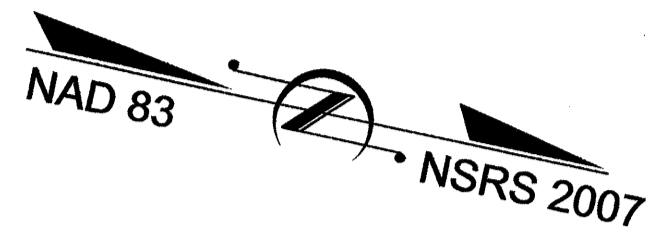


**PROJECT: B-2500A**

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

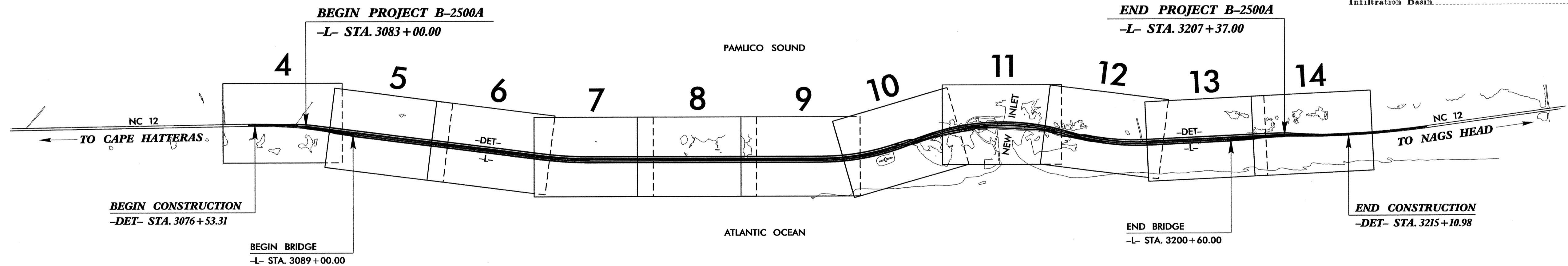
**LOCATION: PHASE II, NC 12 LONG TERM IMPROVEMENTS AT PEA ISLAND**  
**TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE**



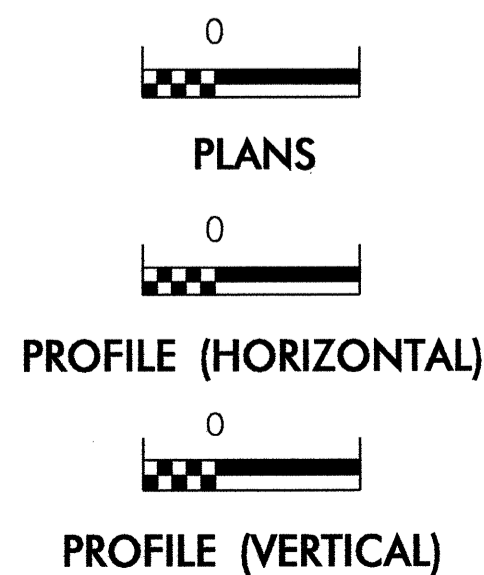
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2500A	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	

**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	▲
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	▭



**GRAPHIC SCALE**



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**

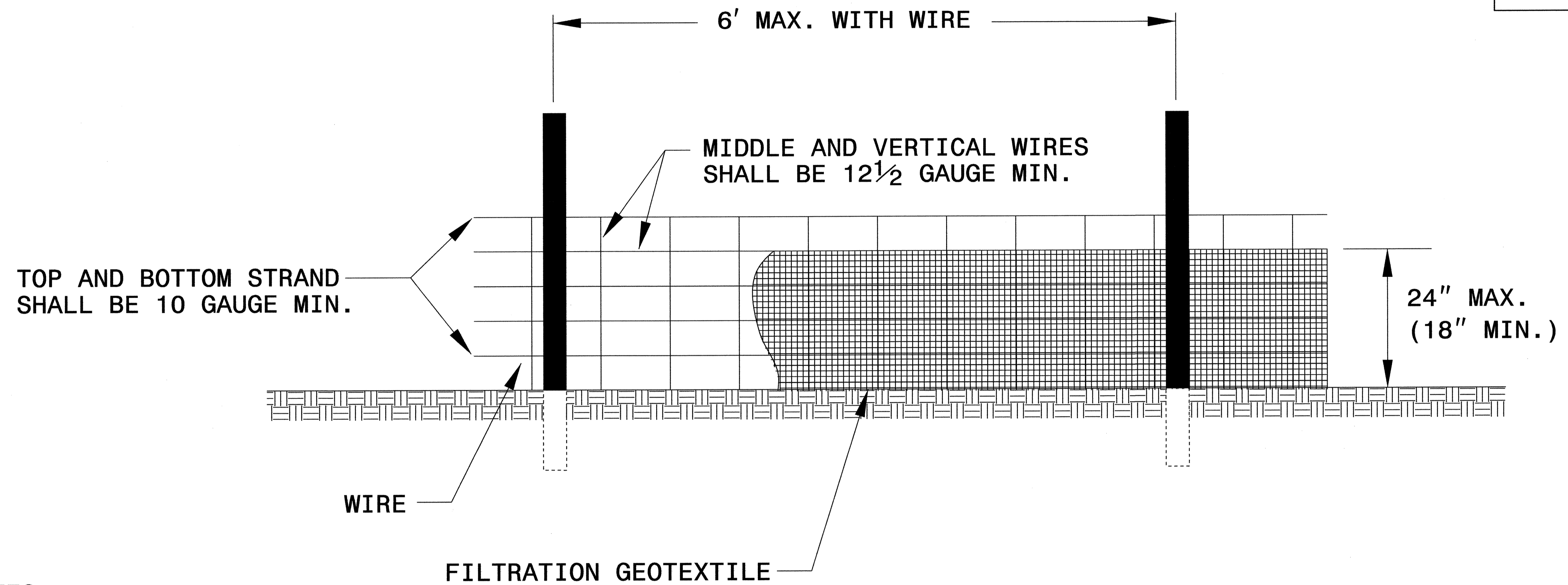
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	

28 SEP 2010 09:08 R:\env\p\env\p\nc12\PEA.ec.Tsh\dgn

PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# REINFORCED TEMPORARY SILT FENCE DETAIL



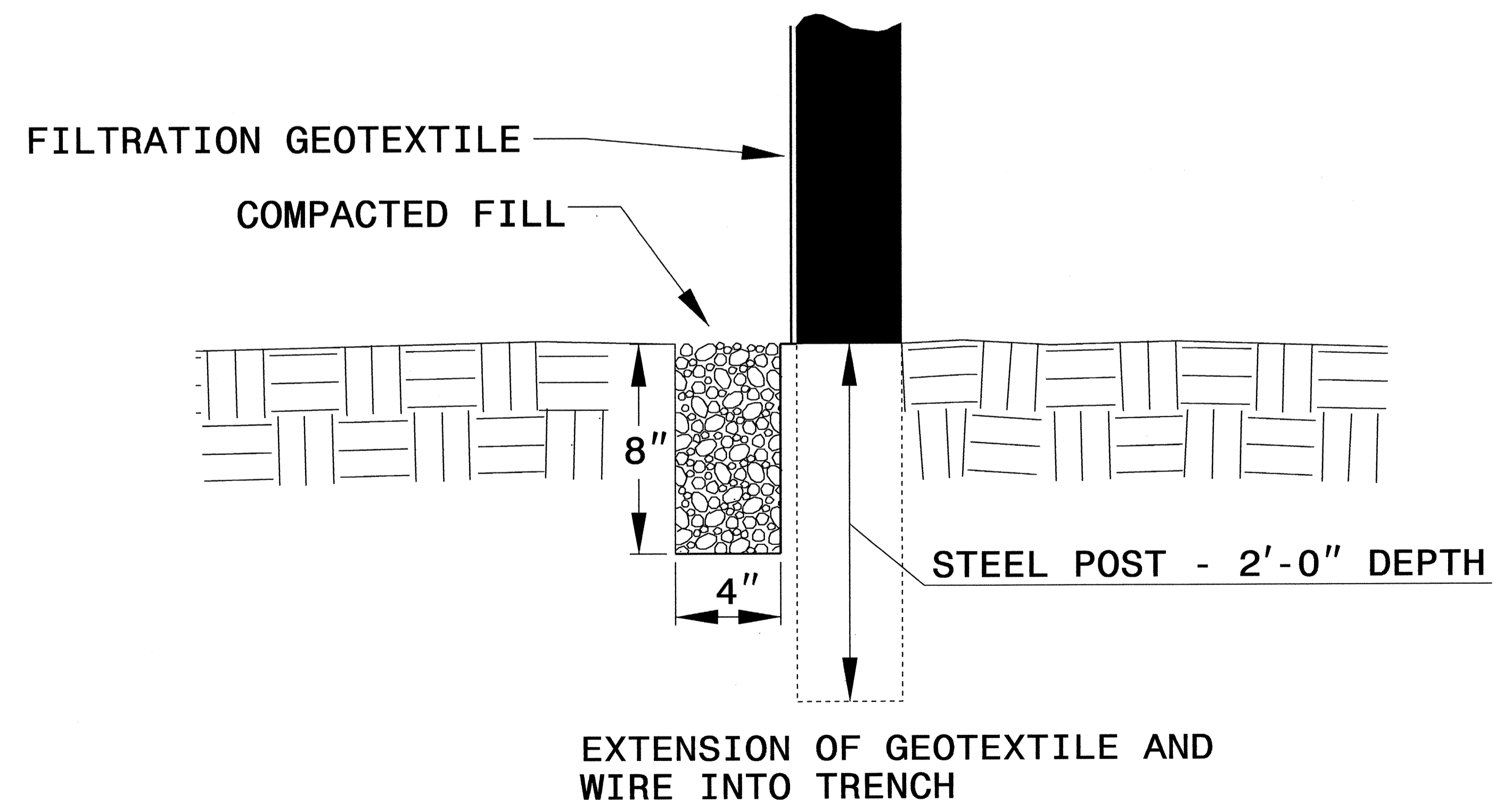
## NOTES

USE FILTRATION GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.

USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

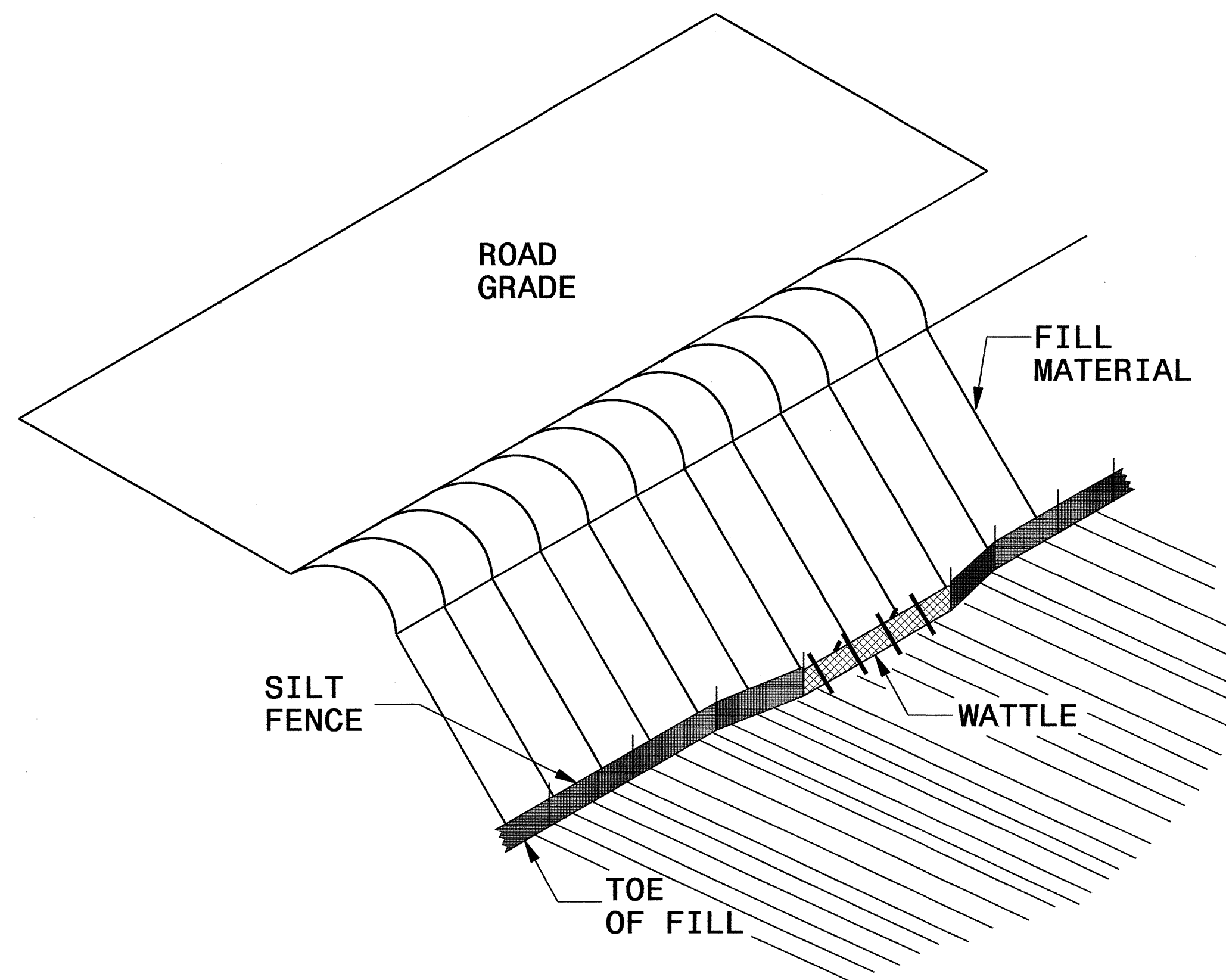
PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

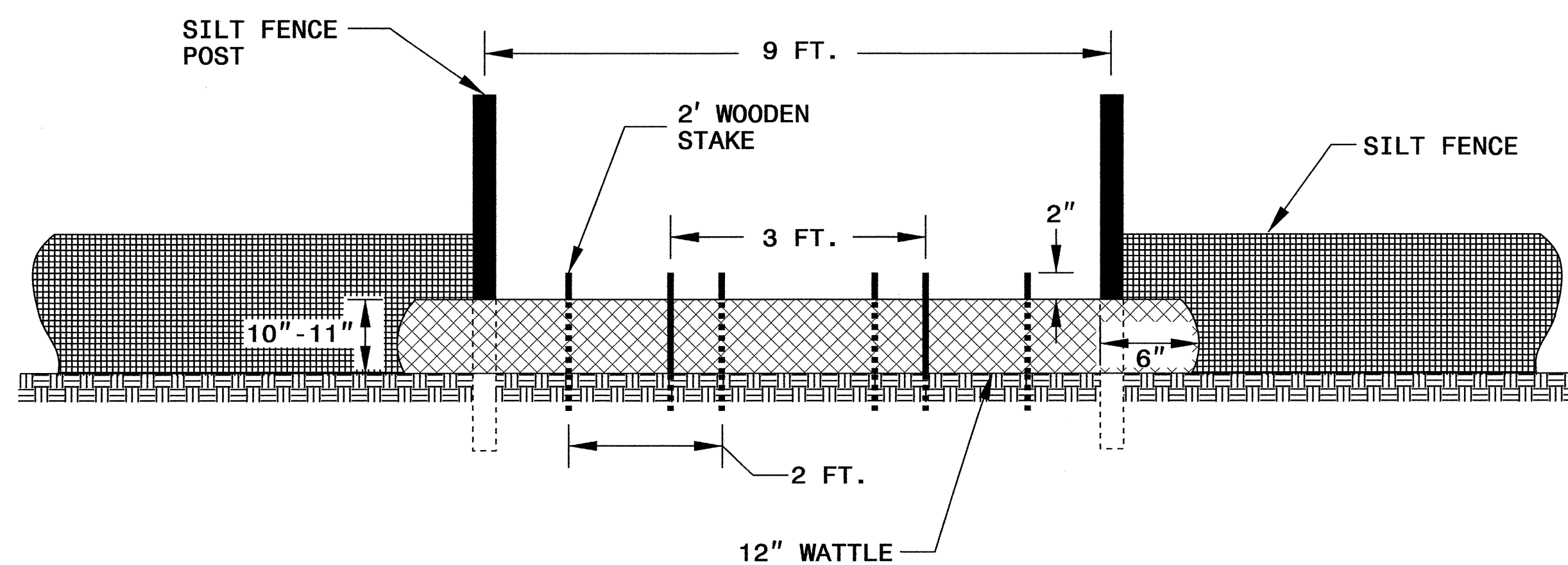


# SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**ISOMETRIC VIEW**



**VIEW FROM SLOPE**

**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.

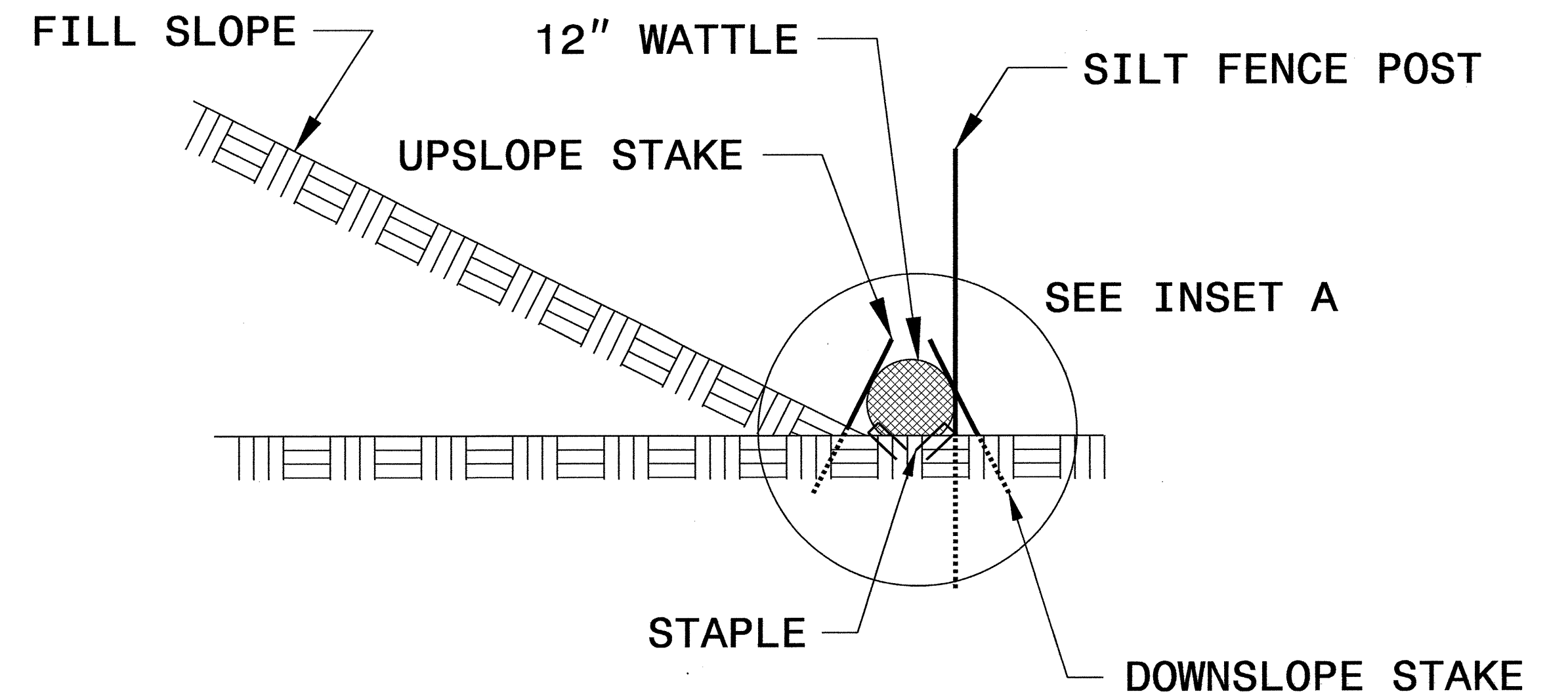
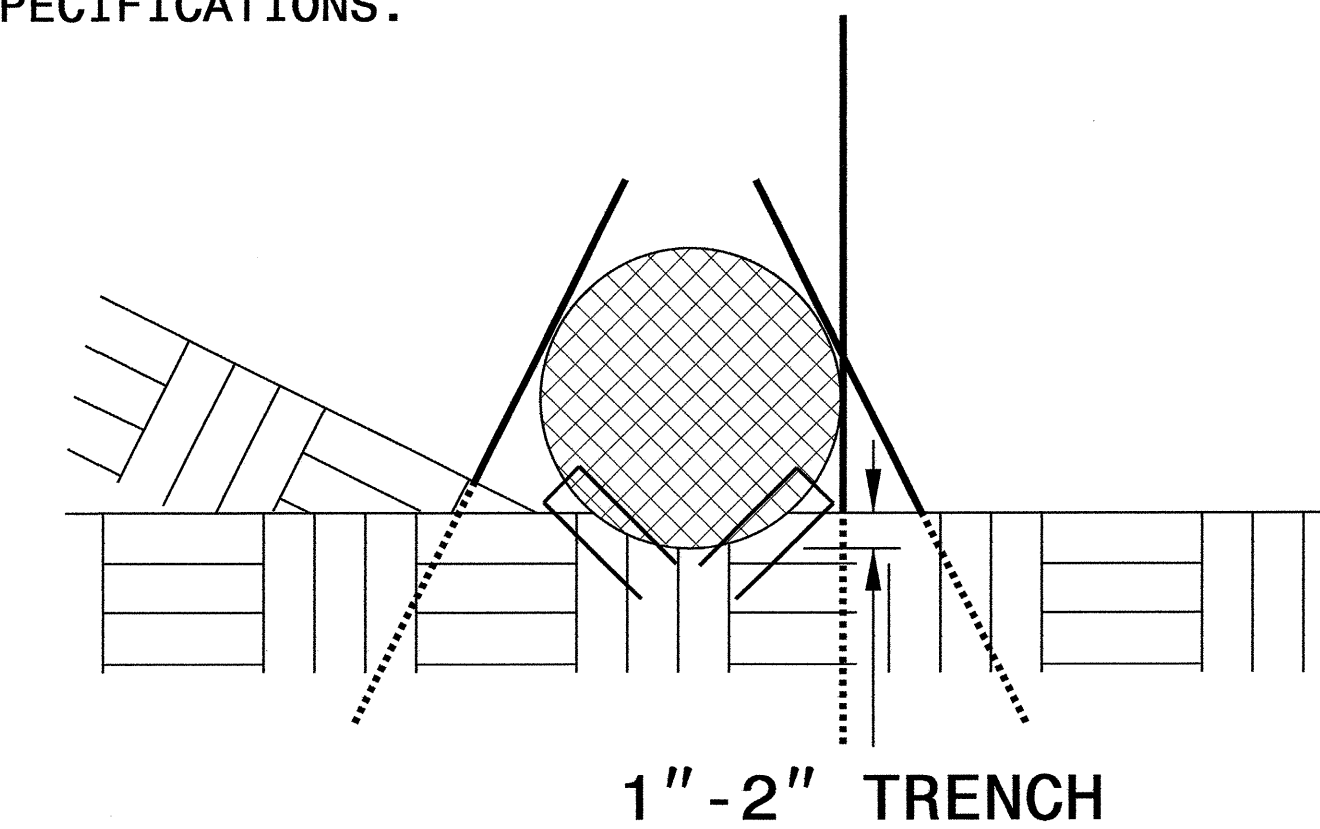
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

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.

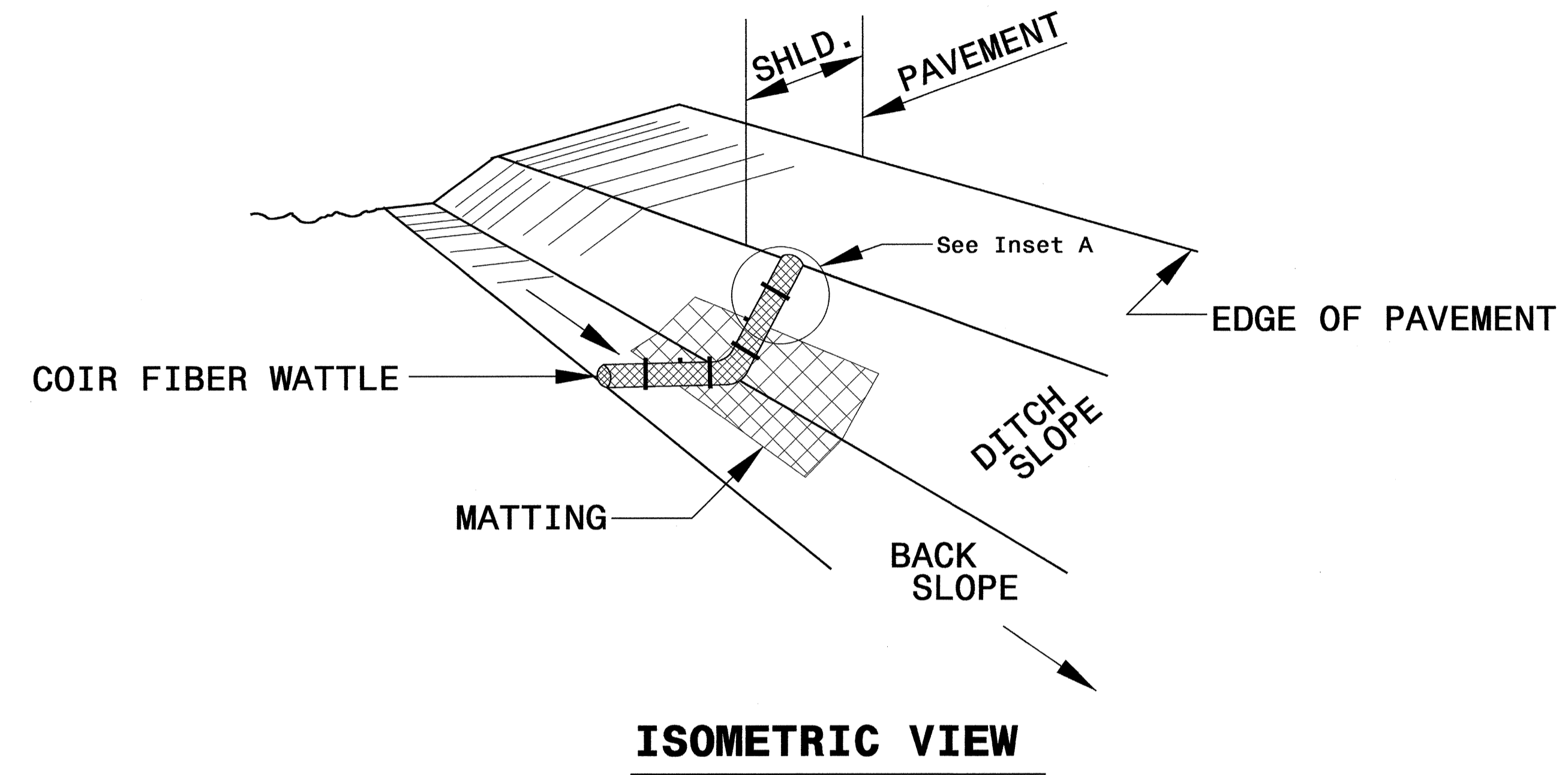
**INSET A**



**SIDE VIEW**

PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER WATTLE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

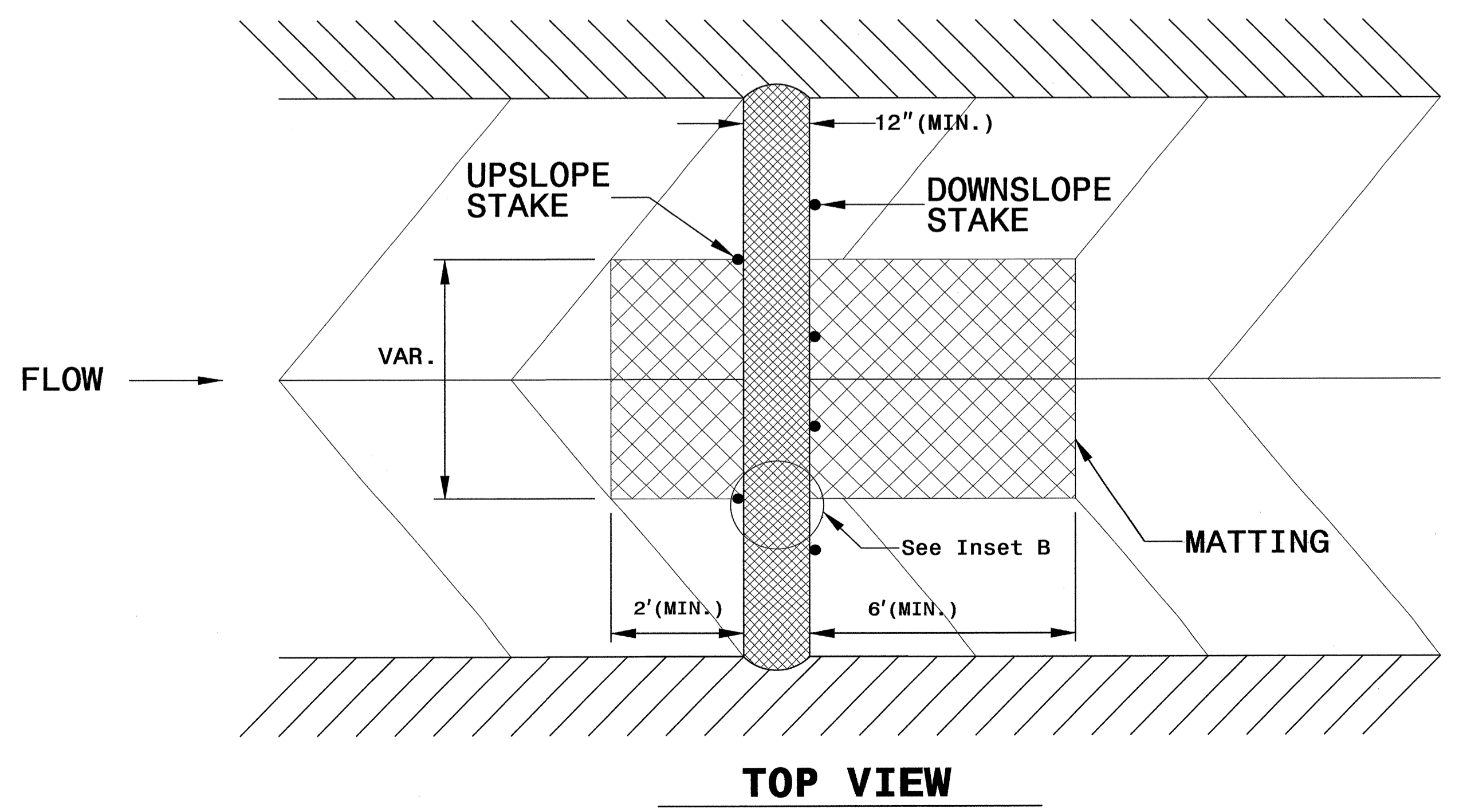
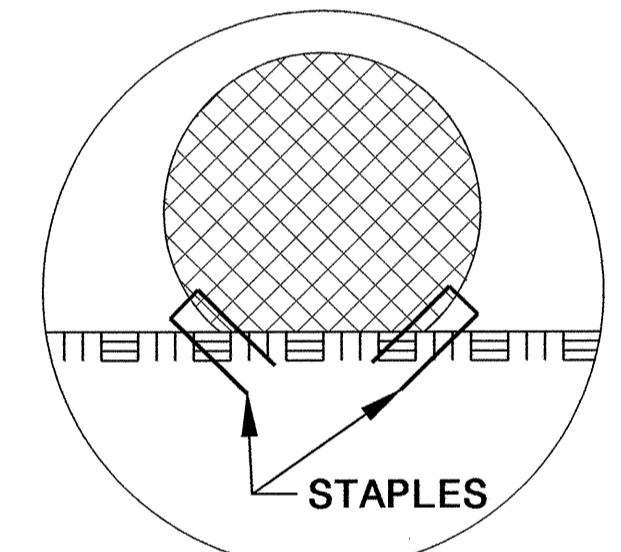
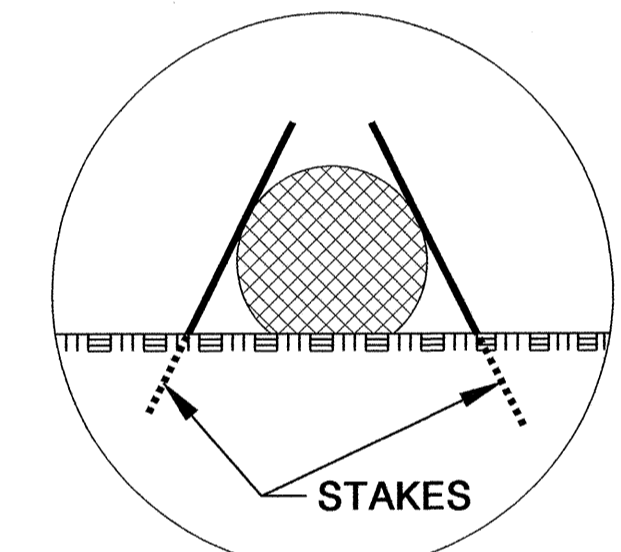
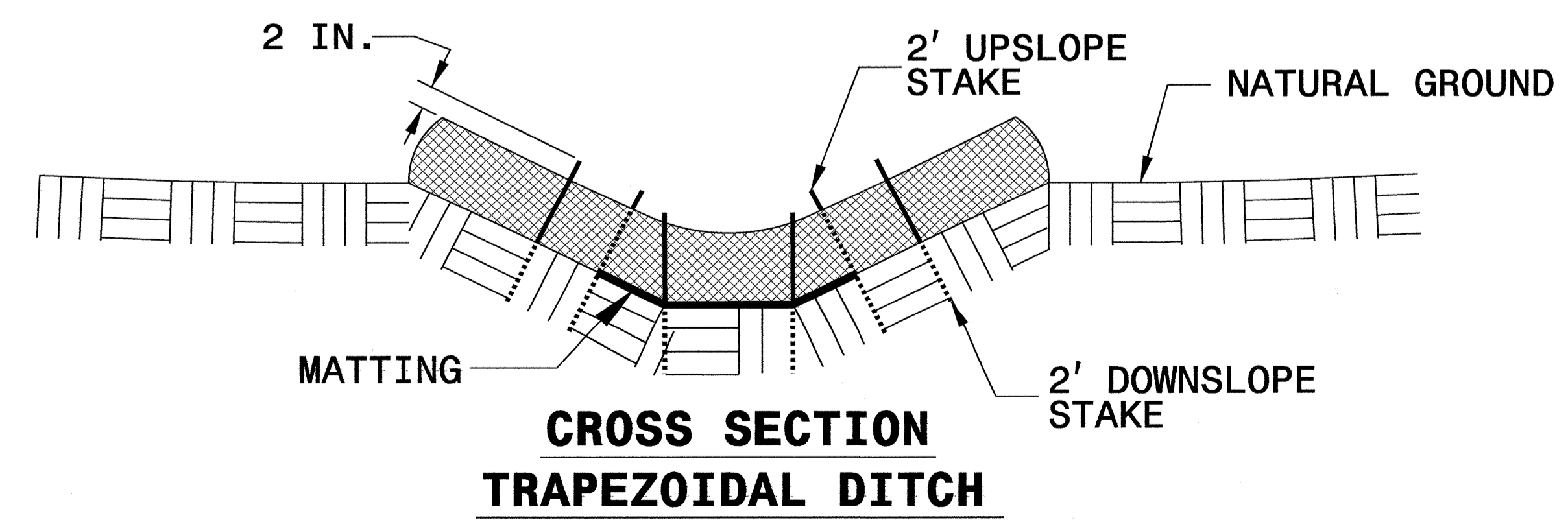
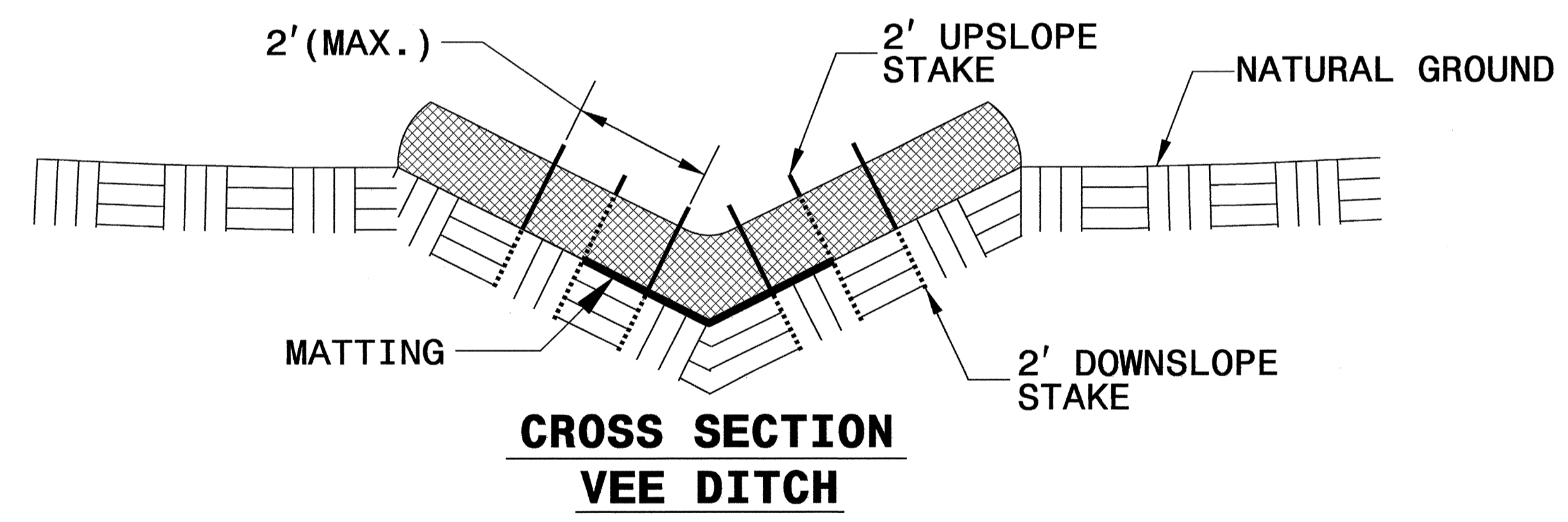
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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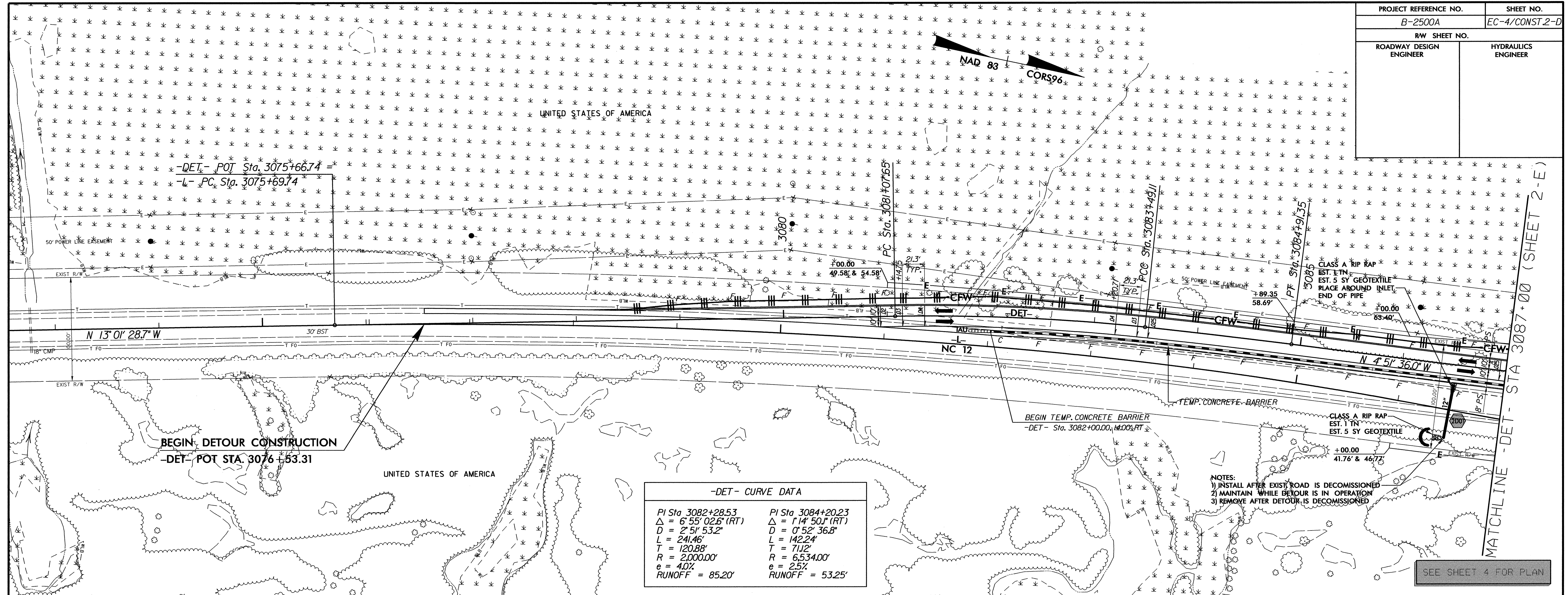


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PROJECT REFERENCE NO. <i>B-2500A</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# ***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.

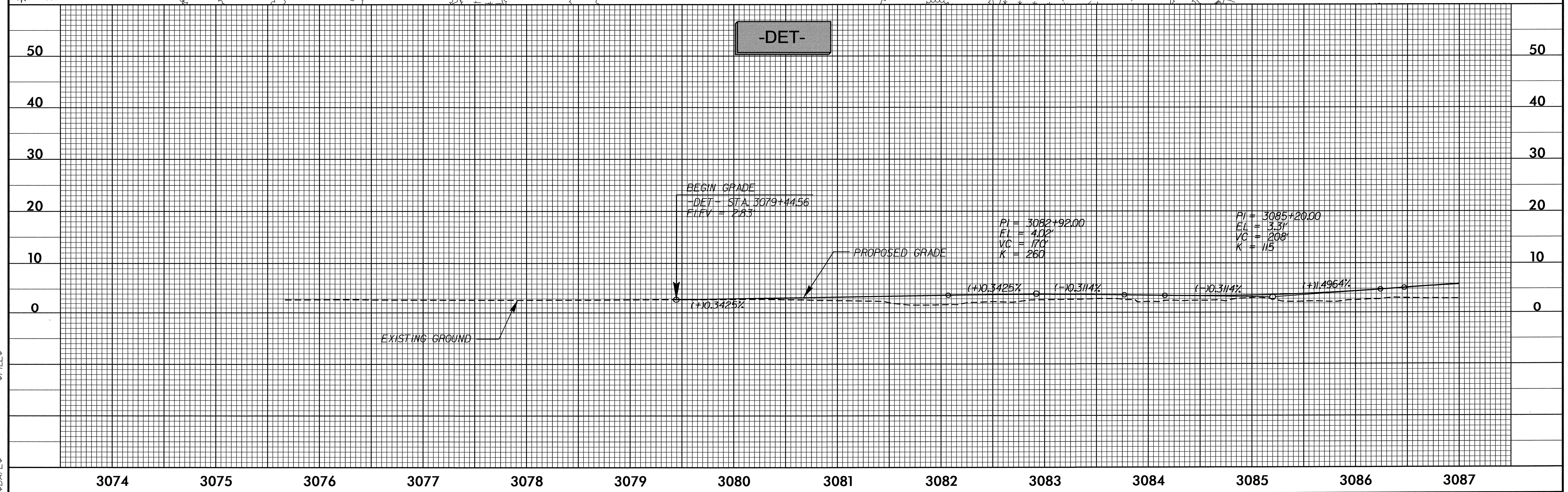


-DET- CURVE DATA

PI Sta 3082+28.53 Δ = 6°55'02.6" (RT) D = 2°51'53.2" L = 241.46' T = 120.88' R = 2,000.00' e = 4.0% RUNOFF = 85.20'	PI Sta 3084+20.23 Δ = 1°14'50.1" (RT) D = 0°52'36.8" L = 142.24' T = 71.12' R = 6,534.00' e = 2.5% RUNOFF = 53.25'
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NOTES:  
1) INSTALL AFTER EXIST ROAD IS DECOMMISSIONED  
2) MAINTAIN WHILE DETOUR IS IN OPERATION  
3) REMOVE AFTER DETOUR IS DECOMMISSIONED

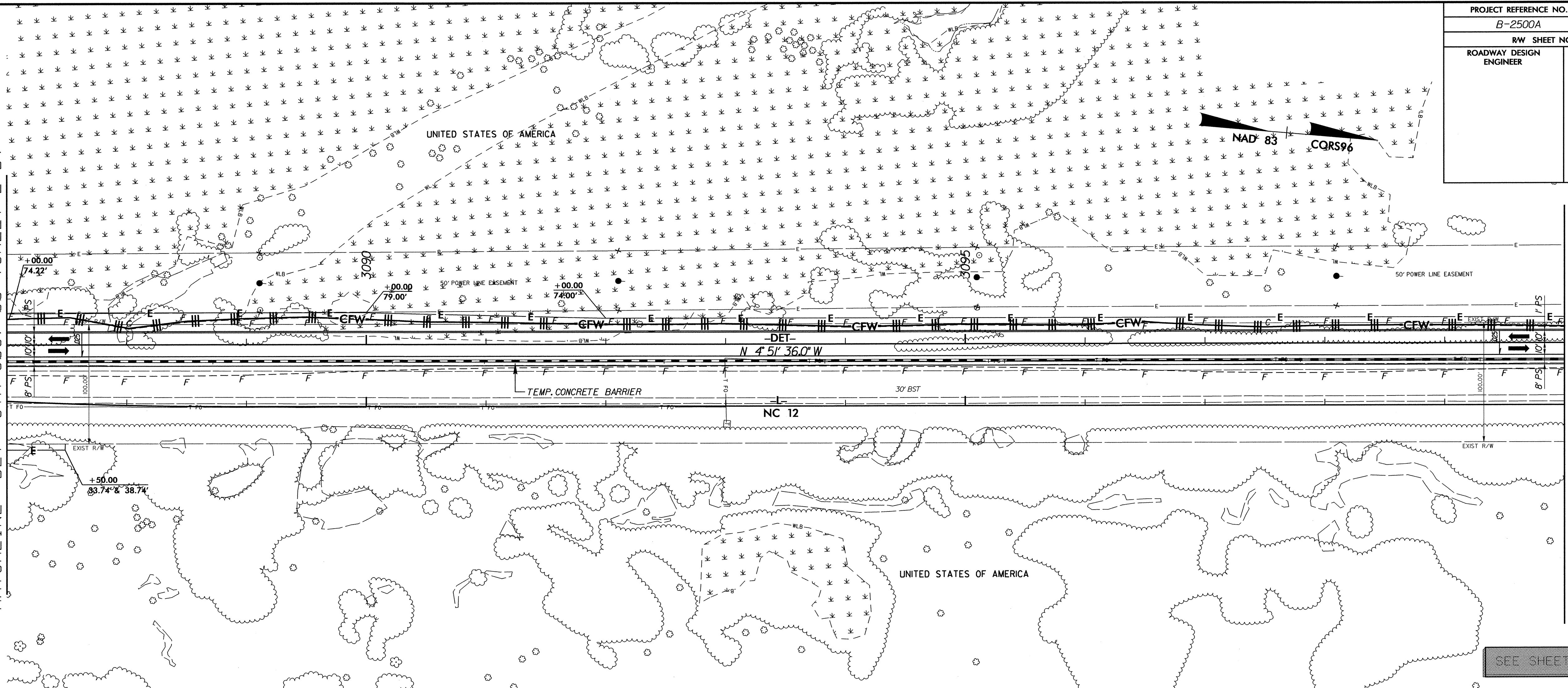
SEE SHEET 4 FOR PLAN



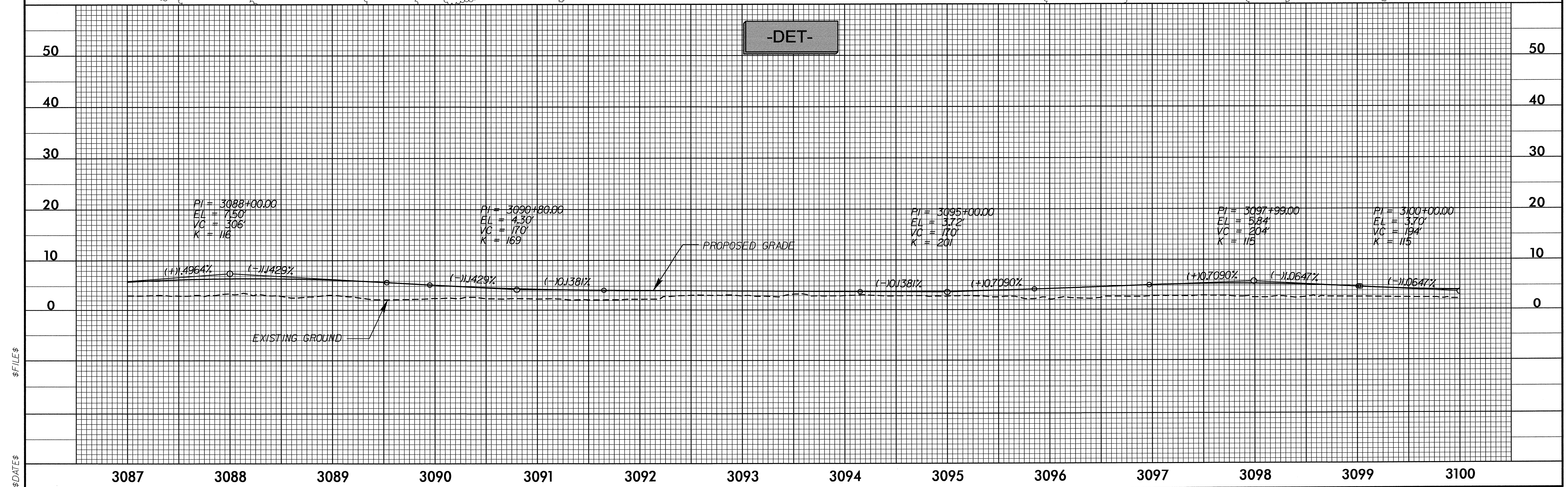
PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-5/CONST.2-E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -DET- STA 3087+00 (SHEET 2-D)

MATCHLINE -DET- STA 3100+00 (SHEET 2-F)



SEE SHEET 5 FOR PLAN



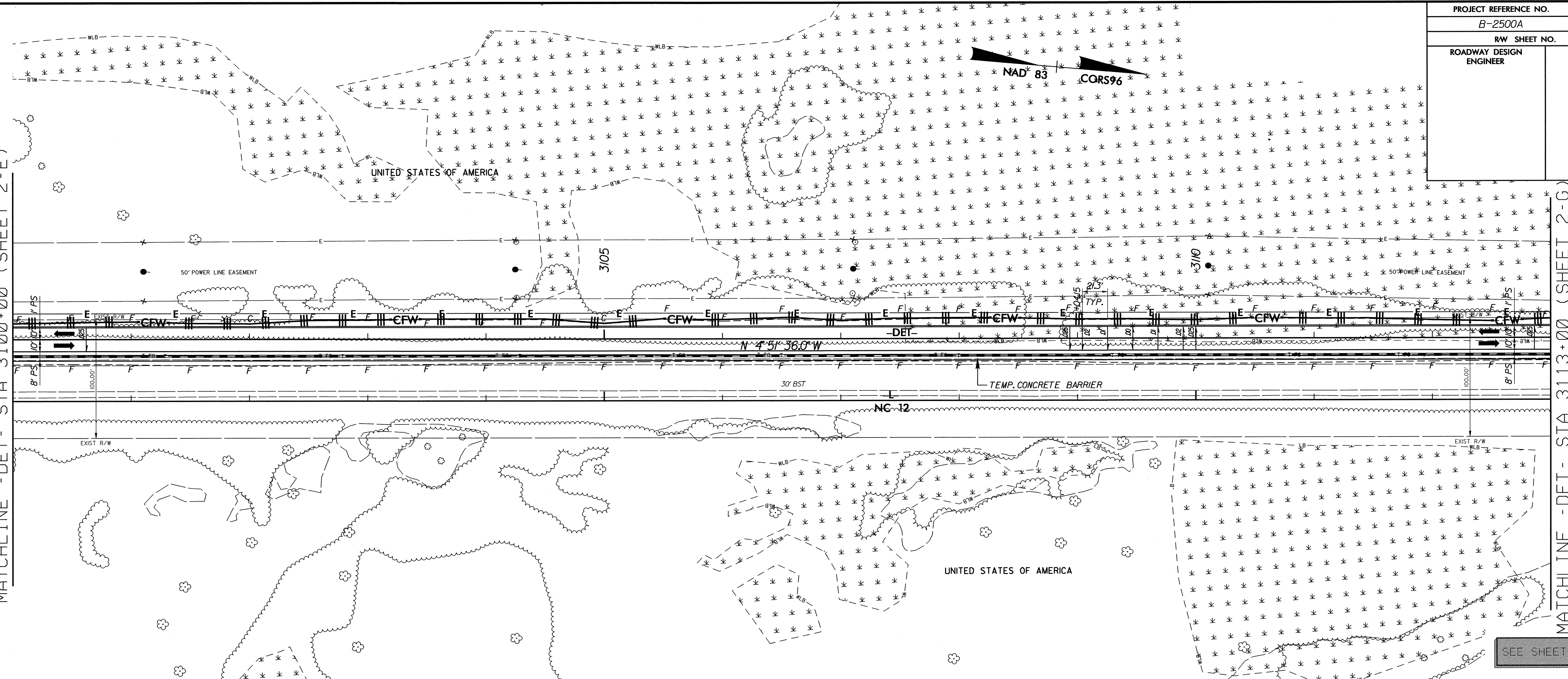
-DET-

\$DATE\$

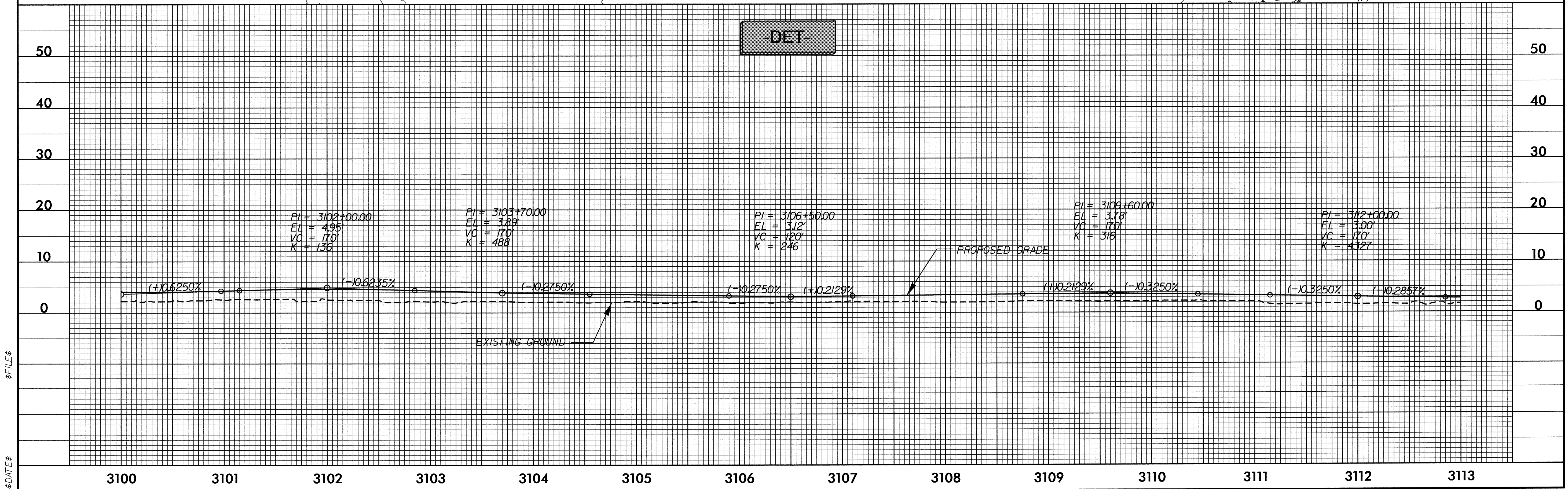
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MATCHLINE - DET - STA 3100+00 (SHEET 2-E)

MATCHLINE - DET - STA 3113+00 (SHEET 2-G)



SEE SHEET 6 FOR PLAN



-DET-

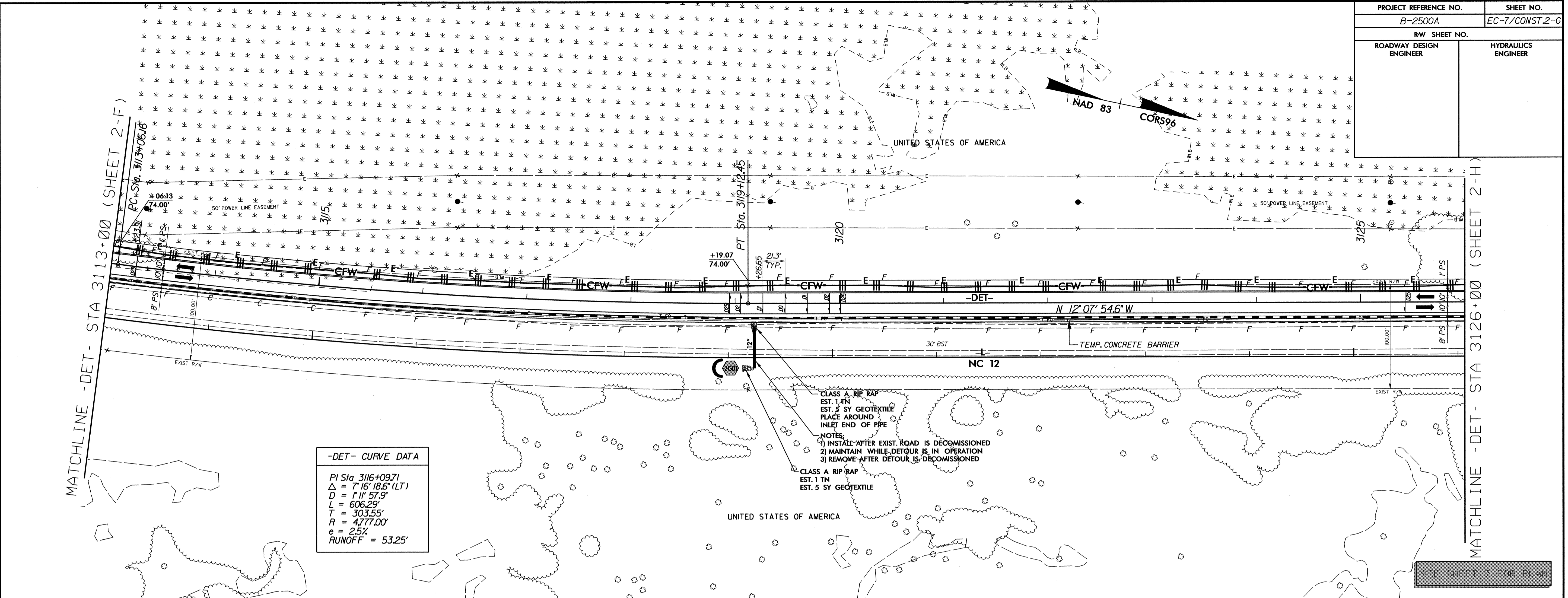
\$DATE\$

\$FILE\$



MATCHLINE -DET- STA 3113+00 (SHEET 2-F)

MATCHLINE -DET- STA 3126+00 (SHEET 2-H)



CLASS A RIP RAP  
EST. 1 TN  
EST. 5 SY GEOTEXTILE  
PLACE AROUND  
INLET END OF PIPE

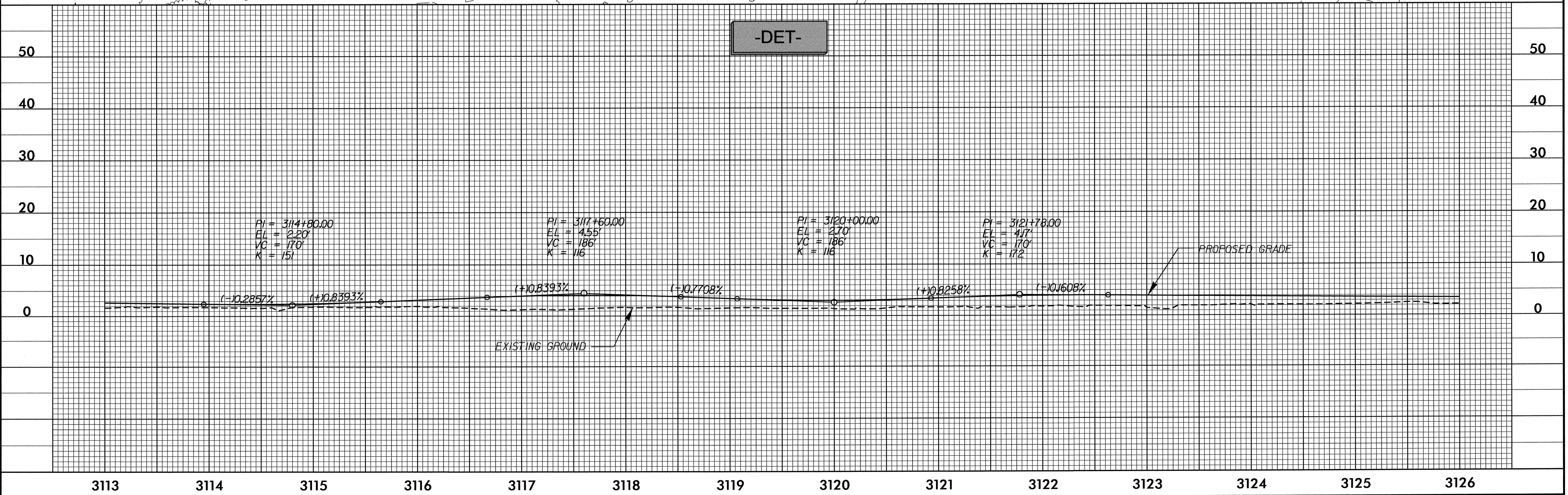
NOTES:  
1) INSTALL AFTER EXIST. ROAD IS DECOMMISSIONED  
2) MAINTAIN WHILE DETOUR IS IN OPERATION  
3) REMOVE AFTER DETOUR IS DECOMMISSIONED

CLASS A RIP RAP  
EST. 1 TN  
EST. 5 SY GEOTEXTILE

**-DET- CURVE DATA**

PI Sta. 3116+09.71  
 $\Delta = 7' 16'' 18.6''$  (LT)  
 $D = 1' 11'' 57.9''$   
 $L = 606.29'$   
 $T = 303.55'$   
 $R = 4777.00'$   
 $e = 2.5\%$   
 RUNOFF = 53.25'

SEE SHEET 7 FOR PLAN



-DET-

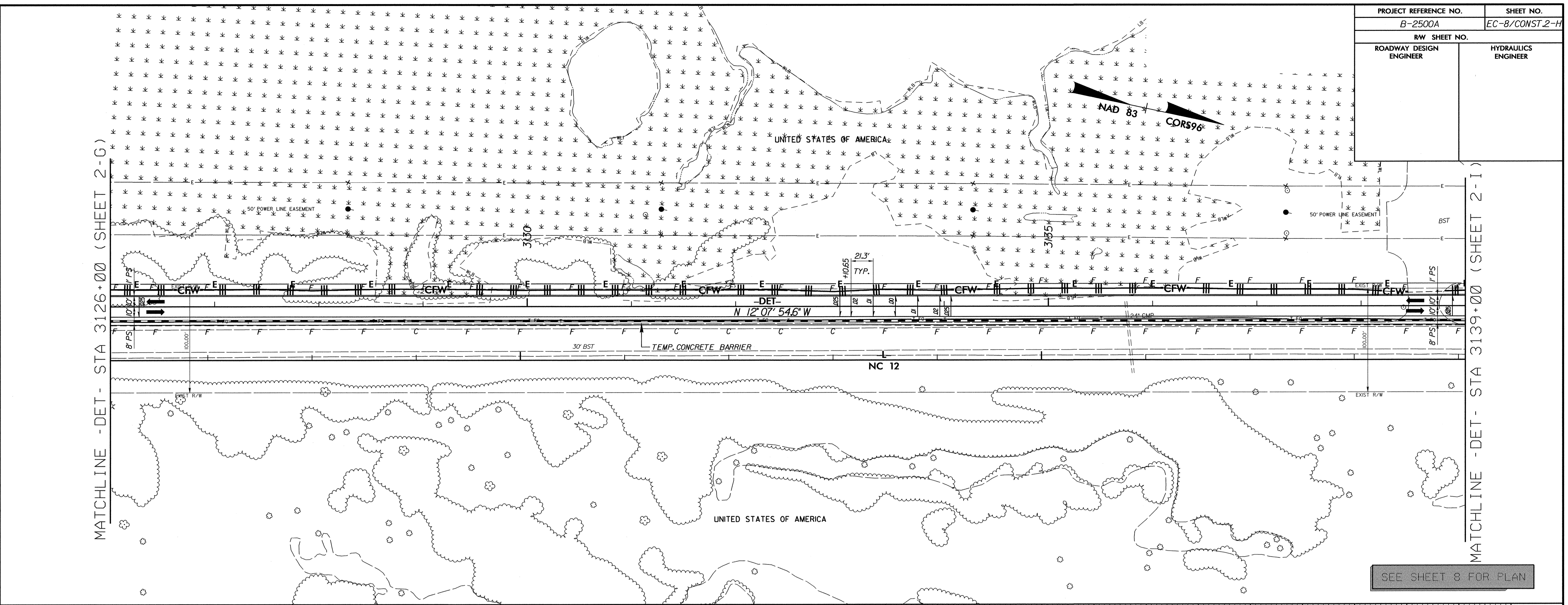
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\$DATES\$

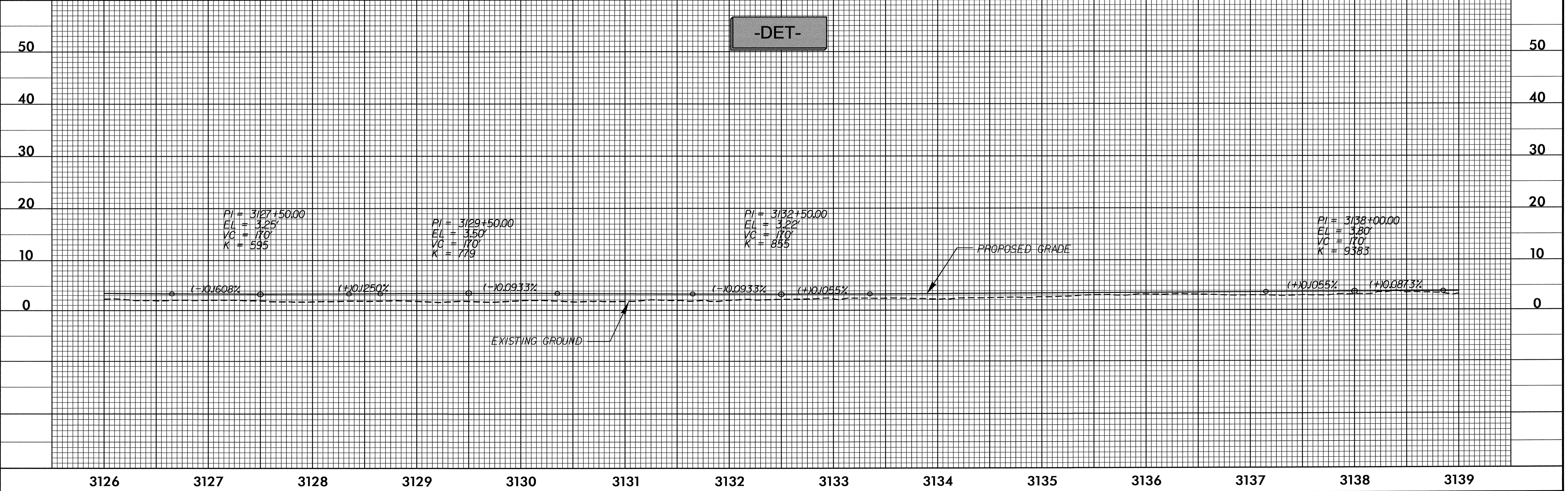
PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-8/CONST.2-H
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE - DET - STA 3126+00 (SHEET 2-G)

MATCHLINE - DET - STA 3139+00 (SHEET 2-I)



SEE SHEET 8 FOR PLAN



-DET-

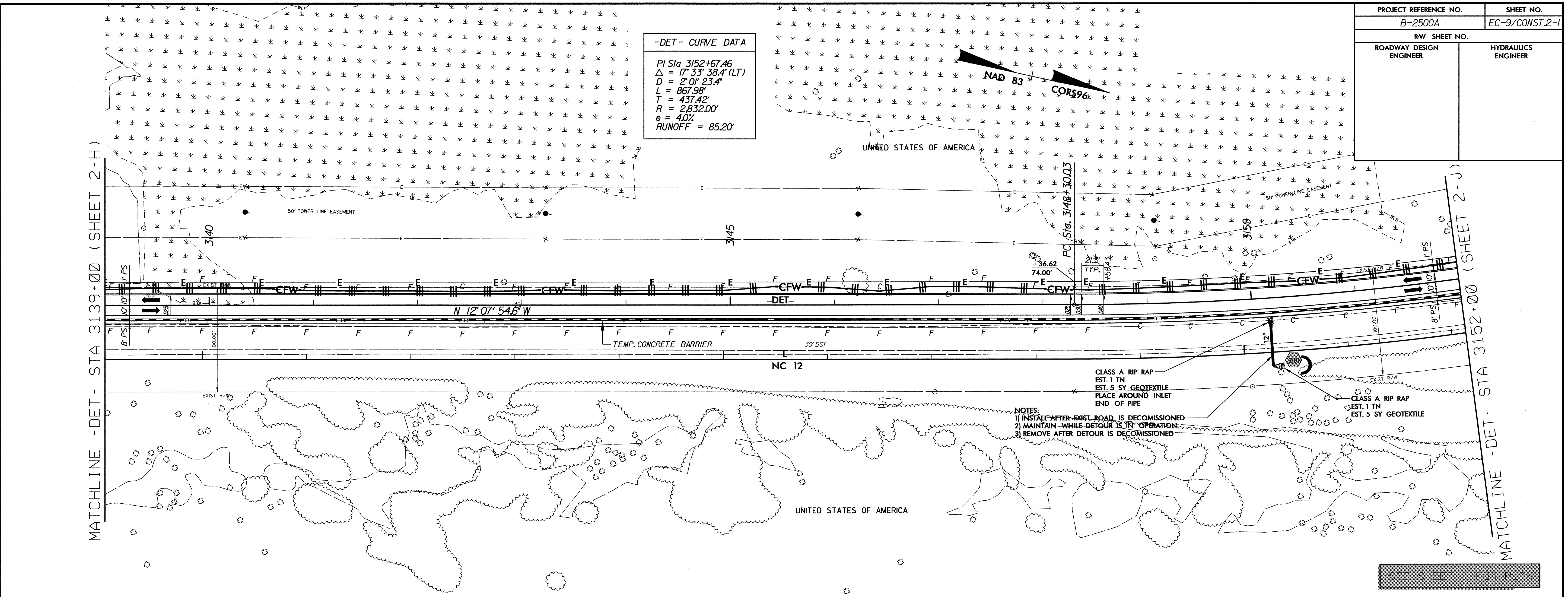
\$DATE\$

3126    3127    3128    3129    3130    3131    3132    3133    3134    3135    3136    3137    3138    3139

**-DET- CURVE DATA**  
 PI Sta 3152+67.46  
 $\Delta = 17' 33'' 38.4'' (LT)$   
 $D = 2' 01'' 23.4''$   
 $L = 867.98'$   
 $T = 437.42'$   
 $R = 2,832.00'$   
 $e = 4.0\%$   
 RUNOFF = 85.20'

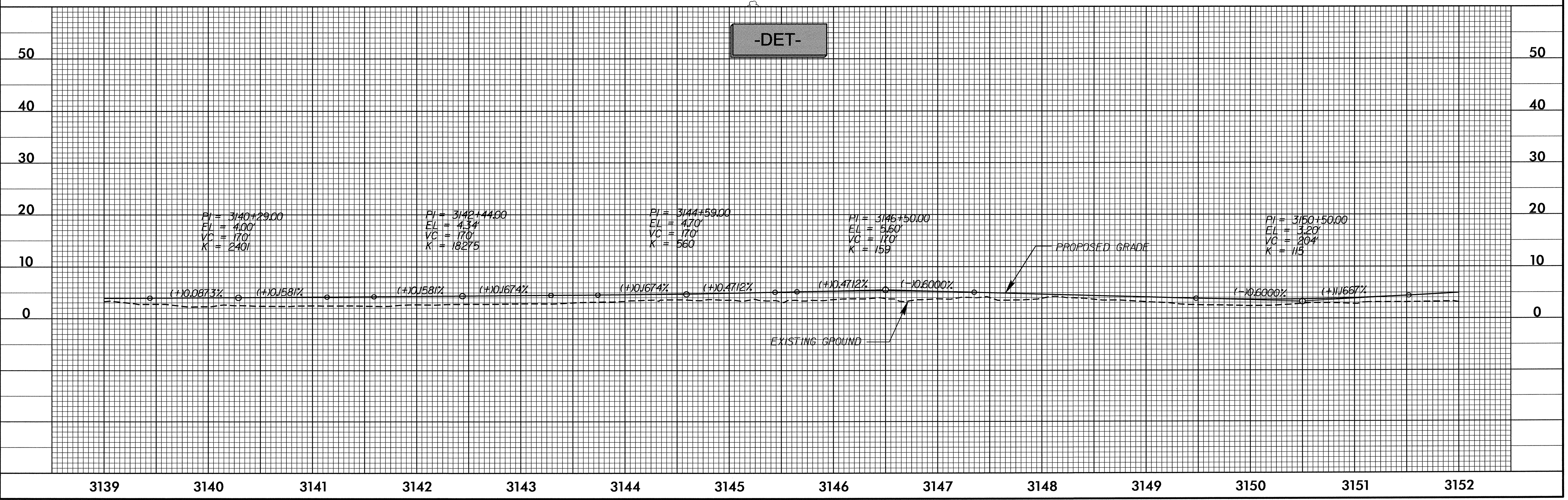
MATCHLINE -DET- STA 3139+00 (SHEET 2-H)

MATCHLINE -DET- STA 3152+00 (SHEET 2-J)



- NOTES:**
- 1) INSTALL AFTER EXIST. ROAD IS DECOMMISSIONED
  - 2) MAINTAIN WHILE DETOUR IS IN OPERATION
  - 3) REMOVE AFTER DETOUR IS DECOMMISSIONED

SEE SHEET 9 FOR PLAN



**-DET-**

\$DATE\$

3139      3140      3141      3142      3143      3144      3145      3146      3147      3148      3149      3150      3151      3152

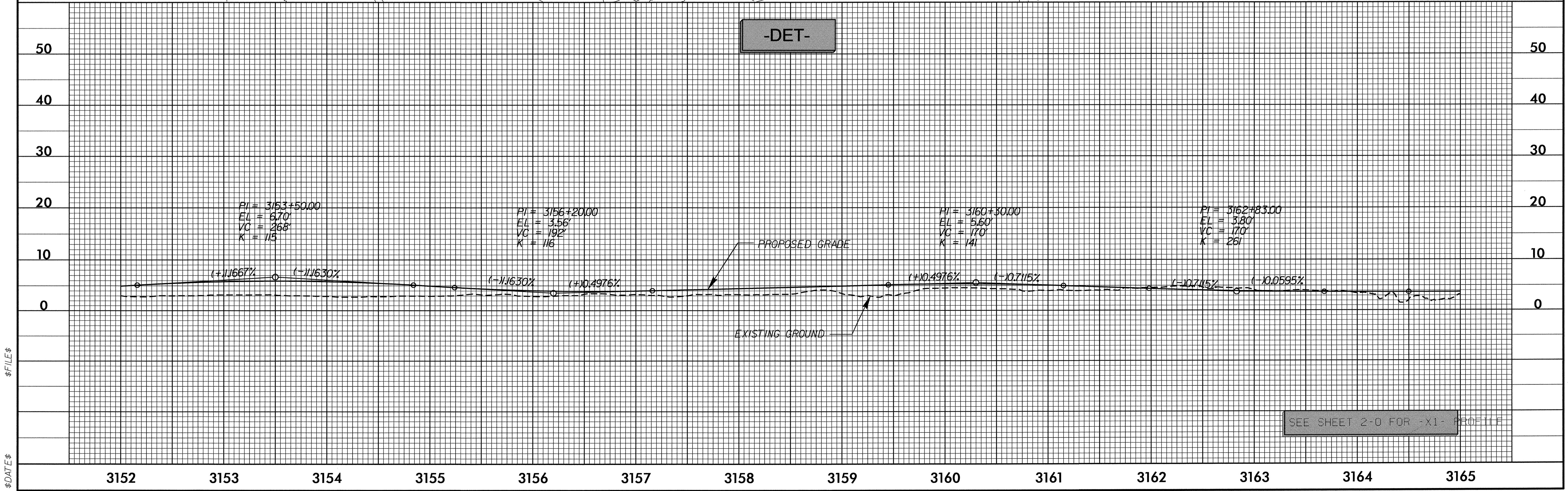
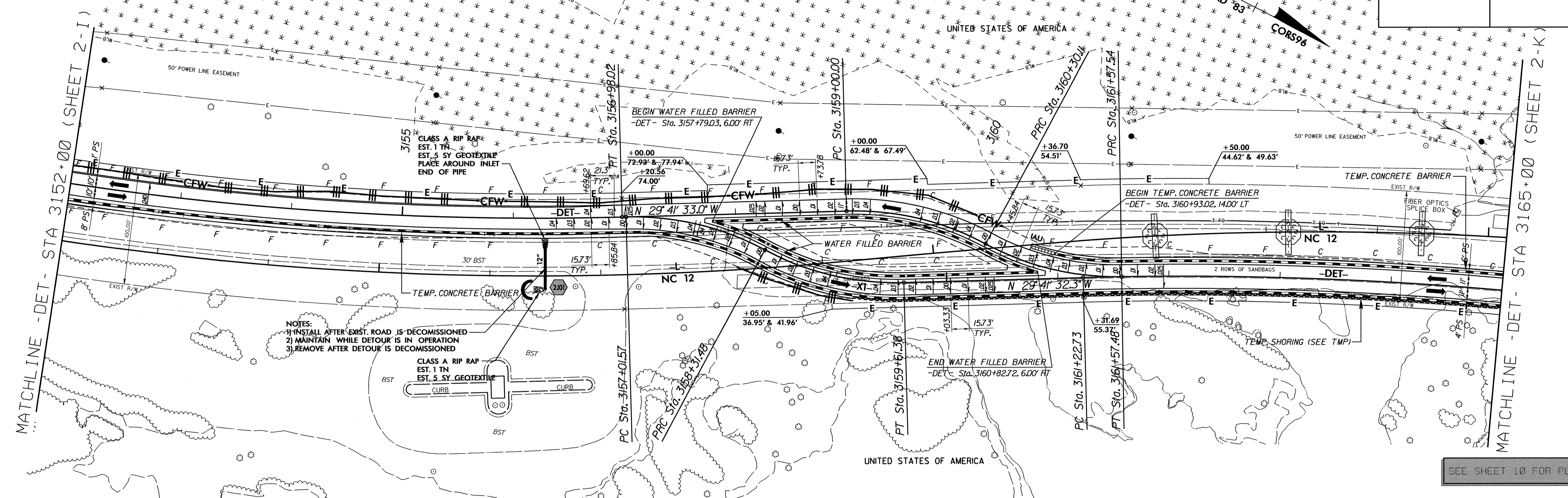
PROJECT REFERENCE NO.	SHEET NO.
B-2500A	EC-10/CONST-2-J
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

-DET- CURVE DATA

PI Sta 3152+67.46 Δ = 17° 33' 38.4" (LT) D = 2' 01" 23.4" L = 867.98' T = 437.42' R = 2,832.00' e = 4.0% RUNOFF = 85.20'	PI Sta 3159+66.56 Δ = 29° 49' 07.6" (RT) D = 22' 55" 05.9" L = 130.11' T = 66.56' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3160+95.24 Δ = 29° 12' 15.4" (LT) D = 22' 55" 05.9" L = 127.43' T = 65.13' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3164+05.24 Δ = 8° 44' 28.2" (RT) D = 1' 46" 04.2" L = 494.45' T = 247.71' R = 3,241.00' e = 2.5% RUNOFF = 39.33'
---	---	---	--

-XI- CURVE DATA

PI Sta 3157+68.03 Δ = 29° 46' 20.5" (RT) D = 22' 55" 05.9" L = 129.91' T = 66.46' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3158+97.93 Δ = 29° 46' 19.7" (LT) D = 22' 55" 05.9" L = 129.91' T = 66.45' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3161+40.11 Δ = 0° 36' 51.5" (RT) D = 1' 46" 04.2" L = 34.75' T = 17.37' R = 3,241.00' e = 2.5% RUNOFF = 39.33'
---	---	--



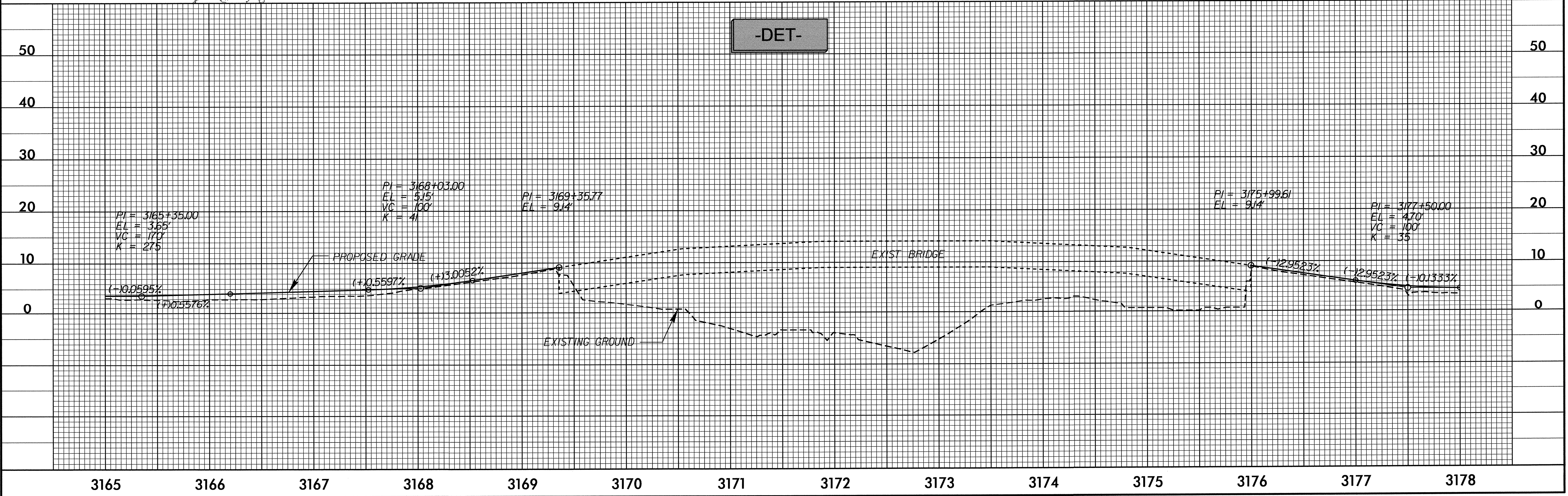
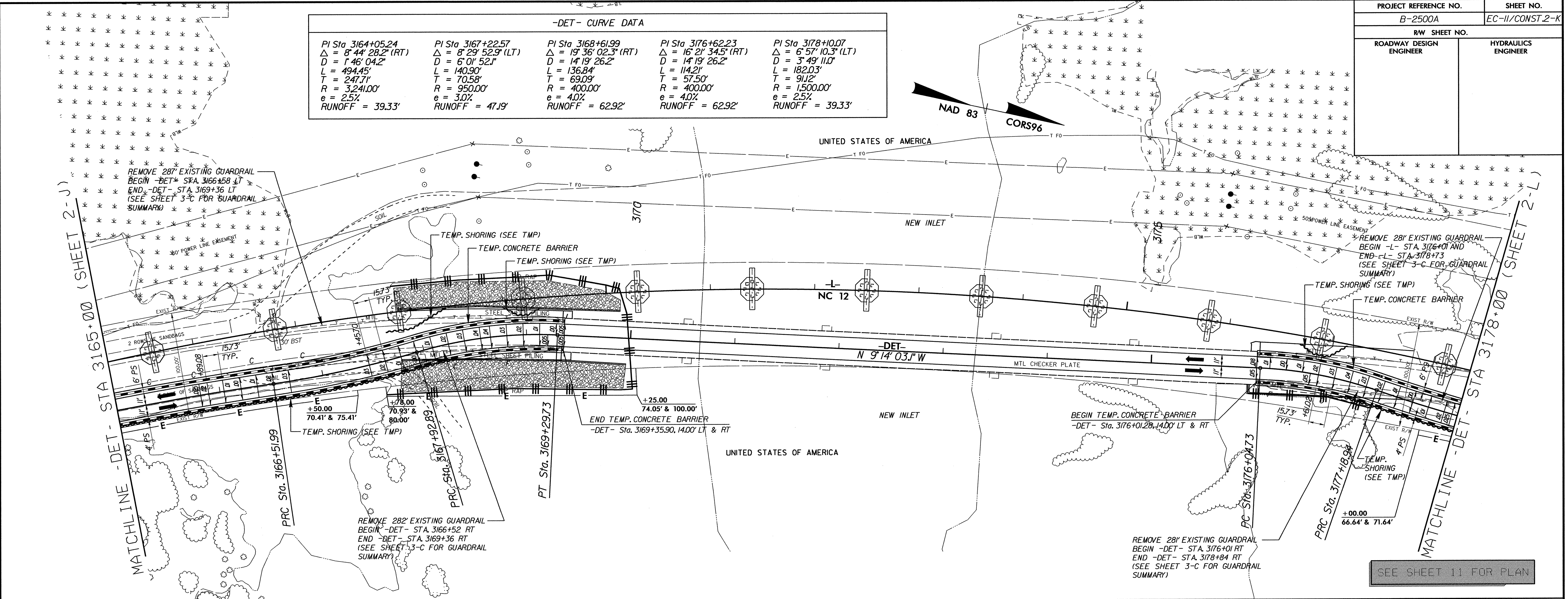
\$DATE\$

\$FILE\$

PROJECT REFERENCE NO.	SHEET NO.
B-2500A	EC-II/CONST.2-K
RDW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

**-DET- CURVE DATA**

PI Sta 3164+05.24 Δ = 8° 44' 28.2" (RT) D = 1' 46' 04.2" L = 494.45' T = 247.71' R = 3241.00' e = 2.5% RUNOFF = 39.33'	PI Sta 3167+22.57 Δ = 8° 29' 52.9" (LT) D = 6' 01' 52.1" L = 140.90' T = 70.58' R = 950.00' e = 3.0% RUNOFF = 47.9'	PI Sta 3168+61.99 Δ = 19° 36' 02.3" (RT) D = 14' 19' 26.2" L = 136.84' T = 69.09' R = 400.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3176+62.23 Δ = 16° 21' 34.5" (RT) D = 14' 19' 26.2" L = 114.21' T = 57.50' R = 400.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3178+10.07 Δ = 6° 57' 10.3" (LT) D = 3' 49' 11.0" L = 182.03' T = 91.2' R = 1500.00' e = 2.5% RUNOFF = 39.33'
---	--	---	---	---



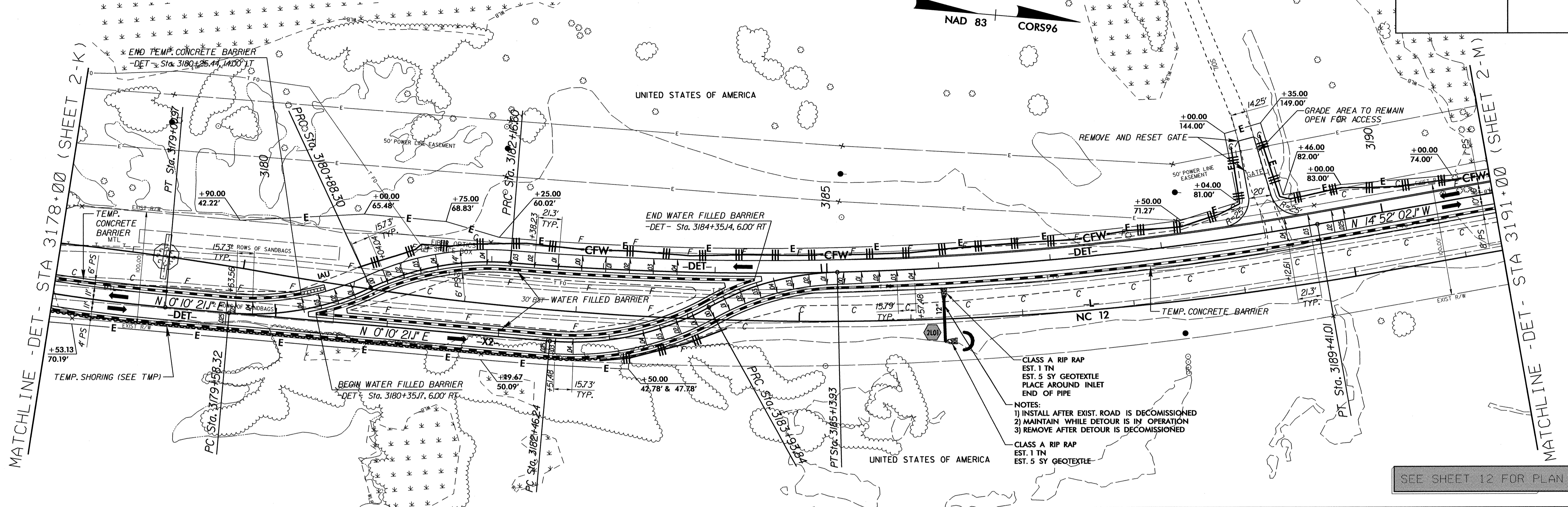
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\$DATE\$

PROJECT REFERENCE NO.	SHEET NO.
B-2500A	EC-12/CONST.2-1
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

-DET- CURVE DATA			
PI Sta 3178+10.07 Δ = 6° 57' 10.3" (LT) D = 3' 49' 11.0" L = 182.03' T = 91.2' R = 1500.00' e = 2.5% RUNOFF = 39.33'	PI Sta 3180+24.82 Δ = 29° 47' 20.0" (LT) D = 22' 55' 05.9" L = 129.98' T = 66.49' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3181+53.90 Δ = 29° 24' 17.8" (RT) D = 22' 55' 05.9" L = 128.30' T = 65.60' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3185+80.79 Δ = 14° 39' 21.0" (LT) D = 2' 01' 23.4" L = 72.440' T = 36.419' R = 2,832.00' e = 4.0% RUNOFF = 85.20'

-X2- CURVE DATA	
PI Sta 3183+22.26 Δ = 33° 49' 43.7" (LT) D = 22' 55' 05.9" L = 147.61' T = 76.02' R = 250.00' e = 4.0% RUNOFF = 62.92'	PI Sta 3184+55.07 Δ = 27° 31' 22.1" (RT) D = 22' 55' 05.9" L = 120.09' T = 61.23' R = 250.00' e = 4.0% RUNOFF = 62.92'

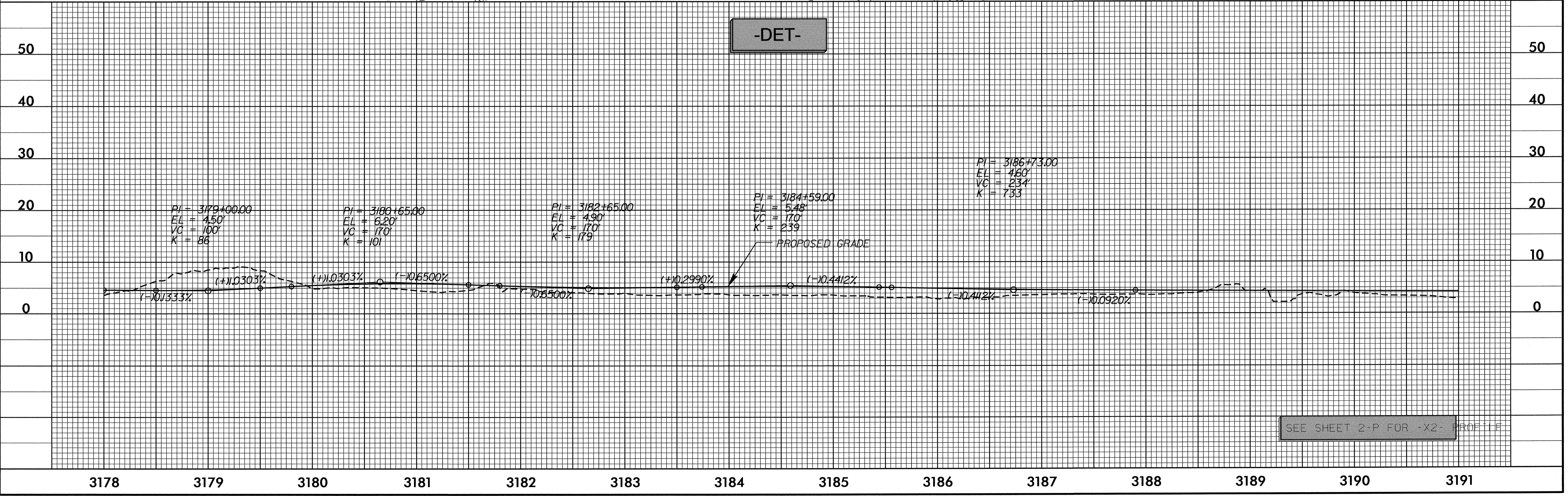


CLASS A RIP RAP  
EST. 1 TN  
EST. 5 SY GEOTEXTILE  
PLACE AROUND INLET  
END OF PIPE

NOTES:  
1) INSTALL AFTER EXIST. ROAD IS DECOMMISSIONED  
2) MAINTAIN WHILE DETOUR IS IN OPERATION  
3) REMOVE AFTER DETOUR IS DECOMMISSIONED

CLASS A RIP RAP  
EST. 1 TN  
EST. 5 SY GEOTEXTILE

SEE SHEET 12 FOR PLAN

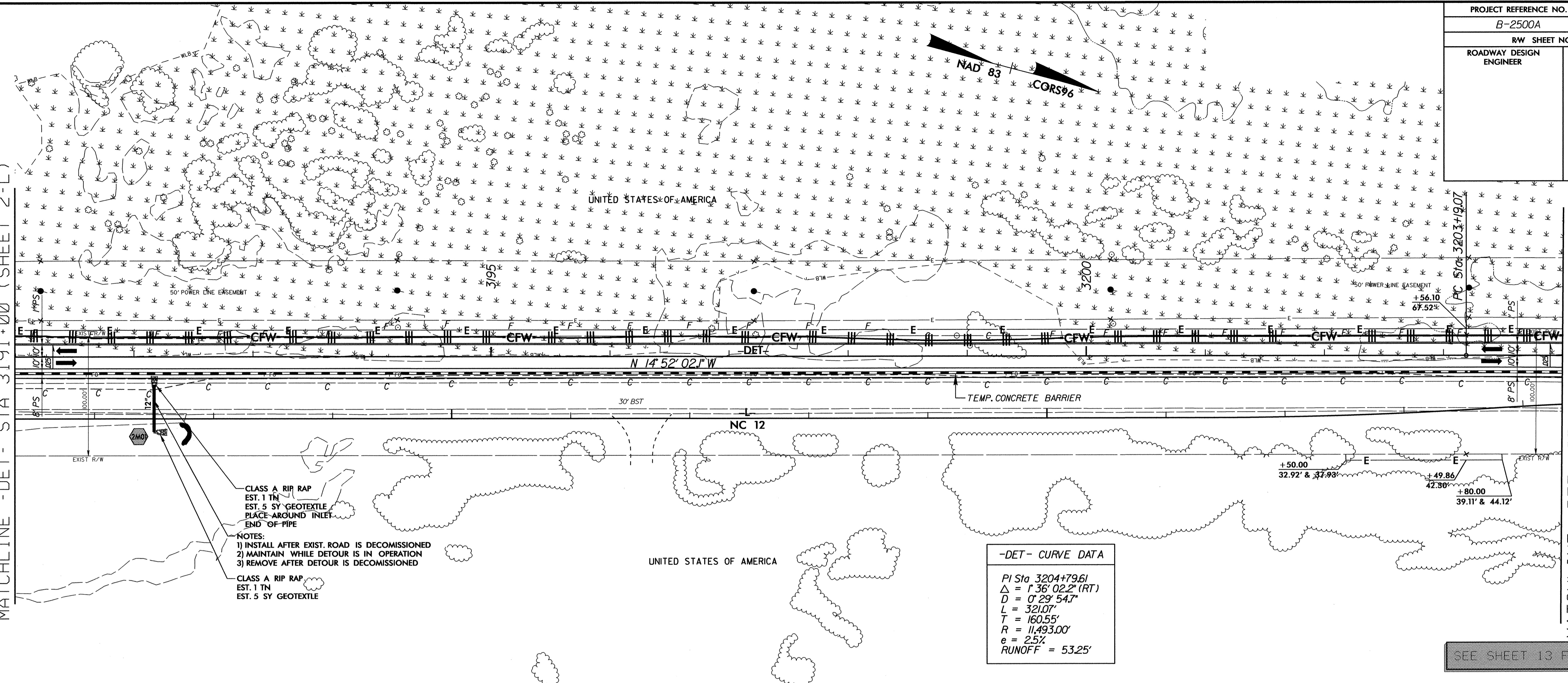


-DET-

SEE SHEET 2-P FOR -X2- PROFILE

MATCHLINE -DET- STA 3191+00 (SHEET 2-L)

MATCHLINE -DET- STA 3204+00 (SHEET 2-N)



CLASS A RIP RAP  
EST. 1 TN  
EST. 5 SY GEOTEXTILE  
PLACE AROUND INLET  
END OF PIPE

NOTES:  
1) INSTALL AFTER EXIST. ROAD IS DECOMMISSIONED  
2) MAINTAIN WHILE DETOUR IS IN OPERATION  
3) REMOVE AFTER DETOUR IS DECOMMISSIONED

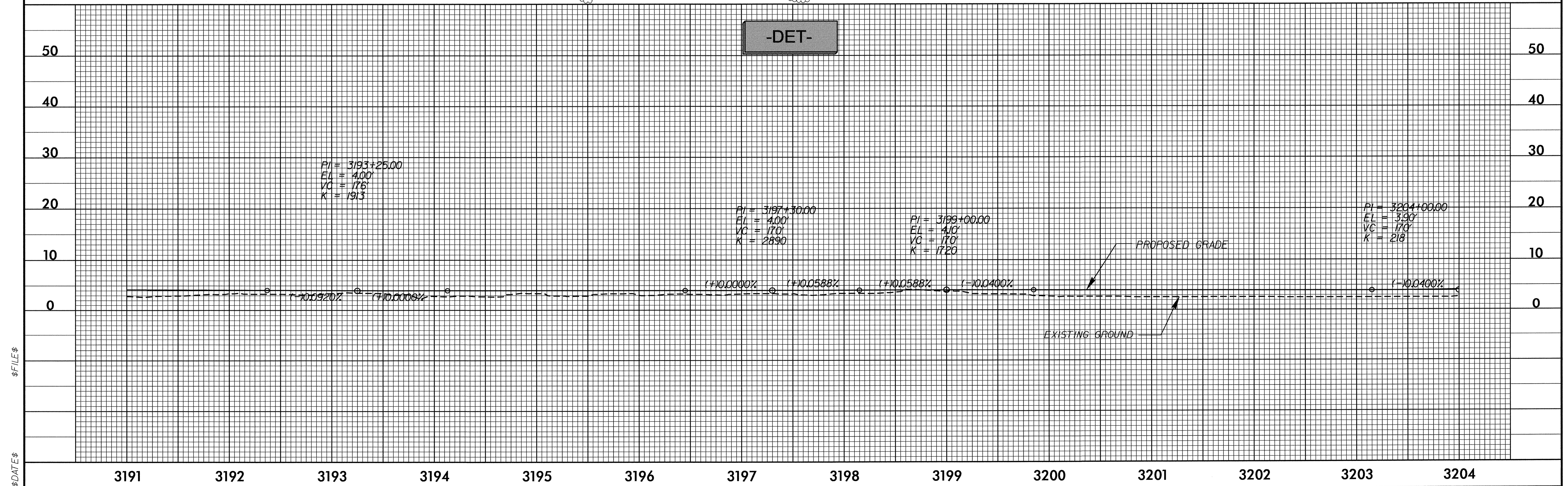
CLASS A RIP RAP  
EST. 1 TN  
EST. 5 SY GEOTEXTILE

**-DET- CURVE DATA**

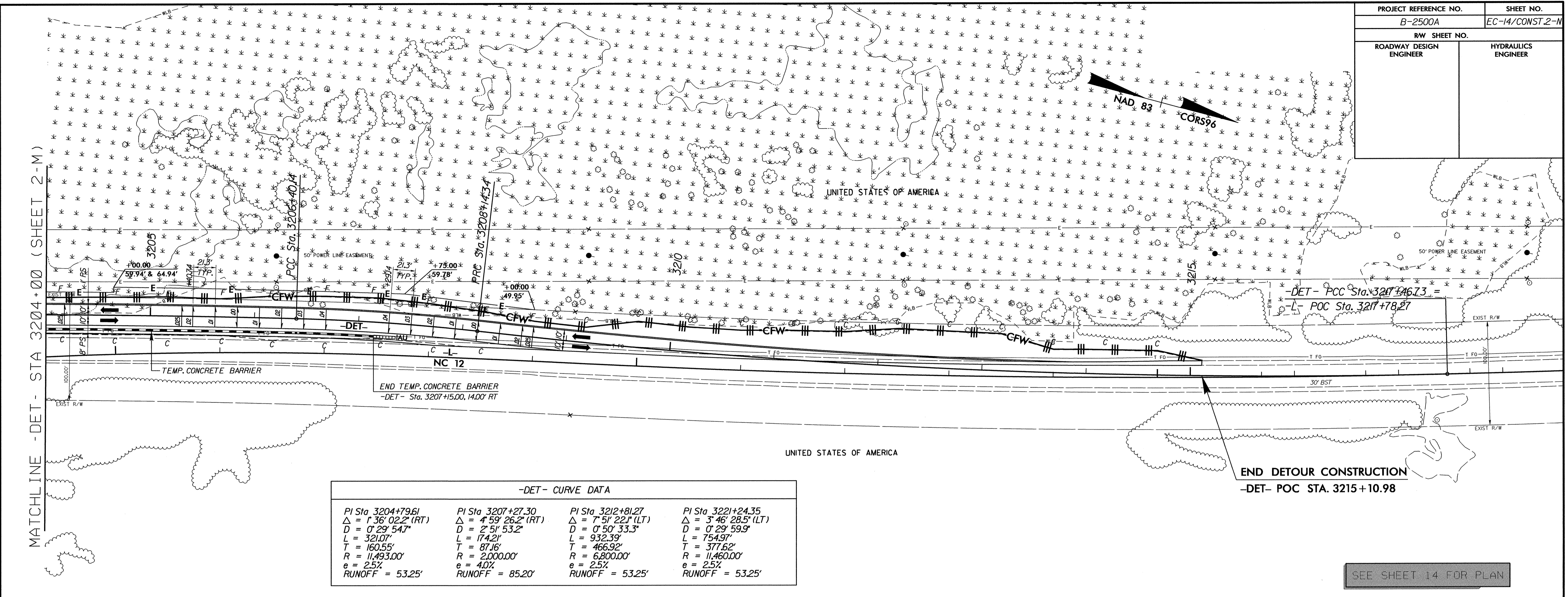
PI Sta 3204+79.61  
 $\Delta = 136^{\circ} 02' 2''$  (RT)  
 $D = 0^{\circ} 29' 54.7''$   
 $L = 321.07'$   
 $T = 160.55'$   
 $R = 11,493.00'$   
 $e = 2.5\%$   
 $RUNOFF = 53.25'$

SEE SHEET 13 FOR PLAN

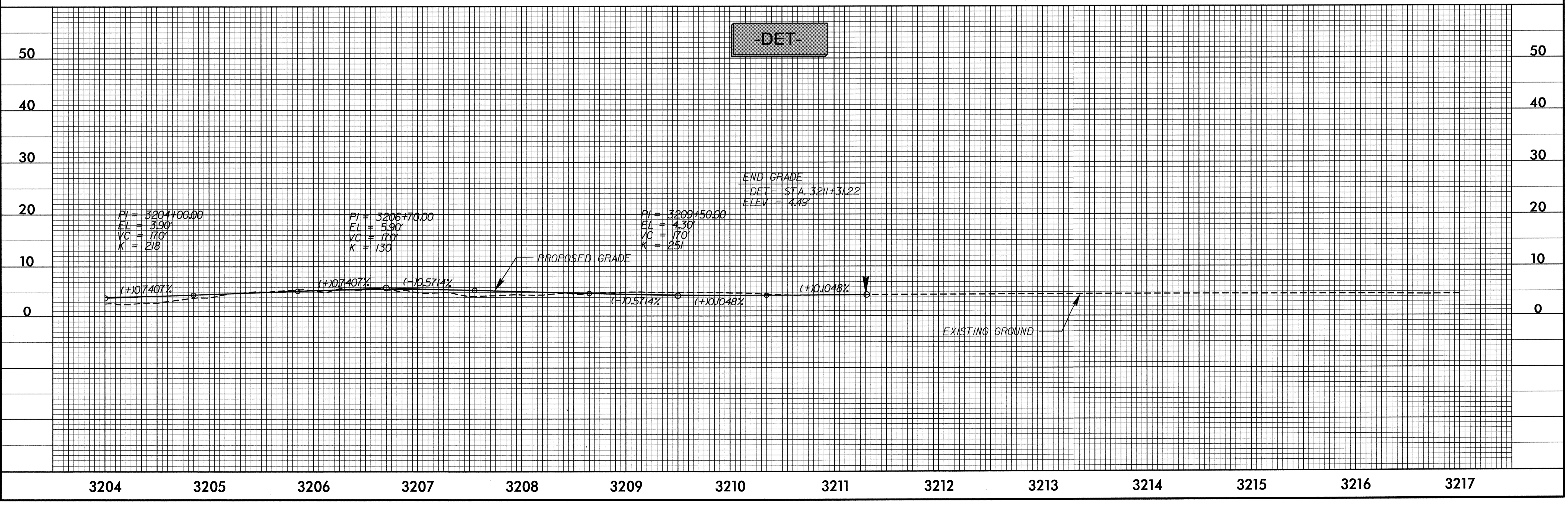
-DET-



PROJECT REFERENCE NO.		SHEET NO.	
B-2500A		EC-14/CONST.2-M	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



SEE SHEET 14 FOR PLAN



\$FILE\$

\$DATE\$

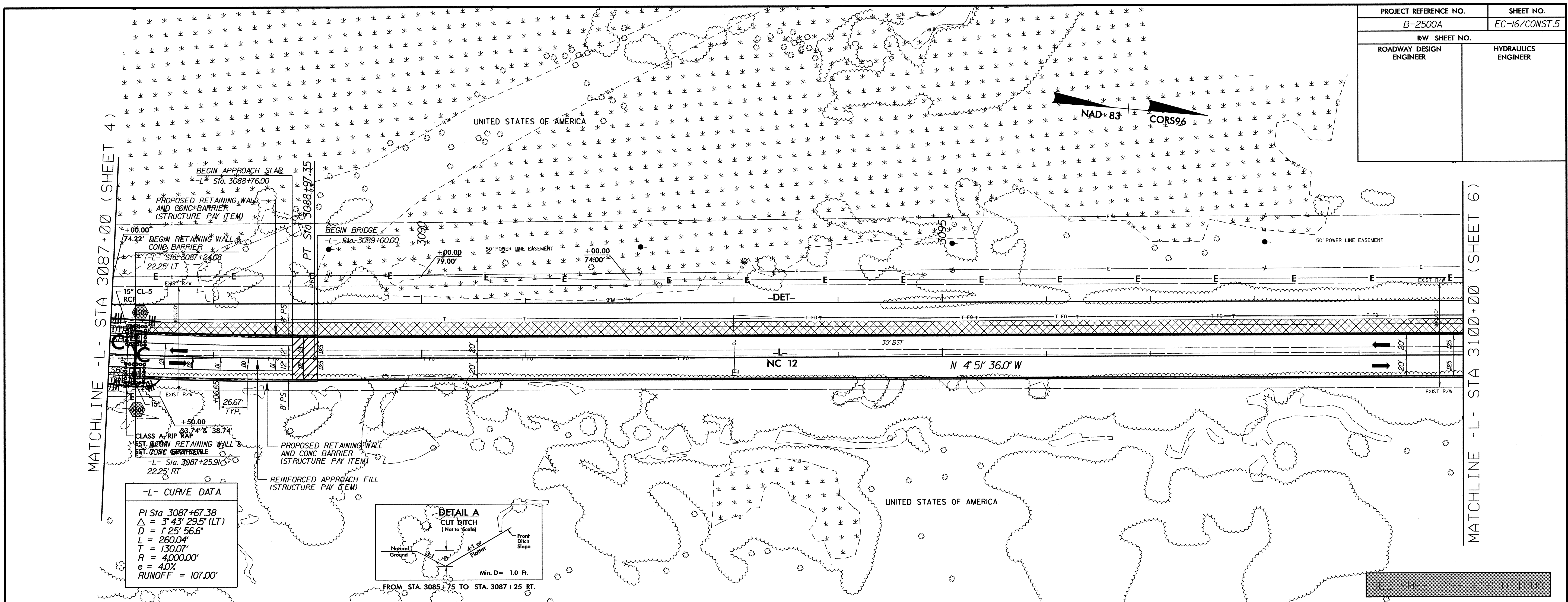




PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-16/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

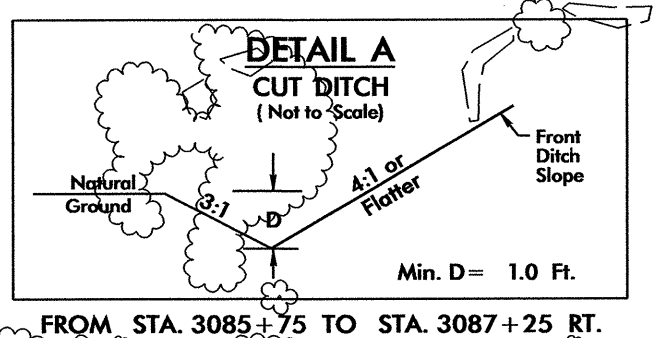
MATCHLINE -L- STA 3087+00 (SHEET 4)

MATCHLINE -L- STA 3100+00 (SHEET 6)

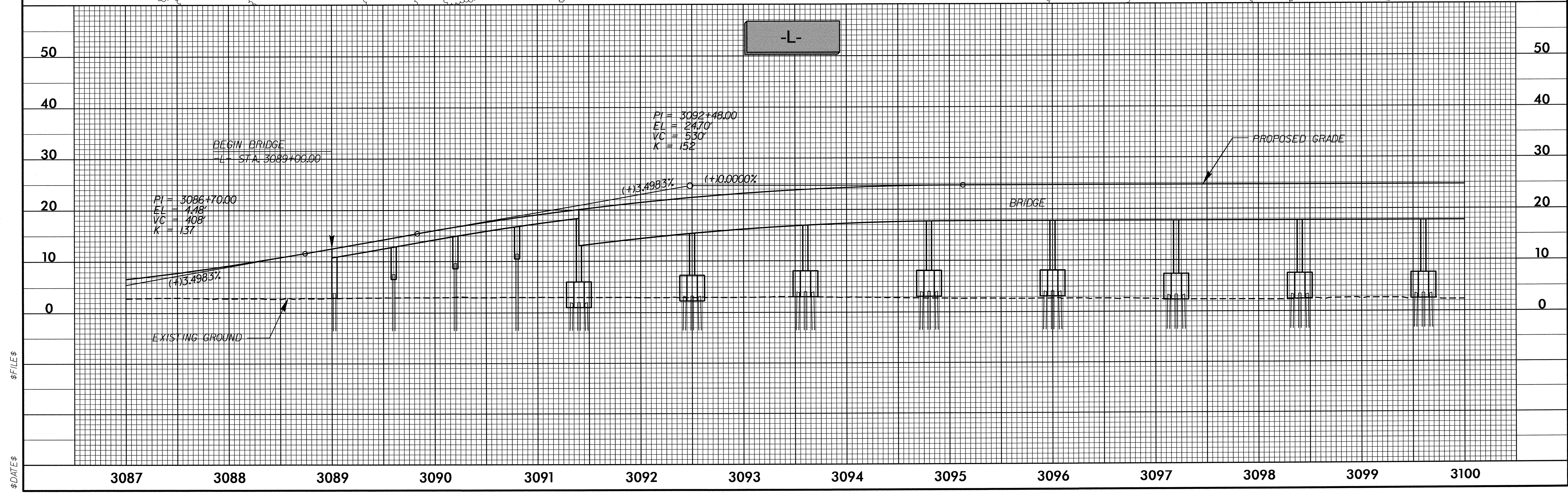


**-L- CURVE DATA**

PI Sta. 3087+67.38
$\Delta = 3^{\circ} 43' 29.5\" (LT)$
$D = 1^{\circ} 25' 56.6\"$
$L = 260.04'$
$T = 130.07'$
$R = 4,000.00'$
$e = 4.0\%$
$RUNOFF = 107.00'$



SEE SHEET 2-E FOR DETOUR



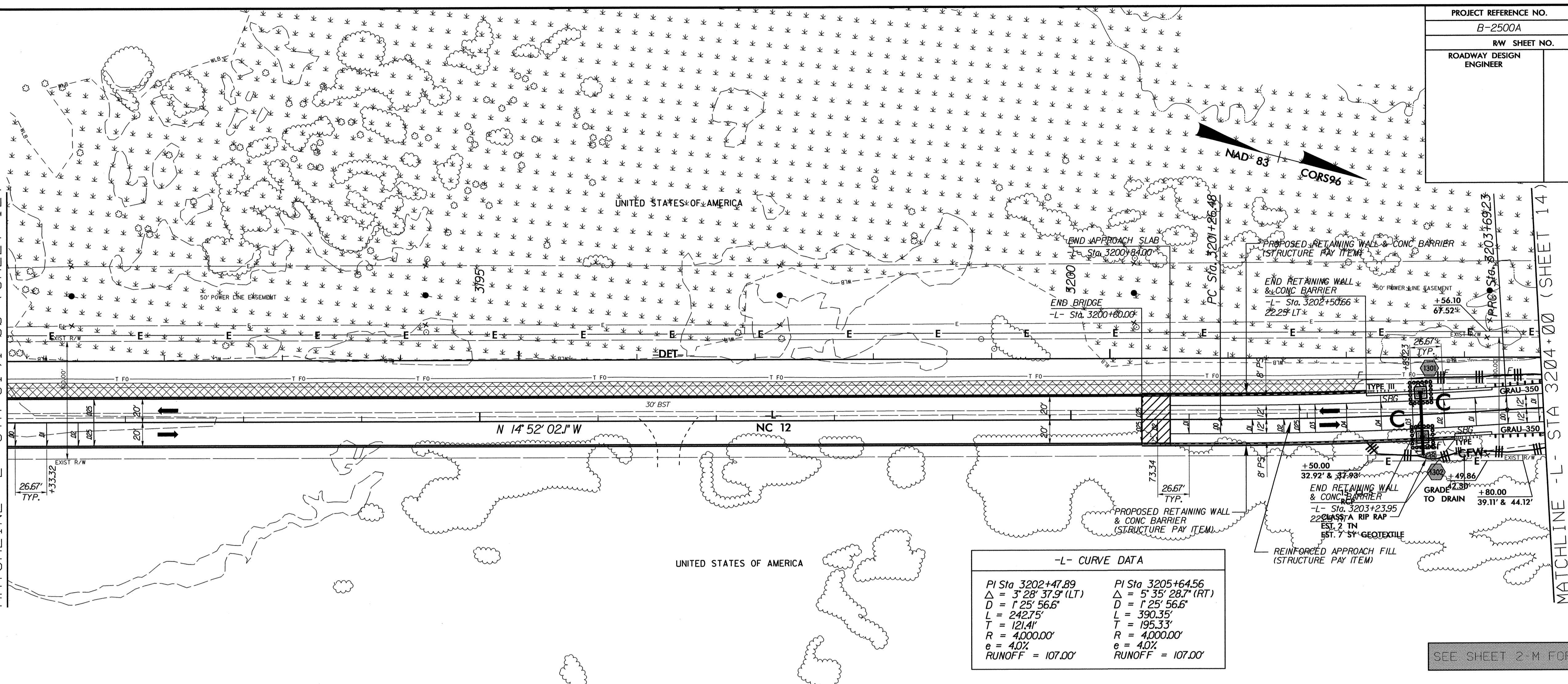
\$FILES\$

\$DATES\$

PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-17/CONST.13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -L- STA 3191+00 (SHEET 12)

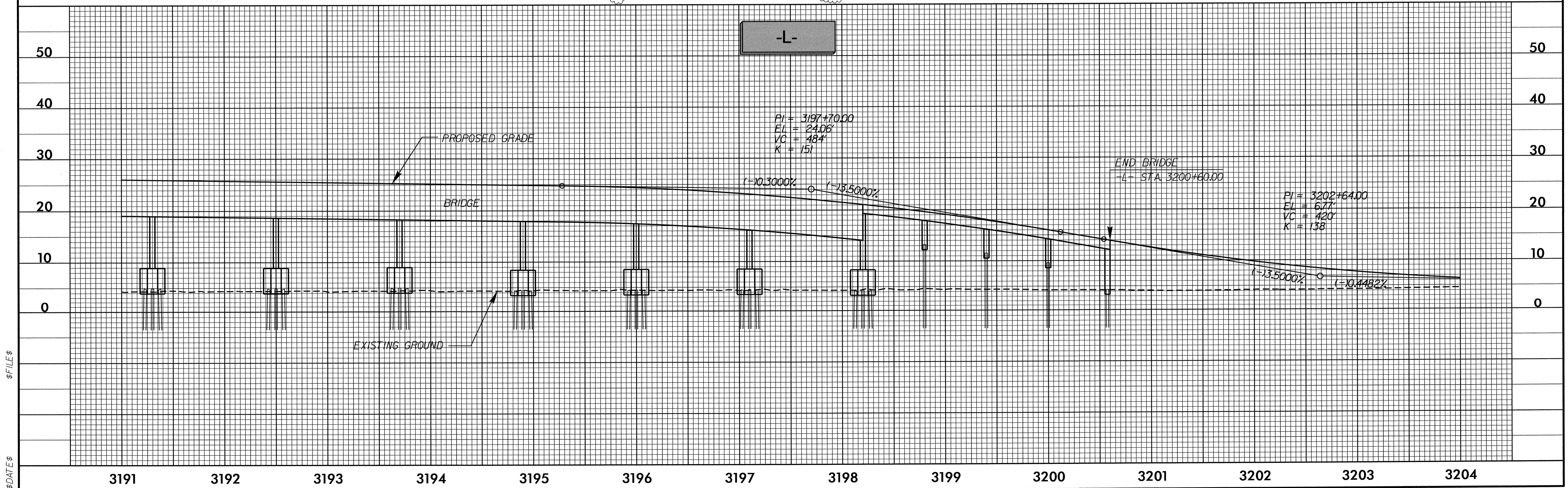
MATCHLINE -L- STA 3204+00 (SHEET 14)



-L- CURVE DATA

PI Sta 3202+47.89	PI Sta 3205+64.56
$\Delta = 3^{\circ} 28' 37.9\" (LT)$	$\Delta = 5^{\circ} 35' 28.7\" (RT)$
$D = 1^{\circ} 25' 56.6\"$	$D = 1^{\circ} 25' 56.6\"$
$L = 242.75'$	$L = 390.35'$
$T = 121.4'$	$T = 195.33'$
$R = 4,000.00'$	$R = 4,000.00'$
$e = 4.0\%$	$e = 4.0\%$
$RUNOFF = 107.00'$	$RUNOFF = 107.00'$

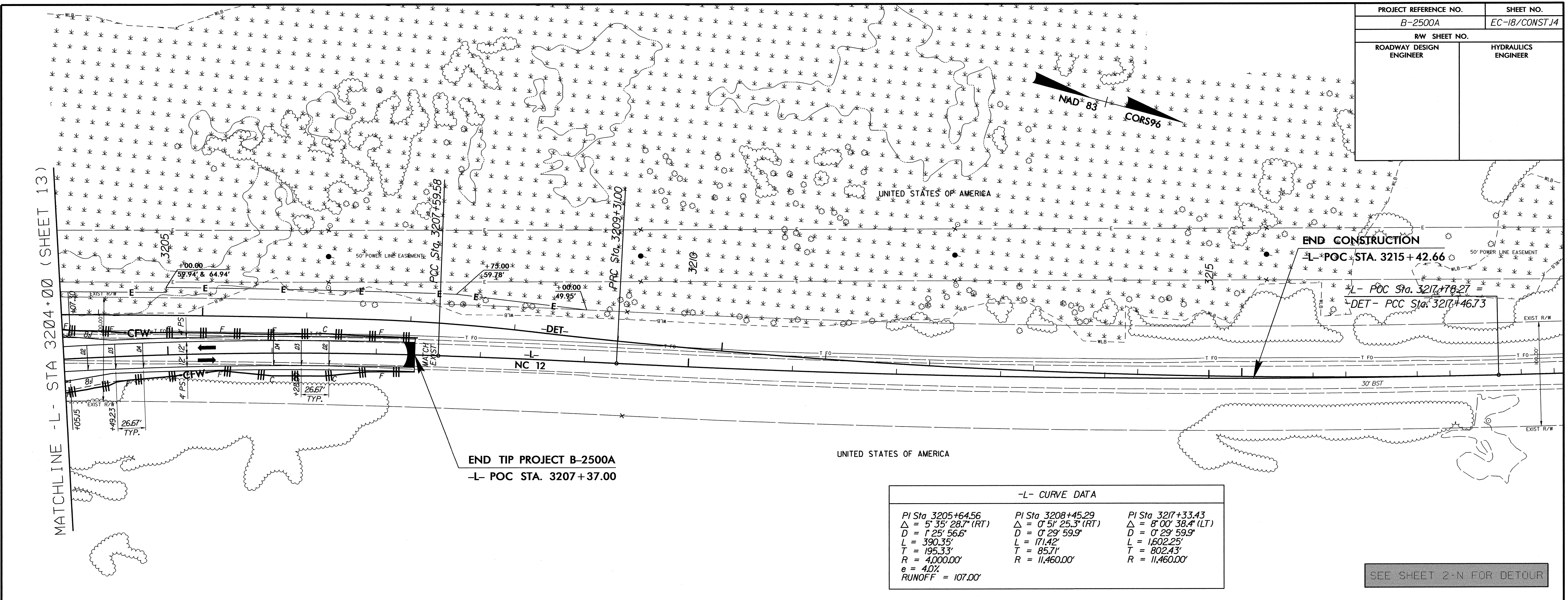
SEE SHEET 2-M FOR DETOUR



\$ FILE \$

\$ DATE \$

PROJECT REFERENCE NO. B-2500A	SHEET NO. EC-18/CONST 14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

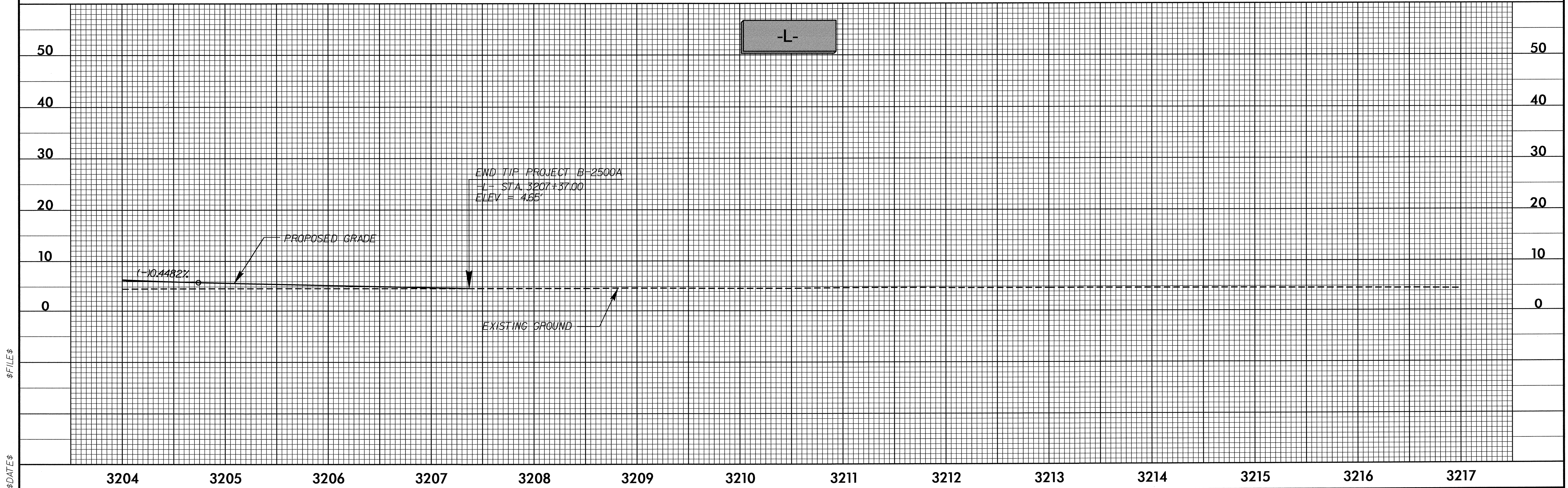


END TIP PROJECT B-2500A  
-L- POC STA. 3207+37.00

-L- CURVE DATA

PI Sta 3205+64.56 Δ = 5° 35' 28.7" (RT) D = 1° 25' 56.6" L = 390.35' T = 195.33' R = 4,000.00' e = 4.0% RUNOFF = 107.00'	PI Sta 3208+45.29 Δ = 0° 51' 25.3" (RT) D = 0° 29' 59.9" L = 171.42' T = 85.71' R = 11,460.00'	PI Sta 3217+33.43 Δ = 8° 00' 38.4" (LT) D = 0° 29' 59.9" L = 1602.25' T = 802.43' R = 11,460.00'
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SEE SHEET 2-N FOR DETOUR



\$DATE\$

\$FILE\$