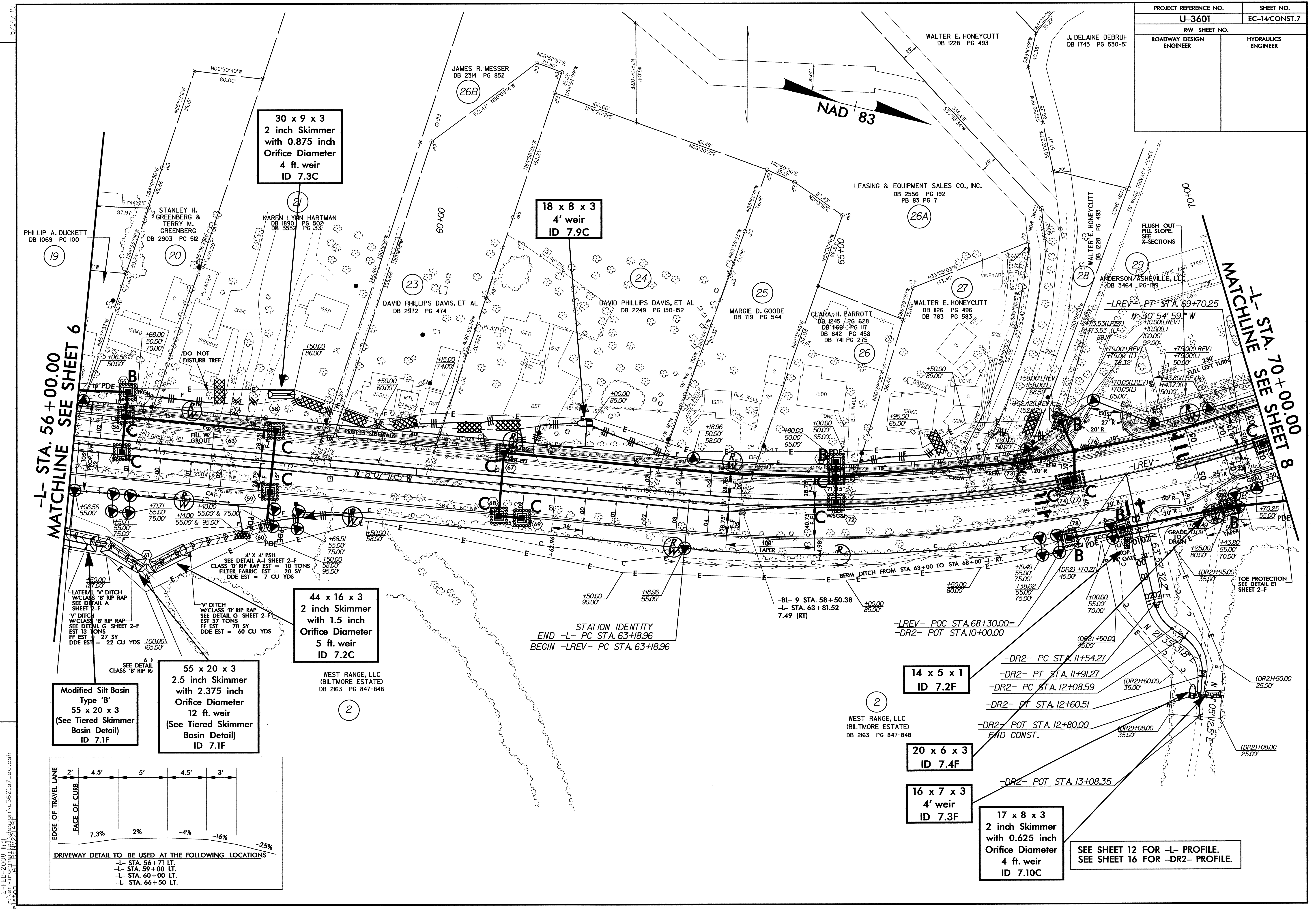
SEE SHEET 12 FOR -L- PROFILE.
SEE SHEET 14 FOR -Y2- PROFILE.
SEE SHEET 16 FOR -DRI- PROFILE.

5/14/99

REVISIONS

12-FEB-2008 11:29
jdwalston AT BENTLEY
f:\envi\com\ec\design\3601s6.ec.psh

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-14/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
WALTER E. HONEYCUTT DB 1228 PG 493	J. DELAINE DEBRUI DB 1743 PG 530-5



-L- STA. 56+00.00
MATCHLINE SEE SHEET 6

MATCHLINE -L- STA. 70+00.00
SEE SHEET 8

**Modified Silt Basin
Type 'B'
55 x 20 x 3
(See Tiered Skimmer
Basin Detail)
ID 7.1F**

**55 x 20 x 3
2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.1F**

**44 x 16 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
5 ft. weir
ID 7.2C**

STATION IDENTITY
END -L- PC STA. 63+8.96
BEGIN -LREV- PC STA. 63+8.96

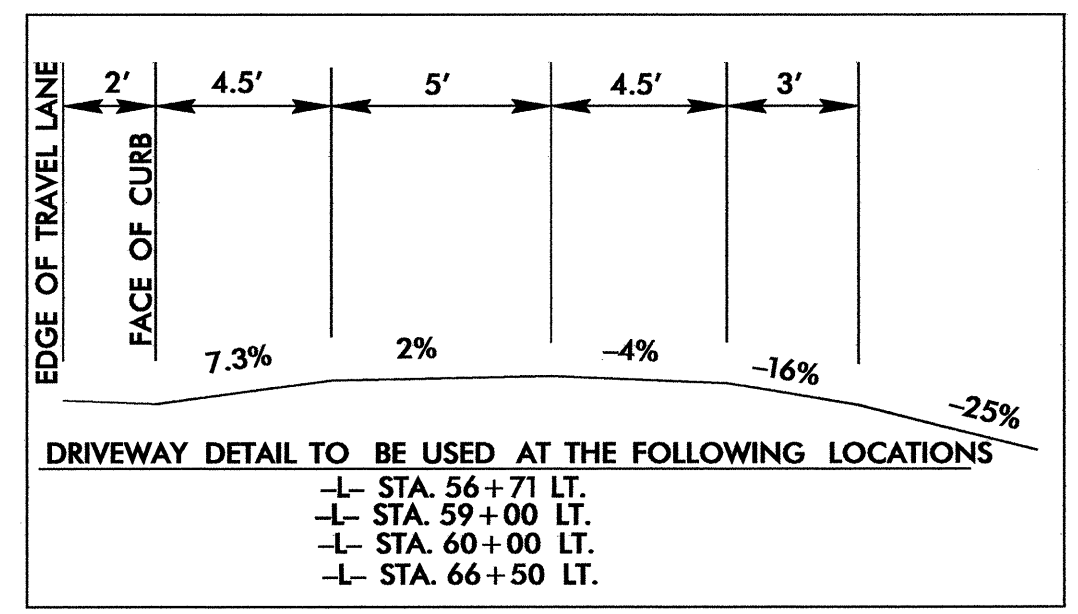
**14 x 5 x 1
ID 7.2F**

**20 x 6 x 3
ID 7.4F**

**16 x 7 x 3
4' weir
ID 7.3F**

**17 x 8 x 3
2 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 7.10C**

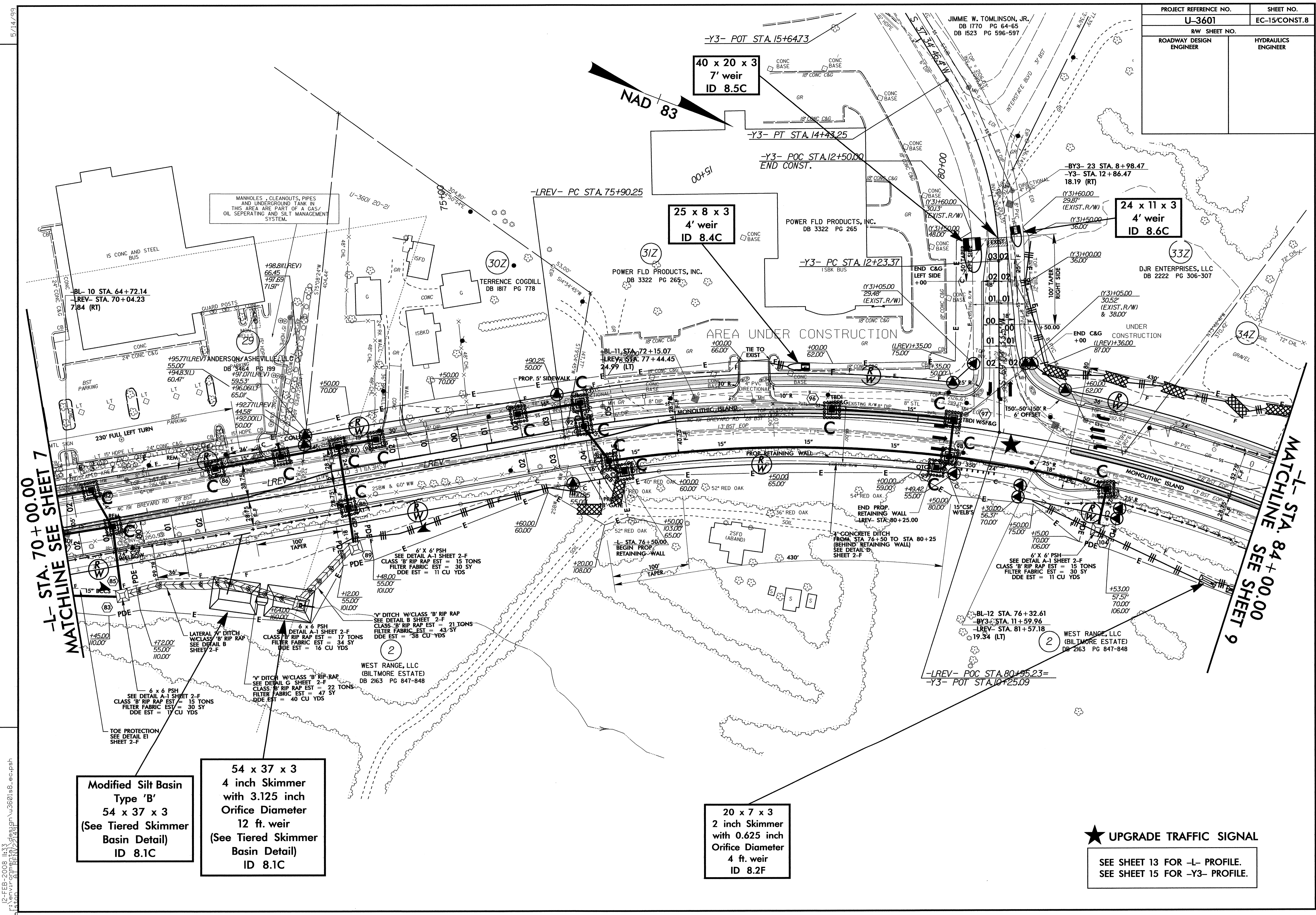
SEE SHEET 12 FOR -L- PROFILE.
SEE SHEET 16 FOR -DR2- PROFILE.



REVISIONS

5/14/09
12-FEB-2008 11:31
I:\enviro\com\p\design\3601s7_ec.psh
jdw\station AT RENY\2143

PROJECT REFERENCE NO. U-3601	SHEET NO. EC-15/CONST.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



40 x 20 x 3
7' weir
ID 8.5C

25 x 8 x 3
4' weir
ID 8.4C

24 x 11 x 3
4' weir
ID 8.6C

Modified Silt Basin
Type 'B'
54 x 37 x 3
(See Tiered Skimmer
Basin Detail)
ID 8.1C

54 x 37 x 3
4 inch Skimmer
with 3.125 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 8.1C

20 x 7 x 3
2 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 8.2F

★ UPGRADE TRAFFIC SIGNAL

SEE SHEET 13 FOR -L- PROFILE.
SEE SHEET 15 FOR -Y3- PROFILE.

REVISIONS

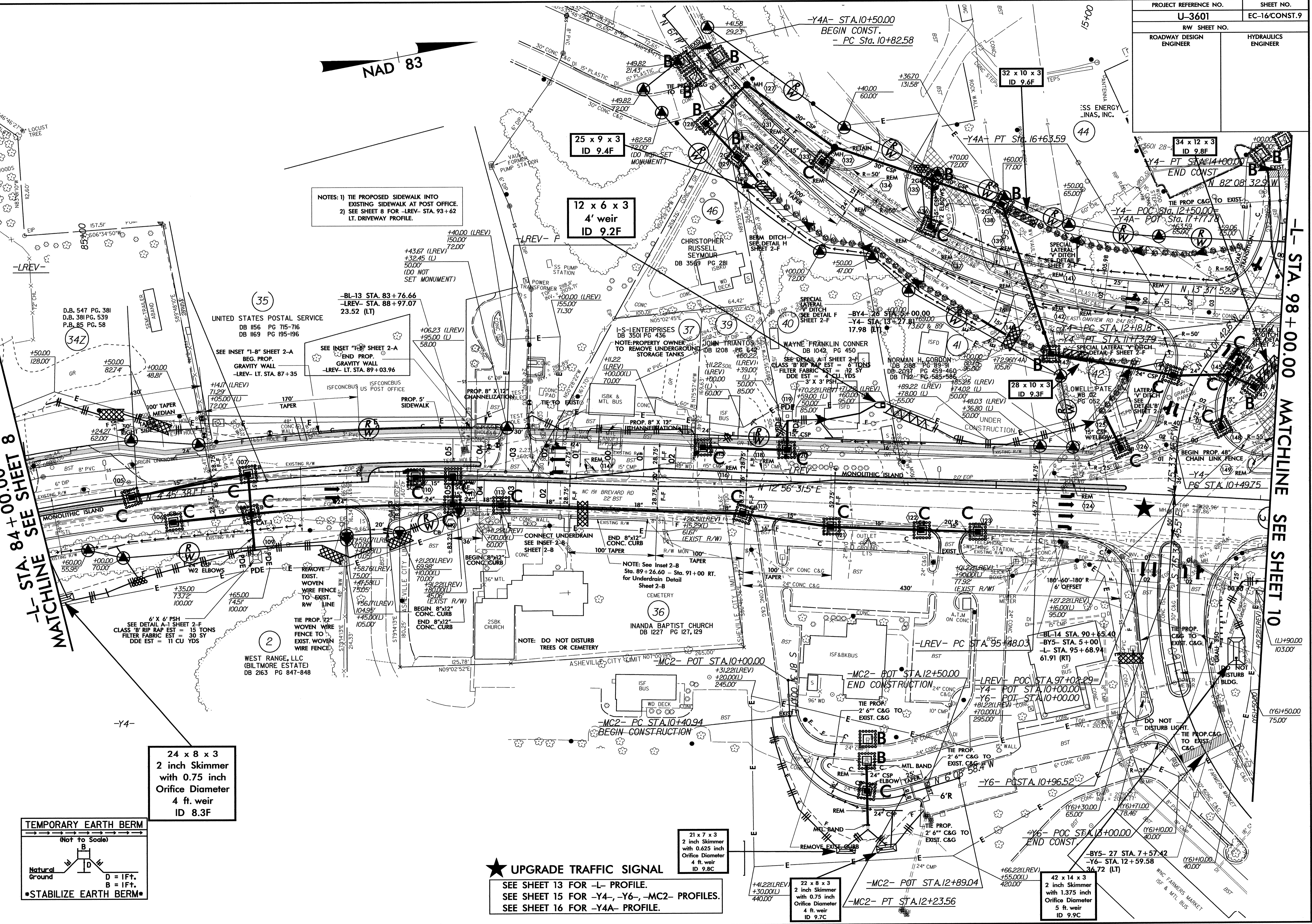
5/14/99

12-FEB-2008 11:33
r:\env\ur\com\ec\design\u3601\ec-15.ec.psh
jd\ast\ec-15.ec.psh

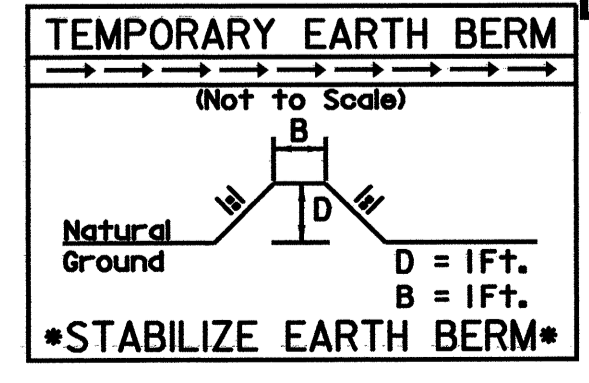
PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-16/CONST.9
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

NAD 83

NOTES: 1) TIE THE PROPOSED SIDEWALK INTO EXISTING SIDEWALK AT POST OFFICE.
2) SEE SHEET 8 FOR -LREV- STA. 93+62 LT. DRIVEWAY PROFILE.



24 x 8 x 3
2 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 8.3F



★ UPGRADE TRAFFIC SIGNAL
SEE SHEET 13 FOR -L- PROFILE.
SEE SHEET 15 FOR -Y4-, -Y6-, -MC2- PROFILES.
SEE SHEET 16 FOR -Y4A- PROFILE.

21 x 7 x 3
2 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 9.8C

22 x 8 x 3
2 inch Skimmer
with 0.75 inch
Orifice Diameter
ft. weir
ID 9.7C

42 x 14 x 3
2 inch Skimmer
with 1.375 inch
Orifice Diameter
5 ft. weir
ID 9.9C

REVISIONS

8/17/99

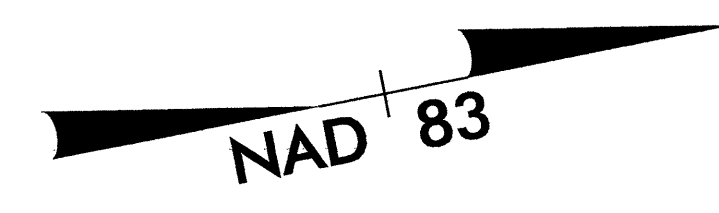
12-FEB-2008 11:35
C:\envr\environmental\3601s9_ec.psh
DESIGNED: VJ3601s9
DRAWN: AT
DATE: 2/21/08

5/14/09

PROJECT REFERENCE NO.	SHEET NO.
U-3601	EC-17/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

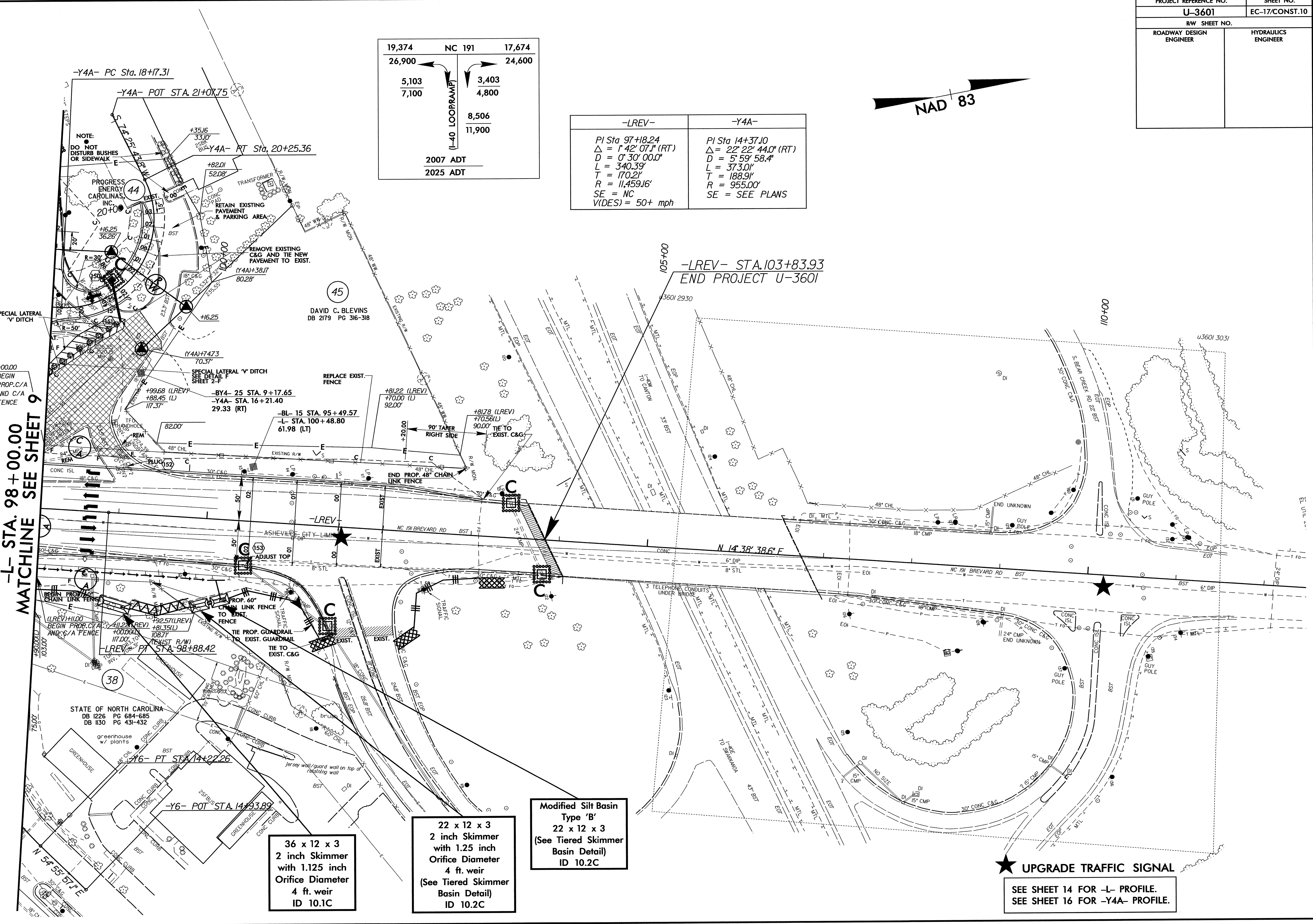
19,374	NC 191	17,674
26,900		24,600
5,103		3,403
7,100		4,800
(L-40 LOOPRAMP)		
8,506		
11,900		
2007 ADT		
2025 ADT		

-LREV-	-Y4A-
PI Sta 97+18.24	PI Sta 14+37.10
$\Delta = 1^{\circ} 42' 07.1''$ (RT)	$\Delta = 22^{\circ} 22' 44.0''$ (RT)
$D = 0^{\circ} 30' 00.0''$	$D = 5^{\circ} 59' 58.4''$
$L = 340.39'$	$L = 373.01'$
$T = 170.21'$	$T = 188.91'$
$R = 11,459.16'$	$R = 955.00'$
SE = NC	SE = SEE PLANS
$V(DES) = 50+ \text{ mph}$	



REVISIONS

-L- STA. 98+00.00
MATCHLINE SEE SHEET 9



NOTE:
DO NOT
DISTURB BUSHES
OR SIDEWALK

PROGRESS ENERGY
CAROLINAS, INC.
2010

SPECIAL LATERAL
'V' DITCH

+100.00
BEGIN
PROP. C/A
AND C/A
FENCE

REPLACE EXIST.
FENCE

END PROP. 48\"/>

ADJUST TOP

STATE OF NORTH CAROLINA
DB 1226 PG 684-685
DB 1130 PG 431-432

greenhouse
w/ plants

Jersey wall/guard wall on top of
retaining wall

36 x 12 x 3
2 inch Skimmer
with 1.125 inch
Orifice Diameter
4 ft. weir
ID 10.1C

22 x 12 x 3
2 inch Skimmer
with 1.25 inch
Orifice Diameter
4 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 10.2C

Modified Silt Basin
Type 'B'
22 x 12 x 3
(See Tiered Skimmer
Basin Detail)
ID 10.2C

★ UPGRADE TRAFFIC SIGNAL
SEE SHEET 14 FOR -L- PROFILE.
SEE SHEET 16 FOR -Y4A- PROFILE.

12-FEB-2008 11:38
r:\enviro\on\p\3601\10-ec.psh
jd\enviro\on\p\3601\10-ec.psh