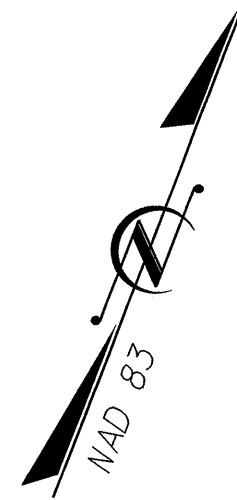


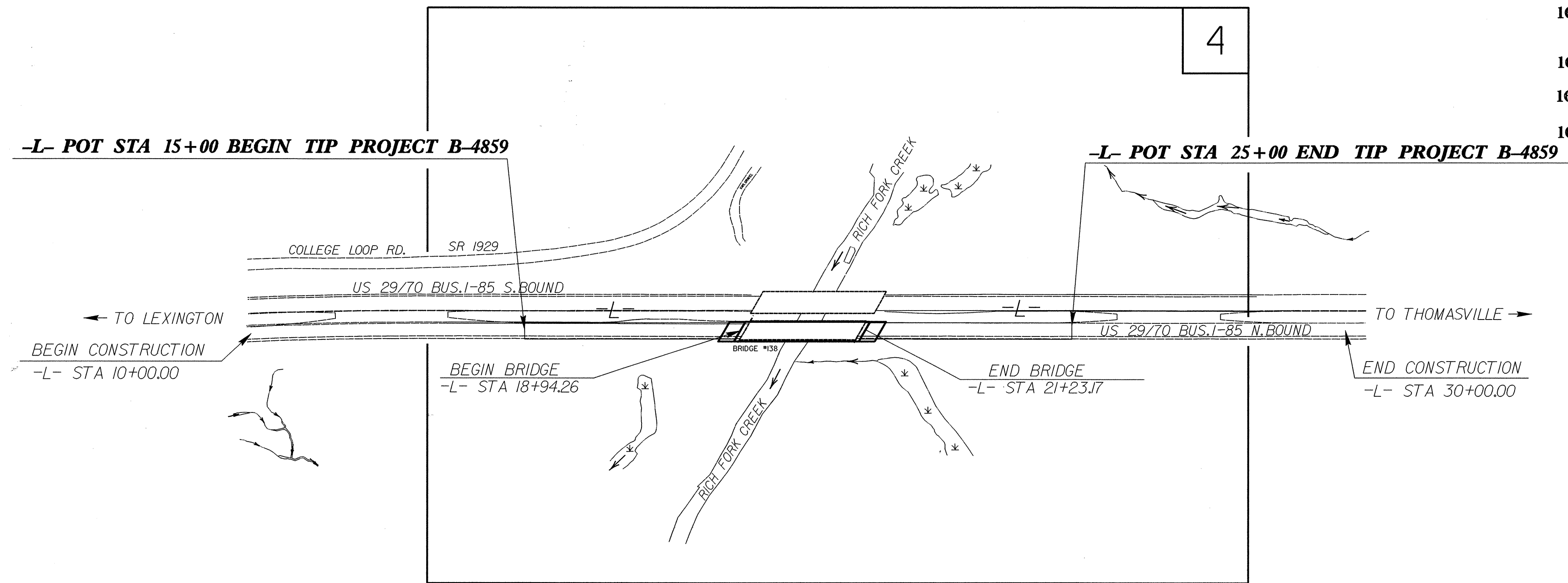
TIP PROJECT: B-4859



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

**LOCATION: BRIDGE 138 OVER RICH FORK CREEK ON
US 29-70I-85 BUSINESS**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4859	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

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

GRAPHIC SCALE

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PLANS

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PROFILE (HORIZONTAL)

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PROFILE (VERTICAL)

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ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

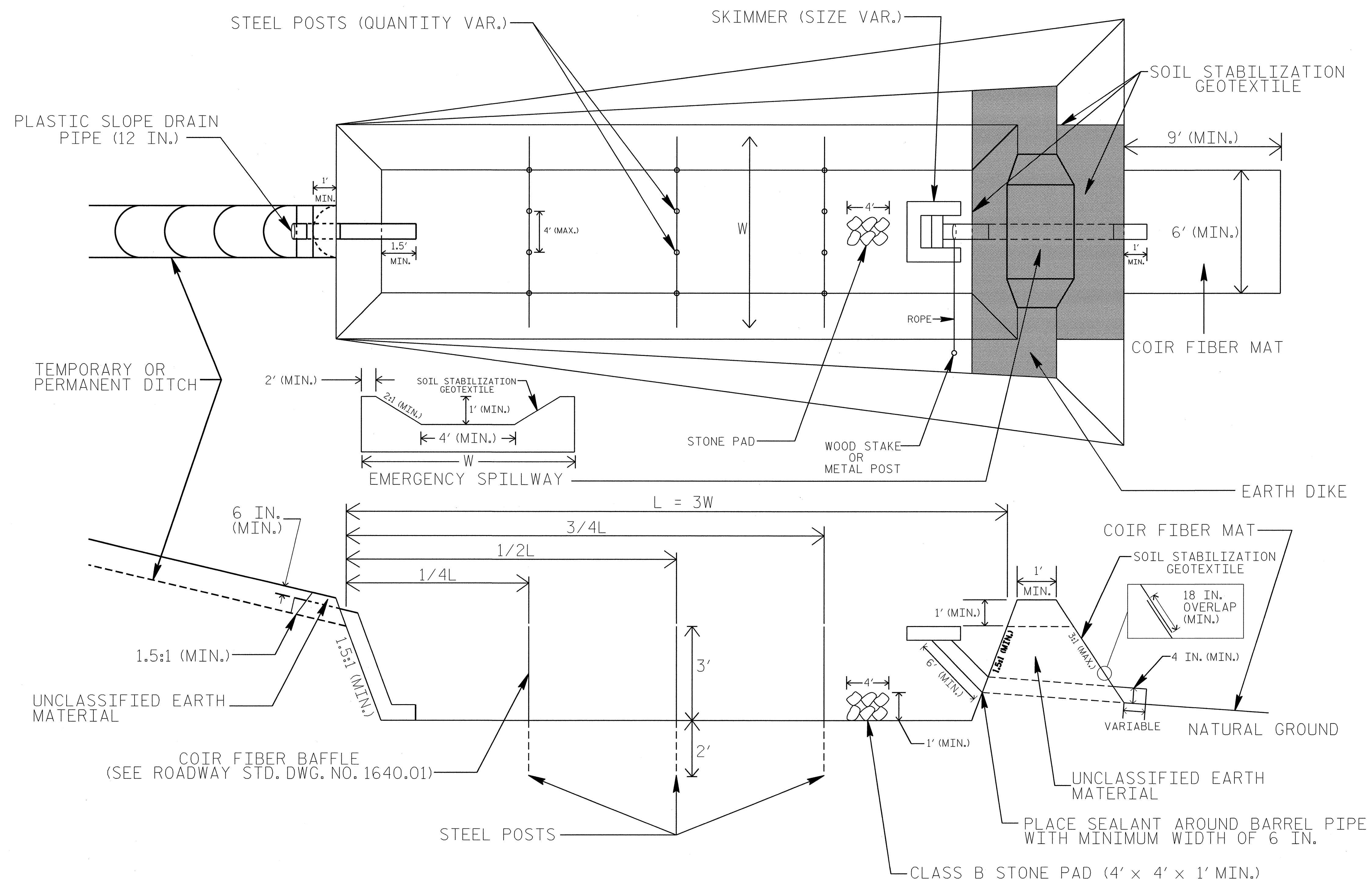
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	

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PROJECT REFERENCE NO. B-4859	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL

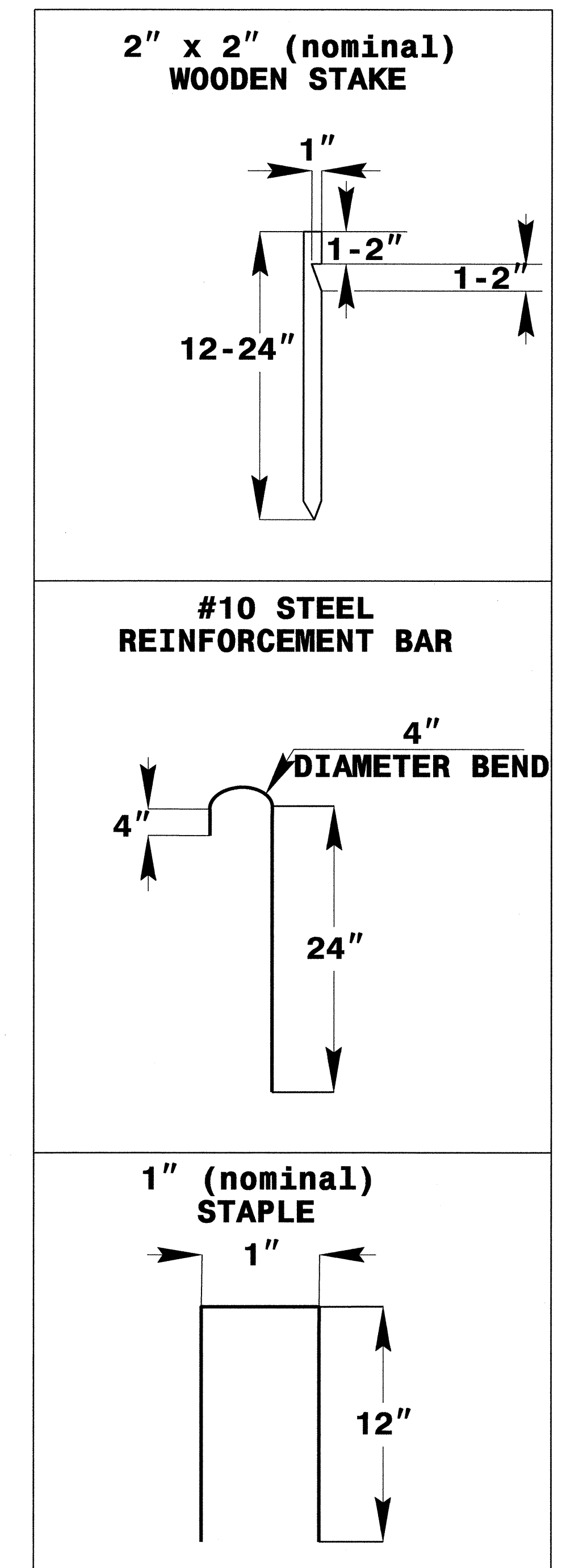


NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

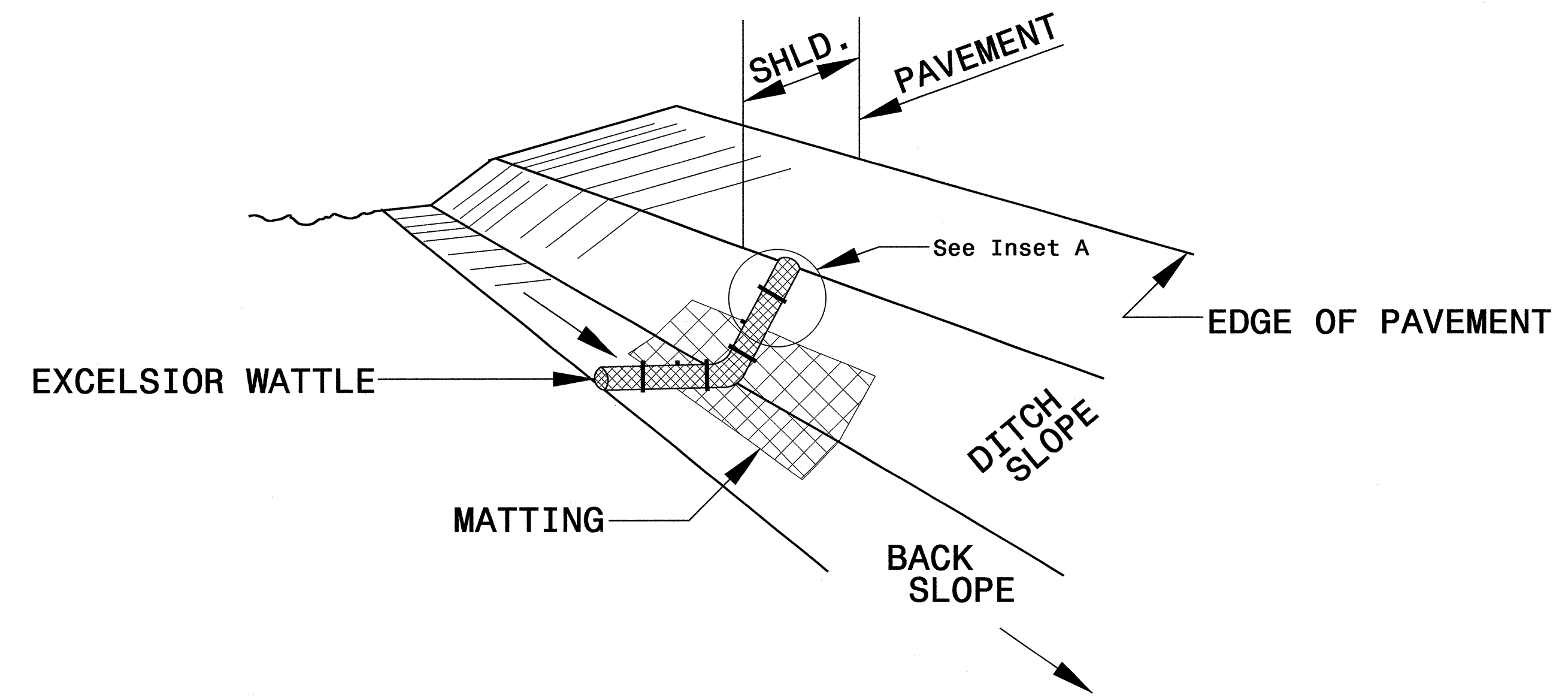
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COIR FIBER MAT ANCHOR OPTIONS

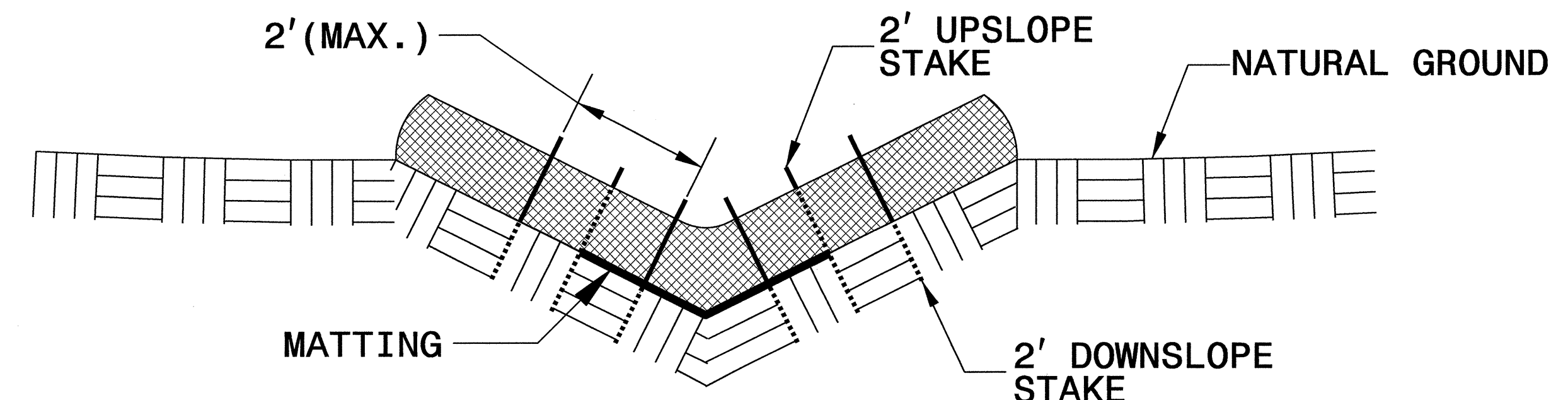


PROJECT REFERENCE NO. B-4859	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

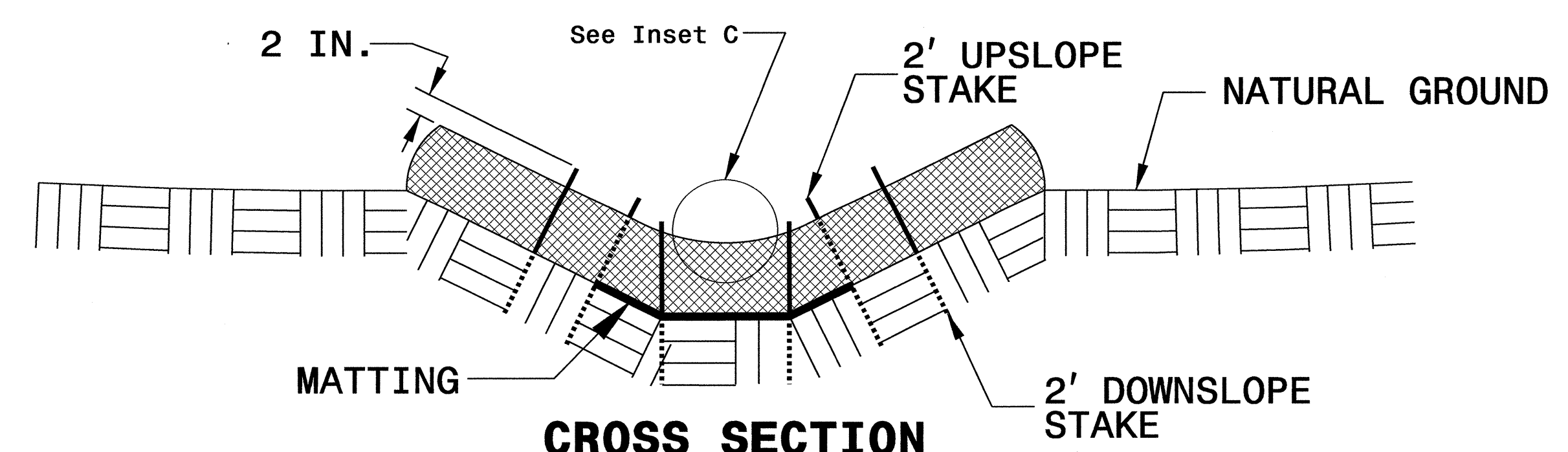
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



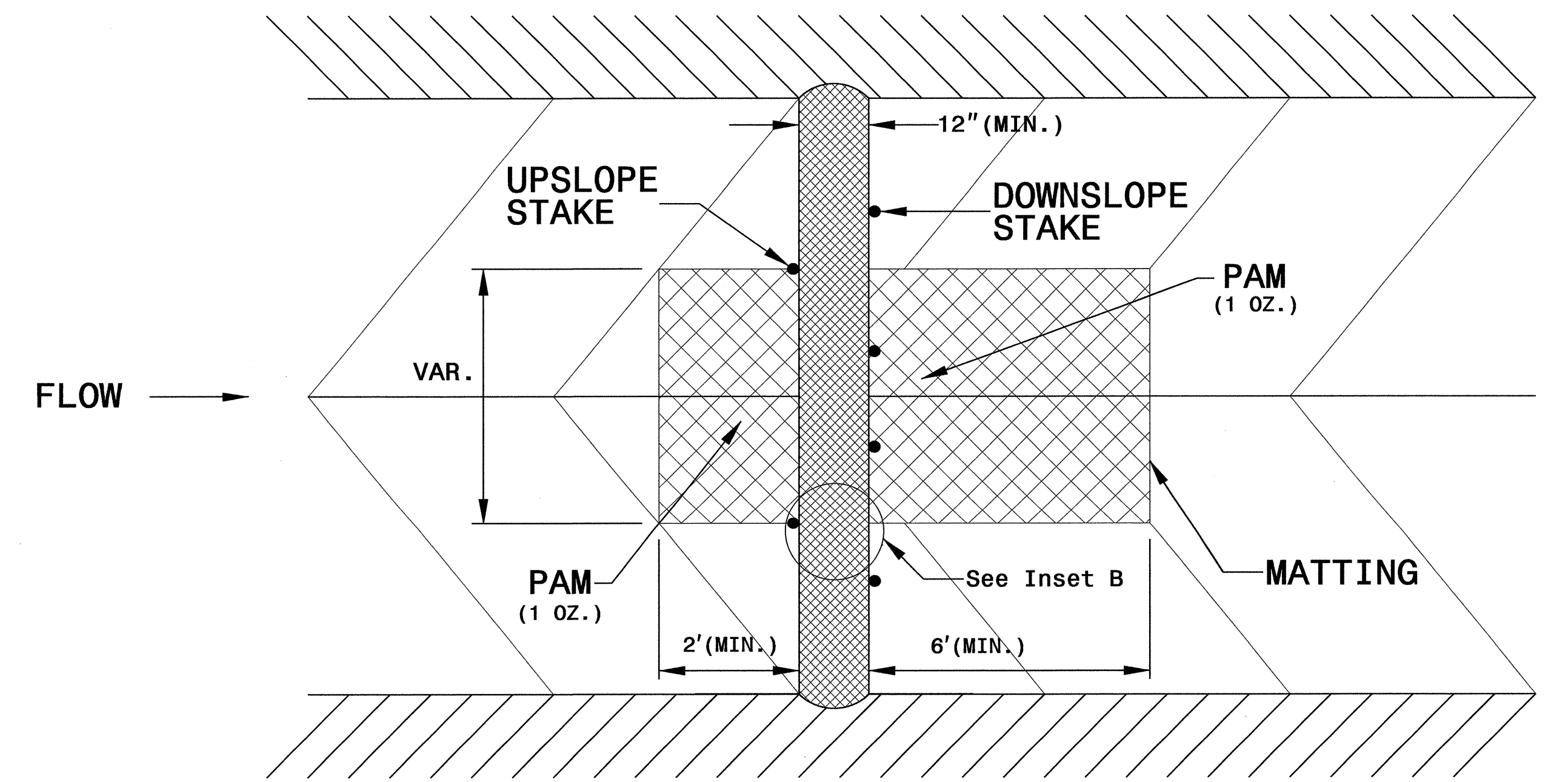
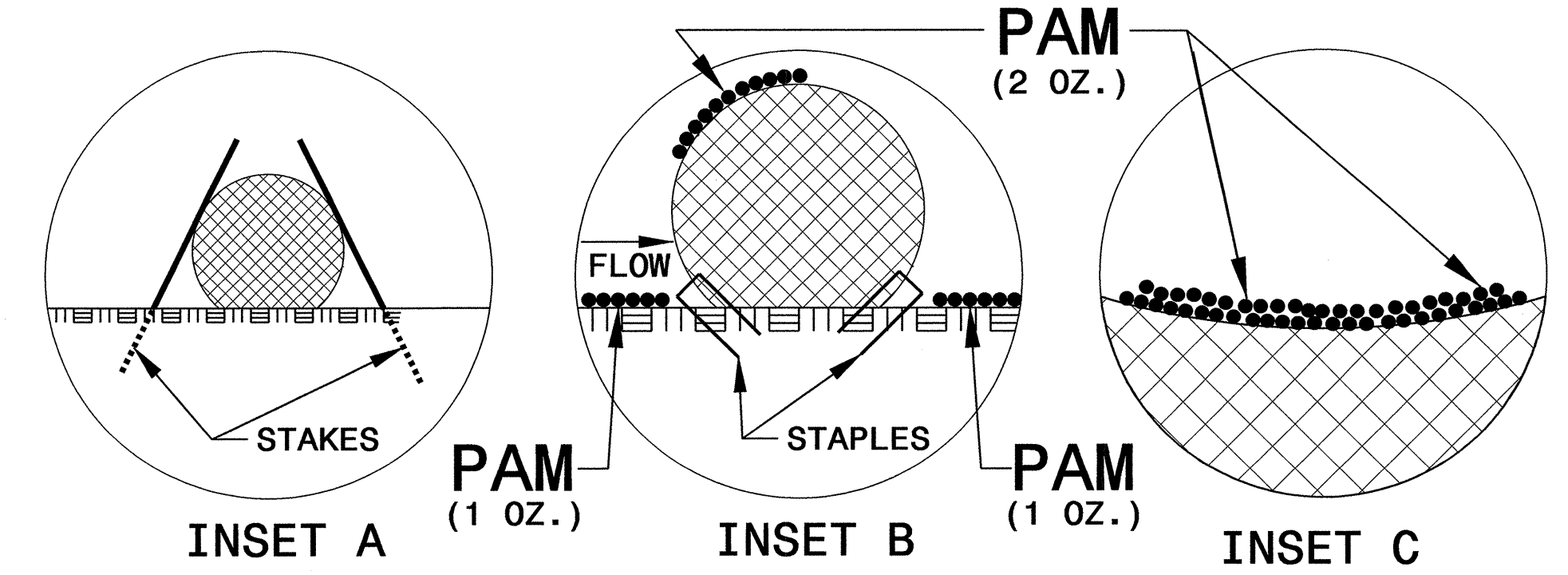
CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



TOP VIEW

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

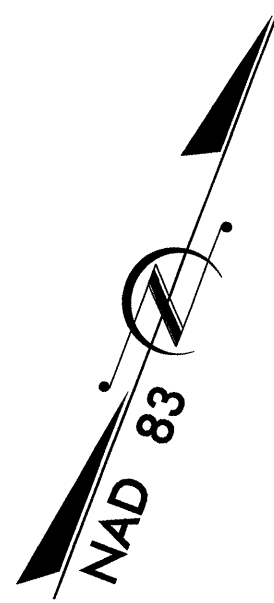
PROJECT REFERENCE NO. <i>B-4859</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

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

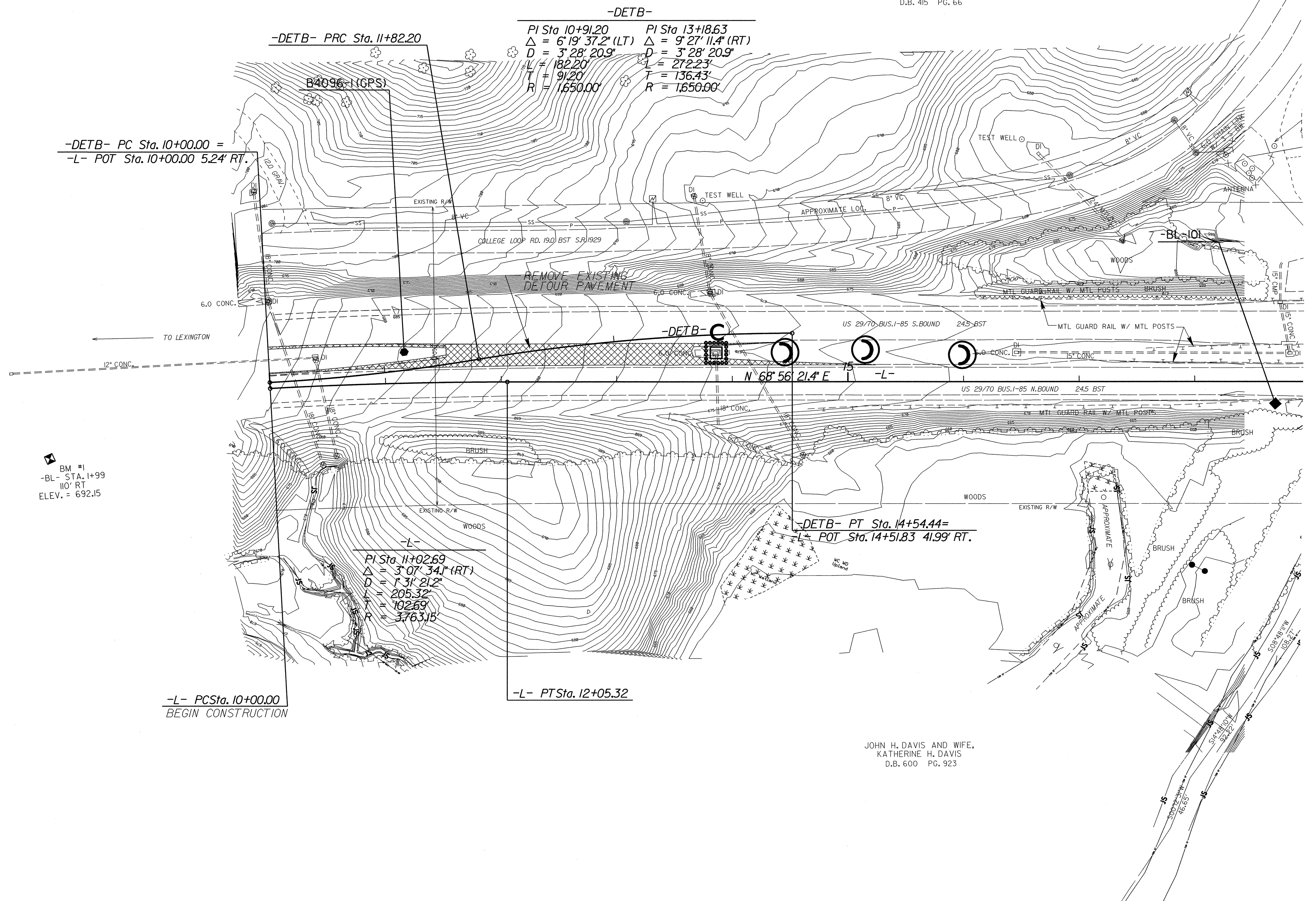


NOTE: REMOVE EXISTING DETOUR PAVEMENT AFTER THE PROJECT HAS BEEN COMPLETED
USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

PROJECT REFERENCE NO. B-4859	SHEET NO. EC-05/CONST.4a
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4a

DAVIDSON COUNTY COMMUNITY COLLEGE
D.B. 415 PG. 66



-DET B- PC Sta. 10+00.00 =
-L- POT Sta. 10+00.00 5.24' RT.

-DET B-
 PI Sta 10+91.20 PI Sta 13+18.63
 $\Delta = 6' 19' 37.2''$ (LT) $\Delta = 9' 27' 11.4''$ (RT)
 $D = 3' 28' 20.9''$ $D = 3' 28' 20.9''$
 $L = 182.20'$ $L = 272.23'$
 $T = 91.20'$ $T = 136.43'$
 $R = 1650.00'$ $R = 1650.00'$

BM #1
-BL- STA. 1+99
110' RT
ELEV. = 692.15

-L-
 PI Sta 11+02.69
 $\Delta = 3' 07' 34.1''$ (RT)
 $D = 1' 31' 21.2''$
 $L = 205.32'$
 $T = 102.69'$
 $R = 3763.15'$

-DET B- PT Sta. 14+54.44=
-L- POT Sta. 14+51.83 41.99' RT.

-L- PCSta. 10+00.00
BEGIN CONSTRUCTION

-L- PTSta. 12+05.32

JOHN H. DAVIS AND WIFE,
KATHERINE H. DAVIS
D.B. 600 PG. 923

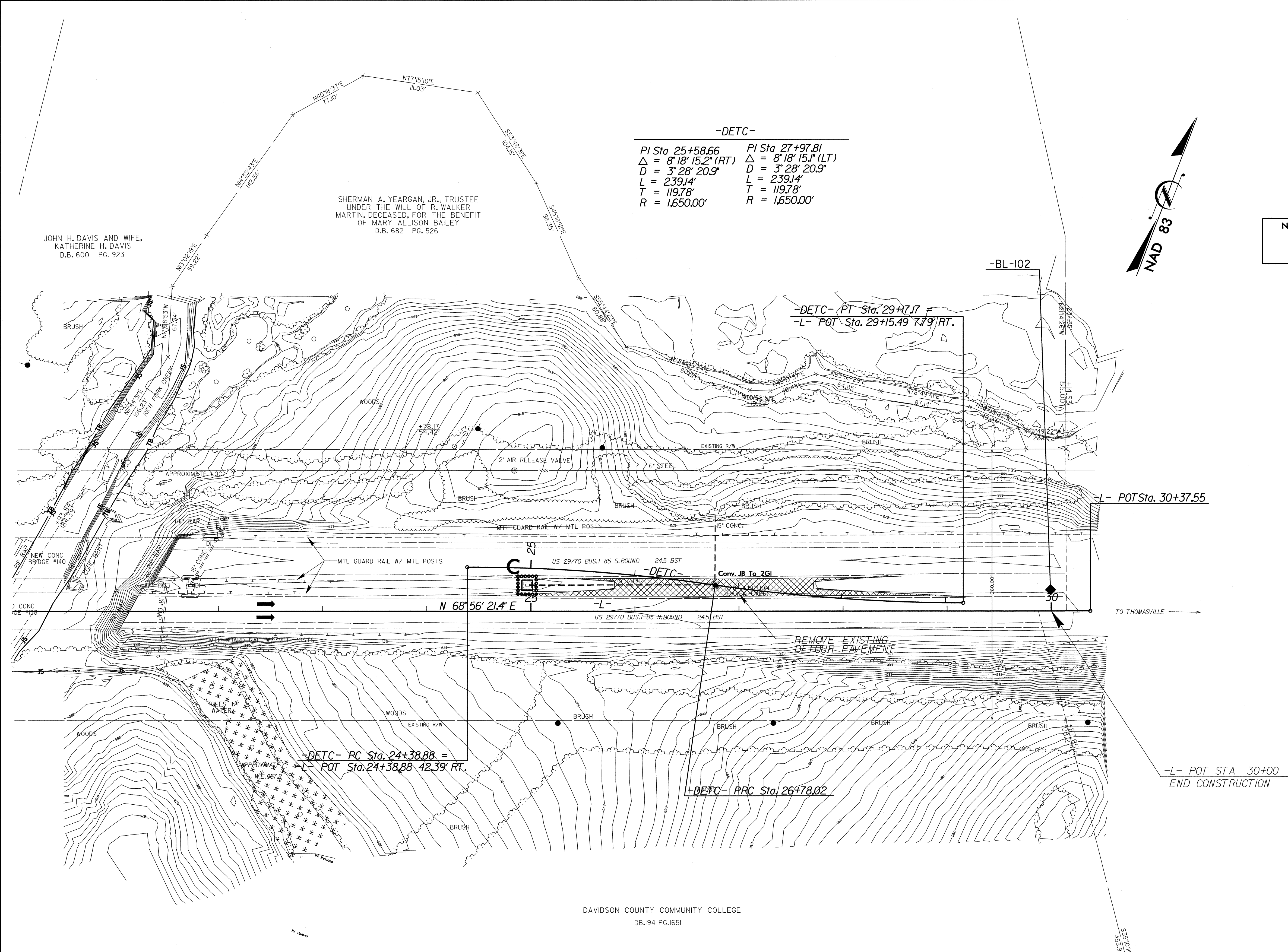
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PROJECT REFERENCE NO. B-4859	SHEET NO. EC-06/CONST.4b
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

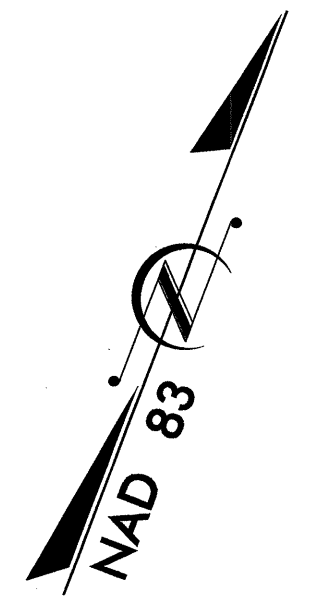
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4b

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



-DETC-

PI Sta 25+58.66	PI Sta 27+97.81
$\Delta = 8^{\circ}18'15.2''$ (RT)	$\Delta = 8^{\circ}18'15.1''$ (LT)
D = 3'28'20.9"	D = 3'28'20.9"
L = 239.14'	L = 239.14'
T = 119.78'	T = 119.78'
R = 1,650.00'	R = 1,650.00'



NOTE: REMOVE EXISTING DETOUR PAVEMENT AFTER THE PROJECT HAS BEEN COMPLETED
USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

DETOUR DESIGN SPEED= 45 MPH MAX.

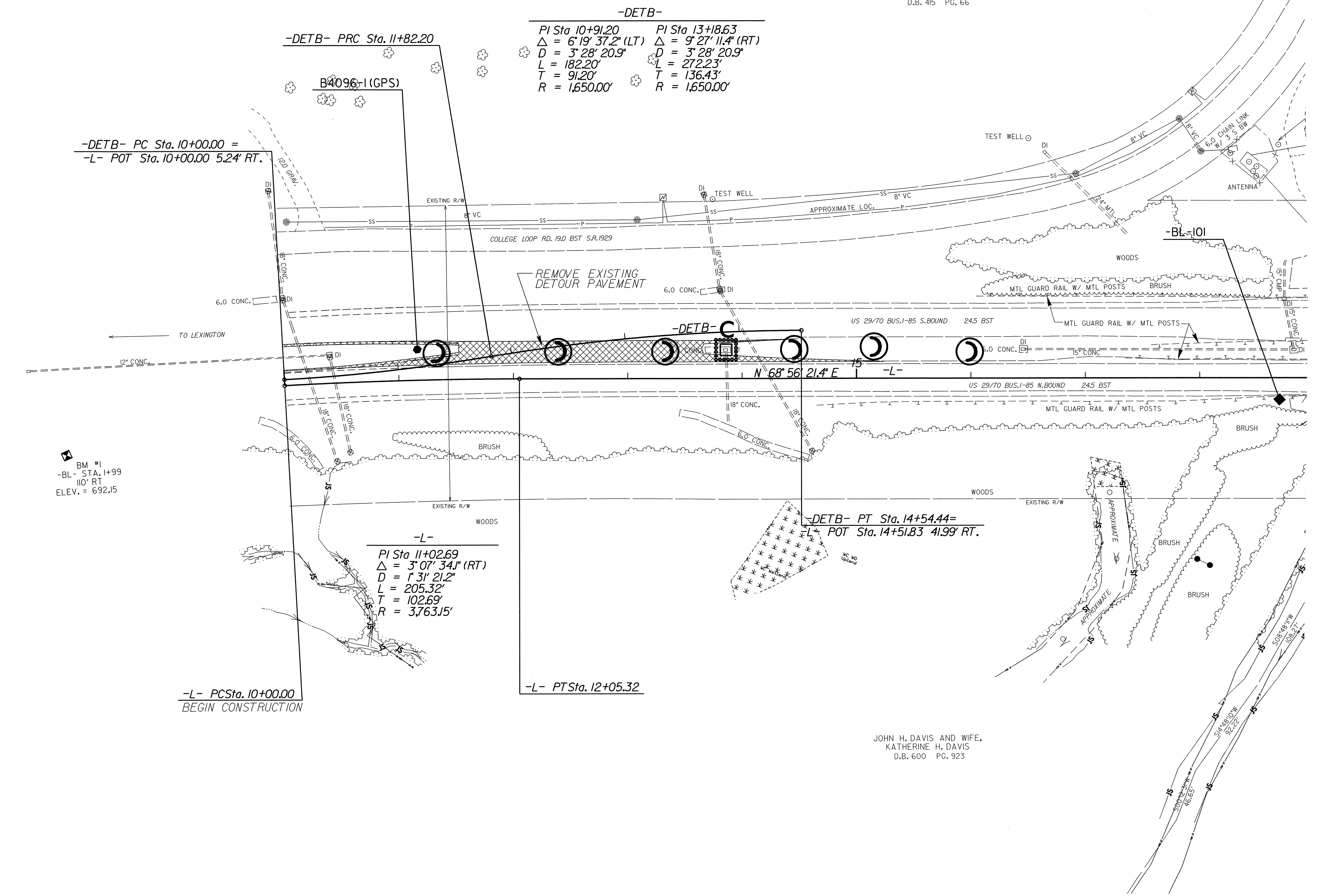
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PROJECT REFERENCE NO. B-4859	SHEET NO. EC-08/CONST.4a
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: REMOVE EXISTING DETOUR PAVEMENT AFTER THE PROJECT HAS BEEN COMPLETED

USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

DAVIDSON COUNTY COMMUNITY COLLEGE
D.B. 415 PG. 66



-DET B-

PI Sta 10+91.20	PI Sta 13+18.63
$\Delta = 6' 19' 37.2''$ (LT)	$\Delta = 9' 27' 11.4''$ (RT)
$D = 3' 28' 20.9''$	$D = 3' 28' 20.9''$
$L = 182.20'$	$L = 272.23'$
$T = 91.20'$	$T = 136.43'$
$R = 1,650.00'$	$R = 1,650.00'$

-DET B- PC Sta. 10+00.00 =
-L- POT Sta. 10+00.00 5.24' RT.

-DET B- PRC Sta. 11+82.20

B4096-1 (GPS)

BM #1
-BL- STA. 1+99
110' RT
ELEV. = 692.15

-L-

PI Sta 11+02.69
$\Delta = 3' 07' 34.1''$ (RT)
$D = 1' 31' 21.2''$
$L = 205.32'$
$T = 102.69'$
$R = 3,763.15'$

-DET B- PT Sta. 14+54.44=
-L- POT Sta. 14+51.83 41.99' RT.

-L- PCSta. 10+00.00
BEGIN CONSTRUCTION

-L- PTSta. 12+05.32

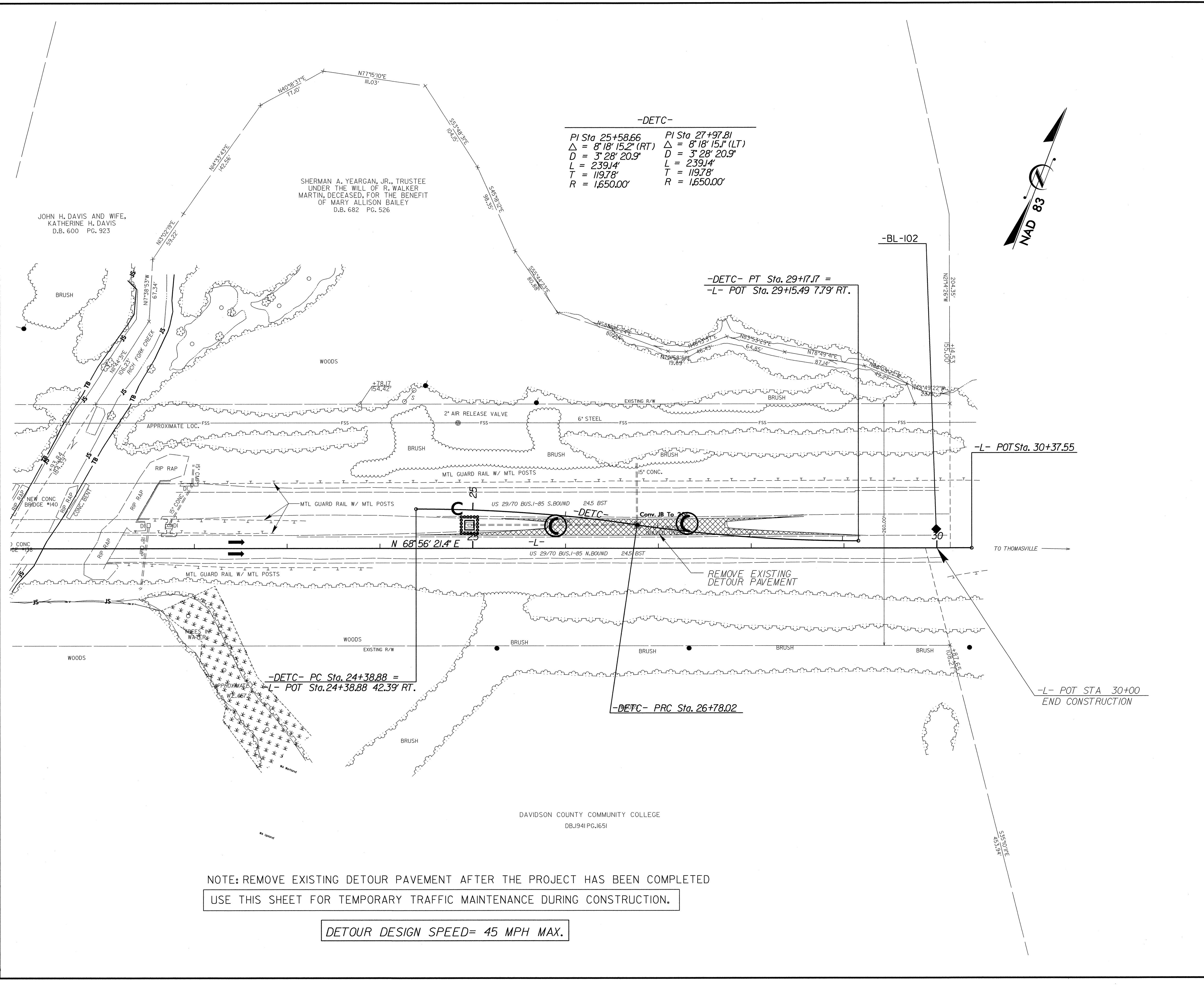
JOHN H. DAVIS AND WIFE,
KATHERINE H. DAVIS
D.B. 600 PG. 923

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PROJECT REFERENCE NO.	SHEET NO.
B-4859	EC-09/CONST.4b
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99



-DETC-

PI Sta 25+58.66	PI Sta 27+97.81
$\Delta = 8' 18' 15.2''$ (RT)	$\Delta = 8' 18' 15.1''$ (LT)
D = 3' 28' 20.9"	D = 3' 28' 20.9"
L = 239.14'	L = 239.14'
T = 119.78'	T = 119.78'
R = 1,650.00'	R = 1,650.00'

-DETC- PT Sta. 29+17.77 =
-L- POT Sta. 29+15.49 7.79' RT.

-L- POT Sta. 30+37.55

-DETC- PC Sta. 24+38.88 =
-L- POT Sta. 24+38.88 42.39' RT.

-DETC- PRC Sta. 26+78.02

-L- POT STA 30+00
END CONSTRUCTION

NOTE: REMOVE EXISTING DETOUR PAVEMENT AFTER THE PROJECT HAS BEEN COMPLETED
USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.

DETOUR DESIGN SPEED= 45 MPH MAX.

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DAVIDSON COUNTY COMMUNITY COLLEGE
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